

*US 1 (CAPITAL BOULEVARD)
FREEWAY UPGRADE
CONCURRENCE POINT 2
STIP PROJECT U-5307*

November 2018
Wake County, NC

RS&H

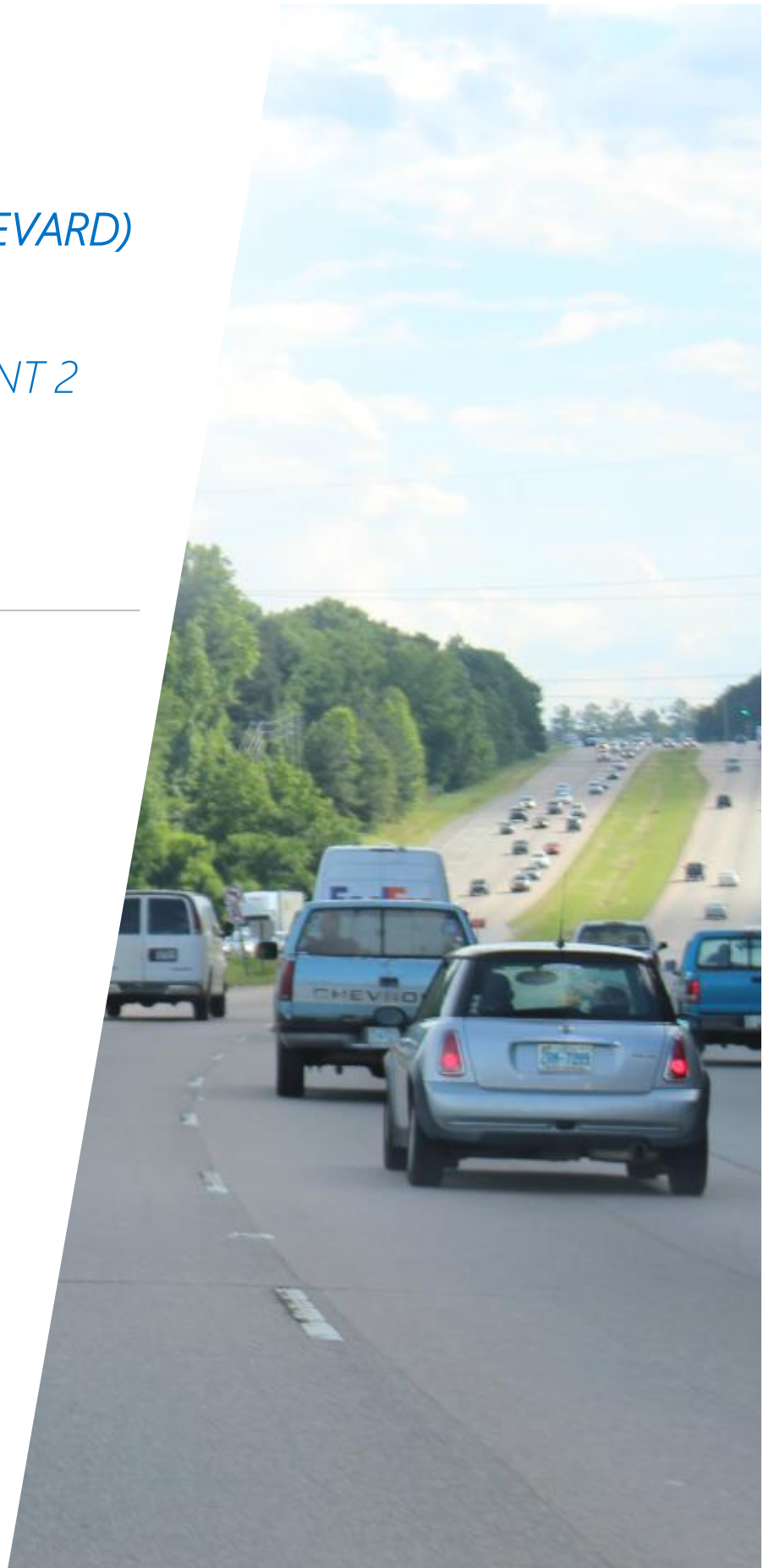




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1.0 INTRODUCTION

1.1 Meeting Purpose

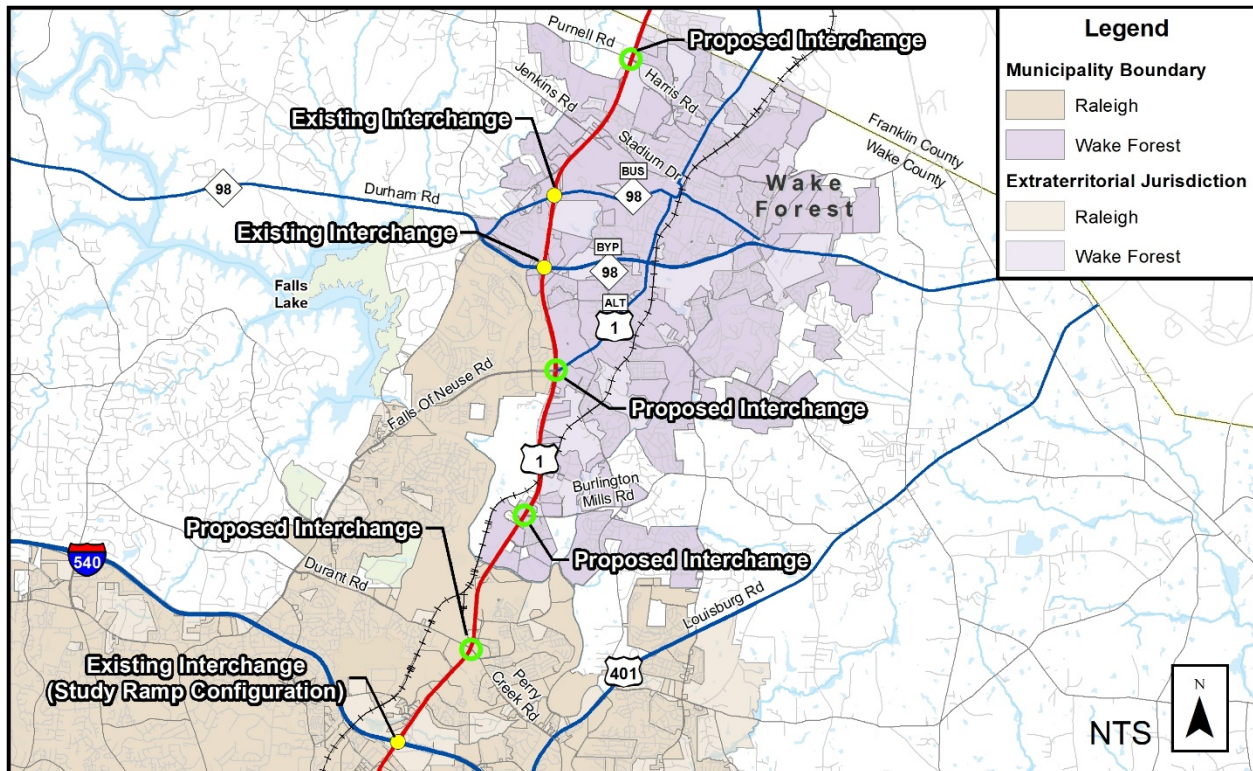
The North Carolina Department of Transportation (NCDOT) proposes to improve US 1 (Capital Boulevard) to a controlled-access facility from I-540 to SR 1909 (Purnell Road)/ SR 1931 (Harris Road) in Wake County (**Figure 1**). This project is included in NCDOT's current *State Transportation Improvement Program* (STIP) as Project U-5307 (Sections A through D). In accordance with the National Environmental Policy Act (NEPA)/Section 404 Merger Process, NCDOT is seeking consensus from the NEPA/404 Merger Team on the following:

- Concurrence Point 2 – Detailed Study Alternatives Carried Forward

This report provides a brief description of the No Build Alternative, non-traditional transportation alternatives, and the conceptual design options to date.

1.2 Project Description

As part of this project, NCDOT proposes removing signals from the mainline of US 1 to create a fully-controlled access mainline with new interchanges at Durant Road/Perry Creek Road, Burlington Mills Road, Falls of Neuse Road/US 1A (S Main Street), and Purnell Road/Harris Road. NCDOT also proposes the addition of a third westbound lane at I-540/US 1 (which is dropped at the US 1 interchange), minor modifications to the existing NC 98 Bypass interchange, modifications to the existing NC 98 Business interchange, and a grade separation (bridge) at Jenkins Road/Stadium Drive as part of this project. Local connector and service road locations will be studied further as the project progresses.





1.3 Merger Process History (Concurrence Point 1)

On June 14, 2018, the NEPA/404 Merger Team met to discuss Purpose and Need and Study Area for the referenced project – Concurrence Point 1 (CP 1). During the meeting, existing conditions, the project study area, the project’s need, and the project’s purpose were presented. Subsequent to the presentation and discussions, the NEPA/404 Merger Team reached a consensus and signed the formal Concurrence Point 1 Agreement (see **Appendix A**). Under this agreement, the purpose and need of the project were defined as follows:

Need of Proposed Action

- Traffic congestion and trip time unreliability

Purpose for Proposed Action

- Improve traffic congestion and travel times
- Maintain regional mobility and local connectivity

Study Area Defined

- The study area extends along US 1 from I-540 to Purnell Road/Harris Road in Wake County, as shown on **Figure 1**.

1.4 Public Involvement

Public meetings were held October 9, 2018 in Raleigh and October 29, 2018 in Wake Forest. A total of 477 people attended the meetings. Fifty-two written comments were received via comment forms at the meetings, approximately 10 comments sent via email, and approximately 100 through the project website. A summary of comments can be found in **Appendix B**.

Additionally, the project team has met and/or held conference calls with various small groups, including the South Forest Business Park, Southeastern Baptist Theological Seminary, Duke Energy, Wake Forest Crossing Shopping Center, Celebration Church, and representatives for several property owners along the corridor. Extensive public involvement for the Corridor Study was conducted previously and is summarized on CAMPO’s website.

2.0 EXISTING CONDITIONS

US 1 (Capital Boulevard) is a primary north-south corridor serving a rapidly growing area within the Raleigh/Durham Metropolitan Region. The route carries interstate travel linking Raleigh with I-85, while also acting as a regional link for commuters traveling between downtown Raleigh and Wake Forest. It is designated a Strategic Highway Corridor by NCDOT. Existing natural and human environmental features are shown on **Figure 2** (multiple sheets).

2.1 Transportation Features

US 1 is a principal arterial divided highway with four lanes of through traffic in each direction near I-540, three lanes of through traffic in each direction north of I-540 to the intersection of Durant/Perry Creek Rd, and two lanes of through traffic in each direction for the remainder of the project study area. The median along US 1 is predominately a grass depression with paved

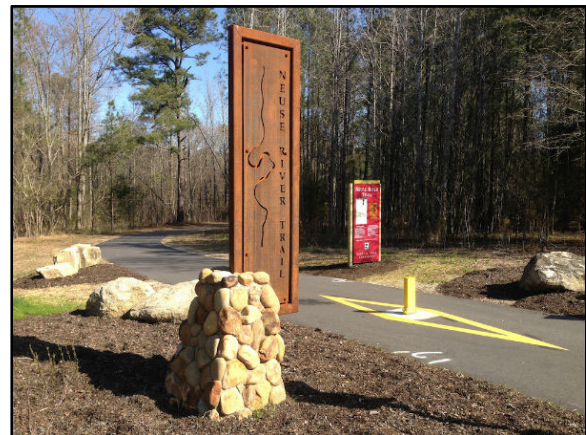


shoulders along the interior edge of travel but transitions to raised concrete islands at intersections. The road currently carries a range of 40,000 vehicles per day (vpd) north of NC 98 Business (Durham Highway) to 65,000 vpd near I-540.

The current structure inventory is as follows:

- Bridge #911004 carrying I-540 flyover over US 1
- Bridge #911000 carrying I-540 inner loop over US 1
- Bridge #910999 carrying I-540 outer loop over US 1
- Bridge #911003 carrying I-540 on-loop over US 1
- Culvert #910304 carrying Perry Creek under US 1
- Bridge #910305 carrying US 1N over Neuse River
- Bridge #910306 carrying US 1S over Neuse River
- Bridge #910312 carrying US 1N over CSX Railroad
- Bridge #910560 carrying US 1S over CSX Railroad
- Culvert #910672 carrying Richland Creek under US 1
- Bridge #911083 carrying NC 98 Bypass over US 1
- Bridge #910314 carrying US 1N over NC 98 Business
- Bridge #910671 carrying US 1S over NC 98 Business

Multimodal means of transportation are present throughout the project study area. GoTriangle and GoRaleigh operate bus routes along and crossing US 1. The Wake Forest/Raleigh Express Bus (WRX) makes no stops on US 1 but travels between Raleigh and Wake Forest during AM and PM peak hours. The Neuse River Greenway, part of the Capital Area Greenway System as well as North Carolina's Mountains to Sea Trail, passes underneath US 1. Several other existing and proposed greenways are located in the project study area (**Figure 2**). CSX Railroad maintains tracks that pass under US 1 as part of the Southeast Corridor (Raleigh to Richmond) Tier II Study.



*Neuse River Greenway
(Photo: City of Raleigh)*

2.2 Historic Properties

Three properties along US 1 are listed on the National Register of Historic Places: the Powell House, Purefoy-Dunn Plantation (House), and Wakefields (also known as Home Acres). Though not named as such on the State Historic Preservation's website, Wakefields, also known as The Sutherland, is also a property of historic significance. There is also a potential cemetery south of Jacqueline Drive, which could not be verified in the field recently by the RS&H Team. Several additional cemeteries were brought to the project team's attention on October 29 and need field verification. Surveys are in progress. Known resources are shown on **Figure 2**.

2.3 Natural Resources & Environmental Features

A Natural Resources Technical Report (NRTR) was prepared in April 2016 for the original study area (I-540 to NC 98 Bypass), and an addendum (to be completed in late 2018) will cover the



remaining project study area from NC 98 Bypass to Purnell Road/Harris Road. The following is a summary of the findings of the 2016 report.

Fifty-two jurisdictional streams, 42 jurisdictional wetlands, five jurisdictional ponds, and 11 non-jurisdictional ponds are within the study area between I-540 and NC 98 Bypass. There were no designated anadromous fish waters or Primary Nursery Areas (PNA) within the study area at the time of the NRTR. However, since then, the Milburnie Dam began has been deconstructed. The scoping letter response from the North Carolina Wildlife Resources Commission (NCWRC) states that “this portion of the Neuse River will be opened to passage for anadromous fish and will be subject to an in-water work moratorium.” There are no designated High Quality Waters (HQW) or water supply watersheds (WS-I or WS-II) within or 1.0 mile downstream of the study area. No streams within the study area or 1.0 mile downstream are listed on the 2014 303(d) list of impaired waters due to sedimentation or turbidity.

Four federally protected species were identified for Wake County (**Table 1**), as of the NRTR publication (April 2016, indicated below in blue). The biological conclusions for two out of these four species (Michaux’s sumac and red-cockaded woodpecker) were categorized as No Effect. The biological conclusion for the northern long-eared bat (NLEB) is May Affect, Likely to Adversely Affect. The biological conclusion for the dwarf wedgemussel is unresolved. Suitable habitat may be present in the study area within the Neuse River. A review of the July 2015 NCNHP database indicated no known occurrences within 1.0 mile of the study area. Surveys will be conducted by NCDOT biologists, and NHP data re-checked.

Following completion of the original NRTR, one species was added but later deleted (rusty-patched bumble bee), and three additional species were added (Cape Fear shiner, Tar River spiny mussel, and yellow lance, shown in orange in Table 1). Potential impacts to mussels are now determined by basin, and the ranges for the Cape Fear Shiner, Tar River spiny mussel, and yellow lance are outside of the project study area and Neuse River basin. Additional natural resources surveys and an NRTR addendum will be completed in late 2018.

Table 1: Federally Protected Species Listed for Wake County

Scientific Name	Common Name	Federal Status	Habitat Present	Biological Conclusion
<i>Myotis septentrionalis</i>	Northern long-eared bat	T	Yes	MA-LAA
<i>Rhus michauxii</i>	Michaux’s sumac	E	Yes	No Effect
<i>Picoides borealis</i>	Red-cockaded woodpecker	E	Yes	No Effect
<i>Alasmodonta heterodon</i>	Dwarf wedgemussel	E	Undetermined	Unresolved
<i>Notropis mekistocholas</i>	Cape Fear shiner	E	No – Outside of Basin	No Effect
<i>Parvaspina steinstansana</i>	Tar River spiny mussel	E	No – Outside of Basin	No Effect
<i>Elliptio lanceolata</i>	Yellow lance	T	No – Outside of Basin	No Effect

E – Endangered; T – Threatened; MA-LAA – May Affect – Likely to Adversely Affect

Blue highlight = original (2016) NRTR

Orange highlight = species added in 2018



On August 17, 2017, the National Marine Fisheries Service designated critical habitat for Atlantic Sturgeon in the Neuse River (Carolina Unit 3), which includes a portion of the river in Wake County. The project's potential effects on the Atlantic Sturgeon or its designated critical habitat will be evaluated in 2018.

2.4 Community Facilities

Community facilities in and around the project study area are shown on **Figure 2** and include schools, churches, medical offices, and public community centers.

Several specialty medical offices and wellness centers are located along US 1 as well as Rex Healthcare of Wakefield, located in the northwestern quadrant of the interchange of US 1/Falls of Neuse Road/US 1A (S Main Street). Several schools are nearby, including Richland Creek Elementary School, Wakefield 9th Grade Center, Forest Pines Elementary School, Endeavor Charter School, preschools, and private schools associated with churches.

2.5 Land Use

Current land uses in the project area consist of residential and commercial development as well as industrial complexes. Major industries in the project area include Eaton, Xelia Pharmaceuticals, Hanson Aggregates, Mallinckrodt Inc., and U-Haul. Car dealerships, car and equipment rentals, auto repair and auto specialty shops, storage centers, shopping centers, restaurants, and smaller retailers are located throughout the U-5307 corridor. Major retailers include Target, Lowes, Home Depot, Kohl's, Sam's Club, Super Walmart, and Triangle Town Center Mall. Utilities along the corridor include power (substations, high and low-voltage lines), fiber optic (multiple owners), natural gas, monitoring wells, cell towers, a nitrogen line, and water/sewer.



Businesses along US 1 at Paragon Park Rd

3.0 CONCURRENCE POINT 2 STUDY ALTERNATIVES

3.1 No Build Alternative

Under the No Build Alternative, the existing intersections would remain signalized and access would not be restricted onto US 1. This alternative would result in no new construction costs; no impacts to streams, wetlands, or other natural or cultural resources; and no residential or business



relocations. However, this alternative would not address the congestion and travel time issues along the corridor. **The No Build Alternative would not meet the needs of the proposed project to reduce congestion and improve travel times along the corridor.** The No Build Alternative provides a basis for comparing the adverse impacts and benefits of the study alternatives.

3.2 Non-Traditional Alternatives

Alternatives Modes of Travel – Transit service already is in place along the corridor. Additional bus service would not reduce congestion substantially to meet the needs of the corridor. Additionally, the construction of a light-rail facility would have extensive impacts and costs. **These costs and impacts would be incurred without meeting the need to reduce congestion and improve travel times along the corridor.**

3.3 Build Alternatives

Design Criteria – The build alternatives were developed using AASHTO and NCDOT guidelines for a freeway using a 70 mph design speed. Six 12-foot lanes, three in each direction, will be provided along US 1 with possible auxiliary lanes between interchanges. Local connector and service roads will have two 11 to 12-foot lanes, one in each direction, with left-turn lanes as needed. A multi-use path to accommodate bicycles and pedestrians will be included with the local connector and services roads. The mainline typical section is presented on **Figure 3**. Traffic operations supporting a six-lane mainline section along US 1 with auxiliary lanes as needed is included in **Table 2**.

Table 2: US 1 Travel Time Comparison

Location	Travel Time (min:sec)			
	AM Peak		PM Peak	
	Six-Lane	Eight-Lane	Six-Lane	Eight-Lane
US 1 Southbound	10:24	10:12	10:12	10:06
US 1 Northbound	10:16	10:07	10:31	10:16

The following interchange concepts developed by the project team were presented to the public:

I-540 at US 1

- A flyover with a loop, eliminating the signal north of I-540 along US 1
- A flyover without a loop, keeping the signal north of I-540 along US 1

Durant Road/Perry Creek Road at US 1

- A standard diamond interchange with US 1 going over Durant Road/Perry Creek Road
- A diverging diamond interchange (DDI) with US 1 going over Durant Road/Perry Creek Road
- A partial cloverleaf interchange with US 1 going over Durant Road/Perry Creek Road



Burlington Mills Road at US 1

- A standard diamond interchange with US 1 going over Burlington Mills Road
- A standard diamond interchange with Burlington Mills going over US 1
- A DDI with US 1 going over Burlington Mills
- A diamond interchange with a flyover from Burlington Mills to US 1 southbound with US 1 going over Burlington Mills
- A partial cloverleaf interchange with US 1 going over Burlington Mills
- A trumpet interchange with US 1 going over Burlington Mills

Falls of Neuse Road/US 1A (S Main Street) at US 1

- A DDI with US 1 going over Falls of Neuse Road /US 1A (S Main Street)
- A standard diamond interchange with US 1 going over Falls of Neuse Road /US 1A (S Main Street)
- A diamond interchange with loops with US 1 going over Falls of Neuse Road /US 1A (S Main Street)
- A displaced diamond interchange with US 1 going over Falls of Neuse Road /US 1A (S Main Street)

Purnell Road/Harris Road at US 1

- A partial cloverleaf interchange with US 1 going over Purnell Road/Harris Road
- A diamond interchange with loops with US 1 going over Purnell Road/Harris Road
- A partial cloverleaf interchange with one loop with US 1 going over Purnell Road/Harris Road

The following additional work is being studied as well:

- Minor modifications at the US 1 interchanges with NC 98 Bypass and NC 98 Business
- A third westbound through lane on I-540
- A grade separation at the intersection of Stadium Drive/Jenkins Road and US 1 with Stadium Drive/Jenkins Road going over US 1
- Service roads and local connections to maintain regional mobility and access to properties

4.0 ALTERNATIVES SCREENING

4.1 Alternative Comparison

A comparison of traffic operations and impacts for the interchanges is shown in **Table 3**. Critical lane analysis was used to determine if a design would provide an acceptable Level of Service. Peak hour turning movement volumes were calculated, then each movement volume was divided by the number of lanes for that movement. The resulting volume is the hourly volume per lane. The critical volume is the highest movement volume in a signal phase, divided by the number of lanes. The critical volume of the intersection is the sum of the critical lane volumes for all signal phases. A volume over capacity ratio greater than one means the road is over capacity.



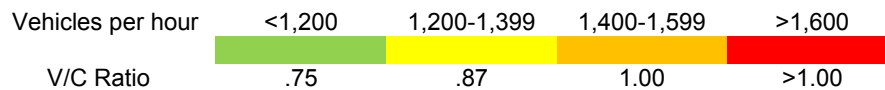
CONCURRENCE POINT 2
DETAILED STUDY ALTERNATIVES CARRIED FORWARD

Table 3: Comparison of Build Options

Intersection	Interchange Type	Critical Lane Volume ¹	Volume /Capacity ¹	Lanes Required Under/On Bridge	Lanes Required on Cross Street
I-540	Flyover with Loop	N/A	N/A	N/A	N/A
	Flyover without Loop	N/A	N/A	N/A	N/A
Durant Road / Perry Creek Road	Diamond	1,636	1.02	8	4
		1,424	.89	10	6
	DDI	1,622	1.01	4	4
		1,246	.78	6	6
	Partial Cloverleaf	1,402	.88	6	4
		1,250	.78	8	6
Burlington Mills Road	Diamond (under)	1,567	.98	6	2
	Diamond (under)	1,192	.74	7	2
	Diamond (over)	Same as above			
	DDI	2,014	1.26	4	2
		1,366	.85	5	3
	Flyover	1,156	.72	2	2
	Partial Cloverleaf	1,336	.83	6	4 to east 2 to west
Trumpet	All movements free-flowing				
Falls of Neuse Road/US 1A	DDI	1,157	.72	4	4
	Diamond	1,177	.74	8	4
	Diamond with Loops	1,326	.83	6	4
	Displaced Diamond	1,097	.69	8	4
Purnell Road/Harris Road	Partial Cloverleaf	1,378	.86	4	4 to east 2 to west
	Diamond with Loop	1,135	.71	4	4 to east 2 to west
	Partial Cloverleaf with a Loop	1,378	.86	4	4 to east 2 to west

¹ Values shown are PM peak hour

² Impacts are measured from conceptual edge of travel + 50 feet

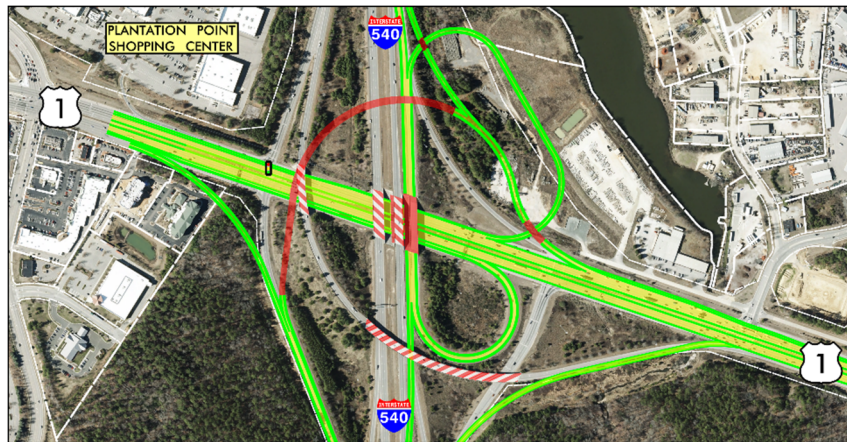


4.2 Options Considered but Not Carried Forward

Based on the potential impacts to nearby properties, traffic analysis, constructability issues discovered with a few concepts, and public comments, the project team recommends not carrying forward the following interchange concepts.

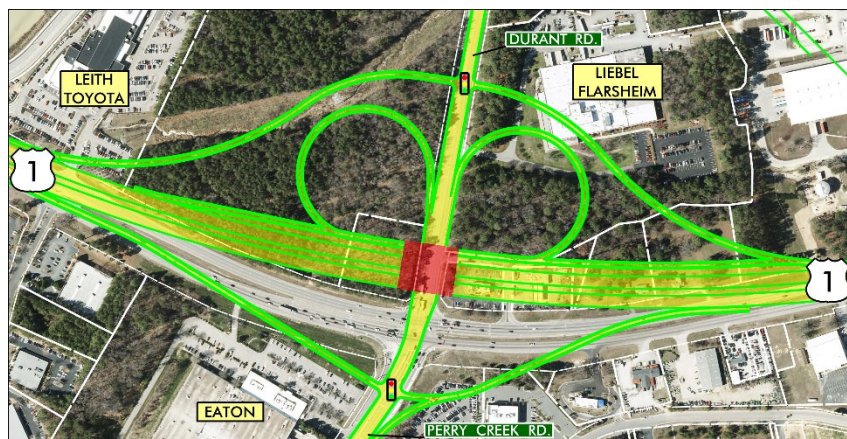
I-540 at US 1

The 2006 Corridor Study recommended a flyover with a loop at the US 1/I-540 interchange as shown below. However, upon further design investigation, the project team has discovered that this concept would not be constructible as currently shown. Westbound travelers on I-540 wanting to exit onto US 1 southbound using the loop near Gresham Lake would need to exit to a collector road in conflict with the on-ramp from the Triangle Town Boulevard single-point urban interchange (just east of the I-540 interchange). The collector road would need to be at a height that is not possible to achieve given proximity to the existing loop carrying vehicles on I-540 eastbound to US 1 northbound. Other weaving movements would also be in conflict as well.



Durant Road/Perry Creek Road at US 1

A partial cloverleaf interchange at Durant Road/Perry Creek Road was considered as an initial concept but would result in greater impacts to properties, high construction costs compared to other alternatives due to the need for a larger bridge, the potential for a weaving traffic pattern between loops, and the potential impact to a major utility easement.

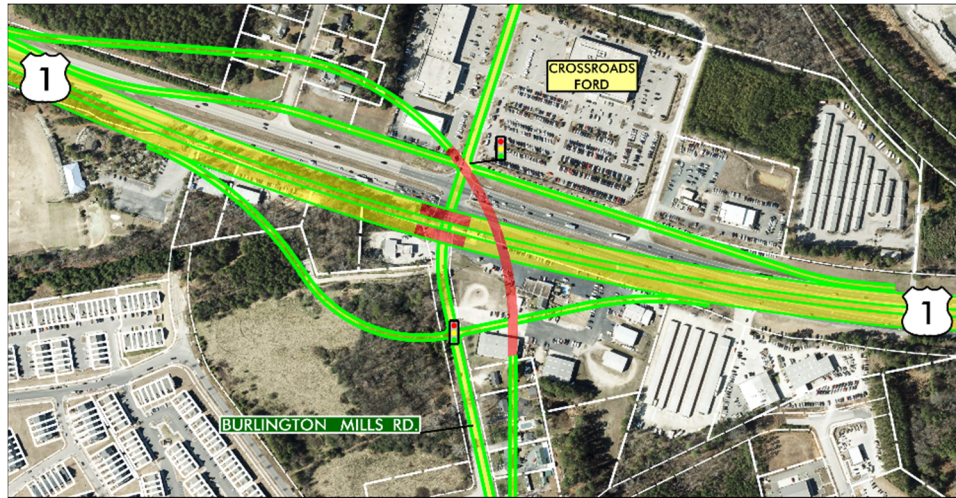




Burlington Mills Road at US 1

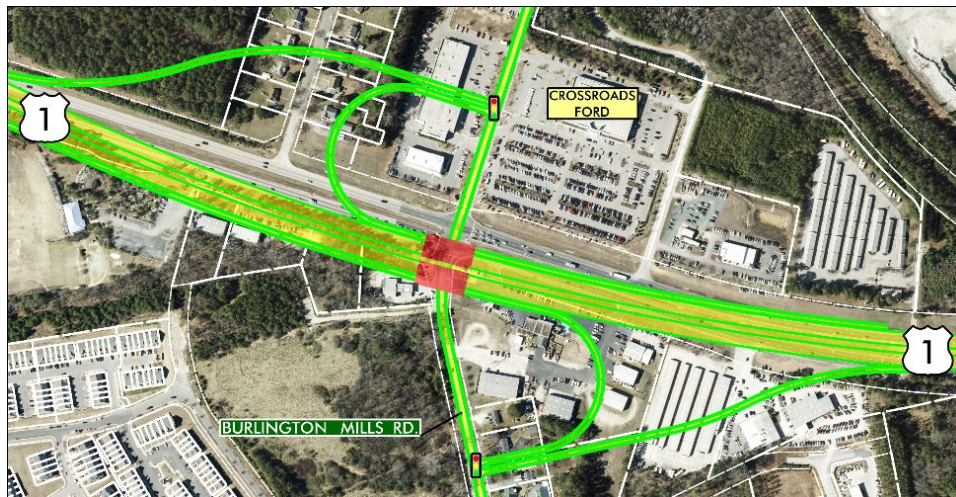
Flyover

A flyover at Burlington Mills Road / US 1 with US 1 going over Burlington Mills Road was initially considered due to the high volume of traffic from Burlington Mills Road to southbound US 1. However, this concept would have major impacts to parcels in all four quadrants and would restrict access to properties west of US 1. (They would not be able to access the interchange.)



Partial Cloverleaf

A partial cloverleaf at Burlington Mills Road / US 1 with US 1 going over Burlington Mills Road was initially considered as a way to handle traffic volumes while restricting impacts to two quadrants. However, this concept still impacts many parcels along US 1.

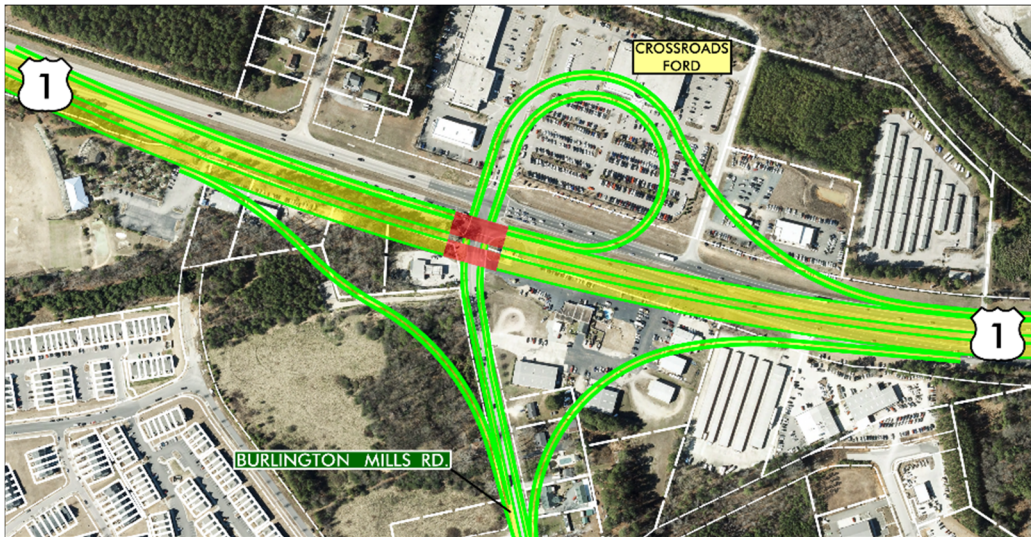




Burlington Mills Road at US 1 (Continued)

Trumpet

A trumpet interchange at Burlington Mills Road / US 1 with US 1 going over Burlington Mills Road was initially considered as a way to allow free-flowing traffic from Burlington Mills Road to southbound US 1 and southbound US 1 to Burlington Mills Road. However, this concept would have major impacts to parcels in all four quadrants and would restrict access to properties west of US 1. (They would not be able to access the interchange.)



Diamond with US 1 over Burlington Mills

A diamond interchange at Burlington Mills Road / US 1 with US 1 going over Burlington Mills Road was initially considered and presented to the public in October 2018. The project team learned of two cemeteries at the Powell House property near US 1 that make this option problematic. The diamond interchange option with Burlington Mills Road over US 1 is preferable (see page 17).





Falls of Neuse Road/US 1A (S Main Street) at US 1

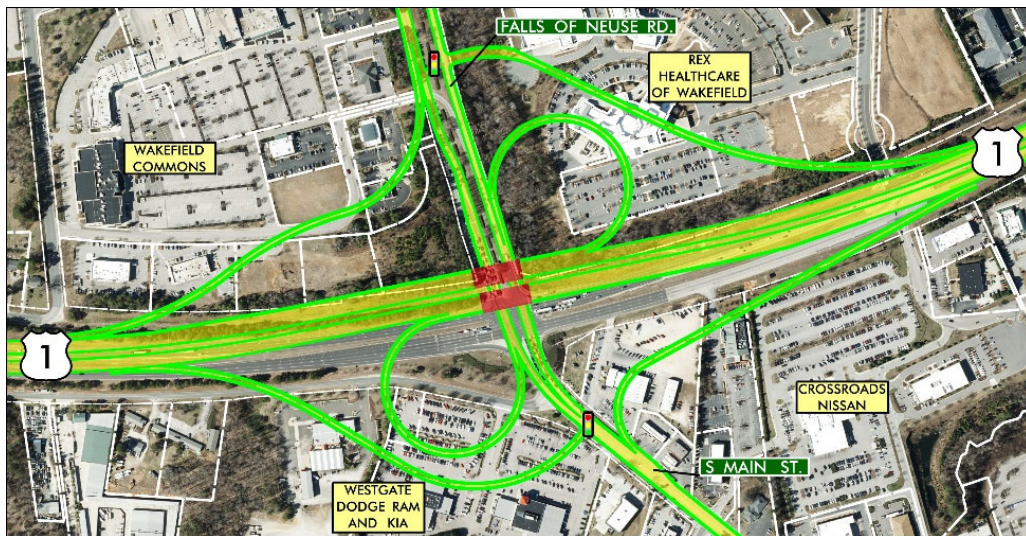
Diamond

A standard diamond interchange at Falls of Neuse Road / US 1A (S Main Street) / US 1 with US 1 going over Falls of Neuse Road / US 1A (S Main Street) was initially studied, but it is not anticipated to be able to handle traffic operations as well as a diverging diamond interchanges and would have impacts to properties in all four quadrants.



Diamond with Loops

A diamond interchange with loops at Falls of Neuse Road / US 1A (S Main Street) / US 1 with US 1 going over Falls of Neuse Road / US 1A (S Main Street) was studied as a potential improvement for the traffic operations compared to the standard diamond interchange, but the diamond with loops impacts a greater number of parcels and still does not handle the traffic operations as well as a diverging diamond interchange.

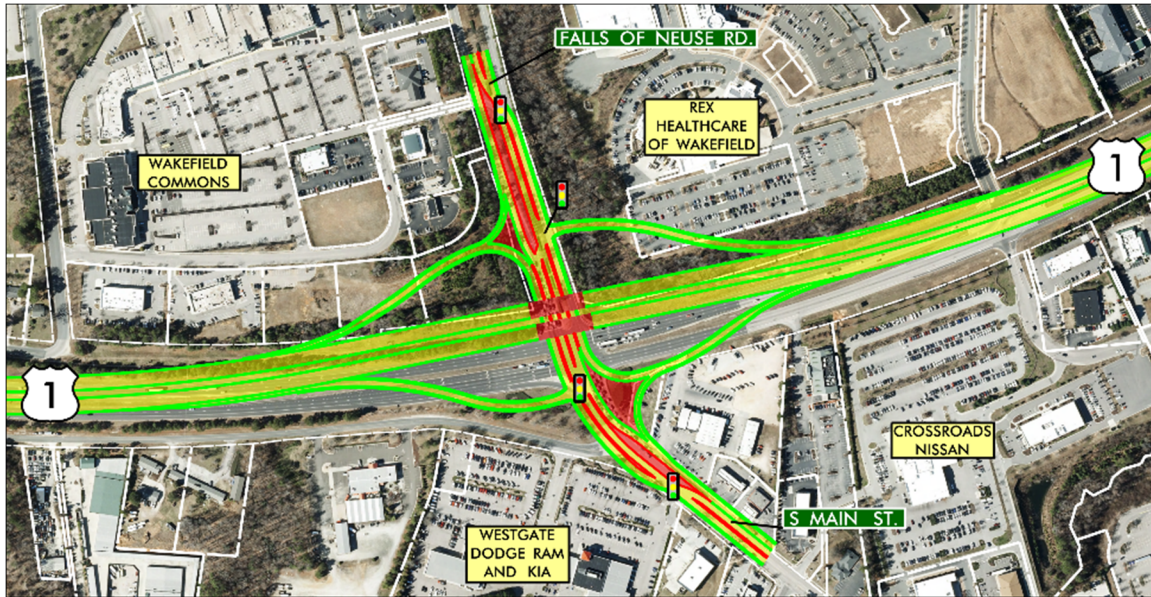




Falls of Neuse Road/US 1A (S Main Street) at US 1 (Continued)

Displaced Left-Turn Interchange

A displaced left-turn interchange at Falls of Neuse Road / US 1A (S Main Street) / US 1 with US 1 going over Falls of Neuse Road / US 1A (S Main Street) was considered, but it would restrict access to parcels along S Main Street across business frontage. It is also anticipated to have a higher construction cost when compared to a diverging diamond interchange.



Please continue to the next page for concepts studied at Purnell Road/Harris Road and US 1.



Purnell Road/Harris Road at US 1

Diamond with Loop

A diamond interchange with a loop at Purnell Road/Harris Road / US 1 with US 1 going over Purnell Road/Harris Road was considered, but would impact all four quadrants. The US 1 southbound on-ramp from Purnell Road presents a challenge with this concept, as it would impact Wakefields (also known as The Sutherland), a property listed on the National Register of Historic Places. Parcels between US 1 and Harris Teeter are also developed, presenting a conflict with the US 1 northbound on-ramp.



Partial Cloverleaf

A partial cloverleaf at Purnell Road/Harris Road / US 1 with US 1 going over Purnell Road/Harris Road was initially studied to eliminate the US 1 northbound on-ramp conflict in the northeast quadrant. However, this ramp configuration is not desirable to align with the Harris Teeter entrance.





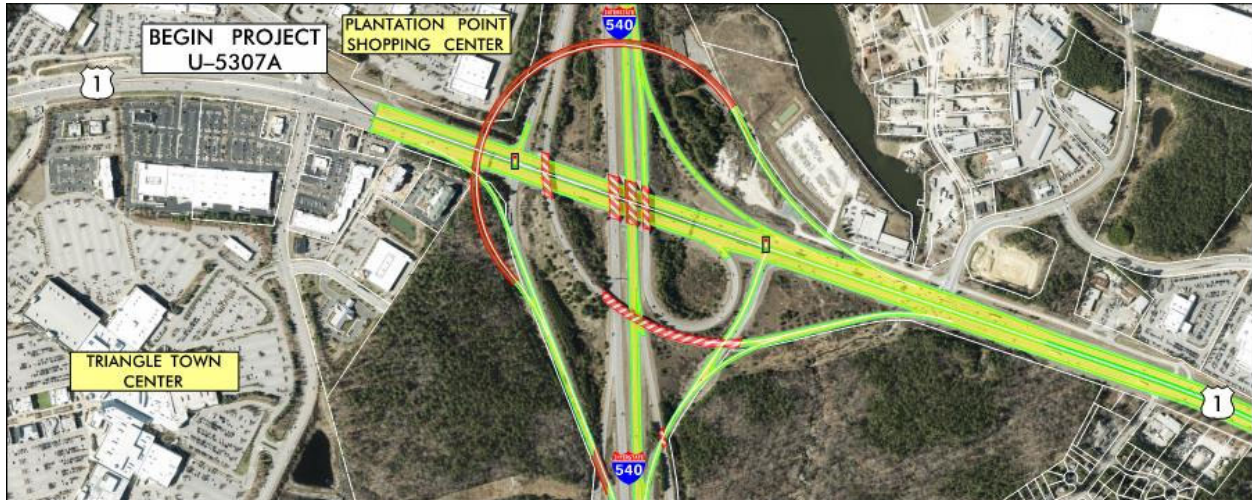
4.3 Recommended Detailed Study Alternatives

NCDOT is requesting concurrence from the NEPA/404 Merger team to carry forward the following concepts:

I-540 at US 1

Flyover without Loop – Reason to Carry Forward

- The addition of a flyover carrying US 1 southbound traffic onto I-540 eastbound would simplify the existing traffic signals.



Please continue to the next page for concepts studied at Durant Road/Perry Creek Road and US 1.



Durant Road/Perry Creek Road at US 1

Diamond Interchange – Reasons to Carry Forward

The project team is evaluating traffic operations further for the standard diamond interchange at this location with US 1 going over Durant Road/Perry Creek Road.

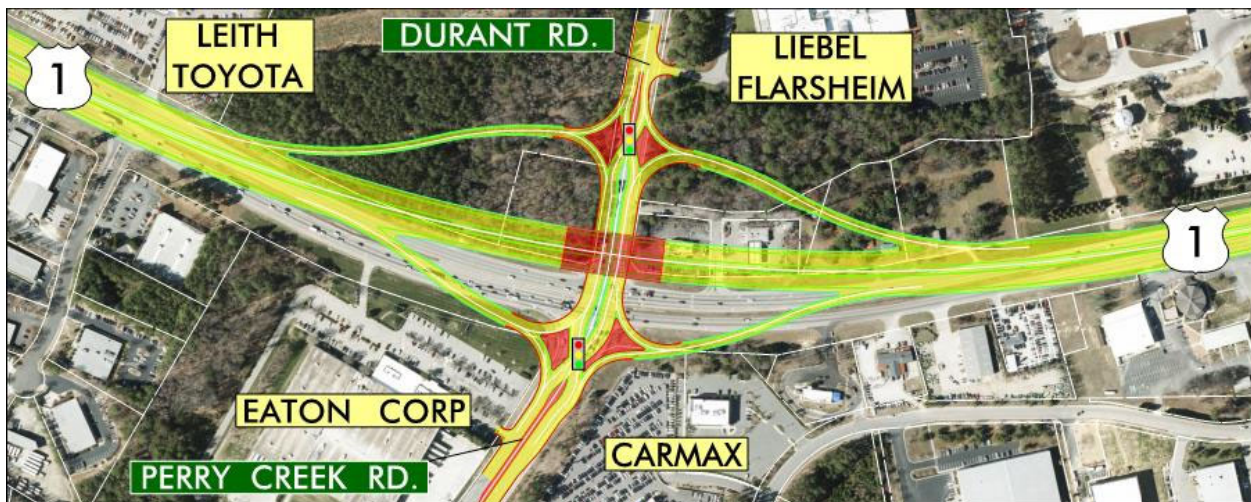
- Diamond interchanges are familiar to North Carolina drivers, and depending on the results of the traffic analysis, it may be possible to reduce the space between the ramps and US 1 mainline.



Diverging Diamond Interchange – Reasons to Carry Forward

The project team is evaluating traffic operations further for the diverging diamond interchange at this location with US 1 going over Durant Road/Perry Creek Road

- Lower impacts to properties
- Handles traffic operations better than other options

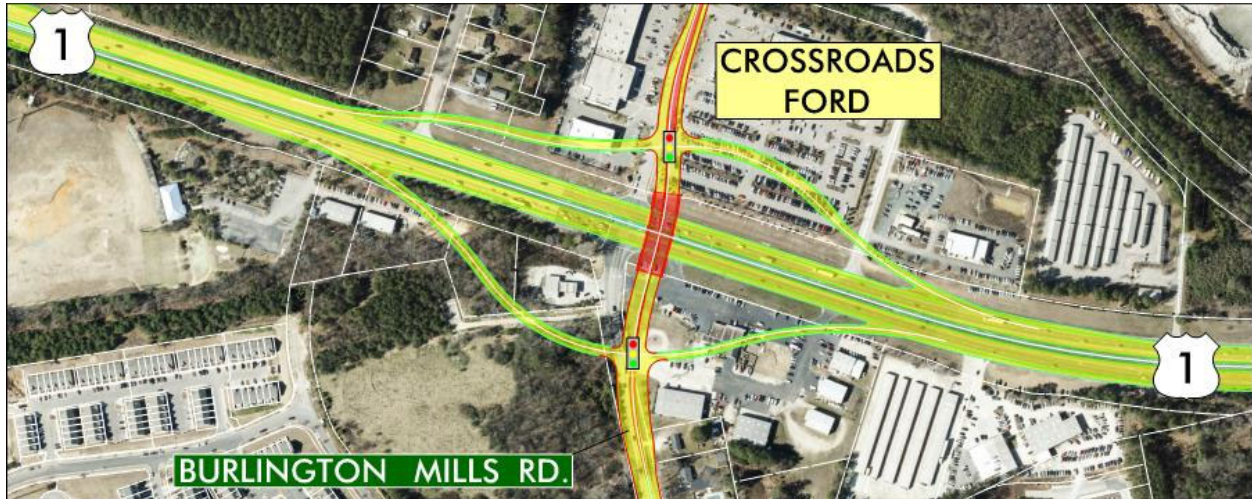


Burlington Mills Road at US 1

Diamond – Reasons to Carry Forward

The project team is evaluating traffic operations further for the standard diamond interchange at this location with Burlington Mills Road going over US 1

- Lower impacts to properties



Diverging Diamond Interchange – Reasons to Carry Forward

The following interchange concept was initially considered, but determined to be over-designed for the projected traffic needs at Burlington Mills Road and US 1. However, the project team received several comments in favor of diverging diamond interchanges at the public meetings and recently learned of a potential development in the southwest quadrant. To date, no site plans or permit applications have been filed for the potential development. Depending on the type of development use, a diamond interchange as currently proposed may not be adequate to handle future traffic. The project team recommends reconsidering a diverging diamond interchange at this location with Burlington Mills going over US 1.



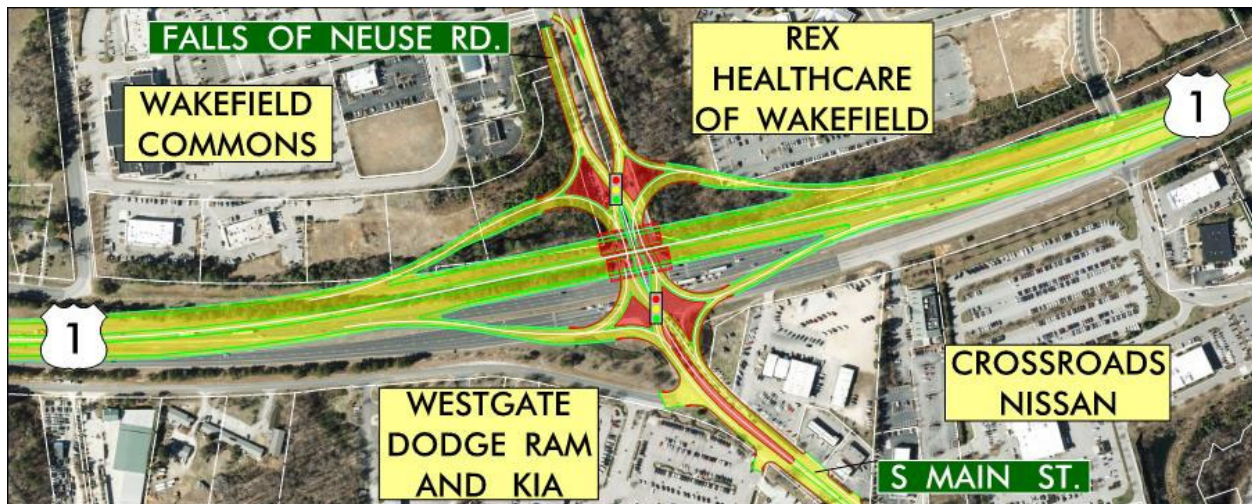


Falls of Neuse Road/US 1A (S Main Street) at US 1

Diverging Diamond Interchange – Reasons to Carry Forward

The project team is evaluating traffic operations further for the diverging diamond interchange at this location with US 1 going over Falls of Neuse Road/US 1A (S Main Street).

- Lower impacts to properties
- Handles traffic operations better than other options



Purnell Road/Harris Road at US 1

Partial Cloverleaf – Reasons to Carry Forward

The project team is evaluating traffic operations further for the partial cloverleaf interchange at this location with Purnell Road/Harris Road going over US 1.

- Lower impacts to properties
- Avoids historic property





I-540 Additional Through Lane

- The addition of a third westbound through lane on I-540 at the US 1 interchange would bring lane continuity to the interchange. Currently, a lane exits onto US 1 and then is picked back up from the on ramp from US 1.

NC 98 Bypass

- Minor modifications may be done to the existing interchange to better handle traffic operations, including pavement resurfacing and storage length increases along the ramps.

NC 98 Business

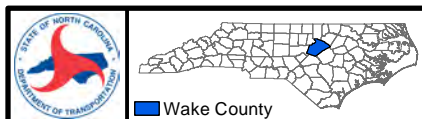
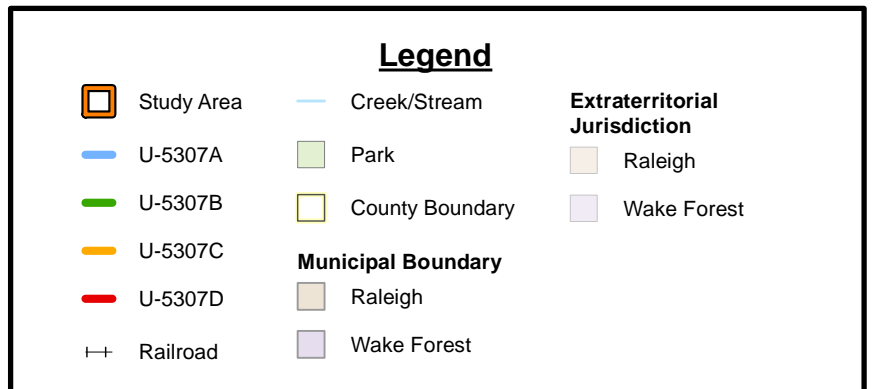
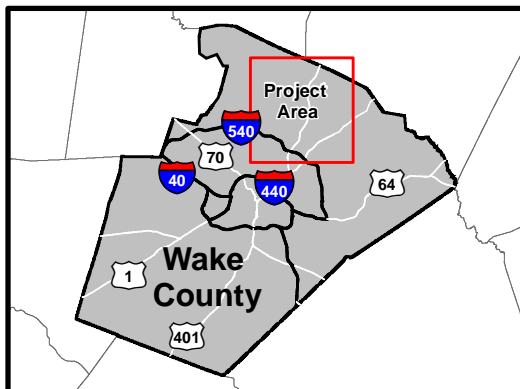
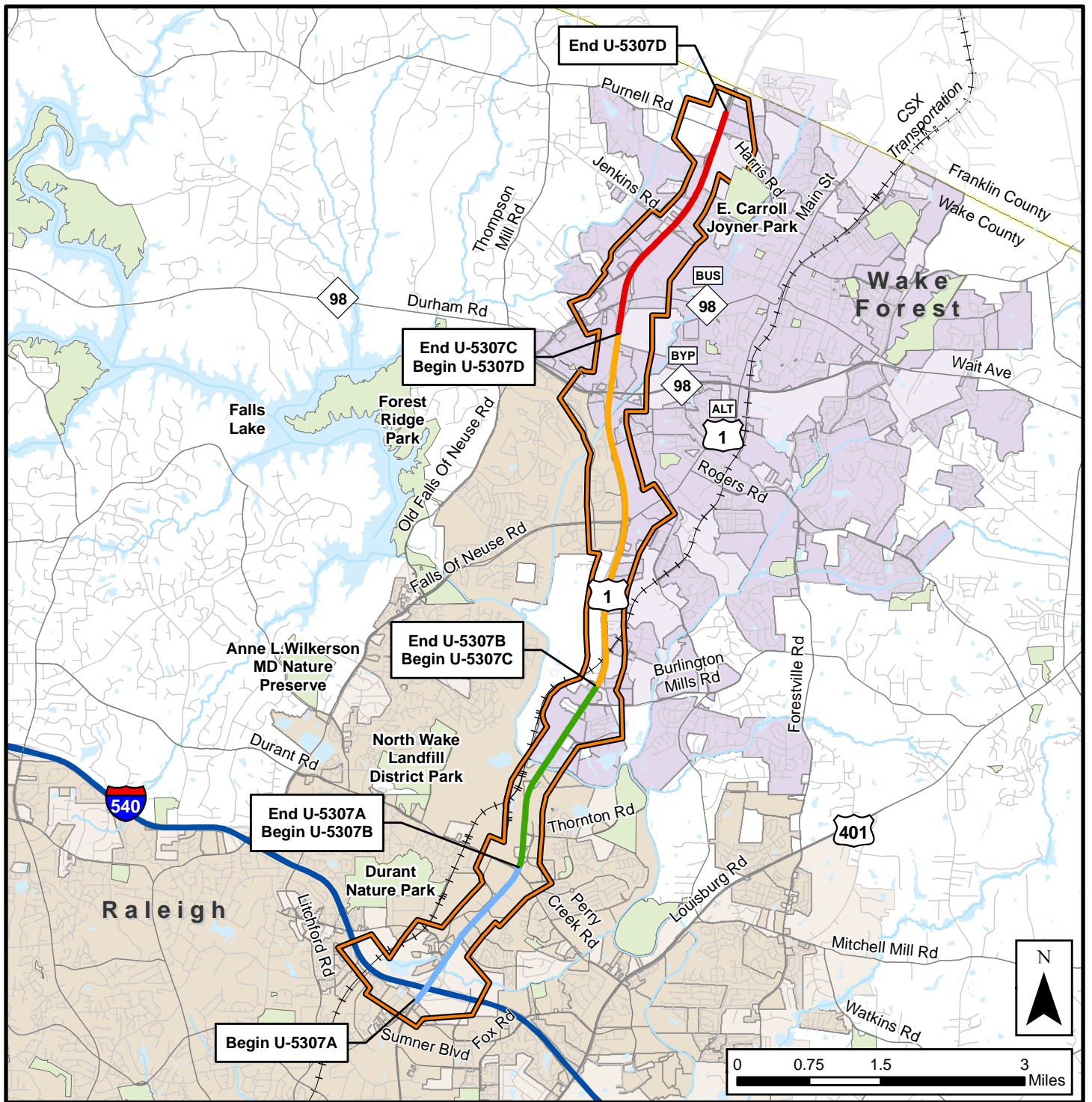
- The addition of a loop in the northeast quadrant of the existing diamond interchange would help alleviate congestion on US 1. The project team is coordinating with stakeholders and developers on future needs for this interchange.

5.0 PROJECT SCHEDULE

The proposed project schedule is as follows:

- Public Meeting – Anticipated early 2019, following CP 2 and prior to CP 2A
- Categorical Exclusion (CE) – Late 2019
- Right-of-Way and Construction Funds Available (Design/Build) – February 2020

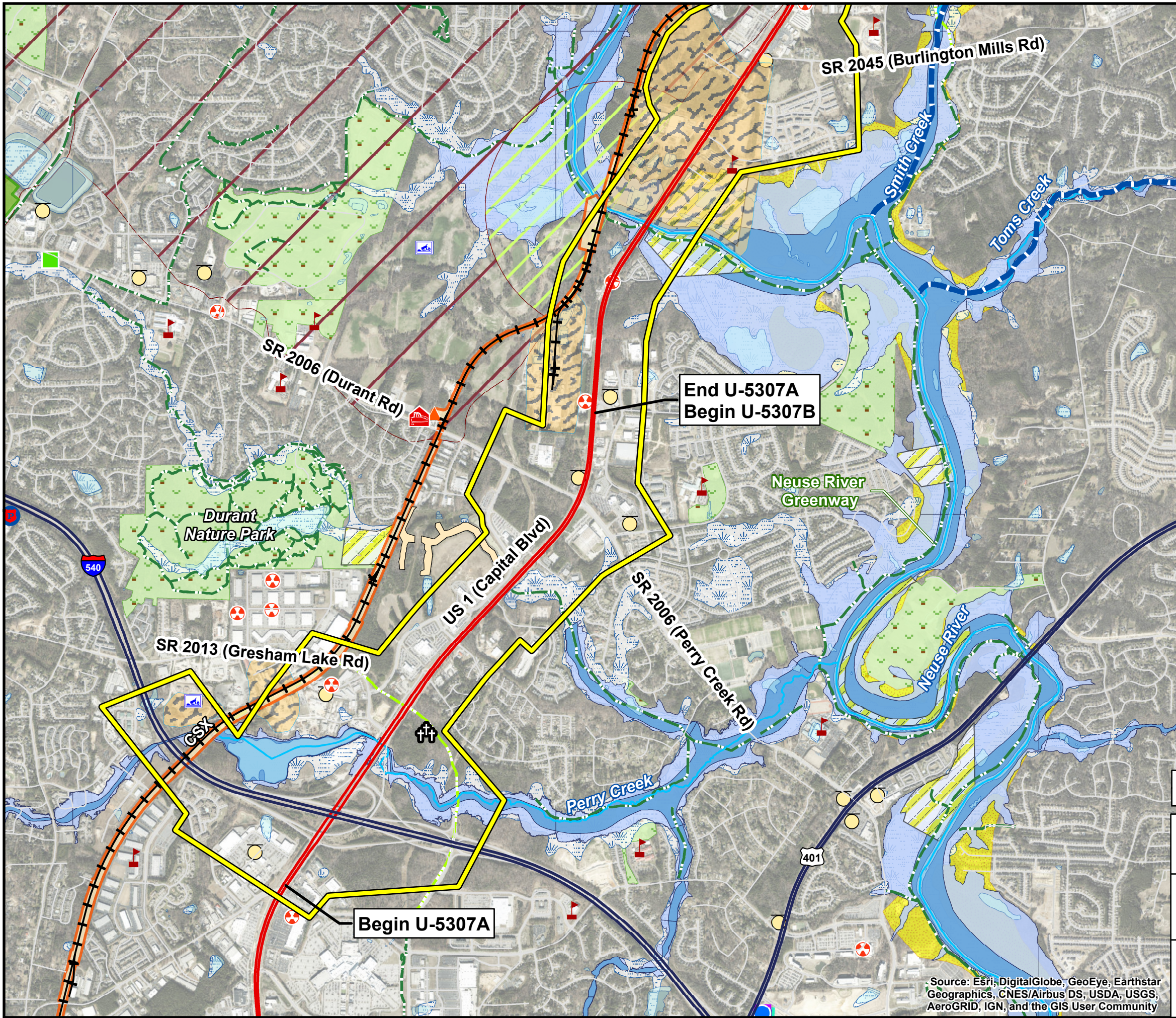
FIGURES



US 1 Roadway Improvements
 From I-540 to SR 1909 (Purnell Rd)/
 SR 1931 (Harris Rd)

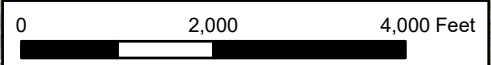
TIP No. U-5307
 Division: 5

Figure: 1
 Vicinity Map



Legend

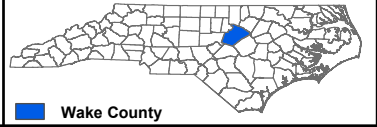
- | | |
|---------------------------|--|
| U-5307 Project Study Area | Conservation Easement |
| Fire Station | Significant Natural Heritage Area |
| School | Conservation Tax Credit Property |
| Police Station | County Boundary |
| Cemetery | State Historic Preservation Layers |
| Hazardous Disposal Site | National Register Boundary |
| Hazardous Waste Site | Study List Boundary |
| Landfill | Determined Eligible Boundary |
| Underground Storage Tank | National Register Listing |
| Railroad | National Register Listing and Local Landmark |
| Existing Greenway | Study List Potentially Eligible for NR |
| Proposed Greenway | Determined Eligible for NR |
| Park | |
| Impaired Stream 303d | |
| Creek / Stream | |
| Floodway | |
| 100 Yr Floodplain | |
| NWI Wetlands | |
| State Mitigation Site | |



US 1 Improvements Environmental Features Map



RS&H



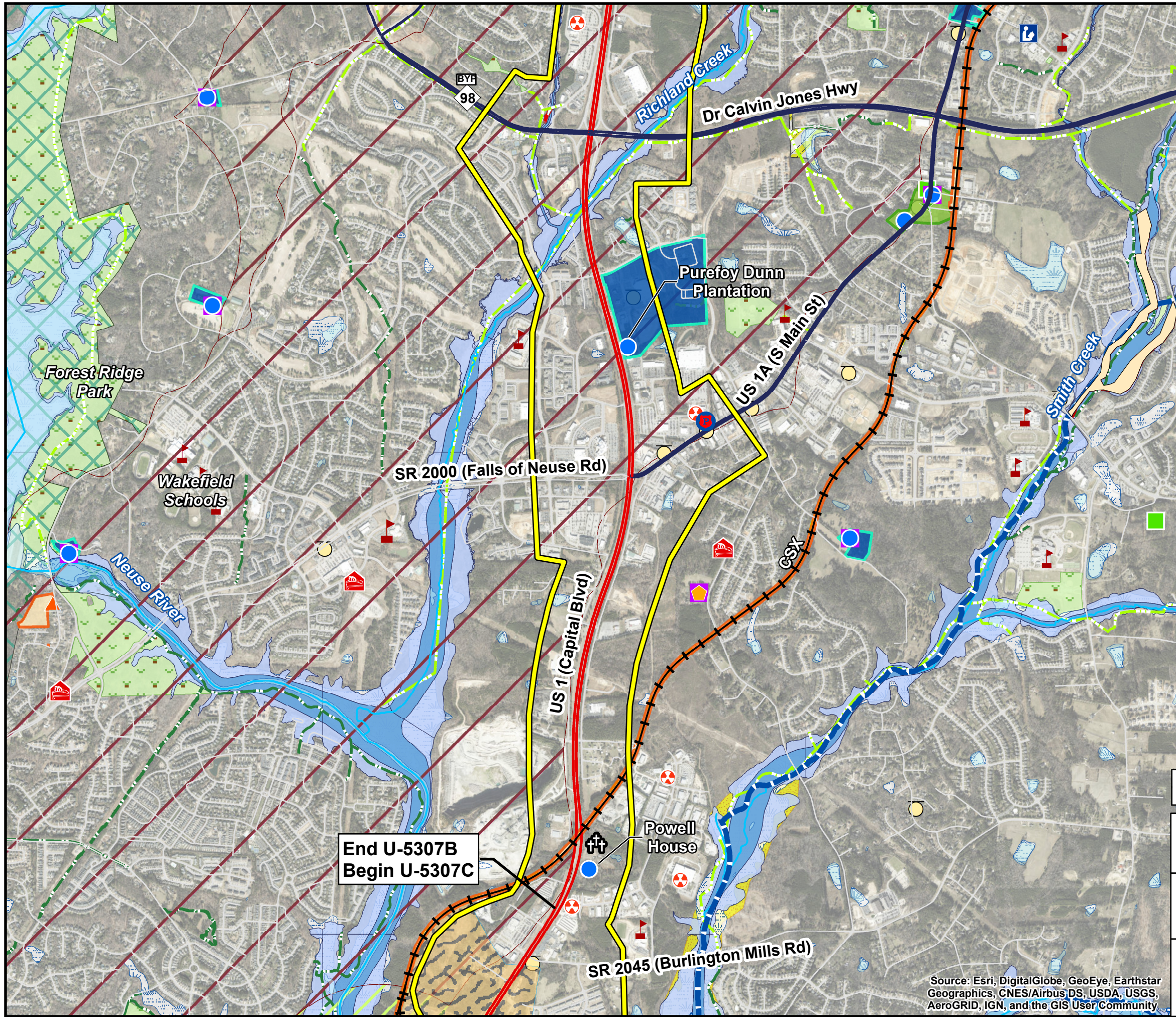
STIP No. U-5307

US 1 Improvements
From I-540 to SR 1909 (Purnell Road) /
SR 1931 (Harris Road)

Figure 2

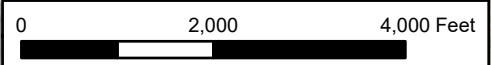
Sheet 1 of 3

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Legend

- | | | |
|---|--|--|
| U-5307 Project Study Area | Conservation Easement | |
| Fire Station | Significant Natural Heritage Area | |
| Public Library | State Owned Land | |
| School | Conservation Tax Credit Property | |
| Police Station | County Boundary | |
| Cemetery | State Historic Preservation Layers | |
| Hazardous Disposal Site | National Register Boundary | |
| Hazardous Waste Site | Study List Boundary | |
| Underground Storage Tank | Determined Eligible Boundary | |
| Railroad | National Register Listing | |
| Existing Greenway | National Register Listing and Local Landmark | |
| Proposed Greenway | Study List Potentially Eligible for NR | |
| Park | Study List Historic District Center Point | |
| Impaired Stream 303d | Determined Eligible for NR | |
| Creek / Stream | Local Landmark | |
| Floodway | | |
| 100 Yr Floodplain | | |
| NWI Wetlands | | |
| High Quality Water/Outstanding Resource Water Management Zone | | |
| State Mitigation Site | | |



US 1 Improvements Environmental Features Map



STIP No. U-5307

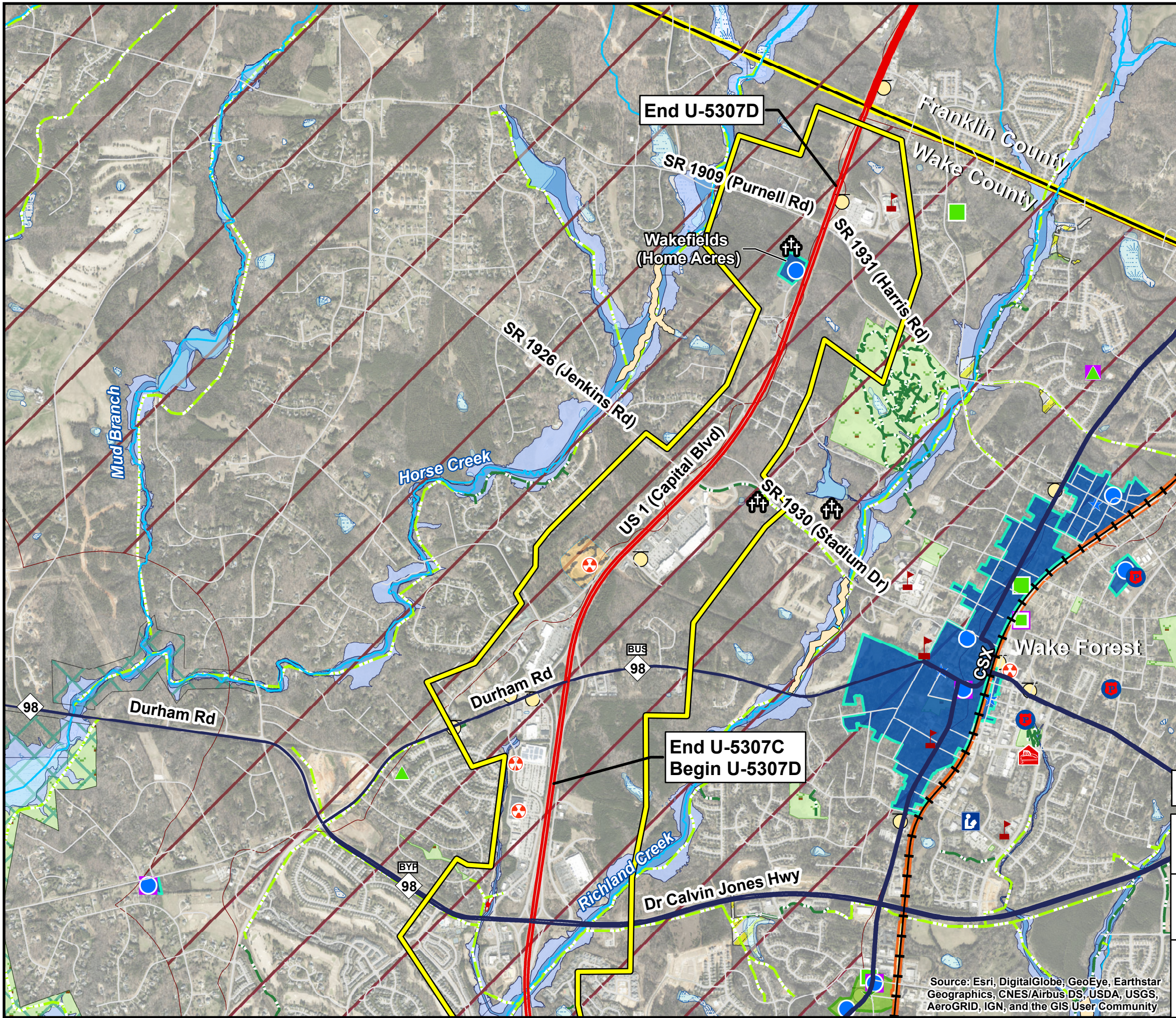
US 1 Improvements
From I-540 to SR 1909 (Purnell Road) /
SR 1931 (Harris Road)

Figure 2

Sheet 2 of 3

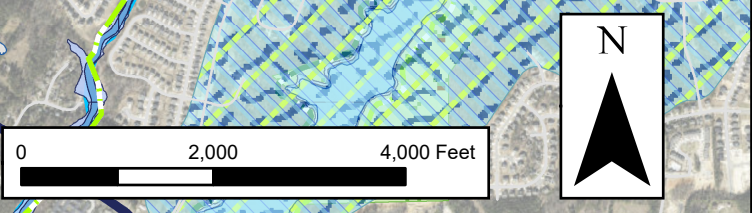
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

End U-5307B
Begin U-5307C



Legend

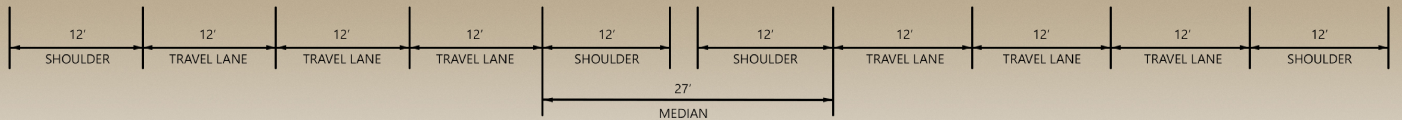
- | | | |
|---------------------------|---|---|
| U-5307 Project Study Area | Conservation Easement | |
| Fire Station | State Owned Land | |
| Public Library | Conservation Tax Credit Property | |
| School | County Boundary | |
| Police Station | State Historic Preservation Layers | |
| Cemetery | National Register Boundary | National Register Listing |
| Hazardous Disposal Site | Study List Boundary | National Register Listing and Local Landmark |
| Hazardous Waste Site | Determined Eligible Boundary | National Register Historic District Center Point |
| Underground Storage Tank | National Register Listing and Local Landmark | Study List Potentially Eligible for NR |
| Railroad | Existing Greenway | Study List and Local Landmark |
| Proposed Greenway | Park | Study List Historic District Center Point |
| Impaired Stream 303d | Creek / Stream | Study List Determined Eligible for NR |
| Floodway | 100 Yr Floodplain | Study List Determined Eligible and Local Landmark |
| NWI Wetlands | High Quality Water/Outstanding Resource Water Management Zone | |
| State Mitigation Site | | |



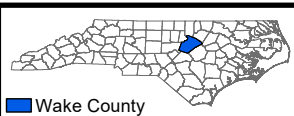
**US 1 Improvements
Environmental Features Map**

		<p>Wake County</p>
STIP No. U-5307 US 1 Improvements From I-540 to SR 1909 (Purnell Road) / SR 1931 (Harris Road)		Figure 2 Sheet 3 of 3

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Note: Auxiliary lanes may be needed on US 1 between the I-540 and Burlington Mills Road interchanges.



US 1 Roadway Improvements
 From I-540 to SR 1909 (Purnell Rd)/
 SR 1931 (Harris Rd)

TIP No. U-5307
 Division: 5

Figure: 3
 Typical
 Section

APPENDIX A

NEPA/404 Merger Team Meeting Agreement

Concurrence Point 1: Purpose & Need and Study Area Defined

Project Name/Description: US 1 Upgrade to Controlled Access Facility from I-540 to Harris/Purnell Road, Wake County, NC

TIP Project No.: U-5307

Federal Aid Project No.: NHS-0001(138)

WBS No.: 47027.1.1

Need for Proposed Action

- Traffic congestion and trip time unreliability.


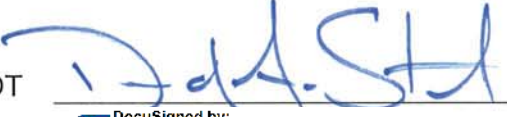

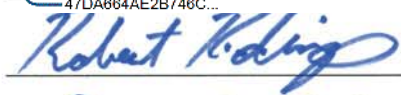
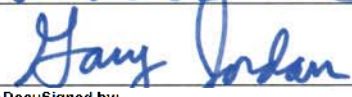


Purpose of Proposed Action

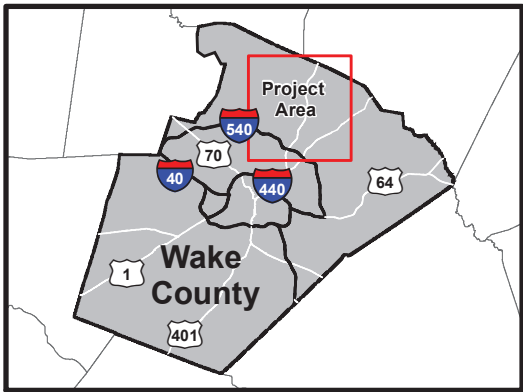
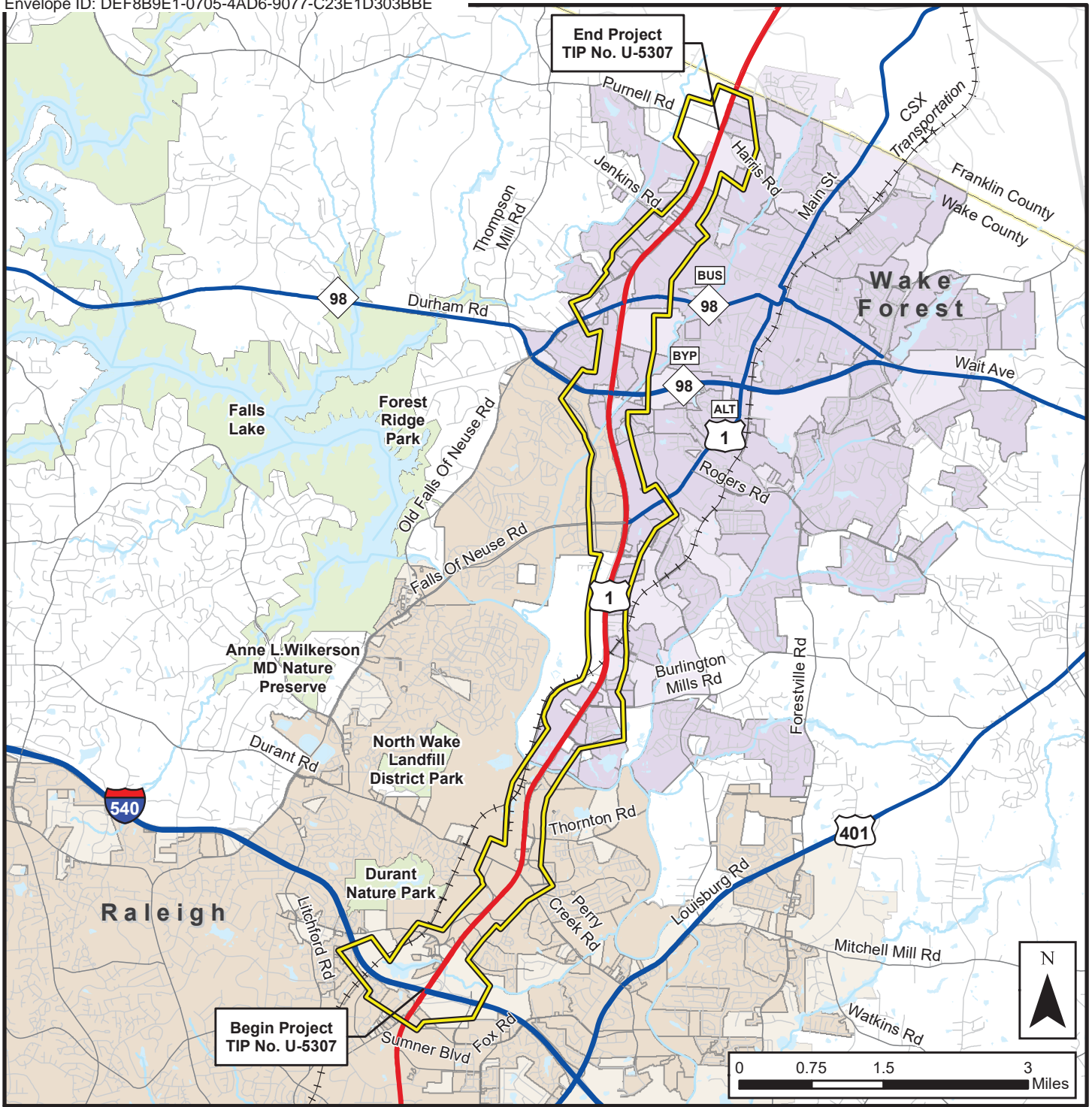
- Improve traffic congestion and travel times.
- Maintain regional mobility and local connectivity.

Study Area Defined

The study area extends along US 1 from I-540 to Harris / Purnell Road in Wake County, as shown on Figure 1 of the Concurrence Point 1 package.

The Project Team met and concurred on this date of June 14, 2018 with the Purpose & Need and Study Area Defined for the proposed project as stated above:

USACE		NCDOT	
USEPA	DocuSigned by: Amanetta Somerville 5358468480FC4E3...	NCDCCR	DocuSigned by: Renee Gledhill-Earley 47DA864AE2B746C...
FHWA		NCBWR	
USFWS		NCWRC	
NMFS	DocuSigned by: Fritz Roder 7D10D31C923E4AC...	NCDCM	N/A
CAMPO			



Legend

Project Study Area	Raleigh
Railroad	Wake Forest
Creek/Stream	Extraterritorial Jurisdiction
Park/Public Space	Raleigh
County Boundary	Wake Forest

Meeting Summary Memorandum



Meeting Date: June 14, 2018

Subject: Concurrence Point 1 Meeting
U-5307 (US 1, Wake County)

Location: NCDOT Century Center, Structure Design Conference Room

Attendees:

David Stark	NCDOT Project Manager	dstark@ncdot.gov
Kanchana Noland	NCDOT Priority Projects	kvnoland@ncdot.gov
Pam Williams	NCDOT Div 5&8 PMU	prwilliams@ncdot.gov
Chris Rivenbark	NCDOT PDEA-NES	criverbark@ncdot.gov
Richard Hancock	NCDOT Division 5	jhopkins@ncdot.gov
David Keilson	NCDOT Division 5	dpkeilson@ncdot.gov
Tucker Martin	NCDOT Utilities	trmartin1@ncdot.gov
James Harris	NCDOT Rail	jbharris@ncdot.gov
Clarence Bunting	NCDOT CM	cbunting@ncdot.gov
Herman Huang	NCDOT Community Studies	hfhuang@ncdot.gov
Jess Earley	NCDOT PMU	jsearley@ncdot.gov
Jason Dilday	NCDOT EAU	jldilday@ncdot.gov
Ron Lucas	FHWA	ron.lucas@dot.gov
James Lastinger	USACE	james.c.lastinger@usace.army.mil
Amanetta Somerville*	USEPA	somerville.amanetta@epa.gov
Gary Jordan	USFWS	gary_jordan@fws.gov
Rob Ridings	NCDENR	rob.ridings@ncdenr.gov
Shane Staples*	NCDOT Fisheries	shane.staples@ncdenr.gov
Travis Wilson	NCWRC	travis.wilson@ncwildlife.org
Fritz Rohde*	NOAA	fritz.rohde@noaa.gov
Paul Black	CAMPO	paul.black@campo-nc.us
Shelby Powell	CAMPO	shelby.powell@campo-nc.us
Eric Lamb*	City of Raleigh	eric.lamb@raleighnc.gov
Chip Russell	Town of Wake Forest	crussell@wakeforestnc.gov
Meredith Van Duyn	RS&H (Project Manager)	meredith.vanduynd@rsandh.com
Charles Cox	RS&H (Traffic/Planning)	charles.cox@rsandh.com
Regina Bowman*	RS&H (Traffic/Planning)	regina.bowman@rsandh.com
Brian Pownall	RS&H (Traffic/Planning)	brian.pownall@rsandh.com
Allison McAuliffe	RS&H (Traffic/Planning)	allison.mcauliffe@rsandh.com
Tom Kelly*	RS&H (Traffic/Planning)	thomas.kelly@rsandh.com
Jason Talley	RS&H (Roadway)	jason.talley@rsandh.com
Clay Oliver*	HDR	clay.oliver@hdrinc.com
Anne Morris*	Anne Morris & Associates	anne@anne-morris.com
Jim Mason	Three Oaks Engineering	james.mason@threoaksengineering.com

* *joined via phone*

James Lastinger opened the meeting, and attendees introduced themselves. David Stark thanked everyone for attending and turned the meeting over to Meredith Van Duyn.

Meredith Van Duyn confirmed that everyone received a packet and discussed the organization and purpose of the presentation. The purpose of this meeting was to reach consensus on the Purpose & Need and Study Area for STIP Project U-5307. Project U-5307 proposes to upgrade US 1 to a controlled access facility from I-540 in Raleigh to Harris/Purnell Road in Wake Forest. A general overview of the project and its history was provided as part of the presentation, including:

➤ **Existing & Proposed Interchanges**

- Interchanges along US 1 currently exist at the following locations:
 - I-540
 - NC 98 Bypass
 - NC 98 Business
- Interchanges are proposed at the following locations:
 - Durant/Perry Creek Road
 - Burlington Mills Road
 - US 1A/Falls of Neuse Road/Main Street
 - Harris/Purnell Road
- Additionally, the lane drop on I-540 westbound between the US 1 on- and off-ramps will be corrected as part of this project.

➤ **US 1 Corridor Study**

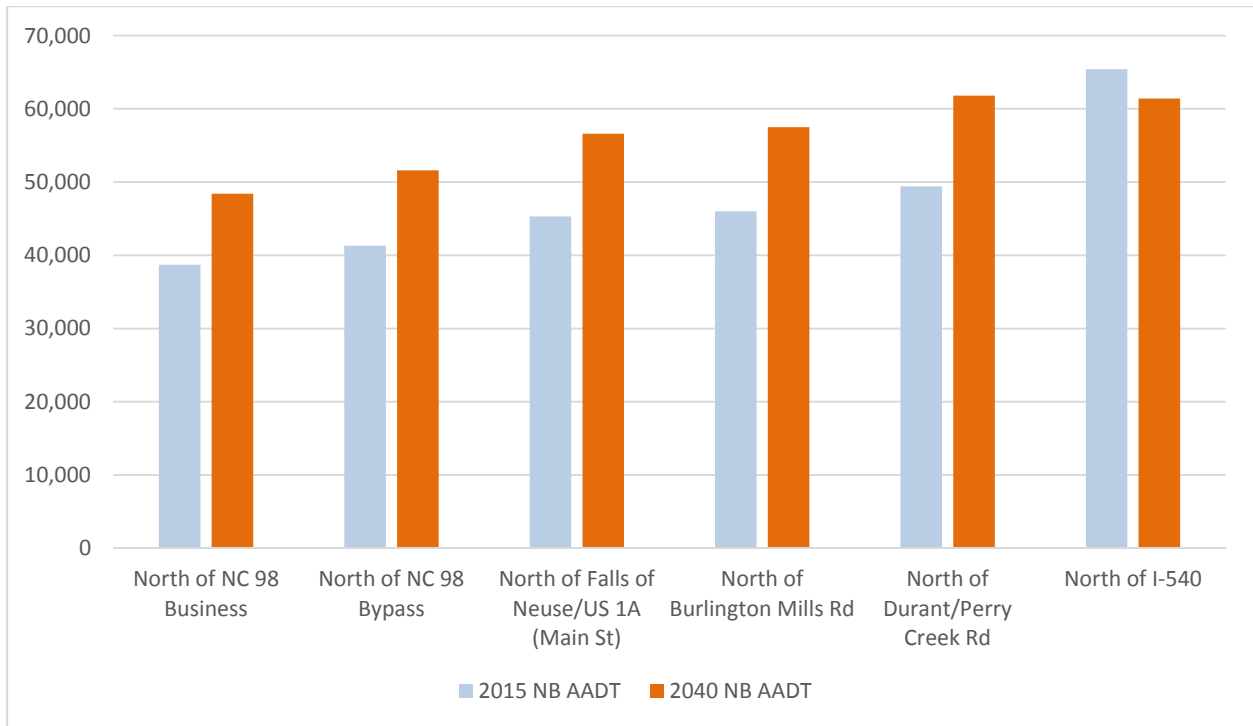
- U-5307 is building on the US 1 Corridor Study, completed by CAMPO (2006 and updates). The Corridor Study “developed an integrated multimodal transportation plan that provides for a high level of mobility along the US 1 Corridor while maintaining a high quality environment for the surrounding communities by providing for well-planned and sustainable growth along this corridor.” (*Executive Summary E-1*) The US 1 Council of Planning was established with representatives from municipalities and local governments with oversight along the entire (Phase I and II) study area and meets on an as-needed basis to review proposed development plans.

➤ **Needs in the Project Area**

- **Traffic Congestion**
 - An approved No Build traffic forecast was completed for U-5307 with the assumption that all other currently planned, fiscally constrained projects have been completed by the 2040 design year. Shown in **Chart 1**, volumes along US 1 are expected to increase throughout the corridor, except at the I-540 interchange, where volumes are projected to drop, assuming the Triangle Town Boulevard Extension is completed. If that project is not completed, an estimated 20,000 vehicles per day would be added to US 1 at the interchange. Without this assumption, the I-540 interchange would see about 80,000 vehicles per day.
 - In the 2015 No Build condition traffic operations analysis, 7 of 16 signalized study intersections along US 1 performed at a Level of Service (LOS) E or F. In the

2040 No Build condition traffic operations analysis, 12 of 19 signalized study intersections along US 1 performed at a LOS E or F.

Chart 1 – Approved Traffic Forecast Volumes



○ **Trip Time Unreliability**

- A planning time index was studied for this corridor, which showed that trips along US 1 in the peak hour can take up to four times as long as normal, making it difficult to plan commute times.
- In addition, speed heat maps show that cars are slowing to 35 mph and below in both directions during both peak hours.

○ **Safety Concerns**

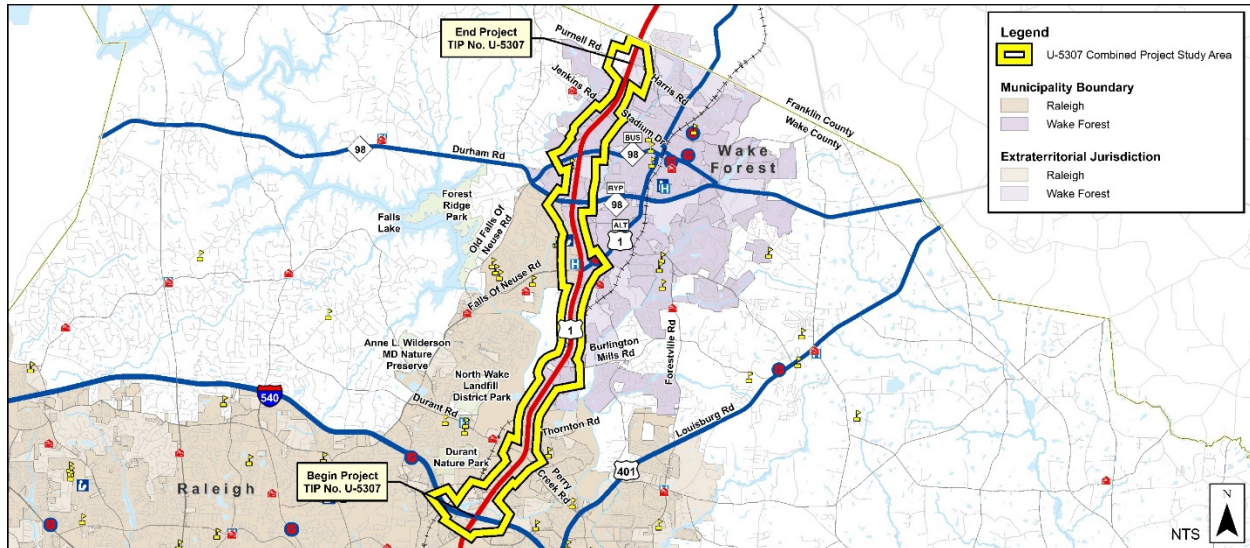
- Crash data was collected on US 1 from I-540 to NC 98 Business over a five year period. A total of 1,870 crashes were recorded, including seven fatal crashes. Sixty-five percent of crashes were rear-end collisions, common in stop-and-go traffic along signalized corridors. Safety improvements would be a large secondary benefit to the upgrade of this corridor.

➤ **Project Study Area**

- The final project study area has gone through several revisions as the project has grown:
 - The original study area spanned from I-540 to NC 98 Business.
 - The study area was extended three miles north, per the request of NCDOT, to include the intersection of Harris/Purnell Road. Traffic volumes are consistent along the corridor to the northern planning boundary of the Town of Wake Forest, making this a more logical northern terminus.

- The study area was widened in some locations to ensure interchange concepts and service roads could be included.
- A section of I-540 was added to ensure adequate coverage for the lane drop correction.

Figure 1 – Final Project Study Area



➤ **Nearby Projects**

- STIP Project W-5601EJ is a safety project on US 1A in Wake Forest and is already constructed.
- STIP Project P-5720 is the proposed grade separation of the CSX railroad at Durant Road and is programmed for construction to begin in FY 2019.

➤ **Natural Environment**

- The original project study area (approx. 7 miles) includes 52 jurisdictional streams (approximately 56,000 linear feet), including:
 - Neuse River (buffered, crosses US 1)
 - Richland Creek (crosses US 1)
 - Perry Creek (crosses US 1)
 - Unnamed Tributaries (some crossing US 1)
- There are 3 FEMA streams in the project study area, all in detailed studies with floodways, including:
 - Perry Creek (Basin 15, Stream 26)
 - Neuse River
 - Richland Creek
- The project study area includes 42 jurisdictional wetlands (21 acres)
 - The original delineation was performed by Three Oaks Engineering and has not yet been reviewed by USACE, as we are waiting on the northern section to be surveyed (summer-fall 2018).

Note: The areas mentioned above are coverage within the ~2,000-foot wide study area and not impacts.

- Protected species for this study area include:
 - Michaux’s Sumac (No Effect)
 - Red-cockaded Woodpecker (No Effect)
- NRTR, RCW, and Freshwater Mussel Survey Reports have been completed for the original study area. Surveys for the extended section are anticipated in Fall 2018.
- The removal of the Milburnie Dam will open up the study area to anadromous fish and will be studied with an addendum prepared by Three Oaks Engineering.
- The study area is formerly a non-attainment area, and future studies will include an air quality analysis.
 - CAMPO has completed conformity modeling on all projects in the MTP.
- The Neuse River Greenway is included in this study area, which is part of the City of Raleigh’s Capital Area Greenway System and NC’s Mountains to Sea Trail.
- Historic resources in the study area include:
 - Powell House
 - Purefoy-Dunn Plantation House
 - Wakefields House
 - Potential cemetery south of Jacqueline Drive (to be confirmed with additional studies)
- A community characteristics report has been completed for the original study area (7 miles), and it has been determined that language assistance resources (Spanish) will need to be provided.
- There are multiple churches, medical facilities, and businesses along the corridor.
- Utilities along the corridor include power, fiber optic, natural gas, monitoring wells, cell towers, lighting, water/sewer, hydrants, and a nitrogen line.
- Three public transportation routes run along or across the corridor: Raleigh/Wake Forest Express Bus, GoRaleigh Route 25L, and GoTriangle Route Wake Forest Loop.

➤ **Key Project Dates**

2015	Project Initiation
2015-2016	Acquire Environmental Input (ongoing)
June 2016	Internal Scoping Meeting
August 2016	External Scoping Meeting
June 2018	Concurrence Point 1 for P&N and Study Area
Fall 2018	Begin Public Involvement
Late 2018	Concurrence Point 2 for Alternatives
Early 2019	Concurrence Point 2A (Bridging)
Summer 2019	Concurrence Point 3 (LEDPA)
Late 2019	Environmental Document (CE)
2019 / 2020	Anticipated Design-Build Procurement

➤ **Questions/Comments**

- Gary Jordan noted that USFWS has switched to a basin-based approach when initially analyzing potential impacts to aquatic species.
 - The yellow lance, Tar River spiny mussel, Cape Fear shiner, and dwarf wedgemussel are not in the Neuse River basin.
 - USFWS recommends using the IPAC website to review protected species.
- Fritz Rohde stated that while the area above Milburnie Dam is not currently designated habitat for anadromous fish, they should be considered now that the obstruction is gone.
- Status of air quality studies:
 - No studies have been completed at this point, but an air quality analysis will be coordinated with the NCDOT Noise and Air Quality group (typically done after a preferred alternative is chosen).
 - Paul Black noted that CAMPO has modeled all projects in the MTP, including US 1.
- Shelby Powell stated the need for access roads to maintain connectivity in the area and would like for language to be added to the “Need” section to include this.
 - Service roads will be provided as needed along the corridor.
 - Eric Lamb emphasized the importance of access roads, as they are a key part of the access management plan.
 - Chip Russell noted that local service roads could potentially help manage traffic during the construction of US 1.
- The grade separation at Gresham Lake Road / CSX Railroad may qualify for SPOT, but the potential of including that project into the U-5307 scope is highly unlikely considering the time frame with this schedule.
- James asked if the US Army Corps of Engineers (USACE) had reviewed the wetland and stream delineations.
 - No – the project is waiting on the additional section (three miles north of NC 98 Bypass) to be surveyed before making a jurisdictional determination.
- USACE is not comfortable with the Purpose and Need statement including the word ‘freeway’ as it has the potential to limit alternatives.
 - After discussion, it was decided that “control of access facility” would replace “freeway.”
- James asked if NCDOT planned to permit the entire project at once.
 - Permits can be done with preliminary plans and then modified as needed. The NEPA document will include all 10 miles (shown on the attached figure).
- Meredith asked what measures of effectiveness (MOEs) should be used for CP 2.
 - Level of Service (LOS) and travel times.
- Pam Williams asked if the Merger Team members were amenable to combining CP 2 (detailed study alternatives) and 2A (bridging decisions and alignment review).

- There was no opposition. NCDOT and RS&H will explore this option with the project schedule in mind to determine if the required information for both concurrence points will be available at the same time.
- If any recipient of the meeting notes would like to add comments or feels a comment is erroneous or needs to be expanded, please feel free to contact Meredith Van Duyn at meredith.vanduynd@rsandh.com.

Attachments:

CP 1 Concurrence Form
PowerPoint Presentation
Environmental Features Map (revised)

Copies to:

Meeting Attendees

APPENDIX B

MEMORANDUM

Date: October 30, 2018
 To: David Stark, NCDOT Project Manager
 From: RS&H Project Team
 Subject: STIP Project No. U-5307
 US 1 (Capital Boulevard) Improvements, Wake County
 Public Meetings Summary

Overview

NCDOT proposes to convert US 1 (Capital Boulevard) to a controlled-access highway from I-540 in Raleigh to Purnell Road (SR 1909)/Harris Road (SR 1931) in Wake Forest. A third westbound lane on I-540 is also being studied as a part of this project. The total project length is 10 miles.

Two public meetings were held in October 2018 to provide project information, present preliminary designs, and gather public feedback. Details on the public meetings are provided in **Table 1**. In total, 477 people attended the two meetings and 52 comment forms were collected at the meetings.

Table 1. Public Meeting Information

Date	Meeting Location	Total Attendees	Total Comments
October 9, 2018	Lifepointe Church Raleigh, NC	165	9
October 29, 2018	Wake Forest Baptist Church Wake Forest, NC	312	43

Both public meetings presented the same material and were conducted in the same manner. Both locations were open to the public from 4:00 PM to 7:00 PM, where the public was given the opportunity to view the project video, view the project maps, and engage with the project team. Local officials were provided the opportunity, prior to the Public Meetings, on September 27th at 1:00 PM and October 29th at 3:00 PM to ask questions and provide feedback. Local officials were shown the project video and all meeting materials. Immediately



**Public Meeting at Lifepointe Church
October 9, 2018**

following the presentation was an open Q&A session during which the NCDOT project team was available to answer any questions regarding the project.

Local Officials Meeting

Six Local officials attended the meeting at Wake Forest Town Hall on September 27, 2018 (**Table 2**). There were no local officials present prior to the Public Meeting on October 29, 2018 at Wake Forest Baptist Church.

Table 2. Local Officials Meeting Attendees, Wake Forest Town Hall, September 27, 2018

NCDOT Representatives	
David Stark	NCDOT PMU
Kanchana Noland	NCDOT PMU

Consultant Team	
Meredith Van Duyn	RS&H
Brian Pownall	RS&H
Allison McAuliffe	RS&H
Jason Talley	RS&H
Sean Kane	RS&H
Sean Kortovich	RS&H

Local Officials/Town of Wake Forest/City of Raleigh/CAMPO	
Scott Hammerbacher	Franklin County
Chip Russell	Wake Forest
Suzette Morales	Wake Forest
Kip Padgett	Wake Forest
Bill Crabtree	Wake Forest
Kenneth Withrow	CAMPO

Meredith Van Duyn opened the meeting and introduced several members of the Project Team as well as a brief description of the proposed project. Following introductions, she presented the voice-over PowerPoint, which provided additional details on the proposed project.

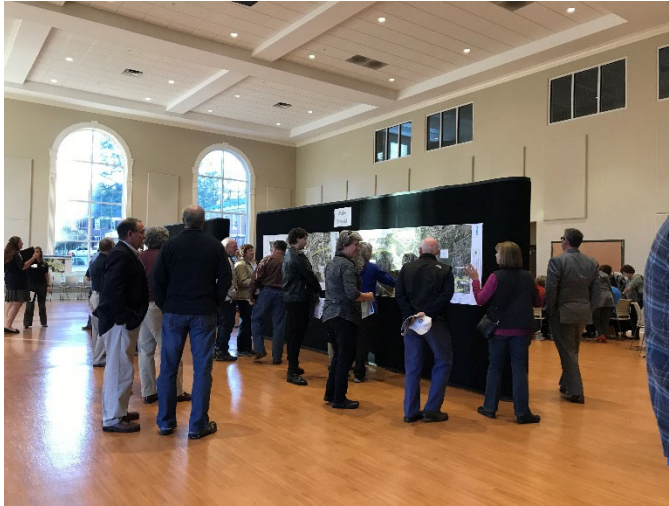
Local Officials Comments

The following is an overview of comments received from attendees:

- Request for information concerning transit routes during construction. The outside shoulder will be 12 feet wide with full-depth pavement, able to handle bus-on-shoulder operations if needed during peak hours. Transit service along connecting streets will continue. NCDOT is coordinating with GoTriangle to accommodate transit service during construction.

Public Meeting

The Public Meetings were held from 4:00 PM to 7:00 PM at their respective locations and were an open house format, where attendees could stop by at any time to review materials and ask questions. Upon entering the meeting, attendees were asked to sign in and were given a handout



**Public Meeting at Wake Forest Baptist Church
October 29, 2018**

with project information, a comment form, and a Title VI form. Attendees were encouraged to watch the project video first for a detailed overview on the proposed project.

After viewing the project video, attendees were invited to review the meeting maps and project displays. Multiple stations and display boards with additional project information were made available to attendees. All materials are publicly available at:

<https://ncdot.publicinput.com/US-1-Capital-Boulevard>

Public Meeting Stations and Displays

- Welcome Station – RS&H team members welcomed attendees, asked them to sign in, provided them a meeting handout, and encouraged them to view the project video.
- Project Video Station – Attendees were encouraged to view a 10 minute voice-over presentation explaining the project.
- US 1 Concept Design Map Display – Representatives from NCDOT and RS&H along with Town of Wake Forest and City of Raleigh staff provided an overview of the proposed US 1 improvements and answered questions.
- Typical Section Display – Typical section boards were displayed in order to show the public a rendering of the proposed mainline.
- Options Not Carried Forward Display – Options considered but not recommended for further study were displayed along the side of the room for the public to view along with the reason that the option will not be carried forward.
- Diverging Diamond Interchange (DDI) Station – A video explaining how a DDI works was placed in the room so that members of the public who were unfamiliar with this type of interchange could get a better understanding.

Representatives from NCDOT and the RS&H project team were on hand to answer questions and receive feedback from attendees.

Public Meeting Comments Summary

Comment forms inquired if the attendee had any questions or comments about the proposed conversion of US 1 to a controlled-access highway or about the proposed interchanges and asked if the attendees could provide any other additional feedback on any aspect of the proposed project.

A total of 52 comment forms were collected from 477 meeting attendees.

Most of the respondents noted they live in Wake Forest, while others noted that they live in Raleigh. The majority of responses were concerns with accessing residential, commercial, and non-profit properties. Feedback from the public regarding presentation materials was generally positive, with the majority of comments stating that the maps were easy to read and they understood the need for the project.

Copies of all comment forms received are available upon request.

The following is a general summary by category of additional, open-ended comments received:

- Property Access
 - Sixteen comments expressed concern about access to residential, non-profit, and commercial properties and wanted to know more about proposed service roads.
 - Two comments expressed concern for limiting access to Saint John's Church off of Durham Road.
 - One comment expressed concern for accessing the Smoketree Subdivision, which is located on Jacqueline Lane near I-540.
 - One comment requested details concerning access for Mallinckrodt.
 - One comment expressed concern for accessing the Shearon Farms Neighborhood.
 - One comment expressed concern for businesses located at US 1 and Caveness Farms Avenue.
 - One comment expressed concern for access to and from Hanson Aggregates.
- Bike and Pedestrian Accommodations
 - Six comments requested that bike and pedestrian accommodations be added.
 - Two comments requested bike and pedestrian accommodations on the Purnell Road/Harris Road Interchange to access the greenway and Joyner Park.
 - Two comments requested bike and pedestrian accommodations on the Jenkins Road/Stadium Drive grade separation to access Wake Union Plaza and Wake Forest High School.
 - One comment requested bike and pedestrian accommodations on the Falls of Neuse Road / Durant Road Interchange.
 - One comment requested bike and pedestrian accommodations on all proposed interchanges.

- Interchange at an Additional Location
 - Four comments requested an interchange be added at an additional location.
 - Three comments requested that an interchange be added at Jenkins Road / Stadium Drive.
 - One comment requested that an interchange be added at Thorton Road.
- Noise Abatement
 - Four comments expressed concerned about noise in surrounding residential areas.
 - One comment was specifically concerned about construction and traffic noise impacting the Riverstone Development.
 - One comment requested a noise barrier for Horse Creek Neighborhood.
- Environmental Impact
 - Four comments expressed concerns about potential environmental impacts associated with this project.
 - Two comments expressed concern about impacts to Horse Creek spring and creek.
 - One comment expressed concern about increased runoff.
 - One comment expressed concern about the removal of trees in the lot next to Meadstone Way and Burlington Mills Road.
- Ligon Mill Road / US 401 Congestion
 - Three comments expressed concern for an increase of traffic on Ligon Mill Road and US 401 during construction along US 1.
- Recreational Areas Impact
 - One comment expressed concern for impacts to Joyner Park.
- I-540
 - One comment requested that a westbound lane be added on I-540.
Note: This is already being studied as a part of this project.
- Safety
 - One comment noted that the proposed improvements should decrease the amount of accidents along the corridor.
- Other Improvements
 - One comment requested that signal times along US 1 be lengthened from Durant Road to Burlington Mills Road in order to alleviate congestion in the peak hours in the meantime.
 - One comment requested that I-540 be widened.
 - One comment requested that the striping on US 1 from Perry Creek Road to Burlington Mills Road be redone.
 - One comment requested stoplights at Wakefield School exits and at Wakefield Plantation and NC 98.
 - One comment requested that the improvement to US 1 be extended south of I-540.

- One comment suggested moving the Purnell Road/Harris Road interchange south to minimize impacts to the Horsecreek Subdivision.
- One comment requested a traffic impact study at the intersection of Burlington Mills Road and Urial Road.

PublicInput.com Comments Summary

As of Tuesday, October 30, 2018, the PublicInput.com outreach site had 103 comments.

Copies of all comments received via PublicInput.com can be viewed online.

The majority of responses were concerns with accessing residential, commercial, and non-profit properties. Feedback from the public regarding presentation materials was generally positive, with the majority of comments stating that they supported the project.

The following is a general summary of additional comments received:

- Some comments expressed frustration about the cost of the project.
- Some requested that the project be expedited.
- One comment requested that signals on US 1 be lengthened during peak hours in the meantime.
- Some were opposed to the impacts to properties and residences along US 1.
- Some were concerned about the project negatively affecting the character of Wake Forest and requested a bypass instead.
- Some expressed concern for their property values.
- Some requested that Triangle Town Boulevard be connected to Gresham Lake Road as a part of this project.
- Some requested that bike and pedestrian accommodations be added.

Email and Phone Hotline Comments Summary, September 28 – October 30, 2018

Nine comments were received via email or phone hotline between September 28, 2018 and October 30, 2018¹.

Copies of all email and phone hotline comments and responses are available upon request.

The majority of responses were concerns with accessing residential, commercial, and non-profit properties. Feedback from the public regarding presentation materials was generally positive, with the majority of comments stating that they supported the project.

¹ Note: The US 1 Project Team will continue to receive and respond to comments via email and phone.

The following is a general summary of additional comments received:

- One requested that Triangle Town Boulevard be connected to Gresham Lake Road as a part of this project.
- One requested that an additional interchange be added at Corona Boulevard and Caveness Farms Avenue.
- One expressed opposition to the impacts to properties and residences along US 1.
- One requested that Durant Road/Perry Creek Road be widened in lieu of improvements to US 1.
- One expressed frustration about the cost of the project.
- One noted how the project will increase safety along the corridor.



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