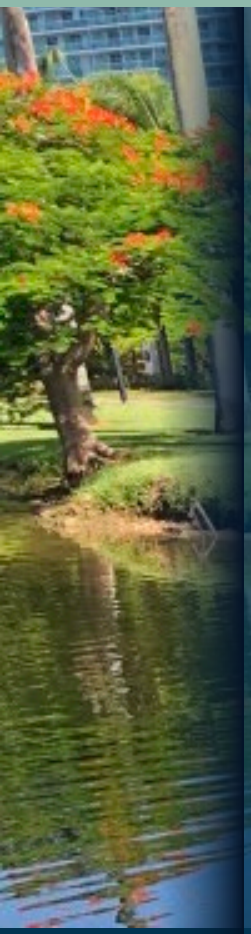
Atlantic Isles Lagoon Bridge (Bridge No. 874218)
Project Development and Environment (PD&E) Study

From Atlantic Isles West of SR A1A to Atlantic Avenue

Miami-Dade County, Florida



City of Sunny Isles Beach
Historic Preservation Board
Consultation Meeting

October 11, 2022

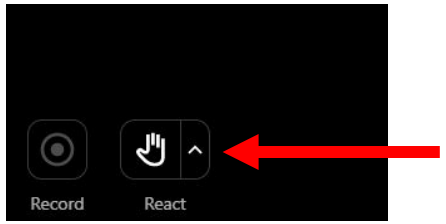
FPID No. 430029-2-21-01 | ETDM No. 14413

Start-up & Welcome

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated December 14, 2016, and executed by FHWA and FDOT.

About the Virtual Meeting Format

- GoToMeeting online meeting platform
- Raise hand to speak on control panel or comment in the chat
- Questions will be responded to after the presentation



Raise Hand button located at bottom left-hand corner of your screen

Technical Information (Technical Issues)

This meeting is being recorded.

Type your issue in **Questions pane** on the control panel.

Meeting Purpose and Speakers

Nick Danu
FDOT

Amy Streelman
Janus Research

Steven Craig James
FDOT

Colleen Ross
Jacobs

John Flora
Jacobs

City of Sunny Isles Beach Historic Preservation Board Introductions

Title VI Compliance

Public participation at this meeting is solicited without regard to race, color, national origin, age, sex, religion, disability or family status. Persons wishing to express their concerns relative to FDOT compliance with Title VI may do so by contacting:

Nicholas Danu, P.E.
FDOT District 6 Project Manager
1000 NW 111 Avenue
Miami, Florida 33172
(305) 470-5342
Nicholas.Danu@dot.state.fl.us

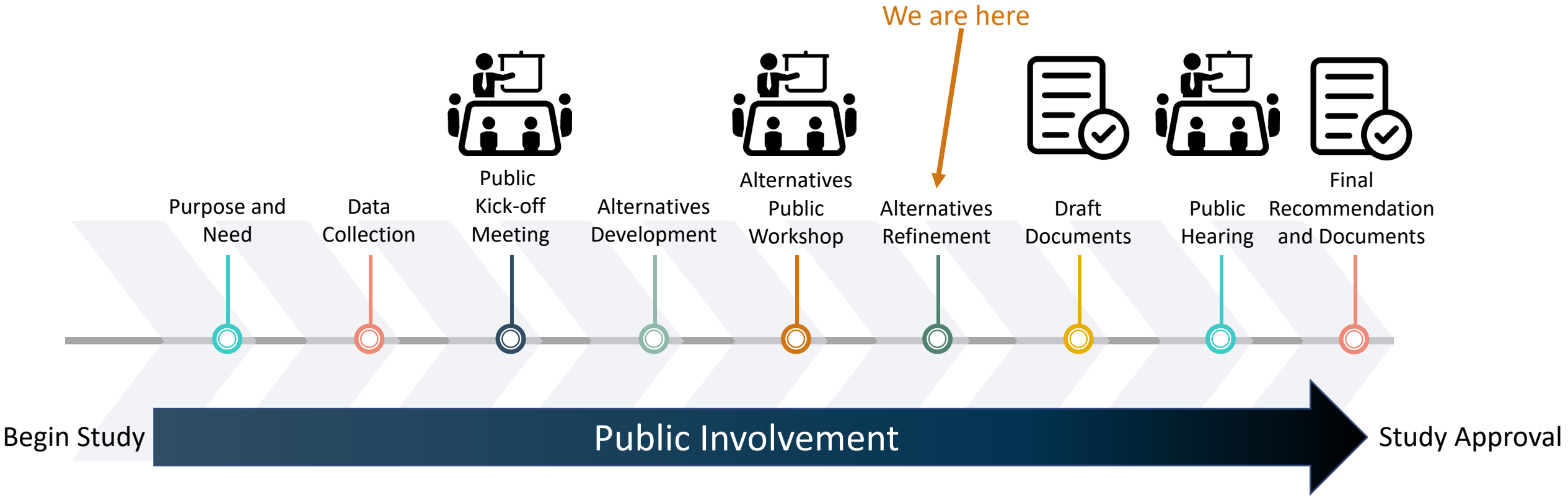
Aldrin T. Sanders
Civil Rights Program Manager
Equal Opportunity Office
Florida Department of Transportation
605 Suwannee Street MS65
Tallahassee, Florida 32399
(850) 414-4764
Aldrin.Sanders@dot.state.fl.us

All inquiries or concerns will be handled according to FDOT procedure and in a prompt and courteous manner.

AGENDA

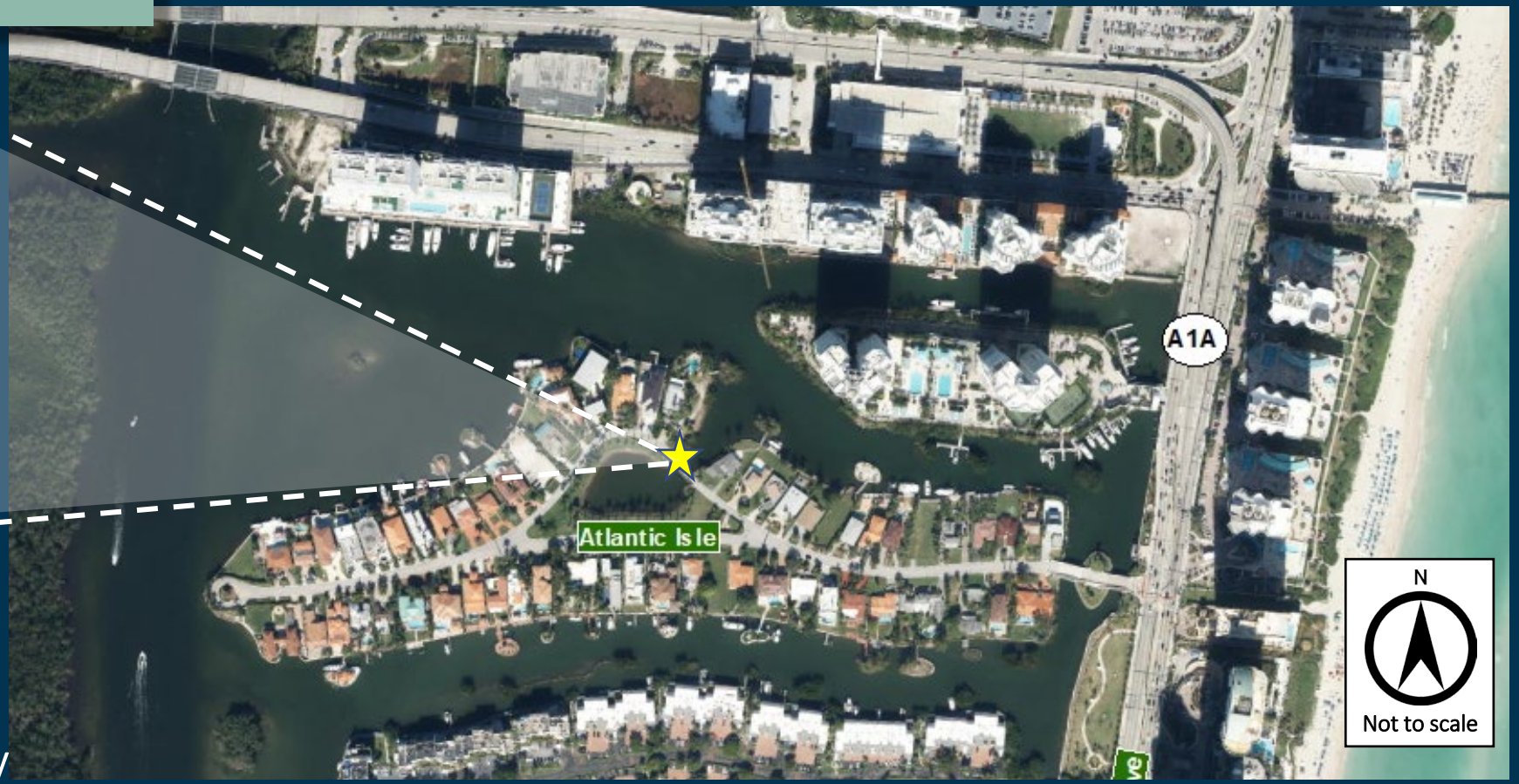
- ✓ Project Introduction & Background
- ✓ Purpose and Need
- ✓ Existing Conditions
- ✓ Cultural Resources
  - ✓ Historic Significance
  - ✓ Section 106 Process
- ✓ Proposed Alternatives
- ✓ Next Steps

What is a PD&E Study?



Project Location Map

- Located on Atlantic Island
- City of Sunny Isles Beach
- Atlantic Isle residential community
- Island surrounded by Biscayne Bay
- Bridge spans Atlantic Isle Lagoon



Project Study Area

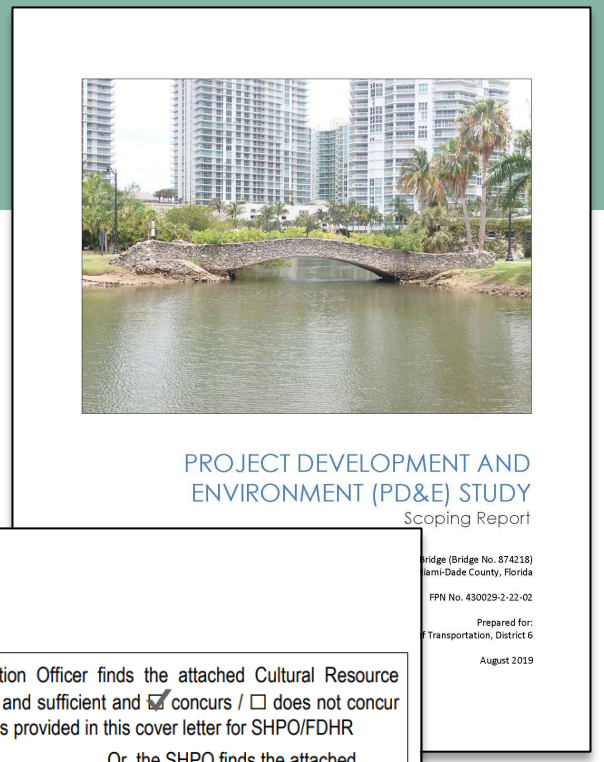
- Two local streets within Study Area:
  - Atlantic Avenue – one-way eastbound facility
  - Atlantic Isles – two-way facility
- Atlantic Isle Bridge (FDOT Bridge No. 874218)
  - Located on Atlantic Avenue (one-way)
  - Determined National Register of Historic Places (NRHP)-eligible in 2016
- Atlantic Island Park and Lagoon- Determined NRHP-eligible in 2022

Project Background

- Bridge constructed in 1925
- Low-level bridge with cast-in-place reinforced concrete arch
- 1999 – load rating analysis performed
- Bridge inspected annually

Project Timeline

- ✓ December 2016 – Proof of Concept Report
- ✓ May 2018 – Bridge Rehabilitation Technical Memorandum
- ✓ August 2019 – PD&E Study Scoping Report
- ✓ February 2020 – ETDM Programming Screen
- ✓ Summer 2020 – PD&E Study Initiated
- ✓ October 27, 2020 – Public Kick-Off Meeting
- ✓ February 4, 2022 – SHPO Concurrence of CRAS



PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
Scoping Report

ridge (Bridge No. 874218)
iami-Dade County, Florida

FPN No. 430029-2-22-02

Prepared for:
f Transportation, District 6

August 2019

DocuSign Envelope ID: 0833A122-AC22-4A55-ABB3-11A43DED340D

Timothy A. Parsons, Ph.D.
January 27, 2022
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 2022-518. Or, the SHPO finds the attached document contains _____ insufficient information.
In accordance with the Programmatic Agreement among the ACHP, SHPO and FDOT regarding Implementation of the Federal-Aid Highway Program in Florida, if providing concurrence with a finding of No Historic Properties Affected for a project as a whole, or to No Adverse Effect on a specific historic property, SHPO shall presume that FDOT may approve the project as de minimis use under Section 4(f) under 23 CFR 774.

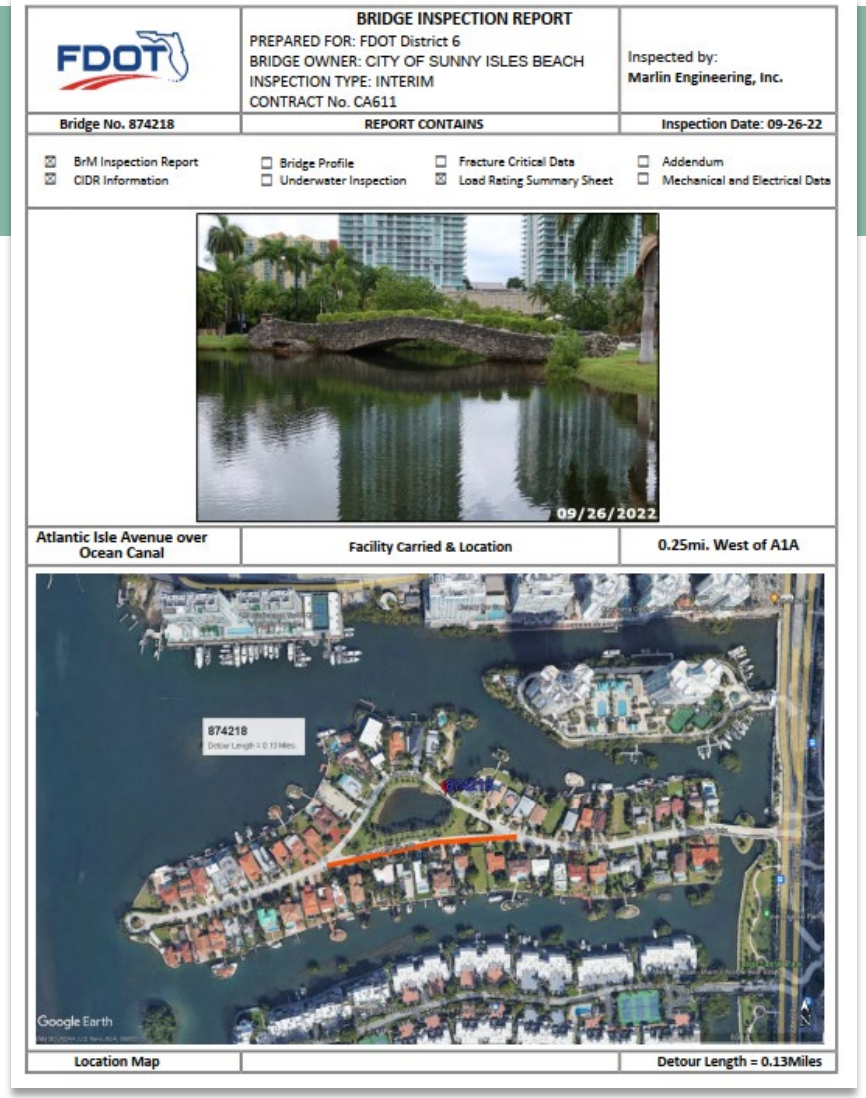
SHPO Comments:

Kelly L. Chase 2/4/2022

Timothy A. Parsons, Director, and State Historic Preservation Officer
Florida Division of Historical Resources
[DATE]

Bridge Deficiencies

- FDOT Bridge Inspection – Performed September 26, 2022
  - Bridge Health Index = 60.39 (out of 100)
  - Sufficiency Rating = 40.9 (out of 100)
  - Functionally Obsolete – substandard traffic barriers and roadway geometry
  - Missing oolitic limestone on north face of arch
  - Exposed steel and areas of corrosion throughout length of arch underside
- Geotechnical Evaluation – Performed in March 2021
  - Inconclusive
  - Bridge classified as having “unknown foundations”



FDOT

BRIDGE INSPECTION REPORT

PREPARED FOR: FDOT District 6
BRIDGE OWNER: CITY OF SUNNY ISLES BEACH
INSPECTION TYPE: INTERIM
CONTRACT No. CA611

Inspected by: Marlin Engineering, Inc.

Bridge No. 874218 | REPORT CONTAINS | Inspection Date: 09-26-22

☒ BrM Inspection Report ☒ CIDR Information ☐ Bridge Profile ☐ Underwater Inspection ☐ Fracture Critical Data ☒ Load Rating Summary Sheet ☐ Addendum ☐ Mechanical and Electrical Data

Atlantic Isle Avenue over Ocean Canal | Facility Carried & Location | 0.25mi. West of A1A

Location Map | Detour Length = 0.13Miles

Purpose and Need

- Address structural deficiencies
- Provide a safe and usable route for the public
- Improve functional operations

Project Goals

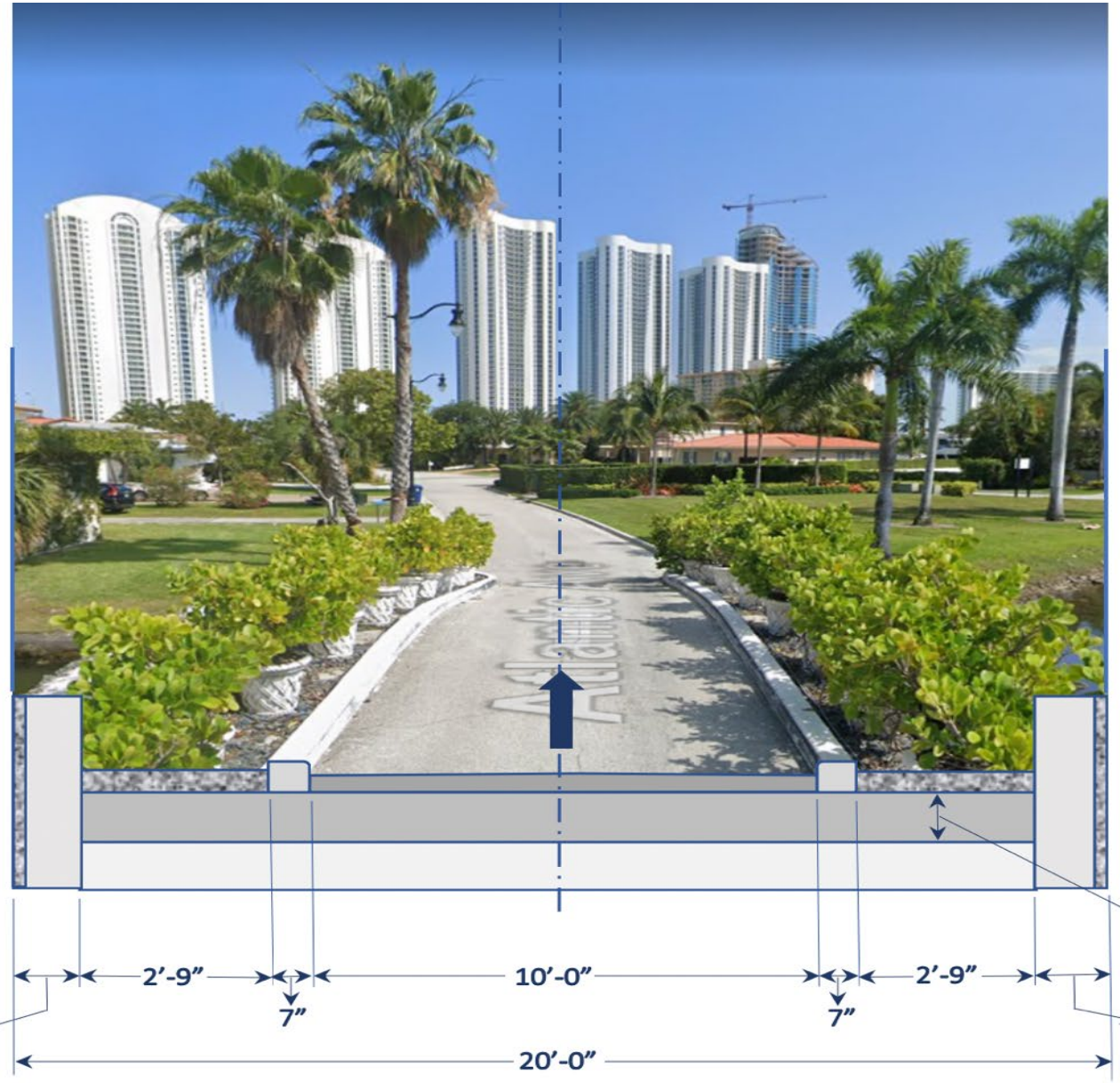
Minimize Environmental Impacts

Minimize Effects To Significant Cultural Resources

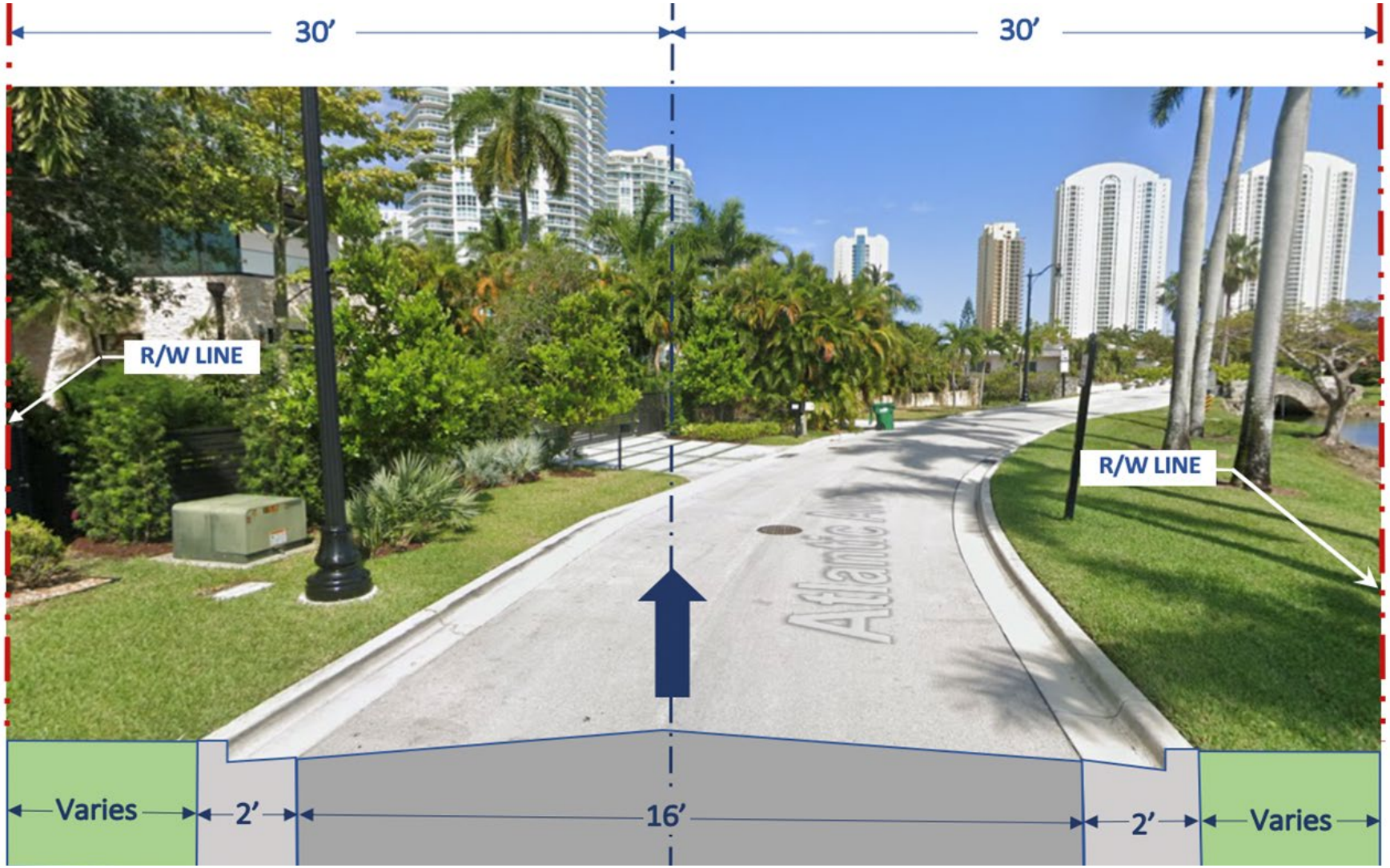
Enhance Safety

Improve Mobility

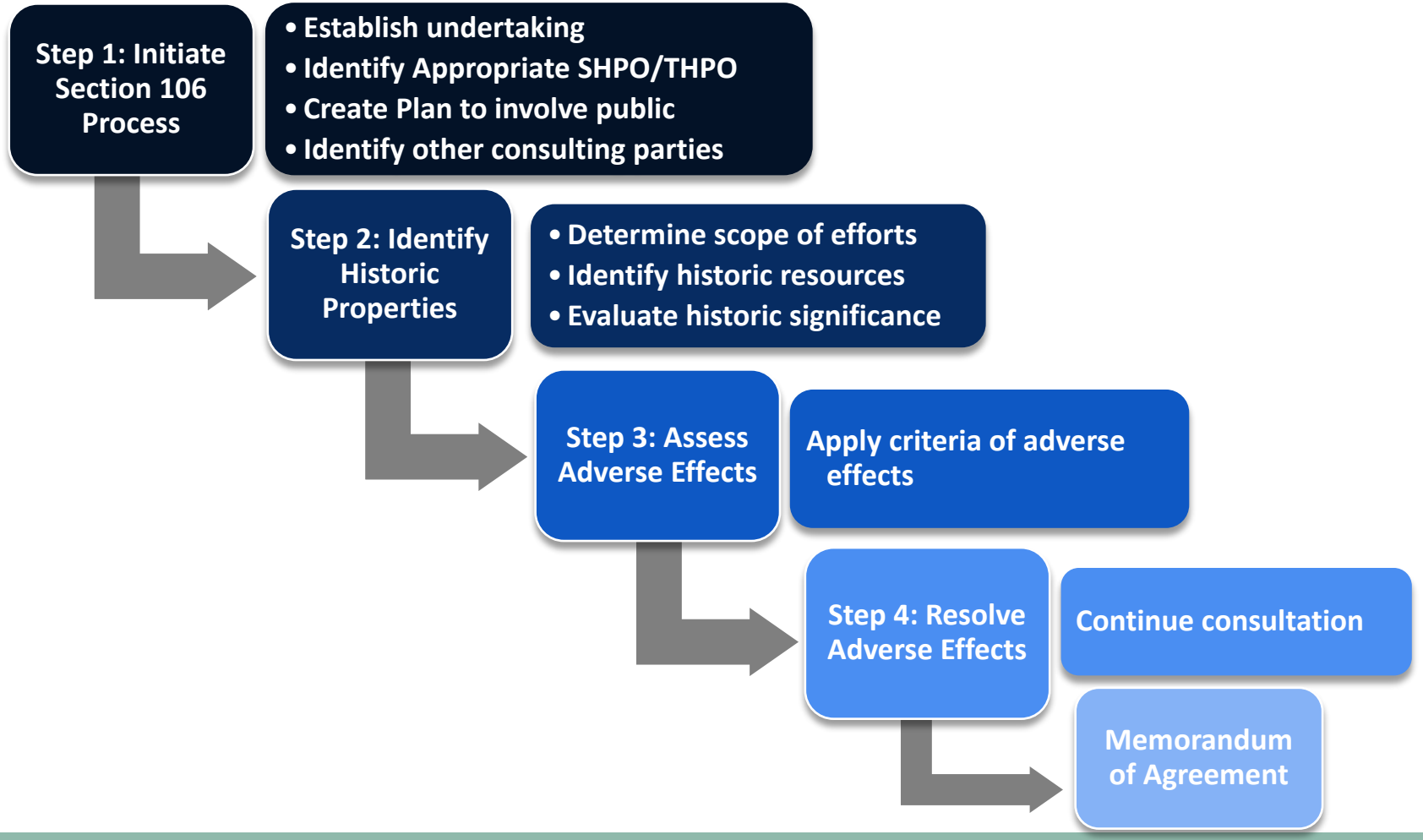
Existing Typical Section for Bridge No. 874218



Atlantic Avenue Existing Typical Section



Section 106 of the National Historic Preservation Act Process



Cultural Resources - APE

Area of Potential Effect (APE)

- Defined based on the improvements proposed as part of alternatives being considered
- Cultural Resources Assessment Survey (CRAS) - documented resources within APE
- FMSF forms prepared as part of this effort and each resource evaluated according to the National Register of Historic Places Criteria

Cultural Resources

- Atlantic Island Resource Group (8DA19241):
  - Atlantic Island Bridge (8DA6433)
  - Lake of the Isles (Lagoon) (8DA15824)
  - Atlantic Island Park (8DA15825)
- 8/23/2016 – SHPO determined Atlantic Island Bridge NRHP-eligible
- 2/24/2022 – SHPO determined Atlantic Island Resource Group and associated resources NRHP-eligible
- Memorandum of Agreement – to document minimization & mitigation

Atlantic Isle Historic Importance

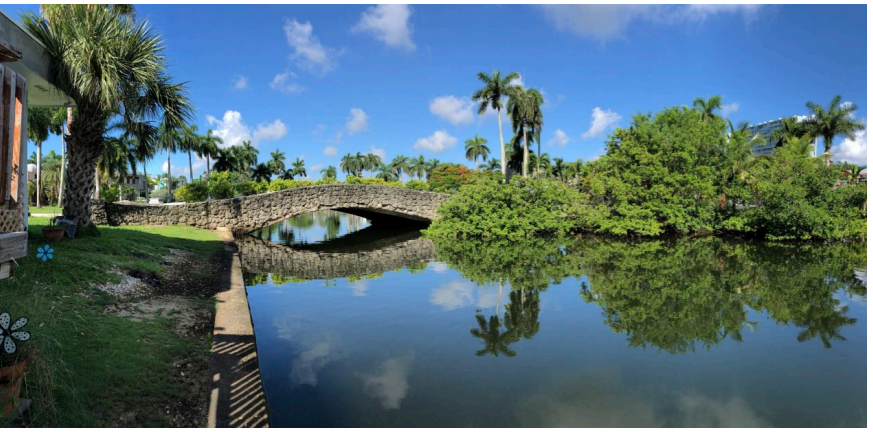
- Atlantic Isle island was constructed during the Florida Boom Period (1917–1929) and the original design included these resources:
  - Atlantic Island Bridge
  - Lake of the Isles (Lagoon)
  - Atlantic Island Park
- Atlantic Island Bridge Historic Elements
  - Only remaining historic bridge of the three originally constructed on the island in 1925
  - Bridge's oolitic limestone quarried in Miami-Dade County (unique application for a bridge)
  - Irregular whitewashed stucco on the interior of the bridge
  - Early example of an arch deck bridge

Section 106 of the National Historic Preservation Act

- CRAS – completed and SHPO concurred with findings in 2016 and 2022
- Evaluate Determination of Effects—in progress
- Consultation with Affected Parties, Agencies, and Local Stakeholders—in progress
- Memorandum of Agreement – will be prepared during consultation if significant resources are adversely affected
- Section 4(f) applies if there is determination of adverse effect to significant resources

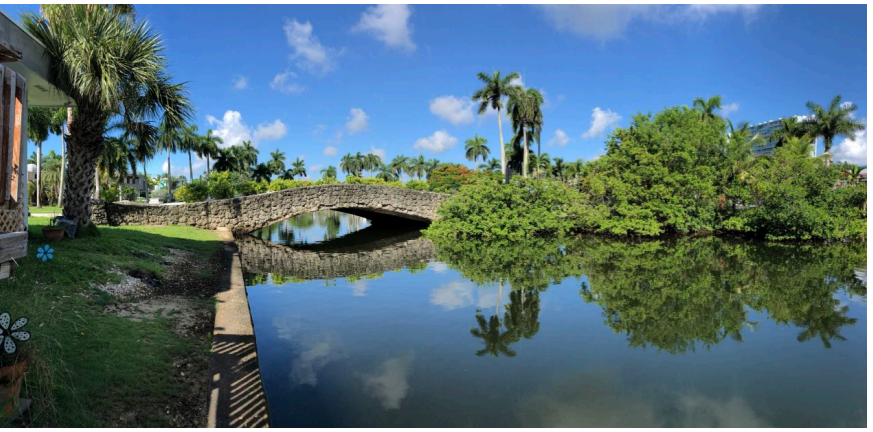
Affected Parties Consultation

- ✓ Present Project Purpose and Need and Alternatives Considered
- ✓ Discuss the Section 106 Process
- ✓ Outline how the Section 106 Process is being carried out during course of this project
- ✓ Present findings of cultural resources studies and consultation participants provide input regarding resources and eligibility
- ✓ Define next steps in the Section 106 process: effects and resolution of effects
- ✓ Input on future consultation related to potential effects and minimization and mitigation measures



Initial Alternatives Considered

- ✓ No-Action
- X Transportation Systems Management and Operations Alternative
- X Multimodal Alternative
- X Tunnel Alternative
- ✓ Bridge Rehabilitation
- ✓ Bridge Replacement



Viable Alternatives

- No-Action Alternative
- Build Alternative 1 - Bridge Rehabilitation
- Build Alternative 2 - Bridge Replacement

No Action Alternative

Advantages:

- No construction effects
- No construction costs
- No disruption to community or travel patterns

Disadvantages:

- Frequent maintenance
- Does not preserve historic integrity
- Does not provide new bridge riding surface or structural arch
- Does not involve new foundations
- Load restrictions remain

Build Alternative 1 - Rehabilitation

Advantages:

- Provides new bridge riding surface and structural arch
- Provides new bridge foundations
- Maintains existing bridge façade (oolitic limestone)
- Maintains existing arch
- Load restrictions removed
- New bridge components life = 75 years

Disadvantages:

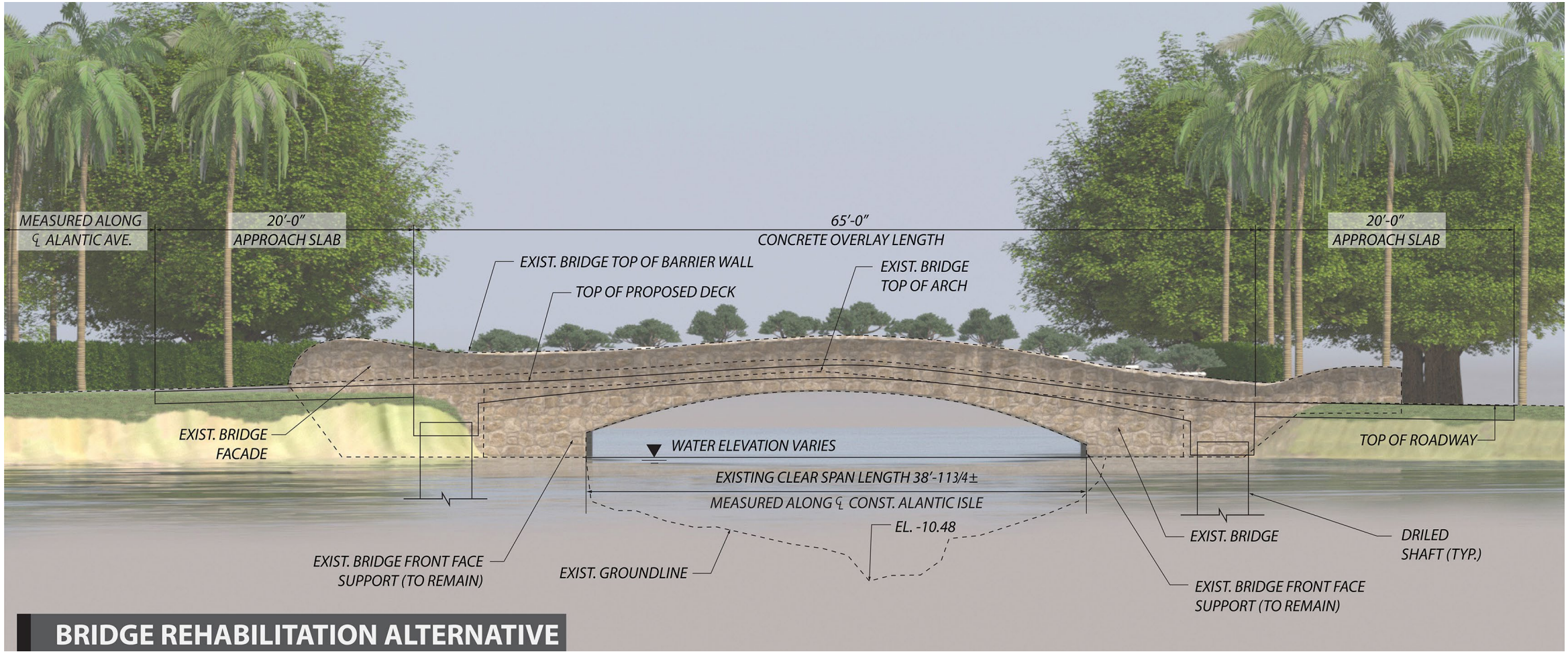
- Does not rehabilitate façade
- Significant construction risks
  - Bridge façade could crumble
  - Potential for bridge settlement
- Remaining historic bridge elements life ~ 15 to 25 years
- Frequent future maintenance of bridge façade
- High construction costs compared to replacement

Build Alternative 1 – Rehabilitation

Typical Section

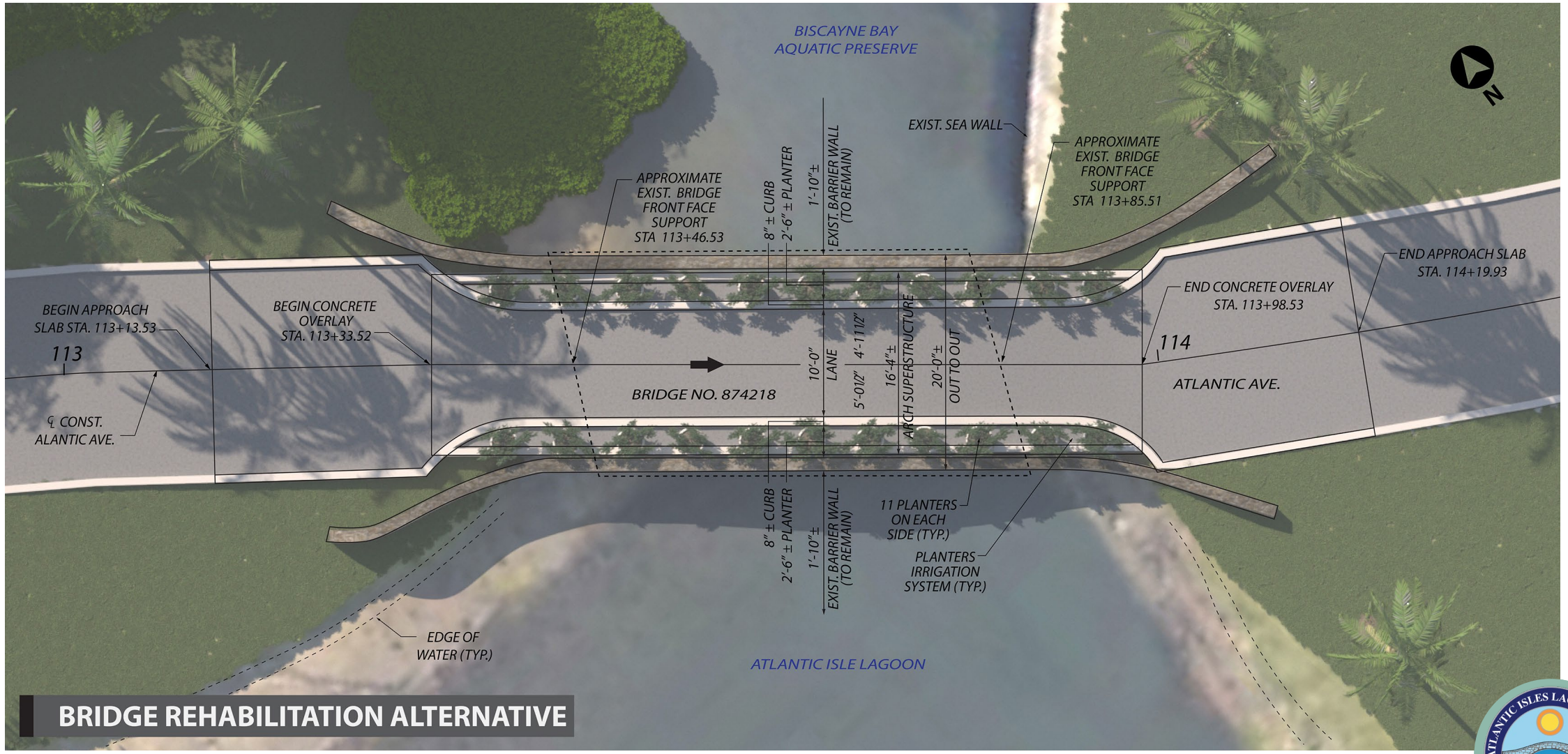
Build Alternative 1 – Rehabilitation

Elevation View



Build Alternative 1 – Rehabilitation

Plan View



Build Alternative 2 - Replacement

Advantages:

- Meets current Florida Greenbook criteria
- Improves bridge operations and safety
- Adds 8-ft-wide shared use path
- Design could mimic historical character of existing bridge if desired
- Lower construction & maintenance costs (compared to Rehabilitation Alternative)
- Oolitic limestone could be reused (or locally sourced)
- Bridge life = 75 years
- Load restrictions removed

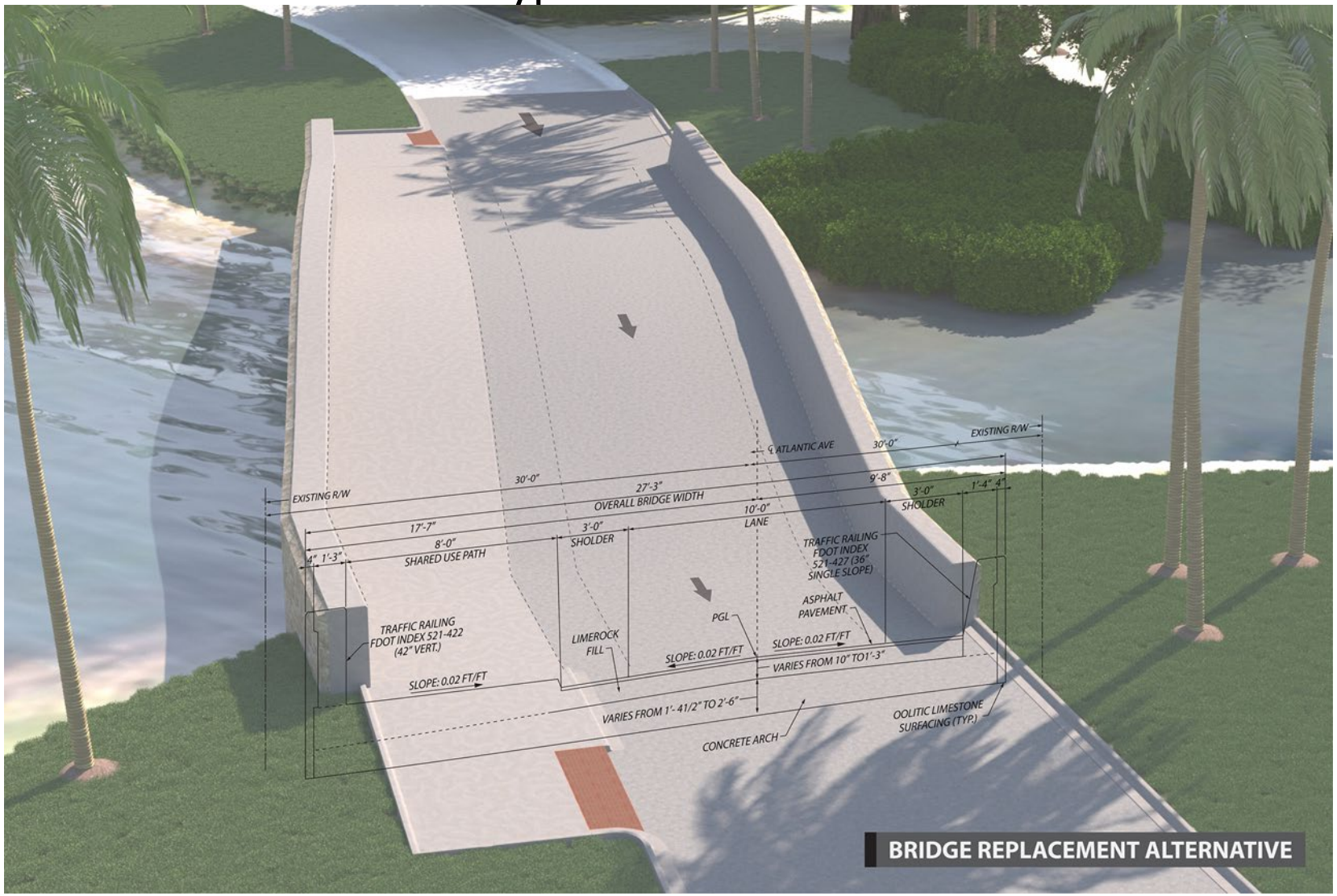
Replacement Bridge Rendering

Disadvantages:

- Historic bridge is gone
- May have slightly different profile than existing bridge

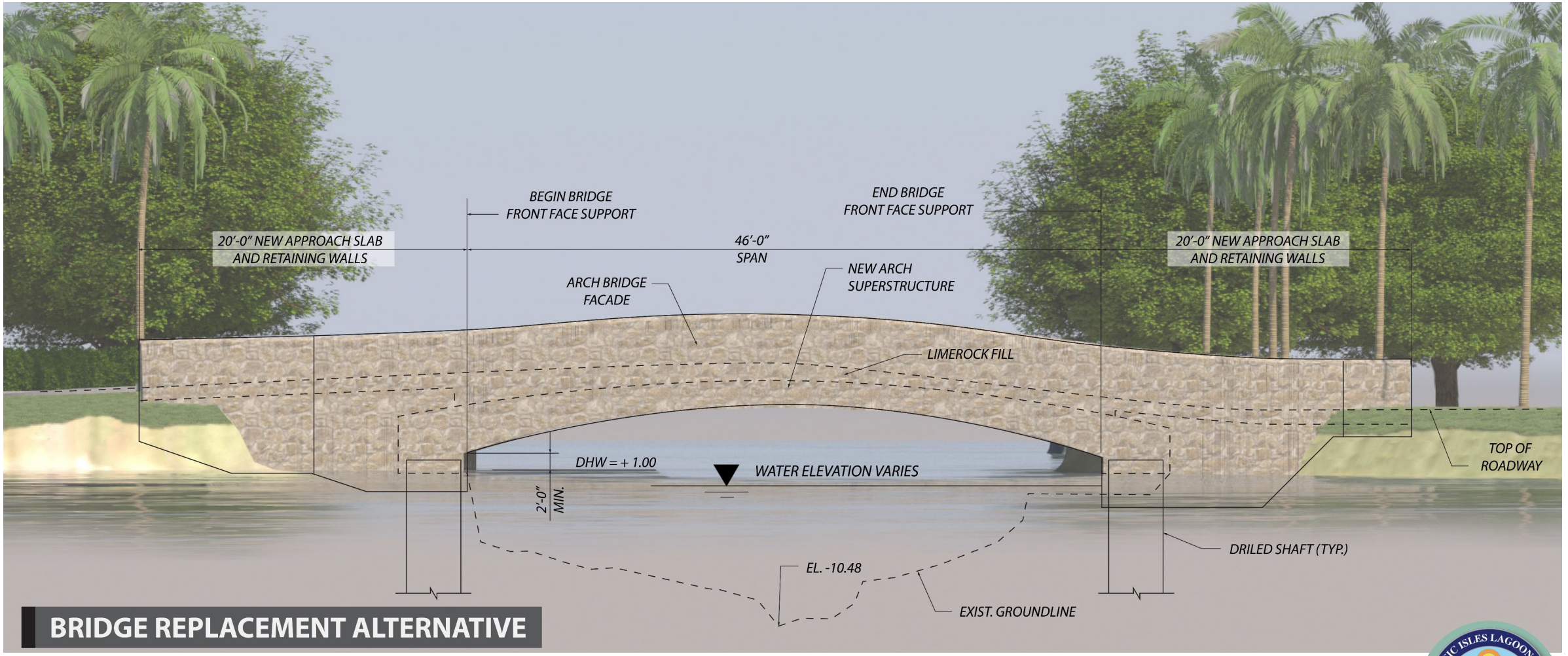
Build Alternative 2 – Replacement

Typical Section



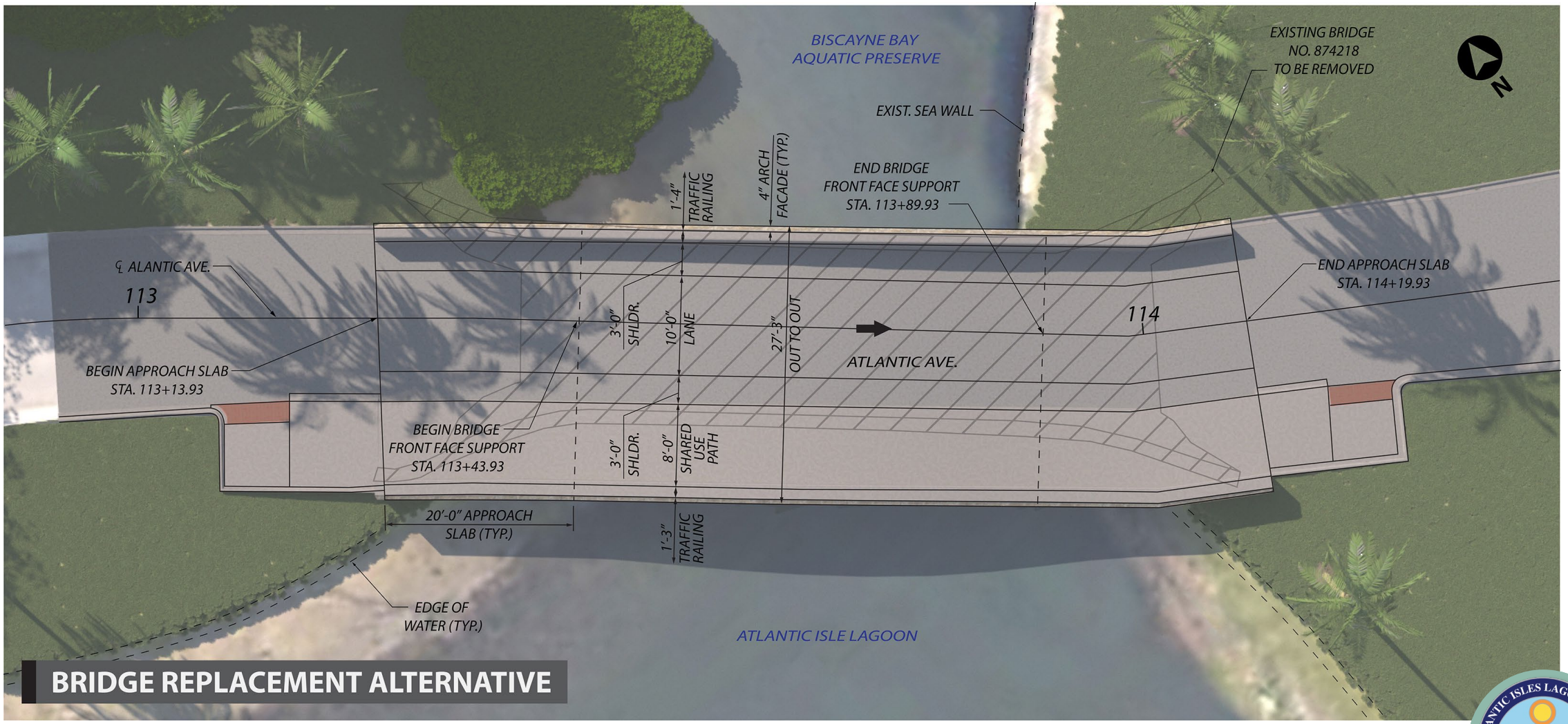
Build Alternative 2 – Replacement

Elevation View

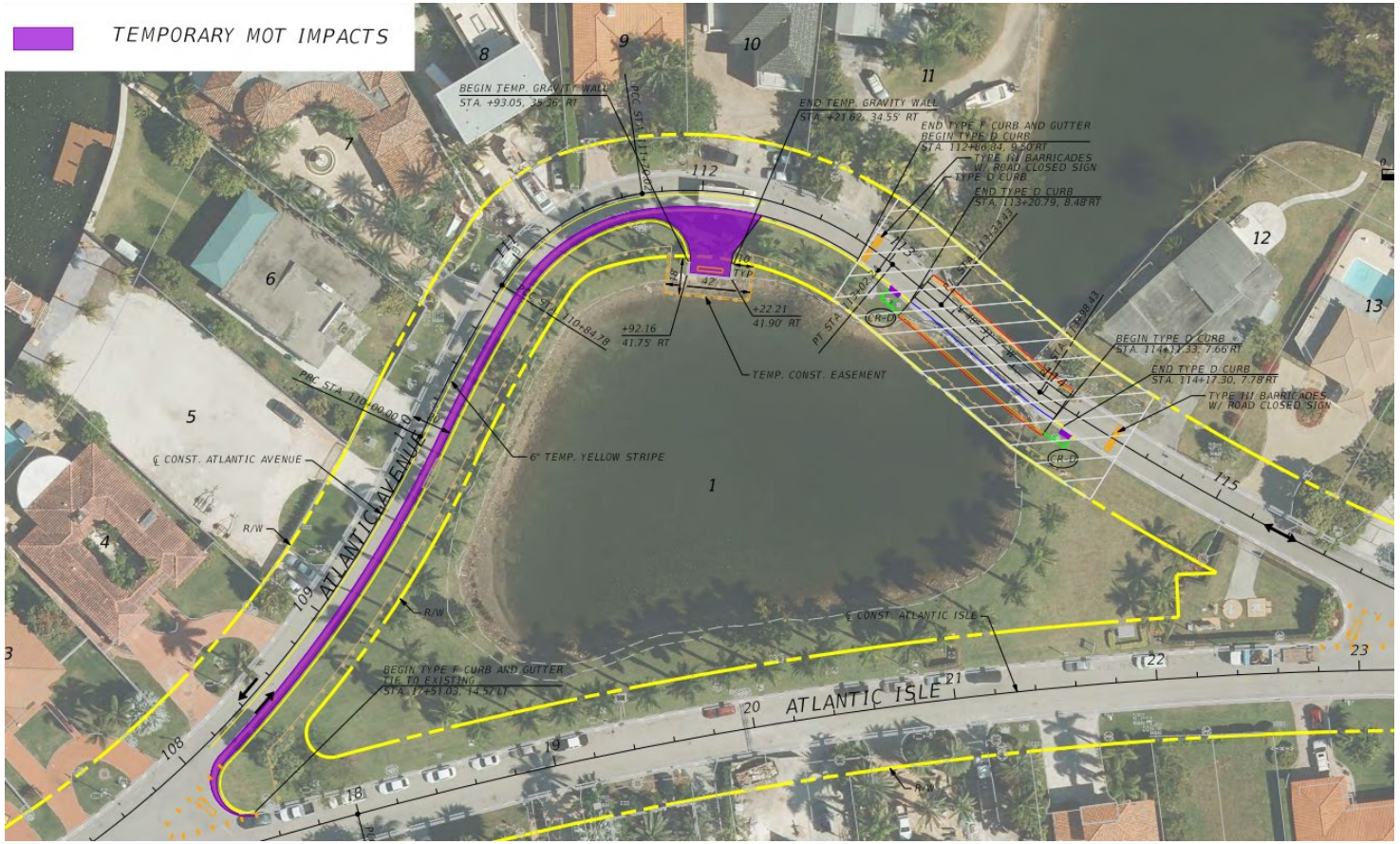


Build Alternative 2 – Replacement

Plan View



Temporary Maintenance of Traffic Impact Considerations



- MOT impacts are the same for both Build Alternatives
- Temporary impacts include:
  - Right-of-Way impacts
  - Atlantic Island Park impacts

Alternative Characteristics Evaluation Matrix

Evaluation Criteria	No-Action Alternative	Build Alternative 1 Rehabilitation	Build Alternative 2 Replacement
Replaces Existing Foundation	No	Yes	Yes
Replaces Existing Bridge Riding Surface & Arch	No	Yes	Yes
Removes Weight Limit Restrictions	No	Yes	Yes
Bridge Life	15 to 25 years	75 years (remaining historic bridge elements 15 – 25 years)	75 years
Meets Project Purpose & Need	No	Yes	Yes
Rehabilitates Oolitic Limestone Facade	No	No	Potential Reuse
Bicycle and Pedestrian Improvements	No	No	Yes
Maintains Bridge Historic Integrity	Uncertain Duration	No - Adversely Affects Bridge's Historic Integrity	No - Adversely Affects Bridge's Historic Integrity
Construction Damage Risk	None	High	Not Applicable
Provides Enhanced Operations and Safety	No	No	Yes

Alternative Impact Evaluation Matrix

Evaluation Criteria	No-Action Alternative	Build Alternative 1 Rehabilitation	Build Alternative 2 Replacement
Potential ROW Impacts (Temporary)	0	0.02	0.02
Community Use Parcel Impacts (Temporary)	0	1	1
Residential Parcel Impacts	0	0	0
Potential Wetland (NWI) Impacts (acres)	0	0	0.008
Potential Surface Water Impacts (acres)	0	0	0.008
Increased Shading Impacts	No	No	Yes
Potential Species Habitat Impacts (acres)	0	0.11	0.11
[1]Potential Number of NRHP-eligible Resources Impacts (acres)	0	0.06	0.1
Preliminary Construction Costs	$0	$1.68 Million	$1.2 Million

[1]Based on preliminary analysis of cultural resource impacts

Preferred Alternative

- Statistical Analysis Performed – Compared:
  - Public Input to Date
  - Environmental Impacts
  - Bridge Functionality
  - Safety
  - Costs

Preferred Alternative:

Build Alt #2 (Replacement)

Continue to Refine & Evaluate Against No-Action Alternative Throughout Study

Category	Criteria	No-Action Alternative	Build Alternative #1 (Rehab)	Build Alternative #2 (Replace)
Structural Deficiency	Foundation Improvements	0	1	1
	Riding Surface Improvements	0	1	1
	Total	**0**	**2**	**2**
Functionality	Meets Design Criteria	**0**	**0**	**1**
Bridge Life	Life Expectancy	**0**	**3**	**3**
Project Purpose and Need	Meets Purpose and Need	**0**	**1**	**2**
Natural Environment Impacts	Permanent Wetland (NWI) Impacts (acres)	3	3	1
	Permanent Surface Water Impacts (acres)	3	3	1
	Increased Shading Impacts	1	1	0
	Species Habitat Impacts (acres)	3	2	2
	Total	**10**	**9**	**4**
Safety and Access	Operation and Safety	0	0	2
	Weight Limit Restrictions	0	1	1
	Bike and Ped Improvements	0	0	3
	Emergency Response	0	1	2
	Total	**0**	**2**	**8**
Community Impacts	Community Resources Impacted (Temp.)	3	2	2
	Residential Parcel Impacts	3	3	3
	Temporary ROW Impacts (Acres)	3	2	2
	Total	**6**	**5**	**5**
Cultural Resource Impacts	NHRP Eligible Resource Impacts	3	2	2
	Maintains Historic Integrity	1	0	0
	Total	**4**	**2**	**2**
Costs	Construction Cost	3	2	1
	Future Maintenance Costs	1	2	3
	Total	**4**	**4**	**4**
Public/Stakeholder Support	Alternative Support	**0**	**1**	**2**

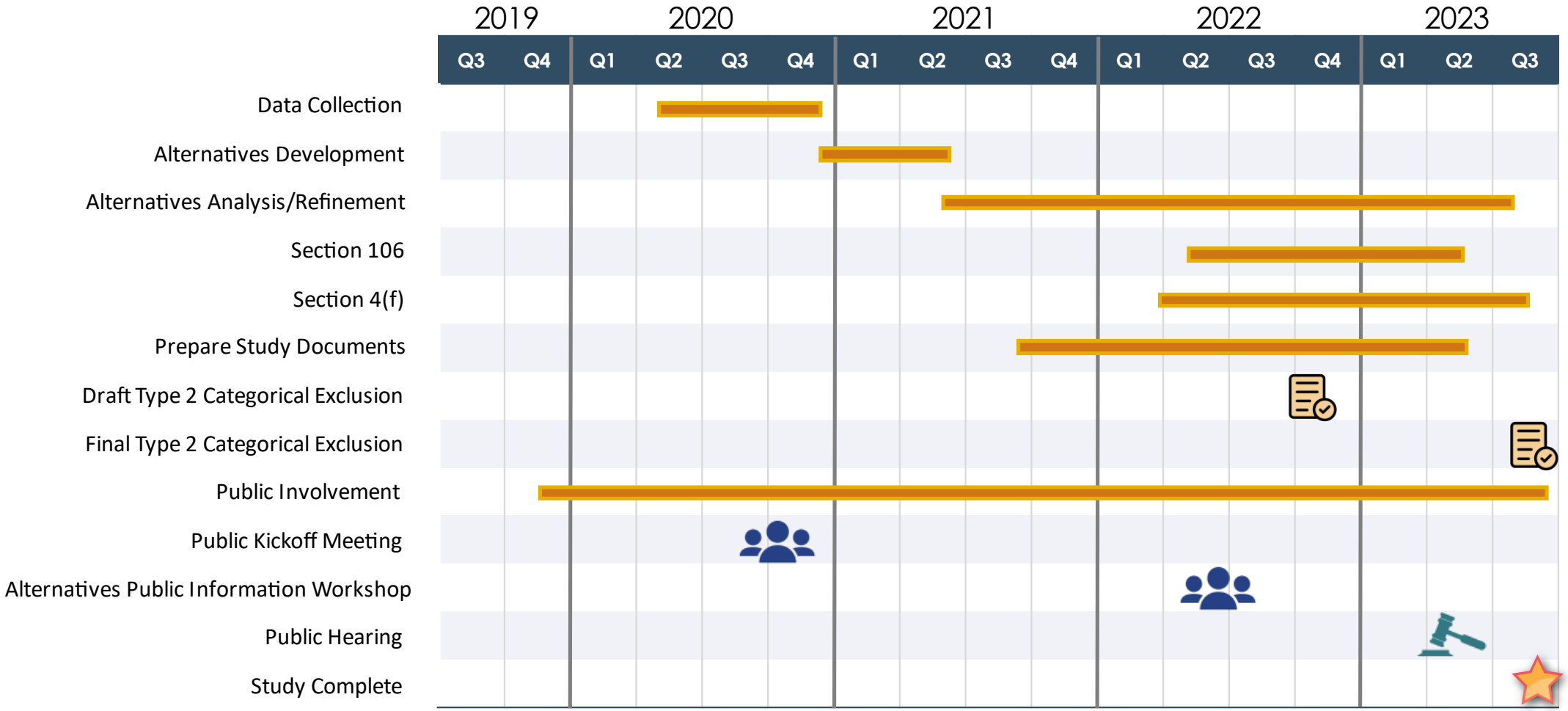
	No-Action	Build #1	Build #2
Total Score	24	29	33
Rank	**3**	**2**	**1**

Next Steps

What happens next?

- Section 106 Case Study (Effects to Significant Historic Resources) Underway
- Effects to Significant Historic Resources will be evaluated and documentation will be prepared and submitted to SHPO for concurrence
- Consultation will continue to develop minimization or mitigation strategies
- Potential for future meeting(s) or outreach

Project Schedule



Discussion

- Select the raised hand feature on the control panel to voice your question or comment
- Type your comment in the chat
- Any additional comments should be submitted to Nick Danu following the meeting. Would appreciate all comments by November 1.

Contact Information

Nicholas Danu, P.E.
FDOT Project Manager
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Miami, Florida 33172
Phone: (305) 470-5342
Email: Nicholas.Danu@dot.state.fl.us

Monica Diaz
Community Outreach Specialist
Infinite Source Communications Group
Phone: (305) 573-0089
Email: monica@iscprgroup.com

Thank You for attending!

City of Sunny Isles Beach
Historic Preservation Board
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October 11, 2022

FPID No. 430029-2-22-01 | ETDM No. 14413