



School Safety Assessment Technical Memorandum

Malcolm X Elementary School

1731 Prince Street, Berkeley, CA 94703

Berkeley Unified School District

Morning Assessment: October 2021

Afternoon Assessment: November 2021



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.

Malcolm X Elementary School


A school safety assessment was conducted at Malcolm X Elementary School in Berkeley during the morning arrival on Thursday, October 7, 2021, and during the afternoon dismissal on Tuesday, November 9, 2021. The assessment was attended by representatives from the City of Berkeley, Berkeley Unified School District, Alameda County Safe Routes to Schools staff, and Malcolm X Elementary School staff and parents.

Participants included:

- Ryan Murray, Transportation Planner, City of Berkeley
- Juan Jaramillo, Engineer, City of Berkeley
- Matthew Cotterill, Planner, City of Berkeley
- Sofia Peltz, Sustainability Program Coordinator, Berkeley Unified School District
- Alexander Hunt, Principal, Malcolm X Elementary School
- Allison Woodworth, Engineer, Alameda SR2S team
- Sheila Islam, School Site Coordinator, Alameda SR2S team
- Kenny Jeong, Engineer, Alameda SR2S team
- Samah Itani, Planner, Alameda County SR2S team
- Brett Hondorp, Planner, Alameda County SR2S team
- 4 School parents



School Information

Location & Enrollment

	Address:	1731 Prince Street Berkeley, CA 94703
	Morning Bell(s):	8:10 AM
	Afternoon Bell(s):	2:20 PM
	Grade Levels:	Transitional Kindergarten-Grade 5th
	Enrollment:	488
	School Type (neighborhood/ magnet/charter):	Neighborhood

Student Travel Mode Info:	Recent SR2S Hand Tally Data: Spring 2019
	Walking: 26% Biking: 12% School bus: 16% Transit: 1% Carpool: 6% Family vehicle: 40% Other: 0%

Bikes, Buses, and Rolling drop-off/pick-up

<p>Does the school have bike racks? What is the capacity? Is it secure bike parking?</p>		<p>The school has a bike rack inside the fenced playground along King Street.</p>
<p>On a typical day, what percentage of racks are used?</p>		<p>Approximately 50%</p>
<p>How do school buses interact with the school?</p>		<p>Malcolm X Elementary is served by school buses with a dedicated drop-off and pick-up area along the west side of Ellis Street at Prince Street.</p>

<p>Is the school served by local transit agencies? Are there stops within ¼ mile?</p>	<p>There is an AC Transit stop on Ashby Avenue, east of the school's back gate.</p>	
<p>Does the school have special pick-up/drop-off policies/procedures?</p>		<p>All vehicles drop off and pick up students at the gate on Kind Road or Ellis Street. Rolling drop-off/pick-up zones are assigned based on grade level.</p>

Street Profiles

Street Name	Width	Lanes	Posted Speed Limit	Traffic Volumes
Prince Street	36 feet	Two lanes	15 mph	Data not available.
Ashby Avenue	40 feet	Four lanes	35 mph	Data not available.
Ellis Street	38 feet	Two lanes	15 mph	Data not available.
King Street	36 feet	Two lanes	15 mph	Data not available.

Pedestrian- and Bicycle-Involved Collision Summary 2016-2020

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	33	0	2	20	11	23	10
¼ mi – ½ mi	101	2	13	49	37	50	52
Total	134	2	15	69	48	73	62

Source: UC Berkeley – Transportation Injury Mapping System, Safe Transportation Research and Education Center, University of California, Berkeley, 2021

Community Health and Demographics

(Data from the census tract of the school site)

Percent of Students Eligible for Free or Reduced Priced Meals ('20-'21 school year)	MTC Community of Concern Designation (2018)	Healthy Places Index Score (2021)	CalEnviroScreen 4.0 Percentile (2021)
24.8%	High category	58.3 Percentile	48 Percentile

Sources: California Department of Education, Metropolitan Transportation Commission, Public Health Alliance of Southern California, and California Office of Environmental Health Hazard Assessment

Existing Conditions

Overview

Malcolm X Elementary is located in the city of Berkeley along Prince Street, south of Ashby Avenue. The school is bounded by Prince Street, King Street, Ellis Street, and Ashby Avenue. The main gates for student entry/exit are on King and Ellis Streets; the school is fully fenced along Ashby Avenue, and there is no direct access from

that arterial street. Almost half of the students arrive by family vehicle, and a quarter of families walk to and from campus. The school has placed two “rolling drop-off” zones along King Street and Ellis Street to make the vehicle drop-off process more efficient. The two designated zones are assigned to drivers based on the student’s grade level. In the morning, a curbside rolling drop-off zone is defined by cones, drivers are queued until they reach the gate, and staff or volunteers assist with opening car doors for unloading children. The afternoon pick-up occurs at the same gates but waiting for cars quickly fills the curbside area, and other waiting cars double park in the travel lane to wait for dismissal.

Many students and families who walk or bicycle cross Ashby Avenue at King Street, which is signalized and has a crossing guard. School staff and parents report that it is uncomfortable to cross Ashby Avenue at King Street even with the traffic signal and crossing guard due to heavy vehicle traffic on both Ashby Avenue and King Street during the school commute, which creates substantial congestion at the intersection. King Street is a designated bike boulevard and a common route for bicyclists traveling north-south in Berkeley.

Ashby Avenue around Malcolm X Elementary is on the Alameda County Transportation Commission’s (ACTC) countywide high injury network.

Observations

Participants observed or reported the following conditions during the school safety assessment (SSA).

1. King Street/Ashby Avenue *(Corresponds to #1 on improvement map)*

- ◆ This is a signalized intersection. Ashby Avenue is a major road with one travel lane in each direction, on-street parking with peak hour parking restrictions in the westbound direction in the morning, and the eastbound direction in the afternoon, providing an additional travel lane in each of those directions, respectively. King Street is a local road with one travel lane in each direction and on-street parking and is designated as a Bicycle Boulevard.
- ◆ There is a crossing guard stationed at the east leg of the intersection that helps families cross the street.
- ◆ The crossing guard shared that there have been multiple incidents where motorists on Ashby Avenue failed to stop for a red light. This was observed during the walk audit, where motorists on Ashby Avenue entered the intersection on a late yellow and were still in the middle of the intersection after the light had changed to green in the King Street direction.
- ◆ There are high-visibility crosswalks across Ashby Avenue.
- ◆ During the morning and afternoon observation periods, there were several instances where students crossing Ashby Avenue ran out of time to cross the intersection and had to rush to make it across to the curb.

Alameda County Safe Routes to Schools Program

- ◆ During the morning and afternoon observations, drivers were speeding on Ashby Avenue.
- ◆ Several families were observed biking or walking along Ashby Avenue and King Street, making their way to the school entry gate on King Street.



Left: Crossing guard helping students and families cross King Street along the south side of Ashby Avenue



Right: Crossing guard helping student cross Ashby Avenue on the east side of King Street. The pedestrian timer has approached zero, and the student hasn't made their way to the sidewalk yet.



Left: King Street is a Bicycle Boulevard used by many bicyclists. During afternoon pick-up, a parent rides their bike with their kid.



Right: Bicyclist on King Street riding south towards Prince Street.



Above: Crossing guard helping students and families cross Ashby Avenue on the east side of King Street.

The following infrastructure recommendations are proposed to improve the existing conditions described above:

- *Installing/constructing new: Paint-and-post curb extensions*
- *Study this location for signal timing and leading pedestrian intervals*

2. King Street Frontage *(Corresponds to #2 on the improvement map)*

- ◆ During the morning period, a “rolling drop-off” zone is set up on King Street at the access gate between Tyler Street and Ashby Avenue. Volunteers place cones to create a curbside drop-off lane, vehicles queue up in the lane, and volunteers stationed by the gate assist with opening doors and unloading students from cars to keep the queue moving. Under the rolling drop-off, all unloading must happen at the front of the line where the volunteers are stationed. The rolling drop-off period is from 8:00-8:10 am. The King Street gate is designated for grades TK, K, 3, and 4; other grades use the Ellis Street gate.
- ◆ Existing signage designates this area as a Passenger Loading Zone sign from 7:45-8:45 am to keep parked vehicles clear. A sign for 2-hour parking from 8:30 am-6:00 pm is at this location
- ◆ During the morning observation period, the rolling drop-off process was efficient, and motorists appeared to follow the rules of staying in the queue and not pulling out of line.
- ◆ During the afternoon pick-up observation period, drivers were parked alongside most of the curb. Some of these cars were occupied by parents waiting to pick up students, while several other vehicles were unoccupied. As a result of the cars parked along the curb, many drivers picking up students in the afternoon double parked in the travel lane while waiting for dismissal.
- ◆ This is the route taken by the school buses that pick-up students along Ellis Street, Prince Street, and King Street to make their way onto Ashby Avenue.

- ◆ King Street is a designated bicycle boulevard, and during both observation periods, numerous non-school-related bicyclists were traveling in both directions on King Street. A bicycle boulevard does not designate space for bicyclists; they have to mix with vehicular traffic along King Street.
 - During the morning, there was heavy congestion along King Street in the northbound direction, as a queue of vehicles formed waiting at the traffic signal at Ashby Avenue. This queue backed up to Taylor Street and created delays with vehicles exiting the rolling drop-off lane.
 - During the morning, most motorists turned left from King Street onto Ashby Avenue. Left turns were sometimes delayed by the presence of vehicles on Ashby Avenue in the middle of the intersection after the light had changed. They could not proceed due to congestion farther east or pedestrians starting their walk phase. Bicyclists and vehicles heading south had the opportunity to turn only when left-turning motorists yielded the right of way. While right turn volumes were not as high, due to the eastern crosswalk on Ashby Avenue being the primary crossing location, there were heavy pedestrian volumes that restricted the ability of right-turning motorists to turn during a signal cycle. As noted earlier, several pedestrians provided feedback that the pedestrian walk interval was insufficient to get across the street. The result of the general congestion at this location was that many vehicles were not able to clear the intersection within a signal cycle, pedestrians and bicyclists going north or south on King Street were forced to maneuver among the vehicles trying to turn, and this further exacerbated the queue extending back on King Street. The timing of all of this is a relatively short period between 8:00 and 8:20, but it is a period of very heavy pedestrian and bicycle activity.



Top left: Drivers pulling up to the drop-off loop during the morning observation on King Street.

Top right: Drivers double parked along King Street during the afternoon pick-up period.

Bottom left: Traffic backed up near the pick-up zone during the afternoon observation period at the red light on King Street at Ashby Avenue.

Bottom right: A driver is double parked while there is an available parking spot at the curb during the afternoon pick-up observation period.

The following infrastructure recommendations are proposed to improve the existing conditions described above:

- *Refreshing these existing items: Bike boulevard pavement markings and school loading signs*

3. Ellis Street Rolling drop-off/pick-up Zone

- ◆ Similar to King Street, a “rolling drop-off” zone is set up during the morning period on Ellis Street at the access gate. The Ellis Street gate is designated for grades 1, 2, and 5. Volunteers place cones to create a curbside drop-off lane, vehicles queue up in the lane, and volunteers stationed by the gate assist with opening doors and unloading students from cars to keep the queue moving. Under the rolling drop-off, all unloading must happen at the front of the line where the volunteers are stationed. The rolling drop-off period is from 8:00-8:10 am.
- ◆ Existing signage designates this area as a Passenger Loading Zone sign from 7:45-8:45 am to keep parked vehicles clear. A sign for 2-hour parking from 8:30 am-6:00 pm is at this location.
- ◆ During the morning observation period, the rolling drop-off process was efficient, and motorists appeared to follow the rules of staying in the queue and not pulling out of line.
- ◆ During the afternoon pick-up observation period, the Ellis Street pick-up zone was not as congested as the pick-up zone along King Street. School staff shared that there are multiple dismissal times for students assigned to Ellis Street, which staggers the pick-up peak. There was still some double parking observed as curb spaces filled up.
- ◆ Although there is a No U-turn sign along Ellis Street near the rolling drop-off zone, more than five drivers were observed making U-turns during the morning drop-off period.
- ◆ School buses drop-off and pick-up students south of the rolling drop-off zone along Ellis Street near Prince Street.



Left: Parents and school bus drivers dropping off students during the morning drop-off observation along the west side of Ellis Street.



Right: Drivers dropping off students at the designated rolling drop-off zone on Ellis Street.



Left: Parents dropping off students during the morning drop-off observation along the west side of Ellis Street.

Right: School bus drivers dropping off students on Ellis Street near Prince Street.

4. Ellis Street/Ashby Avenue

- ◆ Ellis Street at Ashby Avenue is stop-controlled on the Ellis approaches and has marked crosswalks on all legs. The uncontrolled crossings of Ashby Avenue have Rectangular Rapid Flashing Beacons (RRFBs) on the southwest and northeast corners, which are actuated by any of the four crossing buttons.
- ◆ During the morning observation, participants observed drivers speeding while pedestrians waited to cross Ashby Avenue on Ellis Street.
- ◆ Assessment participants also stated that drivers attempting to make a left turn onto Ellis Street from Ashby Avenue would block Ashby Avenue while they waited for a gap, causing traffic to build up past Martin Luther King, Jr. Way to the east.
- ◆ During both observation periods, participants shared there were several pedestrian-driver conflicts as drivers and families were attempting to cross Ellis Street to make their way to the school gate on Ellis Street or crossing Ellis Street going east or west on Ashby Avenue.



Left: Four-way intersection on the southwest corner of Ashby Avenue at the west side of Ellis Street.



Right: During the morning observation, east of side of Ellis Street at the southeast side of Ashby Avenue.

5. Prince Street

- ◆ The Malcolm X Elementary School campus has direct frontage along Prince Street.
- ◆ During the morning drop-off observation, five drivers dropped off students at the school frontage after the rolling drop-off period had ended at 8:00 am.
- ◆ Several staff members were observed parking their bikes at the bike racks near the school frontage at Prince Street.
- ◆ During the morning and afternoon rolling drop-off/pick-up times, the curb parking on both sides of Prince Street was fully occupied.
- ◆ During the morning drop-off period, three students were seen riding scooters alongside parents on their bikes.



Left: South side of Prince Street near the school frontage.

Right: North side of Prince Street, looking towards Ellis Street.

Participant Comments

School staff and parents who attended the assessment were primarily concerned with the traffic and crossing conditions along Ashby Avenue, especially the Ashby Avenue and King Street intersection, and the rolling drop-off/pick-up along King Street. Concerning the Ashby Avenue crossing, they stated that there usually is insufficient time for students and families to make it across Ashby Avenue during the pedestrian walk phase before the light turns red. They are also concerned about speeding and drivers running the red light at Ashby Avenue. At the rolling drop-off along King Street, they stated curbside parking restrictions during the morning drop-off should be extended to cover the afternoon pick-up times and reduce double parking. They shared their concerns about drivers who tend to double park and block traffic from reaching the traffic signal at Ashby Avenue, causing conflicts between bicyclists and drivers.

Parents and staff could also comment and share their concerns through the interactive online input map. Some of the feedback received through the online input map include concerns about drivers double parking on King Street during pick-up, which forces bicyclists to go into the oncoming lane to get around drivers blocking the roadway. Several parents also shared safety concerns about drivers ignoring the actuated beacon at the Ashby Avenue and Ellis Street intersection. They shared that drivers regularly ignore the flashing beacon lights and speed through the crosswalk as pedestrians, including parents and students, cross the street. Lastly, many parents shared similar concerns when walking or biking and crossing at the intersection of Alcatraz Avenue and King Street. This location also has an actuated flashing beacon. Parents shared they believe the current push buttons for the RRFB, which are only on the eastern approach of the intersection, are insufficient and challenging to access for those coming from the west.

Recommendations

Engineering Recommendations

Recommendations to improve infrastructure or operations surrounding Malcolm X 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 the campus community at Malcolm X Elementary School.

The School Site Coordinator for Malcolm X Elementary School is Sheila Islam. 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:

Sheila Islam, sislam@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 Malcolm X 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.
- ◆ Encourage Parents to Park and Walk from Designated Locations
 - Potential park and walk locations have been identified on the Improvement Plan Map.
 - Along Prince Street, west of Malcolm X Elementary.
 - Along Prince Street, east of Malcolm X Elementary.
 - Along King Street, south of Malcolm X Elementary and south of Prince Street.
 - The school should encourage parents to utilize these locations to reduce congestion in and near existing rolling drop-off/pick-up locations.
- ◆ Facilitate 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 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.

- ◆ 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.
- ◆ 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.



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.
This figure is intended only for reference, conceptual planning, and informational purposes. This figure should not be used to establish boundaries, property lines, location of objects, or to provide any other information typically needed for final design, construction or any other purpose when engineered plans are required.

Safe Routes to Schools Improvement Plan

Malcolm X Elementary

Berkeley

School Safety Assessment held March 22, 2022August, 2021

Improvement Detail

- 1a Install a paint and post curb extension area to narrow the pedestrian crossing distance across King Street and restrict the travel lane approach to a single vehicle width, while still providing permeability for cyclists to maneuver forward and stage at the front of the intersection during times of heavy vehicle queuing. Consider using bike box type markings in this area to clearly delineate separate pedestrian, bicycle and vehicle spaces
- 1b Coordinate with Caltrans to extend pedestrian time for Ashby crossings and/or provide a leading pedestrian interval. Extended crossing time or LPI can be limited to school arrival and pick up times
- 1c Coordinate with Caltrans to install bike boxes for the two King approaches
- 2a Refresh the sharrow markings on King St
- 2b Update R25D "School Loading" signs on King Street to include afternoon pick-up hours 2-4 pm. Synchronize no parking times on this block
- 3a Consider designating Prince St west of King Street as a park & walk location
- 4a Consider designating Prince St east of Ellis Street as a park & walk location