Glenn McConnell Parkway Widening & Improvements

Categorical Exclusion

May 2020

CHARLESTON COUNTY
SOUTH CAROLINA

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SINCE 1954

GLENN MCCONNELL PARKWAY (SC 461) PROPOSED WIDENING & IMPROVEMENTS

Bees Ferry Road (S-57) to Magwood Drive (S-1863)

CHARLESTON COUNTY
SOUTH CAROLINA

CATEGORICAL EXCLUSION

Submitted by
Charleston County

5/27/2020
Date of Approval

Charleston County

The following individuals may be contacted for additional information concerning the project:

Sunshine Trakas, PE
Construction Project Manager
Charleston County
4045 Bridge View Drive, Suite B309
North Charleston, SC 29405
(843) 202-6154

Project ID No. 1363500

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Project Description: Charleston County proposes linear transportation and bicycle/pedestrian improvements along SC Route 461 (Glenn McConnell Parkway) from Magwood Drive (S-1863) to Bees Ferry Road (S-57) in Charleston County. The proposed improvements include widening the Parkway to accommodate existing and future forecast traffic volumes. An additional travel lane would be added in each direction for the length of the corridor. Intersection improvements including turning lanes are proposed along the corridor to improve roadway geometry and to facilitate traffic flow through intersections. An 8 to 12-foot shared use path for bicycles and pedestrians is proposed along the corridor. A project location map is included in Appendix A.

The right-of-way along the corridor is transitional in areas and varies greatly along the corridor from 100 feet each side out to over 150+ feet each side nearest the Bees Ferry Road intersection. As currently proposed no new right-of-way would be required to implement and construct the transportation improvements and no displacement of residences or businesses are anticipated.

Purpose and Need: The purpose and need for the project is to relieve traffic congestion on the Parkway by widening the roadway from four to six lanes. One additional travel lane will be added in each direction of travel. A shared use path will also be constructed to improve and provide alternate transportation options to bicyclists and pedestrians with a safer means to travel within the Parkway corridor and over the CSX railway. Existing (2018) average daily traffic (ADT) volumes along the Parkway are 34,900 vehicles per day and is expected to increase to 62,840 vehicles per day by the year 2040.

Project Funding: The funding for this project is provided through the 2016 sales tax referendum proposed and managed by Charleston County. The Charleston County Council has allocated and approved $25 million from the 2016 Transportation Sales Tax to fund the design and construction of the project.

Proposed Action: The proposed project involves transportation and bicycle/pedestrian improvements along SC Route 461 (Glenn McConnell Parkway) from Magwood Drive to Bees Ferry Road (S-57) in Charleston County. The proposed improvements include widening the Parkway from a divided 4-lane section to a 6-lane section for approximately 2.1 miles. Intersection improvements are proposed along the corridor to compliment the widening of the Parkway. An 8 to 12-foot shared use path for bicycles and pedestrians is proposed for the entire length of the corridor and adjacent to the eastbound lanes. (see Appendix B for preliminary design plans of the proposed widening improvements).

Alternatives Analysis: Three alternatives were proposed and developed to the conceptual concept phase. Each alternative was then evaluated further. The alternatives considered for the project are the No-Build Alternative, Alternative 1 (Inside/Inside widening) and Alternative 2 (Inside/Outside widening).

The No-Build Alternative was considered in place of the proposed transportation improvement project. This alternative would neither add much needed travel capacity to the Parkway nor address the existing congestion along the Parkway. If the No-Build Alternative was selected, only routinely scheduled maintenance operations would occur on and along the Parkway. Over time it would continue to age and deteriorate. As this alternative would not reduce congestion along the Parkway, it was deemed an unacceptable alternative and eliminated from further consideration.

Alternative 1 (Inside/Inside Widening) consists of widening both the east and westbound lanes from two to three lanes each. The widening of the Parkway would be constructed inwards towards the median. The shared use path would be constructed south of and adjacent to the eastbound lanes of the Parkway.

Alternative 2 (Inside/Outside Widening) consists of widening both the eastbound the westbound lanes from two to three lanes. This additional lane would be widened into the interior of the corridor towards the median in the eastbound direction. The westbound two lanes would be widened by an additional travel lane on the outside shoulder of the existing westbound travel way. The shared use path would be constructed south of and adjacent to the eastbound lanes of the Parkway.

Preferred Alternative: Alternative 2 (Inside/Outside widening): While the No-Build alternative was not considered a viable alternative, both alternatives 1 and 2 are very similar within the existing right of way corridor. Based upon engineering design considerations and improved intersection geometry in conjunction with input from Charleston County and the public, alternative 2 was selected as the preferred alternative.

Potential Impacts to the Human and Natural Environments:

Noise: A Noise Analysis (i.e. Analysis) was prepared to assess highway traffic noise impacts from the preferred alternative to widen and improve the Glenn McConnell Parkway. Traffic noise impacts were analyzed in accordance with the procedures established for the abatement of highway traffic noise and construction noise as outlined in Part 772 of Title 23 of the Code of Federal Regulations (CFR) and the *South Carolina Department of Transportation Traffic (SCDOT) Noise Abatement Policy (October 2019).*

Methodology

The Federal Highway Administration (FHWA) Traffic Noise Model (TNM version 2.5) was used to calculate existing noise levels and predict future design year noise levels. Inputs to this model include noise sensitive receiver locations, existing and future roadway alignments, and traffic volumes and speeds. The following was assumed:

- Where required, multiple travel lanes were included in the TNM model. Traffic volumes were split equally across each travel lane, and truck percentages were calculated evenly where multiple travel lanes were used.
- Ground and receiver elevations were input into the model.
- A land use survey was conducted for the project area. The corresponding Noise Abatement Criteria (NAC) category from the *SCDOT Traffic Noise Abatement Policy* was used.
- Predicted noise levels were compared to the existing noise levels to determine the extent of the noise impact caused by the proposed project.
- Where an impact is expected to occur, noise abatement measures were examined and evaluated.

Traffic

Existing traffic for the year 2018 was obtained from the Transportation Planning Study prepared for Charleston County by Short Engineering and Consulting, LLC. Existing traffic volumes were developed for both eastbound and westbound directions of travel and were evenly distributed between travel lanes. The study also provided design year traffic volumes (2040) for the proposed roadway improvements. PM peak traffic volumes were utilized as they represented the worst-case scenario. Traffic projections used to model noise impacts for the preferred alternative are shown in the table below.

Existing and Design Year Traffic Volumes

Road	Traffic Station*	Existing AADT (2018)	Peak Hour Volume	Build AADT (2040)	Peak Hour Volume
Glenn McConnell Parkway	684	34,900	3,929	62,840	5,872

*Source: http://www.scdot.org/getting/annualTraffic.aspx (Charleston County)

Traffic Noise Impacts

Pursuant to *23 CFR Part 772*, two methods are used for predicting a noise impact. The first is a comparison of predicted noise levels with the NAC established by *23 CFR Part 772*. A 67 dBA criterion has been established for residences (NAC Category B), as well as active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings (NAC Category C). A 72 dBA criterion has been established for hotels, motels, offices, restaurants/bars, and other developed lands commercial activities

(NAC Category E). Any predicted noise level that approaches or exceeds the applicable NAC is considered an impact. For the purpose of this study, approach means within one dBA of the noise abatement criterion.

The second method of determining noise impacts involves the amount of increase from the existing noise levels to the predicted future noise levels. An impact occurs when there is a substantial increase from existing levels. According to the *SCDOT Noise Abatement Policy*, a "substantial increase" occurs when the future predicted noise levels increase at least 15 dBA or more over existing levels.

A total of 108 individual receivers were analyzed under the existing and future roadway and traffic conditions. The existing land use consists primarily of single-family residences and apartments (Category B) along the corridor. One place of worship or remembrance, a funeral home, (Category C), and twelve retail/office spaces (Category E). Based on this analysis, 22 receivers are approaching their NAC and 11 receivers currently exceed their or are impacted based on NAC established in the *SCDOT Traffic Noise Abatement Policy*. Under the future traffic conditions a total of 59 receivers would receive noise levels that approach or exceed their noise abatement criteria. The table below provides a comparison of noise impacts from the existing conditions and the preferred alternative.

Existing and Design Year Impacts Summary

Condition	Total	Approach/Exceed NAC	Substantial Increase
Existing	33	33	-
Preferred Alternative	59	59	0

Noise Abatement

When noise impacts occur, consideration of abatement measures is required. Abatement measures to be considered may include the construction of noise barriers, change in horizontal and/or vertical roadway alignment, truck lane designations and reducing posted speed limits.

The Parkway has receivers on both sides of the corridor and along its length. Shifting the corridor horizontally in this case would reduce impacts to one group of receivers while increasing the impacts to others. Likewise, horizontal shifts in the corridor would result in greater direct impacts to surrounding properties, displacements of residences and business and substantially more right-of-way required to construct the project.

Lowering the roadway grades sufficiently to reduce noise levels to adjacent receivers is not feasible due to the area's elevation relative to the groundwater table and nearby sea levels. Due to soil conditions and drainage considerations the roadway is slightly elevated to address and mitigate these conditions.

The motoring public is familiar with high occupancy vehicle (HOV or carpool) lanes in urbanized areas and truck lane designations, particularly in mountainous areas. A truck lane designation to reduce noise impacts would require trucks to travel along the inside lane closest to the median. Requiring trucks to travel along the inside travel lane for only a two-mile section of the Parkway is not a reasonable option.

Noise barriers were evaluated in areas where there were three or more impacted receivers in close proximity to the project corridor to avoid modeling for isolated receivers. Potential noise barrier locations were evaluated to determine if a barrier could be constructed within the right-of-way and without causing addition impacts to receivers. Each noise barrier was evaluated to determine if it met SCDOT's established noise abatement criteria. These criteria are divided into two parts: Feasibility and Reasonableness. Feasibility refers to whether a barrier can be built at a modeled and evaluated location. The modeled noise barrier must reduce highway traffic noise and be free of conflicts within its surroundings. Examples of these potential engineering feasibility conflicts and considerations include the topography, safety, drainage, utility, maintenance, and access to the modeled location. The reasonableness criteria are determined through the evaluation of three reasonable factors: the noise reduction design goal, cost effectiveness,

and the viewpoints of the property owners and residents of the benefitted receptors. For more information, please see the Highway Traffic Noise Technical Memo in Appendix G.

For this project four clusters of three or more impacted receivers were identified along the Parkway corridor and evaluated to determine if noise abatement measures could be implemented. A detailed noise barrier analysis was conducted for each group of receivers and a SCDOT Feasibility and Reasonableness Worksheet was completed for each modeled barrier (included in Appendix G) . Areas along the corridor where impacted receivers numbered less than three or were scattered over a larger distance were considered isolated and were not included in the barrier analysis. These modeled barriers were labeled barriers one through four and are summarized in the following paragraphs.

Barrier 1

Barrier 1 was modeled between Mary Ader Avenue and Baird's Cove on the north side of the Parkway. A cul-de-sac and neighborhood along Wayah Drive was evaluated within the project study area and included five residences that would receive noise levels above their NAC. A barrier approximately 360 feet long was modeled for these and the adjacent residences. Engineering and constructability concerns included an overhead power line that crosses the Parkway at this location and then extends to the west paralleling the Parkway and a large wetland area immediately west of this neighborhood. A barrier at this location would benefit only the two receivers closest to the roadway by reducing noise levels by at least 5 dBA. As less than 50 percent of the receivers (2 of 5 or 40 percent) would only be benefitted by the barrier, the barrier at this location does not meet the feasibility criteria and is not considered a viable noise abatement measure. A copy of the SCDOT Feasibility and Reasonableness Worksheet is included in the Appendix.

Barrier 2

Barrier 2 was modeled on the north side of the Parkway between Mary Ader Avenue and Baird's Cove near its intersection with the Parkway. A cul-de-sac and neighborhood along Fox Ridge Court was evaluated within the project study area and included six residences that would receive noise levels above their NAC. A barrier approximately 500 feet long was modeled for these and the adjacent residences. Engineering and constructability concerns included the barrier's proximity to the intersection of the Parkway with Baird's Cove. The barrier could not be extended to the intersection due to safety concerns from a potential reduction in vehicle sight distances. Due to this restriction a barrier at this location would benefit the two receivers closest to the roadway by reducing noise levels by at least 5 dBA. As less than 50 percent of the receivers (2 of 6 or 33 percent) would only be benefitted by the barrier, the barrier at this location does not meet the feasibility criteria and is not considered a viable noise abatement measure. A copy of the SCDOT Feasibility and Reasonableness Worksheet is included in the Appendix.

Barrier 3

Barrier 3 was modeled between Baird's Cove and Charlie Hall Blvd along the north side of the Parkway. Emerald Forest Parkway runs parallel with the Glenn McConnell Parkway with a row of single-family residences along each side of the street. This neighborhood was evaluated within the project study area and included 33 residences that would receive noise levels above their NAC. A barrier approximately 1,100 feet long was modeled for these and the adjacent residences. Engineering and constructability concerns included the barrier's proximity to the intersection of the Parkway with Baird's Cove. The barrier could not be extended to the intersection due to safety concerns from a potential reduction in vehicle sight distances. In addition, the Parkway's right of way limits are substantially reduced along this section of the Parkway. The modeled noise barrier at this location would benefit 11 receivers by reducing noise levels by at least 5 dBA. As less than 50 percent of the receivers (11 of 33 or 33 percent) would only be benefitted by the barrier, the barrier at this location does not meet the feasibility criteria and is not considered a viable noise abatement measure. A copy of the SCDOT Feasibility and Reasonableness Worksheet is included in

the Appendix.

Barrier 4

Barrier 4 was modeled between Lochaven Drive and Waterstone Lane on the south side of the Parkway. Eight multi-family buildings of 16 units each and a community swimming pool are along Egret Crest Lane. Each building has six units on the first floor, six units on the second floor and 4 units on the third floor. This neighborhood was evaluated within the project study area and included 122 residences (dwelling units) that would receive noise levels above their NAC. A barrier approximately 1,100 feet long was modeled for these and the adjacent multi-family buildings and the community swimming pool. Engineering and constructability concerns included the barrier's proximity to the intersection of the Parkway with Egret Crest Lane. The barrier could not be extended to the intersection due to safety concerns from a potential reduction in vehicle sight distances. In addition, an overhead power line parallels the Parkway to the west and then crosses the Parkway at perpendicularly and a large wetland area is present in front of an immediately west of the westernmost multi-family residential building in this neighborhood. The modeled noise barrier at this location would benefit 113 receivers by reducing noise levels by at least 5 dBA. This corresponds to 93 percent of the receivers (113 of 122) being benefitted by the barrier, thus meeting the feasibility criteria at this location. However, a barrier at this location would be in conflict with the overhead powerlines and could not be constructed. A copy of the SCDOT Feasibility and Reasonableness Worksheet is included in the Appendix.

Wetlands and Waters: Water bodies such as rivers, lakes, and streams are subject to jurisdictional consideration under Section 404 of the Clean Water Act (CWA), which regulates discharge into "waters of the United States." Although the principal administrative agency of the CWA is the U.S. Environmental Protection Agency, the U.S. Army Corps of Engineers (USACE) has major responsibility for implementation, permitting, and enforcement of provisions of the CWA. Wetlands are considered "waters of the United States" and are described by 33 CFR 328.3(b) [1986] as:

Those areas that are inundated or saturated by groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Upon completion of field studies, a request for a preliminary jurisdictional determination was submitted to the USACE. The USACE reviewed and accepted jurisdiction within the wetland delineated study area for 21 locations consisting of 4.91 acres of wetlands, 380 linear feet of streams and 0.53 acres of tidally influenced wetlands. The USACE issued file number SAC-2019-00276 for the project (Appendix E).

Floodplains: The 100-year floodplain is defined and regulated by the Federal Emergency Management Agency (FEMA) as the area adjacent to any particular waterway that would be inundated by the base flood, an event that has a one-percent chance of occurring in any given year. Development within the floodplain must meet requirements set forth by FEMA for the National Flood Insurance Program (NFIP).

Based on a study of the Flood Insurance Rate Maps (FIRM), published by FEMA, the proposed project would involve construction within the regulated 100-year floodplain of Church Creek, a tributary to the Ashley River, and Long Branch, a tributary to the Stono River. The potential impacts would occur along the eastern portion of the project Between Essex Farm Drive and Charlie Hall Blvd. The FIRMs reviewed for this project were panels 45019C0480J, 45019C0483J and 45019C0491J (effective date for all is 11/17/2004).

Because base flow elevations have been established for the floodplains in the project area, FEMA requirements limit encroachment in the 100-year floodplain to activities that do not increase the base flood elevation by more than one-tenth foot, rounded to the nearest one-tenth foot, or "no-rise". A preliminary hydraulic design analysis was conducted for the conceptual road plans to ensure the project would not increase base flood elevations beyond the no-rise

threshold. The results of the analysis concluded that the proposed transportation improvements to the Parkway would minimally impact the headwater's floodplain of Long Branch, and the proposed project would induce no standing backwater for the studied conditions.

Based on these preliminary findings, the project is not expected to be a significant longitudinal encroachment as defined under the Code of Federal Regulations for the Location and Hydraulic Design of Encroachments on Floodplains (23 CFR 650A), nor is it expected to have an appreciable environmental impact on this base floodplain of Long Branch. Because the project would be constructed to be above the base floodplain elevation, the level of risk and consequences attributed to this encroachment is not expected to be any greater than that associated with the present roadway. Also, the project is not expected to have any increased potential for impact on those critical elements that would constitute a significant risk under 23 CFR 650A and will continue to meet the requirements of Executive Order 11988 for Floodplain Management.

Permitting: Permitting activities will be coordinated with the US Army Corps of Engineers (USACE) (Charleston District), the South Carolina Department of Health and Environmental Control (SCDHEC) and SCDHEC's Office of Ocean and Coastal Resource Management (SCDHEC-OCRM) for the construction of the Parkway where impacts to waters of the U.S., including wetlands are unavoidable. Section 404 of the Clean Water Act (CWA) of 1972 requires a permit for the discharge of dredged or fill material into Waters of the U.S., including wetlands. Currently, Charleston County anticipates processing this activity through the USACE's Individual Permit process for construction projects. A SCDHEC's 401 Water Quality Certification, pursuant to Section 401 of the Federal Water Pollution Control Act of 1972 as amended by the CWA of 1977 and the Water Quality Act of 1987, will also be required. Certification is required for activities permitted by the USACE for construction occurring in or discharge of dredged or fill material into the State's waters. A SCDHEC-OCRM permit will also be required as work will occur within the tidally influenced area of the state. To offset impacts to waters of the US, a mitigation plan will be developed which will include compensatory mitigation for unavoidable impacts.

Water Quality: The project is located in and drains to both the Ashley River (USGS Hydrologic Unit Code [HUC] 0305020106) and the Stono River (USGS Hydrologic Unit Code [HUC] 0305020202) within the Santee River basin. SCDHEC has designated this portion of the Ashley River as saltwaters in which the department has developed site specific parameters for this waterbody (Class SAsp). The Stono River has been designated as shellfish harvesting waters (SFH).

The northern side of the project area drains to the Ashley River via Church Creek while the southern side of the project drains to the Stono River via Long Branch. The closest downstream SCDHEC water quality monitoring station from Church Creek along the Ashley River is station number RO-14360 and SCDHEC station number 11-11 on the Stono River downstream of Long Branch. While the Ashley River monitoring station does not show any current impairments and is not listed on SCDHEC's 303d list of impaired waters, the larger watershed area has a Total Maximum Daily Load (TMDL) established for the impairment of low dissolved oxygen (0506-13-DO). In addition to being a SCDHEC monitoring station, Station 11-11 is also a shellfish monitoring site on the Stono River. This monitoring station and the 303d list show an impairment to shellfish harvesting due to the presence of fecal coliform bacteria. Currently there is no TMDL in place for this portion of the Stono River.

Stormwater control measures are required for projects constructed in the vicinity of 303(d) list, TMDL established, tidal, and other sensitive waters in accordance with the Charleston County's MS4 Permit. Due to the existing water quality impairment within the project watershed, SCDHEC may require additional water quality protection and stormwater treatment measures during construction. While the proposed project is not anticipated to contribute to the fecal coliform impairment of the Stono River or negatively impact the established TMDL for the Ashley River regarding low dissolved oxygen levels, storm water best management practices will be designed and placed along the corridor during construction to protect all downstream waters.

Air Quality: The South Carolina Department of Health and Environmental Control's (SCDHEC) Bureau of Air Quality was granted authority by the USEPA to administer the Clean Air Act in South Carolina. Geographic areas of the state are monitored and compared to the standards set forth by the National Ambient Air Quality Standards (NAAQS). Based on the monitored results as compared to the established standards each area is given a designation. Attainment areas are defined as those areas where the NAAQS for each pollutant is not exceeded. Nonattainment areas are defined as any portion of an air quality control region for which any pollutant exceeds NAAQS for a particular pollutant. In nonattainment areas, regional goals for achieving attainment of the NAAQS are addressed in the State Implementation Plan (SIP), as approved by the USEPA. Charleston County is a federally designated attainment area for all criteria pollutants and does not require a special program such as transportation control measures (TCMs) to maintain this compliance.

All phases of construction operations would temporarily contribute to air pollution. Particulates would increase slightly in the corridor as dust from construction collects in the air surrounding the preferred alternative. Construction equipment would temporarily produce slight amounts of exhaust emissions. The contractor would be required to comply with applicable state and local guidelines and regulations regarding emission control.

Since the purpose of this project is to increase capacity and relieve congestion on the Parkway, the project is expected to decrease vehicle hours traveled (VHT) by motorists. This reduction in future VHT means vehicle engines would be operating less; therefore, they would be producing less air pollutants associated with vehicle exhaust. The attainment designation for Charleston County should not be adversely affected by the proposed improvements of this project.

Threatened and Endangered Species: Pursuant to Section 7 of the Endangered Species Act, a field survey was conducted along the project study area for the proposed widening and transportation improvements to the Parkway. All threatened and endangered species are fully protected by the Endangered Species Act. Bald eagles are protected by the Bald and Golden Eagle Protection Act (BGEPA). The following list of at-risk species, threatened (T) species, endangered (E) species, and species protected by the Bald and Golden Eagle Protection Act for Charleston County was obtained from the US Fish and Wildlife Service:

<u>Animals</u>
Wood stork (Mycteria americana) – T
Bachman's Warbler (Vermivora bachmanii) – E
Red-cockaded woodpecker (Picoides borealis) – E
Piping plover (Charadrius melodus) – T
Red knot (Calidris canutus rufa) – T
Eastern Black Rail (Laterallus jamaicensis jamaicensis) – T*
Atlantic sturgeon (Acipenser oxyrinchus) – E
Shortnose sturgeon (Acipenser brevirostrum) – E
Frosted Flatwoods Salamander (Ambystoma cingulatum)- T
Northern long-eared bat (Myotis septentrionalis) – T
Finback whale (Balaenoptera physalus) – E
Humpback whale (Megaptera novaengliae) – E
Right whale (Balaena glacialis) – E
Sei Whale (Balaenoptera borealis) – E
Sperm Whale (Physeter macrocephalus) – E
West Indian manatee (Trichechus manatus) – T
Green sea turtle (Chelonia mydas) – T
Kemp's ridley sea turtle (Lepidochelys kempii) – E
Leatherback sea turtle (Dermochelys coriacea) – E

Loggerhead sea turtle (Caretta caretta) – T
** - Proposed for listing as Threatened*

Plants
American chaffseed (Schwalbea americana) – T
Canby's dropwort (Oxypolis canbyi) – E
Pondberry (Lindera melissifolia) – E
Seabeach amaranth (Amaranthus pumilus) – T

Bald and Golden Eagle Protection Act (BGEPA)
Bald Eagle (Haliaeetus leucocephalus)

At-Risk Species
Gopher frog (Lithobates capito)
Black-capped petrel (Pterodroma hasitata)
Saltmarsh sparrow (Ammospiza caudacuta)
Frosted elfin (Callophrys irus)
Monarch butterfly (Danaus plexippus)
Tri-colored bat (Perimyotis subflavus)
Boykin's lobelia (Lobelia boykinii)
Ciliate-leaf tickseed (Coreopsis integrifolia)
Eastern Diamondback Rattlesnake (Crotalus adamanteus)
Southern hognose snake (Heterodon simus)
Spotted turtle (Clemmys guttata)

Methodology
The project area was examined using GIS desktop surveys and field surveys on March 4, 5, and 7, 2019, and July 31, 2019. The study area was surveyed for the presence or absence of threatened, endangered, and at risk-species. The survey was then used to eliminate species based on the lack of habitat existence in the study area. At-risk species are not yet protected by the Endangered Species Act and so were not specifically surveyed for but were noted if observed in the project study area.

Survey Results
The project corridor is dominated by urban development with well-maintained mowing and landscaping. Fallow and forested areas exist between developments. The fallow areas within utility corridors are primarily herbaceous. Therefore, they must be maintained by herbicide or mowing, at least annually, to prevent the growth of trees. The forested areas are predominantly wetlands made up of mixed hardwood and pines. Along the north side of the project exists a tidally influenced, saline impoundment with a forested island. Directly opposite the impoundment on the south side of Glenn McConnell Parkway is a brackish marsh dominated by sedges.

Conclusions
Based on multiple surveys, it was determined there is suitable foraging habitat within the proposed project area for the wood stork. The noise from construction may prevent these species from utilizing potential foraging habitat as they might normally. These impacts are temporary, and the animals would be allowed to resume normal activities after construction is completed. Therefore, it has been determined that the proposed project may affect but is not likely to adversely affect wood storks. The Biological Evaluation can be found in Appendix F.

Additionally, suitable foraging habitat for the bald eagle also is present in the proposed project area. A bald eagle nest was identified near the project, but it was determined the nest is well outside of the buffer area set by the USFWS for construction projects. Furthermore, the area between the nest and roadway is vegetated, decreasing potential impacts from construction activities. Therefore, it has been determined that the proposed project will not disturb or

take any bald eagles.

Based on lack of suitable habitat and/or no observations of additional listed species during field surveys, results of the threatened and endangered species study indicate that the proposed action will have no effect on any additional threatened or endangered species or critical habitats currently listed by the USFWS.

Acquisitions / Displacements: After a thorough review of the proposed preliminary plans (See Appendix B), the project would not result in the acquisition of any new right-of-way or the relocation/displacement of any commercial establishments or private residences.

Section 106 - Cultural Resources (Archaeological/Historic): A cultural resources survey was conducted to provide compliance with Section 4(f) of the United States Department of Transportation Act of 1966, as amended (49 United States Code [USC] 303), and Section 106 of the National Historic Preservation Act of 1966, as amended (54 USC 306108). The survey attempted to locate and assess the significance of all cultural resources that may be directly or indirectly affected by the Parkway widening and its transportation improvements. To accomplish these objectives, background research, archaeological and architectural survey, laboratory analyses, and National Register of Historic Places (NRHP) assessment was conducted. The archaeological survey universe was equal to the project footprint, which includes the full extent of all preliminary design plans for the proposed project, encompassing approximately 98.6 acres east and west of the Parkway. The architectural survey universe extends approximately 300 feet beyond the archaeological survey universe in all directions, encompassing approximately 253 acres. Combined, the archaeological and architectural survey universes constitute the Area of Potential Effect (APE). Survey findings and recommendations were submitted to the State Historic Preservation Office (SHPO) for review. The Cultural Resources Report and SHPO coordination are included in Appendix D.

Archaeology: Archaeological surveys were conducted along the Parkway corridor from August 6 to 22, 2018. Roberts (1986) identified five archaeological sites (38CH975-38CH979) existing in the archaeological survey universe. During the current investigation, site 38CH979 was revisited, expanding the site boundary slightly to the northeast. All of 38CH975, 38CH976, 38CH977, and 38CH978, and most of 38CH979 appear to have been destroyed by original construction of the Parkway. With no new substantial artifacts or information discovered, site 38CH979 was recommended not eligible for the NRHP and requires no additional management.

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, Charleston County will be immediately notified and all work in the vicinity of the discovered materials and site work shall cease until the county directs otherwise.

Historic Architecture: Architectural surveys of the Parkway corridor were conducted on August 24, 2018. Surface streets and roadways were traveled within the architectural survey universe to search and inspect for above-ground resources and structures. One previously recorded cultural landscape feature (Resource 7940) and one newly identified historic area (Resource 7965) are located in the APE.

Water Control Resource 7940 is a 23-acre historic area that includes the remnants of an eighteenth- to nineteenth-century water control feature associated with the former Woodford Plantation. Land development activities have destroyed the southern portion of Woodford Plantation's former rice fields and totally altered the layout of its historic landscape. It appears many elements of the original system have been destroyed by more recent development activities. As a result, Resource 7940 conveys little sense of a historic landscape and lacks any exceptional construction or design elements that can supply new information about inland rice agriculture. Therefore, Resource 7940 is not recommended eligible for the NRHP and requires no further management.

Resource 7965 is the remnants of the Charleston Mining and Manufacturing Company's Springfield Phosphate Mine,

covering approximately 425 acres in the northern portion of the APE. This mine featured both hand-excavated and mechanically excavated mines, roads, settlements, and tram lines. The remnants of two possible phosphate mining camps at have been identified in archaeological sites 38CH979 and 38CH2231. The historical integrity of Resource 7965 is poor because it has lost a considerable amount of feeling, association, and setting. Modern development has splintered the hand-excavated and mechanically excavated mines and permanently altered the mine's infrastructure. This mining area is isolated and truncated from the rest of the CMMC's operations. Therefore, Resource 7965 is not eligible for the NRHP as a mining landscape because it lacks integrity of setting, feeling, and association. This resource required no further management.

Section 4(f)/6(f): No Section 4(f)/6(f) properties were identified within the project study area. One Section 4(f) resource, West Ashley Park, can be accessed from the Parkway and it is located outside of the project study area.

West Ashley Park is located at 3601 Mary Ader Avenue and is approximately one-half mile from the Parkway. It is part of the Charleston Parks Conservancy. This is a large park in excess of 250 acres offering a variety of recreational activities: soccer fields, basketball courts, softball fields, disc golf course, playgrounds and a fishing area.

Land Use: The project corridor is currently a mixture of suburban/rural of land uses trending to a more suburban and commercial corridor due to its proximity to I-526 and the cities of Charleston and North Charleston. Within the corridor there are undeveloped open and forested lands, residential and condo/apartment communities and pockets of commercial development providing a variety of goods and services. As the acquisition of right of way is not anticipated, the project is not expected to modify any existing land uses or change the timing or density of development in the area. The project is not in conflict with any plan, existing land use, or zoning regulation.

Hazardous Materials: The areas adjacent to the project corridor consist of a mix of woodlands, residential neighborhoods and commercial properties. As the current design remains is within the existing SCDOT right-of-way, there is a low potential for uncovering underground storage tanks (USTs) or other hazardous-material-containing sites during construction activities.

Community Impacts: The area adjacent to the project corridor is within the limits of the City of Charleston and some unincorporated portions of Charleston County. While the area adjacent to the project corridor has a mix of land uses, all of the proposed improvements will be contained within the existing right of way corridor. The project will not displace any residences, businesses, parks or areas of local cultural importance. Once constructed the project should enhance the corridor by providing additional travel capacity along the Parkway and provide for bicycle and pedestrian options along the shared use path not previously available to the public. Therefore, the project is not anticipated to adversely affect the social environment or local economy.

Public Involvement: Charleston County conducted a public information meeting on December 3, 2018, from 5:00pm to 7:00pm in the cafeteria at the West Ashley High School located at 4060 W. Wildcat Blvd in Charleston, SC. There were approximately 116 individuals in attendance at the meeting.

Seventy-five (75) written comments were received at the public information meeting. 222 comments were received during the subsequent public comment period via the county's project website. The public comments favored the widening improvements by a three to one margin and generally gravitated to seven general areas of interest: Keep and maintain greenspace (84), improvements to the Essex Farms intersection (67), include bike & pedestrian facilities/shared use path (42), concerns about stormwater and roadway drainage (40), improvements to the Bees Ferry Road intersection (19), highway traffic noise impacts (18), and including public transit (17).

Charleston County conducted a second public information meeting on January 29, 2020, from 5:00pm to 7:00pm in the media center at the West Ashley High School located at 4060 W. Wildcat Blvd in Charleston, SC. There were approximately 149 individuals in attendance at the meeting.

Forty-seven (47) written comments were received at the public information meeting. Thirty-eight (38) comments were received during the subsequent public comment period and via the county's project website. The public comments could be divided into ten areas of interest: concerns at intersections (22), signal timing (12), highway traffic noise (11), multi-use paths and crosswalks (9), Bees Ferry Road improvements (9), traffic projections and development (8), reduction of the speed limit (7), street lighting (3), drainage (2) and bus stop improvements (2).


Glenn McConnell
Parkway Widening