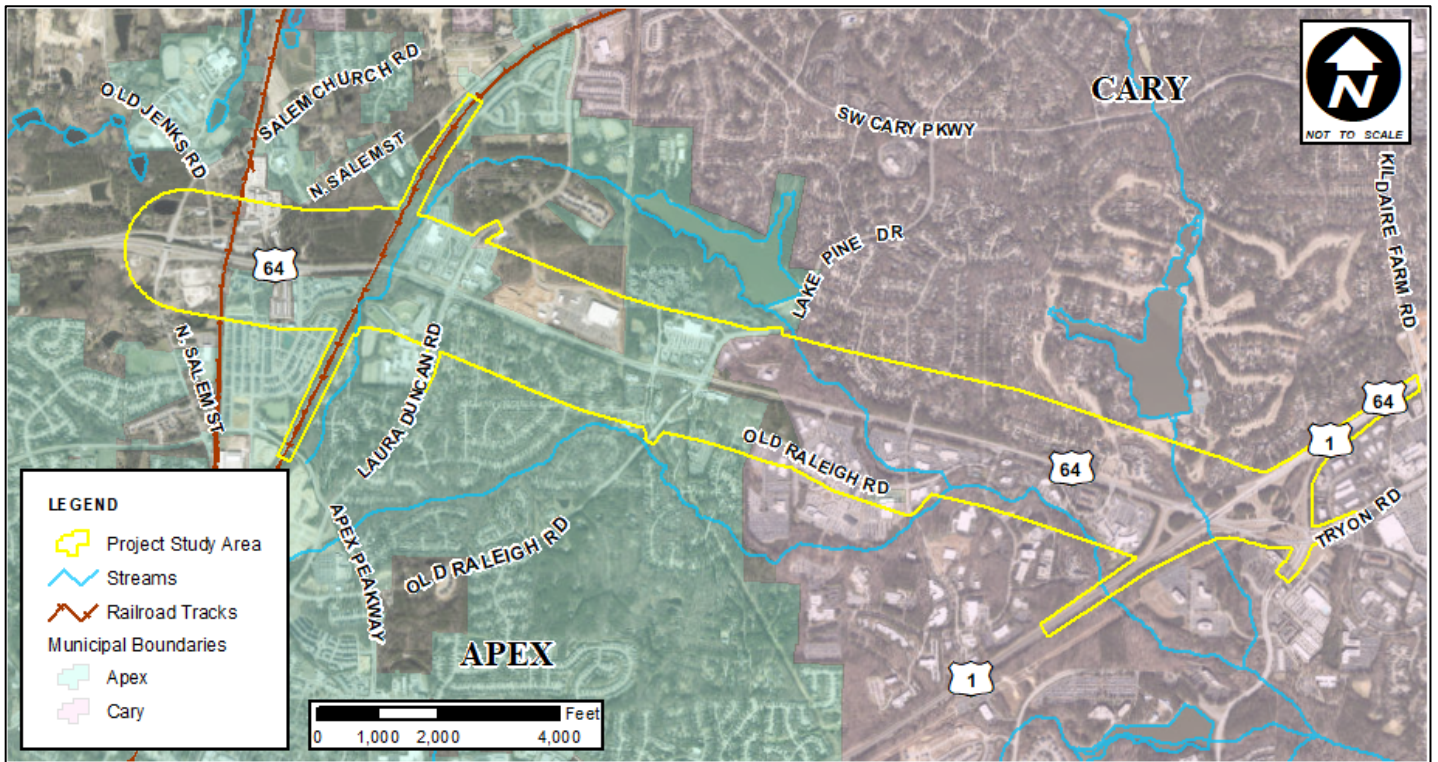


## Type III Categorical Exclusion Action Classification Form

STIP Project No.	<b>U-5301</b>
WBS Element	<b>47018.1.1</b>
Federal Project No.	<b>NHS-0064(141)</b>

**A. Project Description**

The North Carolina Department of Transportation (NCDOT) proposes improvements to the US 64 corridor from west of SR 1308 (Laura Duncan Road) in Apex to US 1 in Cary in Wake County.



The project is included in NCDOT’s 2018-2027 State Transportation Improvement Program (STIP) as project number U-5301. Right-of-way acquisition is scheduled to begin in Federal Fiscal Year (FFY) 2020 and construction in FFY 2022.

**B. Description of Need and Purpose:**

The purpose of the project is to:

- Alleviate existing and future congestion,
- Improve mobility along the corridor,
- Improve regional mobility, and,
- Improve reliability of the roadway network within the project study area.

The need of the project is based on the following:

*Existing and Future Congestion*

US 64 is the primary east-west highway through southeastern Wake County and serves multiple roles as a transportation facility including: linking adjacent neighborhoods to surrounding business and community resources, providing a conduit for Chatham and southwestern Wake County commuters to travel between their homes and jobs in Raleigh, and as a regional and statewide corridor linking providing an alternative route to I-40/I-85. Due to the multiple roles that US 64 serves within the project study area, the facility is expected to experience significant traffic growth between now and the design year (2040). Currently, traffic along US 64 ranges from approximately 40,000 vehicles per day (vpd) west of Laura Duncan Road to approximately 56,000 vpd at US 1. Under the “No-Build” scenario, the traffic volumes are expected to grow to 56,600 vpd west of Laura Duncan Road, and to over 76,000 vpd at US 1 in 2040. Additionally, the growth in southwestern Wake County will contribute to traffic growth along other roadways throughout the project study area. Current and projected traffic volumes for roadways within the project study area are shown in Table 1. Table 2 summarizes the existing (2016) and future (2040 No-build) level of service along the project study corridor.

**Table 1: Current and Projected (No-Build Condition) Traffic Volumes**

Segment	Existing 2016 (vpd)	No-Build 2040 (vpd)
<b>US 64</b>		
West of SR 13006 (Laura Duncan Road)	40,000	56,600
Laura Duncan Road to Knollwood Drive	41,600	60,600
Knollwood Drive to Shepherds Vineyard Drive	40,000	57,000
Shepherds Vineyard Drive to SR 1521 (Lake Pine Drive)	38,400	55,000
Lake Pine Drive to Autopark Boulevard	42,700	59,400
Autopark Boulevard to Mackenan Drive	43,300	60,000
Mackenan Drive to Gregson Drive	45,700	63,300
Gregson to Edinburgh Drive	50,300	69,300
Edinburgh Drive to US 1	56,000	76,200
US 1 to Regency Pkwy	42,900	56,400
<b>Laura Duncan Road</b>		
South of US 64	9,100	14,600
North of US 64	11,300	16,400
<b>Lake Pine Drive</b>		
South of US 64	13,600	17,200
North of US 64	17,300	29,200
<b>Mackenan Drive/Chalon Drive</b>		
South of US 64	2,200	2,300
North of US 64	5,800	6,800
<b>Gregson Drive</b>		
South of US 64	8,000	10,000
<b>Edinburgh Drive</b>		
South of US 64	5,800	7,000
North of US 64	2,700	3,300
<b>US 1</b>		
South of US 64	110,000	118,000
North of US 64	75,500	148,200

**Table 2: Current and Projected Level of Service**

<u>Intersection</u>	<u>Control</u>	2016 Existing				2040 No-Build			
		Delay		LOS		Delay		LOS	
		AM	PM	AM	PM	AM	PM	AM	PM
US 64 @ Laura Duncan Rd	Signal	53.2	49.3	D	D	130.3	121.2	F	F
US 64 @ Knollwood Dr/Costco Dr	Unsignalized	48.5	243.5	E	F	240.5	>300	F	F
US 64 @ Shepherds Vineyard Dr	Unsignalized	172.5	31.4	F	D	273.6	49.9	F	E
US 64 @ Lake Pine Dr	Signal	64.3	36.4	E	D	102.9	95.6	F	F
US 64 @ Autopark Dr	Unsignalized	209.5	26.2	F	D	69.9	>300	F	F
US 64 @ Mackenan Dr /Chalon Dr	Signal	38.9	10.5	D	B	14.6	37.4	B	D
US 64 @ Gregson Dr	Signal	39.1	12.0	D	B	30.6	31.5	C	C
US 64 @ Edinburgh Dr	Signal	29.9	53.4	C	D	35.9	68.5	D	E
US 64 WB @ US 1 SB Off-Ramp	Signal	40.7	163.3	D	F	177.5	205.3	F	F
US 64 EB @ US 1 SB On-Ramp	Signal	5.1	8.1	A	A	7.0	23.7	A	C
Tryon Rd WB @ Regency Pkwy/US 1 NB On-Ramp	Signal	72.3	38.3	E	D	110.3	71.6	F	E
Tryon Rd EB @ Regency Pkwy	Signal	41.8	31.1	D	C	70.4	26.9	E	C

### High-Level Crash Analysis

Crash history data was collected and analyzed for a five-year period between March 1, 2012 and February 28, 2017, for US 64 from just west of Laura Duncan Road to the Tryon Road/Regency Parkway intersection, just east of US 64. Tables 3 and 4 summarize the accident data collected during the study period.

**Table 3: High-Level Crash Summary**

	Number of Crashes	Percent of Total
<b>Total Crashes</b>	<b>779</b>	<b>100.00</b>
Fatal Crashes	2	0.26
Non-Fatal Injury Crash	167	21.44
Total Injury Crashes	169	21.69
Property Damage Only Crashes	610	78.31
Night Crashes	134	17.20
Wet Crashes	103	13.22
Alcohol/Drug Involvement Crashes	17	2.18

**Table 4: Crash Rate Comparison**

	U-5301 Project Study Area	US Routes Urban	US Routes Statewide
Total Crash Rate	421.79	233.17	183.63
Fatal Crash Rate	1.08	1.06	1.02
Non-Fatal Crash Rate	90.42	69.70	54.23
Night Crash Rate	72.56	50.74	46.35
Wet Crash Rate	55.77	44.92	35.72
EPDO Rate <sup>1</sup>	1173.01		

<sup>1</sup>Equivalent Property Damage Only Rate

Results of the crash analysis indicated the following:

- The total Crash Rate is over twice the statewide rate for all US routes and nearly twice the rate for US urban routes.
- Rear-end crashes make up 65% of all crashes.
- Most of the crashes occurred at the following intersections or along the approaches due to queued traffic:
  - US 64 @ Laura Duncan Road: 71 Crashes
  - US 64 @ East of Lake Pine Drive: 31 Crashes
  - US 64 @ AutoPark Boulevard: 46 Crashes
  - US 64 @ Gregson Drive – Edinburgh Drive: 85 Crashes

The high rate of rear-end crashes are indicative of the stop and go nature and queuing of traffic related to congestion along this section of US 64.

C. Categorical Exclusion Action Classification: Type III

D. Proposed Improvements

**Preliminary Build Alternatives** – Three preliminary build alternatives were presented at the June 2018 public meeting.

- Concept 1 included a tight diamond interchange at Laura Duncan Road, a grade-separated double contraflow intersection at Lake Pine Drive, a grade-separate modified quadrant intersection at Edinburgh Drive, and a six-lane, divided facility with reduced conflict intersections between Lake Pine Drive and US 1. Direct access between Shepherds Vineyard Drive and US 64 would be removed and the road would be dead-ended on both sides of US 64.
- Concept 2A included a single-lane teardrop roundabout interchange at Laura Duncan Road, a tight diamond interchange at Lake Pine Drive, and a grade-separated modified quadrant intersection at Edinburgh Drive. From west of Laura Duncan Road to east of Lake Pine Drive, US 64 will be an expressway. From east of Lake Pine Drive to US 1, US 64 will be a six-lane, divided facility with reduced conflict intersections. Direct access between Shepherds Vineyard Drive and US 64 would be removed. Shepherds Vineyard Drive would be lowered and extended under US 64, providing a new connection between Old Raleigh Road and Pine Plaza Drive.
- Concept 2B included tight diamond interchanges at Laura Duncan Road and Lake Pine Drive, and a grade-separated modified quadrant intersection at Edinburgh Drive. From west of Laura Duncan Road to east of Lake Pine Drive, US 64 will be an expressway. From east of Lake Pine Drive to US 1, US 64 will be a six-lane, divided facility with reduced conflict intersections. Direct access between Shepherds Vineyard Drive and US 64 would be removed. Shepherds Vineyard Drive would be lowered and extended under US 64, providing a new connection between Old Raleigh Road and Pine Plaza Drive.

**No-Build Alternative** – The No-Build Alternative (the option of not constructing the project) was also studied. The No-Build Alternative only includes maintenance activities within the current right-of-way to ensure the safety and continued operation of the existing highway. The No-Build Alternative would avoid any adverse environmental impacts or residential relocations; however, adverse social and economic impacts could occur. Future traffic volumes will likely result in longer delays which would hinder the everyday social and economic functionality of the corridor.

The No-Build Alternative does not meet the transportation goals of the State of North Carolina or the transportation needs of the region. Also, by failing to provide solutions to congestion in the area and improved connectivity to other traffic corridors, this alternative does not satisfy the purpose and need of the project. The No-Build Alternative does, however, provide a basis for comparing the benefits and adverse impacts of the Build Alternatives.

**Recommended Alternative** – A modified version of Concept 2B was selected as the Recommended Alternative. Input received from the public and local governments indicated a preference for the tight diamond interchanges.

The Recommended Alternative consists of the following improvements:

- Tight diamond interchanges at Laura Duncan Road and Lake Pine Drive.
- A grade separation carrying US 64 over Shepherds Vineyard Drive.
- A grade-separated modified quadrant intersection at Edinburgh Drive which will include a new connection between US 64 and Edinburgh S. Drive and a new connection from the US 1(south)/US 64 (west) ramp at Edinburgh Drive.
- Reduced conflict intersections at Autopark Drive, Mackenan Drive/Chalon Drive, and Gregson Drive.
- Other roadway improvements include:
  - Adding a third lane along the current two-lane sections of Old Raleigh Road between Lake Pine Drive and Gregson Drive,
  - Intersection improvements along Pine Plaza Drive,
  - A new access road between Laura Duncan Road and Nichols Plaza,
- Replacing the CSX S-line bridge over US 64 with a new structure to accommodate additional lanes along US 64, and a future 46-foot wide median
- New bike and pedestrian accommodations along Lake Pine Drive Laura Duncan Road, Shepherds Vineyard Drive, and the Edinburgh Drive Bridge.

**Table 5A: Design Criteria**

	<b>US 64 (Freeway)</b>	<b>US 64 (East of Lake Pine Drive)</b>	<b>Laura Duncan Road</b>	<b>Lake Pine Drive</b>
Classification	Urban Arterial	Urban Arterial	Major Collector	Major Collector
Design Speed	60 mph	60 mph	40 mph	40 mph
Terrain	Rolling	Rolling	Rolling	Rolling
Typical Section	Shoulder, 6-lane, 2-way	Shoulder, 6-lane, 2-way	C&G, 4-lane, 2- way	C&G, 4-lane, 2-way
Lane Width	12-foot	12-foot	12-foot	12-foot
Sidewalks (Y/N)	No	No	Yes* 5-foot 10-foot multi-use path	Yes* 5-foot 10-foot multi-use path
Bicycle Lanes (Y/N)	No	No	No	Yes
Median Width	46-foot (depressed)	35-foot (raised)	N/A	N/A
Prop R/W Width	250 – 300 feet	250 – 300 feet	114 – 140 feet	115 – 140 feet
Control of Access	Full C/A	Limited C/A	No C/A	No C/A
Design Exceptions	No	No	No	No

\* 8-foot wide sidewalks on bridges

**Table 5B: Design Criteria (cont.)**

	<b>Shepherds Vineyard Drive</b>	<b>Pine Plaza Drive</b>	<b>Edinburgh Drive</b>	<b>Old Raleigh Road</b>
Classification	Local	Local	Local	Local
Design Speed	40 mph	40 mph	40 mph	40 mph
Terrain	Rolling	Rolling	Rolling	Rolling
Typical Section	C&G, 2-lane, 2-way, Undivided	C&G, 2-lane, 2-way, Undivided	C&G, 3-lane, 2-way, Undivided	C&G, 3-lane, 2-way
Lane Width	11-foot	Existing Varies	12-foot	12-foot
Sidewalks (Y/N)	Yes 5-foot	Yes 10-foot multi-use path	Yes 5-foot	Yes 5-foot
Bicycle Lanes (Y/N)	Yes 5-foot	No	No	Yes 5-foot
Median Width	Varies	None	None	None
Proposed R/W Width	N/A	60 – 100 feet	60 – 100 feet	60 – 100 feet
Control of Access	No C/A	No C/A	No C/A	No C/A
Design Exceptions	No	No	No	No

\* 8-foot wide sidewalks on bridges

The recommended alternative project components are shown in Exhibits 1, 2, and 3 (Appendix A).

#### E. Special Project Information:

##### Public Involvement

The project study area consists of a wide variety of land uses including, established neighborhoods, commercial developments, auto dealerships, and big box retailers. To ensure that all stakeholders were kept apprised of the proposed project and engaged in the development of the improvement options, a public involvement plan (PIP) was developed. The PIP included small group meetings, public meetings, online surveys, and a project website.

A Local Officials Meeting (LOIM) was conducted with the Town of Apex on June 16, 2018. The Town of Cary declined an LOIM based off previous coordination with the NCDOT Project Team. Additionally, a public meeting was held on June 21, 2018 at Summit Church in Apex near the US 1/Ten-Ten Road interchange. The purpose and need, conceptual designs, and visualizations were presented during the meeting. Handouts which included comment sheets were provided to attendees and posted on the project website. The meeting began at 4:00 pm and concluded at 7:00 pm. In total, 235 citizens signed-in at the meeting. A total of 49 comments were received via email, letter, or submitted comment form. Additionally, 173 responses were received via online survey on the project's publicinput.com website.

A second public meeting was conducted at Summit Church on May 14, 2019. In total, 215 attendees signed the sign-in sheet. A total of 24 comments were received via email, comment form, or online survey.

Primary concerns expressed through the public involvement process includes the following:

- Bicycle and pedestrian accommodations – specifically for Apex High School students crossing US 64 at Laura Duncan Road
- Existing and future traffic noise and potential for noise walls
- Property impacts to businesses and residences
- Cut-through traffic along the extended Shepherds Vineyard Drive
- Changes to access due to implementation of reduced conflict intersections east of Lake Pine Drive
- New access to Edinburgh Drive
- Loss of trees
- Noise impacts
- Changes of access to existing businesses

### Construction Costs

Preliminary construction costs estimates were developed for the recommended improvements and are summarized below in Table 6.

**Table 6: Cost for the Recommended Improvements**

Right-of- Way Cost	\$ 67,241,715
Utilities Relocation Costs	\$ 10,147,000
Construction Costs	\$ 115,400,000
<b>Total Construction Costs</b>	<b>\$ 192,789,000</b>

### Project Impact Summary

The proposed improvements primarily consist of widening US 64, constructing interchanges at Laura Duncan Road and Lake Pine Drive, replacing the CSX railroad bridge over US 64, constructing a grade-separated modified quadrant intersection at Edinburgh Drive, and operational improvements along Pine Plaza Drive and Old Raleigh Road. Table 7 summarizes the likely impacts to the natural and human environment due to the proposed improvements.

**Table 7: Impact Matrix for Recommended Improvements**

Resource		Recommended Alternative (Impacts)
Relocations*	Residential	2
	Business	17
	Non-profit	0
	<b>Total</b>	<b>19</b>
Minority/Low-Income Populations (Disproportionate Impacts)		None
Historic Properties (Adverse Effects)		None
Community Facilities Impacts		None
Section 4(f) Resources Impact		None
Noise Receptor Impacts		102
Prime Farmlands (acres)		N/A
Underground Storage Tanks Impacts		4
Streams (linear feet)		550
Wetlands (acres)		0.31
Neuse River Buffer Impacts (square feet)	Zone 1	50,560
	Zone 2	52,080
	<b>Total</b>	<b>102,640</b>
Federally Protected Species		Yes (see Table 8)

\*Detailed Relocation Report located in Appendix C.

**F. Project Impact Criteria Checklists:**

<u>Type III Actions</u>		Yes	No
If the proposed improvement is identified as a Type III Class of Action answer all questions. <ul style="list-style-type: none"> <li>• The Categorical Exclusion will require FHWA approval.</li> <li>• If any questions are marked “yes” then additional information will be required for those question in Section G.</li> </ul>			
1	Does the project involve potential effects on species listed with the US Fish and Wildlife Service (USFWS) or National Marine Fisheries (NMFS)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	Does the project result in impacts subject to the conditions of the Bald and Golden Eagle Protection Act (BGPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Does the project generate substantial controversy or public opposition, for any reason, following appropriate public involvement?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Does the project cause disproportionately high and adverse impacts relative to low-income and/or minority populations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5	Does the project involve substantial residential or commercial displacements or right of way acquisition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	Does the project include a determination under Section 4(f)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	Is a project-level analysis for direct, indirect, or cumulative effects required based on the NCDOT community studies screening tool?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	Is a project level air quality Mobile Source Air Toxics (MSAT) analysis required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	Is the project located in anadromous fish spawning waters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	Does the project impact waters classified as Outstanding Resource Water (ORW), High Quality Water (HQW), Water Supply Watershed Critical Areas, 303(d) listed impaired water bodies, buffer rules, or Submerged Aquatic Vegetation (SAV)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>



<u>Type III Actions (continued)</u>		Yes	No
11	Does the project impact waters of the United States in any of the designated mountain trout streams?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12	Does the project require a U.S. Army Corps of Engineers (USACE) Individual Section 404 Permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
13	Will the project require an easement from a Federal Energy Regulatory Commission (FERC) licensed facility?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14	Does the project include Section 106 of the National Historic Preservation Act (NHPA) effects determination other than a no effect, including archaeological remains? Are there project commitments identified?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15	Does the project involve hazardous materials and/or landfills?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16	Does the project require work encroaching and adversely effecting a regulatory floodway or work affecting the base floodplain (100-year flood) elevations of a water course or lake, pursuant to Executive Order 11988 and 23 CFR 650 subpart A?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
17	Is the project in a Coastal Area Management Act (CAMA) county and substantially affects the coastal zone and/or any Area of Environmental Concern (AEC)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18	Does the project require a U.S. Coast Guard (USCG) permit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
19	Does the project involve construction activities in, across, or adjacent to a designated Wild and Scenic River present within the project area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
20	Does the project involve Coastal Barrier Resources Act (CBRA) resources?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
21	Does the project impact federal lands (e.g. USFS, USFWS, etc.) or Tribal Lands?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22	Does the project involve any changes in access control?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
23	Does the project have a permanent adverse effect on local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
24	Will maintenance of traffic cause substantial disruption?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
25	Is the project inconsistent with the STIP or the Metropolitan Planning Organization's (MPO's) Transportation Improvement Program (TIP) (where applicable)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
26	Does the project require the acquisition of lands under the protection of Section 6(f) of the Land and Water Conservation Act, the Federal Aid in Fish Restoration Act, the Federal Aid in Wildlife Restoration Act, Tennessee Valley Authority (TVA), Tribal Lands, or other unique areas or special lands that were acquired in fee or easement with public-use money and have deed restrictions or covenants on the property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
27	Does the project involve Federal Emergency Management Agency (FEMA) buyout properties under the Hazard Mitigation Grant Program (HMGP)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
28	Is the project considered a Type I under the NCDOT's Noise Policy?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
29	Is there prime or important farmland soil impacted by this project as defined by the Farmland Protection Policy Act (FPPA)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Type III Actions (continued)		Yes	No
30	Are there other issues that arose during the project development process that effected the project decision?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## G. Additional Documentation as Required from Section F

### *Question #1 Effects on USFWS or NMFS-listed Species*

As of July 2017, the United States Fish and Wildlife Service (USFWS) lists four federally protected species for Wake County found within the project area (see Table 8). Following is a brief description of each species' habitat requirements, as well as the Biological Conclusion rendered based on field observation and survey results in the study area. Habitat requirements for each species are based on best available information from the USFWS.

**Table 8: Threatened and Endangered Species**

Scientific Name	Common Name	Federal Status	Habitat Present	Biological Conclusion
<i>Alasmidonta heterodon</i>	Dwarf wedgemussel	E	TBD	Unresolved
<i>Elliptio lanceolata</i>	Yellow Lance	T	TBD	Unresolved
<i>Myotis septentrionalis</i>	Northern long-eared bat	T	Yes	MALAA
<i>Picoides borealis</i>	Red-cockaded woodpecker	E	No	No effect
<i>Rhus michauxii</i>	Michaux's sumac	E	Yes	No effect

Dwarf wedge mussel (Biological Conclusion: Unresolved) - A review of NCNHP Natural Heritage Element Occurrences (NHEO) update April 2019 indicates no known occurrences of dwarf wedgemussel within 1.0 miles of the study area. Habitat assessments will be done, and necessary surveys will be conducted by a permitted aquatic biologist. Therefore, the biological conclusion is Unresolved.

Yellow lance (Biological Conclusion: Unresolved) - A review of NCNHP NHEO updated April 2019 indicates no known occurrences of yellow lance within 1.0 mile of the study area. Habitat assessments will be done, and necessary surveys will be conducted by a permitted aquatic biologist. Therefore, the biological conclusion is Unresolved.

### Northern long-eared bat (Biological Conclusion: May Affect Likely to Adversely Affect)

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-5301 is located. This level of incidental take is authorized from the effective date of a final listing determination through April 30, 2020. A

review of NCNHP NHEO records updated April 2019 indicates no known occurrences of NLEB within 1.0 miles of the study area.

*Question #10 River Buffer Impacts*

Streamside riparian zones along Swift Creek, Williams Creek, MacGregor Downs Lake Creek, and 29 unnamed streams in the project study area are subject to Neuse River Buffer Rules. The project will impact approximately 102,640 square feet of Neuse River Riparian Buffer.

*Question #15 Hazardous Materials*

The proposed improvements will result in direct impacts to three (3) active gas stations and one former gas station that still has storage tanks on the property. These facilities are clustered around the proposed Laura Duncan Road and Lake Pine Drive interchanges.

*Question #16 100-Year Flood Elevations*

The recommended alternative will impact floodways along Swift Creek due to encroachment of the roadway fill, it is anticipated that a Memorandum of Agreements (MOA) or Conditional Letters of Map Revision (CLOMRs) will be required at all sites.

*Question #22 Access Control Changes*

Currently, there is no control of access along US 64 from Laura Duncan Road to US 1. The project proposes to construct interchanges at Laura Duncan Road and Lake Pine Drive. Full control of access would be implemented from west of the Laura Duncan Road interchange and to east of the Lake Pine Drive interchange. Also, control of access would be implemented along portions of Laura Duncan Road and Lake Pine Drive north and south of the interchanges. Lastly, control of access would be implemented along US 64, east of Lake Pine Drive at the U-turn bulbs and in the vicinity of the Edinburgh Drive grade separation.

*Question #24 Maintenance of Traffic*

The project will construct interchanges at locations where at-grade locations currently exist and lower sections of US 64 in multiple locations. Additionally, existing intersections will be converted to reduced conflict intersections. This will need to occur while maintaining a minimum number of through lanes along US 64 and cross streets to safely accommodate traffic. Temporary closures of Laura Duncan Road and Lake Pine Drive at US 64 will be alternated to expedite the construction of the interchanges. Lane closures and off-site detours will be developed and signed to assist travelers. The lane closures and detours will result in disruption of travel patterns for commuters, residents, businesses, as well as student, parents, buses, and staff to and from Apex High School. A detailed traffic control plan will be developed prior to construction in order to assist local planners, Wake County Public Schools, and EMS in identifying impacts to the services they provide.

## Question # 28 Highway Traffic Noise Impacts

### Traffic Noise Impacts

The maximum number of receptors in each project alternative predicted to become impacted by future traffic noise is shown in the table below. Table 9 includes those receptors expected to experience traffic noise impacts by either approaching or exceeding the FHWA Noise Abatement Criteria or by a substantial increase in exterior noise levels as defined in the NCDOT Traffic Noise Policy.

**Table 9: Predicted Traffic Noise Impacts by Alternative<sup>1</sup>**

Alternative	Residential (NAC B)	Places of Worship/Schools, Parks, etc. (NAC C & D)	Businesses (NAC E)	Total
Build	99	2 <sup>2</sup>	1	102

1. Per TNM 2.5 and in accordance with 23 CFR Part 772

2. Impacted equivalent receptors for the proposed tennis courts at Apex High School were rounded up to equal one (1) receptor.

### Traffic Noise Abatement Measures

Measures for reducing or eliminating the traffic noise impacts, including noise barriers, were considered for all impacted receptors in each alternative. Noise barriers include two basic types: earthen berms and noise walls. These structures act to diffract, absorb, and reflect highway traffic noise.

### Noise Barriers

A noise barrier evaluation was conducted for this project utilizing the Traffic Noise Model (TNM 2.5) software developed by the FHWA. Table 10 summarizes the results of the evaluation.

**Table 10: Preliminary Noise Barrier Evaluation Results**

NSA	Noise Barrier Location	Length / Height <sup>1</sup> (feet)	Square Footage	Number of Benefited Receptors	Square Feet per Benefited Receptor / Allowable Square Feet per Benefited Receptor	Preliminarily Feasible and Reasonable (“Likely”) for Construction <sup>2</sup>
NSA-3	NW 3 – south of US 64 at Bell Apex Apartments	1,050/25	26,248	35	750 / 1,500	Yes
NSA-5	NW 5 – south of US 64 between Laura Duncan Road and Shepherds Vineyard Drive	3,360/12	40,320	40	1,008/ 1,500	Yes
NSA-8	NW 8 – north of Pine Plaza Drive and west of Shepherds Vineyard Drive	657/25	16,433	27	685 / 1,500	No <sup>3</sup>
NSA-8	NW 8a – north of Pine Plaza Drive and east of Shepherds Vineyard Drive	478/25	11,947	17	703 / 1,500	No <sup>3</sup>
NSA-8	NW 8b – north of Pine Plaza Drive and along Lake Pine Drive	690/25	17,250	34	616/ 1,500	No <sup>3</sup>
NSA-13	NW 13 - north of US 64 and west of Mackenan Drive	1,530/12	36,715	8	4,589/1,500	No <sup>4</sup>
NSA-14	NW 14 - north of US 64 and between Mackenan Drive and Edinburgh Drive	3,582/12	43,254	33	1,311/1,500	Yes

<sup>1</sup>Average wall height. Actual wall height at any given location may be higher or lower.

<sup>2</sup>The likelihood of a barrier’s construction is preliminary and subject to change, pending completion of final design and the public involvement process.

<sup>3</sup>Barrier is not feasible due to utility and ROW conflicts.

<sup>4</sup>Barrier is not reasonable due to the quantity per benefited receptor exceeding the allowable quantity per benefited receptor.

A traffic noise evaluation was performed that identified three (3) noise barriers that preliminarily meet feasibility and reasonableness criteria found in the NCDOT Traffic Noise Policy. A more detailed analysis will be completed during project final design. Noise barriers preliminarily found to be feasible and reasonable during the preliminary noise analysis may not be found to be feasible and reasonable during the final design noise analysis due to changes in proposed project alignment and other design considerations, surrounding land use development, or utility conflicts, among other factors. Conversely, noise barriers that preliminarily were not considered feasible and reasonable may meet the established criteria and be recommended for construction. This evaluation was conducted in accordance with the highway traffic noise requirements of Title 23 CFR Part 772.

In accordance with NCDOT Traffic Noise Policy, the Federal/State governments are not responsible for providing noise abatement measures for new development for which building permits are issued after the Date of Public Knowledge. The Date of Public Knowledge of the proposed highway project will be the approval date of the Categorical Exclusion (CE). NCDOT

strongly advocates the planning, design and construction of noise-compatible development and encourages its practice among planners, building officials, developers and others.

## H. Project Commitments

**Wake County  
US 64 Improvements in Apex and Cary  
Federal Project No. NHS-0064(141)  
WBS No. 47018.1.1  
TIP No. U-5301**

All commitments developed during the project development phase of the project are listed below:

### **NCDOT Biological Surveys Unit and Project Management Unit– Threatened and Endangered Species Surveys**

The biological conclusion for the Dwarf wedge mussel and the Yellow lance is Unresolved. Prior to project right-of-way authorization, habitat assessments and surveys will be completed by a permitted aquatic biologist.

### **NCDOT Division 5 Resident Engineer – Offsite Detours and Traffic Management**

The Resident Engineer will coordinate with the following agencies at least one month prior to any road closures or implementation of offsite detours:

- Town of Apex EMS: 919-363-1577
- Town of Apex Transportation: 919-249-3358
- Town of Cary EMS: 919-380-6909
- Town of Cary Transportation: 919-469-4030
- Wake County Emergency Management: 919-856-6480
- Wake County Emergency Medical Services: 919-586-6020
- Wake County Public Schools Transportation: 919-805-3030

### **Roadway Design and NCDOT Project Management Unit – Town of Apex**

There will be coordination with the Town of Apex to finalize the bicycle and pedestrian accommodations that are requested along Laura Duncan Road, Lake Pine Drive, Old Raleigh Road, and Shepherds Vineyard Drive. Once finalized, the additional bicycle and pedestrian accommodations will be included in a municipal agreement between NCDOT and the Town of Apex.

### **Roadway Design and NCDOT Project Management Unit– Town of Cary**

There will be coordination with the Town of Cary to finalize bicycle and pedestrian accommodations that are requested to be included along Old Raleigh Road, Edinburgh S. Drive, and Edinburgh Drive. Once finalized, the additional bicycle and pedestrian accommodations will be included in a municipal agreement between NCDOT and the Town of Cary.

**NCDOT Project Management Unit, Division 5 and Roadside Environmental Unit – Landscaping and Aesthetics**

There will be coordination with the Wake County Planning, Development, and Inspections Department and the Towns of Cary and Apex to develop a final landscaping and aesthetics enhancement plan. The improvements will be included in separate municipal agreements between NCDOT, the Towns of Apex and Cary, and Wake County.

**NCDOT Geo-Environmental Unit – Underground Storage Tanks (USTs)**

The project will result in impacts to USTs. NCDOT will conduct preliminary site assessments for soil and groundwater contamination prior to right of way acquisition.

**Hydraulic Unit – FEMA Coordination**

The Hydraulics Unit will coordinate with the NC Floodplain Mapping Program (FMP), to determine status of project with regard to applicability of NCDOT'S Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

**Division 5 Resident Engineer-FEMA**

This project involves construction activities on or adjacent to FEMA-regulated stream(s). Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structure(s) and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.



I. Categorical Exclusion Approval

STIP Project No.	<b>U-5301</b>
WBS Element	<b>47018.1.1</b>
Federal Project No.	<b>NHS-0064(141)</b>

**Prepared By:**


8/7/2019	<small>DocuSigned by:</small>  <small>25C647E3846B465...</small>
Date	Ryan L. White, P.E. Consultant Project Manager Stantec Consulting Services, Inc.

**Prepared For:**

United States Department of Transportation  
 Federal Highway Administration  
 And

**Reviewed By:**

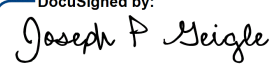
North Carolina Department of Transportation

8/7/2019	<small>DocuSigned by:</small>  <small>48B1AAF4334D403...</small>
Date	Pam Williams. Team Lead – Divisions 5 & 8 NCDOT Project Management Unit

NCDOT certifies that the proposed action qualifies as a Type III Categorical Exclusion.

8/7/2019	<small>DocuSigned by:</small>  <small>33883EEFD0E44D3...</small>
Date	Derrick Weaver, P.E. Environmental Policy Unit Head North Carolina Department of Transportation

FHWA Approval:

8/7/2019	<small>DocuSigned by:</small>  <small>6AEB065DA8E14G7...</small>
Date	John F. Sullivan, III, PE, Division Administrator Federal Highway Administration

# APPENDIX A: RECOMMENDED IMPROVEMENTS

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MATCHLINE EXHIBIT 3

EXTEND LANE DROP TO N. SALEM STREET EXIT

TEMPORARY & PERMENANT TRACK ALIGNMENT  
TEMPORARY & PERMENANT RR BRIDGE

PROPOSED ROUNDABOUTS

TRADITIONAL INTERSECTION IMPROVEMENT

LOWERING AND IMPROVEMENTS

BEGIN PROJECT

NSA - 3

TIGHT DIAMOND INTERCHANGE

APEX HIGH SCHOOL

PARALLEL ACCESS ROAD TO COSTCO LOADING DOCK

NICHOLS PLAZA

NSA - 5

US 64 BRIDGES OVER SHEPHERDS VINEYARD DR

LAKE PINE PLAZA

NSA - 8

MATCHLINE EXHIBIT 2

**LEGEND**

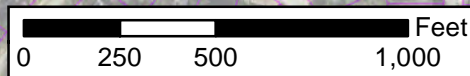
**Prop Improvements**

- Prop EOT
- Prop Curb and Gutter or Conc Island
- Prop Paved Shoulder
- Prop Retaining Wall
- Prop Temp Track Alignment
- Prop Right of Way
- Prop Bridge

**Environmental Features**

- Jurisdictional Stream
- Wetland
- Noise Study Area (NSA)
- Property Boundaries

1 inch = 500 feet

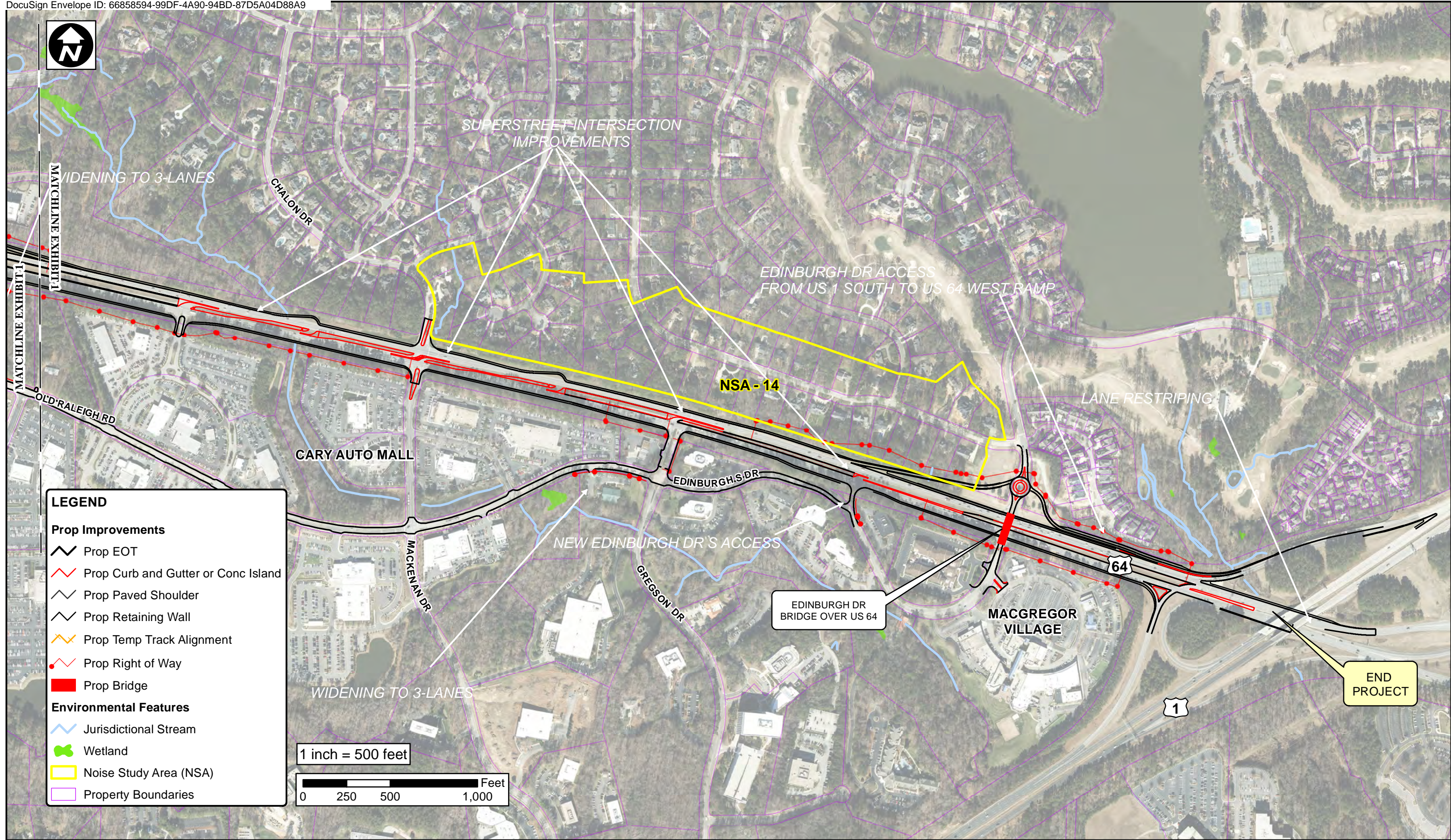


**US 64 IMPROVEMENTS**

WEST OF SR 1306 (LAURA DUNCAN ROAD) IN APEX TO US 1 IN CARY  
WAKE COUNTY

EXHIBIT 1  
RECOMMENDED IMPROVEMENTS












**US 64 IMPROVEMENTS  
WEST OF SR 1306 (LAURA DUNCAN ROAD) IN APEX TO US 1 IN CARY  
WAKE COUNTY**

EXHIBIT 2  
RECOMMENDED IMPROVEMENTS






**LEGEND**

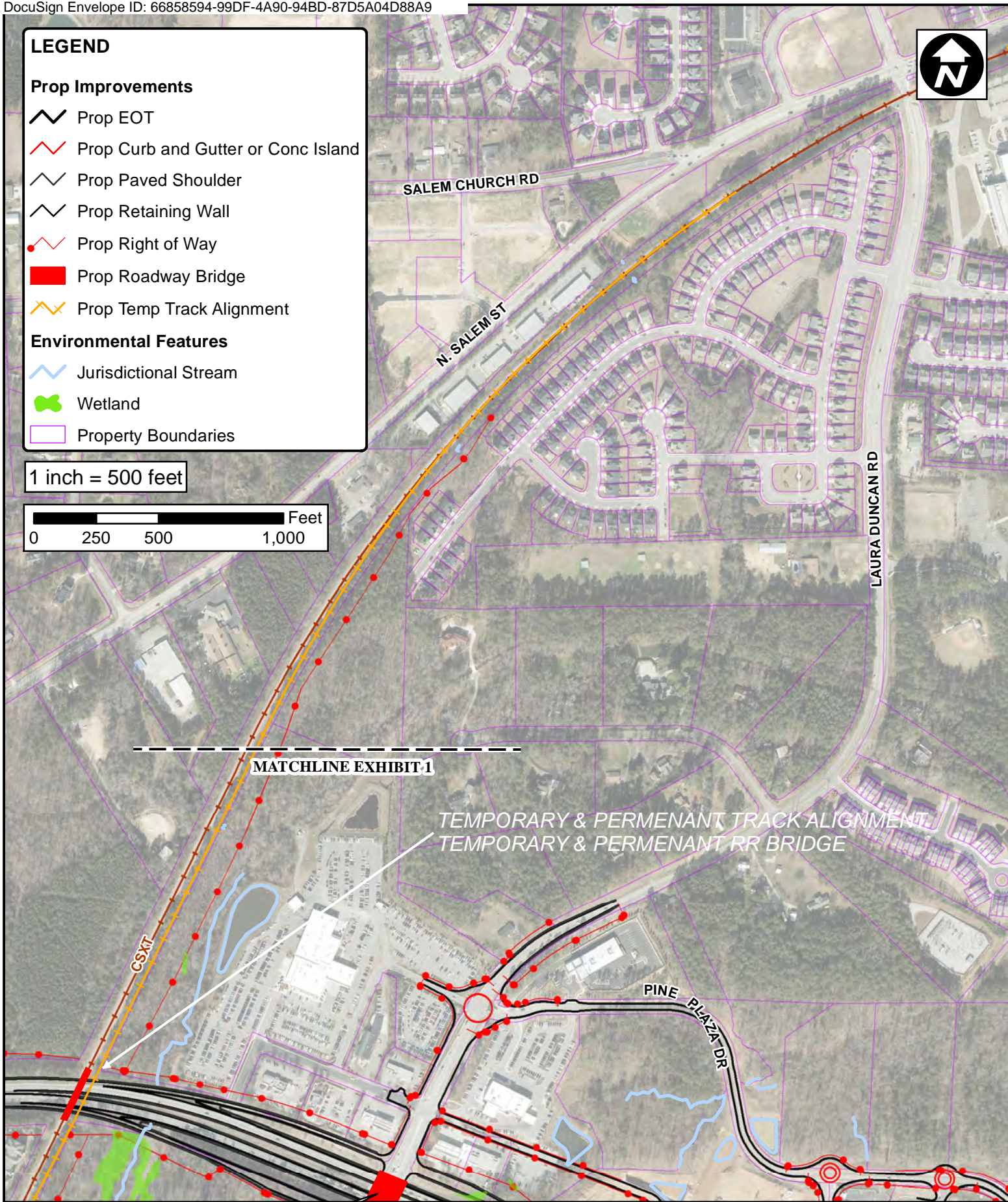
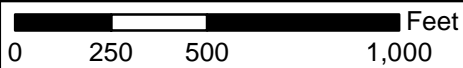
**Prop Improvements**

-  Prop EOT
-  Prop Curb and Gutter or Conc Island
-  Prop Paved Shoulder
-  Prop Retaining Wall
-  Prop Right of Way
-  Prop Roadway Bridge
-  Prop Temp Track Alignment

**Environmental Features**

-  Jurisdictional Stream
-  Wetland
-  Property Boundaries

1 inch = 500 feet



**US 64 IMPROVEMENTS  
WEST OF SR 1306 (LAURA DUNCAN ROAD) IN APEX TO US 1 IN CARY  
WAKE COUNTY**

**EXHIBIT 3  
RECOMMENDED  
IMPROVEMENTS**

## **APPENDIX B: AGENCY CORRESPONDENCE**

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## White, Ryan

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**From:** Alsmeyer, Eric C CIV USARMY CESAW (US) <Eric.C.Alsmeyer@usace.army.mil>  
**Sent:** Friday, June 30, 2017 2:29 PM  
**To:** White, Ryan  
**Cc:** John Conforti jgonforti@ncdot.gov; Devens, Ted  
**Subject:** RE: U-5301 (US 64 Improvements, Cary-Apex): Merger Screening Meeting Follow-Up; AID SAW-2017-01360

Ryan: As we discussed by phone today, based on the information that is available, I concur that the Merger Process is not necessary for this project, and recommended reassembling at a later time for informal review of CP4A and 4B.

Please reply or call if you have any questions or if I may serve you in any other way.

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete the Customer Satisfaction Survey located at [http://corpsmapu.usace.army.mil/cm\\_apex/f?p=136:4:0](http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0).

Thank you,

*Eric*

Eric Alsmeyer  
Project Manager

Regulatory Division Office  
US Army Corps of Engineers, Wilmington District  
3331 Heritage Trade Drive, Suite 105, Wake Forest, NC 27587  
Tel: (919) 554-4884, x23  
Fax: (919) 562-0421  
Regulatory Homepage: <http://www.saw.usace.army.mil/Missions/RegulatoryPermitProgram.aspx>



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**From:** White, Ryan [mailto:Ryan.White@stantec.com]  
**Sent:** Thursday, June 29, 2017 11:14 PM  
**To:** Alsmeyer, Eric C CIV USARMY CESAW (US) <Eric.C.Alsmeyer@usace.army.mil>  
**Cc:** John Conforti jgonforti@ncdot.gov <jgonforti@ncdot.gov>; Devens, Ted <Ted.Devens@stantec.com>  
**Subject:** [Non-DoD Source] U-5301 (US 64 Improvements, Cary-Apex): Merger Screening Meeting Follow-Up

Eric,

I hope that all is well. I am the Deputy Project Manager for the subject project. I would like to schedule a follow-up meeting to further discuss the need for U-5301 to be included in the NEPA/404 Merger Process. Please let me know your availability over the next few weeks so I can coordinate with our NCDOT Project Manager and get the meeting scheduled.

Thank you for your time and I look forward to working with you on this necessary transportation improvement.

**Ryan L. White, P.E.**

Senior Transportation Engineer

Stantec

801 Jones Franklin Road Suite 300, Raleigh NC 27606-3394

Phone: (919) 865-7374

Cell: (919) 239-5372

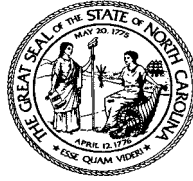
ryan.white@stantec.com



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 Please consider the environment before printing this email.





**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 27, 2017

Ryan White  
Stantec  
801 Jones Franklin Road, Suite 300  
Raleigh, NC 27606-3394

Re: US 64 Improvements from west of SR 1613, Davis Drive, in Apex, to US 1 in Cary, U-5301, Wake County, ER 17-0559

Dear Mr. White:

Thank you for your email of March 21, 2017, concerning the above project.

Our records find archaeological sites 31WA688, 31WA689, and 31WA690, within the footprint of the proposed improvements in about the middle of the route. Recorded in 1990 during an archaeological survey (OSA Bibliography #2715) for the widening of US 64, R-2318, these prehistoric-period sites were evaluated as not eligible for the National Register of Historic Places, with no further work recommended.

Although the current project APE depicts a wider corridor than that surveyed in 1990, we consider it unlikely that significant archaeological sites would be found within it.

We, therefore, recommend that no archaeological investigation be conducted in connection with this project. This recommendation is based on the results of the 1990 archaeological survey and the amount of development and resulting ground disturbance that has occurred in the area since then.

We have determined that the project as proposed will not have an effect on any historic structures.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579 or [environmental.review@ncdcr.gov](mailto:environmental.review@ncdcr.gov). In all future communication concerning this project, please cite the above referenced tracking number.

Sincerely,

A handwritten signature in blue ink that reads "Renee Gledhill-Earley".

Ramona M. Bartos

cc: John Conforti, NCDOT, [jgconforti@ncdot.gov](mailto:jgconforti@ncdot.gov)  
Ted Devens, Stantec, [Ted.devens@stantec.com](mailto:Ted.devens@stantec.com)  
Matt Wilkerson, NCDOT, [mtwilkerson@ncdot.gov](mailto:mtwilkerson@ncdot.gov)

# APPENDIX C: RELOCATION REPORT

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# EIS RELOCATION REPORT

**North Carolina Department of Transportation  
RELOCATION ASSISTANCE PROGRAM**

E.I.S.     CORRIDOR     DESIGN

<b>WBS ELEMENT:</b>		<b>COUNTY</b>	Wake	<b>Alt 2B</b>
<b>T.I.P. No.:</b>	U-5301			
<b>DESCRIPTION OF PROJECT:</b> US 64 Proposed Improvements between Laura Duncan Road in Apex and US 1 in Cary				

ESTIMATED DISPLACED					INCOME LEVEL					
Type of Displacees	Owners	Tenants	Total	Minorities	0-15M	15-25M	25-35M	35-50M	50 UP	
Residential	2	0	2	0	0	0	0	0	2	
Businesses	4	13	17	2	VALUE OF DWELLING				DSS DWELLING AVAILABLE	
Farms	0	0	0	0	Owners		Tenants		For Sale	
Non-Profit	0	0	0	0	0-20M	0	\$ 0-150	0	0-20M	0
					20-40M	0	150-250	0	20-40M	0
					40-70M	0	250-400	0	40-70M	0
					70-100M	0	400-600	0	70-100M	2
					100 UP	2	600 UP	0	100 UP	20+
					<b>TOTAL</b>	<b>2</b>		<b>0</b>		<b>22+</b>

ANSWER ALL QUESTIONS			REMARKS (Respond by number)
Yes	No	Explain all "YES" answers.	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1. Will special relocation services be necessary?	<p>2. Primrose School (Preschool &amp; Care) will be relocated</p> <p>3. Overall market of business services will remain available</p> <p>4. 17 businesses will be displaced.</p> <p>- <b>Parcel 7: Taco Bell:</b> 2,700 sf, restaurant, 20 employees, 10 minorities</p> <p>- <b>Parcel 8: Mobil Gas Station:</b> 2000 sf plus canopy, 5 employees, 3 minorities</p> <p>- <b>Parcel 13: BP Gas &amp; Circle K Food Mart,</b> 3,120 sf plus canopy, 5 employees 2 minorities</p> <p>- <b>Parcel 14: Sherwin- Williams Paint Store,</b> about 5500 sf, 6 employees, 2 minorities</p> <p>- <b>Parcel 14: ISOTOLP Fitness,</b> about 2000 sf, Fitness Center, 2 employees, 0 minorities</p> <p>- <b>Parcel 15: Primrose School,</b> Preschool and Daycare, 11,560 sf, 176 students, 35 employees, 20 minorities</p> <p>- <b>Parcel 60: Dollinger &amp; Tove,</b> Medical Office, 6,000 sf, 4 employees, 0 minorities</p> <p>- <b>Parcel 62: Apex General Dentistry,</b> 2200 sf, 6 employees, 1 minority</p> <p>- <b>Parcel 62: Central Carolina Oral and Maxillofacial Surgery,</b> 2200 sf, 7 employees, 0 minorities</p> <p>- <b>Parcel 63: Car Wash- new construction,</b> ~2500 sf, 3 employees</p> <p>- <b>Parcel 64: Wendy's,</b> 2,800 sf, restaurant, 20 employees, 10 minorities</p> <p>- <b>Parcel 74: McDonald's, Amoco Gas, and Car Wash</b> (count 2 relocations), 5000 sf, plus canopy and car wash, 25 employees, 10 minorities;</p> <p>- <b>Parcel 77: Town of Apex,</b> 525 sf possible utilities building, 2 employees, 0 minorities;</p> <p>- <b>Parcel 80: Woody's Furniture,</b> 25000 sf, retail, 8 employees, 2 minorities;</p> <p>- <b>Parcel 80- Peak Auto,</b> car repair, 20000 sf, 4 employees, 1 minority</p> <p>- <b>Parcel 81- Time Warner Cable,</b> utilities, various structures approx. 3000 sf and cell tower, 5 employees</p> <p>8. As required by law.</p> <p>11. Public Housing is available in Wake County</p> <p>12. Although RHP may be necessary given property values in the surrounding area, there is an abundance of DSS Housing.</p> <p>14. Overall business location market is ample according to Zillow and Tax Records.</p>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. Will schools or churches be affected by displacement?	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. Will business services still be available after project?	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. Will any business be displaced? If so, indicate size, type, estimated number of employees, minorities, etc.	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	5. Will relocation cause a housing shortage?	
		6. Source for available housing (list).	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	7. Will additional housing programs be needed?	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	8. Should Last Resort Housing be considered?	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	9. Are there large, disabled, elderly, etc. families?	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	10. Will public housing be needed for project?	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	11. Is public housing available?	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	12. Is it felt there will be adequate DSS housing available during relocation period?	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	13. Will there be a problem of housing within financial means?	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	14. Are suitable business sites available (list source).	
		15. Number months estimated to complete RELOCATION? <b>18</b>	

Right of Way Agent	1/16/19 Date	Relocation Coordinator	01/18/2019 Date
--------------------	-----------------	------------------------	--------------------