



School Safety Assessment Technical Memorandum

Amador Valley High School

1155 Santa Rita Road, Pleasanton, CA 94566

Pleasanton Unified School District

February 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.

Amador Valley High School


A school safety assessment was conducted at Amador Valley High School (AVHS) in Pleasanton during the afternoon dismissal on Thursday, February 20, 2020. The assessment was attended by representatives from the City of Pleasanton, Pleasanton Police Department, Alameda County Safe Routes to Schools staff, Amador Valley High School staff, parents, and students.

Participants included:

- Cedric Novenario, Senior Transportation Engineer, Pleasanton Community Development Department
- Officer Matt Lengel, Pleasanton Police Department
- Jamie Mather, Vice Principal, Amador Valley High School
- Officer Ben Sarasua, Pleasanton Police Department
- Cris Byers, Staff, Amador Valley High School
- Vince Albanese, Campus Supervisor, Amador Valley High School
- Andre Huff, Engineer, Alameda County SR2S team
- Beth Martin, Planner, Alameda County SR2S team
- Ben Frazier, Planner, Alameda County SR2S team
- One Amador Valley High School leadership student
- Four Amador Valley High School parents/PTSA members

School Information

Location & Enrollment


	Address:	1155 Santa Rita Road Pleasanton, CA 94566
	Morning Bell(s):	Early period: 7:00 am First Period: 8:00 am
	Afternoon Bell(s):	Dismissal: 3:00 pm or 3:01 pm Early Dismissal: 12:40 pm
	Grade Levels:	9 - 12
	Enrollment:	2,713
	School Type (neighborhood/ magnet/charter):	Neighborhood school with larger high school enrollment area



Student Travel Data

Students' Proximity to School (school estimate):	<p>Less than ¼ mile (5-min. walk): 10%</p> <p>Between ¼ and ½ mile (5-10-min. walk): 20%</p> <p>Between ½ and 1 mile (10 to 20-min. walk): 30%</p> <p>Greater than 1 mile (more than 20-min. walk): 40%</p>
---------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Student Travel Mode Info:	<p>School Estimate:</p> <p>Walking: 20%</p> <p>Biking: 20%</p> <p>School Bus: 1%</p> <p>Transit: 10%</p> <p>Carpool: 10%</p> <p>Family Vehicle: 39%</p> <p>Other: 0%</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>The AVHS campus has capacity for about 200 bicycles. Banks of racks are located in multiple locations on campus, but none are in a completely secure (fully enclosed) location.</p> <p>The majority of bicycle racks are used each day, but there are still spaces available for additional bikes.</p>
How do school buses interact with the school?	<p>School buses are only used by students with special needs or students with other special circumstances.</p>	

<p>Is the school served by local transit agencies? Are there stops within ¼ mile?</p>		<p>The Wheels 10R bus serves AVHS with stops on Santa Rita Road. The primary stop is located near the loop and student parking lot. A secondary stop is at the Del Valle Parkway intersection.</p>
<p>Does the school have special pick-up/drop-off policies/procedures?</p>		<p>Pick up and drop off at AVHS occurs in three primary locations: the student parking lot (Santa Rita Road), drop-off loop (Santa Rita Road), and the parking structure (Del Valle Parkway). Pick up and drop off also occurs at Valley Community Church on Del Valle Parkway; the school has an agreement with the church permitting this activity.</p>

Street Profiles

Street Name	Width	Lanes	Posted Speed Limit	Traffic Volumes	Notes
Santa Rita Road	64 feet	5 lanes	35 mph School Zone - 25 mph	35,500 vehicles (24 hour count @ AVHS)	Southbound Class II bike lane Frontage road on east side of street
Del Valle Parkway	70 feet	2 lanes	25 mph	26,900 vehicles (24 hour count at Main/Stanley-Del Valle)	Class IIB buffered bike lanes

Pedestrian- and Bicycle-Involved Collision Summary 2015-2019

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	3	0	0	2	1	1	2
¼ mi – ½ mi	30	0	2	19	9	13	17
Total	33	0	2	21	10	14	19

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

The City of Pleasanton also provided corridor-specific collision data for bicycle- and pedestrian-involved collisions along Santa Rita Road. Between 2015 and 2019, seven collisions occurred along Santa Rita Road: four at Silver Street, two at Jensen Street, and one at Nevis Street.

Existing Conditions

Overview

Amador Valley High School is located in Pleasanton at Santa Rita Road and Del Valle Parkway. Amador Valley High School is a large high school with over 2,700 students. Students use a variety of transportation modes to access the campus including walking, biking, carpooling, public transit, and driving (themselves, carpooling, and being dropped off). All school access points are located along Santa Rita Road and Del Valle Parkway. There is a closed access gate near the northwest corner. The non-street edges of campus abuts single-family residences. Railroad tracks used by ACE trains run along the southeast corner of the campus.

Pick-up and drop-off activity at Amador Valley High School has three primary locations: student parking lot/drop-off lane, parking structure and drop-off lane. The graphic on the following page calls out these locations and shows general traffic flows. The student parking lot has a long curbside drop-off area in addition to having the largest concentration of parking. Students walking north on Santa Rita Road and bicyclists exiting the northern parking area also pass through this area. The drop-off lane provides an additional area for pick-up and drop-off. Students will also walk through this area to access Santa Rita Road. There is a two-story parking structure

and additional surface parking accessed from Del Valle Parkway. Santa Rita Road is heavily used by pedestrians and bicyclists (mostly on the sidewalk). Northbound and southbound Wheels bus stops also stop on Santa Rita Road.

Santa Rita Road is on the Alameda County Transportation Commission's High Injury Network for both pedestrians and bicyclists.



Observations

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

1. Santa Rita Road

- ◆ Santa Rita Road is a five-lane road with a Class II bicycle lane in the southbound direction only. Santa Rita Road has a bi-directional frontage on the eastern side of the street.

- The sidewalk on the AVHS side of Santa Rita Road is very congested with students walking, biking, and scooting.
- As there is no northbound bicycle lane, students were observed bicycling and scooting the wrong direction in the southbound bike lane or ride on the sidewalk.
- ◆ The student parking lot has three driveways along Santa Rita Road. The northernmost driveway is entries only, the middle driveway has two exit lanes and one entry lane, and the southernmost driveway is exit only.
 - During the morning drop-off and afternoon pick-up periods, vehicle congestion backs-up from the entry driveway to the post office (at its peak). Congestion was reported by participants to be worse in the morning.
 - While waiting to enter either entry driveway, drivers will idle along the curb, blocking the bike lane. This forces bicyclists (going both directions) onto the sidewalk, mixing with a very high volume of pedestrians.
 - In the afternoon, guardians start to queue well before the afternoon bell.
 - All three driveways experience high volumes of student pedestrian cross traffic. School staff reported that these conflicts are worse at the exit driveways as drivers speed out of the lot.
 - Many of the curb ramps/driveways are designed in such a manner that drivers constantly clip the curb when turning in. This is especially problematic as students tend to wait very close to the driveway edge until the signal changes.
- ◆ The primary Wheels bus stops are located on Santa Rita Road near the Church Street intersection. The southbound stop is south of the drop-off loop entry driveway and the northbound stop is located on the island between the primary and frontage roads north of the driveway intersection.
 - The driveway intersection is signalized. There is a yellow high-visibility crosswalk across Santa Rita Road at the southern side of the driveway. This crossing is heavily used by students boarding and alighting buses.
 - There is not enough queuing space at the corner for students on the school side waiting to cross; students currently overflow the sidewalk and fill up the nearby grassy area.
 - There is a bus shelter and other stop amenities for the northbound stop. There are no amenities for the southbound stop.
 - On a typical day, AVHS is served by up to three Wheels buses (includes additional trips to meet school demand) in the dominant travel direction and two in the opposite direction.
 - The northbound bus pull-in is not large enough for all three buses to dwell; sometimes the third bus both dwells and boards in the travel lane.
 - The current location of the southbound stop forces buses to stop and idle in the bike lane and #2 southbound travel lane.

- ◆ The Santa Rita Road frontage road is sometimes used as an alternative drop-off/pick-up location by parent drivers. Drivers who use the frontage road for these purposes commonly block driveways, the crosswalk at Santa Rita Road (frontage) and School Street, and also perform U-turns on the frontage road (the frontage road is two-way).



Left: Students walking north on Santa Rita Road.

Right: Students walking north on Santa Rita Road with queuing waiting to cross the northern student parking lot driveway.



Above: Students crossing and biking across the middle student parking lot driveway.

2. Santa Rita Road at Del Valle Parkway

- ◆ Left turning vehicles do not have protected signal phases, which may result in a more aggressive turning behavior as drivers focus more on finding gaps in opposing vehicle traffic and less at paying attention to their surroundings and watching for pedestrians and bicyclists.
- ◆ School staff and students stated that drivers turn onto westbound Del Valle Parkway quickly and frequently fail to yield to crossing pedestrians. This is common with both southbound right and northbound left turns onto Del Valle Parkway.
 - Close calls between drivers and students in the crosswalk with the walk sign occur frequently during arrival and pick-up periods.
- ◆ AVHS staff stated that students typically wait for the walk sign to cross the street, but will step-off the curb and start crossing regardless of whether or not approaching drivers yield the right of way to pedestrians.
- ◆ School-related traffic on Santa Rita Road, especially during the afternoon dismissal period, can congest many of the intersections south of the campus. Staff reported that drivers commonly block the Del Valle Parkway intersection because congestion from the Ray Street intersection prevented them from clearing the intersection.

3. Del Valle Parkway

- ◆ Del Valle Parkway is a two-lane residential collector street which spans from east to west along the south side of the campus. Along the school frontage, the roadway includes Class II buffered bike lanes and Class II bike lanes continue west of campus. Additionally, parking lanes existing on both sides of the street accompanied by a raised center median and left-turn pockets where driveways exist. The posted speed limit is 25 miles per hour.
- ◆ During the afternoon dismissal period, the majority of vehicles exited the parking lot located on Del Valle Parkway. Vehicles were observed exiting the parking lot by making both right-hand and left-hand turns onto Del Valle Parkway; both turning movements are allowed.
- ◆ Vehicles making eastbound left-turns into the parking lot were observed queuing in the dedicated turn-pocket farther east than would be expected. This is likely due to the geometry of the intersection caused by the off-set outbound driveway also providing access to Del Valle Parking.

4. Student Parking Lot

- ◆ The student parking lot provides parking for both students and staff. The parking lot serves two purposes: a drop-off/pick-up area and a parking lot.
- ◆ AVHS recently had their parking lot resurfaced to accommodate the installation of solar panels, requiring changes to the parking configuration. The parking lot's updated striping plan has created many issues for students and staff:

- The solar panels necessitated the installation of parking stops in individual parking stalls to discourage vehicles from hitting the solar equipment. No accommodations were made for larger vehicles anywhere in the lot.
 - Some students and staff have trucks, SUVs, and other longer vehicles. Drivers must position their vehicle so that it straddles the parking stop to allow for more forward movement or partially block the narrow drive aisles. This is not consistently done by drivers.
- Throughout the parking lot, there are crosshatched pavement markings. In some cases, these appear to be no parking areas and in others they appear to be pedestrian paths. There is no clear difference in delineation for these two purposes which causes confusion among all parking lot users.
 - In some cases, where these markings appear to be pedestrian paths across a drive aisle, they sometimes only connect to a no parking area or connect to a sidewalk without a curb ramp.
 - Where these markings are intended to be paths, they are not wide enough to sufficiently serve the peak volumes of pedestrians.
 - In some cases, the markings blend in/extend into with nearby no parking areas, blurring the intended purpose.
 - There are multiple locations within the parking lot where posted signs in the buffer areas have been runover by vehicles. These signs have not been replaced. In some cases, remnants of the post remain in the ground.
 - There are three driveways that serve the parking lot. The northern driveway is entry only, the middle driveway is bi-directional with one in lane and two out lanes, and the southern driveway is exit only. Left and right turns can be made at both exit driveways.
 - The northern driveway is the primary entry point for most vehicles and the middle driveway is the main exit point. Many drivers travel fast along the center turning lane that connects the middle driveway (signalized) with the other two. The majority of observed driver speeding was outbound, but inbound drivers drove quickly as well. High speeds are especially problematic here because of the high volume of students walking and biking freely, and sometimes unexpectedly, across the center aisle and between cars, limiting visibility and exacerbating the existing conditions.
 - Some of these students are distracted and not paying attention to their surroundings. School staff has routinely intervened to help prevent near misses.

- The reconfigured parking aisles run east-west. The original redesign allowed access to the center aisle from both the east and west sides of the lot. School staff currently closes off the access point from the center aisle to the northern half of the parking lot. This forces all traffic in the northern half of the lot to enter through the north driveway and exit via the western aisle to the center aisle. This closure is necessary to prevent exiting drivers from blocking the entry path for drivers trying to enter the lot.
 - Drivers exiting the southern half of the parking lot can access the center aisle through the eastern aisles.
- Some of the drive aisles in the parking that are intended for one-way traffic are commonly used as bi-directional routes by students. This creates jams within the parking lot as drivers slowly move around each other (and people walking and biking) in narrow spaces intended for one-way traffic.
- ♦ Drop-off within the parking lot occurs along the western curb in front of the AVHS fields. There are two vehicle lanes against this curb: a curbside drop-off lane and a through/exit lane. The exit lane is shared with general parking lot traffic.
 - Drivers often do not pull forward, causing increased congestion and limiting available curb space. Sometimes drivers idle here for extended periods of time.
 - Drivers who enter the parking lot through the middle driveway, must navigate the intersection where the center aisle and drop-off/parking lot exit lane come together and then merge over into the curbside lane. This very congested intersection has multiple vehicle movements, pedestrians, and bicyclists with very little control or organization.
 - The sidewalk behind this drop-off area is narrow for the amount of pedestrian (and bicycle) traffic it carries. This is a common path for both those using the drop-off area and walking to northern parts of the lot. Bicyclists also ride on the sidewalk traveling northbound from the bike corral at the southern end of the drop-off area. There is no dedicated path in the parking lot for bicycles.
- ♦ While some students walk or bike on the sidewalk against the field, many students (especially those traveling to vehicles) walk or bike freely across the parking lot (including across the center aisle). This behavior creates conflicts throughout the lot as people are walking to/from cars and biking on/off campus as vehicles move around the lot.



Left: The center drive aisle, facing Santa Rita Road.

Right: The curbside drop-off lane and through lane, facing the campus access point (in front of the Fiat).



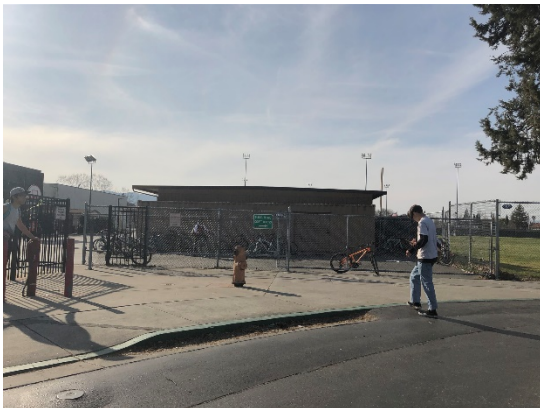
Above: The drop-off lane, through lane, and parking lot pavement markings.



Left: The drive aisle school staff closes off in the afternoon.



Right: Students walking and biking between moving cars during the afternoon dismissal period.



Left: The campus access point and northern bicycle area.



Right: A staff member who (by school requests) parked his/her truck around the curb stop, encroaching the buffer area to not block the drive aisle.



Above: The sidewalk and curbside drop-off area.

5. Drop-off Loop

- ◆ The drop-off loop is two-travel lines wide, and has red painted curbs on both sides marked as “FIRE LANE - NO PARKING”. There are signs on the traffic signals indicating no turns into the loop 2:30-3:30 pm during weekdays.
- ◆ Despite signage, drivers were observed parking along the red curb of the drop-off loop to pick-up students in the afternoon.
- ◆ It can be difficult for drivers to turn into and out of the loop with cross-traffic on Santa Rita Road.



Above: Drivers are queued along red curb of drop-off loop.

6. Parking Structure, Staff Parking Lot, Southern Parking Lot & Church Parking Lot

- ◆ An agreement with the church has been reached stating that students may use the parking lot during school hours so long as the students park in their designated stalls.
- ◆ The parking structure/staff parking lot, church parking lot, and southern student parking lot are accessed via Del Valle Parkway. Two driveways provide access to/from the parking areas located on the south side of the campus. The eastern driveway is characterized by two receiving lanes and the western driveway includes two outbound lanes, including a right-turn only lane and a left-turn only lane. The two driveways are separated by a raised median approximately 20 feet wide.

- ◆ The student surface parking lot can be accessed by immediately turning right once entering the parking lot via Del Valle Parkway. Parents and guardians were observed waiting to pick-up students in the pick-up/drop-off loop and the north and east sides of the parking lot.
 - Drivers were observed blocking special needs school buses staged within the parking lot.
 - Drivers were also observed traveling down drive aisles in the wrong direction.
- ◆ Students are also allowed to park on the second level of the parking structure. After the dismissal bell rang, students were observed walking up the vehicle ramp which leads to the second level of the parking structure, rather than using the stairs. This creates a major conflict between pedestrians and drivers as vehicles round a blind corner when exiting the top floor of the parking structure.
 - Some drivers were observed failing to yield to pedestrians as they walked across the entrance to the second-floor ramp.
- ◆ The teacher parking lot can also be accessed via the driveway on Del Valle Parkway. The teacher parking lot is directly below the student parking.
 - The eastern entrance/exit to the teacher parking lot is closed during the afternoon dismissal. The measure is meant to allow teachers to exit the parking lot more easily, rather than being physically blocked by student vehicles queueing to exit.
- ◆ A pedestrian path exists between the parking structure and the softball field. Several students were observed walking along the path during dismissal toward their vehicles parked in the church parking lot. The majority of these pedestrians did not come into contact with vehicles during the walk to their private vehicles.



Left: Students boarding the school bus.



Right: Private vehicles using the special needs bus zone.



Above: Students walking up the drive ramp as drivers exit.



Top Left: A stream of students walking up the ramp to reach their vehicles.

Top Right: Congestion within the parking lot.

Bottom Left: The eastbound left queuing lane on Del Valle Parkway.

Bottom Right: Drivers waiting to exit the parking lot.

7. ACE Tracks

- ◆ Altamont Corridor Express (ACE) tracks run along the southwest corner of the campus. The tracks are grade separated in most of this area, but cross Santa Rita Road at-grade.
- ◆ During the assessment, participants discovered a small hole in the fence, west of Del Valle Parkway, which allows uncontrolled access to tracks (this was reported to school facilities staff to repair).
- ◆ School staff reported that occasionally they have observed students walking on or near the ACE tracks.

Participant Comments

Amador Valley High School staff and student concerns were primarily centered around circulation issues and pedestrian/bicycle-vehicle conflicts within the two parking lot areas and their driveways.

Recommendations

Engineering Recommendations

Recommendations to improve infrastructure or operations surrounding Amador Valley High 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 Amador Valley High School.

The School Site Coordinator for Amador Valley High School is Darrell Davis. 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:

Darrell Davis, ddavis@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 Amador Valley High 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.
- ◆ 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.
- ◆ Schedule the Drive Your Bike Workshop
 - This interactive workshop is a great educational opportunity to teach and refresh safe 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. The Drive Your Bike workshop has both a middle school and high school version.
- ◆ Participate in International Walk and Roll to School Day (IRW2SD), Cocoa for Carpools (C4P), 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. Cocoa for Carpools, held in the winter, is a fun event for high schools that rewards carpoolers with free hot chocolate when they arrive to school. 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.
- ◆ Rail Safety Education
 - The SR2S program can provide rail safety educational resources that can be used to teach students about the dangers of active railroads and how to navigate across them safely.

Safe Routes to Schools Improvement Plan
Amador Valley High School
Pleasanton

School Safety Assessment held February 2020

- 1

Santa Rita Road

1a. Install green bicycle conflict markings in front of all AVHS driveways

1b. Widen the existing high-visibility crosswalk at crossing near drop-off loop entrance to accommodate high student volumes

1c. Consider installing high-visibility crosswalks across all three student parking lot driveways

1d. Construct curb extensions on Santa Rita Road (frontage)/School Street at northeast and southeast corners

1e. At the Santa Rita Road/Stamley Boulevard intersection, upgrade the two crosswalks to high-visibility crosswalks

1f. **Long Term:** Study using the existing sidewalk area and additional space from the grassy/parking areas in front of campus, create a shared-use path on the west side of Santa Rita Road in front of campus (between Black Ave. and Del Valle Pkwy. if feasible)
- 2

Santa Rita Road/Del Valle Parkway

2a. Construct a curb extension at the northwest corner

2b. Upgrade all three crosswalks to high-visibility crosswalks

2c. Study intersection turning movements and consider providing a protected left turn for northbound Main Street/Santa Rita Road drivers

2d. Consider prohibiting right turns on red during school arrival and dismissal times for southbound Santa Rita Road drivers
- 3

Del Valle Parkway

3a. Install green bicycle conflict markings in front of the AVHS/church driveways
- 4

Student Parking Lot

4a. Restripe the student parking lot with the following considerations:

 - Add speed bumps in the center aisle
 - Restripe no parking hash markings to be distinct from pedestrian path markings
 - Stripe pedestrian paths using traditional continental markings
 - Pedestrian paths should: 1) Connect to other pedestrian paths, 2) Be marked across conflict areas, 3) Connect to curb ramps when meeting a sidewalk
 - Permanently close off access to the northern parking area from the center aisle (currently temporarily done)
 - Consider installing a stop sign for all approaches where the center aisle intersects the drop-off and through lanes
 - Provide dedicated parking areas for larger vehicles
 - Consider installing fencing along the edges of the center aisle to limit crossing opportunities to select locations along the aisle
 - Include pavement markings and signs indicating the use of each lane (Drop-off, Exit, etc)

4b. Provide dedicated, marked paths for bicyclists from the bike parking areas to Santa Rita Road

4c. Redesign driveway ramps to reduce conflicts with queuing pedestrians
- 5

Drop-off Lane

5a. Enforce no right turn or left turn into drop-off loop between 2:30 and 3:30 PM to maintain fire lane. Consider installing chain across drop-off entrance to deter use but still allow fire department entrance

5b. Consider re-closing the drop-off lane to regular pick-up and drop-off traffic



*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.