STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

650-050-38 ENVIRONMENTAL MANAGEMENT 08/22

PD&E RE-EVALUATION FORM

Florida Department of Transportation

District One

Harborview Road PD&E Re-evaluation

Limits of Project: From Melbourne Street to I-75

Charlotte County, Florida

Financial Management Number: 434965-2-32-01

ETDM Number: 5351

Date: November 2023

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



1. GENERAL PROJECT INFORMATION

- A. Re-evaluation Type: Right of Way Phase, Design Change
- B. Original approved Environmental Document:

Document Type: Type 2 CE

Date of Approval: 10/14/2019

Project Numbers:

5351	434965-1-21-01	D117-053-B
ETDM (if applicable)	Financial Management	Federal-Aid

Project Name: HARBORVIEW ROAD FROM MELBOURNE ST TO I-75

Project Location: FDOT District 1 (Charlotte County)

Project Limits: Harborview Road (CR 776) from Melbourne Street to I-75

C. Prior Re-evaluation(s):

There is no previous re-evaluation of this Environmental Document.

D. Project or project segment(s) being evaluated

FAP Number	FM Number	Project/ Segment Name	Project/ Segment Location	Туре		Project/ Segment Letting Type	Funding		
				PE	DC	ROW	CON		
D123-042-B	434965-5-48-	HARBORVIEW	District 1 -					Design-Bid-	Federal
	01	ROAD FROM	CHARLOTTE					Build	
		MELBOURNE							
		ST TO I-75							
D123-042-B	434965-5-48-	HARBORVIEW	District 1 -					Design-Bid-	Federal
	02	ROAD FROM	CHARLOTTE					Build	
		MELBOURNE							
		ST TO I-75							

2. PROJECT DESCRIPTION

Harborview Road (County Road [CR] 776) is an east-west minor arterial roadway that connects US 41 to I-75. The project is located in the Port Charlotte area of unincorporated Charlotte County; the nearest city is Punta Gorda. Harborview Road is a two-lane undivided facility with 12-foot lanes (one in each direction) and no paved shoulders. Stormwater runoff is collected in roadside swales and directed to Charlotte Harbor; there is no existing stormwater management system that treats or attenuates roadway runoff. The posted speed limit within the project limits is primarily 45 mph, decreasing to 35 mph through three of the horizontal curves within the project limits. In general, existing right-of-way (ROW) along the project corridor is 80 feet. The project corridor lacks pedestrian, bicycle, and transit facilities with the exception of small sidewalk segments extending from Melbourne Street to just east of Roll's Landing Charlotte Harbor Condominium and four (4) school bus stops.

A Project Development and Environment (PD&E) Study was conducted to widening Harborview Road from the existing two-lane undivided roadway to a four-lane divided roadway from Melbourne Street to west of I-75, a distance of 2.3 miles.

A project location map is shown in Figure 1.

Figure 1: Project Location Map



The PD&E Preferred Alternative included an urban typical section of a four-lane divided roadway with 11-foot travel lanes, curb and gutter along the inside and outside edges of pavement, a 30-foot grassed median, six-foot sidewalks, seven-foot buffered bicycle lanes, and a posted speed limit of 45 mph. The PD&E Preferred Alternative typical section is shown in Figure 2. The Preferred Alternative recommended shifting to both the north and south of the existing roadway to minimize residential relocations. It required 114-feet of ROW, resulting in an expansion of approximately 34 feet, acquisition of 11.0 acres for roadway and 9.5 acres for stormwater management for a total of 20.5 acres, and relocation of three (3) residences.

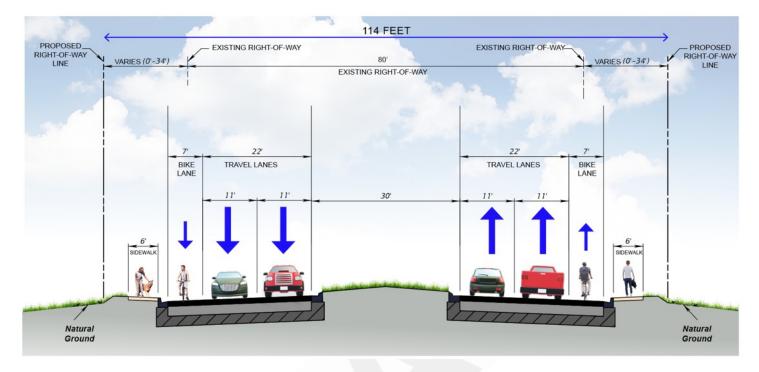
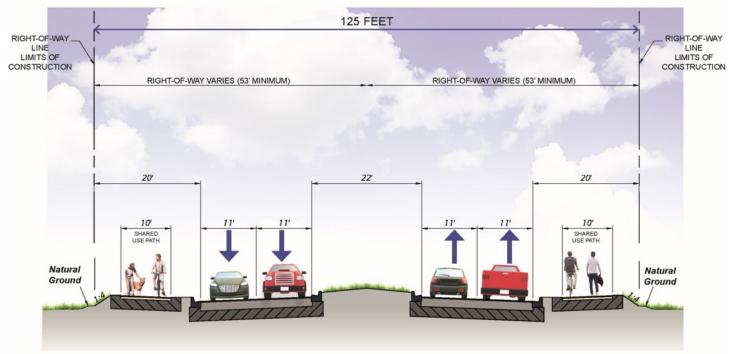


Figure 2: PD&E Preferred Alternative Typical Section

Since approval of the PD&E Study, the typical section was modified and approved by the FDOT District Design Engineer, FDOT District Traffic Operations Engineer, FDOT District Intermodal Systems Development Manager, and the Charlotte County Engineer, and now consists of a four-lane divided urban roadway with 11-foot travel lanes bordered by Type F curb and gutter, 10-foot shared use paths on both sides of the roadway, and a raised 22-foot median. The reduced median width did not affect the posted speed limit and did not require a design variation. The shared-use paths were agreed upon by Charlotte County and offers a safer travel environment for bicyclists. The Design Phase typical section is shown in Figure 3.

Figure 3: Design Phase Typical Section



The primary design change in the horizontal alignment occurs at the first road curve near Laverne Street. The curve is being flattened from the PD&E preferred alignment to enhance safety for motorists. It will also improve access to the parcels on the south side of the roadway. Additional ROW is required throughout the corridor due to raising the road profile to address the high-water table and account for sea-level rise in the design. The proposed stormwater management pond site locations also changed. The PD&E-identified pond locations, as well as additional pond locations within each basin, were more fully evaluated during the design phase. Design strategies included combining basins to reduce the total number of ponds and using remnant parcels resulting from mainline widening impacts.

As a result of these design changes, additional ROW width is needed for the roadway mainline which varies along the corridor but on average, is approximately 133 feet, which requires approximately 53 feet of additional ROW. This results in acquisition need of 16.22 acres for roadway improvements. Due to refinement of stormwater pond needs and pond site locations, 5.35 acres is required for the stormwater management design. Overall, the design changes result in a combined ROW need of 21.57 acres, and relocation of seven (7) residences and one (1) business. This is an increase from the PD&E-phase estimate by 1.07 additional acres of new ROW and relocation of an additional four (4) residences and one (1) business. **Attachment 1** provides a ROW and relocation change exhibit.

Construction is funded in Fiscal Year 2026 for the segment from Melbourne Street to Date Street (FPID 434965-3). The segment from Date Street to I-75 (FPID 434965-4) does not have construction funded at this time.

3. CHANGES IN APPLICABLE LAW OR REGULATION

Are there changes in federal or state laws, rules, regulations, or guidance that require consideration since the date of the original Environmental Document or subsequent Re-evaluation(s)? Yes

In October 2019, the US Fish and Wildlife Service (USFWS) expanded the Florida bonneted bat consultation area and established consultation key. The project occurs in Charlotte County and is therefore within the USFWS' consultation area for the species.

On December 22, 2020, the U.S. Environmental Protection Agency (EPA) published their approval of Florida's State 404 Program in the Federal Register, and the Florida Department of Environmental Protection (FDEP) began administering the State 404 Program on that date. The project is located in U.S. Army Corps of Engineers (USACE) Retained Waters. As a result, the project is expected to receive a Section 404 permit from the USACE.

4. EVALUATION OF MAJOR DESIGN CHANGES AND REVISED DESIGN CRITERIA

Are there major design changes, including but not limited to changes in the alignment(s), typical section(s), drainage/stormwater requirements, design control and criteria, or temporary road or bridge? Yes The Design Phase II plans show several design changes to the roadway typical section from the PD&E Preferred Alternative. The changes for the roadway typical section are as follows and depicted in **Figures 2 and 3**, respectively:

- The seven (7)-foot wide buffered bicycle lanes and six (6)-foot wide sidewalks on both sides of the roadway were replaced with 10-foot wide shared use paths on both sides.
- The 30-foot wide median was replaced with a 22-foot wide median.
- The curb and gutter on both sides of the edge of pavement of the travel lanes was more defined to be Type F curb and gutter.

Additionally, the horizontal alignment has been flattened as compared to the PD&E preferred alignment. As a result, more ROW is needed for mainline improvements throughout the project limits.

- The roadway typical section will require approximately 53 feet of additional ROW (for a total ROW of approximately 133 feet) instead 34 feet identified in the PD&E Preferred Alternative (for a total ROW of approximately 114 feet);
- A total of 16.40 acres of mainline/roadway acquisition is needed instead of 11.0 acres.
- Separate from ROW to be acquired, there are several locations along the project where temporary construction easements (TCEs) will be required to connect the roadway improvements to adjacent driveways. These areas total 0.75 acres.

There were seven (7) preferred pond locations in the PD&E Study: one (1) pond site alternative for each of the six (6) drainage basins, as well as one (1) historic drainage basin pond. Following the pond siting analysis in the design-phase, a total of five (5) pond sites have been selected. Two (2) sites are the same as PD&E-identified ponds (Pond 5-6C; now simply named Pond 5-6) and Pond 1-2D, while the remaining three (3) sites are new locations identified during the design phase of the project. Of these sites, Pond 1-2B uses remainders of parcels proposed for impact by mainline widening.

• A total of 5.35 acres for stormwater management is needed instead of 9.5 acres identified in the PD&E Study.

Overall, 95 parcels will be impacted by the project as per the design concept, compared to 71 parcels as per the PD&E Study.

[1 - ROW and relocation change exhibit]

5. PUBLIC INVOLVEMENT

Were there additional public involvement activities? Yes

A public hearing is scheduled to address the ROW and design changes. The hearing will take place on December 5, 2023 at the Punta Gorda Isles Civic Association, 2001 Shreve Street, Punta Gorda, Florida, 33950, from 5 pm to 7 pm. A onehour open house format will be provided to allow attendees to view display boards with project information and ask questions to staff. This open house will be followed by a formal presentation (project video) and public comment period. Public comments will be summarized and included in this re-evaluation following the public comment request.

6. PROJECT or SEGMENT(S) PLANNING CONSISTENCY

Segment FM Number: 434965-5-48-01

Currently Adopted CFP-LRTP	Comments		
Yes	The Charlotte County Punta-Gorda Metropolitan Organization (MPO) 2045 Long Range Transportation Plan (LRTP) was adopted in October 2020. This project is included in their Cost Feasible Plan, Table 8.6 - Roadway Cost Feasible Projects List. The latest Charlotte County Punta-Gorda Metropolitan Organization (MPO) Transportation Improvement Program (TIP) for FY 2023/24 - FY2027/28 was adopted on May 15, 2023. This project is included in the TIP. One segment for construction is funded on 434965-3: Harborview Road from Melbourne St. to Date St. Coordination is ongoing with the MPO to update the TIP to be consistent with the Current STIP. Attachment 2 provides planning consistency documentation.		

Phase	TIP/STIP	Currently Approved	\$	FY	Comments
PE (Final Design)	TIP	Yes		<2021 All years	PE phase funded < FY23 (on 434965-2).
PE (Final Design)	STIP	Yes		<2021 All years	PE phase funded < FY23 (on 434965-2).
R/W	TIP	Yes	\$7,610,573 \$7,610,573	2024 All years	Cost estimates between the TIP and STIP are not consistent. The TIP does not reflect the funds associated with the 434965-5-48-01 for right- of-way.
R/W	STIP	Yes	\$12,967,243 \$12,967,243	2024 All years	Cost estimates between the TIP and STIP are not consistent. The TIP does not reflect the funds associated with the 434965-5-48-01 for right- of-way.
Construction	TIP	Yes	\$23,216,607 \$23,216,607	2026 All years	Cost estimates between the TIP and STIP are consistent. CST is funded for one segment (on 434965-3)

Construction	STIP	Yes	\$29,026,179	2026	Cost estimates between
			\$29,026,179	All years	the TIP and STIP are
			\$29,020,179		consistent. CST is funded
					for one segment (on
					434965-3)

Segment FM Number: 434965-5-48-02

Currently Adopted CFP-LRTP	Comments					
Yes	Transportation Plan This project is inclu List. The latest Charlotte Improvement Progr project is included One segment for co Date St. Coordination is ong	n (LRTP) was adopt ded in their Cost Fe e County Punta-Gor ram (TIP) for FY 202 in the TIP. construction is funded	ed in Octobe easible Plan, da Metropol 23/24 - FY20 d on 434965 to update th	er 2020. , Table 8.6 - Roa itan Organizatio 027/28 was ado 5-3: Harborview e TIP to be con	PO) 2045 Long Range adway Cost Feasible Projects on (MPO) Transportation pted on May 15, 2023. This Road from Melbourne St. to sistent with the Current STIP.	
Phase	TIP/STIP	Currently Approved	\$	FY	Comments	
PE (Final Design)	TIP	Yes	Y	<2021 All years	PE phase funded < FY23 (on 434965-2).	
PE (Final Design)	STIP	Yes		<2021	PE phase funded < FY23	

PE (Final Design)	STIP	Yes		<2021	PE phase funded < FY23
				All years	(on 434965-2).
R/W	TIP	Yes	\$7,610,573	2024	Cost estimates between
			\$7,610,573	All years	the TIP and STIP are consistent.
R/W	STIP	Yes	\$7,206.815	2024	Cost estimates between
			\$7,206.815	All years	the TIP and STIP are consistent.
Construction	TIP	Yes	\$34,016,607	2026	Cost estimates between
			\$34,016,607	All years	the TIP and STIP are consistent. CST is funded
					for one segment (on 434965-3)
Construction	STIP	Yes	\$39,026,179	2026	Cost estimates between
			\$39,026,179	All years	the TIP and STIP are consistent. CST is funded

		for one segment (on
		434965-3)

[2 - Planning Consistency Documentation]

7. EVALUATION OF CHANGES IN IMPACTS

a. SOCIAL & ECONOMIC

Are there changes in impacts to the social, economic, land use, mobility, and/or aesthetic effects? Yes Overall, changes to the social, economic, land use, mobility, and aesthetic environments resulting from the design change are minimal. No new impacts to social services or resources in the area, land use, economic aspects, or aesthetic resources will occur. The anticipated residential relocations have increased and one new business relocation is anticipated. For mobility, shared-use paths, separated from the travel lanes, are now proposed; this design offers a safer travel environment for bicyclists as compared to use of road shoulders.

Are there changes in right-of-way needs? Yes

Additional ROW width is needed for the roadway mainline which varies along the corridor but on average, is approximately 133 feet, which requires approximately 53 feet of additional ROW. This results in acquisition need of 16.40 acres for roadway. Due to the refinement of stormwater pond needs and pond site locations, 5.35 acres is required for the stormwater management design. Overall, the design changes result in a combined ROW need of 21.75 acres. This is an increase from the PD&E-phase estimate of 1.25 acres. In addition, the PD&E Study identified the need for ROW take from 71 parcels, whereas the design concept impacts 95 parcels. While not considered ROW acquisition, there are also 0.75 acres of anticipated TCEs along the corridor. The additional ROW area and TCEs are depicted in **Attachment 1**, ROW and relocation change exhibit.

Is there a change in anticipated relocation(s)? Yes

The Preferred Alternative from the PD&E Study identified the need for three (3) residential relocations. These were unavoidable given the need to acquire additional ROW for the mainline widening. Two (2) of these residences are part of a duplex and the third location is a single-family residence. These residential relocations are no longer needed for the roadway improvements and will remain.

In total, there are seven (7) residential and one (1) business potential relocations associated with the design concept. Three (3) parcels, consisting of four (4) residential relocations, just west of Laverne Street, will require relocation. These properties will be impacted by mainline widening and use of remnant property for stormwater management (Pond 1-2B). There are three (3) additional relocations along the corridor due to the widened mainline, which are single-family residences. In addition, there is one (1) business relocation, which consists of the main office of the Harbor View on the Bay 55+ community. These relocations are detailed in the Conceptual Stage Relocation Plan (November 2023), included in the project file.

In order to minimize the unavoidable effects of ROW acquisition and displacement of people, the FDOT will carry out a ROW and Relocation Assistance Program in accordance with Florida Statute 421.55, Relocation of displaced persons, and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646 as amended by Public Law 100-17).

Are there changes in impacts to Prime or Unique Farmlands? Yes

During the PD&E Study, a Natural Resources Conservation Service (NRCS)-CPA-106 form was completed. The Preferred Alternative resulted in the conversion of 1.3 acres of designated prime and unique farmland. The total points calculated for the project was 67, which is well below the 160-point significance threshold. Form NRCS-CPA-106 was prepared again to address the design changes and additional ROW needed for the project. The current designated prime and unique

farmland data layer was used. A total of 0.69 acres of direct conversion is proposed. Upon coordination with the NRCS, 49.1 points were calculated for the project, which remains below the significance threshold. The NRCS-CPA-106 form (October 2023) is included in the project file.

b. CULTURAL

Are there changes in impacts to cultural resources pursuant to Section 106 of the National Historic Preservation Act (historic sites/districts and archaeological sites)? Yes

A Cultural Resource Assessment Survey (CRAS) was completed for the PD&E Study in 2018. The State Historic Preservation Officer (SHPO) concurred with the survey findings on December 19, 2018, that resulted in no historic properties affected (SHPO File No. 2017-2462).

A CRAS Addendum was prepared in October 2022 to address four (4) stormwater pond locations and is included in the project file. The SHPO concurred with the findings on October 18, 2022 (SHPO File No. 2022-7311) and documentation is included in **Attachment 3**. Archaeological background research and a review of the Florida Master Site File (FMSF) and the National Register of Historic Places (NRHP) indicated that no previously recorded historic or prehistoric archaeological sites were identified within any of the proposed pond sites. However, two previously recorded sites, 8CH00502 and 8CH00499, were recorded within one mile. Site 8CH00502 is a prehistoric midden located along the north shore of the Peace River about 1200 feet south of the project. Similarly, 8CH00499, the Northside Midden, is recorded about 800 feet south of the vestern terminus of the project. A review of relevant site locational information for environmentally similar areas within Charlotte County and the surrounding region indicated areas of moderate to low potential for the occurrence of prehistoric sites.

The historical/architectural background research indicated that no historic resources had been previously recorded within the proposed pond sites; however, four (4) previously recorded historic resources (8CH01338, 8CH02053, 8CH02741, and 8CH02742) are located adjacent to the four (4) proposed pond sites. This includes three buildings (8CH01338, 8CH02741, and 8CH02742) located adjacent to proposed Pond 1-2B (now designed as Pond 1-2D) and the historic linear resource, Harborview Road (8CH02053), located adjacent to all proposed pond sites. These resources were previously determined ineligible for listing in the NRHP in the 2018 CRAS and concurred with by the SHPO on December 19, 2018. No new historic resources 46 years of age or older (constructed in 1976 or earlier) were identified. This was confirmed during the field reconnaissance survey. The previously recorded historic resources were not updated since no significant changes were observed during the field survey.

A second CRAS Addendum, included in the project file, was prepared that included field survey for the additional ROW needed for the mainline widening and the shift of one pond site, Pond 1-2B, to use remnant property from parcels proposed for impact by mainline widening. This second addendum also includes a historic resource update for the mainline corridor to identify, record and evaluate historic resources that were constructed between 1962 and 1976. These resources were not included in the previous 2018 PD&E Study CRAS since they were not yet 50 years old at the time or were identified within the new Area of Potential Effect (APE).

As a result of the archaeological background research, no previously recorded historic or pre-Contact period archaeological sites were identified that were not already previously identified. A review of relevant site locational information for environmentally similar areas within Charlotte County and the surrounding region indicated areas of moderate to low potential for the occurrence of pre-Contact period archaeological sites within the APE. The background research indicated that sites, if present, would most likely be small shell middens or artifact scatters. As a result of field

surveys, including the excavation of 28 shovel tests, no archaeological sites were identified within the APE.

The historical/architectural background research, including a review of the FMSF database and the NRHP, indicated that 20 historic resources have been previously recorded within the APE (8CH01338, 8CH01444, 8CH01446, 8CH01451 -8CH01456, 8CH01461, 8CH01462, 8CH02053, 8CH02722 - 8CH02727, 8CH02741, 8CH02742). All of the previously recorded historic resources within the APE have been determined ineligible for listing in the NRHP by the SHPO. The historic/architectural field survey resulted in the identification of 36 historic resources within the APE. Of these, 18 were newly identified, recorded, and evaluated (8CH02782 - 8CH02799) and the remaining 18 historic resources were previously recorded (8CH01338, 8CH01444, 8CH01446, 8CH01452, 8CH01454, 8CH01455, 8CH01456, 8CH01461, 8CH01462, 8CH02053, 8CH02722 - 8CH02727, 8CH02741, 8CH02742) within the APE. The previously recorded resources were not re-evaluated since the SHPO already determined they were ineligible for listing in the NRHP, and no significant changes were observed during the field survey. The newly identified resources include 16 buildings (8CH02783 and 8CH02798) that were constructed between circa (ca.) 1962 and ca. 1976 and two building complex resource groups (8CH02782 and 8CH02799). Overall, the buildings have been altered, lack sufficient architectural features, and are not significant embodiments of a type, period, or method of construction. The building complex resource groups are common mobile home parks found throughout Florida and are not significant embodiments of a type, period, or method of construction. In addition, background research did not reveal any historic associations with significant persons and/or events. Thus, the resources do not appear eligible for listing in the NRHP, either individually or as a part of a historic district. Furthermore, as a result of the field survey, two previously recorded historic resources (8CH01451 and 8CH01453) were found to be demolished. Of the 36 extant historic resources, three (8CH01338, 8CH01456, and 8CH02784)) are located within the relocated Pond 1-2 and three (8CH01454, 8CH02741, and 8CH02742) are located immediately adjacent.

Based on the results of the background research and field investigations, no archaeological sites or historic resources that are listed, eligible, or that appear potentially eligible for listing in the NRHP are located within the APE. The FDOT notified the SHPO of the finding of "no historic properties affected" on April 6, 2023. The SHPO provided concurrence on April 26, 2023 and is included in **Attachment 4**.

Following the April 2023 SHPO coordination, additional mainline roadway design changes included the shift at the west end of the project to avoid a conservation easement at Roll's Landing, and the addition of a pond, referred to as pond 1-2D, which was previously evaluated as part of the September 2022 CRAS Addendum for proposed pond sites. No additional archaeological surveys were deemed necessary given all negative results for prior surveys. No additional historic resources were identified to be recorded or updated. This summary was provided in a memorandum dated October 2023 and is included in the project file.

[3 - CRAS Pond Addendum_Concurrence Letter_SHPO][4 - Second Addendum_Concurrence letter_SHPO]

Are there changes in effects to Section 4(f) of the Department of Transportation Act protected resources or other protected public lands? N/A

Are there changes in impacts to lands purchased under Section 6(f) of the Land and Water Conservation Fund Act? N/A

Are there changes in impacts to recreational areas or protected lands? N/A

c. NATURAL

Are there changes in impacts to protected species and habitat, wetlands and other surface waters, and/or essential fish habitat? Yes

The January 2019 Natural Resources Evaluation (NRE), completed as part of the PD&E Study, was provided to the Florida Fish and Wildlife Commission (FWC), U.S. Fish and Wildlife Services (USFWS), and National Marine Fisheries Service (NMFS). Consultation with FWC was initiated, and the agency concurred with the species determinations and project commitments. During correspondence with USFWS, it was determined that consultation would be deferred to the design phase since information (e.g. project acoustic survey) was not yet available for the Florida bonneted bat (*Eumops floridanus*). During the correspondence with NMFS, additional information was requested regarding box culvert demolition methods, sheet pile installation, changes in water depths at culverts, and mangrove impacts. It was concluded that NFMS requires specific design and engineering data for the culvert replacement that was not available at the time of the PD&E Study to determine the proposed project's impact on the smalltooth sawfish (*Pristis pectinata*), and swimming sea turtles.

All state and federally listed species impacted by the project were designated an anticipated effect determination during the PD&E Study. However, six (6) federally listed species required Section 7 consultation initiation with USFWS and NMFS during the design phase; therefore, the federal agencies have not yet concurred with these effect determinations. The January 2019 NRE made a <u>may affect</u>, not likely to adversely <u>affect</u> determination for the Florida bonneted bat, leatherback sea turtle (*Dermochelys coriacea*), green sea turtle (*Chelonia mydas*), loggerhead sea turtle (*Caretta caretta*) and Kemp's Ridley sea turtle (*Lepidochelys kempii*). The January 2019 NRE also determined a <u>may affect</u>, likely to adversely affect determined a <u>may affect</u>, likely to

Design changes and updates relative to protected species and wetlands are found in the NRE Addendum (November 2023), included in the project file.

An acoustic survey for the Florida bonneted bat was conducted in April 2023 to assess the involvement of this species. Given the survey results and use of the finalized 2019 consultation key for the species, a determination of <u>may affect, not</u> <u>likely to adversely affect-Programmatic (MANLAA-P)</u> was made. This programmatic concurrence does not require further consultation with USFWS; however, Best Management Practices (BMPs) should be incorporated and for this project, include #1, #5, #7, and #12. The species consultation key with step and BMP highlighting is attached as **Attachment 5**.

Proposed impacts to smalltooth sawfish Critical Habitat (CH) have changed from 0.38-acre as estimated during the PD&E Study to 0.03-acre as per the proposed design. There is also 0.17-acre of presumed accessible habitat proposed for impact. In addition, 874 linear feet of mangrove shoreline, accessible to the species, is anticipated to be impacted. Other details of the proposed construction and project effects, including construction methods at the box culverts/cross-drains where in-water work will occur, are detailed in the NRE Addendum (November 2023), found in the project file. Based on efforts to reduce potential construction-related impacts to the species and the PD&E phase commitment to implement construction precautions during in-water work, the effect determination is anticipated to change from may affect, likely to adversely affect to may affect, not likely to adversely affect after consultation with NMFS. The effect determination for CH remains as no adverse modification or destruction of Critical Habitat. The Protected Species Construction Conditions (NOAA Fisheries Southeast Regional Office) has replaced the NMFS Sea Turtle and Smalltooth Sawfish Construction Conditions.

Proposed impacts to West Indian manatee (*Trichechus manatus*) CH have also been refined from the 0.14-acre PD&E estimate to 0.03-acre as per the proposed design. The PD&E phase commitment to implement construction precautions during in-water work will protect the species. There are no changes to the anticipated determination of effect of <u>may affect</u>, <u>not likely to adversely affect</u>. The effect determination for CH remains as <u>no adverse modification or destruction of Critical</u> Habitat.

The PD&E Study included an estimate of wood stork (*Mycteria americana*) foraging biomass. However, based on the *South Florida Wood Stork Key*, a foraging analysis only needs to be conducted for projects impacting greater than five acres of wetlands. The design change is anticipated to impact 0.46 acres of wetlands and 2.08 acres of surface water which falls under the threshold needed for the wood stork forging analysis. However, suitable foraging habitat impacts will be mitigated through credit purchase from federally-permitted wetland mitigation banks; therefore, the project determination of effect remains at may affect, but is not likely to adversely affect for this species.

While the PD&E-phase indicated a <u>may affect</u>, not likely to adversely <u>affect</u> determination for the snail kite (*Rostrhamus sociabilis*), based on design-phase field reviews, there is no suitable habitat for this species. Based on this information, it has been determined that the project will have no effect on the snail kite.

The American alligator (*Alligator mississippiensis*) was listed as an anticipated <u>may affect, not likely to adversely affect</u> determination in the January 2019 NRE. Since that time, the USFWS has indicated that they will not consult on this species given that it is listed only by similarity of appearance to the American crocodile. As a result, no further evaluation or agency coordination will occur for the alligator.

Wetland and surface water jurisdictional boundaries were established during the design phase and the anticipated impacts to these resources have been updated in the November 2023 NRE Addendum. Direct impacts to jurisdictional wetlands and surface waters were quantified and evaluated for the design change. There are 0.46 acres of direct impacts proposed to jurisdictional wetlands and 2.08 acres of direct impacts proposed to surface waters for a total of 2.54 acres. In the January 2019 NRE, wetland and surface water impacts resulting from the preferred alternative totaled 3.50 acres which included 0.80 acres of wetlands and 2.70 acres of surface waters. This reduction in impacts is due to more refined wetland and surface water boundaries. The exact type of mitigation to offset impacts will be coordinated with the USACE and the Southwest Florida Water Management District (SWFWMD) during the permitting phase of this project. Mitigation will be addressed pursuant to Chapter 373.4137, Florida Statutes (F.S.) in order to satisfy all mitigation requirements of Part IV, Chapter 373, F.S. and 33 U.S.C. 1344.

Since the completion of the PD&E Study, federal Section 404 permitting in Florida has changed. As of December 22, 2020, the FDEP began administering the State 404 Program, where that agency now processes federal permits for wetland and surface water impacts that are not retained waters. A retained water is one where the USACE determines is tidal or has a direct connection to a tidal waterbody. The proposed wetland impacts and tidal surface water impacts are considered waters of the U.S. A pre-application meeting with the USACE was held for this project on March 14, 2023; during this meeting, the USACE indicated it will provide a single Section 404 permit for this project.

The project is within Essential Fish habitat (EFH) for 55 managed species and the coral complex listed by the Gulf of Mexico Fishery Management Council (GMFMC). During the PD&E Study and subsequent design-phase field surveys, no seagrass or shellfish habitat was identified within the project area. EFH in the project footprint was refined to include the vegetated wetlands (primarily mangrove) surrounding estuarine open water habitats. Total impacts to EFH habitat

changed from 0.38-acre to 0.30-acre. Therefore, the effect determination for these impacts will remain <u>minimal</u> on EFH. Impacts which will result from the construction of this project will be mitigated pursuant to Section 373.4137, F.S., to satisfy all mitigation requirements of Part IV of Chapter 373, F.S., and 22 U.S.C. 1344. [5 - Florida bonneted bat consultation key]

Are there changes in impacts to designated Aquatic Preserves, Coastal Barrier resources, Wild and Scenic Rivers, Nationwide Rivers Inventory Rivers, and/or Outstanding Florida Waters? N/A

Are there changes in impacts to Floodplains or Water Resources? Yes

Changes in stormwater management pond sites have been described previously in Sections 2 and 4. The total number of stormwater ponds have decreased from seven (7) to five (5). Two (2) of the PD&E-phase sites are proposed for use in the design concept, and three (3) are new sites evaluated as part of this re-evaluation. Overall, stormwater pond acreage was reduced from 9.5 acres to 5.35 acres.

d. PHYSICAL

Are there changes in Air Quality? No

What is the status of Highway Traffic Noise?

The Noise Study Report (NSR), completed as part of the PD&E Study, identified five (5) locations where barriers were potentially feasible and reasonable:

- Birchwood Condominiums north of Harborview Road between Coconut Street and Drance Street,
- Multi-family residences north of Harborview Road and east of Drance Street,
- Harbor View Mobile Home Park south of Harborview Road between Rowland Drive and Date Street,
- Multi-family residences south of Harborview Road between Date Street and Coconut Street, and
- Single-family homes south of Harborview Road between Coconut Street and Drance Street.

The potentially feasible and reasonable barriers from the PD&E study remain potentially feasible and reasonable with some minor changes. The following locations describe the potentially feasible and reasonable barriers that will meet the Noise Reduction Design Goal (NRDG) of achieving at least seven (7) dB(A) reduction at one (1) or more benefited receptors:

- Birchwood Condominium One (1) barrier segment, 395 feet long and 16 feet tall
- Multi-family residences east of Drance Street- One (1) barrier segment, 175 feet long and eight (8) feet tall
- Harborview Mobile Home Park One (1) barrier segment, 405 feet long and eight (8) feet tall located west of Harborview Mobile Home Park Road.
- Multi and single-family residences located south of Harborview Road between Date Street and Drance Street. This barrier system consists of four (4) barrier segments: 1) between Date Street and the first driveway 90 feet long and eight (8) feet tall; 2) between the first driveway and Coconut Street 185 feet long and eight (8) feet tall; 3) between Coconut Street and the second driveway 150 feet long and eight (8) feet tall; and 4) between the second driveway and Drance Street 215 feet long and eight (8) feet tall.

A Noise Report Addendum (November 2023) is provided in the project file.

What is the status of Contamination?

The Contamination Screening Evaluation Report (CSER) completed in 2018 for the PD&E identified five (5) potential contamination sites within the study area, which were assigned a risk rating of "No". A PD&E Reevaluation Contamination Technical Memorandum was prepared in November 2023 to document an updated review of the project corridor since completion of the original 2018 CSER, to incorporate mainline roadway design changes, and assign risk ratings to proposed stormwater management ponds. This document also summarizes findings of earlier design-phase reports completed for the pond siting evaluation (reports dated September 2021 and April 2023). The November 2023 update provides risk ratings assigned to the original five (5) sites from the 2018 CSER, five (5) additional sites, and five (5) stormwater ponds. Risk ratings are summarized below. Consideration for Level II testing is warranted for the contamination sites or stormwater management ponds that received a "Medium" risk rating.

		CSER	Contamination Technical Memorandum
Site No.	Contamination Site Name	October 2018	November 2023
1	Marketing Arm International	No	No
2	Former Bailey's Towing	No	No
3	Charleston Cay Apartments	No	No
4	Bethanie 7th Day Adventist Church	No	No
5	Charlotte County East Port Environmental Campus	No	No
6	Former Raulerson Yard Trash Compost Site	-	Low
7	Former Groves	-	Medium
8	Clune's Autobody Inc./ Dr. D's Auto & Marine Repair	-	Low
9	Charlotte Harbor Driving Range	-	Low
10	Former Groves	-	No
Stormwa	ater Management Sites		
SMF 1-2	В	-	Low
SMF 1-2	D	-	Low
SMF 3		-	Medium
SMF 4		-	No
SMF 5-6		-	No

All CSER memoranda are included in the project file.

Are there changes in impacts to Utilities and Railroads? No

Are there changes in impacts to Navigation? N/A

8. COMMITMENT STATUS

Are there prior commitments from the Environmental Document or previously approved re-evaluation(s)? Yes

Are there new environmental commitments? Yes

New commitments include:

- In accordance with the Florida bonneted bat consultation key, FDOT will implement Best Management Practice #1: If
 potential roost trees or structures need to be removed, check cavities for bats within 30 days prior to removal of trees,
 snags, or structures. When possible, remove structure outside of breeding season (e.g., January 1 April 15). If
 evidence of use by any bat species is observed, discontinue removal efforts in that area and coordinate with the
 Service on how to proceed.
- In accordance with the Florida bonneted bat consultation key, FDOT will implement Best Management Practice #5: Conserve open freshwater and wetland habitats to promote foraging opportunities and avoid impacting water quality.

Created/restored habitat should be designed to replace the function of native habitat.

- In accordance with the Florida bonneted bat consultation key, FDOT will implement Best Management Practice #7: Avoid or limit widespread application of insecticides (e.g., mosquito control, agricultural pest control) in areas where Florida bonneted bats are known or expected to forage or roost.
- In accordance with the Florida bonneted bat consultation key, FDOT will implement Best Management Practice #12: Incorporate engineering designs that discourage bats from using buildings or structures. If Florida bonneted bats take residence within a structure, contact the Service and FWC prior to attempting removal or when conducting maintenance activities on the structure.
- No blasting will occur during the construction of the proposed culverts.
- The FDOT will only conduct in-water work during daytime hours.
- The FDOT will require contractors to install sheet pile walls using vibratory hammers and not impact hammers.
- The FDOT will contact the FWC prior to the temporary culvert closure (CD-4) should the agency wish to sweep the creek upstream of the culvert with nets to capture sawfish prior to the temporary culvert closure. Culvert closure will avoid the smalltooth sawfish pupping season which is March 1 July 31.

The PD&E Study identified three (3) implementation measures that are now considered commitments, and therefore have been added to the project commitment record (PCR). These include:

- Impacts to suitable foraging habitat for the federally-protected wood stork will be mitigated through the purchase of credits from a USFWS-approved mitigation bank pursuant to Section 373.4137, F.S. or as otherwise agreed to by the FDOT and the appropriate regulatory agencies.
- The most current version of the FWC Standard Manatee Conditions for In-Water Work will be implemented to ensure that manatees will not be adversely impacted by the project.
- The Protected Species Construction Conditions (NOAA Fisheries Southeast Regional Office) will be implemented to ensure that sea turtles and smalltooth sawfish will not be adversely impacted by the project.

The updated PCR is provided in Attachment 6.

[6 - Project Commitment Record Report_update]

9. STATUS OF PERMITS

Federal

Segment	Name	Descriptor	Status	Date
434965-5-48-01	USACE Section 10 or Section 404 Permit	USACE Section 404	Needed	
434965-5-48-02	USACE Section 10 or Section 404 Permit	USACE Section 404	Needed	

State

Segment	Name	Descriptor	Status	Date
434965-5-48-01	DEP or WMD Environmental Resource Permit (ERP)	SWFWMD ERP	Needed	
434965-5-48-01	FWC Gopher Tortoise Relocation Permit	FDEP Tortoise Relocation	Needed	
434965-5-48-02	DEP or WMD Environmental Resource Permit (ERP)	SWFWMD ERP	Needed	

434965-5-48-02 FWC Gopher Tortoise Relocation Permit	FDEP Tortoise Relocation	Needed		
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Local

None anticipated.

Other

None anticipated.

10. CONCLUSION

The project has been re-evaluated pursuant to 23 CFR § 771.129. The FDOT has determined that no changes to the project affect the original decision. Therefore, the Administrative Action remains valid and the project can advance.

11. DISTRICT REVIEW AND APPROVAL

Name and title of FDOT Preparer: Jeffrey James, Environmental Manager

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

District approving authority or designee

12. OEM CONCURRENCE

Print Name

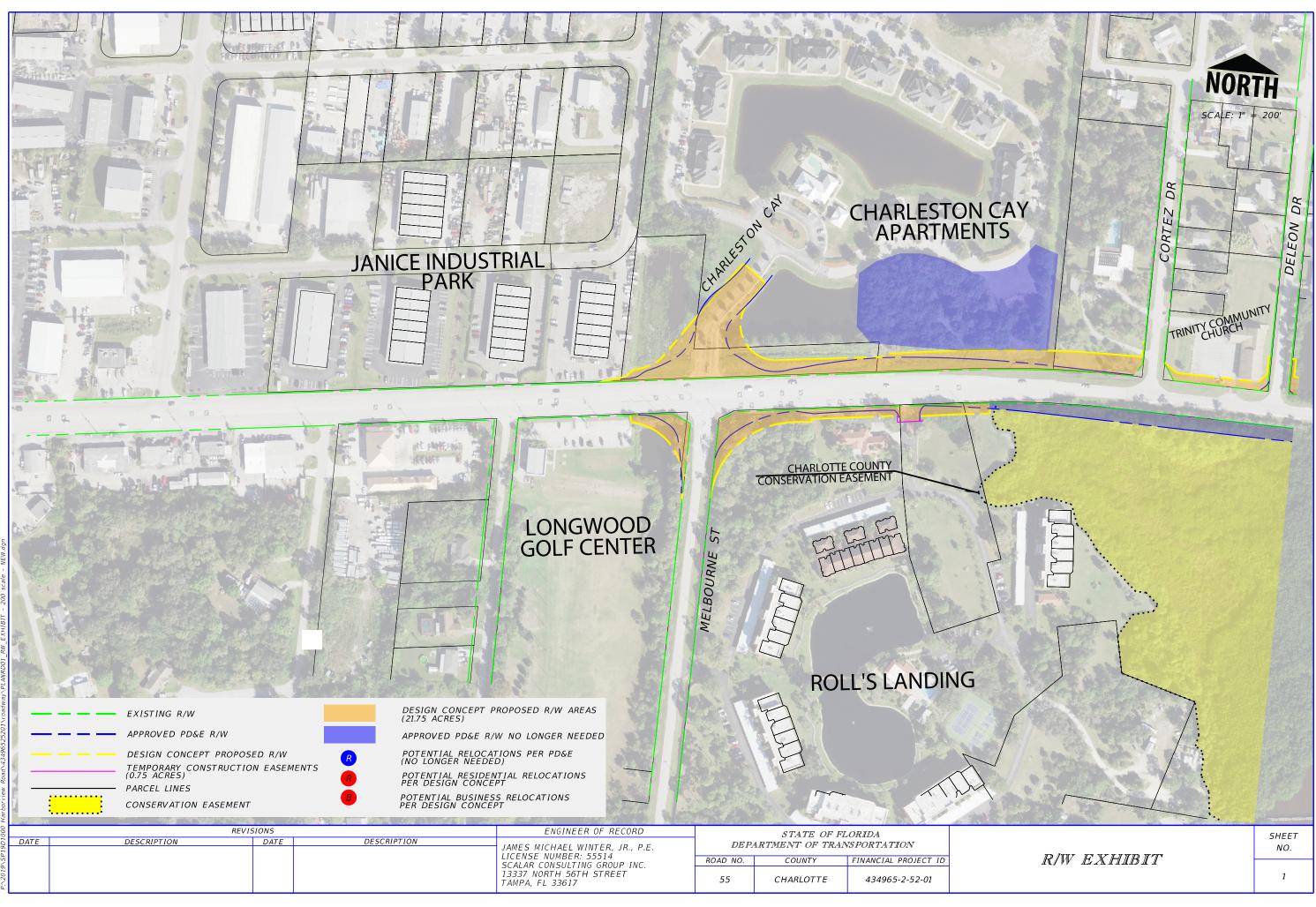
Director of the Office of Environmental Management or Designee

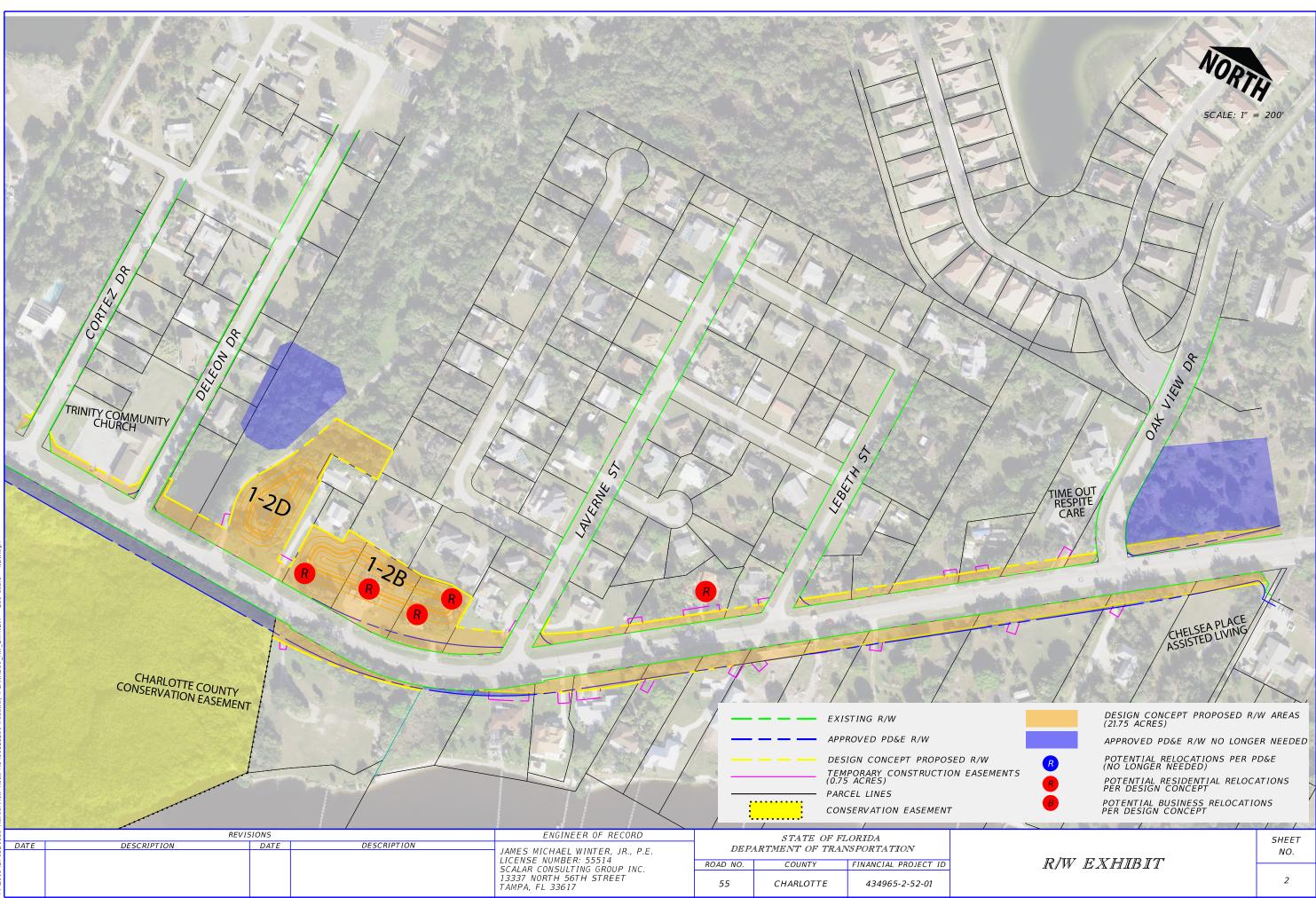
13. Links to Supporting Documentation

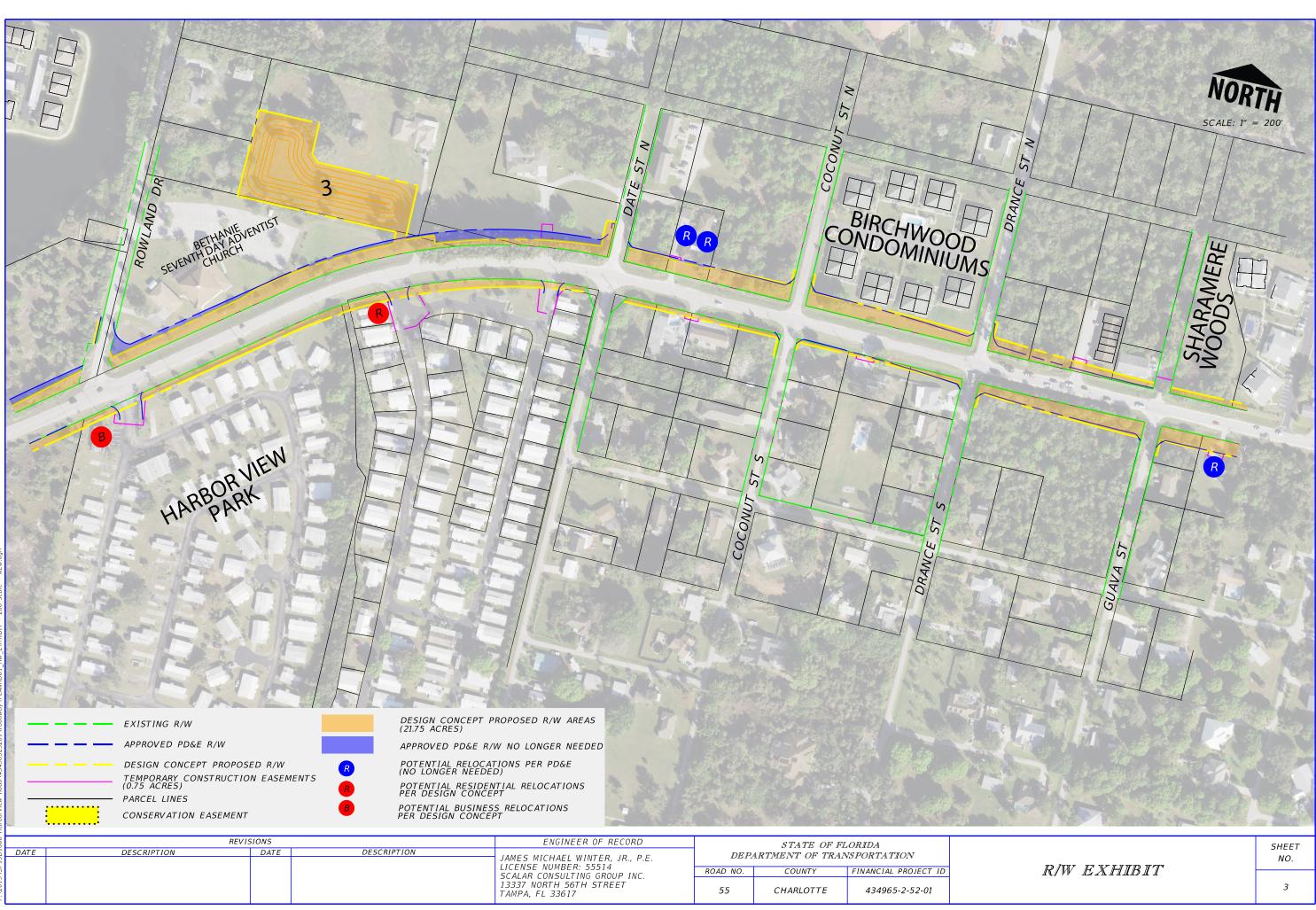
- 1 _ 43496512101-CE2-D1-ROW_and_relocation_change_exhibit-2023-1107.pdf
- 2 43496512101-CE2-D1-Planning_Consistency_Documentation-2023-1023.pdf
- 3 43496512101-CE2-D1-CRAS_Pond_Addendum_Concurrence_Letter_SHPO-2022-1118.pdf
- 4 43496512101-CE2-D1-Second_Addendum_Concurrence_letter_SHPO-2023-0426.pdf
- 5 _ 43496512101-CE2-D1-Florida_bonneted_bat_consultation_key-2023-1006.pdf
- 6 _ 43496512101-CE2-D1-Project_Commitment_Record_Report_update-2023-1110.pdf

Date

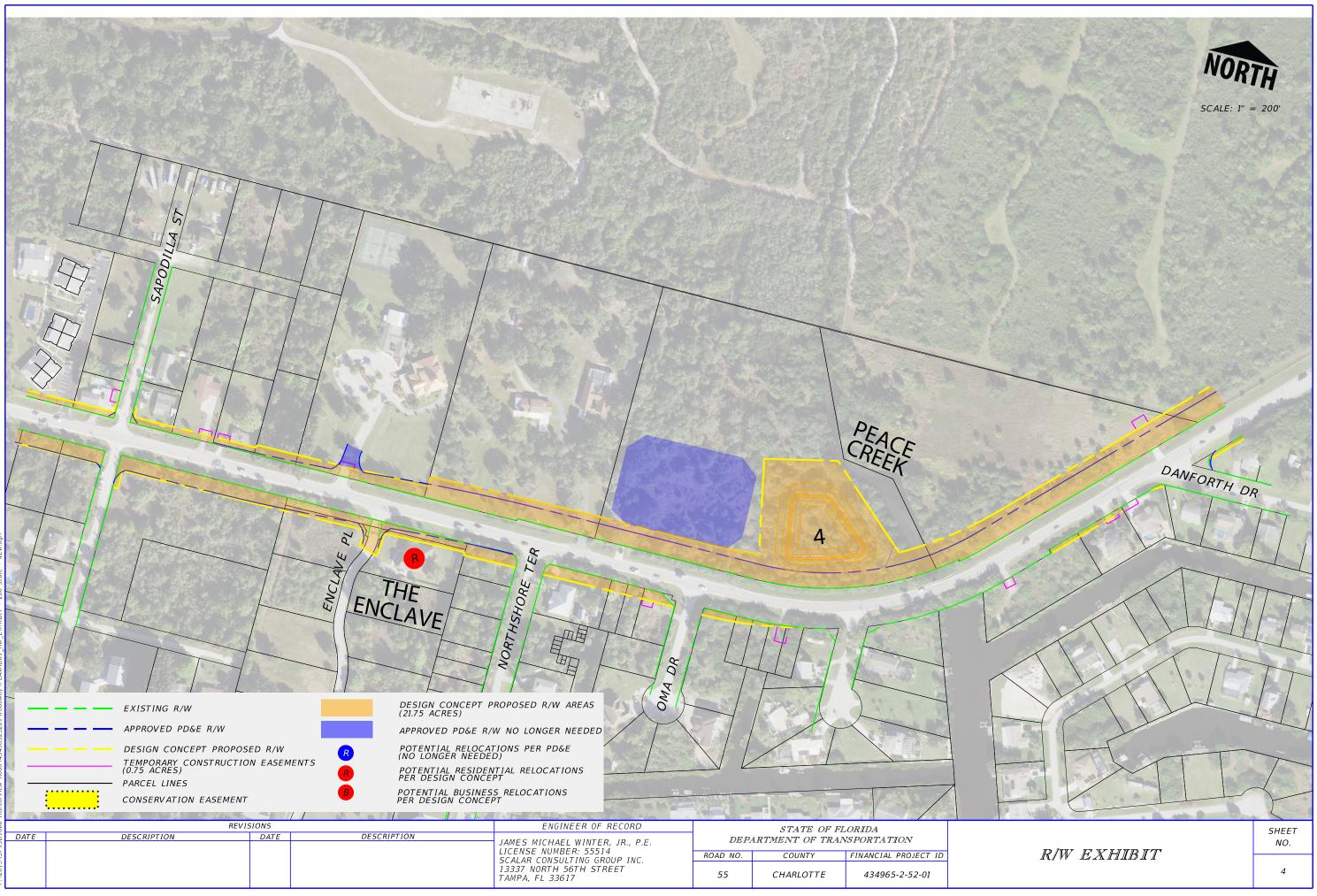
Date



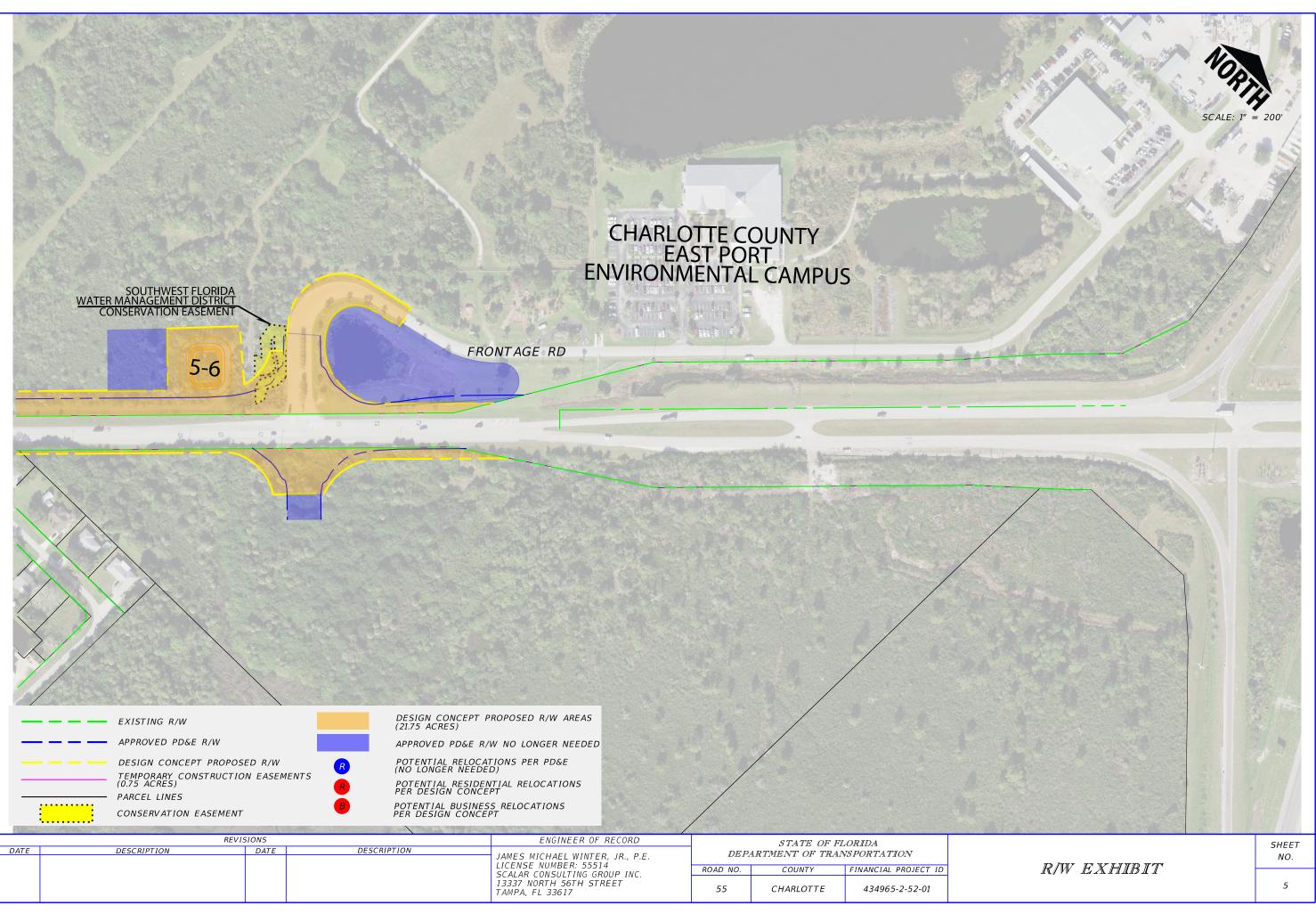




	REVI:	SIONS		ENGINEER OF RECORD		LORIDA	
DATE	DESCRIPTION	DATE	DESCRIPTION	JAMES MICHAEL WINTER, JR., P.E.	DEPARTMENT OF TRANSPORTATION		
				LICENSE NUMBER: 55514 SCALAR CONSULTING GROUP INC.	ROAD NO.	FINANCIAL PROJECT ID	
				13337 NORTH 56TH STREET TAMPA, FL 33617	55	CHARLOTTE	434965-2-52-01



11/7/2023 9:19:53 AM USER: ebendre P~2010\$\SP1901000 Harborview Read/343465552011\roadwavvPl4NRD01 RW EXHIBIT - 200 sta



11/7/2023 9:20:02 AM USER: ebendre P:\2019\SP19D1000 Harborview Road\43496525201\roadway\PLAWRP01_RW_EXHIBIT - 200 scale - NEW



2045 Long Range Transportation Plan: The Route to 2045

Adopted October 5, 2020



Charlotte County-Punta Gorda Metropolitan Planning Organization



Table 6-1: Summary of Traffic Crashes from 2014-2018
Table 6-2: Cost Feasible Congestion Management Projects
Table 7-1: Roadway Needs List (\$ Millions, 2019 Present Day Cost)
Table 7-2: Transit Needs Projects and Costs
Table 7-3: Bicycle Pedestrian Master Plan 7-16
Table 8-1: Cost Feasible Plan Summary (2021 – 2045)
Table 8-2: Prioritization Criteria and LRTP Goals
Table 8-3: Revenue Projection Summary – Year-of-Expenditure
Revenues (\$ millions)
Table 8-4: Inflation Factors 8-5
Table 8-5: Roadway Cost Table
Table 8-6: Roadway Cost Feasible Projects List
(\$ Millions Future Year of Expenditure)
Table 8-7: Cost Feasible Transit Projects (\$ Millions Future Year of Expenditure) 8-12
Table 8-8: Bicycle/Pedestrian Master Plan Projects
Table 9-1: Summary of Goal 1 Performance Measures
Table 9-2: Summary of Goal 2 Performance Measures
Table 9-3: Summary of Goal 3 Performance Measures
Table 9-4: Summary of Goal 4 Performance Measures

Supplemental Technical Reports



Table 8-6: Roadway Cost Feasible Projects List (\$ Millions Future Year of Expenditure)

Мар				Existing	σ	LRTP Funding	20	21 - 2025 (`	/OE)	20	26-2030 (Y	'OE)	203	31-2035 (\	'OE)	20	36-2045 (\	OE)
ID	Facility	From	То	Lanes	Project Description	Source	PD&E / PE	ROW	сѕт	PD&E / PE	ROW	сѕт	PD&E / PE	ROW	сѕт	PD&E / PE	ROW	сѕт
1	Airport Road	Taylor Rd	Piper Road	2	Widen 2 to 4 lanes	Local							\$5.80	\$7.43				
4	Burnt Store Rd	Zemel Rd	Scham Rd	2	Widen 2 to 4 lanes	TIP												
5	Burnt Store Rd	N Jones Loop	Taylor Rd	2	Widen 2 to 4 lanes	Local										\$2.75	\$2.45	\$21.30
6	Burnt Store Rd Extension	Tavlor Rd	Florida St @ US 17	0	New 4-lane	Local										\$12.53		
7	Edgewater Dr (Phase 3)	Midway Blvd	Collingswood Blvd	2	Widen 2 to 4 lanes	TRIP / Local						\$31.40						
8	Edgewater Dr (Phase 4)	Collingswood Blvd	Samantha Ave	0	Roadway realignment and new bridge	Local	\$2.10		\$23.00									
9	Edgewater Dr / Flamingo (Phase 5)	, v	SR 776	2	Widen 2 to 4 lanes	Local	\$1.00					\$25.12						
10	Flamingo Blvd	SR 776	US 41	2	Widen 2 to 4 lanes	Local							\$3.21	\$5.33	\$17.92			
12	Hillsborough Blvd / Raintree Blvd			0	New 2-lane	Local							\$0.45	\$1.40	\$2.53			
21	N Jones Loop	Burnt Store Rd	Piper Foad	4	Widen 4 to 6 lanes	State	\$1.22						\$4.48				\$5.27	
23	Prineville Dr	Paulson Dr	Hillsborough Blvd	2	Widen 2 to 4 lanes	TRIP / Local	<i>V</i> 1.22						<i>Q</i> 1.10			\$9.07	\$15.64	\$52.59
30	SR 776	CR 775	Spinnaker Blvd	4	Widen 4 to 6 lanes	State	\$2.00			\$6.49	\$6.13				\$57.38	+====	+====	+
	SR 776 Future Corridor Study	Pine Street / Placida Rd	US 41	-	Future Corridor Study	State	Q2.00			\$6.48	\$20.28		\$2.57		¢01.00		\$9.98	\$67.38
010		intersection locations) Pot		rsections: S		rav Blvd. David Blvd	. Coliseur	n Blvd. San	Casa Dr. W	inchester I	Blvd. Hollis	Ave. Bisca	ne Dr.)					
34	SR 31	Lee County Line Cypress Parkway	Cypress Parkway Lake Babcock Dr.	2	Widen 2 to 6 lanes Widen 2 to 4 lanes	Developer		, ,		\$2.56	\$7.18	\$28.99	,					
36	Taylor Rd	US 41	Jones Loop Rd	2	Widen 2 to 4 lanes	Local							\$5.37	\$8.90	\$29.93			
37	Taylor Rd	N Jones Loop Rd	Airport Rd	2	Widen 2 to 4 lanes	Local									,	\$7.42	\$12.80	\$43.03
38	Taylor Rd	Airport Rd	US 41	2	Complete Streets	Local										\$3.22	\$4.23	\$18.66
39a	Toledo Blade Blvd (CR 39)	SR 776	Whitney Avenue	2	Widen 2 to 4 lanes	Developer						\$7.62						
43	US 17	Copley Ave	CR 74	4	Widen 4 to 6 lanes	SIS							\$1.05			\$2.00		
51	Harbor View Road	Melbourne St	1-75	2	Widen 2 to 4 lanes	Federal / Local	\$4.02	\$9.79				\$31.60						
54 / 55	Marion Avenue / Olympia Avenue	US 41	Marlympia Way	3	Lane Repurposing- resurface and striping	State	\$0.29			\$1.42		\$9.32						
59	US 41 Corridor Vision Plan	0341	Martympia way	4/6	Corridor & Safety Improvements	State				\$5.95		\$6.28						\$18.55
60	SR 31	@ CR 74		2	Roundabout	State		\$0.64				\$0.89						
00	38.31	@ CK 14		2	Intersection - turn	TIP		QO.01	\$1.46			\$0.05						
61	SR 776	@ Flamingo Blvd		4	lanes Intersection - turn	IIP			\$1.46									
62	US 41	@ Easy Street		4	lanes	State										\$1.09		\$8.44
63	US 41	@ Forrest Nelson		4	Intersection - turn lanes	State										\$1.09		\$8.44
64	SR 776	@ Jacobs St		4	Intersection - turn lanes	State										\$1.09		\$8.44

2045 Long Range Transportation Plan | 2045 Cost Feasible Plan

8-8

FY 2024 - FY 2028

Transportation Improvement Program

ADOPTED MAY 15, 2023



SOUTH

CHARLOTTE COUNTY PUNTA GORDA MPO

Murdock Adminstration Building Building B , Suite # 200 Port Charlotte FL 33948

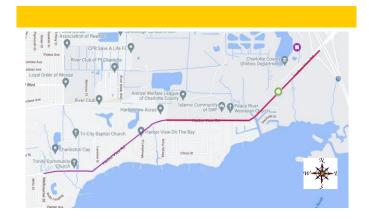


CONTACT US 1-941-883-3535

Project:	Harborview RD from Melbourne St to Date St
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Project Type:	Add lanes and reconstruct
FM Number:	434965-2
Lead Agency:	CHARLOTTE COUNTY
Length:	N/A
LRTP Reference Page #:	2045 LRTP Cost Feasible Plan , Page 8-8
SIS Project	No

Description: Widen the road from existing 2 lane to 4 lane with sidewalk and bike lanes

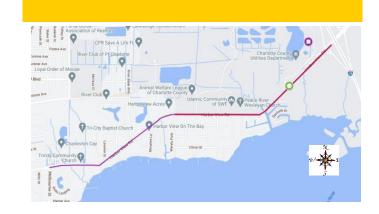


Phase	Fund Category	Funding Source	2023	2024	2025	2026	2027	2028	Total	
ENV	TALT	State	\$0	\$10,000					\$10,000	
Total:			\$0	\$10,000	\$0	\$0	\$0	\$0	\$10,000	
FY 2023/2024 to 2027/2028 Transportation Improvement Program										

Project: Harborview RD from Melbourne St to Date St

Project Type:	Add lanes and reconstruct
FM Number:	434965-3
Lead Agency:	
Length:	N/A
LRTP Reference Page #:	2045 LRTP Cost Feasible Plan , Page 8-8
SIS Project	No

Description: Widen the road from existing 2 lane to 4 lane with sidewalk and bike lanes



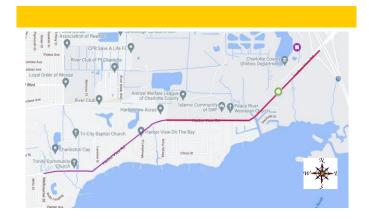
Phase	Fund Category	Funding	2023	2024	2025	2026	2027	2028	Total
THUSE	Tunu Outegory	Source	2025	2024	2025	2020	2021	2020	Total
RRD & Utility	Utilities	Local				\$10,800,000.00			\$10,800,000.00
CST	CARL	Federal				\$390,602.00			\$390,602.00
CST	CM	Federal				\$577,424.00			\$577,424.00
CST	LF	Local				\$9,959,934.00			\$9,959,934.00
CST	SA	Federal				\$5,090,717.00			\$5,090,717.00
CST	SL	Federal				\$4,015,226.00			\$4,015,226.00
CST	SM	Federal				\$3,182,704.00			\$3,182,704.00
Total:			\$0.00	\$0.00	\$0.00	\$34,016,607.00	\$0.00	\$0.00	\$34,016,607.00

FY 2023/2024 to 2027/2028 Transportation Improvement Program

Project:	Harborview RD from Melbourne St to Date St
----------	--

Project Type:	Add lanes and reconstruct
FM Number:	434965-2
Lead Agency:	CHARLOTTE COUNTY
Length:	N/A
LRTP Reference Page #:	2045 LRTP Cost Feasible Plan , Page 8-8
SIS Project	No

Description: Widen the road from existing 2 lane to 4 lane with sidewalk and bike lanes

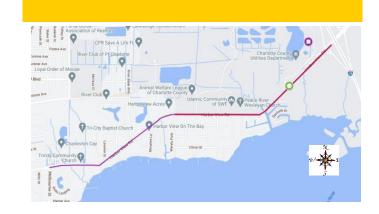


Phase	Fund Category	Funding Source	2023	2024	2025	2026	2027	2028	Total	
ENV	TALT	State	\$0	\$10,000					\$10,000	
Total:			\$0	\$10,000	\$0	\$0	\$0	\$0	\$10,000	
FY 2023/2024 to 2027/2028 Transportation Improvement Program										

Project: Harborview RD from Melbourne St to Date St

Project Type:	Add lanes and reconstruct
FM Number:	434965-3
Lead Agency:	
Length:	N/A
LRTP Reference Page #:	2045 LRTP Cost Feasible Plan , Page 8-8
SIS Project	No

Description: Widen the road from existing 2 lane to 4 lane with sidewalk and bike lanes

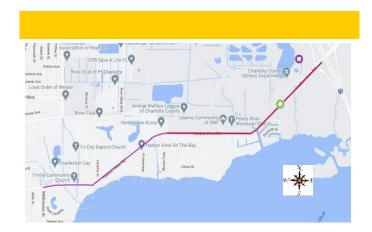


Phase	Phase Fund Category		Fund Category Funding		2023	2023 2024 2025		2026	2027	2028	Total
FlidSe	Tunu Outegory	Source	2025	2024	2025	2020	2021	2020	Total		
RRD & Utility	Utilities	Local				\$10,800,000.00			\$10,800,000.00		
CST	CARL	Federal				\$390,602.00			\$390,602.00		
CST	CM	Federal				\$577,424.00			\$577,424.00		
CST	LF	Local				\$9,959,934.00			\$9,959,934.00		
CST	SA	Federal				\$5,090,717.00			\$5,090,717.00		
CST	SL	Federal				\$4,015,226.00			\$4,015,226.00		
CST	SM	Federal				\$3,182,704.00			\$3,182,704.00		
Total:			\$0.00	\$0.00	\$0.00	\$34,016,607.00	\$0.00	\$0.00	\$34,016,607.00		

FY 2023/2024 to 2027/2028 Transportation Improvement Program

Project: Harborview RD from Melbourne St to I -75

Project Type:	Add lanes and reconstruct
FM Number:	434965-5
Lead Agency:	
Length:	N/A
LRTP Reference Page #:	2045 LRTP Cost Feasible Plan , Page 8-8
SIS Project	No



Description: Widen the road from existing 2 lane to 4 lane with sidewalk and bike lanes

Phase	Fund Category	Funding Source	2023	2024	2025	2026	2027	2028	Total
ROW	CM	Federal		\$1,518,452.00					\$1,518,452.00
ROW	SA	Federal		\$5,688,363.00					\$5,688,363.00
ROW	SM	Federal		\$403,758.00	1				\$403,758.00
Total:			\$0.00	\$7,610,573.00	\$0.00	\$0.00	\$0.00	\$0.00	\$7,610,573.00
FY 2023/2024	4 to 2027/2028 Trar	nsportation Impi	rovement Pro	gram					

Project: CR 756A (Taylor Rd) from N. Jones loop Rd to Airport Rd Phase - I

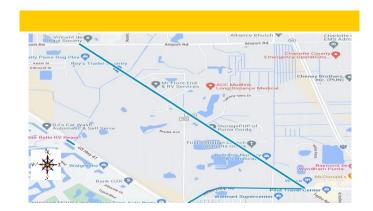
Project Type:	Bike Path / Trail
FM Number:	435105-2
Lead Agency:	CHARLOTTE COUNTY FLORIDA
Length:	2.06 mile

No

LRTP Reference Page #: 2045 LRTP Cost Feasible Plan . Page 8-15

SIS Project

Description: Transportation Alternative Project, with MURT on east side of Taylor Rd



Phase	Fund Category	Funding Source	2023	2024	2025	2026	2027	2028	Total
PE	CARM	Federal	\$0	\$191866	\$O	\$O	\$0		\$191,866
	TALT	Federal		\$1000					\$1,000
	TALM	Federal		\$458134					\$458,134
Total:			\$0	\$651000	\$0	\$O	\$0		\$651,000

FY 2023/2024 to 2027/2028 Transportation Improvement Program

FDOT OWP - Federal Aid Management; STIP Project Detail and Summaries Online Report



Florida Department of

TRANSPORTATION

E-Updates | FL511 | Site Map | Translate

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Web Application

Federal Aid Management David Williams - Manager

STIP Project Detail and Summaries Online Report

*	* Repayment Phases are not i	ncluded in the Totals **
	Selection Cr	iteria
	Current STIP	Detail
	Financial Project:434965	Related Items Shown
	As Of: 10/18/2023	

		HIGHWAYS						
Item Number: 434965 1 Proje	ct Descrip	tion: HARB	ORVIE ST TO I		ROM MEL	BOURNE		
District: 01 County: CHARLOTTE	Туре о	Type of Work: PD&E/EMO STUDY Project Length: 0.135MI						
				Fiscal Ye	ear			
Phase / Responsible Agency	<2024	2024	2025	2026	2027	>2027	All Years	
P D & E / MANAGED BY FDOT								
Fund ACCM-ADVANCE Code: CONSTRUCTION (CM)	272	4,400					4,672	
CM-CONGESTION MITIGATION - AQ	812,460	2					812,462	
Phase: P D & E Totals	812,732	4,402					817,134	
Item: 434965 1 Totals	812,732	4,402					817,134	
Item Number: 434965 2 Project District: 01 County: CHARLOTTE Type	-		ST TO I	-75	RUCT Pro		g th: 2.445MI	
Phase / Responsible Agency	<2024	2024	2025	2026	2027	>2027	All Years	
PRELIMINARY ENGINEERING / MANAG								
Fund CM-CONGESTION								
Code: MITIGATION - AQ	73,036						73,036	
GFSL-GF STPBG <200K<5K	2,385,986						2,385,986	

(SMALL URB)							
LF-LOCAL FUNDS	617,713						617,71
SA-STP, ANY AREA	86,246						86,24
SL-STP, AREAS <= 200K	2,083,089	11,111					2,094,20
Phase: PRELIMINARY ENGINEERING Totals		11,111					5,257,18
ENVIRONMENTAL / MANAGED BY FDC	от						
Fund TALT-TRANSPORTATION							
Code: ALTS- ANY AREA		10,000					10,00
Item: 434965 2 Totals	5,246,070	21,111					5,267,18
Item Number: 434965 3 Proje District: 01 County: CHARLOTTE Ty	-	ST	TO DA		CT Pro		
		0004	0007				A 11 X
Phase / Responsible Agency		2024	2025	2026	2027	>2027	All Years
RAILROAD & UTILITIES / MANAGED B	Y FDOT						
Fund Code: LF-LOCAL FUNDS				10,800,000			10,800,00
CONSTRUCTION / MANAGED BY FDO	т						
Fund CM-CONGESTION							
Code: MITIGATION - AQ				128,979			128,97
LF-LOCAL FUNDS				9,685,807			9,685,80
SA-STP, ANY AREA				11,520,647	-		11,520,64
SL-STP, AREAS <= 200K				5,061,916	6		5,061,91
SM-STBG AREA POP. W/ 5K TO 49,999				2,628,830)		2,628,83
Phase: CONSTRUCTION Totals				29,026,179	•		29,026,17
Item: 434965 3 Totals	1			39,826,179	•		39,826,17
Item Number: 434965 5 Proje District: 01 County: CHARLOTTE Ty	-	:	ST TO		CT Pro		
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Phase / Responsible Agency	<2024	2024	2025	2026	2027	>2027	All Years
RIGHT OF WAY / MANAGED BY CHARI		-			1	>2027	All Years
RIGHT OF WAY / MANAGED BY CHARI Fund ACCM-ADVANCE Code: CONSTRUCTION (CM)		-	C		1	>2027	All Years
RIGHT OF WAY / MANAGED BY CHARI Fund ACCM-ADVANCE Code: CONSTRUCTION (CM) CM-CONGESTION		UNTY BOC 1,985,316	C		1	>2027	1,985,31
RIGHT OF WAY / MANAGED BY CHARI Fund ACCM-ADVANCE Code: CONSTRUCTION (CM) CM-CONGESTION MITIGATION - AQ		UNTY BOC 1,985,316 363,053	C		1	>2027	1,985,31
RIGHT OF WAY / MANAGED BY CHARI Fund ACCM-ADVANCE Code: CONSTRUCTION (CM) CM-CONGESTION MITIGATION - AQ LF-LOCAL FUNDS		UNTY BOC 1,985,316 363,053 3,750,000	C		1	>2027	1,985,31 363,05 3,750,00
RIGHT OF WAY / MANAGED BY CHARI Fund ACCM-ADVANCE Code: CONSTRUCTION (CM) CM-CONGESTION MITIGATION - AQ LF-LOCAL FUNDS SA-STP, ANY AREA	LOTTE CO	UNTY BOC 1,985,316 363,053 3,750,000 6,843,361	C		1	>2027	1,985,31 363,05 3,750,00 6,843,36
RIGHT OF WAY / MANAGED BY CHARI Fund ACCM-ADVANCE Code: CONSTRUCTION (CM) CM-CONGESTION MITIGATION - AQ LF-LOCAL FUNDS SA-STP, ANY AREA Phase: RIGHT OF WAY Totals		UNTY BOC 1,985,316 363,053 3,750,000 6,843,361 12,941,730	C		1	>2027	1,985,31 363,05 3,750,00 6,843,36 12,941,73
RIGHT OF WAY / MANAGED BY CHARI Fund ACCM-ADVANCE Code: CONSTRUCTION (CM) CM-CONGESTION MITIGATION - AQ LF-LOCAL FUNDS SA-STP, ANY AREA		UNTY BOC 1,985,316 363,053 3,750,000 6,843,361 12,941,730 12,941,730	C		2027	>2027	

This site is maintained by the Office of Work Program and Budget, located at 605 Suwannee Street, MS 21, Tallahassee, Florida 32399.

For additional information please e-mail questions or comments to: Federal Aid Management David Williams: <u>David.Williams@dot.state.fl.us</u> Or call 850-414-4564

Reload STIP Selection Page

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Office Home: Office of Work Program





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Florida Department of Transportation

Consistent, Predictable, Repeatable



RON DESANTIS GOVERNOR 801 North Broadway Avenue Bartow, FL 33830 JARED W. PERDUE, P.E. SECRETARY

October 27, 2022

Ms. Alissa S. Lotane, Director Florida Division of Historical Resources Department of State, R.A. Gray Building 500 South Bronough Street Tallahassee, FL 32399-0250

Attn: Transportation Compliance Review Program

RE: Cultural Resource Assessment Survey Addendum Proposed Pond Sites Harborview Road (CR 776) PD&E Study From Melbourne Street to I-75 Charlotte County, Florida FPID No.: 434965-2-52-01

Dear Ms. Lotane:

The Florida Department of Transportation (FDOT), District One, is conducting a Project Development and Environment (PD&E) Study to evaluate the proposed widening, from two-lanes to four-lanes of Harborview Road (CR 776) from Melbourne Street to I-75 in Charlotte County (**Figure 1**). In 2018, ACI submitted a Cultural Resource Assessment Survey (CRAS) of Harborview Road and a Technical Memorandum for proposed pond sites, between Melbourne Street between I-75 (Survey Nos. 25342, 25344). The State Historic Preservation Officer (SHPO) concurred with the survey findings that resulted in no historic properties affected (SHPO File No. 2017-2462). The focus of this study was four proposed pond sites that will be part of the proposed road widening. The study was conducted to meet the requirements of the National Environmental Policy Act (NEPA) and other related federal and state laws, rules, and regulations and is part of on-going improvements to the Burnt Store Road PD&E study.

The archaeological APE is defined as the area contained within the footprint of each proposed pond site, and the historical/architectural APE includes the archaeological APE and a 100-foot buffer.

This CRAS was conducted in accordance with the requirements set forth in 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.* The investigations were carried out in accordance with Part 2, Chapter 8 (Archaeological and Historical Resources) of the FDOT's PD&E Manual, FDOT's Cultural Resources Manual, and the standards contained in the Florida Division of Historical Resources (FDHR) Cultural Resource Management Standards and Operations Manual (FDHR 2003). In addition, this survey meets the specifications set forth in Chapter 1A-46, Florida Administrative Code.

Ms. Alissa Lotane, Director Harborview Ponds Addendum, Charlotte County FPID No.: 434965-2-52-01 October 2, 2022 Page 2 of 3

Archaeological background research and a review of the Florida Master Site File (FMSF) and the NRHP indicated that no previously recorded historic or prehistoric archaeological sites were identified within any of the proposed pond sites. However, two previously recorded sites, 8CH00502 and 8CH00499, were recorded within a mile of the APE. 8CH00502 is a prehistoric midden located along the north shore of the Peace River about 1200 feet (ft) south of the APE. Similarly, 8CH00499, the Northside Midden, is recorded about 800 ft south of the western terminus of the project APE. A review of relevant site locational information for environmentally similar areas within Charlotte County and the surrounding region indicated areas of moderate to low potential for the occurrence of prehistoric sites within the APE. As a result of the field survey, no archaeological sites were identified within the APE.

The historical/architectural background research included a review of the previous Harborview Road CRAS and pond memo, the Florida Master Site File (FMSF), and the NRHP. The research indicated that no historic resources had been previously recorded within the proposed pond sites; however, four previously recorded historic resources (8CH01338, 8CH02053, 8CH02741, and 8CH02742) had been previously recorded adjacent to the four proposed pond sites within the APE. This includes three buildings (8CH01338, 8CH02741, and 8CH02742) located adjacent to proposed Pond 1-2B and the historic linear resource, Harborview Road (8CH02053), located adjacent to proposed pond sites 1-2B, 3C, 4B, and 5C. These four resources were determined ineligible for listing in the NRHP in 2018 during the CRAS of Harborview Road and a survey for proposed pond sites between Melbourne Street between I-75 (Survey Nos. 25342, 25344). A review of relevant historic United States Geological Survey (USGS) quadrangle maps, historic aerial photographs, and the Charlotte County property appraiser's website data revealed the potential for no new historic resources 46 years of age or older (constructed in 1976 or earlier) within the APE (Polk 2022). This was confirmed during the field reconnaissance survey. The four previously recorded historic resources were not updated since no significant changes were observed during the field survey.

The CRAS Addendum is provided for your review and comment. If you have any questions, please do not hesitate to call me at (863) 519-2515 or email me at <u>lauren.peters@dot.state.fl.us.</u>

DocuSigned by: Lauren Peters 50252A479EEF47F...

Lauren Peters Environmental Project Manager Florida Department of Transportation, District One

Enclosures: One original copy of the CRAS Report (October 2022), One Completed Survey Log

CC: Jay Winter, Scaler, Inc. Maranda Kles, ACI Ms. Alissa Lotane, Director Harborview Ponds Addendum, Charlotte County FPID No.: 434965-2-52-01 October 2, 2022 Page 3 of 3

The Florida State Historic Preservation Officer (SHPO) finds the attached Cultural Resources
Assessment Survey Report complete and sufficient and concurs/ does not
concur with the recommendations and findings provided in this cover letter for SHPO/FDHR
Project File Number <u>202207311</u> . Or the SHPO finds the attached document contains
insufficient information.
SHPO Comments:
Kelly L. Digitally signed by Kelly L. Chase DN: cr=Kelly L. Chase, o=DHR,
Chase Director 2021 Utal 155308-0500 11/18/20022
CIIdSE Date: 2022.11.18 1553308-0500' 11/18/2022
Ms. Alissa S. Lotane, Director Date
State Historic Preservation Officer
Florida Division of Historical Resources



RON DESANTIS GOVERNOR 801 North Broadway Avenue Bartow. FL 33830 JARED W. PERDUE, P.E. SECRETARY

April 6, 2023

Ms. Alissa S. Lotane, Director Florida Division of Historical Resources Department of State, R.A. Gray Building 500 South Bronough Street Tallahassee, FL 32399-0250

Attn: Transportation Compliance Review Program

RE: Cultural Resource Assessment Survey Addendum Harborview Road (CR 776) PD&E Study From Melbourne Street to I-75 Charlotte County, Florida FPID No.: 434965-2-52-01

Dear Ms. Lotane:

The Florida Department of Transportation (FDOT), District One, is conducting a Project Development and Environment (PD&E) Study to evaluate the proposed widening, from two-lanes to four-lanes of Harborview Road (CR 776) from Melbourne Street to I-75 in Charlotte County. In 2018, ACI submitted a Cultural Resource Assessment Survey (CRAS) of Harborview Road and a Technical Memorandum for proposed pond sites, between Melbourne Street between I-75 (Survey Nos. 25342, 25344). The State Historic Preservation Officer (SHPO) concurred with the survey findings that resulted in no historic properties affected (SHPO File No. 2017-2462). In 2022, ACI submitted a CRAS addendum of four proposed pond sites that were selected following the pond siting analysis. The addendum resulted in the discovery of no pre-Contact or historic archaeological sites. No historic resources were identified within any of the proposed pond sites; however, four historic resources (8CH01338, 8CH02053, 8CH02741, and 8CH02742) had been previously recorded adjacent to the four proposed pond sites and had been determined ineligible for listing in the NRHP by the SHPO in 2018. The SHPO concurred with the survey findings that resulted in no historic properties and had been determined ineligible for listing in the NRHP by the SHPO in 2018. The SHPO concurred with the survey findings that resulted in no historic properties and had been determined ineligible for listing in the NRHP by the SHPO in 2018. The SHPO concurred with the survey findings that resulted in no historic properties affected (SHPO File No. 2022-7311).

This current CRAS Addendum is being prepared to update the previous PD&E Study CRAS that was prepared in 2018 as well as the 2022 Pond addendum. This Addendum includes field survey for the additional ROW needed for the roadway mainline and one pond site, Pond 1-2B, that will utilize remainders of parcels proposed for impact by mainline widening. This Addendum also includes a historic resource update for the mainline corridor to identify, record and evaluate historic resources that were constructed between 1962 and 1976 that were not included in the previous 2018 PD&E Study CRAS since they were not yet 50 years old at the time or were identified within the new area of potential effects (APE) to account for the additional ROW.

The archaeological APE is defined as the area contained within the footprint of proposed improvements. The historical/architectural APE includes the archaeological APE and immediately adjacent parcels. This APE remains in-keeping with the 2018 CRAS (ACI 2018a; Survey No. 25342).

www.fdot.gov

Ms. Alissa Lotane, Director Harborview CRAS Addendum, Charlotte County FPID No.: 434965-2-52-01 April 6, 2023 Page 2 of 3

All work was conducted to comply with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Public Law 89-665, as amended), as implemented by 36 Code of Federal Regulations (CFR) 800 (Protection of Historic Properties, effective August 2004), as well as Chapters 267 and 373, Florida Statutes (FS) and Chapter 1A-46, Florida Administrative Code (FAC). All work was performed in accordance with the standards outlined in the Cultural Resources Management Standards & Operational Manual (Florida Division of Historical Resources [FDHR] 2003) and the Project Development and Environment (PD&E) Manual (FDOT 2020). The purpose of this analysis was to identify the presence of resources listed in or considered eligible for listing in the NRHP per the criteria set forth in 36 CFR Section 60.4 and if applicable, to apply the Criteria of Adverse Effects, as set forth in 36 CFR Part 800.5(a)(1) to the project. Principal Investigators meet the Secretary of the Interior's Professional Qualification Standards (48 FR 44716) for archaeology, history, architecture, architectural history, or historic architecture.

As a result of the archaeological background research, no previously recorded historic or pre-Contact period archaeological sites were identified within the APE. However, two previously recorded sites, 8CH00502 and 8CH00499, were recorded within a mile of the APE. 8CH00502 is a prehistoric midden (FMSF) located along the north shore of the Peace River about 1200 ft south of the APE. Similarly, 8CH00499, the Northside Midden, is recorded about 800 ft south of the western terminus of the project APE. A review of relevant site locational information for environmentally similar areas within Charlotte County and the surrounding region indicated areas of moderate to low potential for the occurrence of pre-Contact period archaeological sites within the APE. The background research indicated that sites, if present, would most likely be small shell middens or artifact scatters. As a result of field survey, including the current excavation of 28 shovel tests, no archaeological sites were identified within the APE.

The historical/architectural background research, including a review of the FMSF database and the NRHP, indicated that 20 historic resources have been previously recorded within the APE (8CH01338, 8CH01444, 8CH01446, 8CH01451 - 8CH01456, 8CH01461, 8CH01462, 8CH02053, 8CH02722 - 8CH02727, 8CH02741, 8CH02742). All of the previously recorded historic resources within the APE have been determined ineligible for listing in the NRHP by the SHPO. The historic/architectural field survey resulted in the identification of 36 historic resources within the APE. Of these, 18 were newly identified, recorded, and evaluated (8CH02782 – 8CH02799) and the remaining 18 historic resources were previously recorded (8CH01338, 8CH01444, 8CH01446, 8CH01452, 8CH01454, 8CH01455, 8CH01456, 8CH01461, 8CH01462, 8CH02053, 8CH02722 -8CH02727, 8CH02741, 8CH02742) within the APE. The previously recorded resources were not re-evaluated since the SHPO already determined they were ineligible for listing in the NRHP, and no significant changes were observed during the field survey. The newly identified resources include 16 buildings (8CH02783 and 8CH02798) that were constructed between circa (ca.) 1962 and ca. 1976 and two building complex resource groups (8CH02782 and 8CH02799). Overall, the buildings have been altered, lack sufficient architectural features, and are not significant embodiments of a type, period, or method of construction. The building complex resource groups are common mobile home parks found throughout Florida and are not significant embodiments of a type, period, or method of construction. In addition, background research did not reveal any historic associations with significant persons and/or events. Thus, the resources do not appear eligible for listing in the NRHP, either individually or as a part of a historic district. Furthermore, as a result of the field survey, two previously recorded historic resources (8CH01451 and 8CH01453) were found to be demolished. Of the 36 extant historic resources, three (8CH01338, 8CH01456, and 8CH02784)) are located within the relocated pond site 1-2B and three (8CH01454, 8CH02741, and 8CH02742) are located immediately adjacent.

Ms. Alissa Lotane, Director Harborview CRAS Addendum, Charlotte County FPID No.: 434965-2-52-01 April 6, 2023 Page 3 of 3

Based on the results of the background research and field investigations, no archaeological sites or historic resources that are listed, eligible, or that appear potentially eligible for listing in the NRHP are located within the APE. Therefore, it is the professional opinion of ACI that the proposed undertaking will result in no historic properties affected.

The CRAS Addendum is provided for your review and comment. If you have any questions, please do not hesitate to call me at (863) 519-2515 or email at <u>lauren.peters@dot.state.fl.us.</u>

-DocuSigned by:

Lauren Peters -50252A479EEF47F...

Lauren Peters Environmental Project Manager Florida Department of Transportation, District One

Enclosures: One original copy of the CRAS Addendum (April 2023), 18 FMSF forms, One Completed Survey Log

CC: Kristin A. Caruso, Scalar, Inc. Maranda Kles, ACI

The Florida State Historic Preservation Officer (SHPO) find Assessment Survey Addendum complete and sufficient and	
not concur with the recommendations and findings provided in	
• •	
Project File Number <u>202207311</u> . Or the SHPO fin insufficient information.	as the attached document contains
SHPO Comments:	
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U AM	1/ 1/ 1022
	4.26.2023
Ms. Alissa S. Lotane, Director	Date
State Historic Preservation Officer	
Florida Division of Historical Resources	



United States Department of the Interior

FISH AND WILDLIFE SERVICE South Florida Ecological Services Office 1339 20th Street Vero Beach, Florida 32960 October 22, 2019



Shawn Zinszer U.S. Army Corps of Engineers Post Office Box 4970 Jacksonville, Florida 32232-0019

Subject: Consultation Key for the Florida bonneted bat; 04EF2000-2014-I-0320-R001

Dear Mr. Zinszer:

This letter replaces the December 2013, Florida bonneted bat guidelines provided to the U.S. Army Corps of Engineers (Corps) to assist your agency with effect determinations within the range of the Florida bonneted bat (*Eumops floridanus*). This October 2019 revision supersedes all prior versions. The enclosed *Florida Bonneted Bat Consultation Guidelines* and incorporated *Florida Bonneted Bat Consultation Key* (Key) are provided pursuant to the U.S. Fish and Wildlife Service's (Service) authorities under the Endangered Species Act of 1973, as amended (Act) (87 Stat. 884; 16 U.S.C.1531 *et seq.*). This letter, guidelines, and Key have been assigned Service Consultation Code: 41420- 04EF2000-2014-I-0320-R001.

The purpose of the guidelines and Key is to aid the Corps (or other Federal action agency) in making appropriate effect determinations for the Florida bonneted bat under section 7 of the Act, and streamline informal consultation with the Service for the Florida bonneted bat when the proposed action is consistent with the Key. There is no requirement to use the Key. There will be cases when the use of the Key is not appropriate. These include, but are not limited to: where project specific information is outside of the scope of the Key, applicants do not wish to implement the identified survey or best management practices, or if there is new biological information about the species. In these cases, we recommend the Corps (or other Federal action agency) initiate traditional consultation pursuant to section 7 of the Act, and identify that consultation is being requested outside of the Key.

This Key uses type of habitat (*i.e.*, roosting or foraging), survey results, and project size as the basis for making determinations of "may affect, but is not likely to adversely affect" (MANLAA) and "may affect, and is likely to adversely affect" (LAA). The Key is structured to focus on the type(s) of habitat that will be affected by a project. When proposed project areas provide features that could support roosting of Florida bonneted bats, it is considered roosting habitat. If evaluation of roosting habitat determines that roosting is not likely, then the area is subsequently evaluated for its value to the species as foraging habitat.

Roosting habitat

The guidelines describe the features of roosting habitat. When a project is proposed in roosting habitat, the likelihood that roosting is occurring is evaluated through surveys (*i.e.*, full acoustic or limited roost). When a roost is expected and the proposed activity will affect that roost, formal consultation is required. This is because the proposed activity is expected to take individuals through the destruction of the roost and the appropriate determination is that the project may affect, and is likely to adversely affect (LAA) the species. When roosting is expected, but all impacts to the roost can be avoided, and only foraging habitat (without roost structure) will be affected, the Service finds that it is reasonable to conclude that the proposed action is not likely to impair feeding, breeding, or sheltering. Thus, the proposed project may affect, but is not likely to affect the Florida bonneted bat (MANLAA).

The exception to this logic path is if the proposed action will affect more than 50 acres of foraging habitat in proximity to the roost. Under this scenario, we anticipate that the loss of the larger amount of foraging habitat near the roost could significantly impair feeding of young and overall breeding (*i.e.*, LAA). Consequently, these projects would require formal consultation to analyze the effect of the incidental take.

If the roost surveys demonstrate that roosting is not likely, the project is then evaluated for its effects to foraging habitat. Our evaluation of these actions is described below. The exception is for projects less than or equal to 5 acres if a limited roost survey is conducted. Limited roost surveys rely on peeping and visual surveys to determine whether roosting is likely. On these small projects, this survey strategy is believed to be more economical and is considered a reasonable effort to evaluate the potential for roosting. The Service acknowledges that this approach is less reliable in evaluating the likelihood of roosting when it is not combined with acoustic surveys. Therefore, when limited roost surveys are conducted for projects that are less than or equal to 5 acres in size and the determination is that roosting is not likely, we conclude that the proposed project may affect, but is not likely to adversely affect the species (MANLAA).

Foraging habitat

The guidelines describe the features of foraging habitat. Data informing the home range size of the Florida bonneted bats is limited. Global Positioning System (GPS) and radio-telemetry data for Florida bonneted bats documents that they move large distances and likely have large home ranges. Data from recovered GPS satellite tags on Florida bonneted bats tagged at Babcock-Webb Wildlife Management Area (BWWMA) found the maximum distance detected from a capture site was 24.2 mi (38.9 km); the greatest path length travelled in a single night was 56.3 mi (90.6 km) (Ober 2016; Webb 2018a-b). At BWWMA, researchers found that most individual locations were within one mile of the roost (point of capture) (Ober 2015). Additional data collected during the month of December documented the mean maximum distance Florida bonneted bats (n=8) with tags traveled from the roost was 9.5 mi (Webb 2018b).

The Service recognizes that the movement information comes from only one site (BWWMA and vicinity), and data are from small numbers (n=20) of tagged individuals for only short periods of time (Webb 2018a-b). We expect that across the Florida bonneted bat's range differences in

habitat quality, prey availability, and other factors will result in variable habitat use and home range sizes between locations. Foraging distances and home range sizes in high quality habitats are expected to be smaller while foraging distances and home range sizes in low quality habitat would be expected to be larger. Regardless, we use these studies as our best available information to evaluate when changes to foraging habitat may have an effect on the species ability to feed, breed, and shelter and subsequently result in incidental take. When considering where most of the nightly activity was observed, we calculate a foraging area centered on a roost with a 1 mile radius would include approximately 2,000 acres, and a foraging area centered on a 9.5 mile radius would encompass approximately 181,000 acres, on any given night.

Given the Service's limited understanding of how the Florida bonneted bat moves throughout its home range and selects foraging areas, we choose to use 50 acres of habitat as a conservative estimate to when loss of foraging habitat may affect the fitness of an individual to the extent that it would impair feeding and breeding. Projects that would remove, destroy or convert less than 50 acres of Florida bonneted bat foraging habitat are expected to result in a loss of foraging opportunities; however, this decrease is not expected to significantly impair the ability of the individual to feed and breed. Consequently, projects impacting less than 50 acres of foraging habitat that implement the identified best management practices in the Key would be expected to avoid take, and the appropriate determination is that the project may affect, but is not likely to adversely affect the species (MANLAA).

Next, the Service incorporated the level of bat activity into our Key to evaluate when a foraging area may have greater value to the species. When surveys document high bat activity, we deduce that this area has increased value and importance to the species. Thus, when high bat activity is detected in parcels with greater than 50 acres of foraging habitat, we anticipate that the loss, destruction, or conversion of this habitat could significantly impair the ability of an individual to feed and breed (*i.e.*, LAA); thus formal consultation is warranted.

If surveys do not indicate high bat activity, we anticipate that loss of this additional foraging habitat may affect, but is not likely to adversely affect the species (MANLAA). This is because although the acreage is large, the area does not appear to be important at the landscape scale of nightly foraging. Therefore, its loss is not anticipated to significantly impair the ability of an individual to feed or breed.

The exception to this approach is for projects greater than 50 acres when they occur in potential roosting habitat that is not found to support roosting or high bat activity. Under this scenario, the Service concludes that the loss of the large acreage of suitable roosting habitat has the potential to significantly impair the ability of an individual to breed or shelter (*i.e.*, LAA) because the species is cavities for roosting are expected to be limited range wide and the project will impair these limited opportunities for roosting.

Determinations

The Corps (or other Federal action agency) may reach one of several determinations when using this Key. Regardless of the determination, when acoustic bat surveys have been conducted, the Service requests that these survey results are provided to our office to increase our knowledge of

the species and improve our consultation process. Surveys results and reports should be transmitted to the Service at <u>FBBsurveyreport@fws.gov</u> or mail electronic file to U.S. Fish and Wildlife Service, Attention Florida bonneted bat surveys, 1339 20th Street, Vero Beach, Florida 32960. When formal consultation is requested, survey results and reports should be submitted with the consultation request to <u>verobeach@fws.gov</u>.

No effect: If the use of the Key results in a determination of "no effect," no further consultation is necessary with the Service. The Service recommends that the Corps (or other Federal action agency) documents the pathway used to reach the determination in the project record and proceeds with other species analyses as warranted.

May Affect, Not Likely to Adversely Affect (MANLAA): In this Key we have identified two ways that consultation can conclude informally, MANLAA-P and MANLAA-C.

MANLAA-P: If the use of the Key results in a determination of "MANLAA-P," the Service concurs with this determination based on the rationale provide above, and no further consultation is necessary for the effects of the proposed action on the Florida bonneted bat. The Service recommends that the Corps (or other Federal action agency) documents the pathway used to reach the determination in the project record and proceeds with other species analyses as warranted.

MANLAA-C: If the use of the Key results in a determination of MANLAA-C, further consultation with the Service is required to confirm that the Key has been used properly, and the Service concurs with the evaluation of the survey results. Survey results should be submitted with the consultation request.

May Affect, Likely to Adversely Affect (LAA) - When the determination in the Key is "LAA" technical assistance with the Service and modifications to the proposed action may enable the project to be reevaluated and conclude with a MANLAA-C determination. Under other circumstance, "LAA" determinations will require formal consultation.

Working with the Fish and Wildlife Foundation of Florida, the Service has established a fund to support conservation and recovery for the Florida bonneted bat. Any project that has the potential to affect the Florida bonneted bat and/or its habitat is encouraged to make a voluntary contribution to this fund. If you would like additional information about how to make a contribution and how these monies are used to support Florida bonneted bat recovery please contact Ashleigh Blackford, Connie Cassler, or José Rivera at 772-562-3909.

This revised Key is effective immediately upon receipt by the Corps. Should circumstances change or new information become available regarding the Florida bonneted bat and/or implementation of the Key, the determinations herein may be reconsidered and this Key further revised or amended. We have established an email address to collect comments on the Key and the survey protocols at: <u>FBBguidelines@fws.gov</u>.

Thank you for your continued cooperation in the effort to conserve fish and wildlife resources. If you have any questions regarding this Key, please contact the South Florida Ecological Services Office at 772-562-3909.

Sincerely, Roxanna Hinzman

Field Supervisor South Florida Ecological Services

Enclosure

Cc: electronic only

Corps, Jacksonville, Florida (Dale Beter, Muriel Blaisdell, Ingrid Gilbert, Alisa Zarbo, Melinda Charles-Hogan, Susan Kaynor, Krista Sabin, John Fellows)

LITERATURE CITED

- Ober, H. 2015. Annual report to USFWS for calendar year 2015. Permit number TE23583B-1. University of Florida, Department of Wildlife Ecology and Conservation, North Florida Research and Education Center. Quincy, Florida.
- Ober, H. 2016. Annual report to USFWS for calendar year 2016. Permit number TE23583B-1. University of Florida, Department of Wildlife Ecology and Conservation, North Florida Research and Education Center. Quincy, Florida.
- Webb, E.N. 2018a. Email to Paula Halupa *et al.* University of Florida, Department of Wildlife Ecology and Conservation. Gainesville, Florida. April 1, 2018.
- Webb, E.N. 2018b. Presentation given at Florida bonneted bat working group meeting at The Conservancy of Southwest Florida. University of Florida, Department of Wildlife Ecology and Conservation. Gainesville, Florida. May 24, 2016.

U.S. Fish and Wildlife Service South Florida Ecological Services Office

FLORIDA BONNETED BAT CONSULTATION GUIDELINES

October - 2019

The U.S. Fish and Wildlife Service's South Florida Ecological Services Field Office (Service) developed the Florida Bonneted Bat Consultation Guidelines (Guidelines) to assist in avoiding and minimizing potential negative effects to roosting and foraging habitat, and assessing effects to the Florida bonneted bat (Eumops floridanus) from proposed projects. The Consultation Key within the Guidelines assists applicants in evaluating their proposed projects and identifying the appropriate consultation paths under sections 7 and 10 of the Endangered Species Act of 1973 (Act), as amended (87 Stat. 884; 16 U.S.C. 1531 et seq.). These Guidelines are primarily for use in evaluating regulatory projects where development and land conversions are anticipated. These Guidelines focus on conserving roosting structures in natural and semi-natural environments. The following Consultation Area map (Figure 1 and Figure 2, Appendix A), Consultation Flowchart (Figure 3), Consultation Key, Survey

Framework (Appendices B-C), and Best Management Practices (BMPs) (Appendix D) are based upon the best available scientific information. As more information is

obtained, these Guidelines will be revised as appropriate. If

you have comments, or suggestions on these Guidelines or the Survey Protocols (Appendix B and C), please email your comments to FBBguidelines@fws.gov. These comments will be reviewed and incorporated in an annual review.

Wherever possible, proposed development projects within the Consultation Area should be designed to avoid and minimize take of Florida bonneted bats and to retain their habitat. Applicants are encouraged to enter into early technical assistance/consultation with the Service so we may provide recommendations for avoiding and minimizing adverse effects. Although these Guidelines focus on the effects of a proposed action (e.g., development) on natural habitat, (i.e., non-urban), Appendix E also provides Best Management Practices for Land Management Projects.

If you are renovating an existing artificial structure (e.g., building) within the urban environment with or without additional ground disturbing activities, these Guidelines do not apply. The Service is developing separate guidelines for consultation in these situations. Until the urban guidelines are complete, please contact the Service for additional guidance.

The final listing rule for the Florida bonneted bat (Service 2013) describes threats identified for the species. Habitat loss and degradation, as well as habitat modification, have historically affected the species. Florida bonneted bats are different from most other Florida bat species because they are reproductively active through most of the year, and their large size makes them capable of foraging long distances from their roost (Ober et al. 2016). Consequently, this species is vulnerable to disturbances around the roost during a greater portion of the year and considerations about foraging habitat extend further than the localized roost.

Terms in **bold** are further defined in the Glossary.

Use of Consultation Area, Flowchart, and Key

Figure 1 shows the Consultation Area for the Florida bonneted bat where this consultation guidance applies. For information on how the Consultation Area was delineated see Appendix A. The Consultation Flowchart (Figure 3) and Consultation Key direct project proponents through a series of couplets that will provide a conclusion or determination for potential effects to the Florida bonneted bat. *Please Note: If additional listed species, or candidate or proposed species, or designated or proposed critical habitat may be affected, a separate evaluation will be needed for these species/critical habitats.*

Currently, the Consultation Flowchart (Figure 3) and Consultation Key cannot be used for actions proposed within the urban development boundary in Miami-Dade and Broward County. The urban development boundary is part of the Consultation Area, but it is excluded from these Guidelines because Florida bonneted bats use this area differently (roosting largely in artificial structures), and small natural foraging areas are expected to be important. Applicants with projects in this area should contact the Service for further guidance and individual consultation.

Determinations may be either "no effect," "may affect, but is not likely to adversely affect" (MANLAA), or "may affect, and is likely to adversely affect" (LAA). An applicant's willingness and ability to alter project designs could sufficiently minimize effects to Florida bonneted bats and allow for a MANLAA determination for this species (informal consultation). The Service is available for early technical assistance/consultation to offer recommendations to assist in project design that will minimize effects. When take cannot be avoided, applicants and action agencies are encouraged to incorporate compensation to offset adverse effects. The Service can assist with identifying compensation options (*e.g.*, conservation on site, conservation off-site, contributions to the Service's Florida bonneted bat conservation fund, *etc.*).

Using the Key and Consultation Flowchart

- "No effect" determinations do not need Service concurrence.
- "May affect, but is not likely to adversely affect" MANLAA. Applicants will be expected to incorporate the appropriate BMPs to reach a MANLAA determination.
 - MANLAA-P (in blue in Consultation Flowchart) have programmatic concurrence through the transmittal letter of these Guidelines, and therefore no further consultation with the Service is necessary unless assistance is needed in interpreting survey results.
 - MANLAA-C (in black in Consultation Flowchart) determinations require further consultation with the Service.
- "May affect, and is likely to adversely affect" (LAA) determinations require consultation with the Service. Project modifications could change the LAA determinations in numbers 5, 8, 9, 11, 12, and 17 to MANLAA. When take cannot be avoided, LAA determinations will require a biological opinion.
- The Service requests copies of surveys used to support all determinations. If a survey is required by the Consultation Key and the final determination is "no effect" or "MANLAA-P", send the survey to <u>FBBsurveyreport@fws.gov</u>, or mail electronic file to U.S. Fish and Wildlife Service, Attention Florida bonneted bat surveys, 1339 20th Street, Vero Beach, Florida 32960. If a survey is required by the Consultation Key and the determination is "MANLAA-C" or "LAA", submit the survey in the consultation request.

For the purpose of making a decision at Couplet 2: If any potential roosting structure is present, then the habitat is classified as **potential roosting habitat**, and the left half of the flowchart should be followed (see Figure 3). We recognize that roosting habitat may also be used by Florida bonneted bats for foraging. If the project site only consists of **foraging habitat** (*i.e.*, no suitable roosting structures), then the right side of the flowchart should be followed beginning at step 13.

For couplets 11 and 12: Potential roosting habitat is considered Florida bonneted bat foraging habitat when a determination is made that roosting is not likely.

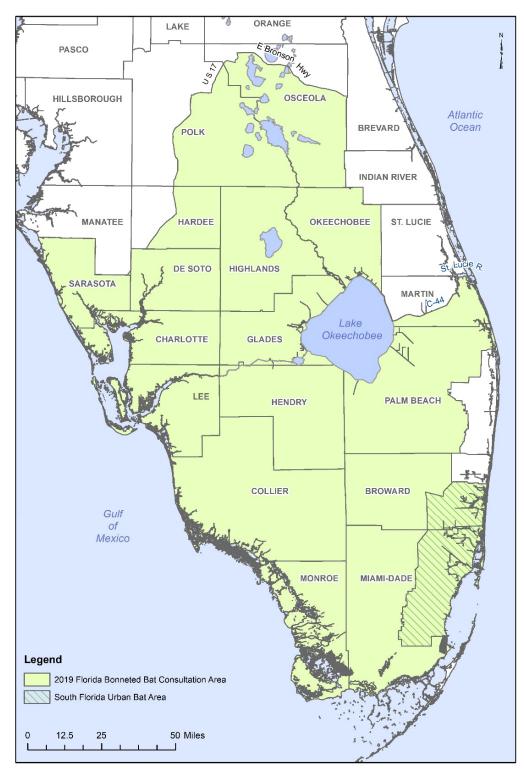


Figure 1. Florida Bonneted Bat Consultation Area. Hatched area (Figure 2) identifies the urban development boundary in Miami-Dade and Broward County. Applicants with projects in this area should contact the Service for specific guidance addressing this area and individual consultation. The Consultation Key should not be used for projects in this area.



Figure 2. Urban development boundary in Miami-Dade and Broward County. The Consultation Key should not be used for projects in this area. Applicants with projects in this South Florida Urban Bat Area should contact the Service for specific guidance addressing this area and individual consultation.

Florida Bonneted Bat Consultation Key[#]

Use the following key to evaluate potential effects to the Florida bonneted bat (FBB) from the proposed project. Refer to the Glossary as needed.

1a.	Proposed project or land use change is partially or wholly within the Consultation Area (Figure 1)Go to 2
1b.	Proposed project or land use change is wholly outside of the Consultation Area (Figure 1)No Effect
2a.	Potential FBB roosting habitat exists within the project areaGo to 3
	No potential FBB roosting habitat exists within the project areaGo to 13
3a.	Project size/footprint* ≤ 5 acres (2 hectares) Conduct Limited Roost Survey (Appendix C)
	then Go to 4
3b.	Project size/footprint* > 5 acres (2 hectares)Conduct Full Acoustic/Roost Surveys (Appendix B) then
	Go to 6
4a.	Results show FBB roosting is likelyGo to 5
4b.	Results do not show FBB roosting is likelyMANLAA-P if BMPs (Appendix D) used and
	survey reports are submitted. Programmatic concurrence.
5a.	Project will affect roosting habitatLAA ⁺ Further consultation with the Service required.
	Project will not affect roosting habitat MANLAA-C with required BMPs
	(Appendix D). Further consultation with the Service required.
6a.	Results show some FBB activityGo to 7
	Results show no FBB activity
7a.	Results show FBB roosting is likelyGo to 8
7b.	Results do not show FBB roosting is likelyGo to 10
8a.	Project will not affect roosting habitat
8b.	Project will affect roosting habitatLAA ⁺ Further consultation with the Service required.
9a.	Project will affect* > 50 acres (20 hectares) (wetlands and uplands) of foraging habitatLAA ⁺ Further
	consultation with the Service required.
9b.	Project will affect* \leq 50 acres (20 hectares) (wetlands and uplands) of foraging habitat MANLAA-C
	with required BMPs (Appendix D). Further consultation with the Service required.
10a.	Results show high FBB activity/useGo to 11
10b.	Results do not show high FBB activity/useGo to 12
11a.	Project will affect* > 50 acres (20 hectares) (wetlands and uplands) of FBB habitat (roosting and/or
	foraging) LAA+ Further consultation with the Service required.
11b.	Project will affect* \leq 50 acres (20 hectares) (wetlands and uplands) of FBB habitat (roosting and/or
	foraging) MANLAA-C with required BMPs (Appendix D). Further consultation with the Service
	required.
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12a.	Project will affect* > 50 acres (20 hectares) (wetlands and uplands) of FBB habitat LAA ⁺ Further
	consultation with the Service required.
12b.	Project will affect* ≤ 50 acres (20 hectares) (wetlands and uplands) of FBB habitat MANLAA-P
	if BMPs (Appendix D) used and survey reports are submitted. Programmatic concurrence.

13a.	FBB foraging habitat exists within the project area <u>and</u> foraging habitat will be affected
13b.	FBB foraging habitat exists within the project area <u>and</u> foraging habitat will not be affected OR no FBB foraging habitat exists within the project area No Effect
	Project size* > 50 acres (20 hectares) (wetlands and uplands)
	Project is within 8 miles (12.9 kilometers) of high quality potential roosting areas [^] Conduct Full Acoustic Survey (Appendix B) and Go to 16 Project is not within 8 miles (12.9 kilometers) of high quality potential roosting area [^] MANLAA-P if BMPs (Appendix D) used. Programmatic concurrence.
	Results show some FBB activity
	Results show high FBB activity/useLAA ⁺ Further consultation with the Service required. Results do not show high FBB activity/use

If you are within the urban environment and you are renovating an existing artificial structure (with or without additional ground disturbing activities), these Guidelines do not apply. The Service is developing separate guidelines for consultation in these situations. Until the urban guidelines are complete, please contact the Service for additional guidance
*Includes wetlands and uplands that are going to be altered along with a 250- foot (76.2- meter) buffer around these areas if the parcel is larger than the altered area.

⁺Project modifications could change the LAA determinations in numbers 5, 8, 9, 11, 12, and 17 to MANLAA determinations. [^]Determining if high quality potential roosting areas are within 8 mi (12.9 km) of a project is intended to be a desk-top exercise looking at most recent aerial imagery, not a field exercise.

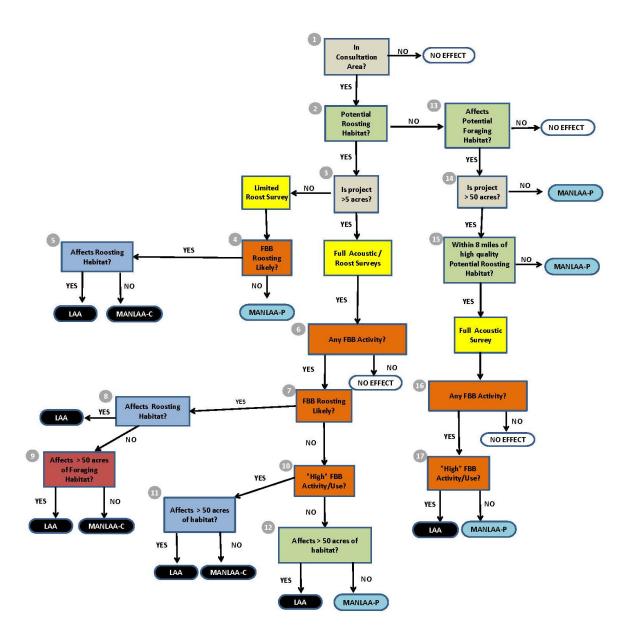


Figure 3. Florida bonneted bat Consultation Flowchart. "No effect" determinations do not need Service concurrence. "May affect, but not likely to adversely affect", MANLAA-P, in blue have programmatic concurrence through the transmittal letter of these Guidelines, and therefore no further consultation with the Service is necessary unless assistance is needed in interpreting survey results. MANLAA-C determinations in black require further consultation with the Service. Applicants are expected to incorporate the appropriate BMPs to reach a MANLAA determination. "May affect, and is likely to adversely affect", LAA, (also in black) determinations require consultation with the Service. Further consultation with the Service may identify project modifications that could change the LAA determinations in numbers 5, 8, 9, 11, 12, and 17 to MANLAA determinations. The Service requests Florida bonneted bat survey reports for all determinations.

GLOSSARY

BMPs – Best Management Practices. Recommendations for actions to conserve roosting and foraging habitat to be implemented before, during, and after proposed development, land use changes, and land management activities.

FBB Activity – Florida bonneted bat (FBB) activity is when any Florida bonneted bat calls are recorded during an acoustic survey or human observers see or hear Florida bonneted bats on a site.

FORAGING HABITAT - Comprised of relatively open (*i.e.*, uncluttered or reduced numbers of obstacles, such as fewer tree branches and leaves, in the flight environment) areas to find and catch prey, and sources of drinking water. In order to find and catch prey, Florida bonneted bats forage in areas with a reduced number of obstacles. This includes: open fresh water, permanent or seasonal freshwater wetlands, within and above wetland and upland forests, wetland and upland shrub, and agricultural lands (Bailey *et al.* 2017). In urban and residential areas drinking water, prey base, and suitable foraging can be found at golf courses, parking lots, and parks in addition to relatively small patches of natural habitat.

FULL ACOUSTIC/ROOST SURVEY - This is a comprehensive survey that will involve systematic acoustic surveys (*i.e.*, surveys conducted 30 minutes prior to sunset to 30 minutes after sunrise, over multiple consecutive nights). Depending upon acoustic results and habitat type, targeted roost searches through thorough visual inspection using a tree-top camera system or observations at emergence (*e.g.*, looking and listening for bats to come out of tree cavities around sunset) or more acoustic surveys may be necessary. See Appendix B for a full description.

HIGH FBB ACTIVITY/USE - High Florida bonneted bat (FBB) activity/use or importance of an area can be defined using several parameters (*e.g.*, types of calls, numbers of calls). An area will be considered to have high FBB activity/use if <u>ANY</u> of the following are found: (a) multiple FBB feeding buzzes are detected; (b) FBB social calls are recorded; (c) large numbers of Florida bonneted bat calls (9 or more) are recorded throughout one night. Each of these parameters is considered to indicate that an area is actively used and important to FBBs, however, the Service will further evaluate the activity/use of the area within the context of the site (*i.e.*, spatial distribution of calls, site acreage, habitat on site, as well as adjacent habitat) and provide additional guidance.

HIGH QUALITY POTENTIAL ROOSTING AREAS - Sizable areas (>50 acres) [20 hectares] that contain large amounts of high-quality, natural roosting structure – (*e.g.*, predominantly native, mature trees; especially pine flatwoods or other areas with a large number of cavity trees, tree hollows, or high woodpecker activity).

LAA - May Affect, and is Likely to Adversely Affect. The appropriate conclusion if any adverse effect to listed species may occur as a direct or indirect result of the proposed action or its interrelated or interdependent actions, and the effect is not: discountable, insignificant, or

beneficial [see definition of "may affect, but is not likely to adversely affect" (MANLAA)]. In the event the overall effect of the proposed action is beneficial to the listed species, but also is likely to cause some adverse effects, then the proposed action is "likely to adversely affect" the listed species. If incidental take is anticipated to occur as a result of the proposed action, an "is likely to adversely affect" (LAA) determination should be made. An "is likely to adversely affect" determination requires the initiation of formal section 7 consultation.

LIMITED ROOST SURVEY - This is a reduced survey that may include the following methods: acoustics, observations at emergence (*e.g.*, looking and listening for bats to come out of tree cavities around sunset), and visual inspection of trees with cavities or loose bark using tree-top cameras (or combination of these methods). Methods are fairly flexible and dependent upon composition and configuration of project site and willingness and ability of applicant and partners to conserve roosting structures on site. See also Appendix C for a full description.

MANLAA - May Affect, but is Not Likely to Adversely Affect. The appropriate conclusion when effects on listed species are expected to be discountable, insignificant, or completely beneficial. Beneficial effects are contemporaneous positive effects without any adverse effects to the species. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Discountable effects are those extremely unlikely to occur. Based on best judgment, a person would not: (1) be able to meaningfully measure, detect, or evaluate insignificant effects; or (2) expect discountable effects to occur. To use these Guidelines and Consultation Key applicants must incorporate the appropriate **BMPs** (Appendix D) to reach a **MANLAA** determination.

In this Consultation Key we have identified two ways that consultation can conclude informally, **MANLAA-P and MANLAA-C**:

MANLAA-P: programmatic concurrence is provided through the transmittal letter of these Guidelines, no additional consultation is required with the Service for Florida bonneted bats. All survey results must be submitted to Service.

MANLAA-C: further consultation with the Service is required to confirm that the Consultation Key has been used properly, and the Service concurs with the evaluation of the survey results. Request for consultation must include survey results.

NO EFFECT - The appropriate conclusion when the action agency determines its proposed action will not affect listed species or designated critical habitat.

POTENTIAL ROOSTING HABITAT - Includes forest and other areas with tall, mature trees or other areas with suitable roost structures (*e.g.*, utility poles, artificial structures). Forest is defined as all types including: pine flatwoods, scrubby flatwoods, pine rocklands, royal palm hammocks, mixed or hardwood hammocks, cypress, sand pine scrub, or other forest types. (Forrest types currently include exotic forests such as melaleuca, please contact the Service for additional guidance as needed). More specifically, this includes habitat in which suitable structural features for breeding and sheltering are present. In general, roosting habitat contains one or more of the following structures: tree snags, and trees with cavities, hollows, deformities, decay, crevices, or loose bark. Structural characteristics are of primary importance.

Florida bonneted bats have been found roosting in habitat with the following structural features, but may also occur outside of these parameters:

- trees greater than 33 feet (10 meters) in height, greater than 8 inches (20 centimeters) in diameter at breast height (DBH), with cavity elevations higher than 16 feet (5 meters) above ground level (Braun de Torrez 2019);
- areas with a high incidence of large or mature live trees with various deformities (*e.g.*, large cavities, hollows, broken tops, loose bark, and other evidence of decay) (*e.g.*, pine flatwoods);
- rock crevices (*e.g.*, limestone in Miami-Dade County); and/or
- artificial structures, mimicking natural roosting conditions (*e.g.*, bat houses, utility poles, buildings), situated in natural or semi-natural habitats.

In order for a building to be considered a roosting structure, it should be a minimum of 15 feet high and contain one or more of the following features: chimneys, gaps in soffits, gaps along gutters, or other structural gaps or crevices (outward entrance approximately 1 inch (2.5 centimeters) in size or greater. Structures similar to the above (*e.g.*, bridges, culverts, minimum of 15 feet high) are expected to also provide roosting habitat, based upon the species' morphology and behavior (Keeley and Tuttle 1999). Florida bonneted bat roosts will be situated in areas with sufficient open space for these bats to fly (*e.g.*, open or semi-open canopy, canopy gaps, above the canopy, and edges which provide relatively uncluttered conditions [*i.e.*, reduced numbers of obstacles, such as fewer tree branches and leaves, in the flight environment]).

For the purpose of this Consultation Key: *Roosting habitat refers to habitat with structures that can be used for daytime and maternity roosting. Roosting at night between periods of foraging can occur in a broader range of structure types. For the purposes of this guidance we are focusing on day roosting habitat.*

ROOSTING IS LIKELY– Determining likelihood of roosting is challenging. The Service has provided the following definition for the express purpose of these Guidelines. Researchers use additional cues to assist in locating roosts. As additional indicators are identified and described we expect our Guidelines will be improved.

In this Consultation Key the Service will consider the following evidence indicative that roosting is likely nearby (*i.e.*, reasonably certain to occur) if <u>ANY</u> of the following are documented: (a) Florida bonneted bat calls are recorded within 30 minutes before sunset to $1\frac{1}{2}$ hours following sunset or within $1\frac{1}{2}$ hours before sunrise; (b) emergence calls are recorded; (c) human observers see (or hear) Florida bonneted bats flying from or to potential roosts; (d) human observers see and identify Florida bonneted bats within a natural roost or artificial roost; and/or (e) other bat sign (*e.g.*, guano, staining, etc.) is found that is identified to be Florida bonneted bat through additional follow-up.

In addition to the aforementioned events, researchers consider roosting likely in an area when (1) large numbers of Florida bonneted bat calls are recorded throughout the night (*e.g.*, ≥ 25 files per night at a single acoustic station when 5 second file lengths are recorded); (2) large numbers of FBB calls are recorded over multiple nights (*e.g.*, an average of ≥ 20 files per night from a single detector when 5 second file lengths are recorded); or (3) social calls are recorded. Because social calls and large numbers of calls recorded over one or more nights can be indicative of high

FBB activity/use <u>or</u> when roosting is likely, the Service is choosing not to use these as indicators to make the determination that roosting is likely. Instead we are relying on the indicators that are only expected to occur at or very close to a roost location [(a)-(e) above].

TAKE - to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct. [ESA §3(19)] <u>Harm</u> is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering. <u>Harass</u> is defined by the Service as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. [50 CFR §17.3].

Literature Cited

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Appendix A. Delineation and Justification for Consultation Area

The Consultation Area (Figure 1) represents the general range of the species. The Consultation Area represents the area within which consideration should be given to potential effects to Florida bonneted bats from proposed projects or actions. Coordination and consultation with the Service helps to determine whether proposed actions and activities may affect listed species. This Consultation Area defines the area where proposed actions and activities may affect the Florida bonneted bat.

This area was delineated using confirmed presence data, key habitat features, reasonable flight distances and home range sizes. Where data were lacking, we used available occupancy models that predict probability of occurrence (Bailey *et al.* 2017). Below we describe how each one of these data sources was used to determine the overall Consultation Area.

<u>Presence data</u>: Presence data included locations for: (1) confirmed Florida bonneted bat acoustic detections; (2) known roost sites (occupied or formerly occupied; includes natural roosts, bat houses, and utility poles); (3) live Florida bonneted bats observed or found injured; (4) live Florida bonneted bats captured during research activities; and (5) Florida bonneted bats reported as dead. The Geographic Information Systems (GIS) dataset incorporates information from January 2003 to May 2019.

The vast majority of the presence data came from acoustic surveys. The species' audible, low frequency, distinct, echolocation calls are conducive for acoustic surveys. However, there are limitations in the range of detection from ultrasonic devices, and the fast, high-flying habits of this species can confound this. Overall, detection probabilities for Florida bonneted bats are generally considered to be low. For example, in one study designed to investigate the distribution and environmental associations of Florida bonneted bat, Bailey *et al.* 2017 found overall nightly detection probability was 0.29. Based on the estimated detection probabilities in that study, it would take 9 survey nights (1 detector per night) to determine with 95% certainty whether Florida bonneted bat are present at a sampling point. Positive acoustic detection data are extremely valuable. However, it is important to recognize that there are issues with false negatives due to limitations of equipment, low detection probabilities, difference in detection due to prey availability and seasonal movement over the landscape, and in some circumstances improperly conducted surveys (*i.e.*, short duration or in unsuitable weather conditions).

<u>Key habitat features</u>: We considered important physical and biological features with a focus on potential roosting habitat and applied key concepts of bat conservation (*i.e.*, need to conserve roosting habitat, foraging habitat, and prey base). To date, all known natural Florida bonneted bat roosts (n=19 have been found in live trees and snags of the following types: slash pine, longleaf pine, royal palm, and cypress (Braun de Torrez 2018). Several of the recent roost discoveries are located in fire-maintained vegetation communities, and it appears that Florida bonneted bats are fire-adapted and can benefit from prescribed burn regimes that closely mimic historical fire patterns (Ober *et al.* 2018).

From a landscape and roosting perspective, we consider key habitat features to include forested areas and other areas with mature trees, wetlands, areas used by red-cockaded woodpeckers

(*Picoides borealis*; RCW), and fire-managed and other conservation areas. However, recent work suggests that Florida bonneted bats do not use pinelands more than other land cover types (Bailey *et al.* 2017). In fact, Bailey *et al.* 2017 detected Florida bonneted bats in all land cover types investigated in their study (e.g., agricultural, developed, upland, and wetland). For the purposes of these consultation guidelines, we are focusing on the conservation of potential roosting habitats across the species' range. However, we also recognize the need for comprehensive consideration of foraging habitats, habitat connectivity, and long-term suitability.

<u>Flight distances and home range sizes</u>: Like most bats, Florida bonneted bats are colonial central-place foragers that exploit distant and scattered resources (Rainho and Palmeirim 2011). Morphological characteristics (narrow wings, high wing-aspect ratio) make *Eumops* spp. well-adapted for efficient, low-cost, swift, and prolonged flight in open areas (Findley *et al.* 1972, Norberg and Rayner 1987). Other Eumops including Underwood's mastiff bat (*Eumops underwoodi*), and Greater mastiff bat or Western mastiff bat (*Eumops perotis*) are known to forage and/or travel distances ranging from 6.2 miles to 62 miles from the roost with multiple studies documenting flight distances approximately 15- 18 miles from the roost (Tibbitts *et al* 2002, Vaugh 1959 as cited in Best *et al.* 1996, Siders *et al.* 1999, Siders 2005, Vaughan 1959 as cited in Siders 2005.)

Like other *Eumops*, Florida bonneted bats are strong fliers, capable of travelling long distances (Belwood 1992). Recent Global Positioning System (GPS) and radio-telemetry data for Florida bonneted bats documents that they also move large distances and likely have large home ranges. Data from recovered GPS satellite tags on Florida bonneted bats tagged at Babcock-Webb Wildlife Management Area (WMA), found the maximum distance detected from a capture site was 24.2 mi (38.9 km); the greatest path length travelled in a single night was 56.3 mi (90.6 km) (Ober 2016; Webb 2018a-b). Additional data collected during the month of December documented the mean maximum distance of Florida bonneted bats (n=8) with tags traveled from the roost was 9.5 mi (Webb 2018b). The Service recognizes that the movement information comes from only one site (Babcock-Webb WMA and vicinity), and data are from small numbers (n=20) of tagged individuals for only short periods of time (Webb 2018a-b). We expect that across the Florida bonneted bat's range differences in habitat quality, prey availability, and other factors will result in variable habitat use and home range sizes between locations. Foraging distances and home range sizes in high quality habitats are expected to be smaller while foraging distances and home range sizes in low quality habitat would be expected to be larger. Consequently, because Babcock-Webb WMA provides high quality roosting habitat, this movement data could represent the low end of individual flight distances from a roost.

Given the species' morphology and habits (*e.g.*, central-place forager) and considering available movement data from other *Eumops* and Florida bonneted bats discussed above, we opted to use 15 miles (24 km) as a reasonable estimate of the distance Florida bonneted bats would be expected to travel from a roost on any given night. For the purposes of delineating a majority of the Consultation Area, we used available confirmed presence point location data and extended out 15 miles (24 km), with modifications for habitat features (as described above). As more movement data are obtained and made available, this distance estimate may change in the future.

<u>Occupancy model</u> – Research by Bailey *et al.* (2017) indicates the species' range is larger than previously known. Their model performed well across a large portion of the previously known

range when considering confirmed Florid bonneted bat locations; thus it is anticipated to be useful where limited information is available for the species.

We used the model output from Bailey *et al.* (2017) to more closely examine areas where we are data-deficient (*i.e.*, areas where survey information is particularly lacking). We considered 0.27 probability of occurrence a filter for high likelihood of occurrence because 0.27 was the model output for Babcock-Webb WMA, an area where Florida bonneted bats are known to occupy and heavily use. Large portions of Sarasota, Martin, and Palm Beach counties were identified as having probability of occurrence of 0.27. The consultation area should include areas where the species has a high likelihood of occurring. Based on this reasoned approach, all of Sarasota County, portions of Martin County, and greater parts of Palm Beach County were included in the Consultation Area.

We recognize that there are areas in the northern portion of the range where the model is less successful predicting occurrence based on the known Florida bonneted bat locations (*i.e.*, the model predicts low likelihood of occurrence on Avon Park Air Force range, where the species is known to roost). Consequently, the Service is proactively working with partners to conduct surveys in the areas added based on the model to confirm that inclusion of these portions of the aforementioned counties is appropriate. The Consultation Area may be adjusted based on changes in this information.

Literature Cited -Appendix A

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Appendix B: Full Acoustic / Roost Survey Framework

<u>Purpose</u>: The purpose of this survey is to: (1) determine if Florida bonneted bats are likely to be actively roosting or using the site; (2) locate active roost(s) and avoid the loss of the structure, if possible; and, (3) avoid or minimize the take of individuals. In some cases, changes in project designs or activities can help avoid and minimize take. For example, project proponents may be able to retain suspected roosts or conserve roosting and foraging habitats. Changing the timing or nature of activities can also help reduce the losses of non-volant young or effects to pregnant or lactating females. If properly conducted, acoustic surveys are the most effective way to determine presence and assess habitat use. If the applicant is unable to follow or does not want to follow the Full Acoustic/Roost Survey framework when recommended according to the Key, the Corps (or other Action Agency) will not be able to use these Guidelines and will need to provide a biologically supported rational using the best available information for their determination in their request for consultation.

<u>General Description</u>: This is a comprehensive survey effort, and robust acoustic surveys (*i.e.*, surveys conducted 30 minutes prior to sunset to 30 minutes after sunrise, over multiple nights) are a fundamental component of the approach. Depending upon acoustic results and habitat type, it may also include: observations at emergence (*e.g.*, emergence surveys during which observers look and listen for bats to come out of roost structures around sunset), visual inspection of trees/snags (*i.e.*, those with cavities, hollows, and loose bark) and other roost structures with tree-top cameras, or follow-up targeted acoustic surveys. Methods are dependent upon composition and configuration of project site and willingness and ability of applicant and partners to conserve roosting and foraging habitats on site.

General Survey Protocol:

[Note: The Service will provide more information in separate detailed survey protocols in the near future. This will include specific information on: detector types, placement, orientation, verification of proper functioning, analysis, reporting requirements, etc.]

- Approach is intended for project sites > 5 acres (2 hectares).
- For sites containing roosting habitat, acoustic surveys should primarily focus on assessing roosting habitat within the project site that will be lost or modified (*i.e.*, areas that will not be conserved), and locations on the property within 250 feet (76.2 meters) of areas that will not be conserved. This will help avoid or minimize the loss of an active roost and individuals. Secondarily, since part of the purpose is to determine if Florida bonneted bats are using the site, acoustic devices should also be placed near open water and wetlands to maximize chances of detection and aid in assessing foraging habitat that may be lost.
- For sites that do not contain ANY roosting habitat, but do contain foraging habitat (see Figure 3 Consultation Flowchart and Key, Step 2 [no], Step 13 [yes]), efforts should focus on assessing foraging habitat within the project site that will be lost or modified (*i.e.*, areas that will not be conserved).
- Acoustic surveys should be performed by those who are trained and experienced in setting up, operating, and maintaining acoustic equipment; and retrieving, saving,

analyzing, and interpreting data. Surveyors should have completed one or more of the available bat acoustic courses/workshops, or be able to show similar on-the-job or academic experience (Service 2018).

- Due to the variation in the quality of recordings, the influence of clutter, the changing
 performances of software packages over time, and other factors, manual verification is
 recommended (Loeb *et al.* 2015). Files that are identified to species from auto-ID
 programs must be visually reviewed and manually verified by experienced personnel.
- Acoustic devices should be set up to record from 30 minutes prior to sunset to 30 minutes after sunrise for multiple nights, under suitable weather conditions.
- Acoustic surveys can be conducted any time of year as long as weather conditions meet the criteria. If any of the following weather conditions exist at a survey site during acoustic sampling, note the time and duration of such conditions, and repeat the acoustic sampling effort for that night: (a) temperatures fall below 65°F (18.3°C) during the first 5 hours of survey period; (b) precipitation, including rain and/or fog, that exceeds 30 minutes or continues intermittently during the first 5 hours of the survey period; and (c) sustained wind speeds greater than 9 miles/hour (4 meters/second; 3 on Beaufort scale) for 30 minutes or more during the first 5 hours of the survey period (Service 2018). At a minimum, nightly weather conditions for survey sites should be checked using the nearest NOAA National Weather Service station and summarized in the survey reports. Although not required at this time, it has been demonstrated that conducting surveys on warm nights late in the spring can help maximize detection probabilities (Ober *et al.* 2016; Bailey *et al.* 2017).
- Acoustic devices should be calibrated and properly placed. Microphones should be directed away from surrounding vegetation, not beneath tree canopy, away from electrical wires and transmission lines, away from echo-producing surfaces, and away from external noises. Directional microphones should be aimed to sample the majority of the flight path/zone. Omnidirectional microphones should be deployed on a pole in the center of the flight path/zone and oriented horizontally. For monitoring possible roost sites, microphones should be directed to maximize likelihood of detection.
- To standardize recordings, acoustic device recordings should have a 2-second trigger window and a maximum file length of 15 seconds.
- The number of acoustic survey sites and nights needed for the assessment is dependent upon the overall acreage of suitable habitat proposed to be impacted by the action.
 - For non-linear projects, a minimum of 16 detector nights per 20 acres of suitable habitat expected to be impacted is recommended.
 - For linear projects (*e.g.*, roadways, transmission lines), a minimum of five detector nights per 0.6 mi (0.97 km) is recommended. Detectors can be moved to multiple locations within each kilometer surveyed, but must remain in a single location throughout any given night.
 - For any site, and in particular for sites > 250 acres, please contact the Service to assist in designing an appropriate approach.
- If results of acoustic surveys show high Florida bonneted bat activity or Florida bonneted bat roosting likely (*e.g.*, high activity early in the evening) (see definitions in Glossary), follow-up methods such as emergence surveys, visual inspection of the roosting structures, or follow-up acoustic surveys are recommended to locate potential roosts. Using a combination of methods may be helpful.

- For bat emergence surveys, multiple observers should be stationed at potential roosts if weather conditions (as above) are suitable. Surveyors should be quietly stationed 30 minutes before sunset so they are ready to look and listen for emerging FBBs from sunset to 1½ hours after sunset. When conducting emergence surveys it is best to orient observers so that the roost is silhouetted in the remaining daylight; facing west can help maximize the ability to notice movement of animals out of a roost structure.
- Visual inspection of trees with cavities and loose bark during the day may be helpful. Active RCW trees should not be visually inspected during the RCW breeding season (April 15 through June 15).
- Visual inspection alone is not recommended due to the potential for roosts to be too high for cameras to reach, too small for cameras to fit, or shaped in a way that contents are out of view (Braun de Torrez *et al.* 2016).
- If roosting is suspected on site, use tree-top cameras during the day to search those trees/snags or other structures that have potential roost features (*i.e.*, cavities, hollows, crevices, or other structure for permanent shelter). If unsuccessful (*e.g.*, cannot see entire contents within a given cavity, cannot reach cavity, cannot see full extent of cavity) OR occupied roosts are found with the tree-top camera within the area in which high Florida bonneted bat activity/likely Florida bonneted bats roosting were identified, we recommend emergence surveys and/or acoustics to verify occupancy and/or identify bat species.
- Provide report showing effort, methods, weather conditions, findings, and summary of acoustic data relating to Florida bonneted bats (*e.g.*, # of calls, time of calls, and station number) organized by the date on which the data were collected. Sonograms of all calls with signatures at or below 20kHz shall be included in the report. The report shall be provided to the Corps project manager assigned to the project for which the survey was conducted and to the Service via the email address verobeach@fws.gov. Raw acoustic data should be provided to the Service for all surveys. Raw acoustic data should be provided as "all raw data" and "all raw data with signatures at or below 20kHz". Data can be submitted to the Service via flash drive, memory stick, or hard drive. Data can be submitted digitally to verobeach@fws.gov or via mail to U.S. Fish and Wildlife Service, Attn: Florida bonneted bat data manager, 1339 20th Street, Vero Beach, Florida 32960.
- Negative surveys are valid for 1 year after completion of the survey.

If you have comments, or suggestions on this survey protocols, please email your comments to <u>FBBguidelines@fws.gov</u>. These comments will be reviewed and incorporated in an annual review.

Literature Cited – Appendix B

- Bailey, A.M., H.K. Ober, A.R. Sovie, and R.A. McCleery. 2017. Impact of land use and climate on the distribution of the endangered Florida bonneted bat. Journal of Mammalogy. 98:1586-1593.
- Braun de Torrez, E.C., H.K. Ober, and R.A. McCleery. 2016. Use of a multi-tactic approach to locate and endangered Florida bonneted bat roost. Southeastern Naturalist 15(2):235-242.
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Appendix C: Limited Roost Survey Framework

<u>Purpose</u>: The purpose of this survey is to: (1) determine if Florida bonneted bats are likely to be actively roosting within suitable structures on-site; (2) locate active roost(s) and avoid the loss of the structure, if possible; and, (3) avoid or minimize the take of individuals. In some cases, changes in project designs or activities can help avoid and minimize take. For example, applicants and partners may be able to retain the suspected roosts or conserve roosting and foraging habitats. Changing the timing of activities can also help reduce the losses of non-volant young or effects to pregnant or lactating females.

<u>General Description</u>: This is a reduced survey effort that may include the following methods: visual inspection of trees/snags (*i.e.*, those with cavities, hollows, and loose bark) and other roost structures with tree-top cameras, observations at emergence (*e.g.*, emergence surveys during which observers look and listen for bats to come out of roost structures around sunset), acoustic surveys, or a combination of these methods. Methods are fairly flexible and dependent upon composition and configuration of project site and willingness and ability of applicant and partners to conserve roosting habitat on site.

General Survey Protocol:

[Note: The Service will provide more information in separate, detailed survey protocols in the near future. This will include specific information on: detector types, placement, orientation, verification of proper functioning, analysis, reporting requirements, etc.]

- Approach is intended only for small project sites (*i.e.*, sites ≤ 5 acres [2 hectares]).
- Efforts should focus on assessing potential roosting structures within the project site that will be lost or modified (*i.e.*, areas that will not be conserved), or are located on the property within 250 feet (76.2 meters) of areas that will not be conserved.

Identification of potential roost structures

- This step is necessary prior to any of the methods that follow.
- Run line transects through roosting habitat close enough that all trees and snags are easily inspected. Transect spacing will vary with habitat structure and season from a maximum of 91 m (300 ft) between transects in very open pine stands to 46 m (150 ft) or less in areas with dense mid-story. Transects should be oriented north to south, to optimize cavity detectability because many RCW cavity entrances are oriented in a westerly direction (Service 2004).
- Visually inspect all trees and snags or other structures for evidence of cavities, hollows, crevices that can be used for permanent shelter. Using binoculars, examine structures for cavities, loose bark, hollows, or other crevices that are large enough for Florida bonneted bats (diameter of opening > or = to 1 inch (2.5 cm) (Braun de Torrez *et al.* 2016).
- When potential roosting structures are found, record their location in the field using a Global Positioning System (GPS) unit.

Visual Inspection of trees and snags with tree-top cameras

• Visually inspect all cavities using a video probe (peeper) and assess the cavity contents.

Active RCW trees should not be visually inspected during the RCW breeding season (April 15 through June 15).

- Visual inspection alone is valid only when the entire cavity is observed and the contents can be identified. Typically, acoustics at emergence will also be needed to definitively identify bat species, if bats are present or suspected.
- If bats are suspected, or if contents cannot be determined, or if the entire cavity cannot be observed with the video probe; follow methods for an Acoustic Survey or an Emergence Survey (below). If the Corps (or other action agency) or applicant does not wish to conduct acoustic or emergence surveys, the Corps (or other action agency) cannot use the key and must request formal consultation with the Service.
- Record tree species or type of cavity structure, tree diameter and height, cavity height, cavity orientation and cavity contents.

Emergence Surveys

- For bat emergence surveys, multiple observers should be stationed at potential roosts if weather conditions (as described below in Acoustic Surveys) are suitable.
- Surveyors should be quietly stationed 30 minutes prior to sunset so they are ready to look and listen for emerging Florida bonneted bats from sunset to 1¹/₂ hours after sunset.
- When conducting emergence surveys it is best to orient observers so that the roost is silhouetted in the remaining daylight; facing west can help maximize the ability to notice movement of animals out of a roost structure.
- Record number of bats that emerged, the time of emergence, and if bat calls were heard.

Acoustic surveys

- Acoustic surveys should be performed by those who are trained and experienced in setting up, operating, and maintaining acoustic equipment; and retrieving, saving, analyzing, and interpreting data. Surveyors should have completed one or more of the available bat acoustic courses/workshops, or be able to show similar on-the-job or academic experience (Service 2018).
- Due to the variation in the quality of recordings, the influence of clutter, and the changing performances of software packages over time, and other factors, manual verification is recommended (Loeb *et al.* 2015). Files that are identified to species from auto-ID programs must be visually reviewed and manually verified by experienced personnel.
- Acoustic devices should be set up to record from 30 minutes prior to sunset to 30 minutes after sunrise for multiple nights, under suitable weather conditions.
- Acoustic surveys can be conducted any time of year as long as weather conditions meet the criteria. If any of the following weather conditions exist at a survey site during acoustic sampling, note the time and duration of such conditions, and repeat the acoustic sampling effort for that night: (a) temperatures fall below 65°F (18.3°C) during the first 5 hours of survey period; (b) precipitation, including rain and/or fog, that exceeds 30 minutes or continues intermittently during the first 5 hours of the survey period; and (c) sustained wind speeds greater than 9 miles/hour (4 meters/second; 3 on Beaufort scale) for 30 minutes or more during the first 5 hours of the survey period (Service 2018). At a minimum, nightly weather conditions for survey sites should be checked using the nearest NOAA National Weather Service station and summarized in the survey reports. Although not required at this time, it has been demonstrated that conducting surveys on

warm nights late in the spring can help maximize detection probabilities (Ober *et al.* 2016; Bailey *et al.* 2017).

- Acoustic devices should be calibrated and properly placed. Microphones should be directed away from surrounding vegetation, not beneath tree canopy, away from electrical wires and transmission lines, away from echo-producing surfaces, and away from external noises. Directional microphones should be aimed to sample the majority of the flight path/zone. Omnidirectional microphones should be deployed on a pole in the center of the flight path/zone and oriented horizontally. For monitoring possible roost sites, microphones should be directed to maximize likelihood of detection.
- To standardize recordings, acoustic device recordings should have a 2-second trigger window and a maximum file length of 15 seconds.
- Acoustic surveys should be conducted over a minimum of four nights.
- If acoustic devices cannot be left in place for the entire night for multiple nights as above, then a combination of short acoustic surveys (from sunset and extending for 1½ hours), stationed observers for emergence surveys or visual inspection of trees/snags with treetop cameras may be acceptable. Contact the Service for guidance under this circumstance.

Reporting

- Provide report showing effort, methods, weather conditions, findings, and summary of acoustic data relating to Florida bonneted bat by date (e.g., # of calls, time of calls). Sonograms of all calls with signatures at or below 20kHz shall be included in the report. The report shall be provided to the Corps project manager assigned to the project for which the survey was conducted and to the Service via the email address verobeach@fws.gov. Raw acoustic data should be provided to the Service for all surveys. Raw acoustic data should be provided as "all raw data" and "all raw data with signatures at or below 20kHz". Data can be submitted to the Service via flash drive, memory stick, or hard drive. Data can be submitted digitally to verobeach@fws.gov or via mail to U.S. Fish and Wildlife Service, Attn: Florida bonneted bat data manager, 1339 20th Street, Vero Beach, Florida 32960.
- Negative surveys are valid for 1 year after completion of the survey

If you have comments, or suggestions on this survey protocols, please email your comments to <u>FBBguidelines@fws.gov</u>. These comments will be reviewed and incorporated in an annual review.

Literature Cited – Appendix C

- Bailey, A.M., H.K. Ober, A.R. Sovie, and R.A. McCleery. 2017. Impact of land use and climate on the distribution of the endangered Florida bonneted bat. Journal of Mammalogy. 98:1586-1593.
- Braun de Torrez, E.C., H.K. Ober, and R.A. McCleery. 2016. Use of a multi-tactic approach to locate and endangered Florida bonneted bat roost. Southeastern Naturalist 15(2):235-242.
- Loeb, S.C., T.J. Rodhouse, L.E. Ellison, C.L. Lausen, J.D. Reichard, K.M. Irvine, T.E. Ingersoll, J.T.H. Coleman, W.E. Thogmartin, J.R. Sauer, C.M. Francis, M.L. Bayless, T.R. Stanley, and D.H. Johnson. 2015. A plan for the North American bat monitoring program (NABat). United States Department of Agriculture. Forest Service. Research & Development, Southern Research Station. General Technical Report SRS-208.
- Ober, H.K., E.C. Braun de Torrez, J.A. Gore, A.M. Bailey, J.K. Myers, K.N. Smith, and R.A. McCleery. 2016. Social organization of an endangered subtropical species, Eumops floridanus, the Florida bonneted bat. Mammalia 2016:1-9.
- U.S. Fish and Wildlife Service. 2004. South Florida Ecological Services Office DRAFT July 12, 2004 Species Conservation Guidelines South Florida Red-cockaded Woodpecker. Appendix A. Red-cockaded Woodpecker South Florida Survey Protocol. July 12, 2004. South Florida Ecological Service Office, Vero Beach Florida. https://www.fws.gov/verobeach/BirdsPDFs/200407SlopesCompleteRedCockadedWoodp ecker.pdf
- U.S. Fish and Wildlife Service. 2018. Range-wide Indiana bat survey guidelines. https://www.fws.gov/midwest/endangered/mammals/inba/surveys/pdf/2018RangewideIB atSurveyGuidelines.pdf

Appendix D: Best Management Practices (BMPs) for Development Projects

Ongoing research and monitoring will continue to increase the understanding of the Florida bonneted bat and its habitat needs and will continue to inform habitat and species management recommendations. These BMPs incorporate what is known about the species and also include recommendations that are beneficial to all bat species in Florida. These BMPs are intended to provide recommendations for improving conditions for use by Florida bonneted bats, and to help conserve Florida bonneted bats that may be foraging or roosting in an area.

The BMPs required to reach a "may affect, but is not likely to adversely affect" (MANLAA) determination vary depending on the couplet from the Consultation Key used to reach that particular MANLAA. The requirements for each couplet are provided below followed by the list of BMPs. If the applicant is unable or does not want to do the required BMPs, then the Corps (or other Action Agency) will not be able to use this Guidance and formal consultation with the Service is required.

Couplet Number for MANLAA from	
Consultation Key	Required BMPs
4b	BMP number 1 if more than 3 months has occurred between the survey and start of the project, and any 3 BMPs out of BMPs 4 through 13
5b	BMP number 2, and any 3 BMPs out of BMPs 3 through 13
9b	BMPs number 2 and 3, and any 4 BMPs out of BMPs 5 through 13
11b	BMPs number 1 and 4, and any 4 BMPs out of BMPs 5 through 13
12b	BMP number 1, and any 3 BMPs out of BMPs 3 through 13
14b	Any 2 BMPs out of BMPs 3 through 13
15b	Any 3 BMPs out of BMPs 3 through 13
17b	Any 4 BMPs out of BMPs 3 through 13

BMPs for development, construction, and other general activities:

- 1. If potential roost trees or structures need to be removed, check cavities for bats within 30 days prior to removal of trees, snags, or structures. When possible, remove structure outside of breeding season (*e.g.*, January 1 April 15). If evidence of use by any bat species is observed, discontinue removal efforts in that area and coordinate with the Service on how to proceed.
- 2. When using heavy equipment, establish a 250 foot (76 m) buffer around known or suspected roosts to limit disturbance to roosting bats.
- 3. For every 5 acres of impact, retain a minimum of 1.0 acre of native vegetation. If upland habitat is impacted, then upland habitat with native vegetation should be retained.
- 4. For every 5 acres of impact, retain a minimum of 0.25 acre of native vegetation. If upland habitat is impacted, then upland habitat with native vegetation should be retained..
- 5. Conserve open freshwater and wetland habitats to promote foraging opportunities and avoid impacting water quality. Created/restored habitat should be designed to replace the function of native habitat.

- 6. Conserve and/or enhance riparian habitat. A 50-ft (15.2 m) buffer is recommended around water bodies and stream edges. In cases where artificial water bodies (*i.e.*, stormwater ponds) are created, enhance edges with native plantings especially in cases in which wetland habitat was affected.
- 7. Avoid or limit widespread application of insecticides (*e.g.*, mosquito control, agricultural pest control) in areas where Florida bonneted bats are known or expected to forage or roost.
- 8. Conserve natural vegetation to promote insect diversity, availability, and abundance. For example, retain or restore 25% of the parcel in native contiguous vegetation.
- 9. Retain mature trees and snags that could provide roosting habitat. These may include live trees of various sizes and dead or dying trees with cavities, hollows, crevices, and loose bark. See "Roosting Habitat" in "Background" above.
- 10. Protect known Florida bonneted bat roost trees, snags or structures and trees or snags that have been historically used by Florida bonneted bats for roosting, even if not currently occupied, by retaining a 250 foot (76 m) disturbance buffer around the roost tree, snag, or structure to ensure that roost sites remain suitable for use in the future.
- 11. Avoid and minimize the use of artificial lighting, retain natural light conditions, and install wildlife friendly lighting (*i.e.*, downward facing and lowest lumens possible). Avoid permanent night-time lighting to the greatest extent practicable.
- 12. Incorporate engineering designs that discourage bats from using buildings or structures.If Florida bonneted bats take residence within a structure, contact the Service and FloridaFish and Wildlife Conservation Commission prior to attempting removal or when conducting maintenance activities on the structure.
- 13. Use or allow prescribed fire to promote foraging habitat.

Appendix E: Additional Best Management Practices (BMPs) for Land Management Projects

Ecological Land Management

The Service reviews and develops Ecological Land Management projects that use land management activities to restore and maintain native, natural communities that are beneficial to bats. These activities include prescribed fire, mechanical treatments to reduce vegetation densities, timber thinning to promote forest health, trail maintenance, and the treatment of exotic vegetation. The following BMPs provide recommendations for conserving Florida bonneted bat roosting and foraging habitat during ecological land management activities. The Service recommends incorporating these BMP into ecological land management plans.

If potential roost trees need to be removed, check cavities for bats prior to removal of trees or snags. If evidence of use by any bat species is observed, discontinue removal efforts in that area and coordinate with the Service on how to proceed.

Ecological Land Management BMPs:

- Protect potential roosting habitat during ecological land management activities, if feasible. Avoid removing trees or snags with cavities.
- Rake and/or manually clear vegetation around the base of known or suspected roost trees to remove fuel prior to prescribed burning.
- If possible, use ignition techniques such as spot fires or backing fire to limit the intensity of fire around the base of the tree or snag containing the roost. The purpose of this action is to prevent the known or suspected roost tree or snag from catching fire and also to attempt to limit the exposure of the roosting bats to heat and smoke. A 250-ft (76 m) buffer is recommended.
- If prescribed fire is being implemented to benefit Florida bonneted bats, Braun de Torrez et al. (2018) noted that fire in the dry/spring season could be most beneficial.
- When creating firebreaks or conducting fire-related mechanical treatment, mark and avoid any known or suspected bat roosts.
- When using heavy equipment, establish a buffer of 250 feet (76 m) around known roosts to limit disturbance to roosting bats.
- Establish forest management efforts to maintain tree species and size class diversity to ensure long-term supply of potential roost sites.
- For every 5 acres (2 hectares) of timber that is harvested, retain a clump of trees 1-2 acres (0.4 0.8 hectare) in size containing potential roost trees, especially pines and royal palms (live or dead). Additionally, large snags in open canopy should be preserved.

Literature Cited – Appendix E

Braun de Torrez, E.C., H.K. Ober, and R.A. McCleery. 2018. Activity of an Endangered Bat Increases Immediately Following Prescribed Fire. The Journal of Wildlife Management.

Project Commitments Record

FM:	434965-1	FAP#:	D117-053-B
Project Name:	HARBORVIEW ROAD FROM MELBOURNE ST T	⁻ O I-75	
Environmental Document Type:	Туре 2 СЕ	Environmental Document Approval Date:	10/14/2019
Commitment Title:	Eastern Indigo Snake		
Commitment Made To:	USFWS	Environmental Commitment:	Yes
Status:	Commitment In Progress	Affects Any Other Environmental Commitme	nt: No
Implementation Discipline:	Construction	Commitment Approval Date:	1014/2019
Transmittal Date:	10/14/2019		
Commitment Description:	The USFWS Standard Protection Measures for Indigo Snake will not be adversely impacted by	the Eastern Indigo Snake will be implemented to e the project.	ensure that the Eastern
Comments/Notes: (Most Recent Comment Shown)	No change in the status of this commitment. The Snake will be implemented during construction.	e most recent USFWS Standard Protection Measu	res for the Eastern Indigo
Projects Linked to the Commit	ment		

There are no other projects linked to this commitment.

Project Commitments Record

Commitment Title:	Florida Bonneted Bat		
Commitment Made To:	USFWS	Environmental Commitment:	Yes
Status:	Commitment In Progress	Affects Any Other Environmental Commitment:	No
Implementation Discipline:	Design	Commitment Approval Date:	10/14/2019
Transmittal Date:	10/14/2019		
Commitment Description:	ESA Section 7 consultation for the Florida Bonneted Bat will be initiated with the USFWS during the design phase of the project.		
Comments/Notes: (Most Recent Comment Shown)	10/23/2023 12:09:48 PM - The USFWS released updated consultation guidelines for the Florida Bonneted Bat in October 2019 which included a consultation key. In order to determine if the project will impact the Florida Bonneted Bat a visual roost survey was conducted. No evidence of use was documented by the Florida Bonneted Bat; therefore, an acoustic survey was conducted in April 2023 accordance with the consultation key. The acoustic survey did not result in positive indicators of Florida Bonneted Bat usage. In accordance with the 2019 consultation key, programmatic concurrence that the project "may affect, not likely to adversely affect-programmatic (MANLAA-P)" was determined using couplet 4b. In accordance with the 2019 consultation key, Section 7 consultation is complete.		

Projects Linked to the Commitment

There are no other projects linked to this commitment.

Project Commitments Record

Commitment Title:	Sea Turtles		
Commitment Made To:	NMFS	Environmental Commitment:	Yes.
Status:	Commitment In Progress	Affects Any Other Environmental Commitment:	No
Implementation Discipline:	Design	Commitment Approval Date:	10/14/2019
Transmittal Date:	10/14/2019		
Commitment Description:	ESA Section 7 consultation for sea turtles will be initiated with NMFS during the design phase of the project.		
Comments/Notes: (Most Recent Comment Shown)	This commitment remains valid and Section 7 consultation with NMFS for sea turtles will be initiated during design. A draft Natural Resource Evaluation Addendum is in review and will be submitted to NMFS upon completion to initiate Section 7 Consultation.		
Projects Linked to the Commitment			

There are no other projects linked to this commitment.

Project Commitments Record

Commitment Title:	Noise		
Commitment Made To:	Public	Environmental Commitment:	Yes
Status:	Commitment In Progress	Affects Any Other Environmental Commitment:	No
Implementation Discipline:	Design	Commitment Approval Date:	10/14/2019
Transmittal Date:	10/14/2019		
Commitment Description:	A land use review will also be implemented during the design phase to identify noise sensitive sites that may have received a building permit subsequent to the noise evaluation s but prior to the date of public knowledge (i.e., date that the environmental document has been approved by the FDOT Office of Environmental Management). If the review identifies noise sensitive sites that have been permitted prior to the date of public knowledge, those sites will be evaluated for traffic noise and potential abatement considerations.		
Comments/Notes: (Most Recent Comment Shown)	No change in the status of this commit	ment. A land use review is underway to evaluate noise sensitive s	sites during design.

Projects Linked to the Commitment

There are no other projects linked to this commitment.

Project Commitments Record

Commitment Title:	Smalltooth Sawfish		
Commitment Made To:	NMFS	Environmental Commitment:	Yes
Status:	Commitment In Progress	Affects Any Other Environmental Commitment:	No
Implementation Discipline:	Design	Commitment Approval Date:	10/14/2019
Transmittal Date:	10/14/2019		10/14/2010
Commitment Description:	mmitment Description: ESA Section 7 formal consultation for the smalltooth sawfish will be initiated with NMFS during the design phase of the project.		
Comments/Notes: (Most Recent Comment Shown)	This commitment remains valid and Section 7 consultation with NMFS for smalltooth sawfish will be initiated during design. A draft Natural Resource Evaluation Addendum is in review and will be submitted to NMFS upon completion to initiate Section 7 Consultation.		
Projects Linked to the Commit	ment		

There are no other projects linked to this commitment.

Project Commitments Record

Commitment Title:	Manatee In-Water Protection			
Commitment Made To:	USFWS	Environmental Commitment:	Yes	
Status:	Commitment Added	Affects Any Other Environmental Commitment:	No	
Implementation Discipline:	Construction	Commitment Approval Date:	10/14/2019	
Transmittal Date:	10/23/2023			
Commitment Description: The most current version of the FWC Standard Manatee Conditions for In-Water Work will be implemented to ensure that manatees will not be adversely impacted by the project. This commitment was made during the PD&E Study but considered an implementation measure at that time.				
Comments/Notes: (Most Recent Comment Shown)				
Projects Linked to the Commi				
There are no other projects lir				

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Project Commitments Record

Commitment Title:	Sea Turtle and Sawfish In-Water Protecti	on	
Commitment Made To:	NMFS	Environmental Commitment:	Yes
Status:	Commitment In Progress	Affects Any Other Environmental Commitment:	No
Implementation Discipline:	Construction	Commitment Approval Date:	10/14/2019
Transmittal Date:	10/14/2019		
Commitment Description:	The Protected Species Construction Conditions (NOAA Fisheries Southeast Regional Office) will be implemented to ensure that sea turtles and smalltooth sawfish will not be adversely impacted by the project. This commitment was made during the PD&E Study but considered an implementation measure at that time.		
Comments/Notes: (Most Recent Comment Shown)	No change in the status of this commitment. T	he Protected Species Construction Conditions will be adh	ered to during construction.

Projects Linked to the Commitment

PSEE

There are no other projects linked to this commitment.

The following new commitments are being considered, as identified during the design phase of this project:

- In accordance with the Florida bonneted bat consultation key, FDOT will implement Best Management Practice #1: If potential roost trees or structures need to be removed, check cavities for bats within 30 days prior to removal of trees, snags, or structures. When possible, remove structure outside of breeding season (e.g., January 1 – April 15). If evidence of use by any bat species is observed, discontinue removal efforts in that area and coordinate with the Service on how to proceed.
- 2. In accordance with the Florida bonneted bat consultation key, FDOT will implement Best Management Practice #5: Conserve open freshwater and wetland habitats to promote foraging opportunities and avoid impacting water quality. Created/restored habitat should be designed to replace the function of native habitat.
- 3. In accordance with the Florida bonneted bat consultation key, FDOT will implement Best Management Practice #7: Avoid or limit widespread application of insecticides (e.g., mosquito control, agricultural pest control) in areas where Florida bonneted bats are known or expected to forage or roost.
- 4. In accordance with the Florida bonneted bat consultation key, FDOT will implement Best Management Practice #12: Incorporate engineering designs that discourage bats from using buildings or structures. If Florida bonneted bats take residence within a structure, contact the Service and Florida Fish and Wildlife Conservation Commission (FWC) prior to attempting removal or when conducting maintenance activities on the structure.
- 5. No blasting will occur during the construction of the proposed culverts.
- 6. The FDOT will only conduct in-water work during daytime hours.
- 7. The FDOT will require contractors to install sheet pile walls using vibratory hammers and not impact hammers.
- 8. The FDOT will contact the FWC prior to the temporary culvert closure (CD-4) should the agency wish to sweep the creek upstream of the culvert with nets to capture sawfish prior to the temporary culvert closure. Culvert closure will avoid the smalltooth sawfish pupping season which is March 1 July 31.

In addition, the following Implementation Measure was listed in the January 2019 Natural Resources Evaluation document which is currently classified as a commitment:

9. Impacts to suitable foraging habitat for the federally-protected wood stork will be mitigated through the purchase of credits from a U.S. Fish and Wildlife Service-approved mitigation bank pursuant to Section 373.4137, F.S. or as otherwise agreed to by the FDOT and the appropriate regulatory agencies.