

ADMINISTRATIVE ACTION
TYPE 2 CATEGORICAL EXCLUSION

Florida Department of Transportation
In cooperation with the US Coast Guard

TOWN OF BAY HARBOUR ISLANDS - BROAD CAUSEWAY BRIDGE PD&E STUDY

District: FDOT District 6

County: Miami-Dade County

ETDM Number: 14520

Financial Management Number: 452428-1-21-01

Federal-Aid Project Number: D624-029-B

Project Manager: Kimberly Taveras

The Environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding (MOU) dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.

This action has been determined to be a Categorical Exclusion, which meets the definition contained in 40 CFR 1508.4, and based on past experience with similar actions and supported by this analysis, does not involve significant environmental impacts.

Signature below constitutes Location and Design Concept Acceptance:

Director Office of Environmental Management
Florida Department of Transportation

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This document was prepared in accordance with the FDOT PD&E Manual.

This project has been developed without regard to race, color or national origin, age, sex, religion, disability or family status (Title VI of the Civil Rights Act of 1964, as amended).

On 05/30/2023 the State of Florida determined that this project is consistent with the Florida Coastal Zone Management Program.

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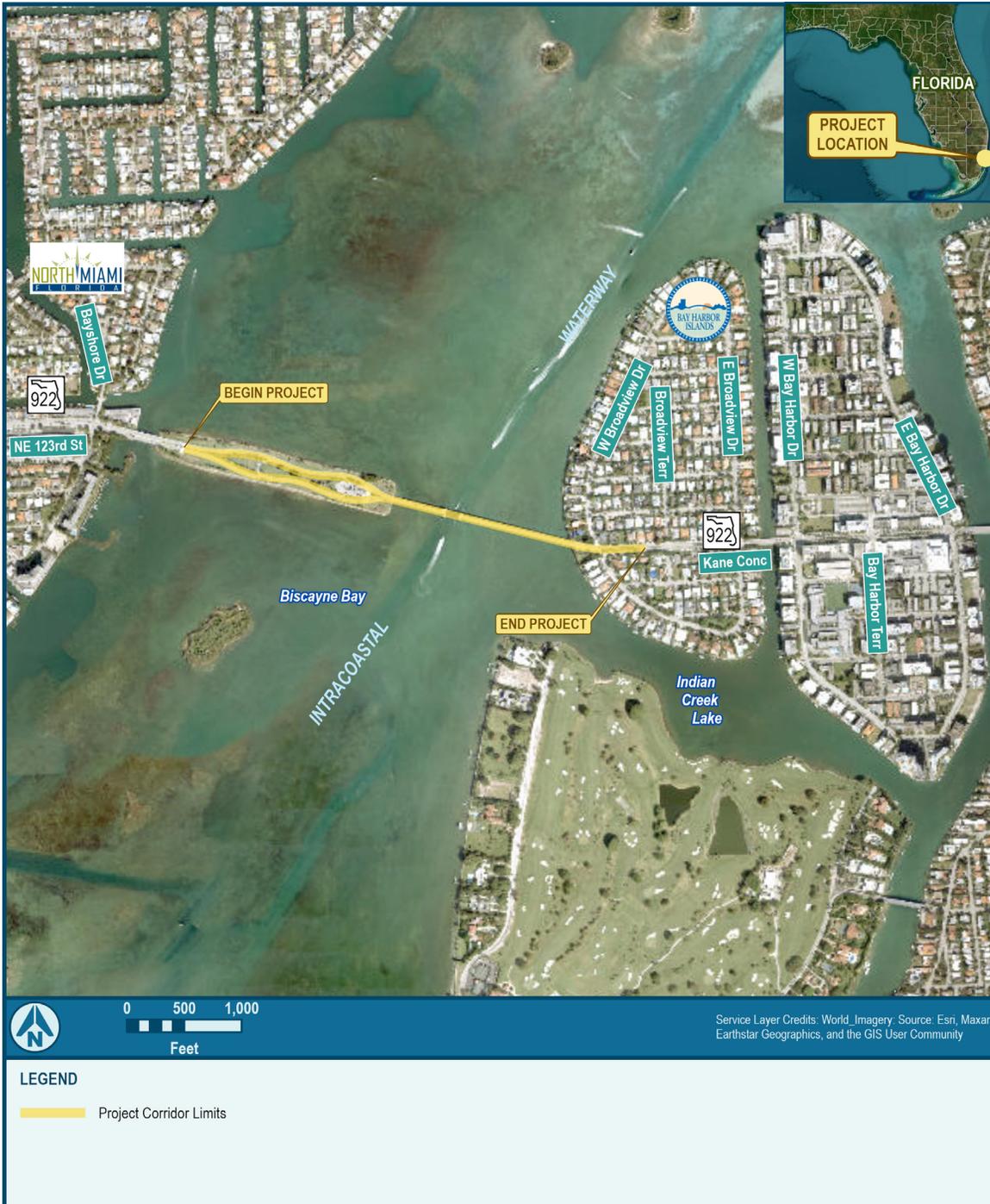
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DRAFT

Project Location Map



Broad Causeway Bridge Replacement PD&E Study

Town of Bay Harbor Islands

Miami - Dade County, Florida

FPID: 452428-1-21-01

1. Project Information

1.1 Project Description

The project involves the potential replacement of the Broad Causeway Bridge connecting the Town of Bay Harbor Islands (Town) with the City of North Miami, within Miami-Dade County. The Project Location Map is attached. The bridge is part of the Broad Causeway, a roadway classified as "Urban Minor Arterial". This arterial also begins in Bal Harbour/Surfside and connects those commuters to the mainland. The limits of the project extend from the Broad Causeway Island (25 53'19.41"N, 80 8'54.52"W) on the west side (25 53'11.30"N, 80 8'18.93"W) to east of West Broadview Drive. The improvements include the bridge approaches and Broad Causeway Island circulation. The Florida Department of Transportation (FDOT) Bridge Identification (ID) Number (No.) is 875101. A graphic depicting the location of the bridge is provided as an attachment. The project is approximately 0.77 miles in length.

The existing bascule bridge consists of four lanes, undivided (two lanes in each direction). The four travel lanes are 10 ft. wide, without a raised median. The outside travel lanes also include shared-use markings to accommodate bicycles. In addition, pedestrians are accommodated with a raised maintenance area on each side of the bridge, with a width that varies from 22 to 36 inches (in.). There are no guardrails separating the raised maintenance area from the travel lane. Crossing over the Intracoastal Waterway (ICWW), the bridge has a horizontal clearance of 79.7 ft., a maximum vertical clearance of 18.0 ft. at Mean Low Water (MLW) and a minimum vertical clearance of 15.7 ft. at Mean High Water (MHW) at the Bascule crossing. The ICWW at the bridge crossings is deemed a navigable waterway by the United States Coast Guard (USCG). The bridge bascule is required by the USCG to open twice per hour on the quarter and three-quarter hour but only opens if vessels are waiting.

Existing right-of-way (ROW), owned by the Town, is anticipated to accommodate the replacement bridge and approaches. Included in the Town Charter by the 1953 Senate Bill No. 865, the State of Florida surrendered and granted to the Town any claim or control over all tidewaters and other lands, and all bayous and bay bottoms, beaches, waters, waterways and water bottoms, and all riparian rights within and adjacent to the Town limits for municipal purposes only, a strip of 300 ft. wide from Kane Concourse (SR 922), westwardly across Biscayne Bay to approximately 123rd Street in the City of North Miami. This 300 ft. wide strip is shown in the attached map as a bright yellow highlight. Therefore, the replacement bridge will be built within the 300 ft. strip over Biscayne Bay under claim or control by the Town.

Preferred Alternative

The Preferred Alternative is the 65 ft. High-Level Fixed Bridge on a southern alignment that replaces the existing Broad Causeway Bridge and bridge approaches as the Preferred Alternative. The new bridge includes a 4-lane divided roadway with two, 11 ft. lanes in each direction separated by 4 ft. inside shoulders and a 2 ft. concrete barrier wall. The outside shoulders are 8 ft. wide, adjacent to concrete barrier walls. A 14 ft. shared-use path along the north side of the new bridge accommodates pedestrians and bicycles with a 1.5 ft. barrier wall to safely separate travel lanes and the path. The design and posted speed would be 30 miles per hour (mph), as it is today.

The new alignment would be located to the south of the existing bridge, allowing for traffic to be maintained along the existing bridge while the proposed bridge is constructed. Demolition of the existing bridge would be phased, so that traffic would be maintained within the existing corridor for most of the construction duration and progressively be transferred from the existing bridge to the new bridge. Emergency vehicles would have 24/7 access to pass through the corridor and should a hurricane warning be issued; the corridor would still be used as a Hurricane Evacuation Route during construction as it is today. See attached typical section, profile, and renderings figure for more details.

On the causeway island, west of the bridge, new access ramps are proposed to and from the existing service station. The Preferred Alternative provides extra greenspace along the north side of the causeway island to provide an opportunity for new park and/or fitness destinations. See attached causeway island circulation drawing for more details.

The existing median opening east of the bridge on State Road (SR) 922 at Broadview Terrace will remain open for U-turn only movements. A mid-block pedestrian crosswalk is proposed on Kane Concourse (SR 922) between the bridge and the existing median opening. The mid-block crossing will include a push-button crossing to allow pedestrians and bicyclists to cross the roadway. Extensive wayfinding signs will be included to direct pedestrian and bicycle movement in the vicinity of the bridge.

The High-Level Fixed Bridge Alternative was selected as the Preferred Alternative for the following reasons:

- The 65 ft. high-level fixed bridge allows all anticipated waterway users to safely navigate through the proposed structure and pass under the new bridge without any delay to roadway traffic. Without the need to stop automobiles, bicyclists, or pedestrians for bridge opening cycles, the traffic would be presented with free flow conditions to accommodate projected high traffic volumes that connect beach communities and Bay Harbor Islands to the mainland. Bicyclists and pedestrians would have continuous safe access without bridge opening delays.
- In emergency situations and during evacuation events, a high-level fixed bridge would play a critical role in facilitating the evacuation of approximately 40,000 residents from the municipalities of Bay Harbor Islands, Bal Harbour, Surfside, Miami Beach, and Sunny Isles Beach.
- A high-level fixed bridge does not have any mechanical moving parts or an electrical system that could malfunction and close the bridge. Without the chance of human error operating a drawbridge, the high-level fixed bridge would maintain operational reliability.
- The high-level fixed bridge includes adequate lane widths and shoulders, and a shared-use path. These features improve safety for both motorized and non-motorized roadway users by correcting existing roadway deficiencies.
- The high-level fixed bridge is proposed within the existing ROW, owned by the Town, making it a feasible option for the Town to address bridge deficiencies.

The Design Phase is scheduled to be initiated in 2024. Since there are no ROW acquisitions that phase is not applicable. The project will move from the Design phase directly into the Construction Phase which is anticipated to start in the year 2028 and be completed by 2031.

1.2 Purpose and Need

Purpose

The purpose of this project is to address the structural and functional deficiencies of the existing Broad Causeway Bridge. The feasibility of continued rehabilitation and repair versus replacement of the bridge was evaluated through the PD&E Study.

Need

The need for the project is based on the identified bridge deficiencies as presented below.

Bridge Deficiencies

Constructed in 1951, the 73-year-old bridge has been determined to be functionally obsolete with fracture critical components based on a Bridge Inspection Report prepared in January 2023 and determined to be structurally deficient

based on a Bridge Inspection Report prepared in January 2024 by the FDOT. According to the Federal Highway Administration (FHWA), functionally obsolete means that the bridge was built to standards that are not used today. The Broad Causeway Bridge does not meet current design standards for lane widths, shoulder widths, or serve current or future traffic demand. A bridge is Structurally Deficient if it is in relatively poor condition or has an insufficient load-carry capacity. The bridge received a Sufficiency Rating of 11.1 [on a scale of 0 percent (poor) to 100 percent (very good)]. The Sufficiency Rating is essentially an overall rating of a bridge's fitness to remain in service. A low Sufficiency Rating may qualify a bridge for State or Federal replacement funds.

As part of the inspection process, several components were evaluated and assigned a rank or condition based on the National Bridge Inventory (NBI) system. The system was established to evaluate existing bridge deficiencies to ensure safety for the traveling public. The ranks/conditions were based on a scale of zero through nine. A rank of zero generally means that the bridge is out of service, beyond corrective action, and in need of replacement; a rank of nine means the bridge is in excellent condition and no deficiencies have been identified. The ranks/conditions for the components examined in the reports are as follows:

Bridge ID Number 875101 (FDOT Inspection Date - January 19, 2024)

- Bridge Railings: 0 (Does not meet currently acceptable standards)
- Transitions: 1 (Meets currently acceptable standards)
- Approach Guardrails: 1 (Meets currently acceptable standards)
- Bridge Guardrails Ends: 0 (Does not meet currently acceptable standards)
- Deck: 4 (Poor)
- Superstructure: 5 (Fair)
- Substructure: 3 (Serious)
- Performance Rating: Poor
- Channel: 7 (Minor Damage)
- Deck Geometry Appraisal: 2 (Intolerable; Replace)
- Approach Alignment Appraisal: 4 (Minimum Tolerable)
- Scour Critical: 5 (Stable within footing)

In 2017, major structural repairs were performed to the bridge at a construction cost of approximately \$17 million. As a result of a 2020 inspection carried out by FDOT, a design to address additional repairs identified by the 2020 inspection was completed. Estimated costs to perform these repairs amount to \$3.0 million. As a result of the 2024 inspection, temporary emergency repairs will be completed. One lane of the bridge is closed until repairs are complete. As the structure continues to age, frequent, costly repairs will be needed to prevent closure or severe damages.

Transportation Demand

The Broad Causeway and Kane Concourse (SR 922) corridor have high traffic volumes since they connect the beach communities and Bay Harbor Islands to the mainland. The a.m. and p.m. peak hours are times of high congestion and future traffic volumes are anticipated to continue to increase based on the suggested annual growth rate of 1.0% detailed in the *Project Traffic Analysis Report (PTAR) (March 2024)*. Since the ICWW at the bridge crossing is deemed a navigable waterway by the USCG, the bridge bascule is required by the USCG to open twice per hour on the quarter and three-quarter hour but only opens if vessels are waiting. Having the bridge open potentially twice per hour further compounds traffic congestion. Having free flow of vehicular traffic or infrequent bridge openings will help relieve congestion and facilitate emergency evacuation.

Safety

Broad Causeway Bridge is a high vehicle crash location with many bicycle crashes. Based on information from Signal4 Analytics database, between 2018 and 2023 there were 47 total vehicle crashes occurring within the project limits of which 26 were on the undivided bridge and approach sections. The highest concentration of crashes was near West Broadview Drive. The study area exhibited a majority of the crashes to be sideswipe crashes (28%) and rear end crashes (26%). The high occurrence of rear-end and sideswipe crashes can be indicative of congestion along the corridor. Of the 47 vehicle crashes, none resulted in a fatality, but two resulted in serious injury and 18 resulted in injuries. While vehicle to vehicle crash rate of 1.90 for the undivided bridge section is below the statewide average (7.30) for this type of urban facility, vehicle to bicycle crashes (19% of total crashes) are exponentially higher as explained below. The outside travel lanes on Broad Causeway Bridge include shared-use markings to accommodate bicycles, but there are conflicting signs on each side of the bridge that direct bicyclists to get off the bicycle and walk. According to the FDOT's *Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (Florida Greenbook 2018)*, the minimum width of a shared traffic/bicycle lane is 14 ft. The existing lane width on Broad Causeway Bridge is only 10 ft. Therefore, the bicycles are sharing 30 mph travel lanes with vehicles on lane widths that do not meet current standards. As a result, there have been nine vehicle crashes involving bicycles. All nine crashes resulted in injury and occurred on the undivided bridge and approach sections. Vehicle to bicycle interactions account for 19% of the total crashes occurring within the project limits. This is 17.8% higher than the 1.2% average representing crashes involving a bicycle in 2022 for Miami-Dade County urban, non-interstate facilities (Source: Signal4, 2022).

In addition, pedestrians use a raised maintenance area with a width that varies from 22 to 36 in. on each side of the bridge. There are no guardrails separating the raised maintenance area from the travel lane. The west side of the bridge has a 6-inch curb to enter the maintenance area that does not provide ADA access. This creates an unsafe condition for pedestrians particularly if two pedestrians are walking across the bridge in opposite directions and need to pass each other. There are currently no sidewalks on the causeway island west of the bridge.

Serving as part of the emergency evacuation route network designated by the Florida Division of Emergency Management (FDEM) and Miami-Dade County, Broad Causeway Bridge plays a critical role in facilitating traffic between the beaches and the mainland of Miami during emergency evacuation periods. The project is needed to maintain emergency evacuation capabilities to approximately 40,000 residents from the municipalities of Bay Harbor Islands, Bal Harbour, Surfside, Miami Beach and Sunny Isles Beach. When winds are higher than 35 mph, the USCG requires the bridge to be closed (down position) to avoid damages to the wings. When there is an emergency evacuation situation, the USCG starts closing (down position) the movable bridges from the south and moving north. Typically, the Broad Causeway Bridge remains closed until the USCG contacts the Town of Bay Harbor Islands to open it for certain hours.

The existing structure and some of the mechanical components are over 70 years old and are failing. The Town of Bay Harbor Islands has completed numerous repairs in the recent years to keep the bridge operational. As time passes repairs are needed more frequently and at a higher cost. In addition, the Broad Causeway Bridge has only one undersized emergency generator. When the generator is needed to run the bascule portion of the bridge, the two wings cannot open at the same time, hence delaying the opening-closing cycle. If the bridge is stuck open because of mechanical failure or is damaged due to a hurricane, a direct emergency evacuation route for these communities will be eliminated. The detour route for those on the east end of the bridge heading north counterclockwise to the west end of the bridge would be 9.40 miles and heading south (clockwise) would be 11.12 miles. The detour route for those on the west end of the bridge heading north clockwise to the east end of the bridge would be 9.26 miles and heading south (counterclockwise) would be 11.29 miles.

Project Status

The project is a priority for the Town of Bay Harbor Islands and is included in their current Capital Improvements Program (CIP) with the following allocations to date for the PD&E phase:

- Fiscal Year (FY) 2021-2022 - \$500,000
- FY 2022-2023 - \$2,300,000
- FY 2023-2024 - \$2,800,000

The project was approved by the Miami-Dade Transportation Planning Organization (TPO) on November 3, 2022 (TPO's Resolution #46-2022) (Planning Consistency Appendix), to be added to the 2045 Long Range Transportation Plan (LRTP) and FY 2024 Transportation Improvement Program (TIP) Amendments. Future project phases are currently not funded. Ongoing coordination with the TPO has occurred to keep them apprised of funding. The TIP FY 2025- 2026 update will include Design phase funds for FY 2025- FY 2027. Currently the Town is providing the Design funds from toll revenues, but is actively seeking Federal, state, and local funds and applying for all applicable grants to offset Design phase funding and fund the Construction phase.

1.3 Planning Consistency

Currently Adopted LRTP-CFP	COMMENTS			
Yes	The Miami-Dade TPO on November 3, 2022, approved TPO Resolution #46-2022 to amend the 2045 LRTP and FY 2023 TIP to include in Priority I of the Plan the PD&E phase to advance the Broad Causeway Bridge Replacement Project, Project Number BC-160. The project is shown as #12 on the LRTP Summary of Amendments.			
	Currently Approved	\$	FY	COMMENTS
PE (Final Design)				
TIP	Y	\$6,000,000 \$5,000,000 \$4,000,000	2025 2026 2027	Town currently has funding programmed, but is seeking Federal, state, and local funds and applying for all applicable grants to offset Design phase funding.
STIP	N			Not Applicable. FDOT funds are not being used.
R/W				
TIP	N			There will be no ROW phase.
STIP	N			There will be no ROW phase.
Construction				
TIP	N			Town is seeking Federal, state, and local funds and applying for all applicable grants for Construction phase funding. Construction is anticipated to start in 2028 and to be completed in 2030.
STIP	N			Not Applicable. FDOT funds are not being used.

2. Environmental Analysis Summary

Issues/Resources	Significant Impacts?*			
	Yes	No	Enhance	NoInv
3. Social and Economic				
1. Social	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Economic	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Land Use Changes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Mobility	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Aesthetic Effects	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Relocation Potential	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Farmland Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Cultural Resources				
1. Section 106 of the National Historic Preservation Act	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Section 4(f) of the USDOT Act of 1966, as amended	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Section 6(f) of the Land and Water Conservation Fund	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Recreational Areas and Protected Lands	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Natural Resources				
1. Protected Species and Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Wetlands and Other Surface Waters	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Essential Fish Habitat (EFH)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Floodplains	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Sole Source Aquifer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Water Resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Aquatic Preserves	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Outstanding Florida Waters	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Wild and Scenic Rivers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10. Coastal Barrier Resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Physical Resources				
1. Highway Traffic Noise	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Air Quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Contamination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Utilities and Railroads	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Construction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

USCG Permit

- A USCG Permit IS NOT required.
- A USCG Permit IS required.

* **Impact Determination:** Yes = Significant; No = No Significant Impact; Enhance = Enhancement; NoInv = Issue absent, no involvement. Basis of decision is documented in the following sections.

3. Social and Economic

The project will not have significant social and economic impacts. Below is a summary of the evaluation performed.

3.1 Social

The Sociocultural Effects (SCE) Evaluation process is used to identify and address the effects of a transportation improvement project on a community and its quality of life. A quarter-mile buffer of the project study area was used to capture all aspects of the affected community. Additional details are located in the *Sociocultural Effects Evaluation Technical Memorandum (May 2024)*, found in the project files.

Demographics Analysis

This project is located entirely within the Town of Bay Harbor Islands, but this study area for the SCE also covers a small portion of North Miami, west of the project terminus.

A demographic profile of the study area was prepared and compared against Miami-Dade County. The demographic profile utilizes data from the Environmental Screening Tool (EST) Sociocultural Data Report (SDR). The SDR uses the 2018 to 2022 American Community Survey (ACS) data and reflects the approximation of the population based on the area of a quarter-mile buffer intersecting the Census block groups along the project corridor. The most current ACS data is used to characterize the population with potential to be directly affected by the project. **Table 2-1** provides a summary of the sociocultural characteristics within the project area.

Table 2-1 Sociocultural Characteristics

Sociocultural Characteristics	Percent of Population	
	1/4-mile Study Area	Miami-Dade County
Race/Ethnicity		
<i>Minority Population Percentage</i>	57.78%	86.97%
<i>Claim Two or More Races</i>	23.41%	29.15%
<i>Some Other Race Alone</i>	5.41%	6.34%
<i>Black or African American Alone</i>	3.25%	15.86%
<i>Hispanic or Latino</i>	48.44%	68.77%
Age		
<i>65 and over</i>	18.0%	16.61%
<i>18 and younger</i>	26.12%	20.10%
<i>Median</i>	40	40.6
Disability		
<i>Population 20 to 64 Years with a Disability</i>	4.14%	6.64%
Income		
<i>Households Below Poverty Level</i>	3.10%	16.21%
Education Attainment		
<i>High School Graduate or Higher</i>	93.58%	82.67%

<i>Bachelor's Degree or Higher</i>	56.42%	32.54%
Language		
<i>English Language Proficiency Speaks English "Less than Very Well"</i>	15.80%	33.95%
Housing		
<i>Occupied Housing Units with No Vehicle</i>	3.40%	9.74%

Race and Ethnicity

The data indicates that residents within a quarter-mile buffer of the project are at 57.78% minority, which is much lower than Miami-Dade County's minority population percentage of 86.97%. The minority population within a quarter-mile buffer is primarily "Claim Two or More Races" (23.41%) with about 48.44% of the population being Hispanic or Latino ethnicity (of any race).

Age and Persons with Disabilities

The analysis indicates that roughly 18% of the population in the study area are age 65 and older, with the median age of 40 years, which is comparable to the median age in Miami-Dade County of 40.6 years. It should be noted that within the study area 26.12% of the populations is 18 years or younger. Approximately 4.14% of the population aged 20 to 64 years has a disability compared to 6.64% in Miami .

Income/Poverty Status

The median income has more than doubled for households within the study area between 2000 and 2020 to roughly \$113,258 which is \$59,283 higher than Miami-Dade County's median household income of \$53,975 in 2020. The percent of households within a quarter mile of the project living below the poverty level has decreased from 6.56% to 3.10% since 2010, which is 13.11% lower than Miami-Dade County's average of 16.21%.

Education Attainment

The study area population has a high degree of educational attainment, with 93.58% high school graduates, while 56.42% have received a Bachelor's degree or higher education.

English Language Proficiency

Approximately 15.8% of the population within a quarter mile of the project has limited English proficiency (LEP), or "Speaks English Less than Very Well", compared to 33.95% in Miami-Dade County.

Occupied Housing with No Vehicle

About 3.4% of the households within a quarter mile buffer of the project do not have access to a vehicle, compared to 9.74% of households in Miami-Dade County.

Community Services and Focal Points

Community focal points are public or private locations, facilities, or organizations that are important to local residents and communities. Community focal points include schools, worship centers, community centers, parks, cemeteries, fire stations, law enforcement facilities, government buildings, healthcare facilities, and social service facilities. All community focal points within a quarter-mile buffer were identified and are described below and shown in the attached Community Services and Focal Points Map.

Florida Parks and Recreational Facilities

- Town of Bay Harbor Islands Tot Lot
- Florida Circumnavigational Saltwater Paddling Trail
- North Bayshore William Lehman Park
- South Passive Park
- Indian Creek Golf Club (privately owned)

It should be noted that the Ruth K. Broad Bay Harbor K-8 (Kindergarten through Eighth grade) Center (school), Morris N. Broad Community Center, Miami-Dade County Bay Harbor Islands Fire Rescue Station 76, and public library are located just outside of the quarter-mile buffer on 95th Street and West Bay Harbor Drive on the East Island.

Community Cohesion

Data was collected regarding community cohesion for this project, which included identification of physical barriers, traffic patterns, social travel patterns, connectivity to transit and community features and facilities. Characteristics of the surrounding communities and local demographics are important considerations and are closely examined by the SCE process so that disproportionate impacts can be avoided.

The project bridge carries Broad Causeway over Biscayne Bay and the ICWW to connect the City of North Miami on the west with the Town of Bay Harbor Islands, Village of Bal Harbour, and Town of Surfside on the east, linking the beach communities with U.S. 1 and Interstate 95 (I-95) to the west. The project traverses the Town of Bay Harbor Islands, a U.S. Census Designated Place in northern Miami-Dade County. The Town consists of two islands: West Island and the East Island.

Many pedestrians walk or ride their bicycle in the Town of Bay Harbor Islands and over the existing Broad Causeway Bridge.

Social Resources Analysis Results

In evaluating the potential for disproportionately high and adverse environmental impacts to environmental justice populations, the six SCE Evaluation issues (social, economic, land use changes, mobility, aesthetic effects, and relocation potential) were taken into consideration.

The project is not expected to contribute to social isolation of any protected populations in the study area or disabled or elderly residents. It is anticipated that the proposed project will have a positive impact on community cohesiveness. The project does not add any new physical barriers that will bisect the neighborhoods or separate residences from community facilities such as churches, schools, shopping area or civic or cultural facilities. Existing pedestrian and bicycle facilities on the bridge, causeway island and bridge approaches will be reconstructed or improved to accommodate the proposed roadway features and enhanced pedestrian features. The proposed project will not alter the existing routes or transit facilities within the corridor.

Quality of life and safety for community and regional residents will be improved by having free flow of vehicular traffic that will help relieve congestion, potentially reduce crashes, enhance local emergency response time, and facilitate emergency evacuation. Also, a new bridge will eliminate detours due to bridge malfunctions or repairs. In consideration of any mitigative or beneficial aspects to this project, the Broad Causeway Bridge project will provide enhancements to the inhabitants of the Historic District since it will improve vehicular, pedestrian and bicyclist safety by providing wider travel lanes, shoulders and a 14 ft. shared-use path. It will also improve access to the Historic District and emergency evacuation since there will no longer be delays from opening a movable bridge. Lastly, it will provide recreational facilities

noted above that currently do not exist that can enhance the quality of life for inhabitants of the Historic District. All of which facilitates the continued stewardship and preservation of the Historic District.

There is also no ROW acquisition proposed for the Preferred Alternative. Therefore, there are no direct impacts to social or community resources as the improvements are mainly to the bridges and approaches located on the causeway. Therefore, the project will also avoid the Parks and Recreational Facilities previously identified, including the Tot Lot. The Florida Circumnavigational Saltwater Paddling Trail will have temporary impacts that are discussed further within the Cultural Resources section.

Phased construction will be completed within three major phases and will not affect the general traffic flow of two lanes in each direction. No restrictions are anticipated for residents and business owners adjacent to the project limits. Emergency evacuation will be maintained. Bicycle and pedestrian access will be maintained during construction through a temporary 5 ft. sidewalk that will be constructed along the north side of the proposed bridge. The latest edition of the FDOT's *Standard Specifications for Road and Bridge Construction* will be followed.

In accordance with the Executive Order 12898, Title VI of the Civil Rights Act of 1964 and Executive Order 13166, "Improving Access to Services for Persons with Limited English Proficiency", the project team has made concerted efforts to reach out to disadvantaged groups. No minority or low-income populations have been identified that will be adversely impacted by the proposed project, as determined above. Therefore, in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23a, no further Environmental Justice analysis is required.

The Preferred Alternative is expected to have no significant impacts on social resources within the Broad Causeway Bridge corridor.

3.2 Economic

As one of seven crossings of Biscayne Bay and the ICWW between the mainland and the barrier islands, Broad Causeway Bridge provides access from I-95 and U.S. 1 to the Town, Village of Bal Harbour, and Town of Surfside. The bridge on Broad Causeway is essential to maintaining the movement of people and goods along the corridor as well as providing access to local businesses in the Town, Village of Bal Harbour, Town of Surfside, and the City of North Miami. The project is located within two U.S. Census Designated Places [Bay Harbor Islands and North Miami] and is in an area of high tourist activity connecting North Miami to the beach communities such as Surfside and Bal Harbour. According to Miami-Dade Beacon Council, the labor force on Bay Harbor Islands is 3,139 people and the largest job counts are for office and administrative support, sales, managers, healthcare support, and financial operations with 25% being blue collar workers (perform manual labor) and 74% being white collar workers (office jobs). Based on online information from Zippia, major businesses in the North Miami area include Jackson North Medical Center, Grand Realty of America, City of North Miami Beach, ECE Consulting Group, and Klika Tech.

Overall, in the long term, the proposed project is expected to improve both the economic conditions of the area and mobility by maintaining an important regional connection to jobs, essential services, and tourist destinations.

Bridge replacement will also improve commercial and recreational boating as the new bridge will have a higher vertical clearance and will allow passage of more vessels without requiring a bridge opening. In addition, the project will reduce escalating maintenance costs of the existing bridge that is projected to continue if no corrective action occurs. The bridge

replacement will also ensure the continuation of safe access to employment centers and economic focal points located in the Town and in Bal Harbour and Surfside Beaches. In addition, providing a safe vehicular and bicycle/pedestrian facility will enhance access to and from the commercial areas to the east and west of the corridor.

There are no changes to tax base or tax revenue as a result of the Preferred Alternative. The project is compatible with the economic land uses in the area since there is no change in land use and no anticipated change in property values.

The Preferred Alternative is expected to enhance economic resources within the Broad Causeway Bridge corridor.

3.3 Land Use Changes

The project traverses the Town of Bay Harbor Islands, a U.S. Census Designated Place in northern Miami-Dade County. The Town consists of two islands: West Island and the East Island as shown on the Existing Land Use Map attached. The West Island contains exclusively single-family residential. The East Island contains a business/commercial district and multi-family residential housing with some public/institutional uses.

Along the project corridor, the existing land use for the project corridor primarily consists of infrastructure (transportation use) and commercial (service station) on the causeway island identified as the Causeway District and single family residential and parks and recreation land uses on the West Island. The attached Future Land Use Map shows the land uses are consistent with the existing land use.

According to the Town of Bay Harbor Islands Future Land Use Map, the project corridor will continue to support the noted land uses at existing densities. The Preferred Alternative will avoid property relocation and ROW acquisitions but will change the existing character and aesthetics of the area since it will be at a higher profile and will have a wider footprint. The Preferred Alternative will have no significant impact on land use along the Broad Causeway Bridge corridor.

3.4 Mobility

The Broad Causeway Bridge connects the Town with the City of North Miami and extends to the communities of Bal Harbour and Surfside connecting those commuters to the mainland.

The existing bridge consists of four lanes (two in each direction) that are 10 ft. wide, without a raised median. The outside travel lanes also include shared-use markings to accommodate bicycles which is a safety concern due to substandard lane widths. There are conflicting signs on each side of the bridge that direct bicyclists to get off the bicycle and walk. According to the FDOT's *Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (Florida Greenbook 2018)*, the minimum width of a shared lane should be 14 ft. The existing lane width on Broad Causeway Bridge is only 10 ft. Therefore, bicycles are sharing 30 mph travel lanes with vehicles on lane widths that do not meet the current standards.

In addition, a raised maintenance area that is used by pedestrians is present on each side of the bridge, with a width that varies from 22 to 36 in. The typical width of the maintenance area and existing barrier wall is 3.75 ft. There are no guardrails separating the maintenance area from the travel lane creating a safety concern for pedestrians using the maintenance area to cross the bridge. The west side of the bridge has a 6-inch curb to enter the maintenance area that

does not provide ADA access. Also, the maintenance area is not ADA compliant since it does not provide the required minimum widths of 36 in. or 32 in. at the point of an obstruction such as a light fixture/pole. This creates an unsafe condition for pedestrians, particularly if two pedestrians are walking across the bridge in opposite directions and need to pass each other. There are currently no sidewalks on the causeway island west of the bridge. The bridge approaches are generally consistent with the typical section of the bridge, except for west of the bridge where there are no sidewalks.

According to the Miami-Dade 2040 Bicycle/Pedestrian Plan, Broad Causeway is not listed as a bike/ped priority. The *FDOT's Bike Network Plan (February 2022)* defines the project area as a "County Connector." Bicyclists travel across the causeway island using the existing green bike lanes and sharrows on the Broad Causeway Bridge and Kane Concourse(SR 922). The maximum pedestrian and bicyclist counts from the two count locations on two separate days are listed below in **Table 2-2** and provided in the Project Traffic Analysis Report (PTAR) (*March 2024*).

Table 2-2 Multimodal Traffic Counts

Date	Time	Type	Eastbound	Westbound
Saturday, February 11, 2023	7:00 AM - 7:00 PM	Pedestrians	119	122
		Bicyclists	216	176
Tuesday, February 14, 2023	7:00 AM - 7:00 PM	Pedestrians	103	95
		Bicyclists	105	91

The complete streets approach of planning, designing, building, operating, and maintaining streets that enable safe access for all people who need to use them, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities was utilized to incorporate missing and substandard safe modes of transportation. The proposed design will provide improved forms of bicycle access throughout the corridor and the needed pedestrian access will be added to the project.

The Miami-Dade Transit Route 107 (G) traverses the proposed project area with a bus stop located at Broadview Terrace and NE 96th Street. Route 107 (G) starts at the Miami-Dade College North Campus and heads east over the Broad Causeway Bridge ending at Harding Avenue and 94th Street in the Town of Surfside. According to the Miami-Dade Transit, the Transit Development Plan (TDP) Annual Progress Report, for FY 2022- 2031, this municipal transit service is expected to continue to operate at current service levels.

The project is located within a transportation disadvantaged service provider area [Miami-Dade Transit Transportation Disadvantaged Program]. The Miami-Dade Transit Transportation Disadvantaged Program is a state-funded program that provides free transportation passes to qualifying Non-Profit Agencies/Programs for use by their Miami-Dade County resident clients who qualify as "Transportation Disadvantaged". The complimentary Bay Harbor Islands Shuttle also operates within the project area starting in North Miami and Biscayne Boulevard and heads east over the Broad Causeway Bridge to Surfside.

The Miami-Dade TDP contains no transit needs or planned improvements for the project corridor, but the Transit Division of Miami-Dade County's Department of Transportation and Public Works (DTPW) noted that this is a key connection to Miami Beach and the Town of Bay Harbor Islands and future transit needs may be different than currently planned.

Crossing over the Intracoastal Waterway, the bridge has a maximum vertical clearance of 18.00 ft. at mean low water (MLW) and a minimum vertical clearance of 16.00 ft. at mean high water (MHW) at the Bascule crossing. The ICWW at

the bridge crossing is deemed a navigable waterway by the USCG. The bridge bascule is required by the USCG to open at quarter and three-quarter hour of each hour to allow boat traffic. The replacement of the bridge will improve commercial and recreational boating as the new bridge will have a higher vertical clearance and will allow passage of more vessels without requiring a bridge opening.

Serving as part of the emergency evacuation route network designated by the FDEM and Miami-Dade County, Broad Causeway Bridge plays a critical role in facilitating traffic between the beaches and the mainland of Miami during emergency evacuation periods. The project is needed to maintain emergency evacuation capabilities to approximately 40,000 residents from the municipalities of Bay Harbor Islands, Bal Harbour, Surfside, Miami Beach and Sunny Isles Beach. When winds are higher than 35 mph the USCG requires the bridge to be closed (down position) to avoid damages to the wings. When there is an emergency evacuation situation, the USCG starts closing (down position) the bridges from South and moving north. Typically, the Broad Causeway Bridge remains closed until the USCG contacts the Town to open it for certain hours. The Preferred Alternative will maintain emergency evacuation along this route during construction.

Mobility Resources Analysis Results

The Preferred Alternative will create improved facilities for bicyclists and pedestrians. Pedestrians and bicycles will be accommodated throughout the project corridor with a shared-use path around the causeway island perimeter (8 ft. to 14 ft.), and a 14 ft. shared-use path along the northern side of the bridge typical section. Connecting the pedestrians from the bridge section to the causeway island section is a 14 ft. shared-use path spiral ramp (helix) which is described in the *Preliminary Engineering Report (May 2024)*, found in the project files. All proposed pedestrian features will tie to existing sidewalks at both eastern and western project limits. To provide complete connectivity for pedestrians a midblock crossing is proposed just east of West Broadview Drive at Station (Sta) 144+80. The midblock crossing will connect pedestrians to the south sidewalk east of the project and will include warning signs and other special emphasis features to alert drivers of the upcoming crossing. During design the mid-block crossing will be further analyzed to determine what the safest and most efficient option will be for pedestrian and bicycle crossing. Potential design options include Rapid Rectangular Flashing Beacons and overhead pedestrian signals. Extensive wayfinding signs will be included to direct pedestrian and bicycle movement in the vicinity of the bridge.

The proposed project improvements are intended to enhance overall mobility in the area by maintaining an important regional connection between the islands and mainland of northern Miami-Dade County and enhance access to businesses/destinations for bicyclists and pedestrians through the provision of a new shared-use path. Also, having free flow of traffic will help relieve congestion and facilitate emergency evacuation. Having free-flow traffic will provide better on time reliability of the Miami-Dade Transit and Bay Harbor Islands Shuttle routes that are currently operating in the project area. The enhancements to pedestrian accommodations will provide better and safer access to bus and shuttle stops.

There are currently no sidewalks on the causeway island west of the bridge. The bridge approaches are generally consistent with the typical section of the bridge, except for west of the bridge where there are no sidewalks. During construction, a temporary 5 ft. sidewalk will be constructed along the north side of the proposed bridge.

The Preferred Alternative is expected to enhance mobility within the Broad Causeway Bridge corridor.

3.5 Aesthetic Effects

Landscaping and "Bay Harbor Islands" gateway signs are the main aesthetic features. Mature Coconut Palms and manicured shrubs scatter the causeway island portion of the corridor while mature Royal Palms with manicured shrubs line the median of SR 922 along the eastern end of the project.

The existing bridge is the main artery into the Town and the community has voiced concerns of the positive and negative impacts a 65 ft. High-Level Fixed Bridge will have during construction and after the new bridge is opened. The proposed option was refined down through various alternative meetings with the Town officials and community to provide a product that will address more than the Town's transportation needs. Currently, the Town owns and maintains just one park within the project limits (Tot Lot). The Preferred Alternative accommodates extra greenspace along the causeway island and provides the needed space the Town is looking for to potentially develop a park or a fitness destination.

Context sensitive solutions will be considered to ensure that the project accounts for the community's input on design preferences. However, the width and height profiles of the new bridge will alter viewsheds of the area from both the bridge and from the residents and recreational areas along the shoreline. A profile and rendering of the Preferred Alternative are attached.

The increased height will be highlighted on the 14 ft. shared-use path where overlooks will be located on the east and west edges of the ICWW. The overlooks will give the users a place to rest if using the shared-use path as an exercise destination or a place to take pictures and take in the 360-degree panoramic views of the Town and Downtown Miami.

Another special feature of the shared-use path is the spiral ramp that brings the users down to the causeway island from the 65 ft. Fixed Bridge. To enhance safety measures on the spiral ramp, specific signage for pedestrians and bicyclists will be installed to indicate the direction of flow.

The historical and aesthetic significance of the existing bridge was an important consideration in developing the Preferred Alternative and are detailed in the *Cultural Resources Assessment Survey (CRAS) (April 2024)*, found in the project files.

Lighting and aesthetic treatments, including gateway features, will be evaluated. During the design phase, bridge features such as aesthetics, landscaping and lighting will be coordinated with the community.

During construction, there may be temporary visual impacts that will be minimized through standard construction best management practices.

The Preferred Alternative is expected to have no significant aesthetic effects within the Broad Causeway Bridge corridor.

3.6 Relocation Potential

The Preferred Alternative is expected to have no involvement related to relocation potential within the corridor; although, project impacts could include temporary driveway access closures and/or permanent driveway access modifications. The Preferred Alternative will have no ROW or relocation impacts.

The proposed project, as presently conceived, will not displace any residences or businesses within the community. Should this change over the course of the project, a Right of Way and Relocation Assistance Program will be carried out in accordance with Florida Statute 421.55, Relocation of displaced persons, and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646 as amended by Public Law 100-17).

3.7 Farmland Resources

Lands within the project vicinity do not meet the definition of farmland as defined in 7 CFR § 658 and the provisions of the Farmland Protection Policy Act of 1981 do not apply because the entire project area is located in the urbanized area of Miami and Miami Beach with no designated farmlands adjacent to the project corridor.

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4. Cultural Resources

The project will not have significant impacts to cultural resources. Below is a summary of the evaluation performed.

4.1 Section 106 of the National Historic Preservation Act

The proposed project will result in unavoidable adverse effects to the resource(s) listed below, which are eligible for listing in the National Register of Historic Places (NRHP). FDOT and the State Historic Preservation Officer (SHPO) will execute a Memorandum of Agreement (MOA), which outlined conditions to minimize and mitigate the adverse effects resulting from the project. Consequently, FDOT commits to the stipulations provided below as outlined in the MOA.

The historical Area of Potential Effect (APE) was developed through a viewshed analysis using the Geodesic Viewshed tool in the Environmental Systems Research Institute (ESRI) Arc Geographic Information System (GIS) Pro proprietary software. The historical APE was then refined to only include parcels within a 1/2 mile radius that orient towards the project area. A historic resources desktop analysis was conducted prior to any field surveys to identify any previously recorded historic resources and any parcels of historic age with the potential for containing structures 52 years of age or older.

The archaeological APE was limited to the parcels in which potential ground disturbance may take place. The proposed replacement bridge alternatives have the potential to disturb both terrestrial and underwater areas within the project area. A review of the ICWW indicated that the United States Army Corps of Engineers (USACE) dredges this area for regular waterway maintenance (USACE, 2022). As such, the underwater soil stratigraphy of the waterway is highly disturbed and unlikely to contain intact archaeological material. Therefore, the archaeological APE was set to the terrestrial project limits. The FDOT and Town met with the SHPO on June 19, 2023, to discuss the *Cultural Resources Research Design and Survey Methodology (May 2023)*, found in the project files, and the SHPO concurred with this decision concerning the archeological APE.

No archaeological sites were identified that are eligible for listing in the NRHP within the archaeological APE. The causeway island consists entirely of fill material, making it unsuitable for archaeological study. No shovel tests of the archaeological APE plotted for the Bay Harbor Islands portion of the project area were conducted, as a field survey of the project area conducted on September 6 through September 8, 2023, revealed that the area was highly disturbed by construction activities, installation of landscaping, and the installation of underground utilities. Due to the disturbed nature of the area, the natural soils cannot be observed. Soils found on the manmade broad causeway island near the western end of the project APE are Udorthents that consist primarily of parks, vacant lots, or lawns. Both are highly disturbed soil types unlikely to contain bonded archaeological material (U.S. Department of Agriculture [USDA] 1996). The project will have no involvement with archeological resources.

The *Cultural Resource Assessment Survey (CRAS)* (April 2024) can be found in the project files. The background research and field survey identified 12 historic resources considered ineligible for listing in the NRHP that are also considered as non-contributing resources to a historic district. The survey determined that thirteen (13) historic resources are eligible for listing in the NRHP either individually, as contributing elements to a historic district within the APE, or which have insufficient information for a definitive eligibility evaluation; resources with insufficient information are presumed eligible until otherwise documented for the purpose of applying the criteria of adverse effect. A list of all identified extant resources are shown in **Table 3-1**. The location of the identified NRHP-eligible historic resources can be seen in the

attached Section 106 Resources Map.

Table 3-1 All Extant Resources Identified During Survey

FMSF No.	Address/Name	Constructi on Date	Type/Style	Recommended NRHP Eligibility
8DA10123	Broad Causeway/ FDOT Bridge No. 875101	c. 1951	Linear Resource	NRHP-Eligible August 15, 2018/ Contributing to Bay Harbor Islands Historic District
8DA10435	9700 W Broadview Drive	c. 1955	Structure/ Masonry Vernacular	Contributing to Bay Harbor Islands Historic District
8DA10436	Citgo/1501 Broad Causeway	c.1951	Structure/ MiMo	NRHP-Eligible August 15, 2018/ Contributing to Bay Harbor Islands Historic District
8DA10515	Bay Harbor Islands Historic District	c.1940s- 1960s	Resource Group	Insufficient Information August 15, 2018
8DA11549	Keystone Islands	c. 1948- 1964	Resource Group	Not Evaluated by SHPO/ Insufficient Information
8DA21585	12385 Keystone Island Drive	1969	Structure/ Masonry Vernacular	Not Eligible
8DA21586	12405 Keystone Island Drive	1959	Structure/ Masonry Vernacular	Not Eligible
8DA21587	12415 Keystone Island Drive	1955	Structure/ Masonry Vernacular	Not Eligible
8DA21588	12425 Keystone Island Drive	1956	Structure/ Mid-Century Modern	Not Eligible
8DA21589	12445 Keystone Island Drive	1956	Structure/ Masonry Vernacular	Not Eligible
8DA21590	12455 Keystone Island Drive	1961	Structure/ Masonry Vernacular	Not Eligible
8DA21591	12475 Keystone Island Drive	1961	Structure/ Masonry Vernacular	Not Eligible
8DA21592	12505 Keystone Island Drive	1962	Structure/ Masonry Vernacular	Not Eligible
8DA21593	2395 Bayview Lane	1973	Structure/ Classical Revival	Eligible
8DA21594	Broad Causeway Island	1951	Resource Group	Contributing to Bay Harbor Islands Historic District
8DA21598	White House Inn on the Bay/ 2305 NE 123rd Street	1969	Structure/ Colonial Revival	Eligible
8DA21599	Majorca Towers/ 11930 N Bayshore Drive	1969	Structure/ Mid- Century Modern	Eligible
8DA21602	9730 W Broadview Drive	1957	Structure/ Masonry Vernacular	Not Eligible

8DA21603	9600 Broadview Terrace	1971	Structure/ Neo-eclectic Mansard	Contributing to Bay Harbor Islands Historic District
8DA21604	1350 96th Street	1970	Structure/ Masonry Vernacular	Not Eligible
8DA21605	9601 W Broadview Drive	1959	Structure/ Masonry Vernacular	Not Eligible
8DA21606	1371 96th Street	1961	Structure/ Masonry Vernacular	Contributing to Bay Harbor Islands Historic District
8DA21607	1330 96th Street	1971	Structure/ Masonry Vernacular	Contributing to Bay Harbor Islands Historic District
8DA21608	Indian Creek Country Club Golf Course/ 55 Indian Creek Island Road	1930	Resource Group	Insufficient Information
8DA21621	Town of Bay Harbor Islands Playground/ 9600 W Broadview Drive	1954	Resource Group	Not Eligible

The FDOT submitted the CRAS report to the SHPO on April 22, 2024, along with the District's determination that the proposed project will have an adverse effect on the individually NRHP-eligible Broad Causeway Bridge (8DA10123), the individually NRHP-eligible Citgo historic structure (8DA10436), and the NRHP-eligible Bay Harbor Islands Historic District (8DA10515). The SHPO concurrence was received on May 6, 2024, and can be found as an attachment to this document.

Additionally, this CRAS was provided to the Miami-Dade County Office of Historic Preservation for review. The County Historic Preservation Chief responded on January 11, 2024, with no additional comments. The transmittal letter and response are attached.

A *Section 106 Case Study (Case Study) Report* (April 2024), found in the project files, has also been prepared to evaluate the potential primary and secondary effects of the proposed undertaking on the thirteen (13) historic resources that are eligible for listing in the NRHP either individually or as part of a historic district within the APE (or have insufficient information to fully determine eligibility) under the Criteria of Adverse Effect found in 36 Code of Federal Regulations (CFR) Part 800.5 of the *National Historic Preservation Act (NHPA) of 1966*.

Based on the proposed undertaking to replace the Broad Causeway Bridge (8DA10123, FDOT Bridge No. 875101), the findings indicate that the Preferred Alternative will have an **adverse effect** on the individually NRHP-eligible Broad Causeway (8DA10123) linear resource, the individually NRHP-eligible Citgo/1501 Broad Causeway (8DA10436) historic structure, and the potentially NRHP-eligible Bay Harbor Islands Historic District (8DA10515). Furthermore, it is anticipated that this undertaking will have **no adverse effect** on the individually NRHP-eligible 2395 Bayview Lane (8DA21593), Whitehouse Inn on the Bay (8DA21598), and Majorca Towers (8DA21599) historic structures, nor the Indian Creek Country Club Golf Course (8DA21608) and Keystone Islands (8DA11549) resource groups. Additionally, there is **no adverse effect** to the following contributing resources in the Bay Harbor Islands Historic District (8DA10515) located within the APE: 9700 W Broadview Drive (8DA10435), Broad Causeway Island (8DA21594), 1371 96th Street (8DA21606), 1330 96th Street (8DA21607), and 9600 Broadview Terrace (8DA21603). There are no NRHP-eligible archaeological sites that are within the archaeological APE that will be affected by this undertaking.

The FDOT submitted the *Case Study Report* to the SHPO on April 9, 2022, along with the District's determination that the proposed project will have an adverse effect on the individually NRHP-eligible Broad Causeway Bridge (8DA10123) linear resource, the individually NRHP-eligible Citgo historic structure (8DA10436), and the NRHP-eligible Bay Harbor Islands Historic District (8DA10515). The SHPO concurrence was received on [Insert date, 2024], and can be found as an attachment to this document.

The *Case Study Report* was also provided to the Miami-Dade County Office of Historic Preservation for review. The County Historic Preservation Chief responded on [Insert date, 2024], with no additional comments. The transmittal letter and response are attached.

A Memorandum of Agreement (MOA) between the FDOT, Town, and SHPO was executed on [Insert date, 2024]. The MOA outlines conditions to minimize and mitigate the adverse effects resulting from the project, including Historic American Engineering Record (HAER) Level II documentation for the historic bridge, public education, which will include historic markers about the historic bridge and history of the Town; provide an updated survey of the historic district; and incorporation of project design elements. Please refer to the Cultural Resources commitments for more information regarding the MOA stipulations that have been committed to by the Town of Bay Harbor Islands.

The Broad Causeway linear resource consists of a fixed bridge, man-made island (Broad Causeway Island, 8DA21594), and bascule bridge (Broad Causeway, 8DA10123, FDOT Bridge No. 875101). Since the Broad Causeway Bridge, Citgo service station, and Bay Harbor Islands Historic District are within the project corridor and are NRHP-eligible, they have been evaluated as a Section 4(f) resource and are discussed in the Section 4(f) section below.

4.2 Section 4(f) of the USDOT Act of 1966, as amended

The following evaluation was conducted pursuant to Section 4(f) of the U.S. Department of Transportation Act of 1966, as amended, and 23 CFR Part 774.

The Section 4(f) resources identified are shown in the attached Section 4(f) Resources Map.

Public Parks and Recreation Areas

Town of Bay Harbor Islands Tot Lot

The Town-owned Tot Lot located on the northeast side of the bridge at 9600 West Broadview Drive has been identified as a Section 4(f) resource. It is a gated park with shaded playground equipment which includes ADA accessible components and a picnic pavilion. The Official with Jurisdiction (OWJ) is the Town.

The project will be constructed within the existing ROW. A portion of the project is located adjacent to the Tot Lot, but the proposed project has no use of the property within the meaning of Section 4(f). A temporary construction area will need to be utilized from the west side of the Tot Lot which will result in a temporary occupancy but will not result in a "use". The temporary construction area will be ~20 feet inland from the water's edge and will temporarily remove the Tot Lot picnic pavilion. This temporary construction area will be needed to construct a new seawall where the Tot Lot is located. This seawall construction will occur after the removal of the existing bridge and will last ~12 weeks. The Tot Lot will remain open during construction so it can continue to function as a park. As such, the project anticipates meeting the conditions of 23 CFR 774.13(d)(1-5) to have a temporary occupancies of land that is so minimal as to not constitute a use within the

meaning of Section 4(f). The duration will be less than the time needed for construction of the project and there will be no change in ownership of land. The scope of work is minor and there are no adverse impacts to the protected activities, features, and attributes or a temporary or permanent bases. The park will be fully restored to current condition or better and all plans have been concurred with by the OWJ for the park. The OWJ has provided concurrence for this temporary occupancy provided as an attachment.

Florida Circumnavigational Saltwater Paddling Trail

The Florida Circumnavigational Saltwater Paddling Trail (Paddling Trail) begins at Big Lagoon State Park near Pensacola, extending around the Florida peninsula and Keys, and ending at Fort Clinch State Park near the Georgia state line in Fernandina Beach. The Florida Circumnavigational Saltwater Paddling Trail is a 1,515-mile sea kayaking paradise. It is the country's longest designated national recreation trail. Within the project area the trail follows the ICWW under the existing Broad Causeway Bridge. The Florida Circumnavigational Saltwater Paddling Trail has also been identified as a Section 4(f) resource and the OWJ is the Florida Department of Environmental Protection (FDEP).

Since the Paddling Trail at the ICWW under the existing Broad Causeway Bridge cannot be avoided, measures to maintain access to the Paddling Trail will be developed and a temporary detour route for the trail was developed as shown in the attached the Paddling Trail Detour Route Map around Bay Harbor Islands. The vertical clearance of Bridge No. 875103 between Bay Harbor Islands and Bal Harbour along the detour route is 11.8 ft. As such, the access to the Paddling Trail will be maintained during and after the project. The new bridge is being constructed within the existing right-of-way so there is no acquisition or occupation of land from the protected property on either a temporary or permanent basis, and no meaningful proximity impacts to protected property.

During design, coordination with FDEP Office of Greenways and Trails will be conducted regarding the temporary detour of the Paddling Trail during construction of the new Broad Causeway Bridge. Detour notifications will be provided to FDEP for posting on their website regarding the temporary closure.

The Florida Circumnavigational Saltwater Paddling Trail will be a Section 4(f) "No Use" pending OEM approval.

Historic Sites

Broad Causeway Bridge and Citgo Service Station are NRHP-eligible resources and Bay Harbor Islands Historic District is a potential NRHP-eligible resource. These resources are located within the project corridor and were evaluated for potential Section 4(f) impacts. Coordination with the FDOT and SHPO is ongoing to prepare a Memorandum of Agreement for the Section 106 adverse effects to these resources. The FHWA Section 4(f) Policy Paper, Question 7B stated that "An 'adverse effect' under 36 CFR Part 800 does not automatically mean Section 4(f) applies.... If a project does not permanently incorporate land from the historic property but results in an adverse effect, it will be necessary for FHWA to further assess the proximity impacts of the project in terms of the potential for constructive use (Question 7A). This analysis is necessary to determine if the proximity impact(s) substantially impair the features or attributes that contribute to the NR eligibility of the historic site. If there is no substantial impairment, notwithstanding an adverse effect determination, there is no constructive use and Section 4(f) does not apply. The FHWA determines if there is a substantial impairment by consulting with all identified officials with jurisdiction, including the SHPO/THPO and the ACHP if participating, to identify the activities, features, and attributes of the property that qualify it for Section 4(f) protection and by analyzing the proximity impacts of the project (including any mitigation) on those activities, features, and attributes (See 23 CFR 774.15(d)(3)). The determination of Section 4(f) applicability is ultimately FHWA's decision, and the considerations and consultation that went into that decision should be documented in the project file." Therefore, if the Section 4(f) impact would not 'substantially impair the features or attributes that contribute to the NRHP eligibility of the historic site' and the historic district said historic property contributes, then there is no use of the historic property within

the meaning of Section 4(f).

Broad Causeway Bridge (8DA10123, FDOT Bridge 875101)

The Preferred High-Level Fixed Bridge Alternative proposes to remove and replace the Broad Causeway Bridge (8DA10123, FDOT Bridge 875101) with a fixed-span bridge with a vertical navigational clearance level of 65 feet above the MHW level. Based on the *Criteria of Adverse Effect*, the Preferred Alternative will have an Adverse Effect on the NRHP-eligible Broad Causeway (8DA10123, FDOT Bridge No. 875101) linear resource since it requires the demolition of the existing bridge. The Broad Causeway Bridge (8DA10123) is documented as a Programmatic Section 4(f) Evaluation and Approval for FHWA (Federal Aid) Projects that Necessitate the Use of Historic Bridges pending OEM approval. The programmatic evaluation determined there are no feasible and prudent alternatives to the use of Broad Causeway Bridge and that the project included all possible planning to minimize harm resulting from such use. Mitigation for the demolition of Broad Causeway Bridge is captured in the Section 106 MOA.

Bay Harbor Islands Historic District (8DA10515)

The Bay Harbor Islands Historic District (8DA10515) is located at the eastern end of the project corridor and is connected to the man-made Broad Causeway Island (8DA21594) by the Broad Causeway Bridge (8DA10123, FDOT Bridge 875101). Both the individually NRHP-eligible Broad Causeway (8DA10123, FDOT Bridge No. 875101) and Citgo/1501 Broad Causeway (8DA10436) are contributing resources to the historic district. Additionally, the following resources were identified that are not individually NRHP-eligible but contribute to the Bay Harbor Islands Historic District (8DA10515): 9700 West Broadview Drive (8DA10435), Broad Causeway Island (8DA21594), 9600 Broadview Terrace (8DA21603), 1371 96th Street (8DA21606), and 1330 96th Street (8DA21607). Based on the *Criteria of Adverse Effect*, the Preferred Alternative would have an Adverse Effect on the NRHP-eligible Bay Harbor Islands Historic District (8DA10515) resource group since it would remove a contributing resource (Broad Causeway Bridge [8DA10123]) that is directly tied to its early developmental history.

In consultation with both of the OWJs, pending OEM approval, it has been concluded that the proposed project has "no use" of the Bay Harbor Islands Historic District (8DA10515) within the meaning of Section 4(f) based on the following analysis and parameters:

- The Bay Harbor Islands Historic District (8DA10515) was originally recorded as having 312 contributing resources built in or prior to 1957. Additional resources would likely be considered contributing if an updated survey was conducted in the Town due to the large number of original buildings and structures built during the 1960s and early 1970s. With contributing resources numbering in the hundreds, the historic district remains potentially eligible even with the removal of the historic Broad Causeway Bridge (8DA10123) and changes to the Citgo/1501 Broad Causeway (8DA10436) historic setting.
- The Broad Causeway Bridge's contribution to the Bay Harbor Islands Historic District is based in functionality; the construction of said bridge facilitated the development of the historic district by providing access to the area during the period of significance. By constructing a new bridge, functionality is still provided to the Historic District and therefore does not diminish the integrity of, or prohibit access to, the Historic District.
- The replacement bridge alternatives will not be visible from the majority of the Historic District. Therefore, the project will not alter the existing visual and aesthetic conditions of the resource group as a whole, its viewshed or setting, and will not introduce any new visually intrusive elements that will affect the resource group. Therefore, the project will have no constructive use of the Historic District.
- The degree and nature of the project do not rise to the level of substantial impairment to the characteristics, activities, features, and attributes that make the Historic District potentially eligible for the NRHP and a Section 4(f) protected property.

- In consideration of any mitigative or beneficial aspects to this project, the Broad Causeway Bridge project will provide enhancements to the inhabitants of the Historic District since it will improve vehicular, pedestrian and bicyclist safety by providing wider travel lanes, shoulders and a 14 ft. shared-use path. It will also improve access to the Historic District and emergency evacuation since there will no longer be delays from opening a movable bridge. Lastly, it will provide recreational facilities noted above that currently do not exist that can enhance the quality of life for inhabitants of the Historic District. All of which facilitates the continued stewardship and preservation of the Historic District.

Citgo/1501 Broad Causeway (8DA10436)

The Preferred Alternative was designed to avoid removing the Citgo/1501 Broad Causeway (8DA10436) by starting the elevated bridge approach further west on Broad Causeway Island and flying over a portion of the Citgo/1501 Broad Causeway (8DA10436). While this design is able to avoid all direct physical impacts to the buildings, it does change the historic setting of the resource, which has always been set on a visually open island with no other structures other than toll booths (now removed) in the vicinity. A *CRAS Report* completed for this project confirmed the significance and integrity of the structure remains unchanged and concluded the Citgo structure is still individually eligible and remains a contributing resource to the Bay Harbor Islands Historic District (8DA10515). SHPO concurred with this evaluation on May 6, 2024. Based on the Criteria of Adverse Effect, the Preferred Alternative would have an Adverse Effect on the NRHP-eligible Citgo/1501 Broad Causeway (8DA10436) resource.

In consultation with both of the OWJs, pending OEM approval, it has been concluded that the proposed project has "no use" of the Citgo/1501 Broad Causeway (8DA10436) within the meaning of Section 4(f) based on the following analysis and parameters:

- The project will have no acquisition of land from the resource on a temporary or permanent basis.
- The project is not interrupting its function or access (i.e. operation as a rest/gas station).
- There are no proximity impacts to the resource, including the change to the viewshed, that rise to the level of substantial impairment that would cause the structure to lose its NRHP eligibility individually or as contributing to the Bay Harbor Islands Historic District (8DA10515).
- The project improvements around and over the Citgo/1501 Broad Causeway (8DA10436) will not be visible from the majority of the Historic District. Therefore, the project will not alter the existing visual and aesthetic conditions of the resource group as a whole, its viewshed or setting, and will not introduce any new visually intrusive elements that will affect the resource group. Therefore, the project will have no constructive use of the Historic District.

See the Section 4(f) Resources Attachment in the Cultural Resources Appendix for additional information regarding the Section 4(f) analysis for recreational and historic resources.

4.3 Section 6(f) of the Land and Water Conservation Fund Act of 1965

There are no properties in the project area that are protected pursuant to Section 6(f) of the Land and Water Conservation Fund of 1965.

4.4 Recreational Areas and Protected Lands

The Town owned Tot Lot and a segment of the Florida Circumnavigational Saltwater Paddling Trail, under the FDEP jurisdiction, are located within the project area. The FDOT sent emails to the FDEP on October 2, 2023, and November 15, 2023, concerning a determination of significance and the proposed detour route. This correspondence represented a formal Statement of Significance for the Paddling Trail. Coordination with the OWJ is included in the project files as part of the Section 4(f) coordination.

These project improvements will enhance connectivity and access to these noted recreational amenities by providing bicycle and pedestrian facilities that connect the City of North Miami to the Town. Improved access and traffic flow to the Town can provide better access to the proposed public boat ramp to be located along the canal between the East and West Islands. The public boat ramp will provide access to the Florida Circumnavigational Saltwater Paddling Trail and the proposed submerged aquatic park the Town is designing as shown in the attached Proposed Recreational Areas Map. Minimal involvement regarding recreation areas and protected lands is anticipated given temporary impacts on access to and enjoyment of the paddling trail and the Tot Lot picnic pavilion during project construction.

The Preferred Alternative is expected to have no significant impacts on recreational resources within the Broad Causeway Bridge corridor.

5. Natural Resources

The project will not have significant impacts to natural resources. Below is a summary of the evaluation performed:

5.1 Protected Species and Habitat

The following evaluation was conducted pursuant to Section 7 of the Endangered Species Act of 1973 as amended as well as other applicable federal and state laws protecting wildlife and habitat.

The following evaluation was conducted pursuant to Section 7 of the Endangered Species Act of 1973, as amended, as well as other applicable federal and state laws protecting wildlife and habitat.

A *Natural Resources Evaluation (NRE)* (April 2024), found in the project files, was conducted to identify and evaluate potential impacts to federal and state listed species with the potential to occur within the project area. Potential project impacts to listed species habitat were also evaluated. This project has potential involvement with species under the jurisdictional purview of both the United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS).

Two benthic surveys were conducted in August 2022 and July - August 2023 to characterize the benthic habitats and presence of federal and state listed species in the marine environment. In July 2023, project biologists conducted pedestrian surveys of the study area to identify and assess the wetland and terrestrial habitats in the area. The presence/absence of any evidence of listed species utilization was also identified as part of these terrestrial habitat assessments.

The project study area occurs within the USFWS's designated Consultation Areas for the West Indian manatee (*Trichechus manatus*), piping plover (*Charadrius melodus*), American crocodile (*Crocodylus acutus*), and Florida bonneted bat (*Eumops floridanus*). As shown in **Table 4-1** a total of 26 species (3 mammals, 6 birds, 1 insect, 6 reptiles, 3 fish, and 7 corals) that are federally and/or state listed, or candidate or proposed for listing, were determined to occur or potentially occur within the project area. The project study area is located within critical habitat (CH) for the West Indian manatee and the proposed CH (PCH) for the green sea turtle. The tricolored bat (*Perimyotis subflavus*) was included due to its Proposed Endangered [P(E)] listing status and the monarch butterfly (*Danaus plexippus*) was included due to its Candidate (C) listing status.

Table 4-1 Federally and State Listed Wildlife Species Potentially Occurring within the Project Study Area and their associated Effect Determinations

Common Name	Scientific Name	Listing Status*	Occurrence Potential	Effect Determination
MAMMALS				
Florida bonneted bat	<i>Eumops floridanus</i>	FE	Low**	No effect
Tricolored bat	<i>Perimyotis subflavus</i>	P(E)	Low**	Not Applicable
West Indian manatee	<i>Trichechus manatus</i>	FT	High (CH) ***	May affect, not likely to adversely affect
BIRDS				
Little blue heron	<i>Egretta caerulea</i>	ST	Moderate	No adverse effect anticipated

Piping plover	<i>Charadrius melodus</i>	FT	Low	No effect
Reddish egret	<i>Egretta rufescens</i>	ST	Low	No adverse effect anticipated
Roseate spoonbill	<i>Platalea ajaja</i>	ST	Low	No adverse effect anticipated
Tricolored heron	<i>Egretta tricolor</i>	ST	Low	No adverse effect anticipated
Wood stork	<i>Mycteria americana</i>	FT	Low	May affect, not likely to adversely affect
INSECTS				
Monarch butterfly	<i>Danaus plexippus</i>	C	Low	Not Applicable
REPTILES				
American crocodile	<i>Crocodylus acutus</i>	FT	Low	No effect
Eastern indigo snake	<i>Drymarchon corais couperi</i>	FT	Low	May affect, not likely to adversely affect
Green sea turtle	<i>Chelonia mydas</i>	FT	Moderate (PCH)***	May affect, not likely to adversely affect
Hawksbill sea turtle	<i>Eretmochelys imbricata</i>	FE	Moderate	May affect, not likely to adversely affect
Leatherback sea turtle	<i>Dermochelys coriacea</i>	FE	Low	No effect
Loggerhead sea turtle	<i>Caretta</i>	FT	Low	May affect, not likely to adversely affect
FISH				
Giant manta ray	<i>Manta birostris</i>	FT	Low	May affect, not likely to adversely affect
Nassau grouper	<i>Epinephelus striatus</i>	FT	Low	No effect
Smalltooth sawfish	<i>Pristis pectinata</i>	FE	Low	May affect, not likely to adversely affect
CORALS				
Boulder star coral	<i>Orbicella franksi</i>	FT	High	May affect, not likely to adversely affect
Elkhorn coral	<i>Acropora palmata</i>	FT	Low	No effect
Lobed star coral	<i>Orbicella annularis</i>	FT	Moderate	May affect, not likely to adversely affect
Mountainous star coral	<i>Orbicella faveolata</i>	FT	Moderate	May affect, not likely to adversely affect
Pillar coral	<i>Dendrogyra cylindrus</i>	FT	Low	No effect
Rough cactus coral	<i>Mycetophyllia ferox</i>	FT	Low	No effect
Staghorn coral	<i>Acropora cervicornis</i>	FT	Low	No effect

*FE = Federally Endangered, FT = Federally Threatened, P(E) = Proposed for Listing as Federally Endangered, C = Candidate for Federal Listing, ST = State Threatened

Based on findings of the October 2023 Florida Bonneted Bat Survey (see Section 4.5 and **Appendix D of the NRE for additional details).

***(CH) - the project study area is located within designated CH for the manatee; (PCH) - the project study area is located within the proposed CH for the green sea turtle

The federally listed species fall under the jurisdiction of either USFWS or NMFS, as discussed below. Any involvement with these species or designated CH will require consultation under Section 7 of the Endangered Species Act (ESA). It should be noted that as per the imperiled species rule, established by Florida Fish and Wildlife Conservation Commission

(FWC) in 2010, all federally listed species are also considered to be state listed species.

USFWS Purview

Florida bonneted bat (FBB): The very eastern portion of the project study area falls within the USFWS's designated Consultation Area/Urban Development Boundary for the FBB. A FBB survey was conducted in 2023 which included a combination of acoustic and visual surveys (potential roost search). The *NRE* provides the findings of the FBB survey and the October 2023 Florida Bonneted Bat Survey Report. Based on lack of FBB calls, lack of potential roost trees, and poor suitability of roosting habitat within the project study area, a determination of **no effect** for the FBB was made. Because the project study area is located within the urban development boundary in Miami-Dade County (as delineated in the October 2019 Florida Bonneted Bat Consultation Guidelines), the Consultation Key was not utilized for the proposed project. A technical assistance call with USFWS was conducted on January 12, 2024, to discuss results of the FBB survey.

Tricolored bat: The tricolored bat is proposed for listing as federally endangered. No bats were observed during any of the field surveys. A FBB survey was conducted as described above. No tricolored bat calls were documented during the acoustic survey and the project study area lacks potential roost trees and contains poor suitability of roosting habitat. If the listing status of the tricolored bat is elevated by USFWS to Threatened or Endangered and the Preferred Alternative is located within the consultation area, during the design and permitting phase of the proposed project, consultation with the USFWS will be reinitiated to determine the appropriate survey methodology and to address USFWS regulations regarding the protection of the tricolored bat.

West Indian manatee: The West Indian manatee (hereafter referred to as the "manatee") is listed as federally threatened. The project study area is located within manatee CH and suitable foraging habitat (seagrass) is located within the project study area. The total impacts to seagrass from the Preferred Alternative are not anticipated to be substantial (i.e., 0.279 ac).

To protect manatees during bridge construction, the *Standard Manatee Conditions for In-Water Work*, the *Protected Species Construction Conditions*, *National Oceanic and Atmospheric Administration (NOAA) Fisheries Southeast Regional Office*, and the *Vessel Strike Avoidance Measures*, *NOAA Fisheries Southeast Regional Office* will be implemented during all in-water construction activities. The construction methodologies for demolition of the existing bridge structures have not yet been determined; however, demolition via the use of explosives/blasting will be required for the removal of the two bascule piers and is explained in the Explosives/Blasting section below and in the *NRE*. The use of blasting may have both direct and indirect impacts on protected species (i.e., fish, sea turtles, marine mammals) and their habitats. To reduce the risk of entrapment and drowning of manatees, manatee exclusion devices (such as grating) shall be installed and maintained over any existing or proposed pipes or culverts greater than eight inches that are submerged or partially submerged and reasonably accessible to manatees. If horizontal or vertical bars are used, no more than 8-inch gaps on center shall be allowed. Grates shall be in place at the accessible end(s) during all phases of the construction process and as a final design element to restrict manatee access.

According to the USACE and USFWS Effect Determination Key for the Manatee in Florida (April 2013), the proposed project activities will result in a **may affect** determination for the manatee based on the inclusion of blasting activity. However, because the proposed project will: 1) implement the *Standard Manatee Conditions for In-water Work*, the *NMFS Protected Species Construction Conditions*, and the *NMFS Vessel Strike Avoidance Measures* during in-water construction activities, 2) implement best management practices (BMPs) during construction to avoid or minimize unnecessary impacts to seagrasses, 3) mitigate for unavoidable impacts to seagrasses, 4) adhere to the agency-approved *Final Blasting Plan* and *Imperiled Species and Marine Mammal Watch Plan* to minimize impacts from the use of blasting/explosives (blasting

plan will adhere to the USFWS's May 2005 *Guidelines for the Protection of Marine Mammals and Sea Turtles During the Use of Explosives in the Waters of the State of Florida*); and 5) install manatee exclusion devices on any drainage culverts (between eight inches and eight feet in diameter) associated with the proposed project, the project determination of effect for the manatee is **may affect, not likely to adversely affect**. Furthermore, **the proposed project will not result in the destruction or adverse modification of manatee CH**. The USFWS provided concurrence with these effect determinations on May 2, 2024. The USFWS concurrence letter is included in the attachments.

Wood stork (*Mycteria americana*): The wood stork is listed as federally threatened. No rookeries or breeding colonies are located in the project study area. However, the project is located within the 18.6-mile radius Core Foraging Area of one previously documented wood stork colony as detailed in the *NRE*. No wood storks were observed during any of the field surveys. Two of the Other Surface Waters (OSWs) within the project study area may contain wood stork suitable foraging habitat (SFH). According to the Effect Determination Key for the Wood Stork in South Florida (May 2010), a determination of **may affect, not likely to adversely affect** has been made for the wood stork. No mitigation is anticipated to be required for impacts to OSWs and wood stork SFH within the proposed project study area. Based on the use of the Effect Determination Key for the Wood Stork in South Florida and the **not likely to adversely affect** determination of effect, no further consultation with the USFWS will be required.

Monarch butterfly: The monarch butterfly is a candidate species for listing under the ESA. No monarch butterflies were observed during any of the field surveys. While there is a possibility that they could migrate through the proposed project area during construction, the urbanized areas in and around the project study area do not offer habitat for this species. If the listing status of the monarch butterfly is elevated by USFWS to Threatened or Endangered and the Preferred Alternative is located within the consultation area, during the design and permitting phase of the proposed project, consultation with the USFWS will be reinitiated to determine the appropriate survey methodology and to address USFWS regulations regarding the protection of the monarch butterfly.

Eastern indigo snake (*Drymarchon corais couperi*): The eastern indigo snake is a federally listed threatened species. No individuals were observed during the field surveys. Additionally, no gopher tortoise burrows or other suitable eastern indigo snake refugia were observed during any of the field surveys. Using the USFWS Eastern Indigo Snake Programmatic Effect Determination Key (January 25, 2010, and revised July 2017), the project determination of effect is **may affect, not likely to adversely affect** for the eastern indigo snake. The most recent version of the USFWS' *Standard Protection Measures for The Eastern Indigo Snake* will be implemented during construction. Based on the use of the USFWS Eastern Indigo Snake Programmatic Effect Determination Key and the resulting **may affect, not likely to adversely affect** effect determination, no further consultation is required for the eastern indigo snake.

The piping plover and American crocodile have a determination of **no effect** based on lack of suitable habitat within the project study area. Details of these determinations are in the *NRE*.

NMFS Purview

The green sea turtle (*Chelonia mydas*) and loggerhead sea turtle (*Caretta caretta*) are listed as federally threatened. The project study area is located within the PCH for the green sea turtle. The hawksbill sea turtle (*Eretmochelys imbricata*) is listed as federally endangered. The project study area contains suitable foraging habitat for these species. The *Protected Species Construction Conditions, National Oceanic and Atmospheric Administration (NOAA) Fisheries Southeast Regional Office* and *Vessel Strike Avoidance Measures, NOAA Fisheries Southeast Regional Office* will be implemented during all in-water construction activities. Should any free-swimming turtles be discovered within the project area during construction, the project will adhere to state and federal regulations by providing these animals with the necessary space and time to exit the area safely. While the construction methodologies for demolition of the existing bridge structures have

not yet been determined, demolition via the use of explosives/blasting will be required for the removal of the two bascule piers, as described in the Explosives/Blasting section below and in the *NRE*. Thus, the project determination of effect is **may affect, not likely to adversely affect** for the green sea turtle, loggerhead sea turtle, and hawksbill sea turtle.

Giant manta ray (*Manta birostris*): The giant manta ray is listed as federally threatened. The project study area does not contain preferred habitat for the giant manta ray and this species would not be expected to inhabit the project study area; however, individual giant manta rays may travel through the project study area. No giant manta rays were observed during any of the field surveys. There is a possibility that this species could migrate through the proposed project area during construction, and the proposed bridge replacement project will involve in-water construction activities and blasting will be required for the removal of the two bascule piers. However, as described in the Explosives/Blasting section below and in the *NRE*, the project will implement the *Protected Species Construction Conditions, NOAA Fisheries Southeast Regional Office* and *Vessel Strike Avoidance Measures, NOAA Fisheries Southeast Regional Office*. Furthermore, a *Blasting Plan* and an *Imperiled Species and Marine Mammal Watch Plan* will be reviewed and approved by the agencies prior to construction. Thus, project determination of effect is **may affect, not likely to adversely affect** for the giant manta ray.

Smalltooth sawfish (*Pristis pectinata*): The smalltooth sawfish is listed as federally endangered. Since the smalltooth sawfish prefers sandy or muddy substrates, it is not likely to inhabit the project study area; however, individual smalltooth sawfish may travel through the project study area. The *Protected Species Construction Conditions, NOAA Fisheries Southeast Regional Office* and *Vessel Strike Avoidance Measures, NOAA Fisheries Southeast Regional Office* will be implemented during all in-water construction. As described in the Explosives/Blasting section below and in the *NRE*, a *Blasting Plan* and an *Imperiled Species and Marine Mammal Watch Plan* will be reviewed and approved by the agencies prior to construction. Thus, the project determination of effect is **may affect, not likely to adversely affect** for the smalltooth sawfish.

The **boulder star coral** (*Orbicella franksi*), **lobed star coral** (*Orbicella annularis*), and **mountainous star coral** (*Orbicella faveolata*) are each listed as federally threatened. No colonies of boulder star coral were encountered within the survey area during the 2023 quantitative benthic survey event; however, two individual colonies of boulder star coral were previously observed on the benthic substrate within the 2022 preliminary benthic survey area, suggesting that this species is potentially present within the project area in extremely low numbers. No colonies of boulder star coral were observed attached to the existing bridge structures or existing seawalls. No colonies of lobed star coral or mountainous star coral were observed during any of the field surveys. However, due to the similarity of these species to the boulder star coral, the potential exists that the lobed star coral and mountainous star coral could occur within the project impact area.

A future benthic survey will be conducted prior to construction which will include a thorough assessment and identification of coral colonies within the project impact area, including any listed coral colonies. The impacts on corals and listed corals, including boulder star coral, will be minimized by relocating all colonies of any listed corals prior to construction. A *Conceptual Plan for Relocation and Monitoring of Corals, Octocorals, and Sponges* is currently being developed which will be coordinated with NMFS and the Florida Fish and Wildlife Conservation Commission (FWC). Consultation will be reinitiated with NMFS during the design and permitting phase of the project, where final impacts to corals, octocorals, and/or sponges will be determined and any required compensatory actions for unavoidable impacts will be defined. The details of coral relocation, including methodologies and recipient sites will be addressed in a *Coral, Octocoral, and Sponge Relocation and Monitoring Plan* which will be developed for the proposed project in accordance with the most recent version of the FWC's Coral and Octocoral Mitigation Relocation Recommendations and will be reviewed by the regulatory agencies for final approval. To minimize impacts to corals from the proposed seawall construction, the new seawalls will be constructed landward of the existing seawalls, the existing seawalls will remain in place, and all seawall construction activities will be conducted from land. A *Conceptual Seawall Debris Containment Plan* will be developed during the

design/permitting phase and provided to NMFS for their review and approval. The most likely seawall debris containment method to be utilized is a temporary floating platform that will be repositioned regularly to minimize shading impacts to corals. A *Final Seawall Debris Containment Plan* will be developed by the contractor prior to construction and will be provided to NMFS for their review and approval. If the chosen debris containment method differs from a temporary floating platform, consultation with the NMFS will be reinitiated for the boulder star coral. Thus, because any colonies of listed coral species occurring within the project impact area will be relocated prior to construction, the project determination of effect is **may affect, not likely to adversely affect** for the boulder star coral, lobed star coral, and mountainous star coral.

The leatherback sea turtle (*Dermochelys coriacea*), Nassau grouper (*Epinephelus striatus*), elkhorn coral (*Acropora palmata*), pillar coral (*Dendrogyra cylindrus*), rough cactus coral (*Mycetophyllia ferox*), and staghorn coral (*Acropora cervicornis*) have a determination of **no effect** based on lack of suitable habitat within the study area. Details of these effect determinations are provided in the *NRE*.

State Listed Species

State-protected species were considered in accordance with Chapter 379 Florida Statutes (F.S.), which provides protection for wildlife from activities that could harm or endanger them. Section 379.2291 outlines the conservation and management of threatened and endangered species in Florida. It is noted that as per the imperiled species rule, established by FWC in 2010, all federally listed species are also considered state listed species. The project is not located within a Strategic Habitat Conservation Area, as designated by the Florida Natural Areas Inventory (FNAI) and FWC. There are four state listed wildlife species with the potential to occur within the project study area (based on potential availability of suitable habitat and known species ranges): little blue heron (*Egretta caerulea*), reddish egret (*Egretta rufescens*), roseate spoonbill (*Platalea ajaja*), and tricolored heron (*Egretta tricolor*).

It should be noted that the state listed threatened Florida burrowing owl (*Athene cunicularia floridana*) and gopher tortoise (*Gopherus polyphemus*) were also identified by the FNAI Biodiversity Matrix Query report; however, these species have no potential to occur within the project study area (based on a lack of suitable habitat).

The June 2023 field survey identified red and white mangrove propagules and saplings, as well as buttonwood, growing within the riprap surrounding the majority of the causeway island. The minimal size of these mangroves and buttonwoods and lack of canopy makes this habitat unsuitable for nesting by listed birds; however, wading birds may utilize the intertidal areas of the riprap for foraging.

The proposed project is not expected to result in any impacts to nesting areas, rookeries, or foraging habitat for the little blue heron, reddish egret, roseate spoonbill, or tricolored heron. Therefore, the project determination of effect is **no adverse effect anticipated** for these bird species.

State Listed Plants - The FNAI Biodiversity Matrix Query report identified five plant species listed by the state (i.e., Florida Department of Agriculture and Consumer Services [FDACS]) that could potentially occur within the project area: large-flowered rosemary (*Conradina grandiflora* - threatened), coastal vervain (*Glandularia maritima* - endangered), Florida royal palm (*Roystonea regia* - endangered), West Indies mahogany (*Swietenia mahagoni* - threatened), and redmargin zephyrlily (*Zephyranthes simpsonii* - threatened). While the large-flowered rosemary, coastal vervain, and redmargin zephyrlily have been documented to occur in Miami-Dade County, they have no potential to occur within the project area or vicinity (based on habitat types that are not present within the project area). It should be noted that only vouchered wild specimens of Florida royal palm are protected by the state. No wild specimens of royal palm and no mahogany trees were observed within the project study area during the field reviews. No other state listed plants were observed during the June 2023 pedestrian field survey. Thus, the project determination of effect is **no effect anticipated**

for these state listed plants. If any state listed plants are discovered within the project impact area prior to construction, coordination with FDACS and the Florida Native Plant Society or similar organization will occur to explore measures for avoiding impacts or relocating the plants.

Other Species

Bald eagle (*Haliaeetus leucocephalus*): The bald eagle is protected under the Migratory Bird Treaty Act of 1918 (MBTA), the Bald and Golden Eagle Protection Act, the Lacey Act 16 U.S.C. 3371-3378, and under 68A-16.002, Florida Administrative Code (F.A.C.). According to the Audubon Eagle Watch Public Nest Map website, the closest documented bald eagle nest (Nest DA011) is located approximately 5.1 miles west-southwest of the project study area. No eagles or their nests were observed during the field reviews. The USFWS and FWC Management Guidelines suggest the protection of a 660-ft habitat buffer around active bald eagle nests. The closest documented eagle nest is located well beyond the 660-ft nest protection buffer requirement.

Common bottlenose dolphin (*Tursiops truncatus*): Bottlenose dolphins are not listed under the ESA of 1973; however, they are protected under the Marine Mammal Protection Act. No observations of bottlenose dolphins were made during the field surveys; however, there is potential foraging habitat available within the project study area. The *Protected Species Construction Conditions*, *NOAA Fisheries Southeast Regional Office* and *Vessel Strike Avoidance Measures*, *NOAA Fisheries Southeast Regional Office* will be implemented during all in-water construction activities. If any dolphins (or any other free-swimming mammals) are found within the project area during construction, construction activities will cease, and they will be allowed the necessary space and time to leave in accordance with state and federal regulations. The construction methodologies for demolition of the existing bridge structures have not yet been determined; however, explosives/blasting will be required for the removal of the two bascule piers. A *Blasting Plan* and an *Imperiled Species and Marine Mammal Watch Plan* will be reviewed and approved by the agencies prior to construction.

Indirect Impacts

Temporary indirect impacts to protected species and habitat resulting from construction of the Preferred Alternative may include:

- Disturbance to protected species and habitat associated with construction activities (pile installation, pile removal such as cutting or extraction, and barge operations).
- Increased turbidity and sedimentation during construction.
- Acoustical and vibrational impacts associated with pile driving and/or blasting.
- Water quality impacts associated with runoff, pollutants, and uncured or wet concrete.
- Impacts from bridge demolition debris.
- Temporary shading impacts from seawall debris containment platforms.

Temporary indirect impacts would be limited to the construction duration and will be addressed through established permit conditions, implementation of Best Management Practices (BMPs), and adherence to commitments and implementation measures to minimize impacts from construction.

Measures to minimize or compensate for impacts to protected species are discussed below.

Explosives/Blasting. Demolition of the two existing bascule piers is anticipated to require the use of explosives/blasting. During design, a *Conceptual Blasting Plan* will be developed which will include general blasting information for the project, including proposed measures to minimize and mitigate potential effects on species. The *Conceptual Blasting Plan* will be

reviewed/approved by the regulatory agencies. Prior to construction, a *Final Blasting Plan* will be developed containing details of the blasting means and methods, including the blasting design, an impact assessment, a mitigation plan, and an *Imperiled Species and Marine Mammal Watch Plan* which will be reviewed and approved by the regulatory agencies. The blasting plan will be required to adhere to the USFWS's May 2005 *Guidelines for the Protection of Marine Mammals and Sea Turtles During the Use of Explosives in the Waters of the State of Florida*.

Bridge Pier Installation. All in-water construction activities will be limited to daylight hours. It is anticipated that the new bridge pilings/piers will be installed via impact hammer. During design, measures to minimize potential underwater noise impacts will be examined, including high-density cushion blocks, bubble curtains, and utilization of the ramp up or vibratory installation methodology for pile driving to warn and allow any listed species to vacate the area.

Seawall Construction. The design and construction methodology for the new seawall installation has been tailored to minimize impacts to corals, listed species, and managed species. The existing seawall is 75 years old and is deteriorating beyond repair. Because the existing seawall and the habitat adjacent to the seawall are colonized by corals and octocorals, the removal of the existing seawall would require the relocation of a substantial number of coral and octocoral colonies and would likely result in construction noise impacts to listed and managed species. In order to minimize impacts from the seawall construction, the new seawall will be constructed landward of (behind) the existing seawall and the existing seawall will be abandoned in place. All seawall construction activities will be conducted from land which will avoid the need for in-water seawall construction work and associated in-water noise impacts to listed and managed species.

During construction of the new seawalls, debris containment measures will be employed to prevent materials from entering the water. While the means and methods for the seawall debris containment will ultimately be determined by the construction contractor, the most likely seawall debris containment method to be utilized is a temporary floating platform positioned adjacent to the existing seawall in the area of construction. The use of a floating platform could result in shading impacts to corals; thus, the floating platform will be repositioned regularly to minimize shading impacts to corals. A *Conceptual Seawall Debris Containment Plan* will be developed during the design/permitting phase and provided to NMFS for their review and approval. A *Final Seawall Debris Containment Plan* will be developed by the contractor prior to construction and will be provided to NMFS for their review and approval. If the debris containment method differs from a temporary floating platform, consultation with the NMFS will be reinitiated for the boulder star coral.

Technical assistance calls were conducted with NMFS on December 21, 2023, and February 21, 2024. The findings of the 2023 quantitative benthic survey were presented and the proposed construction methodologies for the demolition of the bridge were presented to NMFS during the first meeting. During the second meeting, additional project information was provided and clarification requested regarding species determinations of effect. A technical assistance call was conducted with USFWS on January 12, 2024. The species effect determinations for the manatee and the FBB were discussed. The meeting minutes for the NMFS and USFWS meetings are provided in NRE (April 2024).

Concurrence with these effect determinations was received from the USFWS on May 2, 2024, and FWC on May 13, 2024 and are included as a project attachments.

Additional coordination with NMFS and concurrence letter received will be documented in the final report.

5.2 Wetlands and Other Surface Waters

The following evaluation was conducted pursuant to Presidential Executive Order 11990 of 1977 as amended, Protection of Wetlands and the USDOT Order 5660.1A, Preservation of the Nation's Wetlands.

An evaluation of wetlands within the project study area was carried out to identify, map, and assess potential impacts stemming from the project's construction. There are 18 jurisdictional wetland systems (seagrass beds) located within the Biscayne Bay portion of the project study area. The 18 seagrass beds range in size from 0.00002 ac to 0.29 ac. The Preferred Alternative is anticipated to result in 0.172 acres of direct impact to seagrass (associated with the project footprint) with a functional loss of 0.018 and 0.107 acres of temporary impact to seagrass (associated with a 25-ft. construction impact buffer established around the project footprint) with a functional loss of 0.004. This equals 0.279 ac of total impacts to seagrass with a functional loss of 0.022. The seagrass beds within the project study area are under the jurisdiction of the USACE, the South Florida Water Management District (SFWMD), and the Miami-Dade County Division of Environmental Resource Management (DERM). A Wetlands Map and Wetlands Impacts for Preferred Alternative Map are attached.

Occasional mangrove propagules and saplings (no mature trees) were noted within the riprap along the causeway island. These mangroves do not constitute a wetland and do not lie within the project footprint. The area of impact to the riprap shoreline from construction activities (i.e., the proposed new seawall installation) will be re-evaluated during the permitting phase and any impacts to mangroves will be addressed.

Eight OSWs (i.e., artificial stormwater retention features) were documented within the causeway island portion of the project study area. These OSWs consist of impoundments constructed primarily to capture runoff from the existing road features on the causeway island. The grassy slopes of the OSWs are regularly mowed and maintained. No mitigation is anticipated to be required for impacts to these OSWs. The attached OSW map depicts the eight OSWs identified within the project study area.

The Preferred Alternative will result in unavoidable permanent impacts to seagrasses from bridge pier installation and shading. Permanent indirect impacts to seagrasses would result from shading of the substrate by the new bridge structure.

The Broad Causeway Bridge replacement project is located within the Town of Bay Harbor Islands and adjacent to the City of North Miami Beach, both of which are fully developed and virtually built-out with little to no remaining vacant land. Thus, additional future development is likely to be in the form of reconstruction or redevelopment of existing facilities. Therefore, it is anticipated that cumulative impacts to wetlands and surface waters from the proposed action, when combined with other past, present, and future projects, are estimated to be minimal.

The *NRE*, found in the project files, details the wetlands and surface water evaluation. Based upon the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands.

Avoidance and Minimization of Impacts to Wetlands

Efforts to avoid and minimize potential impacts to wetlands (seagrasses) were incorporated throughout the development of the Preferred Alternative alignment, where practicable. Seagrasses are located adjacent to both the north and south sides of the existing bridge. Minimization of direct impacts to seagrasses has been incorporated by design and selection of the Preferred Alternative. The Preferred Alternative has lower impacts to wetlands than the other alternatives evaluated because it has a reduced typical section with pedestrian facilities only on the north side and minimum median widths. The project will incorporate all possible and practicable measures to avoid or minimize impacts to seagrass during design, and

avoidance and minimization of impacts to seagrasses will continue to be evaluated during the final design, permitting, and construction phases of the project. Proper implementation of BMPs during construction can avoid or minimize unnecessary impacts to wetlands and seagrasses during construction. Staging areas for the Contractor will be identified and maintained in accordance with the FDOT Standard Specifications for Road and Bridge Construction.

Barge spudding and staging has the potential to impact seagrass and corals beyond the temporary impact area (i.e., the 25-foot construction impact buffer around the project footprint) during both bridge construction and demolition. Barge spudding and staging locations will be carefully selected to minimize impacts to seagrasses within the project area. Barge spudding, staging, and routes during construction will be further evaluated during the design/permitting phase and a *Barge Accessibility Plan* depicting the locations of barge work channels and barge exclusion zones will be coordinated with the regulatory agencies.

Prior to construction commencement, seagrasses within the vicinity of the project corridor will be delineated and marked with visible buoys to identify areas that should be avoided by barges and work boats for construction and staging. Additional seagrass surveys will be conducted prior to the commencement of construction, during construction, and post-construction to assess if impacts to seagrass have occurred as a result of the project. All necessary measures will be taken to avoid and/or minimize impacts to surface waters during project design. A *Water Quality/Turbidity Monitoring Plan* will be developed and implemented during construction to ensure turbidity levels beyond containment measures are maintained at 0 Nephelometric Turbidity Units (NTUs) above ambient (background) levels. In addition, all applicable permits will be obtained or modified in accordance with federal, state, and local laws and regulations.

The project has been designed to avoid impacts to the occasional mangrove propagules and saplings present within the riprap along the causeway island. These mangroves fall outside the project footprint. BMPs will be implemented during construction to minimize impacts to mangroves during construction.

The proposed project will make every effort to maximize the treatment of stormwater runoff from the proposed project improvements. It is anticipated that the proposed stormwater improvements for this project will improve water quality by providing treatment where none currently exists or where treatment is currently limited. Additionally, BMPs will be employed during construction activities and an Erosion Control Plan (ECP)/ Stormwater Runoff Control Concept (SRCC) will be implemented to control the effects of stormwater runoff during construction.

Mitigation Measures

The project mitigation options are under investigation to offset unavoidable impacts to seagrass habitat associated with the Broad Causeway Bridge project. No seagrass mitigation banks are available to offset the proposed direct and indirect impacts to seagrass as a result of the bridge replacement project. A potential seagrass mitigation opportunity is currently being investigated to partner with Biscayne National Park (BNP) for the Broad Causeway Bridge Replacement project. The BNP has previously identified various potential seagrass restoration projects (primarily vessel grounding sites) within the BNP boundaries that can be restored for seagrass mitigation projects. Because southern Biscayne Bay has not experienced the recent seagrass die-offs that have occurred in northern and central Biscayne Bay, a mitigation project located within southern Biscayne Bay (including BNP) would have a higher potential for seagrass mitigation success than a project in northern Biscayne Bay near the Broad Causeway project area. During the February 21, 2023 technical assistance call, NMFS agreed that a seagrass mitigation project in southern Biscayne Bay would have a higher potential for success than a mitigation project near the Broad Causeway Bridge project area.

Coordination with project stakeholders and regulatory agencies to develop a *Seagrass Mitigation Plan* to offset the unavoidable impacts to seagrass from the proposed project will continue during the PD&E and design phases. The *Seagrass Mitigation Plan* will be sent to the regulatory agencies for review and approval.

As required under Executive Order 11990, wetland impacts (seagrasses) which will result from the construction of this project will be mitigated pursuant to Section 373.4137, F.S., to satisfy all mitigation requirements of Part IV of Chapter 373, F.S., and 33 U.S.C. 1344. The Uniform Mitigation Assessment Method (UMAM) was established to fulfill the mandate of subsection 373.414(18), F.S., which requires the establishment of a uniform mitigation assessment method to determine the amount of mitigation needed to offset adverse impacts to wetlands and other surface waters and to award and deduct mitigation bank credits.

No mitigation is anticipated to be required for impacts to OSWs within the proposed project study area. If mangrove saplings are present within the riprap impact area, a Biscayne Bay Environmental Enhancement Trust Fund (BBEETF) contribution will be applied as compensatory mitigation.

In accordance with EO 11990 and USDOT Order 5660.1A, and based on the documentation of existing wetland conditions, and in consideration of the Preferred Alternative and its effects on wetlands, it is hereby determined that:

- The proposed project will have no significant short-term or long-term adverse impacts to wetlands.
- There is no practicable alternative to construction in wetlands.
- Measures will be taken to minimize harm to wetlands.

Implementation Measures

The following are implementation measures to minimize impacts to natural resources during project construction:

1. BMPs will be incorporated during construction to minimize wetland impacts and provide sediment and erosion control.
2. A *Water Quality/Turbidity Monitoring Plan* will be developed and implemented during construction to ensure turbidity levels beyond containment measures are maintained at 0 NTUs above ambient (background) levels.

Agency Coordination

A technical assistance call was conducted with NMFS on December 21, 2023. The findings of the 2023 quantitative benthic survey were presented and the proposed construction methodologies for the demolition of the bridge were presented to NMFS. Discussions took place with regard to the proposed commitments and implementation measures for the project, the species effect determinations for certain listed species under NMFS' purview (i.e., sea turtles, giant manta ray, smalltooth sawfish, and corals), and impacts to EFH and managed species.

An additional technical assistance call was conducted with NMFS on February 21, 2024. The Town presented a proposed seawall design option which would minimize impacts to corals, listed species, and managed species by constructing a new seawall landward of the existing seawall and abandoning the existing seawall in place, with all seawall construction activities to be conducted from land. The NMFS indicated that this seawall design option would move more easily through the ESA consultation process since noise impacts would not need to be calculated. The NMFS requested that the likely seawall debris containment method be documented in the *Natural Resource Evaluation* (March 2024), found in the project files, and that the Town include a commitment to reinstate consultation with NMFS if the contractor selects a different means and methods for seawall debris containment. The Town reviewed the blasting information that has been gathered to date, including information on similar bridge projects which included bascule pier demolition via blasting. NMFS indicated that, based on the information provided, it appears that the project may arrive at a **may affect, not likely to adversely affect** determination for sea turtles, giant manta ray, and smalltooth sawfish for the Broad Causeway Bridge project.

A technical assistance call was conducted with USFWS on January 12, 2024. The species effect determinations for the manatee and the FBB were discussed. For the manatee, the anticipated seagrass impacts associated with the build alternatives were presented, the proposed construction methodologies for the demolition of the bridge were discussed (i.e., blasting required for removal of the two bascule piers), and the proposed commitments and implementation measures in relation to the manatee were reviewed. The USFWS indicated that based on inclusion and implementation of the proposed manatee protection measures and development of a Blasting Plan consistent with the USFWS's May 2005 *Guidelines for the Protection of Marine Mammals and Sea Turtles During the Use of Explosives*, a **may affect, not likely to adversely affect** determination for the manatee is supported for the project. In addition, based on inclusion of the project commitments and implementation measures, including compensatory mitigation for unavoidable impacts to seagrasses, the USFWS indicated that a determination of effect of "**the proposed project will not result in the destruction or adverse modification of manatee CH**" is supported for the project. For the FBB, the consultation area was presented and the findings of the 2023 FBB Survey were summarized, including the FBB acoustic survey and the potential tree roost survey. The USFWS indicated that a **no effect** determination for the FBB is supported.

5.3 Essential Fish Habitat (EFH)

Based on coordination with the National Marine Fisheries Service to comply with Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), FDOT commits to reinitiate consultation and provide information necessary to complete consultation on the seagrasses and corals prior to advancing the project to construction. The letter from National Marine Fisheries Service is intended to provide reasonable assurance, per 23 CFR § 771.133, that requirements of the MSFCMA are able to and will be met prior to construction. The status of this commitment will be updated in any subsequent project re-evaluations.

The project study area occurs within the Biscayne Bay Aquatic Preserve and will involve in-water work; therefore, the project has the potential to directly and indirectly impact benthic resources and habitats that have been designated as Essential Fish Habitat (EFH) and Habitat Areas of Particular Concern (HAPCs) by the South Atlantic Fisheries Management Council (SAFMC).

An EFH Assessment, which included desktop GIS data reviews and benthic surveys (conducted in August 2022 and in July-August 2023), was conducted for the proposed project. For additional details on the findings of the 2023 quantitative benthic survey, see Appendix E of the *NRE*. The project study area overlaps the boundaries of designated EFH and HAPC from five fishery management plans: Penaeid Shrimp; Snapper-Grouper Complex; Spiny Lobster (*Panulirus argus*); Coastal Migratory Pelagics; and Coral, Coral Reefs and Live/Hard Bottom Habitat. It should be noted that the mangroves found within the riprap along the causeway are only propagules and saplings (no mature trees) and are not considered EFH. During the 2023 quantitative benthic survey, the following managed species were observed within the survey area: gray snapper (*Lutjanus griseus*), hogfish (*Lachnolaimus maximus*), mutton snapper (*Lutjanus analis*), yellowtail snapper (*Ocyurus chrysurus*), spiny lobster (*Panulirus argus*), and both stony corals and octocorals detailed in the *NRE*.

There are three HAPCs occurring within the project study area: 1) Biscayne Bay, 2) submerged aquatic vegetation (SAV)/seagrass, and 3) Coral, Coral Reefs and Live/Hard Bottom Habitat. **Table 4-2** shows the managed species/groups associated with these HAPCs.

Five distinct benthic community types were identified within the survey area: Community 1 - Macroalgal Beds; Community 2 - Seagrass Beds/Patches; Community 3 - Live Bottom; Community 4 - Coral Habitat Adjacent to the Seawalls; and Community 5 - Existing Seawalls and Bridge Piers. These community types are described in detail in the *NRE*. **Table 4-3** summarizes the EFH types within the project study area, along with the associated benthic community types (Communities 1-5). These are also shown in the attached Benthic Community Types Map.

Table 4-2 Habitat Area of Particular Concern within the Project Study Area

HAPC	Managed Species/Group
Biscayne Bay	Spiny Lobster Coral, Coral Reefs and Live/hard Bottom Habitat
SAV / Seagrass	Penaeid Shrimp Snapper-Grouper Complex Spiny Lobster Coastal Migratory Pelagics
Coral, Coral Reefs and Live/Hard Bottom Habitat	Corals Spiny Lobster

Table 4-3 Essential Fish Habitat within the Project Study Area

EFH Type	Fishery Management Plans	Community Types Present
Estuarine Water Column	Coastal Migratory Pelagics, Highly Migratory Species	1,2,3,4,5
Estuarine and Marine Submerged SAV (Seagrass and Macroalgae)	Shrimp, Snapper-Grouper, Spiny Lobster, Coastal Migratory Pelagics, Highly Migratory Species	1,2,3,4
Algal Communities (Laurencia)	Spiny Lobster	1,2
Live Bottom	Snapper-Grouper, Spiny Lobster, Highly Migratory Species, Coral and Coral Reefs	3,4
Rough, Hard, Exposed, Stable Substrate	Coral, Coral Reefs, and Live/Hard Bottom Habitats of the South Atlantic Region	3,4
Sponges	Spiny Lobster	1,2,3,4,5
Unconsolidated Estuarine Bottom	Shrimp, Snapper-Grouper	1, 2,3,4

The proposed project will include activities that may impact EFH, HAPC, and managed species, including installation of the proposed bridge structures (bridge piers and deck), installation of new seawalls, drainage installation on the causeway island (ponds), and existing bridge demolition. Permanent impacts on EFH and HAPC were calculated based on the footprint of the Preferred Alternative alignment and include both impacts from bridge pier installation and shading of habitats from the bridge deck. **Table 4-4** summarizes potential permanent and temporary direct and indirect impacts to the various EFH habitat types associated the Preferred Alternative. Temporary impacts to rhizophytic macroalgae SAV, seagrass SAV, and live bottom within the project study area are anticipated in association with the construction of the Preferred Alternative. Temporary direct impacts were calculated based on a 25-ft. construction impact buffer established around each alternative alignment. Mitigation is required to offset unavoidable impacts to seagrass habitat and is identified as a commitment for the project. To minimize impacts to corals from the proposed seawall construction, the new seawalls will be constructed landward of the existing seawalls, the existing seawalls will remain in place, and all seawall construction activities will be conducted from land. A *Conceptual Seawall Debris Containment Plan* will be developed during the design/permitting phase and provided to NMFS for their review and approval. The most likely seawall debris containment method to be utilized is a temporary floating platform that will be repositioned regularly to minimize shading

impacts to corals. A *Final Seawall Debris Containment Plan* will be developed by the contractor prior to construction and will be provided to NMFS for their review and approval. If the chosen debris containment method differs from a temporary floating platform, consultation with the NMFS will be reinitiated.

Temporary displacements of managed species, along with other benthic and demersal species, may occur during construction of the Preferred Alternative. However, these species are considered to be mobile and are expected to return to the project area once construction is complete since their associated EFH types are anticipated to naturally re-establish within the project area after construction. No significant impacts to these managed species are anticipated from this project.

On the basis of the avoidance and minimization measures to be implemented for this project, along with the compensatory mitigation to be conducted for unavoidable impacts to seagrass and corals, the project's impact on EFH is **"more than minimal but less than substantial."**

Table 4-4 Summary of Potential Permanent and Temporary Impacts to EFH and HAPC

Habitat*		Impact Type	Preferred Alternative High-Level Fixed Bridge
Estuarine Water Column EFH	Estuarine Water Column	Permanent - Bridge Piers	4,343 cubic feet
		Temporary	--
Estuarine and Marine Submerged SAV EFH	Community 1 SAV (macroalgal beds)	Permanent - Bridge Piers, Shading	2.74 ac
		Temporary - 25-foot Construction Buffer	1.00 ac
	Community 2 SAV (seagrass)	Permanent - Bridge Piers, Shading	0.17 ac
		Temporary - 25-foot Construction Buffer	0.11 ac
Coral, Coral Reefs, and Live/hard Bottom Habitat EFH	Community 3 Live Bottom	Permanent - Bridge Piers, Shading	0.12 ac**
		Temporary - 25-foot Construction Buffer	0.04 ac
	Community 4 Coral Habitat Adjacent to Seawalls	Permanent	--
		Temporary	--
	Community 5 Existing Seawalls and Bridge Piers	Permanent - Bridge Pier Demolition	Remove all 29 bridge piers

		Temporary	--
			4,343 cubic feet (Estuarine Water Column) 3.03 ac (Communities 1-3)
Total Direct Impacts		Permanent	Remove all 29 bridge piers
	Temporary	1.15 ac (Communities 1-3)	

*Note that Unconsolidated Estuarine Bottom EFH was not delineated during the 2023 quantitative benthic survey because the extent of non-vegetated sediments within the project study area is minimal and these areas are scattered within the various habitats.

**Shading impacts to Community 3 - Live Bottom are an overestimate since the non-photosynthetic organisms in this sponges-dominated community would continue to inhabit the substrate underneath the new bridge.

Indirect Impacts

Permanent indirect impacts to the EFH [submerged aquatic vegetation (SAV) and live bottom] and HAPCs will result from shading of the substrate by the new bridge structure. Unavoidable permanent and indirect impacts to seagrasses will be mitigated. Temporary indirect impacts to EFH resulting from construction of the Preferred Alternative may include:

- Disturbance to managed species and EFH associated with construction activities (pile installation, pile removal such as cutting or extraction, and barge operations).
- Increased turbidity and sedimentation during construction.
- Acoustical and vibrational impacts associated with pile driving and/or blasting.
- Water quality impacts associated with runoff, pollutants, and uncured or wet concrete.
- Impacts from bridge demolition debris.
- Temporary shading impacts from seawall debris containment platforms.

Temporary indirect impacts will be limited to the construction duration and will be addressed through established permit conditions, implementation of BMPs, and adherence to commitments and implementation measures to minimize impacts from construction.

Compensatory Mitigation for Impacts to Essential Fish Habitat

The final design of the proposed project will avoid and minimize impacts to EFH and managed species to the greatest extent practicable and appropriate mitigation options will be provided for unavoidable impacts. Several mitigation options for unavoidable impacts to seagrass wetlands and EFH have been evaluated and are discussed below. Coordination with the regulatory agencies will be conducted to ensure that all mitigation requirements are fully satisfied. The specific type and extent of any required mitigation will be finalized during the design and permitting phase of the project.

Seagrass Mitigation

Based on the findings of the 2023 quantitative benthic survey, it is estimated that the Preferred Alternative alignment will result in a total seagrass impact of 0.279 acre (0.172 acre of permanent impact and 0.107 acre of temporary impact) with a total functional loss of 0.022. The project mitigation options are under investigation to offset unavoidable impacts to seagrass habitat associated with the Broad Causeway Bridge project. No seagrass mitigation banks are available to offset the proposed direct and indirect impacts to seagrass as a result of the bridge replacement project. A potential seagrass mitigation opportunity is currently being investigated to partner with BNP for the project. The BNP has previously identified various potential seagrass restoration projects (primarily vessel grounding sites) within the BNP boundaries that can be restored for seagrass mitigation projects. Because southern Biscayne Bay has not experienced the recent seagrass die-offs that have occurred in northern and central Biscayne Bay, a mitigation project located within southern Biscayne Bay

(including BNP) would have a higher potential for seagrass mitigation success than a project in northern Biscayne Bay near the Broad Causeway project area. During the PD&E and design phases of the project, coordination with project stakeholders and regulatory agencies will continue to be conducted to develop a *Seagrass Mitigation Plan* to offset the unavoidable impacts to seagrass from the proposed project. The *Seagrass Mitigation Plan* will be sent to the regulatory agencies for review and approval.

Coral Mitigation

A future benthic survey will be conducted prior to construction which will include a thorough assessment and identification of coral colonies within the project impact area, including any listed coral colonies. The federally listed threatened coral species, *Orbicella franksi*, was previously observed within the project study area during the 2022 preliminary benthic survey and is anticipated to occur within the potential project impact area in very low numbers.

During the design phase, impacts to corals will be avoided and minimized to the maximum extent practicable. The impacts on corals and listed corals, including *Orbicella franksi*, will be minimized by relocating all colonies of any listed corals to suitable habitat prior to construction. A *Conceptual Plan for Relocation and Monitoring of Corals, Octocorals, and Sponges* is currently being developed and will be coordinated with NMFS and FWC. Consultation with NMFS will be reinitiated during the design and permitting phase of the project, where final impacts to corals, octocorals, and/or sponges will be determined and any required compensatory actions for unavoidable impacts will be defined. The details of coral relocation, including methodologies and recipient sites will be addressed in a *Coral, Octocoral, and Sponge Relocation and Monitoring Plan* which will be developed for the proposed project in accordance with the most recent version of the FWC's Coral and Octocoral Mitigation Relocation Recommendations and will be reviewed by the regulatory agencies for final approval. Furthermore, BMPs to control turbidity and sedimentation will be utilized to reduce impacts to corals from turbidity and sedimentation during construction.

Implementation Measures

The following are implementation measures to minimize impacts to natural resources during project construction:

1. BMPs will be incorporated during construction to minimize impacts to corals, wetlands, seagrass, and managed species and provide turbidity, sediment, and erosion control.
2. A *Conceptual Bridge Demolition/Debris Containment Plan*, which also includes a disposal plan for all the bridge materials, will be developed during the design/permitting phase. The plan will be provided to NMFS for their review and approval. A *Final Bridge Demolition/Debris Containment Plan* will be developed by the contractor prior to construction and will be provided to NMFS for their review and approval.

5.4 Floodplains

Floodplain impacts resulting from the project were evaluated pursuant to Executive Order 11988 of 1977, Floodplain Management.

Based on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM), the project area has no FEMA Floodways, but the entire project, other than the elevated Broad Causeway Bridge over Biscayne Bay, is in the 100-year floodplain. The average elevation on the causeway island is 5 to 6 ft., North American Vertical Datum of 1988 (NAVD), and the average elevation east of the ICWW bridge is about 3.5 ft., NAVD, varying between 3 to 4 ft., NAVD. There are no regional cross drains or box culverts within the project limits.

Because the FEMA floodplains on this project are driven entirely by storm surge through Biscayne Bay. The Broad Causeway Bridge project will result in transverse encroachments of floodplains. There is no practical way to avoid these given the elevation of the 100-year storm surge floodplains for the entire length of the project as detailed in the *Location Hydraulics Report (LHR) (December 2023)*, found in the project files. There are no longitudinal encroachments. The area surrounding the project is completely built out and is not expected to further develop in the future. The Floodplain Map is attached.

No stormwater flooding problems are reported by the Town. However, the drainage systems on the causeway island are occasionally inundated by backflow from Biscayne Bay. Future sea level rise is expected to increase these flooding problems. Green areas on the island will be lowered, where possible, to compensate, on a cup-per-cup basis, for additional fill within the floodplain. The *Pond Siting Report (PSR) (March 2024)*, found in the project files, details the existing and proposed drainage on the island.

A *Bridge Hydraulics Report (BHR) (February 2024)*, found in the project files, was developed for the project Sole Source Aquifer.

5.5 Sole Source Aquifer

There is no Sole Source Aquifer associated with this project.

5.6 Water Resources

A preliminary drainage assessment was performed for the project corridor based on information gathered for the project. No areas of existing persistent flooding are noted within the project limits. No drainage map for existing conditions is currently available.

The project discharges to the Biscayne Bay Aquatic Preserve, which is designated as an OFW and is designated by the FDEP as "Waters Not Attaining Standards" and is therefore considered a verified impaired waterbody. The Biscayne Bay Aquatic Preserve is within the SFWMD jurisdiction, the regional water management district. The project is also within Miami-Dade County's Department of Regulatory Economic Resources' (DRER) DERM jurisdiction, the local water management district. Section 24-48 of the Miami-Dade County Code requires that a Miami-Dade Class I Permit be obtained prior to performing any work in, on, over or upon tidal waters or coastal wetlands of Miami-Dade County or of any of the municipalities located within Miami-Dade County.

On the causeway island within Biscayne Bay, stormwater runoff flows are collected in small ponds and is conveyed via overflow structures to the bay. Within the Town of Bay Harbor Islands east of the bridge, roadway runoff is collected in a storm drain system and ultimately flows westward into Biscayne Bay via a 24" reinforced concrete pipe (RCP) outfall. Runoff from the bridge goes directly into Biscayne Bay through the grate of the bascule span or through 4" scuppers on the bridge.

There are no formal stormwater management facilities that were permitted by SFWMD within the boundaries of the proposed project. Stormwater collection systems either discharge directly to Biscayne Bay or overflow from ponds on the causeway island, realizing only informal water quality improvements. Stormwater collected on the existing bridge structure is also not treated before discharging into the bay through scuppers.

A *Water Quality Impact Evaluation (WQIE)* (September 2023), found in the project files, has been prepared to document water quality. Ponds and outfalls, are identified, and OFW treatment requirements calculated, in the *Pond Siting Report* (February 2024), found in the project files. Because the entire project is in tidal water where peak stages are controlled by storm surge, no attenuation of the peak discharge is required. Since the entire project lies within the Biscayne Bay Aquatic Preserve, an OFW, treatment volumes are increased by 150%. Since the Biscayne Bay Aquatic Preserve is impaired, a pre/post nutrient analysis was developed.

All green areas within the causeway island, except for proposed recreational areas in the northeastern portion of the causeway island, will be used for retention ponds. Also, a small retention pond will be constructed, at the southeast corner of the bridge, on land currently owned by the Town. The roadway east of the bridge, west of the existing West Broadview Drive intersection, is too low to store runoff in this retention pond or in French drains and will therefore be directly discharged in the proposed condition.

Water quality treatment volumes required, and volumes provided in the retention ponds are included in the Pond Siting Report. Water quality storage on the causeway island may be reduced by a historical underground contamination plume associated with the aged service station on the causeway island. Future discussions with the SFWMD and DERM will resolve any required separation between the pond storage areas and the underground contamination plume. If the causeway island's water quality storage is reduced below that which is required by the SFWMD, compensatory water quality treatment will be sought within the Biscayne Bay watershed.

The proposed stormwater management system will be developed to meet the design and performance criteria established in the SFWMD Environmental Resource Permit (ERP) Applicant's Handbook Volumes I and II for the treatment and attenuation of discharges to impaired waters and OFWs; the design will provide treatment of stormwater runoff from the proposed project improvements. It is anticipated that the proposed stormwater improvements for this project will improve water quality by providing treatment where none currently exists or where treatment is currently limited. Additionally, BMPs will be employed during construction activities. A SRCC will also be implemented to control the effects of stormwater runoff during construction. All outfalls on the project will discharge to Biscayne Bay. The Florida Erosion Sediment Control Designer and Reviewer Manual will guide the placement of temporary BMPs to address potential impacts from stormwater runoff during construction. Likely BMPs include sequestering disturbed areas with stake silt fence and directing runoff through filtration BMPs before discharging to inlets.

Stormwater runoff will be collected within ponds on the causeway island; if percolation is sufficient, dry retention will be explored to attain greater water quality treatment.

Resiliency and nature-based solutions have also been considered throughout the PD&E study. The MHW and Seasonal High Groundwater Table (SHGWT) elevations water levels within the proposed drainage design consider future sea level rise per the FDOT *Drainage Manual*. Additionally, to account for future sea level rise, the minimum seawall cap elevation is 6 ft above Mean Sea Level (MSL), which is 6.33 ft NAVD, per Town of Bay Harbor Islands Municode Chapter 23 / Article I / Section 23.12(10)(c). Integration of nature-based environmental treatment into the shallow dry detention ponds on the causeway island is being proposed. Bio-swales, rain gardens, and bio-retention, will be employed, both under bridges and interspersed in open areas, with appropriate vegetation for the expected level of shading. These nature-based solutions will increase pollutant uptake within the detention ponds and provide a pleasant environment for recreation on the island.

Also, the required FDEP Sea-Level Impact Protection (SLIP) study notification and 30-day publication period were completed on April 26, 2023. As required in Section 161.551, F.S., the SLIP study will be maintained on the FDEP's website for a minimum of 10 years. The report has been uploaded to the SLIP study website and to OCULUS, and is found in the project files. The 10-year period started Wednesday, April 26, 2023. All necessary permits will be obtained in accordance with federal, state, and local laws and regulations during subsequent project phases. Therefore, water quality will be improved with the Preferred Alternative.

5.7 Aquatic Preserves

Biscayne Bay is the most predominant natural feature in the project study area. Biscayne Bay is a major focal point for environmental analysis with regards to protected species. The project study area falls within Biscayne Bay Aquatic Preserve (BBAP) which was established in 1974 and extends from the Oleta River headwaters south to Card Sound near Key Largo. The Biscayne Bay Aquatic Preserve includes approximately 64,607 acres and was established to preserve and enhance Biscayne Bay and all natural waterways tidally connected to Biscayne Bay in an essentially natural condition so that its biological and aesthetic values may endure for the enjoyment of future generations (F.S. 18-18.001).

The Biscayne Bay Aquatic Preserve (BBAP), is within the NOAA Marine Protected Area and is designated as an OFW resource under Rules 18-18 and [62-302.700\(9\), FAC](#) (see attached map). The BBAP is also within the Southern Everglades watershed boundary. The Preferred Alternative will not result in significant impacts to the preserve. The Preferred Alternative's approach span will be widened approximately 40-ft. from the existing 47-ft. 6-in. section, the bridge deck will be 87-ft. 5.5 in. and raised approximately 49-ft. which will allow for additional light to penetrate the water column. The Preferred Alternative includes replacing the existing scuppers with a drainage system which will treat runoff from the bridge decks. The Preferred Alternative will have approximately the same shading impacts to the BBAP as the existing bridge. However, the proposed stormwater treatment systems for the Preferred Alternative will eliminate the existing scuppers from the bridge to prevent direct runoff into Biscayne Bay, provide treatment and improve overall water quality, and result in an overall net benefit to the BBAP.

During construction, BMPs will be utilized to minimize temporary construction impacts to water quality. FDOT turbidity control measures will be established and maintained to minimize all construction related turbidity and sedimentation impacts. Appropriate turbidity control measures, and proper barge routes and spudding areas, will be determined during design and construction. A water quality/turbidity monitoring plan will be developed and implemented during construction to ensure turbidity levels beyond containment measures are maintained at 0 NTUs (Nephelometric Turbidity Units) above ambient (background) levels. In addition, a Barge Use Plan and a Bridge Demolition/Debris Containment Plan will be developed in design.

As this project is evaluating the replacement of the existing bridge which provides access to the residences along the corridor and is a vital connection between the Cities of Miami and the Town of Bay Harbor Islands, there is no practicable alternative to locate this project outside of the limits of the aquatic preserve. Coordination with FDEP occurred during the PD&E phase to gain input on the resource, discuss potential impacts and to identify the coordination necessary during the design and permitting phase. A coordination letter and attachments were sent to FDEP on [Insert date, 2024]. As part of the project, continued coordination with FDEP will occur during the design phase and as part of the state permitting process. The SFWMD will issue the Environmental Resource Permit; however, FDEP will have the opportunity to review the permit application and to provide comments to the SFWMD regarding the aquatic preserve.

5.8 Outstanding Florida Waters

The project is within the Biscayne Bay Aquatic Preserve, which is also a NOAA Marine Protected Area and OFW and is within the Southern Everglades watershed boundary.

On the causeway island within Biscayne Bay, stormwater runoff flows are collected in small ponds and is conveyed via overflow structures to the bay with no prior water quality treatment. Within the Town of Bay Harbor Islands east of the bridge, roadway runoff is collected in a storm drain system and ultimately flows westward into Biscayne Bay via a 24" reinforced concrete pipe (RCP) outfall without treatment. Stormwater collected on the existing bridge structure is also not treated before discharging into the bay through scuppers.

The proposed stormwater management system will be developed to meet the design and performance criteria established in the SFWMD ERP Applicant's Handbook Volumes I and II for the treatment and attenuation of discharges to impaired waters and OFWs; the design will provide treatment of stormwater runoff from the proposed project improvements. It is anticipated that the proposed stormwater improvements for this project will improve water quality by providing treatment where none currently exists or where treatment is currently limited. Additionally, BMPs will be employed during construction activities. A SRCC will also be implemented to control the effects of stormwater runoff during construction. Therefore, the Preferred Alternative is expected to have no significant impacts on OFW resources within the Broad Causeway Bridge corridor. For more detail, please refer to the attached map showing OFW limits within the project area.

5.9 Wild and Scenic Rivers

There are no designated Wild and Scenic Rivers or other protected rivers in the project area.

5.10 Coastal Barrier Resources

There are no Coastal Barrier Resources in the project area.

6. Physical Resources

The project will not have significant impacts to physical resources. Below is a summary of the evaluation performed for these resources.

6.1 Highway Traffic Noise

The following evaluation was conducted pursuant to 23 CFR 772 Procedures for Abatement of Highway Traffic Noise and Construction Noise, and Section 335.17, F.S., State highway construction; means of noise abatement.

The Broad Causeway Bridge is proposed to be replaced on a new southern alignment with alterations to both the vertical and horizontal component of the bridge. to bring the bridge to current design standards and USCG requirements. Although capacity is not increasing, the vertical component is being altered in a manner where line of sight between the bridge and noise sensitive sites are changed. Therefore, according to 23 CFR 772, the project qualifies as a Type I project and requires a Noise Study.

The FHWA's Traffic Noise Model (TNM) was used to predict existing noise levels for receptors located near roadways and where traffic noise is dominant. An evaluation of substantial increases was performed for this PD&E Study phase analysis. Each noise sensitive site was assigned an existing noise level based on TNM predicted existing noise levels. Within the project limits, 390 receptors were used to evaluate noise levels at noise sensitive sites as shown on the attached Noise Map. The noise sensitive land uses along Broad Causeway for which there is a Noise Abatement Criteria (NAC) include:

- Activity Category B (residential areas) - 370 receptors representing 399 residences;
- Activity Category C - 16 receptors representing three parks and a school;
- Activity Category D - 1 receptor representing a library; and
- Activity Category E - 3 receptors representing a hotel, a motel and an outside dining area.

The *Noise Study Report (April 2024)*, found in the project files, documents the noise levels were predicted at 390 receptor points representing 399 residences and 8 special land uses (i.e. non-residential land uses). For the year 2050 Build condition, noise levels are predicted to approach, meet, or exceed the NAC at 30 residences and one special land use within the project limits. A substantial increase of 15 dB(A) is not predicted to occur at any residence or special land use. These impacted noise sensitive sites were evaluated to determine the feasibility and cost reasonableness of providing barriers to reduce traffic noise.

The noise barrier evaluation identified that noise barriers are not a reasonable and feasible form of abatement due to openings in the noise barrier to accommodate access requirements for driveways to residential parcels along Kane Concourse (SR 922). Therefore, noise barriers are not recommended as part of this project.

No eye clinics, laser facilities, or senior care facilities (or other features that have a higher propensity to be impacted by noise and vibration effects) are reported within the project vicinity, but there are historic resources on the causeway island and the West Island. Pile driving, vibratory hammers, and blasting will be utilized during construction of the new bridge and seawalls and demolition of the existing bridge. Vibrational impacts associated with pile driving and/or blasting will be considered in design and the appropriate requirements will be included in the plans and contract documents.

The Preferred Alternative is expected to have no significant noise impacts within the Broad Causeway Bridge corridor.

6.2 Air Quality

This project is not expected to create adverse impacts on air quality because the project area is in attainment for all National Ambient Air Quality Standards (NAAQS) and because the project is expected to not change the Level of Service (LOS) and reduce delay and congestion on all facilities within the study area.

Construction activities may cause short-term air quality impacts in the form of dust from earthwork and unpaved roads. These impacts will be minimized by adherence to applicable state regulations and to applicable FDOT Standard Specifications for Road and Bridge Construction.

The project is not located within a United States Environmental Protection Agency (USEPA)-designated Air Quality Maintenance Area or Non-Attainment Area for any of the six pollutants [ozone, carbon monoxide (CO), sulfur dioxide, nitrogen dioxide, lead, and small particulate matter] specified by the USEPA in the NAAQS; therefore, the Clean Air Act conformity requirements do not currently apply to this project.

A project level air quality analysis is only required for federal projects in non-attainment and maintenance areas. However, a screening test using COFL2012 was performed and documented in the *Air Quality Technical Memorandum (AQTM) (December 2023)*, found in the project files. The results of the screening test did not exceed the NAAQS for CO. The project is expected to have no potential Mobile Source Air Toxics (MSAT) effects. Therefore, the project is exempt from MSAT analysis. Minimal, localized impacts to air quality could occur as a result of fugitive dust and exhaust emissions generated from equipment during project construction; no permanent effects to air quality are anticipated.

The Preferred Alternative is expected to have no significant air quality impacts within the Broad Causeway Bridge corridor.

6.3 Contamination

In accordance with the FDOT policy and the FHWA requirements, a contamination screening evaluation has been performed to evaluate potential impacts from contaminated sites to the project. A *Contamination Screening Evaluation Report (CSER) (May 2024)*, found in the project files, has been prepared pursuant to the FHWA's Technical Advisory T 6640.8A. Risk rankings were assigned after reviewing data obtained from on-site reviews of the parcels, a review of historical land use, hazardous/petroleum site lists, and other data.

The contamination screening evaluation has resulted in a "High" ranking for one site (Sunshine #8), a "Medium" ranking for one site (Broad Causeway Bridge), a "Low" ranking for two sites (reported oil spill at 12405 Keystone Island Drive in North Miami and reported sheen at 9510 West Broadview Drive), and a "No" ranking for three sites (Broad Causeway, Broad Causeway West Relief Bridge, and disaster debris management site) as shown in **Table 5-1** and the Potential Contamination Sites Map attached.

All sites were evaluated through examination of historical resources such as topographic maps and aerial photographs, regulatory sources at the State and local levels, and site inspections. In addition, Asbestos Containing Materials (ACM), Metal Based Coatings (MBC), and Polychlorinated Biphenyls (PCB) surveys of the bridge were performed. Potential

sources of contamination were identified, and the sites were ranked with respect to their potential for contamination impacts. Results of these surveys are detailed in the CSER.

Table 5-1 Contamination Risk Rankings of Potentially Contaminated Sites

Site No.	Facility ID No.	Site Name and Location	Regulatory Status	Potential Contamination Source	Distance from ROW	Risk Ranking
1	449438 (ERNS)	Reported Oil Spill 12405 Keystone Island Drive, North Miami	Closed	Petroleum	600 ft. northwest	Low
2	FLR10AJ00 (NPDES)	Broad Causeway West Relief Bridge NE 123 Street North Miami	Closed	None	100 ft. west	No
3	FLR10NG63 (NPDES)	SR 922 (Broad Causeway) Bay Harbor Islands	Closed	None	Adjacent to ROW	No
4	8503822 (FDEP)	Sunshine #8 1501 Broad Causeway Bay Harbor Islands	Active (DERM)	Petroleum	Within ROW	High
5	None	Broad Causeway Bridge (Structure) Bay Harbor Islands	N/A	Metals based coatings, PCBs	Within ROW	Medium
6	1240172 (ERNS)	Reported Sheen, 9510 West Broadview Drive Bay Harbor Islands	Closed	Petroleum	300 ft. southeast	Low
7	105012 (FDEP Solid Waste)	Disaster Debris Management Site, South of 97th Street and West of West Bay Harbor Drive Bay Harbor Islands	Closed	Contaminants from debris	1,000 ft. east	No

DERM = Miami-Dade Division of Environmental Resources Management

ERNS = Emergency Response Notification System

FDEP = Florida Department of Environmental Protection

N/A = Not Applicable

NPDES = National Pollutant Discharge Elimination System

PCBs = Polychlorinated Biphenyls

ROW = Right-of-Way

A discussion of the two sites which received a High or Medium ranking follows.

- At Site 4 (Sunshine #8), project concept plans indicate that roadway improvements, including stormwater structure installation, are to be located south and west of the service station. Bridge piers and other improvements are planned south of the service station. Due to the reported soil and groundwater contamination at this Site 4 (Sunshine #8), there likely are remaining contamination impacts at this property. No remediation has been performed at this site. DERM is currently overseeing investigations of this site, with additional soil and groundwater sampling planned for the near future. Petroleum groundwater plumes are currently located in the planned areas of roadway improvements, including installation of drainage structures. Therefore, the petroleum-contaminated groundwater may impact any dewatering activities in that area drainage design. Design of the bridge and helix structures were developed to avoid known contamination locations as to not exacerbate the existing plume. Due to the known groundwater contamination along

the north side of the service station and due to the proximity of this site to the Broad Causeway Bridge project, the risk ranking for this site is **High**. It is likely that dewatering will be needed both south and north of the service station, and it will likely require a FDEP dewatering permit for contaminated sites. Soil borings and temporary monitoring wells will be installed both north and south of the service station.

- Broad Causeway Bridge (Site #5) was tested for ACMs and MBCs. In addition, the bridge was observed for potential PCB-containing components. ACMs were not identified in the materials tested. However, based on the age of the bridge, ACMs and MBCs may be present in the faying (surfaces that are in contact at the joint) surfaces of splices and top flanges embedded in concrete decks and other surfaces. Since there is documented lead content in the painted surfaces at this site will be impacted if the bridge is replaced, the contamination risk ranking for this site is **Medium**. The rating is also justified due to the potential for PCB-containing bascule machinery leaking oils into the equipment bay. The lead-impacted coatings must be handled, managed, and disposed in compliance with United States Occupational Safety and Health Administration (OSHA) worker protection requirements and with USEPA requirements for disposal of hazardous waste (if found to be hazardous). Plans for handling, management and removal of any MBCs on coatings or ACMs will be prepared before demolition, modification, or rehabilitation of the bridge. Potential PCB-containing components and stained areas will be tested and, if found to contain PCBs, properly disposed.

The State of Florida has evaluated the proposed project corridor and has identified potentially contaminated sites for the various proposed alternatives. Results of this evaluation will be utilized in the selection of a preferred alternative. When a specific alternative is selected for implementation, a site assessment will be performed to the degree necessary to determine levels of contamination and, if necessary, evaluate the options to remediate along with the associated costs.

During the design phase, **Medium** and **High** rated sites will be further evaluated to determine if Level II testing is warranted based on the Project's future design.

If dewatering will be necessary during construction, a SFWMD Water Use Permit will be required. FDEP coordination will be required for NPDES dewatering within five hundred feet (<500') of the service station to determine if the activity must be permitted under Rule 62-621.300(1) and will necessitate effluent treatment, sampling, and reporting. The contractor will be held responsible for ensuring compliance with any necessary dewatering permit(s). Any dewatering operations in the vicinity of potentially contaminated areas shall be limited to low-flow and short-term. A dewatering plan may be necessary to avoid potential contamination plume exacerbation. All permits will be obtained in accordance with Federal, State, and local laws and regulations.

Additionally, the contractor shall follow applicable FDOT *Standard Specifications for Road and Bridge Construction* for areas of unforeseen contamination. These specifications require that in the event any hazardous material or suspected contamination is encountered during construction, or any spills are caused by construction-related activities, the Contractor shall be instructed to stop work immediately and notify the Construction Project Manager.

The Preferred Alternative is expected to have no significant contamination impacts within the Broad Causeway Bridge corridor.

6.4 Utilities and Railroads

Existing utilities within the project study area were identified through Sunshine State One-Call of Florida, Inc. Base maps were sent to utility providers listed on the Sunshine 811 ticket 09821214 with a request to provide information on existing and planned utilities. Correspondence and sketches of the existing utilities are included in the *Utility Assessment Report*

(May 2024).

No railroads or railroad crossings are present within the study area.

The Preferred Alternative will require the relocation of some existing utilities and coordination with utility providers will continue as appropriate for relocations, as necessary. See **Table 5-2** for information on the potentially impacted existing utilities.

A 30 in. Miami Dade water main runs along the north side of the causeway island and approximately 123 ft. north of the existing Broad Causeway Bridge. This water main enters a 20 ft. utility easement at the existing Town-owned Tot Lot at the eastern side of the existing bridge approximately 50 ft. north of the existing roadway. There is an active electric line that runs across the north side of the bridge. This line powers the tender house and machinery.

The exact locations of existing utilities and the extent of impacts will be determined during the design phase through coordination with the utility owners. Disruptions to service and utility relocations will be minimized to the greatest extent practicable.

Table 5-2 Potential Utility Impacts

Owner	Type	Potential Impact	Station	Side
Breezeline/Comcast	Cable	Overhead cables may have to be raised to accommodate proposed elevated roadway profile	142+27.42	LT/RT
Miami-Dade WASD	Water	Fire hydrants may have to be relocated to accommodate proposed road work	104+30.49	RT
Miami-Dade WASD	Water	Fire hydrants to be relocated to accommodate preferred fixed-bridge alternative	107+30.59	LT
Miami-Dade WASD	Water	Fire hydrants to be relocated to accommodate preferred fixed-bridge alternative	110+09.41	LT
Miami-Dade WASD	Water	Fire hydrants to be relocated to accommodate preferred fixed-bridge alternative	112+82.78	RT
Miami-Dade WASD	Water	Fire hydrants to be relocated to accommodate preferred fixed-bridge alternative	115+55.56	LT
Miami-Dade WASD	Water	Fire hydrants to be relocated to accommodate preferred fixed-bridge alternative	118+15.00	RT
Miami-Dade WASD	Water	Fire hydrants to be relocated to accommodate preferred fixed-bridge alternative	120+35.69	LT
Miami-Dade WASD	Water	Fire hydrants to be relocated to accommodate preferred fixed-bridge alternative	122+23.89	LT
Miami-Dade WASD	Water	Fire hydrants to be relocated to accommodate preferred fixed-bridge alternative	122+36.62	LT
Miami-Dade WASD	Water	Fire hydrants to be relocated to accommodate preferred fixed-bridge alternative	141+73.58	LT
FPL	Electrical	13kV line to be relocated to preferred fixed-bridge alternative	123+82.57 to 140+45.89	LT

The Preferred Alternative is expected to have no significant impacts on utilities within the Broad Causeway Bridge corridor.

6.5 Construction

The bridge is a critical regional coastal route and detour routes are limited. Because of this, the public expressed an overall common concern regarding maintenance of traffic and potential bridge closure during construction. The Temporary Traffic Control Plan is described in the *Preliminary Engineering Report (PER) (May 2024)*, found in the project files, and clarifies that the four existing lanes will stay in operation throughout construction. Pedestrian and bicycle traffic will be temporarily impacted due to safety concerns as the existing facilities do not meet current standards. Uninterrupted access to the service station, during operating hours, during construction via the existing entry or an alternate entry point will be provided. If an alternate entry point is needed, detour signage and directions will be provided to the public to maintain access to the Section 4(f) protected property.

Maintenance of traffic and sequence of construction will be planned and scheduled to minimize traffic delays throughout the project. Signs will be used to provide notice of access to local business and other pertinent information to the traveling public. The latest edition of the FDOT's *Standard Specifications for Road and Bridge Construction* will be followed.

The air quality effect of construction activities will be short-term and will mainly be in the form of dust from earth work and unpaved roads. These impacts will be minimized by adherence to all applicable State and Local regulations and to the FDOT's *Standard Specifications for Road and Bridge Construction*.

Bridges are built with heavy construction equipment and there is potential for noise and vibration impacts. Early identification of potential noise and vibration sensitive sites along the project is important in minimizing these impacts. Construction noise and vibration impacts to these sites will be minimized by adherence to the controls listed in the latest edition of the FDOT's *Standard Specifications for Road and Bridge Construction*.

Water quality effects resulting from erosion and sedimentation will be controlled in accordance with the latest edition of the FDOT's *Standard Specifications for Road and Bridge Construction*.

The proposed project will require securing an ERP through the SFWMD to meet requirements in Chapter 62-330, F.A.C. Construction activities will also require the development of a SRCC and proper coordination for National Pollutant Discharge Elimination System (NPDES) permit requirements. Additionally, a parallel permit will be required from the DERM.

The project is in Biscayne Bay, an OFW and designated Aquatic Preserve. The Preferred Alternative cannot completely avoid impacts to existing natural resources within the project area; however, avoidance and minimization measures will be incorporated during the construction of the project to minimize impacts to natural resources. BMPs are to be implemented to prevent impacts to threatened and endangered species, wetlands and surface water features, EFH, and benthic resources. Additional details regarding the measures to be implemented prior to and during construction are discussed in the *NRE*, found in the project files.

7. Engineering Analysis Support

The engineering analysis supporting this environmental document is contained within the 452428-1_BCB_GEO_Roadway-PD&E-RPT.

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8. Permits

The following environmental permits are anticipated for this project:

Federal Permit(s)

USACE Section 10 or Section 404 Permit
 USACE Section 408 Permit
 USCG Bridge Permit

Status

To be acquired
 To be acquired
 To be acquired

State Permit(s)

DEP or WMD Environmental Resource Permit (ERP)
 DEP National Pollutant Discharge Elimination System Permit

Status

To be acquired
 To be acquired

Local Permit(s)

Miami-Dade County Class I Coastal Construction Permit
 Miami-Dade County Tree Permit
 Miami-Dade County Class II Permit
 Miami-Dade County Class VI Permit

Status

To be acquired
 To be acquired
 To be acquired
 To be acquired

Other Permit(s)

SFWMD Consumptive Water Use Permit

Status

To be acquired

Permits Comments

Included in the Town Charter by the 1953 Senate Bill No. 865, the State of Florida surrendered and granted to the Town any claim or control over all tidewaters and other lands, and all bayous and bay bottoms, beaches, waters, waterways and water bottoms, and all riparian rights within and adjacent to the Town limits for municipal purposes only, a strip of 300 ft. wide from Kane Concourse (SR 922), westwardly across Biscayne Bay to approximately 123rd Street in the City of North Miami. This information will be included in the SFWMD ERP and Miami-Dade County Class I Permit applications to explain how the sovereign submerged lands are granted to the Town.

Since there are no sovereign submerged lands within the project area, an easement will not be required.

9. Public Involvement

The following is a summary of public involvement activities conducted for this project:

Summary of Activities Other than the Public Hearing

A *Public Involvement Program (PIP)* (February 2023), found in the project files, was developed and carried out as an integral part of this project. This program was implemented in compliance with Section 339.155, F.S.; Council on Environmental Quality (CEQ) Regulations for implementing the procedural provisions of the National Environmental Policy Act (NEPA); and 23 CFR 771 to describe the public involvement approach for the study.

The purpose of this program was to establish and maintain communication with the public at large and individuals and agencies interested in the project and its potential impacts. To ensure open communication and agency and public input, an early notification package was provided to state and federal agencies and other interested parties defining the project and, in cursory terms, describing anticipated issues and impacts. Comments received through agency coordination assisted with the development and analysis of alternatives and identification of permits and mitigation measures.

In addition, in an effort to resolve all issues identified, the FDOT has conducted an extensive interagency coordination and consultation effort and public participation process. The *Comments and Coordination Report (May 2024)*, found in the project files, details the program to fully identify, address, and resolve all project-related issues identified within the *PIP*. A summary of the outreach efforts and meetings conducted to date are provided in the following sections and updates will be made after the Public Hearing.

Project Website

A project website is available at <https://www.bayharborislands-fl.gov/444/Broad-Causeway-Bridge-Replacement-PDE-St>. The website featured information about the study; documents and publications; public notices and public meeting documents; and the project schedule. A comment form link is provided to leave feedback on the project.

Project Kick-Off Notification

A Public Kick-off Meeting was held on February 9, 2023, at 6 PM, at the Town Hall Council Chambers on Bay Harbor Islands. The meeting started in an open house format where the public could view a looping video of the project area and project display boards with project team representatives present to address one-on-one questions. A formal presentation was given at 6:30 PM. The meeting introduced the project and the PD&E Study process to the public with the intent to inform the community on proposed improvements to Broad Causeway Bridge from causeway island to East of West Broadview Drive. Additionally, a Project Kick-off notification for the Broad Causeway Bridge Replacement was emailed to elected officials on January 20, 2023, from Mayor Joshua D. Fuller.

A total of approximately 49 citizens and two (2) elected officials signed in at the public meeting. Eleven comments were received at the meeting, online, or via email to the Public Involvement Specialist during the 10-day review period following the in-person meeting. The majority of comments received were focused on pedestrian and bicyclist traffic, wildlife species, toll revenues, and project funding. A full summary of this meeting, including meeting materials and comments received, can be found in the *Comments and Coordination Report* that was prepared as part of this study.

Public comments received were considered when developing the project alternatives and conducting the alternatives analysis.

Hybrid Alternatives Public Workshop

A Hybrid Alternatives Public Workshop was held both virtually and in-person to provide interested persons an opportunity to express their views concerning the proposed improvements and vote on which alternative they preferred. Citizens were strongly encouraged to attend either of these meetings to learn more about the project and the alternatives being considered.

The Hybrid Alternatives Public Workshop was held in accordance with *Title VI of the 1964 Civil Rights Act* and related statutes, as referenced in FDOT's *Non-Discrimination Policy, Topic Number 001-275-006* and implementing procedure *Topic Number 275-010-010*. Elected and appointed officials were notified first via email. Property owners and interested parties were notified of the workshops via either a project handout or the Town's monthly NewsWaves publication via U.S. Postal Service (USPS) mail. The project workshop was also announced through a Town website, press release, advertisements in the *Miami Herald* and *El Nuevo*, and the Florida Administrative Register. ETAT members were notified via a FDOT Environmental Screening Tool generated email notification. Additionally, an Alternatives Public Workshop invite for Broad Causeway Bridge Replacement was emailed to elected officials on August 25, 2023, from Mayor Elizabeth Tricoche.

The In-house Alternatives Public Workshop was held on September 26, 2023, at 7 PM, at Morris N. Broad Community Center.

The meeting began with an informal open house from 7:00 to 7:15 PM, followed by a formal presentation and a public Question and Answer (Q&A) session. This meeting was recorded and made available at the project website. A total of approximately 20 citizens and two elected officials signed in at the Alternatives Public Workshop. This workshop was to provide the public with information about the proposed build alternatives, schedule and next steps. The PD&E team had an open Q&A session where the citizens asked questions about the project, provided comments, as well as voted for their preferred alternative. A total of twelve (12) citizens spoke during the Q&A session. Some of the issues brought up at the in-person meeting were:

- Project cost
- Traffic coming from the mainland
- Crosswalks with pedestrian features
- Preventative maintenance
- Lighting
- Process
- Cost of tolls

A virtual reality station was set up for the public to see three dimensional (3D) renderings of each proposed alternative while driving over the bridge to the causeway island. Attendees were provided with project information materials.

A Virtual Alternatives Public Workshop was held on September 28, 2023, at 6 PM, via a Zoom Webinar. The meeting was an opportunity for the citizens that were not able to attend in-person to be introduced to the proposed build alternatives for the project.

The meeting opened with a presentation followed by a Q&A session. The same presentation used at the in-house meeting was shown. A total of approximately 42 citizens and two (2) elected officials signed in at the Virtual Alternatives Public Workshop. This meeting was to provide the public with information about the proposed build alternatives, schedule, and next steps.

At the Q&A session the citizens asked questions about the project. A total of eleven (11) comments were received from the public in the virtual portion of the meeting similar to the issues stated above that were commented on at the in-person meeting.

Both meetings were recorded and made available on the project website. The sign-in sheets, meeting handout in English and Spanish, display boards, photos from the meeting, comment form and speaker cards from the in-house meeting, the attendees report and Q&A reports from the virtual meeting, transcripts from both meetings, as well as comments received in the 10 days following the virtual meeting, can be found in the *Comments and Coordination Report*.

The public was provided with an opportunity to communicate their preferences by participating in the Hybrid Public Alternatives Workshop. Additionally, a comment form was made available on the project website, and it remained accessible for ten days following the workshop sessions. To gather further input, a survey was designed for residents to complete, allowing them to share their comments, questions, and indicate their preferred bridge option. The team also received comments and votes via email, further expanding the channels through which the public could participate in the decision-making process. See below summary of votes received. Further details about these votes are in the *Comments and Coordination Report*.

Alternatives Votes:

1. No Build Alternative - **8 votes**
2. Build Alternatives - **21 votes**
 - Alt. 1 High-Level Fixed Bridge - **13 votes**
 - Alt. 2 Mid-Level Movable Bridge - **8 votes**

Presentation of Preferred Alternative to the Town of Bay Harbor Islands Town Council

The recommendation for the Preferred Alternative was presented to the Town of Bay Harbor Islands Town Council at their regular meeting on November 8, 2023, at 7 PM. A presentation was made, Town Council questions were answered, and comments were received by the public in attendance. The Town's Town Council unanimously passed a resolution supporting the Preferred Alternative as Alternative 1 - 65 ft. High-Level Fixed Bridge. TBHI Resolution No. 2346, adopted on November 8, 2023, states "The Town Council finds it is in the best interest of the safety and mobility of the residents of the Town, the travelling public, and users of the Intracoastal waterway to select Alternative 1 - 65-ft. High Level Fixed Bridge as the Preferred Alternative". The Resolution is included as a project attachment.

Hybrid Public Hearing

A Hybrid Public Hearing will be held in Summer 2024.

Additional Coordination

The FDOT and Town met with the USCG on January 20, 2023, to discuss the required clearance for a new bridge. Consultation with the USCG indicated the navigation constraints for this bridge replacement project. Specifically, within Biscayne Bay, the USCG requires 90 ft. horizontal and 21 ft. (closed) vertical clearances (profile) for new bascule bridges and for new fixed bridges they require 90 ft. horizontal and a 65 ft. vertical clearance (profile). Another USCG constraint specified that the bridge spans will not be allowed to move the navigational channel from its existing location. USCG coordination documentation is included in the project file. This document is currently in SWEPT but is not included as an attachment.

A meeting was held with the Miami-Dade TPO to address comments received October 19, 2023, on the proposed typical section of the Broad Causeway Bridge. The typical section that was reviewed by the TPO was presented during the Public Alternatives Workshop on September 26 and September 28, 2023 (virtual). Meetings were held with the TPO on October 30 and November 3, 2023, to discuss pedestrian and bicyclist safety and accommodations, and revising the typical section to fully address these accommodations. The project was presented to the TPO Bicycle Pedestrian Advisory Committee (BPAC) on February 13, 2024, and the Transportation Planning and Technical Advisory Committee (TPTAC) and Citizens' Transportation Advisory Committee (CTAC) on May 1, 2024.

Table 7-1 Agency Coordination Table

Agency	Meeting Date	Topic
USCG	January 20, 2023	Guide Clearance Requirements
State Historic Preservation Officer* (SHPO)	June 19, 2023	Cultural Resource Identification and Methodology
NMFS**	July 12, 2023	Benthic Survey Methodology
Miami-Dade TPO	October 30, 2023 November 3, 2023	Pedestrian and Bicyclist Accommodations
NMFS	December 21, 2023	Technical Assistance Call
USFWS	January 12, 2024	Technical Assistance Call
Miami-Dade TPO BPAC	February 13, 2024	Pedestrian and Bicyclist Accommodations
NMFS	February 21, 2024	Technical Assistance Call
SHPO	April 18, 2024	Cultural Resource Assessment Survey
Miami-Dade TPO TPTAC	May 1, 2024	Project Overview and Announcement of Public Hearing
Miami-Dade TPO CTAC	May 1, 2024	Project Overview and Announcement of Public Hearing

* SHPO coordination is documented in the CRAS (April 2024) and Section 106 Case Study Report (April 2024)

** USFWS and NMFS coordination is documented in the NRE (April 2024).

Date of Public Hearing: 06/24/2024

Summary of Public Hearing

Public Hearing to be held on June 24, 2024.

10. Commitments Summary

1. During the design phase, the Town will coordinate bridge features such as aesthetics, landscaping and lighting with the community.
2. The Town will coordinate with FDEP Office of Greenways and Trails during design regarding the temporary detour of the Florida Circumnavigational Saltwater Paddling Trail during construction of the new Broad Causeway Bridge.
3. As the Official with Jurisdiction, the Town commits to keeping the Tot Lot open during construction.
4. The Town will adhere to the stipulations included in the Memorandum of Agreement (MOA) between the Town and the SHPO.
5. The Town commits to providing uninterrupted access to the causeway island service station, during operating hours, during construction via the existing entry or an alternate entry point. If an alternate entry point is needed, detour signage and directions will be provided to the public to maintain access to the Section 4(f) protected property.
6. If the listing status of the tricolored bat is elevated by USFWS to Threatened or Endangered and the Preferred Alternative is located within the consultation area during the design and permitting phase of the proposed project, the Town commits to reinitiating consultation with the USFWS to determine the appropriate survey methodology and to address USFWS regulations regarding the protection of the tricolored bat.
7. The USFWS and FWC Standard Manatee Construction Conditions for In-Water Work will be utilized during construction.
8. To reduce the risk of entrapment and drowning of manatees, manatee exclusion devices (such as grating) shall be installed and maintained over any existing or proposed pipes or culverts greater than eight inches that are submerged or partially submerged and reasonably accessible to manatees. If horizontal or vertical bars are used, no more than 8-inch gaps on center shall be allowed. Grates shall be in place at the accessible end(s) during all phases of the construction process and as a final design element to restrict manatee access.
9. If the listing status of the monarch butterfly is elevated by USFWS to Threatened or Endangered and if the project area is located within the consultation area, during the construction phase of the proposed project, the Town commits to reinitiating consultation with the USFWS to determine the appropriate survey methodology and to address USFWS regulations regarding the protection of the monarch butterfly.
10. The most recent version of the USFWS Standard Protection Measures for the Eastern Indigo Snake will be utilized during construction.
11. The NMFS Protected Species Construction Conditions, NOAA Fisheries Southeast Regional Office will be utilized during construction.
12. The NMFS Vessel Strike Avoidance Measures, NOAA Fisheries Southeast Regional Office will be utilized during construction.
13. The Town will reinitiate consultation with NMFS during the design and permitting phase of the project, where final impacts to corals, octocorals and/or sponges will be determined and any required compensatory actions for unavoidable impacts will be defined. During final design, a benthic survey will be conducted to identify listed coral species (boulder star coral, lobed star coral, and mountainous star coral) and to inventory corals and barrel sponges suitable for relocation prior to construction. The coral survey protocol will be coordinated with NMFS prior to completion. A Plan for Relocation and Monitoring of Corals, Octocorals, and Sponges will be developed and coordinated with the NMFS, USACE, SFWMD, and DERM during the permitting process.

14. A seagrass survey will be conducted during the peak seagrass growing season (i.e., June 1-September 30) in the design phase. The seagrass survey protocol will be coordinated with NMFS prior to completion. If it is determined that there will be unavoidable impacts to seagrasses from the project, coordination with NMFS and USFWS will take place to determine appropriate avoidance and minimization measures to apply during construction.
15. The Town will provide mitigation for unavoidable impacts to seagrasses. A Seagrass Mitigation Plan will be developed to offset unavoidable impacts to seagrass from the proposed project. The Seagrass Mitigation Plan will be reviewed and approved by the NMFS, USFWS, USACE, SFWMD, and DERM during the permitting process.
16. A Barge Accessibility Plan depicting the locations of barge work channels and barge exclusion zones will be prepared during permitting and coordinated with the NMFS, USACE, SFWMD, and DERM.
17. To identify areas that should be avoided by barges and work boats for construction and staging, prior to construction commencement, the Town will delineate and mark with visible buoys seagrasses located adjacent to (outside of) the impact areas within the vicinity of the project corridor. The seagrass marking requirement will be coordinated with the NMFS and USFWS during the permitting process.
18. All in-water construction activities will be limited to daylight hours.
19. Measures to minimize potential underwater noise impacts from pile driving and in-water construction will be determined during design and implemented during construction. Noise abatement measures for the project will be coordinated with, and approved by, the NMFS and the USFWS during the design and permitting process.
20. A Conceptual Blasting Plan to provide general blasting information for the project, including proposed measures to minimize and mitigate potential effects on species, will be developed during the design process and reviewed/approved by the USFWS, NMFS, USCG, USACE, and FWC. Prior to construction, the Town and their contractor will submit a Final Blasting Plan containing details of the blasting means and methods, including the blasting design, an impact assessment, a mitigation plan, and an Imperiled Species and Marine Mammal Watch Plan which will be reviewed and approved by the USFWS, NMFS, USCG, USACE, and FWC. The blasting plan will be required to adhere to the USFWS's May 2005 Guidelines for the Protection of Marine Mammals and Sea Turtles During the Use of Explosives in the Waters of the State of Florida.
21. The Town commits to reinitiating consultation during design and permitting with NMFS and USFWS for boulder star coral and manatee CH and will provide the information necessary to determine the type, degree, and extent of impacts to listed species [and/or CH] potentially adversely impacted by the proposed project. The Town will develop mitigation measures in consultation with the NMFS and USFWS to offset unavoidable impacts. Completion of consultation and documentation of the project's compliance with the avoidance, minimization and mitigation requirements for the impacted resources will be provided by the Town in a subsequent project reevaluation prior to advancing to construction.
22. The new seawall will be constructed landward of the existing seawall and the existing seawall will remain in place. All seawall construction activities will be conducted from land. A Conceptual Seawall Debris Containment Plan will be developed during the design/permitting phase and reviewed and approved by NMFS. The most likely means and methods for the seawall debris containment is the use of a temporary floating platform which will be repositioned regularly to minimize shading impacts to corals. A Final Seawall Debris Containment Plan will be developed by the contractor prior to construction and reviewed and approved by NMFS. If the contractor's seawall debris containment method differs from a temporary floating platform, the Town commits to reinitiating consultation with the NMFS for the boulder star coral.
23. During the design phase, the Town will coordinate bridge features such as aesthetics, landscaping and lighting with the community.

11. Technical Materials

The following technical materials have been prepared to support this Environmental Document and are included in the Project File.

Cooperating Agency Correspondence
452428-1_BCB_Draft_SCE Tech Memo
452428-1_BCB_Final_CRAS
452428-1_BSB_Draft_Section 106 Case Study Report
452428-1_BCB_Draft Section 106 Memorandum of Agreement_05.22.24
452428-1_BCB_Florida DEP SLIP Study Report_Published
452428-1_BCB_Draft NRE
452428-1_BCB_Final_WQIE
452428-1_BCB_Draft_LHR
452428-1_BCB_Revised Draft PSR
452428-1_BCB_Preliminary BHR
452428-1_BCB_CSER_Final
452428-1_BCB Draft AQ Tech Memo
452428-1_BCB_Draft NSR
452428-1_BCB_GEO_Roadway-PD&E-RPT
452428-1_BCB_Project Traffic Analysis Report
452428-1_BCB_GEO_Structures-RPT
452428-1_BCB_Prelim-Eng-Report_PER_DRAFT_v13_submittal
452428-1_BCB_Draft_Bridge Development Report
452428-1_BCB_Utility Assessment Package
452428-1_BCB_PIP Final_02032023_Exec Town_Signed
Final Town of Bay Harbor Islands Resolution_2346 - Preferred Alternative
452428-1_BCB_Draft_CAC

Attachments

Project Information

Depiction of 300 ft. Wide Strip from Kane Concourse to North Miami Causeway Island Circulation
Preferred Alternative Typical Section, Profile, and Rendering

Planning Consistency

Project Planning Consistency Documentation

Social and Economic

Community Services and Focal Points Map
Existing Land Use Map
Project Detour Route for Bridge Closures
Future Land Use Map

Cultural Resources

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Proposed Recreational Areas Map
Section 4(f) Resources within the Project Limits Map
Paddling Trail Detour Route Map
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Official With Jurisdiction Correspondence - Paddling Trail
SHPO Concurrence Letter
Correspondence with Miami-Dade County Office of Historic Preservation - CRAS Review
Section 4(f) Report

Natural Resources

Benthic Community Types Map
Wetlands Map
OSWs Within the Causeway Island Portion of the Project Study Area
Floodplain Map
Wetlands Impacts for Preferred Alternative Map
Outstanding Florida Waters Map
USFWS Species Concurrence Letter
FWC Species Concurrence Letter
Correspondence for Aquatic Preserves

Physical Resources

Potential Contamination Sites Map
Noise Map

Project Information Appendix

Contents:

Depiction of 300 ft. Wide Strip from Kane Concourse to North Miami

Causeway Island Circulation

Preferred Alternative Typical Section, Profile, and Rendering

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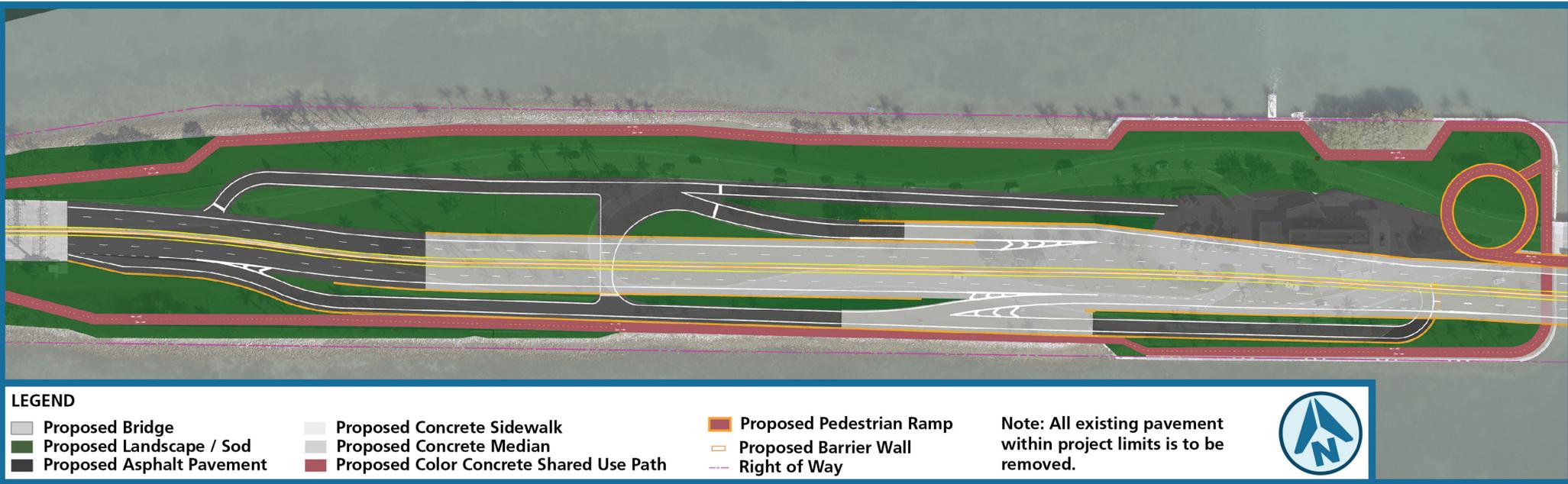
Depiction of 300-ft. wide strip from Kane Concourse to North Miami



Broad Causeway Bridge Replacement PD&E Study

Town of Bay Harbor Islands Miami - Dade County, Florida FPID: 452428-1-21-01

Causeway Island Circulation

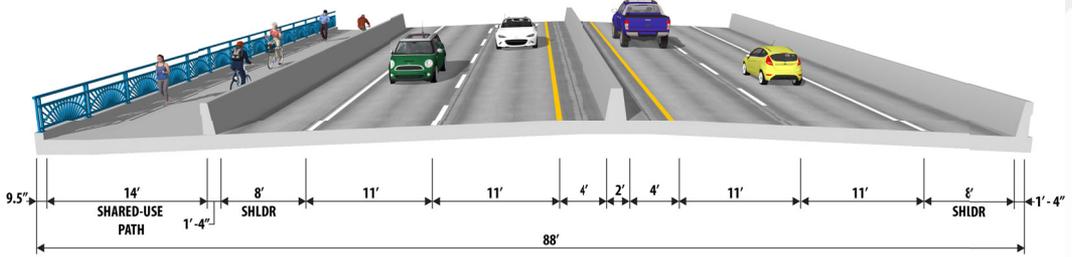


Broad Causeway Bridge Replacement PD&E Study

Town of Bay Harbor Islands Miami - Dade County, Florida FPID: 452428-1-21-01

Preferred Alternative

65 ft. High-Level Fixed Bridge Alternative Typical Section



65 ft. High-Level Fixed Bridge Alternative Profile in Comparison to the Existing Bridge



65 ft. High-Level Fixed Bridge Alternative Rendering



Broad Causeway Bridge Replacement PD&E Study

Planning Consistency Appendix

Contents:

Project Planning Consistency Documentation

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Planning Consistency Documents

Broad Causeway Bridge from Broad Causeway Island to East of West
Broadview Drive

Miami-Dade County

FM #452428-1

Type 2 CE

[March 12, 2024](#)

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Planning Consistency FM #452428-1

Broad Causeway Bridge from Broad Causeway Island to East of West Broadview Drive

FM #452428-1

Currently Adopted CFP-LRTP			Comments		
Y			<p><i>The Miami-Dade TPO on November 3, 2022, approved TPO Resolution #46-2022 to amend the 2045 LRTP and FY 2023 TIP to include in Priority I of the Plan the PD&E phase to advance the Broad Causeway Bridge Replacement Project, Project Number BC-160. The project is shown as #12 on the LRTP Summary of Amendments.</i></p>		
Phase	TIP/STIP	Currently Approved	\$	FY	Comments
PE (Final Design)	TIP	Y	\$6,000,000 \$5,000,000 \$4,000,000	2025 2026 2027	Town currently has funding programmed, but is seeking Federal, state, and local funds and applying for all applicable grants to offset Design phase funding.
	STIP	N			Not applicable.

R/W	TIP	N			There will be no ROW phase.
	STIP	N			Not applicable.
Construction	TIP	N			Town is seeking Federal, state, and local funds and applying for all applicable grants for Construction phase funding. Construction is anticipated to start in 2028 and be completed in 2030.
	STIP	N			Not applicable.

TPO RESOLUTION #46-2022

RESOLUTION APPROVING AMENDMENTS TO THE 2045 LONG RANGE TRANSPORTATION PLAN AND FISCAL YEAR 2023 TRANSPORTATION IMPROVEMENT PROGRAM TO INCLUDE IN PRIORITY I OF THE PLAN THE PROJECT DEVELOPMENT AND ENVIRONMENT PHASE TO ADVANCE THE BROAD CAUSEWAY BRIDGE REPLACEMENT PROJECT, PROJECT NUMBER BC-160

WHEREAS, the Interlocal Agreement creating and establishing the Metropolitan Planning Organization (MPO) for the Miami Urbanized Area requires that the Miami-Dade Transportation Planning Organization (TPO), in its role as the MPO, provides a structure to evaluate the adequacy of the transportation planning and programming process; and

WHEREAS, the Transportation Planning Council (TPC) has been established and charged with the responsibility and duty of fulfilling the aforementioned functions; and

WHEREAS, the TPC has reviewed the amendments to the 2045 Long Range Transportation Plan and 2023 Transportation Improvement Program, made a part hereof, and finds them consistent with the goals and objectives of the Transportation Plan for the Miami Urbanized Area,

NOW, THEREFORE, BE IT RESOLVED BY THE GOVERNING BOARD OF THE TRANSPORTATION PLANNING ORGANIZATION IN ITS ROLE AS THE MPO FOR THE MIAMI URBANIZED AREA, that the attached amendments to the 2045 Long Range Transportation Plan and Fiscal Year 2023 Transportation Improvement Program to include in Priority I of the Plan the Project Development and Environment Phase to advance the Broad Causeway Bridge Replacement Project, Project Number BC-160, are hereby approved.

The adoption of the foregoing resolution was moved by Board Member Steven D. Losner. The motion was seconded by Board Member Roberto Martell, and upon being put to a vote, the vote was as follows:

Chairman Oliver G. Gilbert III - Aye
Vice Chairman Juan Carlos Bermudez - Aye

- Board Member Philippe Bien-Aime - Absent
Board Member Esteban Bovo, Jr. - Aye
Board Member Danielle Cohen Higgins - Absent
Board Member Jose "Pepe" Diaz - Aye
Board Member Rene Garcia - Absent
Board Member Perla T. Hantman - Absent
Board Member Keon Hardemon - Aye
Board Member Rodney Harris - Aye
Board Member Sally A. Heyman - Absent
Board Member Eileen Higgins - Absent
Board Member Steven D. Losner - Aye
Board Member Roberto Martell - Aye
Board Member Kionne L. McGhee - Absent
Board Member Jean Monestime - Aye
Board Member Raquel A. Regalado - Aye
Board Member David Richardson - Aye
Board Member Rebeca Sosa - Absent
Board Member Javier D. Souto - Absent
Board Member Francis Suarez - Absent

The Chairperson thereupon declared the resolution duly passed and approved this 3rd day of November, 2022.

TRANSPORTATION PLANNING ORGANIZATION

By [Signature]
Tawana Parker, Clerk
Miami-Dade TPO



Summary of Amendments and Administrative Modifications to the Miami-Dade 2045 Long Range Transportation Plan

NO.	PROPOSED CHANGES IN PROJECT LIMITS	CURRENT PRIORITY	APPROVED OR PROPOSED PROJECT DESCRIPTION	NATURE OF PROPOSED AMENDMENT/MODIFICATION	ORIGIN OF REQUEST	TPO GOVERNING BOARD RESOLUTION NUMBER	TPO ACTION	LRTP PAGE #
1	N/A	N/A	Resolution approving amendments to the 2045 Long Range Transportation Plan (LRTP) and Fiscal Year 2020 Transportation Improvement Program (TIP) to include in Period I of the Plan a roadway widening project along NW 82 Ave NE from two (2) to three (3) lanes long NW 7 Street to NW 10 Street and construction of a new four (4) lane road under State Road 836, from NW 10 Street to NW 12 Street, Project Number PW000034	The project will address roadway capacity needs in the area.	DTPW	60-19	December 19, 2019	07-58A & 07-59A
2	N/A	N/A	Resolution approving amendments to the 2045 Long Range Transportation Plan (LRTP) and Fiscal Year 2020 Transportation Improvement Program (TIP) to include in Period I of the Plan a roadway widening project along NW 84 Avenue from NW 58 Street to NW 74 Street from two (2) to four (4) lanes, Project Number PW0001169	Widen NW 84 Ave from NW 58 St to NW 74 St from 2 to 4 lanes. This project also consists of new drainage, signing, marking, and street lighting.	DTPW	10-2020	April 23, 2020	07-58A & 07-59A
3	N/A	N/A	Resolution approving amendments to the 2045 Long Range Transportation Plan (LRTP) to include in the partially funded section of the LRTP a roadway widening project along Hialeah Gardens Boulevard from approximately Okeechobee Road to NW 138 Street from four (4) lanes to six (6) lanes.	Widen Hialeah Gardens Boulevard from approximately Okeechobee Rd. to NW 138 St from four (4) lanes to six (6) lanes.	DTPW	17-2020	June 18, 2020	07-58A & 07-59A

*Miami-Dade 2045 LRTP approved by TPO Governing Board on September 26, 2019

NO.	PROPOSED CHANGES IN PROJECT LIMITS	CURRENT PRIORITY	APPROVED OR PROPOSED PROJECT DESCRIPTION	NATURE OF PROPOSED AMENDMENT/MODIFICATION	ORIGIN OF REQUEST	TPO GOVERNING BOARD RESOLUTION NUMBER	TPO ACTION	LRTP PAGE #
11	N/A	N/A	Resolution approving an amendment to the 2045 Long Range Transportation Plan (LRTP) to include in priority I of the Plan the Venetian Causeway bridge replacement project.	Bridge replacements from Bayshore Drive to Purdy Avenue	DTPW	33-2022	October 4, 2022	
12	N/A	N/A	Resolution approving amendments to the 2045 Long Range Transportation Plan and Fiscal Year 2023 Transportation Improvement Program to include in Priority I of the Plan the project development and environment phase to advance the Broad Causeway bridge replacement project, project number BC-160.	Bridge Replacement DT BC-160	FDOT	46-2022	November 3, 2022	
13	N/A	N/A	Resolution approving amendments to the 2045 Long Range Transportation Plan and Fiscal Year 2023 Transportation Improvement Program to include in Priority I of the Plan a roadway widening project along NW 159 Street from NW 6 Avenue to NW 2 Avenue from two (2) to four (4) lanes, including intersection improvements at NW 6 Avenue/NW 159 Street.	Widen from 2 to 4 lanes, New right turn lane PW 0001212 PW 000505	DTPW	47-2022	November 3, 2022	
14	N/A	N/A	Resolution approving amendments to the Fiscal Year 2023 Transportation Improvement Program to disclose a cost estimate update to the Golden Glades Interchange program of projects.	Interchange Ramp (New) DT 4283581	FDOT	53-2022	December 8, 2022	



Broad Causeway Bridge Replacement

2023 Transportation Improvement Program

Project Type: Arterial/Collector Road
MPO Project No.: PWBC-160
Type of Work: Bridge Replacement
TIP Year: 2023
Construction Year:
From: Broad Causeway Island
To: East of West Broadview Drive
Agency: Miami-Dade Dept. of Transportation and Public Works
Management Agency: Miami-Dade Dept. of Transportation and Public Works
Agency Project No: BC-160
Status:
Contact Person:
Contact Email:
Contact Phone:

Description:

Replacement of the Broad Causeway Bridge (Bascule). This bridge is part of the evacuation route for approximately 40,000 residents (from Bay Harbor Islands, Surfside, Bal Harbor, Indian Creek, North part of Miami Beach).

Funding Information \$(thousands)

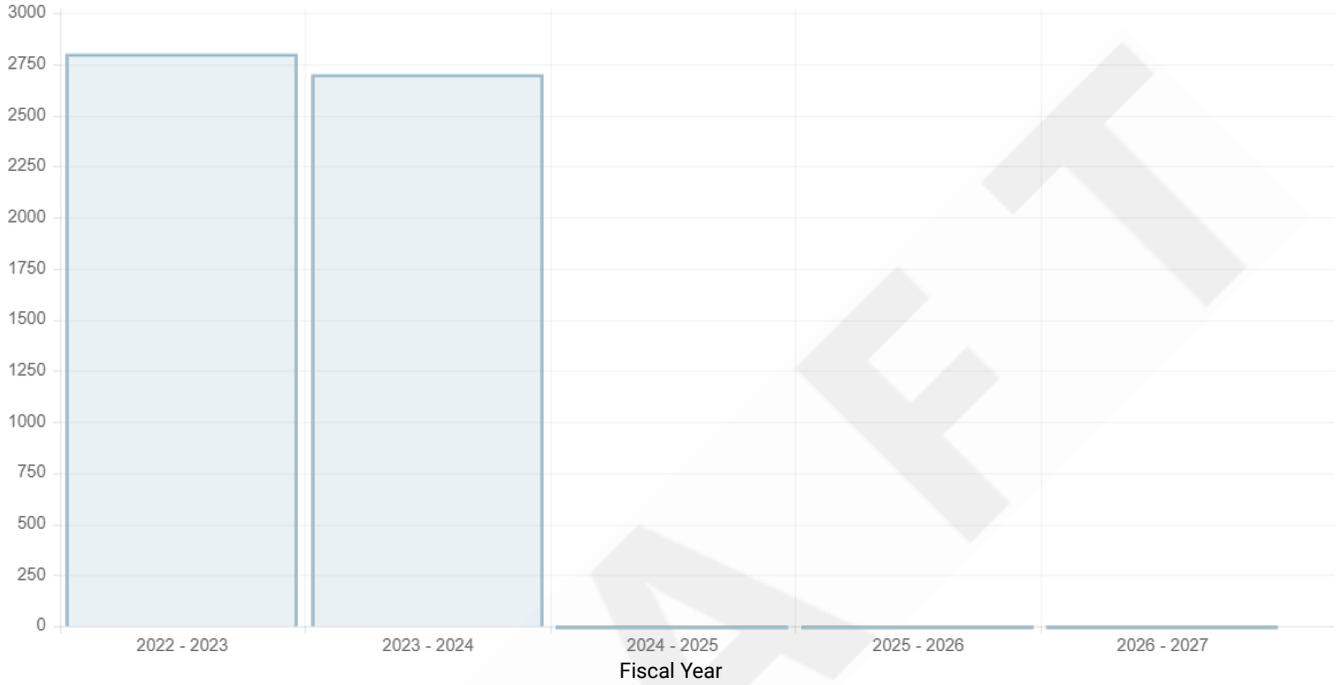
Project Phase	Funding	2022 - 2023	2023 - 2024	2024 - 2025	2025 - 2026	2026 - 2027
PROJECT DEVELOPMENT AND ENVIRONMENTAL	LF	\$2,800	\$2,700	\$0	\$0	\$0



Broad Causeway Bridge Replacement

2023 Transportation Improvement Program

Funding Chart \$(thousands)



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Five-Year Capital Plan

Description	PRIOR YEARS	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28
5415 Causeway Operations						
<u>401.5415.400063.000- Improvements (excl. Buildings)</u>						
Replacement of Broad Causeway Bridge - Construction	0	0	0	0	25,000,000	25,000,000
Replacement & moving of Causeway Servers from Town Bui	0	325,000	0	0	0	0
Indian Creek Bridge-Structural Repairs - Design & Constructi	115,000	2,052,000	436,000	0	0	0
Replacement of Broad Causeway Bridge - Design	0	0	0	15,000,000	0	0
Bridge Signs Installation	0	15,000	0	0	0	0
Seawall Replacement 9600 West Bay Harbor River	0	500,000	300,000	0	0	0
Waterway Bridge Structural Repairs (Middle Bridge)	40,000	2,108,000	336,000	0	0	0
Replacement of Broad Causeway Bridge - PD&E Study-	0	2,800,000	2,500,000			
Rehabilitation of Broad Causeway	0	1,529,000	450,000	50,000	0	0
LED Lighting Upgrade - Kane Concourse & Broad Causeway	0	30,000	0	0	0	0
Artificial Reef - Multi Fund Project	0	0	0	0	0	0
West Relief Bridge-N Miami - Design & Construction	73,000	2,124,000	336,000	0	0	0
Summary for Improvements (excl. Buildings)	228,000	11,483,000	4,358,000	15,050,000	25,000,000	25,000,000
<u>401.5415.400064.000- Machinery & Equipment</u>						
Vehicle 627 Ford f-150 17787	18,720	6,240	6,240	0	0	0
Vehicle 628 Ford Cargo Van (Transit 150) 66147	18,720	6,240	6,240	0	0	0
Summary for Machinery & Equipment	37,440	12,480	12,480	0	0	0
Total Capital Outlay for Fund 401	265,440	11,495,480	4,370,480	15,050,000	25,000,000	25,000,000
5350 Sewer						
<u>402.5350.400063.000- Improvements (excl. Buildings)</u>						
Manhole and Pipe Lining	0	100,000	200,000	200,000	0	0
Ejector Station Replacement	0	450,000	455,000	460,000	0	0

Social and Economic Appendix

Contents:

Community Services and Focal Points Map

Existing Land Use Map

Project Detour Route for Bridge Closures

Future Land Use Map

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Community Services and Focal Points

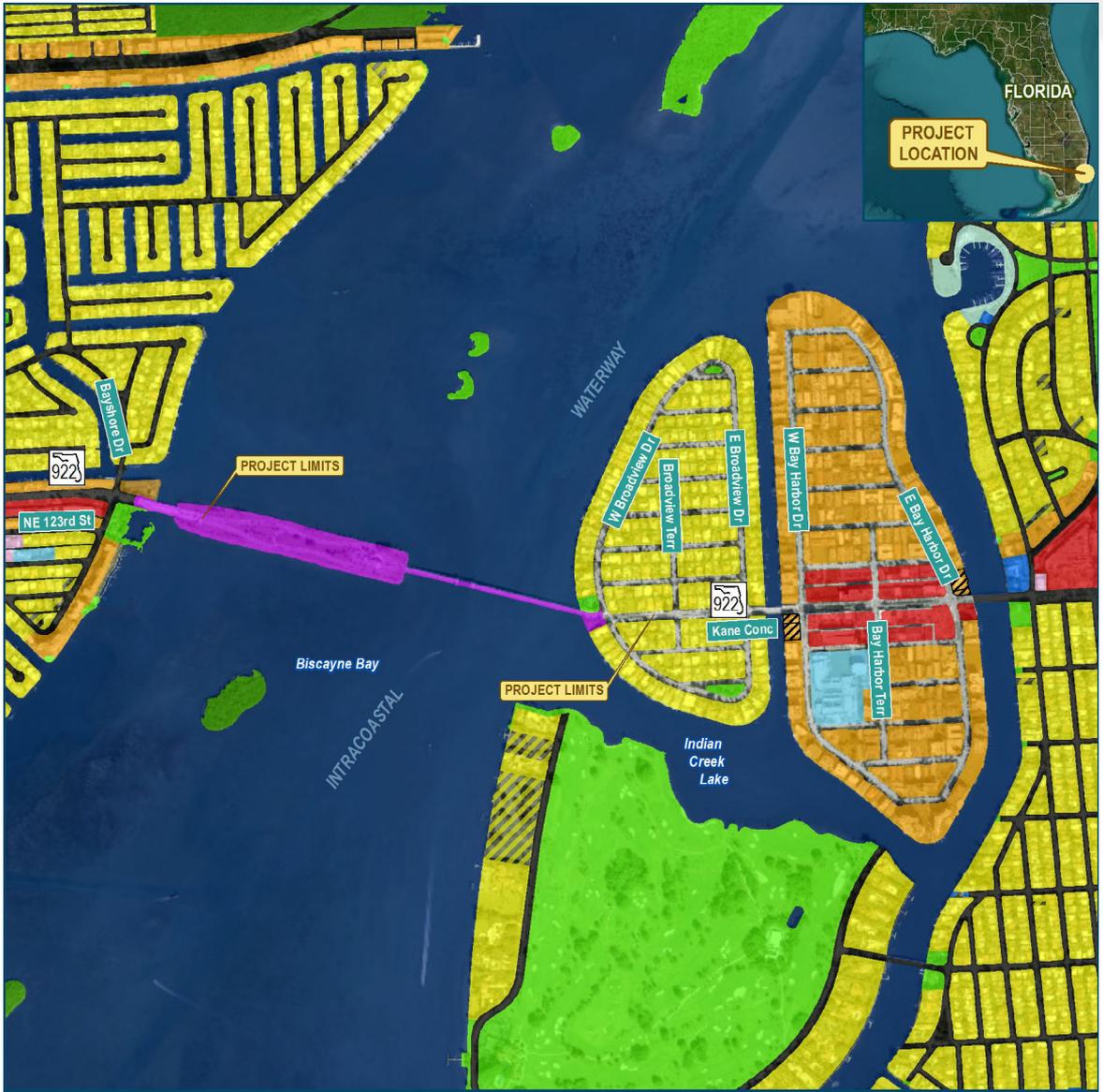


LEGEND

- Project Corridor Limits
- Quarter-mile Buffer
- Park (UF GeoPlan 2022)
- Paddling Trail
- Golf Course (UF GeoPlan 2015)

Broad Causeway Bridge Replacement PD&E Study

Existing Land Use



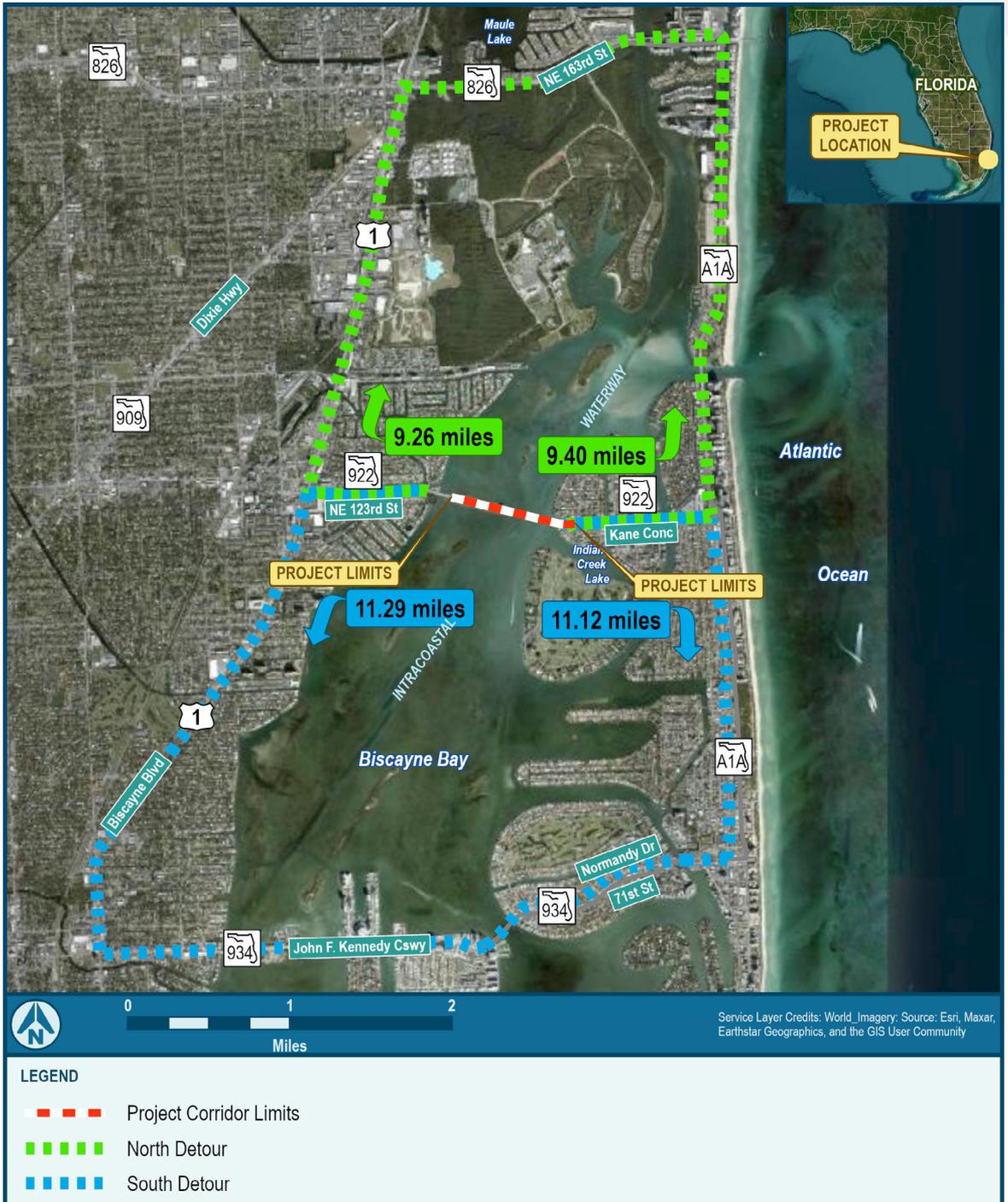
Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Existing Land Use (Miami-Dade Dept. of Regulatory and Economic Resources, Town of Bay Harbor Islands)

PUD	Conservation	Infrastructure	Public / Institutional	Vacant (Privately-owned)
Causeway District	Governmental	Marinas	Religious	Water
Commercial / Office	Hotel / Motel	Multi-family Residential	Single-family Residential	
Community Facility	Industrial	Parks and Recreation	Vacant (Government-owned)	

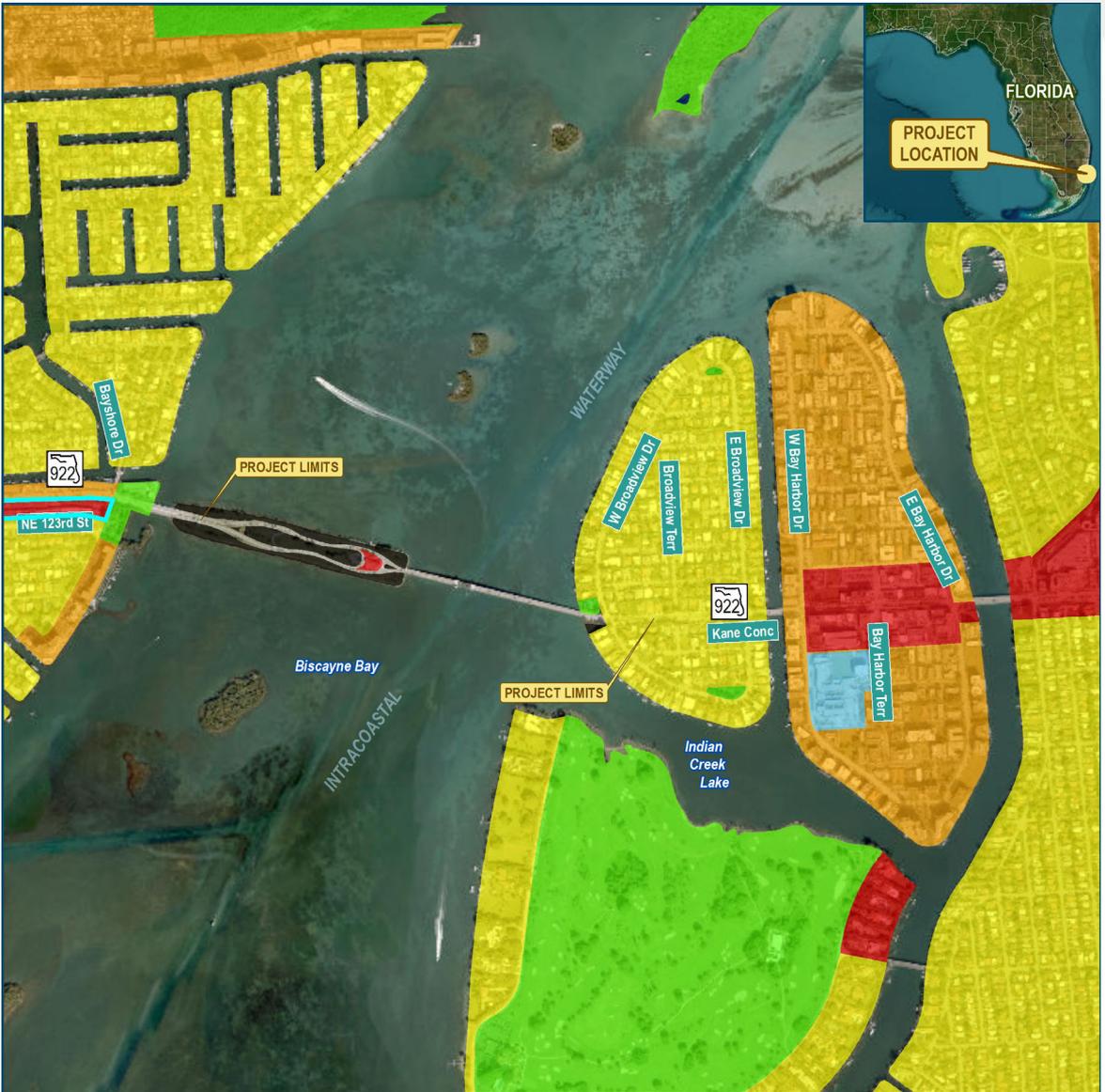
Broad Causeway Bridge Replacement PD&E Study

Project Detour Route for Bridge Closures



Broad Causeway Bridge Replacement PD&E Study

Future Land Use



Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Future Land Use (University of Florida GeoPlan Center, Town of Bay Harbor Islands)

- Commercial / Office
- Parks and Recreation
- Infrastructure
- Public / Institutional
- Multi-family Residential
- Single-family Residential

Broad Causeway Bridge Replacement PD&E Study

Cultural Resources Appendix

Contents:

NRHP Eligible Resources Map

Proposed Recreational Areas Map

Section 4(f) Resources within the Project Limits Map

Paddling Trail Detour Route Map

Official with Jurisdiction Letter - TBHI Tot Lot

Official With Jurisdiction Correspondence - Paddling Trail

SHPO Concurrence Letter

Correspondence with Miami-Dade County Office of Historic Preservation - CRAS Review

Section 4(f) Report

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NRHP Eligible Resources



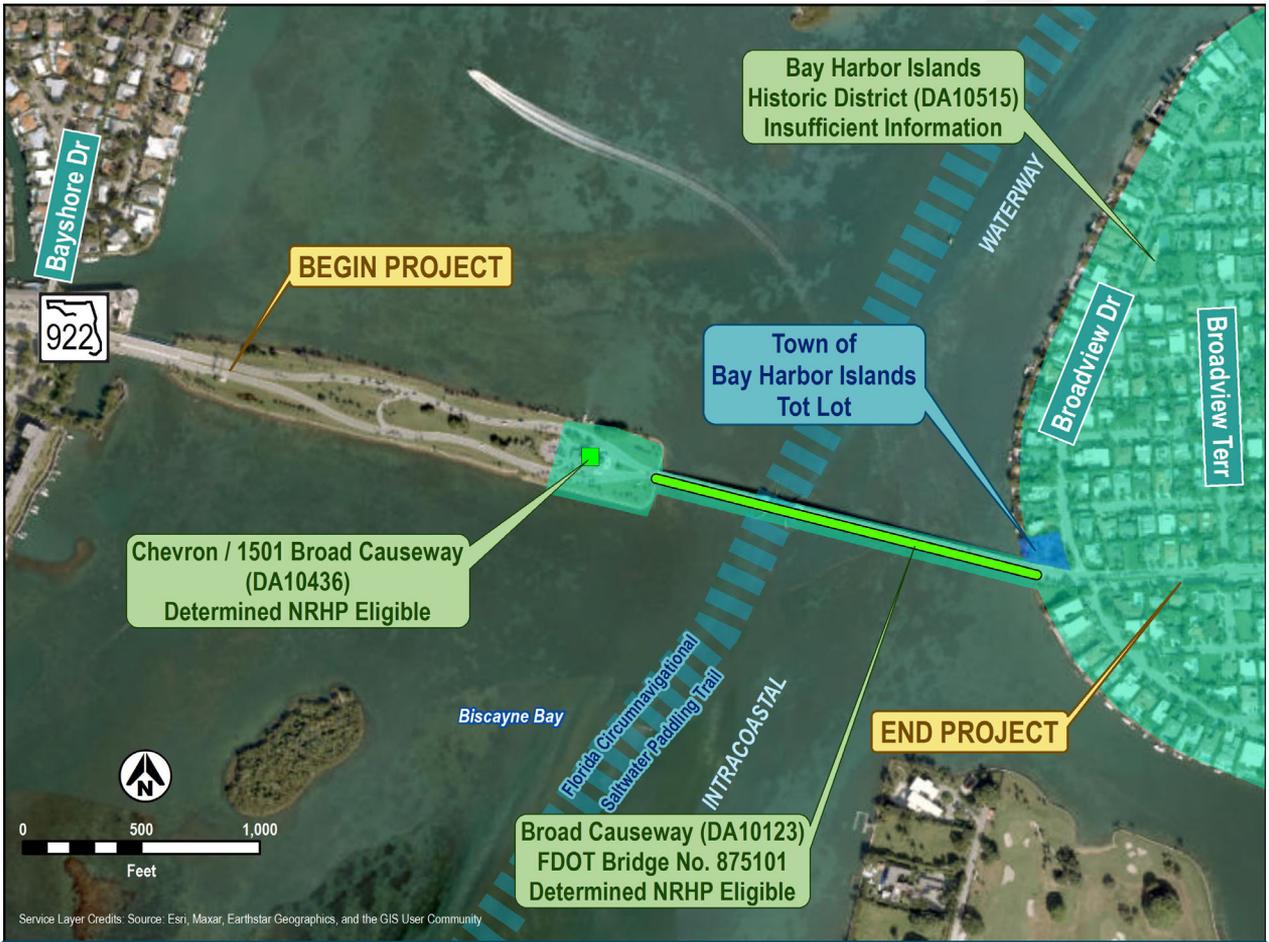
Broad Causeway Bridge Replacement PD&E Study

Location of Proposed Recreation Areas



Broad Causeway Bridge Replacement PD&E Study

Section 4(f) Resources Within the Project Limits



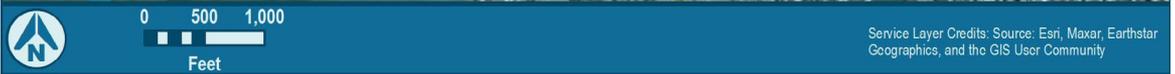
Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

LEGEND

■ Historic Structure	▬ Historic Bridge	■ Historic District	■ Tot Lot
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Broad Causeway Bridge Replacement PD&E Study

Florida Circumnavigational Saltwater Paddling Trail Proposed Detour Route



Paddling Trail

- Existing Paddling Trail
- Proposed Paddling Trail Detour

Broad Causeway Bridge Replacement PD&E Study



April 8, 2024

Town Council

Elizabeth Tricoche
Mayor

Joshua D. Fuller
Vice Mayor

Stephanie Bruder
Council Member

Molly Diallo
Council Member

Teri D'Amico
Council Member

Isaac Salver
Council Member

Robert Yaffe
Council Member

Town Officials

Maria Lasday
Town Manager

Yvonne Hamilton
Town Clerk

Greenspoon Marder LLP
Town Attorneys
By: Joseph Geller, Esq.

Mr. Steven Craig James
District Environmental Administrator
Florida Department of Transportation, District Six
1000 NW 111th Avenue, Room 6109
Miami, FL 33172

Subject: Town of Bay Harbor Islands Tot Lot
Statement of Significance and Concurrence for the
Temporary Occupancy
Financial Project ID: 452428-1
Town of Bay Harbor Islands Number: BC-160
Broad Causeway Bridge from Causeway Island to East of
West Broadview Drive Miami-Dade County, Florida

Dear Mr. James,

The Town of Bay Harbor Islands is currently in the Project Development and Environment (PD&E) Study for the Broad Causeway Bridge replacement project from Causeway Island to East of West Broadview Drive in Miami-Dade County. The purpose of this project is to address the functional deficiencies of the existing Broad Causeway Bridge. The feasibility of continued rehabilitation and repair versus replacement of the bridge was evaluated through the PD&E Study.

The Town-owned Tot Lot located on the northeast side of the bridge at 9600 West Broadview Drive is a gated park with shaded playground equipment which includes American with Disability Acts (ADA) accessible components and a picnic pavilion. The park has parking and access on West Broadview Drive and is open from Sunrise to Sunset, year-round. The project will be constructed within the existing right-of-way (ROW). A portion of the project is located adjacent to the Tot Lot, but the proposed project has no use of the property within the meaning of Section 4(f).

MAYOR JOSEPH J. GARDNER GOVERNMENT CENTER

Mr. Steven Craig James
District Environmental Administrator
Florida Department of Transportation, District Six
April 8, 2024
Page 2

A temporary easement will be needed to construct a new seawall where the Tot Lot is located. The new seawall will be constructed behind the existing seawall. An additional ~4 feet along the water's edge will be used for the new seawall, but the land will remain park property. The new seawall will provide an enhancement to the park because the Town is increasing the long-term stability of the seawall. The temporary easement will be ~20 feet inland from the water's edge and will temporarily remove the Tot Lot picnic pavilion. The Town will temporarily move the Tot Lot perimeter fence from the water's edge to the east side of the picnic pavilion and temporarily remove the pavilion. An additional construction fence will be installed for safety. This construction will occur after the removal of the existing bridge and will last ~12 weeks. Once construction is complete, the perimeter fence will be restored to a new location between the water's edge and the pavilion, and the pavilion will be returned to its original location or will be replaced with amenities the Town chooses to have. The project will not permanently convert Tot Lot property to transportation use. Furthermore, the proposed work will not require any access changes or closures.

Section 4(f) of the Department of Transportation Act governs the use of publicly owned lands including parks and recreation areas, wildlife and waterfowl refuges and publicly or privately owned historic sites. Section 4(f) regulations and requirements are codified under 23 U.S.C § 138 and 49 U.S.C. § 303. When a federally funded transportation project requires the use of a Section 4(f) protected property FDOT must make a finding regarding the use. For this project, the proposed work meets the conditions of a temporary occupancy listed under 23 CFR § 774.13 (d) as follows: 1) duration must be temporary, i.e., less than the time needed for construction of the project and there should be no change in ownership of the land; 2) scope of work must be minor, i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal; 3) there are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis; 4) the land being used must be fully restored, i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project; and 5) there must be documented agreement of the official(s) with jurisdiction (OWJ) over the Section 4(f) resource regarding the above conditions. Therefore, this project is eligible for a temporary occupancy exception under 23 CFR § 774.13.

This resource meets the requirements of a Section 4(f) protected property as a publicly owned recreational resource, located on Bay Harbor Islands in Miami-Dade County. The resource is also significant within the meaning of Section 4(f) regulations. Significance means that in comparing the availability and function of the Tot Lot with the objectives of that community, the land in questions plays an important role in meeting those objectives.

As the Official with Jurisdiction, please accept this letter as formal Statement of Significance for Town off Bay Harbor Islands Tot Lot and concurrence for the temporary occupancy and corresponding Section 4(f) exception determination under 23 CFR § 774.13 (d). In addition, the Town of Bay Harbor Islands acknowledges the temporary occupancy will not include any

Mr. Steven Craig James
District Environmental Administrator
Florida Department of Transportation, District Six
April 8, 2024
Page 3

permanent conversion of park property to transportation use and will not require any access changes or closures throughout the park property.

Should you have any questions or require additional information, please contact my office at 305-866-6241 or by email mlasday@bayharborislands-fl.gov.

Sincerely,



Maria Lasday
Town Manager
Town of Bay Harbor Islands

DRAFT

Lasher, Wendy G

From: Vogt, Victoria <Victoria.Vogt@dot.state.fl.us>
Sent: Wednesday, November 15, 2023 9:23 AM
To: Browne, Samantha
Cc: James, Steven C.; McMullen, Robert; Ruiz, Sebastian; Lasher, Wendy G
Subject: FM # 452428-1 Broad Causeway Bridge PD&E Section 4(f) Statement of Significance - FL Circumnavigational Saltwater Paddling Trail
Attachments: Segment 16 Maps 1_12_23.pdf; BroadCauseway_4f_PaddlingTrailDetour.pdf
Importance: High

Good afternoon Ms. Browne,

This is follow-up to our e-mail on October 2, 2023, requesting the Statement of Significance for the Florida Circumnavigational Saltwater Paddling Trail.

The Town of Bay Harbor Islands (Town) is conducting a Project Development & Environment (PD&E) Study to evaluate replacement of the Broad Causeway Bridge from Causeway Island to East of West Broadview Drive in Miami-Dade County.

This is a Town of Bay Harbor Islands (Town) project. Since federal funding may be used in future phases of the project, the Florida Department of Transportation (FDOT) will provide technical assistance during PD&E Study. The Federal Highway Administration (FHWA) is the Lead Federal agency and the FDOT Office of Environmental Management will be approving the National Environmental Policy Act (NEPA) documents on behalf of FHWA. The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the FDOT pursuant to 23 U.S.C. §327 and a Memorandum of Understanding dated May 26, 2022, executed by the FHWA and FDOT.

The Florida Circumnavigational Saltwater Paddling Trail follows the Intracoastal Waterway under the existing Broad Causeway Bridge. See attached Florida Department of Environmental Protection (FDEP) Segment 16 map with the Broad Causeway Bridge identified. The Town has chosen Alternative 1 (high-level fixed bridge) as the Preferred Alternative proposed to be constructed on the south side of the existing bridge location and will utilize the same navigational channel. Since the proposed roadway improvements use federal funds, the FDOT must follow the evaluation process outlined in Section 4(f) (49 U.S.C § 303) of the U.S. Department of Transportation Act, which protects recreational properties, among others.

As part of the Section 4(f) process, the Town in cooperation with the FDOT must coordinate with the Official with Jurisdiction (OWJ) over the park facility which is the FDEP. In the absence of a determination of significance from the FDEP, the Town and FDOT are moving forward with our Section 4(f) process and will presume that the Florida Circumnavigational Saltwater Paddling Trail "is" a significant recreational resource. Significance means that in comparing the availability and function of the recreation area, park, or wildlife and waterfowl refuge area with the recreational, park and refuge objectives of that community, the land in question plays an important role in meeting those objectives.

Since the Town cannot avoid the Florida Circumnavigational Saltwater Paddling Trail at the Intracoastal Waterway under the existing Broad Causeway Bridge, our next step is to minimize harm to the trail and determine a temporary detour route for the trail. Attached is a graphic with our proposed alternative detour route around Bay Harbor Islands. The vertical clearance of Bridge No. 875103 between Bay Harbor Islands and Bal Harbour is 11.8 feet.

We are requesting your review of the proposed detour route. Please let us know if you approve and/or would like to meet and discuss further. We would like to receive your response no later than **Friday, December 8, 2023**, to continue this Section 4(f) evaluation process within the scheduled timeframe. Please let me know if you have any questions. Feel free

to contact me at the phone number or email below, or you may contact the Town's consultant assistant project manager, Mrs. Wendy Lasher, at 813-281-8309 or wendy.lasher@atkinsrealis.com. Thank you in advance for your assistance.

Victoria Vogt, M.S., FCCM
District Cultural Resources Coordinator/
Environmental Supervisor

Planning and Environmental Management Office
Florida Department of Transportation - District 6
Adam Leigh Cann Building
1000 NW 111th Avenue, Room 6111
Miami, Florida 33172

Phone: (305) 470-5420; Fax: (305) 470-5205

E-mail: Victoria.Vogt@dot.state.fl.us

From: Vogt, Victoria <Victoria.Vogt@dot.state.fl.us>

Sent: Monday, October 2, 2023 3:03 PM

To: Browne, Samantha <samantha.browne@dep.state.fl.us>

Cc: James, Steven C. <Steven.James@dot.state.fl.us>; McMullen, Robert <Robert.McMullen@dot.state.fl.us>; Lasher, Wendy G <Wendy.Lasher@atkinsrealis.com>

Subject: FM # 452428-1 Broad Causeway Bridge PD&E Section 4(f) Statement of Significance - FL Circumnavigational Saltwater Paddling Trail

Importance: High

Good afternoon Ms. Browne,

The Town of Bay Harbor Islands (Town) is conducting a Project Development & Environment (PD&E) Study to evaluate replacement of the Broad Causeway Bridge from Causeway Island to East of West Broadview Drive in Miami-Dade County.

This is a Town of Bay Harbor Islands project. Since federal funding may be used in future phases of the project, the Florida Department of Transportation (FDOT) will provide technical assistance during the PD&E Study. The Federal Highway Administration (FHWA) is the Lead Federal agency and the FDOT Office of Environmental Management will be approving the National Environmental Policy Act (NEPA) documents on behalf of FHWA. The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the FDOT pursuant to 23 U.S.C. §327 and a Memorandum of Understanding dated May 26, 2022, executed by the FHWA and FDOT.

The Florida Circumnavigational Saltwater Paddling Trail follows the Intracoastal Waterway under the existing Broad Causeway Bridge. See attached Florida Department of Environmental Protection (FDEP) Segment 16 map with the Broad Causeway Bridge identified. The Town is evaluating both Alternative 1 (high-level fixed bridge) and Alternative 2 (mid-level bascule bridge) that is proposed to be constructed on the south side of the existing bridge location and will utilize the same navigational channel. Since the proposed roadway improvements use federal funds, the FDOT must follow the evaluation process outlined in Section 4(f) (49 U.S.C § 303) of the U.S. Department of Transportation Act, which protects recreational properties, among others.

As part of the Section 4(f) process, the Town in cooperation with the FDOT, must coordinate with the Official with Jurisdiction (OWJ) over the park facility. We would like to confirm that the FDEP, as OWJ of this facility, considers the Florida Circumnavigational Saltwater Paddling Trail as a significant recreational resource. Significance means that in comparing the availability and function of the recreation area, park, or wildlife and waterfowl refuge area with the recreational, park and refuge objectives of that community, the land in question plays an important role in meeting

those objectives. Please see the attached template Statement of Significance letter for your use. Please review the letter, update, sign and return this letter back to the FDOT on FDEP letterhead.

If the Florida Circumnavigational Saltwater Paddling Trail is considered significant, we can provide additional information regarding preliminary design alternatives and our proposed detour route for your review and discussion, if warranted.

We would like to receive your response no later than **Monday, October 16, 2023**, to continue this Section 4(f) evaluation process within the scheduled timeframe. Please let me know if you have any questions. Feel free to contact me at the phone number or email below, or you may contact the Town's consultant assistant project manager, Mrs. Wendy Lasher, at 813-404-4979 or wendy.lasher@atkinsglobal.com. Thank you in advance for your assistance.

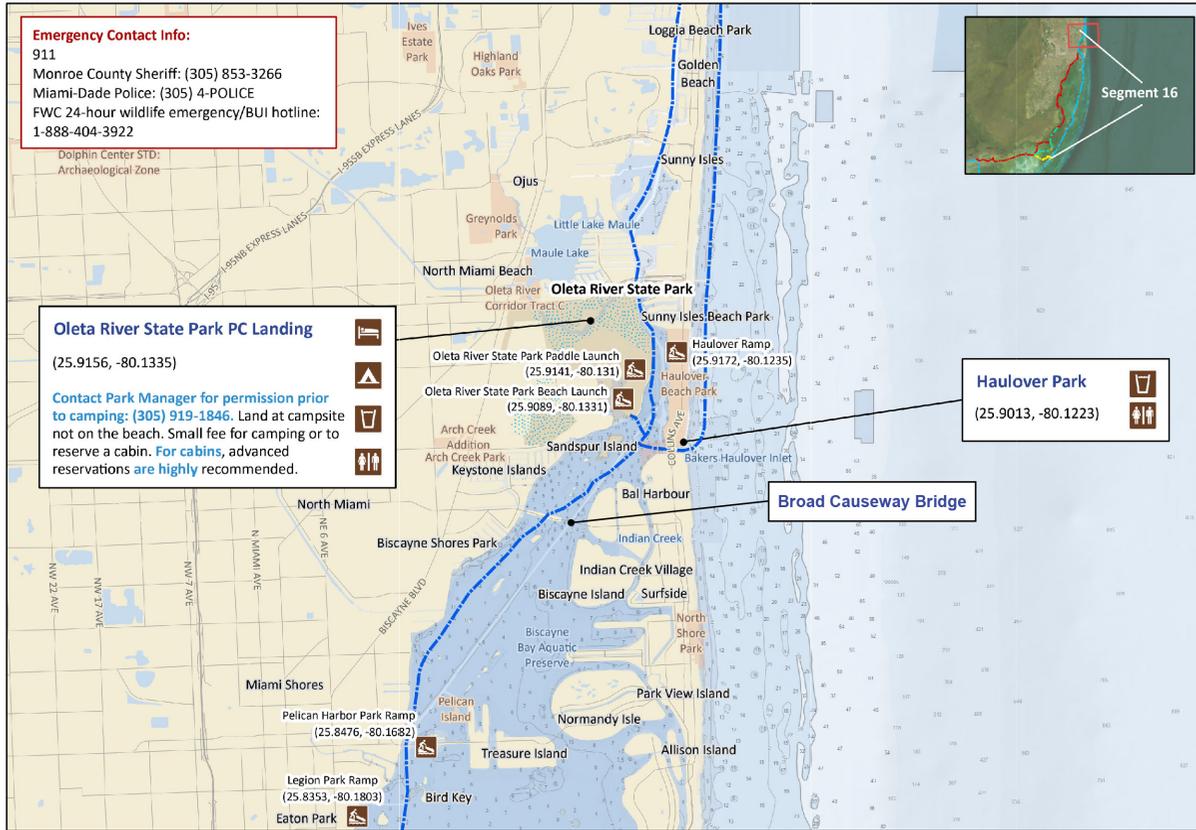
Victoria Vogt, M.S., FCCM
District Cultural Resources Coordinator/
Environmental Supervisor

Planning and Environmental Management Office
Florida Department of Transportation - District 6
Adam Leigh Cann Building
1000 NW 111th Avenue, Room 6111
Miami, Florida 33172

Phone: (305) 470-5420; Fax: (305) 470-5205
E-mail: Victoria.Vogt@dot.state.fl.us

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Florida Circumnavigational Saltwater Paddling Trail



Emergency Contact Info:
 911
 Monroe County Sheriff: (305) 853-3266
 Miami-Dade Police: (305) 4-POLICE
 FWC 24-hour wildlife emergency/BUI hotline:
 1-888-404-3922

Oleta River State Park PC Landing
 (25.9156, -80.1335)

Contact Park Manager for permission prior to camping: (305) 919-1846. Land at campsite not on the beach. Small fee for camping or to reserve a cabin. For cabins, advanced reservations are highly recommended.

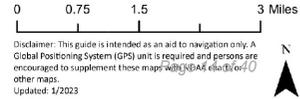
Haulover Park
 (25.9013, -80.1223)

Broad Causeway Bridge



Florida Circumnavigational Saltwater Paddling Trail
Segment 16: Biscayne Bay (Map 7 of 7)

Begin: John Pennekamp State Park, Key Largo
 End: Oleta River State Park
 Distance: 72.5 miles depending on route
 Duration: 5-6 days



Broad Causeway Bridge Replacement PD&E Study

Town of Bay Harbor Islands Miami - Dade County, Florida FPID: 452428-1-21-01

Florida Circumnavigational Saltwater Paddling Trail Proposed Detour Route



Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

- Paddling Trail**
- Existing Paddling Trail
 - Proposed Paddling Trail Detour

Broad Causeway Bridge Replacement PD&E Study

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022, and executed by the Federal Highway Administration and FDOT.



Florida Department of Transportation

RON DESANTIS
GOVERNOR

1000 N.W. 111 Avenue
Miami, Florida 33172

JARED W. PERDUE, P.E.
SECRETARY

April 29, 2024

Alissa S. Lotane
Director, Division of Historical Resources, and
State Historic Preservation Officer
R.A. Gray Building
500 S. Bronough Street
Tallahassee FL 32399-0250

Attn: Alyssa McManus, Transportation Compliance Review Program

Re: Cultural Resource Assessment Survey for the Broad Causeway Bridge Replacement
PD&E Study, Financial Project Identification (FPID) No. 452428-1-21-01

Dear Ms. Lotane,

On behalf of the Town of Bay Harbor Islands and the Florida Department of Transportation District 6 (FDOT), AtkinsRéalis has prepared this Cultural Resource Assessment Survey (CRAS) for the Broad Causeway Bridge Replacement Project Development and Environment (PD&E) Study, Financial Project Identification (FPID) No. 452428-1-21-01. This locally funded project spans the Broad Causeway Bridge (FDOT Bridge No. 875101) that crosses the Intracoastal Waterway and connects the City of North Miami with the Town of Bay Harbor Islands within Section 27 of Township 52 South, Range 42 East in Miami-Dade County, Florida. The project will require state and federal permits.

Proposed improvements for this project include the replacement of the current Broad Causeway Bridge. This PD&E Study will evaluate the potential effects of bridge replacement alternatives. The height and width of the bridge will be increased to meet current design standards and United States Coast Guard (USCG) requirements, which have the potential to change the visual setting of the area. Future bridge concepts may incorporate dedicated bicycle lanes and sidewalks as well as guardrails to comply with the Americans with Disabilities Act of 1990 (ADA) and increase safety for pedestrians and cyclists. No right-of-way (ROW) acquisition is anticipated for the project.

Alissa S. Lotane, Director
Broad Causeway Bridge Replacement PD&E Study
Miami-Dade County
FPID No.: 452428-1-21-01
April 29, 2024
Page 2

This assessment is designed to comply with Section 106 of the *National Historic Preservation Act* (NHPA) of 1966 (Public Law 89-665), as amended, as implemented by 36 Code of Federal Regulations (CFR) 800 (Protection of Historic Properties, effective August 2004), as well as Chapter 267, *Florida Statutes* (FS), Chapter 1A-46, *Florida Administrative Code* (FAC), and Stipulation VII of the *Section 106 Programmatic Agreement* among the Federal Highway Administration (FHWA), the Florida Department of Transportation (FDOT), the Advisory Council on Historic Preservation (ACHP), and the Florida State Historic Preservation Officer (SHPO) regarding Implementation of the Federal-aid Highway Program in Florida (2023 PA). All work will be performed in accordance with the standards outlined in the *Cultural Resources Management Standards and Operational Manual* (Florida Division of Historical Resources [FDHR], 2003), the *Cultural Resource Management Handbook* (Florida Department of Transportation [FDOT] 2013), and the *Project Development and Environment Manual* (FDOT 2023). All work also conforms to professional guidelines set forth in the *Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation* (48 FR 44716, as amended and annotated). Principal Investigators meet the *Secretary of the Interior's Professional Qualification Standards* (48 FR 44716) for archaeology, history, architecture, architectural history, or historic architecture.

The purpose of this CRAS is to locate and identify any cultural resources located within the Area of Potential Effects (APE) that have been established based on the proposed bridge replacement alternatives. Because the anticipated changes could potentially affect existing historic districts and other cultural resources, the historical APE has been developed through a viewshed analysis using the Geodesic Viewshed tool in the Environmental Systems Research Institute (ESRI) Arc GIS Pro proprietary software. Conceptual bridge locations were extracted from the concept designs developed by AtkinsRéalis and the visual impacts were evaluated to establish the historical APE for the project using the Geodesic Viewshed tool. The APE was then refined to only include parcels within a ½ mile radius that orient towards the project area. Based upon the scale and nature of the activities, the archaeological APE was limited to the parcels in which potential ground disturbance may take place.

Background research identified a total of nine (9) previously recorded historic resources and no previously recorded archaeological sites within the project APE. These included one (1) previously recorded linear resource (Broad Causeway [8DA10123, FDOT Bridge No. 875101]), six (6) previously recorded historic structures (9530 W Broadview Drive [8DA10268], 9520 W Broadview Drive [8DA10269], 9740 W Broadview Drive [8DA10431], 9720 W Broadview Drive [8DA10433], 9700 W Broadview Drive [8DA10435], and Citgo [8DA10436]), and two (2) previously recorded resource groups (Bay Harbor Islands Historic District [8DA10515] and Keystone Islands [8DA11549]). No previously recorded archaeological sites were identified within a half-mile radius of the project area. A FMSF update form was prepared for the previously recorded 9700 W Broadview Drive (8DA10435) historic structure since the previous FMSF form did not meet current Florida Division of Historical Resources (FDHR) standards. FMSF forms were not updated for other previously recorded resources as they met current standards and had not been altered since last recording.

Alissa S. Lotane, Director
Broad Causeway Bridge Replacement PD&E Study
Miami-Dade County
FPID No.: 452428-1-21-01
April 29, 2024
Page 3

The architectural field survey also identified 20 previously unrecorded resources within the project APE. This included 17 structures (8DA21585-8DA21593, 8DA21598-8DA21599, and 8DA21602-8DA21607) and three (3) resource groups (Broad Causeway Island [8DA21594], Indian Creek Country Club Golf Course [8DA21608], and Town of Bay Harbor Islands Playground [8DA21621]). New FMSF forms were prepared for each of these unrecorded historic resources. No previously unrecorded archaeological sites were identified during the field survey.

The results of the CRAS identified five (5) historic resources eligible for listing in the National Register of Historic Places (NRHP) within the historical APE. This includes one (1) linear resource (Broad Causeway [8DA10123, FDOT Bridge No. 875101]) and four (4) structures (Citgo [8DA10436], 2395 Bayview Lane [8DA21593], Whitehouse Inn on the Bay [8DA21598], and Majorca Towers [8DA21599]). Three (3) resource groups (Bay Harbor Islands Historic District [8DA10515], Keystone Islands [8DA11549], and Indian Creek Country Club Golf Course [8DA21608]) were identified that had insufficient information to evaluate eligibility for listing in the NRHP as part of this project. Additionally, seven (7) historic resources were found within the APE that contribute to the Bay Harbor Islands Historic District (8DA10515) (Broad Causeway [8DA10123, FDOT Bridge No. 875101], 9700 W Broadview Drive [8DA10435], Citgo [8DA10436], Broad Causeway Island [8DA21594], 9600 Broadview Terrace [8DA21603], 1371 96th Street [8DA21606], and 1330 96th Street [8DA21607]), although this district has insufficient information to fully evaluate. The background research and field survey also identified 12 historic resources considered ineligible for listing in the NRHP that are also considered as non-contributing resources to a historic district. No archaeological sites were identified that are potentially eligible for listing in the NRHP within the archaeological APE.

Based on the results of this CRAS, adverse effects to historic properties are anticipated. A Section 106 Determination of Effects Case Study Report will be provided to the SHPO for review.

We kindly request that this cover letter is reviewed, and concurrence is provided by your office. This information is provided in accordance with the provisions contained in 36 CFR, Part 800, as well as the provisions contained in the revised F.S. Chapter 267. If you have any questions regarding the subject project, please contact me at Victoria.Vogt@dot.state.fl.us or (305) 470-5420.

Sincerely,

DocuSigned by:

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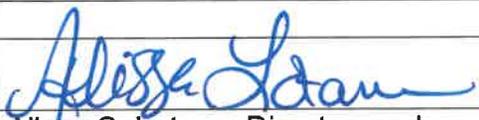
Victoria Vogt, M.S.
District Cultural Resources Coordinator

Alissa S. Lotane, Director
Broad Causeway Bridge Replacement PD&E Study
Miami-Dade County
FPID No.: 452428-1-21-01
April 29, 2024
Page 4

The Florida State Historic Preservation Officer finds the attached Cultural Resource Assessment Survey Report complete and sufficient and concurs / does not concur with the recommendations and findings provided in this cover letter for SHPO/FDHR Project File Number 2024-945D. Or, the SHPO finds the attached document contains insufficient information.

In accordance with the *Programmatic Agreement Among the FHWA, the FDOT, the ACHP, and the SHPO Regarding Implementation of the Federal-Aid Highway Program in Florida (2023 PA)*, and appended materials, if providing concurrence with a finding of **No Historic Properties Affected** for a whole project, or to **No Adverse Effect** on a specific historic property, SHPO shall presume that FDOT may pursue a *de minimis* use of the affected historic property in accordance with Section 4(f) as set forth within 23 C.F.R. Part 774 and its implementing authorities, as amended, and that their concurrence as the official with jurisdiction (OWJ) over the historic property is granted.

SHPO Comments:



Alissa S. Lotane, Director, and
State Historic Preservation Officer
Florida Division of Historical Resources

[DATE]

5/6/24



From: Town of Bay Harbor Islands
RE: Broad Causeway Bridge PD&E Study
To: Miami-Dade County Office of Historic Preservation
Stephen P. Clark Center
111 NW 1st Street, 12th Floor
Miami, FL 33128

Town Council

Elizabeth Tricoche
Mayor

Joshua D. Fuller
Vice Mayor

Stephanie Bruder
Council Member

Molly Diallo
Council Member

Teri D'Amico
Council Member

Isaac Salver
Council Member

Robert Yaffe
Council Member

Attached is a Cultural Resource Assessment Survey (CRAS) for the Broad Causeway Bridge Replacement Project Development and Environment (PD&E) Study, Financial Project Identification (FPID) No. 452428-1-21-01, prepared for the Town of Bay Harbor Islands and FDOT District 6. This locally funded project spans the Broad Causeway Bridge (FDOT Bridge No. 875101) that crosses the Intracoastal Waterway and connects the City of North Miami with the Town of Bay Harbor Islands within Section 27 of Township 52 South, Range 42 East in Miami-Dade County, Florida. The project will require state and federal permits.

Proposed improvements for this project include the replacement of the current Broad Causeway Bridge. The PD&E Study evaluates the potential effects of bridge replacement alternatives that will utilize a new alignment adjacent to the existing bridge. The height and width of the bridge will be increased to meet current design standards and United States Coast Guard (USCG) requirements, which have the potential to change the visual setting of the area. Future bridge concepts will incorporate dedicated bicycle lanes and sidewalks as well as guardrails to comply with the Americans with Disabilities Act of 1990 (ADA) and increase safety for pedestrians and bicyclists.

Town Officials

Maria Lasday
Town Manager

Yvonne Hamilton
Town Clerk

Greenspoon Marder LLP
Town Attorneys
By: Joseph Geller, Esq.

The Town of Bay Harbor Islands asks for your review and comments, if any, on the attached CRAS to ensure that it is complete and accurate regarding historic resources within the project area of potential effect. Responses would be appreciated within 30 days of this notification.

Sincerely,

A handwritten signature in blue ink that reads "Rodney Carrero-Santana".

Rodney Carrero-Santana, PE, CFM, LEED AP
Project Manager, Town of Bay Harbor Islands
Office (305) 866-6241
Email: rcarrerosantana@bayharborislands-fl.gov

MAYOR JOSEPH J. GARDNER GOVERNMENT CENTER

Peck, Jo-Anne

From: Cody, Sarah (RER) <Sarah.Cody@miamidade.gov>
Sent: Thursday, January 11, 2024 1:50 PM
To: Peck, Jo-Anne; Historic Preservation (RER)
Cc: Lasher, Wendy G; rcarrerosantana@bayharborislands-fl.gov; Ransom, Jeff (RER)
Subject: RE: Broad Causeway Bridge Replacement PD&E Study

Hi Jo-Anne,

Thanks very much for providing the study. We have reviewed and we do not have any comments or concerns about the APE or viewshed. Our office has not undertaken our own survey work in that particular area of Bay Harbor Islands, so we are not aware of any resources in addition to those that you've identified in the study.

Please let me know if you have any questions.

Thanks,

Sarah Cody | Historic Preservation Chief

[Office of Historic Preservation | Miami-Dade County](#)

(305) 375-4438 (office)

(786) 637-0748 (cell)

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All Lobbyists must register with the Clerk of the Board prior to any meeting with County Personnel. [Register online](#) or in person at 111 NW 1st Street, 17th Floor, Miami, FL 33128. The Clerk's Office phone number is 305-375-5137.

From: Peck, Jo-Anne <FiletransferNA@atkinglobal.com>
Sent: Wednesday, December 20, 2023 4:54 PM
To: Historic Preservation (RER) <historicpreservation@miamidade.gov>
Cc: Wendy.Lasher@atkinsrealis.com; rcarrerosantana@bayharborislands-fl.gov
Subject: Broad Causeway Bridge Replacement PD&E Study

EMAIL RECEIVED FROM EXTERNAL SOURCE

Attached is a Cultural Resource Assessment Survey (CRAS) for the Broad Causeway Bridge Replacement Project Development and Environment (PD&E) Study, Financial Project Identification (FPID) No. 452428-1-21-01, prepared for the Town of Bay Harbor Islands and FDOT District 6.

The Town of Bay Harbor Islands asks for your review and comments, if any, on the attached CRAS to ensure that it is complete and accurate regarding historic resources within the project area of potential effect. Responses would be appreciated within 30 days of this notification.

- Jo-Anne Peck

Section 4(f) Resources

Florida Department of Transportation

TOWN OF BAY HARBOUR ISLANDS - BROAD CAUSEWAY BRIDGE PD&E STUDY

District: FDOT District 6

County: Miami-Dade County

ETDM Number: 14520

Financial Management Number: 452428-1-21-01

Federal-Aid Project Number: D624-029-B

Project Manager: Kimberly Taveras

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT. Submitted pursuant 49 U.S.C. § 303.

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DRAFT

Summary and Approval

Resource Name	Facility Type	Property Classification	Owner/Official with Jurisdiction	Recommended Outcome	OEM SME Action
Florida Circumnavigational Saltwater Paddling Trail	Paddling Trail	Park/Rec Area	FDEP	No Use	Determination Pending
Town of Bay Harbor Islands Tot Lot	Local park with playground and picnic area	Park/Rec Area	Town of Bay Harbor Islands	Exception/Exemption	Determination Pending
Broad Causeway (8DA10123, FDOT Bridge No. 875101)	National Register of Historic Places (NRHP)-eligible Historic Bridge	Historic Site	Town of Bay Harbor Islands/State Historic Preservation Officer (OWJ)	Programmatic	Concurrence Pending
Bay Harbor Islands Historic District (8DA10515)	Historic District	Historic Site	State Historic Preservation Officer	No Use	Determination Pending
Citgo/1501 Broad Causeway (8DA10436)	NRHP-eligible Historic Structure	Historic Site	Town of Bay Harbor Islands/State Historic Preservation Officer (OWJ)	No Use	Determination Pending

Director of the Office of Environmental Management
Florida Department of Transportation

Florida Circumnavigational Saltwater Paddling Trail

Facility Type: Paddling Trail

Property Classification: Park/Rec Area

Address and Coordinates:

Address: Biscayne Bay, FL, USA

Latitude: 25.531430 Longitude: -80.083263

Description of Property:

The Florida Circumnavigational Saltwater Paddling Trail (Paddling Trail) begins at Big Lagoon State Park near Pensacola, extending around the Florida peninsula and Keys, and ending at Fort Clinch State Park near the Georgia state line in Fernandina Beach. The Florida Circumnavigational Saltwater Paddling Trail is a 1,515-mile sea kayaking paradise. It is the country's longest designated national recreation trail. Within the project area the trail follows the Intracoastal Waterway (ICWW) under the existing Broad Causeway Bridge. The Paddling Trail has also been identified as a Section 4(f) resource and the OWJ is the Florida Department of Environmental Protection (FDEP).

Owner/Official with Jurisdiction: FDEP

Relationship Between the Property and the Project

The Paddling Trail follows the ICWW under the existing Broad Causeway Bridge as shown on the attached Florida Department of Environmental Protection (FDEP) Segment 16 map (Page 26). Since the Town cannot avoid the Paddling Trail at the ICWW under the existing Broad Causeway Bridge, measures to maintain access to the Paddling Trail will be developed and a temporary detour route for the trail was developed as shown in the attached Project Detour Route Map around Bay Harbor Islands shown on Page 25. The vertical clearance Bridge No. 875103 to be used for the detour between Bay Harbor Islands and Bal Harbour along the detour route is 11.8 ft. As such, the access to the Paddling Trail will be maintained during and after the project. The new bridge is being constructed within the existing right of way so there is no acquisition or occupation of land from the protected property on either a temporary or permanent basis, and no meaningful proximity impacts to protected property. The project will have 'No Use' of the Paddling Trail within the meaning of Section 4(f).

The FDOT, on behalf of the Town of Bay Harbor Islands (Town), sent emails to the FDEP on October 2, 2023, and November 15, 2023, concerning a determination of significance and the proposed detour route. The most recent letter is attached on Page 27. Responses have not been received to date from the FDEP. In the absence of a determination of significance from the FDEP, the Town and FDOT have moved forward with the Section 4(f) process and have presumed that the Florida Circumnavigational Saltwater Paddling Trail "is" a significant recreational resource within the meaning of Section 4(f) [49 United States Code (U.S.C.) 303] of the U.S. Department of Transportation Act regulations.

The Town will coordinate with FDEP Office of Greenways and Trails during design regarding the temporary detour of the Florida Circumnavigational Saltwater Paddling Trail during construction of the new Broad Causeway Bridge. The Town will provide detour notifications to FDEP for posting on their website regarding the temporary closure.

Yes No

Will the property be "used" within the meaning of Section 4(f)?

Recommended Outcome: No Use

OEM SME Determination Date: Pending

DRAFT

Town of Bay Harbor Islands Tot Lot

Facility Type: Local park with playground and picnic area

Property Classification: Park/Rec Area

Address and Coordinates:

Address: 9600 W Broadview Dr, Bay Harbor Islands, FL, 33154, USA

Latitude: 25.88682 Longitude: -80.13689

Description of Property:

The Town-owned Tot Lot located on the northeast side of the bridge at 9600 West Broadview Drive has been identified as a significant Section 4(f) resource under US DOT Act of 1966. It is a gated park with shaded playground equipment which includes American with Disability Act (ADA) accessible components and a picnic pavilion. The park has frontage on the Intracoastal Waterway on the west side and is surrounded by residential properties on the north, West Broadview Drive on the east and Kane Concourse on the south. The park has parking and access on West Broadview Drive and is open from Sunrise to Sunset, year-round.

The project will be constructed within the existing right-of-way. A portion of the project is located adjacent to the Tot Lot. A temporary construction area will be needed to construct a new seawall where the Tot Lot is located as shown on the map attachment on Page 34. The new seawall will be constructed behind the existing seawall. An additional ~4 feet along the water's edge will be used for the new seawall, but the land will remain park property. The new seawall will provide an enhancement to the park because the Town is increasing the long-term stability of the seawall. The temporary construction area will be ~20 feet inland from the water's edge and will temporarily remove the Tot Lot picnic pavilion. The Town will temporarily move the Tot Lot perimeter fence from the water's edge to the east side of the picnic pavilion and temporarily remove the pavilion as shown on the attached map. An additional construction fence will be installed. This seawall construction will occur after the removal of the existing bridge and will last ~12 weeks. Once construction is complete, the perimeter fence will be restored to a new location between the water's edge and the pavilion, and the pavilion will be returned to its original location or will be replaced with amenities the Town chooses to have.

On April 8, 2024, the Town of Bay Harbor Islands, as the Official with Jurisdiction, provided a formal Statement of Significance letter for Town off Bay Harbor Islands Tot Lot and concurrence for the temporary occupancy and corresponding Section 4(f) exception determination under 23 CFR 774.13 (d). In addition, the Town of Bay Harbor Islands acknowledged the temporary occupancy will not include any permanent conversion of park property to transportation use and will not require any access changes or closures throughout the park property. The letter is included in the attachments on Page 35.

The project will not permanently convert Tot Lot property to transportation use. Furthermore, the proposed work will not require any access changes or closures. To accommodate the temporary construction area, the project will satisfy the conditions of a temporary occupancy of the Town Tot Lot that is so minimal as to not constitute a 'use' within the meaning of Section 4(f). As such, the project the project anticipates meeting the conditions of 23 CFR 774.13(d)(1-5) to have a temporary occupancies of land that is so minimal as to not constitute a use within the meaning of Section 4(f). The duration will be less than the time needed for construction of the project and there will be no change in ownership of land. The scope of work is minor and there are no adverse impacts to the protected activities, features, and attributes or a temporary or permanent bases. The park will be fully restored to current condition or better and all plans have been concurred with by the OWJ for the park.

Owner/Official with Jurisdiction: Town of Bay Harbor Islands

Recommended Outcome: Exception/Exemption

Exception/Exemption Type: Temporary occupancies of land that are so minimal as to not constitute a use within the meaning of Section 4(f) and that meet all of the conditions in (23 CFR 774.13(d)(1-5)).

Exception/Exemption Justification:

The project will not permanently convert Tot Lot property to transportation use. Furthermore, the proposed work will not require any access changes or closures. To accommodate the temporary construction area, the project will satisfy the conditions of a temporary occupancy of the Town Tot Lot that is so minimal as to not constitute a 'use' within the meaning of Section 4(f). As such, the project anticipates meeting the conditions of 23 CFR 774.13(d)(1-5) to have a temporary occupancies of land that is so minimal as to not constitute a use within the meaning of Section 4(f).

OEM SME Determination Date: Pending

DRAFT

Broad Causeway (8DA10123, FDOT Bridge No. 875101)

Facility Type: National Register of Historic Places (NRHP)-eligible Historic Bridge

Property Classification: Historic Site

Address and Coordinates:

Address: Broad Cswy, Bay Harbor Is, FL, 33154, USA

Latitude: 25.88652 Longitude: -80.13888

Description of Property:

The Broad Causeway (8DA10123, FDOT Bridge No. 875101) linear resource spans from the man-made Broad Causeway Island (8DA21594) in the Intracoastal Waterway to the western Bay Harbor Island. Broad Causeway is a movable Bascule steel and poured concrete bridge that features Miami Modern (MiMo) style elements and two tender stations west of the movable span. The rectangular-shaped man-made Broad Causeway Island (8DA21594) to its west contains the Citgo (1501 Broad Causeway [8DA10436]) historic structure. The Broad Causeway was **determined individually NRHP-eligible by SHPO** under Criterion A for its association with the development of the Bay Harbor Islands during the post-World War II Boom as part of Survey 25327 (SEARCH 2018) on August 15, 2018. The bridge may also be significant under Criterion C for its Miami Modern (MiMo) styling that is utilized throughout the Town of Bay Harbor Islands; however, this criterion was not included in the 2018 NRHP evaluation. These historic resources are shown on the map attachment on Page 39. Additionally, Broad Causeway (8DA10123) is a contributing resource to the Bay Harbor Islands Historic District (8DA10515).

Owner/Official with Jurisdiction: Town of Bay Harbor Islands/State Historic Preservation Officer (OWJ)

Recommended Outcome: Programmatic (Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges)

Describe in detail how the Section 4(f) property will be used.

The Preferred High-Level Fixed Bridge Alternative proposes to remove and replace the Broad Causeway Bridge (8DA10123, FDOT Bridge 875101) with a fixed-span bridge with a vertical navigational clearance level of 65 feet above the MHW level. Based on the Criteria of Adverse Effect, the Preferred Alternative will have an Adverse Effect on the NRHP-eligible Broad Causeway (8DA10123, FDOT Bridge No. 875101) resource since it requires the demolition of the existing bridge. There are no feasible and prudent alternatives to the use of Broad Causeway Bridge and that the project included all possible planning to minimize harm resulting from such use. Mitigation for the demolition of Broad Causeway Bridge is captured in the Section 106 Memorandum of Agreement. The Broad Causeway Bridge (8DA10123) is documented as a *Programmatic Section 4(f) Evaluation and Approval for FHWA (Federal Aid) Projects that Necessitate the Use of Historic Bridges*.

The Alternatives and Findings information requested below can be found in the Attachments on Page 40.

Applicability

Yes No

Does the project meet all of the following criteria?

1. The bridge is to be replaced or rehabilitated with Federal funds.

2. The project will require the use of a historic bridge structure which is on or is eligible for listing on the National Register of Historic Places.
3. The bridge is not a National Historic Landmark.
4. FDOT has determined that the facts of the project match those set forth in the sections below labeled Alternatives, Findings, and Measures to Minimize Harm.
5. Agreement among FDOT, the State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (ACHP), if participating, has been reached through procedures pursuant to Section 106 of the NHPA.

Alternatives and Findings

1. No Build: The No Build Alternative has been studied and does not meet the Section 4(f) prudent and feasible standard. The No Build Alternative is not recommended based on the following:
 - **Structural Deficiencies:** The No Build Alternative does not correct the situation that causes the bridge to be considered structurally deficient or significantly deteriorated. These deficiencies can lead to eventual structural failure/collapse. Normal maintenance is not considered adequate to address these deficiencies.
 - **Functional/Geometric Deficiencies:** The No Build Alternative does not correct the situation that causes the bridge to be considered functionally/geometrically deficient. These deficiencies can lead to safety hazards to the traveling public or place unacceptable restrictions on transport and travel.
2. Build on New Location Without Using the Old Bridge: This alternative has been studied and does not meet the Section 4(f) prudent and feasible standard. The New Location Alternative is not recommended based on the following:
 - **Structural Deficiencies:** The New Location Alternative does not correct the situation that causes the bridge to be considered structurally deficient or significantly deteriorated. These deficiencies can lead to eventual structural failure/collapse. Normal maintenance is not considered adequate to address these deficiencies.
 - **Functional/Geometric Deficiencies:** The New Location Alternative does not correct the situation that causes the bridge to be considered functionally/geometrically deficient. These deficiencies can lead to safety hazards to the traveling public or place unacceptable restrictions on transport and travel.
3. Rehabilitation Without Affecting the Historic Integrity of the Bridge: This alternative has been studied and does not meet the Section 4(f) prudent and feasible standard. The Rehabilitation Alternative is not recommended based on the following:
 - **Structural Deficiencies:** The Rehabilitation Alternative does not correct the situation that causes the bridge to be considered structurally deficient or significantly deteriorated. These deficiencies can lead to eventual structural failure/collapse. Normal maintenance is not considered adequate to address these deficiencies.
 - **Functional/Geometric Deficiencies:** The Rehabilitation Alternative does not correct the situation that causes the bridge to be considered functionally/geometrically deficient. These deficiencies can lead to safety hazards to the traveling public or place unacceptable restrictions on transport and travel.
4. Replacement: The Replacement Alternative has been studied and is determined to meet the Section 4(f) prudent and feasible standard. The Replacement Alternative is recommended based on the following:
 - **Structural Deficiencies:** The Replacement Alternative corrects the situation that causes the bridge to be considered structurally deficient or significantly deteriorated.
 - **Functional/Geometric Deficiencies:** The Replacement Alternative corrects the situation that causes the bridge to be considered functionally/geometrically deficient.

Measures to Minimize Harm

- For bridges that are to be rehabilitated, the historic integrity of the bridge is preserved, to the greatest extent possible, consistent with unavoidable transportation needs, safety, and load requirements;
- For bridges that are to be rehabilitated to the point that the historic integrity is affected or that are to be moved or demolished, FDOT ensures that, in accordance with the Historic American Engineering Record (HAER) standards, or other suitable means developed through consultation, fully adequate records are made of the bridge;
- For bridges that are to be replaced, the existing bridge is made available for an alternative use, provided a responsible party agrees to maintain and preserve the bridge; and
- For bridges that are adversely affected, agreement among the SHPO, FDOT, and ACHP (if participating in consultation) is reached through the Section 106 process of the NHPA on measures to minimize harm and those measures are incorporated into the project. This programmatic Section 4(f) evaluation does not apply to projects where such an agreement cannot be reached.

The proposed project meets all the applicable criteria set forth by the Federal Highway Administration's (FHWA) Guidance on Programmatic Section 4(f) Evaluation and Approval for FHWA Projects Which Necessitate the Use of Historic Bridges (23 CFR Part 774). All alternatives set forth in the subject programmatic evaluation were fully analyzed and the findings made are clearly applicable to this project. There are no feasible and prudent alternatives to the use of the historic bridge, and the project includes all possible planning to minimize harm.

Public Involvement Activities:

Public workshops involving Federal, State, and Local stakeholders for this project were held in-person on September 26, 2023, and virtually on September 28, 2023. The information provided included a project overview and a presentation of the proposed alternatives and their evaluation. The meeting also included information on how to stay informed of the project's progress, how to comment on the project, as well as a question-and-answer session. The meeting was also recorded for those unable to attend and was made available on the Town of Bay Harbor Islands website for the project. A Public Hearing was held on June 24, 2024. Impacts to historic and Section 4(f) resources was provided to the public and announced in the presentation at the Hearing. No comments were received concerning these resources.

The CRAS report was provided to the Miami-Dade Office of Historic Preservation by the Town of Bay Harbor Islands for their review and comments on December 20, 2023. Sara Cody, Historic Preservation Chief of the Miami-Dade Office of Historic Preservation, replied on January 11, 2024, stating that they had no comments or concerns with the information presented in the CRAS. The CRAS was submitted to the SHPO on April 5, 2024, and concurrence was received on May 6, 2024, and is attached on Page 15.

The Section 106 Case Study Report was provided to the Miami-Dade Office of Historic Preservation by the Town of Bay Harbor Islands for their review and comments on April 17, 2024. The Section 106 Case Study Report was submitted to the SHPO on April 9, 2024.

The CRAS and Section 106 Case Study Report are located in the project file.

Recommendations for mitigating adverse effects are identified in the Case Study Report. Further coordination and consultation will occur among the SHPO, the Town of Bay Harbor Islands with FDOT District 6, the Advisory Council on Historic Preservation, other potential consulting parties, and the public to discuss mitigation avenues to fulfill the Section 106 requirements to resolve adverse effects. The results of the consultation have been recorded in a Draft Memorandum of Agreement (MOA).

OEM SME Concurrence Date: Pending

DRAFT

Bay Harbor Islands Historic District (8DA10515)

Facility Type: Historic District

Property Classification: Historic Site

Address and Coordinates:

Address: Broad Cswy, Bay Harbor Is, FL, 33154, USA

Latitude: 25.88652 Longitude: -80.13888

Description of Property:

The Bay Harbor Islands Historic District (8DA10515) resource group is a well-preserved example of a post-World War II development located on the eastern side of the current project APE. Shepard Broad and Benjamin N. Kane designed and planned the Town of Bay Harbor Islands as a resort-style community in 1945. The Town of Bay Harbor Islands was incorporated on April 27, 1947, with Shepard Broad as its first mayor. A two-lane wooden bridge had been constructed across the Bay Harbor Waterway by that time, and the first structure built on the islands, an eight-unit apartment building, was underway by May 1947. Later that year, the Florida Legislature authorized the construction of the Broad Causeway, which linked the western island with North Miami, and it was opened in 1951. Just over 500 residents occupied 46 private residences within four years of the Town's incorporation. Additional details about the historic district and history of the island can be found in the Cultural Resource Assessment Survey (CRAS) located in the project file.

According to the FMSF (8DA10515), as of 2006, the Bay Harbor Islands Historic District resource group consists of 312 residential and commercial structures representing MiMo, Ranch, and Masonry Vernacular styles constructed from the 1940s through 1957. It is bounded by Indian Creek on the east, by Biscayne Bay and North Miami on the west, Biscayne Bay on the north, and Indian Creek on the south. It was first recorded during Survey No. 13458, and is significant for World War II and Aftermath (1941-1950) and Post-World War II (1940s-1960s) time periods in the areas of Architecture and Community Planning and Development. It was recommended as NRHP-eligible in Survey No. 25327. SHPO determined that there was **insufficient information regarding the NRHP eligibility** of the resource group as part of Survey 25327 on August 15, 2018. Since the majority of this resource group is outside the APE for this project, there will be no further assessment of NRHP eligibility. The **8DA10515 resource group will be evaluated for this project as if determined NRHP-eligible.**

Owner/Official with Jurisdiction: State Historic Preservation Officer

Relationship Between the Property and the Project

Because the anticipated changes could potentially affect existing historic districts and other cultural resources, the historical APE was developed through a viewshed analysis using the Geodesic Viewshed tool in the Environmental Systems Research Institute (ESRI) Arc GIS Pro proprietary software. Conceptual bridge locations were extracted from the concept designs and the visual impacts were evaluated to establish the historical APE for the project using the Geodesic Viewshed tool. The APE was then refined to only include parcels within a 1/2 mile radius that orient towards the project area as shown on the attached map on Page 46.

Seven (7) historic resources were identified within the APE that contribute to the Bay Harbor Islands Historic District (8DA10515) and are shown on the attached map on Page 46. This includes five (5) structures (9700 W Broadview Drive [8DA10435], Citgo [8DA10436], 9600 Broadview Terrace [8DA21603], 1371 96th Street [8DA21606], and 1330 96th Street [8DA21607]), one (1) linear resource (Broad Causeway [8DA10123, FDOT Bridge No. 875101]), and one (1)

resource group (Broad Causeway Island [8DA21594]). Two (2) of these contributing resources are also individually eligible for listing in the NRHP (Broad Causeway [8DA10123, FDOT Bridge No. 875101] and Citgo [8DA10436]). There are no physical impacts to any of the contributing resources within the APE. Other impacts on the contributing resources within the APE will be evaluated as part of the district as a whole.

The replacement bridge alternatives will not be visible from the majority of the Historic District. Therefore, it will not alter the existing visual and aesthetic conditions of the resource group as a whole, its viewshed or setting, and will not introduce any new visually intrusive elements that will affect the resource group. Based on the Criteria of Adverse Effect, the Preferred Alternative would have an Adverse Effect on the potentially NRHP-eligible Bay Harbor Islands Historic District (8DA10515) resource group since it would remove a contributing resource (Broad Causeway Bridge [8DA10123]) that is directly tied to its early developmental history.

In consultation with both of the OWJs, it has been concluded that the proposed project has "no use" of the Bay Harbor Islands Historic District (8DA10515) within the meaning of Section 4(f) based on the following analysis and parameters:

- The Bay Harbor Islands Historic District (8DA10515) was originally recorded as having 312 contributing resources built in or prior to 1957. Additional resources would likely be considered contributing if an updated survey was conducted in the Town due to the large number of original buildings and structures built during the 1960s and early 1970s. With contributing resources numbering in the hundreds, the historic district remains potentially eligible even with the removal of the historic Broad Causeway Bridge (8DA10123) and changes to the Citgo/1501 Broad Causeway (8DA10436) historic setting.
- The Broad Causeway Bridge's contribution to the Bay Harbor Islands Historic District is based in functionality; the construction of said bridge facilitated the development of the historic district by providing access to the area during the period of significance. By constructing a new bridge, the Town is still providing that functionality to the Historic District and therefore does not diminish the integrity of, or prohibit access to, the Historic District.
- The replacement bridge alternatives will not be visible from the majority of the Historic District. Therefore, the project will not alter the existing visual and aesthetic conditions of the resource group as a whole, its viewshed or setting, and will not introduce any new visually intrusive elements that will affect the resource group. Therefore, the project will have no constructive use of the Historic District.
- The degree and nature of the project do not rise to the level of substantial impairment to the characteristics, activities, features, and attributes that make the Historic District potentially eligible for the NRHP and a Section 4(f) protected property.
- In consideration of any mitigative or beneficial aspects to this project, the Broad Causeway Bridge project will provide enhancements to the inhabitants of the Historic District since it will improve vehicular, pedestrian and bicyclist safety by providing wider travel lanes, shoulders and a 14 ft. shared-use path. It will also improve access to the Historic District and emergency evacuation since there will no longer be delays from opening a movable bridge. Lastly, it will provide pedestrian and bicycle recreational facilities noted above including a 14-foot shared use path that currently do not exist that can enhance the quality of life for inhabitants of the Historic District. All of which facilitates the continued stewardship and preservation of the Historic District.

Yes No

Will the property be "used" within the meaning of Section 4(f)?

Recommended Outcome: No Use

OEM SME Determination Date: Pending

Citgo/1501 Broad Causeway (8DA10436)

Facility Type: NRHP-eligible Historic Structure

Property Classification: Historic Site

Address and Coordinates:

Address: 1501 Broad Cswy, Bay Harbor Islands, FL, 33154, USA

Latitude: 25.88788 Longitude: -80.14486

Description of Property:

The Citgo (8DA10436) historic structure, located at 1501 Broad Causeway, is a masonry vernacular auto repair/gas station with Miami Modern (MiMo) stylistic features constructed on the man-made Broad Causeway Island (8DA21594) that leads to the Broad Causeway Bridge (8DA10123, FDOT Bridge No. 875101). It is shown on the attached map on Page 48.

It was first recorded as part of Survey No. 13458 and is the only fueling/service station within the Town of Bay Harbor Islands. The station retains much of its original design integrity and is a contributing resource to the Bay Harbor Islands Historic District (8DA10515). The building is individually eligible for the National Register of Historic Places (NRHP) under Criteria A and C for its association with the development of northern Miami, its association with the importance of the automobile in the mid-twentieth century, and its architecture with Modern stylistic details, typifying gas stations of the time period. The structure was **determined NRHP-eligible by SHPO** on August 15, 2018.

Documented previous alterations to the Broad Causeway Cities Service station includes the replacement of the original hairpin style columns with round concrete columns sometime after the 1960s. The building was expanded when two bays were added to its western end in 1961, providing an additional 864 square feet of service area for the station. The Broad Causeway Cities Service station became the Broad Causeway Citgo around 1968 and remained in operation through the mid-1970s before becoming the Amoco of Bay Harbor Islands in 1977. The structure continued as the Amoco of Bay Harbor Islands through the early 1980s and ultimately became Broad Causeway Chevron by mid-decade.

Owner/Official with Jurisdiction: Town of Bay Harbor Islands/State Historic Preservation Officer (OWJ)

Relationship Between the Property and the Project

A CRAS Report completed for this project confirmed the significance and integrity of the structure remains unchanged and concluded the Citgo structure is still individually eligible and remains a contributing resource to the Bay Harbor Islands Historic District (8DA11549). SHPO concurred with this evaluation on May 6, 2024.

The CRAS was prepared to locate and identify any cultural resources located within the Area of Potential Effects (APE) that has been established to evaluate effects to those resources.

The Preferred Alternative was designed to avoid removing the Citgo/1501 Broad Causeway (8DA10436) by starting the elevated bridge approach further west on Broad Causeway Island and passing over a portion of the Citgo/1501 Broad Causeway (8DA10436). On Broad Causeway Island (8DA21594), west of the bridge, new two-way ingress/egress access ramps are proposed to and from the existing service station, as well as safer pedestrian facilities. The Preferred Alternative provides extra greenspace along the north side of the causeway island to provide an opportunity for new park

and/or fitness destinations. This design modifies the overall historic setting of the building but would not render the building ineligible for listing on the NRHP.

In consultation with both of the OWJs, it has been concluded that the proposed project has "no use" of the Citgo/1501 Broad Causeway (8DA10436) within the meaning of Section 4(f) based on the following analysis and parameters:

- The project will have no acquisition of land from the resource on a temporary or permanent basis.
- The project is not interrupting its function or access (i.e. operation as a rest/gas station).
- There are no proximity impacts to the resource, including the change to the viewshed, that rise to the level of substantial impairment that would cause the structure to lose its NRHP eligibility individually or as contributing to the Bay Harbor Islands Historic District (8DA10515).
- The project improvements around and over the Citgo/1501 Broad Causeway (8DA10436) will not be visible from the majority of the Historic District. Therefore, the project will not alter the existing visual and aesthetic conditions of the resource group as a whole, its viewshed or setting, and will not introduce any new visually intrusive elements that will affect the resource group. Therefore, the project will have no constructive use of the Historic District.

The SHPO concurred with the Adverse Effect on May 6, 2024. The letter is attached on Page 15.

Yes No

Will the property be "used" within the meaning of Section 4(f)?

Recommended Outcome: No Use

OEM SME Determination Date: Pending

Project-Level Attachments

CRAS Concurrence Letter from SHPO 240506
Renderings of Bridge Alternatives
Renderings of Viewshed for Historic District Structures
Section 4f Resources Map

DRAFT

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022, and executed by the Federal Highway Administration and FDOT.



Florida Department of Transportation

RON DESANTIS
GOVERNOR

1000 N.W. 111 Avenue
Miami, Florida 33172

JARED W. PERDUE, P.E.
SECRETARY

April 29, 2024

Alissa S. Lotane
Director, Division of Historical Resources, and
State Historic Preservation Officer
R.A. Gray Building
500 S. Bronough Street
Tallahassee FL 32399-0250

Attn: Alyssa McManus, Transportation Compliance Review Program

Re: Cultural Resource Assessment Survey for the Broad Causeway Bridge Replacement
PD&E Study, Financial Project Identification (FPID) No. 452428-1-21-01

Dear Ms. Lotane,

On behalf of the Town of Bay Harbor Islands and the Florida Department of Transportation District 6 (FDOT), AtkinsRéalis has prepared this Cultural Resource Assessment Survey (CRAS) for the Broad Causeway Bridge Replacement Project Development and Environment (PD&E) Study, Financial Project Identification (FPID) No. 452428-1-21-01. This locally funded project spans the Broad Causeway Bridge (FDOT Bridge No. 875101) that crosses the Intracoastal Waterway and connects the City of North Miami with the Town of Bay Harbor Islands within Section 27 of Township 52 South, Range 42 East in Miami-Dade County, Florida. The project will require state and federal permits.

Proposed improvements for this project include the replacement of the current Broad Causeway Bridge. This PD&E Study will evaluate the potential effects of bridge replacement alternatives. The height and width of the bridge will be increased to meet current design standards and United States Coast Guard (USCG) requirements, which have the potential to change the visual setting of the area. Future bridge concepts may incorporate dedicated bicycle lanes and sidewalks as well as guardrails to comply with the Americans with Disabilities Act of 1990 (ADA) and increase safety for pedestrians and cyclists. No right-of-way (ROW) acquisition is anticipated for the project.

Alissa S. Lotane, Director
Broad Causeway Bridge Replacement PD&E Study
Miami-Dade County
FPID No.: 452428-1-21-01
April 29, 2024
Page 2

This assessment is designed to comply with Section 106 of the *National Historic Preservation Act* (NHPA) of 1966 (Public Law 89-665), as amended, as implemented by 36 Code of Federal Regulations (CFR) 800 (Protection of Historic Properties, effective August 2004), as well as Chapter 267, *Florida Statutes* (FS), Chapter 1A-46, *Florida Administrative Code* (FAC), and Stipulation VII of the *Section 106 Programmatic Agreement* among the Federal Highway Administration (FHWA), the Florida Department of Transportation (FDOT), the Advisory Council on Historic Preservation (ACHP), and the Florida State Historic Preservation Officer (SHPO) regarding Implementation of the Federal-aid Highway Program in Florida (2023 PA). All work will be performed in accordance with the standards outlined in the *Cultural Resources Management Standards and Operational Manual* (Florida Division of Historical Resources [FDHR], 2003), the *Cultural Resource Management Handbook* (Florida Department of Transportation [FDOT] 2013), and the *Project Development and Environment Manual* (FDOT 2023). All work also conforms to professional guidelines set forth in the *Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation* (48 FR 44716, as amended and annotated). Principal Investigators meet the *Secretary of the Interior's Professional Qualification Standards* (48 FR 44716) for archaeology, history, architecture, architectural history, or historic architecture.

The purpose of this CRAS is to locate and identify any cultural resources located within the Area of Potential Effects (APE) that have been established based on the proposed bridge replacement alternatives. Because the anticipated changes could potentially affect existing historic districts and other cultural resources, the historical APE has been developed through a viewshed analysis using the Geodesic Viewshed tool in the Environmental Systems Research Institute (ESRI) Arc GIS Pro proprietary software. Conceptual bridge locations were extracted from the concept designs developed by AtkinsRéalis and the visual impacts were evaluated to establish the historical APE for the project using the Geodesic Viewshed tool. The APE was then refined to only include parcels within a ½ mile radius that orient towards the project area. Based upon the scale and nature of the activities, the archaeological APE was limited to the parcels in which potential ground disturbance may take place.

Background research identified a total of nine (9) previously recorded historic resources and no previously recorded archaeological sites within the project APE. These included one (1) previously recorded linear resource (Broad Causeway [8DA10123, FDOT Bridge No. 875101]), six (6) previously recorded historic structures (9530 W Broadview Drive [8DA10268], 9520 W Broadview Drive [8DA10269], 9740 W Broadview Drive [8DA10431], 9720 W Broadview Drive [8DA10433], 9700 W Broadview Drive [8DA10435], and Citgo [8DA10436]), and two (2) previously recorded resource groups (Bay Harbor Islands Historic District [8DA10515] and Keystone Islands [8DA11549]). No previously recorded archaeological sites were identified within a half-mile radius of the project area. A FMSF update form was prepared for the previously recorded 9700 W Broadview Drive (8DA10435) historic structure since the previous FMSF form did not meet current Florida Division of Historical Resources (FDHR) standards. FMSF forms were not updated for other previously recorded resources as they met current standards and had not been altered since last recording.

Alissa S. Lotane, Director
Broad Causeway Bridge Replacement PD&E Study
Miami-Dade County
FPID No.: 452428-1-21-01
April 29, 2024
Page 3

The architectural field survey also identified 20 previously unrecorded resources within the project APE. This included 17 structures (8DA21585-8DA21593, 8DA21598-8DA21599, and 8DA21602-8DA21607) and three (3) resource groups (Broad Causeway Island [8DA21594], Indian Creek Country Club Golf Course [8DA21608], and Town of Bay Harbor Islands Playground [8DA21621]). New FMSF forms were prepared for each of these unrecorded historic resources. No previously unrecorded archaeological sites were identified during the field survey.

The results of the CRAS identified five (5) historic resources eligible for listing in the National Register of Historic Places (NRHP) within the historical APE. This includes one (1) linear resource (Broad Causeway [8DA10123, FDOT Bridge No. 875101]) and four (4) structures (Citgo [8DA10436], 2395 Bayview Lane [8DA21593], Whitehouse Inn on the Bay [8DA21598], and Majorca Towers [8DA21599]). Three (3) resource groups (Bay Harbor Islands Historic District [8DA10515], Keystone Islands [8DA11549], and Indian Creek Country Club Golf Course [8DA21608]) were identified that had insufficient information to evaluate eligibility for listing in the NRHP as part of this project. Additionally, seven (7) historic resources were found within the APE that contribute to the Bay Harbor Islands Historic District (8DA10515) (Broad Causeway [8DA10123, FDOT Bridge No. 875101], 9700 W Broadview Drive [8DA10435], Citgo [8DA10436], Broad Causeway Island [8DA21594], 9600 Broadview Terrace [8DA21603], 1371 96th Street [8DA21606], and 1330 96th Street [8DA21607]), although this district has insufficient information to fully evaluate. The background research and field survey also identified 12 historic resources considered ineligible for listing in the NRHP that are also considered as non-contributing resources to a historic district. No archaeological sites were identified that are potentially eligible for listing in the NRHP within the archaeological APE.

Based on the results of this CRAS, adverse effects to historic properties are anticipated. A Section 106 Determination of Effects Case Study Report will be provided to the SHPO for review.

We kindly request that this cover letter is reviewed, and concurrence is provided by your office. This information is provided in accordance with the provisions contained in 36 CFR, Part 800, as well as the provisions contained in the revised F.S. Chapter 267. If you have any questions regarding the subject project, please contact me at Victoria.Vogt@dot.state.fl.us or (305) 470-5420.

Sincerely,

DocuSigned by:

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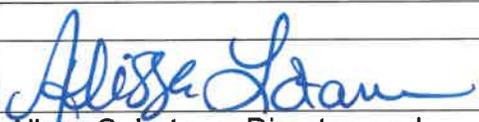
Victoria Vogt, M.S.
District Cultural Resources Coordinator

Alissa S. Lotane, Director
Broad Causeway Bridge Replacement PD&E Study
Miami-Dade County
FPID No.: 452428-1-21-01
April 29, 2024
Page 4

The Florida State Historic Preservation Officer finds the attached Cultural Resource Assessment Survey Report complete and sufficient and concurs / does not concur with the recommendations and findings provided in this cover letter for SHPO/FDHR Project File Number 2024-945D. Or, the SHPO finds the attached document contains insufficient information.

In accordance with the *Programmatic Agreement Among the FHWA, the FDOT, the ACHP, and the SHPO Regarding Implementation of the Federal-Aid Highway Program in Florida (2023 PA)*, and appended materials, if providing concurrence with a finding of **No Historic Properties Affected** for a whole project, or to **No Adverse Effect** on a specific historic property, SHPO shall presume that FDOT may pursue a *de minimis* use of the affected historic property in accordance with Section 4(f) as set forth within 23 C.F.R. Part 774 and its implementing authorities, as amended, and that their concurrence as the official with jurisdiction (OWJ) over the historic property is granted.

SHPO Comments:



Alissa S. Lotane, Director, and
State Historic Preservation Officer
Florida Division of Historical Resources

[DATE]

5/6/24

Bridge Renderings of Viable Alternatives Evaluated

Preferred Alternative – 65-foot High-Level Fixed Bridge



Alternative 2 – 40-foot Mid-Level Movable Bridge



Renderings of Preferred Alternative 65-foot High-Level Fixed Brodge from contributing structures of the Bay Harbor Islands Historic District (8DA11549) within the APE

Computer rendering of the preferred High-Level Fixed Bridge Alternative over Citgo/1501 Broad Causeway (8DA10436) with an access ramp to the resource seen on the left, facing northwest.



Computer rendering from the east end of Citgo/1501 Broad Causeway (8DA10436) with access ramp seen on the far side, facing south.



*Looking West from Town of Bay Harbor Islands at a location just south 9700 W Broadview Drive
(8DA10435)*



DRAFT

Section 4(f) Resources Within the Project Limits



Resource Attachments

Florida Circumnavigational Saltwater Paddling Trail

BroadCauseway_4f_PaddlingTrailDetour

Segment 16 Maps 1_12_23_with_BCB

E-mail to FDEP_Paddling Trail_231115

Town of Bay Harbor Islands Tot Lot

BCB_TotLot_4fTemporaryOccupancy_Map

Tot Lot Statement of Significance Temp Occupancy Section 4f Letter

Broad Causeway (8DA10123, FDOT Bridge No. 875101)

BroadCauseway_Figures_HistoricResource_BroadCausewayBridge

Programmatic Section 4(f) Alternatives and Findings Information

Bay Harbor Islands Historic District (8DA10515)

BroadCauseway_Figures_HistoricDistrict20240409

Citgo/1501 Broad Causeway (8DA10436)

BroadCauseway_Figures_HistoricResource_Citgo_1501BroadCauseway

Florida Circumnavigational Saltwater Paddling Trail

Contents:

BroadCauseway_4f_PaddlingTrailDetour

Segment 16 Maps 1_12_23_with_BCB

E-mail to FDEP_Paddling Trail_231115

DRAFT

Florida Circumnavigational Saltwater Paddling Trail Proposed Detour Route



Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

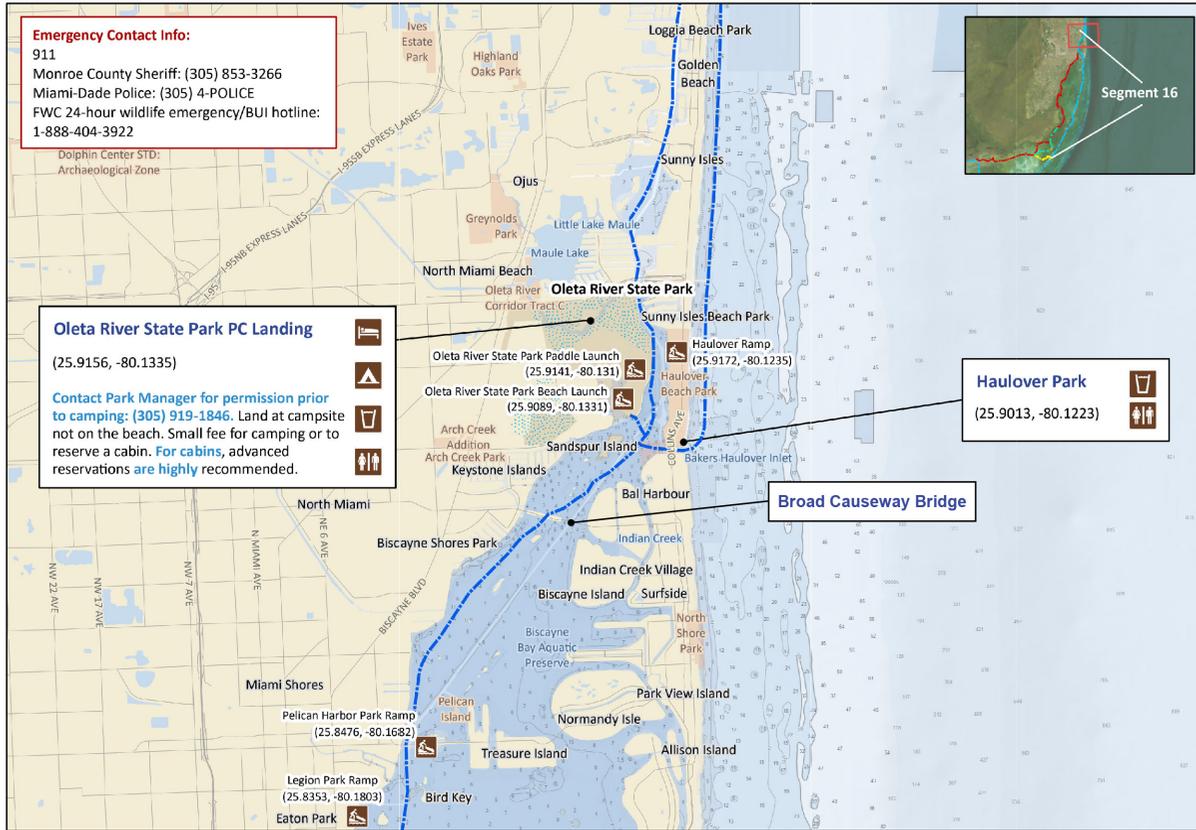
Paddling Trail

- Existing Paddling Trail
- Proposed Paddling Trail Detour

Broad Causeway Bridge Replacement PD&E Study

Town of Bay Harbor Islands Miami - Dade County, Florida FPID: 452428-1-21-01

Florida Circumnavigational Saltwater Paddling Trail

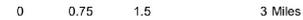


Florida Circumnavigational Saltwater Paddling Trail

Segment 16: Biscayne Bay (Map 7 of 7)

Begin: John Pennekamp State Park, Key Largo
 End: Oleta River State Park

Distance: 72.5 miles depending on route
 Duration: 5-6 days



Disclaimer: This guide is intended as an aid to navigation only. A Global Positioning System (GPS) unit is required and persons are encouraged to supplement these maps with NOAA electronic or other maps.
 Updated: 3/2023



Broad Causeway Bridge Replacement PD&E Study

Town of Bay Harbor Islands

Miami - Dade County, Florida

FPID: 452428-1-21-01

Lasher, Wendy G

From: Vogt, Victoria <Victoria.Vogt@dot.state.fl.us>
Sent: Wednesday, November 15, 2023 9:23 AM
To: Browne, Samantha
Cc: James, Steven C.; McMullen, Robert; Ruiz, Sebastian; Lasher, Wendy G
Subject: FM # 452428-1 Broad Causeway Bridge PD&E Section 4(f) Statement of Significance - FL Circumnavigational Saltwater Paddling Trail
Attachments: Segment 16 Maps 1_12_23.pdf; BroadCauseway_4f_PaddlingTrailDetour.pdf
Importance: High

Good afternoon Ms. Browne,

This is follow-up to our e-mail on October 2, 2023, requesting the Statement of Significance for the Florida Circumnavigational Saltwater Paddling Trail.

The Town of Bay Harbor Islands (Town) is conducting a Project Development & Environment (PD&E) Study to evaluate replacement of the Broad Causeway Bridge from Causeway Island to East of West Broadview Drive in Miami-Dade County.

This is a Town of Bay Harbor Islands (Town) project. Since federal funding may be used in future phases of the project, the Florida Department of Transportation (FDOT) will provide technical assistance during PD&E Study. The Federal Highway Administration (FHWA) is the Lead Federal agency and the FDOT Office of Environmental Management will be approving the National Environmental Policy Act (NEPA) documents on behalf of FHWA. The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the FDOT pursuant to 23 U.S.C. §327 and a Memorandum of Understanding dated May 26, 2022, executed by the FHWA and FDOT.

The Florida Circumnavigational Saltwater Paddling Trail follows the Intracoastal Waterway under the existing Broad Causeway Bridge. See attached Florida Department of Environmental Protection (FDEP) Segment 16 map with the Broad Causeway Bridge identified. The Town has chosen Alternative 1 (high-level fixed bridge) as the Preferred Alternative proposed to be constructed on the south side of the existing bridge location and will utilize the same navigational channel. Since the proposed roadway improvements use federal funds, the FDOT must follow the evaluation process outlined in Section 4(f) (49 U.S.C § 303) of the U.S. Department of Transportation Act, which protects recreational properties, among others.

As part of the Section 4(f) process, the Town in cooperation with the FDOT must coordinate with the Official with Jurisdiction (OWJ) over the park facility which is the FDEP. In the absence of a determination of significance from the FDEP, the Town and FDOT are moving forward with our Section 4(f) process and will presume that the Florida Circumnavigational Saltwater Paddling Trail “is” a significant recreational resource. Significance means that in comparing the availability and function of the recreation area, park, or wildlife and waterfowl refuge area with the recreational, park and refuge objectives of that community, the land in question plays an important role in meeting those objectives.

Since the Town cannot avoid the Florida Circumnavigational Saltwater Paddling Trail at the Intracoastal Waterway under the existing Broad Causeway Bridge, our next step is to minimize harm to the trail and determine a temporary detour route for the trail. Attached is a graphic with our proposed alternative detour route around Bay Harbor Islands. The vertical clearance of Bridge No. 875103 between Bay Harbor Islands and Bal Harbour is 11.8 feet.

We are requesting your review of the proposed detour route. Please let us know if you approve and/or would like to meet and discuss further. We would like to receive your response no later than **Friday, December 8, 2023**, to continue this Section 4(f) evaluation process within the scheduled timeframe. Please let me know if you have any questions. Feel free

to contact me at the phone number or email below, or you may contact the Town's consultant assistant project manager, Mrs. Wendy Lasher, at 813-281-8309 or wendy.lasher@atkinsrealis.com. Thank you in advance for your assistance.

Victoria Vogt, M.S., FCCM

District Cultural Resources Coordinator/
Environmental Supervisor

Planning and Environmental Management Office
Florida Department of Transportation - District 6
Adam Leigh Cann Building
1000 NW 111th Avenue, Room 6111
Miami, Florida 33172

Phone: (305) 470-5420; Fax: (305) 470-5205

E-mail: Victoria.Vogt@dot.state.fl.us

From: Vogt, Victoria <Victoria.Vogt@dot.state.fl.us>

Sent: Monday, October 2, 2023 3:03 PM

To: Browne, Samantha <samantha.browne@dep.state.fl.us>

Cc: James, Steven C. <Steven.James@dot.state.fl.us>; McMullen, Robert <Robert.McMullen@dot.state.fl.us>; Lasher, Wendy G <Wendy.Lasher@atkinsrealis.com>

Subject: FM # 452428-1 Broad Causeway Bridge PD&E Section 4(f) Statement of Significance - FL Circumnavigational Saltwater Paddling Trail

Importance: High

Good afternoon Ms. Browne,

The Town of Bay Harbor Islands (Town) is conducting a Project Development & Environment (PD&E) Study to evaluate replacement of the Broad Causeway Bridge from Causeway Island to East of West Broadview Drive in Miami-Dade County.

This is a Town of Bay Harbor Islands project. Since federal funding may be used in future phases of the project, the Florida Department of Transportation (FDOT) will provide technical assistance during the PD&E Study. The Federal Highway Administration (FHWA) is the Lead Federal agency and the FDOT Office of Environmental Management will be approving the National Environmental Policy Act (NEPA) documents on behalf of FHWA. The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the FDOT pursuant to 23 U.S.C. §327 and a Memorandum of Understanding dated May 26, 2022, executed by the FHWA and FDOT.

The Florida Circumnavigational Saltwater Paddling Trail follows the Intracoastal Waterway under the existing Broad Causeway Bridge. See attached Florida Department of Environmental Protection (FDEP) Segment 16 map with the Broad Causeway Bridge identified. The Town is evaluating both Alternative 1 (high-level fixed bridge) and Alternative 2 (mid-level bascule bridge) that is proposed to be constructed on the south side of the existing bridge location and will utilize the same navigational channel. Since the proposed roadway improvements use federal funds, the FDOT must follow the evaluation process outlined in Section 4(f) (49 U.S.C § 303) of the U.S. Department of Transportation Act, which protects recreational properties, among others.

As part of the Section 4(f) process, the Town in cooperation with the FDOT, must coordinate with the Official with Jurisdiction (OWJ) over the park facility. We would like to confirm that the FDEP, as OWJ of this facility, considers the Florida Circumnavigational Saltwater Paddling Trail as a significant recreational resource. Significance means that in comparing the availability and function of the recreation area, park, or wildlife and waterfowl refuge area with the recreational, park and refuge objectives of that community, the land in question plays an important role in meeting

those objectives. Please see the attached template Statement of Significance letter for your use. Please review the letter, update, sign and return this letter back to the FDOT on FDEP letterhead.

If the Florida Circumnavigational Saltwater Paddling Trail is considered significant, we can provide additional information regarding preliminary design alternatives and our proposed detour route for your review and discussion, if warranted.

We would like to receive your response no later than **Monday, October 16, 2023**, to continue this Section 4(f) evaluation process within the scheduled timeframe. Please let me know if you have any questions. Feel free to contact me at the phone number or email below, or you may contact the Town's consultant assistant project manager, Mrs. Wendy Lasher, at 813-404-4979 or wendy.lasher@atkinsglobal.com. Thank you in advance for your assistance.

Victoria Vogt, M.S., FCCM
District Cultural Resources Coordinator/
Environmental Supervisor

Planning and Environmental Management Office
Florida Department of Transportation - District 6
Adam Leigh Cann Building
1000 NW 111th Avenue, Room 6111
Miami, Florida 33172

Phone: (305) 470-5420; Fax: (305) 470-5205
E-mail: Victoria.Vogt@dot.state.fl.us

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DRAFT

Florida Circumnavigational Saltwater Paddling Trail Proposed Detour Route



Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Paddling Trail

-  Existing Paddling Trail
-  Proposed Paddling Trail Detour

Broad Causeway Bridge Replacement PD&E Study

October XX, 2023

Mr. Steven Craig James, RLA 1451
District Environmental Manager
Florida Department of Transportation, District Six
1000 NW 111th Avenue, Room 6109
Miami, FL 33172

Subject: Florida Circumnavigational Saltwater Paddling Trail
Statement of Significance
Financial Project ID: 452428-1
Town of Bay Harbor Islands Number: BC-160
Broad Causeway Bridge from Causeway Island to East of West Broadview Drive
Miami-Dade County, Florida

Dear Mr. James,

As the Official with Jurisdiction, please accept this letter as formal Statement of Significance for the Segment 16 of Florida Circumnavigational Saltwater Paddling Trail. This recreational resource is located within the Town of Bay Harbor Islands and is a significant resource within the meaning of Section 4(f) (49 U.S.C. § 303) of the U.S. Department of Transportation Act regulations. Significance means that in comparing the availability and function of the recreation area, park or wildlife and waterfowl refuge area with the recreational, park and refuge objectives of that community, the land in question plays an important role in meeting those objectives.

Florida Circumnavigational Saltwater Paddling Trail begins at Big Lagoon State Park near Pensacola, extending around the Florida peninsula and Keys, and ending at Fort Clinch State Park near the Georgia state line in Fernandina Beach, the Florida Circumnavigational Saltwater Paddling Trail is a 1,515-mile sea kayaking paradise. It is the country's longest designated national recreation trail. Within the project area the trail follows the Intracoastal Waterway.

Should you have any questions or require additional information, please contact my office at 850-245-2076 or by email samantha.browne@dep.state.fl.us.

Sincerely,

Samantha Browne
Chief
Florida Department of Environmental Protection
Office of Greenways and Trails

Town of Bay Harbor Islands Tot Lot

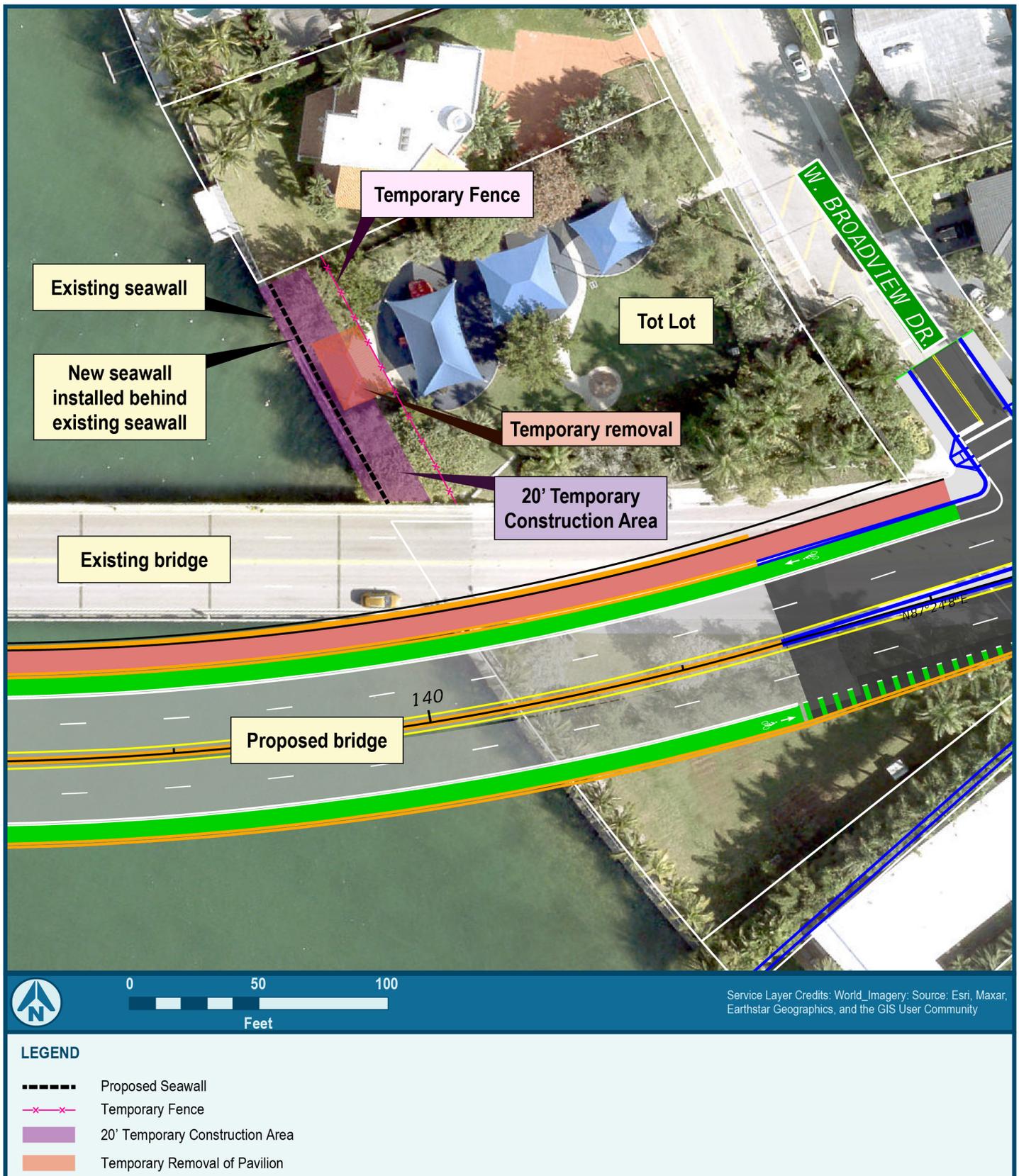
Contents:

BCB_TotLot_4fTemporaryOccupancy_Map

Tot Lot Statement of Significance Temp Occupancy Section 4f Letter

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Section 4(f) Temporary Construction Area Map



Broad Causeway Bridge Replacement PD&E Study

Town of Bay Harbor Islands

Miami - Dade County, Florida

FPID: 452428-1-21-01



April 8, 2024

Town Council

Elizabeth Tricoche
Mayor

Joshua D. Fuller
Vice Mayor

Stephanie Bruder
Council Member

Molly Diallo
Council Member

Teri D'Amico
Council Member

Isaac Salver
Council Member

Robert Yaffe
Council Member

Town Officials

Maria Lasday
Town Manager

Yvonne Hamilton
Town Clerk

Greenspoon Marder LLP
Town Attorneys
By: Joseph Geller, Esq.

Mr. Steven Craig James
District Environmental Administrator
Florida Department of Transportation, District Six
1000 NW 111th Avenue, Room 6109
Miami, FL 33172

Subject: Town of Bay Harbor Islands Tot Lot
Statement of Significance and Concurrence for the
Temporary Occupancy
Financial Project ID: 452428-1
Town of Bay Harbor Islands Number: BC-160
Broad Causeway Bridge from Causeway Island to East of
West Broadview Drive Miami-Dade County, Florida

Dear Mr. James,

The Town of Bay Harbor Islands is currently in the Project Development and Environment (PD&E) Study for the Broad Causeway Bridge replacement project from Causeway Island to East of West Broadview Drive in Miami-Dade County. The purpose of this project is to address the functional deficiencies of the existing Broad Causeway Bridge. The feasibility of continued rehabilitation and repair versus replacement of the bridge was evaluated through the PD&E Study.

The Town-owned Tot Lot located on the northeast side of the bridge at 9600 West Broadview Drive is a gated park with shaded playground equipment which includes American with Disability Acts (ADA) accessible components and a picnic pavilion. The park has parking and access on West Broadview Drive and is open from Sunrise to Sunset, year-round. The project will be constructed within the existing right-of-way (ROW). A portion of the project is located adjacent to the Tot Lot, but the proposed project has no use of the property within the meaning of Section 4(f).

MAYOR JOSEPH J. GARDNER GOVERNMENT CENTER

Mr. Steven Craig James
District Environmental Administrator
Florida Department of Transportation, District Six
April 8, 2024
Page 2

A temporary easement will be needed to construct a new seawall where the Tot Lot is located. The new seawall will be constructed behind the existing seawall. An additional ~4 feet along the water's edge will be used for the new seawall, but the land will remain park property. The new seawall will provide an enhancement to the park because the Town is increasing the long-term stability of the seawall. The temporary easement will be ~20 feet inland from the water's edge and will temporarily remove the Tot Lot picnic pavilion. The Town will temporarily move the Tot Lot perimeter fence from the water's edge to the east side of the picnic pavilion and temporarily remove the pavilion. An additional construction fence will be installed for safety. This construction will occur after the removal of the existing bridge and will last ~12 weeks. Once construction is complete, the perimeter fence will be restored to a new location between the water's edge and the pavilion, and the pavilion will be returned to its original location or will be replaced with amenities the Town chooses to have. The project will not permanently convert Tot Lot property to transportation use. Furthermore, the proposed work will not require any access changes or closures.

Section 4(f) of the Department of Transportation Act governs the use of publicly owned lands including parks and recreation areas, wildlife and waterfowl refuges and publicly or privately owned historic sites. Section 4(f) regulations and requirements are codified under 23 U.S.C § 138 and 49 U.S.C. § 303. When a federally funded transportation project requires the use of a Section 4(f) protected property FDOT must make a finding regarding the use. For this project, the proposed work meets the conditions of a temporary occupancy listed under 23 CFR § 774.13 (d) as follows: 1) duration must be temporary, i.e., less than the time needed for construction of the project and there should be no change in ownership of the land; 2) scope of work must be minor, i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal; 3) there are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis; 4) the land being used must be fully restored, i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project; and 5) there must be documented agreement of the official(s) with jurisdiction (OWJ) over the Section 4(f) resource regarding the above conditions. Therefore, this project is eligible for a temporary occupancy exception under 23 CFR § 774.13.

This resource meets the requirements of a Section 4(f) protected property as a publicly owned recreational resource, located on Bay Harbor Islands in Miami-Dade County. The resource is also significant within the meaning of Section 4(f) regulations. Significance means that in comparing the availability and function of the Tot Lot with the objectives of that community, the land in questions plays an important role in meeting those objectives.

As the Official with Jurisdiction, please accept this letter as formal Statement of Significance for Town off Bay Harbor Islands Tot Lot and concurrence for the temporary occupancy and corresponding Section 4(f) exception determination under 23 CFR § 774.13 (d). In addition, the Town of Bay Harbor Islands acknowledges the temporary occupancy will not include any

Mr. Steven Craig James
District Environmental Administrator
Florida Department of Transportation, District Six
April 8, 2024
Page 3

permanent conversion of park property to transportation use and will not require any access changes or closures throughout the park property.

Should you have any questions or require additional information, please contact my office at 305-866-6241 or by email mlasday@bayharborislands-fl.gov.

Sincerely,



Maria Lasday
Town Manager
Town of Bay Harbor Islands

DRAFT

Broad Causeway (8DA10123, FDOT Bridge No. 875101)

Contents:

BroadCauseway_Figures_HistoricResource_BroadCausewayBridge
Programmatic Section 4(f) Alternatives and Findings Information

DRAFT

Section 4(f) Historic Resource - Broad Causeway Bridge (8DA10123)



Broad Causeway Bridge Replacement PD&E Study

Town of Bay Harbor Islands

Miami - Dade County, Florida

FPID: 452428-1-21-01

Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges

Broad Causeway (8DA10123, FDOT Bridge No. 875101)

Findings Information

1. No Build Alternative

The No Build Alternative has been studied and does not meet the Section 4(f) prudent and feasible standard. The No Build Alternative is not recommended based on the following:

The No-Build (Repair) Alternative would avoid the replacement of the existing bridge and loss of the linear resource by performing as-needed repairs and updates to the existing Broad Causeway Bridge (8DA10123, FDOT Bridge No. 875101) to extend its service life. By maintaining the existing Broad Causeway Bridge, the No-Build (Repair) Alternative would not address waterway clearance issues nor meet current road design and safety standards. This option would require ongoing extensive and costly repairs, often requiring bridge closures and rerouting traffic. Additionally, the expected lifespan of the existing bridge with routine maintenance is 15 to 25 years, at which time the structure would ultimately need to be decommissioned or replaced. The No-Build (Repair) Alternative does not meet the purpose and need of the proposed undertaking and is not considered a prudent nor feasible alternative compared to the build alternatives of this undertaking. Additionally, continual repairs may result in the loss of character-defining features of the bridge over time. The cost of the No Build Alternative is estimated to be \$72 million to reach year 2048, or 25 years. This cost is for preventative maintenance only, excludes building any new bridge in the future, and excludes major repairs since they are unpredictable as deterioration accelerates near the end of the bridge's service life.

2. Build on New Location Without Using the Old Bridge

This alternative has been studied and does not meet the Section 4(f) prudent and feasible standard. The New Location Alternative without using the old bridge is not recommended because each alignment would require removal of the existing bridge as explained below:

Existing/Center Alignment

The existing alignment is centered within the 300 ft. Town controlled tidewaters and lands as stated in 1953 Senate Bill No. 865 over the Intracoastal Waterway (ICWW) and between the Town Bay Harbor Islands and the City of North Miami. Utilizing the existing alignment and proposing a bridge within the existing bridge footprint will require additional phases of construction and a bridge closure. **To construct this option the existing bridge will need to be demolished prior to construction of the new bridge.** Currently the Broad Causeway Bridge is the main artery for residents coming and going to the Town of Bay Harbor Islands. Demolition of the existing bridge prior to construction would require a 9.4-mile detour to the north or an 11.12-mile detour to the south. Not only will the alternative cause delays to residents it will also impact emergency vehicle's access and response times. Should there be a hurricane warning event, the need to evacuate will

present unacceptable delays as the Broad Causeway Bridge is a hurricane evacuation route. Therefore, a temporary bridge could be built to eliminate long periods of bridge closure but will incur a large project cost and environmental impacts for a temporary solution. The additional phases of construction will add time and cost to the project that can be avoided by shifting the alignment to the north or south of the existing alignment. Therefore, the existing/center alignment alternative was determined to be impractical and was not considered for further evaluation.

North Alignment

Alternatives on the northern alignment will provide room for construction and demolition activities and will fall within the existing ROW, owned by the Town and the 300 ft. Town controlled tidewaters and lands as stated in 1953 Senate Bill No. 865. **To construct this option the existing bridge will need to be demolished prior to construction of the new bridge.** The northern alignment will run parallel to the existing alignment and will not disrupt traffic on the existing bridge during construction. The major impact of the northern alignment is the existing Tot Lot, a Section 4(f) property. The northern alignment will require the Tot Lot to be removed or relocated to another town owned property. The Tot Lot is the only public park for children in the Town and is frequently used by residents. Tying the northern alignment down to the causeway island will avoid the existing service station. The traffic movements to and from the service station will be adjusted to meet the proposed northern alignment. An existing 30-inch water main owned by Miami Dade Water and Sewer will need to be relocated as it is approximately 123 ft. north of the existing bridge. Based on the impacts, the northern alignment was determined to be impractical and was not considered for further evaluation. This would not be a feasible or prudent alternative to impacting Section 4(f) resources.

South Alignment (Preferred Alternative)

For the Preferred Alternative under consideration, the new bridge alignment would be located to the south of the existing bridge, allowing for traffic to be maintained along the existing bridge while the proposed bridge is constructed. Demolition of the existing bridge would be phased so that traffic would be maintained within the existing corridor for most of the construction duration and progressively transferred from the existing bridge to the new bridge. Emergency vehicles would have 24/7 access to pass through the corridor, and should a hurricane warning be issued, the corridor would still be used as a Hurricane Evacuation Route during construction as it is today.

The south alignment will utilize the Town-owned empty lot located on the southeast corner of the existing bridge and run parallel to the existing bridge. The proposed separation between proposed and existing alignments will provide room for construction and demolition activities and will fall within the existing ROW and the 300 ft. Town controlled tidewaters and lands as stated in 1953 Senate Bill No. 865. The southern alignment will not disrupt traffic on the existing bridge during construction. Tying the southern alignment down to the causeway island will avoid the existing NRHP-eligible service station (8DA10436) but will span over the service station awning. The traffic movements to and from the service station will be adjusted to meet the proposed southern alignment. Utilities are not a significant issue for the south alignment.

The southern alignment was selected for further evaluation with both bridge alternatives based on the following points:

- Does not impact Section 4(f) Resource (Tot Lot).
- Allows for construction of proposed bridge and demolition of existing bridge to occur while minimizing traffic disruptions.
- No significant utility impacts.
- Falls within, or utilizes the area to the maximum extent possible, the existing 300 ft. Town controlled tidewaters and lands as stated in 1953 Senate Bill No. 865.
- Utilizes existing Town-owned lot for eastern bridge tie down.
- Avoids phased construction.
- Avoids relocation existing 30" water main owned by Miami Dade Water and Sewer as it is approximately 123 ft. north of the existing bridge.

Avoidance of the demolition of Broad Causeway (8DA10123, FDOT Bridge No. 875101) is not possible with the replacement bridge alternative. In addition, the bridge would have further decay and the Town would not be able to maintain the bridge if it remained.

3. Rehabilitation Without Affecting the Historic Integrity of the Bridge

This alternative has been studied and does not meet the Section 4(f) prudent and feasible standard. The Rehabilitation Alternative is not recommended based on the following:

Rehabilitating the bridge would eliminate substandard issues; however, to provide wider sidewalks, lanes, and shoulders, the bridge would be widened to one or both sides. Widening to the north impacts the Section 4(f) Tot Lot and existing 30-inch water main. Widening to the south affects the existing bridge tender house and electrical room. Rehabilitation also calls for deck replacement, mechanical and electrical upgrades, major repairs such as providing pile jackets to the existing piles, and full zinc metalizing to slow down corrosion. Rehabilitation of the existing bridge would include extensive traffic rerouting, including lane closures and detours for all the existing bridge users. Additionally, in order to meet standard safety requirements, the bridge would have to be widened on one or both sides, impacting the existing bridge design significantly and most likely causing the loss of character-defining features.

The rehabilitation costs are significant and lead to a 40-year estimated service life. Also, the rehabilitation does not meet the purpose and need since it does not improve the vehicular flow of traffic since the bascule would remain. Therefore, it was not considered to be a viable alternative. For these reasons, the No Build (Rehabilitation) Alternative was eliminated from further consideration.

4. Replacement

The Replacement Alternative has been studied and is determined to meet the Section 4(f) prudent and feasible standard. The Replacement Alternative is recommended based on the following:

After comparing and weighting the benefits and impacts of the No Build Alternative and two feasible Build Alternatives (Mid-Level Movable Bridge and High-Level Fixed Bridge), along with the public input received during the Hybrid Alternatives Public Workshop, the Town identified the 65 ft. High-Level Fixed Bridge on a southern alignment that replaces the existing Broad Causeway Bridge and bridge approaches as the Preferred Alternative. The Preferred Alternative is estimated to cost \$247 million dollars. The new bridge includes a 4-lane divided roadway with two, 11 ft. lanes in each direction separated by 4 ft. inside shoulders and a 2 ft. concrete barrier wall. The outside shoulders are 8 ft. wide, adjacent to concrete barrier walls. A 14 ft. shared use path along the north side of the new bridge accommodates pedestrians and bicycles with a 1.5 ft. barrier wall to safely separate travel lanes and the path. The design and posted speed would be 30 miles per hour (mph), as it is today.

The new alignment would be located to the south of the existing bridge, allowing for traffic to be maintained along the existing bridge while the proposed bridge is constructed. Demolition of the existing bridge would be phased, so that traffic would be maintained within the existing corridor for most of the construction duration and progressively be transferred from the existing bridge to the new bridge. Emergency vehicles would have 24/7 access to pass through the corridor and should a hurricane warning be issued; the corridor would still be used as a Hurricane Evacuation Route during construction as it is today. See attached typical section, profile, and renderings figure for more details.

On the causeway island, west of the bridge, new access ramps are proposed to and from the existing service station. The Preferred Alternative provides extra greenspace along the north side of the causeway island to provide an opportunity for new park and/or fitness destinations. See attached causeway island circulation drawing for more details.

The existing median opening east of the bridge on State Road (SR) 922 at Broadview Terrace will remain open for U-turn only movements. A mid-block pedestrian crosswalk is proposed on Kane Concourse (SR 922) between the bridge and the existing median opening. The mid-block crossing will include a push-button crossing to allow pedestrians and bicyclists to cross the roadway. Extensive wayfinding signs will be included to direct pedestrian and bicycle movement in the vicinity of the bridge.

Alternative 1, the High-Level Fixed Bridge Alternative on southern alignment was selected as the Preferred Alternative for the following reasons:

- The 65 ft. high-level fixed bridge allows all anticipated waterway users to safely navigate through the proposed structure and pass under the new bridge without any delay to roadway traffic. Without the need to stop automobiles, bicyclists, or pedestrians for bridge opening cycles, the traffic would be presented with free flow conditions to accommodate projected high traffic volumes that connect beach communities and Bay Harbor Islands to the mainland. Bicyclists and pedestrians would have continuous safe access without bridge opening delays.

- In emergency situations and during evacuation events, a high-level fixed bridge would play a critical role in facilitating the evacuation of approximately 40,000 residents from the municipalities of Bay Harbor Islands, Bal Harbour, Surfside, Miami Beach, and Sunny Isles Beach.
- A high-level fixed bridge does not have any mechanical moving parts or an electrical system that could malfunction and close the bridge. Without the chance of human error operating a drawbridge, the high-level fixed bridge would maintain operational reliability.
- The high-level fixed bridge alternative includes adequate lane widths and shoulders, and a shared use path. These features improve safety for both motorized and non-motorized roadway users by correcting existing roadway deficiencies.
- The high-level fixed bridge is proposed within the existing ROW, owned by the Town, making it a feasible option for the Town to address bridge deficiencies.
- The high-level fixed bridge on southern alignment avoids use of the Section 4(f) Tot Lot and Citgo/1501 Broad Causeway (8DA10436).

Bay Harbor Islands Historic District (8DA10515)

Contents:

BroadCauseway_Figures_HistoricDistrict20240409

DRAFT

Section 4(f) Historic Resources Contributing to Bay Harbor Islands Historic District (8DA10515)



Broad Causeway Bridge Replacement PD&E Study

Town of Bay Harbor Islands

Miami - Dade County, Florida

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Citgo/1501 Broad Causeway (8DA10436)

Contents:

BroadCauseway_Figures_HistoricResource_Citgo_1501BroadCauseway

DRAFT

Section 4(f) Historic Resource - Citgo / 1501 Broad Causeway (8DA10436)



Broad Causeway Bridge Replacement PD&E Study

Town of Bay Harbor Islands

Miami - Dade County, Florida

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Natural Resources Appendix

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Wetlands Impacts for Preferred Alternative Map

Outstanding Florida Waters Map

USFWS Species Concurrence Letter

FWC Species Concurrence Letter

Correspondence for Aquatic Preserves

DRAFT

Benthic Community Types within the Project Study Area



Broad Causeway Bridge Replacement PD&E Study

Wetlands Map



Broad Causeway Bridge Replacement PD&E Study

OSWs within the Causeway Island Portion of the Project Study Area



Broad Causeway Bridge Replacement PD&E Study

Floodplains Map



Broad Causeway Bridge Replacement PD&E Study

Wetlands Impacts for Preferred Alternative Map



Broad Causeway Bridge Replacement PD&E Study

Outstanding Florida Waters Map



Service Layer Credits: World Imagery, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

LEGEND

-  Project Corridor Limits
-  Outstanding Florida Waters - Biscayne Bay Aquatic Preserve

Broad Causeway Bridge Replacement PD&E Study



Florida Department of Transportation

RON DESANTIS
GOVERNOR

1000 NW 111th Avenue
Miami, Florida 33172-5800

JARED W. PERDUE, P.E.
SECRETARY

April 30, 2024

Mr. John Wrublik
U.S. Fish and Wildlife Service
South Florida Ecological Services Office
1339 20th Street
Vero Beach, FL 32256-7517

Subject: **ESA Section 7 Coordination**
Project Name: Town of Bay Harbor Islands Broad Causeway Bridge Replacement
Limits: Broad Causeway Bridge from Broad Causeway Island to East of West Broadview Drive
Financial Management No.: 452428-1-21-01
Federal Aid No.: Not Assigned
County: Miami-Dade

Dear Mr. Wrublik,

The Town of Bay Harbor Islands (Town) conducted a Project Development and Environment (PD&E) Study in cooperation with the Florida Department of Transportation (FDOT), District Six, to evaluate potential bridge replacement alternatives of the existing Broad Causeway Bridge which connects the Town of Bay Harbor Islands with the City of North Miami, in Miami Dade County, Florida. As part of the study, a Natural Resources Evaluation (NRE), including a Protected Species and Habitat Evaluation was completed to determine potential impacts to federal and state listed species as a result of the proposed bridge replacement project. The Protected Species and Habitat Evaluation was conducted in accordance with Section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq), and the FDOT PD&E Manual. The following summarizes the project and federally listed species evaluation and effect determinations. This letter, and the attached NRE, are being transmitted to US Fish and Wildlife Service (USFWS) for review and concurrence in support of the PD&E Study.

The Preferred Alternative will address the structural and functional deficiencies of the existing Broad Causeway Bridge by replacing the existing bridge with a new 65-foot High-Level Fixed Bridge on a southern alignment. The new bridge includes a 4-lane divided roadway with two, 11-foot lanes in each direction separated by 4-foot inside shoulders and a 2-foot concrete barrier wall. The outside shoulders are 8 feet wide, adjacent to concrete barrier walls. A 14-foot shared use path along the north side of the new bridge accommodates pedestrians and bicycles with a 1.5-foot barrier wall to safely separate travel lanes and the path. In addition to the bridge replacement, the proposed project also includes new access ramps to the service station on the causeway island, a mid-block pedestrian crosswalk on Kane Concourse, signing, stormwater management facilities, and installation of new seawalls east and west of the existing bridge. In-water construction work is anticipated in association with the installation of the new bridge piers and demolition of the existing bridge. The new seawalls will be constructed landward of (behind) the existing

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seawalls on the east and west sides of the bridge, and the existing seawalls will be abandoned in place. All seawall construction activities will be conducted from land. The existing 27 bridge piers will have the piles cut off at the mudline with the portions below the mudline abandoned in place. Demolition of the two existing bascule piers is anticipated to require the use of explosives/blasting.

It is anticipated that the new bridge pilings/piers will be installed via impact hammer. The pile caps for the new bridge piers will be installed at the mean high water line without the need for dredging or changes to the mudline. The construction barge details (e.g., draw depths and weight/displacement) have not yet been determined. Thus, it is unclear whether the water depths within the project area will allow for barge movement during the new bridge pier/fender installation, and it is not yet known whether dredging will be required to allow for barge maneuvering during construction.

To identify and characterize the benthic habitats and biological resources to support the PD&E study, benthic surveys were conducted in August 2022 (Preliminary Benthic Survey) and July-August 2023 (Quantitative Benthic Survey). In addition, a June 2023 pedestrian field survey found occasional mangrove propagules and saplings (no mature trees) within the riprap along the causeway island. These mangroves are not considered essential fish habitat since they are very small and do not provide canopy or any substantial root structure that would provide any significant habitat for managed species. Five distinct benthic community types were identified within the survey area: Community 1 (Macroalgal Beds); Community 2 (Seagrass); Community 3 (Live Bottom); Community 4 (Coral Habitat Adjacent to the Seawalls); and Community 5 (Existing Seawalls and Bridge Piers). Each of these community types is described in the NRE and anticipated impacts to each community type are discussed below.

The following federal listed species were identified as having the potential to occur within the project study area – Florida bonneted bat (*Eumops floridanus*), West Indian manatee (*Trichechus manatus*), piping plover (*Charadrius melodus*), wood stork (*Mycteria americana*), American crocodile (*Crocodylus acutus*), and eastern indigo snake (*Drymarchon corais couperi*). Additionally, the tricolored bat (*Perimyotis subflavus*) and monarch butterfly (*Danaus plexippus*) were assessed as part of this project. The USFWS Information for Planning and Consultation (IPaC) and/or Florida Natural Areas Inventory (FNAI) Biodiversity Matrix Query reports identified 16 federally listed plant species with the potential to occur within the project study area: beach jacquemontia (*Jacquemontia reclinata*), Blodgett's silverbush (*Argythamnia blodgettii*), Cape Sable thoroughwort (*Chromolaena frustrata*), Carter's mustard (*Warea carteri*), Carter's small-flowered flax (*Linum carteri carteri*), crenulate lead-plant (*Amorpha crenulata*), deltoid spurge (*Chamaesyce deltoidea ssp. deltoidea*), Everglades bully (*Sideroxylon reclinatum ssp. austrofloridense*), Florida brickell-bush (*Brickellia mosieri*), Florida pineland crabgrass (*Digitaria pauciflora*), Florida prairie-clover (*Dalea carthagenensis floridana*), Florida semaphore cactus (*Consolea corallicola*), pineland sandmat (*Chamaesyce deltoidei pinetorum*), sand flax (*Linum arenicola*), Small's milkpea (*Galactia smallii*), tiny polygala (*Polygala smallii*), and Florida filmy fern (*Trichomanes punctatus ssp. floridanum*).

The project is within the USFWS designated Consultation Areas for the West Indian manatee, piping plover, American crocodile, and Florida bonneted bat. The project area also occurs within the Core Foraging Area of one previously documented wood stork colony. The project study area is located within the designated critical habitat (CH) for the West Indian manatee.

The effect determination for each of the federally listed species is discussed below and shown in **Table 1**.

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Mammals

Florida bonneted bat (FBB) - Because the project study area is located within the limits of the USFWS-designated 2019 FBB Consultation Area and within the South Florida Urban Bat Area, a FBB survey was conducted in 2023 which included a combination of acoustic and visual surveys (potential roost search). Based on the lack of FBB calls during the acoustic survey, the lack of potential roost trees, and the poor suitability of roosting habitat within the project study area, an effect determination of ***no effect*** has been made for the FBB.

West Indian manatee - The project study area is located within the designated critical habitat for the manatee and foraging habitat (seagrass) is located within the project study area. Manatees are known to travel through the project study area; however, no manatees were observed during any of the field surveys. The construction methodologies for demolition of the existing bridge structures have not yet been determined; however, demolition via the use of explosives/blasting will be required for the removal of the two bascule piers. Because the proposed project will: 1) implement the *Standard Manatee Conditions for In-water Work*, the National Marine Fisheries Service (NMFS) *Protected Species Construction Conditions* and the NMFS *Vessel Strike Avoidance Measures* during in-water construction activities (Appendix G of the NRE); 2) implement best management practices (BMPs) during construction to avoid or minimize unnecessary impacts to seagrasses; 3) mitigate for unavoidable impacts to seagrasses; 4) adhere to the agency-approved *Final Blasting Plan* and *Imperiled Species and Marine Mammal Watch Plan* to minimize impacts from the use of blasting/explosives (blasting plan will adhere to the USFWS's May 2005 *Guidelines for the Protection of Marine Mammals and Sea Turtles During the Use of Explosives in the Waters of the State of Florida* - Appendix G of the NRE); and 5) install manatee exclusion devices on any drainage culverts (between eight inches and eight feet in diameter) associated with the proposed project, the project determination of effect for the manatee is ***may affect, not likely to adversely affect***. Furthermore, ***the proposed project will not result in the destruction or adverse modification of manatee critical habitat***.

Birds

Piping plover - No piping plovers were observed within the project study area during any of the field surveys. Because the project study area does not contain suitable nesting or foraging habitat for this species, the project determination of effect for the piping plover is ***no effect***.

Wood stork – The only potential wood stork suitable foraging habitat (SFH) within the project study area consists of two other surface waters (OSW 2 and OSW 7) that are stormwater features comprised almost entirely of mowed and maintained St. Augustine grass that may hold ponded water year-round. Permanent direct impacts to OSW 2 and OSW 7 are anticipated in association with construction of the proposed stormwater management ponds (a total impact of 0.236 ac). The project study area also lacks potential perching or roosting trees. No wood storks were observed during any of the field surveys. According to the Effect Determination Key for the Wood Stork in South Florida (May 2010), the project determination of effect for the wood stork is ***may affect, not likely to adversely affect*** based on the following pathway: A→B→***not likely to adversely affect (NLAA)***.

Reptiles

American crocodile - The project study area does not contain foraging habitat and includes limited basking/nesting habitat due to dense riprap and concrete rubble used to stabilize shorelines. Apart from the possibility of individual crocodiles traveling through the project study area, it is highly unlikely that this species would inhabit the project study area. No American crocodiles were observed during any of the field

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surveys. While there is a possibility that they could migrate through the proposed project area during construction, the urbanized areas in and around the project study area do not offer suitable foraging, basking, or nesting habitats for this species. Therefore, the project determination of effect for the American crocodile is **no effect**.

Eastern indigo snake – No eastern indigo snakes were observed during the field surveys. Additionally, no gopher tortoise burrows or other suitable eastern indigo snake refugia were observed during any of the field surveys. Using the USFWS *Eastern Indigo Snake Programmatic Effect Determination Key* (January 25, 2010 and revised July 2017), the project determination of effect for the Eastern indigo snake is **may affect, not likely to adversely affect** based on the following pathway: A→B→C→D→*may affect, not likely to adversely affect*. To increase protection of this species during construction, the Town will adhere to the most current version of the *Standard Protection Measures for The Eastern Indigo Snake* (Appendix G of the NRE).

Plants

The USFWS IPaC and/or FNAI Biodiversity Matrix Query reports identified 16 federally listed plant species with the potential to occur within the project study area (see above and Table 1). None of these federally listed plant species have the potential to occur within the project study area or vicinity based on lack of suitable habitat within the project study area and/or habitat ranges that are well outside of the project area. No federally listed plants were observed during the June 2023 pedestrian field survey. Therefore, the project determination of effect for the federally protected plant species listed in Table 1 is **no effect**.

Other Species

Tricolored bat - A FBB survey was conducted in 2023 which included a combination of acoustic and visual surveys (potential roost search). No tricolored bat calls were documented during the acoustic survey. Furthermore, the project study area lacks potential roost trees, and contains poor suitability of roosting habitat. Based on the lack of FBB calls during the acoustic survey, the lack of potential roost trees, and the poor suitability of roosting habitat within the project study area, the probability of occurrence is low.

Monarch butterfly - The project study area does not contain suitable habitat for the monarch butterfly. No milkweed or suitable flowering vegetation was observed within the project study area during the pedestrian field survey. Apart from the possibility of individual monarchs traveling through the project study area, it is highly unlikely that this species would inhabit the project study area. No monarch butterflies were observed during any of the field surveys. While there is a possibility that they could migrate through the proposed project area during construction, the urbanized areas in and around the project study area do not offer habitat for this species, and the probability of occurrence is low.

Table 1: Federally Listed Species Potentially Occurring within the Project Study Area and their associated Effect Determinations

Species Name	Listing Status ¹	Occurrence Potential	Effect Determination ²
MAMMALS			
Florida bonneted bat	FE	Low ³	<i>No effect</i>
Tricolored bat	P(E)	Low ³	<i>N/A</i>
West Indian manatee	FT	High (CH) ⁴	<i>May affect, not likely to adversely affect</i>
BIRDS			

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Species Name	Listing Status ¹	Occurrence Potential	Effect Determination ²
Piping plover	FT	Low	<i>No effect</i>
Wood stork	FT	Low	<i>May affect, not likely to adversely affect</i>
INSECTS			
Monarch butterfly	C	Low	<i>N/A</i>
REPTILES			
American crocodile	FT	Low	<i>No effect</i>
Eastern indigo snake	FT	Low	<i>May affect, not likely to adversely affect</i>
PLANTS			
Beach jacquemontia	FE	None	<i>No effect</i>
Blodgett's silverbush	FT	None	<i>No effect</i>
Cape Sable thoroughwort	FE	None	<i>No effect</i>
Carter's mustard	FE	None	<i>No effect</i>
Carter's small-flowered flax	FE	None	<i>No effect</i>
Crenulate lead-plant	FE	None	<i>No effect</i>
Deltoid spurge	FE	None	<i>No effect</i>
Everglades bully	FT	None	<i>No effect</i>
Florida Brickell-bush	FE	None	<i>No effect</i>
Florida pineland crabgrass	FT	None	<i>No effect</i>
Florida prairie-clover	FE	None	<i>No effect</i>
Florida semaphore cactus	FE	None	<i>No effect</i>
Pineland sandmat	FT	None	<i>No effect</i>
Sand flax	FE	None	<i>No effect</i>
Small's milkpea	FE	None	<i>No effect</i>
Tiny polygala	FE	None	<i>No effect</i>
Florida filmy fern	FE	None	<i>No effect</i>

¹FE = Federally Endangered, FT = Federally Threatened, P(E) = Proposed for Listing as Federally Endangered, C = Candidate for Federal Listing

²N/A = Not Applicable

³Based on findings of the October 2023 Florida Bonneted Bat Survey (see Section 4.5 and Appendix F of the NRE for details).

⁴(CH) – the project study area is located within designated CH for the manatee

The following commitments are proposed by the Town to avoid and minimize impacts to protected species:

1. If the listing status of the tricolored bat is elevated by USFWS to Threatened or Endangered and the Preferred Alternative is located within the consultation area during the design and permitting phase of the proposed project, the Town commits to reinitiating consultation with the USFWS to determine the appropriate survey methodology and to address USFWS regulations regarding the protection of the tricolored bat.
2. The USFWS and Florida Fish and Wildlife Conservation Commission (FWC) *Standard Manatee Construction Conditions for In-Water Work* will be utilized during construction.

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3. To reduce the risk of entrapment and drowning of manatees, manatee exclusion devices (such as grating) shall be installed and maintained over any existing or proposed pipes or culverts greater than eight inches that are submerged or partially submerged and reasonably accessible to manatees. If horizontal or vertical bars are used, no more than 8-inch gaps on center shall be allowed. Grates shall be in place at the accessible end(s) during all phases of the construction process and as a final design element to restrict manatee access.
4. If the listing status of the monarch butterfly is elevated by USFWS to Threatened or Endangered and if the project area is located within the consultation area, during the construction phase of the proposed project, the Town commits to reinitiating consultation with the USFWS to determine the appropriate survey methodology and to address USFWS regulations regarding the protection of the monarch butterfly.
5. The most recent version of the USFWS *Standard Protection Measures for the Eastern Indigo Snake* will be utilized during construction.
6. The NMFS *Protected Species Construction Conditions, NOAA Fisheries Southeast Regional Office* will be utilized during construction.
7. The NMFS *Vessel Strike Avoidance Measures, NOAA Fisheries Southeast Regional Office* will be utilized during construction.
8. A seagrass survey will be conducted during the peak seagrass growing season (i.e., June 1-September 30) in the design phase. The seagrass survey protocol will be coordinated with NMFS prior to completion. If it is determined that there will be unavoidable impacts to seagrasses from the project, coordination with NMFS and USFWS will take place to determine appropriate avoidance and minimization measures to apply during construction.
9. The Town will provide mitigation for unavoidable impacts to seagrasses. A *Seagrass Mitigation Plan* will be developed to offset unavoidable impacts to seagrass from the proposed project. The *Seagrass Mitigation Plan* will be reviewed and approved by the NMFS, USFWS, US Army Corps of Engineers (USACE), South Florida Water Management District (SFWMD), and Miami-Dade County Department of Regulatory and Economic Resources Division of Environmental Resource Management (DERM) during the permitting process.
10. To identify areas that should be avoided by barges and work boats for construction and staging, prior to construction commencement, the Town will delineate and mark with visible buoys seagrasses located adjacent to (outside of) the impact areas within the vicinity of the project corridor. The seagrass marking requirement will be coordinated with the NMFS and USFWS during the permitting process.
11. All in-water construction activities will be limited to daylight hours.
12. Measures to minimize potential underwater noise impacts from pile driving and in-water construction will be determined during design and implemented during construction. Noise abatement measures for the project will be coordinated with, and approved by, the NMFS and the USFWS during the design and permitting process.

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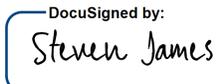
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13. A *Conceptual Blasting Plan* to provide general blasting information for the project, including proposed measures to minimize and mitigate potential effects on species, will be developed during the design process and reviewed/approved by the USFWS, NMFS, US Coast Guard (USCG), USACE, and FWC. Prior to construction, the Town and their contractor will submit a *Final Blasting Plan* containing details of the blasting means and methods, including the blasting design, an impact assessment, a mitigation plan, and an *Imperiled Species and Marine Mammal Watch Plan* which will be reviewed and approved by the USFWS, NMFS, USCG, USACE, and FWC. The blasting plan will be required to adhere to the USFWS's May 2005 *Guidelines for the Protection of Marine Mammals and Sea Turtles During the Use of Explosives in the Waters of the State of Florida*.
14. The Town commits to reinitiating consultation during design and permitting with NMFS and USFWS for boulder star coral and manatee CH and will provide the information necessary to determine the type, degree, and extent of impacts to listed species [and/or CH] potentially adversely impacted by the proposed project. The Town will develop mitigation measures in consultation with the NMFS and USFWS to offset unavoidable impacts. Completion of consultation and documentation of the project's compliance with the avoidance, minimization and mitigation requirements for the impacted resources will be provided by the Town in a subsequent project reevaluation prior to advancing to construction.

We ask that USFWS review the attached NRE for this project and provide concurrence to support the PD&E Study. Thank you for your continued cooperation on various FDOT projects. If you have any questions or require additional information, please contact Steven James at Steven.James@dot.state.fl.us or by phone at (305) 470-5221.

Sincerely,

DocuSigned by:

44A2F58851B5476...

Steven Craig James
District Environmental Manager, FDOT District 6

cc: Rob McMullen, Environmental Scientist III / District Noise Specialist, FDOT District 6
Megan Moore, Environmental Specialist III, FDOT District 6
Rodney Carrero-Santana, Town Engineer, Town of Bay Harbor Islands
David Konz, Senior Technical Manager, AtkinsRéalis

Attachments: Natural Resources Evaluation



Florida Fish and Wildlife Conservation Commission

Commissioners
Rodney Barreto
Chairman
Coral Gables

Steven Hudson
Vice Chairman
Fort Lauderdale

Preston Farnior
Tampa

Gary Lester
Oxford

Albert Maury
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Executive Director
Roger A. Young
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Charles "Rett" Boyd
Assistant Executive Director

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Managing fish and wildlife resources for their long-term well-being and the benefit of people.

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800-955-8771 (T)
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MyFWC.com

May 13, 2024

Steven James
Florida Department of Transportation District 6
1000 NW 111th Avenue
Miami, FL 33172-5800
Steven.James@dot.state.fl.us

Re: Town of Bay Harbor Islands Broad Causeway Bridge Replacement, Natural Resource Evaluation, Miami-Dade County

Dear Mr. James:

Florida Fish and Wildlife Conservation Commission (FWC) staff reviewed the above-referenced Natural Resources Evaluation (NRE) report in accordance with FWC's authorities under Chapter 379, Florida Statutes, and Chapter 68A-27, Florida Administrative Code.

The Town of Bay Harbor Islands conducted a Project Development and Environment (PD&E) Study in cooperation with the Florida Department of Transportation (FDOT) District 6 to evaluate potential bridge replacement alternatives of the existing Broad Causeway Bridge which connects the Town of Bay Harbor Islands with the City of North Miami, in Miami-Dade County. The project was previously evaluated through the Efficient Transportation Decision Making screening process (No. 14520). The limits of the project are from Broad Causeway Island to east of West Broadview Drive, approximately 0.97 miles in length. The preferred alternative will address the structural and functional deficiencies of the existing bridge by replacing it with a new 65-foot high-level fixed bridge on a southern alignment. The new bridge includes a 4-lane divided roadway with two, 11-foot lanes in each direction separated by 4-foot inside shoulders and a 2-foot concrete barrier wall, 8-foot-wide outside shoulders, and a 14-foot shared use path along the north side of the new bridge. The project also includes new access ramps to the service station on the causeway island, stormwater management facilities, and installation of new seawalls east and west of the existing bridge. In-water work is anticipated with installation of the new bridge piers and demolition of the existing bridge. The new seawalls will be constructed landward of the existing seawalls which will be abandoned in place. All seawall construction activities will be conducted from land. Demolition of the two existing bascule piers is anticipated to require the use of explosives.

The NRE report was prepared as part of the PD&E study to document wetlands, surface waters, protected species, critical habitat, and essential fish habitat within the project's corridor; evaluate potential impacts associated with the proposed project; provide effect determinations for protected species; identify mitigation needs, and coordinate with federal and state regulatory and resource agencies. FWC staff agrees with the effect determinations and supports the project implementation measures and commitments for protected species. Further coordination could be required during future species-specific surveys and project permitting.

For specific technical questions regarding the content of this letter, please contact Kristee Booth at (850) 363-6298 or KristeeBooth@MyFWC.com. All other inquiries may be directed to ConservationPlanningServices@MyFWC.com.

Sincerely,



Laura DiGruttolo
Land Use Planning Supervisor
Office of Conservation Planning Services

ld/kb
Broad Causeway Bridge NRE_58846_05092024

DRAFT



Florida Department of Transportation

RON DESANTIS
GOVERNOR

1000 NW 111th Avenue
Miami, FL 33172-5800

JARED W. PERDUE, P.E.
SECRETARY

May 14, 2024

Mr. Alex Reed
Director, Office of Resilience and Coastal Protection
Florida Department of Environmental Protection
3900 Commonwealth Boulevard
Mail Station 235
Tallahassee, FL 32399-3000

**SUBJECT: Request for Aquatic Preserve and Outstanding Florida Water
Concurrence**
Project Name: Town of Bay Harbor Islands Broad Causeway Bridge
Replacement
Limits: Broad Causeway Island to East of West Broadview Drive
Financial Management No.: 452428-1-21-01
Federal Aid No.: Not Assigned
ETDM#: 14520
County: Miami-Dade

Dear Mr. Reed,

The Town of Bay Harbor Islands (Town) is conducting a Project Development and Environment (PD&E) Study, in cooperation with the Florida Department of Transportation (FDOT) District Six, to evaluate potential bridge replacement alternatives of the existing Broad Causeway Bridge which connects the Town of Bay Harbor Islands with the City of North Miami, in Miami Dade County, Florida. The purpose of this letter is to get your concurrence with the determination that no adverse impacts to the Biscayne Bay Aquatic Preserve or OFW are anticipated as a result of the proposed project based on the information provided below.

The intent of the project is to address identified structural and functional deficiencies of the 73-year-old bridge through potential replacement alternatives. The Town evaluated two (2) build alternatives and the No Build Alternative. The build alternatives consist of the Mid-Level Movable Bridge and a High-Level Fixed Bridge. The High-Level Fixed Bridge was selected as the Preferred Alternative based on engineering and environmental analysis, public input, cost, and safety. The Broad Causeway Bridge and causeway island lies within the limits of the Biscayne Bay Aquatic Preserve, an Outstanding Florida Water (OFW). Please see attached figures showing the project location and boundaries of the aquatic preserve and OFW.

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The Preferred Alternative will address the structural and functional deficiencies of the existing Broad Causeway Bridge by replacing the existing bridge with a new 65-foot High-Level Fixed Bridge on a southern alignment. The new bridge includes a 4-lane divided roadway with two, 11-foot travel lanes in each direction separated by 4-foot inside shoulders and a 2-foot concrete barrier wall. The outside shoulders are 8 feet wide, adjacent to concrete barrier walls. A 14-foot shared-use path along the north side of the new bridge accommodates pedestrians and bicycles with a 1.5-foot barrier wall to safely separate travel lanes and the path. In addition to the bridge replacement, the proposed project also includes new access ramps to the service station on the causeway island, a mid-block pedestrian crosswalk on Kane Concourse, signing, stormwater management facilities, and installation of new seawalls east and west of the existing bridge. In-water construction work is anticipated in association with the installation of the new bridge piers and demolition of the existing bridge. New seawalls will be constructed landward of (behind) the existing seawalls on the east and west sides of the bridge, and the existing seawalls will be abandoned in place. All seawall construction activities will be conducted from land. Dredge and fill will not be required for removal of the existing bridge piers, as the existing 27 bridge piers will have the piles cut off at the mudline with the portions below the mudline abandoned in place. Demolition of the two existing bascule piers is anticipated to require the use of explosives/blasting.

The current PD&E study was reviewed through FDOT's Efficient Transportation Making (ETDM) process where members of the Environmental Technical Advisory Team (ETAT) provided input/comments. The ETDM Programming Screening Summary Report (ETDM #14520) was published on September 28, 2023, along with the Advanced Notification Package (April 12, 2023). The ETDM report which includes agency comments, GIS analysis, and additional project information can be accessed at the following website: <http://etdmpub.fla-etat.org/est>. The project's class of action is a Type 2 Categorical Exclusion.

During the ETDM Programming Screen, the Florida Department of Environmental Protection (FDEP) did not assign a Degree of Effect (DOE) for Special Designations. The US Environmental Protection Agency (USEPA) assigned a DOE of *N/A / No Involvement* and the South Florida Water Management District (SFWMD) assigned a DOE of *None* to Special Designations. The overall DOE for Water Resources was *Moderate*. Comments were provided by FDEP, USEPA, and SFWMD under the Water Resources section. FDEP noted that every effort should be made to maximize the treatment of stormwater runoff from the proposed road project to prevent ground and surface water contamination. Stormwater treatment should be designed to maintain the natural pre-development hydroperiod and water quality, as well as to protect the natural functions of adjacent wetlands. The FDEP recommended that the PD&E study include an evaluation of existing stormwater treatment adequacy and details on the future stormwater treatment facilities. Retrofitting of stormwater conveyance systems would help reduce impacts to water quality. FDEP also recommended avoidance, minimization, and mitigation for the 20+ acres of seagrass within the 500-foot project buffer.

In accordance with the *FDOT PD&E Manual*, the environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or

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have been, carried out by the FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022, and executed by the Federal Highway Administration (FHWA) and FDOT.

As part of the PD&E process, an evaluation of existing stormwater treatment adequacy was completed for the Preferred Alternative. Currently, no formal stormwater treatment mechanisms are provided for any of the existing Broad Causeway Bridge and stormwater discharges directly into Biscayne Bay via existing scuppers. The proposed stormwater system improvements associated with the Preferred Alternative eliminate the existing scuppers and will route runoff to the bridge approaches.

West of the crest of the proposed bridge, stormwater will be collected into stormwater ponds on the causeway island and will no longer drain into the bay. East of the crest of the proposed bridge, stormwater will be collected into a stormwater pond on the southeast corner of the proposed bridge. The roadway east of the bridge on West Broadview Drive is too low to be intercepted by water quality storage and will continue to discharge directly to Biscayne Bay. Overall, the proposed project stormwater system meets the design and performance criteria established for the treatment and attenuation of discharges to OFWs under Rule 40E-4, F.A.C. and will include, at a minimum, the water quality requirements for the water quality impacts as required by the SFWMD in Chapter 62-302, F.A.C. It is therefore anticipated that no permanent adverse effects will occur to the water quality within the aquatic preserve as a result of the project.

During construction, the contractor will comply with all provisions in the most recent version of the *FDOT Standard Specifications for Road and Bridge Construction*. Best Management Practices (BMPs) including a National Pollutant Discharge Elimination System (NPDES) Stormwater Management Plan, erosion control measures, and turbidity controls, will be employed to avoid and minimize any temporary impacts to water quality. The Town also commits to minimizing impacts to natural resources to the greatest extent possible, including the following: 1) mitigation will be provided for unavoidable impacts to seagrasses; 2) corals and barrel sponges in the area of potential impact will be inventoried and those suitable will be relocated prior to construction; 3) a *Barge Accessibility Plan* depicting the locations of barge work channels and barge exclusion zones will be prepared during permitting; 4) identify areas that should be avoided by barges and work boats during construction and staging. Prior to construction commencement, the Town will delineate and mark with visible buoys seagrasses located adjacent to (outside of) the impact areas within the vicinity of the project corridor; 5) to minimize coral impacts, the new seawall will be constructed landward of the existing seawall (the existing seawall will remain in place), and all seawall construction activities will be conducted from land.

Following completion of this PD&E Study, coordination with environmental regulatory agencies will continue through the final design phase and permitting process. The following

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permits are anticipated to be required for the project:

- US Coast Guard (USCG) Bridge Permit
- US Army Corps of Engineers (USACE) Nationwide 15 Permit (including Section 408 review)
- SFWMD Environmental Resource Permit
- SFWMD Consumptive Water Use Permit
- Miami-Dade County Department of Regulatory and Economic Resources (DRER) Class I Coastal Construction Permit
- Miami-Dade County Class II Permit
- Miami-Dade County Class VI Permit
- Miami-Dade County Tree Permit

As the overall stormwater improvements will benefit water quality in the aquatic preserve and OFW, and only temporary impacts to water quality may occur during construction which will be minimized with the implementation of BMPs. The FDOT in cooperation with the Town of Bay Harbor Islands, is requesting your concurrence that no adverse impacts to the Biscayne Bay Aquatic Preserve or OFW are anticipated as a result of the proposed project. We kindly request that you provide a response within 30 days of receiving this letter.

If you have any questions, please contact me at (305) 470-5221 or steven.james@dot.state.fl.us or Kimberly Taveras, at (305) 470-5138 or kimberly.taveras@dot.state.fl.us. Thank you for your assistance with this project.

Sincerely,

DocuSigned by:

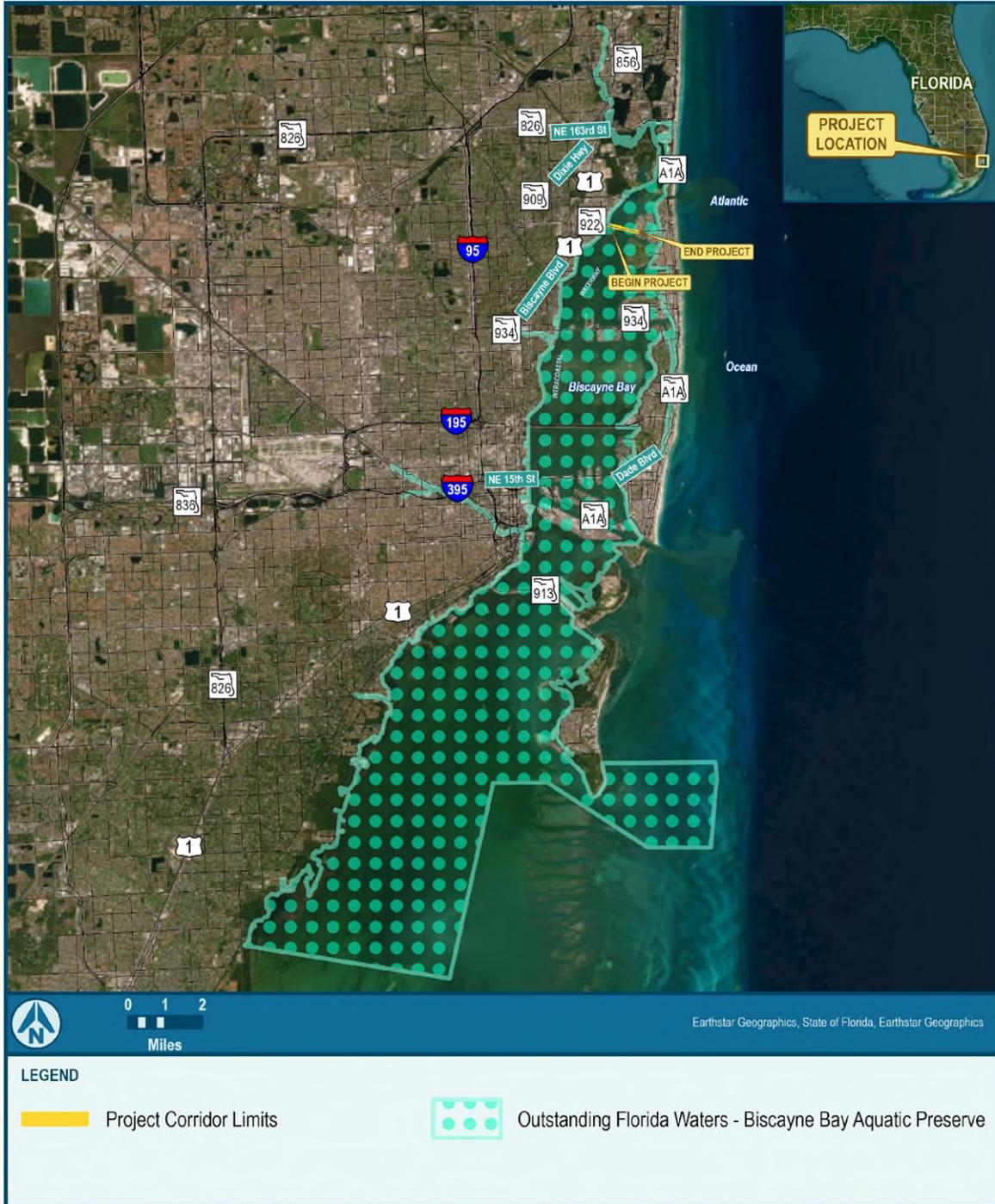
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Steven Craig James, RLA
Environmental Manager

Attachments

cc: Dat Huynh, PE - FDOT
Kimberly Taveras – FDOT
Wendy Lasher, AICP – AtkinsRéalis
Rodney Carrero-Santana, PE, CFM, LEED AP – Town of Bay Harbor Islands

Outstanding Florida Waters and Aquatic Preserves Map - Biscayne Bay Aquatic Preserve



Broad Causeway Bridge Replacement PD&E Study

Town of Bay Harbor Islands

Miami - Dade County, Florida

FPID: 452428-1-21-01

Outstanding Florida Waters and Aquatic Preserves Map



Broad Causeway Bridge Replacement PD&E Study

Town of Bay Harbor Islands

Miami - Dade County, Florida

FPID: 452428-1-21-01

Physical Resources Appendix

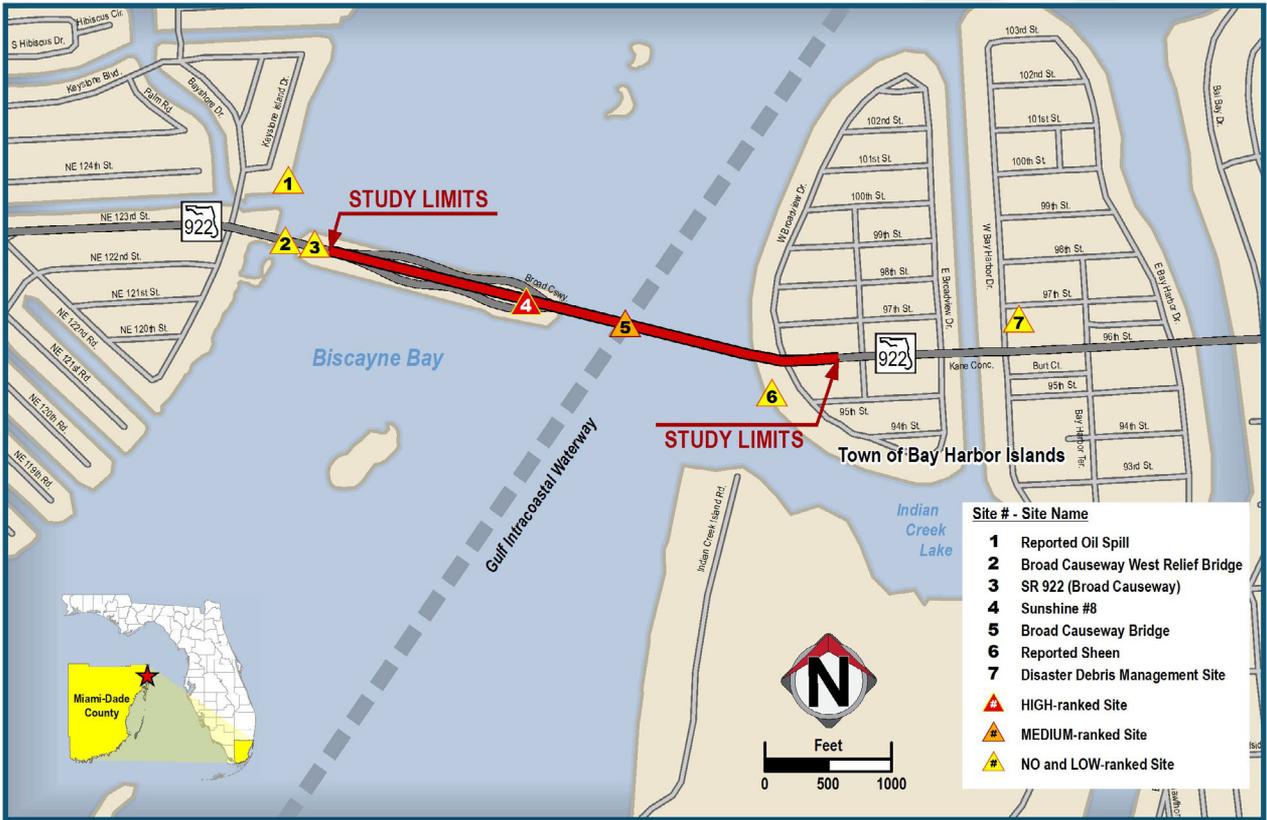
Contents:

Potential Contamination Sites Map

Noise Map

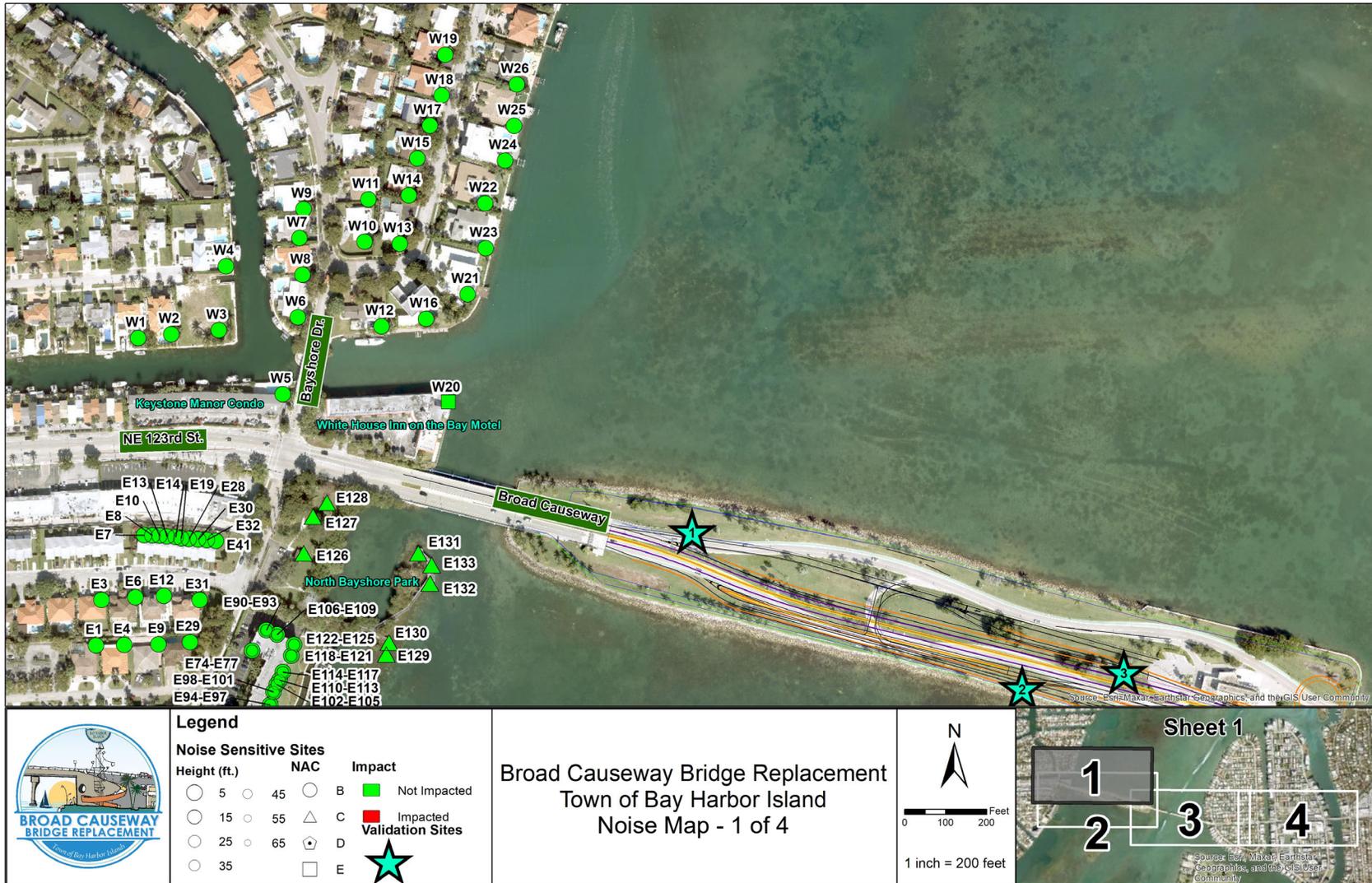
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Potential Contamination Sites



Broad Causeway Bridge Replacement PD&E Study

Noise Map - 1 of 4



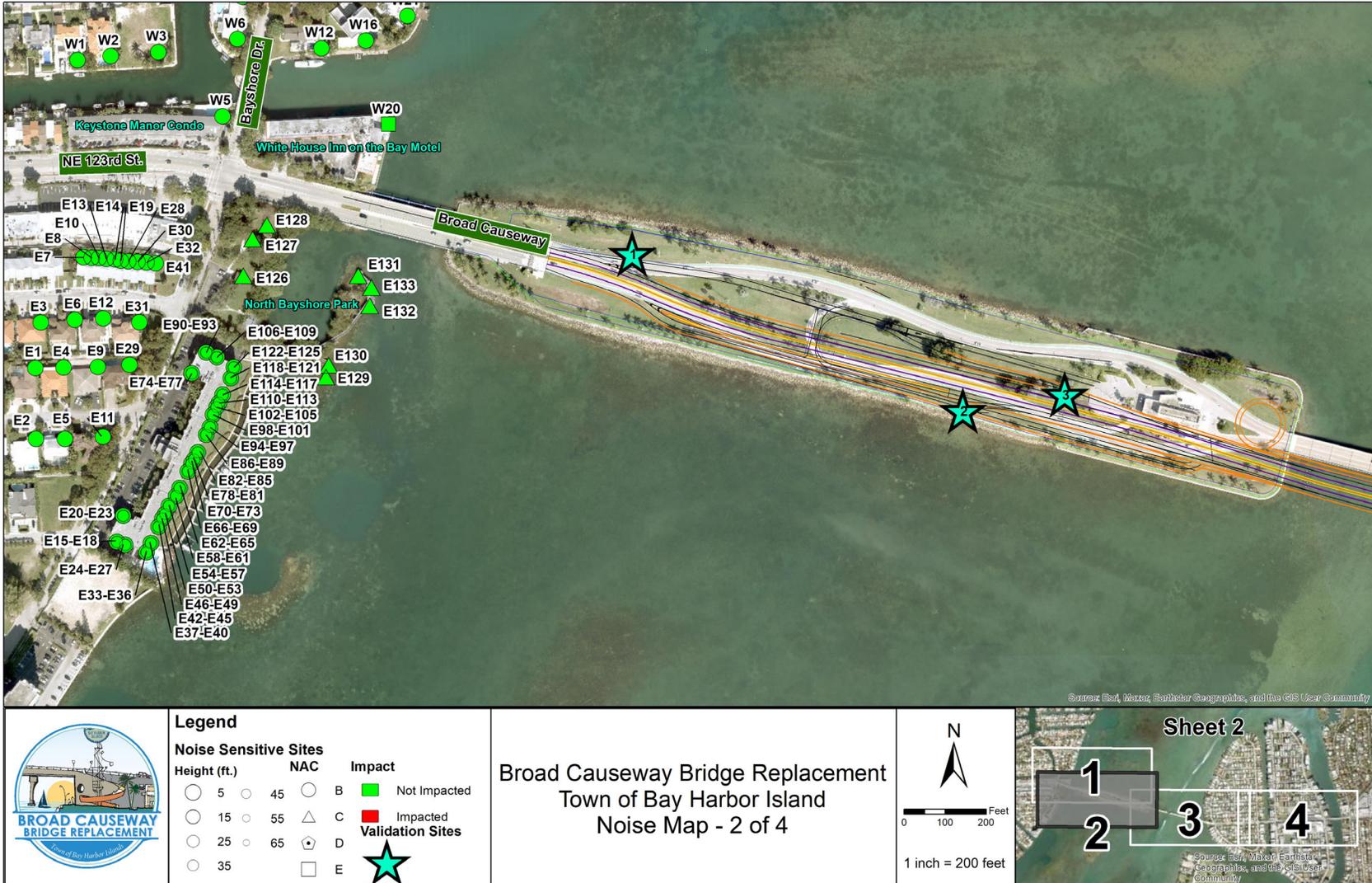
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Noise Map - 2 of 4



Broad Causeway Bridge Replacement PD&E Study

Town of Bay Harbor Islands

Miami - Dade County, Florida

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Noise Map - 3 of 4



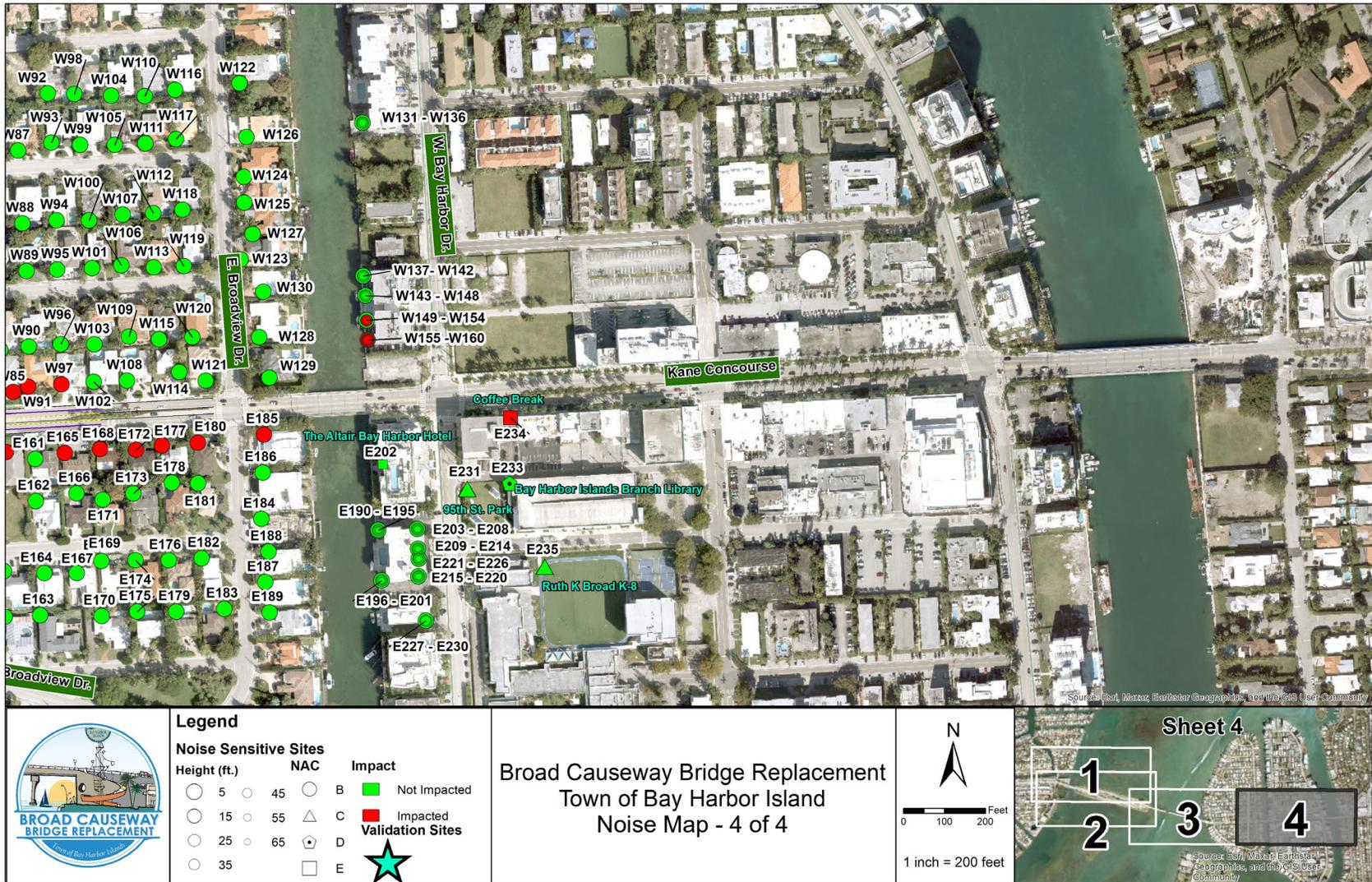
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Noise Map - 4 of 4



Broad Causeway Bridge Replacement PD&E Study

Town of Bay Harbor Islands

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