August 2014

Safe Routes to School Audit Report
Swift Creek Middle School

Leon County Public Schools

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Acknowledgements

Renaissance Planning Group and Wendy Grey Land Use Planning, LLC would like to thank the following organizations for their input, guidance, and resources in developing this Safe Routes to School Audit report for Swift Creek Middle School.

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)

Prepared By:

RENAISSANCE PLANNING GROUP

WENDY GREY LAND USE PLANNING LLC

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 polices. 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

Swift Creek Middle School is located at 2100 Pedrick Road, Tallahassee, 32317 in Leon County, Florida. It is part of the Leon County Public Schools system. The school was established in 1995. The school sits atop American Indian burial grounds and has been the site of various excavations. Regular school hours are from 9:30am to 3:50pm. A before school program is available from 7:00am to 9:10am. In addition, an after school program is available from the end of the school day until 6:00pm.

The number of students enrolled at the school, for the 2013 school year, was 793. The school has a current capacity for 954 students. The school includes grade levels 6th to 8th grade.

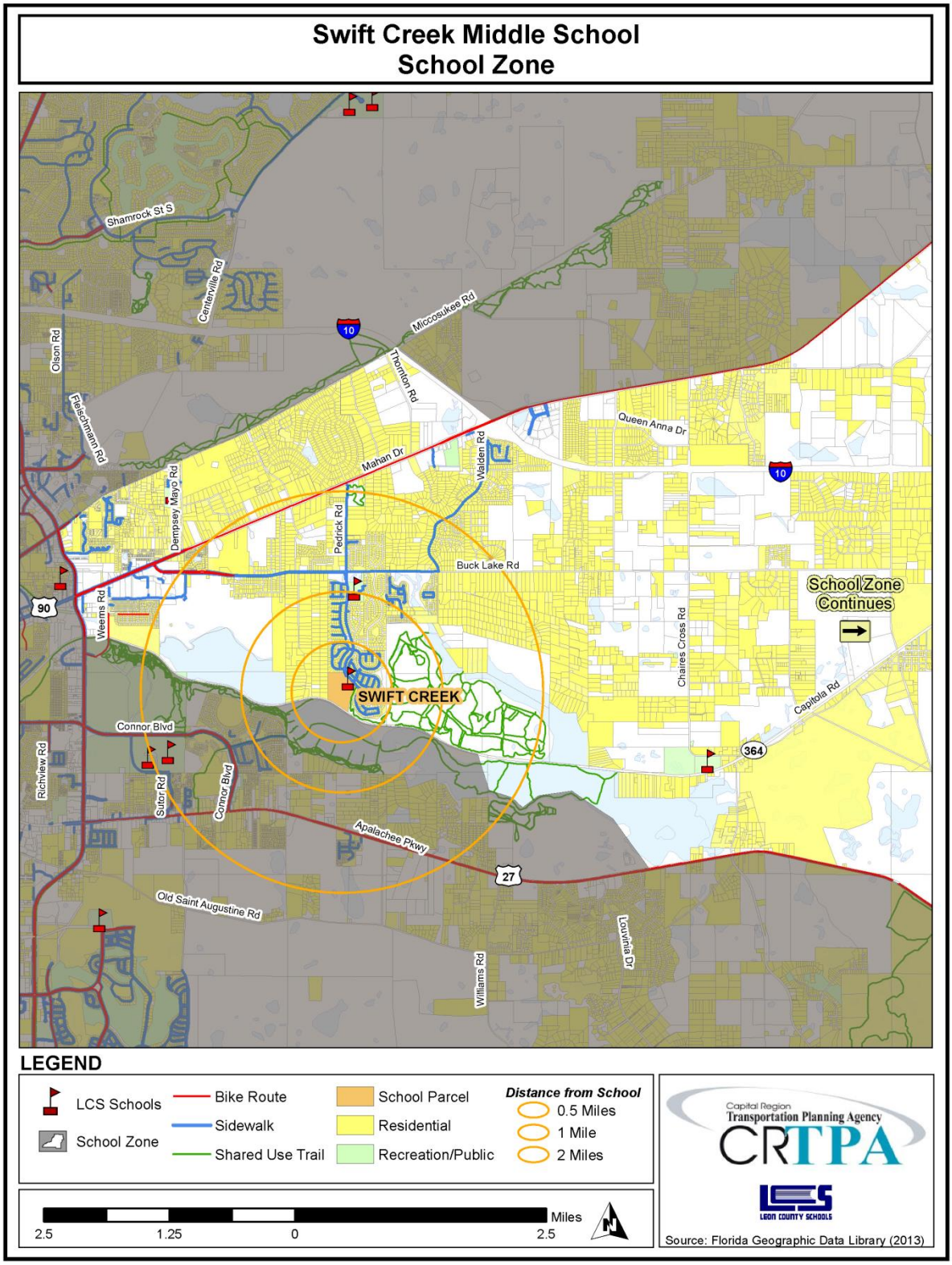
Students attending this school feed from Buck Lake, Chaires, Conley, and W.T. Moore Elementary Schools and into Lincoln High School. Additionally, approximately 16% of the school population is made up of "school choice" students who either come from Jefferson County, as allowable through the Florida Legislature due to Jefferson Middle School having an "F" school grade, or from within Leon County because Swift Creek Middle School is currently under capacity.

School Zone

The Swift Creek Middle school zone, located in eastern Leon County, encompasses the neighborhoods of Chaires, Lafayette Meadows, Buckwood, Meadow Hills, Stoney Creek Crossing, Avondale, High Halden, Buck Lake Woods, The Vineyards, Lafayette oaks, Midyette Plantation, and Brewster Estates. Parts of Lake Lafayette encompass the southern portion of the school zone. Additionally, a CSX railroad line runs east to west just south of Swift Creek Middle. Land uses within the school zone consist of almost entirely residential with some areas of recreation.

The Swift Creek school zone includes three major roadways. Interstate-10 runs mostly east to west through the northern portion of the zone. Mahan Drive runs southwest to northeast, also, through the northern portion of the zone. Buck Lake Road runs east to west and bisects the zone into north and south. There are three other Leon County schools within the Swift Creek school zone including W.T. Moore Elementary on Dempsey Mayo Road, Chaires Elementary on Chaires Cross Road, and Buck Lake

Elementary on Pedrick Road. Recreational facilities within the school zone include Chaires Community Park and the J.R. Alford Greenway Trail.


Swift Creek Middle School
School Zone
Shamrock St S
Centerville Rd
Miccosukee Rd
Olson Rd
Fleischmann Rd
Thornton Rd
Queen Anna Dr
Mahan Dr
Walden Rd
Dempsey Mayo Rd
Pedrick Rd
Buck Lake Rd
School Zone Continues
Weems Rd
Chaires Cross Rd
SWIFT CREEK
Capitola Rd
Connor Blvd
Richview Rd
Sutor Rd
Apalachee Pkwy
Old Saint Augustine Rd
Williams Rd
Louvinia Dr
LEGEND
LCS Schools
School Zone
Bike Route
Sidewalk
Shared Use Trail
School Parcel
Residential
Recreation/Public
Distance from School
0.5 Miles
1 Mile
2 Miles
Miles
2.5
1.25
0
2.5
Capital Region Transportation Planning Agency
CRTPA
LEON COUNTY SCHOOLS
Source: Florida Geographic Data Library (2013)

Chapter 2: On-Site Meeting and Inventory

Date and Weather Conditions

The on-site inventory meeting was conducted on February 21st, 2013 with temperatures in the 60 degrees Fahrenheit.

Highlights and Key Observations of On-Site Meeting

During this visit, Swift Creek Middle 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 and traffic education. Additionally, before- and after-school programs provided for students were discussed.

It was noted that although Pedrick Road is a designated school zone, there are no flashing lights (i.e. school zone warning lights) to warn drivers of students that may be in the area. Additionally, there is no traffic calming measures present along Pedrick Road. School staff expressed their desire for some measures to slow down cars along Pedrick Road. Additionally, school administrators are working to have a perimeter fence and restrictive access gates installed for additional safety and security at the school as part of a security upgrade planned by the School Board. Students sometimes arrive to school as early as 7:30am and there are after school programs and sports available until around 6:30pm.

There is one designated crossing guard available during the mornings and afternoons out front of the school, Pedrick Road. School staff noted that the school does not offer any bicycle or pedestrian safety classes. There is no wellness program offered outside of physical fitness curriculum. However, there is a "Wolfpack Runners Club" that meets after school and gives students an opportunity to stay fit in a relaxed and encouraging atmosphere.

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.

The school is surrounded by a fair good amount of residential within two miles of the school. As such, walking and bicycling are popular modes of transportation to school. School staff estimates that only about 20% or so of students are dropped off at school by automobile. Walkers and bicyclists can enter campus from along Pedrick Road at the parent drop-off/pick-up driveway. There is a sidewalk that leads directly to the bicycle racks and the main entrance of school. There are six small bicycle racks that have space for approximately six bicycles each.

The school bus drop-off and pick-up zone is covered and functions adequately. There is no significant congestion at the school bus zone during morning and afternoon commuting hours. There are two school staff to help guide students arriving and departing school with minimal difficulty and conflict. It was noted by school staff that while there are two designated/marked bus lanes, generally, only one lane gets used. Also, it was noted by school staff that there is a grassy area immediately next to the

school bus zone. Children sometimes run across bus lanes to reach the grassy area. There has been one incident where a child was hit by a bus when doing so.

The parent drop-off and pick-up zone functions adequately to accommodate the volume of automobiles entering and exiting the site. The loading and unloading process goes quickly with multiple lanes and the help of one teacher and one school staff member; however, there are reports of drivers not obeying the rules and directions for student pick-up, which can aggravate school officials. Some drivers reportedly ask their children to walk on Pedrick Road and meet them at a green utility box instead of having them wait in the hold area available for students waiting to be picked up. The school's Safety Resource Officer (SRO) is concerned when parents/students do this because the students are off-campus and there is no supervision. It was noted that parents like driving their children to school because they feel it is safer and that it is more convenient if they also have younger children attending Buck Lake Elementary School up the road. Additionally, the parent loading/unloading zone is not covered, causing additional stress to students and staff during times of inclement weather.

Inventory Map

An aerial photograph showing Swift Creek Middle School is located on the following page. As shown in the photo, the school fronts Pedrick Road. Students can access campus from Pedrick Road. Bicycle parking racks are located near the front entrance of the school.

Standard width sidewalks are located along both sides of Pedrick Road, for the length of the school property, and there is a midblock crosswalk that connects directly to a sidewalk that enters onto campus. North and south of the school, sidewalks are only available on the non-school side of Pedrick Road.

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 a shared driveway along Pedrick Road. Parking spaces are located in this area as well. The bus drop-off and pick-up zone is separately located along the side of the school. Buses both enter and exit the zone at a shared driveway on Burning Tree Way (not pictured). Additional parking spaces are located in this area as well.


Swift Creek Middle School
Site Map
PEDRICK ROAD
Ped/Bike Entrance
Parking
Auto Drop-Off/
Pick-Up Zone
Bike Racks
Cafeteria
School Bus Zone
Parking
N

Issues and Opportunities

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

Due to the closeness of residential neighborhoods to the school, there are a fairly decent amount of students that walk and bicycle to school. However, there are still opportunities to capture those students who live within the two miles but rely upon automobile rides from their parents/guardians. With what opportunities that do exist to increase walking and bicycling, including student safety, consideration should be given to Pedrick Street. Traffic calming measures and flashing lights should be explored to reduce automobile speeds and increase awareness of the presence of children in the area, especially during school commuting times.

School-related and –supportive committees such as the Parent/Teacher Organization (PTO) 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 get the word out to parents concerning on-campus issues, such as appropriate behavior and protocol when dropping-off or picking-up students such as only using the designated loading/unloading zone. Continued education and enforcement during the morning and afternoon commuting hours are critical.

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 6th to 8th 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**.)

The survey indicates that nearly half of the students at Swift Creek Middle School are dropped-off at school by car. Riding a school bus and walking to school ranked a close second and distant third at approximately 40 percent and 11 percent, respectively. A low percentage of students, only one percent, reported biking to school and none arrived to school by public bus. (A detailed description of the analysis by mode can be found in **Appendix B**.)

SUMMARY OF SCHOOL-WIDE RESULTS

	Walk	Bicycle	Automobile	School Bus	Public Bus
Average Overall	11 %	1 %	47 %	40 %	0 %

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 6th-8th Grade. (A detailed description of results for the parent surveys can be found in **Appendix D**.)

The small survey sample of students living within two miles from the school indicates that a vast majority of Swift Creek Middle School students arrive to school by either car or walking in the morning, while few return home by the same modes in the afternoon. The car-to-school average for a typical week is 41% in the morning and decreases to 24% in the afternoon. In the afternoon, there are greater percentages of students returning home by school bus. Overall, a combined total of approximately one-half of students commutes to and from school by either walking or bicycling. The walk-to-school and bike-to-school averages for a typical week are 33% and 8% in the morning and 41% and 8% in the afternoon, respectively. The school bus-to-school average for a typical week is 17% in the morning and increases to 27% in the afternoon. None of the students rode a public bus or used an alternative commute mode in the morning or afternoon.

Neighborhood safety concerns for parents of middle-school-aged (6th-8th) children include three main concerns including issues with sidewalks/walking, speeding vehicles, and transportation outside of the school zone. There were ten comments of concern regarding issues with speeding vehicles. Specific locations where high-speed vehicles tend to be a problem are Pedrick Road, Buck Lake Road, and Highland Drive. Parents also mention vehicles speeding around blind curves and to and from the Benjamin's Run neighborhood. Additionally, there were approximately nine comments of concern regarding issues with sidewalks and walking. General concerns include the lack of sidewalks and the desire to have more parent volunteers present on walk routes to and from school. Specific locations where sidewalks and walking tend to be a problem are Avondale Way, Pedrick Road, Buck Lake Road, and, Nabb Road. Lastly, there were six comments of concern regarding issues with transportation outside of the school zone. General concerns include vehicles not yielding to pedestrians, high volumes of traffic, bus drivers driving recklessly, and bus stops located along major roads. Specific locations where there tend to be problems are Avondale Way and Buck Lake 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 accompanying children (other children), enforcing speed limits in school zones and marking zones with flashing signs, having a greater adult presence along walk routes to school, and having continuous bicycle/pedestrian pathways were agreed upon by parents from 6th-8th grade.

Chapter 5: Neighborhood Field Review

A neighborhood field review was conducted on February 27th, 2013. The review consisted of an assessment of accessibility, connectivity and safety along neighborhood roadways within proximity to Swift Creek Middle School. On the day of the field review, temperatures were in the 60's 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 Swift Creek Middle School.

Character of Neighborhood Area

Swift Creek Middle is located in an established neighborhood primarily comprised of suburban style neighborhoods that are fairly densely populated. The neighborhood street pattern throughout the immediate area surrounding the school includes mostly loops and cul-de-sacs. However, sidewalks are present on almost all streets in the neighborhoods to the south of the school providing a pretty-well connected system. Bike infrastructure in the area is limited to Mahan Drive and the western portion of Buck Lake Drive. The southern portion of the zone is bound by the J.R. Alford Greenway Trail and includes a shared-used trail system. Additionally, a CSX railroad line runs east to west just south of the school.

Major roadways in the school zone include:

- Interstate-10, a heavily traveled four lane, east-west roadway with a 70mph speed limit.
- Mahan Drive, a heavily traveled four lane, southwest to northeast roadway with a posted speed limit between 50-55mph.
- Buck Lake Road is an east-west two lane roadway 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 15th to May 30th. 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 no bicycle or pedestrian crashes reported within the theoretical two-mile walk/bike radius of Swift Creek Middle School between 2009 and 2011.

Neighborhood Assessment

The overall neighborhood layout surrounding Swift Creek Middle School lends itself fairly well to walkability. Connectivity throughout the neighborhoods is not the best due to the presence of cul-de-sacs; however, a fairly good amount of streets include sidewalk infrastructure on at least one side of the street. Streets without sidewalks tend to be low-volume, residential streets that would not pose a barrier to safe walking and bicycling. 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 Swift Creek Middle School walk/bike shed map is included at the end of this chapter.

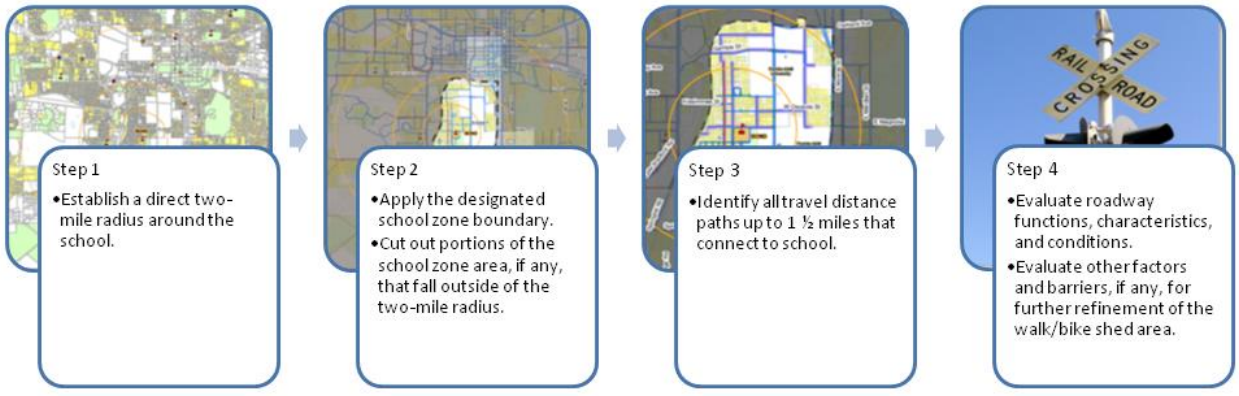
The walk/bike shed area and associated map are not meant to suggest that middle school students of all ages, maturity level, and experience should commute to and/or from school within the area delineated. Certainly, all students are not expected to walk or bike to school from practically any distance without the accompaniment of either a parent or older sibling. Also, students 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 Swift Creek Middle School mostly extends north of the school. There is a railroad line less than one-half mile south of the school. The associated railroad tracks combined with several large water bodies to the south contribute to the southern limits of the walk/bike shed. Mahan Drive with its high volumes of traffic and high speed limits forms the northern limits of the walk/bike shed. There are few residential land uses one-half mile east of the school, due to the presence of JR Alford Greenway, and as such, the area east of the school is excluded from the walk/bike shed. There is some residential land uses just west of the school. However, the land area west of the residential land uses is excluded from the walk/bike shed due to the presence of another large water body.

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 middle 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.

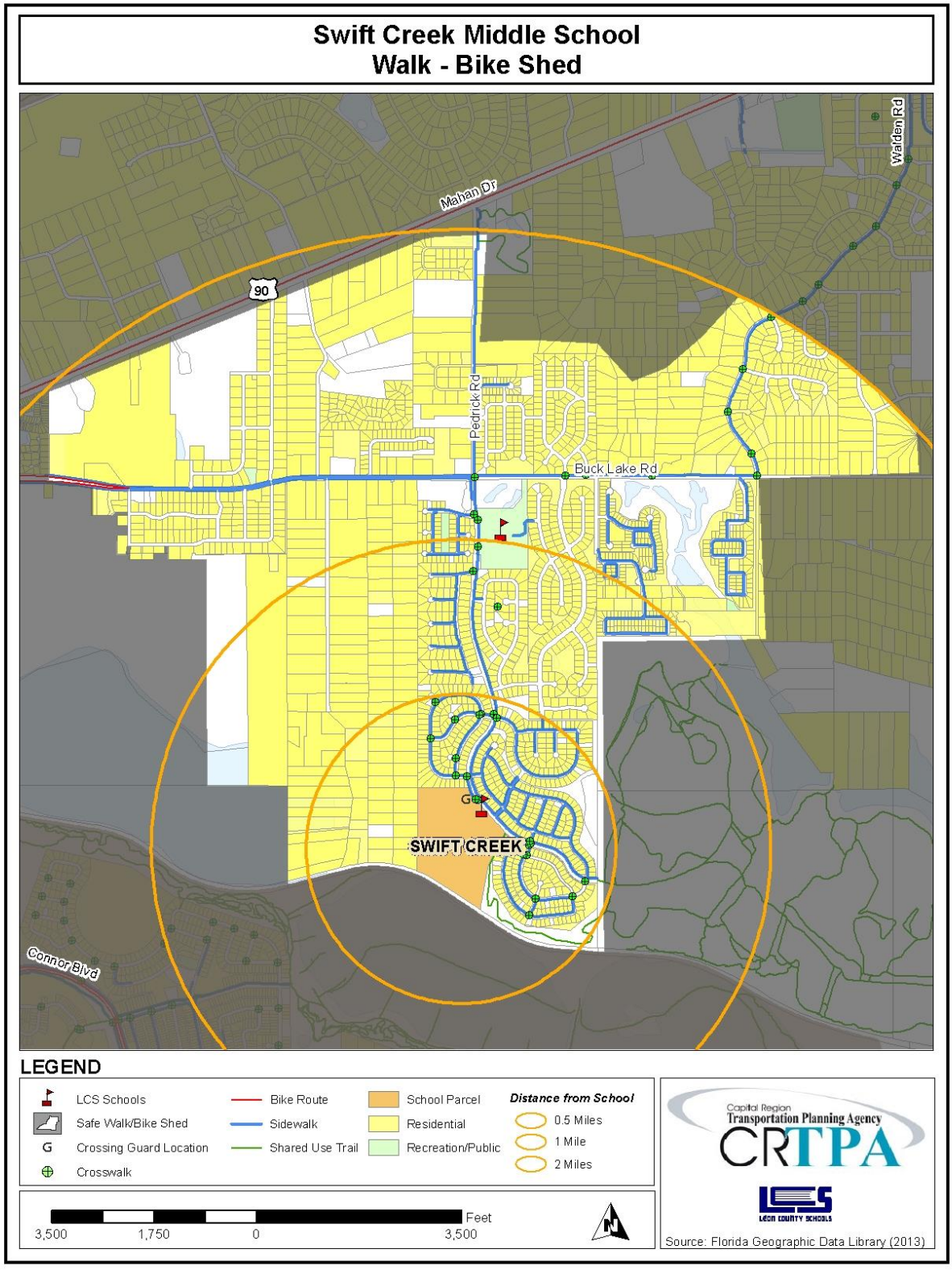
Travel Along Roadways				
Sidewalk Type	**Hazardous Conditions**			
	Type of Road	**Posted Speed Limit**	**Peak Hour Traffic**	**Length**
< 2' wide sidewalk OR without sidewalk	All roadways other than local, neighborhood streets	N/A	N/A	Exceeding 0.5 miles in length
</= 3' wide sidewalk OR </= 4' separation 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 Unsignalized Crosswalk	More than 2 travel lanes	Greater than 25 mph	Greater than 1,500	N/A
Marked Crosswalk Signalized Crosswalk	Greater than 4 travel lanes	Greater than 40 mph	Greater than 2,000	N/A

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


Swift Creek Middle School
Walk - Bike Shed
Mahan Dr
Walden Rd
90
Pedrick Rd
Buck Lake Rd
G
SWIFT CREEK
Connor Blvd
LEGEND
LCS Schools
Safe Walk/Bike Shed
Crossing Guard Location
Crosswalk
Bike Route
Sidewalk
Shared Use Trail
School Parcel
Residential
Recreation/Public
Distance from School
0.5 Miles
1 Mile
2 Miles
Feet
3,500
1,750
0
3,500
Capital Region
Transportation Planning Agency
CRTPA
LEON COUNTY SCHOOLS
Source: Florida Geographic Data Library (2013)

Chapter 6: Findings and Recommendations

The existing point of access for walkers and bicyclists to Swift Creek Middle School provide efficient access onto campus from Pedrick Road. For those requiring or desiring automobile access, there may be potential to improve the current situation with added canopy infrastructure as well as some policy, protocol or enforcement recommendations. While circulation through the parent drop-off/pick-up moves rather quickly, there are probably more parents transporting their children to school than necessary, given the proximity of homes and the available pedestrian infrastructure. This chapter includes some policy and programmatic recommendations for the school's consideration that might help to ease concerns of parents regarding speeding vehicles and increase walking and bicycling to and from school (and likewise provide some relief to both the car line and bus zone).

Given the number of homes within a fairly close proximity to school, there are many opportunities to connect neighborhoods to Swift Creek Middle School. And while there are some streets without sidewalks, most of these streets are internal residential subdivision streets with low-volume traffic. Most can be navigated by walkers and bicyclists with a fair amount of ease. Still, parents are apprehensive primarily with regard to potentially speeding vehicles along Buck Lake Road, Pedrick Road, and Highland Drive. There are infrastructure recommendations that would provide some benefit toward improving existing conditions.

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 Swift Creek Middle School. They include both on- and off-site improvements as follows:

Swift Creek Middle School On-Site Recommendations

	Improvement: On-Site	Location	From	To	Geography	Direction	Length	Comments
A1	New Canopy Awning	Parent Pick-Up/Drop-Off	N/A		N/A	N/A	Approx. 130 feet	Use similar design as the school bus zone canopy awning

Swift Creek Middle School Off-Site Recommendations

	Improvement: Off-Site	Location	From	To	Geography	Direction	Length	Comments
B1	New sidewalk	Nabb Road	Approx. 500' South of Rich Farm Road	Buck Lake Road	East side of Nabb Road	N-S	Approx. 1,235 feet	Included in County Pedestrian Masterplan; Programmed FY 15
B2	New Striped Crosswalk (with signage)	Buck Lake Road	At Nabb Road		East side of Nabb Road	N-S	N/A	In conjunction with B1
B3	Flashing School Zone Lights	Pedrick Road	Just south of Celtic Road and southeast of Burning Tree Way		N/A	N/A	N/A	
B4	Stripe Existing Crosswalk	Parent Pick-Up/Drop-Off Driveway	N/A		West side of Pedrick Road	NW-SE	N/A	
B5	New Sidewalk	Pedrick Road	Existing crosswalk in front of school	Existing sidewalk in front of school	East side of Pedrick Road	NE-SW	Approx. 25 feet	
B6	New Crosswalk	Pedrick Road	At Burning Tree Way		NE side of Pedrick Road	NW-SE	N/A	
B7	New Crosswalk	Pedrick Road	At Sioux Trace		East side of Pedrick Road	N-S	N/A	
B8	New Sidewalk	Stony Creek Way	Fox Bridge Way	Pedrick Road	South side of Stony Creek Way	NE-SW	Approx. 360 feet	
B9	Trail Extension	JR Alford Greenway	Existing JR Alford Greenway Trail	Observation Circle	South side of Observation Circle	N-S	Approx. 450 feet	Study should be done to realize feasibility of proposed trail ext.

The previous tables correspond to an infrastructure recommendations map on the following page.

On-Site Recommendation

A1) New Canopy Awning – Located at the parent pick-up/drop-off location; a similar design to the canopy awning already in place in the school bus zone. This will ease the loading/unloading of children during times of inclement weather.

Off-Site Recommendations

B1) New sidewalk along the east side of Nabb Road from approximately 500' south of Rich Farm Road to Buck Lake Road. There is existing sidewalk infrastructure available along the southern portion of Nabb Road. This new sidewalk will provide an uninterrupted connection from the Nabb Road residences to the school.

B2) New striped crosswalk **(In conjunction with B1)** with signage on Buck Lake Road at the intersection of Nabb Road to assist those commuting to/from the Nabb Road residences.

B3) Flashing school zone lights along Pedrick Road, to be placed just south of Celtic Road and southeast of Burning Tree Way.

B4) Stripe the existing crosswalk at the parent pick-up/drop-off driveway along Pedrick Road

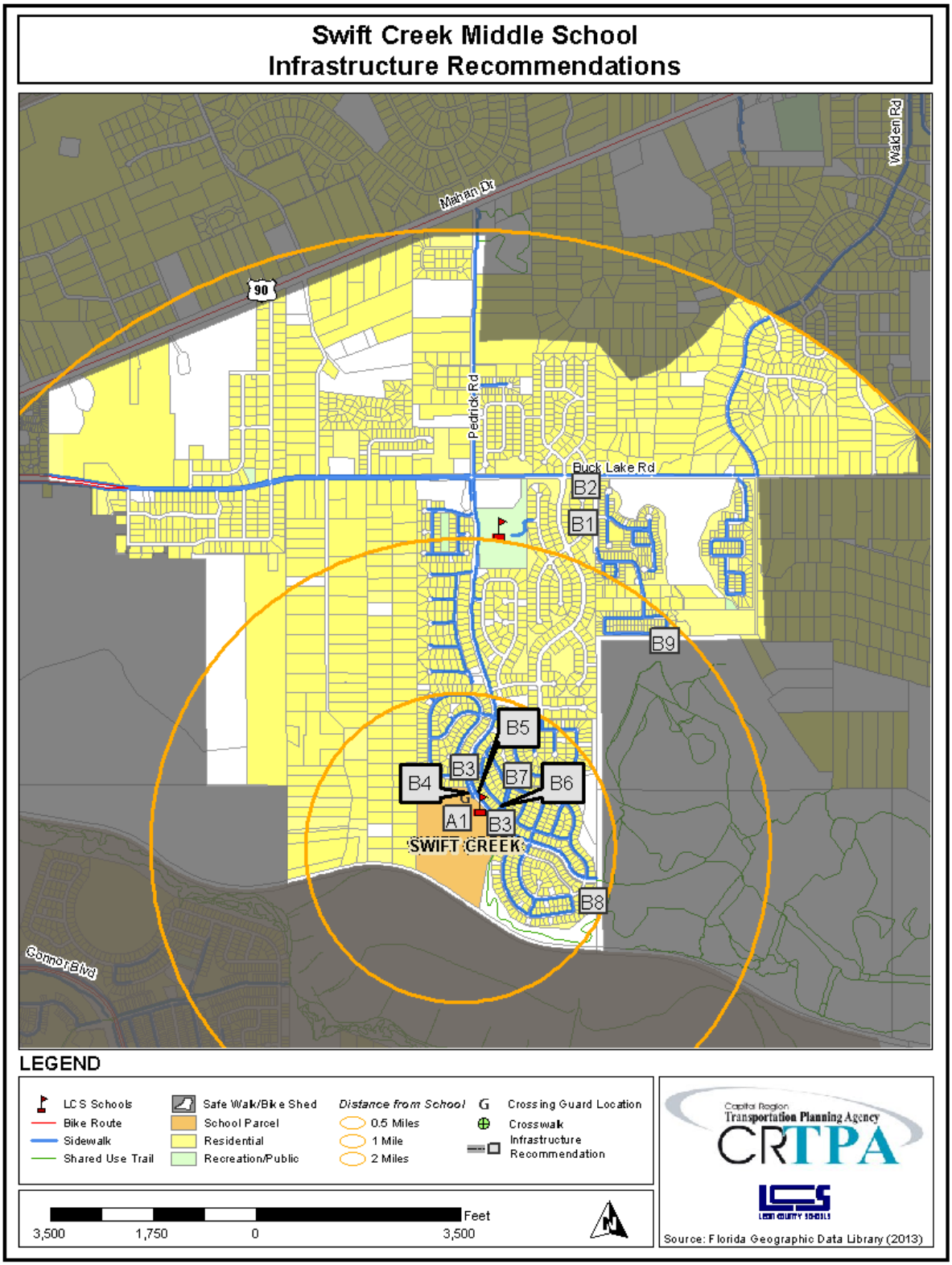
B5) New sidewalk on Pedrick Road from the existing striped crosswalk to the existing sidewalk; currently, there is just grass between the crosswalk and sidewalk.

B6) New crosswalk at the northeast side of the Pedrick Road & Burning Tree Way intersection

B7) New crosswalk at the east side of the Pedrick Road & Sioux Trace intersection

B8) New sidewalk along the south side of Stony Creek Way from Fox Bridge Way to Pedrick Road. This will provide uninterrupted pedestrian travel throughout the Stoney Creek Crossing neighborhood.

B9) Trail extension from the existing JR Alford Greenway to Observation Circle (near the Nabb Road residences) – This would provide an uninterrupted multi-use path from the school to neighborhoods further north near Buck Lake Road. A study to determine the feasibility of this trail connection should be considered.


Swift Creek Middle School
Infrastructure Recommendations
Walden Rd
Mahan Dr
90
Pedrick Rd
Buck Lake Rd
B2
B1
B9
B5
B3
B4
B7
B6
A1
B3
SWIFT CREEK
B8
Conno r Blvd
LEGEND
LCS Schools
Bike Route
Sidewalk
Shared Use Trail
Safe Walk/Bike Shed
School Parcel
Residential
Recreation/Public
Distance from School
0.5 Miles
1 Mile
2 Miles
Crossing Guard Location
Crosswalk
Infrastructure Recommendation
Feet
3,500
1,750
0
3,500
Capital Region Transportation Planning Agency
CRTPA
Source: Florida Geographic Data Library (2013)

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 participating in the Wolfpack Runner's Club and keeping track of how much they walk or bike to school to compete for prizes or certificates as individuals or classrooms.

C2) Bicycle safety and accessibility workshop – Organize and hold a workshop or a bike rodeo that demonstrates bicycle safety topics, catered to middle-school children, such as 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 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, Florida Agricultural & Mechanical University, 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.

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 Pedrick Road, or parking on the side of the road (to wait for their child by the green utility box that is frequently used by parents and 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 Guard – (**In conjunction with B1 and B2)** While the school has three existing crossing guard locations, an additional crossing guard at the intersection of Buck Lake Road & Nabb Road would assist those traveling to/from the Nabb Road residences. Buck Lake Road is a fairly well-traveled roadway and with a speed limit of 45mph it can be extremely difficult and intimidating for students to cross without assistance.

Policies

D1) Bike check and security – School policies to 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 can assist with locking/unlocking the bike in the morning and afternoons for the students in the afternoon. 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) Parent drop-off/pick-up zone protocol – Setting protocol for the parent drop-off/pick-up process improves the traffic conditions and creates a safer environment for automobiles, as well as, pedestrians and bicyclists.

Drop-Off Procedures

- Please stay in car, along with any other passengers, and pull forward to the front of the parent drop-off/pick-up zone.
- Please continue to queue the line for parent drop-off along Pedrick Road but please do not block driveways.
- Please be prepared to promptly help your child(ren) exit the vehicle with their belongings upon arriving at the drop-off point. Someone will be outside to assist and direct children into school each morning.
- If you must enter the school, please park your vehicle in the parking lot out front. Do not park in the parent drop-off/pick-up zone as this will delay others trying to drop-off their children.

Pick-Up Procedures

- Please stay in vehicle and pull forward to the front of the parent drop-off/pick-up zone.
- Please continue to queue the line for parent pick-off along Pedrick Road, but please do not block driveways.
- As soon as your child(ren) are securely in the car with their belongings, pull forward and exit the drop-off/pick-up zone so that other cars may pull forward and pick up their children.
- If you must enter the school, please park your vehicle in the parking lot out front. Do not park in the parent drop-off/pick-up zone as this will delay others trying to pick-up their children.

D3) 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 continue to 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.

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[1]

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

[1] 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

It is fairly easy to walk or bicycle to and from Swift Creek Middle School within a relative distance. The school is located along and accessible from Pedrick Road. Residences near the school include low volume streets that allow safe, convenient non-motorized travel. While approximately 11% of students commute to and from school by walking, and another one percent commute by bicycle, these percentages are fairly low considering the proximity of residences.

Some reasons for such low rates are clear while others are more complicated. One thing made clear by parents is that there are concerns with speeding vehicles along Buck Lake Road, Pedrick Road, and Highland Drive. Parents indicated that factors such as accompanying children (other children), enforcing speed limits in school zones and marking zones with flashing signs, having a greater adult presence along walk routes to school, and having continuous bicycle/pedestrian pathways would influence their decision to allow their child to walk or bike to school.

There are proven health benefits to children riding and bicycling to school. Besides the obvious physical fitness benefits, it has been shown that children who walk and bike to school are more alert and comprehensive in their daily learning. This is another point of education that is beneficial for parents and educators to know.

Swift Creek Middle School has most of the physical elements to improve non-motorized commutes to and from school such as pedestrian infrastructure and crosswalks throughout the school zone. There are, however, a few opportunities to improve walking and bicycling.

Appendices

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	Question 5
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. Thirty-four classrooms participated in the survey for a total of 623 student responses recorded. Student travel survey results were counted and analyzed for the school as a whole.

SUMMARY OF STUDENT TRAVEL SURVEY POPULATION

Total Number of Participating Classrooms	34
Total Students Surveyed (6th – 8th)	623

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 10% to 13%, with an overall average of 11%. Overall, the bike-to-school average for the week ranged from 1% to 1%, with an overall average of 1%. Of the students that bike to school, an overall average of 22% wore a bicycle helmet. In total, the combined walk-bike average for the week ranged from 11% to 15%, with an overall average of 12%.

SUMMARY OF WALKING AND BICYCLE SCHOOL-WIDE TRAVEL PATTERNS

	Walk	Bicycle	Helmet Use	Total Walk + Bike
Average Overall	11 %	1 %	22 %	12 %
Highest Day	13 %	1 %	25 %	15 %
Lowest Day	10 %	1 %	14 %	11 %

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 student travel surveys indicate that the automobile-to-school average for the week ranged from 44% to 49%, with an overall average of 47%. Of the students that ride to school in an automobile, an overall average of 79% wore a seatbelt. Overall, the school bus-to-school average for the week ranged from 39% to 41%, with an overall average of 40%. None of the students surveyed reported riding a public bus to school.

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

	Automobile	Seat Belt	School Bus	Public Bus
Average Overall	47 %	79 %	40 %	0 %
Highest Day	49 %	81 %	41 %	0 %
Lowest Day	44 %	77 %	39 %	0 %

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:

_____
_____
_____

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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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 215 parent surveys returned. Of those, 75 (35%) claimed to reside within the theoretical two-mile walk/bike radius of the school.

SUMMARY OF PARENT SURVEY PARTICIPATION

Total Enrollment	793
Total Number of Parent Surveys	215
Total Number within 2 Miles	75
Percentage of Surveys within 2 Miles	35 %

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

Morning	Average Overall
Car	41 %
Walk	33 %
School Bus	17 %
Bicycle	8 %
Public Bus	0 %
Other	0 %
Afternoon	
Walk	41 %
School Bus	27 %
Car	24 %
Bicycle	8 %
Public Bus	0 %
Other	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.

SUMMARY OF TOP NEIGHBORHOOD SAFETY CONCERNS

Neighborhood Safety Concern	Number of Comments
Speeding Vehicles	10
Issues with Sidewalks/Walking	9
Issues with Transportation Outside of School Zone	6

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).

TOP RANKING INFLUENTIAL FACTORS FOR MIDDLE-SCHOOL-AGED CHILDREN

	SCALE	1	2	3	4	5	N/A
I would allow my child to walk or bicycle to school more often if:							
#1 Accompanied by other children		*4*	*5*	*6*	*8*	*30*	13
#2 Speed limits were strictly enforced in school speed zones		*4*	*3*	*8*	*6*	*26*	19
#3 There was a greater adult presence of parent volunteers or police officers along walk routes to school		*4*	*7*	*6*	*8*	*24*	17
#4 There were continuous sidewalks or bike paths from my neighborhood to school		*4*	*6*	*9*	*8*	*23*	18
#4 School speed zones were marked with flashing signs		*3*	*3*	*10*	*6*	*23*	21