U-5825 WBS 44396.1.1 **STIP Project U-5825**

Administrative Action

State Environmental Assessment and Finding of No Significant Impact

Wake County, North Carolina
Widen SR 1010 (Ten Ten Road) from Apex Peakway, Town of Apex, to SR 1300 (Kildaire Farm Road), Town of Cary.

PREPARED FOR

N.C. Department of Transportation Division of Highways

Submitted pursuant to North Carolina State Environmental Policy Act

SR 1010 (Ten Ten Road) Widening
From Apex Peakway to SR 1300 (Kildaire Farm Road)
Wake County, North Carolina
WBS 44396.1.1
STIP Project No. U-5825

Administrative Action
State Environmental Assessment/Finding of No Significant Impact

June 2019

DOCUMENT PREPARED BY VHB ENGINEERING NC, P.C.

6/27/2019
Date

DocuSigned by:
Lauren Triebert
2A53D71008FA404...
Lauren Triebert, PE
Project Manager
VHB Engineering NC, P.C.

6/28/2019
Date

DocuSigned by:
Tim Goins
0D0C7811F8E94F1...
Tim Goins, PE
Project Engineer
VHB Engineering NC, P.C.

FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION.

6/27/2019
Date

DocuSigned by:
Zahid Baloch
5F9297F958C0481...
Zahid Baloch, PE
Project Planning Engineer
NCDOT Division 5

6/27/2019
Date

DocuSigned by:
Ben Upshaw
CD6EB110D6E54E5...
for Joey Hopkins, PE
Division Engineer
NCDOT Division 5

PROJECT COMMITMENTS

Widen SR 1010 (Ten Ten Road) from SR 1300 (Kildaire Farm Road)
to Apex Peakway to Multi-lanes

The following special commitments have been agreed to by NCDOT:

Division 5

- A pre-application meeting with the US Army Corps of Engineers (USACE) and NC Department of Water Resources (NCDWR) will be scheduled prior to permit applications being submitted.
- A detailed traffic maintenance plan will be prepared during final design.
- After project completion, the contract administrator for construction must submit the actual amount of tree clearing reported in tenths of acres to the appropriate NCDOT website to confirm compliance with the NLEB PBO.
- On May 21, 2019, the Neuse River waterdog (Necturus lewisi) and Carolina madtom (Noturus furiosus) were proposed for listing under the Endangered Species Act. The Neuse River waterdog is proposed for listing as Threatened and the Carolina madtom is proposed for listing as Endangered. The biological conclusion for these species is Unresolved. Surveys for both species will be conducted (and any consultation required under Section 7 of the Endangered Species Act) prior to the start of project construction.

Geotechnical Engineering Unit

- Field verification of known hazardous waste sites and identification of unknown sites will be performed during final design and prior to right-of-way acquisition.

Table of Contents

Appendices

Appendix A: Figures

Appendix B: Cultural Resources Correspondence

Appendix C: Preliminary Designs

Appendix D: Public Meeting Materials

List of Figures

List of Tables

1

Description of Proposed Action

The North Carolina Department of Transportation (NCDOT), Division 5, proposes to widen SR 1010 (Ten Ten Road) from SR 1300 (Kildaire Farm Road) in the Town of Cary to Apex Peakway in the Town of Apex, in southwestern Wake County (Figure 1 Project Vicinity Map – in Appendix A). The proposed project is included in the NCDOT 2018-2027 State Transportation Improvement Program (2018-2027 STIP) as U-5825.

This environmental document has been prepared in accordance with the North Carolina Environmental Policy Act of 1971 (SEPA) and is intended for use by both decision makers and the public. It includes the disclosure of relevant environmental information regarding the proposed project.

The length of this project is approximately 3.3 miles (Figure 2 Study Area Map – in Appendix A), extending from Apex Peakway in Apex to Kildaire Farm Road in Cary. The proposed project improvements include widening to a four lane, median divided, curb and gutter facility with 11-foot lanes, 5-foot bike lanes, 5-foot sidewalks and a 10-foot asphalt multiuse path (MUP) on the northern segment, spanning from Apex Peakway to Penny Road. Both sides of the roadway will have sidewalks southeast of Penny Road. This project also includes improving the interchange bridge over US Highway 1.

This project is funded by the State Highway Trust Fund. The 2018 estimated cost of STIP U-5825 is $87.1 million, which includes $36.7 million for right of way (ROW) acquisition, $4.6 million for utility relocation and $45.7 million for construction.

The basic construction elements for the project include:

- Adding eastbound and westbound through travel lanes along SR 1010;
- Adding a median between eastbound and westbound lanes;

- Adding a multiuse path along the north side of the corridor between Apex Peakway and Penny Road;
- Adding sidewalks along the entire south side of the corridor, and the north side from Penny Road to Kildaire Farm Road, to accommodate pedestrians;
- Adding an exclusive bicycle lane in both directions to accommodate bicyclists; and
- Improve the interchange bridge over U.S. 1.

Existing SR 1010 is classified as a Minor Arterial. The existing right-of-way on SR 1010 ranges from 60 to 110 feet throughout the project corridor. Approximately 100 to 130 feet of right-of-way would be required to accommodate the proposed improvements, so right-of-way acquisition is expected as part of this project. Currently, access is not controlled along SR 1010. The bridge over U.S. Highway 1 is structurally deficient and functionally obsolete, requiring replacement as part of the project. The proposed project includes construction of a median between eastbound and westbound lanes. Four different typical sections would be constructed throughout the corridor, as depicted in Figure 3 in Appendix A. From Apex Peakway to U.S. 1, four through lanes will be constructed, two bicycle lanes, one sidewalk and one multiuse path. The road will then widen to six lanes, continuing the two bicycle lanes, one sidewalk and one multiuse path from U.S. 1 to Penny Road. The next typical section will consist of five lanes (two westbound lanes, three eastbound lanes), two bicycle lanes and sidewalk on each side of the corridor along Penny Road to Smith Road. Finally, the typical section would return to four through lanes with bicycle lanes, however there would be sidewalk on each side, from Smith Road to Kildaire Farm Road.

2

Purpose and Need for the Proposed Action

Project Purpose

The purpose of the proposed project is to improve traffic flow and reduce travel delay and congestion along existing SR 1010 to improve traffic operations with a goal of Level of Service (LOS) D at signalized intersections in the 2040 design year.

Project Need

The proposed project is needed due to transportation deficiencies resulting in existing delays and congestion along SR 1010.[1] The 2016 estimated Annual Average Daily Traffic (AADT) volumes for the project corridor range between 19,200 to 30,000 vehicles per day (vpd). Most of SR 1010 currently operates below LOS D during peak hours. In the absence of the proposed project, traffic volumes are expected to increase, ranging from 22,200 to 39,800 vehicles per day. By the design year, 2040, traffic volumes along the project corridor are estimated to range between 32,800 and 57,400 vpd with the project constructed. LOS F will occur at most signalized and unsignalized intersections along the corridor, resulting in significant delays and congestion for the users.

Traffic Operations

Existing condition (2016) results, detailed in the *Traffic Capacity Memo* (June 2017), indicate that all intersections along the project corridor are operating at unacceptable levels of service (LOS) (i.e., below LOS D), with one exception at Smith Road (signalized), which operates at LOS C for both peak periods.

The Design Year (2040) No-Action condition indicated that the AM and PM overall intersection delays increase by approximately 10-40 seconds during both peaks, reducing operations at most intersection to LOS F during both AM and PM peaks.

---

[1] A highway facility is deficient when it is unable to safely and efficiently satisfy travel demand because of the amount of traffic using the facility, the inadequate roadway width to carry the traffic, and/or safety concerns.

Secondary Benefits

In addition to relieving congestion and improving traffic flow, the proposed project will also improve safety along the corridor. With the implementation of a median, turning movements will be localized which will reduce the potential for collisions of turning vehicles. Bicycle and pedestrian accommodations are also included with this project. By providing an exclusive bicycle lane, bicyclists on the road will no longer have to share main through lanes with moving vehicles. Additionally, the inclusion of a multiuse path will allow recreational riders to be completely separated from vehicle traffic for much of the corridor. The project will also create a continuous pedestrian link along the corridor, improving the incomplete sidewalk network that exists today.

Crash Data

Crash data was provided by the NCDOT Traffic Safety Unit for the Ten Ten Road corridor from SR 1306 (Schieffelin Road/Apex Peakway) to SR 1300 (Kildaire Farm Road) for the five-year period from March 1, 2011 to February 29, 2016 (see Table 1 below). An analysis of the data is included in the *Traffic Capacity Memo* (June 2017). There was a total of 351 crashes along the Ten Ten Road corridor during this period. No fatalities occurred during the study period; however, three (3) pedestrian crashes were recorded along this section of Ten Ten Road. As shown in Table 2, 50% of all crashes were rear end, slow or stop collisions, which are typically associated with stop-and-go conditions along congested corridors.

Table 1: SR 1010 (Ten Ten Road) Corridor Crashes (March 2011-February 2016)

Rate	Crashes	Crashes per 100 MVM	Statewide Rate[2]	Critical Rate[3]
Total	351	243.04	324.59	349.60
Fatal	0	0.00	1.66	3.77
Non-Fatal Injury	92	63.70	99.33	113.32
Night	71	49.16	74.81	87.00
Wet	44	30.47	60.4	71.38

---

[2] 2013-2015 statewide crash rate for urban 2-lane, continuous left turn lane for State Routes in North Carolina.

[3] Based on the statewide crash rate (95% level of confidence).

Table 2 Crash Type Summary

Crash Type	Crashes	%
Angle	43	12%
Backing Up	2	1%
Fixed Object	6	2%
Left Turn, Different Roadway	24	7%
Left Turn, Same Roadway	36	10%
Other Collision with Vehicle	2	1%
Ran off Road – Right	9	3%
Rear End, Slow or Stop	176	50%
Right Turn, Same Roadway	4	1%
Sideswipe, Opposite Direction	6	2%
Sideswipe, Same Direction	13	4%
Pedestrian	3	1%
Other	27	8%

3

Existing Corridor Inventory

Right of Way and Access Control

The existing right-of-way on SR 1010 ranges from 60 to 110 feet throughout the project corridor. There is currently no defined control of access along the corridor. Generally, parcels along SR 1010 have a single access driveway, but this varies. Proximate to the U.S. 1 interchange, there are minimal driveways, but the access is not formally controlled by NCDOT.

Intersections

There is a mix of existing signalized and unsignalized intersections along the project corridor.

Existing Full Access Signalized Intersections

- Apex Peakway/ SR 1306 (Schieffelin Rd)
- U.S. 1 SB Ramps/Waterford Green Drive
- SR 1444 (Lufkin Road)/U.S. 1 NB Ramps
- SR 4070 (Reliance Avenue)
- SR 1303 (Smith Road)
- SR 1300 (Kildaire Farm Road)

Existing Full Access Unsignalized Intersections

- Satinwood Drive
- Forest Grove Drive
- Old Grove Lane
- Myrtle Grove Lane
- Investment Boulevard
- Parkfield Drive
- SR 1306 (Schieffelin Road)
- Kiftsgate Lane
- Arbordale Court/MasTec Driveway
- Caterpillar Drive

- SR 1379 (Penny Road)
- SR 1304 (Jessie Drive)
- SR 4023 (Littleman Lane)

Structures

The U.S. 1 overpass bridge is the only major structure within the project limits. Originally constructed in 1959 as a steel multi-beam structure, this bridge is currently considered to be structurally deficient and functionally obsolete per the most recent NCDOT bridge inventory.

There are no hydrologic structures of 72" diameter or greater located along the corridor.

Existing U.S. 1 Overpass Bridge

Utilities

The following utilities were identified in the project study area:

- Duke Energy – Power Distribution and Transmission
- Town of Apex – Water & Sewer
- Town of Cary – Water & Sewer
- Colonial Pipeline – Petroleum Pipeline
- PSNC – Natural Gas
- AT&T – Fiber Optic and Copper Telecommunications
- Centurylink – Telecommunications
- MCNC – Telecommunications
- Charter/Spectrum – Telecommunications
- NCDOT – fiber optic / ITS

Multimodal Accommodations

There are sections of existing sidewalk along Ten Ten Road in the project limits. These sections are primarily located on the westbound side of the project corridor. A small section of sidewalk is located on the eastbound side of the project corridor in front of Sheetz. There are no greenways or existing bike lanes within the project limits; however, the corridor is part of NC Bike Route 5 (Cape Fear Run).

Transit Facilities

There are no transit routes that pass along the project corridor. The closest routes are Route 311 and 305 from GoTriangle, which have stops at Compare Foods on E. Williams Street, west of the project limits.

Other Transportation Projects in the Area

Ten projects programmed in the NCDOT 2018-2027 STIP are located within or near the project study area, as well as four Town/locally funded projects. Below is a list of projects, along with their right-of-way and construction year estimates. Figure 4 in Appendix A shows the location of these projects.

- **U-5301 –** Corridor upgrades and improvements to U.S. 64 from west of SR 1308 (Laura Duncan Road) to U.S. 1 in Apex and Cary. (Right-of-Way/Utilities – FY 2020; Construction – FY 2022)

- **U-5537** – Widen SR 1521 (Lake Pine Drive) to 3 lanes, north of MacGregor Pines Road to north of Versailles Drive. Includes 10 ft multi-use path on east side and 5 ft sidewalk on west side. (Construction – FY 2018)

- **EB-5893 –** Construct Swift Creek Greenway from SR 1521 (Lake Pine Drive) to Koka Booth Amphitheater in Cary. (Right-of-Way – FY 2023; Construction – FY 2025)

- **U-2901B –** Widen NC 55 (Williams Street), from US 1 to north of SR 1160 (Olive Chapel Road) in Apex, convert existing multi-lanes to median divided section and widen remaining 2-lane section to multi-lanes. (Right-of-Way and Utilities – FY 2019; Construction – FY 2021)

- **U-5928 –** Construct grade separated interchange for Apex Peakway at South Salem Street and CSX Railroad from James Street to Towhee Drive. (Construction – FY 2018)

- **U-5530 –** Pedestrian improvements from James Street to North Salem Street in Apex. Part of Capital Area MPO Bicycle, Pedestrian, Transit and Transportation Alternatives Program (TAP)

- **U-6066 –** Add lanes to U.S. 1 from NC 55 in Apex to U.S. 64 in Cary. (Right-of-Way/Utilities – FY 2024; Construction – FY 2026)

- **U-5981 –** Interchange improvements to U.S. 1/NC 55 interchange in Apex. Improve interchange and upgrade NC 55 northbound from SR 1444 (Lufkin Road) to U.S. 1. (Right-of-Way/Utilities – FY 2024; Construction – FY 2026)

- **EB-5895 –** Construct a sidewalk on NC 55 (East Williams Street) from SR 1301 (Sunset Lake Road) to NC 55 in Holly Springs. (Construction – FY 2019)

- **R-2721 –** Future route of NC 540 – New construction. (Right-of-Way, Utilities and Construction set to begin in FY 2019)

- **Jessie Drive Extension –** Extension from Jessie Drive to East Williams Street (NC 55).

- **Apex Peakway SE Connector –** Connector of Apex Peakway SE from NC 55 to Center Street in Apex.

- **Kildaire Farm and SW Cary Parkway –** Intersection improvements. (Construction to be completed Summer 2019)

- **Kildaire Farm and Advent Court –** Intersection improvements. (Right-of-Way and Utilities – Fall 2018 to Summer 2019; Construction – Summer 2019)

4

Alternative Development

No-Action Alternative

The No-Action Alternative serves as the baseline for comparing the potential impacts associated with the proposed action. The No-Action Alternative would include routine maintenance and road repairs to SR 1010 (Ten Ten Road) and account for other projects listed in NCDOT's 2018-2027 STIP and shown in Figure 4 in Appendix A. The No-Action Alternative would not reduce congestion and delay and would not address the proposed project's purpose and need. A failing LOS would occur at the evaluated project intersections, except Smith Road, under the No-Action Alternative.

Conventional Widening Alternative

The Conventional Widening Alternative takes into consideration the 2040 future year traffic conditions and the conventional widening of Center Street/Ten-Ten Road (SR 1010) along with other conventional intersection improvements that would take place along the length of the corridor. This design takes into consideration the projected future year traffic volumes associated with a widened SR 1010 (Ten Ten Road). Therefore, this alternative accounts for expected changes in travel patterns due to the added capacity along Ten-Ten Road as well as other changes in the surrounding roadway network.

Other Alternatives Considered

Preliminary alternatives considered included a superstreet corridor, Alternative Modes of Transportation, the Travel Demand Management Alternative (TDM), and the Transportation Systems Management (TSM) Alternative. These preliminary alternatives, which are briefly discussed below, would not address the proposed project's purpose and need and are therefore not carried forward in this document for detailed review.

Superstreet Widening Alternative

The Superstreet Alternative takes into consideration the 2040 future year traffic conditions with the addition of a superstreet system on Ten Ten Road between Apex Peakway/Schieffelin Road and Penny Road, except at the U.S. 1 interchange area. Conventional widening would take place between Penny

Road and Kildaire Farm Road. At the U.S. 1 interchange intersection, movement conflicts would be reduced, while improving traffic flow and simplifying signal operations at this location. The Superstreet Alternative also includes other intersection improvements where necessary, such as signalization and adding exclusive turn lanes. This alternative was designed based on the same traffic demand as the Conventional Widening Alternative, except the traffic was rerouted via the superstreet configurations at the affected intersections.

Based on the traffic capacity analysis results, there was no notable improvement in traffic operations between the conventional widening and superstreet alternative. Additionally, there was notable public opposition to the superstreet alternative. Because the impacts projected for the superstreet alternative (traffic operations, cost, right-of-way impacts, environmental effects) were not notably lower than the conventional widening alternative, it was eliminated from further evaluation.

Alternative Modes of Transportation

Mass transit (buses/trains) and bicycle/pedestrian accommodations are examples of alternative modes of transportation that may help reduce highway congestion and delay. GoTriangle Bus Route 311 currently stops near W. Williams Street and Hughes Street in Apex, which is northwest of the project area. Traffic congestion along Ten Ten Road would not be alleviated by taking bus transportation because no direct route through the project area is present. The proposed project includes construction of sidewalks and a multiuse path to accommodate both bicyclists and pedestrians. Providing accommodations for alternative modes of transportation alone would not address the purpose and need for the proposed project, still resulting in a failing peak hour LOS in the design year. Thus, this option was removed from further evaluation.

Travel Demand Management (TDM) Alternative

TDM measures, such as carpooling and alternative work schedules are potential ways to reduce congestion and delay. However, these measures are not controlled by NCDOT, and would not alone address the purpose and need for the proposed project.

Transportation Systems Management (TSM)

TSM improvements involve increasing the available capacity of a roadway within the existing right-of-way without reconstruction or installation of additional lanes to the existing road. Physical TSM improvements include striping, signalization, signing, and minor road realignments. Operational TSM improvements include signal timing changes and speed restrictions. TSM improvements alone would not address the purpose and need for the proposed project because a failing LOS would not be prevented without adding more through capacity.

Selection of Preferred Alternative

As mentioned previously, both the conventional widening and superstreet widening alternatives would meet the purpose and need for this project. The impacts projected for the Superstreet Alternative (traffic operations, cost, right-of-way impacts, environmental effects) were not notably lower than the conventional widening alternative; additionally, there was notable public opposition to the Superstreet Alternative. As such, the Conventional Widening Alternative, was selected as the preferred alternative to carry forward in project development, design and implementation.

5

Proposed Improvements for the Recommended Alternative

Proposed Right of Way and Access Control

Approximately 100 to 130 feet of total right-of-way would be required to accommodate the proposed improvements, requiring an additional 40-70 feet of right-of-way along the corridor. The project proposes partial control of access within the project limits.

Intersections

All intersections within the project limits will remain in place; no new intersections are proposed. However, with the construction of a median, many side-street intersections will be limited to right-in/right-out access or right-in/right-out/left-in access. Major cross streets will maintain full access.

Proposed Full Access Signalized Intersections

- Apex Peakway/ SR 1306 (Schieffelin Rd)
- U.S. 1 SB Ramps/Waterford Green Drive
- SR 1444 (Lufkin Road)/U.S. 1 NB Ramps
- SR 4070 (Reliance Avenue)
- SR 1379 (Penny Road, new signal)
- SR 1303 (Smith Road)
- SR 1300 (Kildaire Farm Road)

Proposed Full Access Unsignalized Intersections

- Satinwood Drive
- Old Grove Lane
- Investment Boulevard
- Arbordale Court/MasTec Driveway
- SR 1304 (Jessie Drive)

Proposed Partial Access Unsignalized Intersections

- Forest Grove Drive
- Myrtle Grove Lane
- Parkfield Drive
- SR 1306 (Schieffelin Road)
- Kiftsgate Lane
- SR 4023 (Littleman Lane)

Structures

The U.S. 1 overpass bridge will be replaced with a new, wider bridge to accommodate the roadway widening, as part of project. The bridge is expected to be replaced in its current location, widening to the south as needed. The replacement would be implemented through phased construction, maintaining at least one lane of through travel in each direction during construction. When the new portion to the south is built, traffic would be shifted to the new structure while the existing structure is replaced. The two portions would be joined together and opened as a single, wider bridge to complete the replacement process.

Traffic Operations

Based on the *Traffic Capacity Memo* (June 2017), the traffic operations within the Conventional Widening Alternative offer notable improvement compared to the No-Action Alternative. In 2040 with the proposed project, six of the seven signalized intersections are projected to operate at the goal level of LOS D or better during both peak hours; the remaining signalized intersection, Center Street at Apex Peakway, would operate at LOS D during the PM peak hour, but LOS E is projected during the AM peak. It is common to see LOS E or LOS F at unsignalized side streets during peak hour analyses. Often, the volumes on these approaches do not warrant signalization and would not benefit from additional lanes or widening. Of the six unsignalized intersections on the study corridor, only one is expected to operate at LOS D or better during both peak hours; all others would operate below LOS D during at least one peak hour.

Estimated Costs

Cost estimates for the proposed action are presented in Table 3 below.

Table 3: Project Cost Estimates

	ROW	Utilities	Construction	Total Cost
Proposed Action[1]	$36,737,000	$4,262,000	$45,700,000	$87,063,000

[1] Based on preliminary cost estimates, dated December 2018.

6

Environmental Effects

Natural Environment

For NCDOT projects, evaluation of natural resources includes physical resources, soils, biotic resources, water resources, wetlands, and federally protected species. This section provides a summary of the *Natural Resources Technical Report* for this project, dated October 2016 and November 2018[4]. Field investigations were conducted in the summer of 2016 and winter of 2018.[5]

Soils

The Web Soil Survey provided by the National Resources Conservation Service (NRCS) identifies thirty soil types within the study area as shown in Table 4.

Terrestrial Communities

Four terrestrial communities were identified in the study area: maintained/disturbed, pine forest, hardwood forest and field. Coverage of terrestrial communities within the study area are represented in Table 5 and Figure 5 in Appendix A.

---

[4] Two finalized NRTRs exist for the U-5825 project. The first NRTR was approved in 2016. The project study area was then expanded, and a new NRTR template was used to evaluate the expanded project study area (finalized in October 2018).

[5] Additional field investigations were conducted on the expanded project study area, and to confirm previous natural resources findings.

Table 4: Soils in the Study Area

Soil Series	Mapping Unit	Drainage Class	Hydric Status
Appling gravelly sandy loam, 2 to 6 % slopes	AgB	Well drained	Nonhydric
Appling gravelly sandy loam, 2 to 6 % slopes, moderately eroded	AgB2	Well drained	Nonhydric
Appling gravelly sandy loam, 6 to 10 % slopes, moderately eroded	AgC2	Well drained	Nonhydric
Appling sandy loam, 2 to 6% slopes	ApB	Well drained	Nonhydric
Appling sandy loam, 2 to 6% slopes, moderately eroded	ApB2	Well drained	Nonhydric
Appling sandy loam, 6 to 10% slopes, moderately eroded	ApC2	Well drained	Nonhydric
Appling sandy loam, 10 to 15% slopes,	ApD	Well drained	Nonhydric
Appling fine sandy loam, 2 to 6 % slopes, moderately eroded	AsB2	Well drained	Nonhydric
Appling fine sandy loam, 6 to 10 % slopes, moderately eroded	AsC2	Well drained	Nonhydric
Cecil sandy loam, 2 to 6% slopes, moderately eroded	CeB2	Well drained	Nonhydric
Cecil sandy loam, 6 to 10% slopes, moderately eroded	CeC2	Well drained	Nonhydric
Cecil gravelly sandy loam, 2 to 6% slopes, moderately eroded	CgB2	Well drained	Nonhydric
Cecil gravelly sandy loam, 6 to 10% slopes, moderately eroded	CgC2	Well drained	Nonhydric
Colfax sandy loam, 0 to 3% slopes	CnA	Somewhat poorly drained	Nonhydric
Enon fine sandy loam, 2 to 6 % slopes, moderately eroded	EnB2	Well drained	Nonhydric
Georgeville silt loam, 2 to 6% slopes, moderately eroded	GeB2	Well drained	Nonhydric
Georgeville silt loam, 6 to 10% slopes, moderately eroded	GeC2	Well drained	Nonhydric
Georgeville silt loam, 10 to 15% slopes, moderately eroded	GeD2	Well drained	Nonhydric
Granville sandy loam, 2 to 6% slopes, moderately eroded	GrB2	Well drained	Nonhydric
Herndon silt loam, 2 to 6% slopes, moderately eroded	HrB2	Well drained	Nonhydric
Herndon silt loam, 6 to 10% slopes, moderately eroded	HrC2	Well drained	Nonhydric
Herndon silt loam, 10 to 15% slopes, moderately eroded	HrD2	Well drained	Nonhydric
Mayodan sandy loam, 2 to 6% slopes	MfB	Well drained	Nonhydric
Mayodan sandy loam, 6 to 10% slopes	MfC	Well drained	Nonhydric
Mayodan sandy loam, 6 to 10% slopes, moderately eroded	MfC2	Well drained	Nonhydric
Mayodan gravelly sandy loam, 2 to 6% slopes	MgB	Well drained	Nonhydric
Mayodan gravelly sandy loam, 2 to 6% slopes, moderately eroded	MgB2	Well drained	Nonhydric
Mayodan gravelly sandy loam, 6 to 10% slopes, moderately eroded	MgC2	Well drained	Nonhydric
Udorthents loamy, 0 to 15% slopes	UdD	Well drained	Nonhydric
Worsham sandy loam, 0 to 3% slopes	WyA	Poorly drained	Hydric

Table 5: Coverage of terrestrial communities in the study area

Community	Coverage (ac.)
Maintained/Disturbed *	188.71
Pine Forest	42.27
Hardwood Forest	28.94
Field	2.34
Total	262.26

*includes roads and impervious surfaces

Protected Species

As of May 21, 2019 the United States Fish and Wildlife (USFWS) lists eight federally protected species under the Endangered Species Act (ESA) for Wake County, as listed in Table 6. For each species, a discussion of the presence or absence of habitat is included below along with the Biological Conclusion rendered based on survey results in the study area.

Table 6: ESA federally protected species listed for Wake County

Name	Federal Status	Habitat Present	Biological Conclusion
Red-cockaded woodpecker	Endangered	Yes	No Effect
Cape Fear shiner	Endangered	No	No effect
Dwarf wedgemussel	Endangered	No	May Affect, Not Likely to Adversely Affect
Tar River spinymussel	Endangered	No	No Effect
Atlantic Pigtoe	Proposed Threatened	Possible	Unresolved
Yellow lance	Threatened	No	May Affect, Not Likely to Adversely Affect
Michaux's sumac	Endangered	Yes	No Effect
Neuse River waterdog	Proposed Threatened	Possible	Unresolved
Carolina madtom	Proposed Endangered	Possible	Unresolved

Red-cockaded woodpecker

USFWS optimal survey window: year-round; November to early March (optimal)

Biological Conclusion: No Effect

Red-cockaded woodpecker (RCW) inhabits mature stands of southern pines, particularly longleaf pine, for foraging and nesting/roosting habitat. The RCW excavates cavities for nesting and roosting in living pine trees, aged 60 years or older, which are contiguous with pine stands at least 30 years of age to provide foraging habitat. The foraging range of the RCW is normally no more than 0.5 miles. Stands of pine trees greater than 30 years old were found within the study area. Pine stands in the study area ranged from 10 to 70 years old and were comprised of loblolly pine. These stands may provide potential foraging and nesting habitat, therefore a half mile survey was conducted. Only a few stands within the half mile survey area contained pine stands with trees 60 years old or greater. These areas were surveyed on foot. Habitat assessment and surveys were conducted on May 25, June 1, 16, 17, 30, 2016 , January 11, 2018 by VHB environmental . No RCW cavity trees were found in the study area or within the half mile study area. Pine stands in the study area and within half a mile do not provide optimal nesting habitat as the stands are small and fragmented between development areas. A review of NHP records, updated July 2018, indicates no known RCW occurrences within 1.0 mile of the study area. This project should have no effect on this species.

Cape Fear Shiner

USFWS optimal survey window: April-June (tributaries); year-round (large rivers)

Biological Conclusion: No effect

A review of North Carolina Natural Heritage Program (NHP) records on or updated July 2018 indicates no known occurrences within 1.0 mile of the study area. Additionally, the project is located in the Neuse River Basin which does not support populations of the Cape Fear shiner, which is restricted to the Cape Fear River Basin.

Mussel Species (Dwarf wedgemussel, Tar River spinymussel and Yellow lance)

USFWS optimal survey window: year-round; unknown for Yellow lance

Biological Conclusion:

- Dwarf wedgemussel: May Affect, Not Likely to Adversely Affect
- Tar River spinymussel: No Effect
- Yellow lance: May Affect, Not Likely to Adversely Affect

The USFWS has developed a PBO in conjunction with the FHWA, the USACE, the North Carolina Wildlife Resources Commission (NCWRC), and NCDOT for the Dwarf wedgemussel, Tar River spinymussel and Yellow lance in eastern North Carolina. The PBO covers the following activities in Divisions 1-8: bridge replacements with bridges/repairs/rehabilitations; culvert replacements or extensions; and bridge to culvert replacements. This project was reviewed using the USFWS IPaC website; it is concluded that the project could impact the Dwarf wedgemussel and the Yellow lance. A review of NHP records on or updated July 2018 indicates no known occurrences within 1.0 mile of the study area.

Michaux's sumac

USFWS optimal survey window: May-October

Biological Conclusion: No Effect

Michaux's sumac is endemic to the inner Coastal Plain and lower Piedmont and grows in sandy or rocky, open, upland woods on acidic or circumneutral, well-drained sands or sandy loam soils with low cation exchange capacities. The species is also found on sandy or submesic loamy swales and depressions in the fall line Sandhills region as well as in openings along the rim of Carolina bays; maintained railroad, roadside, power line, and utility rights-of-way; areas where forest canopies have been opened up by blowdowns and/or storm damage; small wildlife food plots; abandoned building sites; under sparse or pine/hardwood canopies; and in and along edges of other artificially maintained clearings undergoing natural succession. In the central Piedmont, it occurs on clayey soils derived from mafic rocks. The plant is shade intolerant and, therefore, grows best where disturbance (*e.g.*, mowing, clearing, grazing, periodic fire) maintains its open habitat. The majority of the study area is commercially and residentially developed with regularly maintained and landscaped areas along with patches of forested areas. Suitable habitat is present along the edges of some of the forested areas and portions of the roadside that are not maintained regularly. These areas were surveyed on foot. No Michaux's sumac was found. Habitat assessment and presence/absence surveys were conducted on May 25, and June 1, 16, 17, 2016 for the original study area. Habitat assessments for the expanded portions of the study area were conducted on January 10, 2018. Suitable habitat is present along the edges of some of the forested areas and portions of the roadside that are not maintained regularly. A presence/absence survey was conducted on June 6-7, 2018. No individuals were found. A review of NCNHP records, updated July 2018, indicates no known occurrences within 1.0 mile of the study area.

Atlantic Pigtoe

USFWS optimal survey window: year round

Biological Conclusion: Unresolved

This information will be provided by the NCDOT Biological Surveys Group (BSG).

Neuse River waterdog

USFWS optimal survey window: unknown

Biological Conclusion: Unresolved

The Neuse River waterdog is an entirely aquatic salamander found within streams of the Tar-Pamlico and Neuse River basins. It prefers streams greater the 15 meters in width with low to moderate gradients and low current velocity. A review of the NCNHP records, updated July 2018, indicates no known occurrences within 1.0 mile of the study area. If required, surveys will be completed by the NCDOT BSG.

Carolina madtom

USFWS optimal survey window: unknown

Biological Conclusion: Unresolved

The Carolina madtom is a small catfish that grows to a maximum length of five inches. It occurs in riffles, runs, and pools of medium to large streams and rivers, inhabiting freshwater systems with continuous, year-round flow and moderate gradient. The Carolina madtom prefers gravel and cobble substrates that have cover, e.g., rocks, bark, mussel shells, etc., for nest sites. A review of the NCNHP records, updated July 2018, indicates no know occurrences within 1.0 mile of the study area. If required, surveys will be completed by the NCDOT BSG.

Northern long-eared bat

The USFWS has developed a PBO in conjunction with the FHWA, the USACE, and NCDOT for the northern long-eared bat (NLEB) 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 STIP U-5825 is located. This level of incidental take is authorized from the effective date of a final listing determination through April 30, 2020. After project completion, the contract administrator for construction must submit the actual amount of tree clearing reported in tenths of acres.

This information will be submitted at:
https://connect.ncdot.gov/site/construction/biosurveys/Lists/Northern%20Long%20Eared%20Bat/AllItems.aspx

Bald and Golden Eagle Protection

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

A desktop-GIS assessment of the project study corridor, as well as the area within a 1.13-mile radius (1.0 mile plus 660 feet) of the project limits, was performed on May 24, 2016 using color aerial photography. An approximate 2-acre pond is located about 0.7 mile from the study corridor, providing a marginal feeding source. Since there was possible foraging habitat within the review area, a survey of the project study corridor and the area within 660 feet of the study corridor was conducted on July 1, 2016 within the original study corridor and January 11, 2018 within the expanded study corridor. No nests were found. The study corridor is highly developed with only fragmented patches of forests which does not provide ideal habitat for bald eagles to nest. Only a few stands within the study corridor contain trees large enough to support a nest. A review of the NCNHP records, updated July 2018, revealed no known occurrences of this species within 1.0 mile of the project study corridor. Due to less than optimal nesting habitat, marginal feeding sources, and no known occurrences, it has been determined that this project will not affect this species.

Water Resources

Water resources in the study area are part of the Neuse River basin [U.S. Geological Survey (USGS) Hydrologic Unit 03020201]. All jurisdictional features are illustrated in Figure 6 in Appendix A. Four streams were identified in the study area, the streams and their physical properties are listed in Table 7.

Table 7: Streams in the study area

Stream Name	Map ID	NCDWR Index Number	Best Usage Classification	Bank Height (ft)	Bankfull width (ft)	Depth (in)
UT to Middle Creek	SA	27-43-15-(1)	C; NSW	1	2-3	3
UT to Middle Creek	SB	27-43-15-(1)	C; NSW	1.5	5	4
UT to Middle Creek	SC	27-43-15-(1)	C; NSW	1.5	4	3
UT to Middle Creek	SD	27-43-15-(1)	C; NSW	1.5	2.5	4

There are no designated Outstanding Resource Waters (ORW), High Quality Waters (HQW) or water supply watersheds (WS-I or WS-II) within or within 1.0 mile downstream of the study area. No waters in the study area or within 1.0 mile of study area are listed on the North Carolina 2016 Final 303(d) list of impaired waters. No Essential Fish Habitat occur within the project study area.

Five surface waters were identified in the study area, as shown in Table 8. The first pond (PA) is a BMP located adjacent to a Sheetz gas station. The pond discharges via an outlet control structure and is approximately 0.23 acres in size. The second pond (PB) is located within the Knight's Play Golf Course (Figure 6 in Appendix A). Based on field work, this pond has no jurisdictional streams flowing into it. The pond discharges via a pipe which leads to a low area ultimately leading to an ephemeral stream and appears to be spring fed. Approximately 0.6 acre of the pond is located within the study area. The third pond (PC) is a BMP located adjacent to a Walgreens. The pond is approximately 0.12 acre in size and discharges by a culvert into wetlands outside of project area. The fourth pond (PD) is a BMP approximately 0.03 acre in size located near a shopping center. The pond discharges into a second BMP outside of the project area. The fifth pond (PE) is approximately 0.05 acre and is located beside a residential area. The pond discharges via a pipe to wetland WJ.

Table 8: Surface waters in the study area

Surface Water	Jurisdictional	Map ID of Connection	Area (ac) in Study Area	Impacted Area* (ac)
PA	No	N/A	0.2	0.22
PB	No	N/A	0.6	n/a
PC	No	N/A	0.1	n/a
PD	No	N/A	<0.1	n/a
PE	No	N/A	<0.1	n/a

*Based on preliminary designs of the proposed action +25ft.

Regulatory Considerations

Four jurisdictional streams were identified in the study area Table 9. The location of these streams is shown on Figure 6 in Appendix A. USACE Stream Quality Assessment Worksheet and NCDWR stream identification forms are included a separate Preliminary Jurisdictional Determination (PJD) Package. All jurisdictional streams in the study area have been designated as warm water streams for the purposes of stream mitigation.

Table 9: Characteristics of jurisdictional streams in the study area

Map ID	Length in Study Area (ft.)	Classification	Compensatory Mitigation Required	River Basin Buffer	Impacted Area* (linear ft)
SA	422	Intermittent	Yes	Subject	177
SB	424	Perennial	Yes	Subject	9
SC	174	Intermittent	Yes	Subject	85
SD	35	Intermittent	Yes	Subject	n/a
				Total	**271**

*Based on preliminary designs of the proposed action +25ft.

Streamside riparian zones within the study area are protected under provisions of the Neuse River Buffer Rules administered by NCDWR. Table 9 indicates which streams are subject to buffer rule protection. Potential impacts to protected stream buffers will be determined once a final alignment and design have been determined.

Ten jurisdictional wetlands were identified within the study area and are summarized in Table 10. The location of these wetlands is shown on Figure 6 in Appendix A. All wetlands in the study area are located within the Neuse River basin [USGS Hydrologic Unit 03020201]. USACE wetland determination forms and NCWAM forms for each site are included in a separate PJD Package. A total combined impact of 1.80 acres is expected within the project construction extents plus 25 feet.

Table 10: Characteristics of jurisdictional wetlands in the study area

Map ID	NCWAM Classification	NCDWQ Wetland Rating	Hydrologic Classification	Area (ac.) in Study Area	Impacted Area* (ac)
WC	Basin Wetland	11	Non-riparian	0.11	n/a
WD	Hardwood Flat	28	Non-riparian	0.08	0.08
WE	Headwater Forest	16	Riparian	0.17	0.06
WF	Seep	12	Non-riparian	0.07	n/a
WG	Hardwood Flat	21	Non-riparian	0.43	n/a
WH	Hardwood Flat	24	Non-riparian	0.10	n/a
WI	Hardwood Flat	21	Non-riparian	1.58	1.21
WJ	Hardwood Flat	21	Non-riparian	0.35	n/a
WK	Hardwood Flat	21	Non-riparian	0.95	0.45
WL	Headwater Forest	22	Riparian	0.01	n/a
			Total	**3.85**	**1.80**

*Based on preliminary designs of the proposed action +25ft.

Human Environment

The following sections discuss potential impacts to cultural resources, community resources, and air quality, as well as potential impacts from traffic noise.

Cultural Resources

Historical, architectural, archeological, and cultural resources encompass a range of sites, properties, and physical resources relating to human activities, society, and cultural institutions. North Carolina General Statute (NCGS) 121-12 establishes a procedure for the review of state undertakings that affect historic properties. NCGS 121-12 states that the head of any state agency having direct or indirect jurisdiction over a proposed state or state-assisted undertaking, or the head of any state department, board, commission, or independent agency having authority to build, construct, operate, license, authorize, assist, or approve any state or state-assisted undertaking, shall, prior to approval for the undertaking, take into account the effect of the undertaking on any property listed in the National Register of Historic Places (NRHP) pursuant to Public Law 89-665, 54 United States Code (U.S.C.) 300101 et seq. As the project is state-funded, GS 121-12(a) applies.

Archaeological Resources

Per the March 2018 *No Archeological Survey Required Form*, the entire project study area is located in a highly urbanized location, containing many commercial and residential properties; therefore, the archaeological Area of Potential Effects (APE) is unlikely to contain NRHP-eligible archaeological resources. Section 106 area of the National Historic Preservation Act permit are unlikely to contain significant, intact, and preserved archaeological deposits eligible for NRHP inclusion. A finding of “no archaeological survey required” is considered appropriate and no further archaeological input/work is necessary. The *No Archaeological Survey Required Form* (dated March 2018) is included in Appendix B.

Historic Architectural Resources

Per February 2018 *Historic Architecture and Landscapes No Historic Properties Present or Affected Form*, the project APE contains no significant resources; there are no properties listed on the NRHP within the APE, and only one property identified as a study list resource. Although not eligible for the National Register, four cemeteries are located in the project area and should be afforded best practice protections during construction. A finding of “no historic properties present or affected” will satisfy both Section 106 and GS 121-12(a) compliance requirements. The *Historic Architecture and Landscapes No Historic Properties Present or Affected Form* (dated February 2018) for the project is included in Appendix B.

Community Impacts

Both a *Community Characteristics Report,* completed in December 2016, and a *Community Impact Assessment,* completed in February 2018, were used to identify notable community characteristics and evaluate potential community impacts, including potential indirect and cumulative effects, for the project.

The existing land use along the project corridor is a mix of residential, non-residential and undeveloped land; however, most of the uses fronting the road are non-residential, including churches, commercial establishments, manufacturing, and other industrial services. There are a number of side streets that provide access to residential neighborhoods. The corridor serves a large volume of local traffic generated by these land uses.

Future land uses that may access the Ten Ten Road corridor include a new multiuse development along Jessie Drive, apartment home construction of The Meridian at Ten Ten and expansion of businesses near the Lufkin Road area.

The existing zoning along the project corridor is a mixture of Planned Industrial, Planned Commercial, Rural residential, Conditional Zoning, Conditional Use, Office and Institutional, Office, Research and

Development, High Density Multi-Family Residential and High Density Single-Family Residential (Town of Cary, 2017 and Town of Apex, 2018). At present, there are no plans to change or modify the general zoning of the project corridor in either Cary or Apex.

Demographics

The Demographic Study Area, Figure 7 in Appendix A, represents all Census Block Groups that overlap with the Direct Community Impact Area (DCIA) for the project. It contains the population group for the demographic data which are analyzed for a proposed project.

Census data indicates a notable presence of low-income populations meeting the criteria for Environmental Justice (EJ) within the Demographic Study Area (DSA), but no minority or low-income communities were observed along the project corridor within the DCIA during the field visit. Local planners noted minority populations are frequently observed walking or bicycling along Ten Ten Road, specifically over the U.S. 1 bridge and live in Center Heights neighborhood. Census Tract 534.18, Block Group 2 and Census Tract 534.20, Block Group 2 meet the threshold for EJ low-income populations, as 18.9 percent and 20.7 percent of the total population (respectively) were classified as near poor (Wake County is 8.1 percent). Within Census Tract 534.18, Block Group 2, 23.0 percent of the total population have no vehicle available and 34.7 percent of the total population have only one vehicle available. Potential low-income single-family homes were observed during the site visit, but no impacts are expected.

Census data does not indicate a Limited English Proficiency (LEP) but does indicate Spanish and Asian/Pacific language-speaking populations greater than 50 persons within the DSA. These groups were provided translation services during the public involvement efforts for the propose action.

Population Growth

Between 2000 and 2010, Wake County's total population increased by 43.5 percent, at an annual average rate of 3.7 percent. Table 11 presents the population change in Wake County and in North Carolina from 2000 to 2010.

Table 11: Population Change, 2000 to 2010

	DSA Aggregate	Wake County	North Carolina
Total Population (2000)	11,216	627,779	8,049,313
Total Population (2010)	21,194	900,993	9,535,483
Percent Change	89.0 %	43.5 %	18.5 %
Annualized Growth Rate	6.6 %	3.7 %	1.7 %

Source: U.S. Census Bureau, Census 2010 and Census 2000, Summary File 1 100% Data, Table P1 and P001 "Total Population."

Title VI and Environmental Justice

Title VI of the Civil Rights Act of 1964, protects individuals from discrimination on the grounds of race, age, color, religion, disability, sex, and national origin. Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" provides that each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects on minority and low-income populations. Special populations may include the elderly, children, the disabled, low-income areas. American Indians and other minority groups.

Executive Order 12898 requires that Environmental Justice principals be incorporated into all transportation studies, programs, policies and activities. The three environmental principles area:

- To ensure the full and fair participation of all potentially affected communities in the transportation decision-making process.
- To avoid, minimize or mitigate disproportionately high and adverse human health or environmental effects, including social and economic effects, on minority or low-income populations.
- To fully evaluate the benefits and burdens of transportation programs, policies, and activities, upon low-income and minority populations.

Notably adverse community impacts are anticipated with construction of this project but appear to affect all populations equivalently; thus, impacts to minority and low-income populations do not appear to be disproportionately high and adverse. Benefits and burdens resulting from the project are anticipated to be equitably distributed throughout the community. No disparate impacts are anticipated under Title VI and related statutes.

Indirect and Cumulative Effects

Overall, this project is not expected to have notable indirect land use effects in the Future Land Use Study Area (FLUSA). Based on the Indirect Effects Screening Matrix, the need for a Land Use Scenario Assessment (LUSA) is not likely.

Qualitative analyses of the probable development patterns in the FLUSA, based on the information and data available at the time of this report, suggest that development resulting from this project would impact the watershed. The project will add impervious surfaces. The project falls within designated watersheds but is not located in close proximity to the named streams. The potential for the degradation of water quality also exists through erosion and stream sedimentation. Any direct natural environmental impacts by proposed NCDOT projects would be addressed by avoidance, minimization, and mitigation measures during the permitting processes. Current and future developments would be required to follow local, state, and federal guidelines and permitting regulations, as appropriate.

Land Use and Transportation Plans

The *Apex Transportation Plan* emphasizes Ten Ten Road to be a “gateway” to downtown Apex. Various residential, non-residential and industrial plans have been approved as planned development that will boarder the study corridor and be served by both Jessie Drive and Smith Road.

The Towns of Cary and Apex, as well as Wake County, have proposed plans of new greenways that will cross or run adjacent to the project. Currently, no greenways exist within the DCIA, but the DCIA does border an existing greenway (Symphony Lake Greenway) in the Town of Cary. Three greenways have been proposed by the Town of Apex, which will be constructed directly within the DCIA. One will run along the northern portion of Watersglen Drive; another just south of and parallel to U.S. 1, running east; and one along Jessie Drive. In addition, the Town of Cary has proposed a greenway expansion project that will reach portions of Ederlee Drive and Penny Road, connecting to the greenway that Apex plans to build south of U.S. 1. All of these greenway projects are expected to run parallel to SR 1010 and therefore will not cross or intersect the project corridor. As part of the The Apex Parks, Rec, Greenways Master Plan and Comprehensive Bicycle Plan, the Town of Apex is also proposing a side path along Lufkin Road which would then run along Ten Ten crossing at Reliance and continuing as a greenway through the Meridian at Ten Ten development. Wake County has also proposed a new greenway near Lufkin Road Middle School that would cross the project corridor. It is expected that the multiuse path proposed along much of the corridor will tie into the existing greenway system to increase multimodal connectivity in the area.

Relocations

Based on final preliminary design for the Preferred Alternative, a total of thirteen (13) residential relocations and ten (10) business relocations would be needed due to the required right-of-way for the project. Any relocations will be handled through NCDOT's relocation assistance programs.

Air Quality

The project is in Wake County, which is within the Raleigh-Durham-Chapel Hill nonattainment area for the prior 1997 ozone National Ambient Air Quality Standard (NAAQS) as defined by the EPA. This area was designated nonattainment for the 1997 8-hour ozone standard effective June 15, 2004. However, due to improved monitoring data, this area was redesignated maintenance on December 26, 2007. EPA approved a SIP revision for the removal of Federal low-reid vapor pressure requirement effective on February 3, 2014. The Raleigh-Durham-Chapel Hill area was attainment for the 2008 ozone NAAQS resulting in the 1997 ozone NAAQS being revoked on April 6, 2015. On February 16, 2018, the United States Court of Appeals for the District of Columbia Circuit in South Coast Air Quality Mgmt. District v. EPA ("South Coast II," 882 F.3d 1138) held that transportation conformity determinations must be made in areas that were either nonattainment or maintenance for the 1997 ozone NAAQS and attainment for the 2008 ozone NAAQS when the 1997 ozone NAAQS was revoked. Transportation conformity for plans and TIPs for the 1997 Ozone NAAQS can be demonstrated without a regional emissions analysis pursuant to 40 CFR 93.109(c). The Capital Area Metropolitan Planning Organization 2045 Metropolitan Transportation Plan (MTP) and the 2018-2021 Transportation Improvement Program (TIP) conform to the intent of the SIP. The USDOT made a conformity determination on the MTP on February 12, 2019 and the TIP on February 12, 2019. The current conformity determination is consistent with the final conformity rule found in 40 CFR Parts 51 and 93. There are no significant changes in the project's design concept or scope, as used in the conformity analyses.

Noise

Introduction

In accordance with Title 23 Code of Federal Regulations Part 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise (Title 23 CFR 772) and the North Carolina Department of Transportation Traffic Noise Policy, each Type I highway project must be analyzed for predicted traffic noise impacts. In general, Type I projects are proposed State or Federal highway projects that construct a highway on new location, add new through lanes to an existing highway, substantially change the horizontal or vertical alignment of an existing highway, add or relocate interchange ramps or loops to complete an existing partial interchange, or involve new construction or substantial alteration of transportation facilities such as weigh stations, rest stops, ride-share lots or toll plazas.

Traffic noise impacts are determined through implementing the current Traffic Noise Model (TNM®) approved by the Federal Highway Administration (FHWA) and following procedures detailed in Title 23 CFR 772, the NCDOT Traffic Noise Policy and the NCDOT Traffic Noise Manual. When traffic noise impacts are predicted, examination and evaluation of alternative noise abatement measures must be considered for reducing or eliminating these impacts. Construction noise impacts may occur if noise-sensitive receptors are in proximity to project construction activities. All reasonable efforts should be made to minimize exposure of noise sensitive areas to construction noise impacts.

The source of this traffic noise information can be found in the *STIP U-5825 Traffic Noise Report, SR 1010 (Ten Ten Road) Widening, Wake County (VHB, June 2019)*.

Traffic Noise Impacts and Noise Contours

The maximum number of receptors in each project alternative predicted to become impacted by future traffic noise is shown in Table 12. The table 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 12: Traffic Noise Impacts*

Alternative	Residential (NAC B)	Places of Worship/ Schools, Parks, etc. (NAC C & D)	Businesses (NAC E)	Total
Build	166	17	2	185

*Per TNM2.5 and in accordance with 23 CFR Part 772

The maximum extent of the 71- and 66- dB(A) noise level contours measured from the center line of the Build alignment are 110 feet and 200 feet, respectively.

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. The primary noise abatement measures evaluated for highway projects include highway alignment changes, traffic system management measures, establishment of buffer zones, noise barriers and noise insulation (NAC D only). For each of these measures, benefits versus allowable abatement quantity (reasonableness), engineering feasibility, effectiveness and practicability and other factors were included in the noise abatement considerations.

Substantially changing the highway alignment to minimize noise impacts is not considered to be a viable option for this project due to engineering and/or environmental factors. Traffic system management measures are not considered viable for noise abatement due to the negative impact they would have on the capacity and level of service of the proposed roadway. Costs to acquire buffer zones for impacted receptors will exceed the NCDOT base dollar value of $22,500 per benefited receptor plus an incremental increase as defined in the NCDOT Traffic Noise Manual, causing this abatement measure to be unreasonable.

Noise Barriers

Noise barriers include two basic types: earthen berms and noise walls. These structures act to diffract, absorb, and reflect highway traffic noise. For this project, earthen berms are not found to be a viable abatement measure because the additional right of way, materials and construction costs are estimated to exceed the NCDOT maximum allowable base quantity of 4,200 cubic yards per benefited receptor plus an incremental increase as defined in the NCDOT Traffic Noise Policy.

A noise barrier evaluation was conducted for this project utilizing the Traffic Noise Model (TNM 2.5) software developed by the FHWA. Table 13 summarizes the results of the evaluation and Figure 8 in Appendix A illustrates the noise analysis results and likely wall locations.

Summary

A traffic noise evaluation was performed that identified 8 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 State Environmental Assessment/Finding of No Significant Impact (SEA/FONSI). NCDOT strongly advocates the planning, design and construction of noise-compatible development and encourages its practice among planners, building officials, developers and others.

Table 13: Preliminary Noise Barrier Evaluation Results

NSA	Noise Barrier Location	Length/ Height[1]	Square Footage	Number of Benefited Receptors	Square Feet per Benefited Receptor/ Allowable Square Feet per Benefited Receptor	Preliminarily Feasible and Reasonable ("Likely") for Construction[2]
NSA 3	Northwest bound side of Ten Ten across from Smith Road	500/11	5,300	5	1,060 / 1,500	Yes
NSA 4-5	B: Arbordale Ct to Kiftsgate Ln	1,360/15	20,440	50	409 / 1,500	Yes
NSA 4-5	C: Kiftsgate Ln to End of Pinnacle Plaza	400/8	3,280	12	410 / 1,500	Yes
NSA 6	Waterford Green Dr at Ten Ten Rd to US 1	720/17	12,000	13	923 / 1,500	Yes
NSA 8	Old Grove Ln to Satinwood Dr	360/11	3,840	11	349 / 1,500	No[3]
NSA 11	A: Harvest Creek Pl along Kildaire Farm Rd to 600 Bldg of ARIUM Apts.	600/20	12,000	27	444 / 1,500	Yes
NSA 11	B: Harvest Creek Pl along Kildaire Farm Rd to 600 Bldg of ARIUM Apts.	360/14	5,040	12	420 / 1,500	Yes
NSA 12	A: Jessie Dr to Littleman Ln	960 /12	11,580	7	1,654 / 2,000	Yes
NSA 12	B: Littleman Ln to Smith Rd	400/16	6,600	4	1,650 / 2,000	Yes

[1] Average wall height. Actual wall height at any given location may be higher or lower.
[2] The likelihood for barrier construction is preliminary and subject to change, pending completion of final design and the public involvement process.
[3] Barrier is not feasible due to right of way constraints and existing utilities.

Hazardous Materials and Contaminated Properties

Based on information provided by the NCDOT Geotechnical Engineering Unit in a memo from August 31, 2016, there was an initial expectation of eleven (11) geoenvironmental concerns within the study area. A Phase I field investigation was completed on March 14, 2018 which indicates a total of sixteen (16) sites of concern identified within the proposed study area. Table 14 lists the type of each site, property name, location, type of potential contamination and anticipated risk as taken from the Phase I report. These locations are also shown in Figure 9 of Appendix A.

Table 14: Hazardous Material Sites

Site #	Type[6]	Property Name	Location	Type of Potential Contamination[7]	Anticipated Risk
1	UST	Circle K	3305 Kildaire Farm Rd	PCS	Low
2	UST	Quality Mart 44/Shell	1003 Langston Pond Dr	PCS	Low
3	UST	Vacant Lot/Former Gas Station	3498 Kildaire Farm Rd	PCS	Low
4	UST	Vacant Gravel Lot	0 Ten Ten Rd	PCS	Low
5	UST	Vacant Store/Former Ten Ten Penny Mart/ Shops @ Regency/ARZ Inc.	2503 Ten Ten Rd	PCS	Low
6	ARF	Tractor Tracks Inc.	5505 Caterpillar Dr	PCS	Low
7	UST	Star Enterprise/Motiva Enterprises LLC	2232 Ten Ten Rd	PCS	Med
8	DC	A Cleaner World	2290 Ten Ten Rd	DCS	Low
9	ARF	Fast Lube Plus	2280 Ten Ten Rd	PCS	Low
10	UST	Circle K 2723633	2105 Ten Ten Rd	PCS	Low
11	UST	Sheetz 540	4000 Lufkin Rd	PCS	Low
12	UST	Abby Rd Tavern & Grill	1700 Center St	PCS	Low
13	UST	Dragonfly Pond Works	807 Center St	PCS	Low
14	UST	Center St Grocery	808 Center St	PCS	Low
15	UST	Breeze Thru # 30050/Peakway One Stop	781 Center St	PCS	Low
16	UST	Former R&T Jones Oil Bulk	806 Center St	PCS	Low

---

[6] UST = underground storage tank, DC = dry cleaners, ARF = auto repair facility

[7] PCS = petroleum contaminated soil, DCS = dry cleaning solvents

Flood Hazard Evaluation

Wake County is a participant in the National Flood Insurance Program (NFIP). According to the FIS and DFIRMs obtained from North Carolina Floodplain Mapping Program (NCFMP), there are no FEMA designated streams within the project limits.

Visual and Aesthetic Resources

Visual resources and aesthetic impacts are typically defined in terms of a project's physical characteristics and potential visibility, along with the extent to which the project's existence would change the perceived visual character or quality of the environment in which it would be located.

The project corridor is located within a highly developed area with primarily residential uses, including townhomes and single-family homes. Non-residential community uses are also present and include churches, various businesses, a private cemetery, and a golf course. The project corridor serves a large volume of local traffic generated by these adjacent land uses. Accordingly, the project corridor is considered to have low visual sensitivity.

To maintain the residential feel and aesthetics, a grassy median will be constructed as part of this project. Sidewalks, as well as a multi-use path, will also be constructed to match the current landscape, helping to maintain the existing level of visual appeal of the area.

Required Permits

Construction of the proposed Ten Ten Road widening project would result in construction activities requiring environmental regulatory permits from state and federal agencies. A list of these permits, organized by issuing agency, is provided below. NCDOT would obtain all necessary permits prior to construction.

U.S. Army Corps of Engineers

Any action that proposed to place fill into "Waters of the United States" falls under the jurisdiction of the U.S. Army Corps of Engineers (USCAE) in accordance with Section 404 of the Clean Water Act (33 USC 1344). The Clean Water Act provides public notice and review of pending Section 404 permit applications. Encroachments into jurisdictional areas subject to the Clean Water Act must be reviewed and approved by the USCAE.

Based on the anticipated impacts to jurisdictional streams and wetlands as a result of this project, an individual permit from USACE may be applicable; minimization and avoidance efforts should be explored during final design to further reduce the projected impacts if possible. The USCAE holds the final discretion as to what permit will be required to authorize project construction.

Summary of Environmental Impacts

Table 15: Summary of Environmental Effects

Environmental Features	U-5825
Traffic Volumes (2040 AADT)	32,800 - 57,400 vpd
Residential Relocations	13
Business Relocations	10
Low-Income/Minority Populations	No Impacts Anticipated
Known Archaeological Sites	None
Known Historic Sites	None
Community Facilities Impacted	None
Section 6(f) Properties	None
Federally-Protected Species	None affected
Stream Impacts (linear feet)	271
Wetland Impacts (acres)	1.8
Noise Receptor Impacts	185 impacts/8 barriers “Likely”
Air Quality Impacts	None
Potential Geoenvironmental Concerns	16
Right-of-way Cost	$36.7 million
Utility Relocation Cost	$4.3 million
Construction Cost	$45.7 million
Total Cost	$86.7 million

7

Public Involvement

A Local Officials Meeting was held in February 2018. Two Public Meetings were held, in March and October 2018 to gather public comments on the proposed project and answer questions. The March 2018 public meeting was preceded by an Affected Property Owner Meeting. NCDOT utilized the USPS Every Door Direct Mailer (EDDM) postcards informing the public of the meetings. Public Meeting information was also posted on the NCDOT Public Meetings webpage (https://www.ncdot.gov/news/public-meetings/Pages/default.aspx) and hosted on a PublicInput.com webpage, as well as the planning websites for the Towns of Apex and Cary. A Public Meeting Notice was also shared with local newspapers, radio stations, and TV stations.

The Local Officials Meeting, held in February 2018 at Apex Town Hall, introduced the project and presented both the conventional and superstreet alternative to local officials. A total of twelve (12) local officials attended the Local Officials Meeting. Justification for the purpose and need of the project was also presented, including traffic volume comparisons of no-action and build alternatives and traffic capacity analysis results indicating failing levels of service in the future year. The projected project schedule was also presented.

The Affected Property Owner Meeting, held in March 2018 at the Summit Church, presented the alternatives to the property owners whose structures on property were likely to be affected. The intent of this meeting was to provide one-on-one discussions with those likely to be most greatly impacted by the proposed action and to gain input on their concerns and opinions. Eight affected property owners attended. The meeting was held as an open house format, where invited property owners could stop by at any time to review materials and ask questions. Meeting maps were on display which showed the preliminary design for both the conventional and superstreet alternatives. The handout provided additional information about typical sections and conventional design vs superstreets. A display board provided information about environmental features within the project study area.

The Public Meeting, held in March 2018 at the Summit Church in Apex, directly followed the Affected Property Owner Meeting. Roughly 310 members of the public attended. This meeting was held in the same open house format as the Affected Property Owner Meeting.

The second Public Meeting, held in October 2018 at the Summit Church in Apex, presented the preferred alternative. Roughly 152 members of the public attended. This meeting was held as an open house format, where members of the public could stop by at any time to review materials and ask questions. Meeting maps of the final preliminary design for the preferred alternative, showing expected limits of construction and right-of-way needs were set up as stations throughout the room. A handout provided additional information about the final alternative typical sections, a rendering of the proposed U.S. 1 Interchange and information about conventional widening. Display boards provided further information, including: environmental features, nearby STIP projects with an associated handout which identified each project and a rendering of the U.S. 1 Interchange improvements.

The following is a summary of comments and concerns expressed by local officials:

- What is the LOS for the design year as proposed? Did the traffic model include Apex Peakway connectivity from NC 55 to Center Street, or Jessie Dr connectivity from NC 55 to Ten Ten Rd?

Response: For Apex Peakway, southbound dual lefts are being incorporated into the design and were reflected in the subsequent public meeting materials. The traffic model included the Apex Peakway connection to NC 55, which is currently in the feasibility study stage. Jessie Dr was not included in the forecast due to its current state, therefore no LOS is available. The project team is aware of the development at Jessie Dr and therefore included a median opening at this location in case future signalization at this location is warranted.

- Concerns about trucks going past Penny Road to make a U-turn.

Response: At the time of comment, the team was in the process of evaluating the impact of adding truck movements to the Penny Road signal or to a new signal at Arbordale Court, to understand if signalization is feasible. After discussions with the business owners, the decision to signalize the U-turn point past Penny Road to serve this truck traffic was determined to be sufficient.

- Anticipating right-in/right-out at Schieffelin Road will increase traffic using Investment Blvd, expressed concern about the impact on Investment Blvd. Concern if businesses were contacted.

Response: Currently, 2000 VPD travel on Investment Blvd. 2200 VPD are projected to use this roadway, therefore no impact is anticipated. Businesses were identified and contacted via Every Door Direct Mailers (EDDM).

- Is the bicycle lane shown intended to be striped as a bicycle lane or wide shoulder?

Response: Exclusive, striped bicycle lanes (5') in both directions are included in the proposed action.

- Concern regarding the estimate of impacts (The Groves and Surrey Meadows), will these be reduced as the design is refined?

Response: The project is in preliminary design phase with a 50-foot potential impact area from edge of pavement which indicated structures that may be impacted. Minimization will take place as the design moves forward. It is possible that there will be some structural impacts on one side of Center Street, in the Groves vicinity.

- Concerns about pedestrian crossings since they are not shown at this stage in the design, specifically, Parkfield Drive and Calvary Chapel Road.

Response: Pedestrian and bicyclist accommodations are planned for the length of the corridor. Protected crossings, as needed, will be determined during the final design phase. However, it is unlikely there would be a protected crossing between Parkfield Drive and Calvary Chapel Road, as there is no signal proposed in that area.

- What is the sidewalk width for the bridge?

Response: Sidewalks along the bridge are 8'.

- The Meridian at Ten Ten apartments are expected to be a right-in/right-out access. What coordination with the Meridian has taken place? Has it been determined if this access will be allowed?

Response: We have been in direct communication with the Meridian developer. Currently, NCDOT intends to allow this right-in/right-out access to remain, with a review of the intersection safety taking place after it is open and before U-5825 is constructed.

- What are the major advantages of the Superstreet? Is it a much better LOS or significantly less impact in terms of acquisitions?

Response: Based on the capacity analysis results, there is no notable operational advantage to the Superstreet Alternative as compared to the Conventional Widening Alternative.

Public comments for the first meeting were accepted in writing, mail, email or by the project website through March 29, 2018. A total of 222 individuals reached out with comments and requested to be added to the project mailing list. The project website also featured a poll of which alternative is preferred. The results of this poll yielded: Traditional (Conventional) widening favored at 110 votes (58%), followed by Superstreet at 75 votes (38%) and no preference at 8 votes (4%). Comment forms were open-ended, allowing individuals to comment on any questions or concerns regarding the proposed project. The following is a general summary of the public comments received:

- Many comments gave suggestions related to potential alignment suggestions, some that were specific to parcels/intersections, and some that were overarching throughout the corridor.

Response: Each specific alignment suggestion was considered during the design revisions. Ultimately, the design of this corridor will be based on a balance of impacts among resources (natural and community related), constructability, and cost implications.

- The majority of comments that provided a preference between the two presented alternatives (Conventional Widening and Superstreet) favored the Conventional Widening alternative, which allows for full movement intersections at major cross streets that have median openings. Some cross streets/driveways would be allowed left-in access, but no left-out would be permitted under this alternative.

Response: After evaluating a number of parameters (capacity analysis results, potential right-of-way impacts, and public input), NCDOT is eliminating the Superstreet Alternative from further consideration for the U-5825 project. Future public meetings, the preliminary designs, and the environmental review will focus only on the Traditional (Conventional) Widening Alternative.

- Some residents stated concern about the addition of a median changing traffic patterns which may affect the following: school bus routes, EMS response times, left turns to access neighborhoods, requiring U-turns for some existing left-turn movements, and access to U.S. 1.

Response: This project will include a center median along the corridor, which limits full movement access at minor driveways and side streets. This design encourages safer movements by localizing the conflict points along the corridor to expected, regular locations and provides separation between opposing directions of travel. The project team coordinated with the local school systems and emergency response personnel to ensure their needs are meet with the proposed project design. Where *deemed appropriate, a mountable median will be considered as part of the final design to assist emergency response vehicles.*

- Comments received covered various safety concerns regarding the design of this project. These concerns were: crash history along the corridor, bicycle and pedestrian accommodations and safety, new traffic patterns and older population traveling along corridor, speed limit reduction, and a U-turn signal.

Response: NCDOT strives to deliver safe, efficient projects that meet the transportation needs of a project corridor with sensitivity to the surrounding environment. An evaluation of the five-year safety data for this corridor (completed as part of the Traffic Capacity Analysis), indicates that this corridor does not present crash rates higher than those on similar facilities statewide; however, the predominant crash type that occurs is rear-end, collisions, which indicates a congested facility operating at or over capacity during given parts of the day. The addition of a center median generally improves the overall safety of a corridor that is not currently median divided.

- Those citizens likely to have direct property impacts from the project asked about the Right-of-Way acquisition process, including who pays for the building/property should it need to be taken for project construction.

Response: NCDOT Division 5 has a Right-of-Way (ROW) group that will facilitate the property acquisition process once the Right of Way plans are completed.

- Concern about Apex losing its residential feel.

Response: Apex is a fast-growing municipality and the regional growth extends beyond this project's limits. The Town implements local plans and ordinances to regulate growth and land uses. NCDOT is committed to working with municipalities to help accommodate that growth through infrastructure projects that remain sensitive in context to the communities in which they are built.

- Residents who live along the corridor have requested a sound barrier/sound wall and are concerned that the proposed realignment of Ten Ten Road being closer to homes will increase noise pollution.

Response: As part of the State Environmental Review Process, a traffic noise analysis will be completed, modeling the impacts of the proposed project on existing homes and businesses. The results of that *technical analysis will be included in the environmental document and any impacts that warrant mitigation will be evaluated for feasibility. Any mitigation efforts will be included in the final design stage of the project process (anticipated in 2020).*

- Why is 10 feet used for the width of a multi-use path?

Response: A 10 foot multiuse path is the standard width for such a facility, anything narrower does not allow for proper passing of users and would be designed as a standard sidewalk (5 feet) instead.

- People may throw stuff off the bridge onto U.S. 1, was this considered?

Response: Proper fencing along the bridge will be included in the design to deter this type of action.

- Will the sidewalk over the bridge be sectioned off from traffic to separate pedestrians from traffic?

Response: Currently, there is no physical barrier proposed between the sidewalk and travel lanes. The sidewalk will be 8 feet in width along both sides of the bridge to provide added comfort for pedestrians (standard sidewalk is 5 feet wide).

- Is it safe for pedestrians to cross so many lanes on the road?

Response: Pedestrians will be encouraged to cross at signalized locations, which will provide crosswalks and pedestrians signal timings as appropriate.

- Why was traffic projected to 2040? How were these traffic projections calculated?

Response: NCDOT prepares a traffic forecast report that projects traffic to a future design year, which is currently 2040. We evaluate traffic this far in the future to ensure that the proposed U-5825 design is sufficient to handle travel demands well into the future and is not a short-term solution. The traffic forecast procedure is a standard practice used on most NCDOT projects.

- Trucks from Motiva will cause even more congestion, especially since they will have to make a U-turn to go left. How will these trucks move with a proposed median?

Response: Currently, trucks and large vehicles from Motiva and other industries in that section of Ten Ten Road make left-turns from their individual driveways, often stopping traffic in both directions to do so. Under the proposed project, those trucks or large vehicles would all use a single, likely *signalized, U-turn point just beyond Penny Road. This would eliminate the potential conflicts of self-regulated, left-turn movements as they happen today by forcing them to occur in a single, controlled location. This location was placed to allow adequate length to account for the trucks needing to merge left toward the median to enter the U-turn lane.*

- Tolls from NC 540 should be removed, traffic will go to NC 540 rather than Ten Ten Road. Also, how does NC 540 influence the project?

Response: Removing tolls from NC 540 is not a feasible alternative to this project. The usage of NC 540, as well as other planned facilities in the region, are accounted for in the Traffic Forecast Report previously mentioned and available on the project website.

- Will there be a light at Penny Road to accommodate school buses and the large volume of traffic that is seen on this road?

Response: Yes; the Town of Cary is currently in the process of installing a temporary signal at this location. The U-5825 project would replace the temporary signal with a permanent one.

- Why does the work not extend to Holly Springs?

Response: NCDOT projects are funded and constructed in parts based on a prioritization process that accounts for available money and statewide needs. U-5825 has been prioritized has scored high enough to be funded. Extending the project to the east, beyond Kildaire Farm Road is a separate project that is re-evaluated with each 2-year prioritization process.

- Impacts to wetlands, drainage/stormwater issues with the new design.

Response: As part of the environmental review process, we are evaluating impacts to a wide variety of resources including wetlands and streams and will obtain proper permits and mitigate any impact as applicable by state and federal regulations. Stormwater design is included during later stages of the design process.

- Residents were concerned about a grassy center median/landscape appearance, to keep the residential feel along Ten Ten Road.

Response: Specific landscape treatments have not yet been specified; however, the intention is to have a grassed/landscaped median in place as part of the effort to maintain sensitivity to the surrounding community.

- Will the speed limit increase with additional lanes on the corridor? If they do, is this safe?

Response: The posted speed limits will not change as part of this project.

- Why does Sheetz need to be impacted?

Response: We are currently in close coordination with Sheetz representatives and the Town of Apex to develop a design that minimizes impact to this property more than originally presented.

These specific comments were received from property/business owners along the project corridor. The NCDOT project team and Town representatives are coordinating with these individuals to discuss potential design modifications to minimize impacts to residences and businesses, especially at The Groves and Sheetz location.

Public comments for the second meeting were accepted in writing, mail or email through November 20, 2018. A total of 25 individuals and businesses responded with comments following the second public meeting. Comment forms were open-ended, allowing individuals to comment on any questions or concerns regarding the proposed project. In general, the public was accepting of the preferred alternative and appreciated the revised design. Most comments that were not of general support were property specific questions and were responded to on an individual basis.

8

Basis for Finding of No Significant Impact

Based upon a study of the proposed project documented in this assessment and upon comments received from federal, state, and local agencies, and the public, it is the finding of the NCDOT that this project would not have a significant adverse impact upon the human or natural environment. The proposed project is consistent with local plans and would not disrupt communities. Per this evaluation, a Finding of No Significant Impact is applicable for this project. Therefore, no further environmental analysis will be required.

References

Apex Parks, Recreation, Greenways and Open Space Master Plan, June 2013.

Apex Transportation Plan 2011 Update, Town of Apex, North Carolina.

State Transportation Improvement Program (STIP) Volume 1 (Division 1-7) 2018-2027; NCDOT, August 2017.

U-5825 Air Quality Report; NCDOT Environmental Analysis Unit – Traffic Noise and Air Quality Group, December 2018.

U-5825 Traffic Noise Report; NCDOT Environmental Analysis Unit – Traffic Noise and Air Quality Group, June 2019.

NCDOT GeoEnvironmental Planning Report, March 2018.

U-5825 CIA Short Form; NCDOT Human Environment Unit – Community Studies, February 2018.

U-5825 Community Characteristics Report; NCDOT Human Environment Unit – Community Studies, December 2016.

U-*5825 Indirect and Cumulative Effects Screening Summary*; NCDOT Human Environment Unit – Community Studies, April 2018.

NCDOT Historic Architecture and Landscapes No Historic Properties Present or Affected Form, 2018.

NCDOT No Archaeological Survey Required Form, 2018.

U-5825 SR 1010 (Center Street/Ten-Ten Road) Widening Forecast; NCDOT TPD, August 2016.

Preliminary Hydraulics Study for Environmental Impact, NCDOT TIP No. U-5825 SR 1010 (Ten Ten Road) Widening and Improvements; Sungate Design Group, P.A., 2016

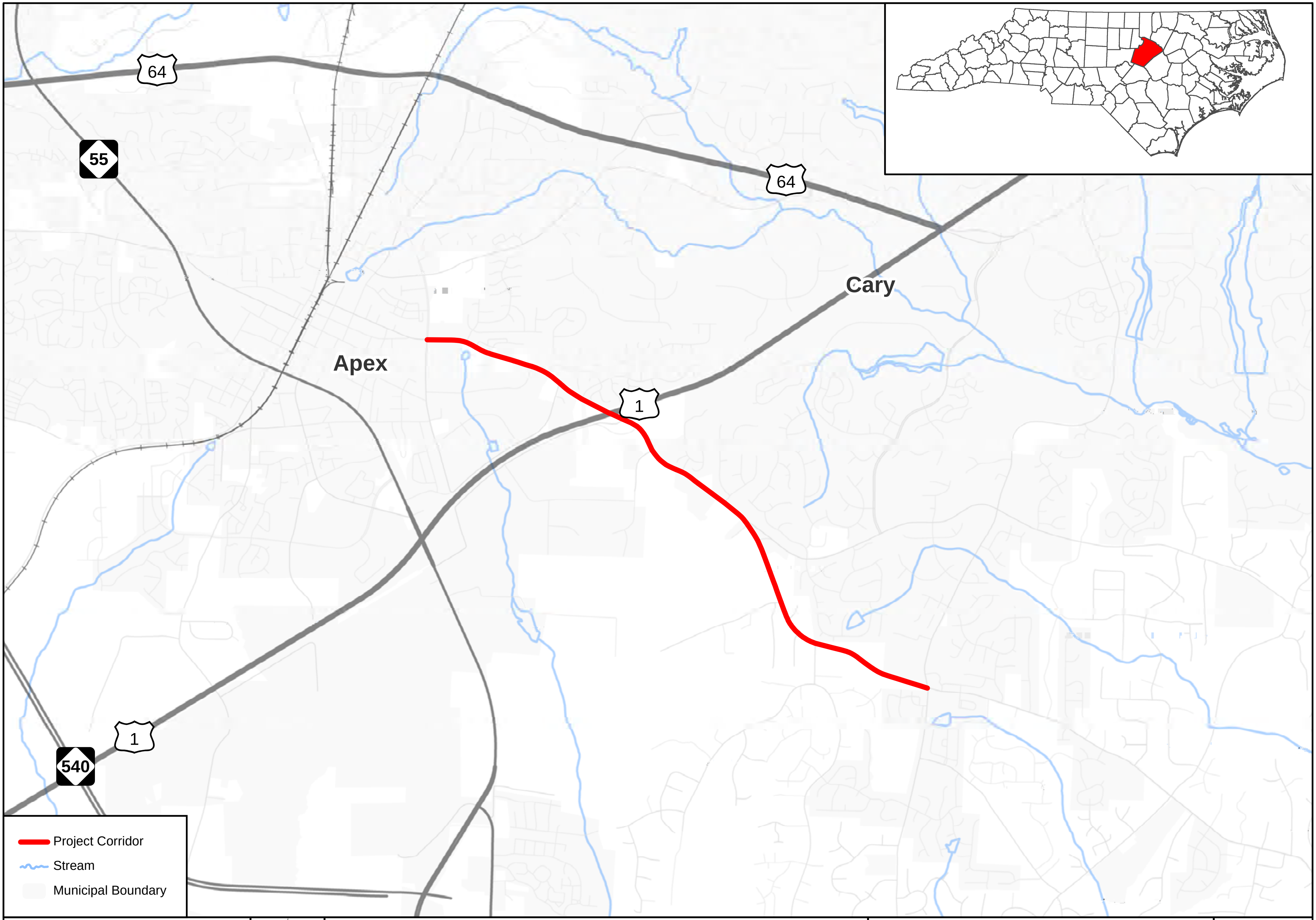
Natural Resources Technical Report, Widening of Ten Ten Road (SR 1010) from Kildaire Farm Road (SR 1300) to Apex Peakway in the Towns of Cary and Apex; NCDOT EAU, October 2016.

Natural Resources Technical Report, Widening of Ten Ten Road (SR 1010) from Kildaire Farm Road (SR 1300) to Apex Peakway in the Towns of Cary and Apex; NCDOT EAU, November 2018.

U-5825 USACE Preliminary Jurisdictional Determination Package; Prepared for North Carolina Department of Transportation, May 2017.

U-5825 Traffic Capacity Analysis Memo; NCDOT, June 2017.

Appendix A - Figures



0 0.25 0.5 1
Miles

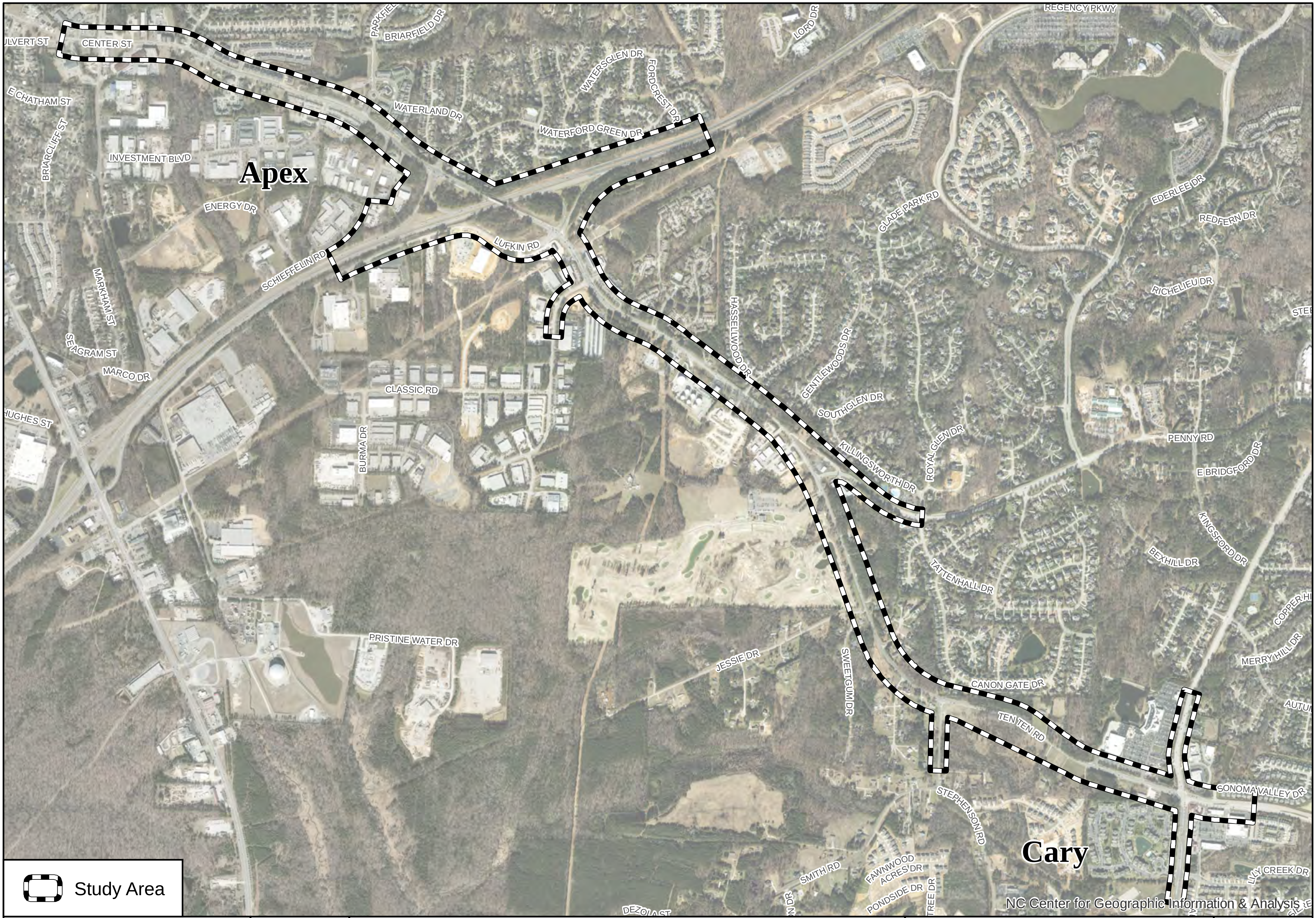
N

Figure 1. Project Vicinity

Prepared by: VHB Date: December 2018

STIP No. U-5825
Ten Ten Road from Apex Peakway
To Kildaire Farm Road
Wake County

12/18/2018



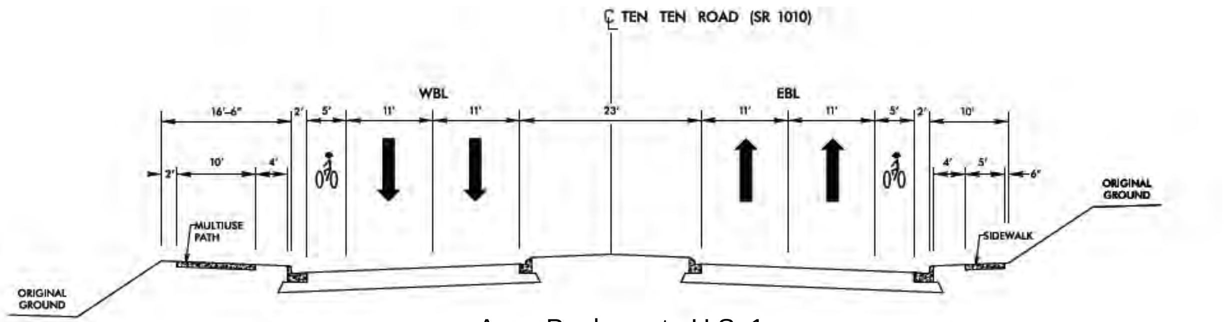
Scale
0 500 1,000 2,000
Feet

Figure 2. Project Study Area

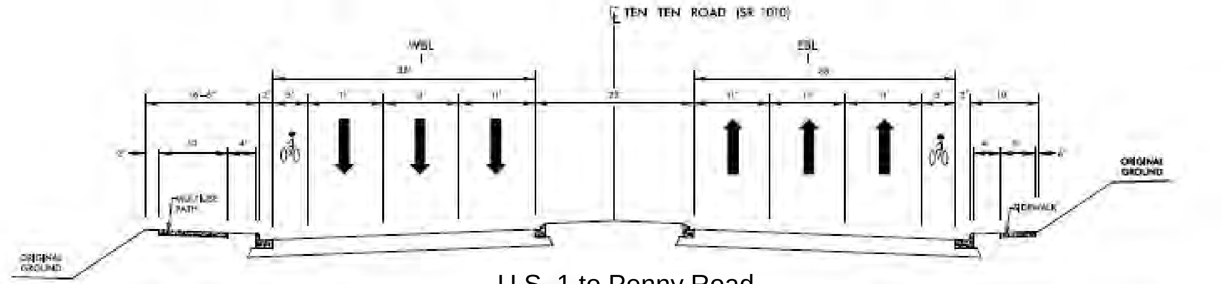
Prepared by; VHB Date: December 2018

STIP No. U-5825
Ten Ten Road from Apex Peakway
to Kildaire Farm Road
Wake County

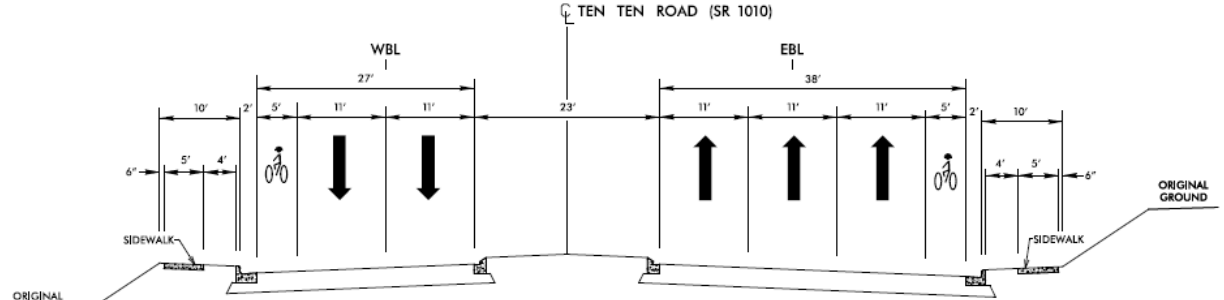
12/18/2018



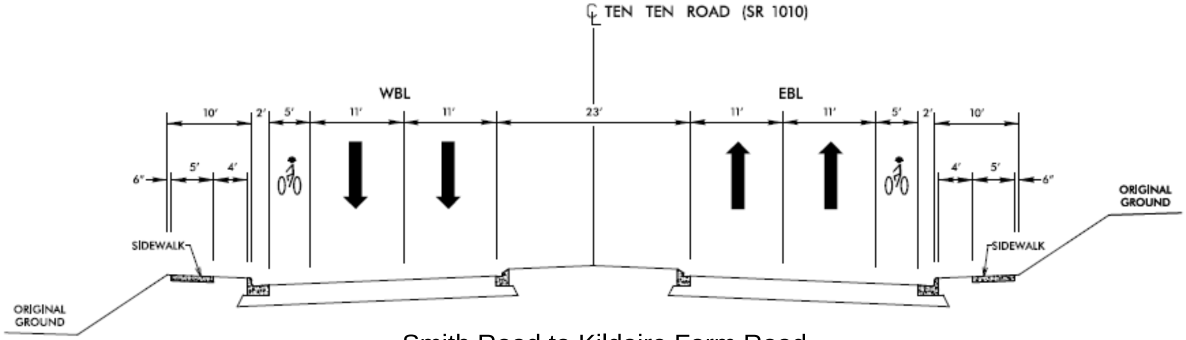
Apex Peakway to U.S. 1



U.S. 1 to Penny Road



Penny Road to Smith Road



Smith Road to Kildaire Farm Road

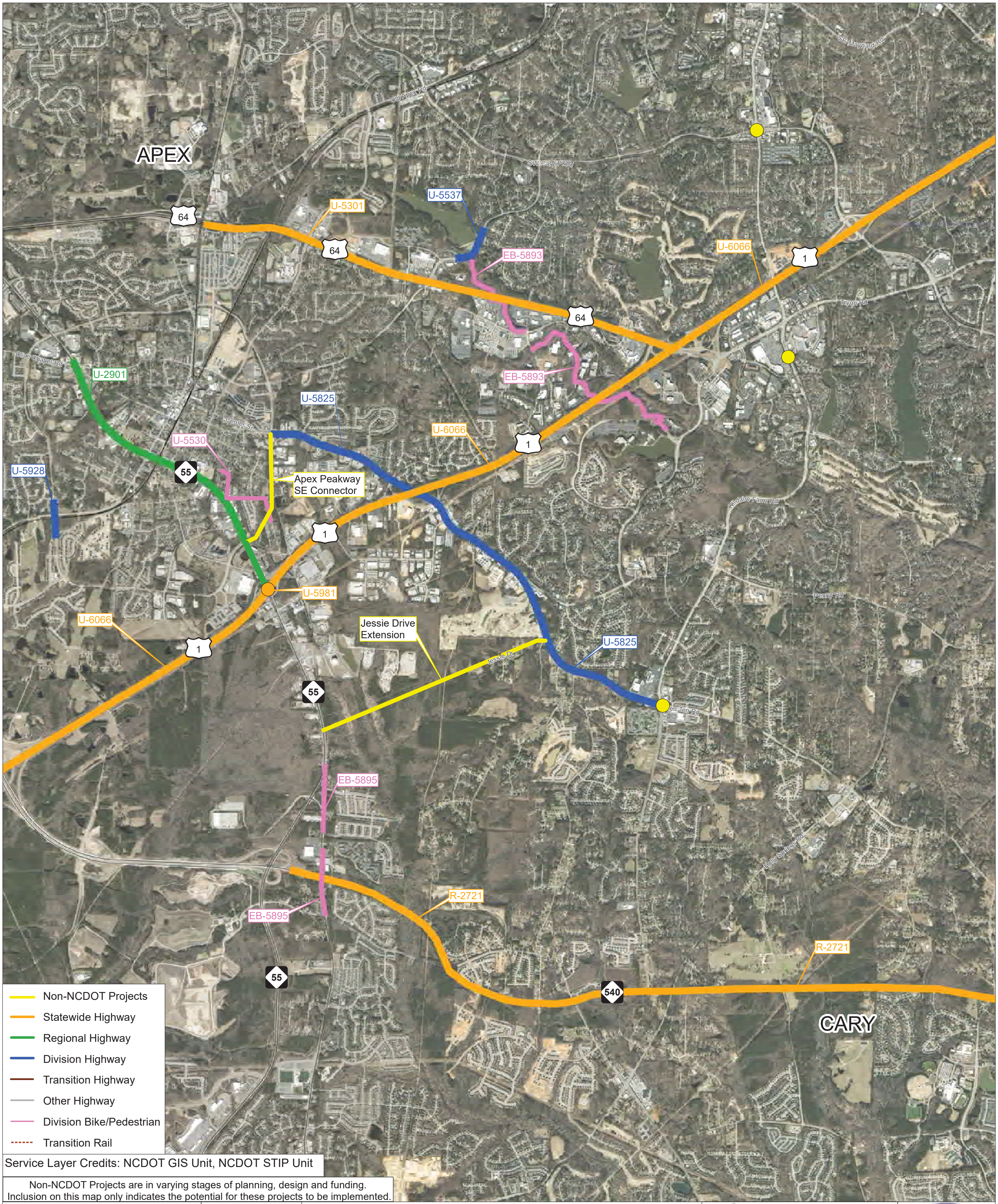
Figure 3. Typical Sections

Prepared by: VHB Date: December 2018

U-5825
Ten Ten Road Improvements
Wake County

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

12/18/2018



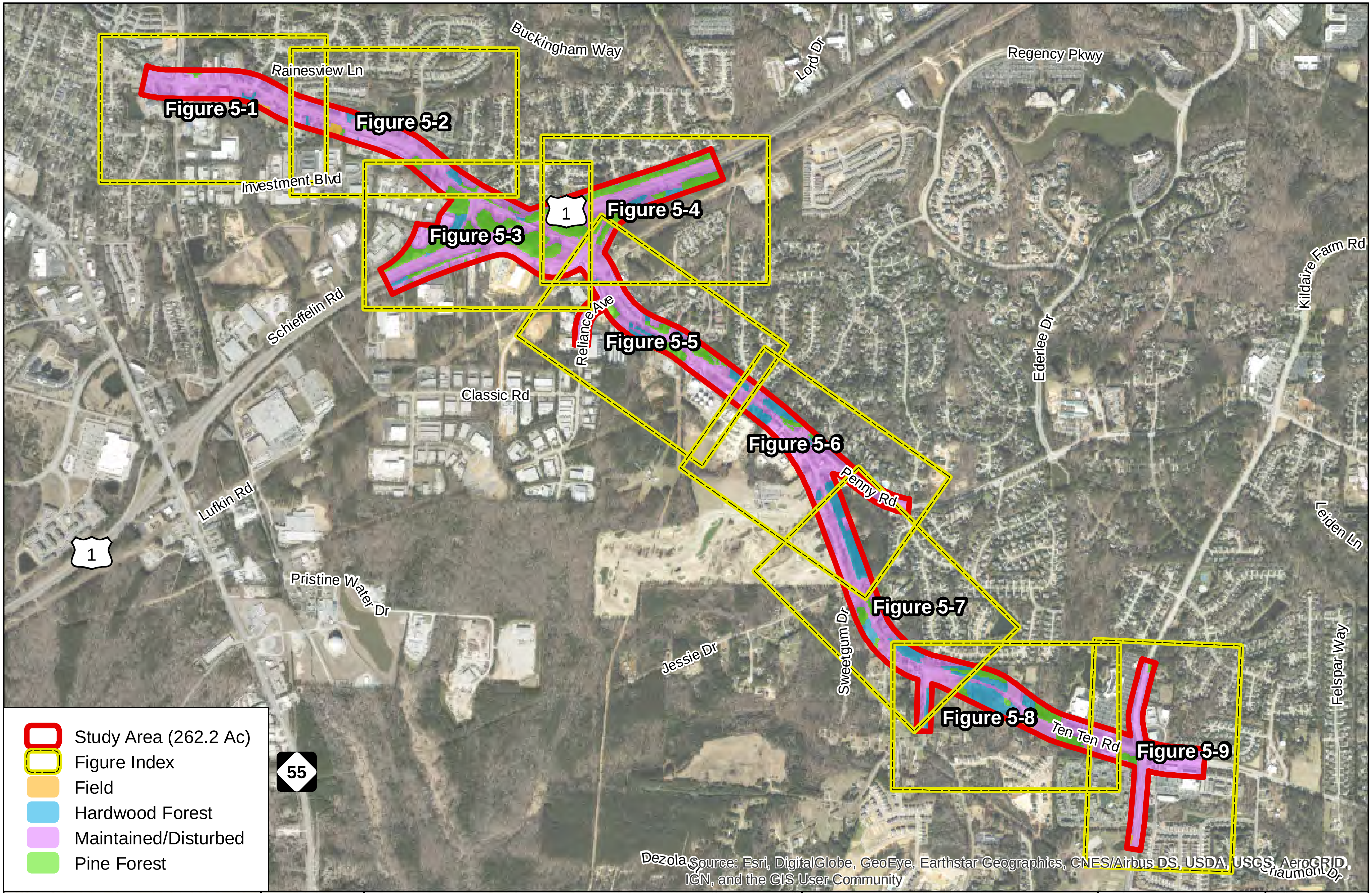
Service Layer Credits: NCDOT GIS Unit, NCDOT STIP Unit

Non-NCDOT Projects are in varying stages of planning, design and funding. Inclusion on this map only indicates the potential for these projects to be implemented.

Figure 4. Area Projects

Prepared by: VHB Date:October 2018

September 19, 2018



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

Scale
0 500 1,000 2,000
Feet

Figure 5
Terrestrial Communities Index Map

U-5825
Ten Ten Road Improvements
Wake County

September 19, 2018

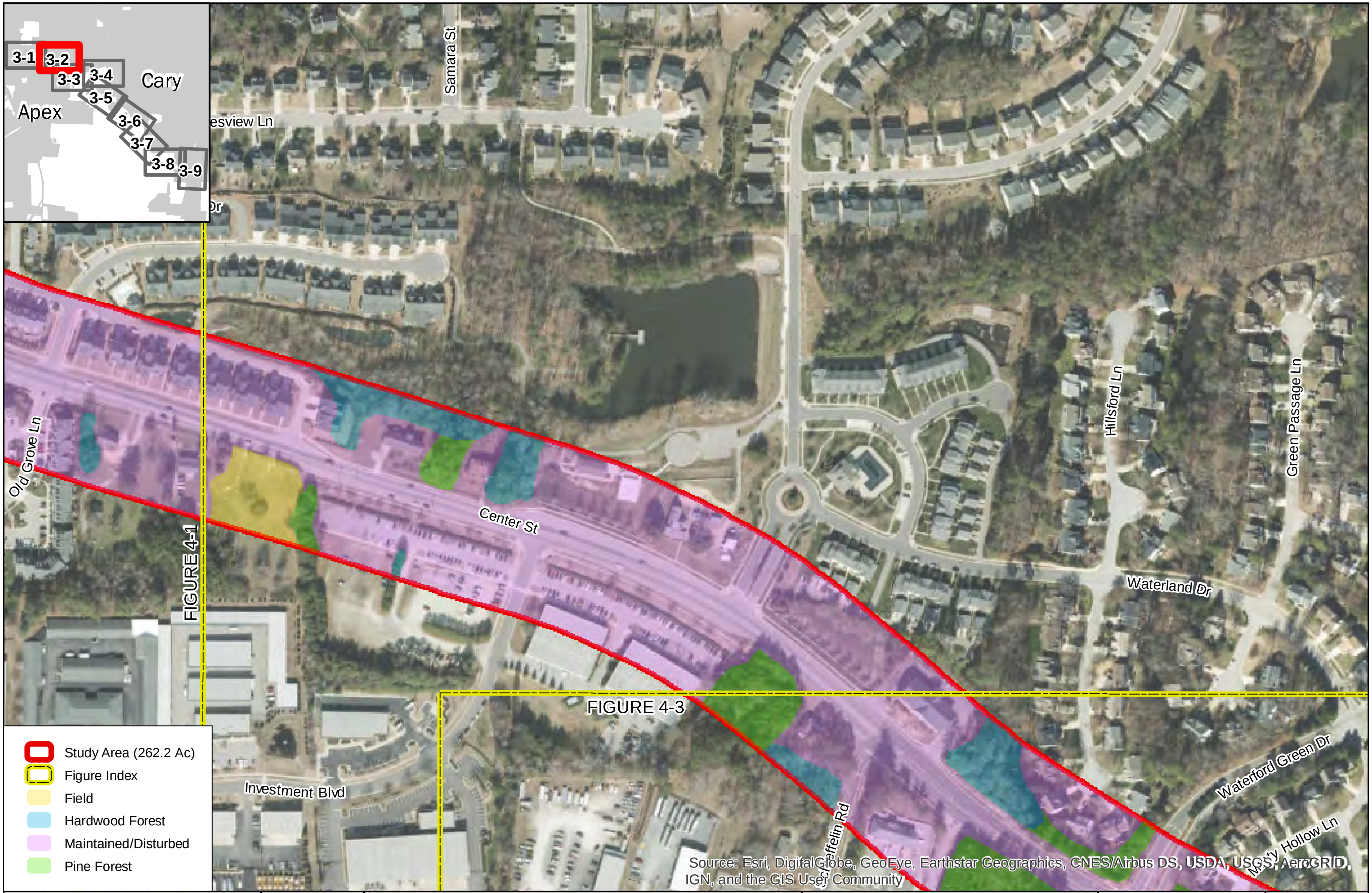
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Scale
0 75 150 300
Feet

Figure 5-1
Terrestrial Communities

U-5825
Ten Ten Road Improvements
Wake County

September 19, 2018



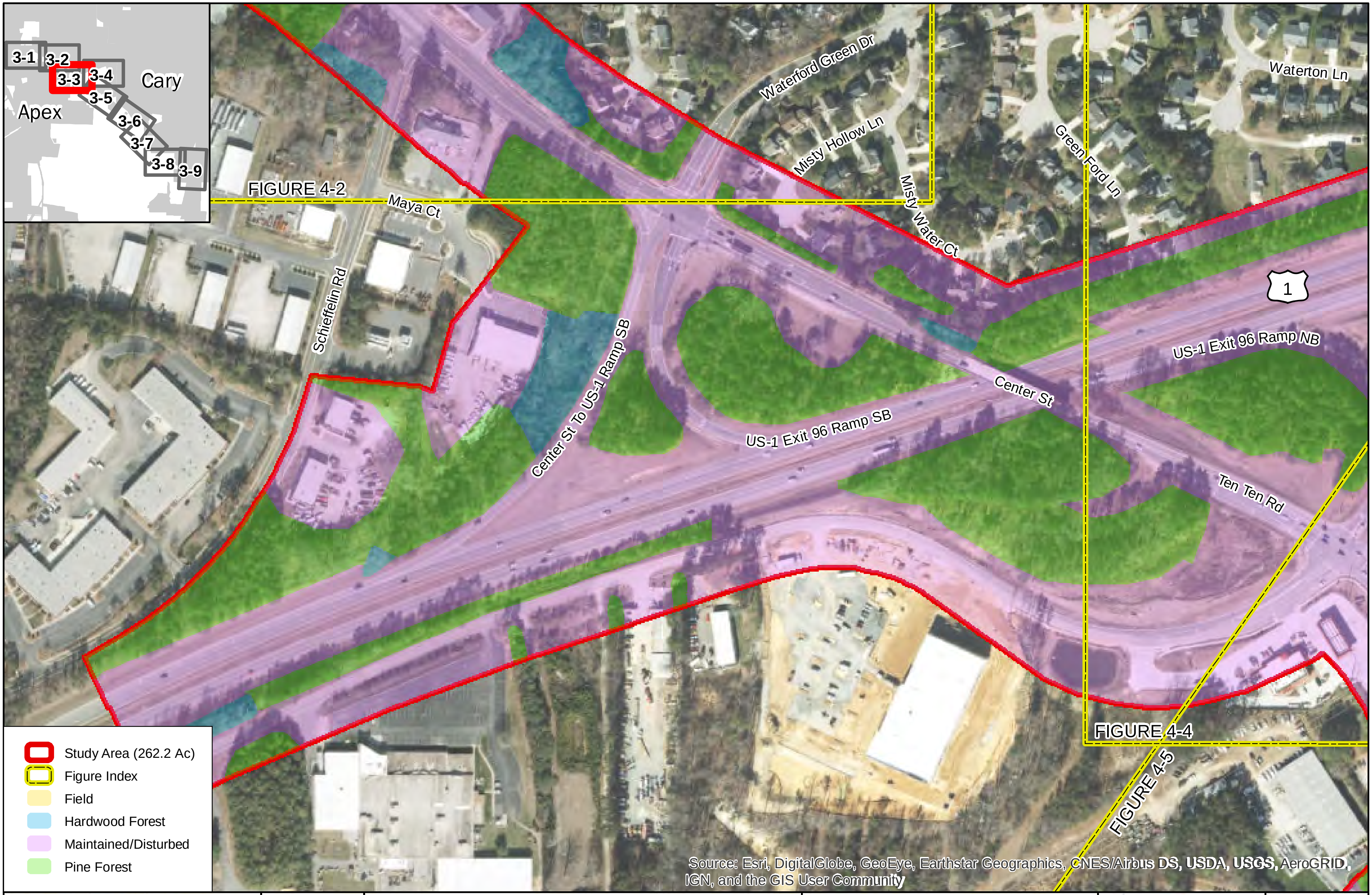
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Scale
0 75 150 300
Feet

Figure 5-2
Terrestrial Communities

U-5825
Ten Ten Road Improvements
Wake County

September 19, 2018



🟥 Study Area (262.2 Ac)
🟨 Figure Index
🟨 Field
🟦 Hardwood Forest
🟪 Maintained/Disturbed
🟩 Pine Forest

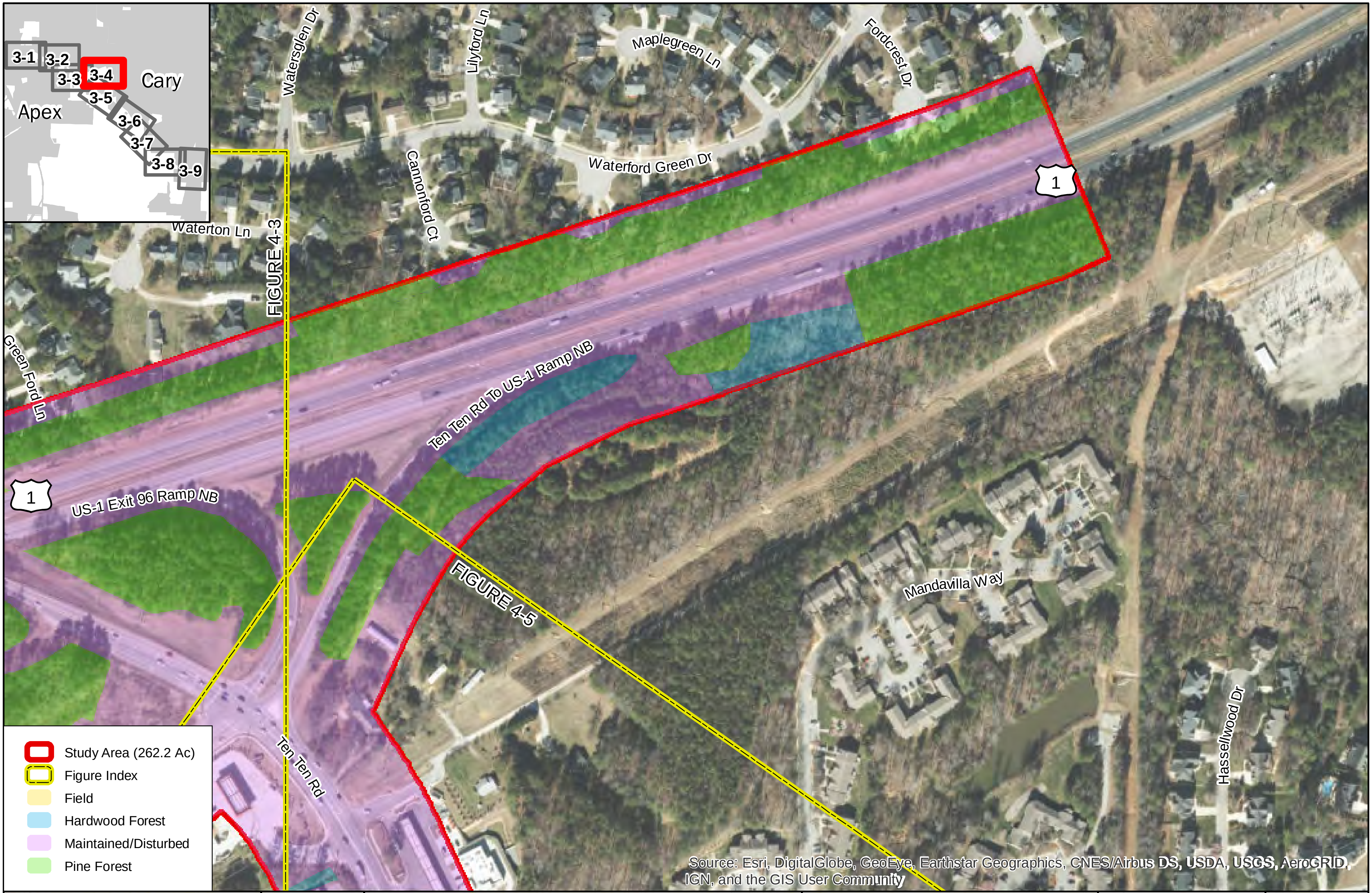
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Scale
0 75 150 300
Feet

Figure 5-3
Terrestrial Communities

U-5825
Ten Ten Road Improvements
Wake County

September 19, 2018



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

Scale

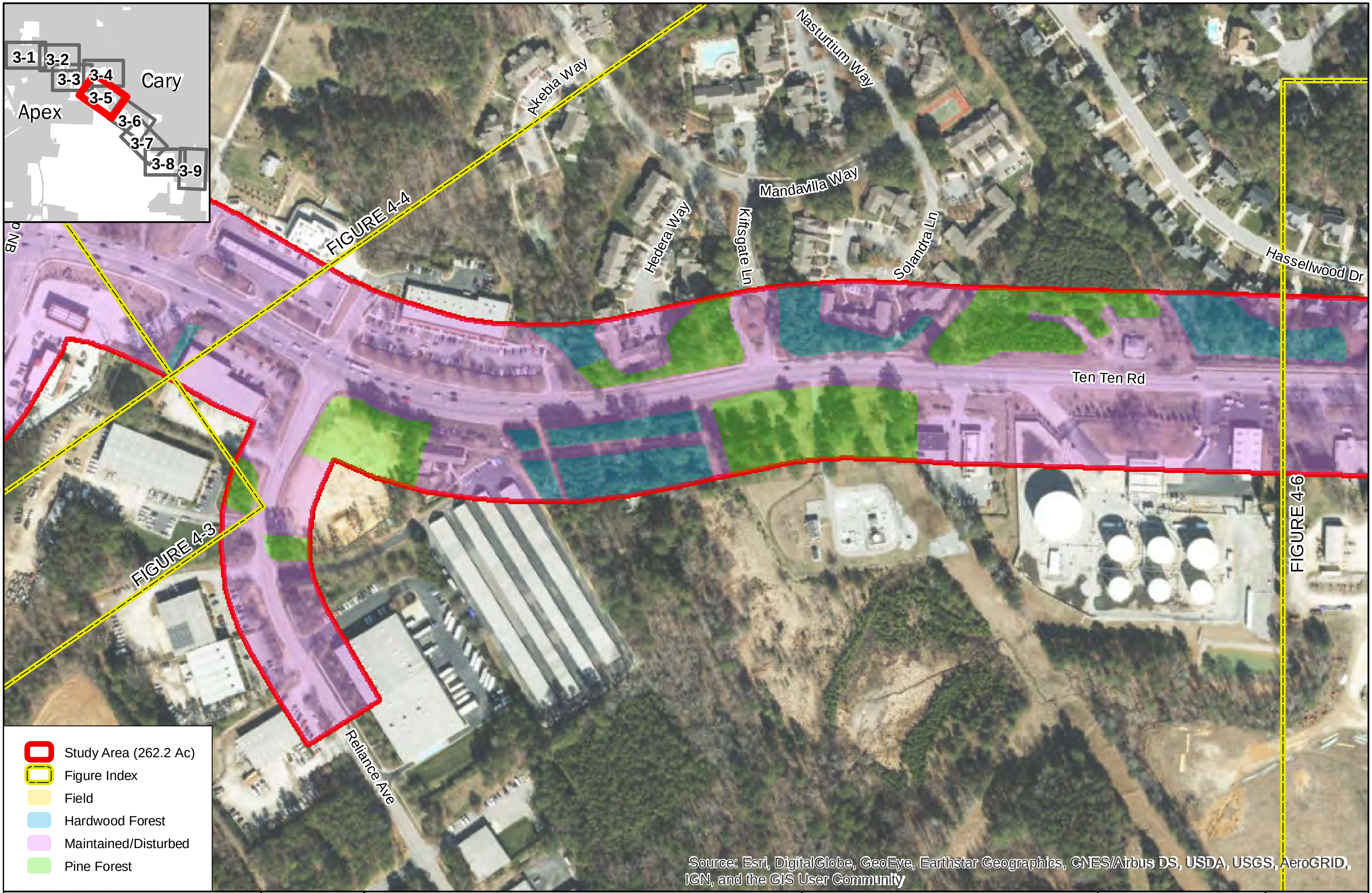
0 75 150 300

Feet

Figure 5-4
Terrestrial Communities

U-5825
Ten Ten Road Improvements
Wake County

September 19, 2018



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

Scale
0 75 150 300
Feet

Figure 5-5
Terrestrial Communities

U-5825
Ten Ten Road Improvements
Wake County

September 19, 2018

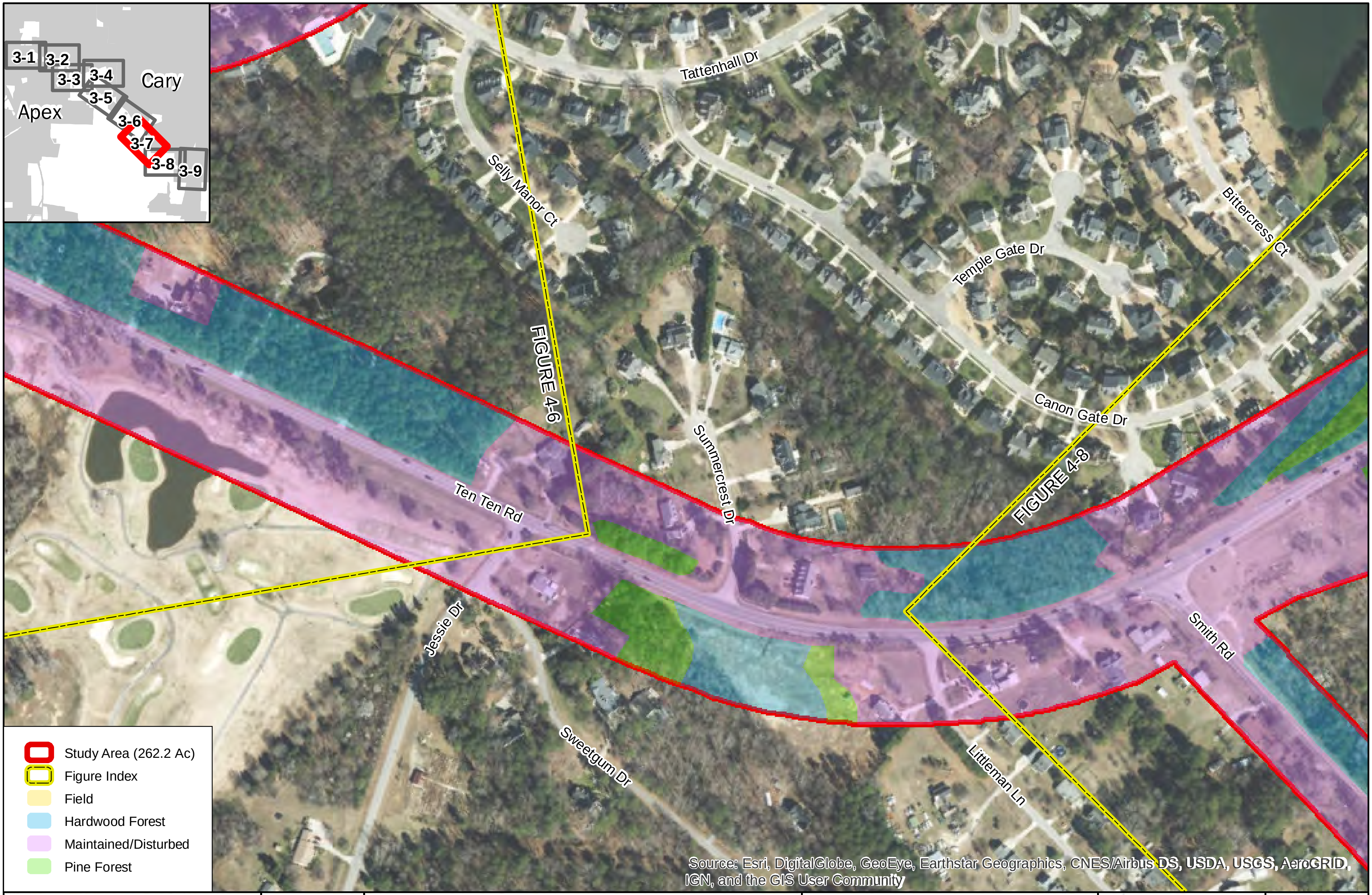
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Scale
0 75 150 300
Feet

Figure 5-6
Terrestrial Communities

U-5825
Ten Ten Road Improvements
Wake County

September 19, 2018



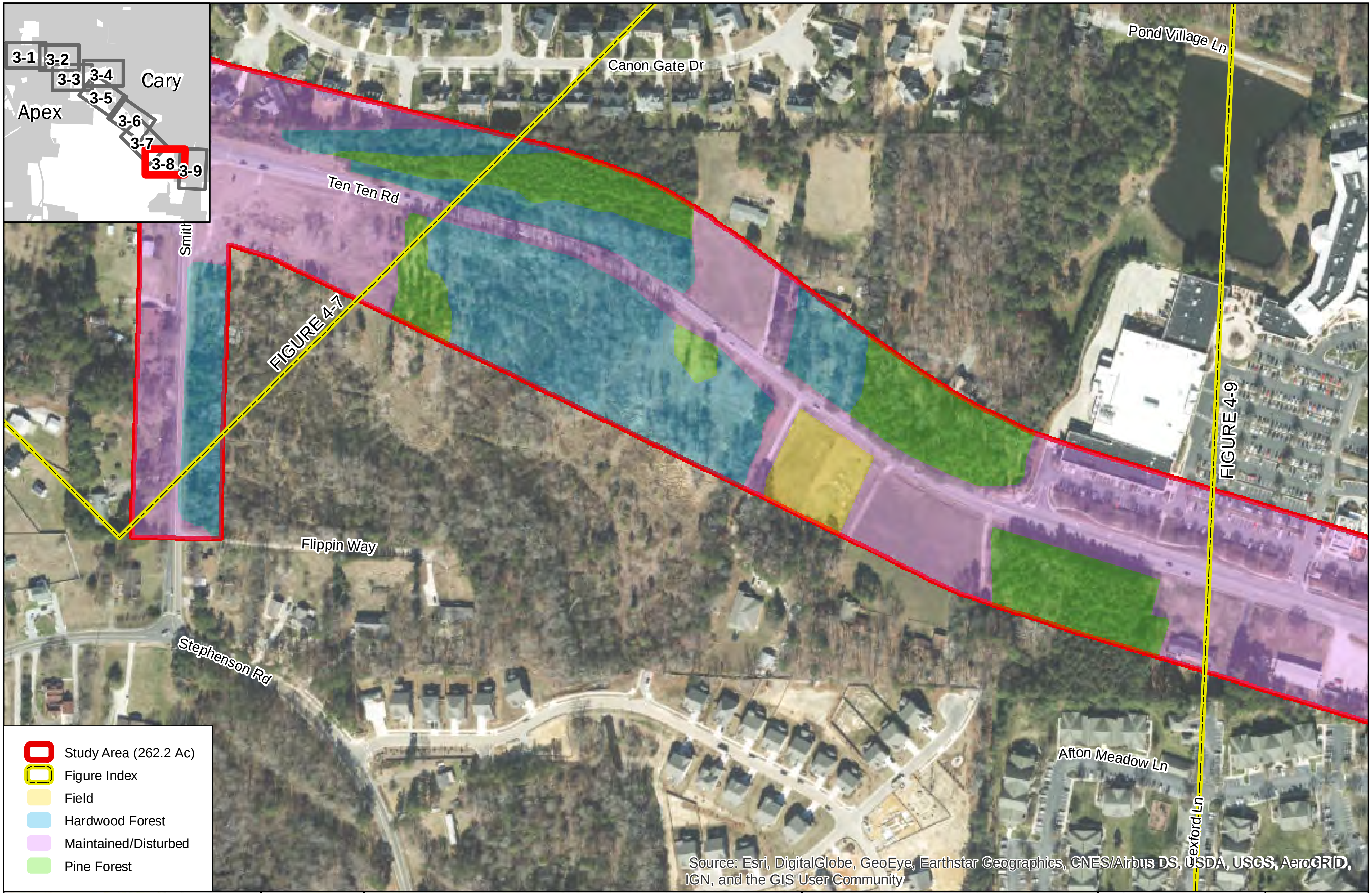
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Scale
0 75 150 300
Feet

Figure 5-7
Terrestrial Communities

U-5825
Ten Ten Road Improvements
Wake County

September 19, 2018



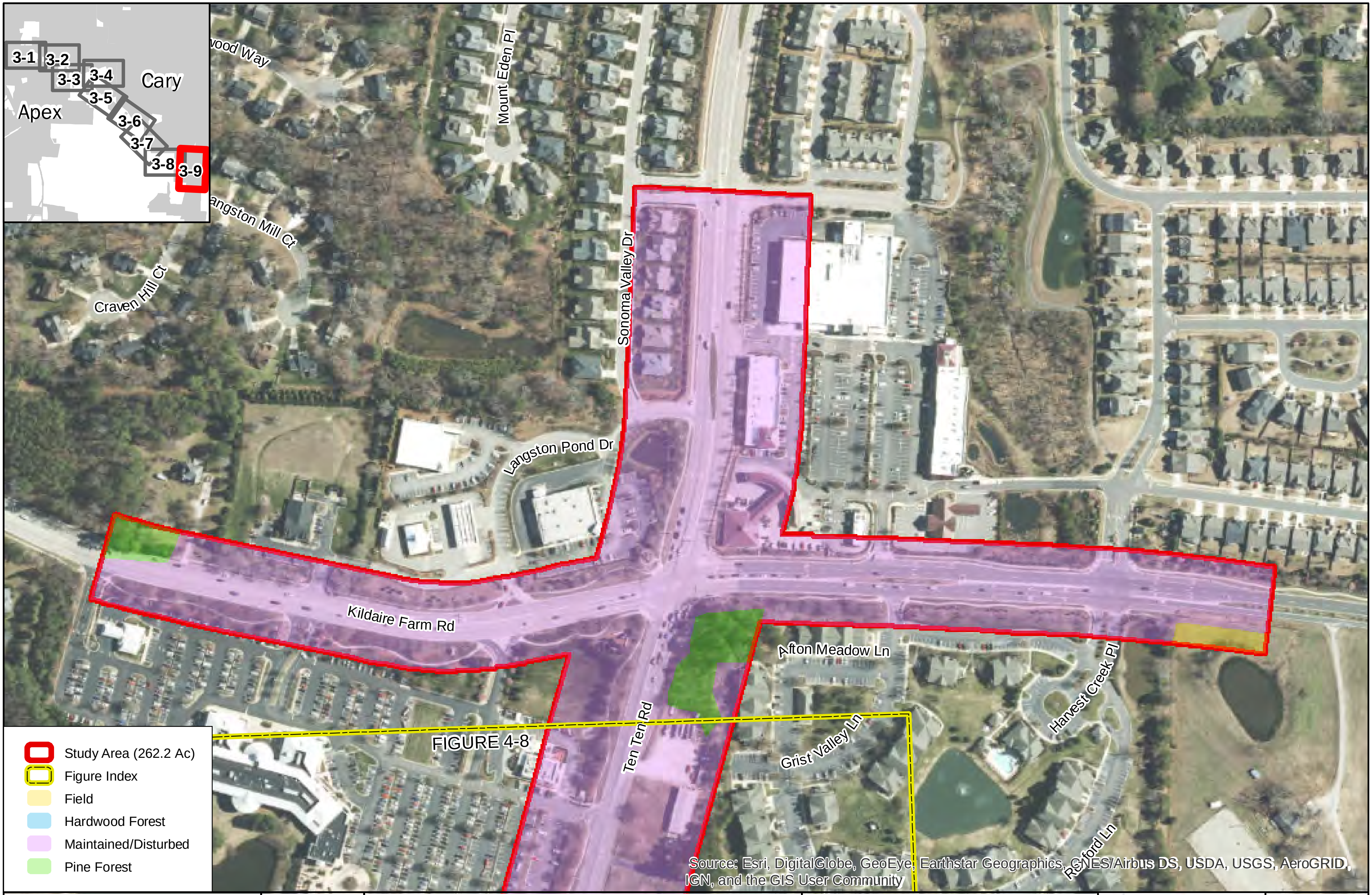
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Scale
0 75 150 300
Feet

Figure 5-8
Terrestrial Communities

U-5825
Ten Ten Road Improvements
Wake County

September 19, 2018



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

Scale
0 75 150 300
Feet

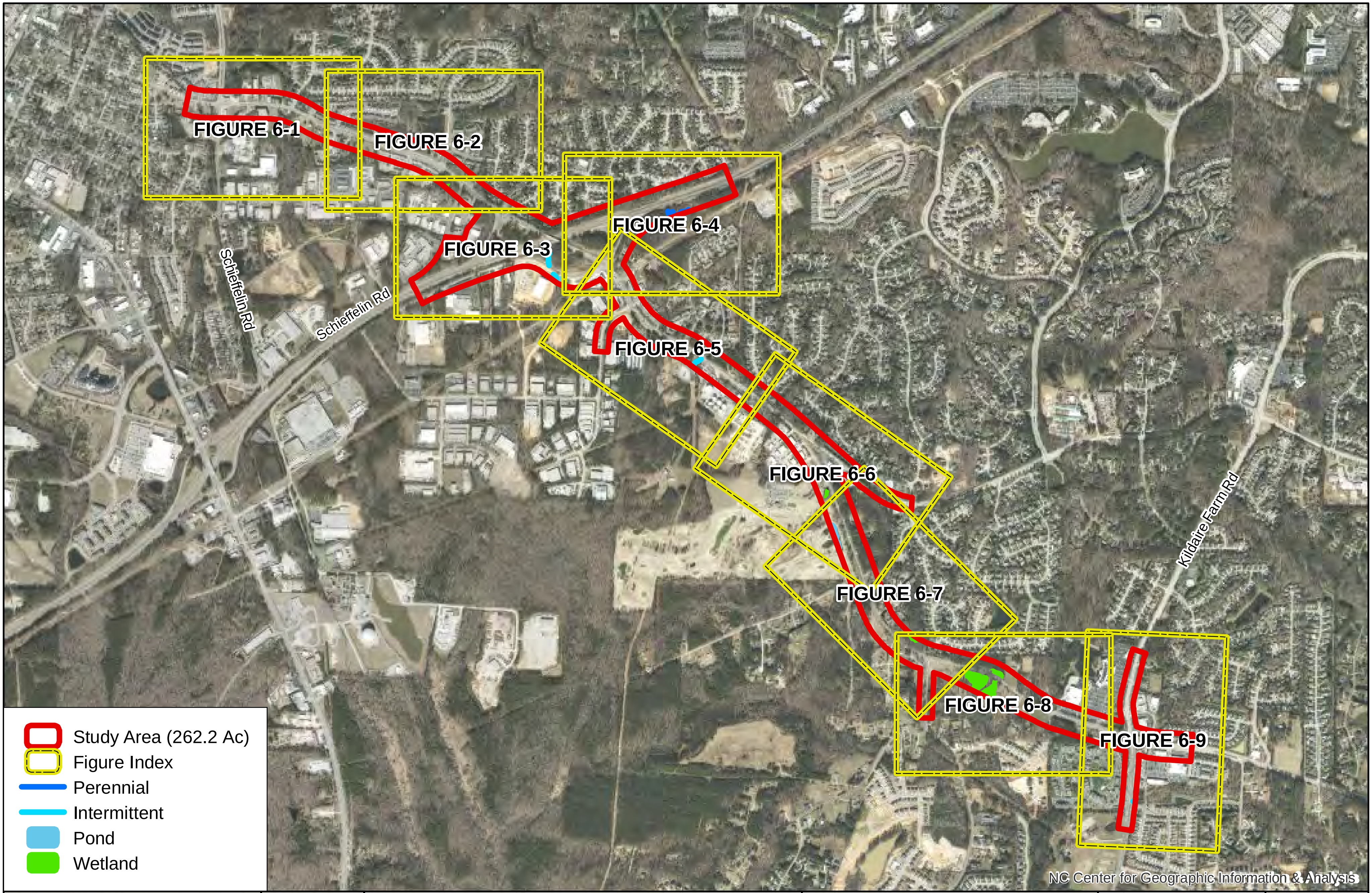
N

Figure 5-9
Terrestrial Communities

U-5825
Ten Ten Road Improvements
Wake County

vhb

September 19, 2018



Scale
0 500 1,000 2,000
Feet

Figure 6
Jurisdictional Features Index Map

U-5825
Ten Ten Road Improvements
Wake County

September 19, 2018

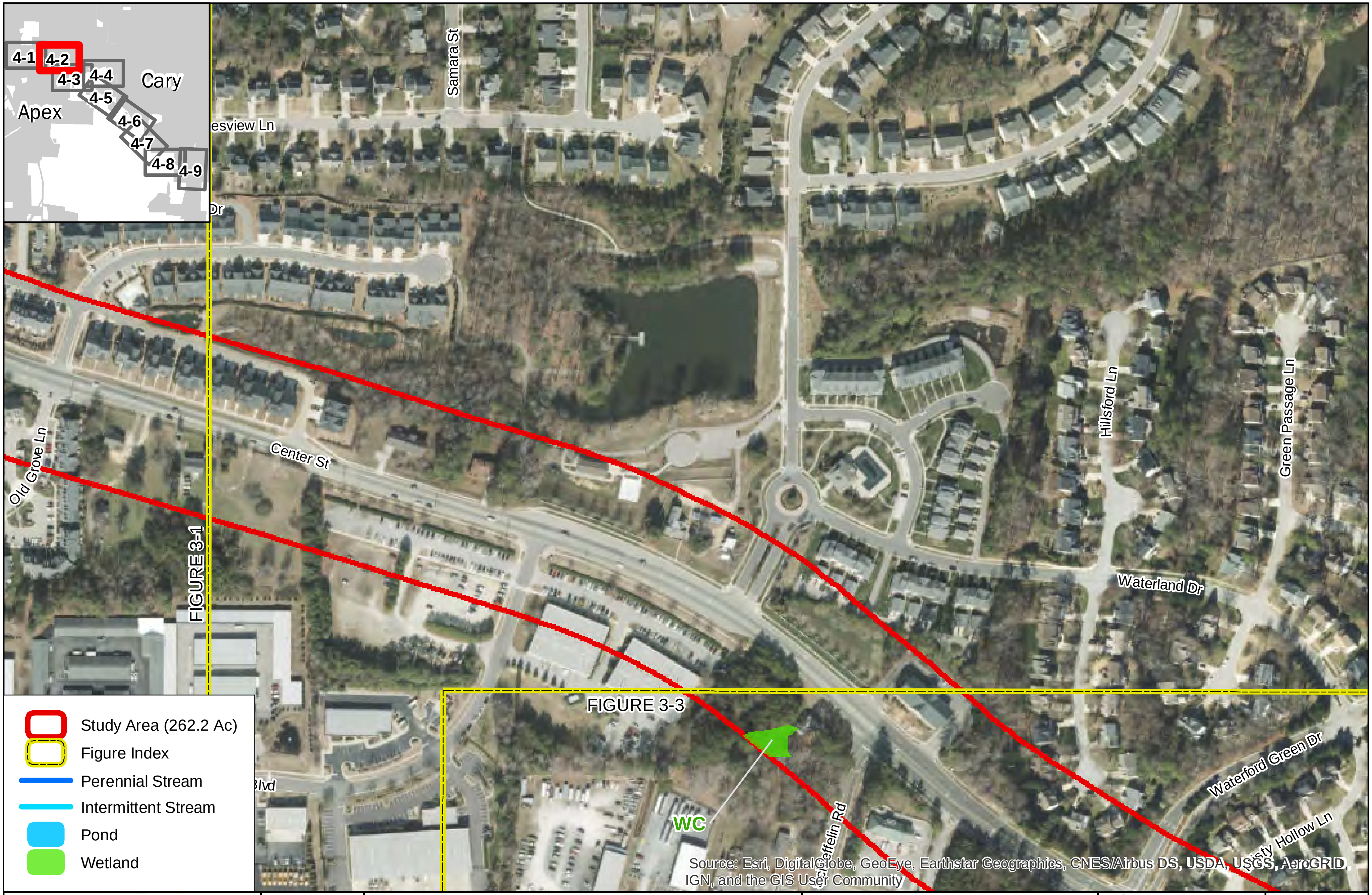
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Scale
0 75 150 300
Feet

Figure 6-1
Jurisdictional Resources

U-5825
Ten Ten Road Improvements
Wake County

September 19, 2018



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

Scale

0 75 150 300

Feet

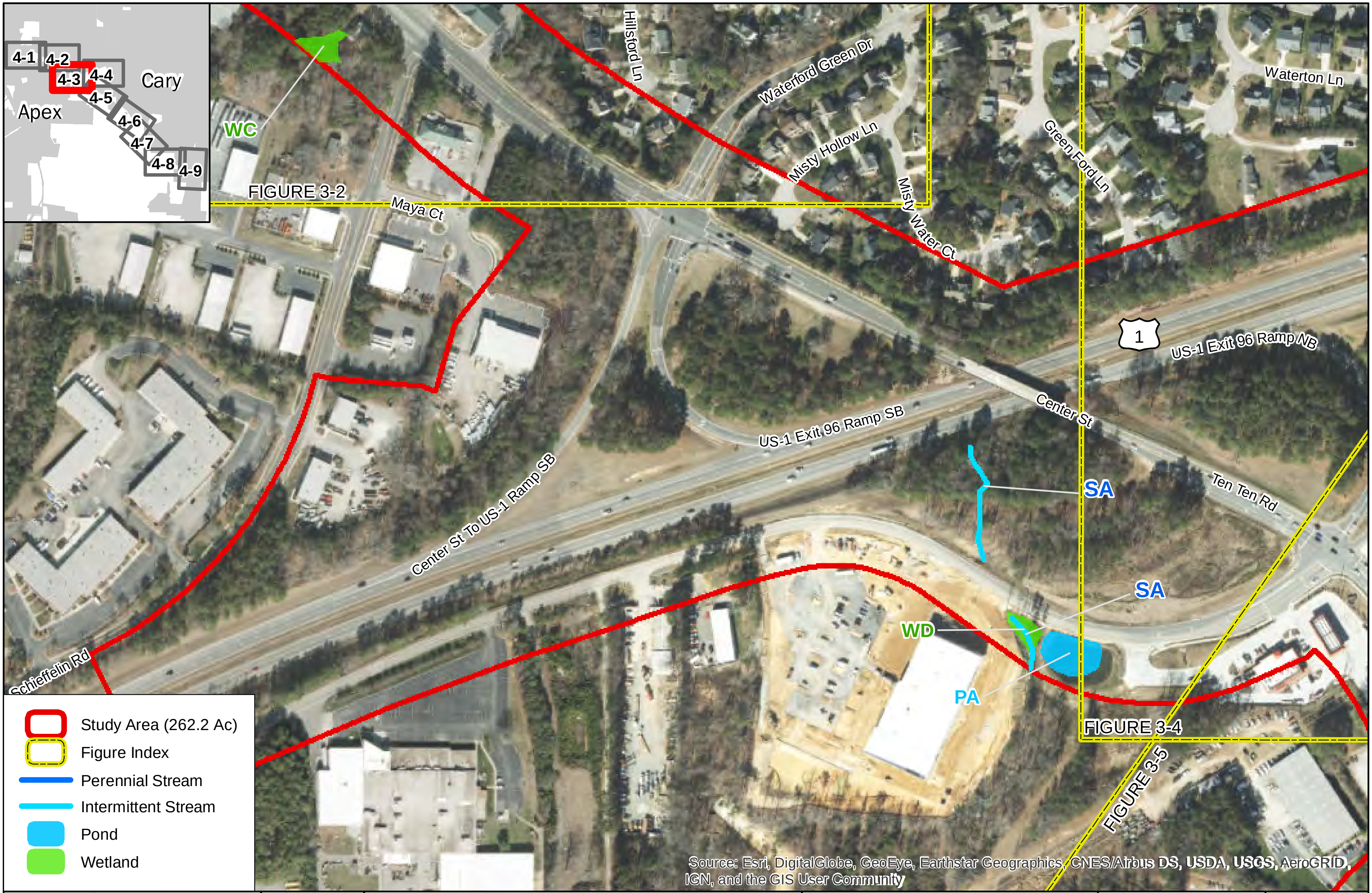
Figure 6-2
Jurisdictional Resources

U-5825

Ten Ten Road Improvements

Wake County

September 19, 2018



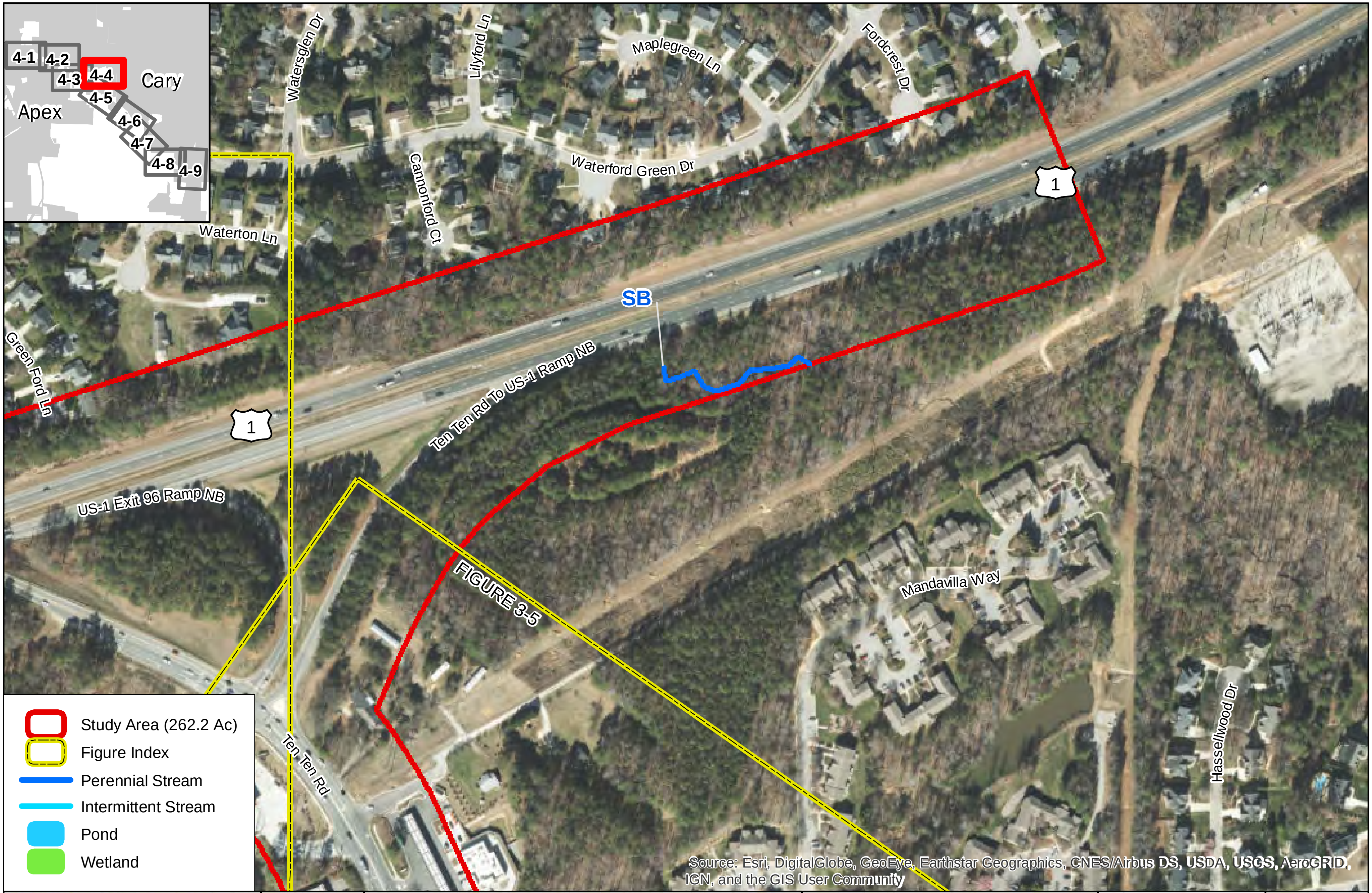
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Scale
0 75 150 300
Feet

Figure 6-3
Jurisdictional Resources

U-5825
Ten Ten Road Improvements
Wake County

September 19, 2018



- 🟥 Study Area (262.2 Ac)
- 🟨 Figure Index
- ▬ Perennial Stream
- ▬ Intermittent Stream
- 🟦 Pond
- 🟩 Wetland

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

Scale
0 75 150 300
Feet

Figure 6-4
Jurisdictional Resources

U-5825
Ten Ten Road Improvements
Wake County

September 19, 2018

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

Scale
0 75 150 300
Feet

Figure 6-5
Jurisdictional Resources

U-5825
Ten Ten Road Improvements
Wake County

September 19, 2018

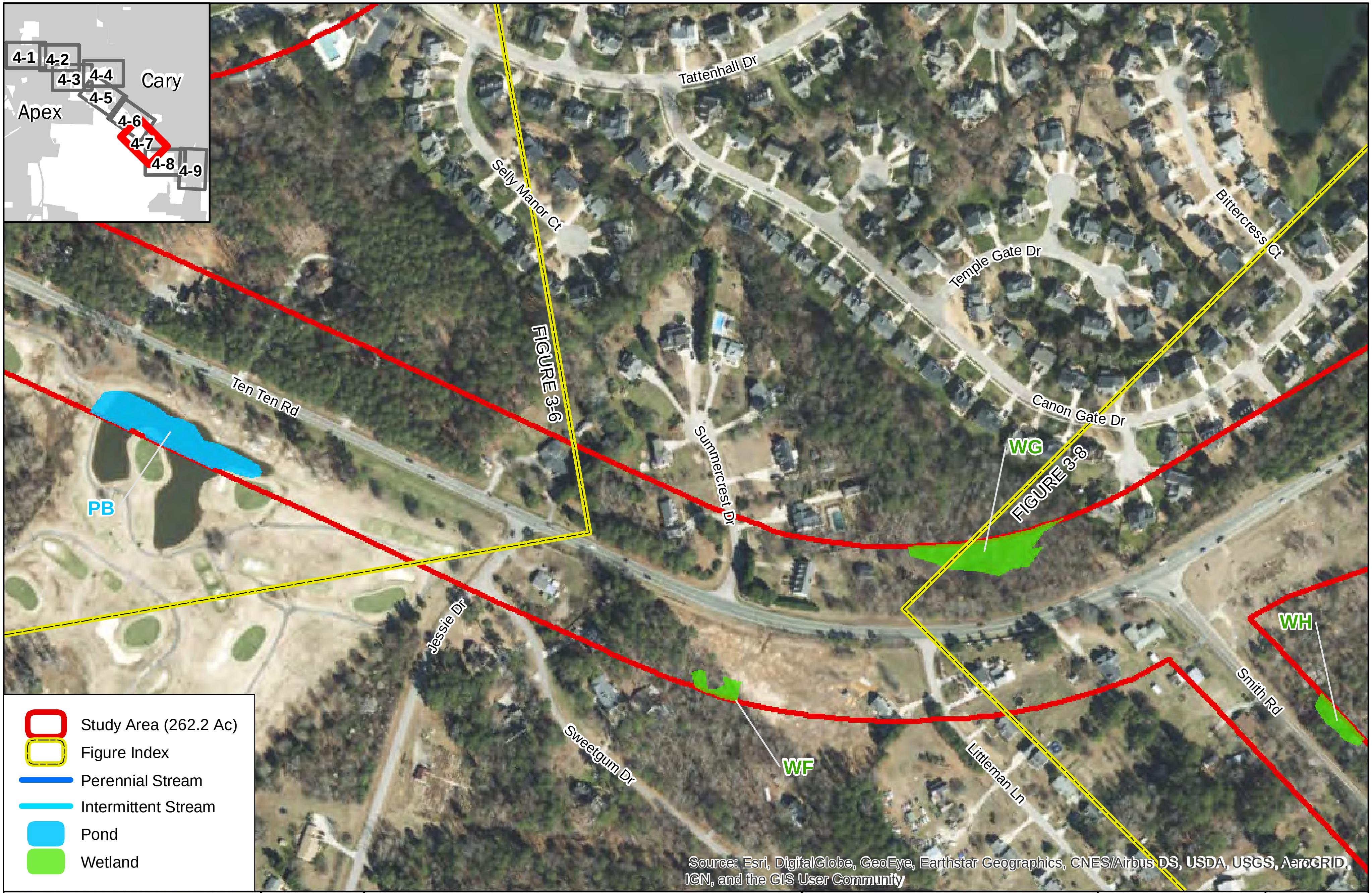
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Scale
0 75 150 300
Feet

Figure 6-6
Jurisdictional Resources

U-5825
Ten Ten Road Improvements
Wake County

September 19, 2018



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

Scale
0 75 150 300
Feet

Figure 6-7
Jurisdictional Resources

U-5825
Ten Ten Road Improvements
Wake County

September 19, 2018

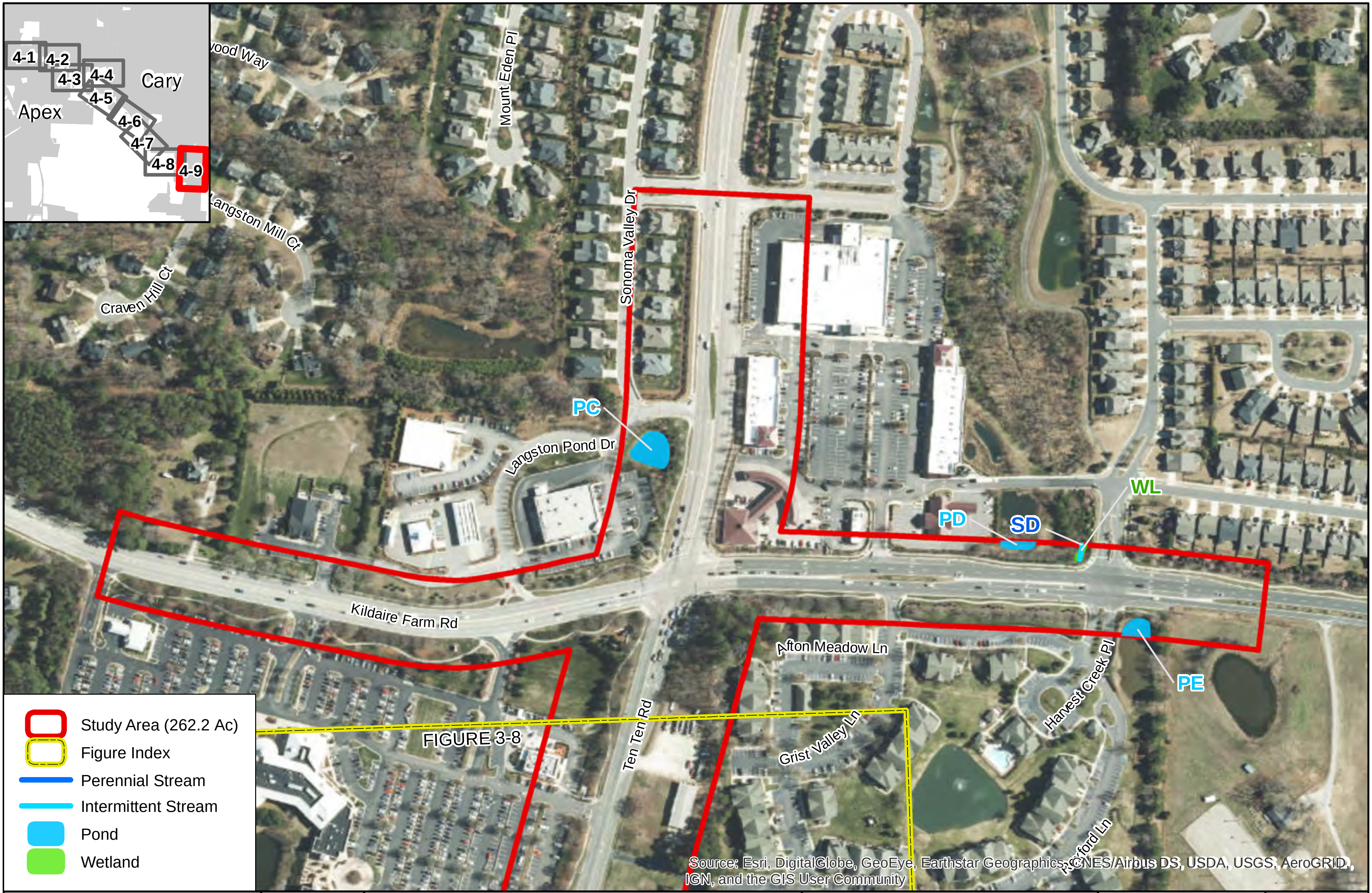
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Scale
0 75 150 300
Feet

Figure 6-8
Jurisdictional Resources

U-5825
Ten Ten Road Improvements
Wake County

September 24, 2018



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

Scale
0 75 150 300
Feet

Figure 6-9
Jurisdictional Resources

U-5825
Ten Ten Road Improvements
Wake County

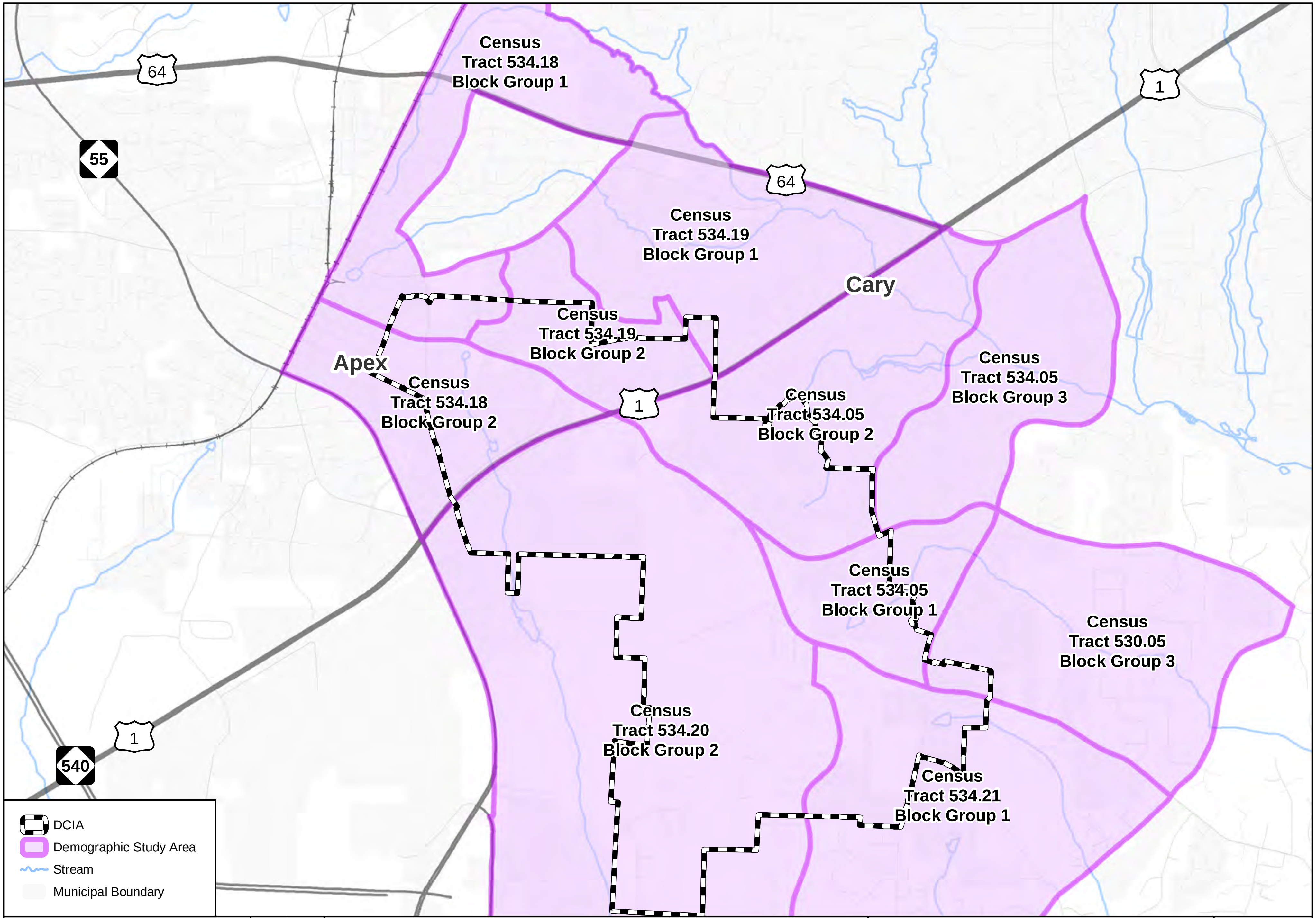
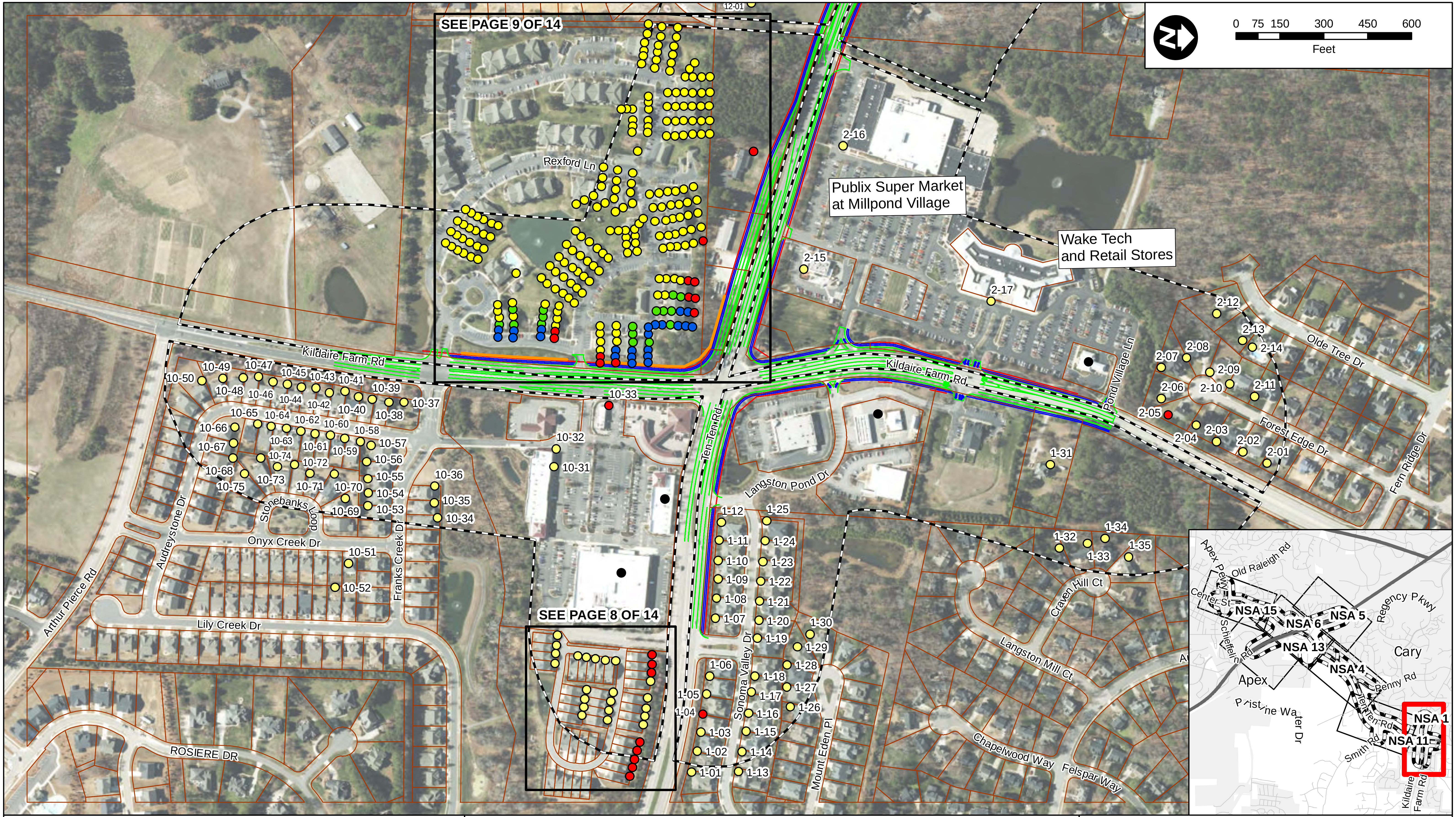


Figure 7. Demographic Study Area

Prepared by: VHB Date: December 2018

STIP No. U-5825
Ten Ten Road from Apex Peakway
To Kildaire Farm Road
Wake County

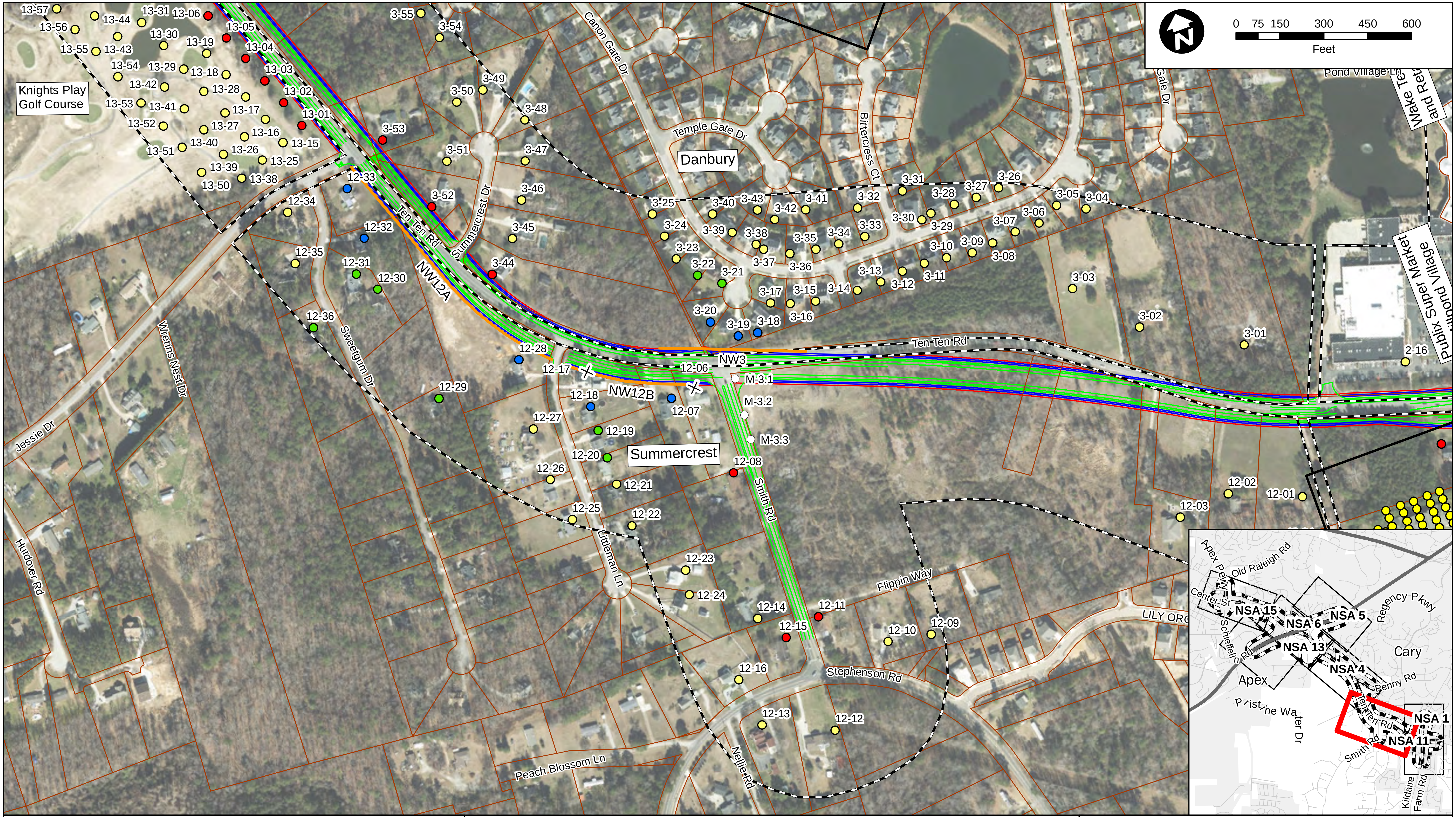
12/18/2018



Ten Ten Road Widening Project
Traffic Noise Report
STIP U-5825
Wake County, North Carolina

🔵 Impacted and Benefited
🟢 Not Impacted But Benefited
🔴 Impacted Not Benefited
🟡 Not Impacted Not Benefited
● Non-Noise Sensitive Site
○ Monitoring Site
× Property Acquisition
▭ NSAs Revised
▭ Parcel Boundary
— Recommended Noise Barriers
— Not Recommended Noise Barriers
— U-5825 Proposed EOP
— U-5825 Proposed ROW
— U-5825 Proposed Sidewalk

FIGURE 8
TRAFFIC NOISE ANALYSIS MAP
Page 1 of 14
JUNE 2019



🔵 Impacted and Benefited

🟢 Not Impacted But Benefited

🔴 Impacted Not Benefited

🟡 Not Impacted Not Benefited

● Non-Noise Sensitive Site

○ Monitoring Site

× Property Acquisition

▭ NSAs Revised

▭ Parcel Boundary

— Recommended Noise Barriers

- - Not Recommended Noise Barriers

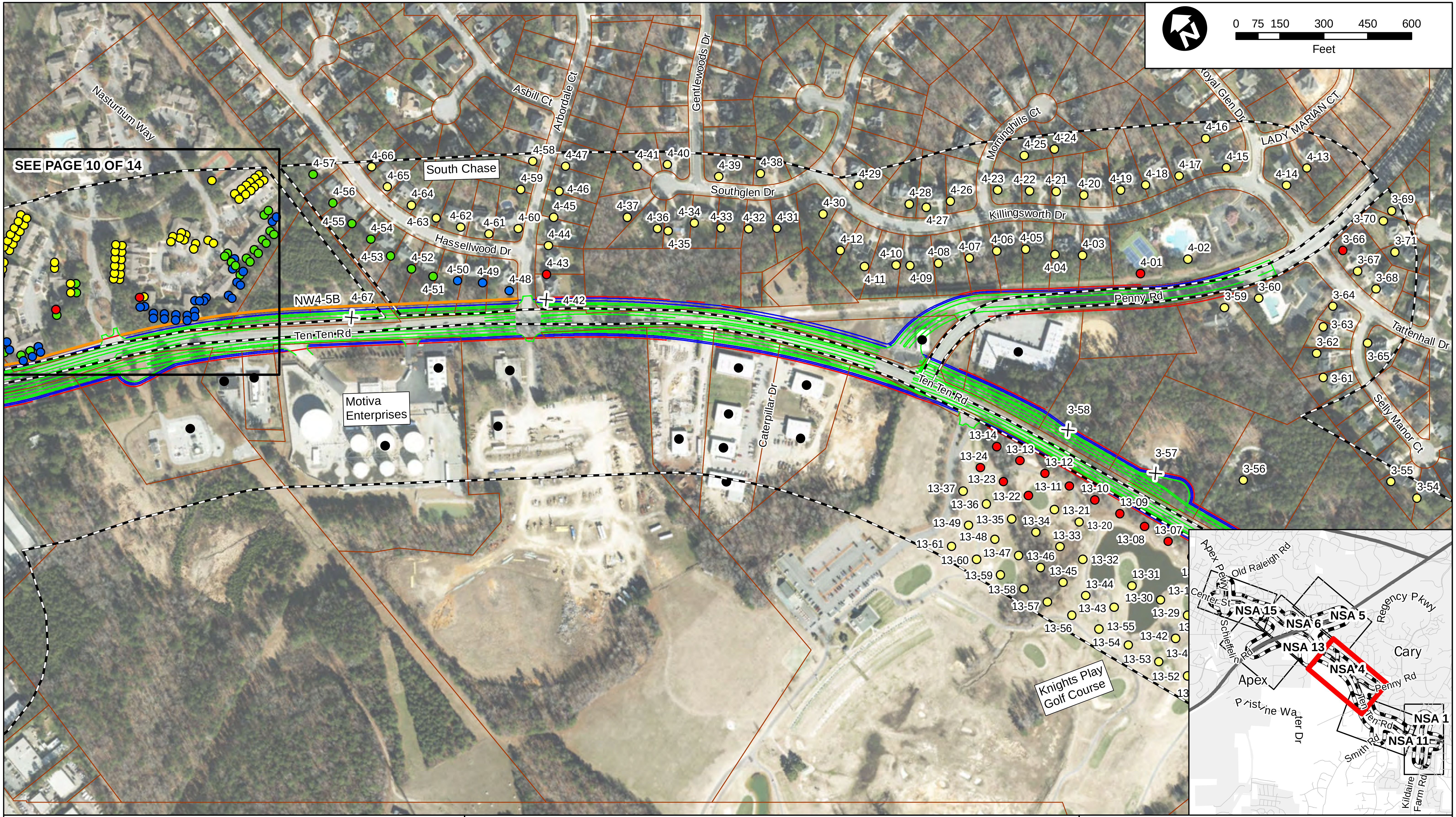
— U-5825 Proposed EOP

— U-5825 Proposed ROW

— U-5825 Proposed Sidewalk

Ten Ten Road Widening Project
Traffic Noise Report
STIP U-5825
Wake County, North Carolina

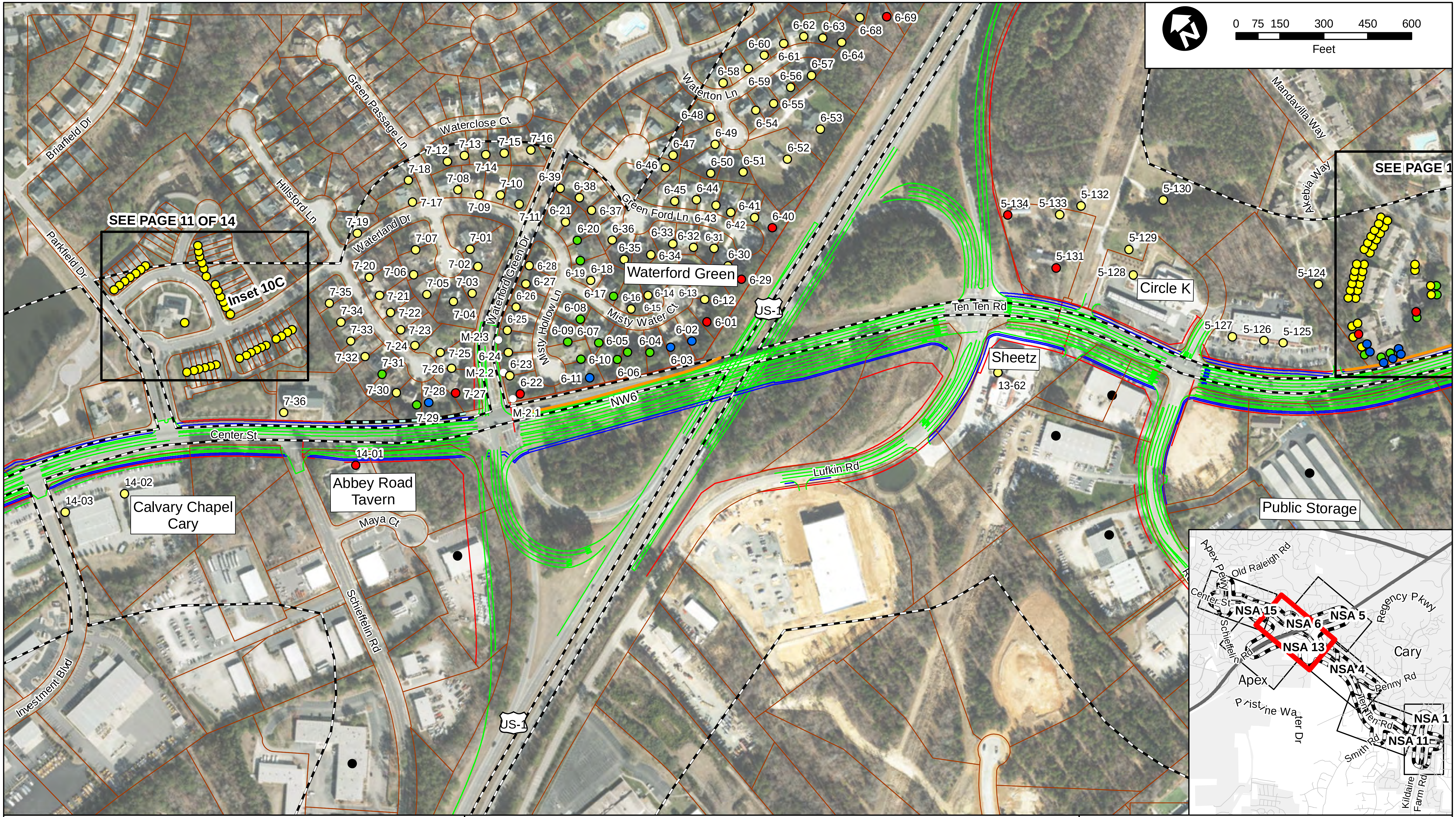
FIGURE 8
TRAFFIC NOISE ANALYSIS MAP
Page 2 of 14
JUNE 2019



- ● Impacted and Benefited
- ● Not Impacted But Benefited
- ● Impacted Not Benefited
- ● Not Impacted Not Benefited
- ● Non-Noise Sensitive Site
- ○ Monitoring Site
- × Property Acquisition
- ▭ NSAs Revised
- ▭ Parcel Boundary
- — Recommended Noise Barriers
- — Not Recommended Noise Barriers
- — U-5825 Proposed EOP
- — U-5825 Proposed ROW
- — U-5825 Proposed Sidewalk

Ten Ten Road Widening Project
Traffic Noise Report
STIP U-5825
Wake County, North Carolina

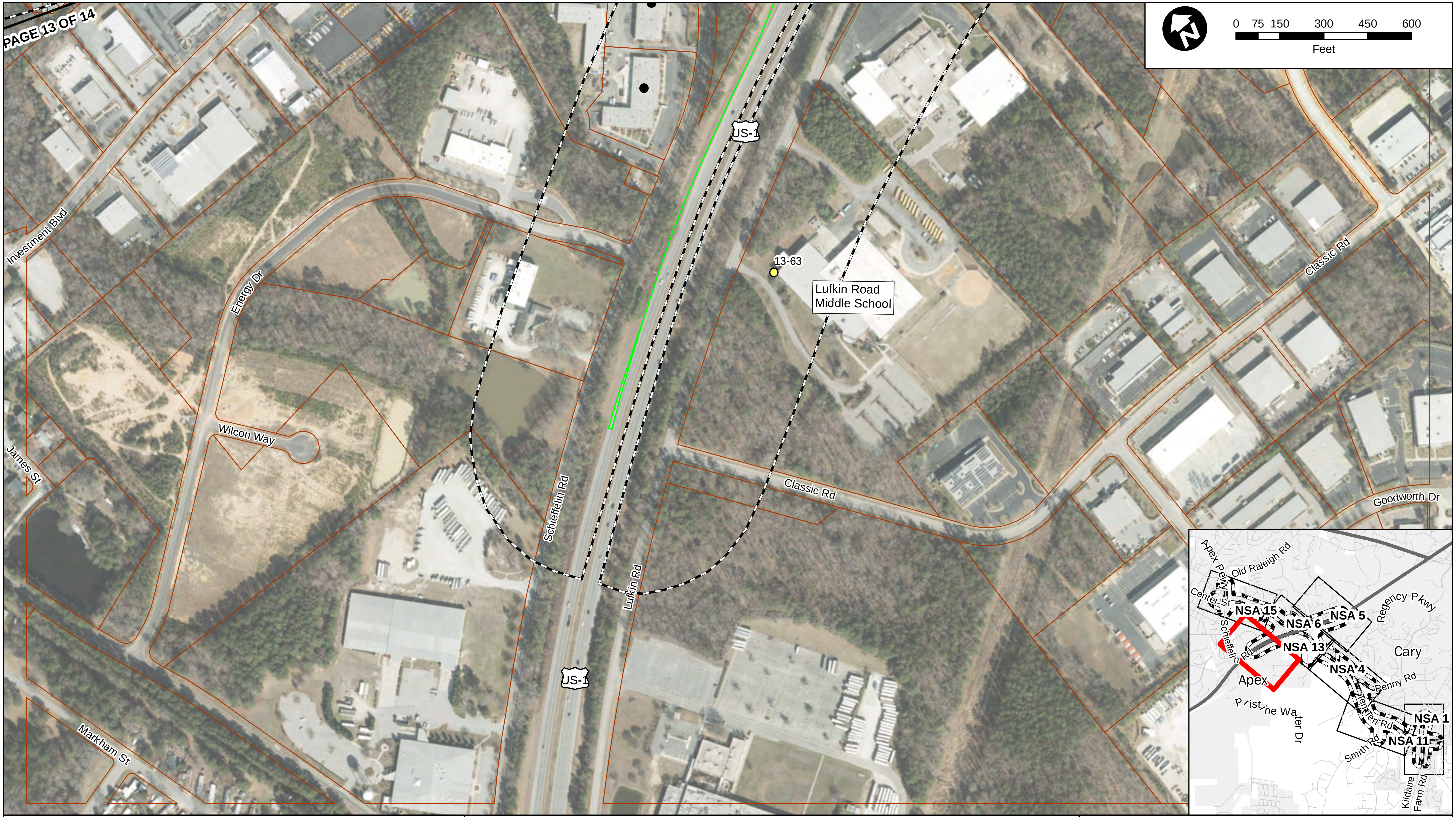
FIGURE 8
TRAFFIC NOISE ANALYSIS MAP
Page 3 of 14
JUNE 2019



Ten Ten Road Widening Project
Traffic Noise Report
STIP U-5825
Wake County, North Carolina

🔵 Impacted and Benefited
🟢 Not Impacted But Benefited
🔴 Impacted Not Benefited
🟡 Not Impacted Not Benefited
● Non-Noise Sensitive Site
○ Monitoring Site
× Property Acquisition
NSAs Revised
Parcel Boundary
Recommended Noise Barriers
Not Recommended Noise Barriers
U-5825 Proposed EOP
U-5825 Proposed ROW
U-5825 Proposed Sidewalk

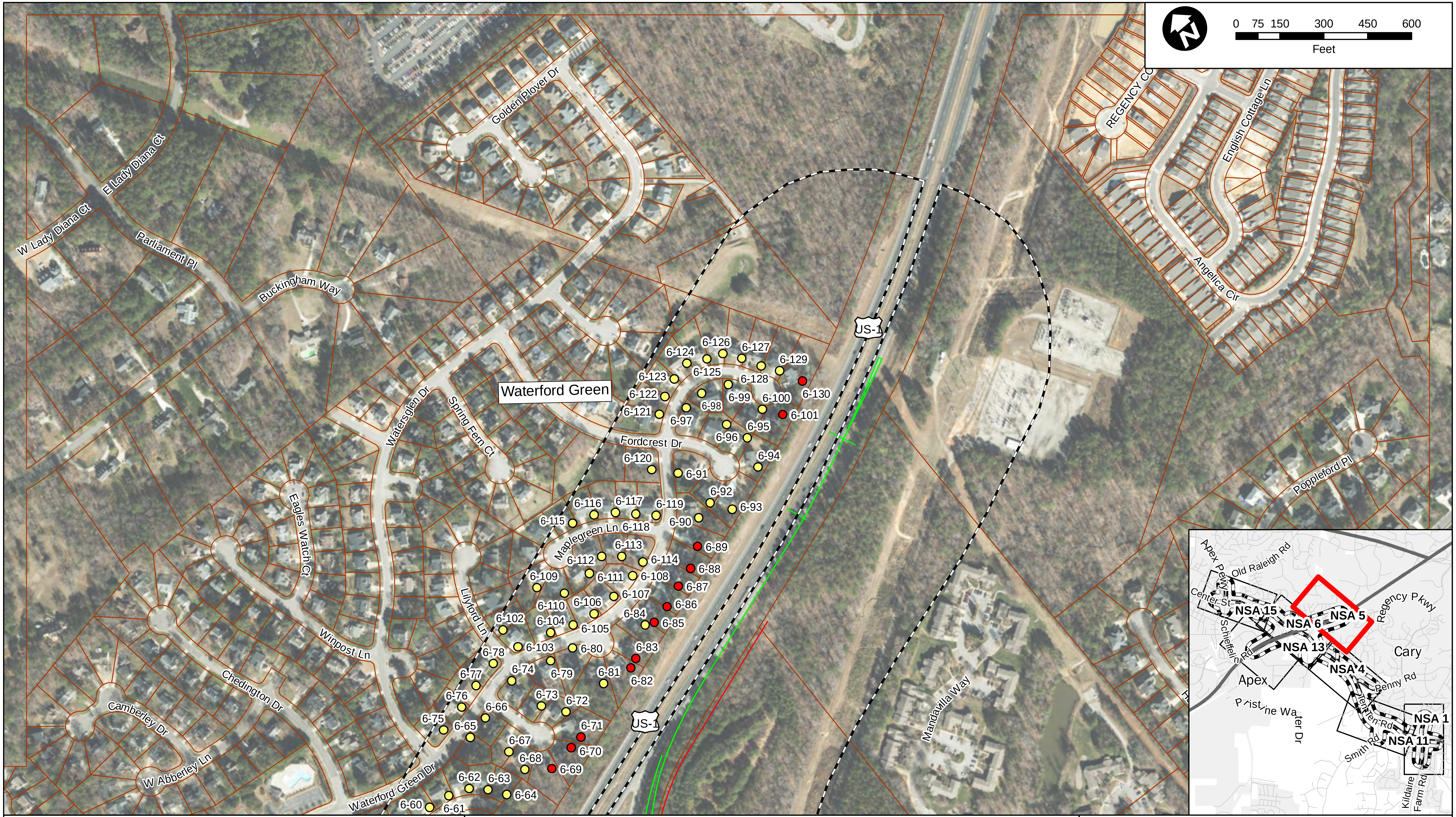
FIGURE 8
TRAFFIC NOISE ANALYSIS MAP
Page 4 of 14
JUNE 2019



Ten Ten Road Widening Project
Traffic Noise Report
STIP U-5825
Wake County, North Carolina

- ● Impacted and Benefited
- ● Not Impacted But Benefited
- ● Impacted Not Benefited
- ● Not Impacted Not Benefited
- ● Non-Noise Sensitive Site
- ○ Monitoring Site
- × Property Acquisition
- ▭ NSAs Revised
- ▭ Parcel Boundary
- — Recommended Noise Barriers
- - - Not Recommended Noise Barriers
- — U-5825 Proposed EOP
- — U-5825 Proposed ROW
- — U-5825 Proposed Sidewalk

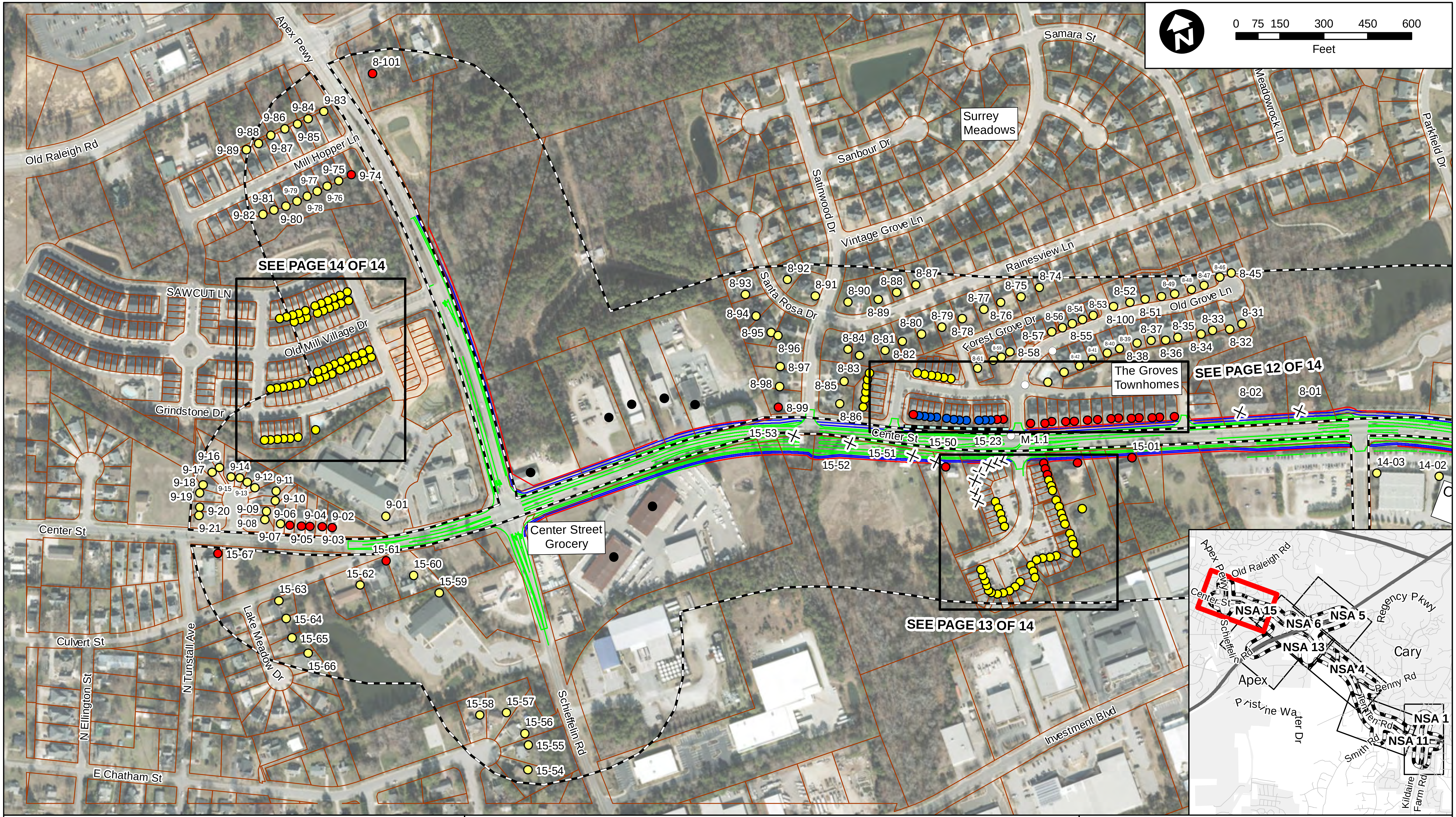
FIGURE 8
TRAFFIC NOISE ANALYSIS MAP
Page 5 of 14
JUNE 2019



Ten Ten Road Widening Project
Traffic Noise Report
STIP U-5825
Wake County, North Carolina

🔵 Impacted and Benefited
🟢 Not Impacted But Benefited
🔴 Impacted Not Benefited
🟡 Not Impacted Not Benefited
● Non-Noise Sensitive Site
○ Monitoring Site
× Property Acquisition
▭ NSAs Revised
▭ Parcel Boundary
— Recommended Noise Barriers
— Not Recommended Noise Barriers
— U-5825 Proposed EOP
— U-5825 Proposed ROW
— U-5825 Proposed Sidewalk

FIGURE 8
TRAFFIC NOISE ANALYSIS MAP
Page 6 of 14
JUNE 2019



Ten Ten Road Widening Project
Traffic Noise Report
STIP U-5825
Wake County, North Carolina

- 🔵 Impacted and Benefited
- 🟢 Not Impacted But Benefited
- 🔴 Impacted Not Benefited
- 🟡 Not Impacted Not Benefited
- ● Non-Noise Sensitive Site
- ○ Monitoring Site
- × Property Acquisition
- ▭ NSAs Revised
- ▭ Parcel Boundary
- — Recommended Noise Barriers
- — Not Recommended Noise Barriers
- — U-5825 Proposed EOP
- — U-5825 Proposed ROW
- — U-5825 Proposed Sidewalk

FIGURE 8
TRAFFIC NOISE ANALYSIS MAP

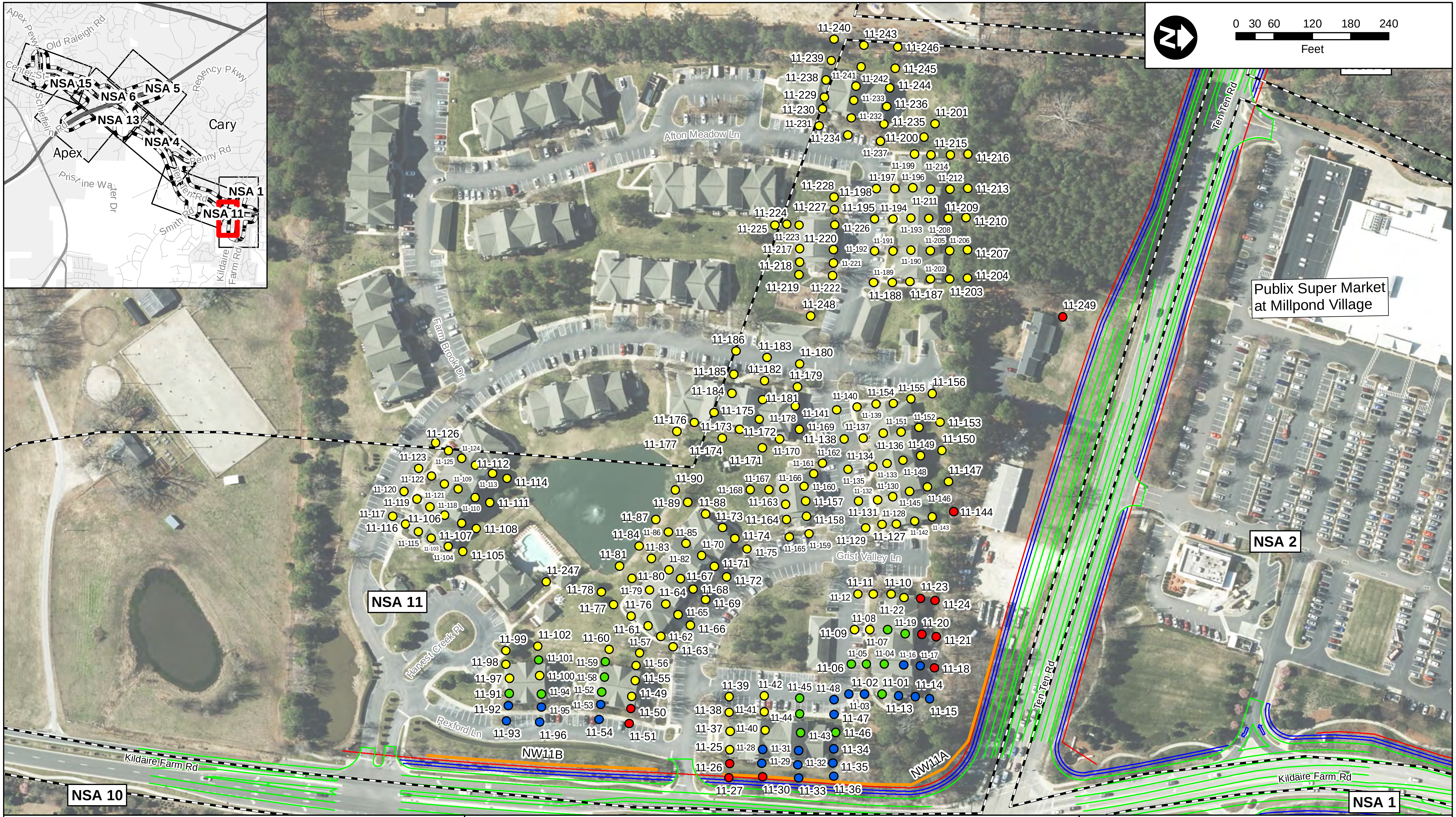
Page 7 of 14

JUNE 2019

Ten Ten Road Widening Project
Traffic Noise Report
STIP U-5825
Wake County, North Carolina

🔵 Impacted and Benefited
🟢 Not Impacted but Benefited
🔴 Impacted but Not Benefited
🟡 Not Impacted Not Benefited
● Non-Noise Sensitive Site
○ Monitoring Site
× Property Acquisition
▭ NSA Boundary
□ Parcel Boundary
— Recommended Noise Barriers
--- Not Recommended Noise Barriers
— U-5825 Proposed EOP
— U-5825 Proposed ROW
— U-5825 Proposed Sidewalk

FIGURE 8
TRAFFIC NOISE ANALYSIS MAP
Page 8 of 14
JUNE 2019



Ten Ten Road Widening Project
Traffic Noise Report
STIP U-5825
Wake County, North Carolina

● Impacted and Benefited

● Not Impacted but Benefited

● Impacted but Not Benefited

● Not Impacted Not Benefited

● Non-Noise Sensitive Site

○ Monitoring Site

× Property Acquisition

NSA Boundary

Parcel Boundary

Recommended Noise Barriers

Not Recommended Noise Barriers

U-5825 Proposed EOP

U-5825 Proposed ROW

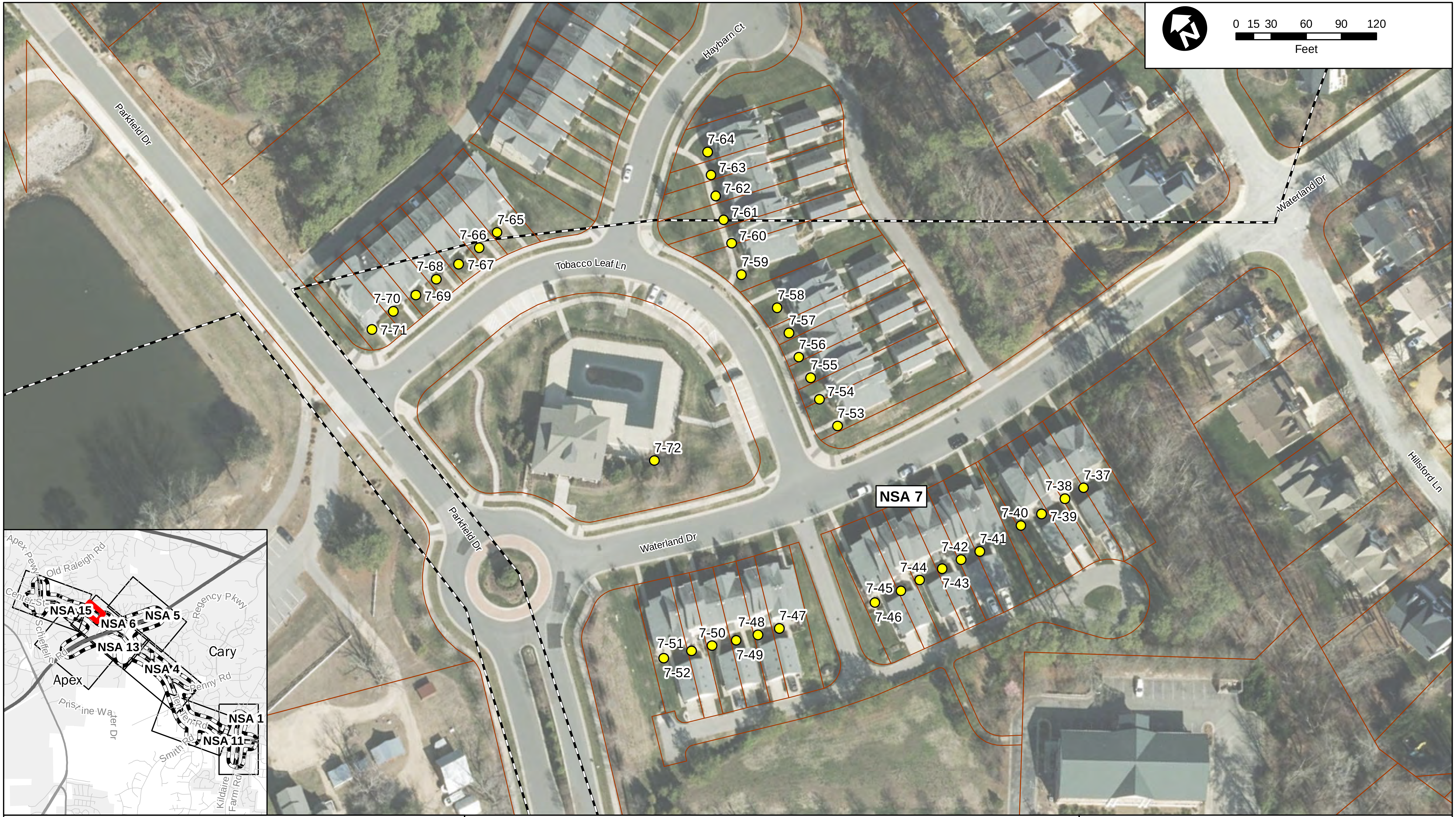
U-5825 Proposed Sidewalk

FIGURE 8
TRAFFIC NOISE ANALYSIS MAP
Page 9 of 14
JUNE 2019

Ten Ten Road Widening Project
Traffic Noise Report
STIP U-5825
Wake County, North Carolina

🔵 Impacted and Benefited
🟢 Not Impacted but Benefited
🔴 Impacted but Not Benefited
🟡 Not Impacted Not Benefited
⚫ Non-Noise Sensitive Site
○ Monitoring Site
× Property Acquisition
▭ NSA Boundary
▭ Parcel Boundary
— Recommended Noise Barriers
--- Not Recommended Noise Barriers
— U-5825 Proposed EOP
— U-5825 Proposed ROW
— U-5825 Proposed Sidewalk

FIGURE 8
TRAFFIC NOISE ANALYSIS MAP
Page 10 of 14
JUNE 2019



Ten Ten Road Widening Project
Traffic Noise Report
STIP U-5825
Wake County, North Carolina

● Impacted and Benefited

● Not Impacted but Benefited

● Impacted but Not Benefited

● Not Impacted Not Benefited

● Non-Noise Sensitive Site

○ Monitoring Site

× Property Acquisition

NSA Boundary

Parcel Boundary

Recommended Noise Barriers

Not Recommended Noise Barriers

U-5825 Proposed EOP

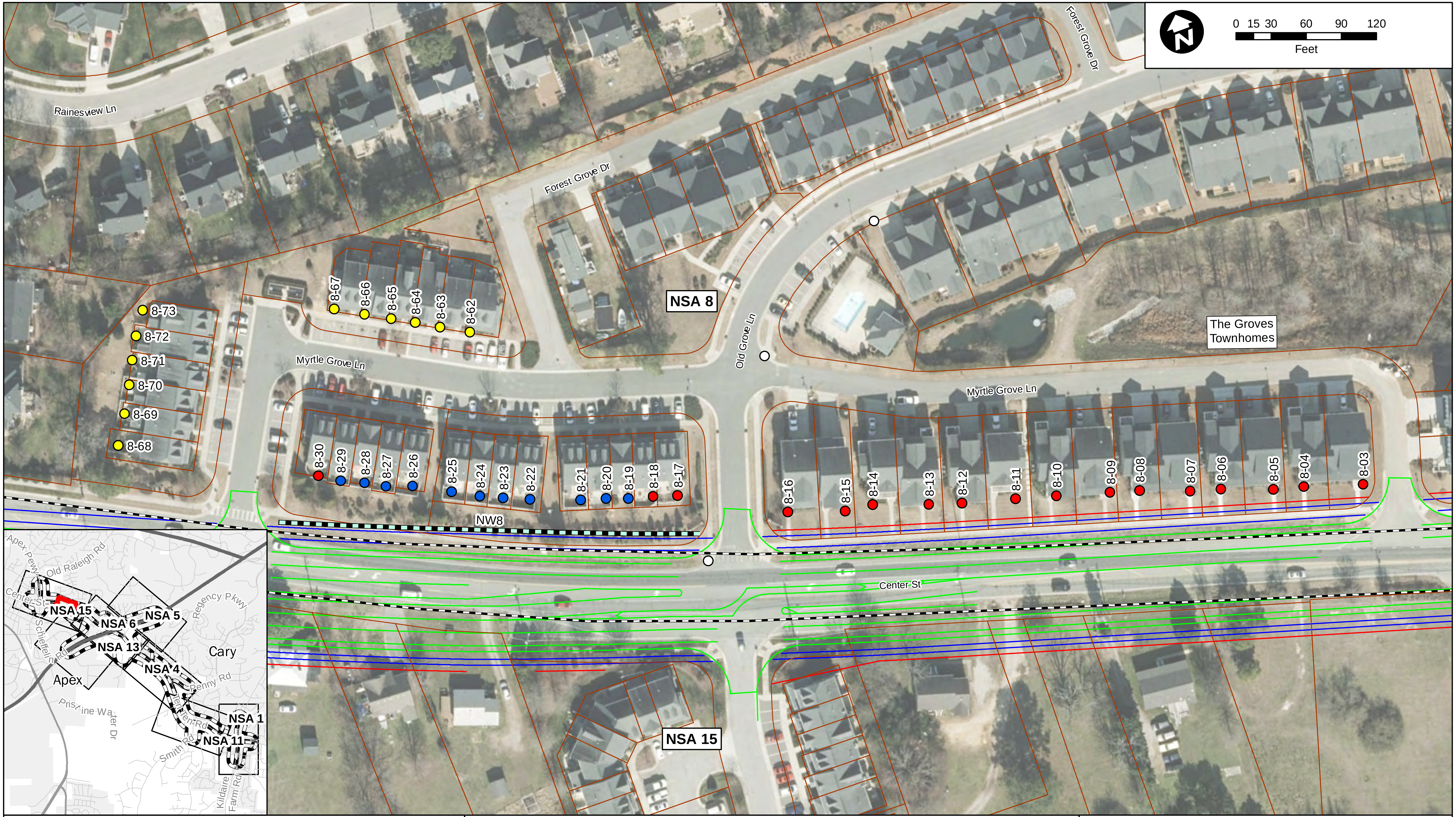
U-5825 Proposed ROW

U-5825 Proposed Sidewalk

FIGURE 8

TRAFFIC NOISE ANALYSIS MAP

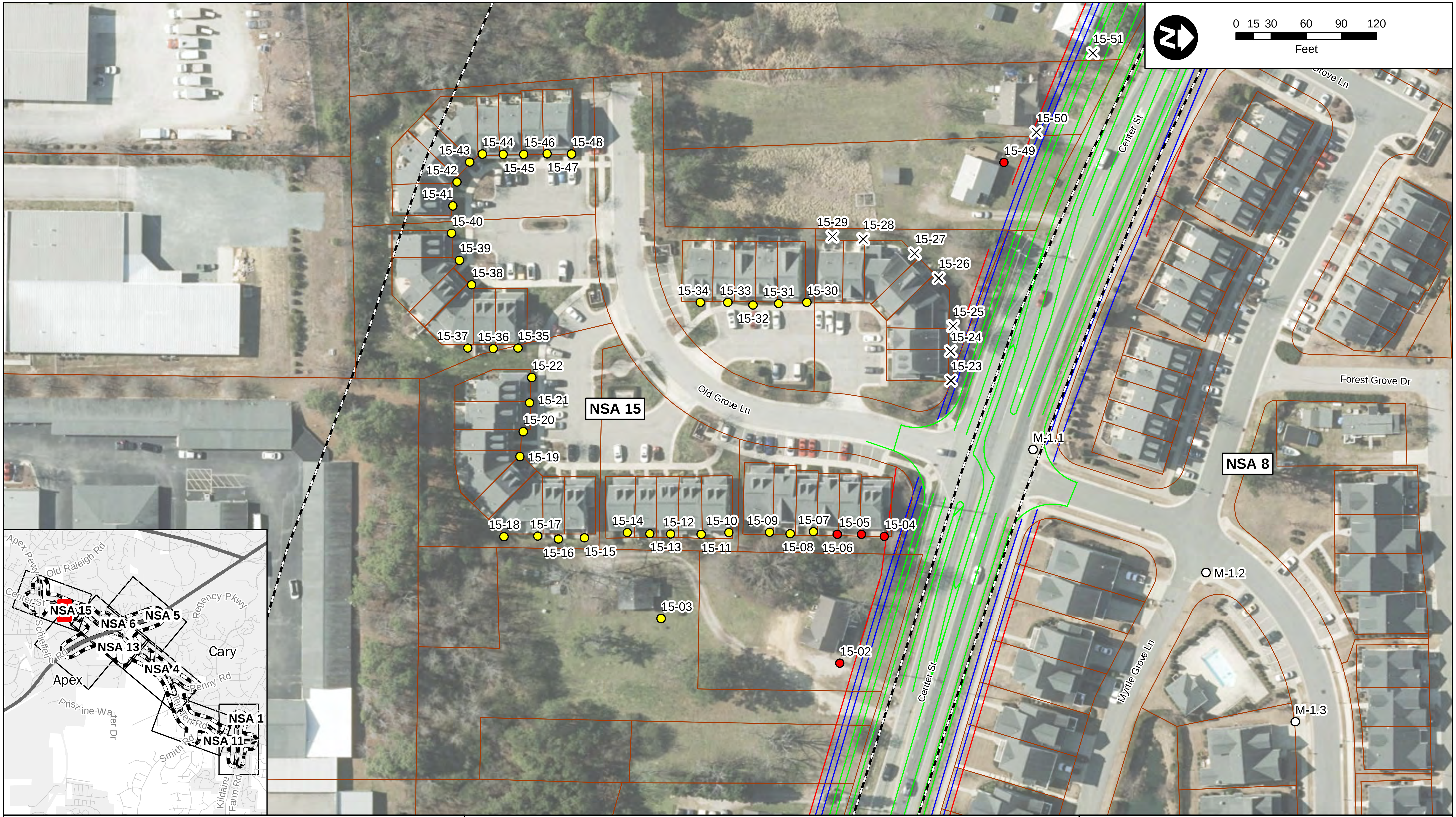
JUNE 2019



Ten Ten Road Widening Project
Traffic Noise Report
STIP U-5825
Wake County, North Carolina

🔵 Impacted and Benefited
🟢 Not Impacted but Benefited
🔴 Impacted but Not Benefited
🟡 Not Impacted Not Benefited
● Non-Noise Sensitive Site
○ Monitoring Site
× Property Acquisition
▭ NSA Boundary
▭ Parcel Boundary
— Recommended Noise Barriers
▬ Not Recommended Noise Barriers
— U-5825 Proposed EOP
— U-5825 Proposed ROW
— U-5825 Proposed Sidewalk

FIGURE 8
TRAFFIC NOISE ANALYSIS MAP
Page 12 of 14
JUNE 2019



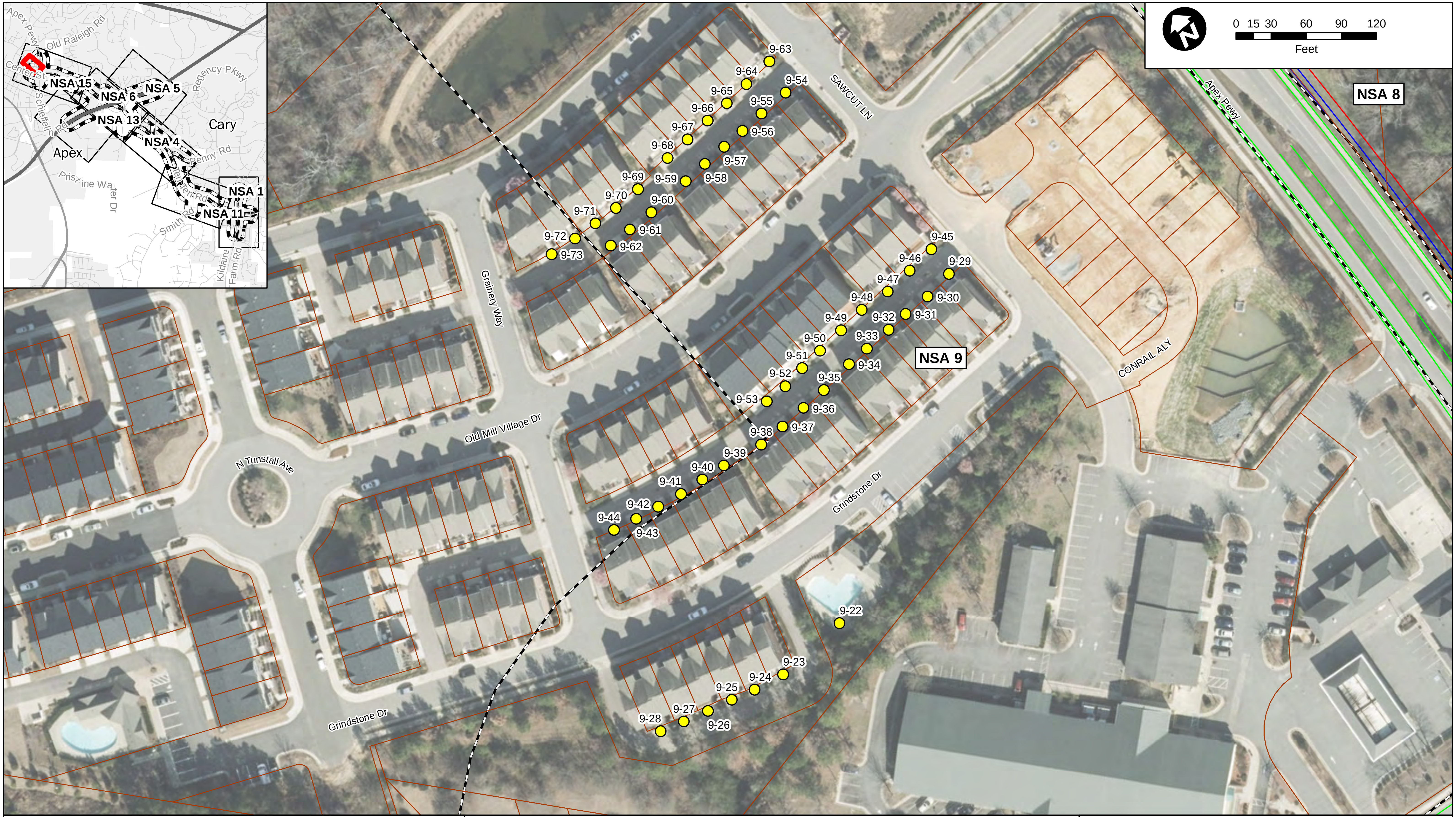
Ten Ten Road Widening Project
Traffic Noise Report
STIP U-5825
Wake County, North Carolina

🔵 Impacted and Benefited
🟢 Not Impacted but Benefited
🔴 Impacted but Not Benefited
🟡 Not Impacted Not Benefited
⚫ Non-Noise Sensitive Site

○ Monitoring Site
× Property Acquisition
▭ NSA Boundary
▭ Parcel Boundary

— Recommended Noise Barriers
— Not Recommended Noise Barriers
— U-5825 Proposed EOP
— U-5825 Proposed ROW
— U-5825 Proposed Sidewalk

FIGURE 8
TRAFFIC NOISE ANALYSIS MAP
Page 13 of 14
JUNE 2019



Ten Ten Road Widening Project
Traffic Noise Report
STIP U-5825
Wake County, North Carolina

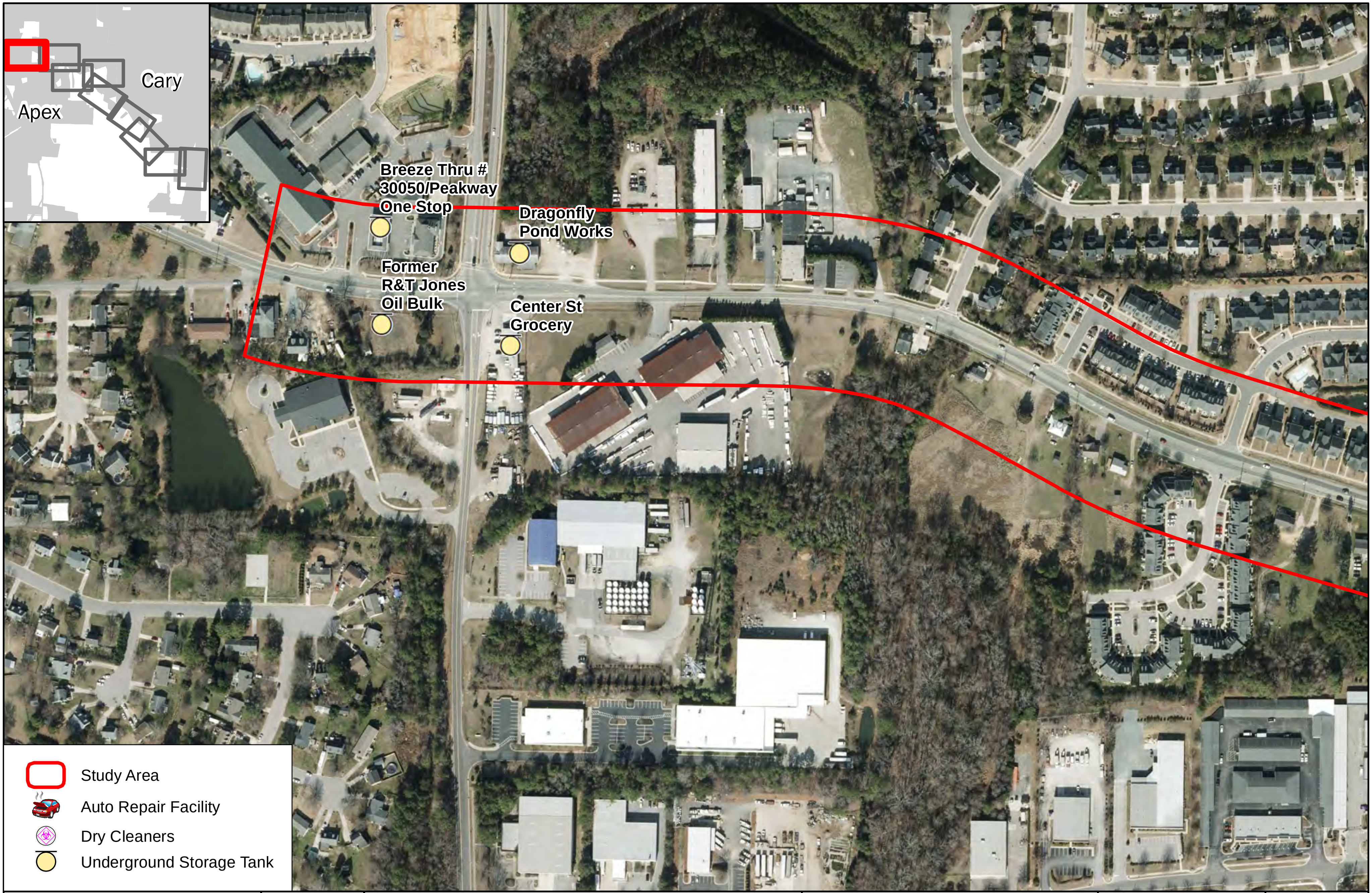
● Impacted and Benefited
● Not Impacted but Benefited
● Impacted but Not Benefited
● Not Impacted Not Benefited
● Non-Noise Sensitive Site
○ Monitoring Site
× Property Acquisition
▭ NSA Boundary
▭ Parcel Boundary
— Recommended Noise Barriers
— Not Recommended Noise Barriers
— U-5825 Proposed EOP
— U-5825 Proposed ROW
— U-5825 Proposed Sidewalk

FIGURE 8
TRAFFIC NOISE ANALYSIS MAP

Page 14 of 14

JUNE 2019

May 14, 2019



Scale

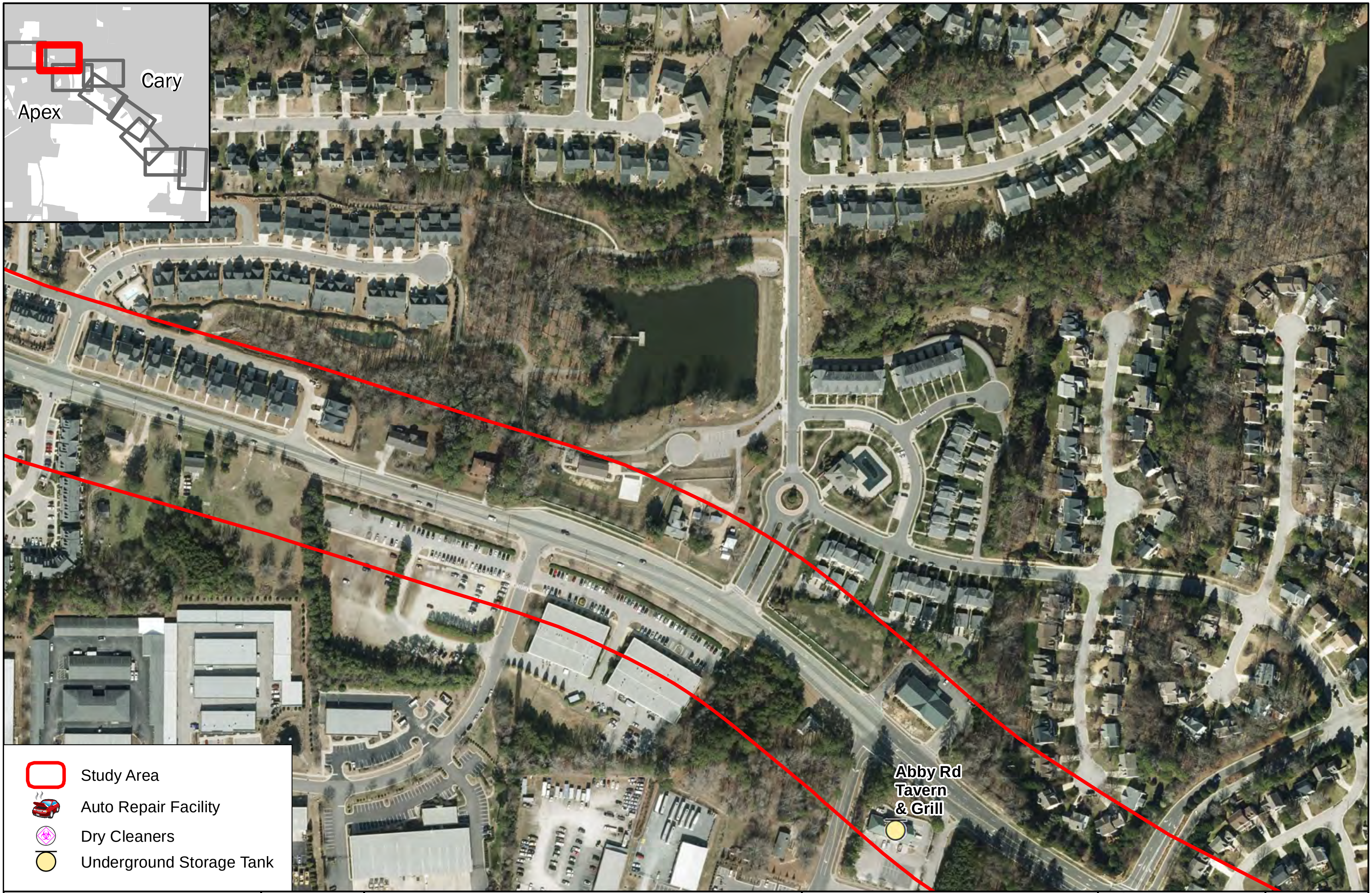
0 75 150 300

Feet

Figure 9-1
Geoenvironmental Features

U-5825
Ten Ten Road Improvements
Wake County

May 14, 2019



Scale
0 75 150 300
Feet

Figure 9-2
Geoenvironmental Features

U-5825
Ten Ten Road Improvements
Wake County

May 14, 2019

Scale
0 75 150 300
Feet

N

Figure 9-3
Geoenvironmental Features

U-5825
Ten Ten Road Improvements
Wake County

May 14, 2019

Scale

0 75 150 300

Feet

Figure 9-4
Geoenvironmental Features

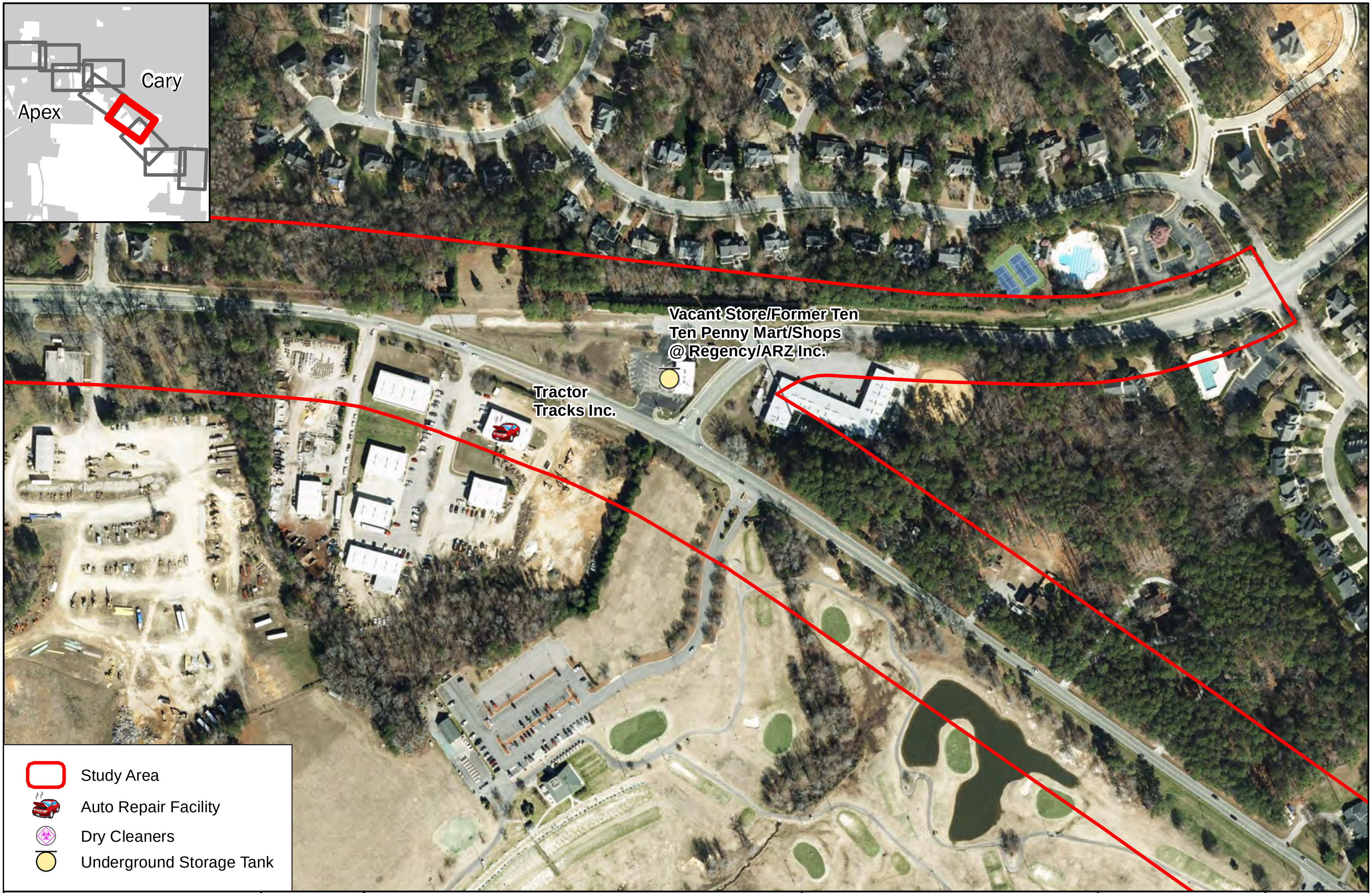
U-5825
Ten Ten Road Improvements
Wake County

May 14, 2019

Figure 9-5
Geoenvironmental Features

U-5825
Ten Ten Road Improvements
Wake County

May 14, 2019



Scale
0 75 150 300
Feet

Figure 9-6
Geoenvironmental Features

U-5825
Ten Ten Road Improvements
Wake County

May 14, 2019

▭ Study Area

🚗 Auto Repair Facility

☣ Dry Cleaners

○ Underground Storage Tank

Scale

0 75 150 300

Feet

Figure 9-7
Geoenvironmental Features

U-5825

Ten Ten Road Improvements

Wake County

May 14, 2019

Scale
0 75 150 300
Feet

Figure 9-8
Geoenvironmental Features

U-5825
Ten Ten Road Improvements
Wake County

May 14, 2019

Scale

0 75 150 300

Feet

Figure 9-9
Geoenvironmental Features

U-5825

Ten Ten Road Improvements

Wake County

Appendix B - Cultural Resources Correspondence

Project Tracking No.:

16-08-0006

NO ARCHAEOLOGICAL SURVEY REQUIRED FORM

This form only pertains to ARCHAEOLOGICAL RESOURCES for this project. It is not valid for Historic Architecture and Landscapes. You must consult separately with the Historic Architecture and Landscapes Group.

PROJECT INFORMATION

Project No:	**U-5825**	*County:*	**Wake**
WBS No:	**44526.1.1**	*Document:*	**State EA and FONSI**
F.A. No:		*Funding:*	☒ State ☐ Federal

Federal Permit Required? ☒ Yes ☐ No *Permit Type:* **USACE**

Project Description: The project involves the widening to multi-lanes of SR 1010 (Ten Ten Rd) from SR 1300 (Kildaire Farm Road) to the Apex Peakway in Wake County, North Carolina. This project also includes improvements to the SR 1010 bridge over US 1. The archaeological Area of Potential Effects (APE) encompasses all areas of potential ground disturbing activity as depicted on the attached GIS mapping. In particular, the USACE federal permit areas were the primary focus of the archaeological review.

SUMMARY OF CULTURAL RESOURCES REVIEW

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

Permitting and funding information was reviewed for determining the level of archaeological input required by state and federal laws. Based on the submitted "request for cultural resources review" form, the project is state-funded with federal permit interaction. As such, Section 106 of the National Historic Preservation Act will apply and the United States Army Corp of Engineers (USACE) will serve as the lead federal agency. Next, construction design and other data was examined (when applicable) to define the character and extent of potential impacts to the ground surfaces embracing the project locale. The project study area measures 3.3 miles in length and 500ft in width. Because the project is state-funded, the USACE federal permit areas were the primary focus of the archaeological review.

Once an APE was outlined, a map review and site file search was conducted at the Office of State Archaeology (OSA). Several archaeological sites have been documented in the vicinity of the project study area, but no cultural resources are contained within the currently defined APE or adjacent. Although this data raises the potential for uncovering similar archaeological sites in the current APE, it is well documented that Wake County has a poor history of containing intact, preserved, and meaningful archaeological site locations; particularly in the same topographic and disturbed situation as the project study area. This is not to say that it is impossible for the recovery of archaeological artifacts in the APE, but rather it is very unlikely to contain preserved archaeological deposits eligible for National Register of Historic Places (NRHP) inclusion.

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

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

Brief Explanation of why the available information provides a reliable basis for reasonably predicting that there are no unidentified historic properties in the APE:
The entire project study area is highly urbanized, containing commercial and residential properties fronting SR 1010. Soil data and aerial imagery confirm the high levels of disturbance in the project study area. This project originally received a "SURVEY REQUIRED" form based largely on the potential for the need to survey the entire project study area. However, the site is now state-funded with only the federal permit areas subject to Section 106 of the National Historic Preservation Act. As such, the USACE federal permit areas are unlikely to contain significant, intact, and preserved archaeological deposits eligible for NRHP inclusion. As currently proposed as a state-funded project with federal permit interaction, no further consultation is advocated. A finding of "no archaeological survey required" is considered appropriate.

SUPPORT DOCUMENTATION

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

FINDING BY NCDOT ARCHAEOLOGIST

NO ARCHAEOLOGY SURVEY REQUIRED

Scott Eric Halvorsen 3-1-2018
NCDOT

Project Tracking No. (Internal Use)

16-08-0006

HISTORIC ARCHITECTURE AND LANDSCAPES NO HISTORIC PROPERTIES PRESENT OR AFFECTED FORM

This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

PROJECT INFORMATION

***Project No*:**	U-5825	***County*:**	Wake
***WBS No.*:**	44396.1.1	***Document Type*:**	
***Fed. Aid No*:**		***Funding*:**	X State ☐ Federal
Federal Permit(s):	X Yes ☐ No	***Permit Type(s)*:**	USACE - NWP

***Project Description*:** Widen SR 1010 (Ten Ten Road) from SR 1300 (Kildaire Farm Road) to Apex Peakway (no off-site detour specified).

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

☐ There are no National Register-listed or Study Listed properties within the project's area of potential effects.

☐ There are no properties less than fifty years old which are considered to meet Criteria Consideration G within the project's area of potential effects.

☐ There are no properties within the project's area of potential effects.

☐ There are properties over fifty years old within the area of potential effects, but they do not meet the criteria for listing on the National Register.

X There are no historic properties present or **affected** by this project. (Attach any notes or documents as needed.)

DESCRIPTION OF REVIEW ACTIVITIES, RESULTS, AND CONCLUSIONS: HPOWeb reviewed on 22 August 2016 and yielded one SL, 3 SS, and no NR, DE, SL, or LD properties in the Area of Potential Effects (APE). The APE extends approximately 1000 feet from either end of the proposed 3.3-mile project length (NW-SE), 2000 feet along US 1 to either side of its intersection with SR 1010 (Ten Ten Road) (SW-NE), and 500 feet to either side of the SR 1010 (Ten Ten Road) and US 1 centerlines to encompass anticipated construction activities and possible impacts. Wake County current GIS mapping, aerial photography, and tax information revealed a developed APE containing resources dating from the 1910s to the 2010s (viewed 22 August 2016). Approximately 40 resources – including both residential and commercial properties and four cemeteries – pre-date 1970. Constructed in 1959, Bridge No. 163 is not eligible for the National Register according to the NCDOT Historic Bridge Inventory as it is not representative of any distinctive engineering or aesthetic type.

Given the presence of multiple resources of concern, as well as the limited design information provided in the review request, a field investigation was indicated and a "survey required" form issued on 26 August 2016. Shortly thereafter, NCDOT-Historic Architecture was instructed to delay survey until permit locations and extents were determined. Jurisdictional information became available in February 2018 (see attached maps). No significant resources are located within any of the permit areas, nor are the previously recorded properties: the study-listed John

H. Seagroves House (WA0676), House (WA0674), House (WA0882), and the Whops Community (WA2249) (the latter is no longer extant). Thus, the project is in compliance with Section 106. The project is also in compliance with GS 121-12(a), which applies to the entire APE, as no National Register-listed properties are present.

While not eligible for the NR, four cemeteries are located in the project area and should be afforded the usual protections during construction: 1) Cemetery at the corner of Summercrest Drive and Ten Ten Road (PIN: 0751723921); 2) Cary C. Jones Memorial Park (including two adjacent parcels) near Penny Road/Ten Ten Road intersection (PINs: 0751653483, 0751652466, and 0751653533); 3) Cemetery near Waterford Green Drive/Ten Ten Road intersection (PINs: 0751194034, 0751194063, and 0751194055); and 4) Cemetery near Center Shieffelin Road/Ten Ten Road intersection (PIN: 0742709862).

HPOWeb and Wake County GIS mapping, aerial photography, and tax information were consulted again in February 2018 and confirmed that no changes had occurred since the original review and that slight expansion of the study area (see attached map) did not add any new resources of concern. The comprehensive architectural surveys of the county (1988-91 and 2005-6) and related publication, as well as later studies, recorded no properties in the APE besides those noted above (Kelly Lally, *The Historic Architecture of Wake County, North Carolina* (Raleigh: Wake County Government, 1994)). Google Maps "Street View" confirmed the presence and relative placement of architectural and landscape resources in the APE and in the permit areas (viewed 22 August 2016 and 21 February 2018).

A finding of "no historic properties present or affected" will satisfy both Section 106 and GS 121-12(a) compliance requirements.

Should funding, permitting, or any aspect of the project design change, please notify NCDOT Historic Architecture as additional review may be necessary.

SUPPORT DOCUMENTATION

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

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes – **NO HISTORIC PROPERTIES PRESENT OF AFFECTED**

Vanessa E. Patrick 22 February 2018

NCDOT Architectural Historian Date

U-5825, Wake County
WBS No. 44396.1.1
Tracking No. 16-08-0006
Page 2 of 2

Appendix C - Preliminary Plans

PUBLIC MEETING MAP
PROJECT U–5825

WAKE COUNTY

APEX – TEN TEN RD (SR 1010)
FROM APEX PEAKWAY TO
KILDAIRE FARM RD (SR 1300)

ROLL 1 OF 2

PUBLIC MEETING MAP
PROJECT U–5825
WAKE COUNTY
APEX – TEN TEN RD (SR 1010)
FROM APEX PEAKWAY TO
KILDAIRE FARM RD (SR 1300)
ROLL 1 OF 2

PUBLIC MEETING MAP
PROJECT U–5825
WAKE COUNTY
APEX – TEN TEN RD (SR 1010)
FROM APEX PEAKWAY TO
KILDAIRE FARM RD (SR 1300)
ROLL 1 OF 2

UTILITY INFORMATION:

TO PROVIDE GREATER VISUAL CLARITY, EXISTING AND PROPOSED UTILITIES ARE NOT SHOWN ON THESE MAPS OR ON OTHER DISPALYS. THE UTILITY INFORMATION SHOWN ON THESE MAPS IS LIMITED TO LOCATIONS OF MAJOR EXISTING AND POTENTIAL UTILITY EASEMENTS. THE DESIGNS SHOWN ON THESE MAPS, INCLUDING UTILITY EASEMENTS, ARE PRELIMINARY AND ARE SUBJECT TO CHANGE.

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

100′ 0′ 100′ 200′
50′

2016 / 2040 ADT

TEN TEN ROAD (SR 1010)
10,400 / 15,800
APEX PEAKWAY: 23,600 / 51,900; 600 / 3,200; 17,800 / 17,800
SCHIEFFELIN ROAD (SR 1306): 400 / 1,800; 1,000 / 4,200; 6,600 / 36,900
28,200 / 32,800
SATINWOOD DRIVE: 1,400 / 1,400; 700 / 700; 700 / 700
28,200 / 32,800
OLD GROVE LANE (north): 500 / 500; 200 / 200; 200 / 200
OLD GROVE LANE (south): 200 / 200; 200 / 200; 500 / 500
28,200 / 32,800
INVESTMENT BOULEVARD: 200 / 600; 2,000 / 1,600; 2,200 / 2,200
30,000 / 33,800
PARKFIELD DRIVE: 1,600 / 1,800; 600 / 800; 1,000 / 1,000
30,400 / 34,000
WATERFORD GREEN DRIVE: 3,200 / 3,400; 800 / 1,000; 1,600 / 1,600
US–1 SOUTHBOUND: 4,300 / 3,100; 9,300 / 15,600; 14,400 / 19,500
36,200 / 47,100
US–1 NORTHBOUND: 14,400 / 19,500; 5,100 / 3,900; 7,800 / 14,200
LUFKIN ROAD: 2,900 / 3,000; 2,400 / 3,000; 6,800 / 7,400
38,400 / 57,400
SHOPPING CENTER DRIVE: 3,200 / 7,100; 1,700 / 2,600; 1,500 / 2,800
RELIANCE AVENUE: 3,800 / 6,400; 2,000 / 3,800; 5,800 / 11,900
36,400 / 55,000
KIFTSGATE LANE: 1,400 / 1,600; 1,000 / 1,200; 400 / 400
35,800 / 54,200
TEN TEN ROAD (SR 1010)

–L–

PI Sta 21+57.43
Δ = 22° 58′ 36.9″ (LT)
D = 4° 10′ 55.8″
L = 549.40′
T = 278.44′
R = 1,370.00′

PI Sta 33+22.32
Δ = 23° 31′ 57.7″ (RT)
D = 4° 46′ 28.7″
L = 492.87′
T = 249.96′
R = 1,200.00′

PI Sta 41+50.61
Δ = 7° 16′ 27.4″ (LT)
D = 1° 08′ 45.3″
L = 634.80′
T = 317.83′
R = 5,000.00′

PI Sta 55+74.36
Δ = 13° 39′ 12.0″ (RT)
D = 2° 29′ 28.0″
L = 548.08′
T = 275.34′
R = 2,300.00′

PI Sta 60+28.71
Δ = 11° 31′ 22.0″ (RT)
D = 3° 10′ 59.2″
L = 362.00′
T = 181.61′
R = 1,800.00′

PI Sta 69+97.39
Δ = 17° 16′ 57.2″ (LT)
D = 1° 54′ 35.5″
L = 904.91′
T = 455.92′
R = 3,000.00′

PI Sta 88+78.66
Δ = 40° 16′ 33.8″ (RT)
D = 6° 09′ 39.0″
L = 653.74′
T = 341.03′
R = 930.00′

PI Sta 98+24.00
Δ = 40° 37′ 11.2″ (LT)
D = 4° 24′ 26.5″
L = 921.63′
T = 481.14′
R = 1,300.00′

PI Sta 108+22.64
Δ = 13° 25′ 58.5″ (RT)
D = 1° 54′ 35.5″
L = 703.35′
T = 353.29′
R = 3,000.00′

–Y9–

PI Sta 10+46.28
Δ = 1° 15′ 02.8″ (RT)
D = 1° 21′ 04.7″
L = 92.56′
T = 46.28′
R = 4,240.00′

PI Sta 11+10.72
Δ = 0° 33′ 17.9″ (LT)
D = 1° 31′ 40.4″
L = 36.32′
T = 18.16′
R = 3,750.00′

PI Sta 13+62.68
Δ = 7° 08′ 06.2″ (RT)
D = 1° 31′ 40.4″
L = 466.99′
T = 233.80′
R = 3,750.00′

PI Sta 18+26.71
Δ = 6° 17′ 31.0″ (RT)
D = 1° 21′ 51.1″
L = 461.22′
T = 230.84′
R = 4,200.00′

PI Sta 24+01.99
Δ = 3° 15′ 00.7″ (LT)
D = 1° 08′ 45.3″
L = 283.63′
T = 141.85′
R = 5,000.00′

PI Sta 27+00.28
Δ = 3° 35′ 09.3″ (RT)
D = 1° 08′ 45.3″
L = 312.93′
T = 156.52′
R = 5,000.00′

–L2–

PI Sta 25+48.18
Δ = 22° 42′ 29.2″ (RT)
D = 0° 44′ 35.3″
L = 3,055.71′
T = 1,548.18′
R = 7,710.00′

PI Sta 82+00.82
Δ = 15° 09′ 53.7″ (LT)
D = 0° 59′ 47.2″
L = 1,521.90′
T = 765.42′
R = 5,750.00′

–LPA–

PIs Sta 11+34.88
θs = 26° 38′ 57.1″
Ls = 200.00′
LT = 134.88′
ST = 68.07′

PI Sta 14+50.44
Δ = 98° 42′ 29.0″ (RT)
D = 26° 38′ 57.1″
L = 370.40′
T = 250.44′
R = 215.00′

PIs Sta 16+38.47
θs = 26° 38′ 57.1″
Ls = 200.00′
LT = 134.88′
ST = 68.07′

–RPA–

PI Sta 13+32.37
Δ = 30° 57′ 46.8″ (LT)
D = 4° 46′ 28.7″
L = 648.49′
T = 332.37′
R = 1,200.00′

PI Sta 21+30.17
Δ = 13° 58′ 51.5″ (RT)
D = 7° 38′ 22.0″
L = 183.01′
T = 91.96′
R = 750.00′

–Y1–

PI Sta 11+49.02
Δ = 24° 31′ 15.4″ (LT)
D = 17° 12′ 21.4″
L = 142.51′
T = 72.37′
R = 333.00′

–Y2–

PI Sta 11+85.97
Δ = 27° 51′ 08.7″ (RT)
D = 7° 38′ 22.0″
L = 364.59′
T = 185.97′
R = 750.00′

PI Sta 15+76.94
Δ = 44° 25′ 37.6″ (RT)
D = 11° 01′ 06.3″
L = 403.21′
T = 212.35′
R = 520.00′

PI Sta 21+83.65
Δ = 48° 58′ 29.5″ (LT)
D = 11° 27′ 33.0″
L = 427.39′
T = 227.73′
R = 500.00′

–LPC–

PIs Sta 11+69.72
θs = 33° 18′ 41.4″
Ls = 250.00′
LT = 169.72′
ST = 86.11′

PI Sta 14+26.92
Δ = 78° 54′ 01.2″ (RT)
D = 26° 38′ 57.1″
L = 296.07′
T = 176.92′
R = 215.00′

PIs Sta 16+32.18
θs = 33° 18′ 41.4″
Ls = 250.00′
LT = 169.72′
ST = 86.11′

–RPC–

PI Sta 13+36.91
Δ = 31° 21′ 53.8″ (LT)
D = 4° 46′ 28.7″
L = 656.91′
T = 336.91′
R = 1,200.00′

PI Sta 20+92.05
Δ = 4° 44′ 39.4″ (RT)
D = 2° 23′ 14.4″
L = 198.73′
T = 99.42′
R = 2,400.00′

–Y3–

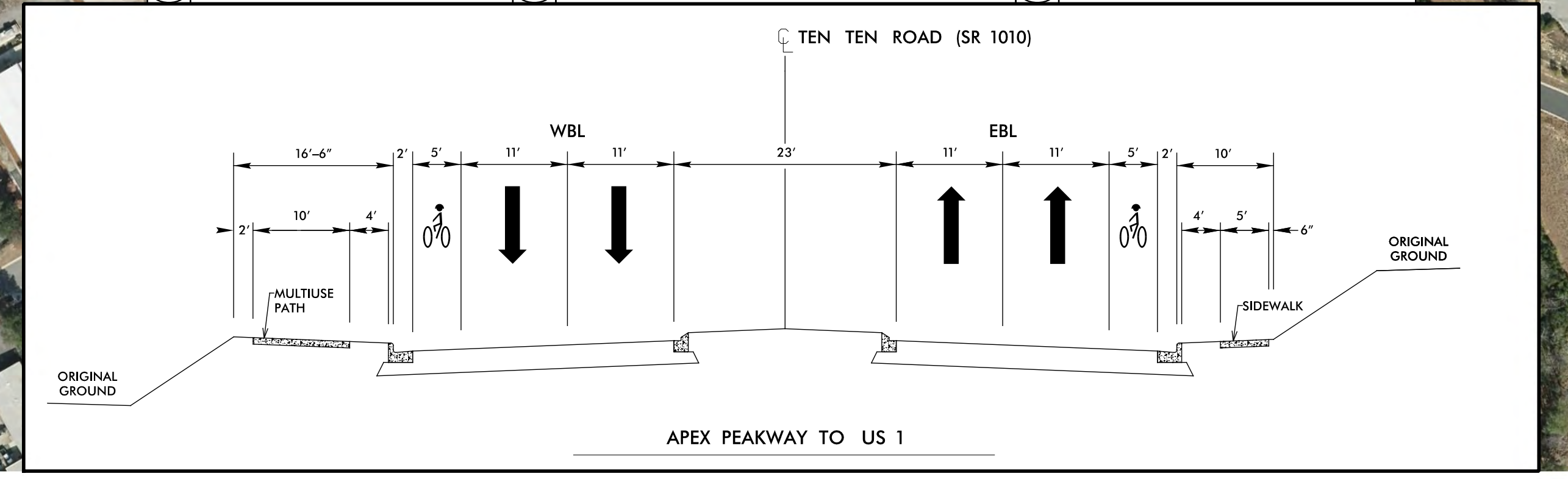
PI Sta 10+47.65
Δ = 35° 14′ 57.2″ (RT)
D = 38° 11′ 49.9″
L = 92.28′
T = 47.65′
R = 150.00′

PI Sta 11+24.84
Δ = 12° 23′ 19.0″ (LT)
D = 19° 05′ 54.9″
L = 64.87′
T = 32.56′
R = 300.00′

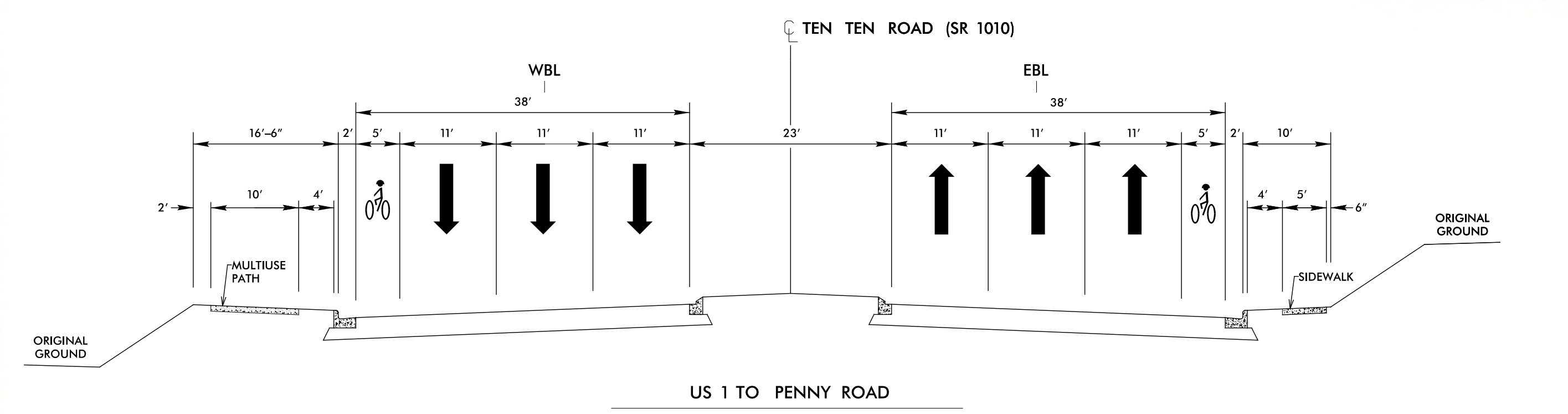
–Y4–

PI Sta 14+48.39
Δ = 55° 38′ 23.3″ (LT)
D = 14° 19′ 26.2″
L = 388.44′
T = 211.07′
R = 400.00′

1	WHITE APEX HOLDINGS L L C
2	SCHREIBER, CARL A SCHREIBER, RHONDA M
3	WHITLEY, DONALD C WHITLEY, AMY W
4	BAILEY, DAVID BAILEY, JENNIFER
5	WERLAU, JAMES A
6	CHEEK, CHARLES KENDRICK
7	LEGGETT, FRANK E JR LEGGETT, ANITA S
8	STOLLBRINK, KATHY J
9	JOOR, SUSAN R
10	GIBBS, NANCY
11	CORSON, ANDREW CORSON, JENNIFER
12	BARRETT, ROSEMARY T
13	GRESOCK, PETE GRESOCK, JEANINE
14	ZHANG, ZHONG YU, LIHONG
15	WHYNOT, ROBERT M WHYNOT, LISA MARIE
16	CARLEY, TIMOTHY F CARLEY, LISA P
17	GRAUL, ERIN C
18	HIX, DUANE E HIX, MEDORA B
19	2 SAMUEL 7:29 PROPERTIES LLC
20	ROEHM, LANCE S ROEHM, BOBBIE L
21	SWARTZ, JAMES SWARTZ, LISA
22	BREWER, MATTHEW DONN BREWER, JENNIFER ELIZABETH
23	MOORE, CHRISTOPHER D MOORE, JENNIFER B
24	PAYNE, BRIAN PAYNE, SARA
25	AITTALA, ERIC
26	GOODMAN, ROBERT GOODMAN, APRIL GOODMAN
27	RODRIGUES, KEVIN A
28	VELARDE, KATHERINE L VELARDE, ROBERTO M
29	OLLA, SHIRLEY
30	ROBERTS, BRANDON S
31	ECKERSBERG, JOHN JOSEPH II SPENCER, AMANDA JO
32	APEX BIKE SHOP, LLC
33	IANNONE, JOSEPH V JR
34	LEWIS, ROBYN R
35	IANNONE, JOSEPH V JR
36	LORD, DIANA BOLLANA
37	POTEAT, DAVID
38	RUSS, CRYSTAL NICOLE
39	GROVES TOWNHOME ASSN INC THE
40	BETHEL, CHRISTINE E
41	REHAN, DILLAWAR
42	GOODE, JOANN E
43	GOODWIN, LINDA MARIE
44	JONES, ELIZABETH LOFTIN, STEPHEN CODY
45	BUCKLER, BONNIE R
46	GROVES TOWNHOME ASSN INC THE
47	GROVES TOWNHOME ASSN INC THE
48	COUNCIL, JODI N
49	MEYER, CHRISTOPHER M ALVORD-MEYER, REBEKAH L
50	UNKNOWN
51	UNKNOWN
52	UNKNOWN
53	UNKNOWN
54	COSTILOW, JUSTIN R
55	DION, RYAN J
56	CAUSEY, JENNIFER M
57	KERN, MICHELLE L
58	GROVES TOWNHOME ASSN INC THE
59	LEAKE, EDWARD LEAKE, SHERINE
60	PATEL, MANIJ PATEL, ANITA
61	SPINKS, WESLEY SHIELDS, LINDSEY
62	NELSON, DAVID LEE NELSON, SONJA ROCHELLE
63	LONG, ERIN
64	UTLEY, CHARLES
65	JVI DEVELOPMENT II INC
66	IANNONE, JOSEPH V JR
67	IANNONE, JOSEPH V JR
68	TALENSKI, MELVIN H TALENSKI, NANCY M
69	IANNONE, JOSEPH V JR
70	JVI CONSTRUCTION INC
71	JVI CONSTRUCTION INC
72	BEGGS, RITA ANNE BEGGS, MARK L
73	WALKER, SIDNEY L JR WALKER, JANICE T
74	HALL, JUDITH L
75	WOODS, FRANK WOODS, CHLOE
76	KOZUCH, DEBORAH A KOZUCH, JESSICA E
77	THE GROVES TOWNHOME ASSOCIATION, INC
78	THE GROVES TOWNHOME ASSOCIATION, INC
79	RAYNOR, TERRY D.
80	HINKLE, ROBERT R JR HINKLE, PATRICIA R
81	JVI CONSTRUCTION INC
82	IANNONE, JOSEPH V JR
83	MURPHY, WATSON C JR MURPHY, NORMA T
84	NICHOLS, SUSAN B
85	JVI CONSTRUCTION INC
86	GROVES TOWNHOME ASSN INC THE
87	STANCIL, FREDERICK S STANCIL, DIANE B
88	WALKER, CAROLYN H
89	ONDER, EFRAYIM
90	JENKINS, LANA
91	PERRY, JOSEPH PERRY, CONNIE
92	HAYDEN, RICHARD HAYDEN, IRENE
93	WEAVER, BARBARA JEAN REEDE TRUSTEE REEDER, ROBERT JAMES TRUSTEE
94	GRIFFITH, LYNN ANN
95	MEYER, DOUGLAS R TRUSTEE MEYER, CLAUDIA TRUSTEE
96	GROVES TOWNHOME ASSN INC THE
97	IANNONE, JOSEPH V JR
98	EMIG, JOHN W EMIG, DIANE M
99	SPROEHNLE, PAUL T SPROEHNLE, ANNA LYNN B
100	MYERS, DENNIS E MYERS, JOANN K
101	IANNONE, RENEE
102	IANNONE, JOSEPH V JR
103	IANNONE, JOSEPH V JR
104	SMITH, CYNTHIA T SMITH, DENNIS R
105	STINGL, WILLIAM R STINGL, JENNIFER M
106	IANNONE, JOSEPH V JR
107	STINGL, JOY L
108	IANNONE, JOSEPH V JR
109	IANNONE, JOSEPH V. JR.
110	WALKER, CAROLINE N WALKER, ZACHARY
111	IANNONE, JOSEPH V. JR.
112	MORRIS, DE JORDAN TRUSTEE MORRIS LIVING TRUST
113	CHIU, MICHELLE
114	IANNONE, JOSEPH V. JR.
115	JVI CONSTRUCTION INC
116	JVI CONSTRUCTION INC
117	THE GROVES TOWNHOME ASSOCIATION INC
118	COCKMAN, COLON J JR
119	SOSDIAN, THOMAS SOSDIAN, PHYLLIS
120	PITTMAN, ROBERT ALEXANDER PITTMAN, ROBIN TANAS
121	MCKINNEY, ALISON JEAN
122	MAZZA, ASHLEY LAUREN
123	GROVES TOWNHOME ASSN INC THE
124	MENSE, DAVID J
125	BEBB, MELISSA D
126	DAVIS, SHARON L
127	ROBINSON, EDIE C
128	TOMPKINS, JAMES L JR TOMPKINS, BEVERLY T
129	OLSON, BEVERLY L
130	KAGER, WILLIAM
131	GROVES TOWNHOME ASSN INC THE
132	WEBB, JEFFERSON T WEBB, SUE V
133	HAYNES, THOMAS
134	WALTERS, JEFFREY WALTERS, CAROLYN PECORA
135	SPEICHER, DANIEL M SPEICHER, BRUCE A
136	GROVES TOWNHOME ASSN INC THE
137	GROVES TOWNHOME ASSN INC THE
138	REEDY, BONNIE JONES
139	WHITAKER, CATHERINE A
140	SAYRE, TERRY D II
141	KEANE, SONIA
142	STEWART, JAMIE
143	JANNI, ANNMARIE
144	JARRETT-ECHOLS, LAINI NICOLE
145	GROVES TOWNHOME ASSN INC THE
146	VANDENBERG, LESLIE S
147	WILKERSON, LEANNE
148	LAMBE, PATRICK LAMBE, MAUREEN
149	CALVARY CHAPEL CARY INC
150	MEGAN, CHERI J
151	BORASKI, GINA L
152	ARNOLD, SUSAN LARUE
153	PARKER, CHRISTINE PATRICIA
154	GROVES TOWNHOME ASSN INC THE
155	JONES, SHARON L
156	SALTER, MALINDA G
157	PERSON, MARYAM KHALIDA GRIFFIN, MALEK JERMAINE
158	GROVES TOWNHOME ASSN INC THE
159	INAGAKI, EVAN FRANK INAGAKI, ERIN SCHAEFER
160	AVALLONE, JACQUELINE
161	SHOEMAKER, SPENCER H SHOEMAKER, PAMELA J
162	LARMAC ASSOCIATES LLC
163	GORDON, THOMAS P
164	PARDON, MARGARET ELAINE
165	CALVARY CHAPEL CARY INC
166	CALVARY CHAPEL CARY INC
167	FUSSELL, MILTON KENT FUSSELL, TERESA
168	ADAMS RENTALS OF CARY LLC
169	WILLIAMS, SCOTT V WILLIAMS, SUE A
170	STRAIGHT ARROW PROPERTIES LLC
171	MANROE, WILLIAM MANROE, SUSAN
172	COX, JOAN
173	GALLAGHER, MARY
174	MCCABE, CATHERINE E
175	CRAWFORD, KELLEY R
176	YOHE, DEBRA D
177	SEAGROVES FARM TOWNHOME ASSN INC
178	SEAGROVES FARM TOWNHOME ASSN INC
179	WEISS, VALENTINO WEISS, DONNA
180	MARMION, JULIA B MARMION, JOEL
181	MCCULLOUGH, DERRICK JAMES
182	PELLETIER, THOMAS PELLETIER, THERESA
183	HICKS, MICHELLE M HICKS, JOHN C JR
184	CLARKSON, CHRISTINE F
185	SEAGROVES FARM TOWNHOME ASSN INC
186	STEWART, YASUKO M STEWART, JOHN F
187	SESSOMS, CYNTHIA LEE
188	MANNING, MATTHEW
189	DODD, MICHAEL K
190	SEAGROVES FARM TOWNHOME ASSN INC
191	HAHN, DOROTHY F
192	ROBINSON, ELIZABETH
193	MARTIN, EUGENE O
194	BECKSFORD, DONNI R
195	ESTEP, THOMAS R ESTEP, LAURA N
196	SUNDERMAN, PATSY A
197	COX, PERRY G COX, DEBRA H
198	FELDMAN, TREVOR H FELDMAN, JILL B
199	ZILBERTER, ALEXANDER I ZILBERTER, VICTORIA M
200	BROADWELL, NEIL E BROADWELL, ELIZABETH B
201	MURPHY, RANSOM MURPHY, BRIDGETT
202	WATERFORD GREEN HOMEOWNERS ASSN
203	OWENBY, RYAN K OWENBY, BETHANY C
204	PULTE HOME CORPORATION
205	WATERFORD GREEN HOMEOWNERS ASSN
206	CLARK, SHANNON D
207	BATE, SIMON BATE, GINGER
208	KNOX, DAVID A
209	JENKS, LESLEY JENKS, TY
210	TYO, ANDREW L TYO, HELGA TYO
211	ROBERTS, JOHN H ROBERTS, WENDY D
212	THUNES, ALLAN S THUNES, COLLEEN M
213	MITCHELL, JOSHUA THOMAS MITCHELL, EMILY ANN
214	ROSS, DAVID R ROSS, CAROLE D
215	PEARCE, JERRY W PEARCE, MARGARET V
216	BOULD, JAMES B BOULD, SUSAN M
217	MINNICH, CHARLES J MINNICH, MICHELLE R
218	FERNANDEZ, LAZARO N FERNANDEZ, ALINA
219	LAU, KAI C LAU, JENNIFER H
220	GRECO, JOHN WILLIAM FIORI-GRECO, JENNIFER ANN
221	UNNITHAN, MOHAN G UNNITHAN, SUCHITRA M
222	BASTIAN, ANGELA M BASTIAN, JOSHUA S
223	KROLAK, RYAN ADAMS, BARBARA
224	MCLEAN, ROBERT PETER VANCE
225	LUX, SHIRLEY ANN
226	FEATHERSTONE, COLIN FEATHERSTONE, CHRISTINE
227	MORAVICK, STEPHEN M JR MORAVICK, CARRIE I
228	TITTUS, DEBRA L TITTUS, DAVID A
229	BRAMANTE, WILLIAM J BRAMANTE, SHEILA L
230	WILLIAMS, BOBBY L WILLIAMS, MICHELLE R
231	SAITTA, JOHN B SAITTA, JESSE L
232	GREEN, GARY E GREEN, PATRICIA R
233	MILLER, JEREMY CHRISTOPHER MILLER, RHONDA LYNN
234	VOYTKO, TROY S VOYTKO, LISA S
235	BLOOM, MICHAEL J BLOOM, AMANDA
236	SEGNERI, TAMARA A
237	HOLMES, DANIEL P HOLMES, LAURA C
238	SUTER, DAVID G SUTER, PENNY K
239	GROSSEN, RUSSELL W
240	PATRICK, SCOTT PATRICK, LENELLE
241	BRITT, DARRELL BRITT, KAREN
242	CATMAN, DAVID S
243	CADWELL, WRIGHT H CADWELL, DEANNA C
244	DE, HAAS CYNTHIA R
245	TEAGUE, BETH S
246	WILEY, TIMOTHY W WILEY, JENNIFER R
247	CARRIKER, MEGAN E
248	BROTHERTON, JUNE MARIE
249	PINNIX, JOYCE H
250	WHITCOMB, ALYSSA MCFADDEN WHITCOMB, RYAN P
251	SCHWEIKER, KARL
252	FINCH, RODNEY J FINCH, ELVIRA L
253	FINNELL, M DORIS
254	MILLER, RONALD P MILLER, DIANE
255	MANGUM, MAE BELL
256	2400 RELIANCE AVENUE LLC
257	GT LUBES LLC



APEX PEAKWAY TO US 1



US 1 TO PENNY ROAD

LEGEND

🟫	BUILDINGS
🟩	EXISTING RIGHT OF WAY
🟩	PROPOSED RIGHT OF WAY
▨	PROPOSED EASEMENTS (DRAINAGE, CONSTRUCTION, AND UTILITY)
⬜	EXISTING ROADWAY
▨	EXISTING ROADWAY TO BE REMOVED
🟧	EXISTING ROADWAY TO BE RESURFACED
🟨	PROPOSED ROADWAY
▨	TOWN PARK
🟥	PROPOSED STRUCTURES, ISLAND, CURB AND GUTTER
▨	EXISTING STRUCTURES, ISLAND, CURB AND GUTTER TO BE RETAINED
▨	EXISTING STRUCTURES, ISLAND, CURB AND GUTTER TO BE REMOVED
WLB	WETLANDS
🟦	LAKES, RIVER, STREAMS AND PONDS
🟪	EXISTING UTILITY EASEMENT
▨	CEMETERIES
C A	PROPOSED CONTROL OF ACCESS
C A	EXISTING CONTROL OF ACCESS
0000 / 0000	PRESENT ADT / FUTURE ADT
ℙ	PROPERTY LINES
☢	HAZARDOUS WASTE SITE
●	UNDERGROUND STORAGE TANK SITE
●	ABOVE GROUND STORAGE TANK SITE
🚦	EXISTING TRAFFIC SIGNAL
🚦	PROPOSED TRAFFIC SIGNAL
HPB	HISTORIC PROPERTY BOUNDARY

DESIGN DATA
Functional Class. = Urban Collector
Design Speed = 40–50 MPH
Max. Superelev. = 0.04

LEGEND
BUILDINGS
EXISTING RIGHT OF WAY
PROPOSED RIGHT OF WAY
PROPOSED EASEMENTS (DRAINAGE, CONSTRUCTION, AND UTILITY)
EXISTING ROADWAY
EXISTING ROADWAY TO BE REMOVED
EXISTING ROADWAY TO BE RESURFACED
PROPOSED ROADWAY
TOWN PARK
PROPOSED STRUCTURES, ISLAND, CURB AND GUTTER
EXISTING STRUCTURES, ISLAND, CURB AND GUTTER TO BE RETAINED
EXISTING STRUCTURES, ISLAND, CURB AND GUTTER TO BE REMOVED
WETLANDS
LAKES, RIVER, STREAMS AND PONDS
EXISTING UTILITY EASEMENT
CEMETERIES
PROPOSED CONTROL OF ACCESS
EXISTING CONTROL OF ACCESS
PRESENT ADT
FUTURE ADT
PROPERTY LINES
HAZARDOUS WASTE SITE
UNDERGROUND STORAGE TANK SITE
ABOVE GROUND STORAGE TANK SITE
EXISTING TRAFFIC SIGNAL
PROPOSED TRAFFIC SIGNAL
HISTORIC PROPERTY BOUNDARY
DESIGN DATA
Functional Class. = Urban Collector
Design Speed = 40–50 MPH
Max. Superelev. = 0.04

PUBLIC MEETING MAP
PROJECT U-5825

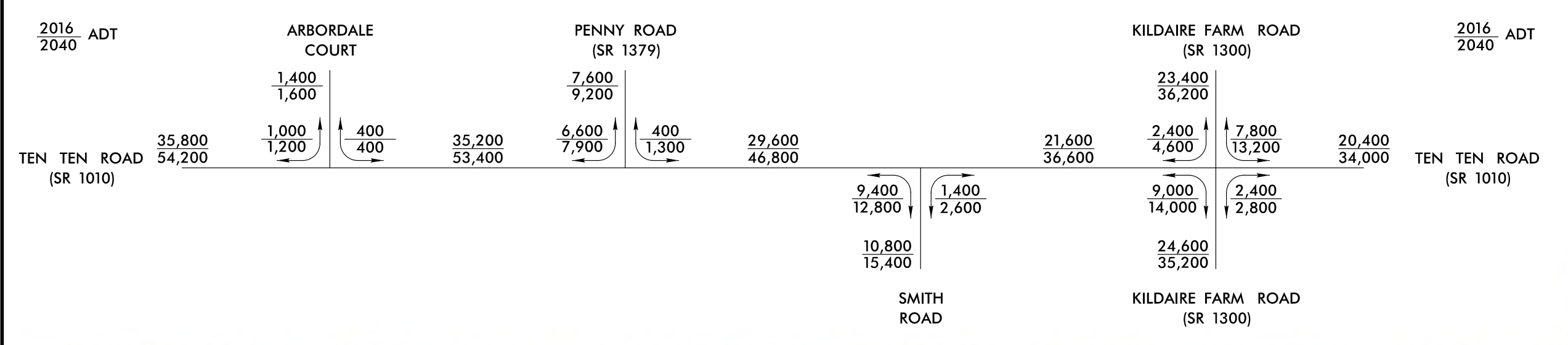
WAKE COUNTY

APEX – TEN TEN RD. (SR 1010)
FROM APEX PEAKWAY TO
KILDAIRE FARM RD. (SR 1300)

ROLL 2 OF 2

UTILITY INFORMATION:

TO PROVIDE GREATER VISUAL CLARITY, EXISTING AND PROPOSED UTILITIES ARE NOT SHOWN ON THESE MAPS OR ON OTHER DISPALYS. THE UTILITY INFORMATION SHOWN ON THESE MAPS IS LIMITED TO LOCATIONS OF MAJOR EXISTING AND POTENTIAL UTILITY EASEMENTS. THE DESIGNS SHOWN ON THESE MAPS, INCLUDING UTILITY EASEMENTS, ARE PRELIMINARY AND ARE SUBJECT TO CHANGE.



-L-

PI Sta 129+47.23 Δ = 32° 32′ 41.5″ (RT) D = 1° 47′ 25.8″ L = 1,817.65′ T = 934.07′ R = 3,200.00′

PI Sta 160+47.91 Δ = 48° 47′ 27.8″ (LT) D = 6° 09′ 39.0″ L = 791.95′ T = 421.78′ R = 930.00′

PI Sta 176+75.81 Δ = 8° 37′ 48.6″ (RT) D = 0° 47′ 36.9″ L = 1,087.51′ T = 544.79′ R = 7,220.00′

PI Sta 184+72.80 Δ = 12° 36′ 59.3″ (LT) D = 2° 29′ 28.0″ L = 506.46′ T = 254.26′ R = 2,300.00′

PI Sta 195+21.11 Δ = 1° 54′ 26.3″ (LT) D = 0° 47′ 36.9″ L = 240.34′ T = 120.18′ R = 7,220.00′

PI Sta 197+61.45 Δ = 1° 54′ 26.3″ (RT) D = 0° 47′ 36.9″ L = 240.34′ T = 120.18′ R = 7,220.00′

PI Sta 201+67.80 Δ = 12° 39′ 37.7″ (LT) D = 2° 29′ 28.0″ L = 508.22′ T = 255.15′ R = 2,300.00′

PI Sta 210+60.88 Δ = 12° 44′ 56.7″ (RT) D = 2° 17′ 30.6″ L = 556.28′ T = 279.29′ R = 2,500.00′

PI Sta 219+73.81 Δ = 0° 44′ 55.5″ (RT) D = 0° 34′ 22.6″ L = 130.68′ T = 65.34′ R = 10,000.00′

-Y22-

PI Sta 11+20.43 Δ = 13° 44′ 03.0″ (LT) D = 5° 43′ 46.5″ L = 239.71′ T = 120.43′ R = 1,000.00′

PI Sta 19+17.15 Δ = 24° 18′ 26.1″ (LT) D = 8° 00′ 48.2″ L = 303.33′ T = 153.98′ R = 715.00′

PI Sta 24+68.87 Δ = 14° 43′ 31.8″ (RT) D = 3° 10′ 59.2″ L = 462.62′ T = 232.59′ R = 1,800.00′

PI Sta 28+91.79 Δ = 2° 06′ 35.2″ (LT) D = 0° 47′ 36.9″ L = 265.86′ T = 132.94′ R = 7,220.00′

PI Sta 34+16.65 Δ = 6° 12′ 52.6″ (RT) D = 0° 47′ 36.9″ L = 783.12′ T = 391.94′ R = 7,220.00′

-Y5-

PI Sta 12+08.67 Δ = 25° 17′ 33.7″ (RT) D = 6° 09′ 39.0″ L = 410.54′ T = 208.67′ R = 930.00′

PI Sta 15+87.80 Δ = 15° 31′ 44.9″ (RT) D = 4° 24′ 26.5″ L = 352.34′ T = 177.26′ R = 1,300.00′

PI Sta 25+17.41 Δ = 63° 01′ 39.7″ (LT) D = 15° 16′ 43.9″ L = 412.52′ T = 229.92′ R = 375.00′

-Y20-

PI Sta 14+45.38 Δ = 2° 04′ 01.6″ (RT) D = 1° 03′ 32.7″ L = 195.18′ T = 97.60′ R = 5,410.00′

PI Sta 16+38.23 Δ = 2° 01′ 03.7″ (LT) D = 1° 03′ 32.7″ L = 190.51′ T = 95.27′ R = 5,410.00′

PI Sta 20+02.62 Δ = 5° 20′ 11.7″ (RT) D = 2° 23′ 14.4″ L = 223.54′ T = 111.85′ R = 2,400.00′

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

100′ 0′ 100′ 200′
50′

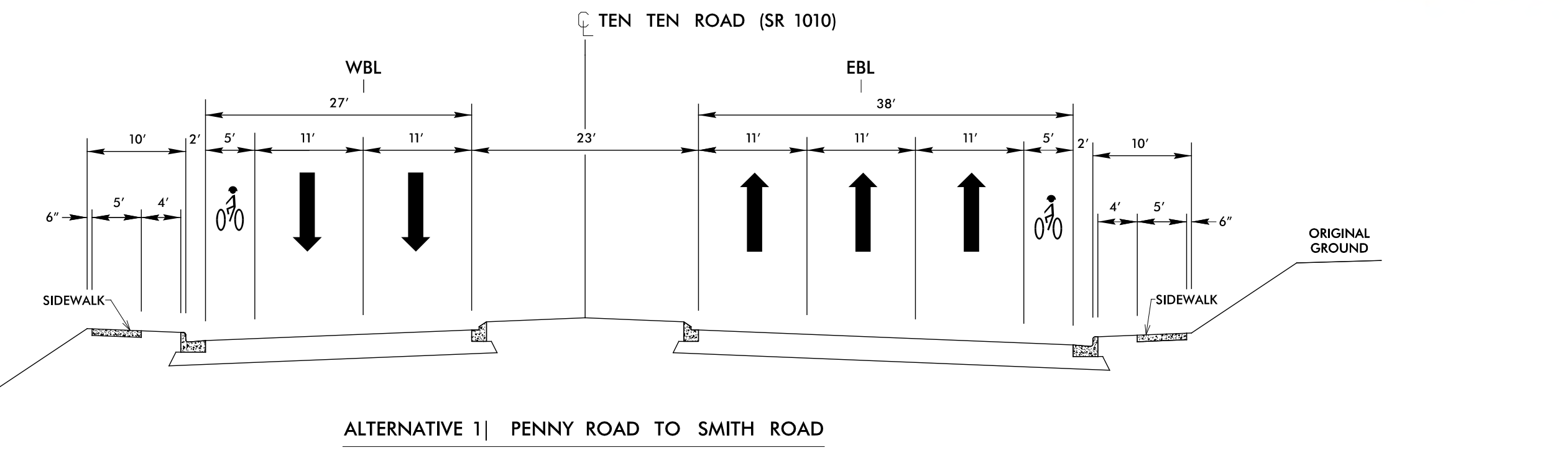
LEGEND

🟫	BUILDINGS
🟩	EXISTING RIGHT OF WAY
🟩	PROPOSED RIGHT OF WAY
▨	PROPOSED EASEMENTS (DRAINAGE, CONSTRUCTION, AND UTILITY)
⬜	EXISTING ROADWAY
▨	EXISTING ROADWAY TO BE REMOVED
🟧	EXISTING ROADWAY TO BE RESURFACED
🟨	PROPOSED ROADWAY
▨	TOWN PARK
🟥	PROPOSED STRUCTURES, ISLAND, CURB AND GUTTER
▨	EXISTING STRUCTURES, ISLAND, CURB AND GUTTER TO BE RETAINED
▨	EXISTING STRUCTURES, ISLAND, CURB AND GUTTER TO BE REMOVED
WLB	WETLANDS
🟦	LAKES, RIVER, STREAMS AND PONDS
🟪	EXISTING UTILITY EASEMENT
▨	CEMETERIES
● C/A	PROPOSED CONTROL OF ACCESS
○ C/A	EXISTING CONTROL OF ACCESS
0000/0000	PRESENT ADT FUTURE ADT
PL	PROPERTY LINES
☢	HAZARDOUS WASTE SITE
●	UNDERGROUND STORAGE TANK SITE
●	ABOVE GROUND STORAGE TANK SITE
🚦	EXISTING TRAFFIC SIGNAL
🚦	PROPOSED TRAFFIC SIGNAL
HPB	HISTORIC PROPERTY BOUNDARY

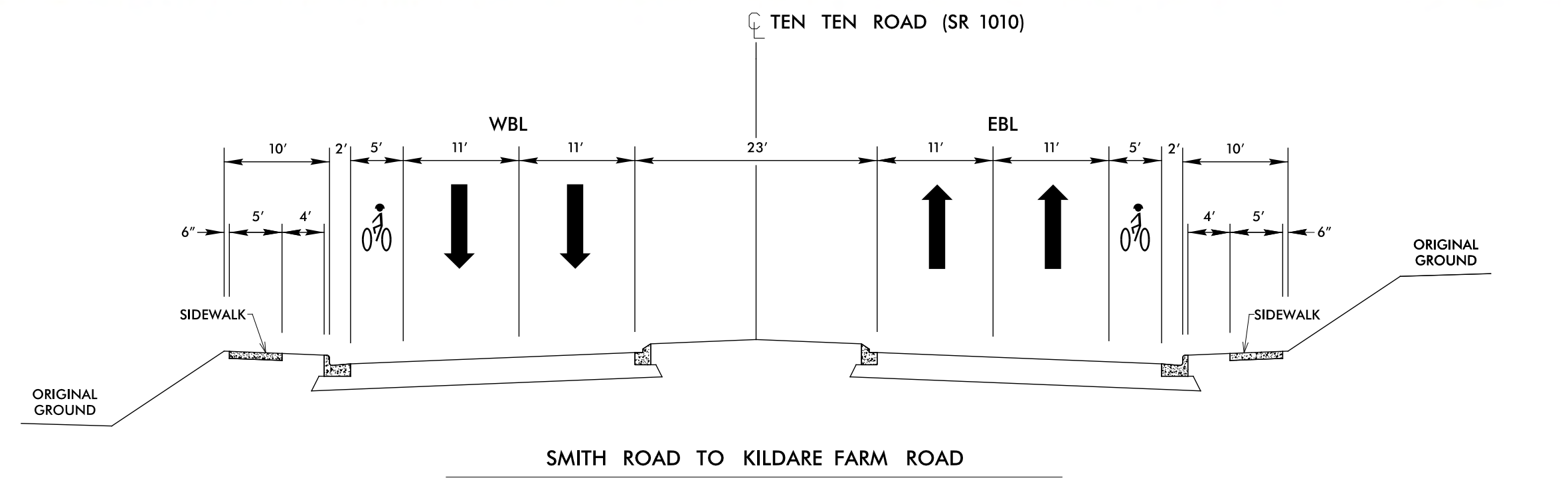
DESIGN DATA

Functional Class. = Urban Collector
Design Speed = 40-50 MPH
Max. Superelev. = 0.04

258	KING, GARY R KING, CONNIE L
259	SHIELD, TYLER SHIELDS, KELLY
260	RAO, ANANTHA SRINIVASA RAO, VANI P
261	ERRATO, RONALD R ERRATO, PATRICIA
262	COLFIN AH-NORTH CAROLINA I LLC
263	SCHROEDER, BENJAMIN Z SCHROEDER, MELINDA T
264	SPIVEY, THOMAS DARRIN SPIVEY, ERICA F
265	NIXON, THOMAS W NIXON, AMY D
266	MEEKINS, PAMELA L
267	PERFILJEVA, JELENA TARANENKO, SERGEJS
268	COMBS, JEFFREY R GORA, MICHELE M
269	RICHARDS, MARK D RICHARDS, SARA L
270	KATZ, JOSEPH H KATZ, CATHERINE A
271	EVERSON, ALBERT C JR EVERSON, ELEANOR P
272	LILLY, DOUGLAS BYRON LILLY, SUSAN M
273	RAO, SHANMUKH P MALLAPRAGADA, SURYA K
274	BALDASARO, NICHOLAS G BALDASARO, RUTH E
275	CULB, TIMOTHY PATRICK CULB, MICHELLE RENEE
276	WILLIAMS, WILLIAM H WILLIAMS, ANNE MARIE
277	AHMAD, JALEES AHMAD, MIRIAM
278	POULIN, TEIA MARIE
279	KIRCHHEIMER, ROBERT P KIRCHHEIMER, MARY BOYER
280	JABLONSKI, JEFFREY J JABLONSKI, MONICA L
281	ROSS, RICHARD A ROSS, SANDRA E
282	CARY TOWN OF
283	LYLES, MILDRED M
284	LYLES, MILDRED M
285	CAREY C JONES MEMORIAL PARK INC
286	BUHITE, MONTE C BUHITE, PAULA D
287	MILLER, DANIEL R MILLER, GINA L
288	MCELHANEY, GLORIA M
289	SELLERS, EMMETT L JR SELLERS, DEBORAH R
290	CHABANEIX, ANDRE
291	ZHAO, CHANGHONG
292	ROWE, ROBIN L
293	LARSON, DENNIS W LARSON, SHARON H
294	MCDONALD, BRIAN MCDONALD, MAURA
295	MONTAGUE, HARVEY L
296	EASTERLY, MICHAEL A EASTERLY, VICTORIA L
297	ROBINSON, DAVID G ROBINSON, WENDY A
298	JUAREZ, YADIRA AMPARO MEZA MEZA, ALAN JR
299	CAREY C JONES MEMORIAL PARK INC
300	DEAN, KENNETH W DEAN, BARBARA L
301	LENFESTEY, ROBERT J SR LENFESTEY, MARIAN H
302	HALL, MICHAEL J
303	FRANKS, DOROTHY W
304	LYLES, DAVID R LYLES, ALLISON J
305	RUSHING, JOHN E RUSHING, KELLI P
306	SABO, JOSEPH C
307	NEWLAND, L TODD
308	MANCINI, MARK V MANCINI, CAROL A
309	ROACH, WILLIAM L III ROACH, ERIN C
310	LUBAS, MARK D LUBAS, AMY E
311	QUEEN, DOUGLAS C QUEEN, GINNY L
312	JOHNSTON, JUDITH A JOHNSTON, BARNEY
313	STEIN, CHRISTOPHER STEIN, LAURA
314	BRAKE, ADAM C
315	PANNILL, DAVID L PANNILL, PATRICIA C
316	SUGURO, MARI
317	BOYD, BRANDON J BOYD, JENNIFER A
318	LAKE, DAVID MORTON LAKE, JOHNNA FUSSELL
319	BROWN, MITCHELL SCOTT
320	MCAVOY, RICHARD A MCAVOY, REBECCA W
321	GEORGE, ZACHARIA GEORGE, ANNIE JAMES
322	COCKMAN, DANIEL A II COCKMAN, LAURIE T
323	PENNELL, DAVID G PENNELL, NADINE S
324	REBARKER, WARREN ASHLEY REBARKER, JEAN F
325	PETERSEN, CHRISTOPHER W PETERSEN, KATHLEEN
326	CHAIJ, RODOLFO CHAIJ, GABRIELA B G
327	SCHULL, MATTHEW E SCHULL, KIMBERLY J
328	ARENDT, JEFFREY P ARENDT, VALERIE L
329	LEWIS, CLIFTON LEWIS, KELLIE
330	JURICAK, STEVEN J JURICAK, ERIN
331	RIDDLE, TIMOTHY D RIDDLE, NANCY M
332	MCSWAIN, DONALD K
333	YAWORSKI, HARRY G YAWORSKI, DEDRA A
334	DEVINE, COLIN G DEVINE, KATHERINE E
335	WEAVER, MIRANDA Y
336	CALDWELL, WILLIAM TAYLOR CALDWELL, CARRIE MAE
337	QUALITY OIL COMPANY LLC
338	SMITH, WILLIAM GERALD SMITH, MARY JANE S
339	SMITH, WILLIAM GERALD SMITH, MARY JANE S
340	SMITH, WILLIAM GERALD SMITH, MARY JANE S
341	SMITH, WILLIAM GERALD
342	MILLPOND HOLDINGS LP LTD PTNRP
343	MILLPOND HOLDINGS LP LTD PTNRP
344	PANTRY INC THE
345	BRANCH BANKING & TRUST CO
346	MILLPOND VILLAGE OUTPARCELS OWNERS ASSN INC
347	DE VINTAGE HOMEOWNERS ASSN INC
348	JOYNER, DAVID BRENT JOYNER, BELINDA G
349	HAYS, DAVID A HAYS, AMY SHUE
350	KALAT, JO E KALAT, JAMES W
351	LISS, GREGORY J
352	SHIPPY, GARY R SHIPPY, SHARON A
353	DUPONT, ERIC
354	SMITH, JAMES M SMITH, RICHARD EARL
355	NIEBAUER, KENNETH J NIEBAUER, BARBARA
356	LUCAS, JAMES A JR. LUCAS, DUBBA K
357	SILVI, GEORGE J SILVI, PAULA A
358	BEACH, MARY L FERGUSON, JOHN F
359	JONES, SHEREEN P.
360	STEWART, JESSIE E STEWART, FREIDA S
361	DOEY, GEORGE T DOEY, MARY K
362	FRITZ, GARY V FRITZ, DOREEN E
363	FUNDERBURK, DENNIS D
364	BRIDGES, ULMER Z III BRIDGES, GRACE BOLLES
365	DURHAM, BRIAN K EMORY, MONA K
366	RYAN, CATHY J
367	WILKEY, TRAVIS K WILKEY, LINDA S
368	DE VINTAGE HOMEOWNERS ASSN INC
369	LUCAS, FRED TIMOTHY TRUSTEE LUCAS, PAMELA JEAN TRUSTEE
370	HELMLINGER, ROBERT B HELMLINGER, DENIECE E
371	TORRANT, JOHN D TORRANT, SANDRA L
372	HOBBS, STUART HOBBS, SYBIL C
373	BAILEY, ROBERT BAILEY, ARLISS
374	JUNK, ROBERT L JUNK, PAULA
375	WARDEN, MARY KATHLEEN
376	MADUBEZE, DONALD MADUBEZE, JOSEPHINE
377	KHAN, ZAFAR A KHAN, NAIMAT Z
378	MOCOCK, DEBORAH J
379	NAU, KYLE HUFFMAN
380	STONEBRIDGE MASTER ASSN INC
381	TOWNES AT STONEBRIDGE ASSN INC
382	MONTANARI, ALBERTO MONTANARI, BRUNA
383	WALLS, SHERWOOD M WALLS, ANNE N
384	JANNI, ANNMARIE
385	COBLEY, GERALD COBLEY, JULIA
386	VICEK, DENISE K VICEK, KEITH A
387	WALKER, SUSAN O WALKER, JONATHAN D
388	SULLIVAN, CORNELIUS F III SULLIVAN, KRISTEN K
389	FRANCISCHINE, ADALZISO FRANCISCHINE, ADRIANE DI FLORA
390	HALTOM, BRYAN C HALTOM, LAURA A



ALTERNATIVE 1| PENNY ROAD TO SMITH ROAD



SMITH ROAD TO KILDARE FARM ROAD

PUBLIC MEETING MAP
PROJECT U-5825
WAKE COUNTY
APEX - TEN TEN RD (SR 1010)
FROM APEX PEAKWAY TO
KILDAIRE FARM RD (SR 1300)
ROLL 2 OF 2

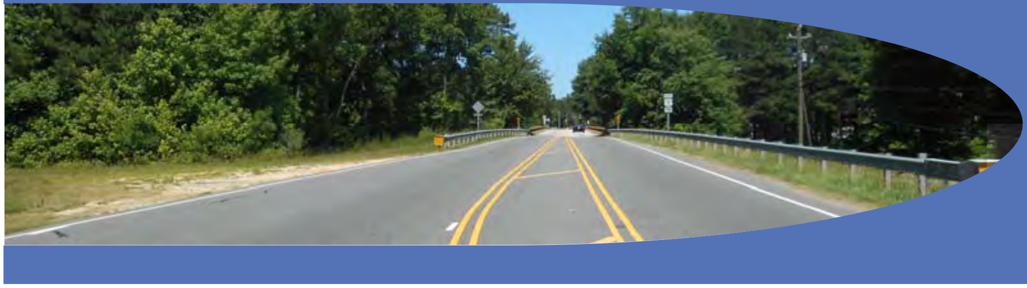
PUBLIC MEETING MAP
PROJECT U-5825
WAKE COUNTY
APEX - TEN TEN RD (SR 1010)
FROM APEX PEAKWAY TO
KILDAIRE FARM RD (SR 1300)
ROLL 2 OF 2

LEGEND
BUILDINGS
EXISTING RIGHT OF WAY
PROPOSED RIGHT OF WAY
PROPOSED EASEMENTS (DRAINAGE, CONSTRUCTION, AND UTILITY)
EXISTING ROADWAY
EXISTING ROADWAY TO BE REMOVED
EXISTING ROADWAY TO BE RESURFACED
PROPOSED ROADWAY
TOWN PARK
PROPOSED STRUCTURES, ISLAND, CURB AND GUTTER
EXISTING STRUCTURES, ISLAND, CURB AND GUTTER TO BE RETAINED
EXISTING STRUCTURES, ISLAND, CURB AND GUTTER TO BE REMOVED
WETLANDS
LAKES, RIVER, STREAMS AND PONDS
EXISTING UTILITY EASEMENT
CEMETERIES
PROPOSED CONTROL OF ACCESS
EXISTING CONTROL OF ACCESS
PRESENT ADT
FUTURE ADT
PROPERTY LINES
HAZARDOUS WASTE SITE
UNDERGROUND STORAGE TANK SITE
ABOVE GROUND STORAGE TANK SITE
EXISTING TRAFFIC SIGNAL
PROPOSED TRAFFIC SIGNAL
HISTORIC PROPERTY BOUNDARY
DESIGN DATA
Functional Class. = Urban Collector
Design Speed = 40-50 MPH
Max. Superelev. = 0.04

Appendix D - Public Involvement Materials

STIP No. U-5825 Ten Ten Road Widening

Apex/Cary



February 2018

Public Meeting Notice

The purpose of this meeting is to present the latest information and answer questions regarding the proposed project. Comments may be submitted until March 15, 2018 by mail or email to the project team listed in this handout.

Project Overview

NCDOT is proposing to widen Ten Ten Road from Apex Peakway to Kildaire Farm Road, through the Towns of Apex and Cary in Wake County. Currently, Ten Ten Road is primarily a two-lane roadway throughout the project corridor, with turn lanes at major intersections. To relieve congestion, NCDOT is proposing to widen the road to a median-divided, four-lane roadway with curb-and-gutter. The roadway would have a sidewalk on one side and a multi-use path on the other for much of the corridor length to accommodate bicyclists and pedestrians in the area. The existing overpass of U.S. 1 will also be replaced as part of this project.

PROJECT SCHEDULE

	1st Public Meeting	Environmental Document	Right of Way Authorization	Estimated Construction
U-5825	March 2018	August 2018	Spring 2021*	Spring 2023*
			*Dates are subject to change	

Continual public involvement throughout project process.
Second Public Meeting anticipated to be held in Summer 2018.

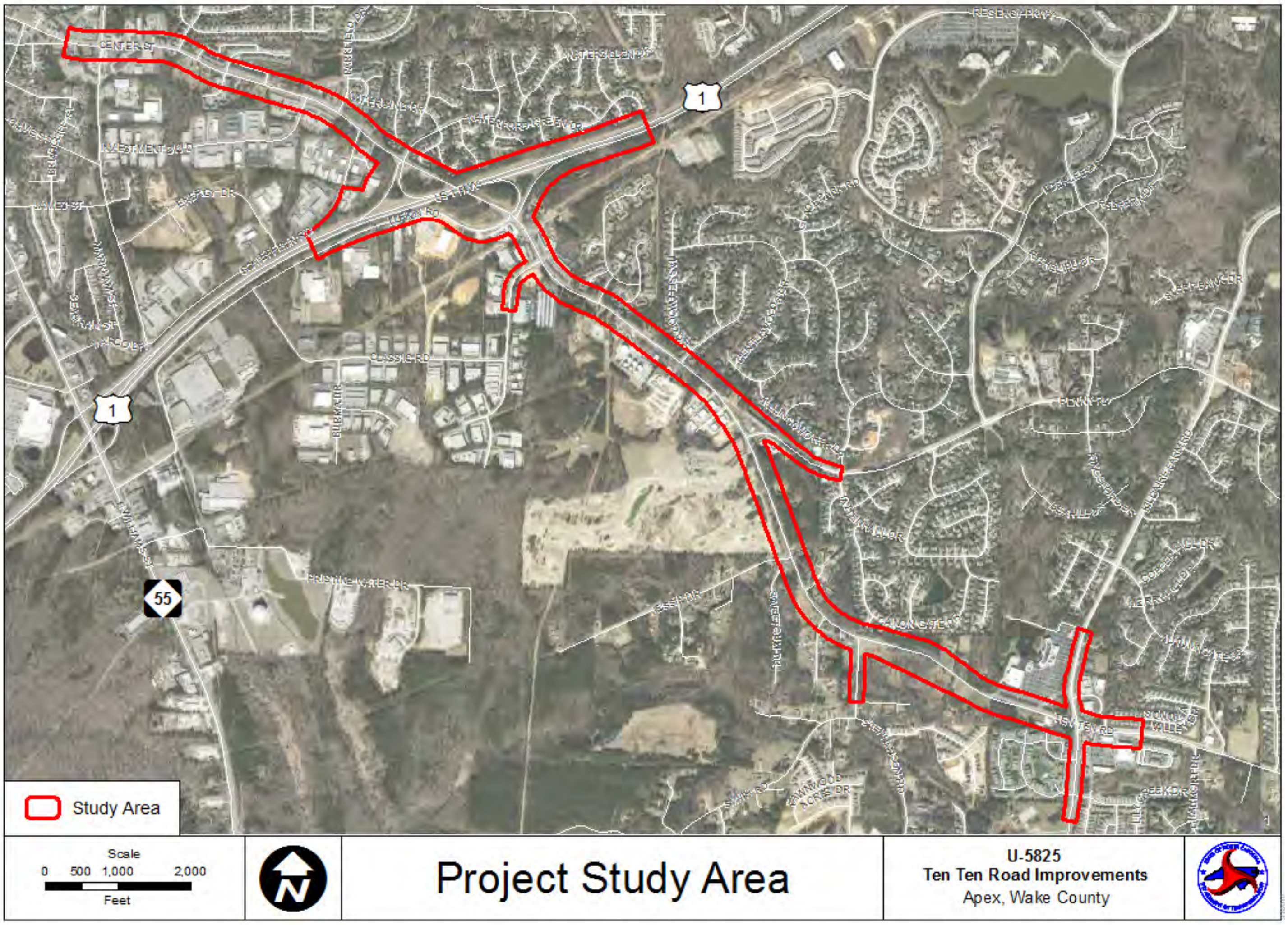
At this stage, we are including the whole U-5825 project corridor for impact evaluations and design efforts. The project, however, is planned to be constructed in two parts, Section A and Section B. The division of the Sections occurs at the U.S. 1 interchange. Determination of when each part is constructed will be based on available funding. It is expected that the interchange improvements will be included in the first Section, A or B, that is constructed.

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

February 2018

STIP PROJECT NO. U-5825 (TEN TEN ROAD WIDENING)

For more project information, please visit our website.
https://ncdot.publicinput.com/tenten_apexcary



PROJECT DEVELOPMENT PROCESS

Currently, NCDOT is preparing the environmental document (State Environmental Assessment/Finding of No Significant Impact [SEA/FONSI]) in compliance with the North Carolina State Environmental Policy Act (SEPA) as well as preliminary designs for this project. Potential impacts to the natural and human environment will be evaluated during the project development process and documented in the SEA/FONSI.

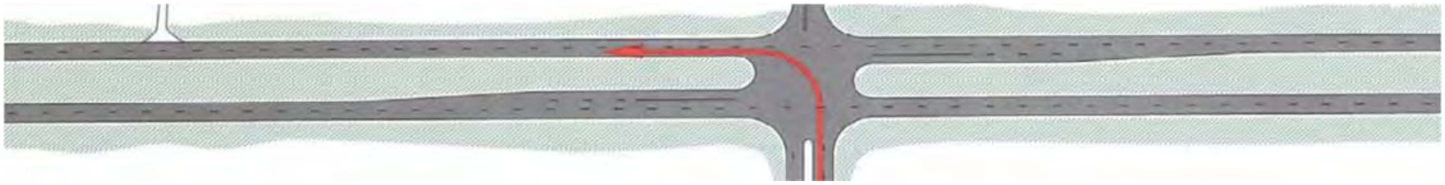
Two alternatives are being studied to meet the project's purpose and need. The primary difference in the alternatives is that one alternative improves the intersections along the corridor through conventional widening, while the other alternative includes a number of superstreet intersections. Opportunities for public input on the project will continue throughout the process and another Public Meeting will be held to present the preferred alternative and solicit additional public comments.

What is a "Potential Impact Area"?

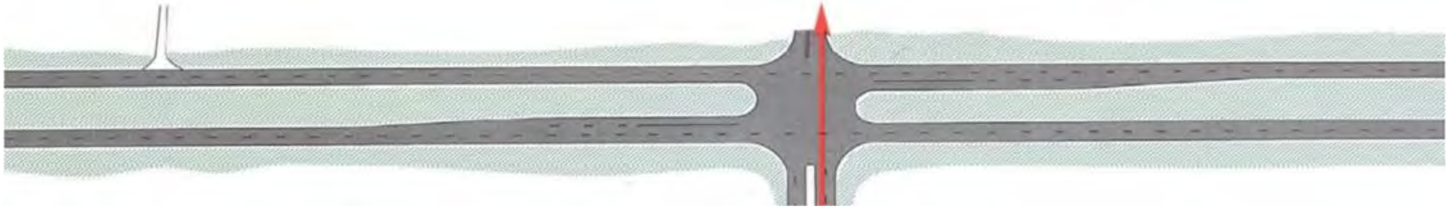
The area shown on the maps as "Potential Impact Area" is intended to show the extents of possible impact. This does not mean that the project will affect everything within the shaded area. Rather, the project team is focusing on evaluating these areas due to their proximity to the roadway.

STIP PROJECT NO. U-5825 ALTERNATIVES

Alternative 1 - Traditional Widening



Left-Turn Movement

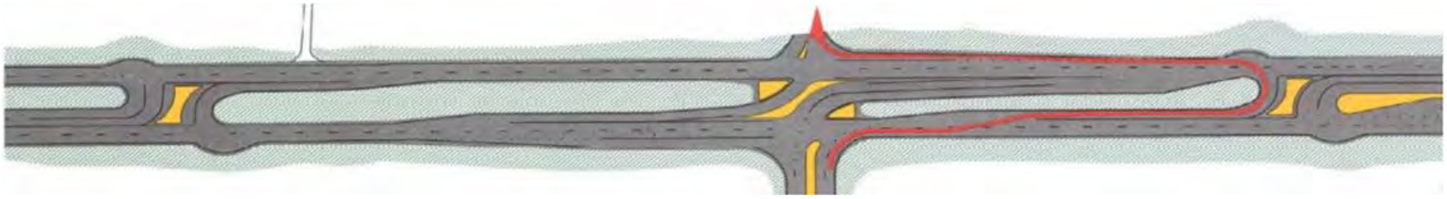


Through Movement

Traditional widening includes improvements such as constructing turn lanes and adding an additional through lane to increase capacity. Additional turn lanes allow vehicles to move out of the stream of traffic to make their turns. No turning movements are rerouted, which enables drivers to travel through the intersection in a traditional manner.

Alternative 2 - Superstreet

Left-Turn Movement



Through Movement

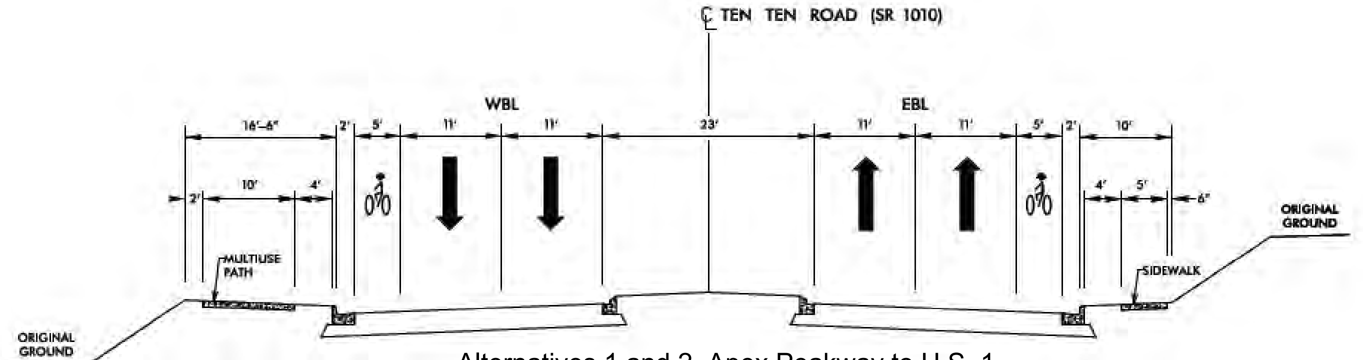
Superstreet intersection improvements direct side street traffic to make a right turn and then proceed to dedicated U-turn movements, to continue in the desired direction. Safety is improved with this design by reducing conflict points seen at major cross streets. With this design, traffic flow and capacity are increased.

February 2018

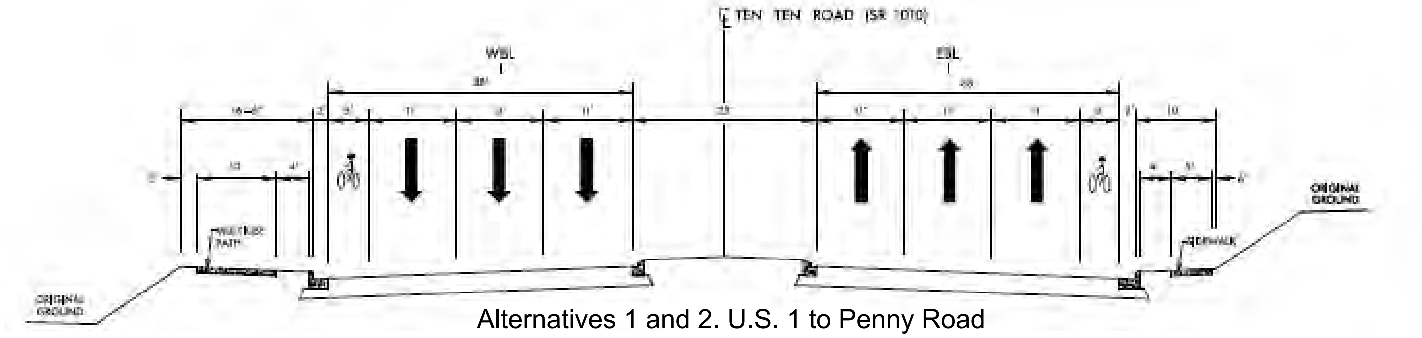
STIP PROJECT NO. U-5825 POTENTIAL TYPICAL SECTIONS

Alternative 1: Traditional Widening. 4-lane, median-divided roadway, with some 6-lane portions; sidewalk and multi-use path from Apex Peakway to Penny Road to accommodate bicyclists and pedestrians along Ten Ten Road.

Alternative 2: Synchronized Street. 4-lane, median-divided roadway, with some 6-lane portions; with sidewalk and multi-use path from Apex Peakway to Penny Road to accommodate bicyclists and pedestrians along Ten Ten Road.



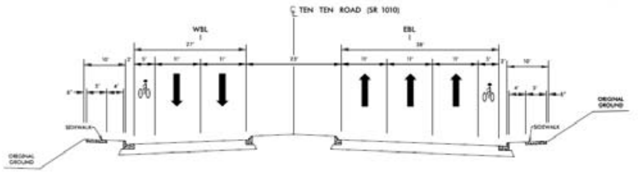
Alternatives 1 and 2. Apex Peakway to U.S. 1



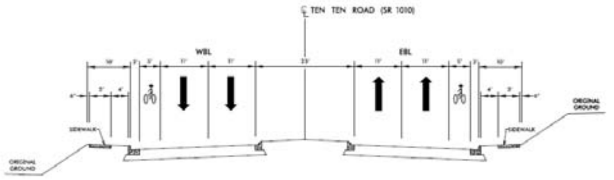
Alternatives 1 and 2. U.S. 1 to Penny Road

What is a Multi-Use Path?

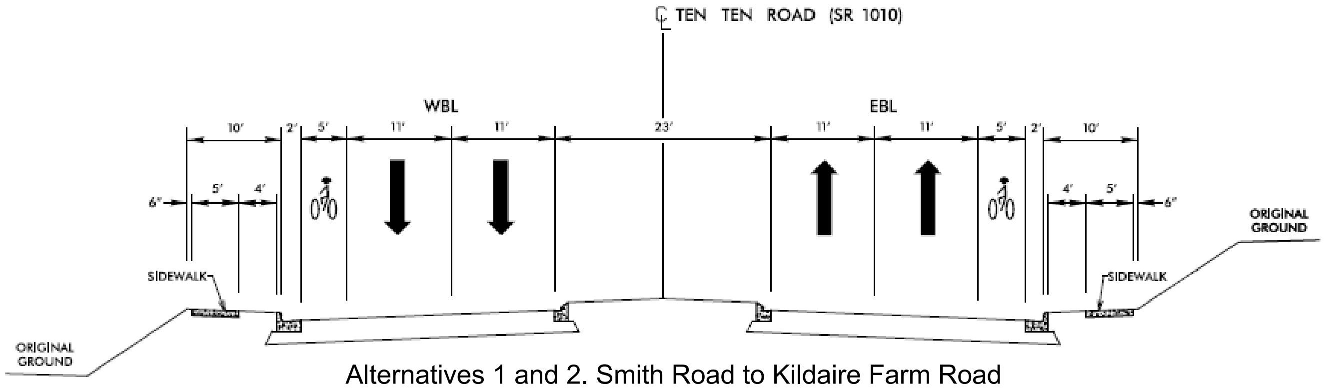
A multi-use path is physically separated from motor vehicular traffic by a barrier, such as a grass strip, and provides recreation and transportation opportunities for a variety of user groups including pedestrians and bicyclists.



Alternative 1. Penny Road to Smith Road

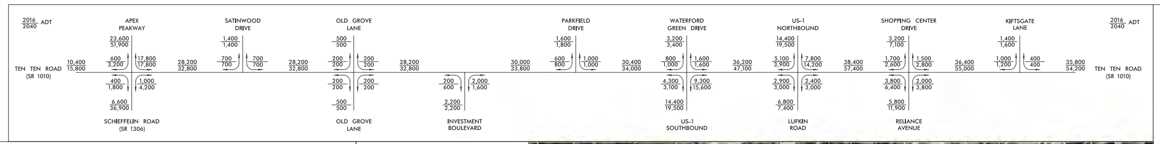


Alternative 2. Penny Road to Smith Road



Alternatives 1 and 2. Smith Road to Kildaire Farm Road

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



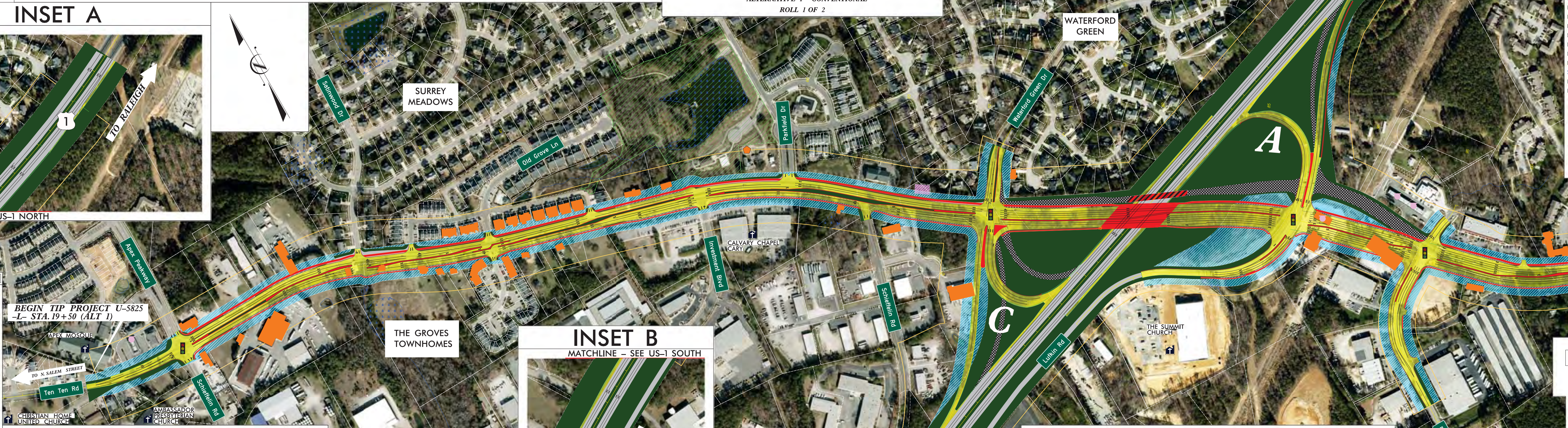
PUBLIC MEETING MAP
PROJECT U–5825

WAKE COUNTY

APEX – TEN TEN RD (SR 1010)
FROM APEX PEAKWAY TO
KILDAIRE FARM RD (SR 1300)

ALTERNATIVE 1 – CONVENTIONAL

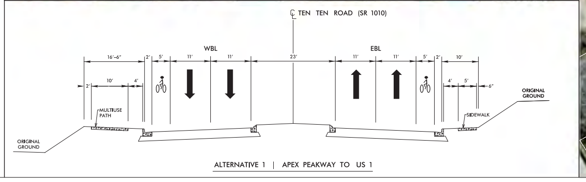
ROLL 1 OF 2



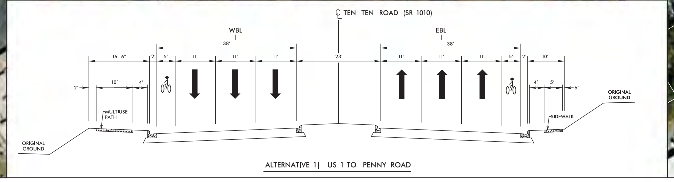
LEGEND

▭	STUDY AREA LIMITS
🟥	PROPOSED CONCRETE ISLANDS, SIDEWALKS, STRUCTURES
🟨	PROPOSED ROADWAY
▭	EXISTING ROADWAY
☒	EXISTING ROADWAY TO BE REMOVED
▨	POTENTIAL IMPACT AREA
■	EXISTING RIGHT OF WAY
▭	PROPOSED EDGE OF PAVEMENT
🟩	PROPOSED RAISED MEDIAN (GRASS)
▨	EXISTING STRUCTURE
▭	PROPERTY LINES
▨	MANAGED NATURAL AREA
▭	CITY/TOWN LIMITS
🟧	POTENTIALLY IMPACTED BUILDINGS
▭	WETLANDS
▭	LAKES, PONDS, & STREAMS
▨	CEMETERY
⬟	HISTORIC PROPERTY LOCALLY–DESIGNATED
✝	PLACE OF WORSHIP
☢	HAZARDOUS WASTE SITE
●	UNDERGROUND STORAGE TANK SITE
●	ABOVE GROUND STORAGE TANK SITE
🚦	EXISTING TRAFFIC SIGNAL
🚦	PROPOSED TRAFFIC SIGNAL

LEGEND
STUDY AREA LIMITS
PROPOSED CONCRETE ISLANDS, SIDEWALKS, STRUCTURES
PROPOSED ROADWAY
EXISTING ROADWAY
EXISTING ROADWAY TO BE REMOVED
POTENTIAL IMPACT AREA
EXISTING RIGHT OF WAY
PROPOSED EDGE OF PAVEMENT
PROPOSED RAISED MEDIAN (GRASS)
EXISTING STRUCTURE
PROPERTY LINES
MANAGED NATURAL AREA
CITY/TOWN LIMITS
POTENTIALLY IMPACTED BUILDINGS
WETLANDS
LAKES, PONDS, & STREAMS
CEMETERY
HISTORIC PROPERTY LOCALLY–DESIGNATED
PLACE OF WORSHIP
HAZARDOUS WASTE SITE
UNDERGROUND STORAGE TANK SITE
ABOVE GROUND STORAGE TANK SITE
EXISTING TRAFFIC SIGNAL
PROPOSED TRAFFIC SIGNAL



ALTERNATIVE 1 | APEX PEAKWAY TO US 1



ALTERNATIVE 1| US 1 TO PENNY ROAD

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PUBLIC MEETING MAP
PROJECT U–5825

WAKE COUNTY

APEX – TEN TEN RD. (SR 1010)
FROM APEX PEAKWAY TO
KILDAIRE FARM RD. (SR 1300)

ALTERNATIVE 1 – CONVENTIONAL

ROLL 2 OF 2

LEGEND

- STUDY AREA LIMITS
- PROPOSED CONCRETE ISLANDS, SIDEWALKS, STRUCTURES
- PROPOSED ROADWAY
- EXISTING ROADWAY
- EXISTING ROADWAY TO BE REMOVED
- POTENTIAL IMPACT AREA
- EXISTING RIGHT OF WAY
- PROPOSED EDGE OF PAVEMENT
- PROPOSED RAISED MEDIAN (GRASS)
- EXISTING STRUCTURE
- PROPERTY LINES
- ▨ MANAGED NATURAL AREA
- CITY/TOWN LIMITS
- POTENTIALLY IMPACTED BUILDINGS
- WETLANDS
- LAKES, PONDS, & STREAMS
- CEMETERY
- ⬟ HISTORIC PROPERTY LOCALLY–DESIGNATED
- PLACE OF WORSHIP
- ☢ HAZARDOUS WASTE SITE
- UNDERGROUND STORAGE TANK SITE
- ABOVEGROUND STORAGE TANK SITE
- EXISTING TRAFFIC SIGNAL
- PROPOSED TRAFFIC SIGNAL

LEGEND

- STUDY AREA LIMITS
- PROPOSED CONCRETE ISLANDS, SIDEWALKS, STRUCTURES
- PROPOSED ROADWAY
- EXISTING ROADWAY
- EXISTING ROADWAY TO BE REMOVED
- POTENTIAL IMPACT AREA
- EXISTING RIGHT OF WAY
- PROPOSED EDGE OF PAVEMENT
- PROPOSED RAISED MEDIAN (GRASS)
- EXISTING STRUCTURE
- PROPERTY LINES
- ▨ MANAGED NATURAL AREA
- CITY/TOWN LIMITS
- POTENTIALLY IMPACTED BUILDINGS
- WETLANDS
- LAKES, PONDS, & STREAMS
- CEMETERY
- ⬟ HISTORIC PROPERTY LOCALLY–DESIGNATED
- PLACE OF WORSHIP
- ☢ HAZARDOUS WASTE SITE
- UNDERGROUND STORAGE TANK SITE
- ABOVEGROUND STORAGE TANK SITE
- EXISTING TRAFFIC SIGNAL
- PROPOSED TRAFFIC SIGNAL

PUBLIC MEETING MAP
PROJECT U–5825

WAKE COUNTY

APEX – TEN TEN RD (SR 1010)
FROM APEX PEAKWAY TO
KILDAIRE FARM RD (SR 1300)

ALTERNATIVE 2 – SUPERSTREET

ROLL 1 OF 2

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

ALTERNATIVE 2 | APEX PEAKWAY TO US 1

TYPICAL SUPERSTREET

ALTERNATIVE 2 | US 1 TO PENNY ROAD

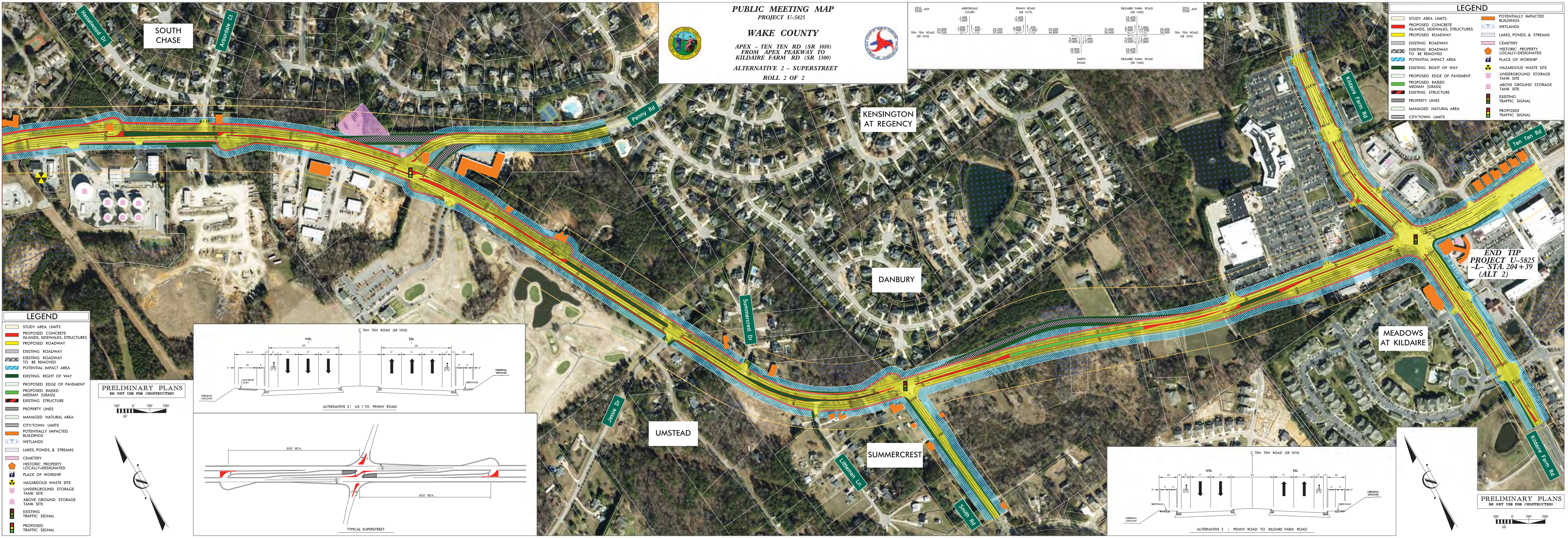
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

LEGEND

▭	STUDY AREA LIMITS
🟥	PROPOSED CONCRETE ISLANDS, SIDEWALKS, STRUCTURES
🟨	PROPOSED ROADWAY
▬	EXISTING ROADWAY
☒	EXISTING ROADWAY TO BE REMOVED
▨	POTENTIAL IMPACT AREA
🟩	EXISTING RIGHT OF WAY
▭	PROPOSED EDGE OF PAVEMENT
🟩	PROPOSED RAISED MEDIAN (GRASS)
▨	EXISTING STRUCTURE
▬	PROPERTY LINES
▨	MANAGED NATURAL AREA
▬	CITY/TOWN LIMITS
🟧	POTENTIALLY IMPACTED BUILDINGS
▭	WETLANDS
▭	LAKES, PONDS, & STREAMS
▨	CEMETERY
⬟	HISTORIC PROPERTY LOCALLY–DESIGNATED
✝	PLACE OF WORSHIP
☢	HAZARDOUS WASTE SITE
●	UNDERGROUND STORAGE TANK SITE
●	ABOVE GROUND STORAGE TANK SITE
🚦	EXISTING TRAFFIC SIGNAL
🚦	PROPOSED TRAFFIC SIGNAL

LEGEND

▭	STUDY AREA LIMITS
🟥	PROPOSED CONCRETE ISLANDS, SIDEWALKS, STRUCTURES
🟨	PROPOSED ROADWAY
▬	EXISTING ROADWAY
☒	EXISTING ROADWAY TO BE REMOVED
▨	POTENTIAL IMPACT AREA
🟩	EXISTING RIGHT OF WAY
▭	PROPOSED EDGE OF PAVEMENT
🟩	PROPOSED RAISED MEDIAN (GRASS)
▨	EXISTING STRUCTURE
▬	PROPERTY LINES
▨	MANAGED NATURAL AREA
▬	CITY/TOWN LIMITS
🟧	POTENTIALLY IMPACTED BUILDINGS
▭	WETLANDS
▭	LAKES, PONDS, & STREAMS
▨	CEMETERY
⬟	HISTORIC PROPERTY LOCALLY–DESIGNATED
✝	PLACE OF WORSHIP
☢	HAZARDOUS WASTE SITE
●	UNDERGROUND STORAGE TANK SITE
●	ABOVE GROUND STORAGE TANK SITE
🚦	EXISTING TRAFFIC SIGNAL
🚦	PROPOSED TRAFFIC SIGNAL



PUBLIC MEETING MAP
PROJECT U–5825

WAKE COUNTY

APEX – TEN TEN RD (SR 1010)
FROM APEX PEAKWAY TO
KILDAIRE FARM RD (SR 1300)

ALTERNATIVE 2 – SUPERSTREET

ROLL 2 OF 2

ALTERNATIVE 2 | US 1 TO PENNY ROAD

TYPICAL SUPERSTREET

ALTERNATIVE 2 | PENNY ROAD TO KILDARE FARM ROAD

END TIP
PROJECT U–5825
–L– STA. 204+39
(ALT 2)

LEGEND

- STUDY AREA LIMITS
- PROPOSED CONCRETE ISLANDS, SIDEWALKS, STRUCTURES
- PROPOSED ROADWAY
- EXISTING ROADWAY
- EXISTING ROADWAY TO BE REMOVED
- POTENTIAL IMPACT AREA
- EXISTING RIGHT OF WAY
- PROPOSED EDGE OF PAVEMENT
- PROPOSED RAISED MEDIAN (GRASS)
- EXISTING STRUCTURE
- PROPERTY LINES
- MANAGED NATURAL AREA
- CITY/TOWN LIMITS
- POTENTIALLY IMPACTED BUILDINGS
- WETLANDS
- LAKES, PONDS, & STREAMS
- CEMETERY
- HISTORIC PROPERTY LOCALLY–DESIGNATED
- PLACE OF WORSHIP
- HAZARDOUS WASTE SITE
- UNDERGROUND STORAGE TANK SITE
- ABOVE GROUND STORAGE TANK SITE
- EXISTING TRAFFIC SIGNAL
- PROPOSED TRAFFIC SIGNAL

LEGEND
STUDY AREA LIMITS
PROPOSED CONCRETE ISLANDS, SIDEWALKS, STRUCTURES
PROPOSED ROADWAY
EXISTING ROADWAY
EXISTING ROADWAY TO BE REMOVED
POTENTIAL IMPACT AREA
EXISTING RIGHT OF WAY
PROPOSED EDGE OF PAVEMENT
PROPOSED RAISED MEDIAN (GRASS)
EXISTING STRUCTURE
PROPERTY LINES
MANAGED NATURAL AREA
CITY/TOWN LIMITS
POTENTIALLY IMPACTED BUILDINGS
WETLANDS
LAKES, PONDS, & STREAMS
CEMETERY
HISTORIC PROPERTY LOCALLY–DESIGNATED
PLACE OF WORSHIP
HAZARDOUS WASTE SITE
UNDERGROUND STORAGE TANK SITE
ABOVE GROUND STORAGE TANK SITE
EXISTING TRAFFIC SIGNAL
PROPOSED TRAFFIC SIGNAL

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Ten Ten Road (S.R. 1010) Improvements

STIP No. U-5825 (from Apex Peakway to Kildaire Farm Road)

Wake County

Public Comment Sheet

Please let us know of any comments or concerns you have on transportation issues related to the proposed improvements along Ten Ten Road from Apex Peakway in Apex to Kildaire Farm Road in Cary. You can mail/e-mail your comments to the contacts listed below.

Name: ______________________________

Address: ______________________________

Email/Phone: ______________________________

COMMENTS

If additional space is required, please attach additional sheets before mailing.

Comments may also be submitted directly to the individuals listed below via e-mail or telephone

Mr. Zahid Baloch
N.C. Department of Transportation
Division 5
1548 Mail Service Center
Raleigh, NC 27699
(919) 707-6012
zbaloch@ncdot.gov

Ms. Lauren Triebert
VHB Engineering NC, P.C.
Venture 1
940 Main Campus Drive, Suite 500
Raleigh, NC 27606
(919) 741-5524
ltriebert@vhb.com

VHB Engineering NC, P.C.
Venture 1
940 Main Campus Drive, Suite 500
Raleigh, NC 27606

Attn: Lauren Triebert
VHB Engineering NC, P.C.
Venture 1
940 Main Campus Drive, Suite 500
Raleigh, NC 27606

TITLE VI PUBLIC INVOLVEMENT FORM

*Completing this form is **completely** voluntary. You are not required to provide the information requested in order to participate in this meeting.*

Meeting Type: Public Meeting **Location:** The Summit Church, 3000 Lufkin Road, Apex, NC 27539	**Date: March 1, 2018**
STIP No.: U-5825 **Project Description: Ten Ten Road (SR 1010) Improvements (from Apex Peakway to Kildaire Farm Road)**	

In accordance with Title VI of the Civil Rights Act of 1964 and related authorities, the North Carolina Department of Transportation (NCDOT) assures that no person(s) shall be excluded from participation in, denied the benefits of, or subjected to discrimination under any of the Department's programs, policies, or activities, based on their race, color, national origin, disability, age, income, or gender.

Completing this form helps meet our data collection and public involvement obligations under Title VI and NEPA, and will improve how we serve the public. Please place the completed form in the designated box on the sign-in table, hand it to an NCDOT official, or mail it to the PDEA-Human Environment Section, 1598 Mail Service Center, Raleigh, NC 27699-1598.

All forms will remain on file at the NCDOT as part of the public record.

Zip Code: ______________________

Street Name: **(i.e. Main Street)**

____

Gender: ☐ Male ☐ Female

Age:

☐ Less than 18
☐ 18-29
☐ 30-44
☐ 45-64
☐ 65 and older

Total Household Income:

☐ Less than $12,000
☐ $12,000 – $19,999
☐ $20,000 – $30,999
☐ $31,000 – $46,999
☐ $47,000 – $69,999
☐ $70,000 – $93,999
☐ $94,000 – $117,999
☐ $118,000 or greater

Have a Disability: ☐ **Yes** ☐ **No**

Race/Ethnicity:

☐ White
☐ Black/African American
☐ American Indian/Alaskan Native
☐ Native Hawaiian/Pacific Islander
☐ Other (please specify): ______________________
☐ Asian
☐ Hispanic/Latino

National Origin: (if born outside the U.S.)

☐ Mexican
☐ Central American: ____________________
☐ South American: _____________________
☐ Puerto Rican
☐ Chinese
☐ Other (please specify): __________________
☐ Vietnamese
☐ Korean

How did you hear about this meeting? (newspaper advertisement, flyer, and/or mailing) _____________

____

For more information regarding Title VI or this request, please contact the NCDOT Title VI Section at (919) 508-1896 or toll free at 1-800-508-1886, or by email at sddickens@ncdot.gov.

Thank you for your participation!

Diane Wilson
NCDOT – PDEA
Human Environment Section
1598 Mail Service Center
Raleigh, NC 27699-1598

Attn: Diane Wilson
NCDOT - PDEA
Human Environment Section
1598 Mail Service Center
Raleigh, NC 27699-1598

PROJECT UPDATE

Ten Ten Road Improvements Public Meeting

ADDITIONAL QUESTIONS?

NCDOT Division 5
Sr. Project Engineer

Zahid Baloch

(919)-707-6012
zbaloch@ncdot.gov

STIP Project No. U-5825
Ten Ten Road Widening from Kildaire Farm Rd To Apex Peakway

Wake County

PRSRT STD
U.S. POSTAGE
PAID
CITY, STATE
PERMIT NO. XXX

*********ECRWSSEDDM****

Postal Customer

The N. C. Department of Transportation is holding a Public Meeting for proposed improvements to Ten Ten Road from Kildaire Farm Road to Apex Peakway in Wake County.

The purpose of the project is to improve capacity and decrease congestion along Ten Ten Road from Kildaire Farm Road to Apex Peakway. The proposed design consists of a median-divided, four-lane roadway with curb-and-gutter, and a multi-use path on one side and a sidewalk along the other for much of the corridor.

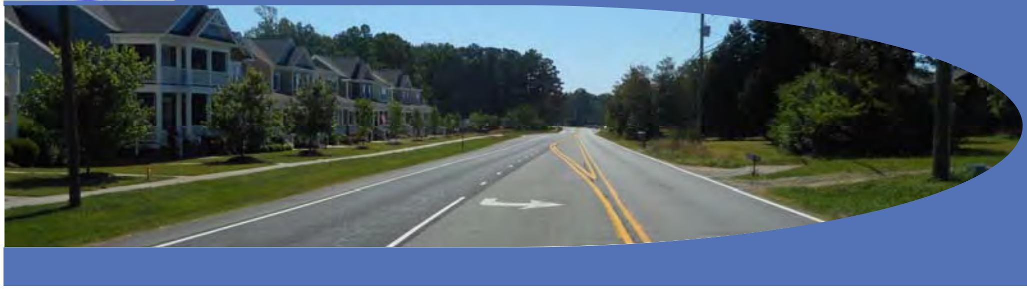
As part of this project, NCDOT will hold a public meeting:
Thursday, March 1, 2018
4-7 PM
The Summit Church
3000 Lufkin Rd
Apex, NC 27539

The purpose of this meeting is to present the latest information and answer questions regarding the proposed project. You are invited to drop in anytime between 4 PM and 7 PM to ask questions, provide feedback, and talk to project team representatives.

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

STIP No. U-5825 Ten Ten Road Widening

Apex/Cary



October 2018

Public Meeting

The purpose of this meeting is to present the latest information and answer questions regarding the proposed project. Comments may be submitted until November 20, 2018 by mail or email to the project team listed in this handout.

Project Overview

NCDOT is proposing to widen Ten Ten Road from Apex Peakway to Kildaire Farm Road, through the Towns of Apex and Cary in Wake County. Currently, Ten Ten Road is primarily a two-lane roadway throughout the project corridor, with turn lanes at major intersections. To relieve congestion, NCDOT is proposing to widen the road to a median-divided, four-lane roadway with curb-and-gutter. The roadway would have a sidewalk on one side and a multi-use path on the other for much of the corridor length to accommodate bicyclists and pedestrians in the area. The existing overpass of U.S. 1 will also be replaced as part of this project.

PROJECT SCHEDULE

	1st Public Meeting	2nd Public Meeting	Environmental Document	Right of Way Authorization	Estimated Construction
U-5825	March 2018	October 2018	December 2018	Spring 2021*	Spring 2023*
				*Dates are subject to change	

Your input is important.
Public involvement has been continuous throughout the project process.

Preferred Alternative Selected

After receiving public input, the project team has selected the traditional widening option as the preferred alternative to move forward to final design and construction. A superstreet alternative was also evaluated; however, it is no longer being considered for implementation.

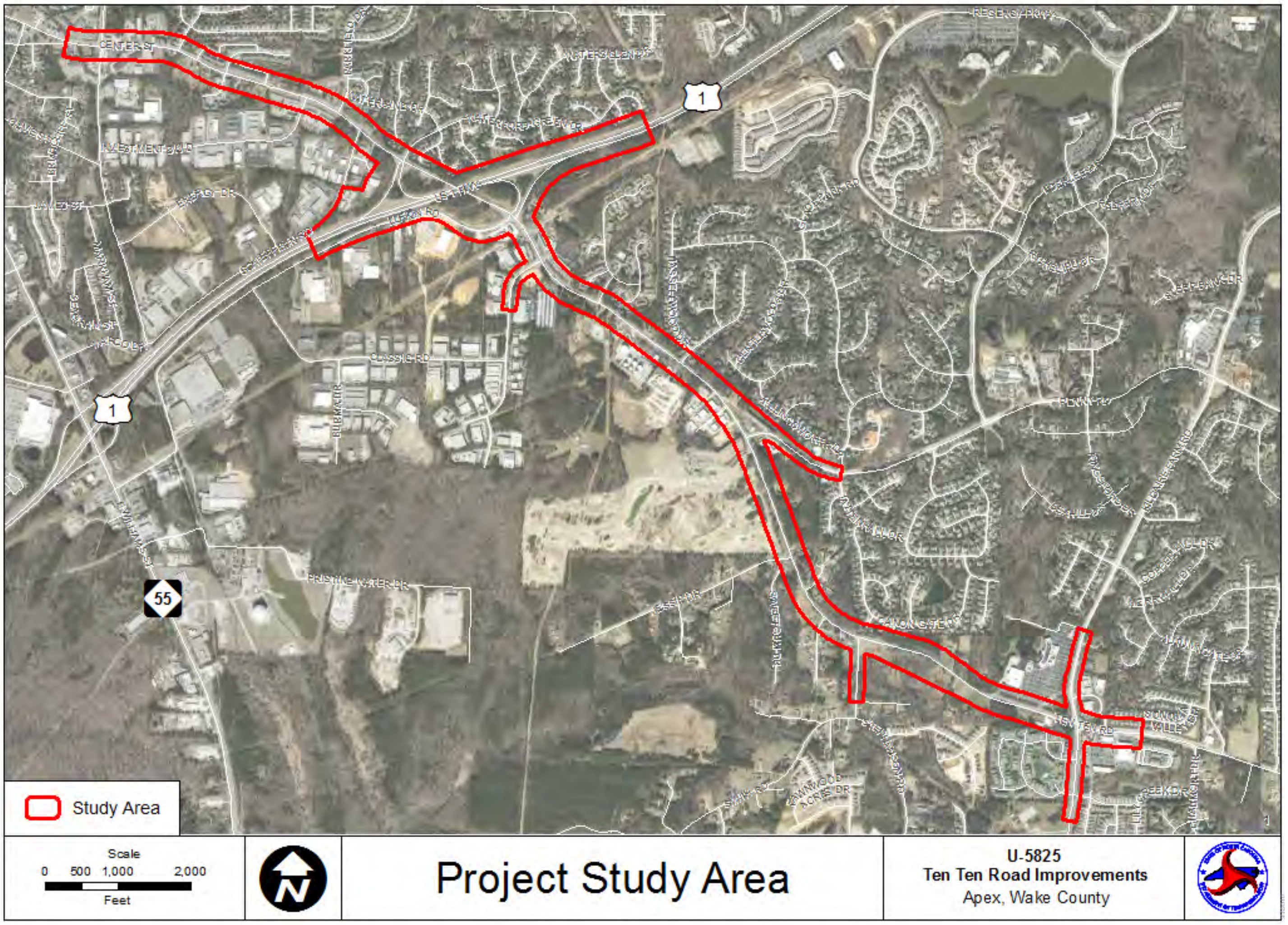
Rendering of the proposed U.S. 1 interchange

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

October 2018

STIP PROJECT NO. U-5825 (TEN TEN ROAD WIDENING)

For more project information, please visit our website.
https://ncdot.publicinput.com/tenten_apexcary



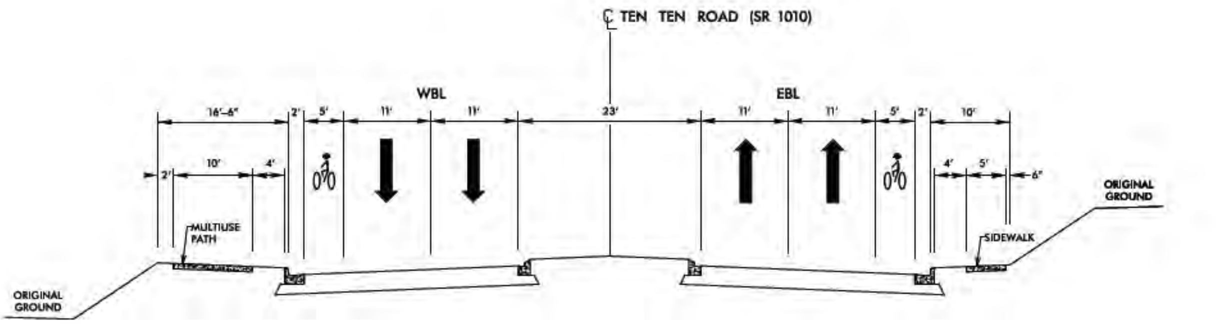
PROJECT DEVELOPMENT PROCESS

Currently, NCDOT is preparing the environmental document (State Environmental Assessment/ Finding of No Significant Impact [SEA/FONSI]) in compliance with the North Carolina State Environmental Policy Act (SEPA) and has completed preliminary designs for this project. Potential impacts to the natural and human environment have been evaluated during the project development process and are documented in the SEA/FONSI. At this time, the project is estimated to relocate approximately 17 homes and six businesses.

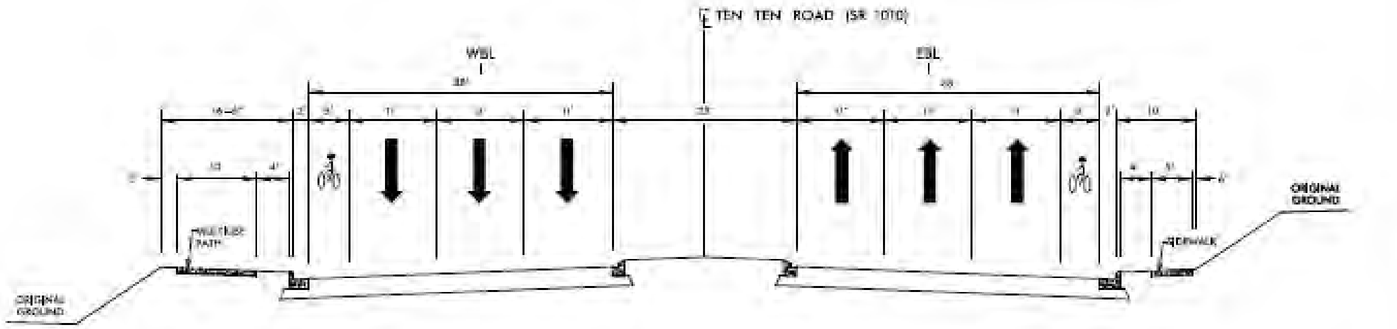
At this stage, we are including the whole U-5825 project corridor for impact evaluations and design efforts. The project, however, is planned to be constructed in two parts, Section A and Section B. The division of the Sections occurs at the U.S. 1 interchange. Determination of when each part is constructed will be based on available funding. It is expected that the interchange improvements will be included in the first Section, A or B, that is constructed.

STIP PROJECT NO. U-5825 TYPICAL SECTION

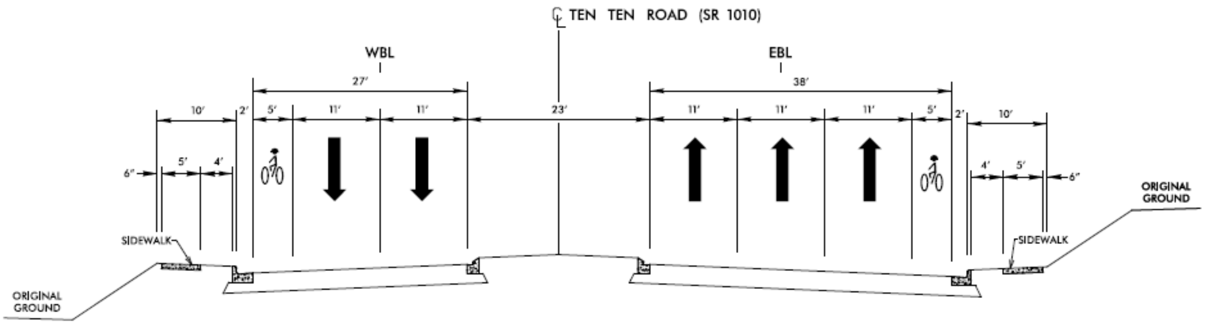
Traditional Widening. 4-lane, median-divided roadway, with some 6-lane portions; sidewalk and multi-use path from Apex Peakway to Penny Road which will accommodate bicyclists and pedestrians along Ten Ten Road.



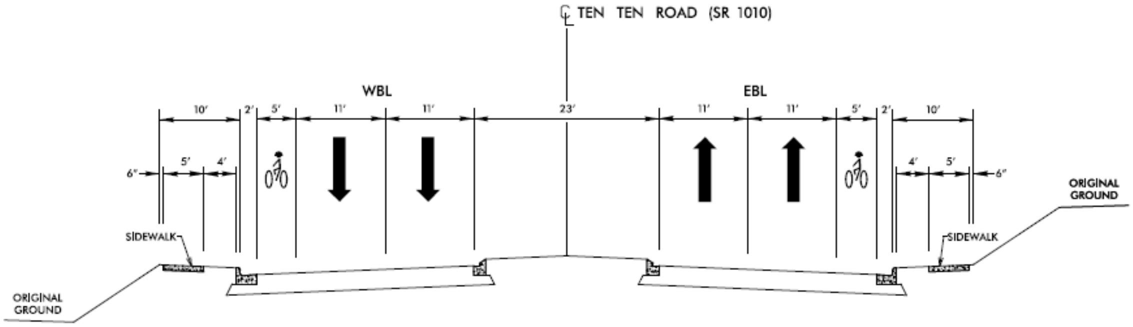
Apex Peakway to U.S. 1



U.S. 1 to Penny Road



Penny Road to Smith Road

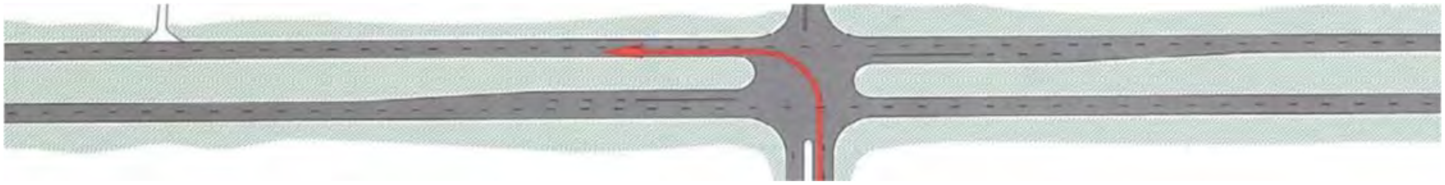


Smith Road to Kildaire Farm Road

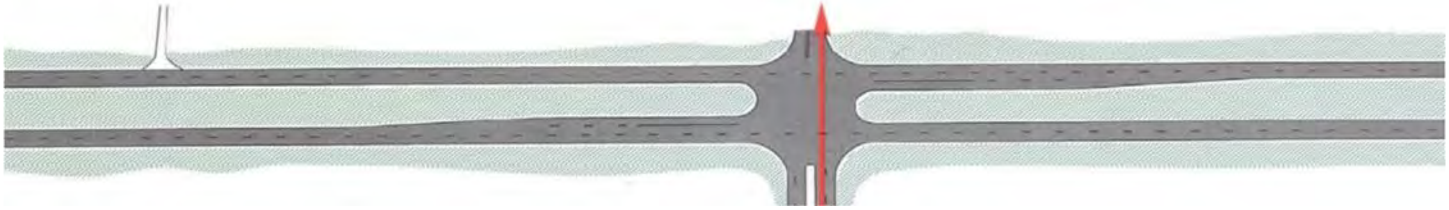
October 2018

STIP PROJECT NO. U-5825 (TEN TEN ROAD WIDENING)

Traditional Widening



Left-Turn Movement



Through Movement

Traditional widening includes improvements such as constructing turn lanes and adding an additional through lane to increase capacity. Additional turn lanes allow vehicles to move out of the stream of traffic to make their turns. No turning movements are rerouted, which enables drivers to make turns and travel through the intersection in a traditional manner.

ADDITIONAL INFORMATION AND COMMENTS

For more information about this project or to express any comments or concerns, contact either of the project managers below. Please refer to the project number U-5825.

All comments and questions will be addressed as soon as possible.

Mr. Zahid Baloch
N.C. Department of Transportation
Division 5
1548 Mail Service Center
Raleigh, NC 27699
(919) 707-6012
zbaloch@ncdot.gov

Ms. Lauren Triebert
VHB Engineering NC, P.C.
Venture 1
940 Main Campus Drive, Suite 500
Raleigh, NC 27606
(919) 741-5524
ltriebert@vhb.com

THANK YOU!

Thank you for visiting the Public Meeting for STIP No. U-5825.
Your feedback is important – please complete and return the attached comment form by November 20, 2018.

TITLE VI PUBLIC INVOLVEMENT FORM

Completing this form is ***completely*** *voluntary. You are not required to provide the information requested in order to participate in this meeting.*

Meeting Type: **Location:**	**Date:**
TIP No.: **Project Description:**	

In accordance with Title VI of the Civil Rights Act of 1964 and related authorities, the N.C. Department of Transportation assures that no person(s) shall be excluded from participation in, denied the benefits of, or subjected to discrimination under any of the Department's programs, policies, or activities, based on their race, color, national origin, disability, age, income, or gender.

Completing this form helps meet our data collection and public involvement obligations under Title VI and NEPA, and will improve how we serve the public. Please place the completed form in the designated box on the sign-in table, hand it to an NCDOT official or mail it to the Environmental Analysis Unit, 1598 Mail Service Center, Raleigh, NC 27699-1598.

All forms will remain on file at the NCDOT as part of the public record.

Zip Code: ______________________

Street Name:
(i.e. Main Street) ____________________________________

Total Household Income:

- ☐ Less than $12,000
- ☐ $12,000 – $19,999
- ☐ $20,000 – $30,999
- ☐ $31,000 – $46,999
- ☐ $47,000 – $69,999
- ☐ $70,000 – $93,999
- ☐ $94,000 – $117,999
- ☐ $118,000 or greater

Gender: ☐ Male ☐ Female

Age:

- ☐ Less than 18
- ☐ 18-29
- ☐ 30-44
- ☐ 45-64
- ☐ 65 and older

Have a Disability: ☐ **Yes** ☐ **No**

Race/Ethnicity:

- ☐ White
- ☐ Black/African American
- ☐ Asian
- ☐ American Indian/Alaskan Native
- ☐ Native Hawaiian/Pacific Islander
- ☐ Hispanic/Latino
- ☐ Other (please specify): ______________________

National Origin: (if born outside the U.S.)

- ☐ Mexican
- ☐ Central American: ____________________
- ☐ South American: _____________________
- ☐ European: __________________________
- ☐ Chinese
- ☐ Vietnamese
- ☐ Korean
- ☐ Other (please specify): _________________

How did you hear about this meeting? (newspaper advertisement, flyer, and/or mailing) ______________________

____

For more information regarding Title VI or this request, please contact the NCDOT Title VI Nondiscrimination Program at (919) 508-1808 or toll free at 1-800-522-0453, or by email at titleVI@ncdot.gov. Thank you for your participation!

NCDOT - Environmental Analysis Unit
Attn: Diane Wilson
1598 Mail Service Center
Raleigh, NC 27699-1598

SR 1010 (Ten Ten Road) Improvements

STIP No. U-5825 (from Apex Peakawy to Kildaire Farm Road)

Wake County

Public Comment Sheet

Please let us know of any comments or concerns you have on transportation issues related to the proposed improvements along SR 1010 (Ten Ten Road) from Apex Peakway in Apex to SR 1300 (Kildaire Farm Road) in Cary. You can mail/e-mail your comments to the contacts listed below.

Name: ______________________________

Address: ______________________________

Email/Phone: ______________________________

COMMENTS

If additional space is required, please continue on the back of this comment sheet.

Comments may be submitted directly to the individuals listed below via e-mail or telephone

Mr. Zahid Baloch
N.C. Department of Transportation
Division 5
1548 Mail Service Center
Raleigh, NC 27699
(919) 707-6012
zbaloch@ncdot.gov

Ms. Lauren Triebert
VHB Engineering NC, P.C.
Venture 1
940 Main Campus Drive, Suite 500
Raleigh, NC 27606
(919) 741-5524
ltriebert@vhb.com

Attn: Lauren Triebert
VHB Engineering NC, P.C.
Venture 1
940 Main Campus Drive, Suite 500
Raleigh, NC 27606

PROJECT UPDATE

Ten Ten Road Improvements Public Meeting

ADDITIONAL QUESTIONS?

NCDOT Division 5
Sr. Project Engineer

Zahid Baloch

(919)-707-6012
zbaloch@ncdot.gov

STIP Project No. U-5825
Ten Ten Road Widening from Kildaire Farm Rd To Apex Peakway

Wake County

PRSRT STD
U.S. POSTAGE
PAID
CITY, STATE
PERMIT NO. XXX

*********ECRWSSEDDM****

Postal Customer

The N. C. Department of Transportation is holding a second Public Meeting for proposed improvements to Ten Ten Road from Kildaire Farm Road to Apex Peakway in Wake County.

The purpose of this meeting is to present updated potential impact information and answer questions regarding the proposed project. The final alignment choice, Conventional Widening, will be presented. You are invited to drop in anytime between 4 and 7 p.m. to ask questions, provide feedback on the final alternative, and talk to project team representatives.

As part of this project, NCDOT will hold a second public meeting:
Tuesday, October 23, 2018
4-7 p.m.
The Summit Church
3000 Lufkin Rd
Apex, NC 27539

The purpose of the project is to improve capacity and decrease congestion along Ten Ten Road from Kildaire Farm Road to Apex Peakway.

Please visit the project website to view updated information as it becomes available.

https://ncdot.publicinput.com/tenten_apexcary

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