



A SAFE SCHOOLS TRANSPORTATION STUDY

Lake Minneola High School Minneola, FL

Congratulations to LMS
Rookie Teacher of the
Year
AMANDA COOK
LAKE MINNEOLA
HIGH SCHOOL

LAKE MINNEOLA HIGH SCHOOL



August 2012



Lake Minneola High School Snapshot



November 30, 2011

Grades: 9th – 11th (No current 12th grade in first year)

Total Students: 1,283

- Provided Bus Transportation : 806
- Not Provided Bus Transportation: 477

Students Living within the “Walk Zone”: 350

- Provided Bus Transportation: 140
- Not Provided Bus Transportation: 210

Observation Day (Partly Cloudy)

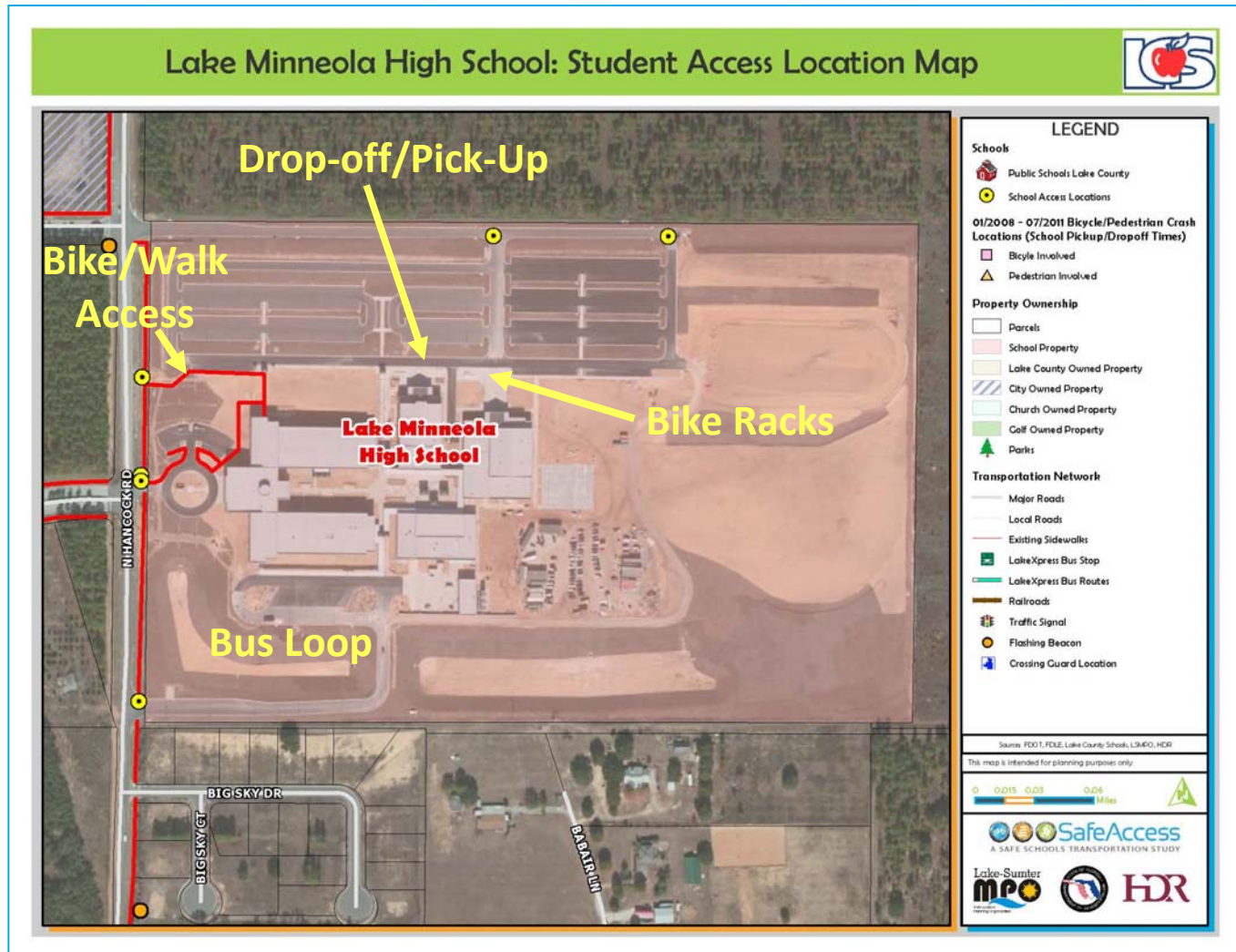
- Walkers (estimated): 50
- Bike Riders: 5



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

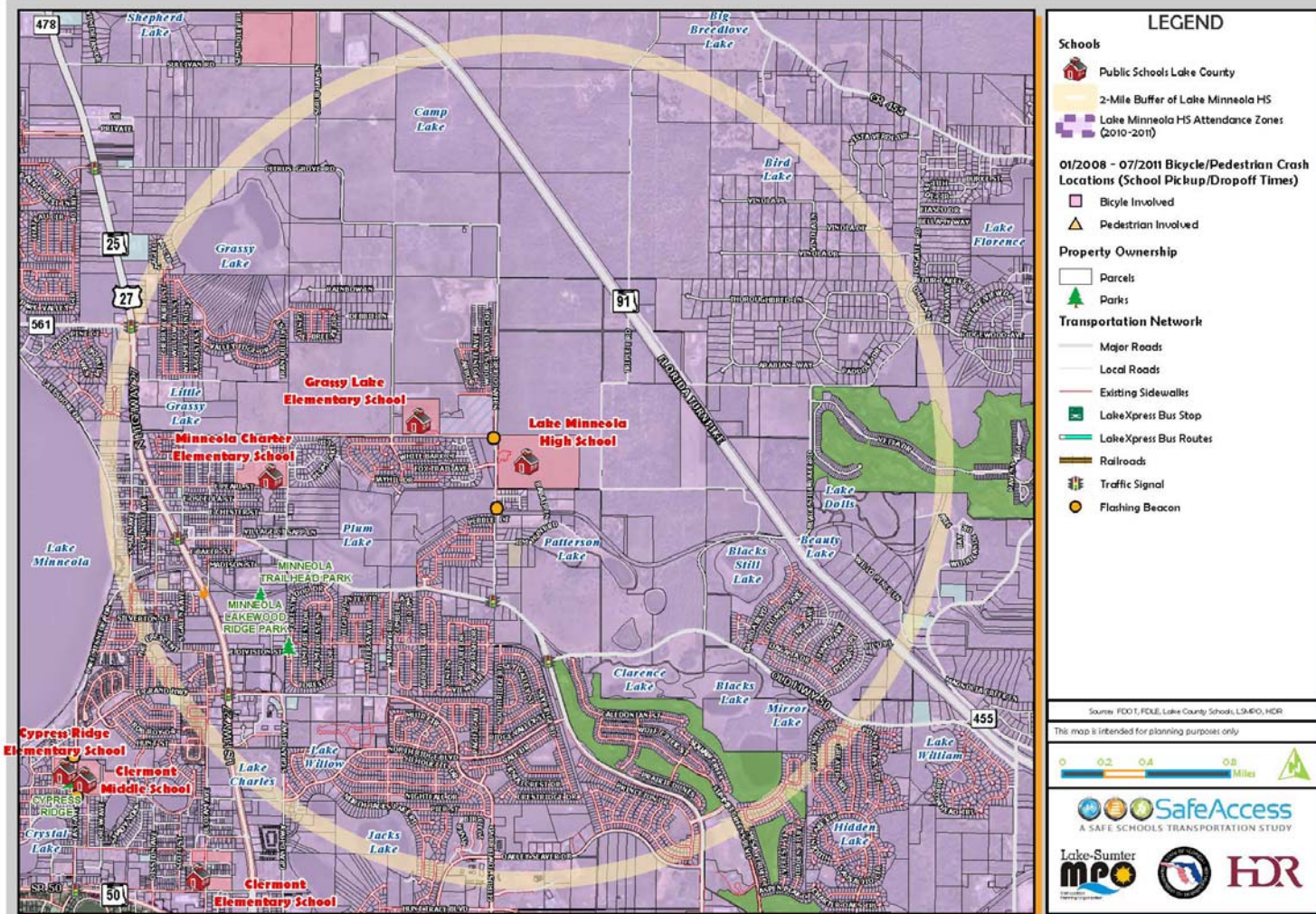
Findings:

- ✓ New school this year, 9th – 11th grades only; 2012/ 2013, will have 9th - 12th grades and about 500 more total students
- ✓ Due to its location and current sidewalk gaps, approximately 2/3 of students are bused
- ✓ 40% of students within the “walk zone” are bused (those south of Old Highway 50)
- ✓ Drop-off/pick-up separated from bus loop
- ✓ Single bike/walk access just north of admin loop



Attendance and 2-Mile "Walk" Zone Map

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



Arrival and Dismissal Schedule

- 6:55-7:00 am: Buses begin arriving;
Total of 28 buses (22 regular, 6 ESE)
- 7:25 am: School start time
- 2:30 pm: School release time
- 2:35-2:40 pm: Buses leave

Note: Students are released one hour early on Wednesdays





Findings:

- ✓ Operations in the bus loop and loading/unloading work well
- ✓ Adequate storage is provided on-site for all 28 buses (22 regular, 6 ESE) & additional space is available if needed
- ✓ One resource officer assists with loading at the bus loop during dismissal
- ✓ Most buses turn left onto Hancock Rd to exit the school; in the afternoon, drivers were observed stopping to let a group of buses out

Findings:

- ✓ Drop-off and pick-up occur on the north side of campus adjacent to the faculty/student parking lot
- ✓ Car line is very well designed with a long length for queuing, and has a significant amount of available capacity
- ✓ Maximum dismissal vehicle queue length shown at bottom right
- ✓ The front administration loop is used by a few drivers as an unofficial drop-off location



Car Line - AM



Front Administration Loop



Car Line - PM

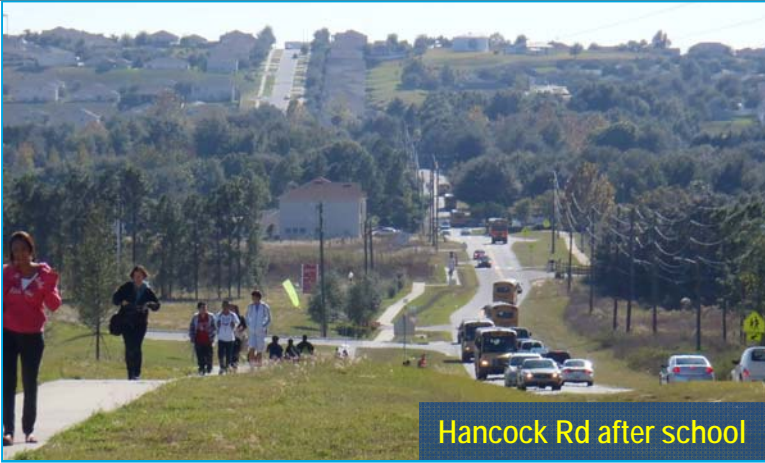


Findings:

- ✓ A number of students walked to off-campus areas to be picked-up in order to avoid the car line – most activity occurred along an undeveloped portion of Fox Trail Ave directly across from the school
- ✓ There is no supervision of students off campus
- ✓ Most students being picked up on Fox Trail Ave crossed Hancock Rd at the existing crosswalk; however, there are potential safety issues and traffic disruptions when loading or unloading at unauthorized locations

Recommendations:

- ✓ No parking signs should be considered on Fox Trail Ave
- ✓ Periodic enforcement likely needed to discourage remote pick-up



Hancock Rd after school



Students crossing Hancock Rd at Fox Trail Ave crosswalk



Bike Racks

Findings:

- ✓ All students walking or bicycling access school via sidewalk north of admin loop on Hancock Rd
- ✓ Pedestrians and bicyclists cross Hancock Rd at:
 - ✓ Hancock Rd/Fosgate Rd intersection (all-way stop)
 - ✓ Fox Trail Ave marked crosswalk (uncontrolled)
 - ✓ Marked crosswalk south of Big Sky Dr (uncontrolled)
- ✓ Conditions in the morning are often dark, and lighting is generally poor along existing Hancock Rd sidewalk and at marked crosswalks
- ✓ No crossing guards at crosswalks adjacent to school
- ✓ Bicycle racks well placed near auditorium entrance, and provide ample supply of parking.



Bikes on Hancock Rd sidewalk at Fox Trail Ave

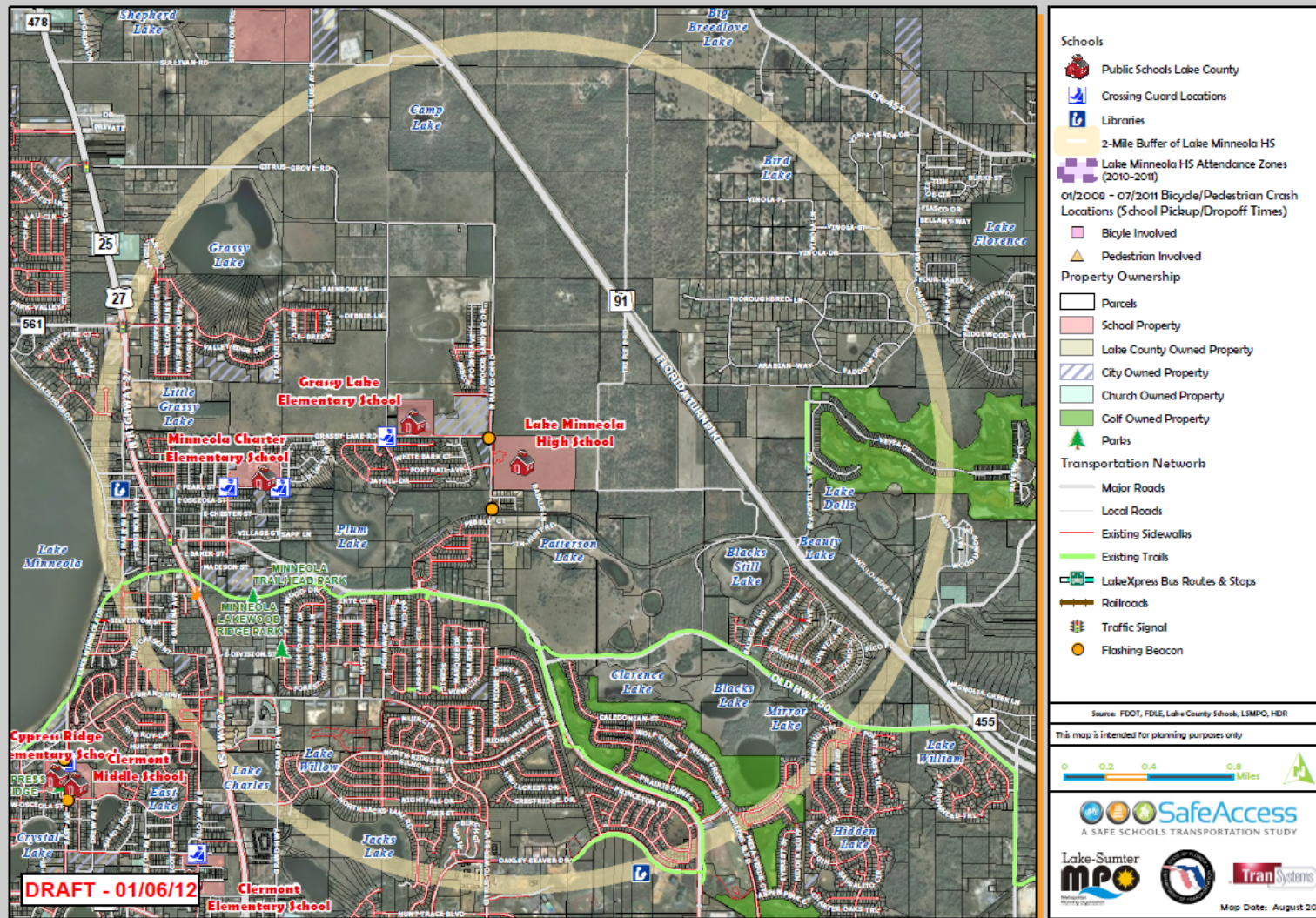


Students on Turkey Farm Rd at Old Hwy 50 opposite side with crosswalk & ped signal

Findings:

- ✓ Bike riders all observed riding on sidewalks; potential for conflicts at driveways & with walkers due to bike speeds on hills and narrow width of sidewalk
- ✓ Number of students walking/bicycling to school is limited due to an existing sidewalk gap (approx. ¼ mile) on Turkey Farm Rd from Old Hwy 50 to Jim Hunt Rd (Students from this area are courtesy bussed)
- ✓ Only a few students observed walking the section of road without sidewalks to access the trail along Old Hwy 50
- ✓ More than 500 students projected to be within 2-mile walk zone in 2012/2013 school year, with 60% located south of Old Hwy 50

Lake Minneola High School: Existing Conditions Map



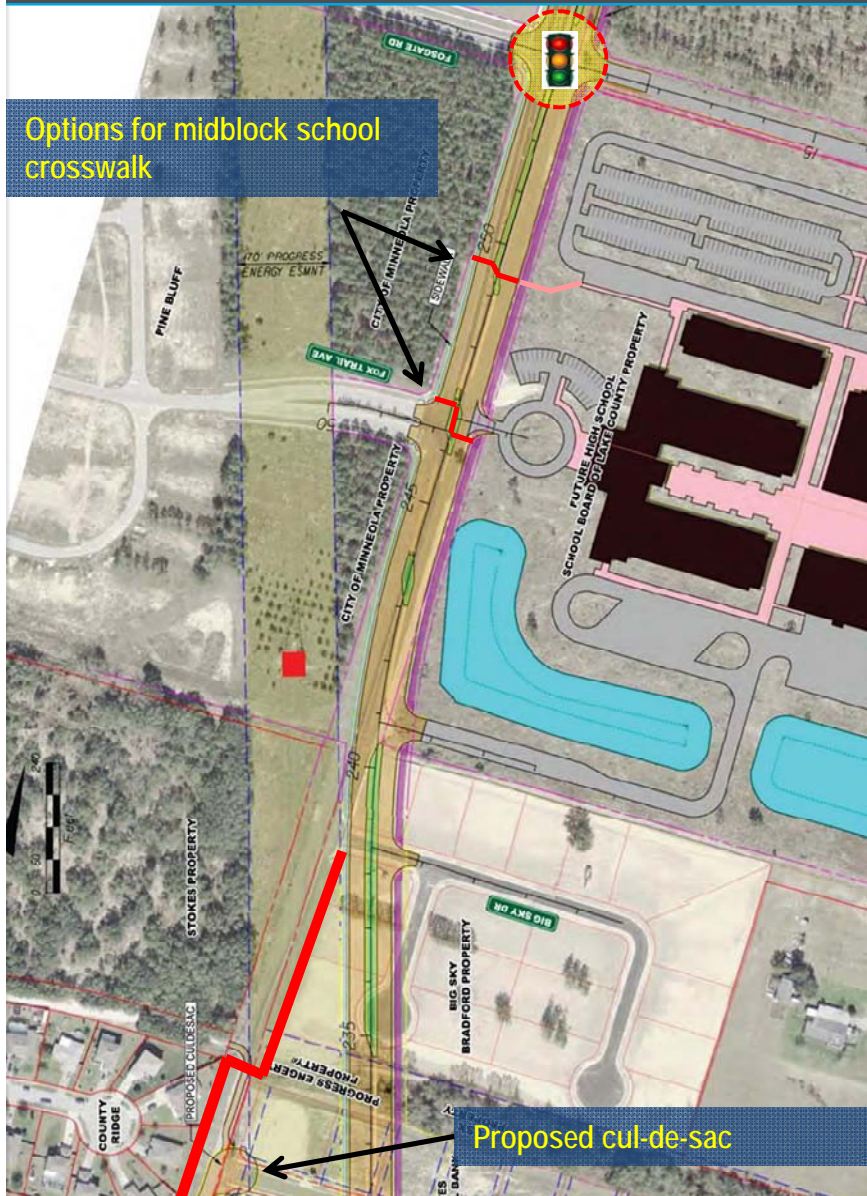
Findings:

- ✓ Hancock Rd North Extension, Old Hwy 50 to Fosgate Rd
 - ✓ County project
 - ✓ Extends existing Hancock Rd on east side of powerline easement
 - ✓ Planned for 4 lanes (may be built initially as 2 lanes)
 - ✓ Proposed to have sidewalk (west side) and multi-use trail (east side)
 - ✓ Existing Turkey Farm Rd will end at cul-de-sac
 - ✓ Traffic signal at Old Hwy 50/Turkey Farm to be removed
 - ✓ ROW funding programmed for 2012-2013
 - ✓ No CST funding identified
- ✓ Available ROW on Turkey Farm Rd between Old Hwy 50 and Jim Hunt Rd not sufficient to construct missing sidewalk
 - ✓ **Recommendation:**
- ✓ Make interim improvements to existing facilities on Turkey Farm Rd/Hancock Rd prior to Hancock Rd Extension



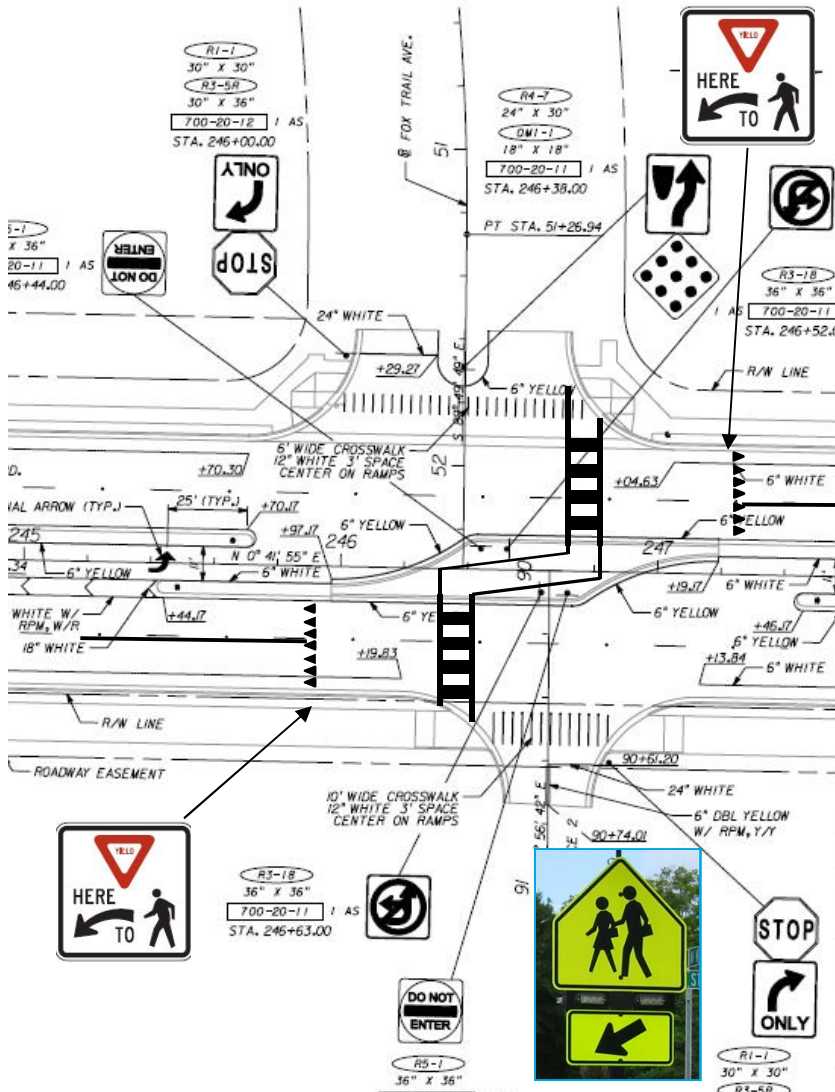
60% Design Plans Comments & Recommendations:

- ✓ Maintain existing Turkey Farm Rd sidewalk connection to new Hancock Rd alignment
- ✓ Include school signage, markings, and speed zone
- ✓ Maintain midblock crossing for Fox Trail Ave or new crossing at school pedestrian access (2-stage crossing w/ angled median break & RRFBs)
- ✓ Consider signalization of Fosgate Rd intersection (at minimum during school release)
- ✓ Add crosswalks at Fosgate Rd intersection (if signalized, or if no midblock crossing at school pedestrian access)
- ✓ Ensure adequate lighting at all crosswalks
- ✓ Use FDOT ladder style crosswalks



Standard School Crossing Recommendation:

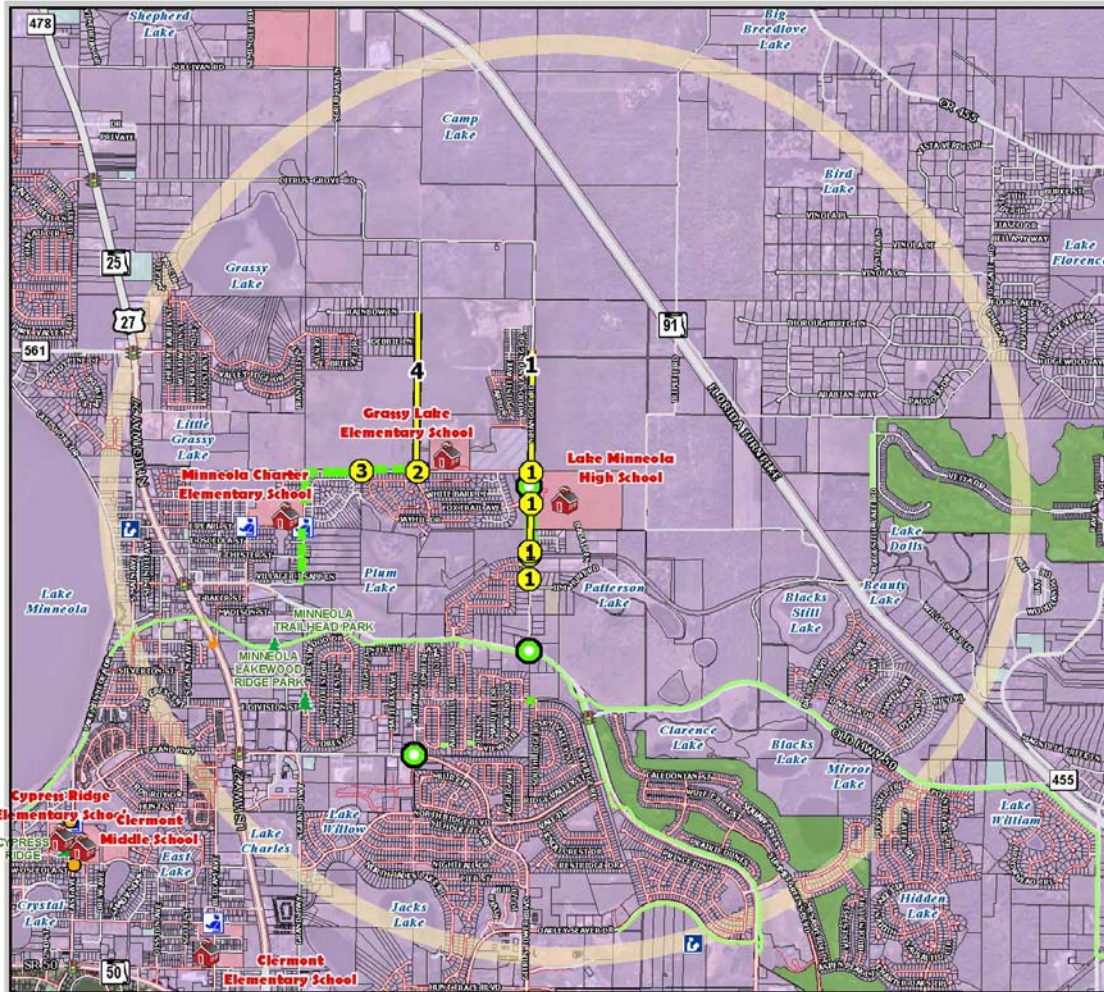
- ✓ High visibility ladder-style crosswalks
- ✓ Advance yield lines (set back 30-50 feet from crosswalk) & yield here to pedestrians signs
- ✓ Solid lane line striping in yield dilemma zone, distance based on posted speed
- ✓ Rectangular Rapid Flashing Beacons (RRFBs) – all uncontrolled 4-lane crossings, and optional for higher volume or higher speed 2-lane crossings
- ✓ Helps eliminate multiple threat conflicts & proven to increase motorist yielding



RRFBs at crosswalks in St. Petersburg, FL

Transportation Access Master Plan

Lake Minneola High School: Transportation Access Master Plan



LEGEND

Schools

- Public Schools Lake County
- Crossing Guard Locations
- Libraries
- 2-Mile Buffer of Lake Minneola HS
- Lake Minneola HS Attendance Zones (2010-2011)

01/2008 - 07/2011 Bicycle/Pedestrian Crash Locations (School Pickup/Dropoff Times)

- Bicycle Involved
- Pedestrian Involved

Property Ownership

- Parcels
- School Property
- Lake County Owned Property
- City Owned Property
- Church Owned Property
- Golf Owned Property
- Parks

Transportation Network

- Major Roads
- Local Roads
- Existing Sidewalks
- Existing Trails
- LakeXpress Bus Routes & Stops

Identified Improvement Projects

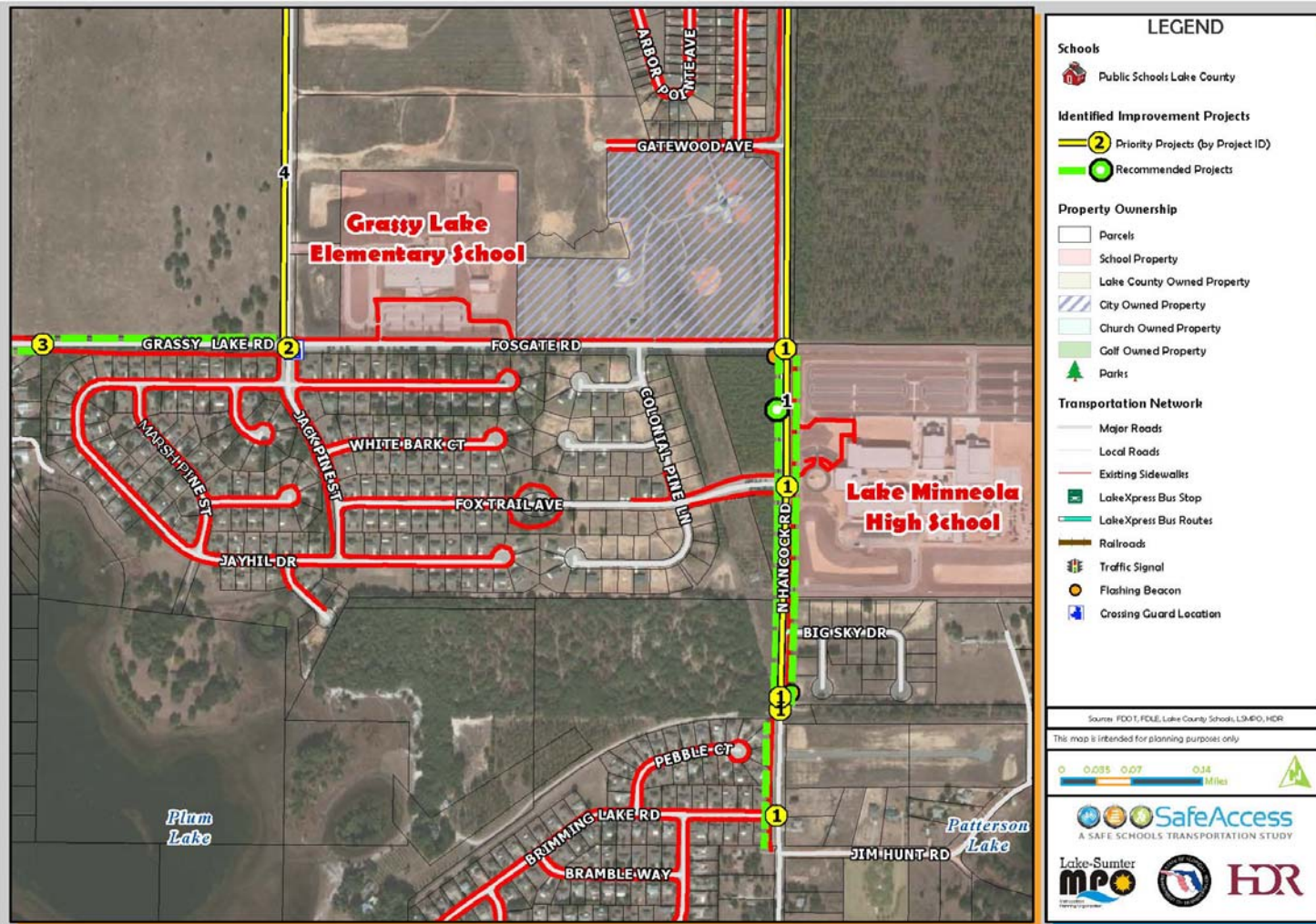
- Priority Projects (by Project ID)
- Recommended Projects

Source: FDOT, FDLE, Lake County Schools, LSA&PO, HDR

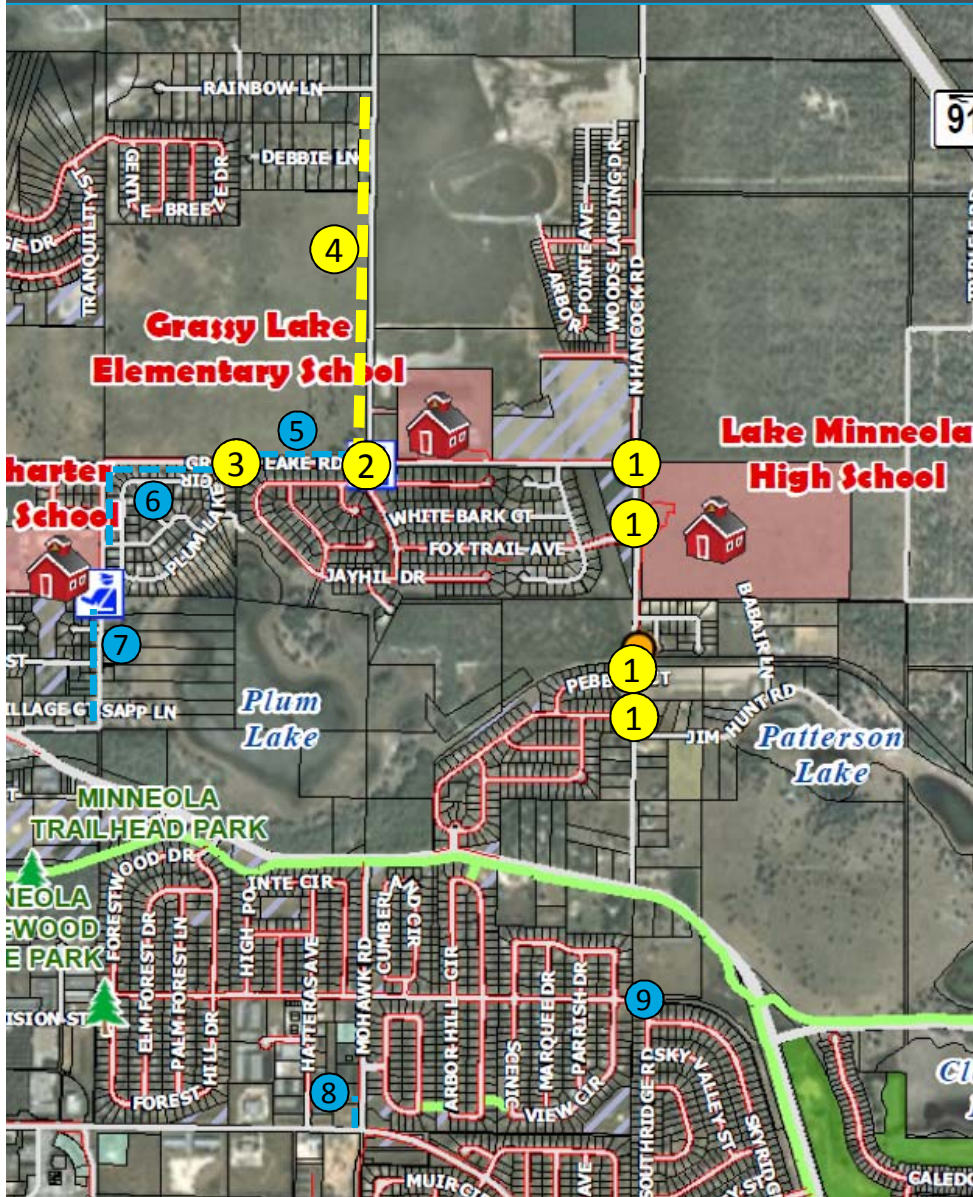
This map is intended for planning purposes only.



Lake Minneola High School: Priority Projects



Lake Minneola High School



Priority Projects:

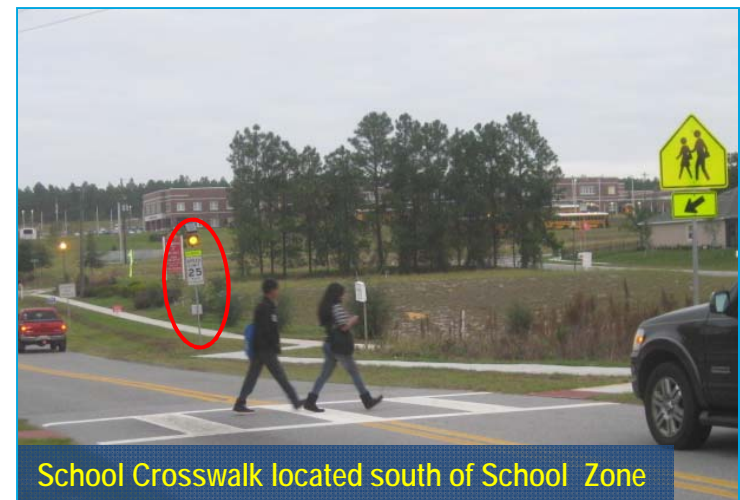
1. Turkey Farm Rd/Hancock Rd crosswalk enhancements – lighting, signage/markings
2. Fosgate Rd/Grassy Lake Rd/Jack Pine St – lighting
3. Grassy Lake Rd midblock crosswalk improvements – alignment, lighting, signage/markings
4. Grassy Lake Rd – sidewalk, Fosgate Rd to Rainbow Ln

Other Sidewalk Connections:

5. Grassy Lake Rd, existing sidewalk (north side) to Fosgate Rd/Jack Pine St
6. Grassy Lake Rd, Plum Lake Dr to existing sidewalk (south side)
7. Grassy Lake Rd, Pearl St to Washington St (west side)
8. Mohawk Rd, end of sidewalk to Citrus Tower Blvd
9. Connect Southridge Rd and South Ave

Findings:

- ✓ Conditions in the morning are often dark, and lighting is generally poor along existing Hancock Rd sidewalk and at marked crosswalks
- ✓ No crossing guards at crosswalks adjacent to school
- ✓ Posted speed limit on Turkey Farm Rd (northbound) changes from 30 mph to 45 mph to 25 mph (during school speed zone periods)
- ✓ School 25 mph speed zone begins just north of school crosswalk on Hancock Rd between Brimming Lake Rd and Big Sky Dr – posted speed is 45 mph at crosswalk





Proper placement of crosswalk illumination
(Credit: Michele Weisbart, *Model Design Manual for Living Streets*, Los Angeles County, 2011)

Recommendations:

- ✓ Move southern Hancock Rd school speed zone signs further south of existing crosswalk (*completed by Lake Co.*)
- ✓ Re-visit posted speed limit along Turkey Farm Rd/Hancock Rd with potential reduction of 45 mph section to 30 mph
- ✓ Add sufficient lighting at all marked crosswalks at Hancock Rd/Turkey Farm Rd and at Fosgate Rd/Grassy Lake Rd; also add advance yield lines (30 ft prior to crosswalk) and yield here to pedestrians signs at uncontrolled locations
 - ✓ Hancock Rd at Fosgate Rd (all-way stop)
 - ✓ Hancock Rd at Fox Trail Ave (uncontrolled)
 - ✓ Hancock Rd south of Big Sky Dr (uncontrolled)
 - ✓ Turkey Farm Rd at Brimming Lake Rd (uncontrolled)



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Priority Project #2

Fosgate Rd/Grassy Lake Rd/Jack Pine St Lighting



Fosgate Rd at Grassy Lake Rd

Findings:

- ✓ Intersection has all-way stop control
- ✓ Intersection does not currently have any lighting
- ✓ Crossing guard works at intersection for Grassy Lake E.S., but does not typically arrive until about 7:30 AM, after H.S. is in session
- ✓ Some students walk through intersection during dark periods



Fosgate Rd at Grassy Lake Rd

Recommendations:

- ✓ Add sufficient lighting at intersection so marked crosswalks are well lit and meet illumination standards



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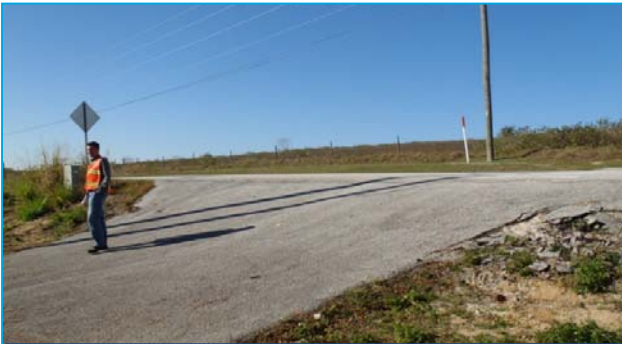
Lake Minneola High School

Priority Project #3

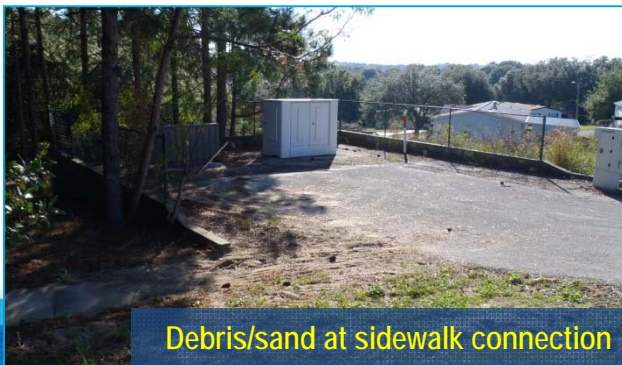
Grassy Lake Rd Midblock Crosswalk Improvements



Grassy Lake Rd west of Jack Pine St



ADA Grade Issue at existing crosswalk



Debris/sand at sidewalk connection

Findings:

- ✓ Crosswalk facilitates shift of sidewalk from north side to south side of roadway
- ✓ Crosswalk connects to existing utilities access driveway with significant grade (does not meet ADA)
- ✓ Sidewalk connecting to driveway is covered with sand/debris
- ✓ Crosswalk does not have any lighting

Recommendations:

- ✓ Shift midblock crosswalk further east (~200 ft) to avoid ADA/grade issue
- ✓ Add lighting so crosswalk is well lit and meets illumination standards
- ✓ Add advance yield lines (30 ft separation) & yield here to pedestrians signs





Grassy Lake Rd at Debbie Ln



Grassy Lake Rd north of Fosgate Rd

Findings:

- ✓ Grassy Lake Rd north of Fosgate Rd does not have sidewalks
- ✓ A few students walk alongside road to/from the north, according to crossing guard at Grassy Lake Rd/Fosgate Rd intersection (although not observed in field)
- ✓ New sidewalk would connect to existing residential area at Debbie Ln & Rainbow Ln
- ✓ Reserves at Minneola (Phases 3-4) required to construct Grassy Lake Rd as a standard 2-lane, but not required to construct sidewalk per approved Development Order.

Recommendations:

- ✓ Construct sidewalk on Grassy Lake Rd from Fosgate Rd to Rainbow Ln; west side preferred (no crossings needed for existing residential)
- ✓ Look for future opportunities to build sidewalk on west side with new development

Project Priority	Item	Quantity	Units	Total
1	Lighting	10	Poles	\$100,000.00
1	Yield Bars	60	ft	\$230.00
1	Yield for Ped Sign	10	Signs	\$3,000.00
2	Lights	3	Poles	\$30,000.00
3	Yield Bars	20	ft	\$80.00
3	Yield for Ped Sign	2	Signs	\$600.00
4	Sidewalk	3,618	ft	\$311,600.00

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 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).
- No Regular excavation & embankment to 1 ft depth is assumed
- No R/W Impact
- No specialized landscaping (beyond sodding) is included.
- Sidewalk is assumed to be 5 feet wide, unit given is in linear feet.

Recommendations:

✓ Grassy Lake Rd

1. Existing sidewalk (north side) to Fosgate Rd/Jack Pine St
2. Plum Lake Dr to existing sidewalk (south side)
3. Pearl St to Washington St (west side)



Recommendations:

- ✓ Mohawk Rd, fill gap north of Citrus Tower Blvd (west side)
 - ✓ Include restriping of crosswalks at intersection
- ✓ Connect Southridge Rd and South Ave
 - ✓ Use similar pedestrian connections to those in Arbors neighborhood (Arbor Hill Circle connection to South Lake Trail shown below) to enhance neighborhood connectivity





Lake Minneola 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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*Promoting Regional
Transportation Partnerships*