









# Safe Access Study



December 2013













## **Project Overview**

Safe Access Study: Assessment of bicycle, pedestrian, and school transportation conditions near schools.

Goals: To increase safety and opportunities for walking and bicycling to school

- ✓ Decrease bus transportation costs
- Decrease school-related vehicular traffic (and queuing)
- Provide a list of infrastructure and noninfrastructure projects for potential funding
- ✓ To increase inter-agency coordination
- Phase 1: January 2011-June 2012 Eustis Area Schools, Lake County Sumter District Schools
- Phase 2: July 2011-December 2012 Lake County District Schools (22 schools)
- Phase 3: August 2012-December 2013 Lake County District Schools (18 schools)
- Phase 4 2013 Sumter District Schools "toolkit"





# Study Process and Development

### Study Process and Development

- ✓ Collect existing information and add to GIS database
- Update existing data using GIS and comparing to Google Earth imagery
- ✓ Conduct field observations
- Create draft Findings and Recommendations and initial projects and corresponding GIS maps
- Review each school in context of regional area
- Meet with stakeholders to collect information and receive feedback
- Identify projects that serve multiple schools or are local priorities
- Complete Master Plan map and report for each school
- Provide data for website page for each school





# Project Website Development Highlights

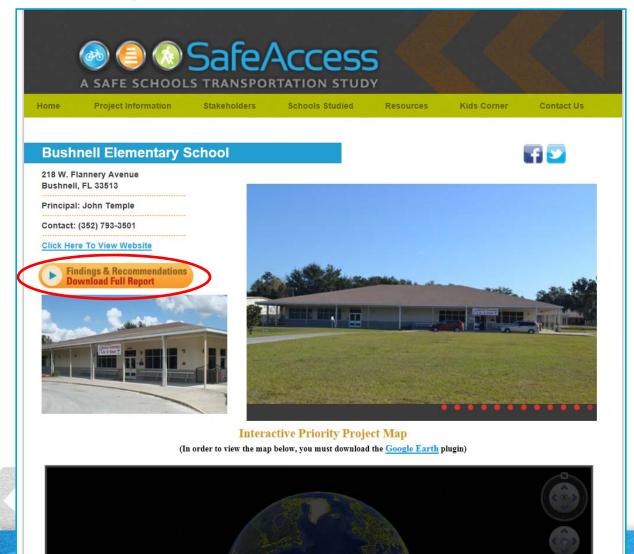
#### http://www.lakesumtersafeschool.com





# Project Website Development Highlights

#### http://www.lakesumtersafeschool.com





## **Project Report Layout**

### **Project Report Layout**

- ✓ School Snapshot Information
- ✓ Findings and Recommendations
- ✓ Planned/Funded Projects
- ✓ Transportation Access Master Plan
- Priority Projects
- Other Recommendations



### © © SafeAccess Recommended Priority Projects

#### **Priority Projects:**

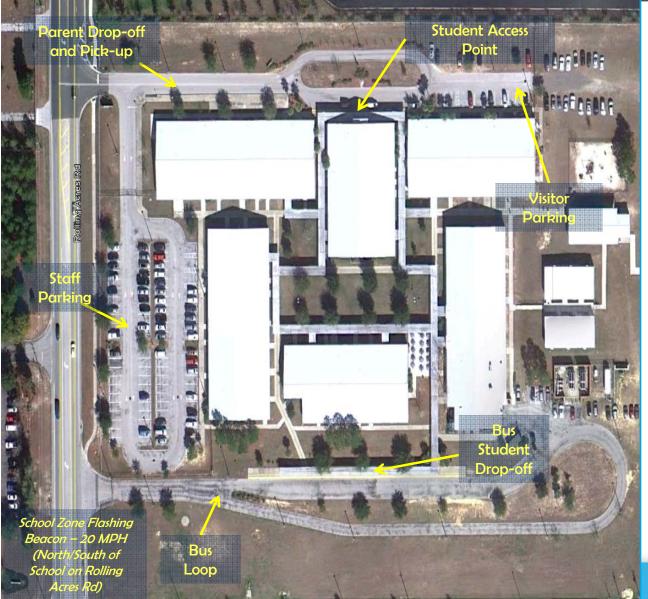
- Restripe and update crosswalks at the two school driveways to the ladder style crosswalk. Check visibility and site distance at drop-off / pick-up driveway. Update bicycle parking to hitch style racks and move sign that prohibits bicycles at the bicycle parking.
- Add a connection at the eastern (back) of school to Magnolia Blossom Circle.
- Construct sidewalk on <u>Hartwood</u> Marsh from Hancock to Regency Hills and them from Regency Hills to Aruba Blvd.
- Construct sidewalk on Hancock Road from Sunburst Lane to the existing sidewalks, west side is priority.





## Campus Access Overview

The Villages Elementary School of Lady Lake



#### Findings:

- Built in 1999, and due to the schools location, and current sidewalk connectivity gaps, over 50% of students are bused.
- Rolling Acres Road carries steady, continuous traffic throughout the day serving as a primary north/south road for through traffic from CR 466 to US 441. This stretch of road carries 12,500 annual average daily traffic (AADT) according to 2012 FDOT Traffic Counts.
- Parent Drop-off and Pick-up location is separated from bus loop.
- School zone flashers exist north and south of school property on Rolling Acres Rd.
- Staff and visitor parking is separated.



# Remote Drop-off & Pick-up and Walkers/Bikers Access

Best Buy back parking lot is

currently being used as an off-site
Student drop-off location

The Villages Elementary School of Lady Lake

#### Finding:

Many parents observed walking their students through car line coming from adjacent remote off-site parking area north of school at the back parking lot of Best Buy, which faces US 441.

#### **Recommendation:**

- Provide new walker/bike rider's access with gate and new 5' sidewalk connectivity on-campus, thus allowing safe walking and bicycling access to school without being forced to cross car line route (See "Before/After New Walkers Access Rendering Concept" section).
- Estimated total construction cost is \$70,000.







### ON-CAMPUS RECOMMENDATION - SECTION 1 (BEFORE):





### **ON-CAMPUS RECOMMENDATION - SECTION 1 (AFTER):**





### **ON-CAMPUS RECOMMENDATION - SECTION 2 (BEFORE):**





### ON-CAMPUS RECOMMENDATION - SECTION 2 (AFTER):





## ON-CAMPUS RECOMMENDATION - SECTION 3 (BEFORE):





## ON-CAMPUS RECOMMENDATION - - SECTION 3 (AFTER):



# **Priority Project #1**



Bates Avenue Streetscape at Curtright Campus
Project Detail

#### **Existing Conditions**



#### Proposed Conditions - Streetscape Improvement Concept



# Leesburg ES / Oak Park MS A SAFE SCHOOLS TRANSPORTATION STUDY Project Example Priority Project #1 Extend School Zone Limits



#### Justification for Extending Existing School Zone:

- ✓ Recent Leesburg ES student pedestrian crash east of Lone Oak Dr intersection but outside school zone
- ✓ Students walking in close proximity to roadway along entire school frontage
- ✓ Limited pedestrian storage space at corners of SR 44 / Lone Oak Dr intersection
- ✓ Unpredictable behaviors of students
- Potential to reduce motorist confusion in school area
- ✓ High speeds, high truck percentage (>12% heavy vehicles, 2010 FTI) on SR 44
- ✓ Rising sun can blind eastbound drivers on SR 44 during schools' AM arrival period



# Leesburg ES / Oak Park MS Bike/Walk Access SR 44 School Zone



#### **Recommendations:**

- ✓ Revise school speed zone to extend 200 feet east from relocated crosswalk (project #2)
- Extend school zone by 1,115 feet to the west (200 ft prior to Lone Oak Dr signal)
- ✓ Add school speed zone flashing beacon signage at beginning / end of the revised speed zone
- ✓ Minimal impacts to traffic operations; longer travel time through the school zone:
  - 1,115 feet at existing 45 mph speed limit = 17 seconds
  - Proposed additional 1,115 feet at 20 mph reduced speed limit = 38 seconds
  - Difference = 21 seconds

\*NOTE: this project has been funded by the FDOT and is scheduled for construction in Summer 2013



**Bushnell Elementary School** 

# Planned (Funded) Projects

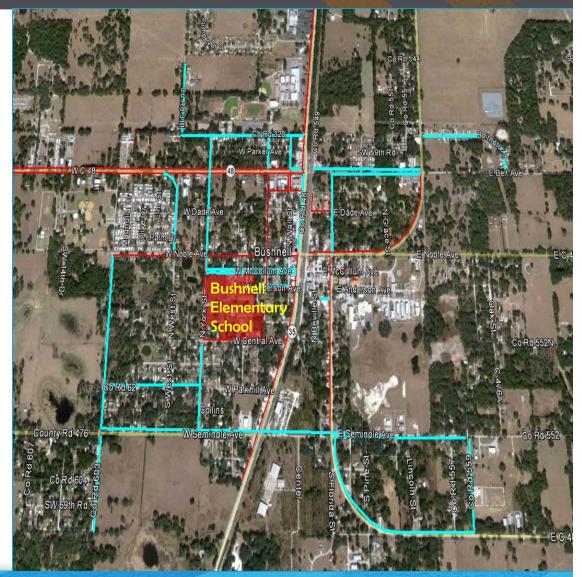
City of Bushnell Bicycle/Pedestrian & Multi-modal Enhancement Plan - Overview

#### Findings:

- ✓ The City of Bushnell is currently implementing several projects as part of its multi-modal sidewalk and trail enhancement plan (blue lines right).
  - ✓ Noble Ave sidewalks (north side)
  - ✓ US 301 Multi-Use Trail
- Planned/Funded projects implemented will create a complete sidewalk grid network.

#### **Recommendations:**

Note: Many of the SAS Priority and Recommended needs projects identified in the subsequent sections of this report are contingent upon implementation of all planned/funded multi-modal sidewalk and trail enhancement plan projects.



## Planned (Funded) Projects



Sidewalk and Trails Master Plan Railroad Pedestrian Gates

#### Findings:

✓ The width of US 301/Main Street and the adjacent rail line create a barrier for pedestrians and bicyclists making them less likely to walk or ride their bicycles.

#### **Recommendations:**

- At the time of the SAS Study, the City of Bushnell was in the process of implementing a multi-modal sidewalk and trail enhancement plan which includes the installation of sidewalks, multi-use trails, and pedestrian gates at three (3) major rail crossings on Main Street:
  - ✓ Belt Avenue
  - ✓ Noble Avenue
  - ✓ Seminole Avenue





# South Sumter High School

## Other Recommendations

New Multi-Use Trail Seminole Ave to Noble Ave – Project Detail

#### Findings:

- A connection between Seminole Avenue and E. Noble Avenue could be provided through the establishment of a new multi-use trail.
- The SAS observed the potential for sufficient right-of-way for the new multi-use trail on private property.
- ✓ This route would provide a north-south route alternative for students at both Bushnell Elementary and South Sumter High School.

#### **Recommendations:**

- Examine the potential of securing an easement to establish new multi-use trail on private property located between Seminole Avenue and E. Noble Avenue.
- Construct new multi-use trail between
   Seminole Avenue and E. Noble Avenue.





# Purpose of Parent Responsibility Zone Study

#### **Study Purpose:**

- Review and summarize existing local, school and state policies regarding transportation and provision of sidewalk and bicycle facilities
- Make general recommendations for local jurisdictions regarding provision of sidewalks and bicycle facilities
- Make initial recommendations for designation of a parent responsibility zone (PRZ) for the school, within which it will be the responsibility of the parent to transport their child to school (walking, bicycling or by car) and busing will not be provided, this may include initial needed improvements to establish the PRZ
- Provide a series or tiered or priority recommendations for improvements that will increase the accessibility of the school by walking and bicycling, and which will allow for the expansion of the PRZ within the state defined two (2) mile walk zone





## **Sumter District Schools**

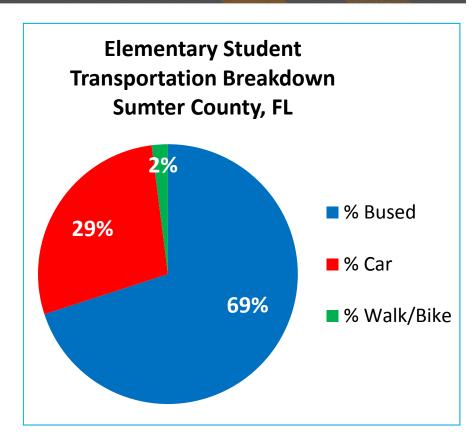
**District-Wide General Findings** 

#### **Sumter District Schools Findings:**

- √ 64 buses with double runs
- √ \$2.8 million per year budget
- √ \$688 per student per year
- Some recent bus stop consolidation for Wildwood area schools
- ✓ The Sumter County Traffic Safety Work
  Group formed in 2012

#### **Sumter District Schools Recommendations:**

- Implement crossing guard and walking school bus programs
- Continue to work with the Sumter County Traffic Safety Team
- Continue to work to provide rail crossings







## Tools:

## Website and Resources

# Sumter District School – Enhanced Resources Webpage

- Connects information specific to School staff, Parents, Local Government and Students
- Link to other websites and resources
- ✓ Full toolkit of resources available
- Webpage can be expanded



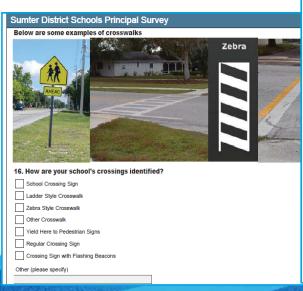


## Tools:

## Website and Resources

### **Development of Online Tools**

- ✓ Accessible through web
- ✓ Organized by user group
- ✓ Additional web-linked resources pages
- ✓ Includes:
  - Surveys
  - Posters / Flyers
  - Sample Documents
  - Videos



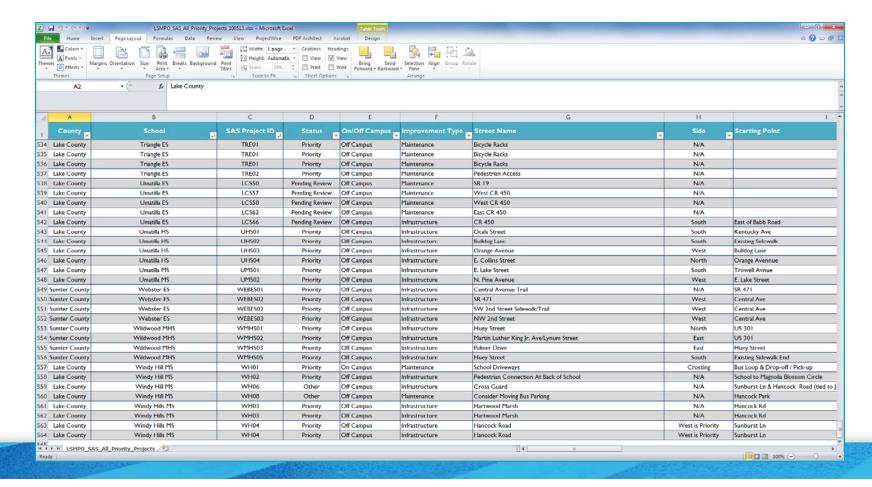




# Tools: Website and Resources

### Master Project List - Identified by Priority

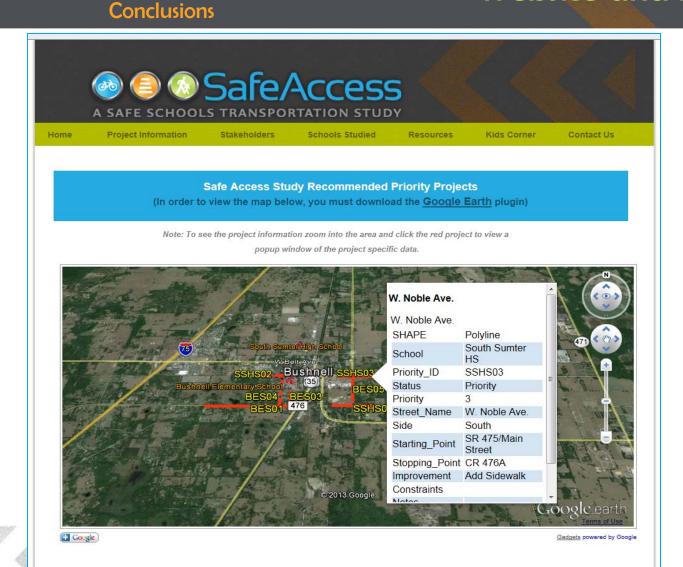
- ✓ Both infrastructure and non-infrastructure improvements; 563 total projects identified.
- Linked to master GIS database.





## Tools:

## Website and Resources





# Tools: Website and Resources

### **Long Range Estimating Matrix Tool**

### ✓ To Identify Potential Construction Costs

LONG RANGE ESTIMATE - SALEM ST (EAST), EUSTIS FLORIDA															
	14 FROM LEMON TO CAR LINE SIDEWALK														
374															
	Prepared by TranSyste														
	_			Fiscal Year 2011		Fiscal Year 2012		Fiscal Year 2013		Fiscal Year 2014		Fiscal Year 2015			
ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL COST										
101- 1	MOBILIZATION	1	LS	\$6,000.00	\$6,000.00	\$6,420.00	\$6,420.00	\$6,869.40	\$6,869.40	\$7,350.26	\$7,350.26	\$7,884.78	\$7,884.78		
102- 1	MAINTENANCE OF TRAFFIC	1	LS	\$3,000.00	\$3,000.00	\$3,210.00	\$3,210.00	\$3,434.70	\$3,434.70	\$3,675.13	\$3,675.13	\$3,932.39	\$3,932.39		
104- 20	EROSION CONTROL	1	LS	\$1,000.00	\$1,000.00	\$1,070.00	\$1,070.00	\$1,144.90	\$1,144.90	\$1,225.04	\$1,225.04	\$1,310.80	\$1,310.80		
	DESIGN SURVEY	1	LS	\$10,000.00	\$10,000.00	\$10,700.00	\$10,700.00	\$11,449.00	\$11,449.00	\$12,250.43	\$12,250.43	\$13,107.96	\$13,107.96		
	SIGNING & PAVEMENT MARKING	1	LS	\$5,000.00	\$5,000.00	\$5,350.00	\$5,350.00	\$5,724.50	\$5,724.50	\$6,125.22	\$8,125.22	\$6,553.98	\$6,553.98		
522-1	CONCRETE SIDEWALK, 4" THICK (5' WIDE)	208	SY	\$81.33	\$16,898.57	\$87.02	\$18,081.47	\$93.11	\$19,347.17	\$99.63	\$20,701.47	\$106.61	\$22,150.57		
110-1-2	CLEARING & GRUBBING	0.04	AC	\$13,268.00	\$569.59	\$14,196.76	\$609.46	\$15,190.53	\$852.12	\$16,253.87	\$697.77	\$17,391.64	\$746.61		
120-1	REGULAR EXCAVATION	69	CY	\$7.43	\$514.60	\$7.95	\$550.62	\$8.51	\$589.16	\$9.10	\$630.40	\$9.74	\$674.53		
120-6	EMBANKMENT	69	CY	\$10.38	\$718.91	\$11.11	\$769.23	\$11.88	\$823.08	\$12.72	\$880.70	\$13.61	\$942.35		
570- 1	SODDING	208	SY	\$5.00	\$1,038.89	\$5.35	\$1,111.61	\$5.72	\$1,189.42	\$6.13	\$1,272.68	\$6.55	\$1,381.77		
	SUB-TOTAL				\$44,740.55		\$47,872.39		\$51,223.45		\$54,809.10		\$58,645.73		
	CONTINGENCY (15%)				\$6,711.08		\$7,180.86		\$7,683.52		\$8,221.36		\$8,796.86		
	DESIGN FEES (10%)				\$5,145.16		\$5,505.32		\$5,890.70		\$6,303.05		\$6,744.26		
	CEI FEES (10%)				\$5,659.68		\$6,055.86		\$6,479.77		\$6,933.35		\$7,418.69		
	TOTAL ESTIMATED CONSTRUCTION COST (2011):				\$51,451.63		\$55,053.25		\$58,906.97		\$63,030.46		\$67,442.59		

#### ESTIMATE BASIS AND ASSUMPTIONS:

- Estimate does not include utility relocation costs.
- The mobilization costs are based on 15% of the construction cost
- Estimate includes maintenance of traffic costs (15% of construction costs). - Regular excavation & embankment to 1 ft depth
- -No R/W Impact
- -No specialized landscaping (beyond sodding)
- -Utility relocations by others
- 7% Yearly Escalation



## Tools:

## Website and Resources

### **Project Matrix Weighting Tool**

- Excel based; can be used for many years
- Matrix weights projects using a scoring method approved by stakeholders
- Used to aid the Lake~Sumter MPOs List of Priority Projects (LOPP)

Criterion	Score	Tot
Project identified as a Safe Access Study priority project.		
- Yes = 1 point	1	5
- No = 0 points		
Project overlaps with another project in the Districts Work Program System.		
- Yes = 1 point	1	3
- No = 0 points		
Project is on or within 500 feet of an SIS connector.		
- Yes = 1 point	1	5
- No = 0 points		
Project is on a transit route or provides a connection to a transit stop.		
- Yes = 1 point	1	5
- No = 0 points		
Project is consistent with the local government's Comprehensive Plan.		
-Yes = 1 point	1	2
- No = 0 points		
Project requires ROW acquisition.		
- Yes = 0 points	1	4
- No = 1 paint		
Project has the support of public or private groups.		
-Yes = 1 point	1	2
- No = 0 points		
Estimated project cost is categorized as low or medium.		
- Estimated project cost is under \$20,000 = 2 points	2	6
- Estimated project cost is \$20,000 to \$149,999 = 1 points	-	
- Estima ted project cast is \$150,000 or more = 0 paints		
Local funding for the project exceeds the 20% required match.		
- Local match of more than 50% = 4 points		
- Local match of 41% to 50% = 3 points	4	13
- Local match of 31% to 40% = 2 points		
- Local match of 21% to 30% = 1 paint		
Planning work for project has been completed.		
- Yes = 1 point	1	2
- No = 0 points		

Score for Project: 50

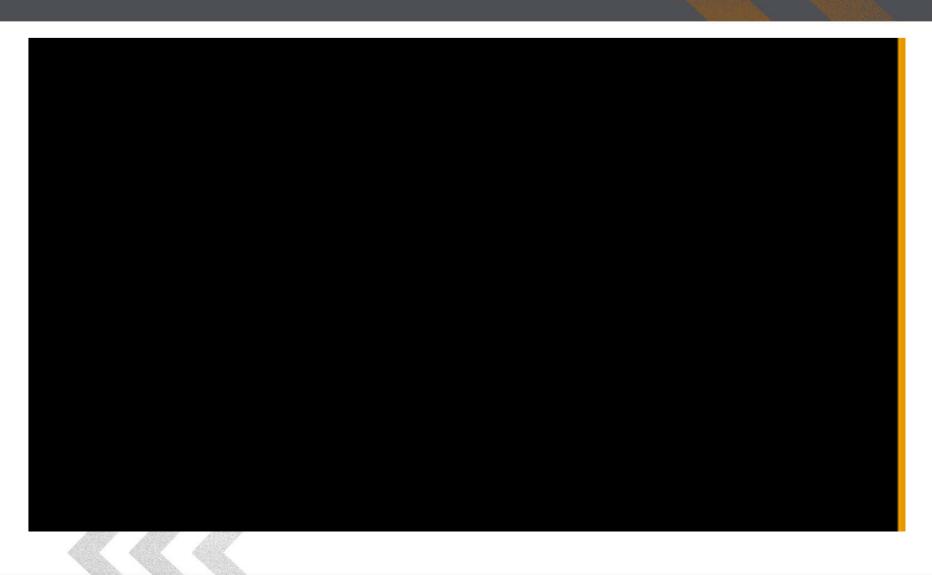
Bonus Points	Score	Total
Project is located in a district that has not received prior SRTS project funding. - Y $\approx$ = 1 - No = 0	1	5

Design work for project has been completed.

Yes = 1 point



# Tools: Project Website Videos





## **Contact Information**

This project 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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