



School Safety Assessment Technical Memorandum

Emma C. Smith Elementary School

391 Ontario Drive, Livermore, CA 94550

Livermore Valley Joint Unified School District

January 2020



The Alameda County Safe Routes to Schools Program is a program of the Alameda County Transportation Commission (alamedactc.org) and is funded with Alameda County's local sales tax Measure B, regional, state and federal funds.

Emma C. Smith Elementary School


A school safety assessment was conducted at Emma C. Smith Elementary School in Livermore during the afternoon dismissal on Wednesday, January 29th. The assessment was attended by representatives from the City of Livermore, Alameda County Safe Routes to Schools staff, and Sunset Elementary staff and parents.

Participants included:

- Julie Chiu, Associate Civil Engineer, City of Livermore
- Joe Meunier, Principal, Emma C. Smith Elementary School
- Andre Huff, Engineer, Alameda County SR2S team
- Mauricio Hernandez, Planner, Alameda County SR2S team
- Nick Aguilera, Planner, Alameda County SR2S team
- Noelle Johnson, Emma C. Smith Elementary parent and SR2S champion
- Heather Wasson, Emma C. Smith Elementary parent
- Lynette Shunko, Emma C. Smith Elementary parent

School Information

Location & Enrollment

	Address:	391 Ontario Drive Livermore, CA 94550
	Morning Bell(s):	8:30 AM (Grades 1 - 5 & All Students on Wed); 8:30 AM Early Start & 9:15 AM Late Start (TK - K all days except Wed)
	Afternoon Bell(s):	1:30 PM (All Students on Wed); 2:40 PM (Grades 1 - 3 all days except Wed); 2:50 PM (Grades 4 - 5 except Wed); 1:30 PM Early Start & 2:15 PM Late Start (TK - K all days except Wed)
	Grade Levels:	TK - 5
	Enrollment:	720
	School Type (neighborhood/magnet/charter):	Neighborhood

Student Travel Data

Students' Proximity to School (school estimate):	<p>Less than ¼ mile (5-min. walk): 25%</p> <p>Between ¼ and ½ mile (5-10-min. walk): 25%</p> <p>Between ½ and 1 mile (10 to 20-min. walk): 25%</p> <p>Greater than 1 mile (more than 20-min. walk): 25%</p>
---	---

Student Travel Mode Info:	<p>Recent SR2S Hand Tally Data:</p> <p>Spring 2020</p> <p>Walking: 15%</p> <p>Biking: data 5%</p> <p>School bus: 3%</p> <p>Transit: 0%</p> <p>Carpool: 15%</p> <p>Family Vehicle: 62%</p> <p>Other: N/A</p>
----------------------------------	--

Bikes, Buses, and Drop-off/Pick-up

Does the school have bike racks? What is the capacity? Is it secure bike parking?	The school has two bicycle racks that can each hold approximately 75 bicycles. They are kept within the secured and gated school grounds
On a typical day, what percentage of racks are used?	Approximately 40-60%
Does the school have special pick-up/drop-off policies/procedures?	After school programs pick-up students in designated parking spots. School staff members supervise and facilitate the pick-up and drop-off process in the parking lot and the drop-off loop

Street Profiles

Street Name	Width	Lanes	Posted Speed Limit	Notes
Ontario Drive	40 feet	2 lanes	25 mph	Street parking on either side
Sapphire Drive	40 feet	2 lanes	25 mph	Street parking on either side
Murdell Drive	50 feet	2 lanes	25 mph	Street parking and Class II bike lanes on each side

Pedestrian- and Bicycle-Involved Collision Summary 2014-2018

The collision summary table shows all bicycle- and pedestrian-involved collisions within one-half mile of the school. These collisions may or may not be school-related travel.

Radius from School	Total Collisions	Fatal Collisions	Severe Injury Collisions	Visible Injury Collisions	Complaint of Pain Collisions	Pedestrian Collisions	Bicycle Collisions
< ¼ mi	0	0	0	0	0	0	0
¼ mi – ½ mi	4	0	1	3	0	1	3
Total	4	0	1	3	0	1	3

Source: UC Berkeley – Transportation Injury Mapping System, Safe Transportation Research and Education Center, University of California, Berkeley, 2019

Existing Conditions

Overview

Emma C. Smith Elementary School is located on Ontario Drive in Livermore, California. It is one of nine elementary schools in the Livermore Valley Joint Unified School District.

The school campus is located north of Max Baer Park and Little League Baseball Facilities in a residential neighborhood of the city. El Padro Park, William Mendenhall Middle School and Jane Addams Preschool are also located within this same contiguous block. Paved and unpaved paths through the parks and ballfields provide access to the school. Some students enter the school via these paths, although the majority of students enter at the main entrances off Ontario Way.

The peak afternoon pick-up period lasts from approximately 1:15 pm – 1:45 pm on Wednesdays and from 2:15 pm – 3:00 pm on all other weekdays.

Ontario Drive, Sapphire Drive, and Murdell Lane are the most common car travel routes for students when traveling to and from Emma Smith Elementary. Most students walk along Ontario Drive or through the baseball fields. Other students walk to and from Murdell Lane and access the school via a path between two residences that connects to the blacktop.

Between 2014 and 2018, a total of three bicycle collisions and one pedestrian collision were reported within ½ mile of the elementary school. One of these collisions resulted in a severe injury. These collisions occurred on residential streets around the school neighborhood including Murdell Road and El Caminito. Some students regularly travel these routes to get to Emma Smith Elementary.

Observations

The following existing conditions were observed or reported by participants during the school safety assessment (SSA). The number of the corresponding infrastructure improvement from the attached Improvement Plan is indicated in parentheses.

1. Ontario Drive - School Frontage

- ◆ The primary school entrance and parking area is located on Ontario Drive.
- ◆ High volumes of people driving cars were observed dropping off students along the Ontario Drive curb frontage.
 - A 200-foot loading pullout bay is located in front of the main school entrance gate. This area is painted with yellow curb and signed as a Passenger Loading Zone during school hours.
 - SSA participants said some larger vans occupied the loading zone for long periods of time, obstructing the curb and limiting its loading capacity. (1a)
- ◆ SSA participants said that motorists make U-turns on Ontario Drive.

Alameda County Safe Routes to Schools Program

- ◆ High volumes of pedestrian activity were observed along the sidewalk traveling southbound after the dismissal bell.
- ◆ SSA participants observed multiple commercial vehicles with trailers double parking on the east side of the street. School staff said this is a regular occurrence. (1b)



Above: School signage designating passenger loading zone along yellow curb.



Left: Commercial vehicles double parking on Ontario Drive during school pick-up time.

Right: A vehicle blocks the pedestrian access route along sidewalk as they wait to pick up students.



Left: Vehicle traffic traveling south backs up along Ontario Drive.

Right: More commercial vehicles double parking on the east side of Ontario Drive.

2. School Pick-Up Loop and Parking Lot

- ◆ The main school parking lot is located at the curve on Ontario Road. Circulation flow is one-way through the lot. The entrance driveway is on the north-south segment of Ontario, and the exit driveway on the east-west segment after the curve.
- ◆ The exit driveway is signed Right Turn Only during drop-off and pick-up. This sign is not CA-MUTCD compliant. (6c)
 - SSA participants watched vehicles turn left out of the parking lot and disregard this sign.
 - SSA participants said that vegetation on the west side of the parking lot exit can obstruct views of students and pedestrians using the sidewalk.
- ◆ The perimeter curb of the parking lot is painted yellow for passenger loading, with a striped loading lane. A second lane on the outer loop is for through traffic. The inner loop provides access to parking stalls.
 - SSA participants observed vehicles queuing in the drop-off loop up to 15 minutes before pick-up. There is limited queuing space in the drop-off lane due to red curb in the parking lot.
- ◆ The transverse crosswalk just north of the school parking lot is missing curb ramps on both sides. Many students and adults used this crosswalk. (2a)
 - SSA participants observed vehicle traffic backed up as drivers waited for pedestrians to exit the crosswalk, and as drivers waited to enter the drop-off loop. (2b)



Left: Vehicle traffic backs up as a vehicle waits to turn into the drop-off loop.

Right: Drivers beginning to queue in the school drop-off loop before afternoon dismissal.



Left: A passenger loading zone sign in the drop-off loop.

Right: A right turn only sign at the exit to the school parking lot. The sign is not MUTCD-compliant.

3. Sapphire Drive at Ontario Drive

- ◆ This is an uncontrolled T-intersection. There are transverse crosswalks on the west and south approaches. Only the southwest corner has a curb ramp; the other landings lack ramps. The south approach of the crosswalk is set back from the corner due to a residential driveway on the opposite side landing. (3a,3b,3c)

- ◆ Both crosswalks have School Crossing Assembly B signage, but no advance yield pavement markings. Vehicles were observed yielding to pedestrians in the crosswalk; however, vehicles were also observed stopping within the crosswalks and subsequently obstructing the travel path of pedestrians as they walked across the west approach of the intersection. (3a, 3b, 3c)

NOTE: It is not a requirement for there to be advance yield markings at a marked crosswalk; however, they are recommended due to the observed failure to yield.

- ◆ 80 feet of yellow curb designates a School Bus Loading Only on Sapphire Drive in advance of the intersection.
- ◆ Traffic backed up through this intersection as students were picked up by parents and guardians in front of the school. (3a, 3b, 3c)
- ◆ Parked or idling vehicles obstructed sight lines immediately at the intersection. (3b, 3e)
- ◆ Vehicles obstructed the Bus Loading Zone area. (3d)



Left: Missing curb ramps on both sides of the crosswalk across Ontario Drive.

Right: "Bus Loading Only" signage along Sapphire Drive.



Above: Vehicles park up to the corner of the intersection and obstruct sight lines.

4. Laguna Street at Ontario Drive

- ◆ This is a T-intersection with a stop-control on the Laguna Street approach. An uncontrolled transverse crosswalk is present on the west approach of Ontario Drive, with curb ramps on both landings.
- ◆ Vehicles park right up to the crosswalk on both sides and obstruct sight lines of people entering and exiting the crosswalk for approaching drivers. (4a, 4b, 4d)
- ◆ SSA participants observed pedestrians crossing the unmarked north approach of the intersection. (4c, 4d)



Left: A vehicle parked at the corner obstructs the view of pedestrians walking across the north approach of the intersection.

Right: People walking across the unmarked north approach of the intersection.

5. Murdell Lane

- ◆ A mid-block crosswalk is present on Murdell Lane at the location of the connector path to the school playground.
 - This crosswalk has high-visibility striping and there is a crossing guard during arrival and dismissal periods.
- ◆ SSA participants observed a high volume of pedestrians crossing at the crosswalk. (5a, 5b, 5c)
- ◆ There are no curb ramps on either side of the existing crosswalk. Some pedestrians were observed using adjacent driveways as ramps for strollers. (5a)



Above: People walking across Murdell Lane.



Above: A crossing guard assists people as they cross Murdell Lane.



Above: A student steps over the curb to enter the crosswalk across Murdell Lane. In the background, a person uses the driveway ramp to enter the street.



Above: A person with a stroller has difficulty lifting their stroller onto the sidewalk without a curb ramp.



Left: A driver idles along red curb on Murdell Lane.



Right: The pathway and gate connecting Emma Smith Elementary to Murdell Lane.

6. Staff Parking Lot

- ◆ The school staff parking lot is located on the corner of Sapphire Drive and Ontario Drive.
- ◆ School policy and signage prohibits students' parents from entering the staff parking lot; however, drivers were observed parking in empty parking stalls.
- ◆ Vehicles without visible disabled parking placards were also using the accessible parking stalls within the parking lot. (6a)

Participant Comments

The school principal and SSA participants were very enthusiastic and excited about the potential to improve student safety on the streets and transportation facilities around Emma C. Smith Elementary School. They were very concerned about the risk of a collision on streets surrounding the school. Most of the discussion following the observation related to concerns about safety issues and user conflicts along Ontario Drive. SSA participants' comments about other sites around the school have been reflected in the observations section of this memorandum.

Recommendations

Engineering Recommendations

Recommendations to improve infrastructure or operations Emma C. Smith Elementary School can be seen on the conceptual improvement plan found following this memo.

Policy & Program Recommendations

In addition to engineering improvements, the Alameda County Safe Routes to Schools Program has many encouragement and educational activities that can benefit students and campus community at Emma C. Smith Elementary School.

The School Site Coordinator for Emma C. Smith Elementary School is Jennifer Holmes-Ledet. The Site Coordinator can help schedule, organize, and promote many of the program offerings of Alameda County SR2S. The contact information for the Site Coordinator is below:

Jennifer Holmes-Ledet, jledet@alamedacountysr2s.org

Please do not hesitate to reach out to the Site Coordinator if you have any questions or concerns, or if you wish to move forward with additional programming activities.

Programs

The following improvements are recommendations for policy and program implementation at Emma C. Smith Elementary School to increase safety and active commutes to school.

- ◆ Develop Walk and Bicycle Route Maps
 - The SR2S Program can create recommended Walk and Bicycle Route Maps. These maps illustrate preferred routes to school for walking and biking. Maps also provide safety tips to encourage better travel behavior.
 - These maps can also be used as a part of Walking School Buses (WSBs), Bicycle Trains (BTs), or other Walk and Roll to School

activities. Park and Walk, WSB, and BT meeting locations are also shown on these maps where appropriate.

- ◆ Encourage and Help Facilitate Carpooling
 - The SR2S Program can assist schools in working with parents to connect them with other families who live nearby to increase the number of students carpooling. This can reduce congestion by reducing the number of vehicles coming to campus.
- ◆ Consider implementing Walking School Buses and Bicycle Trains alongside Emma Smith's Monthly Walk and Roll Days.
 - Walking School Buses (WSBs) and Bicycle Trains (BTs) are groups of students, led by parent/adult chaperone(s), that meet at designated locations and times to gather and walk and/or bike to school together. WSBs and BTs can be regular events, occurring daily, weekly, or monthly or occur in coordination with other events. SR2S staff can assist schools with the planning, coordination, and execution of the WSBs and BTs. Walking and biking in groups with parental supervision can not only increase the visibility of these road users, but can reduce barriers to walking or biking for some families while making it fun and exciting for the students.
- ◆ Schedule Pedestrian Rodeos and Bicycle Rodeos
 - These interactive rodeos are great educational opportunities to teach and refresh safe walking and bicycling behavior. These workshops cover a wide range of relevant topics from understanding traffic signals and signs, to bicycle hand signals, to how to safely cross the street. Pedestrian Safety Rodeos and Bicycle Safety Rodeos are geared towards elementary school students.
- ◆ Continue implementing Monthly Walk and Roll to School Days.
- ◆ Participate in International Walk and Roll to School Day (IRW2SD), the Golden Sneaker Contest (GSC), and Bike to School Day (B2SD)
 - These are the three main countywide encouragement events that occur throughout the academic year. All schools can participate in International Walk and Roll to School Day, held in October every year. The Golden Sneaker Contest, held in spring, is for elementary and middle schools and is a two-week contest both within schools and across the county challenging classrooms to travel to/from school using active and shared modes. All schools can also participate in Bike to School Day, held in tandem with Bike to Work Day, which encourages schools to sponsor Energizer Stations and students and families to bike to school.
- ◆ Implement a Rolling Drop-Off and Pick-Up Valet Program
 - Implement a rolling drop-off beginning in the 2020-2021 school year in the school drop-off loop. The SR2S program can assist schools as they implement these programs. The SR2S program can also help schools create educational materials and diagrams to teach the school community about the rolling drop-off process.

- ◆ Encourage Parents to Park and Walk from Designated Locations
 - Potential park and walk locations have been identified on the Improvement Plan Map.
 - Laguna Street
 - The school should encourage parents to utilize these locations to reduce congestion in and near existing drop-off/pick-up locations.
- ◆ Engage in School Community Outreach and Education
 - School community and parent outreach can include newsletters, websites or in-person meetings, like Coffee with the Principal events. Schools can take these opportunities to share information about transportation, new infrastructure, upcoming programs, and remind parents about proper driving behavior and pick-up/drop-off policies. In-person meetings may offer a more conventional dialogue where parents can discuss their transportation-related concerns, although it is important to communicate information digitally as well.
- ◆ Work with Livermore Police Department to enforce curb and parking policies.
- ◆ Enforce Afterschool Program Pick-Up Parking Spot Program

Safe Routes to Schools Improvement Plan
Emma C. Smith Elementary School
Livermore, CA

School Safety Assessment held January 2020

- 1

Ontario Drive - School Frontage
1a. Repaint existing yellow curb as white curb and install R25D "School Loading" signage
1b. Install R39-1 "No Double Parking" signage
- 2

School Pick-up Loop and Parking Lot
2a. Install curb ramps on both sides of crosswalk north of parking lot entrance
2b. Upgrade existing crosswalk to high-visibiity and install advance yield markings
2c. Consider installing hardened centerline or Detail 22 yellow centerline around bend
- 3

Sapphire Drive/Ontario Drive
3a. Remove existing crosswalk on south leg of intersection due to utility conflict. Install high-visibility crosswalk on north leg of intersection and advance yield markings
3b. Install curb extension on northwest corner of intersection
3c. Install curb ramp on northeast corner of intersection
3d. Repaint existing yellow curb on Sapphire Drive as red curb and install R24A signage
3e. Install red curb on both sides of northwest corner**
- 4

Laguna Street/Ontario Drive
4a. Upgrade existing crosswalk to high-visibiity
4b. Install red curb on both sides of northwest and northeast corners**
4c. Install high-visibility crosswalk across north leg of intersection
- 5

Murdell Lane
5a. Study feasibility of curb extensions on both sides of existing crosswalk
5b. Install advance yield markings on existing crosswalk
5c. Conduct warrant study for an RRFB
5d. Install "School Assembly D" signage
- 6

School Campus
6a. Remove existing red curb in school drop-off loop and install white curb **
6b. Install cones at driveway exit so to limit exit to one lane during arrival/dismissal
6c. Remove existing signage that is not CA-MUTCD compliant
6d. Consider temporary signage that limits right turns during arrival/dismissal periods



*The above items are recommendations only and based on Safe Routes to Schools site assessment best practices. Feasibility determination, final design, accessibility, funding, and implementation of any recommended improvements is the responsibility of the appropriate governing agency.
**Red curb and/or parking restriction signage should be provided between advance stop/yield markings and the crosswalk. Exact red curb distance should be determined in accordance with the CA-MUTCD and City policies/standards. Red curb not symbolized on map.