

August 2014

Safe Routes to School Audit Report
Griffin Middle School



Leon County
Public Schools



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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

Griffin Middle School is located at 800 Alabama Street, Tallahassee, 32304 in Leon County, Florida. It is part of the Leon County Public Schools system. The school first opened its doors in 1920 as Griffin Normal and Industrial Institute in honor of Reverend Henry Griffin. Throughout the years from 1934 to 1969 the school offered different grades from 1st to 12th grade. Then, beginning in 1970, Griffin became an official middle school offering grades 6th to 8th. Regular school hours are from 9:30am to 3:50pm.

The number of students enrolled at the school, for the 2013 school year, was 415. The school has a current capacity for 847 students. The school includes grade levels 6th to 8th grade.

Students attending this school feed from Astoria Park, Riley, Ruediger, and Springwood Elementary Schools and to either Godby or Leon High School.

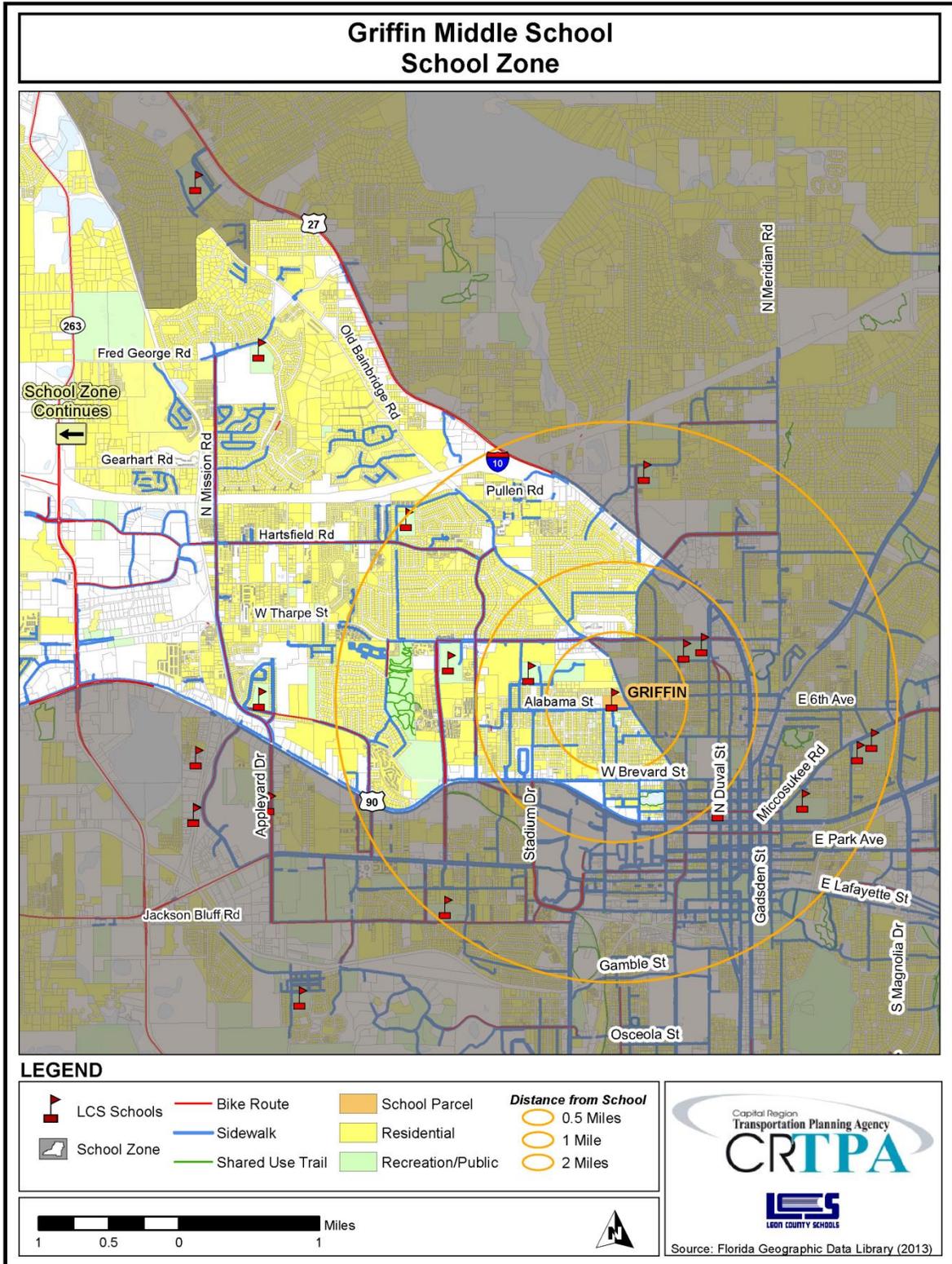
School Zone

The Griffin Middle school zone, located near downtown Tallahassee, encompasses the neighborhoods of Griffin Heights, Frenchtown, San Luis, Hartsfield Village, Settlers Creek, Hartsfield Plantation, Town and Country, Park Terrace, Golden Park, Huntington Estates, and Duck Lake Point. Just south of the school zone are Tallahassee Community College, Florida State University, and Florida Agricultural & Mechanical University. The presence of college and university near the school influences the demographic makeup of the area, with a significant amount of housing occupied by college students. The land uses in the school zone are predominantly residential and recreational.

The Griffin school zone includes four major roadways. Interstate-10 runs east to west and bisects the zone into north and south. West Tharpe Street also runs east to west in the southern portion of the zone. Old Bainbridge Road runs northwest to southeast along the eastern side of the zone. Capital Circle Northwest runs north to south along the west side of the zone. There are approximately five other Leon County schools within the Griffin school zone. Important recreational facilities within the school zone include Lawrence Gregory Center & Robinson Trueblood Pool, John G. Riley Park, San Luis Mission Park, and Northwest Park. There are a variety of shared-use trails and bike routes that are important non-

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motorized shared-use transportation amenities that traverse the eastern side of the school zone, connecting the school to areas throughout the downtown portion of the zone.



Chapter 2: On-Site Meeting and Inventory

Date and Weather Conditions

The on-site inventory meeting was conducted on May 1st, 2013 with temperatures in the 70's degrees Fahrenheit.

Highlights and Key Observations of On-Site Meeting

During this visit, Griffin 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, 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 Old Bainbridge Road and Alabama Street. These roads are both designated as school zones. However, there is still a concern with speeding automobiles on both roadways. School staff stated that motorcycle police formerly patrolled the roads during school commuting hours but has since lessened their presence. Students are permitted to arrive to school as early as 8:00am and after-school programs are available until 6:20pm.

There are two designated crossing guards available at the intersection of Alabama Street & Old Bainbridge Road as well as at the intersection of Alabama Street & Dade Street. School staff and administrators serve as ushers for students at both the automobile drop-off/pick-up and school bus zones. School staff has expressed concerns with students using the Miracle Hill Nursing and Rehabilitation Center, west of the school, as a cut-through to Abraham Street. Previously, there were more students cutting through until they were threatened with a trespassing notice. Additionally, school staff noted that students sometimes cut through an empty lot between North Woodward Avenue and Dade Street, along Alabama Street. It was also noted by school representatives that there are several "rough" areas surrounding campus near West 4th Avenue, Joe Louis Street, and Basin Street) that can be uncomfortable for students walking or bicycling.

Lastly, school staff expressed major concerns for the intersection of Old Bainbridge Road & West 7th Avenue, specifically the northeast corner. The sidewalk leading up to the corner from the north is very narrow and bordered by a stone retention wall. As such, there is barely enough room for pedestrians and no room at all for someone on a bicycle. Additionally, the northeast corner is also very narrow and provides minimal protection from vehicles, especially school buses, turning right into the school bus zone. The City is currently relocating utilities along Old Bainbridge Road and has told school staff that will be adding sidewalks where needed along the roadway but that they will not be redesigning/reconfiguring the corner problem.

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 the school is located in an older, neighborhood primarily comprised of higher density single family homes and multifamily homes, there appears to be a limited number of students who walk or bike to school as many are known to ride the school bus. Walkers and bicyclists can enter campus from two points along Old Bainbridge Road as well as from one point along Alabama Street near the main school entrance. The school has one bicycle parking rack available, near the Media Center, which has spaces available for 15 bicycles. School staff stated that the bicycle rack is used. However, upon site visit there were no bicycles parked and the rack appeared weathered from the elements.

The school bus drop-off and pick-up zone functions adequately. There is direct access to a covered walking facility. There are ushers to help guide students arriving and departing school with minimal difficulty and conflict. School staff noted that a majority of the students ride a school bus.

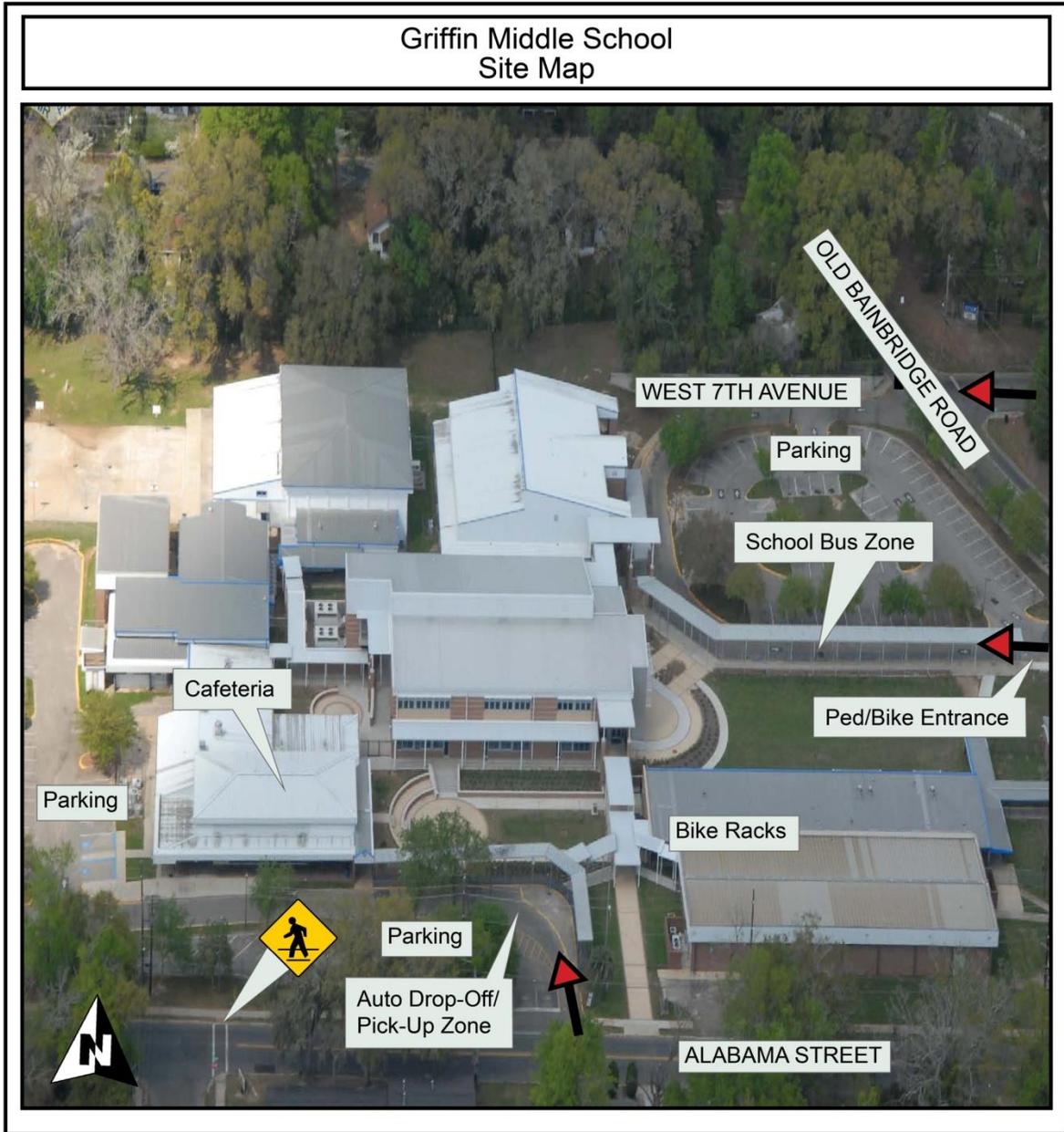
The parent drop-off and pick-up zone is small but functions adequately to accommodate the volume of automobiles entering and exiting the site. School Staff noted that there are roughly 30 automobiles that use the zone daily. As such, automobiles never tend to back up onto Alabama Street. There are school staff that help to usher students arriving and departing school as well as providing supervision. There is direct access to a partially covered walking facility from the loading/unloading area. In the afternoons, there is a holding area available for students waiting to be picked-up.

Inventory Map

An aerial photograph showing Griffin Middle School is located on the following page. As shown in the photo, the school fronts Alabama Street. Students can access campus from this street as well as from two points on the east side of campus along Old Bainbridge Road. Bicycle parking racks are located near the front entrance of the school.

Standard width sidewalks are located along the school-side of Alabama Street and there is a midblock crosswalk in front of the school on this street. Additionally, there are sidewalks along the school-side of Old Bainbridge Road. Sidewalks are standard width until north of West 7th Avenue where sidewalks become a bit more narrow.

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 Alabama Street. Parking spaces are located in this area as well. The bus drop-off and pick-up zone is separately located on the side of the school along Old Bainbridge Road. Buses both enter and exit at separate driveways along Old Bainbridge 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 appears to be the primary issue with students' ability to walk and bicycle to school. The neighborhoods surrounding the school are fairly high density single family homes and multifamily homes. However, the school zone extends in a northwest direction from the school to the County line, eliminating many neighborhoods just south and east of the school that might contain children. As such, the large size of the school zone limits the amount of children who may be able to walk or bike to school due to the distance they would have to overcome. This kind of external factor is often difficult to overcome, at least in the short term.

With what opportunities that do exist to increase walking and bicycling, including student safety, consideration should be given to Alabama Street and Old Bainbridge Road. While the posted speed limit on these roads is already relatively low, 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 (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.

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 Griffin Middle School – approximately one out of two students – arrived by school bus. Riding in an automobile and walking to school ranked second and third at approximately 35 percent and 15 percent of students, respectively. A low percentage of students, only one percent, arrived to school by public bus and less than one percent reported biking to school. (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	15 %	<1 %	35 %	48 %	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 6th-8th Grade. (A detailed description of results for the parent surveys can be found in **Appendix D.**)

The surveys of students living within two miles from the school indicate that a greater percentage of Griffin Middle School students walk to school in the morning, while fewer return home by the same mode in the afternoon. The walk-to-school average for a typical week is 67% in the morning and decreases to 17% in the afternoon. In the afternoon, there are a greater percentage of students returning home by car. Overall, approximately seven out of ten students in the morning and one-fifth of students in the afternoon commute to and from school by walking or biking. The school bus-to-school average for a typical week is 17% in both the morning and afternoon. The car-to-school average for a typical week is 17% in the morning and increases to 67% in the afternoon. None of the students rode a public bus or 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, crime, and transportation outside of the school zone. There was one comment of concern regarding issues with sidewalks and walking. The general comment was that sidewalks are not available on both sides of the street continuously. Additionally, there was one comment of concern regarding issues with crime. The parent mentioned a general fear for their child walking alone, mostly due to dogs running loose in the neighborhood. Lastly, there was one comment of concern regarding issues with transportation outside of the school zone. One general comment mentioned drivers not obeying traffic laws, particularly not stopping at stop signs.

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 (themselves/other parents) and having separated bicycle/pedestrian pathways were agreed upon by parents from 6th-8th grade.

Chapter 5: Neighborhood Field Review

A neighborhood field review was conducted on April 26th, 2013. The review consisted of an assessment of accessibility, connectivity and safety along neighborhood roadways within proximity to Griffin Middle School. On the day of the field review, temperatures were in the 70's 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 Griffin Middle School.

Character of Neighborhood Area

Griffin Middle School is located in an established neighborhood primarily comprised of higher density single family homes and multifamily homes. For the most part, the neighborhood has a well-connected pattern of mostly gridded streets which contributes to the school's accessibility. In the area directly surrounding the school, bike-ped connectivity is good. The grid layout, slower speed limits, and sidewalk and bicycle infrastructure make this area a fairly comfortable space to walk and bike. The intersection of Alabama Street and Old Bainbridge Road, near the school, is a bit unusual but the signage is good and the crosswalks are well marked. There are no multi-use trails in the immediate area of the school.

Major roadways in the school zone include:

- Interstate-10, a heavily traveled six-lane roadway with a posted speed limit of 70mph.
- West Tharpe Street, a 4 lane roadway with a posted speed limit of 35mph or less.
- Old Bainbridge Road, a two lane roadway with a posted speed limit of 35mph or less.

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 a total 33 bicycle and pedestrian crashes that occurred within the theoretical two-mile walk/bike radius of Griffin Middle School. Of those total crashes, 8(24%) occurred during the morning hours and 25 (76%) occurred during the afternoon hours. A vast majority of the crashes involved adult pedestrians. However, there were a few incidents of crashes involving bicyclists and children. Injuries were reported in all crashes except for four.

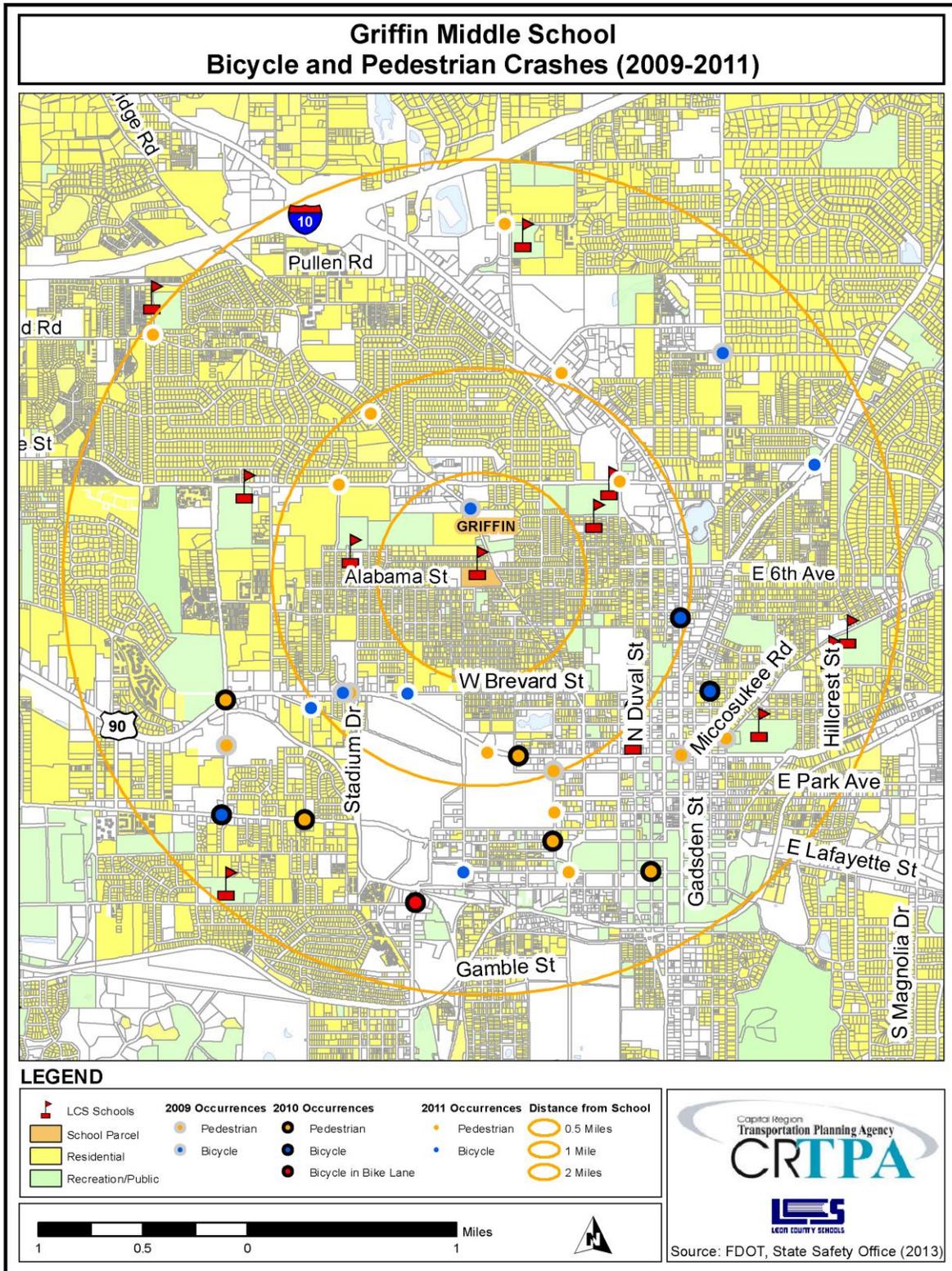
Most of the crashes occurred approximately one to two miles south of Griffin Middle School, in an area mainly comprised of downtown Tallahassee and Florida State University campus. Streets where crashes tend to be a problem are Tennessee Street, Pensacola Street, Monroe Street North, and Copeland Street South. Other roadways with reported crashes include Old Bainbridge Road, Ocala Road, Madison Street, and other local roadways.

SUMMARY OF CRASH REPORTS (2009-2011)

Date	Time	Day	On Road	Nearest Intersection	Injury or Fatality?	Type of Crash	Person(s) Involved
01/09/09	3:02pm	Friday	Tennessee St.	Monroe St.	Injury	Pedestrian	Adult
02/10/09	3:20pm	Tuesday	Meridian Rd.	Virginia St.	Injury	Pedestrian	Child
02/20/09	4:18pm	Friday	Heritage Grove Dr.	Ocala Rd.	Injury	Pedestrian	Adult
04/22/09	8:15am	Wednesday	Call St. W	Copeland St. N	Injury	Pedestrian	Adult
04/29/09	8:27am	Wednesday	Tennessee St.	Bryan St.	Injury	Pedestrian	Adult
05/05/09	4:07pm	Tuesday	Old Bainbridge Rd.	Knots Ln.	Injury	Bicyclist	Adult
09/16/09	4:11pm	Wednesday	Tennessee St.	Campus Cir.	Injury	Bicyclist	Adult
09/23/09	3:13pm	Wednesday	S Ride	Meridian Rd. N	Injury	Bicyclist	Adult
03/01/10	2:51pm	Monday	Gadsden St. N	Brevard St. E	Injury	Bicyclist	Adult
05/20/10	4:11pm	Thursday	Ocala Rd.	Tennessee St. W	Injury	Pedestrian	Adult
05/27/10	8:06am	Thursday	Madison St.	Duval St.	Injury	Pedestrian	Adult
09/06/10	2:09pm	Monday	Tennessee St.	Dewey St. N	Injury	Pedestrian	Adult
09/09/10	3:54pm	Thursday	N Monroe St.	4 th Ave.	Injury	Bicyclist	Child
10/04/10	2:14pm	Monday	Lake Bradford Rd.	Jackson Bluff Rd.	No Injury	Bicyclist in Bike Lane	Adult
10/12/10	7:53am	Tuesday	Pensacola St.	Chapel Dr.	Injury	Pedestrian	Adult
10/26/10	3:46pm	Tuesday	Pensacola St.	Copeland St. S	No Injury	Pedestrian	Adult
10/29/10	3:46pm	Friday	Ocala Rd. S	Pensacola St.	Injury	Bicyclist	Adult
11/17/10	3:35pm	Wednesday	Bronough St. N	Georgia St. W	Injury	Bicyclist	Adult
01/07/11	2:15pm	Friday	N Monroe St.	Silver Slipper Ln.	Injury	Pedestrian	Adult
01/11/11	2:35pm	Tuesday	Academic Way	Territory Way	Injury	Pedestrian	Adult
01/19/11	3:43pm	Wednesday	Copeland St.	College Ave.	Injury	Pedestrian	Adult

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Date	Time	Day	On Road	Nearest Intersection	Injury or Fatality?	Type of Crash	Person(s) Involved
02/08/11	3:32pm	Tuesday	Madison St.	Railroad Ave.	Injury	Pedestrian	Adult
02/14/11	2:15pm	Monday	Brevard St.	Richmond St.	No Injury	Bicyclist	Adult
02/16/11	4:05pm	Wednesday	Madison St.	Woodward Ave. S	Injury	Bicyclist	Adult
03/01/11	3:40pm	Tuesday	Thomasville Rd.	Glenview Rd.	Injury	Bicyclist	Adult
03/01/11	3:45pm	Tuesday	Old Bainbridge Rd.	Raa Ave.	Injury	Pedestrian	Child
03/30/11	4:13pm	Wednesday	W Tharpe Street Rd.	Colorado St.	No Injury	Pedestrian	Child
04/29/11	8:10am	Friday	Duval St.	Madison St.	Injury	Pedestrian	Adult
08/22/11	8:35am	Monday	W Tharpe Street Rd.	MLK Blvd.	Injury	Pedestrian	Adult
10/04/11	7:53am	Tuesday	Call St. W	Chapel Dr.	Injury	Bicyclist	Adult
11/11/11	9:30am	Friday	Ocala Rd.	Tennessee St.	Injury	Pedestrian	Adult
11/16/11	4:10pm	Wednesday	Atlas Rd.	Hartsfield Rd.	Injury	Pedestrian	Child
11/30/11	4:20pm	Wednesday	Fulton Rd.	Sharer Rd.	Injury	Pedestrian	Adult



Neighborhood Assessment

The overall neighborhood layout surrounding Griffin Middle School lends itself fairly well to walkability. The well connected gridded street network allows for multiple route choices to access the school. The primary roadways surrounding and in the vicinity of the school, including West Tharpe Street, Old Bainbridge Road, and Tennessee Street, have abundant pedestrian, and in some cases bicycle-specific infrastructure to support walking and bicycling. Most of the individual neighborhood streets lack sidewalks; however, vehicular traffic, speeds and street widths in these areas do not pose significant concern for safe walking and bicycling on these low-volume roadways.

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 Griffin Middle School walk/bike shed map is included on the following page.

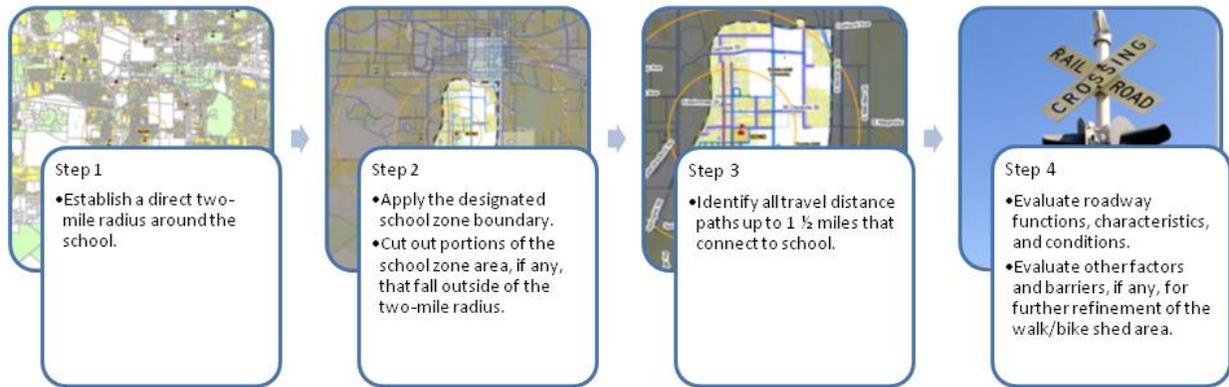
The walk/bike shed area and associated map are not meant to suggest that middle school students of all ages, maturity level, and experience should commute to and/or from school within the area delineated. Certainly, all students are not expected to walk or bike to school from practically any distance. 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 Griffin Middle School mostly extends west and south of the school. Old Bainbridge Road with its narrow sidewalks and lack of bicycle accommodations forms the eastern limits of the walk/bike shed. Also, because Tennessee Street has six travel lanes and minimal separation from traffic it forms the southern limits of the walk/bike shed. Ocala Road with its four lanes of divided traffic and minimal separation from traffic forms the western limits of the walk/bike shed. Similarly, West Tharpe Street with its four lanes undivided and no separation from traffic forms the northern boundary of the walk/bike shed.

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:

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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.

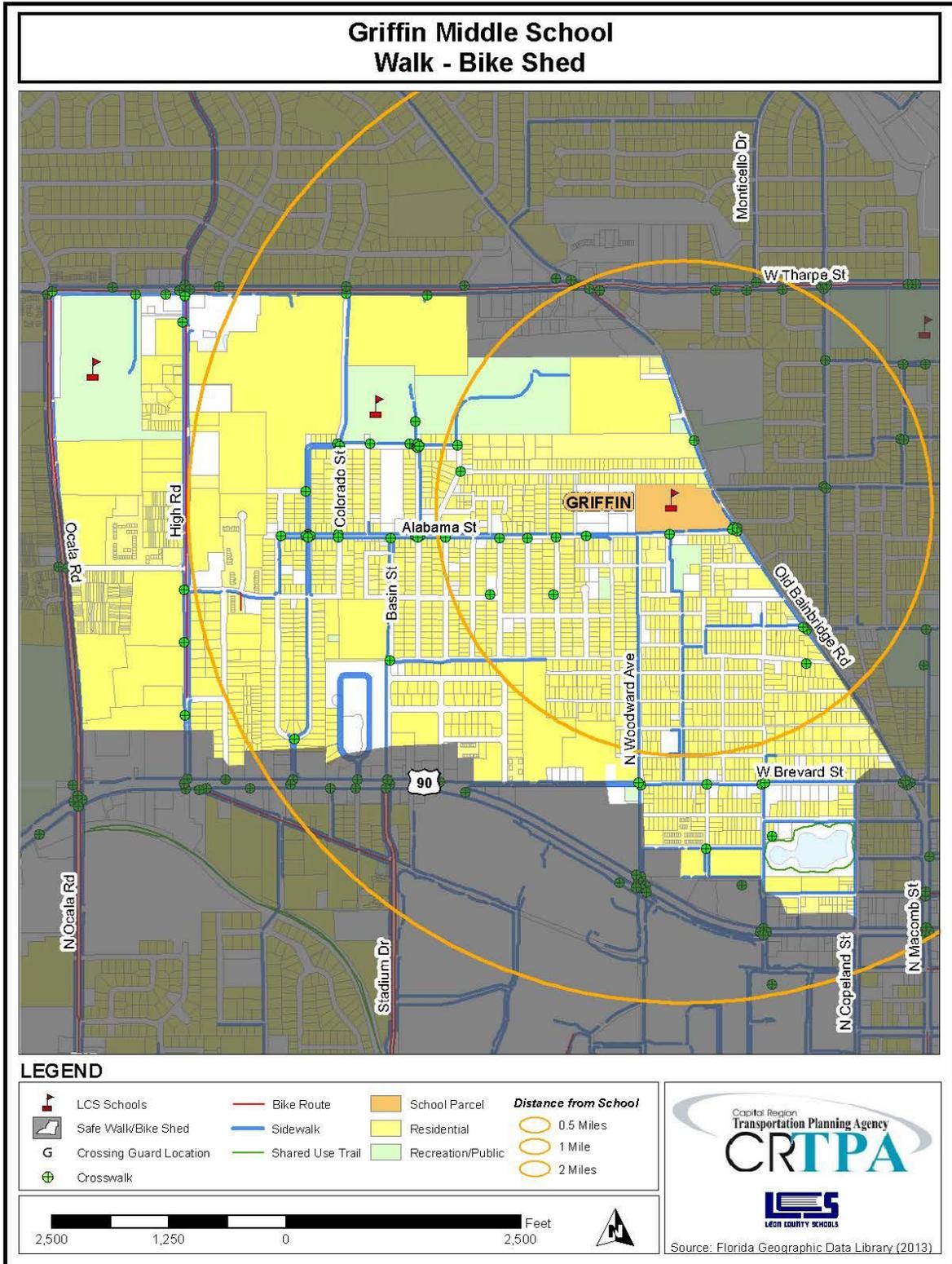
Travel Along Roadways				
Sidewalk Type	Hazardous Conditions			
	Type of Road	Posted Speed Limit	Peak Hour Traffic	Length
< 2' wide sidewalk OR without sidewalk	All roadways other than local, neighborhood streets	N/A	N/A	Exceeding 0.5 miles in length
<= 3' wide sidewalk OR <= 4' separation from traffic	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	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				

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

There are ample points of access for walkers and bicyclists onto the Griffin Middle School campus; and there are few issues to note concerning automobile and school bus access and circulation. As such there are few on-campus infrastructure-related recommendations for improvement. There are, however, some opportunities to improve walking and bicycling opportunities as well as safety throughout the surrounding neighborhoods. In addition, there are some limited policy and programmatic recommendations for the school's consideration.

While there are some fairly busy roadways a way out from Griffin Middle School, the surrounding neighborhoods are fairly well-connected to the school. And while there are many streets without sidewalks, most of these streets are internal residential streets with low-volume traffic. Most can be navigated by walkers and bicyclists with a fair amount of ease.

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

Griffin Middle School On- and Off-Site Recommendations

Improvement: On-Site	Location	From	To	Geography	Direction	Length	Comments
A1 Replace and relocate bicycle rack	Currently near the Library	Move to area near the flag pole		N/A	N/A	N/A	
A2 Paint new crosswalks	Old Bainbridge Road	At School Bus Driveways		N/A	N/A	N/A	Both entrance and exit
A3 Stripe existing crosswalks	Alabama Street	At Parent Pick-Up/Drop-Off Driveways		N/A	N/A	N/A	Both entrance and exit

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Improvement: Off-Site		Location	From	To	Geography	Direction	Length	Comments
B1	Reconfigure corner/widen sidewalk	Old Bainbridge Road	At West 7 th Avenue		West side of Old Bainbridge Road	N/A	N/A	See explanation.
B2	Traffic Calming	Alabama Street	North Woodward Avenue	East of Bennett Street	N/A	N/A	N/A	
B3	Intersection Improvements	Old Bainbridge Road	At Alabama Street		See explanation.			
B4	Midblock Crosswalk (incl signage)	High Road	West to east side of High Road		South of High Court	E – W	N/A	Approximately 35 ft south of High Court
B5	Crosswalk (incl signage)	Tharpe Street	Tharpe Street and Ocala Road		North side of Tharpe Street	E – W	N/A	Standards school crossing signage on both sides of Tharpe St
B6	Crosswalk (incl signage)	High Road	High Road and Continental Avenue		West side of High Road	N – S	N/A	Standards school crossing signage on both sides of High Road
B7	Widen existing sidewalk	Colorado Street	Indiana Street	West Tharpe Street	East side of Colorado Street	N-S	Approx. 1,651 feet	Existing sidewalk is less than standard width
B8	New sidewalk	Preston Street	West of Abraham Street	North Woodward Avenue	South side of Preston Street	E-W	Approx. 858 feet	Possible ROW constraints

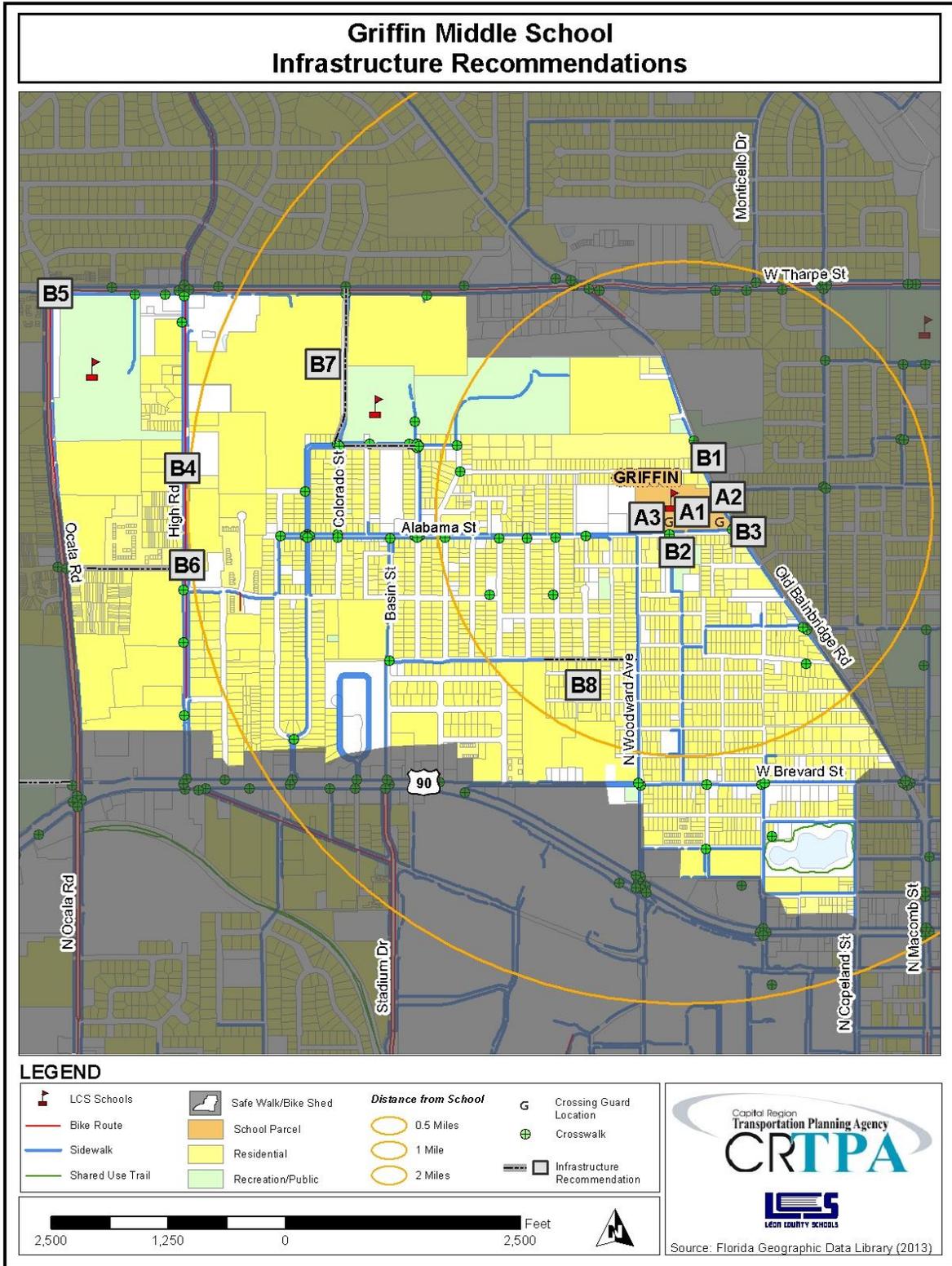
The table, above, corresponds to an infrastructure recommendations map on the following page.

On-Site Recommendations

- A1) Replace and relocate the bicycle rack - The current bicycle rack is showing some wear and tear. Additionally, there is the potential for bicycles to get vandalized or damaged, during the school day, due to the rack's proximity to the school hallway.
- A2) Paint new crosswalks on Old Bainbridge Road at the both the school bus entrance and exit.
- A3) Stripe the existing crosswalks on Alabama Street at the parent pick-up/drop-off entrance and exit.

Off-Site Recommendations

- B1) Reconfigure the corner of Old Bainbridge Road at West 7th Avenue and widen the sidewalk from West 7th Avenue to approximately 324' north of Volusia Street. This corner and sidewalk are very dangerous for students trying to walk or bicycle. The sidewalk is very narrow and school buses and other vehicles turning the corner come in very close contact with students. There is currently a stone retention wall and private property along the sidewalk which may hinder any improvements due to ROW constraints.
- B2) Traffic calming should be installed along Alabama Street from North Woodward Avenue to East of Bennett Street. Parents expressed concerns for speeding vehicles along this roadway in the Parent Surveys.
- B3) Intersection improvements at the intersection of Old Bainbridge Road & Alabama Street include:
 - Stripe the existing three crosswalks
 - Widen the east sidewalk towards Westcott Street
- B4) Add midblock crosswalk with signage on High Road, east-to-west direction, south of High Court
- B5) Add crosswalk with signage on the north side of Tharpe Street, at the intersection of Ocala Road
- B6) Add crosswalk with signage on the west side of High Road, at the intersection of Continental Avenue
- B7) Widen the existing sidewalk on Colorado Street from Indiana Street to West Tharpe Street. As it currently exists, the sidewalk is less than standard width.
- B8) Construct a new sidewalk along Preston Street from just west of Abraham Street to North Woodward Avenue. There is a sidewalk available west of Abraham Street. This project will extend that existing sidewalk and improve an east-west connection in the neighborhood.



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 – Organize and hold a workshop or a bike rodeo that demonstrates bicycle safety topics, catered to middle-school aged 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, 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, university groups, 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.

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 will assist with locking the bike in the morning and will unlock the bike 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.

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 Estimates¹

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

Griffin Middle School is an in-town school near the edge of downtown Tallahassee. The school zone, however, extends quite far out to the west from the school. While this zone is indeed extensive, there are certain, physical barriers that limit the ability to realistically and/or safely walk or bicycle to school within a reasonable distance, Tennessee Street (US Highway 90) being the obvious example. Also, the configuration of the school zone itself, with Griffin Middle positioned near eastern boundary of the zone, jurisdictionally limits the ability to attract walkers and bicyclists. Finally, it's certainly worth mentioning the immediate area demographics also at play; with near proximity to Florida State University, the neighborhoods surrounding Griffin Middle School tend to include a sizable college student population that lacks in elementary school-aged children. These issues are more system-wide transportation and geography issues outside the purview of this analysis. However, they could be further explored during any future school district boundary change considerations.

Griffin Middle School enjoys a well-connected roadway network consisting of both major corridors and low-volume residential streets. The major corridors are mostly equipped with at least the minimum of pedestrian and bicycle infrastructure, including crossings; however, there are some needs and associated opportunities for improvement as highlighted in the previous chapter. The low-volume residential streets are mostly adequate and safe for pedestrians, and the school campus itself is accessible to walkers and bicyclists from most directions. That being said, the approximate number of students that commute to/from school by walking is 15% while the approximate number of students that commute to/from school by bicycle is less than one percent.

As noted above, there are certain constraints at play that keep the numbers of walkers and bicyclists down; however, with the vast amount of housing within reasonable distance to school, these numbers could be improved. This audit report includes infrastructure-type enhancements to improve conditions as well as safety for students to walk and bicycle to school; however, with an already fairly manageable network of streets suitable to accommodate pedestrians, it is likely that programmatic- and policy-type recommendations will be just as important. By and large, there are measures for which the school can take that will help to improve walking and bicycling safety and increase non-motorized commuting rates.

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. Nineteen classrooms participated in the survey for a total of 261 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	19
Total Students Surveyed (6th – 8th)	261

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 12% to 17%, 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 1 student that bikes to school, an overall average of 0% wore a bicycle helmet. In total, the combined walk-bike average for the week ranged from 12% to 18%, with an overall average of 16%.

SUMMARY OF WALKING AND BICYCLE SCHOOL-WIDE TRAVEL PATTERNS

	Walk	Bicycle	Helmet Use	Total Walk + Bike
Average Overall	15 %	<1 %	0 %	16 %
Highest Day	17 %	1 %	0 %	18 %
Lowest Day	12 %	0 %	0 %	12 %

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 33% to 41%, with an overall average of 35%. Of the students that ride to school in an automobile, an overall average of 71% wore a seatbelt. Overall, the school bus-to-school average for the week ranged from 39% to 51%, with an overall average of 48%. The public bus-to-school average for the week ranged from 1% to 3%, with an overall average of 1%.

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

	Automobile	Seat Belt	School Bus	Public Bus
Average Overall	35 %	71 %	48 %	1 %
Highest Day	41 %	81 %	51 %	3 %
Lowest Day	33 %	62 %	39 %	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:

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
	1	2	3	4	5	
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. Only 10 parent surveys were returned. Of those, 6 (60%) claimed to reside within the theoretical two-mile walk/bike radius of the school.

SUMMARY OF PARENT SURVEY PARTICIPATION

Total Enrollment	415
Total Number of Parent Surveys	10
Total Number within 2 Miles (6th-8th Grade)	6
Percentage of Surveys within 2 Miles	60 %

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
Walk	67 %
School Bus	17 %
Car	17 %
Bicycle	0 %
Public Bus	0 %
Other	0 %
Afternoon	
Car	67 %
School Bus	17 %
Walk	17 %
Other	0 %
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.

SUMMARY OF TOP NEIGHBORHOOD SAFETY CONCERNS

Neighborhood Safety Concern	Number of Comments
Issues with Sidewalks/Walking	1
Issues with Crime	1
Issues with Transportation Outside of School Zone	1

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:							
<i>#1 Accompanied by myself or other parents</i>		0	0	0	0	4	1
<i>#1 There were bicycle/pedestrian pathways separated from traffic from the neighborhood to the school</i>		0	0	0	0	4	1