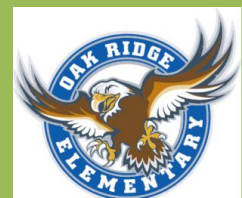


August 2014

# Safe Routes to School Audit Report Oak Ridge Elementary School



Leon County  
Public Schools



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### Capital Region Transportation Planning Agency (CRTPA)



### Safe Routes to School (SRTS) National Partnership



### Leon County Public Schools (LCS)



### Florida Department of Transportation (FDOT)



### Leon County Sheriff's Office (LCSO)



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## Chapter 1: Introduction

### Project Purpose

The purpose of this Safe Routes to School (SRTS) audit report is to provide recommendations to improve student walking and bicycling rates to and from school. In addition, this report addresses other enhancements to improve the overall travel safety and convenience for students, parents and the school. Improvement recommendations are provided in the following categories: infrastructure, programs, and policies. This SRTS audit includes an array of considerations formulated from a range of research and analytical tools employed to better understand and comprehend the issues and concerns affecting current walking and bicycling rates of student to and from school. This report highlights a summary of students' school travel patterns through in-class student travel surveys, parent self-reported surveys, on-site meetings with school officials, and field reviews.

### School Overview

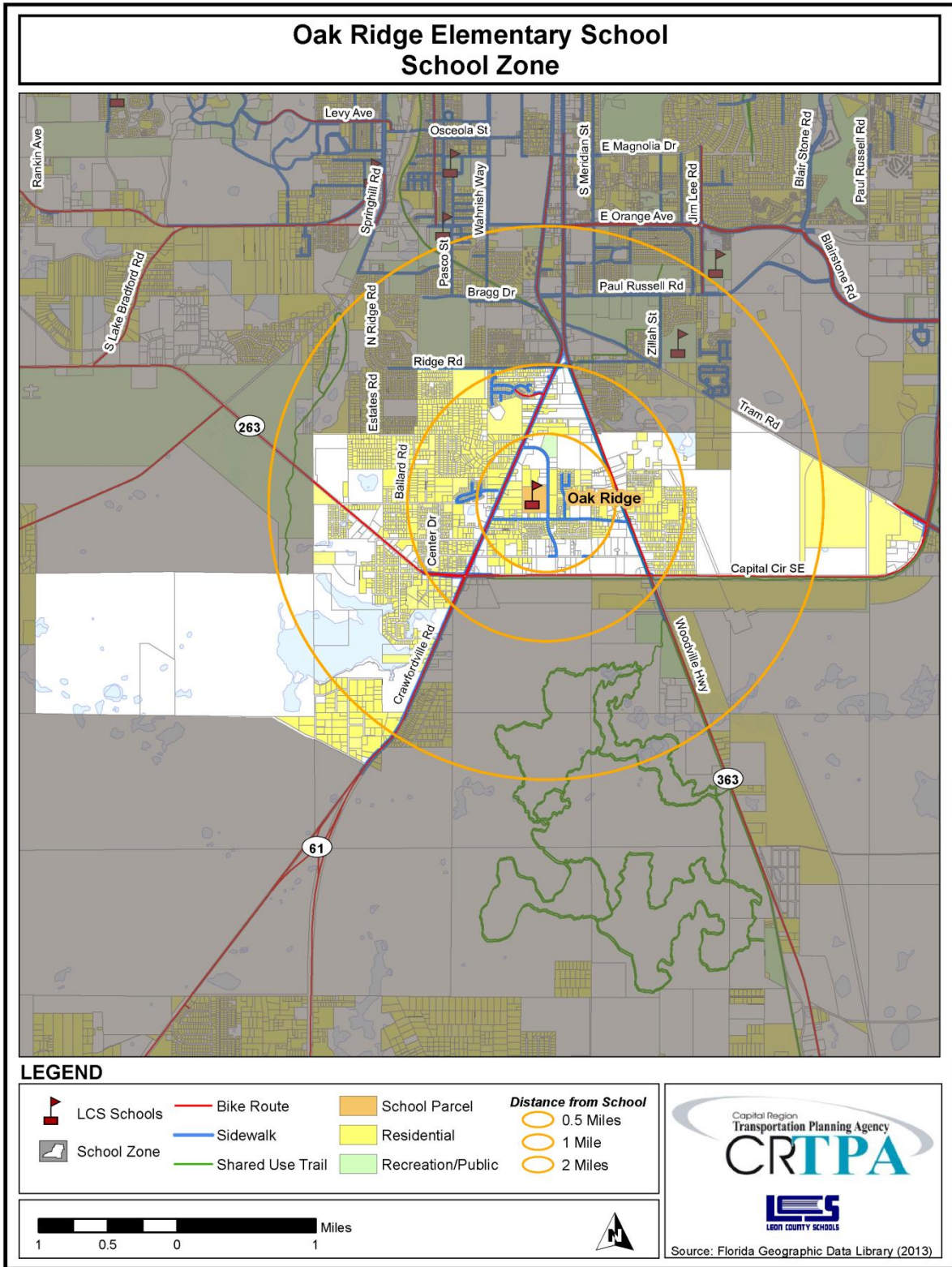
Oak Ridge Elementary School is located at 4530 Shelfer Road, Tallahassee, 32305 in Leon County, Florida. It is part of the Leon County Public Schools system. The school was established in 1969. Regular school hours are from 8:30am to 2:50pm.

The number of students enrolled at the school, for the 2013 school year was 499. The school has a current capacity for 677 students. The school includes grade levels Pre-Kindergarten to 5<sup>th</sup> grade.

Students attending this school feed into either Nims or Fairview Middle Schools and into Rickards High School.

### School Zone

The Oak Ridge Elementary school zone, located in southern Leon County, contains the neighborhoods of Oak Ridge and Wilson Green. The land uses in the school zone consist of predominantly residential with one area of public space. The Apalachicola National Forest encompasses a large portion of the school zone, west of Capital Circle. The Oak Ridge school zone includes three major roadways. Crawfordville Road runs southwest to northeast and bisects the zone into east and west. Woodville Highway runs northwest to southeast through the eastern portion of the school zone. Capital Circle runs mostly east to west and bisects the zone into north and south.



## Chapter 2: On-Site Meeting and Inventory

### Date and Weather Conditions

The on-site inventory meeting was conducted on March 6<sup>th</sup>, 2013 with temperatures in the mid 50 degrees Fahrenheit.

### Highlights and Key Observations of On-Site Meeting

During this visit, Oak Ridge Elementary School representatives provided insight about students' travel to and from school and discussed what was working, or not working well. The meeting began by discussing current policies, programs, and administration related to students' travel to and from school. Examples of safety education programs discussed include crossing guards, safety patrols, and traffic education. Additionally, before- and after-school programs provided for students were discussed.

It was noted that flashing lights (i.e., school zone warning lights) are located along Shelfer Road. However, drivers do not always obey the signs/signals. There is concern with speeding automobiles along Shelfer Road as well as automobiles running the stop sign at Ross Road & Shelfer Road. Also, there are speed humps along Ross Road, south of the school property, to aid in traffic calming. Programs and policies to promote walking and bicycling at the school include a bicycle safety demonstration at the end of the school year, by Florida State University, to prepare students for the summer and a wellness curriculum in Physical Education (P.E.) classes. School staff indicated there is a lack of resources for bicycle helmets that would aid in safety demonstrations.

There are two designated crossing guards at the intersections of Ross Road & Shelfer Road as well as at the intersection of Ross Road & Woodville Highway. School representatives expressed concern with children walking home after school around 6:00pm when the after-school program ends. At this time, it is often dark and routes home are not well-lit. Additionally, students walking to and from school do not always use the crosswalks provided and sometimes cut through the woods near school as a short-cut home.

### Circulation

During a tour of the school, school representatives provided explanations of school circulation patterns as to where and how children were entering and exiting school grounds via walking or bicycle and arriving and departing by automobile or school bus.

While a large number of children already walk to school, the presence of two major roadways in the area means that those children, who live west of Crawfordville Road and east of Woodville Highway, are unlikely to walk or bicycle for safety reasons. As a result, those children likely rely on school busing and automobile rides. Walkers and bicyclists can enter campus from two points, north and south of the school, along Shelfer Road. The south entrance has a sidewalk with a gate. The school has an outdoor, bicycle parking rack. However, upon the site-visit the rack appeared vandalized and damaged.

The school bus drop-off and pick mostly functions adequately but it could be improved. Currently, the zone is covered which helps during times of inclement weather. However, only about two buses at a time can load/unload children, while the rest queue outside of the bus circle. Additionally, several bus

stops have been identified as unsafe due to a lack of shelter and limited/no lighting. A formal request for bus service has to be put in, by parents, for children who live within two miles of the school. It was noted that approximately 180 students ride school buses.

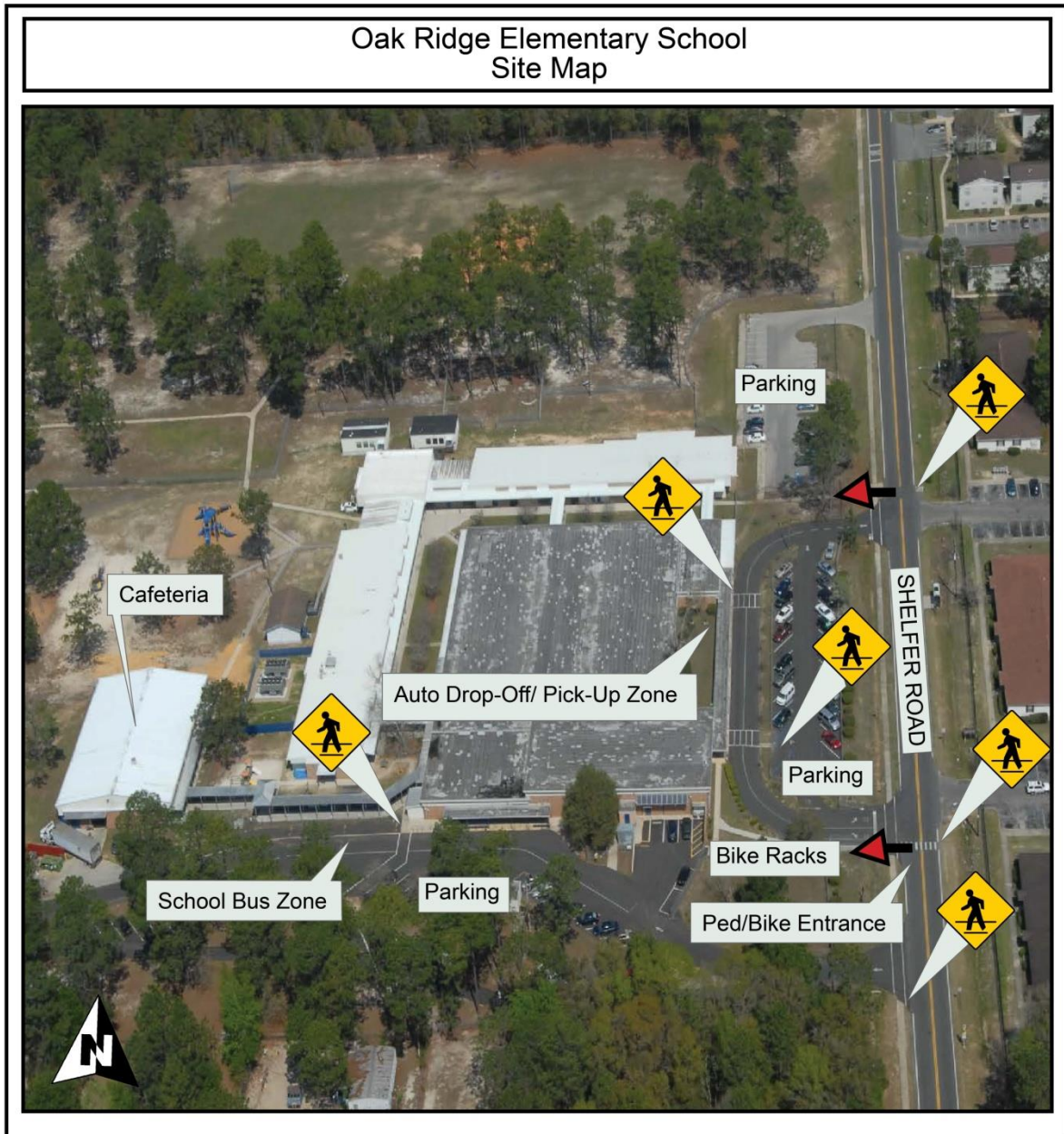
The parent drop-off and pick-up zone functions inadequately to accommodate the volume of automobiles entering and exiting the site. There is a holding area available for students waiting to be picked up in the afternoons. Additionally, there is an overflow parking lot available, just north of the drop-off/pick-up zone. However, its use is discouraged since there is no school or administrator supervision and it lacks a covered structure. It was noted that approximately 200 students are dropped-off/picked-up daily.

### **Inventory Map**

An aerial photograph showing Oak Ridge Elementary School is located on the following page. As shown in the photo, the school fronts Shelfer Road. Students can access campus from two points along this street. Bicycle parking racks are located near the front entrance of the school.

A standard width sidewalk is located along the school-side of Shelfer Road. There are no sidewalks available along the east side of Shelfer Road. However, there are two midblock crosswalks located near both the automobile zone entrance and exit that connect directly to sidewalks that enter onto campus.

The automobile pick-up and drop-off zone is located directly in front of the school's main entrance. Automobiles both enter and exit the zone at separate driveways along Shelfer Road. Parking spaces are located in this area as well. The bus drop-off and pick-up zone is separately located along the south side of the school. Buses both enter and exit the zone at a shared driveway along Shelfer Road. Additional parking spaces are located in this area as well.



### Issues and Opportunities

School-specific issues, opportunities, and impediments concerning the SRTS program were discussed.

Geography does not seem to be a primary issue with student's ability to walk and bicycle to school, except for those who live west of Crawfordville Road and east of Woodville Highway. Those roadways may not be appropriate, due to their width and traffic volumes, for crossing by elementary school children, especially those at lower grade levels. This kind of external factors is often difficult to overcome, at least in the short term.

With what opportunities that do exist to increase walking and bicycling, including safety, consideration should be given to Shelfer Road. Traffic calming measures should be explored to reduce automobile speeds and increase awareness of children in the area, especially during school commuting times. Also, school-related and –supportive committees such as the Parent/Teacher Organization can be used to help educate parents on the opportunities and benefits to having their children walk or bicycle to school, where such options are feasible. These groups can also help educate students about the importance of using crosswalks and designated walking facilities.

These same groups can also help get the word out to parents concerning appropriate behavior and protocol within the parent drop-off/pick-up zone, especially in relation to speeding in the school zone and the running of stop signs near the school. Education and enforcement during the morning and afternoon commuting hours are critical. Furthermore, with specific regard to the parent drop-off/pick-up zone and school bus drop-off/pick-up zone, it may be beneficial to switch them with one another. By doing so, the buses would have more sheltered coverage for loading and there would be more space available for automobile queuing.

### Chapter 3: Student Travel Survey – Summary of Results

School administrators carried out a school-wide travel survey to evaluate the ways in which students from Kindergarten through 5<sup>th</sup> Grade traveled to their school from home during a one week period. (A copy of the student travel survey can be found in **Appendix A.**)

Student travel survey results were counted and grouped by grade level. They were analyzed for the school as a whole as well as by grade level groupings of Kindergarten through 2<sup>nd</sup> Grade, and 3<sup>rd</sup> Grade through 5<sup>th</sup> Grade, respectively. (A detailed description of the analysis by mode for the two grade level groupings can be found in **Appendix B.**)

The survey indicates that more than half of the students at Oak Ridge Elementary School – approximately one out two students – are dropped-off at school by car. The percentage rises slightly for older-aged children. Riding a bus to school and walking to school ranked a distant second and third place at approximately 30 percent and 15 percent of students, respectively. Of those commuting by school bus, the percentage rises slightly for older-aged children. Surprisingly, the percentage of younger students walking was slightly higher than that of older students. While this number could potentially be increased with the right combination of programs, policies, and infrastructure upgrades, the current rate of students walking to school establishes a solid foundation for improvement. A low percentage of students surveyed, less than one percent and one percent, reporting biking to school or arriving by public bus, respectively. Surprisingly, of those commuting by public bus, the percentage rises slightly for younger-aged children.

#### SUMMARY OF SCHOOL-WIDE RESULTS

	Walk	Bicycle	Automobile	School Bus	Public Bus
<b>Average Overall</b>	15 %	<1 %	53 %	30 %	1 %

## Chapter 4: Parent Survey – Summary of Results

School administrators carried out a school-wide survey to better understand the neighborhood safety issues and concerns of parents and the factors influencing their decision to allow their children to walk or bicycle to school. (A copy of the parent survey can be found in **Appendix C.**)

Parent survey results were counted and analyzed by grade level groupings of Kindergarten through 2<sup>nd</sup> Grade and 3<sup>rd</sup> Grade through 5<sup>th</sup> Grade, respectively. (A detailed description of the parent surveys for the two grade level groupings can be found in **Appendix D.**)

The surveys of students living within two miles from the school indicate that a greater percentage of Oak Ridge Elementary School students are dropped off by car in the morning, while fewer return home by the same mode in the afternoon. In the afternoon, there are greater percentages of students returning home by school bus and another mode not described specifically in the survey such as an after-school program van. Overall, a combined total of approximately one-quarter of students commutes to and from school by walking.

With regard to neighborhood safety, the concerns were generally agreed upon by parents from both Kindergarten through 2<sup>nd</sup> and 3<sup>rd</sup> through 5<sup>th</sup>. Survey respondents overall showed concerns for the condition and lighting of sidewalks, crime, as well as, the behavioral patterns of automobile drivers, generally, in terms of excessive driving speeds. As for speeding complaints, specific problem locations cited include Shelfer Road, Crawfordville Road, and Ridge Road.

With regard to factors that might influence their decision to allow their child to walk or bike to school, survey responses indicate that factors such as having a greater adult presence along routes to school, accompanying children (by themselves, with other parents) and having continuous and separated bicycle/pedestrian pathways from traffic were mutually agreed upon by parents from both Kindergarten through 2<sup>nd</sup> and 3<sup>rd</sup> through 5<sup>th</sup>.

## Chapter 5: Neighborhood Field Review

A neighborhood field review was conducted on April 12<sup>th</sup>, 2013. The review consisted of an assessment of accessibility, connectivity and safety along neighborhood roadways within proximity to Oak Ridge Elementary School. On the day of the field review, temperatures were in the 70 degrees Fahrenheit. Following the field review, a walk/bike shed area was delineated on a map within the school zone, surrounding the school. This chapter includes a Walk/Bike Shed section describing the approach to defining the area and an associated map for Oak Ridge Elementary School.

### Character of Neighborhood Area

Oak Ridge Elementary is located in a mixed-area of industrial and residential uses. The neighborhoods surrounding the school do not have a fairly comprehensive pattern of sidewalks or bicycle lanes. Additionally, neighborhoods west of Crawfordville Road are difficult to access from the school and also do not have comprehensive sidewalk infrastructure. The overall area surrounding the school is not densely populated. Homes in the area tend to be dispersed randomly and are comprised of mostly older-single family homes and trailers/manufactured homes. Though, expansion of Capital Circle SW/SE may cause residential growth south of the school. Crawfordville Road and Woodville Highway appear to be major barriers east and west of the school due to their width and vehicle speeds. However, there is a historic railway, which has been converted into a shared use trail, located just east of the school along Woodville Highway.

Major roadways in the school zone include:

- Crawfordville Road, a four lane southwest-northeast roadway with a posted speed limit of 45mph.
- Woodville Highway, a four lane northwest-southeast roadway with a posted speed limit of 45mph.
- Capital Circle, a two lane roadway that transitions to up to seven lanes east of Crawfordville Road, with a posted speed limit between 40-45mph.

### Crash Data

Crash data were collected from the Florida Department of Transportation's (FDOT) State Safety Office for years 2009-2011. Crashes reported include any crashes within Leon County and on any local and major roadways. The data were collected for a typical school year, August 15<sup>th</sup> to May 30<sup>th</sup>. Additionally, only bicycle and pedestrian crashes that occurred during typical school commute hours, 7:00am to 9:30am and 1:50pm to 4:20pm, and school days, Monday to Friday, were examined.

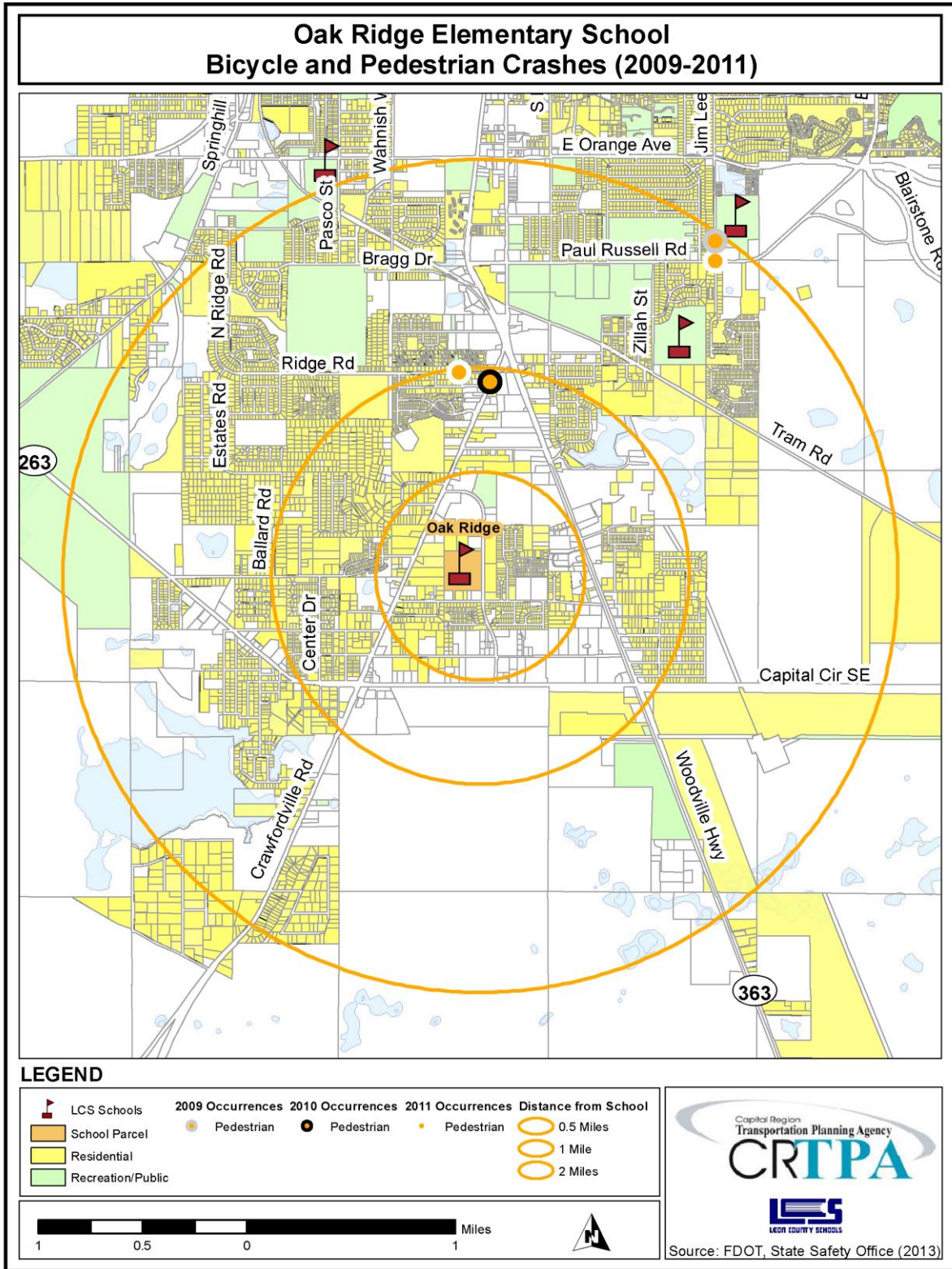
There were a total four bicycle and pedestrian crashes that occurred within the theoretical two-mile walk/bike radius of Oak Ridge Elementary School. All crashes occurred during the morning hours. A vast majority of the crashes involved child pedestrians. However, there was one crashing involving an adult pedestrian were reported in all crashes.

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The crashes occurred in two main areas. These areas include: one mile north of Oak Ridge Elementary School near the intersection of Ridge Road & Crawfordville Highway and two miles northwest of the school near Jack L. McLean Jr. Park at the intersection of Jim Lee Road & Paul Russell Road.

### **SUMMARY OF CRASH REPORTS (2009-2011)**

<b>Date</b>	<b>Time</b>	<b>Day</b>	<b>On Road</b>	<b>Nearest Intersection</b>	<b>Injury or Fatality?</b>	<b>Type of Crash</b>	<b>Person(s) Involved</b>
04/27/09	7:48am	Monday	Jim Lee Rd.	Paul Russell Rd.	Injury	Pedestrian	Adult
10/20/10	7:10am	Wednesday	Crawfordville Rd.	Gaile Ave.	Injury	Pedestrian	Child
03/17/11	7:24am	Thursday	Jim Lee Rd.	Paul Russell Rd.	Injury	Pedestrian	Child
09/09/11	8:07am	Friday	Ridge Rd.	State St.	Injury	Pedestrian	Child



## Neighborhood Assessment

The overall neighborhood layout surrounding Oak Ridge Elementary School does not lend itself well to walkability. While sidewalks and bicycle lanes are available, they generally do not extend into neighborhoods and are, instead, along major roadways. Further south and northeast, outside the half-mile radius of the school, land uses tend to be non-residential.

Project-specific recommendations can be found in the Findings and Recommendations chapter of this report.

## Walk/Bike Shed

As mentioned previously, a walk/bike shed area was delineated on a map within the school zone, surrounding the school. The Oak Ridge Elementary School walk/bike shed map is included at the end of this chapter.

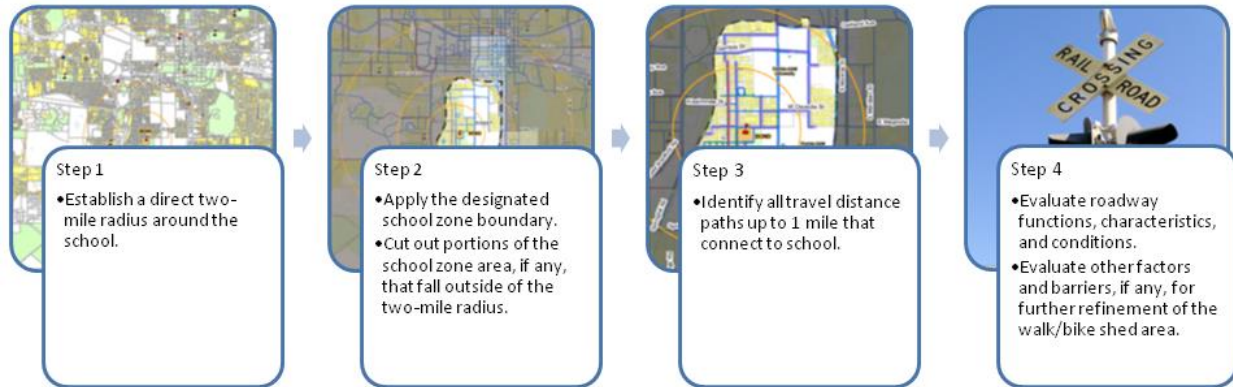
The walk/bike shed area and associated map are not meant to suggest that elementary school students of all ages, maturity level, and experience should commute to and/or from school within the area delineated. Certainly, younger children such as kindergarten students are not expected to walk or bike to school from practically any distance without the accompaniment of either a parent or much older sibling. Also, older children such as 5<sup>th</sup> graders without the appropriate experience or maturity level will likewise be more limited in their accessibility to school. Therefore, the walk/bike shed map functions more as a guide for parents, school administrators and students to evaluate and identify areas potentially commutable and conducive to walking and bicycling to school. The final decision to walk or bicycle to school is still at the discretion of the parents.

The walk/bike shed for Oak Ridge Elementary School mostly extends east and west from the school. Capital Circle Southwest with its limited crossing points, high number of travel and turn lanes, and high speeds forms the southern limits of the walk/bike shed. Areas east of Woodville Highway were excluded, with the exception of a neighborhood directly east of the school, due to the limited number of crossing points and the presence of nonresidential land uses in the area. Ridge Road forms the northern limits of the walk/bike shed due to the presence of the Jack Gaither Golf Course and the lack of thru street connections to residential areas to the north. Munson Slough, an inflow/outflow stream for Lake Munson, forms the western limits of the walk/bike shed.

It should be noted that certain improvement recommendations could potentially expand the potential walk/bike shed area, due to improved conditions for walking and bicycling.

## Methodology

Many factors were evaluated to ultimately determine the limits of the walk/bike shed area. The general methodology for identifying the shed included the following steps:



### Evaluating Roadways

Four types of safety hazards were evaluated pertaining to roadways. They include:

- Sidewalks along roadways
- Roadways without sidewalks
- Roadway crossing points
- Railroad crossing points (along roadways)

Primary hazard conditions include, but are not necessarily limited to factors such as:

- Sidewalk width (where present)
- Separation between the walking/bicycling space and the vehicular travel space
- Intersection control measures for crossing
- Number of rail tracks (for railroad crossings)
- Traffic volume
- Traffic speed
- Roadway geometry
- Length of a hazardous condition present

Multiple factors are no doubt present for each hazard. And no two factors or situations are the same. This makes evaluation as much of an art as a science. Nonetheless, there are certain conditions in and of themselves that are considered decisive limitations to elementary school children walking and/or bicycling to school. Such conditions where walking and/or bicycling are deemed hazardous include the following. It should be noted that only one condition from either table needs to be met for a situation to be deemed hazardous.

Travel Along Roadways				
Sidewalk Type	Hazardous Conditions			
	Type of Road	Posted Speed Limit	Peak Hour Traffic	Length
< 2' wide sidewalk OR without sidewalk	All roadways other than local, neighborhood streets	N/A	N/A	Exceeding 0.5 miles in length
<= 3' wide sidewalk OR <= 4' separation from traffic	More than 2 travel lanes	Greater than 35 mph	Greater than 2,000	Exceeding 1 mile in length
> 4' wide sidewalk AND >= 4' separation from traffic	More than 4 travel lanes	Greater than 45 mph	Greater than 3,500	Exceeding 2 miles in length

Roadway Crossing Points				
Crosswalk Type	Hazardous Conditions			
	Type of Road	Posted Speed Limit	Peak Hour Traffic	Length
Unmarked Crosswalk	More than 2 travel lanes	Greater than 25 mph	Greater than 1,500	N/A
Unsignalized Crosswalk				
Marked Crosswalk	Greater than 4 travel lanes	Greater than 40 mph	Greater than 2,000	N/A
Signalized Crosswalk				

### Hazardous Walking Conditions, as defined per Florida Statute

Section 1006.23 of the Florida Statutes defines hazardous walking conditions for elementary school-aged students commuting to and from school. While these guidelines are useful, the scope and intent of the State's language are fairly general and broad. The standards are mostly liberally applied to extreme situations. For example, a four-foot wide 'surface sufficient for walking' that is only three feet in distance from the edge of a curb-less roadway with a 55 mph posted speed limit would likely not meet the required criteria, per State Statute, for hazardous walking conditions for elementary-aged students walking to or from school. Most experts would agree that such conditions as described are likely too challenging for elementary students to handle.

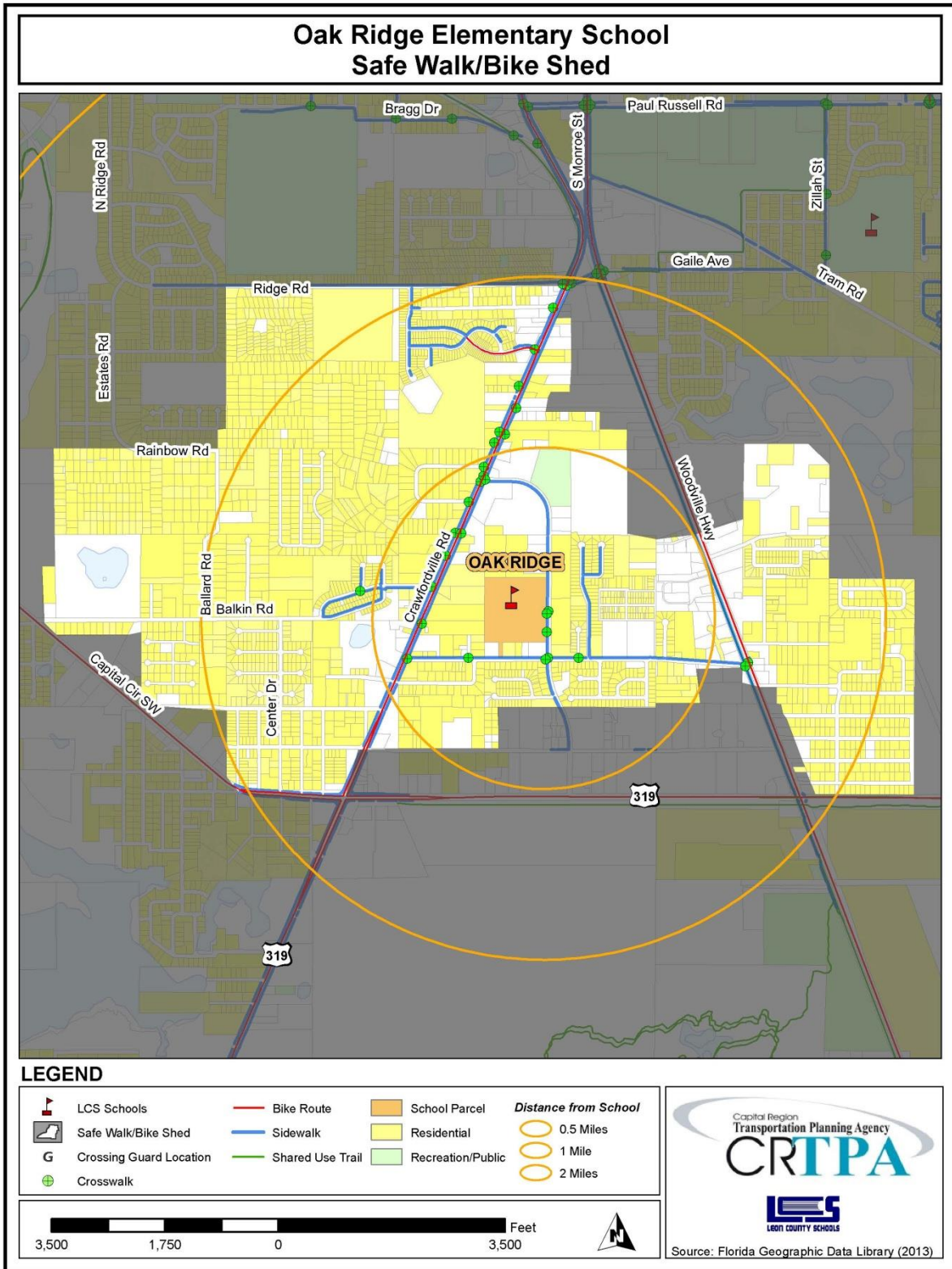
In determining a safe walking and bicycling area, this report applies a methodology and criterion that is more stringent than State standards and more in line with existing studies, research and opinions collected from numerous experts in the fields of pedestrian and bicycle transportation and safe routes to school planning. In addition, this report goes much further than simply identifying sidewalk/pathway

deficiencies; it also considers intersection conditions, pavement markings, signage, and a number of other attributes that can impact safe routes to school.

### **Evaluating Other Factors and Barriers**

In addition to that identified above, information collected from the field review, anecdotal comments from parent surveys, discussions with school administrators and staff, and general research findings were applied to determine the ultimate walk/bike shed area commuting limits for the school. Such additional information evaluated included the following:

- Barriers such as water bodies and high-speed, restricted access highways
- Historic travel accident patterns
- Poor quality pedestrian infrastructure along routes
- Pathways of excessive length through nonresidential areas as well as excessive intersecting vehicular access drives



## **Chapter 6: Findings and Recommendations**

Walking and bicycling to Oak Ridge Elementary School can be difficult due to the lack of comprehensive bicycle/pedestrian connections to residential land uses near the school. However, there are some infrastructure recommendations that would provide much benefit towards improving the existing conditions. For those requiring automobile access to school, the existing automobile zone functions adequately to accommodate the volume of vehicles; however, there may be an opportunity to improve the school bus zone. Additional policy and programmatic recommendations that might help to increase safe walking and bicycling to and from school are also included for the school's consideration.

### **Infrastructure Improvements**

The following recommendations supplement the current walk/bike shed area as delineated on the map, addressing infrastructure needs and improvements that would enhance walking and bicycling safety and convenience to and from Oak Ridge Elementary School. They include both on- and off-site improvements as follows:

### Oak Ridge Elementary School On- and Off-Site Recommendations

Improvement: On-Site	Location	From	To	Geography	Direction	Length	Comments
A1 Replace bicycle rack	Near front entrance of school	N/A	N/A	N/A	N/A	N/A	
A2 Install canopy	Parking lot north of automobile zone	N/A	N/A	Over existing sidewalk	N-S	Approx. 176 feet	

Improvement: Off-Site	Location	From	To	Geography	Direction	Length	Comments
B1 Stripe existing crosswalks	Shelfer Road	Automobile zone driveways		West side of Shelfer Road	N-S	N/A	
B2 Stripe existing crosswalk	Shelfer Road	School bus zone driveway		West side of Shelfer Road	N-S	N/A	
B3 Traffic calming	Shelfer Road	Ross Road	¼ mile north of school on Shelfer Road	N/A	N-S	Approx. 0.38 miles	
B4 New sidewalk	Ayers Court	Shelfer Road	End of cul-de-sac	North side of Ayers Court	E-W	Approx. 837 feet	
B5 New sidewalk	Briley Court	Shelfer Road	End of cul-de-sac	North side of Briley Court	E-W	Approx. 748 feet	
B6 Sidewalk Infill	Crawfordville Trace	Crawfordville Road	Existing sidewalk	South side of Crawfordville Trace	E-W	Approx. 115 feet	
B7 New sidewalk	Westway Road	Crawfordville Road	Capital Circle SW	North side of Westway Road	E-W	Approx. 3,766 feet	Note: County roadway
B8 School Crossing Signage	Crawfordville Road	Shelfer Road		Northbound/Southbound directions	N/A	N/A	

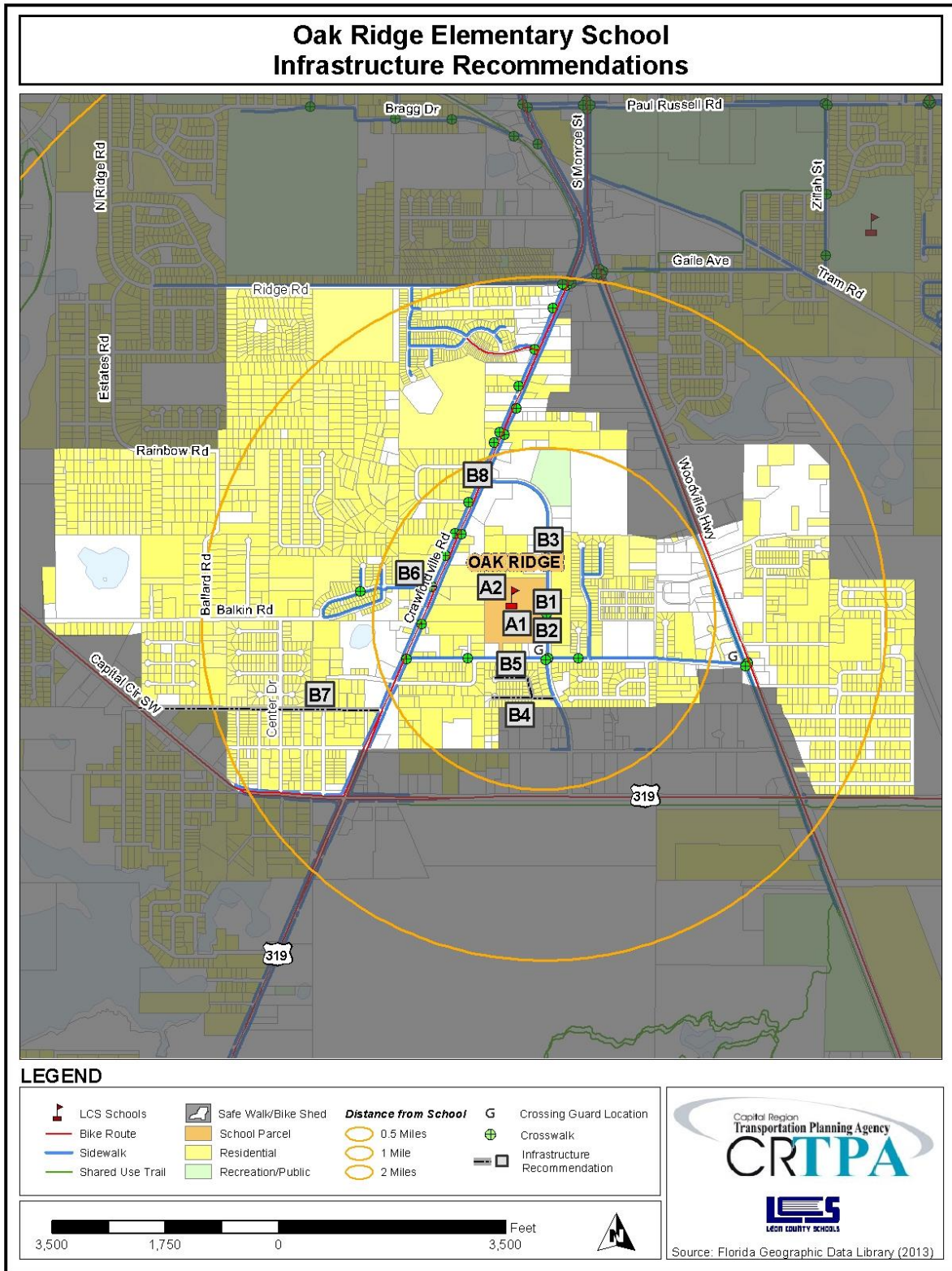
The table, above, corresponds to an infrastructure recommendations map on the following page.

### **On-Site Recommendations**

- A1) Replace bicycle rack – The existing bicycle rack appeared vandalized and damaged during the on-site visit. It should be replaced with a new bicycle rack to allow for the safe storage of bicycle during the school day.
- A2) Install canopy – It would be beneficial to install a canopy over the existing sidewalk, located in the parking lot north of the automobile zone, to assist parents and students who are using the lot during times of inclement weather.

### **Off-Site Recommendations**

- B1) Stripe existing crosswalks on Shelfer Road, at both the parent pick-up/drop-off automobile entrance/exit driveways, to bring more attention to students who may be crossing during school commuting times.
- B2) Stripe existing crosswalks on Shelfer Road at the school bus entrance/exit driveway to bring more attention to students who may be crossing during school commuting times.
- B3) Traffic calming on Shelfer Road from Ross Road to approximately one-quarter mile north of the school to ease parent's concerns with speeding vehicles.
- B4) Construct a new sidewalk on Ayers Court from Shelfer Road to the end of the cul-de-sac.
- B5) Construct a new sidewalk on Briley Court from Shelfer Road to the end of the cul-de-sac.
- B6) Sidewalk infill on Crawfordville Trace from Crawfordville Road to the existing sidewalk; as it exists there is an approximately 115' width gap from the sidewalk on Crawfordville Road to the existing sidewalk. Additionally, sidewalk debris on the Crawfordville Trace sidewalk should be managed. Large amounts of leaves on the sidewalk make it almost invisible to pedestrians.
- B7) Construct a new sidewalk on Westway Road from Crawfordville Road to Capital Circle SW.
- B8) Install school crossing signage on Crawfordville Road at Shelfer Road, on both the northbound and southbound directions. This is one of the few crossing points available to students along Crawfordville Road so it should be emphasized with signage to make students and motorists more aware of it.



## Programs

- C1) Walk and bicycle encouragement literature – Send home literature to parents, as well as make it available on the school website, about the benefits of children walking and bicycling to school. Information and statistics from the National Safe Routes to School organization can be used to highlight health and safety benefits. The literature provided to parents should highlight some specific examples of how parents and the community can make walking and bicycling to school safe and fun. Examples of programs to promote walking and bicycling include encouraging parents to coordinate with other parents to establish walking and bicycling groups (i.e. buddy programs and walking school buses) to help ease safety concerns; participating in Walk/Bike to School Days; or creating a mileage club where students or entire classrooms keep track of how much they walk or bike to school to compete for prizes or certificates.
- C2) Bicycle safety and accessibility workshop – While a bicycle safety demonstration is held at the school during the end of the school year, it would be wise to also do a similar bicycle demonstration at the beginning of each school year. Bicycle safety topics, catered to younger children, should include bicycle hand signals, how to properly wear a bicycle helmet, and properly obeying traffic signs/signals. Parents and students should be reminded that under Florida Law, anyone under the age of 16 must wear a bicycle helmet. An on-campus bicycle obstacle course that covers skills such as avoiding obstacles, balancing at slow speeds, turning, and making emergency stops can be very helpful for young riders. Additionally, a group bicycle ride, through the neighborhood surrounding the school, can be a safe and fun way to get children more comfortable with their built environment and any obstacles they may encounter en route to school. Local community groups, as well as, universities in the area, Leon County Sheriff's Office, and Leon County Public Schools may be willing to donate time and/ or supplies such as bikes, helmets, and locks for workshops and rodeos if contacted. Students, who own bicycle helmets, may also be willing to bring in their helmets to use during demonstration days to decrease the demand for helmets.
- C3) Parent drop-off/pick-up zone protocol encouragement– Send home literature to parents, as well as make it available on the school website, about the proper drop-off and pick-up process for the school, particularly at the start of a new school year or after an extended school break. Maps of the drop-off/pick-up zone, as well as, the traffic flow pattern can be very helpful to parents. The literature available to parents should remind them to be patient and courteous to other parent drivers and clearly discourage parents from letting children out in the parking lot before the drop zone, releasing them on the side of the road, or parking on the side of the road (to wait for their child). Additionally, parents should be reminded not to speed along Shelfer Road and Ross Road as well as remember to make complete stops at the intersection near school to ensure the safety of all students. Providing small rewards, such as stickers or pencils, to students whose parents follow the proper drop-off/pick-up process is typically more beneficial than punishing improper behavior. If necessary, educational flyers could be placed on the windshields of vehicles illegally parked to remind parents of the proper rules and procedures.

- C4) Additional crossing guards – Currently, there are crossing guards available at the intersections of Ross Road & Shelfer Road as well as Ross Road & Woodville Highway. It is recommended that additional crossing guards be available at the intersection of Crawfordville Road & Shelfer Road.

## Policies

- D1) Bike check and security – School policies to discourage theft and encourage bicycle riding could include having a school official or parent volunteer at the bike rack in the morning and afternoon to check-in and check-out students parking their bikes. The adult assigned to handle check-in and check-out will assist with locking the bike in the morning and will unlock the bike for the students in the afternoon. The existing bike rack is in a relatively secure, visible spot; however, theft is still a concern. The school should consider investing in basic, school-owned bike locks that can be applied when students check-in. By having locks available at school, students do not need to remember to bring one each day. Basic locks can be purchased fairly cheap.
- D2) Increased enforcement during drop-off/pick-up times – To assist parents in the drop-off/pick-up zone, school staff or others such as parent volunteers or safety patrols should be available to help open curb-side doors for students in both the morning and afternoon. This helps ensure that parents do not need to get out of their vehicles to assist students with their belongings. Additionally, assistants should consider wearing bright vests or belts to help identify themselves to parents and assistants should also make sure they are at the drop-off/pick-up zone at their assigned times. If possible, school staff or a parent volunteer should be available in the parking lot just north of the parent pick-up/drop-off zone to assist any parents/students who may be walking to/from their parked vehicles.
- D3) Student walking policies – School policies to ensure safe walking behaviors should include encouraging students to use crosswalks, where available, and to not take short cuts through wooded areas near the school. Additionally, students should be reminded to walk in pairs or groups, when possible, to/ from school to ease parent's concerns with crime and safety during evening hours.

## Planning-Level Cost Estimates

Planning-level cost estimates are included in the table, below. They are intended to be used as a guide. Specific, detailed cost estimates for individual projects will require closer assessment of project conditions and constructability at the time of improvement.

**General Unit Cost Estimates<sup>1</sup>**

Item	Assumptions	Unit	Average Unit Cost (\$)
sidewalk	concrete sidewalk (5' wide)	linear foot	32
sidewalk	concrete sidewalk + curb (5' wide)	linear foot	150
shared-use path	multi-use trail – paved (at least 8' wide)	mile	481,140
shared-use path	multi-use trail – unpaved (at least 8' wide)	mile	121,390
pavement symbol	pedestrian crossing	Each	360
pavement symbol	shared lane/bicycle marking	each	180
pavement symbol	school crossing	each	470
paved shoulder	asphalt material	square foot	5.56
crosswalk	high visibility crosswalk (ladder or zebra striping)	each	2,540
crosswalk	standard parallel lines crosswalk	each	770
signage	bike route sign	each	160
signage	stop/yield sign	each	300
signage	no turn on red (standard metal sign)	each	220
signage	no turn on red (electronic sign)	each	3,200
signage	trail regulation sign	each	160
flashing beacon	standard beacon (system + labor/materials)	each	10,010
flashing beacon	rectangular rapid flashing beacon (system + labor/materials)	each	22,250
ped hybrid beacon	high intensity activated crosswalk (HAWK) signal	each	57,680
ped/bike detection	push button	each	350
signal	audible pedestrian signal	each	800
signal	countdown timer module	each	740

<sup>1</sup> Bushell, M. A., Poole, B. W., Zegeer, C. V., & Rodriuez, D. A. (2013). *Costs for Pedestrian and Bicyclist Infrastructure Improvements: A Resource for Researchers, Engineers, Planners, and the General Public*. Federal Highway Administration.

## Chapter 7: Conclusion

Currently, Oak Ridge Elementary School has a few students who walk to school; however, there are few students who use bicycling as their commute method to/from school. Overall, approximately 15% of students commute to and from school by walking while less than one percent are known to bicycle to and from school. There appears to be two primary reasons for low walking and bicycling rates. First, the area surrounding the school is not very densely populated and there are quite a few industrial land uses in the area. Additionally, there are two highways on either side of the school that may be intimidating to elementary-school aged children.

The second reason for low walking and bicycling rates to school was revealed from information garnered from the parent survey results as well as meetings with school representatives. Overall, when it comes to allowing their children to walk or bicycle to school, parents primarily expressed concerns for the condition and lighting of sidewalks, crime, as well as, speeding vehicles. However, parents indicated that having a greater adult presence along routes to school, accompanying children (by themselves, with other parents) and having continuous and separated bicycle/pedestrian pathways from traffic were factors that might influence their decision to allow their children to walk or bicycle to school.

For those students within a relatively safe walking and bicycling distance to school, opportunities to improve student walking and bicycling rates are rooted primarily in infrastructure improvements including but not limited to new sidewalks and highly visible crosswalks. Additionally, informational and educational programmatic solutions as well as policies that encourage walking and bicycle commuting have been provided. For students who will continue to commute by automobile as well as those outside of a safe walking and bicycling distance, policy suggestions are included in this audit report to address better management and enforcement within the parent drop-off/pick-up area.

While the Oak Ridge Elementary School zone contains two highways that can hinder walking and bicycling rates at the school, there are measures for which the school can take that will help to improve walking and bicycling safety and increase non-motorized commuting rates from neighborhoods in the area.

# Appendices

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## Appendix A: Student Travel Survey

### Leon County Schools

#### STUDENT TRAVEL SURVEY

NAME OF SCHOOL: \_\_\_\_\_

**Dear Teacher:**

*Your help is needed to assist with a school-wide survey of how students travel to and from school each day. Beginning Monday, for each day of that week, please record the number of children in your class that came to school by school bus, city bus, car, bicycle, or by walking. Please send the results back to the office on this form, along with your name and class grade, and number of students present each day.*

*Please follow the script below to gather the information from your students. (The students should only be raising their hands for one mode of travel):*

- 1) If you walked to school today, raise your hand.
- 2a) If you rode a bicycle to school today, raise your hand.
  - b) If you used a bicycle helmet today, raise your hand.
- 3a) If you came in a car, with either your parents or with someone else, raise your hand.
  - b) If you used your seat belt in a car today, raise your hand.
- 4) If you came by school bus, raise your hand.
- 5) If you came by city bus, raise your hand.

Day of Week	Number of Students					
	Question 1	Question 2a/b		Question 3a/b		Question 4
Day 1						
Day 2						
Day 3						
Day 4						
Day 5						

TEACHER'S NAME: \_\_\_\_\_ GRADE: \_\_\_\_\_

DATE: \_\_\_\_\_ NUMBER OF STUDENTS IN CLASS TODAY: \_\_\_\_\_

*Please complete and return this form to the principal's office FRIDAY. This information will allow us to better plan ways for our children to get to and from school each day.*

**Note to Principals:**

Please reproduce and distribute this form to all homeroom or 1st period teachers at your school. It is important that **all classes are surveyed on the same day**. Project consultants will collect all survey forms the following week. THANK YOU.

**Capital Region Transportation Planning Agency**

## Appendix B: Student Travel Survey – Detailed Analysis

The survey consisted of a one-page sheet with a script of questions for homeroom teachers to read to students as they took morning attendance. Surveys were conducted each morning during a typical week of the school year for a total of five straight days, Monday to Friday. The script prompted teachers to ask and record the number of children in their class that came to school by walking, bicycling, car, school bus, or city bus. The student travel survey was conducted in February, 2013. Twenty-five classrooms participated in the survey for a total of 441 student responses recorded. In a few instances, surveys were conducted within overlapping multiple grade level classrooms. Those instances are noted where relevant to the data results.

### SUMMARY OF STUDENT TRAVEL SURVEY POPULATION

<b>Total Number of Participating Classrooms</b>	25
<b>Total Students Surveyed (K-5<sup>th</sup>)</b>	441
<b>Total K-2<sup>nd</sup> Students Surveyed</b>	227
<b>Total 3<sup>rd</sup>-5<sup>th</sup> Students Surveyed</b>	214

### Walking and Bicycling

Students were first asked if they walked to school. Then students were asked if they rode a bicycle to school. Students that rode their bike to school were further asked if they wore a bicycle helmet.

### Walking and Bicycling School-Wide Travel Patterns

The school-wide student travel surveys indicate that the walk-to-school average for the week ranged from 15% to 16%, with an overall average of 15%. Overall, the bike-to-school average for the week ranged from 0% to <1%, with an overall average of less than one percent. Of the students that bike to school, an overall average of 67% wore a bicycle helmet. In total, the combined walk-bike average for the week ranged from 15% to 16%, with an overall average of 16%.

### SUMMARY OF WALKING AND BICYCLE SCHOOL-WIDE TRAVEL PATTERNS

	<b>Walk</b>	<b>Bicycle</b>	<b>Helmet Use</b>	<b>Total Walk + Bike</b>
<b>Average Overall</b>	15 %	<1 %	67 %	16 %
<b>Highest Day</b>	16 %	<1 %	100 %	16 %
<b>Lowest Day</b>	15 %	0 %	0 %	15 %

### Walking and Bicycling Travel Patterns of Younger-Aged Children (K – 2<sup>nd</sup> Grade)

The younger-aged (K-2<sup>nd</sup>) children student travel surveys indicate that the walk-to-school average for the week ranged from 15% to 17%, with an overall average of 16%. Overall, the bike-to-school average for the week ranged from 0% to <1%, with an overall average of less than one percent. Of the students that bike to school, an overall average of 100% wore a bicycle helmet. In total, the combined walk-bike average for the week ranged from 16% to 18%, with an overall average of 17%.

#### SUMMARY OF YOUNGER-AGED CHILDREN WALKING AND BICYCLE TRAVEL PATTERNS (K-2<sup>nd</sup>)

	Walk	Bicycle	Helmet Use	Total Walk + Bike
<b>Average Overall</b>	16 %	<1 %	100 %	17 %
<b>Highest Day</b>	17 %	<1 %	100 %	18 %
<b>Lowest Day</b>	15 %	0 %	100 %	16 %

### Walking and Bicycling Travel Patterns of Older-Aged Children (3<sup>rd</sup> – 5<sup>th</sup> Grade)

The older-aged (3<sup>rd</sup>-5<sup>th</sup>) children student travel surveys indicate that the walk-to-school average for the week ranged from 13% to 15%, with an overall average of 15%. Overall, the bike-to-school average for the week ranged from 0% to <1%, with an overall average of less than one percent. Of the students that bike to school, an overall average of 33% wore a bicycle helmet. In total, the combined walk-bike average for the week ranged from 14% to 16%, with an overall average of 15%.

#### SUMMARY OF OLDER-AGED CHILDREN WALKING AND BICYCLE TRAVEL PATTERNS (3<sup>rd</sup>-5<sup>th</sup>)

	Walk	Bicycle	Helmet Use	Total Walk + Bike
<b>Average Overall</b>	15 %	<1 %	33 %	15 %
<b>Highest Day</b>	15 %	<1 %	33 %	16 %
<b>Lowest Day</b>	13 %	0 %	0 %	14 %

### Bus and Automobile Drop-Off

Students were asked if they arrived to school by automobile, with either their parents or someone else. Students that arrived by automobile to school were further asked if they had wore their seat belt. Additionally, students were asked if they arrived to school by bus, including either Leon County School buses or Star Metro public transit buses.

### Bus and Automobile School-Wide Travel Patterns

The school-wide travel surveys indicate that the automobile-to-school average for the week ranged from 52% to 55%, with an overall average of 53%. Of the students that ride to school in an automobile,

an overall average of 81% wore a seatbelt. Overall, the school bus-to-school average for the week ranged from 30% to 31%, with an overall average of 30%. The public bus-to-school average for the week ranged from 1% to 1%, with an overall average of 1%.

#### SUMMARY OF BUS AND AUTOMOBILE DROP-OFF SCHOOL-WIDE TRAVEL PATTERNS

	Automobile	Seat Belt	School Bus	Public Bus
<b>Average Overall</b>	53 %	81 %	30 %	1 %
<b>Highest Day</b>	55 %	84 %	31 %	1 %
<b>Lowest Day</b>	52 %	77 %	30 %	1 %

#### Bus and Automobile Travel Patterns of Younger-Aged Children (K – 2<sup>nd</sup> Grade)

The younger-aged (K-2<sup>nd</sup>) children student travel surveys indicate that the automobile-to-school average for the week ranged from 51% to 55%, with an overall average of 52%. Of the students that ride to school in an automobile, an overall average of 77% wore a seatbelt. Overall, the school bus-to-school average for the week ranged from 27% to 31%, with an overall average of 30%. The public bus-to-school average for the week ranged from 1% to 2%, with an overall average of 1%.

#### SUMMARY OF YOUNGER-AGED CHILDREN BUSES & AUTOMOBILE DROP-OFF TRAVEL PATTERNS (K-2<sup>nd</sup>)

	Automobile	Seat Belt	School Bus	Public Bus
<b>Average Overall</b>	52 %	77 %	30 %	1 %
<b>Highest Day</b>	55 %	82 %	31 %	2 %
<b>Lowest Day</b>	51 %	70 %	27 %	1 %

#### Bus and Automobile Travel Patterns of Older Children (3<sup>rd</sup> – 5<sup>th</sup> Grade)

The older-aged (3<sup>rd</sup>-5<sup>th</sup>) children student travel surveys indicate that the automobile-to-school average for the week ranged from 53% to 54%, with an overall average of 54%. Of the students that ride to school in an automobile, an overall average of 84% wore a seatbelt. Overall, the school bus-to-school average for the week ranged from 29% to 32%, with an overall average of 31%. The public bus-to-school average for the week ranged from <1% to <1%, with an overall average of less than one percent.

**SUMMARY OF OLDER-AGED CHILDREN BUS & AUTOMOBILE DROP-OFF TRAVEL PATTERNS (3<sup>rd</sup>-5<sup>th</sup>)**

	<b>Automobile</b>	<b>Seat Belt</b>	<b>School Bus</b>	<b>Public Bus</b>
<b>Average Overall</b>	54 %	84 %	31 %	<1 %
<b>Highest Day</b>	54 %	85 %	32 %	<1 %
<b>Lowest Day</b>	53 %	80 %	29 %	<1 %

## Appendix C: Parent Survey

### ***Leon County Schools***

#### **PARENT SURVEY**

**Dear Parents:** In an effort to improve traffic safety in and around our schools, we are looking for ways to reduce the amount and speed of cars, improve walking and bicycling conditions and encourage enforcement and safety education programs. Please help us by providing your opinions to the following questions. **The name of my child's school is:** \_\_\_\_\_.

1. Please provide the sex, age and grade of your child:

**Sex:** Male      Female

**Age:** \_\_\_\_\_

**Grade:** \_\_\_\_\_

2. Approximately how far do you live from your child's school? (*circle closest answer*):

- 1. 1/2 mile or less
- 2. 1/2 mile to 1 mile
- 3. between 1 and 2 miles
- 4. over 2 miles

**If you live over two miles from the school, please stop here and turn in your survey. Thank you for participating.** If you live within two miles of the school, please help us by completing the questions on the following pages.

3. How does your child usually go to and from school: (*place a check on the appropriate line*)

	In the morning?	In the afternoon?
a. School bus	_____	_____
b. Car	_____	_____
c. Walk	_____	_____
d. Bicycle	_____	_____
e. City bus	_____	_____
f. Other (please explain)	_____	_____

4. Please identify specific safety problems of concern to you in your neighborhood or around your child's school (*i.e. broken sidewalks, crime areas, high-speed vehicles, etc.*) and indicate the street locations:

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***Capital Region Transportation Planning Agency***

### ***Leon County Schools***

5. Which of the following factors would influence your decision to allow your child to walk or bicycle to school. On a scale of 1 to 5 (1= not important to 5= very important), please rate each statement's importance as it applies to your child. If the statement does not apply, circle "NA".

I would allow my child to walk or bicycle to school more often if:	Not Important			Very Important		Not Applicable
a) Accompanied by other children	1	2	3	4	5	NA
b) Accompanied by myself or other parents	1	2	3	4	5	NA
c) Schools provided more walking and bicycling safety training for students	1	2	3	4	5	NA
d) Additional crossing guards were provided at busy intersections	1	2	3	4	5	NA
e) Crossing guards were more effective	1	2	3	4	5	NA
f) There were continuous sidewalks or bike paths from my neighborhood to school	1	2	3	4	5	NA
g) There were bicycle/pedestrian pathways separated from traffic from the neighborhood to the school	1	2	3	4	5	NA
h) We lived closer to school	1	2	3	4	5	NA
i) Speed limits were strictly enforced in school speed zones	1	2	3	4	5	NA
j) School speed zones were marked with flashing signs	1	2	3	4	5	NA
k) School speed zones were a greater distance surrounding school	1	2	3	4	5	NA
l) The school provided a secure place for storing bicycles	1	2	3	4	5	NA
m) There was a greater adult presence of parent volunteers or police officers along walk routes to school	1	2	3	4	5	NA
n) There was better street lighting along walk routes to school	1	2	3	4	5	NA
o) Please write below any additional factors that might influence you to let your child walk or bicycle to school more often:						

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***Capital Region Transportation Planning Agency***

## Appendix D: Parent Survey – Detailed Analysis

The survey consisted of a one-page double-sided sheet of paper with five questions for parents to answer. Survey copies were sent home with students early in the week. They were instructed to deliver the survey to their parents (or guardians), asking them to complete the survey and send it back with their children by the end of the week.

Parents were first asked general demographic questions pertaining to the sex and age of their child, as well as grade level. Then, parents were asked approximately how far they lived from their child's school. Families living over two miles from school were instructed to return the survey without completing the remainder of questions pertaining to walking and bicycling to school. Those claiming to reside within two miles were asked, next, how their child typically gets to and from school (for morning and afternoon, respectively). Then, they were asked to identify any safety problems of concern in their neighborhood. Finally, parents were asked to consider a range of safety and convenience factors, and how each factor might influence their decision to allow their child to walk or bike to school.

The parent surveys were conducted during the winter/spring semester of 2013. There were 82 parent surveys returned. Of those, 58 (71%) claimed to reside within the theoretical two-mile walk/bike radius of the school. Surveys from families residing within the theoretical two-mile walk/bike radius were split nearly 60/40 by grade level grouping, with 37 students representing Kindergarten through 2<sup>nd</sup> Grade, and 21 students representing 3<sup>rd</sup> Grade through 5<sup>th</sup> Grade.

### SUMMARY OF PARENT SURVEY PARTICIPATION

<b>Total Enrollment</b>	499
<b>Total Number of Parent Surveys</b>	82
<b>Total Number within 2 Miles (K-2<sup>nd</sup> Grade)</b>	37
<b>Total Number within 2 Miles (3<sup>rd</sup>-5<sup>th</sup> Grades)</b>	21
<b>Percentage of Surveys within 2 Miles</b>	71 %

### Commuting to/from School

Parents were asked how their child usually traveled to and from school, in the morning and afternoon. Choices of travel modes included: school bus, car, walk, bicycle, public bus, and other (where they were asked to explain).

**SUMMARY OF SCHOOL-WIDE COMMUTING RESULTS**

<b>Morning</b>	<b>Average Overall</b>
Car	43 %
School Bus	31 %
Walk	24 %
Bicycle	0 %
Public Bus	0 %
Other	0 %
<b>Afternoon</b>	
Car	34 %
School Bus	33 %
Walk	22 %
Other	9 %
Bicycle	0 %
Public Bus	0 %

**Commuting Patterns of Younger-Aged Children (K – 2<sup>nd</sup> Grade)**

The surveys of parents of younger-aged (K-2<sup>nd</sup> grade) indicate that the car-to-school average for a typical week is 46% in the morning and decreases to 38% in the afternoon. The school bus-to-school average for a typical week is 32% in the morning and increases to 35% in the afternoon. The walk-to-school average for a typical week is 19% in the morning and 14% in the afternoon. None of the students rode a bicycle, a public bus, or an alternative commute mode in the morning. However, 11% use an alternative commute mode in the afternoon.

**COMMUTING PATTERNS OF YOUNGER-AGED CHILDREN (K-2<sup>nd</sup>)**

<b>Morning</b>	<b>Average Overall</b>
Car	46 %
School Bus	32 %
Walk	19 %
Bicycle	0 %
Public Bus	0 %
Other	0 %
<b>Afternoon</b>	
Car	38 %
School Bus	35 %
Walk	14 %
Other	11 %
Bicycle	0 %
Public Bus	0 %

### Commuting Patterns of Older-Aged Children (3<sup>rd</sup> – 5<sup>th</sup> Grade)

The surveys of parents of older-aged (3<sup>rd</sup>-5<sup>th</sup> grade) indicate that the car-to-school average for a typical week is 38% in the morning and decreases to 29% in the afternoon. The walk-to-school average for a typical week is 33% in the morning and increases to 38% in the afternoon. The school bus-to-school average for a typical week is 29% in both the morning and afternoon. None of the students rode a bicycle, a public bus, or an alternative commute mode in the morning. However, 5% use an alternative commute mode in the afternoon.

#### COMMUTING PATTERNS OF OLDER-AGED CHILDREN (3<sup>rd</sup>-5<sup>th</sup>)

<b>Morning</b>	<b>Average Overall</b>
Car	38 %
Walk	33 %
School Bus	29 %
Bicycle	0 %
Public Bus	0 %
Other	0 %
<b>Afternoon</b>	
Car	29 %
Walk	38 %
School Bus	29 %
Other	5 %
Bicycle	0 %
Public Bus	0 %

### Neighborhood Safety Concerns

Parents were asked to identify specific safety problems of concern in their neighborhood or around their child's school including problems such as broken sidewalks, crime areas, high speed vehicles, etc.). They were also asked to indicate specific street locations, where possible. Parents provided answers anecdotally. Summaries of the top neighborhood safety concerns are provided. The table below includes the top neighborhood safety concerns expressed by survey respondents.

#### SUMMARY OF TOP RANKING NEIGHBORHOOD SAFETY CONCERNS

<b>Neighborhood Safety Concern</b>	<b>Number of Comments</b>
Speeding Vehicles	8
Issue with Crime	7
Issues with Sidewalks/Walking	5

### Neighborhood Safety Concerns For Younger-Aged Children (K – 2<sup>nd</sup> Grade)

Neighborhood safety concerns for parents of younger-aged (K-2<sup>nd</sup>) children include three main concerns including issues with speeding vehicles, crime, and sidewalks/walking. There were approximately eight comments of concern regarding issues with speeding vehicles. Specific locations where high-speed vehicles tend to be a problem are Shelfer Road, Crawfordville Road, and Ridge Road. Parents also mention drivers speeding in the school zone in the morning and near bus stops. Additionally, there were four comments of concern regarding crime. General concerns include transients in wooded areas and crime across the street from the school. Lastly, there were three comments of concern regarding issues with sidewalks and walking. General concerns include broken sidewalks, poor lighting, and overgrown shrubbery/trees.

#### SUMMARY OF TOP NEIGHBORHOOD SAFETY CONCERNS (K-2<sup>nd</sup> Grade)

Neighborhood Safety Concern	Number of Comments
Speeding Vehicles	8
Issue with Crime	4
Issues with Sidewalks/Walking	3

### Neighborhood Safety Concerns For Older-Aged Children (3<sup>rd</sup> – 5<sup>th</sup> Grade)

Neighborhood safety concerns for parents of older-aged (3<sup>rd</sup>-5<sup>th</sup>) children include issues with crime and sidewalks/walking. There were three approximately three comments of concern regarding issues with crime. General concerns include people picking fights with children and transients residing in woods along walk routes. Additionally, there were two comments of concern regarding issues with sidewalks and walking. General concerns included broken sidewalks and poor lighting in some areas.

#### SUMMARY OF TOP NEIGHBORHOOD SAFETY CONCERNS (3<sup>rd</sup>-5<sup>th</sup> Grade)

Neighborhood Safety Concern	Number of Comments
Issues with Crime	3
Issues with Sidewalks/Walking	2

### Factors Influencing Decisions to Allow Students to Walk or Bicycle to School

Parents were asked about 15 different factors related to their children walking or biking to school. Parents rated each statement's importance on a scale of 1 to 5 (1=Not Important to 5=Very Important), as it applied to their child, to determine what influenced their decision to allow their child to walk or bike to school. If statements did not apply, parents marked N/A (Not Applicable).

### Summary of Influential Factors

Influential factors such as having a greater adult presence along routes to school, accompanying children (by themselves, with other parents) and having continuous and separated bicycle/pedestrian pathways from traffic were mutually agreed upon by parents from both Kindergarten through 2<sup>nd</sup> and 3<sup>rd</sup> through 5<sup>th</sup>. However, parents of younger-aged children also showed concern with the availability of crossing guards, providing more walking and bicycling safety training for students, and enforcing speed limits in school zones.

#### SUMMARY OF TOP RANKING SCHOOL-WIDE INFLUENTIAL FACTORS RESULTS

	SCALE	1	2	3	4	5	N/A
<b>I would allow my child to walk or bicycle to school more often if:</b>							
<i>#1 There was a greater adult presence of parent volunteers or police officers along walk routes to school</i>		2	0	1	6	28	6
<i>#2 Accompanied by myself or other parents</i>		4	0	1	6	26	5
<i>#2 There were continuous sidewalks or bike paths from my neighborhood to school</i>		3	0	1	6	26	6
<i>#2 There were bicycle/pedestrian pathways separated from traffic from the neighborhood to the school</i>		4	1	2	3	26	7

### Influential Factors for Younger-Aged Children (K – 2<sup>nd</sup> Grade)

Parents of children in Kindergarten through 2<sup>nd</sup> grade agreed that the top seven influential factors to allow their child to walk or bicycle to school more often included factors related to having a greater adult presence along routes to school, having continuous and separated bicycle/pedestrian pathways from traffic, accompanying children (by themselves/other parents), availability of crossing guards, providing more walking and bicycling safety training for students, and enforcing speed limits in school zones.

**TOP RANKING INFLUENTIAL FACTORS FOR YOUNGER-AGED CHILDREN (K-2<sup>nd</sup>)**

	SCALE	1	2	3	4	5	N/A
<b>I would allow my child to walk or bicycle to school more often if:</b>							
<i>#1 There was a greater adult presence of parent volunteers or police officers along walk routes to school</i>		1	0	0	6	16	4
<i>#2 There were bicycle/pedestrian pathways separated from traffic from the neighborhood to the school</i>		3	0	1	3	15	5
<i>#2 Accompanied by myself or other parents</i>		2	0	1	3	15	5
<i>#3 Additional crossing guards were provided at busy intersections</i>		1	0	1	5	14	5
<i>#3 There were continuous sidewalks or bike paths from my neighborhood to school</i>		1	0	0	5	14	6
<i>#3 Schools provided more walking and bicycling safety training for students</i>		3	0	2	4	14	4
<i>#3 Speed limits were strictly enforced in school speed zones</i>		1	1	2	4	14	4

**Influential Factors for Older-Aged Children (3<sup>rd</sup> – 5<sup>th</sup> Grade)**

Parents of children in 3<sup>rd</sup> through 5<sup>th</sup> grade agreed that the top four influential factors to allow their child to walk or bicycle to school more often included factors related to having continuous and separated bicycle/pedestrian pathways, having a greater adult presence along routes to school, and accompanying children (by themselves/other parents).

**TOP RANKING INFLUENTIAL FACTORS FOR OLDER-AGED CHILDREN (3<sup>rd</sup>-5<sup>th</sup>)**

	SCALE	1	2	3	4	5	N/A
<b>I would allow my child to walk or bicycle to school more often if:</b>							
<i>#1 There were continuous sidewalks or bike paths from my neighborhood to school</i>		2	0	1	1	12	0
<i>#1 There was a greater adult presence of parent volunteers or police officers along walk routes to school</i>		1	0	1	0	12	2
<i>#2 Accompanied by myself or other parents</i>		2	0	0	3	11	0
<i>#2 There were bicycle/pedestrian pathways separated from traffic from the neighborhood to the school</i>		1	1	1	0	11	2