

North Carolina Department of Transportation
NEPA/SEPA Consultation Form

STIP Project No.	I-5987A, I-5987B
WBS Element	47533.1.1
Federal Aid Project No.	NHP-0095(056)

A. Project Description, Location, and Purpose:

The North Carolina Department of Transportation (NCDOT) and Federal Highway Administration (FHWA) propose to widen 15.7 miles of I-95 to an eight-lane freeway from south of US 301 (Exit 22) to south of the proposed I-295 interchange in Robeson County. The proposed improvements are included in the 2020-2029 NCDOT Current State Transportation Improvement Program (STIP) (June 2021) as Project I-5987. The I-5987 project includes a total of four sections, as listed below. This Consultation document will evaluate changes to the proposed action for projects I-5987A and I-5987B.

- **I-5987A:** South of US 301 (Exit 22) to south of NC 20 (Exit 31). Widen to eight lanes.
- **I-5987AA:** Construct weigh in motion station.
- **I-5987B:** South of NC 20 (Exit 31) to south of proposed I-295 interchange. Widen to eight lanes.
- **I-5987C:** Gauge installation, modeling/hydraulic studies, and stress testing along corridor.

The purpose of improving this section of I-95 is to help relieve congestion, improve mobility, and improve the resiliency of this corridor to storm events, such that it can continue to serve as a primary East Coast route through the project design year of 2040. Improvements will be required to accommodate projected future traffic volumes and ensure the highway operates at an acceptable level of traffic service, particularly during the peak hour. Traffic volumes along the I-95 corridor are expected to increase considerably by 2040, creating conditions in which operations degrade and average speeds are below the posted speed limit. Currently, the number of vehicles using the section of I-95 between Exit 20 in Robeson County and Exit 40 in Cumberland County ranges between 56,500 vehicles per day (vpd) to 62,800 vpd. The current Level of Service (LOS) is C or better throughout the corridor.

Future traffic volumes (2040 No Build) are expected to range between 88,200 vpd to 96,800 vpd between Exit 20 and future I-295 (Fayetteville Outer Loop). Without improvements, operations along I-95 within the project limits are anticipated to degrade significantly by year 2040. This includes much of the I-95 corridor within the I-5987 project limits operating between LOS C and LOS D between 6:00 a.m. and 8:00 p.m. There are several segments anticipated to operate at LOS E for two hours each day. Widening I-95 to eight lanes as well as interchange reconstruction are proposed to provide the additional capacity needed to help relieve congestion and have the corridor within the project area operate at LOS B between 6:00 a.m. and 8:00 p.m.

In addition to improving traffic conditions, sections of I-95 within the project limits have experienced significant storm related flooding resulting in total closure of the interstate for multiple days. Roadway and bridge improvements will be needed to make the corridor more resilient to future flood events.

B. Consultation Phase:

Right-of-Way

C. NEPA/SEPA Class of Action Initially Approved as:

FHWA Class III (CE) 11/14/2019

Additional Notes: **CE Type III**

D. Changes in Proposed Action & Environmental Consequences:

Since approval of the I-5987 Type III CE in November 2019, the project has progressed to include more detailed roadway, hydraulic, and utility design components. In addition, the previously proposed project limits evaluated in the Type III CE (I-95 between mile markers 20 to 40) have been shortened to mile markers 21 to 37. The section of I-95 between mile markers 20-21 will now be constructed as part of NCDOT STIP Project I-6064, which will continue the eight-lane widening from mile markers 13-21 through the City of Lumberton. The section of I-95 between mile markers 37-40 is no longer part of project I-5987, but will be constructed separately as part of the Fayetteville Outer Loop project (STIP Project U-2519).

As such, this consultation will evaluate changes to the proposed action within the current I-5987A and I-5987B project limits between mile markers 21 and 37. An overview of the current project and section limits is included in Figure 1. Additional modifications to the I-5987 project design since the Type III CE in November 2019 include the following:

Oak Ridge Road (SR10) Service Road Relocation

A new service road relocation is currently proposed at the southwest quadrant of the I-95/NC 20 interchange (Exit 31). The reconstruction of Oak Ridge Road (SR10) will be required to accommodate the realignment of the southbound entrance ramp and proposed roundabout at the Exit 31 interchange while maintaining access to an existing cellular tower and residential property. This relocation would generally utilize existing unpaved segments of Oak Ridge Road and Piper Road, along with a section on new location. The reconstructed service road would include two 12-foot paved travel lanes with four-foot shoulder within a 60-foot right of way.

The proposed Oak Ridge Road alignment was selected to minimize impacts to homes, businesses, and Oak Ridge Cemetery, which is also located in the southwest quadrant of the Exit 31 interchange. It is anticipated that no grave sites will be affected by the proposed

service road relocation. The relocation of Oak Ridge Road will not result in additional impacts to jurisdictional stream, wetland, or pond features. Figures 2E and 2F show the proposed Oak Ridge Road alignment in the vicinity of Oak Ridge Cemetery.

I-95 Typical Section at Exit 22

At the time of the I-5987 Type III CE in 2019, the proposed roadway design in the vicinity of the Exit 22 interchange (US 301/Fayetteville Road) included a six-lane taper section beginning north of Exit 22 and extending south to the previous project limits near Exit 20. The adjoining I-6064 project, which proposes to widen I-95 to eight lanes between mile markers 13 and 21 in Lumberton, was funded in early 2020 after the completion of the I-5987 CE and functional roadway design. As a result, the proposed I-5987A roadway typical section for I-95 in this area has been revised to eight lanes to provide consistency with the proposed eight-lane section under I-6064. It is currently anticipated construction of projects I-6064 and I-5987 will occur concurrently.

Dawn Drive Multi-Use Path

During the I-6064 project development phase, it was determined some reconstruction of the Dawn Drive service road would be required to accommodate the adjacent eight-lane section of I-95 between Exits 20 and 22. In compliance with the NCDOT Complete Streets Policy (August 2019) and the Lumberton Comprehensive Transportation Plan (March 2016), a multiuse path is now proposed along Dawn Drive between Exit 20 and Exit 22 to accommodate bicyclists and pedestrians. The northernmost section of this proposed multiuse path will be constructed as part of the I-5987A project (see Figure 2A).

Hydraulic Structure Recommendations

As detailed hydraulic design has progressed for the project, four additional Reinforced Concrete Box Culverts (RCBCs) have been recommended within the project limits since the 2019 Type III CE (see Table 1 below). In addition, the previously proposed RCBCs at Fivemile Branch and Meadow Branch in the vicinity of NC 211 (Exit 20) will now be constructed as part of the I-6064 project.

Table 1. Additional Major Hydraulic Structures

Route Carried	Feature Crossing	Proposed Structure
I-95	Stream SM	7' x 7' RCBC
I-95	Stream TT, Stream TU	8' x 7' RCBC
I-95	Stream SP	7' x 7' dual RCBC
E McDuffie Crossing Road	Cowpen Branch	8' x 7' dual RCBC

Detailed hydraulic designs have also identified the need for numerous hydraulic crosspipes through the project corridor. As currently recommended, these crosspipe sizes range from 15 to 72 inches in diameter. Additional areas of riprap stabilization and tail ditches have been incorporated at several of these crosspipe locations. As noted in the Study Area Revisions section below, several of the proposed drainage ditches and associated drainage easement extend beyond the project study area evaluated in the I-5987 Type III CE.

Study Area Revisions

The currently proposed design for projects I-5987A and I-5987B (65% design plans) includes additional components such as hydraulic crosspipes, ditches, permanent drainage easements, and permanent utility easements that were not included as part of the conceptual design evaluated in the Type III CE. In order to properly analyze potential impact changes to human and natural environmental resources, a revised study area was created to capture areas where the current project footprint extends beyond the study area evaluated in the I-5987 Type III CE. A comparison of the original (Categorical Exclusion) study area and revised (ROW Consultation) study area is provided in Figures 2A-2J. The study area was also modified to reflect the current (i.e., shortened) project limits between mile markers 21 to 37.

Stream and Wetland Impacts

Supplemental field surveys were conducted in June 2021 to identify potential jurisdictional stream and wetland resources located within the revised I-5987 study area but outside the study area evaluated for the I-5987 Type III CE. As a result of these surveys, two additional intermittent streams (SAA and SAB), three additional tributary waters (TAB, TAC, and TAD), and three additional wetlands (WAD, WAE, and WAF) were identified. Potential jurisdictional stream and wetland resources identified as part of the June 2021 supplemental field surveys are currently being verified by the US Army Corps of Engineers and N.C. Division of Water Resources. The locations of all delineated stream and wetland resources within the I-5987A and I-5987B project area are shown in Figures 2A-2J.

An overview of preliminary stream and wetland impacts was provided in the I-5987 2019 Type III CE. Potential permanent impacts were calculated using the proposed slope stake limits from the conceptual design plus 25-foot buffer, resulting in a total of 3,932.9 linear feet (lf) of impacts to mitigable streams, 2,137.1 lf of impacts to non-mitigable streams, and 20.09 acres of impacts to wetlands. As the proposed design has been refined, permanent impacts were recalculated using the currently proposed 65% design plan slope stake limits plus 10-foot buffer, along with proposed permanent drainage and utility easement boundaries. Temporary impacts were calculated with the proposed temporary drainage easement and construction easement boundaries. A review of current jurisdictional stream and wetland impacts and change from the conceptual level design is provided in Tables 2 and 3 below.

It should be noted preliminary impacts to Cold Camp Creek, Gray's Creek, Horsepen Branch, Stream SL, Stream TC, Wetland WA, and Wetland WO have been eliminated due to their location along I-95 between mile markers 37-40, which is outside the current project limits. As indicated in the I-5987 Preliminary Jurisdictional Determination Package (December 5, 2019), Stream SJ has been changed from a perennial feature to a ditch and is therefore no longer considered a jurisdictional resource.

Table 2. Jurisdictional Stream Impact Comparison

Map ID	Class ¹	Compensatory Mitigation	Preliminary Impacts (Permanent) ²	Current Impacts (Permanent) ³	Current Impacts (Temporary) ⁴
			Linear Feet		
Big Marsh Swamp	Perennial	Mitigable	307.5	0.0	0.0
Brisson Branch	Perennial	Mitigable	299.2	381.9	0.0
Buckhorn Swamp	Perennial	Mitigable	123.2	111.9	0.0
Cold Camp Creek	Perennial	Mitigable	171.5	0.0	0.0
Cowpen Branch	Perennial	Mitigable	431.3	449.7	34.5
Gray's Creek	Perennial	Mitigable	12.9	0.0	0.0
Horsepen Branch	Perennial	Mitigable	147.4	0.0	0.0
Little Marsh Swamp	Perennial	Mitigable	316.6	52.6	0.0
Mercer Branch	Perennial	Mitigable	133.7	190.0	0.0
SAA	Intermittent	Mitigable	0.0	476.0	0.0
SAB	Intermittent	Mitigable	0.0	0.0	401.2
SJ	Perennial	Mitigable	696.9	0.0	0.0
SK	Perennial	Mitigable	109.8	95.0	24.2
SL	Perennial	Mitigable	74.5	0.0	0.0
SM	Perennial	Mitigable	130.5	184.2	0.0
SN	Perennial	Mitigable	154.8	137.3	0.0
SO	Perennial	Mitigable	37.5	140.8	0.0
SP	Perennial	Mitigable	101.3	103.4	2.4
SQ	Intermittent	Mitigable	212.4	38.8	0.0
SR	Intermittent	Mitigable	37.6	56.4	54.2
SS	Intermittent	Mitigable	184.4	184.4	0.0
Tenmile Swamp	Perennial	Mitigable	249.9	230.0	0.0
Total Impacts (Mitigable)			3,932.9	2,832.4	516.5
TAA	Trib WoUS	Non-Mitigable	9.7	22.7	0.0
TAB	Trib WoUS	Non-Mitigable	0.0	13.1	8.9
TAC	Trib WoUS	Non-Mitigable	0.0	188.0	0.0
TAD	Trib WoUS	Non-Mitigable	0.0	77.0	153.8
TBB	Trib WoUS	Non-Mitigable	504.8	512.6	0.0
TC	Trib WoUS	Non-Mitigable	1,063.5	0.0	0.0
TH	Trib WoUS	Non-Mitigable	0.0	39.4	0.0
TJ	Trib WoUS	Non-Mitigable	116.4	63.8	0.0
TM	Trib WoUS	Non-Mitigable	43.7	34.6	49.1
TP	Trib WoUS	Non-Mitigable	107.5	107.5	0.0
TR	Trib WoUS	Non-Mitigable	1.5	15.9	0.0
TS	Trib WoUS	Non-Mitigable	163.2	159.7	0.0
TT	Trib WoUS	Non-Mitigable	0.0	8.2	0.0
TU	Trib WoUS	Non-Mitigable	2.5	11.1	0.0
TX	Trib WoUS	Non-Mitigable	124.3	131.3	0.0
TZ	Trib WoUS	Non-Mitigable	0.0	0.0	15.6
Total Impacts (Non-Mitigable)³			2,137.1	1,384.9	227.4

¹ Trib WoUS = Tributary waters of the US² Preliminary permanent impacts as reported in the 2019 I-5987 Categorical Exclusion. Impacts were calculated using the conceptual design slope stake limits plus 25-foot buffer.³ Current permanent impacts based on 65% roadway design plans. Impacts were calculated using the current slope stake limits plus 10-foot buffer and permanent drainage and utility easement boundaries.⁴ Current temporary impacts based on 65% roadway design plans. Impacts were calculated using temporary drainage and construction easement boundaries.

Table 3. Jurisdictional Wetland Impact Comparison

Map ID	NCWAM Classification	Hydrologic Classification	Preliminary Impacts (Permanent) ¹	Current Impacts (Permanent) ²	Current Impacts (Temporary) ³
WA	Bottomland Hardwood	Riparian	2.20	0.00	0.00
WAB	Headwater Forest	Riparian	< 0.01	0.02	0.00
WAD	Headwater Forest	Riparian	0.00	0.02	0.01
WAF	Headwater Forest	Riparian	0.00	< 0.01	0.27
WC	Bottomland Hardwood	Riparian	1.60	1.00	0.00
WD	Riverine Swamp Forest	Riparian	4.72	3.47	0.00
WE	Bottomland Hardwood	Riparian	0.35	0.39	0.00
WF	Floodplain Pool	Riparian	3.25	2.18	0.00
WG	Floodplain Pool	Riparian	< 0.01	< 0.01	0.00
WH	Basin Wetland	Non-Riparian	0.28	0.26	0.00
WI	Bottomland Hardwood	Riparian	0.49	0.80	0.00
WJ	Bottomland Hardwood	Riparian	1.18	0.78	< 0.01
WK	Bottomland Hardwood	Riparian	1.53	1.09	0.08
WL	Bottomland Hardwood	Riparian	0.43	1.03	0.00
WM	Headwater Forest	Riparian	3.39	3.24	0.00
WN	Floodplain Pool	Riparian	0.03	0.03	0.01
WO	Floodplain Pool	Riparian	0.44	0.00	0.00
WV	Bottomland Hardwood	Riparian	0.17	0.19	0.00
WZ	Floodplain Pool	Riparian	0.03	0.01	0.00
Total Impacts			20.09	14.51	0.36

¹ Preliminary permanent impacts as reported in the 2019 I-5987 Categorical Exclusion. Impacts were calculated using the conceptual design slope stake limits plus 25-foot buffer.

² Current permanent impacts based on 65% roadway design plans. Impacts were calculated using the current slope stake limits plus 10-foot buffer and permanent drainage and utility easement boundaries.

³ Current temporary impacts based on 65% roadway design plans. Impacts were calculated using temporary drainage and construction easement boundaries.

Federally-Protected Species

The I-5987 Natural Resources Technical Report (NRTR) (December 2019) identified a total of four federally protected species under the Endangered Species Act (ESA) listed for Robeson County. For each species, a determination of the presence or absence of habitat is included in Table 4 below along with the Biological Conclusion rendered based on survey results in the study area. Supplemental biological field surveys within the revised I-5987 study area determined the Biological Conclusions for federally-protected species provided in the I-5987 Type III CE and referenced below are still valid at the time of this Consultation. The dates of these supplemental surveys are included in Table 4 below.

Table 4. ESA Federally-Protected Species in Robeson County

Scientific Name	Common Name	Federal Status ¹	Habitat Present	Biological Conclusion	Supplemental Field Survey Date
<i>Alligator mississippiensis</i>	American alligator	T (S/A)	Yes	Not Required	N/A
<i>Picoides borealis</i>	Red-cockaded woodpecker	E	Yes	No Effect	February 24, 2021
<i>Mycteria americana</i>	Wood stork	T	Yes	May Affect, Not Likely to Adversely Affect ²	June 7-8, 2021
<i>Rhus michauxii</i>	Michaux's sumac	E	Yes	No Effect	June 7-8, 2021

¹ T(S/A) – Threatened due to similarity of appearance, E – Endangered, T – Threatened

² A USFWS consultation letter regarding the biological conclusion for wood stork was received December 28, 2020 and is included in Appendix A

The bald eagle is federally-protected under the Bald and Golden Eagle Protection Act. 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. As noted in the I-5987 NRTR, due to the lack of known occurrences and minimal impact anticipated for this project, it has been determined that this project will not affect this species. Supplemental field surveys on June 7-8, 2021 determined the no effect conclusion is still valid for bald eagle within the I-5987 revised study area.

In the time since completion of the I-5987 NRTR, the US Fish and Wildlife Service has revised the previous programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration (FHWA), the US Army Corps of Engineers (USACE), and NCDOT for the northern long-eared bat (NLEB) (*Myotis septentrionalis*) in eastern North Carolina. The PBO covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. Although this programmatic covers Divisions 1-8, NLEBs are currently only known in 19 counties, but may potentially occur in 11 additional counties within Divisions 1-8. NCDOT, FHWA, and USACE have agreed to two conservation measures which will avoid/minimize mortality of NLEBs. These conservation measures only apply to the 30 current known/potential counties shown on Figure 2 of the PBO at this time. The programmatic determination for NLEB for the NCDOT program is **May Affect, Likely to Adversely Affect**. The PBO will ensure compliance with Section 7 of the Endangered Species Act for ten years (effective through December 31, 2030) for all NCDOT projects with a federal nexus in Divisions 1-8, which includes Robeson County, where the I-5987A and I-5987B projects are located.

At individual project sites where a total of 1.0 acre or more of tree clearing will occur, no tree clearing will occur during the portion of the day that the air temperature is less than 40 degrees Fahrenheit in order to protect NLEBs that may be in torpor. This restriction is only subject to the known/potential range (30 coastal counties) that is shown in Figure 2 of the 2020 PBO.

Cultural Resources

As noted in the I-5987 Type III CE, the NCDOT Cultural Resources Group determined on March 28, 2019 that no National Register eligible historic sites were present within the Area of Potential Effects (APE). As such, the project would have No Effect on historic resources. In correspondence dated June 11, 2021 and included in Appendix A, the NCDOT Cultural Resources Group determined additional field surveys within the expanded I-5987 APE would not be required.

On November 6, 2019 the NCDOT Cultural Resources Group determined that no National Register listed archaeological sites were located within the I-5987 APE and no National Register eligible sites would be affected by the project. In correspondence received July 13, 2021 and included in Appendix A, the NCDOT Cultural Resources Group determined additional field surveys within the expanded I-5987 APE would not be required.

The original and expanded APE boundaries for both historic architectural and archaeological analyses were based on the I-5987 Categorical Exclusion study area(s) shown in Figures 2A-2J.

Proposed Noise Walls

The I-5987 Traffic Noise Report (November 2019) identified a total of three locations where noise barriers were determined to be preliminarily feasible and reasonable for construction within the project limits. While each of the recommended noise wall locations are still considered viable, NW2-1 (located west of I-95 and parallel to Dawn Drive) is now outside the I-5987 project limits and will be further analyzed as part of the adjacent I-6064 project.

A Design Noise Report was completed for the Project I-5987A on May 24, 2021 and Project I-5987B on May 17, 2021. These reports verified both NW8 and NW 19 are considered feasible and reasonable and recommended for inclusion in the I-95 widening project (see Table 5 below). The proposed locations of noise walls NW8-1 and NW19-1 are shown on Figures 2C and 2H, respectively.

The final decision on the installation of noise abatement measures will be made upon completion of the public involvement process. Any changes in noise abatement measures as detailed in the Design Noise Reports must be approved by NCDOT prior to implementation.

Table 5. Design Noise Report Barrier Evaluation Results

Barrier Name	Noise Barrier Location	Length / Height (feet)	Area (Square Footage)	Number of Impacted Receptors	Total Number of Benefits	Quantity of Wall per Benefit (square feet)
NW8	West of I-95, northwest quadrant of US 301 interchange (Exit 25)	1,390 / 17	22,947	16	17	1,350 / 1,500
NW19	East of I-95, between Parkton Tobermory Road and Green Springs Road	1,350 / 16.7	22,585	13	15	1,505 / 2,000

Proposed Detour Routes

At the time of the I-5987 Type III CE, potential detour routes had not yet been identified. Proposed detour routes were identified in the I-5987A and I-5987B Transportation Management Staging Plans (April 2021) and are currently under review by NCDOT. It is anticipated work zone traffic control plans will require the temporary closure of interchange ramps, Y-line routes, and service roads along I-95 within the project limits. To the extent possible, two lanes of traffic will be maintained in each direction along the I-95 mainline through the duration of project construction. Some limited nighttime closures of one travel lane will be required to hang bridge girders.

E. Conclusion:

The above NEPA documentation has been reevaluated as required by 23 CFR 771. It has been determined that the current proposed action is essentially the same as the original proposed action. Proposed changes are noted in Section D. It has been determined that anticipated social, economic, and environmental impacts were accurately described in the above referenced document(s) unless noted otherwise herein. Therefore, the original Administration Action remains valid.

F. Coordination

NCDOT personnel have discussed the current project parameters with qualified NCDOT representatives and FHWA (where applicable). The NCDOT Project Manager, Scott Pridgen, hereby verifies the involvement of the following staff and the incorporation of their technical input:

Design Engineer:	Steve Kendall, PE (NCDOT)	7/16/21
Environmental Specialist:	Jim Rerko (NCDOT)	7/16/21
FHWA (if applicable):	Loretta Barren	7/16/21
Other:	Name	Date

G. Consultation Approval for NCDOT Projects I-5987A and I-5987B

Prepared By:

8/5/2021

 Date

DocuSigned by:
Brian Yamamoto

 Brian Yamamoto, PE
 Senior Project Development Engineer, NV5

Prepared For:

_____ NCDOT Highway Division 6

Reviewed By:

8/5/2021

 Date

DocuSigned by:
James J. Rerko

 James J. Rerko, Project Development and Environmental Analysis Engineer
 NCDOT Highway Division 6

- Approved** In adherence with 23 CFR 771 (NEPA) or NC General Statute Chapter 113A Article 1 (SEPA), NCDOT approves this Consultation.
- or
- Certified** NCDOT staff certifies if FHWA signature was previously required or where changes have resulted in FHWA signature being required.

8/5/2021

 Date

DocuSigned by:
H. L. Cox

 H. L. Drew Cox, PE, Division Engineer
 NCDOT Highway Division 6

FHWA Approved: FHWA signature required for Type I(B) CE, Type II(B) CE, Type III CE, FONSI or ROD.

8/5/2021

 Date

DocuSigned by:
Jareda W Bauer

 John P. Sullivan, III, PE, Division Administrator
 Federal Highway Administration

H. Project Commitments (as of July 16, 2021)

Robeson County
I-95 Widening from South of US 301 to South of Proposed I-295
Federal-Aid Project No. NHP-0095(056)
WBS No. 47533.1.1
STIP Nos. I-5987A, I-5987B

COMMITMENTS FROM PROJECT DEVELOPMENT AND DESIGN

All standard commitments identified during the project development and design phase have been incorporated into the design. Original commitments developed during project development appear in standard font. Status changes or additional to the project commitments developed through consultation are printed in *italics*.

Division 6 – Catawba Indian Nation Coordination

The Catawba Cultural Preservation Project had no immediate concerns, but requested notification if Native American artifacts and/or human remains are located during the ground disturbance phase of the project.

Division 6 – Town of Saint Pauls and Other Local Stakeholder Coordination

The Division will continue appropriate coordination with the Town of St. Pauls and other relevant stakeholders as hydraulic design for the project continues. Results of modeling relevant to changes in drainage due to the project will be shared with local stakeholders.

- *Coordination is ongoing between NCDOT Division 6 and the Town of St. Pauls to discuss updated drainage design completed since the public meetings for the project. Measures to ensure that drainage from the I-95 improvements are properly accommodated, including drainage improvements in the northeast quadrant of the NC 20 interchange (Exit 31) in St. Pauls are under review by Town officials and the Department.*

Division 6 – Robeson and Cumberland Counties Work Zone Traffic Control Plan Coordination

In order to minimize and/or mitigate known multi-modal congestion issues that have historically affected emergency response and area schools when I-95 traffic is detoured along alternate routes in the area, NCDOT Division 6 will coordinate directly with local emergency management and local schools transportation officials in the development of work zone traffic control plans.

- *Draft Transportation Management Staging Plans are under review by NCDOT as of June 2021. Work zone traffic control plans will be shared with local emergency management and school transportation officials prior to finalization by NCDOT.*

NCDOT Hydraulics Unit – Floodplain Mapping Coordination

The NCDOT Hydraulics Unit will coordinate with the North Carolina Floodplain Mapping Program (FMP), the delegated state agency for administering FEMA's National Flood Insurance Program, to determine the status of the project with regard to the applicability of

NCDOT's Memorandum of Agreement with the FMP or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

Division 6 – As-Built Construction Plans

The Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction certifying that the drainage structures and roadway embankments that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

Division 6 – Powersville Road Bicycle Accommodations

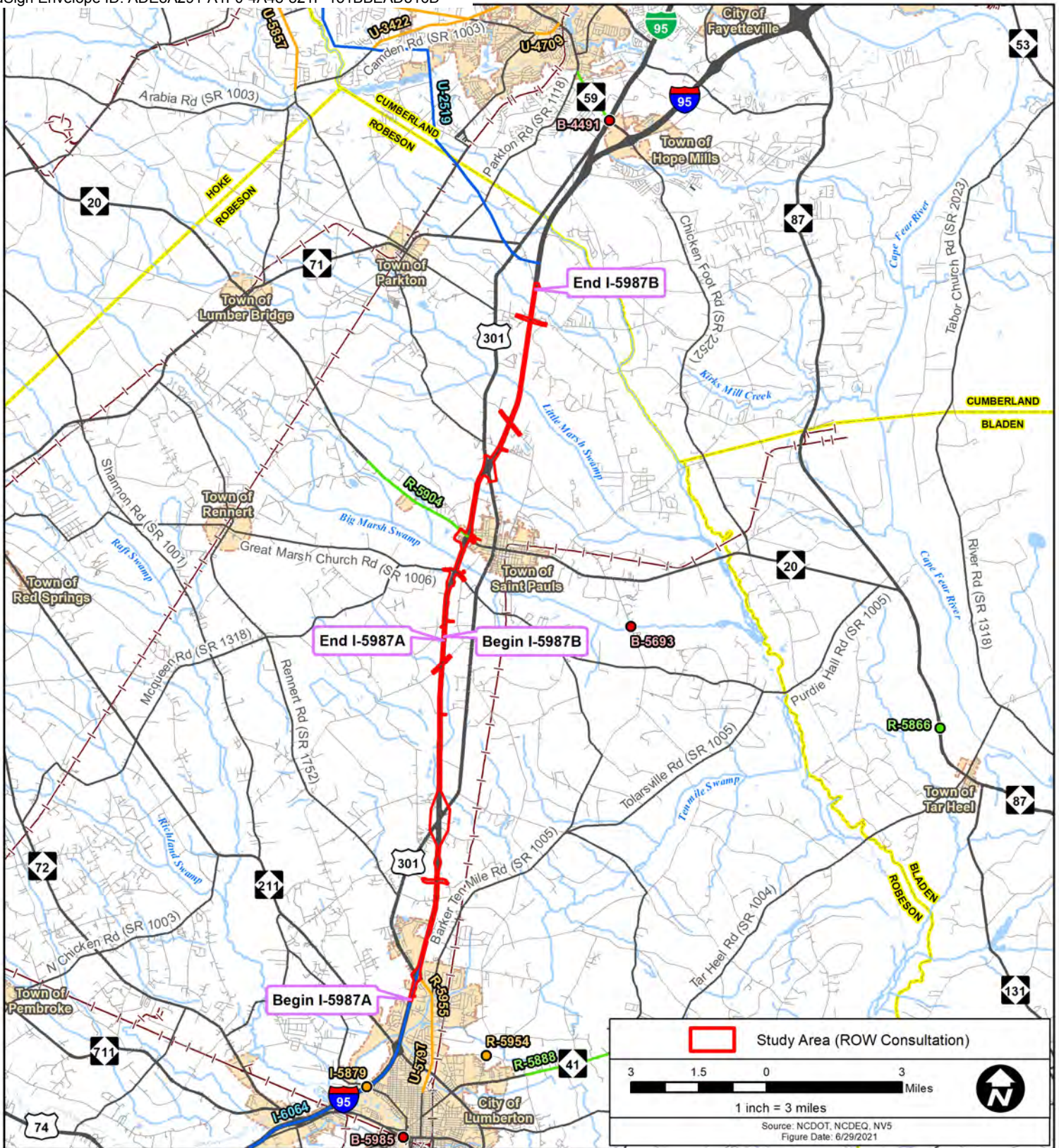
In accordance with the NCDOT Complete Streets Policy Guidance (August 2019), the Powersville Road replacement structure and approach should be designed to accommodate bicycle facility improvements identified in the adopted Lumberton CTP, including a minimum 4-foot paved shoulder and 54-inch bridge railings.


- *The current roadway design (65% plans) includes 5-foot paved shoulder along both Powersville Road and Powersville Road bridge. Two bar metal bicycle rail is also proposed along the Powersville Road bridge.*

Division 6 – Northern Long-Eared Bat Protections

*Since completion of the I-5987 Type III CE, the US Fish and Wildlife Service has revised the previous programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration (FHWA), the US Army Corps of Engineers (USACE), and NCDOT for the northern long-eared bat (NLEB) (*Myotis septentrionalis*) in eastern North Carolina. The PBO covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. In accordance with the PBO, at individual project sites where a total of 1.0 acre or more of tree clearing will occur, no tree clearing will occur during the portion of the day that the air temperature is less than 40 degrees Fahrenheit in order to protect NLEBs that may be in torpor.*

Appendix A

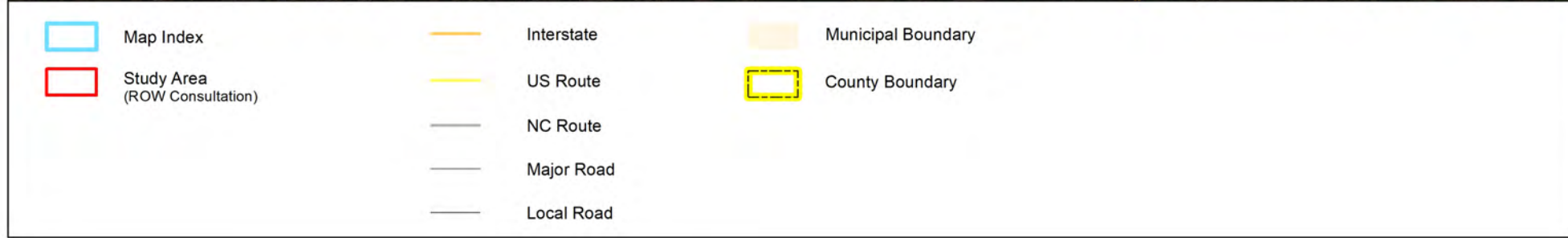
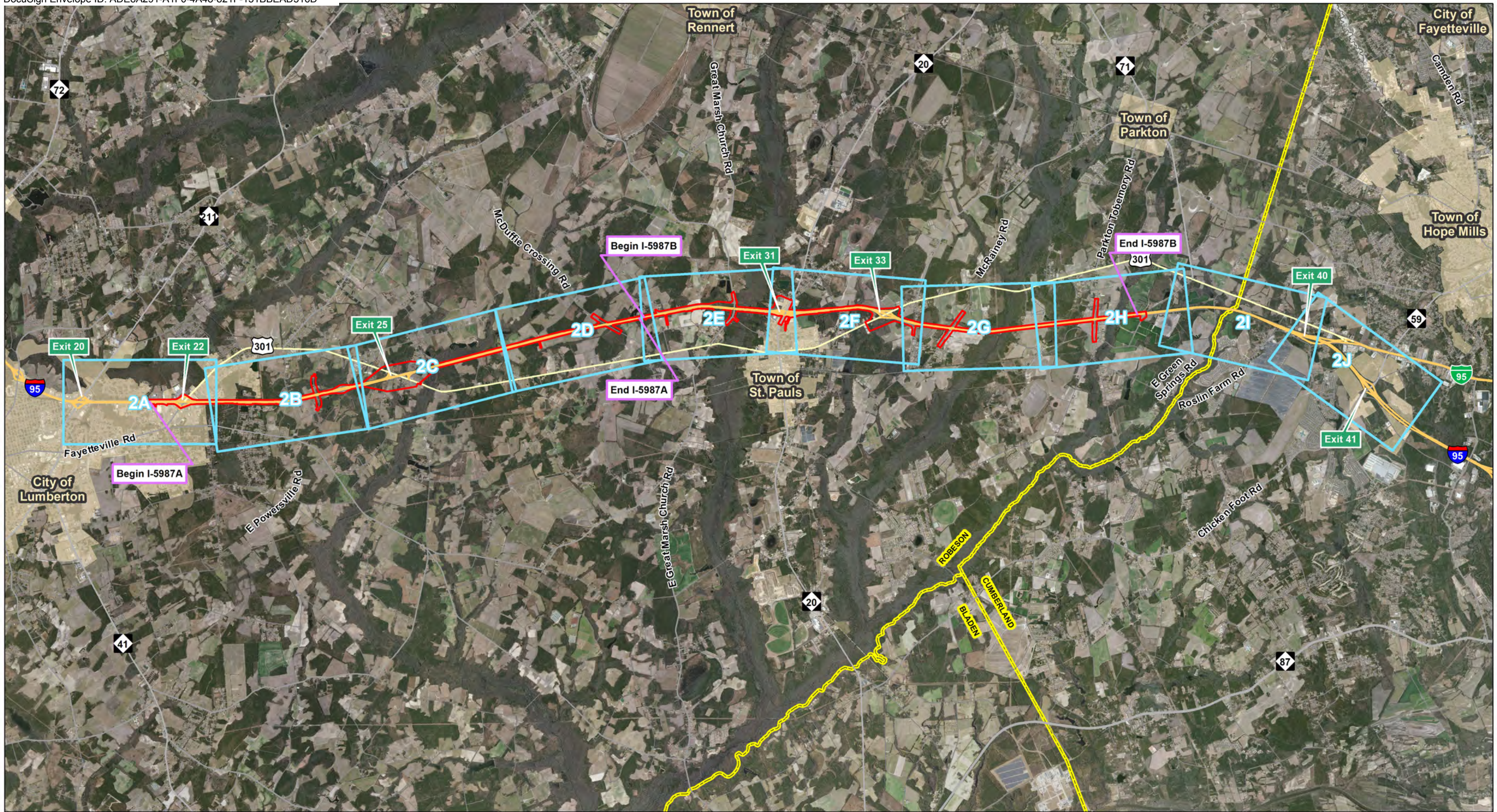



**NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION 6**

I-95 Widening from
 South of US 301 to South of Proposed I-295
 in Robeson County

**STIP Projects I-5987A and I-5987B
 Robeson County**

Project Vicinity

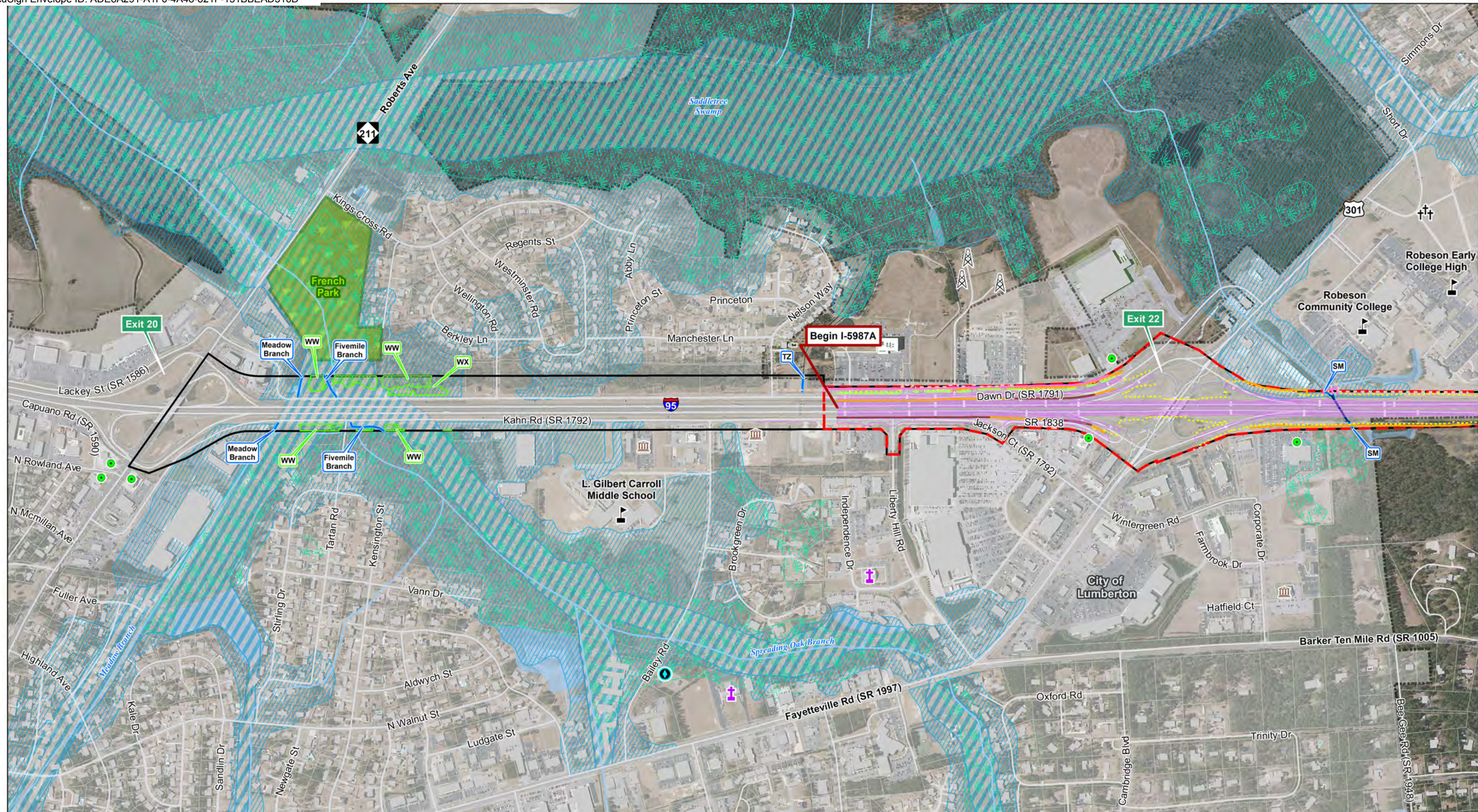


NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
 DIVISION 6

1.5 0.75 0 1.5 Miles
 1 inch = 1.5 miles

Source: NCDOT, NCOneMap, NV5
 Figure Date: 6/9/2021

I-95 Widening from South of US 301 to South of Proposed I-295 in Robeson County
STIP Projects I-5987A and I-5987B
Robeson County
Figure 2 - Environmental Features Index



Proposed 65% Design Plans - Lane Lines - Slope Stakes - Right of Way - Easement (Temporary) - Easement (Permanent) - Multi-Use Path - Concrete Island - Retaining Wall - Noise Wall - Bridge - Culvert		Study Area - Study Area (ROW Consultation) - Study Area (Categorical Exclusion)		Government Facility - School - Historic Property (SL) - Public Water Supply Source - Communication Tower - Electric Substation		Road - Railroad - Delineated Stream - NCDEQ Stream - Delineated Wetland - NWI Wetland		Waterbody - Delineated Waterbody - NCDEQ Waterbody - Floodway - 100-Year Floodplain - Wellhead Protection Area - Park		Conservation Easement - National Register Historic Boundary - Building Footprint - Parcel - Municipal Boundary - County Boundary	
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NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION 6

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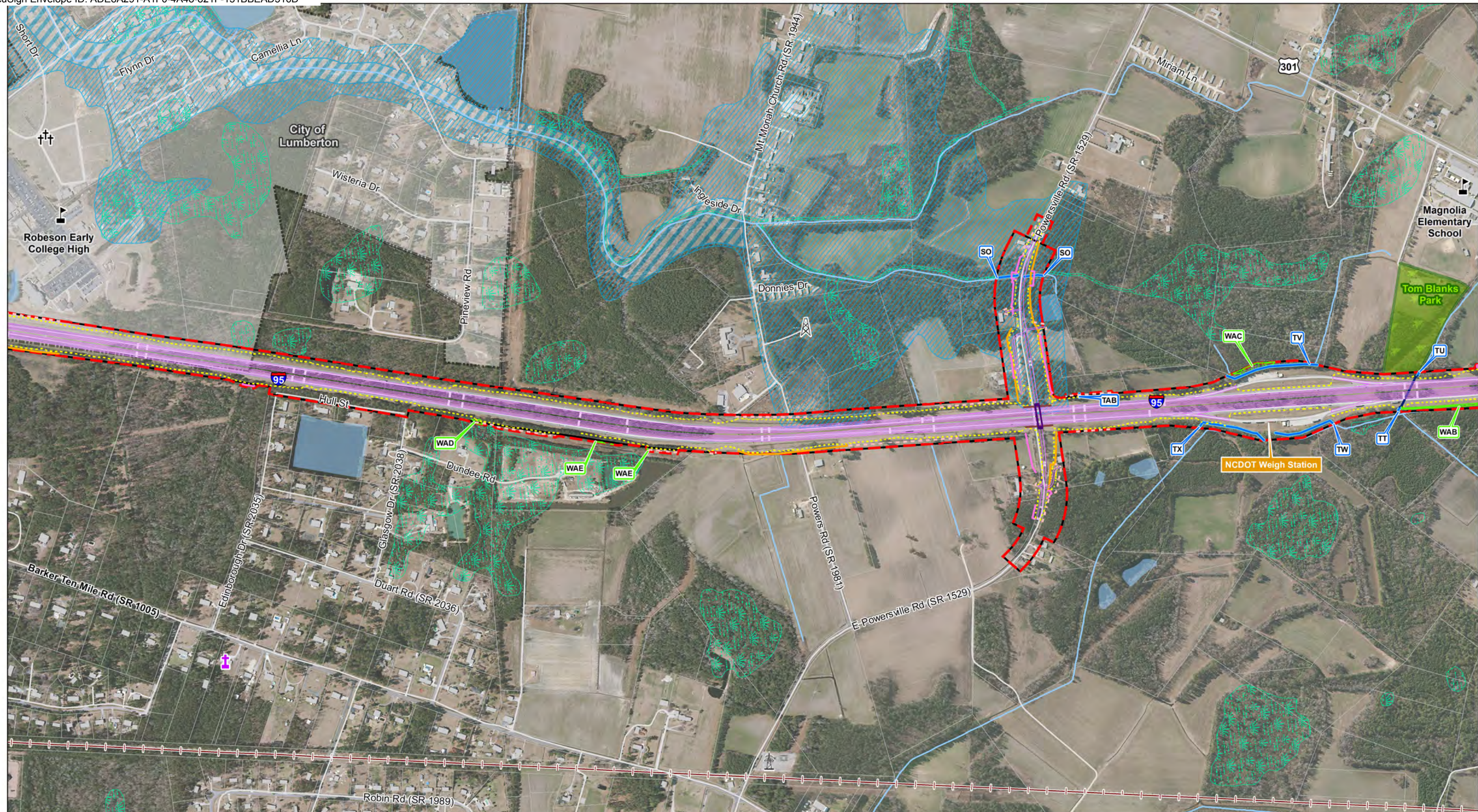
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Source: NCDEQ, NCDOT, NCHPO, NCFMP, NCGNPH, NCOneMap, USFWS, Google, NV5 Figure Date: 6/29/2021

I-95 Widening from South of US 301 to South of Proposed I-295 in Robeson County

STIP Projects I-5987A and I-5987B Robeson County

Figure 2A - Environmental Features



<p>Proposed 65% Design Plans</p> <ul style="list-style-type: none"> Lane Lines Slope Stakes Right of Way Easement (Temporary) Easement (Permanent) Multi-Use Path Concrete Island Retaining Wall Noise Wall Bridge Culvert 	<ul style="list-style-type: none"> Study Area (ROW Consultation) Study Area (Categorical Exclusion) Cemetery Church Firestation Geoenvironmental Site of Concern 	<ul style="list-style-type: none"> Government Facility School Historic Property (SL) Public Water Supply Source Communication Tower Electric Substation 	<ul style="list-style-type: none"> Road Railroad Delineated Stream NCDEQ Stream Delineated Wetland NWI Wetland 	<ul style="list-style-type: none"> Delineated Waterbody NCDEQ Waterbody Floodway 100-Year Floodplain Wellhead Protection Area Park 	<ul style="list-style-type: none"> Conservation Easement National Register Historic Boundary Building Footprint Parcel Municipal Boundary County Boundary
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**NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION 6**

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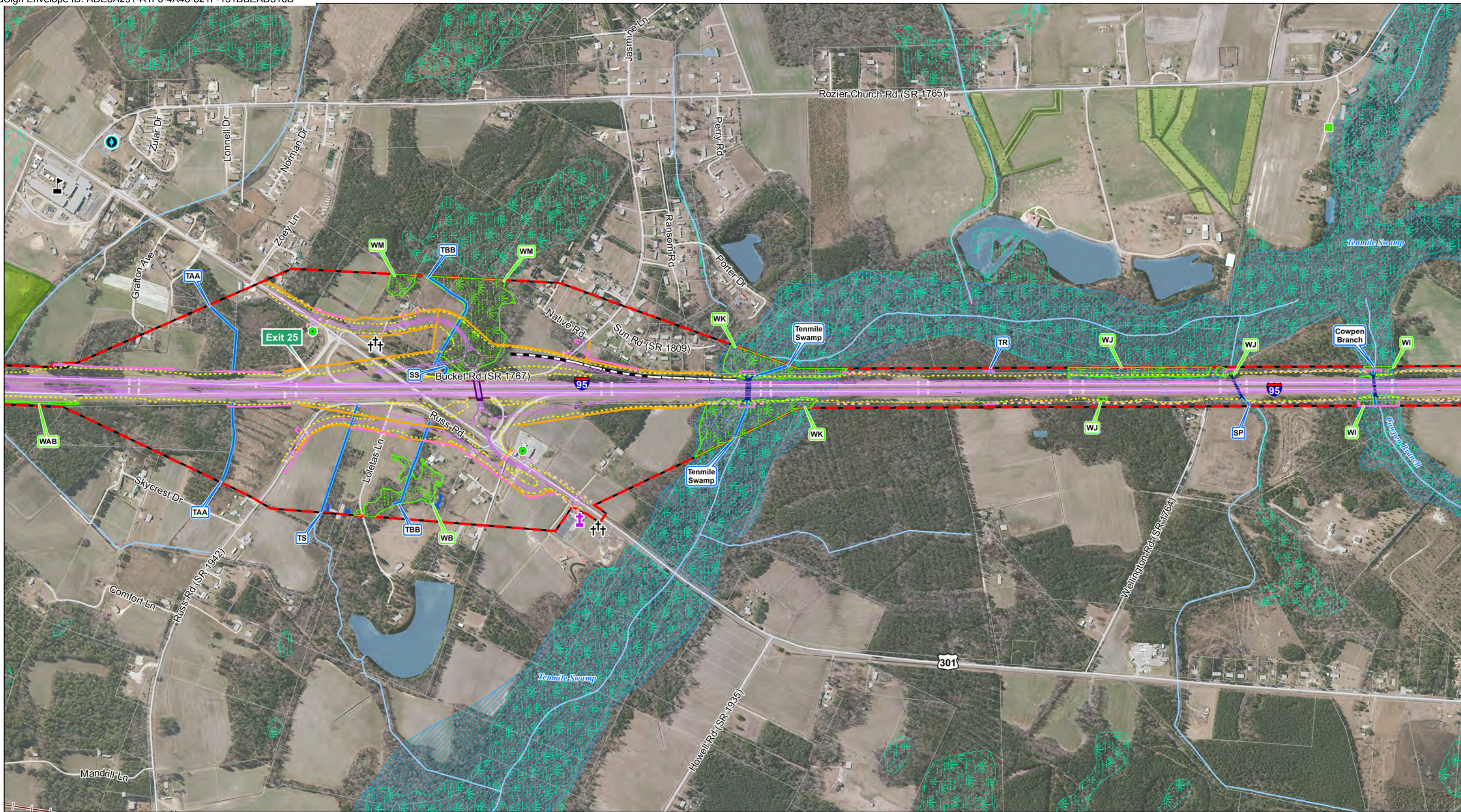
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Source: NCDEQ, NCDOT, NCHPO, NCFMP, NCNHP, NCOneMap, USFWS, Google, NV5 Figure Date: 6/29/2021

I-95 Widening from South of US 301 to South of Proposed I-295 in Robeson County

**STIP Projects I-5987A and I-5987B
Robeson County**

Figure 2B - Environmental Features



Proposed 65% Design Plans		Study Area		Government Facility		Road		Delineated Waterbody		Conservation Easement	
Lane Lines	Multi-Use Path	Study Area (ROW Consultation)	Study Area (Categorical Exclusion)	Government Facility	Road	Delineated Waterbody	NCDEQ Waterbody	Conservation Easement	National Register Historic Boundary	National Register Historic Boundary	National Register Historic Boundary
Slope Stakes	Concrete Island	Cemetery	Cemetery	School	Railroad	Delineated Stream	Floodway	National Register Historic Boundary	National Register Historic Boundary	National Register Historic Boundary	National Register Historic Boundary
Right of Way	Retaining Wall	Church	Church	Historic Property (SL)	Delineated Stream	NCDEQ Stream	100-Year Floodplain	National Register Historic Boundary	National Register Historic Boundary	National Register Historic Boundary	National Register Historic Boundary
Easement (Temporary)	Noise Wall	Firestation	Firestation	Public Water Supply Source	NCDEQ Stream	Delineated Wetland	Wellhead Protection Area	National Register Historic Boundary	National Register Historic Boundary	National Register Historic Boundary	National Register Historic Boundary
Easement (Permanent)	Bridge	Geoenvironmental Site of Concern	Geoenvironmental Site of Concern	Communication Tower	Delineated Wetland	NWI Wetland	Park	National Register Historic Boundary	National Register Historic Boundary	National Register Historic Boundary	National Register Historic Boundary
Culvert	Culvert			Electric Substation	NWI Wetland			National Register Historic Boundary	National Register Historic Boundary	National Register Historic Boundary	National Register Historic Boundary

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION 6

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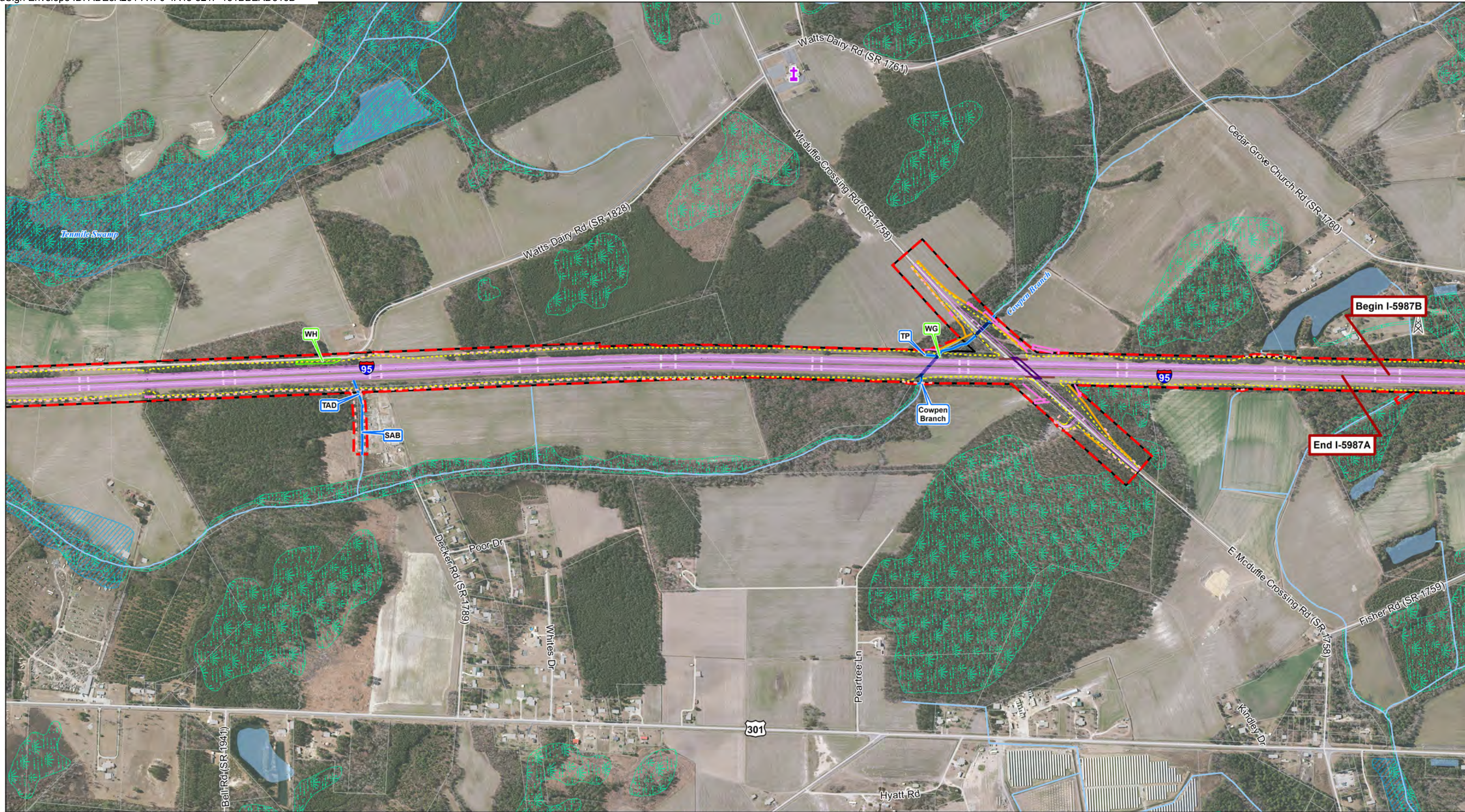
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Source: NCDEQ, NCDOT, NCHPO, NCFMP, NCNHP, NCOneMap, USFWS, Google, NV5 Figure Date: 6/29/2021


I-95 Widening from South of US 301 to South of Proposed I-295 in Robeson County


STIP Projects I-5987A and I-5987B Robeson County

Figure 2C - Environmental Features



Proposed 65% Design Plans		Study Area		Government Facility		Road		Delineated Waterbody		Conservation Easement	
— Lane Lines	— Multi-Use Path	Study Area (ROW Consultation)	Study Area (Categorical Exclusion)	Government Facility	Road	Delineated Waterbody	Conservation Easement	— Slope Stakes	— Concrete Island	— National Register Historic Boundary	— Building Footprint
— Right of Way	— Retaining Wall	††† Cemetery	† Church	School	Railroad	NCDEQ Waterbody	— National Register Historic Boundary	— Easement (Temporary)	— Noise Wall	— Floodway	— Parcel
— Easement (Permanent)	— Bridge	⚡ Firestation	⚡ Geoenvironmental Site of Concern	Historic Property (SL)	— Delineated Stream	Floodway	— Building Footprint	— Easement (Permanent)	— Culvert	— 100-Year Floodplain	— Municipal Boundary
		⚡ Geoenvironmental Site of Concern		Public Water Supply Source	— NCDEQ Stream	Wellhead Protection Area	— Parcel			— Park	— County Boundary
				Communication Tower	— Delineated Wetland						
				Electric Substation	— NWI Wetland						


NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION 6



 1 in = 800 ft

Source: NCDEQ, NCDOT, NCHPO, NCFMP, NCHNP, NCOneMap, USFWS, Google, NV5 Figure Date: 6/29/2021

I-95 Widening from South of US 301 to South of Proposed I-295 in Robeson County

STIP Projects I-5987A and I-5987B Robeson County

Figure 2D - Environmental Features



Proposed 65% Design Plans		Study Area		Government Facility		Road		Delineated Waterbody		Conservation Easement	
Lane Lines	Multi-Use Path	Study Area (ROW Consultation)	Study Area (Categorical Exclusion)	Government Facility	Road	Delineated Waterbody	NCDEQ Waterbody	Conservation Easement	National Register Historic Boundary	National Register Historic Boundary	Building Footprint
Slope Stakes	Concrete Island	Cemetery	Church	School	Railroad	Floodway	Delineated Stream	Floodway	Building Footprint	Parcel	Parcel
Right of Way	Retaining Wall	Church	Firestation	Historic Property (SL)	Delineated Stream	100-Year Floodplain	NCDEQ Stream	100-Year Floodplain	Building Footprint	Municipal Boundary	Municipal Boundary
Easement (Temporary)	Noise Wall	Firestation	Geoenvironmental Site of Concern	Public Water Supply Source	Delineated Wetland	Wellhead Protection Area	Delineated Wetland	Wellhead Protection Area	Municipal Boundary	County Boundary	County Boundary
Easement (Permanent)	Bridge	Geoenvironmental Site of Concern		Communication Tower	NWI Wetland	Park	NWI Wetland	Park			
	Culvert			Electric Substation							

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION 6

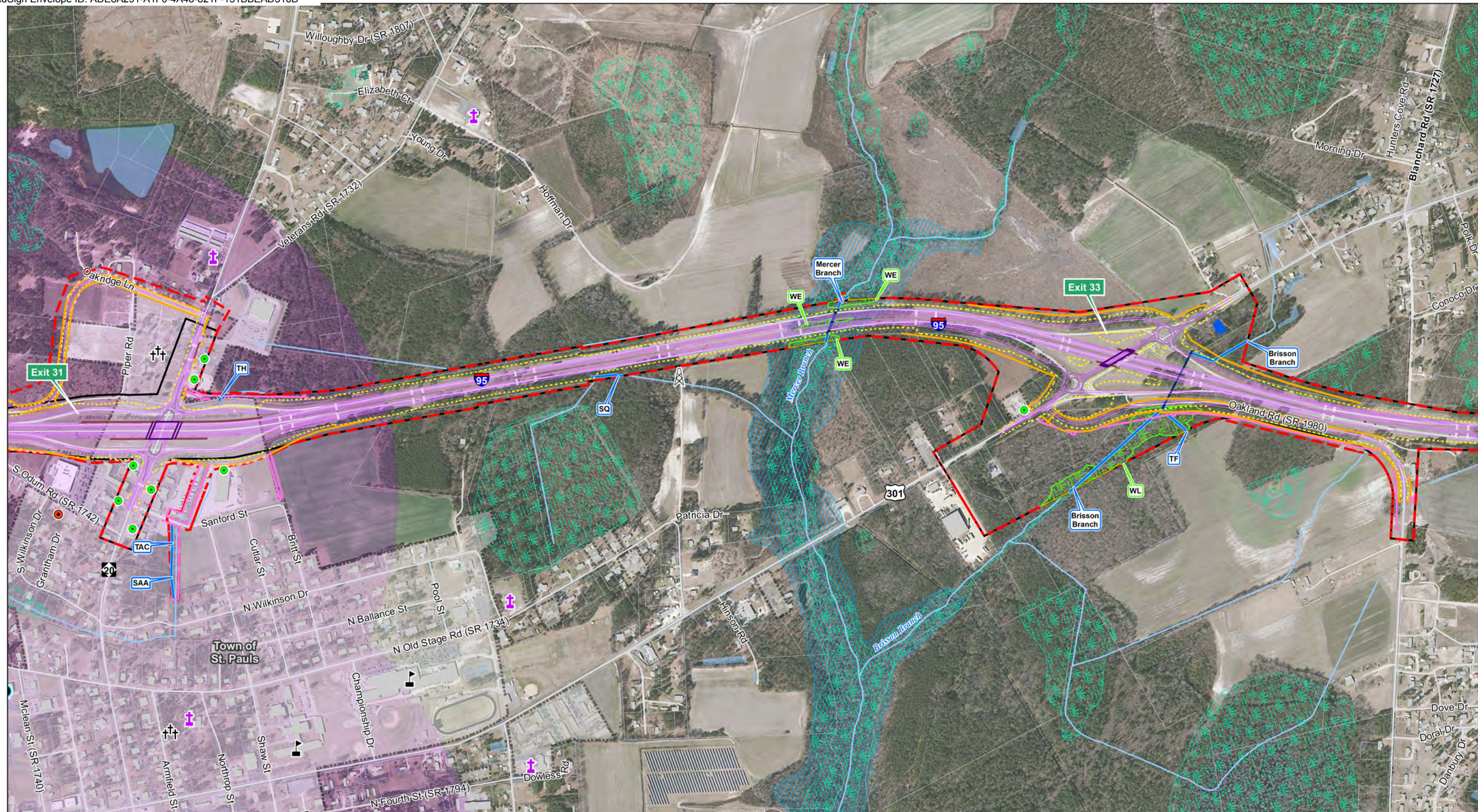
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Source: NCDEQ, NCDOT, NCHPO, NCFMP, NCNHP, NCOneMap, USFWS, Google, NV5 Figure Date: 6/29/2021

I-95 Widening from South of US 301 to South of Proposed I-295 in Robeson County

STIP Projects I-5987A and I-5987B Robeson County

Figure 2E - Environmental Features



Proposed 65% Design Plans		Study Area		Government Facility		Road		Delineated Waterbody		Conservation Easement	
Lane Lines	Multi-Use Path	Study Area (ROW Consultation)	Study Area (Categorical Exclusion)	Government Facility	Road	Delineated Waterbody	NCDEQ Waterbody	Conservation Easement	National Register Historic Boundary	National Register Historic Boundary	National Register Historic Boundary
Slope Stakes	Concrete Island	Cemetery	Church	School	Railroad	Delineated Stream	Floodway	Floodway	Building Footprint	Building Footprint	Building Footprint
Right of Way	Retaining Wall	Church	Church	Historic Property (SL)	Delineated Stream	NCDEQ Stream	100-Year Floodplain	100-Year Floodplain	Parcel	Parcel	Parcel
Easement (Temporary)	Noise Wall	Church	Church	Public Water Supply Source	NCDEQ Stream	Delineated Wetland	Wellhead Protection Area	Wellhead Protection Area	Municipal Boundary	Municipal Boundary	Municipal Boundary
Easement (Permanent)	Bridge	Firestation	Geoenvironmental Site of Concern	Communication Tower	Delineated Wetland	NWI Wetland	Park	Park	County Boundary	County Boundary	County Boundary
	Culvert	Electric Substation		Electric Substation							

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION 6

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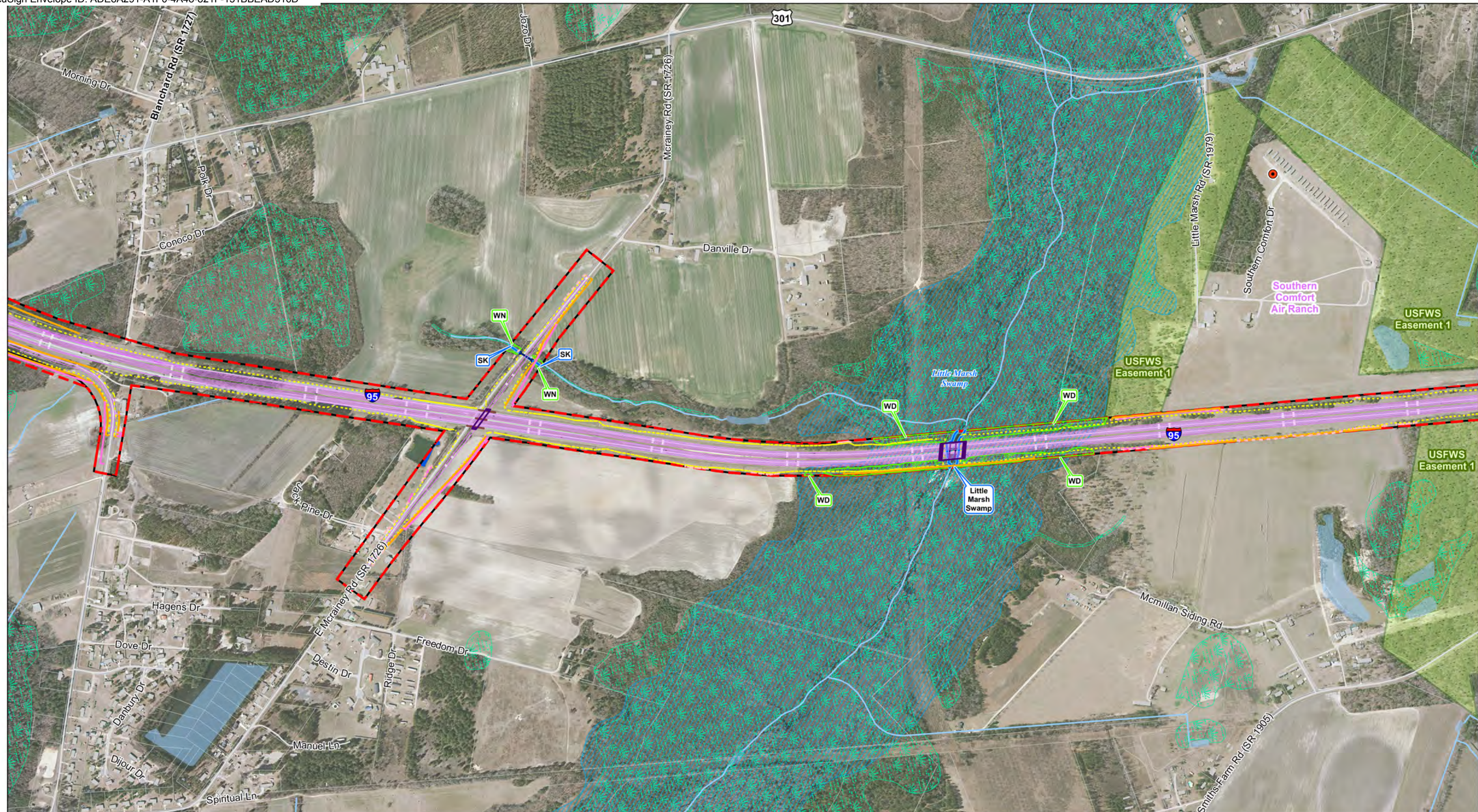
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I-95 Widening from South of US 301 to South of Proposed I-295 in Robeson County

STIP Projects I-5987A and I-5987B Robeson County

Figure 2F - Environmental Features



Proposed 65% Design Plans		Study Area		Government Facility		Road		Delineated Waterbody		Conservation Easement	
— Lane Lines	— Multi-Use Path	Study Area (ROW Consultation)	Study Area (Categorical Exclusion)	Government Facility	Road	Delimited Waterbody	Conservation Easement	— National Register Historic Boundary	— Building Footprint	— Parcel	— Municipal Boundary
— Slope Stakes	— Concrete Island	+	+	School	— Railroad	NCDEQ Waterbody	— National Register Historic Boundary	— Floodway	— Wellhead Protection Area	— Municipal Boundary	— County Boundary
— Right of Way	— Retaining Wall	+	+	Historic Property (SL)	— Delineated Stream	Floodway	— Building Footprint	— 100-Year Floodplain	— Wellhead Protection Area	— Municipal Boundary	— County Boundary
— Easement (Temporary)	— Noise Wall	+	+	Public Water Supply Source	— NCDEQ Stream	— 100-Year Floodplain	— Building Footprint	— Wellhead Protection Area	— Wellhead Protection Area	— Municipal Boundary	— County Boundary
— Easement (Permanent)	— Bridge	+	+	Communication Tower	— Delineated Wetland	— Wellhead Protection Area	— Building Footprint	— Wellhead Protection Area	— Wellhead Protection Area	— Municipal Boundary	— County Boundary
	— Culvert	+	+	Electric Substation	— NWI Wetland	— Wellhead Protection Area	— Building Footprint	— Wellhead Protection Area	— Wellhead Protection Area	— Municipal Boundary	— County Boundary
		+	+			— Wellhead Protection Area	— Building Footprint	— Wellhead Protection Area	— Wellhead Protection Area	— Municipal Boundary	— County Boundary
		+	+			— Wellhead Protection Area	— Building Footprint	— Wellhead Protection Area	— Wellhead Protection Area	— Municipal Boundary	— County Boundary

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION 6

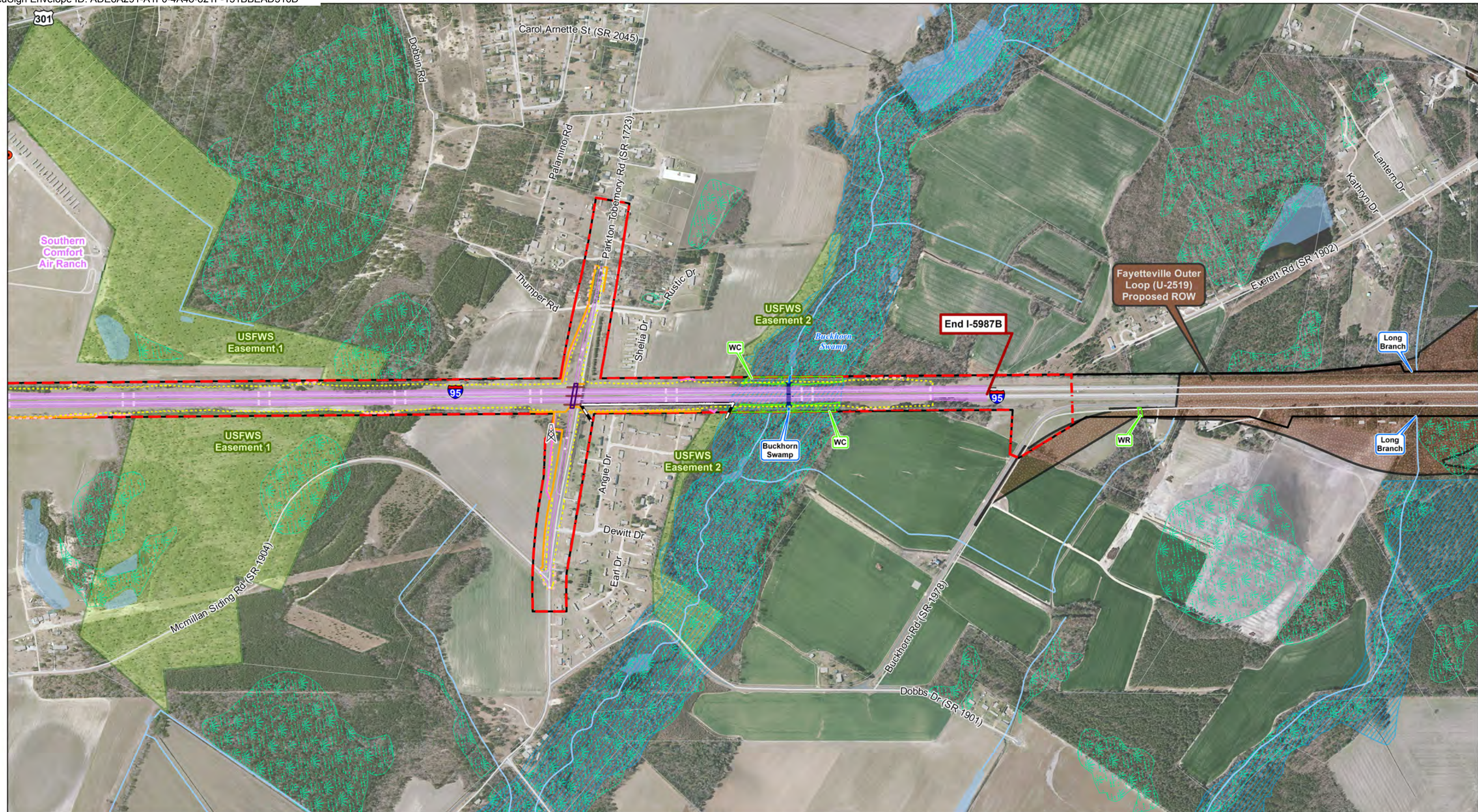
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Source: NCDEQ, NCDOT, NCHPO, NCFMP, NCNHP, NCOneMap, USFWS, Google, NV5
 Figure Date: 7/1/2021


I-95 Widening from South of US 301 to South of Proposed I-295 in Robeson County



STIP Projects I-5987A and I-5987B Robeson County

Figure 2G - Environmental Features



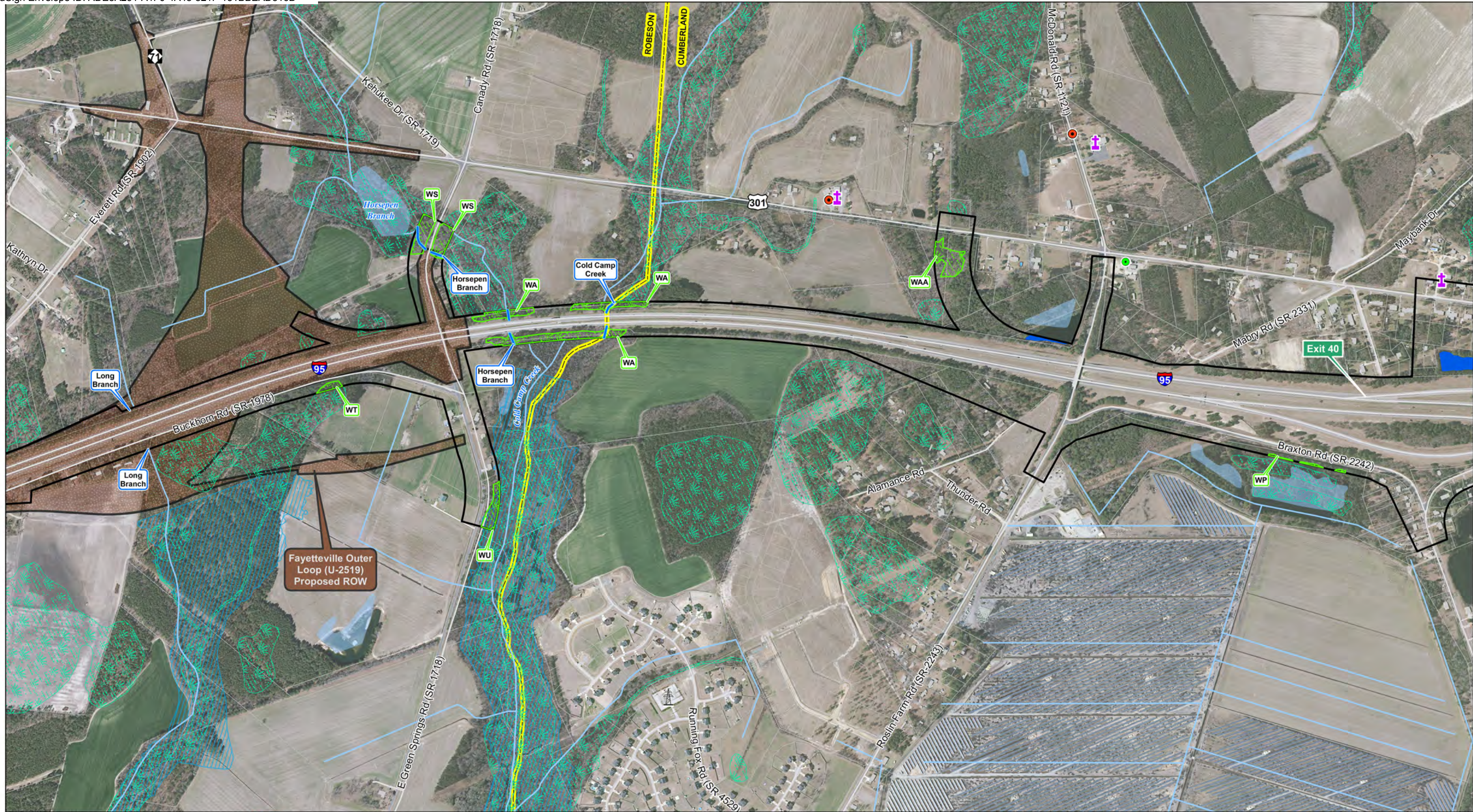
Proposed 65% Design Plans		Study Area		Government Facility		Road		Delineated Waterbody		Conservation Easement	
— Lane Lines	— Multi-Use Path	Study Area (ROW Consultation)	Study Area (Categorical Exclusion)	Government Facility	Road	Delineated Waterbody	Conservation Easement	— Delineated Stream	— National Register Historic Boundary	— Building Footprint	— Parcel
— Slope Stakes	— Concrete Island	+	+	School	Railroad	NCDEQ Waterbody	— National Register Historic Boundary	— NCDEQ Stream	— Building Footprint	— Parcel	— Municipal Boundary
— Right of Way	— Retaining Wall	+	+	Historic Property (SL)	— Delineated Stream	Floodway	— Building Footprint	— NWI Wetland	— Building Footprint	— Parcel	— County Boundary
— Easement (Temporary)	— Noise Wall	+	+	Public Water Supply Source	— NCDEQ Stream	100-Year Floodplain	— Building Footprint	— Wellhead Protection Area	— Building Footprint	— Parcel	
— Easement (Permanent)	— Bridge	+	+	Communication Tower	Delineated Wetland	Wellhead Protection Area	— Building Footprint	— Wellhead Protection Area	— Building Footprint	— Parcel	
	— Culvert	+	+	Electric Substation	NWI Wetland	Wellhead Protection Area	— Building Footprint	— Wellhead Protection Area	— Building Footprint	— Parcel	
		+	+			Wellhead Protection Area	— Building Footprint	— Wellhead Protection Area	— Building Footprint	— Parcel	
		+	+			Wellhead Protection Area	— Building Footprint	— Wellhead Protection Area	— Building Footprint	— Parcel	


NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION 6

Source: NCDEQ, NCDOT, NCHPO, NCFMP, NCNHP, NCOneMap, USFWS, Google, NV5
 Figure Date: 7/1/2021

I-95 Widening from South of US 301 to South of Proposed I-295 in Robeson County
STIP Projects I-5987A and I-5987B Robeson County
Figure 2H - Environmental Features



Proposed 65% Design Plans		Study Area		Government Facility		Road		Delineated Waterbody		Conservation Easement	
Lane Lines	Multi-Use Path	Study Area (ROW Consultation)	Study Area (Categorical Exclusion)	Government Facility	Road	Delineated Waterbody	NCDEQ Waterbody	Conservation Easement	National Register Historic Boundary	Floodway	100-Year Floodplain
Slope Stakes	Concrete Island	Cemetery	Church	School	Railroad	Delineated Stream	NCDEQ Stream	Delineated Wetland	Building Footprint	Wellhead Protection Area	Park
Right of Way	Retaining Wall	Firestation	Geoenvironmental Site of Concern	Historic Property (SL)	Public Water Supply Source	Delineated Wetland	NWI Wetland	NWI Wetland	Parcel	Municipal Boundary	County Boundary
Easement (Temporary)	Noise Wall	Church		Public Water Supply Source	Communication Tower						
Easement (Permanent)	Bridge	Geoenvironmental Site of Concern		Electric Substation							
	Culvert										

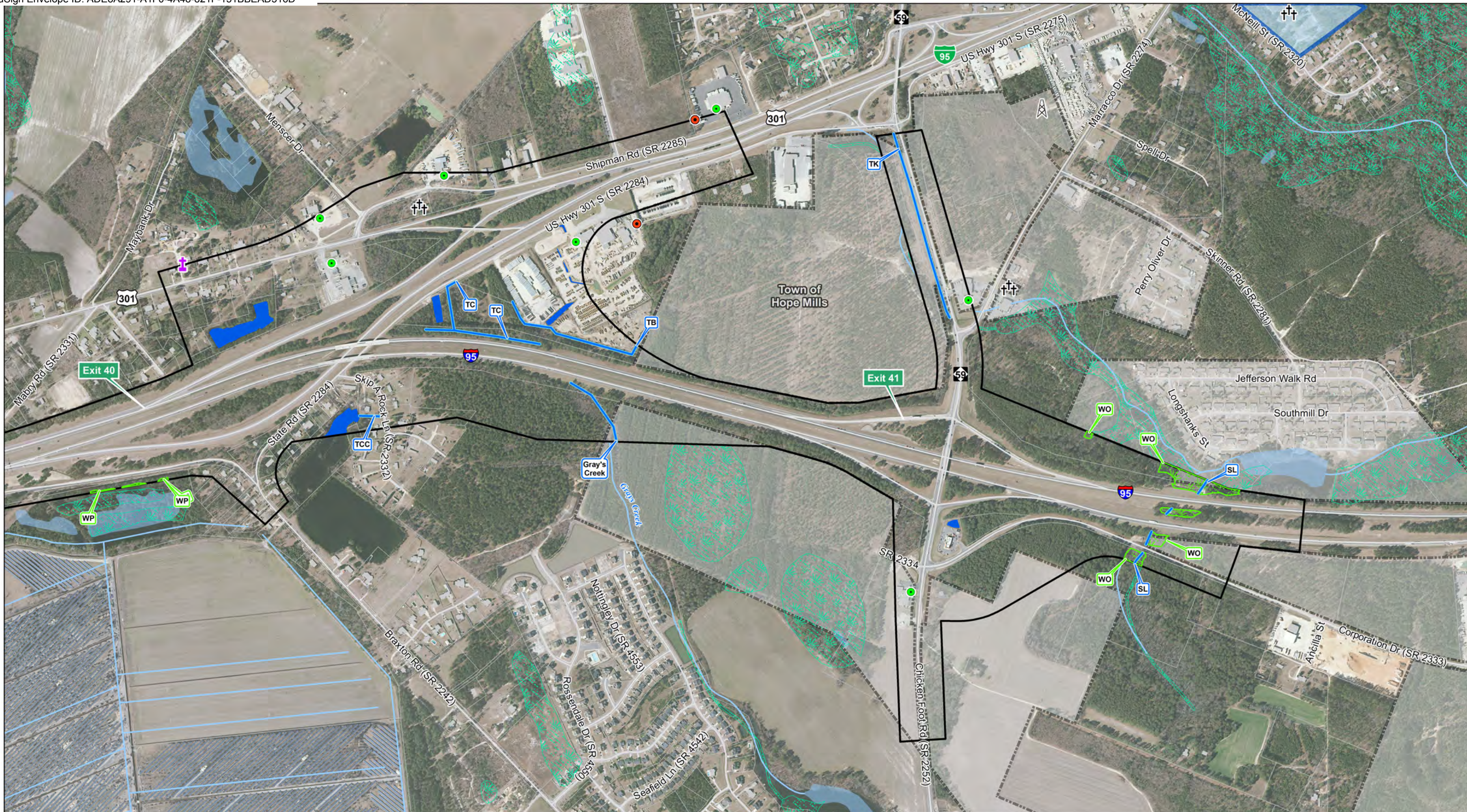
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 Source: NCDEQ, NCDOT, NCHPO, NCFMP, NCNHP, NCOneMap, USFWS, Google, NV5 Figure Date: 6/29/2021


I-95 Widening from
 South of US 301 to South of Proposed I-295
 in Robeson County


STIP Projects I-5987A and I-5987B
Robeson County

Figure 2I - Environmental Features



Proposed 65% Design Plans		Study Area		Government Facility		Road		Waterbody		Conservation Easement	
Lane Lines	Multi-Use Path	Study Area (ROW Consultation)	Study Area (Categorical Exclusion)	Government Facility	Road	Delineated Waterbody	Conservation Easement	Delineated Stream	National Register Historic Boundary	National Register Historic Boundary	National Register Historic Boundary
Slope Stakes	Concrete Island	Cemetery	Church	School	Railroad	Floodway	Building Footprint	NCDEQ Stream	100-Year Floodplain	Parcel	Parcel
Right of Way	Retaining Wall	Church	Firestation	Historic Property (SL)	Delineated Stream	Wellhead Protection Area	Municipal Boundary	Delineated Wetland	Park	County Boundary	County Boundary
Easement (Temporary)	Bridge	Firestation	Geoenvironmental Site of Concern	Public Water Supply Source	NCDEQ Stream	Park		NWI Wetland			
Easement (Permanent)	Culvert	Geoenvironmental Site of Concern		Communication Tower							
				Electric Substation							


NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION 6



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Source: NCDEQ, NCDOT, NCHPO, NCFMP, NCHNP, NCOneMap, USFWS, Google, NV5
 Figure Date: 6/29/2021

I-95 Widening from South of US 301 to South of Proposed I-295 in Robeson County

STIP Projects I-5987A and I-5987B Robeson County

Figure 2J - Environmental Features

18-10-0036

Revised



HISTORIC ARCHITECTURE AND LANDSCAPES NO SURVEY REQUIRED FORM

This form supercedes that dated 28 March 2019

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.:	I-5987A&B	County:	Cumberland and Robeson
WBS No.:	47533.1.1	Document Type:	Federal CE
Fed. Aid No.:	Not provided in review request	Funding:	State X Federal
Federal Permit(s):	X Yes No	Permit Type(s):	USACE
<u>Project Description:</u> Widen I-95 from US 301 in Robeson County (Exit 22) to north of I-95 Business/US 301 in Cumberland County (Exit 40) (no off-site detour specified in review request). Expanded study area received June 2021.			

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

Description of review activities, results, and conclusions: HPOWeb reviewed on 15 November 2018 and 22 March 2019 and yielded one SS, one SL, and no NR, DE, or LD properties in the Area of Potential Effects (APE). Cumberland and Robeson Counties current GIS mapping, aerial photography, and tax information indicated a partly developed APE of woodland and wetland and, cultivated fields, with above-ground resources dating from the late-nineteenth century to the 2010s (viewed 15 November 2018 and 22 March 2019). Of 233 resources, approximately 77% are residential in use, the remainder are commercial, plus several churches and cemeteries. Approximately 72% of all resources pre-date 1970 and are unexceptional examples (many are also altered) of their types. In 2016 HPO determined the previously recorded Robeson House (RB0675) not eligible for listing in the National Register of Historic Places, a finding that remains valid. The APE intersects the undeveloped eastern edge of a large parcel on which stands the study-listed Dr. Stephen B. Rozier House (RB0529), well outside the APE and beyond likely project impact with broad swaths of wetland and woodland intervening. The study area also contains seventeen bridges in Robeson County (built between 1959 and 2015) and five in Cumberland County (built between 1959 and 1980), all of which are not NR eligible as they are neither aesthetically nor technologically significant. Four cemeteries are located within the study area and, while not NR-eligible, should be afforded the usual protection during construction: Adams Cemetery (between US 301 and SR 2285 (Shipman Road), Cumberland County Parcel ID: 0413-81-1246), cemetery (W. Broad Street, Robeson County PIN: 030836153200), Jason Odom Cemetery (W. Broad Street, Robeson County PIN: 030836247900), and Oak Ridge Cemetery (W. Broad Street, Robeson County PIN: 030836537200). **Google Maps "Street View" confirmed the absence of critical** historic structures and landscapes in the APE (viewed 15 November 2018 and 22 March 2019). Most additions to study area included in original survey. New addition at Exit 31 (St. Paul's) includes no HPO-recorded properties and several residential and commercial resources dating to the late 1960s-1990s, none requiring additional study.

No architectural survey is required for the project as currently defined.

Why the available information provides a reliable basis for reasonably predicting that there are no unidentified significant historic architectural or landscape resources in the project

area: The APE equates with the study area established for the project, including the revisions of January 2019 and June 2021. The comprehensive Cumberland County architectural survey (1970s) as well as later studies for both Cumberland and Robeson Counties recorded no resources in the APE apart from the two noted above. County GIS/tax materials and other visuals clearly illustrate the absence of significant architectural and landscape resources. No National Register-listed properties are located within the APE.

Should the project limits of any other aspect of the 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 SURVEY REQUIRED



NCDOT Architectural Historian

11 June 2021
Date

I-5987, Cumberland and Robeson Counties Revised
WBS No. 47533.1.1
PA Tracking No. 18-10-0036

**Archaeology Right of Way Consultation:
I-95 from Exit 20 in Lumberton to the Fayetteville Outer Loop in Robeson
and Cumberland Counties (NCDOT TIP I-5987; PA 18-10-0036)
Caleb Smith (7/13/2021)**

Introduction

The North Carolina Department of Transportation (NCDOT) proposes to widen Interstate 95 (I-95) from NC 211 (N. Roberts Ave.) (Exit 20) in Robeson County to NC 50 (Chickenfoot Rd.) (Exit 41) in Cumberland County (Figure 1). The project will widen I-95 from 4- to 8-lanes by adding one lane towards the median and one on the outside in each direction. The Area of Potential Effects (A.P.E.) is approximately 35 kilometers (22 miles) long and has a variable width. The A.P.E. generally extends 60 meters (200 ft.) from the I-95 centerline on each side. The width of the survey area varies at interchanges and overpasses to include realignment of service roads and ramps and replacement of bridges. The project is state-funded and will require federal permits.

Archaeological Review

The NCDOT Archaeology Team first reviewed the project in October 2018. In January 2019, the study area was extended a short distance at the south end, and slightly expanded in several other locations. In April 2019, the Archaeology Team submitted an *Archaeological Survey Required* form that did not recommend an archaeological survey of the entire A.P.E. but instead identified 21 areas with the potential for prehistoric archaeological sites (Smith 2019a). An archaeological survey of those 21 areas conducted in July 2019 identified nine archaeological sites. Of those, eight were evaluated as ineligible for the National Register of Historic Places (NRHP) and no further work was recommended. Another site was located outside of the A.P.E. and therefore was not fully evaluated for inclusion on the NRHP. In October 2019, several small areas were added to the A.P.E. (these did not require additional archaeological survey). The archaeological survey report was completed in October 2019 (Jordan and Southerlin 2019). The survey results were summarized (via checkbox) in the *Type III Categorical Exclusion* (CE) document signed in mid-November 2019. (The CE was signed shortly before the Archaeology Team had completed its review of the archaeological survey report, so it included a preliminary *No NRHP-Eligible Sites Present* form.) A revised *No NRHP-Eligible Sites Present* form with the complete archaeological survey report was submitted on November 8, 2019 (Smith 2019b).

Right of Way Consultation

In March 2021, the project manager requested an additional review of several (27) places where the study area has been expanded to accommodate easements for drainage/hydrological structures (drainage easements). These drainage easements were added as part of the Final Design Field Inspection (FDFI) which used the “65% Plans”. (The 65% plans are the stopping point for the project’s Right of Way Consultation.) We compared the 27 easements to the archaeological potential areas that had been identified for the 2019 archaeological survey. In keeping with the reasoning expressed in the *Archaeological Survey Required* form, the 14 easements located outside of the archaeological potential areas require no archaeological survey. Thirteen easements are located within or adjacent to an archaeological potential area.

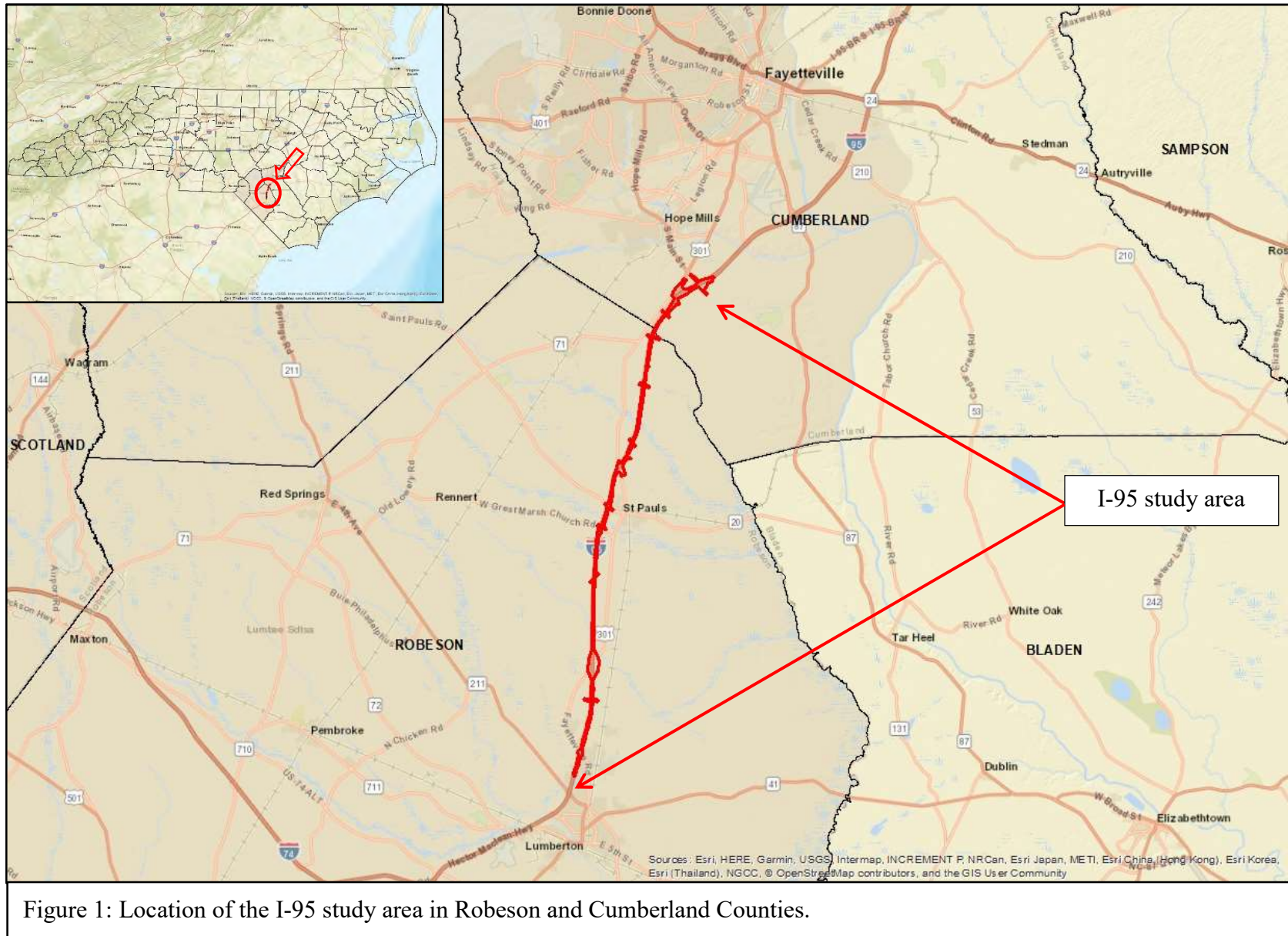


Table 1 lists each drainage easement, its size, and whether it is within any of the archaeological potential areas. Figures 2-10 show the drainage easements (labeled “FID”) on aerial photographs. Figures 11-15 are topographic maps showing the locations of the drainage easements that are within or adjacent to archaeological potential areas.

Table 1: Description of the Drainage Easements along I-95.

Drainage Easement #	Acres	2019 Archaeological Potential Area?
0	0.1	n/a
1	0.7	Area 26
2	0.2	Area 26
3	0.8	n/a
4	0.2	n/a
5	0.2	n/a
6	1.5	n/a
7	0.05	Area 23
8	0.6	Area 23
9	0.02	n/a
10	0.03	Area 23
11	0.04	Area 23
12	0.2	Area 23
13	0.2	n/a
14	2.9	Area 22
15	1	n/a
16	0.08	Area 20
17	0.04	Area 20
18	1	Area 20
19	0.09	Area 20
20	0.2	n/a
21	0.4	n/a
22	29	n/a
23	0.2	n/a
24	4.6	n/a
25	0.1	n/a
26	1.5	Areas 16 and 17

Easements 0, 3-6, 9, 13, 15, and 20-25 are located outside of the archaeological potential areas. Easements 1-2, 7-8, 10-12, 17 and 26 are located within or adjacent to archaeological potential areas. However, they are small (< acre) areas located along the edges of previously surveyed areas and require no additional work. Easements 14 and 18 are larger areas located on landforms with some potential for archaeological sites. Easement 14 is a 2.8-acre tract along a service road/driveway on the east side of I-95. The topographic map shows the easement includes land on each side of a small pocosin (also called “Carolina Bays”), defined as “shallow, oriented upland ponds that formed on the Middle and South Atlantic Coastal Plain during the Late Pleistocene under climatic conditions very different from present” (Brooks et al. 2010:146-147). (The aerial photograph shows this Carolina Bay [like many in this region] has probably been drained.)

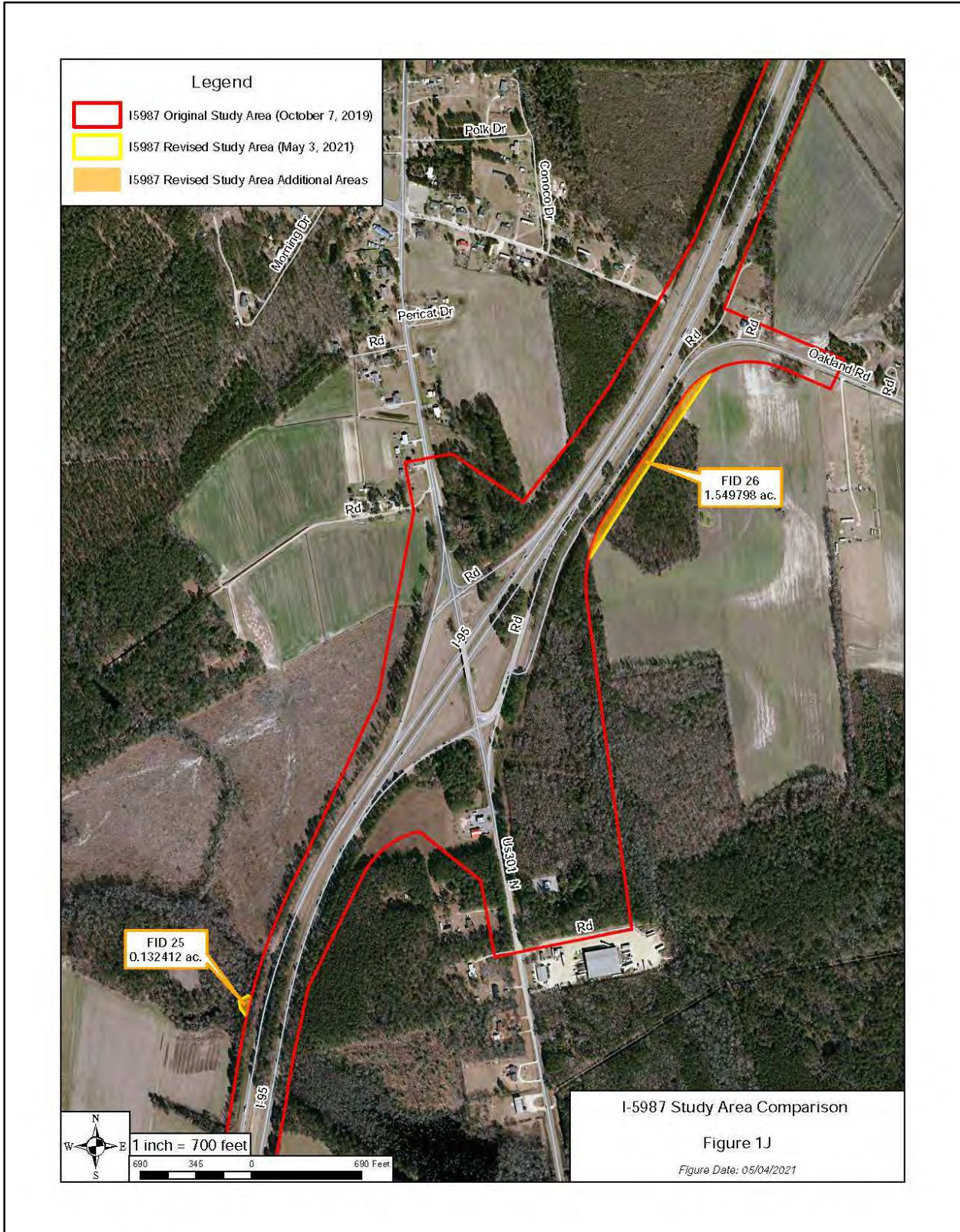


Figure 2: Aerial photograph of drainage easements 25 and 26 (1 of 9 from north to south).



Figure 3: Aerial photograph of drainage easements 20-24 (2 of 9 from north to south).

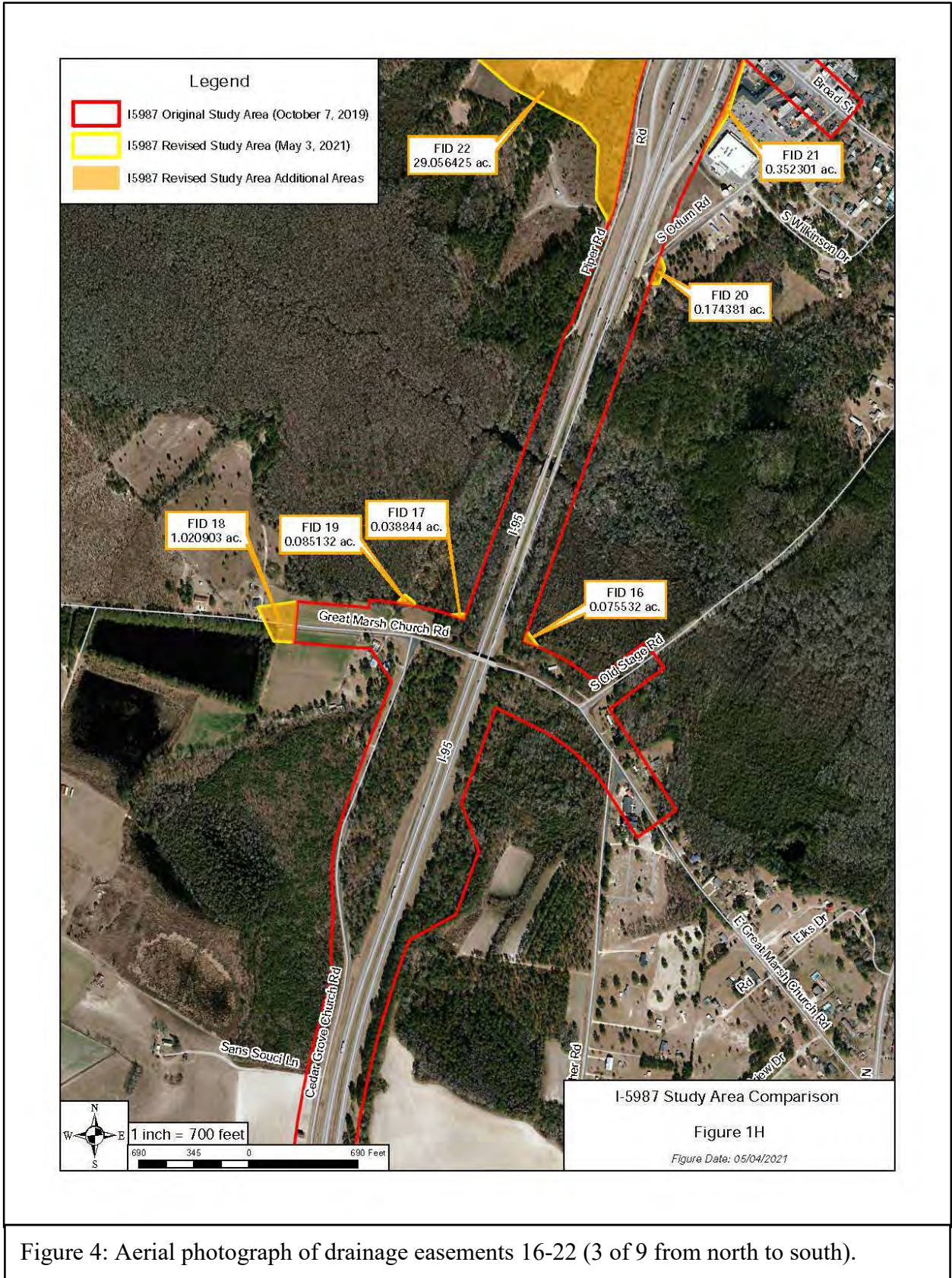


Figure 4: Aerial photograph of drainage easements 16-22 (3 of 9 from north to south).

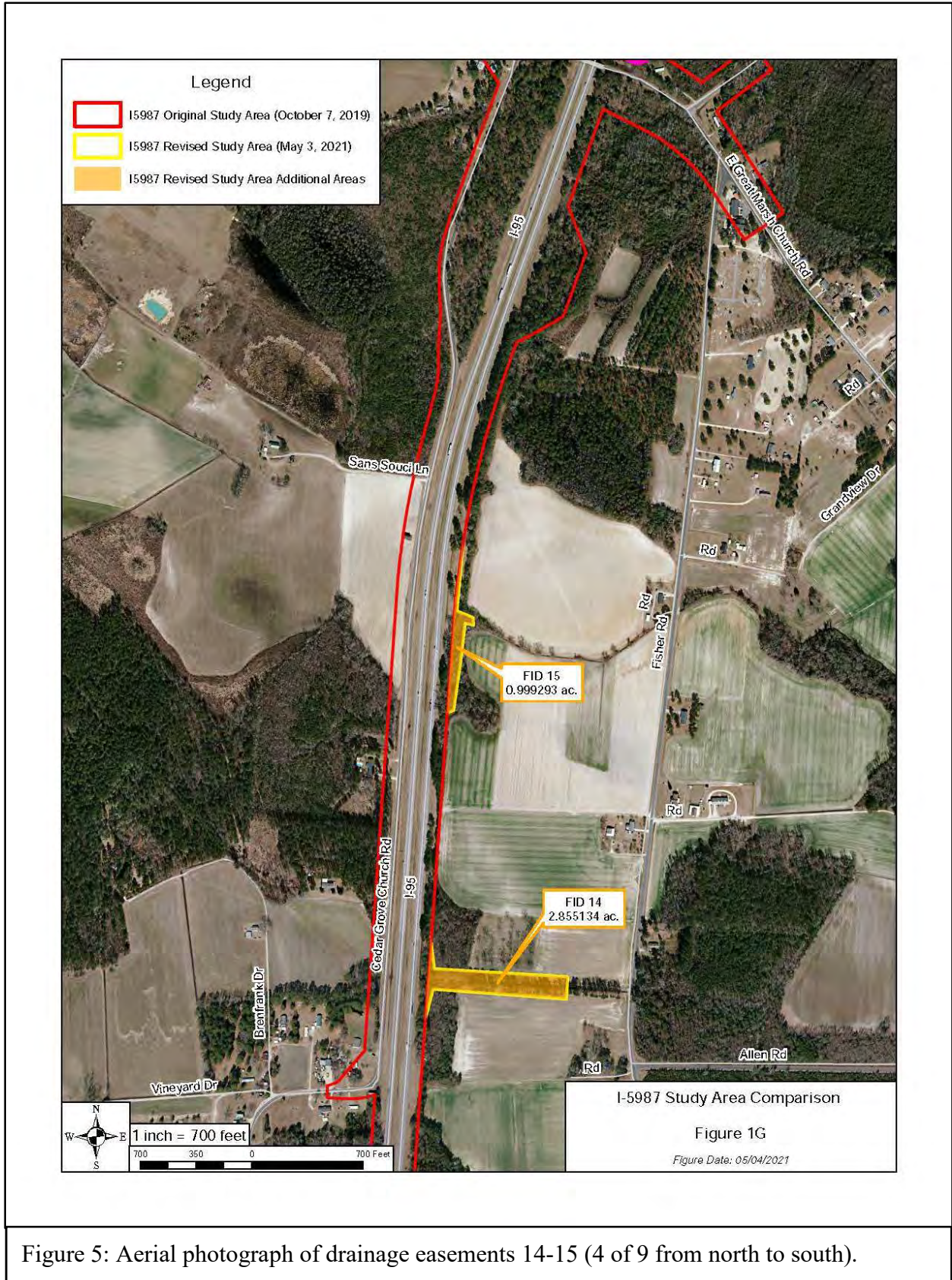


Figure 5: Aerial photograph of drainage easements 14-15 (4 of 9 from north to south).

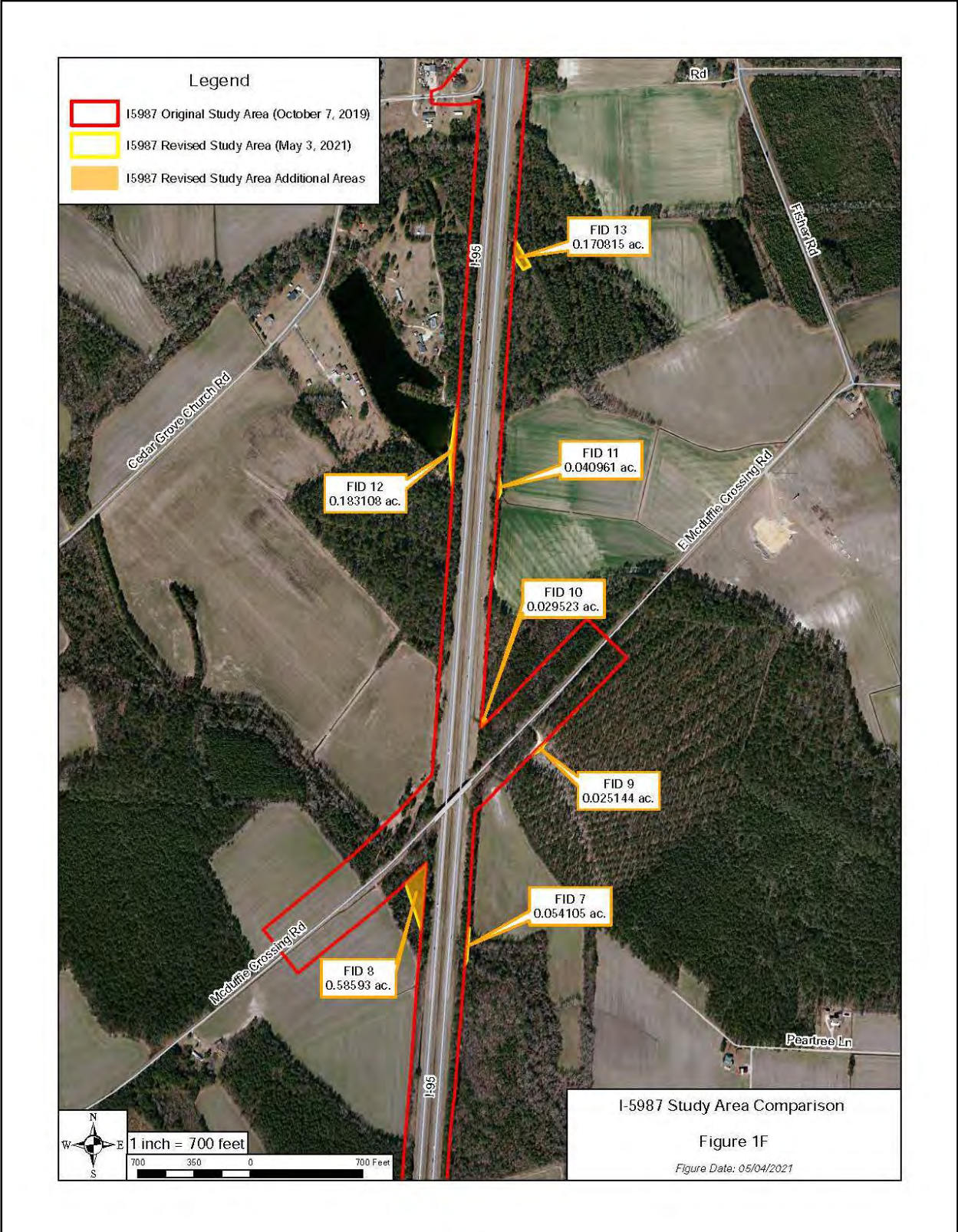


Figure 6: Aerial photograph of drainage easements 8-13 (5 of 9 from north to south).

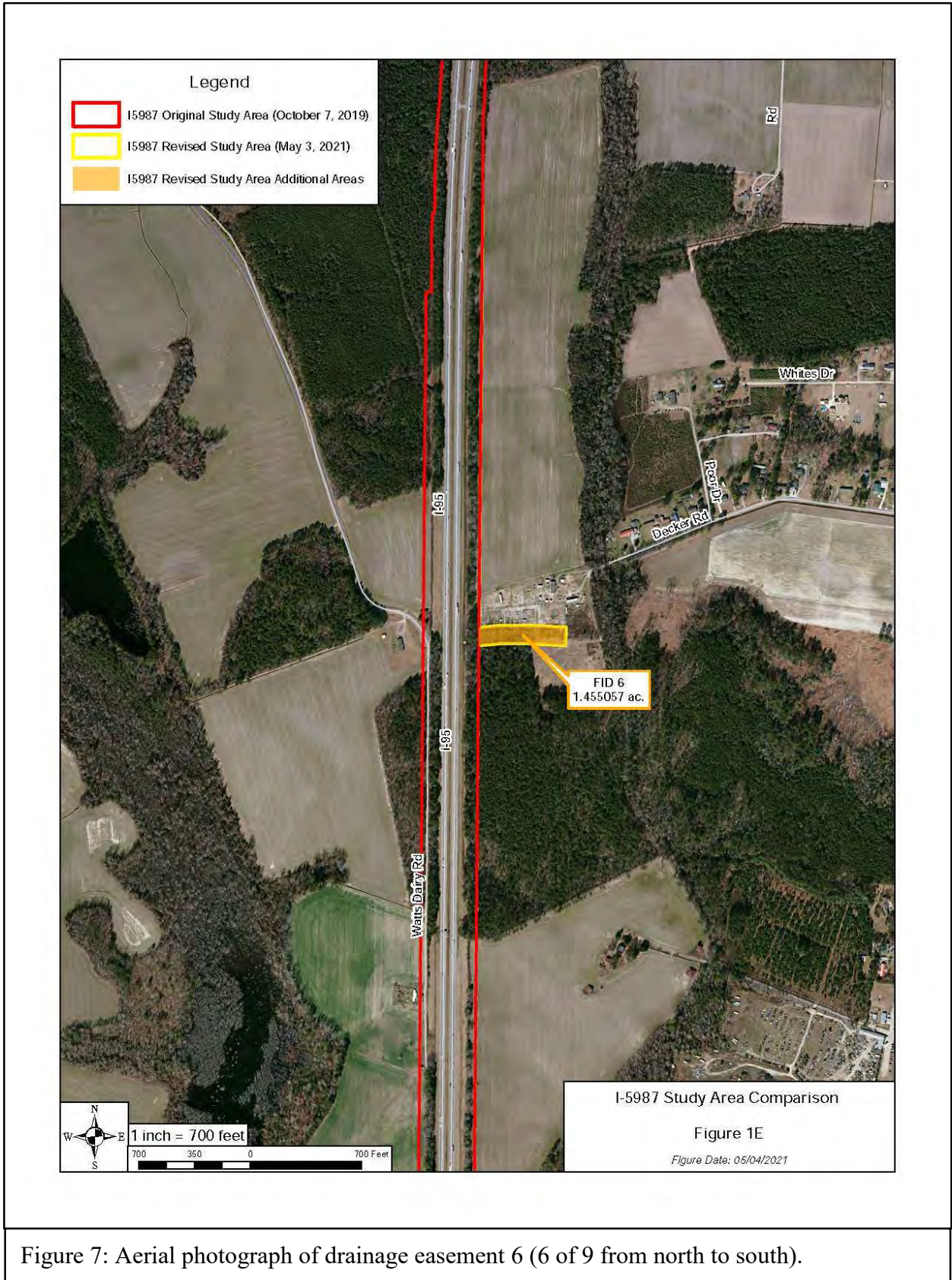


Figure 7: Aerial photograph of drainage easement 6 (6 of 9 from north to south).

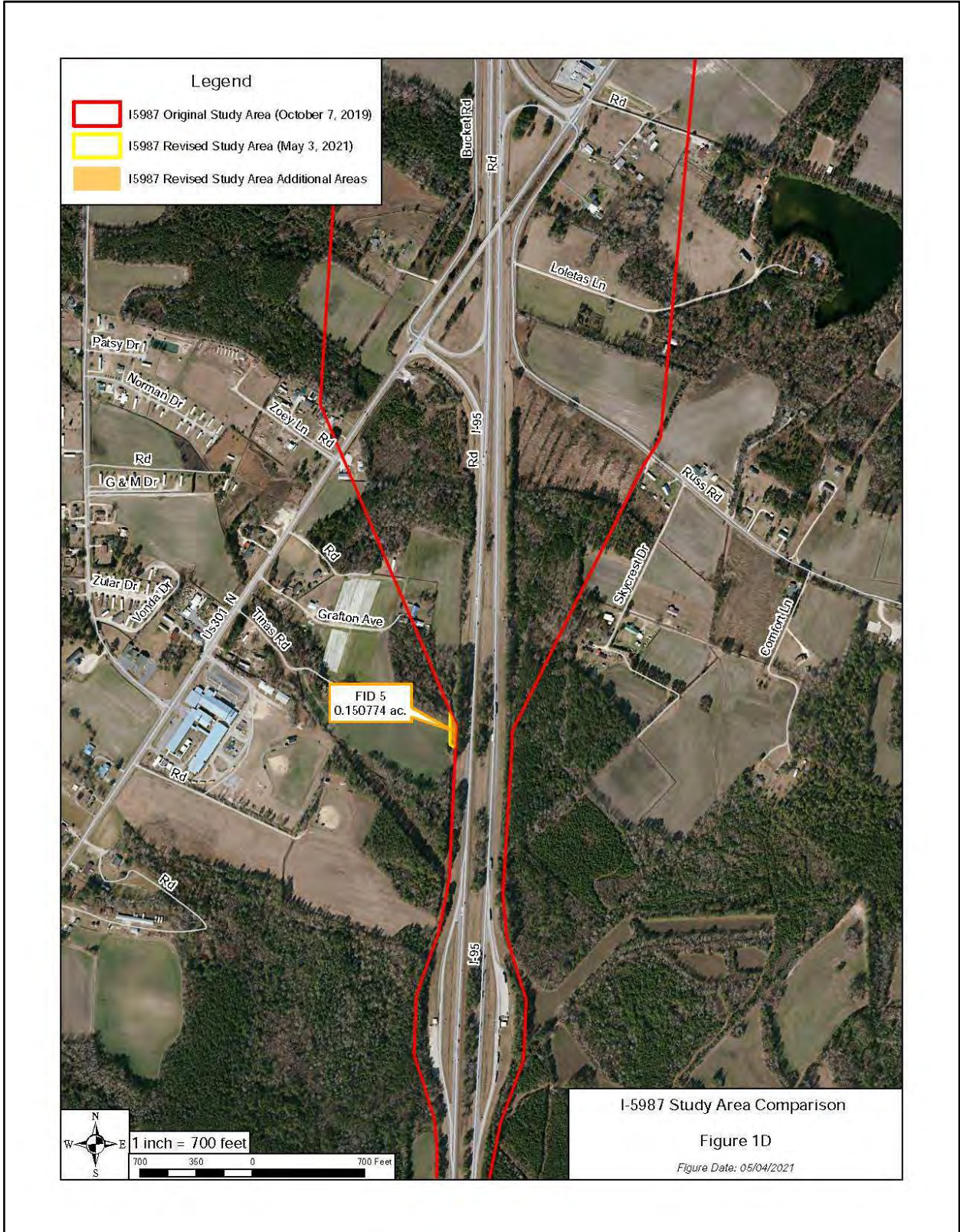


Figure 8: Aerial photograph of drainage easement 5 (7 of 9 from north to south).

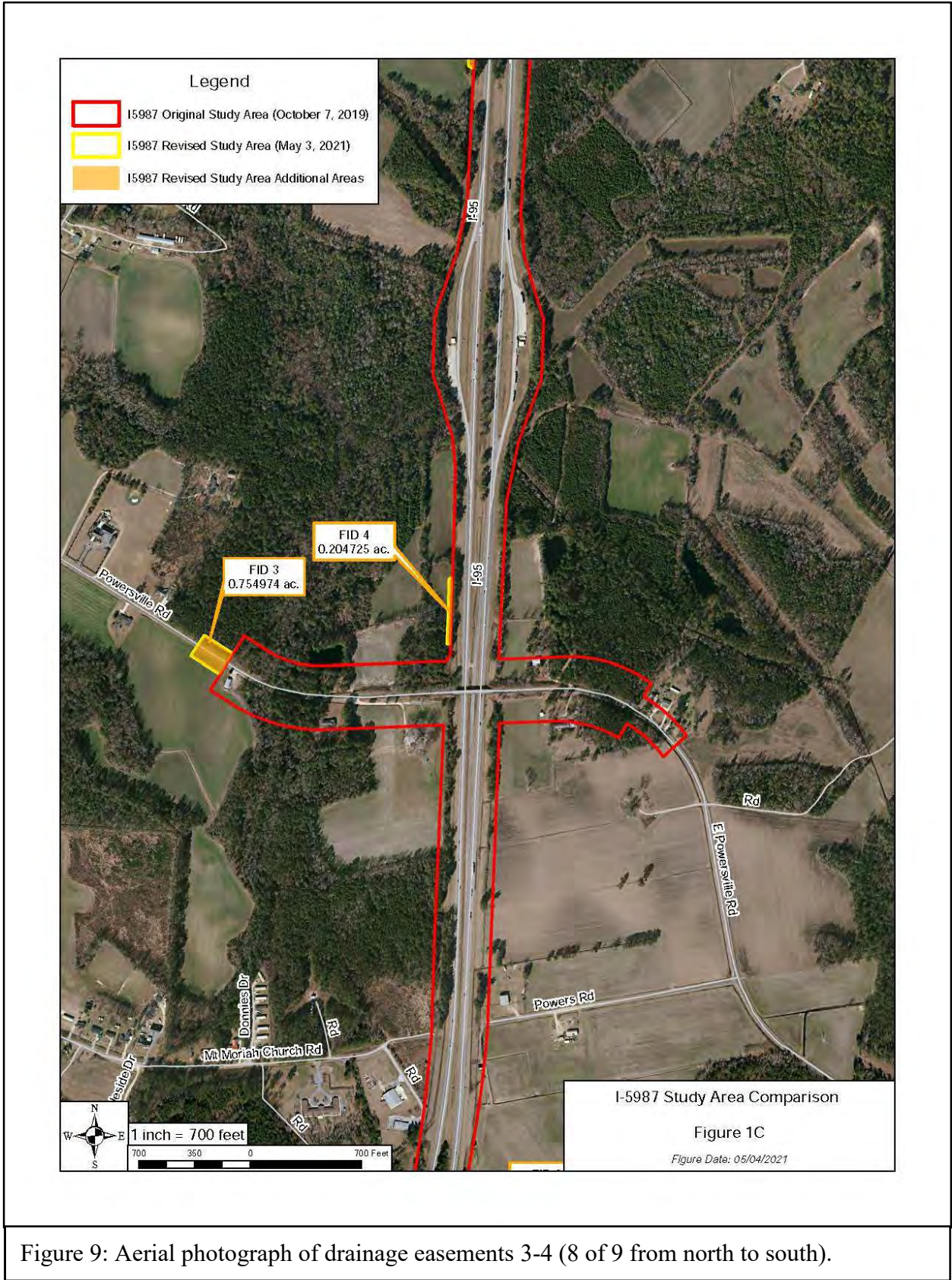


Figure 9: Aerial photograph of drainage easements 3-4 (8 of 9 from north to south).

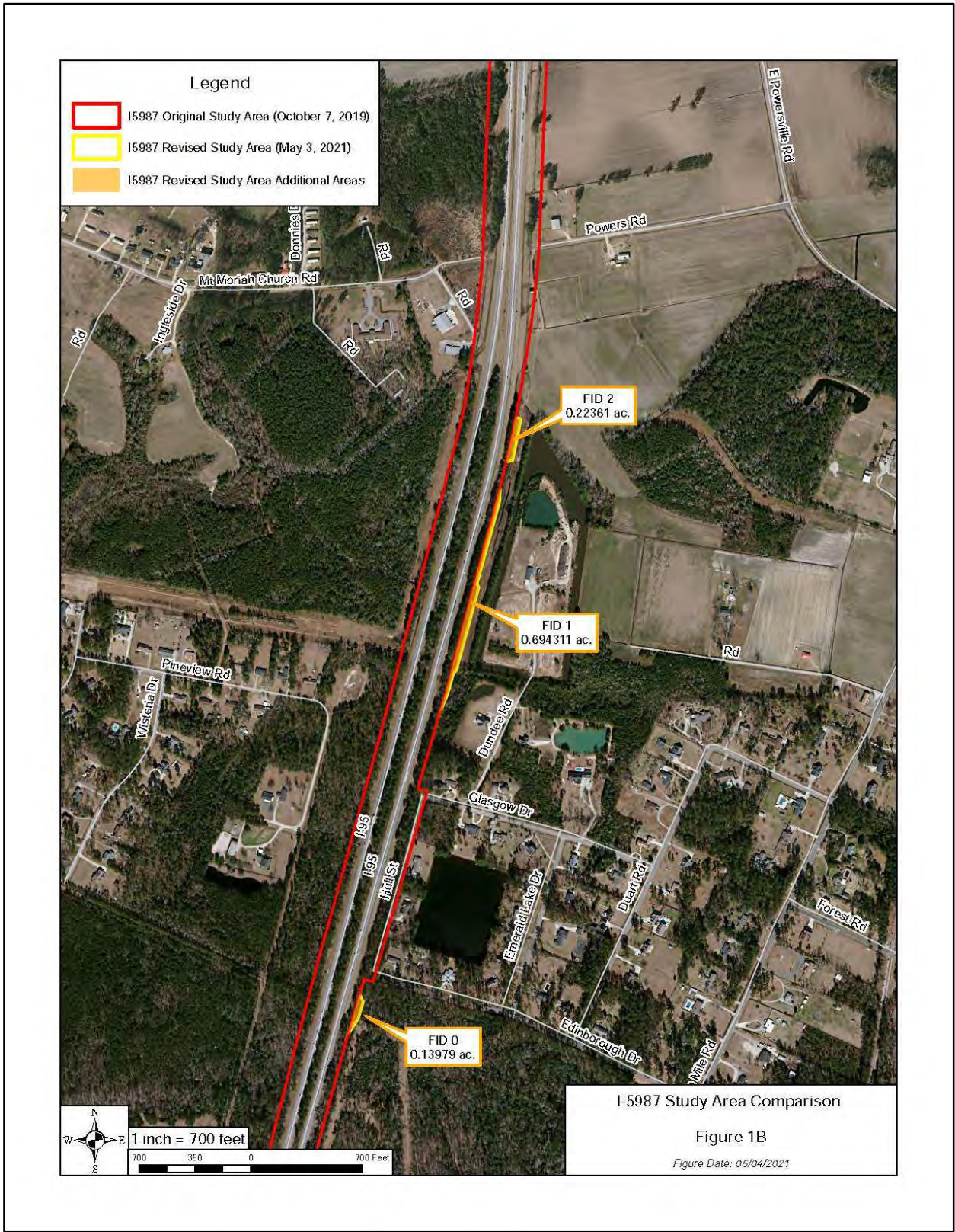


Figure 10: Aerial photograph of drainage easements 0-2 (9 of 9 from north to south).

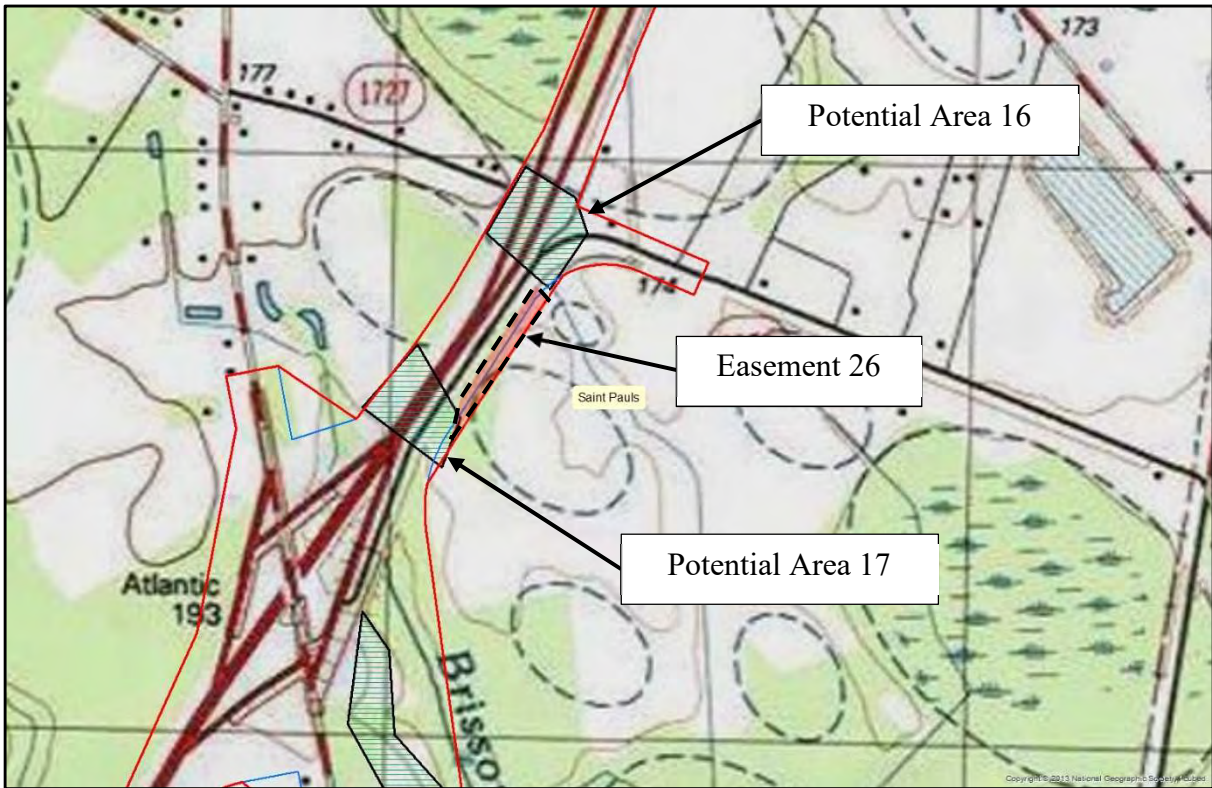


Figure 11: Topographic map of drainage easement 26 (1 of 5 from north to south).

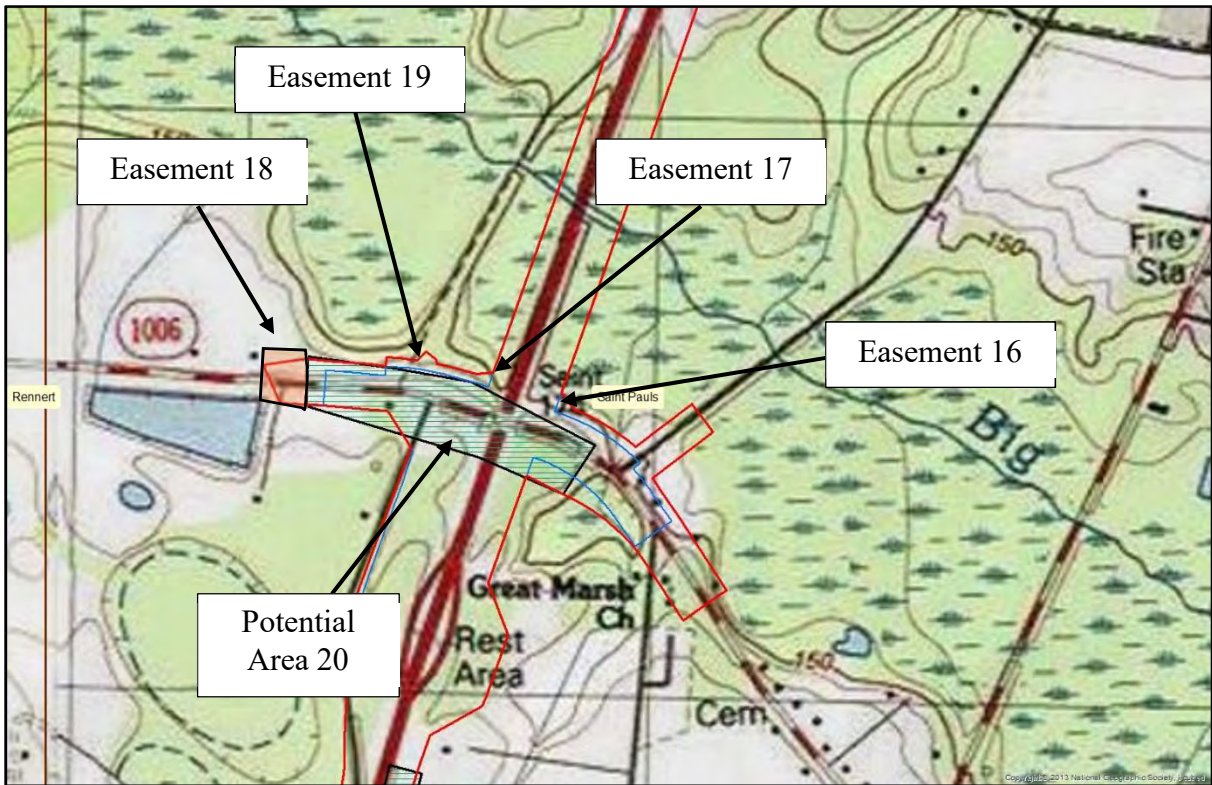


Figure 12: Topographic map of drainage easements 16-19 (2 of 5 from north to south).

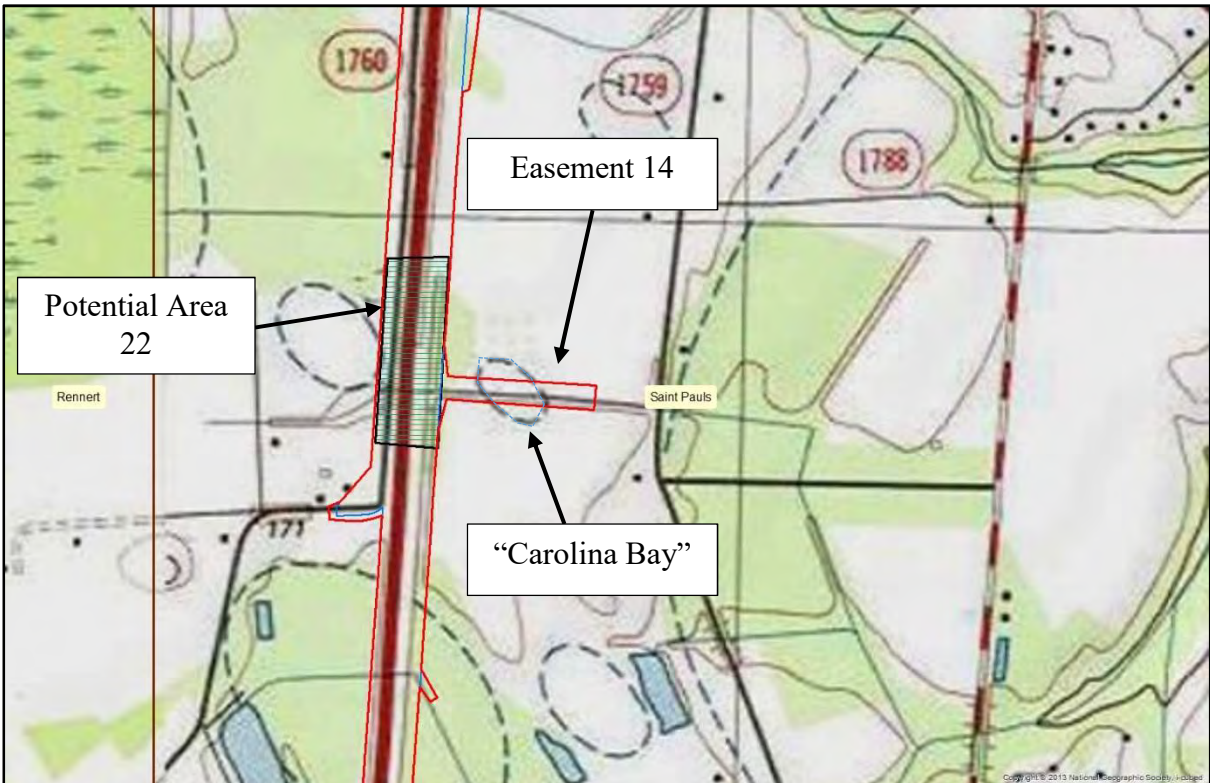


Figure 13: Topographic map of drainage easement 14 (3 of 5 from north to south).

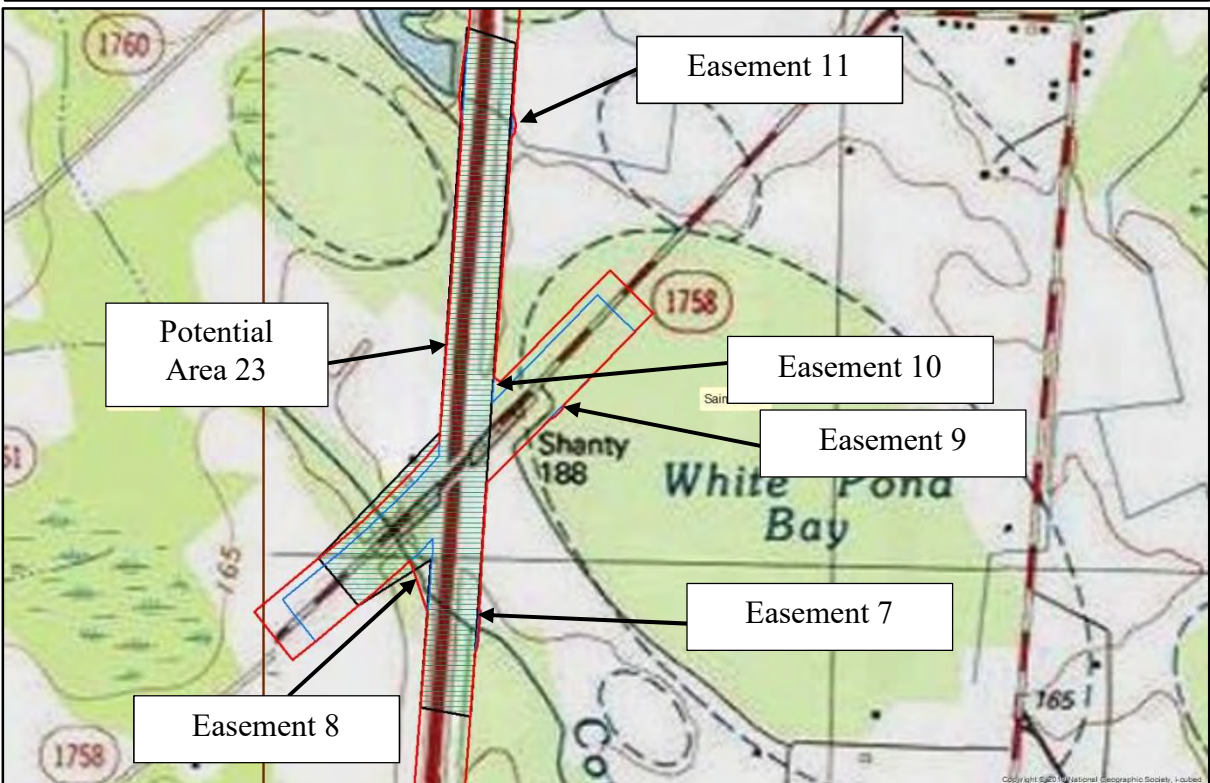


Figure 14: Topographic map of drainage easements 7-12 (4 of 5 from north to south).

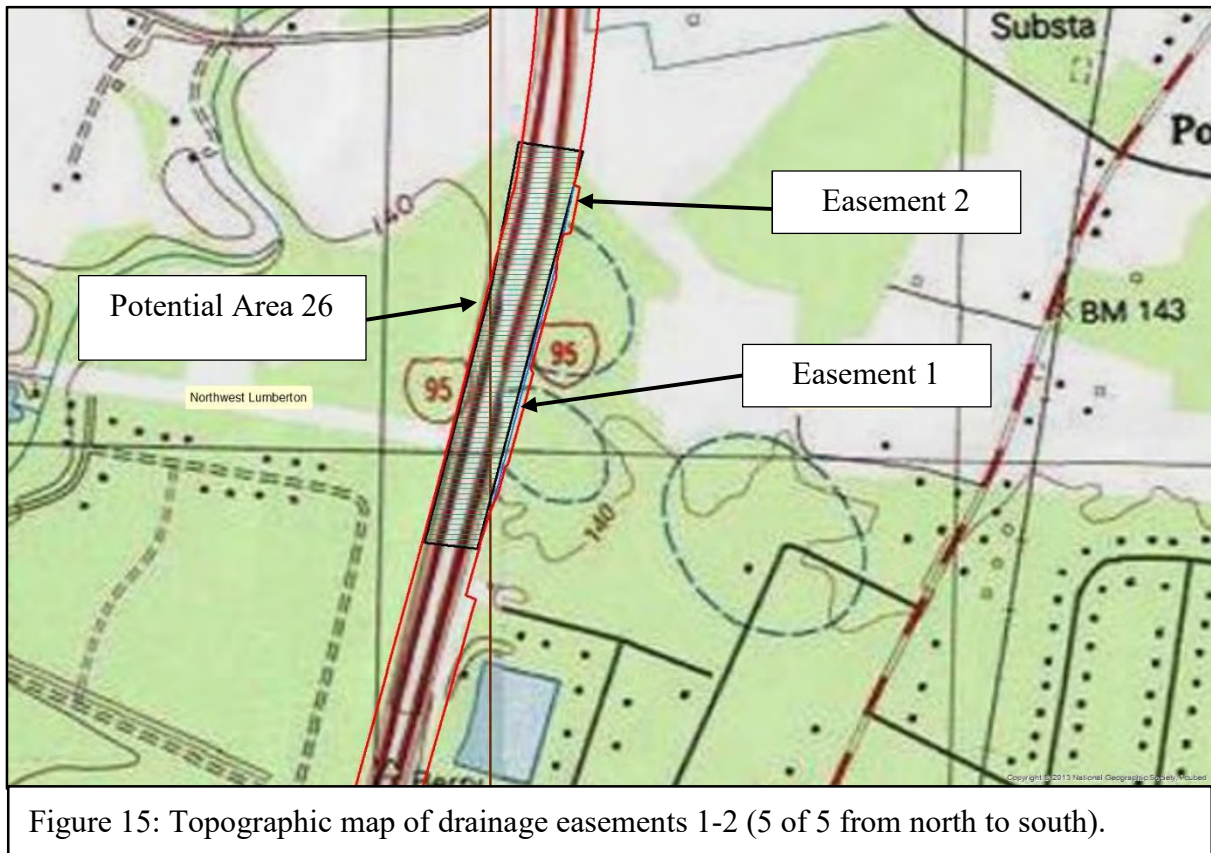


Figure 15: Topographic map of drainage easements 1-2 (5 of 5 from north to south).

These distinctive features can be seen in the topographic maps in Figures 11-15 above. Some believe the ponds were formed by ancient asteroid strikes. However, scientific evidence suggests they were formed by persistent southwesterly winds blowing over shallow, water-filled depressions. The wind and wave action formed sand rims along the eastern and southeastern edges. The rims have been shown to have potential for prehistoric archaeological sites. The design plans (Figure 16) show the drainage improvements consist of construction of a new driveway with ditches. The plans show there will be few impacts outside of the existing (disturbed) driveway, and the drainage structure has little potential to impact any archaeological remains. No archaeological survey is recommended there.

Easement 18 is a 1-acre tract along Great Marsh Church Road on the west side of I-95 (Figure 17). The easement includes a level, well drained upland landform overlooking a large stream valley to the north. It is located along the west edge of one of the archaeological potential areas. The 2019 archaeological survey identified an archaeological site (31RB620) in the vicinity (Figure 18). The site was not evaluated for inclusion on the NRHP because it was found to be slightly outside of the A.P.E. The design plans show the additional easement will include a narrow strip of land along each side of West Great Marsh Church Road. The 2019 shovel tests did not identify any archaeological remains along the road to the east of the easement. The drainage structure has little potential to impact any archaeological remains. No archaeological survey is recommended there.

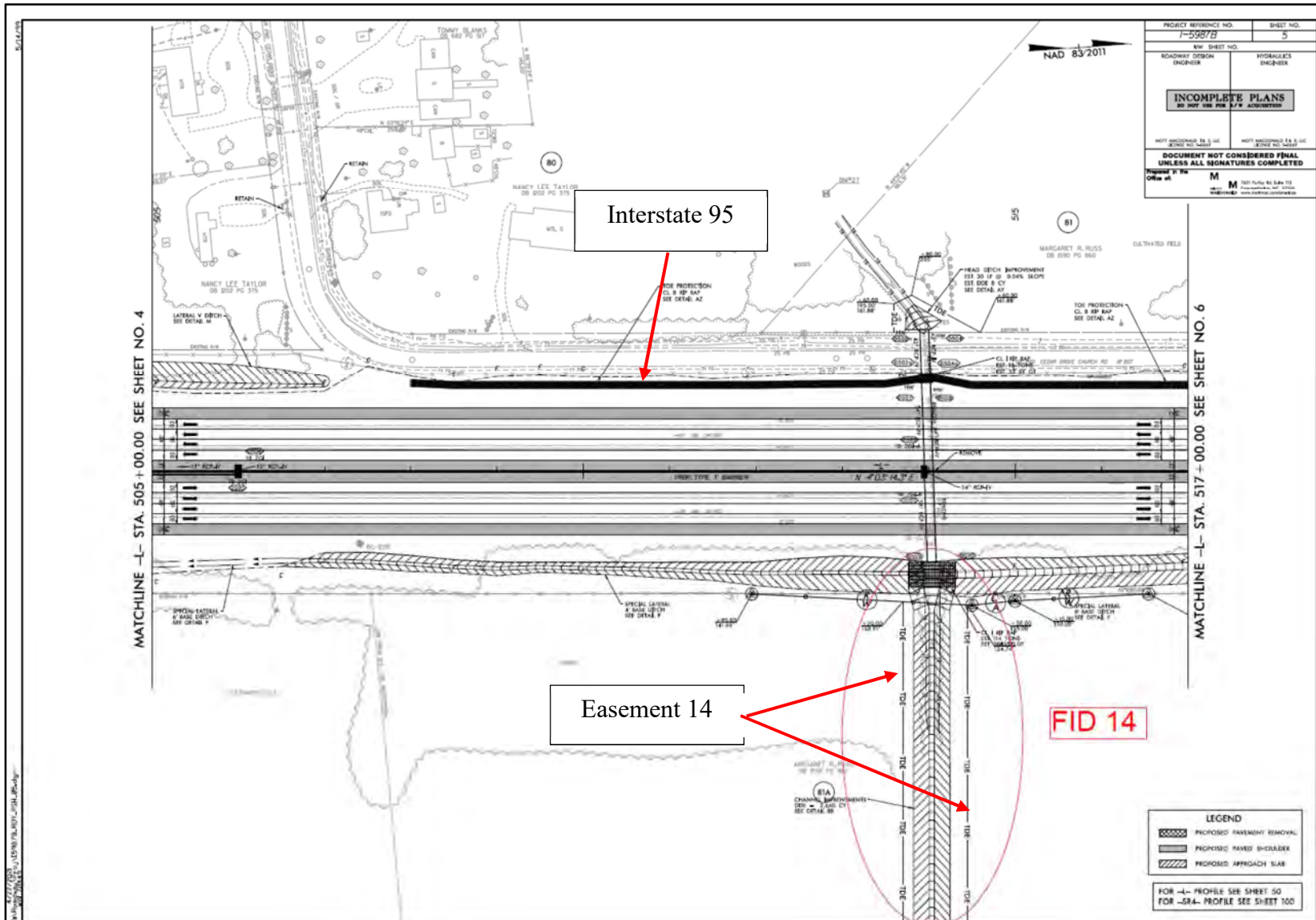


Figure 16: Design plans showing drainage easement 14.

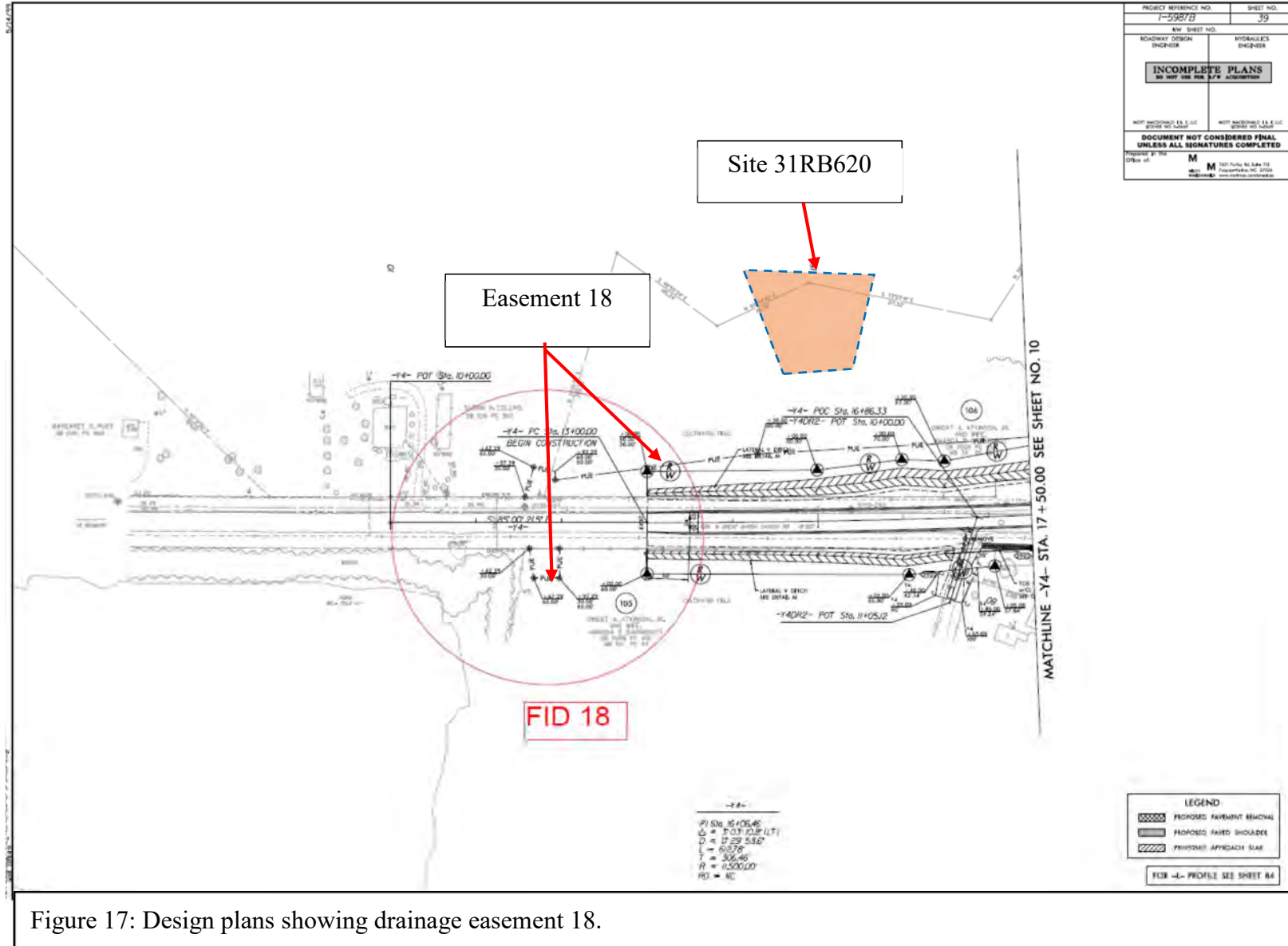


Figure 17: Design plans showing drainage easement 18.

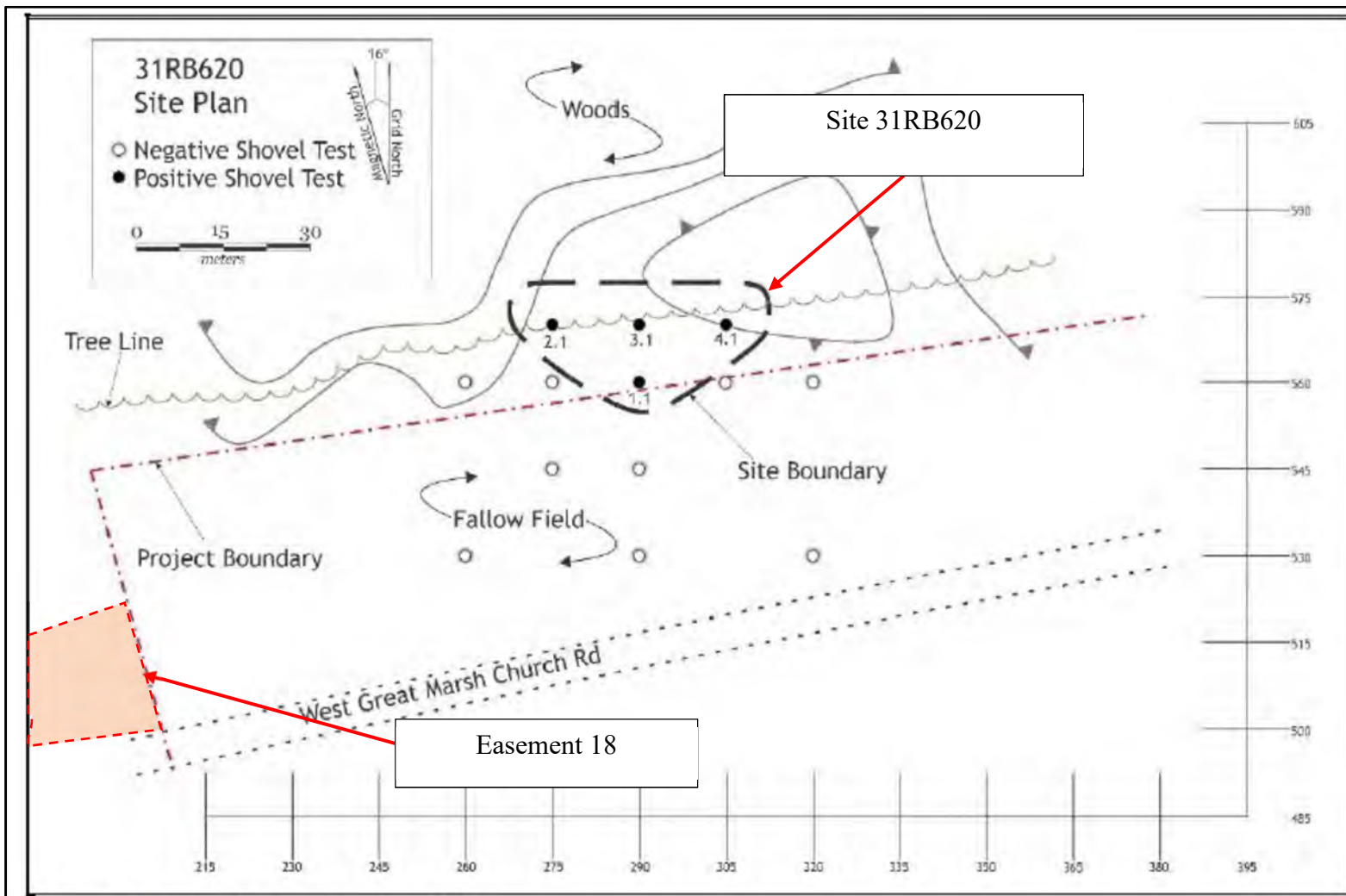


Figure 5.110. Site map of 31RB620.

Figure 18: Plan drawing of the archaeological site (31RB620) near drainage easement 18 (Jordan and Southerlin 2019: Figure 5.110).

Drainage easement 22 is a 30-acre addition at the I-95/NC 20 interchange (Exit 31) in St. Paul's (see Figure 3 above). This area is not within any of the archaeological potential areas. It does, however, include a large, active cemetery. Active cemeteries are not usually recorded as archaeological sites. We assume the work will not impact any burials there. If it does, our Right of Way Group will arrange for them to be re-interred either there or at another cemetery.

Summary and Conclusions

The NCDOT Archaeology Team has reviewed 27 small drainage easements that were added to the Interstate 95 (I-5987) study area. Comparison of the easements to the archaeological potential areas identified for the 2019 archaeological survey found 14 are outside and 13 are within or adjacent. The 14 easements outside of the archaeological potential areas require no archaeological survey. Thirteen easements are located within or adjacent to an archaeological potential area. However, most are small (< acre) areas located along the edges of previously surveyed areas. Two (easements 14 and 18) are located on landforms with potential for archaeological sites. However, design plans show the easements will impact little or no land outside of previously disturbed areas. Easement 22 is a large tract (22-acres) located outside of the archaeological potential areas, but it does include a large, active cemetery. We assume the improvements there will not impact any graves. If any graves will be impacted, the NCDOT Right of Way branch will arrange for them to be moved. In conclusion, no archaeological survey is recommended for any of the 27 drainage easements.

References Cited

- Brooks, Mark J., Barbara E. Taylor, and Andrew H. Ivester
 2010 Carolina Bays: Time Capsules of Culture and Climate Change. *Southeastern Archaeology* 29(1): 146-163.
- Jordan, Robert and Bobby G. Southerlin
 2019 *Archaeological Survey of the NCDOT I-95 Widening Corridor from NC 59 (Chickenfoot Rd.) in Cumberland County to NC 211 (N. Roberts Ave.) in Robeson County, North Carolina*. Submitted to the North Carolina Department of Transportation, Raleigh. Archaeological Consultants of the Carolinas, Inc., Clayton, North Carolina.
- Smith, Caleb
 2019a *Archaeological Survey Required form: Widen Interstate 95 from NC 50 (Chickenfoot Rd.) (Exit 41) in Cumberland County to NC 211 (N. Roberts Ave.) (Exit 20) in Robeson County (NCDOT TIP I-5987; PA 18-10-0036)*. Submitted on April 22, 2019.
- 2019b *No National Register of Historic Places-Eligible Sites Present form: Widen Interstate 95 from NC 50 (Chickenfoot Rd.) (Exit 41) in Cumberland County to NC 211 (N. Roberts Ave.) (Exit 20) in Robeson County (NCDOT TIP I-5987; PA 18-10-0036)*. Submitted on November 8, 2019.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Raleigh ES Field Office
Post Office Box 33726
Raleigh, North Carolina 27636-3726
December 28, 2020

Gregory W. Price
NC Department of Transportation
558 Gillespie Street
Fayetteville, NC 28302

Dear Mr. Price:

This letter is in response to your letter of December 17, 2020 which provided the U.S. Fish and Wildlife Service (Service) with the biological conclusion of the North Carolina Department of Transportation that the proposed widening of I-95 from US 301 (Exit 22) in Robeson County to I-95 Business (Exit 40) in Cumberland County (STIP I-5987) may affect, but is not likely to adversely affect the federally threatened wood stork (*Mycteria americana*). The following response is provided in accordance with Section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531-1543).

According to information provided, wood stork surveys were conducted along the project area during July-August 2018. No wood storks or nests were observed. We understand that additional surveys will be conducted during the appropriate season (April 15 – July 15) in 2021. Based on the survey results and other available information, the Service concurs with your conclusion that the proposed action may affect, but is not likely to adversely affect the wood stork. With the exception of the federally threatened northern long-eared bat (*Myotis septentrionalis*), we also concur that the action will have no effect on all other listed species. However, given the length of project construction, it is understood that additional plant surveys will be conducted during the appropriate seasons in 2021. The northern long-eared bat has been previously addressed through a Programmatic Biological Opinion.

We believe that the requirements of Section 7(a)(2) of the ESA have been satisfied for now. We remind you that obligations under Section 7 consultation must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered in this review; (2) this action is subsequently modified in a manner that was not considered in this review; or (3) a new species is listed or critical habitat determined that may be affected by this identified action. If you have any questions regarding our response, please contact Mr. Gary Jordan at (919) 856-4520 (Ext. 32).

Sincerely,

Pete Benjamin
Field Supervisor

Electronic copy:

Liz Hair, USACE, Wilmington, NC

Travis Wilson, NCWRC, Creedmoor, NC