# FINAL

# MCDONALD ROAD SIDEWALK FEASIBILITY STUDY



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Prepared For:



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## 1 EXECUTIVE SUMMARY

The River to Sea Transportation Planning Organization (R2CTPO) recognizes the importance of developing a cohesive transportation network that provides safe, efficient, and accessible pedestrian and bicycle facilities. One way to accomplish this goal is to expand the integrated bicycle and pedestrian transportation system by continuing the feasibility studies of prioritized projects. The McDonald Road Sidewalk Feasibility Study is a R2CTPO 2011 prioritized XU Bicycle/Pedestrian project as requested by the City of Port Orange, Volusia County, Florida.

The purpose of this project was to conduct a limited corridor study that assesses the feasibility of providing a minimum five (5) foot wide sidewalk along the west side of McDonald Road extending approximately 2,640 feet from the intersection of Madeline Avenue and Sugarhouse Drive through the intersection of Sauls Street/Madeline Avenue to 6<sup>th</sup> Street. The objective of the project was to identify the width of the path and its location in an effort to design a cost-effective path that fits within the existing right-of-way.

This project was identified as a needed project in the Sugar Mill Elementary School Safe Routes to School Study conducted in 2007 for increasing safety to and from the school. The City Council approved submittal of this project to the R2CTPO as part of the call for 2011 prioritized XU Bicycle/Pedestrian projects. The City has also received a letter of support from the Principal of Sugar Mill Elementary School.

A feasibility study was previously completed in February 2013. However, in April 2014, FDOT issued comments on the previously finalized study. In order to address FDOT's comments, new field investigations were completed, and the study was updated to incorporate current features and design recommendations.

This project will provide a safer pedestrian and bicycle route on the west side of McDonald Road, particularly for school children who cross the street to access the residential developments on the west side. The sidewalk will provide a formal route to direct children to the crosswalks and is expected to be constructed within the existing apparent right-of-way (ROW), with one possible exception. Coordination efforts are recommended with this property owner, to enhance the effectiveness of the sidewalk through these limits.

This report contains the recommended conceptual alignment for the study corridors, as well as a planning level estimate of the anticipated costs associated with the recommended improvements. It is noted that a corridor specific survey should be conducted prior to development of a sidewalk design and engineering drawings. In addition, no drainage permitting is anticipated to be required; however, coordination with St. Johns River Water Management District will be necessary to obtain an exemption verification letter.

## 2 INTRODUCTION

The River to Sea Transportation Planning Organization (R2CTPO) recognizes the importance of developing a cohesive transportation network that provides safe, efficient, and accessible pedestrian and bicycle facilities. One way to accomplish this goal is to expand the integrated bicycle and pedestrian transportation system by continuing the feasibility studies of prioritized projects.

The McDonald Road Sidewalk Feasibility Study was identified as a R2CTPO (formerly the Volusia Transportation Planning Organization) 2011 prioritized XU Bicycle/Pedestrian project as requested by the City of Port Orange, Volusia County, Florida.

#### PURPOSE AND OBJECTIVES

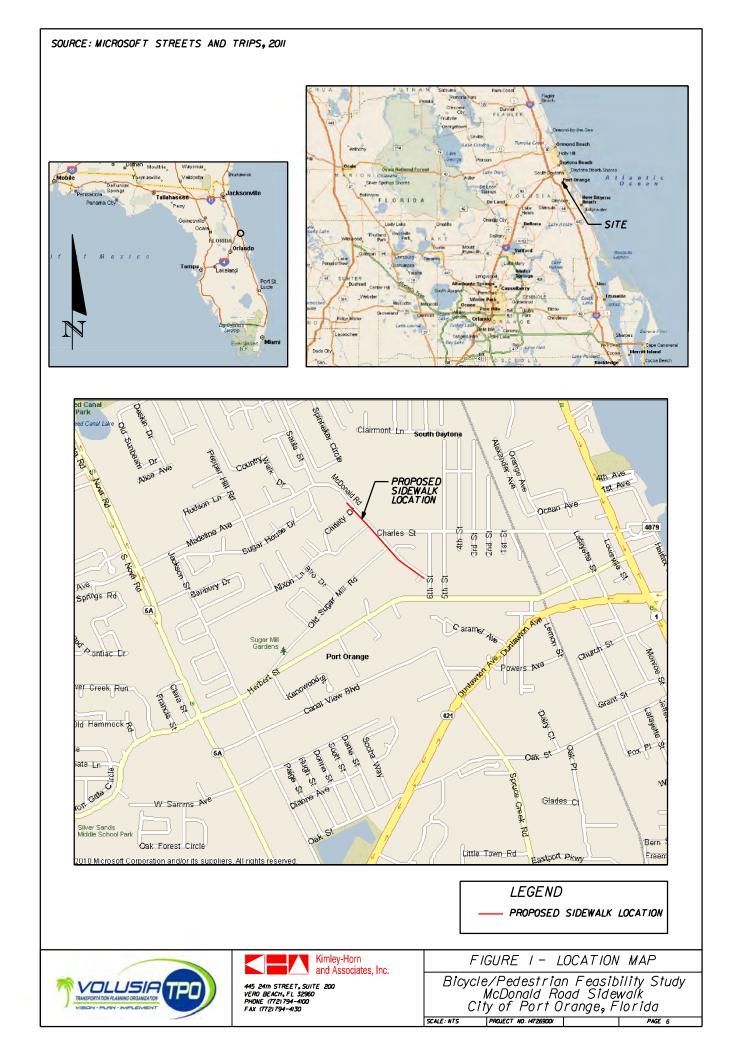
The purpose of this project is to conduct a limited corridor study that will assess the feasibility of providing a minimum five (5) foot wide sidewalk along the west side of McDonald Road extending approximately 2,640 feet from the intersection of Madeline Avenue and Sugarhouse Drive through the intersection of Sauls Street/Madeline Avenue to 6th Street. A location map is included as **Figure 1.** The objective of the project is to identify the width of the path and its location in an effort to design a cost-effective path that fits within the existing right-of-way.

The proposed sidewalk is located near many community facilities including Sugar Mill Elementary School and the Sugar Mill Botanical Gardens. An eight foot wide sidewalk now exists on the east side of McDonald Road adjacent to, and leading from, the elementary school property. Most of the students within the walk zone are living to the west of the school and are using roadways with one sidewalk or no sidewalks. It has been recommended that since the majority of students who walk or ride bicycles



live west of the school site, there should be sidewalks along the west side of McDonald Road. This would encourage students to cross the roadway where a crossing guard or cross walk is located.

Many children and parents with children cross McDonald Road near Christy Drive to directly access the school through the side gate to the bicycle rack area. This is not a marked crossing and there is no crossing guard. Currently there is a crossing guard stationed at the intersection of Charles Street and McDonald Road as well as at the T-Intersection of Madeline Avenue/Saul Street and McDonald Road.



#### CITY OF PORT ORANGE

The City of Port Orange was incorporated in 1926 in Volusia County and consists of 28 square miles with a population of approximately 56,067 people. Port Orange is one of the major urban areas within the county and according to the city web page, it contains 150 distinct neighborhoods. The City of Port Orange is a Local Agency Program (LAP) certified agency.

This project was identified as a need in the Sugar Mill Elementary School Safe Routes to School Study conducted in 2007 for increasing safety to and from the school. Excerpts from the Study are included in *Appendix A*. The City Council approved submittal of this project to the R2CTPO as part of the call for 2011 prioritized XU Bicycle/Pedestrian projects. The City has also received a letter of support from the Principal of Sugar Mill Elementary School.

The City's support for pedestrian safety and facilities is evident in their Comprehensive Plan. The City's Transportation Element and Future Land Use Element include policies to develop a "complete streets" strategy to include multiple transportation modes into proposed plans for road improvements and to expand transportation choices by ensuring an efficient network of roads, sidewalks, and bike paths that are safe for pedestrians, bicyclists and vehicular traffic.

The City requested the following considerations as part of the feasibility project:

- Up to two cross walks at locations determined by the feasibility study from the west side of McDonald Road to the existing 8 foot sidewalk on the east side;
- Realignment of the existing crosswalk at the intersection of McDonald Road and Charles Street as recommended by the Sugar Mill Elementary School Assessment Report (March 2007);
- Two drainage structure crossings requiring engineering review and recommendation in order to provide a structure conducive to both pedestrian safety and stormwater drainage;
- Safety barrier improvements along Madeline Avenue from Saul to Sugarhouse Drive;
- Intersection improvements at Madeline Avenue/Saul Street and McDonald Road.

#### PROJECT HISTORY

A feasibility study was conducted in 2012, with a Draft Report prepared in December 2012. Comments were received from the City of Port Orange, and the TPO, and the study was finalized in February 2013.

In April 2014, FDOT issued comments on the previously finalized study. In order to address FDOT's comments and move forward with the project, the R2CTPO decided to update the study to incorporate FDOT's concerns. Additional field investigations were conducted in January 2015 and the original study recommendations were reviewed and updated. The revised conceptual alignment is presented in this study.

## 3 STUDY METHODOLOGY AND DESIGN PRINCIPLES

#### ORIGINAL STUDY METHODOLOGY

For the study completed in 2013, the following tasks were completed per the project scope to provide an informed feasibility report in accordance with R2CTPO policies, procedures, guidelines and rules.

- 1. A project coordination meeting was held with the R2CTPO's Project Manager and the City of Port Orange representatives on September 26, 2012 for the purpose of scoping the project and obtaining relevant project information.
- 2. Data collection for the project consisted of obtaining copies of readily available planning, land use, and engineering information, including the following:
  - a. City of Port Orange, as-built drawings for Amber Woods from Ashley Ct. to 6<sup>th</sup> Street (West side). Right-of-way and as-built for McDonald Road sidewalk in Amber Village SD.
  - b. City of Port Orange, Amber Village Plat, January 1995.
  - c. City of Port Orange, Plantation Acres Plat, February 1955.
  - d. City of Port Orange, Map of Dun-Lawton, January 1882.
  - e. City of Port Orange, LIDAR.
  - f. City of Port Orange McDonald Road specific purpose survey, January 2006.
  - g. Volusia County Property Appraisers parcel maps were downloaded to further delineate the area. This information serves as the most current apparent right of way data available at the time of this evaluation. All measurements are assumed and for planning purposes only.
  - h. Data also consisted of referencing readily available information from a variety of sources, including: R2CTPO, Volusia County, City of Port Orange, and FDOT.
- 3. Site visits were conducted on September 26, 2012 and November 14, 2012 which consisted of traversing the project corridor in order to document the current constraints and opportunities within the apparent right of way. Photographic documentation, graphic depiction and measurements, and aerial maps assisted in recording the important details of the project and to note obstacles that might impede the project's constructability. Members of the evaluation team collected information on field conditions and located potential constraints and opportunities associated with the proposed project.
- 4. A concept plan and typical cross sections were formulated based on the results of the previous tasks and applicable design guidelines. The concept plan and the typical section are based on design criteria for pedestrian facilities contained in the Florida Department of Transportation (FDOT) Pedestrian Facilities Planning and Design

Handbook; the FDOT Plans Preparation Manual (PPM); and the Manual on Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways, The Florida Greenbook. In accordance with these reference manuals, a feasible design for the project was determined.

- An Engineer's Opinion of Probable Costs (EOPC) for Construction based on the refined conceptual design was prepared to construct a sidewalk within the proposed corridor. The EOPC was formulated based on FDOT District Five standards using their historical cost data.
- 6. Preparation of a Final Report followed receipt of comments by the R2CTPO, the FDOT, and the City.

## REVISED STUDY METHODOLOGY

Because of the length of time between the finalization of the study and the comments provided by FDOT, a complete review of the study was warranted. In order to update the study, the following tasks were completed:

- 1. A project coordination conference call was held with the R2CTPO's Project Manager, FDOT representatives, and the City of Port Orange representatives on November 19, 2014, for the purpose of scoping the project and obtaining relevant project information.
- 2. A site visit was conducted on January 27, 2015, to verify existing conditions along the project corridor and review the specific locations.
- 3. Additional data collection consisted of updating the information previously obtained for the corridor.
- The FDOT comments were reviewed in conjunction with the conceptual design. Adjustments were made to the alignment to reflect existing conditions and to address FDOT's concerns with the previous alignment.
- 5. The OPC was updated with current historical costs, pay item numbers, and inflation factors
- 6. The Report was updated to include the revised analysis and conceptual plan.

#### GENERAL DESIGN PRINCIPLES

The concept plan and typical cross sections included within this report were formulated based on the results of compiling data regarding existing conditions and applicable FDOT design guidelines. Study recommendations are based on design criteria for pedestrian facilities contained in the FDOT Pedestrian Facilities Planning and Design Handbook, the FDOT Plans Preparation Manual (PPM) and the Manual on Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways, The Florida Greenbook. The following summarizes design guidelines applicable to this feasibility report.

#### HORIZONTAL SEPARATION

Sidewalks according to the Florida Pedestrian Planning and Design Handbook are defined as "paved area (typically concrete) which normally runs parallel to vehicular traffic and is separated from the road surface by at least a curb and gutter." A sidewalk is designed for preferential or exclusive use by pedestrians. The number one goal in designing sidewalks shall be the elimination of vehicle-pedestrian conflicts. Though it is not possible to eliminate all vehicle-pedestrian conflicts within the typical roadway corridor, steps should be taken to minimize the effects of all vehicle-pedestrian conflicts through proper design.

- 1. The effective minimum width of a sidewalk within a residential area is 5 feet. A minimum width of 6 feet of horizontal clear zone is recommended for urban facilities where no curb and gutter is present. If 6 feet is not available, a "barrier" is recommended between the pedestrian way and the vehicular travel way. The definition of "barrier" may consist of curb and gutter, landscaping, or a permanent structure, such as railing or fencing.
- 2. To properly account for horizontal separation (clear zone) between the roadway and sidewalk, the design must, at a minimum, meet Florida Greenbook requirements. The Florida Greenbook states that sidewalks shall be separated from the travel lane of a rural (non-curbed) roadway based on the following criteria listed in order of desirability:
  - a. Outside of the highway right-of-way in a separately dedicated corridor
  - b. At or near the right-of-way line
  - c. Outside of the designed roadside clear zone.
  - d. Outside of the minimum required roadside clear zone
  - e. As far from the edge of the driving lane as possible.
- 3. On curbed roadways, the minimum width of a sidewalk shall be 5 ft. when separated from the curb by a buffer strip. The minimum recommended separation for a 5 ft. sidewalk from the back of curb is 2 ft. The buffer strip should be 6 ft. where possible to eliminate the need to narrow or reroute sidewalks around driveways. If the sidewalk is located adjacent to the curb, the minimum recommended width of sidewalk is 6 ft.
- 4. The following guidelines will be useful in standardizing the identification and treatment of drop-off hazards for pedestrians and bicyclists. There are two cases that require shielding: a drop-off greater than 10 inches that is closer than 2 feet from the edge of sidewalk and a slope steeper than 1:2 that begins closer than 2 feet from the edge of sidewalk. Installing fencing or railings are two ways to shield the drop-offs. Fencing is generally intended for use in rural areas along paths and trails. Standard railing is generally intended for urbanized areas, locations attaching to bridge rail or along concrete walkways.

## ACCESSIBILITY/SAFETY

Curb ramps, maximum slopes, minimum widths, clear zones, and design treatments for the visually impaired, such as truncated domes, are design features that result in part from the Americans with Disabilities Act (ADA). These design features, when included in pedestrian facility planning, produce "ADA-compliant" facilities.

- The Florida Greenbook states that curb ramps meeting the requirements of ADA Accessibility Guidelines and the Florida Accessibility Code for Building Construction shall be constructed at crosswalks at all intersections where curbs and sidewalks are constructed in order to give persons with disabilities safe access.
- 2. In general, proper design of pedestrian crossings shall consider the following:
  - a. Crossings should be placed at locations with ample sight distances
  - b. At crossings, the roadway should be free from changes in alignment or cross section
  - c. The entire length of the crosswalk shall be visible to drivers at a sufficient distance to allow a stopping maneuver
  - d. STOP bars shall be provided adjacent to all signalized crosswalks to inform drivers of the proper location to stop. The STOP bar should be well separated from the crosswalk, but should not be closer than 4 feet.
  - e. All crosswalks shall be easily identified and clearly delineated, in accordance with Manual on Uniform Traffic Control Devices (MUTCD) (Rule 14-15.010)
- 3. The single most important design consideration for persons with disabilities is curb cuts. Therefore, new and retrofitted streets with sidewalks should have curb cuts installed at all delineated crossings and it is desirable to provide separate ramps for each crosswalk at intersections with perpendicular approaches. Two curb cuts at each corner with a curb separating each ramp provides a greater amount of information to visually impaired pedestrians in street crossing designs. However a single uniform diagonal ramp including both crossings is also acceptable, when installed with truncated dome warning strips along the edge of the curb line.
- 4. Crossings shall also meet the same grade and cross slope requirements as sidewalks where the grade should not exceed 5%, and the maximum cross slope shall be no more than 2%.
- 5. Marked crosswalks shall be provided at all side streets where a pedestrian facility meets the roadway.
- Marked crosswalks on an uncontrolled leg of an intersection or midblock shall be supplemented with other treatments (including beacons, curb extensions, raised medians, raised traffic islands, or enhanced overhead lighting) when any of the following conditions exist: 1. Where posted speeds are greater than 40 miles per hour (MPH), 2. Inadequate stopping sight distance exists such as on hills or curves, 3. Block length is

shorter than 600 feet and high pedestrian volumes exist, and 4. Multiple conflict points that demand driver attention away from the crosswalk.

7. All new facilities (and existing when possible) should have some degree of access control, since each point of access produces a traffic conflict. The control of access is one of the most effective, efficient, and economical methods for improving the capacity and safety characteristics of streets and highways. The reduction of the frequency of access points and the restriction of turning and crossing maneuvers, which should be primary objectives, is accomplished more effectively by the design of the roadway geometry than by the use of traffic control devices.

#### SIGNAGE

Pedestrian safety is maximized when drivers are aware of the crosswalk location and know when a pedestrian is attempting to cross. Flashing lights that are activated only when a pedestrian is attempting to cross can enhance crosswalk detection by motorists. The flashing lights, in conjunction with advanced warning signs for the lights, can provide the motorists with more warning of the crossing.

Signs and markings should be utilized whenever possible to provide the pedestrian clear direction. The signs and markings should conform to the standards set forth in the MUTCD.

- School pavement markings and crosswalk markings should be clear and visible in order to warn motorists that they are entering a school zone and children are crossing the road.
- The FDOT's current standard (Index No. 17346) uses a special emphasis crosswalk that lengthens the life of the crosswalk marking.



- 3. Crosswalks should align with sidewalk ramps and should be installed where walkers and bicyclists are in the pavement for the shortest distance and time possible.
- 4. Pavement markings should be accompanied by the required signage standards set forth in the MUTCD.
- 5. Walkers and bicyclists should be dissuaded from crossing at intersections or mid-block crossings where heavy traffic exists unless accompanied by crossing guards.
- 6. Finally, illumination of the roadway should also provide sufficient lighting for the pedestrian facility. This is particularly important at pedestrian crossings or other areas of potential vehicle-pedestrian conflict.

A variety of intermittent lighting styles may be used, including:

- a. Flashing traffic signals over the crosswalk;
- b. Imbedded flashing lights in the crosswalk surface; and
- c. Flashing signals to warn motorists if pedestrians are present.

The purpose of the In-Roadway Warning Light enhanced crosswalk system and associated signage is for safety purposes (Refer to **Exhibit 1**). This system is to both inform motorists that there is a pedestrian in the crosswalk and to increase the visibility of the crosswalk.



Imbedding lights in the asphalt at the edge of a crosswalk is a method for making crosswalks more visible to motorists.

## 4 EXISTING CONDITIONS

The project is located within the City of Port Orange along the south/west side of McDonald Road from the intersection of Madeline Avenue and Sugar House Drive to the intersection of 6<sup>th</sup> Street and McDonald Road. This section of McDonald Road serves mainly residential, recreational, and public land uses. Due to the number and variety of residential land uses in the area and the proximity to Sugar Mill Elementary School, it is recommended that a designated pedestrian path be provided for the residents and students. No known road improvement projects are currently scheduled for McDonald Road.

General observations of the corridor include the following:

- McDonald is a two-lane undivided City collector through the project limits.
- The corridor is a rural section with open drainage.
- The speed limit is 25 miles per hour (MPH) along the entire project length, including the curve. The speed limit becomes 15 MPH in the school zone when flashing.
- There are several residential driveways located along the corridor.
- There is an existing eight foot sidewalk on the north/east side of the roadway.
- There are existing crosswalks at the intersection of McDonald Road/Madeline Avenue at Sauls Street and McDonald Road at Charles Street. These crossing locations are controlled by crossing guards during school hours.
- Utilities along the corridor include: water, cable, phone, sewer, storm water, and overhead electric.

Photos of the corridor are included in *Appendix B.* Additional details on specific locations within the corridor are detailed below.

## INTERSECTION WITH SAULS STREET/SUGAR HOUSE DRIVE

- T-Intersection at McDonald Road/Madeline Avenue at Sauls Street with approximately 150 feet to the adjacent T-intersection at Sugar House Drive.
- There is a sharp curve on McDonald Road east of the intersection with Sauls Street.
- There is a small existing section of sidewalk running from Sugar House Drive to the Sauls Street intersection, along the south side of Madeline Avenue. There are steep slopes adjacent to this section of sidewalk, leading down to an o pen drainage ditch.
- Existing crosswalks on the west and north sides of the intersection, with school crossing signage and markings and a school crossing guard during school hours.





- Sidewalk ramps do not have detectable warning surfaces, and there is a drainage inlet within existing sidewalk/crosswalk on northwest corner of intersection.
- There is existing sidewalk running along the north side of Madeline Avenue and the east side of Sauls Street.
- Existing pole with guy wires that may require relocation to install the proposed sidewalk.

#### INTERSECTION WITH CHRISTY DRIVE

- No existing crosswalk at Christy Drive.
- No major obstructions located within proposed path of the sidewalk that would require relocation.
- Existing sidewalk along the north side of McDonald Road.
- Relatively flat grades on south side of McDonald Road without major drainage structures.
- Pedestrians observed crossing at this intersection.

#### INTERSECTION WITH CHARLES STREET

- T-Intersection at McDonald Road and Charles Street. Charles Street provides access to Sugar Mill Elementary School parking lot and pick-up line.
- There are existing crosswalks on the west and north sides of the intersection, with school crossing signage and markings and a school crossing guard during school hours.
- Several dirt areas located on the south side of McDonald Road near the intersection with Charles Street. Cars sometimes pull of the roadway to temporarily wait in these areas.
- Existing sidewalk ramps do not have detectable warning surfaces and the existing crosswalks are skewed across b
- existing crosswalks are skewed across both legs of the intersection.
- No major obstructions located within proposed path of the sidewalk that would require relocation. Some signs may need to be replaced or relocated.
- Stormwater drainage consists of natural percolation within the apparent right of way, no existing structures

## EXISTING DRAINAGE CROSSING UNDER MCDONALD ROAD

- Existing metal guardrail and sidewalk crossing on north/east side of McDonald Road.
- No guardrail on south/west side of McDonald Road.



- Drainage system crossing underneath McDonald Road appears to be used for conveyance. Headwall may need to be replaced.
- There is no railing along south/west side of McDonald Road, but there is a steep drop at the drainage crossing location.
- East of the drainage crossing, there are visible swales and drainage structures from the drainage crossing to the intersection with 6<sup>th</sup> Street, with approximate slopes of 1:7. Existing swales would need to be re-graded to accommodate a sidewalk through these

limits.

- Several mailboxes and private property features such as landscaping and sprinklers located within the vicinity of the proposed sidewalk.
- Potential right of way constraint located west of drainage crossing.

#### INTERSECTION WITH 6TH STREET

- Existing four foot wide concrete sidewalk along the south side of McDonald Road, running along the edge of the Ashley Circle residences. Sidewalk appears to be outside of the existing right of way.
- No existing crosswalk striping or detectable warning surfaces at the intersection with 6<sup>th</sup> Street or the intersection with Ashley Circle.
- No major utility obstructions within the proposed path of the sidewalk along the south/west side of the roadway.
- Existing swales along south/west side of roadway would need to be re-graded to accommodate sidewalk.
- Cracked sidewalk on north and south corners of intersection with 6<sup>th</sup> Street. Shallow drainage pipes under sidewalk.



• Existing ramp on north side of intersection would need to be revised. Replacement of drainage pipe and structure may be required to accommodate new pedestrian ramp.

## 5 CONCEPTUAL DESIGN RECOMMENDATIONS

In accordance with the opportunities and constraints described above and applicable industry design standards, a conceptual alignment was developed for McDonald Road. Details of the recommended conceptual alignment are detailed below and further illustrated in the Conceptual Design Plans included in *Appendix C.* 

#### CORRIDOR RECOMMENDATIONS

Generally, sidewalks may be field relocated to rout around existing utility structures as shown in the corridor design plans. Potential encroachment of private property landscape and mailboxes was noted during the site reconnaissance of the corridor. A corridor specific survey for the study area should be completed prior to the development of a sidewalk design and engineering drawings in order to identify the placement and limits of these obstructions.

The following lists the general conceptual design recommendations for the corridor:

- Construct longitudinal grade of the sidewalk to be at grade or less than five percent in accordance with ADA Guidelines.
- Install pedestrian signage and a special emphasis crosswalk at Christy Drive to prevent uncontrolled crossing of students/parents during school hours.
- Reconstruct crosswalks and curb ramps at intersection with Charles Street to add emphasis to the area, and reduce skew of crossing locations.
- Utilize additional signs and markings whenever possible to provide the pedestrian and motorist clear direction.
- Provide ADA compliant sidewalk ramps and detectable warnings at all new and modified crosswalk locations.
- Route sidewalk around existing utilities within the proposed path of the sidewalk.
- Construct the sidewalk in accordance with the City of Port Orange Standard Construction requirements utilizing fiberglass rebar.
- Install flashing pedestrian signage to signal traffic approaching mid-block crosswalk at Christy Drive and T-intersection crosswalks. Recommended to maximize awareness of the crosswalk location and when a pedestrian is attempting to cross.

#### PUBLIC INVOLVEMENT

As noted in the existing conditions, there are several locations along the corridor where mailboxes, sprinklers, and landscaping may be located within the proposed path of the sidewalk. Therefore it is recommended that the property owners be made aware of the proposed improvements prior to construction of the improvements.

#### RIGHT OF WAY COORDINATION

Right-of-way width and encroachments dictate the most feasible and cost effective location of a sidewalk. Based on the recommended conceptual alignment, adequate clear zone and apparent right of way exists along the corridor for a five foot concrete sidewalk to be located along the south/west side of McDonald Road with one possible exception:

- In the vicinity of the drainage crossing, one property appears to be located approximately five feet from the existing edge of pavement. It is recommended that this property owner be contacted to discuss the potential for easements and/or right of way acquisition that would provide for a full five foot wide sidewalk to be installed at this location. In the event that right of way acquisition is not possible, a four foot wide sidewalk could still be installed at this location. While not preferred, this option would still allow for a continuous sidewalk path along the south/west side of McDonald Road.
- The property has a Parcel ID of 33163704000196. Available data from the Volusia County property appraiser was used to calculate a planning level estimate for potential right of way acquisition for this property. This estimate is listed in the planning level opinion of probable cost included in Section 6.

#### PERMITTING

The proposed recommendations along the corridor result in minor modifications to existing drainage ditches and structures. Typically this work falls under St. Johns Water Management District exemption criteria. As such, an exemption verification letter could be obtained during design development. This process usually takes approximately 30 days and is anticipated to be accommodated within design schedule for the project.

#### LOCATION SPECIFIC RECOMMENDATIONS

FDOT's concerns focused primarily on two sections: the intersection of Madeline Avenue and Sugar House Drive, and the location of the drainage conveyance system in the middle of the corridor. A third area of concern, the intersection of McDonald Road and 6<sup>th</sup> Street, was identified during the field observations. Full comments and responses are included in *Appendix D.* Details of the improvements recommended at these three locations are described below.

#### INTERSECTION WITH SAULS STREET/SUGAR HOUSE DRIVE

The following is recommended to provide appropriate, constructible, and cost effective solutions at this location:

• The existing sidewalk located along the south side of Madeline Avenue from Sugar House Drive is proposed to be reconstructed as a six foot wide sidewalk. A pedestrian railing is proposed to be added to provide additional safety next to the open drainage ditch.

- The crosswalks are proposed to be reconstructed to eliminate skew and increase visibility with special emphasis markings.
- No sidewalk is proposed on the east side of the intersection for the following reasons:
  - Potential wetland and/or major drainage impacts at the east side of the T-intersection.
  - No sidewalk located along the south side of Madeline Avenue west of the Tintersection.
  - No direct driveway access onto Madeline Avenue/McDonald Road in the vicinity of this intersection.
- Relocation of the existing pole and guy wires to provide additional clearance for proposed pedestrian features.

EXISTING DRAINAGE CROSSING UNDER MCDONALD ROAD

The following is recommended to provide appropriate, constructible, and cost effective solutions at this location:

- The existing headwall is proposed to be reconstructed. A pedestrian railing is proposed along the drainage crossing to increase safety, similar to the existing features on the north side of McDonald Road.
- East of this location, sidewalks are proposed to be added two feet from the existing edge of pavement. This will provide some clearance from vehicular traffic, while minimizing impacts to the existing drainage ditches. The ditches will be re-graded to provide adequate cross-slope along the proposed sidewalk.

#### INTERSECTION WITH 6TH STREET

The following is recommended to provide appropriate, constructible, and cost effective solutions at this location:

- A new crosswalk is proposed at this location to connect the existing sidewalk on the north side of McDonald Road with the proposed sidewalk on the south side of McDonald Road.
- The existing pipe is proposed to be removed and replaced with a longer piece of pipe. This will provide additional space in the northwest corner of the intersection to enhance the pedestrian crossing features and provide for ADA requirements.
- Existing drainage swales are proposed to be re-graded to accommodate the proposed sidewalk.

## 6 FINANCIAL FEASIBILITY

**Table 1** provides a planning level Opinion of Probable Cost to construct the proposed corridor based on the conceptual alignment. The item numbers and units of measure are based on the FDOT 2015 Basis of Estimates Manual. Inflation factors provided by FDOT were used to adjust the total project cost on an annual basis from 2016 to 2019.

Explanations of the key items included in the cost estimate are included below. Additional detail is included in Table 1.

- Mobilization Consists of work and operations necessary to begin work on a project. Includes moving in equipment and personnel, establishing temporary offices, safety equipment and sanitary facilities. May include surveying, bond and insurance expenses.
- Maintenance of Traffic Includes all items required to safely maintain traffic throughout a transportation work zone with minimal inconvenience to the public and fit into one of the following categories:1) cannot reasonably be quantified; 2) cannot be addressed under current pay items; 3) are incidental to the operation necessary to safely maintain traffic throughout a work zone.
- Clearing and Grubbing This Item is included to account for the clearing that is necessary to build the sidewalk.
- *Pedestrian/Bicycle Railing Tubular Railing –* This item is included to account for the construction of a pedestrian railing to guard against hazardous field conditions.
- Sidewalk Concrete These items are included to account for the cost of placing sidewalk along the proposed route. The sidewalk ramps are also included in this cost as well as the Fiberglass Rebar in accordance with the City of Port Orange Standard Construction Sidewalk requirements.
- Detectable Warning Surface This item is included as an ADA compliant feature included within all sidewalk ramps. This item accounts for retrofitting existing sidewalk ramps with detectable warning surfaces.
- *Performance Turf, Sod* This item is included to sod all areas disturbed by construction of the proposed sidewalk.
- LED Crosswalk System This item is included to account for the signs with LED border enhancement and in-pavement lighting. The cost includes the conduit, conductors, advance warning signs and any other items required for complete installation.
- Single Post Sign, F&I, Relocate, Remove These items are included for the pedestrian crosswalk signage, as well as the installation, relocation and removal of various additional signs throughout the project.
- *Thermoplastic, Std, White, Solid, 12" and 24"* These items are included to mark the special emphasis crosswalks, as detailed in the FDOT Design Standards, Index 17346.

Pay Item	T1		Unit of	2015 Unit		Total
Number	Description	Estimated Quantity	Measure	Price		Cost
0101-1	Mobilization	1	LS	10%	\$	21,218.01
0102-1	Maintenance of Traffic	1	LS	15%	\$	31,827.02
0104-10-3	Sediment Barrier	2315	LF	\$ 2.00	\$	4,630.00
0110-1-1	Clearing and Grubbing	1.380	AC	\$ 10,800.00	\$	14,904.00
0110-7-1	Mailbox, F&I (Relocate)	9	EA	\$ 135.00	\$	1,215.00
120-3	Lateral Ditch Excavation	90	CY	\$ 5.00	\$	449.44
0285-709	Optional Base, Base Group 9	13	SY	\$ 60.00	\$	800.00
0334-1-13	Superpave Asphalt Concrete, Traffic C	2	TN	\$ 90.00	\$	198.00
0400-0-011 Concrete Class NS, Gravity Wall		30	CY	\$ 490.00	\$	14,700.00
400-1-2	Concrete Class I, Endwalls	5	CY	\$ 1,250.00	\$	6,250.00
0425-5	Manhole Cover, Replace	2	EA	\$ 730.00	\$	1,460.00
0425-1521	Inlets, DT BOT, Type C, <10'	1	EA	\$ 2,600.00	\$	2,600.00
0430-175-118	Pipe Culvert, 18" RCP	50	LF	\$ 150.00	\$	7,500.00
0430-175-130	Pipe Culvert, 30" CMP	10	LF	\$ 150.00	\$	1,500.00
0430-175-136	Pipe Culvert, Optional Material 36"	10	LF	\$ 160.00	\$	1,600.00
0430-984-125	Mitered End Section, Optional Round, 18" SD	1	EA	\$ 1,090.00	\$	1,090.00
0430-984-138	Mitered End Section, Optional Round, 30" SD	1	EA	\$ 3,800.00	\$	3,800.00
0515-2-311	Pedestrian/Bicycle Railing, Aluminum Only, 42" Type 1	140	LF	\$ 65.00	\$	9,100.00
0522-1	Concrete Sidewalk, 4" Thick (w/ Fiberglass Rebar)	1133	SY	\$ 38.00	\$	43,062.44
0522-2	Concrete Sidewalk, 6" Thick (w/ Fiberglass Rebar)	179	SY	\$ 55.00	\$	9,838.89
0527-2	Detectable Warnings	326	SF	\$ 30.00	\$	9,780.00
0570-1-2	Performance Turf, Sod	2699	SY	\$ 3.00	\$	8,097.33
635-2-40	Pull & Splice Box, Relocate	8	EA	\$ 475.00	\$	3,800.00
0654-1-10	In Roadway Light Assembly, F&I, Complete Assembly	1	AS	\$ 30,000.00	\$	30,000.00
0654-3-10	Pedestrian Hybrid Beacon Assembly, F&I, Complete Assembly	3	AS	\$ 7,000.00	\$	21,000.00
0700-1-11	Single Post Sign, F&I Ground Mount, Less than 12 SF	8	AS	\$ 330.00	\$	2,640.00
0700-1-50	Single Post Sign, Relocate	5	AS	\$ 140.00	\$	700.00
0700-1-60	Single Post Sign, Remove	4	AS	\$ 25.00	\$	100.00
0711-11-123	Thermoplastic, Std, White, Solid, 12"	818	LF	\$ 3.00	\$	2,454.00
0711-11-125	Thermoplastic, Std, White, Solid, 24"	1174	LF	\$ 4.00	\$	4,696.00
0711-17	Thermoplastic, Remove	504	SF	\$ 3.00	\$	1,512.00
0715-4-400	Light Pole, Complete, Relocate	1	EA	\$ 2,703.00	\$	2,703.00
	CONSTRUCTION COSTS SUBTOTAL					
					\$	265,225.14
-	Design (Including Bid Package)	1	LS	30%	\$	79,567.54
-	Right-of-Way Acquisition	1	LS		\$	10,000.00
-	CEI	1	LS	12%	\$	31,827.02
					Ĺ	. , .=01
	DESIGN / CEI SUBTOTAL TOTAL PROJECT COST					
FDOT Inflation-Adjusted Estimate Inflation Fa						Adj. Cost
		.027		397,058.43		
2016 Estimated Project Cost 1.027 2017 Estimated Project Cost 1.053						407,110.54
2017 Estimated Project Cost 1.055 2018 Estimated Project Cost 1.079						417,162.65
	2019 Estimated Project Cost 1.106					
2019 Estimated Project Cost 1.106 \$						

#### Table 1 – Engineer's Estimate Opinion of Probable Costs

#### NOTES:

1) THIS OPC IS BASED ON CONCEPTUAL DESIGN.

2) THIS OPC IS BASED ON HISTORICAL COST INFORMATION MADE AVAILABLE BY THE FDOT. UNIT PRICES ARE PREDOMINANTLY DERIVED FROM THE CURRENT 12-MONTH MOVING AREA AVERAGE FOR AREA 06, BUT STATEWIDE AVERAGE UNIT PRICES MAY BE UTILIZED IN SOME INSTANCES. UNIT PRICES OF SOME QUANITIES MAY HAVE BEEN INFLATED TO ACCOUNT FOR THE SMALL NATURE OF THE PROJECT. ACTUAL CONSTRUCTION COSTS WILL VARY. 3) THIS OPC DOES NOT INCLUDE THE COSTS ASSOCIATED WITH OBTAINING PERMITS.

4) THE ESTIMATE FOR DESIGN FEE INCLUDES 20% FOR ENGINEERING DESIGN & PERMITTING AND 10% FOR SURVEY. THE LIMITS OF SURVEY ARE ANTICIPATED TO BE FROM THE BACK OF CURB TO THE RIGHT OF WAY LINE FOR THE LENGTH OF 5) THE ENGINEER HAS NO CONTROL OVER THE COST OF LABOR, MATERIALS, EQUIPMENT, OR OVER THE CONTRACTOR'S METHODS OF DETERMINING PRICES OR OVER COMPETITIVE BIDDING OR MARKET CONDITIONS. OPINIONS OF PROBABLE COSTS PROVIDED HEREIN ARE BASED ON THE INFORMATION KNOWN TO ENGINEER AT THIS TIME AND REPRESENT ONLY THE ENGINEER'S JUDGMENT AS A DESIGN PROFESSIONAL FAMILIAR WITH THE CONSTRUCTION INDUSTRY. THE ENGINEER CANNOT AND DOES NOT GUARANTEE THAT PROPOSALS, BIDS, OR ACTUAL CONSTRUCTION COSTS WILL NOT VARY FROM ITS OPINIONS OF PROBABLE COSTS.

## 7 CONCLUSION AND SUMMARY OF RECOMMENDATIONS

The purpose of this project was to conduct a limited corridor study to assess the feasibility of providing sidewalk along the south side of McDonald Road from the intersection of Madeline Avenue at Sugar House Drive to 6<sup>th</sup> Street. The conceptual alignment for the proposed sidewalk is included in *Appendix C*. Constructing sidewalk along the specified limits appears to be feasible.

The key issues on the project corridor are noted below. Appropriate time should be allotted within the project schedule to address these issues either before or during design as appropriate.

#### PUBLIC INVOLVEMENT

The project corridor is located in mainly residential areas. Although it is anticipated that all improvements (with one exception) will be accommodated within the existing right of way, it is noted that the modifications may require re-grading of existing drainage areas, addition of new concrete aprons, re-grading of existing driveways, relocation of mailboxes, and other modifications that may impact the existing property owners.

A coordination effort should be conducted to reach out to the property owners along McDonald Road regarding the planned improvements prior to making any changes. It is anticipated that reception to the sidewalk will be positive. From field observations and discussions, many people are concerned about the lack of sidewalk along the south/west side of McDonald Road.

#### RIGHT OF WAY

A right of way map was provided by the City of Port Orange. Based on the conceptual alignment identified, there is one area of a potential right of way constraint on the corridor. It is recommended that the ultimate schedule of the project allow time to pursue right of way acquisition with this property owner. In the event that right of way negotiations are not successful, other options may be pursued such as the installation of a four foot sidewalk along the property limits.

It is noted that right of way lines are apparent. The corridor specific survey may identify additional right of way at this location. FDOT's right of way forms are included in *Appendix E*.

#### DRAINAGE PERMITTING

The proposed recommendations along the corridor result in minor modifications to existing drainage ditches and structures. Typically this work falls under St. Johns Water Management District exemption criteria. As such, an exemption verification letter could be obtained during design development. This process usually takes less than 30 days and is anticipated to be accommodated within design schedule for the project.

## 8 DATA COLLECTION REFERENCES

Data collection consisted of referencing readily available information including:

- The Volusia County MPO Bicycle/Pedestrian Plan, January 25, 2005
- Volusia County, http://www.volusia.org/
- River to Sea TPO, <u>http://www.r2ctpo.org/</u>
- The City of Port Orange, https://www.port-orange.org/
- Florida Department of Transportation (FDOT), <u>http://www.dot.state.fl.us/</u>
- Florida Pedestrian Planning and Design Handbook, FDOT, 1999
- Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways, May 2011, (Florida Greenbook")
- American Association of State Highway and Transportation Officials (AASHTO) Guide for the Planning, Design, and Operation of Pedestrian Facilities, 2004
- FDOT Plans Preparation Manual (PPM), January 2015
- FDOT 2015 Basis of Estimates Handbook
- ADA Standards for Accessible Design, Code of Federal Regulations, 28 CFR Part 36,
- Manual on Uniform Traffic Control Devices (MUTCD), 2009
- FDOT Roadway and Traffic Design Standards, 2015
- City of Port Orange Comprehensive Plan Policy Document 2010-2025, October 2010
- Bicycle and Pedestrian Safety Review Study, Sugar Mill Elementary School, Port Orange, Florida, March 2007

# **APPENDIX A**

Sugar Mill Elementary School Safe Routes to School Study Excerpts





BICYCLE AND PEDESTRIAN SAFETY REVIEW STUDY IMPLEMENTATION REPORT

> SUGAR MILL ELEMENTARY SCHOOL Port Orange, Florida

> > **MARCH 2007**

Hoke Design, Inc.

#### Section 3: Findings and Recommendations

#### Findings and Recommendations

#### Sugar Mill Elementary School – Fact Sheet

- Number of Students: 840
- Number of Walkers/Bicycle Riders (observed from site visit): The day of the site visit was overcast with some sprinkles, possibly reducing the number of walkers and bicycle riders. There appeared to be fewer than 60 students walking or riding their bicycles.
- Number of Bicycle and Pedestrian Crash Events (2000-2004): 4 located within walk zone, 12 outside of walk zone but within 2 miles.
- Year School Opened: 1982
- Number of School Buses: 8
- Number of Students for School Site Aftercare: pending
- Number of Aftercare Buses/Vans: one Votran bus 5 vans for the YMCA private aftercare
- Number of Students for Breakfast: 150 (estimated)
- Number of Bicycles: 24
- Number of Bicycle Helmets: 11
- **Backpack Policy:** No policy, students are allowed rolling backpacks
- **Teachers Assisting in Arrival and Dismissal Safety:** 1 teacher assists with car loading and unloading in the morning; 4 assist in the afternoon.

**Existing Safety Education**: The City of Port Orange provides free helmets for students who need them. The City has recently started giving tickets instead of warnings to children bicycling without helmets.

**Summary of Principal Comments:** The lack of sidewalks near the school is the primary concern.

**Summary of Crossing Guard Supervisor Comments:** The intersection of Nova Road and Madeline Avenue is too large and busy for students to cross even with crossing guards.

#### Crossing Guard Locations:

- Herbert Street and Old Sugar Mill Road
- Madeline Avenue and Sauls Street
- McDonald Road and Charles Street

Port Orange community traffic officer staff directs traffic and crosses children at car line entrance/exit.

Note: Issues and recommendations in this report are based on data collected in the second half of 2006. Walk zone and school-site conditions can change rapidly, and should be verified before any recommendations are implemented.

Several factors limit the number of students walking or riding bicycles to Sugar Mill Elementary School. These include:

- An incomplete sidewalk system direct routes from high density residential areas to the Elementary school do not have sidewalks or sufficient right-of way for the construction of sidewalks. Specifically, Nixon Lane has very limited right of way and Old Sugar Mill Road has limited right of way and sight distance problems due to the location of the Old Sugar Mill.
- The railroad track located east of the school does not have a complete sidewalk system nor a pedestrian arm. Because of this hazardous condition, the school system currently provides courtesy transportation for Sugar Mill students living east of the railroad. US Highway 1, located east of the railroad tracks, creates an additional barrier for students wishing to walk or bicycle to school.
- Nova Road, to the west of the school, is a six-lane divided road. Crossing this roadway would require two light cycle changes and the students would need to wait in the median between cycles. The school system currently provides courtesy transportation for students living west of Nova Road.

These factors all contribute to the high percentage of students whose parents drop them off at the school, causing congestion on-site during arrival and dismissal times.

The planned Madeline Avenue extension will provide additional access to the school, allowing modification of the current on-campus circulation. The school Principal is reviewing the possibility of creating a one-way entrance from the proposed section of Madeline Avenue that will align with the northern border of the school site. This entrance road would exit onto Charles Street, reducing the amount of traffic near the intersection of Charles Street and McDonald Road. Because the Madeline Avenue extension is not currently funded, these measures will not provide immediate relief.

At least eight new condominium units (Madeline Commons PUD) are planned for east of the school along the 5<sup>th</sup> Street, potentially adding to the number of students living east of the school currently receiving courtesy transportation. These residents will also attend the Silver Sands Middle School on Herbert Street, west of Nova Road. The City should consider enhancing the sidewalk system between the waterfront and the elementary and middle school.

Although the attendance zone does not officially include the residential development to the north of the school, many students have obtained variances to attend Sugar Mill Elementary School. Many of the students this living this close to the school may choose to walk or ride their bicycles to and from school.

When the school is reviewed for attendance re-zoning, the School Board may wish to consider adding the students east of Sauls Street and along Spinnaker Circle to encourage more walkers and bicycle riders.

There is a proposed multi-use trail on the FPL corridor that will provide additional

bicycle and pedestrian connectivity in this area, especially for the nearby Silver Sands Middle School.

#### Findings and Recommendations

#### School-Site

**Issue:** A new bridge that spans a ditch in the staff parking lot was not installed to provide handicapped accessibility. The older concrete bridge does provide flush access from the parking area to the bus drop off travel lane but does not connect to a ramp along the school sidewalk.

**Recommendation:** At least one bridge and ramp route should be completely flush to grade to allow for a direct path of travel for persons with disabilities, strollers and wheeled carts.



A new bridge in the parking area was not installed flush to grade

#### Off-Campus Walk Zone

**Issue:** Most of the students within the walk zone are living to the west of the school and are using roadways with one sidewalk or no sidewalks.

**Recommendation:** Since the majority of students who walk or ride bicycles live west of the school site, there should be sidewalks along the west side of McDonald Road. This would encourage students to cross the roadway where a crossing guard is located at McDonald Road and Charles Street.

Many children and parents with children crossed McDonald Road near Christy Drive to directly access the gate and sidewalk to the bicycle rack area and school. This is not a marked crossing and there is no crossing guard.



Multiple students cross McDonald Road at an unmarked crossing

This student uses the existing sidewalk on McDonald Road and crosses McDonald Road to access Christy Drive. Sidewalks on both sides of McDonald would have allowed this student to cross with the crossing guard at McDonald Road and Charles Street, then ride on the sidewalk to Christy Drive without riding against traffic and violating bicycle safety procedures.



A student crosses McDonald away from the crossing guard location

**Issue:** The bus driveway exit at McDonald Road has an area in front of the gate that provides unofficial temporary parking. Buses may have the height to see beyond the vehicle to notice children on the sidewalk approaching from the south, but other vehicles crossing this entrance may not be able to see approaching students. This is also the entrance to the staff parking area, adding to vehicular traffic.

**Recommendation:** Do not allow parking in the area in front of this gate. Use cones or enforcement to deter motorists from using this space for parking.



The vehicle parked near the bus/staff exit may block motorist's visibility of sidewalk users

**Issue:** The crosswalk at the intersection of McDonald Road and Charles Street is painted to avoid the stop bar on Charles Street. This layout places the student in the roadway for a longer distance.

**Recommendation:** Obtain an engineering review of this intersection for a more direct route to be applied during the next scheduled re-painting of the crosswalk.



The crosswalk across Charles Street angles toward McDonald Road

**Issue:** There is no crosswalk at the car drop off entrance to the school along Charles Street. The amount of traffic at the school entrance requires a traffic control person in the morning and the afternoon. He directs traffic and crosses students and their parents. The sidewalk to the school is located west of the entrance.

**Recommendation:** Paint a crosswalk across the entrance to increase pedestrian and bicycle user safety at this crossing. The sidewalk should also be painted with yellow "stop bars" to provide students with direction on where to stand while waiting to be crossed.



A crosswalk is needed at the school entrance off of Charles Street

School crossing signs and pedestrian warning signs to MUTCD standards should also be implemented.

School District staff was Issue: considering the addition of crossing guards at the intersection of Madeline Avenue and Nova Road to eliminate courtesy busing. Crossing Nova Road would require students to wait in the median for a second signal cycle to reach the opposite side of the There are no sidewalks roadway. along the south side of Madeline Avenue and students would need to cross Madeline Avenue to reach sidewalk on the north side of the road. Students living to the west of Nova Road are currently provided courtesy transportation due to the bus hazardous crossing conditions.



Crosswalk users crossing Nova Road at Madeline Avenue must wait in the median for a second signal cycle

#### **Recommendation:** Continue to

provide courtesy transportation. Many of the students living to the west of Nova Road may not have any transportation options other than walking or bicycling to and from school. Any roadway that is wide enough and busy enough to merit two different walk cycles to cross the road should not be considered as an option for student crossings. APPENDIX

## **APPENDIX B**

Existing Corridor Photos



























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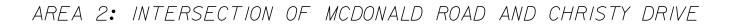
EXISTING CORRIDOR PHOTOS Bicycle/Pedestrian Feasibility Study McDonald Road Sidewalk City of Port Orange, Florida scale: NTS [PROJECT NO. 149127103]

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EXISTING CORRIDOR PHOTOS Bicycle/Pedestrian Feasibility Study McDonald Road Sidewalk City of Port Orange, Florida scale: HTS [PROJECT NO. M9/27/03]

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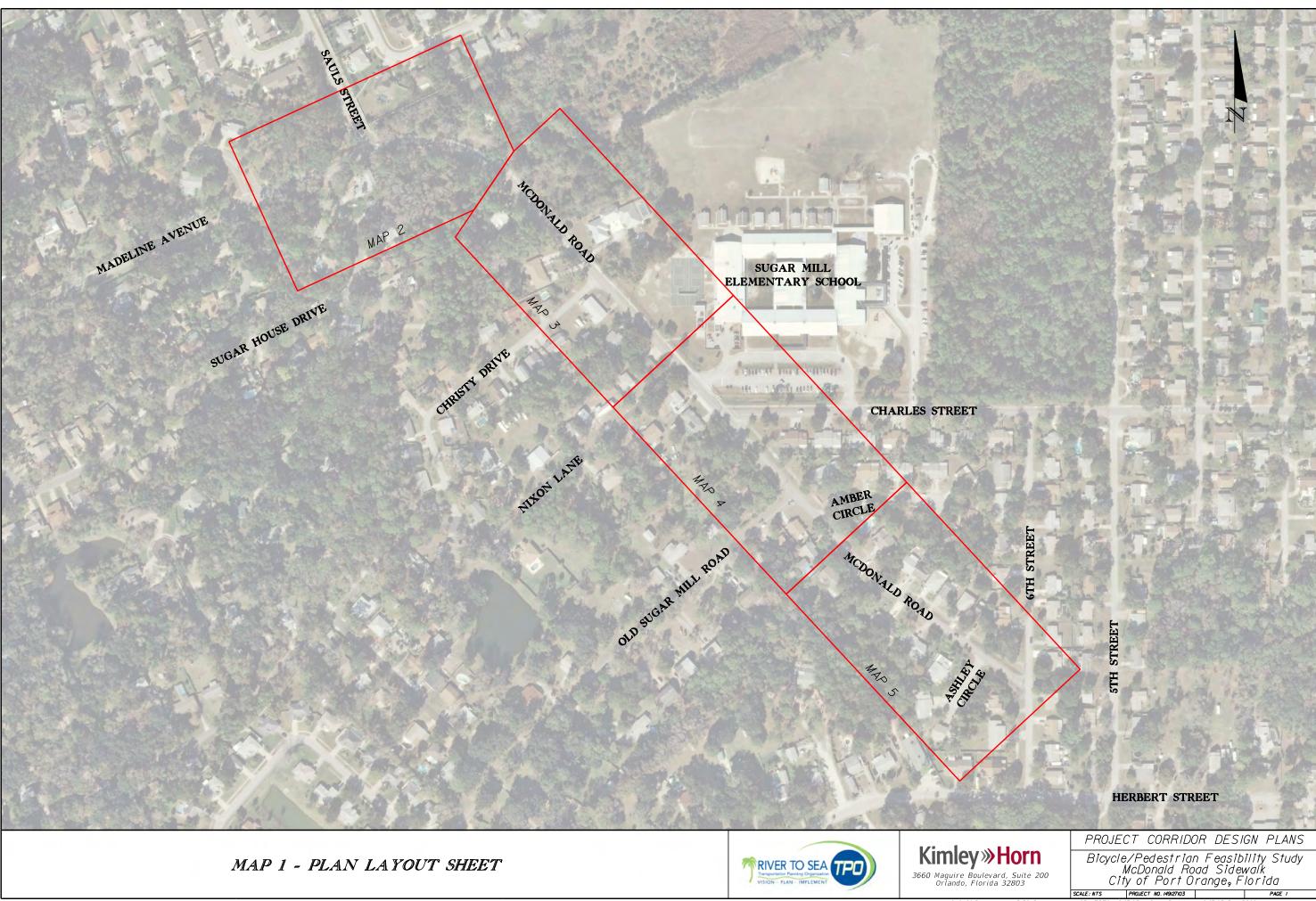
EXISTING CORRIDOR PHOTOS

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APPENDIX

# APPENDIX C

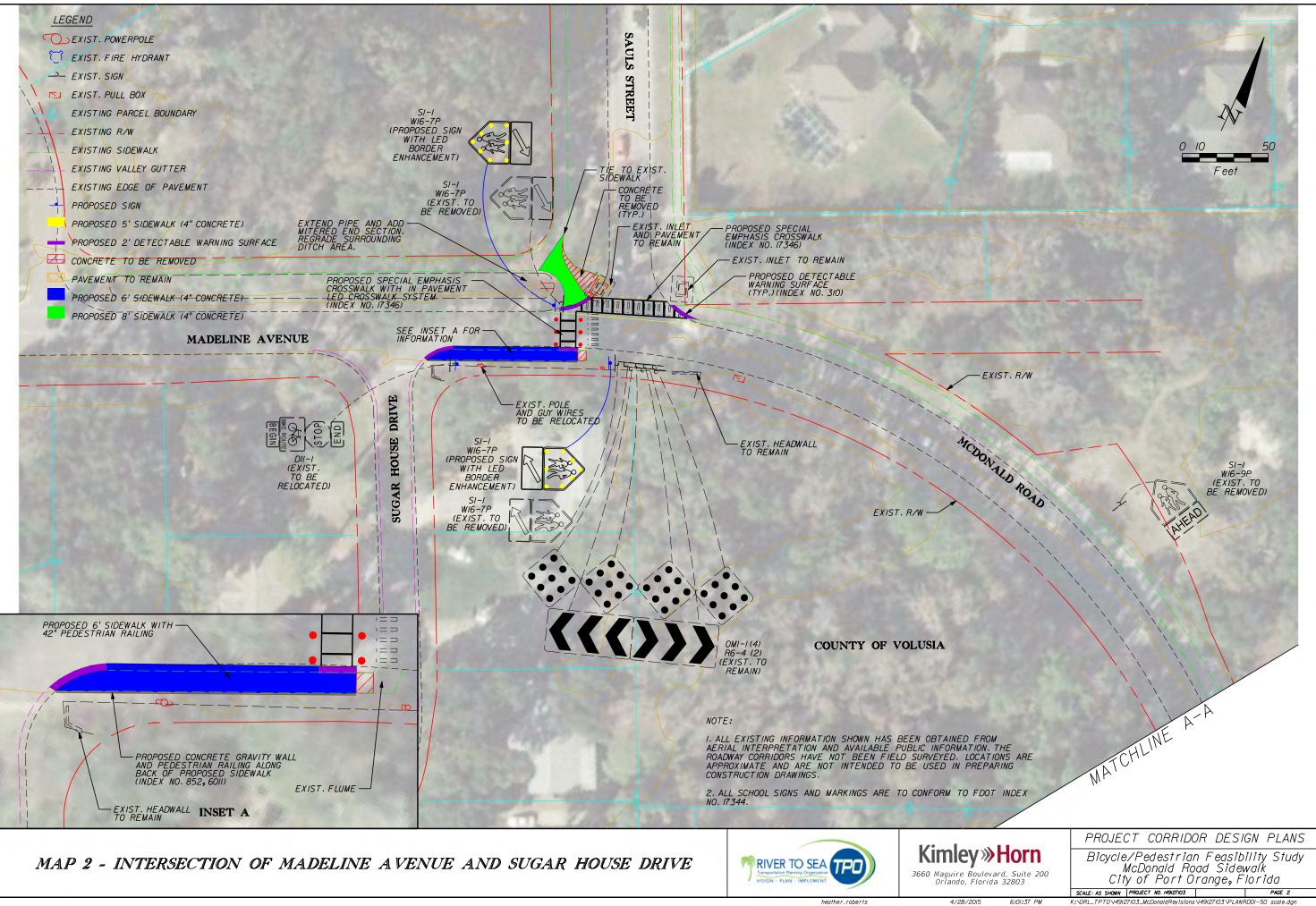
Conceptual Design Plans

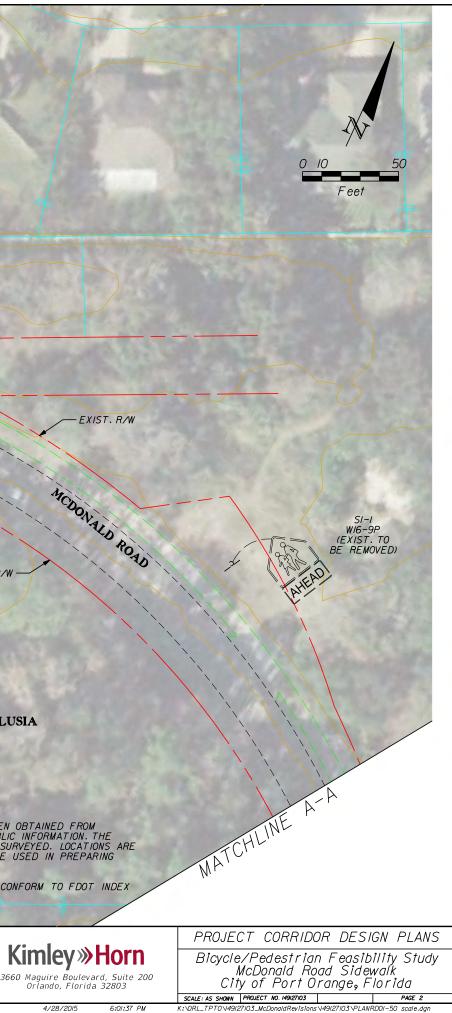


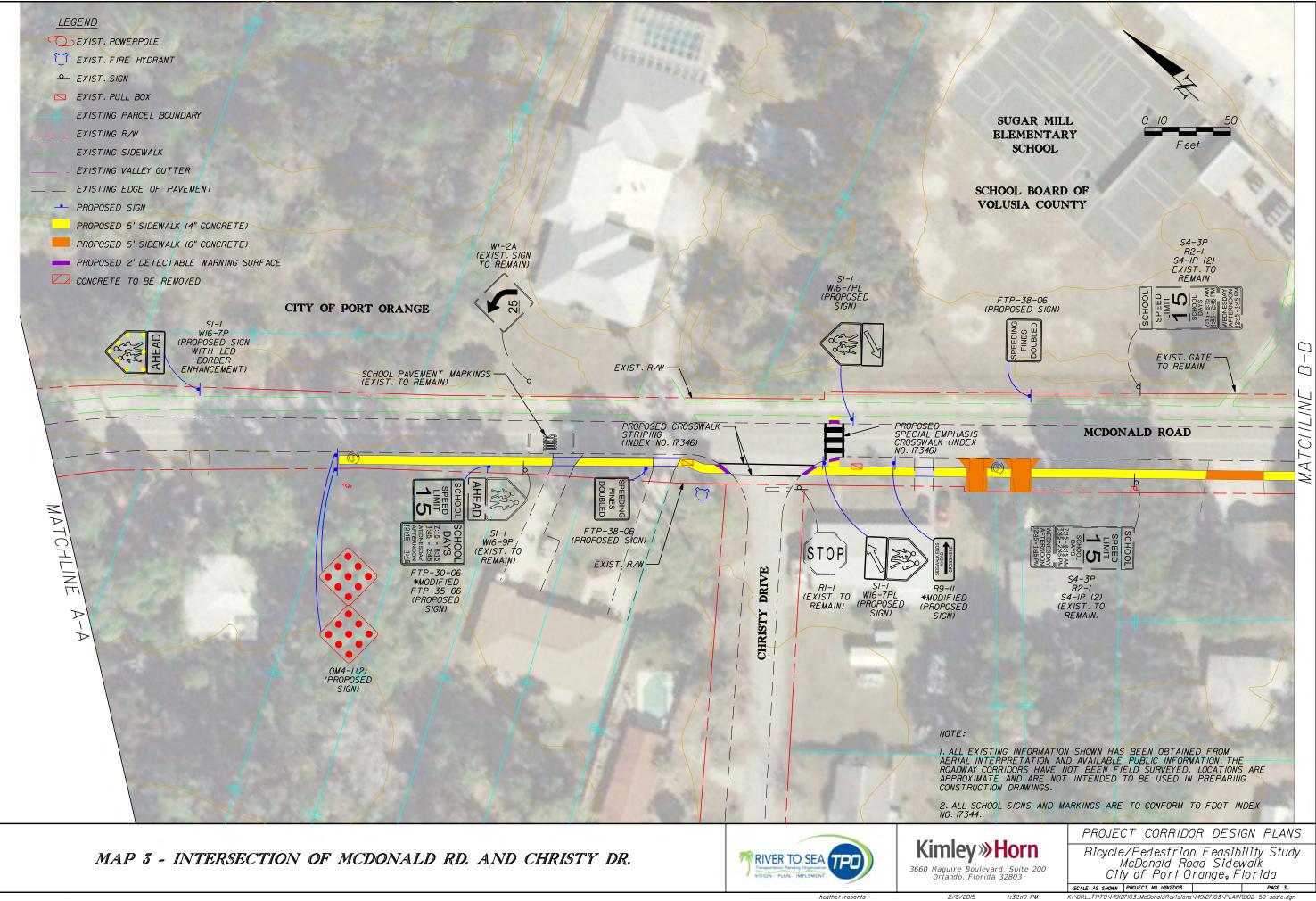


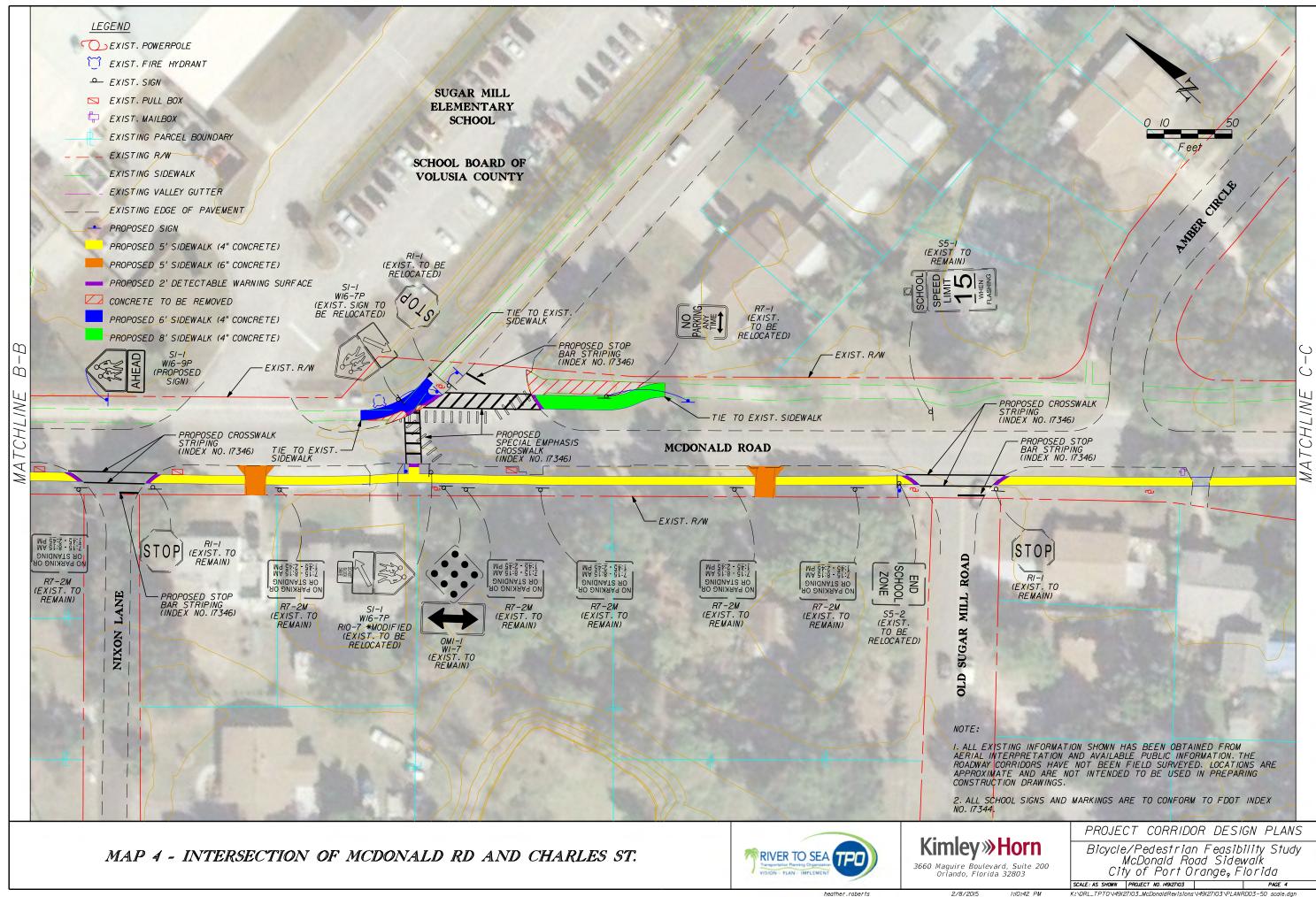


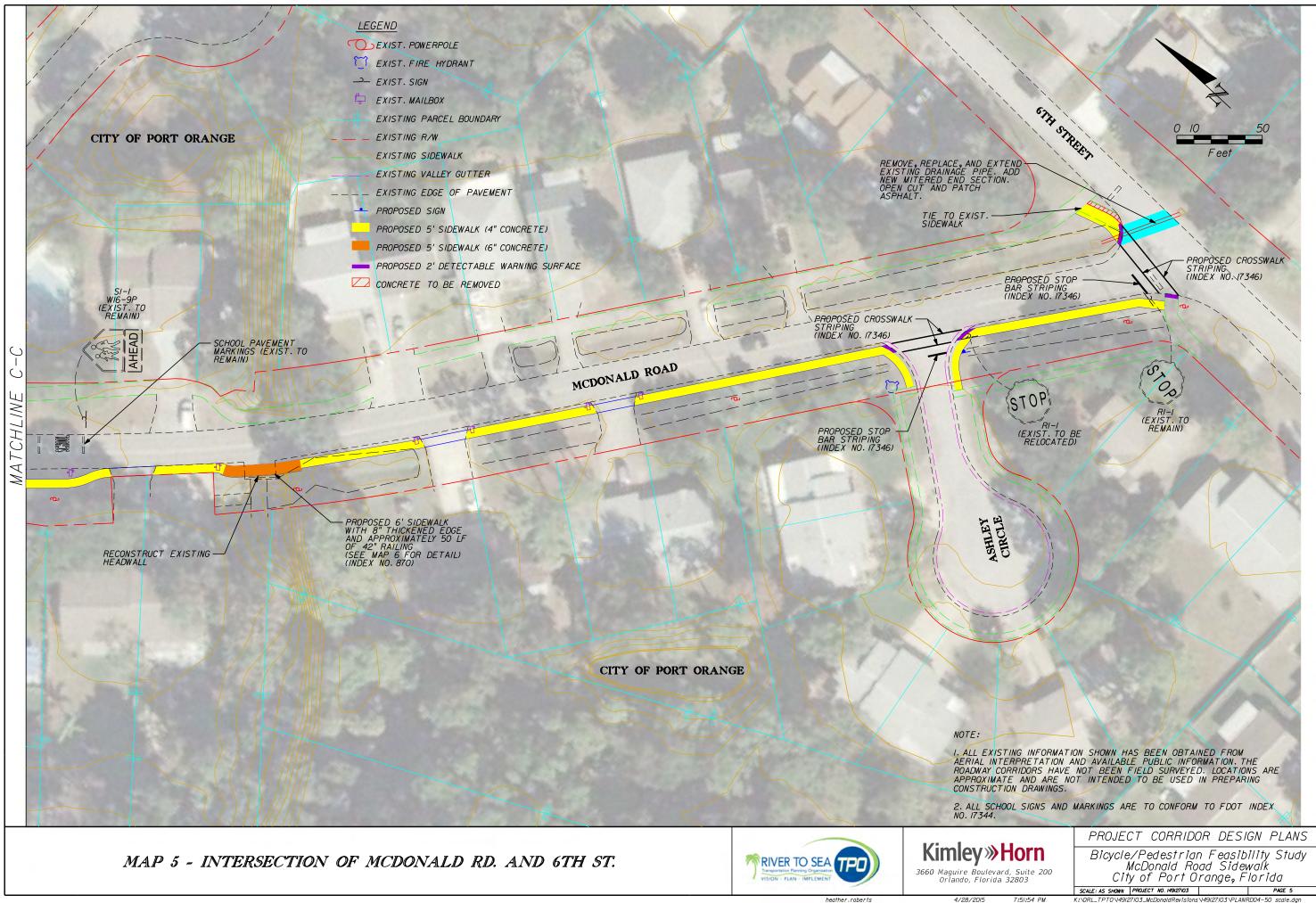
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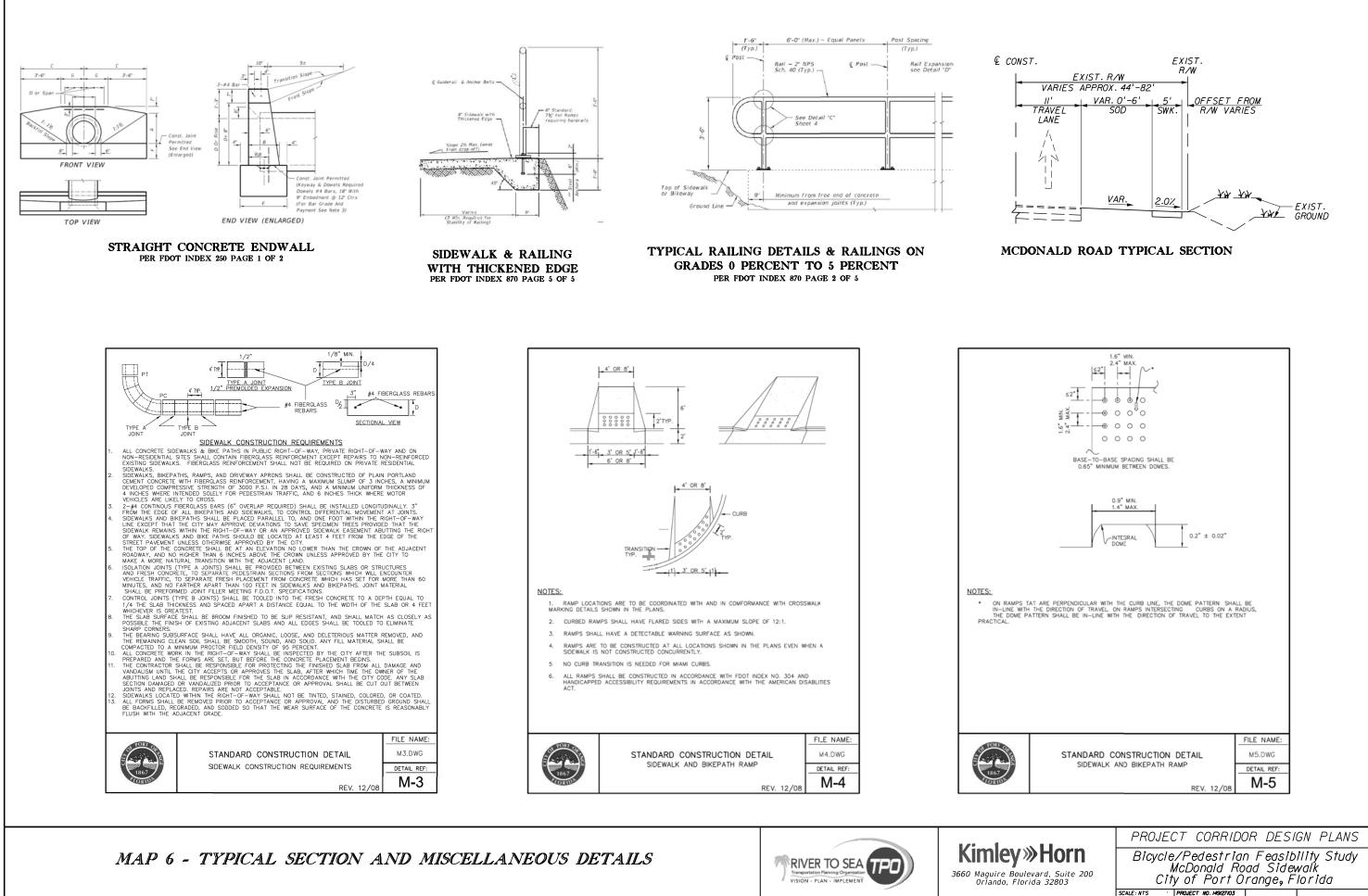






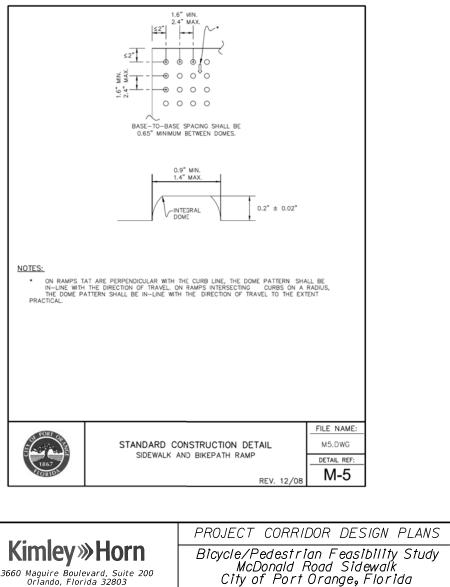


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heather.roberts



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APPENDIX

# **APPENDIX D**

Response to FDOT Comments

### Responses to FDOT Comments (Dated April 15, 2014)

<u>Comment #1:</u> Curb and gutter at Madeline Ave/McDonald Road at Sugar House Drive:

- Comment #1A: On page 15, the study mentions the existing sidewalk cannot be offset from the roadway because of the existing ditch. The study recommends curb and gutter be placed to provide a barrier for pedestrians. Curb and gutter **should not** be used for applications other than drainage conveyance, per the Department.
- Response: The recommendation for curb and gutter has been removed from the conceptual alignment.
- Comment #1B: Priority would be to relocate the sidewalk at/or nearest to the R/W line. Have piping the ditch, pushing the sidewalk back to the R/W, and utilizing walls (if necessary) been thoroughly reviewed for feasibility?
- Response: This area is part of a larger drainage system, and piping the ditch is not recommended at this location. The conceptual recommendations have been revised to include a gravity wall and pedestrian railing at this location. Recommendations have also been made to move the existing utilities to provide extra clearance for the sidewalk.

<u>Comment # 2:</u> Does existing sidewalk on the north/east side of McDonald Road meet ADA requirements throughout the entire studied corridor?

Comment #2A: It is assumed the County wants the entire corridor to be ADA compliant. Response: Reviewing the existing sidewalk along the north/east side of McDonald Road for ADA compliancy was not included in this feasibility study. This study focused on the south/west side of McDonald Road, and the conceptual alignment incorporates ADA Requirements. Additionally, in locations where new and/or revised crossings are proposed, ADA features are proposed to be added.

<u>Comment #3:</u> Sidewalk along the ditches running adjacent to McDonald Road, south of the headwall extension, on page 32:

Comment #3A: On page 13, under the Permitting section, it states the sidewalk construction will not significantly change drainage and will not require a permit. *Response: Sidewalk construction falls under exemption criteria for the St. Johns River Water Management District (SJRWMD) and as such, a permit is not anticipated to be required.* 

Comment #3B: On page 32, the Corridor Design Plans show the 5-ft wide sidewalk running along the existing ditch, with no impacts to the ditch.

Response: The alignment through these limits has been revised to move the sidewalk closer to the roadway. It is anticipated that the ditch would be re-graded through these limits.

- Comment #3C: Design and construction of 5-ft wide sidewalk, offset 6-ft from the EOP, does not appear feasible as shown in the Corridor Design Plans, (see attached photo; looking south along the west side of McDonald Road, south of the headwall extension). The proposed sidewalk alignment impacts ditch capacity, as well as raise flooding and permitting concerns.
- Response: The alignment has been revised through these limits and is now recommended to be offset two feet from the edge of pavement. The ditch would be re-graded along these limits, with minimal impacts to capacity. A permit would not be required for this work, as it falls under exemption criteria for SJRWMD.

Comment #3D: Has any coordination with permitting been started for ditch impacts? Response: Additional coordination with SJRWMD would be handled in the design phase. Based on the conceptual alignment, only an exemption verification letter is anticipated to be required.

Comment #3E: The Department does not agree with the first two numbered statements under Permitting, page 13 of the study. They request the study to be revised on page 13 to reflect the proposed sidewalk alignment show in the Corridor Design Plans. Response: The conceptual alignment has been revised to incorporate FDOT's comments.

# **APPENDIX E**

FDOT Right of Way Acquisition Reference Material

## **RIGHT OF ENTRY AGREEMENT**

Financial Project ID:2402333County Road:SR 434County:SEMINOLEParcel No.:116 (Claire Beatrice Clegg)

STATE OF Florida COUNTY OF Seminole

THIS AGREEMENT, made and entered into on the \_\_\_\_\_ day of \_\_\_\_\_\_, 2009, by and between

### **CLAIRE BEATRICE CLEGG**

Hereinafter called the "owner" and the State of Florida Department of Transportation, herein after called the 'DEPARTMENT".

#### WITNESSETH:

WHEREAS, the Department is conducting roadway improvements relative to the above referenced project; and

NOW, THEREFORE, in consideration of the above stated premises, the Owner and the Department hereby agree that the Department and/or its duly authorized representative shall have the right to enter upon the Owner's remaining lands for the purpose of performing demolition activities as noted below\*. It is further understood and agreed that the Department and/or its duly authorized representative will restore the remaining lands to a safe and sanitary condition.

\*1. The contractor shall maintain access to 1311 Windsor Avenue during demolition in accordance with FDOT regulations.

\*2. The contractor shall contact the owner at 407/831-4053, prior to commencing any work on the owner's property.

\*3. This right of entry is limited to demolishing the owner's tennis court and accessory structures only (consisting of fencing, a light post, 10'clf, net/posts, water fountain, and concrete court itself) and re-seeding with grass.

By:\_\_\_\_\_ Signature

OWNER:

Claire Beatrice Clegg

By:	
Signature	Da

DEPARTMENT:

STATE OF FLORIDA DEPARTMENT OF TRANSPORATION

ate

Date

\_Dana Cole Wainwright\_\_\_\_\_ Name (Please print or type)

Name (Please print or type)

#### NOTE: THIS FORM SHOULD BE PRINTED ON OFFICIAL LETTERHEAD

### Donation of Property to the County / or City

USE THIS AREA FOR TYPING NAME & ADDRESS

ITEM/SEGMENT NO .:

F.A.P. NO.:

COUNTY / CITY ROAD NO. or PROPERTY ADDRESS:

COUNTY/CITY:

PARCEL NO .:

INTEREST CONVEYED:

This is to advise that the undersigned, as owner of the property or property interest referenced above and as shown on Right of Way maps for referenced project, desires to make a voluntary donation of said property or property interest to the County / City for the use and benefit of the County / City.

The undersigned hereby acknowledges that he/she has been fully advised by a City / County representative of his/her right to have the referenced property or property interest appraised, to accompany the appraiser during the appraisal inspection of the property, to receive full compensation for the above referenced property, and to receive reimbursement for reasonable fees and costs incurred, if any. Having been fully informed of the above rights, I hereby waive those rights unless otherwise noted below.

Owner's Signature

Type or Print Property Owner's Name

Street Address

City, State, Zip Code

Date

Local Agency Program Right of Way Acquisition Worksheet Quality Assurance Review						
Agency:					Consultant/Agent:	
Project Description:	•					
FDOT Item/Segment No.:	FAP No.:	Owner:_			IN Date:	
QA Review by:	QA Review Date:					
I. Property Owner Notification		Yes	No	N/A	Comments	
1. Was Notice to Owner (FDOT Form No. 575 before Negotiations? Date Delivered:	5-030-031(32) or equivalent) delivered at	or				
2. Was the Notice sent to the owner's last knot tax roll?	own address listed on the county ad valo	rem				
3. Was the Notice personally delivered or sen	t certified mail, return receipt requested?	?				
4. Was ownership in the form of a representative trust?						
<ol><li>If answer to #4 is yes, was Public Disclosur equivalent), delivered to the owner?</li></ol>	re Notice (FDOT Form No. 575-030-18 c	or				
II. Business Owner Notification		Yes	No	N/A	Comments	
1. Are there any businesses located on this pa	arcel?					
2. If answer to #1 is yes, was Notice to Busine or equivalent) delivered at or after I.N.? Da		3(34)				
<ol> <li>Based on the Secretary of State, Division on notified?</li> </ol>	f Corporations, was the registered agen	t				
4. Was the business eligible for business dam	nages?					
5. Was a business damage claim paid?						
III. Offer(s)		Yes	No	N/A	Comments	
1. Was Offer and Purchase Agreement (FDO delivered directly to the Property Owner?	T Form No. 575-030-07 or equivalent)					
2. Did we obtain a written acknowledgement of If property owner refused to sign, note in co		fer?				
3. Was the offer amount based on recommen	ded compensation?					
4. Was use of Appraisal Waiver properly exec	cuted?					
5. If an uneconomic remnant was identified by purchase the uneconomic remnant made?						
IV. Good Faith Negotiations		Yes	No	N/A	Comments	
<ol> <li>Were good faith negotiations carried out wind Authorization (FDOT Form No. 575-030-02 owner was not represented, write "N/A" in the</li> </ol>	or equivalent) was received? If propert	İΥ				
2. Did property owner request copies of appra	aisal, maps or plans?					
3. If answer to #2 is yes, were copies provide	d within 15 days of owner's request?					
4. Were good faith negotiations conducted wir	th current appraisal values?					
<ol> <li>If real property was donated, was the owne appraisal performed and a right to compen</li> </ol>						
6. Did the Agency provide any construction or that exceeded the value of the real estate?	r regulatory elements in lieu of compensation	ation				

V. Suit	Yes	No	N/A	Comments
1. Did 30 days pass after offer was made before suit was filed?				
2. If applicable, was notice to business owner delivered prior to filing of suit?				
3. Was the Public Disclosure Affidavit returned within 48 hours after OT deposit was made for ownerships in the form of a representative capacity such as a corporation, partnership or trust?				
VI. Agreement	Yes	No	N/A	Comments
1. Was an Agreement reached?				
2. Was Agreement inclusive of Fees & Costs?				
3. Was Agreement reviewed by Legal?				
4. Was Final Agency Acceptance granted at least 30 days after agreement was signed by both parties? FAA Date				
VII. Closing	Yes	No	N/A	Comments
1. Was Closing Statement (FDOT Form No. 575-030-16 or equivalent) prepared? Date of Closing				
2. Did the closing take place within 60 days after Final Agency Acceptance?				
3. Were documents accurate and properly executed?				
4. Were all closing documents recorded no later than 48 hours after closing?				
5. Was the Public Disclosure Affidavit returned at least 10 days prior to closing for ownerships in the form of a representative capacity, such as a corporation, partnership or trust?				
VIII. Settlements	Yes	No	N/A	Comments
<ol> <li>Was Settlement Approval (FDOT Form No. 575-030-24 or equivalent) approved by the proper authority?</li> </ol>				
2. Was the settlement a justifiable expenditure based on settlement criteria?				
IX. Fees and Costs	Yes	No	N/A	Comments
<ol> <li>Were fees and costs based on an invoice or statutory formula? Method Used:</li> </ol>				
2. Were fees and costs identified on the Purchase Agreement/Supplemental Agreement?				
X. 1099S	Yes	No	N/A	Comments
<ol> <li>Was Request for Taxpayer ID (FDOT Form No. 575-030-27 or equivalent) delivered to non-excluded property owners? (Excluded = de minimis transactions and exempt transferors)</li> </ol>				
2. Was Form 1099S delivered to the property owner at closing or before December 31 of the calendar year in which the closing was held?.1099S Delivery Date:				
XI. LAP Certification	Yes	No	N/A	Comments
<ol> <li>Was the Right of Way Certification (FDOT Form No. 575-095-05 or equivalent) executed, accurate, and submitted to the Right of Way Office prior to letting? Date Certified :</li> </ol>				
Additional Comments:	•		· •	