

Federal Metropolitan Planning (PL) Fund Application Form



NAME OF STUDY: Sea Island Road at Dunbar Creek Bridge/Corridor Study **PHASE:** Planning

MPO: Brunswick Area Transportation Study (BATS)

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PROJECT START DATE: July 1, 2022 **PROJECT END DATE:** January 1, 2024

IS PROJECT UPWP/TIP APPROVED: NO **IF NO, AMENDMENT NEEDED?** Yes, UPWP update

PREVIOUS WORK ON PROJECT: Bridge Replacement Project #0014914: CR 583/Sea Island Road @ Dunbar Creek on St Simons Island is currently in scoping phase. According to GDOT's Geo-PI project website: "This project will replace the bridge located on CR 583/Sea Island Road over Dunbar Creek. Additionally, BATS conducted a St. Simons Island Sector Study concurrently with the 2045 MTP which identified this corridor as a focus area for capacity and safety improvements.

DESCRIPTION OF PROJECT BACKGROUND, NEED & GOALS: Sea Island Road is classified as a Minor Arterial Road located on St. Simons Island with a southern terminus at Kings Way and a northeastern terminus at Rainbow Island Drive. Due to high development trends and associated increases in traffic congestion on the island, the Brunswick Area Transportation Study (BATS) conducted a Special PL funded Sector Study for St. Simons Island concurrently with the 2045 MTP. The results of the MTP travel demand model, along with the more detailed Sector Study assessment identified Sea Island Road from Frederica Road to Demere Road as a key corridor requiring improvements. The following excerpts have been sourced from the BATS MTP and SSI Sector Study to further demonstrate the findings and recommendations:

"The Total Daily Traffic Volumes for both directions on Sea Island Road was 10,000-15,000 vehicles in base year 2015. According to a 2045 "Do-Nothing" analysis, the total daily traffic for both directions will experience a significant increase at 15,000 – 20,000 daily volumes. According to the 2020 St. Simons Island Sector Area Study, the corridor of Sea Island Road between Demere Road and Frederica Road has a Volume-to-Capacity ratio (V/C) of 0.77 which is a Level of Service (LOS) D. The 2045 "Do Nothing" scenario projects a LOS F for the corridor with a Volume to Capacity rating of 1.01."

While a widening of Sea Island Road is demonstrated as warranted, a project has not been programmed for this corridor. However, a bridge replacement project at Dunbar Creek has been programmed in the

BATS TIP as a “replacement only” project with two travel lanes. During the bridge replacement scoping and coordination activities, it was determined that a strategic meeting was needed to discuss the corridor. A coordination meeting was held with local and state elected officials, GDOT partners, industry experts, and local MPO leadership, where consensus was reached that a corridor analysis is needed to provide alternatives for roadway widening and how these alternatives will interface with the programmed bridge replacement and intersection improvements. The results of this meeting were presented to the MPO Committees with unanimous support to pursue funding for a comprehensive corridor analysis.

This study would examine the feasibility of a widening project within this corridor, from the intersections of Frederica Road and Demere Road to support project scoping efforts and to provide recommendations regarding a coordinated bridge replacement project at Dunbar Creek in response to the recommendations of the BATS 2045 MTP and St. Simons Sector Study. The project scope will include the development of alternatives for the widening project of Sea Island Road and how these scenarios will support and integrate with the bridge replacement project #0014914: CR 583/Sea Island Road @ Dunbar Creek. Deliverables will include schematics and cost estimates for the roadway and bridge alignment, along with intersection improvements required at Frederica Road and Demere Road. These intersection improvements will be closely coordinated with Glynn County intersection and corridor improvement studies currently underway. The 2045 BATS Travel Demand Model and SSI Sector Study data and GDOT traffic counts data will be utilized for this analysis. The corridor alternatives will also include a bicycle and pedestrian infrastructure assessment and incorporate needed facilities into the draft and recommended schematics. GDOT Office of Planning and GDOT District 5 will be engaged as strategic stakeholders in the planning process to ensure recommendations of the study are able to progress efficiently for funding and implementation. The project will include public and Stakeholder involvement, along with presentations to the BATS MPO and local jurisdictions at key project milestones.

COST DESCRIPTION (contract, staff, purchase data costs, etc.): A Request for Proposals will be developed and competitively bid to select a firm to complete the study. Glynn County staff will manage the project through MPO funds. Glynn County will contribute the matching portion of the required funding for the study.

Sea Island at Dunbar Creek Bridge/Corridor Study - Schedule

Work Elements	2022						2023					
	July	August	September	October	November	December	January	February	March	April	May	June
1. Project Kick off												
2. Existing Conditions Analysis												
3. Development of Schematic Plans for Recommendation/ Improvements												
4. Finalize Technical Report Summarizing process Results and Recommendations												

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Table 1 shows the St. Simons Island Corridors and V/C with the 2015 Existing Network, and Sea Island Road between Demere Road and Frederica Road highlighted. This information is also presented in the map shown in **Figure 1**. **Table 2** highlighting that there has been an increase in traffic volumes between 2016 and 2018 on this corridor, with an Annual Average Daily Traffic (AADT) that has increased approximately 16% over this 3-year period. The third table, **Table 3**, shows St. Simons Island Corridors and V/C with the 2045 Do-Nothing scenario projected network, and Sea Island Road between Demere Road and Frederica Road highlighted. **Figure 2** presents this information in a map with other St. Simons Island corridors under the 2045 Do-Nothing projection.

Table 1 St. Simons Island Corridors and V/C (2015 Existing Network)

Corridor	V/C	LOS
Old Demere Road north of Demere Road	0.23	A
Demere Road between Sea Island Road and Frederica Road	0.62	C
Demere Road between Frederica Road and E Beach Causeway	0.82	D
Demere Road between E Beach Causeway and Ocean Boulevard	0.30	B
Frederica Road between Kings Way and Demere Road	0.52	C
Frederica Road between Demere Road and Devon wood Drive	0.72	D
Frederica Road between Devon wood Drive and Sea Island Road	0.61	C
Frederica Road between Sea Island Road and Lawrence Road	0.66	C
Sea Island Road between Kings Way and Demere Road	0.84	D
Sea Island Road between Demere Road and Frederica Road	0.77	D
Sea Island Road/Ocean Road east of Frederica Road	0.82	D
Kings Way between Sea Island Road and Frederica Road	0.69	C
Kings Way between Frederica Road and Mallery Street	0.67	C
Ocean Boulevard between Mallery Street and Demere Road	0.55	C
Ocean Boulevard between Demere Road and E Beach Causeway	0.21	A
Ocean Road north of E Beach Causeway	0.33	B
E Beach Causeway between Demere Road and Ocean Boulevard	0.67	C
Mallery Street	0.09	A
Arnold Road	0.33	B
Broadway Street	0.11	A
Postell Drive between Frederica Road and Broadway Street	0.15	A
Lawrence Road between Frederica Road and Hampton Point Drive	0.14	A
Hampton Point Drive north of Lawrence Road	0.07	A

Figure 1 St. Simons Island 2018 Level of Service

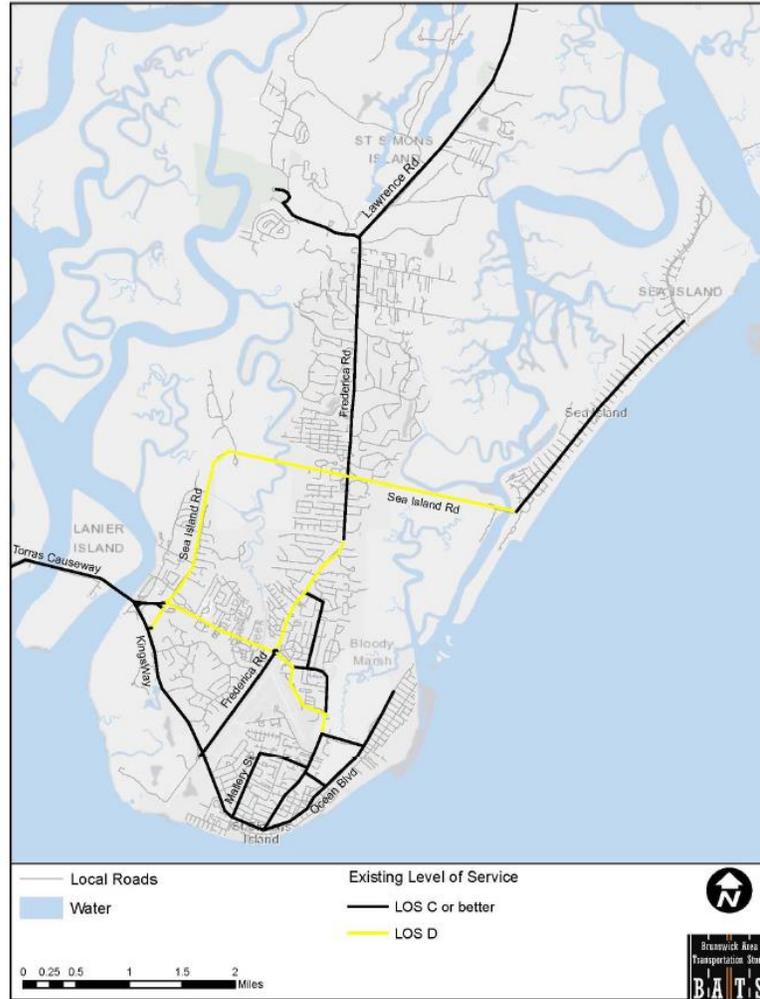


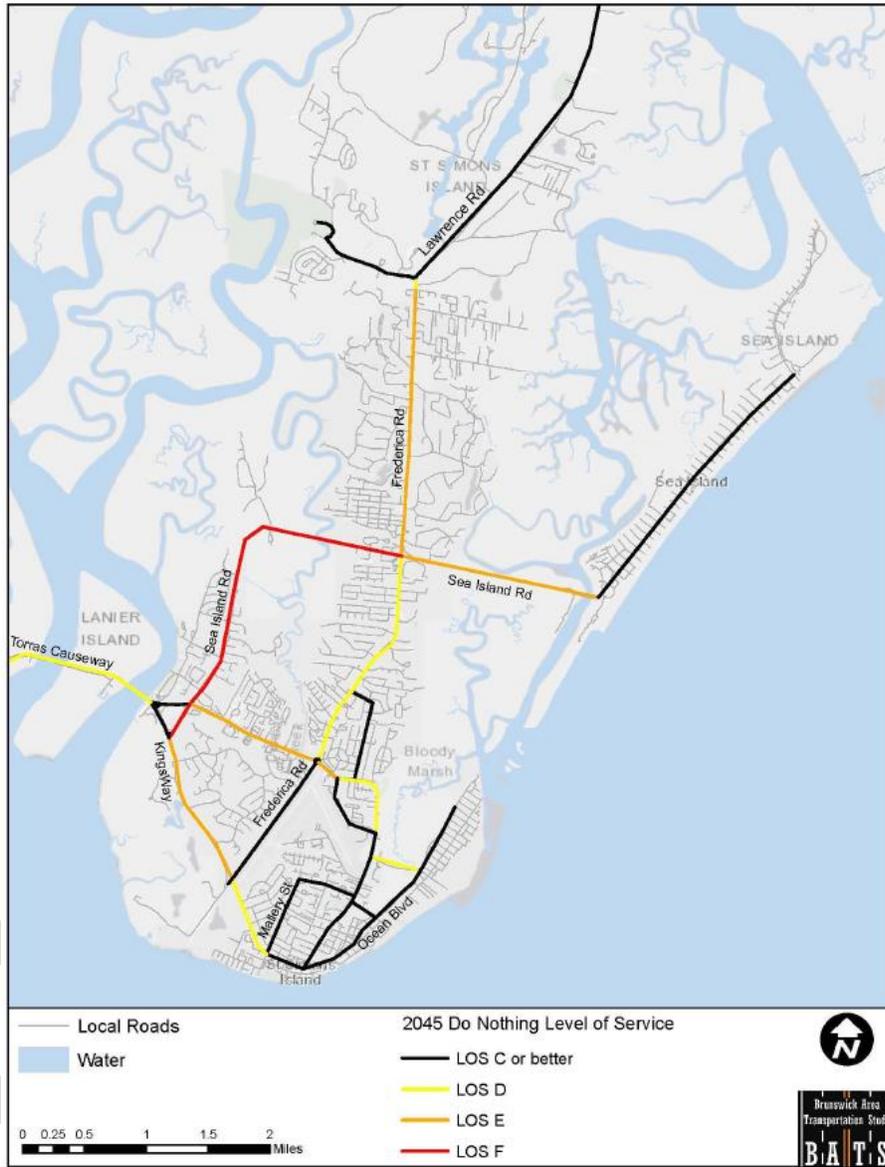
Table 2 Traffic Counts on Sea Island Road between Demere Road and Frederica Road

Station Number	Type	2016	2017	2018	3-Year Average
127-0347	AADT	13,500	13,600	15,600	14,233
	Truck %	5.3	N/A	6.0	N/A

Table 3 St. Simons Island Corridors and V/C (2045 Do-Nothing Network)

Corridor	V/C	LOS
Old Demere Road north of Demere Road	0.34	B
Demere Road between Sea Island Road and Frederica Road	0.87	E
Demere Road between Frederica Road and E Beach Causeway	0.91	E
Demere Road between E Beach Causeway and Ocean Boulevard	0.41	B
Frederica Road between Kings Way and Demere Road	0.26	B
Frederica Road between Demere Road and Devonwood Drive	0.82	D
Frederica Road between Devonwood Drive and Sea Island Road	0.71	D
Frederica Road between Sea Island Road and Lawrence Road	0.84	D
Sea Island Road between Kings Way and Demere Road	1.08	F
Sea Island Road between Demere Road and Frederica Road	1.01	F
Sea Island Road/Ocean Road east of Frederica Road	0.98	E
Kings Way between Sea Island Road and Frederica Road	0.88	E
Kings Way between Frederica Road and Mallery Street	0.78	D
Ocean Boulevard between Mallery Street and Demere Road	0.63	C
Ocean Boulevard between Demere Road and E Beach Causeway	0.24	A
Ocean Road north of E Beach Causeway	0.39	B
E Beach Causeway between Demere Road and Ocean Boulevard	0.72	D
Mallery Street	0.12	A
Arnold Road	0.38	B
Broadway Street	0.36	B
Postell Drive between Frederica Road and Broadway Street	0.65	C
Lawrence Road between Frederica Road and Hampton Point Drive	0.19	A
Hampton Point Drive north of Lawrence Road	0.16	A

Figure 2 St. Simons Island Future (2045) Level of Service



Currently, the corridor experiences a higher number of crashes relative to other comparable corridors on St. Simon’s Island and has high crash densities at both Sea Island Road at Frederica Road and at Sea Island Road at Demere Road. **Figure 3** shows this crash density using crash data dates from November 2014 – November 2019.

Figure 3 Crash Density for St. Simons Island

