# CITY OF SACRAMENTO VISION ZERO SCHOOL SAFETY STUDY



APPROVED FEBRUARY 16, 2021

CITY COUNCIL RESOLUTION R2021-0042





### **CITY COUNCIL**

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### SCHOOL DISTRICTS

Elk Grove Unified School District Natomas Unified School District Sacramento City Unified School District Twin Rivers Unified School District

## DEPARTMENT OF PUBLIC WORKS Leslie Mancebo Jennifer Donlon Wyant Anthony Grace Barbara McIntyre Eric Poon Justin Luna LoAnna Hernandez Megan Carter Qasid Mehirdel William Shunk

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Introduction 1	Sacramento Charter High School 45
Natomas High School 5	Aspire Capitol Heights Academy 49
Northwood Elementary School 9	St. Hope Public School 7 53
Sutter Middle School 13	Bret Harte Elementary School 57
Garden Valley Elementary School 17	Father Keith B. Kenny Elementary School
Mustard Seed School 21	Oak Ridge Elementary 65
Smythe Academy of Arts and Sciences 25	West Campus High School 69
H. Allen Hight Elementary and Natomas Middle School 29	Earl Warren Elementary School 73
The MET Sacramento High School <b>33</b>	Las Flores High School and Rio Cazadero High
William Land Elementary School 37	Capitol Collegiate Academy 81
Washington Elementary School 41	Countermeasure Toolkit 85

61

High School 77

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# SACRAMENTO SCHOOL SAFETY STUDY

### INTRODUCTION

Every three days someone is killed or seriously injured on Sacramento's streets. Nearly half of the people killed were on foot or on bike. Alarmingly, between 2009 and 2015 crashes where someone was killed or seriously injured while walking or biking increased by 63%. This grim statistic disproportionately impacts Sacramento's children, who may walk or bike to and from school by choice or have no other option.

In January 2017 Sacramento's City Council responded to the city's transportation related safety issues by adopting a resolution setting the following goal:

The City of Sacramento will work collaboratively in a data-driven effort to eliminate traffic fatalities and serious injuries by 2027.

By doing so Sacramento joined a number of other cities around the world that have adopted the 'Vision Zero' strategy to eliminate traffic fatalities and serious injuries while increasing safe, healthy, equitable mobility for all.

### WHAT IS VISION ZERO?



Vision Zero is a traffic safety initiative to eliminate traffic-related fatalities. It is an international movement that emphasizes a new approach to traffic safety, acknowledging that mistakes are inevitable but that our transportation network should be designed and

operated such that the mistakes don't result in severe injuries or fatalities.

Many factors contribute towards safe mobility, including roadway design, speeds, individual behaviors, technology and related policies. To achieve success, Vision Zero encourages a data-driven, systematic and collaborative approach by system designers, policymakers, public health officials and law enforcement officials to address these factors.

### **VISION ZERO IS:**

- 1. A traffic safety philosophy that rejects the notion that traffic crashes are simply "accidents," but are instead preventable incidents that can and must be systematically addressed.
- 2. A multi-disciplinary approach that brings together a diverse set of stakeholders to address the issue of traffic safety.

### **Vision Zero Strategies**

Vision Zero takes a multi-faceted approach to traffic safety, recognizing that a safe system requires strategies that address all components of our transportation network:

- Safe People (Education) road users should understand the importance of safety and should operate within the boundaries set by the roadway system designers
- Safe Speeds (Enforcement) a safe roadway system should result in speed limits that are set appropriately and enforced to ensure compliance with the set limits
- Safe Streets (Engineering) roadway design plays a key role in reducing the severity of collisions
- Safe Vehicles (Technology) safe vehicles that are designed with the appropriate safety technologies play an important role in reducing road trauma

#### **Vision Zero Priorities**

The following components of Vision Zero have proven to provide an effective framework for communities that adopt a commitment towards traffic-related safety.

- Data-Driven The process should identify where and why collisions are happening and prioritize projects and programs in these areas to ensure that resources are being directed to efforts that will provide the greatest safety impacts;
- Systems-Based Approach Focus on the built environment, systems and policies that influence behavior, and adopt messages that reinforce that traffic fatalities and serious injuries are preventable rather than inevitable;
- **Community Focused** A successful Vision Zero effort must include meaningful collaboration with members of the public and must seek broad community input and engagement;
- Equity An equitable approach to Vision Zero must be created to ensure that equitable outcomes are provided for all road users, for all modes of transportation, in all communities, and for people of all incomes, races, ages and abilities;
- **Collaboration** A commitment must be made to encourage meaningful cooperation and collaboration among key stakeholder groups, including relevant governmental agencies and community groups to set shared goals and focus on coordination and accountability;
- Transparency Ensure that the Vision Zero process is transparent to stakeholders by providing regular updates on the progress of the Action Plan and its performance measures;

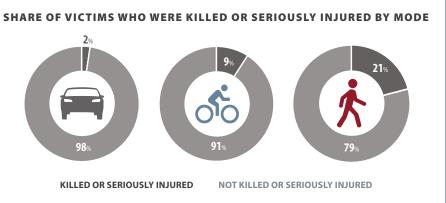
- set timeframe;

### **Accomplishing Vision Zero**

The City has initiated a number of efforts intended to collectively accomplish Vision Zero. To date these efforts include:

- Reduction in School Zone Speed Limits

More information on Sacramento's Vision Zero Strategy can be found in the Vision Zero Sacramento Action Plan, adopted August 14, 2018.



Political Commitment – An official and public commitment to eliminating traffic fatalities and severe injuries among all road uses should be made within a

Leadership – Cities should lead the Vision Zero effort by convening a Vision Zero Task Force that includes a multi-disciplinary group of representatives; and

Action Plan – An Action Plan should be initiated that contains clear strategies, accountability, targets, timelines and performance measures.

- Vision Zero Action Plan
- Vision Zero Task Force
- Safety Education Campaign, "Our Safety is Homegrown"
- J Street Safety Project
- Mack Road Maintenance and Safety Project
- Systematic Safety Analysis Report
- Vision Zero Top 5 Corridor Study
- Vision Zero School Area Study

### **VISION ZERO AND SCHOOLS**

The City of Sacramento has committed to two discreet efforts to create safer streets around the city's schools, including:

- School Zone Speed Limits Reduction The intent of this project is to lower speed limits near schools to 15 MPH along eligible streets. This project resulted in recommendations on reductions in school zone speed limits for streets throughout the City of Sacramento. For a roadway to qualify for a reduced speed limit in California, it must be located in a residential district with a maximum posted speed limit of 30 MPH and have a maximum of two through traffic lanes. As part of the analysis for this study, school area speed limit recommendations were made for eligible streets around 135 city schools.
- Vision Zero School Safety Study This project, which is the focus of this report, documents conditions for students who walk, bike, take transit or private vehicle at 20 schools across Sacramento. The assessments of these conditions reflect the social, built and natural environments that affect the ability and desire of students to walk, bike and take transit to school. This study results in short-, medium- and long-term recommendations for the 20 identified schools to improve safety conditions for children walking or biking to school, and which include signage, pavement marking, traffic calming and operational improvements along roadways within school zones.

According to the California Office of Traffic Safety 2016 collision rankings, Sacramento had the highest number of speed related traffic fatalities and the most collisions resulting in fatalities or serious injuries involving pedestrians under the age of 15 of any city in California.

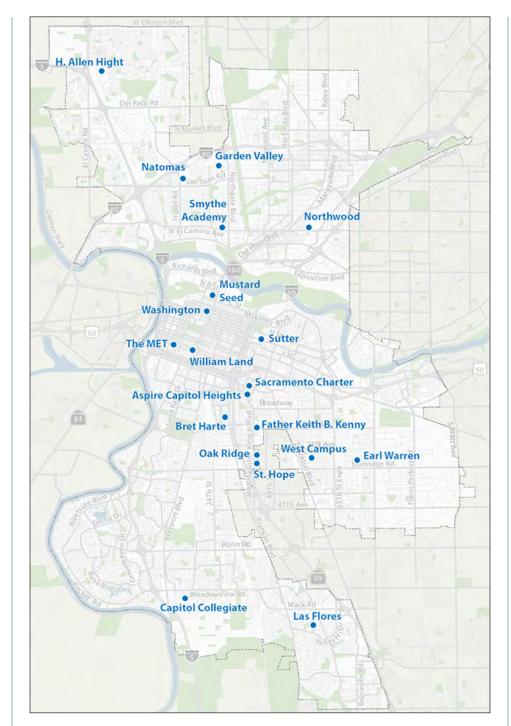


Figure 1: Schools included as part of the School Safety Audit Project.

79% of all crashes in Sacramento occur on the High Injury Network, which accounts for just 14% of the city's roadways.







2

### VISION ZERO SCHOOL SAFETY STUDY

#### **Project Background**

The purpose of this project is to:

- Engage with key stakeholders from each of the school communities on school travel related safety issues and encourage the use of active transportation modes;
- Identify potential infrastructure and operational barriers to safe and equitable travel to school;
- Identify projects and programs that could help to address the barriers based on a school safety assessment and engineering review; and
- Assign responsibility to appropriate agencies, groups and individuals to implementing recommended improvements.

#### **School Safety**

The City of Sacramento and the local school districts encourage safe access and active transportation to school. The Vision Zero School Safety Study is designed to facilitate safer, convenient and fun opportunities to walk, bicycle, take transit and carpool to school. The project is intended to be a collaborative effort with participation from the City, school districts, students, parents and the community.

This study results in a series of recommendations for transportation infrastructure and policy improvements in the vicinity of each of the 20 identified schools. Recommendations on engineering measures and school operational improvements that are summarized in the following chapter are based on observations made during the school safety assessments, post-assessment engineering reviews, and reviews of concerns raised by assessment participants.

#### **School Selection**

A total of 20 schools were chosen for inclusion in the Sacramento School Safety Study. Consistent with principles of Sacramento's Vision Zero framework, the selection of these schools was based on a data-driven effort and that ensures that students of all incomes, races, and ages are represented.

More specifically, the 20 schools were chosen based on the following criteria:

- Number of collisions within ¼ mile of the school site;
- Consideration of all public and charter elementary, middle and high schools;
- Schools located directly adjacent to the Vision Zero Top 5 Corridors and that were assessed as part of the Top 5 Corridors project were excluded; and
- Consideration of geographic equity was used to ensure that the safety assessments were accessible to families and schools across Sacramento.

	School	Address	School Type	Grade	School District	Council District	Collisions*
1	Natomas High	3301 Fong Ranch Road	Public	9–12	Natomas Unified	3	68
2	Northwood Elementary	2630 Taft Street	Public	K—6	Twin Rivers Unified	2	73
3	Sutter Middle	3150   Street	Public	6–8	Sacramento City Unified	3	245
4	Garden Valley Elementary	3601 Larchwood Drive	Public	K—6	Twin Rivers Unified	3	126
5	Mustard Seed	1321 North C Street	Private	K—8	Twin Rivers Unified	3	121
6	Smythe Academy of Arts and Sciences	2781 Northgate Boulevard	Charter	K—8	Twin Rivers Unified	3	119
7	H. Allen Hight Elementary	3200 North Park Drive	Public	K—5	Natomas Unified	1	0
8	The MET Sacramento High	810 V Street	Charter	9–12	Sacramento City Unified	4	226
9	William Land Elementary	2120 12th Street	Public	К—б	Sacramento City Unified	4	195
10	Washington Elementary	520 18th Street	Public	К—б	Sacramento City Unified	4	187
11	Sacramento Charter High	2315 34th Street	Charter	9–12	Sacramento City Unified	5	137
12	Aspire Capitol Heights Academy	2520 33rd Street	Charter	K—5	Sacramento City Unified	5	136
13	St. Hope PS 7	5201 Strawberry Lane	Charter	K-8	Sacramento City Unified	5	108
14	Bret Harte Elementary	2751 Ninth Avenue	Public	К—б	Sacramento City Unified	5	102
15	Father Keith B. Kenny Elementary	3525 Martin Luther King Junior Boulevard	Public	K—8	Sacramento City Unified	5	91
16	Oak Ridge Elementary	4501 Martin Luther King Junior Boulevard	Public	К—б	Sacramento City Unified	5	81
17	West Campus High	5022 58th Street	Public	9–12	Sacramento City Unified	6	115
18	Earl Warren Elementary	5420 Lowell Street	Public	К—б	Sacramento City Unified	6	64
19	Las Flores High	5900 Bamford Drive	Public	K—12	Elk Grove Unified	7	62
20	Capitol Collegiate Academy	2118 Meadowview Road	Charter	K—8	Sacramento City Unified	8	64

 Table 1: Number of collisions for each of the schools selected as part of this study.

\* Fatal or severe Collisions within 1/4 mile

#### **Community Participation**

The communities at each of the schools played a key role in understanding the existing conditions, both on city streets surrounding the schools and on school property, and in developing initial recommendations contained in this report.

Walk audits were conducted at each of the 20 schools and included a diverse group of individuals representing different organizations and agencies. A walk audit is an assessment of the pedestrian access of a given environment in which participants make observations while in the field about barriers to safe and comfortable walking and biking. Representation in attendance at each of the school walk audits varied, but generally included a subset of the following stakeholder groups:

- City of Sacramento Public Works staff
- Engineering team staff
- School administrators
- School Principal and Assistant Principal
- Parent volunteers
- School District representatives
- Safe Routes to School Coordinator

The walk audits were held during school drop-off and pick-up times and included observations about pedestrian, bicyclist, and driver behavior at specific street blocks, intersections and school property locations previously identified by school officials. Facilitated discussions among the participants were conducted after each walk audit to review observations and discuss potential improvements. A subsequent engineering analysis of the recommendations was conducted by the engineering consultant team and reviewed by city staff to ensure consistency with engineering standards and city policies and which resulted in the recommendations identified in the following chapters.



### **Observation Themes**

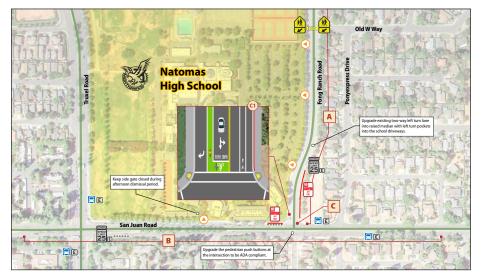
Many safety-related themes were observed and documented during the walk audit assessments at all twenty schools. The most common observations at the walk audits were:

- Drivers speeding
- Drivers failing to yield to pedestrians in the crosswalk
- Curb ramps not constructed to current ADA standards
- Passenger loading zones of inadequate length
- Drivers double-parked or using improper loading locations

Drivers were observed to be speeding (or school staff noted that drivers routinely speed) at nearly all of the walk audits. About three-guarters of the audits noted drivers failing to yield to pedestrians in the crosswalk. At about half of the schools, curb ramps were either not constructed to current ADA standards, or were missing. About half of the audits observed parents double-parking and/or performing dropoff/pick-up activities at improper locations such as in crosswalks, bike lanes and bus stops. Other frequently noted issues were students crossing at mid-block locations, a lack of red curb markings at intersections for visibility, pedestrian pushbuttons not built to current ADA standards, missing or narrow sidewalks, and faded striping.

#### **Recommendations**

For each of the twenty schools in this report, engineering and operational recommendations have been identified at specific locations, typically a street or intersection adjacent to each school. Some of the recommended improvements are on city right-of-way, while others are on school district property. Recommendations are directly correlated with an observation of an existing condition that was documented during the school walk audit. The recommendations are further categorized by expected ease of implementation, and implementation responsibility.



### **HOW TO USE THIS REPORT**



SCHOOL DISTRICT & SCHOOL STAFF can use this report to prioritize potential improvements identified on school district property and further develop programs that emphasize to the school community the importance of traffic safety, and that educate and encourage students and parents to seek alternatives to single family automobile commutes to school.





**PARENTS** can use this report to understand the conditions at their children's school and to become familiar with the ways that the City is working to make walking and biking safer and easier.

**CITY STAFF** can use this report to identify issues and opportunities related to walking and biking and to prioritize potential short-term and medium-term opportunities while considering the funding and political opportunities that may help to facilitate implementation of the long-term improvements.

### **NATOMAS HIGH SCHOOL**

### **1. SCHOOL INFORMATION**

NATOMAS HIGH SCHOO	NATOMAS HIGH SCHOOL			
Address:	3301 Fong Ranch Road			
School District:	Natomas Unified School District			
City Council District:	District 1			
Grades:	9 –12			
Number of Students:	1100			
Arrival:	7:55 AM (8:55 Wednesday)			
Dismissal:	2:54 PM			

### **2. SCHOOL ACCESS**

Natomas High School is located on Fong Ranch Road, a two-lane local roadway plus a continuous two-way left-turn lane. Natomas Gateways Middle School is located on the same site as the high school. The Natomas Unified School District is in the process of phasing out the middle school one year at a time, with the students continuing onto Natomas High School.

The student parking lot is accessed via driveways on Fong Ranch Road. The staff parking lot is accessed via a driveway on San Juan Road. On-street loading zones are located on Fong Ranch Rod and San Juan Road.

There are two main bicycle and pedestrian access points to the two schools: the school entrance off Fong Ranch Road and a gate on San Juan Road.

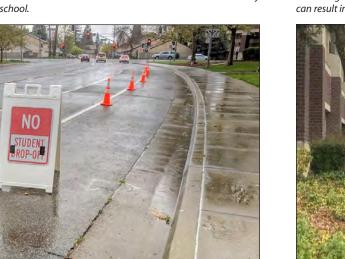
#### **3. SCHOOL SAFETY ASSESSMENT**

A school safety assessment was held on Thursday, March 28, 2019. In attendance were representatives from the City of Sacramento, Parisi Transportation Consulting, and teaching staff from Natomas High School.

Assessment participants made observations during the afternoon pick-up period as students left campus. These included driver, bicyclist, and pedestrian travel behavior as students left school. Observations were focused on Fong Ranch Road and San Juan Road based on a discussion held with the school immediately prior to the audit. Afterward, participants reconvened to discuss their observations and potential improvements.



The intersection of Fong Ranch Road and San Juan Road is located near the main school entrance and many students cross the intersection before and after school.



Natomas High staff routinely set up cones and signage to discourage student drop-off on Fong Ranch Road near the northern leg of the Fong Ranch Road / San Juan Road major intersection.



Driveway entrance gate remains closed before the afternoon bell to discourage vehicle queueing inside the parking lot.



Signs along San Juan Road are posted to discourage jaywalking across the five lane street. The nearest crosswalks from the side gate are about 500' in either direction.



The configuration of the Fong Ranch Road and San Juan Road intersection has two right-turn lanes, which can result in potential conflict with pedestrians crossing the western and northern crosswalks.



Drivers were observed queueing in the bicycle lane on San Juan Road during the afternoon pick-up period.

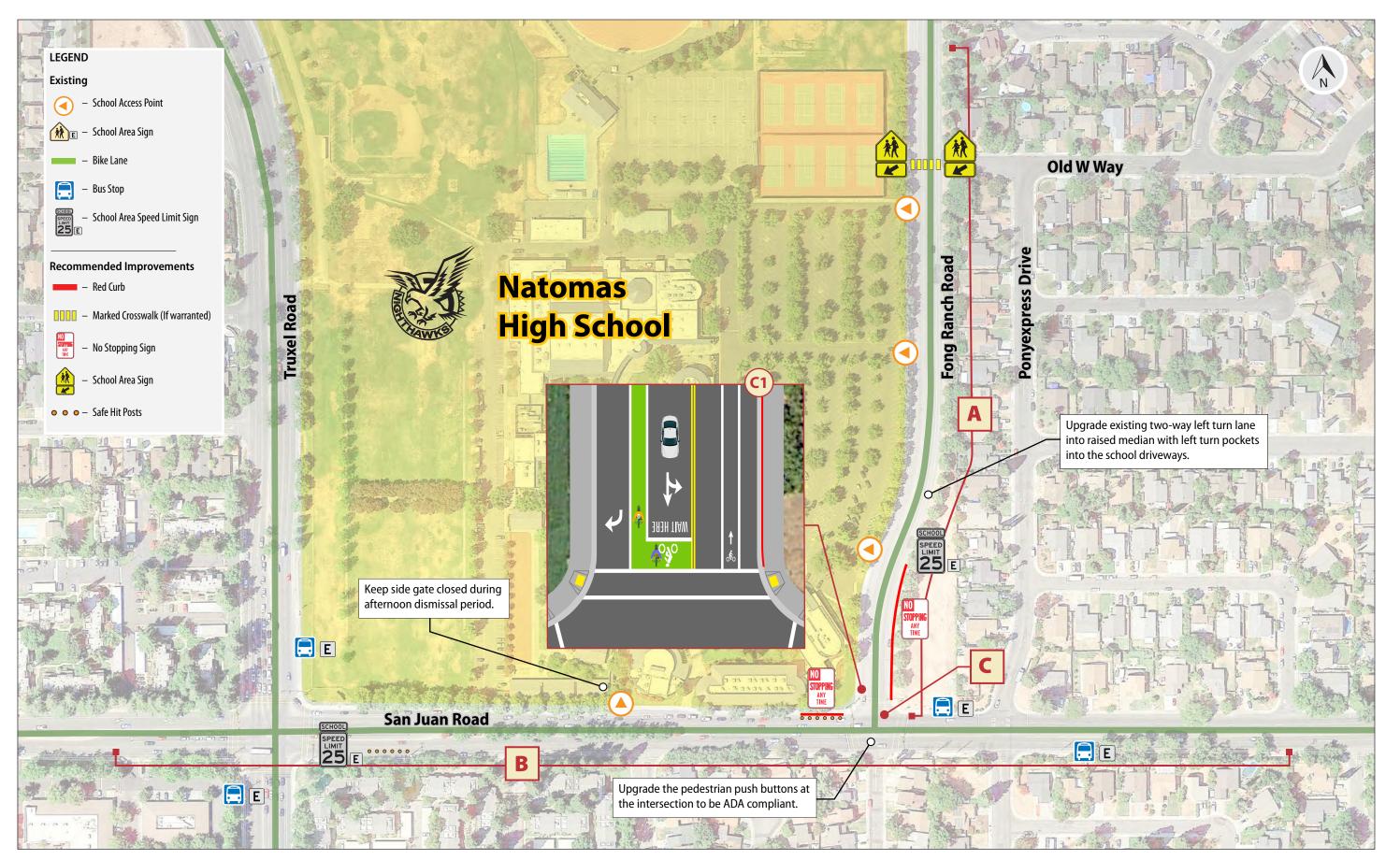
This School Safety Assessment report includes a series of recommendations for transportation infrastructure and policy improvements in the vicinity of Natomas High School. These recommendations are based on observations made during the school safety assessment, a post-assessment engineering review, and a review of concerns raised by assessment participants. The recommendations have been classified based on ease of implementation:

- Short-term Improvements, such as signing and striping, can typically be implemented within one year.
- Medium-term Improvements are improvements that may require additional planning efforts and funding and can typically be implemented within a threeyear range.
- in a three to five-plus year range. Locations are mapped on page 8.

			IMF	IMPLEMENTATION		RESPONSIBILITY
LOCATION	OBSERVATION	RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY
A. Fong Ranch Road	<ul> <li>A1 Vehicles were observed using the No Parking zone on the east side of Fong Ranch Road as a loading zone.</li> <li>A2 Students were observed jay-walking across Fong Ranch Road at Old</li> </ul>	<ul> <li>Stripe red curb along existing No Parking zone, approximately 280' north of the intersection, to discourage using the existing curb space as a loading zone – A1</li> </ul>	~			Department of Public Works
	<ul> <li>A3 School administrators report frequent U-turns along Fong Ranch Road during drop-off and pick-up periods.</li> </ul>	<ul> <li>Replace the existing "No Parking" sign with a "No Stopping Any Time" to discourage using the existing curb space as a loading zone. This recommendation is consistent with Sacramento City Codes – A1</li> </ul>	~			Department of Public Works
		<ul> <li>Evaluate appropriateness for a new marked crossing with ADA compliant curb ramps and appropriate driveway clearances across Fong Ranch Road at Old W Drive. Include school Assembly B crosswalk signage at the new crosswalk * – A2</li> </ul>	~			Department of Public Works
		• Evaluate the feasibility of upgrading the existing two-way left-turn lane into a raised median with left turn pockets into the school driveways, to prohibit vehicles from making illegal u-turns along Fong Ranch Road – A3			~	Department of Public Works

\* Parke Bridge project conditioned to provide fair share funding for RRFB and mid-block crosswalk.

	ODCEDIVATION	RECOMMENDATIONS	IMPLEMENTATION		ION		
LOCATION	OBSERVATION	RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY	
<b>B</b> San Juan Road	<ul> <li>B1 Parents were observed using the westbound bicycle lane on San Juan Road as a loading zone when picking up students.</li> <li>B2 Vehicles were observed parked in the eastbound bicycle lane, obstructing</li> </ul>	<ul> <li>Stripe red curb along existing 100' of curb west of the intersection on the north side of San Juan Road to discourage using the existing curb space as a loading zone – B1</li> </ul>	~			Department of Public Works	
	<ul><li>bicycle path of travel.</li><li>B3 School administration reports that students exiting school from the side gate on San Juan Road tend to jay-walk across San Juan Road.</li></ul>	<ul> <li>Replace the existing "No Parking" sign on the north side of San Juan Road with a "No Stopping Any Time" sign to discourage using the existing curb space as a loading zone. This recommendation is consistent with Sacramento City Codes – B1</li> </ul>	~			Department of Public Works	
		<ul> <li>Consider installing delineators (e.g., Safe-Hit posts) to reinforce parking prohibitions in the bike lanes, approximately 100' west of Fong Ranch Road.</li> <li>Per Caltrans standards, a two foot buffer would be included. The street widths are to remain a minimum of 10 feet, per City Standards – B1, B2</li> </ul>	~			Department of Public Works	
		<ul> <li>Provide targeted parking enforcement related to illegal parking in the bike lane on the south side of San Juan Road – B2</li> </ul>	~			Department of Public Works	
		<ul> <li>Keep side gate closed during afternoon dismissal period – B3</li> </ul>	~			Natomas High School	
C Fong Ranch Road and San Juan Road Intersection	<ul> <li>C1 The southbound approach on Fong Ranch Road at the intersection with San Juan Road has two right-turn lanes.</li> <li>C2 Pedestrian push buttons at this intersection are not ADA-compliant.</li> </ul>	<ul> <li>Review the feasibility of modifying the lane configuration on the southbound leg of the intersection to remove the dual right-turn lane.</li> <li>Consider providing a bike box ahead of the left-through lane – C1</li> </ul>		~		Department of Public Works	
		<ul> <li>Upgrade the pedestrian push buttons at the intersection to be ADA- compliant – C2</li> </ul>		~		Department of Public Works	



NATOMAS SCHOOL, 3301 FONG RANCH ROAD, SACRAMENTO

8

### NORTHWOOD ELEMENTARY SCHOOL

### **1. SCHOOL INFORMATION**

NORTHWOOD ELEMENTARY SCHOOL				
Address:	2630 Taft Street			
School District:	Twin Rivers Unified School District			
City Council District:	District 2			
Grades:	ТК – 6			
Number of Students:	470			
Arrival:	8:15 AM			
Dismissal:	2:25 PM (12:57 Wednesday)			

### **2. SCHOOL ACCESS**

Northwood Elementary School is located in north Sacramento on Taft Street, a two-lane local street. Parking is available in an on-campus lot as well as through on-street parking on Taft Street.

Pedestrian, bicycle and vehicle access to Northwood is available only along Taft Street. A loading/unloading loop is located at the front of the school and is monitored during drop-off and pick-up hours. The front of the loop is reserved for bus access only.

Northwood is in the vicinity of two principal arterial roads: El Camino Avenue and Del Paso Boulevard. Both roads are four-lane roadways with continuous two-way left-turn lanes. These streets both fall within a half-mile radius of Northwood and are crossed by students walking or bicycling to and from school.

### **3. SCHOOL SAFETY ASSESSMENT**

A school safety assessment was held on Tuesday, January 29th, 2019. In attendance were representatives from the City of Sacramento and Parisi Transportation Consulting as well as the Principal of Northwood Elementary.

Assessment participants made observations during the afternoon pick-up period as students left campus. Observations included driver, bicyclist, and pedestrian travel behavior. Observations were focused on Taft Street and El Camino Avenue based on a discussion held with the school immediately prior to the audit. Afterward, participants reconvened to discuss their observations and potential improvements.



Northwood staff cone off the front of the loading loop to reserve spaces for buses.

Taft Street experience



Drivers occasionally park their vehicles in no parking zones to pick-up students from school.



El Camino Avenue is a wide multi-lane arterial; high speeds were reported by school representatives.



Many streets in the vicinity of the school lack sidewalks and roadway markings.



Some parents use the alley south of the school as a parking space during pick-up time.



Taft Street experiences congestion during the afternoon pick-up period.

This School Safety Assessment report includes a series of recommendations for transportation infrastructure and policy improvements around Northwood Elementary School. These recommendations are based on observations made during the school safety assessment, a post-assessment engineering review, and a review of concerns raised by assessment participants. The recommendations have been classified based on ease of implementation:

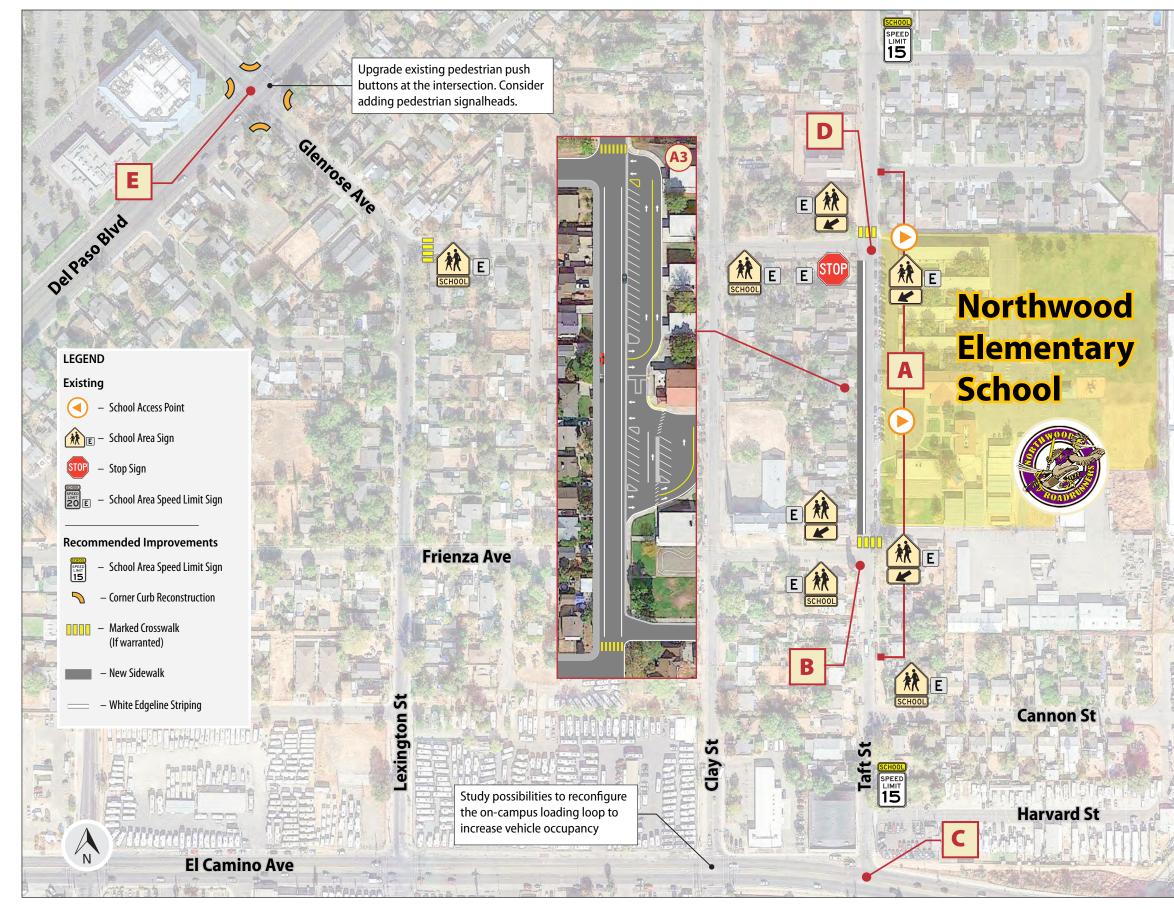
- Short-term Improvements, such as signing and striping, can typically be implemented within one year.
- Medium-term Improvements are improvements that may require additional planning efforts and funding and can typically be implemented within a threeyear range.
- in a three to five-plus year range. Locations are mapped on page 12.

	ODCEDVATION	DECOMMENDATIONS	IMPLEMENTAT		ION	
LOCATION	OBSERVATION	RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY
A. Taft Street	A1 Taft Street lacks curb and gutter on the west side. Edge line better channelizes parked vehicles.	<ul> <li>Install right edge line striping uniformly on both sides of Taft Street between Frienza Avenue and Glenrose Avenue to channelize parked vehicles. – A1</li> </ul>	~			Department of Public Works
	<ul> <li>A2 Taft Street is a qualifying street in the City of Sacramento's school area speed reduction program.</li> <li>A3 Currently the west side lacks any sidewalks.</li> </ul>	<ul> <li>As part of city-wide school area speed reduction program, provide</li> <li>15 MPH school area speed limit signs along Taft Street between Shobar and</li> <li>Cannon – A2</li> </ul>	•			Department of Public Works
	<ul> <li>A4 On-campus parking lots and loading loops are congested during pick-up and drop-off times, resulting on vehicle backups onto Taft Street.</li> </ul>	<ul> <li>Construct sidewalks with curb and gutter, initially along the west side of Taft Street between Glenrose Avenue and Frienza Avenue – A3</li> </ul>			~	Department of Public Works
	<ul> <li>A5 Vehicles were observed double parking along Taft Street.</li> <li>A6 Parents often ignore the parking lot procedures by moving traffic cones and idling in the bus-only zone.</li> </ul>	<ul> <li>After potential long-term implementation of sidewalks, consider provision of park and walk strategy * – A4, A5, A6</li> </ul>			~	Northwood Elementary
<b>B.</b> Taft Street and Frienza Avenue Intersection	<b>B1</b> Existing marked crosswalk is faded and in need of refreshing.	Refresh pavement markings – B1	~			Department of Public Works
C. El Camino Avenue and Taft Street Intersection	<ul> <li>C1 High volume of students observed crossing at this uncontrolled unmarked crossing.</li> <li>C2 School administrators report speeding vehicles and lack of yield compliance to pedestrians crossing Taft Street.</li> </ul>	<ul> <li>Educate students on recommended travel patterns with a preferred walking route map and school reminders. Encourage students to cross Taft Street at Clay Street, a signalized intersection with a marked crosswalk. – C1, C2</li> </ul>	~			Northwood Elementary School
D. Taft Street and Glenrose Avenue Intersection	D1 High volume of students observed crossing at this location and continuing to Del Paso Boulevard. This intersection has no traffic controls at any approach.	<ul> <li>Evaluate appropriateness for a new stop control on the minor approach (Glenrose Avenue). Include stop bar, stop stencil and stop sign – D1</li> </ul>	•			Department of Public Works

\* Future coordination with parking services required.

	ODCEDIVATION			PLEMENTAT	ION	
LOCATION	OBSERVATION	RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY
E. Del Paso Boulevard and	E1 Pedestrian push buttons are not ADA-complaint at northeast and southeast corners.	<ul> <li>Upgrade existing pedestrian push buttons on the northeast and southeast corners to be ADA-complaint – E1</li> </ul>	~			Department of Public Works
Eleanor Avenue Intersection	E2 This intersection does not have pedestrian signals for the east and west crosswalks.	<ul> <li>Consider adding pedestrian signal heads to crosswalks crossing Eleanor and Glenrose – E2</li> </ul>		~		Department of Public Works
	E3 All four corners of the intersection have large corner curb radii.	<ul> <li>Consider reconstructing the corner curbs at all four corners to reduce corner curb radii, which will narrow the intersection approaches and slow turning traffic – E3</li> </ul>			•	Department of Public Works

### SACRAMENTO SCHOOLS SAFETY ASSESSMENTS: NORTHWOOD ELEMENTARY SCHOOL



NORTHWOOD ELEMENTARY SCHOOL, 2630 TAFT STREET, SACRAMENTO

A planned Safe Routes to School project includes further improvements in the vicinity of Northwood Elementary, such as new sidewalks on El Camino Avenue and Clay Street, as well as Class II Bike Lanes on El Camino Avenue.

### SUTTER MIDDLE SCHOOL

### **1. SCHOOL INFORMATION**

SUTTER MIDDLE SCHOOL				
Address:	3150 l Street			
School District:	Sacramento City Unified School District			
City Council District:	District 3			
Grades:	6 - 8			
Number of Students:	1200			
Arrival:	8:10 AM			
Dismissal:	2:32 PM (1:32 Thursday)			

### **2. SCHOOL ACCESS**

Sutter Middle School is located on I Street in East Sacramento. I Street is a local two-lane road with on-street parking. Alhambra Boulevard, a two-lane arterial roadway, runs along the west perimeter of the campus. J Street, a two-lane arterial roadway with a continuous two-way left-turn lane, is adjacent to the south perimeter of the campus.

There are three access points to the school. Vehicular access is provided via the parking lot/loading loop off I Street. Bicycle and pedestrian access points are fence openings on Alhambra Boulevard and J Street.

Students use Regional Transit to travel to and from school. Students were observed to be using the transit stops on both sides of Alhambra Boulevard, adjacent to the campus.

### **3. SCHOOL SAFETY ASSESSMENT**

A school safety assessment was held on Monday, January 28th, 2019. In attendance were representatives from the City of Sacramento, Parisi Transportation Consulting, and Sutter Middle School's Principal and Assistant Principal.

Assessment participants made observations during the afternoon pick-up period as students left campus. Observations included driver, bicyclist, and pedestrian travel behavior. Observations were focused on I Street, J Street, and Alhambra Boulevard based on a discussion held with school staff immediately prior to the audit. Afterward, participants reconvened to discuss their observations and potential improvements.



The east leg of the crosswalk at Alhambra Boulevard and I Street lacks an ADA-standard curb ramp and terminates at a residential driveway.



The uncontrolled marked crosswalk at Alhambra Boulevard and I Street was heavily used by students during the afternoon period. A volunteer crossing guard assists students at this location.



The on-campus bicycle racks were parked to near capacity with approximately 60 bikes.



Students cross I Street at midblock locations.



Drivers park in the white loading zone and the red No Parking zones before afternoon pick-up, with many of vehicles left unattended.



There is a raised triangular island at the Alhambra Boulevard and J Street intersection. Some motorists roll through the right turn at this approach., as well as causes a hindrance for bicycles.

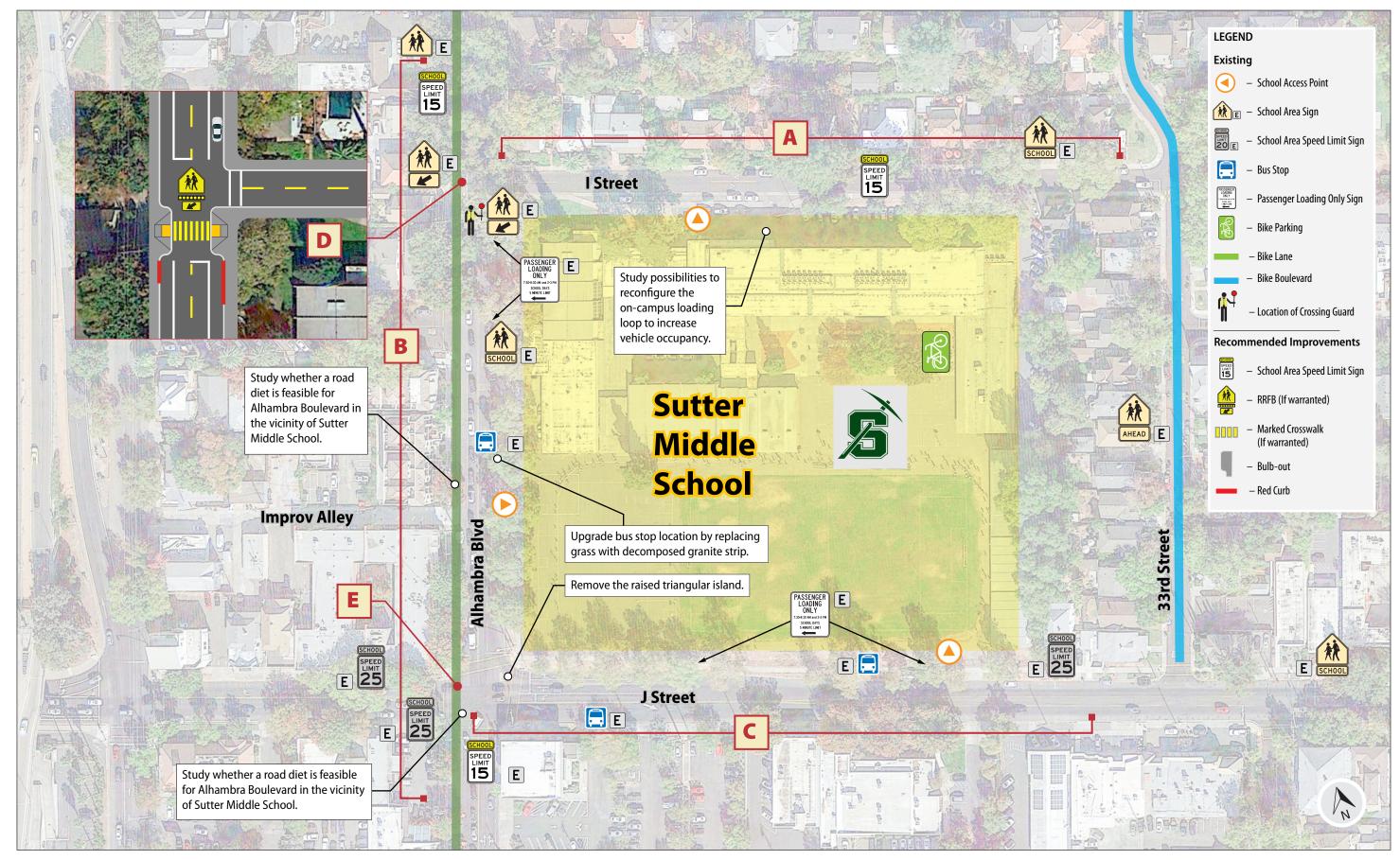


This school safety assessment includes a series of recommendations for transportation infrastructure and policy improvements in the vicinity of Sutter Middle School. These recommendations are based on observations made during the school safety assessment, a post-assessment engineering review, and a review of concerns raised by assessment participants. The recommendations have been classified based on ease of implementation:

- Short-term Improvements, such as signing and striping, can typically be implemented within one year.
- Medium-term Improvements are improvements that may require additional planning efforts and funding and can typically be implemented within a threeyear range.
- in a three to five-plus year range. Locations are mapped on page 16.

			IMPLEMENTATION			
LOCATION	OBSERVATION	RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY
A. I Street	<ul> <li>A1 Motorists double park vehicles along westbound I Street between Alhambra Blvd and 33rd Street.</li> <li>A2 I Street is a qualifying street in the City of Sacramento's school area speed reduction program.</li> <li>A3 The designated on-street loading zone on I Street is about 130' long, which is too short to accommodate drop-off/pick-up traffic. Motorists waiting to access the loading zone and/or loading tend to cause vehicle backups onto Alhambra Boulevard.</li> </ul>	<ul> <li>Parking services and/or school staff to enforce parking along I Street – A1</li> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along I Street between Alhambra Boulevard and 33rd Street – A2</li> <li>Study possibilities to reconfigure the on-campus loading loop in order to increase on-campus vehicle capacity and reduce vehicle back-up onto Alhambra Boulevard – A3</li> </ul>	<b>v</b> <b>v</b>		v	Department of Public Works Sacramento City Unified School District
B. Alhambra Boulevard	<ul> <li>B1 School administrators reported speeding on Alhambra Boulevard.</li> <li>B2 High volume of students were observed taking Regional Transit. The midblock bus stop is located along a grass strip, requiring students to walk in mud during inclement weather.</li> </ul>	<ul> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along Alhambra Boulevard within 500' of school grounds – B1</li> <li>Study whether a road diet is feasible for Alhambra Boulevard between J Street and L Street to reduce lane widths and encourage slower vehicle speeds – B1</li> <li>Replace a portion of the existing grass landscaping with decomposed granite strip in the vicinity of the bus stop to facilitate bus boarding and alighting. Include a paved section to meet ADA compliancy – B2</li> </ul>	~	r		Department of Public Works Department of Public Works Department of Public Works
C. J Street	C1 High volume of students were observed being picked up on the north side of J Street.	<ul> <li>Consider signing the east side of J Street as a passenger loading zone with a 15-minute limit during pick-up and drop-off times – C1</li> </ul>	~			Department of Public Works

		ODCEDVATION	DECOMMENDATIONS	IMPLEMENTATION				
	LOCATION	OBSERVATION	RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY	
D.	Alhambra Boulevard and I Street Intersection	<ul> <li>D1 Many parents wait for students on the west side of Alhambra, resulting in a high number of crossings at the uncontrolled crosswalk.</li> <li>D2 A crossing guard assists students crossing to the west side of the street.</li> </ul>	<ul> <li>Create a designated loading/unloading zone on the east side of Alhambra during pick-up and drop-off times to reduce the number of students crossing the street – D1, D2</li> </ul>	v			Department of Public Works	
		School administrators report that yield compliance of pedestrians in the crosswalk by motorists is greatly reduced when the crossing guard is not present.	<ul> <li>Install a minimum of 20' of red curb ahead of the northbound approach. Remove the parking space on the south side of the southbound approach to increase sight distance – D3</li> </ul>	~			Department of Public Works	
		<b>D3</b> Sight distance for both pedestrians and motorists appears to be limited on both sides of the crosswalk due to vehicles parking up to the crosswalk.	<ul> <li>Consider installation of Rectangular Rapid Flash Beacon (RRFB), if warranted based on the City's Pedestrian Crossing Guidelines. – B1, D2</li> </ul>		~		Department of Public Works	
		<b>D4</b> The crosswalk is lacking a curb ramp at the western leg.	<ul> <li>Install an ADA-compliant curb ramp at the western leg of the intersection.</li> <li>Crosswalk may need to be relocated to avoid ramp interfering with residential driveway – D4</li> </ul>		~		Department of Public Works	
			<ul> <li>Consider installing curb extensions (bulb-outs) at both ends of the crosswalk, bulbing into Alhambra Boulevard. Existing drainage should be taken into consideration when designing the bulb-out. In the short term, painted bulb-outs can be used - B1, D2, D3</li> </ul>			~	Department of Public Works	
E.	Alhambra Boulevard and J	E1 There is a dedicated westbound right turn lane on J Street that leads to a right turn channel onto on Alhambra Boulevard. Some motorists roll	<ul> <li>Consider implementing no right turn on red restriction for vehicles turning right onto Alhambra from the slip lane – E1</li> </ul>		~		Department of Public Works	
	Street Intersection	through the right turn at this approach. Attendees noted that drivers oftentimes do not see pedestrians in the crosswalk traveling southbound.	<ul> <li>Remove the raised triangular island and replace with striping for unobstructed bicycle travel – E1, E2</li> </ul>		~		Department of Public Works	
		<b>E2</b> The concrete raised triangular island at the northeast corner disrupts the path of travel for northbound bicycles on Alhambra Boulevard.	<ul> <li>Install a leading pedestrian interval (LPI) on all four legs of the crosswalk to reduce pedestrians exposure to conflicting vehicle traffic – E1</li> </ul>			•	Department of Public Works	



SUTTER MIDDLE, 3150 I STREET, SACRAMENTO

### GARDEN VALLEY ELEMENTARY SCHOOL

### **1. SCHOOL INFORMATION**

GARDEN VALLEY ELEMI	GARDEN VALLEY ELEMENTARY SCHOOL			
Address:	3601 Larchwood Drive			
School District:	Twin Rivers Unified School District			
City Council District:	District 3			
Grades:	К-б			
Number of Students:	400			
Arrival:	8:15 AM			
Dismissal:	2:57 PM (12:57 Wednesday)			

### **2. SCHOOL ACCESS**

Garden Valley is located on Larchwood Drive, a local street in North Sacramento. A parking lot is accessed via Larchwood Drive in front of the campus, however the parking lot has gates are shut during school commute periods due to the internal lot's current configuration which cannot efficiently accommodate vehicles for dropoff and pick-up.

A majority of drop-off and pick-up activity occurs along Larchwood Drive and some along Patio Avenue. About one-quarter of the students walk to school according to the school's principal, with key routes along Larchmont Drive, Patio Avenue and across Northgate Boulevard to the east.

### **3. SCHOOL SAFETY ASSESSMENT**

A school safety assessment was held on January 25, 2019. In attendance were representatives from the City of Sacramento, Parisi Transportation, Consulting, and the principal of Garden Valley Elementary.

Assessment participants made observations during the afternoon pick-up period as students left campus. Observations included driver, bicyclist, and pedestrian travel behavior. Observations were focused on the school's parking lot and on Larchmont Drive, Patio Avenue, and Northgate Boulevard based on a discussion held with the school immediately prior to the audit. Afterward, participants reconvened to discuss their observations and potential improvements.



Students walking within, and outside of, the marked walkway that bisects Garden Valley Elementary School's parking lot.



During school pick-up, vehicles are parked immediately adjacent to crosswalks, along crosswalks, and in yellow curb zones at the Larchmont Drive / Patio Avenue intersection.



Students and parents walking along the south side of Patio Avenue after school dismissal. The sidewalk is five feet wide.



The transition between the internal walkway and the sidewalk along Larchwood Drive is separated by a raised curb, resulting in a non-ADA compliant route.



Vehicles parked along both sides of Larchmont Drive, south of Patio Avenue, including within red curb zones.



A substantial number of students live on the east side of Northgate Boulevard and cross from Patio Avenue with the help of a crossing guard.

This School Safety Assessment report includes a series of recommendations for transportation infrastructure and policy improvements in the vicinity of Garden Valley Elementary School. These recommendations are based on observations made during the school safety assessment, a post-assessment engineering review, and a review of concerns raised by assessment participants. The recommendations have been classified based on ease of implementation:

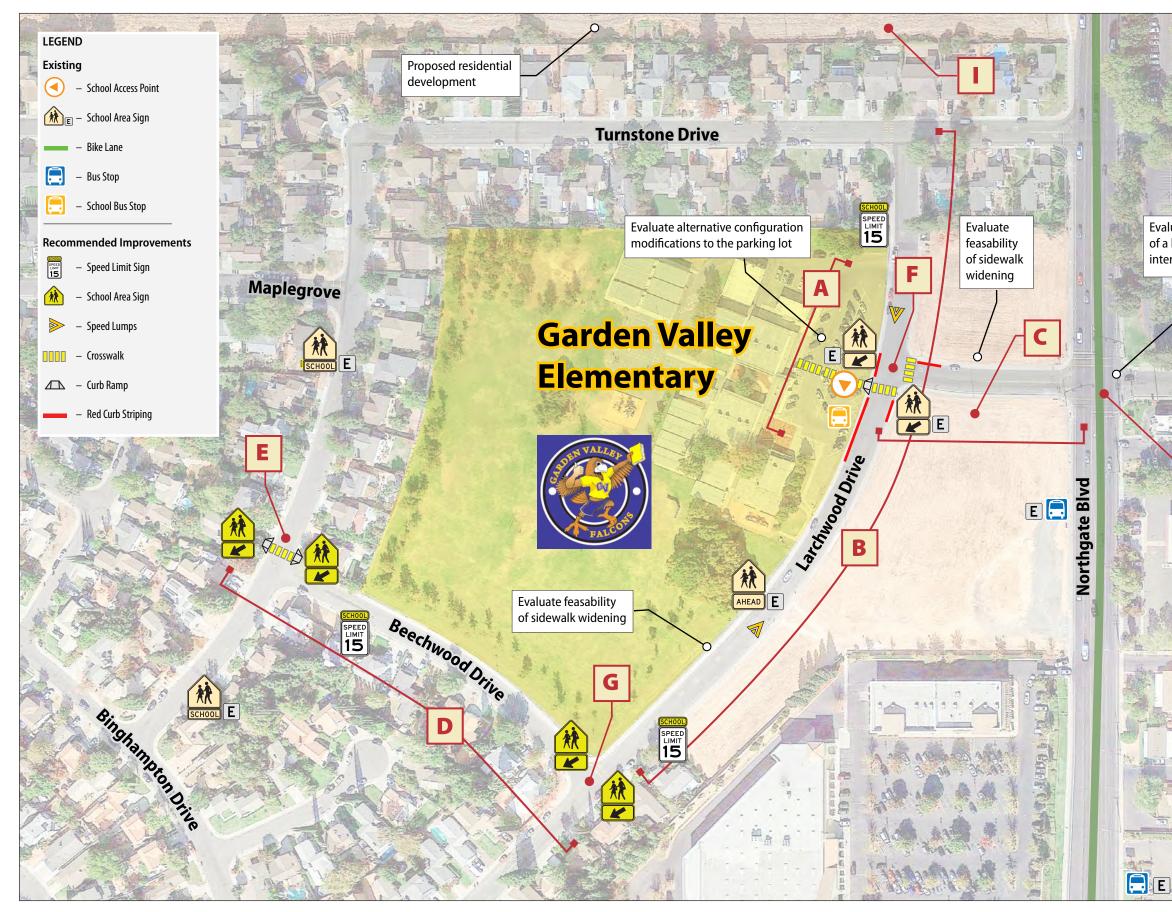
- Short-term Improvements, such as signing and striping, can typically be implemented within one year.
- Medium-term Improvements are improvements that may require additional planning efforts and funding and can typically be implemented within a threeyear range.
- in a three to five-plus year range. Locations are mapped on page 20.

	OBSERVATION			PLEMENTAT	ION	
LOCATION		RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY
A School parking lot	<ul> <li>A1 Students heavily use lightly-marked crosswalk bisecting school's parking lot.</li> <li>A2 Students need to walk above raised curb at end of parking lot's crosswalk where it meets the back of sidewalk at Larchwood Drive.</li> <li>A3 Parking lot is inaccessible to vehicles during school commute periods due to inefficient configuration for drop-off and pick-up operations.</li> </ul>	<ul> <li>Enhance crosswalk with high-visibility markings. Consider raising the crosswalk. – A1</li> <li>Install an ADA-compliant curb ramp – A2</li> <li>Evaluate alternative configuration modifications to the parking lot to potentially accommodate drop-off and pick-up – A3</li> </ul>	~	V	V	Twin Rivers Unified School District Twin Rivers Unified School District Twin Rivers Unified School District
B Larchwood Drive	<b>B1</b> Some motorists wait to pick up students in yellow curb zones, others park immediately next to marked crosswalks.	<ul> <li>Install red curb at the bus stop with modified R26 (No Parking, Bus Loading Zone) sign – B1</li> </ul>	~			Department of Public Works
	<ul> <li>B2 School administration and parents perceive vehicle speeding along Larchwood Drive.</li> <li>B3 Substantial volumes of pedestrians, including students and parents, walk</li> </ul>	<ul> <li>Add red curb paint at intersection corners and in front of crosswalks – B1</li> <li>Continue issuing instructions and guidance to parents about where to drop-off and pick-up students – B1</li> </ul>	~			Department of Public Works Garden Valley Elementary School
	along narrow sidewalks, with some pedestrians walking in the roadway.	<ul> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along Larchwood Drive – B2</li> </ul>	~			Department of Public Works
		<ul> <li>Review potential for meeting warrants for installation of speed lumps north of Beechwood Way – B2</li> </ul>		~		Department of Public Works
		<ul> <li>Evaluate the feasibility of widening the existing five foot sidewalks a minimum of two additional feet on both sides of Larchwood Drive, particularly on the west side of Larchwood Drive between Turnstone Drive and Patio Avenue – B3</li> </ul>		~		Department of Public Works
C Patio Avenue	C1 Substantial volumes of pedestrians, including students and parents, walk along narrow sidewalks, with some pedestrians walking in the roadway.	<ul> <li>Evaluate the feasibility of widening the existing five foot sidewalks a minimum of two additional feet on both sides of Patio Avenue, particularly on the south side of Patio Avenue between Larchwood Drive and Northgate Boulevard – C1</li> </ul>		~		Department of Public Works

				IMF	IMPLEMENTATION			
	LOCATION	OBSERVATION	RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY	
D	Beechwood Way	D1 Beechwood Way is a qualifying street in the City of Sacramento's school area speed reduction program.	<ul> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along Beechwood Way – D1</li> </ul>	V			Department of Public Works	
E	Beechwood Way/ Turnstone Drive	E1 Pedestrians use an uncontrolled crosswalk at Turnstone Drive; no curb ramp exists on the north side of the intersection.	<ul> <li>Install school Assembly B crosswalk signage at the intersection – E1</li> <li>Install an ADA-compliant curb ramp on the north side of Turnstone Drive– E1</li> </ul>	~	~		Department of Public Works Department of Public Works	
F	Larchwood Drive/ Patio Avenue	F1 High pedestrian volumes, including students and parents, cross the faded uncontrolled crosswalk across Larchwood Drive.	<ul> <li>Refresh all crosswalk markings at the intersection of Larchwood Drive/Patio Avenue – F1</li> </ul>	۷			Department of Public Works	
G	Larchwood Drive/ Beechwood Way	<b>G1</b> Pedestrians cross the uncontrolled crosswalk across Larchwood Drive; the crosswalk lacks signage.	<ul> <li>Install school Assembly B crosswalk signage at the intersection – G1</li> </ul>	~			Department of Public Works	
н	Northgate Boulevard/Patio Avenue	<ul> <li>High pedestrian volumes, including students and parents, cross the signalized crosswalk with the assistance of a crossing guard.</li> <li>Some motorists turn across the crosswalk during the WALK phase.</li> </ul>	<ul> <li>Evaluate the feasibility of installing a leading pedestrian interval phase at the traffic signal – H1</li> <li>Evaluate the feasibility of installing a pedestrian countdown signal to assist</li> </ul>	~ ~			Department of Public Works Department of Public Works	
			<ul> <li>crossing guard – H1</li> <li>Consider additional signal phasing improvements, such as splitting the eastbound and westbound legs to create a more comfortable pedestrian experience – H1</li> </ul>		~		Department of Public Works	
I	Planned development site north of Turnstone Drive and west of Northgate Boulevard	I1 Proposed residential development, if served by Garden Valley Elementary School, may not have convenient walking and cycling route to and from school.	<ul> <li>Coordinate with Planning Department to identify potential walking and cycling routes (e.g., along Laurelglen Drive, new north-south passageways, Northgate Boulevard) – 11</li> </ul>	~			Department of Public Works	

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### SACRAMENTO SCHOOLS SAFETY ASSESSMENTS: GARDEN VALLEY ELEMENTARY SCHOOL



**GARDEN VALLEY ELEMENTARY SCHOOL, 3601 LARCHWOOD DRIVE, SACRAMENTO** 



### **MUSTARD SEED SCHOOL**

### **1. SCHOOL INFORMATION**

### MUSTARD SEED SCHOOL

Address	1321 North C Street				
City Council District	3				
Grades	Ages 3 to 15				
Number of Students	~15 – 35				
Notes	Mustard Seed is a private school for children between the ages of three and 15. School enrollment varies between 15 to 35 children at a time. Mustard Seed is part of the Sacramento Loaves and Fishes charitable organization in downtown Sacramento, which provides services to the Sacramento homeless community. Students at Mustard Seed are children within this community.				

### **2. SCHOOL ACCESS**

Mustard Seed School is located on North C Street, a two-lane local road bounded by major arterial roadways, North 12th and North 16th streets to the northwest and east, and a major collector roadway, North B Street to the south. The school area is within the Dos Rios Triangle neighborhood that is bounded by the American River to the north and the Union Pacific Railroad (UPRR) tracks to the south. Downtown Sacramento is situated south of the UPRR tracks.

The main pedestrian, bicycle, and vehicle access to Mustard Seed School is provided via North C Street. Students and their families connect to the larger roadway network via North C Street to the east and Ahern Street to the north and south. North C Street dead ends at North 12th Street, although there is a pedestrian walkway along the south side of North 12th Street. There are several parking spaces in front of the school campus and unassigned parking for the Loaves and Fishes campus on North C Street west of Ahern Street. The school does not have school bus service.

### **3. SCHOOL SAFETY ASSESSMENT**

A school safety assessment was held on March 21, 2019. In attendance were representatives from the City of Sacramento, Parisi Transportation Consulting, and representatives from Loaves and Fishes. Assessment participants made observations during the afternoon pick-up period as students departed from campus. Observations included driver and pedestrian travel behavior. Observations were focused on North C Street, Ahern Street, North 16th Street and North B Street.



The Mustard Seed School campus is accessed via North C Street. Visitors can access the Loaves and Fishes campus from N 16th Street and N B Street.



Warning signs deployed by Loaves and Fishes staff discourage general parking and drivers from trying to access N. 12th Street via North C Street.



North C Street, Ahern Street and McCormack Avenue border the Loaves and Fishes campus. These streets serve industrial uses and generally lack sidewalks and marked crosswalks.



Students were observed being picked up on North C Street. No students were observed walking or bicycling from school.



Sidewalks and curb ramps are present on N. 16th Street and N. B Street.



The pedestrian beacon at N. B Street and Ahern Street is a passive design (i.e., beacon flashes without pedestrian actuation).



This School Safety Assessment report includes a series of recommendations for transportation infrastructure and policy improvements in the vicinity of Mustard Seed School. These recommendations are based on observations made during the school safety assessment, a post-assessment engineering review, and a review of concerns raised by assessment participants. The recommendations have been classified based on ease of implementation:

- Short-term Improvements, such as signing and striping, can typically be implemented within one year.
- Medium-term Improvements are improvements that may require additional planning efforts and funding and can typically be implemented within a threeyear range.
- in a three to five-plus year range. Locations are mapped on page 23.

	ODCEDIVATION					
LOCATION	OBSERVATION	RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY
A Ahern Street	A1 Pedestrians were observed walking along the street north of the Welcoming Center building where the sidewalk discontinues.	<ul> <li>Extend the existing west sidewalk from the Loaves and Fishes Welcoming Center building (at North C Street) to North 12th Street. – A1</li> </ul>		~		Department of Public Works
B North C Street and Ahern Street Intersection	<b>B1</b> Loaves and Fishes staff are stationed at the intersection to inform drivers that North C Street is not a through route and that parking is reserved for Loaves and Fishes staff and visitors.	<ul> <li>Study whether traffic volumes justify changing the intersection from two- way stop control to all-way-stop control – B1</li> </ul>		~		Department of Public Works
C North B Street and Ahern Street Intersection	<ul> <li>C1 Drivers failed to consistently yield to pedestrians in the crosswalk.</li> <li>C2 School administrators perceive that speeding occurs along North B Street.</li> <li>C3 Existing curb ramp at the northwest corner of the crosswalk does not meet ADA standard.</li> </ul>	<ul> <li>Refresh existing high-visibility crosswalk marking – C1</li> <li>Upgrade existing pedestrian crosswalk warning signs to be double sided – C1</li> <li>Install yield markings to increase awareness of uncontrolled crossing, if warranted based on the City's Pedestrian Crossing Guidelines – C1</li> <li>Install painted bulb-outs at both ends of the marked crosswalk to reduce the corner curb radius – C1, C2</li> <li>Install an ADA-compliant curb ramp at the northwest corner – C3</li> <li>Study whether the existing pedestrian mast-arm mounted beacon can be converted to a pedestrian-actuated beacon type, e.g., RRFB – C1</li> <li>Study opportunities to increase pedestrian-scale lighting along North B</li> </ul>	ン ン ン ン	~ ~		Department of Public Works Department of Public Works Department of Public Works Department of Public Works Department of Public Works
		<ul> <li>Study opportunities to increase pedestrian-scale lighting along North B</li> <li>Street and Ahern Street * – C1</li> </ul>			~	Department of Public Works

\* Check compliance with River District Specific Plan.



**MUSTARD SEED SCHOOL, 1321 NORTH C STREET, SACRAMENTO** 

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### **SMYTHE ACADEMY OF ARTS AND SCIENCES**

### **1. SCHOOL INFORMATION**

SMYTHE ACADEMY OF ARTS AND SCIENCES ("SMYTHE")				
Address:	2781 Northgate Boulevard			
School District:	Twin Rivers Unified School District			
City Council District:	District 3			
Grades:	ТК – 6			
Number of Students:	730			
Arrival:	8:10 AM			
Dismissal:	2:42 PM (12:42 Wednesday)			

### **2. SCHOOL ACCESS**

Smythe Academy of Arts and Sciences ("Smythe") is located along Northgate Boulevard, a five-lane arterial roadway inclusive of a continuous two-way left turn lane. A staff and visitor parking lot is located off Northgate Boulevard.

The main pedestrian, bicycle and vehicle access to Smythe is available via the loading loop and school entrance on Northgate Boulevard. Additional bicycle and pedestrian access is available through a gate on Haggin Avenue.

Northgate Avenue experiences substantial non-school related traffic, particularly during the morning drop-off period.

### **3. SCHOOL SAFETY ASSESSMENT**

A school safety assessment was held on Wednesday, January 30, 2019. In attendance were representatives from the City of Sacramento, Parisi Transportation Consulting, the principal of Smythe Academy and a parent volunteer.

Assessment participants made observations during the morning drop-off period as students arrived for class. Observations included driver, bicyclist, and pedestrian travel behavior. The review was focused on Northgate Boulevard and Haggin Boulevard based on a discussion held with the school immediately prior to the audit. Afterward, participants reconvened to discuss their observations and potential improvements.



Cones are set out by Smythe Academy staff to guide the morning drop-off process by dividing the parking lot into two lanes.





Turns out of the school parking lot, particularly left turns, are challenging due to travel speeds on Northgate Boulevard.



The loading zone on Haggin Avenue is reserved for student drop-offs and pick-ups. The sidewalks are narrow and abut a chain link fence.



The Haggin Avenue / Northgate Boulevard intersection lacks red curb markings at the corners and vehicles have been reported parking adjacent to the curb ramps.



A gate on Haggin Avenue near the loading zone provides access to the school grounds.



A volunteer crossing guard assists school crossings at the Northgate Boulevard and Haggin Avenue intersection.



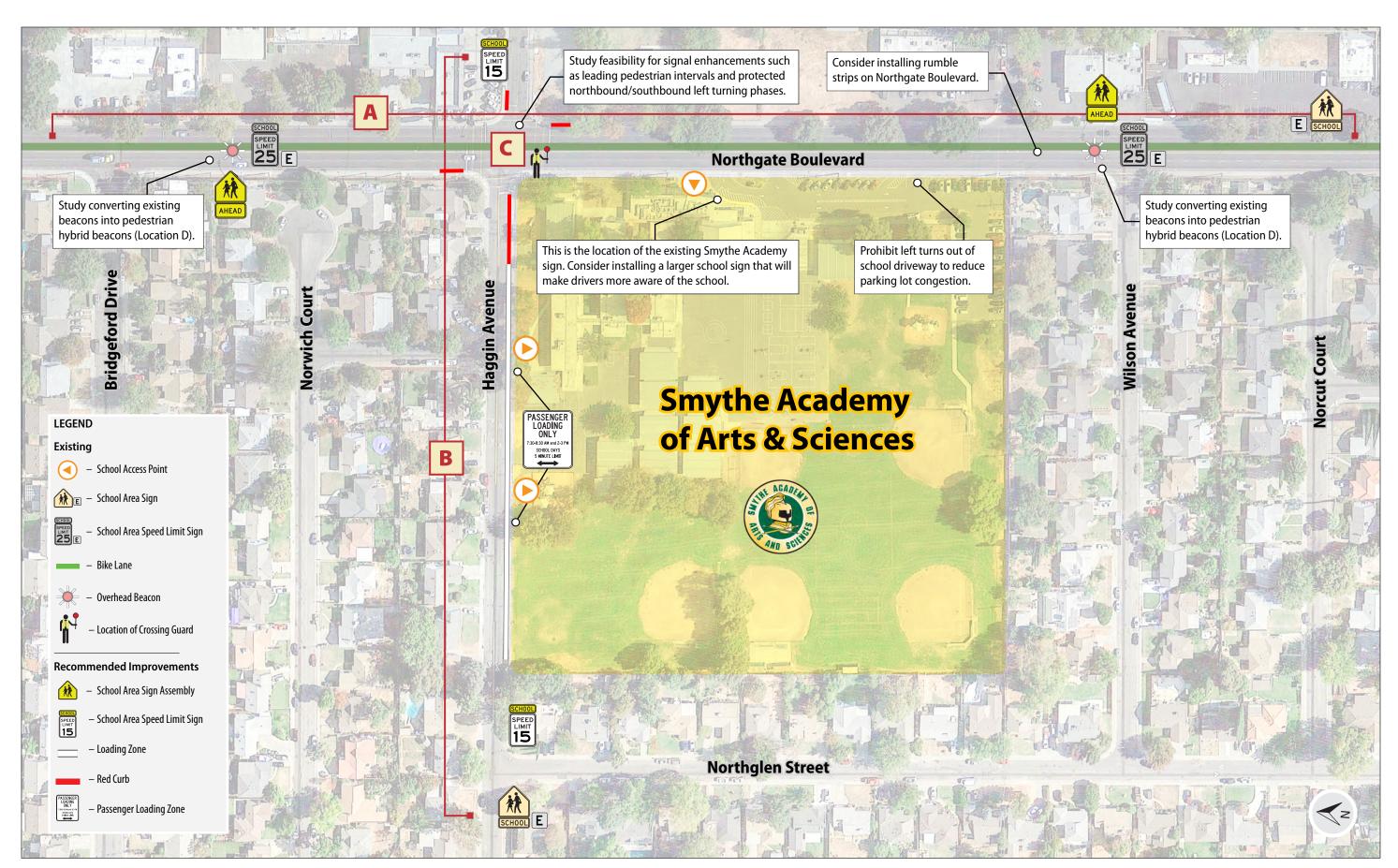
This School Safety Assessment report includes a series of recommendations for transportation infrastructure and policy improvements in the vicinity of Smythe Academy. These recommendations are based on observations made during the school safety assessment, a post-assessment engineering review, and a review of concerns raised by assessment participants. The recommendations have been classified based on ease of implementation:

- Short-term Improvements, such as signing and striping, can typically be implemented within one year.
- Medium-term Improvements are improvements that may require additional planning efforts and funding and can typically be implemented within a threeyear range.
- in a three to five-plus year range. Locations are mapped on page 28.

	OBSERVATION		імі	IMPLEMENTATION		
LOCATION		RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY
A. Northgate Boulevard	A1 Left turns out of the school driveway result in congestion in the school parking lot.	<ul> <li>Prohibit left turns out of school driveway with signs or raised barriers to reduce parking lot congestion – A1</li> </ul>	~			Smythe Academy of Arts and Sciences
	A2 School administrators perceive speeding occurs along Northgate Boulevard.	Provide targeted police enforcement focused on speeding – A2	~			Police Department
	A3 There are school speed limit signs mounted with overhead beacons, but school administrators say that they are not effective in warning drivers of the upcoming school.	<ul> <li>Consider installing rumble strips on Northgate Boulevard – A2</li> <li>Consider installing a larger Smythe Academy sign that will serve as a gateway treatment to make drivers more aware of the school, which may encourage slower speeds – A2, A3</li> </ul>	•		v	Department of Public Works Smythe Academy of Arts and Sciences
B. Haggin Avenue	<ul> <li>B1 The designated loading zone is limited in length. Parents waiting to pick-up students use the entire length of curb.</li> <li>B2 Haggin Avenue is a qualifying street in the City of Sacramento's school area speed reduction program.</li> </ul>	<ul> <li>Consider restricting parking 100' west of crosswalk, length of double yellow centerline. Install loading zone west of restricted parking with time of day no parking (passenger loading only). Coordinate with parking services and school staff to determine if feasible – B1</li> <li>As part of city-wide school area speed reduction program, provide 15 MPH</li> </ul>	~			Department of Public Works Department of Public Works
C Northgate Boulevard and Haggin Boulevard Intersection	<ul> <li>C1 Vehicles park on Haggin Boulevard near the intersection corners and obstruct the visibility of pedestrians to drivers. The intersection lacks No Parking zones near the corners.</li> <li>C2 The crossing guard at the intersection reports that vehicles turning right onto southbound Northgate often do not always see pedestrians in the</li> </ul>	<ul> <li>school area speed limit signs along Haggin Avenue – B2</li> <li>Install red curb within 20' of the corner for all approaches – C1</li> <li>Explore the possibility of installing a leading pedestrian interval (LPI) for the Haggin Avenue signal phase to increase reduce pedestrians' exposure to conflicting vehicle traffic. Remove the Turning Vehicles Yield to Pedestrian signs – C2</li> </ul>	~	~		Department of Public Works Department of Public Works
	south crosswalk, which is set back from the corner.	<ul> <li>Assess the feasibility of providing protected northbound and southbound left turns phasing to eliminate conflicts with pedestrians and oncoming traffic – C2</li> </ul>		~		Department of Public Works
		<ul> <li>Consider bringing fenceline at corner back from sidewalk to increase visibility – C2</li> </ul>		V		Twin Rivers Unified School District

LOCATION	OBSERVATION	DECOMMENDATIONS		IMPLEMENTATION			
LOCATION	OBSERVATION	RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY	
D. Mast-arm beacons on Northgate Boulevard	Two mast-arm mounted beacons are located approximately 600' north of and south of the campus on Northgate Boulevard. Attendees noted that the beacon can be difficult to see. Currently, each mast arm has one school speed limit sign placed across the mast arm, which is not eye-catching.	<ul> <li>Install Assembly D signage on the pole to increase driver awareness of the beacons as a short term solution – D1</li> <li>Study converting existing school beacons to pedestrian hybrid beacon as a long term solution. Supplement by evaluating appropriateness for a new marked crossing with ADA compliant curb ramps and appropriate driveway clearances – D1</li> </ul>	~		~	Department of Public Works Department of Public Works	

### SACRAMENTO SCHOOLS SAFETY ASSESSMENTS: SMYTHE ACADEMY OF ARTS AND SCIENCES



**SMYTHE ACADEMY OF ARTS AND SCIENCES, 2781 NORTHGATE BOULEVARD, SACRAMENTO** 

### **H. ALLEN HIGHT ELEMENTARY AND NATOMAS MIDDLE SCHOOLS**

### **1. SCHOOL INFORMATION**

H. ALLEN HIGHT ELEMENTARY SCHOOL					
Address:	3200 N Park Drive				
School District:	Natomas Unified School District				
City Council District:	District 1				
Grades:	К-5				
Number of Students:	700				
Arrival:	8:00 AM				
Dismissal:	2:10 PM				

NATOMAS MIDDLE SCHOOL				
Address:	3200 N Park Drive			
School District:	Natomas Unified School District			
City Council District:	District 1			
Grades:	6-8			
Number of Students:	740			
Arrival:	8:30 AM			
Dismissal:	3:15 PM			

### 2. SCHOOL ACCESS

H. Allen Hight Elementary and Natomas Middle School are located on North Park Drive, a two-lane major collector roadway, in North Natomas. Natomas Middle School shares the campus with H. Allen Hight. There are on-street loading zones on Kokomo Drive and along North Park Drive. An on-campus loading loop is accessed via a driveway on North Park Drive.

There are two main bicycle and pedestrian access points to the school: the school entrance off North Park Drive and a gate on Kokomo Drive. There are three parking lots shared by the two schools: two on North Park Drive and one on Kokomo Drive.

H. Allen Hight Elementary has an active Safe Routes to School program. In the morning, students who walk or bike to school check in at a station led by parent volunteers in front of the school entrance. On Wednesdays, a walking school bus meets at Kokomo Park.

### **3. SCHOOL SAFETY ASSESSMENT**

A school safety assessment was held on Thursday, March 28, 2019. In attendance were the principal of H. Allen Hight Elementary School, the PTA president, a North Natomas Jibe representative, a parent Safe Routes to School volunteer, and representatives from the City of Sacramento and Parisi Transportation Consulting.

Assessment participants made observations during the morning drop-off period as students arrived for class. These included pedestrian, bicyclist and driver behavior as students arrived at school. Observations were focused on North Park Drive and Kokomo Drive based on a discussion held with the school representatives prior to the audit. Participants reconvened afterward to discuss their observations and suggest potential improvements.



H. Allen Hight has an active Safe Routes to School program. Students who walk and bike to school check-in at the SR2S table before the start of class.



Drivers were observed parking and loading in the bike lane on North Park Drive.



The sidewalk on the west side of Kokomo Drive ends at school limit. The frontage improvements along Kokomo Drive are the responsibility of future development of the adjoining parcel north of the school.







Multi-lane approaches at the all-way stop controlled intersection of North Park Road and Kokomo Drive results in confusion regarding which party has the right-of-way.

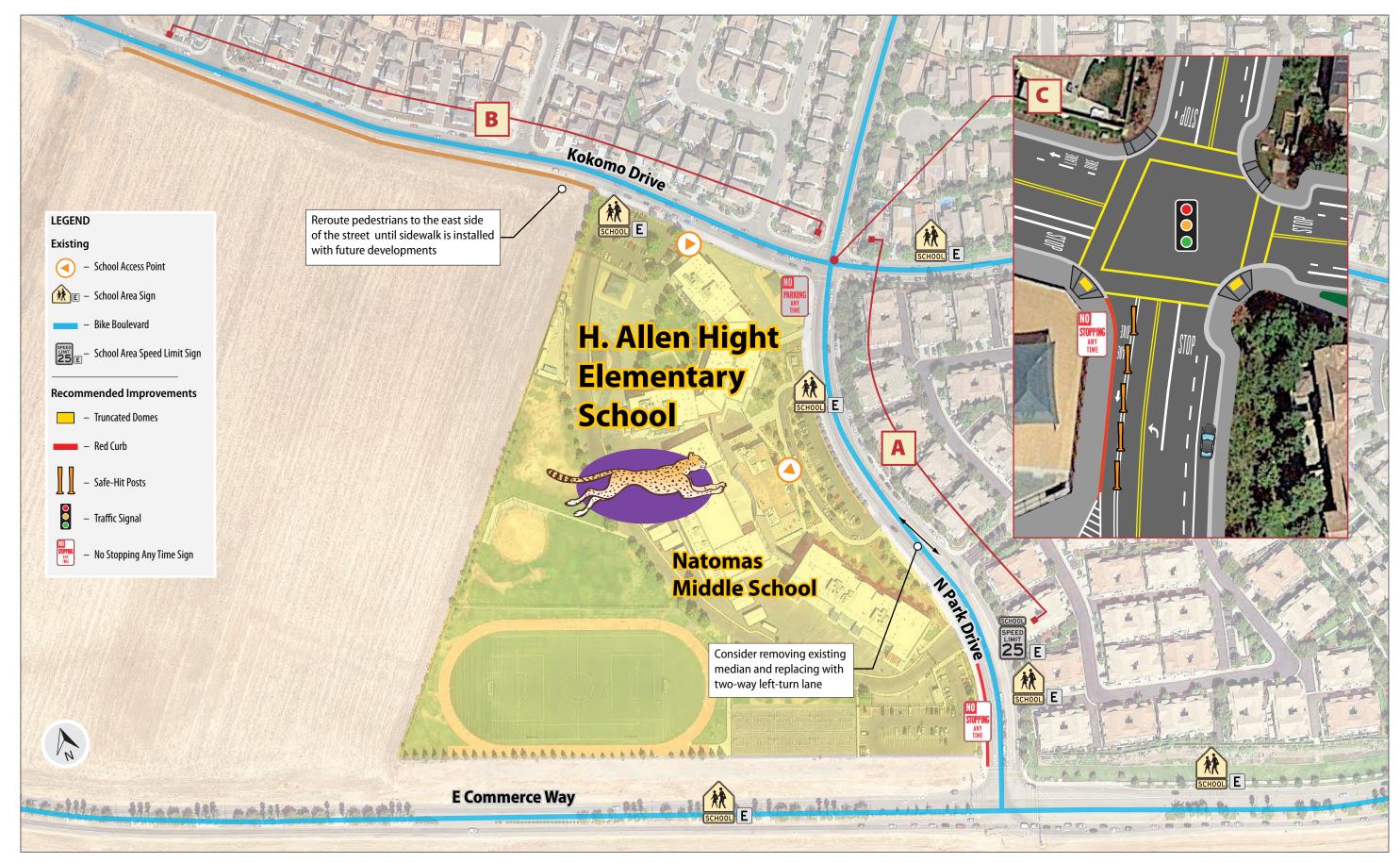
This School Safety Assessment report includes a series of recommendations for transportation infrastructure and policy improvements around H. Allen Hight Elementary School. These recommendations are based on observations made during the school safety assessment, a post-assessment engineering review, and a review of concerns raised by assessment participants. The recommendations have been classified based on ease of implementation:

- Short-term Improvements, such as signing and striping, can typically be implemented within one year.
- Medium-term Improvements are improvements that may require additional planning efforts and funding and can typically be implemented within a threeyear range.
- in a three to five-plus year range. Locations are mapped on page 32.

LOCATION	OBSERVATION	RECOMMENDATIONS	IMI	IMPLEMENTATION		
		RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY
A. North Park Drive	A1 Parents were observed using the bicycle lane on North Park Drive as an unloading zone when dropping-off students.	<ul> <li>Stripe red curb along existing 100' of curb between the intersection and the loading zone to discourage using the existing curb space as a loading zone – A1</li> </ul>	~			Department of Public Works
	A2 Vehicles exiting from the school parking lot on the west side of campus were observed turning left onto North Park Drive by traveling the wrong	<ul> <li>Replace the existing "No Parking Any Time" (R26) sign with a "No Stopping Any Time" (R26) to discourage using the existing curb space as a loading zone – A1</li> </ul>	~			Department of Public Works
	way through the raised median area at the Hampton Village access road.	<ul> <li>Provide targeted parking enforcement focused on enforcing drop-off activity in bicycle lane – A1</li> </ul>	~			Department of Public Works
		<ul> <li>Consider installing delineators (e.g., Safe-Hit posts) to reinforce parking prohibitions in the bike lane. Per Caltrans standards, the delineators will have a two foot buffer. The street widths are to remain a minimum of 10 feet, per City Standards – A1</li> </ul>	~			Department of Public Works
		<ul> <li>Consider replacing the existing raised median with a two-way left-turn lane to allow left-turns out of the west school parking lot onto eastbound North Park Drive. As a short term solution, a No Left Turn sign can be installed for vehicles exiting the parking lot – A2</li> </ul>		~		Department of Public Works
<b>B.</b> Kokomo Drive	B1 The west side of Kokomo Drive lacks sidewalks between Club Center Drive and the school grounds.	<ul> <li>Consider installing a barricade at the edge of the school grounds with a sign instructing pedestrians to use the sidewalk on the east side of the street. This will be a short term solution until future development begins – B1</li> </ul>	v			Department of Public Works
		<ul> <li>When future development is underway, install a bike lane and sidewalk on the west side of Kokomo Drive – B1</li> </ul>			~	Department of Public Works

LOCATION	OBSERVATION	RECOMMENDATIONS	IMPLEME		ION	RESPONSIBILITY
LOCATION	ODSERVATION	RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY
C. Kokomo Drive and North Park Drive Intersection	<ul> <li>C1 Pedestrian activity combined with school-related and commute traffic results in extended delays at the N Park Road / Kokomo Drive intersection.</li> <li>C2 Drivers were seen failing to yield to pedestrians in the crosswalks. Potential conflicts between drivers were observed when there was confusion about</li> </ul>	<ul> <li>Study whether the intersection meets CA MUTCD warrants for traffic signal control. There is existing traffic signal interconnect cable extending from the North Park Drive / E Commerce Way intersection along North Park Drive toward Kokomo Drive – C1, C2</li> </ul>		~		Department of Public Works
	<ul><li>which party had the right-of-way, which was exacerbated by pedestrians entering the crosswalks.</li><li>C3 Existing curb ramps at the southwest and southeast corners do not have</li></ul>	<ul> <li>If traffic signal is added, consider adding Leading Pedestrian Interval signal timing, right-turn-on-red restrictions and left-turn phases to maximize pedestrian safety at intersection – C2</li> </ul>		~		Department of Public Works
	truncated domes.	<ul> <li>Upgrade curb ramps at southwest and southeast corners to meet ADA standards by installing truncated domes – C3</li> </ul>			~	Department of Public Works

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H. ALLEN HIGHT ELEMENTARY SCHOOL AND NATOMAS MIDDLE SCHOOL, 3200 N PARK DRIVE, SACRAMENTO

# **THE MET SACRAMENTO HIGH SCHOOL**

# **1. SCHOOL INFORMATION**

THE MET SACRAMENTO HIGH SCHOOL ("THE MET")			
Address:	810 V Street		
School District: Sacramento City Unified School District			
City Council District: District 4			
Grades:	9 – 12		
Number of Students:	275		
Arrival:	8:30 AM		
Dismissal:	3:30 PM (2:00 Friday)		

#### **2. SCHOOL ACCESS**

The Met is located on V Street, south of downtown Sacramento. V Street is a local two-lane road with on-street parking. To the east of the Met is 9th Street, a minor arterial that runs through downtown Sacramento. A short loading zone (40 feet long) is located on V Street directly in front of the school entrance. A small staff parking lot is accessed via 9th or 10th Streets through Victorian Alley.

The sole access point to the school is through the entrance on the southeast corner the of V Street and 8th Street intersection. Most students drive or are dropped off at campus. Some students take public transit (Route 51), and a few walk or bike.

## **3. SCHOOL SAFETY ASSESSMENT**

A school safety assessment was held on Monday, January 28th, 2019. In attendance were representatives from the City of Sacramento, Parisi Transportation Consulting, and the Principal of the Met.

Assessment participants made observations during the morning drop-off period as students arrived for class. Observations included driver, bicyclist, and pedestrian travel behavior, and focused on V Street and 8th Street, based on a discussion held with the school staff immediately prior to the audit. Afterward, participants reconvened to discuss their observations and potential improvements.



The loading zone at the school entrance on V Street is approximately 40' long and unable to accommodate the volume of unloading/loading vehicles.



before and after school.



Four-hour parking restriction makes student parking in the vicinity of the school a challenge.



The broken concrete sidewalk on 8th Street presents an accessibility issue..



Vehicles double park on V Street due to insufficient loading zone length.



Drivers use the No Parking zone of 8th Street as an additional loading/unloading zone.

The uncontrolled crosswalk connecting the Met and Southside Park experiences high volumes of pedestrian travel



This school safety assessment includes a series of recommendations for transportation infrastructure and policy improvements in the vicinity of the Met. These recommendations are based on observations made during the school safety assessment, a post-assessment engineering review, and a review of concerns raised by assessment participants. The recommendations have been classified based on ease of implementation:

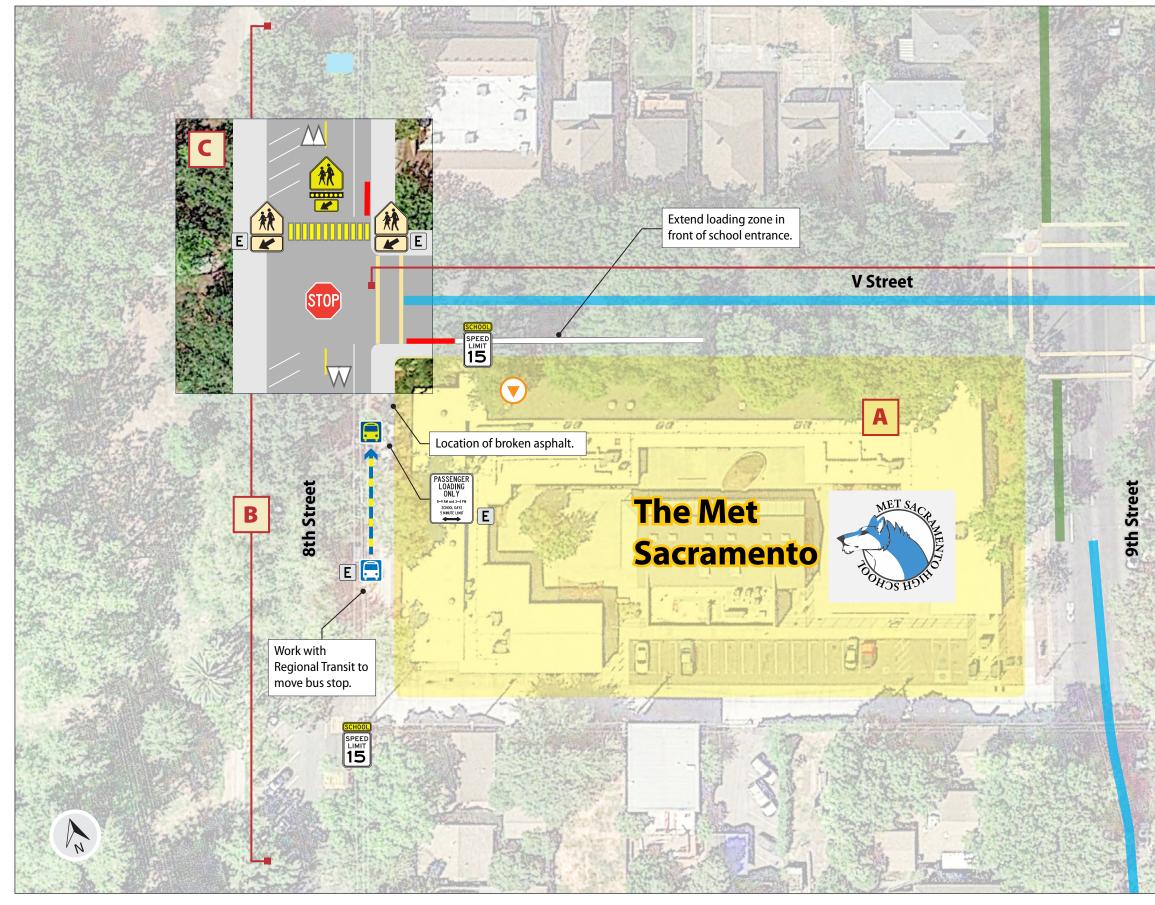
- Short-term Improvements, such as signing and striping, can typically be implemented within one year.
- Medium-term Improvements are improvements that may require additional planning efforts and funding and can typically be implemented within a threeyear range.
- in a three to five-plus year range. Locations are mapped on page 36.

			IMPLEMENTATION			
LOCATION	OBSERVATION	RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY
A. V Street	A1 A short loading zone (40') is located directly in front of the school entrance and is the main location for loading and unloading. The length of the existing loading zone is insufficient to accommodate the unloading and loading demand.	<ul> <li>Lengthen the loading zone by extending the length of the white curb an additional 40'. Install 20' of red curb on the southeast corner to improve pedestrian sight distance and prevent loading vehicles from blocking the crosswalk – A1</li> </ul>	~ ~			Department of Public Works Department of Public Works
	<ul> <li>A2 V Street is a qualifying street in the City of Sacramento's school area speed reduction program.</li> <li>A3 Many of the surrounding neighborhood streets have a four-hour time limit. Students who drive to campus have to move their vehicles in between classes to avoid being ticketed.</li> </ul>	<ul> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along V Street within 500' of school grounds – A2</li> <li>Consider implementing Transportation Demand Management measures to reduce the number of students driving to school to reduce neighborhood parking (e.g., encouraging students to form carpools). Opportunities include encouraging students to form carpools – A3</li> <li>Based on the success of the Educational Institution Permit Pilot, consider implementing Educational Institution Permitting along 9th Street and V Street in the vicinity of the school to allow students all-day parking during the school day. If infeasible on these streets, consider implementing a parking program at the W/X Parking Lot – A3</li> <li>The Permit program is currently being piloted in three schools citywide - consider extending the pilot program to the Met – A3</li> </ul>		~	r	The Met Department of Public Works Department of Public Works
B. 8th Street	<ul> <li>B1 Parents were observed using 8th Street as a secondary unloading zone.</li> <li>B2 8th Street is a qualifying street in the City of Sacramento's school area speed reduction program.</li> <li>B3 Location of the bus stop north of Victorian Alley is a hindrance to the use of 8th as a drop-off spot.</li> <li>B4 Existing sidewalk has broken asphalt and contains tripping hazards.</li> </ul>	<ul> <li>Consider installing signs on the east side of 8th Street identifying it as an unloading/loading zone during pick-up and drop-off times – B1</li> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along 8th Street within 500' of school grounds – B2</li> <li>Relocate bus stop location to the existing no parking zone south of the 8th Street and V Street intersection – B3</li> <li>Repair existing sidewalk at the location of broken asphalt – B4</li> </ul>	r r	r	~	Department of Public Works Department of Public Works Regional Transit Department of Public Works

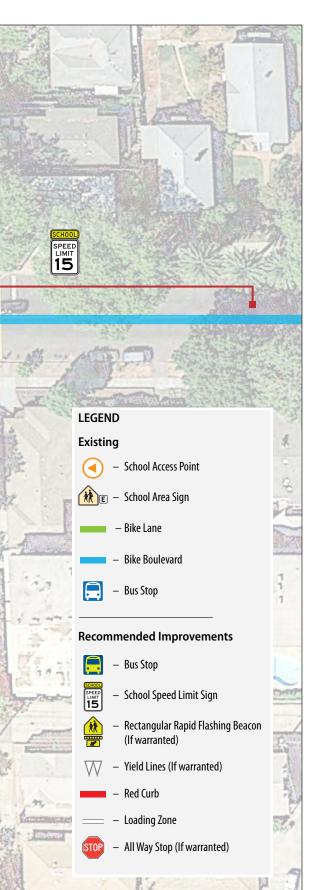
# SACRAMENTO SCHOOLS SAFETY ASSESSMENTS: THE MET SACRAMENTO HIGH SCHOOL

	ODCEDIVATION	DECOMMENDATIONS	IMPLEMENTATION			
LOCATION	OBSERVATION	RECOMMENDATIONS	Short Medium Long	Long	RESPONSIBILITY	
C. V Street and 8th Street Intersection	<ul> <li>C1 High pedestrian volumes observed using the uncontrolled marked crosswalk providing access between the Met and Southside Park. Drivers were seen failing to yield to pedestrians at this location.</li> <li>C2 Motorists making a southbound left turn from V Street have an obstructed view of oncoming southbound traffic due to vehicles parked north of the marked crosswalk on the east side of 8th Street.</li> </ul>	<ul> <li>Install yield markings to increase awareness of uncontrolled crossing – C1, C2</li> <li>Install a minimum of 10' of red curb after the crosswalk on the east side of 8th Street to improve sight distance for motorists on V Street – C1, C2</li> <li>Consider installation of a Rectangular Rapid Flash Beacon (RRFB), if warranted based on the City's Pedestrian Crossing Guidelines. – C1, C2</li> <li>Study whether intersection warrants being converted to All-Way Stop Control – C1, C2</li> </ul>	~ ~	~ ~		Department of Public Works Department of Public Works Department of Public Works Department of Public Works

# SACRAMENTO SCHOOLS SAFETY ASSESSMENTS: THE MET SACRAMENTO HIGH SCHOOL



THE MET SACRAMENTO HIGH SCHOOL, 810 V STREET, SACRAMENTO



36

# WILLIAM LAND ELEMENTARY SCHOOL

# **1. SCHOOL INFORMATION**

WILLIAM LAND ELEMENTARY SCHOOL				
Address:	2120 12th Street			
School District:	Sacramento City Unified School District			
City Council District:	District 4			
Grades:	К-б			
Number of Students:	400			
Arrival:	9:00 AM			
Dismissal:	2:57 Grades 1-3 (1:57 Thursday) 3:07 Grades 4-6 (2:07 Thursday)			

## **2. SCHOOL ACCESS**

The main pedestrian, bicycle, and vehicle access is available through the school entrance on 12th Street with additional vehicle access provided via the staff parking lot on 11th Street. The west side of 12th Street fronting the campus is used by parents as a loading zone during morning drop-off and afternoon pick-up periods.

William Land is one of three schools in Sacramento piloting the Educational Institution Permit. The streets surrounding William Land have a two-hour parking limit for vehicles without a residential permit. The Educational Institution Permit program allows staff and visitors to park on the adjacent streets for longer than two hours when displaying a parking permit placard in the vehicle. William Land provides detailed guidance on the pilot program on their website.

## **3. SCHOOL SAFETY ASSESSMENT**

A school safety assessment was held on March 8, 2018. In attendance were the principal of William Land Elementary and representatives from the City of Sacramento and Parisi Transportation Consulting.

Assessment participants made observations during the afternoon pick-up period as students left campus. Observations included pedestrian, bicyclist and driver behavior. Observations were focused on 12th Street based on a discussion with the school principal prior to the audit. Participants reconvened afterward to discuss their observations and suggest potential improvements.



A designated loading zone fronts the school entrance on 12th Street.



A school bus drops off and picks up in a reserved location, designated by No Parking signs, on 12th Street.



U Street was observed to have unused parking spaces during school hours.



School officials perceived speeding on 10th Street, potentially due to its straight roadway alignment, uninterrupted intersections, and clear sight lines.



William Land Elementary is one of three Sacramento schools piloting the Educational Institution Permit program. It provides parking permits to teachers & school staff to allow them to park in the neighborhood during school hours.



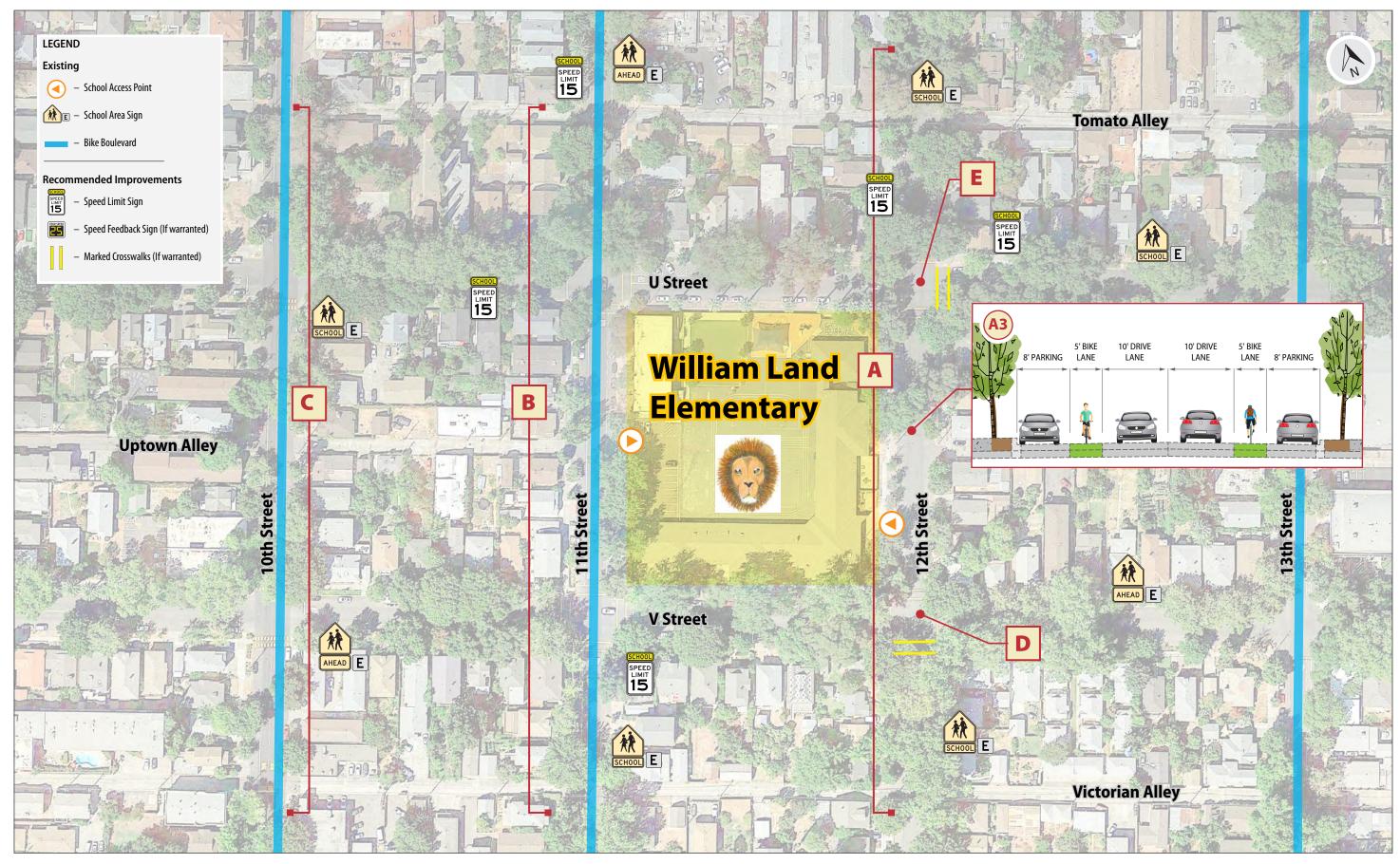
A YMCA bus picks up students on 12th Street for afterschool programming.



This School Safety Assessment report includes a series of recommendations for transportation infrastructure and policy improvements in the vicinity of William Land Elementary School. These recommendations are based on observations made during the school safety assessment, a post-assessment engineering review, and a review of concerns raised by assessment participants. The recommendations have been classified based on ease of implementation:

- Short-term Improvements, such as signing and striping, can typically be implemented within one year.
- Medium-term Improvements are improvements that may require additional planning efforts and funding and can typically be implemented within a threeyear range.
- in a three to five-plus year range. Locations are mapped on page 39.

	OBCEDIVATION	DECOMMENDATIONS	IMPLEMENTATION		IMPLEMEN		ION	
LOCATION	OBSERVATION	RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY		
A. 12th Street	A1 Drivers were observed parking in the no parking zone, which is reserved for school-bus loading.	<ul> <li>Increase parking enforcement in the no-parking zones during pick-up and drop-off times – A1</li> </ul>	~			William Land Elementary		
	A2 School administrators perceive that speeding occurs along 12th Street. They attribute the speeding to vehicles not affiliated with the school, potentially using 12th Street as a cut-through.	<ul> <li>Stripe a right edge line to establish consistent ten-foot vehicle travel lanes and eight-foot parking lanes. Use the extra roadway width to install a five- foot bicycle lane on both sides of the street – A2, A3</li> </ul>	~			Department of Public Works		
	A3 12th Street is a 46' wide roadway without pavement markings or bicycle facilities.	<ul> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along 12th Street – A2</li> </ul>	~			Department of Public Works		
		<ul> <li>Work with Sacramento City Unified School District to devise traffic plan routes with school and parents to minimize conflicts with cut-through traffic – A2</li> </ul>		~		Department of Public Works		
<b>B.</b> 11th Street	<b>B1</b> 11th Street is a qualifying street in the City of Sacramento's school area speed reduction program.	<ul> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along 11th Street – B1</li> </ul>	~			Department of Public Works		
C. 10th Street	C1 Vehicles coming off the freeway were observed continue to travel at high speeds on local roads.	<ul> <li>Investigate comprehensive traffic calming measures on 10th Street– C1</li> </ul>	~			Department of Public Works		
D. V Street and 12th Street Intersection	D1 Intersection does not have a marked crosswalk on the southern leg crossing 12th Street.	<ul> <li>Evaluate appropriateness for a new marked crossing with ADA compliant curb ramps and appropriate driveway clearances at the south leg crossing 12th Street – D1</li> </ul>	~			Department of Public Works		
E. U Street and 12th Street Intersection	E1 Intersection does not have a marked crosswalk on the eastern leg crossing U Street.	<ul> <li>Evaluate appropriateness for a new marked crossing with ADA compliant curb ramps and appropriate driveway clearances at on the east leg crossing U Street – E1</li> </ul>	~			Department of Public Works		



WILLIAM LAND ELEMENTARY SCHOOL, 2120 12TH STREET, SACRAMENTO

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| 40

# **WASHINGTON ELEMENTARY SCHOOL**

# **1. SCHOOL INFORMATION**

WASHINGTON ELEMENTARY SCHOOL				
Address:	520 18th Street			
School District: Sacramento City Unified School District				
City Council District:	ty Council District: District 4			
Grades:	К-б			
Number of Students:	300			
Arrival:	9:00 AM			
Dismissal:	3:15 PM (2:15 Thursday)			

## **2. SCHOOL ACCESS**

Washington Elementary School fronts 18th Street, a two-lane local road, north of downtown Sacramento. The school is bounded by E Street to the north, F Street to the south and Washington Park to the west. A designated off-campus loading zone is located on the west side of 18th Street.

Pedestrian and bicycle access is provided through the school entrance on 18th Street. A staff parking lot is accessed through a driveway on E Street. On-street parking in the vicinity of the school is used by parents and visitors.

Washington Elementary is located one block west of railroad tracks between 19th and 20th streets. There are railroad crossings provided at E and F streets. A yellow school bus service is provided for students due to the school's proximity to the railroad.

# **3. SCHOOL SAFETY ASSESSMENT**

A school safety assessment was held on Friday, March 29, 2019. In attendance were the Principal of Washington Elementary School and representatives from the City of Sacramento and Parisi Transportation Consulting.

Assessment participants made observations during the morning drop-off period as students arrived at school. Observations included pedestrian, bicyclist and driver behavior. Observations were focused primarily on 18th Street and F Street, based on a discussion held with the school principal prior to the audit. Participants reconvened afterward to discuss their observations and suggest potential improvements.



Drop-offs and pick-ups are conducted mostly along 18th Street, directly in front of the school entrance.





Vehicles were observed double parking along the loading zone on 18th Street.



Drivers were observed conducting drop-offs in the marked "No Parking" zone along F Street.



vice-versa.



Several vehicles were observed parked or dropping-off in the school bus zone.

Several curb ramps in the vicinity of the school are missing a detectible surface treatment, i.e., truncated domes.

Vehicle parking in front of the crosswalk appears to obstruct pedestrians' visibility to oncoming traffic and



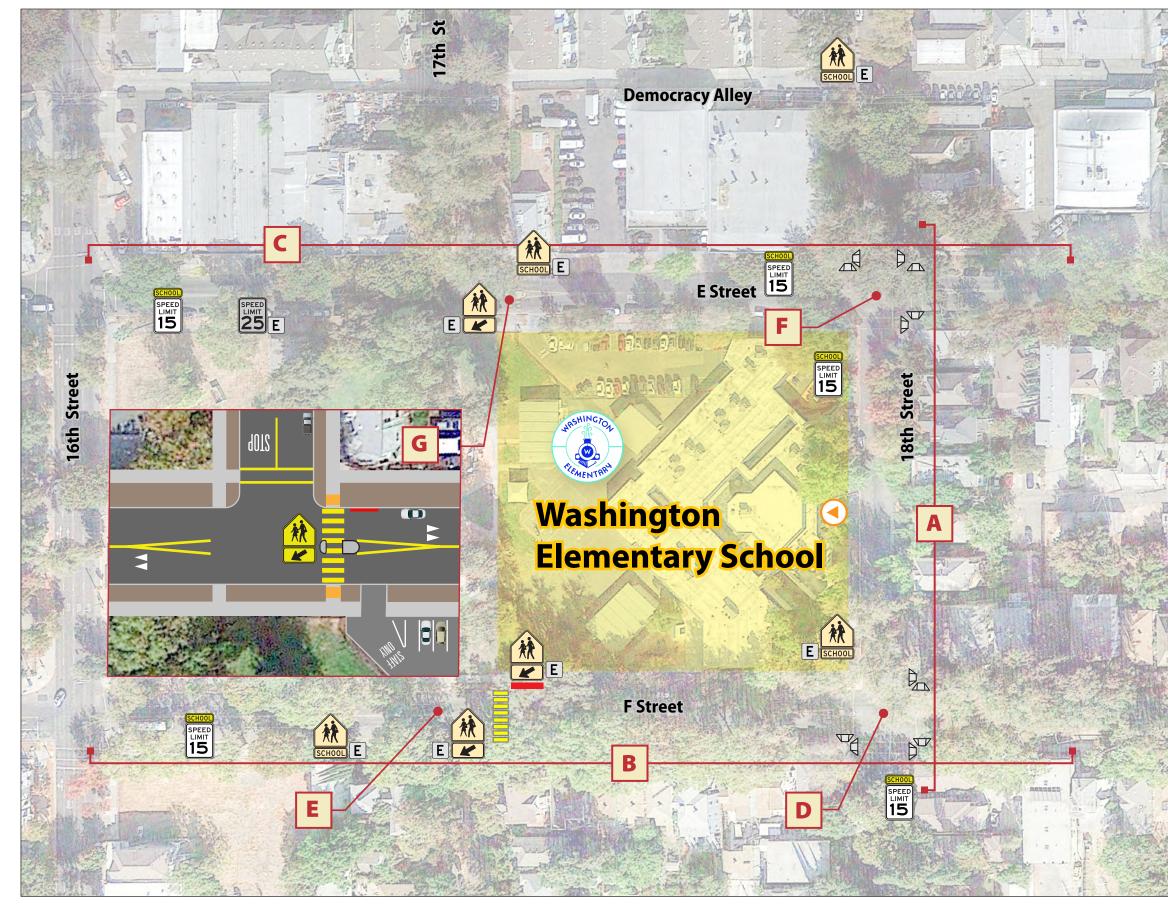
This School Safety Assessment report includes a series of recommendations for transportation infrastructure and policy improvements around Washington Elementary School. These recommendations are based on observations made during the school safety assessment, a post-assessment engineering review, and a review of concerns raised by assessment participants. The recommendations have been classified based on ease of implementation:

- Short-term Improvements, such as signing and striping, can typically be implemented within one year.
- Medium-term Improvements are improvements that may require additional planning efforts and funding and can typically be implemented within a threeyear range.
- in a three to five-plus year range. Locations are mapped on page 44.

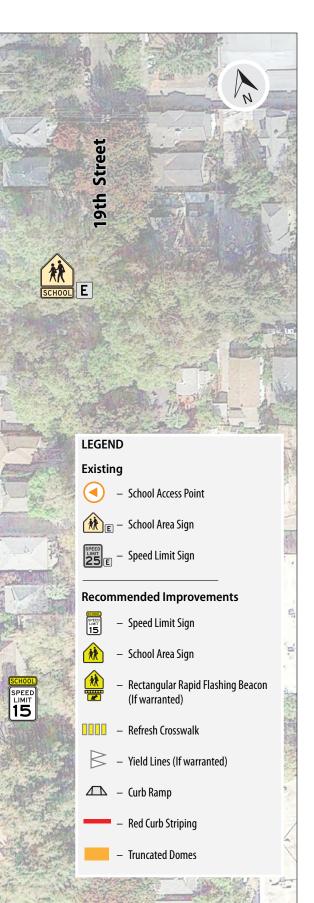
			IMPLEMENTATION			
LOCATION	OBSERVATION	RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY
A. 18th Street	A1 School administrators perceive vehicular speeding on 18th Street.	<ul> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along 18th Street within 500' of the northern and southern school boundaries – A1</li> </ul>	~			Department of Public Works
B. F Street	<b>B1</b> School administrators perceived speeding on F Street.	<ul> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along F Street within 500' of the school boundaries – B1</li> </ul>	~			Department of Public Works
C. E Street	<ul> <li>C1 School administrators perceived speeding on E Street.</li> <li>C2 School administrators reported cut-through traffic along E Street.</li> </ul>	<ul> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along E Street– C1</li> <li>Reinstall missing vertical flexible delineator at 16th Street Half Closure – C2</li> </ul>	~			Department of Public Works Department of Public Works
		<ul> <li>Work with Sacramento City Unified School District to devise traffic plan routes with school and parents, as well as traffic plans to reduce cut through traffic to the shopping plaza – C2</li> </ul>		~		Department of Public Works
D. F Street and 18th Street Intersection	D1 Existing curb ramps on the northeast, southeast, and southwest legs of the intersection are lacking truncated domes.	<ul> <li>Upgrade curb ramps at the northeast, southeast, and southwest legs of the intersection to meet ADA standard by installing truncated domes – D1</li> </ul>		~		Department of Public Works
E. F Street and 17th	E1 Students were observed crossing at the faded marked crosswalk.	Refresh existing crosswalk markings – E1	~			Department of Public Works
Street Intersection	E2 Vehicles park on the east side of the crosswalk and can obstruct the sight lines of pedestrians crossing F Street.	<ul> <li>Per California MUTCD, prohibit parking within 20' of the crosswalk by painting red curb– E2</li> </ul>	~			Department of Public Works

			IMPLEMENTATION			
LOCATION	OBSERVATION	RECOMMENDATIONS		Medium	Long	RESPONSIBILITY
F. E Street and 18th Street Intersection	F1 Existing curb ramps on the northwest, northeast, and southeast legs of the intersection are lacking truncated domes.	<ul> <li>Upgrade curb ramps at the northwest, northeast, and southeast legs of the intersection to meet ADA standard by installing truncated domes – F1</li> </ul>		~		Department of Public Works
G. E Street and 17th Street Intersection	<ul> <li>G1 Students were observed crossing at the faded marked crosswalk.</li> <li>G2 Drivers were seen failing to yield to pedestrians in the marked crosswalk</li> <li>G3 Existing curb ramps on the northern and southern legs of the crosswalk are lacking truncated domes.</li> </ul>	<ul> <li>Refresh existing crosswalk markings– G1</li> <li>Install double-sided Assembly D sign in the median island to increase driver awareness of the crosswalk – G2</li> <li>Upgrade curb ramps at the northern and southern legs of the midblock crosswalk to meet ADA standard by installing truncated domes – G3</li> </ul>	~ ~ ~			Department of Public Works Department of Public Works Department of Public Works

## SACRAMENTO SCHOOLS SAFETY ASSESSMENTS: WASHINGTON ELEMENTARY SCHOOL



WASHINGTON ELEMENTARY SCHOOL, 520 18TH STREET, SACRAMENTO



# **SACRAMENTO CHARTER HIGH SCHOOL**

# **1. SCHOOL INFORMATION**

SACRAMENTO CHARTER HIGH SCHOOL				
Address:	ess: 2315 34th Street			
School District: Sacramento City Unified School District				
City Council District:	ouncil District: District 5			
Grades:	9 – 12			
Number of Students:	950			
Arrival:	7:55 AM			
Dismissal:	3:35 PM (1:50 PM Wednesday)			

## **2. SCHOOL ACCESS**

Sacramento Charter High School fronts 34th Street, a two-lane collector street. Sacramento Charter High School, Oak Park Prep, and PS7 Middle School are all located on this site and are run by St. Hope. Two parking lots are accessed via Y Street. There is an additional parking lot on 34th Street.

There are two main bicycle and pedestrian access points to the school: a fence opening at the parking lot on 34th Street and a sidewalk leading into the school entrance on Y Street adjacent to the western parking lot.

34th Street connects two arterial roads: Stockton Boulevard and Broadway. In addition to being a popular drop-off location, 34th Street experiences substantial non-school-related traffic.

Students use Regional Transit to travel to and from schools. Transit stops are located on 34th Street, adjacent to the campus, and near the intersection of 34th Street and Broadway.

## **3. SCHOOL SAFETY ASSESSMENT**

A school safety assessment was held on Thursday, January 17, 2019. In attendance were representatives from the City of Sacramento and Parisi Transportation Consulting, as well as Sacramento Charter High School Dean of Students, and St. Hope Chief of Schools.

Assessment participants made observations during the morning drop-off period as students arrived for class. Observations included driver, bicyclist, and pedestrian travel behavior. Observations were focused on 34th Street, Y Street, and intersections along these streets based on a discussion held with the school prior to the audit. Afterward, participants reconvened to discuss observations and potential improvements.



Students gather on 34th Street as they wait for the school gate to open. Note wet landscaped area between roadway curb and sidewalk.

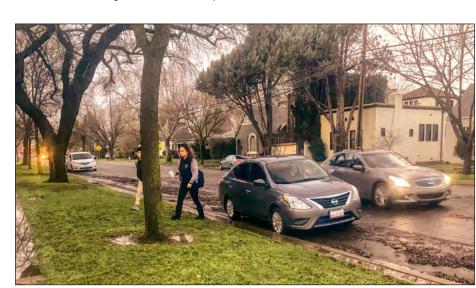




Offset driveway at the intersection of Y Street and 36th Street requires awkward vehicular movements and confusing routing for pedestrians crossing the street.



Walk audit participants discuss safety concerns around the school.



Drivers conduct drop-offs at midblock locations along 34th Street. Students must cross the grass to reach the sidewalk.



Several crosswalks along Y Street lack curb ramps.

This school safety assessment includes a series of recommendations for transportation infrastructure and policy improvements in the vicinity of Sacramento Charter High School. These recommendations are based on observations made during the school safety assessment, a post-assessment engineering review, and a review of concerns raised by assessment participants. The recommendations have been classified based on ease of implementation:

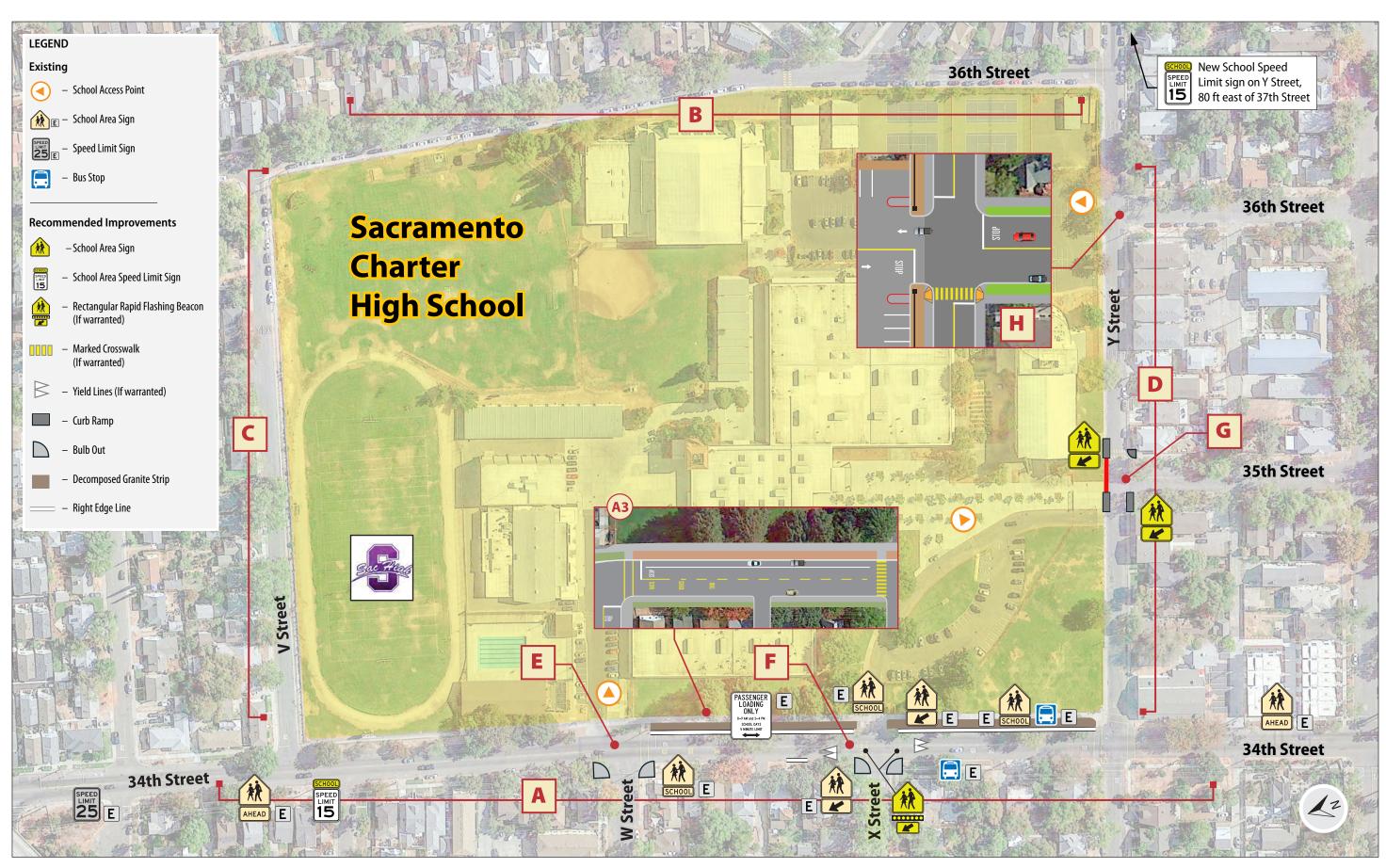
- Short-term Improvements, such as signing and striping, can typically be implemented within one year.
- Medium-term Improvements are improvements that may require additional planning efforts and funding and can typically be implemented within a threeyear range.
- in a three to five-plus year range. Locations are mapped on page 48.

			IMPLEMENTATION			
LOCATION	OBSERVATION	RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY
A. 34th Street	<ul> <li>A1 Sacramento Charter High does not have an official drop-off and pick-up procedure enforced by the school. Drop-off's and crossings occur at unmarked midblock locations and result in abrupt stops in the middle of the roadway.</li> <li>A2 School administrators reported speeding on 34th Street.</li> <li>A3 Grass strip along east side of 34th Street results in muddy drop-off's for students during inclement weather.</li> </ul>	<ul> <li>Implement and enforce a school regulated drop-off and pick-up procedure. Make the procedure guidelines available to parents and students via online messaging and/or printed hand-outs – A1</li> <li>Consider a No Parking Passenger Loading Zone timed around pick-up and drop-off times along the east side of 34th Street between V Street and W Street. If neccessary, this recommendation may be extended until Y Street – A1</li> <li>As part of city-wide school area speed reduction program, provide</li> </ul>	י י י			Sacramento Charter High Schoo Department of Public Works Department of Public Works
		<ul> <li>15 MPH school area speed limit signs along 34th Street within 500' of school grounds – A2</li> <li>Install a right edge-line on the east side of 34th Street to narrow vehicular travel lane and designate drop-off / pick-up zone – A1, A2</li> <li>Replace existing grass landscaping with decomposed granite strip – A3</li> </ul>	~	v		Department of Public Works Department of Public Works
B. 36th Street	<b>B1</b> 36th Street is a qualifying street in the City of Sacramento's school area speed reduction program.	<ul> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along 36th Street within 500' of school grounds – B1</li> </ul>	~			Department of Public Works
C. V Street	C1 V Street is a qualifying street in the City of Sacramento's school area speed reduction program.	<ul> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along V Street within 500' of school grounds – C1</li> </ul>	~			Department of Public Works
D. Y Street	D1 Y Street is a qualifying street in the City of Sacramento's school area speed reduction program.	<ul> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along Y Street within 500' of school grounds – D1</li> </ul>	~			Department of Public Works

			IMF	PLEMENTAT	ION	
LOCATION	OBSERVATION	RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY
E. 34th Street ar Street Interse		<ul> <li>Implement and enforce a standard drop-off procedure – E1</li> <li>Consider installing curb extensions (bulb-outs) at the northwest and southwest corners of the 34th and Y Street intersection, bulbing into 34th Street. Existing drainage should be taken into consideration when designing the bulb-out. In the short term, painted bulb-outs can be used – A2</li> </ul>	~		V	Sacramento Charter High School Department of Public Works
F. 34th Street ar Street Interse	5, 1	<ul> <li>Install yield markings to increase awareness of uncontrolled crossing, if warranted based on the City's Pedestrian Crossing Guidelines – F1</li> <li>Consider installation of a Rectangular Rapid Flash Beacon (RRFB), if warranted based on the City's Pedestrian Crossing Guidelines – F1</li> <li>Consider installing curb extensions (bulb-outs) at the northwest and southwest corners of the 34th and X Street intersection, bulbing into 34th Street. Existing drainage should be taken into consideration when designing the bulb-out. In the short term, painted bulb-outs can be used – F1</li> </ul>	~		v v	Department of Public Works Department of Public Works Department of Public Works
<b>G</b> 35th Street ar Street Interse	5	<ul> <li>Upgrade existing Assembly B's at the uncontrolled crossing on Y Street to be double-sided - G1</li> <li>Stripe red curb between the crosswalks on the northern side of Y Street – G2</li> <li>Install curb ramps at the northwest, northeast, and southeast corners – G3, G4</li> <li>Upgrade curb ramp at the southern leg of the western crosswalk to meet ADA standard – G5</li> </ul>	<b>v</b> <b>v</b>	~		Department of Public Works Department of Public Works Department of Public Works Department of Public Works
H 36th Street ar Street Interse	5	<ul> <li>Evaluate appropriateness for a new marked crossing with ADA compliant curb ramps and appropriate driveway clearances across Y St H1</li> <li>Consider driveway relocation to the west to create standard four-legged intersection. Short term possibilities may include a stop sign on the school driveway and/or changing the school circulation to consist of one "in" driveway and one "out" driveway – H2, H3</li> </ul>	~		•	Department of Public Works Department of Public Works / Sacramento Charter High School

| 47

## SACRAMENTO SCHOOLS SAFETY ASSESSMENTS: SACRAMENTO CHARTER HIGH SCHOOL



**SACRAMENTO CHARTER HIGH, 2315 34TH STREET, SACRAMENTO** 

# **ASPIRE CAPITOL HEIGHTS** ACADEMY

# **1. SCHOOL INFORMATION**

ASPIRE CAPITOL HEIGHTS ACADEMY			
Address: 2520 33rd Street			
School District: Sacramento City Unified School District			
City Council District: District 5			
Grades:	TK – 5		
Number of Students:	320		
Arrival:	8:15 AM		
Dismissal:	3:35 (1:00 Wednesday)		

## 2. SCHOOL ACCESS

Aspire is located peripheral to 33rd Street, a local two-lane roadway. Aspire is approximately 500 feet west from the Sacramento Charter High School campus.

The school entrance on 33rd Street provides the sole pedestrian and bicycle access point. A driveway south of the campus provides access to the parking lot. Vehicles queue in the parking lot as motorists wait to pull onto the school grounds, where cones are set out on the playground to designate a loading zone. Drivers who chose not to conduct on-campus pick-up's typically park on the surrounding residential streets and walk onto campus.

The Aspire campus is located along Broadway, a four-lane arterial. 34th Street is the main collector road feeding into Broadway, however the residential area, primarily along 33rd Street, experiences cut-through traffic and perceived high speeds as vehicles travel to Broadway.

# **3. SCHOOL SAFETY ASSESSMENT**

A school safety assessment was held on Tuesday, February 5, 2019. In attendance were representatives from the City of Sacramento and Parisi Transportation Consulting as well as the Principal of Aspire Capitol Heights Academy.

Assessment participants made observations during the afternoon pick-up period as students left campus. Observations included driver, bicyclist, and pedestrian travel behavior. Observations were focused on 33rd Street based on a discussion held with the school immediately prior to the audit. Afterward, participants reconvened to discuss their observations and potential improvements.



Cones are set out by Aspire staff to guide vehicles onto campus for student pick-up.

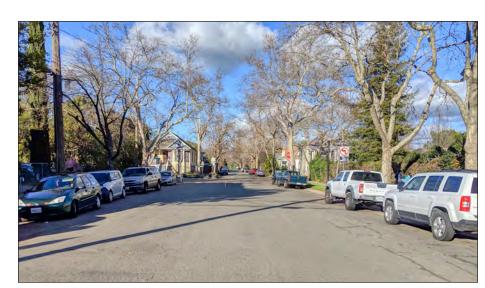




On-campus pick-up is organized by school staff and takes place on the school playground.



Street closure at 1st Avenue and Broadway prevents cut-through traffic near the school grounds.



33rd Street is a 45-foot wide roadway with on-street parking on both sides.



Broadway is a 65-foot wide arterial roadway. School administrators reported high speeds along Broadway

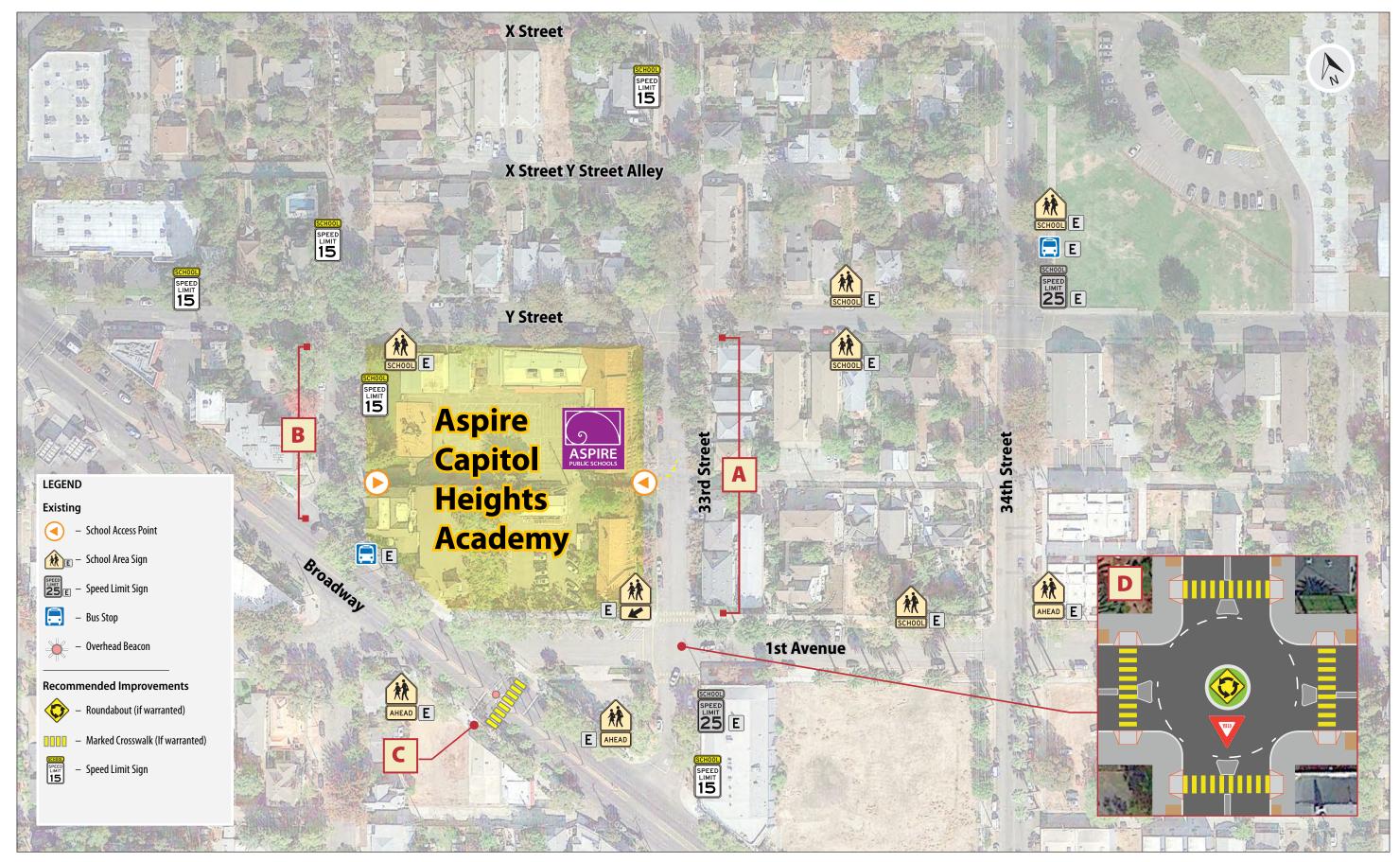
The parking lot behind the school where vehicles queue before student pick-up on the playground.

This School Safety Assessment report includes a series of recommendations for transportation infrastructure and policy improvements around Aspire Capitol Heights Academy. These recommendations are based on observations made during the school safety assessment, a post-assessment engineering review, and a review of concerns raised by assessment participants. The recommendations have been classified based on ease of implementation:

- Short-term Improvements, such as signing and striping, can typically be implemented within one year.
- Medium-term Improvements are improvements that may require additional planning efforts and funding and can typically be implemented within a threeyear range.
- in a three to five-plus year range. Locations are mapped on page 51.

LOCATION	OBSERVATION	RECOMMENDATIONS	IMPLEMENTATION			RESPONSIBILITY	
LOCATION	OBJERVATION	RECOMMENDATIONS	Short	Medium	Long		
A. 33rd Street	<ul> <li>A1 School administrators perceive that speeding occurs on 33rd Street.</li> <li>A2 Vehicles were observed double parking along 33rd Street.</li> <li>A3 School administrators reported vehicle cut-through traffic using 33rd Street to reach Broadway.</li> <li>A4 School access door leads directly into driveway at the south end of the campus building on the west side of 33rd Street. Drive aisle is delineated with cones.</li> </ul>	<ul> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along 33rd Street – A1</li> <li>Parking services to enforce parking along 33rd Street – A2</li> <li>Study feasibility of constructing a raised curb and/or railing at the school driveway to reduce likelihood of students darting into traffic. Consider whether such a feature may interfere with existing swinging gate – A4</li> </ul>	<b>v</b> <b>v</b>	~		Department of Public Works Department of Public Works Aspire Capirol Heights Academy	
B. 32nd Street	<b>B1</b> School administration observed high vehicular speeds along this 40-foot wide roadway	<ul> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along 32rd Street – B1</li> </ul>	~			Department of Public Works	
C. Broadway and 1st Street Intersection	C1 Students were observed using the crosswalk with hybrid beacon. The crosswalk at this location lacks high visibility markings.	<ul> <li>Upgrade the existing crosswalk markings to yellow high-visibility markings</li> <li>– C1</li> </ul>	•			Department of Public Works	
D. 33rd Street and 1st Street Intersection	D1 Wide intersection with the perception of high travel speeds in the northbound and southbound direction.	<ul> <li>Study adding mini-roundabout or other raised feature for intersection traffic calming * – D1</li> </ul>		~		Department of Public Works	

\* A planned complete streets project will recommend making 33rd Street right-in/right-out only by installing a center median on Broadway at this location. This may help reduce the volume of vehicles traveling on 33rd Street.



**ASPIRE CAPITOL HEIGHTS ACADEMY, 2520 33RD STREET, SACRAMENTO** 

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| 52

# **ST. HOPE PS 7**

# **1. SCHOOL INFORMATION**

ST. HOPE PS7	
Address:	5201 Strawberry Lane
School District:	Sacramento City Unified School District
City Council District:	District 5
Grades:	К-5
No. of Students:	300
Arrival:	8:30 AM
Dismissal:	3:00 PM (1:15 Wed.) TK–1st   3:45 PM (1:45 Wed.) 2nd–5th

## **2. SCHOOL ACCESS**

PS7 is accessed via Strawberry Lane. Strawberry Lane is a local road which deadends south of 27th Avenue. PS7 is about a quarter-mile from the intersection of two arterial roads: Fruitridge Road and Martin Luther King Jr. Boulevard (MLK Jr. Blvd). A staff parking lot is located along the north perimeter of school grounds and limited visitor parking is available on the school frontage along Strawberry Lane.

Pedestrian, bicycle, and vehicle access to PS7 is available only along Strawberry Lane. PS7 staff members assist students in and out of their vehicles on Strawberry Lane, and monitor the traffic flow.

MLK Jr. Blvd is a major street in the vicinity of to PS7. Vehicles traveling to PS7 must use MLK Jr. Blvd to access the school. The street has no marked crosswalks in the vicinity of the school. South of the school is a large undeveloped area of land occasionally used by students as a cut-through path to MLK Jr. Blvd.

Students use Regional Transit to travel to and from school. Students were observed using the transit stops on either side of MLK Jr. Blvd.

# **3. SCHOOL SAFETY ASSESSMENT**

A school safety assessment was held on Thursday, January 17, 2019. In attendance were representatives from the City of Sacramento and Parisi Transportation Consulting. PS7 was represented by the Principal, the Dean of Students, and the St. Hope Chief of Schools.

Participants made observations during the afternoon pick-up period as students left campus. Observations included driver, bicyclist, and pedestrian travel behavior. Observations were focused on Strawberry Lane, 26th Avenue, and MLK Jr. Blvd based on a discussion held with the school immediately prior to the audit. Afterward, participants reconvened to discuss their observations and potential improvements.



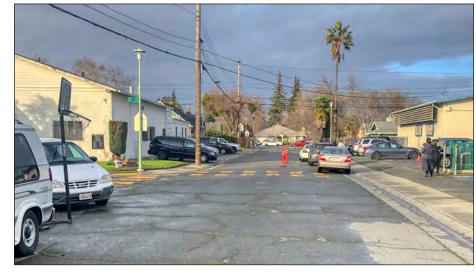
Crosswalk marking across Strawberry Lane at 27th Street is worn and should be refreshed.



Vehicles waiting to access Strawberry Lane loading zone queue on 27th Avenue.



School staff assists afterschool pick-up by walking students to their rides waiting on Strawberry Lane.



Location of afterschool pick-up zone on Strawberry Lane. School staff assists pick-up and release students one by one as their ride arrives.



Parking on Martin 26th Street .



Vehicles parking on both sides of 26th Avenue leave approximately 12' for vehicle travel.

Parking on Martin Luther King Jr Boulevard obstructs sight lines for vehicles approaching from eastbound

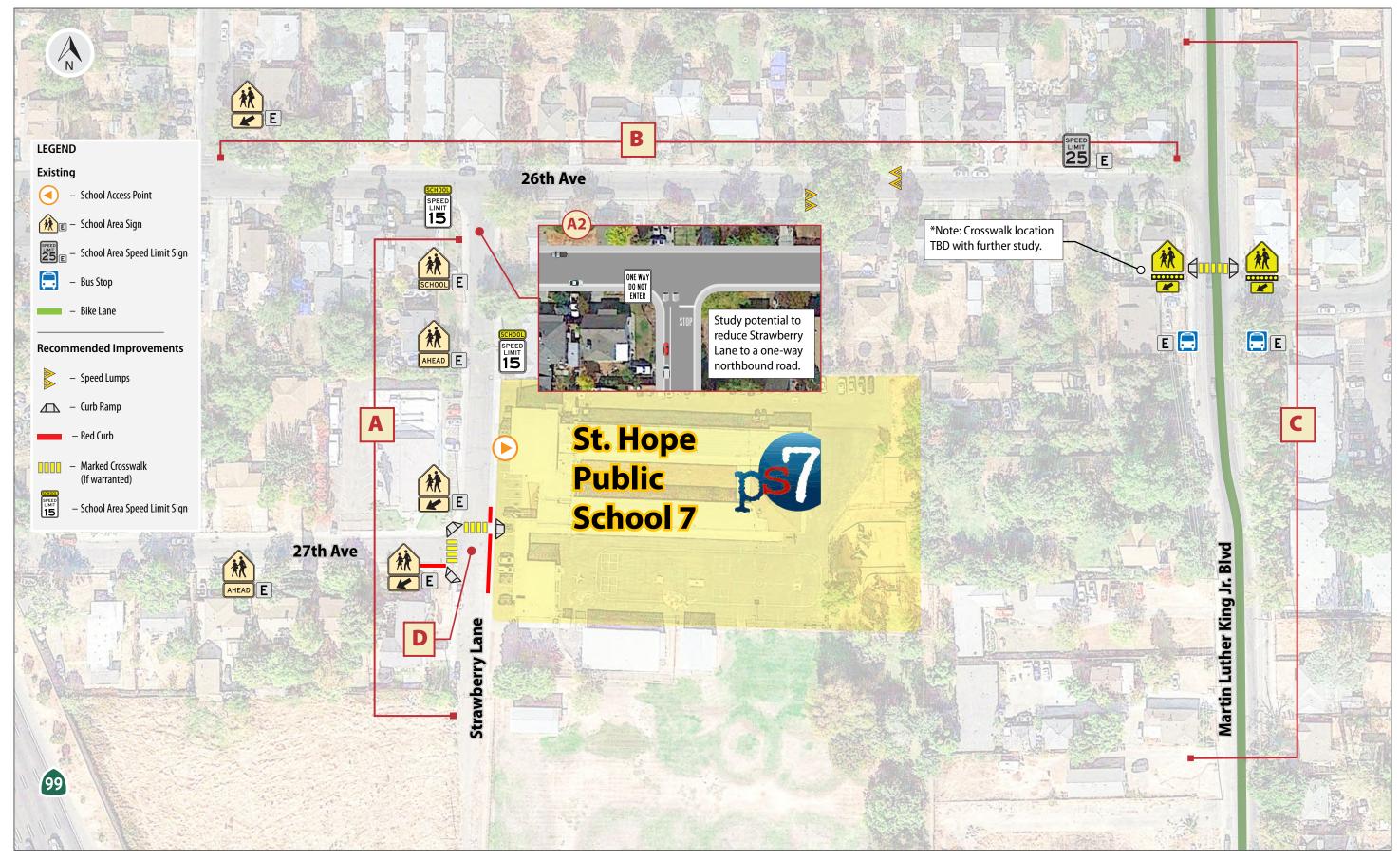


This school safety assessment includes a series of recommendations for transportation infrastructure and policy improvements in the vicinity of PS7. These recommendations are based on observations made during the school safety assessment, a post-assessment engineering review, and a review of concerns raised by assessment participants. The recommendations have been classified based on ease of implementation:

- Short-term Improvements, such as signing and striping, can typically be implemented within one year.
- Medium-term Improvements are improvements that may require additional planning efforts and funding and can typically be implemented within a threeyear range.
- in a three to five-plus year range. Locations are mapped on page 55.

			IMPLEMENTATION			
LOCATION	OBSERVATION	RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY
A. Strawberry Lane	<ul> <li>A1 Strawberry Lane is a qualifying street in the City of Sacramento's school area speed reduction program.</li> <li>A2 Left turns onto Strawberry Lane from 26th Street are discouraged by the school, however not all parents comply.</li> </ul>	<ul> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along Strawberry Lane within 500' of the school grounds</li> <li>Study reducing Strawberry Lane to a one-lane northbound road, potentially only during school commute times – A2</li> </ul>	~	~		Department of Public Works Department of Public Works
B. 26th Avenue	B1 School administrators reported speeding on 26th Avenue. Vehicles were observed traveling around other vehicles, both parked or moving.	<ul> <li>Install speed lumps on 26th Avenue, if warranted based on the City's Speed Lump Program guidelines – B1</li> </ul>		~		Department of Public Works
C. Martin Luther King Jr. Boulevard	<ul> <li>C1 Motorist behavior was described to consist of "erratic" and "high speeds" by audit attendees. Attendees noted that motorists using MLK Jr. Boulevard are often unaware of the presence of a school.</li> <li>C2 Students were observed crossing MLK Jr. Boulevard at unmarked midblock locations. Bus stops used by students are located on MLK Jr. Boulevard. Accessing the northbound stop requires crossing MLK Boulevard.</li> </ul>	<ul> <li>Evaluate appropriateness for a new marked crossing with ADA standard curb ramps and appropriate driveway clearances across Martin Luther King Jr. Boulevard at 26th Avenue. Consider installation of Rectangular Rapid Flash Beacon (RRFB) at the potential crosswalk, if warranted based on the City's Pedestrian Crossing Guidelines – C1, C2</li> </ul>	~			Department of Public Works
D. Strawberry Lane and 27th Street Intersection	<ul> <li>D1 Students were observed crossing at the faded marked crosswalk at the intersection of Strawberry Lane and 27th Street.</li> <li>D2 Intersection lacks red curb at all corners</li> <li>D3 Existing curb ramps at the northwest, southwest, and northeast legs of the intersection do not meet ADA standard</li> </ul>	<ul> <li>Refresh existing crosswalk striping – D1</li> <li>Install a minimum of 20' of red curb ahead of the eastbound, southbound and northbound approaches – D2</li> <li>Upgrade curb ramps at the northwest, southwest and northeast legs of the intersection to meet ADA standard</li> </ul>	<b>v</b> <b>v</b>	~		Department of Public Works Department of Public Works Department of Public Works

#### SACRAMENTO SCHOOLS SAFETY ASSESSMENTS: ST. HOPE PS7



**ST. HOPE PS7, 5201 STRAWBERRY LANE, SACRAMENTO** 

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56

# **BRET HARTE ELEMENTARY SCHOOL**

# **1. SCHOOL INFORMATION**

BRET HARTE ELEMENTARY SCHOOL					
Address:	2751 9th Avenue				
School District:	Sacramento City Unified School District				
City Council District:	District 5				
Grades:	К – б				
Number of Students:	270				
Arrival:	8:00 AM				
Dismissal:	2:12 PM (1:12 Thursday)				

## **2. SCHOOL ACCESS**

Bret Harte Elementary, located in the Curtis Park neighborhood, fronts 9th Avenue, a two-lane local road. Franklin Boulevard, a minor arterial, runs in the north-south direction along the eastern bounds of the campus. The school is bounded by 7th Avenue to the north and 9th Avenue to the south.

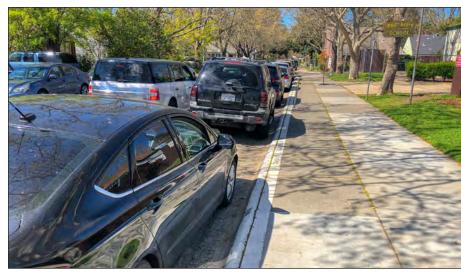
Marked off-campus loading zones are located on the north side of 9th Avenue, designated for kindergarten through third grade, and on the south side of 7th Avenue, used for fourth through sixth grades.

The primary pedestrian and bicycle access is provided through the school entrance on 9th Avenue. Additional access is provided via a gate on 7th Avenue. A staff parking lot is accessed through a driveway on 9th Avenue. On-street parking in the vicinity of the school is used by parents and visitors.

# **3. SCHOOL SAFETY ASSESSMENT**

A school safety assessment was held on Friday, March 29, 2019. In attendance were the Principal of Bret Harte Elementary School and representatives from the City of Sacramento and Parisi Transportation Consulting.

Assessment participants made observations during the afternoon school commute period. Observations included pedestrian, bicyclist and driver behavior as students departed school. Observations were focused on Franklin Boulevard, 9th Avenue, 7th Avenue, and intersections along these streets based on a discussion held with the school principal prior to the audit. Participants reconvened afterward to discuss their observations and suggest potential improvements.



School representatives report that parked vehicles along 8th Street are a combination of residential vehicles and school staff vehicles, and remain parked in the loading zone through the course of the day.



Existing school warning assembly on 7th Avenue is obstructed by overgrown landscaping.



A school bus picks up students at the back-school entrance on 7th Avenue



9th Avenue adjacent to the school.



Franklin Boulevard runs adjacent to the school and is a highly trafficked and wide arterial street. School representatives perceive speeding along the street.



There is a crosswalk with rectangular rapid flashing beacon at the intersection of Franklin Boulevard and





The existing crosswalk at 7th Avenue and Cutter Way lacks ADA -accessible curb ramps.

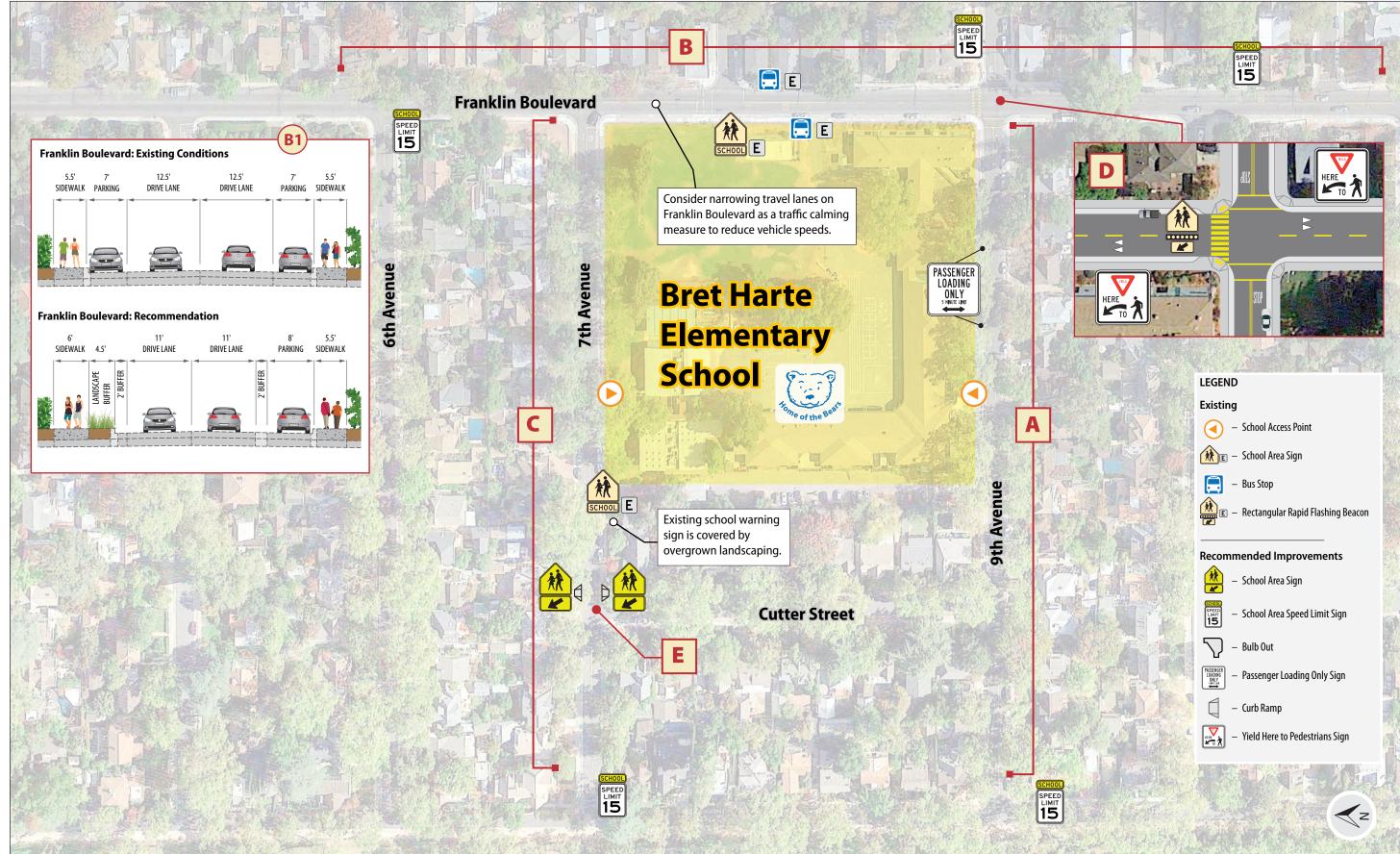
This School Safety Assessment report includes a series of recommendations for transportation infrastructure and policy improvements in the vicinity of Bret Harte Elementary School. These recommendations are based on observations made during the school safety assessment, a post-assessment engineering review, and a review of concerns raised by assessment participants. The recommendations have been classified based on ease of implementation:

- Short-term Improvements, such as signing and striping, can typically be implemented within one year.
- Medium-term Improvements are improvements that may require additional planning efforts and funding and can typically be implemented within a threeyear range.
- in a three to five-plus year range. Locations are mapped on page 60.

	ODCEDIVATION		IMPLEMENTATION			
LOCATION	OBSERVATION	RECOMMENDATIONS	Short	Short Medium Long		RESPONSIBILITY
A. 9th Avenue	A1 School administration reports that motorists park in the designated loading zone throughout the entire school day. As a result, parents tend to	<ul> <li>Work with Parking Division to provide time limited load times coupled with parking enforcement – A1</li> </ul>	~			Department of Public Works
	temporarily double park in the loading zone when conducting drop-offs and pick-ups.	<ul> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along 9th Avenue between Franklin Boulevard</li> </ul>	~			Department of Public Works
	A2 School administrators perceive that speeding occurs along 9th Avenue.	and E Curtis Drive – A2				
<b>B.</b> Franklin Boulevard	<b>B1</b> School administrators perceive speeding occurs along Franklin Boulevard; this is a major concern to them.	<ul> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along Franklin Boulevard between 6th Street and 10th Street – B1</li> </ul>	~			Department of Public Works
		<ul> <li>Study potential for traffic calming measures such as widening sidewalks, narrowing lanes, and providing a parking-lane buffer. The map on page 60 provides a recommendation for consideration – B1</li> </ul>			~	Department of Public Works
C. 7th Avenue	C1 Existing school warning sign (Assembly A) is covered by overgrown landscaping.	<ul> <li>Perform regular landscaping maintenance to the trees on 7th Avenue so they do not obstruct existing school warning signs – C1</li> </ul>	~			Bret Harte Elementary
	C2 School administrators perceive that speeding occurs along 7th Avenue.	<ul> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along 7th Avenue between Franklin Boulevard and E Curtis Drive – C2</li> </ul>	•			Department of Public Works

	LOCATION	OBSERVATION	RECOMMENDATIONS	IMPLEMENTATION			RESPONSIBILITY	
	LOCATION	OBSERVATION	RECOMMENDATIONS	Short	Medium	Long		
D.	Franklin Boulevard and 9th Avenue Intersection	D1 School administrators report that motorists fail to yield to pedestrians when the pedestrians are crossing Franklin Boulevard at 9th Street.	<ul> <li>Install yield markings and "Yield Here to Pedestrians" signs ahead of the RRFB controlled crosswalk to increase awareness of the crossing – D1</li> <li>Consider installing curb extensions (bulb-outs) at northeast and northwest corners of the Franklin Boulevard and 9th Avenue intersection, bulbing into Franklin Boulevard. Existing drainage should be taken into consideration when designing the bulb-out. In the short term, painted bulb-outs can be used - D1</li> </ul>	~	~		Department of Public Works Department of Public Works	
E.	7th Avenue and Cutter Way Intersection	<ul> <li>E1 Uncontrolled marked crosswalk at this intersection lacks school crosswalk signage.</li> <li>E2 The existing crosswalk lacks a curb ramp at the north and south legs.</li> </ul>	<ul> <li>Install School Area Sign Assembly B at the uncontrolled crossing on 7th Avenue per CA MUTCD – E1</li> <li>Install ADA compliant curb ramps at the north and south legs of the marked crosswalk – E2</li> </ul>	~	~		Department of Public Works Department of Public Works	

## SACRAMENTO SCHOOLS SAFETY ASSESSMENTS: BRET HARTE ELEMENTARY SCHOOL



**BRET HARTE ELEMENTARY SCHOOL, 2751 9TH AVENUE, SACRAMENTO** 

60

# **FATHER KEITH B. KENNY ELEMENTARY SCHOOL**

# **1. SCHOOL INFORMATION**

FATHER KEITH B. KENNY ELEMENTARY SCHOOL						
Address:	3525 Martin Luther King Jr. Boulevard					
School District:	Sacramento City Unified School District					
City Council District:	District 5					
Grades:	К-б					
Number of Students:	340					
Arrival:	8:00 AM					
Dismissal:	12:55 PM Kindergarten (12:37 Thursday) 2:07 PM Grades 1 – 3 (1:07 Thursday) 2:12 PM Grades 4-6 (1:12 PM Thursday)					

## **2. SCHOOL ACCESS**

Father Keith B. Kenny Elementary is located on Martin Luther King Jr. Boulevard, a two-lane minor arterial road south of US-50 and east of SR-99 in the Oak Park neighborhood.

The school's main pedestrian, bicycle, and vehicle access is provided via two driveways accessed from Martin Luther King Jr. Boulevard. The south entry driveway provides access to the school bus loading zone and a staff parking lot on the south side of school grounds. The north entry driveway provides access to a second, larger staff and visitor parking lot on the north side of school grounds. The north lot is the designated student drop-off / pick-up zone. Both the north and south parking lots / loading zones have separate exit driveways.

# **3. SCHOOL SAFETY ASSESSMENT**

A school safety assessment was held on March 21, 2019. In attendance were representatives from the City of Sacramento, Parisi Transportation, and the principal of Father Keith B. Kenny Elementary.

Assessment participants made observations during the morning drop-off period as students arrived on campus. These included driver, bicyclist, and pedestrian travel behavior. Observations were focused on Martin Luther King Jr. Boulevard based on a discussion held with school staff immediately prior to the audit. Afterward, participants reconvened to discuss their observations and potential improvements.



Some parents drop students off in the designated school bus loading zone.



and a school crosswalk warning sign.



On-street parking is prohibited on Martin Luther King Jr. Boulevard in front of the school. The area is used as a loading zone during pick-up and drop-off times.



Some curb ramps near the school do not meet ADA-standards. The push buttons pictured at MLK Jr. Blvd / 9th Ave. are not accessible due to barriers in the sidewalk



The northbound vehicle lanes in front of the school are between 16 and 20 feet wide.



A crosswalk in the school neighborhood with bulb-outs and high-visibility crosswalk markings.

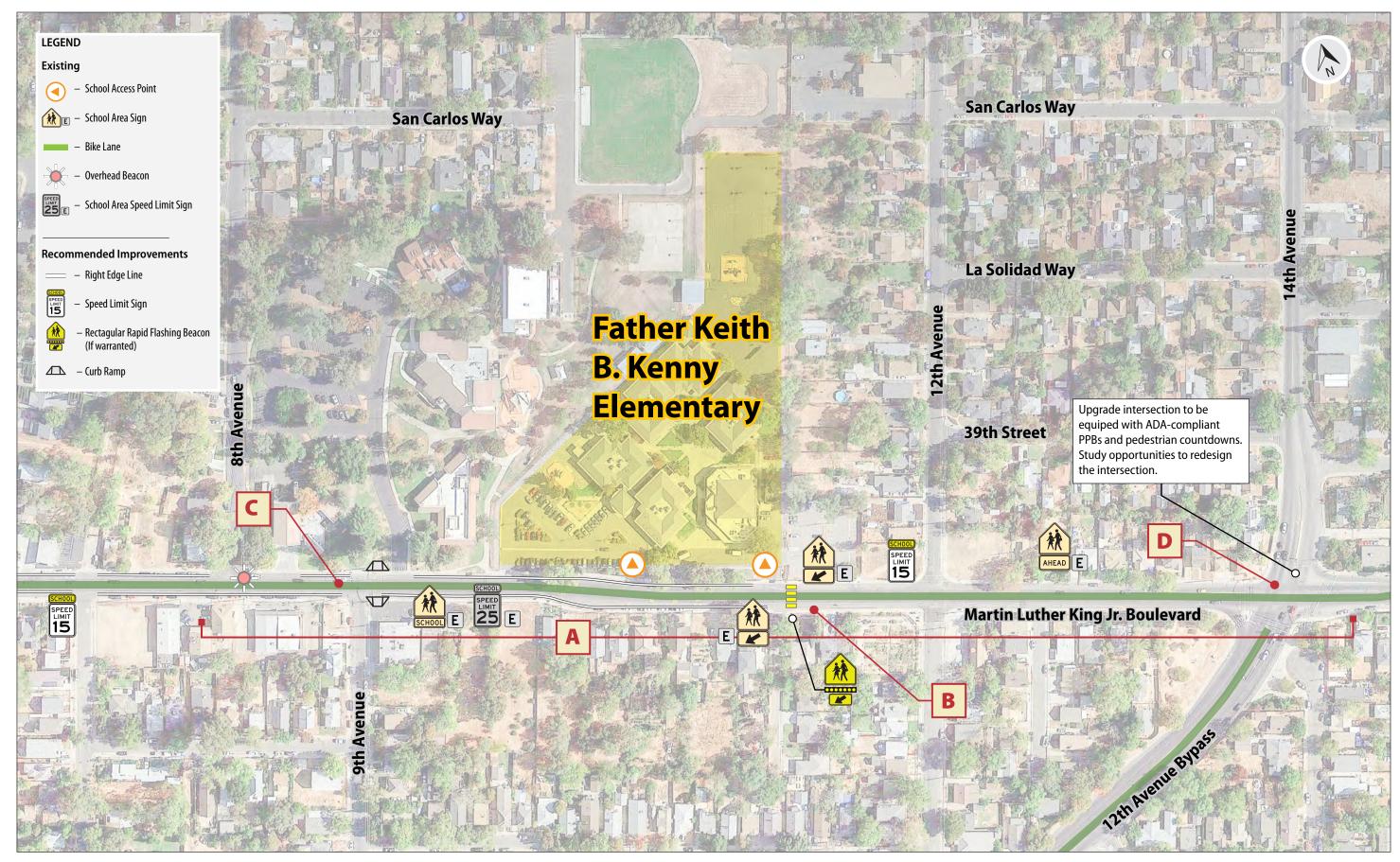


This School Safety Assessment report includes a series of recommendations for transportation infrastructure and policy improvements in the vicinity of Father Keith B. Kenny Elementary. These recommendations are based on observations made during the school safety assessment, a post-assessment engineering review, and a review of concerns raised by assessment participants. The recommendations have been classified based on ease of implementation:

- Short-term Improvements, such as signing and striping, can typically be implemented within one year.
- Medium-term Improvements are improvements that may require additional planning efforts and funding and can typically be implemented within a threeyear range.
- in a three to five-plus year range. Locations are mapped on page 63.

				IMPLEMENTATION		ION		
	LOCATION	OBSERVATION	RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY	
	Martin Luther King Jr. Boulevard	A1 School administrators perceive that vehicular speeding occurs along MLK Jr Boulevard.	<ul> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along MLK Jr Boulevard – A1</li> </ul>	~			Department of Public Works	
		A2 Marked crosswalks on MLK Jr. Blvd south of school grounds are spaced 800 feet apart (11th Avenue to 12th Ave. Bypass / 14th Ave).	<ul> <li>Stripe a right edge line to establish consistent 11-foot lanes. Use the extra roadway width to widen the existing bike lane and add a striped horizontal buffer – A1</li> </ul>	~			Department of Public Works	
			<ul> <li>Evaluate appropriateness for a new marked crossing with ADA compliant curb ramps and appropriate driveway clearances at MLK Jr Blvd / 12th Avenue – A2</li> </ul>		~		Department of Public Works	
	Martin Luther King Jr Boulevard and 11th Avenue Intersection	<b>B1</b> Drivers were observed failing to yield to pedestrians in the crosswalk.	<ul> <li>Consider installation of a Rectangular Rapid Flash Beacon (RRFB), if warranted based on the City's Pedestrian Crossing Guidelines. – B1</li> </ul>		~		Department of Public Works	
-	Martin Luther King Jr. Boulevard and 9th Avenue Intersection	C1 The curb ramps at the southwest and southeast corners are not ADA- compliant. The SW corner pedestrian push buttons are obstructed by pedestrian barriers and telecommunications equipment.	<ul> <li>Reconstruct the curb ramps and sidewalk at the southwest corner to provide a continuous accessible route – C1</li> <li>Reconstruct the curb ramps and sidewalk at the southeast corner – C2</li> </ul>		ン ン		Department of Public Works Department of Public Works	
D	Martin Luther King Jr. Boulevard	D1 Drivers were observed failing to yield to pedestrians waiting to cross at the right turn channel on the northwest corner.	<ul> <li>Monitor and maintain the tree to ensure it does not obstruct the view at the northwest corner – D1</li> </ul>	~			Property Owner	
	/ 12th Avenue Bypass / 14th Avenue	D2 Pedestrian push buttons (PPBs) at the southwest and southeast corners are not ADA-compliant. Pedestrian signal heads are not the countdown type.	<ul> <li>Replace non-ADA-compliant PPBs with accessible PPBs. Upgrade existing pedestrian signal heads with countdown type – D2</li> </ul>		~		Department of Public Works	
	Intersection	<b>D3</b> Drivers were observed encroaching into the crosswalk to make right turns while pedestrians were crossing.	<ul> <li>Study opportunities to redesign the intersection to reduce corner curb radii and the number of approach lanes – D3</li> </ul>		~		Department of Public Works	

#### SACRAMENTO SCHOOLS SAFETY ASSESSMENTS: FATHER KEITH B. KENNY ELEMENTARY SCHOOL



FATHER KEITH B. KENNY ELEMENTARY SCHOOL, 3525 MARTIN LUTHER KING JR. BOULEVARD, SACRAMENTO

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64

# **OAK RIDGE ELEMENTARY SCHOOL**

# **1. SCHOOL INFORMATION**

OAK RIDGE ELEMENTARY SCHOOL					
Address: 4501 Martin Luther King Jr. Boulevard					
School District: Sacramento City Unified School District					
City Council District:	District 5				
Grades:	К-б				
Number of Students:	500				
Arrival:	8:30 AM				
Dismissal:	3:15 PM				

## **2. SCHOOL ACCESS**

Oak Ridge is located on Martin Luther King Jr Boulevard, a two-lane arterial road within the South Oak Park neighborhood. A loading loop is located on campus, accessed via Martin Luther King Jr. Boulevard, and connects to the staff parking lot.

The main pedestrian, bicycle, and vehicle access to Oak Ridge is available through the entrance on Martin Luther King Jr. Boulevard. An additional pedestrian and bicycle access point is available through a gate on Mendocino Road, which leads to County right-of-way.

Martin Luther King Jr. Boulevard experiences substantial non-school related traffic. Oak Ridge is approximately 500' south of Christian Brothers High School. High school traffic during the morning and afternoon peak periods further increases vehicle activity along Martin Luther King Jr. Boulevard.

# **3. SCHOOL SAFETY ASSESSMENT**

A school safety assessment was held on Wednesday, January 30th, 2019. In attendance were representatives from the City of Sacramento and Parisi Transportation Consulting as well as the Principal of Oak Ridge Elementary.

Assessment participants made observations during the afternoon pick-up period as students left campus. Observations included driver, bicyclist, and pedestrian travel behavior. Observations were focused on Martin Luther King Jr. Boulevard based on a discussion held with the school immediately prior to the audit. Afterward, participants reconvened to discuss their observations and potential improvements. Walk audit participants also used the previous Walk Audit report prepared by Walk Sacramento for reference.



Cones are set out by the Oak Ridge staff to designate the loading loop procedure.





A volunteer crossing guard assists school crossings at the Martin Luther King Jr Boulevard and 21st Street intersection.



Two schools operating on similar bell schedules and located within 500' feet of each other cause congestion on Martin Luther King Jr Boulevard during morning and afternoon peak periods.



There is limited visibility for vehicles turning left out of the school driveway onto Martin Luther King Jr Boulevard.



pick-up.

Driveway entrance gate closes 15 minutes before the release bell. Vehicles arriving after the gates close use Martin Luther King Jr Boulevard for pick-up.

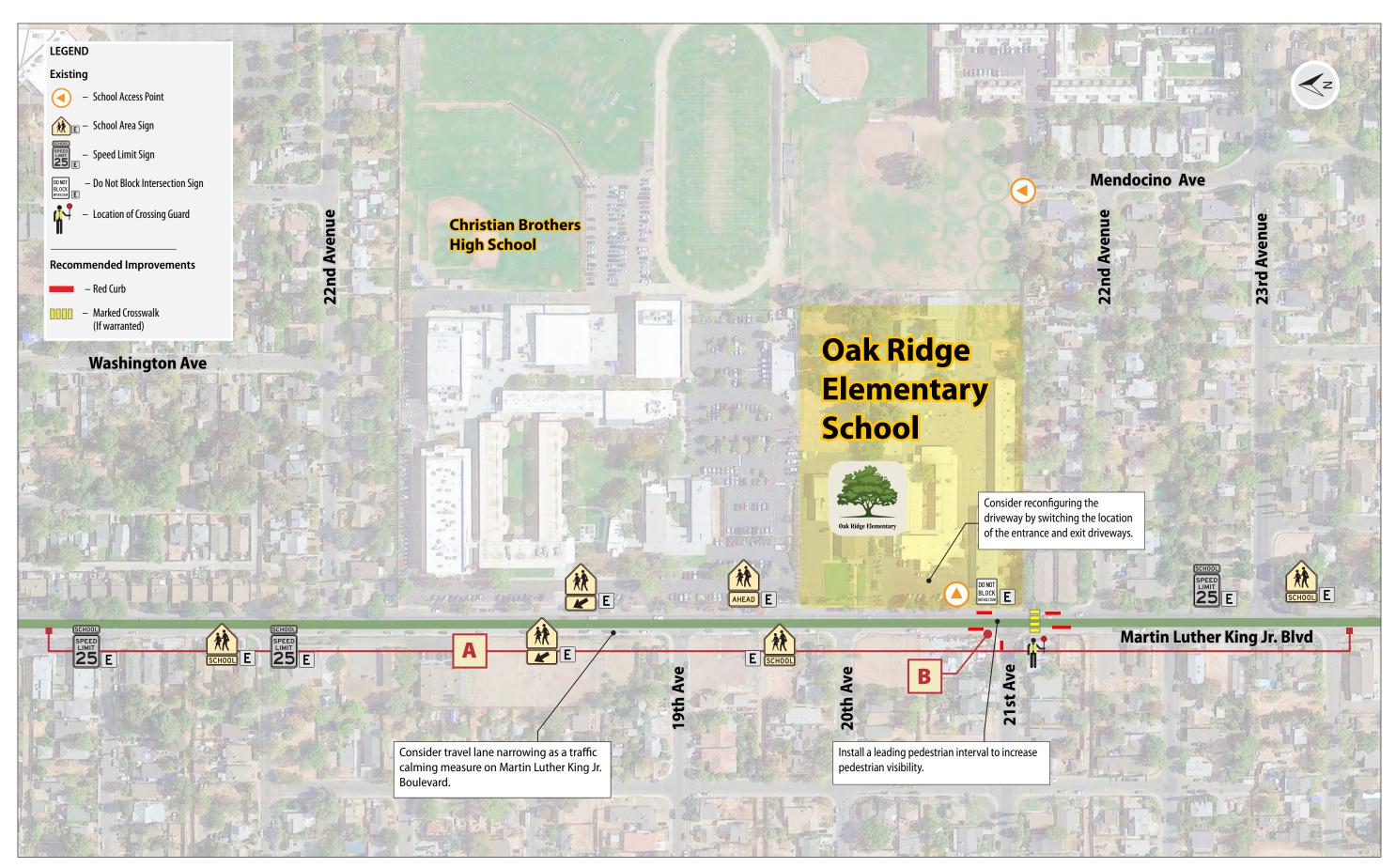
Drivers use the no parking zone on Martin Luther King Jr Boulevard as a loading zone during afternoon

This School Safety Assessment report includes a series of recommendations for transportation infrastructure and policy improvements around Oak Ridge Elementary. These recommendations are based on observations made during the school safety assessment, a post-assessment engineering review, and a review of concerns raised by assessment participants. The recommendations have been classified based on ease of implementation:

- Short-term Improvements, such as signing and striping, can typically be implemented within one year.
- Medium-term Improvements are improvements that may require additional planning efforts and funding and can typically be implemented within a threeyear range.
- in a three to five-plus year range. Locations are mapped on page 67.

			IMPLEMENTATION		ION	
LOCATION	OBSERVATION	RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY
A. Martin Luther King Jr. Boulevard	<ul> <li>A1 School administrators reported speeding on Martin Luther King Jr. Boulevard.</li> <li>A2 Students were observed walking north on Martin Luther King Jr. Boulevard after school. Martin Luther King Jr. Boulevard has a limited number of marked crosswalks in the vicinity of the school.</li> <li>A3 Drivers do not pull all the way forward when using the loading/unloading loop, causing vehicle congestion to backup onto Martin Luther King Jr. Boulevard.</li> <li>A4 Christian Brothers High School is adjacent to Oak Ridge. Similar bell times cause a high volume of school-related congestion on Martin Luther King Jr. Boulevard.</li> </ul>	<ul> <li>Consider narrowing travel lanes to 10' to reduce vehicle speeds by restriping the existing right edge lines – A1</li> <li>Consider reconfiguring the driveway by switching the location of the entrance and exit in order to encourage vehicles to pull all the way up before stopping – A3</li> <li>Consider altering school bell schedule in order to be offset from the high school bell schedule to reduce conflict – A4</li> </ul>		レ レ レ		Department of Public Works Oak Ridge Elementary School Oak Ridge Elementary School / Sacramento City Unified School District
<b>B.</b> 21st Avenue and Martin Luther King Jr. Boulevard Intersection	<ul> <li>B1 Intersection lacks red curb at all approaches.</li> <li>B2 School administrators report that some motorists traveling northbound on Martin Luther King Jr. Boulevard run the red light and block the intersection.</li> <li>B3 School administrators report that some motorists do not yield to pedestrians when making left turns from 21st Avenue onto northbound Martin Luther King Jr. Boulevard, regardless of the presence of the school crossing guard.</li> </ul>	<ul> <li>Install and/or refresh a minimum of 20' of red curb ahead of all legs of the intersection – B1</li> <li>Install and/or refresh a minimum of 10' after all legs of the intersection – B1</li> <li>Install "Do Not Block Intersection" sign on the mast arm pole on in the northbound travel lane of Martin Luther King Jr. Boulevard – B2</li> <li>Install a leading pedestrian interval (LPI) for the Martin Luther King Jr. Boulevard crossing to increase pedestrian visibility – B3</li> <li>Evaluate appropriateness for a new marked crossing with ADA compliant curb ramps and appropriate driveway clearances across Martin Luther King Jr. Boulevard south of 21st Ave. – B3</li> </ul>	ン ン ン	r r		Department of Public Works Department of Public Works Department of Public Works Department of Public Works

## SACRAMENTO SCHOOLS SAFETY ASSESSMENTS: OAK RIDGE ELEMENTARY SCHOOL



OAK RIDGE ELEMENTARY SCHOOL, 4501 MARTIN LUTHER KING JR. BOULEVARD, SACRAMENTO

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68

# WEST CAMPUS HIGH SCHOOL

# **1. SCHOOL INFORMATION**

WEST CAMPUS HIGH SCH	100L
Address:	5022 58th Street
School District:	Sacramento City Unified School District
City Council District:	District 6
Grades:	9–12
Number of Students:	800
Arrival:	8:10 AM
Dismissal:	3:07 PM (3:07 PM Thursday)

#### **2. SCHOOL ACCESS**

West Campus is located on 58th Street, a local two-lane roadway. A parking lot and loading loop is accessed via 58th Street. Mark Twain Elementary School is adjacent to West High to the north.

The sole pedestrian, bicycle and vehicle access to West Campus is available via the campus entrance and loading loop on 58th Street.

Fifty-eighth (58th) Street connects to Fruitridge Road, four-lane arterial roadway with a continuous two-way left-turn lane, about 750' south of the school. A majority of the vehicles traffic arriving at West Campus arrives via 58th Street and Stockton Boulevard, another principal arterial.

## **3. SCHOOL SAFETY ASSESSMENT**

A school safety assessment was held on Tuesday, February 5, 2019. In attendance were representatives from the City of Sacramento and Parisi Transportation Consulting as well as the Principal of West Campus High School.

Assessment participants made observations during the morning drop-off period as students arrived for class. Observations included driver, bicyclist, and pedestrian travel behavior. Observations were focused on 58th Street based on a discussion held with the school immediately prior to the audit. Afterward, participants reconvened to discuss their observations and potential improvements.



Existing uncontrolled crosswalk in front of West Campus entrance.



Existing speed lumps on 58th Street.



Vehicles use red no parking zone as a curbside drop-off location.



school driveway.



peak period.



Vehicle stopped in the crosswalk in front of the school entrance as a student attempts to cross.

Vehicles conducting curbside drop-off's in 58th Street occasionally obstruct visibility for vehicles exiting the

58th Street experiences significant high school, elementary school, and residential traffic during the morning

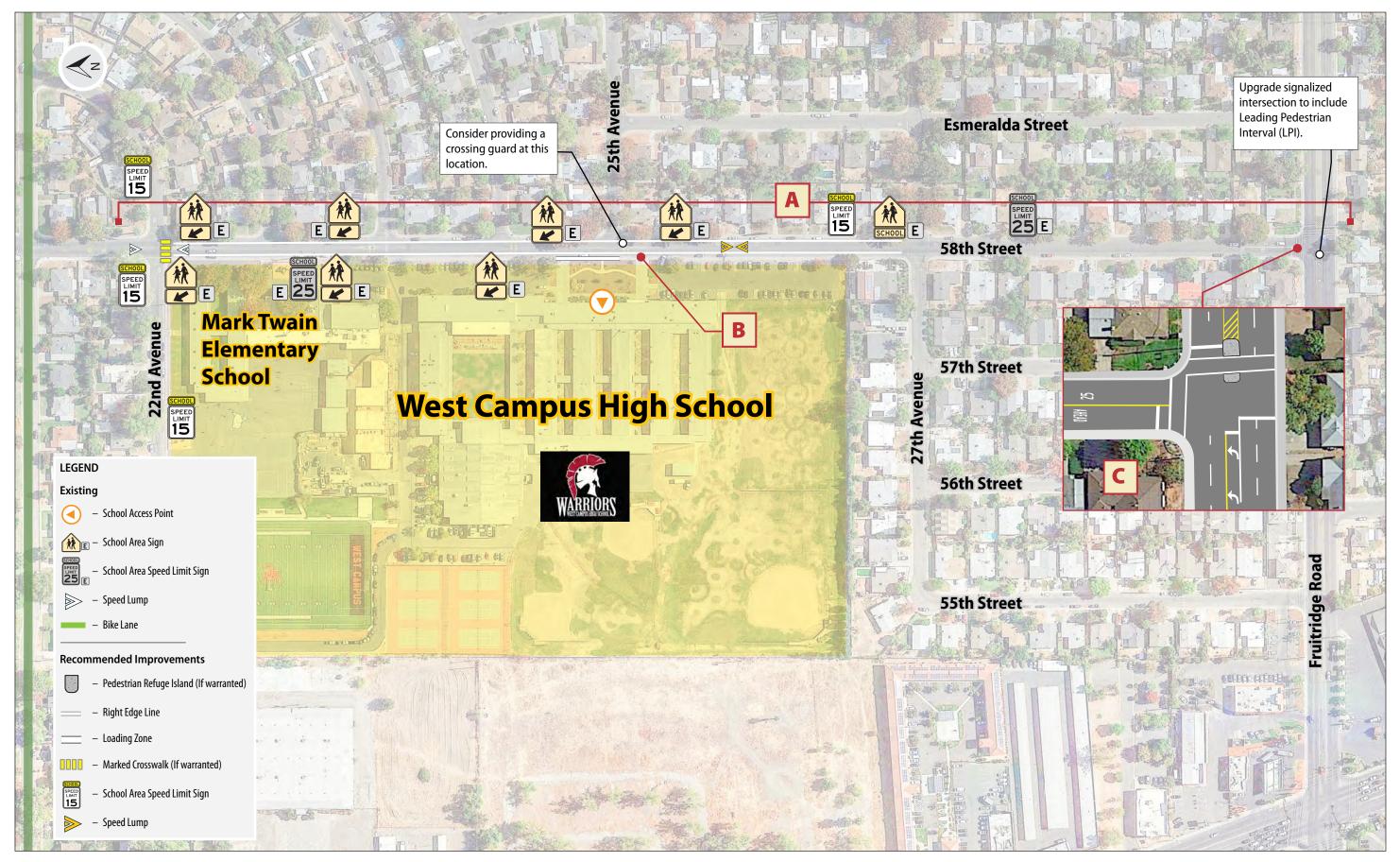


This School Safety Assessment report includes a series of recommendations for transportation infrastructure and policy improvements around Oak Ridge Elementary. These recommendations are based on observations made during the school safety assessment, a post-assessment engineering review, and a review of concerns raised by assessment participants. The recommendations have been classified based on ease of implementation:

- Short-term Improvements, such as signing and striping, can typically be implemented within one year.
- Medium-term Improvements are improvements that may require additional planning efforts and funding and can typically be implemented within a threeyear range.
- in a three to five-plus year range. Locations are mapped on page 71.

LOCATION	OBSERVATION	RECOMMENDATIONS	IMPLEMENTATION			
LOCATION	ODSERVATION	RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY
A. 58th Street	<ul> <li>A1 School administrators reported occasional speeding on 58th Street.</li> <li>A2 Vehicles were observed stopping in the middle of the street and/or in the middle of the crosswalks to drop off their students.</li> <li>A3 Drop-offs in the crosswalk in front of the school entrance obstructs visibility for vehicles exiting the school driveway.</li> </ul>	<ul> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along 58th Street within 500' of school grounds - A1</li> <li>Consider speed lumps on 58th Street south of 25th Avenue - A1</li> <li>Work with West Campus High School to provide targeted enforcement by staff to discourage improper drop-offs - A2, A3</li> </ul>	י י י			Department of Public Works West Campus High School Department of Public Works
<b>B.</b> 58th Street and 25th Street Intersection	B1 Walk audit attendees observed a steady stream of students using the uncontrolled crosswalk at the school's entrance during the morning drop off period. School administrators noted the same pattern during the afterschool period. Drivers were seen failing to yield to pedestrians at the crosswalk.	<ul> <li>Continuous pedestrian flow could be mitigated with provision of a crossing guard. A more organized flow of students due to the enforcement of a crossing guard could help increase yield compliance – B1</li> </ul>	~			West Campus High School / Sacramento City Unified School District
C. Fruitridge Road and 58th Street	C1 School administrators report that southbound left turning vehicles occasionally fail to yield for pedestrians in the crosswalk	<ul> <li>Install leading pedestrian signal (LPI for the north/south crosswalk leg to increase pedestrian visibility) – C1</li> <li>Construct pedestrian refuge island on the north/south crosswalk leg to protect pedestrians against southbound left-turns, if warranted based on the City's Pedestrian Crossing Guidelines – C1</li> </ul>		~	v	Department of Public Works Department of Public Works

#### SACRAMENTO SCHOOLS SAFETY ASSESSMENTS: WEST CAMPUS HIGH SCHOOL



WEST CAMPUS HIGH SCHOOL, 5022 58TH STREET, SACRAMENTO

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| 72

# **EARL WARREN ELEMENTARY SCHOOL**

# **1. SCHOOL INFORMATION**

EARL WARREN ELEMENTARY SCHOOL					
Address:	5420 Lowell Street				
School District:	Sacramento City Unified School District				
City Council District:	District 6				
Grades:	К-б				
Number of Students:	420				
Arrival:	9:00 AM				
Dismissal:	3:07 (2:07 Thursday)				

#### 2. SCHOOL ACCESS

Earl Warren is located at the corner of Lowell Street, a two-lane roadway, and Fruitridge Road, a four-lane arterial. An on-campus parking lot and loading loop fronts Lowell Street.

The school's main pedestrian, bicycle, and vehicle access is provided via Lowell Street. An additional pedestrian and bicycle entryway is provided through a gate on 73rd Street. This secondary route lacks a defined walkway across the open field to the school grounds.

Fruitridge Road is a main arterial that runs east-west through Sacramento and experiences substantial general commute traffic throughout the day, particularly during the morning peak period.

#### **3. SCHOOL SAFETY ASSESSMENT**

A school safety assessment was held on Wednesday, February 13, 2019. In attendance were the Principal of Earl Warren Elementary School and representatives from the City of Sacramento and Parisi Transportation Consulting.

Assessment participants made observations during the afternoon pick-up period as students left campus. Observations included pedestrian bicyclist and driver behavior. Observations were focused on Lowell Street and Fruitridge Road based a discussion with the Principal prior to the audit. Afterward, participants reconvened to discuss their observations and suggest potential improvements.



Drivers block the marked crosswalk while queueing on Lowell Street.





Congestion on Lowell Street during the afternoon pick-up period. Some vehicles are parked facing the wrong way.



Pedestrian waiting space at the northwest corner of the Fruitridge/Lowell/Wallace intersection is limited.



Wallace Avenue.





The bend in Lowell Street at the loading loop entrance creates a potential conflict zone for vehicles.

Vehicles park on the sidewalk that leads to the sidewalk on Lowell Street.

A volunteer crossing guard assists school crossings at the intersection of Fruitridge Road and Lowell Street/

This School Safety Assessment report includes a series of recommendations for transportation infrastructure and policy improvements in the vicinity of Earl Warren Elementary School. These recommendations are based on observations made during the school safety assessment, a post-assessment engineering review, and a review of concerns raised by assessment participants. The recommendations have been classified based on ease of implementation:

- Short-term Improvements, such as signing and striping, can typically be implemented within one year.
- Medium-term Improvements are improvements that may require additional planning efforts and funding and can typically be implemented within a threeyear range.
- in a three to five-plus year range. Locations are mapped on page 76.

			IM	IMPLEMENTATION		
LOCATION	OBSERVATION	RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY
A. Lowell Street	A1 Lowell Street experiences heavy congestion during the afternoon pick-up period. Congestion combined with the high amount of on-street residential parking results in segments of the street operating as a	<ul> <li>Consider installing a no parking zone on the west side of Lowell during drop-off and pick-up periods to reduce congestion and allow for two-way vehicle traffic * – A1</li> </ul>	r			Department of Public Works
	<ul><li>one-way street in the southbound direction.</li><li>A2 Drivers were seen failing to yield to pedestrians at the uncontrolled midblock crosswalk.</li></ul>	<ul> <li>Consider upgrading midblock crosswalk into a raised crossing to increase pedestrian visibility, if warranted based on the City's Pedestrian Crossing Guidelines. Further study is needed, along with potential removal or relocation of the existing speed hump – A2</li> </ul>		V		Department of Public Works
	<ul> <li>A3 Existing midblock crosswalk lacks curb ramps on both the east and west legs.</li> <li>A4 Lowell Street Is a qualifying street in the City of Sacramento's school area speed reduction program.</li> </ul>	<ul> <li>Install curb ramps to ADA standards at both legs of the crosswalk. Curb ramps should be designed to accommodate the existing driveway – A3</li> </ul>		~		Department of Public Works
	<ul> <li>A5 There is an informal 4-foot wide area between the rolled curb and parking lot curb stops. Students were observed using this space for walking.</li> <li>Vehicles were observed to pull up on the rolled curb and park on the</li> </ul>	<ul> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along Lowell Street within 500' of school grounds – A4</li> </ul>	v			Department of Public Works
	<ul><li>A6 The existing sidewalk at the south end of Lowell Street is narrow and</li></ul>	<ul> <li>Upgrade existing rolled curb to raised curb to prevent cars from parking on the sidewalk – A5</li> </ul>			~	Sacramento City Unified School District
	experiences high pedestrian activity.	<ul> <li>Consider pushing curb stops back and pouring a Portland cement concrete path to clarify this area as a sidewalk – A5</li> </ul>			~	Sacramento City Unified School District
		<ul> <li>Consider shifting school fence back to expand the sidewalk on the west side of Lowell Street – A6</li> </ul>			~	Sacramento City Unified School District
<b>B.</b> 73rd Street	B1 73rd Street Is a qualifying street in the City of Sacramento's school area speed reduction program.	<ul> <li>As part of city-wide school area speed reduction program, provide 15 MPH school area speed limit signs along 73rd Street within 500' of school grounds – A4</li> </ul>	~			Department of Public Works

\* City staff to coordinate with parking services and school staff.

	LOCATION	OBSERVATION	RECOMMENDATIONS	
		<ul> <li>from northbound Wallace Avenue onto eastbound Fruitridge Road.</li> <li>C2 There is limited curb space on the northwest corner for pedestrians waiting to use the crosswalks.</li> <li>Study expanding the existing sidewalk on the nort existing grass area to provide more room for pedes crosswalks * – C2</li> </ul>		S
C.	Fruitridge Road and Lowell Street/ Wallace Avenue Intersection	<ul><li>from northbound Wallace Avenue onto eastbound Fruitridge Road.</li><li>C2 There is limited curb space on the northwest corner for pedestrians</li></ul>	<ul> <li>Consider prohibiting right turns on red from Wallace Street – C1</li> <li>Install a leading pedestrian interval (LPI) for the north/south signal phase to reduce pedestrian exposure to conflicting vehicle traffic – C1</li> <li>Study expanding the existing sidewalk on the northwest corner into the existing grass area to provide more room for pedestrians waiting to use the crosswalks * – C2</li> <li>Upgrade the crosswalks to be high-visibility – C1</li> <li>Consider implementing no-right-turn on red restrictions from southbound Lowell Street to westbound Fruitridge Road to reduce conflicts at this offset intersection between drivers and pedestrians – C1</li> </ul>	
D.	Fruitridge Road	D1 Fruitridge Road has two travel lanes in each direction, a two-way left-tur lane, and experiences high traffic speeds	<ul> <li>Study whether a road diet is feasible for Fruitridge Road between Stockton and Power Inn – D1</li> </ul>	

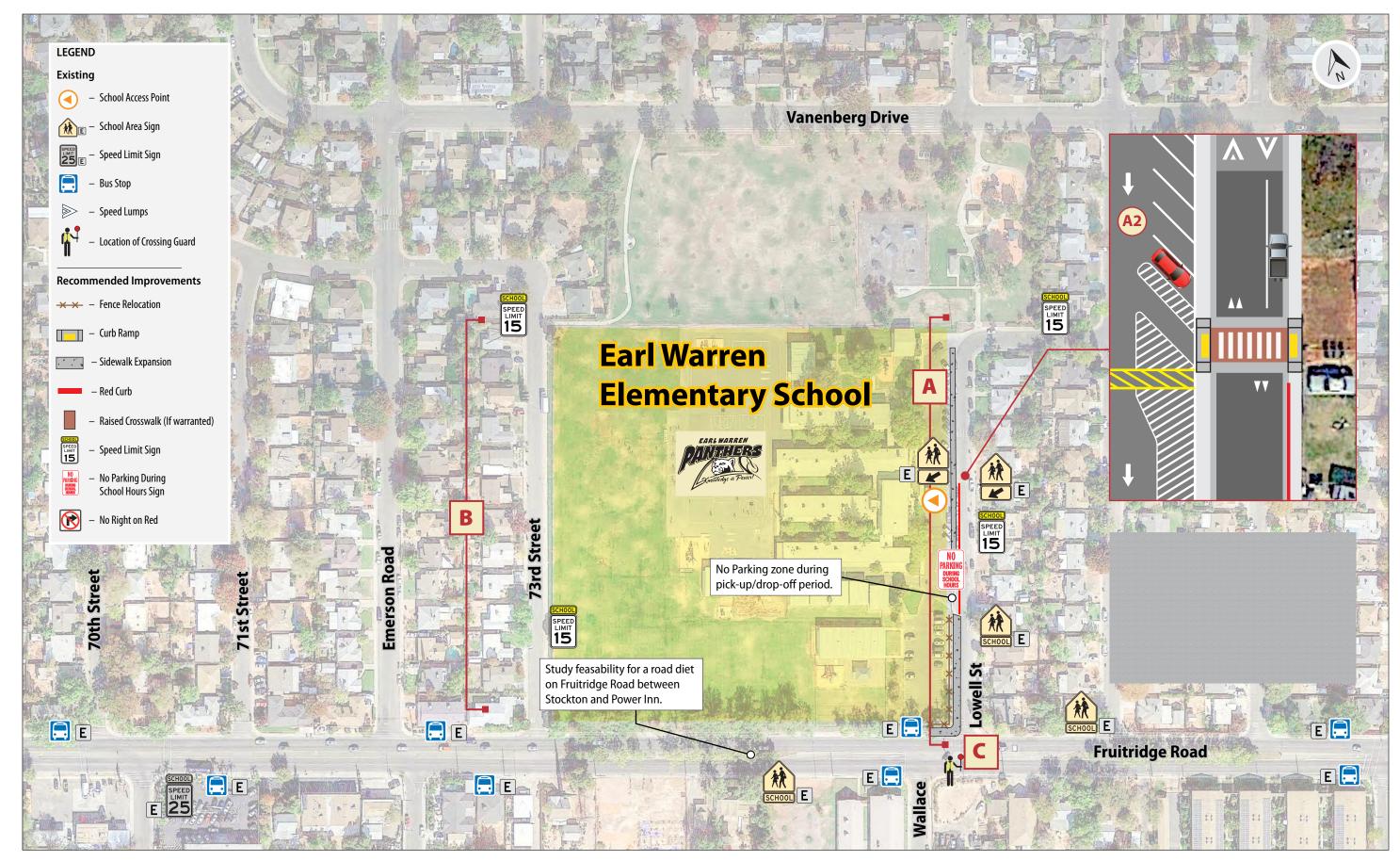
\* City staff to coordinate with parking services and school staff.

V

IMP	LEMENTAT	ION						
			RESPONSIBILITY					
Short Medium Long								
~			Department of Public Works					
~			Department of Public Works					
~			Department of Public Works					
	~		Department of Public Works					
	~		Department of Public Works					

Department of Public Works

#### SACRAMENTO SCHOOLS SAFETY ASSESSMENTS: EARL WARREN ELEMENTARY SCHOOL



**EARL WARREN ELEMENTARY SCHOOL, 5420 LOWELL STREET, SACRAMENTO** 

# LAS FLORES HIGH SCHOOL and RIO CAZADERO HIGH SCHOOL

# **1. SCHOOL INFORMATION**

LAS FLORES HIGH SCHO	OOL ("LAS FLORES")				
Address	5900 Bamford Drive				
School District	Elk Grove Unified School District				
City Council District	7				
Grades	К-12				
Number of Students	~200				
Notes	Las Flores is an independent study school. The largest number of students at one time of campus is typically 40 students.				

RIO CAZADERO HIGH S	CHOOL ("RIO CAZADERO")				
Address	7825 Grandstaff Drive				
School District	Elk Grove Unified School District				
City Council District	7				
Grades	9 – 12				
Number of Students	~270				
Notes	Rio Cazadero is a continuation high school that operates a morning session (8:30 – 11:30 AM), an afternoon session (12:30 – 3:30 PM), and an evening session (4:30 – 7:30 PM). The morning and afternoon sessions serve approximately 100 students each, while the evening session tends to be smaller, at approximately 70 students.				

### **2. SCHOOL ACCESS**

Las Flores and Rio Cazadero High Schools are located southeast of Bamford Drive and Grandstaff Drive. A fence separates the two campuses and their respective oncampus parking lots.

Pedestrian, bicycle, and vehicle access to Las Flores is provided via Bamford Drive, a two-lane collector street. Access to Rio Cazadero is provided via Grandstaff Drive, a two-lane local roadway.

The two schools are within a residential neighborhood and are close to Center Parkway, a four-lane collector roadway, and Valley Hi Drive, a four-lane arterial road.

Student arrivals and departures do not follow typical morning or afternoon periods, i.e., student arrivals and departures occur throughout the day, rather than during an all-campus pick-up and drop-off time.

## **3. SCHOOL SAFETY ASSESSMENT**

A school safety assessment was held on Wednesday, February 13, 2019. In attendance were the principals of Las Flores High School and Rio Cazadero High School, the Director of Transportation for the Elk Grove Unified School District, the Safe Routes to School Coordinator for the school district and representatives from the City of Sacramento and Parisi Transportation Consulting.

Assessment participants made observations during the afternoon. Observations included pedestrian, bicyclist and driver behavior and a review of infrastructure conditions. Observations were focused on Bamford Drive and Grandstaff Drive based on a discussion held with the school representatives before the audit., Participants reconvened afterward to discuss their observations and suggest potential improvements.



compliant curb ramps.



Bamford Drive at Center Parkway lacks a marked crosswalk across Center Parkway.



Many crosswalks near the two schools lack ADA-compliant curb ramps (shown: Grandstaff Dr and Bamford Dr)

Overgrown vegetation along Bamford Drive blocks school-area signs.

The uncontrolled crossing at Bamford Drive and Panos Court lacks school-area crosswalk signs and ADA-



This School Safety Assessment report includes a series of recommendations for transportation infrastructure and policy improvements around Las Flores and Rio Cazadero High Schools. These recommendations are based on observations made during the school safety assessment, a post-assessment engineering review, and a review of concerns raised by assessment participants. The recommendations have been classified based on ease of implementation.

- Short-term Improvements, such as signing and striping, can typically be implemented within one year.
- Medium-term Improvements are improvements that may require additional planning efforts and funding and can typically be implemented within a threeyear range.
- in a three to five-plus year range. Locations are mapped on page 80.

		ODCEDIVATION	RECOMMENDATIONS	IMI	IMPLEMENTATION rt Medium Long		RESPONSIBILITY	
LOCATION		OBSERVATION	RECOMMENDATIONS	Short			RESPONSIBILITY	
A. Bamford Drive	-	n vegetation obstructs the view of the posted speed limit sign. ministrators perceive that speeding occurs along Bamford Drive.	<ul> <li>Perform regular landscaping maintenance to trees along Bamford Drive to ensure visibility of street signs – A1</li> <li>Install right edge lines in both directions of travel to define vehicular travel lane and encourage slower speeds – A2</li> </ul>	<b>v</b> <b>v</b>			Property Owner Department of Public Works	
<b>B.</b> Grandstaff Drive	<b>B1</b> School adr	ministrators perceive vehicle speeding on Grandstaff Drive.	<ul> <li>Install right edge lines along Grandstaff Drive to define a 10' vehicular travel lane and encourage slower vehicle speeds – B1</li> </ul>	~			Department of Public Works	
C. Bamford Drive and Grandstaff Drive Intersection	<ul><li>westbound</li><li>C2 Existing cuintersection</li><li>C3 School address</li></ul>	athwest corner blocks sight line for motorists making a d right-turn onto Bamford Drive. In ramps at the southeast and southwest corners of the on do not meet ADA standards. ministrators report that motorists often roll through the stop andstaff Drive when making an eastbound right-turn onto Drive.	<ul> <li>Contact Code Enforcement regarding clear view violation and perform regular landscaping maintenance to the trees on the southwest side of the intersection to improve sightlines for drivers – C1</li> <li>Upgrade curb ramps at the southwest and southeast corners to Case C curb ramps built to ADA standards – C2</li> <li>Reconstruct corner curb ramps at the southwest and southeast corners to reduce corner curb radii, which would narrow the intersection approaches and slow turning traffic – C3</li> <li>Consider installing curb extensions (bulb-outs) at the southwest and southeast corners extending into Grandstaff Drive. Existing drainage should be taken into consideration when designing the bulb-out. In the short term, painted bulb-outs can be used – C3</li> </ul>	~	~	V	Property Owner Department of Public Works Department of Public Works	

				IMF	PLEMENTAT	ION	
	LOCATION	OBSERVATION	RECOMMENDATIONS	Short	ort Medium Long		RESPONSIBILITY
D.	Bamford Drive and Panos Court	<ul> <li>D1 The uncontrolled crossing at this location lacks school crosswalk signs.</li> <li>D2 Parking is allowed on both sides of the crosswalk.</li> </ul>	<ul> <li>Install School Assembly B signs at the uncontrolled crossing on Bamford Street per California MUTCD – D1</li> </ul>	~			Department of Public Works
	Intersection	<ul> <li>D3 Existing curb ramps at the northeast and southeast corners of the intersection do not meet ADA standards.</li> </ul>	<ul> <li>Per CA MUTCD, prohibit parking within 20' of the crosswalk by painting red curb on both the east and west sides of the crosswalk - D2</li> </ul>	~			Department of Public Works
			<ul> <li>Upgrade curb ramps at the northeast and southeast corners to be Case C curb ramps built to ADA standards – D3</li> </ul>		~		Department of Public Works
E.	Bamford Drive and Center Parkway Intersection	<ul> <li>E1 There is no marked crossing across Center Parkway. School administrators report that students cross this four-lane roadway to get to the bus stop on the west side of Center Parkway.</li> <li>E2 The fence at southeast corner obstructs sight lines of approaching drivers and as destributed in the generative.</li> </ul>	<ul> <li>Evaluate appropriateness for a new marked crossing with ADA compliant curb ramps and appropriate driveway clearances across Center Pkwy. Further study needed to determine whether to place the crosswalk on the north or south leg and consider extending the existing median to provide a pedestrian refuge island – E1</li> </ul>	~			Department of Public Works
		and pedestrians in the crosswalk.	<ul> <li>Study whether a Pedestrian Hybrid Beacon or signal is warranted at this intersection, per city and MUTCD standards – E1</li> </ul>		~		Department of Public Works
			Install ADA standard curb ramps at the proposed crosswalk – E1		~		Department of Public Works
			<ul> <li>Study moving the fence at the southeast corner back from the street within the public right-of-way, to improve sight lines for pedestrians and drivers. Study should coordinate with Code Enforcement – E2</li> </ul>		~		Department of Public Works
F.	Alvern Way and Grandstaff Drive	F1 School administrators perceive that vehicles enter this unsignalized intersection at high speeds coming from Center Parkway and roll through the stop sign on Alvern Way.	<ul> <li>Reconstruct corner curb ramps at the northwest and southwest corners to reduce corner curb radii, narrow the intersection approaches and slow turning traffic. Consideration of existing drainage at this location will make this recommendation be a long-term option – F1</li> </ul>			~	Department of Public Works
			<ul> <li>Consider installing curb extensions (bulb-outs) at the northwest and southwest corners extending into Alvern Way and Grandstaff Drive.</li> <li>Existing drainage should be taken into consideration when designing the bulb-out. In the short term, painted bulb-outs can be used – F1</li> </ul>			V	Department of Public Works
G.	Valley Hi Drive and Bamford Drive	<b>G1</b> School administrators note that the split signal phasing is confusing for motorists.	<ul> <li>Evaluate appropriateness for a new marked crossing with ADA compliant curb ramps and appropriate driveway clearances at on the south leg crossing Valley Hi– G4</li> </ul>	~			
		<b>G2</b> Pedestrian signals are not the countdown type.	<ul> <li>Upgrade pedestrian signal to include countdown pedestrian signals at all</li> </ul>		~		Department of Public Works
		<b>G3</b> Drivers were observed not yielding to pedestrians in the crosswalk.	crossings – G1, G2				
		<b>G4</b> Intersection does not have a marked crosswalk on the southern leg crossing Valley Hi Drive.	<ul> <li>Study installing leading pedestrian interval (LPI on all legs to increase pedestrian visibility) – G3</li> </ul>		~		Department of Public Works

## SACRAMENTO SCHOOLS SAFETY ASSESSMENTS: LAS FLORES HIGH SCHOOL AND RIO CAZADERO HIGH SCHOOL



LAS FLORES HIGH SCHOOL, 5900 BAMFORD DRIVE, AND RIO CAZADERO HIGH SCHOOL, 7825 GRANDSTAFF DRIVE, SACRAMENTO

# **CAPITOL COLLEGIATE ACADEMY**

# **1. SCHOOL INFORMATION**

CAPITOL COLLEGIATE AC	ADEMY
Address:	2118 Meadowview Road
School District:	Sacramento City Unified School District
City Council District:	District 8
Grades:	К-8
Number of Students:	375
Arrival:	8:00 AM
Dismissal:	3:00 PM (2 PM Wednesday)

# 2. SCHOOL ACCESS

Capitol Collegiate Academy is located on Meadowview Road, a four-lane arterial roadway with a continuous two-way left-turn lane. There is an off-street loading zone parallel to Meadowview Road. The school's parking lot is accessed through the loading zone.

There are two access points to the school: the parking lot/loading loop off Meadowview Road, and a bicycle and pedestrian entry point on 19th Street. There is a planned path from Monarch Avenue onto school grounds that would provide school access from the neighborhood to the south.

Meadowview Road experiences substantial non-school related traffic, particularly during the morning drop-off period. The loading and unloading loop off Meadowview Road is used by students in kindergarten through second grade. Third through seventh graders are to be picked up and dropped along 19th Street. During the morning period, 19th Street functions as a loading zone. During pickup, some parents park on 19th in order to walk in to the school and pick up their student.

#### **3. SCHOOL SAFETY ASSESSMENT**

A school safety assessment was held on Tuesday, January 29, 2019. In attendance were representatives from the City of Sacramento, Parisi Transportation Consulting, and the Director of Operations of Capitol Collegiate Academy.

Assessment participants made observations during the morning drop-off period as students arrived for class. Observations included pedestrian, bicyclist, and driver travel behavior as students arrived at school. Observations were focused on the loading loop, intersections along Meadowview Road, and the loading area on 19th Street based on a discussion held with the school immediately prior to the audit. Afterward, participants reconvened to discuss their observations and potential improvements.



School staff sets up cones to guide drivers in the on-campus loading zone off Meadowview Road during the morning drop-off period. The front loading loop is used for K-2nd grade students.





The continuous two-way left-turn lane along Meadowview Road backs up with westbound traffic attempting to turn into school driveway.



School staff is stationed at the loading loop to assist with the drop-off procedure and keep vehicles moving.



19th Street is a 36-foot wide roadway with on-street parking on both sides.



Northbound left turns at 19th Street and Meadowview Road can be challenging due to wall to the west blocking northbound sightline of oncoming eastbound traffic.

Eastbound vehicle traffic queueing into the drop-off zone backs up onto Meadowview Road.



This school safety assessment includes a series of recommendations for transportation infrastructure and policy improvements in the vicinity of Capitol Collegiate Academy. These recommendations are based on observations made during the school safety assessment, a post-assessment engineering review, and a review of concerns raised by assessment participants. The recommendations have been classified based on ease of implementation:

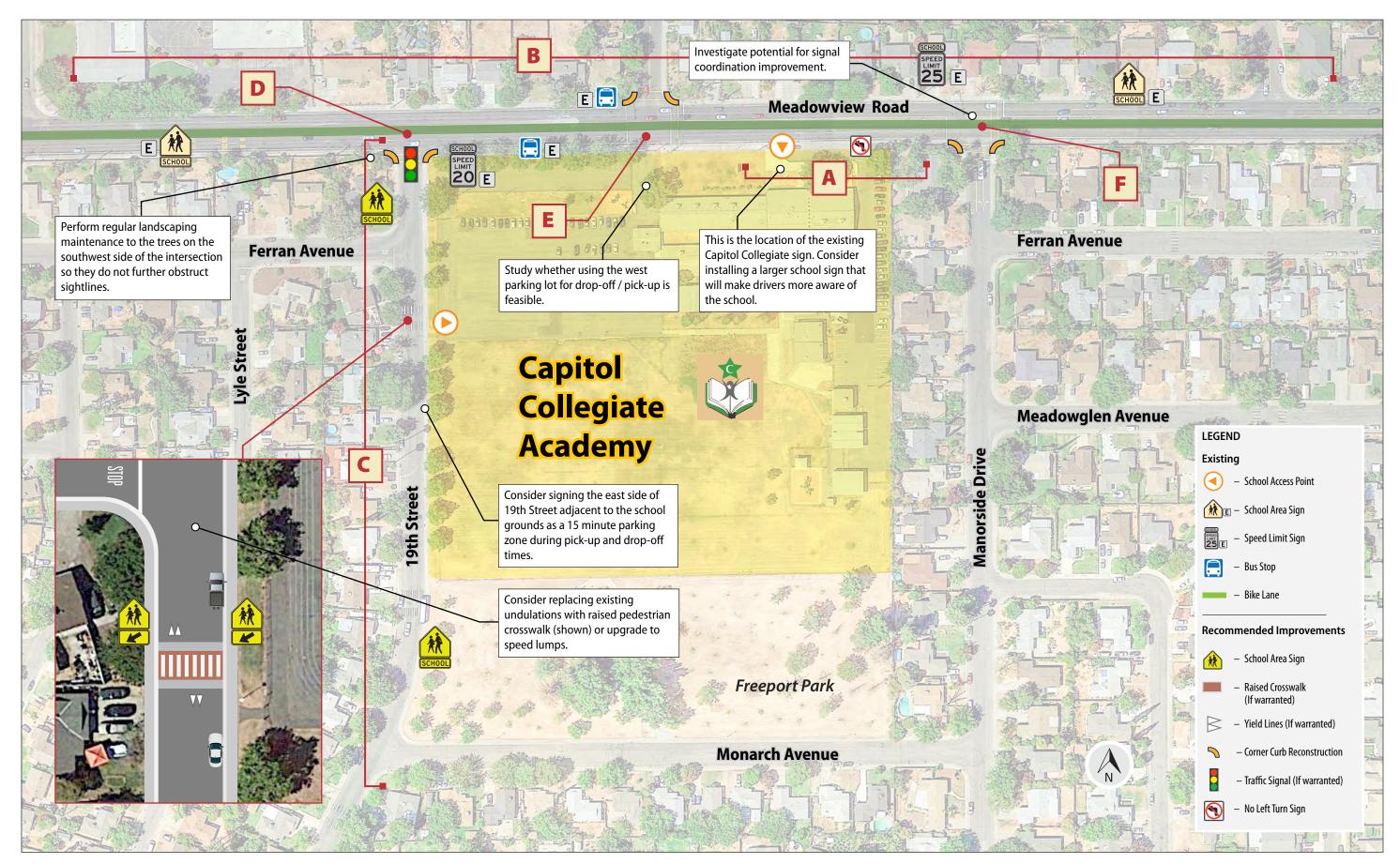
- Short-term Improvements, such as signing and striping, can typically be implemented within one year.
- Medium-term Improvements are improvements that may require additional planning efforts and funding and can typically be implemented within a threeyear range.
- in a three to five-plus year range. Locations are mapped on page 84.

					IMPLEMENTATION		ION	
LOC	CATION		OBSERVATION	RECOMMENDATIONS	Short	Medium	Long	RESPONSIBILITY
A. Schoo Zone	ool Loading e	A1	Motorists attempting to turn left out of the parking lot loop cause back up through the loop, resulting in further back-ups into the two-way left-turn lane.	<ul> <li>Increase school enforcement of prohibiting left turns onto westbound Meadowview during drop-off and pick-up times. Install a "No Left Turns from 7 - 9 am and 2 - 4 pm" sign – A1</li> </ul>	~			Capitol Collegiate Academy
B. Mead	dowview Road		School administrators reported speeding on Meadowview Road. While there are existing school zone signage and pavement markings, it does not appear to be obvious to some drivers that there is a school here.	<ul> <li>Consider installing a larger Capitol Collegiate sign that will serve as a gateway treatment to make drivers more aware of the school, which may encourage slower vehicle speeds – B2</li> </ul>		~		Capitol Collegiate Academy / Department of Public Works
<b>C.</b> 19th :	ı Street	C2	Vehicles were observed double parking along 19th Street, particularly during the afternoon pick-up period. Vehicles were observed speeding between existing undulations. Students use the undulations as a midblock crossing; 19th Street otherwise lacks midblock crossings.	<ul> <li>Consider signing the east side of 19th Street, adjacent to the school grounds, as a 15 minute parking zone during pick-up and drop-off times * – C1</li> <li>Install school zone signing and striping per MUTCD Standards to increase awareness of the school-related street use – C2</li> <li>Provide targeted police enforcement focused on speeding – C2</li> <li>Consider upgrading existing undulations to speed lumps, pet City's Speed Lump Program – C2</li> </ul>	י י י	~		Department of Public Works Department of Public Works Police Department Department of Public Works
				<ul> <li>Consider replacing undulations with raised pedestrian crosswalk, if warranted based on the City's Pedestrian Crossing Guidelines – C3</li> </ul>		~		Department of Public Works
Mead	a Street and dowview Road rsection	D1	Northbound left turns have an obstructed view due to the wall to the west blocking the northbound sight line of oncoming eastbound traffic.	<ul> <li>Perform regular landscaping maintenance to the trees on the southwest side of the intersection so they do not further obstruct sightlines – D1</li> <li>Consider signalizing intersection if intersection meets signal warrants. – D1</li> <li>Reconstruct corner curbs to reduce corner curb radii, which will narrow the</li> </ul>		~ ~	v	Property Owner Department of Public Works

\* City staff to coordinate with parking services.

	LOCATION	OBSERVATION	RECOMMENDATIONS	IMPLEMENTATION			
				Short	Medium	Long	RESPONSIBILITY
	Meadowview Road and 21st Street Intersection	E1 The parking lot has a driveway that is currently closed with a gate. However, there are traffic signals facing the gate approach, which means traffic previously used the driveway to get back onto Meadowview.	<ul> <li>Study whether using the west parking lot for drop-off/pick-up is feasible with driveway improvements and signal changes. Per previous meetings between the City and the School, driveway improvements would include drivers entering the school property on 19th Street and exiting onto Meadowview at 21st Street E1</li> <li>Reconstruct corner curbs to reduce corner curb radii, which will narrow the intersection approaches and slow turning traffic - B1</li> </ul>		~	v	Capitol Collegiate Academy/ Department of Public Works Department of Public Works
	Meadowview Road and Manorside Drive Intersection	<ul> <li>F1 The City recently installed a traffic signal at this intersection.</li> <li>F2 Eastbound traffic queuing at the signal blocks westbound left turns into the school.</li> </ul>	<ul> <li>Investigate whether the signals on Meadowview at 21st and Manorside are coordinated and/or whether there is room for refining coordination to provide improved progression along Meadowview – F1, F2</li> <li>Reconstruct corner curbs to reduce corner curb radii, which will narrow the intersection approaches and slow turning traffic – B1</li> </ul>	~		v	Department of Public Works Department of Public Works

# SACRAMENTO SCHOOLS SAFETY ASSESSMENTS: CAPITOL COLLEGIATE ACADEMY



**CAPITOL COLLEGIATE ACADEMY, 2118 MEADOWVIEW ROAD, SACRAMENTO** 

# **COUNTERMEASURE TOOLKIT**

This chapter contains a toolkit of measures that have been recommended to address the observations that were documented as part of the Walk Audit process. Each of the toolkit descriptions provide guidance on the purpose and safety benefits of each tool. Each of the countermeasures described in this chapter has been recommended for implementation at one or more schools.

#### **Curb Ramps**



Curb ramps allow people in wheelchairs, with strollers, and with vision impairments to cross the street safely. Directional (dual) curb ramps should be used whenever possible. Diagonal curb ramps cause wheeled users to enter the intersection at an angle misaligned from the crosswalk, which places them at greater exposure and risk to vehicle traffic.

# Sidewalks and Walking Paths



Sidewalks and walking paths provide space for people to walk separate from the roadway. Wide sidewalks can provide a more comfortable space for pedestrians. They are particularly important for locations with high volumes of pedestrians, and for providing space to accommodate people in wheelchairs.

# **Pedestrian Refuge Island**



Pedestrian refuge islands are protected areas where pedestrians, especially those who may be less able to cross the street in one stage, may safely pause or wait (with a raised median on both sides of them) while crossing a street. They reduce the exposure time experienced by a pedestrian in the intersection.

#### Striping



Painting narrower travel lanes, edge lines, yield markings, roadway centerlines, and passenger loading zones can all improve roadway safety depending on its use. For example, striping improvements can encourage slower vehicular speeds and more predictable vehicular movements and enhance the visibility of crosswalks, bicycle lanes and other safety measures.

# **High-Visibiity Crosswalks**



A crosswalk designed to be more visible to approaching drivers, striped with ladder markings using high-visibility material such as thermoplastic tape instead of paint. Distinct pavement markings are used, such as a continental, zebra or ladder pattern, or a reflective inlay. High-visibility crosswalks are proven to increase the rate at which drivers yield to pedestrians.

#### **Visibility Improvements**



The practice of prohibiting parking with red curb striping on the approach to intersections and crosswalks where parked vehicles would obstruct the visibility of people entering a crosswalk is referred to as "Daylighting." Other visibility improvements include the maintenance of trees and shrubbery, and modifications to fences that may obstruct sightlines at intersections.

#### **Rectangular Rapid Flashing Beacon**



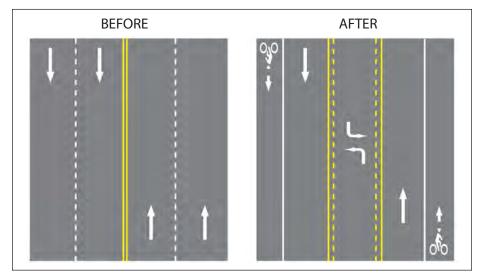
Rectangular rapid-flashing beacons (RRFBs) are user-actuated LEDs that supplement warning signs at uncontrolled crossings. They can be activated by a push-button or by a pedestrian detection system. RRFBs help alert oncoming drivers of pedestrians in the crosswalk and have been shown to increase yield compliance at uncontrolled crossings.

## **Pedestrian Hybrid Beacon**



with high pedestrian volumes.

# **Road Diet (lane reduction)**



Typical road diets involve reconfiguring four-lane roads into three-lane roads (two through lanes and a center left-turn lane) with bike lanes on both sides. Road diet studies have suggested that two through lanes and one center left-turn lane can accommodate approximately 23,000 vehicles per day (VPD), though some four-tothree-lane conversions have been successful with volumes as high as 30,000 VPD.

#### Mini-roundabouts / Neighborhood Traffic Circles



Mini-roundabouts, also known as neighborhood traffic circles, are raised circular islands with wayfinding signs and optional landscaping, designed to lower speeds at minor stop-controlled intersections. These devices offer most of the benefits of conventional roundabouts, including reduced speeds and numbers of collisions, but in the context of residential streets.

# **Signal Modifications**



a crosswalk.

Pedestrian hybrid beacons are used to control traffic when conditions require more than warning signs but do not justify a full traffic signal. They are installed at intersections with a history of traffic collisions involving pedestrians and in areas

Modifying signal timing at signal-controlled intersections can help improve safety by reducing the potential for conflicts between modes. For example, protected leftturn phasing can reduce conflicts between drivers and pedestrians crossing parallel to vehicle traffic. A leading pedestrian interval provides pedestrians with walk time in advance of drivers to give pedestrians an opportunity to position themselves in

#### **Bike Lanes**



Designated bicycle lanes separate cyclists from vehicle traffic by striping or a physical barrier (usually bollards, landscaping, or parked cars). These facilities can increase safety by decreasing opportunities for collisions with over-taking vehicles and by clearly identifying where on the roadway drivers may expect to see cyclists.

#### Sharrows



Shared-lane markings, better known as "Sharrows," help to clarify to all road users where bicyclists are expected to ride and are useful to assist cyclists in wayfinding. Additionally, sharrows assist bicyclists with lateral positioning in a shared travel lane. Sharrows are not a facility type and should not be substituted for bike lanes where warranted.

### **Gateway Treatment**



Gateway treatments are intended to alert drivers that they are entering a slower area which may include a school zone. This treatment may include signage, entry portals, speed tables, raised crossings, and curb extensions, and may include some amount of roadway narrowing at the mouth of an intersection.

# **Partial Street Closure**



Partial street closures reduce through vehicle traffic while preserving emergency vehicle access. They can be constructed with simple materials such as plastic bollards or made permanent with trees or shrubbery. They improve safety by reducing the attractiveness of the street as a through-route and reduce the Level of Traffic Stress (LTS) for people bicycling.

#### **Raised Median**



Raised medians are a solid concrete feature in the center of the roadway, often including a planting strip. They reduce the frequency of all crash types and eliminate illegal U-turns on streets with long center two-way turn lanes.

# **Traffic Signal (New)**



A traffic signal can reduce the incidence of specific crash types and may interrupt extremely heavy flows to permit the crossing of minor movements that could not otherwise move safely through an intersection. However, traffic signals generally increase injury collisions overall (compared to all-way stop control), so their installation should always be carefully considered.

# **Bulb-outs and Corner Curb Reconstructions**



Curb extensions, also called bulb-outs, extend the sidewalk into the parking lane or shoulder to narrow the roadway and provide additional pedestrian space at corners. Bulb-outs increase pedestrian visibility by creating a waiting area in front of parked vehicles and decrease pedestrian exposure to vehicles by reducing crosswalk length. They also reduce vehicle turn speeds. Signage



Signs such as "Yield Here to Pedestrians" or "Stop Here for Pedestrians" that can be placed at the roadway surface level in advance of the crosswalk, on posts, or overhead. "No Parking 8am-9am and 3pm-4pm" can be placed in passenger loading zones. "Bicyclists May Use Full Lane" can be placed in locations where designated bicycle lanes are not warranted.

# **Traffic Calming**



Traffic calming uses physical design and other measures to reduce speeding and other unsafe behaviors of drivers while encouraging safer, more responsible driving. Some examples of traffic calming include speed feedback signs, which relay vehicular speeds to drivers and flash when speeds exceed the limit. Physical measures to calm traffic can include rumble strips in the roadway, raised crosswalks, and speed lumps. PAGE INTENTIONALLY LEFT BLANK

