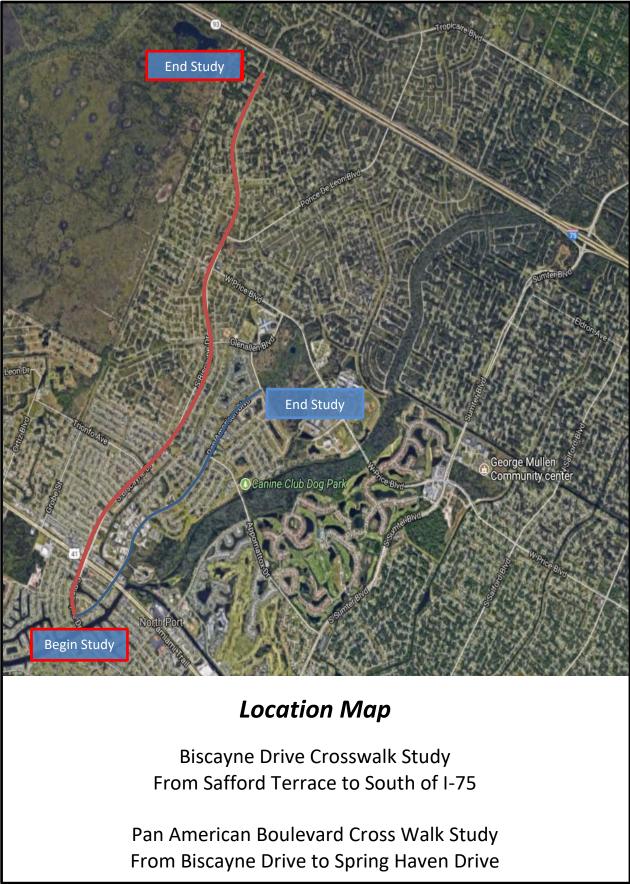
City of North Port Public Works Department Engineering Division



Pedestrian Crossings Study for Biscayne Drive from Safford Terrace to I-75 and Pan American Boulevard from Biscayne Drive to Spring Haven Drive



## **1.0 EXECUTIVE SUMMARY**

On April 11, 2017, City Commission directed staff to perform a Crosswalk Study on Biscayne Drive from Safford Terrace to just south of I-75 and along Pan American Boulevard from Biscayne Drive going north to Spring Haven Drive. As part of the Study, a field visit was conducted on October 20, 2017.

### **BISCAYNE DRIVE**

There are a total of seven (7) existing pedestrian crosswalks along Biscayne Drive at the following intersecting streets: Safford Terrace, US 41, Elyton Drive, Brubeck Road, Glenallen Boulevard, Price Boulevard, and Morton Road. Based on our field visit, site observations, Florida Department of Transportation (FDOT) Design Standards, and aerial map review, the Engineering Division recommends the analysis of the following potential pedestrian crossing locations at: Pan American Boulevard, Sydney Avenue, Hyde Park Avenue, Pickwick Road, Dorothy Avenue, Porto Chico Avenue, Humay Avenue, Dulce Avenue, Price Boulevard, Ponce de Leon Boulevard, and Renault Circle for a total of eleven (11) potential new pedestrian crosswalks.

### PAN AMERICAN BOULEVARD

Pan American Boulevard has a total of four (4) existing pedestrian crossings at the following intersecting streets: Biscayne Drive, US 41, Trott Circle, and Elyton Drive. Based on our field visit, site observations FDOT Design Standards, and aerial map review, the Engineering Division recommends the analysis of the following potential pedestrian crossing locations at: Sydney Avenue, Hyde Park Avenue, Garden of the Five Senses entrance, Appomattox Drive, Roxburry Circle, and Spring Haven Drive for a total of six (6) potential new pedestrian crosswalks.

Most of the existing pedestrian crossings along Biscayne Drive and Pan American Boulevard do not meet current design standards as specified in the FDOT Standard Index 17346, sheet 13 of 17. The Engineering Division recommends implementing these improvements in phases. We recommend as Phase I, to bring the existing pedestrian crossing up to current standards to improve the safety of pedestrians and motorist. Other phases can be implemented based on budget, availability of personnel and need.

The final design for these crossings can be done in-house, with Engineering Division personnel. The retrofit of the existing pedestrian crossings work can be done by City Operations personnel. Some of the potential pedestrian crossings will require some drainage work as well as pavement markings. At the time of final design, Engineering can coordinate with Operations for the work needed to be done or prepare a Request for Quotes to contract the work out.

## **2.0 INTRODUCTION**

## A. Overview:

On April 11, 2017, City Commission directed staff to perform a Crosswalk Study on Biscayne Drive from Safford Terrace to just south of I-75 and along Pan American Boulevard from Biscayne Drive going north to Spring Haven Drive. There were multiple locations reviewed as part of this Study based on safety, sight distance, proximity to potential pedestrian destinations, and proximity to existing crosswalks. This report presents the locations that the Engineering Division recommends for further consideration and design of pedestrian crosswalks.

### **B.** Purpose of Study

The purpose of this study is to find the best locations for pedestrian crosswalks along Biscayne Drive and Pan American Boulevard, between the limits specified above, based on safety for pedestrians and motorists, Environmental and Drainage Impacts, perceived need, and construction costs among other factors.

### **C.** Tasks

- Review feasibility of adding a crosswalk along Biscayne Drive at the south side of US 41 frontage road known as Tamiami Trail.
- Study the Biscayne Drive corridor for addition of pedestrian crosswalks between Safford Terrace to just south of I-75.
- Study the Pan American Boulevard corridor for addition of pedestrian crosswalks between Biscayne Drive to Spring Haven Drive.
- Provide a report summarizing finding and recommendations.

### **3.0 EXISITING AND PROPOSED LOCATIONS**

- A. Biscayne Drive Analysis
  - a. Existing Locations
    - i. Safford Terrace
    - ii. US 41 (North and South legs of Biscayne Drive)
    - iii. Elyton Drive
    - iv. Just South of Brubeck Road
    - v. Just North of Glenallen Boulevard
    - vi. Price Boulevard
    - vii. Morton Road
  - b. Potential Locations
    - i. Pan American Boulevard
    - ii. Sydney Avenue To be constructed under the Biscayne Drive Median Improvements contract.
    - iii. Hyde Park Avenue To be constructed under the Biscayne Drive Median Improvements contract.
    - iv. Pickwick Road
    - v. Dorothy Avenue
    - vi. Porto Chico Ave
    - vii. Humay Ave.
    - viii. Dulce Avenue Bus Stop
    - ix. Price Boulevard
    - x. Ponce de Leon Boulevard
    - xi. Renault Circle
- B. Pan American Boulevard
  - a. Existing Locations
    - i. Biscayne Drive
    - ii. US 41 (North and South Legs of Pan American Boulevard)
    - iii. Just North of Trott Circle (Bus Stop)
    - iv. Elyton Drive (Stripped as a bike lane) replace bike lane marking for appropriate pedestrian/school crossing.
  - b. Potential Locations
    - i. Sydney Avenue
    - ii. Hyde Park Avenue
    - iii. Garden of the Five Senses Entrance
    - iv. Appomattox Drive
    - v. Roxbury Circle
    - vi. Spring Haven Drive

#### 4.0 ALTERNATIVES FOR BISCAYNE DRIVE

- A. Safford Terrace and Pan American Blvd.
  - a. Proposed changes, modifications and enhancements.
    - We propose to relocate the existing crosswalk from Safford Terrace to the Pan American Boulevard intersection.
    - Provide required signs and pavement marking per FDOT standard index 17346.
  - b. Benefits/Advantages/Opportunities/Issues
    - This will improve the safety of pedestrians as it will give more sight distance to motorists traveling northbound along Biscayne Drive for better pedestrian visibility.
    - If the existing crosswalk at Safford Terrace remains, the advance warning sign location per FDOT Design Standards 17346 falls on the existing Bridge just south of Safford Terrace. Installation of a sign on a bridge deck can greatly impact the cost of the project and can complicate future maintenance of the sign as well as the bridge, see picture below.



Biscayne Drive Looking North

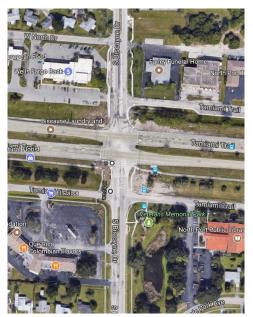
• Will provide pedestrians with a more direct access to the Hyde Park on Pan American Boulevard and Sydney Avenue, see picture below.



- B. Frontage Road Just South of US 41, known as Tamiami Trail
  - a. Proposed changes, modifications and enhancements.
    - None
  - b. Benefits/Advantages/Opportunities/Issues
    - A controlled crosswalk is provided at the signal on US 41.
    - Existing crosswalk on US 41 is less than 100 feet from Tamiami Trail frontage road. FDOT recommends providing pedestrian crosswalks at control intersections (ex. Stop or Signal controlled).
    - No space for the southbound advance warning signs for the pedestrian crossing.
    - Will affect the safety, operation and timings of the signal at US 41 requiring coordination and approval by FDOT.



Looking North towards US 41 from Frontage road



Aerial View of the area

- C. Pickwick Road
  - a. Proposed changes, modifications and enhancements.
    - New bus pads were constructed just south of Pickwick Road.
    - Connect existing sidewalk and bus stop to existing driveway, see red area below.
    - A pedestrian crosswalk will provide connectivity for both bus stops, see blue area below.
    - Provide required signs and pavement marking per FDOT standard index 17346.
  - b. Benefits/Advantages/Opportunities/Issues
    - Can coordinate with Sarasota County Area Transit (SCAT) for share funds to construct the pedestrian crossing to provide connectivity between the two recently build bus pads.
    - Provide connectivity between the two bus stops and sidewalk on both sides of Biscayne Drive.



Pedestrian Crosswalk Just South of Pickwick

# D. Dorothy Avenue

- a. Proposed changes, modifications and enhancements
  - Provide pedestrian crosswalk on north side of the intersection.
  - Provide required signs and pavement marking per FDOT standard index 17346.
- b. Benefits/Advantages/Opportunities/Issues
  - During a recent field visit, we notice residents/visitors of the Villas of North Port crossing Biscayne Drive at Dorothy Avenue to access the existing sidewalk along the west side of Biscayne Drive.
  - A properly marked crossing will improve the safety of the resident and/or visitor of the Villas of North Port.



Dorothy Avenue

- E. Porto Chico Avenue
  - a. Proposed changes, modifications and enhancements
    - Provide pedestrian crosswalk on north side of the intersection.
    - Provide required signs and pavement marking per FDOT standard index 17346.
  - b. Benefits/Advantages/Opportunities/Issues
    - Provide access to several churches and multi-family residential facility on the east side of Biscayne Drive.
    - These areas can be enhanced in the future by adding sidewalk on the east side of Biscayne Drive from Coco Solo Avenue to Boca Grande Avenue or Trionfo Avenue.



Porto Chico Avenue

- F. Elyton Drive
  - a. Proposed changes, modifications and enhancements.
    - Add signs and pavement markings per FDOT design Standards 17346.
  - b. Benefits/Advantages/Opportunities/Issues
    - The current pedestrian crossing, does not comply with current FDOT Standards.



**Elyton Drive** 

- G. Humay Avenue
  - a. Proposed changes, modifications and enhancements.
    - Add a pedestrian crosswalk on south leg of Biscayne Drive
    - Add signs and pavement markings per FDOT design Standards 17346.
  - b. Benefits/Advantages/Opportunities/Issues
    - Near an existing bus stop with good sight distance.



Humay Avenue

#### H. Dulce Avenue

- a. Proposed changes, modifications and enhancements.
  - Add a pedestrian crosswalk on south leg of Biscayne Drive
  - Add signs and pavement markings per FDOT design Standards 17346.
- b. Benefits/Advantages/Opportunities/Issues
  - Near an existing bus stop with good sight distance.



**Dulce Avenue** 

- I. South of Brubeck Road and North of Glenallen Boulevard.
  - a. Proposed changes, modifications and enhancements.
    - Coordinate with SCAT for the Consolidation of the Bus Stops at these two intersections.
    - Relocate the northbound bus stop near Brubeck Road across the existing bus stop on Glenallen Boulevard.
    - Remove existing crosswalk at Brubeck Road.
    - Add signs and pavement markings per new FDOT School Crossing Design Standard 17344 at the Glenallen Boulevard intersection.
  - b. Benefits/Advantages/Opportunities/Issues
    - Improvements to the operation and Safety of Biscayne Drive.
    - Bring this pedestrian crossing in compliance with the new FDOT Directive related to School Crossings.
    - FDOT has grant funds to upgrade school crossing signs and flashing beacons to comply with their new standard 17344.
- J. Price Boulevard
  - a. Proposed changes, modifications and enhancements.
    - Add a pedestrian crosswalk on the north leg of Biscayne Drive and west leg of Price Boulevard.
    - Convert the intersection of Price Boulevard and Biscayne Drive into a 4-way stop.
    - Add sidewalk at the northwest corner of Price Boulevard and Biscayne Drive intersection, see area in red in the picture below.

- Add signs and pavement markings per FDOT design Standards 17346 to the intersection
- b. Benefits/Advantages/Opportunities/Issues
  - The intersection of Price Boulevard and Biscayne Drive is controlled with stop conditions along Price Boulevard. Pedestrian crosswalks exist on the south leg of Biscayne Drive and East leg of Price Boulevard.
  - We noticed vehicles traveling westbound along Price Boulevard making the stop but continuing as if assuming is a 4-way stop condition due to the crosswalk on the south leg of Biscayne Drive. The proposed change to convert this into a 4-way stop will improve safety for pedestrians as well as motorist.
  - No adverse operation impact is expected as a result of converting the intersection into a 4-way stop.



**Price Boulevard** 

- K. Ponce De Leon Boulevard
  - a. Proposed changes, modifications and enhancements.
    - Add a pedestrian crosswalk on north leg of Biscayne Drive
    - Add signs and pavement markings per FDOT design Standards 17346.
  - b. Benefits/Advantages/Opportunities/Issues
    - Near new Fire Station 85
    - Property on northeast corner of the intersection of Biscayne Drive and Ponce de Leon Boulevard is zone commercial and is currently for sale. Depending on commercial property is developed at this corner, for example a convenience store, this can be a pedestrian destination.



Ponce De Leon Boulevard

- L. Morton Road
  - a. Proposed changes, modifications and enhancements.
    - This is an existing pedestrian crossing
    - Add signs and re-stripe pavement markings per FDOT design Standards 17346.
  - b. Benefits/Advantages/Opportunities/Issues
    - Improve the visibility of the pedestrian crossing and enhance the safety for pedestrians and motorist.



Morton Road

- M. Renault Circle
  - a. Proposed changes, modifications and enhancements.
    - Add a pedestrian crosswalk on north leg of Biscayne Drive.
    - Add signs and pavement markings per FDOT design Standards 17346.
  - b. Benefits/Advantages/Opportunities/Issues
    - Major intersection road with Biscayne Drive before the end of the existing sidewalk along the eastern side of Biscayne Drive.

#### 5.0 ALTERNATIVES FOR PAN AMERICAN BOULEVARD

- A. Sydney Avenue/Safford Terrace
  - a. Proposed changes, modifications and enhancements.
    - Add a pedestrian crosswalk on south leg of Pan American Boulevard.
    - Add a pedestrian crosswalk along Safford Terrace.
    - Add a section of sidewalk from the intersection of SProydney Avenue and Pan American Boulevard to the Park Parking lot.
    - Add signs and pavement markings per FDOT design Standards 17346.
  - b. Benefits/Advantages/Opportunities/Issues
    - Provide connection to existing sidewalk on north side of Sydney Avenue and across the intersection. (see picture below)
    - Provide access to the existing City Park.



Sydney Avenue/Safford Terrace

#### B. Hyde Park Avenue

- a. Proposed changes, modifications and enhancements.
  - Add a pedestrian crosswalk on north leg of Pan American Boulevard.
  - Add signs and pavement markings per FDOT design Standards 17346.
- b. Benefits/Advantages/Opportunities/Issues
  - Provide connectivity for pedestrians wanting to access the City Public Library.



Hyde Park Avenue

- C. Trott Circle
  - a. Proposed changes, modifications and enhancements.
    - Existing Pedestrian Crosswalk at bus stop.
    - Add signs and re-stripe pavement markings per FDOT design Standards 17346.
  - b. Benefits/Advantages/Opportunities/Issues
    - Bring existing pedestrian crosswalk to compliance with FDOT Design Standards.



Trott Circle

- D. Garden of the Five Senses Entrance
  - a. Proposed changes, modifications and enhancements.
    - Add a pedestrian crosswalk on north leg of Pan American Boulevard.
    - Add signs and pavement markings per FDOT design Standards 17346.

- b. Benefits/Advantages/Opportunities/Issues
  - Provide access from existing sidewalk to the Garden of the Five Senses.



Garden of The Five Senses Entrance

- E. Elyton Drive
  - a. Proposed changes, modifications and enhancements.
    - Remove current bike lane pavement markings.
    - Add signs and pavement markings per FDOT design Standards 17346.
  - b. Benefits/Advantages/Opportunities/Issues
    - Bring the existing crossing to current FDOT design Standards.
    - Improve the safety for pedestrians and motorists.





Elyton Drive

- F. Appomattox Drive
  - a. Proposed changes, modifications and enhancements.
    - Add a pedestrian crosswalk on north leg of Pan American Boulevard.

- Add signs and pavement markings per FDOT design Standards 17346.
- b. Benefits/Advantages/Opportunities/Issues
  - Connect to existing School Crossing along Appomattox Drive.
  - Provide connectivity for access to the Jockey Club.



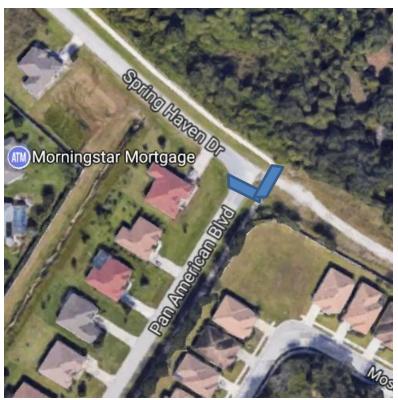
**Appomattox Drive** 

- G. Primm Place
  - a. Proposed changes, modifications and enhancements.
    - Add a pedestrian crosswalk on south leg of Pan American Boulevard.
    - Add signs and pavement markings per FDOT design Standards 17344.
  - b. Benefits/Advantages/Opportunities/Issues
    - Improve connectivity and safety for pedestrians crossing Pan American Boulevard.
    - Provide connectivity for access to the Gulfcoast Christian Academy.
    - FDOT has grant funds to upgrade school crossing to comply with the revised Standard 17344.



Primm Place

- H. Spring Haven Drive
  - a. Proposed changes, modifications and enhancements.
    - None at this time.
    - A pedestrian crossing is plan under the Spring Haven Drive Extension project.
  - b. Benefits/Advantages/Opportunities/Issues
    - Advance warning signs and pavement marking per FDOT Standard Index 17344 for School crossing will be added to improve the safety of the pedestrians.



Spring Haven Drive