

School Safety Assessment Technical Memorandum

EDISON ELEMENTARY SCHOOL

2700 Buena Vista Avenue, Alameda, CA 94501

Alameda Unified School District

May 2019

EDISON ELEMENTARY SCHOOL


A school safety assessment was conducted at Edison Elementary School in Alameda during the morning arrival on May 23, 2019. The assessment was attended by representatives from the City of Alameda, Alameda Police Department, Alameda County Safe Routes to Schools staff, and Edison Elementary School staff and parents.

Participants included:

- Alan Ta, Assistant Engineer, Alameda Public Works
- Brian Foster, Police Sergeant, Alameda Police Department
- Greg Sahakian, Principal, Edison Elementary School
- Jennifer Ledet, School Site Coordinator, Alameda County SR2S Team
- Ben Frazier, Planner, Alameda County SR2S Team
- Four Edison Elementary School parents

School Information

Location & Enrollment



	Address:	2700 Buena Vista Avenue Alameda, CA 94501
	Morning Bell(s):	8:20 AM
	Afternoon Bell(s):	Regular Days: 2:50 PM Early Dismissal: 1:50 PM
	Grade Levels:	K - 5
	Enrollment:	469
	School Type (neighborhood/magnet/charter):	Neighborhood school with enrollment boundary

Student Travel Data

Students' Proximity to School (school estimate):	Less than ¼ mile (5-min. walk): 35% Between ¼ and ½ mile (5-10-min. walk): 40% Between ½ and 1 mile (10 to 20-min. walk): 15% Greater than 1 mile (more than 20-min. walk): 10%
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Student Travel Mode Info:	Recent SR2S Hand Tally Data: Spring 2017
	<p>Walking: 48%</p> <p>Biking: 3%</p> <p>School bus: 0%</p> <p>Transit: 0%</p> <p>Carpool: 6%</p> <p>Family Vehicle: 40%</p> <p>Other: 3%</p>

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

<p>Does the school have bike racks? What is the capacity? Is it secure bike parking?</p> <p>On a typical day, what percentage of racks are used?</p>		<p>There are 24 bike racks on campus with capacity for about 48 bicycles. The racks are located within an enclosed area on campus. There is demand for scooter parking on campus.</p> <p>There are no dedicated scooter parking devices. The amount of bicycle parking provided was observed to be sufficient on the day of the assessment.</p>
<p>How do school buses interact with the school?</p>	<p>Few Edison students use school buses to reach school. The buses use curbside space in front of the school on Buena Vista Avenue. Buses are generally not used by general education students.</p>	
<p>Does the school have special pick-up/drop-off restrictions?</p>		<p>Kindergarteners must be picked up by their parents, requiring these parents to park. All other students are released at the dismissal bell.</p>

Edison Elementary is not directly served by AC Transit buses.

Street Profiles

Street Name	Width	Lanes	Posted Speed Limit	Traffic Volumes	Notes
Buena Vista Avenue	36 feet	2 lanes	25 mph	-	ADA parking/loading area
Lincoln Avenue	36 feet	2 lanes	25 mph	-	-
Versailles Avenue	36 feet	2 lanes	25 mph	-	-
Pearl Street	36 feet	2 lanes	25 mph	-	ADA parking/loading area
Broadway	48 feet	2 lanes	25 mph	13,330 vpd At Lincoln (2016)	Bike lanes

Pedestrian- and Bicycle-Involved Collision Summary 2014-2018

Radius from School	Fatal Collisions	Severe Injury Collisions	Visible Injury Collisions	Complaint of Pain Collisions	Pedestrian Collisions	Bicycle Collisions	Total Collisions
< ¼ mi	0	0	4	3	3	4	7
¼ mi – ½ mi	1	4	21	30	29	27	56
Total	1	4	25	33	32	31	63

Source: UC Berkeley – Transportation Injury Mapping System

Existing Conditions

Overview

Edison Elementary School is located in northeastern Alameda, south of the Fruitvale Avenue Bridge. The campus encompasses the entire block bound by Buena Vista Avenue, Lincoln Avenue, Versailles Avenue, and Pearl Street. The school's primary entrance is on Buena Vista Avenue, but Edison Elementary provides many access points for students and families to use. About half of Edison students walk, bike, or scoot to campus (majority walking). Students generally exhibited very good behavior crossing streets including most bicyclists and scooterers dismounting to cross.

Edison Elementary School provides many access points for students and families to use to access campus. There are formal vehicle curbside drop-off locations along Pearl Street, Buena Vista Avenue, and Versailles Avenue. Pearl Street and Buena Vista Avenue were both well-used by drivers. There is also a large proportion of students who walk, bike, or scoot to school. A large group of these students come from the south/eastern side of campus and access campus through a gate at the northern corner of Lincoln Avenue/Versailles Avenue. Some students walking, biking, or scooting from the west have to cross Broadway and typically cross at Lincoln Avenue.



Observations

The following existing conditions were observed or reported by participants during the school safety assessment (SSA).

1. Buena Vista Avenue/Pearl Street

- ◆ This is a four-way stop controlled intersection.
- ◆ There are yellow high-visibility crosswalks marked across all four approaches. The pavement markings were faded.
- ◆ Drivers on all approaches were observed not completely stopping before continuing through the intersection.
 - The northbound right turn onto Buena Vista Avenue was the movement that had the most rolling stops at this intersection.

- ◆ Buena Vista Avenue is one of the primary corridors for pedestrians and bicyclists traveling to Edison Elementary from the north. There are currently no bicycle facilities on Buena Vista Avenue.
- ◆ Drivers were observed pulling to or parking at the curb very close to the intersection (in marked red curb areas), limiting visibility of pedestrians.
 - Many of these drivers were observed backing into the adjacent crosswalk in order to pull out.
 - Drivers stopping this close to intersections limit the visibility of pedestrians and bicyclists in crosswalks and/or waiting to cross.

2. Buena Vista Avenue/Versailles Avenue

- ◆ This is a four-way stop controlled intersection.
- ◆ There are yellow high-visibility crosswalks marked across all four approaches. They are all faded, especially across the Versailles Avenue approaches.
- ◆ Multiple drivers were observed making U-turns at or approaching this intersection.
- ◆ Some pedestrians were observed crossing Buena Vista Avenue mid-block within 50-feet of the intersection.
- ◆ Many parents were observed parking along the available curbside around this intersection to park and walk their children to school.
- ◆ Students who biked through this intersection almost always stopped and dismounted their bikes to cross the street. Many other (non-school-related) bicyclists slowed, but did not stop as they proceeded through the intersection.



Left: Looking out from the school (southwest) corner at the intersection.



Right: The faded high-visibility crosswalk markings across the southern approach.

3. Versailles Avenue/Lincoln Avenue

- ◆ This is a four-way stop controlled intersection.
- ◆ There are yellow high-visibility crosswalks marked across all four approaches. The markings across all four approaches are very faded.
- ◆ Many students walking and biking to campus from the south and eastern parts of the city use Lincoln Avenue to access campus at an entrance at the north corner.



Above: A family crossing Versailles Avenue walking to the northern corner.

4. Lincoln Avenue/Pearl Street

- ◆ This is a four-way stop controlled intersection.
- ◆ There is one marked yellow high-visibility crosswalk across the eastern approach of Lincoln Avenue. The markings of this crosswalk are very faded.
 - The other three approaches do not have marked crosswalks.
- ◆ This intersection has a higher volume of vehicle traffic, because drivers want to use the Pearl Street curbside drop-off area.



Above: The faded crosswalk across Lincoln Avenue.

5. Pearl Street

- ◆ There is a white curb loading zone area on Pearl Street adjacent to the blacktop play area.
 - This area is very well used by families.
 - Some parents were observed parking their cars in the loading area and then leaving the cars unattended as they walked with their children.
 - As time got closer to the bell, more drivers were observed double parking to unload their children.
 - SSA attendees noted that this behavior is worse in the afternoons, when drivers have to wait for their students to walk to the car.
- ◆ Students and families were observed crossing Pearl Street at Edison Court. This intersection is close to a campus access point.

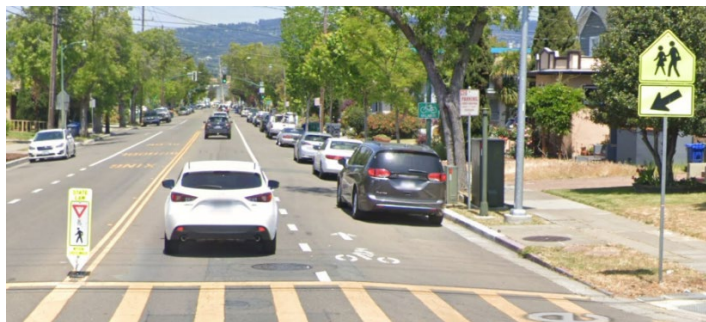


Left: Double parking on Pearl Street around the loading zone.

Right: The ADA loading area on Pearl Street.

6. Lincoln Avenue/Broadway

- ◆ This is a four-way intersection. The Lincoln Avenue (minor) approaches are stop-controlled.
 - There are KEEP CLEAR pavement markings marked for both directions in the intersection.
 - There are advance stop markings at both Lincoln Avenue approaches.
- ◆ There is a yellow high-visibility crosswalk across the northern Broadway approach.
 - There are School Assembly B signs and a R1-6 Yield Paddle.
- ◆ Pedestrians were observed crossing Broadway using the unmarked south approach of the intersection.
- ◆ Drivers were observed not yielding to pedestrians in both the marked crosswalk and those crossing in the unmarked south approach of the intersection
- ◆ Some drivers who did stop, especially southbound drivers, stopped in or very close to the crosswalk.
 - Pedestrians and bicyclists had to go around these encroaching vehicles.
- ◆ Attendees stated that a high volume of school students coming from this direction pass through this intersection.



Above: The School Assembly B sign (right) and Yield Paddle (left).

7. Lincoln Avenue/Gibbons Drive

- ◆ This is a four-way stop controlled intersection.
- ◆ There is a crossing guard stationed at this intersection.
 - Most pedestrian traffic along Lincoln Avenue use the Lincoln Avenue/Versailles Avenue access point at the northern corner.
 - A large number of students were observed passing through this intersection.
- ◆ All four approaches have yellow high-visibility crosswalks, but the markings are faded.



Left: The Gibbons Drive/Lincoln Avenue intersection, with the crossing guard crossing a family in the background.

Right: A family walking up Lincoln Avenue towards campus after crossing Gibbons Drive.

8. Northwood Drive/Gibbons Drive/Southwood Drive

- ◆ This is an asymmetrical four-way intersection.
 - Only the Southwood Drive approach is stop-controlled.
- ◆ The angle of this intersection and trees located near the intersection limit visibility of traffic from other approaches.
 - This is especially true for southbound Gibbons Drive and southbound Northwood Drive traffic.
 - Although Southwood Drive traffic has to stop, the sightline of Northwood Drive from Southwood Drive is limited.
 - Parked cars along Gibbons (between Lincoln and Southwood) can also limit visibility of northbound traffic.
- ◆ There are no marked crosswalks across any of these approaches.
- ◆ Assessment attendees stated that the route most families use to navigate through this area is: walk west on the southern side of Thompson Avenue, Thompson Avenue turns into Southwood Drive, turn left onto Gibbons Drive, turn right onto Lincoln Avenue (cross with the crossing guard), and walk west on Lincoln to reach the campus.



Top: Looking east at the (left to right) Northwood Drive, Gibbons Drive, and Southwood Drive approaches.

Bottom left: A family walking and scooting across Southwood Drive.

Bottom right: The Northwood Drive and Gibbons Drive approaches.

Recommendations

Engineering Recommendations

Recommendations to improve infrastructure or operations surrounding Edison Elementary School can be seen on the conceptual improvement plan found on the following page.

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 Edison Elementary.

The school site coordinator for Edison Elementary is Jennifer 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 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. Edison Elementary also has an active parent champion who works closely with Jennifer to plan and execute SR2S programming at the school.

Programs

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

- ◆ Develop Walk and Bicycle Route Maps
 - The city of Alameda is currently updating the School Route Map for Edison Elementary. These maps illustrate preferred routes to school for walking and biking/scooting. 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.
- ◆ Facilitate and Expand Walking School Buses and Bicycle Trains
 - 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/scoot to school together. WSBs and BTs can be regular events, occurring daily, weekly,

or monthly or occur in coordination with other events like International Walk and Roll to School Day or the Golden Sneaker Contest. 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.

- Edison currently has one daily WSB route. The campus community should consider adding additional routes to better serve students and families living throughout the school's enrollment area.
- ◆ Schedule Pedestrian Rodeos/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.
- ◆ 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.
- ◆ Regular Walk and Roll Events
 - The Edison Elementary community should consider restarting regular (monthly) Walk and Roll to School Days to encourage regular active transportation to/from school.
- ◆ Rolling Drop-off/Student Valet
 - Implement an attended rolling drop-off or student valet program on Pearl Street to improve the efficiency of curbside drop-off, increase compliance with existing drop-off policies, and reduce double parking and other unwanted behaviors. The Alameda County SR2S Program can provide resources to help with outreach and organization for this program.

Safe Routes to Schools Improvement Plan
Edison Elementary School
Alameda

Site Assessment held May 2019

- 1

Buena Vista Avenue/Pearl Street
 - Refresh the four high-visibility crosswalks
 - Install advance stop markings at all approaches to discourage vehicle encroachment
 - Install appropriate red curb/parking restriction signage at this intersection**
- 2

Buena Vista Avenue/Versailles Avenue
 - Refresh the four high-visibility crosswalks
 - Install advance stop markings at all approaches to discourage vehicle encroachment
 - Install an R3-4 No U-turn sign for eastbound Buena Vista Avenue traffic
 - Install appropriate red curb/parking restriction signage at this intersection**
- 3

Versailles Avenue/Lincoln Avenue
 - Refresh the four high-visibility crosswalks
 - Install advance stop markings at all approaches to discourage vehicle encroachment
 - Install appropriate red curb/parking restriction signage at this intersection**
- 4

Lincoln Avenue/Pearl Street
 - Refresh the existing high-visibility crosswalk across the eastern approach
 - Install high visibility crosswalks across the northern and southern approaches
 - Install advance stop markings at all approaches
 - Install appropriate red curb/parking restriction signage at this intersection**
- 5

Pearl Street
 - Extend the white curb drop-off area by 130 feet to the south (the rest of the block)
 - Consider marking a high visibility crosswalk across Pearl Street from the southern corner of Edison Court
 - If installed, construct a curb ramp on the eastern side of Pearl Street and install advance yield markings on Pearl Street
 - Install appropriate red curb/parking restriction signage at this intersection**
- 6

Lincoln Avenue/Broadway
 - Install yellow transverse crosswalks across the eastern and western crosswalks; set back and reinstall advance stop markings if necessary
 - Mark a high visibility crosswalk across the southern Broadway approach
 - Install advance yield markings for the Broadway crosswalks with R1-5 Yield Here to Pedestrians Signs
 - Install RRFs for the Broadway crosswalks (RRFB should be set up to serve both crosswalks)
 - Install appropriate red curb/parking restriction signage at this intersection**
- 7

Gibbons Drive/Lincoln Avenue
 - Refresh the four high-visibility crosswalks
 - Install advance stop markings at all approaches to discourage vehicle encroachment
 - Install appropriate red curb/parking restriction signage at this intersection**

- 8

Gibbons Drive/Northwood Drive/Southwood Drive
 - Reconfigure this intersection by installing a neighborhood traffic circle
 - Conduct a stop warrant engineering analysis to determine if this location meets the warrants for an all-way stop controlled intersection. [Installation of stop-controlled intersections are governed by state law and warrants must be met before installation can be completed]
 - Mark high-visibility crosswalks across all approaches
 - Install appropriate red curb/parking restriction signage at this intersection**
 - Consider installing speed cushion/speed bumps on Gibbons Drive and Southwood Drive east of the intersection. Consider converting the crosswalk at Northwood Drive/Buena Vista Avenue to a raised crosswalk (not symbolized on map)

Existing Conditions

Existing Crossing Guard Location

Existing School Access Point

Existing Curb Parking Restrictions

Existing Bike Parking

Recommendations

Recommended Curb Parking Restrictions

Recommended Advanced Stop Pavement Marking

Recommended Curb Ramp

Recommended Yellow High-Visibility Crosswalk

Recommended White High-Visibility Crosswalk

Recommended R3-4 "No U-Turn" Signage

Recommended Advance Yield Markings

Recommended Transverse Crosswalk

Recommended R1-5 Yield Here to Pedestrians Signage

Recommended Pedestrian Actuated Beacon

Recommended Traffic Circle

Recommended Stop Control

Implementing Agency

City of Alameda

*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.