

School Transportation Safety Study

Project Overview





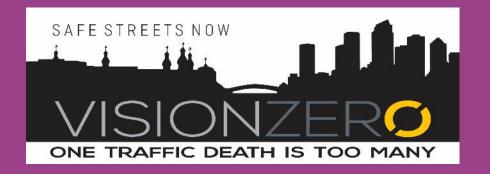
Presentation Outline

- Project Overview
- School Site Selection
 - Equity 40/Safety 40/Misc. 20
- Data Collection Highlights
 - Field Observations
 - Survey Results
- School Specific Transportation System Improvements
- Encouragement/Education Highlights





Project Overview





- Building on the School Safety Study completed in 2018, and implementation of Vision Zero
- Identification of physical transportation system improvements around and connecting to a set-of schools
- Development of school specific education and encouragement strategies and a template/process that can be used for other schools in the district





Project Overview



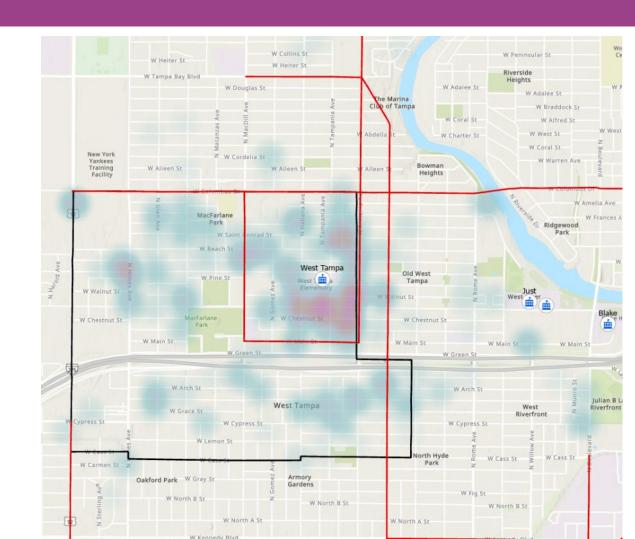
- Assemble Stakeholder Group
- Survey District Families and School Administration
- Update School Prioritization List
- Assess Existing Safe Routes to School Programs at Area Schools
- Develop Educational and Encouragement Materials for Select Schools
- Identify Physical Improvements for Select Schools



School Site Selection

Evaluation Criteria

- School location and enrollment
- Size/dimensions of enrollment boundary area
- Underserved community designations
- Percent of students qualifying for free or reduced lunch
- High Injury Network
- Bicycle and Pedestrian fatality and serious injury locations (2017-2021)
- All Traffic crashes that involve school aged people during travel to/from school times and other times
- Roadway network characteristics
- Proximity to other schools, libraries, and recreation centers



School Site Selection Details

Scoring

- 1. Within a designated underserved community
- (20 points / equity)
- 2. Percent of students who receive a free or reduced cost lunch (20 points / equity)
- 3. Enrollment area includes Top 50 Corridor (5 points / safety)
- 4. Number of Bike/Ped KSIs within school enrollment boundary (20 points / safety)

Scoring

- 5. Number of Total KSIs within school enrollment boundary (15 points / safety)
- 6. Density of students within enrollment area
- (5 points / other)
- 7. Roadway network characteristics (5 points / other)
- 8. Within a half mile of a school/ library/community activity hub (10 points / other)

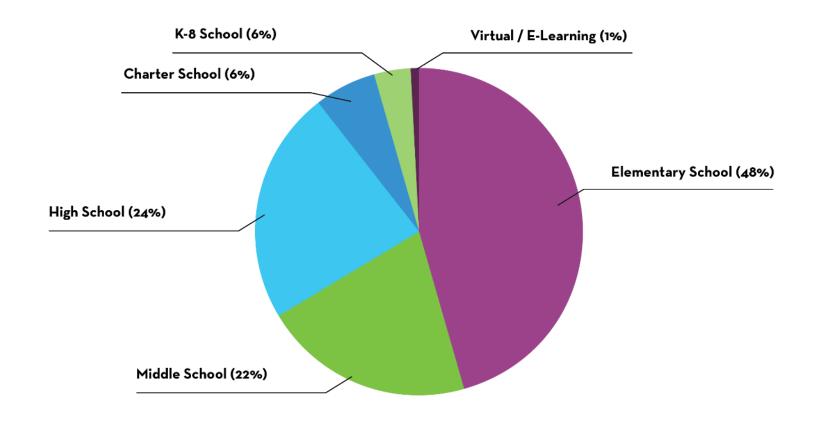
Final List of Schools

- Shaw Elementary top ranked elementary school in the district (53 points)
- Blake High School top ranked high school in the district (53 points)
- Orange Grove Middle Magnet top ranked middle school that was not studied in 2018 (50 points)
- Just Elementary (50 points)
- West Tampa Elementary (48 points)
- Stewart Middle Magnet (47 points)
- Potter Elementary (47 points)
- Jefferson High School (41 points)



High Level Survey Results – Family Surveys Over 10,000 responses!

Survey Responses by School Type



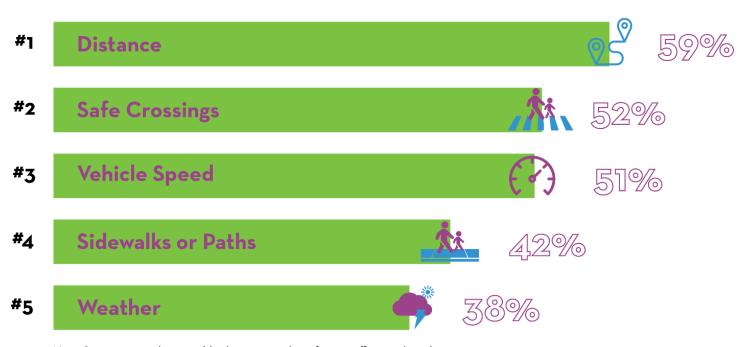


High Level Survey Results – Travel Mode To and From School – **Family** Surveys

Travel Mode	Trips to School	Trips From School
Walks alone	2.6%	3.9%
Walks with a parent	3.9%	3.2%
Walking School Bus	0.8%	0.5%
Bicycles alone	2.4%	2.5%
Bike Train	0.6%	0.6%
Scooter/Skateboard	0.2%	0.2%
School bus	31.1%	34.0%
Public transit	0.3%	0.3%
Personal vehicle	53.1%	44.5%
Carpool	3.4%	3.1%
Daycare Transportation	0.5%	5.5%
Contracted Private Provider	0.3%	0.5%
Other form of transportation	0.8%	1.1%
	100%	100%

Barriers to Walking/Biking

Top 5 Issues Affect Parents Decision for Student to Walk or Bike



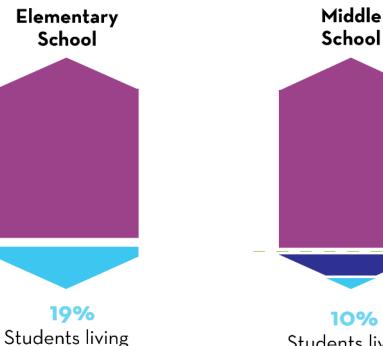
Note: Survey respondents could select any number of issues affecting their decision



High Level Survey Results – Family Surveys

Student's Ability to Walk to School

A half-mile distance is considered a reasonable length younger students will walk to school. Older Students are more willing to walk between 1-mile and 1.5 miles.

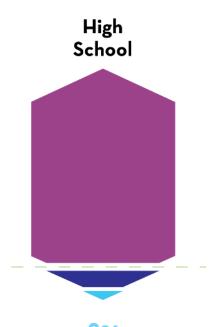


within half-mile

distance from

school

Students living within **one mile** distance from school



8%
Students living within one mile distance from school



High Level Survey Results -Family Surveys COVID Shifts in travel

- 57% noted no change in travel to/from school compared to pre-covid.
- 4% reported that their student stopped taking the bus to school
- 3% reported that their student started taking the bus
- Less than 1 % reported that their student is transported to school in a car less often
- 8.5% reported that their student is transported to school in a car more often
- 1.6% reported carpooling more often
- 1 % started walking

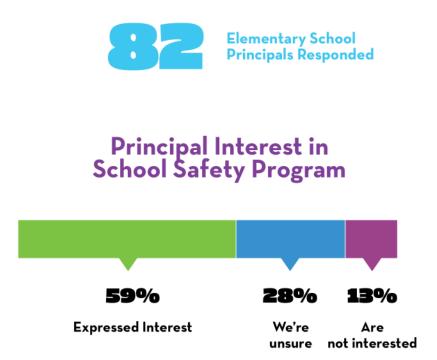


High Level Survey Results – Strategies for tracking student travel

- Phone/video calls
- Text messages
- Phone applications (find my friend, find my kids, followmee.com, Google Family App, etc.)
- Life 360
- AirTag
- Preschool has an app that notifies parents when students arrive (Hunter's Green Elementary)
- GPS Phone Watch Gizmodo
- Neighbors keep an eye out
- Follow the kids
- Trust
- Carpool with friends and parents coordinate
- Ring™ Doorbell
- Parent works from home
- Wait with them/for them at bus stop
- Alexa



High Level Survey Results – Schools



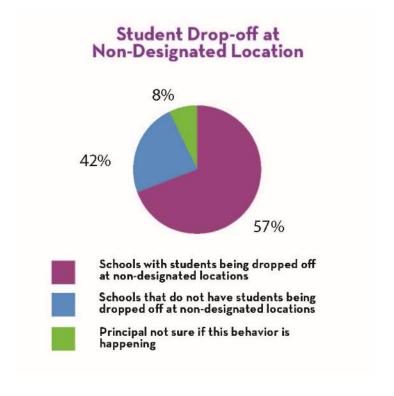
Schools with Largest Walking Population

Sullivan Partnership Elementary School

Just Elementary School

Clair Mel Elementary School

Cleveland Elementary School 30%





High Level Survey Results – Schools





Common School Circulation Strategies

- Staggered dismissals by grade
- Placards/Tags on vehicles (per assigned numbers/names)
- Multiple dismissal locations
- Staggered dismissal by mode
- Use phone-based app to communicate with drivers (Voxer)
- Walking school bus
- Temporary road closures to private vehicles (buses allowed through)
- Use walkie talkies to identify upcoming vehicles and get student ready to load faster
- Signage / cones to direct traffic in car line
- Car riders wait in cafeteria and wait for their name to be called
- Priority pick-up line for carpools
- Priority days for walking
- Prizes for walking/biking



Common School Circulation Strategies

- Staggered dismissals by grade
- Placards/Tags on vehicles (per assigned numbers/names)
- Multiple dismissal locations
- Staggered dismissal by mode
- Use phone-based app to communicate with drivers (Voxer)
- Walking school bus
- Temporary road closures to private vehicles (buses allowed through)
- Use walkie talkies to identify upcoming vehicles and get student ready to load faster
- Signage / cones to direct traffic in car line
- Car riders wait in cafeteria and wait for their name to be called
- Priority pick-up line for carpools
- Priority days for walking
- Prizes for walking/biking

Resources Needed

- Cones
- Movable Barriers
- Walkie-Talkies
- Cardboard signs
- Staff and staff training
- Prizes
- Phones
- Parent cooperation



Transportation Safety Audit

- Morning drop-off and afternoon pick-up observations
- On-site Circulation
 - Queue management strategies
- Infrastructure around campus
 - Incomplete or poorly maintained
- Driver behavior









Transportation Safety Audit

- Location of crossing guards
- Behavior of people walking and biking
- **ADA Compliance** Issues



ADA compliance



Safety Audit Highlight

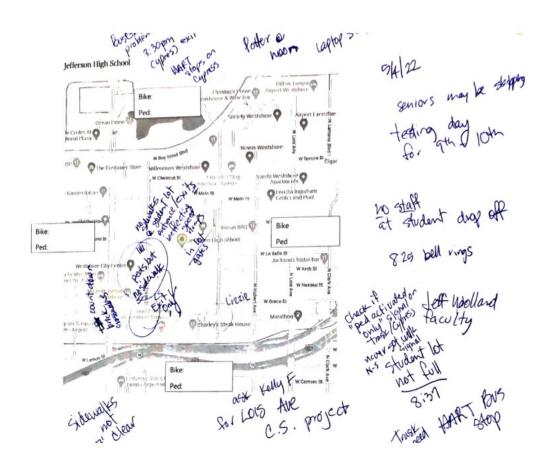
Bus Strategies





Transportation Safety Audit





West Tampa Elementary

FAST FACTS

- 429 students (95% minority population)
- 2 school buses
- ADT on Habana Avenue is about 9,300 vehicles/day on average over the past 5 years
- ADT on Armenia Avenue is about 8,100 vehicles/day on average over the past 5 years
- ADT on Main Street is about 2,500 vehicles/day on average over the past 5 years

TAMPA SCHOOL SAFETY



Tampa School Transportation Safety Study

Driving in excess of posted speed limit/reckless driving

Incomplete infrastructure

Parents/guardians not obeying rules





West Tampa Elementary – Survey Results

Family Survey

- Eight families completed survey, some with multiple children at the school
- These families represent:
 - Personal vehicle
 - Walks alone
 - Walks with parent
- 75 percent would not feel comfortable allowing their child to walk in any grade
- Half cited distance as a barrier to walking to school
- Speed of traffic, the safety of intersections, and presence of crossing guards (lack of) are all factors that affect their decision to let their student walk / bike to school
- Some are also concerned about crime in the area
- Specific mention of challenges crossing Armenia and Howard, as well as parked cars on major streets impeding visibility when trying to cross





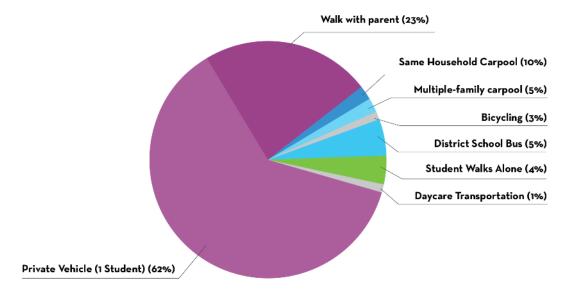


West Tampa Elementary Survey Results

Tampa School Safety Study | Principal Survey 2022

West Tampa Elementary School

Mode Split Estimates



Existing Challenges & Barriers

	Distance	Not Aware of Routes	Lack of Sidewalks	Lack of Bike Facilites	Lack of Ped Facilites	Lack of Crossing Guard	Insufficent Lighting	Safety at the Intersec- tion	Violence/ Crime in area	Weather/ Climate	Before & After School Facilities
Walking											
Bike, Scooter, Skate											
Bus								_			

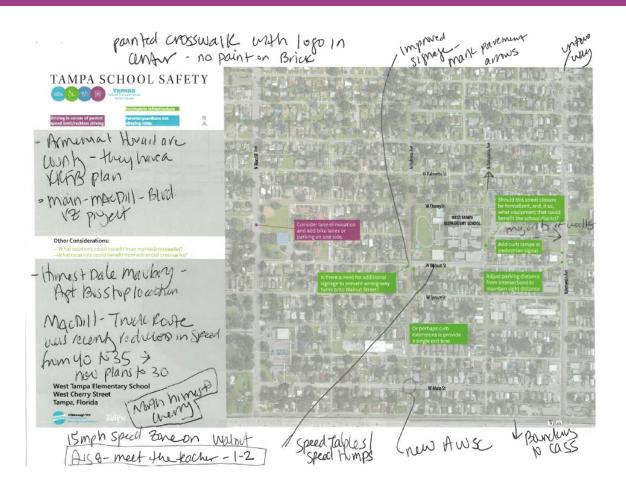


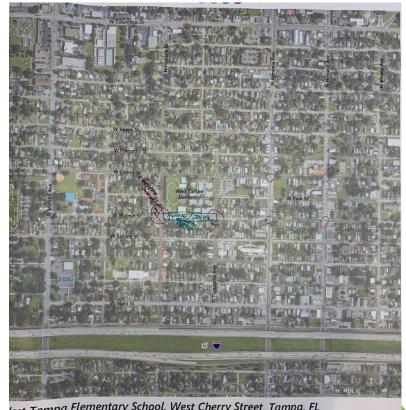


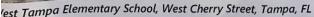




West Tampa (in person principal charrette)















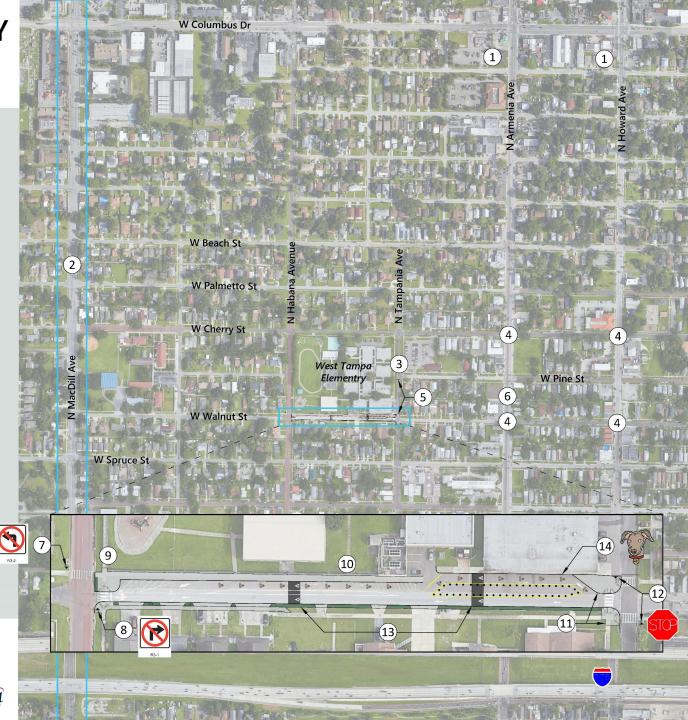


- Implement improvements on Armenia Avenue and Howard Avenue as identified in the West Tampa Multi Modal Plan, which generally include adding bicycle facilities, narrowing travel lanes, eliminating excess turning capacity to shorten pedestrian crossing distances, widening the sidewalk, and constructing curb extensions. While all on-street parking is generally expected to be maintained, parking restrictions may need to be implemented to provide adequate sight-distance.
- Evaluate Macdill Avenue for lane repurposing and evaluate providing additional marked and controlled crossing locations connecting from neighborhoods to the schools.
- Add marked crosswalk connecting teacher parking lot to the school.
- Upgrade curb ramps for ADA compliance and install marked crosswalks and other appropriate crossing treatments.
- Formalize process to close one block portion of Tampania Avenue during morning drop-up and afternoon pick-up. See report for additional details.
- Evaluate location of pedestrian crossing in conjunction with other planned improvements on Armenia Avenue. If crossing is to remain, provide ADA compliant curb ramps and advanced stop bar.
- 7. Install No Left Turn sign (R3-2).
- 8. Install No Right Turn Sign (R3-1).
- Extend curb to narrow to one lane to further reinforce the one-way designation.
- 10. Update striping to reduce vehicle conflicts. Move the southern edge of pavement 3.5 feet north to align with the curb extensions on the east and west side of the corridor. Extend sidewalk on the south side to connect to N Habana Street.
- Install curb extensions. In the near-term, the curb extension can be created using striping and posts. In the long-tern, consider raised curbs.
- 12. Convert W Walnut Street and N Tampania Avenue to All-Way Stop.
- 3. Install speed humps or consider using portable speed bumps.
- 14. Incorporate school logo into car line.

West Tampa Elementary School West Cherry Street Tampa, Florida















- Coordinate with the County to remove pedestrian crossing signs where a crosswalk is not present; consider installing Advance Pedestrian Crossing sign (W11-2).
- 2. Implement the existing Improvement Plan for Fowler Avenue.
- 3. Connect bus stop to Fowler Avenue with a sidewalk.
- 4. Install raised crosswalk with advance yield lines and signage; consider installing RRFB.
- Bring existing School Speed Zones into compliance with State Statue and install school zone flashers where appropriate.
- Update crosswalk markings and convert to raised crosswalk with advance yield lines and signage; consider installing RRFB.
- 7. Modify driveways to reduce speed of vehicles turning to N 15th Street. To prevent people from parking across sidewalk and landscaped areas, consider installing curb or some other physical barrier.
- Formalize lot for parking to maximize spaces and delineate walking routes from parking area to school entrance. Initially, parking spots can be delineated using railroad ties, wheel stops, pavers, or other material. Grass pavers could be considered for a longer-term installation.
- Consider implementing a dual lane pick-up system where pick-up can be accomplished from both lanes. Additional operational details provided in text of report. Sign left lane for traffic going south on 15th Street and the right lane for traffic traveling north on 15th Street.
- Install a gate or barricade to prevent traffic from using this entrance. Barricades can be formed by permanent or rolling planters, plastic or metal barricades, or other material.
- 11. Consider converting this roadway segment to one way only either during pick-up only or permanently to maximize on-site queue storage. Maintenance access to Copeland Pool may be affected and should be considered in final plans. Gates could be added and would have to be closed during pick-up/drop-off hours and reopened afterward.
- Evaluate the intersection of N 15th Street and E 113th Avenue for All-Way Stop-Control Installation.
- 13. Construct a sidewalk on the north side of E 113th Avenue. This would likely require narrowing the roadway to 20 feet.
- 14. Evaluate potential to provide inset-parking on the east side of N 15th Street.
- 15. Implement improvements identified in the Safe Access to Parks Study, which includes installation of additional traffic calming along N 15th Street and E 109th Avenue, construction of sidewalks at main park entrance connecting to the internal walking system, street lighting upgrades, and other transportation system improvements.
- 6. Evaluate potential to install a mini-roundabout.
- 17. Provide more accessible and visible bike parking.

Shaw Elementary School N 15th Street Tampa, Florida













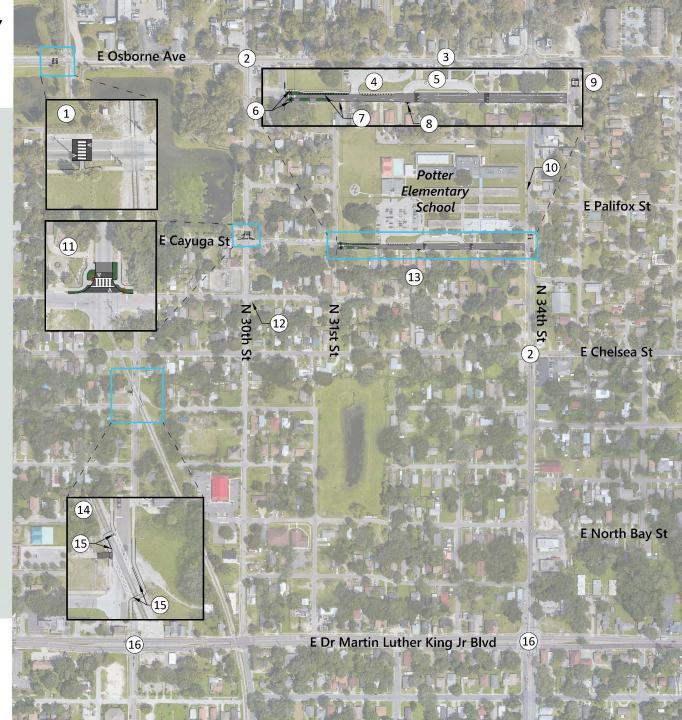


- Install a raised crosswalk and work with CSX to upgrade crossing safety equipment.
- Refresh crosswalk markings.
- 3. Install double yellow lines on E Osborne Avenue.
- Add a vertical barrier between the roadway and sidewalk to prevent parents/guardians from blocking the sidewalk.
- Convert Cayuga Street from N 31st Street to N 34th Street to one-way westbound and install two speed humps.
 Consider painting the school mascot or a mural on this segment to emphasize that it is a school zone.
- Convert to an All-Way Stop. Install Stop Sign (R1-1) westbound, Do Not Enter sign (R5-1) eastbound, One Way sign (R6-1), No Right Turn sign (R3-1) northbound, and No Left Turn sign (R3-2) southbound.
- Install signs prohibiting parking on both sides of E Cayuga Street between N 31st Street and the parking lot driveway.
- 8. Install One Way sign (R6-1) and No Right Turn (R3-1) sign.
- Convert crossing to a raised crosswalk. Consider giving the crossing guard a key to manually override the signal.
- Bring existing School Speed Zones into compliance with State Statute.
- 11. Install a raised crosswalk and RRFBs.
- Refresh stop bar markings and consider installing marked crosswalks.
- 13. Remove the school zone sign on N 32nd Street.
- 14. Install sidewalks that intersect railroad tracks at a 90 degree angle. Sidewalks should have detectable warning surfaces before on either side of the tracks. Install dynamic envelopes in the roadway on either side or the tracks.
- 15. Install a railing to encourage users to stay on the sidewalk.
- Add Leading Pedestrian Intervals and bicycle detection at Dr Martin Luther King Jr Boulevard.

Potter Elementary School Cayuga Street Tampa, Florida













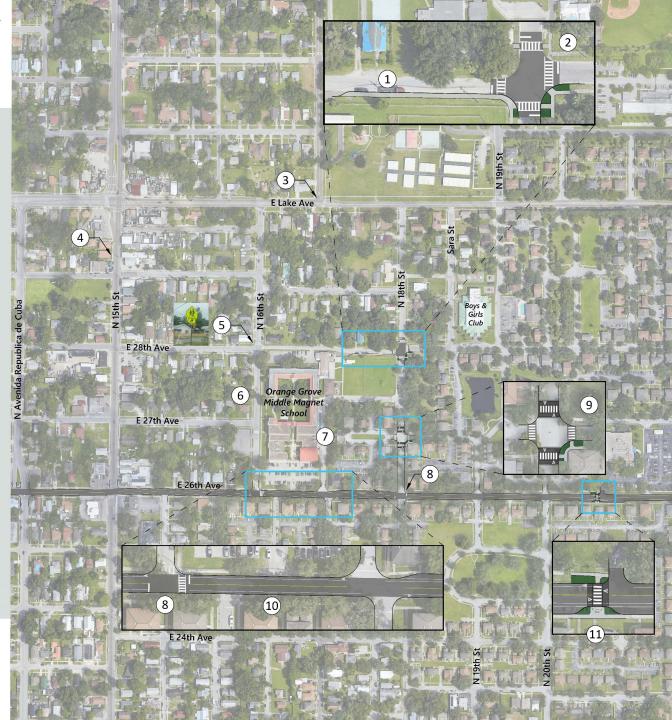


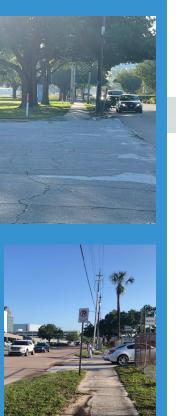
- Add sidewalk for walkers exiting the school from the north
- 2. Install marked crosswalks and an All-Way stop.
- Install All-Way Stop. Additionally, install a raised crosswalk on the east leg of the intersection or other traffic calming device.
- Implement existing Complete Streets Improvements, which include walking and bicycling infrastructure, lane narrowing, and more frequent marked crosswalks.
- Remove Pedestrian Crossing sign and install All-Way Stop.
- 5. Allow parking on one side of the roadway.
- Update signage directing parents/guardians to the correct pick-up/drop-off location. The entrance to the car line is signed as Bus Only and there are signs on 26th Avenue directing drivers to 16th Street.
- Install All-Way Stop.
- Install marked crosswalks on all legs and raised crosswalks on the north and south legs.
- Narrow travel lanes to 10 feet and add four-foot bike lanes.
- 11. Add a curb extension to reduce pedestrian crossing distance and install a raised crosswalk.
- 12. Bring existing School Speed Zone into compliance with State Statute and install flashers.

Orange Grove Magnet Middle School 16th Street Tampa, Florida









EXIT

TAMPA SCHOOL SAFETY

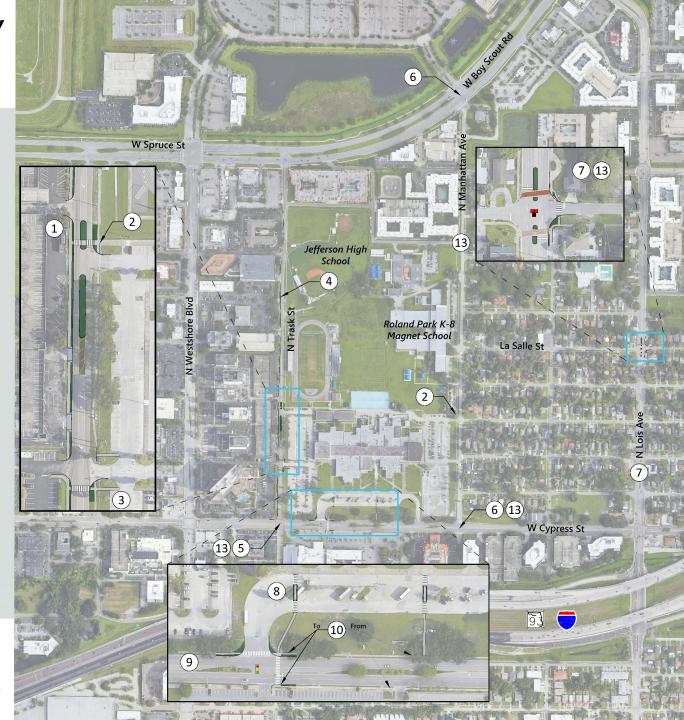


- Add a marked crosswalk and landscape median. Consider providing a raised crosswalk.
- Open sidewalk gates during student arrival and dismissal.
- Add a marked crosswalk and a sidewalk connection to high school. Consider providing a raised crosswalk.
- 4. Add a sidewalk on the west side of Trask Street.
- Fix pedestrian push buttons, update the intersection to meet current ADA standards, and provide a bus shelter on the northeast corner. During field work, the pedestrian push button on the northeast corner of the intersection was not functioning.
- Conduct signal warrant analysis. If warranted, signalize intersection and add crosswalks.
- Implement the Lois Avenue Complete Streets Plan. Some components of the plan include narrowing existing travel lanes to accommodate four foot bike lanes, widening the sidewalk on the east side of the roadway north of I-275, and adding crosswalks on the side streets.
- 8. Install a sidewalk connection to the high school.
- Tighten curb radius. Evaluate signalizing intersection. If intersection is signalized, add crosswalks.
- Consider relocating the existing bus stops on both the north and south sides of Cypress Street to encourage users to cross at the marked crossing.
- 11. Bring existing School Speed Zones into compliance with State Statute and install flashers.
- 12. Add street trees and public amenities in accordance with the Westshore Alliance Master Plan.
- 13. Collaborate with the Westshore Alliance to implement painted intersections.

Jefferson High School West Cypress Street Tampa, Florida















- Contemplate formalizing this parking lot as a pick-up area. A connection to the school along the property may be necessary when the parcel north of the schools is developed. Consider the extension of the West River Trail when planning the construction of the connection.
- 2. Install curb cuts and a sidewalk connection at marked crossing.
- Consider allowing parking here or physically prevent people from parking on the north side of W Spruce Street west of N Oregon Avenue.
- 4. Implement painted intersection plan.
- Implement a speed limit 15 or 20 mph on Spruce Street and Spruce Cove and enforce limit; consider dedicating Spruce Street back to the City for maintenance and enforcement.
- Install a raised crosswalk and curb ramps connecting the end of the sidewalk to the south side of street, or relocate fence along south side of ball fields so that sidewalk can be used.
- Bring existing School Speed Zone into compliance with State Statute and install flashers.
- Improve temporary pedestrian walkway.
- Remove Yield sign.
- Reevaluate area circulation when development is completed to provide direct pedestrian connections from the neighborhood to the campuses
- 11. Install signage to prohibit stopping or standing.
- 12. Add a barrier between sidewalk and travel lane.
- 13. Optimize and coordinate signal timings.
- 14. Consider adding a marked crosswalk on the east side of the intersection.
- Move fence to other side of sidewalk, or construct sidewalk on school property.

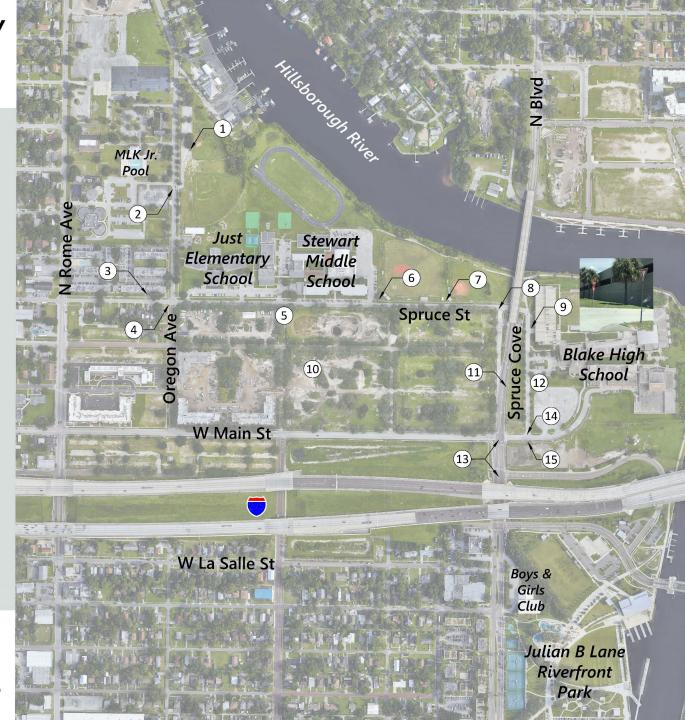
Implement educational and encouragement strategies detailed in the report including:

- Provide bicycle education, including helmet giveaway.
- Implement carpool program, targeting the Middle School and High School.
- Work with Blake High School to develop transportation safety videos targeted and K-12 students.
- Develop a walking routes program.

Just Elementary School, West Spruce Street Stewart Middle School, West Spruce Street Blake High School, North Boulevard Tampa, Florida







Encouragement and Educational Ideas





TAMPA SCHOOL SAFETY STUDY | YARD SIGN DESIGN DEVELOPMENT

Case Study Communities















Roanoke, Virgina







Tacoma, Washington

- > Target audience is drivers = less is more

- > Strong color contrast can help increase visibility > Work to trigger the emotional response / moral impreative to change behavior
- > Incorporate the why or for whome for the children, for the young girl, etc.

Proposed Taglines

- Theme: Safety for Children

 > Drive Like Your Kids Live Here
- > Drive Like Your Kids Live Here...Because Ours Do

Theme: School Zone

> You are entering a School Safety Zone

Theme: Speed

› No Need to Speed

Theme: Community

> Hey I'm Walking Here









Paint Saves Lives – Crosswalks to Classroom, corridors

WHO DO I CALL?

FOR SCHOOL AREA SAFETY SERVICES IN THE CITY OF TAMPA



REPORT SAFETY CONCERNS

TAMPA MOBILITY DEPT.

General Traffic

(813) 274-3101 apps.tampagov.net/appl_customer service center/

TAMPA MOBILITY DEPT.

School Zone/Area Safety

(813) 274-3101 apps.tampagov.net/appl_customer_service_center/

FDOT SAFE ROUTES TO SCHOOL PROGRAM, DISTRICT 7

School Zone Safety

https://www.fdot.gov/Safety/programs/safe-routes-quicklinks.shtm

HILLSBOROUGH COUNTY PUBLIC SCHOOLS

Bus Stop Too Far or Unsafe

(813) 982-5500 https://www.hillsboroughschools.org/ transportation

ENCOURAGE WALKING

SIDEWALK STOMPERS

Walk to School Programs

Target Audience: All Ages https://sidewalkstompers.org/

EDUCATIONAL PRESENTATIONS

Bicycle Clinic

TARGET AUDIENCE: PE Class St. Joseph's Children's Wellness & Safety Center (813) 615-0938 kristi.nalls@baycare.org

Biking Walking Curriculum

TARGET AUDIENCE: 1st & 4th Grade MORE HEALTH, Inc. (813) 288-0378 https://www.morehealthinc.org/ education/#Lessons-Grades-K-5 clemaster@morehealthinc.org

Transportation Safety Presentation/Campaign

TARGET AUDIENCE: All Ages Bike/Walk Tampa Bay https://walkbikedrive.org/ JMBond@usf.edu

Driver Safety Education

TARGET AUDIENCE: High School FDOT Community Traffic Safety Team http://tampabaytrafficsafety.com/

Vision Zero Safety Speaker

TARGET AUDIENCE: All Ages https://www.tampa.gov/visionzero https://planhillsborough.org/vision-zero/











YOUR LOGO HERE

Yard Sign Option 1





DRIVE LIKE YOUR KIDS LIVE HERE

BECAUSE

OURS DO











YOUR LOGO HERE



















YOUR LOGO HERE

Yard Sign Option 3





Enhanced Safe Routes to School Strategies

- Establish Districtwide Transportation Planner Position
- Collaborate with Green Team
- Empower Tampa Youth to be Vision Zero Ambassadors
- Geofencing
- Speed Enforcement
- Automated Enforcement of Illegal Bus Passing
- School Streets
- Portable Speed Bumps
- Magnet School Busing Program
- Health Risk





Questions?

More Information: Planhillsborough.org/school/



Hillsborough TPO Project Manager Lisa K. Silva, AICP, PLA silval@plancom.org

City of Tampa Project Manger Kelly Fearon, PE kelly.fearon@tampagov.net

Consultant Team Project
Manager
Kathrin Tellez, AICP, PTP, RSP1
k.tellez@fehrandpeers.com

