Town of Windsor

SAFE ROUTES TO SCHOOL REPORT

Mattie Washburn Elementary School (K-1st)
Windsor Creek Elementary School (2nd-3rd)
Brooks Elementary School (4th-5th)
Windsor Middle School (6th-8th)
Cali Calmécac Language Academy (K-8th)

December 2018



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Executive Summary

In July 2013, the Town of Windsor commenced a K-8, district-wide Safe Routes to School program, funded by a Federal Cycle 3 Safe Routes to School grant. The grant was administered by Town of Windsor Public Works and implemented by the Sonoma County Bicycle Coalition.

One of the Project Scope Tasks was to coordinate, promote & conduct a Walking Audit & prioritization of engineering/enforcement barriers to walking & bicycling for each school site. Walking audits were scheduled at Mattie Washburn Elementary School (grades K-1), Windsor Creek Elementary School (grades 2-3), Brooks Elementary School (grades 4-5), Windsor Middle School (grades 6-8), and Cali Calmécac Language Academy (grades K-8) between the months of October-November 2013. Walking audit attendees included parents, the school principals, Sonoma County Bicycle Coalition/SRTS staff, Town of Windsor staff, officers from the Windsor Police Department, and the engineering consultants from Alta Planning + Design and Parisi Transportation Consulting.

The outcome of the audits was Engineering Assessment Reports for each K-8 site. Each report includes a description of existing conditions, a student address map, walk audit observations and infrastructure recommendations, programmatic recommendations, cost estimates, and Walk and Roll to School Suggested Routes maps. Key locations observed are described in each report, including issues identified during audit observations and discussions. A table summarizing recommendations and cost estimates is also included in each report, for quick reference.

Between February-September 2018, Sonoma County Bicycle Coalition staff met with Town of Windsor Public Works staff and visited each site to determine the status of recommended improvements and update each report. Although the body of each report was not changed, a column was added to the "Recommendations and Cost Estimates" table of each report noting which, if any, recommendations were complete as of September 2018.

In addition to the walking audit and recommendation report, the Town of Windsor Safe Routes to School Program included education, encouragement, enforcement, and evaluation tasks. Although the federally funded program concluded in June 2017, the Town of Windsor allotted funding to sustain education activities, including in-school on-bicycle education and maintenance, storage, and transportation of the dedicated Windsor bike fleet, during the 2017-18 school year.

Summary cost estimates by location for each school site follow below. Completed projects are not included.

Detailed descriptions and cost estimates are included at the end of each of the full school reports.

MATTIE WASHBURN COST ESTIMATES

Location	Lead Agency	Cost (2013 $)
Total School Main Parking Lot	District	$1,000
Total Pleasant Avenue, Old Redwood Highway to Brianne Circle	Town	$7,900
Total Pleasant Avenue, Brianne Circle to City Limits	Town	$61,500
Total Shadetree Drive and Flametree Circle/Sugar Maple Lane	Town	$61,800
Total Old Redwood Highway and Pleasant Avenue	Town	$92,600

WINDSOR CREEK COST ESTIMATES

Location	Lead Agency	Cost (2013 $)
Total School Main Parking Lot	District	$75,100
Total Oakfield Lane and Windsor Creek Trail	Town	$258,000
Total Conde Lane and Armando Renzullo Way	Town	$71,200

BROOKS COST ESTIMATES

Location	Lead Agency	Cost (2013 $)
Total Natalie Drive School Entrance	District	$15,000
Total Natalie Drive School Entrance	Town	$100,500
Total Natalie Drive and Mallory Avenue	Town	$3,500
Total Windsor Creek Trails	Town	$43,900
Total Michael A. Hall Park	Town	$6,900
Total Natalie Drive, Jane Drive, Cordellia Lane, and Camelot Drive	Town	$3,400
Total Arata Lane	Town	$288,500

WINDSOR MIDDLE COST ESTIMATES

Location	Lead Agency	Cost (2013 $)
Total School Site:	District	$41,000-$71,000
Total Foothill Road at Los Verde Court	Town	$400
Total Foothill Road at Granado Court	Town	$60,800
Total Foothill Road, Brooks Road to Hembree Lane	Town	$31,200
Total Brooks Creek Trail at Brooks Road	Town	$123,900
Windsor Creek Trail, Hembree Lane to Lakewood Drive	Town	TBD

CALI CALMÉCAC COST ESTIMATES

Location	Lead Agency	Cost (2013 $)
Total School Main Parking Lot	District	$18,600
Total Starr Road and Starr Creek Court	Town	$61,700
Total Starr Road	Town	$74,200
Total Starr Road and Stellar Court	Town	$61,300
Total Starr Road and Colleen Court	Town	$1,000
Total Starr View Drive, Orion Drive, Erika Drive, Buckingham Drive and Wild Oak Drive	Town	$4,400

1 Mattie Washburn Elementary School Report

Principal at time of audit:	Benita Jones (current Principal 2018 Lisa Joseph		**Grades:**	Kindergarten and first
Enrollment:	528		**Address:**	75 Pleasant Avenue
First bell:	8:20			Windsor, CA 95403
Mode share:	79% family vehicle	2% walk	**Students within a half-mile of school:** 86	
	19% school bus	0% bike	**Youth-involved crashes within a half-mile (2008-2013):** 1 bicycle	
	8% carpool	0% other		

1.1 Existing Conditions

1.1.1 School Layout and Circulation

Mattie Washburn Elementary is located in eastern Windsor, along Pleasant Avenue and just off Old Redwood Highway. In addition to these roadways, students can also access the school from the north through Pleasant Hill Park, off Sugar Maple Lane. A school bus hub for the Windsor School District was recently constructed just south and east of the school, along Pleasant Avenue.

Mattie Washburn Elementary has few students currently walking and bicycling to and from school, and because of the young age and low proportion of students living within a half-mile, it is unlikely that significant numbers of students will walk or bike. Nevertheless, older students often travel to Mattie Washburn to take the bus to their schools, and there are several opportunities to encourage safe pedestrian and bicycle access to and from the school to foster good behaviors for the future.

Loading Zones

The school's western parking lot is the primary student drop-off and pick-up location. An adult volunteer sets out cones in the north side of the lot, just west of the circle. She directs parents to pull forward and assists students in getting out of their cars.

Two additional areas are in use by families for drop-off and pick-up: a new parking lot south and east of the school and Sugar Maple Lane. The school discourages loading at both locations due to lack of supervision



A Yard Duty officer assists with school student loading.

Crossing Guard

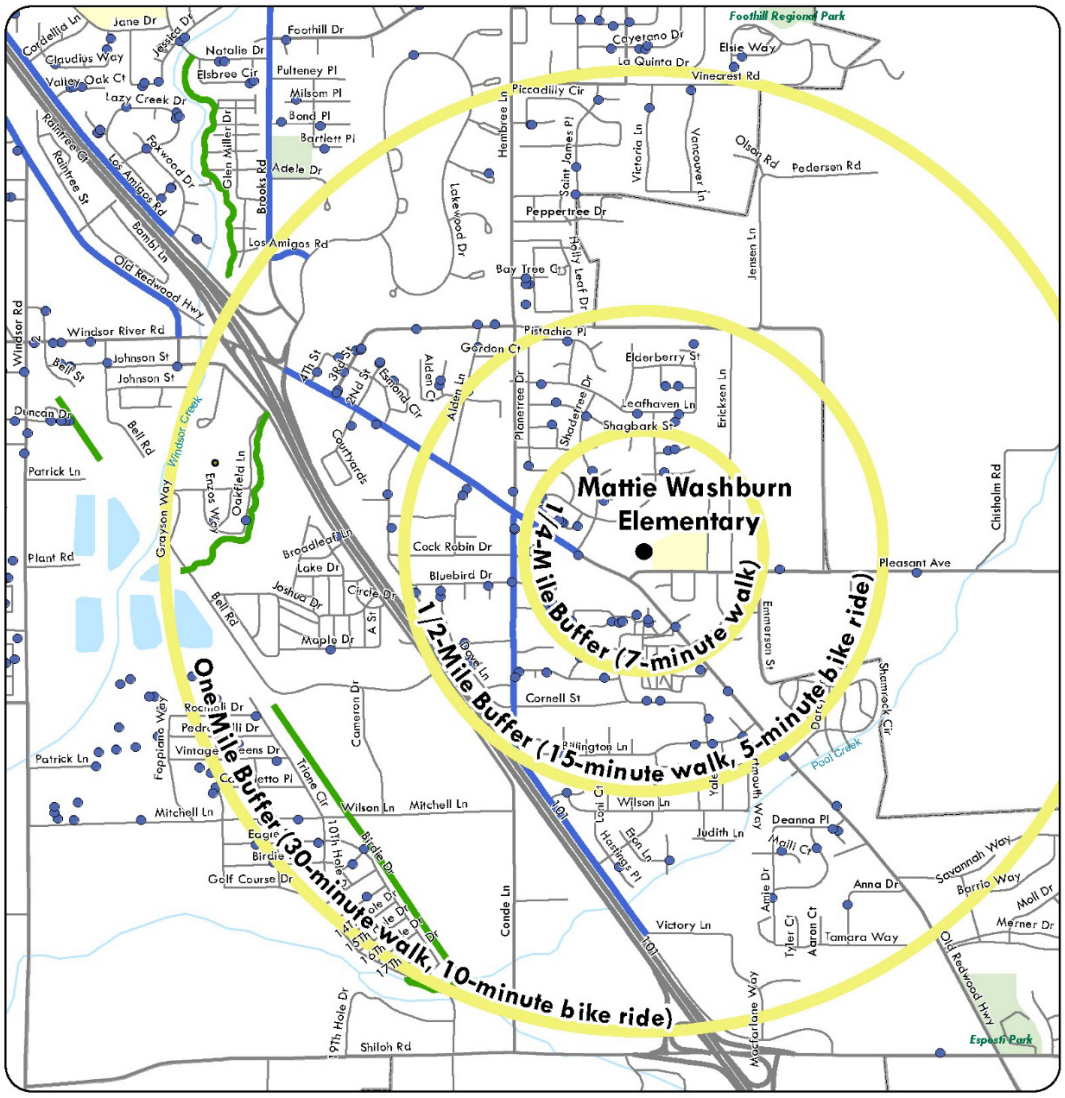
A crossing guard assists students crossing Pleasant Avenue on the east leg of the intersection with Brianne Circle. The school has a temporary "25 mph school zone" sign which is placed in the roadway at the crosswalk.



A crossing guard assists pedestrians crossing Pleasant Avenue, which is a busy street during student drop-off.

1.1.2 Student Address Map

Figure 1-1 shows the geocoded address of students at Mattie Washburn Elementary, provided by the Windsor Unified School District. Only 86 students live within a half-mile of school, which limits the likelihood of this age of students walking to and from school. However, many students currently take the school bus, which reduces congestion near the school.



Mattie Washburn Elementary School Student Address Map

Did you know?

86 students live within a half-mile of school?

157 students live within a mile of school?

Enrollment: 528

Share the trip to school by walking, biking, and carpooling with other families.

Walking, biking, and carpooling to school is a fun, healthy, and green way to get around!

Learn more about Safe Routes to School at www.sonomasaferoutes.org

Legend

- Class I Bikeway
- Class II Bikeway
- Class III Bikeway
- School

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Figure 1-1. Mattie Washburn Elementary Student Address Map

1.1.3 Walking/Biking Rates

In October 2013, the Windsor SRTS program provided instructions and tally forms for Mattie Washburn Elementary teachers to survey students about how they get to and from school. Teachers asked their students how they traveled to and from school the day before, and how they would be traveling to and from school on that day. Students were given a choice of answers and raised their hand for the choice that matched their travel mode.

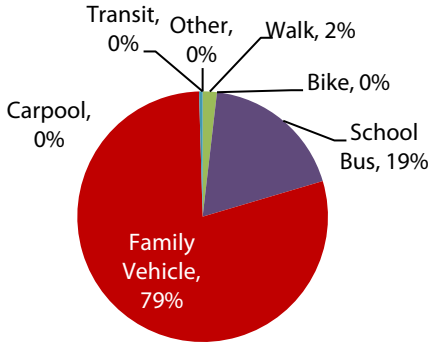


Figure 1-2. Mattie Washburn Elementary School Mode Split

Ten classrooms responded, representing 227 students, or 26 percent of the student body. Results are shown in **Figure 1-2**. The majority of students are driven to school in a family vehicle, with almost 20 percent taking the school bus. In the afternoon students are slightly more likely to take the school bus (25 percent of students reported taking the school bus in the afternoon, compared to 19 percent in the morning).

1.2 Walk Audit Observations and Infrastructure Recommendations

The Windsor SRTS program conducted a walk audit at Mattie Washburn Elementary on Tuesday, October 22, 2013. The weather was foggy and chilly. One parents attended, as well as staff from the Sonoma County Bicycle Coalition, Town of Windsor staff, a Windsor Police Officer, and the engineering consultants from Alta Planning + Design and Parisi Transportation Consulting.

Key locations are described below, including issues identified during audit observations and discussions. Project numbering refers to the Improvements Map provided in **Figure 0-3** on page 14.



The Yard Duty staff places cones in the school parking lot to define the drop-off area.

1.2.1 School Main Parking Lot

All parents are encouraged to drop-off and pick-up students at the main school parking lot (the western lot). The parking lot has been recently reconfigured for parents to drive through the loop and drop students off on the north side, where an adult volunteer assists with unloading. The loop is currently only painted with red curb on the right side, and the striping plan includes painting the left side red as well.

Bike parking is provided on the north side of the school driveway loop. Two sets of 15-bike racks are located within a locked cage. The racks are an older 'wheel-bender' style. Recommended bike parking holds a bicycle from two points of contact, rather than just the wheel.

Recommendations (1)

a. Paint curb along loop close to school red and post NO STOPPING FIRE LANE sign

b. Mark arrows to encourage one-way flow through the parking lot; retain two-way access at east driveway

c. Repaint crosswalks across parking lot access points and install tactile domes

d. Install inverted-U style bike parking racks for staff and parents



Bike parking at Mattie Washburn Elementary is in a locked cage, but is an older 'wheel-bender' style that is challenging to lock bikes to.

1.2.2 School Back Parking Lot

The new parking lot in the back of the school is frequently used for student loading. The school discourages this behavior as they do not have staff to supervise the area. During the audit, staff observed that cars were parked in locations that obstructed traffic flow, causing backups. The final striping plan includes painting the curb red in these areas, which should alleviate this issue.



Parents regularly use the back parking lot for student loading, despite discouragement from the school due to a lack of supervision.

Recommendations (2)

- Consider repainting lot to encourage one-way flow; requires repainting parking stalls

1.2.3 Pleasant Avenue, Old Redwood Highway to Brianne Circle

The main school access road, Pleasant Avenue is a two-lane road with a partial centerline. Just east of Old Redwood Highway, the street lacks a centerline and drivers queue in the center to turn left into the Mattie Washburn parking lot. Other drivers pass quickly on the right to access the back parking lot or to continue east on Pleasant Avenue.

Red curb has been painted along Pleasant Avenue east of the school, which benefits pedestrians by improving sight lines at crossings. However, no signs prohibiting parking or loading have been posted, so the police department considers the restrictions unenforceable. In addition, some families drop students off on the north side of road, ignoring the red curb.

A high-visibility school crosswalk was previously striped on the east side of the school driveway, but it was removed as part of the new striping plan, in part due to the need for a curb ramp in front of the school. Several pedestrians were observed to cross at this location during the audit. Improvements to the crosswalks at Old Redwood Highway and east of the school can reduce this behavior by clarifying where pedestrians are expected to cross Pleasant Avenue. The sidewalks in front of the school are narrow and curb-tight, leaving little room for pedestrians to pass by unloading vehicles on the north side of the street.

Recommendations (3)

a. Paint median turn lane and bike lanes between Old Redwood Highway and school main parking lot

b. Sign Pleasant Avenue to clarify the restrictions, and/or remove red curb to enable student loading

c. Paint KEEP CLEAR markings in front of western school parking lot access

d. Widen sidewalk in front of school

1.2.4 Pleasant Avenue, Brianne Circle to City Limits

A high-visibility yellow school crosswalk is located on the east leg of the intersection with Brianne Circle. A crossing guard is stationed here, and the school has a "25 mph school zone" in-street sign that is placed in the center of the roadway. However, the crossing guard noted that yielding compliance is poor and audit participants identified speeding as a concern on this section of Pleasant Avenue.



A crossing guard assists students crossing Pleasant Avenue at Brianne Circle

The curb is painted red around this intersection, providing space for a curb extension that would encourage students to stand further in the roadway, improving their visibility to drivers and reducing the crossing distance. In addition, a 40-mph sign is clearly visible further east on Pleasant Avenue, where the speeds increase past the school.

Finally, Pleasant Avenue is a popular bike route, and bicyclists continue eastbound to Chalk Hill Road. Old Redwood Highway is an existing bike lane, and Pleasant Avenue is a proposed bike lane facility.

Recommendations (4)

a. Install permanent fixture for removable in-pavement yield to pedestrians sign; use compliant in-pavement sign

b. Construct curb extensions at crosswalk (long term)

c. Paint yield markings in advance of crosswalk

d. Move 40 mph sign 500 feet east from school property

e. Stripe and post signs for bike lane

1.2.5 Shadetree Drive and Flametree Circle/Sugar Maple Lane

Families use this intersection to access the back entrance to school, via Pleasant Avenue Park. Currently, Sugar Maple and Flametree are stop sign-controlled. Transverse white crosswalks are marked along the north and east legs of the intersection.

The Town has received requests to consider four-way stop sign-control at this location. Audit participants also noted issues with speeding at the turn, particularly the right turn from Shadetree to Sugar Maple.



Some families park on Shadetree Drive and walk through the park with their children.

Recommendations (5)

a. Study potential for four-way stop sign-control
b. Repaint crosswalks on north and east legs as high-visibility yellow school crosswalks
c. Construct bulb-outs at northeast and southeast corners on Sugar Maple Lane to reduce curb radii and narrow crossing distance

1.2.6 Old Redwood Highway and Pleasant Avenue

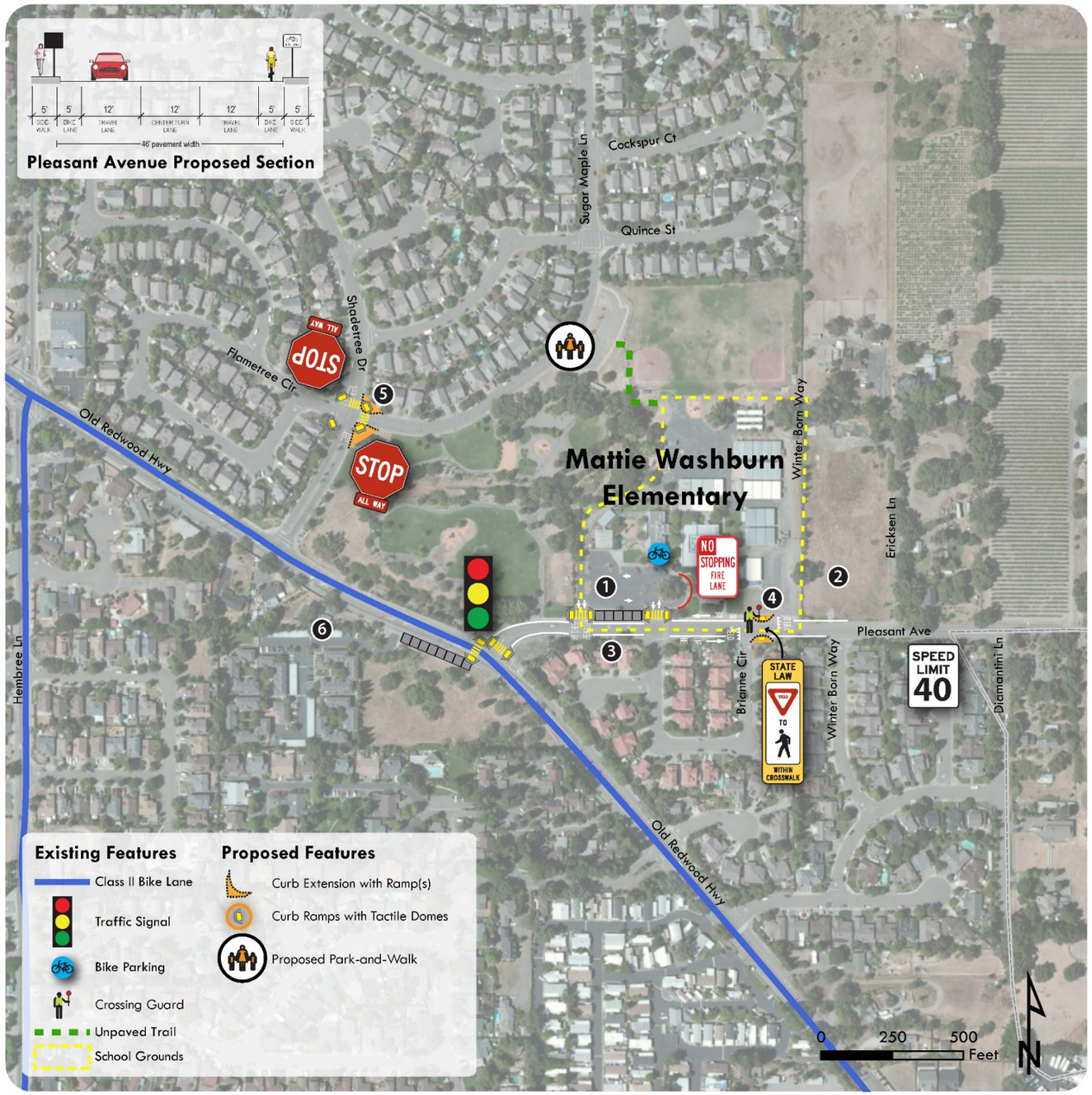
The intersection of Old Redwood Highway and Pleasant Avenue is busy during peak periods and traffic can back up to make the southbound left turn onto eastbound Pleasant Avenue. However, the center two-way left turn lane is necessary to enable access to the apartment complex north of Pleasant Avenue.

The existing crosswalks are transverse, so updating to high-visibility yellow ladder crosswalks would improve visibility of pedestrians at the intersection. Existing curb ramps lack ADA-compliant tactile domes.

No sidewalk exists on Old Redwood Highway north of Pleasant Avenue to an apartment complex driveway. A desire line in the grass clearly shows that people are walking in this area to access the bus stop.

Recommendations (6)

a. Repaint crosswalks as high-visibility yellow school crosswalks and install tactile domes
b. Construct sidewalk on west side of Old Redwood Highway



Mattie Washburn Elementary

Improvement Recommendations

1. School Main Parking Lot
- a. Paint curb along loop close to school red and post NO STOPPING FIRE LANE sign
- b. Mark arrows to encourage one-way flow through the parking lot; retain two-way access at east driveway
- c. Repaint crosswalks across parking lot access points and install tactile domes
- d. Install inverted-U style bike parking racks for staff and parents

2. School Back Parking Lot
- a. Consider repainting lot to encourage one-way flow; requires repainting parking stalls

3. Pleasant Avenue, Old Redwood Highway to Brianne Circle
- a. Paint median turn lane and bike lanes between Old Redwood Highway and school main parking lot and/or bike lane
- b. Paint KEEP CLEAR markings in front of western school parking lot access
- c. Widen sidewalk in front of school
- d. Install permanent fixture for removable in-pavement yield to pedestrians sign

4. Pleasant Avenue, Brianne Circle to City Limits
- a. Install permanent fixture for removable in-pavement yield to pedestrians sign; use compliant in-pavement sign
- b. Construct curb extensions at crosswalk (long term)
- c. Paint yield markings in advance of crosswalk
- d. Move 40 mph sign 500 feet east from school property
- e. Stripe and post signs for bike lane

5. Shadetree Drive and Flametree Circle/Sugar Maple Lane
- a. Study potential for four-way stop sign-control
- b. Repaint crosswalks on north and east legs as high-visibility yellow school crosswalks
- c. Construct bulb-outs at northeast and southeast corners on Sugar Maple Lane to reduce curb radii and narrow crossing distance

6. Old Redwood Highway at Pleasant Avenue
- a. Repaint crosswalks as high-visibility yellow school crosswalks and install tactile domes
- b. Construct sidewalk on west side of Old Redwood Highway

Figure 1-3. Mattie Washburn Elementary School Improvements Map

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1.3 Programmatic Recommendations

1.3.1 Improve School Bussing

Due to Windsor's school grade clustering, students often live further from their schools than they could reasonably walk or bicycle, so school buses are an important means of transporting students to and from schools. The Windsor School District provides busses to all schools. The buses circulate between schools, so students can be dropped off at a single school and ride a bus to another school.

It appears that the bussing schedule could be improved to correspond better with bell schedules, and the routes may be somewhat inefficient, leading to students having longer bus rides than required. In addition, the District could provide information about the buses to parents more regularly and consider establishing a smaller number of 'hub' bus stops, rather than dropping students off where they request.

1.3.2 Encourage Carpooling

Parents who are interested in finding other families to carpool with generally post a notice in the school newsletter. While carpooling can be challenging for students of this age due to the need for car seats and time for students to get ready for school, it can save parents time, reduce traffic congestion around schools, and foster transportation options in the future.

1.3.3 Promote Park-and-Walk Locations

Several parents currently use Sugar Maple Lane as a remote drop-off location. However, the school does not have staff to supervise this area, so they discourage student loading. But, the school can encourage parents parking and walking from this location. This information can be shared in back-to-school packets, flyers, and other parent communication.

1.3.4 Implement Safety Education Campaign

Audit participants identified a need for reminders to parents about safe transportation behaviors, including reducing speeds and watching for students near the school. This information is particularly useful at the beginning of the school year. Reminders can be integrated with the school calendar, with traffic safety reminders sent out around events such as time changes, after winter break, and approaching the end of the school year.

Several marketing campaigns exist to remind parents about safe driving. Street Smarts is a popular campaign, which includes banners and posters on streets near the school. A letter from the police can be a good opportunity to reinforce desired circulation.

1.3.5 Host Walk and Bike to School Day

Mattie Washburn Elementary can participate in International Walk and Bike to School Day, an annual special event encouraging students and their parents to try walking or bicycling to school. The Windsor SRTS and Sonoma County Bicycle Coalition program can provide fliers and other resources to promote active transportation for this event, which is usually the first or second Wednesday in October.

Even families who live too far from school to walk and bike can participate by driving to a designed central location and walking together from there. Coffee and breakfast can be provided, and students can dress up or hold posters to make a fun, parent-supervised parade to school.

1.3.6 Promote Suggested Route Maps

Shown in **Figure 1-5**, the Mattie Washburn Elementary Suggested Route Map identifies the best routes for getting to school and includes safe walking, biking, and driving suggestions. Suggested route maps also show locations of crossing guards, stop signs, crosswalks, signals, bike lanes, bike paths, and bike parking. Due to the young age of Mattie Washburn Elementary students, the Map includes suggested walking routes only. The maps can be shared with parents at orientation and in advance of events such as Walk and Bike to School Day.



Figure 1-4. Mattie Washburn Elementary School Suggested Route Map – Front

Windsor Safe Routes to School

Mattie Washburn Elementary Walk and Roll to School Map

What is Safe Routes to School (SRTS)?

Windsor Safe Routes to School encourages students to walk and bicycle. Walking and biking to school reduces congestion around schools, which improves safety and reduces emissions. It is also healthy, fun and affordable!

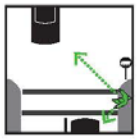
The Windsor Safe Routes to School program provides education and encouragement for alternatives to driving and seeks to improve traffic safety around schools. The program is funded by a Federal grant.

Walk or Skate Safely



Be alert. Look for cars coming from all directions before entering the street - including from behind you.

Cross at corners and crosswalks. This is where drivers expect pedestrians.



Don't assume drivers see you. Make eye contact before crossing intersections.

Bike Safely



Be predictable. Obey ALL stop signs and traffic signals. Never ride wrong way. The best way to avoid crashes as well as traffic tickets is to follow the same rules of the road as apply to car drivers.



Be alert. Watch out for drivers turning left or right, or coming out of driveways. Avoid car doors opening in front of you by riding out of the door zone. Yield to pedestrians.



Wear your helmet and buckle it every time. It's the law. To best protect your brain, your helmet must fit properly: snug and level on your head, just above your eyebrows.



Be visible. Use a bright headlight and taillight at night.

Avoid texting, phone calls, or music while biking.

Drive Safely

- Slow down and use extra caution in school zones and along commute routes! Signal your turns and yield to pedestrians.
- Help reduce traffic congestion near by carpooling with a neighbor and avoiding the last minute rush whenever possible.
- Obey adult crossing guards and "No Right Turn on Red" signs posted at designated school intersections. This allows students to cross safely without cars turning through crosswalks.
- Don't make U-turns and other unsafe maneuvers that put other road users at risk.
- When dropping off or picking up your student, follow school guidelines and always ensure that he/she exits or enters the car from the curb side.
- Never double park, block access ramps or stop where prohibited.
- Avoid texting, phone calls and other distractions when driving.

Questions?

Learn more at: SonomaSafeRoutes.com

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Figure 1-5. Mattie Washburn Elementary School Suggested Route Map – Back

1.4 Recommendations and Cost Estimates

Table 1-1 summarizes recommendations for Mattie Washburn School and provides planning-level costs.

Table 1-1: Mattie Washburn Elementary School Recommended Improvements

Location	Recommendations	Lead Agency	Cost (2013 $)	Status as of 9/18
Programs	Improve School Bussing	District	TBD	
	Encourage Carpooling	School/SRTS	Staff time	
	Promote Park-and-Walk Locations	School/SRTS	Staff time	
	Implement Safety Education Campaign	District	TBD	
	Host Walk and Bike to School Day	School/SRTS	Staff time	
	Promote Suggested Route Maps	School/SRTS	Staff time	
School Main Parking Lot	Paint curb along loop close to school red and post NO STOPPING FIRE LANE sign	District	$800	Complete 2014
	Mark arrows to encourage one-way flow through the parking lot; retain two-way access at east driveway	District	$200	Complete 2014
	Repaint crosswalks across parking lot access points and install tactile domes	District	$2,000	Complete 2014
	Install 2 inverted-U style bike parking racks for staff and parents	District	$1,000	
	Total School Main Parking Lot		**$4,000**	
School Back Parking Lot	Consider repainting lot to encourage one-way flow; requires repainting parking stalls	District	TBD	
Pleasant Avenue, Old Redwood Highway to Brianne Circle	Paint median turn lane and bike lanes between Old Redwood Highway and school main parking lot	Town	$4,000	
	Sign Pleasant Ave to clarify the restrictions, and/or remove red curb to enable student loading		$400	
	Paint KEEP CLEAR markings in front of western school parking lot access	Town	$200	
	Widen sidewalk in front of school	Town	$3,300	
	Total Pleasant Avenue, Old Redwood Highway to Brianne Circle		**$7,900**	

Location	Recommendations	Lead Agency	Cost (2013 $)	Status as of 9/18
Pleasant Avenue, Brianne Circle to City Limits	Install permanent fixture for removable in-pavement yield to pedestrians sign; use compliant in-pavement sign	Town	$400	
	Construct curb extensions at crosswalk (long term)	Town	$60,000	
	Paint yield markings in advance of crosswalk	Town	$800	
	Move 40 mph sign 500 feet back from school property	Town	$300	
	Stripe and post signs for bike lane	Town	$2,200	Complete 2015-Bike lanes striped, signs still need to be posted
	Total Pleasant Avenue, Brianne Circle to City Limits		**$63,700**	
Shadetree Drive and Flametree Circle/Sugar Maple Lane	Consider four-way stop sign-control	Town	$800	
	Repaint crosswalks on north and east legs as high-visibility yellow school crosswalks	Town	$1,000	
	Construct bulb-outs at northeast and southeast corners on Sugar Maple Lane to reduce curb radii and narrow crossing distance	Town	$60,000	
	Total Shadetree Drive and Flametree Circle/Sugar Maple Lane		**$61,800**	
Old Redwood Highway and Pleasant Avenue	Repaint crosswalks as high-visibility yellow school crosswalks and install tactile domes	Town	$1,500	
	Construct sidewalk on west side of Old Redwood Highway	Town	$91,100	
	Total Old Redwood Highway and Pleasant Avenue		**$92,600**	

2 Windsor Creek Elementary School Report

Principal at time of audit:	Maureen Grafeld (current Principal 2017-18, Julie Stearn)	**Grades:**	2nd and 3rd
Enrollment:	537	**Address:**	8955 Conde Lane
First bell:	8:30 am		Windsor, CA 95492

Mode share:	82% family vehicle	4% walk
	29% school bus	0% bike
	8% carpool	1% other

Students within a half-mile of school: 51

Youth-involved crashes within a half-mile (2008-2013): 4 bicycles, 2 pedestrians

2.1 Existing Conditions

2.1.1 School Layout and Circulation

Windsor Creek Elementary is located near downtown Windsor. There are only two access points to the school, both via Conde Lane; the main school parking lot is on Armando Renzullo Way, which acts as the school driveway, and a back entrance is located on Oakfield Lane.

Windsor Bowl, the local bowling alley, is a frequent walking destination for high school students, particularly in the morning as bowling is offered as a school P.E. credit.



The Windsor Creek Elementary school site is challenging for all modes of transportation, but the proximity to the Town Green offers park-and-walk

Few of the second and third grade students live close enough to Windsor Creek Elementary to walk or bike, although this may change as more housing is developed in the area. There are also significant opportunities for remote drop-off, in which families could drop students off or pick them up at the Town Green and a small number of designated parents escort the group to and from school.

The transportation challenges of this older school building and site have led the Windsor Unified School District to recommend substantially decreasing enrollment or eliminating this school site in the *Facilities Utilization Master Plan*, however no plans to develop a new school site are currently underway.

Loading Zones

The school parking lot is a large loop, with cars coming and going along Armando Renzullo Way. Bollards have been placed just east of the loop to prevent conflicts that occur when drivers turn back

towards Armando Renzullo Way without driving though the lot. Drivers can exit the lot either via Armando Renzullo Way or an informal back exit that connects to Oakfield Road.

Oakfield Road is also used as a drop-off and pick-up area. Students can walk through a gap in the fence or through the school bus loading zone.

Crossing Guard

Windsor Creek Elementary does not have a crossing guard, although a Yard Duty staff person encourages drivers to pull forward and assists with student loading and unloading.

2.1.2 Student Address Map

Figure 2-1 shows student home locations. Nine percent of Windsor Creek students live within a half-mile of school, limiting the potential for students walking to school. However, the Windsor Creek site is close to downtown, so there is an opportunity for parents to park and walk their students to school.

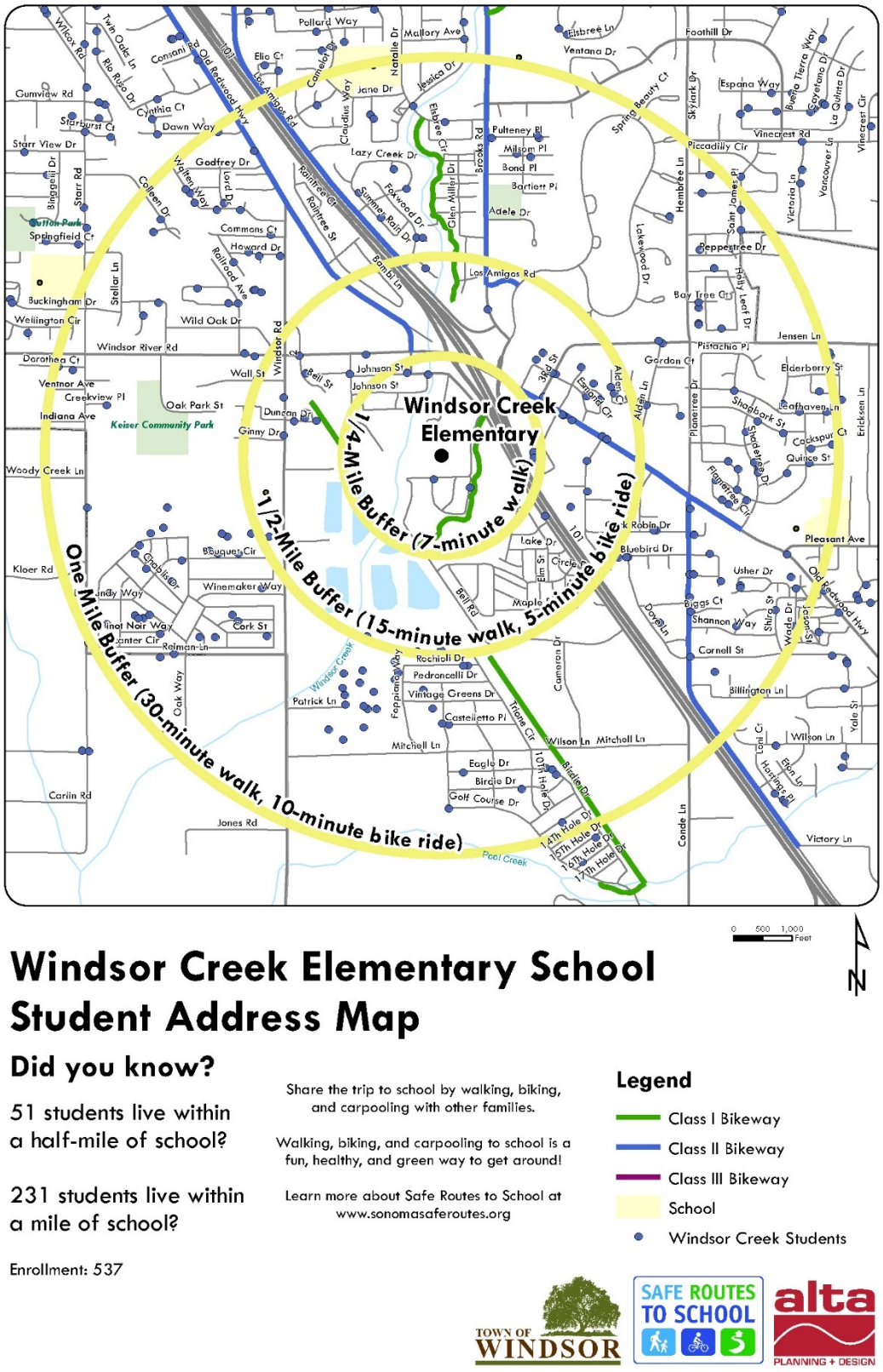


Figure 2-1. Windsor Creek Elementary Student Address Map

2.1.3 Walking/Biking Rates

In October 2013, the Windsor SRTS program staff conducted hand tallies at Windsor Creek Elementary to survey students about how they get to and from school. Staff asked students how they traveled to and from school the day before, and how they would be traveling to and from school on that day. Students were given a choice of answers and raised their hand for the choice that matched their travel mode.

Seventeen classrooms responded, representing 376 students, or 70 percent of the student body. Results are shown in Figure 2-2.

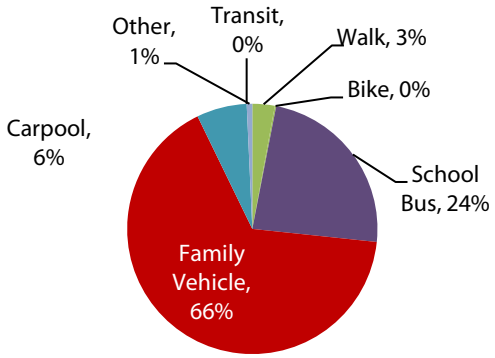


Figure 2-2. Windsor Creek Elementary School Mode Split

Source: October 2013 Student Hand Tallies

Windsor Creek Elementary has the second-highest rate of students driven in the family vehicle in Windsor. A large proportion of students also take the school bus (24 percent). Few students walk (three percent) or bike (zero percent), and there is potentially an opportunity to expand carpooling, which represents eight percent of student trips.

2.2 Walk Audit Observations and Infrastructure Recommendations

The Windsor SRTS program conducted a walk audit at Windsor Creek Elementary on Wednesday, October 23, 2013. The weather was foggy and chilly. The Windsor Creek Principal at attended, as well as Town of Windsor staff, a representative from the Sonoma County Transportation Authority (SCTA), Sonoma County Bicycle Coalition staff, and the engineering consultants from Alta Planning + Design.

Key locations are described below, including issues identified during audit observations and discussions. Project numbering refers to the Improvements Map provided in **Figure 2-5** on page 32.

2.2.1 School Main Parking Lot

All parents are encouraged to drop-off and pick-up students at the main school parking lot. The parking lot was reconfigured when the bus parking lot was moved east of the school although the striping, curb ramps, and tactile domes for the bus parking remain in the main lot. Much of the curb is painted red, including the student loading zone on the loop and the curb in front of the school.

Pedestrian access to the school from Armando Renzullo Way is challenging as it is currently configured. The crosswalk through the parking lot is faded and passes through the temporary bollards. The sidewalk on the west side of Armando Renzullo Way is at the level of the road, separated with an extruded curb. The east sidewalk is raised with a curb, although it ends at a barrier and no crossing is provided to get to the crosswalk.

Bicycle parking is provided on the south side of the driveway loop. It consists of a single 'toaster-style' rack, which holds bicycles by their front wheels and is challenging to a bicycle lock to. While the young age of students and challenges accessing the school site



Movable cones are placed in the parking lot to prevent drivers from turning back to Armando Renzullo Way directly after dropping students off.



Windsor Creek Elementary has one bike parking rack, which is hard to lock bicycles to.



The back exit has a curb cut on the north side and a the rolled curb on the south side.

limit the number of students biking to Windsor Creek Elementary, the school should have some parking appropriate for teachers and parents who bike.

The back egress from the parking lot is an informal driveway with a wide mouth at Oakfield Lane, which is only ramped on the north half. The driveway is marked for one-directional use, although audit participants reported that it is sometimes used in both directions. The driveway is approximately 15 feet wide, and widening it to accommodate bidirectional traffic would require widening it to the north or removing one of the school bus parking stalls. In addition, the driveway meets Oakfield Lane at an angle, which results in poor sight lines

Recommendations (1)

a. Paint two lanes of traffic around loop for drop-off and pull-through and post PASSENGER LOADING signs
b. Remove curb ramps, pavement markings, and tactile strips where remaining from bus parking
c. Repaint crosswalks across parking and install tactile domes at curb ramps
d. Formalize barrier by installing pedestrian refuge island (long term)
e. Paint high-visibility school crosswalk across Armando Renzullo Way at school parking lot and construct curb ramp with tactile domes, and add a school crosswalk warning sign and YIELD pavement markings
f. Install two inverted-U style bike parking racks for staff and parents and replace 'wheel-bender' racks with modern child-sized racks
g. Improve interface between back exit and Oakfield Lane, including DO NOT ENTER signs and red curbing
h. Widen back driveway and reconfigure to connect to Oakfield lane closer to 90 degrees



Oakfield Lane is a good place for parents to park and walk their students to school.

2.2.2 Oakfield Lane and Windsor Creek Trail

Oakfield Lane is often used for student drop-off and pick-up. During the audit, most families were observed parking and escorting their students to school. Observation during the audit indicated that speeding is an issue in this location, particularly due to poor sight lines through the curve. Posting signs informing drivers that they are entering a school zone may help reduce speeding.

A shared use path adjacent to the creek provides access from Conde Lane to Bell Road. However, the



The Windsor Creek Trail from Conde Lane to Bell Road is unpaved but is a pleasant walking connection.

trail lacks other access points and most of the shared driveways have fences that prevent access. Several access points could be easily opened, enabling families to use the path as a route to school. This would require additional lighting and other considerations to alleviate personal safety concerns. Crime Prevention Through Environmental Design (CPTED) strategies can foster a safe environment for students.

Recommendations (2)

a. Add school area warning signage

b. Open trail access from driveways adjacent to the school

c. Implement CPTED designs on the trail and consider lighting to reduce personal safety concerns

2.2.3 Armando Renzullo Way

Cars queue up along southbound Armando Renzullo Way when waiting to drop-off and pick-up students. Walk audit participants noted that a particular issue occurs in the afternoon, when drivers sometimes pull into the northbound travel lane to get around waiting vehicles. The school owns the parcel to the west of Armando Renzullo Way and the school has discussed the possibility of making Armando Renzullo Way three lanes, with two southbound lanes. Painting a centerline would discourage drivers from pulling around other vehicles, without widening the roadway and potentially causing additional conflicts.



The sidewalk on the east side of Armando Renzullo Way ends at a fence, and there is no marked crossing at the school.

Recommendations (3)

- Paint centerline

2.2.4 Conde Lane at Armando Renzullo Way

Most people have to travel on Conde Lane to access the school, and both intersections become highly congested during peak commute hours.

As part of the Pedestrian Safety Assessment (2012), University of California, Berkeley students conducted a walk audit at Conde Lane between Johnson and Old Oak Road. They observed heavy school-related traffic, significant truck use, and pedestrian access to the store on the northeast corner. Recommended improvements are shown in **Figure 2-3**.

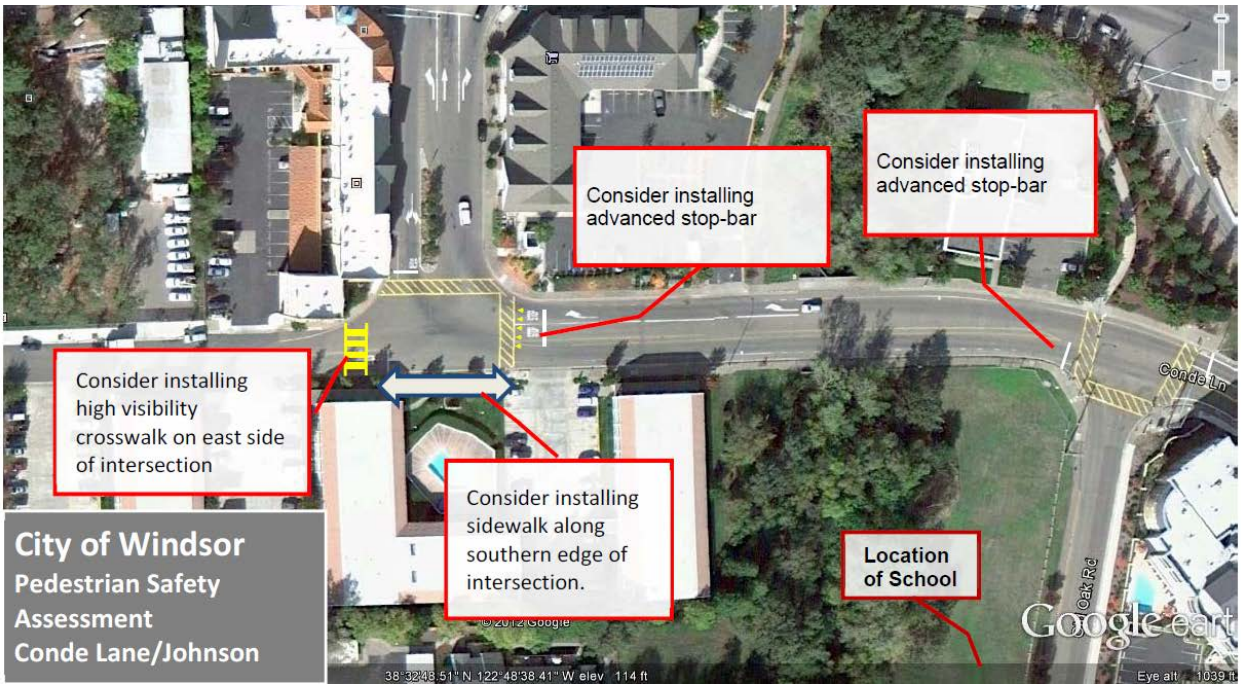


Figure 2-3. Recommended Improvements at Conde Lane between Johnson and Old Oak Road
Source: Pedestrian Safety Assessment (2012)

Audit participants reported concerns with high turning speeds at Armando Renzullo Way. The sidewalk is currently blocked by a fire hydrant and other utilities, and the curb ramps are not ADA-compliant.

Audit participants also noted increasing issue with red light running on Conde Lane at Armando Renzullo Way, particularly in the northbound direction. Sightlines are poor due to the roadway curve and a previously existing STOP AHEAD sign may have been removed due to construction. A SCHOOL SPEED LIMIT 25 sign is posted before the curve, designating the school zone.

Recommendations (4)

a. Reconstruct southern corners at Armando Renzullo Way to reduce turning radii and provide parallel ADA compliant curb ramps with tactile domes

b. Refresh high-visibility crosswalk paint and consider painting advance stop bars

c. Post school advance warning and school crossing signs on Conde Lane

d. Replace stop ahead sign for northbound/westbound traffic on Conde Lane

2.2.5 Conde Lane at Johnson Street

At Johnson Street, the Pedestrian Safety Assessment recommended a high-visibility crosswalk on the west side of the intersection. This would encourage pedestrians to walk on the east side of Conde Lane before the turn, and on the south side to directly access Amado Renzullo Way, rather than crossing Conde Lane twice.

In 2013, the Town of Windsor received a One Bay Area Grant (OBAG), which will signalize the intersection of Conde Lane and Johnson Street, close the sidewalk gap, install countdown pedestrian traffic signal heads and push buttons, construct curb extensions on the north corners of the intersection, and stripe a crosswalk on the east leg of the intersection.

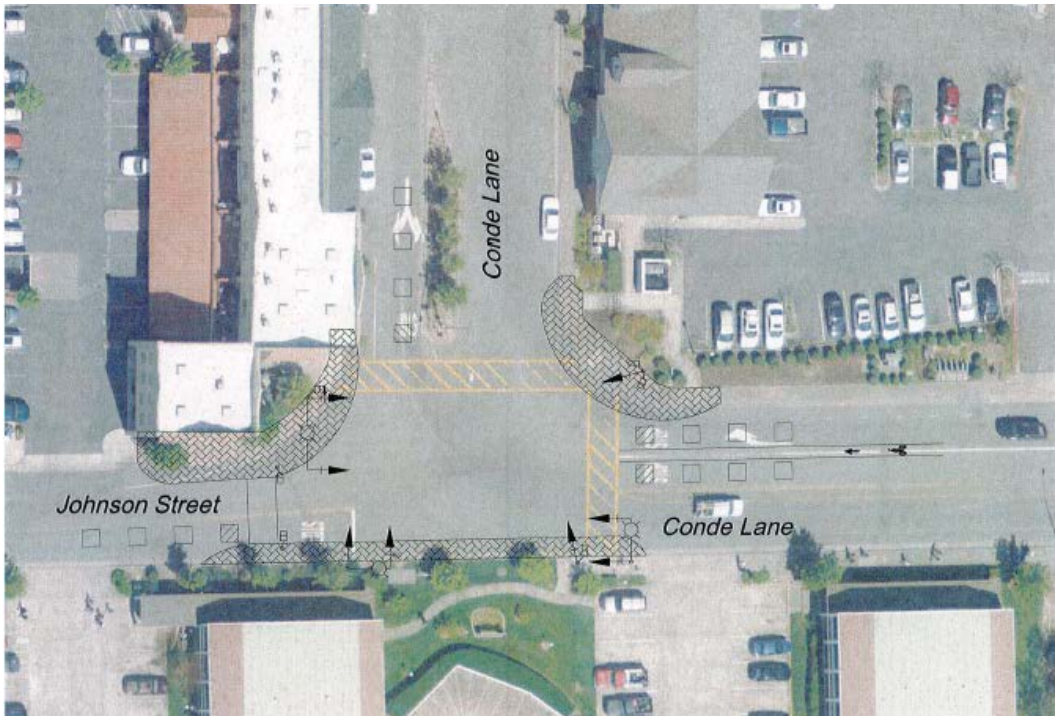


Figure 2-4. OBAG-Funded Improvements at Conde Lane and Johnson Street

Recommendations (5)

a. Implement OBAG-funded improvements

2.2.6 Bell Road

A creek borders the school site to the west, restricting the number of access points. Much of the land to the west of the school is undeveloped. When the land is developed, the Town should use the opportunity to provide a creek crossing and an
additional bicycle/pedestrian access point to the school. This could eventually connect to the proposed Class I multi-use path along the Sonoma-Marin Area Rail Transit (SMART).

Recommendations (6)

a. Require new development to provide bicycle/pedestrian access, including a bridge over the creek

2.2.7 Windsor Rail Trail

The 2014 Bicycle and Pedestrian Master Plan recommended developing a continuous trail along the railroad as a high priority for the Town. The rail line was formerly the Northwest Pacific Railroad and is

part of the Sonoma Marin Area Rail Transit (SMART) corridor. When completed, the trail will run from Healdsburg to Santa Rosa.

It would also improve connectivity for students in Windsor and enable more parents to bike with their students to Windsor Creek Elementary.

Recommendations (7)

b. Support completion of Windsor Rail Trail



Windsor Creek Elementary

Improvement Recommendations

1. School Main Parking Lot
- a. Paint two lanes of traffic around loop for drop-off and pull-through and post PASSENGER LOADING signs
- b. Remove curb ramps, pavement markings, and tactile strips where remaining from bus parking
- c. Repaint crosswalks across parking and install tactile domes at curb ramps
- d. Formalize barrier by installing pedestrian refuge island (long term)
- e. Paint high-visibility school crosswalk across Amando Renzullo Way at school parking lot, construct curb ramp with tactile domes, and add a school crosswalk warning sign and YIELD pavement markings
- f. Install two inverted-U style bike parking racks for staff and parents and replace 'wheel-bender' racks with modern child-sized racks
- g. Improve interface between back exit and Oakfield Lane, including DO NOT ENTER signs and red curbing
- h. Widen back driveway and reconfigure to connect to Oakfield lane closer to 90 degrees

2. Oakfield Lane and Windsor Creek Trail
- a. Add school area warning signage
- b. Open trail access from driveways adjacent to the school
- c. Implement CPTED designs on the trail and consider lighting to reduce personal safety concerns

3. Amando Renzullo Way
- a. Paint centerline

4. Conde Lane at Amando Renzullo Way
- a. Reconstruct southern corners at Amando Renzullo Way to reduce turning radii and provide parallel ADA compliant curb ramps with tactile domes
- b. Refresh high-visibility crosswalk paint and consider painting advance stop bars
- c. Post school advance warning and school crossing signs on Conde Lane
- d. Replace stop ahead sign for northbound traffic on Conde Lane approaching Amando Renzullo Way

5. Conde Lane at Johnson Street
- a. Implement OBAG-funded improvements

6. Bell Road
- a. Require new development to provide bicycle/pedestrian access, including a bridge over the creek

7. Windsor Rail Trail
- a. Support completion of Windsor Rail Trail

Figure 2-5. Windsor Creek Elementary Improvements Map

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2.3 Programmatic Recommendations

2.3.1 Improve School Bussing

Due to Windsor's school grade clustering, students often live further from their schools than they could reasonably walk or bicycle, so school buses are an important means of transporting students to and from schools. The Windsor School District provides busses to all schools. The buses circulate between schools, so students can be dropped off at a single school and ride a bus to another school.

It appears that the bussing schedule could be improved to correspond better with bell schedules, and the routes may be somewhat inefficient, leading to students having longer bus rides than required. In addition, the District could provide information about the buses to parents more regularly and consider establishing a smaller number of 'hub' bus stops, rather than dropping students off where they request.

2.3.2 Encourage Carpooling

Parents who are interested in finding other families to carpool with generally post a notice in the school newsletter. While carpooling can be challenging for students of this age due to the need for car seats and time for students to get ready for school, it can save parents time, reduce traffic congestion around schools, and foster transportation options in the future.

2.3.3 Promote Park-and-Walk and Walking School Bus

The school's proximity to downtown Windsor is a significant opportunity to encourage families to skip the traffic and drop students off or pick them up away from the school. The Town Green and Keiser Park are good potential Park-and-Walk locations for Windsor Creek Elementary. Designated parents can walk the group to school to provide supervision along the way. The Windsor SRTS program can train the parent volunteers and provide them with materials such as reflective vests to help formalize the program.

This information can be shared in back-to-school packets, flyers, and other parent communication.

2.3.4 Promote Suggested Route Maps

Shown in **Figure 2-7**, The Windsor Creek Elementary Suggested Route Map identifies the best routes for getting to school and includes safe walking, biking, and driving suggestions. Suggested route maps also show locations of crossing guards, stop signs, crosswalks, signals, bike lanes, bike paths, and bike parking.

The maps can be shared with parents at orientation and in advance of events such as Walk and Roll to School Day.

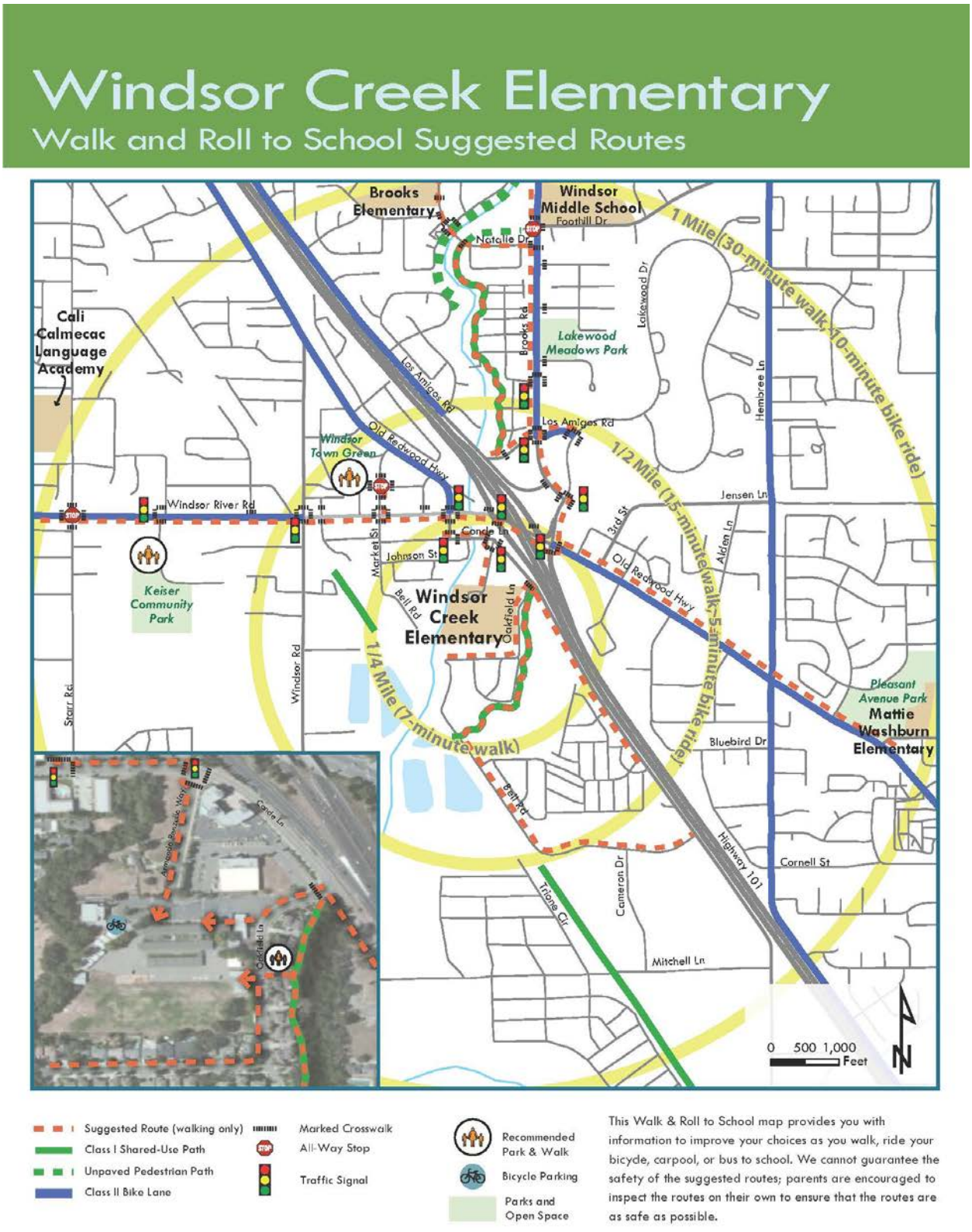


Figure 2-6. Windsor Creek Elementary Suggested Route Map – Front

Windsor Safe Routes to School

Windsor Creek Elementary Walk and Roll to School Map

What is Safe Routes to School (SRTS)?

Windsor Safe Routes to School encourages students to walk and bicycle. Walking and biking to school reduces congestion around schools, which improves safety and reduces emissions. It is also healthy, fun and affordable!

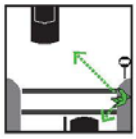
The Windsor Safe Routes to School program provides education and encouragement for alternatives to driving and seeks to improve traffic safety around schools. The program is funded by a Federal grant.

Walk or Skate Safely



Be alert. Look for cars coming from all directions before entering the street - including from behind you.

Cross at corners and crosswalks. This is where drivers expect pedestrians.

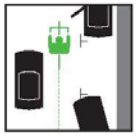


Don't assume drivers see you. Make eye contact before crossing intersections.

Bike Safely



Be predictable. Obey ALL stop signs and traffic signals. Never ride wrong way. The best way to avoid crashes as well as traffic tickets is to follow the same rules of the road as apply to car drivers.



Be alert. Watch out for drivers turning left or right, or coming out of driveways. Avoid car doors opening in front of you by riding out of the door zone. Yield to pedestrians.



Wear your helmet and buckle it every time. It's the law. To best protect your brain, your helmet must fit properly: snug and level on your head, just above your eyebrows.



Be visible. Use a bright headlight and taillight at night.

Avoid texting, phone calls, or music while biking.

Drive Safely

- Slow down and use extra caution in school zones and along commute routes! Signal your turns and yield to pedestrians.
- Help reduce traffic congestion near by carpooling with a neighbor and avoiding the last minute rush whenever possible.
- Obey adult crossing guards and "No Right Turn on Red" signs posted at designated school intersections. This allows students to cross safely without cars turning through crosswalks.
- Don't make U-turns and other unsafe maneuvers that put other road users at risk.
- When dropping off or picking up your student, follow school guidelines and always ensure that he/she exits or enters the car from the curb side.
- Never double park, block access ramps or stop where prohibited.
- Avoid texting, phone calls and other distractions when driving.

Questions?

Learn more at: SonomaSafeRoutes.com

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Figure 2-7. Windsor Creek Elementary Suggested Route Map - Back

2.4 Recommendations and Cost Estimates

Table 2-1 summarizes recommendations for Windsor Creek and provides planning-level costs.

Table 2-1: Windsor Creek Elementary Recommended Improvements

WINDSOR CREEK RECOMMENDATIONS and COST ESTIMATES

Location	Recommendations	Lead Agency	Cost (2013 $)	Status as of 9/18
Programs	Improve School Bussing	District	Staff time	
	Encourage Carpooling	Windsor SRTS, School	Grant funded	
	Promote Park-and-Walk and Walking School Bus	Windsor SRTS, School	Staff time	
	Promote Suggested Route Maps	Windsor SRTS, School	Grant funded	
School Main Parking Lot	Paint two lanes of traffic around loop for drop-off and pull-through and post PASSENGER LOADING signs	District	$1,000	
	Remove curb ramps, pavement markings, and tactile strips where remaining from bus parking	District	$500	
	Repaint crosswalks across parking and install tactile domes at curb ramps	District	$1,500	
	Formalize barrier by installing pedestrian refuge island	District	$15,000	
	Paint high-visibility school crosswalk across Armando Renzullo Way at school parking lot and construct curb ramp with tactile domes, and add a school crosswalk warning sign and YIELD pavement markings	District	$4,800	
	Install two inverted-U style bike parking racks for staff and parents and replace 'wheel-bender' racks with modern child-sized racks	District	$2,300	
	Improve interface between back exit and Oakfield Lane, including DO NOT ENTER signs and red curbing	District	$300	
	Widen back driveway and reconfigure to connect to Oakfield lane closer to 90 degrees	District	$50,000	
	Total School Main Parking Lot		**$75,100**	
Oakfield Lane and Windsor Creek Trail	Open trail access from driveways adjacent to the school	Town	$250,000	
	Implement CPTED designs on the trail and consider lighting to reduce personal safety concerns	Town	TBD	
	Add school area warning signage	Town	$800	
	Total Oakfield Lane and Windsor Creek Trail		**$250,800**	

WINDSOR CREEK RECOMMENDATIONS and COST ESTIMATES

Location	Recommendations	Lead Agency	Cost (2013 $)	Status as of 9/18
Armando Renzullo Way	Paint centerline	Town	$2,200	
Conde Lane at Armando Renzullo Way	Reconstruct southern corners at Armando Renzullo Way to reduce turning radii and provide parallel curb ramps with tactile domes	Town	$66,000	
	Refresh high-visibility crosswalk paint and consider painting advance stop bars	Town	$1,600	
	Post school advance warning and school crossing signs on Conde Lane	Town	$1,200	
	Replace stop ahead sign for northbound/westbound traffic on Conde Lane	Town	$200	
	Total Conde Lane at Armando Renzullo Way		**$69,000**	
Conde Lane at Johnson Street	Implement OBAG-funded improvements	Town	Funded	Complete 2018 Realignment of Conde Lane to increase level of service and pedestrian safety with RRFBs and green bike lanes
Bell Road	Require new development to provide bicycle/ pedestrian access, including a bridge over the creek	Town	$0	
Windsor Rail Trail	Support completion of Windsor Rail Trail	Town	$0	

3 Brooks Elementary School Report

Principal:	Kimberlee Kimes		**Grades:**	4th and 5th
Enrollment:	528		**Address:**	750 Natalie Drive
First bell:	8:35			Windsor, CA 95492
Mode share:	62% family vehicle	7% walk	**Students within a half-mile of school:** 65	
	22% school bus	3% bike	**Youth-involved crashes within a half-mile (2008-2013):** 1 bicycle	
	6% carpool	1% other		

3.1 Existing Conditions

3.1.1 School Layout and Circulation

Brooks Elementary is located in north central Windsor, adjacent to Natalie Drive. Nearby major roadways include Los Amigos Road, Arata Lane, and Brooks Road. The main school entrance is located on Natalie Drive. Students can also access the school from the north, west, and south through trails in Michael A. Hall Park. Multiple entrance gates between the park and school grounds are open only during school arrival and departure times.



Brooks Elementary has a relatively high number of students walking and biking to school, in part due to the school's location in a neighborhood with good access.

At the north end of the school property, a bus circle provides a drop-off and pick-up area.

Because the school is located a half-mile from Windsor Middle School, many Windsor Middle School students arrive at Brooks by parent vehicle or bus and walk to Windsor Middle School. Most of these students turn at Natalie Drive and travel along the dirt path beside La Petite Academy, crossing to the Middle School at Foothill Drive. Likewise, in the afternoon Brooks Elementary students walk along the same route to access the Windsor Boys and Girls Club, located just north of the Windsor Middle School campus on Brooks Road.

Loading Zones

The school entrance, along Natalie Drive, serves as the primary student drop-off and pick-up location. A realignment of the curb on the west side of Natalie Drive allows for parents to pull off of Natalie, stop to unload or pick up their child, and then merge back onto the roadway.

Parents are prohibited from dropping off or picking up students from the new staff parking lot at the north end of campus. A posted notice at the entrance of the lot and reminders sent home with students help discourage parents from using the parking lot.

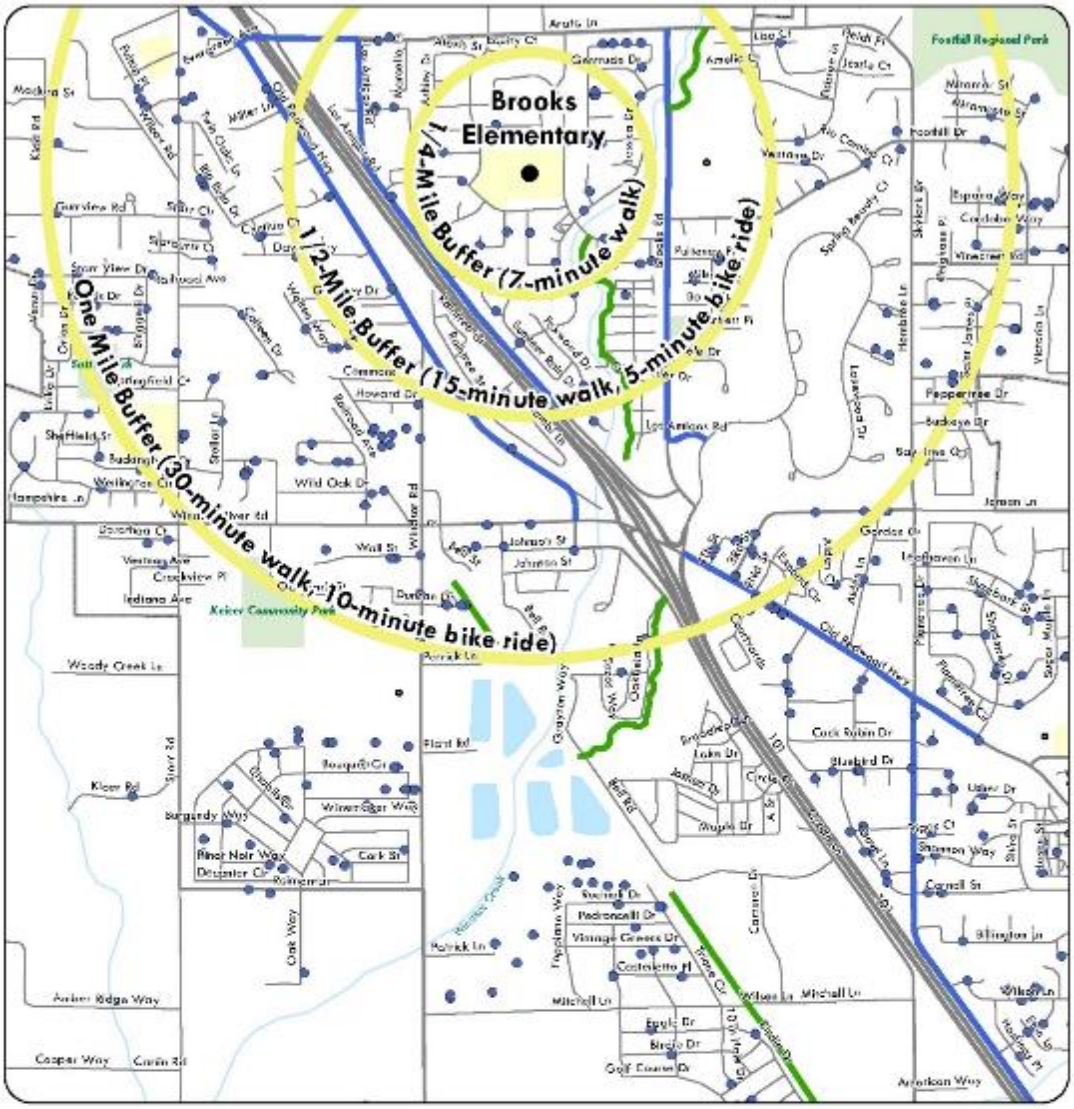
Parents also park along Jane Drive and Camelot Drive, bordering Michael A. Hall Park, to drop off and pick up their children. Students walk the short distance across the park to access the school grounds.

Crossing Guard

A crossing guard assists students at the uncontrolled crossing of Natalie Drive south of the school entrance. High visibility crossing assemblies have been installed at either side of the crossing, and the crossing guard places a mobile "School Crossing" sign in the middle of the crossing each morning.

3.1.2 Student Address Map

Figure 3-1 shows Brooks Elementary student home locations. Twelve percent of the students live within a half-mile of school, indicating potential for additional walking and biking. In addition, students tend to walk or bike to Windsor Middle School for after-school activities, increasing the number of students walking in the neighborhood.



Brooks Elementary School Student Address Map

Did you know?

65 students live within a half-mile of school?

211 students live within a mile of school?

Enrollment: 528

Share the trip to school by walking, biking, and carpooling with other families.

Walking, biking, and carpooling to school is a fun, healthy, and green way to get around!

Learn more about Safe Routes to School at www.sonomasaferoutes.org

Legend

- Class I Bikeway
- Class II Bikeway
- Class III Bikeway
- School
- Brooks Students

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SAFE ROUTES TO SCHOOL

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Figure 3-1 Brooks Elementary Student Address Map

3.1.3 Walking/Biking Rates

In November 2013, the Windsor SRTS program surveyed Brooks Elementary students about how they get to and from school. The survey asked students how they traveled to and from school the day before, and how they would be traveling to and from school on that day. Students were given a choice of answers and raised their hand for the choice that matched their travel mode.

Twelve classrooms responded, representing 378 students, or 72 percent of the student body. Results are shown in

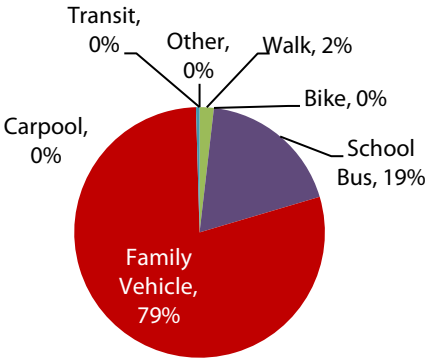


Figure 0-2.

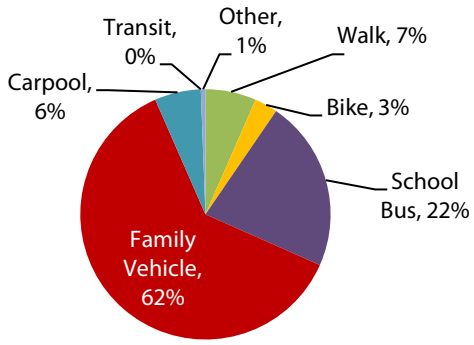


Figure 3-2. Brooks Elementary Mode Split to School

Source: November 2013 Student Hand Tallies

(Numbers may not add to 100 due to rounding.)

Most students get to Brooks Elementary via family car (62 percent). A sizeable proportion of students take the school bus (22 percent). Seven percent of all trips to school are on foot and three percent are by bike.

3.2 Walk Audit Observations and Infrastructure Recommendations

The Windsor SRTS program conducted a walk audit at Brooks Elementary on Tuesday, November 12, 2013. Skies were overcast and temperatures were chilly. A few neighbors attended, as well as a Brooks Elementary physical education instructor, Windsor SRTS staff, Town of Windsor staff, a Windsor Police Officer, Sonoma Bicycle Coalition staff, and the engineering consultants from Alta Planning + Design and Parisi Transportation Consulting.



The main pedestrian crossing on Natalie Drive is well-marked and visible, but the lack of curbs renders it not ADA-compliant.



Students lock their bikes to the fence to avoid the toaster style bike parking.

Key locations are described below, including issues identified during audit observations and discussions. The recommendations numbering corresponds with the project numbers shown in **Figure 3-3** on page 46.

3.2.1 Natalie Drive School Entrance

Audit participants remarked on the relatively calm vehicular drop-off process at Brooks Elementary. Parents traveling south on Natalie Drive appeared to follow the general guidelines of safe drop-offs: pulling forward, stopping only to drop off their students, then staying in the loading lane until they reached the end of the loading zone, at which point they re-entered traffic on Natalie Drive.

The crossing guard overseeing the school entrance crossing did report occasional yielding issues and said speeding drivers appear to be a consistent problem. Northbound Natalie Drive turns sharply north of the crossing, and parking along Natalie Drive (often parents dropping off their children) creates visibility issues for the crossing.

The crosswalk lacks curb cuts. Students arriving by bike tend to ride along the east sidewalk of Natalie Drive. Approaching the crosswalk, students dismount and cross with the crossing guard. The school bicycle parking is located adjacent to the crossing, although it is comprised of 'toaster' style bike racks and many students lock their bikes to the chain-link fence instead, due to the challenge of locking the bike safely.

Recommendations (1)

a. Construct curb ramps at the crosswalk; consider installing curb extensions with curb ramps; install tactile domes
b. Consider installing a Rectangular Rapid Flashing Beacon at the crosswalk
c. Replace existing bicycle racks with U-shaped racks

3.2.2 Natalie Drive and Mallory Avenue

The other major pedestrian crossing near the school at Natalie Drive and Mallory Avenue is also missing a curb cut on the western leg of the crossing. This crossing could be made ADA-compliant with the inclusion of tactile domes.

Recommendations (2)

a. Construct curb ramp on west side
b. Install tactile domes on both sides



Without curb ramps, the main pedestrian crossing on Natalie Drive is not ADA-compliant.

3.2.3 Windsor Creek Trails

In the morning, Windsor Middle School students dropped off at Brooks Elementary use the southern dirt path between Natalie Drive and Brooks Road to access the Middle School. In the afternoon, Brooks Elementary students follow the same route to join up with older siblings at Windsor Middle School or to access the Boys and Girls Club, located north of the Middle School campus.

On the other side of the creek, the northern dirt path connects to a point further north on Brooks Road that connects with the paved multi-use path just south of Jessica Drive. This path connects to Arata Lane.

Recommendations (3)

a. Pave path by La Petite Academy
b. Pave Windsor Creek Trail from Natalie Road to Brooks Road
c. Post TRAIL CROSSING signs



Windsor Middle School students using the unpaved trail to travel between Brooks Elementary and WMS in the morning.



Unpaved trail between Brooks Elementary and Windsor Middle School.

3.2.4 Michael A. Hall Park

Students travel through Michael A. Hall Park to access Brooks Elementary through the school playground. Several of the park entrances lack curb cuts and/or tactile domes. This can be an impediment for students bicycling or parents pushing strollers.

Recommendations (4)

c. Construct curb ramp with tactile domes on north leg of Jane Drive and Claudius Way
d. Update existing curb ramp with ADA-compliant tactile domes at Jane Drive and Camelot Drive
e. Construct curb cut with tactile domes at Sarah Court

3.2.5 Natalie Drive, Jane Drive, Cordellia Lane, and Camelot Drive



Bike lanes on Arata Lane narrow without warning.

The 2014 *Windsor Bicycle and Pedestrian Master Plan* identifies several streets around Brooks Elementary as proposed Class III bike routes (shared lane routes). These routes include Cordellia Lane from Los Amigos Road to Natalie Drive, Camelot Drive from Natalie Drive to Arata Lane, and Natalie Drive from Brooks Road to Camelot Drive. These streets have relatively low traffic volumes and speeds and are already good routes for bicycling.

The addition of posted signs and pavement markings identifying these streets as formal bike routes would improve conditions for student bicyclists and can address parents' traffic safety concerns.

Recommendations (5)

f. Sign and mark as Class III bike routes

3.2.6 Arata Lane

The width of the current bike lanes on Arata Lane is not consistent along the roadway. Between Los Amigos Road and Marcella Lane, the lanes narrow on both sides of Arata Lane due to roadside topography. With posted speed limits of 40 mph on Arata Lane, the present un-buffered bike lanes may be preventing some bicyclists from riding on the roadway.

Recommendations (6)

a. Short-term: Paint shared lane markings and install "Shared Lane" signs between Marcella Lane and Los Amigos Road.
b. Long-term: Consider painting 6.5-ft buffered bike lanes between Marcella Lane and Hembree Lane.
c. Long-term: Consider construction to widen roadway between Marcella Lane and Los Amigos Road.

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Brooks Elementary

Improvement Recommendations

1. Natalie Drive School Entrance
- a. Construct curb ramps at the crosswalk; consider installing curb extensions with curb ramps; install tactile domes
- b. Consider installing a Rectangular Rapid Flashing Beacon at the crosswalk
- c. Replace existing bicycle racks with U-shaped racks

2. Natalie Drive and Mallory Avenue
- a. Construct curb ramp on west side
- b. Install tactile domes on both sides

3. Windsor Creek Trails
- a. Pave path by La Petite Academy
- b. Pave Windsor Creek Trail from Natalie Drive to Brooks Road
- c. Post TRAIL CROSSING signs

4. Michael A. Hall Park
- a. Construct curb ramp with tactile domes on north leg of Jane Drive and Claudius Way
- b. Update existing curb ramp with ADA-compliant tactile domes at Jane Drive and Camelot Drive
- c. Construct curb cut with tactile domes at Sarah Court

5. Natalie Drive, Jane Drive, Cordellia Lane, and Camelot Drive
- a. Sign and mark as a Class III bike routes

6. Arata Lane
- a. Short-term: Paint shared lane markings and install "Shared Lane" signs between Marcella Lane and Los Amigos Road
- b. Long-term: Consider painting 6.5-ft buffered bike lanes between Marcella Lane and Hembree Lane
- c. Long-term: Consider construction to widen roadway between Marcella Lane and Los Amigos Road

Figure 3-3. Brooks Elementary Improvement Plan

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3.3 Programmatic Recommendations

3.3.1 Improve School Bussing

Due to Windsor's school grade clustering, students often live further from their schools than they could reasonably walk or bicycle, so school buses are an important means of transporting students to and from schools. The Windsor School District provides busses to all schools. The buses circulate between schools, so students can be dropped off at a single school and ride a bus to another school.

It appears that the bussing schedule could be improved to correspond better with bell schedules, and the routes may be somewhat inefficient, leading to students having longer bus rides than required. In addition, the District could provide information about the buses to parents more regularly and consider establishing a smaller number of 'hub' bus stops, rather than dropping students off where they request.

3.3.2 Encourage Carpooling

Parents who are interested in finding other families to carpool with generally post a notice in the school newsletter. While carpooling can be challenging for students of this age due to the need for car seats and time for students to get ready for school, it can save parents time, reduce traffic congestion around schools, and foster transportation options in the future.

3.3.3 Promote Park-and-Walk Locations

Several parents currently use Michael A. Hall Park as a remote drop-off location. However, the school does not have staff to supervise this area, so they discourage student loading. The school can encourage parents parking and walking from this location. This information can be shared in back-to-school packets, flyers, and other parent communication.

3.3.4 Promote Suggested Route Maps

The Brooks Elementary Suggested Route Map provided in **Figure 3-4** identifies the best routes for getting to school and includes safe walking, biking, and driving suggestions. Suggested route maps also show locations of crossing guards, stop signs, crosswalks, signals, bike lanes, bike paths, and bike parking.

The maps can be shared with parents at orientation and in advance of events such as Walk and Roll to School Day.

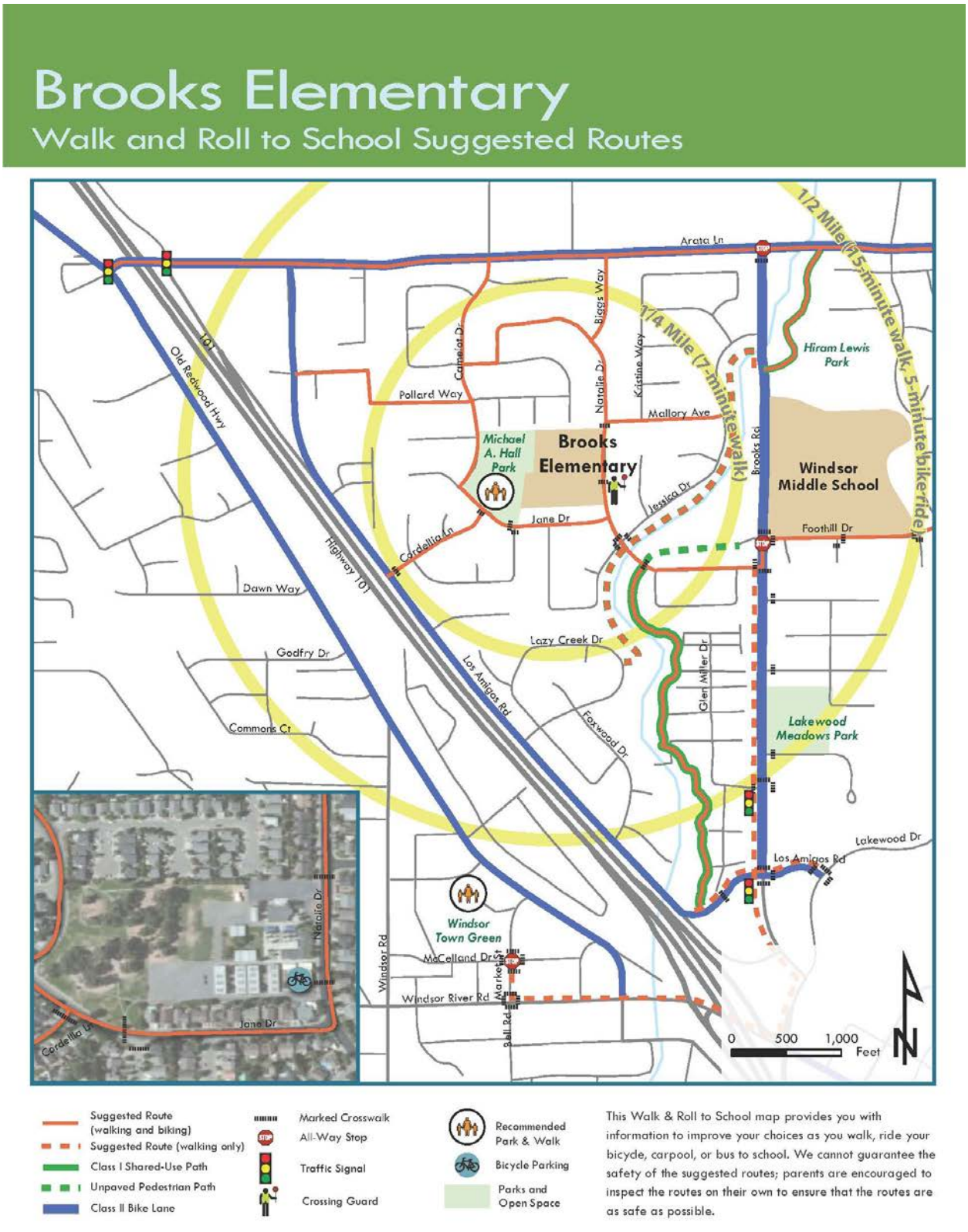


Figure 3-4. Brooks Elementary Suggested Route Map – Front

Windsor Safe Routes to School

Brooks Elementary Walk and Roll to School Map

What is Safe Routes to School (SRTS)?

Windsor Safe Routes to School encourages students to walk and bicycle. Walking and biking to school reduces congestion around schools, which improves safety and reduces emissions. It is also healthy, fun and affordable!

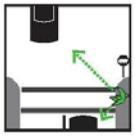
The Windsor Safe Routes to School program provides education and encouragement for alternatives to driving and seeks to improve traffic safety around schools. The program is funded by a Federal grant.

Walk or Skate Safely



Be alert. Look for cars coming from all directions before entering the street - including from behind you.

Cross at corners and crosswalks. This is where drivers expect pedestrians.

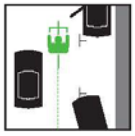


Don't assume drivers see you. Make eye contact before crossing intersections.

Bike Safely



Be predictable. Obey ALL stop signs and traffic signals. Never ride wrong way. The best way to avoid crashes as well as traffic tickets is to follow the same rules of the road as apply to car drivers.



Be alert. Watch out for drivers turning left or right, or coming out of driveways. Avoid car doors opening in front of you by riding out of the door zone. Yield to pedestrians.



Wear your helmet and buckle it every time. It's the law. To best protect your brain, your helmet must fit properly: snug and level on your head, just above your eyebrows.



Be visible. Use a bright headlight and taillight at night.

Avoid texting, phone calls, or music while biking.

Drive Safely

- Slow down and use extra caution in school zones and along commute routes! Signal your turns and yield to pedestrians.
- Help reduce traffic congestion near by carpooling with a neighbor and avoiding the last minute rush whenever possible.
- Obey adult crossing guards and "No Right Turn on Red" signs posted at designated school intersections. This allows students to cross safely without cars turning through crosswalks.
- Don't make U-turns and other unsafe maneuvers that put other road users at risk.
- When dropping off or picking up your student, follow school guidelines and always ensure that he/she exits or enters the car from the curb side.
- Never double park, block access ramps or stop where prohibited.
- Avoid texting, phone calls and other distractions when driving.

Questions?

Learn more at: SonomaSafeRoutes.com

TOWN OF WINDSOR

SAFE ROUTES TO SCHOOL

alta PLANNING + DESIGN

Figure 3-5. Brooks Elementary Suggested Route Map - Back

3.4 Recommendations and Cost Estimates

Table 3-1 summarizes recommendations for Brooks Elementary and provides planning-level costs.

Table 3-1: Brooks Elementary Recommended Improvements

BROOKS RECOMMENDATIONS and COST ESTIMATES

Location	Recommendations	Lead Agency	Cost (2013 $)	Status as of 9/18
Programs	Improve School Bussing	District	Staff time	
	Encourage Carpooling	Windsor SRTS, School	Staff time	
	Promote Park-and-Walk Locations	Windsor SRTS, School	Grant funded	
	Promote Suggested Route Maps	Windsor SRTS, School	Grant funded	
Natalie Drive School Entrance	Construct curb ramps at the crosswalk; consider installing curb extensions with curb ramps; install tactile domes	Town	$60,500	
	Consider installing a Rectangular Rapid Flashing Beacon at the crosswalk	Town	$40,000	
	Replace existing bicycle racks with 20 U-shaped racks and 4 student-sized plaza racks	District	$15,000	
	Total Natalie Drive School Entrance:		**$115,500**	
Natalie Drive and Mallory Avenue	Construct curb ramp on west side	Town	$3,000	
	Install tactile domes on both sides	Town	$500	
	Total Natalie Drive and Mallory Avenue		**$3,500**	
Windsor Creek Trails	Pave path by La Petite Academy	Town	$3,300	
	Pave Windsor Creek Trail from Natalie Road to Brooks Road	Town	$40,200	
	Post TRAIL CROSSING	Town	$400	
	Total Windsor Creek Trails		**$43,900**	
Michael A. Hall Park	Construct curb ramp with tactile domes on north leg of Jane Drive and Claudius Way	Town	$3,300	
	Update existing curb ramp with ADA-compliant tactile domes at Jane Drive and Camelot Drive	Town	$300	
	Construct curb cut with tactile domes at Sarah Court	Town	$3,300	
	Total Michael A. Hall Park		**$6,900**	
Natalie Drive. Jane Drive, Cordellia Lane, and Camelot Drive	Sign and mark as Class III bike routes	Town	$3,400	

BROOKS RECOMMENDATIONS and COST ESTIMATES

Location	Recommendations	Lead Agency	Cost (2013 $)	Status as of 9/18
Arata Lane	Paint shared lane markings and install "Shared Lane" signs between Marcella Lane and Los Amigos Road.	Town	$1,200	
	Consider painting 6.5-ft buffered bike lanes between Marcella Lane and Hembree Lane	Town	$115,400	
	Consider construction to widen roadway between Marcella Lane and Los Amigos Road	Town	$171,900	
	Total Arata Lane		**$288,500**	

4 Windsor Middle School Report

Principal at time of audit:	Shannon Vehmeyer (current principal 2017-18 Brian Williams)		**Grades:**	6th to 8th
Enrollment:	873		**Address:**	9500 Brooks Road
First bell:	8:40			Windsor, CA 95492
Mode share:	53% family vehicle	10% walk	**Students within a half-mile of school:** 60	
	16% school bus	5% bike	**Youth-involved crashes within a half-mile (2008-2013):** 0	
	15% carpool	2% other		

4.1 Existing Conditions

4.1.1 School Layout and Circulation

Windsor Middle School is located off of Brooks Road, near the northeastern boundary of Windsor. Student loading and unloading occur on Brooks Road and Foothill Drive.

The school has a great potential for students to walk or bike to school; 227 students live within a mile of the school. Also, middle school students can gain independence and responsibility by walking or biking to school, provided they learn proper walking and bicycling behaviors.

The Boys and Girls Club is located just north of the Windsor Middle School campus, which attracts additional traffic in the afternoon. Throughout much of the year, students are leaving the area at dusk, which raised concerns for some audit participants.



Windsor Middle School's front drop-off area is well-designed with wide sidewalks and clear pedestrian routes.

Loading Zones

The school parking lot is the primary student drop-off and pick-up location. The drop-off is somewhat staggered, as Windsor Middle's bell is the latest within the Windsor School District and several students are dropped off by their families before or after siblings are driven to another school in the District.

Crossing Guard

A crossing guard is stationed on the north leg of the intersection with Foothill Drive and Brooks Road.

4.1.2 Student Address Map

Figure 4-1 on the following page shows student home locations. Only seven percent of the students live within a half-mile of school, reducing the potential for students walking to school. However, middle school students are older and can bicycle more safely to school for further distances than elementary school students. In fact, 26 percent of the students live within one mile of the school and 64% of students live within 2 miles. Windsor Middle has potential to decrease the rate of students being driven in their families' car by encouraging bicycling to and from school.

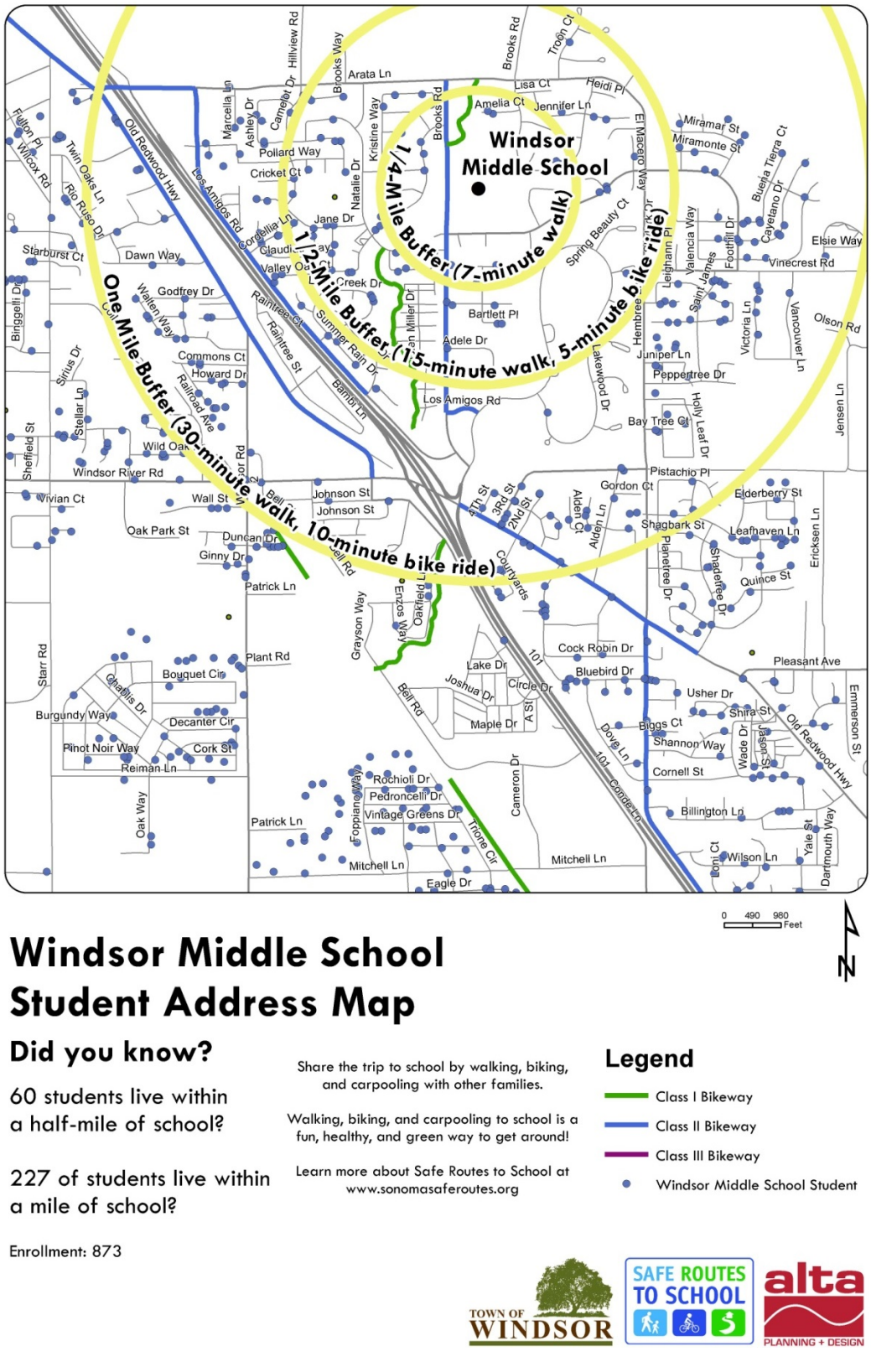


Figure 4-1. Windsor Middle School Student Address Map

4.1.3 Walking/Biking Rates

In October 2013, the Windsor SRTS program staff surveyed students about how they get to and from school. Staff visited classrooms and asked students how they traveled to and from school the day before, and how they got to school and plan to get home on that day. Students were given a choice of answers and raised their hand for the choice that matched their travel mode.

Twenty-three classrooms responded, representing 623 students, or 71 percent of the student body. Results are shown in

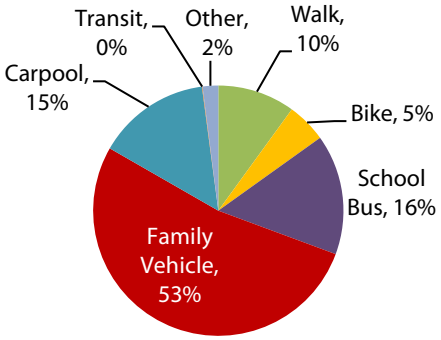


Figure 4-2. Windsor Middle Mode Split to School

Source: October 2013 Student Hand Tallies

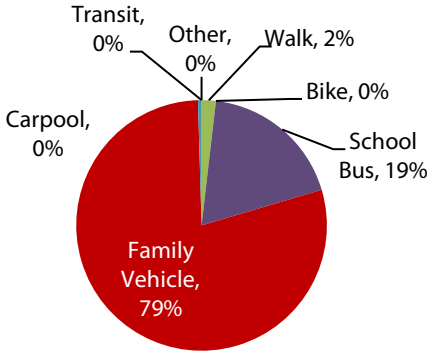


Figure **0-2**.

Most students get to Windsor Middle School via family car (53 percent). A sizeable proportion of students take the school bus (16 percent) and carpool (15 percent). Ten percent of all trips to school are on foot and 5 percent are by bike.

4.2 Walk Audit Observations and Infrastructure Recommendations

The Windsor Middle School walk audit was held on Tuesday, October 8, 2013. The weather was clear. Two parents attended, as well as the Windsor Middle School Principal, Windsor SRTS staff, Town of Windsor staff, a Windsor Police Officer, Sonoma County Bicycle Coalition, and the engineering consultants from Alta Planning + Design and Parisi Transportation Consulting.

Key locations are described below, including issues identified during audit observations and discussions. Project numbering refers to the Improvements Map provided in **Figure 4-5** on page 62.





The bike parking (top) is well-utilized, while the existing cage (bottom) is locked due to debris from a nearby tree causing flat tires.

4.2.1 School Site

All parents are encouraged to drop-off and pick-up students at the main school parking lot. The lot is large, with several internal loops that reduce traffic conflicts. The main crosswalk is marked with a differing pavement color, increasing its visibility. While the pavement markings on the driveway clearly mark that the front loop is intended for bus loading, posted signs would reinforce this message.

Bike parking is located at the back to the school, accessible via the paved back driveway. The school has a fenced cage for bikes, which is locked due to a tree that drops debris which causes flat tires. A second bike rack is provided adjacent to the first and is unfenced. Neither of the racks are located on pavement.

Recommendations (1)

a. Sign front lane in parking lot for bus drop-off only
b. Pave under bike parking and add roof
c. Sign directions to bike parking
d. Install inverted-U style bike parking racks for staff and parents



A crossing guard assists students crossing Brooks Road at Foothill Road.

4.2.2 Brooks Road at Foothill Road

The all-way stop sign-controlled intersection of the five-lane Brooks Road and four-lane Foothill Drive, is a key intersection for travel to Windsor Middle. High-visibility yellow crosswalks are marked on the north and east legs of the intersection, and STOP markings are painted on Brooks Road. A substantial amount of traffic passes through this location during peak hours, and many pedestrians appeared to have difficulty finding a gap in traffic to cross (audit observation).

The town is considering striping Brooks Road from Natalie Drive to Foothill Drive with green bike lane markings to enhance visibility of bicyclists and facilitate the connection between two designated bike routes (plan shown in **Figure 4-3**). These changes should improve visibility of bicyclists riding on and crossing Brooks Street. The Town previously proposed a reduction in the number of vehicle travel lanes on Brook Road, but community concerns stopped the project. The Town may revisit this issue once the green bike lanes have been painted, if excessive speeds, yielding issues, or crashes occur.

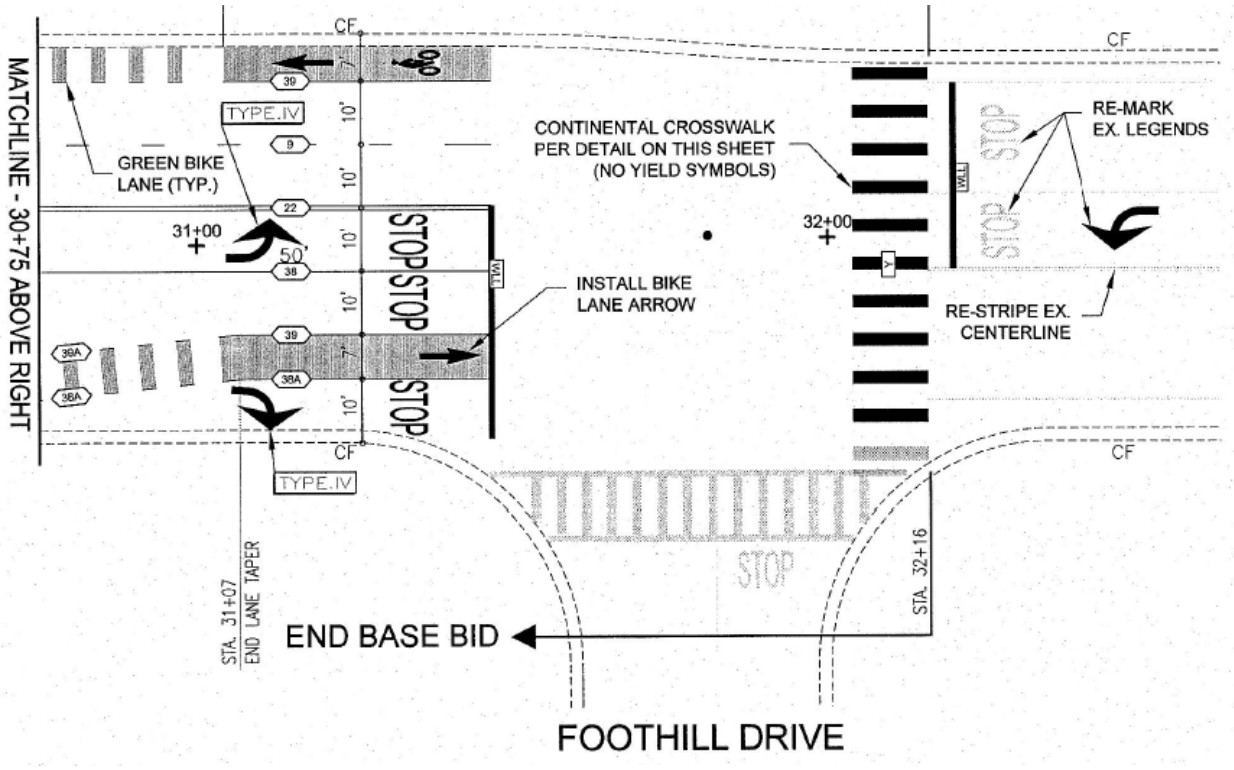


Figure 4-3. Striping Plan for Brooks Road at Foothill Drive

Also at this location, a short unpaved trail from Natalie Drive connects to the church parking lot by La Petite Academy. This trail is heavily used by Windsor Middle School and Brooks Elementary school students, as they meet siblings to get picked up together.

Recommendations (2)

- Implement Town's proposed striping plan
- Pave path by La Petite Academy

4.2.3 Brooks Road at Natalie Drive

Approximately 160 feet south of the intersection with Foothill Drive, the intersection with Natalie Drive is uncontrolled, although a high-visibility yellow crosswalk is marked on the south side of the intersection. The proximity to the intersection with Foothill Drive is challenging for this crossing location, despite SLOW SCHOOL CROSSING pavement markings, school warning signs, and school crossing signs. A STOP AHEAD sign is also posted in advance of the intersection with Natalie Drive, although it is referring to the stop at Foothill Drive.

The striping plan for updates to Brooks Road include refreshing the crosswalk and adding advance yield lines on both sides of the intersection. Shown in Figure 4-4, the plan also calls for green pavement in the bike lane on the east side of the intersection, as well as green skip striping across the transition to the right turn lane at Foothill Road.

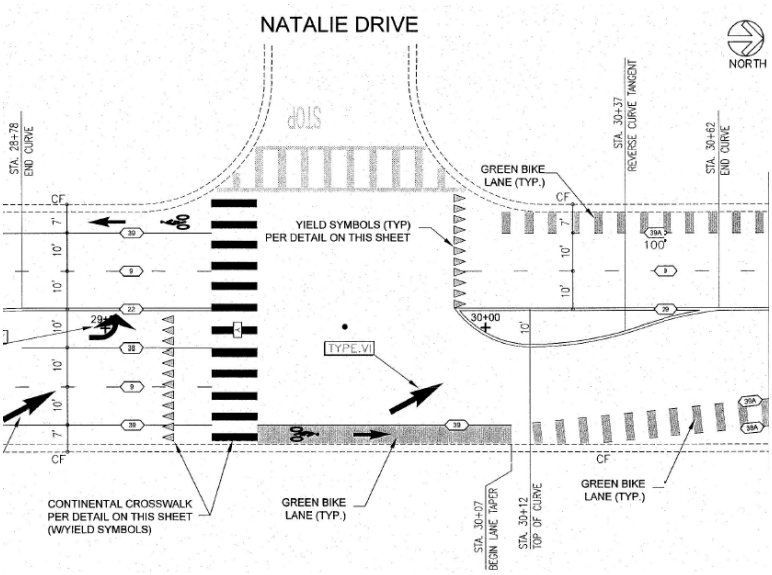


Figure 4-4. Striping Plan for Brooks Road at Natalie Drive

Recommendations (3)

a. Implement the Town's proposed striping plan

4.2.4 Foothill Road at Los Verde Court

A portion of the curb along Foothill Road is painted red to prohibit parking. However, no signs are posted and the police feel that they cannot enforce the restrictions. Families frequently drop students off and pick them up in this location, ignoring the red curb.

Recommendations (4)

a. Sign parking restrictions at red curb area



Audit participants observe the crosswalk at Granado Court.

4.2.5 Foothill Road at Granado Court

A high-visibility school crosswalk is marked across the west leg of the intersection, and a transverse yellow crosswalk is on the south leg. The crosswalk visibility is enhanced with SLOW SCHOOL XING advance pavement markings and a school crossing sign, although the sign is obscured by vegetation.

Audit participants noted that drivers sometimes park in the crosswalk, blocking access for pedestrians.

Recommendations (5)

a. Trim vegetation to maintain sign visibility
b. Construct bulb-outs
c. Paint yield markings at crosswalk

4.2.6 Foothill Road, Brooks Road to Hembree Lane

Foothill Road is a proposed Class III bike route (shared lane). Audit participants reported that this is currently a good route for students to bike on, except in the vicinity of the school. Foothill Road could be formalized as a bike route with the addition of shared lane markings and bike route signs, which would raise the visibility of bicyclists. Audit participants were concerned with apparent speeding around the curve near the school, although a School Zone 25 mph sign is posted before the crossing.

Audit participants also noted that the right turn onto the bike lanes on Hembree Lane can be challenging. The corner is wide and vehicles may turn at speeds higher than desired at this all-way stop sign-controlled intersection.

Recommendations (6)

a. Post BIKE ROUTE signs and mark shared lane markings
b. Consider reconstructing southwest corner of Foothill at Hembree to reduce curb radius

4.2.7 Brooks Creek Trail at Brooks Road

The Brooks Creek Trail crosses Brooks Road at an offset. The eastern segment north of Hiram Lewis Park is paved, while the western segment is currently unpaved, although the Town has funding to pave the section to Natalie Drive, where the pavement continues south. The trail is currently overgrown, leading to concerns about personal safety from several audit participants.



The Brooks Creek Trail crosses Brooks Road at an offset from Hiram Lewis Park (right).

The offset intersection is also challenged by a slight curve in Brooks Road, which impedes sight lines. The trail crossings should be consolidated into a single location, with a bi-directional facility on one sidewalk. The southern side of the crossing has better visibility and is therefore recommended.

Recommendations (7)

a. Pave trail from Brooks Road to Natalie Drive
b. Trim vegetation along trail
c. Mark a high-visibility school crosswalk with YIELD markings on the south side of the trail crossing
d. Post trail crossing signs at the crosswalk
e. Consider Rectangular Rapid Flashing Beacon
f. Widen sidewalk on the west side of the bridge and mark for bi-directional trail use

4.2.8 Windsor Creek Trail, Hembree Lane to Lakewood Drive

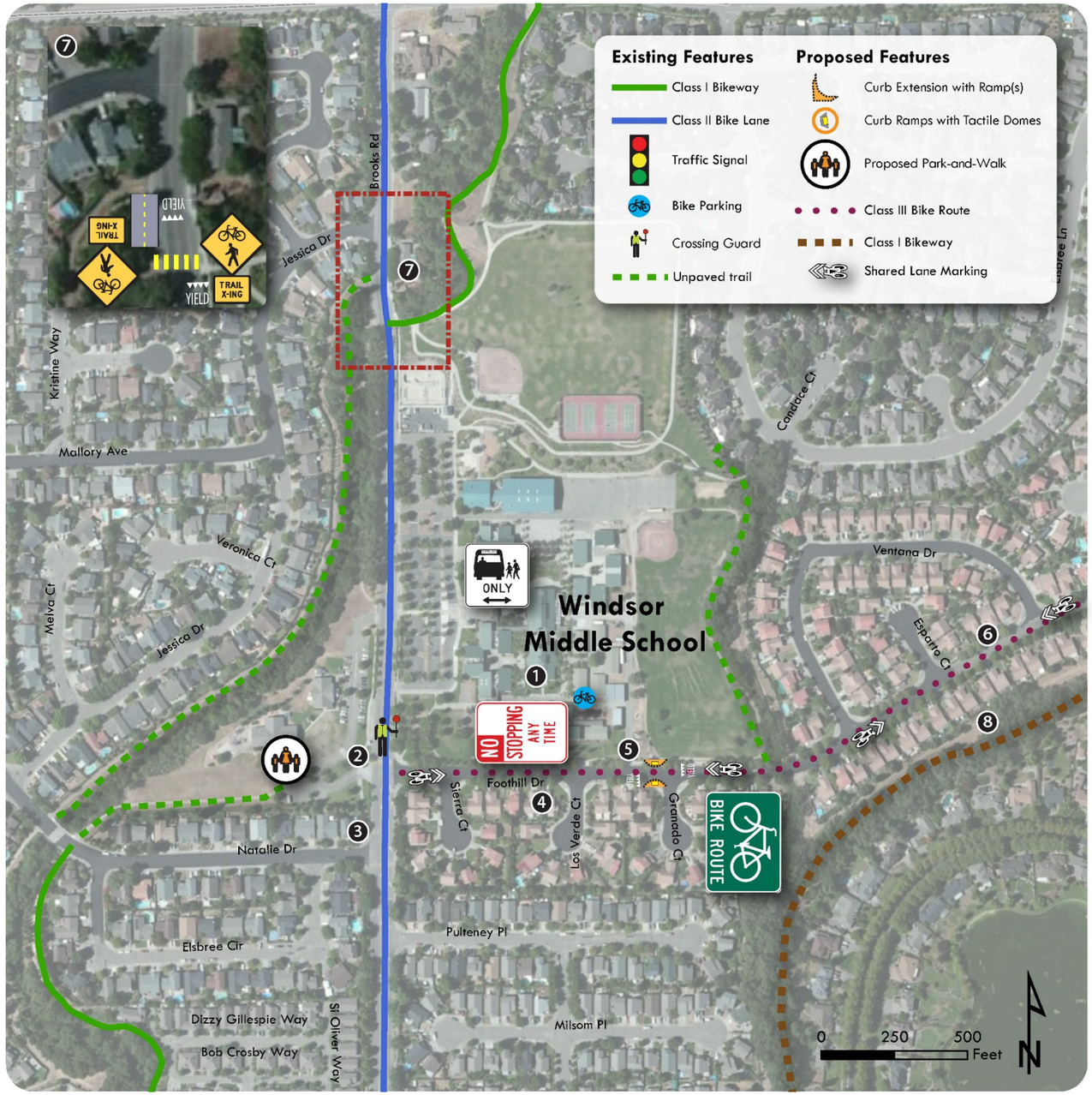
The 2002 *Townwide Trail and Bikeways Plan* identifies a trail along the west bank of East Windsor Creek as a medium priority. The trail would connect to Hembree Drive just south of Foothill Drive and to Lakewood just east of Adele Drive, connecting the neighborhood to the shopping center. The proposal includes a small footbridge over a tributary to access the middle school at the existing unpaved path to Hiram Lewis Park.

This trail would substantially reduce walking and biking times to get to the Lakewood Drive community.

Recommendations (8)

a. Construct gravel or crushed rock trail on right bank, with connection to Windsor Middle School

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Windsor Middle School

Improvement Recommendations

1. School Site
- a. Sign front lane in parking lot for bus drop-off only
- b. Pave under bike parking and add roof
- c. Sign directions to bike parking
- d. Install inverted-U style bike parking racks for staff and parents

2. Brooks Road at Foothill Road
- a. Implement Town's proposed striping plan
- b. Pave path by La Petite Academy

3. Brooks Road at Natalie Drive
- a. Implement Town's proposed striping plan

4. Foothill Road at Los Verde Court
- a. Sign parking restrictions at red curb area

5. Foothill Road at Granado Court
- a. Trim vegetation to maintain sign visibility
- b. Construct bulb-outs
- c. Paint yield markings at crosswalk

6. Foothill Road, Brooks Road to Hembree Lane
- a. Post BIKE ROUTE signs and mark shared lane markings
- b. Consider reconstructing southwest corner of Foothill at Hembree to reduce curb radius

7. Brooks Creek Trail at Brooks Road
- a. Pave trail from Brooks Road to Natalie Drive
- b. Trim vegetation along trail
- c. Mark a high-visibility school crosswalk with YIELD markings on the south side of the trail crossing
- d. Post trail crossing signs at the crosswalk
- e. Consider Rectangular Rapid Flashing Beacon
- f. Widen sidewalk on the west side of the bridge and mark for bidirectional trail use

8. Windsor Creek Trail, Hembree Lane to Lakewood Drive
- a. Construct gravel or crushed rock trail on right bank, with connection to Windsor Middle School

Figure 4-5. Windsor Middle School Improvements Map

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4.3 Programmatic Recommendations

4.3.1 Improve School Bussing

Due to Windsor's school grade clustering, students often live further from their schools than they could reasonably walk or bicycle, so school buses are an important means of transporting students to and from schools. The Windsor School District provides busses to all schools. The buses circulate between schools, so students can be dropped off at a single school and ride a bus to another school.

It appears that the bussing schedule could be improved to correspond better with bell schedules, and the routes may be somewhat inefficient, leading to students having longer bus rides than required. In addition, the District could provide information about the buses to parents more regularly and consider establishing a smaller number of 'hub' bus stops, rather than dropping students off where they request.

4.3.2 Encourage Carpooling

Parents who are interested in finding other families to carpool with generally post a notice in the school newsletter. While carpooling can be challenging for students of this age due to the need for car seats and time for students to get ready for school, it can save parents time, reduce traffic congestion around schools, and foster transportation options in the future.

4.3.3 Promote Park-and-Walk Locations

The United Methodist Church parking lot could act as a remote drop-off for students to walk part of the way to school and to decrease traffic congestion around the school. A Memorandum of Understanding between the school administration and church staff is recommended to formalize the arrangement.

4.3.4 Educate Students about Walking and Biking Safely

Typical school-based bicycle education programs educate students about the rules of the road, proper use of bicycle equipment, biking skills, street crossing skills, and the benefits of biking. Potential pedestrian education curriculum elements include traffic sign identification and how to use a crosswalk. Such education programs can occur inside the classroom, in a school assembly, or through interactive exercises.

4.3.5 Promote Suggested Route Maps

Shown in **Figure 2-7, the** Windsor Middle School Suggested Route Map identifies the best routes for getting to school and includes safe walking, biking, and driving suggestions. Suggested route maps also show locations of crossing guards, stop signs, crosswalks, signals, bike lanes, bike paths, and bike parking.

The maps can be shared with parents at orientation and in advance of events such as Walk and Roll to School Day.

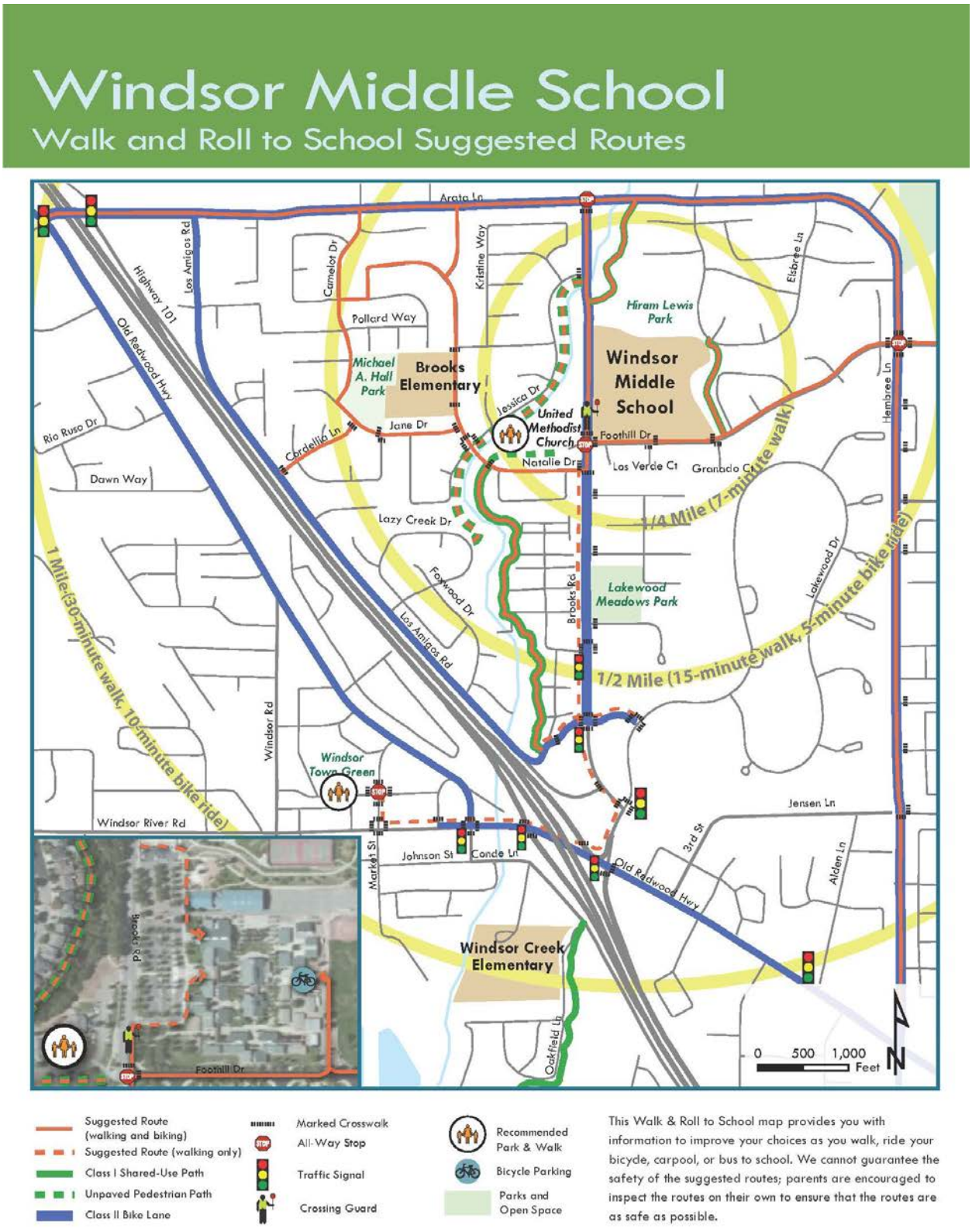


Figure 4-6. Windsor Middle School Suggested Route Map – Front

Windsor Safe Routes to School

Windsor Middle School Walk and Roll to School Map

What is Safe Routes to School (SRTS)?

Windsor Safe Routes to School encourages students to walk and bicycle. Walking and biking to school reduces congestion around schools, which improves safety and reduces emissions. It is also healthy, fun and affordable!

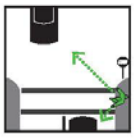
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Walk or Skate Safely



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Cross at corners and crosswalks. This is where drivers expect pedestrians.

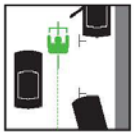


Don't assume drivers see you. Make eye contact before crossing intersections.

Bike Safely



Be predictable. Obey ALL stop signs and traffic signals. Never ride wrong way. The best way to avoid crashes as well as traffic tickets is to follow the same rules of the road as apply to car drivers.



Be alert. Watch out for drivers turning left or right, or coming out of driveways. Avoid car doors opening in front of you by riding out of the door zone. Yield to pedestrians.



Wear your helmet and buckle it every time. It's the law. To best protect your brain, your helmet must fit properly: snug and level on your head, just above your eyebrows.



Be visible. Use a bright headlight and taillight at night.

Avoid texting, phone calls, or music while biking.

Drive Safely

- Slow down and use extra caution in school zones and along commute routes! Signal your turns and yield to pedestrians.
- Help reduce traffic congestion near by carpooling with a neighbor and avoiding the last minute rush whenever possible.
- Obey adult crossing guards and "No Right Turn on Red" signs posted at designated school intersections. This allows students to cross safely without cars turning through crosswalks.
- Don't make U-turns and other unsafe maneuvers that put other road users at risk.
- When dropping off or picking up your student, follow school guidelines and always ensure that he/she exits or enters the car from the curb side.
- Never double park, block access ramps or stop where prohibited.
- Avoid texting, phone calls and other distractions when driving.

Questions?

Learn more at: SonomaSafeRoutes.com

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Figure 4-7. Windsor Middle School Suggested Route Map - Back

4.4 Recommendations and Cost Estimates

Error! Not a valid bookmark self-reference. **summarizes recommendations for Windsor Middle School and provides planning-level costs**

Table 4-1: Windsor Middle School Recommended Improvements con't

WINDSOR MIDDLE RECOMMENDATIONS and COST ESTIMATES

Location	Recommendations	Lead Agency	Cost (2013 $)	Status as of 09/18
Programs	Improve School Bussing	District	Staff time	
	Encourage Carpooling	Windsor SRTS, School	Staff time	
	Promote Park-and-Walk Locations	Windsor SRTS, School	Staff time	
	Educate Students About Walking & Biking Safely	Windsor SRTS, School	Grant funded	
	Promote Suggested Route Maps	Windsor SRTS, School	Grant funded	
School Site	Sign front lane in parking lot for bus drop-off only	District	$200	
	Pave under bike parking and add roof	District	$20,000-$50,000	
	Sign directions to bike parking	District	$400	
	Install 30 inverted-U style bike parking racks for staff and parents and 4 plaza-style racks	District	$20,400	
	Total School Site		**$41,000-$71,000**	
Brooks Road at Foothill Road	Implement striping plan	Town	Funded	Complete 2015, sans Green Bike Lanes
Brooks Road at Natalie Drive	Implement striping plan	Town	Funded	Complete 2014, sans Green Bike Lanes and no advance yield markings
Foothill Road at Los Verde Court	Sign parking restrictions at red curb area	Town	$400	
Foothill Road at Granado Court	Trim vegetation to maintain sign visibility	Town	Maintenance budget	
	Construct bulb-outs	Town	$60,000	
	Paint yield markings at crosswalk	Town	$800	

WINDSOR MIDDLE RECOMMENDATIONS and COST ESTIMATES

Location	Recommendations	Lead Agency	Cost (2013 $)	Status as of 09/18
	Total Foothill Road at Granado Court:		**$60,800**	
Foothill Road, Brooks Road to Hembree Lane	Post BIKE ROUTE signs and mark shared lane markings	Town	$1,200	
	Consider reconstructing southwest corner of Foothill at Hembree to reduce curb radii	Town	$30,000	
	Total Foothill Road, Brooks Road to Hembree Lane		**$31,200**	
Brooks Creek Trail at Brooks Road	Pave trail from Brooks Road to Natalie Drive	Town	$94,400	
	Trim vegetation along trail	Town	Maintenance budget	
	Mark a high-visibility school crosswalk with YIELD markings on the south side of the trail crossing	Town	$900	
	Post trail crossing signs at the crosswalk	Town	$1,600	
	Consider RRFB	Town	$20,000	
	Widen sidewalk on the west side of the bridge and mark for bi-directional trail use	Town	$7,000	
	Total Brooks Creek Trail at Brooks Road		**$123,900**	
Windsor Creek Trail, Hembree Lane to Lakewood Drive	Construct gravel or crushed rock trail on right bank, with connection to Windsor Middle School	Town	TBD	

5 Cali Calmécac Language Academy School Report

Principal time of audit:	Jeanne Acuña (current Principal 2018 Sharon Ferrer)		**Grades:**	Kindergarten to 8th
Enrollment:	995		**Address:**	9491 Starr Road
First bell:	8:25 am			Windsor, CA 95492
Mode share:	57% family vehicle	22% walk	**Students within a half-mile of school:** 125	
	13% school bus	3% bike	**Youth-involved crashes within a half-mile (2008-2013):** 1 bicycle	
	5% carpool	1% other		

5.1 Existing Conditions

In 2012, Cali Calmécac Language Academy was selected as one of 18 schools countywide to be served by the CMAQ-funded Sonoma County SRTS grant, managed by the Sonoma County Department of Health Services and Sonoma County Bicycle Coalition. From February 2012-June 2013, Cali Calmécac received SRTS education and encouragement services & support. The SRTS education services included in-class education, comprised of lessons emphasizing pedestrian safety (taught in 2nd grade), bicycle basics (4th grade), and bicycle street skills (6th grade). Each grade received three hours of in-class instruction, and the 4th graders additionally participated in an in-school on-bicycle safety/skills rodeo.



Cali Calmécac encourages students to walk and roll to school on Wednesdays.

SRTS encouragement support included formation of a school team comprised of the school principal, parent team leader(s), and a teacher representative. The school team met monthly and implemented a weekly walk/roll Wednesday program & corresponding Golden Sneaker awards, a one-month spring "Pollution Punchcard" contest in Spring 2012 and 2013, and a weekly parent-led Wednesday Walking School Bus from the Windsor Town Green. In July 2013, Cali's support transitioned to the Town of Windsor SRTS grant. The Cali SRTS school team continues to meet bi-monthly and plan to continue with the encouragement initiatives launched via the CMAQ grant and to work with the Town of Windsor SRTS program to implement targeted education initiatives.

5.1.1 School Layout and Circulation

Cali Calmécac Language Academy is in western Windsor, abutting Starr Road near Windsor River Road. The access points for the school are all along Starr Road on the east side of the campus. They include the main entrance at the bus loading loop and the playground entrance at the staff parking lot/loading loop.

The 7th and 8th grade classroom buildings are located in a new addition northwest of the original campus, bordering Sutton Park. There is no direct access between the new campus and Sutton Park.

Since the school is located near the western city limits of Windsor, many students live south and east of the school grounds. Nearly a third of students live within one mile of the school grounds, many near the Town Green. Since Spring of 2012, an informal parent-led walking group has walked from the Town Green to Cali. The group typically walks every Wednesday, as weather permits. Technical support for the launch and maintenance of the walking group was provided by Sonoma County Bicycle Coalition Safe Routes to School Program staff.

Loading Zones

The staff parking lot on Starr Road at the south end of the school grounds is the primary student drop-off and pick-up location. An adult volunteer directs parents to pull forward and assists students in getting out of their cars.

Parents driving southbound on Starr Road can also pull over to the white curb loading zone in front of the school, in between the bus loop entrance and exits. Some drop-off occurs here as well.

Additionally, parents park along neighborhood streets north of Cali, including Stellar Lane, Springfield Court, and Robbie Way, and walk with their children to the school grounds.

Crossing Guard

One crossing guard is located at the mid-block uncontrolled crosswalk on Starr Road, just north of the staff parking and loading loop.

5.1.2 Student Address Map

Figure 4-1 on the following page shows student home locations. Thirteen percent of the students live within a half-mile of school, which is the highest percent of students living within this distance of their school of all the schools in Windsor. Cali Calmécac is also the largest elementary school in Windsor. The school has the greatest potential for encouraging more students to walk and bike to school.

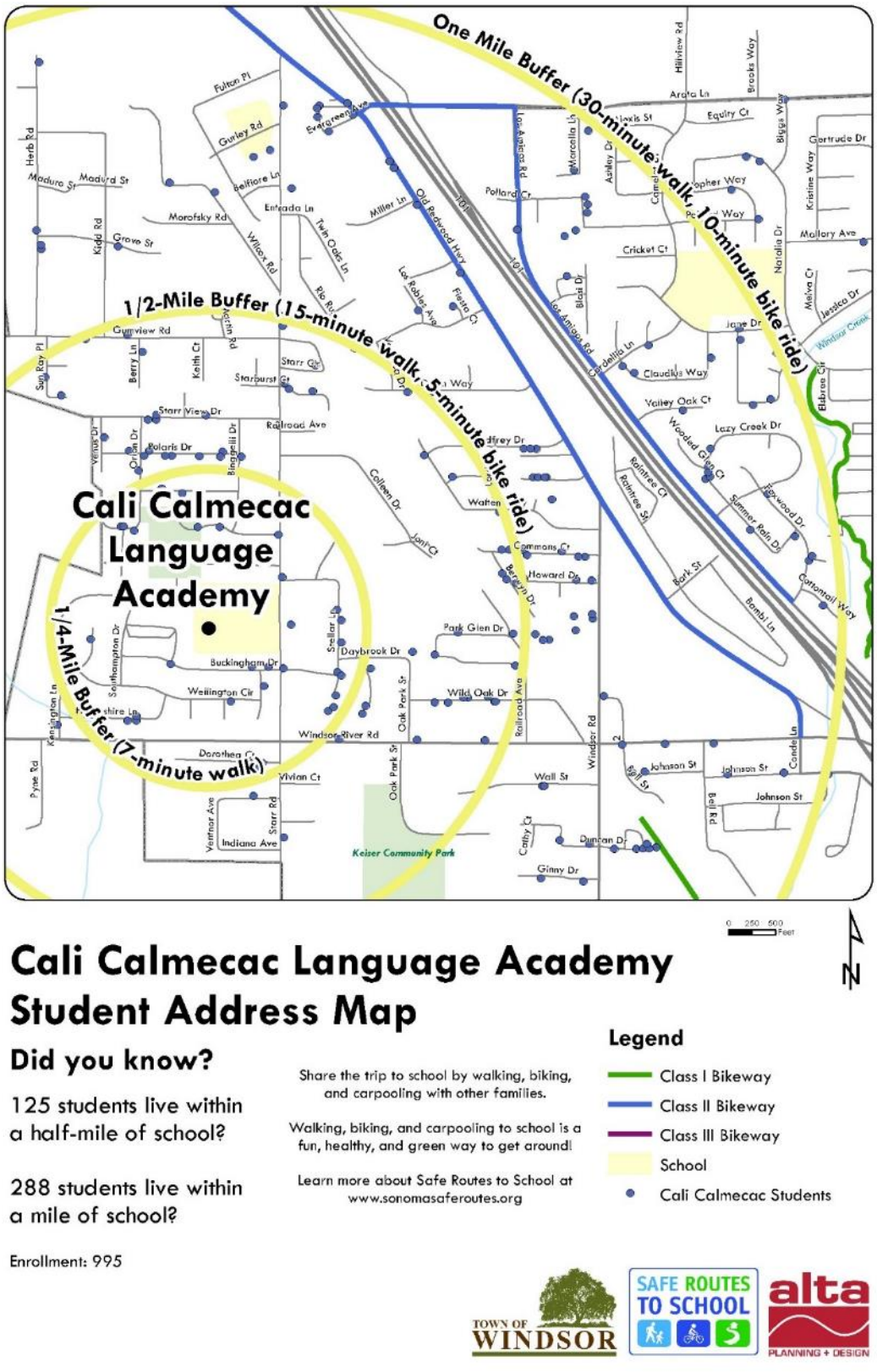


Figure 5-1. Cali Calmécac Student Address Map

5.1.3 Walking/Biking Rates

In October 2013, the Windsor SRTS program staff surveyed students at Cali Calmécac about how they get to and from school. Staff visited classrooms and asked their students how they traveled to and from school the day before, and how they got to school and plan to get home on that day. Students were given a choice of answers and raised their hand for the choice that matched their travel mode.

Thirty classrooms responded, representing 826 students, or 83 percent of the student body. Results are shown in Figure 5-2. Twelve percent of all trips to school are on foot and two percent of all trips to school are by bike.

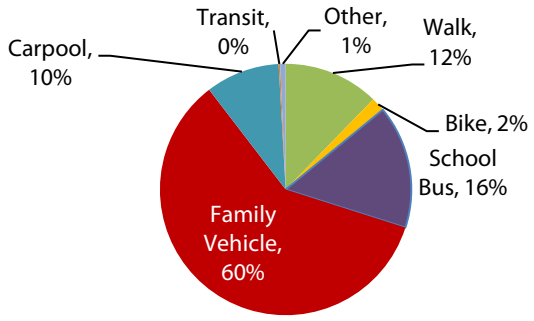


Figure 5-2. Cali Calmecac Language Academy Mode Split

Source: October 2013 Student Hand Tallies

Cali Calmécac is the only school in Windsor that previously participated in the Sonoma Countywide Safe Routes to School program. They have conducted student hand tallies every semester since September 2011, with the exception of Fall 2012. Shown in **Figure 5-3,** the data shows a 17 percent increase in active transportation modes (walking, biking, and other), and a three percent increase in shared modes (school bus, carpool, and transit). The school also experienced a five percent decrease in family vehicle use over the two-year period.

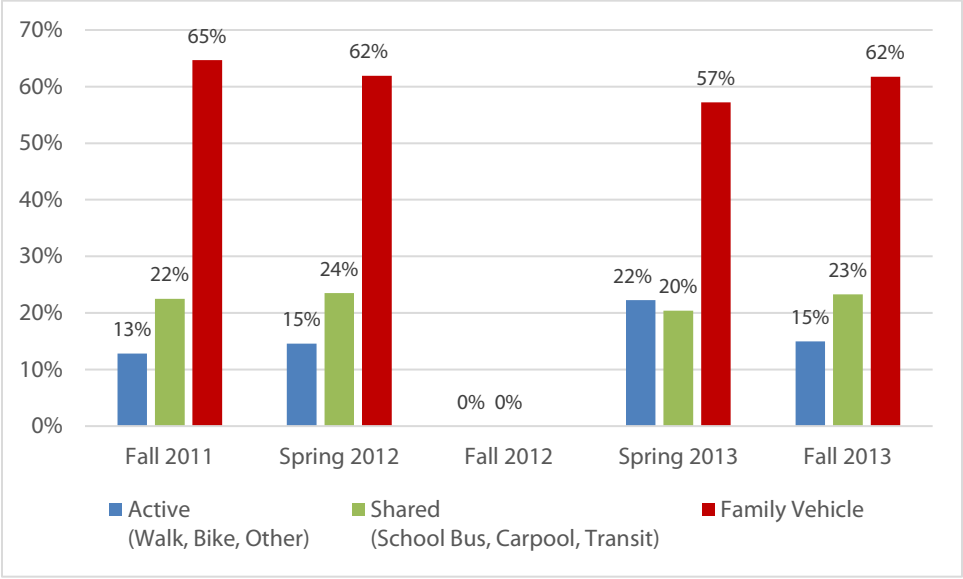


Figure 5-3. Cali Calmecac Language Academy Mode Split, 2011-2013

Source: Student Hand Tallies from Safe Routes to School National Center Database

5.2 Walk Audit Observations and Infrastructure Recommendations

Windsor SRTS conducted a walk audit at Cali Calmécac Language Academy on Tuesday, October 15, 2013. Skies were clear, and temperatures were in the low 50s. Three parents and the school principal attended the audit, and were joined by Windsor SRTS staff, Town of Windsor staff, an officer from the Windsor Police Department, Sonoma County Bicycle Coalition staff, and the engineering consultants from Alta Planning + Design and Parisi Transportation Consulting.

Key locations are described below, including issues identified during audit observations and discussions. Project numbering refers to the Improvements Map provided in **Figure 5-4 on page 77**.

5.2.1 School Main Parking Lot

Because the main loading zone is located inside the school main parking lot, considerable congestion develops on Starr Road near the parking lot during the morning drop-off and afternoon pick-up. Long vehicle queues develop on north- and southbound Starr Road directly in front of the parking lot entrance. These queues increase when parents attempt to turn left from the parking lot onto Starr Road. The queues result in substantial delays for traffic accessing the school, as well as through traffic using Starr Road.



The bike racks are a recommended U-rack style but are inconveniently located, which may discourage students from riding to school.

Currently the bicycle parking for Cali Calmécac is located on the south side of the parking lot, next to the school dumpsters. While the U-rack style of the bicycle parking currently being used is recommended, the parking area is not secured. In addition, the racks are in an undesirable area, as the distance from the main campus is discouraging for students, particularly older students who are more likely to bike than younger students and who may have classrooms in the upper grades addition to the northwest of the main campus. Access to the racks is challenging, as students have to dismount and walk the wrong-way up the exit driveway loop.

Recommendations (1)

a. Post signs restricting left turns at southern exit of parking lot during drop-off and pick-up hours
b. Relocate bicycle parking inside fenced playground

5.2.2 Upper Grades Addition

The new upper grades campus is accessed by going through the main school grounds or by traveling through the staff parking lot on the north end of the campus. Currently the upper grades campus does not have bicycle parking, which can be a considerable deterrent for students who do not want to walk from the existing bike parking location, or who may not be aware of it.

Recommendations (2)

a. Add bicycle parking for staff and upper grades near staff parking lot

5.2.3 Starr Road and Starr Creek Court

Starr Creek Court is the only controlled crossing of Starr Road between Windsor River Road and Old Redwood Highway and has the only crossing guard during school hours.

In addition to a pedestrian-actuated beacon, the crossing has SLOW SCHOOL CROSSING advance markings for northbound traffic (southbound markings are north of the crossing at Stellar Lane).

The crossing guard reported that many vehicles do not yield to her when she steps out to control the crossing. Additional visibility is needed at this crossing to improve yielding compliance and improve safety for school pedestrians. Curb extensions would reduce the crossing distance and encourage pedestrians to wait further out into the road, improving their visibility to drivers.

Recommendations (3)

b. Install permanent fixture for removable in-pavement yield to pedestrians sign
c. Paint yield markings in advance of crosswalk
d. Install tactile domes at northeastern and southern corners
e. Construct curb extensions at crosswalk

5.2.4 Starr Road

The main access road to Cali Calmécac, Starr Road has relatively high traffic speeds and volumes, and the area by the school becomes very congested during peak periods. School speed zone signs are posted on Starr Road in advance of the school.

There is a large gap in the sidewalk on the east side of Starr Road between Starr Creek Court and Stellar Lane, directly across from the school grounds. The Town has written and received a Community Development Block Grant (CDBG) for completing



The crosswalk in front of the school has a pedestrian-actuated beacon and a crossing guard, but parents and the guard expressed concerns about yielding compliance.



Traffic on Starr Road backs up on the approach to the school during peak hours.



The sidewalks on the east side of Starr Road drop suddenly on the southbound approach to school.

these sidewalks, although the sidewalk gap further north on Starr Road by the Head Start was considered a greater priority and the money will be used to complete that gap. Additionally, there is no sidewalk on the east side of Starr Road from Stellar Lane to Colleen Drive.

Additionally, although the street was previously signed and striped with bike lanes, the signage is out of date and the striping has been worn out, particularly on southbound Starr Road south of Wilcox Road.

Recommendations (4)

f. Complete sidewalks between Starr Creek Court and Stellar Lane
g. Complete sidewalks between Stellar Lane and Colleen Drive
h. Repaint centerlines and bike lanes

5.2.5 Starr Road and Stellar Court

Currently the uncontrolled pedestrian crossing at Starr Road and Stellar Court is not monitored by a crossing guard. During the audit, one driver was ticketed for not yielding to a pedestrian in the crosswalk at Starr Road and Stellar Court. Additional visibility is needed at this crossing.

Recommendations (5)

i. Paint yield markings in advance of crosswalk
j. Install tactile domes at both ends of pedestrian crossing
k. Construct curb extensions at crosswalk

5.2.6 Starr Road and Colleen Court

Audit participants noted that students living on Colleen Drive lack an eastbound crossing of Starr Road, particularly since Starr Road lacks sidewalks on the east side so students cannot cross at Stellar Lane. An additional crosswalk north of the crossings at Stellar Court and Starr Creek Road would provide access to the roads on the east side of Starr Road. Due to relatively high speeds and volumes, the crosswalk should be high-visibility, with crossing and advance crossing (Assembly B and D) signs from both approaches.

Recommendations (6)

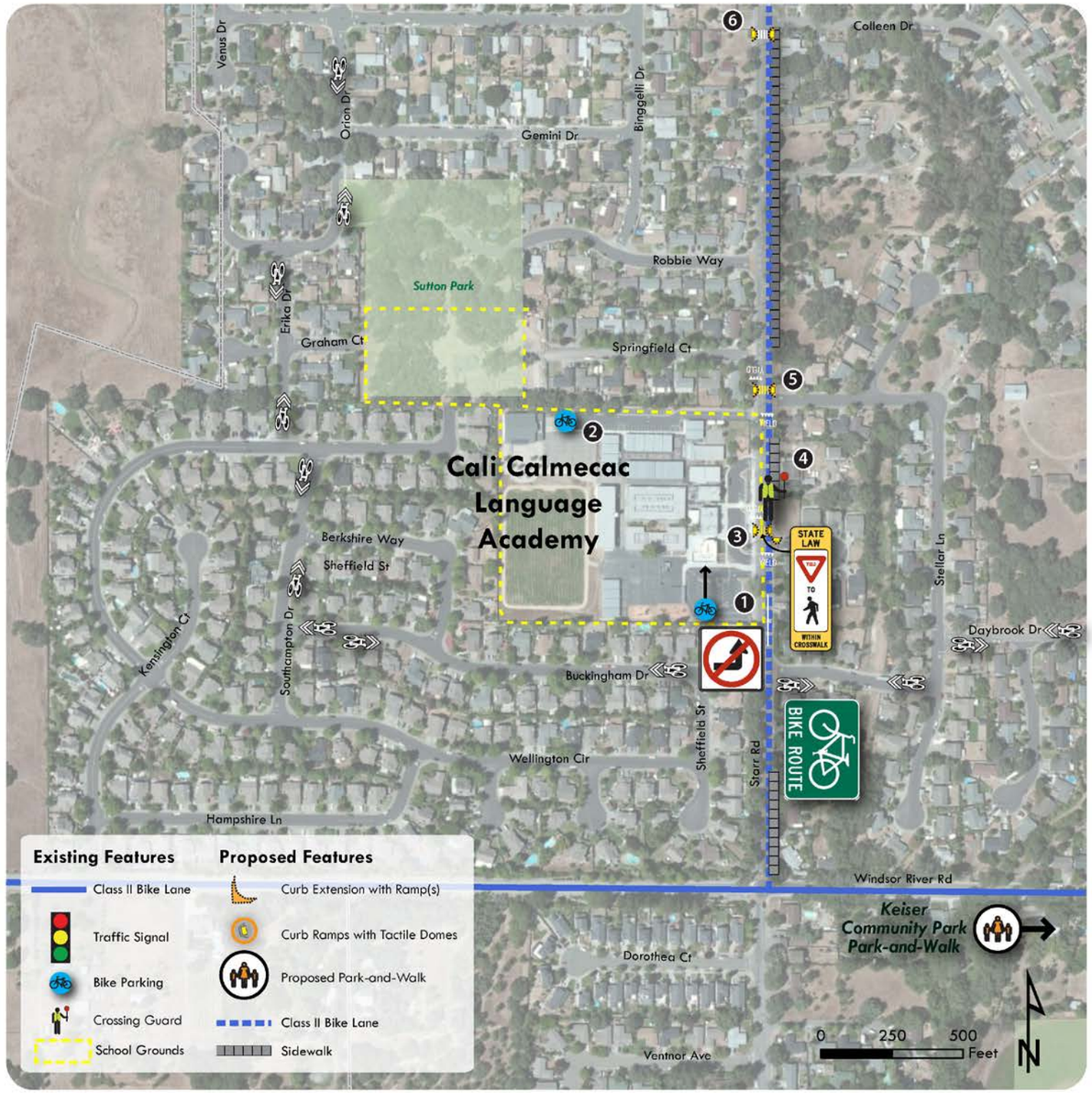
l. Paint high visibility crosswalk
m. Install tactile domes at both ends of pedestrian crossing

5.2.7 Starr View Drive, Orion Drive, Erika Drive, Buckingham Drive, Wild Oak Drive

Several neighborhood streets around Cali Calmécac are good candidates for Class III bike routes. Starr View Drive, Orion Drive, Erika Drive, Buckingham Drive, and Wild Oak Drive have relatively low traffic speed and volumes and are continuous. Minimal improvements, including signs and pavement markings, would make these roads suitable for student bicyclists.

Recommendations (7)

n. Post BIKE ROUTE signs and mark shared lane markings



Cali Calmecac Language Academy

Improvement Recommendations

1. School Main Parking Lot
- a. Post signs restricting left turns at southern exit of parking lot during drop-off and pick-up hours
- b. Relocate bicycle parking inside fenced playground

2. Upper Grades Addition
- a. Add bicycle parking for staff and upper grades near north staff parking lot

3. Starr Road and Starr Creek Court
- a. Install permanent fixture for removable in-pavement yield to pedestrians sign
- b. Paint yield markings in advance of crosswalk
- c. Install tactile domes at northeastern and southern corners
- d. Construct curb extensions at crosswalk

4. Starr Road
- a. Complete sidewalks between Starr Creek Court and Stellar Lane
- b. Complete sidewalks between Stellar Lane and Colleen Drive
- c. Repaint centerlines and bike lanes

5. Starr Road and Stellar Court
- a. Install tactile domes at both ends of pedestrian crossing
- b. Paint yield markings in advance of crosswalk
- c. Construct curb extensions at crosswalk

6. Starr Road and Colleen Court
- a. Paint high visibility crosswalk
- b. Post school crosswalk warning signs at the crosswalk and signs warning of the crosswalk in advance of it
- c. Install tactile domes at both ends of pedestrian crossing

7. Starr View Drive, Orion Drive, Erika Drive, Buckingham Drive, Wild Oak Drive
- a. Post BIKE ROUTE signs and mark shared lane markings

Figure 5-4. Cali Calmécac Improvement Plan

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5.3 Programmatic Recommendations

5.3.1 Improve School Bussing

Due to Windsor's school grade clustering, students often live further from their schools than they could reasonably walk or bicycle, so school buses are an important means of transporting students to and from schools. The Windsor School District provides busses to all schools. The buses circulate between schools, so students can be dropped off at one school and ride a bus to another school.

It appears that the bussing schedule could be improved to correspond better with bell schedules, and the routes may be somewhat inefficient, leading to students having longer bus rides than required. In addition, the District could provide information about the buses to parents more regularly and consider establishing a smaller number of 'hub' bus stops, rather than dropping students off where they request.

5.3.2 Encourage Carpooling

Parents who are interested in finding other families to carpool with generally post a notice in the school newsletter. While carpooling can be challenging for students of this age due to the need for car seats and time for students to get ready for school, it can save parents time, reduce traffic congestion around schools, and foster transportation options in the future.

5.3.3 Promote Park-and-Walk Locations

Keiser Community Park could be formally used as a remote park-and-walk location. Students who live too far from the school to walk or bicycle can meet at the park and walk or bicycle together the rest of the way to school. Parents can sign up to supervise the trip, or families can walk together to school. School staff can encourage this by publicizing the option as part of Walk and Roll Days.

5.3.4 Implement Student Valet

Older students can usually bicycle more safely to school for further distances than elementary school students. The school could form a student valet with older students (Fifth Grade and older), who assist with yard duty officers. These student valets would help younger students open car doors and get their things, reducing congestion by minimizing drop-off and pick-up delay.

5.3.5 Educate Students about Walking and Biking Safely

Typical school-based bicycle education programs educate students about the rules of the road, proper use of bicycle equipment, biking skills, street crossing skills, and the benefits of biking. Potential pedestrian education curriculum elements include traffic sign identification and how to use a crosswalk. Such education programs can occur inside the classroom, in a school assembly, or through interactive exercises.

5.1.1 Promote Suggested Route Maps

The Cali Calmécac Suggested Route Map in **Figure 5-5** identifies the best routes for getting to school and includes safe walking, biking, and driving suggestions. Suggested route maps also show locations of crossing guards, stop signs, crosswalks, signals, bike lanes, bike paths, and bike parking.

The maps can be shared with parents at orientation and in advance of events such as Walk and Roll to School Day.

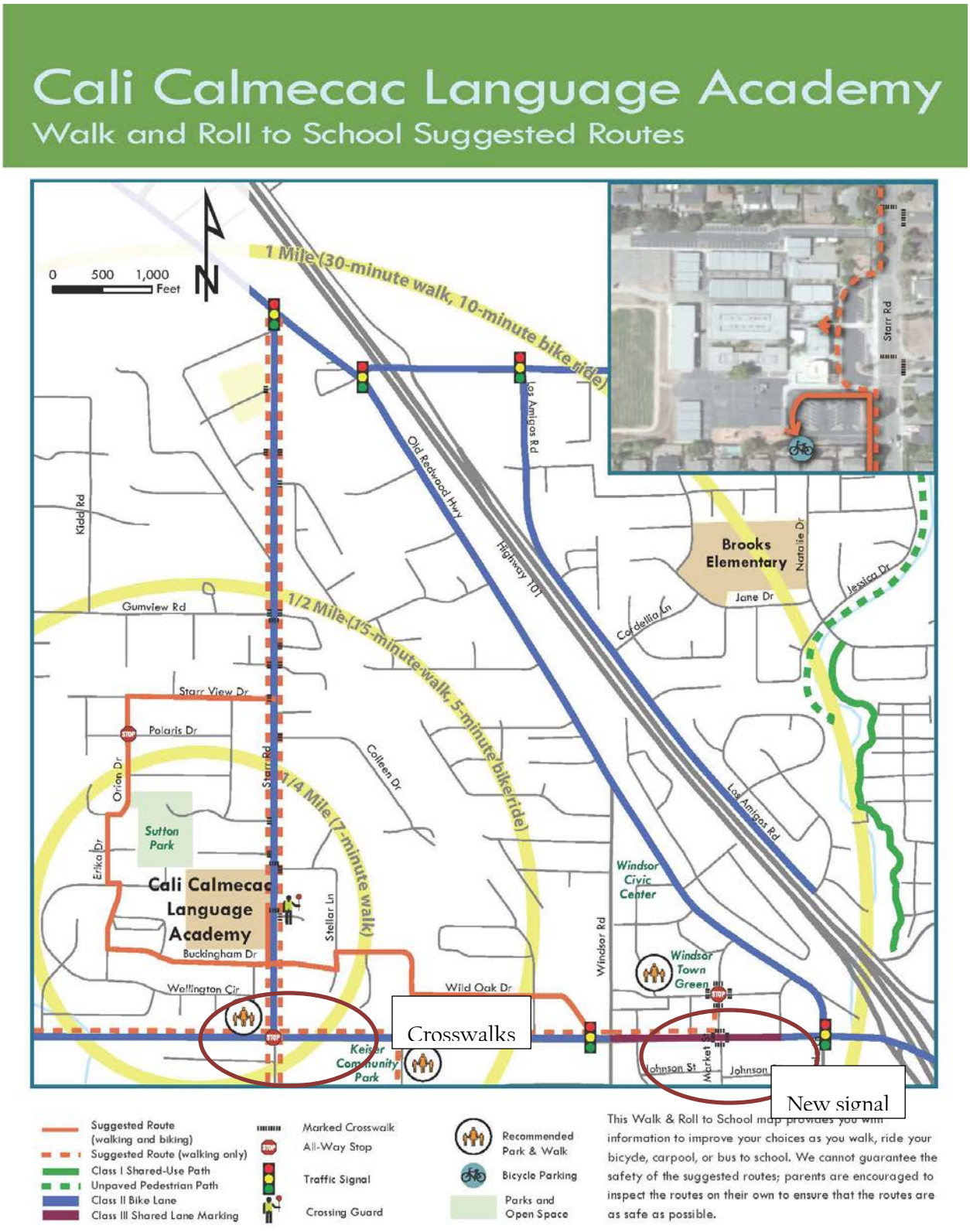


Figure 5-5. Cali Calmécac School Suggested Route Map – Front

Windsor Safe Routes to School

Cali Calmecac Language Academy Walk and Roll to School Map

What is Safe Routes to School (SRTS)?

Windsor Safe Routes to School encourages students to walk and bicycle. Walking and biking to school reduces congestion around schools, which improves safety and reduces emissions. It is also healthy, fun and affordable!

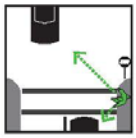
The Windsor Safe Routes to School program provides education and encouragement for alternatives to driving and seeks to improve traffic safety around schools. The program is funded by a Federal grant.

Walk or Skate Safely



Be alert. Look for cars coming from all directions before entering the street - including from behind you.

Cross at corners and crosswalks. This is where drivers expect pedestrians.

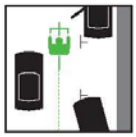


Don't assume drivers see you. Make eye contact before crossing intersections.

Bike Safely



Be predictable. Obey ALL stop signs and traffic signals. Never ride wrong way. The best way to avoid crashes as well as traffic tickets is to follow the same rules of the road as apply to car drivers.



Be alert. Watch out for drivers turning left or right, or coming out of driveways. Avoid car doors opening in front of you by riding out of the door zone. Yield to pedestrians.



Wear your helmet and buckle it every time. It's the law. To best protect your brain, your helmet must fit properly: snug and level on your head, just above your eyebrows.



Be visible. Use a bright headlight and taillight at night.

Avoid texting, phone calls, or music while biking.

Drive Safely

- Slow down and use extra caution in school zones and along commute routes! Signal your turns and yield to pedestrians.
- Help reduce traffic congestion near by carpooling with a neighbor and avoiding the last minute rush whenever possible.
- Obey adult crossing guards and "No Right Turn on Red" signs posted at designated school intersections. This allows students to cross safely without cars turning through crosswalks.
- Don't make U-turns and other unsafe maneuvers that put other road users at risk.
- When dropping off or picking up your student, follow school guidelines and always ensure that he/she exits or enters the car from the curb side.
- Never double park, block access ramps or stop where prohibited.
- Avoid texting, phone calls and other distractions when driving.

Questions?

Learn more at: SonomaSafeRoutes.com

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Figure 5-6. Cali Calmécac Suggested Route Map - Back

5.4 Recommendations and Cost Estimates

Table 5-1 summarizes recommendations for Cali Calmécac Language Academy and provides planning leve costs

Table 5-1: Cali Calmécac Language Academy Recommended Improvements

CALI CALMÉCAC RECOMMENDATIONS and COST ESTIMATES

Location	Recommendations	Lead Agency	Cost (2013 $)	Status as of 9/18
Programs	Improve School Bussing	District	Staff time	
	Encourage Carpooling	Windsor SRTS, School	Staff time	
	Promote Park-and-Walk Locations	Windsor SRTS, School	Staff time	
	Educate Students about Walking and Biking Safely	Windsor SRTS, School	Grant funded	
	Promote Suggested Route Maps	Windsor SRTS, School	Grant funded	
School Main Parking Lot	Post signs restricting left turns at southern exit of parking lot during drop-off and pick-up hours	Town	$400	Complete 2014
	Relocate bicycle parking inside fenced playground (2 inverted-U racks and 4 student-sized plaza racks)	Town	$6,300	
	Total School Main Parking Lot		**$6,700**	
Upper Grades Addition	Add bicycle parking for staff and upper grades near staff parking lot (13 inverted-U racks and 4 plaza racks)	Town	$12,300	
Starr Road and Starr Creek Court	Install permanent fixture for removable in-pavement yield to pedestrians sign	Town	$400	
	Paint yield markings in advance of crosswalk	Town	$800	
	Install tactile domes at northeastern and southern corners	Town	$500	
	Construct curb extensions at crosswalk	Town	$60,000	
	Total Starr Road and Starr Creek Court		**$61,700**	
Starr Road	Complete sidewalks between Starr Creek Court and Stellar Lane	Town	$15,600	Complete 2018
	Complete sidewalks between Stellar Lane and Colleen Drive	Town	$45,800	
	Repaint centerlines and bike lane	Town	$28,400	
	Total Starr Road		**$89,800**	
Starr Road and Stellar Court	Paint yield markings in advance of crosswalk	Town	$800	
	Install tactile domes at both ends of pedestrian crossing	Town	$500	
	Construct curb extensions at crosswalk	Town	$60,000	
	Total Starr Road and Stellar Court		$61,300	

CALI CALMÉCAC RECOMMENDATIONS and COST ESTIMATES

Location	Recommendations	Lead Agency	Cost (2013 $)	Status as of 9/18
Starr Road and Colleen Court	Paint high visibility crosswalk	Town	$500	
	Install tactile domes at both ends of pedestrian crossing	Town	$500	
	Total Starr Road and Colleen Court		**$1,000**	
Starr View Dr, Orion Dr, Erika Dr, Buckingham Dr, Wild Oak Dr	Paint shared lane markings and install "Shared Lane" signs	Town	$4,400	