



A SAFE SCHOOLS TRANSPORTATION STUDY

Tavares High School Tavares, FL

August 2013



Tavares High School Snapshot

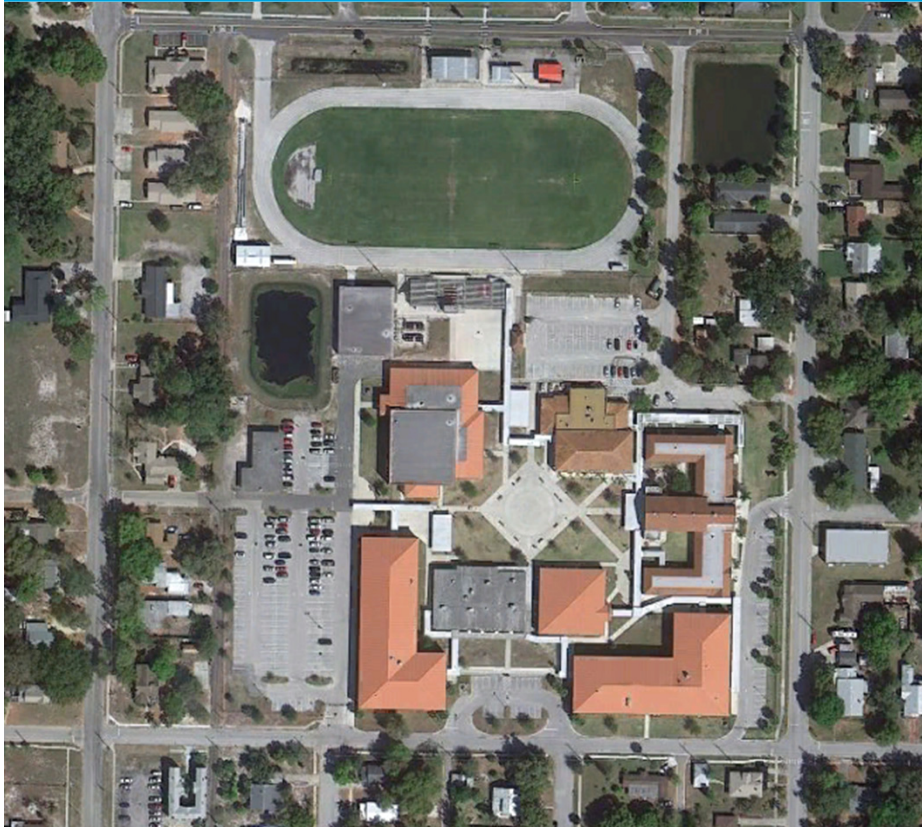
December 20, 2012

Grades: 9th – 12th

Total Students:	1,228
■ Provided Bus Transportation:	644
■ Not Provided Bus Transportation:	584
■ Buses Assigned to School (18 reg, 4 ESE, 4 other)	26

Students Living within the FTE “Walk Zone”:	236
■ Provided Bus Transportation:	31
■ Not Provided Bus Transportation:	205

Observation Day (Sunny)	
■ Walkers:	approx. 150
■ Bike Riders:	3

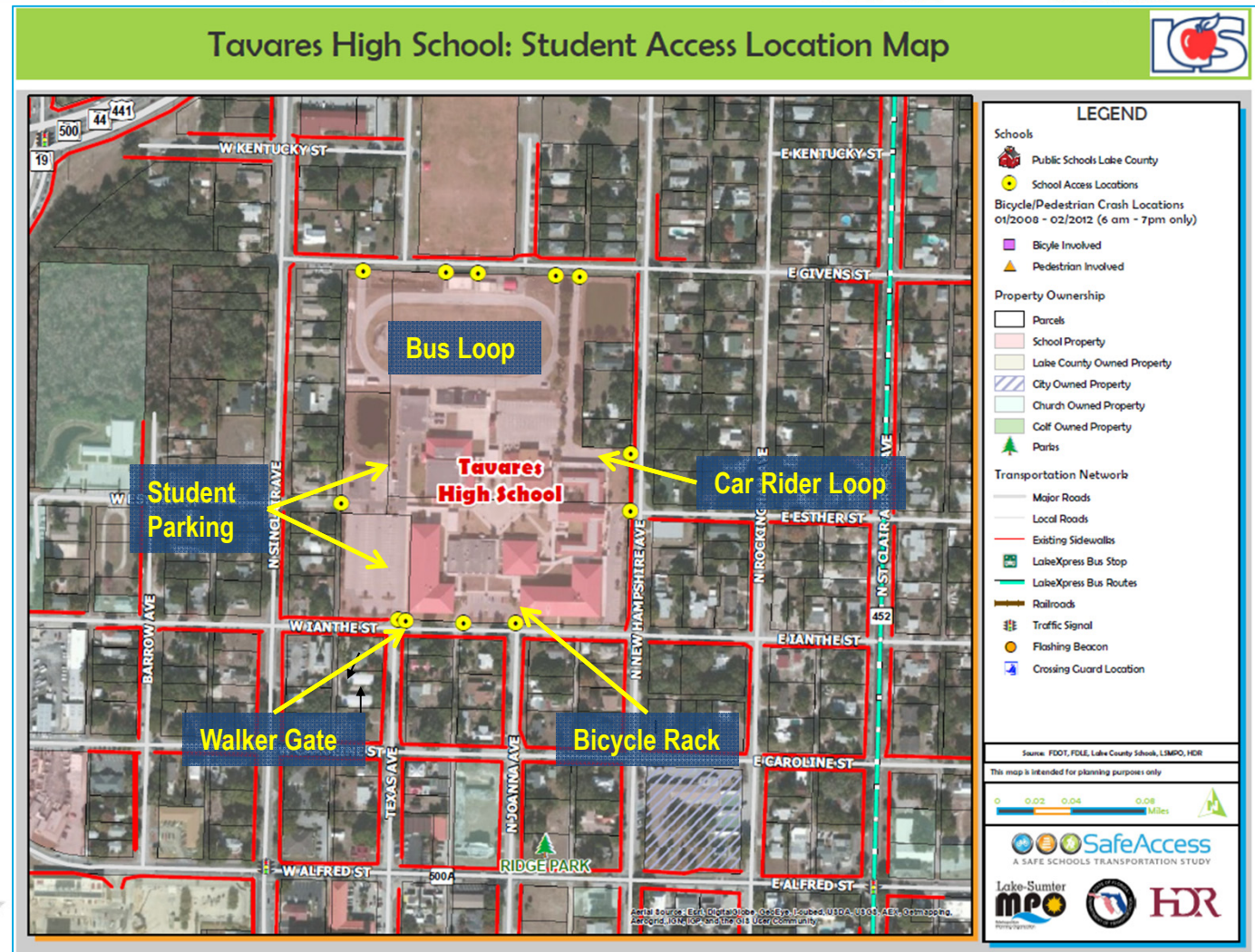


- ✓ Tavares High School website – Click [here](#)
- ✓ City of Tavares website – Click [here](#)
- ✓ Lake County Schools website – Click [here](#)

*The Lake County Schools Designated Parent Responsibility Zone is the same as the 2 mile walk zone

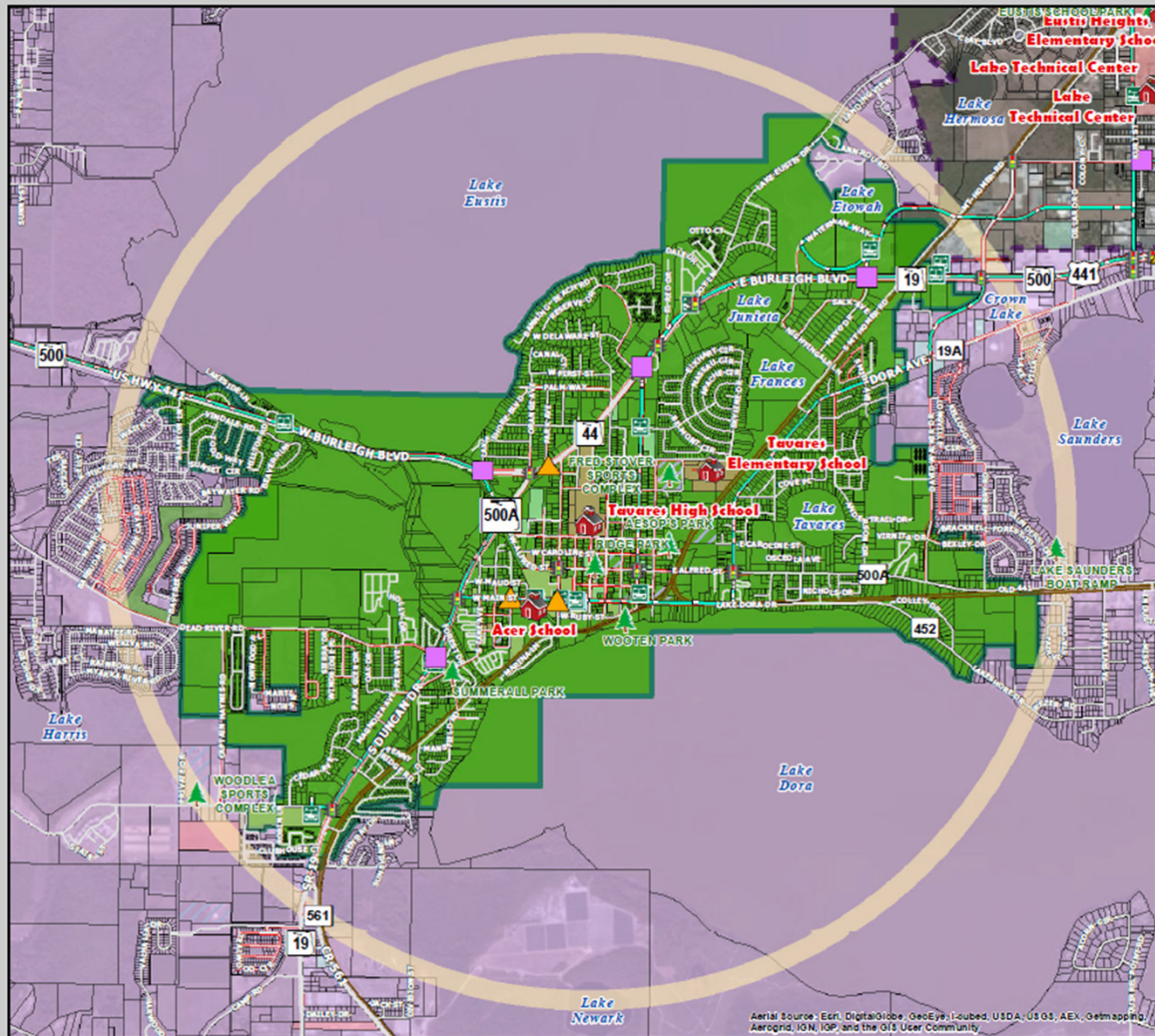
Findings:

- ✓ Pedestrian gate located by student parking; Closed at tardy bell
- ✓ Most student drivers arrive at parking lot via Sinclair Ave
- ✓ Ianthe St staff parking lot exit (southeast corner of campus) kept closed during school hours to discourage use as remote pick-up / drop-off



Attendance and 2-Mile "Walk" Zone Map

Tavares High School: Attendance and 2-Mile "Walk" Zone Map



LEGEND

Schools

- Public Schools Lake County
- 2-Mile Buffer of Tavares HS
- 2-Mile Walk Zone
- Tavares HS Attendance Zones (2010-2011)

Bicycle/Pedestrian Crash Locations 01/2008 - 02/2012 (6 am - 7pm only)

- Bicycle Involved
- Pedestrian Involved

Property Ownership

- Parcels
- Parks

Transportation Network

- Major Roads
- Local Roads
- Existing Sidewalks
- LakeXpress Bus Stop
- LakeXpress Bus Routes
- Railroads
- Traffic Signal
- Flashing Beacon

Source: FDOT, FDLE, Lake County Schools, LISMO, HDR

This map is intended for planning purposes only



Aerial Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Geomatics, AeroGRID, IGN, IGP, and the GIS User community

6:30 am:	Gates open
7:00 am:	Buses start arriving
7:10 am:	Staff supervision begins
7:30 am:	First bell
7:35 am:	School starts; Tardy bell rings
1:50 pm:	Parent queue opens
2:10 pm:	Dismissal
2:40 pm:	Teachers dismissed



Note: Students are released one hour early on Wednesdays



Findings:

- ✓ 18 regular service buses, 4 ESE buses, 1 Center to Center Agricultural Program bus, 3 other buses (26 total)
- ✓ Bus exit not designed for right turning bus; Right turning buses run over curb / grass
- ✓ Buses start departing at 2:27 PM; All but 2 turned left

- ✓ Buses are not permitted to turn right due to lack of queuing space on roadway

Recommendations:

- ✓ Enforce no right turns at bus exit or reconfigure bus exit driveway to allow right turns for the 2 buses that need to go that way

Findings:

- ✓ Maximum car queue length in afternoon was 4 vehicles in each direction on Givens St
- ✓ On-street queue cleared by 2:25 PM
- ✓ Some exiting vehicles turned left at exit even though signed as right only
- ✓ No major issues observed



Findings:

- ✓ Remote pick-up observed on lanthe St at cross streets between Sinclair Ave and New Hampshire Ave; Signage “allows” remote pick-up / drop-off
- ✓ 17 remote pick-ups observed on New Hampshire Ave across from school





Student Parking Access on lanthe St



Student Parking Access on Sinclair Ave

Findings:

- ✓ Student parking located on east side of campus; Parking passes sell fast and school often has waiting list
- ✓ Some students park at parking garage on Main St and walk to campus
- ✓ One gate left open during school hours for OJT and dual-enrollment students
- ✓ Parking lot access located on Sinclair Ave and lanthe St



Pedestrian Gate on lanthe St



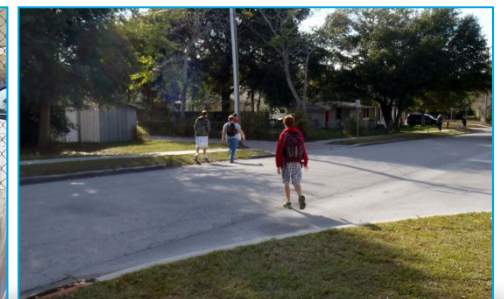
Damaged Sidewalk on lanthe St

Findings:

- ✓ Walker gate located on lanthe St at student parking lot driveway; Gate locked after tardy bell in AM
 - ✓ Approximately 50 walkers were observed to cross lanthe St between Sinclair Ave and New Hampshire Ave
 - ✓ Speeding observed and noted from parents / staff on lanthe St
- ✓ Student (bike) / vehicle crash occurred at Old US 441 and SR 19 in September 2012
 - ✓ Vehicles do not yield to crossing pedestrians at Old US 441 near library
- ✓ Sidewalk gaps and damaged sidewalk on lanthe St between Sinclair Ave and New Hampshire Ave



Bicycle Rack





Recommendations:

- ✓ Install speed tables (2) on lanthe St between Sinclair Ave and New Hampshire Ave; Traffic calming measure to address speeding
- ✓ Add / repair sidewalks and crosswalks within 2 mile walk zone
- ✓ Add additional signage and enforce crosswalks at Alfred St / Caroline St
- ✓ Add pedestrians features at the signal of Alfred St / Dora Ave and St Clair Abrams Ave / US 441
- ✓ Upgrade bicycle parking to inverted “U” or ribbon style rack with concrete pad and cover
- ✓ Ensure appropriate pedestrian signage is included with Alfred St / Caroline St one-way pair / streetscape project

Findings:

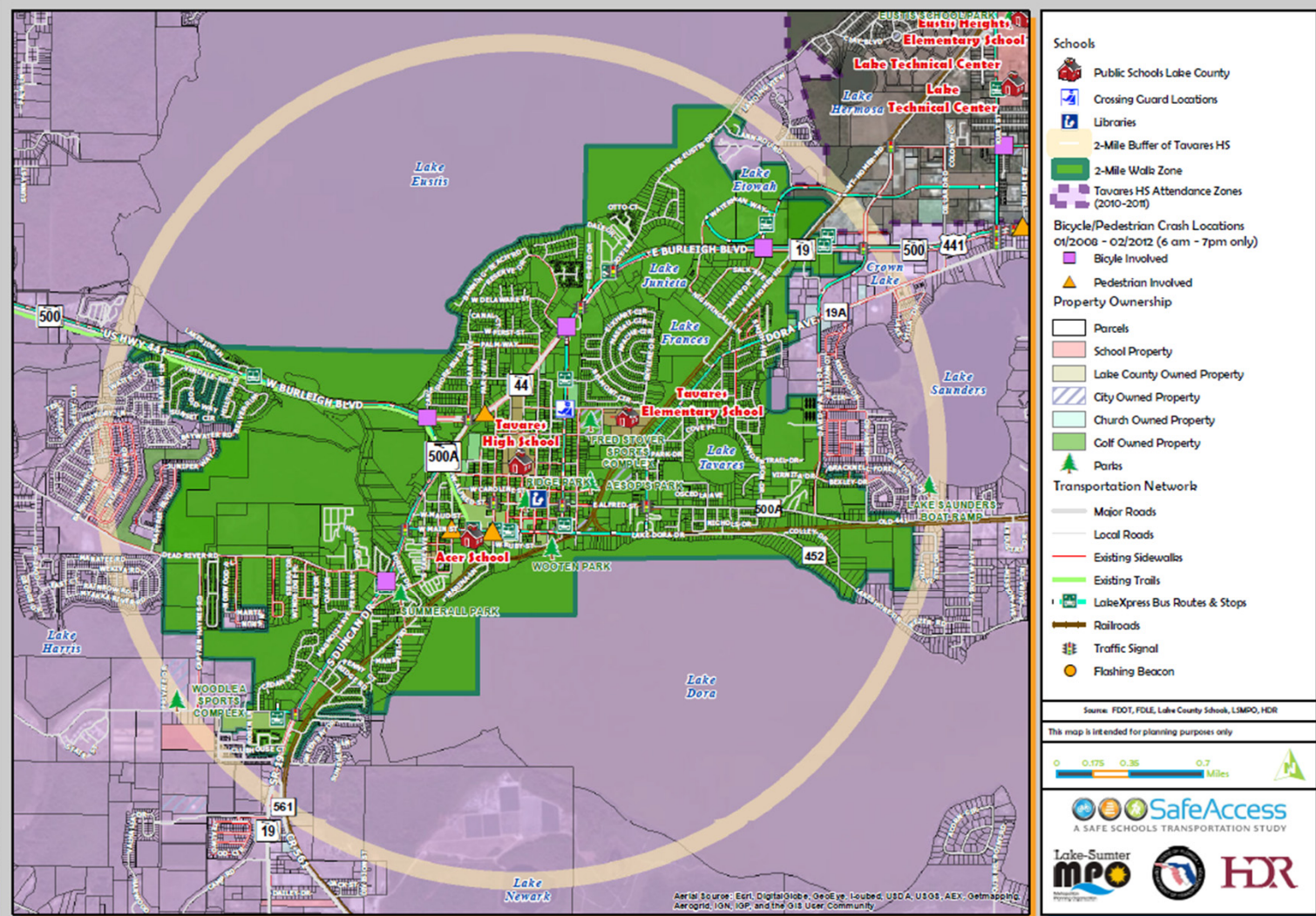
- ✓ The City of Tavares is currently working on a project to convert Alfred St and Caroline St to one way pair. This project includes streetscape, improved crossings and sidewalks on both sides of these facilities.

Recommendation:

- ✓ Coordinate with the City on routing and traffic patterns for vehicles and pedestrians during construction.



Tavares High School: Existing Conditions Map

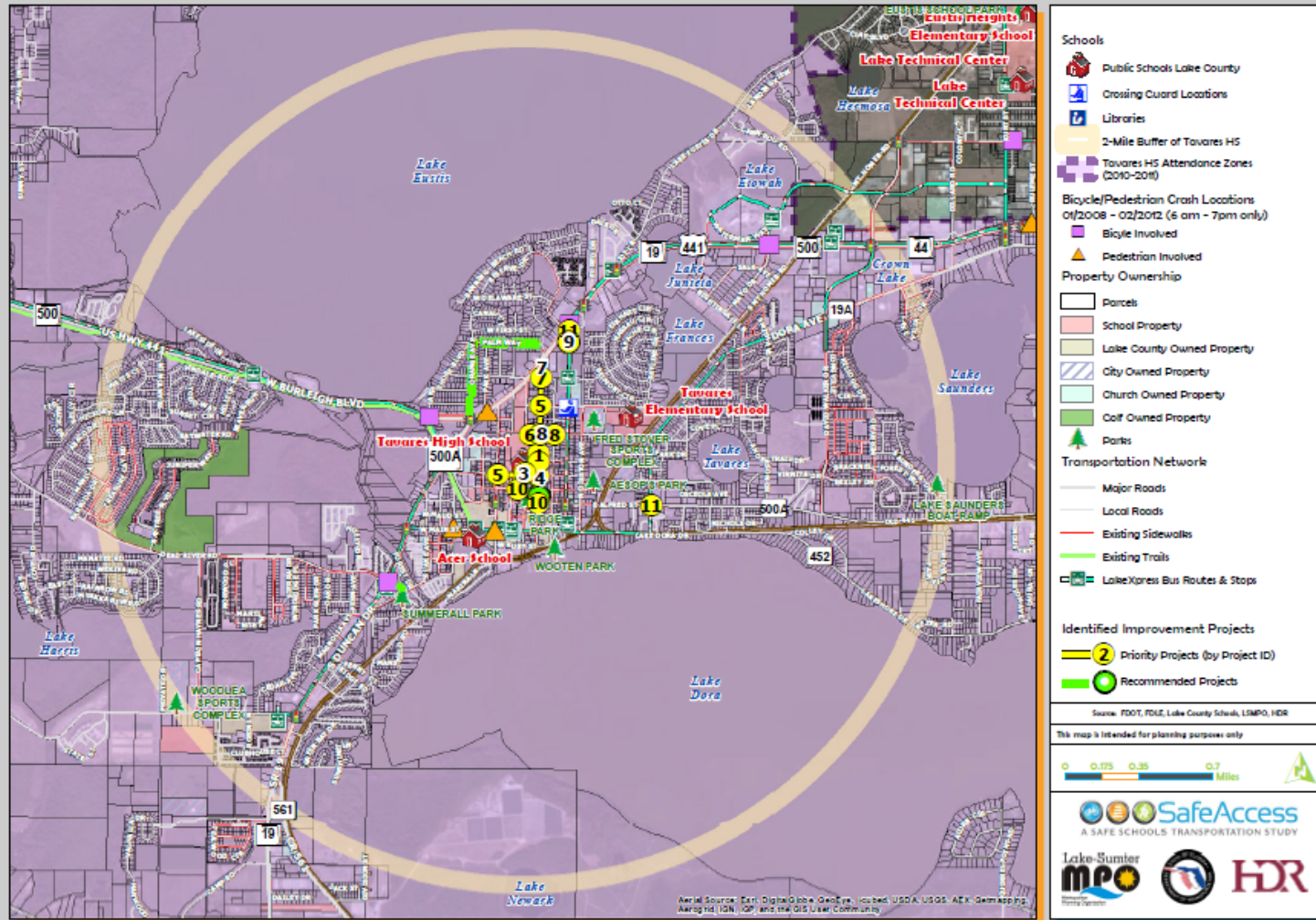


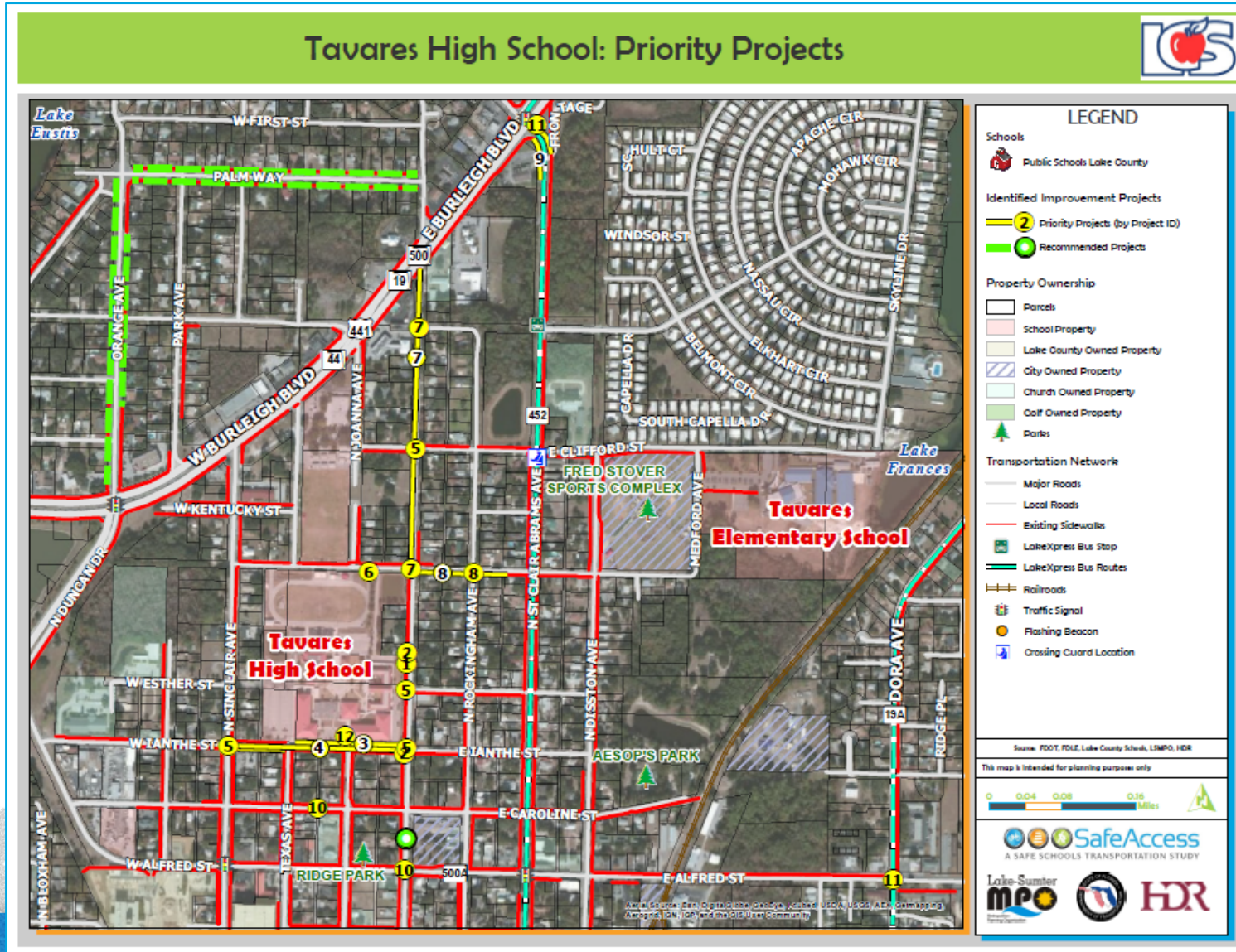
Findings:

- ✓ On June 24, 2013 the Lake County School Board voted to formally discontinue all courtesy busing for elementary and middle school students who live within 2-mile walk zone of the school
 - This did not change the walk zone for Tavares High School
- ✓ The Board is also considering combining middle and high school students on the same bus for the 2014-2015 school year.
 - This would involve moving middle school start times earlier from their existing 9:05 to 9:15 time frame to the proposed 7:35
 - This would also cause the elementary schools to be moved back almost 25 minutes to start around 8:55 in the morning

Transportation Access Master Plan

Tavares High School: Transportation Access Master Plan





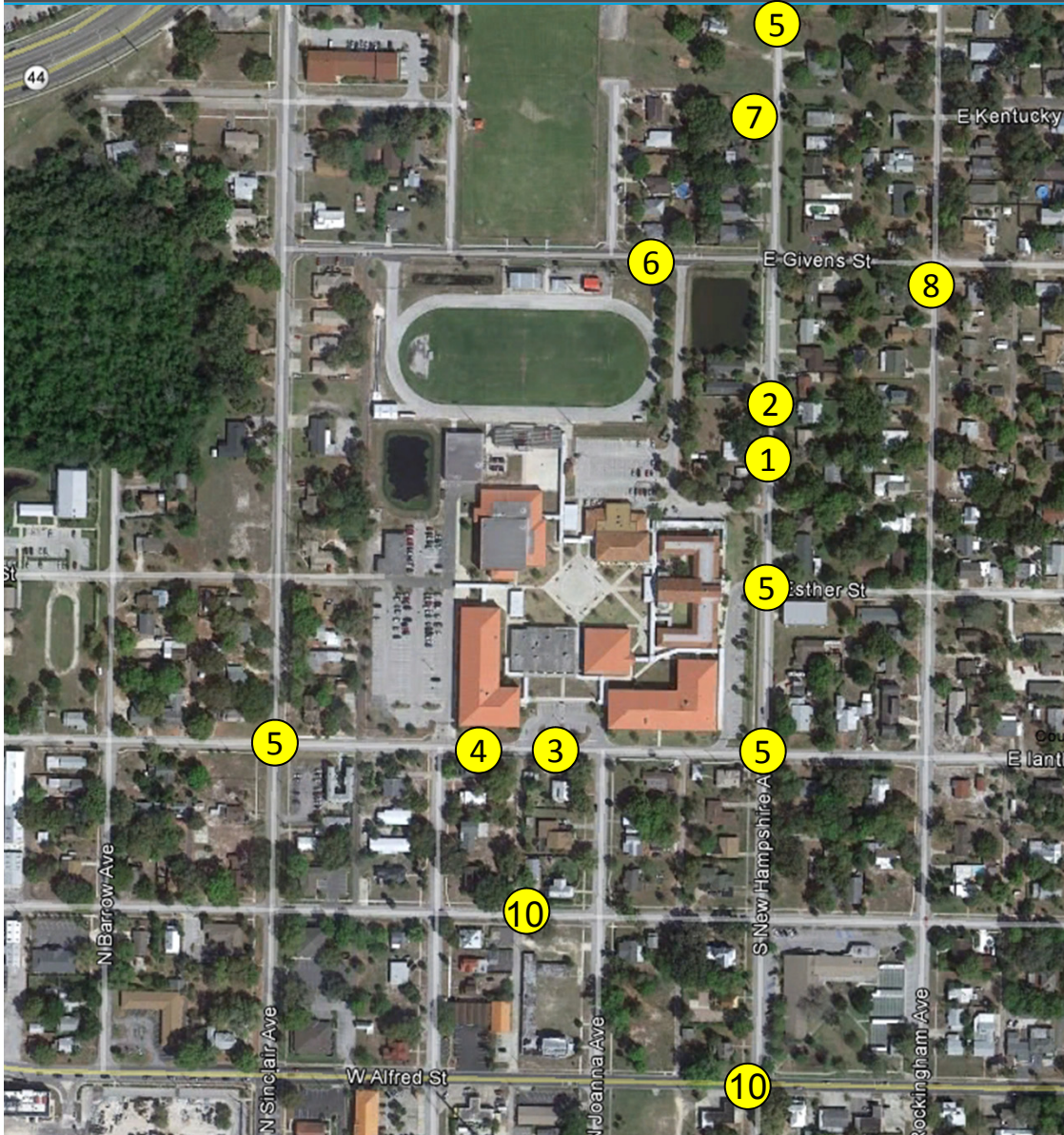


SafeAccess

A SAFE SCHOOLS TRANSPORTATION STUDY

Tavares High School

Recommended Priority Projects



Recommendations:

1. Improve crossing at car loop exit
2. Install flashing beacons on New Hampshire Ave
3. Add / repair sidewalk on lanthe St
4. Install traffic calming on lanthe St
5. Crosswalks and pedestrian signs at nearby intersections
6. Enforce “No Right Turn” at bus loop exit
7. Add sidewalk on New Hampshire Ave
8. Add sidewalk on Givens St
9. Add sidewalk at US 441 / St Clair Abrams (not shown)
10. Install pedestrian signs with Alfred St / Caroline St one-way pair project and yield enforcement on Alfred St at New Hampshire Ave

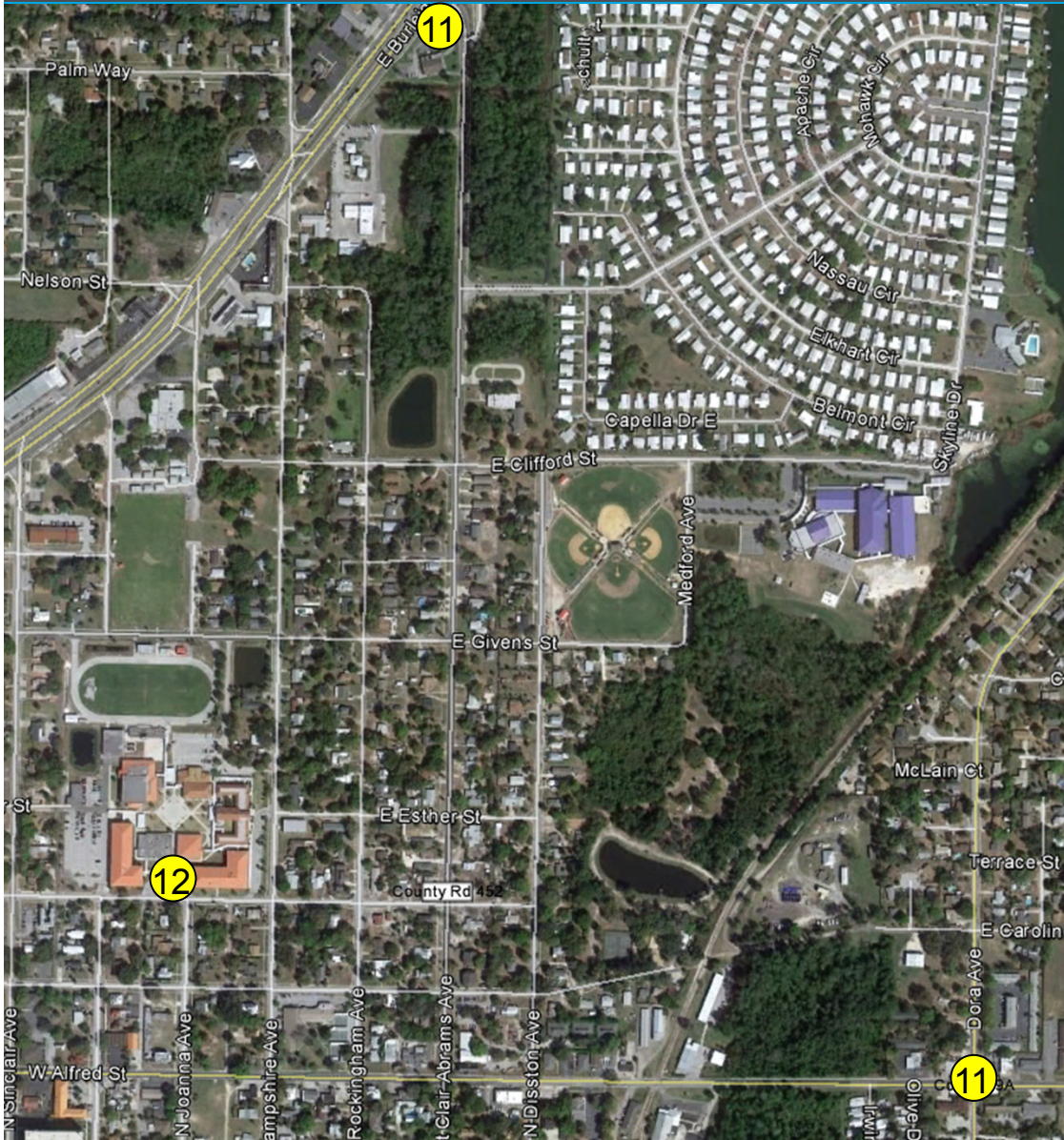


SafeAccess

A SAFE SCHOOLS TRANSPORTATION STUDY

Tavares High School

Recommended Priority Projects



Recommendations:

11. Add pedestrian features at Alfred St / Dora Ave and St Clair Abrams / US 441
12. Upgrade bicycle parking

Tavares High School

Project Number	Roadway	Location	Project
1	Car Loop Exit	At New Hampshire Ave	Repaint crosswalk and add curb ramps
2	New Hampshire Ave		Upgrade school signs to flashing beacons
3	Ilanthe St	Sinclair Ave to Texas Ave	Repair / maintain sidewalk on south side
	Ilanthe St	New Hampshire Ave to Texas Ave	Add sidewalk
4	Ilanthe St	New Hampshire Ave to Sinclair Ave	Add traffic calming
*5	Ilanthe St	At Sinclair Ave	Add crosswalks and pedestrian signs
	Clifford St	At New Hampshire Ave	Add crosswalks and pedestrian signs
	New Hampshire Ave	At Esther St	Add crosswalks and pedestrian signs
	Ilanthe St	At New Hampshire Ave	Add crosswalks and pedestrian signs

* Project also benefits Tavares Elementary School

Tavares High School

Project Number	Roadway	Location	Project
6	Givens St	At Bus Exit	Enforce no right turns
*7	New Hampshire Ave	Givens St to US 441	Add sidewalk and crosswalks on west side
*8	Givens St	New Hampshire Ave to west of St Clair Abrams Ave	Add sidewalk and crosswalks on south side
9	St Clair Abrams Ave	At US 441	Add sidewalk on southeast corner
*10	Alfred St / Caroline St		Ensure appropriate signage at crosswalks for one-way pair project
	Alfred St	At New Hampshire	Enforcement for crosswalk
11	Alfred St	At Dora Ave	Add pedestrian features to signal; repaint / add crosswalks
	St Clair Abrams Ave	At US 441	Add pedestrian features to signal; repaint / add crosswalks
12	Bicycle Racks		Upgrade bicycle racks; install concrete pad / shelter

* Project also benefits Tavares Elementary School



A SAFE SCHOOLS TRANSPORTATION STUDY

Tavares High School

Recommended Project #1

Install Curb Ramps and Crosswalk at Car Loop Exit



Recommendations:

- ✓ Install curb ramps and detectable warning mats
- ✓ Repaint crosswalk
- ✓ Move stop bar back



Existing Sidewalk Access at Car Loop Exit



A SAFE SCHOOLS TRANSPORTATION STUDY

Tavares High School

Recommended Project #2

Update New Hampshire Avenue School Zone Signs

Recommendations:

- ✓ Upgrade school zone signs on New Hampshire Ave to flashing beacons



Existing School Zone Signs



Flashing Beacon



A SAFE SCHOOLS TRANSPORTATION STUDY

Tavares High School

Recommended Project #3

Add / Repair Ianthe Street Sidewalk

Recommendations:

- ✓ Repair / maintain sidewalk on south side from Sinclair Ave to New Hampshire Ave
- ✓ Add sidewalk on north side from New Hampshire Ave to Texas Ave





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Tavares High School

Recommended Project #4

Ilanthe Street Traffic Calming

Findings:

- ✓ Speeding observed and reported on lanthe St
- ✓ Heavy pedestrian traffic across the road

Recommendations:

- ✓ Install traffic calming features between Sinclair Ave and New Hampshire Ave
 - ✓ Recommend installation of speed tables





A SAFE SCHOOLS TRANSPORTATION STUDY

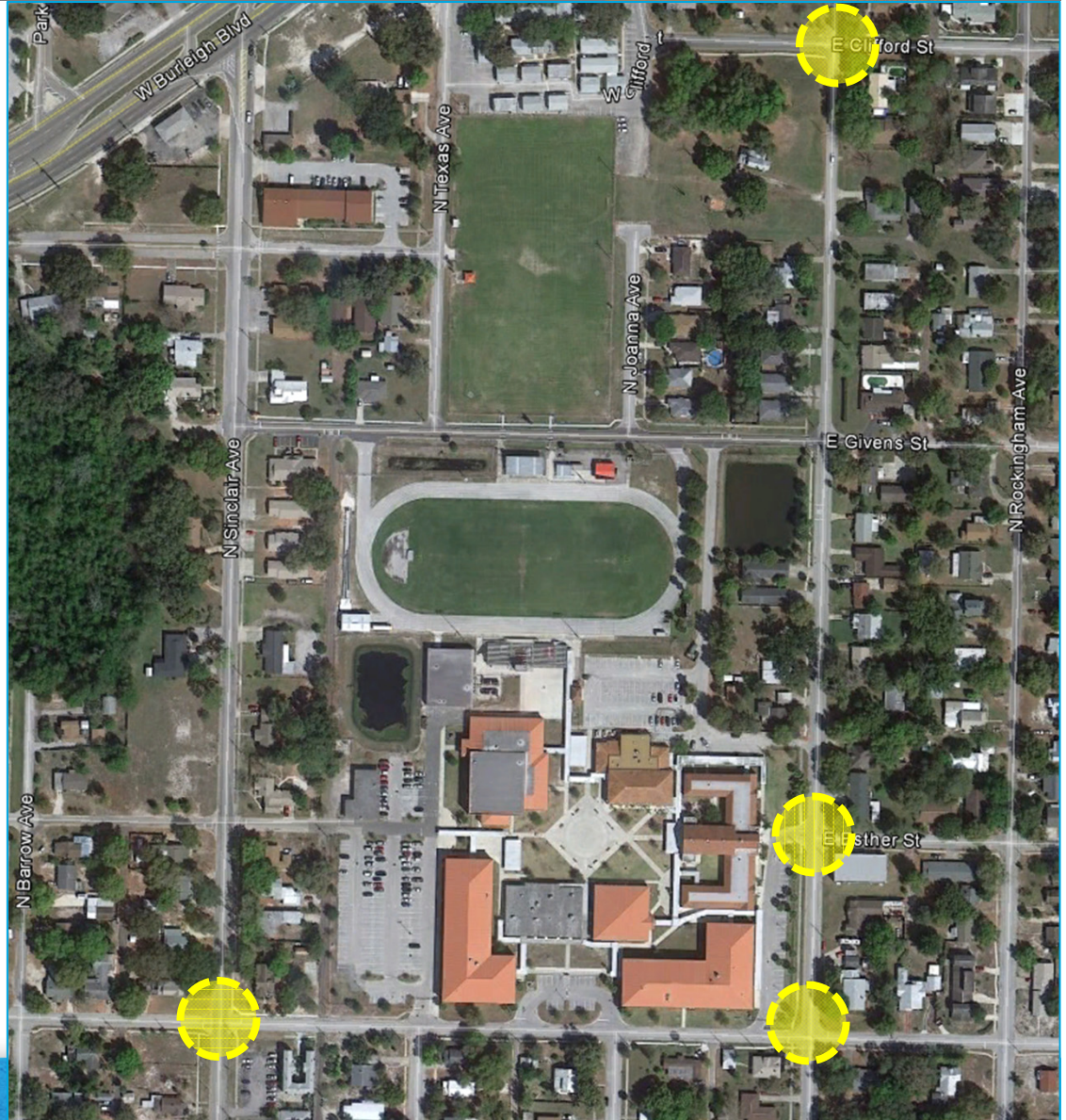
Tavares High School

Recommended Project #5

Install Crosswalks and Pedestrian Signage

Recommendations:

- ✓ Install crosswalks and pedestrian signage at the following intersections:
 - ✓ Ianthe St / Sinclair Ave
 - ✓ Ianthe St / New Hampshire Ave
 - ✓ Clifford St / New Hampshire Ave
 - ✓ New Hampshire Ave / Esther St



Recommended Project #6

Reconstruct Bus Exit on Givens Street



Findings:

- ✓ Bus exit is constructed for left turns only; Buses observed to run over curb / grass to make right turn

Recommendations:

- ✓ Enforce no right turn prohibition to prevent additional damage to curbing or
- ✓ Reconstruct bus exit to allow right turns



A SAFE SCHOOLS TRANSPORTATION STUDY

Tavares High School

Recommended Project #7

Add Sidewalks on New Hampshire Ave



Recommendations:

- ✓ Add sidewalk and crosswalks from Givens St to US 441 (west side)



Add Sidewalks and Crosswalks on New Hampshire

Recommendations:

- ✓ Add sidewalk and crosswalks on the south side of Givens St from New Hampshire Ave to existing sidewalk west of St Clair Abrams Ave





A SAFE SCHOOLS TRANSPORTATION STUDY

Tavares High School

Recommended Project #9

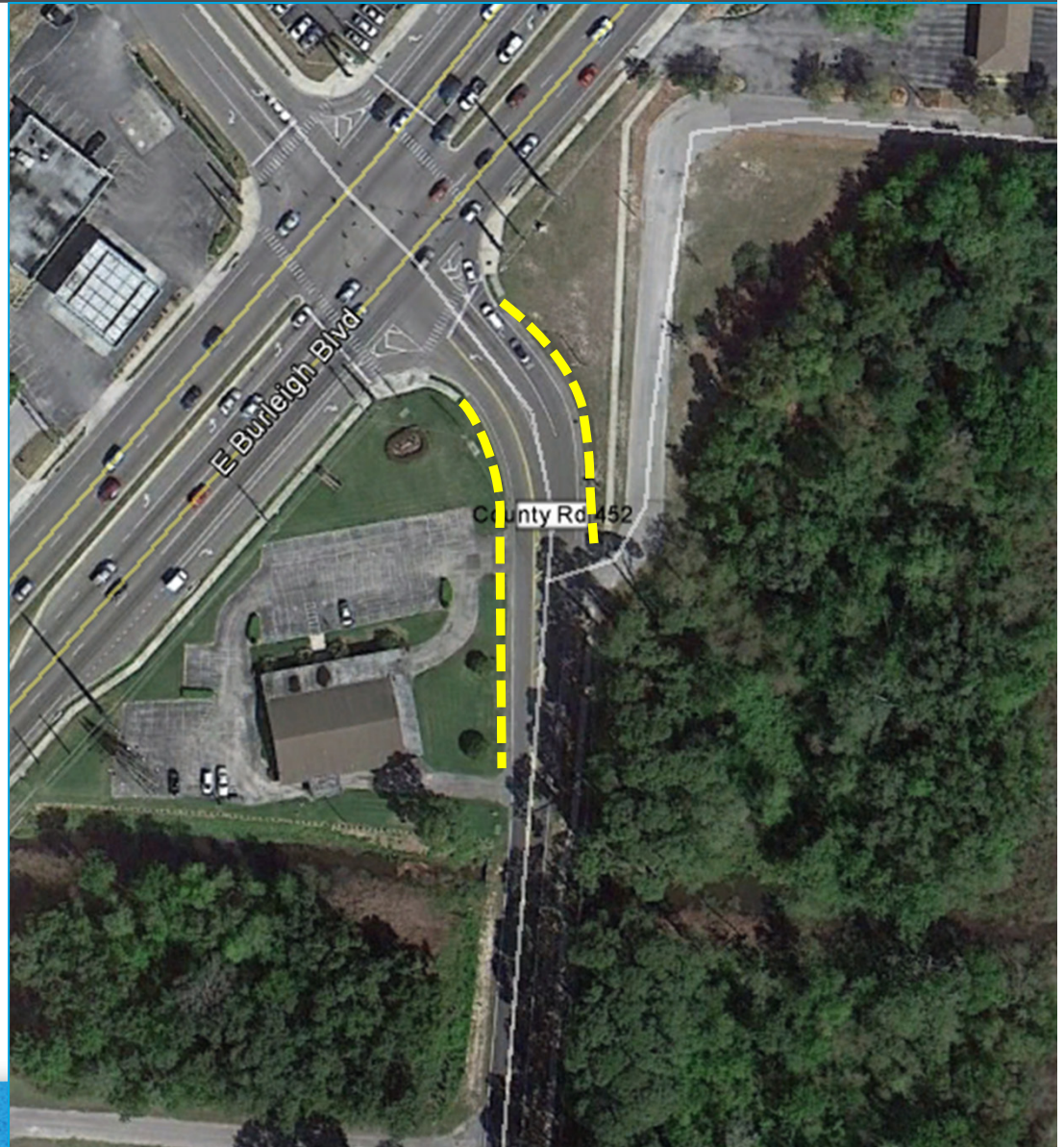
Add Sidewalk on St Clair Abrams Ave

Findings:

- ✓ There is sidewalk missing on the south eastern corner of St. Clair Abrams Ave at US 441

Recommendations:

- ✓ Add missing sidewalk on southeast corner of St. Clair Abrams Ave at US 441



Recommended Project #10

Pedestrian Signage and Yield Enforcement at Crosswalks

Findings:

- ✓ Current vehicular traffic on Alfred St does not yield to pedestrians at the crosswalk at New Hampshire Ave
- ✓ Current crossings will be improved with the Alfred St / Caroline St project

Recommendations:

- ✓ Include yield to pedestrian signs with the Alfred St / Caroline St project
- ✓ Request enforcement assistance from Tavares Police if issue persists

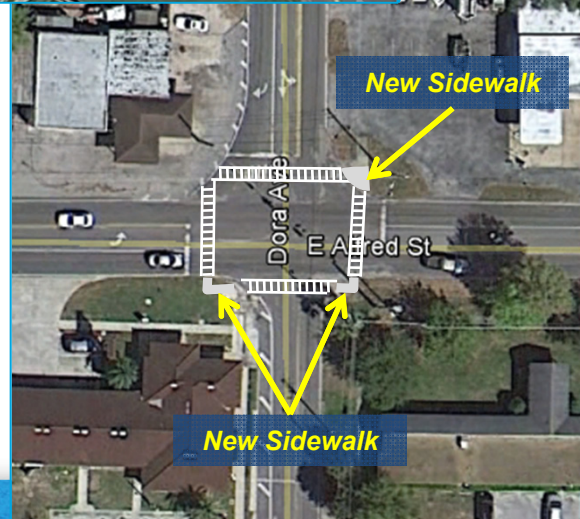


Recommendations:

✓ Install / replace crosswalks using high-visibility ladder style at St Clair Abrams Ave / US 44 and Alfred St / Dora Ave

- Install / replace detectable warning mats
- Install concrete islands (“pork chops”) at SR 44 / St Clair Abrams Ave to serve as pedestrian refuge
- Install sidewalk connections at Dora Ave / Alfred St

Note: The ‘pork chop’ islands in the photos above are illustrative and conceptual in nature. The recommended islands should be designed to have a minimal deflection channelized right turn that provides the pedestrian refuge but forces the driver to stop/yield to approaching traffic from the left to limit the potential for side swipe crashes.



Recommendations:

- ✓ Upgrade bicycle rack to inverted “U” or ribbon style
- ✓ Place bicycle rack on concrete pad with paved access
- ✓ Install bike cage and cover



Pine Ridge ES Example

Priority #	Item	Quantity	Units	Total
1	Ramps	2	Ramps	\$1,140.00
1	Detector Mats	2	Mats	\$400.00
1	Crosswalk	12	ft	\$27.00
1	Stop Bar	12	ft	\$47.00
2	Flashing Beacon Signs	2	Signs	\$1,000.00
3	Sidewalk	590	ft	\$59,600.00
3	Crosswalk	127	ft	\$284.00
5	Crosswalk Signs	12	Signs	\$3,600.00
5	Crosswalk	579	ft	\$1,293.00
6	Do Not Enter and Stop Signs	3	Signs	\$900.00
6	Stop Bar	50	ft	\$193.00
6	Arrows	2	Arrows	\$200.00

ESTIMATE BASIS AND ASSUMPTIONS:

- Sidewalk estimates based on estimating tool developed for Phase 1, Estimates for all other improvements based on Unit Costs per FDOT Lake County (Area 7) averages (07/2011 - 06/2012).
- Estimate does not include design costs, CEI costs, or utility relocation costs, utility relocation assumed by others.
- The mobilization costs are based on 15% of the construction cost and estimates include maintenance of traffic costs (15% of construction costs).
- Regular excavation & embankment to 1 ft depth is assumed
- No R/W costs included
- No specialized landscaping (beyond sodding) is included.
- Sidewalk is assumed to be 5 feet wide, unit given is in linear feet.

Priority #	Item	Quantity	Units	Total
7	Sidewalk	1115	ft	\$111,400.00
7	Crosswalk	60	ft	\$134.00
8	Sidewalk	500	ft	\$61,400.00
8	Crosswalk	25	ft	\$56.00
9	Sidewalk	255	ft	\$41,900.00
10	Crosswalk	574	ft	\$1,281.00
10	Ramps	3	Ramps	\$1,710.00
10	Detector Mats	17	Mats	\$5,950.00
10	Island-Southern	1	Island	\$27,200.00
10	Island-Eastern	1	Island	\$24,200.00
10	Island-Northern	1	Island	\$27,700.00
10	Crossing Signage	11	Signs	\$3,300.00

ESTIMATE BASIS AND ASSUMPTIONS:

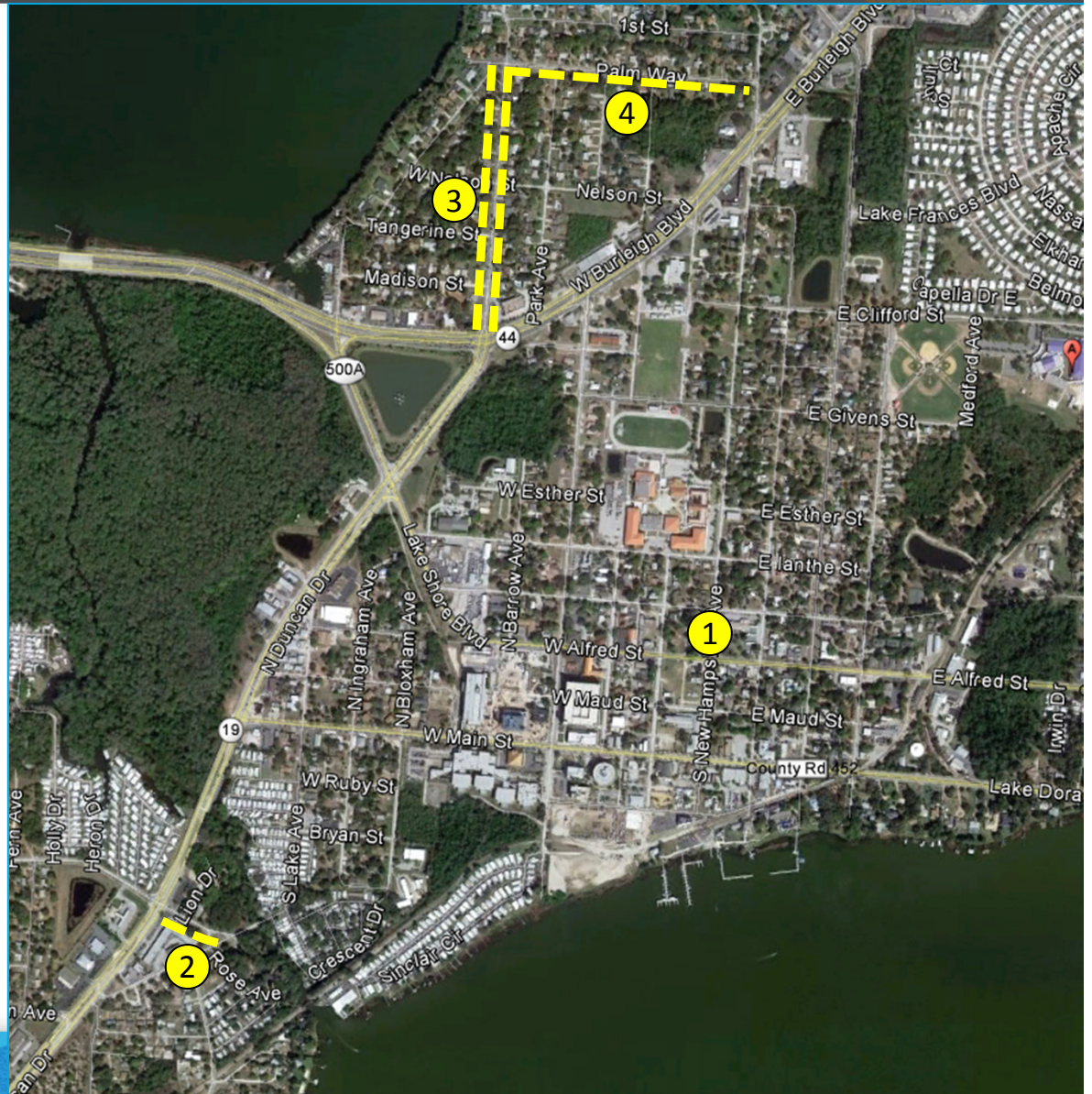
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- No specialized landscaping (beyond sodding) is included.
- Sidewalk is assumed to be 5 feet wide, unit given is in linear feet.

Roadway	From/To	Project
New Hampshire	Alfred St to Caroline St	Add Midblock Crossing to Library
Lake Harris Dr	SR 19 to Wells Ave	Add sidewalk on south side of road
Orange Ave	US 441 to Palm Way	Complete sidewalk on both sides of road
Palm Way	US 441 to Orange Ave	Repair / maintain sidewalk; Rebuild ADA ramps



Recommendations:

1. Add Midblock crossing to Library on New Hampshire Ave between Alfred St and Caroline St
2. Add sidewalk on south side on Lake Harris Dr from SR 19 / Dead Rive Rd to Wells Ave
3. Complete sidewalk on both sides of Orange Ave from US 441 to Palm Way
4. Repair / maintain sidewalk on south side of Palm Way from US 441 to Orange Ave; Rebuild ADA ramps





Tavares High School

Contact Information

This website represents an ongoing commitment to increase safe access to schools within the Lake~Sumter Metropolitan Planning Organization Planning Area.

Updates to data, and suggestions for programming and project ideas are welcome from all agencies and the general public.

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Transportation Partnerships*