

SCHOOL ROUTES ANALYSIS

CAMBRIDGE ELEMENTARY SCHOOL

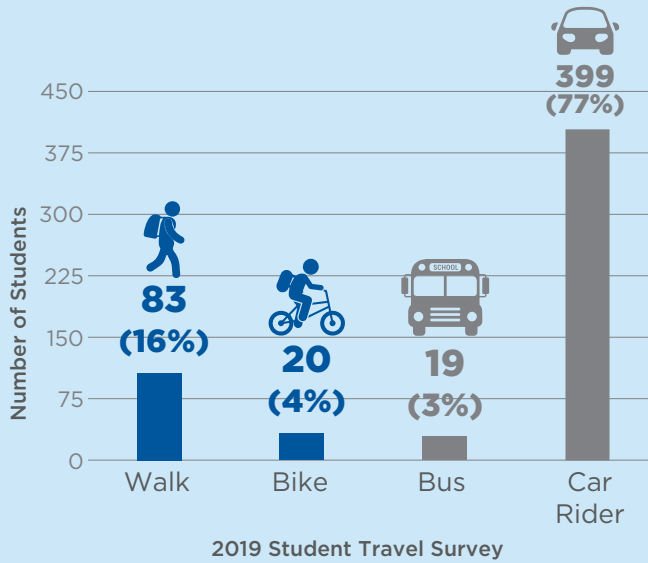


GRAPHICAL SUMMARY REPORT

FEBRUARY 2024



Student Travel Modes (2019)



Total Bicycle & Pedestrian Crashes within Study Area

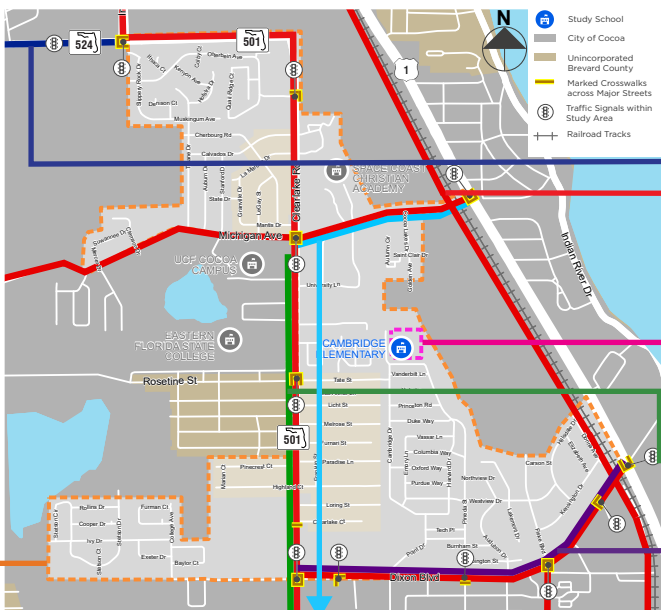


School Aged Bicycle & Pedestrian Crashes within Study Area



August 2017 to July 2023 Crashes from University of Florida's Signal Four Analytics Database

Signals and Crossings within Study Area



Previous & Ongoing Plans

SR 524 from Friday Road to Industry Road

- PD&E study to improve roadway capacity, safety, and enhance multimodal opportunities with improved bicycle and pedestrian facilities.
- Current alternatives consider widening SR 524 from two to four lanes and adding a six-foot sidewalk on the south side of the roadway, an eight-foot sidewalk on the north side of the roadway, and buffered bicycle lanes.

2019 SCTPO Bicycle & Pedestrian Master Plan

- Includes filling sidewalk and bicycle facility gaps throughout the county.
- Near Cambridge Elementary School, this includes filling pedestrian and bicycle facility gaps along Dixon Boulevard, SR 501 (Clearlake Road), Michigan Avenue, Industry Road, and Fiske Boulevard.
- An alternative alignment of the East Coast Greenway is proposed along the railroad west of US 1.

SR 501 (Clearlake Road) from SR 520 (King Street) to South of Michigan Avenue

- Adding horizontal deflection and spot medians to slow vehicle speeds.
- Widening existing sidewalks and adding sidewalk along Broadcast Court from SR 501 (Clearlake Road) to Endeavour Elementary School. Sidewalk will be added on school property from Broadcast Court to the Endeavour Elementary School building.
- Adding raised midblock crossings with pedestrian signals.

School Campus Drainage

- An onsite drainage project is scheduled for the School Campus.

Dixon Boulevard from SR 501 (Clearlake Road) to US 1

- Complete Street Feasibility Study to evaluate and identify improvements to improve pedestrian and bicyclist safety and mobility.

Michigan Ave Trail from SR 501 (Clearlake Road) to US 1

- Adding a trail for bicyclists and pedestrians.

2018 SCTPO Transit Bus Stop Accessibility Study

- The 2018 Space Coast Area Transit Bus Stop Accessibility Study prioritized accessibility and safety improvements needed at each bus stop.

Figure 1: Background Information

School Routes Analysis Cambridge Elementary School

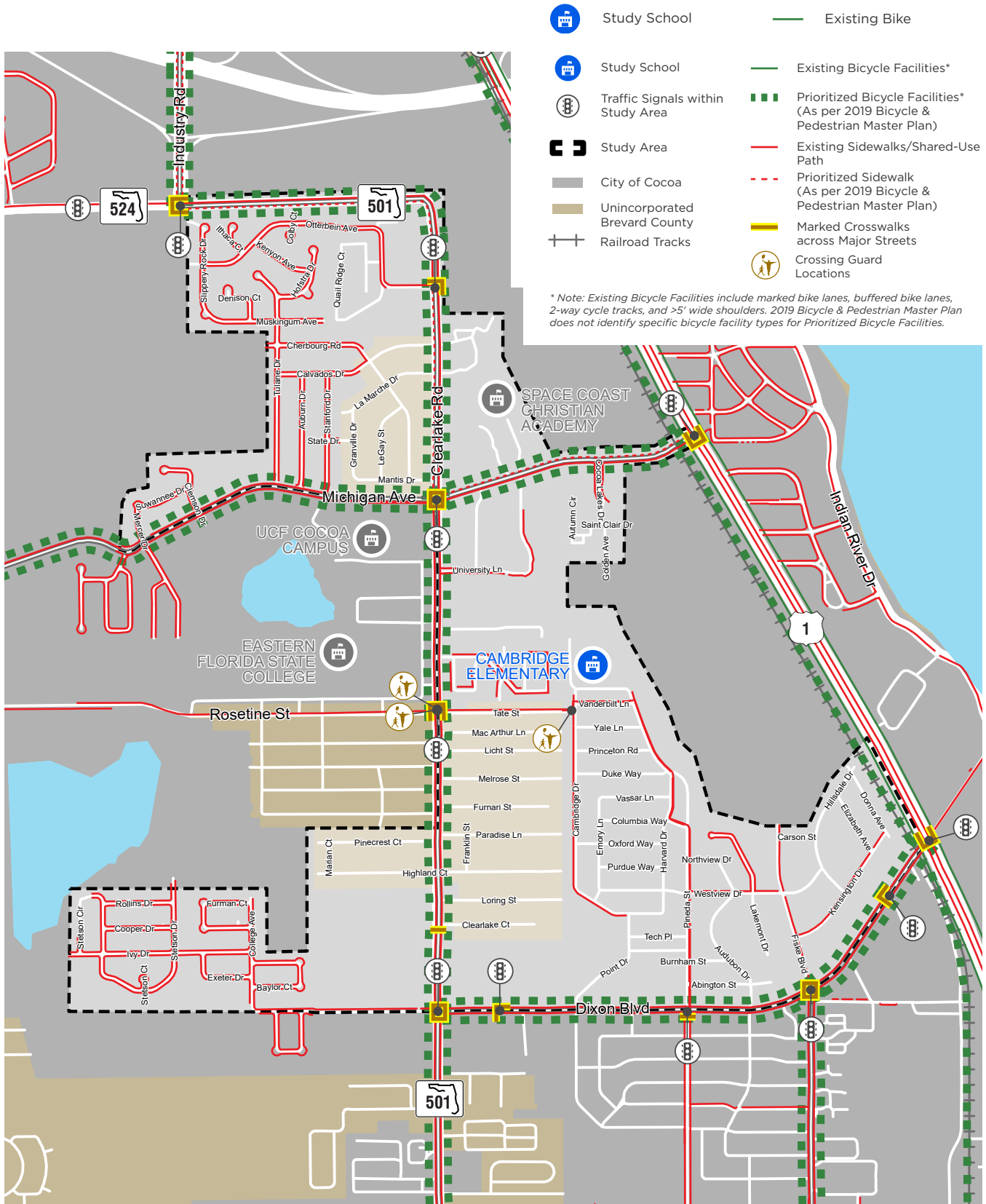
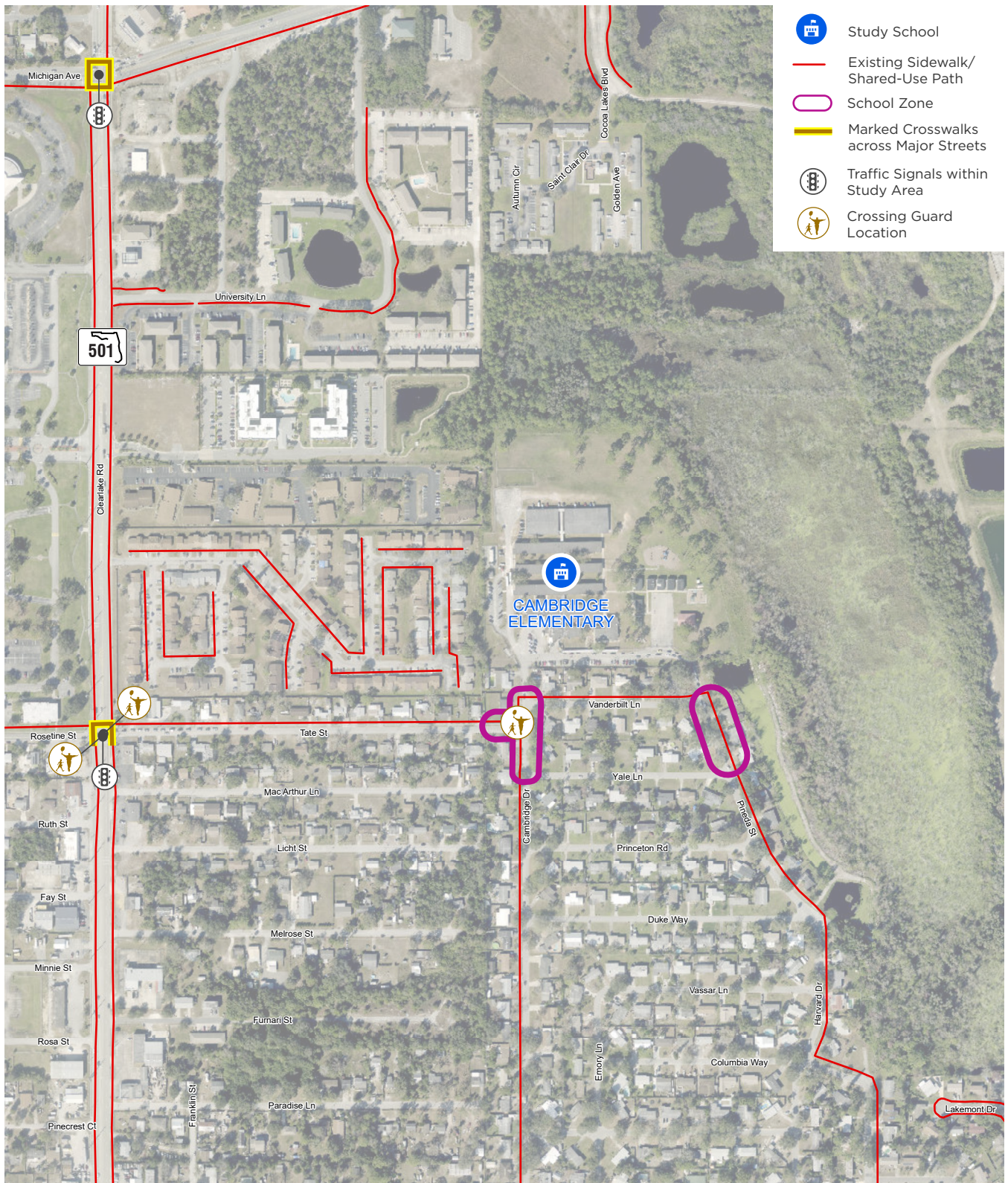


Figure 2: Existing and Planned Pedestrian and Bicycle Facilities
School Routes Analysis
Cambridge Elementary School









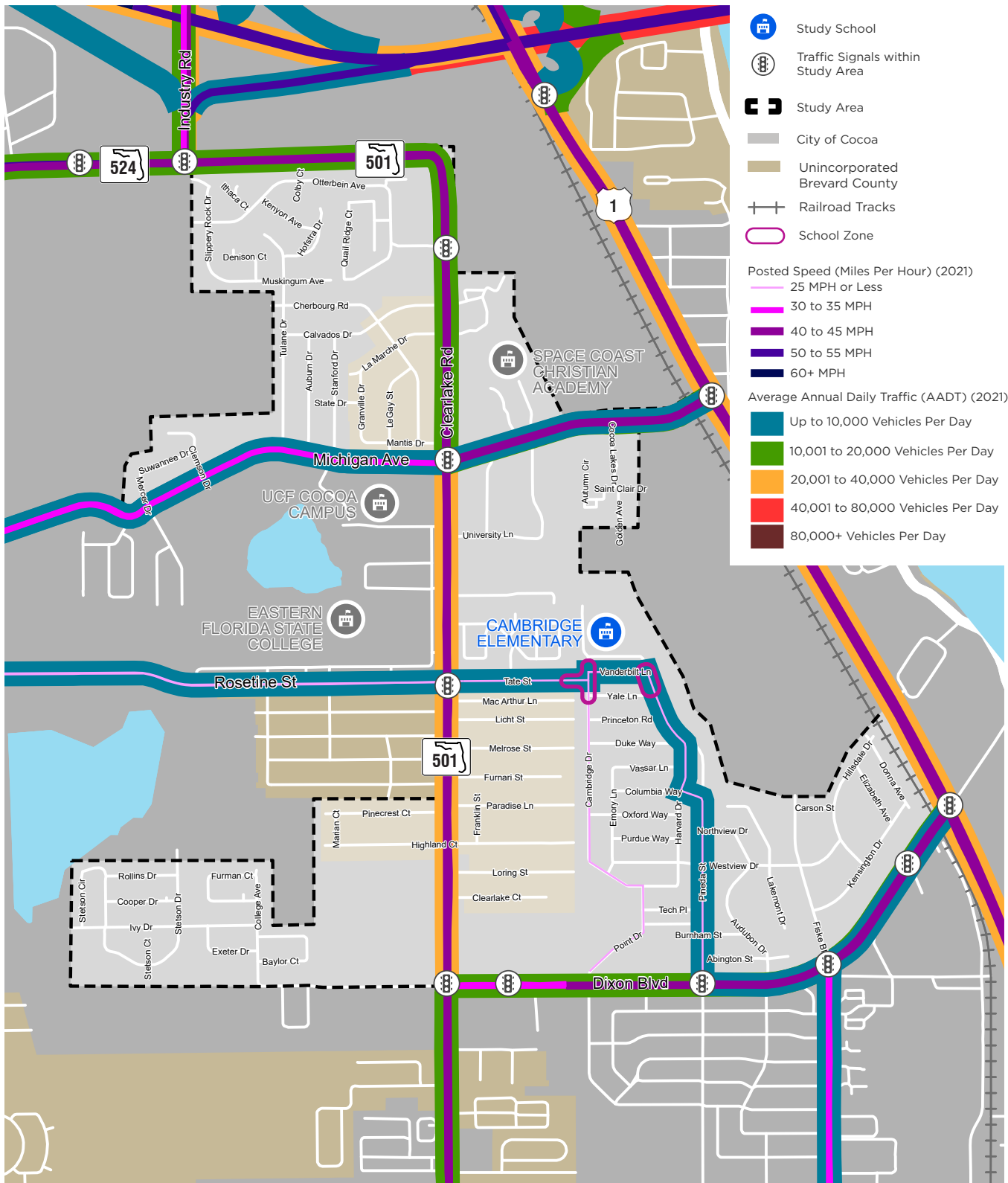
-  Study School
-  Existing Sidewalk/ Shared-Use Path
-  School Zone
-  Marked Crosswalks across Major Streets
-  Traffic Signals within Study Area
-  Crossing Guard Location



Figure 3: School Context Aerial
School Routes Analysis
Cambridge Elementary School



**Figure 4: Existing Conditions Traffic Data
School Routes Analysis
Cambridge Elementary School**



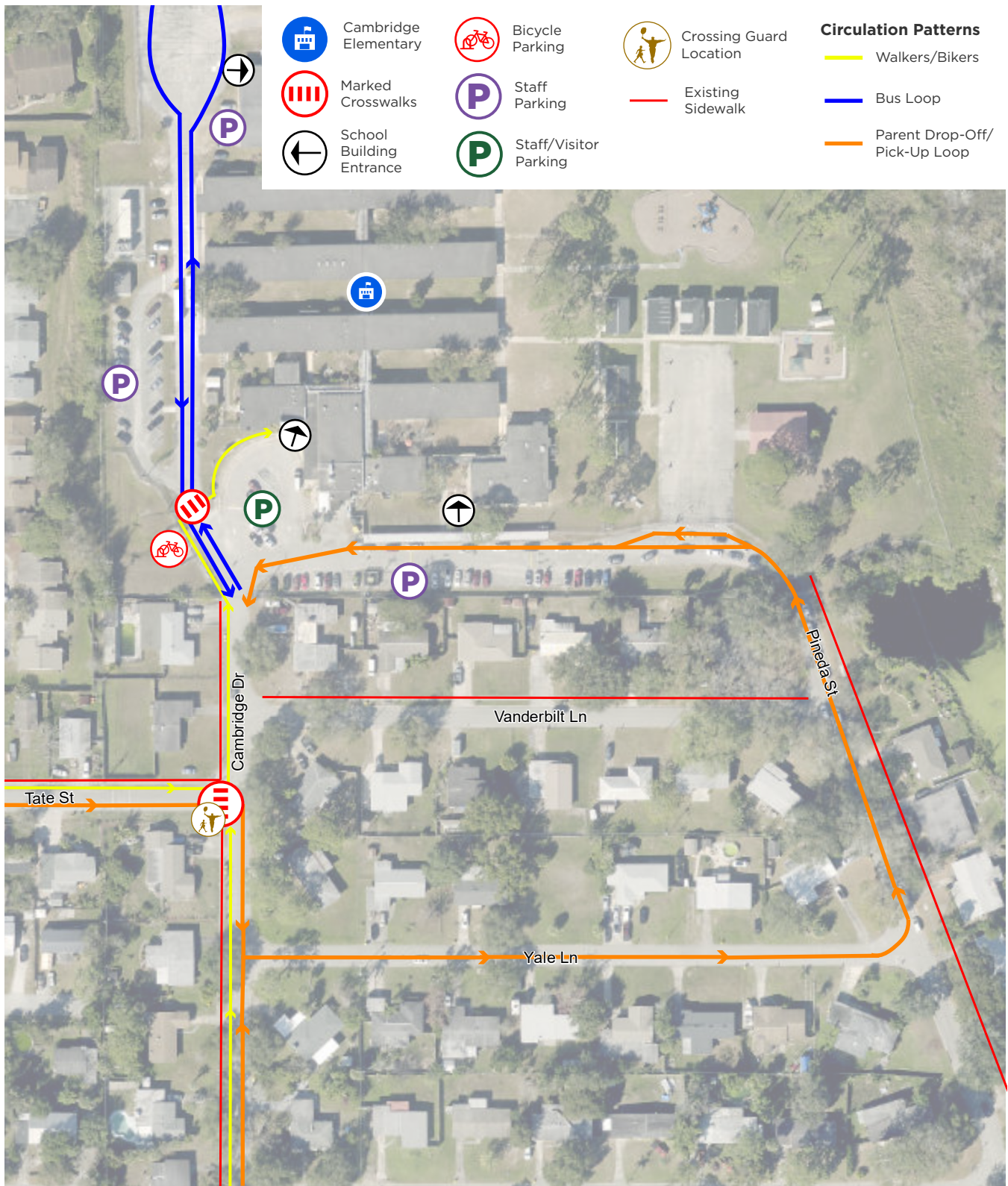


Figure 5: Existing School Circulation Map
 School Routes Analysis
Cambridge Elementary School



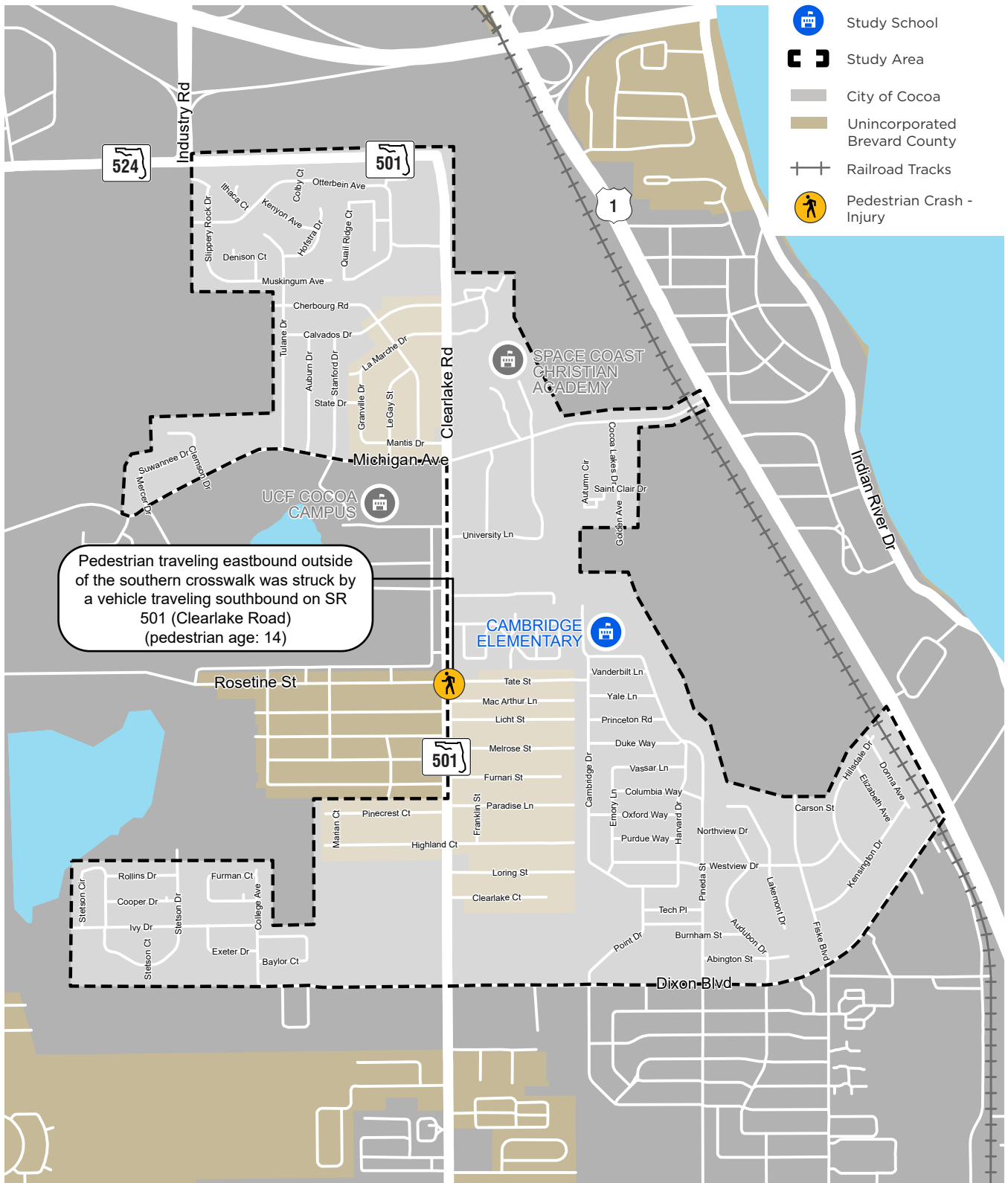


Figure 6: School Aged Bicycle and Pedestrian Crashes (August 2017 - July 2023)

School Routes Analysis
Cambridge Elementary School

School Campus Recommendations

No.	Location	Recommendation	Type	Time-Frame	Cost Estimate
1	School Campus	Restripe high-visibility crosswalk.	Crossing	Maintenance	<\$10,000
2	School Campus	Update stop signage and restripe stop bars and markings.	Sign/Signal	Maintenance	<\$10,000
3	School Campus	Restripe faded directional arrows in the one-way car loop.	Maintenance	Maintenance	<\$10,000
4	Western Fence of School Campus	Maintain vegetation along the western fence on School Campus.	Maintenance	Maintenance	Maintenance
5	School Campus	Reconstruct the speed bumps on the school campus.	Roadway	Near-Term	Further Study Required to Design Speed Bumps

Study Area Recommendations

No.	Location	Recommendation	Type	Time-Frame	Cost Estimate
6	SR 501 (Clearlake Road) & Michigan Avenue	Employ two additional crossing guards at SR 501 (Clearlake Road) & Michigan Avenue.	Enforcement	Near-Term	Enforcement

Fill sidewalk gaps on:

- The west side of Pineda Street from Dixon Boulevard to Vanderbilt Lane;
- The south side of Tate Street from SR 501 (Clearlake Road) to Cambridge Drive;
- The east side of Cambridge Drive from Harvard Drive to the Southwest School Entrance/Exit;
- Both sides of Yale Lane from Cambridge Drive to Pineda Street; and
- Both sides of Harvard Drive from Cambridge Drive to Pineda Street.

Add high-visibility crosswalks at cross-street locations.

Pineda Street, Tate Street, Cambridge Drive, Yale Lane, and Harvard Lane

Sidewalk/
Crossing

Long-Term

Further Study Required to Evaluate Drainage Potential Impacts

Table 1: Recommendations Summary

School Routes Analysis

Cambridge Elementary School



Study Area Recommendations

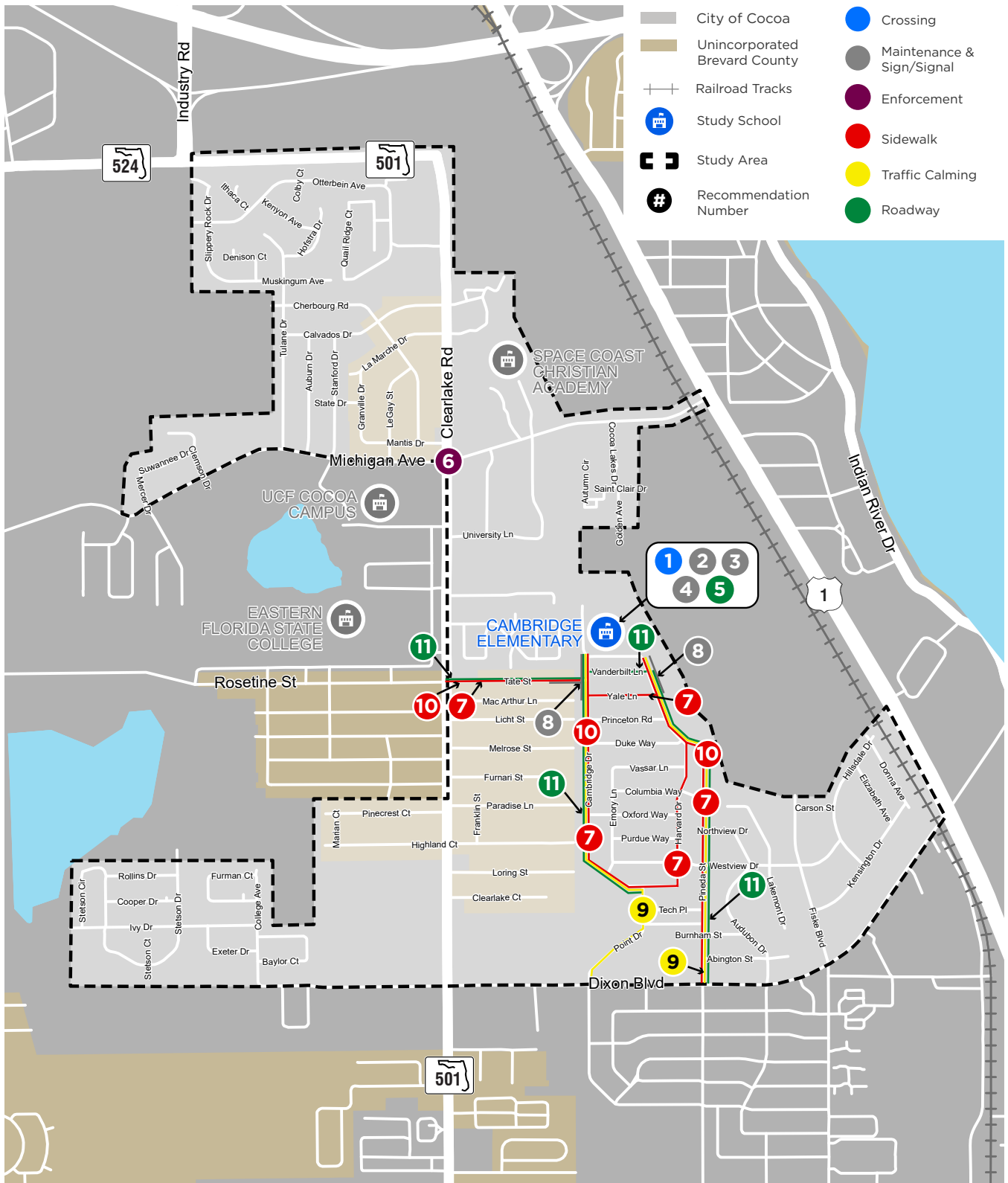
No.	Location	Recommendation	Type	Time-Frame	Cost Estimate
8	Pineda Street and Tate Street & Cambridge Drive	Add school zone pavement markings, advance school zone warning signs, flashing beacon signage, and "End School Zone" signage at the existing school zone on Pineda Street from Yale Lane to the Southeast School Entrance/Car Loop Entrance and at Tate Street & Cambridge Drive.	Sign/Signal	Near-Term	\$70,000 to \$80,000
9	Pineda Street and Point Drive/Cambridge Drive	Conduct a speed study and if justified, implement speed humps and/or raised crossings/intersections along: <ul style="list-style-type: none"> • Pineda Street from Dixon Boulevard to Southeast School Entrance; and • Point Drive/Cambridge Drive from Dixon Boulevard to the Southwest School Entrance. 	Traffic Calming	Near-Term/Long-Term	Further Study Required to Perform Speed Study
10	Tate Street, Cambridge Drive, and Pineda Street	Install/upgrade pedestrian ramps that meet current standards along: <ul style="list-style-type: none"> • Tate Street from SR 501 (Clearlake Road) to Cambridge Drive; • Cambridge Drive from Harvard Drive to Southwest School Entrance; and • Pineda Street from Dixon Boulevard to Southwest School Entrance. 	Sidewalk	Near-Term	\$400,000 to \$470,000
11	Cambridge Drive and Rosetine Street/Tate Street	Conduct a drainage analysis on: <ul style="list-style-type: none"> • Cambridge Drive from Harvard Drive to the Southwest School Entrance; • Pineda Street from Dixon Boulevard to Vanderbilt Lane; • Vanderbilt Lane from Cambridge Drive to Pineda Street; and • Rosetine Street/Tate Street from Walter Street to Cambridge Drive. 	Roadway	Near-Term	Further Study Required for Drainage Analysis

Table 1: Recommendations Summary Cont.

School Routes Analysis

Cambridge Elementary School





**Figure 7: Recommendations
School Routes Analysis
Cambridge Elementary School**

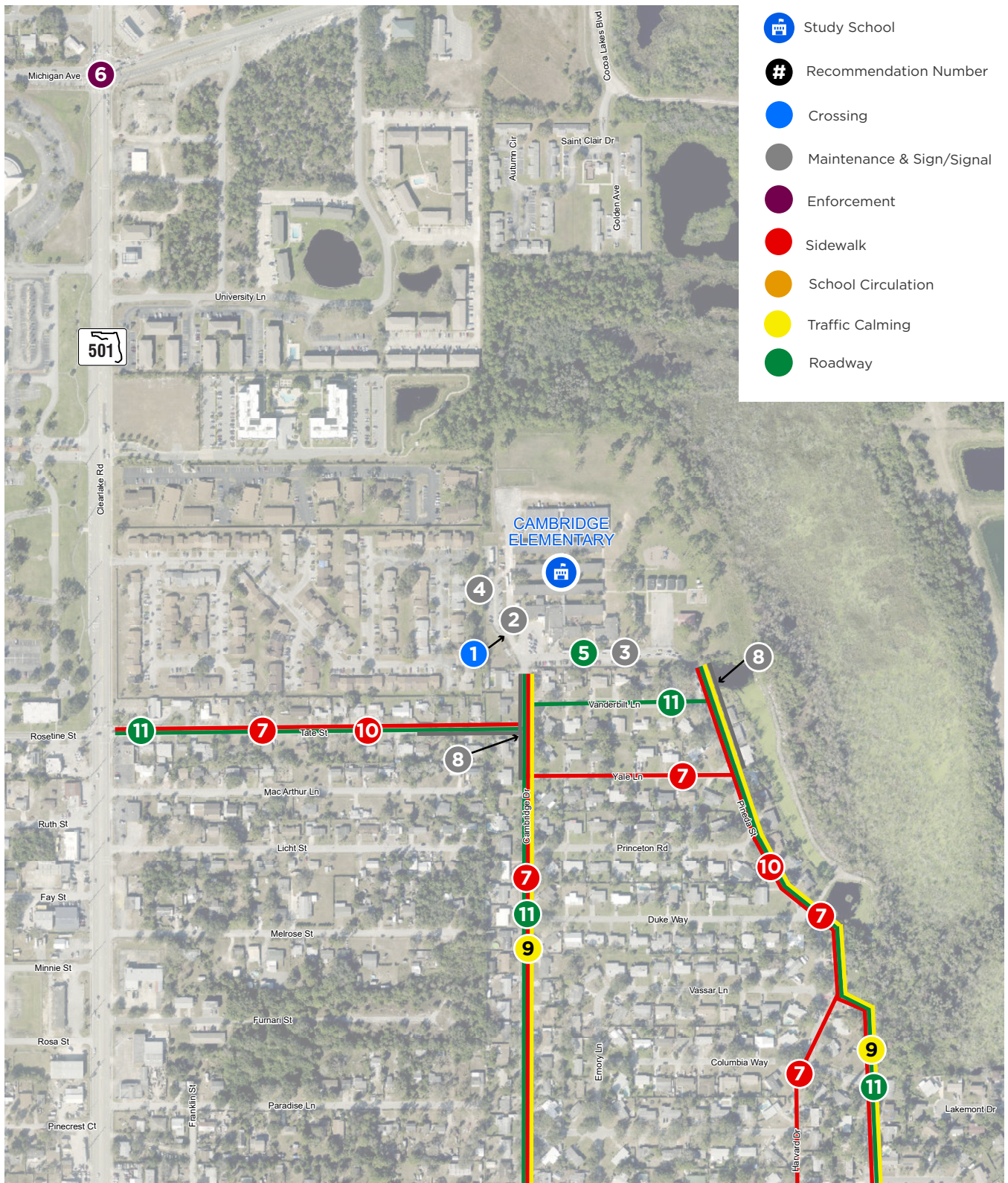


Figure 8: Recommendations: School Context Aerial
School Routes Analysis
Cambridge Elementary School



Prepared For:



2725 Judge Fran Jamieson Way,
Bldg. B, Room 105,
Melbourne, FL 32940

Prepared By:



225 E Robinson Street,
Suite 355,
Orlando, FL 32801