



# ENVIRONMENTAL RE-EVALUATION FORM

FHWA South Carolina

State File #		Fed Project #	P027662	Project ID	P027662	Route	I-20/I-26/I-126	County	Lexington and Richland
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## Project Name/Description

The FHWA and SCDOT propose to upgrade the I-20/26/126 corridor and reconstruct associated interchanges in Richland and Lexington Counties, South Carolina. The primary purpose of the proposed Carolina Crossroads project is to implement a transportation solution(s) that would improve mobility and enhance traffic operations by reducing existing traffic congestion within the I-20/26/126 corridor while accommodating future traffic needs.

**1. DOCUMENT TYPE:**     EIS     EA     CE (non Programmatic)     PCE (No FHWA Approval Required)

### A. Other Actions Associated with the Project:

- Section 4(f) Evaluation
- Section 106 Compliance
- Wetland Finding/Section 404 Compliance
- T & E Species Biological Assessment
- None

**2. DOCUMENT APPROVAL DATE:**   

**3. DATE(S) OF PRIOR RE-EVALUATIONS:**   

## 4. PROJECT DEVELOPMENT STAGE:

- Final Design
- ROW
- Construction
- Other, Specify

**5. HAS DESIGN OR ROW CHANGED SINCE THE LAST APPROVAL?:**     YES     NO  
(if "NO" then Go To Item 7)

## 6. DESCRIPTION OF CURRENT PROJECT/DESIGN CHANGES:

See attached Supporting documentation.

**7. HAVE THERE BEEN SIGNIFICANT CHANGES IN THE AFFECTED ENVIRONMENT OR HAVE THE ENVIRONMENTAL STUDIES BEEN UPDATED SINCE THE LAST PROJECT APPROVAL?: (If "NO" to both Items 5 and 7, Go To Item 10)**

YES       NO

**8. APPROVED DOCUMENT(S) RE-EVALUATION:**

**A. REVIEW OF EFFECTS:** (Complete this section if "YES" to either Item 5 or Item 7)

**SOCIAL ENVIRONMENT**

**CHANGE**

**REMARKS**

1. Land Use	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
2. Community	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
3. Relocations	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
4. Churches/Institutions	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
5. Title VI/E.O. 12898	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
6. Economic	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
7. Controversy	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
8. Other; Specify	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	

**NATURAL ENVIRONMENT**

**CHANGE**

**REMARKS**

1. Wetlands	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	See Support documentation attached
2. Water Quality	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
3. Wild/Scenic Rivers	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
4. Farmland	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
5. T & E Species	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
6. Floodplains	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
7. Other; Specify	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	

**PHYSICAL ENVIRONMENT**

**CHANGE**

**REMARKS**

1. Noise	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	See Appendix A
2. Air Quality	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
3. Energy/Mineral Resources	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
4. Construction/Utilities	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
5. UST's	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
6. Hazardous Waste Sites	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	
7. Other; Specify	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	

CULTURAL ENVIRONMENT	CHANGE	REMARKS
1. Historic Sites	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
2. Archaeological Resources	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Saluda Canal - see Appendix B
7. Other; Specify	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	

PERMITS	CHANGE	REMARKS
1. U.S. Coast Guard	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
2. Forest Service/USACE/USFWS Land	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
3. Section 404	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
4. Other; Specify	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
<b>Have the required permits been obtained?</b>	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
<b>If "YES" what is the expiration date?</b>	<input type="text"/>	
<b>*If permits have expired, permits will need updated and attached to re-evaluation.</b>		

**9. NEED FOR PUBLIC INVOLVMENT:**

A public hearing/public information meeting was held for the project on:

There have been no changes in project design or environmental effects which would require a public hearing [or additional public hearing if one has already been held] or public information meeting.

The change(s) in project design and/or effects require(s) an additional public hearing/public information meeting. The meeting is scheduled for:

**10. FINDINGS/CONCLUSIONS:**

Based on the analysis contained in this re-evaluation, it has been determined that the change in project design and/or environmental effects would not significantly alter the conclusions reached in the approved environmental document and/or previous re-evaluation(s).

There have been no changes in the design/ROW of this project nor have there been changes in project effects or the affected environment. Therefore, the conclusions reached in the approved environmental document and/or previous re-evaluation(s) remain valid.

Prepared By:  Digitally signed by Will McGoldrick  
Date: 2020.08.03 09:43:51 -04'00'      Date:

**For Non Programmatic CEs:**

Concurred (FHWA):  Digitally signed by EMILY OLDHAM LAWTON  
Date: 2020.08.03 17:14:23 -04'00'      Date:

Date: 07/21/2020



Project ID: P027662 County: Richland/Lexingt District: District 1 Doc Type: RE-Eval Total # of Commitments: 30

Project Name: I-20, I-26, I-126 Carolina Crossroads Corridor Improvements

The Environmental Commitment Contractor Responsible measures listed below are to be included in the contract and must be implemented. It is the responsibility of the Program Manager to make sure the Environmental Commitment SCDOT Responsible measures are adhered to. If there are questions regarding the commitments listed please contact:

CONTACT NAME: Brian Klauk, PE PHONE #: (803)-737-5051

ENVIRONMENTAL COMMITMENTS FOR THE PROJECT

Non-Standard Commitment

NEPA Doc Ref: Chapter 2, Section 2.2.2.2 Responsibility: SCDOT

Mass Transit

SCDOT will work with CMRTA and CMCOG to develop two park-and-ride lots to improve mobility during construction and mitigate congestion resulting from the project. SCDOT would construct the two sites and maintain them during construction of the project. Engineering feasibility, timing and continued maintenance of the sites would be determined in coordination with CMRTA and the CMCOG prior to the start of construction. In the event a permanent site cannot be developed, SCDOT would work with CMRTA and CMCOG to identify and provide funding for existing parking lots that could be leased for park-and-ride use during construction.

Special Provision

Non-Standard Commitment

NEPA Doc Ref: Chapter 2, Section 2.2.9 Responsibility: SCDOT

Mass Transit

SCDOT will implement a congestion management tool/commuter services application to improve mobility during construction and mitigate congestion by informing commuters of available options such as carpooling, ridesharing, vanpools and other transit oriented options.

Special Provision

Non-Standard Commitment

NEPA Doc Ref: Chapter 2 Responsibility: SCDOT

Mass Transit

SCDOT will assist COMET/CMRTA ongoing efforts through such measures as accommodating transit (bus) stops at interchange locations, which may include bus turnouts. In addition, SCDOT will work with CMRTA to monitor bus operations and capacity during construction and in the event that capacity is reached, SCDOT will provide support in determining funding for enhanced bus service during construction based upon a framework to be agreed upon with CMRTA.

Special Provision



Project ID: P027662

SCDOT  
NEPA ENVIRONMENTAL COMMITMENTS  
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**ENVIRONMENTAL COMMITMENTS FOR THE PROJECT**

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 2, Section 2.2.2.2

Responsibility: Contractor/SCDOT

Bicycle/Pedestrian

Prior to final design, SCDOT will coordinate with the City of Columbia and CMCOG to ensure that existing and planned bicycle and pedestrian facilities identified in the local and regional plans and existing and proposed connections to such facilities are accommodated where located within the limits of the Carolina Crossroads project at crossing routes and interchanges where feasible.

During construction, SCDOT will accommodate bicycle/pedestrian access. SCDOT will coordinate with the local municipalities and/or trail groups to post information on temporary sidewalk or bicycle facility closures or detours. Sidewalk and/or bicycle lane/path closures will be communicated to the agency with jurisdiction at least 48 hours in advance and appropriate signage will be placed.

Special Provision

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.3

Responsibility: SCDOT

Displacements

SCDOT will acquire all new right-of-way and process any relocations in compliance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 U.S. C. 4601 et seq.) and the SCDOT ROW Manual. The purpose of these regulations is to ensure that owners of real property to be acquired for federal and federally-assisted projects are treated fairly and consistently, to encourage and expedite acquisition by agreements with such owner, to minimize litigation and relieve congestion in the courts, and to promote public confidence in federal and federally-assisted land acquisition programs.

Temporary construction easements may be needed for some properties. SCDOT will temporarily use these properties during construction and would provide compensation to the landowner for the temporary use. The property will be fully returned to the owner when the use of the property is no longer required, typically when construction is complete.

Special Provision

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.3

Responsibility: Contractor/SCDOT

Public Involvement

Changes in access for school bus routes will be discussed with the school system in advance of when they will actually take place, so that the school systems can adjust routes in a timely manner. Coordination with local school districts will also occur during construction. SCDOT and the contractor will coordinate with the school system during development of the community outreach program.

Special Provision

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**ENVIRONMENTAL COMMITMENTS FOR THE PROJECT**

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.3

Responsibility: Contractor/SCDOT

Public Involvement During Construction

Written translations of public involvement documents will be provided for Spanish language speaking populations, as well as other measures determined by SCDOT to ensure meaningful access to project information during construction. Efforts will be made to ensure meaningful opportunities for public participation during construction. Additional meetings will be held when warranted to address community concerns.

Special Provision

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.13

Responsibility: Contractor/SCDOT

Public Involvement During Construction

The contractor(s), through a community outreach program, will let the community know what types of closures to expect (i.e. temporary, long-term), when to expect them and who to contact, if needed.

SCDOT and the contractor(s) will coordinate with emergency service providers such as police, fire protection and ambulance services before construction to ensure that access for emergency vehicles will be maintained.

Special Provision

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.5

Responsibility: Contractor/SCDOT

Noise

Based on the studies thus far accomplished, SCDOT intends to install highway traffic noise abatement measures in the form of a barrier at Noise Sensitive Area (NSA) O and S. These barriers are located on the south side of I-20 from the Saluda River extending approximately 2,300 feet west (Barrier O), and on the south side of I-20 from the Broad River Road exit extending approximately 4,380 feet east towards the Broad River (Barrier S). These preliminary indications of likely abatement measures are based upon preliminary design for a barrier cost of \$35.00 per square foot that will reduce the noise level by at least 5dB(A) for residences. If it subsequently develops during final design that these conditions have substantially changed, the abatement measures might not be provided. A final decision of the installation of the abatement measure(s) will be made upon completion of the project's design. Since there are residences located on the opposite side of the interstate adjacent to Barriers O and S, sound absorption materials will be added to the barriers to minimize noise reflectivity of the barriers towards receptors on the other side of the interstate.

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**ENVIRONMENTAL COMMITMENTS FOR THE PROJECT**

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.5

Responsibility: SCDOT

Noise

In order to help local officials and developers consider highway traffic noise in the vicinity of a proposed Type I project, SCDOT will inform them of the predicted future noise levels and the required distance from the roadways needed to ensure that noise levels remain below the NAC for each type of land use per 23 CFR 772.17. The information will be provided within three months of the Record of Decision (ROD) publication. This commitment has been completed.

Special Provision

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.5

Responsibility: CONTRACTOR

Noise

During construction, powered construction equipment will not be operated during the traditional evening and/or sleeping hours within 150 feet of a noise sensitive site, to be decided either by local ordinances and/or agreement with SCDOT.

Special Provision

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.6

Responsibility: CONTRACTOR

Water Quality

The contractor(s) will be required to minimize possible water quality impacts through implementation of BMPs, reflecting policies contained in 23 CFR 650B and the Department's Supplemental Specification on Erosion Control Measures (latest edition) and Supplemental Technical Specifications on Seeding (latest edition). Other measures including seeding, silt fences, sediment basins, etc. as appropriate will be implemented during construction to minimize impacts to water quality.

Special Provision

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**ENVIRONMENTAL COMMITMENTS FOR THE PROJECT**

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.6

Responsibility: CONTRACTOR

Water Quality

Stormwater modeling will be completed for the final design of the project. Stormwater runoff would be mitigated by discharging stormwater into appropriately designed BMP's before being released into receiving waters. During construction, the contractor(s) will identify and avoid all point sources of fecal coliform as identified in Chapter 3, Section 3.6.

Special Provision

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.6

Responsibility: CONTRACTOR

Permits

A Section 401 State Water Quality Certification will be required for the overall project. The contractor(s) is responsible for obtaining the certification as part of the Joint 404/401 permit application process.

Special Provision

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.6

Responsibility: CONTRACTOR

Permits

The contractor(s) is responsible for development of a project specific SWPPP and for obtaining a Section 402 NPDES permit for the project prior to initiating land disturbing activities.

Special Provision

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**ENVIRONMENTAL COMMITMENTS FOR THE PROJECT**

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.7

Responsibility: CONTRACTOR

Permits

A State Navigable Waters permit will be required for construction over any navigable waterways (i.e., the Saluda River). The contractor will be responsible for obtaining this permit.

Special Provision

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Sec 3.7/3.18

Responsibility: SCDOT

Individual Permit-Permits

Impacts to jurisdictional waters will be permitted under a Department of the Army Section 404 permit from the U.S. Army Corps of Engineers (USACE). Based on preliminary design, it is anticipated that the proposed project will be permitted under an Individual Army Corps of Engineers Permit (IP). SCDOT will provide the USACE with information regarding any proposed activities during the Section 404 permitting process. One permit would be obtained for the overall project. The required mitigation for the this project will be determined through consultation with the USACE and other resource agencies.

Special Provision

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.8

Responsibility: CONTRACTOR

Floodplains

Detailed hydraulic and hydrologic studies for each bridge crossing will be performed to determine the correct sizing of bridges and culverts. The project will be designed to be consistent with local floodplain development plans. Prior to construction activity in the area, coordination with Dominion Energy and Federal Energy Regulatory Commission (FERC) will be required for the two Saluda River floodway crossings due to its function as part of a hydroelectric facility.

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**ENVIRONMENTAL COMMITMENTS FOR THE PROJECT**

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.8

Responsibility: CONTRACTOR

Floodplains

The project will be designed in an effort to meet "No-Rise" requirements. In the event a "No-Rise" condition cannot be achieved, coordination with FEMA will require the preparation of a CLOMR (Conditional Letter of Map Revision) / LOMR (Letter of Map Revision) package for the encroachment. Where regulatory floodplains are defined, hydraulic structures will be designed to accommodate a 100-year (1% annual chance) flood. Where no regulatory floodplains are defined, culverts and bridges will be designed to accommodate a 50-year or greater magnitude flood event. Ongoing design efforts to minimize floodplain impacts will be coordinated with resource and regulatory agencies during the final design process.

Special Provision

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.8

Responsibility: CONTRACTOR

Floodplains

Prior to construction, the selected contractor(s) will send a set of final plans and request for floodplain management compliance to the local County Floodplain Administrator.

Special Provision

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.8

Responsibility: CONTRACTOR

Floodplains

No substantial impacts to floodplain values are anticipated from the proposed project. If conditions change based on final design, additional measures will be evaluated to restore lost floodplain values.

Special Provision

Project ID: P027662

SCDOT  
NEPA ENVIRONMENTAL COMMITMENTS  
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**ENVIRONMENTAL COMMITMENTS FOR THE PROJECT**

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.9

Responsibility: Contractor/SCDOT

Natural Resources

To mitigate for natural upland forested habitats, lost as a result of the project, SCDOT will plant trees (native species), as defined by the final design plans, within the rights-of-way adjacent to new or improved interchanges and roadways outside of required clear safety zones.

Impacts to areas providing significant wildlife habitat, such as river floodplains and other large riparian buffers, will be minimized to the extent practicable through avoidance and minimization design measures such as the use of appropriate BMP's.

Construction activities will be conducted within the disturbed footprint of the existing roadway and utility right-of-way to the maximum extent practicable.

Special Provision

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.11

Responsibility: CONTRACTOR

Section 4(f)

To mitigate the temporary impacts to the Saluda Riverwalk Extension, SCDOT will notify the City of Columbia Parks and Recreation Department at least 48 hours in advance as to when the trail will be temporarily closed. SCDOT will also work closely with the Parks and Recreation Department to communicate the closing to trail users during construction. When construction is complete, the condition of the trail will be equal to existing conditions.

Special Provision

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.12

Responsibility: CONTRACTOR

Hazardous Materials

Prior to construction, the project contractor will perform Phase II ESAs on the properties identified within the footprint, including the subject properties, and/or on the adjoining properties or the ROW. Ultimately, the Phase II ESAs will include environmental sample collection (e.g. soil, soil gas, and groundwater), specifically, in areas where a potential for disturbance of soil and/or groundwater exists. Asbestos Containing Material and/or Lead Based Paint testing will be assessed separately. Materials containing asbestos and lead-based paints will be managed and disposed of properly at an appropriate permitted facility to minimize impacts during the construction and cleanup. Activities will be monitored by a professional that is certified in the removal, handling and disposal of lead-based paint and/or asbestos-containing materials.

Special Provision

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**ENVIRONMENTAL COMMITMENTS FOR THE PROJECT**

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.12

Responsibility: CONTRACTOR

Hazardous Materials

A spill prevention, control, and countermeasures (SPCC) plan will be prepared in accordance with 40 CFR 112, for the handling of oils or oil-based products during construction to prevent a discharge of oil into navigable waters.

Special Provision

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.12

Responsibility: CONTRACTOR

Hazardous Materials

A hazardous waste management plan will be prepared for the handling of hazardous materials during construction, and an on-site health and safety plan will be developed for construction activities to protect human health (i.e. workers, residents, recreation and trespassers) and the environment within proximate to the site.

The hazardous waste management plan will also state that disposal of waste materials will be disposed of in approved landfills.

Special Provision

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.12

Responsibility: CONTRACTOR

Hazardous Materials

If avoidance of hazardous materials is not a viable alternative and soils that appear to be contaminated are encountered during construction, the South Carolina Department of Health and Environmental Control (SCDHEC) will be informed immediately. Hazardous materials will be tested and removed and/or treated in accordance with the United States Environmental Protection Agency and the SCDHEC requirements, if necessary. SCDHEC Hazardous Waste Treatment, Storage, and Disposal compliance staff can be contacted at 803-898-0290.

Special Provision



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SCDOT  
NEPA ENVIRONMENTAL COMMITMENTS  
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**ENVIRONMENTAL COMMITMENTS FOR THE PROJECT**

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.13

Responsibility: CONTRACTOR

Cultural Resources

During the construction phase of the project, the contractor and subcontractors must notify their workers to watch for the presence of any prehistoric or historic remains, including but not limited to arrowheads, pottery, ceramics, flakes, bones, graves, gravestones, or brick concentrations. If any such remains are encountered, the Resident Construction Engineer (RCE) and SCDOT's Construction Manager would be immediately notified and all work in the vicinity of the discovered materials and site work shall cease until the SCDOT Chief Archaeologist directs otherwise. SCDOT Chief Archaeologist, Tracy Martin, can be contacted at 803-737-6371.

Special Provision

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.13

Responsibility: SCDOT

Cultural Resources

An archaeological professional will be present during any ground disturbing activities related to Site 38LX212 and 38RD59. Additionally, sites 38RD140, 38RD1175, and 38RD1176 will be protected from indirect effects, including borrow sites and equipment staging. Sites will be clearly marked in the field using orange construction fencing prior to beginning construction activities in the vicinity of the resources.

Special Provision

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.13

Responsibility: CONTRACTOR

Cultural Resources - Part 1

The Saluda Canal (Site 38RD59) would be clearly plotted on all construction plans. SCDOT has reduced ROW widths in the vicinity of the canal to avoid impacts to the canal during construction & any future maintenance activities along the ROW. A 25-foot buffer will be maintained around the canal for the majority of the resource. This zone would be clearly marked in the field using orange fencing during construction, and all ground disturbance and construction staging activities would be conducted outside of this buffer in order to avoid all possible impacts to the resource. SCDOT proposes to revise the commitment of a 25-foot buffer for a distance of approximately 700 feet along the proposed ramp to allow room for temporary construction access & equipment near I-26 Ramp C. To protect the boundary of the canal at this location, the following will be added to the contract as commitments: CONTINUED IN PART 2 & 3

Special Provision

Date: 07/21/2020



Project ID: P027662 County: Richland/Lexingt District: District 1 Doc Type: RE-Eval Total # of Commitments: 8

Project Name: I-20, I-26, I-126 Carolina Crossroads Corridor Improvements

The Environmental Commitment Contractor Responsible measures listed below are to be included in the contract and must be implemented. It is the responsibility of the Program Manager to make sure the Environmental Commitment SCDOT Responsible measures are adhered to. If there are questions regarding the commitments listed please contact:

CONTACT NAME: Brian Klauk, PE PHONE #: (803)-737-5051

ENVIRONMENTAL COMMITMENTS FOR THE PROJECT

Non-Standard Commitment NEPA Doc Ref: Chapter 3, Section 3.13 Responsibility: CONTRACTOR

Cultural Resources - Part 2

- a. Prior to construction activities orange protective fencing will be installed along the edge of boundary of the Saluda Canal Historic District in areas that will maintain the original buffer as well as those areas where the buffer has been requested to be reduced between the two drainages and for a length to the south of the southernmost drainage.
b. Prior to construction activities silt fencing will be installed along the edge of SCDOT right of way to prevent runoff.
c. For areas along the identified Saluda Canal located along the I-26 Ramp C beginning Station 5412+50 and ending Station 5419+50 clearing will be allowable to the right of way but grubbing will be limited to within a distance of 5-feet inside of the right of way. Grubbing activities within the 5-foot buffer will require approval from SCDOT prior to occurring.
d. During land clearing activities prior to construction, an archaeologist will be present at all times to ensure that these activities undertaken close to the fencing do not damage the canal.

Special Provision

Non-Standard Commitment NEPA Doc Ref: Chapter 3, Section 3.13 Responsibility: CONTRACTOR

Cultural Resources - Part 3

- e. During construction, an archaeologist will visit the construction site twice a week to ensure that no activities have crossed over the protective fencing. Any observations during these visits will be recorded in an inspection log that will be made available to the SHPO.
f. As soon as an inadvertent impact is discovered, such as a previously unidentified cultural resource, archaeological feature, or artifact, construction in that area will stop immediately until an onsite consultation with SCDOT archaeologists and SHPO can determine the best strategies for avoiding, minimizing, or mitigating adverse effects upon the resource.

Special Provision

Non-Standard Commitment NEPA Doc Ref: Chapter 3, Section 3.13 Responsibility: CONTRACTOR

Air Quality

The contractor(s) will ensure that all construction equipment is properly tuned and maintained.
Idling time will be minimized to save fuel and reduce emissions.
Water will be applied to control dust as needed to prevent dust impacts off site. There will be no open burning of removed vegetation. Vegetation will be chipped or delivered to waste energy facilities.

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**ENVIRONMENTAL COMMITMENTS FOR THE PROJECT**

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.13

Responsibility: CONTRACTOR

Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act, 16 USC § 703-711, states that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. SCDOT will comply with the Migratory Bird Treaty Act of 1918 in regard to the avoidance of taking of individual migratory birds and the destruction of their active nests. The Contractor will notify the Resident Construction Engineer (RCE) at least four (4) weeks prior to construction/demolition/maintenance of bridges and box culverts. The RCE will coordinate with Environmental Services Office Compliance Division, to determine if there are any active birds using the structure. SCDOT will be responsible for the removal/management of any active bird nests.

Special Provision

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.13

Responsibility: CONTRACTOR

Borrow Pits

Potential borrow areas to be used for fill dirt for the project will be field reviewed and assessed for the presence of any jurisdictional features, and BMPs will be applied prior to disturbance to avoid and/or minimize erosion and runoff of sediments.

Special Provision

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.13

Responsibility: CONTRACTOR

Construction

Construction operations will be scheduled for off-peak traffic hours when reasonable/feasible.

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**ENVIRONMENTAL COMMITMENTS FOR THE PROJECT**

**Non-Standard Commitment**

NEPA Doc Ref: Chapter 3, Section 3.13

Responsibility: CONTRACTOR

Construction

A traffic maintenance plan will be developed prior to construction initiation to minimize interference to traffic flow from construction equipment and activities.

Special Provision

**Non-Standard Commitment**

NEPA Doc Ref: Re-evaluation Page 3-4

Responsibility: CONTRACTOR

Cultural Resources and Wetland Survey on Additional ROW tracts

After SCDOT acquisition, wetland delineations will be performed on Parcels 270, 187 and 316; archaeological investigations will be conducted on Parcels 187 and 316.

Special Provision

NEPA Doc Ref: Page: XX Paragraph: XX

Responsibility:

Special Provision



# NEPA Re-evaluation

SUPPORTING DOCUMENTATION  
JULY 22, 2020

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## Introduction

FHWA approved a Final Environmental Impact Statement (FEIS) and Record of Decisions (ROD) for the Carolina Crossroads Project on May 2, 2019. Since that time the project has progressed towards construction that will occur in five (5) phases. The phases of construction are proposed to overlap or be performed consecutively with little or no time between phases and the overall construction time of all phases of work is anticipated to be less than 10 years. The 5 proposed phases are shown in Figure 1.

## Proposed Design Changes

During detailed design and constructability reviews, the development of right of way plans, and right of way acquisition for construction of Phases 1 and 2 of the Carolina Crossroads Project, several design changes have been proposed to the Refined Recommended Preferred Alternative (RPA) described in the FEIS/ROD. These changes are described below.

As a result of these changes, SCDOT has re-evaluated the social, environmental and economic impacts documented in the FEIS/ROD.

### **I-26 Westbound Ramp onto I-126 Eastbound and Colonial Life Blvd.**

The proposed ramp alignment at the above location proposed in the RPA created a physical overlap between the ramp bridge and the existing I-26 Mainline Bridge over the Saluda River. Since the project is now being constructed in phases through multiple construction contracts and this ramp is constructed as part of the first phase, this physical conflict between the bridges must be resolved to allow the existing bridge to remain in service during construction and in the interim period between construction phases. To resolve this conflict, the ramp has been shifted away from the mainline approximately 20 feet. This change is just to the ramp geometry and does not change the operational function of the proposed exit from I-26 Westbound. The change occurs within the right of way proposed for the Refined RPA. See Figure 2.

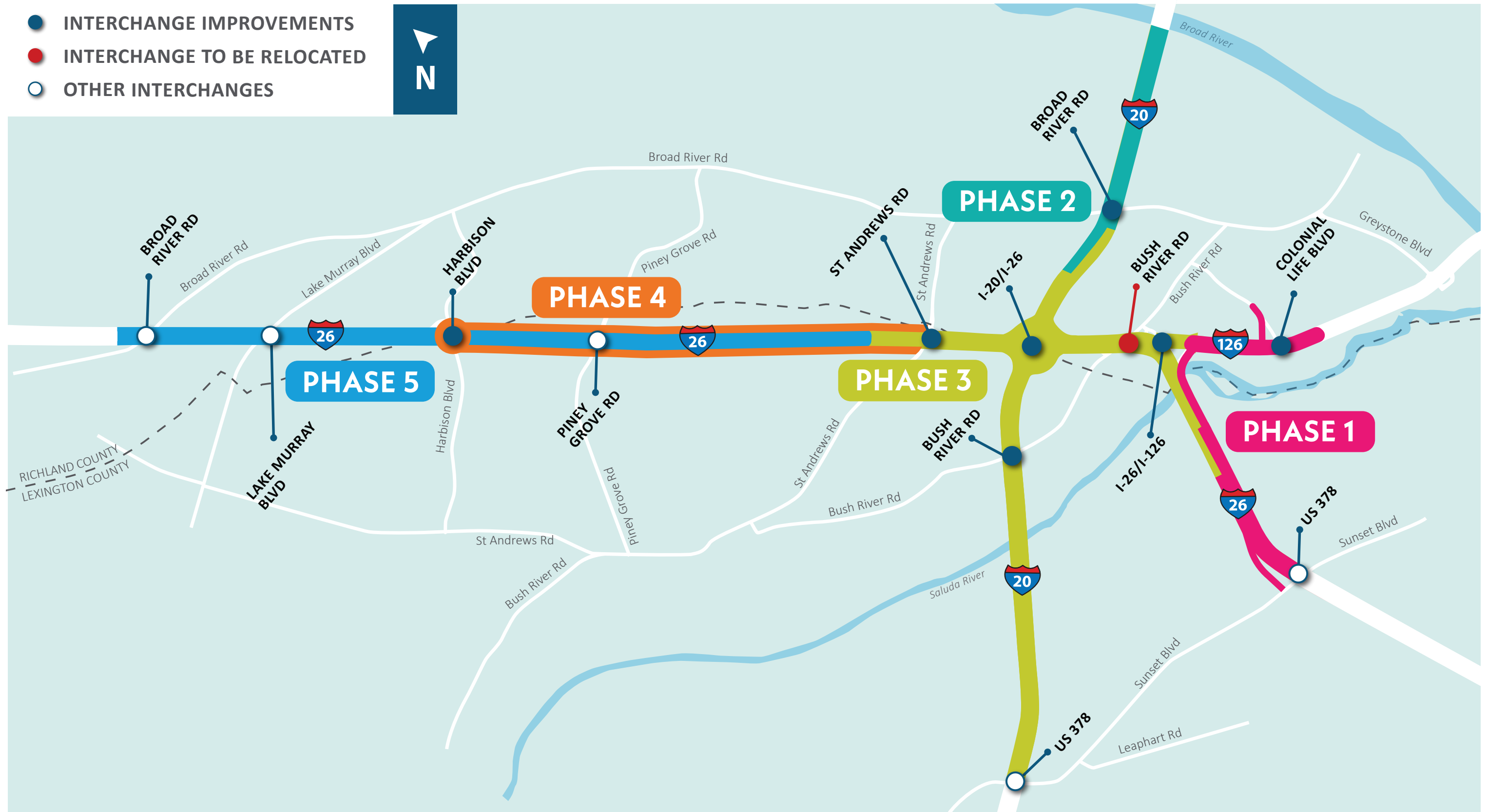
As a result of this design change, the traffic noise analysis was updated to account for the ramp shifting closer to the Rivers Edge neighborhood by approximately 22 feet. The noise analysis concluded that the overall number of impacted receivers in the area did not change. The noise barrier analysis still found that a noise barrier at this location was not reasonable. See the Noise Analysis Update memo in Appendix A.

No other studies documented in the FEIS/ROD required updating as a result of this design change. No change of impacts presented in the FEIS/ROD are anticipated at this location.

# Phased Construction Map

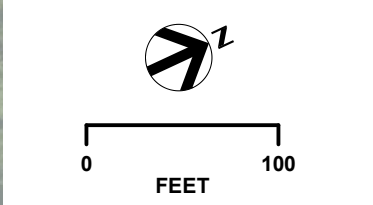
July 23, 2020

- INTERCHANGE IMPROVEMENTS
- INTERCHANGE TO BE RELOCATED
- OTHER INTERCHANGES

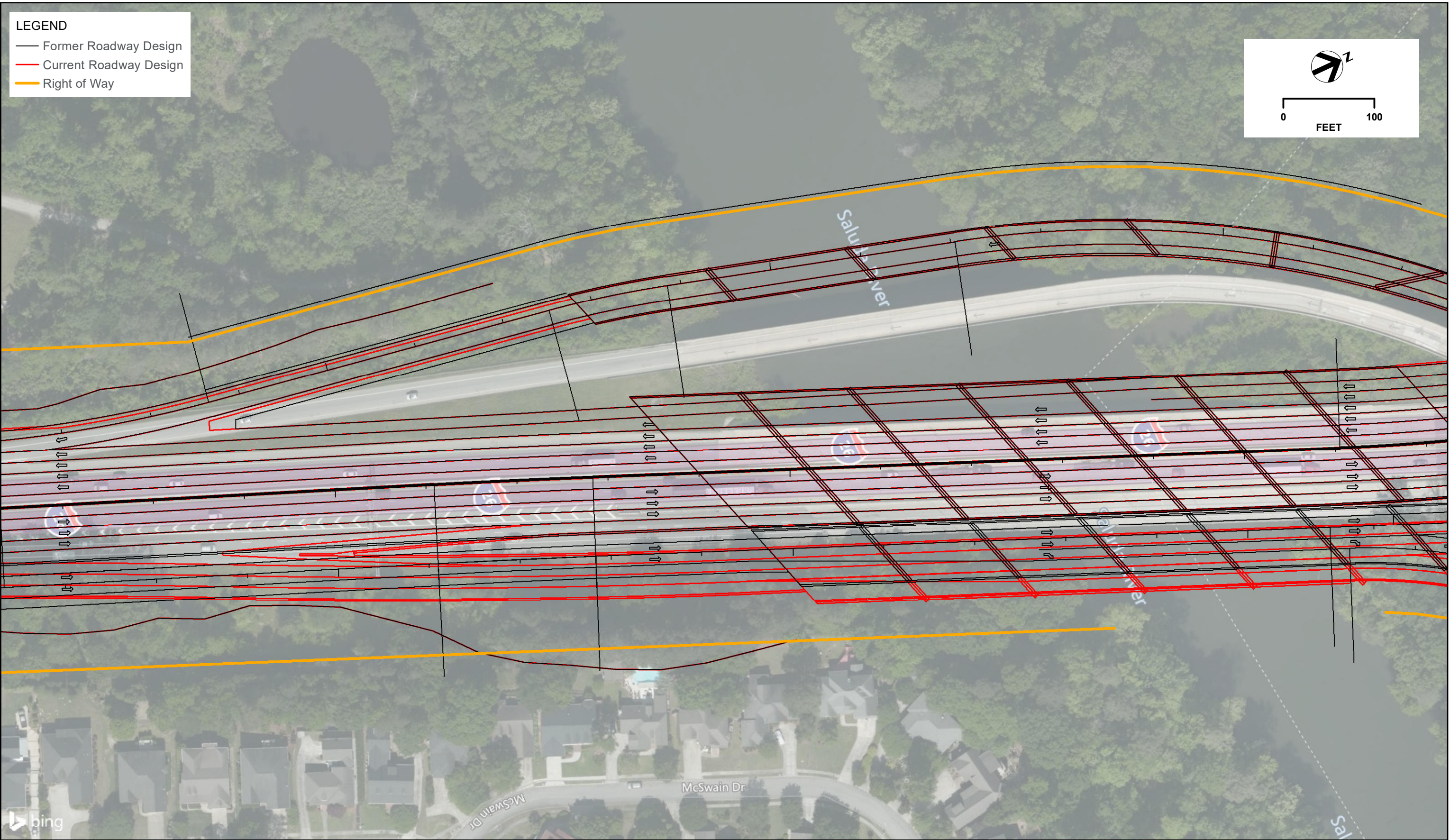




**LEGEND**  
 — Former Roadway Design  
 — Current Roadway Design  
 — Right of Way



PATH: \\CLTSMANGIS\_DATA\GIS\PROJECTS\006892\_SOUTH CAROLINA DEPT OF TRANSPORTATION\023877\_SCDOT\_26-20-22\CORRIDOR\MAP\_CHANGE\_FIGURES\FIG1\_DESIGNCHANGE\M.D. USER: GMARCHICA - DATE: 7/9/2020



**CAROLINA CROSSROADS  
 I-26 WESTBOUND RAMP ONTO I-126  
 EASTBOUND AND COLONIAL LIFE BLVD**

CAROLINA CROSSROADS RE-EVALUATION

DATE  
 JULY 2020

FIGURE  
 FIGURE 2



### I-126 WB Exits to Colonial Life Blvd. and I-26 EB

The Refined RPA included a five-lane approach along I-126 Westbound to the Colonial Life Blvd. exit with the exit to Colonial Life Blvd. being a tapered exit and all five through lanes extending through the exit. Beyond the Colonial Life Blvd. exit, the outside lane would become an “Exit Only” lane for the exit to I-26 Eastbound. During the design development, it was discovered that undesirable roadway design exceptions for lane and/or shoulder width would be required to allow for the five through lanes beyond the tapered exit to Colonial Life Blvd. The design was subsequently modified to retain the existing approach to the Colonial Life Blvd. parallel exit with four through lanes and immediately following the exit to Colonial Life Blvd., a deceleration lane for the exit to I-26 Eastbound is developed. This change was incorporated into the project traffic models and it was determined that this change will not adversely impact the I-126 westbound mainline operations during both the morning and afternoon peak hours. The change occurs within the originally proposed footprint of the roadway and within the right of way proposed for the Refined RPA. See Figure 3.

No environmental studies were updated based on this design change. No change of impacts documented in the FEIS/ROD are anticipated at this location.

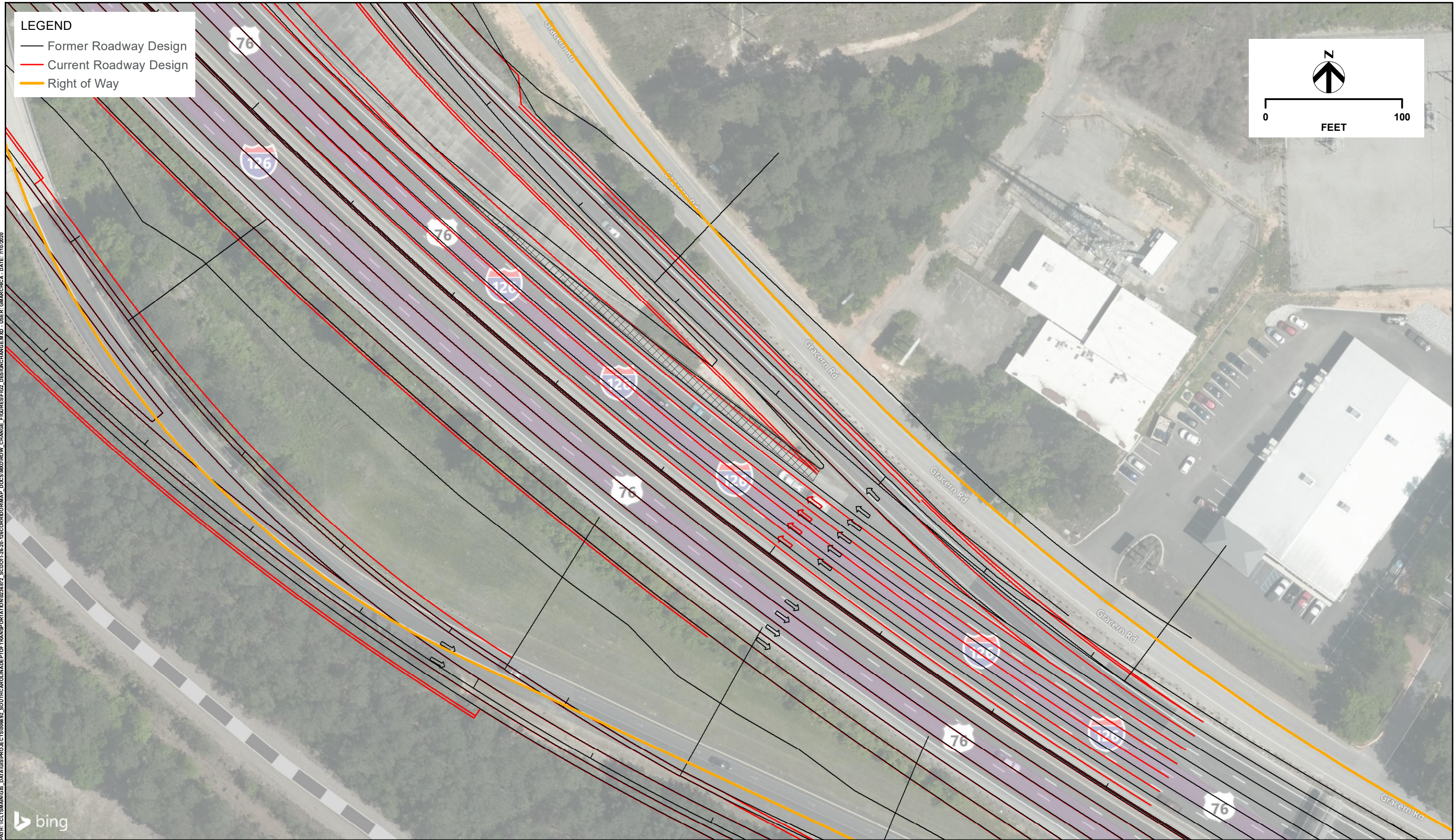
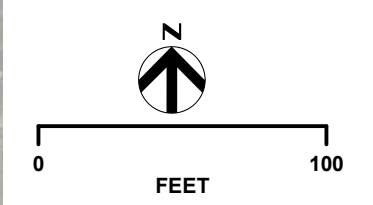
### Saluda River Access Road relocation

SCDOT is currently in the process of purchasing right of way for the project. During the negotiation process with Dominion Energy for the purchase of right-of-way along I-126 near the I-126/I-26 interchange, adjacent to the Saluda River, Dominion Energy identified an existing access/service road along the Saluda River that they currently used for maintenance of transmission lines and access for both the Saluda Riverwalk and Saluda River boat ramp. Emergency services also use the access road for emergency response to the trail and the boat ramp, which provides access for river rescues. The current design would require the elimination of the existing access road. SCDOT will be required to re-establish this access road within the proposed right of way acquired for the Carolina Crossroads project. The relocated roadway is expected to be reconstructed along the right of way line, adjacent to I-126 and the interchange ramps. The road was designed to avoid impacts to the Saluda Canal, which is an historic resource. See Figure 4. The proposed relocation of the access would increase impacts for Wetlands 25 and 26 by a total of 0.24 acres of fill and 0.19 acres of clearing and Tributaries 45 and 46 by a total of 53 linear feet. However, the overall wetland and stream impacts included in the USACE Individual Permit (IP) are lower than the impacts documented in the FEIS/ROD, as noted in Table 1.

Table 1: Wetland and Stream Impact Comparison				
		FEIS	Permit	Reduction
Wetlands	Fill (acres)	6.88	Fill: 2.76 Clearing: 1.77	2.35
	Ponds (acres)	0.01	0.0	0.1
Streams	Linear feet	16,251	8,136	3,282
			Morphologic change: 2,538	
			Stream relocation: 2,295	



**LEGEND**  
 — Former Roadway Design  
 — Current Roadway Design  
 — Right of Way



PATH: \\CLTSMANNIS\_DATA\GIS\PROJECTS\ARLINA\DEPT OF TRANSPORTATION\0238872\_SCDOT\26-20-22\CORRIDOR\MAP\_CHANGE\_FIGURES\FIG2\_DESIGNCHANGE.MXD - USER: GMARCHICA - DATE: 7/10/2020

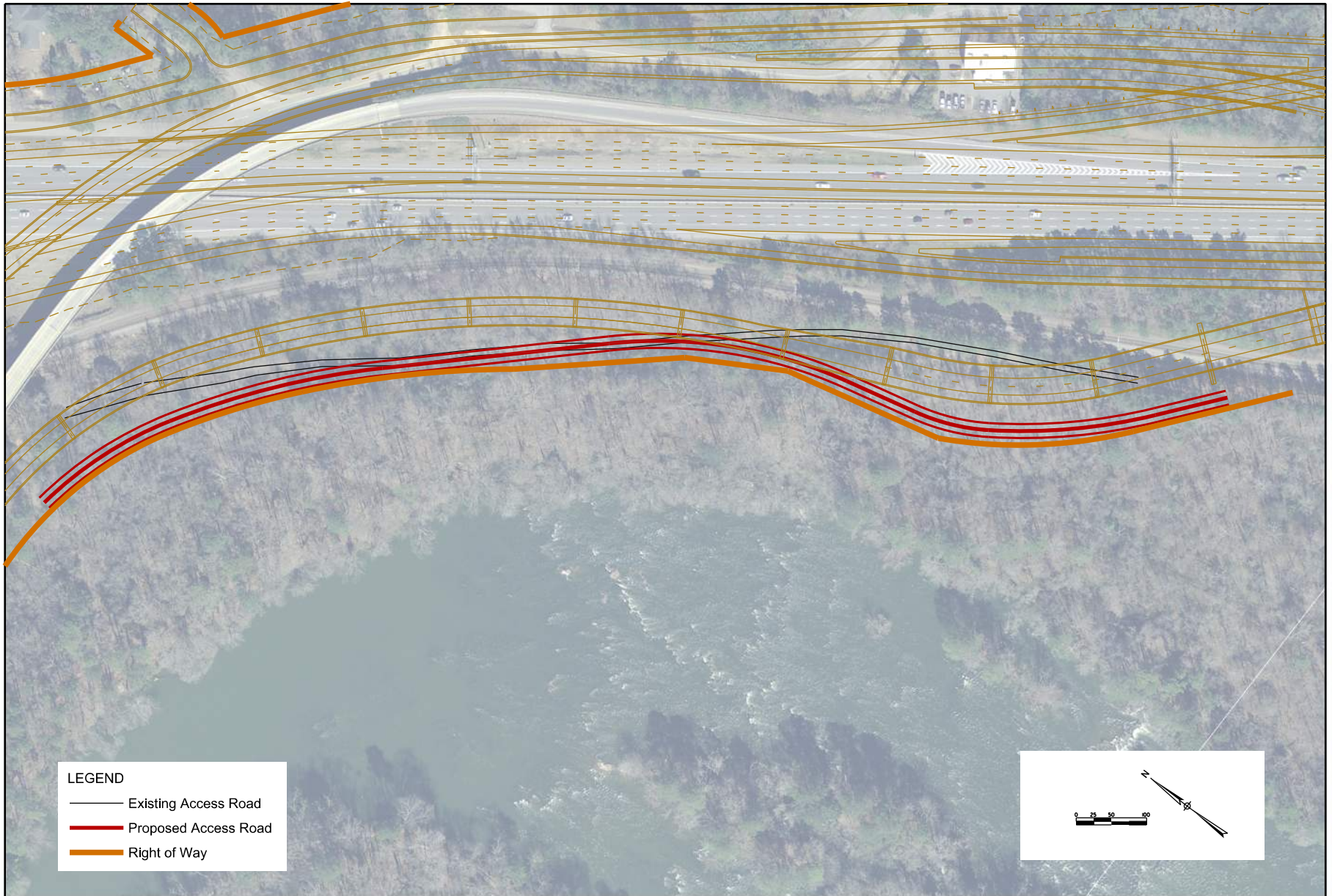
**CAROLINA CROSSROADS  
 I-126 WB EXITS TO COLONIAL LIFE  
 BLVD. AND I-26 EB**

CAROLINA CROSSROADS RE-EVALUATION

DATE  
 JULY 2020

FIGURE  
 FIGURE 3





**CAROLINA CROSSROADS  
SALUDA RIVER ACCESS ROAD**

CAROLINA CROSSROADS RE-EVALUATION

DATE  
JULY 2020

FIGURE  
FIGURE 4

## Right of way changes based on Design Refinements

The changes to right-of-way are based on design refinements during development of right of way plans including, but not limited to:

- minor changes to roadway design/alignments
- allowance for adequate drainage ditches along the roadway
- allowance for detention basins
- allowance for outfall and inlet improvements/protection at pipe crossings

These design refinements caused additional right of way requirements in construction Phases 1 and 2 for the Refined RPA. See Figures 5.1 – 5.7.

These areas of additional right of way were reviewed to determine if they were within the previously surveyed project study area (PSA) for the FEIS/ROD. In three (3) locations encompassing five (5) parcels, the additional right of way extended beyond the PSA, on Parcels 404, 187/316 and 269/270, as shown in the above-referenced figures. These locations were field reviewed for jurisdiction features (streams, wetlands) and cultural resources.

### Initial Archaeological and Wetlands Survey: Parcels 269, 404, 187, 270, and 316

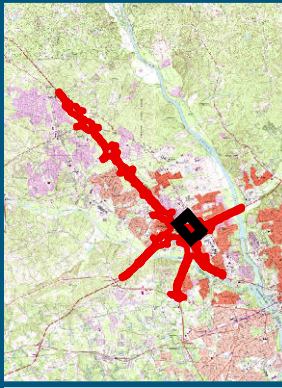
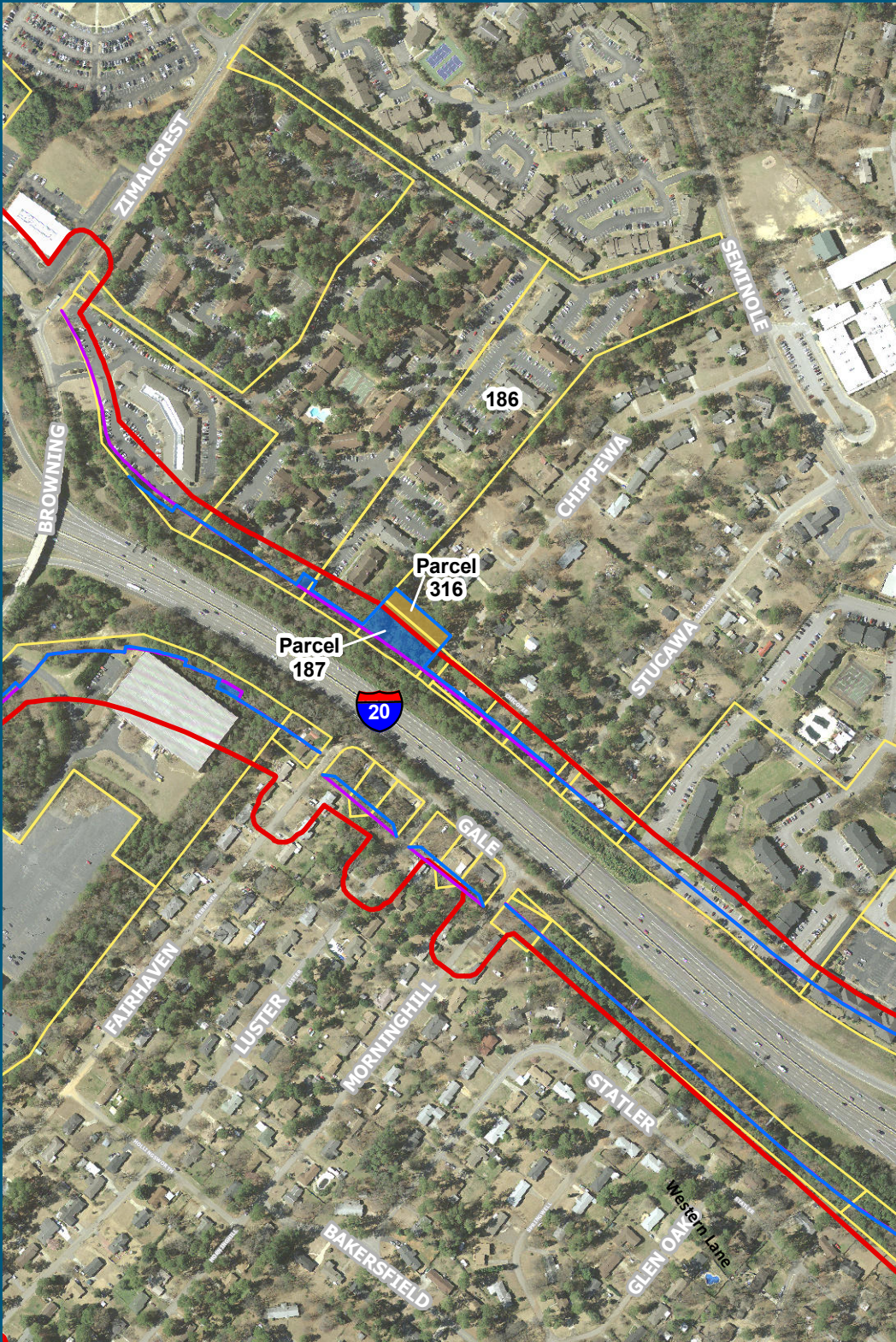
On July 7, 2020, investigators conducted archaeological and wetland surveys of Parcels 269 and 404. Due to ongoing right of way negotiations, shovel testing and delineation was not conducted at this time on Parcels 187, 270, and 316; these parcels were visually inspected during the current investigations. Once SCDOT acquires the properties and/or provides property owner notification, additional surveys will be completed based on recommendations below. The locations of Parcels 269, 270, 404, 187, and 316 are presented in Figures 5.1-5.7. The investigations are summarized below.

**Parcel 269** is located in a paved and partially wooded area between two abandoned nightclubs adjacent to Longcreek Drive, approximately 630 feet northeast of the intersection of Longcreek Drive and US 176. The portion of the parcel that is outside of the original archaeological study area is approximately 0.2 acres. The area is largely paved and the only wooded area is a heavily disturbed strip between the two parking lots of the nightclubs. No shovel tests were excavated at Parcel 269 and no further survey is recommended at this location. No wetlands were observed within this parcel.



View of Parcel 269, facing northwest.





0 500  
Feet

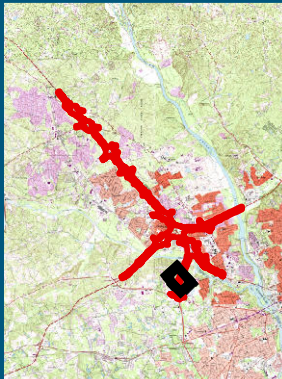
1 inch = 500 feet  
@ 8.5 x 11 inches

Projection: Lambert Conformal Conic  
State Plane South Carolina FIPS 3900 Intl Feet  
North American Datum of 1983  
Source: USGS High Resolution Orthoimagery

- Legend**
- Updated Right of Way
  - FEIS Right of Way
  - Environmental Study Area
  - Parcels
  - Unsurveyed Area
  - New Right of Way

**FIGURE 5.1  
ROW CHANGE  
PHASE 2  
PARCEL 187**





1 inch = 500 feet  
@ 8.5 x 11 inches

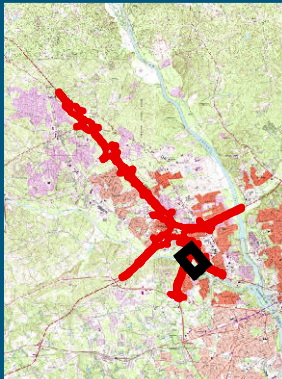
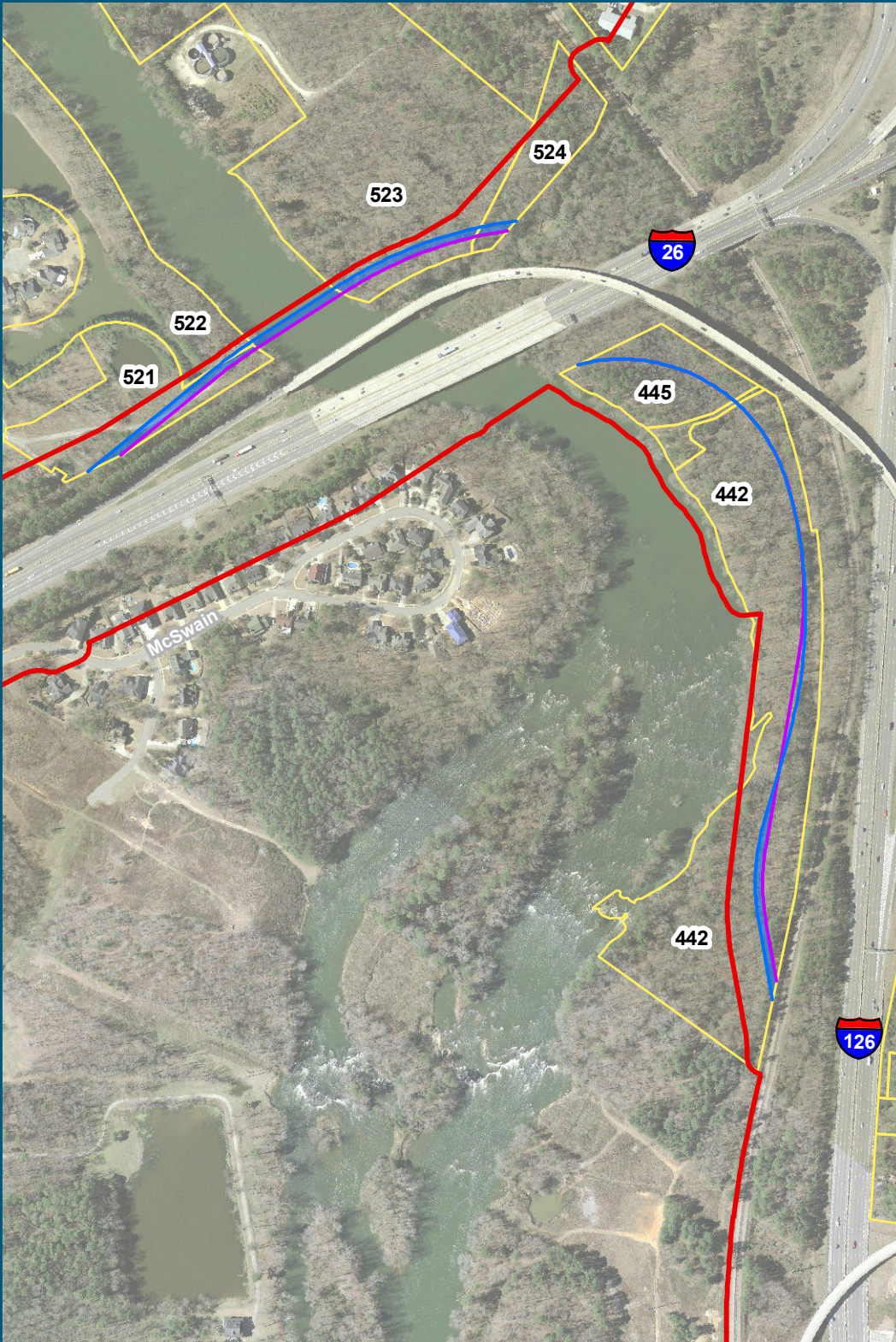
Projection: Lambert Conformal Conic  
State Plane South Carolina FIPS 3900 Intl Feet  
North American Datum of 1983  
Source: USGS High Resolution Orthoimagery

**Legend**

-  Updated Right of Way
-  FEIS Right of Way
-  Environmental Study Area
-  Parcels
-  Unsurveyed Area
-  New Right of Way

**FIGURE 5.2**  
**ROW CHANGE**  
**PHASE 1**  
**PARCELS 505 - 511**





1 inch = 500 feet  
@ 8.5 x 11 inches

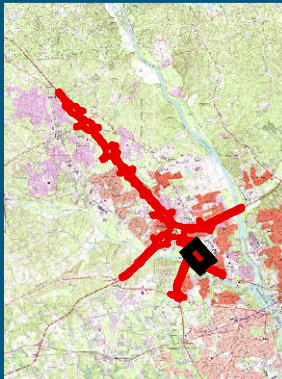
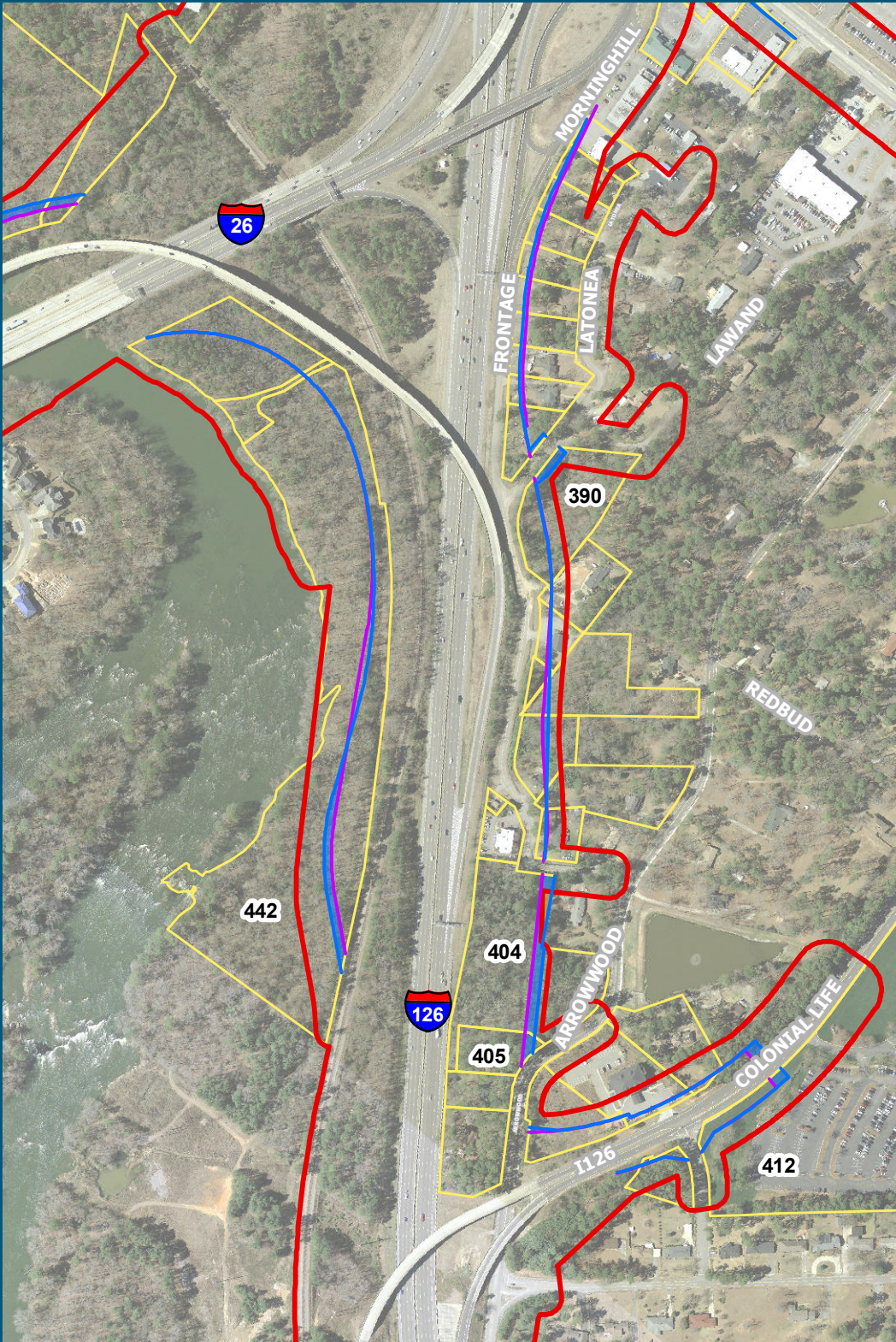
Projection: Lambert Conformal Conic  
State Plane South Carolina FIPS 3900 Intl Feet  
North American Datum of 1983  
Source: USGS High Resolution Orthoimagery

### Legend

- Updated Right of Way
- FEIS Right of Way
- Environmental Study Area
- Parcels
- Unsurveyed Area
- New Right of Way

**FIGURE 5.3**  
**ROW Change**  
**Phase 1**  
**Parcels 442, 445,**  
**524, 523, 522, &**





1 inch = 500 feet  
@ 8.5 x 11 inches

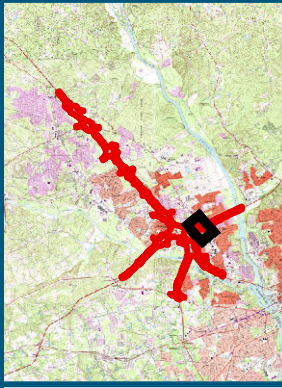
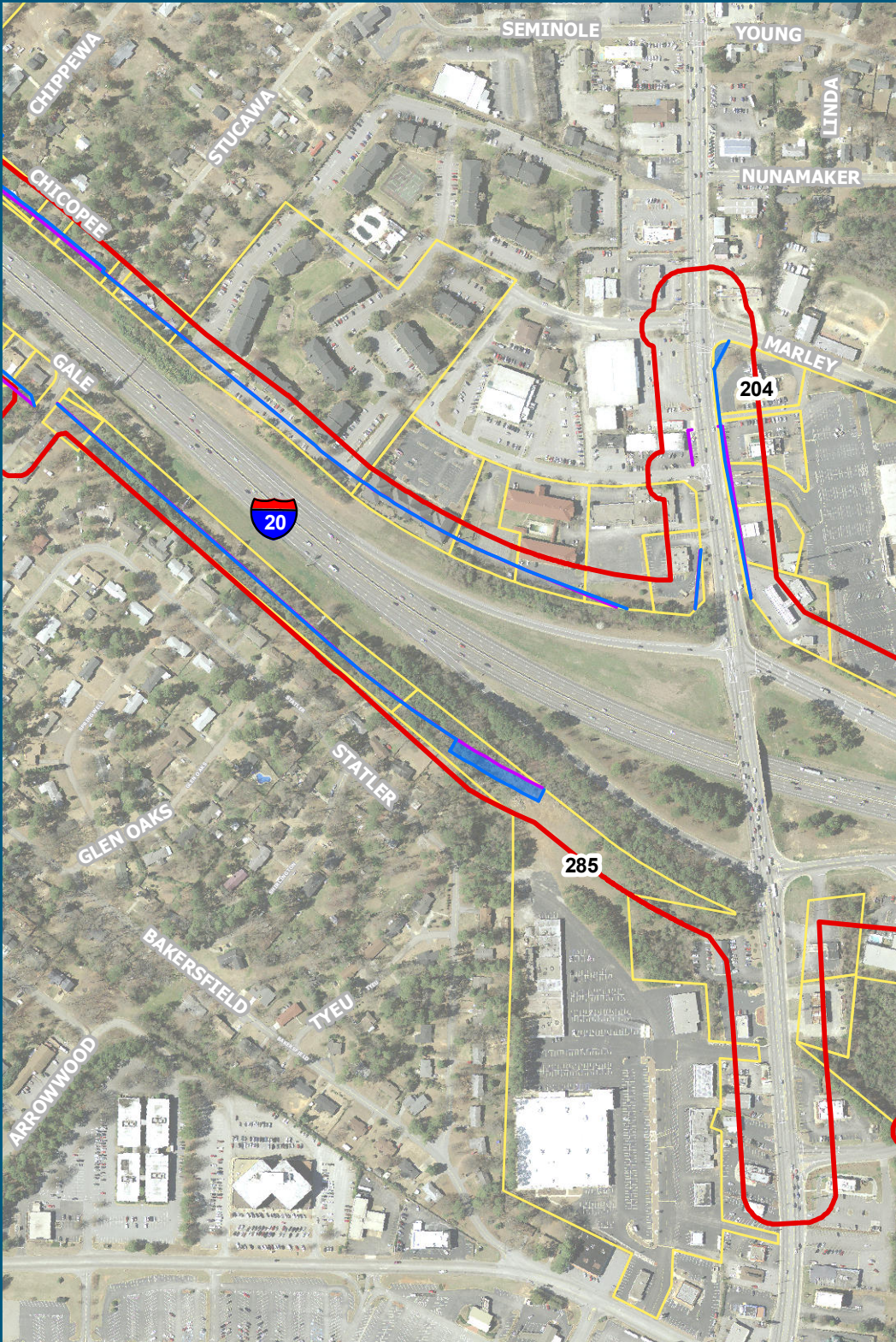
Projection: Lambert Conformal Conic  
State Plane South Carolina FIPS 3900 Intl Feet  
North American Datum of 1983  
Source: USGS High Resolution Orthoimagery

**Legend**

- Updated Right of Way
- FEIS Right of Way
- Environmental Study Area
- Parcels
- Unsurveyed Area
- New Right of Way

**FIGURE 5.4**  
**ROW Change**  
**Phase 1**  
**Parcels 390, 404,**  
**405, 412, & 442**





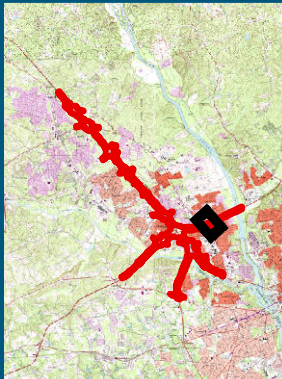
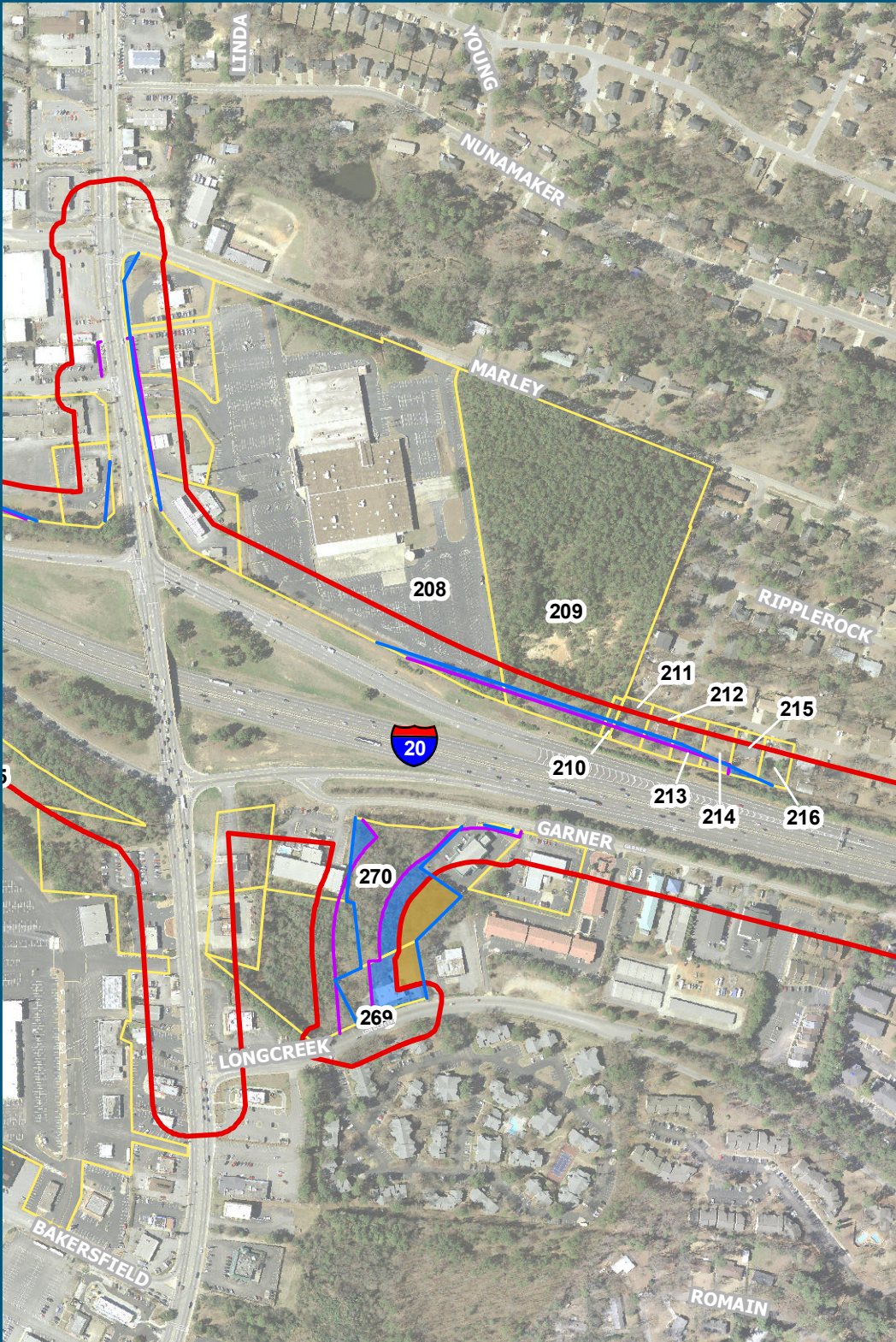
0 500  
Feet  
1 inch = 500 feet  
@ 8.5 x 11 inches  
Projection: Lambert Conformal Conic  
State Plane South Carolina FIPS 3900 Intl Feet  
North American Datum of 1983  
Source: USGS High Resolution Orthoimagery

**Legend**

-  Updated Right of Way
-  FEIS Right of Way
-  Environmental Study Area
-  Parcels
-  Unsurveyed Area
-  New Right of Way

**FIGURE 5.5**  
**ROW Change**  
**Phase 2**  
**Parcels 204 & 285**





0 500  
 Feet  
 1 inch = 500 feet  
 @ 8.5 x 11 inches  
 Projection: Lambert Conformal Conic  
 State Plane South Carolina FIPS 3900 Intl Feet  
 North American Datum of 1983  
 Source: USGS High Resolution Orthoimagery

**Legend**

-  Updated Right of Way
-  FEIS Right of Way
-  Environmental Study Area
-  Parcels
-  Unsurveyed Area
-  New Right of Way

**FIGURE 5.6**  
**ROW Change**  
**Phase 2**  
**Parcels 269, 270,**  
**and 208-216**



**Parcel 270** is located in a wooded area behind an abandoned nightclub adjacent to Longcreek Drive, approximately 630 feet northeast of the intersection of Longcreek Drive and US 176. The portion of the parcel that is outside of the original archaeological study area is approximately 0.43 acres. The area is wooded and is generally very low and wet. It appears to be an area where people dispose of used tires and other debris. Due to ongoing right of way negotiations, no shovel tests were excavated at Parcel 270. Due to heavy ground disturbance and the preponderance of wetlands, it is recommended that no archaeological investigations are necessary on this portion of Parcel 270.

The area has numerous depressional areas and braided channels that appear to accept runoff from the hotel parking lot on Garner Drive as well as from a channel that emanates from underneath a concrete block wall. The area is highly disturbed with numerous manmade features such as a concrete block wall, and buried pipes. It is recommended that a delineation be performed after acquisition. As currently proposed, the design would not impact wetlands on this parcel; however, if the design-build contractor proposed an alternate design that did impact wetlands at this location, those impacts would be documented in a re-evaluation and USACE Individual Permit (IP) modification.



View of Parcel 270, facing south.





View of Parcel 270, facing west



View of Parcel 270, facing north



**Parcel 404** is located in a wooded area behind a residence on Arrowwood Road, approximately 860 feet northwest of the intersection of Arrowwood Road and Colonial Life Boulevard. The portion of the parcel that is outside of the original archaeological study area is approximately 0.06 acres. The area is covered in dense undergrowth. Investigators excavated two shovel tests spaced 30 meters (100 feet) apart to cover the area. The two shovel tests generally exposed a 10YR4/2 dark grayish brown sandy loam from 0-20 cm below surface (bs), over a 10YR5/6 yellowish brown loamy sand from 20-50 cm bs, underlain by a compact 10YR7/6 yellow sand subsoil at 50-70+ cm bs. The fill from these tests was sifted through ¼-inch mesh hardware cloth. We recovered no cultural materials from the investigations at Parcel 404. No further archaeological survey is recommended at this location. No wetlands were observed within this parcel.



View of Parcel 404, facing northwest.

**Parcels 187 and 316** are adjacent to each other and are located in a wooded area in a residential neighborhood, to the west of the intersection of Chippewa Drive and Chicopee Drive. The portion of the parcels that is outside of the original archaeological study area is approximately 0.3 acres. Due to ongoing ROW negotiations, no shovel tests were excavated at Parcels 187 and 316. It is recommended that archaeological investigations be conducted in the uplands portions of Parcels 187 and 316. The area is heavily wooded and includes a stream and associated wetlands in the central portion, with uplands to the east and west. This system appears to be part of Wetland 15. It is recommended that a delineation be performed after acquisition.



As currently proposed, the design would not impact wetlands on this parcel; however, if the design-build contractor proposed an alternate design that did impact wetlands at this location, those impacts would be documented in a re-evaluation and USACE Individual Permit (IP) modification.



View of Parcels 187 and 316, facing west.



View of Parcels 187 and 316, facing north.

## Revision to FEIS Environmental Commitments

The proposed I-26 Westbound Ramp onto I-126 Eastbound and Colonial Life Blvd. is located between and immediately adjacent to both CSX railroad right of way and the Saluda Canal Historic District. The Environmental Commitment in the FEIS/ROD proposed a 25-foot buffer along the canal during construction activities.

During detailed design and constructability reviews and right of way acquisition for construction Phase 1 of the Carolina Crossroads Project, issues were identified in the vicinity of the Saluda Canal Historic District. The proposed ramp is at the northern end of the Saluda Canal and will not overlap the mapped limits of the canal. However, the currently proposed 25-foot buffer extends underneath the proposed I-26 Ramp C and presents constructability issues for equipment access during the construction of the project. Generally, the condition of the canal is very poor in this area adjacent to the proposed ramp due to erosion and siltation from two drainages in this area.

SCDOT has reduced right of way widths in the vicinity of the canal at this location to avoid impacts to the canal during construction and any future maintenance activities along the right of way.

SCDOT proposes to revise the commitment of a 25-foot buffer for a distance of approximately 700 feet along the proposed ramp to allow room for temporary construction access and equipment. The following mitigation will be implemented instead:

- Prior to construction activities orange protective fencing will be installed along the edge of boundary of the Saluda Canal Historic District in areas that will maintain the original buffer as well as those areas where the buffer has been requested to be reduced between the two drainages and for a length to the south of the southernmost drainage.
- Prior to construction activities silt fencing will be installed along the edge of SCDOT right of way to prevent runoff.
- For areas along the identified Saluda Canal located along the I-26 Ramp C beginning Station 5412+50 and ending Station 5419+50 clearing will be allowable to the right of way but grubbing will be limited to within a distance of 5-feet inside of the right of way. Grubbing activities within the 5-foot buffer will require approval from SCDOT prior to occurring.
- During land clearing activities prior to construction, an archaeologist will be present at all times to ensure that these activities undertaken close to the fencing do not damage the canal.
- During construction, an archaeologist will visit the construction site twice a week to ensure that no activities have crossed over the protective fencing. Any observations during these visits will be recorded in an inspection log that will be made available to the SHPO.
- As soon as an inadvertent impact is discovered, such as a previously unidentified cultural resource, archaeological feature, or artifact, construction in that area will stop immediately until an onsite consultation with SCDOT archaeologists and SHPO can determine the best strategies for avoiding, minimizing, or mitigating adverse effects upon the resource.

See SHPO coordination memo, figure, SHPO concurrence letter and tribal notification in Appendix B.



**APPENDIX A**  
**Noise Analysis Update Memo**

# Memo

Date: Monday, June 08, 2020

Project: Carolina Crossroads

To: Chad Long, SCDOT  
David Kelly, SCDOT  
Shane Belcher, FHWA

From: Ben Copenhaver

Subject: Noise Analysis Updates due to bridge shift

## Introduction

Updates to the design of the Recommended Preferred Alternative (RPA) involved shifting a bridge approximately 22' closer to residences in NSA X. The design updates also involved shifts to connecting collector/distributor ramps, as well as refinements of grading in the area. The grading refinements include adding a vertical wall where the proposed roadway grade is either above or below the existing ground elevation.

Build-case and barrier noise models for the area were updated, rerun, and reanalyzed.

## Updated Impact Results

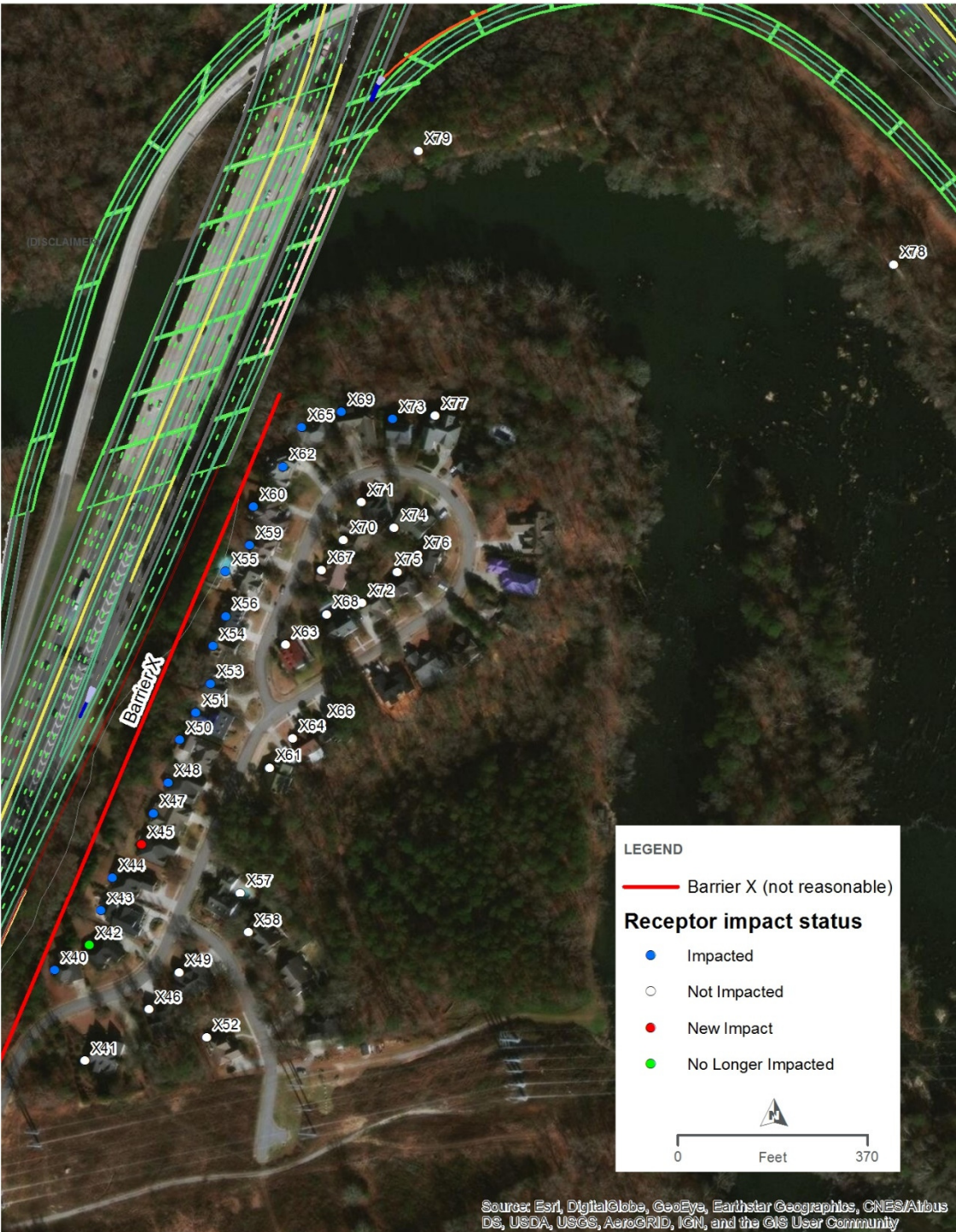
A comparison between build case results in the original and updated model is shown in the table below. Impacts are highlighted in red (levels in excess of the impact threshold of 66 dBA). Only receptors in the northern portion of NSA X (the area nearest the design updates) are included.

Receptor	Original Build Level (dBA)	Updated Build Level (dBA)	Change
X40	71.1	69.7	-1.4
X41	65.6	65.4	-0.2
X42	67.6	65.9	-1.7
X43	67.3	66.4	-0.9
X44	67.4	67.4	0
X45	65.8	66.6	0.8
X46	61.1	59.7	-1.4
X47	66.8	68.6	1.8
X48	67.5	69.3	1.8
X49	60.7	59.8	-0.9
X50	69.3	70.3	1.0
X51	69.6	70.1	0.5
X52	59.7	58.8	-0.9

Receptor	Original Build Level (dBA)	Updated Build Level (dBA)	Change
X53	69.2	69.7	0.5
X54	69.3	69.7	0.4
X55	73.6	74.1	0.5
X56	68.2	68.5	0.3
X57	60.0	59.4	-0.6
X58	60.6	59.5	-1.1
X59	69.2	69.6	0.4
X60	71.9	72.5	0.6
X61	60.0	60.1	0.1
X62	70.9	71.4	0.5
X63	60.9	60.7	-0.2
X64	59.9	59.9	0
X65	70.7	71.6	0.9
X66	59.4	59.3	-0.1
X67	62.2	62.3	0.1
X68	61.0	60.9	-0.1
X69	68.6	69.6	1.0
X70	62.8	62.8	0
X71	63.6	63.6	0
X72	58.6	58.5	-0.1
X73	66.5	66.9	0.4
X74	61.5	61.6	0.1
X75	60.5	60.5	0
X76	61.6	61.6	0
X77	65.0	65.3	0.3
X78	62.7	62.8	0.1
X79	63.7	63.7	0
X80	56.0	56.0	0

The largest increase in build noise levels was 1.8 dB, and the largest decrease was 1.7 dB. Two receptors changed impact status: X42 changed from impacted to non-impacted, and X45 changed from non-impacted to impacted. Therefore, the overall number of noise impacts in the project remains the same. The updated impact information is shown in Figure 1 below.

Figure 1. Updated Impacts in northern half of NSA X



NSA X - UPDATED RESULTS

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CAROLINA CROSSROADS

## Updated Barrier Analysis

Previously, the barrier investigated to shield impacted receptors in NSA X was found to be not reasonable, as it could not meet the SCDOT reasonableness criteria of providing at least 8 dB of noise reduction to at least 80% of benefited receptors. The barrier model was updated to account for the design changes in this area. Updated results of the barrier analysis are below.

**Barrier X – Impacted Receivers X1, X8, X11-X12, X14, X17, X21, X23, X27-X28, X31-X32, X35, X39-X40, X43-X45, X47-X48, X50-X51, X53-X56, X59-X60, X62, X65, X69, X73<sup>1</sup>**

Barrier X is a 5,697 foot long noise wall whose height is 25 feet.

### Feasibility:

*Acoustic Feasibility:* SCDOT noise policy states that a noise reduction of at least 5 dBA must be achieved for 75 percent of the impacted receivers. This was achieved for 28 of the 33 impacted receivers (85%). This meets the SCDOT allowable percentage (75%) per impacted receiver. A total of 32 receivers (including impacted and non-impacted) achieved 5 dBA of noise reduction.

*Engineering Feasibility:* No known issues at this time.

### Reasonableness:

*Noise Reduction Design Goal:* SCDOT noise policy states that a noise reduction of at least 8 dBA must be achieved for 80 percent of the benefited receivers in the first two building rows. Of the 32 benefited receivers in the first two rows, there were 16 that achieved the 8 dBA reduction (50%). This does not meet the SCDOT allowable percentage (80%) of the benefited receivers.

*Cost Effectiveness:* The cost effectiveness analysis is not applicable since the noise reduction design goal was not met.

Conclusion: Based on the above results of the detailed analysis, this abatement feature is feasible but not reasonable, and is not proposed as part of this project.

## Conclusions

Due to design changes in the vicinity of NSA X, the noise analysis in that area was updated, including the build model and the barrier analysis. No change greater than 2 dB was observed. One receptor changed impact status from non-impacted to impacted, and one receptor changed impact status from impacted to non-impacted. The barrier status remains not reasonable.

---

<sup>1</sup> Receiver X1 represents a retirement home patio with 2 equivalent dwelling units.

## APPENDIX B

### SHPO Coordination

## MEMORANDUM

July 8, 2020

To: Elizabeth Johnson, SCDAH  
Keely Lewis, SCDAH

From: Tracy Martin, SCDOT  
Will McGoldrick, SCDOT  
Josh Fletcher, HDR

Re: Carolina Crossroads Project: SAC 2015-01080  
Justification for reduction of construction buffer at the northern end of the Saluda Canal  
SCDOT PIN P027662

The South Carolina Department of Transportation (SCDOT) is currently in the process of purchasing right of way (ROW) parcels for the proposed Carolina Crossroads project. During a review of ROW and project design, it was identified that the proximity of the proposed ramp near the northern end of the Saluda Canal would create constructability issues for SCDOT's design/build contractor.

The proposed ramp is at the northern end of the Saluda Canal Historic District and will not overlap the mapped limits of the canal. While the ROW for the proposed ramp is approximately 60 feet wide (to the west of the proposed ramp), in areas where the proposed ramp is closer to the canal, the ROW has been reduced in order to not overlap the canal; at one location along eastern edge of the canal, the ROW is approximately 14 feet from the edge of the ramp.

In this northern end of the Saluda Canal, two drainages enter the canal from the east. These drainages are approximately 350 feet apart. Generally, the condition of the canal is very poor in the area between these two drainages. The banks of the canal are difficult to discern and were largely mapped using the georeferenced route from an historic map of the Saluda Canal, LiDAR imagery, and mid-20th century aerial photographs. In this area, the width of the canal ranges from approximately 40-50 feet with either no depth or only mild, uneven depressions of a couple of feet, whereas in more intact and deeply incised portions of the canal to the south of the southern drainage, the canal is a fairly uniform 30 feet wide with well-defined banks, with a depth of up to approximately six feet and three noted occurrences of intact stonework sections.

As noted in the cultural resources survey report, "No sign of the canal head or entrance from the Saluda River was discovered, nor was any trace of the dam described as being near the head of the canal found, and it is probable that these entities were the victim of floods and erosion, or, in the case of the dam, possible dismantlement." (Sipe et al. 2018: 54). In addition to periodic flooding of the Saluda River in this section of the canal that is closest to the river, it is believed that the two drainages that empty into the canal have caused a great deal of erosion and silting in of the canal. There is an approximately 45-foot long section of aligned stones on the western bank of the canal in the area between the two drainages. There are no intact features on the eastern bank of the canal in this area. An intact alignment of stones is present on the eastern bank of the canal just south of the southern drainage that cuts into the canal but this alignment will not be impacted by the proposed construction.

Prior to any construction activities, protective fencing will be installed along the edge of the previously proposed 25-foot buffer along the majority of the canal. It is requested that the buffer for the Saluda



Canal Historic District be reduced in the area between the two drainages, and for a length to the south of the southern drainage, to allow room for temporary construction access and equipment. In those areas, the protective fencing will be installed along the proposed ROW along the edge of the canal. During timbering/landclearing activities prior to construction, an archaeologist will be present to ensure that these activities undertaken close to the fencing do not damage the canal. During construction, an archaeologist will visit the construction site twice a week to ensure that no activities have crossed over the protective fencing. Any observations during these visits will be recorded in an inspection log that will be made available to the SHPO.

ec: Brian Klauk, Program Manager, Carolina Crossroads Project

#### **Reference Cited**

Sipe, Ryan, David Adair, Michael Miller, Bill Jurgelski, and Tracy Martin. 2018. *A Cultural Resource Survey of the Proposed Improvements to the Carolina Crossroads Corridor. Carolina Crossroads. I-20/26/126 Corridor Improvements. Lexington and Richland Counties, South Carolina*. Prepared for SCDOT and FHWA. Prepared by Edwards-Pitman Environmental, Inc.





Figure 1. Example of the canal, south of southern drainage.





Figure 2. Northern drainage.





Figure 3. Southern drainage.





Figure 4. Portion of the canal between the two drainages.





Figure 5. Portion of the canal between the two drainages.





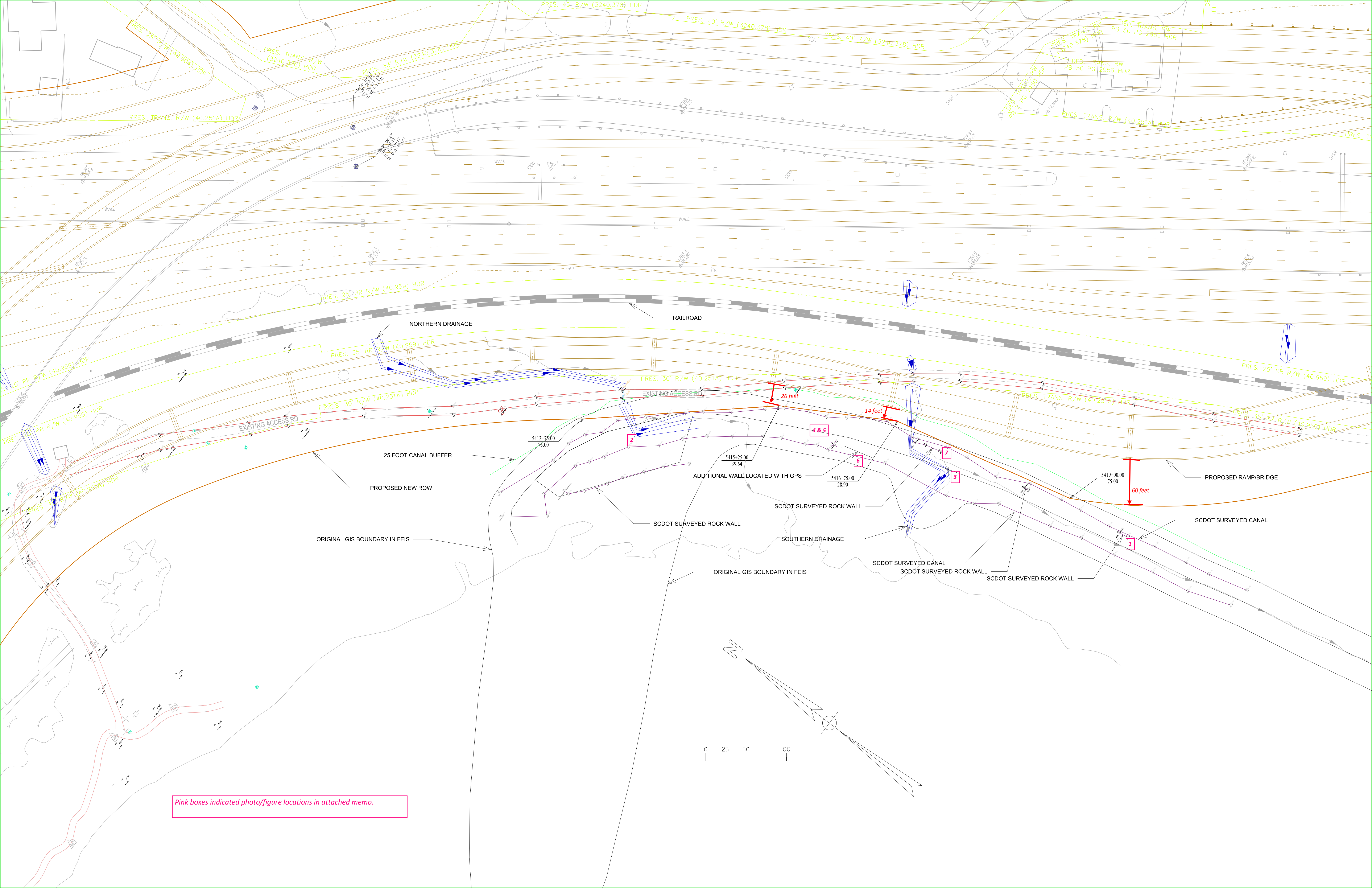
Figure 6. Alignment of stones on the western edge of canal, in the portion between the two drainages.





Figure 7. Stacked stone feature near right of way, to the south of the southern drainage.





Pink boxes indicated photo/figure locations in attached memo.



July 8, 2020

Ms. Elizabeth Johnson  
Director, Historical Services, D-SHPO  
State Historic Preservation Office  
SC Department of Archives & History  
8301 Parklane Road  
Columbia, SC 29223

***RE: Carolina Crossroads Project: SAC 2015-01080 Justification for reduction of construction buffer at the northern end of the Saluda Canal, Lexington and Richland Counties, South Carolina.***

Dear Ms. Johnson:

The South Carolina Department of Transportation (SCDOT) is currently in the process of purchasing right-of-way (ROW) parcels for the proposed Carolina Crossroads project. During a review of ROW and project design, it was identified that the proximity of the proposed I-26 Ramp C near the northern end of the Saluda Canal Historic District would create constructability issues for SCDOT's design/build contractor.

Proposed Ramp C is at the northern end of the Saluda Canal Historic District and will not overlap the mapped limits of the actual canal. However, the ROW will overlap the buffer created as the boundary for the Saluda Canal Historic District. The ROW for the proposed ramp is approximately 60 feet wide (to the west of the proposed ramp). In areas where the proposed ramp is closer to the canal, the ROW has been reduced in order to not overlap the canal. At one location along eastern edge of the canal, the ROW is approximately 14 feet from the edge of the ramp.

The northern end of the Saluda Canal has been impacted by two drainages that enter the canal from the east and are approximately 350 feet apart. In addition to periodic flooding of the Saluda River in this section of the canal that is closest to the river, it is also believed that the two drainages that empty into the canal have caused a great deal of erosion and silting in of the canal itself. This has left the banks of the canal in this area somewhat difficult to discern. This portion was largely mapped using the georeferenced route from an historic map of the Saluda Canal, LiDAR imagery, and mid-twentieth century aerial photographs. In this area, the width of the canal ranges from approximately 40- to 50-feet and features very little to no depth, whereas in more intact and deeply incised portions of the canal to the south of the southern drainage, the canal is a fairly uniform 30-feet wide with well-defined banks, with a depth of up to approximately 6-feet and three noted occurrences of intact stonework sections.

There is an approximately 45-foot long section of aligned stones on the western bank of the canal in the area between the two drainages. There are no intact features on the eastern bank of the canal in this area. An intact alignment of stones is present on the eastern bank of the canal just south of the southern drainage that cuts into the canal but this alignment will not be impacted by the proposed construction.



It is requested that the proposed ROW be allowed to cross over the buffer for the Saluda Canal Historic District for a distance of approximately 60-feet north of the northern drainage, the 350-feet between the northern and southern drainages, and approximately 260-feet south of the southern drainage.

In order to protect the boundary of the canal and the features associated with it, the following will be added to the contract as commitments:

- a. Prior to construction activities orange protective fencing will be installed along the edge of boundary of the Saluda Canal Historic District in areas that will maintain the original buffer as well as those areas where the buffer has been requested to be reduced between the two drainages and for a length to the south of the southernmost drainage.
- b. Prior to construction activities silt fencing will be installed along the edge of SCDOT ROW to prevent runoff.
- c. For areas along the identified Saluda Canal located along the I-26 Ramp C beginning Station 5412+50 and ending Station 5419+50 clearing will be allowable to the ROW but grubbing will be limited to within a distance of 5-feet inside of the ROW. Grubbing activities within the 5-foot buffer will require approval from SCDOT prior to occurring.
- d. During land clearing activities prior to construction, an archaeologist will be present to ensure that these activities undertaken close to the fencing do not damage the canal.
- e. During construction, an archaeologist will visit the construction site twice a week to ensure that no activities have crossed over the protective fencing. Any observations during these visits will be recorded in an inspection log that will be made available to the SHPO.
- f. As soon as an inadvertent impact is discovered, such as a previously unidentified cultural resource, archaeological feature, or artifact, construction in that area will stop immediately until an onsite consultation with SCDOT archaeologists and SHPO can determine the best strategies for avoiding, minimizing, or mitigating adverse effects upon the resource.

Based on the results of the background research and field investigations, SCDOT therefore recommends that the proposed project would have **no adverse effect** upon the Saluda Canal or the Saluda Canal Historic District.

Per the terms of the Section 106 Programmatic Agreement executed on October 6, 2017, the Department is providing this information on behalf of the Federal Highway Administration. It is requested that you review the enclosed material, and, if appropriate, indicate your concurrence in the Department's findings. Please respond within 30 days if you have any objections or if you have need of additional information.

Sincerely,



Tracy Martin  
Chief Archaeologist

TAM:tam

I (~~do not~~) concur in the above determination.

Signed: \_\_\_\_\_



Date: \_\_\_\_\_

7/9/2020

## Pearson, Jennifer

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**From:** Martin, Tracy <MartinT@scdot.org>  
**Sent:** Wednesday, July 22, 2020 10:25 AM  
**To:** Pearson, Jennifer  
**Subject:** Fwd: P027662 Carolina Crossroads Change Notification/update  
**Attachments:** 27662-Concurrence letter and attachments - SHPO signed July-9-2020.pdf; ATT00001.htm

**CAUTION: [EXTERNAL]** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Sent from my iPhone

Begin forwarded message:

**From:** "Martin, Tracy" <MartinT@scdot.org>  
**Date:** July 10, 2020 at 3:39:00 PM EDT  
**To:** "Section106@mcn-nsn.gov" <Section106@mcn-nsn.gov>, "elizabeth-toombs@cherokee.org" <elizabeth-toombs@cherokee.org>  
**Cc:** "Belcher, Jeffery - FHWA" <Jeffrey.Belcher@dot.gov>, "McGoldrick, Will" <McGoldriWR@scdot.org>  
**Subject:** **P027662 Carolina Crossroads Change Notification/update**

All,

Per the original concurrence letters for the Carolina Crossroads I-20, I-26, and I-126 Corridor Improvements Project a stipulation was made for notification upon changes or updates to the project. Please see the attached letter for the proposed effects inside the Saluda Canal Historic District boundary. We've coordinated with SHPO on these revisions and received their concurrence. Please let me know if you have any questions.

Thanks,

**Tracy Martin**  
Chief Archaeologist  
SC Department of Transportation  
955 Park Street, Columbia SC, 29201  
Office 803-737-6371 / Cell 803-206-1223

