



JOINT SECTION 404/401 & CRITICAL AREA INDIVIDUAL PERMIT APPLICATION

Prepared for:



Prepared by:



August 2024

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1.0 COVER LETTER

August 12, 2024

Mr. Brad Carey
U.S. Army Corps of Engineers, Charleston District
69-A Hagood Avenue
Charleston, SC 29403-5107
Attn: Mr. Ivan Fannin

**RE: I-526 and Long Point Road Interchange Improvements Individual
Permit Application Located in Charleston, SC; SAC# 2022-01082;
SCDOT PIN P041314**

Dear Mr. Carey:

On behalf of the South Carolina Department of Transportation (SCDOT), please accept this joint application for authorization under a Section 404 Individual Permit for unavoidable impacts to Waters of the United States including wetlands associated with the above-referenced project. Impacts presented in the application were calculated based on the preliminary project design using the USACE-verified Preliminary Jurisdictional Determination (PJD SAC-2022-01082) approved on October 12, 2022.

Project construction activities would result in unavoidable permanent impacts of approximately 5.23 acres to waters of the U.S including wetlands. The 5.23 acres of fill include impacts to 3.53 acres of freshwater wetlands, 1.37 acres of impact to SAC-26-1992-762 Protected Lands (freshwater wetlands), and 0.33 acres of Section 10/critical area tidal waters.

I understand the responsibility for providing all required information to constitute a complete notification and any compensatory mitigation necessary to comply with the USACE, Charleston District Compensatory Mitigation SOP. As necessary, the SCDOT will obtain and provide the USACE with all appropriate state certifications and/or authorizations (i.e., SCDES 401 Water Quality Certification, SCDES-BCM Coastal Zone Management Consistency and U.S. Coast Guard Bridge Permits).

SCDOT, in association with the Federal Highway Administration (FHWA), has prepared an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) and the Clean Water Act Section 404(b)(1) guidelines. The EA was signed on March 15, 2023. The EA and additional project resources can be found on the project website: <https://www.526lcclongpoint.com/>.

Sincerely

Will McGoldrick

Will McGoldrick
Design-Build Environmental Coordinator



MM/wrm

File:ENV/Design-Build

Enclosures

USACE Individual Permit Application

Ec: Sean Connolly, SCDOT
Russell Chandler, CDM Smith
Mark Mohr, CDM Smith



2.0 PERMIT APPLICATION FORMS

Joint Federal and State Application Form For Activities Affecting Waters of the United States Or Critical Areas of the State of South Carolina		This Space for Official Use Only	
<i>Authorities:</i> 33 USC 401, 33 USC 403, 33 USC 407, 33 USC 408, 33 USC 1341, 33 USC 1344, 33 USC 1413 and Section 48-39-10 et. Seq of the South Carolina Code of Laws. These laws require permits for activities in, or affecting, navigable waters of the United States, the discharge of dredged or fill material into waters of the United States, and the transportation of dredged material for the purpose of dumping it into ocean waters. The Corps of Engineers and the State of South Carolina have established a joint application process for activities requiring both Federal and State review or approval. Under this joint process, you may use this form, together with the required drawings and supporting information, to apply for both the Federal and/or State permit(s).		Application No. _____ Date Received _____ Project Manager _____ Watershed # _____	
<i>Drawings and Supplemental Information Requirements:</i> In addition to the information on this form, you must submit a set of drawings and, in some cases, additional information. A completed application form together with all required drawings and supplemental information is required before an application can be considered complete. See the attached instruction sheets for details regarding these requirements. You may attach additional sheets if necessary to provide complete information.			
1. Applicant Last Name:		11. Agent Last Name (agent is not required):	
2. Applicant First Name:		12. Agent First Name:	
3. Applicant Company Name:		13. Agent Company Name:	
4. Applicant Mailing Address:		14. Agent Mailing Address:	
5. Applicant City:		15. Agent City:	
6. Applicant State:	7. Applicant Zip:	16. Agent State:	17. Agent Zip:
8. Applicant Area Code and Phone No.:		18. Agent Area Code and Phone No.:	
9. Applicant Fax No.:		19. Agent Fax No.:	
10. Applicant E-mail:		20. Agent E-mail:	
21. Project Name:		22. Project Street Address:	
23. Project City:	24. Project County:	25. Project Zip Code:	26. Nearest Waterbody:
27. Tax Parcel ID:		28. Property Size (acres):	
29. Latitude:		30. Longitude:	
31. Directions to Project Site (Include Street Numbers, Street Names, and Landmarks and attach additional sheet if necessary):			
32. Description of the Overall Project and of Each Activity in or Affecting U.S. Waters or State Critical Areas (attach additional sheets if needed)			
33. Overall Project Purpose and the Basic Purpose of Each Activity In or Affecting U.S. Waters (attach additional sheets if needed):			
34. Type and quantity of Materials to Be Discharged		35. Type and Quantity of Impacts to U.S. Waters (including wetlands).	
Dirt or Topsoil: _____ <input type="checkbox"/> cubic yards		Filling: _____ <input type="checkbox"/> acres <input type="checkbox"/> sq.ft. _____ <input type="checkbox"/> cubic yards	
Clean Sand: _____ <input type="checkbox"/> cubic yards		Backfill & Bedding: _____ <input type="checkbox"/> acres <input type="checkbox"/> sq.ft. _____ <input type="checkbox"/> cubic yards	
Mud: _____ <input type="checkbox"/> cubic yards		Landclearing: _____ <input type="checkbox"/> acres <input type="checkbox"/> sq.ft. _____ <input type="checkbox"/> cubic yards	
Clay: _____ <input type="checkbox"/> cubic yards		Dredging: _____ <input type="checkbox"/> acres <input type="checkbox"/> sq.ft. _____ <input type="checkbox"/> cubic yards	
Gravel, Rock, or Stone: _____ <input type="checkbox"/> cubic yards		Flooding: _____ <input type="checkbox"/> acres <input type="checkbox"/> sq.ft. _____ <input type="checkbox"/> cubic yards	
Concrete: _____ <input type="checkbox"/> cubic yards		Draining/Excavation: _____ <input type="checkbox"/> acres <input type="checkbox"/> sq.ft. _____ <input type="checkbox"/> cubic yards	
Other (describe): _____ <input type="checkbox"/> cubic yards		Shading: _____ <input type="checkbox"/> acres <input type="checkbox"/> sq.ft. _____ <input type="checkbox"/> cubic yards	
TOTAL: _____ cubic yards		TOTALS: _____ acres _____ sq.ft. _____ cubic yards	

36. Individually list wetland impacts including mechanized clearing, fill, excavation, flooding, draining, shading, etc. and attach a site map with location of each impact (attach additional sheets if needed).

Impact No.	Wetland Type	Distance to Receiving Water body (LF)	Purpose of Impact (road crossing, impoundment, flooding, etc)	Impact Size (acres)
Total Wetland Impacts (acres)				

37. Individually list all seasonal and perennial stream impacts and attach a site map with location of each impact (attach additional sheets)

Impact No.	Seasonal or Perennial Flow	Average Stream Width (LF)	Impact Type (road crossing, impoundment, flooding, etc)	Impact Length (LF)
Total Stream Impacts (Linear Feet)				

38. Have you commenced work on the project site? ☐ YES ☐ NO If yes, describe all work that has occurred and provide dates.

39. Describe measures taken to avoid and minimize impacts to Waters of the United States:

40. Provide a brief description of the proposed mitigation plan to compensate for impacts to aquatic resources or provide justification as to why mitigation should not be required (Attach a copy of the proposed mitigation plan for review).

41. See the attached sheet to list the names and addresses of adjacent property owners.

42. List all Corps Permit Authorizations and other Federal , State, or Local Certifications, Approvals, Denials received for work described in this application.

43. Authorization of Agent. I hereby authorize the agent whose name is given on page one of this application to act in my behalf in the processing of this application and to furnish supplemental information in support of this application.¹

Applicant's Signature

Date

44. Certification. Application is hereby made for a permit or permits to authorize the work and uses of the work as described in this application. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent for the applicant.¹

Will McGoldrick

Applicant's Signature

Date

Agent's Signature

Date

¹The application must be signed by the person who desires to undertake the proposed activity or it may be signed by a duly authorized agent if the authorization statement in blocks 11 and 43 have been completed and signed. 18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

NOTE: A depiction of the adjacent properties with identifying corresponding property owner names must accompany this mailing list.
(Attach additional sheets if necessary)

Project Name: _____

[illegible]

3.0 JOINT APPLICATION FORM SUPPORTING NARRATIVE

In 2022, the South Carolina Department of Transportation (SCDOT) completed a Planning and Environmental Linkages (PEL) study for Interstate 526 (I-526) Lowcountry Corridor (LCC) EAST, from Virginia Avenue in North Charleston to United States (U.S.) 17 in Mount Pleasant. The PEL study identified existing and projected transportation issues within the corridor through analysis as well as public and stakeholder engagement. The PEL study established a vision to guide future transportation decision-making in the corridor. After the issues were better understood, potential improvements were identified. At the conclusion of the PEL, multiple solutions were considered reasonable and the I-526 and Long Point Road interchange was identified as a project that could be completed independently from the other identified solutions. The proposed improvements to the Long Point Road interchange are included in the Charleston Area Transportation Study (CHATS) long-range transportation plan and Transportation Improvement Program (TIP) and in the SCDOT Statewide Transportation Improvement Program¹ (STIP). Additionally, the proposed improvements are consistent with the goals and strategies defined in the CHATS congestion management process (CMP).

SCDOT, in association with the Federal Highway Administration (FHWA), prepared an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) and the Clean Water Act Section 404(b)(1) guidelines to review all proposed interchange alternatives and evaluate potential impacts to the natural and human environment. The EA was signed on March 15, 2023. Copies of the EA and additional project resources can be found on the project website: <https://www.526lcclongpoint.com/>.

3.1 PROJECT INFORMATION

3.1.1 NAME OF PROJECT

I-526 Lowcountry Corridor Long Point Road Interchange Improvements Project; also referred to as the Project.

3.1.2 LOCATION

The Project is located in Mount Pleasant, Charleston County, South Carolina. The Project extends along I-526, beginning at the Wando River and extending to Hobcaw Creek and along State Route 97, Long Point Road (LPR), from the Wando Welch Terminal (WWT) to State Route 1521, Egypt Road. **Table 3-1** includes latitude and longitude coordinates for the Project termini and waterbody crossings. Location maps and figures are provided in Appendix A of this application.

Table 3-1. Approximate Coordinates for the Project Area

Project Location	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)
Approximate beginning point (at Wando River)	32.858103°	-79.893458°
Unnamed Tributary to Rathall Creek	32.838019°	-79.859464°
Unnamed Tributary to Hobcaw Creek	32.838019°	-79.859464°
Hobcaw Creek	32.834089°	-79.853650°
Approximate end point	32.833353°	-79.853325°

¹ <https://www.scdot.org/inside/planning-stip.aspx>

3.1.3 PROJECT SETTING

The Project would be located within Land Resource Region (LRR) T (Atlantic and Gulf Coast Lowland Forest and Crop Region); specifically, within the eastern edge of Major Land Resource Area (MLRA) 153B (Tidewater Area) (USDA-NRCS 2006). The Project also falls within the Southern Coastal Plain (75) Level III Ecoregion (Griffith et. al 2002) and is specifically situated within the Sea Island/Coastal Marsh Level IV Ecoregion (75j).

The Sea Island/Coastal Marsh ecoregion contains the lowest elevations in South Carolina and is a highly dynamic environment affected by ocean wave, wind, and river action. The landscape is characterized by mostly flat plains but also contains barrier islands, marshes, and lagoons. Mostly sandy soils are found on the barrier islands, whereas finer textured (i.e., silts and clays) and organic soils often occur in the brackish, salt, and freshwater marshes (Griffith, et al. 2002). Maritime forests, characterized by slow-growing, evergreen, salt-tolerant plant species, are the dominant terrestrial community found within the Sea Island/Coastal Marsh region. Estuarine emergent wetlands in the form of high marsh, low marsh, and brackish waters are all common wetland types, as are freshwater emergent and palustrine wetlands.

The Project is located within the Santee River Basin. The Santee River Basin extends across the upper and lower coastal plain regions and into the coastal zone region of South Carolina. The Santee River Basin covers approximately 1.9 million acres in South Carolina. The entirety of the Project is in the Wando River watershed (10-digit HUC 03050201-04).

The Preferred Alternative falls completely within the project study area (PSA), as applicable to this permit. The Preferred Alternative (i.e., Project) project boundary (permitted area) sits within the PSA. Indirect impacts will occur outside of the project boundary in SAC-26-1992-762 as nearby fill within the project boundary will limit wetland functionality outside the project boundary, within the same feature. The existing land use in the PSA is dominated by commercial and residential areas and contains areas of undevelopable land due to marsh and wetland areas. Approximately 10.45 acres of land within the PSA is wooded. Additional information regarding land use can be found in the PEL Chapter 2.3, <https://www.526lclongpoint.com/background>.

3.2 PROJECT DESCRIPTION

FHWA and SCDOT are proposing improvements to the I-526 and Long Point Road interchange in the town of Mount Pleasant, South Carolina. The PSA extends along I-526 from the Wando River to Hobcaw Creek, approximately 1 mile north and south of Long Point Road, and along Long Point Road from the Wando Welch Terminal to Egypt Road (Appendix A). This project will improve the operations of the I-526 mainline and its interchange at Long Point Road as well as reduce operational conflicts between port-related and local traffic within the PSA by modifying the interchange and constructing new ramps to provide access to the Wando Welch Terminal (Wando Port Connector) and associated local roads.

3.2.1 PURPOSE AND NEED

The purpose of the proposed project is to improve the operations of the I-526/Long Point Road interchange and I-526 mainline and reduce operational conflicts between port-related and local traffic. The need for the project is demonstrated by the growing automobile and truck traffic on I-526 and Long Point Road, the existing interchange deficiencies, and operational conflicts between cars and trucks on Long Point Road and I-526.

Project Need



Interchange deficiencies



Traffic-related congestion on I-526 and within the interchange



Population & economic growth

The project need was identified during the I-526 Lowcountry Corridor (LCC) EAST Planning and Environmental Linkages (PEL) study that concluded in July 2022. The PEL determined improvements at the I-526/Long Point Road interchange could be made with independent utility prior to the planned widening of I-526. The I-526 and Long Point Road interchange provides access to homes, businesses, schools, parks, restaurants, commercial and industrial facilities along Long Point Road. The interchange provides access to South Carolina Ports Authority's (SCPA's) Wando Welch Terminal (WWT), which serves as a hub for the distribution of freight from the WWT throughout the southeast United States (U.S.). The need for the project is demonstrated by the existing interchange deficiencies, growing

automobile and truck traffic on I-526 and Long Point Road, and population and economic growth. Waters of the US and Waters of the State

3.3 WATERS OF THE US

3.3.1 WATERS OF THE US

Wetland and stream delineations were performed in July 2022. A Preliminary Jurisdictional Determination Request (PJD) (SAC-2022-01082) was approved by the USACE Charleston District on October 12, 2022, see Appendix B of this application. A Critical Area plat was submitted to the South Carolina Department Environmental Service (SCDES) Bureau of Coastal Management (BCM) on December 14, 2022, and approved on January 30, 2023 (see Appendix C). Freshwater wetlands include forested and emergent wetlands. Freshwater ponds that serve as stormwater retention basins are also present throughout the PSA. Tidally influenced wetlands and waters (critical areas) include saltmarshes, tidal creeks, and the Wando River. **Table 3-2** summarizes aquatic resources within the PSA.

Table 3-2. Summary of Aquatic Resources Within the Jurisdictional Determination Boundary (SAC-2010-01082)²

Feature Type	Area (acres)	Linear Feet
Freshwater Wetlands	15.3	N/A
Freshwater Non-Wetlands (Streams)	0.01	51.4
Freshwater Non-Wetlands (Ponds)	10.7	N/A
Tidal Wetlands	19.5	N/A

Regulatory Changes:

The regulatory definition of WOTUS has been interpreted and implemented through multiple regulatory definitions over the last decade as studies for the Project have been completed.

On December 30, 2022, USEPA and USACE announced the final “Revised Definition of ‘Waters of the United States’” rule, which was subsequently published in the Federal Register on January 18, 2023 (88 FR 3004). The rule revises the definition “Waters of the United States” in 33 CFR 328.2 and 40 CFR 120.2 and became effective on March 20, 2023. This revision did not revise methods for delineation; therefore, it is not expected to change the limits of delineated jurisdictional features identified in the PSA as approved previously.

3.3.2 WATERS OF THE STATE

Surface waters within the PSA include the Wando River, an unnamed tributary (UT) to Rathall Creek, UT to Hobcaw Creek, and Hobcaw Creek. The tidal salt marsh wetlands associated with each respective surface waterbody and freshwater wetlands within the PSA are also considered waters of the State. For more information on the physical, geographical, and hydrologic characteristics of the project boundary, please refer to Chapter 4 of the EA, in Appendix M.

3.3.3 SPECIAL WATERS OF THE US: PROTECTED AREAS

Portions of the wetlands within the PSA have additional protective covenants on their use and preservation. As part of the compensatory mitigation plan for filling 1.27 acres of freshwater wetlands on the Wando Terminal in 1992, the SC State Ports Authority (SCPA) agreed to the following covenants applicable to approximately 9.87 acres of wetlands. (SAC-26-1992-762 Protected Lands) These covenants prove that:

- SCPA will-
 - Exercise its best efforts to preserve and protect in perpetuity the freshwater wetlands.

² The boundary used in the Jurisdictional Determination encompassed a larger area to consider the right of way footprint of the range of build alternatives analyzed in the Environmental Assessment. This boundary is visualized in Appendix B.

- Maintain and provide within the area circumscribed , a natural buffer zone free from development and marked by signs.
- Adjust the flow of its storm water runoff so as to maintain approximately the same wetness condition as is now present and to retain the same general flow of water.
- Not clear, fill, excavate, or construct on the protected wetlands, or buffer, area.

During the jurisdictional determination process for the Project, coordination between the Department and the USACE occurred to identify and confirm the location of each of these protected boundaries.

3.3.4 WATER QUALITY

Surface waters in the PSA have been designated as Shellfish Harvesting Waters (SFH), including Hobcaw Creek, the UT to Hobcaw Creek, and the UT to Rathall Creek. **Table 3-3** includes each surface water and its designated classification. The impoundment in the UT to Hobcaw Creek located under I-526 is designated as freshwater.

Table 3-3. Surface Water Classifications

Surface Water	Classification
Wando River	SFH
Unnamed Tributary to Rathall Creek	SFH
Unnamed Tributary to Hobcaw Creek	SFH
Hobcaw Creek	SFH

The coastal counties of South Carolina are divided into 25 shellfish harvesting management areas that are assigned shellfish harvesting classifications (SCDES 2023a). The Project would be in Shellfish Management Area 9b (SCDES 2023b). Although most surface waters within or near the Project are classified as SFH by SCDES, shellfish harvesting is prohibited within all Hobcaw Creek and restricted in the Wando River and surrounding tributaries around I-526 (SCDES 2023b). However, as of the 2022-2023 shellfish harvesting season, Rathall Creek has met the criteria for approved harvesting classification (SCDES 2023b). The proposed stormwater discharge from the site is not currently planned within 1,000 of Rathall Creek or other waters approved for harvesting shellfish. During the final plan designs, the discharge of water will be required to be more than 1,000 ft from approved shellfish harvesting area or a reevaluation of effects to shellfish harvesting areas would be necessary.

Water quality samples are collected throughout the watershed and analysis is completed by SCDES. The data are used to determine the restriction or prohibition of shellfish harvesting (SCHEC 2023a). Shellfish harvesting is prohibited when consumption of shellfish from polluted waters would be harmful to humans (SC R.61-68).

SCDES monitors the water quality of the waters in South Carolina with ambient water quality monitoring stations. These stations are used for providing background data for planning, evaluating waterway classifications and associated standards, as well as determining water quality trends and identifying waterways in need of attention to water quality. According to the SC Watershed Atlas, one permanent water quality monitoring station (MD-264) is in the Wando River near the northern terminus of the PSA. Five random monitoring stations are located west of the PSA in Hobcaw Creek and the Wando River. Station MD-264 is a TMDL site due to dissolved oxygen (DO). Three shellfish monitoring stations are in the Wando River near the northern terminus of the PSA. Shellfish harvest stations 09B-15, 09B-18, and 09B-24 are the three closest stations to the PSA with 09B-15 located at the I-526 bridge over the Wando River. Two monitoring stations in Hobcaw Creek (HC1 and HC2), with the closest located approximately 2 miles downstream of the I-526 crossing, are listed on the 2022 303(d) list and are impaired due to *enterococcus* (SCDES 2023c). One oyster reef is present within the PSA along Hobcaw Creek, approximately 90 feet west of the I-526 bridge. However, according to the SCDES SC Watershed Atlas, there are no 303(d) listed waters found within the PSA (SCDES 2023c, SCDES 2022).

The nearest SCDES water quality monitoring station is 09B-18, located 2 miles downstream of the PSA. Station 09B-18 is not listed on the 303(d) list of impaired water body per the latest version of the 303(d) list. However, it is listed as a total maximum daily load (TMDL) watershed for fecal coliform (FC) and is listed as 'parameter not supported' because of elevated enterococcus loads when SCDES last completed a TMDL report associated with station 09B-18 (SCDES 2022).

Additional information about water quality can be found in the EA, Chapter 4.8 (see Appendix M).

3.3.5 CRITICAL AREAS AND COASTAL ZONE RESOURCES

The limits of the critical area within the PSA were delineated and recorded on a surveyed plat per SCDES-BCM requirements. These limits were also used to define the boundaries of waters regulated by USACE under Section 10 of the Rivers and Harbors Act. A Critical Area Plat documenting the limits of critical area in the PSA (dated November 18, 2022) was approved and signed by SCDES-BCM on January 30, 2023. See Appendix C of this application.

3.4 EXISTING CONDITIONS

Please see Chapter 4 in the EA (see Appendix M) for more specific descriptions and information about aquatic resources, habitats, and ecosystems in the project boundary.

3.4.1 ECOLOGICAL FUNCTION

Aquatic resource functions in the PSA are based on the physical, chemical, and biological processes that naturally occur in ecosystems. Resources within the PSA were evaluated to assess the degree to which they performed a specific function that adds value to the landscape and to the watershed. To be considered fully functional, resources were required to exhibit the typical, natural suite of functions attributed to that respective resource type.

The freshwater and tidal salt marsh wetlands in the permitted limits are all considered fully functional resources. Some of the individual resources have clearly been disturbed or previously impacted but still exhibited fully functional physical, chemical, and biological processes.

3.5 PROPOSED ACTIVITIES IN OR AFFECTING US WATERS OR STATE CRITICAL AREAS

The Project would include construction of roadways (i.e., widened bridge approach, new flyover ramps to I-526 and Wando Port Connector, and relocated I-526 westbound off ramp) which would result in unavoidable impacts caused by the discharge of fill in WOTUS and critical areas. Construction activities would include grading, constructing side slopes, paving, and connecting to the existing transportation network. Installation of guardrails, medians, and other safety components would also be included as part of the Project. Stabilization on newly formed side slopes would be completed prior to project close out. Riprap would be required around the bridge approaches. Construction impacts of noise walls would be built on the existing embankment, contained within the Project construction limits.

The widened roadway embankment between the Wando River and the bridge over the UT to Rathall Creek would retain the existing bridge over tidal wetlands but require fill impacts for construction activity. The Project would include the construction of two bridges to I-526 from the Wando Port Connector, approximately 0.20 and 0.25 miles each. The Wando Port Connector would be constructed at-grade and include fill impacts to non-tidal wetlands and SAC-26-1992-762 Protected Lands (see plan sheet 6 of Appendix D). The relocated I-526 westbound off ramp would bridge over freshwater wetlands and the UT to Hobcaw Creek; however, it would include fill impacts for construction (see plan sheet 7 of Appendix D).

Construction features are displayed in **Table 3-4**. Construction methods will comply with guidelines and conditions established by SCDOT, FHWA, and state and federal regulatory agencies.

Table 3-4. Proposed Structures and Roadway Approximate Dimensions

Structure	Approximate Length & Width In Feet (ft)
Widened Roadway embankment between Wando River Bridge and bridge over Unnamed Tributary to Rathall Creek	On-grade; not on structure
Ramp Line A	1263 ft. x 38.25 to 52.25 ft.
Ramp Line B	931 ft. x 46.25 to 60.25 ft.
Wando Port Connector	On- grade; not on structure
Relocated I-526 Westbound Off Ramp	364.75 ft. x 46.25 ft.

3.5.1 CONSTRUCTION EQUIPMENT

Typical equipment, including bulldozers, excavators, grading pans, dump trucks, and cranes would be used for construction of the Project.

3.5.2 GENERAL ROADWAY CONSTRUCTION SEQUENCE

Prior to construction activities, erosion and sediment control best management practices (BMPs) would be installed on the perimeter of active construction sites (including off-site storage and staging areas) to prevent erosion and water pollution. Temporary erosion and sediment control measures would be implemented prior to, or immediately following, ground disturbance associated with the Project. After erosion and sediment control BMPs are installed, the contractor would likely begin preparation of staging areas.

Staging areas are used for delivery and storage of construction materials and equipment, contractor office and storage trailers, and employee parking. Discharge of fill would be associated with construction access and staging. Cleared vegetation would not be permanently stacked, stockpiled, or side-cast in wetlands and would be hauled offsite or mulched and redistributed in uplands. Construction access for the at-grade roadway portions of the Project would be completed in uplands where practicable.

Roadway and ramp approach construction site preparation would likely begin with vegetation removal, which may be permanent or temporary. Permanent clearing of vegetation would include grubbing out the roots, stumps, and other debris which is often referred to as “clearing and grubbing.” Temporary vegetation removal would include cutting vegetation but maintaining the root mass to allow for regrowth and soil stabilization. Removed biomass would be disposed of similarly to staging area vegetation clearing.

Preliminary earthwork would generally consist of stripping topsoil from an area and either removing existing soils or placing and compacting new, clean earthen material for roadway prism construction or slope construction. The earthen material may be moved from or to another section on the same project, or it may come from or be disposed off-site. Completed earthwork would then be covered by any number of erosion and sediment control BMPs such as rock base and pavement, rock stabilization and riprap, or mulch and seeding.

3.5.3 GENERAL RAMP AND BRIDGE CONSTRUCTION SEQUENCE

The exact construction methods of the new I-526 ramps and bridges for the Wando Port Connector and relocated I-526 westbound exit ramp to Long Point Road are not known at the current level of design. Construction would likely follow a similar process as outlined by the roadway construction sequence. The process would begin with clearing vegetation for the placement of erosion and sediment control BMPs followed by staging area preparation.

The construction of the support structures (i.e., abutments, interior bents, end-bents, footings, and piles or columns) would be completed by installing piles/columns via impact hammers, vibratory hammers, and cast-in-place methods. As sections of the bridge structures are completed, ramp beams would also be installed. Beams would be placed with cranes or may be cast-in-place depending on beam length. Once beams are in place, construction of the ramp deck and travel surface would be completed. Portions of the ramp on embankment would use staging preparation, necessary clearing and grubbing, and then placement of fill for construction. Walls

of ramps stop prior to wetland areas and extra buffer is required for contractors in case alignment or construction impact areas change.

3.5.4 CONSTRUCTION ACCESS

Construction access may result in unavoidable fill impacts in wetlands, including critical areas. All construction activities that constitute fill in wetlands would take place within the areas permitted for impacts from the Project. Construction access is expected to include the use of mats, barges, or temporary trestle bridges. The selection of access methods during construction would be determined by the contractor in coordination with SCDOT to ensure compliance with all federal/state permits and authorizations.

3.5.5 UTILITY RELOCATIONS

The construction of the Project may require relocation of utility lines and associated infrastructure. Utility relocations are expected to be completed by the SCDOT selected contractor(s) or the respective utility company(s). A Utility Coordination Plan that identifies all potential conflicts and required relocation of utilities will be developed by SCDOT, the SCDOT selected contractor(s), and the respective utility company(s) as the Project design is finalized. SCDOT would only assume responsibility for relocating utilities as identified in the Utility Coordination Plan. Based on the current Project design, utility relocations that would be completed by SCDOT are expected to occur within the permitted limits.

3.6 PROPOSED IMPACTS TO WATERS OF THE US AND WATERS OF THE STATE

Impacts caused by the discharge of fill in wetlands would be unavoidable to construct the Project due to the location and extent of wetlands in the PSA. **Table 3-5** provides a summary of proposed impacts to wetlands and other aquatic resources, including critical areas. Impacts to WOTUS and waters of the State, including critical areas, are based on the current proposed design and include practicable avoidance and minimization elements (see Section 3.9) where feasible. Please refer to Appendix D for permit drawings that depict proposed impacts as well as a list of impacts to individual features.

Table 3-5. Proposed Impacts to WOTUS and Waters of the State, Including Critical Areas

Feature Type	Impact Type	Impact Area (acres)
Freshwater Wetlands	Fill	3.53
Tidal Wetlands/Critical areas	Fill	0.33
SAC-26-1992-762 Protected Lands	Fill	1.37

3.6.1 DISCHARGE OF FILL

Construction of the Project and necessary utility relocations would require the discharge of fill in jurisdictional aquatic resources, including critical areas. All fill impacts in the permitted limits are expected to be in place for more than one year and are therefore being considered permanent in duration. Total impacts for the Project are estimated to be 5.23 acres.

Fill impacts would occur from the direct placement of fill material as well as the grading of existing soils in wetlands within the permitted limits. Clean fill material that complies with SCDOT standard source and type requirements would be used to construct the Project.

Fill impacts would be the greatest in areas where the Project would be at-grade. Fill impacts would be necessary to construct the roadway improvements and ramp approaches and to accommodate geotechnical ground improvements, drainage and stormwater conveyance features, utility relocations, construction access, and equipment and materials storage during construction.

Fill impacts in the permit drawings (Appendix D) show where discharge of fill (i.e., filling or grading) would occur. These impacts vary in extent based on the various design criteria and construction access requirements. Impacts have been minimized to the extent practicable while also adhering to the design standards.

3.6.2 CULVERT AND ARMOR

Proposed post-construction increases in impervious area would require the replacement of the existing 9 ft x 5 ft and 10 ft x 5 ft box culverts carrying freshwater discharges to the UT to Rathall Creek to meet SCDOT design criteria. To avoid and minimize future scour around the new culvert, and to protect the stream from potential erosion, riprap would be placed in around the inlet and outlet of the culvert. These culvert and armor impacts are only associated with the UT to Rathall Creek and would be calculated as permanent fill.

Water Quality Effects

Potential impacts to water quality are unavoidable and would be expected from any road construction. As described in the EA, Appendix F Chapter 2.4.1, no waterbodies within the PSA are considered impaired, but many adjacent waterbodies are. The quality of surface water resources may be impacted because of the clearing of vegetation, land grading, and other road construction activities. Increased erosion and sedimentation, altered drainage patterns, increased surface water temperatures, and decreased clarity could result from construction activities. However, the overall water quality of the Wando River and surrounding waterbodies is not expected to be degraded beyond the existing condition nor would the Project alter the SCDES waterbody classification or use standards.

A National Pollutant Discharge Elimination System (NPDES) permit would be obtained from SCDES and a Stormwater Pollution Prevention Plan (SWPPP) would be developed by the contractor and SCDOT to minimize water quality impacts. Additional avoidance and minimization methods are described in Section 3.10 - Avoidance and Minimization below.

Because the Project is being designed to meet SCDOT standards for stormwater design, would comply with the NPDES permit condition, and would require the development and implementation of a SWPPP, coupled with use of appropriate BMPs, it is expected to have a negligible impact on existing water quality standards.

3.6.3 INDIRECT IMPACTS

An area outside of the project boundary is expected to be affected by indirect impacts due to the anticipated loss of the current hydraulic connection and has been identified and compensated for as fill in feature SAC-26-1992-762.

3.7 SECONDARY AND CUMULATIVE IMPACTS TO WATERS OF THE US AND WATERS OF THE STATE

3.7.1 CONSTRUCTION ACCESS

The exact construction methods of the new I-526 ramps for the Wando Port Connector and relocated I-526 westbound exit ramp to Long Point Road would be established during final design. Construction access method BMP's such as mats, barges, or temporary trestle bridges may result in temporary effects to wetlands and waters of the state. As such, these methods will only be used in areas permitted for impacts.

The use of these access BMP's may require the removal of vegetation but does not always require grubbing. Mats and barges that are stacked and remain in place for long periods of time can result in compaction of soft or unstable soils like those found in wetlands.

It is anticipated that salt marsh and salt tolerant vegetation that is temporarily disturbed for bridge construction access would return naturally during construction and post project completion.

3.7.2 TREE REMOVAL

To construct the Project, the contractor would need to remove vegetation within the permit boundaries and construction access area, associated with new I-526 ramps for the Wando Port Connector and relocated I-526 westbound exit ramp to Long Point Road. Vegetation removal, including clearing and grubbing, would occur in construction and fill impacted locations. Approximately 5.33 acres of trees and shrubs would be removed from wetlands, including those associated with fill impacts described in Section 3.6.

Vegetation in the PSA are typified by tree species such as black willow (*Salix nigra*), water oak (*Quercus nigra*) sweet gum (*Liquidambar styraciflua*), American hornbeam (*Carpinus caroliniana*) red maple (*Acer rubrum*), sweetbay magnolia (*Magnolia virginiana*) laurel oak (*Q. laurifolia*), swamp chestnut oak (*Q. michauxii*), and southern magnolia (*Magnolia grandiflora*). The shrub layer consists of wax myrtle (*Morella cerifera*) American holly (*Ilex opaca*), and dwarf palmetto (*Sabal minor*). Herbaceous species include longhair sedge (*Carex comosa*), soft rush (*Juncus effusus*), and giant cane (*Arundinaria gigantea*). Woody vines include muscadine (*Vitis rotundifolia*).

The high marsh-upland transition is relatively narrow and most of the tree stratum is in the uplands. However, the contractor would need to remove trees and shrubs in this transitional community for construction access and completion of the Project.

3.8 ALTERNATIVE ANALYSIS

The Project was developed in consultation with resource agencies including USACE and SCDES-BCM. Agency correspondence is detailed in Chapter 5 of the EA (see Appendix M). Detailed information related to the development and analysis of alternatives for the Project can be found in Chapter 3 of the EA (see Appendix M).

The Section 404(b)(1) Guidelines outline specific alternatives analysis requirements that must be satisfied for the USACE to authorize proposed impacts to aquatic resources. Additionally, SC Code of Regulations 61-101 requires an evaluation of whether there are feasible alternatives to the activity that reduce adverse consequences on water quality and classified water uses. When evaluating potential alternatives for the Project, the study team reviewed the Preliminary and Reasonable Alternatives through the lens of the 404 Section (b)(1) Guidelines and SC Code of Regulations 61-101 to ensure impacts to aquatic resources were avoided or minimized to the greatest extent practicable.

3.8.1 ALTERNATIVES AND ALTERNATIVE DEVELOPMENT

Three preliminary alternatives from the PEL were brought forward for consideration with three additional preliminary alternatives developed by the project team. These alternatives include improvements to the existing Long Point Road interchange configuration, new interchange configurations, and/or a new interchange alternative and were developed and analyzed in the creation of the accepted EA. The project team first reviewed previous planning studies completed by SCDOT, the Berkeley Charleston Dorchester Council of Governments (BCDCOG), the Charleston Area Transportation Study (CHATS) Metropolitan Planning Organization, and the Town of Mount Pleasant to develop preliminary concepts for improvements to the interchange. Based on the review completed by the project team, no previous studies completed by BCDCOG, CHATS, or the Town of Mount Pleasant included a reconfiguration of the existing interchange. Recommendations for additional turn lanes and adjustments to signal timings at the existing ramp terminals, as well as additional turning and storage lanes on Long Point Road within the existing interchange were proposed. The project team incorporated these concepts into proposed alternatives throughout the development of the range of alternatives.

Table 3-6. List of the preliminary range of alternatives evaluated to improve the Long Point Road Interchange

Universe of Alternatives	Description	Origin
No-Build	Includes improvements included in 2050 Existing and Committed (E+C) Network	2050 E+C Network
Alternative 1 (PEL Option 1)	Improved Partial Cloverleaf Interchange	I-526 LCC EAST PEL
Alternative 2 (PEL Option 2)	New Truck Ramps to the Port and Improved Partial Cloverleaf Interchange	I-526 LCC EAST PEL
Alternative 3 (PEL Option 4)	Diverging Diamond Interchange (DDI)	I-526 LCC EAST PEL
Alternative 4	Single Point Urban Interchange (SPUI)	Developed by Project Team
Alternative 5	Flyover from Long Point Road	Developed by Project Team
Alternative 6	New Truck Ramps to the Port and DDI	Developed by Project Team

The range of alternatives were evaluated to determine whether the purpose and need of the project would be met. Traffic models, including Highway Capacity Software (HCS), Synchro (macro-simulation model), SimTraffic (micro-simulation), and VISSIM (robust visualization and micro-simulation) provided operational analysis to determine how each of the six build alternatives performed when compared to the No-Build Alternative. Detailed information on the data sets and traffic analysis models can be found in Appendix A of the EA: Traffic Analysis Report/Interchange Access Request. Each of the six build alternatives were evaluated using the following two questions:

1. Does the alternative improve traffic operations compared with the No-Build Alternative?
2. Does the alternative reduce operational conflicts between port-related and local traffic compared with the No-Build Alternative?

To meet the operational improvements part of the project purpose, an alternative had to meet both of the following criteria:

- Reduce ramp queuing as measured by traffic modeling/simulation software.
- Result in a better level of service (LOS) at the signalized ramp terminals compared with the No-Build Alternative.

To demonstrate a reduction in operational conflicts between port-related and local traffic, an alternative was required to demonstrate a reduction in the amount of truck traffic or conflicts compared with the No-Build Alternative. The measures for determining improvements over the No-Build Alternative included:

- Reduced truck traffic on Long Point Road.
- Reduced truck traffic on ramps to I-526 westbound at Long Point Road.
- Reduced number of key conflict points between port-related and local traffic.

Only alternatives that could answer “yes” to both questions were considered to meet the purpose and need and were carried forward as a Reasonable Alternative.

After reviewing the alternatives, only Alternative 2 met all requirements as displayed below, leading to its consideration as the Preferred Alternative.

Table 3-7. Identified Reasonable Alternatives

Conceptual Alternatives	Description	Improves Traffic Operation	Reduces Conflicts Between Port-Related and Local Traffic	Meets Purpose and Need	Considered Reasonable
Alternative 1	Improved Partial Cloverleaf Interchange	No	No	No	No
Alternative 2	New Port Access Ramps and Improved Partial Cloverleaf Interchange	Yes	Yes	Yes	Yes
Alternative 3	DDI	No	No	No	No
Alternative 4	SPIU	No	No	No	No
Alternative 5	Flyover from Long Point Road	No	No	No	No
Alternative 6	New Port Access Ramps and DDI	No	Yes	No	No

3.8.2 PREFERRED ALTERNATIVE

Alternative 2 was identified as the only alternative to meet the purpose and need of the project. Alternative 2 includes an improved partial cloverleaf interchange at I-526 and Long Point Road and two proposed truck ramps from I-526 to the proposed Wando Port Connector. Collector-distributor roads would be used to help separate port-related and local traffic and would also require a realignment of a segment of Wando Park Boulevard to accommodate the proposed ramps.

Alternative 2 is also compatible with the planned widening of I-526, which will include the widening of bridges servicing both directions of I-526 crossing an unnamed tributary to the Wando River, as well as bridges servicing both directions and on/off ramps for I-526 crossing an unnamed tributary to Hobcaw Creek.

A 10-foot multiuse path would be placed along the east side of LPR from Wando Park Boulevard to Belle Point Drive to enhance bicycle and pedestrian connectivity. A cul-de-sac would also be added at the end of a shipping lane near the back gate of the Wando Welch Terminal to accommodate the Wando Port Connector. The multiuse path and cul-de-sac would not impact WOTUS.

Alternative 2 is estimated to cost \$280-360 million. For detailed maps and renderings of Alternative 2, see Appendix A.

Impacts within the study area for Alternative 2 include:

- Alternative 2 would require 54 potential relocations (52 businesses including one church, 0 residences, and 2 outbuildings).
- Alternative 2 requires 34 acres of right-of-way.
- Alternative 2 would impact 13 hazardous material sites.
- Alternative 2 would impact one historic site, SHPO site 38CH2683.
- Alternative 2 would impact some threatened and endangered species habitat, and impact 2.79 acres of essential fish habitat.
- Alternative 2 would impact 5.23 acres of wetlands, including 4.9 acres of freshwater wetlands, and 0.33 acres of critical area.
- Alternative 2 would cross two tidally influenced tributaries and one tidally influenced creek

3.9 AVOIDANCE AND MINIMIZATION

3.9.1 AVOIDANCE

The total avoidance of aquatic resources is not feasible. As part of the Preliminary Alternatives Analysis for the Project, Build Alternative alignments were initially developed to avoid wetlands within the PSA to the greatest extent possible, while adhering to the preliminary design criteria. However, all 6 Build alternatives reviewed as part of the Tier 1 Preliminary Alternatives Analysis, when compared to the No-Build or No Action Alternative, had potential impacts to aquatic resources. This is partly due to the planned integration of each alternative with the proposed I-526 widening.

Even though the basic purpose of the Project is not water dependent, the results of the Tier 1 Preliminary Alternatives Analysis determined there were no feasible or practicable alternatives with no impacts to aquatic features that also meet the purpose and need of the Project.

3.9.2 MINIMIZATION

The following elements were incorporated into the current design plans to minimize the unavoidable impacts to aquatic resources.

Minimization of Discharge of Fill

Reducing Roadway Fill

Steeper side/fill slopes (2:1 or 3:1, rather than 4:1 or 6:1) within wetland crossings would be used when feasible to minimize wetland impacts. However, 6:1 fill slopes may be necessary at wetland crossings associated with entrance/exit ramps to provide adequate visibility and safety as per relevant design standards. Relevant design standards include SCDOT's Roadway Design Manual, FHWA, AASHTO's Policy on Geometric Design, and AASHTO's Roadside Design Guide.³

Maximizing Bridge Lengths (Ramps)

Existing bridges would be improved but not major changes would occur (i.e., alterations to length). Ramps on structure are being proposed for the I-526 truck ramps and the relocated I-526 westbound exit ramp to Long Point Road. I-526 truck ramps would clear I-526 and Wando Park Blvd.; retaining walls (i.e., mechanically stabilized earth) are proposed to minimize fill. The relocated I-526 westbound exit ramp would span the UT to Hobcaw Creek, as it does currently.

Fill impacts associated with the ramps would be limited to the approaches where the elevated structures connect to existing roadway. The truck ramp locations and design concepts have been optimized to minimize fill impacts by maximizing ramp lengths where feasible.

Construction Access Methods

SCDOT would avoid the use of causeways on temporary fill. Use of mats, barges, or temporary trestle bridges for construction access would be used to minimize impacts to aquatic resources by reducing the need for the temporary discharge of fill. The contractor would be responsible for ensuring all temporary construction access methods are removed in their entirety upon completion of construction.

Additional Methods to Minimize Discharge of Fill Impacts

- Prior to construction activities, silt fencing would be installed along the edge of the limits of disturbance to prevent fill material from leaving the construction site.
- Equalizer pipes/culverts would be installed where feasible in wetlands to maintain connectivity and drainage patterns.
- Any excavated earthen materials would be stored and disposed of in uplands, not side cast into adjacent wetlands, marshes, or waterways.
- Placement of riprap would be minimized where feasible.

Minimization of Clearing

Clearing would occur within the existing and proposed right of way for the construction of the Project. Clearing within the right of way would include ground disturbance (i.e., grubbing) and therefore, constitutes fill impacts and has been categorized as such in this permit, see Section 3.6. No clearing would occur outside of the existing and/or proposed right of way.

Minimizing Impacts on Water Quality

Erosion and Sediment Control

A SWPPP would be developed by the contractor and SCDOT to minimize water quality impacts from erosion and sedimentation during active construction and post-construction. The contractor and SCDOT would comply with applicable SCDOT and FHWA standards for highway and bridge construction as well as all applicable SCDES standards and conditions. The contractor and SCDOT would routinely perform inspections to confirm that erosion and sediment control BMPs are in place, functional, and maintained during ground disturbing activities. BMPs that

³ https://www.scdot.org/business/pdf/roadway/2021_SCDOT_Roadway_Design_Manual.pdf
<https://store.transportation.org/item/collectiondetail/180>
<https://store.transportation.org/Item/CollectionDetail?ID=105>

are not functioning properly or that require maintenance would be addressed and reinspected for compliance with the SWPPP.

The use of erosion and sediment control BMPs during construction would be the primary method of minimizing water quality impacts during roadway construction. Exposed soils and sediments would be present during earth-work activities, increasing the potential for erosion and sedimentation impacts. The use of erosion and sediment control BMPs would help minimize impacts to and quality parameters of surface waters.

Examples of erosion and sediment control BMPs that would be considered during construction include:

- use of filter fabric sediment and erosion control fencing around areas of exposed soils,
- use of turbidity curtains in waters where silt fence is not feasible,
- limited clearing and grubbing of vegetation,
- stabilization of stockpiled soils,
- use of rock check dams,
- use of sediment basins, and
- use of diversion swales to direct stormwater runoff to sediment basins.

Stormwater Runoff

A NPDES permit would be obtained from SCDES and a SWPPP would be developed by the contractor and SCDOT to minimize water quality impacts from runoff during active construction and post-construction. The Project is being designed to meet the standards of the SCDOT Stormwater Quality Design Manual (2014) as well as SCDOT and FHWA bridge design standards.

Applicable and practicable stormwater treatment BMPs would be implemented as necessary to ensure the treatment of stormwater runoff prior to discharging to receiving waters. The proposed design includes the use of grassed shoulders and vegetated swales, where feasible, to aid in the removal of sediments and nutrients from the stormwater runoff prior to discharge to waters in the permitted limits. Sediment basins or sediment dams would be used in certain areas, if needed, to provide even greater sediment and nutrient removal from pollutant-laden stormwater. Due to right-of-way constraints, safety considerations, and post-construction access issues, the types of post-construction structural stormwater controls are limited.

Proposed bridge improvements would not alter existing bridge deck runoff collection over sensitive natural areas and would not alter the existing scuppers. The use of existing scuppers would be maintained. Applicable and practicable stormwater BMPs would be implemented as necessary to ensure the treatment of stormwater runoff prior to discharging to receiving waters.

Additional Methods to Minimize Water Quality Impacts

- To the maximum extent possible, construction staging and phasing would be managed so that only the areas in active construction are disturbed/exposed while inactive areas would be maintained with either temporary or permanent vegetation.
- Grading would be completed as soon as possible after it has begun.
- Where necessary, slopes and embankments would be stabilized with appropriate erosion and sediment control BMPs.
- Fill material, including riprap, placed within wetlands would consist of clean material free of potential sources of pollution to protect the quality of surface waters.
- All necessary measures to prevent oil, tar, trash, debris, and other pollutants from entering the adjacent waterway and/or wetland would be implemented.
- Bridge decks and conveyance systems would be designed to withstand velocities of peak discharge events.
- Direct contact of raw or live concrete in wetlands or open waters would be avoided to the greatest extent practicable until the concrete has cured.
- Discharge of stormwater would be greater than 1,000ft from approved shellfish harvesting areas.

3.10 PROPOSED COMPENSATORY MITIGATION

SCDOT proposes to provide compensatory mitigation the unavoidable impacts to wetlands and other aquatic resources, including critical areas, caused by permanent fill and clearing impacts.

3.10.1 CONCEPTUAL MITIGATION PLAN

For impacts to freshwater wetlands, SCDOT plans to purchase credits from the Palmetto Umbrella Mitigation Bank-Big Run Site. The specific bank to purchase Salt Marsh credits for those impacts in the critical area has not been identified, however the Department commits to purchasing these credits from an USACE approved mitigation bank.

3.10.2 MITIGATION CREDIT CALCULATIONS

SCDOT proposes to utilize the credit calculation methods outlined in the 2010 Guidelines to determine the required compensatory mitigation credit totals for unavoidable impacts to wetlands and non-wetland resources, including critical areas (USACE 2010). **Table 3-8** provides an overview of the calculated mitigation credits to offset adverse impacts to aquatic resources. For additional information on credit calculations and copies of the compensatory mitigation worksheets please see Appendix F.

Table 3-8. Summary of Proposed Compensatory Mitigation Credits

Feature Type	Impact Type	Project Total	
		Impact Area (acres)	Proposed Mitigation Credits
Freshwater wetlands	Fill	3.53	38.83
Critical Areas	Fill	0.33	4.46
SAC-26-1992-762 Protected Lands	Fill	1.37	15.07

3.11 COASTAL ZONE CONSISTENCY

A Coastal Zone Consistency (CZC) certification from SCDES-BCM will be required for the Project (SCDES 2012). The South Carolina Coastal Zone Management Program (SCCZMP) requires projects in coastal counties to comply with the enforceable policies of the State's approved coastal management program. The SCCZMP applies to the Project because it is subject to FHWA approval, requires a federal permit from the USACE, and may reasonably affect any coastal resources or coastal use in the coastal zone.

SCDOT has evaluated the Project with specific consideration to coastal resources and has determined it would be consistent with all enforceable policies of the SCCZMP. Policy Group (PG) checklists were completed for PG II transportation facilities, PG X Erosion Control, PGXII activities in areas of special resource significance, PG XIII stormwater management, and PG XIV mitigation guidelines. Completed policy checklists and application for SCCZMP are included in Appendix G.

3.12 FLOODPLAINS AND HYDROLOGY

Federal Emergency Management Agency (FEMA) is the agency in charge of administering the National Flood Insurance Program (NFIP). The NFIP is coordinated through the South Carolina Department of Natural Resources (SCDNR). Floodplain areas within South Carolina have been mapped by FEMA and can be found on Flood Insurance Rate Maps (FIRMs), which depict flood hazard areas for communities. The water surface elevations for the 100-year flood have been established by FEMA to assist communities in floodplain management. Additional details on floodplain definitions, regulatory framework, and regulatory agencies are included in Chapter 4 of the EA (see Appendix M).

The study area encompasses 27.85 acres of floodplains. Floodplains within the study area are within FEMA flood Zone AE, the 100-year floodplain (one percent chance of flood during any given year).

The No-Build Alternative would not impact floodplains because no construction activity would occur within or near floodplains. The Preferred Alternative (Alternative 2) would involve construction within the 100-year floodplain. The existing alignment of I-526 and Long Point Road would be used to the greatest extent practicable to avoid and

minimize fill placement within the floodplain. Any modifications to floodplains would require detailed hydraulic analyses, coordination with the Charleston County Floodplain Administrator, and a FEMA No-Rise Certification. While FEMA guidance allows for a 1-foot increase in flood elevations, the Preferred Alternative should lead to no-rise conditions as designed. Additional detail is available in the EA's Appendix R: Floodplains.

SCDOT and the contractor would coordinate with regulatory agencies, including FEMA, USACE, SCDES, SCDNR, and the Charleston County Floodplain Administrator, to ensure that impacts to floodplains are avoided and minimized to the greatest extent practicable. Detailed hydraulic analyses would be performed to obtain FEMA Certification for any structure that may impact 100-year flood plain elevation levels, ensuring that construction of the LPR Interchange Improvement would not contribute to additional flood risk. The additional studies, results, and proof of coordination with FEMA and local floodplains managers would be provided once completed or obtained.

3.12.1 IMPACTS AND MITIGATION

After refining the Preferred Alternative and incorporating the traffic operation enhancements, approximately 27.85 acres of the permitted limits lie within the FEMA-designated 100-year floodplain. The Project is being designed to meet the standards of the SCDOT Stormwater Quality Design Manual (SCDOT 2014). The existing alignment of I-526 and Long Point Road would be used to the greatest extent practicable to avoid and minimize fill placement within the floodplain. A FEMA No-Rise Certification would be required to ensure that area flood elevations are not increased by the placement of a structure. Pursuant to the FEMA certification, the Project would be designed to allow for no more than 1-foot increase in flood elevations.

SCDOT and the contractor would coordinate with regulatory agencies, including FEMA, USACE, SCDES, SCDNR, and the Charleston County floodplains manager, to ensure that impacts to floodplain are avoided and minimized to the greatest extent practicable. Detailed hydraulic analyses would be performed to obtain FEMA Certification for any structure that may impact 100-year flood plain elevation levels, ensuring that construction of the Project would not contribute to additional flood risk. The additional studies, results, and proof of coordination with FEMA and local floodplains managers would be provided once completed or obtained.

3.13 SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT

A cultural resources assessment was conducted in accordance with Section 106 of the NHPA (36 CFR § 800) in May 2022 and included conducting background research, an archaeological/architectural survey, laboratory analyses, and an NRHP assessment. This assessment can be found in Appendix H. The archaeological survey identified two newly identified archaeological sites as well as 15 previously recorded archaeological sites within the area of potential effect.

Correspondence between SCDOT and the state historic preservation office (SHPO) is included in Appendix H of this application. Details on historic properties, the regulatory framework, and regulatory agencies as well as details on historic and cultural resources, including proposed avoidance, minimization, and mitigation for unavoidable impacts to historic and cultural resources are documented in Chapter 4, Section 4.19 of the EA (see Appendix M).

3.13.1 IMPACTS AND MITIGATION

The Project design avoids or minimizes disturbance to the viewsheds of architectural resources and historic districts to the extent practicable. Of the two newly identified archaeological sites and 15 previously recorded sites, one site (38CH2683) is recommended eligible for the NRHP. **Table 3-9** provides a summary of potential effects on archeological resources located within the area of potential effect. A memorandum of agreement (MOA) was developed for 38CH2683 in coordination with FHWA, SCDOT, and SHPO. The MOA was executed on January 5, 2023 to mitigate adverse impacts for 38CH2683 and can be referenced in Appendix H.

Table 3-9. Effects on Archeological Sites from the Preferred Alternative

Site	NRHP Status	Effect
38CH0315	Not eligible or recommended not eligible	N/A
38CH0316	Not eligible or recommended not eligible	N/A
38CH0329	Not eligible or recommended not eligible	N/A
38CH0330	Not eligible or recommended not eligible	N/A
38CH0331	Not eligible or recommended not eligible	N/A
38CH0332	Not eligible or recommended not eligible	N/A
38CH0334	Not eligible or recommended not eligible	N/A
38CH0353	Not eligible or recommended not eligible	N/A
38CH0414	Not eligible or recommended not eligible	N/A
38CH0415	Not eligible or recommended not eligible	N/A
38CH0417	Not eligible or recommended not eligible	N/A
38CH0422	Not eligible or recommended not eligible	N/A
38CH1236	Not eligible or recommended not eligible	N/A
38CH1647	Not eligible or recommended not eligible	N/A
38CH1672	Not eligible or recommended not eligible	N/A
38CH2682	Not eligible or recommended not eligible	N/A
38CH2683	Eligible	Adverse effect

The architectural survey conducted in May 2022, following South Carolina Department of Archives and History (SCDAH) standards identified four new aboveground resources in the architectural area of potential effect,⁴ including three buildings and one road (SCDAH 2018). Previous investigations identified one historic district and two individual resources. **Table 3-10** provides a summary of potential effects on architectural resources located within the area of potential effect.

Table 3-10. Effects on Architectural Sites from the Preferred Alternative

Site	NRHP Eligibility	Effect
2046	Not eligible for the NRHP	N/A
2046.1	Recommended as not eligible for the NRHP	N/A
7802	Eligible for the NRHP as a contributing element of the Snowden historic district	No adverse effect
7818	Recommended as not eligible for the NRHP	N/A
8532	Recommended as not eligible for the NRHP	N/A
8553.01 (Egypt Road)	Egypt Road was identified as a contributing element of the Snowden Infrastructure Network ¹	No adverse effect
Snowden Historic District	Eligible for the NRHP under Criterion A ²	No adverse effect

¹ The Snowden community is connected via common infrastructure including driveways, roads, and ditches, which together are identified as the Snowden Infrastructure Network (SHPO Site No. 8553).

² The Snowden HD is eligible for the NRHP under Criterion A for its association with freedmen's settlements and Lowcountry Gullah culture (Reed et al. 2016:123).

SHPO Site No.7802 has been moved to the Snowden Community Center outside the architectural area of potential effect and the study area; therefore, would not be impacted by the project. The project would not include design changes to the Egypt Road intersection with Long Point Road. The Snowden historic district boundary lies outside the current project footprint, north and east of the Egypt Road and Long Point Road intersection. Therefore, the project would have no effect on the Snowden historic district. The Preferred Alternative (Alternative 2) will not alter any of the characteristics that qualify the resource for inclusion in the NRHP, nor will it compromise the

⁴ For the architectural area of potential effect, a 91-meter (300-foot) buffer was added to the project footprint, which encompasses approximately 396.59 hectares (979.98 acres).

integrity of the property or diminish its architectural or historic significance. Therefore, the Preferred Alternative (Alternative 2) would have no adverse effect on architectural 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 will be immediately notified and all work near the discovered materials and site work shall cease until the SCDOT Archaeologist directs otherwise.

3.14 SECTION 7 OF THE ENDANGERED SPECIES ACT

For detailed discussions on each species, their habitat, the availability of potential habitat for each species within the PSA, and consultation history with the US Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration (NOAA) Fisheries, please refer to the Biological Assessment (2022) included in Appendix I of this Joint IP Application.

Consultation with the USFWS and NOAA Fisheries was initiated as a part of the 2022 Biological Assessment. Agencies concurred with the effect determinations outlined in the document.

Table 3-11 details the federally listed species of concern for the Project, along with the biological effect determination for each species. Concurrence was received from USFWS on September 21, 2022.

On September 13, 2022, the USFWS proposed to list the tri-colored bat as endangered. A determination of effects is not required for the tri-colored bat until the listing designation goes into effect. SCDOT will reinstate consultation with USFWS if the listing designation goes into effect.

At the time of the EA, the northern long-eared bat was listed as threatened. On November 30, 2022, the USFWS published a final rule in the Federal Register (87 FR 73488) to reclassify the species as endangered. This change in status became official on March 31, 2023. SCDOT was directed by USFWS to complete a NLEB determination thorough IPAC and a letter from IPAC was generated on March 22, 2023 with a determination of NLAA. On August 10, 2023 USFWS concurred with the NLAA determinations.

On July 24, 2024, an addendum to the Biological Evaluation provided an updated northern long-eared bat evaluation. Updated Determination Keys (Dkey) were used to determine the project's potential impacts on Northern Long-eared Bats (NLEB, *Myotis septentrionalis*). The Dkey stated that the project is not likely to result in unauthorized takes of northern long-eared bats and the proposed project is consistent with a determination of "May Affect, Not Likely to Adversely Affect" the northern long-eared bat.

3.14.1 IMPACTS AND MITIGATION

Construction BMPs to avoid and minimize inadvertent impacts to protected species may include restricting construction during sensitive life cycle periods (e.g., nesting) for protected species and conducting biological monitoring during construction. The following conservation measures or actions would be used to minimize or compensate for effects to protected species:

- Adherence to BMPs for erosion control, stormwater control, and water quality.
- Obtain National Pollutant Discharge Elimination System permit and prepare a SWPPP.
- Ensure equipment does not obstruct or impede passage through more than 50 percent of the Wando River tributary, Rathall Creek tributary, Hobcaw Creek tributary, or Hobcaw Creek.
- All contractors involved in the construction would be required to comply with the USFWS Manatee Protection Guidelines for in-water work.
- Temporary lighting during bridge construction and improvements will be directed away from suitable bat habitat during the active season of the northern long-eared bat and other bat species.
- To the extent practicable, tree removal will not exceed what is required for project construction (proposed alignment and temporary work areas). Tree clearing restrictions would take place between April 1 through July 31 and December 15 through February 15.

Additional consultation with USFWS and NOAA Fisheries would be initiated if new information reveals impacts associated with the Project may affect listed species or critical habitat in a manner not previously considered, the Project is subsequently modified in a manner which was not considered in the 2022 Biological Assessment, or a new species is listed, or critical habitat is designated that may be affected by the proposed Project.

Table 3-11. Federally Protected Species and Potential Effects

Common Name	Federal Protection Status	Scientific Name	Habitat Present	Effect Determination
Amphibian Species				
Frosted flatwoods salamander	Threatened: Critical Habitat	<i>Ambystoma cingulatum</i>	No	No effect
Bird Species				
American wood stork	Threatened	<i>Mycteria americana</i>	Yes	Not Likely to Adversely Affect
Eastern black rail	Threatened	<i>Laterallus jamaicensis jamaicensis</i>	Yes	Not Likely to Adversely Affect
Piping plover	Threatened	<i>Charadrius melodus</i>	Yes	Not Likely to Adversely Affect
Red-cockaded woodpecker	Threatened	<i>Picoides borealis</i>	No	No effect
Red knot	Threatened	<i>Calidris canutus rufa</i>	Yes	Not Likely to Adversely Affect
Insect Species				
Monarch butterfly	Candidate	<i>Danaus plexippus</i>	Yes	
Mammal Species				
Northern long-eared bat*	Endangered	<i>Myotis septentrionalis</i>	Yes	Not Likely to Adversely Affect
Tri-colored bat**	Proposed Endangered	<i>Perimyotis subflavus</i>	Yes	
West Indian manatee***	Threatened	<i>Trichechus manatus</i>	No	No effect
Plant Species				
American chaffseed	Endangered	<i>Schwalbea americana</i>	No	No effect
Canby's dropwort	Endangered	<i>Oxypolis canbyi</i>	No	No effect
Pondberry	Endangered	<i>Lindera melissifolia</i>	No	No effect
Seabeach amaranth	Threatened	<i>Amaranthus pumilus</i>	No	No effect
Reptile Species				
Green sea turtle****	Threatened: Critical Habitat	<i>Chelonia mydas</i>	Yes	No effect

* Listed as endangered, effective date of March 31, 2023.

** Proposed for listing as endangered by USFWS on September 14, 2022; effective date to be determined

*** Also regulated under the Marine Mammal Protection Act

**** Species under the joint jurisdiction of USFWS and NOAA Fisheries

3.14.2 STATE PROTECTED SPECIES

Plant and animal species that are on the South Carolina state-protected species list receive state protection under the South Carolina Nongame and Endangered Species Conservation Act (South Carolina Code, Title 50). A copy of the South Carolina Rare, Threatened & Endangered Species Inventory list and information about the species are included in Appendix I and Appendix J (SCDNR 2024).

3.14.3 BALD AND GOLDEN EAGLE PROTECTION ACT

Suitable bald eagle foraging habitat was not observed in the PSA. Suitable nest trees are present, but no nests were observed during field visits conducted from August 2018 through September 2019, and the summer of 2022. According to the SCDNR Natural Heritage Trust database, the closest eagle nest is approximately 1.5 miles north of the study area, along the Wando River.

3.14.4 ESSENTIAL FISH HABITAT

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) of 1976, as amended in 1996, requires that NOAA Fisheries work with federal and state agencies, regional fishery management councils, and the fishing community to protect, conserve, and enhance essential fish habitat (EFH). As defined by the Magnuson-Stevens Act, EFH is waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (16 USC 1802, 50 CFR § 600.10). Locations and types of EFH that have a greater need for conservation and

management are referred to as Habitat Areas of Particular Concern (HAPC). HAPC are considered high priority areas for conservation, management, or research because they are rare, sensitive, stressed by development, or important to overall ecosystem function.

EFH was identified using wetland delineations to determine the estuarine boundary and the most recent publicly available aerial imagery to determine habitat types. EFH boundaries were confirmed with NOAA Fisheries during consultation in 2022. EFH in the study area include estuarine emergent wetland, estuarine tidal creek, intertidal non-vegetated flat, palustrine emergent wetland, unconsolidated bottom, and oysters. Oyster reef is the only EFH HAPC in the study area. One oyster reef is located along Hobcaw Creek, approximately 90 feet west of the I-526 bridge over Hobcaw Creek. For coordination correspondence and information about EFH, see Appendix K.

Impacts and Mitigation

The Project would impact approximately 2.79 acres of EFH, consisting predominantly of estuarine emergent wetland and palustrine emergent wetland impacts. An EFH Assessment was submitted to NOAA Fisheries for review and comment on October 21, 2022. Concurrence with the findings of the initial EFH Assessment was received from NOAA Fisheries on February 2, 2023. **Table 3-12** includes a summary of the anticipated permanent and temporary, direct, and indirect impacts to EFH that would occur because of the proposed Project.

Table 3-12. Types of Permanent and Temporary (Direct and Indirect) Impacts to EFH

EFH Type	Permanent Direct Impacts	Permanent Indirect Impacts	Temporary Direct Impacts	Temporary Indirect Impacts
Estuarine emergent wetland	Fill (roadway and bridge abutments)	None	Bridge Access	Siltation
Estuarine tidal creek	None	None	None	Siltation
Intertidal non-vegetated flat	None	None	None	Siltation
Palustrine emergent wetland	Fill (roadway and bridge abutments)	None	Bridge Access	Siltation
Unconsolidated bottom	None	None	None	Siltation
Oysters	None	None	None	Siltation

The contractor will be required to implement SCDOT standard environmental commitments and BMPs, in addition to those project-specific commitments developed through agency coordination and the permitting process. The final project design will incorporate the conditions of SCDOT's General MS4 permit and TMDL watershed guidance contained in Section 4.10 of the Stormwater Quality Design Manual. The contractor will develop an SWPPP and obtain an NPDES permit from SCDES before construction can begin. Temporary silt/turbidity curtains will be installed prior to the commencement of in-water work, where practicable. The contractor will be required to utilize SCDOT BMPs for soil and erosion control during construction.

3.15 CLIMATE CHANGE

On January 9, 2023, the CEQ issued *NEPA Guidance on Consideration of Greenhouse Gas Emissions and Climate Change*, establishing a common approach for Federal agencies for consideration of the effects of GHG emissions and climate change relative to a proposed action.⁵ This interim GHG guidance builds upon and updates the CEQ's *2016 Final Guidance for Federal Departments and Agencies on the Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Review*, highlighting best practices for analysis grounded in science and agency experience.

A GHG assessment was completed at the project level and is discussed in EA Chapter 4.6.1, see Table 3-13 (see Appendix M). Vehicle traffic in the study area is anticipated to grow between the existing conditions and project design year (2050). For this analysis, direct exhaust from vehicle operations within the study area roadways, fuel

⁵ CEQ. *National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change*. January 2023. <https://www.federalregister.gov/d/2023-00158>.

cycle-related emissions, and construction/maintenance emissions were estimated. Emissions were analyzed for the No-Build Alternative and for the Preferred Alternative (Alternative 2). Operations and fuel cycle emissions were estimated based on project specific vehicle miles traveled (VMT) traffic data and default Motor Vehicle Emission Simulator national database emission rates for the Charleston County area. Construction emissions were estimated using the FHWA Infrastructure Carbon Estimator (ICE) tool and project-specific details. The ICE tool emission estimates include GHG emissions from energy demand, materials usage, construction equipment operation, and maintenance activities at the project life-cycle level. A project lifetime of 60 years was assumed for this analysis. The overall annual study area GHG emissions would be comparable between the No-Build Alternative and the Preferred Alternative (Alternative 2). Due to the relatively minor changes to VMT and average roadway speeds which would occur between the No-Build Alternative and the Preferred Alternative (Alternative 2), the difference in GHG emissions would be commensurately minor. For additional details, see the Greenhouse Gas Technical Memorandum in EA Appendix S.

Table 3-13. Greenhouse Gas Analysis

Emission Source	No-Build	Alternative 2
Study area roadway vehicle operations		
Passenger Vehicles (VMT)	99,674,200	99,560,685
Medium Trucks (VMT)	2,899,560	2,803,200
Heavy Trucks (VMT)	12,000,835	10,151,745
Overall Average Speed (mph) ¹	50	50
Annual vehicle emissions (MT CO₂e)²	49,081	47,133
Construction and maintenance emissions annualized over 50 years (MT CO₂e)³		
Materials	--	36
Transportation	--	4
Construction	--	28
Maintenance	138	195
Total annualized construction and maintenance	138	264
Vehicle operations plus construction and maintenance emissions annualized over 50 years (MT CO₂e)		
Study Area Emissions	49,219	47,397
CO ₂ e = carbon dioxide equivalents MT = metric tons mph = miles per hour VMT = vehicle miles traveled ¹ Overall average speed represents the average speed across all analyzed roadway segments in the study area weighted by segment length and annual average day vehicle trips. Average vehicle speeds along individual roadway segments would differ from the value shown. ² Vehicular GHG emissions are inclusive of fuel cycle emissions. ³ No-Build construction and maintenance emissions assume no construction and account only for the maintenance of existing roadways.		

3.15.1 SOCIAL COST OF GREENHOUSE GAS EMISSIONS

The GHG emissions associated with construction of a build alternative, maintenance of proposed and existing roadways, and the operation of vehicle traffic in the project area would result in GHG emissions which would contribute to global climate impacts. The social cost greenhouse gas emissions (SC-GHG), in adjusted 2021 dollars, were estimated based on these GHG emissions for each year of construction and operation and summed over the Project's lifetime for comparison across alternatives. SC-GHG estimates represent the costs in global climate-related damages associated with GHG emissions. Negative SC-GHG values represent the potential for reduction in global climate-related damages. A summary of project lifetime SC-GHG for each Reasonable Alternative are presented in **Table 3-14**.

Table 3-14. SC-GHG Summary in 2021 Dollars of Global Climate-Related Damages

Lifetime SC-GHG in Adjusted 2021 Dollars ¹	No-Build	Alternative 2
Total SC-GHG	\$100,250,000	\$97,743,000
SC-GHG Percent Change Relative to No-Build	--	-2.5%
SC-GHG Difference Relative to No-Build	--	-\$2,507,000

SC-GHG = social cost of greenhouse gas emissions

1 Values shown represent 2021 dollars discounted at a 3% rate and summed over the project lifetime.

As shown, SC-GHG estimates would be 2.5 percent lower under Alternative 2 when compared to the No-Build. SC-GHG are global damage cost estimates and may not represent project-related climate damage costs or cost reductions to communities in the project area specifically. While projections are based on the best available science at the time of publication, SC-GHG estimates may underestimate actual climate damage costs due to various climate damage categories not being considered (such as ocean acidification).

Global social costs of climate change would be disproportionately borne by underserved communities most vulnerable to climate impacts. Alternative 2 would improve vehicle flow on the I-526 in the project area and would not be expected to increase or exacerbate the effects of climate impacts on underserved communities in the project area.

3.16 ENVIRONMENTAL JUSTICE

An Environmental Justice Analysis was completed at the project level and is discussed in EA Chapter 4.2 (see Appendix M). The analysis identified Six block groups located within the study area, four of which have been identified as environmental justice block groups, and Minority populations are present in all six block groups. Within the study area, 2.5 percent of families are living below the poverty level. Poverty rates in the study area block groups range from zero to 13.5 percent with two of the six block groups having a higher poverty rate than the study area and have been identified as an environmental justice block groups.

Environmental justice policies stress early and ongoing public outreach as a vital component of the environmental justice process. Public outreach has occurred throughout the project development process and multiple methods of public outreach were used to increase the likelihood of environmental justice populations participation. Advertisements were used to publicize the project, including Town of Mount Pleasant digital display boards, postcards, and newspaper ads. All previous public involvement materials were available in Spanish and an ad was place in the Spanish paper La Informador. In addition, a representative from the Snowden Gullah-Geechee Community was included in the project's stakeholder group.

The business relocations required by the Applicants proposed action are located within an environmental justice block group. While the impacted businesses are part of the Town of Mount Pleasant's economic base, none of the businesses being relocated are anticipated to provide community dependent services (i.e., rely on being located within the community to function or conversely, the community is dependent upon the business for example a corner market or health care facility). The businesses in this area are not dependent on foot-traffic source access or sales, and no residential relocations would occur. Therefore, it is not expected that relocations would impact

environmental justice populations. No minority or low-income populations have been identified that would be adversely impacted by the proposed project, as determined above. Therefore, in accordance with the provisions of E.O. 12898 and FHWA Order 6640.23A, no further EJ analysis is required.

Benefits from the project, including more direct routing for truck traffic and associated air quality improvements would affect all populations in proximity to the project, including environmental justice populations. A 10-foot multiuse path is also proposed along the east side of Long Point Road from Wando Park Boulevard to Belle Point Drive to enhance bicycle and pedestrian connectivity.

3.17 PREVIOUS WORK COMPLETED

Geotechnical investigations associated with the Project were approved in December 2022.

3.18 PREVIOUS STUDIES, AUTHORIZATIONS, CERTIFICATIONS, AND APPROVALS

Table 3-15 provides a summary of previous studies associated with the Project.

Table 3-15. List of All Studies Completed to Date

Year	Study, Certification, Approval, and/or Denials Received
2021	I-526 Lowcountry Corridor Community (LCC) Planning and Environmental Linkages Study
2023	Environmental Assessment signed by FHWA (March 2023)

Table 3-16 provides a summary of concurrences and determinations received for the Project.

Table 3-16. Concurrence Dates

Agency	Concurrence Date
U.S. Fish and Wildlife	Biological Evaluation - September 21, 2022
U.S. Army Corps of Engineers	Preliminary Jurisdictional Determination - October 12, 2022
State Historic Preservation Office	Section 106 CR Survey - November 10, 2022 SHPO Memorandum of Agreement- January 5, 2023
Tribal Historic Preservation Office	Cultural Resources Survey - November 14, 2022
Eastern Shawnee Cultural Preservation Department	Cultural Resources Survey - November 21, 2022
South Carolina Department of Health and Environmental Control Office of Ocean and Coastal Resource Management (SCDES-BCM)	Critical Area Plat - January 30, 2023.
National Oceanic and Atmospheric Administration – National Marine Fisheries Service (NOAA Fisheries)	Essential Fish Habitat Assessment - February 2, 2023

3.19 LIST OF ADJACENT PROPERTY OWNERS

A list of adjacent property owners is included in Appendix L.

The list includes all properties within the proposed right-of-way and properties that are directly adjacent or abutting the proposed right-of-way.

4.0 REFERENCES

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