HILLSBOROUGH COUNTY MPO

SCHOOL SAFETY STUDY

FINAL REPORT SEPTEMBER 2018

School Transportation Safety Study

September 2018

Prepared For:

Hillsborough MPO
Metropolitan Planning for Transportation

Hillsborough County Metropolitan Planning Organization 601 East Kennedy Boulevard, 18th Floor
Tampa, FL 33601
Task Authorization: TOA-05

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Study Area: Hillsborough MPO School Safety Study

City: City of Tampa & Unincorporated Hillsborough County

County: Hillsborough County

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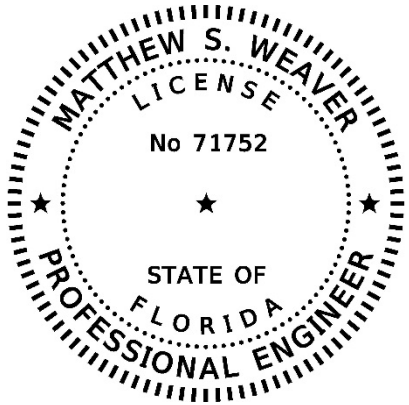

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Introduction

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 though 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)

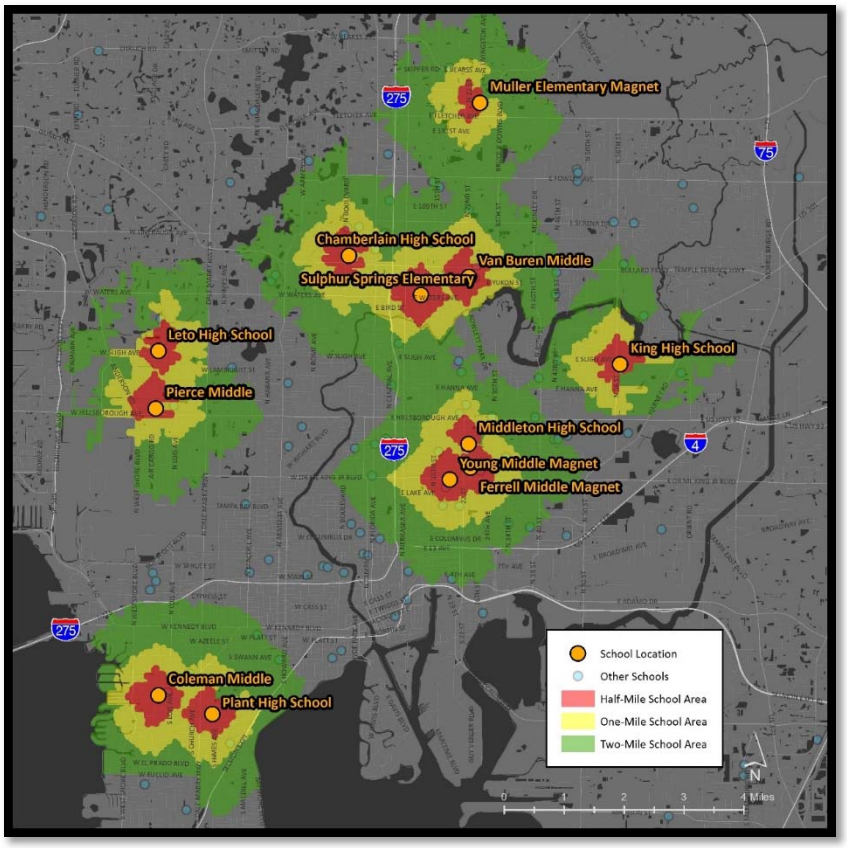


Figure 1: School Areas Selected for Review

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-build 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 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.

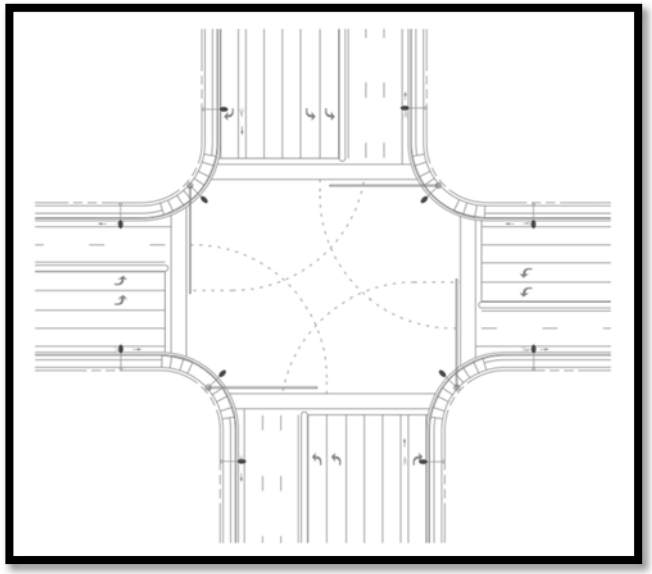


Figure 2: Typical Urban Signalized Intersection Lighting Design (FDM Figure 231.3.4)

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.

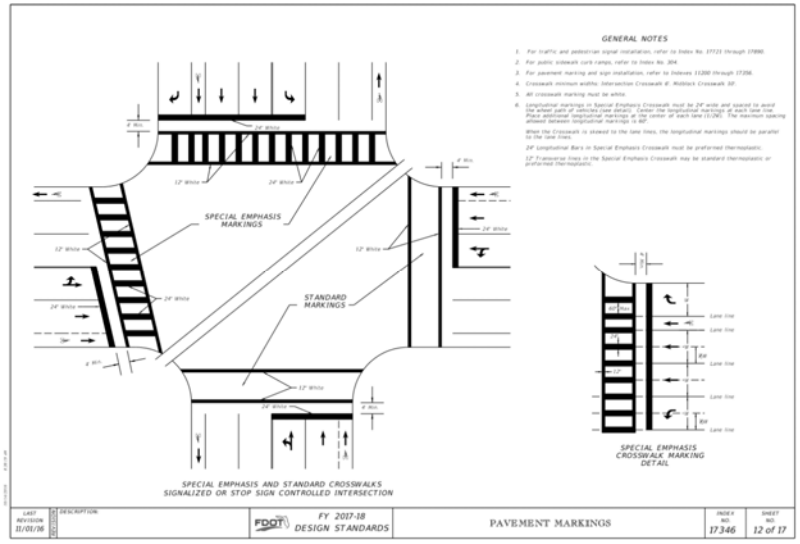


Figure 3: Common Crosswalk Markings

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

School Zone Markings and Signage

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 Assembly

Figure 6: School Speed Limit When Flashing (MUTCD S5-1) Sign

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.

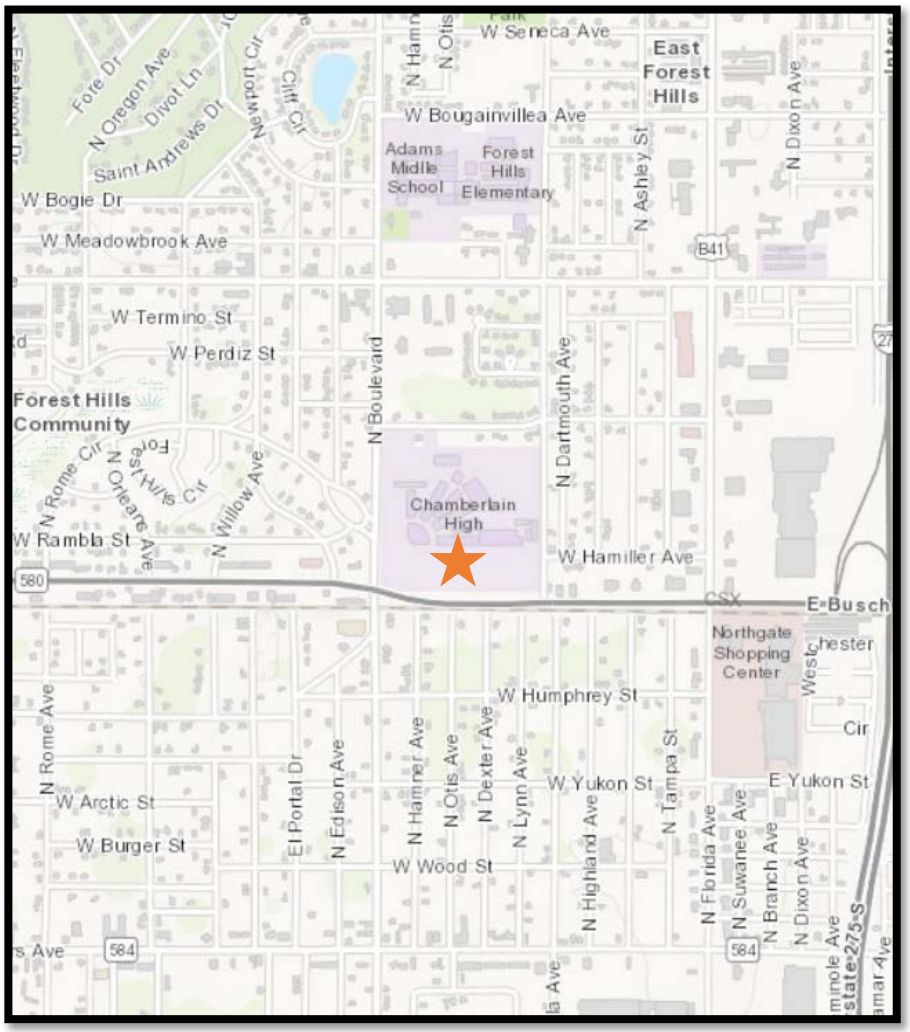
George D. Chamberlain High School

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

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
A1	North Boulevard from Sligh Avenue to Country Club Drive	Faded and unmarked crosswalks	Enhance or add pavement markings


North Blvd at Newport Cir


Chamberlain High Southern Entry

Observation Detail:

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

Suggestion Detail:

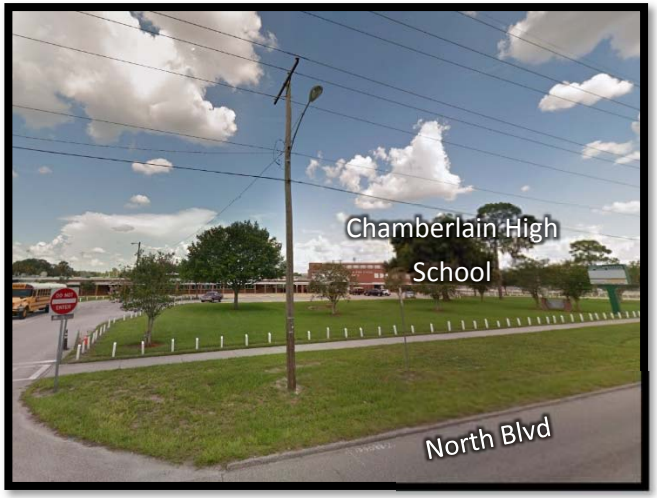
Refurbish existing crosswalks and add new crosswalks for all side street crossings on North Boulevard, including high-volume driveways.

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

Feasibility Review Comment:

George D. Chamberlain High School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
A2	North Boulevard from Waters Avenue to Country Club Drive	Condition of existing high-pressure sodium (HPS) street lights	Upgrade to light emitting diode (LED) and add additional luminaires as necessary



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:	*Improvement Type:*
City of Tampa	Enhanced street lighting
Time Frame:	***Level of Effort:***
Mid Term	Medium
EEE:	***Cost Estimate:***
Engineering	$880,602

Feasibility Review Comment:

George D. Chamberlain High School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
A3	North Boulevard from Sligh Avenue to Country Club Drive	Potential ADA enhancements	Enhance curb ramps and detectable warnings

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.

Responsible Agency:	*Improvement Type:*
City of Tampa	Pedestrian Features
Time Frame:	***Level of Effort:***
Mid Term	Medium
EEE:	***Cost Estimate:***
Engineering	$173,600

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

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
A4	North Boulevard from Busch Blvd. (SR 580) to Country Club Drive	Midblock crossing opportunities	Consider additional enhanced midblock crossing locations

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:	Improvement Type:
City of Tampa	Study & Potentially Pedestrian Features
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	$35,215

Feasibility Review Comment:

George D. Chamberlain High School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
A5	The northwest quadrant of the intersection of Bird Street & Armenia	Stored products block pedestrian pathways	Code enforcement contact to request cleared path

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

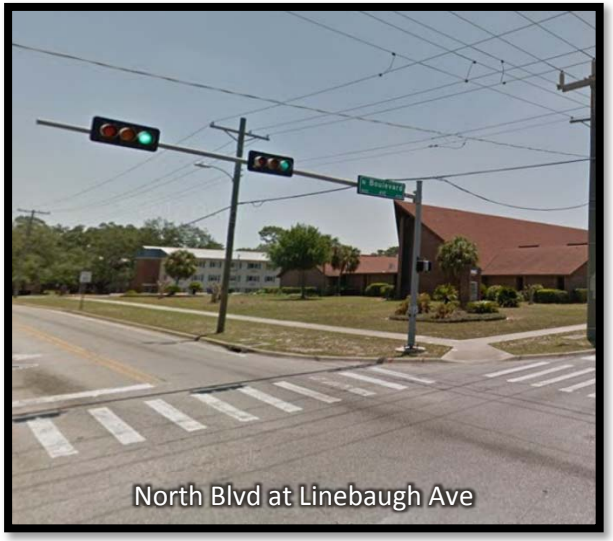
Suggestion Detail:
Consider involving code enforcement to request clear walking paths and avoid the potential for pedestrians being forced to walk onto the shoulder or roadway.

Responsible Agency:	Improvement Type:
City of Tampa	Code Enforcement
Time Frame:	**Level of Effort:**
Short Term	Low
EEE:	**Cost Estimate:**
Enforcement	N/A

Feasibility Review Comment:

George D. Chamberlain High School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
A6	Busch Blvd. (SR 580) at North Blvd. North Blvd. at Linebaugh Avenue	Signal phasing opportunities	Modify signal phasing to avoid permissive left-turn movements that conflict with pedestrians.



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:	Improvement Type:
City of Tampa & Florida Department of Transportation	Signal Timing & Equipment Modifications
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	$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.

George D. Chamberlain High School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
A7	Busch Blvd. (SR 580) at Florida Ave. & Busch Blvd. (SR 580) at North Blvd.	Sidewalk connectivity and railroad gates	Enhance sidewalk connectivity and pedestrian safety near railroad crossings.

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:	Improvement Type:
City of Tampa & CSX	Pedestrian features & sidewalk
Time Frame:	**Level of Effort:**
Long Term	High
EEE:	**Cost Estimate:**
Engineering	$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

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
A8	Busch Blvd. (SR 580) at North Blvd.	Potential need for reduced speed school zone	Evaluate location for implementation of a reduced speed school zone.

Busch Blvd Existing Signage

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:	Improvement Type:
Florida Department of Transportation	Engineering Study & Signing if Warranted
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	$26,790

Feasibility Review Comment:

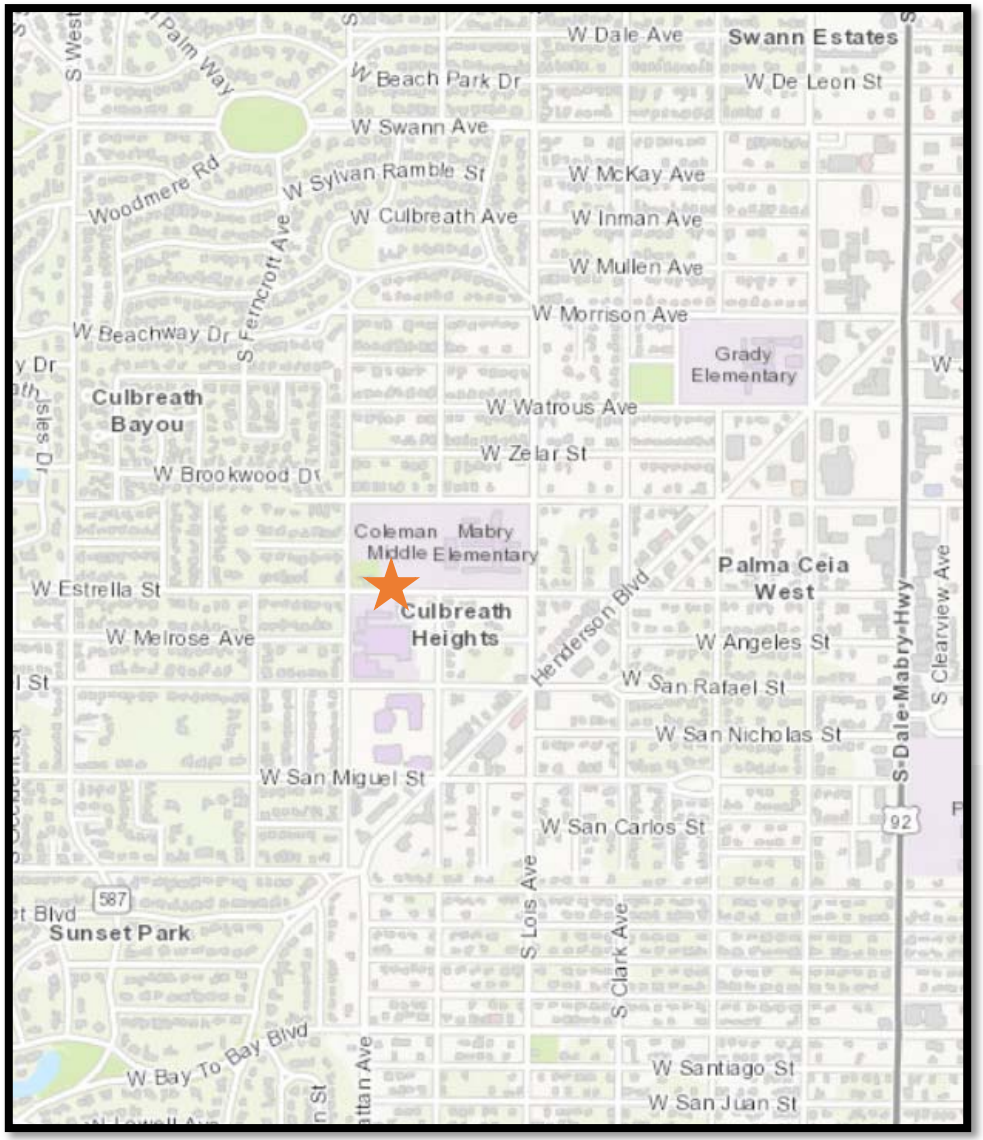
Dr. John A. Coleman Middle School

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 Assistant 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.



Dr. John A. Coleman Middle School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
B1	San Rafael Street and Melrose Avenue	Sidewalk gaps	Install new sidewalk.

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:	Improvement Type:
City of Tampa	Sidewalk Connectivity
Time Frame:	**Level of Effort:**
Long Term	Medium
EEE:	**Cost Estimate:**
Engineering	$291,913

Feasibility Review Comment:

Right of way may be a limitation on these two corridors.

Dr. John A. Coleman Middle School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
B2	Various locations in the vicinity of Dr. John A. Coleman Middle School and Mabry Elementary School	Potential long-term ADA enhancement project.	Upgrade sidewalk ramps to enhance walkability

Observation Detail:

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

Suggestion Detail:

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.

Responsible Agency:	*Improvement Type:*
City of Tampa	Pedestrian
Time Frame:	***Level of Effort:***
Long Term	High
EEE:	***Cost Estimate:***
Engineering	$326,472

Feasibility Review Comment:

Consider including these suggestions in any ongoing capital improvement projects or resurfacing projects.

Dr. John A. Coleman Middle School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
B3	Roadways adjacent to Coleman Middle	Crosswalks needing refurbishment or locations without striped crosswalks	Consider striping maintenance or additional crosswalks


San Rafael St at Hubert Ave


San Miguel St at Manhattan Ave

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:	Improvement Type:
City of Tampa	Pavement Markings
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	$186,313

Feasibility Review Comment:

New crosswalk striping can be added to any upcoming resurfacing projects.

Dr. John A. Coleman Middle School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
B4	Manhattan Avenue	Undefined roadway lanes	Consider adding center line striping to enhance delineation for vehicles

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.

Responsible Agency:	*Improvement Type:*
City of Tampa	Pavement Marking
Time Frame:	***Level of Effort:***
Short Term	Low
EEE:	***Cost Estimate:***
Engineering	$5,358

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

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
B5	Intersection of Estrella St & Manhattan Ave	Walkability Challenges	Update Traffic Signal

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:	Improvement Type:
City of Tampa	Traffic Signal & Intersection Improvement
Time Frame:	**Level of Effort:**
Long Term	Medium
EEE:	**Cost Estimate:**
Engineering	$319,960

Feasibility Review Comment:

Potential utility conflicts and right of way limitations. Estimate does not include potential right of way costs.

Dr. John A. Coleman Middle School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
B6	Henderson Blvd. from W. San Jose St. to Dale Mabry Highway (US 92) including San Rafael St.	Pedestrian Connectivity Challenges	Upgrade Intersections

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:	Improvement Type:
City of Tampa	Traffic Signal & Intersection improvements
Time Frame:	**Level of Effort:**
Long Term	High
EEE:	**Cost Estimate:**
Engineering	$253,340

Feasibility Review Comment:

Dr. John A. Coleman Middle School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
B7	Intersection of Morrison Ave and Lois Ave Intersection of Azeele St and Lois Ave	Very long crosswalks	Refuge Islands & Reduced Crossing Distance

Lois Ave at Morrison Ave

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:	Improvement Type:
City of Tampa	Crosswalk Modifications
Time Frame:	**Level of Effort:**
Long Term	Medium
EEE:	**Cost Estimate:**
Engineering	$25,197

Feasibility Review Comment:

Dr. John A. Coleman Middle School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
B8	San Rafael Street from Manhattan Ave to Hubert Ave	Very Wide Pavement	Delineate the Extra Pavement

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:

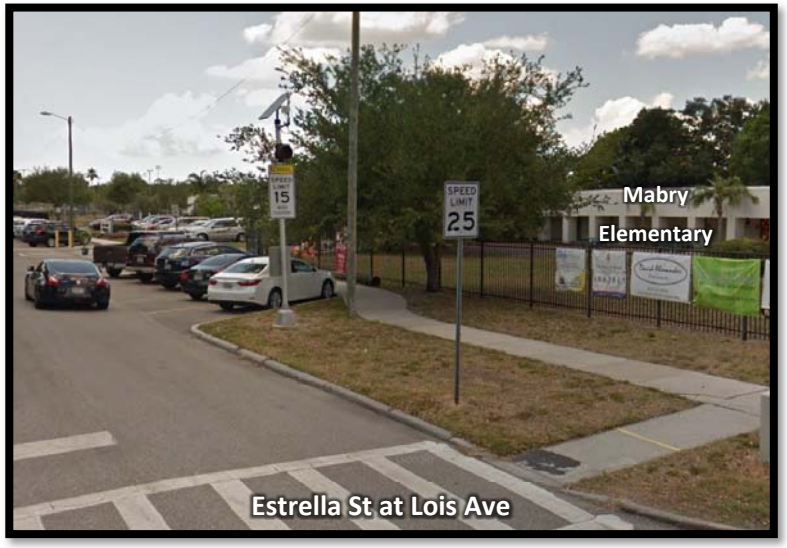
Consider providing additional pavement markings to delineate the intended roadway use of this extra pavement.

Responsible Agency:	Improvement Type:
City of Tampa	Pavement Marking
Time Frame:	**Level of Effort:**
Short Term	Low
EEE:	**Cost Estimate:**
Engineering	$3,250

Feasibility Review Comment:

Dr. John A. Coleman Middle School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
B9	Areas around Dr. John A. Coleman Middle School	Speeding vehicles in reduced speed school zone	Enforcement Activities



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:	Improvement Type:
City of Tampa Police Department	Enforcement
Time Frame:	**Level of Effort:**
Short Term	Low
EEE:	**Cost Estimate:**
Enforcement	N/A

Feasibility Review Comment:

Dr. John A. Coleman Middle School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
B10	Various locations	Request for Additional Crossing Guards or Modified Duty Hours	Adding crossing guards

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:	Improvement Type:
Hillsborough County Sheriff's Office Crossing Guard Program	Adjusted Crossing Guard Hours
Time Frame:	**Level of Effort:**
Short Term	Low
EEE:	**Cost Estimate:**
Enforcement	N/A

Feasibility Review Comment:

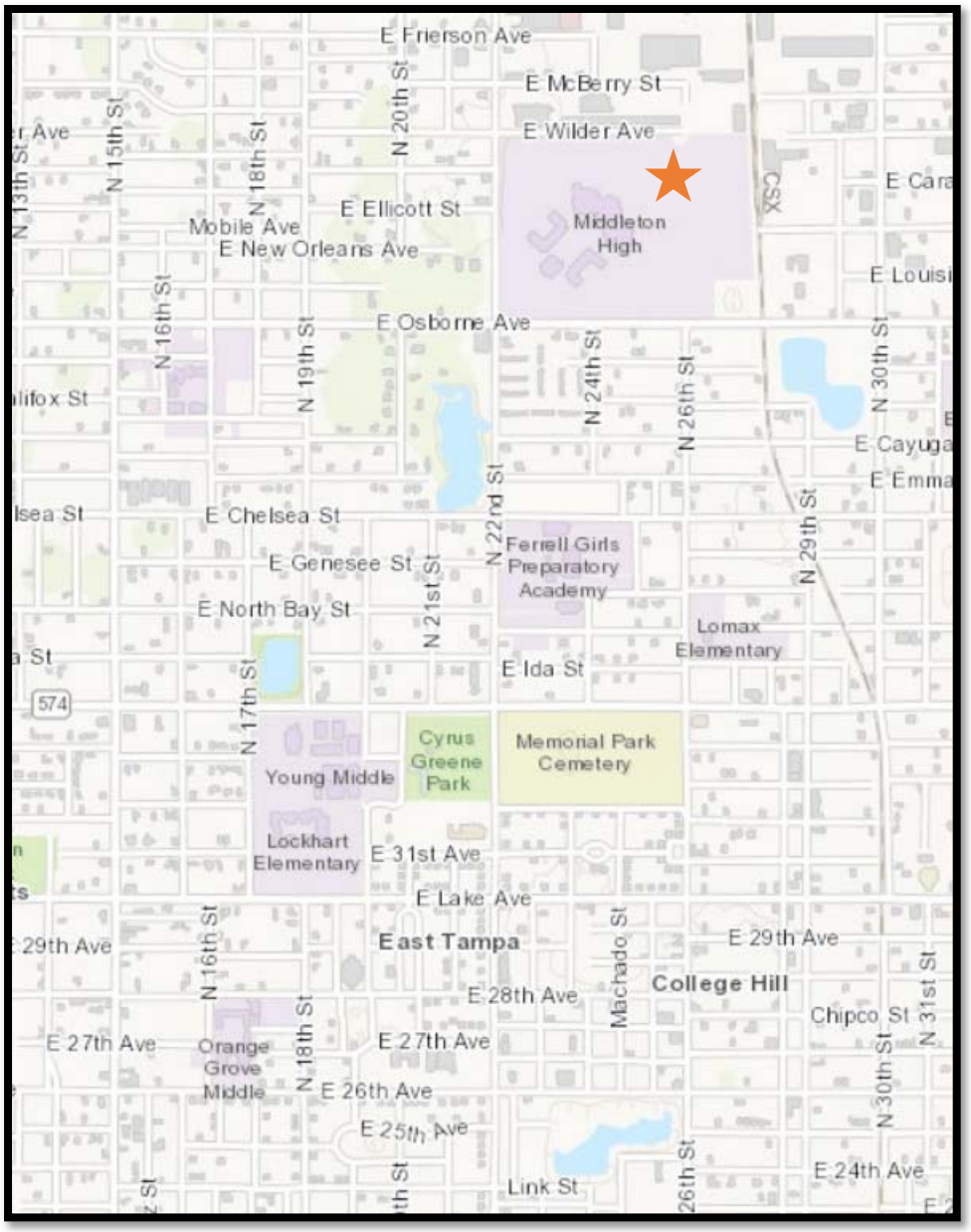
Girls Preparatory Academy at Ferrell Middle Magnet School

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

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
CA1	Chelsea Street, east of 22nd Street	Defined walking routes needed	New or defined walking path

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:	Improvement Type:
City of Tampa	Sidewalk
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	$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

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
CA2	Various Locations	Crosswalk striping	Add or refurbish crosswalk markings

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.

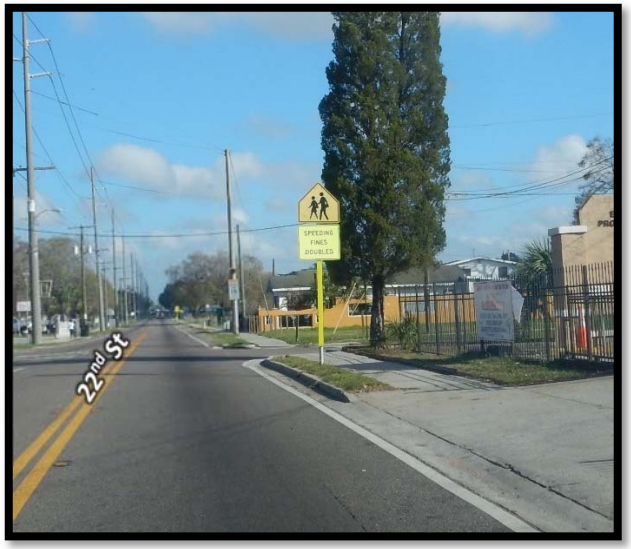
Responsible Agency:	Improvement Type:
City of Tampa	Pavement Markings
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	$292,998

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.

Girls Preparatory Academy at Ferrell Middle Magnet School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
CA3	School Zone on 22nd Street and Chelsea Street	Aging and custom school zone signage	Upgrade school zone signage



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:	Improvement Type:
City of Tampa	Enhanced Signing
Time Frame:	**Level of Effort:**
Short Term	Low
EEE:	**Cost Estimate:**
Engineering	$26,790

Feasibility Review Comment:

Girls Preparatory Academy at Ferrell Middle Magnet School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
CA4	Various Locations	Sidewalk gaps	Connect sidewalk gaps

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 22nd Street
- North side of Chelsea Street between 10th Street and 17th Street

Responsible Agency:	Improvement Type:
City of Tampa	Sidewalk connection
Time Frame:	**Level of Effort:**
Short Term	Medium
EEE:	**Cost Estimate:**
Engineering	$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 22nd Street and Chelsea Street intersection due to the property limits and ownership at this location.

Girls Preparatory Academy at Ferrell Middle Magnet School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
CA5	Chelsea Street & 25th Street and various other locations	Overgrowth in vegetation	Landscape Maintenance Activities

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:	Improvement Type:
City of Tampa	Maintenance
Time Frame:	**Level of Effort:**
Short Term	Low
EEE:	**Cost Estimate:**
Engineering	N/A

Feasibility Review Comment:

Girls Preparatory Academy at Ferrell Middle Magnet School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
CA6	22nd Street at Chelsea Street	Uncontrolled crosswalk	Enhance signing and crosswalk treatments

Observation Detail:

The existing crossing across 22nd 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:	Improvement Type:
City of Tampa	Enhanced Signing
Time Frame:	**Level of Effort:**
Med Term	Medium
EEE:	**Cost Estimate:**
Engineering	$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 22nd 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

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
CA7	Chelsea Street and 22nd Street	Spacing and condition of existing street lights	Additional and enhanced street lighting

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 22nd Street and Chelsea Street.

Responsible Agency:	Improvement Type:
City of Tampa	Lighting
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	$134,980

Feasibility Review Comment:
The existing high-pressure sodium luminaires could be converted to light emitting diode luminaires.

Girls Preparatory Academy at Ferrell Middle Magnet School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
CA8	Chelsea Street at Ferrell Middle Magnet School Entrance	Cut-through traffic using an alley	Close the alley

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:	Improvement Type:
City of Tampa	Permanent Road Closure
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	N/A

Feasibility Review Comment:

Girls Preparatory Academy at Ferrell Middle Magnet School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
CA9	School Campus – Ferrell Middle Magnet	Low light levels on the school campus	Enhanced lighting for parking lots

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:	Improvement Type:
School District of Hillsborough County	Street Lights
Time Frame:	**Level of Effort:**
Short Term	Medium
EEE:	**Cost Estimate:**
Engineering	$120,350

Feasibility Review Comment:

Girls Preparatory Academy at Ferrell Middle Magnet School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
CA10	School Campus	School Circulation Issue	Modify on-site circulation pattern to eliminate queue onto 22nd Street

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:	Improvement Type:
School District of Hillsborough County	On-Site Circulation
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	N/A

Feasibility Review Comment:

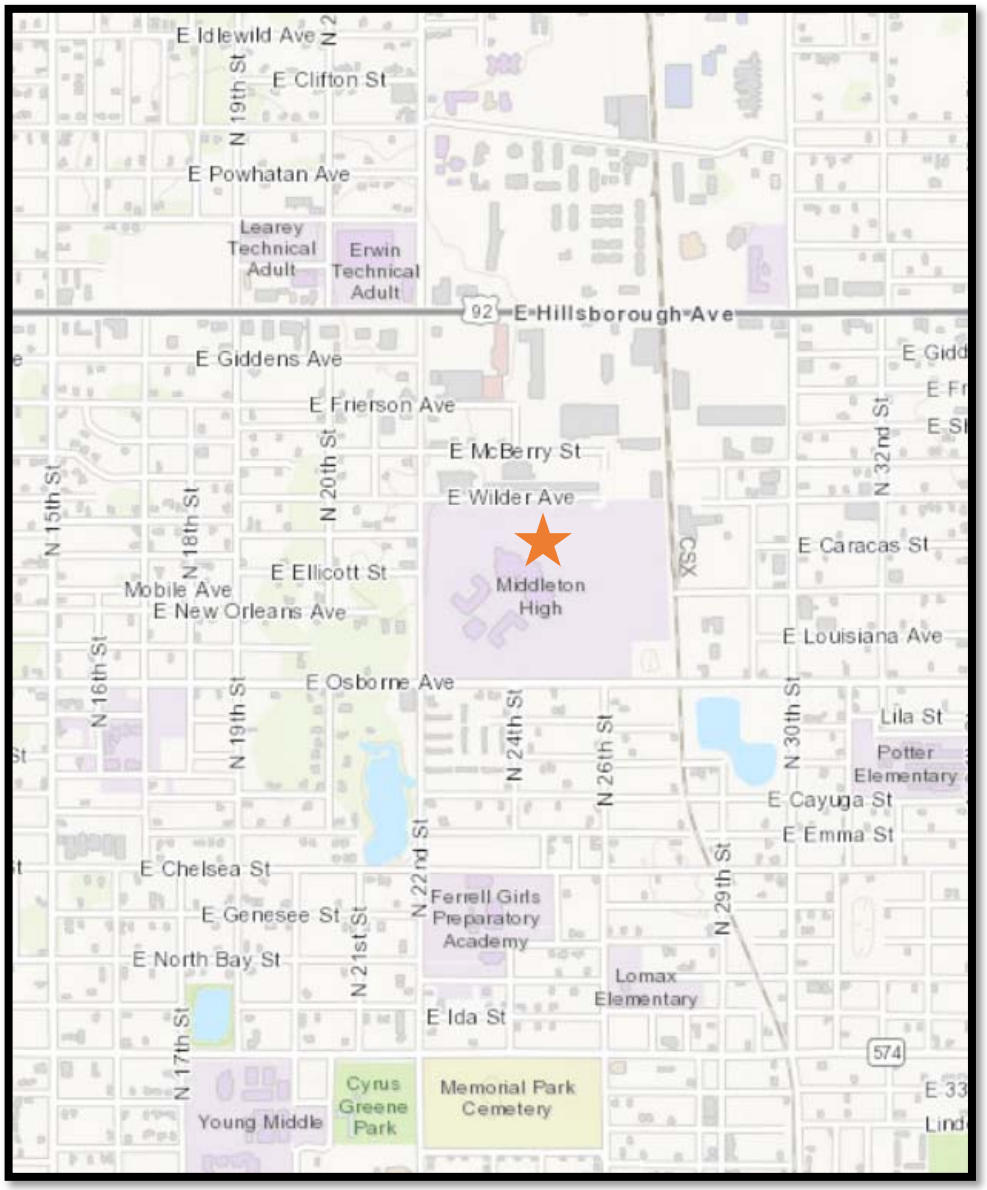
George S. Middleton High School

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

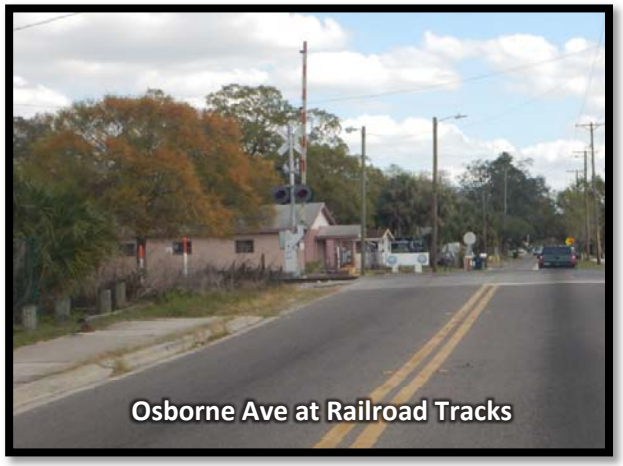
The review team met with the George S. Middleton High School Principal, Dr. Kim Moore, and Assistant Principal for Student Affairs, Ms. Barbara Hefley, on February 22. Dr. Moore and Ms. Hefley's primary concern was the safety of children crossing Hillsborough Avenue and those walking or bicycling from 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.



George S. Middleton High School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
CB1	Osborne Avenue	Gaps in sidewalks	Enhance sidewalk connectivity


Osborne Ave at Middleton High South Driveway


Osborne Ave at Railroad Tracks

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:	Improvement Type:
City of Tampa	Sidewalk
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	$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

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
CB2	22nd Street from Osborne Avenue to E. Sligh Avenue	Aging and Faded Pavement Markings	Refurbish Pavement Markings

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:	Improvement Type:
City of Tampa	Pavement Marking
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	$146,640

Feasibility Review Comment:
Can be combined with upcoming CIP/Resurfacing projects.

George S. Middleton High School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
CB3	Various Locations	Crosswalk striping condition	Add or refurbish crosswalk markings

Observation Detail:

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

Suggestion Detail:

Consider installing or refurbishing crosswalks through the following corridors:

- 15th Street corridor from E. Dr. M.L.K. Jr. Blvd (SR 574) to Hillsborough Avenue (US 92)
- 22nd Street corridor from E. Dr. M.L.K. Jr. Blvd (SR 574) to Hillsborough Avenue (US 92)
- 34th 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:	Improvement Type:
City of Tampa	Pavement Marking
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	$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

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
CB4	22nd Street School Zones at Middleton	School zone signage condition	Upgrade school zone signage

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

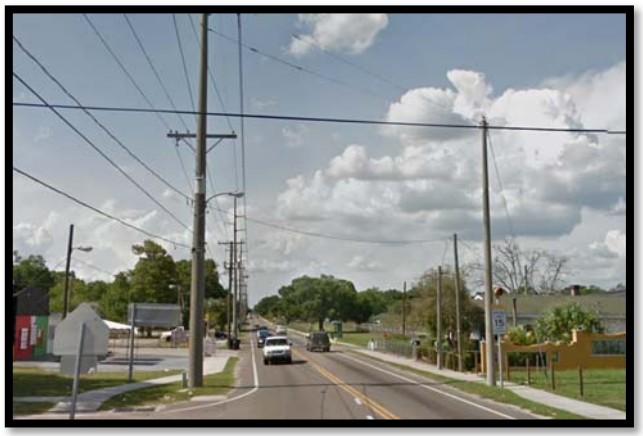
Suggestion Detail:
Consider upgrading the school zone signage and pavement markings to meet the new standards.

Responsible Agency:	Improvement Type:
City of Tampa	Signing and pavement markings
Time Frame:	**Level of Effort:**
Short Term	Low
EEE:	**Cost Estimate:**
Engineering	$26,790

Feasibility Review Comment:

George S. Middleton High School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
CB5	22nd Street Corridor	Lighting Levels	Enhanced or New Street Lighting



Observation Detail:

School Administration expressed concerns about the lighting levels along the 22nd 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 22nd Street corridor, north of I-4.

Responsible Agency:	*Improvement Type:*
City of Tampa	Lighting
Time Frame:	***Level of Effort:***
Mid Term	Medium
EEE:	***Cost Estimate:***
Engineering	$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

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
CB6	CSX North-South Railroad Tracks	Students using railroad tracks as a walking and biking route	Provide enhanced fencing, no trespassing signage and educational programs to students

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.

Responsible Agency:	Improvement Type:
School District of Hillsborough County & CSX	Enhanced fencing and signage, education
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Education	$56,400

Feasibility Review Comment:

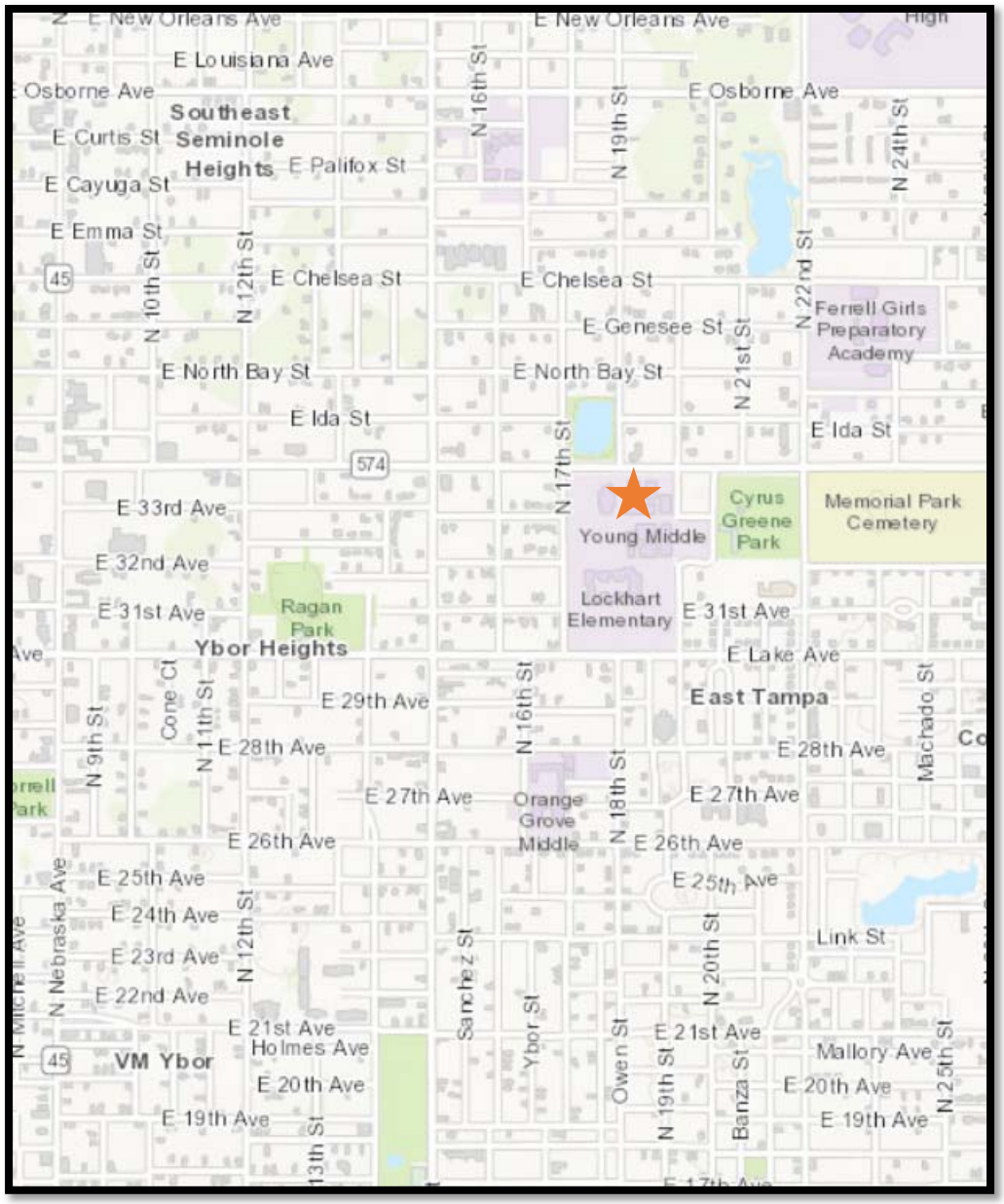
Nathan B. Young Middle Magnet School

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.



Nathan B. Young Middle Magnet School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
CC1	Dr. Martin Luther King, Jr. Blvd. (SR 574)	Connectivity to School	Connect midblock crossing to school property

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:	*Improvement Type:*
School District of Hillsborough County	Sidewalk Enhancement
Time Frame:	***Level of Effort:***
Short Term	Low
EEE:	***Cost Estimate:***
Engineering	$3,315

Feasibility Review Comment:

Potential ADA compliance challenges due to grade.

Nathan B. Young Middle Magnet School

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

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.

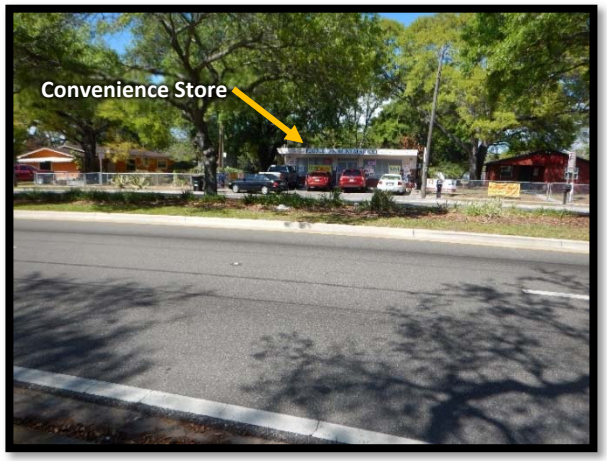
Suggestion Detail:
Consider evaluating this crossing for enhanced treatments, such as a rectangular rapid flashing beacon or high-intensity activated crosswalk beacon (HAWK) if the various requirements are met.

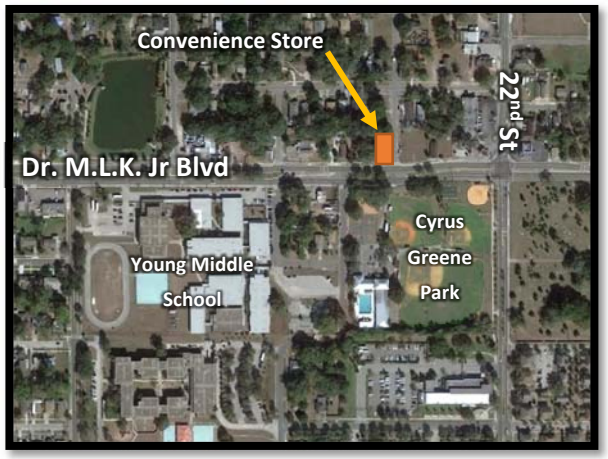
Responsible Agency:	Improvement Type:
Florida Department of Transportation	Enhanced Traffic Control Devices
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	$46,812

Feasibility Review Comment:

Nathan B. Young Middle Magnet School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
CC3	Dr. Martin Luther King, Jr. Blvd. (SR 574)	Midblock crossings at uncontrolled locations	Consider evaluating the corridor for additional midblock crossing locations





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:	Improvement Type:
Florida Department of Transportation	Pavement Marking/Signage
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	$60,066

Feasibility Review Comment:

Distance to existing traffic signal may limit feasibility of additional devices.

Nathan B. Young Middle Magnet School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
CC4	Dr. Martin Luther King, Jr. Blvd. (SR 574)	Lighting levels along corridor	Consider enhanced street lighting.

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.

Responsible Agency:	*Improvement Type:*
Florida Department of Transportation	Lighting
Time Frame:	***Level of Effort:***
Long Term	Medium
EEE:	***Cost Estimate:***
Engineering	$1,340,000

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

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
CC5	Dr. Martin Luther King, Jr. Blvd. (SR 574) west of 22nd Street	Damaged Sidewalk	Sidewalk Maintenance

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 22nd Street.

Suggestion Detail:
Consider repairing the sidewalk.

Responsible Agency:	Improvement Type:
Florida Department of Transportation	Sidewalk
Time Frame:	**Level of Effort:**
Short Term	Low
EEE:	**Cost Estimate:**
Engineering	N/A

Feasibility Review Comment:

Nathan B. Young Middle Magnet School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
CC6	Dr. Martin Luther King, Jr. Blvd. (SR 574)	Speeding vehicles in reduced speed school zone	Enforcement Activities

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:	Improvement Type:
City of Tampa Police Department	Enforcement
Time Frame:	**Level of Effort:**
Short Term	Low
EEE:	**Cost Estimate:**
Enforcement	N/A

Feasibility Review Comment:

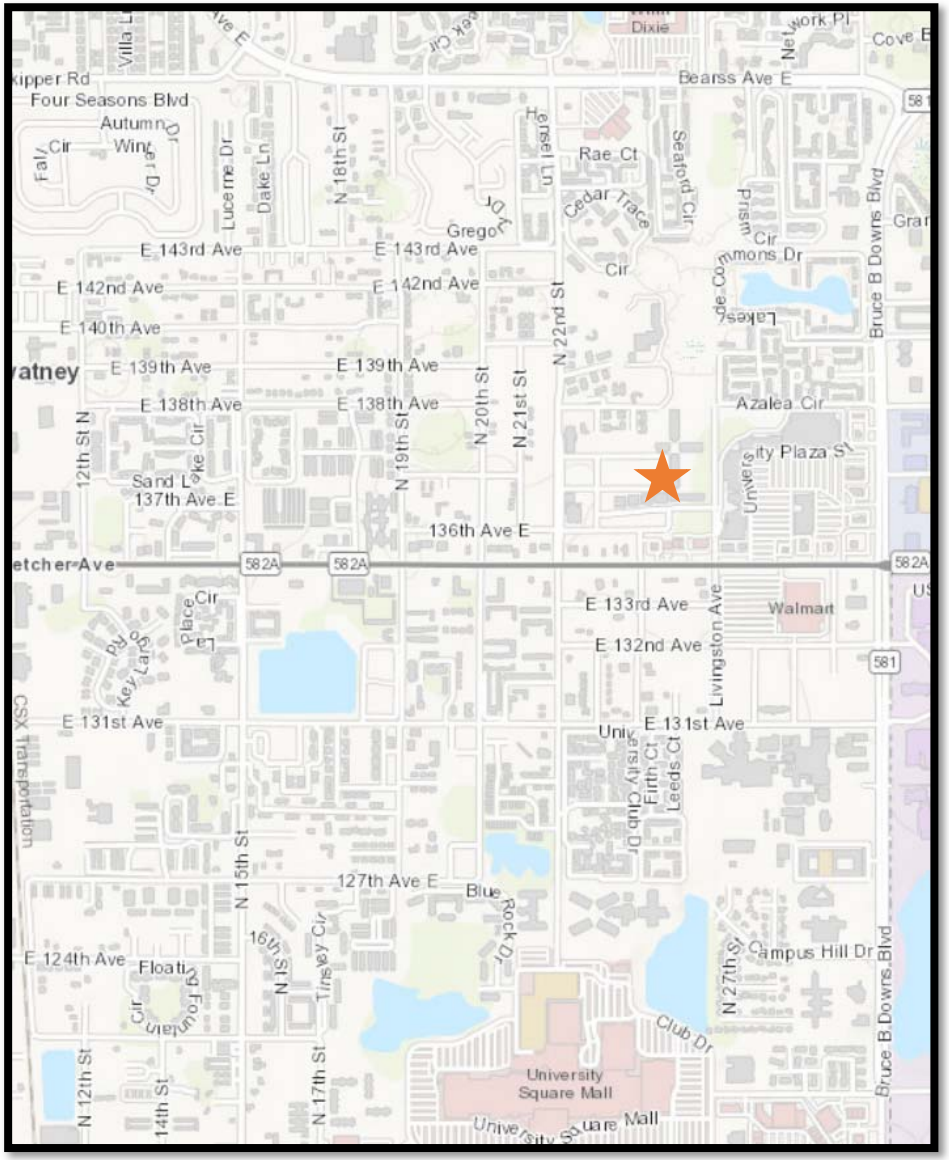
Muller Elementary Magnet School

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

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
D1	22nd Street Midblock Crossing Signals	Signal Head Visibility and Signing Consistency	Consider Adding Backplates & Evaluating Signage

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.

Responsible Agency:	Improvement Type:
Hillsborough County	Backplates & Enhanced Signing
Time Frame:	**Level of Effort:**
Short Term	Low
EEE:	**Cost Estimate:**
Engineering	$1,692

Feasibility Review Comment:

Muller Elementary Magnet School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
D2	Fletcher Avenue at 22nd Street & Livingston Avenue	Permissive left turn movement conflicts	Modify signal heads and phasing

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:	Improvement Type:
Hillsborough County	Signal Phasing Modifications
Time Frame:	**Level of Effort:**
Short Term	Medium
EEE:	**Cost Estimate:**
Engineering	$23,690

Feasibility Review Comment:

Muller Elementary Magnet School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
D3	Fletcher Avenue at 22nd Street & Livingston Avenue	Right turn conflicts with pedestrians	Consider implementing right-turn yield to pedestrians signing

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:	Improvement Type:
Hillsborough County	Enhanced Signage
Time Frame:	**Level of Effort:**
Short Term	Low
EEE:	**Cost Estimate:**
Engineering	$5,076

Feasibility Review Comment:

Muller Elementary Magnet School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
D4	Livingston Avenue from E. 131st Avenue to Muller Elementary east entrance	Gaps in pedestrian connectivity features	Upgrade pedestrian features corridor wide

Observation Detail:

Livingston Avenue and E. 131st Avenue are missing pedestrian connectivity characteristics such as crosswalks, sidewalk ramps and ADA features.

Suggestion Detail:

Consider evaluating Livingston Avenue and E. 131st Avenue for additional curb ramps, side-street crosswalks and pedestrian connectivity in general to provide key east-west and north-south connectivity.

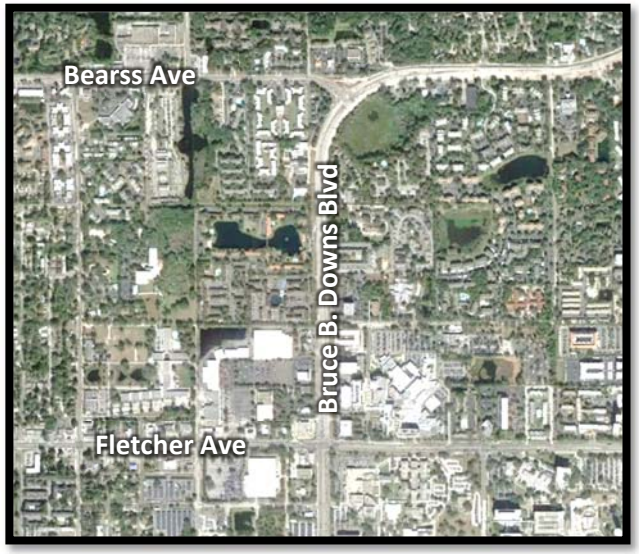
Responsible Agency:	*Improvement Type:*
Hillsborough County	Pedestrian Features
Time Frame:	***Level of Effort:***
Mid Term	Medium
EEE:	***Cost Estimate:***
Engineering	$21,900

Feasibility Review Comment:

Consider working with schools in the area to identify key walking routes to focus enhancement efforts on.

Muller Elementary Magnet School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
D5	Bruce B. Downs Boulevard from Fletcher Avenue to E. Bearss Avenue	No sidewalk on west side of roadway	Add sidewalk



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.

Responsible Agency:	Improvement Type:
Hillsborough County	Sidewalk
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	N/A

Feasibility Review Comment:
This sidewalk is included in upcoming CIP 61153010.

Muller Elementary Magnet School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
D6	Bearss Avenue at Mort Elementary School	Volume of pedestrians compared to width of sidewalk and crosswalk	Widen Curb Ramp & Crosswalk

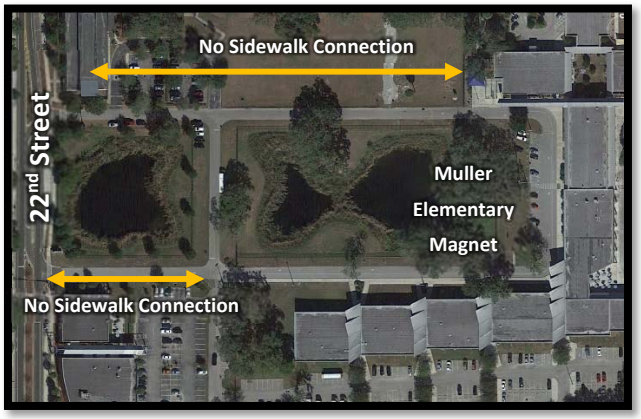
Observation Detail:
Large numbers of students and parents utilize the crosswalk in front of Mort Elementary School during a short period of time. The crossings are staggered by the crossing guard and school administration to reduce the number of crossings that happen at the same time. The existing curb 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.

Responsible Agency:	Improvement Type:
Hillsborough County	Sidewalk & Pavement Markings
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	$40,870

Feasibility Review Comment:
This work can be incorporated into CIP 61153007, the pedestrian and bike safety project along Bearss Avenue.

Muller Elementary Magnet School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
D7	Muller Elementary Entry on 22nd Street	No sidewalk connection	Provide sidewalk connection



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:	Improvement Type:
School District of Hillsborough County & Hillsborough County	Sidewalk
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	$15,820

Feasibility Review Comment:

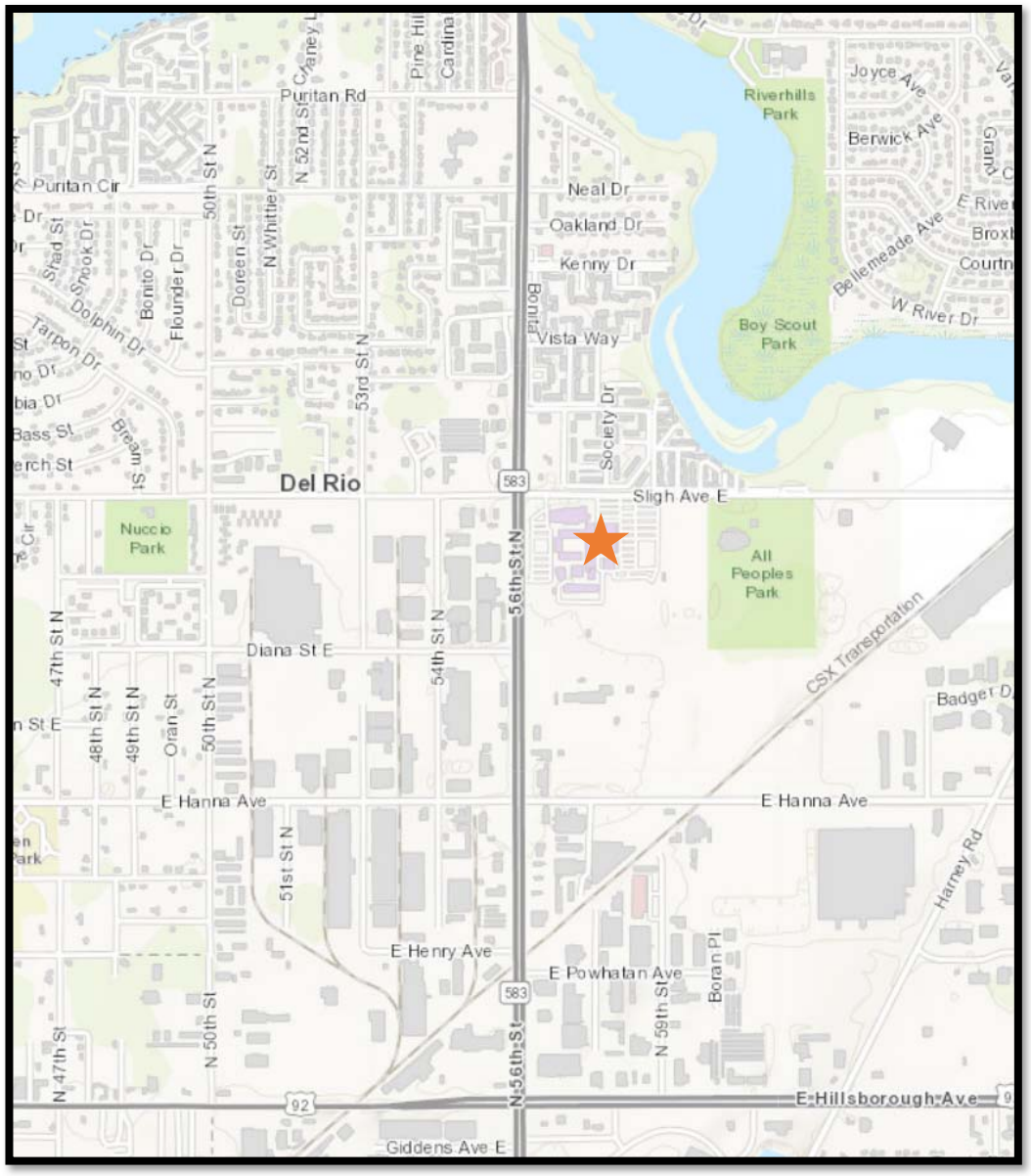
C. Leon King High School

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

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
E1	Sligh Avenue from 50th Street to Orient Road	Inconsistent Street Lighting	Evaluate Corridor for Enhanced Street Lighting

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:	Improvement Type:
Hillsborough County	Lighting
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	$878,150

Feasibility Review Comment:

C. Leon King High School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
E2	Sligh Avenue, east of 56th Street	Sidewalk Gap & Midblock Crossings	Fill-in sidewalk gap & evaluate midblock crossings

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 56th 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:	Improvement Type:
Hillsborough County	Sidewalk & Midblock Crossings
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	$102,465

Feasibility Review Comment:

Adjacent CIP 69638008 further to the east – SRTS Pedestrian Enhancements

C. Leon King High School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
E3	Sligh Avenue on School Frontage	Sidewalk width compared to volume of pedestrians	Wider sidewalk

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:	Improvement Type:
Hillsborough County & School District of Hillsborough County	Sidewalk Widening & Drop-Off evaluation
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	$106,391

Feasibility Review Comment:

C. Leon King High School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
E4	Sligh Avenue at 56th Street Signal	East & westbound permissive left-turn movements	Modify signal heads and phasing

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:	Improvement Type:
Florida Department of Transportation	Signal modification
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	$4,935

Feasibility Review Comment:

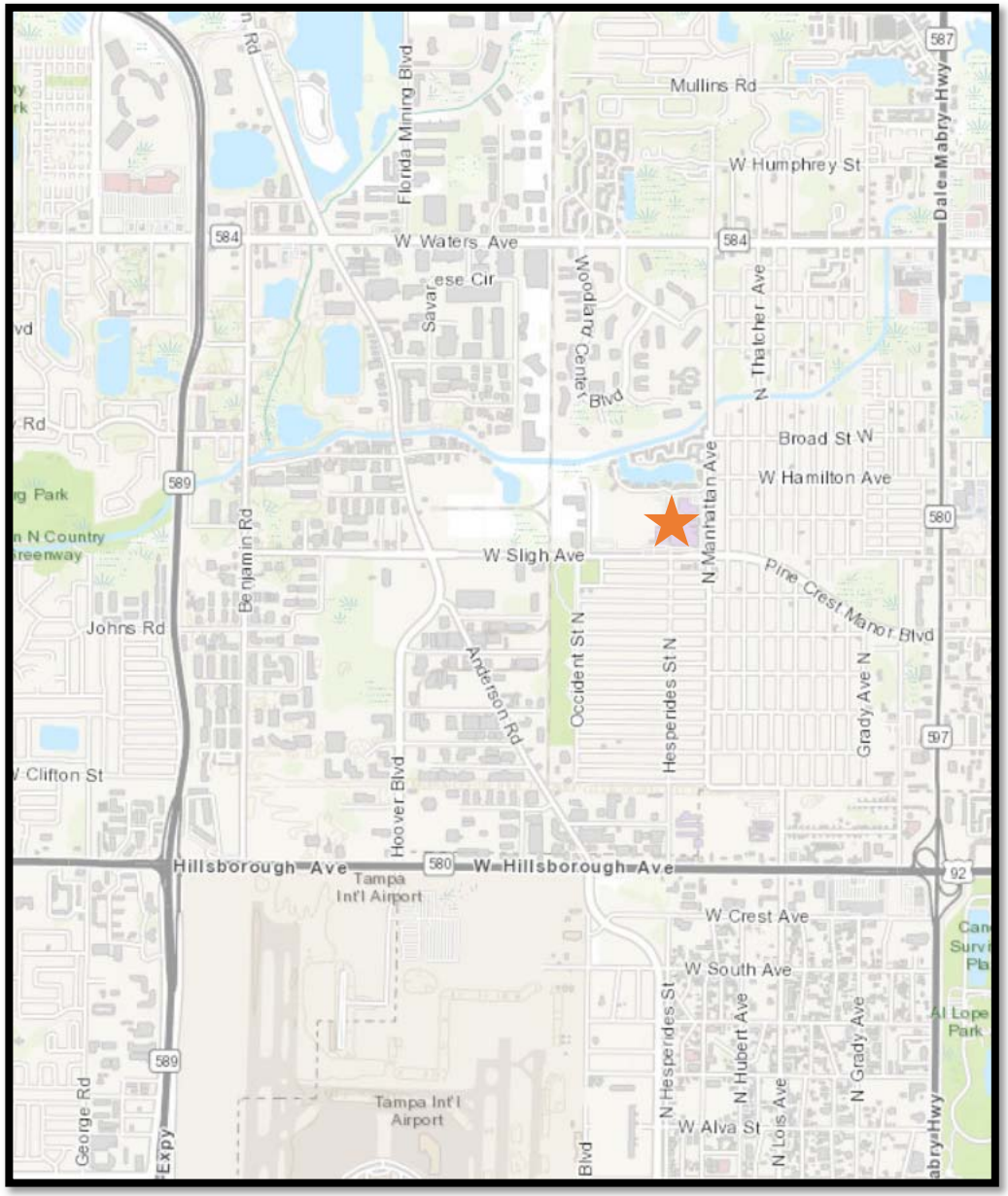
A. P. Leto High School

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

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
F1	Leto School Frontage	Students crossing	Additional Traffic Control Devices

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:	Improvement Type:
Hillsborough County	Traffic Control
Time Frame:	**Level of Effort:**
Mid Term	High
EEE:	**Cost Estimate:**
Engineering	$29,050

Feasibility Review Comment:
These modifications are being completed as part of upcoming CIP 69645100.

A. P. Leto High School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
F2	Various Locations	Unmarked pedestrian crossings	Consider evaluating for enhanced crossings

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:

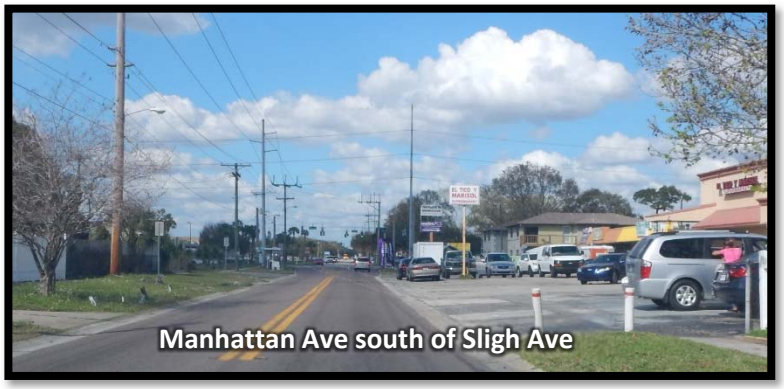
- Hesperides Street at Burke Street, Elm Street & Henry Avenue
- Occident Street at various West Park entrances
- W. Sligh Avenue at Occident Street
- Manhattan Avenue south of Hamilton Avenue
- Enhanced crosswalk striping at Manhattan Avenue & Pine Crest Manor Boulevard

Responsible Agency:	Improvement Type:
Hillsborough County	Pavement Marking and Signing
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	Medium

Feasibility Review Comment:

A. P. Leto High School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
F3	Various Locations	Lighting levels along key corridors	Evaluate the need for enhanced lighting



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

Responsible Agency:	*Improvement Type:*
Hillsborough County	Lighting
Time Frame:	***Level of Effort:***
Mid Term	Medium
EEE:	***Cost Estimate:***
Engineering	$1,882,703

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

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
F4	Manhattan Avenue at Sligh Avenue & Manhattan Avenue at Waters Avenue	Permissive Left Turns & Pedestrian Conflicts	Modified Signal Timing

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:	Improvement Type:
Hillsborough County	Signal Modifications
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	$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

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
F5	Leto High School property	On-site circulation issue	On-site circulation improvements

Southern Driveway for Leto High

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:	Improvement Type:
Hillsborough County & School District of Hillsborough County	Signing and Pavement Markings
Time Frame:	**Level of Effort:**
Short Term	Medium
EEE:	**Cost Estimate:**
Engineering	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:	Improvement Type:
Hillsborough County Code Enforcement	Enforcement
Time Frame:	**Level of Effort:**
Short Term	Low
EEE:	**Cost Estimate:**
Enforcement	N/A

Feasibility Review Comment:

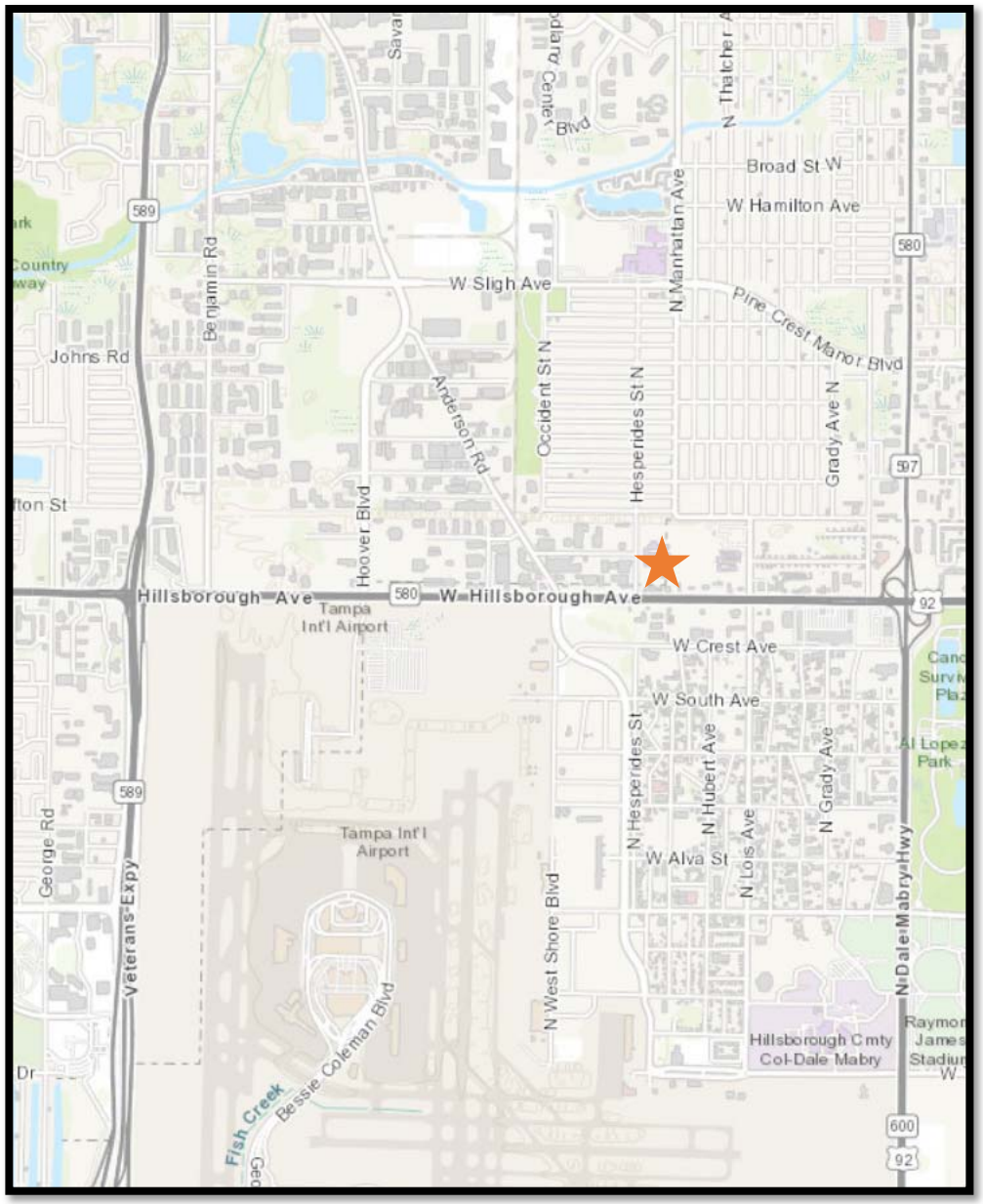
Pierce Middle School

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.



Pierce Middle School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
G1	Hillsborough Avenue at Lois Avenue & Hesperides Street	Potential pedestrian and left-turn conflicts	Consider signal timing modifications

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:	*Improvement Type:*
Florida Department of Transportation & City of Tampa	Signal timing modifications
Time Frame:	***Level of Effort:***
Mid Term	Medium
EEE:	***Cost Estimate:***
Engineering	$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

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
G2	Hesperides Street	Sidewalk is only continuous on the east side of Hesperides Street	Continuous sidewalk on both sides of Hesperides Street

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:	Improvement Type:
Hillsborough County	Sidewalk
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	$182,230

Feasibility Review Comment:

Could potentially be included with an upcoming drainage project on Hesperides Street.

Pierce Middle School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
G3	Hesperides Street	Lighting levels	Consider the feasibility of adding street lights

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:	Improvement Type:
Hillsborough County	Lighting
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	$209,385

Feasibility Review Comment:

Pierce Middle School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
G4	Hesperides Street from Henry Avenue to Sligh Avenue	No Crosswalks	Evaluation of existing and potential additional crosswalks along Hesperides Street

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.

Responsible Agency:	Improvement Type:
Hillsborough County	Crosswalk
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	$10,635

Feasibility Review Comment:

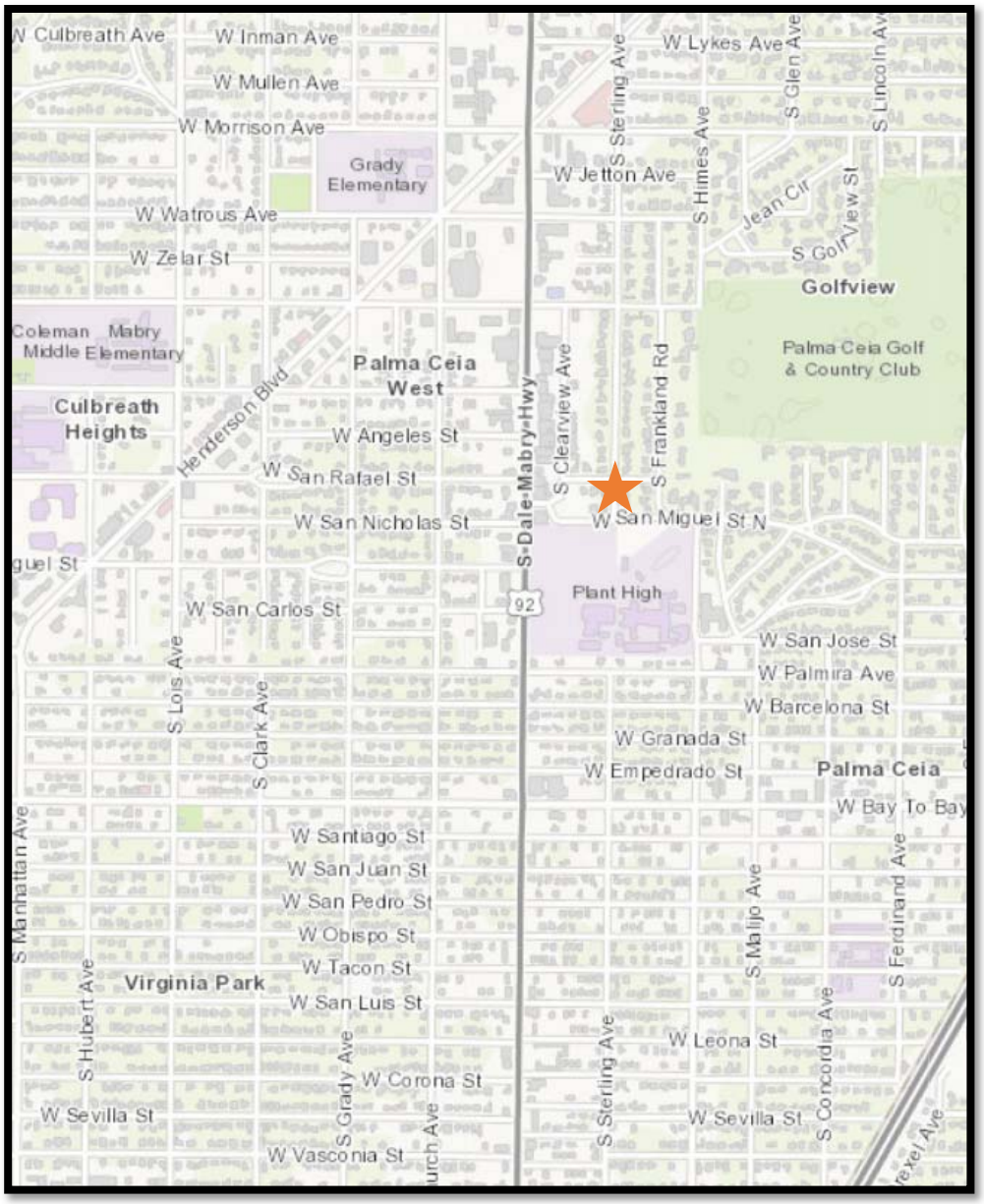
H. B. Plant High School

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

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
H1	Himes Avenue from W. San Jose St. to W. San Miguel St.	In street drop offs and u-turns	Consider evaluating corridor for bulb outs and parking lanes

Plant School Frontage at Plant High School

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.

Responsible Agency:	Improvement Type:
City of Tampa	Multimodal Safety Evaluation & Enhancements
Time Frame:	**Level of Effort:**
Long Term	High
EEE:	**Cost Estimate:**
Engineering	$170,140

Feasibility Review Comment:

H. B. Plant High School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
H2	W. San Miguel Street near Sterling Avenue	Damaged sidewalk	Sidewalk Repair

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:	Improvement Type:
City of Tampa	Sidewalk repair
Time Frame:	**Level of Effort:**
Short Term	Low
EEE:	**Cost Estimate:**
Engineering	N/A

Feasibility Review Comment:

H. B. Plant High School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
H3	Various locations in the immediate vicinity of the school campus	Overgrown shrubs and faded pavement markings	Maintain landscaping and refurbish pavement markings in immediate area around campus

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.

Responsible Agency:	Improvement Type:
City of Tampa	Maintenance
Time Frame:	**Level of Effort:**
Short Term	Low
EEE:	**Cost Estimate:**
Engineering	N/A

Feasibility Review Comment:

H. B. Plant High School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
H4	Intersection of Dale Mabry Highway and San Carlos Street	Inconsistent and aging pavement markings and signage	Consider upgrading signs and markings

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:	Improvement Type:
Florida Department of Transportation	Signage, pavement markings and signal
Time Frame:	**Level of Effort:**
Short Term	Low
EEE:	**Cost Estimate:**
Engineering	$14,720

Feasibility Review Comment:

H. B. Plant High School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
H5	School Entrance on Dale Mabry Highway	Sidewalk termination	Consider the feasibility of modifying the sidewalk connection at school entry

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.

Responsible Agency:	Improvement Type:
School District of Hillsborough County	Sidewalk & Access Control
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	Will be based on proposed modifications

Feasibility Review Comment:

Potentially requires an additional gate or two to keep the existing structural features from being impacted.

H. B. Plant High School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
H6	Faculty Parking Areas	Parking on grass and driving on sidewalks	Evaluate campus for additional faculty parking areas

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:	Improvement Type:
School District of Hillsborough County	Enhanced parking areas
Time Frame:	**Level of Effort:**
Mid Term	Medium
EEE:	**Cost Estimate:**
Engineering	Will be based on proposed modifications

Feasibility Review Comment:

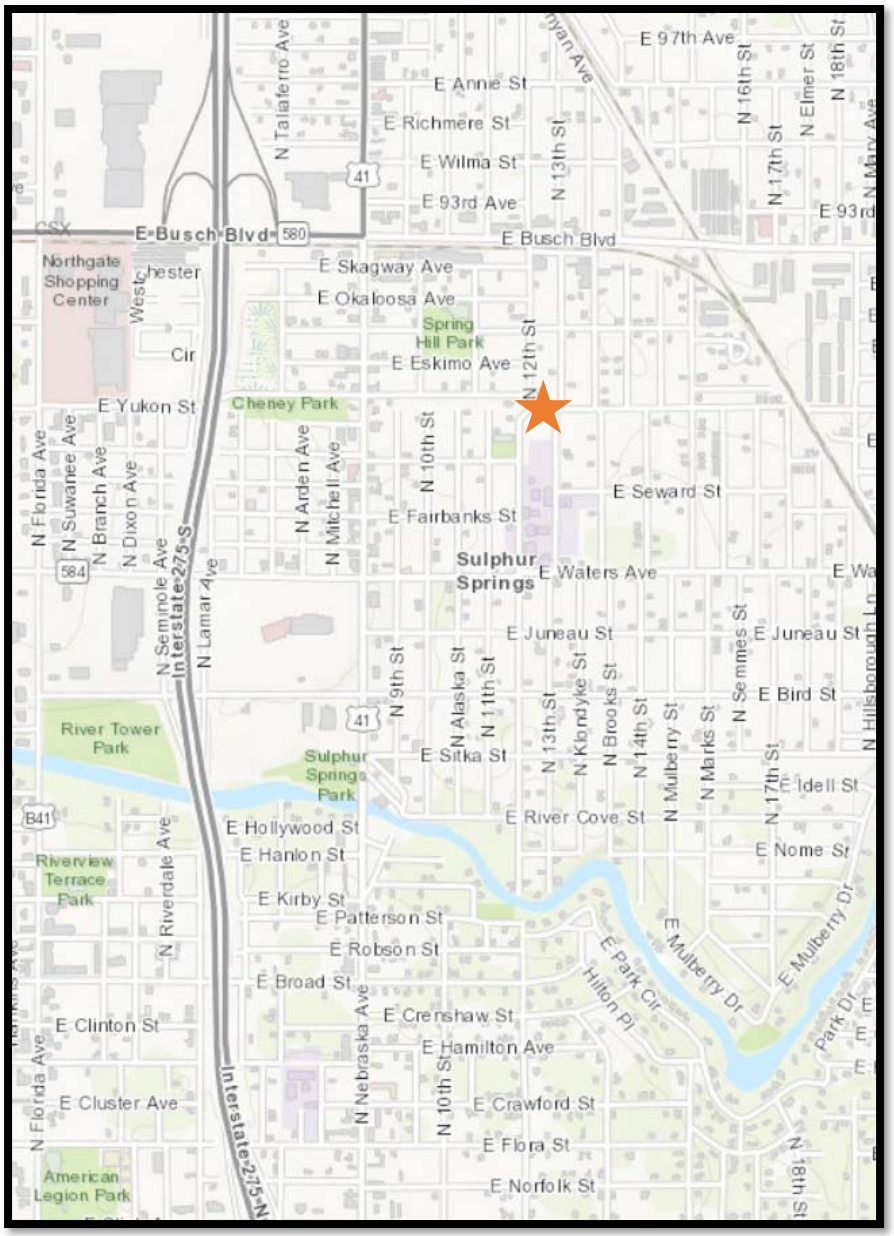
Sulphur Springs K-8 Community School

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

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
I1	Various Locations	Faded pavement marking and pedestrian connectivity	Consider upgrading crosswalks and curb ramps

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:	Improvement Type:
City of Tampa	Pavement Markings & Walkability
Time Frame:	**Level of Effort:**
Long Term	Medium
EEE:	**Cost Estimate:**
Engineering	$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

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
I2	12th Street at Fairbanks Street	Crosswalk without a sidewalk ramp	Consider installing a curb ramp

Observation Detail:

Crosswalk exists at the intersection of 12th 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:	Improvement Type:
City of Tampa	Sidewalk Enhancement
Time Frame:	**Level of Effort:**
Short Term	Medium
EEE:	**Cost Estimate:**
Engineering	$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

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
I3	Various Locations	Lighting levels	Evaluate the feasibility of enhanced or additional street lights

Waters Ave at 12th St

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

Responsible Agency:	*Improvement Type:*
City of Tampa	Lighting
Time Frame:	***Level of Effort:***
Mid Term	Medium
EEE:	***Cost Estimate:***
Engineering	$497,730

Feasibility Review Comment:

Some street lights in the area have been upgraded to light emitting diode luminaires.

Sulphur Springs K-8 Community School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
I4	School Campus	Pedestrian and Vehicle Interactions	Consider the feasibility of adding a handrail or additional fencing

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:	Improvement Type:
Hillsborough County School District	Fencing
Time Frame:	**Level of Effort:**
Short Term	Low
EEE:	**Cost Estimate:**
Maintenance	$42,770

Feasibility Review Comment:

Sulphur Springs K-8 Community School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
I5	School Campus	Potential tripping hazard for students	Consider modifying the existing curbing

Observation Detail:

A vertical faced curb is place 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:	*Improvement Type:*
Hillsborough County School District	Pedestrian connectivity
Time Frame:	***Level of Effort:***
Mid Term	$35,126
EEE:	***Cost Estimate:***
Engineering	Medium

Feasibility Review Comment:

Sulphur Springs K-8 Community School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
I6	School Wide	Midblock crossings and general behaviors	Educational Program

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:	Improvement Type:
School District of Hillsborough County & Department of Health	Education
Time Frame:	**Level of Effort:**
Long Term	Medium
EEE:	**Cost Estimate:**
Education	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

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
I7	Waters Avenue	Speeding vehicles in school zone	Enforcement efforts

Figure 15-8A
15 MPH School Zone Roadside Flashing Beacon Assembly (MUTCD S5-1)

Figure 15-8B
20 MPH School Zone Roadside Flashing Beacon Assembly (MUTCD S5-1)

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:	*Improvement Type:*
City of Tampa Police Department	Enforcement
Time Frame:	***Level of Effort:***
Short Term	Low
EEE:	***Cost Estimate:***
Enforcement	N/A

Feasibility Review Comment:

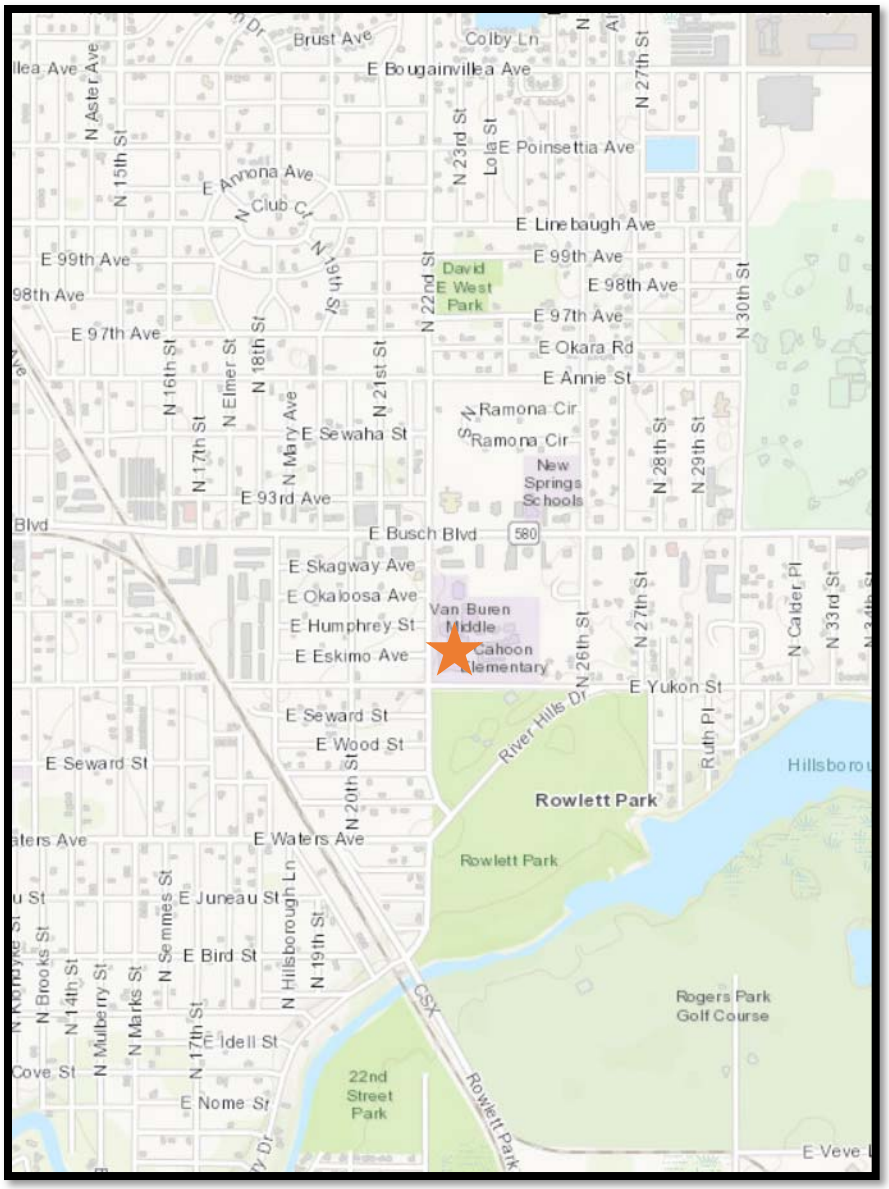
Van Buren Middle School

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 Buren Middle School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
J1	Yukon Street & N. 22nd Street	School Zone Signing	Implement Consistent Signing

Yukon St west of 26th St

Observation Detail:

Due to the upcoming combining of Van Buren 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:	Improvement Type:
City of Tampa	Signing and Pavement Markings
Time Frame:	**Level of Effort:**
Short Term	Medium
EEE:	**Cost Estimate:**
Engineering	$20,360

Feasibility Review Comment:

Van Buren Middle School

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

Observation Detail:

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

Suggestion Detail:

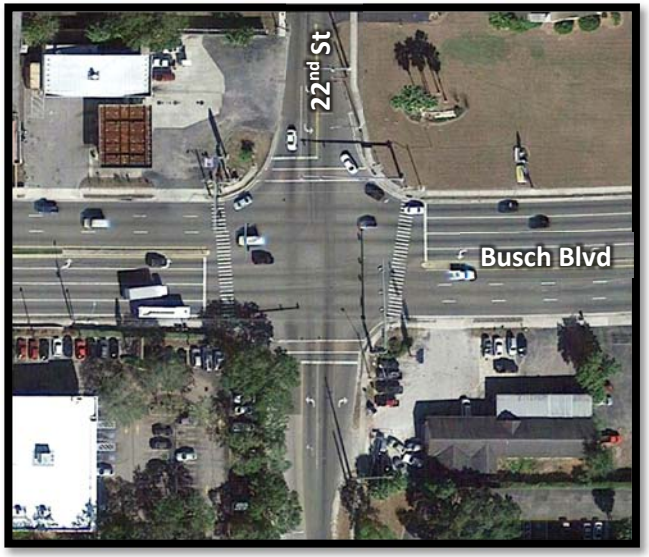
Consider focusing a maintenance program along the 22nd Street corridor to enhance the existing crosswalks and add defined crosswalks across key side streets and wide driveways.

Responsible Agency:	Improvement Type:
City of Tampa	Pavement Markings
Time Frame:	**Level of Effort:**
Short Term	Medium
EEE:	**Cost Estimate:**
Engineering	$58,600

Feasibility Review Comment:

Van Buren Middle School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
J3	Busch Boulevard at 22nd Street signal	Potential pedestrian conflicts with left-turning vehicles	Modify signal heads and phasing



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:	*Improvement Type:*
Florida Department of Transportation & City of Tampa	Signal Timing Modifications
Time Frame:	***Level of Effort:***
Mid Term	Medium
EEE:	***Cost Estimate:***
Engineering	$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

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
J4	N. 22nd Street & Busch Boulevard (SR 580)	Signing & Pavement Marking	Install crosswalk signing and enhance pavement markings

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:	Improvement Type:
Florida Department of Transportation	Signing and Pavement Markings
Time Frame:	**Level of Effort:**
Short Term	Medium
EEE:	**Cost Estimate:**
Engineering	$23,618

Feasibility Review Comment:

Van Buren Middle School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
J5	Van Buren Middle School property	No sidewalk connection	Connect Sidewalk

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:	Improvement Type:
School District of Hillsborough County	Sidewalk
Time Frame:	**Level of Effort:**
Short Term	Medium
EEE:	**Cost Estimate:**
Engineering	$3,102

Feasibility Review Comment:

Van Buren Middle School

ID	Location Description:	Observation Overview:	Suggestions for Consideration:
J6	N. 22nd Street at Yukon Street	Speeding vehicles in reduced speed school zone	Enforcement Activities

Yukon St, East of 22nd St

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

Suggestion Detail:
Provide selective enforcement activities.

Responsible Agency:	Improvement Type:
City of Tampa Police Department	Enforcement
Time Frame:	**Level of Effort:**
Short Term	Low
EEE:	**Cost Estimate:**
Enforcement	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, 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.

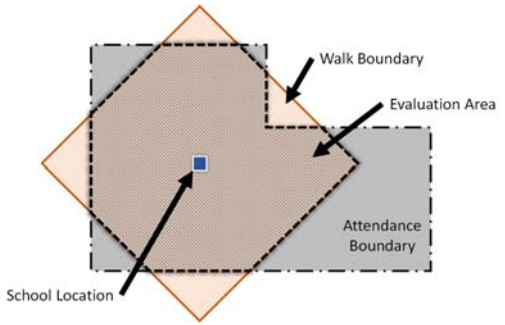


Figure 1: School Evaluation Area Development

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.

School	2-Mile Area							
	School Related Crashes		Total Crashes		Area Students		School Related Crashes per 100 Area Students	
	Value	*Rank*	*Value*	*Rank*	*Value*	*Rank*	*Value*	*Rank*
Middle School A	4	2	17	1	86.3%	1	1.79	3
Middle School B	1	3	9	3	41.7%	3	2.38	2
Middle School C	7	1	16	2	71.6%	2	7.22	1

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.

School	2-Mile Area					
	School Related Crashes	Total Crashes	Area Students	School Related Crashes per 100 Area Students	Weighted Composite Score	Weighted Composite Rank
	Weighted Rank	*Weighted Rank*	*Weighted Rank*	*Weighted Rank*		
Middle School A	1	0.2	0.2	0.3	1.7	2
Middle School B	1.5	0.6	0.6	0.2	2.9	3
Middle School C	0.5	0.4	0.4	0.1	1.4	1

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.

School	2-Mile Area	1-Mile Area	0.5-Mile Area	Weighted Area Composite Score	Weighted Area Composite Ranking
	Weighted Composite Rank	Weighted Composite Rank	Weighted Composite Rank		
Middle School A	0.62	0.33	0.36	1.31	1
Middle School B	0.93	0.99	1.08	3.00	3
Middle School C	0.31	0.66	0.72	1.69	2

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.

School	2-Mile Area						General Inputs - Valid for all Areas							
	Arterial Intersections		Collector Intersections		% Free/Reduced Lunch		Within Community of		Survey Responses		Non-Funded Transp. Services		Traditional School	
	Value	*Rank*	*Value*	*Rank*	*Value*	*Rank*	*Value*	*Rank*	*Value*	*Rank*	*Value*	*Rank*	*Value*	*Rank*
Short-List School A	97	2	104	2	74%	1	Yes	1	17	2	47	2	Yes	1
Short-List School B	124	1	117	1	58%	2	Yes	1	6	3	23	3	Yes	1
Short-List School C	39	3	63	3	49%	3	Yes	1	34	1	104	1	Yes	1

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.

School	2-Mile Area			General Inputs - Valid for all Areas				2-Mile Weighted Composite Score	2-Mile Weighted Composite Rank
	Arterial Intersections Weighted Rank	Collector Intersections Weighted Rank	% Free/Reduced Lunch Weighted Rank	Community of Concern Weighted Rank	Survey Responses Weighted Rank	Non-Funded Transp. Services Weighted Rank	Traditional School Weighted Rank		
Short-List School A	0.6	0.5	0.15	0.05	0.1	0.3	0.05	1.75	2
Short-List School B	0.3	0.25	0.3	0.05	0.15	0.45	0.05	1.55	1
Short-List School C	0.9	0.75	0.45	0.05	0.05	0.15	0.05	2.4	3

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.

School	2-Mile Area	1-Mile Area	0.5-Mile Area	Weighted Area Composite Score	Weighted Area Composite Ranking
	Weighted Composite Score	Weighted Composite Score	Weighted Composite Score		
Short-List School A	0.62	0.33	0.72	1.67	2
Short-List School B	0.31	0.66	0.36	1.33	1
Short-List School C	0.93	0.99	1.08	3.00	3

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.

School	Screen 1 Weighted Area Composite Score	Screen 1 Weighted Area Composite Ranking	Screen 2 Weighted Area Composite Score	Screen 2 Weighted Area Composite Ranking	Combined Weighted Composite Score	Combined Weighed Composite Ranking
Short-List School A	1.31	1	1.67	2	2.98	1
Short-List School B	3.00	3	1.33	1	4.33	2
Short-List School C	1.69	2	3.00	3	4.69	3

Figure 8: Example of Combined Weighted Rankings

Table 1: Combined Short-List Composite Scores and Rankings

School	Combined Composite Rank	
	Score	Rank
Adams Middle School	36.3	22
B. T. Washington Elem School	32.7	16
Brandon High School	31.6	13
Chamberlin High School	24.4	8
Cleveland Elem School	43.0	29
Coleman Middle School	29.4	11
Edison Elem School	40.6	27
Ferrell Middle Magnet School	18.2	4
Foster Elem School	35.9	21
Gaither High School	32.5	15
Hillsborough High School	14.9	2
James Elem School	41.1	28
King High School	32.5	14
Leto High School	23.2	6
Mann Middle School	52.2	35
Memorial Middle School	34.0	17
Mendenhall Elem School	36.4	23
Middleton High School	24.5	9
Miles Elem School	51.3	33
Monroe Middle School	49.9	31
Mort Elem School	34.5	18
Muller Elementary Magnet School	23.5	7
Pierce Middle School	31.3	12
Plant High School	17.7	3
Potter Elem School	40.3	25
Riverview High School	35.7	20
Robinson High School	40.0	24
Sessums Elem School	52.2	34
Sulphur Springs K-8 Community School	9.9	1
Turner/Bartels K-8 School	51.1	32
Twin Lakes Elem School	46.5	30
Van Buren Middle School	27.7	10
Webb Middle School	40.3	26
Wilson Middle School	35.4	19
Young Middle Magnet School	20.2	5

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

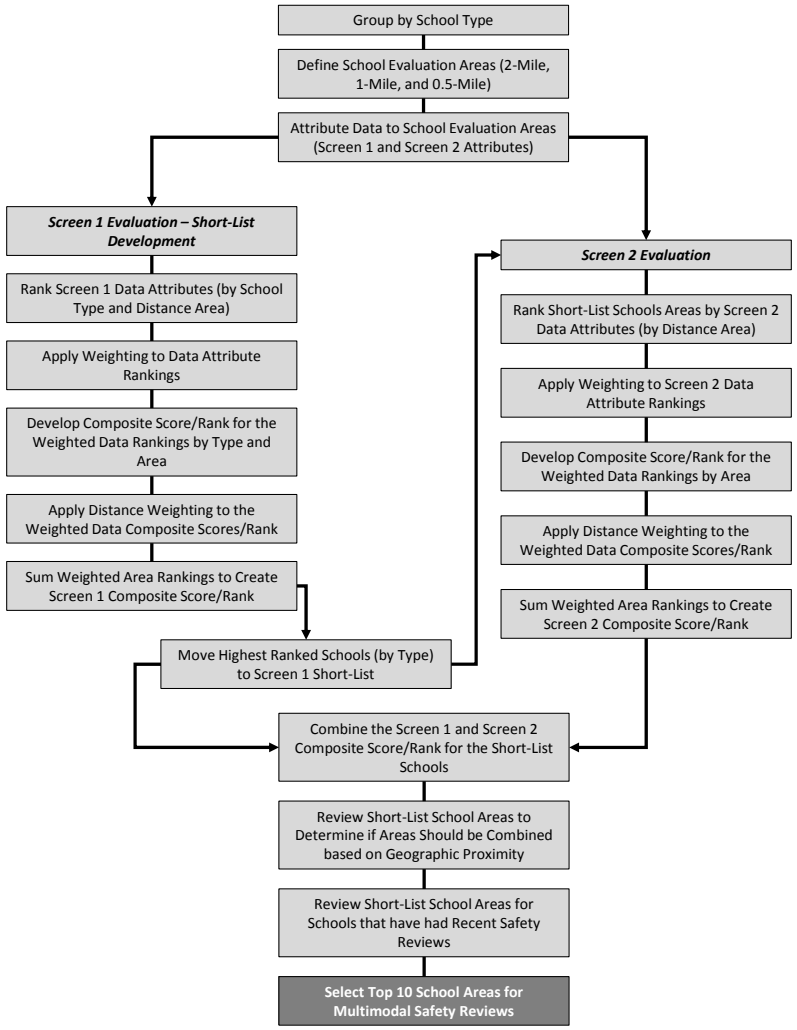


Figure 9: Methodology Overview Flowchart

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):

Asian	Black	Hispanic	Indian	Multi	White	Total
40 2.46%	501 30.81%	714 43.91%	7 0.43%	99 6.09%	265 16.30%	1,626

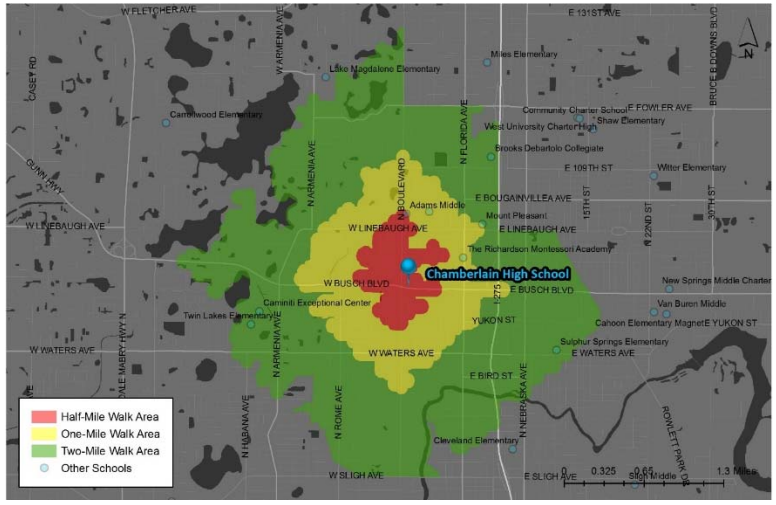


Figure A-1: Walk Area Boundaries

Walk Area Statistics

2-Mile Walk Area Statistics

Number of Students[1]: 1,025 (58.87%)

Students with Free/Reduced Lunch[2]: 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 Intersections[4]: 186

Number of Collector Road Intersections[4]: 110

1-Mile Walk Area Statistics

Number of Students[1]: 316 (18.15%)

Students with Free/Reduced Lunch[2]: 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 Intersections[4]: 36

Number of Collector Road Intersections[4]: 42

Half-Mile Walk Area Statistics

Number of Students[1]: 75 (4.31%)

Students with Free/Reduced Lunch[2]: 55 (73.33%)

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

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

Number of Arterial Road Intersections[4]: 5

Number of Collector Road Intersections[4]: 15

General Information

Number of Students previously receiving Unfunded Transportation[5]: 291

School Survey Responses indicating Walk/Bike as mode to/from school[6]: 21

Within Identified MPO Community of Concern[7]: 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

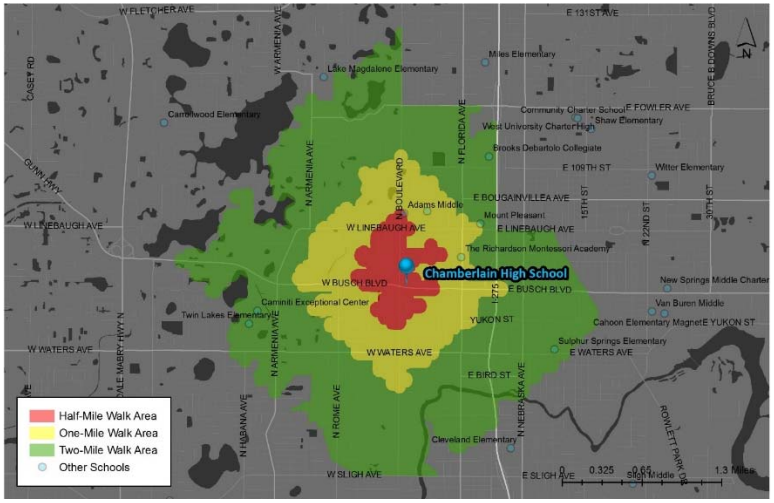


Figure A-1: Walk Area Boundaries

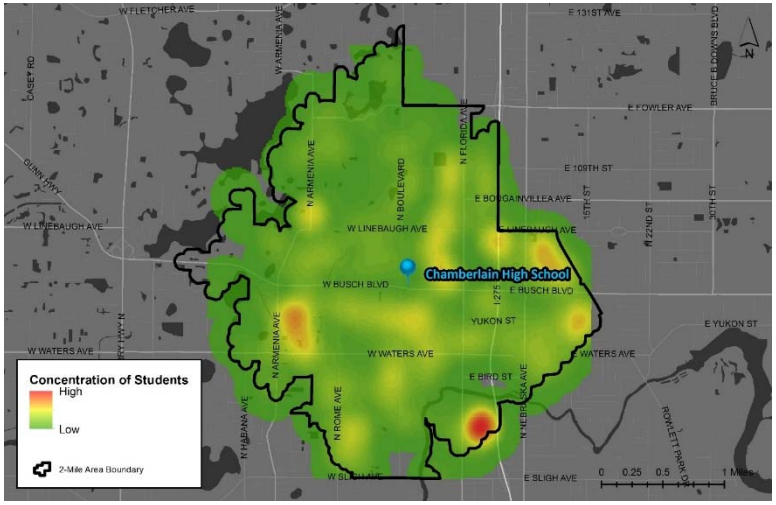


Figure A-2: Concentration of Students within 2-Mile Walk Area

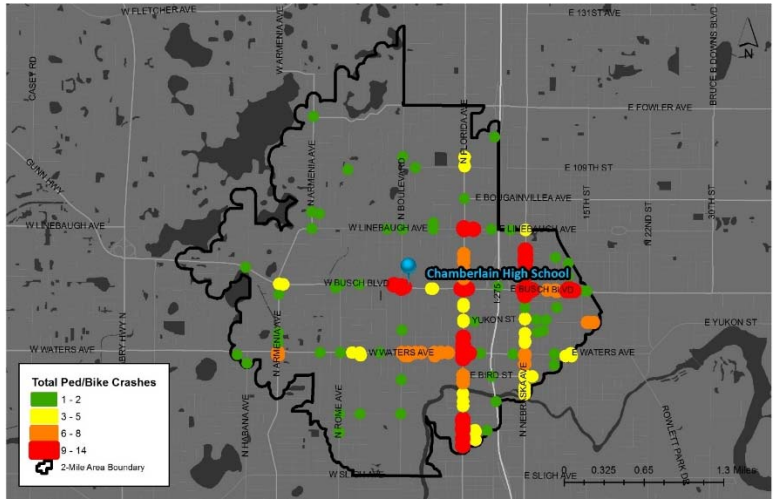


Figure A-3: Total Pedestrian and Bicycle Crash Frequency Clusters

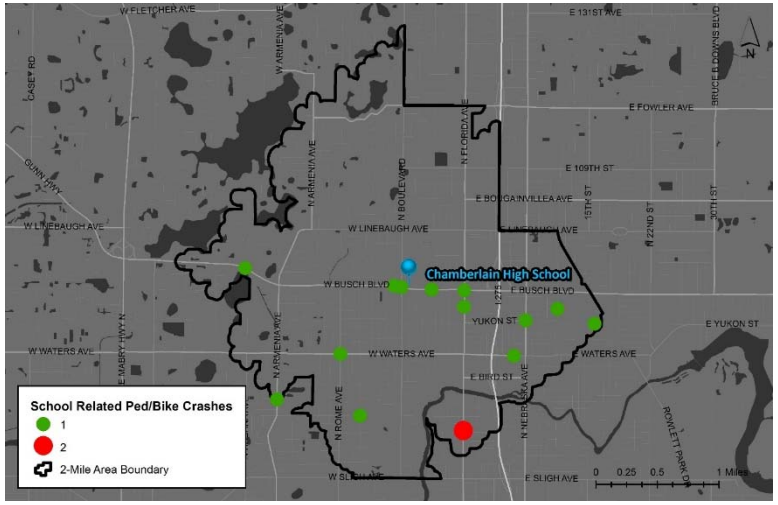


Figure A-4: School Related Pedestrian and Bicycle Crash Frequency Clusters

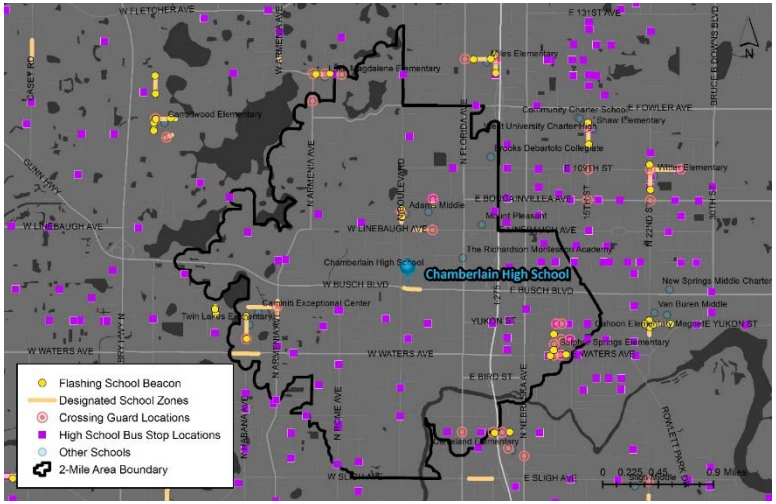


Figure A-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations

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):

Asian	Black	Hispanic	Indian	Multi	White	Total
35 3.59%	26 2.66%	127 13.01%	1 0.10%	51 5.23%	736 75.41%	976

Figure B-1: Walk Area Boundaries

Walk Area Statistics

2-Mile Walk Area Statistics

Number of Students[1]: 728 (74.59%)

Students with Free/Reduced Lunch[2]: 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 Intersections[4]: 180

Number of Collector Road Intersections[4]: 165

1-Mile Walk Area Statistics

Number of Students[1]: 269 (27.56%)

Students with Free/Reduced Lunch[2]: 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 Intersections[4]: 59

Number of Collector Road Intersections[4]: 53

Half-Mile Walk Area Statistics

Number of Students[1]: 97 (9.94%)

Students with Free/Reduced Lunch[2]: 12 (1.23%)

Total Pedestrian and Bicycle Crashes (2012-2016): 7

School Related Pedestrian and Bicycle Crashes (2012-2016)[3]: 2

Number of Arterial Road Intersections[4]: 13

Number of Collector Road Intersections[4]: 8

General Information

Number of Students previously receiving Unfunded Transportation[5]: 76

School Survey Responses indicating Walk/Bike as mode to/from school[6]: 15

Within Identified MPO Community of Concern[7]: Yes

Other Schools within the 2-Mile Walk Boundary:

- Grady Elementary School
- Mabry Elementary School
- Roosevelt Elementary School
- Plant High School

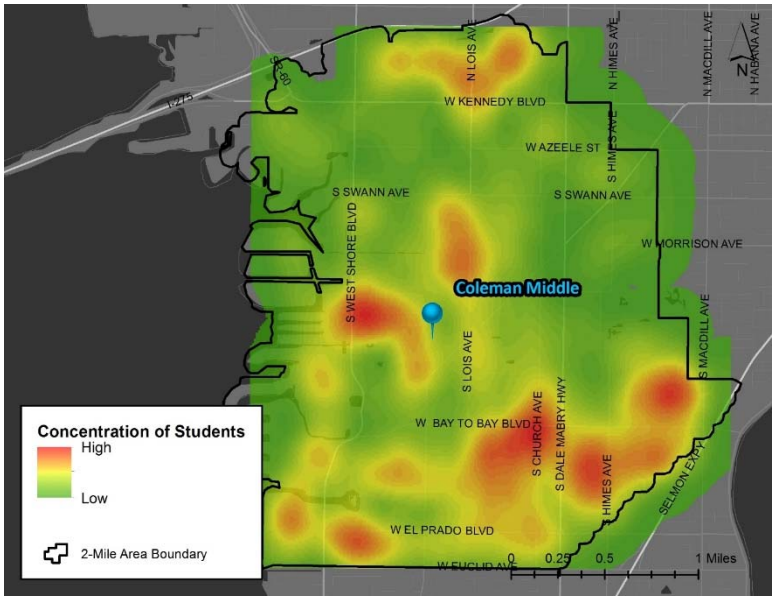


Figure B-2: Concentration of Students within 2-Mile Walk Area

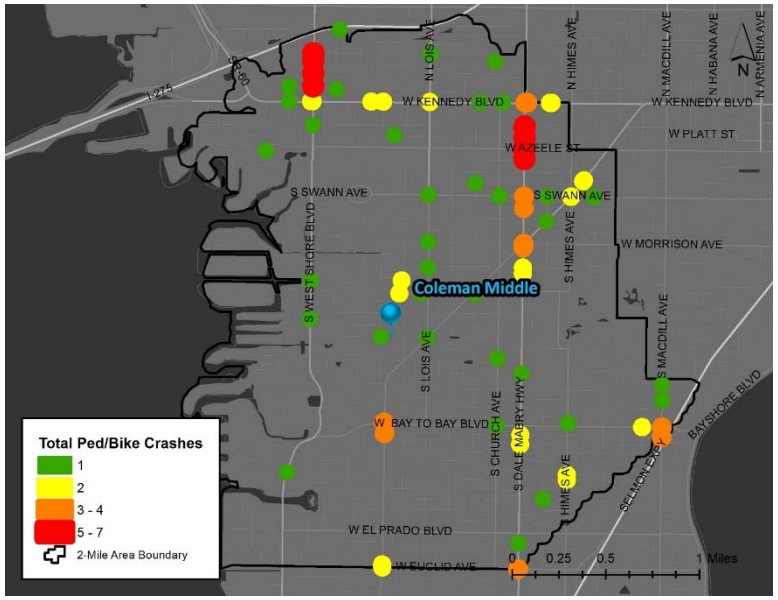


Figure B-3: Total Pedestrian and Bicycle Crash Frequency Clusters

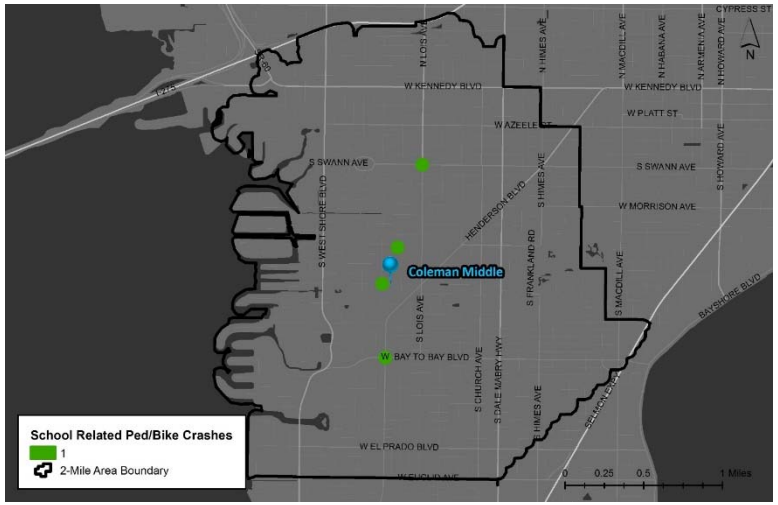


Figure B-4: School Related Pedestrian and Bicycle Crash Frequency Clusters

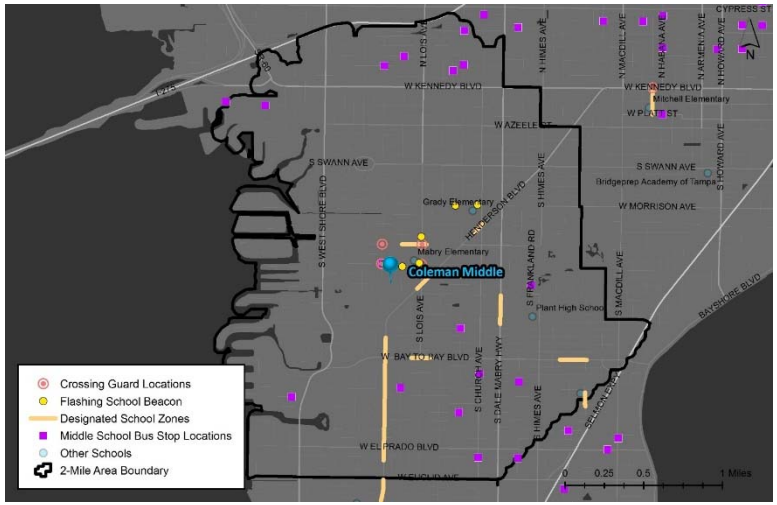


Figure B-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations

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):

Asian	Black	Hispanic	Indian	Multi	White	Total
15 2.53%	299 50.34%	158 26.60%	2 0.34%	23 3.87%	97 16.33%	594

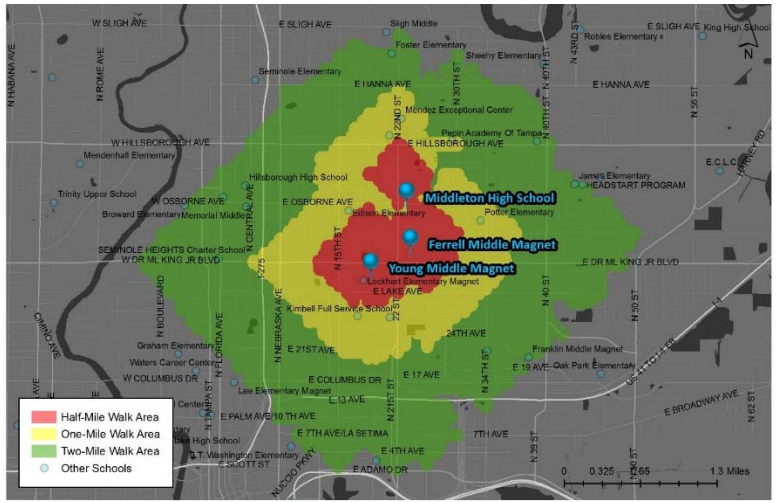


Figure C-1: Walk Area Boundaries (for Ferrell, Middleton, and Young Areas)

Walk Area Statistics

2-Mile Walk Area Statistics

Number of Students[1]: 122 (14.2%)

Students with Free/Reduced Lunch[2]: 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 Intersections[4]: 1,032

Number of Collector Road Intersections[4]: 652

1-Mile Walk Area Statistics

Number of Students[1]: 54 (6.3%)

Students with Free/Reduced Lunch[2]: 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 Intersections[4]: 325

Number of Collector Road Intersections[4]: 254

Half-Mile Walk Area Statistics

Number of Students[1]: 20 (2.3%)

Students with Free/Reduced Lunch[2]: 18 (90.0%)

Total Pedestrian and Bicycle Crashes (2012-2016): 29

School Related Pedestrian and Bicycle Crashes (2012-2016)[3]: 2

Number of Arterial Road Intersections[4]: 178

Number of Collector Road Intersections[4]: 97

General Information

Number of Students previously receiving Unfunded Transportation[5]: 0

School Survey Responses indicating Walk/Bike as mode to/from school[6]: 0

Within Identified MPO Community of Concern[7]: 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

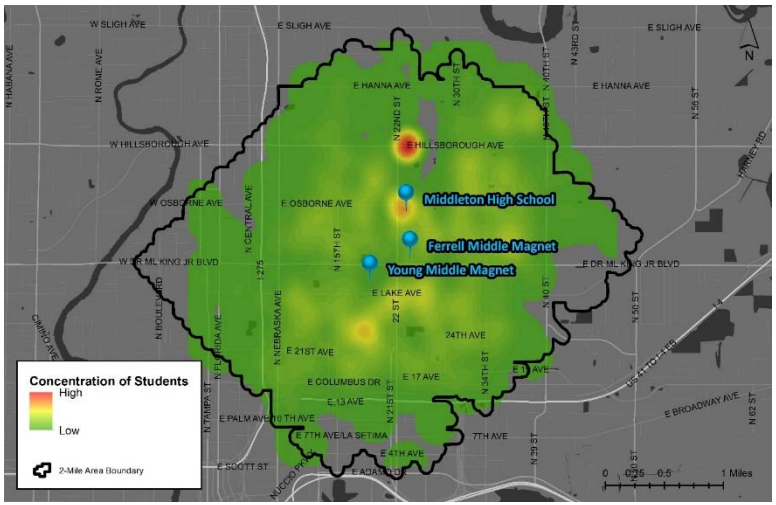


Figure C-2: Concentration of Students within 2-Mile Walk Area

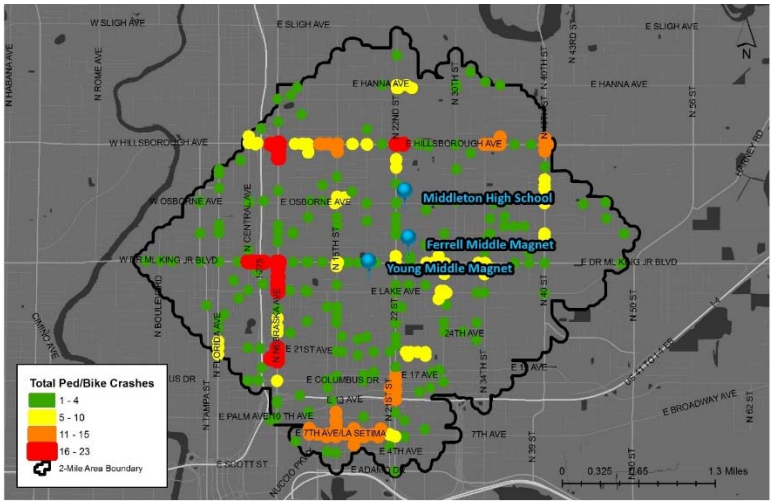


Figure C-3: Total Pedestrian and Bicycle Crash Frequency Clusters

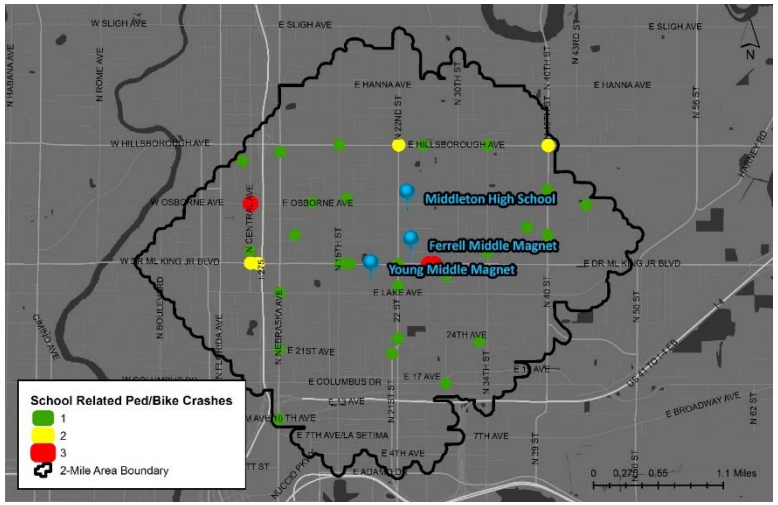


Figure C-4: School Related Pedestrian and Bicycle Crash Frequency Clusters

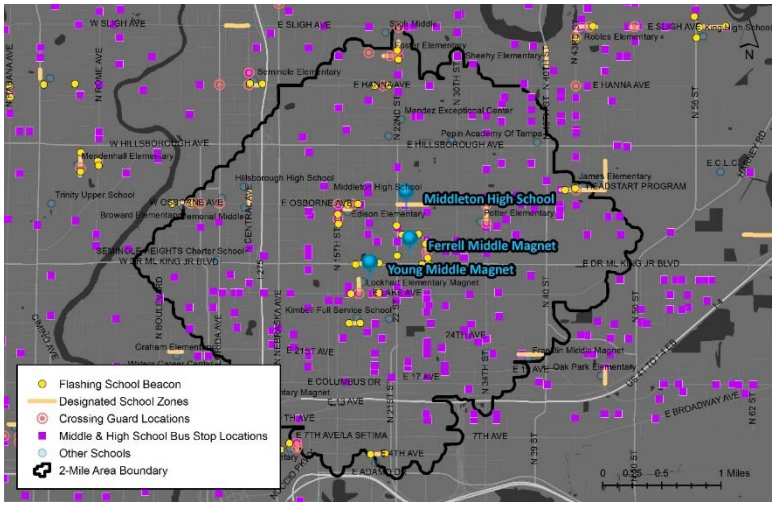


Figure C-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations

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):

Asian	Black	Hispanic	Indian	Multi	White	Total
153 9.05%	831 49.14%	323 19.10%	3 0.18%	75 4.44%	306 18.10%	1,691

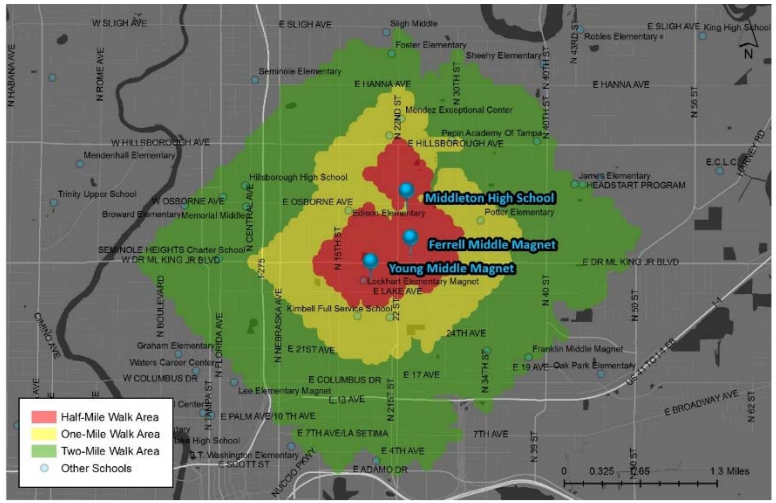


Figure D-1: Walk Area Boundaries (for Ferrell, Middleton, and Young Areas)

Walk Area Statistics

2-Mile Walk Area Statistics

Number of Students[1]: 793 (29.23%)

Students with Free/Reduced Lunch[2]: 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 Intersections[4]: 123

Number of Collector Road Intersections[4]: 153

1-Mile Walk Area Statistics

Number of Students[1]: 220 (8.11%)

Students with Free/Reduced Lunch[2]: 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 Intersections[4]: 23

Number of Collector Road Intersections[4]: 33

Half-Mile Walk Area Statistics

Number of Students[1]: 43 (1.59%)

Students with Free/Reduced Lunch[2]: 37 (86.05%)

Total Pedestrian and Bicycle Crashes (2012-2016): 25

School Related Pedestrian and Bicycle Crashes (2012-2016)[3]: 1

Number of Arterial Road Intersections[4]: 8

Number of Collector Road Intersections[4]: 0

General Information

Number of Students previously receiving Unfunded Transportation[5]: 109

School Survey Responses indicating Walk/Bike as mode to/from school[6]: 11

Within Identified MPO Community of Concern[7]: 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

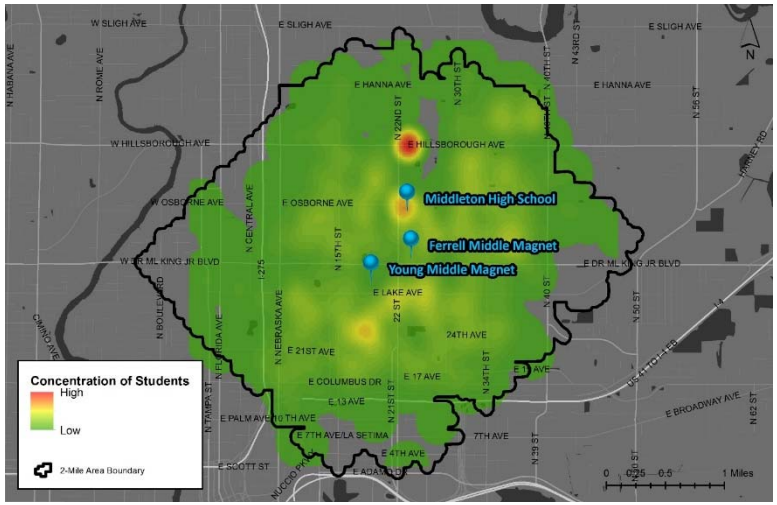


Figure D-2: Concentration of Students within 2-Mile Walk Area (for Ferrell, Middleton, and Young Areas)

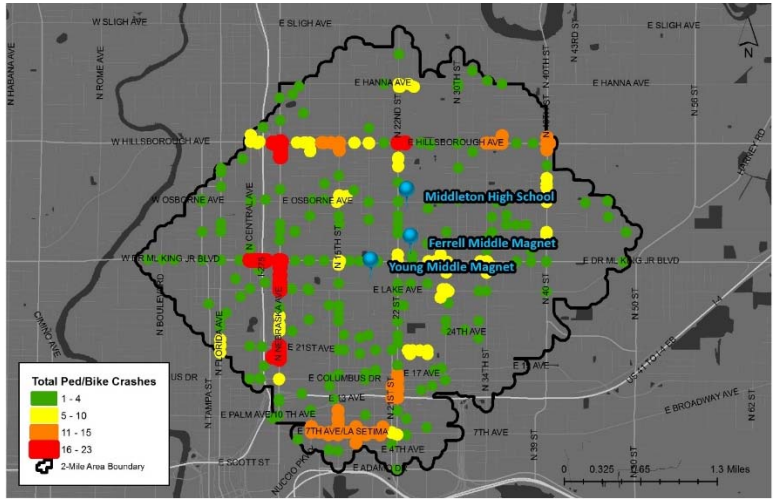


Figure D-3: Total Pedestrian and Bicycle Crash Frequency Clusters (for Ferrell, Middleton, and Young Areas)

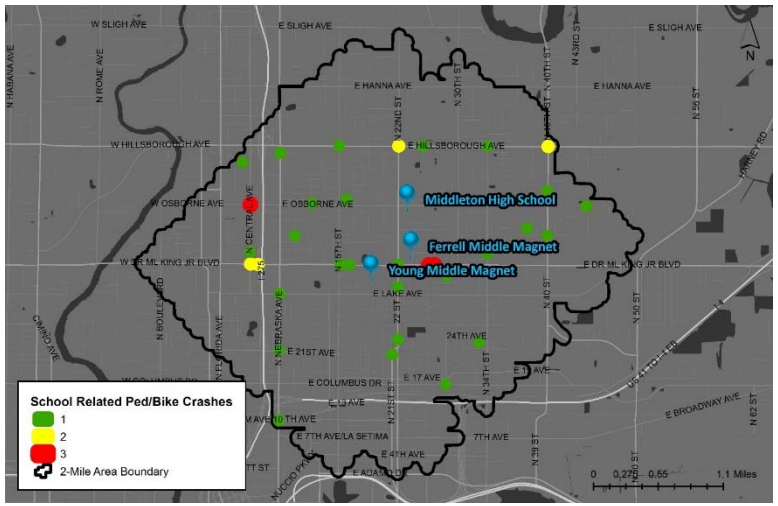


Figure D-4: School Related Pedestrian and Bicycle Crash Frequency Clusters (for Ferrell, Middleton, and Young Areas)

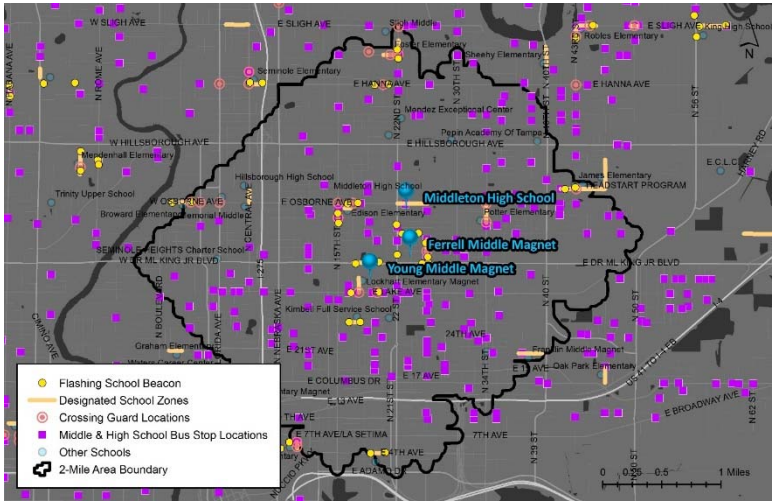


Figure D-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations (for Ferrell, Middleton, and Young Areas)

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):

Asian	Black	Hispanic	Indian	Multi	White	Total
8 1.31%	428 70.05%	113 18.49%	3 0.49%	17 2.78%	42 6.87%	611

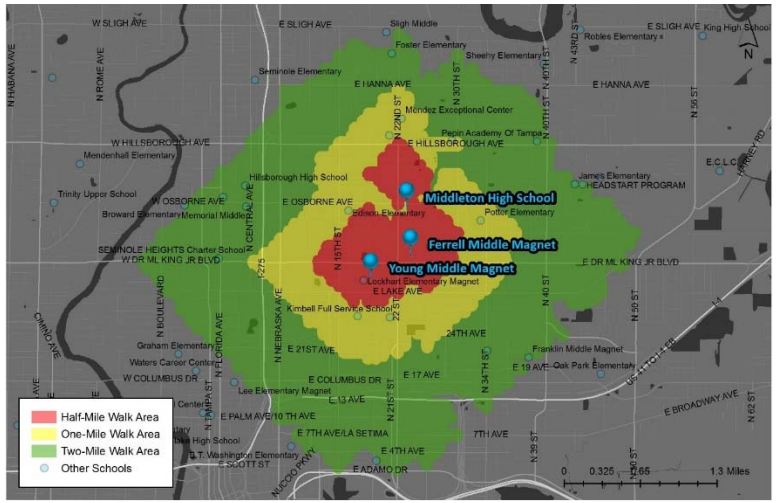


Figure E-1: Walk Area Boundaries (for Ferrell, Middleton, and Young Areas)

Walk Area Statistics

2-Mile Walk Area Statistics

Number of Students[1]: 250 (25.4%)

Students with Free/Reduced Lunch[2]: 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 Intersections[4]: 1,129

Number of Collector Road Intersections[4]: 718

1-Mile Walk Area Statistics

Number of Students[1]: 145 (14.8%)

Students with Free/Reduced Lunch[2]: 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 Intersections[4]: 357

Number of Collector Road Intersections[4]: 315

Half-Mile Walk Area Statistics

Number of Students[1]: 54 (5.5%)

Students with Free/Reduced Lunch[2]: 44 (81.5%)

Total Pedestrian and Bicycle Crashes (2012-2016): 30

School Related Pedestrian and Bicycle Crashes (2012-2016)[3]: 1

Number of Arterial Road Intersections[4]: 193

Number of Collector Road Intersections[4]: 152

General Information

Number of Students previously receiving Unfunded Transportation[5]: 15

School Survey Responses indicating Walk/Bike as mode to/from school[6]: 0

Within Identified MPO Community of Concern[7]: 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

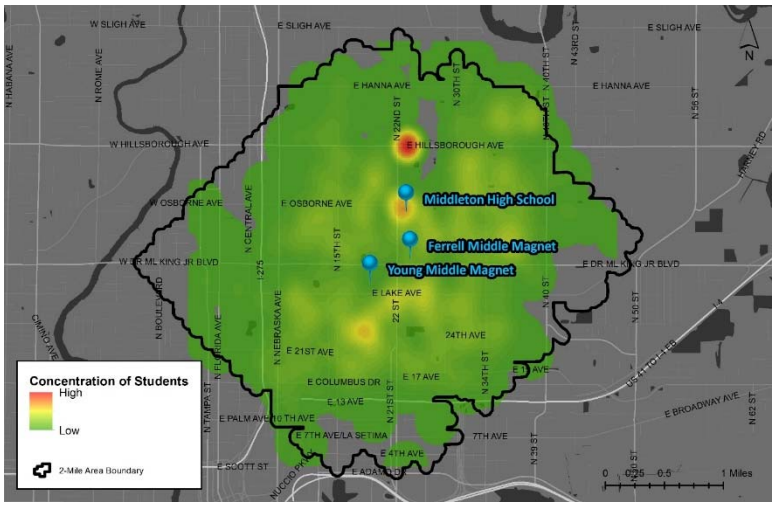


Figure E-2: Concentration of Students within 2-Mile Walk Area

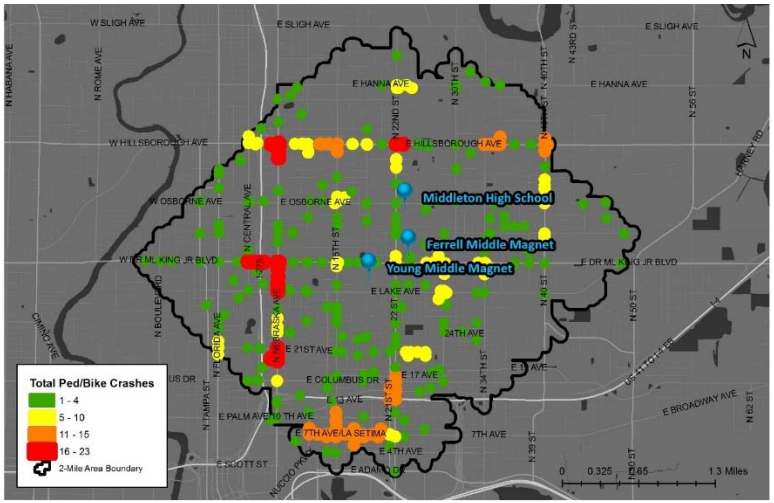


Figure E-3: Total Pedestrian and Bicycle Crash Frequency Clusters

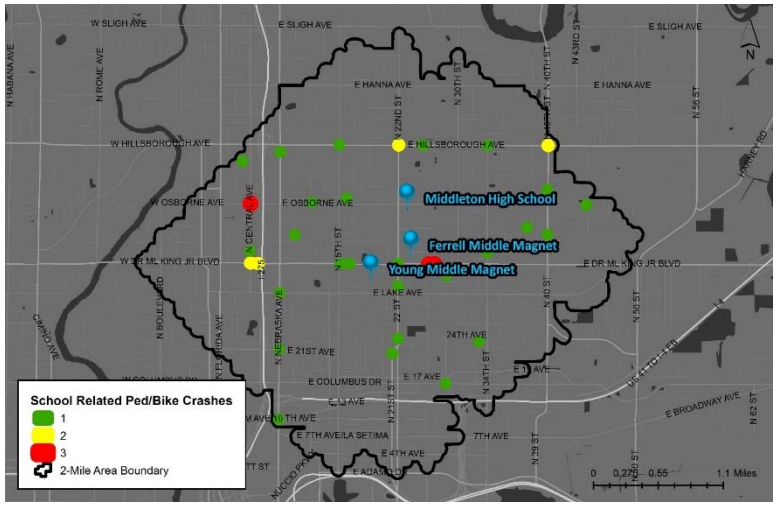


Figure E-4: School Related Pedestrian and Bicycle Crash Frequency Clusters

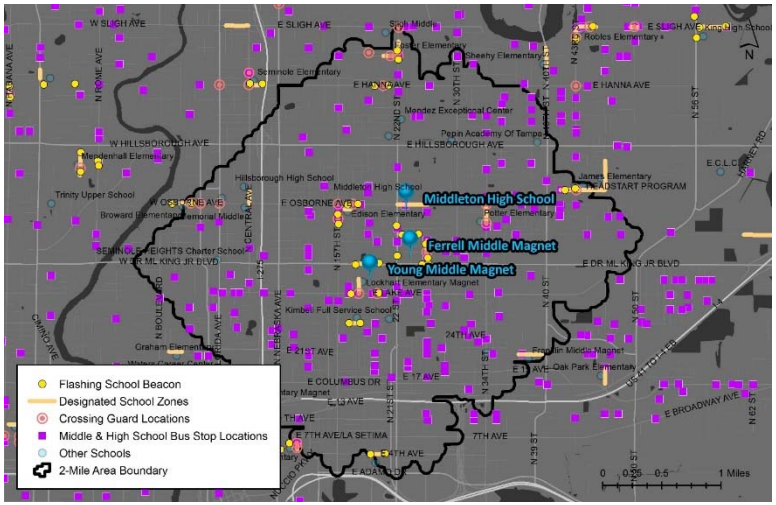


Figure E-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations

D. King High School (2241)

6815 N 56$_{th}$ 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):

Asian	Black	Hispanic	Indian	Multi	White	Total
302 17.38%	743 42.75%	294 16.92%	6 0.35%	93 5.35%	300 17.26%	1,738

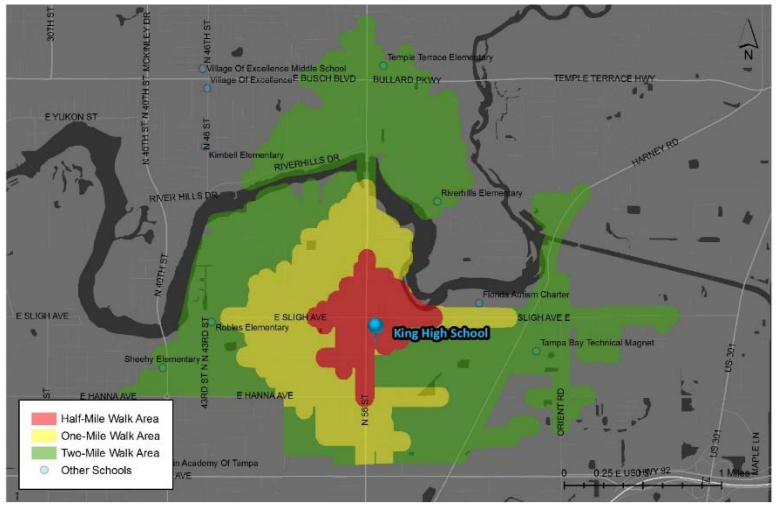


Figure F-1: Walk Area Boundaries

Walk Area Statistics

2-Mile Walk Area Statistics

Number of Students[1]: 477 (18.01%)

Students with Free/Reduced Lunch[2]: 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 Intersections[4]: 53

Number of Collector Road Intersections[4]: 57

1-Mile Walk Area Statistics

Number of Students[1]: 172 (6.50%)

Students with Free/Reduced Lunch[2]: 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 Intersections[4]: 15

Number of Collector Road Intersections[4]: 24

Half-Mile Walk Area Statistics

Number of Students[1]: 68 (2.57%)

Students with Free/Reduced Lunch[2]: 54 (79.41%)

Total Pedestrian and Bicycle Crashes (2012-2016): 12

School Related Pedestrian and Bicycle Crashes (2012-2016)[3]: 2

Number of Arterial Road Intersections[4]: 9

Number of Collector Road Intersections[4]: 9

General Information

Number of Students previously receiving Unfunded Transportation[5]: 76

School Survey Responses indicating Walk/Bike as mode to/from school[6]: 5

Within Identified MPO Community of Concern[7]: 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

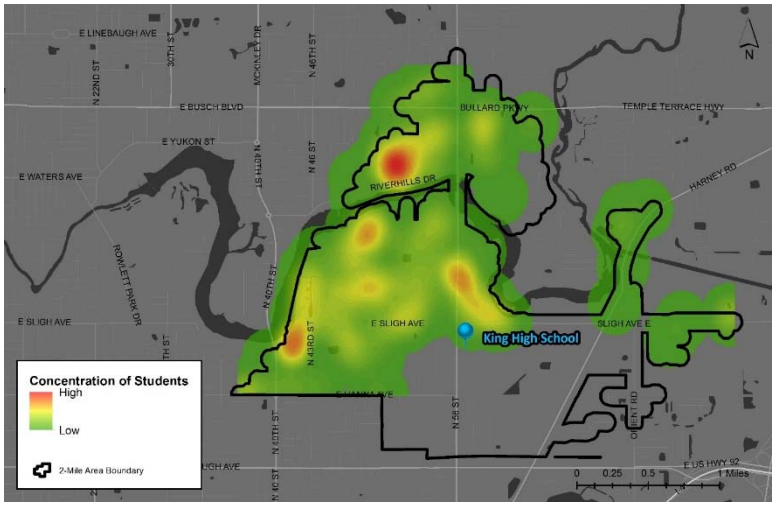


Figure F-2: Concentration of Students within 2-Mile Walk Area

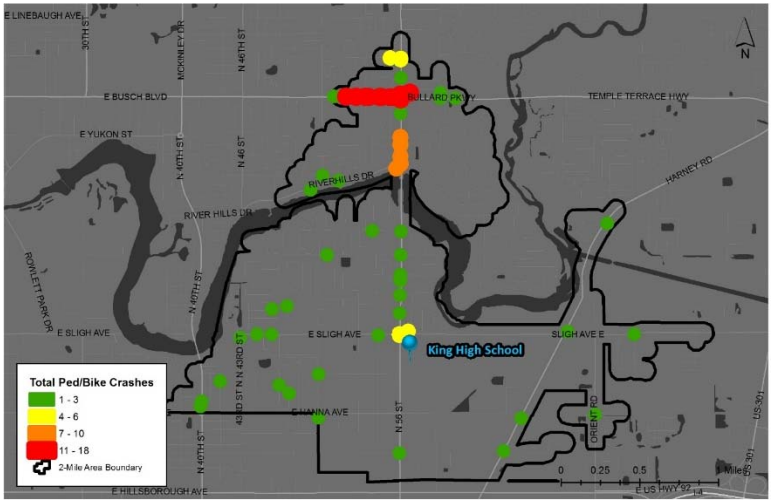


Figure F-3: Total Pedestrian and Bicycle Crash Frequency Clusters

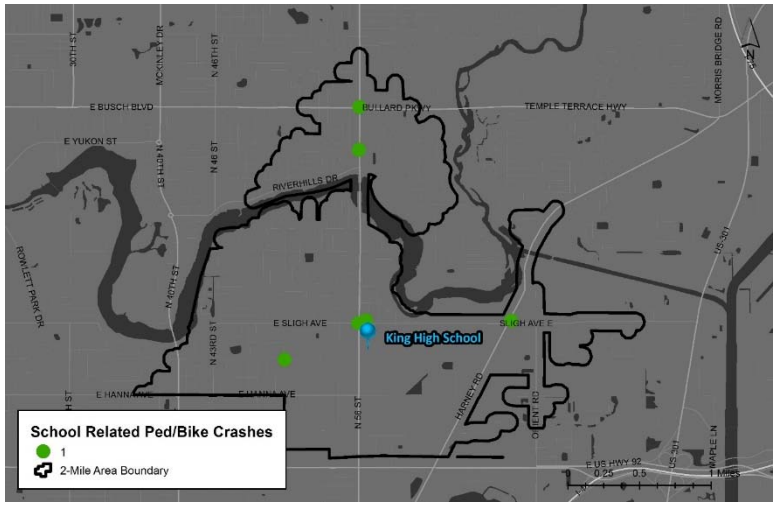


Figure F-4: School Related Pedestrian and Bicycle Crash Frequency Clusters

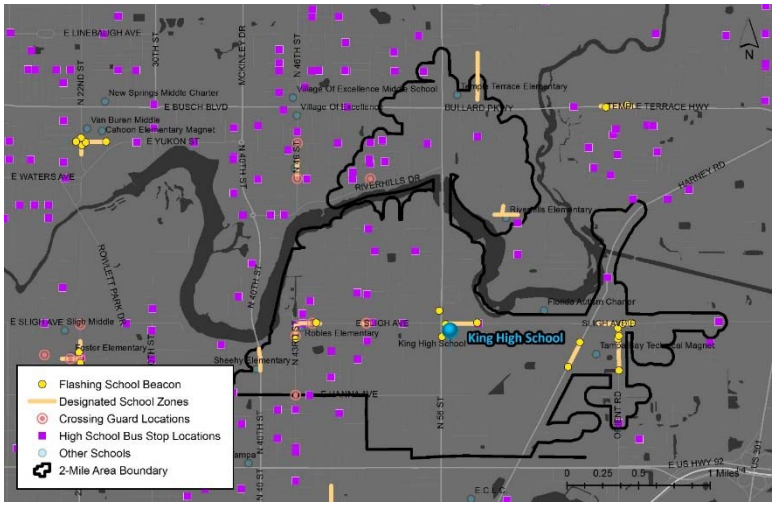


Figure F-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations

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):

Asian	Black	Hispanic	Indian	Multi	White	Total
61 2.65%	176 7.64%	1,731 75.10%	3 0.13%	100 4.34%	234 10.15%	2,305

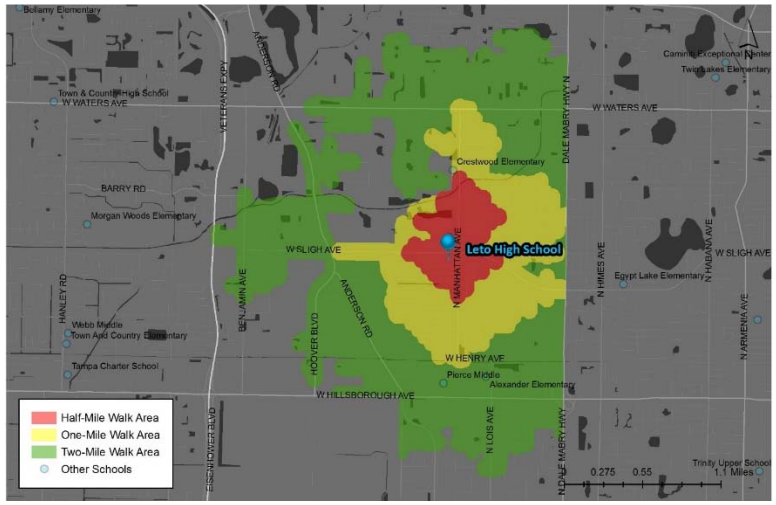


Figure G-1: Walk Area Boundaries

Walk Area Statistics

2-Mile Walk Area Statistics

Number of Students[1]: 900 (53.41%)

Students with Free/Reduced Lunch[2]: 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 Intersections[4]: 53

Number of Collector Road Intersections[4]: 52

1-Mile Walk Area Statistics

Number of Students[1]: 562 (33.35%)

Students with Free/Reduced Lunch[2]: 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 Intersections[4]: 4

Number of Collector Road Intersections[4]: 31

Half-Mile Walk Area Statistics

Number of Students[1]: 198 (11.75%)

Students with Free/Reduced Lunch[2]: 165 (83.33%)

Total Pedestrian and Bicycle Crashes (2012-2016): 8

School Related Pedestrian and Bicycle Crashes (2012-2016)[3]: 2

Number of Arterial Road Intersections[4]: 0

Number of Collector Road Intersections[4]: 15

General Information

Number of Students previously receiving Unfunded Transportation[5]: 46

School Survey Responses indicating Walk/Bike as mode to/from school[6]: 9

Within Identified MPO Community of Concern[7]: Yes

Other Schools within the 2-Mile Walk Boundary:

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

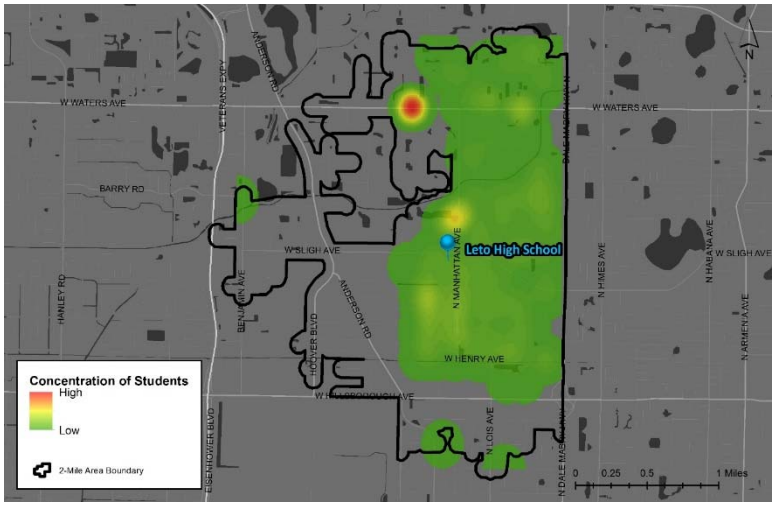


Figure G-2: Concentration of Students within 2-Mile Walk Area

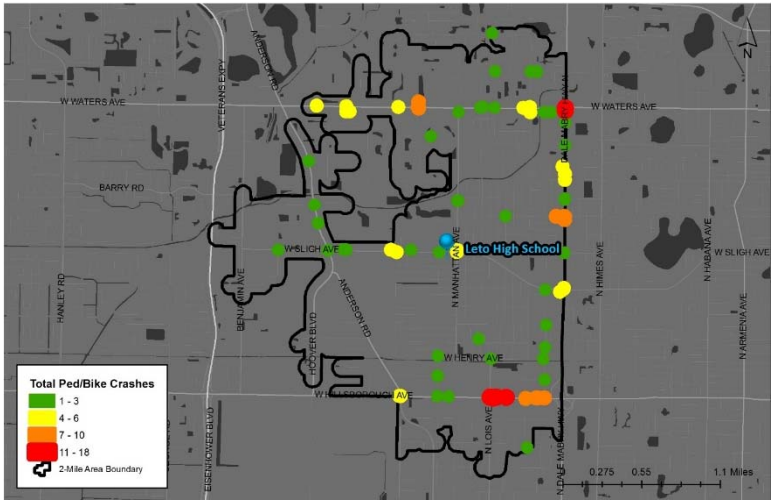


Figure G-3: Total Pedestrian and Bicycle Crash Frequency Clusters

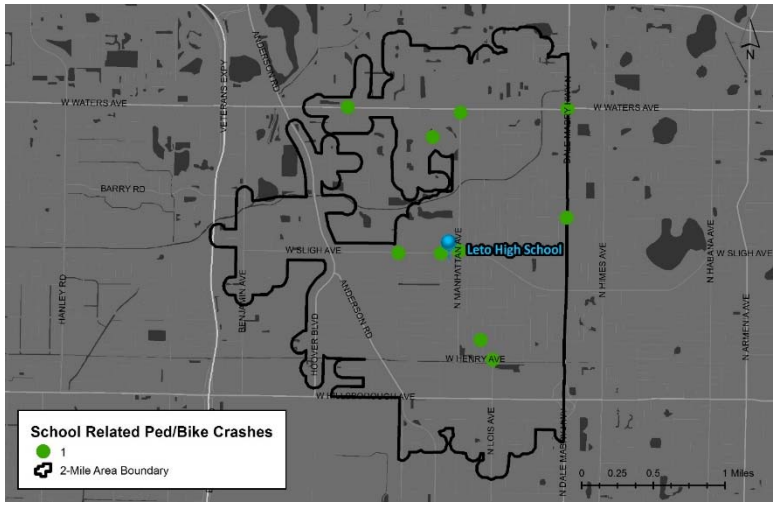


Figure G-4: School Related Pedestrian and Bicycle Crash Frequency Clusters

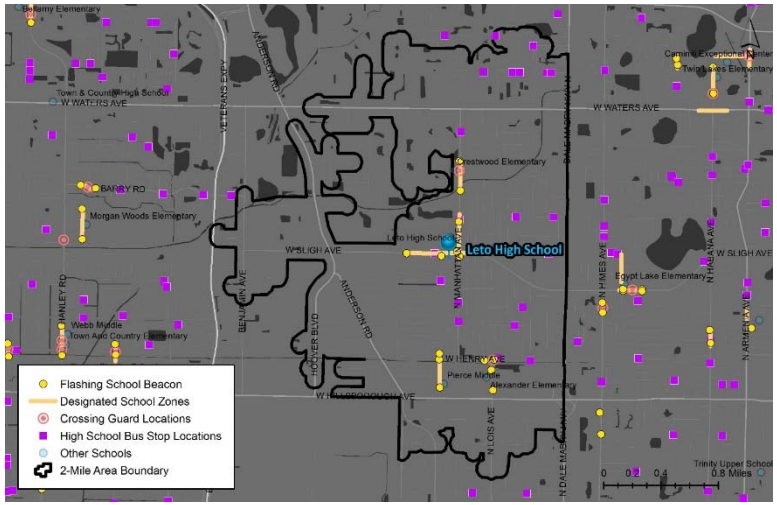


Figure G-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations

F. Muller Elementary Magnet School (3181)

13615 N 22$_{nd}$ 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):

Asian	Black	Hispanic	Indian	Multi	White	Total
5 1.28%	147 37.06%	164 41.94%	0 0.00%	19 4.68%	56 14.32%	391

Figure H-1: Walk Area Boundaries

Walk Area Statistics

2-Mile Walk Area Statistics

Number of Students[1]: 148 (30.6%)

Students with Free/Reduced Lunch[2]: 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 Intersections[4]: 184

Number of Collector Road Intersections[4]: 206

1-Mile Walk Area Statistics

Number of Students[1]: 80 (16.5%)

Students with Free/Reduced Lunch[2]: 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 Intersections[4]: 87

Number of Collector Road Intersections[4]: 121

Half-Mile Walk Area Statistics

Number of Students[1]: 17 (3.50%)

Students with Free/Reduced Lunch[2]: 16 (94.1%)

Total Pedestrian and Bicycle Crashes (2012-2016): 31

School Related Pedestrian and Bicycle Crashes (2012-2016)[3]: 1

Number of Arterial Road Intersections[4]: 49

Number of Collector Road Intersections[4]: 79

General Information

Number of Students previously receiving Unfunded Transportation[5]: 2

School Survey Responses indicating Walk/Bike as mode to/from school[6]: 0

Within Identified MPO Community of Concern[7]: Yes

Other Schools within the 2-Mile Walk Boundary:

- Mort Elementary School
- Community Charter School
- Bowers-Whitley Career Center

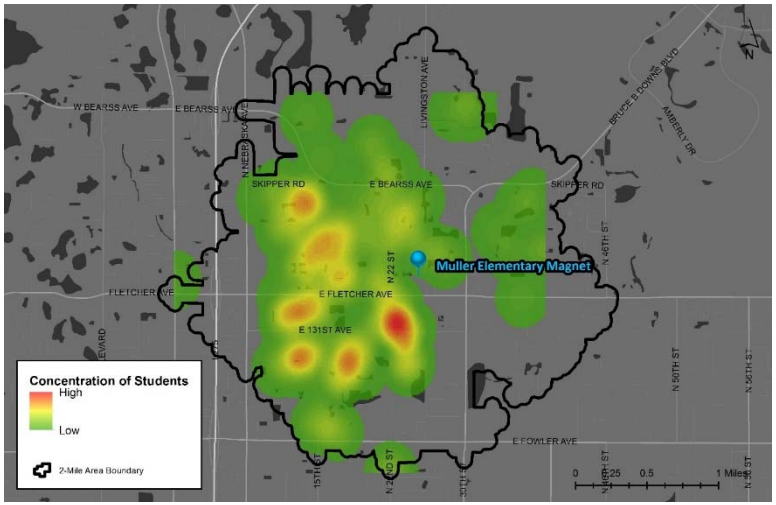


Figure H-2: Concentration of Students within 2-Mile Walk Area

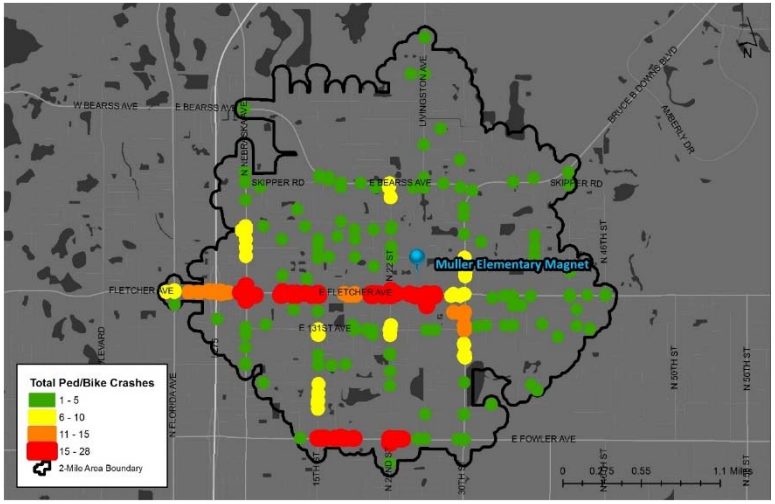


Figure H-3: Total Pedestrian and Bicycle Crash Frequency Clusters

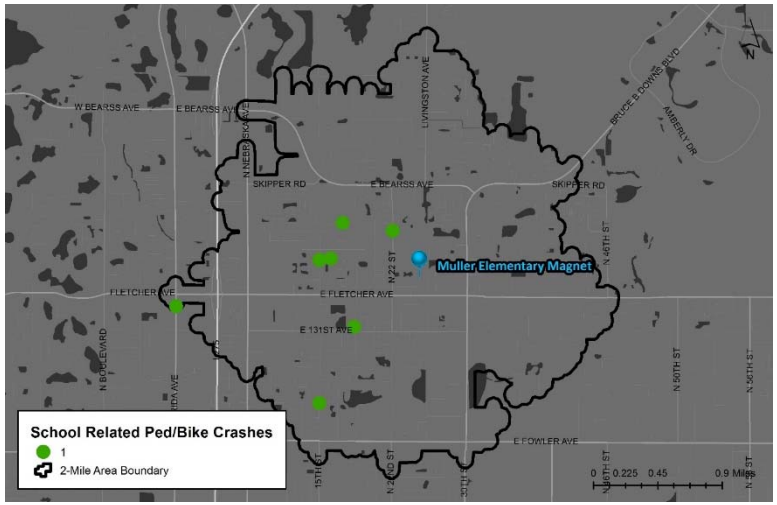


Figure H-4: School Related Pedestrian and Bicycle Crash Frequency Clusters

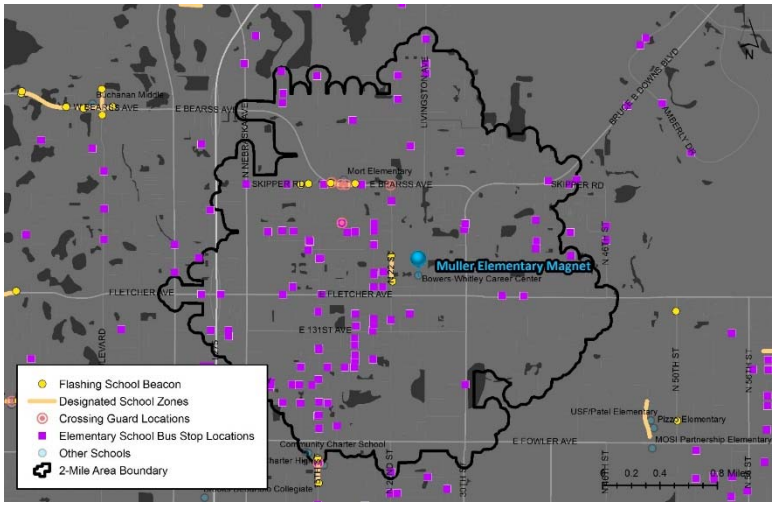


Figure H-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations

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):

Asian	Black	Hispanic	Indian	Multi	White	Total
28 3.12%	85 9.47%	693 77.17%	1 0.11%	17 1.89%	74 8.24%	898

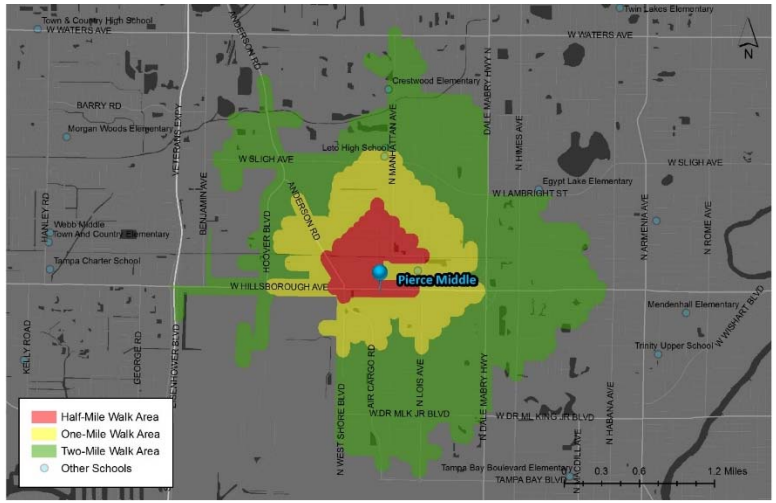


Figure I-1: Walk Area Boundaries

Walk Area Statistics

2-Mile Walk Area Statistics

Number of Students[1]: 529 (57.00%)

Students with Free/Reduced Lunch[2]: 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 Intersections[4]: 56

Number of Collector Road Intersections[4]: 81

1-Mile Walk Area Statistics

Number of Students[1]: 213 (22.95%)

Students with Free/Reduced Lunch[2]: 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 Intersections[4]: 17

Number of Collector Road Intersections[4]: 30

Half-Mile Walk Area Statistics

Number of Students[1]: 69 (7.44%)

Students with Free/Reduced Lunch[2]: 59 (85.51%)

Total Pedestrian and Bicycle Crashes (2012-2016): 11

School Related Pedestrian and Bicycle Crashes (2012-2016)[3]: 2

Number of Arterial Road Intersections[4]: 5

Number of Collector Road Intersections[4]: 12

General Information

Number of Students previously receiving Unfunded Transportation[5]: 2

School Survey Responses indicating Walk/Bike as mode to/from school[6]: 0

Within Identified MPO Community of Concern[7]: Yes

Other Schools within the 2-Mile Walk Boundary:

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

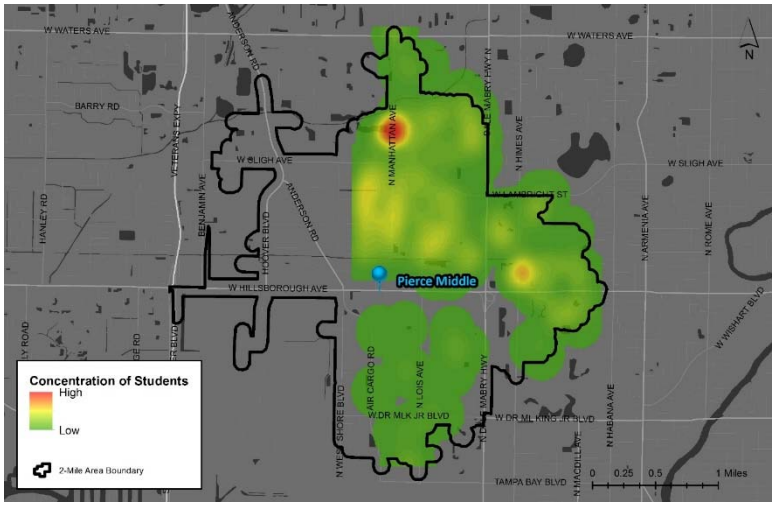


Figure I-2: Concentration of Students within 2-Mile Walk Area

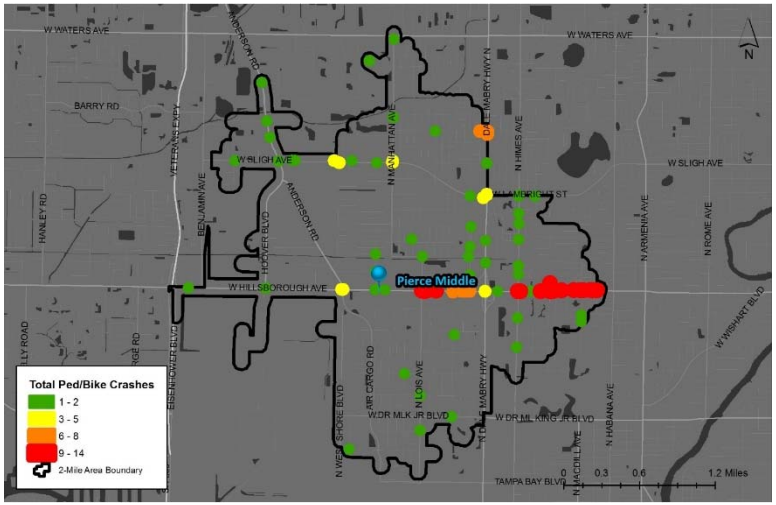


Figure I-3: Total Pedestrian and Bicycle Crash Frequency Clusters

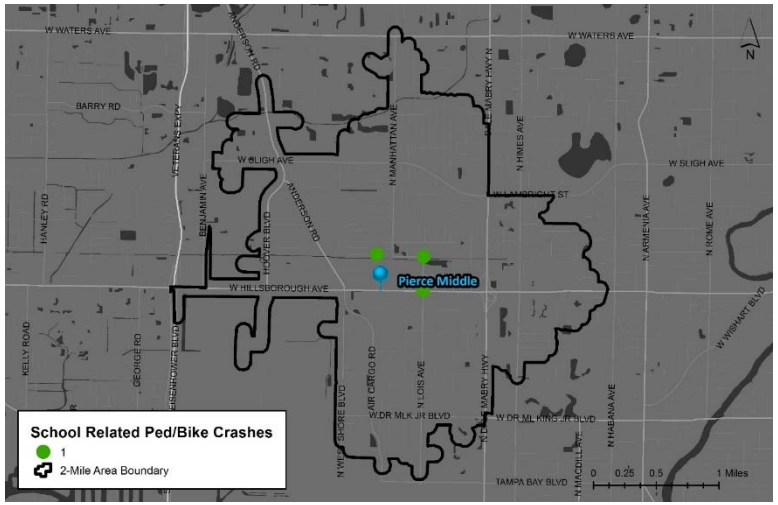


Figure I-4: School Related Pedestrian and Bicycle Crash Frequency Clusters

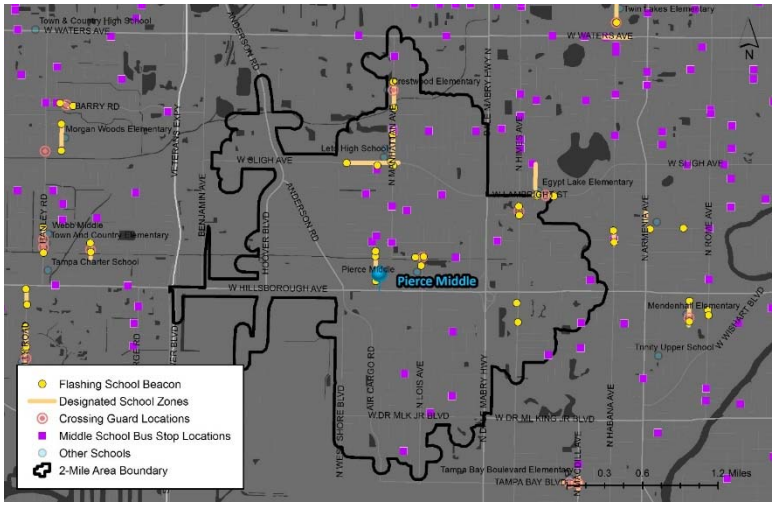


Figure I-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations

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):

Asian	Black	Hispanic	Indian	Multi	White	Total
86 3.60%	188 7.86%	438 18.31%	6 0.25%	99 4.14%	1,575 65.84%	2,392

Figure J-1: Walk Area Boundaries

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

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

Number of Arterial Road Intersections[4]: 16

Number of Collector Road Intersections[4]: 23

General Information

Number of Students previously receiving Unfunded Transportation[5]: 68

School Survey Responses indicating Walk/Bike as mode to/from school[6]: 34

Within Identified MPO Community of Concern[7]: 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

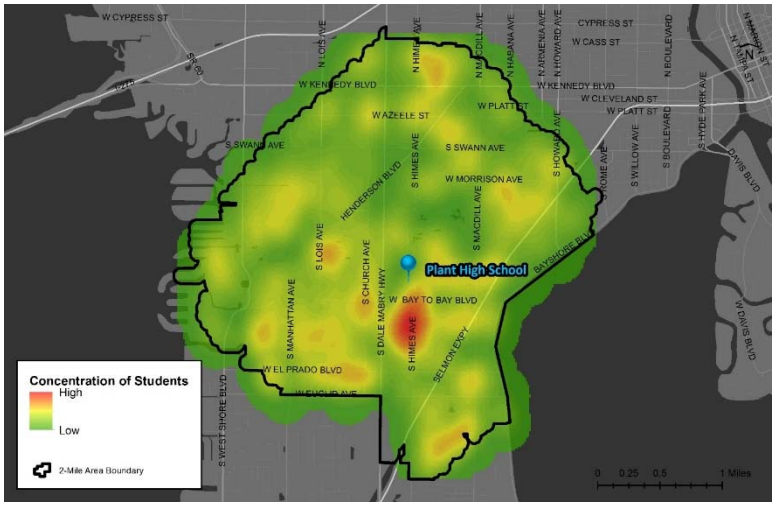


Figure J-2: Concentration of Students within 2-Mile Walk Area

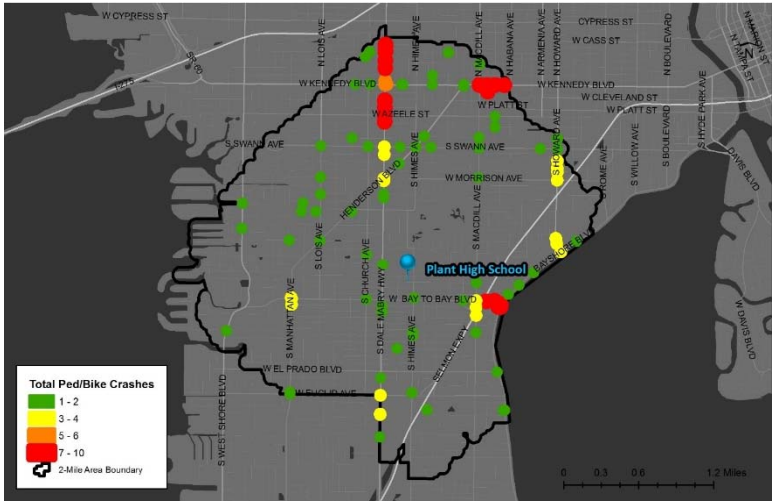


Figure J-3: Total Pedestrian and Bicycle Crash Frequency Clusters

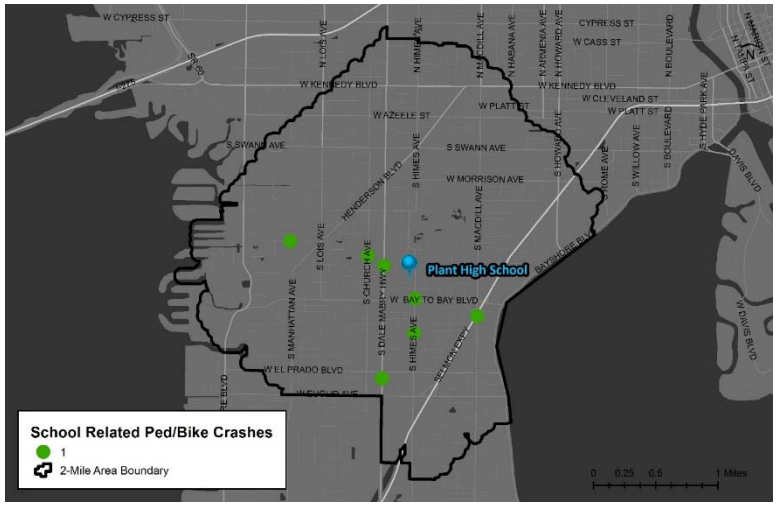


Figure J-4: School Related Pedestrian and Bicycle Crash Frequency Clusters

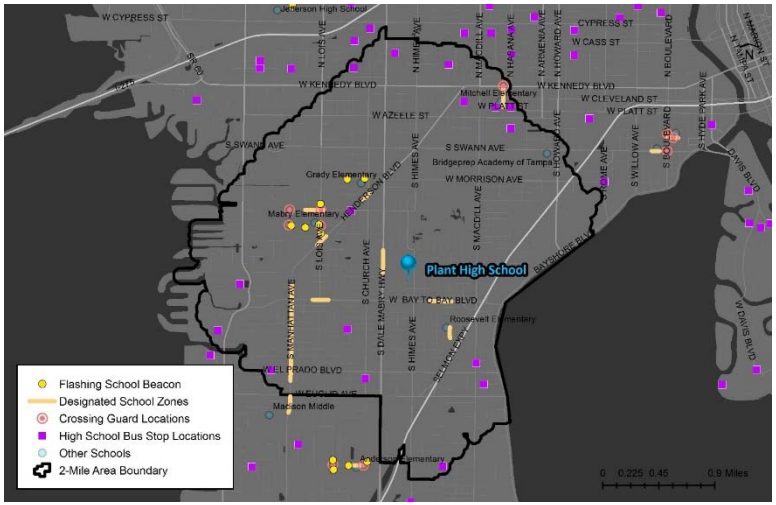


Figure J-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations

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):

Asian	Black	Hispanic	Indian	Multi	White	Total
1 0.12%	570 68.18%	178 21.29%	0 0.00%	37 4.43%	50 5.98%	836

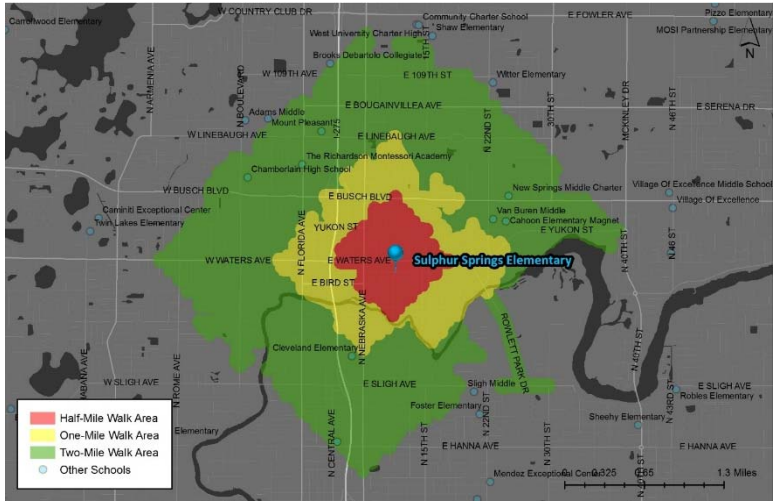


Figure K-1: Walk Area Boundaries

Walk Area Statistics

2-Mile Walk Area Statistics

Number of Students[1]: 676 (61.7%)

Students with Free/Reduced Lunch[2]: 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 Intersections[4]: 622

Number of Collector Road Intersections[4]: 653

1-Mile Walk Area Statistics

Number of Students[1]: 644 (58.8%)

Students with Free/Reduced Lunch[2]: 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 Intersections[4]: 331

Number of Collector Road Intersections[4]: 265

Half-Mile Walk Area Statistics

Number of Students[1]: 416 (38.0%)

Students with Free/Reduced Lunch[2]: 394 (94.7%)

Total Pedestrian and Bicycle Crashes (2012-2016): 62

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

Number of Arterial Road Intersections[4]: 180

Number of Collector Road Intersections[4]: 165

General Information

Number of Students previously receiving Unfunded Transportation[5]: 1

School Survey Responses indicating Walk/Bike as mode to/from school[6]: 0

Within Identified MPO Community of Concern[7]: 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

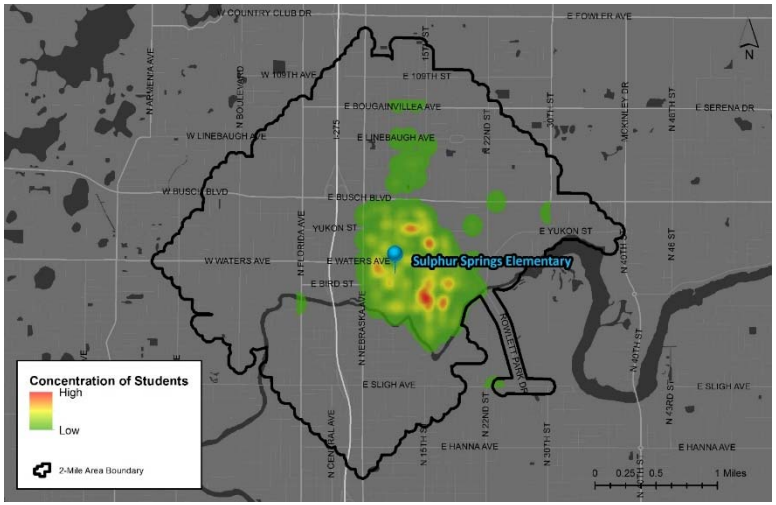


Figure K-2: Concentration of Students within 2-Mile Walk Area

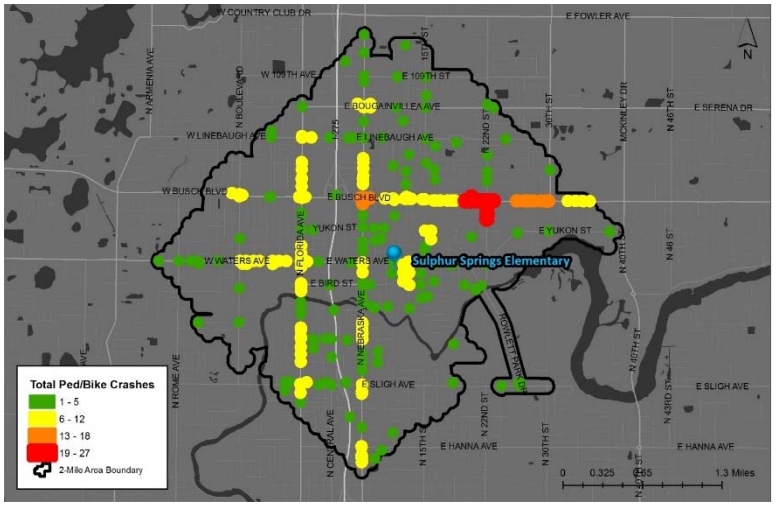


Figure K-3: Total Pedestrian and Bicycle Crash Frequency Clusters

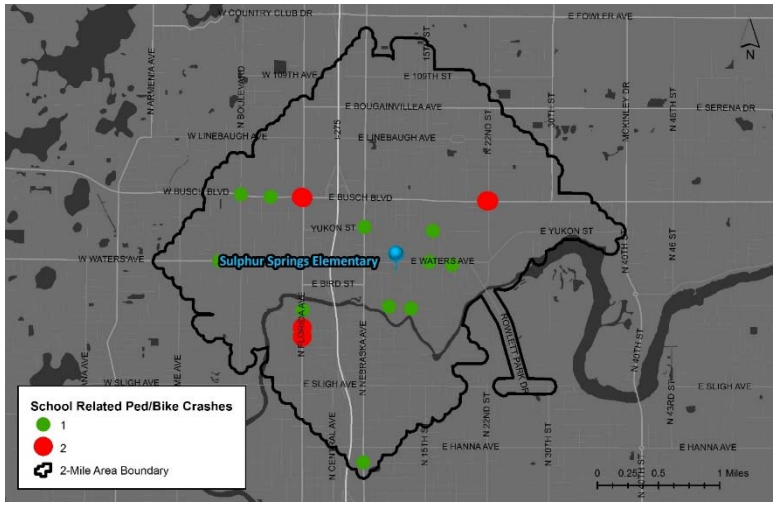


Figure K-4: School Related Pedestrian and Bicycle Crash Frequency Clusters

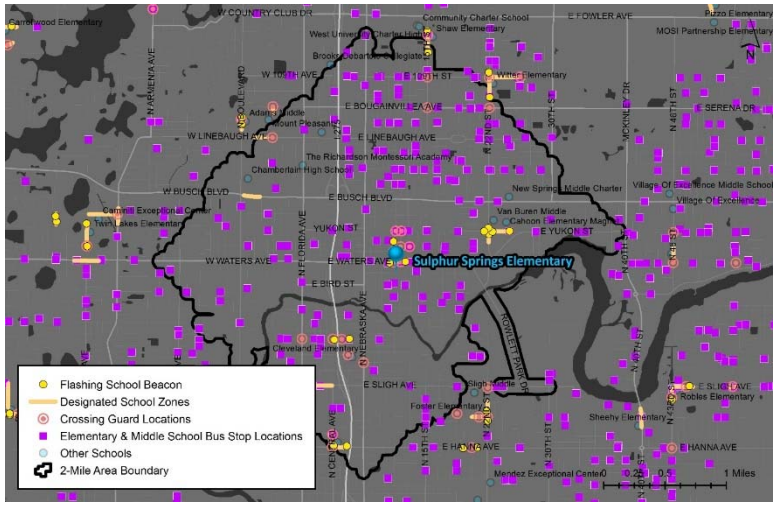


Figure K-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations

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):

Asian	Black	Hispanic	Indian	Multi	White	Total
3 0.78%	229 59.17%	118 30.49%	1 0.26%	10 2.58%	26 6.72%	387

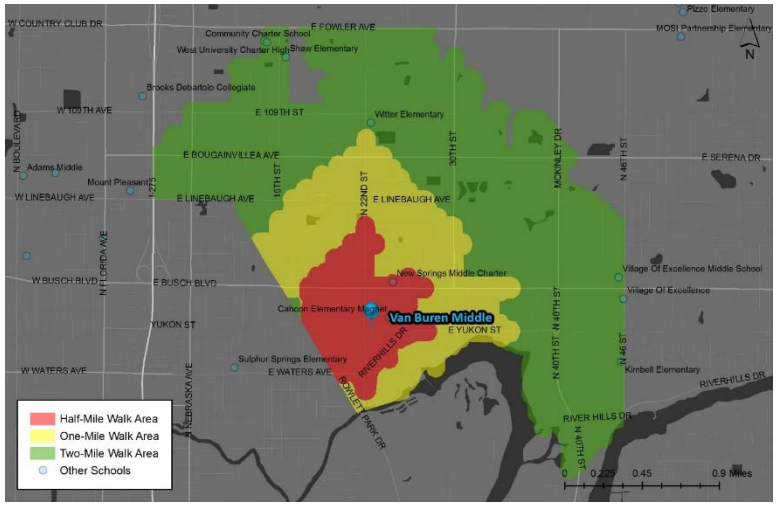


Figure L-1: Walk Area Boundaries

Walk Area Statistics

2-Mile Walk Area Statistics

Number of Students[1]: 314 (74.94%)

Students with Free/Reduced Lunch[2]: 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 Intersections[4]: 83

Number of Collector Road Intersections[4]: 184

1-Mile Walk Area Statistics

Number of Students[1]: 80 (19.09%)

Students with Free/Reduced Lunch[2]: 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 Intersections[4]: 25

Number of Collector Road Intersections[4]: 79

Half-Mile Walk Area Statistics

Number of Students[1]: 31 (7.40%)

Students with Free/Reduced Lunch[2]: 27 (87.10%)

Total Pedestrian and Bicycle Crashes (2012-2016): 49

School Related Pedestrian and Bicycle Crashes (2012-2016)[3]: 2

Number of Arterial Road Intersections[4]: 12

Number of Collector Road Intersections[4]: 31

General Information

Number of Students previously receiving Unfunded Transportation[5]: 157

School Survey Responses indicating Walk/Bike as mode to/from school[6]: 2

Within Identified MPO Community of Concern[7]: 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

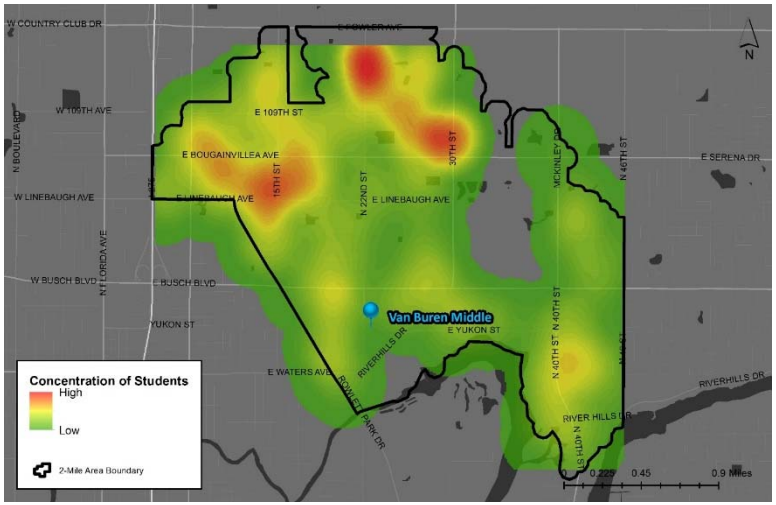
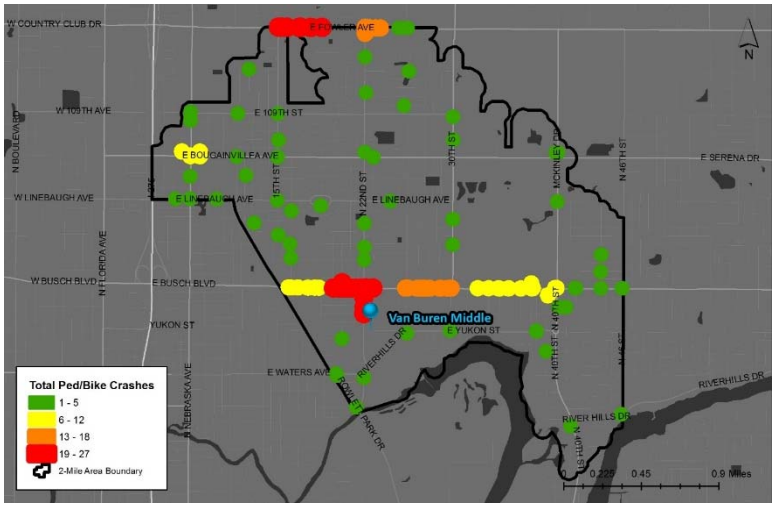


Figure L-2: Concentration of Students within 2-Mile Walk Area



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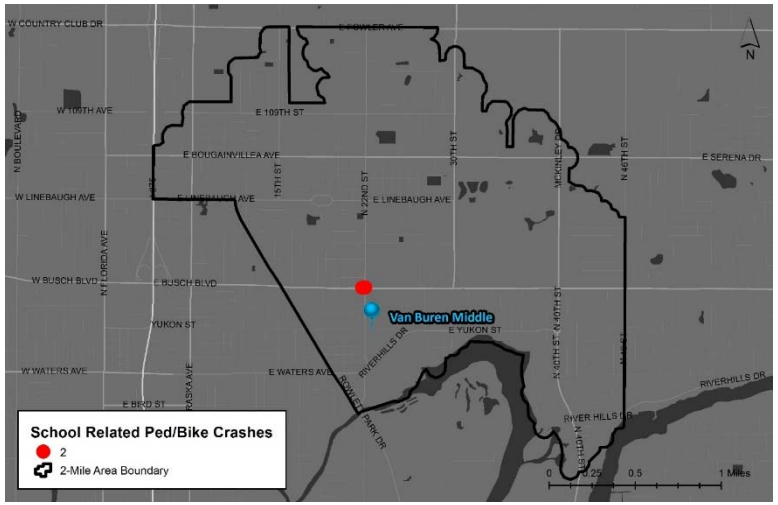

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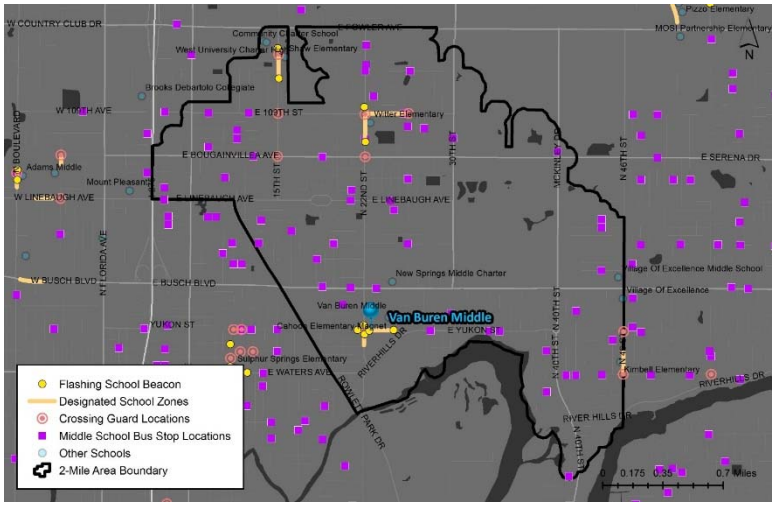

Figure L-5: Other School Area Data, School Zones, School Related Flashing Beacon Locations, Crossing Guard Locations, and School Bus Stop Locations

[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

Hillsborough County PUBLIC SCHOOLS
Preparing Students for Life

January 9, 2018

Jake Russell
Chamberlain High School
9401 North Boulevard, Tampa, FL 33612

Re: Hillsborough Metropolitan Planning Organization School Safety Study

Dear Mr Russell:

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. Who better 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, silval@plancom.org or 813 273-3774 ext. 329 know if you have any questions or would like more information about the study.

Sincerely,

Cindy Stuart

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

School Board
Sally A. Harris, Chair
Tamara P. Shamburger, Vice Chair
Susan L. Valdes
Cindy Stuart
Melissa Snively
April Griffin
Lynn L. Gray

Hillsborough County PUBLIC SCHOOLS
Preparing Students for Life

Superintendent of Schools
Jeff Eakins

Chief of Staff
Alberto Vázquez Matos, Ed.D.

Deputy Superintendent
Van Ayres

Chief of Schools
Harrison Peters

January 9, 2018

Nannette 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 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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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, silval@plancom.org or 813 273-3774 ext. 329 know if you have any questions or would like more information about the study.

Sincerely,

Cindy Stuart

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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Hillsborough County PUBLIC SCHOOLS
Preparing Students for Life

January 9, 2018

Karen French
Ferrell Girls Preparatory Academy
4302 24th 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.

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Sincerely,

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813-272-4045
Cindy.stuart@sdhc.k12.fl.us
Hillsborough County Public Schools
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Hillsborough County PUBLIC SCHOOLS
Preparing Students for Life

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Jeff Eakins

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Alberto Vázquez Matos, Ed.D.

Deputy Superintendent
Van Ayres

Chief of Schools
Harrison Peters

January 9, 2018

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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Cindy.stuart@sdhc.k12.fl.us
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Hillsborough County PUBLIC SCHOOLS
Preparing Students for Life

January 9, 2018

Larissa McCoy
Leto High School
4409 West 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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Deputy Superintendent
Van Ayres

Chief of Schools
Harrison Peters

January 9, 2018

Kim Moore
Middleton High School
4801 N 22nd Street, Tampa, FL 33610

Re: Hillsborough Metropolitan Planning Organization School Safety Study

Dear Dr Moore:

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

Cindy Stuart
District 3 School Board Member
813-272-4045
Cindy.stuart@sdhc.k12.fl.us
Hillsborough County Public Schools
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Tampa, FL 33602

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Hillsborough County PUBLIC SCHOOLS
Preparing Students for Life

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 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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Cindy.stuart@sdhc.k12.fl.us
Hillsborough County Public Schools
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Chief of Staff
Alberto Vázquez Matos, Ed.D.

Deputy Superintendent
Van Ayres

Chief of Schools
Harrison Peters

January 9, 2018

Pablo Gallego
Pierce Middle School
5511 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 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

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 33602-3507 • Website: www.sdhc.k12.fl.us
School District Main Office: 813-272-4000 • P.O. Box 3408 • Tampa, FL 33601-3408

Hillsborough County PUBLIC SCHOOLS
Preparing Students for Life

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.

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. Who better 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, silval@plancom.org or 813 273-3774 ext. 329 know if you have any questions or would like more information about the study.

Sincerely,

Cindy Stuart

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

School Board
Sally A. Harris, Chair
Tamara P. Shamburger, Vice Chair
Susan L. Valdes
Cindy Stuart
Melissa Snively
April Griffin
Lynn L. Gray

Hillsborough County PUBLIC SCHOOLS
Preparing Students for Life

Superintendent of Schools
Jeff Eakins

Chief of Staff
Alberto Vázquez Matos, Ed.D.

Deputy Superintendent
Van Ayres

Chief of Schools
Harrison Peters

January 9, 2018

Chantel Angeletti
Sulphur Springs K-8 Community School
8412 13th Street, Tampa, FL 33604

Re: Hillsborough Metropolitan Planning Organization School Safety Study

Dear Ms Angeletti:

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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Cindy.stuart@sdhc.k12.fl.us
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Tampa, FL 33602

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Hillsborough County PUBLIC SCHOOLS
Preparing Students for Life

January 9, 2018

Ovett 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 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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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, silval@plancom.org or 813 273-3774 ext. 329 know if you have any questions or would like more information about the study.

Sincerely,

Cindy Stuart

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Hillsborough County PUBLIC SCHOOLS
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Van Ayres

Chief of Schools
Harrison Peters

January 9, 2018

Nadine Johnson
Young Middle Magnet School
1807 E Dr Martin Luther King Jr Boulevard, Tampa, FL 33610

Re: Hillsborough Metropolitan Planning Organization School Safety Study

Dear Ms Johnson:

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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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, silval@plancom.org or 813 273-3774 ext. 329 know if you have any questions or would like more information about the study.

Sincerely,

Cindy Stuart

Cindy Stuart
District 3 School Board Member
813-272-4045
Cindy.stuart@sdhc.k12.fl.us
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Tampa, FL 33602

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APPENDIX C – DATA-DRIVEN LIGHTING PRIORITIZATION FOR THE CITY OF TAMPA

Priority 1: Sulphur Springs K-8 Community School Lighting Recommendations

ID	Location Description	Observation	Suggestion	Agency	Time Frame	Level of Effort	Comments
I3	Various Locations along Waters Avenue, 12th Street and Yukon Street	Lighting levels	Evaluate the feasibility to enhance or add street lights	City of Tampa	Mid Term	Medium	

Priority 2: Girls Preparatory Academy at Ferrell Middle Magnet School Lighting Recommendations

ID	Location Description	Observation	Suggestion	Agency	Time Frame	Level of Effort	Comments
C7A	Chelsea Street and 22nd Street	Number of existing street lights present	Additional and enhanced street lighting	City of Tampa	Mid Term	Medium	

Priority 3: George D. Chamberlain High School Lighting Recommendations

ID	Location Description	Observation	Suggestion	Agency	Time Frame	Level of Effort	Comments
A2	North Blvd. from Waters Ave. to Country Club Dr.	Condition of Existing HPS Street Lights	Upgrade to LED and add more street lights.	City of Tampa	Mid Term	Medium	

Priority 4: George S. Middleton High School Lighting Recommendations

ID	Location Description	Observation	Suggestion	Agency	Time Frame	Level of Effort	Comments
C5B	22nd Street Corridor	Lighting levels	Enhanced or new street lighting	City of Tampa	Mid Term	Medium	

Priority 5: Pierce Middle School Lighting Recommendations

ID	Location Description	Observation	Suggestion	Agency	Time Frame	Level of Effort	Comments
G3	Hesperides Street near Pierce Middle School	Lighting levels	Consider the feasibility of adding street lights	Hillsborough County	Mid Term	Medium	

APPENDIX D – SUMMARY TABLES BY MAINTAINING AGENCY

Legend

ID	School
A	George D. Chamberlain High School
B	Dr. John A. Coleman Middle School
CA	Girls Preparatory Academy at Ferrell Middle Magnet School
CB	George S. Middleton High School
CC	Nathan B. Young Middle Magnet School
D	Muller Elementary Magnet School
E	C. Leon King High School
F	A. P. Leto High School
G	Pierce Middle School
H	H. B. Plant High School
I	Sulphur Springs K-8 Community School
J	Van Buren Middle School (Carter G. Woodson K-8 School)

Table 1: City of Tampa

ID	Location Description	Observation	Suggestion	Agency	Time Frame	Level of Effort	Comments
A1	North Blvd. from Sligh Ave. to Country Club Dr.	Faded and unmarked crosswalks	Enhance or add pavement markings	City of Tampa	Short Term	Low	
A2	North Blvd. from Waters Ave. to Country Club Dr.	Condition of Existing HPS Street Lights	Upgrade to LED and add more street lights.	City of Tampa	Mid Term	Medium	
A3	North Blvd. from Sligh Ave. to Country Club Dr.	Potential ADA enhancements	Enhance curb ramps	City of Tampa	Mid Term	Medium	Potential R/W challenges
A4	North Blvd. from Busch Blvd. (SR 580) to Country Club Dr.	Midblock crossing opportunities	Consider additional enhanced midblock crossing locations	City of Tampa	Mid Term	Medium	Determine locations where crossings are warranted
A5	Armenia Ave. at Bird St.	Stored products blocking sidewalk	Code enforcement contract regarding cleared path	City of Tampa	Short Term	Low	
A6	Busch Blvd. (SR 580) at North Blvd. & Linebaugh Ave. at North Blvd.	Signal phasing opportunities	Modify signal phasing to eliminate permissive left-turn conflicts with pedestrians	City of Tampa & Florida Department of Transportation	Mid Term	Medium	Potential constructability challenges due structural loading
A7	Busch Blvd. (SR 580) at Florida Ave. & Busch Blvd. (SR 580) at North Blvd.	Sidewalk connectivity at railroad crossing and pedestrian railroad gates.	Consider adding pedestrian features and sidewalk	City of Tampa, Florida Department of Transportation & CSX	Long Term	High	Potential R/W and constructability challenges. FDOT project handling Florida Ave. at Busch Blvd.

B1	San Rafael St. & Melrose Ave.	Sidewalk gaps	Install new sidewalk	City of Tampa	Long Term	Medium	Potential R/W limitation
B2	Various locations around Coleman & Mabry School	Potential ADA enhancements	Upgrade sidewalk ramps to enhance walkability	City of Tampa	Long Term	High	Include in upcoming CIP projects where possible
B3	Roads adjacent to Coleman Middle	Crosswalks needing refurbishment or locations missing striped crosswalks	Striping maintenance or striping additional crosswalks	City of Tampa	Mid Term	Medium	
B4	Manhattan Ave.	Undefined roadway lanes	Consider adding centerline striping	City of Tampa	Short Term	Low	Include in upcoming CIP projects where possible
B5	Intersection of Estrella St. & Manhattan Ave.	Walkability challenges	Update traffic signal	City of Tampa	Long Term	Medium	Potential Utility Conflicts
B6	Henderson Blvd. from San Jose St. to Dale Mabry Highway including San Rafael St.	Pedestrian connectivity challenges	Traffic signal and intersection improvements	City of Tampa	Long Term	High	
B7	Morrison Ave at Lois Ave. & Azeele St. at Lois Ave.	Very long crossing distances	Refuge islands and reduced crossing distance	City of Tampa	Long Term	Medium	
B8	San Rafael St. from Manhattan Ave. To Hubert Ave.	Very wide pavement	Delineate the extra pavement	City of Tampa	Short Term	Low	Stripe parking or center lines as appropriate.
CA1	Chelsea St., east of 22nd Street	Defined walking routes needed	New or defined walking path	City of Tampa	Mid Term	Medium	

CA2	Various locations – key corridors around school	Crosswalk striping	Add or refurbish crosswalk markings	City of Tampa	Mid Term	Medium	
CA3	School Zone on 22nd Street at Chelsea St.	Aging and custom school zone signage	Upgrade school zone signage	City of Tampa	Short Term	Low	
CA4	Various locations along Chelsea St.	Sidewalk gaps	Connect sidewalk gaps	City of Tampa	Short Term	Medium	
CA5	Chelsea St. at 25th St. and various other locations	Overgrowth in vegetation	Landscape Maintenance Activities	City of Tampa	Short Term	Low	
CA6	22nd Street at Chelsea Street	Uncontrolled crosswalk	Evaluate and consider enhanced signing and crosswalk treatments	City of Tampa	Mid Term	Medium	
CA7	Chelsea Street and 22nd Street	Number of existing street lights present	Additional and enhanced street lighting	City of Tampa	Mid Term	Medium	
CA8	Chelsea Street at Ferrell Middle Magnet School Entrance	Cut-through traffic using an alley	Close the alley	City of Tampa	Mid Term	Medium	
CB1	Osborne Avenue	Gaps in sidewalks	Enhance sidewalk connectivity	City of Tampa	Mid Term	Medium	Significant constructability challenges, however, priority should be given to filling gaps that can be easily filled.

CB2	22nd Street from Osborne Avenue to E. Sligh Avenue	Aging and faded pavement markings	Refurbish pavement markings	City of Tampa	Mid Term	Medium	
CB3	Various locations on the 15th St., 22nd St., & 34th St. corridors	Crosswalk striping condition	Add or refurbish crosswalk markings	City of Tampa	Mid Term	Medium	
CB4	22nd Street School Zones at Middleton	School zone signage condition	Upgrade school zone signage	City of Tampa	Short Term	Low	
CB5	22nd Street Corridor	Lighting levels	Enhanced or new street lighting	City of Tampa	Mid Term	Medium	
H1	Himes Avenue from W. San Jose St. to W. San Miguel St.	In street drop offs and U-turns	Consider evaluating corridor for bulb outs and parking lanes	City of Tampa	Long Term	High	
H2	W. San Miguel Street near Sterling Avenue	Damaged sidewalk	Sidewalk repair	City of Tampa	Short Term	Low	
H3	Various locations in the immediate vicinity of the school campus along Himes Avenue	Overgrown shrubs and sand on sidewalk	Maintain landscaping in immediate area around campus	City of Tampa	Short Term	Low	
I1	Various Locations along Waters Ave, 12th St, Yukon St, Seward St, and Bird St.	Faded pavement marking and pedestrian connectivity	Consider upgrading crosswalks and curb ramps	City of Tampa	Long Term	Medium	

I2	12th Street at Fairbanks Street	Crosswalk without a sidewalk ramp	Consider installing a curb ramp	City of Tampa	Short Term	Medium	Proposed enhancement can be a part of SRTS Application
I3	Various Locations along Waters Avenue, 12th Street and Yukon Street	Lighting levels	Evaluate the feasibility to enhance or add street lights	City of Tampa	Mid Term	Medium	
J1	Yukon Street & N. 22nd Street	School zone signing	Implement consistent signing	City of Tampa	Short Term	Medium	
J2	Side Street Intersections on N. 22nd Street from Rowlett Park Drive to Fowler Avenue	Faded or undefined crosswalk striping	Install striped crosswalks on side streets for key walking corridors	City of Tampa	Short Term	Medium	
J3	Busch Boulevard (SR 580) at 22nd Street signal	Potential pedestrian conflicts with left-turning vehicles	Modify signal heads and phasing	Florida Department of Transportation & City of Tampa	Mid Term	Medium	

Table 2: City of Tampa Police

ID	Location Description	Observation	Suggestion	Agency	Time Frame	Level of Effort	Comments
B9	Areas Around Coleman Middle School	Speeding vehicles in reduced speed school zone	Enforcement	City of Tampa Police Department	Short Term	Low	
CC6	Dr. Martin Luther King, Jr. Blvd. (SR 574) at Young Middle Magnet	Speeding vehicles in reduced speed school zone	Enforcement	City of Tampa Police Department	Short Term	Low	
I7	Waters Avenue near Sulphur Springs Campus	Speeding vehicles in school zone	Enforcement	City of Tampa Police Department	Short Term	Low	
J6	N. 22nd Street at Yukon Street	Speeding vehicles in reduced speed school zone	Enforcement	City of Tampa Police Department	Short Term	Low	

Table 3: Hillsborough County

ID	Location Description	Observation	Suggestion	Agency	Time Frame	Level of Effort	Comments
D1	22nd Street Midblock Crossing Signals	Signal head visibility and signing consistency	Consider adding backplates & evaluating signage	Hillsborough County	Short Term	Low	
D2	Fletcher Avenue at 22nd Street & Livingston Avenue	Permissive left turn movement conflicts with pedestrians	Modify signal heads and phasing	Hillsborough County	Short Term	Medium	
D3	Fletcher Avenue at 22nd Street & Livingston Avenue	Right turn conflicts with pedestrians	Consider implementing right-turn yield to pedestrians signing	Hillsborough County	Short Term	Low	
D4	Livingston Avenue from E. 131st Avenue to Muller Elementary east entrance	Gaps in pedestrian connectivity features	Upgrade pedestrian features corridor wide	Hillsborough County	Mid Term	Medium	
D5	Bruce B. Downs Boulevard from Fletcher Avenue to E. Bearss Avenue	No sidewalk on west side of roadway	Add sidewalk	Hillsborough County	Mid Term	Medium	This sidewalk is included in upcoming CIP 61153010
D6	Bearss Avenue at Mort Elementary School	Volume of pedestrians compared to width of sidewalk and crosswalk	Widen curb ramp & crosswalk	Hillsborough County	Mid Term	Medium	This work can be incorporated into CIP 61153007
D7	Muller Elementary Entry on 22nd Street	No sidewalk connection to 22nd Street from school	Provide sidewalk connection	Hillsborough County & School District of Hillsborough County	Mid Term	Medium	

E1	Sligh Avenue from 50th Street to Orient Road	Inconsistent street lighting	Evaluate corridor for enhanced street lighting	Hillsborough County	Mid Term	Medium	
E2	Sligh Avenue, east of 56th Street (SR 583)	Sidewalk gap & midblock crossings	Fill-in sidewalk gap & evaluate midblock crossings	Hillsborough County	Mid Term	Medium	Adjacent CIP 69638008 further to the east – SRTS Pedestrian Enhancements
E3	Sligh Avenue on school frontage	Sidewalk width compared to volume of pedestrians	Wider sidewalk	Hillsborough County & School District of Hillsborough County	Mid Term	Medium	
F1	Leto High School frontage	Students crossings at uncontrolled crossing in front of school	Additional traffic control devices	Hillsborough County	Mid Term	High	These modifications are being completed as part of upcoming CIP 69645100
F2	Various locations surrounding Leto High School	Unmarked pedestrian crossings	Evaluate the need for enhanced crossings	Hillsborough County	Mid Term	Medium	
F3	Various locations along key walking corridors around Leto High School	Lighting levels along key corridors	Evaluate the need for enhanced lighting	Hillsborough County	Mid Term	Medium	
F4	Manhattan Avenue at Sligh Avenue/Pine Crest Manor Boulevard & Waters at Manhattan Avenue	Permissive left turns & pedestrian conflicts	Modified signal equipment and timing	Hillsborough County	Mid Term	Medium	
F5	Leto High School property	On-site circulation issue	On-site circulation improvements	Hillsborough County & School District of Hillsborough County	Short Term	Medium	Upcoming County project to enhance on-site circulation - CIP 69638002

G2	Hesperides Street north of Elm Street	Sidewalk is only continuous on the east side of Hesperides Street	Continuous sidewalk on both sides of Hesperides Street	Hillsborough County	Mid Term	Medium	
G3	Hesperides Street near Pierce Middle School	Lighting levels	Consider the feasibility of adding street lights	Hillsborough County	Mid Term	Medium	
G4	Hesperides Street from Henry Avenue to Sligh Avenue	No crosswalks	Evaluation of existing and potential additional crosswalks along Hesperides Street	Hillsborough County	Mid Term	Medium	

Table 4: School District of Hillsborough County

ID	Location Description	Observation	Suggestion	Agency	Time Frame	Level of Effort	Comments
CA9	School Campus – Ferrell Middle Magnet School	Light levels on the school campus	Enhanced lighting for parking lots	School District of Hillsborough County	Short Term	Medium	
CA10	School Campus – Ferrell Middle Magnet School	School circulation Issue	Modify on-site circulation to eliminate queue onto 22nd St.	School District of Hillsborough County	Mid Term	Medium	
CB6	CSX North-South Railroad Tracks adjacent to Middleton High School	Students using railroad tracks as a walking and biking route	Provide enhanced fencing, no trespassing signage and educational programs to students	School District of Hillsborough County & CSX	Mid term	Medium	
CC1	Dr. Martin Luther King, Jr. Blvd. (SR 574) at entrance of Young Middle Magnet	Connectivity to school	Connect midblock crossing to school property	School District of Hillsborough County	Short Term	Low	Potential ADA compliance challenges due to grade.
D7	Muller Elementary Entry on 22nd Street	No sidewalk connection to 22nd Street from school	Provide sidewalk connection	Hillsborough County & School District of Hillsborough County	Mid Term	Medium	
E3	Sligh Avenue from School Entrance to 56th Street (SR 583)	Sidewalk width compared to volume of pedestrians	Wider sidewalk	Hillsborough County & School District of Hillsborough County	Mid Term	Medium	

F5	Leto High School property	On-site circulation issue	On-site circulation improvements	Hillsborough County & School District of Hillsborough County	Short Term	Medium	Upcoming County project to enhance on-site circulation - CIP 69638002
H5	Plant High School Entrance on Dale Mabry Highway (US 92) at San Carlos Street	Sidewalk termination	Consider the feasibility of modifying the sidewalk connection at school entry	School District of Hillsborough County	Mid Term	Medium	
H6	Plant High Faculty Parking Areas on Himes Avenue just north of W. Palmira Avenue	Parking on grass and driving on sidewalks	Evaluate campus for additional faculty parking areas	School District of Hillsborough County	Mid Term	Medium	
I4	Sulphur Springs School Campus Waters Avenue exit	Pedestrian and Vehicle Interactions	Consider the feasibility of adding a handrail or additional fencing	School District of Hillsborough County	Short Term	Low	
I5	Sulphur Springs School Campus	Potential tripping hazard for students	Consider modifying the existing curbing along the drop off area	School District of Hillsborough County	Mid Term	Medium	
I6	School Wide – Sulphur Springs Campus	Midblock crossings and general behaviors	Educational Program	School District of Hillsborough County & Department of Health	Long Term	Medium	Prioritize educational programs at “top 10” schools not covered by existing educational programs
J5	Van Buren Middle School northern driveway on 22nd Street	No sidewalk connection	Connect sidewalk	School District of Hillsborough County	Short Term	Medium	

Table 5: Hillsborough County Sheriff's Office

ID	Location Description	Observation	Suggestion	Agency	Time Frame	Level of Effort	Comments
B10	Various locations around Coleman Middle School	Request for more crossing guards from school administration	Adding crossing guards and modify duty hours	Hillsborough County Sheriff's Office	Short Term	Low	Adjacent schools mean there is a potential for overlapping duties.

Table 6: Hillsborough County Code Enforcement

ID	Location Description	Observation	Suggestion	Agency	Time Frame	Level of Effort	Comments
F6	Various locations within the Pinecrest West Park neighborhood	Vehicles parking on the sidewalk	Enforcement	Hillsborough County Code Enforcement	Short Term	Low	

Table 7: Florida Department of Transportation

ID	Location Description	Observation	Suggestion	Agency	Time Frame	Level of Effort	Comments
A6	Busch Blvd. (SR 580) at North Blvd. & Linebaugh Ave. at North Blvd.	Signal phasing opportunities	Modify signal phasing to eliminate permissive left-turn conflicts with pedestrians	City of Tampa & Florida Department of Transportation	Mid Term	Medium	Potential constructability challenges due structural loading
A7	Busch Blvd. (SR 580) at Florida Ave. & Busch Blvd. (SR 580) at North Blvd.	Sidewalk connectivity at railroad crossing and pedestrian railroad gates.	Consider adding pedestrian features and sidewalk	City of Tampa, Florida Department of Transportation & CSX	Long Term	High	Potential R/W and constructability challenges. FDOT project handling Florida Ave. at Busch Blvd.
A8	Busch Boulevard (SR 580) at North Boulevard	Potential need for reduced speed school zone	Evaluate Busch Boulevard for need for reduced speed school zone	Florida Department of Transportation	Mid Term	Medium	
CC2	Dr. Martin Luther King, Jr. Blvd. (SR 574) at N. 19th Street	Vehicles compliance at midblock crossing	Consider evaluating location for enhanced treatment devices	Florida Department of Transportation	Mid Term	Medium	
CC3	Dr. Martin Luther King, Jr. Blvd. (SR 574) from 19th Street to 22nd Street	Midblock crossings at uncontrolled locations	Consider evaluating the corridor for additional midblock crossing locations	Florida Department of Transportation	Mid Term	Medium	Distance to existing traffic signal may limit feasibility

CC4	Dr. Martin Luther King, Jr. Blvd. (SR 574) Corridor	Lighting levels along corridor	Consider enhanced street lighting	Florida Department of Transportation	Long Term	Medium	Upcoming FDOT project will implement enhanced lighting at signalized intersections
CC5	Dr. Martin Luther King, Jr. Blvd. (SR 574) west of 22nd Street	Damaged sidewalk	Sidewalk maintenance	Florida Department of Transportation	Short Term	Low	
E4	Sligh Avenue at 56th Street (SR 583) Signal	East & westbound permissive left turn conflicts with pedestrians	Modify signal heads and phasing to eliminate potential conflict with pedestrians crossing	Florida Department of Transportation	Mid Term	Medium	
G1	Hillsborough Avenue (SR 580) at Lois Avenue & Hesperides Street	Potential pedestrian and left-turn conflicts	Consider signal timing modifications	Florida Department of Transportation & City of Tampa	Mid Term	Medium	
H4	Intersection of Dale Mabry Highway (US 92) & San Carlos Street	Inconsistent and aging signage and pavement markings	Consider upgrading signs and markings including school zone markings	Florida Department of Transportation	Short Term	Low	
J3	Busch Boulevard (SR 580) at 22nd Street signal	Potential pedestrian conflicts with left-turning vehicles	Modify signal heads and phasing	Florida Department of Transportation & City of Tampa	Mid Term	Medium	
J4	N. 22nd Street at Busch Boulevard (SR 580)	Inconsistent pavement marking and lack of school signage	Install crosswalk signing and enhance pavement markings	Florida Department of Transportation	Short Term	Medium	

Table 8: CSX

ID	Location Description	Observation	Suggestion	Agency	Time Frame	Level of Effort	Comments
A7	Busch Blvd. (SR 580) at Florida Ave. & Busch Blvd. (SR 580) at North Blvd.	Sidewalk connectivity at railroad crossing and pedestrian railroad gates.	Consider adding pedestrian features and sidewalk	City of Tampa, Florida Department of Transportation & CSX	Long Term	High	Potential R/W and constructability challenges. FDOT project handling Florida Ave. at Busch Blvd.
CB6	CSX North-South Railroad Tracks	Students using railroad tracks as a walking and biking route	Provide enhanced fencing, no trespassing signage and educational programs to students	School District of Hillsborough County & CSX	Mid term	Medium	

APPENDIX E – PLANNING-LEVEL COST ESTIMATE SUPPORTING DOCUMENTATION

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**A1**
LOCATION DESCRIPTION:	**North Boulevard from Sligh Avenue to Country Club Drive**
SCHOOL:	**George D. Chamberlain High School**
PAGE NUMBER:	**1**

Enhance Crosswalk Pavement Markings

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	2700	$3.00	$8,100.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	2430	$17.00	$41,310.00
0101 1	MOBILIZATION	LS	10%		$4,941.00
0102 1	MAINTENANCE OF TRAFFIC	LS	10%		$5,435.10
	PROJECT UNKNOWNS	LS	20%		$9,882.00
Enhance Crosswalk Pavement Markings		**TOTAL COST**			**$69,668.10**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**A2**
LOCATION DESCRIPTION:	**North Boulevard from Waters Avenue to Country Club Drive**
SCHOOL:	**George D. Chamberlain High School**
PAGE NUMBER:	**2**

Enhance Street Lighting

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	2700	$12.00	$32,400.00
0630 2 12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	300	$30.00	$9,000.00
0630 2 14	CONDUIT, FURNISH & INSTALL, ABOVEGROUND	LF	1010	$35.00	$35,350.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	20	$900.00	$18,000.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1	$3,000.00	$3,000.00
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	50	$10.00	$500.00
0715 1 11	LIGHTING CONDUCTORS, F&I, INSULATED, NO. 10 OR <	LF	2020	$2.00	$4,040.00
0715 1 13	LIGHTING CONDUCTORS, F&I, INSULATED, NO 4 TO NO 2	LF	3000	$3.00	$9,000.00
0715 4 13	LIGHT POLE COMPLETE, FURNISH & INSTALL STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT	EA	15	$7,000.00	$105,000.00
0715 5 32	LUMINAIRE & BRACKET ARM- GALV STEEL, FURNISH & INSTALL NEW LUMINAIRE AND ARM ON NEW/EXISTING POLE	EA	101	$3,000.00	$303,000.00
0715 7 11	LOAD CENTER, F&I, SECONDARY VOLTAGE	EA	1	$15,000.00	$15,000.00
0715 21 2	LIGHTING REPAIRS AND RETROFITS, LED RETROFIT KIT FOR EXISTING LUMINAIRE	EA	41	$2,000.00	$82,000.00
0715500 1	POLE CABLE DISTRIBUTION SYSTEM, CONVENTIONAL	EA	15	$550.00	$8,250.00
0101 1	MOBILIZATION	LS	10%		$62,454.00
0102 1	MAINTENANCE OF TRAFFIC	LS	10%		$68,699.40
	PROJECT UNKNOWNS	LS	20%		$124,908.00
Enhance Street Lighting		**TOTAL COST**			**$880,601.40**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**A3**
LOCATION DESCRIPTION:	**North Boulevard from Sligh Avenue to Country Club Drive**
SCHOOL:	**George D. Chamberlain High School**
PAGE NUMBER:	**3**

Enhance Sidewalk Ramps

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	1404	$60.00	$84,240.00
0527 2	DETECTABLE WARNINGS	SF	1296	$30.00	$38,880.00
	MOBILIZATION	LS	10%		$12,312.00
	MAINTENANCE OF TRAFFIC	LS	10%		$13,543.20
	PROJECT UNKNOWNS	LS	20%		$24,624.00
Enhance Sidewalk Ramps		**TOTAL COST**			**$173,599.20**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**A4**
LOCATION DESCRIPTION:	**North Boulevard from Busch Blvd. (SR 580) to Country Club Drive**
SCHOOL:	**George D. Chamberlain High School**
PAGE NUMBER:	**4**

Midblock Crossings

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	130	$60.00	$7,800.00
0527 2	DETECTABLE WARNINGS	SF	120	$30.00	$3,600.00
0700 1 11	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	AS	20	$450.00	$9,000.00
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	250	$3.00	$750.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	225	$17.00	$3,825.00
	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**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**A6**
LOCATION DESCRIPTION:	**Busch Blvd. (SR 580) at North Blvd. North Blvd. at Linebaugh Avenue**
SCHOOL:	**George D. Chamberlain High School**
PAGE NUMBER:	**5**

Upgrade Signal

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0327 70 1	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	SY	1000	$4.00	$4,000.00
0334 1 53	SUPERPAVE ASPHALTIC CONCRETE, TRAFFIC C, PG76-22	TN	55	$120.00	$6,600.00
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	104	$60.00	$6,240.00
0527 2	DETECTABLE WARNINGS	SF	96	$30.00	$2,880.00
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	160	$12.00	$1,920.00
0630 2 12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	150	$30.00	$4,500.00
0632 7 1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	1	$7,500.00	$7,500.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	15	$900.00	$13,500.00
0646 1 11	ALUMINUM SIGNALS POLE, PEDESTAL	EA	8	$1,500.00	$12,000.00
0653 1 11	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 1 WAY	AS	8	$750.00	$6,000.00
0665 1 11	PEDESTRIAN DETECTOR, FURNISH & INSTALL, STANDARD	EA	8	$250.00	$2,000.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1	$3,000.00	$3,000.00
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	50	$10.00	$500.00
0649 21 3	STEEL MAST ARM ASSEMBLY, FURNISH AND INSTALL, SINGLE ARM 40'	EA	4	$35,000.00	$140,000.00
0649 26 5	STEEL MAST ARM ASSEMBLY, REMOVE, DEEP FOUNDATION- BOLT ON ATTACHMENT	EA	4	$5,000.00	$20,000.00
0650 1 14	TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 3 SECTION, 1 WAY	AS	6	$1,200.00	$7,200.00
0650 1 16	TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 4 SECTION, 1 WAY	AS	4	$1,500.00	$6,000.00
0660 3 11	VEHICLE DETECTION SYSTEM- MICROWAVE, FURNISH & INSTALL CABINET EQUIPMENT	EA	1	$2,500.00	$2,500.00
0660 3 12	VEHICLE DETECTION SYSTEM- MICROWAVE, FURNISH & INSTALL, ABOVE GROUND EQUIPMENT	EA	4	$6,000.00	$24,000.00
0670 5110	TRAFFIC CONTROLLER ASSEMBLY, F&I, NEMA	AS	1	$30,000.00	$30,000.00
0670 5600	TRAFFIC CONTROLLER ASSEMBLY, REMOVE CONTROLLER WITH CABINET	AS	1	$1,200.00	$1,200.00
0685 1 13	UNINTERRUPTIBLE POWER SUPPLY, FURNISH AND INSTALL, LINE INTERACTIVE WITH CABINET	EA	1	$4,500.00	$4,500.00
0700 1 60	SINGLE POST SIGN, REMOVE	AS	4	$50.00	$200.00
0700 5 22	INTERNALLY ILLUMINATED SIGN, FURNISH & INSTALL, OVERHEAD MOUNT, 12 18 SF	EA	4	$3,500.00	$14,000.00
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	320	$3.00	$960.00
0711 11125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24" FOR STOP LINE AND CROSSWALK	LF	96	$5.00	$480.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	280	$17.00	$4,760.00
0715 1 11	LIGHTING CONDUCTORS, F&I, INSULATED, NO. 10 OR <	LF	960	$2.00	$1,920.00
0715 5 32	LUMINAIRE & BRACKET ARM- GALV STEEL, FURNISH & INSTALL NEW LUMINAIRE AND ARM ON NEW/EXISTING POLE	EA	4	$3,000.00	$12,000.00
	MOBILIZATION	LS	10%		$34,036.00
	MAINTENANCE OF TRAFFIC	LS	10%		$37,439.60
	PROJECT UNKNOWNS	LS	20%		$68,072.00
Upgrade Signal		**TOTAL COST**			**$479,907.60**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**A7**
LOCATION DESCRIPTION:	**Busch Blvd. (SR 580) at Florida Ave. & Busch Blvd. (SR 580) at North Blvd.**
SCHOOL:	**George D. Chamberlain High School**
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Sidewalk Connectivity

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0110 4 10	REMOVAL OF EXISTING CONCRETE	SY	56	$20.00	$1,120.00
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	133	$60.00	$8,000.00
0527 2	DETECTABLE WARNINGS	SF	24	$30.00	$720.00
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	120	$3.00	$360.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	115	$17.00	$1,955.00
	MOBILIZATION	LS	10%		$1,215.50
	MAINTENANCE OF TRAFFIC	LS	10%		$1,337.05
	PROJECT UNKNOWNS	LS	20%		$2,431.00
Sidewalk Connectivity		**TOTAL COST**			**$17,138.55**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**A8**
LOCATION DESCRIPTION:	**Busch Blvd. (SR 580) at North Blvd.**
SCHOOL:	**George D. Chamberlain High School**
PAGE NUMBER:	**7**

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**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**B1**
LOCATION DESCRIPTION:	**San Rafael Street and Melrose Avenue**
SCHOOL:	**Dr. John A. Coleman Middle School**
PAGE NUMBER:	**8**

Sidewalk Connectivity

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	3333	$60.00	$200,000.00
0527 2	DETECTABLE WARNINGS	SF	96	$30.00	$2,880.00
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	250	$3.00	$750.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	200	$17.00	$3,400.00
0101 1	MOBILIZATION	LS	10%		$20,703.00
0102 1	MAINTENANCE OF TRAFFIC	LS	10%		$22,773.30
	PROJECT UNKNOWNS	LS	20%		$41,406.00
Sidewalk Connectivity		**TOTAL COST**			**$291,912.30**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**B2**
LOCATION DESCRIPTION:	**Various locations in the vicinity of Dr. John A. Coleman Middle School and Mabry Elementary School**
SCHOOL:	**Dr. John A. Coleman Middle School**
PAGE NUMBER:	**9**

Enhance Sidewalk Ramps

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	2497	$60.00	$149,820.00
0527 2	DETECTABLE WARNINGS	SF	2724	$30.00	$81,720.00
	MOBILIZATION	LS	10%		$23,154.00
	MAINTENANCE OF TRAFFIC	LS	10%		$25,469.40
	PROJECT UNKNOWNS	LS	20%		$46,308.00
Enhance Sidewalk Ramps		**TOTAL COST**			**$326,471.40**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**B3**
LOCATION DESCRIPTION:	**Roadways adjacent to Coleman Middle**
SCHOOL:	**Dr. John A. Coleman Middle School**
PAGE NUMBER:	**10**

Enhance Crosswalk Pavement Markings

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	7448	$3.00	$22,344.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	6458	$17.00	$109,792.80
	MOBILIZATION	LS	10%		$13,213.68
	MAINTENANCE OF TRAFFIC	LS	10%		$14,535.05
	PROJECT UNKNOWNS	LS	20%		$26,427.36
Enhance Crosswalk Pavement Markings		**TOTAL COST**			**$186,312.89**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**B4**
LOCATION DESCRIPTION:	**Manhattan Avenue**
SCHOOL:	**Dr. John A. Coleman Middle School**
PAGE NUMBER:	**11**

Roadway Pavement Markings

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0711 16201	THERMOPLASTIC, STANDARD-OTHER SURFACES, YELLOW, SOLID, 6"	GM	0.760	$5,000.00	$3,800.00
	MOBILIZATION	LS	10%		$380.00
	MAINTENANCE OF TRAFFIC	LS	10%		$418.00
	PROJECT UNKNOWNS	LS	20%		$760.00
Roadway Pavement Markings		**TOTAL COST**			**$5,358.00**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**B5**
LOCATION DESCRIPTION:	**Intersection of Estrella St & Manhattan Ave**
SCHOOL:	**Dr. John A. Coleman Middle School**
PAGE NUMBER:	**12**

Upgrade Signal

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0327 70 1	MILLING EXIST ASPH PAVT, 1" AVG DEPTH	SY	420	$4.00	$1,680.00
0334 1 53	SUPERPAVE ASPHALTIC CONCRETE, TRAFFIC C, PG76-22	TN	23	$120.00	$2,772.00
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	104	$60.00	$6,240.00
0527 2	DETECTABLE WARNINGS	SF	96	$30.00	$2,880.00
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	80	$12.00	$960.00
0630 2 12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	150	$30.00	$4,500.00
0632 7 1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	1	$7,500.00	$7,500.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	15	$900.00	$13,500.00
0646 1 11	ALUMINUM SIGNALS POLE, PEDESTAL	EA	8	$1,500.00	$12,000.00
0653 1 11	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 1 WAY	AS	8	$750.00	$6,000.00
0665 1 11	PEDESTRIAN DETECTOR, FURNISH & INSTALL, STANDARD	EA	8	$250.00	$2,000.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1	$3,000.00	$3,000.00
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	50	$10.00	$500.00
0641 2 15	PRESTRESSED CONCRETE POLE, F&I, TYPE P-V	EA	2	$35,000.00	$70,000.00
0641 2 60	PRESTRESSED CONCRETE POLE, COMPLETE POLE REMOVAL-PEDESTAL/SERVICE POLE	EA	1	$5,000.00	$5,000.00
0650 1 14	TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 3 SECTION, 1 WAY	AS	8	$1,200.00	$9,600.00
0660 1110	LOOP DETECTOR INDUCTIVE, F&I, TYPE 1(	EA	2	$2,500.00	$5,000.00
0660 2106	LOOP ASSEMBLY, F&I, TYPE F	AS	2	$6,000.00	$12,000.00
0670 5110	TRAFFIC CONTROLLER ASSEMBLY, F&I, NEMA	AS	1	$30,000.00	$30,000.00
0670 5600	TRAFFIC CONTROLLER ASSEMBLY, REMOVE CONTROLLER WITH CABINET	AS	1	$1,200.00	$1,200.00
0685 1 13	UNINTERRUPTIBLE POWER SUPPLY, FURNISH AND INSTALL, LINE INTERACTIVE WITH CABINET	EA	1	$4,500.00	$4,500.00
0700 1 60	SINGLE POST SIGN, REMOVE	AS	2	$50.00	$100.00
0700 5 22	INTERNALLY ILLUMINATED SIGN, FURNISH & INSTALL, OVERHEAD MOUNT, 12-18 SF	EA	4	$3,500.00	$14,000.00
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	300	$3.00	$900.00
0711 11125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24" FOR STOP LINE AND CROSSWALK	LF	48	$5.00	$240.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	250	$17.00	$4,250.00
0715 1 11	LIGHTING CONDUCTORS, F&I, INSULATED, NO. 10 OR <	LF	300	$2.00	$600.00
0715 5 32	LUMINAIRE & BRACKET ARM- GALV STEEL, FURNISH & INSTALL NEW LUMINAIRE AND ARM ON NEW/EXISTING POLE	EA	2	$3,000.00	$6,000.00
	MOBILIZATION	LS	10%		$22,692.20
	MAINTENANCE OF TRAFFIC	LS	10%		$24,961.42
	PROJECT UNKNOWNS	LS	20%		$45,384.40
Upgrade Signal		**TOTAL COST**			**$319,960.02**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**B6**
LOCATION DESCRIPTION:	**Henderson Blvd. from W. San Jose St. to Dale Mabry Hwy including San Rafael St.**
SCHOOL:	**Dr. John A. Coleman Middle School**
PAGE NUMBER:	**13**

Enhance Pedestrian Crossings at Intersections

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	377	$60.00	$22,620.00
0527 2	DETECTABLE WARNINGS	SF	348	$30.00	$10,440.00
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	1570	$3.00	$4,710.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	1256	$17.00	$21,352.00
0632 7 1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	4	$2,500.00	$10,000.00
0646 1 11	ALUMINUM SIGNALS POLE, PEDESTAL	EA	40	$1,500.00	$60,000.00
0646 1 60	ALUMINUM SIGNALS POLE, REMOVE	EA	5	$300.00	$1,500.00
0653 1 11	PEDESTRIAN SIGNAL, FURNISH & INSTALL LED COUNTDOWN, 1 WAY	AS	40	$750.00	$30,000.00
0653 1 60	PEDESTRIAN SIGNAL, REMOVE PED SIGNAL- POLE/PEDESTAL TO REMAIN	AS	14	$75.00	$1,050.00
0665 1 11	PEDESTRIAN DETECTOR, FURNISH & INSTALL, STANDARD	EA	40	$250.00	$10,000.00
0670 5400	TRAFFIC CONTROLLER ASSEMBLY, MODIFY	AS	4	$2,000.00	$8,000.00
	MOBILIZATION	LS	10%		$17,967.20
	MAINTENANCE OF TRAFFIC	LS	10%		$19,763.92
	PROJECT UNKNOWNS	LS	20%		$35,934.40
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**
PAGE NUMBER:	**14**

Enhance Sidewalk Ramps and Crosswalks

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	165	$60.00	$9,900.00
0527 2	DETECTABLE WARNINGS	SF	72	$30.00	$2,160.00
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	350	$3.00	$1,050.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	280	$17.00	$4,760.00
	MOBILIZATION	LS	10%		$1,787.00
	MAINTENANCE OF TRAFFIC	LS	10%		$1,965.70
	PROJECT UNKNOWNS	LS	20%		$3,574.00
Enhance Sidewalk Ramps and Crosswalks		**TOTAL COST**			**$25,196.70**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**B8**
LOCATION DESCRIPTION:	**San Rafael Street from Manhattan Ave to Hubert Ave**
SCHOOL:	**Dr. John A. Coleman Middle School**
PAGE NUMBER:	**15**

Roadway Pavement Markings

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0711 16101	THERMOPLASTIC, STANDARD-OTHER SURFACES, WHITE, SOLID, 6"	GM	0.230	$5,000.00	$1,150.00
0711 16201	THERMOPLASTIC, STANDARD-OTHER SURFACES, YELLOW, SOLID, 6"	GM	0.230	$5,000.00	$1,150.00
	MOBILIZATION	LS	10%		$230.00
	MAINTENANCE OF TRAFFIC	LS	10%		$253.00
	PROJECT UNKNOWNS	LS	20%		$460.00
Roadway Pavement Markings		**TOTAL COST**			**$3,243.00**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**CA1**
LOCATION DESCRIPTION:	**Chelsea Street, east of 22nd Street**
SCHOOL:	**Ferrell Middle Magnet School**
PAGE NUMBER:	**16**

Sidewalk Connectivity

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	3520	$60.00	$211,200.00
0527 2	DETECTABLE WARNINGS	SF	240	$30.00	$7,200.00
0101 1	MOBILIZATION	LS	10%		$21,840.00
0102 1	MAINTENANCE OF TRAFFIC	LS	10%		$24,024.00
	PROJECT UNKNOWNS	LS	20%		$43,680.00
Sidewalk Connectivity		**TOTAL COST**			**$307,944.00**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**CA2**
LOCATION DESCRIPTION:	**Various Locations - Key Corridors Around Ferrell Campus**
SCHOOL:	**Ferrell Middle Magnet School**
PAGE NUMBER:	**17**

Enhance Crosswalk Pavement Markings

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	12600	$3.00	$37,800.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	10000	$17.00	$170,000.00
	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**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**CA3**
LOCATION DESCRIPTION:	**School Zone on 22nd Street and Chelsea Street**
SCHOOL:	**Ferrell Middle Magnet School**
PAGE NUMBER:	**18**

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**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**CA4**
LOCATION DESCRIPTION:	**Various Locations along Chelsea Street**
SCHOOL:	**Ferrell Middle Magnet School**
PAGE NUMBER:	**19**

Sidewalk Connectivity

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	1793	$60.00	$107,600.00
0527 2	DETECTABLE WARNINGS	SF	144	$30.00	$4,320.00
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	360	$3.00	$1,080.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	300	$17.00	$5,100.00
	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

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0654 2 22	RECTANGULAR RAPID FLASHING BEACON, FURNISH & INSTALL- SOLAR POWERED, COMPLETE SIGN ASSEMBLY- BACK TO BACK	AS	2	$10,000.00	$20,000.00
0700 1 60	SINGLE POST SIGN, REMOVE	AS	2	$50.00	$100.00
	MOBILIZATION	LS	10%		$2,010.00
	MAINTENANCE OF TRAFFIC	LS	10%		$2,211.00
	PROJECT UNKNOWNS	LS	20%		$4,020.00
RRFB Crossing		**TOTAL COST**			**$28,341.00**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**CA7**
LOCATION DESCRIPTION:	**Chelsea Street and 22nd Street**
SCHOOL:	**Ferrell Middle Magnet School**
PAGE NUMBER:	**21**

Enhance Street Lighting

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	720	$12.00	$8,640.00
0630 2 12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	80	$30.00	$2,400.00
0630 2 14	CONDUIT, FURNISH & INSTALL, ABOVEGROUND	LF	70	$35.00	$2,450.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	5	$900.00	$4,500.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1	$3,000.00	$3,000.00
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	50	$10.00	$500.00
0715 1 11	LIGHTING CONDUCTORS, F&I, INSULATED, NO. 10 OR <	LF	420	$2.00	$840.00
0715 1 13	LIGHTING CONDUCTORS, F&I, INSULATED, NO 4 TO NO 2	LF	2400	$3.00	$7,200.00
0715 4 13	LIGHT POLE COMPLETE, FURNISH & INSTALL STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT	EA	4	$7,000.00	$28,000.00
0715 5 32	LUMINAIRE & BRACKET ARM- GALV STEEL, FURNISH & INSTALL NEW LUMINAIRE AND ARM ON NEW/EXISTING POLE	EA	7	$3,000.00	$21,000.00
0715 7 11	LOAD CENTER, F&I, SECONDARY VOLTAGE	EA	1	$15,000.00	$15,000.00
0715500 1	POLE CABLE DISTRIBUTION SYSTEM, CONVENTIONAL	EA	4	$550.00	$2,200.00
	MOBILIZATION	LS	10%		$9,573.00
	MAINTENANCE OF TRAFFIC	LS	10%		$10,530.30
	PROJECT UNKNOWNS	LS	20%		$19,146.00
Enhance Street Lighting		**TOTAL COST**			**$134,979.30**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**CA9**
LOCATION DESCRIPTION:	**School Campus – Ferrell Middle Magnet**
SCHOOL:	**Ferrell Middle Magnet School**
PAGE NUMBER:	**22**

Enhance Street Lighting

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	900	$12.00	$10,800.00
0630 2 12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	100	$30.00	$3,000.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	7	$900.00	$6,300.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1	$3,000.00	$3,000.00
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	50	$10.00	$500.00
0715 1 13	LIGHTING CONDUCTORS, F&I, INSULATED, NO 4 TO NO 2	LF	3000	$3.00	$9,000.00
0715 4 13	LIGHT POLE COMPLETE, FURNISH & INSTALL STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT	EA	5	$7,000.00	$35,000.00
0715 7 11	LOAD CENTER, F&I, SECONDARY VOLTAGE	EA	1	$15,000.00	$15,000.00
0715500 1	POLE CABLE DISTRIBUTION SYSTEM, CONVENTIONAL	EA	5	$550.00	$2,750.00
	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**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**CB1**
LOCATION DESCRIPTION:	**Osborne Avenue**
SCHOOL:	**George S. Middleton High School**
PAGE NUMBER:	**23**

Sidewalk Connectivity

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	1333	$60.00	$80,000.00
0527 2	DETECTABLE WARNINGS	SF	504	$30.00	$15,120.00
0101 1	MOBILIZATION	LS	10%		$9,512.00
0102 1	MAINTENANCE OF TRAFFIC	LS	10%		$10,463.20
	PROJECT UNKNOWNS	LS	20%		$19,024.00
Sidewalk Connectivity		**TOTAL COST**			**$134,119.20**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**CB2**
LOCATION DESCRIPTION:	**22nd Street from Osborne Avenue to E. Sligh Avenue**
SCHOOL:	**George S. Middleton High School**
PAGE NUMBER:	**24**

Enhance All Pavement Markings

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	4200	$3.00	$12,600.00
0711 11170	THERMOPLASTIC, STANDARD, WHITE, ARROW	EA	16	$75.00	$1,200.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	3400	$17.00	$57,800.00
0711 11125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24" FOR STOP LINE AND CROSSWALK	LF	480	$5.00	$2,400.00
0711 16101	THERMOPLASTIC, STANDARD-OTHER SURFACES, WHITE, SOLID, 6"	GM	3.000	$5,000.00	$15,000.00
0711 16201	THERMOPLASTIC, STANDARD-OTHER SURFACES, YELLOW, SOLID, 6"	GM	3.000	$5,000.00	$15,000.00
	MOBILIZATION	LS	10%		$10,400.00
	MAINTENANCE OF TRAFFIC	LS	10%		$11,440.00
	PROJECT UNKNOWNS	LS	20%		$20,800.00
Enhance All Pavement Markings		**TOTAL COST**			**$146,640.00**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**CB3**
LOCATION DESCRIPTION:	**Various Locations**
SCHOOL:	**George S. Middleton High School**
PAGE NUMBER:	**25**

Enhance Crosswalk Pavement Markings

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	6120	$3.00	$18,360.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	5000	$17.00	$85,000.00
	MOBILIZATION	LS	10%		$10,336.00
	MAINTENANCE OF TRAFFIC	LS	10%		$11,369.60
	PROJECT UNKNOWNS	LS	20%		$20,672.00
Enhance Crosswalk Pavement Markings		**TOTAL COST**			**$145,737.60**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**CB4**
LOCATION DESCRIPTION:	**22nd Street School Zones at Middleton**
SCHOOL:	**George S. Middleton High School**
PAGE NUMBER:	**26**

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**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**CB5**
LOCATION DESCRIPTION:	**22nd Street Corridor**
SCHOOL:	**George S. Middleton High School**
PAGE NUMBER:	**27**

Enhance Street Lighting

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	10080	$12.00	$120,960.00
0630 2 12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	1120	$30.00	$33,600.00
0630 2 14	CONDUIT, FURNISH & INSTALL, ABOVEGROUND	LF	250	$35.00	$8,750.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	75	$900.00	$67,500.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED	AS	1	$3,000.00	$3,000.00
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	200	$10.00	$2,000.00
0715 1 11	LIGHTING CONDUCTORS, F&I, INSULATED, NO. 10 OR <	LF	500	$2.00	$1,000.00
0715 1 13	LIGHTING CONDUCTORS, F&I, INSULATED, NO 4 TO NO 2	LF	33600	$3.00	$100,800.00
0715 4 13	LIGHT POLE COMPLETE, FURNISH & INSTALL STANDARD POLE STANDARD	EA	56	$7,000.00	$392,000.00
0715 5 32	LUMINAIRE & BRACKET ARM- GALV STEEL, FURNISH & INSTALL NEW LUMI	EA	25	$3,000.00	$75,000.00
0715 7 11	LOAD CENTER, F&I, SECONDARY VOLTAGE	EA	2	$15,000.00	$30,000.00
0715500 1	POLE CABLE DISTRIBUTION SYSTEM, CONVENTIONAL	EA	56	$550.00	$30,800.00
	MOBILIZATION	LS	10%		$86,541.00
	MAINTENANCE OF TRAFFIC	LS	10%		$95,195.10
	PROJECT UNKNOWNS	LS	20%		$173,082.00
Enhance Street Lighting		**TOTAL COST**			**$1,220,228.10**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**CB6**
LOCATION DESCRIPTION:	**CSX North-South Railroad Tracks adjacent to Middleton High School**
SCHOOL:	**George S. Middleton High School**
PAGE NUMBER:	**28**

Fencing Upgrades

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0550 10221	FENCING, TYPE B, 5.1-6.0', W/ BARB WIRE ATTMT	LF	1600	$25.00	$40,000.00
	MOBILIZATION	LS	10%		$4,000.00
	MAINTENANCE OF TRAFFIC	LS	10%		$4,400.00
	PROJECT UNKNOWNS	LS	20%		$8,000.00
Fencing Upgrades		**TOTAL COST**			**$56,400.00**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**CC1**
LOCATION DESCRIPTION:	**Dr. Martin Luther King, Jr. Blvd. (SR 574) at entrance to Young Middle Magnet**
SCHOOL:	**Nathan B. Young Middle Magnet School**
PAGE NUMBER:	**29**

Sidewalk Connectivity

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	16	$60.00	$960.00
0527 2	DETECTABLE WARNINGS	SF	12	$30.00	$360.00
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	60	$3.00	$180.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	50	$17.00	$850.00
0101 1	MOBILIZATION	LS	10%		$235.00
0102 1	MAINTENANCE OF TRAFFIC	LS	10%		$258.50
	PROJECT UNKNOWNS	LS	20%		$470.00
Sidewalk Connectivity		**TOTAL COST**			**$3,313.50**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**CC2**
LOCATION DESCRIPTION:	**Dr. Martin Luther King, Jr. Blvd. (SR 574) at N. 19th St.**
SCHOOL:	**Nathan B. Young Middle Magnet School**
PAGE NUMBER:	**30**

RRFB Crossing

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0654 2 22	RECTANGULAR RAPID FLASHING BEACON, FURNISH & INSTALL- SOLAR POWERED, COMPLETE SIGN ASSEMBLY- BACK TO BACK	AS	4	$8,000.00	$32,000.00
0700 1 11	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	AS	2	$450.00	$900.00
0700 1 60	SINGLE POST SIGN, REMOVE	AS	4	$75.00	$300.00
	MOBILIZATION	LS	10%		$3,320.00
	MAINTENANCE OF TRAFFIC	LS	10%		$3,652.00
	PROJECT UNKNOWNS	LS	20%		$6,640.00
RRFB Crossing		**TOTAL COST**			**$46,812.00**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**CC3**
LOCATION DESCRIPTION:	**Dr. Martin Luther King, Jr. Blvd. (SR 574) from 19th St. to 22nd St.**
SCHOOL:	**Nathan B. Young Middle Magnet School**
PAGE NUMBER:	**31**

RRFB Crossing

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	77	$60.00	$4,600.00
0527 2	DETECTABLE WARNINGS	SF	48	$30.00	$1,440.00
0654 2 22	RECTANGULAR RAPID FLASHING BEACON, FURNISH & INSTALL- SOLAR POWERED, COMPLETE SIGN ASSEMBLY- BACK TO BACK	AS	4	$8,000.00	$32,000.00
0700 1 11	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	AS	2	$450.00	$900.00
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	200	$3.00	$600.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	180	$17.00	$3,060.00
	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**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**CC4**
LOCATION DESCRIPTION:	**Dr. Martin Luther King, Jr. Blvd. (SR 574)**
SCHOOL:	**Nathan B. Young Middle Magnet School**
PAGE NUMBER:	**32**

Enhance Street Lighting

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	12000	$12.00	$144,000.00
0630 2 12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	500	$30.00	$15,000.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	70	$900.00	$63,000.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	2	$3,000.00	$6,000.00
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	100	$10.00	$1,000.00
0715 1 13	LIGHTING CONDUCTORS, F&I, INSULATED, NO 4 TO NO 2	LF	37500	$3.00	$112,500.00
0715 4 13	LIGHT POLE COMPLETE, FURNISH & INSTALL STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT	EA	65	$7,000.00	$455,000.00
0715 21 2	LIGHTING REPAIRS AND RETROFITS, LED RETROFIT KIT FOR EXISTING LUMINAIRE	EA	44	$2,000.00	$88,000.00
0715 7 11	LOAD CENTER, F&I, SECONDARY VOLTAGE	EA	2	$15,000.00	$30,000.00
0715500 1	POLE CABLE DISTRIBUTION SYSTEM, CONVENTIONAL	EA	65	$550.00	$35,750.00
	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**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**D1**
LOCATION DESCRIPTION:	**22nd Street Midblock Crossing Signals**
SCHOOL:	**Muller Elementary Magnet School**
PAGE NUMBER:	**33**

Signal Head Backplates

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0650 2102	VEHICULAR SIGNAL AUXILIARIES, REPAIR/REPLACE/RETROFIT- FURNISH & INSTALL, BACKPLATE- BLACK WITH REFLECT BORDER	EA	4	$300.00	$1,200.00
0101 1	MOBILIZATION	LS	10%		$120.00
0102 1	MAINTENANCE OF TRAFFIC	LS	10%		$132.00
	PROJECT UNKNOWNS	LS	20%		$240.00
Signal Head Backplates		**TOTAL COST**			**$1,692.00**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**D2**
LOCATION DESCRIPTION:	**Fletcher Avenue at 22nd Street & Livingston Avenue**
SCHOOL:	**Muller Elementary Magnet School**
PAGE NUMBER:	**34**

Add Flashing Yellow Arrow Signals

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0632 7 1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	1	$3,000.00	$3,000.00
0650 1 14	TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 3 SECTION, 1 WAY	AS	2	$1,200.00	$2,400.00
0650 1 16	TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 4 SECTION, 1 WAY	AS	4	$1,500.00	$6,000.00
0650 1 60	TRAFFIC SIGNAL, REMOVE- POLES TO REMAIN	AS	4	$100.00	$400.00
0670 5400	TRAFFIC CONTROLLER ASSEMBLY, MODIFY	AS	1	$5,000.00	$5,000.00
	MOBILIZATION	LS	10%		$1,680.00
	MAINTENANCE OF TRAFFIC	LS	10%		$1,848.00
	PROJECT UNKNOWNS	LS	20%		$3,360.00
Add Flashing Yellow Arrow Signals		**TOTAL COST**			**$23,688.00**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**D3**
LOCATION DESCRIPTION:	**Fletcher Avenue at 22nd Street & Livingston Avenue**
SCHOOL:	**Muller Elementary Magnet School**
PAGE NUMBER:	**35**

Intersection Pedestrian Singage

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
	MOBILIZATION	LS	10%		$360.00
	MAINTENANCE OF TRAFFIC	LS	10%		$396.00
	PROJECT UNKNOWNS	LS	20%		$720.00
Intersection Pedestrian Singage		**TOTAL COST**			**$5,076.00**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**D4**
LOCATION DESCRIPTION:	**Livingston Avenue from E. 131st Avenue to Muller Elementary east entrance**
SCHOOL:	**Muller Elementary Magnet School**
PAGE NUMBER:	**36**

Enhance Pedestrian and ADA Features

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	100	$60.00	$6,000.00
0527 2	DETECTABLE WARNINGS	SF	36	$30.00	$1,080.00
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	550	$3.00	$1,650.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	400	$17.00	$6,800.00
	MOBILIZATION	LS	10%		$1,553.00
	MAINTENANCE OF TRAFFIC	LS	10%		$1,708.30
	PROJECT UNKNOWNS	LS	20%		$3,106.00
Enhance Pedestrian and ADA Features		**TOTAL COST**			**$21,897.30**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**D6**
LOCATION DESCRIPTION:	**Bearss Avenue at Mort Elementary School**
SCHOOL:	**Muller Elementary Magnet School**
PAGE NUMBER:	**37**

Enhance Sidewalk and Ramps

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0110 4 10	REMOVAL OF EXISTING CONCRETE	SY	233	$20.00	$4,666.67
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	356	$60.00	$21,333.33
0527 2	DETECTABLE WARNINGS	SF	24	$30.00	$720.00
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	132	$3.00	$396.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	110	$17.00	$1,870.00
	MOBILIZATION	LS	10%		$2,898.60
	MAINTENANCE OF TRAFFIC	LS	10%		$3,188.46
	PROJECT UNKNOWNS	LS	20%		$5,797.20
Enhance Sidewalk and Ramps		**TOTAL COST**			**$40,870.26**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**D7**
LOCATION DESCRIPTION:	**Muller Elementary Entry & Exit on 22nd Street**
SCHOOL:	**Muller Elementary Magnet School**
PAGE NUMBER:	**38**

Sidewalk Connectivity

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	100	$60.00	$6,000.00
0527 2	DETECTABLE WARNINGS	SF	48	$30.00	$1,440.00
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	240	$3.00	$720.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	180	$17.00	$3,060.00
	MOBILIZATION	LS	10%		$1,122.00
	MAINTENANCE OF TRAFFIC	LS	10%		$1,234.20
	PROJECT UNKNOWNS	LS	20%		$2,244.00
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

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	8500	$12.00	$102,000.00
0630 2 12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	700	$30.00	$21,000.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	55	$900.00	$49,500.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1	$3,000.00	$3,000.00
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	100	$10.00	$1,000.00
0715 1 13	LIGHTING CONDUCTORS, F&I, INSULATED, NO 4 TO NO 2	LF	28000	$3.00	$84,000.00
0715 4 13	LIGHT POLE COMPLETE, FURNISH & INSTALL STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT	EA	46	$7,000.00	$322,000.00
0715 7 11	LOAD CENTER, F&I, SECONDARY VOLTAGE	EA	1	$15,000.00	$15,000.00
0715500 1	POLE CABLE DISTRIBUTION SYSTEM, CONVENTIONAL	EA	46	$550.00	$25,300.00
0101 1	MOBILIZATION	LS	10%		$62,280.00
0102 1	MAINTENANCE OF TRAFFIC	LS	10%		$68,508.00
	PROJECT UNKNOWNS	LS	20%		$124,560.00
Enhance Street Lighting		**TOTAL COST**			**$878,148.00**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**E2**
LOCATION DESCRIPTION:	**Sligh Avenue, east of 56th Street**
SCHOOL:	**C. Leon King High School**
PAGE NUMBER:	**40**

Sidewalk Connectivity and Midblock Crossing

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	1026	$60.00	$61,560.00
0527 2	DETECTABLE WARNINGS	SF	192	$30.00	$5,760.00
0700 1 11	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	AS	4	$450.00	$1,800.00
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	220	$3.00	$660.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	170	$17.00	$2,890.00
	MOBILIZATION	LS	10%		$7,267.00
	MAINTENANCE OF TRAFFIC	LS	10%		$7,993.70
	PROJECT UNKNOWNS	LS	20%		$14,534.00
Sidewalk Connectivity and Midblock Crossing		**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

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0110 4 10	REMOVAL OF EXISTING CONCRETE	SY	556	$20.00	$11,111.11
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	889	$60.00	$53,333.33
0527 2	DETECTABLE WARNINGS	SF	240	$30.00	$7,200.00
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	250	$3.00	$750.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	180	$17.00	$3,060.00
	MOBILIZATION	LS	10%		$7,545.44
	MAINTENANCE OF TRAFFIC	LS	10%		$8,299.99
	PROJECT UNKNOWNS	LS	20%		$15,090.89
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

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0632 7 1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH & IN	PI	1	$1,000.00	$1,000.00
0650 1 16	TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 4 SECTION, 1 WAY	AS	1	$1,500.00	$1,500.00
0670 5400	TRAFFIC CONTROLLER ASSEMBLY, MODIFY	AS	1	$1,000.00	$1,000.00
	MOBILIZATION	LS	10%		$350.00
	MAINTENANCE OF TRAFFIC	LS	10%		$385.00
	PROJECT UNKNOWNS	LS	20%		$700.00
Add Flashing Yellow Arrow Signals		**TOTAL COST**			**$4,935.00**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**F2**
LOCATION DESCRIPTION:	**Leto School Frontage**
SCHOOL:	**A. P. Leto High School**
PAGE NUMBER:	**43**

Crosswalk Pavement Markings

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	1200	$3.00	$3,600.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	1000	$17.00	$17,000.00
0101 1	MOBILIZATION	LS	10%		$2,060.00
0102 1	MAINTENANCE OF TRAFFIC	LS	10%		$2,266.00
	PROJECT UNKNOWNS	LS	20%		$4,120.00
Crosswalk Pavement Markings		**TOTAL COST**			**$29,046.00**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**F3**
LOCATION DESCRIPTION:	**Various Locations along Key Walking Corridors around Leto**
SCHOOL:	**A. P. Leto High School**
PAGE NUMBER:	**44**

Enhance Street Lighting

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	17000	$12.00	$204,000.00
0630 2 12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	2000	$30.00	$60,000.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	120	$900.00	$108,000.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	3	$3,000.00	$9,000.00
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	300	$10.00	$3,000.00
0715 1 13	LIGHTING CONDUCTORS, F&I, INSULATED, NO 4 TO NO 2	LF	57000	$3.00	$171,000.00
0715 4 13	LIGHT POLE COMPLETE, FURNISH & INSTALL STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT	EA	95	$7,000.00	$665,000.00
0715 21 2	LIGHTING REPAIRS AND RETROFITS, LED RETROFIT KIT FOR EXISTING LUMINAIRE	EA	9	$2,000.00	$18,000.00
0715 7 11	LOAD CENTER, F&I, SECONDARY VOLTAGE	EA	3	$15,000.00	$45,000.00
0715500 1	POLE CABLE DISTRIBUTION SYSTEM, CONVENTIONAL	EA	95	$550.00	$52,250.00
	MOBILIZATION	LS	10%		$133,525.00
	MAINTENANCE OF TRAFFIC	LS	10%		$146,877.50
	PROJECT UNKNOWNS	LS	20%		$267,050.00
Enhance Street Lighting		**TOTAL COST**			**$1,882,702.50**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**F4**
LOCATION DESCRIPTION:	**Manhattan Avenue at Sligh Avenue & Manhattan Avenue at Waters Avenue**
SCHOOL:	**A. P. Leto High School**
PAGE NUMBER:	**45**

Add Flashing Yellow Arrow Signals

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0632 7 1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	2	$3,000.00	$6,000.00
0650 1 14	TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 3 SECTION, 1 WAY	AS	5	$1,200.00	$6,000.00
0650 1 16	TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 4 SECTION, 1 WAY	AS	6	$1,500.00	$9,000.00
0650 1 60	TRAFFIC SIGNAL, REMOVE- POLES TO REMAIN	AS	5	$100.00	$500.00
0670 5400	TRAFFIC CONTROLLER ASSEMBLY, MODIFY	AS	2	$5,000.00	$10,000.00
	MOBILIZATION	LS	10%		$3,150.00
	MAINTENANCE OF TRAFFIC	LS	10%		$3,465.00
	PROJECT UNKNOWNS	LS	20%		$6,300.00
Add Flashing Yellow Arrow Signals		**TOTAL COST**			**$44,415.00**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**G1**
LOCATION DESCRIPTION:	**Hillsborough Avenue at Lois Avenue & Hesperides Street**
SCHOOL:	**Pierce Middle School**
PAGE NUMBER:	**46**

Add Flashing Yellow Arrow Signals

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0632 7 1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	1	$1,500.00	$1,500.00
0650 1 16	TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 4 SECTION, 1 WAY	AS	2	$1,500.00	$3,000.00
0670 5400	TRAFFIC CONTROLLER ASSEMBLY, MODIFY	AS	2	$5,000.00	$10,000.00
0101 1	MOBILIZATION	LS	10%		$1,450.00
0102 1	MAINTENANCE OF TRAFFIC	LS	10%		$1,595.00
	PROJECT UNKNOWNS	LS	20%		$2,900.00
Add Flashing Yellow Arrow Signals		**TOTAL COST**			**$20,445.00**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**G2**
LOCATION DESCRIPTION:	**Hesperides Street North of Elm Street**
SCHOOL:	**Pierce Middle School**
PAGE NUMBER:	**47**

Sidewalk Connectivity

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	1667	$60.00	$100,000.00
0527 2	DETECTABLE WARNINGS	SF	288	$30.00	$8,640.00
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	1200	$3.00	$3,600.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	1000	$17.00	$17,000.00
	MOBILIZATION	LS	10%		$12,924.00
	MAINTENANCE OF TRAFFIC	LS	10%		$14,216.40
	PROJECT UNKNOWNS	LS	20%		$25,848.00
Sidewalk Connectivity		**TOTAL COST**			**$182,228.40**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**G3**
LOCATION DESCRIPTION:	**Hesperides Street near Pierce Middle School**
SCHOOL:	**Pierce Middle School**
PAGE NUMBER:	**48**

Enhance Street Lighting

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	1500	$12.00	$18,000.00
0630 2 12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	300	$30.00	$9,000.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	12	$900.00	$10,800.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1	$3,000.00	$3,000.00
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	100	$10.00	$1,000.00
0715 1 13	LIGHTING CONDUCTORS, F&I, INSULATED, NO 4 TO NO 2	LF	5400	$3.00	$16,200.00
0715 4 13	LIGHT POLE COMPLETE, FURNISH & INSTALL STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT	EA	10	$7,000.00	$70,000.00
0715 7 11	LOAD CENTER, F&I, SECONDARY VOLTAGE	EA	1	$15,000.00	$15,000.00
0715500 1	POLE CABLE DISTRIBUTION SYSTEM, CONVENTIONAL	EA	10	$550.00	$5,500.00
	MOBILIZATION	LS	10%		$14,850.00
	MAINTENANCE OF TRAFFIC	LS	10%		$16,335.00
	PROJECT UNKNOWNS	LS	20%		$29,700.00
Enhance Street Lighting		**TOTAL COST**			**$209,385.00**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**G4**
LOCATION DESCRIPTION:	**Hesperides Street from Henry Avenue to Sligh Avenue**
SCHOOL:	**Pierce Middle School**
PAGE NUMBER:	**49**

Crosswalk Signs and Pavement Markings

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	12	$450.00	$5,400.00
0700 1 60	SINGLE POST SIGN, REMOVE	AS	6	$75.00	$450.00
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	110	$3.00	$330.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	80	$17.00	$1,360.00
	MOBILIZATION	LS	10%		$754.00
	MAINTENANCE OF TRAFFIC	LS	10%		$829.40
	PROJECT UNKNOWNS	LS	20%		$1,508.00
Crosswalk Signs and Pavement Markings		**TOTAL COST**			**$10,631.40**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**H1**
LOCATION DESCRIPTION:	**Himes Avenue from W. San Jose St. to W. San Miguel St.**
SCHOOL:	**H. B. Plant High School**
PAGE NUMBER:	**50**

Sidewalk Connectivity

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0110 4 10	REMOVAL OF EXISTING CONCRETE	SY	417	$20.00	$8,333.33
0520 1 10	CONCRETE CURB & GUTTER, TYPE F	LF	210	$20.00	$4,200.00
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	1689	$60.00	$101,333.33
0527 2	DETECTABLE WARNINGS	SF	72	$30.00	$2,160.00
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	300	$3.00	$900.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	220	$17.00	$3,740.00
0101 1	MOBILIZATION	LS	10%		$12,066.67
0102 1	MAINTENANCE OF TRAFFIC	LS	10%		$13,273.33
	PROJECT UNKNOWNS	LS	20%		$24,133.33
Sidewalk Connectivity		**TOTAL COST**			**$170,140.00**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**H4**
LOCATION DESCRIPTION:	**Intersection of Dale Mabry Highway and San Carlos Street**
SCHOOL:	**H. B. Plant High School**
PAGE NUMBER:	**51**

Crosswalk Signs and Pavement Markings

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	4	$450.00	$1,800.00
0700 1 60	SINGLE POST SIGN, REMOVE	AS	4	$75.00	$300.00
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	60	$3.00	$180.00
0713103103	PERMANENT TAPE, WHITE, SOLID DROP LANE MARKING, 12" FOR CONCRETE BRIDGES,	GM	0.068	$35,000.00	$2,380.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	340	$17.00	$5,780.00
	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**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**I1**
LOCATION DESCRIPTION:	**Various Locations along Waters Ave, 12th St, Yukon St, Seward St, & Bird St**
SCHOOL:	**Sulphur Springs K-8 Community School**
PAGE NUMBER:	**52**

Sidewalk Connectivity

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	2834	$60.00	$170,040.00
0527 2	DETECTABLE WARNINGS	SF	2616	$30.00	$78,480.00
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	7430	$3.00	$22,290.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	6000	$17.00	$102,000.00
	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**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**I2**
LOCATION DESCRIPTION:	**12th Street at Fairbanks Street**
SCHOOL:	**Sulphur Springs K-8 Community School**
PAGE NUMBER:	**53**

Sidewalk Connectivity

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	6	$60.00	$360.00
0527 2	DETECTABLE WARNINGS	SF	12	$30.00	$360.00
	MOBILIZATION	LS	10%		$72.00
	MAINTENANCE OF TRAFFIC	LS	10%		$79.20
	PROJECT UNKNOWNS	LS	20%		$144.00
Sidewalk Connectivity		**TOTAL COST**			**$1,015.20**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**I3**
LOCATION DESCRIPTION:	**Various Locations along Waters Ave, 12th St and Yukon St**
SCHOOL:	**Sulphur Springs K-8 Community School**
PAGE NUMBER:	**54**

Enhance Street Lighting

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	3000	$12.00	$36,000.00
0630 2 12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	400	$30.00	$12,000.00
0635 2 11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	20	$900.00	$18,000.00
0639 1122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1	$3,000.00	$3,000.00
0639 2 1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	50	$10.00	$500.00
0715 1 13	LIGHTING CONDUCTORS, F&I, INSULATED, NO 4 TO NO 2	LF	10200	$3.00	$30,600.00
0715 4 13	LIGHT POLE COMPLETE, FURNISH & INSTALL STANDARD POLE STANDARD FOUNDATION, 40' MOUNTING HEIGHT	EA	18	$7,000.00	$126,000.00
0715 7 11	LOAD CENTER, F&I, SECONDARY VOLTAGE	EA	1	$15,000.00	$15,000.00
0715 21 2	LIGHTING REPAIRS AND RETROFITS, LED RETROFIT KIT FOR EXISTING LUMINAIRE	EA	51	$2,000.00	$102,000.00
0715500 1	POLE CABLE DISTRIBUTION SYSTEM, CONVENTIONAL	EA	18	$550.00	$9,900.00
	MOBILIZATION	LS	10%		$35,300.00
	MAINTENANCE OF TRAFFIC	LS	10%		$38,830.00
	PROJECT UNKNOWNS	LS	20%		$70,600.00
Enhance Street Lighting		**TOTAL COST**			**$497,730.00**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**I4**
LOCATION DESCRIPTION:	**Sulphur Springs School Campus**
SCHOOL:	**Sulphur Springs K-8 Community School**
PAGE NUMBER:	**55**

Fencing and Handrail

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0110 4 10	REMOVAL OF EXISTING CONCRETE	SY	117	$20.00	$2,333.33
0515 2211	PEDESTRIAN / BICYCLE RAILING, STEEL, 42" TYPE 1	LF	100	$100.00	$10,000.00
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	175	$60.00	$10,500.00
	RELOCATE EXISTING FENCE	LF	100	$75.00	$7,500.00
	MOBILIZATION	LS	10%		$3,033.33
	MAINTENANCE OF TRAFFIC	LS	10%		$3,336.67
	PROJECT UNKNOWNS	LS	20%		$6,066.67
Fencing and Handrail		**TOTAL COST**			**$42,770.00**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**I5**
LOCATION DESCRIPTION:	**Sulphur Springs School Campus**
SCHOOL:	**Sulphur Springs K-8 Community School**
PAGE NUMBER:	**56**

Enhance Pedestrian Access Points

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0110 4 10	REMOVAL OF EXISTING CONCRETE	SY	36	$20.00	$722.22
0520 3	VALLEY GUTTER- CONCRETE	LF	650	$35.00	$22,750.00
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	24	$60.00	$1,440.00
	MOBILIZATION	LS	10%		$2,491.22
	MAINTENANCE OF TRAFFIC	LS	10%		$2,740.34
	PROJECT UNKNOWNS	LS	20%		$4,982.44
Enhance Pedestrian Access Points		**TOTAL COST**			**$35,126.23**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**J1**
LOCATION DESCRIPTION:	**Yukon Street & N. 22nd Street**
SCHOOL:	**Van Buren Middle School**
PAGE NUMBER:	**57**

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	$60.00	$480.00
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	48	$5.00	$240.00
0711 11160	THERMOPLASTIC, STANDARD, WHITE, MESSAGE OR SYMBOL	EA	4	$180.00	$720.00
	MOBILIZATION	LS	10%		$1,444.00
	MAINTENANCE OF TRAFFIC	LS	10%		$1,588.40
	PROJECT UNKNOWNS	LS	20%		$2,888.00
Reduced Speed School Zone		**TOTAL COST**			**$20,360.40**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**J2**
LOCATION DESCRIPTION:	**Side Street Intersections on N. 22nd Street from Rowlett Park Drive to Fowler Avenue**
SCHOOL:	**Van Buren Middle School**
PAGE NUMBER:	**58**

Enhance Crosswalk Pavement Markings

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	2520	$3.00	$7,560.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	2000	$17.00	$34,000.00
	MOBILIZATION	LS	10%		$4,156.00
	MAINTENANCE OF TRAFFIC	LS	10%		$4,571.60
	PROJECT UNKNOWNS	LS	20%		$8,312.00
Enhance Crosswalk Pavement Markings		**TOTAL COST**			**$58,599.60**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**J3**
LOCATION DESCRIPTION:	**Busch Blvd (SR 580) at 22nd Street signal**
SCHOOL:	**Van Buren Middle School**
PAGE NUMBER:	**59**

Add Flashing Yellow Arrow Signals

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0632 7 1	SIGNAL CABLE- NEW OR RECONSTRUCTED INTERSECTION, FURNISH & INSTALL	PI	1	$3,000.00	$3,000.00
0650 1 16	TRAFFIC SIGNAL, FURNISH & INSTALL ALUMINUM, 4 SECTION, 1 WAY	AS	4	$1,500.00	$6,000.00
0650 1 70	TRAFFIC SIGNAL, RELOCATE- INCLUDES REMOVAL AND REINSTALLATION	AS	2	$600.00	$1,200.00
0650 1 60	TRAFFIC SIGNAL, REMOVE- POLES TO REMAIN	AS	2	$100.00	$200.00
0670 5400	TRAFFIC CONTROLLER ASSEMBLY, MODIFY	AS	1	$5,000.00	$5,000.00
	MOBILIZATION	LS	10%		$1,540.00
	MAINTENANCE OF TRAFFIC	LS	10%		$1,694.00
	PROJECT UNKNOWNS	LS	20%		$3,080.00
Add Flashing Yellow Arrow Signals		**TOTAL COST**			**$21,714.00**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**J4**
LOCATION DESCRIPTION:	**N. 22nd Street & Busch Blvd (SR 580)**
SCHOOL:	**Van Buren Middle School**
PAGE NUMBER:	**60**

Enhance Crosswalk Signage

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
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	700	$3.00	$2,100.00
0711 14125	THERMOPLASTIC, PREFORMED, WHITE, SOLID, 24" FOR CROSSWALK	LF	650	$17.00	$11,050.00
	MOBILIZATION	LS	10%		$1,675.00
	MAINTENANCE OF TRAFFIC	LS	10%		$1,842.50
	PROJECT UNKNOWNS	LS	20%		$3,350.00
Enhance Crosswalk Signage		**TOTAL COST**			**$23,617.50**

PLANNING-LEVEL ESTIMATE

LOCATION ID:	**J5**
LOCATION DESCRIPTION:	**Van Buren School Property**
SCHOOL:	**Van Buren Middle School**
PAGE NUMBER:	**61**

Sidewalk Connectivity

PAY ITEM #	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	37	$60.00	$2,200.00
	MOBILIZATION	LS	10%		$220.00
	MAINTENANCE OF TRAFFIC	LS	10%		$242.00
	PROJECT UNKNOWNS	LS	20%		$440.00
Sidewalk Connectivity		**TOTAL COST**			**$3,102.00**