



# Beckett Bridge

## Project Development & Environment (PD&E) Study

*from* **Chesapeake Drive to Forest Avenue**  
**Tarpon Springs, Pinellas County, FL**



**Pinellas County Project ID: PID 2161 • ETDM #: 13040**  
**FDOT Financial Project ID: 424385-1-28-01**  
**Federal Aid Project Number: S129-343**

**February 2015**

## **Programmatic Section 4(f) Evaluation**

Prepared for:  
Pinellas County  
Department of Environment & Infrastructure  
14 S Ft Harrison Avenue  
Clearwater, FL 33756

Prepared by:  
URS Corporation  
(previously EC Driver & Associates, Inc.)  
7650 W. Courtney Campbell Causeway  
Tampa, Florida 33607

and  
Janus Research  
1107 N. Ward Street  
Tampa, Florida 33607

Federal Highway Administration  
Region 4

## **ADMINISTRATIVE ACTION**

### **PROGRAMMATIC SECTION 4(f) EVALUATION**

U.S. Department of Transportation  
Federal Highway Administration

and  
Florida Department of Transportation

Financial Project Identification Number: 424385-1  
Federal Aid Number: S129-343  
Beckett Bridge over Whitcomb Bayou  
FDOT Bridge No. 154000  
Riverside Drive from Chesapeake Drive to Forest Avenue  
Pinellas County, Florida

The proposed project involves the repair or replacement of the Beckett Bridge (Bridge No. 154000). Beckett Bridge carries Riverside Drive over Whitcomb Bayou in Tarpon Springs, Pinellas County, Florida. Five alternatives were considered including replacement of the bridge with a new fixed bridge or bascule bridge, permanent removal of the bridge, rehabilitation, and a no build alternative. With the exception of the no build alternative, all alternatives will directly impact the historical value of the existing National Register of Historic Places eligible bridge.

Submitted pursuant to 49 U.S.C. 303

Based upon considerations herein, it is determined that there is no feasible and prudent alternative to the removal of the historic Beckett Bridge and that the proposed action includes all possible planning to minimize harm to this Section 4(f) property resulting from such use.

---

Date

---

Division Administrator  
Federal Highway Administration

## TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1.0 INTRODUCTION .....	1
1.1 Project Description .....	1
1.2 Need for Improvement .....	4
1.3 Historical Significance Description/Section 4(f) Resources .....	10
2.0 DESCRIPTION OF PROPOSED ACTION .....	15
3.0 APPLICABILITY CRITERIA MET FOR PROGRAMMATIC SECTION 4(F) .....	17
4.0 ALTERNATIVES EVALUATED .....	18
4.1 No-Build Alternatives .....	18
4.2 Avoidance Alternatives: Improvement without Demolition of the Section 4(f) Property – Rehabilitation Alternatives .....	19
4.2.1 Rehabilitation without Widening (No Changes to the Bridge Deck Geometry) .....	19
4.2.2 Evaluation of the Rehabilitation with Widening to Provide Improved Pedestrian Facilities .....	24
4.2.3 Evaluation of Rehabilitation Alternative which Provides a Single Code Compliant Sidewalk without Widening, or with Minimal Widening of the Existing Bridge .....	26
4.3 Avoidance Alternatives on a New Location without using Section 4(f) Property	28
5.0 IMPACTS AND FINDINGS .....	29
5.1 No-Build Alternative .....	29
5.2 Improvement without Demolition of Section 4(f) Property – Rehabilitation Alternatives .....	29
5.2.1 Rehabilitation without Widening (No Changes to the Bridge Deck Geometry) .....	29
5.2.2 Rehabilitation with Widening to Provide Improved Pedestrian Facilities	30
5.2.3 Rehabilitation Alternative which Provides a Single Code Compliant Sidewalk without Widening, or with Minimal Widening of the Existing Bridge .....	30
5.3 Avoidance Alternatives on a New Location without using Section 4(f) Property	31
6.0 MEASURES TO MINIMIZE HARM .....	31
7.0 COORDINATION .....	33
8.0 CONCLUSION .....	34
9.0 REFERENCES CITED .....	35

## LIST OF FIGURES

<b><u>Figure</u></b>	<b><u>Page</u></b>
1 Project Location .....	2
2 Existing Bridge Typical Section.....	5
3 Proposed Low-Level Movable Bridge Typical Section .....	16
4 Proposed Roadway Section West of Proposed Movable Bridge.....	17
5 Proposed Roadway Section East of Proposed Movable Bridge.....	17
6 Minimum Acceptable Typical Section.....	25

## LIST OF PHOTOS AND POWERPOINT SLIDES

<b><u>Photo/Slide</u></b>	<b><u>Page</u></b>
1 Photo- Beckett Bridge, South Elevation View.....	3
2 Photo- Beckett Bridge, View from Roadway, Looking West .....	3
3 Photo-Bascule Leaf in Open Position.....	7
4 Photo- Bascule Leaf in Closed Position.....	7
5 Photo – Beckett Bridge (8PI12017).....	12
6 Photo – Beckett Bridge (8PI12017) in Pinellas County, Facing Southwest.....	12
1-7 PowerPoint Slides – Description of Rehabilitation Alternative (from Public Hearing Presentation) .....	21-24

## LIST OF APPENDICES

Appendix A	Design Criteria (Chapter 4 - Preliminary Engineering Report)
Appendix B	Concept Plans and Profiles for the Recommended Alternative
Appendix C	FHWA and SHPO Concurrence Letters
Appendix D	Coordination of a “Technical Evaluation of Single-Sidewalk Concepts” with FHWA, SHPO and FDOT.
Appendix E	Final Memorandum of Agreement (MOA)
Appendix F	Excerpts from the ETDM Program Summary Report and Advanced Notification Package
Appendix G	Meeting Minutes - Cultural Resources Committee Meetings



## 1.0 INTRODUCTION

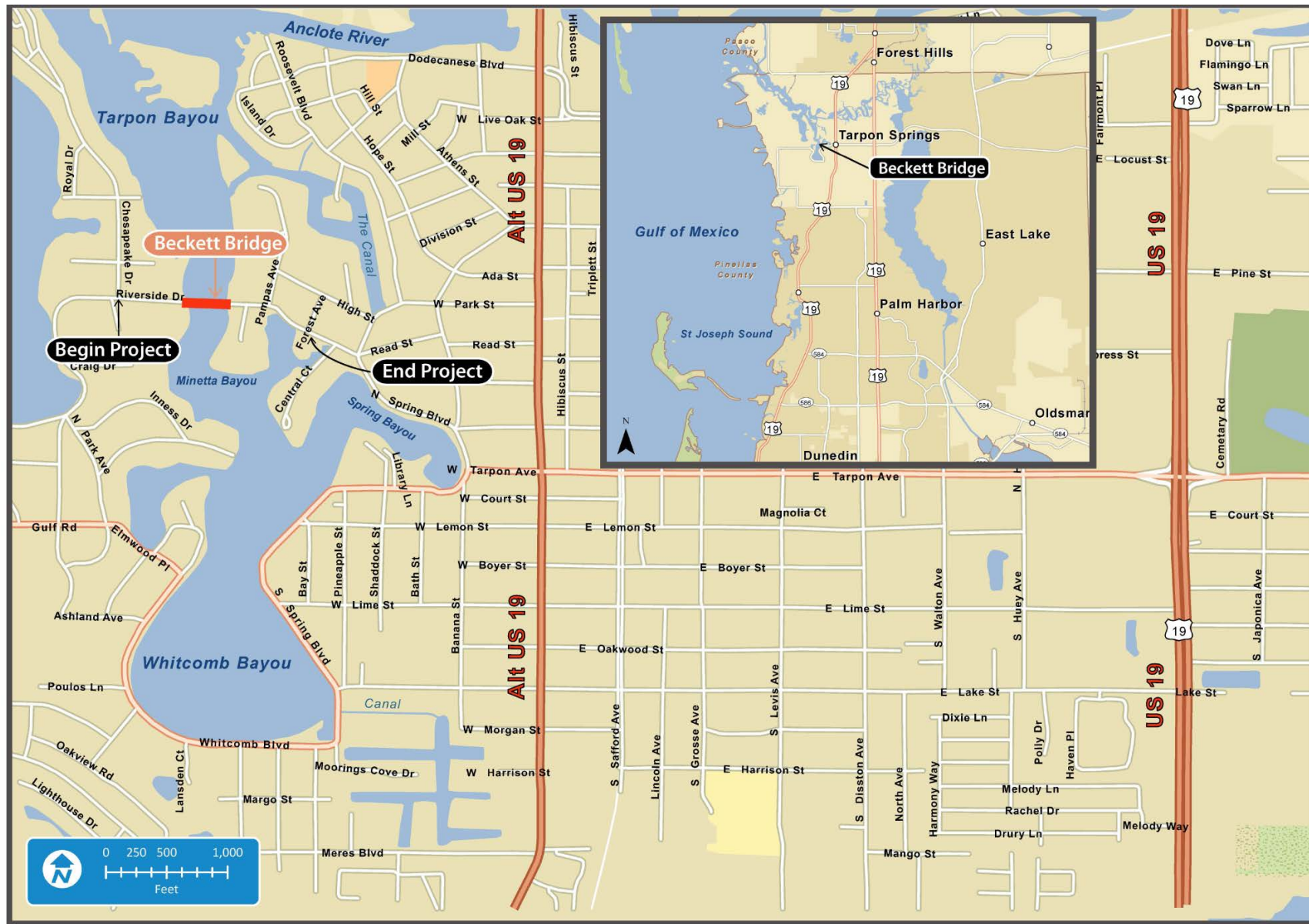
### 1.1 PROJECT DESCRIPTION

Pinellas County, in coordination with the Florida Department of Transportation (FDOT) District Seven, the United States Coast Guard (USCG), and the Federal Highway Administration (FHWA), is conducting a Project Development and Environment (PD&E) Study to evaluate alternatives to remove, rehabilitate or replace the existing Beckett Bridge (Bridge no. 154000) in Tarpon Springs, Pinellas County, Florida. The existing bridge was originally constructed in 1924 as a timber structure with a steel movable span. The fixed timber approach spans were replaced with concrete approach spans in 1956. According to recent (07/11/2013) FDOT inspection reports, the existing bridge has an overall Structure Inventory and Appraisal Sufficiency Rating of 44.9 out of 100. The bridge is considered functionally obsolete.

The bridge has been determined to be eligible for listing in the National Register of Historic Places (NRHP). Eligibility is based on the bridge's contribution to early development of the area (Criterion A) and because it is one of a few known, pre-1965, highway single-leaf rolling-lift bascule bridges remaining in Florida (Criterion C). Since 1956, major repairs were performed in 1979, 1998, and in 2011. Despite these repairs, major rehabilitation or replacement of the bridge is needed to keep the bridge open and operating efficiently.

The project limits extend along Riverside Drive from Chesapeake Drive across Whitcomb Bayou to Forest Avenue, a distance of approximately 0.3 mile. The existing two-lane bridge connects areas west and north of the Bayou to downtown Tarpon Springs. The bridge is also located on a popular route for access to Fred Howard Park, a Pinellas County park located approximately 3.1 miles west on the Gulf of Mexico. Riverside Drive/North Spring Boulevard is an extension of Tarpon Avenue, which is a designated evacuation route (see **Figure 1**, Project Location, and Photos 1 and 2). Beckett Bridge provides access to major north/south arterials including Alternate US 19 and US 19 for coastal residents during hurricane evacuation. The bridge also provides access for emergency vehicles, including police, ambulance and fire. Some larger emergency vehicles (and most school busses) are prohibited from crossing the bridge because it is currently posted for legal loads limited to 2-ton Single Unit Trucks and 15-ton Combination Trucks. Alternate routes (that do not require crossing of the Beckett Bridge) are available for travel to and from the areas mentioned above, and for emergency response.

Figure 1:  
Project  
Location







**Photo 1: Beckett Bridge – South Elevation View**



**Photo 2: Beckett Bridge – View from Roadway, Looking West**

However, these detour routes are longer, depending on the specific origin and destination. Beckett Bridge is owned and operated by Pinellas County. A bridge tender is only present when required to open the drawbridge for a vessel; there are no full-time bridge tenders. USCG drawbridge opening regulations (33CFR117.341) states that “The draw of the Beckett Bridge, mile 0.5, at Tarpon Springs, Florida shall open on signal if at least two hours’ notice is given.” Whitcomb Bayou connects to the Gulf of Mexico via the Anclote River to the north. Boats docked along Whitcomb, Spring and Minetta Bayous, and along artificial canals which connect to the southeastern portion of the Whitcomb Bayou, must pass the Beckett Bridge to access the Gulf of Mexico. The following alternatives were evaluated during the study:

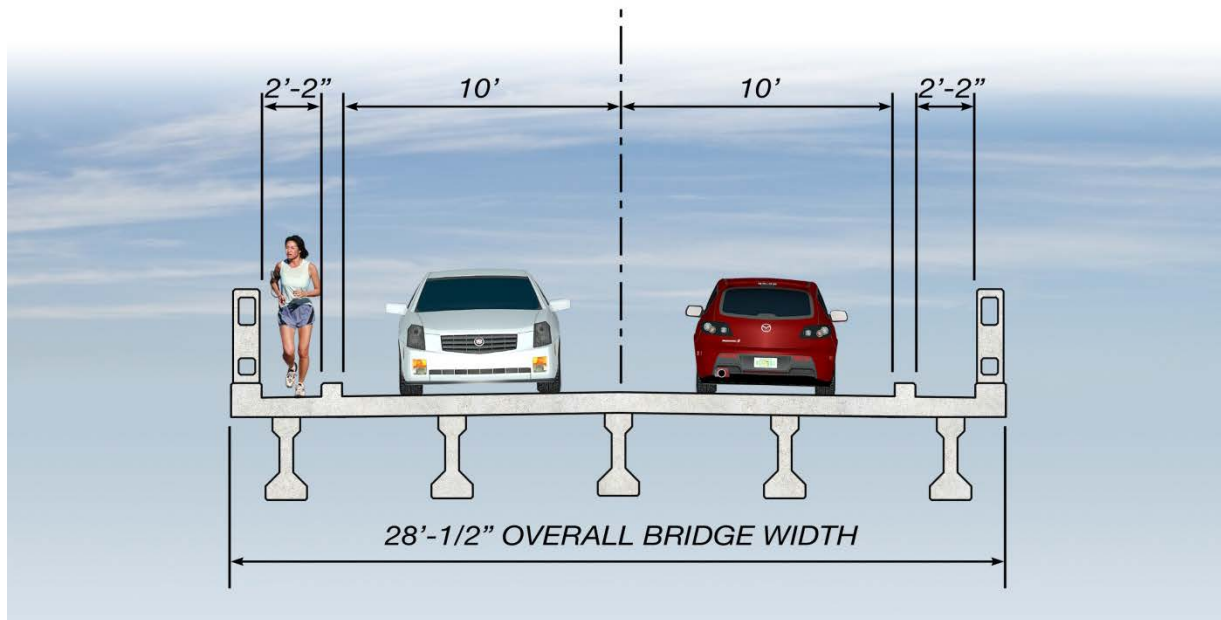
- No-Build - Maintain Existing Bridge
- No-Build - Remove Existing Bridge (includes alternate routing of traffic)
- Rehabilitation of the Existing Bridge
- Replace with a new Low-Level Movable Bridge
- Replace with a new Mid – Level Fixed Bridge

The “No-Build” alternative includes only routine maintenance to keep the bridge open to boaters and vehicular traffic until safety issues would require it to be closed. Evaluation of future improvements would occur at a later date. The “No Build with Removal of the Existing Bridge” would result in routine maintenance in the near future with the intent to demolish the bridge when it is no longer safe for traffic, with no plans to replace it with a new one. The “Rehabilitation” Alternative would correct electrical, structural and mechanical deficiencies, but would not include widening of the existing bridge. All bridge replacement alternatives considered would be constructed in approximately the same location as the existing bridge to minimize impacts. Detailed descriptions of the alternatives considered are provided in Section 4.0 of this document.

## **1.2 NEED FOR IMPROVEMENT**

According to recent (07/11/2013) FDOT inspection reports, the existing bridge has an overall Structure Inventory and Appraisal Sufficiency Rating of 44.9 out of 100. Sufficiency ratings are a method of evaluating highway bridges by calculating a numeric value between 0 and 100, indicative of bridge sufficiency to remain in service. The bridge is considered functionally

obsolete (2011 through 2013 Inspection reports are included in the Preliminary Engineering Report, published separately for this project.) This designation is based primarily on the substandard clear roadway width of only 20 feet and substandard roadway safety features. The existing typical section consists of one, 10-foot wide travel lane in each direction and 2-foot 2-inch-wide sidewalks separated by a curb on both sides of the bridge (see **Figure 2**, Existing Bridge Typical Section).



**Figure 2: Existing Bridge Typical Section**

Minimum required lane and shoulder widths prescribed by the American Association of State Highway and Transportation Officials (AASHTO) are not met. The sidewalks on the bridge are narrow and do not meet current accessibility requirements established by the Americans with Disabilities Act (ADA). The bridge railings do not meet current standards for pedestrian safety or geometric and crash testing safety standards for vehicles. Approach guardrail and transitions and end treatments also do not meet current safety standards. For additional information about current design standards that apply to a new bridge, Chapter 4, Design Criteria, of the Preliminary Engineering Report prepared for this study is included in **Appendix A**.

There are no published USCG navigational clearance guidelines for this waterway at this location. The existing minimal vertical clearance at the fenders is six feet. The tip of the bascule leaf overhangs the fender with the leaf fully raised, limiting the clearance for a portion

of the channel between the fenders. It is likely that unlimited vertical clearance was provided for the entire width of the channel when the bridge was originally constructed. The existing horizontal clearance between the fenders is 25 feet (see Photos 3 and 4).

Although the bridge is not considered Structurally Deficient, the bridge has a substandard load carrying capacity requiring weight restrictions. The bridge is currently posted for legal loads limited to 2-ton Single Unit Trucks and 15-ton Combination Trucks. This weight restriction prohibits large emergency vehicles and most full-sized school busses from traveling over the Beckett Bridge. Repairs in 1979 and 1988 included installation of crutch bents due to settlement and lateral stability concerns. Repairs in 2011 were performed to correct issues with the operating machinery and bascule leaf alignment.

The annual average daily traffic (AADT) on the existing bridge is approximately 7,700 vehicles a day. In the design year, 2038, AADT is anticipated to increase to approximately 9,700.

The existing Beckett Bridge is important for evacuation during a storm event. Although it is not a designated emergency evacuation route, Riverside Drive is considered an extension of Tarpon Avenue, which is a designated emergency evacuation route. Wave vulnerability during a storm event could impact the reliability of the existing bridge for evacuation.

Six public schools are located within three miles of the Beckett Bridge. However, since the Beckett Bridge is currently load posted for two tons, school busses, which weigh on average 10-15 tons, are not permitted to cross the bridge. Accordingly, an alternate longer route is required. According to Mr. Mike Burke, Route and Safety Auditor for the Pinellas County School Board, the detour costs the School Board approximately \$180.00/day. If the bridge were replaced, school bus traffic would be re-routed to travel along Spring Boulevard/Riverside Drive and cross the Beckett Bridge. Approximately 15 to 20 school busses per day could potentially use the bridge.

The bridge is located on a popular route for access to Fred Howard Park, a Pinellas County park located approximately 3.1 miles west on the Gulf of Mexico. The Pinellas County Trailways Plan, included in the Pinellas County MPO 2035 Long Range Transportation Plan, identifies three future recreational bicycle/pedestrian trails that will connect to the Pinellas Trail and continue west. These trails are not currently funded, but are included in the Planned Cost Feasible Trailways Projects.





**Photo 3: Bascule Leaf in Full Open Position**



**Photo 4: Bascule Leaf in Closed Position**

One of these trails, the proposed Howard Park Trail, will provide access to Howard Park from the Pinellas Trail via Riverside Drive/North Spring Boulevard, crossing the Beckett Bridge.

### ***Existing Bridge Condition***

The overall condition of the bridge is consistent with the age and severe exposure conditions. The movable span of the bridge has been in service for 88 years. At the time of construction it was customary to design a bridge with an anticipated service life of 50 years. Although the bridge operates infrequently, functional and operational deficiencies have developed despite efforts to correct these deficiencies. There have been recurring misalignment issues at the joints of the approach spans, as well as at the joint between the bascule leaf and bascule rest pier. These misalignments have led to lack of continuity of the curb line and rubbing of the bascule leaf railing on the railing at the bascule pier. The discontinuity of the curb has reportedly led to several tire punctures. Periodic attempts have been made to correct and/or arrest these alignment issues.

The most recent Bridge Inspection Report (07/11/2013) indicates that the overall condition rating of the deck is *Good*, the superstructure is considered *Satisfactory*, and the substructure is considered *Satisfactory*. The overall performance rating is *Good* but the bridge is classified as *Functionally Obsolete*. The bridge has reached a threshold at which deficiencies and deterioration are expected to accelerate. Specifically, conditions of concern include:

***Misalignment and Settlement:*** While some remedial measures, in the form of crutch bents and helper piles, have been installed in an attempt to mitigate the long term settlement and associated misalignment of the structure, evidence of continued problems remain. Specifically, the bascule span continues to trend towards one side and the deck joints and curbs exhibit misalignment. It appears unlikely that correction of one deficiency or symptom would provide full resolution. A comprehensive rehabilitation would be required to correct the leaf misalignment and secure it from further abnormal movement. The corrective measures implemented in 2011 are expected to only provide a short term solution. In addition to the effects of settlement, the curved tread plates and flat track plates exhibit deficiencies that contribute to the bascule span's overall misalignment issues.

**Basculer Drive System:** The condition of the drive system (i.e., machinery) is consistent with the age and misalignment of the structure. In general, the machinery, including the rack and pinion teeth, pinion shafts, and basculer track and treads, exhibits advanced wear and deterioration. The wear has advanced to the point where it is expected to accelerate. With worn gears there is more clearance (backlash) between meshing teeth. As the backlash increases, the wear to the teeth accelerates. In addition, the basculer tracks and treads are not properly aligned. This has resulted in uneven wear to these components and may be a contributing factor to the variations in load on the main rack and pinions. During the 2011 repairs, deficiencies in the design of the drive machinery were also identified. The current pinion shafts and pinion bearings do not meet current design requirements established by AASHTO.

**Span Locks:** The forward span lock assemblies at the tip end of the basculer leaf were replaced in 2011 and are in good working condition.

**Load Capacity:** The bridge load capacity was determined in 1987. According to the load rating, the structure should be posted at or below the following: Single Unit Truck – 12 tons and Combination Trucks – 20 tons. The bridge is actually posted at both approaches as follows: Single Unit Truck – 12 Tons, Combination Truck – 15 tons, and Truck and Trailer – 15 tons.

**Fender System:** The 2013 bridge inspection report notes that marine borer activity is evident on several of the fender piles and lower wales. It is likely that this activity will cause the piles and wales to deteriorate near the waterline. Affected piles will need to be replaced.

**Safety Considerations:** There are several factors that contribute to the functional obsolescence of the existing bridge. The concrete post and beam bridge railings are substandard, as they do not meet current standards for roadside safety in terms of both geometry and impact resistance. Railings for new bridges are required to meet specific crash testing and geometric requirements outlined in *National Cooperative Highway Research Program (NCHRP) Report 350, Recommended Procedure for the Safety Performance Evaluation of Highway Features* which has been adopted by AASHTO and FDOT. The 9-inch curbs along the edge of travel lanes are generally considered a safety concern due to the propensity to launch errant vehicles. The approach guardrails, guardrail end treatments and transitions do not meet current design standards.

### **Wave Vulnerability**

The existing bridge is low and susceptible to waves from a coastal storm event. According to the *Final Report, Design Storm Surge Hydrographs for the Florida Coast, D. Max Sheppard and William Miller Jr., September 2003*, the 100-yr Storm Surge Elevation for the Anclote River is approximately 11.5 feet. The storm surge elevation at the bridge is anticipated to be similar to this elevation and the existing bridge low member elevations are below the storm surge elevation.

It is anticipated that wave heights at the bridge during a coastal storm event would not be substantial because of the lack of a significant fetch needed to develop wind-driven waves and the presence of topographical features, including numerous adjacent residential buildings and trees that reduce wind velocities at the surface of the water. Although the waves are not expected to be large, the existing bridge contains details that make it susceptible to damage from waves. Specifically, the beams introduce multiple vertical surfaces exposed to the waves that can yield large wave forces even when the waves are not large. The presence of diaphragms at each end of the spans creates conditions that can trap air and magnify vertical forces that act to lift the span. Because the simple-span superstructure is not anchored to the substructure, there are no lateral restraints to prevent the waves from pushing the superstructure off of the substructure. The pile bent substructures have limited capacity to resist lateral wave forces.

### **1.3 HISTORICAL SIGNIFICANCE DESCRIPTION/SECTION 4(f) RESOURCES**

A Cultural Resource Assessment Survey (CRAS) was prepared by Janus Research in February of 2013 to document cultural resources within the Area of Potential Effect (APE). One newly recorded historic resource, the Beckett Bridge (8PI12017), has been determined eligible for listing in the National Register as an individual historic resource by the State Historic Preservation Officer (SHPO). The remaining resources (8PI12043-8PI12055, 8PI12068, 8PI12069) were determined ineligible for listing in the National Register as individual historic resources or as part of a historic district.

The State Historic Preservation Officer (SHPO) concurred with the overall findings of the CRAS report on April 11, 2013 (Appendix C). To expedite the determination of significance for the Beckett Bridge, prior to the completion of the final CRAS report, a Determination of Eligibility for the bridge was prepared. FHWA agreed that the Beckett Bridge was individually eligible for

listing in the National Register on September 17, 2012, and the SHPO concurred with this finding on October 8, 2012 (Appendix C).

Completed in 1924, the Beckett Bridge (Bridge No. 154000) is located in Township 27 South, Range 15 East, Sections 11-12 (USGS Tarpon Springs Quadrangle 1987), carrying Riverside Drive/North Spring Boulevard over Minetta and Whitcomb Bayous in Tarpon Springs, Florida. The existing roadway, Riverside Drive/North Spring Boulevard, is two lanes running in a roughly east/west direction. The Minetta and Whitcomb Bayous are directly to the south of Beckett Bridge; the Tarpon Bayou is to the north (see Photos 5 and 6).

The Beckett Bridge has an overall bridge length of approximately 360 feet. The bridge width is approximately 28 feet, including the road and sidewalks. The bridge carries two lanes of traffic, one eastbound and one westbound. The existing typical section of the bridge consists of two vehicular lanes with a sidewalk and concrete railing on both sides (see Figure 2). There are nine approach spans and one main span. The main span of the bridge is a steel structure with a cast-in-place concrete deck. The bridge railings, which flank the bridge approaches and the bascule span, are simple concrete beams with concrete posts, which according to a historic photograph, appear to be part of the 1956 rehabilitation project. The date “1956” is inscribed in the concrete posts at each end of the bridge. The bridge is a steel, single-leaf, bottom counterweight, Scherzer rolling-lift bascule. The length of the bascule span is approximately 40 feet. The substructure of the bridge includes the supporting elements under the superstructure. Concrete bents support the prestressed concrete girder spans of this bridge, which replaced the original timber approach spans in 1956. A galvanized pipe staircase with handrails leads to the bridge substructure from the base of the bridge tender’s station.

The bridge tender’s station is situated on the north side of the bridge. This one-story station is a simple rectangular building without architectural ornamentation. The tender station was constructed with a galvanized steel frame and Plexiglas windows. It features a shed roof sheathed in 22-gage, wide rib galvanized steel. Adjacent to the tender’s station is a metal plaque signifying the original date of construction and engineer for the bridge. The station dates from the 1996 repairs to the bridge, and is utilitarian in construction and form. It is considered a non-contributing structure. A bridge tender is only present when required to open the drawbridge for a vessel, there are no full-time bridge tenders.





**Photo 5: Beckett Bridge (8PI12017)**



**Photo 6: Beckett Bridge (8PI12017) in Pinellas County, Facing Southwest**



The Beckett Bridge was first constructed in 1924 and originally called the Chilito Street Bridge (n.a. 1948). It was designed by C.E. Burleson, a Pinellas County Engineer, as a wooden bridge with a concrete pier and a steel drawbridge span. The function of the bridge was to connect east and west Tarpon Springs, carrying travelers over the Whitcomb Bayou. Before construction of the bridge, travelers could only reach the eastern side of Tarpon Springs from the west by taking either Meres Boulevard or Whitcomb Boulevard, located south of Whitcomb Bayou. The Beckett Bridge created a significantly shorter travel route to both the eastern residential areas and the Sunset Hills Country Club. Construction on the club began in 1924 and was completed in 1926. However, the club was forced to close at the onset of the Great Depression.

In 1948, the bridge was renamed “Beckett Bridge” after Edward H. Beckett, commending his 34 years of service as a County Commissioner at the time of his retirement. A native Floridian born in Clearwater in 1882, Beckett knew the district in which he was elected, having moved to Tarpon Springs in 1901. After opening his own clothing store, Beckett expanded his business to various branches in the state. Then in 1929, in addition to managing his 53-acre orange grove and his 8-acre truck farm, he opened a real estate and insurance business in Tarpon Springs. Beckett served as city councilman in Tarpon Springs and as chief of police in Clearwater before being elected to the Pinellas County Board of County Commissioners in 1916. He was also active in supporting secession from Hillsborough County. For 32 years on the County Commission, 16 of those as chairman, he led the push for public parks and efficient water systems. Beckett often voted for new roads and for paving of those already constructed (Goldman 1996). Beckett died in 1962.

After World War II, residential construction resumed in the neighborhoods in and surrounding the Tarpon Springs area, building out previously undeveloped lots. While tourism had never ceased to play a big role in the City’s commerce, in the late 1940s and early 1950s, tourism edged out sponges to become the City’s biggest source of income. The increased development and tourism, combined with the Beckett Bridge being the shortest travel route, lead to a high amount of traffic crossing the bridge on a daily basis. In 1955, Pinellas County deemed the Beckett Bridge unsafe and decided repairs to the original wooden structure would be wasteful. On February 21, 1955, the County Commission approved an \$81,292 contract to W.L. Cobb Construction Company of Tampa, Florida to reconstruct the bridge. County Engineer Leighton Heston recommended that steel and concrete slabs replace the wooden substructure and that

the top roadway be cemented. The new structure utilized the original steel bascule, draw, and machinery for operation, though the remainder of the bridge employed concrete, spanning 350 feet.

The Beckett Bridge underwent repairs again in 1996. Twelve new steel pilings were added under the bridge. Many parts of the original steel bascule were so corroded they had to be replaced in kind, including the metal that held the center of the bridge steady, and electrical components, a concrete counterbalance to raise the drawbridge, and new sidewalks and galvanized pipe guardrails adjacent to the tender's station were also installed on both sides of the steel bascule. The tender station is a non-historic alteration because it was built in 1996, after the historic period; it is considered a non-contributing resource.

The Beckett Bridge is an example of the Scherzer rolling-lift bascule bridge type. Credited to William Scherzer, the Scherzer rolling-lift bascule rolls along a curved track as it opens and closes, pulling itself out of the way of water traffic as it does so. The Scherzer rolling-lift bridge rotates and moves away from the channel like a simple rocking chair on a track as the bridge deck is raised. Scherzer claimed that his rolling-lift type operated with less friction and, therefore, reduced power.

The Beckett Bridge is also an example of the single-leaf bascule bridge type. The bascule, or drawbridge, provides an open channel with typically unlimited clear headway, swift and dependable operation, and simple mechanisms with few moving parts. The defining characteristic of this bascule bridge type is the upward rotating leafs, which can be single or double. The Beckett Bridge consists of a single-leaf which rotates from a horizontal to a near vertical position. In a single-leaf, the entire span lifts above one end.

Bascule bridges are the most common type of movable bridge, due to their ability to open quickly and requirement of little energy to operate. Single-leaf bascule bridges are less common than the double-leaf design, as they span smaller waterways. Though a common design that is still utilized today, historic rolling-lift bascule bridges are rare resources in the state of Florida. Additionally, the Beckett Bridge is the only bascule bridge in Pinellas County that is not on the Intracoastal Waterway.

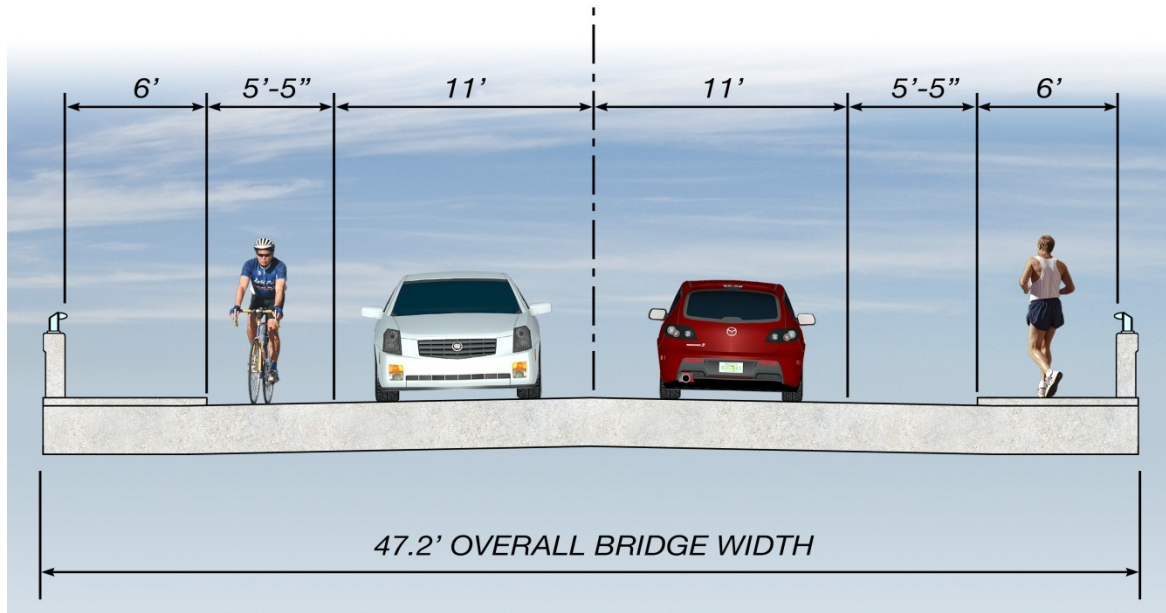
The Beckett Bridge retains its integrity as a Scherzer rolling-lift single leaf bascule bridge. The changes that took place and the materials used during the 1956 rehabilitation are now historic. The Beckett Bridge remains as one of seven pre-1965 single-leaf bascule bridges in Florida. The bridge has been determined eligible for listing in the National Register under Criterion A for its contributions to the patterns of development and transportation in the State, as well as Criterion C for its distinct engineering.

## 2.0 DESCRIPTION OF PROPOSED ACTION

The proposed action consists of demolishing the existing bridge and constructing a new low-level single-leaf, movable span bridge on approximately the same alignment as the existing bridge. The proposed movable span will provide 7.8 feet of vertical clearance at the fenders (in the closed position) and 25 feet of horizontal clearance between fenders for vessels traveling on the waterway. Unlimited vertical clearance will be provided in the open position for the width of the channel between the fenders. Vertical clearance is measured at the lowest point of clearance within the navigation channel. The low point is generally located at one or both sides of the channel, directly above the fender system that marks the channel limits. The concept plans for the Proposed Action can be found in **Appendix B**.

The maximum proposed grade is five percent, which meets ADA requirements. Roadway reconstruction is limited to the bridge approaches. The approach roadway will return to existing grade at Pampas Avenue on the east side of the bridge. On the west side of the bridge, the approach roadway will return to existing grade just east of Chesapeake Drive. The approach roadway will be close enough to the existing grades at the driveways to the Bayshore Mobile Home Park, the Tarpon Springs Yacht Club and Venetian Court to allow connection of these driveways with minimal re-grading. Residential property driveways along Riverside Drive will still be accessible. Resurfacing is proposed between Forest and Pampas Avenues.

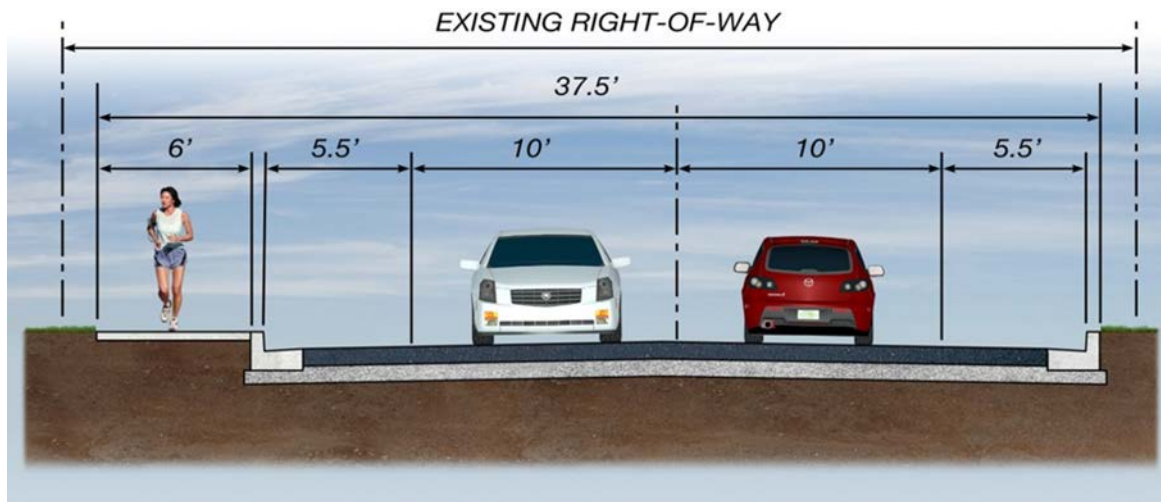
The proposed bridge typical section for the Low-Level Movable Bridge Alternative has a total out-to-out width of 47.2 feet as shown in **Figure 3**. The typical section includes two, 11-foot wide travel lanes with 5.5-foot shoulders that can function as undesignated bicycle lanes. Sidewalks, 6 feet wide, are proposed on both sides of the bridge.



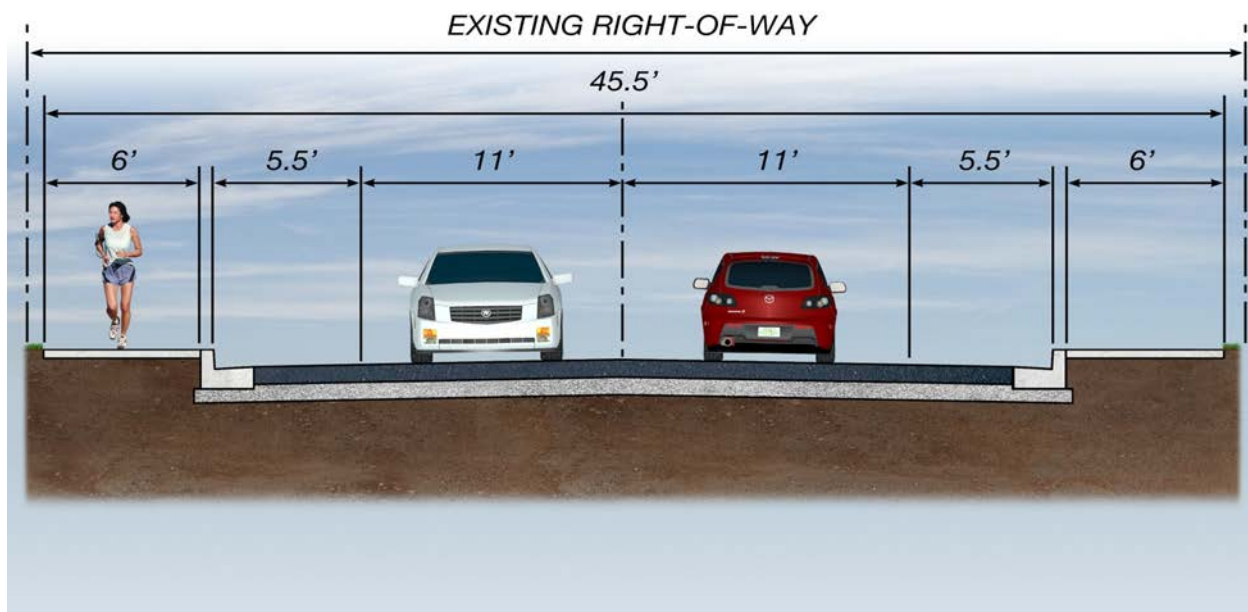
**Figure 3: Proposed Low-Level Movable Bridge Typical Section**

### ***Proposed Roadway Sections***

The proposed roadway section west of the bridge consists of two 10-foot wide through lanes, one in each direction, and 5.5-foot wide outside shoulders that can function as undesignated bicycle lanes. Because of the limited right-of-way, a six-foot wide sidewalk is proposed only on the north side of the roadway. No sidewalks are proposed on the south side of the roadway, adjacent to the Bayshore Mobile Home Park. East of the bridge, the roadway section consists of two 11-foot wide through lanes, one in each direction, and 5.5-foot wide outside shoulders that can function as undesignated bicycle lanes. Six-foot wide sidewalks are proposed on both sides of the roadway. **Figures 4 and 5** illustrate the proposed roadway sections for the west and east sides of the bridge, respectively.



**Figure 4: Proposed Roadway Section West of Proposed Movable Bridge**



**Figure 5: Proposed Roadway Section East of Proposed Movable Bridge**

### 3.0 APPLICABILITY CRITERIA MET FOR PROGRAMMATIC SECTION 4(F)

Pursuant to Section 4(f) of the Department of Transportation Act of 1966, 49 U.S.C. 303, and Section 18(a) of the Federal-Aid Highway Act of 1968 23 U.S.C. 138, a Nationwide Programmatic Section 4(f) Evaluation can be approved for projects that “Use Historic Bridges” provided they meet the following criteria:

- The bridge is to be replaced or rehabilitated with Federal funds.
- 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 (NRHP).
- The bridge is not a National Landmark.
- The FHWA Division Administrator determines that the facts of the project match those set forth in the section of the Programmatic Section 4(f) Evaluation in sections labeled Alternatives, Findings, and Measures to Minimize Harm.

**The following documents that the proposed action meets each of the above criteria.**

- The proposed action consists of replacing the existing bridge with a new low-level, single-leaf, rolling-lift bridge. The County is seeking federal funds for the construction phase of this project.
- By letter dated August 24, 2012, both SHPO and the FHWA concurred with the Determination of Eligibility (DOE) prepared for the project which concluded that the Beckett Bridge is eligible for listing on the NRHP. The proposed action consists of replacing this bridge.
- Beckett Bridge is not a National Landmark.
- After reviewing this document, the FHWA Division Administrator will determine whether the facts of the project match those set forth in Sections labeled “Alternatives Evaluated”, “Impacts and Findings”, and “Measures to Minimize Harm” of this document.
- FHWA and SHPO concurred with the conclusion of the Cultural Resource Section 106 Effects Consultation Case Study Report prepared for this project. The report concluded that all build alternatives, including the Recommended Alternative, will have an adverse effect on the Beckett Bridge. (Concurrence letters are included in Appendix C.)

## **4.0 ALTERNATIVES EVALUATED**

### **4.1 NO-BUILD ALTERNATIVES**

Two No-Build Alternatives were considered, No-Build and No-Build with Removal of the Existing Bridge.



### ***No-Build***

The No-Build Alternative includes only routine maintenance performed as needed to keep the bridge open to traffic until safety issues, such as reduced capacity due to ongoing deterioration, would require it to be permanently closed. Repair or replacement could be considered at a later date. The No-Build Alternative does not include modification or improvements to the existing bridge or approach roadway. Existing geometric and other deficiencies, including substandard lane width and curbs would remain. No changes to the existing horizontal and vertical navigational clearances would occur.

There are a number of components of the bridge that are in an advanced state of deterioration that are not likely to be economically corrected by routine maintenance or in-kind repair. Estimating the remaining service life of these components is more subjective than quantitative analysis. However, given the age of the bridge and the extent of the deficiencies, without major rehabilitation the existing bridge is estimated to have no more than 10 years of remaining service.

### ***No-Build with Removal of the Existing Bridge***

This alternative is the same as the No-Build Alternative described above, except that the bridge would be demolished when it is no longer safe for traffic. No plans for future rehabilitation would be considered and a replacement bridge would not be constructed.

## **4.2 AVOIDANCE ALTERNATIVES: IMPROVEMENT WITHOUT DEMOLITION OF THE SECTION 4(f) PROPERTY – REHABILITATION ALTERNATIVES**

Three Rehabilitation Alternatives were evaluated that would not require demolition of the existing bridge. The original “Rehabilitation Alternative” as presented to the public at the Alternative Workshop did not propose widening the existing bridge.

### **4.2.1 Rehabilitation without Widening (No Changes to the Bridge Deck Geometry)**

The existing bridge service life can be extended with extensive repairs and modifications, implementation of measures that slow the rate of concrete and structural steel deterioration, replacement of severely deteriorated structural elements, replacement of worn, deteriorated, and outdated electrical and mechanical systems and replacement of substandard bridge railings. However, even after major rehabilitation, due to its age and condition, it is anticipated

that the bridge will require significant ongoing maintenance and periodic additional major repairs with corresponding disruptions to traffic. Rehabilitation to restore structural capacity, bring the bridge rails up to current safety standards, and mitigate future settlement would involve replacement of the bascule leaf (the steel draw span), the operating system (electrical and mechanical), and construction of crutch bents at each approach bent. The proposed Rehabilitation Alternative would include the following work and would extend the service life of the bridge a maximum of 25-30 years. This Alternative will not change the geometry (typical section) of the existing bridge.

- Replace the sand-cement riprap at the abutments.
- Replace substandard approach guardrails.
- Remove all existing pile jackets and install new cathodic protection jackets on all concrete bent piles as well as steel bascule pier helper piles.
- Repair deteriorated concrete of the pile bent caps, bascule pier and rest pier, and provide cathodic protection in the form of zinc spray metalizing.
- Install crutch bents at Bents 2, 3, 4, 5, 8, 9, 10.
- Replace substandard concrete bridge railings with new traffic railings meeting crash testing requirements of NCHRP 350 (i.e. FDOT Standard Index 422 – 42” Vertical Face Traffic Railing).
- Hydro-blast the deteriorated concrete deck surface and install a new concrete overlay.
- Replace the expansion joints.
- Repair deteriorated concrete of the deck underside, beams and diaphragms, and provide cathodic protection in the form of zinc spray metalizing.
- Rehabilitate the control house including roof, windows and door or replace the control house.
- Replace the bascule leaf, including counterweight, open steel and concrete filled grid deck.
- Replace the bascule span main drive machinery as well as the span locks and live load shoes.
- Replace the bascule span electrical system.

- Replace the bascule span traffic gates.
- Replace the bascule span barrier gate. Replace the fender system.

The following slides (PowerPoint Slides 1-7) from the Public Hearing presentation illustrate some of the repairs proposed for the rehabilitation alternative.

**PowerPoint Slide 1**

**Pinellas County** **Rehabilitation Alternative**

- Extensive Concrete/Steel Repairs
- Correct Structural Deficiencies
- No Widening
- No Change in Navigational Clearances

No Shoulders or Bike Lanes

Extend Service Life 25-30 years

BECKETT BRIDGE PROJECT DEVELOPMENT & ENVIRONMENTAL STUDY **URS**

PowerPoint

Slide 2

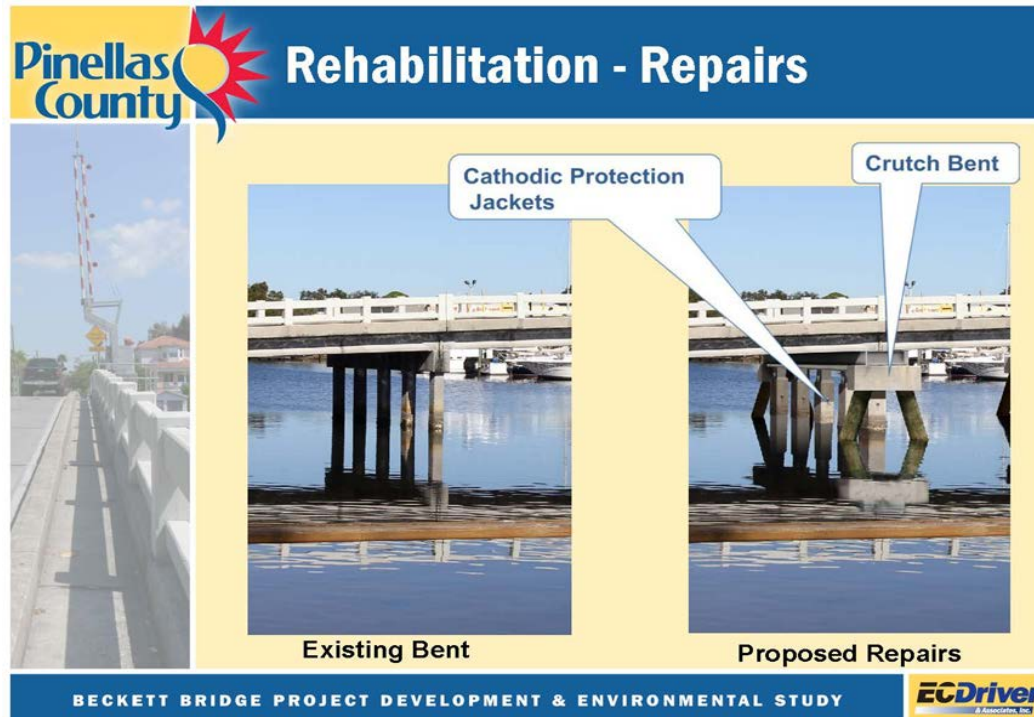
**Pinellas County** **Rehabilitation Original 1924 Elements**

Replace Bascule Span

Bascule Span

Bascule Pier

BECKETT BRIDGE PROJECT DEVELOPMENT & ENVIRONMENTAL STUDY **URS**



PowerPoint Slide 3



PowerPoint Slide 4



## Rehabilitation - Repairs

Replace Electrical Systems and Machinery



Replace Bridge Fender



BECKETT BRIDGE PROJECT DEVELOPMENT & ENVIRONMENTAL STUDY

URS

PowerPoint Slide 5

## Rehabilitation - Repairs

Install Concrete Overlay on Bridge Deck



Replace Expansion Joints

BECKETT BRIDGE PROJECT DEVELOPMENT & ENVIRONMENTAL STUDY

URS

PowerPoint Slide 6



PowerPoint Slide 7

## 4.2.2 Evaluation of the Rehabilitation with Widening to Provide Improved Pedestrian Facilities

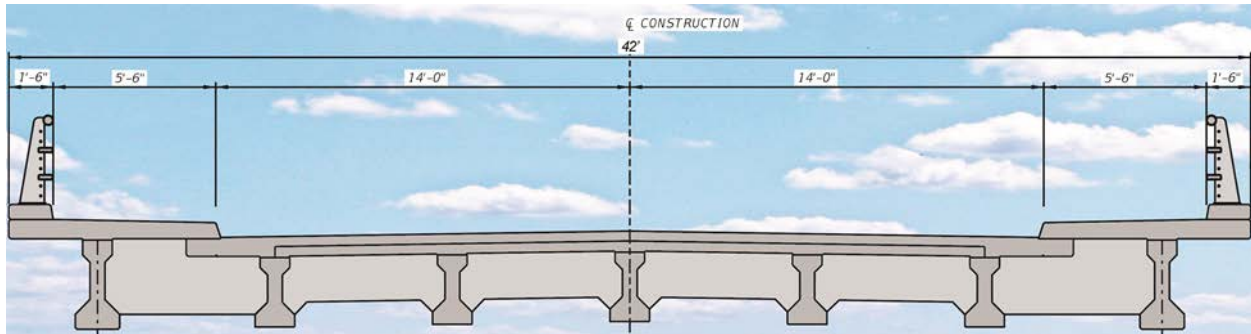
Three meetings were held with the Cultural Resources Committee (CRC) established for this project. The CRC included representatives of SHPO, FHWA, USCG, FDOT, Pinellas County, the City of Tarpon Springs, special interest groups and residents in the community. The CRC recognized that widening the sidewalks on the existing bridge, which are only 2'2" wide, was warranted to provide a safe facility and acknowledged input from the community on this issue. Accordingly, the CRC requested that the project team develop and evaluate a second rehabilitation alternative which included widening the existing sidewalks. Accordingly, the project engineers developed an alternative which provided wider sidewalks on both sides of the existing bridge.

### ***Development of a Minimum Acceptable Typical Section for Rehabilitation***

The first step in development of the Rehabilitation with Widening to Provide Improved Pedestrian Facilities alternative was to establish the *minimum acceptable typical section*. Pinellas County, in coordination with FDOT District 7 staff, determined that widening the existing bridge would require compliance with the Florida Green Book to bring the bridge up to



acceptable minimum current safety standards. Accordingly, a minimum acceptable typical section was developed based on these criteria. This typical section consists of two 11-foot travel lanes, one in each direction, 3-foot wide shoulders on both sides and 5.5 foot wide sidewalks on both sides of the bridge. This typical section is shown below in **Figure 6**. The total width of the bridge would be 42 feet, which is substantially more than the total width of the existing bridge, which is approximately 28 feet.



**Figure 6: Minimum Acceptable Typical Section**

***Description of Required Improvements to the Bascule Span and Approach Spans Required to Construct the “Rehabilitation with Widening to Improve Pedestrian Facilities” Alternative***

Detailed engineering analysis indicates that the additional weight of the wider roadway (which provides the minimum acceptable typical section with shoulders, described above) and the proposed sidewalks cannot be accommodated by using the existing bascule span or bascule pier.

Major modifications would be required to the existing bascule span, bascule pier and approach spans to accommodate the additional load and wider typical section. These include:

- The existing 28 foot wide steel bascule leaf will be replaced with a 42 foot wide bascule leaf.
- The bascule pier (the structure that supports the leaf) will be replaced to accommodate the wider bascule leaf and larger counterweight.
- The approach spans will be widened by adding two new prestressed concrete beams, one along each side of the bridge, to support the wider bridge deck.
- The existing bridge railing will be replaced with a light-weight steel, crash tested railing.

Other Structural Improvements include the following:

- The existing pile bents will be replaced.
- The bridge abutments will be replaced.
- The Control House will be relocated seven feet to the north.
- Cathodic protection will be required in the remaining existing concrete elements of the bridge.

Rehabilitation of the existing bridge will require that the bridge meet current minimum safety standards. Widening of the bridge to provide shoulders and wider sidewalks will result in substantial alteration to the look of the bridge and will require substantial modifications to the existing bascule piers. The original historic bascule span will also be replaced. The final structure will no longer resemble the original historic bridge and would result in an Adverse Effect.

#### **4.2.3 Evaluation of Rehabilitation Alternative which Provides a Single Code Compliant Sidewalk without Widening, or with Minimal Widening of the Existing Bridge**

The results of the evaluation of the Rehabilitation with Widening alternative were presented to SHPO, FHWA and FDOT staff on June 11, 2013 in Tallahassee. SHPO concurred that this alternative did not promote preservation of the existing bridge. At the June 11, 2013 meeting, representatives from SHPO requested consideration of an additional concept that would modify the existing bridge cross section to accommodate a single, code compliant, sidewalk, rather than two sidewalks as had been previously proposed. This section summarizes the technical evaluation of concepts with a sidewalk on one side only. The first concept evaluated the possibility of providing a single sidewalk without widening. The second concept evaluated providing a single sidewalk with minimal widening of the existing bridge. This evaluation was provided to SHPO, FHWA and FDOT (via email) in a memo dated July 5, 2013. This memo is included in **Appendix D**.

#### ***Reconfiguration of the Existing Bridge without Widening***

The most desirable concept from a historic preservation perspective would be to avoid widening of the bridge and simply rework the arrangement of lanes and sidewalk(s) within the width of the existing bridge (28'-0½"). A modified section of the narrowest practical width

would include minimum shoulders, a traffic railing (barrier) on the south side, two travel lanes, a sidewalk on a raised curb on the north side, and a traffic railing at the back of sidewalk. Assuming that design exceptions are granted for lane width (to allow two 10-foot wide lanes rather than the 11-foot minimum) and shoulder width (to allow a 2.5-foot shoulder adjacent to a traffic railing and a 1.5-foot shoulder adjacent to the curb rather than the 3-foot minimum required) the minimum clear roadway width for this configuration is 24 feet. With a minimum 5.5 foot wide sidewalk and two traffic railings (1.5' on the south side adjacent to traffic and 1'-1" at the back of sidewalk on the north side) the minimum bridge width that would accommodate this section is 32'-1", which is 4'-0½" wider than the existing bridge. **Therefore, the existing bridge width is not sufficient to support two lanes and a single sidewalk without widening.** Accordingly, a concept which required minimal widening was evaluated as described below.

#### ***Reconfiguration of the Existing Bridge with Minimal Widening***

The next most desirable concept from a historic preservation perspective would be one that limits bridge widening and associated impacts such that the existing bascule pier foundations can be saved. As discussed in the June 11, 2013 meeting, if the bridge is widened, the new bridge section must meet minimum standards. The minimum width of a bridge featuring a single sidewalk under this scenario would include 3-foot wide shoulders, a traffic railing on the south side (1.5'), two 11-foot wide travel lanes, a 5.5-foot wide sidewalk on a raised curb on the north side, and a traffic railing at the back of sidewalk (1'-1") on the north side. The clear roadway width of this section is 28 feet and the overall width is 36'-1". To accommodate this section the bridge would need to be widened by 8'-0½".

The technical issues associated with widening the bridge by 8'-0½" were examined. The evaluation included calculating live load distribution factors (as an indicator of the increase in live load on a main girder due to widening) and approximating dead and live load changes associated with the proposed modifications. The analysis also included determining approximate span balance conditions and corresponding density of the counterweight needed to balance the bridge. The following summarizes the technical challenges disclosed in this investigation:

- As with any solution, the current live load (HL-93) is approximately 32% heavier than the original design load (HS-15 assumed based on year of construction).

- Live load distribution factor for the main girders of the bascule span would increase by 117%.
- The net of the above is an increased live load on the main girders that is 2.8 times the original design load.
- The movable span dead load (weight) would increase by approximately 49%.
- The density of the counterweight would need to be increased to approximately 360 per cubic foot (pcf) to properly balance the bascule span (note that the AASHTO recommended maximum density for counterweight concrete is 280 pcf).

**Based on this evaluation it is our conclusion that widening the bridge to include a single sidewalk that meets current design criteria is not technically feasible unless the bascule pier is replaced as well.** The increased dead load and live loads are beyond what the existing foundations can handle without extensive strengthening. The physical size of the existing bascule pier footing precludes increasing the size of the counterweight and the density required of the existing size counterweight is well in excess of that recommended by AASHTO. This option would also result in an Adverse Effect.

#### **4.3 AVOIDANCE ALTERNATIVES ON A NEW LOCATION WITHOUT USING SECTION 4(f) PROPERTY**

The current crossing is located in the narrow portion of the Bayou and connects existing roadways. Crossing the waterway north or south of the existing bridge would result in substantial environmental and social impacts. Construction of new access roads to a bridge on a new corridor would be required which would impact substantial areas of residential property. Areas to the east and west of the bridge are densely developed. In addition, construction of a new bridge on a new corridor would result in more impacts to the natural environment, including potential seagrass impacts, other wetland impacts, and impacts to essential fish habitat.

Construction of a bridge on a new corridor would not meet the transportation needs of the community associated with emergency services, transportation to public schools or emergency evacuation. Construction of a replacement bridge along the existing corridor will best serve the purpose and need of the project and result in fewer impacts than a bridge constructed within a new corridor.

## 5.0 IMPACTS AND FINDINGS

### 5.1 NO-BUILD ALTERNATIVE

The No-Build Alternative as described in Section 4.1 of this document is essentially a “do nothing” alternative and would not currently impact the Section 4(f) Property (the historic bridge). This alternative would not involve major repairs; accordingly, the historic bridge would continue to deteriorate. However, the No-Build Alternative will not adequately meet the transportation needs of the community. The bridge location provides an important transportation facility for emergency services, emergency evacuation and movement between the highly developed areas east and west of Whitcomb Bayou. In addition, the No-Build Alternative is not feasible or prudent for the following reasons.

- Existing geometric deficiencies, including the narrow lanes, lack of shoulders and very narrow sidewalks, would remain.
- Existing structural deficiencies would not be corrected. The bridge would remain load posted and it is anticipated that additional load restrictions would be required as the bridge deteriorates. This would continue to prohibit some emergency vehicles and school busses from crossing the bridge.
- The existing and mechanical deficiencies would not be corrected.
- The existing bridge rail would not meet current crash requirements and approach guardrails will not meet current standards.
- Substantial continuing bridge maintenance would be required.
- The expected service life of the existing bridge would be ten years or less.

### 5.2 IMPROVEMENT WITHOUT DEMOLITION OF SECTION 4(f) PROPERTY – REHABILITATION ALTERNATIVES

#### 5.2.1 Rehabilitation without Widening (No Changes to the Bridge Deck Geometry)

This alternative was developed with the goal of avoiding affects to the historic integrity of the bridge. The Rehabilitation Alternative, as described in Section 4.2.1 of this document, can extend the existing bridge service life with extensive repairs and modifications, implementation of measures that slow the rate of concrete and structural steel deterioration, replacement of severely deteriorated structural elements, replacement of worn, deteriorated, and outdated electrical and mechanical systems and replacement of substandard bridge railings. However,



even after major rehabilitation, due to its age and condition, it is anticipated that the bridge will require significant ongoing maintenance and periodic additional major repairs with corresponding disruptions to traffic. Rehabilitation to restore structural capacity, bring the bridge rails up to current safety standards, and mitigate future settlement would involve replacement of the bascule leaf (the steel draw span), the operating system (electrical and mechanical), and construction of crutch bents at each approach bent. These improvements, in conjunction with continued maintenance and periodic repair and/or rehabilitation, could extend the service life of the bridge 25 to 30 years (from 2013), but the life of the bridge cannot be extended indefinitely. **Because this alternative will completely replace the draw span, bridge rails, and mechanical and electrical systems, this alternative will result in adverse effects to the historic integrity of the Beckett Bridge.**

### **5.2.2 Rehabilitation with Widening to Provide Improved Pedestrian Facilities**

As described in Section 4.2.2 of this document, rehabilitation of the existing bridge will require that the bridge meet current minimum safety standards. Accommodating the additional weight associated with widening of the bridge to provide shoulders and wider sidewalks will require replacement of the existing bascule leaf, and replacement or substantial modification to the bascule piers. These are the only two elements remaining of the original 1924 bridge. **These modifications in addition to others described in Section 4.2.2 of this document will substantially alter the look of the bridge and result in adverse effects to the historical integrity of the historic bridge.**

### **5.2.3 Rehabilitation Alternative which Provides a Single Code Compliant Sidewalk without Widening, or with Minimal Widening of the Existing Bridge**

Based on the evaluation described in Section 4.2.3 of this document, it is evident that widening the bridge to include a single sidewalk that meets current design criteria is not technically feasible unless the bascule pier is replaced as well. The increased dead load and live loads are beyond what the existing foundations can handle without extensive strengthening. The physical size of the existing bascule pier footing precludes increasing the size of the counterweight and the density required of the existing size counterweight is well in excess of that recommended by AASHTO.

The existing bridge width is not sufficient to support two lanes and a single sidewalk without widening. In comparison to the proposed action which would result in a bridge with 6-foot wide sidewalks on both sides of the bridge, a single sidewalk concept does not offer substantial improvements or reductions in impacts to the historic integrity of the existing bridge. Both require complete replacement of the bascule span and bascule piers. Accordingly, it is not feasible or prudent to widen the existing bridge to provide improved pedestrian facilities.

### **5.3 AVOIDANCE ALTERNATIVES ON A NEW LOCATION WITHOUT USING SECTION 4(f) PROPERTY**

As discussed in section 4.3, construction of a new bridge in a new location would not meet the transportation needs of the local community. This alternative would be considerably more expensive than construction of a replacement bridge because of the construction costs and costs to acquire residential properties for right-of-way to build new access roads to the new location. In addition, this alternative is not feasible and prudent for the following reasons:

- The existing bridge is already located in the only feasible and prudent site.
- Construction of a new bridge on a new location would result in social and economic impacts of extraordinary magnitude. This alternative would also result in substantial additional environmental impacts.
- It would not be feasible and prudent to preserve the existing bridge. Substantial modifications to the existing bridge, including replacement of the original bascule span, would be required to correct the structural deficiencies of the existing bridge and keep it operational for more than 10 years. These modifications adversely affect the historical integrity of the existing bridge. Without these major modifications, continuing, costly and disruptive maintenance would likely be required to keep the bridge operational for its relatively short remaining service life.

## **6.0 MEASURES TO MINIMIZE HARM**

The proposed action, replacement of the existing bridge, has included all possible planning to minimize harm. Pursuant to 36 CFR Part 800 and Section 106 of the NHPA, salvaging the historic elements was agreed upon to be the best measure to minimize harm once it was determined that rehabilitation was not a feasible option to replacement. It was also determined that the center span structure was not suitable for use as a roadway structure because the existing geometry of the steel bascule span contributes to the classification of the

bridge as “functionally obsolete”. Also, it is not feasible from an engineering standpoint to modify the existing bascule span to be used in an existing roadway with a wider typical section. In addition, the existing bridge cannot be relocated elsewhere because the concrete approach spans cannot be disassembled and reassembled in a new location.

Through discussions with Pinellas County, FDOT, and the SHPO, a consensus was reached that utilizing salvageable elements of the historic bridge into the new project was preferable over relocating the center span portion to be utilized as a monument. Because the MOA requires that elements of the old bridge will be salvaged and incorporated into the design of the new bridge or displayed in a location in the vicinity of the new bridge, a marketing effort directed at public or responsible private entities for other uses of the bridge was not conducted.

Measures to minimize harm were discussed in the April 24, 2014 CRC meeting and are described in the Memorandum of Agreement (MOA) among Pinellas County, FDOT, FHWA, the City of Tarpon Springs and SHPO. This MOA is included in Appendix E. The MOA requires the Historic American Engineering Record (HAER) documentation of the bridge, which includes large-format photography, printing historic plans on archival paper (or mylar), and preparing a written narrative. In addition, the following mitigation measures are included:

The replacement bridge will be a single-leaf, rolling-lift bridge of similar design. However, other aesthetic elements of the bridge will be determined by an aesthetics committee that will be assembled during the design phase. This committee will include representatives of the community and local governments, including the Tarpon Springs Historical Society.

- Elements of the old bridge will be salvaged and incorporated into the design of the new bridge or displayed in a location in the vicinity of the new bridge. The specifics of the design will be determined by the aesthetics committee and community during the design phase.
- There is an existing historic marker or plaque on the current bridge which includes the date the bridge was erected and names of Pinellas County Commissioners at that time. This historic plaque will be incorporated into a new plaque which will be attached to the new control house so that it is visible to pedestrians crossing the bridge.
- Pinellas County will ensure that information regarding the Beckett Bridge, which is suitable for inclusion in a “public-facing website for project information and

educational purposes” and/or suitable for use on a mobile device, such as “What Was There” or “Next Exit History”, is developed. This information will provide a historic account of the bridge to educate the public on its history.

## 7.0 COORDINATION

Coordination with the SHPO, the public agency having jurisdiction over the NRHP eligible bridge, as well as coordination with the public and interested parties, occurred throughout the PD&E study conducted by Pinellas County in coordination with FDOT District 7 office.

### ***Efficient Transportation Decision Making /Advanced Notification***

FDOT District Seven initiated the Efficient Transportation Decision Making (ETDM) screening phase of the project. This process initiated early coordination with all Environmental Technical Advisory Team (ETAT) members, including SHPO, the USCG and FHWA. The process began with distribution of the Advanced Notification (AN) in October 2010. During the ETDM screening process, SHPO, the Miccosukee Tribe, and the FHWA recommended that a CRAS be conducted to identify and evaluate any resources that may be eligible for listing in the NRHP. The SHPO also noted that the bridge must be documented using historic bridge forms and evaluated by a professional. The *ETDM Programming Screen Summary Report* was published on June 30, 2011. A copy of the AN package and the summary report are included in the Preliminary Engineering Report prepared separately for this project. Excerpts from the *ETDM Programming Screen Summary Report* are included in **Appendix F**.

A CRC was assembled to address historic resource issues during the study. Two meetings were held with representatives of affected parties, including the SHPO, USCG, City of Tarpon Springs, Pinellas County, Tarpon Springs Yacht Club, the Tarpon Springs Historical Society, and the local community. These CRC Meetings took place October 29, 2012 and March 13, 2013, and focused on the Section 106 process, proposed alternatives, and potential effects to the historic bridge. The input obtained from the meeting participants assisted in the further development of alternatives.

An additional meeting with FHWA, FDOT, and SHPO to discuss two additional rehabilitation alternatives developed and evaluated by the project team at the request of the CRC and SHPO was held in Tallahassee on June 11, 2013.

A memo, dated July 5, 2013, summarizing the results of a “Technical Evaluation of Single Sidewalk Concepts” was prepared and coordinated with SHPO, FHWA and FDOT via email dated July 11, 2013. After review of this memo and all other supporting documentation, SHPO, by email dated August 2, 2013, agreed that ample evidence had been provided to show that a new bridge is preferable to rehabilitation of the existing bridge. This email is also included in **Appendix D.**

A third CRC meeting was held on April 24, 2014, after the Public Hearing and subsequent Pinellas County Commission Meeting. The “Replacement of the Existing Bridge with a New Low-Level Movable Bridge Alternative” was presented as the Recommended Alternative at the February 26, 2014 Public Hearing. At the subsequent County Commission meeting on April 15, 2014, the Commission concurred that the Recommended Alternative could proceed to FHWA as the Preferred Alternative. The April 24, 2014 CRC meeting included an update on the results of the Public Hearing and Commission meeting, a discussion of the Section 106 process completed to date, a discussion of effects, and a discussion of desired mitigation measures to be included in the Memorandum of Agreement. CRC meeting minutes are included in **Appendix G.**

Reports prepared during the PD&E study provided to FHWA and SHPO for review and concurrence includes the following:

- Beckett Bridge Determination of Eligibility – dated April, 2012
- CRAS– dated February 2013
- Section 106 Case Study Report – dated May 2014

## **8.0 CONCLUSION**

Based on the above considerations, there is no feasible and prudent alternative to the use of the historic Beckett Bridge and the proposed action includes all possible planning to minimize harm to the Section 4(f) resource resulting from such use. Pursuant to the provisions of Section 106 of the National Historic Preservation Act (36 CFR 800), an MOA has been developed to mitigate the adverse effects of this proposed undertaking. The final MOA is included in **Appendix E.**



Upon final alternative selection, the provisions of Section 4(f) and 36 CFR Part 800 will be fully satisfied.

## 9.0 REFERENCES CITED

Florida Department of Transportation (FDOT)

2004 *Historic Highway Bridges of Florida*. FDOT. Tallahassee, Florida.

Freedman, Morty.

1948 Bridge name Changed. *St. Petersburg Times*, November 24, 1948.

Goldman, Sue Searcy

1996 *A History of the Board of County Commissioners of Pinellas County*. Pinellas County, Florida.

Headrick, Christina

1996 Signs Lied; Bridge to be Shut Awhile. *St. Petersburg Times*, North Pinellas Times: 1.

1997 Bridge Ends Long Trip to Reopening. *St. Petersburg Times*, North Pinellas Times: 1.

Hornik, Tony

2012 Email correspondence between Tony Hornik, Structures Engineer with the Engineering Technical Support Division of the Pinellas County Department of Environmental & Infrastructure, and Amy Streelman of Janus Research. 30 April 2012.

Koglin, Terry L.

2003 *Movable Bridge Engineering*. John Wiley & Sons, Inc., Hoboken, New Jersey.

n.a.

1948 Tarpon Renames Bridge for Beckett. *Evening Independent*, 19 November 1948

1955 Tarpon Assured of New Bridge on Chilito Street. *St. Petersburg Times*, 27 July 1955

1956 Tentative Approval Given \$81,000 Bid on Chilito Span. *St. Petersburg Times*, 22 February 1956.

Stoughton, Gertrude K.

1975 *Tarpon Springs, Florida*. Tarpon Springs Historical Society, Tarpon Springs.

Twitty, Tom.

1955 Road Projects for New Year Born Without Benefit of Spotlight. *St. Petersburg Times*, October 10, 1955.

2014 Draft Preliminary Engineering Report, Beckett Bridge PD&E Study, Pinellas County  
Project ID: PID 2161, FDOT Financial Project ID: 424385-1-28-01, February 2014

2013 Cultural Resource Assessment Survey Report, Beckett Bridge PD&E Study, Pinellas County  
Project ID: PID 2161, FDOT Financial Project ID: 424385-1-28-01, February 2013, Manuscript on file,  
Division of Historical Resources, Tallahassee.



# APPENDIX A

## *Design Criteria*

*(Chapter 4 – Preliminary Engineering Report)*



## **4.0 DESIGN CRITERIA**

### **4.1 BRIDGE**

#### **4.1.1 Channel Clearance Requirements**

The proposed bridge will provide horizontal and vertical navigation clearances that are, at a minimum, equal to those of the existing bridge. The existing horizontal clearance is approximately 25 feet between fenders. The vertical clearance for the existing movable span in the closed position is approximately 6 feet. The maximum vertical clearance for the movable bridge in the fixed position which avoids impacts to adjacent right-of-way is 7.5 feet. Discussions with the USCG indicated that a bridge with at least 6 feet of vertical clearance would be permissible.

A waterway survey of waterfront property owners on Whitcomb Bayou was conducted to determine the number and types of boats that would need to pass under the bridge to reach deeper water. The results showed that six sailboats requiring 14-38 feet of vertical clearance were owned by waterfront property owners in the Bayou. Based on this information and discussions with the USCG, a fixed bridge alternative was developed which provided the maximum vertical clearance practical to provide access to these vessels. The maximum vertical clearance that could be obtained without impacting the intersections at the western and eastern limits of the project (Riverside Drive with Chesapeake Drive and Forest Avenue) was determined to be 28 feet.

In summary, these clearances used to develop alternatives include:

1. 25 ft. horizontal between fenders.
2. 28 ft. vertical clearance above mean high water (MHW) between fenders for a fixed span.
3. 7.75 ft. vertical clearance above MHW between fenders for a movable span bridge with the movable span in the closed position.
4. Unrestricted vertical clearance in the channel for a movable span in the open position.

#### **4.1.2 Design Method**

##### ***Replacement Bridge***

The replacement bridge will be designed for a 75 year service life. Concrete may include additives as well as having additional cover over reinforcing steel for increased corrosion protection.

##### ***Substructure Elements***

Substructure elements, including precast and cast-in-place concrete piles, footings, caps, and columns will be designed for dead load, live load, wind load, etc. in accordance the Load and Resistance Factor (LRFD) method.

##### ***Superstructure Elements***

Superstructure elements, including prestressed and cast-in-place deck slab, beams, and barrier rails will be designed for dead load, live load, and crash resistance in accordance with the LRFD method.

##### ***Bascule Span Superstructure***

Structural steel (main girders, floor beams, stringers, bracing, etc.) for the bascule span superstructure will be designed for dead load, live load, and wind load in accordance with the LRFD method.

##### ***Bascule Span Electrical and Mechanical***

The bascule span machinery and electrical control system will be designed in accordance with the LRFD method. The design will be based on 3,000 (open and close) operation cycles over the proposed 75-yr service life.

#### **4.1.3 Design Loads and Load Factors**

##### ***Live Load***

HL-93 Design Vehicular Live Loading, including design truck or design tandem and design lane load, per *AASHTO LRFD Bridge Design Specifications, 6<sup>th</sup> Edition – 2010*, Section 3.6, shall be used. The load results from the HL-93 Design Vehicular Live Loading envelopes the load results for all LRFD Design Live Loads. The movable span shall also be designed for HL-93 Design Vehicular Live Loading when the span locks are not engaged for a Strength II Load Combinations, per *FDOT Structures Design Guidelines*, Section 8.4.



### **Wind Loads**

Section 2.4 of the *FDOT Structures Design Guidelines* shall be used to determine the wind on structure loads for the bridge design. A Basic Wind Speed (V) of 130 mph as per Table 2.4.1-2 shall be used.

### **Wave Loads**

In accordance with the *FDOT Structures Design Guidelines*, Section 2.5, the level of importance classification for the proposed bridge is recommended to be “Critical.” This recommendation is based on a combination of factors including projected traffic volumes, route impacts on local residents and businesses, and use of this facility as an evacuation and emergency response route. This classification requires that the replacement bridge be designed to resist wave forces at the Extreme Event Limit State with a performance level of “Repairable Damage.” Using this design criteria, the bridge would be designed to survive a 100-year storm event but may experience some damage that would require minimal repair before bridge is returned to service. The use of “Sacrificial Spans” that would require replacement after a 100-year storm event is not recommended.

According to the *Final Report, Design Storm Surge Hydrographs for the Florida Coast*, D. Max Sheppard and William Miller Jr., September 2003, the 100-yr Storm Surge Elevation for the Anclote River is approximately 11.5 feet. The storm surge elevation at the bridge is anticipated to be similar to this elevation. Portions of the superstructure will be below the wave crest elevation. Accordingly, wave forces need to be considered in the design of the bridge. However, it is anticipated that wave heights and corresponding force at the bridge would not be substantial because of the lack of a significant fetch needed to develop wind-driven waves. Furthermore, the presence of topographical features, including numerous adjacent residential buildings and trees, reduce wind velocities at the surface of the water with lower corresponding wave heights.

As the superstructure for the movable bridge alternative will be below the storm surge elevation, it will be subject to waves and thus will be required to be designed to resist the design wave loads. Accordingly, the movable bridge alternative may require wave force-mitigation measures such as a shallow slab type superstructure. The superstructure for the fixed bridge alternatives is anticipated to be above the maximum wave crests and thus it will

not be necessary to design these spans for the wave loads.

During final design, a Coastal Engineer will be required to perform a wave analysis to determine the anticipated wave heights and corresponding wave design loads. A Level I Analysis per *AASHTO Guide Specifications for Bridges Vulnerable to Coastal Storms* will yield conservative design wave loads.

### ***Seismic Loads***

The superstructure spans will be supported on elastomeric bearings. Therefore, the bridge will be categorized as “exempt” for seismic loads per *FDOT Structures Design Guidelines* Section 2.3. The minimum bearing support dimensions only need to be satisfied as required by *AASHTO Bridge Design Guidelines*, Section 4.7.4.4 for seismic adequacy.

### ***Vehicular Collision Loads***

Traffic railing (barriers) on the fixed spans will be in accordance with NCHRP Report 350 Performance Level TL-4 (AASHTO Level PL-2), including crash testing. Traffic railing on the movable span may be constructed of structural steel, and if so, will be designed as an equivalent to a crash tested TL-4 railing, including similar geometry and strength.

#### **4.1.4 Movable Span Operation Requirements**

The movable span will be a single-leaf bascule. The movable span drive machinery may be either an electro-mechanical or hydraulic system.

### ***Time of Operation***

The normal operating cycle from fully closed to fully opened, or fully open to fully closed, will be a maximum of 60 seconds. The 60 seconds will include a zero to ten second acceleration period and a zero to five second period deceleration, creep speed and seating. This operating cycle will apply for wind loads defined in AASHTO.

### ***Redundancy***

Primary span drive components including motors, brakes, reducers, driver machinery, pump/motor groups, hydraulic cylinders, and valving will be designed for redundancy such that one component or system can be removed from service for repair or replacement without disabling the bridge for opening under maximum constant velocity torque wind loads per

AASHTO.

### ***Service Duty***

The design life for reducers, bearings and other similar mechanical components will be 50 years. The design life for cylinder seals, hydraulic pumps, and other hydraulic seals will be 20 years.

### ***Electrical Service***

Electrical service will be 480 volts 3 phase, “wye” for motor loads.

### ***Bridge Control System***

Bridge control and operation will be by way of a relay logic with bypass capability.

## **4.1.5 Environmental Classification**

The following environmental classifications apply:

- Superstructure: Corrosive (Extremely Aggressive)
- Substructure: Corrosive (Extremely Aggressive)
- Location: Coastal (Saltwater)

## **4.2 ROADWAY**

Roadway design criteria are summarized in Table 4-1 below. Conceptual plans have been developed using the current editions of the documents listed below. If the project proceeds to the Design phase, the editions current at that time will be used for final design of the proposed improvements.

### **4.2.1 Vertical Clearance over Roadways**

The minimum vertical clearance used to develop alternatives for the bridge structure overpasses is 14.5 feet from the bottom of the structure member to the crown (or high point) of the roadway travel way underpass. This clearance height is consistent with AASHTO required minimum criteria.

**Table 4-1 – Roadway Design Criteria**

Control / Design Element	Existing Roadway Elements	Minimum Design Controls & Standards	Documentation & References
<b>Traffic Volumes [Annual Average Daily Traffic (AADT)]</b> <b>Design Year</b>	9,700 2038	<i>9,700 vehicles per day (vpd)</i>	Design Traffic Technical Memorandum ( URS, April 2012 prepared for this PD&E Study)
<b>Functional Classification:</b> Riverside Drive/ N Spring Blvd	<b>Rural</b> Collector	<b>Urban</b> Collector	City of Tarpon Springs and Pinellas County Comprehensive Plans
<b>Design Speed</b> Collector Roadway	20 & 30 miles per hour (mph) (Posted)	<b>35 mph*</b> (Greenbook) <b>&gt;30 mph**</b> (AASHTO) <b>35-50 mph***</b> (FDOT) <b>Use 35 mph*</b>	*Greenbook, Table 3-1 ** AASHTO, Chapter 6 ***FDOT PPM, Table 1.9.1
<b>Design Vehicle</b> Single Unit Truck (SU) 8' wide x 30' long Conventional School Bus (S-Bus36) 8' wide x 35.8' long Recreational Vehicle (MH/B) 8' wide x 53' long per AASHTO and Greenbook.	N/A	SU*(Greenbook) SU-30,SU-40, S-BUS36, MH-B** (AASHTO) WB-62 FL*** (FDOT)  <b>Use SU, S-BUS36, MH-B design vehicles**</b>	*Greenbook, Table 3-2  **AASHTO, Table 2-1b ***FDOT PPM, Sec. 1.12
<b>Minimum Width of Travel Lane</b>	10 ft.	11 ft.* (Greenbook) 10-12 ft**(AASHTO) 11 ft.*** (FDOT) <b>Use 11 ft.*</b>	*Greenbook, Table 3-7 **AASHTO, Chapter 6 ***FDOT PPM, Table 2.1.1
<b>Bicycle Lane</b>	N/A	4.0 ft.* (Greenbook) Varies (2ft. min.) ** (AASHTO) 4.0 ft.*** (FDOT) <b>Use 4 ft.*</b>	*Greenbook, Ch. 3, sec. C.10.b **AASHTO, Chapter 2(Pg. 2-81) ***FDOT PPM, Table 2.1.2
<b>Sidewalk</b>	4-5 ft.	4 ft.* Min. (Greenbook) 5 ft. ** (AASHTO)(ADA) 5 ft. (On Bridge)*** (FDOT) <b>Use 5 ft. min. sidewalk***</b>	*Greenbook, Ch. 3, Sec. C.7.d. **AASHTO, Chapter 6 ***FDOT PPM, Figure 2.0.4
<b>Shared Use Path (S.U.P.)</b>	N/A	10 ft. (2-way only)*(Greenbook) N/A ** (AASHTO) 6 ft. (1-way),10 ft.(2-way)*** FDOT <b>N/A***</b>	*Greenbook, Ch. 9, sec. C.2 **AASHTO Bicycle Handbook ***FDOT PPM, Sec. 8.6.2
<b>Shoulder Width (Outside)</b>	No Shoulder	8' *(Greenbook) 8' ** (AASHTO) 16" (raised sidewalk), 8' min. long bridge*** (FDOT) <b>N/A*</b>	*Greenbook, Table 3-8 **AASHTO, Exhibit 6-5. Ch. 6  ***FDOT PPM, Fig. 2.03, 2.04



Control / Design Element	Existing Roadway Elements	Minimum Design Controls & Standards	Documentation & References
<b>Shoulder Width (Inside)</b> Distance from travel lane to longitudinal barrier. For FDOT Plans Preparation Manual (PPM) and Greenbook, median shoulder only applies to multi-lane highways.	None	6' *(Greenbook) 4' **(AASHTO) 2'-6" with raised median / 6' flush shoulder*** (FDOT) <b>N/A**</b>	*Greenbook, Table 3-9 **AASHTO, Chapter 6, ***FDOT PPM, Fig. 2.0.4
<b>Breakdown Vehicle Width on Travel Lane</b> This is the width of the travel lane that can be used to accommodate a "break down" situation for a narrow shoulder.	N/A	[1' to 4'] encroachment onto travel lane is allowed for a narrow shoulder**(AASHTO) <b>N/A**</b>	**AASHTO, Chapter 4, "Width of Shoulders" Section 4.4.2
<b>Cross Slope</b>	Not Available	1.5% to 4%* (Greenbook) 1.5% to 3%** (AASHTO) 2% from crown*** (FDOT) <b>Use 2% Cross Slope***</b>	*Greenbook, Chapter 3, C.7.B.2 **AASHTO, Chapter 6, pg. 6-13 ***FDOT PPM, Figure 2.1.1
<b>Roadside Slopes</b> Anything steeper than 1:3 will need to be shielded per all references.	Not Available	1:4 or flatter* (Greenbook) 1:3 or flatter** (AASHTO) 1:2, not flatter than 1:6*** (FDOT) <b>N/A*</b>	*Greenbook, Ch. 3, sec. C.7.f.2 **AASHTO, Ch. 4, pg. 6-13 ***FDOT PPM, Table 2.1.1
<b>Clear Zone</b> Based on Design Speed.	N/A	10' (Rural), 4' (Urban)* (Greenbook) 14' (Rural), 1.5' back of face of curb (Urban)** 18' (Rural), 4' (Urban but not < 2.5')*** (FDOT)) <b>Use 4'*</b>	*Greenbook, Table 3-12 **AASHTO Roadside Guideline Chapter 3 and Chapter 10 ***FDOT PPM, Chapter 4
<b>Border Width</b> Based on Design Speed.	Not Available	N/A *(Greenbook) 8 ft.** (AASHTO) 33' Rural, 12' Urban, 10' w/bike lane*** (FDOT) <b>Use 8 ft.**</b>	*Greenbook, N/A **AASHTO, Chapter 8 ***FDOT PPM, Table 2.5.1, 2.5.2
<b>Drop-Off Hazard</b> For Vehicles and Cyclists on Road	N/A	Hazard when less than 22 ft. from traveled way, steeper than 1:3 slope and 6 ft. or greater drop.*** (FDOT) <b>Identify Hazards less than 22' / steeper than 1/3 &gt; 6' drop ***</b>	***FDOT PPM 2012, Section 4.2.2

Control / Design Element	Existing Roadway Elements	Minimum Design Controls & Standards	Documentation & References
<b>Drop-Off Hazard</b> For Pedestrians on Sidewalk	N/A	Case I: When Drop-off is > 10" and within 2 ft. of Back-of-Sidewalk. Case II: When Total Drop-off is > 60" and slope steeper than 1:2 and begins within 2 ft. of Back-of-Sidewalk *** (FDOT) <b>Identify Hazards that meet Case I or II***</b>	*** FDOT PPM 2012 Figure 8.8.1
<b>Maximum Grade</b> Based on Design Speed of 35 mph.	1.3 % max.	9% *(Greenbook) 9% *(AASHTO) 9% *(FDOT PPM) 5% *(ADA) <b>Use 5% maximum grade****</b>	*Greenbook, Table 3-4 **AASHTO, Exhibit 6-8 ***FDOT PPM, Tables 2.6.1 **** ADA
<b>Minimum Grade</b>	0.2 % min.	0.3%*(Greenbook) 0.3%*(AASHTO) 0.3 %*(FDOT) <b>Maintain 0.3% minimum grade*</b>	*Greenbook Chapter 6, C.5.b **AASHTO Chapter 6, Pg 3-119 ***FDOT PPM, Table 2.6.4
<b>Maximum change in grade w/out using vertical curve</b> Based on Design Speed of 35 mph.	N/A	0.9%* (Greenbook) N/A *(AASHTO) 0.9%*(FDOT) <b>Use 0.9%*</b>	*Greenbook, Table 3-5 **N/A (AASHTO) ***FDOT PPM, Table 2.6.2
<b>Minimum Length of Crest Vertical Curve</b> Based on K-value. Based on Design Speed of 35 mph.	360' existing	K=47 but not L < 105* (Greenbook) K=29** (AASHTO) K=47 but not L < 105*** (FDOT) <b>Use k=47 for minimum length***</b>	*Greenbook, Table 3-6  **AASHTO, Table 3-34 ***FDOT PPM, Table 2.8.5
<b>Minimum Length of Sag Vertical Curve</b> Based on K-value. Based on Design Speed of 35 mph.	N/A	K=49 but not L < 105* (Greenbook) K=49** (AASHTO) K=49*** (FDOT) <b>Use k=49 for minimum length***</b>	*Greenbook, Table 3-6  **AASHTO, Table 3-36 ***FDOT PPM, Table 2.8.6
<b>Maximum Degree of Curvature Without Superelevation</b> Based on Normal Cross Slope = -0.02. Based on Design Speed of 35 mph.	<u>4 existing Curves:</u> 28° - 1 <sup>st</sup> curve 28° - 2 <sup>nd</sup> curve 34° - 3 <sup>rd</sup> curve 38° - 4 <sup>th</sup> curve	N/A*(Greenbook) R=510'*(AASHTO) 5°*(FDOT) <b>Maintain existing degree of curvature**</b>	*Greenbook, N/A **AASHTO, Table 3-13 ***FDOT PPM, Table 2.8.4

Control / Design Element	Existing Roadway Elements	Minimum Design Controls & Standards	Documentation & References
<b>Minimum Length of Horizontal Curve</b> Based on Design Speed.	<u>4 existing Curves:</u> 14.84' - 1 <sup>st</sup> curve 15.36' - 2 <sup>nd</sup> curve 130' - 3 <sup>rd</sup> curve 52.29' - 4 <sup>th</sup> curve	N/A*(Greenbook) 500'**(AASHTO) 525' but not < 400'*** (FDOT) <b>Maintain existing length of curve**</b>	*Greenbook, N/A **AASHTO, Ch. 3 Sec 3.3.13 ***FDOT PPM, Table 2.8.2a
<b>Maximum Deflection without a Horizontal Curve</b> Based on Design Speed of 35 mph.	N/A	2° *** (FDOT) <b>Use 2 degrees ***</b>	*** FDOT PPM, Table 2.8.1a
<b>Traffic Control Through Work Zones (Minimum Regulatory Speed)</b> FDOT states that the Regulatory Speed should never be below the minimum statutory speed for this facility. See "Design Speed". AASHTO follows Manual on Uniform Traffic Control Devices (MUTCD) criteria.		20 mph & 30 mph Posted*** (FDOT) Existing Roadway Regulatory Speeds**** (MUTCD)  <b>Use 20 mph &amp; 30 mph posted speeds ***</b>	*** FDOT Design Standards, Index 600 **** MUTCD, Chapter 6C
<b>Traffic Control Through Work Zones (Clear Zone Width for Work Zones)</b>		14' or 4' behind face of curb and gutter *** (FDOT) <b>Use 14' or 4' behind face of curb and gutter ***</b>	*** FDOT Design Standards, Index 600
<b>Traffic Control Through Work Zones (Minimum Radii for Normal Cross Slope)</b> Based on Design Speed.		610' *** (FDOT) <b>Use 610' ***</b>	*** FDOT Design Standards, Index 600
<b>Traffic Control Through Work Zones (Minimum Lane Widths)</b>		10' *** (FDOT) <b>Use 10' ***</b>	*** FDOT Design Standards, Index 600

References:

2013 FDOT Plans Preparation Manual

2013 FDOT Design Standards

2011 AASHTO "A Policy on Geometric Design of Highways and Streets"

2011 FDOT "Manual of Uniform Minimum Standards for Design, Construction, and Maintenance for Streets and Highways" (Green Book)

2011 AASHTO Roadside Design Guide

2009 Manual on Traffic Control Devices

Note: The latest adopted versions of all references will be used in final design.



## APPENDIX B

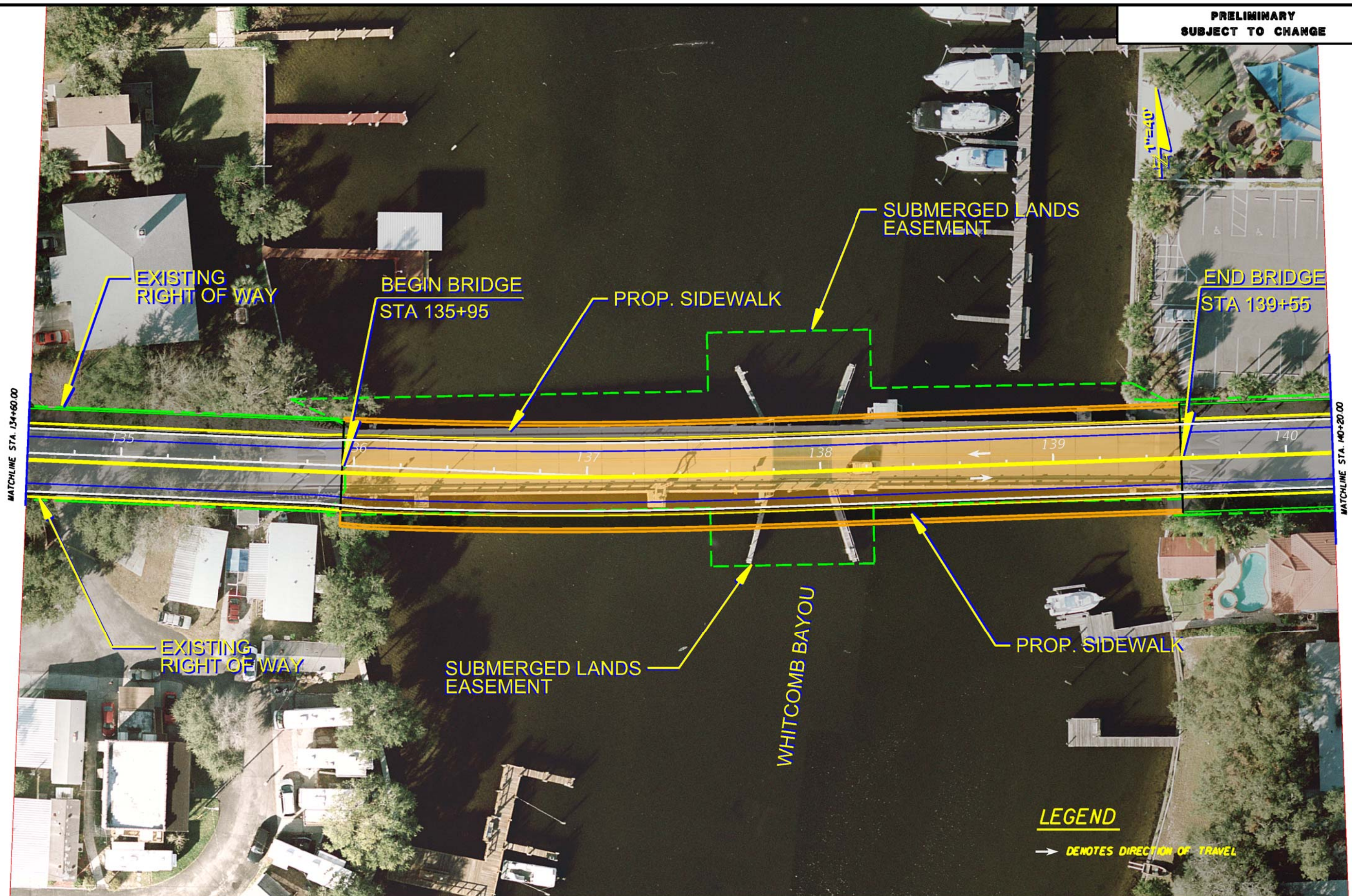
### *Concept Plans and Profiles for the Recommended Alternative*



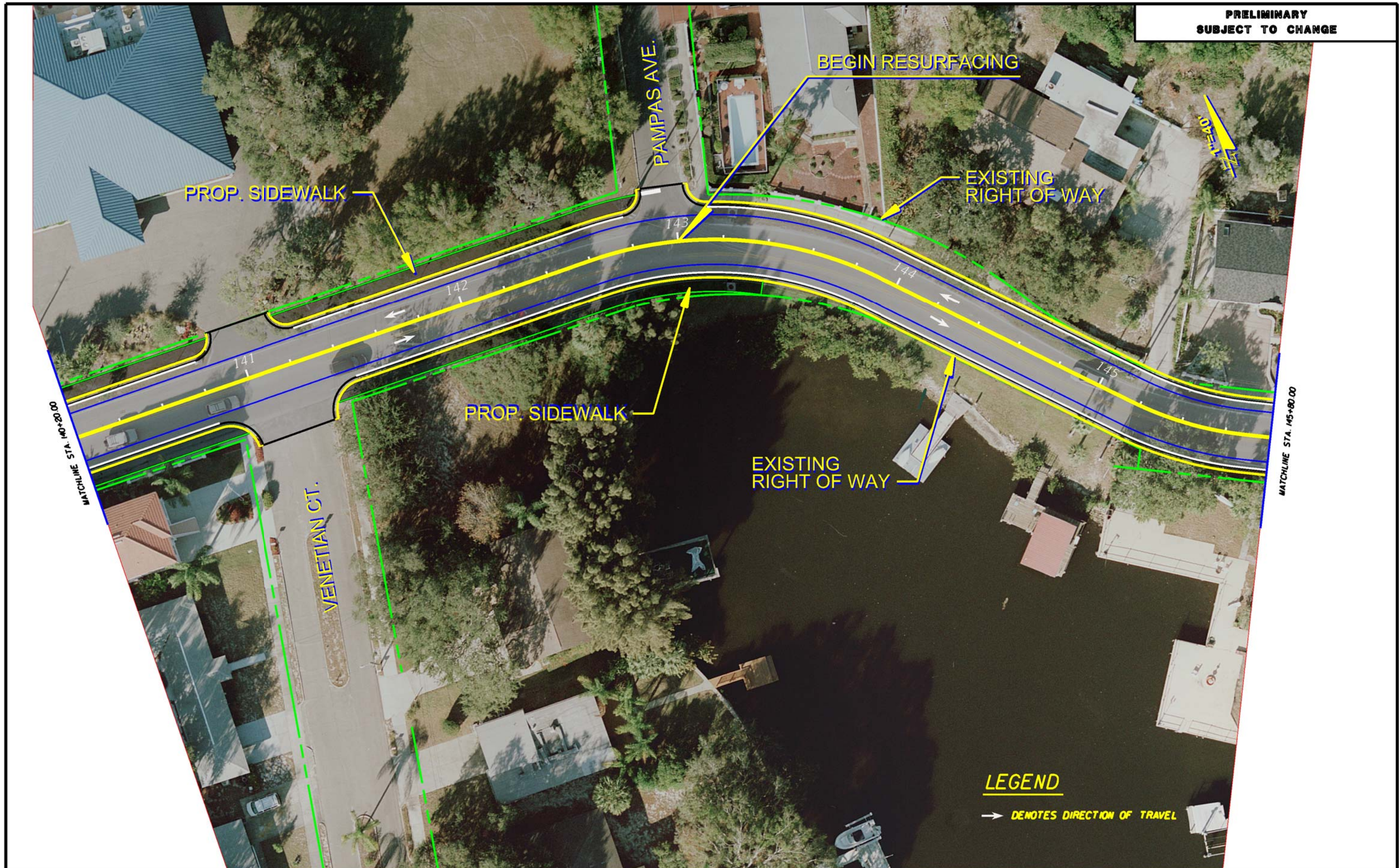








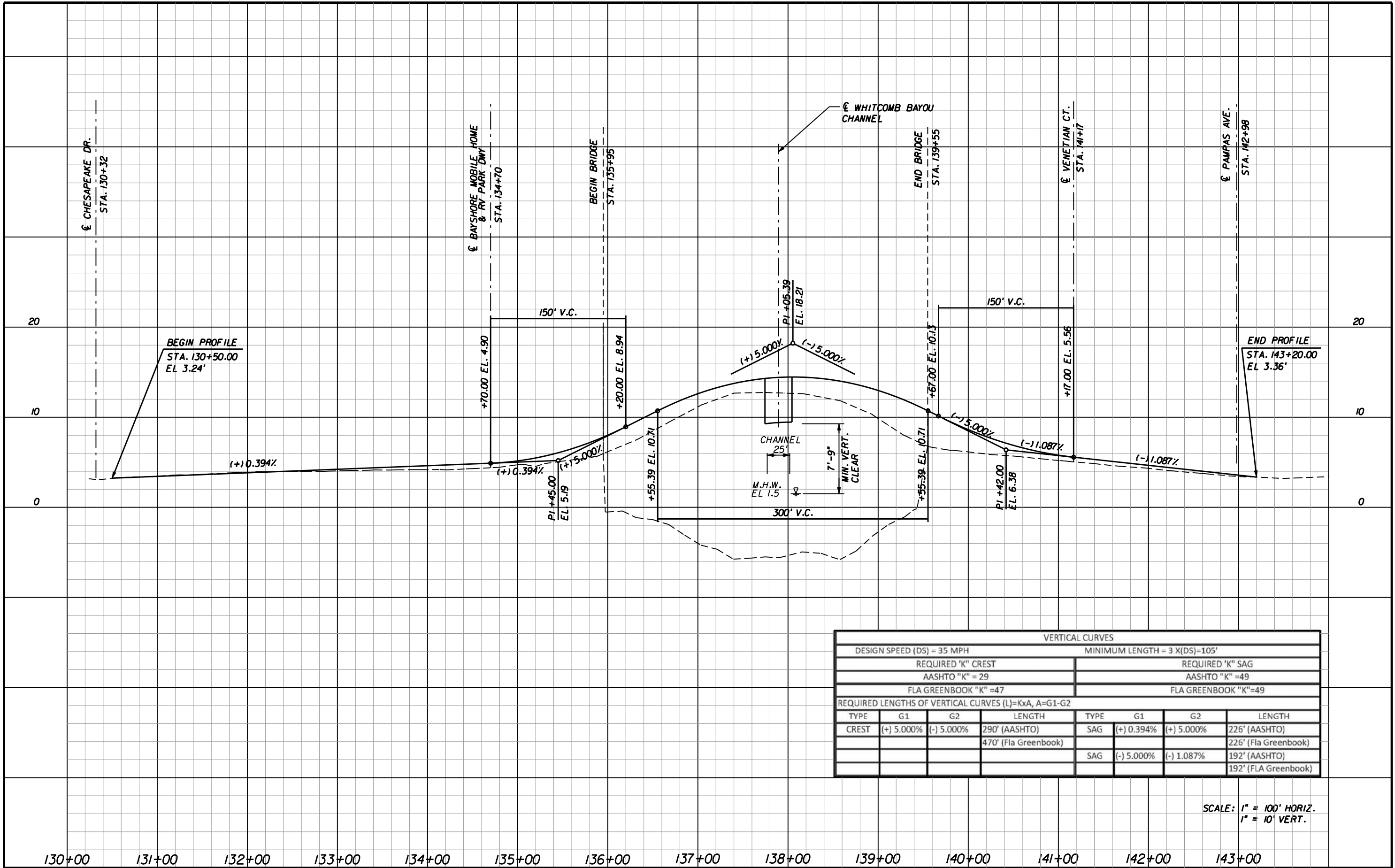












VERTICAL CURVES							
DESIGN SPEED (DS) = 35 MPH				MINIMUM LENGTH = 3 X(DS)=105'			
REQUIRED 'K" CREST				REQUIRED 'K" SAG			
AASHTO "K" = 29				AASHTO "K" =49			
FLA GREENBOOK "K" =47				FLA GREENBOOK "K"=49			
REQUIRED LENGTHS OF VERTICAL CURVES (L)=KxA, A=G1-G2							
TYPE	G1	G2	LENGTH	TYPE	G1	G2	LENGTH
CREST	(+) 5.000%	(-) 5.000%	290' (AASHTO)	SAG	(+) 0.394%	(+) 5.000%	226' (AASHTO)
			470' (Fla Greenbook)				226' (Fla Greenbook)
				SAG	(-) 5.000%	(-) 1.087%	192' (AASHTO)
							192' (FLA Greenbook)

SCALE: 1" = 100' HORIZ.  
1" = 10' VERT.



## APPENDIX C

### *FHWA and SHPO Concurrence Letters*







RECEIVED  
BUREAU OF  
HISTORIC PRESERVATION

2014 JUL 21 P 2:34

***Florida Department of Transportation***

RICK SCOTT  
GOVERNOR

11201 N. McKinley Drive  
Tampa, FL 33612-6456

ANANTH PRASAD, P.E.  
SECRETARY

June 9, 2014

Ms. Linda Anderson  
Environmental Protection Specialist  
Federal Highway Administration  
Florida Division  
545 John Knox Road, Suite 200  
Tallahassee, Florida 32303

RE: Beckett Bridge from Chesapeake Drive to Forest Avenue  
PD&E Study Cultural Resource Section 106 Effects Consultation Case Study Report  
**County Project ID: PID 2161**  
**FDOT Financial Project ID: 424385-1-28-01**  
**Florida DHR Project File Nos: 2012-2526; 2012-4295; and 2013-1021**  
Pinellas County, Florida

Dear Ms. Anderson:

Pinellas County, in cooperation with the Florida Department of Transportation (FDOT) District Seven, is conducting a Project Development and Environment (PD&E) Study to evaluate removal, rehabilitation or replacement of the Beckett Bridge over Whitcomb Bayou in Tarpon Springs, Pinellas County, Florida. The limits of the study extend from Chesapeake Drive to Forest Avenue, a distance of about 0.31 miles.

A Cultural Resource Assessment Survey (CRAS) was prepared in February 2013 as part of the study to comply with federal and state regulations. On February 20, 2013, FDOT, on behalf of Pinellas County, coordinated the CRAS with your office and the State Historic Preservation Officer (SHPO). As a result, it was determined that the Beckett Bridge (Bridge No. 154000; FMSF No. 8PI12017) is eligible for listing in the National Register of Historic Places (NRHP) under Criteria A (for local and state development) and C (for engineering). It was constructed in 1924 and although rehabilitated in 1956, it retains its integrity as a Scherzer rolling lift single-leaf bascule bridge. FHWA and SHPO concurred on March 13, 2013 and April 11, 2013, respectively. Therefore, as per 36 CFR Part 800.5, the project must be evaluated to determine if it would have an adverse effect on this significant historic bridge.

Ms. Linda Anderson  
Beckett Bridge from Chesapeake Drive to Forest Avenue  
Financial Project ID No.: 424385-1-28-01; FAP No.: TBD  
June 9, 2014  
Page 2 of 3

The enclosed *Cultural Resource Section 106 Effects Consultation Case Study Report* (June 2014) has been prepared to evaluate effects to the Beckett Bridge. Two bound copies and two CDs with pdf files of the report, as well as one Survey Log Sheet, are enclosed for your review and coordination with the SHPO.

The Criteria of Adverse Effect found in 36 CFR Part 800.5(a)(1) were applied to the Beckett Bridge design project. The Pinellas County Recommended Alternative (replacement with a New Low-level Movable Bridge) will have an *Adverse Effect* on the NRHP-eligible Beckett Bridge as described in the enclosed Case Study Report. Minimization and mitigation options have been discussed with Pinellas County, FDOT, FHWA and SHPO and are described in the enclosed Case Study Report. Preparation of a Memorandum of Agreement (MOA) is underway.

This information is being provided in accordance with the provisions of the National Historic Preservation Act of 1966 (as amended), which are implemented by the procedures contained in 36 CFR, Part 800, as well as the provisions contained in the revised Chapter 267, Florida Statutes (F.S.).

Provided you approve the findings in the enclosed Case Study Report, please coordinate with the SHPO for concurrence. One copy of the report, CD and the Survey Log Sheet are for the SHPO; the other copy of the report and CD are for your files. If you have any questions, please contact me at (813) 975-6456 or at [todd.bogner@dot.state.fl.us](mailto:todd.bogner@dot.state.fl.us) or Rebecca Spain Schwarz at (813) 281- 8308 or at [rebecca.spain-schwarz@atkinsglobal.com](mailto:rebecca.spain-schwarz@atkinsglobal.com).

Sincerely,



Todd L. Bogner  
Environmental Specialist III

RR/rss  
Enclosure

cc:	Phillip Bello (FHWA)	Roy Jackson (FDOT CEMO)	Robin Rhinesmith (FDOT)
	Steve Love (FDOT)	Tony Horrn timer (Pinellas County)	David Talhouk (Pinellas County)
	Ann Venables (URS)	Amy Streelman (Janus Research)	
	Rebecca Spain Schwarz (Atkins/FDOT GEC)		

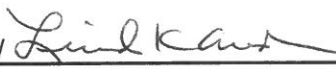
Ms. Linda Anderson  
Beckett Bridge from Chesapeake Drive to Forest Avenue  
Financial Project ID No.: 424385-1-28-01; FAP No.: TBD  
June 9, 2014  
Page 3 of 3

The FHWA finds the Cultural Resource Section 106 Effects Consultation Case Study Report provided with this letter to be complete and sufficient and ☒ approves / ☐ does not approve the above recommendations and findings.

The FHWA requests the SHPO's opinion on the sufficiency of the Case Study Report provided with the letter and the SHPO's opinion on the recommendations and findings contained in this letter and in the comment block below.

**FHWA Comments:**

PLEASE ADDRESS COMMENTS / OPINION TO LINDA ANDERSON, FHWA. P: 850-553-2226 . E: linda.anderson@dot.gov. PLEASE CC: ROBIN RHINESMITH, D7; PHILIP BELLO, FHWA; AND ROY JACKSON, FDOT CEMO
--

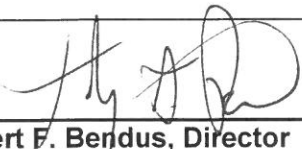
/s/   
James Christian  
Division Administrator  
Florida Division  
Federal Highway Administration

7/17/14  
Date

The Florida State Historic Preservation Officer finds the attached Cultural Resource Section 106 Effects Consultation Case Study Report complete and sufficient and concurs with the recommendations and findings provided in this cover letter for SHPO/DHR Project File Number 2014-3051.

**SHPO Comments:**

----------------------

/s/   
Robert F. Bendus, Director  
Division of Historical Resources  
and State Historic Preservation Officer

8/13/14  
Date



## Florida Department of Transportation

RICK SCOTT  
GOVERNOR

11201 N. McKinley Drive, Tampa, FL 33612-6456  
Phone (813) 975-6000 1-800-226-7220

ANANTH PRASAD, P.E.  
SECRETARY

February 20, 2013

Ms. Linda Anderson  
Federal Highway Administration  
Florida Division Office  
545 John Knox Road, Suite 200  
Tallahassee, Florida 32303

RE: Beckett Bridge from Chesapeake Drive to Forest Avenue  
PD&E Study Cultural Resource Assessment Survey  
**County Project ID: PID 2161**  
**FDOT Financial Project ID: 424385-1-28-01**  
**Florida DHR Project File No: 2012-2526**  
Pinellas County, Florida

RECEIVED  
BUREAU OF  
HISTORIC PRESERVATION  
2013 MAR 15 P 2:58

04951101 57 7201

Dear Ms. Anderson:

Pinellas County, in cooperation with the Florida Department of Transportation (FDOT) District Seven, is conducting a Project Development and Environment (PD&E) Study to evaluate removal, rehabilitation or replacement of the Beckett Bridge over Whitcomb Bayou in Tarpon Springs, Pinellas County, Florida. The limits of the study extend from Chesapeake Drive to Forest Avenue, a distance of about 0.31 miles. A Cultural Resource Assessment Survey (CRAS) has been prepared as part of the study to comply with federal and state regulations. In March 2012, FDOT, on behalf of Pinellas County, coordinated the proposed project's area of potential effect (APE) and CRAS methodology with your office and the State Historic Preservation Officer (SHPO) and in August 2012, FDOT, on behalf of Pinellas County, coordinated the National Register of Historic Places (NRHP) Determination of Eligibility (DOE) with your office and SHPO.

This transmittal includes two bound copies of the CRAS dated February 2013; 16 Florida Master Site File (FMSF) forms (8PI12017, 8PI12043-8PI12055, 8PI12068, and 8PI12069); the DOE; a CD containing the FMSF and DOE photos and forms; and a Survey Log Sheet.

No previously recorded or newly recorded archaeological sites were located within the archaeological APE.

The historic resources survey identified 16 newly recorded historic resources within the APE: Beckett Bridge (8PI12017) and 15 buildings (8PI12043-8PI12055, 8PI12068, and 8PI12069). Beckett Bridge (8PI12017) has been determined eligible for listing in the NRHP as an individual historic resource. The Federal Highway Administration (FHWA) concurred that Beckett Bridge is individually eligible for listing in the National Register on September 17, 2012. SHPO also concurred with these findings on October 8, 2012. The 15 structures are considered ineligible for listing in the NRHP.

Ms. Linda Anderson  
Beckett Bridge PD&E Study  
County Project ID: *PID 2161*; Florida DHR Project File No: 2012-2526  
FDOT Financial Project ID: 424385-1-28-01  
February 20, 2013  
Page 2 of 3

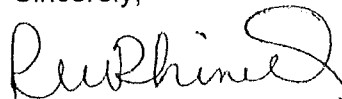
A historic resources reconnaissance survey was also undertaken in order to address historic resources along a proposed detour route which would be required for removal of the existing bridge, or during construction for the Beckett Bridge. If any of the build or rehabilitation alternatives are selected, it is anticipated that the existing Beckett Bridge route will be closed for approximately six months to two years; therefore, a detour route will be necessary. One NRHP-listed historic district and six previously recorded historic resources that are considered individually eligible for inclusion in the NRHP were identified. The historic resources include the NRHP-listed Tarpon Springs Historic District (8PI1712), the Edward Newton Knapp House (8PI238), the William T. Fleming House (8PI1617), the George Clemson House (8PI1619), the George Clemson Auxiliary (8PI1620), the Marshall H. Alworth House (8PI1621), and the Bigelow Cottage (8PI1625). The six identified significant buildings are part of the 1990 NRHP-listed Tarpon Springs Historic District (8PI1712). As part of the reconnaissance survey, one newly identified resource appears to be individually eligible for the NRHP and is located at 115 North Park Avenue. As agreed in the methodology coordination, a FMSF form was not prepared for this resource.

This information is being provided in accordance with the provisions of the National Historic Preservation Act of 1966 (as amended), which are implemented by the procedures contained in 36 Code of Federal Regulations (CFR), Part 800, as well as the provisions contained in the revised Chapter 267, Florida Statutes (F.S.).

Provided you approve the recommendations and findings in the enclosed cultural resource document, please coordinate with SHPO that Beckett Bridge is NRHP-eligible but the other 15 historic structures are not. One copy of the document is for your files.

If you have any questions, or if I may be of assistance, please contact me at (813)975-6496 or robin.rhinesmith@dot.state.fl.us, or Rebecca Spain Schwarz at (813)281-8308 or rebecca.spain-schwarz@atkinsglobal.com.

Sincerely,



Robin Rhinesmith  
Environmental Administrator

Enclosures

cc: Theresa Farmer, FDOT  
Roy Jackson, FDOT CEMO  
Tony Hornnik, Pinellas County  
David Talhouk, Pinellas County  
Ann Venables, EC Driver  
Amy Streelman, Janus Research  
Rebecca Spain Schwarz, Atkins



The FHWA finds the attached Cultural Resource Assessment Survey complete and sufficient and ✓ approves /     does not approve the above recommendations and findings.

The FHWA requests the SHPO's opinion on the sufficiency of the attached Cultural Resource Assessment Survey and the SHPO's opinion on the recommendations and findings contained in this cover letter and in the comment block below.

**FHWA Comments:**

PLEASE ADDRESS COMMENTS / OPINION TO LINDA ANDERSON, FHWA:

P: 850-553-2226 E: linda.anderson@dot.gov.

PLEASE CC: ROBIN RHODESMITH, FDOT D7; NAHIE DETZIO, FHWA;  
AND BOY JACKSON, FDOT COMO.

/s/ Linda Hawk

David Hawk  
Acting Division Administrator  
Florida Division  
Federal Highway Administration

3-13-13

Date

The Florida State Historic Preservation Officer finds the attached Cultural Resource Assessment Survey complete and sufficient and concurs with the recommendations and findings provided in this cover letter for SHPO/DHR Project File Number  
2013-1021

[Signature]

Robert F. Bendus, Director  
Division of Historical Resources  
and State Historic Preservation Officer

4/4/13

Date

RECEIVED  
PLANNING UNIT

2012 OCT 15 AM 7:49



**Florida Department of Transportation**

11201 N. McKinley Drive Tampa, FL 33612-6456 Phone (813) 975-6000 1-800-226-7220

RICK SCOTT  
GOVERNOR

ANANTH PRASAD, P.E.  
SECRETARY

August 24, 2012

Ms. Linda Anderson  
Federal Highway Administration  
Florida Division Office  
545 John Knox Road, Suite 200  
Tallahassee, Florida 32303

RE: Beckett Bridge PD&E Study  
Cultural Resource Assessment Survey  
Determination of Eligibility for Beckett Bridge (Bridge No. 154000)  
**County Project ID: PID 2161**  
**FDOT Financial Project ID: 424385-1-28-01**  
**Florida DHR Project File No: 2012-2526**  
Pinellas County, Florida

Dear Ms. Anderson:

Pinellas County, in cooperation with the Florida Department of Transportation (FDOT) District Seven, is conducting a Project Development and Environment (PD&E) Study to evaluate removal, rehabilitation or replacement of the Beckett Bridge over Whitcomb Bayou in Tarpon Springs, Pinellas County, Florida. The limits of the study extend from Chesapeake Drive to Forest Avenue, a distance of about 0.31 miles. A Cultural Resources Assessment Survey (CRAS) is being prepared as part of the study to comply with federal and state regulations. In March 2012, FDOT, on behalf of Pinellas County, coordinated the proposed project's area of potential effect (APE) and CRAS methodology with your office and the State Historic Preservation Officer (SHPO).

The CRAS fieldwork has been started but since the Beckett Bridge (Bridge No. 154000) has not previously been recorded in the Florida Master Site File (FMSF) or evaluated for listing on the National Register of Historic Places (NRHP), FDOT is requesting input from your office and SHPO early on concerning its eligibility for listing on the NRHP. For this reason, two copies of the NRHP Determination of Eligibility (DOE) forms are enclosed for preliminary review. After FHWA and SHPO make their eligibility determinations for the bridge, the CRAS will be completed and submitted for review. The CRAS will include a FMSF form (8PI12017) that is currently being prepared for Beckett Bridge, as well as the final DOE with all photos for the FMSF office.

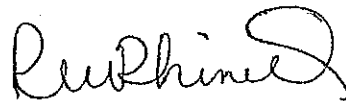
RECEIVED  
BUREAU OF  
HISTORIC PRESERVATION  
2012 SEP 19 P 1:57

Ms. Linda Anderson  
Beckett Bridge PD&E Study  
County Project ID: *PID 2161*; Florida DHR Project File No: 2012-2526  
FDOT Financial Project ID: 424385-1-28-01  
August 24, 2012  
Page 2 of 3

Beckett Bridge was originally constructed in 1924 and carries Riverside Drive/North Spring Boulevard over Whitcomb Bayou in Tarpon Springs, Florida, providing the shortest route connecting the eastern and western sides of Tarpon Springs. The bascule span is a steel single-leaf bottom counterweight Scherzer rolling lift from 1924. The fixed timber approach spans were replaced with concrete approach spans in 1956. Major repairs, which included construction of crutch bents, repair of machinery, replacement of the electrical system and construction of a new control house, were performed in 1996. Additional repairs to the bridge machinery were needed in 1997 and 2011. Despite the rehabilitations and replacement of building materials, the bridge retains its historic integrity and is a rare example of a historic Scherzer rolling lift, single-leaf bascule bridge remaining in the State. Beckett Bridge is therefore considered potentially eligible for listing in the NRHP under Criterion A in the areas of Community Planning and Development and Transportation and under Criterion C in the area of Engineering.

Provided you agree that the Beckett Bridge is NRHP eligible, please submit the enclosed DOE to the SHPO for review and concurrence. We are available to participate in a conference call with your office and SHPO to discuss the NRHP eligibility, if that would help. If you have any questions, or if I may be of further assistance, please contact me at (813) 975-6496 or via e-mail at [robin.rhinesmith@dot.state.fl.us](mailto:robin.rhinesmith@dot.state.fl.us), or Rebecca Spain Schwarz at (813) 281-8308 or via e-mail at [rebecca.spain-schwarz@atkinsglobal.com](mailto:rebecca.spain-schwarz@atkinsglobal.com).

Sincerely,



Robin Rhinesmith  
Environmental Administrator

Enclosures

cc: Theresa Farmer, FDOT  
Roy Jackson, FDOT CEMO  
Amy Streelman, Janus Research  
Tony Hornik, Pinellas County  
David Talhouk, Pinellas County  
Ann Venables, EC Driver  
Rebecca Spain Schwarz, Atkins

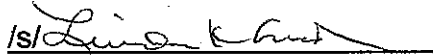
Ms. Linda Anderson  
Beckett Bridge PD&E Study  
County Project ID: PID 2161; Florida DHR Project File No: 2012-2526  
FDOT Financial Project ID: 424385-1-28-01  
August 24, 2012  
Page 3 of 3

The FHWA finds the attached Determination of Eligibility complete and sufficient and ☒ approves / ☐ does not approve the above recommendations and findings.

The FHWA requests the SHPO's opinion on the sufficiency of the attached Determination of Eligibility and the SHPO's opinion on the recommendations and findings contained in this cover letter and in the comment block below.

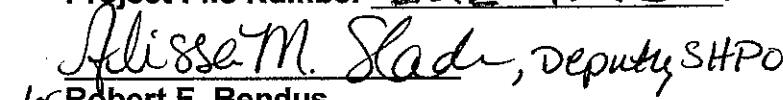
**FHWA Comments:**

PLEASE ADDRESS COMMENTS/OPINION TO LINDA ANDERSON, FHWA.  
P: 850-553-2226. E: linda.anderson@dot.gov.  
PLEASE CC: ROBIN RHINESMITH, FDOT D7; NAHIZ BENZIO, FHWA; AND  
ROY JACKSON, FDOT C&M.

  
Martin C. Knopp  
Division Administrator  
Florida Division  
Federal Highway Administration

9-17-12  
Date

The Florida State Historic Preservation Officer finds the attached Determination of Eligibility complete and sufficient and concurs with the recommendations and findings provided in this cover letter for SHPO/DHR Project File Number 2012-4295.

  
for Robert F. Bendus  
State Historic Preservation Officer  
Director, Florida Division of Historical Resources

10.8.12  
Date



## Florida Department of Transportation

11201 N. McKinley Drive Tampa, FL 33612-6456 Phone (813) 975-6000 1-800-226-7220

RICK SCOTT  
GOVERNOR

ANANTH PRASAD, P.E.  
SECRETARY

March 27, 2012

Ms. Linda Anderson  
Federal Highway Administration  
Florida Division Office  
545 John Knox Road, Suite 200  
Tallahassee, Florida 32303

RE: Beckett Bridge PD&E Study  
Cultural Resource Assessment Survey  
Area of Potential Effect and Methodology  
**County Project ID: PID 2161**  
**FDOT Financial Project ID: 424385-1-28-01**  
Pinellas County, Florida

RECEIVED  
BUREAU OF  
HISTORIC PRESERVATION  
2012 MAY 29 A 8:46

MAR 28 12 1:28 PM

Dear Ms. Anderson:

Pinellas County, in cooperation with the Florida Department of Transportation (FDOT) District Seven, is conducting a Project Development and Environment (PD&E) Study to evaluate removal, rehabilitation or replacement of the Beckett Bridge over Whitcomb Bayou in Tarpon Springs, Pinellas County, Florida. The limits of the study extend from Chesapeake Drive to Forest Avenue, a distance of about 0.31 miles (mi). A Cultural Resources Assessment Survey (CRAS) will be conducted as part of the study to comply with federal and state regulations. The FDOT, on behalf of Pinellas County, is submitting this letter with enclosed graphics to obtain your agency's approval on the proposed project's area of potential effect (APE) and CRAS methodology. As required as part of the Section 106 of the National Historic Preservation Act, and Chapter 267, Florida Statutes (F.S.), all historic and archaeological resources that may be affected by the proposed project will be identified. The proposed APE and CRAS methodology is described in this letter and shown on the enclosed maps. The rationale for this determination is provided below.

Alternatives to be evaluated during the PD&E study include permanent removal of the existing bridge without construction of a replacement bridge, rehabilitation of the existing bridge and replacement of the existing bascule bridge with a new movable or fixed bridge. All build alternatives considered will be constructed on the existing alignment. Various vertical clearances over the navigational channel are being considered for the bridge replacement alternatives. A fixed bridge with a vertical

clearance of 42 feet (ft) is the worst case alternative in terms of potential impacts. If construction of a new bridge, repair or rehabilitation is selected as the Preferred Alternative, a detour during construction will be required. If the bridge is removed, traffic patterns will change to detour the previously existing bridge.

For the CRAS, the proposed APE was determined by evaluating the extent of improvements that may result from construction of the worst case alternative - replacement of the existing bridge with a fixed bridge with 42 ft of vertical clearance. The determination also considered the surrounding character of the area and the existing resources found within the project corridor. Additionally, the maintenance of traffic (MOT) plan for the detour that would be required during construction of a replacement bridge, rehabilitation of the existing bridge, or removal of the bridge without constructing a replacement bridge was considered.

The APE for historic resources includes all historic properties immediately adjacent to the existing roadway (a distance of approximately 200 ft) beginning at Chesapeake Drive to Forest Avenue. See enclosed Proposed Historic Resources APE map. This APE should provide appropriate coverage for the Beckett Bridge PD&E Study alternatives. In regard to the higher level fixed bridge alternative that is being studied, the APE will include properties along the riverfront that can physically be seen from a reasonable distance in order to address any viewshed/visual effects. This APE may extend two to four parcels on either side of the current bridge location on both sides of the river.

In addition, the MOT detour (see enclosed Proposed Detour map) will be subjected to a reconnaissance survey in order to identify significant properties located along the MOT detour corridor. It appears the MOT detour route may travel along roadways in the historic core of Tarpon Springs; numerous historic resources are located along this corridor. The majority of these resources have likely been recorded as part of past survey efforts (including a recent 2009 Florida Division of Historical Resources grant survey conducted for the City of Tarpon Springs). Based on this, a reconnaissance of the MOT detour route would be a more reasonable approach, and Florida Master Site File (FMSF) forms should not need to be prepared for the resources along the MOT detour route.

The survey for archaeological sites typically focuses upon identifying and evaluating resources within the geographic limits of the proposed action and its associated ground disturbing activities; that is, the proposed right-of-way (ROW) for the project. The APE for archaeological resources is typically confined to those areas where subsurface construction activity will take place. In consideration of these factors, the



Ms. Linda Anderson  
Beckett Bridge PD&E Study  
County Project ID: *PID 2161*  
FDOT Financial Project ID: *424385-1-28-01*  
March 27, 2012  
Page 3

APE for archaeological resources was determined by evaluating the extent of improvements that may result from construction of the worst case alternative - replacement of the existing bridge with a fixed bridge with 42 ft of vertical clearance. See enclosed Proposed Archaeological Resources APE map.

Pinellas County and the FDOT have proposed the CRAS APE and methodology described above and illustrated on the attached maps for the Beckett Bridge PD&E Study. Should you concur with this determination of the proposed APE and methodology, please indicate your concurrence by signing in the space provided below. Following your signature, please submit a copy of this letter and the enclosed maps to the Florida State Historic Preservation Officer (SHPO) for review and concurrence. If you have any questions, or if I may be of further assistance, please contact me at (813) 975-6496 or via e-mail at [robin.rhinesmith@dot.myflorida.com](mailto:robin.rhinesmith@dot.myflorida.com), or Rebecca Spain Schwarz at (813) 281-8308 or via e-mail at [rebecca.spain-schwarz@atkinsglobal.com](mailto:rebecca.spain-schwarz@atkinsglobal.com).

Sincerely,



Robin Rhinesmith  
Environmental Administrator  
Intermodal Systems Development Department  
FDOT – District 7

Enclosures

cc: Steve Love, FDOT  
Roy Jackson, FDOT CEMO  
Amy Streelman, Janus Research  
Tony Horrnik, Pinellas County  
Ann Venables, EC Driver  
Rebecca Spain Schwarz, Atkins

Ms. Linda Anderson  
Beckett Bridge PD&E Study  
County Project ID: *PID 2161*  
FDOT Financial Project ID: 424385-1-28-01  
March 27, 2012  
Page 4

---

The FHWA approves above-stated definition of the Area of Potential Effect and methodology for cultural resources for Beckett Bridge PD&E Study. *PLEASE FHWA COMMENTS OF 5-8-12 AND FDOT RESPONSES OF 5-14-12, FOR ADDITIONAL INFO. UKA*  
The FHWA requests the SHPO's approval of the proposed APE.

*/s/ Linda Knopp*  
For: Martin C. Knopp  
Division Administrator  
Florida Division  
Federal Highway Administration

5-24-12  
Date

---

The Florida State Historic Preservation Officer approves above-stated definition of the Area of Potential Effect and methodology for cultural resources for the Beckett Bridge PD&E Study; SHPO/DHR Project File Number  
~~2012-2526~~ 2526

*for* */s/ Laura R. Kammmer* 6.14.2012  
Robert F. Bendus Date  
State Historic Preservation Officer  
Director, Florida Division of Historical Resources



## APPENDIX D

### *Coordination of a “Technical Evaluation of Single-Sidewalk Concepts” with FHWA, SHPO, and FDOT*



Date: July 5, 2013

To: Ann Venables

From: Jim Phillips

Subject: Beckett Bridge  
Technical evaluation of single sidewalk concepts

At the June 11, 2013 meeting in Tallahassee, attended by URS, Pinellas County, FDOT and SHPO, representatives from SHPO requested consideration of an additional concept that would modify the existing bridge cross section to accommodate a single, code compliant, sidewalk, rather than two sidewalks has had been previously proposed. This memo summarizes URS's technical evaluation of concepts with a sidewalk on one side only.

The most desirable concept from a historic preservation perspective would be to avoid widening of the bridge and simply rework the arrangement of lanes and sidewalk(s) within the width of the existing bridge (28'-0½"). A modified section of the narrowest practical width would include minimum shoulders, a traffic railing (barrier) on the south side, two travel lanes, a sidewalk on a raised curb on the north side, and a traffic railing at the back of sidewalk. Assuming that design exceptions are granted for lane width (to allow two 10-foot wide lanes rather than the 11-foot minimum) and shoulder width (to allow a 2.5-foot shoulder adjacent to a traffic railing and a 1.5-foot shoulder adjacent to the curb rather than the 3-foot minimum required) the minimum clear roadway width for this configuration is 24 feet. With a minimum 5.5 foot wide sidewalk<sup>1</sup> and two traffic railings (1'-6" on the south side adjacent to traffic and 1'-1" at the back of sidewalk on the north side) the minimum bridge width that would accommodate this section is 32'-1", which is 4'-0½" wider than the existing bridge. Therefore, the existing bridge width is not sufficient to support two lanes and a single sidewalk without widening.

The next most desirable concept from a historic preservation perspective would be one that limits bridge widening and associated impacts such that the existing bascule pier foundations can be saved. As discussed in the June 11 meeting, if the bridge is widened, the new bridge section must meet minimum standards. The minimum width of a bridge featuring a single sidewalk under this scenario would include 3-foot wide shoulders, a traffic railing on the south side (1'-6"), two 11-foot wide travel lanes, a 5.5-foot wide sidewalk on a raised curb on the north side, and a traffic railing at the back of sidewalk (1'-1") on the north side. The clear roadway width of this section is 28 feet and the overall width of is 36'-1". To accommodate this section the bridge would need to be widened by 8'-0½".

URS examined the technical issues associated with widening the bridge by 8'-0½". The evaluation included calculating live load distribution factors (as an indicator of the increase in live load on a main girder due to widening) and approximating dead and live load changes associated with the proposed modifications. The analysis also included determining approximate span balance conditions and corresponding density of the counterweight needed to balance the bridge. The following summarizes the technical challenges disclosed in this investigation:

---

<sup>1</sup> 5.5 feet is the minimum width required by FDOT for a sidewalk on a raised curb

- As with any solution, the current live load (HL-93) is approximately 32% heavier than the original design load (HS-15 assumed based on year of construction)
- Live load distribution factor for the main girders of the bascule span would increase by 117%
- The net of the above is an increased live load on the main girders that is 2.8 times the original design load.
- The movable span dead load (weight) would increase by approximately 49%
- The density of the counterweight would need to be increased to approximately 360 pcf to properly balance the bascule span (note that the AASHTO recommended maximum density for counterweight concrete is 280 pcf).

Based on this evaluation it is our conclusion that widening the bridge to include a single sidewalk that meets current design criteria is not technically feasible unless the bascule pier is replaced as well. The increased dead load and live loads are beyond what the existing foundations can handle without extensive strengthening. The physical size of the existing bascule pier footing precludes increasing the size of the counterweight and the density required of the existing size counterweight is well in excess of that recommended by AASHTO. In comparison to the widening concepts previously developed with two sidewalks, a single sidewalk concept does not offer any significant improvements or reductions in impacts. Both require complete replacement of the bascule span and bascule piers.

Cc: File:E:\Projects\9250 Beckett PD&E\Structures\Rehab w-Widening

**From:** [Venables, Ann](#)  
**To:** [Daniel McClarnon \(Daniel.McClarnon@DOS.MyFlorida.com\)](#)  
**Cc:** [Phillips, Jim](#); [Tony Horrn timer \(thornik@co.pinellas.fl.us\)](#)  
**Subject:** Beckett Bridge PD&E Study - Additional Engineering Analysis for Alternative including a Sidewalk on only One Side of the Bridge  
**Date:** Monday, July 15, 2013 1:45:00 PM  
**Attachments:** @  
**Importance:** High

---

Dan,

As requested at our June 11, 2013 meeting, an evaluation of an additional concept that would modify the bridge cross section to accommodate a single sidewalk on only one side of the bridge was evaluated. The attached memorandum from Jim Philips, Chief Engineer for the project summarizing that evaluation is attached. The evaluation concluded that the bridge would need to be widened to accommodate a section consisting of two, 10 foot travel lanes with a 2.5 foot shoulder adjacent to a traffic railing on one side and 1.5 foot shoulder adjacent to the curb, and one 5.5 foot wide sidewalk.

I will call you today to discuss the results and how to move forward in light of this evaluation. This memorandum will also be forwarded to the other attendees at the June 11, 2013 meeting.

Sincerely,

Ann Venables

-

***Ann Venables, AICP***

**[Ann.Venables@urs.com](mailto:Ann.Venables@urs.com)**

Project Manager/NEPA Specialist/Senior Planner

Office: 813.675-6725

Cell: 727.410.3289

URS Corporation

7650 W. Courtney Campbell Causeway

Tampa, FL 33607

<<

[image001.gif](#) (2.1KB)

[2013 07 08 Single Sidewalk Evaluation.pdf](#) (35.1KB)

(37.2KB)

>>



**From:** [McManus, Alyssa M.](#)  
**To:** [Venables, Ann](#)  
**Cc:** [Linda.Anderson@dot.gov](#); [Spain-Schwarz, Rebecca](#)  
**Subject:** RE: Beckett Bridge  
**Date:** Friday, August 02, 2013 10:01:04 AM  
**Attachments:** [image001.png](#)  
[image003.png](#)

---

We just met and we all agree we have been provided ample evidence as to why the new bridge would be preferable to the rehab. So, now, yes. Let's move forward with some mitigation ideas? Would that be next? To be honest, I have forgotten if anyone is holding onto anything for a signature at this time.

We are going to request that a HAER be done as a part of the mitigation. Aside from that, we are open to ideas, and look forward to further consultation.

Alyssa McManus

Bureau of Historic Preservation | Architectural Historian | Division of Historical Resources  
| Florida Department of State | 500 South Bronough Street | Tallahassee, Florida 32399  
| 850.245.6368 | 1.800.847.7278 | Fax: 850.245.6437 |  
[Alyssa.McManus@dos.myflorida.com](mailto:Alyssa.McManus@dos.myflorida.com) | [www.flheritage.com](http://www.flheritage.com)



---

**From:** Venables, Ann [<mailto:ann.venables@urs.com>]  
**Sent:** Friday, August 02, 2013 8:13 AM  
**To:** McManus, Alyssa M.  
**Cc:** Phillips, Jim; Tony Horrn timer (thornik@co.pinellas.fl.us)  
**Subject:** RE: Beckett Bridge

Thanks for the update Alyssa. We would really like to move forward.

Sincerely,

Ann

---

**From:** McManus, Alyssa M. [<mailto:Alyssa.McManus@DOS.MyFlorida.com>]  
**Sent:** Friday, August 02, 2013 7:42 AM  
**To:** Venables, Ann  
**Subject:** Beckett Bridge

Good Morning!

Dan and I will be meeting with Rob Bendus and Tim Parsons this morning about the bridge. I will get

back to you afterward.

Alyssa McManus

Bureau of Historic Preservation | Architectural Historian | Division of Historical Resources  
| Florida Department of State | 500 South Bronough Street | Tallahassee, Florida 32399  
| 850.245.6368 | 1.800.847.7278 | Fax: 850.245.6437 |  
[Alyssa.McManus@dos.myflorida.com](mailto:Alyssa.McManus@dos.myflorida.com) | [www.flheritage.com](http://www.flheritage.com)



@ItsWorkingFL



The Department of State is leading the commemoration of Florida's 500th anniversary in 2013. For more information, please go to <http://www.vivaflorida.org>.

The Department of State is committed to excellence.  
Please take our [Customer Satisfaction Survey](#).

This e-mail and any attachments contain URS Corporation confidential information that may be proprietary or privileged. If you receive this message in error or are not the intended recipient, you should not retain, distribute, disclose or use any of this information and you should destroy the e-mail and any attachments or copies.



## APPENDIX E

### *MOA*





## FLORIDA DEPARTMENT *of* STATE

**RICK SCOTT**  
Governor

**KEN DETZNER**  
Secretary of State

Ms. Linda Anderson  
US Department of Transportation  
Federal Highway Administration  
545 John Knox Road, Suite 200  
Tallahassee, Florida 32303

February 2, 2015

Re: Memorandum of Agreement: Beckett Bridge (FDOT Bridge No. 154000), Pinellas County

Dear Ms. Anderson:

In accordance with the procedures contained in 36 CFR Part 800, this office reviewed and signed four copies of the referenced Memorandum of Agreement. We are returning three of the signed original copies of the Agreement, and retaining one for our files.

If you have any questions concerning these comments, please contact Alyssa McManus by email [alyssa.mcmanus@dos.myflorida.com](mailto:alyssa.mcmanus@dos.myflorida.com), or at 850.245.6333 or 800.847.7278.

Sincerely

Robert F. Bendus, Director  
Division of Historical Resources  
and State Historic Preservation Officer



Division of Historical Resources  
R.A. Gray Building • 500 South Bronough Street • Tallahassee, Florida 32399  
850.245.6300 • 850.245.6436 (Fax) [flheritage.com](http://flheritage.com)  
*Promoting Florida's History and Culture* [VivaFlorida.org](http://VivaFlorida.org)



Beckett Bridge, FDOT Bridge No. 154000  
Over Whitcomb Bayou, City of Tarpon Springs  
Pinellas County, Florida

**MEMORANDUM OF AGREEMENT  
BETWEEN THE UNITED STATES DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION AND THE FLORIDA STATE  
HISTORIC PRESERVATION OFFICER  
REGARDING THE BECKETT BRIDGE (FDOT BRIDGE NO. 154000)  
OVER WHITCOMB BAYOU, CITY OF TARPON SPRINGS  
PINELLAS COUNTY, FLORIDA**

**WHEREAS**, the U.S. Department of Transportation, Federal Highway Administration (FHWA), proposes to provide financial assistance for replacement of Beckett Bridge over Whitcomb Bayou from Chesapeake Drive to Forest Avenue, City of Tarpon Springs, Pinellas County, Florida (Florida Department of Transportation Financial Project Identification Number 424385-1 and Federal Aid Project Number S129-343) (the Project); and,

**WHEREAS**, the undertaking consists of replacing the existing Beckett Bridge (FDOT Bridge No. 154000) with a new bridge on approximately the existing alignment and will require removal of the existing historic Beckett Bridge; and,

**WHEREAS**, the FHWA and the Florida State Historic Preservation Officer (SHPO) have determined that the Beckett Bridge (FDOT Bridge No. 154000), recorded in the Florida Master Site File (FMSF) as 8PI12017, is eligible for listing in the National Register of Historic Places (NRHP); and,

**WHEREAS**, the FHWA has consulted with the Florida SHPO pursuant to 36 CFR Part 800 regulations implementing Section 106 of the National Historic Preservation Act [16 U.S.C. Section 470(f)], and has determined that the proposed project will have an adverse effect on the Beckett Bridge (FDOT Bridge No. 154000) and that the consultation efforts have been documented within the Cultural Resources *Section 106 Effects Consultation Case Study Report for the Beckett Bridge*, hereafter referred to as the Section 106 Report; and,

**WHEREAS**, the Florida Department of Transportation (FDOT) has participated in the consultation and has been invited to be a signatory to this Memorandum of Agreement (MOA); and,

**WHEREAS**, Pinellas County has participated in the consultation as the owner of the Beckett Bridge and has been invited to be a signatory to this MOA; and,

**WHEREAS**, the public has been afforded the opportunity to express their opinion regarding mitigation options, as documented in the Section 106 Report; and,

**NOW THEREFORE**, FHWA, FDOT, Pinellas County and the Florida SHPO agree that the undertaking shall be implemented in accordance with the following stipulations in consideration of the effects this undertaking will have on the referenced historic property:



Beckett Bridge, FDOT Bridge No. 154000  
Over Whitcomb Bayou, City of Tarpon Springs  
Pinellas County, Florida

## **STIPULATIONS**

FHWA will ensure that the following stipulations are implemented.

### **I. Design and Construction of the Project**

- A. Pinellas County will ensure that the new bridge will be constructed on approximately the existing alignment and there will be no changes to the proposed project as identified in the Section 106 Report (June 2014) for the project without consultation with the FHWA and the SHPO, pursuant to Stipulation VII.C.
- B. The design of the new bridge will be a single-leaf, rolling lift bridge type of similar design and scale to the historic Beckett Bridge.
- C. Pinellas County will create an aesthetics committee consisting of representatives from the adjacent community, City of Tarpon Springs, Tarpon Springs Historical Society, and FHWA, to serve in an advisory capacity regarding appropriate design elements for the replacement bridge that may be addressed during the development of the Project.
- D. Should there be any substantive alterations to the project design that could result in adverse effects to historic resources not addressed in this agreement, Pinellas County and FDOT shall notify FHWA, who will notify the SHPO of these alterations and provide the Florida SHPO with an opportunity to review and comment on the alterations.

### **II. Documentation of the Beckett Bridge**

- A. Prior to the salvage of the engineering elements and demolition of the bridge, Pinellas County will perform the following documentation of the Beckett Bridge (FDOT Bridge No. 154000; FMSF No. 8PI12017) in accordance with Historic American Engineering Record (HAER) standards;
  - 1. Drawings – Select drawings of the existing bridge plans, as available, scanned and provided in an acceptable digital format (i.e. jpeg files).
  - 2. Photographs – Photographs with large-format negatives of context and views from all sides of the bridge and approaches, roadway and deck views, and noteworthy features and details. All negatives and prints will be processed to meet archival standards. One photograph of a principal elevation shall include a scale.

Beckett Bridge, FDOT Bridge No. 154000  
Over Whitcomb Bayou, City of Tarpon Springs  
Pinellas County, Florida

3. Written Data – Report with narrative description of the bridge, summary of significance, and historical context (primarily derived from the Cultural Resource Assessment Survey).
- B. Pinellas County will provide all copies of the documentation completed in accordance with Stipulation II.A to FDOT for review and distribution. FDOT will submit the documentation to the parties as follows:
1. An archival copy to the U.S. Department of Interior, National Park Service Southeast Regional Office for review and approval prior to demolition of the structure, per HAER guidelines; and
  2. A non-archival copy and electronic copy to the FDOT; and
  3. An electronic digital copy for FHWA; and
  4. An archival copy and an electronic digital copy to the Florida SHPO for inclusion in the Florida Archives and the Florida Master Site File (FMSF); and
  5. A non-archival copy to the Tarpon Springs Historical Society.

### **III. Salvage and Reuse of Existing Bridge Elements**

- A. Pinellas County will ensure representative, significant engineering elements from the Beckett Bridge will be identified and salvaged. These elements may be incorporated into the design of the new bridge, or displayed in accordance with paragraph C of this Section. The reuse of these historic elements will be determined by Pinellas County in coordination with the aesthetics committee and will not require consultation with FDOT, FHWA or SHPO.
- B. Pinellas County will ensure that the bridge elements determined important for salvage are removed in a manner that minimizes damage and are stored in an area protected from human and natural damage until elements can be reused on the new bridge, or elsewhere displayed in accordance with paragraph C of this Section.
- C. If during construction it is determined that the existing bridge elements are not salvageable for reuse into the design of the new bridge, Pinellas County will salvage a few intact elements for display in a location identified by Pinellas County and within the vicinity of the new bridge.

Beckett Bridge, FDOT Bridge No. 154000  
Over Whitcomb Bayou, City of Tarpon Springs  
Pinellas County, Florida

- D. Pinellas County will ensure that the existing historic bridge plaque will be removed and stored in an area protected from human and natural damage until it can be incorporated into the new control house that will be constructed as part of the new bridge. The bridge plaque will be placed on the new control house so that it is visible to pedestrians.

#### **IV. Public Education**

Pinellas County will ensure that information regarding the Beckett Bridge, which is suitable for inclusion in a “public-facing website for project information and educational purposes” and/or suitable for use on a mobile device, such as “What Was There” or “Next Exit History”, is developed. This information will provide a historic account of the bridge to educate the public on its history.

#### **V. Archeological Monitoring/Discoveries**

Pinellas County, in consultation with the FHWA and the Florida SHPO, will ensure efforts to avoid, minimize or mitigate adverse effects to any discoveries of significant archaeological resources inadvertently discovered during the Project are addressed in accordance with 36 CFR 800.13(b). All records resulting from archaeological discoveries shall be handled in accordance with 36 CFR 79; and shall be submitted to the Florida SHPO.

#### **VI. Professional Qualifications**

All architectural history work carried out pursuant to this Agreement shall be conducted by, or under the direct supervision of, a person or persons meeting the Secretary of the Interior’s Professional Qualifications Standards for Architectural History (48 FR 44738-9); and that all archaeological work carried out pursuant to this Agreement shall be conducted by, or under the direct supervision of, a person or persons meeting the Secretary of the Interior’s Professional Qualifications Standards for Archaeology (48 FR 44738-9).

#### **VII. Administrative Stipulations**

- A. Should any signatory party to this Agreement object in writing to FHWA regarding any action carried out or proposed with respect to the undertaking or implementation of this Agreement, FHWA shall consult with the objecting party to resolve the objection. If after initiating such consultation FHWA determines that the objection cannot be resolved through consultation, FHWA shall forward all documentation relevant to the objection to the Advisory Council on Historic Preservation (ACHP), including FHWA’s proposed response to the objection. Within 30 days

Beckett Bridge, FDOT Bridge No. 154000  
Over Whitcomb Bayou, City of Tarpon Springs  
Pinellas County, Florida

after receipt of all pertinent documentation, the ACHP shall exercise one of the following options:

1. Provide FHWA with written concurrence of the agency's proposed response to the objection, whereupon FHWA will respond to the objection accordingly;
  2. Provide FHWA with recommendations, which the agency will take into account in reaching a final decision regarding its response to the objection; or
  3. Notify FHWA that the objection will be referred for comment pursuant to 36 CFR Part 800, and proceed to refer the objection and comment. FHWA shall take the resulting comment into account in accordance with 36 CFR Part 800 and Section 110 (1) of the NHPA.
- B. Should the ACHP not exercise one of the above options within 30 days after receipt of all pertinent documentation, FHWA will assume the ACHP's concurrence in its proposed response to the objection, and will respond to the objection accordingly. Any recommendation or comment provided by the ACHP will be understood to pertain only to the subject of the dispute.
- C. If the terms of this Agreement have not been implemented by December 31, 2030, this Agreement will be considered null and void. In such event FHWA will so notify the signatories to this MOA, and if they choose to continue with the undertaking, shall reinstate review of the undertaking in accordance with 36 CFR Part 800.
- D. Any signatory party to this MOA may request that it be amended, whereupon the signatory parties will consult in accordance with CFR Part 800.6 to consider such an amendment. All parties must signify their acceptance of the proposed changes to the MOA in writing within 30 days of their receipt. This MOA shall only be amended by a written instrument executed by all the parties. The amendment will be effective on the date of signature of the last party to sign the amendment. When no consensus can be reached, the Agreement will not be amended.
- E. The effective date of this MOA will be the date of the last signature. The signatory parties agree this MOA shall continue in full force until it is amended or terminated, as provided in Stipulations VI.D and VI.C, respectively.



## APPENDIX F

*Excerpts from the ETDM Program Summary Report  
and Advanced Notification Package*





# ETDM Summary Report

Project #13040 - Beckett Bridge over Whitcomb Bayou (Riverside Drive)

Programming Screen - Published on 06/01/2011

Printed on: 6/30/2011

## Introduction to Programming Screen Summary Report

The Programming Screen Summary Report shown below is a read-only version of information contained in the Programming Screen Summary Report generated by the ETDM Coordinator for the selected project after completion of the ETAT Programming Screen review. The purpose of the Programming Screen Summary Report is to summarize the results of the ETAT Programming Screen review of the project; provide details concerning agency comments about potential effects to natural, cultural, and community resources; and provide additional documentation of activities related to the Programming Phase for the project. Available information for a Programming Screen Summary Report includes:

- Screening Summary Report chart
- Project Description information (including a summary description of the project, a summary of public comments on the project, and community-desired features identified during public involvement activities)
- Purpose and Need information (including the Purpose and Need Statement and the results of agency reviews of the project Purpose and Need)
- Alternative-specific information, consisting of descriptions of each alternative and associated road segments; an overview of ETAT Programming Screen reviews for each alternative; and agency comments concerning potential effects and degree of effect, by issue, to natural, cultural, and community resources.
- Project Scope information, consisting of general project commitments resulting from the ETAT Programming Screen review, permits, and technical studies required (if any)
- Class of Action determined for the project
- Dispute Resolution Activity Log (if any)

The legend for the Degree of Effect chart is provided in an appendix to the report.

For complete documentation of the project record, also see the GIS Analysis Results Report published on the same date as the Programming Screen Summary Report.

## Table of Contents

	<b>Project Overview . . . . .</b>	<b>1</b>
<b>1</b>	<b>Project Details . . . . .</b>	<b>2</b>
1.1.	<b>Project Description Data . . . . .</b>	<b>2</b>
1.1.1.	Description Statement . . . . .	2
1.1.2.	Summary of Public Comments . . . . .	3
1.1.3.	Community Desired Features . . . . .	3
1.2.	<b>Purpose &amp; Need Data . . . . .</b>	<b>3</b>
<b>2</b>	<b>Alternative-Specific Data . . . . .</b>	<b>8</b>
2.1.	<b>Alternative #1 . . . . .</b>	<b>8</b>
2.1.1.	Alternative Description . . . . .	8
2.1.2.	Segment(s) Description . . . . .	8
2.1.3.	Project Effects Overview . . . . .	9
2.1.4.	Agency Comments and Summary Degrees of Effect . . . . .	10
<b>3</b>	<b>Project Scope . . . . .</b>	<b>62</b>
3.1.	General Project Commitments . . . . .	62
3.2.	Permits . . . . .	62
3.3.	Technical Studies . . . . .	62
3.4.	Class of Action . . . . .	63
3.5.	Dispute Resolution Activity Logs . . . . .	63
<b>4</b>	<b>Hardcopy Maps: Alternative #1 . . . . .</b>	<b>64</b>
<b>5</b>	<b>Appendices . . . . .</b>	<b>85</b>
5.1.	Degree of Effect Legend . . . . .	85
5.2.	Project Attachments . . . . .	85

# 13040 - Beckett Bridge over Whitcomb Bayou (Riverside Drive) \*\* Most Recent Data

<b>Review Start Date:</b>	11/11/2010	<b>Phase:</b>	Programming Screen
<b>From:</b>	Chesapeake Drive	<b>To:</b>	Forest Avenue, "Location not available."
<b>District:</b>	District 7	<b>County:</b>	Pinellas County
<b>Contact Name:</b>	Carin Watkins	<b>Contact Email:</b>	carin.watkins@dot.state.fl.us

Project Re-Published 6/01/2011

## Project Overview: Summary Degree of Effect Chart

	Evaluation of Direct Effects																				
	Natural										Cultural		Community								
<b>Legend</b> N/A N/A / No Involvement 1 Enhanced 0 None 2 Minimal (after 12/5/2005) 3 Moderate 4 Substantial 5 Dispute Resolution (Programming)	Air Quality	Coastal and Marine	Contaminated Sites	Farmlands	Floodplains	Infrastructure	Navigation	Special Designations	Water Quality and Quantity	Wetlands	Wildlife and Habitat	Historic and Archaeological Sites	Recreation Areas	Section 4(f) Potential	Aesthetics	Economic	Land Use	Mobility	Relocation	Social	Secondary and Cumulative Effects
	2	3	3	0	3	3	3	4	3	3	3	3	2	3	2	2	2	1	2	2	3
	<b>Alternative #1</b> <b>From Chesapeake Drive To Forest Avenue</b> - Reviewed from 11/11/2010 to 12/26/2010 - Published on 6/1/2011																				

## Project Description Summary

This project's Project Development and Environment (PD&E) Study will evaluate replacement and rehabilitation alternatives for the Beckett Bridge over Whitcomb and Minetta Bayous. The structure is proposed to remain two lanes, but replacement alternatives will include appropriate road shoulders and sidewalks to meet current design standards. The project will include roadway improvements to Riverside Drive/North Spring Boulevard from Chesapeake Drive to Forest Avenue resulting in a project length of approximately 0.31 mile.

### Typical Section: Bridge

The existing bridge consists of two 10-foot wide travel lanes with 2-foot wide sidewalks on either side. The clear width of the bridge between the outer railings is 24 feet.

Due to right of way constraints, an evaluation of the proposed typical section will be made during the PD&E. It is anticipated that the typical section will consist of two 12-foot wide travel lanes with 4-foot wide bike lanes and 5-foot wide sidewalks on either side. Eleven-foot travel lanes and combined bicycle and pedestrian facilities may be considered if necessary.

### Typical Section: Roadway

The existing roadway is a mostly rural typical section and varies between 10-foot and 11-foot wide travel lanes. Sidewalk is provided on the north side of the road west of the bridge and on the south side of the road east of the bridge.

The proposed typical section will consist of a 30-foot curb-to-curb roadway providing for two 11-foot travel lanes, 4-foot wide bike lanes and 5-foot wide sidewalks on either side. Right of way constraints may require consideration of a combined bicycle and pedestrian path on one side of the road.

### Navigation

The Whitcomb Bayou is a tidal and navigable body of water providing area residents with direct access to the Anclote River and the Gulf of Mexico. The channel is not used for commerce. The sizes of water craft that pass under the bridge are variable, but are all pleasure type craft.

### Estimated Project Costs:

PD&E \$750,000  
Design \$2,800,000  
Construction \$12,000,000  
Construction Engineering & Inspection \$1,680,000  
Post Design Services \$560,000  
TOTAL \$17,790,000

## PROJECT BACKGROUND

The Beckett Bridge (Bridge NO. 154000) over Whitcomb and Minetta Bayous is located in the City of Tarpon Springs in Pinellas County, Florida. Riverside Drive/North Spring Boulevard (via the Beckett Bridge) provides the most efficient and direct access route from the area north and west of the bayous to the downtown area of Tarpon Springs. This facility is also used as an evacuation route, providing access to major arterials in Pinellas County, such as Alternate US 19 and US 19.

The structure is maintained and operated by Pinellas County. The drawbridge currently provides the only access for various vessels docking on Whitcomb and Minetta Bayous. This drawbridge is not permanently tended by a bridge tender. Openings are provided by Pinellas County staff on a per call basis.

This 360 foot long drawbridge (Bridge #154000) consists of a single leaf bascule that was originally constructed as a timber structure in 1924 and reconstructed as a concrete structure in 1956 and rehabilitated 1996. This bridge has not been previously recorded or evaluated for listing in the National Register of Historic Places (NRHP). This evaluation will be conducted as part of the PD&E Study.

The bridge consists of nine 32 foot long (average) concrete approach spans, and a center single leaf bascule span, 40 feet long over the channel, which is not part of the Intracoastal Waterway. The bascule span provides approximately 6 feet of vertical navigational clearance over the channel when the leaf is locked in the down position. The bridge has a sufficiency rating of 44.9, and it has been classified by the FDOT as functionally obsolete and structurally deficient. The

mechanical and electrical systems are obsolete, and require considerable maintenance by Pinellas County staff. A speed limit of 20 mph was posted to reduce vibrations on the bridge. The concrete approaches have nearly reached their intended 50-year design service life. Current weight restrictions prevent school busses from crossing the bridge. This requires school buses for 3 public schools to take a 2-mile detour in the mornings and afternoons.

A technical evaluation was recently prepared to determine whether repairs could be made to this structure and to what extent or if complete replacement was necessary. The evaluation found that repairs to the movable span could be made now, but replacement of the structure would be necessary within the next ten years. The PD&E phase for this project will evaluate the need to replace or rehabilitate the functionally obsolete and structurally deficient bridge.

## Summary of Public Comments

### Community Desired Features

No desired features have been entered into the database. This does not necessarily imply that none have been identified.

## Purpose and Need Statement

### Introduction

The purpose of this project is to provide for the safe, efficient movement of vehicles within this area of Pinellas County and Tarpon Springs. The project will also provide local and regional connectivity across Whitcomb and Minetta Bayous for the 5,400 residents of the area, as well as emergency evacuation across the bayous. The Beckett Bridge is a mechanical draw bridge that has undergone multiple repairs through the years with another repair to the rolling lift and guide mechanisms planned for 2010/2011. These repairs were identified from a technical evaluation performed by Pinellas County in 2009. That evaluation also recommended that this bridge be replaced within ten years.

### Regional Connectivity

The Beckett Bridge is located on Riverside Drive/North Spring Boulevard, a local collector in the City of Tarpon Springs. Riverside Drive/North Spring Boulevard provides access across Whitcomb and Minetta Bayous for approximately 5,400 residents and serves direct access to the emergency evacuation route for these residents.

This facility is not on a regional road network; however it does serve as the primary and only reasonable access route for these residents of Tarpon Springs, elementary, middle and high schools, emergency services, and the county's Fred Howard Park. Permanent closure of this structure would result in a detour for some residents and commuters in excess of 2 miles and could have a detrimental affect on emergency access and affect access to the local marina located on the east end of the bridge.

### Emergency Evacuation

Beckett Bridge, located within Evacuation Zone A, is used as a hurricane evacuation route as Riverside Drive/North Spring Boulevard is an extension of Tarpon Avenue, which is a designated evacuation route. The bridge provides access across Whitcomb and Minetta Bayous for approximately 5,400 residents to major arterials including Alternate US 19 and US Highway 19.

### Future Population and Employment Growth in Corridor

Referencing the socio-economic data developed for the MPO's 2035 LRTP, the Beckett Bridge project is located in Planning Sector 1 which is projected to grow in population from 26,395 in 2006 to 33,726 by 2035, or roughly 22%. Population within adjacent Planning Sectors 2 and 3 in the upper north county area is expected to increase by 16,038 or approximately 14%. Employment within Planning Sector 1 is expected to increase by approximately 4,841 jobs from 15,490 in 2006 to 20,331 by 2035. Employment within adjacent Planning Sectors 2 and 3 is expected to increase by another 4,265 jobs by 2035.

The Beckett Bridge provides access for the area north and west of the bayous to Tarpon Springs' downtown and



planned growth areas.

#### Future Traffic

On October 28, 2008, a 24-hour traffic study was conducted on the Beckett Bridge. That study found an eastbound volume of 3,920 vehicles and a westbound volume of 3,930 for a total AADT of 7,850. Additionally, a 72-hour traffic count was taken in December 2004. The counts taken at that time showed approximately 8,000 vehicles per day crossing Beckett Bridge.

On nearby Meres Boulevard (Carolina Ave to Alt US 19), the MPO 2035 LRTP Traffic Volume Forecast anticipates a volume of 9,500 vehicles per day. The 2008 volume across this same segment was 6,354 vehicles per day. The Alt US 19/Pinellas Avenue (Tarpon Ave to Orange St) corridor anticipates 19,500 vehicles in 2035 up from the 16,900 vehicles in 2008. The Plan anticipates a slight increase in traffic volumes on Tarpon Avenue (Alt US 19 - Safford Ave) from 17,700 in 2008 to 18,000 vehicles in 2035.

The 2035 LRTP does not evaluate the Level of Service (LOS) for Beckett Bridge. Meres Boulevard 2008 LOS is C. The associated roadways Alt US19 and Tarpon Avenue operated at LOS D and F respectively in 2008. Although this project will not add capacity, bridge replacement is necessary to continue to equalize traffic volumes on roadways providing access to the area north and west of the bayous in Tarpon Springs.

Any proposed bridge replacement is expected to remain two lanes but will include appropriate road shoulders and sidewalks to meet current geometric design standards. The project will also include roadway improvements from Chesapeake Drive to Forest Avenue to improve approaches to the bridge. Replacement of the Beckett Bridge is not expected to improve the level of service along Riverside Drive/N. Spring Boulevard; however, it is expected to maintain an acceptable level of service on roadways in the area by providing alternative travel routes.

#### Safety/Crash Rates

In 2009, Pinellas County had a crash rate of 162.7 per 100 Million Vehicle Miles of Travel (VMT). This was somewhat higher than the statewide average of 120/100 Million VMT. Pinellas County has historically had higher than statewide averages which is typical of a densely urbanized county with high traffic volumes.

Crash rates for the subject area of Beckett Bridge are virtually unchanged over the past three years, as a minimal amount of accidents occurred on the bridge. Crash totals on Beckett Bridge for the past three years are as follows:

#### Year Total Crashes

2009 0

2008 2

2007 1

The low number of crashes is most likely due to the low posted speed limit of 20 mph. This low speed limit was posted to reduce vibrations on the bridge. While there have not been a significant number of crashes, there have been a number of reports of tire damage. Tire damage has been caused by the protrusion of the steel curb on the draw span due to the misalignment of the lifting mechanism. This is expected to be addressed by the planned repairs in 2010/2011.

The structure is proposed to remain two lanes, but replacement alternatives will include safety measures such as road shoulder and sidewalk on both sides of the bridge. The project will also include improvements to the bridge approaches for a project length of approximately 0.31 mile.

#### Transit

Pinellas Suncoast Transit Authority's (PSTA) Route 66 services north and south bound Alt US 19. Additionally, Route 66 via east and westbound Dr. M. L. King Boulevard connects those riders commuting on US 19. Pasco County Public Transit Route 18 services riders north of Live Oak Street and Dodecanese Boulevard in Pinellas County. Headways for PSTA Route 66 and Pasco County Transit Route 18 range from 30 minutes during peak hours to 60 minutes during off-peak hours. This route is in service from 5:10 a.m. to 8:05 p.m. Monday through Saturday, and approximately 8:00 a.m. to 6:00 p.m. Sunday and Holidays.

Replacement of the Beckett Bridge will provide for improved pedestrian access to the bus route along Alt US 19.

Additionally, bridge replacement will allow for transport of Pinellas County School students requiring transport. Due to the current weight restriction on the Beckett Bridge, school buses are required to travel Meres Boulevard and Whitcomb Boulevard to access three schools west of Alt US 19. This creates an additional route distance of over 2 miles per bus, per direction, twice per day.

#### Access to Intermodal Facilities and Freight Activity Centers

Beckett Bridge is a residential corridor with one nearby freight related center. The MPO's 2008 Goods Movement Study identified the Northwest Tarpon Springs Industrial Area as a potential Regional Freight Activity Center. This area is west of Alt US 19 at Anclore Boulevard and Anclore Roads, north of the Beckett Bridge. Alt US 19, also known as SR 595, Anclore Boulevard, Anclore Road, Live Oak Street and Tarpon Avenue (Alt US 19 - US 19) are all unrestricted Truck Routes as shown on the Pinellas County Truck Route Plan. An improved Beckett Bridge would improve access to these roadways which access the freight center through improved travel lane widths and removal of the 20 mph speed restriction.

The Beckett Bridge also provides access to the PSTA/Pasco County Public Transit transfer centers located at Alt US 19/Pinellas Avenue and Dodecanese Boulevard and the Tarpon Mall area at US 19 and Dr. M.L. King Jr. Boulevard.

#### Relief to Parallel Facilities

The Beckett Bridge corridor provides the primary alternative for east-west travel in west Tarpon Springs as it is a continuation of Tarpon Avenue which is the primary east-west corridor through the city. There are two other routes that serve as east-west travel alternatives - Whitcomb Boulevard and Meres Boulevard.

Whitcomb Boulevard is a two-lane minor collector roadway that primarily carries local residential traffic. It's traffic count is low and is not measured due to its local nature.

Meres Boulevard is a collector roadway that experienced a "C" LOS in 2008. This road currently provides access to the western end of Tarpon Springs primarily for traffic south of the city. Construction of the Meres Boulevard extension from Alt US 19 to US 19 is currently planned as part of the Meres Crossing development on the southwest corner of Alt US 19 and Meres Boulevard. Construction of this extension is expected to better distribute east-west traffic through Tarpon Springs; however improvement of the Beckett Bridge is still seen as necessary to provide alternative travel choices for the residents in the northwest are of the city.

#### Bikeways and Sidewalks

The existing bridge currently has 2 foot wide sidewalks in each direction but no separate bicycle lanes. Pinellas County has an active Bike Lane Program and current policy states that bike lanes are to be incorporated into all roadway improvement projects along county roadways, if deemed feasible. Bicycles will be accommodated across any proposed bridge replacement alternatives through road shoulders or bike lanes .

Pinellas County also has an active sidewalk and pedestrian program. The County incorporates sidewalks and appropriate pedestrian features in all of its roadway projects. Any proposed bridge replacement alternatives will include sidewalks across the bridge.

#### Plan Consistency

This project is consistent with the Transportation Element of the Pinellas County Comprehensive Plan, as amended on March 17, 2009. This project is not a capacity improvement and therefore is not specifically listed as such in the Pinellas County MPO 2035 Long Range Transportation Plan (LRTP), adopted December 2009.

The project, however, does adhere to the goals and policies of the LRTP by meeting Objective 1.10. Objective 1.10 states: "Ensure the safe accommodation of motorized and non-motorized traffic while reducing the incidence of vehicular conflicts within the county's major transportation corridors."

The project's PD&E Study is also included in the Pinellas County Capital Improvement Program, the FDOT Work Program, the Pinellas County MPO Transportation Improvement Program (TIP), and the FDOT FY 2010 State Transportation Improvement Program (STIP).

## Project Funding

While Pinellas County has funding programmed in the Capital Improvement Program for bridge improvements, the funding is limited. Therefore, the County is seeking funding participation through other sources such as state and federal programs.

The County's funding source consists of the infrastructure sales tax, also known as the Penny for Pinellas. Other local sources may also consist of Transportation Impact Fee revenues.

## Purpose and Need Reviews

### Southwest Florida Water Management District Comments

Agency	Acknowledgment	Review Date
Southwest Florida Water Management District	Understood	12/20/2010
Comments		
No Purpose and Need Comments Were Found.		

### US Army Corps of Engineers Comments

Agency	Acknowledgment	Review Date
US Army Corps of Engineers	Understood	12/16/2010
Comments		
No Purpose and Need Comments Were Found.		

### US Environmental Protection Agency Comments

Agency	Acknowledgment	Review Date
US Environmental Protection Agency	Understood	12/8/2010
Comments		
No Purpose and Need Comments Were Found.		

### National Marine Fisheries Service Comments

Agency	Acknowledgment	Review Date
National Marine Fisheries Service	Understood	11/22/2010
Comments		
No Purpose and Need Comments Were Found.		

### US Coast Guard Comments

Agency	Acknowledgment	Review Date
US Coast Guard	Understood	12/20/2010
Comments		
No Purpose and Need Comments Were Found.		

### FL Fish and Wildlife Conservation Commission Comments

Agency	Acknowledgment	Review Date
FL Fish and Wildlife Conservation Commission	Understood	12/17/2010
Comments		
No Purpose and Need Comments Were Found.		

FL Department of Environmental Protection Comments		
Agency	Acknowledgment	Review Date
FL Department of Environmental Protection	Understood	12/21/2010
Comments		
No Purpose and Need Comments Were Found.		

Natural Resources Conservation Service Comments		
Agency	Acknowledgment	Review Date
Natural Resources Conservation Service	Understood	11/23/2010
Comments		
No Purpose and Need Comments Were Found.		

Federal Highway Administration Comments		
Agency	Acknowledgment	Review Date
Federal Highway Administration	Accepted	12/23/2010
Comments		
No Purpose and Need Comments Were Found.		

FL Department of State Comments		
Agency	Acknowledgment	Review Date
FL Department of State	Understood	11/30/2010
Comments		
No Purpose and Need Comments Were Found.		

US Fish and Wildlife Service Comments		
Agency	Acknowledgment	Review Date
US Fish and Wildlife Service	Understood	12/3/2010
Comments		
No Purpose and Need Comments Were Found.		

FL Department of Community Affairs Comments		
Agency	Acknowledgment	Review Date
FL Department of Community Affairs	Understood	4/21/2011
Comments		
No Purpose and Need Comments Were Found.		



**Alternative #1**

Alternative Description	
From	Chesapeake Drive
To	Forest Avenue
Type	Bridge
Status	ETAT Review Complete
Total Length	0.31 mi.
Cost	\$16,880,000.00
Modes	Roadway Bicycle Pedestrian

Location and Length	
	<b>Segment #1</b>
Name	Beckett Bridge over Whitcomb
Beginning Location	Chesapeake Drive
Ending Location	Forest Avenue
Length (mi.)	0.31
Roadway Id	
BMP	??
EMP	??

Jurisdiction and Class	
	<b>Segment #1</b>
Jurisdiction	County
Urban Service Area	In
Functional Class	URBAN: Collector

Current and Future Conditions	
Base Conditions	
	<b>Segment #1</b>
Year	2008
AADT	\$7,850.00
Lanes	2
Config	Lanes Undivided
Interim Plan	
	<b>Segment #1</b>
Year	
AADT	unspecified
Lanes	
Config	
Needs Plan	
	<b>Segment #1</b>
Year	2035
AADT	unspecified
Lanes	2
Config	Lanes Undivided
Cost Feasible Plan	
	<b>Segment #1</b>
Year	2035
AADT	unspecified

<b>Lanes</b>	
<b>Config</b>	
<b>Funding Sources</b>	
	<b>Segment #1</b>
<b>COUNTY funding amount:</b>	\$352,000.00
<b>FEDERAL funding amount:</b>	\$398,000.00

Project Effects Overview				
Issue	Degree of Effect		Organization	Date Reviewed
Natural				
Air Quality	2	Minimal	US Environmental Protection Agency	12/23/2010
Coastal and Marine	3	Moderate	National Marine Fisheries Service	11/22/2010
Coastal and Marine	4	Substantial	Southwest Florida Water Management District	12/20/2010
Contaminated Sites	0	None	FL Department of Environmental Protection	12/23/2010
Contaminated Sites	3	Moderate	Southwest Florida Water Management District	12/20/2010
Contaminated Sites	0	None	US Environmental Protection Agency	12/08/2010
Farmlands	0	None	Natural Resources Conservation Service	11/23/2010
Floodplains	3	Moderate	Southwest Florida Water Management District	12/20/2010
Floodplains	3	Moderate	US Environmental Protection Agency	12/23/2010
Infrastructure	0	None	Southwest Florida Water Management District	12/20/2010
Navigation	N/A	N/A / No Involvement	US Army Corps of Engineers	12/16/2010
Navigation	3	Moderate	US Coast Guard	12/20/2010
Special Designations	4	Substantial	US Environmental Protection Agency	12/23/2010
Special Designations	4	Substantial	Southwest Florida Water Management District	12/20/2010
Water Quality and Quantity	4	Substantial	Southwest Florida Water Management District	12/20/2010
Water Quality and Quantity	3	Moderate	FL Department of Environmental Protection	12/23/2010
Wetlands	2	Minimal	US Army Corps of Engineers	12/16/2010
Wetlands	4	Substantial	Southwest Florida Water Management District	12/20/2010
Wetlands	3	Moderate	FL Department of Environmental Protection	12/23/2010
Wetlands	3	Moderate	National Marine Fisheries Service	11/22/2010
Wetlands	3	Moderate	US Fish and Wildlife Service	12/20/2010
Wetlands	3	Moderate	US Environmental Protection Agency	12/23/2010

Wildlife and Habitat	2	Minimal	FL Fish and Wildlife Conservation Commission	12/17/2010
Wildlife and Habitat	2	Minimal	Southwest Florida Water Management District	12/20/2010
Wildlife and Habitat	3	Moderate	US Fish and Wildlife Service	12/20/2010
<b>Cultural</b>				
Historic and Archaeological Sites	N/A	N/A / No Involvement	Southwest Florida Water Management District	12/20/2010
Historic and Archaeological Sites	3	Moderate	FL Department of State	1/28/2011
Historic and Archaeological Sites	3	Moderate	Federal Highway Administration	3/16/2011
Historic and Archaeological Sites	2	Minimal	Miccosukee Tribe of Indians of Florida	12/08/2010
Recreation Areas	0	None	US Environmental Protection Agency	12/21/2010
Recreation Areas	0	None	FL Department of Environmental Protection	12/23/2010
Recreation Areas	0	None	Southwest Florida Water Management District	12/20/2010
Section 4(f) Potential	3	Moderate	Federal Highway Administration	12/23/2010
<b>Community</b>				
Land Use	2	Minimal	FL Department of Community Affairs	4/21/2011
Mobility	1	Enhanced	FL Department of Community Affairs	4/21/2011
Relocation	2	Minimal	Federal Highway Administration	12/23/2010
Social	2	Minimal	Federal Highway Administration	12/23/2010
Social	2	Minimal	FL Department of Community Affairs	4/21/2011
<b>Secondary and Cumulative</b>				
Secondary and Cumulative Effects	4	Substantial	Southwest Florida Water Management District	12/20/2010

#### ETAT Reviews: Natural

##### Air Quality

###### Coordinator Summary

2 Summary Degree of Effect

*Air Quality Summary Degree of Effect: Minimal*

###### Reviewed By:

FDOT District 7 (3/14/2011)

###### Comments:

USEPA DOE: Minimal

FDOT Recommended DOE: Minimal

The Florida Department of Transportation (FDOT) has evaluated comments from the US Environmental Protection Agency (USEPA) and recommends a Degree of Effect of Minimal.

The USEPA noted that they do not anticipate any negative air quality impacts relating specifically to the

Special construction conditions for manatees should be implemented during the construction phase of this project. The removal of the old bridge structure has not been discussed. If blasting is proposed, formal consultation with USFWS is required. Once the details of the construction methods and design are known, additional special conditions may apply to protect manatees from harm or harassment. The standard conditions for in-water work can be found on our website ([www.northflorida.fws.gov](http://www.northflorida.fws.gov)). Surveys for submerged aquatic vegetation (SAV) should be done. The design of the new bridge should consider the negative impacts of shading on SAV and should attempt to maximize the amount of sunlight available to submerged plants. Contaminants from road runoff are a major concern and should be diverted away from the marine and estuarine environment. Direct, indirect and cumulative impacts to the marine environment should be examined and avoided. Any impacts that cannot be avoided should be minimized and mitigated to the maximum extent practicable. Once the extent of impact to SAV are estimated and quantified, mitigation will need to be proposed that replaces the seagrass within the action area (bayou). Standards for successful mitigation will be required.

#### Wood Stork

No active wood stork colonies are known to be located near the project footprint or in Pinellas County. Numerous active colonies are located in Pasco, Hillsborough and Manatee counties and the 15 mile core foraging areas for these colonies may overlap with the project footprint. Any wetland impacts that cannot be avoided may need to be mitigated. Wetlands set aside for mitigation for wood storks need to provide suitable foraging habitat. Colony maps and a 'determination of effect' key for wood storks can be found on our office website.

#### Wading Birds and Shorebirds

Impacts to wetlands and mangroves may affect wading bird and shorebird foraging, roosting and/or nesting in this area. Surveys for wading birds and shorebirds should be done. Any direct effects to mangroves, or foraging resources, should be disclosed. If nesting occurs within the action area, the timing of the project may be critical. Indirect and cumulative effects to the water quality as a result of contaminated road runoff should be avoided.

#### Coordinator Feedback:None

- No review submitted from the Federal Highway Administration
- No review submitted from the US Forest Service

## ETAT Reviews: Cultural

### Historic and Archaeological Sites

#### Coordinator Summary

3

Summary Degree of Effect

*Historic and Archaeological Sites Summary Degree of Effect: Moderate*

#### Reviewed By:

FDOT District 7 (3/29/2011)

#### Comments:

FHWA DOE: Moderate

SWFWMD DOE: N/A/No Involvement

Miccosukee Tribe of Indians of Florida DOE: Minimal



SHPO DOE: Moderate  
FDOT Recommended DOE: Moderate

The Florida Department of Transportation (FDOT) has evaluated comments from the Federal Highway Administration (FHWA), Southwest Florida Water Management District (SWFWMD), Miccosukee Tribe of Indians of Florida, and the Florida Department of State (SHPO) and recommends a Degree of Effect (DOE) of Moderate.

A review of the Geographic Information Systems (GIS) analysis data indicates that three Florida Site File (FSF) Historic Standing Structures are located within the 200-foot buffer distance and four additional FSF Historic Standing Structures and the National Register of Historic Places (NRHP)-listed Tarpon Springs Historic District and E.R. Meres Sponge Packing House are located within the 500-foot buffer distance.

The SHPO, the Miccosukee Tribe, and the FHWA recommended that a Cultural Resource Assessment Survey (CRAS) will need to be conducted to identify and evaluate any resources that may be eligible for listing in the NRHP. The SHPO also noted that the bridge must be documented using historic bridge forms and evaluated by a professional.

The FHWA noted that it is not clear whether this bridge is eligible for listing in the NRHP.

The Miccosukee Tribe of Indians of Florida commented that there are no recorded archaeological sites, including burial mounds, reported near this project; a CRAS will need to be done to ascertain if there are any archaeological sites within the project boundaries. If no impacts are found, then no further consultation is necessary.

The FDOT recommends that the implementing agency prepare a CRAS. It should reflect the results of performing a systematic archaeological field survey and a historic structures survey for the project's APE which includes the bridge, project corridor, and stormwater management facilities. If applicable, Section 106 Consultation should be conducted to assess potential project impacts to any cultural resources that are determined eligible for listing in the NRHP.

No comments were received from the Seminole Tribe of Florida.

#### ETAT Reviews for Historic and Archaeological Sites

N  
/  
A

ETAT Review by C. Lynn Miller, Southwest Florida Water Management District (12/20/2010)  
*Historic and Archaeological Sites Effect: N/A / No Involvement*

---

**Confidential:** Review will not be displayed on Public Access website

**Coordination Document:** No Involvement

**Dispute Information:** N/A

**Identified Resources and Level of Importance:**  
None found.

**Comments on Effects to Resources:**  
None found.

**Coordinator Feedback:**None

**3** ETAT Review by Alyssa McManus, FL Department of State (01/28/2011)

*Historic and Archaeological Sites Effect: Moderate*

**Confidential:**Review will not be displayed on Public Access website

**Coordination Document:**No Selection

**Dispute Information:**N/A

**Identified Resources and Level of Importance:**

There are no identified historical resources identified at the 100 ft. buffer. However, research into the FDOT Bridge database states that the Beckett Bridge was constructed in 1924, and is therefore considered historic, but we do not have enough information to evaluate its significance at this time. Further documentation is needed (see comments section).

Within the 200 ft. boundary of this project's corridor, there are three historic standing structures. These are PI1464 (321 High Street), PI1465 (331 High Street), and PI1540 (210 Pampas Ave). These structures are all considered historically significant at the local level. At the time they were recorded, there was insufficient information provided to this office to make a determination of eligibility.

Within the 500 ft buffer of this project's corridor, lie the National Register-listed Tarpon Springs Historic District and the E.R. Meres Sponge Packing House. An additional four standing structures (possibly part of the district). These include PI1391, PI1463, PI1626 and PI1735.

There are no archaeological sites recorded within the 500 ft. buffer of this project. However, that could be because most of the surveys conducted near the project area focused on historic standing structures and not archaeological investigation. However, the project's area of potential effect suggests low probability for significant sites to be discovered within.

GIS analysis was not conducted for historical resources outside of the 500 ft buffer, due to the constraints of the project.

**Comments on Effects to Resources:**

Based on the fact that this alternative is "no-build", these resources are unlikely to be adversely affected. However, if any of the bridge material is to be removed or altered, further consultation with this office is needed. The area has been subjected to surveys within 100 ft of this project's corridor. None were specific to this project and to the affects this project may have on significant historical resources.

Research into our records indicates that this bridge was reviewed in 1990 by this office (ref: 1990-1502). At that time, it was the recommendation of this office that the "METAL LIFT PORTION OF BRIDGE 154000 MAY BE POTENTIALLY SIGNIFICANT/IF IT CANNOT BE PRESERVED IN PLACE, THAT PORTION OF STRUCTURE SHOULD BE DOCUMENTED BY B/W PHOTOS AND STRUCTURAL DRAWINGS/IF APPROACH ROADWAYS TO BE ALTERED, PROJECT MUST BE RESUBMITTED". At this time, there has been no submittal of information regarding this bridge to this office. Therefore, it was not identified as historic in the GIS database.

At this time, this office has insufficient information about the bridge to make a determination of

eligibility or finding of effects. Since there is a bridge present that will be altered as a result of the proposed project that is more than 50 years of age; the bridge must be documented using historic bridge forms, and evaluated by a professional. Florida Master Site File forms are available online at <http://www.flheritage.com/preservation/sitefile>.

**Additional Comments (optional):**

When initially this review was done, it was specified as a 'no build'. However, Wendy Lasher informed this office that this was a mistake. This being the case, this office requests that a cultural resources survey be conducted to identify any culutral resources within a reasonable APE of this project corridor to determine their eligibility and the degree of affect this project will have on those resources.

**Coordinator Feedback:**None

**3** ETAT Review by Linda Anderson, Federal Highway Administration (03/16/2011)

*Historic and Archaeological Sites Effect: Moderate*

**Confidential:**Review will not be displayed on Public Access website

**Coordination Document:**PD&E Support Document As Per PD&E Manual

**Dispute Information:**N/A

**Identified Resources and Level of Importance:**

Beckett Bridge

**Comments on Effects to Resources:**

It is not clear whether this bridge is NRHP-eligible.

If the bridge is NRHP-eligible and requires demolition, preparation of an EIS will be required.

Comment added March 16, 2011: The previous comment regarding preparation of an EIS if the bridge is determined to be NRHP-eligible and requires demolition was based on the 1985 MOU between FHWA and the USCG, which requires that the environmental document be an EIS under these circumstances. That Memorandum has been terminated, so an EIS is not automatically required. However, to be clear, the termination of the MOU does not mean that the demolition of an NRHP-eligible bridge will never require an EIS. FHWA will make the COA determination for each project, based on its characteristics.

**Additional Comments (optional):**

A CRAS is required.

**Coordinator Feedback:**None

**2** ETAT Review by Steve Terry, Miccosukee Tribe of Indians of Florida (12/08/2010)

*Historic and Archaeological Sites Effect: Minimal*

**Coordination Document:**No Selection

**Dispute Information:**N/A

**Identified Resources and Level of Importance:**

There are no recorded archaeological sites reported near this project. However, a Cultural Resources Survey will need to be done to ascertain if there are any archaeological sites within the project boundaries.

**Comments on Effects to Resources:**

Once a Cultural Resources Survey has been done, then effects, if any, to archaeological sites can be ascertained.

**Additional Comments (optional):**

If the Cultural Resources Survey shows there are no archaeological sites that will be impacted by this project, then no further consultation is necessary. However, if the Cultural Resources Survey does show that archaeological sites will be impacted by this project, then further consultation with the Miccosukee Tribe should be done.

**Coordinator Feedback:**None

- No review submitted from the Seminole Tribe of Florida

## Recreation Areas

### Coordinator Summary

#### 2 Summary Degree of Effect

*Recreation Areas Summary Degree of Effect: Minimal*

**Reviewed By:**

FDOT District 7 (3/14/2011)

**Comments:**

FDEP DOE: None

SWFWMD DOE: None

USEPA DOE: None

FDOT Recommended DOE: Minimal

The Florida Department of Transportation (FDOT) has evaluated comments from the Florida Department of Environmental Protection (FDEP), the US Environmental Protection Agency (USEPA), and the Southwest Florida Water Management District (SWFWMD) and recommends a Degree of Effect (DOE) of Minimal.

A review of the Geographic Information Systems (GIS) analysis data indicates that the Priority 6 and Unknown Description Ecological Greenways Critical Linkages and Prioritization Results, one Low Greenways Ecological Priority Linkages, two High Office of Greenways and Trails (OGT) Multi-Use Trail Priorities, one Low OGT Multi-Use Trail Priorities, and one Low OGT Paddling Trails Priorities are located within the 100-foot buffer distance and Anclote Islands Management Area and six schools are located within the 5,280-foot buffer distance. Further review of GIS data and Google Street View revealed that most of these facilities do not currently exist and appear to be in the planning stages.

The FDEP recommended a DOE of None. The OGT is within the FDEP. A review of the OGT Map did not

identify any existing resources within the project area.

The FDOT recommends that the implementing agency take all measures to develop avoidance alternatives and/or measures to minimize harm to these resources.

No comments were received from the Federal Highway Administration (FHWA).

#### ETAT Reviews for Recreation Areas

**0** ETAT Review by Madolyn Dominy, US Environmental Protection Agency (12/21/2010)  
*Recreation Areas Effect: None*

---

**Coordination Document:**No Selection

**Dispute Information:**N/A

**Identified Resources and Level of Importance:**  
None found.

**Comments on Effects to Resources:**  
None found.

**Coordinator Feedback:**None

**0** ETAT Review by Lauren P. Milligan, FL Department of Environmental Protection (12/23/2010)  
*Recreation Areas Effect: None*

---

**Coordination Document:**No Selection

**Dispute Information:**N/A

**Identified Resources and Level of Importance:**  
None found.

**Comments on Effects to Resources:**  
None found.

**Coordinator Feedback:**None

**0** ETAT Review by C. Lynn Miller, Southwest Florida Water Management District (12/20/2010)  
*Recreation Areas Effect: None*

---

**Coordination Document:**No Involvement



**Dispute Information:**N/A

**Identified Resources and Level of Importance:**

None found.

**Comments on Effects to Resources:**

None found.

**Coordinator Feedback:**None

- No review submitted from the Federal Highway Administration
- No review submitted from the National Park Service

**Section 4(f) Potential**

**Coordinator Summary**

**3** Summary Degree of Effect

*Section 4(f) Potential Summary Degree of Effect: Moderate*

**Reviewed By:**

FDOT District 7 (3/14/2011)

**Comments:**

FHWA DOE: Moderate

FDOT Recommended DOE: Moderate

The Florida Department of Transportation (FDOT) has evaluated comments from the Federal Highway Administration (FHWA) and recommends a Degree of Effect (DOE) of Moderate.

Potential Section 4(f) resources are described in the Historic and Archaeological, Special Designation, and the Recreational Areas Degree of Effects, respectively.

The FHWA noted that if Beckett Bridge is National Register of Historic Places (NRHP)-eligible, repairing or demolishing it may constitute a Section 4(f) effect. A Section 4(f) Determination of Applicability (DOA) will be required for this project. In addition the Pinellas County Aquatic Preserve Management Plan states that its significant purposes include a waterfowl and wildlife refuge function and/or a recreation function.

**ETAT Reviews for Section 4(f) Potential**

**3** ETAT Review by Linda Anderson, Federal Highway Administration (12/23/2010)

*Section 4(f) Potential Effect: Moderate*

**Coordination Document:**PD&E Support Document As Per PD&E Manual

**Dispute Information:**N/A

**Identified Resources and Level of Importance:**

Within 100' buffer:

1. Beckett Bridge.
2. 24.43 acres of Multi-Use Trails High and Low Priorities.
3. 8.14 acres of paddling Trails Low Priorities.
4. 1.8 acres of Greenway Low Priority Linkages.
5. 8.1 acres of Greenways Critical Linkages and Prioritization Results.
6. Pinellas County Aquatic Preserve (Outstanding Florida Water).

**Comments on Effects to Resources:**

If Beckett Bridge is NRHP-eligible, repairing or demolishing it may constitute a Section 4(f) effect.

With regard to the Multi-Use Trail Priorities, the Paddling Trail Priorities, The Greenway Priority Linkages, and the Greenways Critical Linkages, publicly owned properties planned for park, recreation area, wildlife refuge, or waterfowl refuge purposes may be Section 4(f) properties when the public agency that owns the property has formally designated and determined it to be significant for park, recreation area, wildlife and waterfowl refuge purposes. Evidence of formal designation would be the inclusion of the publicly owned land, and its function as a 4(f) resource, into a city or county Master Plan.

The website for Florida's Aquatic Preserves states that these Preserves were established to protect the living waters of Florida to ensure that they will always be home for bird rookeries and fish nurseries, and it notes the recreational opportunities available. The Pinellas County Aquatic Preserve appears to be publicly owned and open to the public. In addition, if its management plan states that its significant purposes include a waterfowl and wildlife refuge function and/or a recreation function, the Preserve may be considered a Section 4(f) property and impacts to it may be Section 4(f) impacts.

A Section 4(f) Determination of Applicability will be required.

**Coordinator Feedback:**None

**ETAT Reviews: Community****Aesthetics****Coordinator Summary****2**

Summary Degree of Effect

*Aesthetics Summary Degree of Effect: Minimal***Reviewed By:**

FDOT District 7 (3/14/2011)

**Comments:**

FDOT Recommended DOE: Minimal

The Florida Department of Transportation (FDOT) recommends a Degree of Effect of Moderate.

## General Project Commitments

Date	Description
3/14/2011	<p>The FDOT recommends the implementing agency do the following: - Prepare an Essential Fish Habitat (EFH) Assessment and coordinate with the National Marine Fisheries Service (NMFS) during the Project Development and Environment (PD&amp;E) Study where warranted. - Determine whether there would be any contamination and hazardous materials issues associated with the project. Prepare a Contamination Screening Evaluation Report (CSER) to assess risk for contamination in the project area. If contamination is detected during construction, the Florida Department of Environmental Protection (FDEP) should be notified. Any source identified should be assessed to determine the need for remediation during construction. - Evaluate floodplain impacts and evaluate compensation opportunities for any floodplain encroachment and lost floodplain storage, if mitigation is deemed necessary by regulatory agencies. A Location Hydraulics Report (LHR) should be prepared for the project. The FDOT recommends that the implementing agency avoid or minimize impacts to floodplain resources and functions. - Assess potential impacts to existing infrastructure and to take measures to minimize any project related impacts to this facility. - Coordinate with the U.S. Coast Guard (USCG) during the PD&amp;E Study and develop a permit as required. - Assess potential impacts to the areas noted under Special Designations and to take measures to avoid or minimize any project related impacts to these areas because the project has involvement with an aquatic preserve. Once right-of way (ROW) requirements have been defined, the FDOT recommends that the implementing agency submit aerials depicting alternatives to the FDEP for review and comment. - Include an evaluation of existing stormwater treatment adequacy and details on the future stormwater treatment facilities related to this proposed project - Assess potential impacts to any existing wetlands and prepare a Wetland Evaluation / Biological Assessment Report (WEBAR) which identifies and assesses any existing natural habitats within the project area. This report should then be coordinated with the US Fish and Wildlife Service (USFWS) and Florida Fish and Wildlife Conservation commission (FFWCC). - Prepare a Cultural Resource Assessment Survey (CRAS) that should reflect the results of performing a systematic archaeological field survey and a historic structures survey for the project's APE which includes the bridge, project corridor, and stormwater management facilities. If applicable, Section 106 Consultation should be conducted to assess potential project impacts to any cultural resources that are determined eligible for listing in the National Register of Historic Places (NRHP). - Prepare a Section 4(f) Determination of Applicability (DOA) for this project since the Pinellas County Aquatic Preserve Management Plan states that its significant purposes include a waterfowl and wildlife refuge function and/or a recreation function. - Conduct public outreach to residents and businesses in the corridor area to solicit input on the project. Prepare visual aids to assist the public to better understand the nature of the project. These visual aids should be provided during the public involvement process and made available throughout the projects development process. - Prepare a Conceptual Stage Relocation Program (CSR) Report for this project. Any relocation should be evaluated so that there are no disproportionate adverse impacts to any distinct minority, ethnic, elderly, or handicapped groups and/or low-income households. - Conduct a noise review for the project to determine if there is a substantial change in vertical or horizontal alignment. If there is no substantial change then this will be documented in the project files and environmental document. If there is a substantial change a Noise Study Report (NSR) will be produced.</p>

## Permits

Permit Name	Type	Review Org	Review Date
Environmental Resource Permit	State	FDOT District 7	11/11/10
U.S. Coast Guard Bridge Permit	Federal	FDOT District 7	11/11/10

## Technical Studies

Technical Study Name	Type	Review Org	Review Date
Geotechnical Report	ENGINEERING	FDOT District 7	08/24/10
Noise Study Report	ENVIRONMENTAL	FDOT District 7	08/24/10
Contamination Screening Evaluation Report	ENVIRONMENTAL	FDOT District 7	08/24/10
Cultural Resource Assessment	ENVIRONMENTAL	FDOT District 7	08/24/10
Traffic Analysis	ENGINEERING	FDOT District 7	08/24/10
Type 2 CE	ENVIRONMENTAL	FDOT District 7	08/24/10

Class of Action	
Class of Action	Other Actions
Categorical Exclusion	None
Lead Agency	Cooperating Agency/Agencies
Federal Highway Administration	

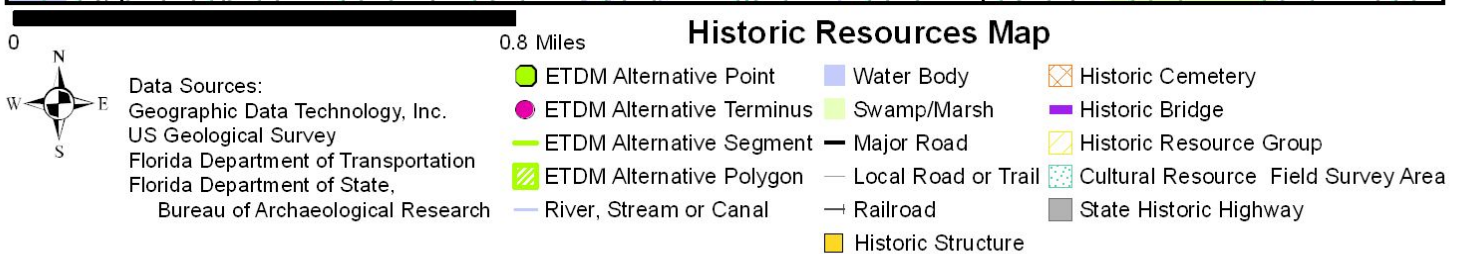
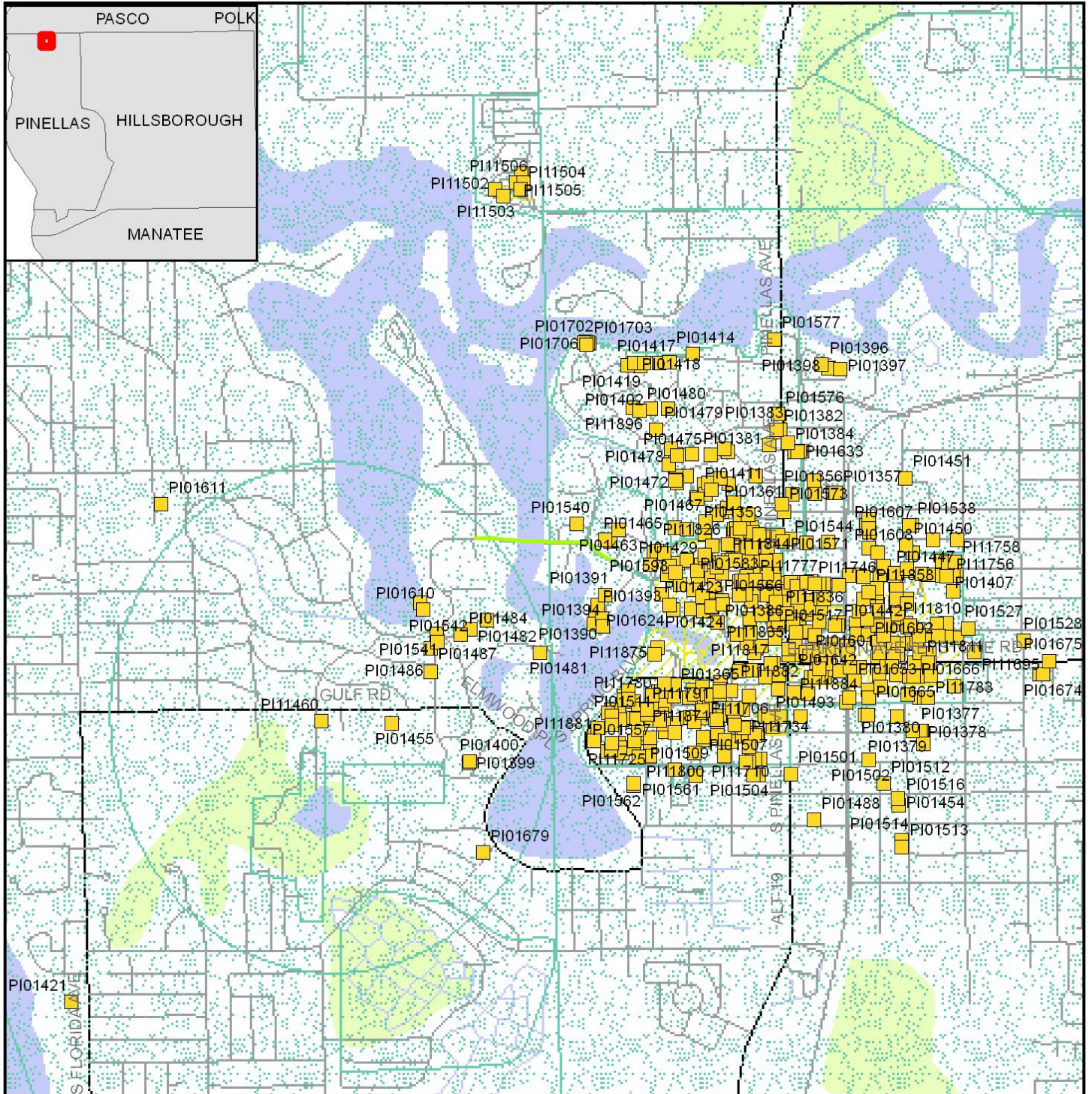
Signatures			
	Name	Review Status	Date
<b>FDOT ETDM Coordinator</b>	Steve C. Love (FDOT District 7)	ACCEPTED	3/14/2011
<b>Comments</b>	Pinellas County acknowledges FHWA's comment in the Programming Screen under the Historic and Archeological Sites issue stating "if the bridge is National Register of Historic Places (NRHP)-eligible and requires demolition, preparation of an Environmental Impact Statement (EIS) will be required". The County requests FHWA reconsider this comment in light of the termination of the 1985 agreement between FHWA and the USCG. This agreement was terminated by Memorandum of Understanding dated November 18, 2010. The County further acknowledges that a Cultural Resource Assessment Survey (CRAS) must be conducted for this project which will include evidence to determine the eligibility of the bridge. If the CRAS finds the bridge to be NRHP-eligible and finds that its removal causes a significant historical impact then the County will work with the FHWA and SHPO to determine appropriate mitigation measures.		
	Name	Review Status	Date
<b>Lead Agency ETAT Member</b>	Linda Anderson (Federal Highway Administration)	ACCEPTED	3/15/2011
<b>Comments</b>	The Federal Highway Administration concurs with the determination of the Florida Department of Transportation that a Type II Categorical Exclusion is a suitable Class of Action for Project # 13040, Beckett Bridge over Whitcomb Bayou (Riverside Drive). Concurrence is based on the content of ETDM reviews and assignments of Degree of Effect in the Programming Summary Report, which suggest that there will be no significant impacts associated with the project.		

Dispute Resolution Activity Log
No Dispute Actions Found.

# **Hardcopy Maps: Alternative #1**



# 13040 Beckett Bridge over Whitcomb Bayou (Riverside Drive), Alternative #1 Chesapeake Drive to Forest Avenue



Note: Historic properties depicted on this map represent resources listed in the Florida Master Site File excluding archeological site locations, which, pursuant to Chapter 267.135, Florida Statutes, may be exempt from public record (Chapter 119.07, Florida Statutes). Absence of features on the map does not necessarily indicate an absence of resources in the project vicinity.



## Screening Summary Overview

Not Applicable

## Agency Comments and Summary Degrees of Effect

Not Applicable

## Resource Maps

A hardcopy map series for this project is available on the Public ETDM Website. Please click on the link below (or copy this link into your Web Browser) in order to view a listing of the hardcopy maps available for this project:

<http://etdmpub.fl.a-etat.org/est/index.jsp?tpID=13040&startPageName=Hardcopy%20Maps>

**Special Note:** Please be sure that when the Hardcopy Maps page loads, the **Project Milestone Date** corresponding to this Advance Notification is selected. Hardcopy map snapshots have been taken for Project #13040 at various points throughout the project's life-cycle, so it is important that you view the correct snapshot.

## Class of Action

No Data Available

## Dispute Resolution Activity Log

No Data Available

## Ancillary Documentation

No Data Available

## Transmittal List

### Official Transmittal List

	Organization	Name
1.	Bureau of Indian Affairs	* Office of Trust Responsibilities - Environmental Services Staff
2.	FDOT District 7	Gonzalez, Roberto
3.	Federal Aviation Administration	* Airports District Office
4.	Federal Highway Administration	Anderson, Linda
5.	Federal Highway Administration	Kendall, Cathy
6.	Federal Highway Administration	Williams, Marvin L.
7.	Federal Transit Administration	Youngkin, Dale
8.	FIHS Central Office	Powell, Dusty
9.	FL Department of Agriculture and Consumer Services	Hardin, Dennis
10.	FL Department of Agriculture and Consumer Services	Morris, Vince
11.	FL Department of Community Affairs	Donaldson, Gary
12.	FL Department of Community Affairs	Penrose, Jo
13.	FL Department of Environmental Protection	Milligan, Lauren P.
14.	FL Department of Environmental Protection	Schatzman, Jillian
15.	FL Department of Environmental Protection	Stahl, Chris
16.	FL Department of State	Jones, Ginny L.
17.	FL Department of State	Kammerer, Laura
18.	FL Department of State	McManus, Alyssa

19.	FL Department of State	Yates, Brian
20.	FL Department of Transportation	Bixby, Marjorie
21.	FL Fish and Wildlife Conservation Commission	Gilbert, Terry
22.	FL Fish and Wildlife Conservation Commission	Poole, MaryAnn
23.	FL Fish and Wildlife Conservation Commission	Sanders, Scott
24.	Florida Inland Navigation District	* Mr. David Roach
25.	Miccosukee Tribe of Indians of Florida	Terry, Steve
26.	Miccosukee Tribe of Indians of Florida	* The Honorable Mr. Colley Billie, Chairman
27.	Mississippi Band of Choctaw Indians	* The Honorable Miko Mr. Beasley Denson
28.	Muscogee (Creek) Nation	* The Honorable Mr. A.D. Ellis, Principal Chief
29.	National Marine Fisheries Service	Rydene, David A.
30.	National Marine Fisheries Service	Sramek, Mark
31.	National Park Service	Barnett, Anita
32.	Natural Resources Conservation Service	Robbins, Rick A.
33.	Pinellas County MPO	Bartolotta, Al
34.	Pinellas County MPO	Brinson, Ryan
35.	Poarch Band of Creek Indians	* The Honorable Mr. Buford Rolin, Chairman
36.	Seminole Nation of Oklahoma	* The Honorable Mr. Leonard M. Harjo, Principal Chief
37.	Seminole Tribe of Florida	Steele, Willard S.
38.	Seminole Tribe of Florida	* The Honorable Mr. Mitchell Cypress, Chairman
39.	Seminole Tribe of Florida	York, Elliott
40.	Southwest Florida Water Management District	Miller, C. L.
41.	Southwest Florida Water Management District	O'Neil, Paul W.
42.	Tampa Bay Regional Planning Council	Cooper, Suzanne T.
43.	Tampa Bay Regional Planning Council	Meyer, John M.
44.	US Army Corps of Engineers	Barron, Robert B.
45.	US Army Corps of Engineers	Fellows, John
46.	US Coast Guard	Overton, Randy
47.	US Department of Health and Human Services	* National Center for Environmental Health Centers for Disease Control and Prevention
48.	US Department of Housing and Urban Development	* Regional Environmental Officer
49.	US Department of Interior	* Bureau of Land Management, Eastern States Office
50.	US Department of Interior	Director, USGS-FISC
51.	US Environmental Protection Agency	Dominy, Madolyn
52.	US Fish and Wildlife Service	Mecklenborg, Todd S.
53.	US Fish and Wildlife Service	Monaghan, Jane

\* Hardcopy recipient

## Version 02

<b>*1. Type of Submission:</b> <input type="checkbox"/> Preapplication <input checked="" type="checkbox"/> Application <input type="checkbox"/> Changed/Corrected Application		<b>*2. Type of Application</b> <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision		<b>* If Revision, select appropriate letter(s)</b>  <b>*Other (Specify)</b> _____	
<b>3. Date Received:</b>		<b>4. Applicant Identifier:</b> 424385-1-28-01			
<b>5a. Federal Entity Identifier:</b>			<b>*5b. Federal Award Identifier:</b>		
<b>State Use Only:</b>					
<b>6. Date Received by State:</b>			<b>7. State Application Identifier:</b>		
<b>8. APPLICANT INFORMATION:</b>					
<b>*a. Legal Name:</b> Pinellas County					
<b>*b. Employer/Taxpayer Identification Number (EIN/TIN):</b> 59-6000-800			<b>*c. Organizational DUNS:</b> 055200216		
<b>d. Address:</b>					
<b>*Street 1:</b>		440 Court Street			
<b>Street 2:</b>		_____			
<b>*City:</b>		Clearwater			
<b>County:</b>		Pinellas			
<b>*State:</b>		Florida			
<b>Province:</b>		_____			
<b>*Country:</b>		USA			
<b>*Zip / Postal Code</b>		33756			
<b>e. Organizational Unit:</b>					
<b>Department Name:</b> Pinellas County Department of Public Works			<b>Division Name:</b> Transportation Planning		
<b>f. Name and contact information of person to be contacted on matters involving this application:</b>					
<b>Prefix:</b>		<b>*First Name:</b>			
Mr.		Robert			
<b>Middle Name:</b>					
C.					
<b>*Last Name:</b>					
Meador					
<b>Suffix:</b>					
<b>Title:</b>		Division Manager			
<b>Organizational Affiliation:</b>					
<b>*Telephone Number:</b> 727-464-3760			<b>Fax Number:</b> 727-464-4363		
<b>*Email:</b> rmeador@pinellascounty.org					

**Application for Federal Assistance SF-424**

Version 02

**\*9. Type of Applicant 1: Select Applicant Type:**

B. County Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

\*Other (Specify)

**\*10 Name of Federal Agency:**

U.S. Department of Transportation - Federal Highway Administration

**11. Catalog of Federal Domestic Assistance Number:**

20.205

CFDA Title:

Highway Planning and Construction

**\*12 Funding Opportunity Number:**

\_\_\_\_\_

\*Title:

\_\_\_\_\_

**13. Competition Identification Number:**

\_\_\_\_\_

Title:

\_\_\_\_\_

**14. Areas Affected by Project (Cities, Counties, States, etc.):**

City of Tarpon Springs and Pinellas County

**\*15. Descriptive Title of Applicant's Project:**

The Beckett Bridge is located on Riverside Drive/N. Spring Boulevard in the City of Tarpon Springs, Florida. Riverside Drive/N. Spring Boulevard provides access across Whitcomb Bayou. The Bridge serves as a primary access route for the coastal communities and emergency services to the mainland. This project is proposed to replace the Beckett Bridge over Whitcomb Bayou. The structure is proposed to remain two lanes, but will include appropriate road shoulders and sidewalks. The project will include roadway improvements from Chesapeake Drive to Forest Avenue resulting in an approximately 0.31 mile project.



**Application for Federal Assistance SF-424**

Version 02

**16. Congressional Districts Of:**

\*a. Applicant: FL-009, FL010, FL-011

\*b. Program/Project: FL-009

**17. Proposed Project:**

\*a. Start Date: January 1, 2011

\*b. End Date: January 30, 2013

**18. Estimated Funding (\$):**

*a. Federal	<u>\$398,000</u>
*b. Applicant	<u>\$352,000</u>
*c. State	<u>                    </u>
*d. Local	<u>                    </u>
*e. Other	<u>                    </u>
*f. Program Income	<u>                    </u>
*g. TOTAL	<u>\$750,000</u>

**\*19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- ☒ a. This application was made available to the State under the Executive Order 12372 Process for review on \_\_\_\_\_
- ☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☐ c. Program is not covered by E. O. 12372

**\*20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes", provide explanation.)**

☐ Yes ☒ No

21. \*By signing this application, I certify (1) to the statements contained in the list of certifications\*\* and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances\*\* and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U. S. Code, Title 218, Section 1001)

☒ \*\* I AGREE

\*\* The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions

**Authorized Representative:**

Prefix: Ms. \*First Name: Karen

Middle Name: Williams

\*Last Name: Seel

Suffix:                     

\*Title: Pinellas County Commission – Chair

\*Telephone Number: 727-464-3278

Fax Number: 727-464-3022

\* Email: kseel@pinellascounty.org

\*Signature of Authorized Representative: Karen Williams Seel

\*Date Signed: 10/4/10

Authorized for Local Reproduction

Standard Form 424 (Revised 10/2005)

Prescribed by OMB Circular A-102

**Application for Federal Assistance SF-424**

Version 02

**\*Applicant Federal Debt Delinquency Explanation**

The following should contain an explanation if the Applicant organization is delinquent of any Federal Debt.



## ***Advanced Notification (AN) Package***

**BOARD OF COUNTY  
COMMISSIONERS**

Nancy Bostock  
Neil Brickfield  
Calvin D. Harris  
Susan Latvala  
John Morroni  
Karen Williams Seel  
Kenneth T. Welch



October 6, 2010

Ms. Lauren P. Milligan  
Florida State Clearinghouse  
Department of Environmental Protection  
3900 Commonwealth Blvd., Mail Station 47  
Tallahassee, Florida 32399-3000

**RE: Advance Notification  
Beckett Bascule Bridge Project PD&E Study  
ETDM # 13040  
Riverside Drive from Chesapeake Drive to Forest Avenue  
Financial Project ID Number: 424385-1-28-01  
Pinellas County, Florida**

Dear Ms. Milligan:

We are sending this Advance Notification (AN) Package to your office for distribution to State agencies that conduct Federal consistency reviews (consistency reviewers) in accordance with the Coastal Zone Management Act and Presidential **Executive Order 12372**. We are also distributing the AN Package to local and Federal agencies. Although we will request specific comments during the permitting process, we are asking that permitting and permit reviewing agencies (consistency reviewers) review the attached information and provide us with their comments.

This is a Federal-aid action and the Florida Department of Transportation (FDOT) District 7, in consultation with the Federal Highway Administration, will determine what type of environmental documentation will be necessary. The determination will be based upon the selected consultant environmental evaluations and comments from other agencies. Please provide a consistency review for this project in accordance with the State's Coastal Zone Management Program.

In addition, please review the project's consistency, to the maximum extent feasible, with the approved Comprehensive Plan of the local government to comply with **Chapter 163 of the Florida Statutes**.

PLEASE ADDRESS REPLY TO:  
440 Court Street  
Clearwater, Florida 33756  
Phone: (727) 464-3251  
Website: [www.pinellascounty.org](http://www.pinellascounty.org)





Ms. Milligan  
ETDM #  
October 6, 2010  
Page 2

FDOT District Seven is submitting this project through the Programming Screen of the Efficient Transportation Decision Making (ETDM) Environmental Screening Tool (EST) in coordination with this AN Package. The project is listed as **ETDM # 13040 – Beckett Bascule Bridge Project**. Environmental Technical Advisory Team (ETAT) members should review this project on the ETDM website. Non-ETAT agencies can review this project at the public access website located at: <http://etdmpub.flas-etat.org/>.

We are looking forward to receiving your comments on the project. Consistency reviewers have 45 days from the Programming Screen Notification to provide their comments. Once you have received their comments, you will supply a summary and consistency determination for your agency within 60 days of the Programming Screen Notification. If you need more review time, send a written request for an extension to our office within the initial 60 days comment period.

Your comments should be addressed to:

Robert C. Meador  
Division Manger  
Department of Public Works  
Pinellas County  
440 Court Street  
Clearwater, Florida 33756

Your expeditious handling of this notice will be appreciated.

Sincerely,



Robert C. Meador  
Division Manger

RCM/ddf  
Attachments

ADVANCE NOTIFICATION MAILING LIST

cc:  
Federal Highway Administration, Division Administrator  
Federal Highway Administration – **ETAT Representative**  
Federal Emergency Management Agency-Mitigation Division, Chief  
Federal Railroad Administration  
Federal Transit Administrator – **ETAT Representative**  
U.S. Department of the Interior-Bureau of Land Management, Eastern States Office  
U.S. Department of Housing and Urban Development, Regional Environmental Officer  
U.S. Department of the Interior-U.S. Geological Survey, Chief



Ms. Milligan  
ETDM #  
October 6, 2010  
Page 3

U.S. Environmental Protection Agency - **ETAT Representative**  
U.S. Department of Interior-U.S. Fish and Wildlife Service - **ETAT Representative**  
U.S. Army Corps of Engineers-Regulatory Branch - **ETAT Representative**  
U.S. Department of Commerce-National Marine Fisheries Service- Southeast  
U.S. Department of Commerce-National Marine Fisheries Service - Southeast Regional  
Superintendent Conservation Division - **ETAT Representative**  
U.S. Department of Agriculture – Southern Region  
U.S. Department of Interior – National Park Service – Southeast Regional Office – **ETAT Representative**  
Federal Aviation Administration, Airports District Office  
U.S. Department of Health and Human Services-National Center for Environmental Health  
U.S. Department of Interior-Bureau of Indian Affairs-Office of Trust Responsibilities  
U.S. Coast Guard – Seventh District – Commander (oan) – **ETAT Representative**  
Florida Inland Navigation District  
Poarch Band of Creek Indians of Alabama  
Muscogee (Creek) Nation of Oklahoma  
Seminole Tribe of Florida  
Miccosukee Tribe of Indians of Florida  
Seminole Nation of Oklahoma  
Mississippi Band of Choctaw Indians  
Florida Fish and Wildlife Conservation Commission - **ETAT Representative**  
U.S. Forest Service – **ETAT Representative**  
Florida Department of Environmental Protection - **ETAT Representative**  
Florida Department of Environmental Protection – **State Clearinghouse**  
Florida Department of State - **ETAT Representative**  
Florida Department of Community Affairs - **ETAT Representative**  
Florida Department of Agriculture and Consumer Services - **ETAT Representative**  
Federal Transit Administrator - **ETAT Representative**  
Tampa Bay Regional Planning Council  
Southwest Florida Water Management District - **ETAT Representative**  
National Marine Fisheries Service St. Petersburg Branch Office  
FDOT Environmental Management Office, Engineer/Manager  
Pinellas County Commission Chairperson  
Pinellas County Administrator  
Pinellas County Public Works Director  
City of Tarpon Springs Mayor  
City of Tarpon Springs Public Works Director  
Tarpon Springs Chamber of Commerce  
Pinellas County Metropolitan Transportation Planning Organization  
Michael Fasano– United States Senator - District 11  
Gus Bilirakis – United States Representative – Congressional District 9

## ***Advance Notification Package***

**Project #13040 - Beckett Bridge over Whitcomb Bayou (Riverside Drive)**

**Programming Screen - Published on 11/11/2010**

**Printed on: 11/11/2010**

### **Table of Contents**

<b>Location Maps .....</b>	<b>1</b>
<b>Fact Sheet .....</b>	<b>4</b>
<b>Disclaimer .....</b>	<b>4</b>
<b>Project Description .....</b>	<b>4</b>
<b>Community-Desired Features (No Data Available) .....</b>	<b>8</b>
<b>Purpose and Need Reviews (Not Applicable) .....</b>	<b>8</b>
<b>Environmental Information .....</b>	<b>8</b>
<b>Permits Required .....</b>	<b>12</b>
<b>Technical Studies Required .....</b>	<b>12</b>
<b>Commitments (No Data Available) .....</b>	<b>12</b>
<b>Screening Summary Overview (Not Applicable) .....</b>	<b>12</b>
<b>Agency Comments and Summary Degrees of Effect (Not Applicable) .....</b>	<b>13</b>
<b>Resource Maps .....</b>	<b>13</b>
<b>Class of Action (No Data Available) .....</b>	<b>13</b>
<b>Dispute Resolution Activity Log (No Data Available) .....</b>	<b>13</b>
<b>Ancillary Documentation (No Data Available) .....</b>	<b>13</b>
<b>Transmittal List .....</b>	<b>13</b>
<b>Form SF-424: Application for Federal Assistance .....</b>	<b>15</b>

## APPENDIX G

### *Meeting Minutes – Cultural Resources Committee Meetings*

# Meeting Notes

**Date:** October 29, 2012  
**Time:** 2:00 pm  
**Place:** Tarpon Springs Heritage Museum, Craig Park  
**RE:** 1<sup>st</sup> Cultural Resources Committee Meeting  
Beckett Bridge PD&E Study  
FDOT PID: 424385-1-28-01

**Recorded by:** Ann Venables

**Attendees:** Theresa Farmer, FDOT  
Robin Rhinesmith, FDOT  
Roy Jackson, FDOT  
Rebecca Spain-Schwarz, Atkins (FDOT GEC)  
Tony Horrnik, Pinellas County  
Ann Venables, EC Driver  
Jim Phillips, EC Driver  
Amy Streelman, Janus Research  
Ken Hardin, Janus Research  
Andrew Hayslip, EC Driver  
Dan McClarnon, SHPO  
Alyssa McManus, SHPO  
Evelyn Smart, USCG  
Kathleen Monahan, City of Tarpon Springs  
Mark LeCouris, City of Tarpon Springs  
Richard Pease, Tarpon Springs Yacht Club  
Peggy Proestes, Tarpon Springs Historical Society

---

## Purpose

The purpose of this first meeting included the following:

- Introduce the project and discuss the current status of alternatives development and public involvement efforts
- Discuss the Section 106 process and how it applies to this PD&E study
- Obtain input from members regarding the importance of the existing bridge as a historic resource

## Summary of Discussion

Ann Venables provided an overview of the PD&E study and the alternatives developed to date. Ken Hardin discussed the Section 106 process and the purpose of the CRC. Amy Streelman presented the Cultural Resources Assessment Survey results and discussed the significance of the bridge. Jim Phillips discussed the existing condition of the Beckett Bridge and what would be required for rehabilitation. Ken Hardin led the subsequent discussion, which is summarized below:

- The Beckett Bridge is one of a few remaining historic, rolling-lift, single leaf bascule highway bridges in Florida.
- The only remaining portion of the original 1924 structure is the steel bascule leaf. Alyssa McManus stated that if a rehabilitation alternative involved replacement of the approach spans but preserved the existing steel leaf, it might be possible that the impact to the historical resource would not be considered substantial.

- Dan stated that it is SHPO's role to challenge the engineers to thoroughly evaluate possible rehabilitation options, so that there could be a conditional no adverse effect under Section 106.
- Rebecca Spain-Schwarz asked if there was any way that a sidewalk could be added to the bascule span if the existing bascule leaf were rehabilitated and used in a new structure. One limitation of this suggestion is the narrow width of the existing bascule span compared to the proposed typical section for the approach spans for a replacement bridge.
- All build alternatives, and "No Build with Permanent Removal of the Bridge" will involve demolition of the historic bridge and would constitute an "adverse effect".
- EC Driver has not finalized cost estimates yet. However, the cost of rehabilitation would be about \$8M–\$10 M, compared to replacement which would cost about 12-15 for replacement.
- A discussion of whether possible federal funding sources were available for preservation of historic resources that could be obtained for rehabilitation of the existing bridge. Ken Hardin explained that most grants and other funding for preservation of historic structures would not apply to the bridge and/or would not be sufficient to cover the costs.
- Tony Horrn timer discussed the County's concerns about the required continual maintenance and repairs required to keep the bridge operational.
- Katherine Monahan stressed the importance of the "look and feel" of a new bridge, if a constructed, in terms of how it defines the "look and feel" of the community. She also urged the County to consider elements such as the scale, mass, and aesthetics of the bridge and how it would affect the "sense of place". She noted that this is an important entry and egress to the nearby Tarpon Springs Historic District.
- Katherine mentioned the maritime heritage of Tarpon Springs as an important aspect of the community that should be considered when making decisions about aesthetics of a replacement bridge if constructed. Decisions should reflect community values.
- Roy Jackson pointed out that since the bridge is not located within the National Register Historic District, a discussion of aesthetics for a replacement bridge would be considered more of a sociocultural effects issue rather than a Section 106 issue.
- Mitigation opportunities, based on other projects in which historic bridges were demolished, could include construction of an informational kiosk about the bridge, archival quality bridge plans and drawings to be preserved, use of open style railings to preserve the viewshed from the bridge.



# Meeting Notes



**Date:** March 13, 2013  
**Time:** 2:30 pm  
**Place:** Tarpon Springs Heritage Museum, Craig Park  
**RE:** 2<sup>nd</sup> Cultural Resources Committee Meeting  
Beckett Bridge PD&E Study  
FDOT PID: 424385-1-28-01

**Recorded by:** Ann Venables

**Attendees:** Theresa Farmer, FDOT  
Robin Rhinesmith, FDOT  
Roy Jackson, FDOT (teleconference)  
Linda Anderson, FHWA (teleconference)  
Rebecca Spain-Schwarz, Atkins (FDOT GEC)  
Tony Horrn timer, Pinellas County  
Paul Bellhorn, Pinellas County  
Ann Venables, EC Driver  
Jim Phillips, EC Driver  
Amy Streelman, Janus Research (teleconference)  
Ken Hardin, Janus Research  
Andrew Hayslip, EC Driver  
Dan McClarnon, SHPO (teleconference)  
Alyssa McManus, SHPO (teleconference)  
Evelyn Smart, USCG (teleconference)  
Kathleen Monahan, City of Tarpon Springs  
Mark LeCouris, City of Tarpon Springs  
Richard Pease, Tarpon Springs Yacht Club  
Peggy Proestes, Tarpon Springs Resident  
Cyndi Tarapini, Tarpon Springs Historical Society

---

## **Purpose**

The purpose of this second meeting included the following:

- Present a summary of comments received from the community since the January 23, 2013 Alternatives Community Workshop
- Discuss the Rehabilitation and Movable Bridge Alternatives in more detail
- Obtain additional input from members regarding the acceptability of the Rehabilitation and Movable Bridge Alternatives from a Section 106 perspective
- Discuss possible mitigation opportunities for loss of the historic resource if the Movable Bridge Alternative was selected as the Recommended Alternative

## **Summary of Presentation and Discussion**

### **Presentation (Power Point)**

Ann Venables provided a brief overview of the current status of the PD&E study and the alternatives developed to date. In addition, a summary of comments received from the public since the January 2013 was presented.

Jim Phillips discussed the details of the proposed improvements included in the rehabilitation alternative as proposed and shown at the public hearing. In addition, the movable bridge replacement alternative was discussed.

The Rehabilitation Alternative as presented at the Alternatives Workshop does not include widening. Accordingly, the very narrow 2'2" sidewalks will remain and no shoulders will be added. Notable repairs include:

- Replacement of the bascule leaf (including counterweight)
- Installation of crutch bents at most bents
- Installation of pile jackets with cathodic protection will be required on all piles
- Bascule Machinery will be replaced
- Bascule Span Electrical System will be replaced
- Replacement of the Bridge Rail

Ken Hardin reviewed Status of Section 106 Efforts to date.  
Possible Mitigation Options were presented by Jim Phillips.

## **Discussion**

A discussion about the definition of "Rehabilitation" ensued. Because the movable span would be replaced, Evelyn Smart originally stated that the proposed work may not be considered rehabilitation by the USCG. However, later in the discussion, Ms. Smart clarified her position and stated that since the vertical and horizontal navigational clearances were not proposed to be changed, the improvements could be considered rehabilitation. Roy Jackson stated that the USCG, FHWA and SHPO will need to agree on how to define rehabilitation vs. replacement.

There was discussion of providing a replacement bascule bridge which used the Scherzer rolling lift, single leaf design that was aesthetically compatible with the surrounding community. It is possible to replace the existing bridge with a very similar bridge that could be improved aesthetically.

Jim explained that standard FDOT bridge types were represented in the renderings of the movable bridge replacement alternative (and the fixed bridge replacement alternatives) shown at the workshop. The purpose of not embellishing the renderings with specific aesthetic elements was to allow a "fair" comparison of all build alternatives. A request was made for a rendering of a movable bridge alternative that was similar in design to the existing bridge with an open railing.

Dan and Alyssa discussed the SHPO's position concerning preservation of the existing bridge. Of the reported seven remaining pre-1956 Scherzer rolling lift, single leaf, highway bridges in Florida, SHPO has determined that the Beckett Bridge is the most suitable for preservation, because of its location in Tarpon Springs. They also noted the small scale of the bridge and the compatibility with surrounding area.

Further discussion followed concerning the engineering risks associated with rehabilitation. "Rehabilitation" for the Beckett Bridge would require "piece by piece" replacement of many major bridge components. Jim Phillips pointed out that geological conditions exist that may affect the existing substructure, even with the addition of crutch bents.

Dan and Alyssa stated that rehabilitation that required "piece by piece" replacement (in kind) of many major bridge components could still be considered "Rehabilitation" and "Preservation". It was noted that a conditional no adverse effect under Section 106 could be possible with the Rehabilitation option.

Jim Phillips reiterated that the movable bascule leaf would need to be replaced along with all of the machinery. The current design exposes the bascule bridge machinery to aggressive salt water environment compared to newer designs which would enclose and protect the machinery.

Not all members agreed that Rehabilitation was the best option. Richard Pease, Commodore of the Yacht Club supported replacement of the existing bridge over rehabilitation.

Cyndi Tarapini stated that the Tarpon Springs Historic Society Board voted to recommend rehabilitation of the bridge. Ms. Tarapini stated that she did not know if the Board's position would change based on the discussion of how much of the bridge would actually require replacement for the proposed Rehabilitation Alternative. Jim Phillips and Ann Venables offered to meet with the Board and present the details of the repairs proposed for the Rehabilitation Alternative.

A discussion concerning the need for improved bicycle and pedestrian facilities ensued. Most CRC members agreed that improvements to the existing sidewalk facilities were warranted. There was no consensus on whether sidewalks on both sides of the bridge or a multi-use path on one side of the bridge was the better solution.

Some members also stated that bicycle lanes were warranted. Other members felt that there was no need for bicycle lanes since bicycle lanes were not provided on connecting roadways along the proposed Howard Park Trail.

Concerns were raised that widening the bridge to improve sidewalk facilities without adding shoulders and other features to meet current design standards would result in safety risks. The design engineer and County Engineer would be required to sign and seal any design exceptions.

Dan and Alyssa recommended an open railing to preserve the viewshed of the bridge.

A consensus was reached that additional development and analysis of a Rehabilitation Alternative which included widening to provide wider sidewalks was warranted. A request was also made for computer renderings of this alternative when developed. It was agreed that the County would postpone selection of a Recommended Alternative until after development and analysis of this option.

# Meeting Notes



**Date:** June 11, 2013

**Time:** 11 am

**Place:** FDOT, Central Office, Tallahassee, Room 348 Burns Building

**RE:** Rehabilitation with Widening to Provide Wider Sidewalks  
Discussion of Minimum Acceptable Typical Section and Engineering Issues  
Beckett Bridge PD&E Study  
FDOT PID: 424385-1-28-01

**Recorded by:** Ann Venables

**Attendees:** Jorge Quintas, Pinellas County  
Tony Horrn timer, Pinellas County  
Tom Waits, FDOT (Structures)  
Roy Jackson, FDOT (EMO)  
Linda Anderson, FHWA  
Alyssa McManus, SHPO  
Dan McClarnon, SHPO  
Ann Venables, URS  
Jim Phillips, URS

---

## **Purpose**

The purpose of this meeting was to present the completed engineering evaluation of the “Rehabilitation with Widening” Alternative for the Beckett Bridge PD&E Study. This alternative was developed to address a request by SHPO staff at the March 2013 CRC Meeting to evaluate a rehabilitation option that included wider sidewalks.

Jim Phillips and Ann Venables presented information about the project and evaluation employing a power point presentation which included the following topics:

- Brief Project Overview/Status (Ann Venables)
- Rehabilitation – No Widening (Jim Phillips)
- Major Repair – Examples
- Rehabilitation with Widening
  - Minimum Recommended Typical Section
  - Objective
  - Bascule Span Engineering
  - Costs
  - Advantages and Disadvantage
- New Movable Bridge
  - Aesthetic Alternatives
  - Minimization/Mitigation Options

## **Summary of Discussion**

Ann Venables provided a brief overview of the project and the current status of the study. Jim Phillips discussed the existing condition of the bridge and the repair history and engineering issues associated with the “Rehabilitation with Widening” alternative.

Jim Phillips provided a historical review of Beckett Bridge structural issues and repairs:

- “Unstable geotechnical conditions, including a possible sinkhole, have resulted in movement of the substructure. The foundations are susceptible to settlement.

- Past issues include misalignment of the bascule leaf which limits “unlimited” clearance in the open position.
- Issue related to distorted steel flanges at the tread plates cause the bascule leaf to shift abnormally (walk) each time it is raised or lowered.
- Sufficiency rating is currently 44.7 (out of 100)
- The bridge is currently load posted.
- Mechanical and electrical systems need replacement

Jim Phillips presented two examples of bascule bridge rehabilitation that were successful – restoration of the Platt Street Bridge in Tampa and the Ortega River Bridge. In both cases, the improvements did not include bridge widening and could more accurately be defined as “Major Repair”.

Both bridges were good candidates for Major Repair. The existing Platt Street Bridge included two, 8-foot wide sidewalks. In addition, the substructure and superstructure elements were in relatively good condition. Restoration included adding lighting that resembled the original bridge and removing planters from original overlooks.

Like the Beckett Bridge, the Ortega Bridge’s condition required replacement of the movable span. Unlike the Beckett Bridge, the Ortega Bridge’s foundations were in good condition and there were no signs of previous or ongoing settlement. The Ortega Bridge work involved off-site prefabrication of the replacement movable span as is proposed for the Beckett Bridge rehabilitation.

Jim Phillips discussed the recommended typical section for an alternative for the Beckett Bridge that consisted of widening the existing bridge to provide wider (ADA compliant) sidewalks.

- Project team met with Pinellas County and FDOT to discuss the minimum required typical section required to avoid safety risks if the existing bridge was widened.
- Ron Chin, District 7 Design Engineer, agreed with the County staff, including Jorge Quintas, Pinellas County Engineer, that if the bridge were widened, the typical section should meet a minimum of Green Book standards for bridge width for safety.
- The minimum typical section would require 11 foot lanes with at least three-foot wide shoulders, and 5’6” wide sidewalks on both sides of the bridge.
- The total width of the minimum acceptable typical section would be 42 feet.

Jim Phillips discussed the engineering challenges associated with widening the existing bridge to accommodate the 42 foot minimal typical section.

- The widened cross section would result in a 62% increase in dead load on the bascule piers. A new counterweight with the density of 390 lbs/cf would be required which exceeds the AASHTO maximum of 280 pcf and is therefore not practical.
- The increased loading is primarily a result of the widened roadway cross section which includes shoulders, not the addition of sidewalks.
- All the main members of the bascule span need to be modified so they are stronger than the existing to support the widened section. As a result the new main members will be heavier than the existing.
- Wider crutch bents would be required.
- The bascule pier would need to be widened or replaced to support the additional load and to provide room for the counterweight.
- The existing bascule pier is supported on timber piles. The number, length and capacity of the piles is unknown. There are no bridge plans for the existing bridge.
- The approximate cost for this alternative is \$12.5 M, compared to \$9.5 M for the Rehabilitation without widening alternative and \$15.8 M for construction of a new movable bridge.



- No elements of the original 1929 bridge will remain.

Comments made by SHPO concerning the proposed widened rehabilitation alternative are summarized below:

- Dan and Alyssa asked if the existing bridge could be modified to include two, ten foot wide lanes and a sidewalk on one side 5 to 5.5 feet wide, without widening the bridge.
- Jim Phillips discussed potential issues with this alternative that would not be conducive to reconfiguring the bridge.
  - Because the existing sidewalks are already cantilevered, adding the sidewalk would result in a large cantilever. This increases the loading on the main girders and will require stronger, heavier structural elements.
  - Even reconfiguring the bridge to add a wider sidewalk would require the roadway section to be brought up to minimum standards. A travel lane cannot be located directly adjacent to a bridge rail.
- SHPO requested that URS further evaluate this option and provide additional information to SHPO and FHWA.
- Dan McClarnon stated that if the evaluation concluded that reconfiguration of the bridge with widening to provide sidewalks was not practicable because of engineering constraints and safety concerns, SHPO could consider determining that removal of the bridge would result in an Adverse Effect and move forward with discussing appropriate mitigation.

Discussions concerning a “New Movable Bridge”

- The 47-foot wide typical section for the proposed new movable bridge alternative (as presented at the Public Workshop in January 2013) included bicycle lanes and sidewalks on both sides of the roadway.
- Dan and Alyssa both stated that minimizing the impact on the community by minimizing the typical section would be preferable. They did not see the need for bicycle lanes and indicated that the minimal acceptable 42 foot wide typical section was preferred over the 47 foot wide section.
- Dan and Alyssa both discussed that the proposed new movable bridge needed to be designed to “soften” the impact on the community. The renderings and simulations presented at the January 2013 workshop included a “bulky” non-descript bridge with no aesthetically pleasing attributes.
- Roy Jackson pointed out that once SHPO determined that removal of the bridge was an “adverse effect” and agreed that a replacement bridge could be constructed provided appropriate mitigation was provided, they would not have any “say” in what type of new bridge was appropriate at this location.
- However, Roy did state that if the proposed design of the replacement bridge resulted in a negative effect on the adjacent Historic District, this could be addressed by SHPO.
- Some concern about possible effects on the historic district resulting from possible higher speeds on the new bridge were raised. Roy stated that if increased traffic speeds or capacity would require that the roadways within the historic district be widened, this could be considered an effect. Jim Phillips and Ann Venables pointed out that the design

speed would be the same as for the existing road and the design would not increase capacity of the roadway.

- Roy mentioned that construction of the fixed bridge might potentially impact the Historic District since the traffic would be dumped from the bridge directly into the Historic District, or have visual impacts. (Note: Construction for the proposed movable bridge ends at Pampas Avenue. Work between Pampas and Forest Avenues consists only of resurfacing. In contrast, construction of the fixed bridge would end just east of just east of Forest Avenue, which is only one block west of the Historic District boundary.)

#### Possible Mitigation

- Possible mitigation for adverse effects to the historic bridge were presented. Roy Jackson stated that designing the bridge to be similar to the existing is not likely to count towards mitigation.
- Mitigation consisting of a monument or educational kiosk at a location substantially removed from the bridge site was not viewed as favorable by SHPO. Incorporating a monument into the design of the bridge would be preferable.
- A rail design that incorporated elements of the machinery from the existing bridge on a project in Washington State was presented. SHPO indicated that this would be a better method of preserving the historical significance of the bridge than an offsite monument.

#### Other Issues Discussed

- Linda Anderson stated that all of the alternatives considered would be required to be presented at the Public Hearing.
- Linda also requested information about the planned Howard Park Trail.
- Roy stated that if the justification for the need for sidewalks and bicycle lanes was primarily based on the fact that a planned trail included the bridge, possible impacts to the planned trail would need to be addressed as a potential Section 4(f) issue.
- Ann Venables stated that the public comments and concerns in response to the Alternatives Workshop about the lack of safe pedestrian facilities on the bridge was an important factor in the conclusion that improved facilities were needed. The proposed Howard Park Trail is shown in the 2035 MPO LRTP as a “Planned Cost Feasible Trailways Project” but is not currently funded.
- It was also pointed out that although sidewalks are not continuous on both sides of the bridge east and west of the project limits, future development and roadway improvements could result in construction of bicycle lanes and sidewalks in the future. If a new residential development was proposed at the site of the Bayshore Mobile Home Park, the County would likely require construction of sidewalks adjacent to the development west of the bridge.
- Ann Venables also noted that of 77 written responses received from the public after the January 2013 Alternatives Public Workshop, the majority of those responding supported replacement with a new bascule bridge or rehabilitation. (Rehabilitation – 11, Rehabilitation or Movable Bridge -12, New Movable Bridge 32).

# Meeting Notes



**Date:** April 24, 2014  
**Time:** 1:30 pm  
**Place:** Tarpon Springs City Hall  
**RE:** 3<sup>rd</sup> Cultural Resources Committee Meeting  
Beckett Bridge PD&E Study  
FDOT PID: 424385-1-28-01

**Recorded by:** Ann Venables

**Attendees:**

Todd Bogner, FDOT  
Linda Anderson, FHWA (teleconference)  
Rebecca Spain-Schwarz, Atkins (FDOT GEC)  
Tony Hornik, Pinellas County  
Paul Bellhorn, Pinellas County  
Ann Venables, URS  
Jim Phillips, URS  
Amy Streelman, Janus Research (teleconference)  
Ken Hardin, Janus Research  
Dan McClarnon, SHPO (teleconference)  
Alyssa McManus, SHPO (teleconference)  
Evelyn Smart, USCG (teleconference)  
Mark LeCouris, City of Tarpon Springs  
Maryann Irving, Tarpon Springs Yacht Club  
Phyllis Kolianos, Tarpon Springs Historical Society, President

---

## **Purpose**

The purpose of this second meeting included the following:

- Present a summary of the February 26, 2104 Public Hearing - including attendance and comments received during the official Public Hearing comment period
- Discuss elements of the Section 106 process completed to date
- Discuss effects of alternatives considered
- Discuss remaining steps left in Section 106 process
- Discuss possible mitigation for inclusion in the MOA

## **Summary of Presentation and Discussion**

### **Presentation (Power Point)**

Ann Venables provided a brief overview of the Public Hearing, held on February 26, 2014. The presentation slides, attached to these minutes, summarize the number of invitations, attendees and comments received from the public. Results of the April 15, BCC meeting were also discussed.

Ken Hardin led the Section 106 discussion which is summarized in the attached presentation slides.

A summary of the discussion regarding mitigation measures that should be included in the MOA is provided below.

## **Mitigation/MOA Discussion**

### ***Historic American Engineering Record (HAER)***

SHPO and FHWA agreed that HAER documentation should be included as a requirement in the MOA. There was some discussion about whether or not a copy would be required to be sent to the Park Service in Washington D.C. Dan McClarnon and Alyssa McManus stated that SHPO's current policy is to include the National Park Service in the review /approval process. Accordingly, the MOA will include the Park Service in this process.

Phyllis Kolianos requested a copy of the documentation package prepared for the HAER for the Tarpon Springs Historic Society.

Amy Streelman will provide a rough estimate on the cost to provide additional copies of this mitigation.

### ***Design of the Replacement Bridge***

Dan and Alyssa stated that it was important to SHPO that the design of the replacement bridge, in terms of engineering, be the same as the existing bridge. Preserving the character of the area by constructing a replacement design of similar scale and character is an important consideration.

Accordingly, the MOA will state that the replacement bridge will be a single-leaf, rolling lift bridge of similar design. However, other aesthetic elements of the bridge will be determined by an aesthetics committee that will be assembled during the design phase. This committee will include representatives of the community and local governments, including the Tarpon Springs Historical Society.

Jim Phillips pointed out that the bridge rail on the existing bridge does not meet current crash testing criteria. Accordingly, selection of an "open" bridge rail, which will allow those on the bridge a better view of the surrounding area will likely be limited to a steel rail.

Dan stated that preserving the viewshed from the bridge was not a major concern of the SHPO. It is more important that the view from the water and surrounding areas is preserved by designing a bridge of similar design and scale.

### ***Incorporating Elements of the Existing Bridge into a Replacement Bridge***

Discussions about incorporating some of the gears or mechanical elements of the existing bridge into the design of the new bridge have been ongoing throughout the study. An example of incorporation of gears into a new bridge pedestrian rail in Seattle Washington was shown at this meeting and to the public at the Public Hearing. (We received some comments supporting this idea after the Hearing as well.)

There was general support for this option. It was decided that the MOA will not specify exactly how the salvaged parts of the old bridge will be re-used. However, it will state that elements of the old bridge will be salvaged and incorporated into the design of the new bridge. The specifics of the design will be determined by the aesthetics committee and community during the design phase.

### ***Incorporation of the Historic Plaque into a Historic Marker/Monument for New Bridge***

There is an existing historic marker or plaque on the current bridge which includes the date the bridge was erected and names of Pinellas County Commissioners at that time.

It was generally agreed that this historic plaque should be incorporated into a new plaque or monument which provides some “bullet history” of the bridge. Becky suggested that in lieu of an actual ‘monument’, the new plaque or marker could be attached to the control house so that it could be seen by pedestrians crossing the bridge.

### ***Educational Cell Phone Application or “App”***

It was generally agreed that an educational kiosk was not desirable for this bridge because of its small size and highly developed area in the immediate vicinity. Other options for developing educational material about the history of the bridge including preparation of a DVD or video were also discussed.

Ken introduced two cell phone Apps that provide historical information about historic areas or structures. The apps are “NextExitHistory” and “Whatwashere”. These are free Apps that use gps technology to identify the location of the historic site relative to the App user’s location.

It was generally agreed that a cell phone “App” would be more likely to be used by a broader cross section of the public and that utilizing this new technology was a good idea. Ways to inform the public of the information about the bridge on the App were also discussed. There are opportunities at the Historical Museum, at the Sponge Docks and in other areas around Tarpon Springs to provide information about the App to visitors.

It was generally agreed that information would be prepared suitable for the existing Apps.

### **Other Discussion**

#### ***Who will Sign the MOA***

There was a discussion of which agencies would be signatories and which agencies would or could sign as consulting agencies.

It was generally agreed that FHWA, Pinellas County, and SHPO would be signing the MOA. Linda Anderson was asked to find out if FDOT would also be signing the MOA for this LAP project.

Evelyn Smart stated that the USCG did not need to sign the MOA since they are not the lead agency.

It was generally agreed that the City of Tarpon Springs did not need to sign the MOA, but could be a consulting party if desired.

#### ***Yacht Club Concerns***

Maryann reiterated concerns that the Yacht Club members have previously expressed about potential impacts to their docks and sidewalks during and after construction. The County assured her that personal coordination with the Yacht Club would occur in Design and Construction phases. Ann stated that a commitment will be included in the Preliminary Engineering Report (PER) which required ongoing coordination with the Yacht Club Commodore and members.