



ANSWERS TO COMMON QUESTIONS & CONCERNS

Bicycle and Pedestrian Improvements, Transit

Bicycle and pedestrian improvements are proposed as part of the Modified Recommended Preferred Alternative (RPA), providing a connection between Bluffton, the Pinckney Island National Wildlife Refuge and Hilton Head Island. The Modified RPA follows the existing US 278 corridor through Bluffton and provides improved mobility and access. A 10-foot paved shared-use path would be constructed on the south side of US 278 between Moss Creek Drive and Salt Marsh Drive. The shared-use pathway would then transition to a 14-foot boardwalk facility and then to a 14-foot shared-use path across the new bridge to Jenkins Island. Based on comments from the Town of Hilton Head Island and public support, two scenic lookout points (one over each creek) would be added along the shared-use path if local funding is identified for their design and construction. This multi-use path would also provide access to both the Pinckney Island Wildlife Refuge and CC Haigh, Jr. Boat Landing. On Jenkins Island, the proposed shared-use path would continue under the new bridge, creating a grade-separated pedestrian crossing under US 278, and transition to a 10-foot shared-use path on the north side of US 278. This 10-foot shared-use path would extend all the way to Spanish Wells Road where it would tie into the existing Hilton Head Island shared-use trail facilities. With this addition, the existing sidewalk located on the southside of US 278 would be removed between Windmill Harbor and the Crazy Crab to minimize impacts, particularly along the causeway separating Jenkins Island and Hilton Head Island. A high-visibility pedestrian crosswalk with a pedestrian push button actuated traffic signal that provides extended crossing time will be included at the newly configured Squire Pope Road and US 278 intersection. Since the approval of the EA, a second high-visibility pedestrian crosswalk with a median refuge is proposed at Old Wild Horse Road.

Multiple alternatives were developed that included the No Build, Transportation System Management (TSM)/Transportation Demand Management (TDM), and Mass Transit. Due to the current and future Level of Service, as well as the safety concerns throughout the corridor, TSM/TDM improvements would not be sufficient to adequately improve the corridor and meet the proposed project's purpose and need as a standalone alternative. Therefore, TSM/TDM was eliminated as a standalone alternative; however, the preferred alternative could incorporate elements of TSM/TDM strategies. An independent analysis of a Mass Transit alternative was also evaluated during the project development; however, this alternative was not moved forward as a standalone alternative due to the inability to address the structural deficiencies at the eastbound Mackay Creek bridge, low public interest, and relative availability of the existing transit service known as Palmetto Breeze. Please refer to Chapter 3.1.2 and 3.1.3 of the Environmental Assessment.

Reversing Traffic

Reversible lanes were evaluated with the goal of avoiding the need of new construction (restriping the existing corridor) or reduce the footprint of the corridor by building fewer lanes. A traffic engineering analysis was completed to analyze the performance and viability of a reversible lane for a four-lane (existing) and a six-lane (widened) corridor. In addition to a traffic analysis, a structural engineering review was also conducted to evaluate how to construct these alternatives as part of the alternatives analysis.

While the level of service (a metric used to calculate how much time you would spend in traffic) was found to be satisfactory in the direction where the reversible lane was employed, level of service was not improved to the other sections of the corridor. This means that the reversible lane scenario did not improve the overall corridor to acceptable SCDOT standards.

There are also many safety concerns associated with the reversible lane alternative. There is a general concern for safety when unfamiliar drivers use a reversible lane road segment. Additional concerns that led to the reversible lane scenario not being included in the Modified Recommended Preferred Alternative include:

- The necessity for a moveable barrier to separate the eastbound and westbound traffic, which would require movement twice a day, could detract from the beauty of the corridor and potentially make it difficult to see oncoming cars at certain intersections.
- The maintenance costs of a moveable barrier presented additional life-cycle costs of the bridges
- The necessity for overhead signage to notify drivers of the lane direction, which can detract from the scenic environment.

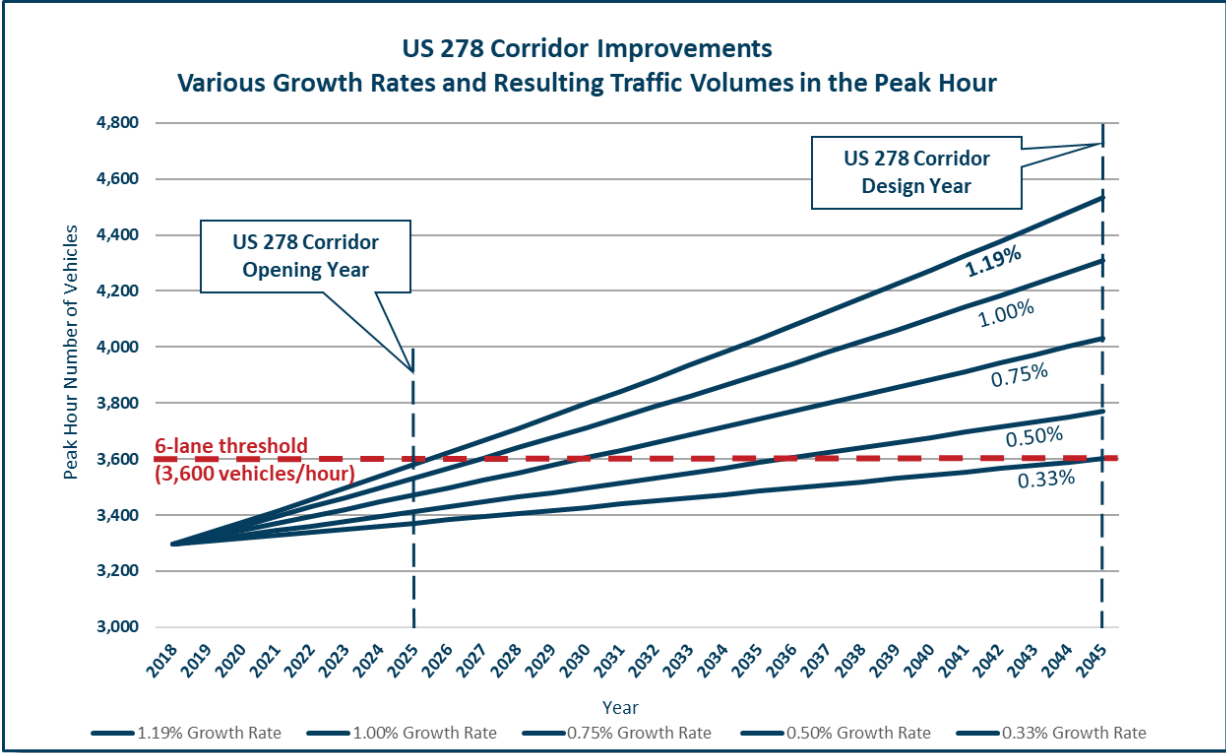
The resulting level of service for either the four-lane or six-lane traffic engineering analysis resulted was not satisfactory improvement compared with the “No Build” to warrant further consideration of a reversible lane alternative.

Road Widening

In an effort to plan for the future, the traffic analysis for this project looked at both current traffic conditions as well as what traffic conditions may be like in the forecast year 2045. For this analysis, a growth rate of 1.19% was used to grow the traffic volumes from the counts collected in 2018 to estimate projected traffic volumes in 2045. A compound annual growth rate of 1.19% means that each year the volume of traffic in the area would grow by an additional 1.19%, year over year. At this growth rate, the traffic volumes exceeded the allowable amount for 4-lanes (3,600 vehicles per/hour) in 2026, one year after the estimated completion of the project. With the goal of improving or maintaining traffic conditions through the design year of 2045, it was clear that a roadway expansion would be necessary.

The project team also evaluated the result of assuming a much smaller growth rate. A small, 0.50% growth rate exceeds the allowable traffic volumes for a 4-lane roadway in 2036, still almost 10 years before the project’s design year. A chart is provided below that shows various growth rates and when the corridor may reach the need for additional lanes as a result of various growth rates.

Questions were raised asking if optimizing the traffic signals could prevent the need to add more lanes to the corridor. Traffic engineering studies concluded that with or without the optimization of existing traffic signals, the road would be over capacity. That means that no amount of signal optimization could provide enough traffic congestion relief to overcome the number of cars projected to drive this road in the future, even as early as 2026.



Additional Access Point (New Bridge)

A wide range of alternatives were developed and analyzed to determine compatibility with the project’s purpose to repair the structurally deficient bridge over Mackay Creek and reduce congestion within the study area. Several methods were used to identify the Preliminary Range of Alternatives. These methods included coordination with SCDOT, the project team, and stakeholders, as well as consideration of public comments gathered during the public information meetings held in 2018 and 2019. Nineteen preliminary build alternatives were evaluated, including seven that would provide a new bridge/access point to Hilton Head Island. These seven alternatives were eliminated because of the high impacts to communities and the environment as compared to other alternatives that satisfied the intended purpose and need of the project.

Noise Impacts

The noise analysis was completed in accordance with the Federal Highway Administration's (FHWA) regulations, the Modified Recommended Preferred Alternative would have noise impacts at 12 residential locations within the study area by the year 2045. The noise analysis also indicated that eight of these 12 residential properties would have noise impacts in 2045 even if the proposed project was not constructed.

A noise mitigation analysis was conducted at each impacted location to determine if a noise barrier or other mitigation measure were appropriate to reduce future noise levels. None of the impacted receivers satisfied the feasible and reasonable criteria, which looks at a number of items such as cost, number of receptors, noise reduction goals, and access and are further outlined in the SCDOT's Traffic Noise Abatement Policy; therefore, no noise barriers are proposed as part of the project.

Preserving the Natural Environment and Aesthetics

The Modified Recommended Preferred Alternative has taken steps to minimize potential impacts to the natural and human environment. Although the project will convert residential, commercial, undeveloped, and recreational land uses to transportation right-of-way, the Modified Recommended Preferred Alternative will utilize existing US 278 and local roads to the extent practicable. By using existing roads, the Modified Recommended Preferred Alternative would minimize harm to wetlands and tidal marshes that may result from construction. These measures may include extending and maximizing bridge lengths to minimize fill placement in wetlands, steepening fill slopes in wetlands to reduce required fill, and maximizing use of uplands for construction access. Minor impacts to wildlife and other natural resources are anticipated as part of the project. None of these impacts will affect the continued existence of any protected species for Beaufort County.

To determine the appropriate level of effort for assessing potential impacts on visual quality, FHWA's Visual Impact Assessment (VIA) Scoping Questionnaire was completed in accordance with the 2015 Guidelines for the Visual Impact Assessment of Highway Projects (Appendix D of the FONSI). Based on the FHWA VIA Scoping Questionnaire it was determined that the potential for the project to cause adverse or beneficial impacts to visual resources, viewers, or visual quality is negligible because the Modified Recommended Preferred Alternative would not affect the visual quality of the US 278 Corridor.

Two aesthetic modifications were recommended by the Town of Hilton Head Island and would require additional local funding to be implemented. These include a meander of the westbound lanes of US 278 on Jenkins Island to create a parkway effect and a scenic look-out point along the multi-use path over each creek. The project will also include enhancements within the Stoney community such as landscaping along the multiuse path and within the median to add aesthetic value throughout the corridor. Signage demarcating the Stoney community with a "gateway" entrance/exit, flags/signage on multi-use path light poles, and seating along the multiuse path are part of the project. In addition, another community enhancement was added after the Environmental Assessment and includes the addition of a new roadway and improved access to the Jenkins Island Cemetery.

Preserving Gullah Heritage

The Stoney community is one of Hilton Head Island’s historic Gullah communities, which also include the nearby communities of Squire Pope, Spanish Wells, Jonesville, and Jarvis. Oral history interviews with longtime residents, archival research, and historical landscape analysis suggest that Stoney remains central to the Gullah identity through its long history of Black landownership; as a cultural gateway to the island; and as a place of progress, prosperity, and education for the island’s Black community. It is thus recommended eligible for listing in the National Register of Historic Places (NRHP) as a Traditional Cultural Property (TCP).

As outlined in Chapter 3 of the Environmental Assessment, alternatives were considered that completely avoided impacting the Stoney community but resulted in high impacts to natural resources. Additional alternatives were evaluated that made new “cuts” through the Stoney community in areas that are presently undisturbed and resulted in increased relocations.

The TCP report was reviewed by the Gullah Geechee Cultural Heritage Corridor Commission and comments were provided to the State Historic Preservation Office (SHPO) that supported a “No Adverse Effect” determination. Since SHPO’s concurred with the “No Adverse Effect” determination, the project team has identified methods to further minimize impacts to the Stoney community, including the reduction of lane widths to decrease the right-of-way necessary within Stoney.

The Recommended Preferred Alternative 4A shown at the public hearing in July 2021 would involve the acquisition of approximately 4.87 acres of new right-of-way and the relocation of two commercial establishments from within the TCP boundary, constituting roughly one-and-a-half percent of the acreage of the entire TCP area. The Modified Recommended Preferred Alternative minimizes potential impacts and would only require the acquisition of 3.47 acres from the TCP, refer to Section 5.3.5 of the FONSI.

While mitigation is not required for actions determined to have “No Adverse Effect,” the project proposes community enhancements to preserve and highlight the history of the Stoney community, as described in Chapter 4.4.2 of the Environmental Assessment. The potential community enhancements were developed through coordination with the Stoney community and are based on the recommendations presented in the Background and Recommendations Report for the Gullah Geechee Cultural Preservation Project. Furthermore, Chapter 4.4.2 of the Environmental Assessment outlines the numerous meetings the project team held with the Stoney community, Gullah stakeholders, and the Town of Hilton Head Island as well as the letter received from the Gullah-Geechee Cultural Heritage Corridor Commission.

It is the project’s goal to provide community enhancements to preserve and highlight the history of the Stoney community. Potential enhancements to further establish or reestablish the Stoney community as a “gateway” and a “place” include:

- Signage to identify the Stoney community and provide a clear “gateway” entrance/exit to the community based on the boundary established in the Traditional Cultural Property Report
- Open-air pavilion on town-owned property along US 278 and Squire Pope Road intersection to highlight the history of the Stoney community and other Gullah neighborhoods on the island
- Create a theme-based street and multi-use path lighting
 - Install flags/signage to the lighting poles along US 278 to indicate they are within the Stoney community
 - Landscaping along US 278 within the Stoney community

- Seating along the multi-use path
- Develop an online, interactive map of the history of the Stoney community to share important historical information about it, Gullah Communities, and Hilton Head Island
- Improved access to the Jenkins Island Cemetery.

Opposes Keeping Left Turns

The most frequent concern received during the July 2021 public hearing was related to the removal of the left-turn lanes on US 278 at Squire Pope and Wild Horse/Spanish Wells Roads and introduction of a U-turn movement. As a result, the project team re-evaluated the performance of other intersection configurations and consulted with agency partners about the difference in the traffic performance of those alternative configurations. Options were evaluated that would better balance the congestion needs with community input to eliminate the U-turn movement.

Opposes Signal at Windmill Harbour

The consolidation of the intersections on Jenkins Island into one traffic signal addresses safety concerns, while improving the efficiency of vehicles moving through the corridor. At the project's first public information meeting in September 2018, many local drivers commented that the intersection of US 278 and Crosstree Drive felt unsafe. In this area, there are four roads that intersect with US 278 – Blue Heron Point Road, Crosstree Drive, Gateway Drive/C Heinrichs Circle and Jenkins Road—creating three potential conflict points along US 278. To address these safety concerns, the Modified Recommended Preferred Alternative would consolidate all the intersections on Jenkins Island (Blue Heron Point Road, Crosstree Drive, Gateway Drive/C Heinrichs Circle, and Jenkins Road) into one signalized intersection, reducing the locations of potential accidents caused by vehicles entering or exiting US 278. With the consolidation of traffic into one intersection, a signal has been approved by SCDOT.

The signal would also provide safer accommodations for RVs entering and exiting the RV park (Hilton Head Marina and Resort). RVs would no longer have to find a gap in heavy traffic, eliminating the risk of rear-end crashes caused by a sudden slowing of traffic.

Travel efficiency throughout the corridor would also improve by consolidating these intersections and allowing vehicles along US 278 to have a green light for the majority of the time. Vehicle detection at the cross streets would allow a green light for a relatively short amount of time, enough to clear the vehicles.

Construction

Acquisition of right-of-way is anticipated to begin in 2024. The right-of-way process is expected to take one year to complete and then construction would begin. The proposed project would have an estimated construction duration of three years. Although a detailed plan for traffic during construction will be completed, SCDOT plans to maintain four lanes of traffic (two in each direction) throughout construction to the extent practicable.

Using the Old Bridge

Preliminary engineering shows rehabilitation would only marginally extend the service life of the existing bridges for vehicular use. Retaining the existing structures would require increased maintenance in the immediate future and would still require replacement of the Mackay Creek bridge. Due to the age, structural condition, and substandard elements of the bridge, the Rehabilitation Alternative would result in unacceptable safety or operational problems and require additional construction, maintenance, and operational cost, so it is not recommended. In addition, significant rehabilitation and on-going maintenance would also be necessary for pedestrian use. Funding is currently not available for this purpose.

Grade-Separated Intersections

A total of 14 intersection alternatives were developed, including four concepts that could address the critical movements at Squire Pope Road (Intersection Alternatives 1-4), four concepts to address the Spanish Wells Road intersection (Intersection Alternatives 5-8), and six alternatives that considered these intersections congruently in the end-to-end fashion (Intersection Alternatives 9-14). A technical memorandum has been developed that describes each intersection alternative and outlines advantages and disadvantages of each potential configuration, refer to Appendix C of the Environmental Assessment.

An elevated viaduct was included in this analysis that would connect the Cross Island Parkway to west of Squire Pope Road. This alternative would allow traffic bound for the Cross Island Parkway to bypass the local traffic and avoid delay at the signalized intersections. This alternative was not carried forward due to the minimal traffic improvement it would provide, the cost of the structure, and the obstruction of scenic views it would cause.

Smart Signals

The signal design will be performed at a later stage in the project. The Town of Hilton Head Island and Beaufort County have jurisdiction over management of traffic signals in the corridor, and both agencies regularly review and evaluate updates to their signal systems.

The existing traffic signals are coordinated and run on a time-of-day plan (morning rush hour, evening rush hour, weekend, and off-peak). This means the cycle lengths and signal timings are coded in a way that optimizes throughput on US 278 during a typical peak hour. Slight variations in the set signal timings can occur if vehicles happen to extend a phase of the signal. The signal program then adjusts itself over several cycles to return to the coded phasing plan. The traffic operations analyzed as part of the traffic study use software that mimics the current signal operations.

Smart signals adapt to the traffic conditions in real time and provide more efficiency in coordination and throughput along corridors. In theory, smart signals should result in the same or better levels of service than what was analyzed in the traffic report, but further analysis would be needed to make a determination of their performance. The signalized intersections will operate more efficiently, but the volumes anticipated along US 278 will be too heavy to accommodate with only two lanes. The road will still need to be widened to three lanes in each direction to handle the current projections.

SCDOT has agreed with Beaufort County and the Town of Hilton Head Island that they will install the infrastructure from I-95 to Sea Pines Circle, after which, every signal could be put on the adaptive signal system. Subsequently, adaptive signals could be implemented within the project limits.