Meeting of the School Transportation Working Group
Wednesday, April 25, 2018, 1:30 p.m.
County Center, 18th Floor, Plan Hillsborough Room

I. Call to Order

II. Public Comment - 3 minutes per speaker, please

III. Approval of Minutes – March 28, 2018

IV. Agenda Items
   A. Sidewalk Stompers Coleman Road Safety Project (Emily Hinsdale and Students)
   B. Citrus Park Drive Extension (Jim Hudock, HC Public Works staff)
   C. MPO School Safety Top Ten Field Review Results (Matt Weaver, Element Engineering)
   D. School Transportation Student Tracking Technology 2017 Pilot Project Results (Jim Beekman, SDHC)
   E. Hunter Green Circulation Plan Pilot (Chris Farkas, SDHC)
   F. Safe Routes to Schools Letter of Support-Sample (Kristi Nails, St. Joseph’s)

V. Share Success Stories, Updates and Results (Cindy Stuart, Chair)
   A. Jurisdiction/FDOT Updates -W. Busch Blvd Walking Tour April 5, 2018, Steinbrenner access and Wharton walker/light issue follow up
   B. School District Updates: preparation for the new school year and bike/ped safety, School Board Trans. Meeting April 26, 2018 - MPO School Safety Study, MPO Policy Community to discuss Big Bend Road Haz Walking Conditions April 24, 2018, Sheriff Office Crossing Guard Program Meeting April 2, 2018
   C. Health Partner Updates- Bike to School Day – Wednesday, May 9, 2018, SRTS letter

VI. Old Business & New Business
   A. Potential May 23, 2018 Recess swap for August 29 make up meeting?

VZ Corridor Community Engagement 56th Street event flyer
Please join neighbors, students, elected officials, and many others on April 23, 2018, from 3pm-5pm to walk the corridor and place signs with...
messages to slow down, put phones away and pay attention to those around you. Project webpage:  http://www.planhillsborough.org/vision-zero-corridor-engagement-15th-street-and-56th-street/

B. Sidewalk Stompers/Walk Bike Tampa “Walk for Safer Streets” on April 29th, 4:30 - 6:30, starting at Palma Ceia United Methodist Church, 3723 W. Bay to Bay Blvd.

VII. Potential Future STWG Topics
1. W. Busch Blvd. Corridor Study (Brian Shroyer, FDOT representative)
2. TBARTA Pik My Kid App Pilot Results (Michael Case, TBARTA or CUTR rep) confirmed April meeting
3. Transit Projects
4. High School Traffic Box Art Contest Project with Safety Messages (Alex Henry FDOT)
5. CTST Involvement (William Porth, CTST Chair, and City of Tampa Staff)
6. Plans Institutionalize STWG into School District Committee, revisit Pinellas STEPS, (Chris Farkas, SDHC Staff)
7. Charter Schools (Jenna Hodges and/or non-School District Rep.)

VIII. Adjournment

IX. Addendum
   A. MPO Meeting Summary & Committee Report
   B. Regional Transit Forum Save the Date

The full agenda packet is available on the MPO’s website, www.planhillsborough.org, or by calling (813) 272-5940.

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**CALL TO ORDER**
The meeting of the School Transportation Working Group (STWG) was held in Conference Rooms A & B, on the 26th Floor of the County Center. Ms. Cindy Stuart called the meeting to order at 1:35 p.m.

**PUBLIC COMMENT**
Ms. Liliana Gil, Operations Specialist with the University Area Community Development Center, is working on a Community Safety and Action Plan. She spoke on behalf of the children and parents that walk to school in the mornings without lights and sidewalks regarding the need for both in the University area.

**STWG #21 FEBRUARY 28, 2018 MEETING SUMMARY**
The STWG does not vote on or approve meeting summaries; however, if there are any corrections or additions, please inform Lisa Silva or Sharon Snyder. A Chair’s report will be forwarded to the full MPO Board for review, and will be part of the MPO’s agendas.

**ACTION ITEMS**
A. **State Safe Routes to Schools (Sarita Taylor, FDOT Central Office)**
Ms. Taylor presented on State Routes to School (SRTS), which is a sustained effort by parents, schools, community leaders and local, state and federal governments to improve the health and well-being of students by enabling and encouraging them to walk and bicycle to school. The federal SRTS program was established in 2005, under SAFETEA-LU, and had $58 million set aside through September 30, 2012, which was spread among seven districts. There were 269 projects which reached over 1,000 schools. There is a State Coordinator (Ms. Taylor) and District Contacts. The Contact for District 7 is Alex Henry (FDOT). He is responsible for the overall day to day contact with local schools, governments and others and can assist with the completion of SRTS applications.

The SRTS department has learned there is a lot of interest in the program and more applications than can be funded. There are five E’s of SRTS: Engineering, Evaluation, Enforcement, Education and Encouragement. The application process begins September 1st and continues through the end of December. Eligible applicants are Kindergarten through 12th grade schools. Ms. Taylor encouraged members to visit www.Srtsfl.org for basic program information, guidelines, updates and helpful links. Since 2009, Hillsborough County schools have received $2,299,714 for sidewalks, pedestrian pathways and bike lanes. Ms. Taylor reviewed some of the projects.

Safe Routes to School has been allocated $7 million per year, beginning in 2016 through 2026, for the entire state. The projects usually take 2 to 3 years, from the date of award through completion of the project. Mr. Hudak, Hillsborough County Public Works, stated the BOCC recently approved their ten-year transportation plan which includes money (approximately $3-4 million) for safe routes to school for sidewalks, etc. County projects can be completed quicker because they don’t have to go through the same process required for federal funds. Ms. Amato asked Mr. Hudak if there is an application process
for the County funds, like the application process for FDOT. Mr. Hudak stated there isn’t an application process.

Ms. Stuart asked Mr. Hudak to clarify what is already funded and what is still needed for sidewalk funding. Mr. Hudak stated there are massive needs and the approved funding is for both new sidewalks and repair needs. Ms. Taylor informed Mr. Hudak that schools on the County’s ten-year plan or Bike/Ped Plan receive higher points during the SRTS evaluation process.

B. State Crossing Guard Coordinator (Dana Crosby, FDOT Central Office)

Ms. Crosby is the Program Administrator for the Florida School Crossing Guard Training Program. She presented the training program, which is based on Florida Statute 316.75, which states local government entities who administer crossing guard programs must train their guards according to guidelines developed by FDOT. Most Florida crossing guard programs are run by Sheriff and Police Departments.

This program was established in 1991 after a little boy, Ramon Turnquest, was hit by a car while walking to school. He was crossing the street with the assistance of a crossing guard in Allendale Beach, FL. The guidelines were developed in the early 1990s and are updated every four years. The goals of the guidelines are uniformed training, consistency throughout the State and effective and safe operation of our school crossings.

The training classes are offered year-round throughout the State and include classroom instruction and practical training. Ms. Crosby reviewed some of the topics covered in the trainings. Those completing the course receive a certification signed by the head of FDOT. FDOT also provides continuing education courses, a bi-annual summit, and publishes safety literature.

Ms. Crosby stated guards must be recertified every year, which includes classroom instruction, supervised duty, and practical training. Requirements for substitute guards are the same as a regular guard. She also reviewed what guards are required to wear while on duty.

Discussions ensued regarding the average hourly rate for crossing guards, the possibility of crossing guards wearing the same uniform statewide, and if the crossing guard shortage is a statewide issue.

SHARE SUCCESS STORIES, UPDATES AND RESULTS

A. Jurisdiction Updates: Jim Hudak stated he’ll make a presentation at the April meeting.

B. School District Updates: Ms. Stuart gave two legislative updates. Jackie Toledo’s school sidewalk construction bill was vetoed. Legislation for Hazardous Walking Conditions (to change from two to 1 ½ miles) also did not pass on either side. A Task Force consisting of Transportation Directors from across the State has been created to work on changes that aren’t as cost prohibitive as what keeps getting proposed.

Ms. Dickerson stated the first school district internal meeting to discuss on-site circulation will be April 3rd. Christopher Farkas is working on funding for the Hunter Green Circulation Plan as more parents will be driving due to boundary change. Ms. Dickerson is also working on setting up meetings with the City to discuss the painted intersection at Cleveland Elementary.
Ms. Stuart remind attendees the initial design of this group was to bring collaboration between all the partners involved, with the intent to mimic what happens in Pinellas County. Their group falls under the Pinellas School District, not the MPO. Once the school circulation consultant review is completed, the group will move to the Hillsborough County School District.

C. **Health Partner Updates:** Ms. Nails stated bike clinics should be finished by the end of April. They visited 46 elementary schools and 18 middle schools and hope to do the same next school year.

**OLD BUSINESS & NEW BUSINESS**

A. **STWG Next Meeting:** The next meeting is April 25, 2018 at 1:30 p.m. on the 18th Floor.

Ms. Amato stated a child was hit this morning while crossing at a crosswalk on Boyette Road at Bell Creek. Fortunately, the child wasn’t seriously injured; however, she was informed the Sheriff’s Office doesn’t report the accident to the school district if the child isn’t seriously injured, which is affecting the numbers. She also reported there is still a timing issue at some of the crosswalks, such as crossing FishHawk Blvd. to Randall Middle School. The signal to cross is at the same time the cars are being given the green light to turn right. Mr. Smith, HCSD Transportation, stated the School District is notified when a student is hit, even if it’s not on school property. Ms. Ready, HCSD Safety Office, stated she and Mr. Culpepper are also notified. Ms. Amato stated how things are supposed to happen and how they actually happen aren’t always the same. Ms. Stuart asked Mr. Campbell, Hillsborough County Public Works, if there is a way for these accidents to be reported to the County as a marked crash, so the data can be collected for HCSO and Vision Zero. Mr. Campbell stated Public Works is notified by the HCSO when an event like this occurs, so an investigation can be completed, and corrective action put in place. He also suggested Ms. Amato contact the County through the Public Works website to report the traffic signal timing issue. Mr. Smith offered to provide Ms. Amato with his phone number to report these types of instances to him directly, in the unlikely event one slips through the cracks.

Ms. Taylor stated there are safety funds to improve roadways with crashes involving students. She suggested contacting Alex Henry, FDOT. These funds do not have the same application process as SRTS funds. Ms. Stuart stated there are several of these projects already on a list. Mr. Henry stated most safety projects don’t overlap with the school projects, but these certainly can be addressed. Ms. Amato asked if safety funds are available if a student is killed walking to a school? Ms. Taylor stated there are and suggested reaching out to Mr. Henry. Safety funds are data driven and a human life is now valued at $9 million. Mr. Henry offered to provide an overview of the safety projects at a future meeting. The FDOT Safety overviews from several area high schools are available on the Plan Hillsborough website, under the School Transportation Working Group tab.

Mr. Clarendon stated the results of the top ten schools field reviews will be presented at the next meeting. Ms. Stuart encouraged members to bring a device to review the extensive document digitally or print a copy at your office.

*Meeting adjourned at 2:47 p.m.*
Board & Committee Agenda Item

**Agenda Item**
Sidewalk Stompers Coleman Road Safety Project

**Presenter**
Emily Hinsdale, Sidewalk Stompers

**Summary**
The Sidewalk Stompers Coleman Road Safety Project will be presenting a student-led road safety project. The project was developed and designed to encourage students to observe traffic rules while reaching Coleman Middle School by foot or bicycle.

Emily Hinsdale, Sidewalk Stompers Founder, will be joined by 4 or 5 7th and 8th grade Coleman students from the school's Student Government and PTSA student board to make the presentation.

**Recommended Action**
None

**Prepared By**
Lisa K. Silva, AICP, PLA

**Attachment**
None
Board & Committee Agenda Item

**Agenda Item**
Citrus Park Drive Extension

**Presenter**
John Lyons, Hillsborough County Public Works Department

**Summary**
The project consists of extending Citrus Park Drive to connect Countryway Boulevard to Sheldon Road by adding a 2.73-mile section of four-lane, divided urban road. The corridor will have two 11-foot lanes, a 6-foot buffered bicycle lane, and sidewalks in both directions. New traffic signals will be installed at the new Fawn Ridge Boulevard intersection and at the entrance of Deer Park Elementary School. Included in the project are landscaped medians, drainage improvements, pedestrian safety features, water and wastewater infrastructure, and an upgraded traffic signal system. Connecting the two existing segments of Citrus Park Drive will accommodate future traffic demands in the northwest area of Hillsborough County, including the neighborhoods within and around Westchase and Citrus Park. This project provides pedestrian and bicycling connectivity to other neighborhoods, as well as the Upper Tampa Bay Trail and Deer Park Elementary School, and will alleviate traffic volumes on Linebaugh Avenue and South Mobley Road.

The total estimated cost of the project is approximately $55 million, and it is funded through the Public Works Capital Improvement Program.

This project was designed and presented to the public in late 2008, but funding was not available for construction at that time. A pre-construction public information meeting is anticipated to be scheduled for fall 2018. A detailed construction schedule will be available at this meeting. Construction is expected to start winter 2018 and is expected to be completed in summer 2021.

**Recommended Action**
None. For information only.

**Prepared By**
Lisa K. Silva, AICP, PLA

**Attachments**
1. Citrus Park Drive map
2. Article on County’s Citrus Park Drive
County Offers Updates on Citrus Park Drive Extension

On the cusp of finishing their plans for the Citrus Park Drive Extension, Hillsborough County staff offered a new timeline for its start and completion at a July community meeting.

The July 19 meeting of the Park Place Community Development District (CDD) at Highland Park’s Lake House featured a presentation from Project Manager Tommy Rawls, engineer Andrew Greenwood of WSP Engineering and landscape architect Jon Toner of Terra Techtonics. The trio detailed near complete plans for the extension. Once complete, it will connect Countryway Boulevard just north of the UTB Regional Library with Sheldon Road near the Westfield Citrus Park mall.

The completed road will be two lanes in both directions. Once beyond Deer Park Elementary, the extension will dip to the south between two large lakes and hug the TECO high-power line easement that begins just south of the library on Countryway Boulevard. It follows this path until bending north again to intersect Sheldon Road just north of Fawn Ridge’s entrance on Sheldon Road. The extension will ultimately continue into Citrus Park Drive, which runs in front of Westfield Citrus Park mall.

The county presentation largely focused on the existing portion of the road that runs through the Park Place CDD – specifically from Deer Park Elementary to Countryway Boulevard. That part passes the neighborhoods of Mandolin Estates on the north of the road and Windsor Place and Mandolin Reserve on the south side of the road.

Rawls stated that the current right of way through these communities will be maintained but the road will be expanded, impacting current landscaping buffers. The one island median on the road will also be narrowed to permit road expansion. The greatest impact, said Rawls, will be outside of Mandolin Estates. “There is a significant buffer here,” Rawls said of the landscaping just to the east of the neighborhood entrance, where its homes lie closest to the road.

The existing landscape buffer, he added, would have to be removed to widen the road. The impact, he added, may alarm Mandolin Estates homeowners during the work, but he added that a new landscape buffer will be planted. Only the home closest to the Mandolin entrance will not see the extension of the landscape buffer. Toner stated that replanting the area between that home and Citrus Park Drive would block the approaching view of the Mandolin entrance monument for westbound traffic. Once grown in, Rawls committed, the new landscaping buffer will work as well as the existing one.

Mandolin Estates, which lies across the road from Deer Park Elementary, will also see an enhanced landscape buffer east of its entrance and along the pond across from the school. Toner stated this was an attempt to
minimize road and school noise from impacting its homeowners.

Quizzed by Windsor Place President Chuck Shanberg about whether landscaping buffers will be enhanced outside his community, Rawls said staff was limited in what they could do given the existing buffer. Stating that the six-foot wall and existing landscaping planted by the developer should be adequate, he added that any enhancement would require them to pull out existing, mature landscaping, which would offer no additional benefit. When Shanberg inquired whether increasing the wall’s height to eight feet would benefit homeowners, Rawls cautioned, “That would become a zoning issue.”

Along the stretch of the road between Countryway and the school, the medians and rights of way will be landscaped and irrigated before handing responsibilities for maintenance over to the Park Place CDD. Fawn Ridge will maintain that portion of the road bisecting its entrance.

Stating they would soon release a project plant list, Toner said that plants for the district-maintained stretch would include cypress, cedar, palms and crepe myrtle. Planted trees will be 16 to 18 feet tall with four-inch trunk calipers and the median within the Park Place CDD will be planted with perennial peanut. The sod will be bahia.

The road’s traffic lanes, however, will be decreased in width by a foot to eleven feet. “That should provide for some traffic calming,” Rawls stated. The width reduction will also allow planned bike lanes, running the length of the road, to be expanded to six feet in width.

The road, however, will not have additional turn lanes into the Mandolin or Windsor Place neighborhoods. Greenwood added there would also not be traffic lights at the neighborhood entrances. “It doesn’t meet the requirement,” he stated.

A traffic lights, however, will be installed at the entrance to Deer Park Elementary. Citing the number of homes in Fawn Ridge, Greenwood said that another light will be installed at the intersection of Citrus Park Drive and Fawn Ridge Boulevard, which it will bisect.

Fawn Ridge will see the biggest impact from the new road. To align it with that portion of Citrus Park Drive that runs past the front entrance of the mall, the extension will actually bisect Fawn Ridge Boulevard about 0.2 miles inside the entrance to Fawn Ridge off Sheldon Road. Homes located on Key West Circle in Fawn Ridge will actually lie south of the Citrus Park Extension while the rest of Fawn Ridge will lie north of the Citrus Park Drive extension. County staff has added enhanced landscape buffering along this stretch as well to minimize traffic noise.

Near complete plans show the extension being two lanes in both directions with a continuous sidewalk running along the north lanes. The portion of the road between Countryway and Deer Park Elementary, however, will have a sidewalk on the north and south sides of the road.

The new portion of Citrus Park Drive between Deer Park Elementary and Fawn Ridge will also feature landscaping. The medians between the lanes, however, will not be irrigated. Rather than sod, Toner stated the county was exploring planting wildflowers in the median to give them color.

As part of the project, Rawls stated they were looking at adding a sidewalk on the west side of Countryway Boulevard, where the extension will terminate, to Race Track Road.

Rawls stated that the project’s start has been delayed because the project had to again go through environmental permitting. Environmental standards, he added, are more rigorous than when the plan first
passed through them before the Great Recession. That downturn caused the county to shelve the project. He expects, however, to have the project bid by the spring.

He added, however, that the previously announced two-year construction timetable will be extended to two and a half years. This occurred after staff returned a previously planned overpass into the project. Rawls said the overpass would enable the Parks, Recreation and Conservation Department to design a trail system that passes under the road for possible future bike, pedestrian and equestrian use. The overpass added six months to the construction timeframe.

Rawls added that the land surrounding the extension is currently owned by county utilities. With the exception of one area, it is also largely protected wetlands, which minimizes the possibility that the road will enable the development of additional subdivisions and add to the road’s traffic load.

Mandolin HOA President Tom Cockerell, present at the meeting, announced that a Mandolin community meeting would be held in late August or early September to allow its residents to review the county’s plan.

By Chris Barrett, Publisher

COMMENTS

Please login or register to post a comment.
Hillsborough MPO
Metropolitan Planning
for Transportation

Board & Committee Agenda Item

Agenda Item
MPO School Safety Study Top Ten Draft Report

Presenter
Matt Weaver, Element Engineering

Summary
The Hillsborough Metropolitan Planning Organization (MPO) School Safety Study is seeking to prioritize school areas in order to conduct multimodal safety and bicycle/pedestrian access reviews aimed at identifying opportunities to enhance the safety and comfort of getting to and from school.

Input from the STWG will assist in formulating a solid (data-driven) methodology to prioritize future safety projects around schools beyond the current complaint-driven system.

In July 2017 we reviewed:

Methodology - The prioritization of school areas for safety improvements may include factors such as student age, school hours/days pedestrian and bicycle crash histories, proximity to bus stops, socioeconomic and demographic data (e.g., equity (communities of concern), percent of free or reduced lunch, income, percent minority, automobile ownership, etc.), presence of a crossing guard, amount of lighting, condition of existing multimodal facilities, potential for use of public transit to access schools, the general concentration of non-bused students in the immediate area, location and size of school speed zone, the number of students impacted by the elimination of non-funded busing and any other pertinent data.

In addition to this data, the following resources will be applied to develop the school safety prioritization methodology:

• Recent Florida Department of Transportation (FDOT) District 7 School Road Safety Audits (RSA) prioritization information will be utilized for the identification and prioritization of school areas.

• Results from the recently completed Getting to School Survey will be used to prioritize the school areas that may be most in need of safety improvements.

• Results of the HC SD’s F.S. 1006.23 Hazardous walking conditions Checklist and Audits.
• Lists of projects/issues identified by HCSD principals.

• Results of the Hillsborough County Public Work’s systematic pedestrian facility improvement program and/or sidewalk and shared use path improvement program prioritization methodology (JMT).

In August 2017 we will participated in a weighting process and look at:

**Application of Prioritization Methodology** – The Consultant, in coordination with MPO staff and STWG will use the school walk/bike prioritization methodology to develop a list of ten (10) school areas for further review as follows:

- The Consultant will generate an initial prioritized list of school areas for detailed review.
- The priority list will be provided and presented to MPO staff and the STWG for review and discussion.
- Based on comments from the MPO staff and STWG, the Consultant shall make necessary adjustments to the priority ranking criteria and generate an updated list of safety improvements school area priorities.

In September 2017 the School Mapping Tech group met to evaluate the weighting criteria.

In October 2017 the Top Ten results of the plan’s review and prioritization methodology were presented to the STWG and accepted as final. The field reviews began in 2018.

In February 2018 the consultant updated STWG on their progress and observations of the “street view” reviews of the crashes at the 10 locations. The team has calls in to all the principals to schedule discussions. They will highlight trends they are seeing and brainstorm ideas about a wide variety of solutions to the safety issues, including possible education approaches for all the schools. During March 2018 the draft reports and recommendations were reviewed with the local agencies/FDOT.

Today the Top Ten final results will be reviewed with the STWG.

**Recommended Action**

Provide feedback.

**Prepared By**

Lisa Silva, AICP, PLA

**Attachments**

MPO School Safety Methodology
MPO School Safety Screening
MPO School Safety Top Ten Draft Report
Hillsborough MPO School Safety Study

Technical Memorandum

Identification and Prioritization of School Areas for Multimodal Safety Reviews Methodology

Introduction

The Hillsborough County Metropolitan Planning Organization (MPO) has a longstanding commitment to improving safety and mobility for all users and modes of transportation throughout Hillsborough County. The MPO along with the MPO’s School Transportation Working Group (STWG) has made improving safety and mobility for students one of its priorities. To identify opportunities to enhance the safety and comfort of getting to and from school, the MPO has initiated a School Safety Study to prioritize public school areas in order to conduct multimodal safety reviews at ten school areas that will result in a list of actionable safety and mobility improvements. A data driven methodology for prioritizing school areas was needed to identify the school areas for multimodal safety reviews. Prioritizing school areas based on data such as pedestrian and bicycle crash history, number of students living within proximity to the school, and other safety, socioeconomic, and school related data inputs ensures that the reviewed schools are selected based on data rather than a complaint driven system. This technical memorandum provides an overview of the methodology that was used to identify and prioritize school areas within Hillsborough County.

Defining School Evaluation Areas

The initial step in identifying and prioritizing locations to conduct school multimodal safety reviews was to identify and define the school evaluation areas. Florida Administrative Code (6A-3.001 (3)) states that a reasonable walking distance for any student who is not otherwise eligible for transportation, is any distance not more than two (2) miles between the home and school or one and one-half (1 ½) miles between the home and assigned bus stop. Using F.A.C. 6A-3.001 (3) as a guide, a 2-mile walking boundary for each public school was created; the walking boundaries were developed in a geographic information system (GIS) utilizing the location of each school and a 2-mile distance from the school along the existing roadway network. It is noted that this method may differ from how the school district defines the 2-mile walk distance, but was considered sufficient for the purposes of this study. As a largely urban county, many of the schools within Hillsborough County are located relatively close to each other and therefore resulted in many of the 2-mile walk boundaries overlapping each other. To resolve the overlapping the 2-mile walking boundaries were overlaid with the respective school attendance boundaries; the area where the two boundaries intersect was used to create the 2-mile school evaluation areas, Figure 1 is an illustrative example of this process.
Additionally, through discussions with the STWG, it was determined that it was important to develop additional smaller school evaluation areas that would allow for a more detailed evaluation of the areas closer to the school and could help in better determining where potential safety and mobility concerns exist. In addition to the 2-mile school evaluation areas, 1-mile and 0.5-mile evaluation areas were developed for each schools based on the same process used to develop the 2-mile evaluation areas.

**Attributing Data to the School Evaluation Areas**

Once the school evaluation areas were defined the next step was to attribute data to the evaluation areas. The following summarizes the data that attributed to the school evaluation areas.

**Students Residing within School Area**

Utilizing data provided from the Hillsborough County School District, the school evaluation areas were assigned with the number of students who reside within the school areas and attend the area school. There are many students who reside within the attendance boundary of one school, but attend another school for one reason or another; this screening was conducted as an exercise to gauge the number of potential students who may walk or bike to school. Therefore only students who reside within the school area and attend the school of that area were included in the evaluation.

**Pedestrian and Bicycle Crash History**

Using five-years of crash data (2012—2016) pedestrian and bicycle crashes were attributed to each school area. The pedestrian and bicycle crashes were then broken into two categories, total pedestrian and bicycle crashes and school related pedestrian and bicycle crashes. Total pedestrian and bicycle crashes were used to help assess the overall pedestrian and bicycle safety environment within the school evaluation area. Compared to many other crash types, pedestrian and bicycle crashes typically occur at a lower frequency and are often more random in nature which often makes interpreting pedestrian and bicycle crash patterns more challenging. Including total pedestrian and bicycle crashes into the evaluation of each school area helped to better identify locations that may have pedestrian and bicycle safety issues.
The school related pedestrian and bicycle crashes are a sub-set of the total pedestrian and bicycle crashes and included the crashes that met the following criteria:

- occurred on days when school was in session (based on Hillsborough County School District school calendars),
- occurred during typical arrival and dismissal hours (6:00 AM to 10:00 AM and 2:00 PM to 5:00 PM), and
- where the involved pedestrian and/or bicyclist was of school age (elementary school 5 – 11 years old, middle school 11 – 14 years old, high school 14 – 19 years old) for the area school.

While the above criteria was met, it does not necessarily mean that the identified school related crashes involved students traveling to or from school. However, for the purposes of a countywide screening it was determined that this data provided insight that could be used to identify locations where there may be a higher possibility of crashes involving students traveling to/from school.

### Arterial and Collector Roadway Intersections

The number of major road (arterial and collector) intersections were attributed to each school area. For the screening process, these intersections included anywhere any street intersected with an arterial or collector road, and were used to represent the number of potential crossing conflicts within the school area. It was assumed that a higher number of arterial and collector road intersections indicated that there was a greater likelihood that students may need to cross a major road, and that there is a higher risk involved in those crossings.

### MPO Identified Community of Concern

The Hillsborough MPO has identified communities of concern throughout the county to ensure equal access to affordable and reliable transportation and to ensure that certain groups don’t accrue disproportionate benefits or burdens. Communities of concern are areas that face unique obstacles related to transportation and engagement based on multiple community characteristics including:

- Minority Populations
- Limited English Proficiency Households
- Low-Income Population
- Persons with Disabilities
- Zero Vehicle Households

The communities of concern were included in the screening to help distinguish areas that may have impediments to transportation that may result in a higher proportion of students walking/biking to/from school.

### Free/Reduced Lunch

The percentage of evaluation area students who qualify for free/reduced lunch was used as a measure to help identify areas that may have potential socioeconomic barriers to transportation. Using this as a measure of socioeconomic condition, and a measure of potential transportation barriers, assists in helping
to identify school evaluation areas that may have students with a higher likelihood to walk/bike to/from school.

Getting to School Survey

The Getting Students to School Survey was sent to nearly 200,000 recipients to better understand and gain better insight on current school commuting practices. While the survey cover many topics, it primarily focused on the following topics:

- Demographics
- Current Commute
- Commuting Conditions
- Student Requests
- Commuting Considerations
- Awareness and Interest in Commuting Offerings

Based on the collected responses, the survey indicated that most students take a school bus or family vehicle to/from school. When asked if the student had asked for permission to walk/bike to/from school 80.3% of the respondents answered “no,” and when asked in what grade would you give your student permission to walk/bike to school without an adult over 50% of the respondents answered “never.” When asked what factors affect the decision to give your student permission to walk/bike to/from school the most impactful responses were distance, safety of intersections or crossings, and speed of traffic along the route. Some of the most frequently referenced comments from the survey related to poor road conditions and safety concerns about walking.

To help better understand the potential number of students within each school area that may currently be walking the evaluation process focused on the responses to questions 11 and 12 from the survey (following) and included all responses that indicated whether the student walks alone, walks with a parent, participates in a walking school bus, bicycles alone, or participates in a bike train.

- Survey Question 11 – On a typical week, how many days does your student use each of these transportation methods to get to school?
- Survey Question 12 – On a typical week, how many days does your student use each of these transportation methods to get home from school?

Non-Funded Transportation

Prior to the 2017-18 school year the Hillsborough County School District eliminated non-funded transportation services, also known as courtesy busing, for approximately 7,500 middle and high school students. This recent change is anticipated to increase the potential number of students walking or biking to school. The number of students who had previously been transported with non-funded transportation services were attributed to each school evaluation area and was used as a factor in determining the number of potential new student walkers/bikers within each school area.
Traditional School

Based on discussions with the STWG, it was determined that there was a need to differentiate between schools with a traditional attendance boundary and those with either a much broader attendance boundary or no boundary at all, i.e., magnet and charter schools. For the purpose of this evaluation, schools with a defined attendance boundary were classified as traditional school.

Screening and Prioritizing School Evaluation Areas

Once the data was attributed to each school evaluation area, a process for screening and prioritizing the school areas for future multimodal safety reviews needed to be developed. The result was the development of a two-step evaluation/prioritization process. The first step (screen 1) focused on identifying the number of students living in proximity to school, and on the number of pedestrian and bicycle crashes that occurred within the school evaluation areas. A result of the screen 1 process was a short-list of school areas that were further evaluated during the second step (screen 2). The screen 2 process focused on additional data attributes related to factors that may make walking/biking to school more probable and on existing built-environment/infrastructure conditions that could indicate potential challenges and/or barriers to walking/biking to/from school.

Before conducting the screen 1 evaluation and prioritization process, it was determined, through discussions with the STWG, that grouping the school evaluation areas by school type would allow for a more equitable comparison of the school evaluation areas; the schools were grouped into the following school types:

- Elementary Schools
- Middle Schools
- High Schools
- Other Schools (include magnet only and charter schools)

A primary reason for grouping the schools by school type is that attendance boundaries, and consequently the evaluation area boundaries, for the different school types can significantly vary in size. The use of typical school level feeder patterns, where multiple elementary schools feed a few middle schools, that feed one or two high schools, resulted in high school evaluation areas that were significantly larger than the middle and elementary school evaluation areas. Grouping the schools by type and comparing school areas and school populations of similar size allowed for a more consistent assessment of the school evaluation areas.

Screen 1 Data Evaluation

The School Safety Study’s primary focus is to identify opportunities to improve the safety and comfort of students getting to/from school, so it was determined that the first evaluation and prioritization process (screen 1) should focus on data inputs related to safety conditions, and on the number of potential students that could benefit from potential safety improvements.

The following data attributes were used for the screen 1 evaluation:
• School Related Pedestrian and Bicycle Crashes
• Total Pedestrian and Bicycle Crashes
• Percent of Students Residing in the School Evaluation Area
• Ratio of School Related Pedestrian and Bicycle Crash to Students Residing in the Area

The initial evaluation of the school areas was completed by ranking the screen 1 data inputs for each school evaluation area (2-mile, 1-mile, and 0.5-mile) and by school type; Figure 2 provides an example of this process.

<table>
<thead>
<tr>
<th>School</th>
<th>School Related Crashes</th>
<th>Total Crashes</th>
<th>Area Students</th>
<th>School Related Crashes per 100 Area Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle School A</td>
<td>4</td>
<td>17</td>
<td>1</td>
<td>86.3%</td>
</tr>
<tr>
<td>Middle School B</td>
<td>1</td>
<td>9</td>
<td>3</td>
<td>41.7%</td>
</tr>
<tr>
<td>Middle School C</td>
<td>7</td>
<td>16</td>
<td>2</td>
<td>71.6%</td>
</tr>
</tbody>
</table>

**Figure 2: Screen 1 Ranking Example**

Next, to help prioritize the data attributes, a weighting scheme was developed and applied to the ranked inputs. Based on discussions with the STWG, it was determined that the highest emphasis should be placed on school related pedestrian and bicycle crashes, with total pedestrian and bicycle crashes, the percentage of enrolled students residing in the area, and the ratio of school related crashes to areas students following. The following weightings were developed applied to the attribute rankings:

• School Related Pedestrian and Bicycle Crashes – 50%
• Total Pedestrian and Bicycle Crashes – 20%
• Percent of Students Residing in the School Evaluation Area – 20%
• Ratio of School Related Pedestrian and Bicycle Crash to Students Residing in the Area – 10%

After applying the weights to the data rankings, a composite score/rank for each school area was developed using the sum of the weighted data rankings, Figure 3 provides an example of the weighting and composite rankings.

<table>
<thead>
<tr>
<th>School</th>
<th>School Related Crashes</th>
<th>Total Crashes</th>
<th>Area Students</th>
<th>School Related Crashes per 100 Area Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle School A</td>
<td>1</td>
<td>0.2</td>
<td>0.2</td>
<td>0.3</td>
</tr>
<tr>
<td>Middle School B</td>
<td>1.5</td>
<td>0.6</td>
<td>0.6</td>
<td>0.2</td>
</tr>
<tr>
<td>Middle School C</td>
<td>0.5</td>
<td>0.4</td>
<td>0.4</td>
<td>0.1</td>
</tr>
</tbody>
</table>

**Figure 3: Screen 1 Weighted Composite Score/Rank Example**

After applying the attribute ranking weighting, and calculating the weighted composite score/rank for each evaluation area, a weighting based on the evaluation area distance was applied. The distance weighting allows the evaluation to emphasize the areas closest to the schools, e.g., a crash located within a few hundred feet from a school would be weighted higher than a crash that occurred more than a mile from the school. The following weights were applied based on the three evaluation distance areas:
• 2-Mile – 31%
• 1-Mile – 33%
• 0.5-Mile – 36%

After applying the distance weighting, a weighted area composite score/ranking was calculated based on the sum of the weighted area rankings, Figure 4 provides an example of this process.

<table>
<thead>
<tr>
<th>School</th>
<th>2-Mile Area</th>
<th>1-Mile Area</th>
<th>0.5-Mile Area</th>
<th>Weighted Area Composite Score</th>
<th>Weighted Area Composite Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle School A</td>
<td>0.62</td>
<td>0.33</td>
<td>0.36</td>
<td>1.31</td>
<td>1</td>
</tr>
<tr>
<td>Middle School B</td>
<td>0.93</td>
<td>0.99</td>
<td>1.08</td>
<td>3.00</td>
<td>3</td>
</tr>
<tr>
<td>Middle School C</td>
<td>0.31</td>
<td>0.66</td>
<td>0.72</td>
<td>1.69</td>
<td>2</td>
</tr>
</tbody>
</table>

**Figure 4: Screen 1 Weighted Area Composite Score/Rank Example**

**Developing the Screen 1 Short-List**

A short-list of school evaluation areas was created using the screen 1 weighted area rankings from each school type group. The short-list is comprised of the top school areas from each school type. The school area short-list was then used for further evaluation of the school areas in the screen 2 evaluation process. The following is a list of the schools that were included in the screen 1 short list, in alphabetical order:

- Adams Middle School
- B.T. Washington Elementary School
- Brandon High School
- Chamberlain High School
- Cleveland Elementary School
- Coleman Middle School
- Edison Elementary School
- Ferrell Middle Magnet School
- Foster Elementary School
- Gaither High School
- Hillsborough High School
- James Elementary School
- King High School
- Leto High School
- Mann Middle School
- Memorial Middle School
- Mendenhall Elementary School
- Middleton High School
- Miles Elementary School
- Monroe Middle School
- Mort Elementary School
- Muller Elementary Magnet School
- Pierce Middle School
- Plant High School
- Potter Elementary School
- Riverview High School
- Robinson High School
- Sessums Elementary School
- Sulphur Springs K-8 Community School
- Turner/Bartels K-8 School
- Twin Lakes Elementary School
- Van Buren Middle School
- Webb Middle School
- Young Middle Magnet School

**Screen 2 Data Evaluation**

The second screen process involved looking at other contributing data that may indicate a higher propensity for walking and biking and factors that could make walking and biking to school more challenging. Similar to the screen 1 data evaluation, the screen 2 evaluation involved ranking and
prioritizing data attributes, but unlike the screen 1 evaluation that included all public schools in Hillsborough County, the screen 2 evaluation was conducted only on the schools included on the screen 1 short-list. This section will review the screen 2 data inputs and evaluation/prioritization process.

The following data attributes were used for the screen 2 evaluation:

- Arterial Road Intersections
- Collector Road Intersections
- Percent of Area Students Qualifying for Free/Reduced Lunch
- Within Identify Community of Concern
- Getting to School Survey Responses
- Non-Funded Transportation Students
- Traditional School Designation

Similar to the screen 1 process, the screen 2 data attributes for each school area were ranked for each school evaluation area (2-mile, 1-mile, and 0.5-mile); Figure 5 shows an example of the ranking process.

<table>
<thead>
<tr>
<th>School</th>
<th>2-Mile Area</th>
<th>General Inputs - Valid for all Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Arterial Intersections</td>
<td>Collector Intersections</td>
</tr>
<tr>
<td>Short-List School A</td>
<td>97</td>
<td>2</td>
</tr>
<tr>
<td>Short-List School B</td>
<td>124</td>
<td>1</td>
</tr>
<tr>
<td>Short-List School C</td>
<td>39</td>
<td>3</td>
</tr>
</tbody>
</table>

**Figure 5: Screen 2 Ranking Example**

Again similar to the screen 1 process, a weighting scheme was applied to the ranked data attributes. Through discussions with the STWG, the following weights were developed and applied to the screen 2 rankings:

- Arterial Road Intersections – 30%
- Collector Road Intersections – 25%
- Percent of Area Students Qualifying for Free/Reduced Lunch – 15%
- Within Identify Community of Concern – 5%
- Getting to School Survey Responses – 5%
- Non-Funded Transportation Students – 15%
- Traditional School – 5%

After applying the weights to the data rankings a composite score/rank for school area was developed using the sum of the weighted data rankings, Figure 6 provides an example of the weighting and composite rankings.
After applying the attribute rank weighting, and calculating the weighted composite score/rank for each evaluation area, a weighting based on the evaluation area distance was applied. The distance weighting allows the evaluation to emphasize the areas closest to the schools; the following weights were applied based on the three evaluation distance areas:

- 2-Mile – 31%
- 1-Mile – 33%
- 0.5-Mile – 36%

After applying the distance weighting, a weighted area composite score/ranking was calculated based on the sum of the weighted area rankings, Figure 7 provides an example of this process.

<table>
<thead>
<tr>
<th>School</th>
<th>2-Mile Area</th>
<th>1-Mile Area</th>
<th>0.5-Mile Area</th>
<th>Weighted Area Composite Score</th>
<th>Weighted Area Composite Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-List School A</td>
<td>0.62</td>
<td>0.33</td>
<td>0.72</td>
<td>1.67</td>
<td>2</td>
</tr>
<tr>
<td>Short-List School B</td>
<td>0.31</td>
<td>0.66</td>
<td>0.36</td>
<td>1.33</td>
<td>1</td>
</tr>
<tr>
<td>Short-List School C</td>
<td>0.93</td>
<td>0.99</td>
<td>1.08</td>
<td>3.00</td>
<td>3</td>
</tr>
</tbody>
</table>

**Figure 7: Screen 2 Weighted Area Composite Score/Rank Example**

**Prioritizing the School Areas**

The weighted composite scores from the screen 1 and screen 2 evaluation were then combined to create a final composite score and ranking that was used to prioritize the short-list school areas and identify the top school areas for multimodal reviews. Figure 8 provides an example of how the scores/rankings were combined and Table 1 contains the actual combined composite scores and rankings for the short-list school areas.

<table>
<thead>
<tr>
<th>School</th>
<th>Screen 1 Weighted Area Composite Score</th>
<th>Screen 1 Weighted Area Composite Ranking</th>
<th>Screen 2 Weighted Area Composite Score</th>
<th>Screen 2 Weighted Area Composite Ranking</th>
<th>Combined Weighted Composite Score</th>
<th>Combined Weighted Composite Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-List School A</td>
<td>1.31</td>
<td>1</td>
<td>1.67</td>
<td>2</td>
<td>2.98</td>
<td>1</td>
</tr>
<tr>
<td>Short-List School B</td>
<td>3.00</td>
<td>3</td>
<td>1.33</td>
<td>1</td>
<td>4.33</td>
<td>2</td>
</tr>
<tr>
<td>Short-List School C</td>
<td>1.69</td>
<td>2</td>
<td>3.00</td>
<td>3</td>
<td>4.69</td>
<td>3</td>
</tr>
</tbody>
</table>

**Figure 8: Example of Combined Weighted Rankings**
The next step was to review the prioritized school area list to identify any school areas that had recently been reviewed for safety and mobility improvements; if an area had recently been reviewed it was removed from the final list and the next school area on the short-list was added to the final list.
Finally, the prioritized final school area list was reviewed to see if it makes sense to combine school areas based on their proximity to other school areas on the final list. For this evaluation it was determined that three schools – Middleton High School, Ferrell Middle Magnet School, and Young Middle Magnet School – were close enough to each other to combine these three school areas as one school area for review purposes.

Figure 9 is a flowchart that provides an overview of the process reviewed in this methodology memorandum.

**Evaluation Results**

Using the evaluation methodology described in this technical memorandum the 10 school areas that were selected for multimodal safety reviews were:

- Chamberlain High School
- Coleman Middle School
- King High School
- Leto High School
- Middleton High School, Ferrell Middle Magnet School, and Young Middle Magnet School
- Muller Elementary Magnet School
- Pierce Middle School
- Plant High School
- Sulphur Springs K-8 Community School
- Van Buren Middle School
Group by School Type

Define School Evaluation Areas (2-Mile, 1-Mile, and 0.5-Mile)

Attribute Data to School Evaluation Areas (Screen 1 and Screen 2 Attributes)

**Screen 1 Evaluation – Short-List Development**

- Rank Screen 1 Data Attributes (by School Type and Distance Area)
- Apply Weighting to Data Attribute Rankings
- Develop Composite Score/Rank for the Weighted Data Rankings by Type and Area
- Apply Distance Weighting to the Weighted Data Composite Scores/Rank
- Sum Weighted Area Rankings to Create Screen 1 Composite Score/Rank
- Move Highest Ranked Schools (by Type) to Screen 1 Short-List

**Screen 2 Evaluation**

- Rank Short-List Schools Areas by Screen 2 Data Attributes (by Distance Area)
- Apply Weighting to Screen 2 Data Attribute Rankings
- Develop Composite Score/Rank for the Weighted Data Rankings by Area
- Apply Distance Weighting to the Weighted Data Composite Scores/Rank
- Sum Weighted Area Rankings to Create Screen 2 Composite Score/Rank

Combine the Screen 1 and Screen 2 Composite Score/Rank for the Short-List Schools

Review Short-List School Areas to Determine if Areas Should be Combined based on Geographic Proximity

Review Short-List School Areas for Schools that have had Recent Safety Reviews

Select Top 10 School Areas for Multimodal Safety Reviews

Figure 9: Methodology Overview Flowchart
## Hillsborough MPO - School Safety Study

### Proposed School Areas for Multimodal Safety Reviews - October 2017

<table>
<thead>
<tr>
<th>School Location</th>
<th>Other Schools</th>
<th>Half Mile School Area</th>
<th>One Mile School Area</th>
<th>Two Mile School Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chamberlain High School</td>
<td>1,761</td>
<td>1,741</td>
<td>58.87%</td>
<td>247</td>
</tr>
<tr>
<td>Ferrell Middle Magnet School</td>
<td>3004</td>
<td>3001</td>
<td>18.01%</td>
<td>80</td>
</tr>
<tr>
<td>Muller Elementary Magnet School</td>
<td>3181</td>
<td>3118</td>
<td>57.00%</td>
<td>133</td>
</tr>
<tr>
<td>Plant High School</td>
<td>3411</td>
<td>3409</td>
<td>57.18%</td>
<td>137</td>
</tr>
</tbody>
</table>

### School Area Review Data Summary:

| School | Student & Enrollments | Half Mile Students | Half Mile Bikes | Half Mile Pedestrians | One Mile Students | One Mile Bikes | One Mile Pedestrians | Two Mile Students | Two Mile Bikes | Two Mile Pedestrians | Free/Reduced Lunch: 11 & 12 Tot. | 4th & 5th Grade Lunch: 11 & 12 | Students Related to Area: 4th & 5th Grade | Students Related to Area: 11 & 12 | Calculated Distance: 4th & 5th Grade | Calculated Distance: 11 & 12 | 0.5 Mile Area: 4th & 5th Grade | 0.5 Mile Area: 11 & 12 | 0.5 Mile Area: 11 & 12 | 0.5 Mile Area: 0.5 Mile Related | 1 Mile Area: 4th & 5th Grade | 1 Mile Area: 11 & 12 | 1 Mile Area: 11 & 12 | 0.5 Mile Area: 11 & 12 Related | 0.5 Mile Area: 4th & 5th Grade Related | 0.5 Mile Area: 11 & 12 Related | 0.5 Mile Area: 11 & 12 Related | 0.5 Mile Area: 0.5 Mile Related |
|--------|------------------------|-------------------|-----------------|---------------------|------------------|---------------|-------------------|------------------|-----------------|---------------------|-------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Chamberlain High School | 1,761 | 1,741 | 58.87% | 247 | 14 | 316 | 18.15% | 79 | 5 | 75 | 4.308% | 18 | 3 | 291 | 21 | 746 | 72.78% | 222 | 70.25% | 55 | 73.33% | 186 | 110 | 36 | 42 | 5 | 15 | Yes | Yes |
| Ferrell Middle Magnet School | 3004 | 3001 | 18.01% | 80 | 5 | 172 | 6.50% | 23 | 3 | 68 | 2.568% | 12 | 2 | 76 | 5 | 364 | 76.31% | 131 | 76.16% | 54 | 79.41% | 53 | 57 | 4 | 31 | 9 | 15 | Yes | Yes |
| Muller Elementary Magnet School | 3181 | 3118 | 57.00% | 133 | 3 | 213 | 22.95% | 39 | 3 | 69 | 7.44% | 11 | 2 | 96 | 1 | 411 | 77.69% | 159 | 74.65% | 59 | 85.51% | 56 | 81 | 17 | 30 | 5 | 12 | Yes | Yes |
| Plant High School | 3411 | 3409 | 57.18% | 137 | 7 | 421 | 17.88% | 31 | 5 | 125 | 5.310% | 4 | 3 | 68 | 34 | 172 | 12.78% | 57 | 13.54% | 20 | 16.00% | 230 | 251 | 74 | 74 | 16 | 23 | Yes | Yes |
Study Area: Hillsborough MPO School Safety Study
City: City of Tampa & Unincorporated Hillsborough County
County: Hillsborough County

This item has been digitally signed and sealed by:

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

ELEMENT ENGINEERING GROUP
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Certificate of Authorization #: 26921
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*Appendix A*: Identification and Prioritization of School Areas for Multimodal Safety Reviews Methodology

*Appendix B*: School Administration Letters

*Appendix C*: Data-Driven Lighting Prioritization for the City of Tampa

*Appendix D*: Summary Tables by Maintaining Agency

*Appendix E*: Planning-Level Cost Estimate Supporting Documentation
HILLSBOROUGH MPO SCHOOL SAFETY STUDY

Introduction

The Hillsborough County Metropolitan Planning Organization (MPO) has a longstanding commitment to improving safety and mobility for all users and modes of transportation. The MPO, along with the MPO’s School Transportation Working Group (STWG), has made improving safety and mobility for students one of its top priorities. In an effort to identify opportunities to enhance the safety and comfort of getting to and from school, the MPO has initiated a School Safety Study to prioritize public school areas based on a data driven method, conduct safety and mobility reviews at selected school locations, and develop a list of actionable safety and mobility improvements.

Identifying and Prioritizing School Areas

Before conducting safety and mobility reviews and developing recommendations, a data driven methodology for prioritizing and identifying school areas for reviews needed to be developed. Using a data driven method ensures that the school areas are selected based on data inputs rather than a complaint driven system. Data inputs such as pedestrian and bicycle crash history, number of students living in proximity to the school, and other safety, socioeconomic, and school related data inputs were used to identify school areas for further review. A detailed description of the methodology developed to prioritize and identify school areas for further review can be found in Appendix A of this document.

In general, the school areas were prioritized through a process that defined a school area boundary using a combination of the school attendance boundaries and a two-mile walking distance, attributed data to those school areas, and then evaluated and weighted the school areas based on the agreed upon methodology. Based on the results of the evaluation methodology, 10 school areas were selected for multimodal safety and mobility reviews. Those school areas are listed below and are displayed in Figure 1.

School Areas for Review:

- George D. Chamberlain High School
- Dr. John A. Coleman Middle School
- Combined School Area due to Proximity
  - Girls Preparatory Academy at Ferrell Middle Magnet School
  - George S. Middleton High School
  - Nathan B. Young Middle Magnet School
- Muller Elementary Magnet School
- C. Leon King High School
- A. P. Leto High School
- Pierce Middle School
- H. B. Plant High School
- Sulphur Springs K-8 Community School
- Van Buren Middle School (Carter G. Woodson K-8 School)
School Area Multimodal Safety and Mobility Reviews

The school area multimodal safety and mobility reviews were conducted to help identify potential safety and mobility enhancements aimed at improving the pedestrian and bicycle environment around the selected school areas. The reviews provided an opportunity to go beyond a data evaluation, to assess existing physical and behavioral elements that pose as potential safety issues and/or inhibit or discourage mobility. The reviews included an evaluation of roadway and roadside features, design elements, and environmental features such as visibility and lighting.

In addition to determining if the needs of all roadway users are being adequately and safely met, the reviews provided an opportunity to observe the behavior and interaction between various users of the transportation system. The ultimate goal of the multimodal reviews is to consider all users and identify opportunities to improve safety and mobility for those users.

The following sections provide an overview of the multimodal safety and mobility review process, the structure of the review findings, an overview of systemic/best practice improvements, and detailed site-specific review findings.

Review Process

While not an official Roadway Safety Audit (RSA), the school area multimodal safety and mobility reviews were completed using a method based on the RSA process established by the Federal Highway Administration (FHWA) Safety Office. The multimodal reviews were conducted as a qualitative assessment and summary of potential road safety issues that resulted in a list of opportunities for improvements in engineering, enforcement, and potential educational opportunities to improve safety and mobility for users.

Review Findings Structure

The multimodal review findings are structured to provide the location, an overview of the observations, suggestions for...
consideration, and list the responsible agency for each suggestion for consideration. The observations and corresponding suggestions are assigned to one of three levels of effort categories – low, medium, or high:

- Low effort level suggestions consist of basic improvements such as signage and pavement markings that can generally be completed with in-house maintenance staff.
- Medium effort level suggestions are typically more involved and while they may be able to be completed using in-house staff, they typically require some level of engineering design and may be applicable for a design-build pushbutton contract, which can implement improvements in shorter amounts of time than standard design-bid-bid projects.
- High effort level suggestions are the most involved and may require right-of-way, public involvement, and typically require a work program/capital improvement program project to complete.

The observation and suggestions are also assigned to one of three time frame categories – short-term, mid-term, or long-term:

- Short-Term suggestions are those that could be completed in as little as a couple of weeks up to two years.
- Mid-Term suggestions are those that can typically be completed from two years to five years depending on the complexity of the improvement and funding.
- Long-Term suggestions are those that can take more than five years to implement due to right of way limitations or overall project cost.

The observations and corresponding suggestions are also grouped into two categories – systemic or general area-wide suggestions or site specific suggestions:

- Systemic suggestions relate to recurring safety and mobility issues observed throughout a study area and/or are related to recognized “best-practice” enhancements that should be considered throughout the study area.
- Site specific suggestions relate to an issue or issues that are at a single specified location within the study area.

Systemic Enhancements

- Systemic Recommendations
  - Roadway Lighting
  - Sidewalk Connections
  - Crosswalk Markings
  - Driveway Design
  - Leading Pedestrian Intervals
  - Signage
  - School Zone Signage and Markings

Pedestrian and bicycle crashes, particularly those involving students traveling to and from school, often occur at random and do not exhibit clear patterns and clustering that are often seen in other crash types. As such, a systemic approach, along with site specific improvements, is often followed to help mitigate and address safety and mobility issues related to pedestrians and bicyclists. The following is a list of systemic or “best practice” measures that are commonly used to mitigate pedestrian and bicycle safety and mobility issues.
**Roadway and Intersection Lighting**

Roadway lighting is a critical component of roadway safety and should be designed to provide adequate illumination for all roadway users. Many factors affect roadway lighting, such as location, orientation, intensity, color, ambient light, etc., and its effectiveness in improving safety. There has been an increased effort to improve roadway lighting with an emphasis on improving lighting at signalized intersections and marked crosswalks. The Florida Department of Transportation (FDOT) has adopted new standards for intersection lighting design (Figure 2) and illuminance levels for urban roadways with an elevated pedestrian crash risk.

![Figure 2: Typical Urban Signalized Intersection Lighting Design (FDM Figure 231.3.4)](image)

The Florida Design Manual (FDM) Chapter 231 addresses the process and criteria for the development of lighting designs on the state highway system. Opportunities to enhance roadway lighting should be explored, while focused at intersections and marked crossings with high pedestrian volumes.

To assist the City of Tampa in prioritizing any available funding, a list of lighting priorities has been assembled in Appendix C, specifically sorted by the determined ranking of each school where roadway lighting (either evaluation, upgrades or new lighting) was recommended. This ranking was based on the information included in Appendix A which explains the methodology and prioritization of the schools that were analyzed for this study. The City of Tampa has a number of ongoing projects, some of which cover areas included in the recommendations. This list can be utilized to supplement ongoing efforts and can be utilized as a basis for future projects or potentially to develop funding requests.

**Sidewalk Connections**

Sidewalks are the backbone of the non-motorized transportation network. They provide pedestrians, and often bicyclists, with a dedicated facility that is separated from vehicular traffic. Sidewalks, on both sides, should be considered (based on context) on all new or major roadway reconstruction projects and an effort should be made to retrofit existing roadways that currently do not have sidewalks, particularly along arterial and collector roadways. Sidewalks are also useful in encouraging pedestrians and bicyclists to cross at preferred crossing points by making access to those points more convenient and obvious. Installing sidewalks along roadways with either no sidewalk or significant sidewalk gaps should be considered, especially along arterial and collector roadways and those roadways where there is a high likelihood of student activity.
Connections to Adjacent Properties

Connections to adjacent roadways should be made a priority to avoid lengthy walking routes for students accessing school sites. Balancing the access points for the school and the length of the walking route is a key topic and should be explored for each school site to avoid deterring walking and bicycling.

Crosswalk Markings

Similar to sidewalks, crosswalks are a vital part of the non-motorized transportation network. They define a designated crossing area for pedestrians and bicyclists and alert drivers to the likelihood of pedestrian activity. There are many different types of acceptable crosswalk markings/treatments, but the special emphasis crosswalk marking (Figure 3) is often considered the preferred treatment and is also known as a ladder crosswalk.

The longitudinal markings along with the parallel edge line markings of the ladder crosswalk provide more surface area to be seen by drivers and are more visible from further distances. Consider providing ladder crosswalk markings at all signalized intersections and at other locations with a high frequency of pedestrian crossings, including across side streets along primary walking corridors.

Driveway Design

Driveways provide a physical connection between roadways and the properties along them. The design and location of driveways are based on multiple considerations, but ultimately driveways need to provide safe entry and exit from a site, minimize impacts on traffic, and provide a clear and safe environment for all roadway users. While driveways provide a critical connection between the roadway and properties along the roadway, driveways also create inconsistencies in the walking/biking environment and increase the number of potential conflict points between pedestrians/bicyclists and motor vehicles. Furthermore, the physical design of a driveway can have a significant impact on the safety and level of comfort for pedestrians/bicyclists along a roadway. Understanding the role that driveway design, location, and frequency have on pedestrian and bicycle safety and mobility is essential when trying to encourage an environment that supports and promotes walking and biking.

Leading Pedestrian Interval

Leading pedestrian intervals (LPI) give pedestrians the “Walk” signal (typically 3-7 seconds) before drivers are allowed to proceed through the intersection. The Manual on Uniform Traffic Control Devices (MUTCD) provides guidance on the implementation of LPIs and states, “If a leading pedestrian interval is used, it should be at least 3...
seconds in duration and should be timed to allow pedestrians to cross at least one lane of traffic or, in the case of large corner radius, to travel far enough for pedestrians to establish their position ahead of turning traffic before the turning traffic is released.” LPIs improve pedestrian visibility and increase the likelihood that a driver will yield to pedestrians in the crosswalk. Consider implementing LPIs at larger intersections in the area of schools with multiple potential conflicts and at intersections with higher pedestrian volumes.

**Signage**

Signage can be used to warn roadway users of potential threats and can be used as visual reminders of how drivers are required to act. Signs such as the Turning Vehicles Yield to Pedestrians or Manual of Uniform Traffic Control Devices (MUTCD) R10-15 sign (Figure 4) remind right-turning drivers of their responsibility to yield to pedestrians. However, the placement of signage should be done with care as the overuse of signs can desensitize drivers and subsequently result in noncompliance.

![Figure 4: Turning Vehicles Yield to Pedestrians (MUTCD R10-15) Sign](image)

School zone markings and signage are used to warn drivers and other roadway users of an increased presence of students and can also serve as visual reminders on how drivers are required to act in specific circumstances. Signs such as the S1-1, W16-9P signs (Figure 5) and S5-1 (Figure 6) from the MUTCD remind drivers that they are entering a school zone.

![Figure 5: School Crossing Ahead (MUTCD S1-1 and W16-9P) Sign](image)

![Figure 6: School Speed Limit When Flashing (MUTCD S5-1) Sign](image)

**School Zone Markings and Signage**

**School Area Review Findings**

This section focuses on the school area specific findings. It is important to note that the enhancements identified in the school area multimodal safety and mobility reviews represent potential opportunities and are not necessarily recommendations; rather, they
are suggestions for further consideration. It should also be understood that, in many instances, the identified enhancements, while they’ve been reviewed with the appropriate implementing agencies, will require additional evaluation, analysis, and/or engineering design to determine the full feasibility of each potential enhancement. The following sections, broken down by school site, provide the detailed versions of the multimodal safety and mobility reviews. Appendix D provides a summary of the observations and suggestions for consideration broken down by each maintaining agency.

Planning-Level Estimates

Appendix E includes planning-level estimates developed to be a starting point to support efforts to obtain funding, program project or for possible grant applications. The estimates cover the potential construction cost estimate, including a percentage for maintenance of traffic (MOT), mobilization (MOB) and project unknowns. Each estimate includes a by pay item summary of the effort potentially required to construct the described enhancement, but does not include any design fees due to the variety of levels of design due to the differences in design cost based on the project delivery method. If a consultant design firm is required to complete the design, a percentage of the construction estimate could be calculated to determine a starting point, between 25 and 40 percent based on the overall project cost, with the higher design fee applicable as the overall project cost goes down.
George D. Chamberlain High School

School Location

George D. Chamberlain High School is located within the City of Tampa, just north of Busch Boulevard (SR 580) on North Boulevard.

Meeting with School Administration

The review team met with Assistant Principal for Administration Jody Woods on March 19. Ms. Woods discussed the general traffic patterns around the campus involving students, and explained how students begin arriving to the campus as early as 6:30 am. One of the school administration’s primary concerns is lighting at the front entrance and along North Boulevard due to the arrival time and darkness. A flood light on the front of the school covers a portion of the drop-off loop at the school entrance driveway but doesn’t cover any of North Boulevard, which has a high volume of pedestrian, bicycle and vehicular traffic during dark arrival times. Existing high-pressure sodium street lights provide a small amount of light along North Boulevard. Ms. Woods also discussed the administration’s desire to provide the right crossing facilities to encourage the students to cross North Boulevard at controlled locations due to the tendency of the students to cross at random to the convenience store and other destinations on the west side of North Boulevard. Ms. Woods also stated that many students utilize HART routes and are walking to the transit stops both on North Boulevard and on Busch Boulevard (SR 580).
## George D. Chamberlain High School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>North Boulevard from Sligh Avenue to Country Club Drive</td>
<td>Faded and unmarked crosswalks</td>
<td>Enhance or add pavement markings</td>
</tr>
</tbody>
</table>

### Observation Detail:
Side street crosswalks along North Boulevard from Sligh Avenue to Country Club Drive were unmarked or faded.

### Suggestion Detail:
Refurbish existing crosswalks and add new crosswalks for all side street crossings on North Boulevard, including high-volume driveways.

### Responsible Agency: City of Tampa
### Improvement Type: Enhanced pavement markings
### Time Frame: Short Term
### Level of Effort: Low
### EEE: Engineering
### Cost Estimate: $69,670

### Feasibility Review Comment:
### George D. Chamberlain High School

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>A2</td>
<td>North Boulevard from Waters Avenue to Country Club Drive</td>
<td>Condition of existing high-pressure sodium (HPS) street lights</td>
<td>Upgrade to light emitting diode (LED) and add additional luminaires as necessary</td>
</tr>
</tbody>
</table>

**Observation Detail:**

Due to the school hours, students are walking, biking, and driving to school during dark hours, especially during daylight saving months.

**Suggestion Detail:**

Consider upgrading all the existing high-pressure sodium luminaires to light emitting diode luminaires to enhance lighting on North Boulevard focusing on the area in front of the school and near key crosswalks and transit stops along the corridor.

**Responsible Agency:** City of Tampa  
**Improvement Type:** Enhanced street lighting  
**Time Frame:** Mid Term  
**Level of Effort:** Medium  
**EEE:** Engineering  
**Cost Estimate:** $880,602  
**Feasibility Review Comment:**
# George D. Chamberlain High School

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>A3</td>
<td>North Boulevard from Sligh Avenue to Country Club Drive</td>
<td>Potential ADA enhancements</td>
<td>Enhance curb ramps and detectable warnings</td>
</tr>
</tbody>
</table>

**Observation Detail:**

Several crossings along North Boulevard were identified that could be enhanced to include current ADA features such as detectable warnings, although they may have met compliance requirements upon installation. The picture on the left is taken at the intersection of Patbur Avenue and North Boulevard, just north of the Chamberlain High School campus, however, similar conditions exist at multiple intersections throughout North Boulevard corridor and present various walkability challenges.

**Suggestion Detail:**

Consider ADA and curb ramp upgrades by modifying the existing curb ramps and adding detectable warnings along this key pedestrian and bicycling corridor for George D. Chamberlain High School, Adams Middle School and Forest Hills Elementary School. Pushbuttons and ramps at the North Boulevard and Linebaugh Avenue signal should be included if this suggestion is pursued.

<table>
<thead>
<tr>
<th>Responsible Agency:</th>
<th>Improvement Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Tampa</td>
<td>Pedestrian Features</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time Frame:</th>
<th>Level of Effort:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid Term</td>
<td>Medium</td>
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</table>

<table>
<thead>
<tr>
<th>EEE:</th>
<th>Cost Estimate:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>$173,600</td>
</tr>
</tbody>
</table>

**Feasibility Review Comment:**

Potential right of way challenges at some locations, but clear areas could be incorporated as part of ongoing routine sidewalk maintenance or included in any ongoing capital improvement projects in the area.
George D. Chamberlain High School

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>A4</td>
<td>North Boulevard from Busch Blvd. (SR 580) to Country Club Drive</td>
<td>Midblock crossing opportunities</td>
<td>Consider additional enhanced midblock crossing locations</td>
</tr>
</tbody>
</table>

**Observation Detail:**
Several standard crossing locations for pedestrians were observed, though many were not formally defined with signing, ADA curb ramps, or other enhancements.

**Suggestion Detail:**
Consider completing a corridor pedestrian and bicycling study to determine the most appropriate location for potential enhanced crossing locations that will provide connectivity for George D. Chamberlain High School, Adams Middle School, Forest Hills Elementary School and the residents and transit users in the area, focusing on the area in front of George D. Chamberlain High School.

**Responsible Agency:**
City of Tampa

**Improvement Type:**
Study & Potentially Pedestrian Features

**Time Frame:**
Mid Term

**Level of Effort:**
Medium

**EEE:**

**Cost Estimate:**
$35,215
<table>
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<tr>
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<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A5</td>
<td>The northwest quadrant of the intersection of Bird Street &amp; Armenia</td>
<td>Stored products block pedestrian pathways</td>
<td>Code enforcement contact to request cleared path</td>
</tr>
</tbody>
</table>

**Observation Detail:**
Items for sale encroach on the pedestrian walking paths along the right of way line and natural sidewalk area.

**Suggestion Detail:**
Consider involving code enforcement to request clear walking paths and avoid the potential for pedestrians being forced to walk onto the shoulder or roadway.

**Responsible Agency:**
City of Tampa

**Improvement Type:**
Code Enforcement

**Time Frame:**
Short Term

**Level of Effort:**
Low

**EEE:**
Enforcement

**Cost Estimate:**
N/A

**Feasibility Review Comment:**
George D. Chamberlain High School

<table>
<thead>
<tr>
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<th>Observation Overview:</th>
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</tr>
</thead>
<tbody>
<tr>
<td>A6</td>
<td>Busch Blvd. (SR 580) at North Blvd. North Blvd. at Linebaugh Avenue</td>
<td>Signal phasing opportunities</td>
<td>Modify signal phasing to avoid permissive left-turn movements that conflict with pedestrians.</td>
</tr>
</tbody>
</table>

**Observation Detail:**
A review of the crash reports showed a number of pedestrian-involved crashes during permissive left-turn phases. The two referenced intersections have permissive left-turn movements for the north and southbound left turns at Busch Blvd (SR 580) and all movements at Linebaugh Avenue.

**Suggestion Detail:**
Consider modifying the signal phasing at Busch Blvd (SR 580) to restrict left-turns to protected only during school arrival and departure hours. Flashing yellow arrows have already been implemented for these movements. Consider adding flashing yellow arrow four-section signal heads at the Linebaugh Avenue intersection, although this suggestion would require significant modifications and potentially a signal rebuild.

**Responsible Agency:**
City of Tampa & Florida Department of Transportation

**Improvement Type:**
Signal Timing & Equipment Modifications

**Time Frame:**
Mid Term

**Level of Effort:**
Medium

**EEE:**
Engineering

**Cost Estimate:**
$479,910

**Feasibility Review Comment:**
Potential constructability challenges. Existing structures at Linebaugh Avenue and North Boulevard may not meet structural loading requirements for any additional loading.
<table>
<thead>
<tr>
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<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A7</td>
<td>Busch Blvd. (SR 580) at Florida Ave. &amp; Busch Blvd. (SR 580) at North Blvd.</td>
<td>Sidewalk connectivity and railroad gates</td>
<td>Enhance sidewalk connectivity and pedestrian safety near railroad crossings.</td>
</tr>
</tbody>
</table>

**Observation Detail:**
Several railroad sidewalk crossings along North Boulevard were observed that lacked connectivity and pedestrian railroad gates to block the sidewalk when a train is present. The west side of North Boulevard has a sidewalk gap in the area of the railroad tracks.

**Suggestion Detail:**
Consider filling the gap and enhancing the sidewalk connectivity in this area and including pedestrian railroad crossing gates.

**Responsible Agency:**
City of Tampa & CSX

**Improvement Type:**
Pedestrian features & sidewalk

**Time Frame:**
Long Term

**Level of Effort:**
High

**EEE:**
Engineering

**Cost Estimate:**
$17,140

**Feasibility Review Comment:**
Potential right of way and constructability challenges, but could be incorporated as part of ongoing routine sidewalk maintenance. The Florida Avenue location is being completed in an upcoming railroad crossing improvement project to be completed by the Florida Department of Transportation.
### George D. Chamberlain High School

<table>
<thead>
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<th>Observation Overview:</th>
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</tr>
</thead>
<tbody>
<tr>
<td>A8</td>
<td>Busch Blvd. (SR 580) at North Blvd.</td>
<td>Potential need for reduced speed school zone</td>
<td>Evaluate location for implementation of a reduced speed school zone.</td>
</tr>
</tbody>
</table>

**Observation Detail:**
A school crossing is signed at the signalized intersection of North Boulevard on Busch Boulevard (SR 580) but no reduction in speed is present during school arrival and departure hours, only advisory speed signing for a school entrance.

**Suggestion Detail:**
Evaluate this location per the guidelines in the Florida Department of Transportation’s Manual on Speed Zoning for Highways, Roads, and Streets in Florida to determine if a reduced speed school zone is warranted along Busch Boulevard (SR 580), due to the presence of students walking along sidewalk immediately adjacent to the curb and roadway.

**Responsible Agency:** Florida Department of Transportation  
**Improvement Type:** Engineering Study & Signing if Warranted

**Time Frame:** Mid Term  
**Level of Effort:** Medium

**EEE:**  
**Cost Estimate:** $26,790

**Feasibility Review Comment:**
Dr. John A. Coleman Middle School

School Location

Dr. John A. Coleman Middle School is located within the City of Tampa, west of Henderson Boulevard on South Manhattan Avenue.

Meeting with School Administration

A meeting was held with Principal Nannette Harvey and Emily Hinsdale (a student parent and PTSA safety chair) on February 20. Much of the discussion focused on their efforts to educate and encourage the right behavior through giveaways and improving traffic patterns to encourage parents to do the right thing. Typically, parents will utilize adjacent roadways to drop their children off or performing u-turns in the area of the school, potentially causing other traffic issues in the process. Although reduced speed flashing beacons are present, speeding vehicles on Estrella Street are a main concern for administration and parents. Additionally, a sidewalk on at least one side of San Rafael Street and Melrose Avenue would provide additional connectivity directly to the school. Concerns about the W. Bay to Bay Boulevard crossing at Lois Avenue were also mentioned, with acknowledgment that there were ongoing City and County projects along W. Bay to Bay Boulevard.
## Observation Detail:
Most streets in the area of Dr. John A. Coleman Middle School have sidewalk on at least one side of the roadway, except for two key east-west corridors in the immediate vicinity of the school campus.

## Suggestion Detail:
Consider evaluating the following corridors for sidewalk feasibility and consider including sidewalk on the side with the least impacts or restrictions.
- San Rafael Street: From Henderson Boulevard to West Shore Boulevard
- Melrose Avenue: From Manhattan Avenue to West Shore Boulevard

### Responsible Agency:
City of Tampa

### Improvement Type:
Sidewalk Connectivity

### Time Frame:
Long Term

### Level of Effort:
Medium

### EEE:
Engineering

### Cost Estimate:
$291,913

### Feasibility Review Comment:
Right of way may be a limitation on these two corridors.

<table>
<thead>
<tr>
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<th>Observation Overview</th>
<th>Suggestions for Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>San Rafael Street and Melrose Avenue</td>
<td>Sidewalk gaps</td>
<td>Install new sidewalk.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>San Rafael St</th>
<th>Manhattan Ave</th>
<th>Hesperides St</th>
</tr>
</thead>
<tbody>
<tr>
<td>Col eman</td>
<td>Coleman</td>
<td>School</td>
</tr>
</tbody>
</table>

![Image of San Rafael Street and Melrose Avenue]

![Image of San Rafael Street and Melrose Avenue Map]
### Observation Overview:

Potential long-term ADA enhancement project.

### Suggestions for Consideration:

Upgrade sidewalk ramps to enhance walkability.

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Detail:</th>
<th>Suggestion Detail:</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2</td>
<td>Various locations in the vicinity of Dr. John A. Coleman Middle School and Mabry Elementary School</td>
<td>Certain standard features were lacking along key corridors in the area of these two schools: - Lois Avenue from El Prado Boulevard to Kennedy Boulevard - Hubert Avenue from El Prado Boulevard to Morrison Avenue - Manhattan Avenue from San Jose Street to Morrison Avenue - San Rafael Street from Manhattan Avenue to Dale Mabry Highway - Estrella Street from West Shore Boulevard to Dale Mabry Highway</td>
<td>Consider completing ADA and curb ramp enhancement projects on key corridors in the area of Dr. John A. Coleman Middle School and Mabry Elementary School to meet current ADA requirements and enhance walkability.</td>
</tr>
</tbody>
</table>

### Responsible Agency:

City of Tampa

### Improvement Type:

Pedestrian

### Time Frame:

Long Term

### Level of Effort:

High

### EEE:

Engineering

### Cost Estimate:

$326,472

### Feasibility Review Comment:

Consider including these suggestions in any ongoing capital improvement projects or resurfacing projects.
Dr. John A. Coleman Middle School

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>B3</td>
<td>Roadways adjacent to Coleman Middle</td>
<td>Crosswalks needing refurbishment or locations without striped crosswalks</td>
<td>Consider striping maintenance or additional crosswalks</td>
</tr>
</tbody>
</table>

**Observation Detail:**
Existing crosswalks in need of new or updated striping to delineate pedestrian pathways

**Suggestion Detail:**
Consider striping refurbishment at these locations:
- Estrella St & Hubert Ave
- Estrella St & Manhattan Ave
- San Rafael St & Manhattan Ave
- Mid-block crossing on Estrella St
- Estrella St & Lois Ave
- Manhattan Ave and San Miguel St
- Neptune St and Manhattan Ave
- San Rafael St & Hubert Ave

Consider new striping at these locations:
- Estrella St & West Shore Blvd
- Melrose St & West Shore Blvd
- San Rafael St & West Shore Blvd
- Lois Ave & Estrella St (South leg)
- Manhattan Ave and Lois Ave
- All Coleman Middle driveways

**Responsible Agency:**
City of Tampa

**Improvement Type:**
Pavement Markings

**Time Frame:**
Mid Term

**Level of Effort:**
Medium

**EEE:**
Engineering

**Cost Estimate:**
$186,313

**Feasibility Review Comment:**
New crosswalk striping can be added to any upcoming resurfacing projects.
### Dr. John A. Coleman Middle School

<table>
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<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>B4</td>
<td>Manhattan Avenue</td>
<td>Undefined roadway lanes</td>
<td>Consider adding center line striping to enhance delineation for vehicles</td>
</tr>
</tbody>
</table>

#### Observation Detail:
Roadways with no center line striping or faded roadway striping.

#### Suggestion Detail:
Consider adding centerlines to roadways adjacent to Dr. John A. Coleman Middle School to prevent any passing or confusion regarding vehicular pathways adjacent to parking areas.

<table>
<thead>
<tr>
<th>Responsible Agency:</th>
<th>Improvement Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Tampa</td>
<td>Pavement Marking</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time Frame:</th>
<th>Level of Effort:</th>
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<tbody>
<tr>
<td>Short Term</td>
<td>Low</td>
</tr>
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<table>
<thead>
<tr>
<th>EEE:</th>
<th>Cost Estimate:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>$5,358</td>
</tr>
</tbody>
</table>

#### Feasibility Review Comment:
Manhattan Avenue is being modified as part of an upcoming City of Tampa capital improvement project, potentially covering this segment of Manhattan Avenue.
### Dr. John A. Coleman Middle School

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</thead>
<tbody>
<tr>
<td>B5</td>
<td>Intersection of Estrella St &amp; Manhattan Ave</td>
<td>Walkability Challenges</td>
<td>Update Traffic Signal</td>
</tr>
</tbody>
</table>

**Observation Detail:**

The traffic signal in the northwest corner of Coleman Middle School at the intersection of Estrella Street and Manhattan Avenue has crosswalks for the north and west leg of the intersection that do not lead to a sidewalk. A fire hydrant protected by bollards is located within the paved area of the roadway. The pedestrian signal heads and other related equipment are potentially due to be upgraded.

**Suggestion Detail:**

Consider the feasibility and benefits of a traffic signal upgrade, including new pedestrian equipment and curb ramps, and relocation of the existing fire hydrant out of the area of the intersection.

**Responsible Agency:**

City of Tampa

**Improvement Type:**

Traffic Signal & Intersection Improvement

**Time Frame:**

Long Term

**Level of Effort:**

Medium

**EEE:**

Engineering

**Cost Estimate:**

$319,960

**Feasibility Review Comment:**

Potential utility conflicts and right of way limitations. Estimate does not include potential right of way costs.
<table>
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<tbody>
<tr>
<td>B6</td>
<td>Henderson Blvd. from W. San Jose St. to Dale Mabry Highway (US 92) including San Rafael St.</td>
<td>Pedestrian Connectivity Challenges</td>
<td>Upgrade Intersections</td>
</tr>
</tbody>
</table>

**Observation Detail:**
Unclear walking paths and existing or faded striping don’t provide clear guidance through and around this intersection and others along the Henderson Boulevard corridor from W. San Jose Street to Kennedy Boulevard. A sidewalk gap is also present south of San Rafael Street.

**Suggestion Detail:**
Consider the feasibility and benefits of intersection upgrade projects along Henderson Boulevard to enhance pedestrian and bicycle connectivity. Additionally, phasing modifications could be implemented to utilize flashing-yellow arrows and prohibit permissive turning movements by time of day at the intersections along the corridor. Clarification of pedestrian walking routes and key school walking routes could be developed through enhanced signing and pavement markings at these intersections.

**Responsible Agency:**
City of Tampa

**Improvement Type:**
Traffic Signal & Intersection improvements

**Time Frame:**
Long Term

**Level of Effort:**
High

**EEE:**
Engineering

**Cost Estimate:**
$253,340

**Feasibility Review Comment:**
### Dr. John A. Coleman Middle School

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<tbody>
<tr>
<td>B7</td>
<td>Intersection of Morrison Ave and Lois Ave&lt;br&gt;Intersection of Azeele St and Lois Ave</td>
<td>Very long crosswalks</td>
<td>Refuge Islands &amp; Reduced Crossing Distance</td>
</tr>
</tbody>
</table>

#### Observation Detail:
Very long crosswalks.

#### Suggestion Detail:
Consider evaluating the feasibility of developing a refuge island to reduce the overall pedestrian crossing distance.

#### Responsible Agency:
City of Tampa

#### Improvement Type:
Crosswalk Modifications

#### Time Frame:
Long Term

#### Level of Effort:
Medium

#### EEE:
Engineering

#### Cost Estimate:
$25,197

#### Feasibility Review Comment:
<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>B8</td>
<td>San Rafael Street from Manhattan Ave to Hubert Ave</td>
<td>Very Wide Pavement</td>
<td>Delineate the Extra Pavement</td>
</tr>
</tbody>
</table>

**Observation Detail:**
Additional pavement is provided to assist with the significant queueing due to afternoon pickup lines. The additional pavement width is undefined and may cause confusion during off-peak hours.

**Suggestion Detail:**
Consider providing additional pavement markings to delineate the intended roadway use of this extra pavement.

**Responsible Agency:**
City of Tampa  

**Improvement Type:**
Pavement Marking  

**Time Frame:**
Short Term  

**Level of Effort:**
Low  

**EEE:**
Engineering  

**Cost Estimate:**
$3,250
Dr. John A. Coleman Middle School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>89</td>
<td>Areas around Dr. John A. Coleman Middle School</td>
<td>Speeding vehicles in reduced speed school zone</td>
<td>Enforcement Activities</td>
</tr>
</tbody>
</table>

**Observation Detail:**
School administration stated that there is a regular disregard for the reduced speed school speed limit on the roadways surrounding the school.

**Suggestion Detail:**
Provide selective enforcement activities on Estrella Street.

**Responsible Agency:**
City of Tampa Police Department

**Improvement Type:**
Enforcement

**Time Frame:**
Short Term

**Level of Effort:**
Low

**EEE:**
Enforcement

**Cost Estimate:**
N/A

**Feasibility Review Comment:**

---

Estrella St at Lois Ave

Mabry Elementary

---
### Dr. John A. Coleman Middle School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>B10</td>
<td>Various locations</td>
<td>Request for Additional Crossing Guards or Modified Duty Hours</td>
<td>Adding crossing guards</td>
</tr>
</tbody>
</table>

#### Observation Detail:
During a meeting with Dr. John A. Coleman Middle school administration, it was mentioned that crossing guards leave at 8:30 am although school starts at 9:11 am, presumably due to the schedule of adjacent schools and their designated crossing guard locations.

#### Suggestion Detail:
Consider coordinating any available additional crossing guards with the administration at Dr. John A. Coleman Middle School or coordinating any additional time for existing crossing guards as possible under current guidelines.

#### Responsible Agency:
Hillsborough County Sheriff’s Office Crossing Guard Program

#### Improvement Type:
Adjusted Crossing Guard Hours

#### Time Frame:
Short Term

#### Level of Effort:
Low

#### EEE:
Enforcement

#### Cost Estimate:
N/A

#### Feasibility Review Comment:
Girls Preparatory Academy at Ferrell Middle Magnet School

School Location

The Girls Preparatory Academy at Ferrell Middle Magnet School is located within the City of Tampa, south of Hillsborough Avenue and east of 22nd Street on Chelsea Street.

Meeting with School Administration

The review team met with Assistant Principal for Administration Carla White and School Resource Officer Hannah, the school resource officer, on February 21. The first concern mentioned was how the afternoon pick-up line extends from the pickup point on E. Chelsea Street, to N. 22nd Street and then south of N. 22nd Street, causing a variety of traffic issues where other vehicles are forced to pass stopped cars and pedestrians are walking in between stopped cars. Due to the proximity of a number of other schools, a significant amount of combined walkers are present around the school and in the area of the N 22nd Street corridor. Additionally, Ms. White and Officer Hannah requested additional traffic calming devices on Chelsea Street because vehicles tend to ignore the reduced speed school zone signing. Their other primary concern was additional or enhanced lighting on key corridors around the school, such as Chelsea Street and N. 22nd Street.
### Girls Preparatory Academy at Ferrell Middle Magnet School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA1</td>
<td>Chelsea Street, east of 22nd Street</td>
<td>Defined walking routes needed</td>
<td>New or defined walking path</td>
</tr>
</tbody>
</table>

**Observation Detail:**
There is no sidewalk on the north side of Chelsea Street, east of 22nd Street. The sidewalk on the south side of Chelsea Street is not clearly defined, transitioning between concrete and asphalt in the area of the school campus.

**Suggestion Detail:**
Evaluate the potential for more clearly defined sidewalk in conjunction with the potential revised on-site circulation pattern (Observation ID C9A) to minimize potential driveway conflicts with walking and biking children. All children are required to enter on the north side of the campus.

**Responsible Agency:** City of Tampa

**Improvement Type:** Sidewalk

**Time Frame:** Mid Term

**Level of Effort:** Medium

**EEE:** Engineering

**Cost Estimate:** $307,944

**Feasibility Review Comment:** Narrow right of way and parking concerns may present conflicts with sidewalk on the north side of Chelsea Street, but any sidewalk improvements would benefit multiple area schools.
## Girls Preparatory Academy at Ferrell Middle Magnet School

<table>
<thead>
<tr>
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<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA2</td>
<td>Various Locations</td>
<td>Crosswalk striping</td>
<td>Add or refurbish crosswalk markings</td>
</tr>
</tbody>
</table>

### Observation Detail:
Crosswalks along key east-west walking corridors were faded or unmarked.

### Suggestion Detail:
Consider installing or refurbishing all crosswalks along the following corridors:
- 21st Avenue from Nebraska Avenue to 40th Street
- 26th Avenue from Nebraska Avenue to 40th Street
- Osborne Avenue from Nebraska Avenue to 40th Street
- Chelsea Street from Nebraska Avenue to 40th Street
- 22nd Street from Hillsborough Avenue to Dr. Martin Luther King, Jr. Blvd. (SR 574)

Consider evaluating sidewalks and curb ramps for any maintenance needs during striping conditions reviews.

### Responsible Agency: City of Tampa

### Improvement Type: Pavement Markings

### Time Frame: Mid Term

### Level of Effort: Medium

### EEE: Engineering

### Cost Estimate: $292,998

### Feasibility Review Comment:
Can be combined with upcoming CIP projects and focused on selected “walking routes” agreed upon with school to prioritize efforts on key routes. These improvements would enhance walkability for a number of schools, including Middleton, Young Middle, and Lomax Elementary.
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<tr>
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<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA3</td>
<td>School Zone on 22nd Street and Chelsea Street</td>
<td>Aging and custom school zone signage</td>
<td>Upgrade school zone signage</td>
</tr>
</tbody>
</table>

**Observation Detail:**
The existing school zone signage is aging.

**Suggestion Detail:**
Consider upgrading the school zone signage to meet current standards and enhance visibility.

**Responsible Agency:** City of Tampa

**Improvement Type:** Enhanced Signing

**Time Frame:** Short Term

**Level of Effort:** Low

**EEE:** Engineering

**Cost Estimate:** $26,790

**Feasibility Review Comment:**
<table>
<thead>
<tr>
<th>ID</th>
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<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA4</td>
<td>Various Locations</td>
<td>Sidewalk gaps</td>
<td>Connect sidewalk gaps</td>
</tr>
</tbody>
</table>

**Observation Detail:**
There were multiple locations where sidewalk needs to be connected

**Suggestion Detail:**
Consider connecting the sidewalk at the following locations:
- The intersection of Chelsea Street with 22\textsuperscript{nd} Street
- North side of Chelsea Street between 10\textsuperscript{th} Street and 17\textsuperscript{th} Street

**Responsible Agency:**
City of Tampa

**Improvement Type:**
Sidewalk connection

**Time Frame:**
Short Term

**Level of Effort:**
Medium

**EEE:**
Engineering

**Cost Estimate:**
$166,521

**Feasibility Review Comment:**
While right of way may typically be an issue, coordination between the City of Tampa and School District could resolve the gap at the 22\textsuperscript{nd} Street and Chelsea Street intersection due to the property limits and ownership at this location.
### Girls Preparatory Academy at Ferrell Middle Magnet School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
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<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA5</td>
<td>Chelsea Street &amp; 25th Street and various other locations</td>
<td>Overgrowth in vegetation</td>
<td>Landscape Maintenance Activities</td>
</tr>
</tbody>
</table>

**Observation Detail:**
The overgrowth in vegetation at the intersection of Chelsea Street and 25th Street potentially affects sight distance of vehicles turning onto Chelsea Street.

**Suggestion Detail:**
Consider trimming tree and shrubs to increase sight distance.

**Responsible Agency:**
City of Tampa

**Improvement Type:**
Maintenance

**Time Frame:**
Short Term

**Level of Effort:**
Low

**EEE:**
Engineering

**Cost Estimate:**
N/A

**Feasibility Review Comment:**
### Girls Preparatory Academy at Ferrell Middle Magnet School

<table>
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<tr>
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<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA6</td>
<td>22\textsuperscript{nd} Street at Chelsea Street</td>
<td>Uncontrolled crosswalk</td>
<td>Enhance signing and crosswalk treatments</td>
</tr>
</tbody>
</table>

**Observation Detail:**

The existing crossing across 22\textsuperscript{nd} Street at Chelsea Street is signed as a school crossing with static signs.

**Suggestion Detail:**

Consider studying this crossing for application of enhanced engineering treatments, which could include back to back signing, rectangular rapid flashing beacons, or pushbutton activated lighting.

**Responsible Agency:**

City of Tampa

**Improvement Type:**

Enhanced Signing

**Time Frame:**

Med Term

**Level of Effort:**

Medium

**EEE:**

Engineering

**Cost Estimate:**

$28,341

**Feasibility Review Comment:**

Due to location of transit stops near this crossing as well as limited other crossing locations on this section of 22\textsuperscript{nd} Street, this enhanced crossing could improve the connectivity of the community in general, in addition to the school.
Girls Preparatory Academy at Ferrell Middle Magnet School

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<tbody>
<tr>
<td>CA7</td>
<td>Chelsea Street and 22&lt;sup&gt;nd&lt;/sup&gt; Street</td>
<td>Spacing and condition of existing street lights</td>
<td>Additional and enhanced street lighting</td>
</tr>
</tbody>
</table>

**Observation Detail:**
Due to the school arrival hours, walkers, bicyclists and drivers are arriving during dark hours under dark conditions during portions of the school year.

**Suggestion Detail:**
Consider additional street lighting around the school premises or enhancing existing street lighting, especially around the transit stops and pedestrian crossing at 22<sup>nd</sup> Street and Chelsea Street.

**Responsible Agency:**
City of Tampa

**Improvement Type:**
Lighting

**Time Frame:**
Mid Term

**Level of Effort:**
Medium

**EEE:**
Engineering

**Cost Estimate:**
$134,980

**Feasibility Review Comment:**
The existing high-pressure sodium luminaires could be converted to light emitting diode luminaires.
<table>
<thead>
<tr>
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<th>Observation Overview</th>
<th>Suggestions for Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA8</td>
<td>Chelsea Street at Ferrell Middle Magnet School Entrance</td>
<td>Cut-through traffic using an alley</td>
<td>Close the alley</td>
</tr>
</tbody>
</table>

**Observation Detail:**
An unpaved alley is located north of the campus parking lot and impatient drivers tend to use it as a cut through from Emma Street, jumping the queue.

**Suggestion Detail:**
Consider closing this alleyway to reduce conflict between vehicles leaving the school, westbound vehicles on Chelsea Street and the vehicles coming out of the alleyway.

**Responsible Agency:**
City of Tampa

**Improvement Type:**
Permanent Road Closure

**Time Frame:**
Mid Term

**Level of Effort:**
Medium

**EEE:**
Engineering

**Cost Estimate:**
N/A

**Feasibility Review Comment:**
Girls Preparatory Academy at Ferrell Middle Magnet School

<table>
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<tr>
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<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA9</td>
<td>School Campus – Ferrell Middle Magnet</td>
<td>Low light levels on the school campus</td>
<td>Enhanced lighting for parking lots</td>
</tr>
</tbody>
</table>

**Observation Detail:**
The school administration stated that during the early morning hours the school parking lot is dark.

**Suggestion Detail:**
Consider additional lighting in the parking lots and drop-off zones around the school.

**Responsible Agency:** School District of Hillsborough County

**Improvement Type:** Street Lights

**Time Frame:** Short Term

**Level of Effort:** Medium

**EEE:** Engineering

**Cost Estimate:** $120,350

**Feasibility Review Comment:**
Girls Preparatory Academy at Ferrell Middle Magnet School

<table>
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<tr>
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<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA10</td>
<td>School Campus</td>
<td>School Circulation Issue</td>
<td>Modify on-site circulation pattern to eliminate queue onto 22nd Street</td>
</tr>
</tbody>
</table>

**Observation Detail:**
During the meeting with the school administration, concerns were raised regarding the queueing that happens because of the parent pickup line in the afternoon hour, where vehicles queue to and through the 22nd Street and Chelsea Street intersection, causing potential operational and safety concerns.

**Suggestion Detail:**
Due to the availability of lane and other street connections, various alternative solutions to enhance the on-site circulation and limit the impact to the adjacent roadway network are available for consideration.

**Responsible Agency:**
School District of Hillsborough County

**Improvement Type:**
On-Site Circulation

**Time Frame:**
Mid Term

**Level of Effort:**
Medium

**EEE:**
Engineering

**Cost Estimate:**
N/A

**Feasibility Review Comment:**
George S. Middleton High School

School Location

George S. Middleton High School is located at the corner of E. Osborne Avenue and N. 22nd Street, within the City of Tampa.

Meeting with School Administration

The review team met with the George S. Middleton High School Principal, Dr. Kim Moore, and Assistant Principal for Student Affairs, Ms. Barbara Hefley, on February 22. Dr. Moore and Ms. Hefley's primary concern was the safety of children crossing Hillsborough Avenue and those walking or bicycling from the I-4 area in dark conditions. They discussed the ongoing educational efforts and giveaways including bike lights and backpacks that are provided. They also discussed how they encourage students to do the right thing, but that they are still attempting to change behavior including that of students that utilize the CSX railroad tracks as their perceived safest walking route. They highlighted recent efforts to improve walking and biking safety, but asked if additional lighting enhancements could be completed. They also communicated that HART busing is very popular among their students, with more than 40 students utilizing transit to commute to and from school.
<table>
<thead>
<tr>
<th><strong>ID</strong></th>
<th><strong>Location Description:</strong></th>
<th><strong>Observation Overview:</strong></th>
<th><strong>Suggestions for Consideration:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>CB1</td>
<td>Osborne Avenue</td>
<td>Gaps in sidewalks</td>
<td>Enhance sidewalk connectivity</td>
</tr>
</tbody>
</table>

**Observation Detail:**
Sidewalk gaps along the Osborne Avenue corridor

**Suggestion Detail:**
Consider evaluating the feasibility of providing sidewalk connectivity at the following locations:
- North side of Osborne Avenue between 10th Street and 13th Street
- North side of Osborne Avenue between the railroad tracks (on the east side of the school campus) and 40th Street

**Responsible Agency:**
City of Tampa

**Improvement Type:**
Sidewalk

**Time Frame:**
Mid Term

**Level of Effort:**
Medium

**EEE:**
Engineering

**Cost Estimate:**
$134,120

**Feasibility Review Comment:**
Significant constructability challenges have been identified, however, evaluation should be given to filling the gaps that can be easily filled. Additionally, if a sidewalk terminates, emphasis should be placed on providing enhanced pedestrian crosswalks in the area to provide access to available sidewalk.
**George S. Middleton High School**

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CB2</td>
<td>22nd Street from Osborne Avenue to E. Sligh Avenue</td>
<td>Aging and Faded Pavement Markings</td>
<td>Refurbish Pavement Markings</td>
</tr>
</tbody>
</table>

**Observation Detail:**

Pavement markings may have limited nighttime visibility due to age and condition.

**Suggestion Detail:**

Consider refurbishing all pavement markings along the 22nd Street corridor to enhance visibility. Evaluate the feasibility and need to modify the existing striping to double solid yellow to restrict passing due to the number of driveways and intersections along the corridor.

**Responsible Agency:**
City of Tampa

**Improvement Type:**
Pavement Marking

**Time Frame:**
Mid Term

**Level of Effort:**
Medium

**EEE:**
Engineering

**Cost Estimate:**
$146,640

**Feasibility Review Comment:**
Can be combined with upcoming CIP/Resurfacing projects.
### George S. Middleton High School

<table>
<thead>
<tr>
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<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CB3</td>
<td>Various Locations</td>
<td>Crosswalk striping condition</td>
<td>Add or refurbish crosswalk markings</td>
</tr>
</tbody>
</table>

#### Observation Detail:

Crosswalks along key north-south walking corridors were faded or unmarked.

#### Suggestion Detail:

Consider installing or refurbishing crosswalks through the following corridors:
- 15\textsuperscript{th} Street corridor from E. Dr. M.L.K. Jr. Blvd (SR 574) to Hillsborough Avenue (US 92)
- 22\textsuperscript{nd} Street corridor from E. Dr. M.L.K. Jr. Blvd (SR 574) to Hillsborough Avenue (US 92)
- 34\textsuperscript{th} Street corridor from E. Dr. M.L.K. Jr. Blvd (SR 574) to Hillsborough Avenue (US 92)

Curb ramps and sidewalk improvements are included in the upcoming roundabout project.

Consider evaluating sidewalks and curb ramps for any maintenance needs during striping conditions reviews.

#### Responsible Agency:

City of Tampa

#### Improvement Type:

Pavement Marking

#### Time Frame:

Mid Term

#### Level of Effort:

Medium

#### EEE:

Engineering

#### Cost Estimate:

$145,740

#### Feasibility Review Comment:

Can be combined with upcoming CIP projects and focused on selected “walking routes” agreed upon with school to prioritize efforts on key routes. These improvements would enhance walkability for a number of schools, including Middleton, Young Middle, and Lomax Elementary.
### George S. Middleton High School

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<tr>
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<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CB4</td>
<td>22&lt;sup&gt;nd&lt;/sup&gt; Street School Zones at Middleton</td>
<td>School zone signage condition</td>
<td>Upgrade school zone signage</td>
</tr>
</tbody>
</table>

**Observation Detail:**
During field review it was noted that school zone signage and pavement markings were aging and should be considered for replacement.

**Suggestion Detail:**
Consider upgrading the school zone signage and pavement markings to meet the new standards.

**Responsible Agency:** City of Tampa  
**Improvement Type:** Signing and pavement markings

**Time Frame:** Short Term  
**Level of Effort:** Low

**EEE:** Engineering  
**Cost Estimate:** $26,790

**Feasibility Review Comment:**
### George S. Middleton High School

<table>
<thead>
<tr>
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<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBS</td>
<td>22&lt;sup&gt;nd&lt;/sup&gt; Street Corridor</td>
<td>Lighting Levels</td>
<td>Enhanced or New Street Lighting</td>
</tr>
</tbody>
</table>

**Observation Detail:**
School Administration expressed concerns about the lighting levels along the 22<sup>nd</sup> Street corridor due to the number of students utilizing this corridor to commute to and from school.

**Suggestion Detail:**
Evaluate the feasibility of replacing the existing high-pressure sodium street luminaires with light emitting diode luminaires or adding new luminaires along the 22<sup>nd</sup> Street corridor, north of I-4.

**Responsible Agency:**
City of Tampa

**Improvement Type:**
Lighting

**Time Frame:**
Mid Term

**Level of Effort:**
Medium

**EEE:**
Engineering

**Cost Estimate:**
$1,220,230

**Feasibility Review Comment:**
This corridor has a mix of existing decorative street lighting, utility pole mounted luminaires and other portions with no street lighting. Due to the fairly consistent presence of utility poles, consider a corridor wide lighting project.
## George S. Middleton High School

<table>
<thead>
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<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CB6</td>
<td>CSX North-South Railroad Tracks</td>
<td>Students using railroad tracks as a walking and biking route</td>
<td>Provide enhanced fencing, no trespassing signage and educational programs to students</td>
</tr>
</tbody>
</table>

**Observation Detail:**
A number of students “jump” the fence at the east school property line that is adjacent to the CSX railroad line or enter the tracks at side-street crossings to take a “continuous” direct route to or from the school or other destinations.

**Suggestion Detail:**
Consider enhanced fencing along the school property and coordination with CSX for additional or enhanced signing at street crossings along this railroad line.

<table>
<thead>
<tr>
<th>Responsible Agency:</th>
<th>Improvement Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td>School District of Hillsborough County &amp; CSX</td>
<td>Enhanced fencing and signage, education</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time Frame:</th>
<th>Level of Effort:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid Term</td>
<td>Medium</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EEE:</th>
<th>Cost Estimate:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>$56,400</td>
</tr>
</tbody>
</table>

**Feasibility Review Comment:**
Nathan B. Young Middle Magnet School

School Location

Nathan B. Young Middle Magnet School is located on E. Dr. Martin Luther King, Jr. Blvd. (SR 574) at N. 19th Street within the City of Tampa.

Meeting with School Administration

A meeting was held with Principal Nadine Johnson on March 8 at 1:30 pm. The primary discussion topic was increasing the awareness and visibility of the existing midblock crosswalk in the front of the school on E. Dr. Martin Luther King, Jr. Blvd. (SR 574) through the potential implementation of rectangular rapid flashing beacons or other enhanced crossing treatments. Students also cross the road to get to the convenience store on the north side of E. Dr. Martin Luther King, Jr. Blvd. (SR 574) east of the school and then cross back to get to Cyrus Greene Park. There was also discussion about speeding issues on E. Dr. Martin Luther King, Jr. Blvd. (SR 574) through the reduced speed school zone.
<table>
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<th>Location Description</th>
<th>Observation Overview</th>
<th>Suggestions for Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC1</td>
<td>Dr. Martin Luther King, Jr. Blvd. (SR 574)</td>
<td>Connectivity to School</td>
<td>Connect midblock crossing to school property</td>
</tr>
</tbody>
</table>

**Observation Detail:**
The existing midblock crosswalk is not directly connected to the school property.

**Suggestion Detail:**
Consider providing a sidewalk or direct path connection to the school parking lot and entrance.

**Responsible Agency:** School District of Hillsborough County

**Improvement Type:** Sidewalk Enhancement

**Time Frame:** Short Term

**Level of Effort:** Low

**EEE:** Engineering

**Cost Estimate:** $3,315

**Feasibility Review Comment:**
Potential ADA compliance challenges due to grade.
### Nathan B. Young Middle Magnet School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC2</td>
<td>Dr. Martin Luther King, Jr. Blvd. (SR 574)</td>
<td>Vehicles do not yield to pedestrians at midblock crossing</td>
<td>Consider Evaluating Location for Enhanced Treatment Devices</td>
</tr>
</tbody>
</table>

**Observation Detail:**

During school arrival and dismissal times, vehicles do not stop to allow students to cross the road at the existing midblock crosswalk located at N. 19th Street.

**Suggestion Detail:**

Consider evaluating this crossing for enhanced treatments, such as a rectangular rapid flashing beacon or high-intensity activated crosswalk beacon (HAWK) if the various requirements are met.

**Responsible Agency:**

Florida Department of Transportation

**Improvement Type:**

Enhanced Traffic Control Devices

**Time Frame:**

Mid Term

**Level of Effort:**

Medium

**EEE:**

Engineering

**Cost Estimate:**

$46,812

**Feasibility Review Comment:**

-
### Nathan B. Young Middle Magnet School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC3</td>
<td>Dr. Martin Luther King, Jr. Blvd. (SR 574)</td>
<td>Midblock crossings at uncontrolled locations</td>
<td>Consider evaluating the corridor for additional midblock crossing locations</td>
</tr>
</tbody>
</table>

#### Observation Detail:
After school a large number of students tend to walk east to get to the convenience store and cross mid-block before the intersection, then cross back to go to Cyrus Greene Park. No additional crossing locations are present between the existing midblock at the front of the school and 22nd Street.

#### Suggestion Detail:
Consider evaluating this corridor for additional midblock crossing locations per the TEM warrant by conducting a preliminary pedestrian count during school peak hours.

#### Responsible Agency:
Florida Department of Transportation

#### Improvement Type:
Pavement Marking/Signage

#### Time Frame:
Mid Term

#### Level of Effort:
Medium

#### EEE:
Engineering

#### Cost Estimate:
$60,066

#### Feasibility Review Comment:
Distance to existing traffic signal may limit feasibility of additional devices.
### Nathan B. Young Middle Magnet School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC4</td>
<td>Dr. Martin Luther King, Jr. Blvd. (SR 574)</td>
<td>Lighting levels along corridor</td>
<td>Consider enhanced street lighting.</td>
</tr>
</tbody>
</table>

#### Observation Detail:
Street lights on Dr. Martin Luther King, Jr. Blvd. (SR 574) are currently high-pressure sodium and are typically only on the south side of the roadway on utility poles.

#### Suggestion Detail:
Consider upgrading the existing high-pressure sodium street light fixtures to LED and adding additional light fixtures from Florida Avenue to N. 40th Street. Consider prioritizing signalized intersections and midblock crossing locations for enhanced lighting.

<table>
<thead>
<tr>
<th>Responsible Agency:</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Florida Department of Transportation</td>
<td>Lighting</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time Frame:</th>
<th>Level of Effort:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Term</td>
<td>Medium</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EEE:</th>
<th>Cost Estimate:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>$1,340,000</td>
</tr>
</tbody>
</table>

#### Feasibility Review Comment:
The signalized intersections along the corridor are marked as priority locations for lighting upgrades as part of an ongoing Florida Department of Transportation, statewide retrofit initiative project.
## Nathan B. Young Middle Magnet School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCS</td>
<td>Dr. Martin Luther King, Jr. Blvd. (SR 574) west of 22&lt;sup&gt;nd&lt;/sup&gt; Street</td>
<td>Damaged Sidewalk</td>
<td>Sidewalk Maintenance</td>
</tr>
</tbody>
</table>

### Observation Detail:
During field review, broken and cracked sidewalk was observed on the south side of Dr. Martin Luther King, Jr. Blvd. (SR 574) west of 22<sup>nd</sup> Street.

### Suggestion Detail:
Consider repairing the sidewalk.

<table>
<thead>
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<th>Responsible Agency:</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Florida Department of Transportation</td>
<td>Sidewalk</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time Frame:</th>
<th>Level of Effort:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short Term</td>
<td>Low</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EEE:</th>
<th>Cost Estimate:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>N/A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Feasibility Review Comment:</th>
</tr>
</thead>
</table>
### Nathan B. Young Middle Magnet School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC6</td>
<td>Dr. Martin Luther King, Jr. Blvd. (SR 574)</td>
<td>Speeding vehicles in reduced speed school zone</td>
<td>Enforcement Activities</td>
</tr>
</tbody>
</table>

**Observation Detail:**
School administration stated that there is a regular disregard for the reduced speed school speed limit.

**Suggestion Detail:**
Provide selective enforcement activities.

**Responsible Agency:** City of Tampa Police Department

**Improvement Type:** Enforcement

**Time Frame:** Short Term

**Level of Effort:** Low

**EEE:** Enforcement

**Cost Estimate:** N/A

**Feasibility Review Comment:**
Muller Elementary Magnet School

School Location

Muller Elementary Magnet School is located in unincorporated Hillsborough County, north of Fletcher Avenue and east of N. 22nd Street.

Meeting with School Administration

A meeting was held with Principal Mary Booth on March 6. The primary concern mentioned was the lack of sidewalk connectivity of the campus to adjacent properties and a request for additional queueing areas for the parent pickup line. Muller Elementary Magnet School shares a site with Bowers/Whitely Career Center and a library that is currently under construction, but does not have sidewalk connectivity to N. 22nd Street. Principal Booth also stated that a number of students enter on Livingston Avenue where the bus drop-off loop is and that increased connectivity along this corridor and to the residential properties to the northeast of the school campus would be a positive improvement.
### Muller Elementary Magnet School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1</td>
<td>22nd Street Midblock Crossing Signals</td>
<td>Signal Head Visibility and Signing Consistency</td>
<td>Consider Adding Backplates &amp; Evaluating Signage</td>
</tr>
</tbody>
</table>

#### Observation Detail:
It was noticed that the pedestrian signal at the school entrance, at the University Area Community Center and at Cedar Trace community lack back-plates.

#### Suggestion Detail:
Consider adding backplates to enhance the visibility of the pedestrian crossing signals heads. Consider a signing project to evaluate and apply the fluorescent yellow green pedestrian warning signs consistently throughout the corridor.

<table>
<thead>
<tr>
<th>Responsible Agency:</th>
<th>Improvement Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hillsborough County</td>
<td>Backplates &amp; Enhanced Signing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time Frame:</th>
<th>Level of Effort:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short Term</td>
<td>Low</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EEE:</th>
<th>Cost Estimate:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>$1,692</td>
</tr>
</tbody>
</table>

| Feasibility Review Comment: |
### Muller Elementary Magnet School

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<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>D2</td>
<td>Fletcher Avenue at 22nd Street &amp; Livingston Avenue</td>
<td>Permissive left turn movement conflicts</td>
<td>Modify signal heads and phasing</td>
</tr>
</tbody>
</table>

#### Observation Detail:
The intersection has dedicated left turn lanes with a five-section head for all approaches.

#### Suggestion Detail:
Consider implementing four-section signal heads with flashing yellow arrows for all approaches. Consider implementing protected-only left-turn movements during school arrival and departure hours to eliminate permissive left-turn conflicts with pedestrians. A more restrictive “protected only” operation could be implemented if pedestrian volumes around these intersections are consistently high throughout the day.

#### Responsible Agency:
Hillsborough County

#### Improvement Type:
Signal Phasing Modifications

#### Time Frame:
Short Term

#### Level of Effort:
Medium

#### EEE:
Engineering

#### Cost Estimate:
$23,690

#### Feasibility Review Comment:
### Muller Elementary Magnet School

<table>
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<th>Location Description:</th>
<th>Observation Overview:</th>
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</tr>
</thead>
<tbody>
<tr>
<td>D3</td>
<td>Fletcher Avenue at 22nd Street &amp; Livingston Avenue</td>
<td>Right turn conflicts with pedestrians</td>
<td>Consider implementing right-turn yield to pedestrians signing</td>
</tr>
</tbody>
</table>

**Observation Detail:**
Drivers making a right turn will tend to watch for conflicting vehicles and may not be aware of crossing pedestrians.

**Suggestion Detail:**
Consider adding R10-15, “Right Turns Yield to Pedestrians” signs.

**Responsible Agency:**
Hillsborough County

**Improvement Type:**
Enhanced Signage

**Time Frame:**
Short Term

**Level of Effort:**
Low

**EEE:**
Engineering

**Cost Estimate:**
$5,076

**Feasibility Review Comment:**
### Muller Elementary Magnet School

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<tbody>
<tr>
<td>D4</td>
<td>Livingston Avenue from E. 131&lt;sup&gt;st&lt;/sup&gt; Avenue to Muller Elementary east entrance</td>
<td>Gaps in pedestrian connectivity features</td>
<td>Upgrade pedestrian features corridor wide</td>
</tr>
</tbody>
</table>

**Observation Detail:**
Livingston Avenue and E. 131<sup>st</sup> Avenue are missing pedestrian connectivity characteristics such as crosswalks, sidewalk ramps and ADA features.

**Suggestion Detail:**
Consider evaluating Livingston Avenue and E. 131<sup>st</sup> Avenue for additional curb ramps, side-street crosswalks and pedestrian connectivity in general to provide key east-west and north-south connectivity.

**Responsible Agency:**
Hillsborough County

**Improvement Type:**
Pedestrian Features

**Time Frame:**
Mid Term

**Level of Effort:**
Medium

**EEE:**

**Cost Estimate:**
$21,900

**Feasibility Review Comment:**
Consider working with schools in the area to identify key walking routes to focus enhancement efforts on.
## Muller Elementary Magnet School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
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</tr>
</thead>
<tbody>
<tr>
<td>D5</td>
<td>Bruce B. Downs Boulevard from Fletcher Avenue to E. Bearss Avenue</td>
<td>No sidewalk on west side of roadway</td>
<td>Add sidewalk</td>
</tr>
</tbody>
</table>

### Observation Detail:
No continuous sidewalk exists on Bruce B. Downs Boulevard from Fetcher Avenue to Bearss Avenue.

### Suggestion Detail:
Consider adding a sidewalk on Bruce B. Downs Boulevard to provide connectivity for residents along this commercial and residential corridor.

<table>
<thead>
<tr>
<th>Responsible Agency:</th>
<th>Improvement Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hillsborough County</td>
<td>Sidewalk</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time Frame:</th>
<th>Level of Effort:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid Term</td>
<td>Medium</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EEE:</th>
<th>Cost Estimate:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### Feasibility Review Comment:
This sidewalk is included in upcoming CIP 61153010.
<table>
<thead>
<tr>
<th>ID</th>
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<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>D6</td>
<td>Bearss Avenue at Mort Elementary School</td>
<td>Volume of pedestrians compared to width of sidewalk and crosswalk</td>
<td>Widen Curb Ramp &amp; Crosswalk</td>
</tr>
</tbody>
</table>

**Observation Detail:**

Large numbers of students and parents utilize the crosswalk in front of Mort Elementary School during a short period of time. The crossings are staggered by the crossing guard and school administration to reduce the number of crossings that happen at the same time. The existing curb ramp and sidewalk along Bearss Avenue in front of Mort Elementary is approximately six feet wide.

**Suggestion Detail:**

Consider evaluating the widening of the sidewalk, curb ramp and crossing to provide a wider clear path for pedestrians.

<table>
<thead>
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<th>Responsible Agency:</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Hillsborough County</td>
<td>Sidewalk &amp; Pavement Markings</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EEE:</th>
<th>Cost Estimate:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>$40,870</td>
</tr>
</tbody>
</table>

**Feasibility Review Comment:**

This work can be incorporated into CIP 61153007, the pedestrian and bike safety project along Bearss Avenue.
### Muller Elementary Magnet School

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>D7</td>
<td>Muller Elementary Entry on 22nd Street</td>
<td>No sidewalk connection</td>
<td>Provide sidewalk connection</td>
</tr>
</tbody>
</table>

**Observation Detail:**
Missing sidewalk connection to 22nd Street from school and Bowers/Whitley Career Center.

**Suggestion Detail:**
Consider adding a sidewalk to connect the sidewalk on 22nd Street to the school entrance

**Responsible Agency:**
School District of Hillsborough County & Hillsborough County

**Improvement Type:**
Sidewalk

**Time Frame:**
Mid Term

**Level of Effort:**
Medium

**EEE:**
Engineering

**Cost Estimate:**
$15,820

**Feasibility Review Comment:**
C. Leon King High School

School Location

C. Leon King High School is located within unincorporated Hillsborough County at the corner of 56th Street N. (SR 583) and Sligh Avenue E.

Meeting with School Administration

A meeting was held on March 20 with Principal Mike Rowan. Principal Rowan discussed his concerns about the number of midblock crossings across Sligh Avenue to and from the variety of destinations on the north side of Sligh Avenue and the west side of 56th Street North. Principal Rowan’s primary goals are to get additional lighting on Sligh Avenue and in the parking lots of the school, and wider sidewalk from his campus to the intersection of Sligh Avenue and 56th Street North due to the volume of students walking from the school to the west and north at the time of dismissal.
## C. Leon King High School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>Sligh Avenue from 50th Street to Orient Road</td>
<td>Inconsistent Street Lighting</td>
<td>Evaluate Corridor for Enhanced Street Lighting</td>
</tr>
</tbody>
</table>

**Observation Detail:**
Due to the wide variety of activity times after school and darkness during school arrival times, the Sligh Avenue corridor is typically dark when students are arriving to and leaving school.

**Suggestion Detail:**
Consider evaluating the Sligh Avenue corridor for the addition of street lighting.

**Responsible Agency:**
Hillsborough County

**Improvement Type:**
Lighting

**Time Frame:**
Mid Term

**Level of Effort:**
Medium

**EEE:**
Engineering

**Cost Estimate:**
$878,150

**Feasibility Review Comment:**
## C. Leon King High School

<table>
<thead>
<tr>
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<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>E2</td>
<td>Sligh Avenue, east of 56&lt;sup&gt;th&lt;/sup&gt; Street</td>
<td>Sidewalk Gap &amp; Midblock Crossings</td>
<td>Fill-in sidewalk gap &amp; evaluate midblock crossings</td>
</tr>
</tbody>
</table>

### Observation Detail:
A sidewalk gap exists on the north side of Sligh Avenue and a high number of midblock crossings by students were observed.

### Suggestion Detail:
Consider connecting the sidewalk north of Sligh Avenue, east of 56<sup>th</sup> Street and consider evaluating the pedestrian crossings on Sligh Avenue to the residential properties on the north side of Sligh Avenue for potential implementation of designated midblock crossings.

### Responsible Agency:
Hillsborough County

### Improvement Type:
Sidewalk & Midblock Crossings

### Time Frame:
Mid Term

### Level of Effort:
Medium

### EEE:
Engineering

### Cost Estimate:
$102,465

### Feasibility Review Comment:
Adjacent CIP 69638008 further to the east – SRTS Pedestrian Enhancements
## C. Leon King High School

<table>
<thead>
<tr>
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<th>Observation Overview</th>
<th>Suggestions for Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>E3</td>
<td>Sligh Avenue on School Frontage</td>
<td>Sidewalk width compared to volume of pedestrians</td>
<td>Wider sidewalk</td>
</tr>
</tbody>
</table>

**Observation Detail:**
A number of students were observed walking on the entrance driveway and in the grass along the south side of Sligh Avenue due to the volume of students during dismissal time.

**Suggestion Detail:**
Consider widening the sidewalk on campus, evaluating the drop-off adjacent to the sidewalk on the primary egress point from the school and widening the sidewalk on the south side of Sligh Avenue from the driveway to the west at the traffic signal at 56th Street and Sligh Avenue.

**Responsible Agency:**
Hillsborough County & School District of Hillsborough County

**Improvement Type:**
Sidewalk Widening & Drop-Off evaluation

**Time Frame:**
Mid Term

**Level of Effort:**
Medium

**EEE:**
Engineering

**Cost Estimate:**
$106,391

**Feasibility Review Comment:**
Potential Drop-Off requiring evaluation
### C. Leon King High School

<table>
<thead>
<tr>
<th>ID</th>
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<th>Observation Overview:</th>
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</tr>
</thead>
<tbody>
<tr>
<td>E4</td>
<td>Sligh Avenue at 56th Street Signal</td>
<td>East &amp; westbound permissive left-turn movements</td>
<td>Modify signal heads and phasing</td>
</tr>
</tbody>
</table>

**Observation Detail:**

Eastbound Sligh Avenue has a permissive left-turn movement and westbound Sligh Avenue has a four-section head with flashing yellow arrow that shows a permissive left-turn during the pedestrian walk and flashing don’t walk phases.

**Suggestion Detail:**

Consider adding a four-section flashing yellow arrow for the eastbound approach and restricting the display of permissive left-turn movements by time of day to eliminate the potential conflict between permissive left turns and pedestrians during school arrival and departure hours. If pedestrian volumes are consistently high throughout the day, “protected only” operation for these left turns could also be implemented.

**Responsible Agency:** Florida Department of Transportation

**Improvement Type:** Signal modification

**Time Frame:** Mid Term

**Level of Effort:** Medium

**EEE:** Engineering

**Cost Estimate:** $4,935

**Feasibility Review Comment:**
A. P. Leto High School

School Location

A. P. Leto High School is located in the northwest corner of the intersection of W. Sligh Avenue and N. Manhattan Avenue in unincorporated Hillsborough County.

Meeting with School Administration

A meeting was held with A. P. Leto High School administration staff on February 20. The staff expressed their appreciation for the upcoming circulation project as well as the project to improve access on Sligh Avenue at the main school access point. They also discussed the need to evaluate Manhattan Avenue and Hesperides Street for additional crosswalks to provide pedestrian connectivity for the numerous schools and pedestrian attractors in the area, including the Cuban coffee shop that is frequented by students throughout the day. Additionally, they expressed concerns regarding speeds on both Hesperides and Manhattan Avenue and requested consideration for any available traffic calming devices.
### A. P. Leto High School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>Leto School Frontage</td>
<td>Students crossing</td>
<td>Additional Traffic Control Devices</td>
</tr>
</tbody>
</table>

**Observation Detail:**
The primary school campus access point has an uncontrolled crosswalk and many turning movements.

**Suggestion Detail:**
Consider evaluating this intersection for additional traffic control devices.

**Responsible Agency:**
Hillsborough County

**Improvement Type:**
Traffic Control

**Time Frame:**
Mid Term

**Level of Effort:**
High

**EEE:**
Engineering

**Cost Estimate:**
$29,050

**Feasibility Review Comment:**
These modifications are being completed as part of upcoming CIP 69645100.
### A. P. Leto High School

<table>
<thead>
<tr>
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<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>F2</td>
<td>Various Locations</td>
<td>Unmarked pedestrian crossings</td>
<td>Consider evaluating for enhanced crossings</td>
</tr>
</tbody>
</table>

#### Observation Detail:
There is a need for crosswalks at various locations within the neighboring streets around A. P. Leto High School. Any enhancements would benefit multiple schools.

#### Suggestion Detail:
Consider evaluating key corridors and locations for crosswalks:
- Hesperides Street at Burke Street, Elm Street & Henry Avenue
- Occident Street at various West Park entrances
- W. Sligh Avenue at Occident Street
- Manhattan Avenue south of Hamilton Avenue
- Enhanced crosswalk striping at Manhattan Avenue & Pine Crest Manor Boulevard

#### Responsible Agency:  
Hillsborough County

#### Improvement Type:  
Pavement Marking and Signing

#### Time Frame:  
Mid Term

#### Level of Effort:  
Medium

#### EEE:  
Engineering

#### Cost Estimate:  
Medium

#### Feasibility Review Comment:  

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![Unmarked Crosswalk Diagram](image-url)
### A. P. Leto High School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>F3</td>
<td>Various Locations</td>
<td>Lighting levels along key corridors</td>
<td>Evaluate the need for enhanced lighting</td>
</tr>
</tbody>
</table>

#### Observation Detail:
Leto High School currently starts at 7:30 AM. Students start to arrive at 7:00 AM while it is still dark. Additionally, Crestwood Elementary School, Pierce Middle School and Alexander Elementary School would potentially benefit from any lighting enhancements along these key corridors.

#### Suggestion Detail:
Consider adding street lights or converting from high-pressure sodium to light emitting diode luminaires at the following locations:
- Manhattan Avenue corridor from Henry Avenue to Waters Avenue
- Sligh Avenue/Pine Crest Manor Boulevard corridor from Dale Mabry Highway to Occident Street
- Waters Avenue at Woodland Corporate Boulevard
- Waters Avenue at Manhattan Boulevard

<table>
<thead>
<tr>
<th>Responsible Agency:</th>
<th>Improvement Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hillsborough County</td>
<td>Lighting</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time Frame:</th>
<th>Level of Effort:</th>
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</thead>
<tbody>
<tr>
<td>Mid Term</td>
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</table>

<table>
<thead>
<tr>
<th>EEE:</th>
<th>Cost Estimate:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>$1,882,703</td>
</tr>
</tbody>
</table>

#### Feasibility Review Comment:
Due to the attendance areas for the area schools, these corridors have been identified as keys for evaluating the need for enhanced or additional street lighting.
### A. P. Leto High School

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<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
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<tbody>
<tr>
<td>F4</td>
<td>Manhattan Avenue at Sligh Avenue &amp; Manhattan Avenue at Waters Avenue</td>
<td>Permissive Left Turns &amp; Pedestrian Conflicts</td>
<td>Modified Signal Timing</td>
</tr>
</tbody>
</table>

#### Observation Detail:

Potential pedestrian conflicts during permissive left-turn phases for north and southbound Manhattan Avenue at Waters Avenue and for all left-turn movements at Manhattan Avenue at Sligh Avenue/Pine Crest Manor Boulevard.

#### Suggestion Detail:

Consider adding a four-section flashing yellow arrow for any approaches with permissive left-turns and restricting the display of permissive left-turn movements by time of day to eliminate the potential conflict between permissive left turns and pedestrians during school arrival and departure hours. A more restrictive “protected only” operation could be implemented if pedestrian volumes around these intersections are consistently high throughout the day.

#### Responsible Agency:

Hillsborough County

#### Improvement Type:

Signal Modifications

#### Time Frame:

Mid Term

#### Level of Effort:

Medium

#### EEE:

Engineering

#### Cost Estimate:

$44,415

#### Feasibility Review Comment:

This recommendation requires structural analysis of the existing signal structures and potential upgrade of the existing controller to complete time of day signal phasing involving flashing yellow arrows.
### A. P. Leto High School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description</th>
<th>Observation Overview</th>
<th>Suggestions for Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>F5</td>
<td>Leto High School property</td>
<td>On-site circulation</td>
<td>On-site circulation improvements</td>
</tr>
</tbody>
</table>

**Observation Detail:**
Unclear circulation and lane use for on-site circulation.

**Suggestion Detail:**
Consider on-site circulation enhancements by clarifying signing and pavement markings for exits, including stop signs and lane use signs.

**Responsible Agency:**
Hillsborough County & School District of Hillsborough County

**Improvement Type:**
Signing and Pavement Markings

**Time Frame:**
Short Term

**Level of Effort:**
Medium

**EEE:**
Engineering

**Cost Estimate:**
N/A

**Feasibility Review Comment:**
An upcoming on-site circulation improvement project may be making all potential signing and pavement marking clarifications under CIP 69638002.
A. P. Leto High School

**ID**  | **Location Description:** | **Observation Overview:** | **Suggestions for Consideration:**
---|---|---|---
F6 | Various locations | Vehicles parking on the sidewalk | Code Enforcement

**Observation Detail:**
It was observed during field review that many vehicles were parking on top of the sidewalk in the Pinecrest West Park neighborhood along Hesperides Street and Manhattan Avenue.

**Suggestion Detail:**
According to the ordinance No. 50-110 of Hillsborough County, parking in this manner is prohibited. Consider an enforcement or education campaign using code enforcement.

**Responsible Agency:**
Hillsborough County Code Enforcement

**Improvement Type:**
Enforcement

**Time Frame:**
Short Term

**Level of Effort:**
Low

**EEE:**
Enforcement

**Cost Estimate:**
N/A

**Feasibility Review Comment:**
Pierce Middle School

School Location

Pierce Middle School is located on N. Hesperides Street, north of Hillsborough Avenue, on the border of the City of Tampa and unincorporated Hillsborough County.

Meeting with School Administration

A meeting was held with Principal Pablo Gallego on March 23. Principal Gallego expressed his concern for the lighting levels along Hesperides Street in the early morning when students are arriving to the school campus. He discussed his desire to see additional crossing locations provided on Hesperides Street as well as sidewalks on both sides of Hesperides Street if it is feasible for the full length of the corridor. Depending on the feasibility of the sidewalk, the number of crossing locations could be consolidated to provide limited east-west crossings with all appropriate features. He also requested modifications be made to the Hillsborough Avenue signalized intersections to make it more comfortable for students to cross Hillsborough Avenue.
<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1</td>
<td>Hillsborough Avenue at Lois Avenue &amp; Hesperides Street</td>
<td>Potential pedestrian and left-turn conflicts</td>
<td>Consider signal timing modifications</td>
</tr>
</tbody>
</table>

**Observation Detail:**

Student crossings of Hillsborough Avenue at Lois Avenue and Hesperides Street involve potential conflicts with left-turning vehicles. The Lois Avenue signal has flashing yellow arrows present for all left-turning movements and the Hesperides Street signal has permissive left turns for the northbound and southbound left turns with no separate signal heads.

**Suggestion Detail:**

Evaluate the feasibility of adding flashing yellow arrow four-section signal heads at Hesperides Street and modifying the signal phasing at both intersections to restrict permissive left-turn movements by time of day. A more restrictive “protected only” operation could be implemented if pedestrian volumes around these intersections are consistently high throughout the day.

**Responsible Agency:** Florida Department of Transportation & City of Tampa

**Improvement Type:** Signal timing modifications

**Time Frame:** Mid Term

**Level of Effort:** Medium

**EEE:** Engineering

**Cost Estimate:** $20,445

**Feasibility Review Comment:**

This recommendation requires structural analysis of the existing signal structures and potential upgrade of the existing controller to complete time of day signal phasing involving flashing yellow arrows.
## Pierce Middle School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>G2</td>
<td>Hesperides Street</td>
<td>Sidewalk is only continuous on the east side of Hesperides Street</td>
<td>Continuous sidewalk on both sides of Hesperides Street</td>
</tr>
</tbody>
</table>

**Observation Detail:**
There is a continuous sidewalk on the east side of Hesperides Street and a sidewalk on the west side that runs from Henry Avenue and ends at Burke Street.

**Suggestion Detail:**
Consider the feasibility of extending the sidewalk on the west side of Hesperides Street to north of Elm Street.

**Responsible Agency:**
Hillsborough County

**Improvement Type:**
Sidewalk

**Time Frame:**
Mid Term

**Level of Effort:**
Medium

**EEE:**
Engineering

**Cost Estimate:**
$182,230

**Feasibility Review Comment:**
Could potentially be included with an upcoming drainage project on Hesperides Street.
### Pierce Middle School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>G3</td>
<td>Hesperides Street</td>
<td>Lighting levels</td>
<td>Consider the feasibility of adding street lights</td>
</tr>
</tbody>
</table>

**Observation Detail:**
Hesperides Street is the main route for children and pedestrians to arrive at Pierce Middle School. Street lights do exist; however, they are placed mid-block and none were found at any of the side street intersections with Hesperides Street. No street lights are present between Henry Avenue and the school entrance.

**Suggestion Detail:**
Evaluate the feasibility of adding street lights near the school property and along the Hesperides Street corridor.

**Responsible Agency:**
Hillsborough County

**Improvement Type:**
Lighting

**Time Frame:**
Mid Term

**Level of Effort:**
Medium

**EEE:**
Engineering

**Cost Estimate:**
$209,385

**Feasibility Review Comment:**
# Pierce Middle School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description</th>
<th>Observation Overview</th>
<th>Suggestions for Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>G4</td>
<td>Hesperides Street from Henry Avenue to Sligh Avenue</td>
<td>No Crosswalks</td>
<td>Evaluation of existing and potential additional crosswalks along Hesperides Street</td>
</tr>
</tbody>
</table>

**Observation Detail:**
There is a continuous sidewalk east of Hesperides Street and on most side streets crossing Hesperides Street, however, there are only two crossing locations to cross Hesperides Street utilizing static signs and pavement markings.

**Suggestion Detail:**
Conduct a pedestrian crossing study to evaluate the possibility of adding crosswalks for additional locations and formalizing the crossings at the existing locations through additional devices, whether it is pushbutton activated lighting, curb ramps or enhanced signing.

<table>
<thead>
<tr>
<th>Responsible Agency</th>
<th>Improvement Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hillsborough County</td>
<td>Crosswalk</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Level of Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid Term</td>
<td>Medium</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EEE:</th>
<th>Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>$10,635</td>
</tr>
</tbody>
</table>

**Feasibility Review Comment:**
HILLSBOROUGH MPO SCHOOL SAFETY STUDY

H. B. Plant High School

School Location

H.B. Plant High School is located between S. Dale Mabry Highway (US 92) and S. Himes Avenue, south of W. San Miguel St. N. within the City of Tampa.

Meeting with School Administration

The review team met with Assistant Principal for Administration, Lauren Otero on February 19. Ms. Otero discussed the general traffic patterns around the campus involving students, and explained how the School Resource Officer controls the traffic signal on Dale Mabry Highway at San Carlos Street to facilitate both pedestrian and vehicular traffic exiting the site during the end of the school day. The student drop off and pick up is intended to be primarily on the east side of the campus on Himes Avenue, although it has spread to other neighborhood streets. During off-peak hours, parents will drop off students on Himes Avenue in the area of the two midblock crosswalks and perform immediate u-turns to return to Bay to Bay Boulevard. Ms. Otero mentioned that a reduced speed school zone had been requested on Dale Mabry Highway on the west frontage of the campus, but that no action had been taken yet on that request.
## H. B. Plant High School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Himes Avenue from W. San Jose St. to W. San Miguel St.</td>
<td>In street drop offs and u-turns</td>
<td>Consider evaluating corridor for bulb outs and parking lanes</td>
</tr>
</tbody>
</table>

### Observation Detail:

During the field review, numerous in street pedestrian drop offs were observed followed by u-turns for vehicles to head back southbound on Himes Avenue to Bay to Bay Boulevard.

### Suggestion Detail:

Consider performing a complete street evaluation and evaluating the corridor for implementation of bulb-outs to reduce pedestrian crossing distances. Consider wider sidewalks or other improved connectivity features to reduce the ease and demand for u-turn movements on Himes Avenue.

<table>
<thead>
<tr>
<th>Responsible Agency:</th>
<th>Improvement Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Tampa</td>
<td>Multimodal Safety Evaluation &amp; Enhancements</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time Frame:</th>
<th>Level of Effort:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Term</td>
<td>High</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EEE:</th>
<th>Cost Estimate:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>$170,140</td>
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</tbody>
</table>

| Feasibility Review Comment: |
**HILLSBOROUGH MPO SCHOOL SAFETY STUDY**

**H. B. Plant High School**

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>H2</td>
<td>W. San Miguel Street near Sterling Avenue</td>
<td>Damaged sidewalk</td>
<td>Sidewalk Repair</td>
</tr>
</tbody>
</table>

**Observation Detail:**

The sidewalk located on the south side of San Miguel Street on the north side of the H. B. Plant High School Campus is damaged and cracking.

**Suggestion Detail:**

Consider repairing the sidewalk.

**Responsible Agency:**

City of Tampa

**Improvement Type:**

Sidewalk repair

**Time Frame:**

Short Term

**Level of Effort:**

Low

**EEE:**

Engineering

**Cost Estimate:**

N/A

**Feasibility Review Comment:**
### H. B. Plant High School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>H3</td>
<td>Various locations in the immediate vicinity of the school campus</td>
<td>Overgrown shrubs and faded pavement markings</td>
<td>Maintain landscaping and refurbish pavement markings in immediate area around campus</td>
</tr>
</tbody>
</table>

#### Observation Detail:
Along Himes Avenue adjacent to the school property, overgrowth of shrubs hinders the pathway of pedestrians.

#### Suggestion Detail:
Consider trimming vegetation along the sidewalk adjacent to the school campus.

<table>
<thead>
<tr>
<th>Responsible Agency:</th>
<th>Improvement Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Tampa</td>
<td>Maintenance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time Frame:</th>
<th>Level of Effort:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short Term</td>
<td>Low</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EEE:</th>
<th>Cost Estimate:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Feasibility Review Comment:**
H. B. Plant High School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>H4</td>
<td>Intersection of Dale Mabry Highway and San Carlos Street</td>
<td>Inconsistent and aging pavement markings and signage</td>
<td>Consider upgrading signs and markings</td>
</tr>
</tbody>
</table>

Observation Detail:
One of the main entrances to Plant High school is located at the intersection of Dale Mabry Highway and San Carlos Street. Signs and the pavement markings seemed to be weathered and fading.

Suggestion Detail:
Consider upgrading signs and pavement marking at the intersection. Also, evaluate the possibility of adding reflective backplates on the signal heads to enhance visibility of the traffic signal heads.

Responsible Agency: Florida Department of Transportation

Improvement Type: Signage, pavement markings and signal

Time Frame: Short Term

Level of Effort: Low

EEE: Engineering

Cost Estimate: $14,720

Feasibility Review Comment:
### H. B. Plant High School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description</th>
<th>Observation Overview</th>
<th>Suggestions for Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>H5</td>
<td>School Entrance on Dale Mabry Highway</td>
<td>Sidewalk termination</td>
<td>Consider the feasibility of modifying the sidewalk connection at school entry</td>
</tr>
</tbody>
</table>

**Observation Detail:**
A sidewalk located at the main entrance of the school on Dale Mabry Highway. The sidewalk extends to the gate then terminates forcing any pedestrians entering or exiting this location to walk in the roadway.

**Suggestion Detail:**
Evaluation the possibility of modifying the gate or fence in this area to allow the sidewalk to extend to the school building.

<table>
<thead>
<tr>
<th>Responsible Agency</th>
<th>Improvement Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>School District of Hillsborough County</td>
<td>Sidewalk &amp; Access Control</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time Frame</th>
<th>Level of Effort</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid Term</td>
<td>Medium</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EEE</th>
<th>Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>Will be based on proposed modifications</td>
</tr>
</tbody>
</table>

**Feasibility Review Comment:**
Potentially requires an additional gate or two to keep the existing structural features from being impacted.
<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>H6</td>
<td>Faculty Parking Areas</td>
<td>Parking on grass and driving on sidewalks</td>
<td>Evaluate campus for additional faculty parking areas</td>
</tr>
</tbody>
</table>

**Observation Detail:**
Parking on grassy areas on the southeast portion of the campus.

**Suggestion Detail:**
Consider developing additional parking areas or modifying paved parking areas to provide parking areas that don’t require driving on sidewalks.

**Responsible Agency:**
School District of Hillsborough County

**Improvement Type:**
Enhanced parking areas

**Time Frame:**
Mid Term

**Level of Effort:**
Medium

**EEE:**
Engineering

**Cost Estimate:**
Will be based on proposed modifications

**Feasibility Review Comment:**
Sulphur Springs K-8 Community School

School Location

Sulphur Springs K-8 Community School is located north of E. Waters Avenue at the intersection of E. Seward Street and N. 13th Street within the City of Tampa.

Meeting with School Administration

A meeting was held with Principal Chantel Angeletti and Dr. Reginald Mathis on February 15 at 9:00 am. The primary concerns communicated by both Principal Angeletti and Dr. Mathis were the need for enhanced lighting in the area of the school and additional clarification of the traffic control on N. 12th Street at E. Yukon Street. Additionally, on-site concerns were discussed, including enhanced parking lot lighting, sidewalk and railing connectivity and eliminating potential tripping hazards for the students exiting and entering vehicles in the drop off and pickup line. They also briefly discussed the recent Safe Routes to School project application that was developed for Sulphur Springs K-8 Community School by the School District of Hillsborough County with support from the City of Tampa.
### Sulphur Springs K-8 Community School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>I1</td>
<td>Various Locations</td>
<td>Faded pavement marking and pedestrian connectivity</td>
<td>Consider upgrading crosswalks and curb ramps</td>
</tr>
</tbody>
</table>

**Observation Detail:**
A number of intersections within close proximity to Sulphur Springs K-8 Community School either do not have striped crosswalks or the crosswalk markings could be considered for completion of routine maintenance and refurbishment.

**Suggestion Detail:**
Consider enhancing crosswalks and evaluating curb ramps and sidewalk connections to enhance walkability of the following key walking corridors:
- Waters Avenue from North Boulevard to Riverhills Drive
- 12th Street from River Cove Street to Banyan Avenue
- Yukon Street from 12th Street to 17th Street
- Seward Street from 13th Street to 17th Street
- Bird Street from Nebraska Avenue to Ogontz Avenue

**Responsible Agency:** City of Tampa

**Improvement Type:** Pavement Markings & Walkability

**Time Frame:** Long Term

**Level of Effort:** Medium

**EEE:** Engineering

**Cost Estimate:** $525,662

**Feasibility Review Comment:**
Work with school to verify key walking corridors for walking and biking students to prioritize any enhancement efforts.
### Sulphur Springs K-8 Community School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>I2</td>
<td>12&lt;sup&gt;th&lt;/sup&gt; Street at Fairbanks Street</td>
<td>Crosswalk without a sidewalk ramp</td>
<td>Consider installing a curb ramp</td>
</tr>
</tbody>
</table>

**Observation Detail:**
Crosswalk exists at the intersection of 12<sup>th</sup> Street and Fairbanks Street and does not begin/end at curb ramp.

**Suggestion Detail:**
Consider adding a curb ramp and connect it to the newly constructed sidewalk.

**Responsible Agency:**
City of Tampa

**Improvement Type:**
Sidewalk Enhancement

**Time Frame:**
Short Term

**Level of Effort:**
Medium

**EEE:**
Engineering

**Cost Estimate:**
$1,015

**Feasibility Review Comment:**
This effort will support the enhancements proposed as part of the Safe Routes to School Project Application.
### Sulphur Springs K-8 Community School

<table>
<thead>
<tr>
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<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>I3</td>
<td>Various Locations</td>
<td>Lighting levels</td>
<td>Evaluate the feasibility of enhanced or additional street lights</td>
</tr>
</tbody>
</table>

**Observation Detail:**

The Sulphur Springs K-8 administration stated that roadways adjacent to the school could benefit from enhanced lighting due to the arrival times at the school. Additionally, the adjacent library is frequently used after dark hours over the winter months.

**Suggestion Detail:**

Consider an evaluation of any existing street lighting and opportunities to provide additional lighting on key corridors focused at intersections:
- Waters Avenue from Nebraska Avenue to Riverhills Drive
- 12th Street from River Cove Street to Busch Boulevard (SR 580)
- Yukon Street from Nebraska Avenue to 17th Street

<table>
<thead>
<tr>
<th>Responsible Agency:</th>
<th>Improvement Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Tampa</td>
<td>Lighting</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time Frame:</th>
<th>Level of Effort:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid Term</td>
<td>Medium</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EEE:</th>
<th>Cost Estimate:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>$497,730</td>
</tr>
</tbody>
</table>

**Feasibility Review Comment:**

Some street lights in the area have been upgraded to light emitting diode luminaires.
### Sulphur Springs K-8 Community School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>School Campus</td>
<td>Pedestrian and Vehicle Interactions</td>
<td>Consider the feasibility of adding a handrail or additional fencing</td>
</tr>
</tbody>
</table>

**Observation Detail:**

The school would like a fence added along the sidewalk that enters from Waters Avenue on N. 13th Street to avoid any potential pedestrian and vehicle interactions during the arrival and departure hours.

**Suggestion Detail:**

Consider the feasibility of adding a handrail/fence on the sidewalk adjacent to the car line exit area.

**Responsible Agency:**

Hillsborough County School District

**Improvement Type:**

Fencing

**Time Frame:**

Short Term

**Level of Effort:**

Low

**EEE:**

Maintenance

**Cost Estimate:**

$42,770
### Sulphur Springs K-8 Community School

<table>
<thead>
<tr>
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<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>I5</td>
<td>School Campus</td>
<td>Potential tripping hazard for students</td>
<td>Consider modifying the existing curbing</td>
</tr>
</tbody>
</table>

**Observation Detail:**
A vertical faced curb is placed around a median that separates the sidewalk leading to the school entry and the car line. In order for students to get to the main entry of the school from the drop-off area, they have to step over these curbs. School administration reported that this grassy area becomes muddy during rain events.

**Suggestion Detail:**
Consider the feasibility of lowering the curb or developing multiple at grade crossings with “rolled” curb.

**Responsible Agency:**
Hillsborough County School District

**Improvement Type:**
Pedestrian connectivity

**Time Frame:**
Mid Term

**Level of Effort:**
$35,126

**EEE:**
Engineering

**Cost Estimate:**
Medium

**Feasibility Review Comment:**
## Sulphur Springs K-8 Community School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>I6</td>
<td>School Wide</td>
<td>Midblock crossings and general behaviors</td>
<td>Educational Program</td>
</tr>
</tbody>
</table>

### Observation Detail:
During a meeting with the school administration, additional educational programs were discussed as a potential opportunity to enhance the walking and biking behaviors of the children attending the school.

### Suggestion Detail:
Consider providing an educational program for kids as well as parents. Perhaps a reward program to be provided for the kids when they safely follow a proper behavior.

### Responsible Agency:
School District of Hillsborough County & Department of Health

### Improvement Type:
Education

### Time Frame:
Long Term

### Level of Effort:
Medium

### EEE:
Education

### Cost Estimate:
N/A

### Feasibility Review Comment:
Evaluate existing educational programs to take advantage of ongoing educational opportunities and grant programs. Prioritize use of programs at “top 10” school locations to make most effective use of limited resources.
### Sulphur Springs K-8 Community School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>I7</td>
<td>Waters Avenue</td>
<td>Speeding vehicles in school zone</td>
<td>Enforcement efforts</td>
</tr>
</tbody>
</table>

#### Observation Detail:
During a meeting with the school administration, it was mentioned that vehicles do not follow the reduced speed for school zone while the beacon is flashing.

#### Suggestion Detail:
Consider using enhanced enforcement efforts.

#### Responsible Agency: City of Tampa Police Department
#### Improvement Type: Enforcement

#### Time Frame: Short Term
#### Level of Effort: Low

#### EEE: Enforcement
#### Cost Estimate: N/A
Van Buren Middle School

School Location

Van Buren Middle School is located on N. 22nd Street, south of Busch Boulevard (SR 580) within the City of Tampa. Van Buren Middle School is being combined with Cahoon Elementary for the upcoming school year to form Carter G. Woodson K-8 School.

Meeting with School Administration

A meeting was held with Principal Ovett O. Wilson on March 21 to discuss any potential issues related to transportation and walking and bicycling. Principal Wilson stated that most students get on the bus and are off campus quite quickly, but that he expects more walkers and bikers next year as the schools are combined and the busing patterns change. He also stated that the convenience store at Waters Avenue and Rowlett Park Drive is a popular destination for some of the students both before and after school. Principal Wilson stated that there are compliance issues with speeding vehicles on both Yukon Street and N. 22nd Street but that his major concern is the safety of students crossing Busch Boulevard (SR 580) due to the speeds involved.
### Van Burens Middle School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>J1</td>
<td>Yukon Street &amp; N. 22nd Street</td>
<td>School Zone Signing</td>
<td>Implement Consistent Signing</td>
</tr>
</tbody>
</table>

**Observation Detail:**
Due to the upcoming combining of Van Burens Middle and Cahoon Elementary, the school zone signing in the area of the school campus on N. 22nd Street and E. Yukon Street can be evaluated to develop a consistent signing plan for the new campus access points and on-site circulation patterns.

**Suggestion Detail:**
Evaluate the new requirements for reduced speed school zones and consider updating all signing to be consistent for the new school utilizing fluorescent yellow green sign sheeting.

**Responsible Agency:**
City of Tampa

**Improvement Type:**
Signing and Pavement Markings

**Time Frame:**
Short Term

**Level of Effort:**
Medium

**EEE:**
Engineering

**Cost Estimate:**
$20,360

**Feasibility Review Comment:**
### Van Buren Middle School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>J2</td>
<td>Side Street Intersections on N. 22nd Street from Rowlett Park Drive to Fowler Avenue</td>
<td>Faded or undefined crosswalk striping</td>
<td>Install striped crosswalks on side streets for key corridors</td>
</tr>
</tbody>
</table>

#### Observation Detail:
Faded crosswalks along N. 22nd Street or locations where crosswalks have not been defined across side streets or large driveways.

#### Suggestion Detail:
Consider focusing a maintenance program along the 22nd Street corridor to enhance the existing crosswalks and add defined crosswalks across key side streets and wide driveways.

<table>
<thead>
<tr>
<th>Responsible Agency:</th>
<th>Improvement Type:</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Tampa</td>
<td>Pavement Markings</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time Frame:</th>
<th>Level of Effort:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short Term</td>
<td>Medium</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EEE:</th>
<th>Cost Estimate:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>$58,600</td>
</tr>
</tbody>
</table>

Feasibility Review Comment:
### Van Buren Middle School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>J3</td>
<td>Busch Boulevard at 22&lt;sup&gt;nd&lt;/sup&gt; Street signal</td>
<td>Potential pedestrian conflicts with left-turning vehicles</td>
<td>Modify signal heads and phasing</td>
</tr>
</tbody>
</table>

**Observation Detail:**

The intersection has left-turn lanes on all approaches with varying signal phases for each approach.

**Suggestion Detail:**

Consider replacing the existing permissive or permissive protected left-turn movements with four-section signal heads and a flashing yellow for all approaches. Implement left-turn phasing by time of day that restricts left-turn movements to protected only to avoid any potential pedestrian conflicts with left-turn movements. A more restrictive “protected only” operation could be implemented if pedestrian volumes around these intersections are consistently high throughout the day.

**Responsible Agency:**

Florida Department of Transportation & City of Tampa

**Improvement Type:**

Signal Timing Modifications

**Time Frame:**

Mid Term

**Level of Effort:**

Medium

**EEE:**

Engineering

**Cost Estimate:**

$21,715

**Feasibility Review Comment:**

This recommendation requires structural analysis of the existing signal structures and potential upgrade of the existing controller to complete time of day signal phasing involving flashing yellow arrows.
### Van Buren Middle School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>J4</td>
<td>N. 22nd Street &amp; Busch Boulevard (SR 580)</td>
<td>Signing &amp; Pavement Marking</td>
<td>Install crosswalk signing and enhance pavement markings</td>
</tr>
</tbody>
</table>

#### Observation Detail:

Advance signing for a school crossing is present on Busch Boulevard (SR 580) in both directions but no signs are present at the intersection. Additionally, inconsistent striping is present at the intersection.

#### Suggestion Detail:

Consider implementing school crossing signage on all approaches and implement consistent high-emphasis crosswalk pavement markings.

#### Responsible Agency:

Florida Department of Transportation

#### Improvement Type:

Signing and Pavement Markings

#### Time Frame:

Short Term

#### Level of Effort:

Medium

#### EEE:

Engineering

#### Cost Estimate:

$23,618

#### Feasibility Review Comment:
## Van Buren Middle School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>J5</td>
<td>Van Buren Middle School property</td>
<td>No sidewalk connection</td>
<td>Connect Sidewalk</td>
</tr>
</tbody>
</table>

**Observation Detail:**

The sidewalk on the Van Buren Middle School property does not connect to the sidewalk on 22nd Street for the north entry of the school.

**Suggestion Detail:**

Extending the sidewalk on the school premises to connect the sidewalk on 22nd Street.

**Responsible Agency:** School District of Hillsborough County

**Improvement Type:** Sidewalk

**Time Frame:** Short Term

**Level of Effort:** Medium

**EEE:** Engineering

**Cost Estimate:** $3,102

**Feasibility Review Comment:**
### Van Buren Middle School

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description:</th>
<th>Observation Overview:</th>
<th>Suggestions for Consideration:</th>
</tr>
</thead>
<tbody>
<tr>
<td>J6</td>
<td>N. 22&lt;sup&gt;nd&lt;/sup&gt; Street at Yukon Street</td>
<td>Speeding vehicles in reduced speed school zone</td>
<td>Enforcement Activities</td>
</tr>
</tbody>
</table>

**Observation Detail:**
School administration stated that there is a regular disregard for the reduced speed school speed limit on N. 22<sup>nd</sup> Street and Yukon Street.

**Suggestion Detail:**
Provide selective enforcement activities.

**Responsible Agency:**
City of Tampa Police Department

**Improvement Type:**
Enforcement

**Time Frame:**
Short Term

**Level of Effort:**
Low

**EEE:**
Enforcement

**Cost Estimate:**
N/A

**Feasibility Review Comment:**
APPENDIX A – IDENTIFICATION AND PRIORITIZATION OF SCHOOL AREAS FOR MULTIMODAL SAFETY REVIEWS METHODOLOGY
Hillsborough MPO School Safety Study
Technical Memorandum
Identification and Prioritization of School Areas for Multimodal Safety Reviews
Methodology

Introduction
The Hillsborough County Metropolitan Planning Organization (MPO) has a longstanding commitment to improving safety and mobility for all users and modes of transportation throughout Hillsborough County. The MPO along with the MPO’s School Transportation Working Group (STWG) has made improving safety and mobility for students one of its priorities. To identify opportunities to enhance the safety and comfort of getting to and from school, the MPO has initiated a School Safety Study to prioritize public school areas in order to conduct multimodal safety reviews at ten school areas that will result in a list of actionable safety and mobility improvements. A data driven methodology for prioritizing school areas was needed to identify the school areas for multimodal safety reviews. Prioritizing school areas based on data such as pedestrian and bicycle crash history, number of students living within proximity to the school, and other safety, socioeconomics, and school related data inputs ensures that the reviewed schools are selected based on data rather than a complaint driven system. This technical memorandum provides an overview of the methodology that was used to identify and prioritize school areas within Hillsborough County.

Defining School Evaluation Areas
The initial step in identifying and prioritizing locations to conduct school multimodal safety reviews was to identify and define the school evaluation areas. Florida Administrative Code (6A-3.001 (3)) states that a reasonable walking distance for any student who is not otherwise eligible for transportation, is any distance not more than two (2) miles between the home and school or one and one-half (1 ½) miles between the home and assigned bus stop. Using F.A.C. 6A-3.001 (3) as a guide, a 2-mile walking boundary for each public school was created; the walking boundaries were developed in a geographic information system (GIS) utilizing the location of each school and a 2-mile distance from the school along the existing roadway network. It is noted that this method may differ from how the school district defines the 2-mile walk distance, but was considered sufficient for the purposes of this study. As a largely urban county, many of the schools within Hillsborough County are located relatively close to each other and therefore resulted in many of the 2-mile walk boundaries overlapping each other. To resolve the overlapping the 2-mile walking boundaries were overlaid with the respective school attendance boundaries; the area where the two boundaries intersect was used to create the 2-mile school evaluation areas, Figure 1 is an illustrative example of this process.

Additionally, through discussions with the STWG, it was determined that it was important to develop additional smaller school evaluation areas that would allow for a more detailed evaluation of the areas closer to the school and could help in better determining where potential safety and mobility concerns exist. In addition to the 2-mile school evaluation areas, 1-mile and 0.5-mile evaluation areas were developed for each schools based on the same process used to develop the 2-mile evaluation areas.

Attributing Data to the School Evaluation Areas
Once the school evaluation areas were defined the next step was to attribute data to the evaluation areas. The following summarizes the data that attributed to the school evaluation areas.

Students Residing within School Area
Utilizing data provided from the Hillsborough County School District, the school evaluation areas were assigned with the number of students who reside within the school areas and attend the area school. There are many students who reside within the attendance boundary of one school, but attend another school for one reason or another; this screening was conducted as an exercise to gauge the number of potential students who may walk or bike to school. Therefore only students who reside within the school area and attend the school of that area were included in the evaluation.

Pedestrian and Bicycle Crash History
Using five-years of crash data (2012—2016) pedestrian and bicycle crashes were attributed to each school area. The pedestrian and bicycle crashes were then broken into two categories, total pedestrian and bicycle crashes and school related pedestrian and bicycle crashes. Total pedestrian and bicycle crashes were used to help assess the overall pedestrian and bicycle safety environment within the school evaluation area. Compared to many other crash types, pedestrian and bicycle crashes typically occur at a lower frequency and are often more random in nature which often makes interpreting pedestrian and bicycle crash patterns more challenging. Including total pedestrian and bicycle crashes into the evaluation of each school area helped to better identify locations that may have pedestrian and bicycle safety issues.
The school related pedestrian and bicycle crashes are a sub-set of the total pedestrian and bicycle crashes and included the crashes that met the following criteria:

- occurred on days when school was in session (based on Hillsborough County School District school calendars),
- occurred during typical arrival and dismissal hours (6:00 AM to 10:00 AM and 2:00 PM to 5:00 PM), and
- where the involved pedestrian and/or bicyclist was of school age (elementary school 5 – 11 years old, middle school 11 – 14 years old, high school 14 – 19 years old) for the area school.

While the above criteria was met, it does not necessarily mean that the identified school related crashes involved students traveling to or from school. However, for the purposes of a countywide screening it was determined that this data provided insight that could be used to identify locations where there may be a higher possibility of crashes involving students traveling to/from school.

**Arterial and Collector Roadway Intersections**

The number of major road (arterial and collector) intersections were attributed to each school area. For the screening process, these intersections included anywhere any street intersected with an arterial or collector road, and were used to represent the number of potential crossing conflicts within the school area. It was assumed that a higher number of arterial and collector road intersections indicated that there was a greater likelihood that students may need to cross a major road, and that there is a higher risk involved in those crossings.

**MPO Identified Community of Concern**

The Hillsborough MPO has identified communities of concern throughout the county to ensure equal access to affordable and reliable transportation and to ensure that certain groups don't accrue disproportionate benefits or burdens. Communities of concern are areas that face unique obstacles related to transportation and engagement based on multiple community characteristics including:

- Minority Populations
- Limited English Proficiency Households
- Low-Income Population
- Persons with Disabilities
- Zero Vehicle Households

The communities of concern were included in the screening to help distinguish areas that may have impediments to transportation that may result in a higher proportion of students walking/biking to/from school.

**Free/Reduced Lunch**

The percentage of evaluation area students who qualify for free/reduced lunch was used as a measure to help identify areas that may have potential socioeconomic barriers to transportation. Using this as a measure of socioeconomic condition, and a measure of potential transportation barriers, assists in helping to identify school evaluation areas that may have students with a higher likelihood to walk/bike to/from school.

**Getting to School Survey**

The Getting Students to School Survey was sent to nearly 200,000 recipients to better understand and gain better insight on current school commuting practices. While the survey cover many topics, it primarily focused on the following topics:

- Demographics
- Current Commute
- Commuting Conditions
- Student Requests
- Commuting Considerations
- Awareness and Interest in Commuting Offerings

Based on the collected responses, the survey indicated that most students take a school bus or family vehicle to/from school. When asked if the student had asked for permission to walk/bike to/from school 80.3% of the respondents answered “no,” and when asked in what grade would you give your student permission to walk/bike to school without an adult over 50% of the respondents answered “never.” When asked what factors affect the decision to give your student permission to walk/bike to/from school the most impactful responses were distance, safety of intersections or crossings, and speed of traffic along the route. Some of the most frequently referenced comments from the survey related to poor road conditions and safety concerns about walking.

To help better understand the potential number of students within each school area that may currently be walking the evaluation process focused on the responses to questions 11 and 12 from the survey (following) and included all responses that indicated whether the student walks alone, walks with a parent, participates in a walking school bus, bicycles alone, or participates in a bike train.

- Survey Question 11 – On a typical week, how many days does your student use each of these transportation methods to get to school?
- Survey Question 12 – On a typical week, how many days does your student use each of these transportation methods to get home from school?

**Non-Funded Transportation**

Prior to the 2017-18 school year the Hillsborough County School District eliminated non-funded transportation services, also known as courtesy busing, for approximately 7,500 middle and high school students. This recent change is anticipated to increase the potential number of students walking or biking to school. The number of students who had previously been transported with non-funded transportation services were attributed to each school evaluation area and was used as a factor in determining the number of potential new student walkers/bikers within each school area.
Traditional School

Based on discussions with the STWG, it was determined that there was a need to differentiate between schools with a traditional attendance boundary and those with either a much broader attendance boundary or no boundary at all, i.e., magnet and charter schools. For the purpose of this evaluation, schools with a defined attendance boundary were classified as traditional school.

Screening and Prioritizing School Evaluation Areas

Once the data was attributed to each school evaluation area, a process for screening and prioritizing the school areas for future multimodal safety reviews needed to be developed. The result was the development of a two-step evaluation/prioritization process. The first step (screen 1) focused on identifying the number of students living in proximity to school, and on the number of pedestrian and bicycle crashes that occurred within the school evaluation areas. A result of the screen 1 process was a short-list of school areas that were further evaluated during the second step (screen 2). The screen 2 process focused on additional data attributes related to factors that may make walking/biking to school more probable and on existing built-environment/infrastructure conditions that could indicate potential challenges and/or barriers to walking/biking to/from school.

Before conducting the screen 1 evaluation and prioritization process, it was determined, through discussions with the STWG, that grouping the school evaluation areas by school type would allow for a more equitable comparison of the school evaluation areas; the schools were grouped into the following school types:

- Elementary Schools
- Middle Schools
- High Schools
- Other Schools (include magnet only and charter schools)

A primary reason for grouping the schools by school type is that attendance boundaries, and consequently the evaluation area boundaries, for the different school types can significantly vary in size. The use of typical school level feeder patterns, where multiple elementary schools feed a few middle schools, that feed one or two high schools, resulted in high school evaluation areas that were significantly larger than the middle and elementary school evaluation areas. Grouping the schools by type and comparing school areas and school populations of similar size allowed for a more consistent assessment of the school evaluation areas.

Screen 1 Data Evaluation

The School Safety Study’s primary focus is to identify opportunities to improve the safety and comfort of students getting to/from school, so it was determined that the first evaluation and prioritization process (screen 1) should focus on data inputs related to safety conditions, and on the number of potential students that could benefit from potential safety improvements.

The following data attributes were used for the screen 1 evaluation:

- School Related Pedestrian and Bicycle Crashes
- Total Pedestrian and Bicycle Crashes
- Percent of Students Residing in the School Evaluation Area
- Ratio of School Related Pedestrian and Bicycle Crash to Students Residing in the Area

The initial evaluation of the school areas was completed by ranking the screen 1 data inputs for each school evaluation area (2-mile, 1-mile, and 0.5-mile) and by school type; Figure 2 provides an example of this process.

![Figure 2: Screen 1 Ranking Example](image)

Next, to help prioritize the data attributes, a weighting scheme was developed and applied to the ranked inputs. Based on discussions with the STWG, it was determined that the highest emphasis should be placed on school related pedestrian and bicycle crashes, with total pedestrian and bicycle crashes, the percentage of enrolled students residing in the area, and the ratio of school related crashes to areas students following. The following weightings were developed applied to the attribute rankings:

- School Related Pedestrian and Bicycle Crashes – 50%
- Total Pedestrian and Bicycle Crashes – 20%
- Percent of Students Residing in the School Evaluation Area – 20%
- Ratio of School Related Pedestrian and Bicycle Crash to Students Residing in the Area – 10%

After applying the weights to the data rankings, a composite score/rank for each school area was developed using the sum of the weighted data rankings, Figure 3 provides an example of the weighting and composite rankings.

![Figure 3: Screen 1 Weighted Composite Score/Rank Example](image)

After applying the attribute ranking weighting, and calculating the weighted composite score/rank for each evaluation area, a weighting based on the evaluation area distance was applied. The distance weighting allows the evaluation to emphasize the areas closest to the schools, e.g., a crash located within a few hundred feet from a school would be weighted higher than a crash that occurred more than a mile from the school. The following weights were applied based on the three evaluation distance areas:

- Within 1 mile (weighted rank = 2)
- Within 1 mile to 2 miles (weighted rank = 1)
- Within 2 miles to 3 miles (weighted rank = 0)
- Within 3 miles to 5 miles (weighted rank = 0.5)
- Beyond 5 miles (weighted rank = 0)

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2-Mile – 31%
1-Mile – 33%
0.5-Mile – 36%

After applying the distance weighting, a weighted area composite score/ranking was calculated based on the sum of the weighted area rankings. Figure 4 provides an example of this process.

<table>
<thead>
<tr>
<th>School</th>
<th>2-Mile Area</th>
<th>1-Mile Area</th>
<th>0.5-Mile Area</th>
<th>Weighted Area Composite Score</th>
<th>Weighted Area Composite Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle School A</td>
<td>0.62</td>
<td>0.33</td>
<td>0.36</td>
<td>1.31</td>
<td>1</td>
</tr>
<tr>
<td>Middle School B</td>
<td>0.93</td>
<td>0.99</td>
<td>1.08</td>
<td>3.00</td>
<td>3</td>
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<tr>
<td>Middle School C</td>
<td>0.31</td>
<td>0.66</td>
<td>0.72</td>
<td>1.69</td>
<td>2</td>
</tr>
</tbody>
</table>

**Figure 4: Screen 1 Weighted Area Composite Score/Rank Example**

**Developing the Screen 1 Short-List**

A short-list of school evaluation areas was created using the screen 1 weighted area rankings from each school type group. The short-list is comprised of the top school areas from each school type. The school area short-list was then used for further evaluation of the school areas in the screen 2 evaluation process. The following is a list of the schools that were included in the screen 1 short list, in alphabetical order:

- Adams Middle School
- B.T. Washington Elementary School
- Brandon High School
- Chamberlain High School
- Cleveland Elementary School
- Coleman Middle School
- Edison Elementary School
- Ferrell Middle Magnet School
- Foster Elementary School
- Gaither High School
- Hillsborough High School
- James Elementary School
- King High School
- Leto High School
- Mann Middle School
- Memorial Middle School
- Menendez Elementary School
- Middleton High School
- Miles Elementary School
- Monroe Middle School
- Mort Elementary School
- Muller Elementary Magnet School
- Pierce Middle School
- Plant High School
- Potter Elementary School
- Riverview High School
- Robinson High School
- Sessums Elementary School
- Sulphur Springs K-8 Community School
- Turner/Bartels K-8 School
- Twin Lakes Elementary School
- Van Buren Middle School
- Webb Middle School
- Young Middle Magnet School

**Screen 2 Data Evaluation**

The second screen process involved looking at other contributing data that may indicate a higher propensity for walking and biking and factors that could make walking and biking to school more challenging. Similar to the screen 1 data evaluation, the screen 2 evaluation involved ranking and prioritizing data attributes, but unlike the screen 1 evaluation that included all public schools in Hillsborough County, the screen 2 evaluation was conducted only on the schools included on the screen 1 short-list. This section will review the screen 2 data inputs and evaluation/prioritization process.

The following data attributes were used for the screen 2 evaluation:

- Arterial Road Intersections
- Collector Road Intersections
- Percent of Area Students Qualifying for Free/Reduced Lunch
- Within Identify Community of Concern
- Getting to School Survey Responses
- Non-Funded Transportation Students
- Traditional School Designation

Similar to the screen 1 process, the screen 2 data attributes for each school area were ranked for each school evaluation area (2-mile, 1-mile, and 0.5-mile); Figure 5 shows an example of the ranking process.

**Figure 5: Screen 2 Ranking Example**

Again similar to the screen 1 process, a weighting scheme was applied to the ranked data attributes. Through discussions with the STWG, the following weights were developed and applied to the screen 2 rankings:

- Arterial Road Intersections – 30%
- Collector Road Intersections – 25%
- Percent of Area Students Qualifying for Free/Reduced Lunch – 15%
- Within Identify Community of Concern – 5%
- Getting to School Survey Responses – 5%
- Non-Funded Transportation Students – 15%
- Traditional School – 5%

After applying the weights to the data rankings a composite score/rank for school area was developed using the sum of the weighted data rankings, Figure 6 provides an example of the weighting and composite rankings.
Figure 6: Screen 2 Weighted Composite Score/Rank Example

After applying the attribute rank weighting, and calculating the weighted composite score/rank for each evaluation area, a weighting based on the evaluation area distance was applied. The distance weighting allows the evaluation to emphasize the areas closest to the schools; the following weights were applied based on the three evaluation distance areas:

- **2-Mile – 31%**
- **1-Mile – 33%**
- **0.5-Mile – 36%**

After applying the distance weighting, a weighted area composite score/ranking was calculated based on the sum of the weighted area rankings, Figure 7 provides an example of this process.

![Table 1: Combined Short-List Composite Scores and Rankings](image)

The weighted composite scores from the screen 1 and screen 2 evaluation were then combined to create a final composite score and ranking that was used to prioritize the short-list school areas and identify the top school areas for multimodal reviews. Figure 8 provides an example of how the scores/rankings were combined and Table 1 contains the actual combined composite scores and rankings for the short-list school areas.

![Figure 7: Screen 2 Weighted Area Composite Score/Rank Example](image)

**Prioritizing the School Areas**

The weighted composite scores from the screen 1 and screen 2 evaluation were then combined to create a final composite score and ranking that was used to prioritize the short-list school areas and identify the top school areas for multimodal reviews. Figure 8 provides an example of how the scores/rankings were combined and Table 1 contains the actual combined composite scores and rankings for the short-list school areas.

![Figure 8: Example of Combined Weighted Rankings](image)

The next step was to review the prioritized school area list to identify any school areas that had recently been reviewed for safety and mobility improvements; if an area had recently been reviewed it was removed from the final list and the next school area on the short-list was added to the final list.
Finally, the prioritized final school area list was reviewed to see if it makes sense to combine school areas based on their proximity to other school areas on the final list. For this evaluation it was determined that three schools – Middleton High School, Ferrell Middle Magnet School, and Young Middle Magnet School – were close enough to each other to combine these three school areas as one school area for review purposes.

Figure 9 is a flowchart that provides an overview of the process reviewed in this methodology memorandum.

**Evaluation Results**

Using the evaluation methodology described in this technical memorandum the 10 school areas that were selected for multimodal safety reviews were:

- Chamberlain High School
- Coleman Middle School
- King High School
- Leto High School
- Middleton High School, Ferrell Middle Magnet School, and Young Middle Magnet School
- Muller Elementary Magnet School
- Pierce Middle School
- Plant High School
- Sulphur Springs K-8 Community School
- Van Buren Middle School
A. Chamberlain High School (0761)

9401 North Boulevard, Tampa, FL 33612

Grades: 9 – 12

Magnet School: No

Student Hours: 7:33 AM to 3:00 PM

**Student Information**

School Enrollment (2017-2018 School Year): 1,626

School Demographic Report (2017-2018 School Year):

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>40</td>
</tr>
<tr>
<td>Black</td>
<td>501</td>
</tr>
<tr>
<td>Hispanic</td>
<td>714</td>
</tr>
<tr>
<td>Indian</td>
<td>7</td>
</tr>
<tr>
<td>Multi</td>
<td>99</td>
</tr>
<tr>
<td>White</td>
<td>265</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,626</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>2.46%</td>
</tr>
<tr>
<td>Black</td>
<td>30.81%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>43.91%</td>
</tr>
<tr>
<td>Indian</td>
<td>0.43%</td>
</tr>
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**Walk Area Statistics**

**2-Mile Walk Area Statistics**

Number of Students¹: 1,025 (58.87%)

Students with Free/Reduced Lunch²: 746 (72.78%)

Total Pedestrian and Bicycle Crashes (2012-2016): 247

School Related Pedestrian and Bicycle Crashes (2012-2016)³: 14

Number of Arterial Road Intersections⁴: 186

Number of Collector Road Intersections⁴: 110

**1-Mile Walk Area Statistics**

Number of Students¹: 316 (18.15%)

Students with Free/Reduced Lunch²: 222 (70.25%)

Total Pedestrian and Bicycle Crashes (2012-2016): 79

School Related Pedestrian and Bicycle Crashes (2012-2016)³: 5

Number of Arterial Road Intersections⁴: 36

Number of Collector Road Intersections⁴: 42

**Half-Mile Walk Area Statistics**

Number of Students¹: 75 (4.31%)

Students with Free/Reduced Lunch²: 55 (73.33%)

Total Pedestrian and Bicycle Crashes (2012-2016): 18

---

Figure A-1: Walk Area Boundaries
School Related Pedestrian and Bicycle Crashes (2012-2016): 3

Number of Arterial Road Intersections: 5

Number of Collector Road Intersections: 15

General Information

Number of Students previously receiving Unfunded Transportation: 291

School Survey Responses indicating Walk/Bike as mode to/from school: 21

Within Identified MPO Community of Concern: Yes

Other Schools within the 2-Mile Walk Boundary:

- Adams Middle School
- Twin Lakes Elementary School
- Sulphur Springs Community K-8
- Brooks DeBartolo Collegiate Charter
- Legacy Prep Academy (fka Mount Pleasant Middle)
- Caminiti Exceptional Center

Figure A-1: Walk Area Boundaries

Figure A-2: Concentration of Students within 2-Mile Walk Area
Figure A-3: Total Pedestrian and Bicycle Crash Frequency Clusters

Figure A-4: School Related Pedestrian and Bicycle Crash Frequency Clusters

Figure A-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations
B. Coleman Middle School (0921)

1724 S Manhattan Ave, Tampa, FL 33629

Grades: 6 – 8
Magnet School: No
Student Hours: 9:00 AM to 4:15 PM

Student Information

School Enrollment (2017-2018 School Year): 976

School Demographic Report (2017-2018 School Year):

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Walk Area Statistics

2-Mile Walk Area Statistics

Number of Students¹: 728 (74.59%)
Students with Free/Reduced Lunch²: 107 (10.96%)
Total Pedestrian and Bicycle Crashes (2012-2016): 92
School Related Pedestrian and Bicycle Crashes (2012-2016)³: 4
Number of Arterial Road Intersections⁴: 180
Number of Collector Road Intersections⁴: 165

1-Mile Walk Area Statistics

Number of Students¹: 269 (27.56%)
Students with Free/Reduced Lunch²: 26 (2.66%)
Total Pedestrian and Bicycle Crashes (2012-2016): 22
School Related Pedestrian and Bicycle Crashes (2012-2016)³: 4
Number of Arterial Road Intersections⁴: 59
Number of Collector Road Intersections⁴: 53

Half-Mile Walk Area Statistics

Number of Students¹: 97 (9.94%)
Students with Free/Reduced Lunch²: 12 (1.23%)
Total Pedestrian and Bicycle Crashes (2012-2016): 7

Figure B-1: Walk Area Boundaries
School Related Pedestrian and Bicycle Crashes (2012-2016): 2

Number of Arterial Road Intersections: 13

Number of Collector Road Intersections: 8

General Information

Number of Students previously receiving Unfunded Transportation: 76

School Survey Responses indicating Walk/Bike as mode to/from school: 15

Within Identified MPO Community of Concern: Yes

Other Schools within the 2-Mile Walk Boundary:

- Grady Elementary School
- Mabry Elementary School
- Roosevelt Elementary School
- Plant High School
Figure B-3: Total Pedestrian and Bicycle Crash Frequency Clusters

Figure B-4: School Related Pedestrian and Bicycle Crash Frequency Clusters

Figure B-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations
CA Ferrell Girls Preparatory Academy (3001)

4302 24th St, Tampa, FL 33610

Grades: 6 – 8
Magnet School: Yes
Student Hours: 7:35 AM to 2:50 PM

Student Information

School Enrollment (2017-2018 School Year): 594
School Demographic Report (2017-2018 School Year):

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Walk Area Statistics

2-Mile Walk Area Statistics

Number of Students¹: 122 (14.2%)
Students with Free/Reduced Lunch²: 96 (78.7%)
Total Pedestrian and Bicycle Crashes (2012-2016): 413
School Related Pedestrian and Bicycle Crashes (2012-2016)³: 11
Number of Arterial Road Intersections⁴: 1,032
Number of Collector Road Intersections⁴: 652

1-Mile Walk Area Statistics

Number of Students¹: 54 (6.3%)
Students with Free/Reduced Lunch²: 46 (85.2%)
Total Pedestrian and Bicycle Crashes (2012-2016): 91
School Related Pedestrian and Bicycle Crashes (2012-2016)³: 4
Number of Arterial Road Intersections⁴: 325
Number of Collector Road Intersections⁴: 254

Half-Mile Walk Area Statistics

Number of Students¹: 20 (2.3%)
Students with Free/Reduced Lunch²: 18 (90.0%)
Total Pedestrian and Bicycle Crashes (2012-2016): 29

---

Figure C-1: Walk Area Boundaries (for Ferrell, Middleton, and Young Areas)
School Related Pedestrian and Bicycle Crashes (2012-2016): 2

Number of Arterial Road Intersections: 178

Number of Collector Road Intersections: 97

General Information

Number of Students previously receiving Unfunded Transportation: 0

School Survey Responses indicating Walk/Bike as mode to/from school: 0

Within Identified MPO Community of Concern: Yes

Other Schools within the 2-Mile Walk Boundary:

- Edison Elementary School
- Foster Elementary School
- James Elementary School
- Lockhart Elementary Magnet School
- Lomax Elementary Magnet School
- Potter Elementary School
- Young Middle Magnet School
- Franklin Middle Magnet School
- Memorial Middle School
- Orange Grove Middle Magnet School
- Hillsborough High School
- Middleton High School
- Seminole Heights Charter School
- Carver Exceptional Center
- Kimbell Full Service School
- King’s Kids Academy of Health Science
- Mendez Exceptional Center

- Pepin Academy of Tampa
- Walton Academy of the Performing Arts

Figure C-2: Concentration of Students within 2-Mile Walk Area

Figure C-3: Total Pedestrian and Bicycle Crash Frequency Clusters
Figure C-4: School Related Pedestrian and Bicycle Crash Frequency Clusters

Figure C-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations
CB. Middleton High School (3004)

4801 N 22nd St, Tampa, FL 33610
Grades: 9 – 12
Magnet School: Partial
Student Hours: 7:33 AM to 3:00 PM

Student Information

School Enrollment (2017-2018 School Year): 1,691
School Demographic Report (2017-2018 School Year):

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Walk Area Statistics

2-Mile Walk Area Statistics

Number of Students¹: 793 (29.23%)
Students with Free/Reduced Lunch²: 665 (83.86%)
Total Pedestrian and Bicycle Crashes (2012-2016): 260
School Related Pedestrian and Bicycle Crashes (2012-2016)³: 19
Number of Arterial Road Intersections⁴: 123
Number of Collector Road Intersections⁴: 153

1-Mile Walk Area Statistics

Number of Students¹: 220 (8.11%)
Students with Free/Reduced Lunch²: 186 (84.55%)
Total Pedestrian and Bicycle Crashes (2012-2016): 82
School Related Pedestrian and Bicycle Crashes (2012-2016)³: 5
Number of Arterial Road Intersections⁴: 23
Number of Collector Road Intersections⁴: 33

Half-Mile Walk Area Statistics

Number of Students¹: 43 (1.59%)
Students with Free/Reduced Lunch²: 37 (86.05%)
Total Pedestrian and Bicycle Crashes (2012-2016): 25

Figure D-1: Walk Area Boundaries (for Ferrell, Middleton, and Young Areas)
School Related Pedestrian and Bicycle Crashes (2012-2016): 1
Number of Arterial Road Intersections: 8
Number of Collector Road Intersections: 0

General Information
Number of Students previously receiving Unfunded Transportation: 109
School Survey Responses indicating Walk/Bike as mode to/from school: 11
Within Identified MPO Community of Concern: Yes
Other Schools within the 2-Mile Walk Boundary:
- Edison Elementary School
- Foster Elementary School
- James Elementary School
- Lockhart Elementary Magnet School
- Lomax Elementary Magnet School
- Potter Elementary School
- Ferrell Middle Magnet School
- Young Middle Magnet School
- Franklin Middle Magnet School
- Memorial Middle School
- Orange Grove Middle Magnet School
- Hillsborough High School
- Seminole Heights Charter School
- Carver Exceptional Center
- Kimbell Full Service School
- King’s Kids Academy of Health Science
- Mendez Exceptional Center
- Pepin Academy of Tampa
- Walton Academy of the Performing Arts

Figure D-2: Concentration of Students within 2-Mile Walk Area (for Ferrell, Middleton, and Young Areas)
Figure D-3: Total Pedestrian and Bicycle Crash Frequency Clusters (for Ferrell, Middleton, and Young Areas)

Figure D-4: School Related Pedestrian and Bicycle Crash Frequency Clusters (for Ferrell, Middleton, and Young Areas)

Figure D-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations (for Ferrell, Middleton, and Young Areas)
CC. Young Middle Magnet School (5041)

1807 E Dr Martin Luther King Jr Blvd, Tampa, FL 33610

Grades: 6 – 8
Magnet School: Yes
Student Hours: 7:35 AM to 2:50 PM

Student Information

School Enrollment (2017-2018 School Year): 611

School Demographic Report (2017-2018 School Year):

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Walk Area Statistics

2-Mile Walk Area Statistics

Number of Students¹: 250 (25.4%)
Students with Free/Reduced Lunch²: 215 (86.0%)
Total Pedestrian and Bicycle Crashes (2012-2016): 461
School Related Pedestrian and Bicycle Crashes (2012-2016)³: 11
Number of Arterial Road Intersections⁴: 1,129
Number of Collector Road Intersections⁴: 718

1-Mile Walk Area Statistics

Number of Students¹: 145 (14.8%)
Students with Free/Reduced Lunch²: 130 (89.0%)
Total Pedestrian and Bicycle Crashes (2012-2016): 151
School Related Pedestrian and Bicycle Crashes (2012-2016)³: 4
Number of Arterial Road Intersections⁴: 357
Number of Collector Road Intersections⁴: 315

Half-Mile Walk Area Statistics

Number of Students¹: 54 (5.5%)
Students with Free/Reduced Lunch²: 44 (81.5%)
Total Pedestrian and Bicycle Crashes (2012-2016): 30

Figure E-1: Walk Area Boundaries (for Ferrell, Middleton, and Young Areas)
School Related Pedestrian and Bicycle Crashes (2012-2016)³: 1

Number of Arterial Road Intersections⁴: 193

Number of Collector Road Intersections⁴: 152

General Information

Number of Students previously receiving Unfunded Transportation⁵: 15

School Survey Responses indicating Walk/Bike as mode to/from school⁶: 0

Within Identified MPO Community of Concern⁷: Yes

Other Schools within the 2-Mile Walk Boundary: Edison Elementary School

- Foster Elementary School
- James Elementary School
- Lockhart Elementary Magnet School
- Lomax Elementary Magnet School
- Potter Elementary School
- Ferrell Middle Magnet School
- Franklin Middle Magnet School
- Memorial Middle School
- Orange Grove Middle Magnet School
- Hillsborough High School
- Middleton High School
- Seminole Heights Charter School
- Carver Exceptional Center
- Kimbell Full Service School
- King’s Kids Academy of Health Science
- Mendez Exceptional Center

- Pepin Academy of Tampa
- Walton Academy of the Performing Arts

Figure E-2: Concentration of Students within 2-Mile Walk Area

Figure E-3: Total Pedestrian and Bicycle Crash Frequency Clusters
Figure E-4: School Related Pedestrian and Bicycle Crash Frequency Clusters

Figure E-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations
D. King High School (2241)

6815 N 56th St, Tampa, FL 33610
Grades: 9 – 12
Magnet School: Partial
Student Hours: 7:33 AM to 3:00 PM

Student Information

School Enrollment (2017-2018 School Year): 1,738
School Demographic Report (2017-2018 School Year):

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Walk Area Statistics

2-Mile Walk Area Statistics

Number of Students¹: 477 (18.01%)
Students with Free/Reduced Lunch²: 364 (76.31%)
Total Pedestrian and Bicycle Crashes (2012-2016): 80
School Related Pedestrian and Bicycle Crashes (2012-2016)³: 5
Number of Arterial Road Intersections⁴: 53
Number of Collector Road Intersections⁴: 57

1-Mile Walk Area Statistics

Number of Students¹: 172 (6.50%)
Students with Free/Reduced Lunch²: 131 (76.16%)
Total Pedestrian and Bicycle Crashes (2012-2016): 23
School Related Pedestrian and Bicycle Crashes (2012-2016)³: 3
Number of Arterial Road Intersections⁴: 15
Number of Collector Road Intersections⁴: 24

Half-Mile Walk Area Statistics

Number of Students¹: 68 (2.57%)
Students with Free/Reduced Lunch²: 54 (79.41%)
Total Pedestrian and Bicycle Crashes (2012-2016): 12

Figure F-1: Walk Area Boundaries
School Related Pedestrian and Bicycle Crashes (2012-2016): 2

Number of Arterial Road Intersections: 9

Number of Collector Road Intersections: 9

General Information

Number of Students previously receiving Unfunded Transportation: 76

School Survey Responses indicating Walk/Bike as mode to/from school: 5

Within Identified MPO Community of Concern: Yes

Other Schools within the 2-Mile Walk Boundary:

- Robles Elementary School
- Temple Terrace Elementary School
- Riverhills Elementary School
- Sheehy Elementary School
- Tampa Bay Tech Magnet High School
- Florida Autism Charter School

Figure F-2: Concentration of Students within 2-Mile Walk Area

Figure F-3: Total Pedestrian and Bicycle Crash Frequency Clusters
Figure F-4: School Related Pedestrian and Bicycle Crash Frequency Clusters

Figure F-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations
E. Leto High School (2421)

4409 W Sligh Ave, Tampa, FL 33614

Grades: 9 – 12
Magnet School: Partial
Student Hours: 7:33 AM to 3:00 PM

Student Information

School Enrollment (2017-2018 School Year): 2,305

School Demographic Report (2017-2018 School Year):

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2-Mile Walk Area Statistics

Number of Students¹: 900 (53.41%)
Students with Free/Reduced Lunch²: 671 (74.56%)
Total Pedestrian and Bicycle Crashes (2012-2016): 119
School Related Pedestrian and Bicycle Crashes (2012-2016)³: 10

Number of Arterial Road Intersections⁴: 53
Number of Collector Road Intersections⁴: 52

1-Mile Walk Area Statistics

Number of Students¹: 562 (33.35%)
Students with Free/Reduced Lunch²: 432 (76.87%)
Total Pedestrian and Bicycle Crashes (2012-2016): 31
School Related Pedestrian and Bicycle Crashes (2012-2016)³: 7
Number of Arterial Road Intersections⁴: 4
Number of Collector Road Intersections⁴: 31

Half-Mile Walk Area Statistics

Number of Students¹: 198 (11.75%)
Students with Free/Reduced Lunch²: 165 (83.33%)
Total Pedestrian and Bicycle Crashes (2012-2016): 8

Figure G-1: Walk Area Boundaries
School Related Pedestrian and Bicycle Crashes (2012-2016)³: 2

Number of Arterial Road Intersections⁴: 0

Number of Collector Road Intersections⁴: 15

**General Information**

Number of Students previously receiving Unfunded Transportation⁵: 46

School Survey Responses indicating Walk/Bike as mode to/from school⁶: 9

Within Identified MPO Community of Concern⁷: Yes

Other Schools within the 2-Mile Walk Boundary:

- Alexander Elementary School
- Crestwood Elementary School
- Pierce Middle School

---

Figure G-2: Concentration of Students within 2-Mile Walk Area

Figure G-3: Total Pedestrian and Bicycle Crash Frequency Clusters
Figure G-4: School Related Pedestrian and Bicycle Crash Frequency Clusters

Figure G-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations
F. Muller Elementary Magnet School (3181)

13615 N 22nd St, Tampa, FL 33613
Grades: K – 5
Magnet School: Yes
Student Hours: 8:20 AM to 2:35 PM

Student Information

School Enrollment (2017-2018 School Year): 391
School Demographic Report (2017-2018 School Year):

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Walk Area Statistics

2-Mile Walk Area Statistics

Number of Students¹: 148 (30.6%)
Students with Free/Reduced Lunch²: 134 (90.50%)
Total Pedestrian and Bicycle Crashes (2012-2016): 404
School Related Pedestrian and Bicycle Crashes (2012-2016)³: 7

Number of Arterial Road Intersections⁴: 184
Number of Collector Road Intersections⁴: 206

1-Mile Walk Area Statistics

Number of Students¹: 80 (16.5%)
Students with Free/Reduced Lunch²: 74 (92.5%)
Total Pedestrian and Bicycle Crashes (2012-2016): 148
School Related Pedestrian and Bicycle Crashes (2012-2016)³: 5

Number of Arterial Road Intersections⁴: 87
Number of Collector Road Intersections⁴: 121

Half-Mile Walk Area Statistics

Number of Students¹: 17 (3.50%)
Students with Free/Reduced Lunch²: 16 (94.1%)
Total Pedestrian and Bicycle Crashes (2012-2016): 31
School Related Pedestrian and Bicycle Crashes (2012-2016): 1

Number of Arterial Road Intersections: 49

Number of Collector Road Intersections: 79

General Information

Number of Students previously receiving Unfunded Transportation: 2

School Survey Responses indicating Walk/Bike as mode to/from school: 0

Within Identified MPO Community of Concern: Yes

Other Schools within the 2-Mile Walk Boundary:

- Mort Elementary School
- Community Charter School
- Bowers-Whitley Career Center
Figure H-4: School Related Pedestrian and Bicycle Crash Frequency Clusters

Figure H-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations
G. Pierce Middle School (3181)

5511 N Hesperides St, Tampa, FL 33614

Grades: 6 – 8
Magnet School: No
Student Hours: 9:00 AM to 4:15 PM

Student Information

School Enrollment (2017-2018 School Year): 898
School Demographic Report (2017-2018 School Year):

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Walk Area Statistics

2-Mile Walk Area Statistics

- Number of Students¹: 529 (57.00%)
- Students with Free/Reduced Lunch²: 411 (77.69%)
- Total Pedestrian and Bicycle Crashes (2012-2016): 133
- School Related Pedestrian and Bicycle Crashes (2012-2016)³: 3
- Number of Arterial Road Intersections⁴: 56
- Number of Collector Road Intersections⁴: 81

1-Mile Walk Area Statistics

- Number of Students¹: 213 (22.95%)
- Students with Free/Reduced Lunch²: 159 (74.65%)
- Total Pedestrian and Bicycle Crashes (2012-2016): 39
- School Related Pedestrian and Bicycle Crashes (2012-2016)³: 3
- Number of Arterial Road Intersections⁴: 17
- Number of Collector Road Intersections⁴: 30

Half-Mile Walk Area Statistics

- Number of Students¹: 69 (7.44%)
- Students with Free/Reduced Lunch²: 59 (85.51%)
- Total Pedestrian and Bicycle Crashes (2012-2016): 11

Figure I-1: Walk Area Boundaries
School Related Pedestrian and Bicycle Crashes (2012-2016): 2

Number of Arterial Road Intersections: 5

Number of Collector Road Intersections: 12

**General Information**

Number of Students previously receiving Unfunded Transportation: 2

School Survey Responses indicating Walk/Bike as mode to/from school: 0

Within Identified MPO Community of Concern: Yes

Other Schools within the 2-Mile Walk Boundary:

- Crestwood Elementary School
- Egypt Lake School
- Leto High School

![Figure I-2: Concentration of Students within 2-Mile Walk Area](image)

![Figure I-3: Total Pedestrian and Bicycle Crash Frequency Clusters](image)
Figure I-4: School Related Pedestrian and Bicycle Crash Frequency Clusters

Figure I-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations
H. Plant High School (3411)

2415 S Himes Ave, Tampa, FL 33629
Grades: 9 – 12
Magnet School: No
Student Hours: 7:33 AM to 3:00 PM

Student Information

School Enrollment (2017-2018 School Year): 2,392
School Demographic Report (2017-2018 School Year):

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Walk Area Statistics

2-Mile Walk Area Statistics

Number of Students\(^1\): 1,346 (57.18%)
Students with Free/Reduced Lunch\(^2\): 172 (12.78%)
Total Pedestrian and Bicycle Crashes (2012-2016): 137
School Related Pedestrian and Bicycle Crashes (2012-2016)\(^3\): 7

Number of Arterial Road Intersections\(^4\): 230
Number of Collector Road Intersections\(^4\): 251

1-Mile Walk Area Statistics

Number of Students\(^1\): 421 (17.88%)
Students with Free/Reduced Lunch\(^2\): 57 (13.54%)
Total Pedestrian and Bicycle Crashes (2012-2016): 31
School Related Pedestrian and Bicycle Crashes (2012-2016)\(^3\): 5

Number of Arterial Road Intersections\(^4\): 74
Number of Collector Road Intersections\(^4\): 74

Half-Mile Walk Area Statistics

Number of Students\(^1\): 125 (5.31%)
Students with Free/Reduced Lunch\(^2\): 20 (16.00%)
Total Pedestrian and Bicycle Crashes (2012-2016): 4

Figure J-1: Walk Area Boundaries
School Related Pedestrian and Bicycle Crashes (2012-2016): 3

Number of Arterial Road Intersections: 16

Number of Collector Road Intersections: 23

**General Information**

Number of Students previously receiving Unfunded Transportation: 68

School Survey Responses indicating Walk/Bike as mode to/from school: 34

Within Identified MPO Community of Concern: Yes

Other Schools within the 2-Mile Walk Boundary:

- Grady Elementary School
- Mabry Elementary School
- Roosevelt Elementary School
- Mitchell Elementary School
- Coleman Middle School
- Bridge Prep Academy of Tampa

---

Figure J-2: Concentration of Students within 2-Mile Walk Area

Figure J-3: Total Pedestrian and Bicycle Crash Frequency Clusters
Figure J-4: School Related Pedestrian and Bicycle Crash Frequency Clusters

Figure J-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations
I. Sulphur Springs K-8 Community School (4201)

8412 13th St, Tampa, FL 33604
Grades: K – 8
Magnet School: No
Student Hours: 8:00 AM to 2:45 PM

Student Information
School Enrollment (2017-2018 School Year): 836
School Demographic Report (2017-2018 School Year):

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Walk Area Statistics

2-Mile Walk Area Statistics
Number of Students¹: 676 (61.7%)
Students with Free/Reduced Lunch²: 639 (94.5%)
Total Pedestrian and Bicycle Crashes (2012-2016): 411
School Related Pedestrian and Bicycle Crashes (2012-2016)³: 17
Number of Arterial Road Intersections⁴: 622
Number of Collector Road Intersections⁴: 653

1-Mile Walk Area Statistics
Number of Students¹: 644 (58.8%)
Students with Free/Reduced Lunch²: 611 (94.9%)
Total Pedestrian and Bicycle Crashes (2012-2016): 178
School Related Pedestrian and Bicycle Crashes (2012-2016)³: 6
Number of Arterial Road Intersections⁴: 331
Number of Collector Road Intersections⁴: 265

Half-Mile Walk Area Statistics
Number of Students¹: 416 (38.0%)
Students with Free/Reduced Lunch²: 394 (94.7%)
Total Pedestrian and Bicycle Crashes (2012-2016): 62

---

Figure K-1: Walk Area Boundaries
School Related Pedestrian and Bicycle Crashes (2012-2016): 5

Number of Arterial Road Intersections: 180

Number of Collector Road Intersections: 165

General Information

Number of Students previously receiving Unfunded Transportation: 1

School Survey Responses indicating Walk/Bike as mode to/from school: 0

Within Identified MPO Community of Concern: Yes

Other Schools within the 2-Mile Walk Boundary: Cleveland Elementary School

- Seminole Elementary School
- Cahoon Elementary Magnet School
- Van Buren Middle School
- New Springs Middle Charter School
- Chamberlain High School
- Mount Pleasant School

Figure K-2: Concentration of Students within 2-Mile Walk Area

Figure K-3: Total Pedestrian and Bicycle Crash Frequency Clusters
Figure K-4: School Related Pedestrian and Bicycle Crash Frequency Clusters

Figure K-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations
J. Van Buren Middle School (0682)

8715 N 22nd St, Tampa, FL 33604
Grades: 6 – 8
Magnet School: No
Student Hours: 9:00 AM to 4:15 PM

Student Information

School Enrollment (2017-2018 School Year): 387
School Demographic Report (2017-2018 School Year):

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Walk Area Statistics

2-Mile Walk Area Statistics

Number of Students¹: 314 (74.94%)
Students with Free/Reduced Lunch²: 279 (88.85%)
Total Pedestrian and Bicycle Crashes (2012-2016): 187
School Related Pedestrian and Bicycle Crashes (2012-2016)³: 2
Number of Arterial Road Intersections⁴: 83
Number of Collector Road Intersections⁴: 184

1-Mile Walk Area Statistics

Number of Students¹: 80 (19.09%)
Students with Free/Reduced Lunch²: 70 (87.50%)
Total Pedestrian and Bicycle Crashes (2012-2016): 76
School Related Pedestrian and Bicycle Crashes (2012-2016)³: 2
Number of Arterial Road Intersections⁴: 25
Number of Collector Road Intersections⁴: 79

Half-Mile Walk Area Statistics

Number of Students¹: 31 (7.40%)
Students with Free/Reduced Lunch²: 27 (87.10%)
Total Pedestrian and Bicycle Crashes (2012-2016): 49

Figure L-1: Walk Area Boundaries
School Related Pedestrian and Bicycle Crashes (2012-2016): 2

Number of Arterial Road Intersections: 12

Number of Collector Road Intersections: 31

**General Information**

Number of Students previously receiving Unfunded Transportation: 157

School Survey Responses indicating Walk/Bike as mode to/from school: 2

Within Identified MPO Community of Concern: Yes

Other Schools within the 2-Mile Walk Boundary:

- Shaw Elementary School
- Kimbell Elementary School
- Cahoon Elementary Magnet School
- Witter Elementary School
- New Springs Middle Charter School
- Village of Excellence Elementary School
- Village of Excellence Middle School
- West University Charter High School
Figure L-4: School Related Pedestrian and Bicycle Crash Frequency Clusters

Figure L-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations

¹ Number of students who reside within the defined walk area boundaries and who also attend the subject school; based on 2016-2017 school year data.
² Number/Percent of students who, according to the Hillsborough County School District, receive free/reduced lunch. This is used as a socioeconomic indicator that may represent a higher propensity for walking/biking to/from school; based on 2016-2017 school year data.
³ Pedestrian and bicycle crashes that occurred on days that school was in session, during typical arrival and dismissal times, and where the pedestrian/bicyclist was of the typical school age for the associated school area, e.g., elementary school age = 5—12.
⁴ Number of total intersections (signalized and non-signalized) within the defined walking area boundary; used to represent the number of potential crossing/conflict points within the school area.
⁵ The number of reported students who were previously being transported to/from school by unfunded transportation.
⁶ Number of Getting to School Survey responses to questions 11 and 12 where walking/biking were mentioned in the response.
⁷ Are there areas within the 2-mile walk area that have been identified by the Hillsborough MPO as a Community of Concern?
APPENDIX B – SCHOOL ADMINISTRATION LETTERS
January 9, 2018

Nanette Harvey
Coleman Middle School
1724 S Manhattan Avenue, Tampa, FL 33629

Re: Hillsborough Metropolitan Planning Organization School Safety Study

Dear Ms. Harvey:

Hillsborough County Public Schools (HCPS) and Hillsborough County Metropolitan Planning Organization (MPO) are committed to improving the safety and security of the transportation network for all users throughout Hillsborough County. School-related transportation is particularly critical given its involvement of the most vulnerable users, our children. In early 2016, the MPO established the School Transportation Working Group (STWG) and designated a school board member, Cindy Stuart, as its chair, to provide needed coordination at many levels.

Since established, the MPO’s STWG has been committed to ensuring the safety of students getting to and from school, and has commenced a School Safety Study to specifically address this need. The initial tasks of the School Safety Study have focused on selecting candidate school areas for multimodal safety reviews that will look to identify opportunities to enhance the safety and comfort of getting to and from school, with an emphasis on pedestrian and bicycle safety.

Using a data-driven process to identify school areas, the School Safety Study has identified school and the area around your school as a candidate for a multimodal safety review. We hope to provide valuable input on a specific school than their own administration, staff, and parents! Therefore Ms. Stuart has asked the study team to seek your input on any specific concerns related to the safety of your students traveling to/from your school. Additionally, we ask you to use the school outreach tools such as ParentLink, to solicit feedback from your parents. Information you provide will be used to inform the review and help focus efforts on safety improvements that will have a positive impact.

Thank you for your time and I look forward to working with you on making the area around your school safer for your students. Please feel free to contact me if you have any questions or would like more information about the study.

Sincerely,

Cindy Stuart
District 3 School Board Member
813-272-4045
Cindy.stuart@hc12.fl.us
Hillsborough County Public Schools
901 E. Kennedy Blvd
Tampa, FL 33602

Raymond O. Shelton School Administrative Center • 901 East Kennedy Blvd. • Tampa, FL 33602-3307 • Website: www.sdhc.k12.fl.us
School District Main Office: 813-272-4000 • P.O. Box 3408 • Tampa, FL 33601-3408
January 9, 2018

Karen French
Ferris Girls Preparatory Academy
4022 4th Street, Tampa, FL 33610

Re: Hillsborough Metropolitan Planning Organization School Safety Study

Dear Ms. French,

Hillsborough County Public Schools (HCPS) and Hillsborough County Metropolitan Planning Organization (MPO) are committed to improving the safety and security of the transportation network for all users throughout Hillsborough County. School related transportation is particularly critical given it involves the most vulnerable users, our children. In early 2016, the MPO established School Transportation Working Group (STWG) and designated a school board member, Cindy Stuart, as its chair, to provide needed coordination at many levels.

Since established, the MPO’s STWG has been committed to ensuring the safety of students getting to and from school, and has commenced a School Safety Study to specifically address this need. The initial tasks of the School Safety Study have focused on selecting candidate school areas for multimodal safety reviews that will look to identify opportunities to enhance the safety and comfort of getting to and from school, with an emphasis on pedestrian and bicycle safety.

Using a data-driven process to identify school areas, the School Safety Study has identified your school and the area around your school as a candidate for a multimodal safety review. We believe this is an invaluable input on a specific school than their own administration, staff, and parents? Therefore Ms. Stuart has asked the study team to seek your input on any specific concerns related to the safety of your students traveling to/from your school. Additionally, we ask you to use the school outreach tools such as ParentLink, to solicit feedback from your parents. Information you provide will be used to inform the review and help focus efforts on safety improvements that will have a positive impact.

Thank you for your time and I look forward to working with you on making the area around your school safer for your students. Please feel free to contact the HCPS liaison Lisa Silva, lsvila@plancom.org or 813 237-3774 ext. 329 if you have any questions or would like more information about the study.

Sincerely,

Cindy Stuart
District 3 School Board Member
813-272-4045
Cindy.stuart@schc.k12.fl.us
Hillsborough County Public Schools
901 E. Kennedy Blvd
Tampa, FL 33602

Michael Rowan
King High School
6815 N 56th Street, Tampa, FL 33610

Re: Hillsborough Metropolitan Planning Organization School Safety Study

Dear Mr. Rowan,

Hillsborough County Public Schools (HCPS) and Hillsborough County Metropolitan Planning Organization (MPO) are committed to improving the safety and security of the transportation network for all users throughout Hillsborough County. School related transportation is particularly critical given it involves the most vulnerable users, our children. In early 2016, the MPO established School Transportation Working Group (STWG) and designated a school board member, Cindy Stuart, as its chair, to provide needed coordination at many levels.

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Sincerely,

Cindy Stuart
District 3 School Board Member
813-272-4045
Cindy.stuart@schc.k12.fl.us
Hillsborough County Public Schools
901 E. Kennedy Blvd
Tampa, FL 33602
January 9, 2018

Larissa McCoy
Lotus High School
4609 W Sligh Avenue, Tampa, FL 33614

Re: Hillsborough Metropolitan Planning Organization School Safety Study

Dear Ms. McCoy:

Hillsborough County Public Schools (HCPS) and Hillsborough County Metropolitan Planning Organization (MPO) are committed to improving the safety and security of the transportation network for all users throughout Hillsborough County. School related transportation is particularly critical given it involves the most vulnerable users, our children. In early 2016, the MPO established School Transportation Working Group (STWG) and designated a school board member, Cindy Stuart, as its chair, to provide needed coordination at many levels.

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Using a data driven process to identify school areas, the School Safety Study has identified your school and the area around your school as a candidate for a multimodal safety review. We have provided invaluable input on a specific school than their own administration, staff, and parents? Therefore Ms. Stuart has asked the study team to seek your insight on any specific concerns related to the safety of your students traveling to/from your school. Additionally, we ask you to use the school safety review tools such as ParentLink, to solicit feedback from your parents. Information provided will be used to inform the review and help focus efforts on safety improvements that will have a positive impact.

Thank you for your time and I look forward to working with you on making the area around your school safer for our students. Please feel free to contact the MPO’s school liaison Lisa Silva at 813-372-3774 ext. 329 to know if you have any questions or would like more information about the study.

Sincerely,

Cindy Stuart
District 3 School Board Member
813-272-4045
Cindy.stuart@sdhc.k12.fl.us
Hillsborough County Public Schools
901 E. Kennedy Blvd
Tampa, FL 33602

Raymond O. Shelton School Administrative Center • 901 East Kennedy Blvd. • Tampa, FL 33602-3307 • Website: www.sdhc.k12.fl.us
School District Main Office: 813-272-4000 • P.O. Box 3408 • Tampa, FL 33601-3408

Superintendent of Schools
Jeff Eakins
Chief of Staff
Alberto Vázquez Malo, Ed.D.
Deputy Superintendent
Van Ayers
Chief of Schools
Harmon Peters
January 9, 2018

Mary Booth
Muller Elementary Magnet School
13615 N 22nd Street, Tampa, FL 33613

Re: Hillsborough Metropolitan Planning Organization School Safety Study

Dear Ms. Booth:

Hillsborough County Public Schools (HCPS) and Hillsborough County Metropolitan Planning Organization (MPO) are committed to improving the safety and security of the transportation network for all users throughout Hillsborough County. School-related transportation is particularly critical given its impact on the most vulnerable users, our children. In early 2016, the MPO established the School Transportation Working Group (STWG) and designated a school board member, Cindy Stuart, as its chair, to provide needed coordination at many levels.

Since established, the MPO’s STWG has been committed to ensuring the safety of students getting to and from school, and has convened a School Safety Study to specifically address this need. The initial tasks of the School Safety Study have focused on selecting candidate school areas for multimodal safety reviews that will look to identify opportunities to enhance the safety and comfort of getting to and from school, with an emphasis on pedestrian and bicyclist safety.

Using a data-driven process to identify school areas, the School Safety Study has identified your school and the area around your school as a candidate for a multimodal safety review. We believe it is important to provide invaluable input on a specific school than their own administration, staff, and parents? Therefore Ms. Stuart has asked the study team to seek your insight on any specific concerns related to the safety of your students traveling to/from your school. Additionally, we ask you to use the school outreach tools such as ParentLink, to solicit feedback from your parents. Information you provide will be used to inform the review and help focus efforts on safety improvements that will have a positive impact.

Thank you for your time and I look forward to working with you on making the area around your school safer for your students. Please let me or the MPO’s school liaison Lisa Silva, lsilva@plancom.org or 813-272-3374 ext. 329 know if you have any questions or would like more information about the study.

Sincerely,

Cindy Stuart
District 3 School Board Member
813-272-4045
Cindy.stuart@hcs.k12.fl.us
Hillsborough County Public Schools
901 E. Kennedy Blvd
Tampa, FL 33602

Raymond O. Shelton School Administrative Center • 901 East Kennedy Blvd. • Tampa, FL 33602-3507 • Website: www.sdhc.k12.fl.us
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January 9, 2018

Pablo Gallego
Pierce Middle School
5111 N Hesperides Street, Tampa, FL 33614

Re: Hillsborough Metropolitan Planning Organization School Safety Study

Dear Mr. Gallego:

Hillsborough County Public Schools (HCPS) and Hillsborough County Metropolitan Planning Organization (MPO) are committed to improving the safety and security of the transportation network for all users throughout Hillsborough County. School-related transportation is particularly critical given its impact on the most vulnerable users, our children. In early 2016, the MPO established the School Transportation Working Group (STWG) and designated a school board member, Cindy Stuart, as its chair, to provide needed coordination at many levels.

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Thank you for your time and I look forward to working with you on making the area around your school safer for your students. Please let me or the MPO’s school liaison Lisa Silva, lsilva@plancom.org or 813-272-3374 ext. 329 know if you have any questions or would like more information about the study.

Sincerely,

Cindy Stuart
District 3 School Board Member
813-272-4045
Cindy.stuart@hcs.k12.fl.us
Hillsborough County Public Schools
901 E. Kennedy Blvd
Tampa, FL 33602

Raymond O. Shelton School Administrative Center • 901 East Kennedy Blvd. • Tampa, FL 33602-3507 • Website: www.sdhc.k12.fl.us
School District Main Office: 813-272-4000 • P.O. Box 3408 • Tampa, FL 33601-3408
January 9, 2018

Johnny Bush
Plant High School
2415 S Himes Avenue, Tampa, FL 33629

Re: Hillsborough Metropolitan Planning Organization School Safety Study

Dear Mr. Bush:

Hillsborough County Public Schools (HCPS) and Hillsborough County Metropolitan Planning Organization (MPO) are committed to improving the safety and security of the transportation network for all users throughout Hillsborough County. School-related transportation is particularly critical given it involves the most vulnerable users, our children. In early 2016, the MPO established School Transportation Working Group (STWG) and designated a school board member, Cindy Stuart, as its chair, to provide needed coordination at many levels.

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Using a data-driven process to identify school areas, the School Safety Study has identified your school and the area around your school as a candidate for a multimodal safety review. We believe it is important for you to understand the potential impact of the School Safety Study on your school and community. The School Safety Study is intended to identify opportunities to enhance the safety and comfort of getting to and from school, with an emphasis on pedestrian and bicyclist safety.

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Thank you for your time and I look forward to working with you on making the area around your school safer for your students. Please let me know if you have any questions or would like more information about this study.

Sincerely,

Cindy Stuart
District 3 School Board Member
813-272-4045
Cindy.stuart@sdhc.k12.fl.us
Hillsborough County Public Schools
901 E. Kennedy Blvd
Tampa, FL 33602

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School District Main Office: 813-272-4000 • P.O. Box 3438 • Tampa, FL 33601-3438
January 9, 2018

Overt Wilson
Van Buren Middle School
8715 N 22nd Street, Tampa, FL 33604

Re: Hillsborough Metropolitan Planning Organization School Safety Study

Dear Mr. Wilson:

Hillsborough County Public Schools (HCPS) and Hillsborough County Metropolitan Planning Organization (MPO) are committed to improving the safety and security of the transportation network for all users throughout Hillsborough County. School-related transportation is particularly critical given that it involves the most vulnerable users, our children. In early 2016, the MPO established the School Transportation Working Group (STWG) and designated a school board member, Cindy Stuart, as its chair, to provide needed coordination at many levels.

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Thank you for your time and look forward to working with you on making the area around your school safer for your students. Please let me or the MPO’s school liaison Lisa Silva know if you have any questions or would like more information about the study.

Sincerely,

Cindy Stuart
District 3 School Board Member
813-272-4045
Cindy.stuart@sdhc.k12.fl.us
Hillsborough County Public Schools
901 E. Kennedy Blvd
Tampa, FL 33602

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School District Main Office: 813-272-4000 • P.O. Box 3408 • Tampa, FL 33601-3408
APPENDIX C — DATA-DRIVEN LIGHTING PRIORITIZATION FOR THE CITY OF TAMPA
## Priority 1: Sulphur Springs K-8 Community School Lighting Recommendations

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</thead>
<tbody>
<tr>
<td>I3</td>
<td>Various Locations along Waters Avenue, 12th Street and Yukon Street</td>
<td>Lighting levels</td>
<td>Evaluate the feasibility to enhance or add street lights</td>
<td>City of Tampa</td>
<td>Mid Term</td>
<td>Medium</td>
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</tbody>
</table>

## Priority 2: Girls Preparatory Academy at Ferrell Middle Magnet School Lighting Recommendations

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description</th>
<th>Observation</th>
<th>Suggestion</th>
<th>Agency</th>
<th>Time Frame</th>
<th>Level of Effort</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>C7A</td>
<td>Chelsea Street and 22nd Street</td>
<td>Number of existing street lights present</td>
<td>Additional and enhanced street lighting</td>
<td>City of Tampa</td>
<td>Mid Term</td>
<td>Medium</td>
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</tbody>
</table>

## Priority 3: George D. Chamberlain High School Lighting Recommendations

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description</th>
<th>Observation</th>
<th>Suggestion</th>
<th>Agency</th>
<th>Time Frame</th>
<th>Level of Effort</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>A2</td>
<td>North Blvd. from Waters Ave. to Country Club Dr.</td>
<td>Condition of Existing HPS Street Lights</td>
<td>Upgrade to LED and add more street lights.</td>
<td>City of Tampa</td>
<td>Mid Term</td>
<td>Medium</td>
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</table>

## Priority 4: George S. Middleton High School Lighting Recommendations

<table>
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<th>ID</th>
<th>Location Description</th>
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<th>Suggestion</th>
<th>Agency</th>
<th>Time Frame</th>
<th>Level of Effort</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSB</td>
<td>22nd Street Corridor</td>
<td>Lighting levels</td>
<td>Enhanced or new street lighting</td>
<td>City of Tampa</td>
<td>Mid Term</td>
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</table>
Priority 5: Pierce Middle School Lighting Recommendations

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description</th>
<th>Observation</th>
<th>Suggestion</th>
<th>Agency</th>
<th>Time Frame</th>
<th>Level of Effort</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>G3</td>
<td>Hesperides Street near Pierce Middle School</td>
<td>Lighting levels</td>
<td>Consider the feasibility of adding street lights</td>
<td>Hillsborough County</td>
<td>Mid Term</td>
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</tbody>
</table>
APPENDIX D – SUMMARY TABLES BY MAINTAINING AGENCY
## Legend

<table>
<thead>
<tr>
<th>ID</th>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>George D. Chamberlain High School</td>
</tr>
<tr>
<td>B</td>
<td>Dr. John A. Coleman Middle School</td>
</tr>
<tr>
<td>CA</td>
<td>Girls Preparatory Academy at Ferrell Middle Magnet School</td>
</tr>
<tr>
<td>CB</td>
<td>George S. Middleton High School</td>
</tr>
<tr>
<td>CC</td>
<td>Nathan B. Young Middle Magnet School</td>
</tr>
<tr>
<td>D</td>
<td>Muller Elementary Magnet School</td>
</tr>
<tr>
<td>E</td>
<td>C. Leon King High School</td>
</tr>
<tr>
<td>F</td>
<td>A. P. Leto High School</td>
</tr>
<tr>
<td>G</td>
<td>Pierce Middle School</td>
</tr>
<tr>
<td>H</td>
<td>H. B. Plant High School</td>
</tr>
<tr>
<td>I</td>
<td>Sulphur Springs K-8 Community School</td>
</tr>
<tr>
<td>J</td>
<td>Van Buren Middle School (Carter G. Woodson K-8 School)</td>
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### Table 1: City of Tampa

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description</th>
<th>Observation</th>
<th>Suggestion</th>
<th>Agency</th>
<th>Time Frame</th>
<th>Level of Effort</th>
<th>Comments</th>
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<tbody>
<tr>
<td>A1</td>
<td>North Blvd. from Sligh Ave. to Country Club Dr.</td>
<td>Faded and unmarked crosswalks</td>
<td>Enhance or add pavement markings</td>
<td>City of Tampa</td>
<td>Short Term</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>A2</td>
<td>North Blvd. from Waters Ave. to Country Club Dr.</td>
<td>Condition of Existing HPS Street Lights</td>
<td>Upgrade to LED and add more street lights.</td>
<td>City of Tampa</td>
<td>Mid Term</td>
<td>Medium</td>
<td></td>
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<tr>
<td>A3</td>
<td>North Blvd. from Sligh Ave. to Country Club Dr.</td>
<td>Potential ADA enhancements</td>
<td>Enhance curb ramps</td>
<td>City of Tampa</td>
<td>Mid Term</td>
<td>Medium</td>
<td>Potential R/W challenges</td>
</tr>
<tr>
<td>A4</td>
<td>North Blvd. from Busch Blvd. (SR 580) to Country Club Dr.</td>
<td>Midblock crossing opportunities</td>
<td>Consider additional enhanced midblock crossing locations</td>
<td>City of Tampa</td>
<td>Mid Term</td>
<td>Medium</td>
<td>Determine locations where crossings are warranted</td>
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<tr>
<td>A5</td>
<td>Armenia Ave. at Bird St.</td>
<td>Stored products blocking sidewalk</td>
<td>Code enforcement contract regarding cleared path</td>
<td>City of Tampa</td>
<td>Short Term</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>A6</td>
<td>Busch Blvd. (SR 580) at North Blvd. &amp; Linebaugh Ave. at North Blvd.</td>
<td>Signal phasing opportunities</td>
<td>Modify signal phasing to eliminate permissive left-turn conflicts with pedestrians</td>
<td>City of Tampa &amp; Florida Department of Transportation</td>
<td>Mid Term</td>
<td>Medium</td>
<td>Potential constructability challenges due structural loading</td>
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<tr>
<td>A7</td>
<td>Busch Blvd. (SR 580) at Florida Ave. &amp; Busch Blvd. (SR 580) at North Blvd.</td>
<td>Sidewalk connectivity at railroad crossing and pedestrian railroad gates.</td>
<td>Consider adding pedestrian features and sidewalk</td>
<td>City of Tampa, Florida Department of Transportation &amp; CSX</td>
<td>Long Term</td>
<td>High</td>
<td>Potential R/W and constructability challenges. FDOT project handling Florida Ave. at Busch Blvd.</td>
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<tr>
<td></td>
<td>Location</td>
<td>Issue</td>
<td>Improvement</td>
<td>Responsible Authority</td>
<td>Time Frame</td>
<td>Effort</td>
<td>Potential R/W Limitation</td>
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<tr>
<td>B1</td>
<td>San Rafael St. &amp; Melrose Ave.</td>
<td>Sidewalk gaps</td>
<td>Install new sidewalk</td>
<td>City of Tampa</td>
<td>Long Term</td>
<td>Medium</td>
<td>Potential R/W limitation</td>
</tr>
<tr>
<td>B2</td>
<td>Various locations around Coleman &amp; Mabry School</td>
<td>Potential ADA enhancements</td>
<td>Upgrade sidewalk ramps to enhance walkability</td>
<td>City of Tampa</td>
<td>Long Term</td>
<td>High</td>
<td>Include in upcoming CIP projects where possible</td>
</tr>
<tr>
<td>B3</td>
<td>Roads adjacent to Coleman Middle</td>
<td>Crosswalks needing refurbishment or locations missing striped crosswalks</td>
<td>Striping maintenance or striping additional crosswalks</td>
<td>City of Tampa</td>
<td>Mid Term</td>
<td>Medium</td>
<td></td>
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<tr>
<td>B4</td>
<td>Manhattan Ave.</td>
<td>Undefined roadway lanes</td>
<td>Consider adding centerline striping</td>
<td>City of Tampa</td>
<td>Short Term</td>
<td>Low</td>
<td>Include in upcoming CIP projects where possible</td>
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<tr>
<td>B5</td>
<td>Intersection of Estrella St. &amp; Manhattan Ave.</td>
<td>Walkability challenges</td>
<td>Update traffic signal</td>
<td>City of Tampa</td>
<td>Long Term</td>
<td>Medium</td>
<td>Potential Utility Conflicts</td>
</tr>
<tr>
<td>B6</td>
<td>Henderson Blvd. from San Jose St. to Dale Mabry Highway including San Rafael St.</td>
<td>Pedestrian connectivity challenges</td>
<td>Traffic signal and intersection improvements</td>
<td>City of Tampa</td>
<td>Long Term</td>
<td>High</td>
<td></td>
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<tr>
<td>B7</td>
<td>Morrison Ave at Lois Ave. &amp; Azeele St. at Lois Ave.</td>
<td>Very long crossing distances</td>
<td>Refuge islands and reduced crossing distance</td>
<td>City of Tampa</td>
<td>Long Term</td>
<td>Medium</td>
<td></td>
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<tr>
<td>B8</td>
<td>San Rafael St. from Manhattan Ave. To Hubert Ave.</td>
<td>Very wide pavement</td>
<td>Delineate the extra pavement</td>
<td>City of Tampa</td>
<td>Short Term</td>
<td>Low</td>
<td>Stripe parking or center lines as appropriate.</td>
</tr>
<tr>
<td>CA1</td>
<td>Chelsea St., east of 22nd Street</td>
<td>Defined walking routes needed</td>
<td>New or defined walking path</td>
<td>City of Tampa</td>
<td>Mid Term</td>
<td>Medium</td>
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<tr>
<td>CA2</td>
<td>Various locations – key corridors around school</td>
<td>Crosswalk striping</td>
<td>Add or refurbish crosswalk markings</td>
<td>City of Tampa</td>
<td>Mid Term</td>
<td>Medium</td>
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</tr>
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<tr>
<td>CA3</td>
<td>School Zone on 22nd Street at Chelsea St.</td>
<td>Aging and custom school zone signage</td>
<td>Upgrade school zone signage</td>
<td>City of Tampa</td>
<td>Short Term</td>
<td>Low</td>
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<tr>
<td>CA4</td>
<td>Various locations along Chelsea St.</td>
<td>Sidewalk gaps</td>
<td>Connect sidewalk gaps</td>
<td>City of Tampa</td>
<td>Short Term</td>
<td>Medium</td>
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<tr>
<td>CA5</td>
<td>Chelsea St. at 25th St. and various other locations</td>
<td>Overgrowth in vegetation</td>
<td>Landscape Maintenance Activities</td>
<td>City of Tampa</td>
<td>Short Term</td>
<td>Low</td>
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<tr>
<td>CA6</td>
<td>22nd Street at Chelsea Street</td>
<td>Uncontrolled crosswalk</td>
<td>Evaluate and consider enhanced signing and crosswalk treatments</td>
<td>City of Tampa</td>
<td>Mid Term</td>
<td>Medium</td>
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<tr>
<td>CA7</td>
<td>Chelsea Street and 22nd Street</td>
<td>Number of existing street lights present</td>
<td>Additional and enhanced street lighting</td>
<td>City of Tampa</td>
<td>Mid Term</td>
<td>Medium</td>
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<tr>
<td>CA8</td>
<td>Chelsea Street at Ferrell Middle Magnet School Entrance</td>
<td>Cut-through traffic using an alley</td>
<td>Close the alley</td>
<td>City of Tampa</td>
<td>Mid Term</td>
<td>Medium</td>
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<tr>
<td>CB1</td>
<td>Osborne Avenue</td>
<td>Gaps in sidewalks</td>
<td>Enhance sidewalk connectivity</td>
<td>City of Tampa</td>
<td>Mid Term</td>
<td>Medium</td>
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</table>

Significant constructability challenges, however, priority should be given to filling gaps that can be easily filled.
**HILLSBOROUGH MPO SCHOOL SAFETY STUDY**

<table>
<thead>
<tr>
<th>CB2</th>
<th>22nd Street from Osborne Avenue to E. Sligh Avenue</th>
<th>Aging and faded pavement markings</th>
<th>Refurbish pavement markings</th>
<th>City of Tampa</th>
<th>Mid Term</th>
<th>Medium</th>
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</thead>
<tbody>
<tr>
<td>CB3</td>
<td>Various locations on the 15th St., 22nd St., &amp; 34th St. corridors</td>
<td>Crosswalk striping condition</td>
<td>Add or refurbish crosswalk markings</td>
<td>City of Tampa</td>
<td>Mid Term</td>
<td>Medium</td>
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<tr>
<td>CB4</td>
<td>22nd Street School Zones at Middleton</td>
<td>School zone signage condition</td>
<td>Upgrade school zone signage</td>
<td>City of Tampa</td>
<td>Short Term</td>
<td>Low</td>
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<tr>
<td>CB5</td>
<td>22nd Street Corridor</td>
<td>Lighting levels</td>
<td>Enhanced or new street lighting</td>
<td>City of Tampa</td>
<td>Mid Term</td>
<td>Medium</td>
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<tr>
<td>H1</td>
<td>Himes Avenue from W. San Jose St. to W. San Miguel St.</td>
<td>In street drop offs and U-turns</td>
<td>Consider evaluating corridor for bulb outs and parking lanes</td>
<td>City of Tampa</td>
<td>Long Term</td>
<td>High</td>
</tr>
<tr>
<td>H2</td>
<td>W. San Miguel Street near Sterling Avenue</td>
<td>Damaged sidewalk</td>
<td>Sidewalk repair</td>
<td>City of Tampa</td>
<td>Short Term</td>
<td>Low</td>
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<tr>
<td>H3</td>
<td>Various locations in the immediate vicinity of the school campus along Himes Avenue</td>
<td>Overgrown shrubs and sand on sidewalk</td>
<td>Maintain landscaping in immediate area around campus</td>
<td>City of Tampa</td>
<td>Short Term</td>
<td>Low</td>
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<tr>
<td>I1</td>
<td>Various Locations along Waters Ave, 12th St, Yukon St, Seward St, and Bird St.</td>
<td>Faded pavement marking and pedestrian connectivity</td>
<td>Consider upgrading crosswalks and curb ramps</td>
<td>City of Tampa</td>
<td>Long Term</td>
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## Hillsborough MPO School Safety Study

<table>
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<tr>
<th>#</th>
<th>Location</th>
<th>Problem</th>
<th>Proposed Solution</th>
<th>Responsible Entity</th>
<th>Implementation Time</th>
<th>Funding</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>I2</td>
<td>12th Street at Fairbanks Street</td>
<td>Crosswalk without a sidewalk ramp</td>
<td>Consider installing a curb ramp</td>
<td>City of Tampa</td>
<td>Short Term</td>
<td>Medium</td>
<td>Proposed enhancement can be a part of SRTS Application</td>
</tr>
<tr>
<td>I3</td>
<td>Various Locations along Waters Avenue, 12th Street and Yukon Street</td>
<td>Lighting levels</td>
<td>Evaluate the feasibility to enhance or add street lights</td>
<td>City of Tampa</td>
<td>Mid Term</td>
<td>Medium</td>
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<tr>
<td>J1</td>
<td>Yukon Street &amp; N. 22nd Street</td>
<td>School zone signing</td>
<td>Implement consistent signing</td>
<td>City of Tampa</td>
<td>Short Term</td>
<td>Medium</td>
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<tr>
<td>J2</td>
<td>Side Street Intersections on N. 22nd Street from Rowlett Park Drive to Fowler Avenue</td>
<td>Faded or undefined crosswalk striping</td>
<td>Install striped crosswalks on side streets for key walking corridors</td>
<td>City of Tampa</td>
<td>Short Term</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>J3</td>
<td>Busch Boulevard (SR 580) at 22nd Street signal</td>
<td>Potential pedestrian conflicts with left-turning vehicles</td>
<td>Modify signal heads and phasing</td>
<td>Florida Department of Transportation &amp; City of Tampa</td>
<td>Mid Term</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>ID</td>
<td>Location Description</td>
<td>Observation</td>
<td>Suggestion</td>
<td>Agency</td>
<td>Time Frame</td>
<td>Level of Effort</td>
<td>Comments</td>
</tr>
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<tr>
<td>B9</td>
<td>Areas Around Coleman Middle School</td>
<td>Speeding vehicles in reduced speed school zone</td>
<td>Enforcement</td>
<td>City of Tampa Police Department</td>
<td>Short Term</td>
<td>Low</td>
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<tr>
<td>CC6</td>
<td>Dr. Martin Luther King, Jr. Blvd. (SR 574) at Young Middle Magnet</td>
<td>Speeding vehicles in reduced speed school zone</td>
<td>Enforcement</td>
<td>City of Tampa Police Department</td>
<td>Short Term</td>
<td>Low</td>
<td></td>
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<tr>
<td>I7</td>
<td>Waters Avenue near Sulphur Springs Campus</td>
<td>Speeding vehicles in school zone</td>
<td>Enforcement</td>
<td>City of Tampa Police Department</td>
<td>Short Term</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>J6</td>
<td>N. 22nd Street at Yukon Street</td>
<td>Speeding vehicles in reduced speed school zone</td>
<td>Enforcement</td>
<td>City of Tampa Police Department</td>
<td>Short Term</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>ID</td>
<td>Location Description</td>
<td>Observation</td>
<td>Suggestion</td>
<td>Agency</td>
<td>Time Frame</td>
<td>Level of Effort</td>
<td>Comments</td>
</tr>
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<tr>
<td>D1</td>
<td>22nd Street Midblock Crossing Signals</td>
<td>Signal head visibility and signing consistency</td>
<td>Consider adding backplates &amp; evaluating signage</td>
<td>Hillsborough County</td>
<td>Short Term</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>D2</td>
<td>Fletcher Avenue at 22nd Street &amp; Livingston Avenue</td>
<td>Permissive left turn movement conflicts with pedestrians</td>
<td>Modify signal heads and phasing</td>
<td>Hillsborough County</td>
<td>Short Term</td>
<td>Medium</td>
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<tr>
<td>D3</td>
<td>Fletcher Avenue at 22nd Street &amp; Livingston Avenue</td>
<td>Right turn conflicts with pedestrians</td>
<td>Consider implementing right-turn yield to pedestrians signing</td>
<td>Hillsborough County</td>
<td>Short Term</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>D4</td>
<td>Livingston Avenue from E. 131st Avenue to Muller Elementary east entrance</td>
<td>Gaps in pedestrian connectivity features</td>
<td>Upgrade pedestrian features corridor wide</td>
<td>Hillsborough County</td>
<td>Mid Term</td>
<td>Medium</td>
<td></td>
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<tr>
<td>D5</td>
<td>Bruce B. Downs Boulevard from Fletcher Avenue to E. Bearss Avenue</td>
<td>No sidewalk on west side of roadway</td>
<td>Add sidewalk</td>
<td>Hillsborough County</td>
<td>Mid Term</td>
<td>Medium</td>
<td>This sidewalk is included in upcoming CIP 61153010</td>
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<tr>
<td>D6</td>
<td>Bearss Avenue at Mort Elementary School</td>
<td>Volume of pedestrians compared to width of sidewalk and crosswalk</td>
<td>Widen curb ramp &amp; crosswalk</td>
<td>Hillsborough County</td>
<td>Mid Term</td>
<td>Medium</td>
<td>This work can be incorporated into CIP 61153007</td>
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<tr>
<td>D7</td>
<td>Muller Elementary Entry on 22nd Street</td>
<td>No sidewalk connection to 22nd Street from school</td>
<td>Provide sidewalk connection</td>
<td>Hillsborough County &amp; School District of Hillsborough County</td>
<td>Mid Term</td>
<td>Medium</td>
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<tr>
<td></td>
<td>Intersection/Location</td>
<td>Issue/Action</td>
<td>Responsible Parties</td>
<td>Term</td>
<td>Priority</td>
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</tr>
<tr>
<td>E1</td>
<td>Sligh Avenue from 50th Street to Orient Road</td>
<td>Inconsistent street lighting Evaluation corridor for enhanced street lighting</td>
<td>Hillsborough County</td>
<td>Mid Term</td>
<td>Medium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E2</td>
<td>Sligh Avenue, east of 56th Street (SR 583)</td>
<td>Sidewalk gap &amp; midblock crossings Fill-in sidewalk gap &amp; evaluate midblock crossings</td>
<td>Hillsborough County</td>
<td>Mid Term</td>
<td>Medium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E3</td>
<td>Sligh Avenue on school frontage</td>
<td>Sidewalk width compared to volume of pedestrians Wider sidewalk</td>
<td>Hillsborough County &amp; School District of Hillsborough County</td>
<td>Mid Term</td>
<td>Medium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F1</td>
<td>Leto High School frontage</td>
<td>Students crossings at uncontrolled crossing in front of school Additional traffic control devices</td>
<td>Hillsborough County</td>
<td>Mid Term</td>
<td>High</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F2</td>
<td>Various locations surrounding Leto High School</td>
<td>Unmarked pedestrian crossings Evaluate the need for enhanced crossings</td>
<td>Hillsborough County</td>
<td>Mid Term</td>
<td>Medium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F3</td>
<td>Various locations along key walking corridors around Leto High School</td>
<td>Lighting levels along key corridors Evaluate the need for enhanced lighting</td>
<td>Hillsborough County</td>
<td>Mid Term</td>
<td>Medium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F4</td>
<td>Manhattan Avenue at Sligh Avenue/Pine Crest Manor Boulevard &amp; Waters at Manhattan Avenue</td>
<td>Permissive left turns &amp; pedestrian conflicts Modified signal equipment and timing</td>
<td>Hillsborough County</td>
<td>Mid Term</td>
<td>Medium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F5</td>
<td>Leto High School property</td>
<td>On-site circulation issue On-site circulation improvements</td>
<td>Hillsborough County &amp; School District of Hillsborough County</td>
<td>Short Term</td>
<td>Medium</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: E = East, F = Future, H = Hillsborough County, S = School District of Hillsborough County.*

Adjacent CIP 69638008 further to the east – SRTS Pedestrian Enhancements
These modifications are being completed as part of upcoming CIP 69645100
Upcoming County project to enhance on-site circulation - CIP 69638002
<table>
<thead>
<tr>
<th>Group</th>
<th>Location</th>
<th>Sidewalk Condition</th>
<th>Additional Activities</th>
<th>Responsible Agency</th>
<th>Term</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>G2</td>
<td>Hesperides Street north of Elm Street</td>
<td>Sidewalk is only continuous on the east side of Hesperides Street</td>
<td>Continuous sidewalk on both sides of Hesperides Street</td>
<td>Hillsborough County</td>
<td>Mid Term</td>
<td>Medium</td>
</tr>
<tr>
<td>G3</td>
<td>Hesperides Street near Pierce Middle School</td>
<td>Lighting levels</td>
<td>Consider the feasibility of adding street lights</td>
<td>Hillsborough County</td>
<td>Mid Term</td>
<td>Medium</td>
</tr>
<tr>
<td>G4</td>
<td>Hesperides Street from Henry Avenue to Sligh Avenue</td>
<td>No crosswalks</td>
<td>Evaluation of existing and potential additional crosswalks along Hesperides Street</td>
<td>Hillsborough County</td>
<td>Mid Term</td>
<td>Medium</td>
</tr>
</tbody>
</table>
### Hillsborough MPO School Safety Study

#### Table 4: School District of Hillsborough County

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description</th>
<th>Observation</th>
<th>Suggestion</th>
<th>Agency</th>
<th>Time Frame</th>
<th>Level of Effort</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA9</td>
<td>School Campus – Ferrell Middle Magnet School</td>
<td>Light levels on the school campus</td>
<td>Enhanced lighting for parking lots</td>
<td>School District of Hillsborough County</td>
<td>Short Term</td>
<td>Medium</td>
<td></td>
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<tr>
<td>CA10</td>
<td>School Campus – Ferrell Middle Magnet School</td>
<td>School circulation Issue</td>
<td>Modify on-site circulation to eliminate queue onto 22nd St.</td>
<td>School District of Hillsborough County</td>
<td>Mid Term</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>CB6</td>
<td>CSX North-South Railroad Tracks adjacent to Middleton High School</td>
<td>Students using railroad tracks as a walking and biking route</td>
<td>Provide enhanced fencing, no trespassing signage and educational programs to students</td>
<td>School District of Hillsborough County &amp; CSX</td>
<td>Mid Term</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>CC1</td>
<td>Dr. Martin Luther King, Jr. Blvd. (SR 574) at entrance of Young Middle Magnet</td>
<td>Connectivity to school</td>
<td>Connect midblock crossing to school property</td>
<td>School District of Hillsborough County</td>
<td>Short Term</td>
<td>Low</td>
<td>Potential ADA compliance challenges due to grade.</td>
</tr>
<tr>
<td>D7</td>
<td>Muller Elementary Entry on 22nd Street</td>
<td>No sidewalk connection to 22nd Street from school</td>
<td>Provide sidewalk connection</td>
<td>Hillsborough County &amp; School District of Hillsborough County</td>
<td>Mid Term</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>E3</td>
<td>Sligh Avenue from School Entrance to 56th Street (SR 583)</td>
<td>Sidewalk width compared to volume of pedestrians</td>
<td>Wider sidewalk</td>
<td>Hillsborough County &amp; School District of Hillsborough County</td>
<td>Mid Term</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leto High School property</td>
<td>On-site circulation issue</td>
<td>On-site circulation improvements</td>
<td>Hillsborough County &amp; School District of Hillsborough County</td>
<td>Short Term</td>
<td>Medium</td>
<td>Upcoming County project to enhance on-site circulation - CIP 69638002</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------</td>
<td>---------------------------</td>
<td>----------------------------------</td>
<td>-------------------------------------------------------------</td>
<td>------------</td>
<td>--------</td>
<td>----------------------------------------------------------------</td>
</tr>
<tr>
<td>F5</td>
<td>Plant High School Entrance on Dale Mabry Highway (US 92) at San Carlos Street</td>
<td>Sidewalk termination</td>
<td>Consider the feasibility of modifying the sidewalk connection at school entry</td>
<td>School District of Hillsborough County</td>
<td>Mid Term</td>
<td>Medium</td>
<td></td>
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<tr>
<td>H5</td>
<td>Plant High Faculty Parking Areas on Himes Avenue just north of W. Palmira Avenue</td>
<td>Parking on grass and driving on sidewalks</td>
<td>Evaluate campus for additional faculty parking areas</td>
<td>School District of Hillsborough County</td>
<td>Mid Term</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>H6</td>
<td>Sulphur Springs School Campus Waters Avenue exit</td>
<td>Pedestrian and Vehicle Interactions</td>
<td>Consider the feasibility of adding a handrail or additional fencing</td>
<td>School District of Hillsborough County</td>
<td>Short Term</td>
<td>Low</td>
<td></td>
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<tr>
<td>I4</td>
<td>Sulphur Springs School Campus</td>
<td>Potential tripping hazard for students</td>
<td>Consider modifying the existing curbing along the drop off area</td>
<td>School District of Hillsborough County</td>
<td>Mid Term</td>
<td>Medium</td>
<td></td>
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<tr>
<td>I5</td>
<td>School Wide – Sulphur Springs Campus</td>
<td>Midblock crossings and general behaviors</td>
<td>Educational Program</td>
<td>School District of Hillsborough County &amp; Department of Health</td>
<td>Long Term</td>
<td>Medium</td>
<td>Prioritize educational programs at “top 10” schools not covered by existing educational programs</td>
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<tr>
<td>J5</td>
<td>Van Buren Middle School northern driveway on 22nd Street</td>
<td>No sidewalk connection</td>
<td>Connect sidewalk</td>
<td>School District of Hillsborough County</td>
<td>Short Term</td>
<td>Medium</td>
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</tbody>
</table>
**Table 5: Hillsborough County Sheriff’s Office**

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description</th>
<th>Observation</th>
<th>Suggestion</th>
<th>Agency</th>
<th>Time Frame</th>
<th>Level of Effort</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>B10</td>
<td>Various locations around Coleman Middle School</td>
<td>Request for more crossing guards from school administration</td>
<td>Adding crossing guards and modify duty hours</td>
<td>Hillsborough County Sheriff’s Office</td>
<td>Short Term</td>
<td>Low</td>
<td>Adjacent schools mean there is a potential for overlapping duties.</td>
</tr>
</tbody>
</table>

**Table 6: Hillsborough County Code Enforcement**

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description</th>
<th>Observation</th>
<th>Suggestion</th>
<th>Agency</th>
<th>Time Frame</th>
<th>Level of Effort</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>F6</td>
<td>Various locations within the Pinecrest West Park neighborhood</td>
<td>Vehicles parking on the sidewalk</td>
<td>Enforcement</td>
<td>Hillsborough County Code Enforcement</td>
<td>Short Term</td>
<td>Low</td>
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</tr>
</tbody>
</table>
## Hillsborough MPO School Safety Study

### Table 7: Florida Department of Transportation

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description</th>
<th>Observation</th>
<th>Suggestion</th>
<th>Agency</th>
<th>Time Frame</th>
<th>Level of Effort</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>A6</td>
<td>Busch Blvd. (SR 580) at North Blvd. &amp; Linebaugh Ave. at North Blvd.</td>
<td>Signal phasing opportunities</td>
<td>Modify signal phasing to eliminate permissive left-turn conflicts with pedestrians</td>
<td>City of Tampa &amp; Florida Department of Transportation</td>
<td>Mid Term</td>
<td>Medium</td>
<td>Potential constructability challenges due structural loading</td>
</tr>
<tr>
<td>A7</td>
<td>Busch Blvd. (SR 580) at Florida Ave. &amp; Busch Blvd. (SR 580) at North Blvd.</td>
<td>Sidewalk connectivity at railroad crossing and pedestrian railroad gates.</td>
<td>Consider adding pedestrian features and sidewalk</td>
<td>City of Tampa, Florida Department of Transportation &amp; CSX</td>
<td>Long Term</td>
<td>High</td>
<td>Potential R/W and constructability challenges. FDOT project handling Florida Ave. at Busch Blvd.</td>
</tr>
<tr>
<td>A8</td>
<td>Busch Boulevard (SR 580) at North Boulevard</td>
<td>Potential need for reduced speed school zone</td>
<td>Evaluate Busch Boulevard for need for reduced speed school zone</td>
<td>Florida Department of Transportation</td>
<td>Mid Term</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>CC2</td>
<td>Dr. Martin Luther King, Jr. Blvd. (SR 574) at N. 19th Street</td>
<td>Vehicles compliance at midblock crossing</td>
<td>Consider evaluating location for enhanced treatment devices</td>
<td>Florida Department of Transportation</td>
<td>Mid Term</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>CC3</td>
<td>Dr. Martin Luther King, Jr. Blvd. (SR 574) from 19th Street to 22nd Street</td>
<td>Midblock crossings at uncontrolled locations</td>
<td>Consider evaluating the corridor for additional midblock crossing locations</td>
<td>Florida Department of Transportation</td>
<td>Mid Term</td>
<td>Medium</td>
<td>Distance to existing traffic signal may limit feasibility</td>
</tr>
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</table>
## Hillsborough MPO School Safety Study

<table>
<thead>
<tr>
<th>Site Code</th>
<th>Location</th>
<th>Issue</th>
<th>Recommended Action</th>
<th>Responsible Agency</th>
<th>Duration</th>
<th>Category</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC4</td>
<td>Dr. Martin Luther King, Jr. Blvd. (SR 574) Corridor</td>
<td>Lighting levels along corridor</td>
<td>Consider enhanced street lighting</td>
<td>Florida Department of Transportation</td>
<td>Long Term</td>
<td>Medium</td>
<td>Upcoming FDOT project will implement enhanced lighting at signalized intersections</td>
</tr>
<tr>
<td>CC5</td>
<td>Dr. Martin Luther King, Jr. Blvd. (SR 574) west of 22nd Street</td>
<td>Damaged sidewalk</td>
<td>Sidewalk maintenance</td>
<td>Florida Department of Transportation</td>
<td>Short Term</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>E4</td>
<td>Sligh Avenue at 56th Street (SR 583) Signal</td>
<td>East &amp; westbound permissive left turn conflicts with pedestrians</td>
<td>Modify signal heads and phasing to eliminate potential conflict with pedestrians crossing</td>
<td>Florida Department of Transportation</td>
<td>Mid Term</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>G1</td>
<td>Hillsborough Avenue (SR 580) at Lois Avenue &amp; Hesperides Street</td>
<td>Potential pedestrian and left-turn conflicts</td>
<td>Consider signal timing modifications</td>
<td>Florida Department of Transportation &amp; City of Tampa</td>
<td>Mid Term</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>H4</td>
<td>Intersection of Dale Mabry Highway (US 92) &amp; San Carlos Street</td>
<td>Inconsistent and aging signage and pavement markings</td>
<td>Consider upgrading signs and markings including school zone markings</td>
<td>Florida Department of Transportation</td>
<td>Short Term</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>J3</td>
<td>Busch Boulevard (SR 580) at 22nd Street signal</td>
<td>Potential pedestrian conflicts with left-turning vehicles</td>
<td>Modify signal heads and phasing</td>
<td>Florida Department of Transportation &amp; City of Tampa</td>
<td>Mid Term</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>J4</td>
<td>N. 22nd Street at Busch Boulevard (SR 580)</td>
<td>Inconsistent pavement marking and lack of school signage</td>
<td>Install crosswalk signing and enhance pavement markings</td>
<td>Florida Department of Transportation</td>
<td>Short Term</td>
<td>Medium</td>
<td></td>
</tr>
</tbody>
</table>
# Hillsborough MPO School Safety Study

## Table 8: CSX

<table>
<thead>
<tr>
<th>ID</th>
<th>Location Description</th>
<th>Observation</th>
<th>Suggestion</th>
<th>Agency</th>
<th>Time Frame</th>
<th>Level of Effort</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>A7</td>
<td>Busch Blvd. (SR 580) at Florida Ave. &amp; Busch Blvd. (SR 580) at North Blvd.</td>
<td>Sidewalk connectivity at railroad crossing and pedestrian railroad gates.</td>
<td>Consider adding pedestrian features and sidewalk</td>
<td>City of Tampa, Florida Department of Transportation &amp; CSX</td>
<td>Long Term</td>
<td>High</td>
<td>Potential R/W and constructability challenges. FDOT project handling Florida Ave. at Busch Blvd.</td>
</tr>
<tr>
<td>CB6</td>
<td>CSX North-South Railroad Tracks</td>
<td>Students using railroad tracks as a walking and biking route</td>
<td>Provide enhanced fencing, no trespassing signage and educational programs to students</td>
<td>School District of Hillsborough County &amp; CSX</td>
<td>Mid Term</td>
<td>Medium</td>
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APPENDIX E – PLANNING-LEVEL COST ESTIMATE SUPPORTING DOCUMENTATION
## Enhance Crosswalk Pavement Markings

<table>
<thead>
<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>0711 11123</td>
<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 12&quot; FOR CROSSWALK AND ROUNDABOUT</td>
<td>LF</td>
<td>2700</td>
<td>$3.00</td>
<td>$8,100.00</td>
</tr>
<tr>
<td>0711 14125</td>
<td>THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24&quot; FOR CROSSWALK</td>
<td>LF</td>
<td>2430</td>
<td>$17.00</td>
<td>$41,310.00</td>
</tr>
<tr>
<td>0101 1</td>
<td>MOBILIZATION</td>
<td>LS</td>
<td>10%</td>
<td></td>
<td>$4,941.00</td>
</tr>
<tr>
<td>0102 1</td>
<td>MAINTENANCE OF TRAFFIC</td>
<td>LS</td>
<td>10%</td>
<td></td>
<td>$5,435.10</td>
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<tr>
<td></td>
<td>PROJECT UNKNOWNS</td>
<td>LS</td>
<td>20%</td>
<td></td>
<td>$9,882.00</td>
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</table>

**TOTAL COST**: $69,668.10
<table>
<thead>
<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>0630 2 11</td>
<td>CONDUIT, FURNISH &amp; INSTALL, OPEN TRENCH</td>
<td>LF</td>
<td>2700</td>
<td>$12.00</td>
<td>$32,400.00</td>
</tr>
<tr>
<td>0630 2 12</td>
<td>CONDUIT, FURNISH &amp; INSTALL, DIRECTIONAL BORE</td>
<td>LF</td>
<td>300</td>
<td>$30.00</td>
<td>$9,000.00</td>
</tr>
<tr>
<td>0630 2 14</td>
<td>CONDUIT, FURNISH &amp; INSTALL, ABOVEGROUND</td>
<td>LF</td>
<td>1010</td>
<td>$35.00</td>
<td>$35,350.00</td>
</tr>
<tr>
<td>0635 2 11</td>
<td>PULL &amp; SPLICE BOX, F&amp;I, 13&quot; x 24&quot; COVER SIZE</td>
<td>EA</td>
<td>20</td>
<td>$900.00</td>
<td>$18,000.00</td>
</tr>
<tr>
<td>0639 1122</td>
<td>ELECTRICAL POWER SERVICE, F&amp;I, UNDERGROUND, METER PURCHASED BY CONTRACTOR</td>
<td>AS</td>
<td>1</td>
<td>$3,000.00</td>
<td>$3,000.00</td>
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<tr>
<td>0639 2 1</td>
<td>ELECTRICAL SERVICE WIRE, FURNISH &amp; INSTALL</td>
<td>LF</td>
<td>50</td>
<td>$10.00</td>
<td>$500.00</td>
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<tr>
<td>0715 1 11</td>
<td>LIGHTING CONDUCTORS, F&amp;I, INSULATED, NO. 10 OR &lt;</td>
<td>LF</td>
<td>2020</td>
<td>$2.00</td>
<td>$4,040.00</td>
</tr>
<tr>
<td>0715 1 13</td>
<td>LIGHTING CONDUCTORS, F&amp;I, INSULATED, NO 4 TO NO 2</td>
<td>LF</td>
<td>3000</td>
<td>$3.00</td>
<td>$9,000.00</td>
</tr>
<tr>
<td>0715 4 13</td>
<td>LIGHT POLE COMPLETE, FURNISH &amp; INSTALL STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT</td>
<td>EA</td>
<td>15</td>
<td>$7,000.00</td>
<td>$105,000.00</td>
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<tr>
<td>0715 5 32</td>
<td>LUMINAIRE &amp; BRACKET ARM- GALV STEEL, FURNISH &amp; INSTALL NEW LUMINAIRE AND ARM ON NEW/EXISTING POLE</td>
<td>EA</td>
<td>101</td>
<td>$3,000.00</td>
<td>$303,000.00</td>
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<tr>
<td>0715 7 11</td>
<td>LOAD CENTER, F&amp;I, SECONDARY VOLTAGE</td>
<td>EA</td>
<td>1</td>
<td>$15,000.00</td>
<td>$15,000.00</td>
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<tr>
<td>0715 21 2</td>
<td>LIGHTING REPAIRS AND RETROPHITS, LED RETROFIT KIT FOR EXISTING LUMINAIRE</td>
<td>EA</td>
<td>41</td>
<td>$2,000.00</td>
<td>$82,000.00</td>
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<tr>
<td>0715500 1</td>
<td>POLE CABLE DISTRIBUTION SYSTEM, CONVENTIONAL</td>
<td>EA</td>
<td>15</td>
<td>$550.00</td>
<td>$8,250.00</td>
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<tr>
<td>0101 1</td>
<td>MOBILIZATION</td>
<td>LS</td>
<td>10%</td>
<td>$62,454.00</td>
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<tr>
<td>0102 1</td>
<td>MAINTENANCE OF TRAFFIC</td>
<td>LS</td>
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<td>$68,699.40</td>
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<td>PROJECT UNKNOWNS</td>
<td>LS</td>
<td>20%</td>
<td>$124,908.00</td>
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<tr>
<td>Enhance Street Lighting</td>
<td>TOTAL COST</td>
<td>$880,601.40</td>
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## Enhance Sidewalk Ramps

<table>
<thead>
<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>0522   2</td>
<td>CONCRETE SIDEWALK AND DRIVEWAYS, 6&quot; THICK</td>
<td>SY</td>
<td>1404</td>
<td>$60.00</td>
<td>$84,240.00</td>
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<tr>
<td>0527   2</td>
<td>DETECTABLE WARNINGS</td>
<td>SF</td>
<td>1296</td>
<td>$30.00</td>
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<td>$12,312.00</td>
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<td>MAINTENANCE OF TRAFFIC</td>
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**Enhance Sidewalk Ramps**

**TOTAL COST**

$173,599.20
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<td>CONCRETE SIDEWALK AND DRIVEWAYS, 6&quot; THICK</td>
<td>SY</td>
<td>130</td>
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<td>$7,800.00</td>
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<td>0527 2</td>
<td>DETECTABLE WARNINGS</td>
<td>SF</td>
<td>120</td>
<td>$30.00</td>
<td>$3,600.00</td>
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<tr>
<td>0700 111</td>
<td>SINGLE POST SIGN, F&amp;I GROUND MOUNT, UP TO 12 SF</td>
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<td>$9,000.00</td>
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<tr>
<td>0711 11123</td>
<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 12&quot; FOR CROSSWALK AND ROUNDABOUT</td>
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<td>250</td>
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Mobilization: LS 10% $2,497.50
Maintenance of Traffic: LS 10% $2,747.25
Project Unknowns: LS 20% $4,995.00

Midblock Crossings TOTAL COST $35,214.75
### Upgrade Signal

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<th>UNIT COST</th>
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<td>DETECTABLE WARNINGS</td>
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<td>96</td>
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<td>$2,880.00</td>
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<td>CONDUIT, FURNISH &amp; INSTALL, OPEN TRENCH</td>
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**Upgrade Signal**

<p>| TOTAL COST | $479,907.60 |</p>
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<th>ITEM DESCRIPTION</th>
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<th>TOTAL COST</th>
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**Sidewalk Connectivity**

**TOTAL COST** $17,138.55
## Reduced Speed School Zone

### PAY ITEM # | ITEM DESCRIPTION | UNIT | QUANTITY | UNIT COST | TOTAL COST
--- | --- | --- | --- | --- | ---
0700 1 11 | SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF | AS | 8 | $450.00 | $3,600.00
0700 12 12 | SIGN BEACON, F&I GROUND MOUNT-AC POWERED, TWO BEACONS | AS | 2 | $6,500.00 | $13,000.00
0711 11125 | THERMOPLASTIC, STANDARD, WHITE, SOLID, 24" FOR STOP LINE AND CROSSWALK | LF | 192 | $5.00 | $960.00
0711 11160 | THERMOPLASTIC, STANDARD, WHITE, MESSAGE OR SYMBOL | EA | 8 | $180.00 | $1,440.00

| | MOBILIZATION | LS | 10% | | $1,900.00
| | MAINTENANCE OF TRAFFIC | LS | 10% | | $2,090.00
| | PROJECT UNKNOWNS | LS | 20% | | $3,800.00

**Reduced Speed School Zone TOTAL COST** | **$26,790.00**
## Sidewalk Connectivity

<table>
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<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
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<tbody>
<tr>
<td>0522 2</td>
<td>CONCRETE SIDEWALK AND DRIVEWAYS, 6&quot; THICK</td>
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<td>0527 2</td>
<td>DETECTABLE WARNINGS</td>
<td>SF</td>
<td>96</td>
<td>$30.00</td>
<td>$2,880.00</td>
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<tr>
<td>0711 11123</td>
<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 12&quot; FOR CROSSWALK AND ROUNDABOUT</td>
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<td>250</td>
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**Sidewalk Connectivity TOTAL COST**

$291,912.30
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<th>TOTAL COST</th>
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Enhance Sidewalk Ramps

TOTAL COST: $326,471.40
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<th>UNIT</th>
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<tr>
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Enhance Crosswalk Pavement Markings

TOTAL COST $186,312.89
### Roadway Pavement Markings

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<th>TOTAL COST</th>
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**Roadway Pavement Markings**

| TOTAL COST | $5,358.00 |

**SCHOOL:** Dr. John A. Coleman Middle School

**LOCATION ID:** B4

**LOCATION DESCRIPTION:** Manhattan Avenue

**PAGE NUMBER:** 11
## Upgrade Signal

<table>
<thead>
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<th>PAY ITEM #</th>
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<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
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<td>23</td>
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<td>LF</td>
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<td>0650 1 14</td>
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<td>UNINTERRUPTIBLE POWER SUPPLY, FURNISH AND INSTALL, LINE INTERACTIVE WITH CABINET</td>
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<td>INTERIALLY ILLUMINATED SIGN, FURNISH &amp; INSTALL, OVERHEAD MOUNT, 12&quot; 18&quot; SF</td>
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<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 12&quot; FOR CROSSWALK AND ROUNDABOUT</td>
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<td>300</td>
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<td>48</td>
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<td>300</td>
<td>$2.00</td>
<td>$600.00</td>
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<td>0715 5 32</td>
<td>LUMINAIRE &amp; BRACKET ARM: GALV STEEL, FURNISH &amp; INSTALL NEW LUMINAIRE AND ARM ON NEW EXISTING POLE</td>
<td>EA</td>
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**Upgrade Signal**

| TOTAL COST | $319,960.02 |
Enhance Pedestrian Crossings at Intersections

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<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
</tr>
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<tbody>
<tr>
<td>0522 2</td>
<td>CONCRETE SIDEWALK AND DRIVEWAYS, 6&quot; THICK</td>
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<td>348</td>
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<td>0711 11123</td>
<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 12&quot; FOR CROSSWALK AND ROUNDABOUT</td>
<td>LF</td>
<td>1570</td>
<td>$3.00</td>
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<td>1256</td>
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<td>0632 7 1</td>
<td>SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH &amp; INSTALL</td>
<td>PI</td>
<td>4</td>
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<td>0646 1 11</td>
<td>ALUMINUM SIGNALS POLE, PEDESTAL</td>
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<td>PEDESTRIAN SIGNAL, FURNISH &amp; INSTALL LED COUNTDOWN, 1 WAY</td>
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MOBILIZATION
- LS 10% $17,967.20

MAINTENANCE OF TRAFFIC
- LS 10% $19,763.92

PROJECT unknowns
- LS 20% $35,938.40

Enhance Pedestrian Crossings at Intersections

TOTAL COST $253,337.52
## PLANNING-LEVEL ESTIMATE

### LOCATION ID: B7

**LOCATION DESCRIPTION:**
Intersection of Morrison Ave and Lois Ave, Intersection of Azeele St and Lois Ave

### SCHOOL:
Dr. John A. Coleman Middle School

#### Enhance Sidewalk Ramps and Crosswalks

<table>
<thead>
<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
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<tbody>
<tr>
<td>0522 2</td>
<td>CONCRETE SIDEWALK AND DRIVEWAYS, 6&quot; THICK</td>
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<td>165</td>
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<td>72</td>
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<tr>
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<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 12&quot; FOR CROSSWALK AND ROUNDABOUT</td>
<td>LF</td>
<td>350</td>
<td>$3.00</td>
<td>$1,050.00</td>
</tr>
<tr>
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<td>THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24&quot; FOR CROSSWALK</td>
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<td>280</td>
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</table>

**MOBILIZATION**

| LS          | 10%               | $1,787.00 |

**MAINTENANCE OF TRAFFIC**

| LS          | 10%               | $1,985.70 |

**PROJECT UNKNOWNS**

| LS          | 20%               | $3,574.00 |

### TOTAL COST

Enhance Sidewalk Ramps and Crosswalks

TOTAL COST: $25,196.70
## Roadway Pavement Markings

<table>
<thead>
<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
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</thead>
<tbody>
<tr>
<td>0711 16101</td>
<td>THERMOPLASTIC, STANDARD-OTHER SURFACES, WHITE, SOLID, 6&quot;</td>
<td>GM</td>
<td>0.230</td>
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<td>THERMOPLASTIC, STANDARD-OTHER SURFACES, YELLOW, SOLID, 6&quot;</td>
<td>GM</td>
<td>0.230</td>
<td>$5,000.00</td>
<td>$1,150.00</td>
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### Other Costs

- **Mobilization**: LS, 10% - $230.00
- **Maintenance of Traffic**: LS, 10% - $253.00
- **Project Unknowns**: LS, 20% - $460.00

### Total Cost

- Roadway Pavement Markings: **$3,243.00**
<table>
<thead>
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<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
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</thead>
<tbody>
<tr>
<td>0522 2</td>
<td>CONCRETE SIDEWALK AND DRIVEWAYS, 6&quot; THICK</td>
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<td>3520</td>
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<td></td>
<td>PROJECT UNKNOWNS</td>
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Sidewalk Connectivity

<table>
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<tr>
<th>TOTAL COST</th>
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## Enhance Crosswalk Pavement Markings

<table>
<thead>
<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>0711 11123</td>
<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 12&quot; FOR CROSSWALK AND ROUNDABOUT</td>
<td>LF</td>
<td>12600</td>
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</tr>
<tr>
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<td>THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24&quot; FOR CROSSWALK</td>
<td>LF</td>
<td>10000</td>
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<td>$170,000.00</td>
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| MOBILIZATION | LS | 10%        | $20,780.00 |
| MAINTENANCE OF TRAFFIC | LS | 10%        | $22,858.00 |
| PROJECT UNKNOWNS  | LS | 20%        | $41,560.00 |

Enhance Crosswalk Pavement Markings

| TOTAL COST | $292,998.00 |

LOCATION ID: CA2
LOCATION DESCRIPTION: Various Locations - Key Corridors Around Ferrell Campus
SCHOOL: Ferrell Middle Magnet School
PAGE NUMBER: 17
## Reduced Speed School Zone

<table>
<thead>
<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>0700 1 11</td>
<td>SINGLE POST SIGN, F&amp;I GROUND MOUNT, UP TO 12 SF</td>
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</tr>
<tr>
<td>0700 12 12</td>
<td>SIGN BEACON, F&amp;I GROUND MOUNT, AC POWERED, TWO BEACONS</td>
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<td>$6,500.00</td>
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<tr>
<td>0711 11125</td>
<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 24&quot; FOR STOP LINE AND CROSSWALK</td>
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<td>192</td>
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<tr>
<td>0711 11160</td>
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<td>$180.00</td>
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**MOBILIZATION**: LS 10% $1,900.00  
**MAINTENANCE OF TRAFFIC**: LS 10% $2,090.00  
**PROJECT UNKNOWNS**: LS 20% $3,800.00

Total Cost for Reduced Speed School Zone: **$26,790.00**
## Sidewalk Connectivity

<table>
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<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
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</thead>
<tbody>
<tr>
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<td>CONCRETE SIDEWALK AND DRIVEWAYS, 6&quot; THICK</td>
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<td>1793</td>
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**Mobilization**
- LS 10%  - $11,810.00

**Maintenance of Traffic**
- LS 10%  - $12,991.00

**Project Unknowns**
- LS 20%  - $23,620.00

**Sidewalk Connectivity TOTAL COST**
- $166,521.00
## PLANNING-LEVEL ESTIMATE

**LOCATION ID:** CA6  
**LOCATION DESCRIPTION:** 22nd Street at Chelsea Street  
**SCHOOL:** Ferrell Middle Magnet School  
**PAGE NUMBER:** 20

### RRFB Crossing

<table>
<thead>
<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>0654 2 22</td>
<td>RECTANGULAR RAPID FLASHING BEACON, FURNISH &amp; INSTALL- SOLAR POWERED, COMPLETE SIGN ASSEMBLY- BACK TO BACK</td>
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<td>2</td>
<td>$10,000.00</td>
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<tr>
<td>0700 1 60</td>
<td>SINGLE POST SIGN, REMOVE</td>
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**MOBILIZATION**  
LS 10%  
$2,010.00

**MAINTENANCE OF TRAFFIC**  
LS 10%  
$2,211.00

**PROJECT UNKNOWNS**  
LS 20%  
$4,020.00

### TOTAL COST  
RRFB Crossing  
$28,341.00
## Pay Item Details

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<th>TOTAL COST</th>
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<tbody>
<tr>
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<td>CONDUIT, FURNISH &amp; INSTALL, OPEN TRENCH</td>
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<td>5</td>
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<tr>
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<tr>
<td>0715 5 32</td>
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### Enhance Street Lighting

**Mobilization**
- 10% MOBILIZATION: $9,573.00

**Maintenance of Traffic**
- 10% MAINTENANCE OF TRAFFIC: $10,530.30

**Project Unknowns**
- 20% PROJECT UNKNOWN: $19,146.00

**Enhance Street Lighting Total Cost**: $134,979.30
## Enhance Street Lighting

<table>
<thead>
<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
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<tbody>
<tr>
<td>0630 2 11</td>
<td>CONDUIT, FURNISH &amp; INSTALL, OPEN TRENCH</td>
<td>LF</td>
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**MOBILIZATION**
- LS 10% $8,535.00

**MAINTENANCE OF TRAFFIC**
- LS 10% $9,388.50

**PROJECT UNKNOWNS**
- LS 20% $17,070.00

**Enhance Street Lighting**

| TOTAL COST | $120,343.50 |
### Sidewalk Connectivity

<table>
<thead>
<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
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<tbody>
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<td>CONCRETE SIDEWALK AND DRIVEWAYS, 6&quot; THICK</td>
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<td>1333</td>
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<td>504</td>
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**Sidewalk Connectivity TOTAL COST**

$134,119.20
## Enhance All Pavement Markings

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<tr>
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<th>ITEM DESCRIPTION</th>
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<th>UNIT COST</th>
<th>TOTAL COST</th>
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<tbody>
<tr>
<td>0711 11123</td>
<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 12&quot; FOR CROSSWALK AND ROUNDABOUT</td>
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<td>THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24&quot; FOR CROSSWALK</td>
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<td>3400</td>
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<tr>
<td>0711 11125</td>
<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 24&quot; FOR STOP LINE AND CROSSWALK</td>
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### Additional Costs

- **Mobilization**: LS 10% $10,400.00
- **Maintenance of Traffic**: LS 10% $11,240.00
- **Project Unknowns**: LS 20% $20,800.00

**Enhance All Pavement Markings**

| TOTAL COST | $146,640.00 |
## Enhance Crosswalk Pavement Markings

<table>
<thead>
<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
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<tbody>
<tr>
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<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 12&quot; FOR CROSSWALK AND ROUNDABOUT</td>
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Enhance Crosswalk Pavement Markings TOTAL COST $145,737.60
## Reduced Speed School Zone

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<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
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<th>TOTAL COST</th>
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<tbody>
<tr>
<td>0700 1 11</td>
<td>SINGLE POST SIGN, F&amp;I GROUND MOUNT, UP TO 12 SF</td>
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<td>8</td>
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<tr>
<td>0700 12 12</td>
<td>SIGN BEACON, F&amp;I GROUND MOUNT- AC POWERED, TWO BEACONS</td>
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<td>$13,000.00</td>
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<tr>
<td>0711 11125</td>
<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 24&quot; FOR STOP LINE AND CROSSWALK</td>
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<td>THERMOPLASTIC, STANDARD, WHITE, MESSAGE OR SYMBOL</td>
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<td>8</td>
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**MOBILIZATION**
- LS 10% $1,900.00

**MAINTENANCE OF TRAFFIC**
- LS 10% $2,090.00

**PROJECT UNKNOWNS**
- LS 20% $3,800.00

**Reduced Speed School Zone**
- TOTAL COST $26,790.00
## Enhance Street Lighting

<table>
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<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
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<td>CONDUIT, FURNISH &amp; INSTALL, OPEN TRENCH</td>
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<td>LIGHTING CONDUCTORS, F&amp;I, INSULATED, NO 4 TO NO 2</td>
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**Enhance Street Lighting TOTAL COST**: $1,220,228.10
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<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
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Fencing Upgrades

TOTAL COST $56,400.00
## Sidewalk Connectivity

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<th>UNIT COST</th>
<th>TOTAL COST</th>
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<tbody>
<tr>
<td>0522 2</td>
<td>CONCRETE SIDEWALK AND DRIVEWAYS, 6&quot; THICK</td>
<td>SY</td>
<td>16</td>
<td>$60.00</td>
<td>$960.00</td>
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<tr>
<td>0527 2</td>
<td>DETECTABLE WARNINGS</td>
<td>SF</td>
<td>12</td>
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<td>$360.00</td>
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<tr>
<td>0711 11123</td>
<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 12&quot; FOR CROSSWALK AND ROUNDABOUT</td>
<td>LF</td>
<td>60</td>
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<td>$180.00</td>
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<tr>
<td>0711 14125</td>
<td>THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24&quot; FOR CROSSWALK</td>
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**Sidewalk Connectivity**

<p>| TOTAL COST | $3,313.50 |</p>
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<th>UNIT COST</th>
<th>TOTAL COST</th>
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<td>4</td>
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MOBILIZATION  
MAINTENANCE OF TRAFFIC  
PROJECT UNKNOWNS

RRFB Crossing  

TOTAL COST  

$46,812.00
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<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
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<td>CONCRETE SIDEWALK AND DRIVEWAYS, 6&quot; THICK</td>
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<tr>
<td>0700 1 11</td>
<td>SINGLE POST SIGN, F&amp;I GROUND MOUNT, UP TO 12 SF</td>
<td>AS</td>
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<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 12&quot; FOR CROSSWALK AND ROUNDABOUT</td>
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Mobilization: LS 10% $4,260.00
Maintenance of Traffic: LS 10% $4,686.00
Project Unknowns: LS 20% $8,520.00

| RRFB Crossing | TOTAL COST | $60,066.00 |
Enhance Street Lighting

<table>
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<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
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<th>UNIT COST</th>
<th>TOTAL COST</th>
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<td>$30.00</td>
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<tr>
<td>0635 2 11</td>
<td>PULL &amp; SPLICE BOX, F&amp;I, 13&quot; x 24&quot; COVER SIZE</td>
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<tr>
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<td>ELECTRICAL SERVICE WIRE, FURNISH &amp; INSTALL</td>
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<td>STANDARD FOUNDATION, 40' MOUNTING HEIGHT</td>
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<tr>
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<td>44</td>
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| MOBILIZATION | LS | 10% | $95,025.00 |
| MAINTENANCE OF TRAFFIC  | LS | 10% | $104,527.50 |
| PROJECT Unknowns          | LS | 20% | $190,050.00 |

Enhance Street Lighting TOTAL COST $1,339,852.50
<table>
<thead>
<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
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<tr>
<td>0101 1</td>
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<td>LS</td>
<td>10%</td>
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<tr>
<td>0102 1</td>
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<tr>
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<td>PROJECT UNKNOWNS</td>
<td>LS</td>
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<table>
<thead>
<tr>
<th>Signal Head Backplates</th>
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<tr>
<td></td>
<td>$1,692.00</td>
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## Add Flashing Yellow Arrow Signals

<table>
<thead>
<tr>
<th>PAY ITEM #</th>
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<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
</tr>
</thead>
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<tr>
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<td>SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH &amp; INSTALL</td>
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<td>$3,000.00</td>
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<tr>
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<td>$2,400.00</td>
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<tr>
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<td>$400.00</td>
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**MOBILIZATION**

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<tr>
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<th>TOTAL COST</th>
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<tr>
<td>LS</td>
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**MAINTENANCE OF TRAFFIC**

<table>
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<tr>
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**PROJECT UNKNOWNS**

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<tr>
<td>LS</td>
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**Add Flashing Yellow Arrow Signals**

| TOTAL COST | $23,688.00 |

---

**PLANNING-LEVEL ESTIMATE**

**LOCATION ID:** D2

**LOCATION DESCRIPTION:** Fletcher Avenue at 22nd Street & Livingston Avenue

**SCHOOL:** Muller Elementary Magnet School

**PAGE NUMBER:** 34
<table>
<thead>
<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>0700 11</td>
<td>SINGLE POST SIGN, F&amp;I GROUND MOUNT, UP TO 12 SF</td>
<td>AS</td>
<td>8</td>
<td>$450.00</td>
<td>$3,600.00</td>
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<td>$360.00</td>
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<tr>
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<td>$395.00</td>
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Intersection Pedestrian Signage

**TOTAL COST** $5,076.00
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<th>UNIT</th>
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</thead>
<tbody>
<tr>
<td>0522 2</td>
<td>CONCRETE SIDEWALK AND DRIVEWAYS, 6&quot; THICK</td>
<td>SY</td>
<td>100</td>
<td>$60.00</td>
<td>$6,000.00</td>
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<tr>
<td>0527 2</td>
<td>DETECTABLE WARNINGS</td>
<td>SF</td>
<td>36</td>
<td>$30.00</td>
<td>$1,080.00</td>
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<tr>
<td>0711 11123</td>
<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 12&quot; FOR CROSSWALK AND ROUNDABOUT</td>
<td>LF</td>
<td>550</td>
<td>$3.00</td>
<td>$1,650.00</td>
</tr>
<tr>
<td>0711 14123</td>
<td>THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24&quot; FOR CROSSWALK</td>
<td>LF</td>
<td>400</td>
<td>$17.00</td>
<td>$6,800.00</td>
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<td>LS</td>
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<td>$1,553.00</td>
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<tr>
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<td>MAINTENANCE OF TRAFFIC</td>
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<tr>
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Enhance Pedestrian and ADA Features

TOTAL COST $21,897.30
## Enhance Sidewalk and Ramps

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<tr>
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<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
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<th>UNIT COST</th>
<th>TOTAL COST</th>
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<tbody>
<tr>
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<td>REMOVAL OF EXISTING CONCRETE</td>
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<td>CONCRETE SIDEWALK AND DRIVEWAYS, 6&quot; THICK</td>
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<td>24</td>
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<td>$720.00</td>
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<tr>
<td>0711 11123</td>
<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 12&quot; FOR CROSSWALK AND ROUNDABOUT</td>
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<td>132</td>
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<td>$396.00</td>
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**Enhance Sidewalk and Ramps Total Cost:** $40,870.26
## Sidewalk Connectivity

<table>
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<th>TOTAL COST</th>
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<tbody>
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<td>$720.00</td>
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<td>0711.14125</td>
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<td>180</td>
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<td>$3,060.00</td>
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</table>

Mobilization and Maintenance of Traffic are included at 10% of the Total Cost. Project Unknowns are included at 20% of the Total Cost.

**Sidewalk Connectivity TOTAL COST**: $15,820.20
## PLANNING-LEVEL ESTIMATE

**LOCATION ID:** E1  
**LOCATION DESCRIPTION:** Sligh Avenue from 50th Street to Orient Road  
**SCHOOL:** C. Leon King High School  
**PAGE NUMBER:** 39

### Enhance Street Lighting

<table>
<thead>
<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>0630 2 11</td>
<td>CONDUIT, FURNISH &amp; INSTALL, OPEN TRENCH</td>
<td>LF</td>
<td>8500</td>
<td>$12.00</td>
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<td>0630 2 12</td>
<td>CONDUIT, FURNISH &amp; INSTALL, DIRECTIONAL BORE</td>
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<td>700</td>
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<tr>
<td>0639 2 11</td>
<td>PULL &amp; SPLICE BOX, F&amp;I, 13” x 24” COVER SIZE</td>
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<td>55</td>
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<td>$3,000.00</td>
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<td>ELECTRICAL SERVICE WIRE, FURNISH &amp; INSTALL</td>
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<td>100</td>
<td>$10.00</td>
<td>$1,000.00</td>
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<tr>
<td>0715 1 13</td>
<td>LIGHTING CONDUCTORS, F&amp;I, INSULATED, NO 4 TO NO 2</td>
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<td>28000</td>
<td>$3.00</td>
<td>$84,000.00</td>
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<td>LIGHT POLE COMPLETE, FURNISH &amp; INSTALL STANDARD POLE STANDARD FOUNDATION, 40’ MOUNTING HEIGHT</td>
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<td>46</td>
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<td>LOAD CENTER, F&amp;I, SECONDARY VOLTAGE</td>
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<td>$15,000.00</td>
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<td>0101 1</td>
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<td>MAINTENANCE OF TRAFFIC</td>
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<td>PROJECT UNKNOWNS</td>
<td>LS</td>
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<td>$124,560.00</td>
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**TOTAL COST:** $878,148.00
## Sidewalk Connectivity and Midblock Crossing

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<tr>
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<td>CONCRETE SIDEWALK AND DRIVEWAYS, 6&quot; THICK</td>
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<td>DETECTABLE WARNINGS</td>
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<tr>
<td>0700 1111</td>
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<td>4</td>
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<td>$1,800.00</td>
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<tr>
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<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 12&quot; FOR CROSSWALK AND ROUNDABOUT</td>
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<td>170</td>
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<td>$2,890.00</td>
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</table>

**Mobilization**: 10%  
**Maintenance of Traffic**: 10%  
**Project Unknowns**: 20%

**Sidewalk Connectivity and Midblock Crossing**

<table>
<thead>
<tr>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>TOTAL COST</th>
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</thead>
<tbody>
<tr>
<td>Mobilization</td>
<td>LS</td>
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<tr>
<td>Maintenance</td>
<td>LS</td>
<td>10%</td>
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<tr>
<td>Project Unknowns</td>
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<td>$14,534.00</td>
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**Total Cost**: $102,464.70
## PLANNING-LEVEL ESTIMATE

**LOCATION ID:** E3  
**LOCATION DESCRIPTION:** Sligh Avenue on School Frontage  
**SCHOOL:** C. Leon King High School  
**PAGE NUMBER:** 41

### Sidewalk Widening

<table>
<thead>
<tr>
<th>PAY ITEM #</th>
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<th>UNIT COST</th>
<th>TOTAL COST</th>
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<tbody>
<tr>
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<td>DETECTABLE WARNINGS</td>
<td>SF</td>
<td>240</td>
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<td>$7,200.00</td>
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<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 12&quot; FOR CROSSWALK AND ROUNDABOUT</td>
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<tr>
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<td>THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24&quot; FOR CROSSWALK</td>
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<td>180</td>
<td>$17.00</td>
<td>$3,060.00</td>
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**Mobilization:**  
LS 10% $7,545.44  
**Maintenance of Traffic:**  
LS 10% $6,295.99  
**Project Unknowns:**  
LS 20% $19,090.39

**Sidewalk Widening**  
**TOTAL COST** $106,390.77
### PLANNING-LEVEL ESTIMATE

**LOCATION ID:** E4  
**LOCATION DESCRIPTION:** Sligh Avenue at 56th Street Signal  
**SCHOOL:** C. Leon King High School  
**PAGE NUMBER:** 42

## Add Flashing Yellow Arrow Signals

<table>
<thead>
<tr>
<th>PAY ITEM #</th>
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<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
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<tbody>
<tr>
<td>0632 7 1</td>
<td>SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH &amp; INST</td>
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<td>$1,000.00</td>
<td>$1,000.00</td>
</tr>
<tr>
<td>0650 1 16</td>
<td>TRAFFIC SIGNAL, FURNISH &amp; INSTALL ALUMINUM, 4 SECTION, 1 WAY</td>
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<td>1</td>
<td>$1,500.00</td>
<td>$1,500.00</td>
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<tr>
<td>0670 5400</td>
<td>TRAFFIC CONTROLLER ASSEMBLY, MODIFY</td>
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<td>$1,000.00</td>
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**MOBILIZATION**  
**MAINTENANCE OF TRAFFIC**  
**PROJECT UNKNOWNS**

**TOTAL COST**  
$4,935.00
## Crosswalk Pavement Markings

<table>
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<th>UNIT COST</th>
<th>TOTAL COST</th>
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<tr>
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<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 12&quot; FOR CROSSWALK AND ROUNDABOUT</td>
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<td>$3,600.00</td>
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<tr>
<td>0102 1</td>
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<tr>
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<td>PROJECT UNKNOWNS</td>
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<td>$4,120.00</td>
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</table>

**TOTAL COST**

$29,046.00
Enhance Street Lighting

<table>
<thead>
<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>0630 2 11</td>
<td>CONDUIT, FURNISH &amp; INSTALL, OPEN TRENCH</td>
<td>LF</td>
<td>17000</td>
<td>$12.00</td>
<td>$204,000.00</td>
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<tr>
<td>0630 2 12</td>
<td>CONDUIT, FURNISH &amp; INSTALL, DIRECTIONAL BORE</td>
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<td>$30.00</td>
<td>$60,000.00</td>
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<tr>
<td>0635 2 11</td>
<td>PULL &amp; SPLICE BOX, F&amp;I, 13&quot; x 24&quot; COVER SIZE</td>
<td>EA</td>
<td>120</td>
<td>$900.00</td>
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<tr>
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<td>3</td>
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<td>$9,000.00</td>
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<tr>
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<tr>
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<td>LIGHTING REPAIRS AND RETROFITS, LED RETROFIT KIT FOR EXISTING LUMINAIRE</td>
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<td>9</td>
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<td>EA</td>
<td>95</td>
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</table>

Enhance Street Lighting

| MOBILIZATION | LS 10% | $133,525.00 |
| MAINTENANCE OF TRAFFIC | LS 10% | $146,877.50 |
| PROJECT UNKNOWNS | LS 20% | $207,550.00 |

Enhance Street Lighting TOTAL COST $1,882,702.50
<table>
<thead>
<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
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<tbody>
<tr>
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<td>0650 1 16</td>
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<td>6</td>
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<td>0650 1 60</td>
<td>TRAFFIC SIGNAL, REMOVE- POLES TO REMAIN</td>
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<td>5</td>
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<tr>
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Mobilization

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Add Flashing Yellow Arrow Signals

Total Cost: $44,415.00
## Add Flashing Yellow Arrow Signals

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<th>UNIT COST</th>
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## Sidewalk Connectivity

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<tr>
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<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 12” FOR CROSSWALK AND ROUNDABOUT</td>
<td>LF</td>
<td>1200</td>
<td>$3.00</td>
<td>$3,600.00</td>
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<tr>
<td>0711 14125</td>
<td>THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24” FOR CROSSWALK</td>
<td>LF</td>
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**MOBILIZATION**

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<tr>
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<th>TOTAL COST</th>
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<tbody>
<tr>
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**MAINTENANCE OF TRAFFIC**

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<tbody>
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**PROJECT UNKNOWNS**

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<tr>
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**Sidewalk Connectivity TOTAL COST**

$182,228.40
## Enhance Street Lighting

<table>
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<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
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<th>UNIT COST</th>
<th>TOTAL COST</th>
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<tbody>
<tr>
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<td>$30.00</td>
<td>$9,000.00</td>
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<tr>
<td>0635 2 11</td>
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<td>EA</td>
<td>12</td>
<td>$900.00</td>
<td>$10,800.00</td>
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<tr>
<td>0639 1122</td>
<td>ELECTRICAL POWER SERVICE, F&amp;I, UNDERGROUND, METER PURCHASED BY CONTRACTOR</td>
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<td>$3,000.00</td>
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<td>$1,000.00</td>
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<td>LIGHTING CONDUCTORS, F&amp;I, INSULATED, NO 4 TO NO 2</td>
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<td>0715 4 13</td>
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<td>$70,000.00</td>
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<tr>
<td>0715 7 11</td>
<td>LOAD CENTER, F&amp;I, SECONDARY VOLTAGE</td>
<td>EA</td>
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<td>$15,000.00</td>
<td>$15,000.00</td>
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<td>0715500 1</td>
<td>POLE CABLE DISTRIBUTION SYSTEM, CONVENTIONAL</td>
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<td>$550.00</td>
<td>$5,500.00</td>
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|                 | MOBILIZATION                                                                       | LS   | 10%      |           | $14,850.00 |
|                 | MAINTENANCE OF TRAFFIC                                                             | LS   | 10%      |           | $9,335.00  |
|                 | PROJECT unknowns                                                                    | LS   | 20%      |           | $29,700.00 |

<table>
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<tr>
<th>Enhance Street Lighting</th>
<th>TOTAL COST</th>
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<tr>
<td></td>
<td>$209,385.00</td>
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## Crosswalk Signs and Pavement Markings

<table>
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<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
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</thead>
<tbody>
<tr>
<td>0700 1 11</td>
<td>SINGLE POST SIGN, F&amp;I GROUND MOUNT, UP TO 12 SF</td>
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<td>12</td>
<td>$450.00</td>
<td>$5,400.00</td>
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<tr>
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<td>SINGLE POST SIGN, REMOVE</td>
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<td>6</td>
<td>$75.00</td>
<td>$450.00</td>
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<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 12&quot; FOR CROSSWALK AND ROUNDBOORTHROUGH</td>
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<td>110</td>
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<td>$330.00</td>
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<td>MAINTENANCE OF TRAFFIC</td>
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<td></td>
<td>PROJECT UNKNOWNS</td>
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<td>20%</td>
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<td>$1,508.00</td>
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### Total Costs

**Crosswalk Signs and Pavement Markings**

| TOTAL COST | $10,631.40 |
# Sidewalk Connectivity

<table>
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<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
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<tr>
<td>0110 4 10</td>
<td>REMOVAL OF EXISTING CONCRETE</td>
<td>SY</td>
<td>417</td>
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<td>CONCRETE CURB &amp; GUTTER, TYPE F</td>
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<td>210</td>
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<td>$4,200.00</td>
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<td>0522 2</td>
<td>CONCRETE SIDEWALK AND DRIVEWAYS, 6&quot; THICK</td>
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<td>1689</td>
<td>$60.00</td>
<td>$101,333.33</td>
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<td>DETECTABLE WARNINGS</td>
<td>SF</td>
<td>72</td>
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<td>$2,160.00</td>
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<tr>
<td>0711 11123</td>
<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 12&quot; FOR CROSSWALK AND ROUNDABOUT</td>
<td>LF</td>
<td>300</td>
<td>$3.00</td>
<td>$900.00</td>
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<td>THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24&quot; FOR CROSSWALK</td>
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<td>220</td>
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**Sidewalk Connectivity**

**TOTAL COST $170,140.00**
## Crosswalk Signs and Pavement Markings

<table>
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<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
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<th>UNIT COST</th>
<th>TOTAL COST</th>
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<tbody>
<tr>
<td>0700 1 11</td>
<td>SINGLE POST SIGN, F&amp;I GROUND MOUNT, UP TO 12 SF</td>
<td>AS</td>
<td>4</td>
<td>$450.00</td>
<td>$1,800.00</td>
</tr>
<tr>
<td>0700 1 60</td>
<td>SINGLE POST SIGN, REMOVE</td>
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<td>4</td>
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<td>$300.00</td>
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<tr>
<td>0711 11123</td>
<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 12&quot; FOR CROSSWALK AND ROUNDABOUT</td>
<td>LF</td>
<td>60</td>
<td>$3.00</td>
<td>$180.00</td>
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<td>0713103103</td>
<td>PERMANENT TAPE, WHITE, SOLID DROP LANE MARKING, 12&quot; FOR CONCRETE BRIDGES,</td>
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<td>0.068</td>
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<td>340</td>
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**Mobilization**

| LS | 10% | $1,044.00 |

**Maintenance of Traffic**

| LS | 10% | $1,148.40 |

**Project Unknowns**

| LS | 20% | $2,088.00 |

**Crosswalk Signs and Pavement Markings**

| TOTAL COST | $14,720.40 |
## Sidewalk Connectivity

<table>
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<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
</tr>
</thead>
<tbody>
<tr>
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<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 12&quot; FOR CROSSWALK AND ROUNDABOUT</td>
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<td>7430</td>
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|                      | MOBILIZATION | LS   | 10%      | $37,281.00|
|                      | MAINTENANCE OF TRAFFIC | LS   | 10%      | $41,009.10|
|                      | PROJECT UNKNOWNS | LS   | 20%      | $74,562.00|

**Sidewalk Connectivity TOTAL COST** $525,662.10
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**Sidewalk Connectivity**

TOTAL COST: $1,015.20
## Enhance Street Lighting

<table>
<thead>
<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>0630 2 11</td>
<td>CONDUIT, FURNISH &amp; INSTALL, OPEN TRENCH</td>
<td>LF</td>
<td>3000</td>
<td>$12.00</td>
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<td>0630 2 12</td>
<td>CONDUIT, FURNISH &amp; INSTALL, DIRECTIONAL BORE</td>
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<td>400</td>
<td>$30.00</td>
<td>$12,000.00</td>
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<tr>
<td>0635 2 11</td>
<td>PULL &amp; SPLICE BOX, F&amp;I, 13&quot; x 24&quot; COVER SIZE</td>
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<td>20</td>
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**Enhance Street Lighting TOTAL COST**: $497,730.00
## Fencing and Handrail

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<td>PEDESTRIAN / BICYCLE RAILING, STEEL, 42&quot; TYPE 1</td>
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<td>$100.00</td>
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<td>0522 2</td>
<td>CONCRETE SIDEWALK AND DRIVEWAYS, 6&quot; THICK</td>
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<td></td>
<td>RELOCATE EXISTING FENCE</td>
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**Fencing and Handrail**

| TOTAL COST | $42,770.00 |
## PLANNING-LEVEL ESTIMATE

**LOCATION ID:** 15  
**LOCATION DESCRIPTION:** Sulphur Springs School Campus  
**SCHOOL:** Sulphur Springs K-8 Community School  
**PAGE NUMBER:** 56

### Enhance Pedestrian Access Points

<table>
<thead>
<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
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<td>0520 3</td>
<td>VALLEY GUTTER: CONCRETE</td>
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<td>650</td>
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<td>CONCRETE SIDEWALK AND DRIVEWAYS, 6&quot; THICK</td>
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**MOBILIZATION**  
LS 10% $2,491.22  
**MAINTENANCE OF TRAFFIC**  
LS 10% $2,740.34  
**PROJECT UNKNOWNS**  
LS 20% $4,982.44

**TOTAL COST**  
$35,126.23
Reduced Speed School Zone

<table>
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<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
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<th>UNIT COST</th>
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<tbody>
<tr>
<td>0700 111</td>
<td>SINGLE POST SIGN, F&amp;I GROUND MOUNT, UP TO 12 SF</td>
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<td>8</td>
<td>$60.00</td>
<td>$480.00</td>
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<tr>
<td>0700 1212</td>
<td>SIGN BEACON, F&amp;I GROUND MOUNT- AC POWERED, TWO BEACONS</td>
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<td>2</td>
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<td>0711 11125</td>
<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 24&quot; FOR STOP LINE AND CROSSWALK</td>
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<td>48</td>
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<td>THERMOPLASTIC, STANDARD, WHITE, MESSAGE OR SYMBOL</td>
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</table>

**Reduced Speed School Zone**

**TOTAL COST** $20,360.40
## Enhance Crosswalk Pavement Markings

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<thead>
<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>0711 11123</td>
<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 12&quot; FOR CROSSWALK AND ROUNDABOUT</td>
<td>LF</td>
<td>2520</td>
<td>$3.00</td>
<td>$7,560.00</td>
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<tr>
<td>0711 14125</td>
<td>THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24&quot; FOR CROSSWALK</td>
<td>LF</td>
<td>2000</td>
<td>$17.00</td>
<td>$34,000.00</td>
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Mobilization: LS 10% $4,156.00
Maintenance of Traffic: LS 10% $4,571.60
Project Unknowns: LS 20% $6,312.00

Enhance Crosswalk Pavement Markings Total Cost: $58,599.60
## Add Flashing Yellow Arrow Signals

<table>
<thead>
<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
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<th>UNIT COST</th>
<th>TOTAL COST</th>
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<tr>
<td>0632 7 1</td>
<td>SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH &amp; INSTALL</td>
<td>PI</td>
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<tr>
<td>0650 1 16</td>
<td>TRAFFIC SIGNAL, FURNISH &amp; INSTALL ALUMINUM, 4 SECTION, 1 WAY</td>
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<td>0670 5400</td>
<td>TRAFFIC CONTROLLER ASSEMBLY, MODIFY</td>
<td>AS</td>
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<td>$5,000.00</td>
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</table>

|          | MOBILIZATION    | LS   | 10%     | 0         | $1,540.00  |
|          | MAINTENANCE OF TRAFFIC | LS   | 10%     | 0         | $1,694.00  |
|          | PROJECT UNKNOWNS | LS   | 20%     | 0         | $3,080.00  |

**Add Flashing Yellow Arrow Signals**

**TOTAL COST**

$21,714.00
## Enhance Crosswalk Signage

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<tr>
<th>PAY ITEM #</th>
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<th>UNIT COST</th>
<th>TOTAL COST</th>
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</thead>
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<tr>
<td>0700 1111</td>
<td>SINGLE POST SIGN, F&amp;I GROUND MOUNT, UP TO 12 SF</td>
<td>AS</td>
<td>8</td>
<td>$450.00</td>
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<td>0711 11123</td>
<td>THERMOPLASTIC, STANDARD, WHITE, SOLID, 12&quot; FOR CROSSWALK AND ROUNDABOUT</td>
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<td>700</td>
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<td>0711 14125</td>
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<td>LF</td>
<td>650</td>
<td>$17.00</td>
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**MOBILIZATION**
- LS 10%: $1,675.00

**MAINTENANCE OF TRAFFIC**
- LS 10%: $1,842.50

**PROJECT UNKNOWNNS**
- LS 20%: $3,350.00

**Total Cost**
- Enhance Crosswalk Signage: $23,617.50
# Sidewalk Connectivity

<table>
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<tr>
<th>PAY ITEM #</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
<th>QUANTITY</th>
<th>UNIT COST</th>
<th>TOTAL COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>0522 2</td>
<td>CONCRETE SIDEWALK AND DRIVEWAYS, 6&quot; THICK</td>
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</table>

**TOTAL COST** $3,102.00
I am writing to you on behalf of ________________, to show our strong support for an increase or sustainability of future funding dedicated to Safe Routes to School (SRTS) non-infrastructure funding for Hillsborough County— the 9th largest school district in the nation. This assurance of future funding will allow for our tremendous efforts that began in 2007 to sustain and expand to all Elementary and Middle Schools in the county.

If applies: Our agencies experience working with St. Joseph’s Children’s Hospital’s Safe Routes to School program has benefitted us by...

The impact of the program to our students or community at large has been...

*Explain in your own words what would occur should SRTS program funds be cut or decreased? (Use a statistic that shows education efforts make our students safer when walking and biking, Who would be able to coordinate and schedule the trailers/bikes for use by the PE teachers at the schools if we weren’t able to?, Who would provide the education and encouragement of use when infrastructure projects are planned and completed?)

Our organization is very supportive of Safe Routes to School- Hillsborough in general because...

Thank you for your time and consideration,

Signature

Print Name

Title

Organization
Did you know 56th Street has one of the highest severe crash rates in our county? We want to work with you to raise awareness and help bring these crash rates down.

Please join your neighbors, the students & administration of King High School, Temple Terrace council members & staff, and many other on April 23, 3pm-5pm to place signs along 56th Street with messages to Slow Down, Put Phones Away, and Pay Attention.

First 100 receive a Vision Zero t-shirt!

To sign up, or for more information: planhillsborough.org/vision-zero or Facebook "Vision Zero Hillsborough"

Vision ZERO. It’s the right number.
CALL TO ORDER, PLEDGE OF ALLEGIANCE & INVOCATION

Chairman Les Miller called the meeting to order at 9:01 a.m. Commissioner Stacy White led the pledge of allegiance and invocation. The meeting was convened on the 26th floor of the County Center.

Commissioner Miller read, for the record, a memo from Commissioner Kemp informing the Board that she was unable to attend. He also informed presenters not to be extensively long, because a quorum will be lost around 10:15 or 10:20.

PUBLIC COMMENT

Mr. Rick Fernandez said that at this time last year, he and several others present were part of FDOT’s trip to St. Louis, Missouri for a peer exchange with the Missouri Department of Transportation on best practices. He stated that the same mistakes that were made with TBX are being made with the Regional Transit Feasibility Study. He asked for a deep-dive analysis of rail, and suggested that the new managed lanes on the Veteran’s Expressway will demonstrate how these lanes really work.

COMMITTEE REPORTS, ONLINE COMMENTS

Ms. Gena Torres, MPO staff, read the various MPO Committee reports. She also shared online comments received from Ms. Amato (thanking Ms. Alden and Ms. Silva for adding parent advocates to the School Transportation Working Group); Mr. Tindall (expressed concerns regarding congestion on the Howard Frankland Bridge and I-275); Mr. Vela (corresponded with FDOT Secretary regarding the BRT proposal, TBARTA’s role, regional planning, and the lack of innovative funding); and Mr. Rosas (shared two articles on sprawl without necessary transit infrastructure). There were no Facebook comments received.

CONSENT AGENDA

A. Approval of Minutes – February 6, 2018
B. Committee Appointments
C. Community Transportation Coordinator Annual Evaluation Report

A motion was made by Commissioner Murman to approve the Consent Agenda. The motion was seconded by Councilman Cohen and carried unanimously.

ROLL CALL VOTE: TRANSPORTATION IMPROVEMENT PROGRAM (TIP) AMENDMENT FOR HART FOWLER AVE/NEBRASKA AVE/FLORIDA AVE CORRIDOR STUDY

Commissioner Murman wanted to know if staff had considered moving this study and the corridor study for the Brandon BRT east-west under the Regional Transit Feasibility Plan. Ms. Alden stated that the
amendment was the result of a request from HART to repurpose funds that were set aside to look at the East-West MetroRapid corridor. Commissioner Murman also wanted to know how much money was set aside? Sarah McKinley, MPO Staff, stated that $2.5 million was set aside. Ms. Alden stated that staff will continue to work with HART. Commissioner Murman referenced ways to enhance the Regional Transit Feasibility Plan and stated that she will bring her question about use of these funds to the HART Board.

A motion was made by Commissioner Murman for approval of the TIP amendment for the approval of the description change for the Fowler/Nebraska/Florida Corridor Analysis. The motion was seconded by Mr. David Mechanik and carried unanimously by a roll call vote.

Commissioner Kemp, Mayor Lott, Councilman Maniscalco, and Cindy Stuart were absent for the roll call vote.

ACTION ITEM

A. 2018 Title VI Nondiscrimination Plan Update

Mr. Johnny Wong, MPO Staff, provided highlights of the Title VI Plan. Title VI of the Civil Rights Act of 1964 protects people from discrimination based on race, color, or national origin by agencies and programs which receive federal financial assistance. Under the umbrella of Title VI and related statutes and executive orders, the Hillsborough MPO extends additional protections such that no one will be discriminated against due to sex, age, disability status, family or religious status, income, or English proficiency. There were no questions following the presentation.

A motion was made by Councilman Cohen for approval of the 2018 Title VI Nondiscrimination Plan Update. The motion was seconded by Mr. Mechanik and carried unanimously.

STATUS REPORTS

A. CUTR Update & Autonomous Vehicle Transit Feasibility Study for USF Campus

Mr. Robert Bertini, Director of the Center for Urban Transportation Research (CUTR), and Professor of Civil and Environmental Engineering at the University of South Florida, provided an update on CUTR’s current research initiatives and collaborations with local jurisdictions. In addition, he provided information about the MPO’s on-going project with CUTR to examine the feasibility, legality and potential uses of Autonomous Transit service on the University of South Florida campus. Information on the study can be found at http://www.planhillsborough.org/usf-campus-autonomous-transit-feasibility-study/.

Cindy Stuart arrived at 9:26 a.m.

Following the presentation, Mr. Joe Waggoner stated that he has worked with CUTR and recognizes them as a group with a national reputation with great resources. He encouraged the Board to make use of them whenever there is an opportunity to.

B. FDOT Environmental Programs Update

Mr. Daniel Lauricello, FDOT Representative, provided an update on FDOT’s environmental programs.

During the presentation, Councilman Cohen stated that he thought the Upper Peninsula Watershed Drainage Improvements Project in South Tampa had already started. Mr. Lauricello stated the City is working on segments one through six, and following that, FDOT will begin construction of the improvements that are on Dale Mabry Highway itself.

Following the presentation, Commissioner White stated that he was glad to see FDOT’s focus on Old Tampa Bay, and he appreciates the partnership with FDOT. He mentioned that Ms. Alden is working with
his legislative aide on an effort to have Ed Sherwood, the Executive Director with the Estuary Program, come for a presentation to a MPO committee and then have a report come back to the Board afterwards. Ms. Alden stated that Mr. Sherwood will speak to the MPO’s Technical Advisory Committee, which is chaired by an Environmental Protection Commission (EPC) staff representative. Commissioner White also mentioned that Mr. Sherwood has also expressed interest in engineering tweaks when the Howard Frankland Bridge gets redone. Commissioner White reminded FDOT that he would like to see coordination with the EPC’s Artificial Reef Program when demolition materials are available from the bridges.

Mr. Lopano inquired about the third bridge of the Courtney Campbell Causeway. Mr. Lauricello stated that he would have to check on that information.

Mr. David Mechanik wondered if one bridge could improve the circulation for the whole Old Tampa Bay. Mr. Lauricello stated that the improvements will flush the area west of Ben T. Davis Beach, which has been a problematic area for many years.

C. MPO Unified Planning Work Program (UPWP) FY19 & FY20 – Call for Projects

Ms. Allison Yeh, MPO Staff, provided information on the biannual update. The new UPWP for FY18/19 & FY 19/20, will become effective July 1, 2018 and will cover the next two fiscal years.

Following the presentation, Commissioner White inquired about the Hillsborough County staff contact person and process for requesting MPO projects. Ms. Alden stated that the MPO typically receives a letter from the County Administrator and the contact is Mr. John Lyons, the Public Works Director. Commissioner White requested Ms. Alden have Mr. Lyons reach out to him regarding involving the BOCC with projects.

Mr. Lopano inquired about the request from one of the committees to study bicycle lanes’ physical separation from vehicle lanes. Ms. Yeh stated that the idea to physically separate the striped bike lane, to improve safety, was from a CAC member. Mr. Lopano stated that he supported the idea.

Commissioner Murman inquired about traffic counts and expressed concerns about the review process for identifying projects. The list of projects should be vetted through the Commissioners. The process has gotten a little better, but it is not where she would like it to be. Ms. Alden responded to Commissioner Murman’s inquiry. Commissioner Miller reminded the other Commissioners that projects come from County Commission staff and Public Works. Commissioner White requested that Ms. Alden inform Mr. Lyons of the discussion that took place regarding the process of requesting MPO projects.

**EXECUTIVE DIRECTOR’S REPORT**

Ms. Alden provided information on bills that have been making their way through the legislature that would affect the structure of MPO Boards. If the bills pass, Commissioner Murman requested that staff provide a report at the next meeting.

The First Annual Gulf Coast Safe Streets Summit was held on February 27, 2018. Ms. Alden thanked Policy Committee members for leading the Vision Zero efforts. The event was sold out and all presentations are posted on the MPO website. Staff will be working with Sarasota/Manatee MPO to host next year’s event.

Ms. Alden referenced correspondence from FHWA, which was included in the addendum of the agenda packet, for the Federal Highway Resilience to Extreme Weather Pilot Program federal grant of $250,000 that was awarded to us to work with our regional partners on how to address vulnerabilities in our transportation system and advance corrective measures. Allison Yeh was the project manager.
PlanHillsborough’s Board Strategic Planning Retreat will be held March 23, 2018 at the Stetson Law Center from 1:00 p.m. to 4:00 p.m.

The Tampa Bay TMA Leadership Group meeting will be held on Friday, March 9, 2018 at TIA and the Policy Committee will meet March 27th.

The 2nd Collaborative Labs Workshop for the MPO Regional Planning Best Practices Study (the MPO merger study) will be held June 1st at the St. Pete College Collaborative Labs.

Commissioner Murman asked Ms. Alden if staff is looking at the map from the Regional Transit Feasibility Plan to make sure that the corridors and connections are included in the Transportation Improvement Plan. She also wanted to know if it should come through County staff or MPO staff. Ms. Alden stated that MPO staff can bring the information back in terms of studying more connected corridors in more detail and agreed that Commissioner Murman bring it up with HART as well.

Commissioner White requested that MPO staff work with County staff on the recent direction from the BOCC with respect to the Extreme Weather Pilot Program. County staff will conduct a peril-of-flood assessment. MPO staff should ensure that there are no duplicative activities. Ms. Alden agreed.

Mr. Cameron Clark reminded members to provide comments to him on the Executive Director’s evaluation by the end of the week. He will send out a reminder email for members that are absent. The information will be presented at the Policy Committee and then at the April MPO Board meeting.

Councilmember Maniscalco arrived at 9:54

The next MPO Board meeting is scheduled for Tuesday, April 3, 2018 at 9:00 a.m. on the 26th Floor of the County Center.

OLD BUSINESS & NEW BUSINESS

There was no old or new business.

ADJOURNMENT

A quorum was maintained for the duration of the meeting. There being no further business, the meeting adjourned at 10:01 a.m.
Meeting of the Citizens Advisory Committee (CAC) on March 14

The committee approved and forwarded to the MPO Board:
✓ Public Participation Plan Measures of Effectiveness Report, including a recommendation to expand accessibility with real-time engagement such as more live streaming of meetings;
✓ Comments and questions on the Regional Transit Feasibility Plan.

They also heard reports from:
- The Tampa Bay Regional Planning Council on hurricane evacuation and resiliency to climate change;
- The City of Tampa on the Invision Tampa Streetcar study; members asked how this project relates to the Regional Transit Feasibility Plan.

Meeting of the Technical Advisory Committee (TAC) on March 19

The committee approved and forwarded to the MPO Board:
✓ Letter of support for Upper Tampa Bay water quality enhancements in conjunction with the Howard Frankland Bridge Project.
  - TAC members were interested in the potential acreage of seagrass recovery, and that Tampa Bay Estuary Program already has a working relationship with FDOT on this effort.
✓ Comments on the Regional Transit Feasibility Plan
  - Members asked if having to choose between steel-wheel transit or BRT was necessary, and for more information the study schedule.
✓ Public Participation Plan MOE Report
  - Supportive of using Instagram and other social media tools.

The TAC also received presentations on:
  - Invision Tampa Streetcar Study – there was interest in how the extension of the streetcar was coordinated with TBNExt, The Heights Mobility Plan and the MPO’s study of Tampa/Florida.
  - I-75 Diverging Diamond Interchanges – members were impressed with the safety and congestion benefits of diverging diamonds.

The TAC chair was invited to participate in the Plan Hillsborough Retreat on March 23rd at Stetson Law School.

Meeting of the Bicycle/Pedestrian Advisory Committee (BPAC) on March 14

The committee heard status reports on the:
BPAC members also received public comments on the need for bike lane maintenance in the Town N’ Country area, on Sheldon Road and adjacent roadways. These have been forwarded to the proper maintenance authorities.

**Meeting of the Livable Roadways Committee on March 21**

A verbal report will be provided at the board meeting.

**Meeting of the Policy Committee on March 27**

The committee **approved and forwarded to the MPO Board:**

- Memorandum of Understanding between TBARTA, FDOT, HART, PSTA, & MPOs – with one dissenting vote.
- MPO Advisory Council 2018 Call for Freight Projects
- MPO Executive Director’s Annual Evaluation

They received a presentation on potential Comments on the Regional Transit Feasibility Plan, and after extensive discussion, concluded that this is a good round-up of questions, but asking questions is only the first step. The MPO should help with pulling answers together. Some answers may be available already; other answers will require information and responses from multiple agencies, and regional collaboration will be needed to develop the right path forward for Tampa, Hillsborough, and the region.

They also heard a status report on State Funding for Transit, and asked for the slides to be distributed to the board members.

**Meeting of the School Transportation Working Group (STWG) on March 28**

A verbal report will be provided at the board meeting.

**Meeting of the TBARTA MPO Directors on March 23**

The directors focused on the agenda for the July 13 joint meeting of the TBARTA MPO Chairs with the Central Florida MPO Alliance, which will be held at Hillsborough Community College’s Plant City campus, beginning at 10am. Topics may include connecting the Tampa and Orlando markets; how Brightline got started; and the Tampa Bay TMA’s tri-county growth scenarios, allowing with the annual updates of regionally significant project priorities.
Tampa Bay Transportation Management Area (TMA) Leadership Group Executive Summary
Representing the MPOs in Pasco, Pinellas, & Hillsborough Counties

Summary for 3.9.18 meeting

Based on the importance and reach of the conversations that happen at the TMA Leadership Group, we are looking to keep our stakeholders aware of the outcomes of these meetings. The following is a summary of the most recent meeting highlights; you can find the full agenda online. This meeting was also videotaped, which you can watch on YouTube.

The group heard several updates on the status of Regional Express Bus initiatives, and other topics relating to transit connections

- Members had stated at a previous meeting that they would like to see more regional express bus routes developed as soon as possible
- Starting in June, PSTA will extend its existing express route from the Gateway to Tampa International Airport via the Howard Frankland Bridge, and will extend another express route from downtown St. Petersburg to downtown Tampa via the Gandy
  - The services will run during peak travel times with the intent to seek funding to expand
- HART discussed its planned park-and-ride express route from Wesley Chapel to Tampa International Airport
  - There was some confusion about the overlap between this route and the planned BRT route in the RTFP
- The City of Tampa presented its plans for the new streetcar route study, which identified a preferred north-south extension from Tampa Heights through the center of downtown, serving numerous businesses and city parking garages
  - The city is requesting approval into FTA’s Small Starts Project Development this month
- FDOT discussed its intermodal studies throughout the region, which look to identify ideal transfer points between various modes of transportation
  - Also mentioned was an FDOT pilot study of shoulder-running express bus in Pinellas County that is nearing completion

An initial discussion of transportation project priorities for funding in the coming year was taken up and final decisions on priorities will be made at the May meeting

- Group members discussed whether to take off projects that were funded, or leave the projects on the list until construction is complete
- The group also discussed how to define priorities
The MPO directors noted that the priority list has been integrated into the priority lists of the MPOs, and that list is transmitted to the Florida Department of Transportation for funding. However, there were members who felt the priorities should include big-picture vision projects and also legislative asks that may not be under the purview of FDOT. The group tentatively agreed to put both the CSX project and the BRT project from the Regional Transit Feasibility Plan on the priority list, although the scale/phasing and order of those projects will be determined in May.

Scott Pringle of Jacobs, the consultant for the Regional Transit Feasibility Plan, provided a response to requests for information group members had made at the previous meeting in February. For the past few months, the Regional Transit Feasibility Plan discussion has revolved around two possible catalyst projects:

- Shoulder-running bus rapid transit along the I-275 Corridor including Wesley Chapel, USF, Tampa, Gateway, St. Petersburg. This was the consultant’s suggested catalyst plan due to cost effectiveness and coordination with Tampa Bay Next interstate modernization.
- Commuter rail in the northern corridor following the CSX rail line, from Downtown Tampa to USF. This project is preferred by some members due to its potential for passenger rail service linking Hernando and Pasco County with Tampa, and transit-oriented development possibilities along the route.

At the March meeting, Pringle brought back information in response to several requests, but two main ones: To look at the US 41 corridor and a 41-mile CSX route to be able to compare to the 41 miles along the I-275 corridor, and to look at a 12-mile CSX project with a connection directly to USF.

- **Original CSX suggested route (downtown Tampa to USF):**
  - 9-mile route
  - $620 million estimated capital cost
  - 3.6 million annual ridership
  - $11 cost per trip

- **Tampa with direct connection to USF:**
  - 11.2-mile route
  - $780 million estimated capital cost
  - 3.7 million annual ridership
  - $11 cost per trip

- **Tampa to SR 54 near US 41:**
  - 16-mile route
  - $1.19 billion estimated capital cost
  - 4.6 million annual ridership
  - $13 cost per trip

- **Tampa to Brooksville:**
  - 45-mile route
  - $2.62 billion estimated capital cost
  - 4.7 million annual ridership
- $28 cost per trip
  - Tampa to Oldsmar, Clearwater, and St. Petersburg
    - 50-mile route
    - $3.32 billion estimated capital cost
    - 7.8 million annual ridership
    - $22 cost per trip

- Pringle also clarified the full costs from various funding sources in the I-275 concept, which includes between $920M and $1.15B in money that FDOT would spend in the future interstate modernization projects to accommodate shoulder-running BRT
- The discussion that resulted from this presentation focused mainly on how relevant the numbers from the CSX routes were to the eventual actual costs
  - Pasco Commissioner Jack Mariano felt that the numbers should take the possibility of private investment and resulting development around rail stations into account
  - Pringle noted that the study had requested that the projects be looked at using criteria for funding established by the Federal Transit Administration to compare applications from across the country, and that the FTA criteria was what he focused on
  - FDOT District 7 Secretary David Gwynn clarified that the formula for FTA funding was very specific and is only calculated based on the elements that Pringle had looked at

**Pasco MPO Director Craig Casper and Hillsborough MPO Director Beth Alden discussed right-of-way for CSX and interstate transit, respectively**
- A few highlights of the CSX presentation:
  - There are two major CSX subdivisions that are up for sale:
    - One from Hernando County to Busch Boulevard in Tampa
    - One from Busch Boulevard west to Clearwater and curving south into St. Pete
    - There may be additional available subdivisions, including one in South Tampa, but that remains unknown
  - The CSX line cannot accommodate light rail within existing right-of-way, only commuter rail and CSX would retain usage of the tracks for freight service
  - Gwynn noted that, were the region to agree on the need to purchase CSX right-of-way, that would not be within FDOT’s purview and would need an act of the state legislature
    - He also noted the legislature wouldn’t make that purchase without a project to go with it
- Alden’s presentation focused on how right-of-way on the interstate has been handled in other communities
  - Communities included South Florida and Minneapolis/St. Paul
    - In South Florida, express bus service was added in managed lanes on I-95 between Miami and Ft. Lauderdale, and ridership increased 22% year-over-year
    - In the Twin Cities, bus-only shoulders (of which there are now 334+ miles constructed) provided 9 minutes of travel time savings on average. Ridership also increased 9 percent over two years.

**TBARTA Executive Director Ray Chiaramonte gave an update on the MPO Regional Coordination Best Practices Study**
- The study is moving from Phase I, which examined existing conditions and directions, to Phase II, which will identify best practices from peer regions and develop case studies
● A second workshop will be held June 1 at Collaborative Labs, and a third workshop is tentatively planned for September
● The study is scheduled for completion in December

The group also decided to meet in Pasco at the next meeting May 11
Subject: Save the Date! Regional Transit Forum - July 20th

Save the date for the
Regional Transit Forum

Friday, July 20, 2018
Tampa Airport Marriott

More information to follow

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