

Town Council Workshop

Discussion of the William Hilton Parkway Gateway Corridor Project

June 20, 2024

Town Council Workshop Outline

1. SCDOT/Beaufort County Request for Municipal Consent
2. SCDOT Proposed Project Description
3. Overview of SCDOT US 278 Corridor Improvements Environmental Assessment
4. Town Council Approved Guiding Principles – February 18, 2020
5. Town Council Approved Recommendations – October 12, 2021
6. Town of Hilton Head Island/Beaufort County Approved Memorandum of Agreement – October 4, 2022
7. Traffic Management Assessment
8. Town Council Project Considerations
9. Next Steps

SCDOT/Beaufort County Request for Municipal Consent

Section 57-5-830 of the South Carolina Code of Laws states that, *“[i]n every case of a proposed permanent improvement, construction, reconstruction, or alteration by the Department of any highway or highway facility within a municipality, the municipality may review and approve the plans before the work is started; except that a municipality may not have the right to review and approve plans to remove, replace, or improve a bridge and its approaches within its limits where such bridge and its approaches have been certified by the Department to be functionally obsolete or structurally deficient and if the bridge crosses the intracoastal waterway.”*

SCDOT Proposed Project Description

Bridge Section

New Full Bridge Construction

- While the Town has requested consideration for a 4-lane bridge, according to SCDOT, if a new bridge is built, it will be built as 3 lanes each way, plus inside and outside shoulders.
 - 12-foot travel lanes.
 - 1 10-foot outside shoulder and 1 6 foot inside shoulder in each direction.
- 1 span that replaces all 4 current bridges
- Provides uniform 75+ year lifespan for bridge
- Design Speed of 45mph
- Posted speed of 40 mph
- Current bridge widths - 80' and 100' as explained Monday.
- New Bridge is 121' wide which includes 14' to accommodate the pathway.
 - New bridge would be 107' wide without the pathway
- Town Council recommendations and MOU requested the additional pathway.
 - 1 12-foot shared-use pathway along the southern side of the bridge
 - 2 bulb-out refuges, 20 feet wide by 50 feet long, located along the southern shared- use path at Mackay Creek and Skull Creek
 - Shared-use pathway to connect to mainland pathway system at Buckingham Planation Road and to pathway system on Jenkins Island
- Construction methods will cause this bridge to shift south within current power line easement.
- Bridge height clearance to remain at 65 feet over Skull Creek
- Bridge height clearance over Pinckney Island minimum of 17.19 feet
- Bridge length is 1.376 miles of the 4.218-mile project
- Seismic and storm impact mitigation elements included in the overall structural design.
 - Will meet highest seismic standards
 - Designed to withstand Category 5 hurricane
- No at grade intersection on Pinckney Island

SCDOT Proposed Project Description

Jenkins Island Section

- Design Speed of 45mph
- Posted speed of 40 mph
- Bridge landing located within existing right-of-way
- 3 12-foot travel lanes eastbound
- 3 12-foot travel lanes westbound
- All Jenkins Island Traffic consolidated at Windmill Harbour intersection
- Jenkins Road access to William Hilton Parkway is removed
- Access to Hog Island, Mariners Cove, Blue Heron Point, Jenkins Island Cemetery, Hilton Head Harbor RV Resort and Hilton Head Harbor Marina will be from new frontage road on Jenkins Island
- No pedestrian crossings at Windmill Harbour intersection
- Windmill Harbour traffic signal upgraded with Adaptive Traffic Management System and included in Town system with 30 days of MOU
- Shared pathway on northern side of corridor located within Town-owned Property along new frontage road connecting to bridge to mainland and Town of Hilton Head Island pathway system
- Shared-use pathway on southern side from Windmill Harbour to connect to bridge, as well as connection via to under-bridge connection to the northern side shared-use pathway
- Access to Hog Island, Blue Heron Point, and Mariners Cove moved from southern side to northern side of corridor with maintain under bridge connection
- Landscaped medians with varying widths
- Exterior curbing installed to reduce right-of-way and handle drainage

SCDOT Proposed Project Description

Stoney Neighborhood Section

- Design Speed of 45mph
- Posted speed of 40 mph
- Within the current ROW for most of the corridor through Stoney neighborhood
 - 2 x 11' lanes
 - 1 x 12' lane
 - Additional turn lanes
 - Cross-walks at intersections
 - 10' wide pathway
 - Public open space
 - Stormwater mitigation
 - Landscaping
- Potential Relocation or Removal of 2 culturally sensitive structures
 - Willie Young's Upholstery (Patterson's Store)
 - Former Island Psychic
- Removal of curb cut at Memory Matters and William Hilton Parkway
- Total ROW impacts 2.78 acres
- Total ROW impacts on private property 0.89 acres (22 properties)

Overview of SCDOT US 278 Corridor Improvements Environmental Assessment

The National Environmental Policy Act (NEPA) requires federal agencies to consider the impacts their projects may have on the environment and to integrate the NEPA process with other environmental law compliance. In association with the Federal Highway Administration (FHWA) and Beaufort County, the SCDOT has developed an Environmental Assessment (EA) in accordance with NEPA. The EA includes a review of all proposed alternatives and evaluates potential impacts to the natural and human environment. This EA is the culmination of technical studies and reports, interagency coordination, and community outreach and feedback. The EA documents the purpose and need for the project; presents a discussion of the alternatives and the analysis of them; describes the affected environment, assessment of the environmental, transportation, social, and economic impacts; identifies potential community enhancements; and presents a Recommended Preferred Alternative. It also incorporates analysis and feedback from public and agency sources gathered during the various phases of the EA development.

- Chapters 1 & 2 (Includes Cover, Table of Contents, and Commitments, Introduction & Purpose and Need)
- Chapters 3(Alternatives Analysis)
- Chapters 4 (Existing Conditions and Environmental Consequences)
- Chapters 5 (Navigation)
- Chapters 6 (Agency Coordination and Public Involvement)
- Appendix A (Agency Coordination Plan)
- Appendix B Phase 1 Traffic Report, Traffic Report Appendices
- Appendix C (Traffic Technical Memorandums: Reversible Lane Analysis and Alternative Intersection Analyses)
- Appendix D (Community Impact Assessment, Visual Impact Assessment, Relocation Impact Study)
- Appendix E (Environmental Justice Analysis)

US 278 Corridor Improvements Environmental Assessment Expires June 28, 2024

Overview of SCDOT US 278 Corridor Improvements Environmental Assessment

- Appendix F (Noise Analysis Report)
- Appendix G (Preliminary Jurisdictional Determination)
- Appendix H (Essential Fish Habitat Technical Memorandum)
- Appendix I (SCDOT Bridge Replacement Scoping Trip Risk Assessment Form, Floodplains Checklist, 2-D Hydraulic Analysis)
- Appendix J (Biological Evaluation)
- Appendix K (Marine Mammal Protection Act Technical Memorandum)
- Appendix L Part One, Part Two (Cultural Resources Survey and Section 106 Consultation)
- Appendix M (Traditional Cultural Property Report)
- Appendix N (Cultural Resources Memorandum of Agreement)
- Appendix O (Section 4(f) Coordination)
- Appendix P Part One, Part Two, Part Three (Hazardous Materials Phase I Environmental Site Assessment)
- Appendix Q (QUS Coast Guard Navigation Report)
- Appendix R Part One, Part Two, Part Three, Part Four Part Five (Public Information Meeting Plans and Summaries)
- Appendix S (Website)
- Appendix T (Newsletters)
- Appendix U Part One, Part Two (Community Meeting Plans and Summaries)
- Appendix V Part One, Part Two, Part Three, Part Four (Stakeholder Meeting Plans and Summaries)

US 278 Corridor Improvements Environmental Assessment Expires June 28, 2024

Town Council Approved Guiding Principles - February 18, 2020
(4-3 vote)

- Fix the transportation issues in the corridor in a way that improves the safety and quality of life for all residents, workers, and visitors to Hilton Head Island
 - Address transportation needs for natural disasters and resiliency of island access
 - Consider future transportation alternatives
- Improve the safety and quality of life for the residents of the neighborhoods and businesses directly impacted by the US 278 corridor
 - Stoney Community
 - Neighborhoods on Jenkins and Hog Islands (including but not limited to Windmill Harbor)
- Have gateway to and from Hilton Head Island that the region will be proud of:
 - Aesthetically pleasing and reflecting the Hilton Head Island/Lowcountry values
 - Safe and functional pathways for pedestrians and cyclists
 - Minimizes environmental impacts and enhances the national asset of Pinckney Island

Town Council Approved Recommendations – October 12, 2021 (5-2 vote)

CORRIDOR-WIDE RECOMMENDATIONS

1. Reduce lane widths to 11' to calm traffic & reduce property impacts
2. Eliminate raised curbs in medians wherever possible, encourage existing vegetation and natural drainage in these areas
3. Vary median widths and meander roadway alignments where possible for traffic calming and aesthetics
4. Take advantage of Town-owned property for sake of Parkway improvements
5. Utilize ITS smart signal technology throughout
6. Reduce curb cuts & provide for alternative/safer property access throughout
7. Provide trails on both sides of Parkway where possible with sufficient separation from road and in lieu of sidewalks
8. Create a comprehensive system of safe, comfortable, and attractive shared use paths for cyclists and pedestrians
9. Open/encourage views to the water wherever possible, as a part of the Island's "signature"
10. Ensure integration of unique, Hilton Head-specific signage, landscape schemes, public art program, architectural vocabulary, iconic features, and accent lighting that distinguish this parkway from all others
11. Reduce design & posted speeds throughout the corridor
12. Evaluate the island-wide transportation system

Town Council Approved Recommendations – October 12, 2021 (5-2 vote)

SPECIFIC RECOMMENDATIONS

13. Encourage Moss Creek area improvements (commercial redevelopment, access/roadway improvements, trail connections)
14. Establish “Gateway Experience” threshold at west end of Mackay Creek bridges (landscape, island “icon”, art, lighting)
15. Reduce bridge mass with two separate bridges and Shared-Use Path on south side of eastbound bridge
16. Reduce bridge lane width to 11’, reduce shoulder width on left, only one breakdown lane on right.
17. Provide 14’ minimum width non-motorized lane on the bridge with multiple viewing areas and protection/screening of vehicles
18. Attention to bridge design/details as viewed from afar and on-deck (parapet, railings, structural forms)
19. Consolidate Jenkins Island access to one signalized location at C. Heinrichs/Windmill Harbour Entrance
20. Provide traditional turn lanes and intuitive intersection configurations throughout Stoney
21. Eliminate confusing SCDOT U-turns
22. Eliminate left turns and traffic introduction onto Old Wild Horse
23. Create new park south of Parkway in Stoney to authentically showcase Gullah Geechee culture/heritage
24. Consider a new Visitors Center as a part of this park that intentionally showcases this heritage while introducing visitors to the Island’s offerings
25. Create a Stoney-authored vision plan for the next generation of that neighborhood
26. Create and professionally staff a Development Corporation as a vehicle for Stoney Advancement

Town of Hilton Head Island/Beaufort County Approved Memorandum of Agreement – October 4, 2022 (4-3 vote)

1. The County and the Town agree to advance the Project in a cooperative manner for the entire duration of the Project.
2. The County and the Town mutually agree to work together in good faith to address the feasibility, and merits of recommendations approved by Town Council on October 12, 2021 (as set forth in Exhibit A) (the "Recommendations") and further agree that one bridge will be designed and constructed for the Project.
3. The County will procure an independent consultant (the “Independent Consultant”), (i.e. – one that does not have a previous or current contractual relationship with SCDOT, the County, or the Town) to perform an additional independent review of the project. This Independent Consultant will conduct an end-to-end simulation and study through and beyond the Project limits to include additional intersections materially consistent with the Scope of Work set forth in Exhibit A.
4. The County and the Town will establish a committee (the “Committee”) to select the Independent Consultant through a competitive bid process. The following County representatives shall sit on the Committee: (a) the County Administrator or his designee (b) the Assistant County Administrator for Infrastructure: (c) and the County Transportation Program Manager Consultant. The following Town representatives shall sit on the Committee: (d) the Town Manager or his designee; (e) the Assistant Town Manager of Community Development; and (f) the Town Engineer.
5. All recommendations from the independent review for areas within the project boundary will be considered for inclusion in the project. The County and Town agree to pursue the “Finding of No Significant Impacts” (FONSI) from the Federal Highway Administration concurrent with the Independent Review. If any findings from the Independent Review affect environmental documents submitted for the FONSI, those recommendations will be considered, and the environmental documents will be updated and resubmitted as agreed upon by the County and the Town.

**Town of Hilton Head Island/Beaufort County Approved Memorandum of Agreement – October 4, 2022
(4-3 vote)**

6. The County and the Town, as required as part of the NEPA process, will coordinate with SCDOT to perform a value engineering of the project to identify and eliminate unwanted costs, and improve function and quality as well as to optimize initial and long-term investment, ultimately seeking the best value for the lowest cost.
7. The County and the Town mutually agree to work together, along with SCDOT and Lowcountry Area Transportation Study, to design, implement and maintain a connected and synchronized signal system along the entire length of US 278 from I-95 to Sea Pines Circle. The synchronized system will include fiber connectivity, Adaptive Signal technologies and other tools to help maximize flow. The County and the Town mutually agree to work together to seek funds necessary to acquire and implement the proposed improvements.
8. Any signal improvements from the synchronization project which are not already installed within the corridor prior to the construction of the Project, will be incorporated as such.
9. This Agreement does not provide the Town's municipal consent. Such consent may be provided by the Town Council after the Independent Review has been evaluated by the Town and County and before the right-of-way acquisition phase of the Project begins. Municipal consent by the Town will not be unreasonably withheld.
10. The County and the Town agree that the Independent Review will be the last and final study needed for the Town to make a final decision related to the Project.

Traffic Management Assessment

Lochmueller VISSIM Travel Time Comparison AM Peak Hour - Eastbound Direction

William Hilton Parkway between Moss Creek Drive and Indigo Run Drive

Description	Travel Time (per vehicle)
2023 Existing Simulated Travel Time	19 min 17 sec
2045 No Build Simulated Travel Time	26 min 19 sec
2045 Current Project Simulated Travel Time	10 min 28 sec

Draft Independent Study of WHP Gateway Corridor Report – Lochmueller Group, June 10, 2024

Results	Time (delay per vehicle)
2023 Existing vs 2045 No Build	7 min 2 sec – Increase in Delay
2023 Existing vs 2045 Build	8 min 49 sec – Decrease in Delay
2045 No Build vs 2045 Build	15 min 51 sec – Decrease in Delay

Draft Independent Study of WHP Gateway Corridor Report – Lochmueller Group, June 10, 2024

Traffic Management Assessment

Lochmueller VISSIM Travel Time Comparison PM Peak Hour - Westbound Direction

William Hilton Parkway between Moss Creek Drive and Indigo Run Drive

Description	Travel Time (per vehicle)
2023 Existing Simulated Travel Time	20 min 52 sec
2045 No Build Simulated Travel Time	25 min 44 sec
2045 Current Project Simulated Travel Time	10 min 16 sec

Draft Independent Study of WHP Gateway Corridor Report Lochmueller Group, June 10, 2024

Results	Time (delay per vehicle)
2023 Existing vs 2045 No Build	5 min 52 sec - Increase in Delay
2023 Existing vs 2045 Build	10 min 36 sec – Decrease in Delay
2045 No Build vs 2045 Build	15 min 28 sec – Decrease in Delay

Draft Independent Study of WHP Gateway Corridor Report – Lochmueller Group, June 10, 2024

Traffic Management Assessment

2023 Existing

2045 Build

Intersection & Movements	LOS (Delay, sec) [95 th Queue Length, ft] {Max Queue, ft}	
	AM Peak Hour	PM Peak Hour
9: Chamberlin Dr/Squire Pope Rd & Hilton Pkwy (signal)		
Overall Intersection	D (39.2)	E (67.3)
Eastbound Approach	E (56.8) [451] {1334}	B (19.3) [283] {1132}
Westbound Approach	A (7.0) [39] {618}	F (104.8) [874] {1383}
Northbound Approach	C (31.9) [<25] {38}	E (78.6) [<25] {76}
Southbound Approach	C (21.7) [<25] {147}	F (91.6) [220] {638}
10: Old Wild Horse Rd & Hilton Pkwy (un-signalized)		
Southbound Approach	A (1.3) [<25] {<25}	A (6.4) [<25] {25}
11: Spanish Wells Rd/Wild Horse Rd & Hilton Pkwy (signal)		
Overall Intersection	C (29.8)	F (240.4)
Eastbound Approach	C (26.6) [270] {1027}	B (17.1) [103] {622}
Westbound Approach	C (21.9) [87] {471}	F (415.7) [892] {989}
Northbound Approach	E (57.1) [85] {321}	F (395.1) [1241] {1288}
Southbound Approach	F (89.0) [103] {319}	E (63.9) [58] {242}
12: Gumtree Rd & Hilton Pkwy (signal)		
Overall Intersection	D (40.7)	E (66.4)
Eastbound Approach	D (40.6) [765] {1592}	D (49.9) [203] {779}
Westbound Approach	C (30.3) [136] {357}	E (75.2) [961] {1610}
Northbound Approach	C (29.0) [75] {291}	D (45.2) [175] {338}
Southbound Approach	E (77.2) [182] {579}	F (93.4) [234] {779}

Intersection & Movements	LOS (Delay, sec) [95 th Queue Length, ft] {Max Queue, ft}	
	AM Peak Hour	PM Peak Hour
9: Chamberlin Dr/Squire Pope Rd & Hilton Pkwy (signal)		
Overall Intersection	A (8.4)	B (11.8)
Eastbound Approach	A (7.0) [102] {697}	B (11.3) [124] {484}
Westbound Approach	A (8.2) [28] {237}	A (5.8) [36] {524}
Northbound Approach	C (30.4) [<25] {56}	E (67.0) [<25] {109}
Southbound Approach	C (22.6) [<25] {170}	D (51.1) [128] {521}
10: Old Wild Horse Rd & Hilton Pkwy (un-signalized)		
Southbound Approach	A (4.7) [<25] {56}	B (12.5) [<25] {32}
11: Spanish Wells Rd/Wild Horse Rd & Hilton Pkwy (signal)		
Overall Intersection	B (16.6)	C (23.8)
Eastbound Approach	B (11.0) [106] {998}	C (27.9) [198] {861}
Westbound Approach	B (11.2) [56] {248}	B (11.9) [84] {779}
Northbound Approach	D (48.6) [45] {135}	E (65.2) [77] {196}
Southbound Approach	E (75.9) [74] {292}	E (60.6) [49] {197}
12: Gumtree Rd & Hilton Pkwy (signal)		
Overall Intersection	D (37.1)	D (43.8)
Eastbound Approach	C (33.4) [164] {682}	E (57.1) [184] {562}
Westbound Approach	D (40.8) [130] {369}	D (35.4) [236] {786}
Northbound Approach	C (26.6) [61] {264}	D (37.3) [98] {327}
Southbound Approach	D (50.2) [93] {302}	D (52.7) [119] {453}

Reported Results Include the Following:

- Level of Service (LOS) A-F
- Delay (Seconds)
- 95th Percentile Queue Length
 - Specifies a queue that is typically exceeded only once or twice during the day.
- Maximum Queue Length (Feet)

Level of Service	Control Delay per Vehicle (sec/veh)	
	Signalized	Unsignalized
A	≤ 10	0-10
B	> 10-20	> 10-15
C	> 20-35	> 15-25
D	> 35-55	> 25-35
E	> 55-80	> 35-50
F	> 80	> 50

Town Council – Project Considerations

- Project Scope
 - Rehabilitate eastbound Mackay Creek Bridge or build new, single 6-lane bridge?
 - Shared-use pathway on south side of bridge?
 - Meander roadway on Jenkins Island?
 - Aesthetics on bridge and through corridor?
- Community Impacts and Improvements?
 - Property Impacts and Improvements through Stoney Neighborhood?
 - Quality of Life
- Traffic and Transportation
 - Traffic Management Level of Service?
- Environmental Impacts?
- Cost, Funding, and Economic Impacts and Benefits?

Next Steps for Town Council Consideration

1. Town Council consideration of Beaufort County/SCDOT request for Municipal Consent
2. Path forward should Town Council not grant Municipal Consent to SCDOT
 - a. Per SCDOT Secretary Powell - the existing Mackay Creek bridge continues to age in a challenging environment with tides and saltwater. While not load posted today, future inspections may necessitate SCDOT putting a load posting on the bridge which could impact the movement of trucks, buses, and emergency vehicles onto Hilton Head Island.
 - b. SCDOT and Beaufort County to Address eastbound Mackay Creek Bridge
 - c. State Infrastructure Bank Funding would be reallocated to other projects.
3. Path forward should Town Council grant Municipal Consent to SCDOT
 - a. Establish Town of Hilton Head Island/Beaufort County Memorandum of Agreement that includes the following project conditions:
 - i. Design Elements
 - ii. Neighborhood Improvements
 - iii. Economic Sustainability
 - b. SCDOT Project Schedule Advances

Town Council Workshop

Discussion of the William Hilton Parkway Gateway Corridor Project

June 20, 2024