

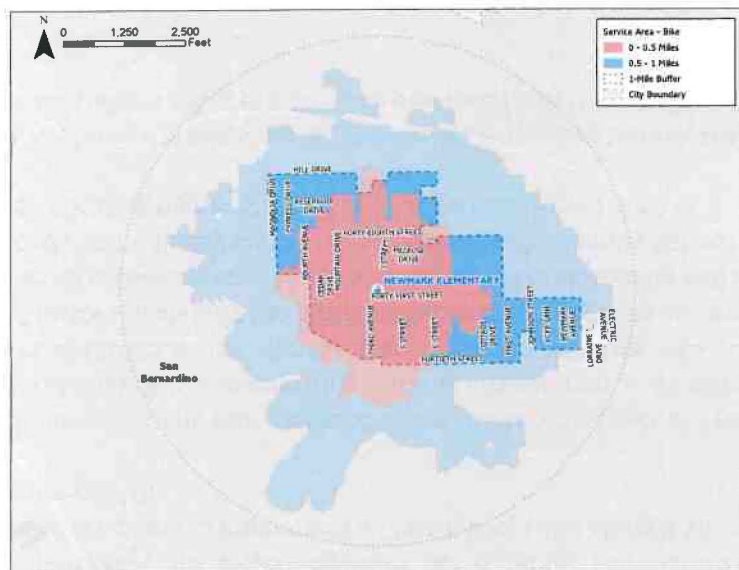


Figure 4.9.12 Existing Bikeshed

Pick-Up and Drop-Off

Newmark Elementary School is accessed via 3rd Avenue and F Street, both two-lane roads. Figure 4.9.13 illustrates the existing conditions, and the behaviors observed during the mobility assessment.

Vehicles were seen parking on both sides of 3rd Avenue, creating a backup vehicles along the road. Those who parked on the west side of 3rd Avenue were seen crossing the street into oncoming traffic. Parents were seen double parking behind vehicles perpendicularly parked in the small lot in front of the school, creating backups and delays.

There is also a gate at the back of the school on F Street, where a staff member is located to greet the students. Similar to the front of the school, vehicles were observed parking on both sides of the street and crossing the street into oncoming traffic.

One of the biggest concerns that was mentioned during the walk audit was students who are dropped off on the west side of 3rd Avenue and the east side of F Street and cross the street toward the school into oncoming traffic to access the school.

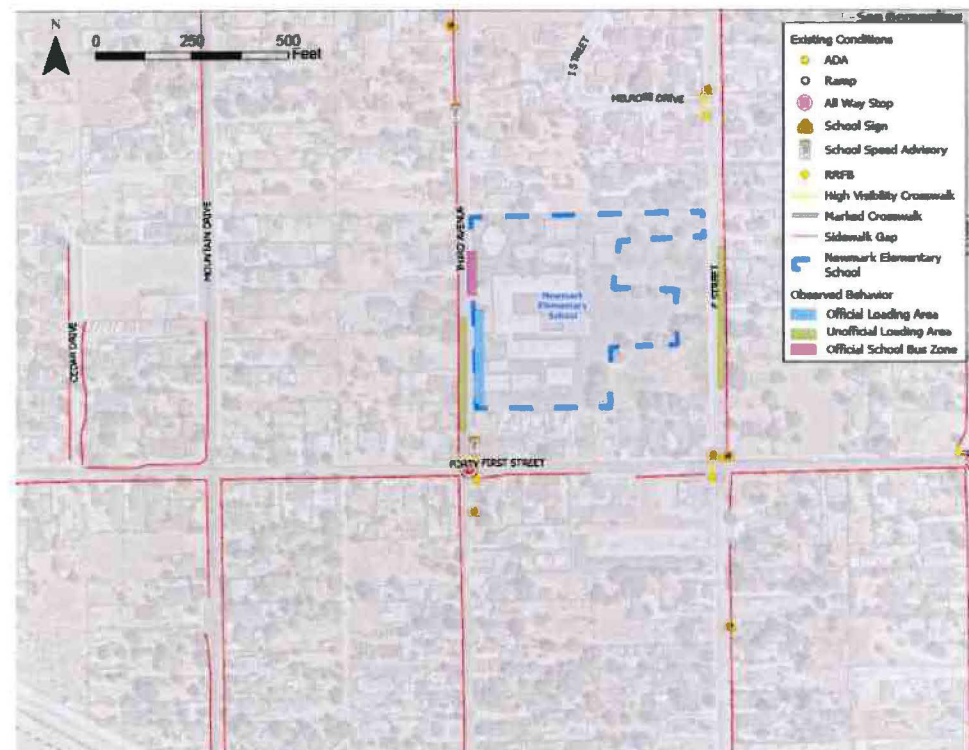


Figure 4.9.13 Existing Pick-Up and Drop-Off Vehicle Behavior

Safety Analysis

Between 2019 and 2023, there were 14 collisions within a half mile radius of Newmark Elementary School (Figure 4.9.14). Three of those collisions were fatal and four caused severe injury. Two fatal collisions involved pedestrians along 40th Street, south of the school. One fatal collision involved a bicyclist along Kendall Drive just west of the school. One collision causing severe injury involved a pedestrian and occurred at 41st Street and Mountain Avenue.

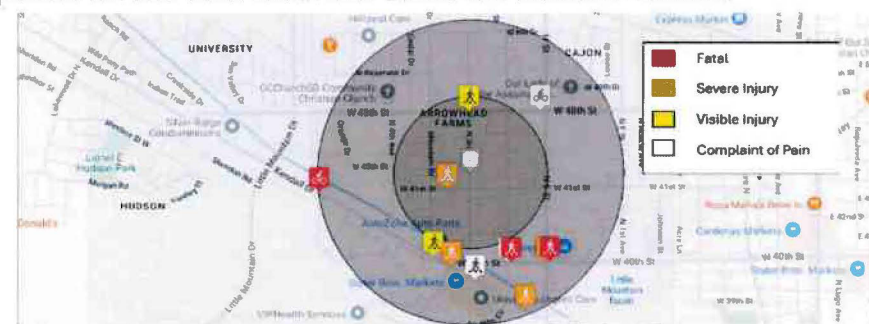


Figure 4.9.14 Bicycle and Pedestrian Involved Collisions (2019-2023)

Travel Pattern Analysis

A travel pattern analysis was conducted for Newmark Elementary School to understand how students may be traveling to the campus. Origin-Destination data was downloaded from the Replica Big Data platform, and ArcGIS and Python were used to process the data. Featuring the school site as the destination, the analysis provides insights into the magnitude of trips made to-and-from the surrounding neighborhoods. The neighborhoods are defined by Traffic Analysis Zones (TAZs) that fall within the school's attendance boundary. The analysis is performed by travel mode for both active travel, which includes walking and biking, and auto travel. The resulting maps display the number of trips by these two modes between the neighborhood TAZs and the TAZ where the school is located.

For each neighborhood, the number of trips made by each travel type was shown using lines on a map (Figure 4.9.15 and 4.9.16). A thicker line means more people are estimated to travel using that mode from that TAZ. Line thickness can be compared within the same mode of travel, such as comparing two walking routes from two different TAZs. One can also get a general sense of how walking and driving compare by looking at both sets of lines from the same TAZ side by side. For example, a thicker line for auto, compared to active for a particular TAZ indicates more of an interest to drive compared to walking or biking. It should be noted the lines are scaled differently with regards to trips for each mode of travel (auto and active), so they should not be compared directly. This data helps reveal how people tend to travel based on several factors, such as the existing walking or biking environment, land uses, physical barriers, population densities, and the layout of the roadway network.

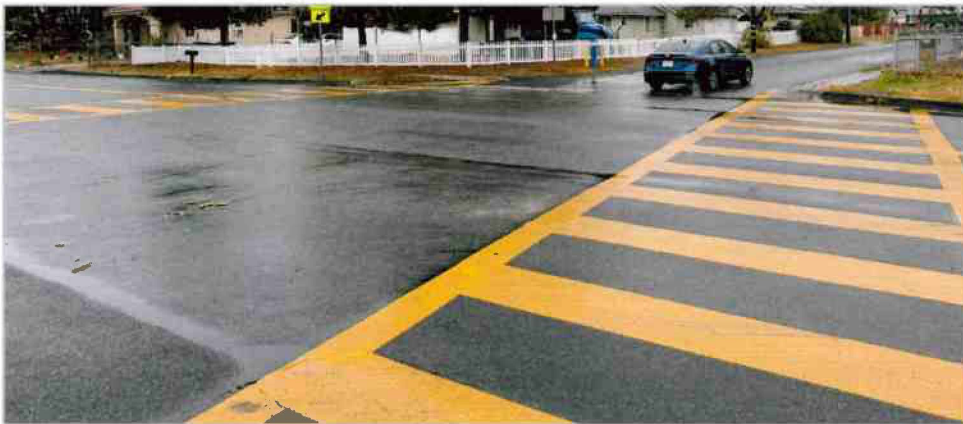


Figure 4.9.15 Active Travel Pattern

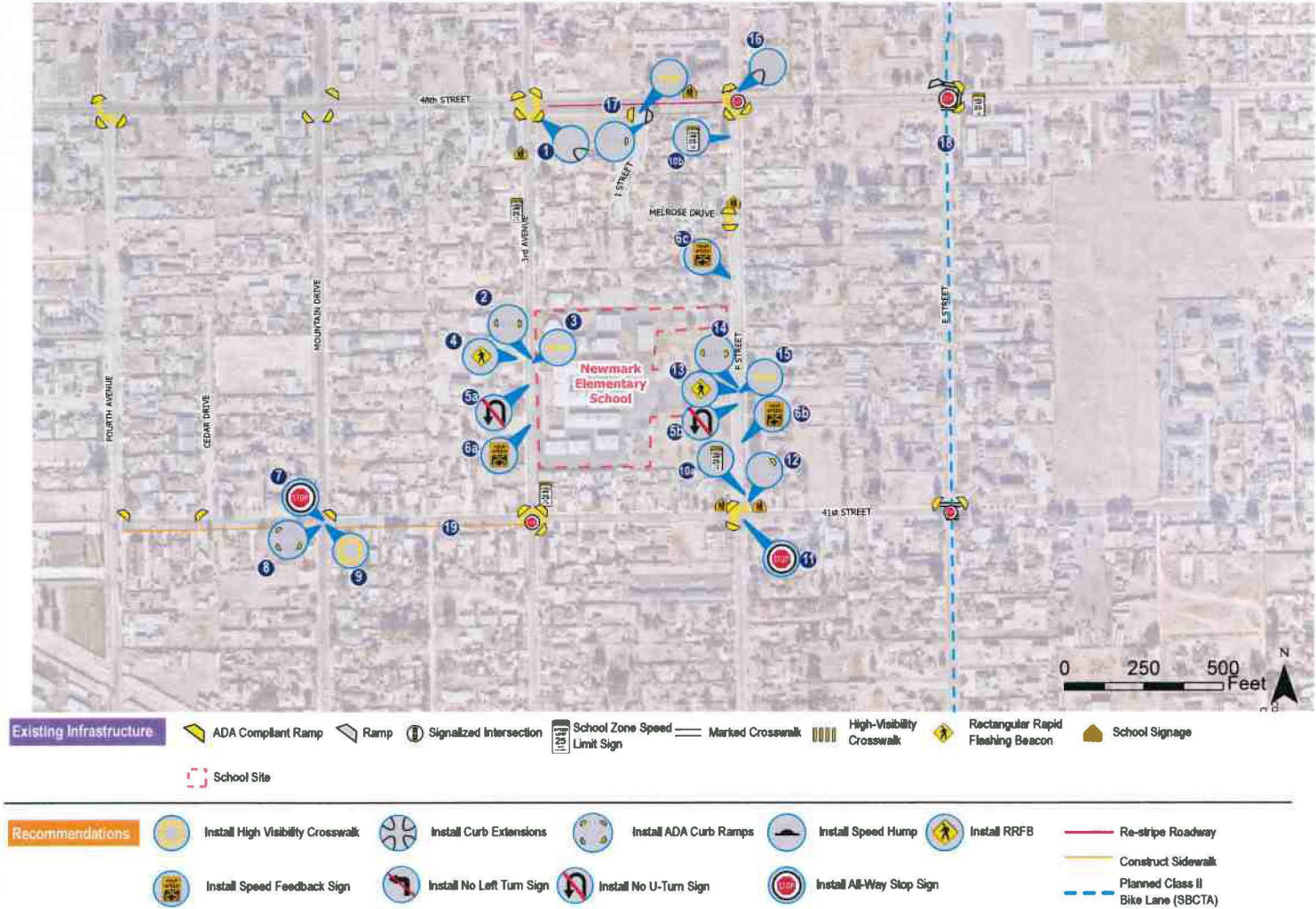


Figure 4.9.16 Auto Travel Pattern

SCHOOL RECOMMENDATIONS

The pedestrian and bicyclist environment around Newmark Elementary School exhibits several opportunities for improvement. Parents and school staff expressed concerns about student safety during pick-up and drop-off on 3rd Avenue. Schools staff have observed vehicles speeding along 3rd Avenue and F Street and noted pedestrian and vehicle conflict during the pick-up and drop-off times. During the drop-off time observations, queues formed on both sides of 3rd Avenue, creating congestion and delays. A sidewalk has recently been installed on the west side of 3rd Street where students were observed crossing 3rd Avenue into oncoming traffic as they were being dropped off. During the principal interview, it was also noted that the intersection at F Street and 41st Street feels unsafe for pedestrians due speeding concerns in the north-south direction.

To combat some of these challenges, a series of improvements are recommended around the school. **To add to the newly constructed sidewalk**, a mid-block crosswalk and Rectangular Rapid Flashing Beacon (RRFB) are recommended along 3rd Avenue, providing students a safe way to cross the street. **An all-way stop** is recommended at the intersections on 41st Street and F Street and Mountain Drive. This will allow for vehicles to stop more frequently within the school zone. **To enhance the pedestrian experience**, ADA compliant curb ramps and high-visibility crosswalks are recommended at intersections surrounding the school. Speed feedback signs are also recommended along 3rd Avenue and F Street to function as additional traffic calming measures.



NEWMARK ELEMENTARY SCHOOL

TABLE 4.9.1 NEWMARK ELEMENTARY SCHOOL RECOMMENDATIONS

ID	Improvement	Description	Location
1	Curb Extension	Install curb extension on the southeast corner of the intersection	48th Street and Third Avenue
2	ADA Compliant Curb Ramps	Install ADA compliant curb ramps to accommodate recommended mid-block crossing	3rd Avenue and School Frontage
3	High-Visibility Crosswalk	Install high-visibility mid-block crossing	3rd Avenue and School Frontage
4	Rectangular Rapid Flashing Beacon (RRFB)	Install RRFB for the recommended mid-block east-west crossing	3rd Avenue and School Frontage
5a	No U-Turn Sign	Install no U-turn signs for both directions of traffic	3rd Avenue and School Frontage
5b		Install no U-turn signs for both directions of traffic	F Street and School 2nd Entrance
6a	Speed Feedback Sign	Install speed feedback sign south of school on 3rd Avenue for vehicles traveling northbound	3rd Avenue north of 41st Street
6b		Install feedback sign south of F street for vehicles traveling northbound	F Street north of 41st Street
6c		Install speed feedback sign south of intersection for vehicles traveling southbound on F Street	F Street south of 48th Street
7	All Way Stop	Install all-way stop (*)	41st Street and Mountain Drive
8	ADA Compliant Curb Ramps	Install ADA curb ramps on the northwest, southwest, and southeast corners of the intersection	41st Street and Mountain Drive
9	High-Visibility Crosswalk	Install high-visibility crosswalk on all four legs of the intersection	41st Street and Mountain Drive
10a	School Zone Speed Limit Sign	Install school zone speed limit sign north of intersection	41st Street and F Street
10b		Install school zone speed limit sign north of intersection	F Street and Melrose Drive
11	All Way Stop	Install all-way stop (*)	41st Street and F Street
12	ADA Compliant Curb Ramps	Install ADA compliant curb ramp on northeast corner of the intersection	41st Street and F Street
13	Rectangular Rapid Flashing Beacon (RRFB)	Install RRFB for the recommended east-west crossing	F Street and School 2nd Entrance
14	ADA Compliant Curb Ramps	Install ADA compliant curb ramps to accommodate recommended mid-block crossing	F Street and School 2nd Entrance
15	High-Visibility Crosswalk	Install high-visibility mid-block crossing	F Street and School 2nd Entrance
16	Curb Extension	Install curb extension on the northeast corner of the intersection	F Street and 48th Street
17	Re-Stripe Roadway	Re-stripe roadway to narrow the width of travel lanes	48th Street between 3rd Avenue and F Street
18	Planned Class II Bike Lane (SBCTA)	Coordinate with SBCTA to construct Class II Bike Lanes per SBCTA planned bikeways	County Limit to 40th Street
19	Sidewalk	Construct sidewalk on south side of 41st Street	41st Street from Fourth Avenue to 3rd Avenue

(*) Note: Recommendation will need additional studies to determine warrants

4.10 REDLANDS EAST VALLEY HIGH SCHOOL

31000 E Colton Ave, Redlands, CA 92374
Redlands Unified School District

Redlands East Valley High School is located in eastern San Bernardino County. The school is located within Redland's sphere of influence. Redlands East Valley High School is located approximately three miles east of the Interstate 10 (I-10). The existing land use surrounding Redlands East Valley High School is primarily residential and agricultural. Figure 4.10.1 shows the school area and the overall context of the school site.

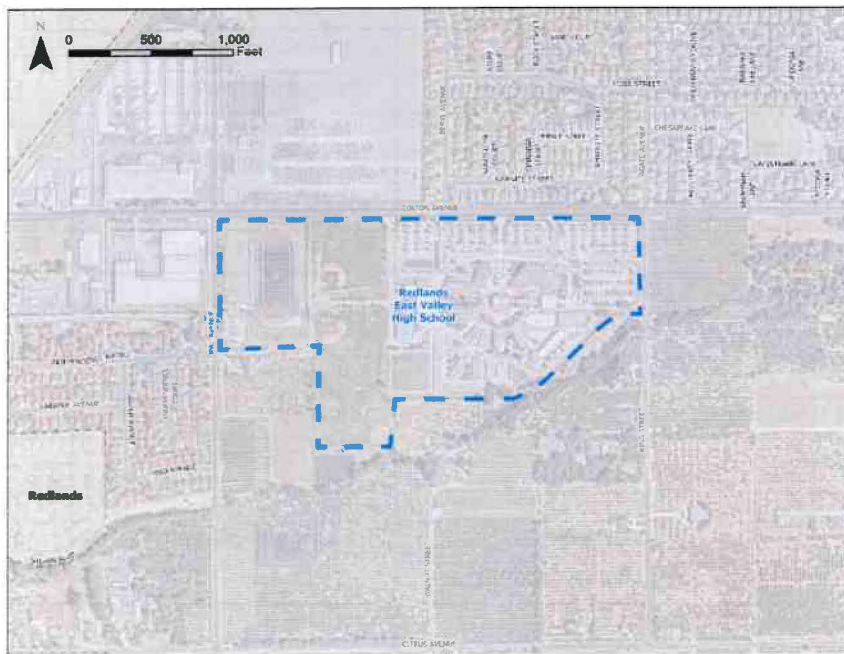


Figure 4.10.1 Context Map

SCHOOL PROFILE

Redlands East Valley High is located within the City of Redland's sphere of influence and is a part of the Redlands Unified School District. During the 2023-24 school year, enrollment was approximately over 1,800 students in grades 9-12 with a student/teacher ratio of 22:1. The demographic composition of the students is shown in Figure 4.10.2 shows the school has a dominant Hispanic population according to the census estimates. Additionally, 61% of Redlands East Valley High School students received free or reduced-price lunch during the 2023-2024 school year which is lower than the rest of the county (Figure 4.10.3).

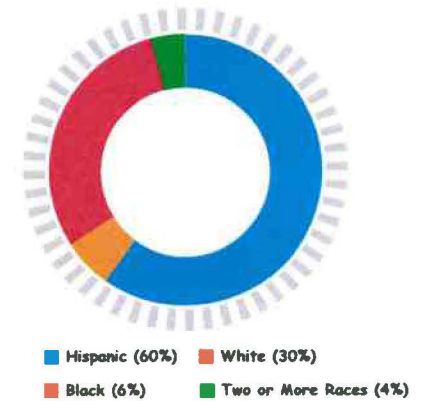


Figure 4.10.2 Demographic Composition

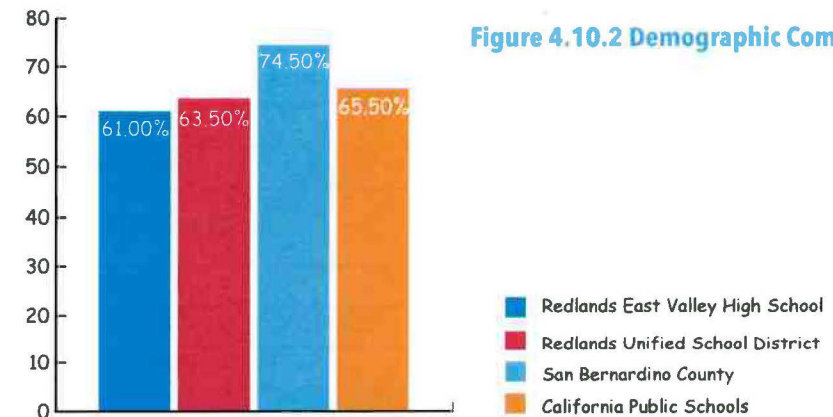


Figure 4.10.3 Free or Reduced Meals (Compare between district and county)

Student Tallies

The Safe Routes to School Student Arrival and Departure Tally Sheet was administered by Redlands East Valley High School staff from February 10th to February 14th, 2025, to better understand what mode(s) students use to travel to and from the campus. As displayed in Figure 4.10.4, the vast majority of students arrived and departed in a family vehicle (75% average), followed by walking (9% average), then carpool (6% average), respectively. Redlands East Valley High School has multiple school buses that drop students off at the front entrance of the school.

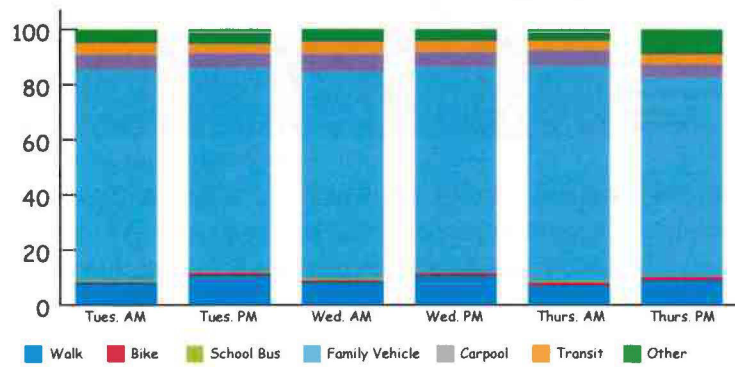


Figure 4.10.4 Redlands East Valley High School Student Arrival and Departure Tallies

Mobility Assessment

A walk audit and on-site meeting for Redlands East Valley High in San Bernardino was conducted on February 11, 2025. The purpose of the event was to identify any issues related to student drop-off and pick-up that may make it unsafe or uncomfortable for students to walk, bike, and roll to and from school. Included in this assessment are discussions of observed insufficiencies, such as substandard sidewalks, missing curb ramps and crosswalks, inadequate bicycle infrastructure, and high traffic volumes and speeds around the school.

Those who attended the walk audit included the Redlands East Valley High School Principal and staff and Michael Baker International staff.

An online survey was administered to Mentone Elementary School parents via SurveyMonkey during the week of February 10th, 2025. 74 parents participated in the survey and 29 of those parents noted that their children live over two miles away from the school. As shown in Figure 4.10.5 and 4.10.6, vehicles are the most common mode of transportation used for arrival and departure from school.

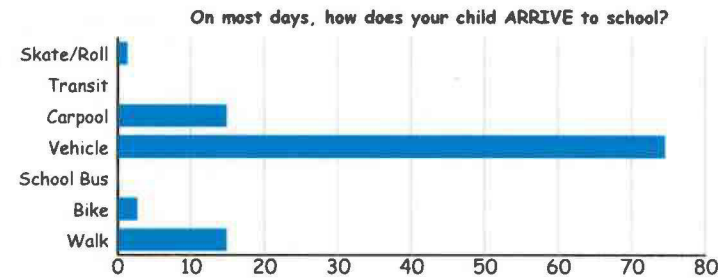


Figure 4.10.5 Redlands East Valley High School Parent Survey Question (arrive to school)

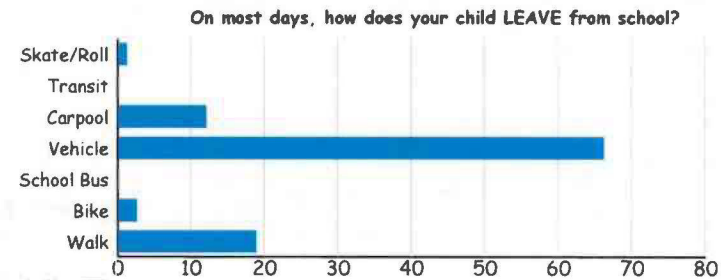


Figure 4.10.6 Redlands East Valley High School Parent Survey Question (leave from school)

CalEnviroScreen 4.0

CalEnviroScreen (CES) is a tool developed by the California Office of Environmental Health Hazard Assessment (OEHHA) that identifies communities that are disproportionately burdened by pollutants. Indicators used to identify communities include exposures (traffic, pesticides, and drinking water), environmental effects (cleanup sites, solid waste), sensitive populations (Asthma, low birth weight), and socioeconomic factors (education, poverty, unemployment). Scores range from 0-100 with a higher score indicating a higher effect of pollutants for the area. Figure 4.10.7 illustrates the CES scores for the census tract where Redlands East Valley High is located, scoring in the 50th to 60th percentile range which indicates the area is moderately burdened by pollutants. For this region, the highest exposures to pollutants are ozone, pesticides, and drinking water, in that order.



Figure 4.10.7 CalEnviroScreen 4.0 Score - Redlands East Valley High School

Healthy Place Index

The California Healthy Places Index (HPI), developed by the Public Health Alliance of Southern California, is a tool used to explore the community conditions that impact life expectancy. The HPI tool helps prioritize public and private investments, resources, and programs in neighborhoods where they are needed the most. The HPI tool combines 23 community characteristics such as access to healthcare, housing, education, and more. The tool produces a score ranging from 0-100 with a higher score representing a healthier community. The tool's indicators reflect widely recognized thematic areas of the social determinants of health and are consistent with those described by the Centers for Disease Control (CDC). Figure 4.10.8 illustrates the HPI scores for the census tract Newmark Elementary is located within. The HPI score of 45.5 indicates less than healthy conditions surrounding the school.



Figure 4.10.8 Healthy Place Index Score - Redlands East Valley High School

Walking

Figure 4.10.9 provides an overview of the existing pedestrian network and challenges observed and analyzed. There are also sidewalks on both sides of Opal Avenue from Colton Avenue to Independence Avenue. Many students were observed walking west on Colton Avenue using the sidewalk. Many parents were observed parking their car on both sides of Colton as they waited for students to walk to their car.

During the field observations, many students were seen crossing Colton Avenue at one of the three all-way stop signs in front of the school. This created a lot of congestion along Colton Avenue, but overall ran smoothly.

Challenges to walking were evaluated using the Pedestrian Evaluation Score (PES) developed by CR Associates. Based on the physical environment, surrounding land uses, and the street environment, a PES score was developed for nearby roadways. Figure 4.10.10 shows the results of the PES scoring. A sidewalk network with medium and high PES scores indicates low stress for walking, whereas a low or very low PES score can be considered a stressful walking environment. Crafton Avenue and Opal Avenue are shown to have a very low PES score, indicating a stressful walking environment. This indicates a stressful walking environment near the school along these roadways and may create an access barrier to walking.

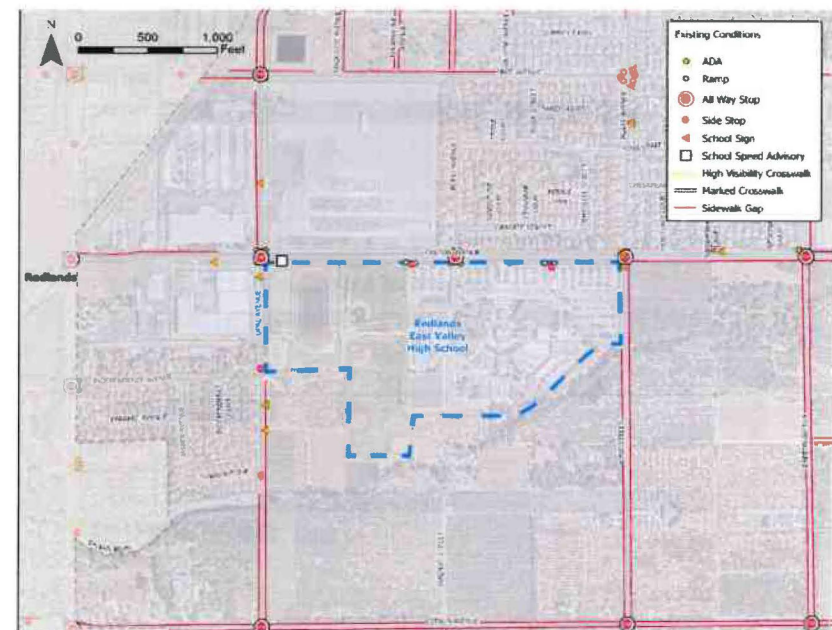


Figure 4.10.9 Existing Pedestrian Conditions

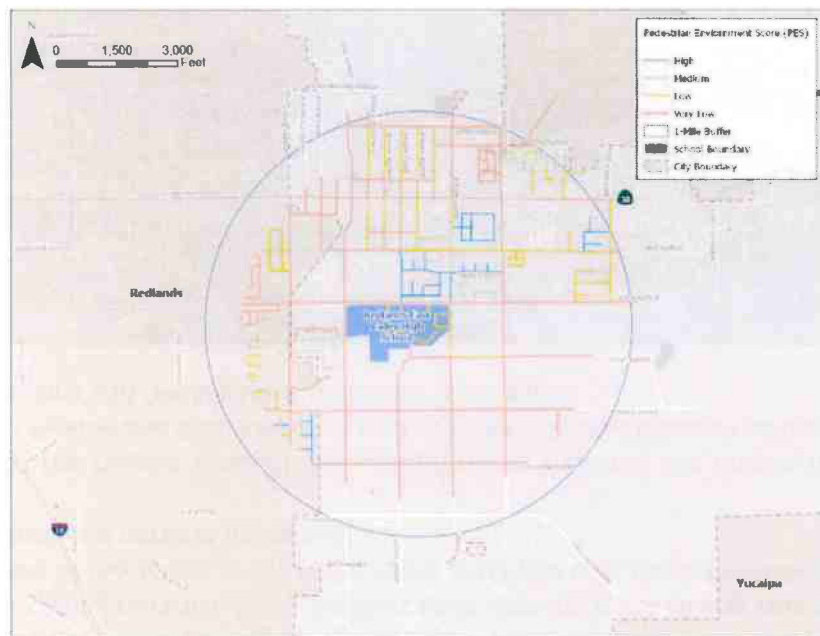


Figure 4.10.10 Pedestrian Evaluation Score

Figure 4.10.11 shows the walkshed for Redlands East Valley High School. The walkshed shows the area which a student can walk a half mile from the school. The walkshed has been reviewed for sidewalk connectivity and accessibility.

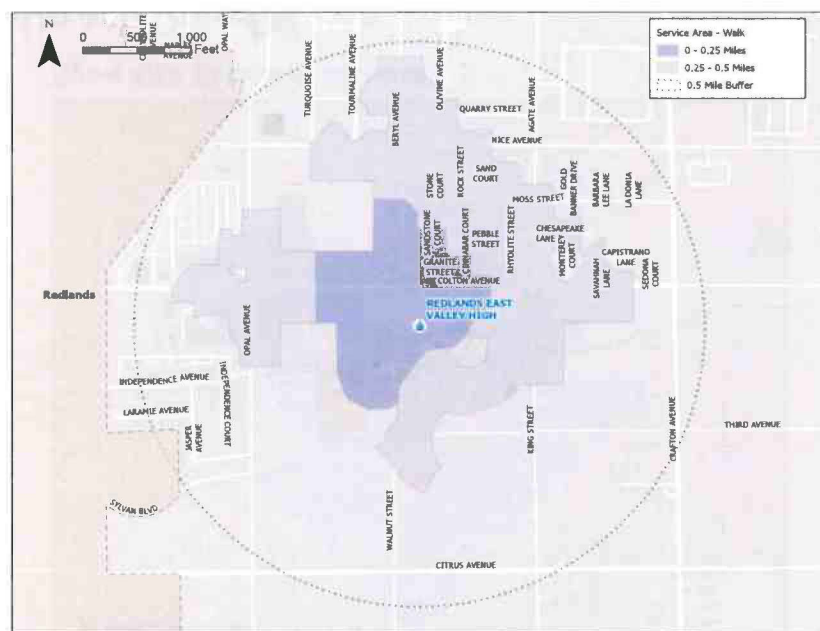


Figure 4.10.11 Existing Pedestrian Walkshed

Riding and Rolling

Currently, there are no bicycle facilities surrounding Newmark Elementary School. There are no plans to implement a facility near the school.

The bicycle environment was assessed using the bicycle Level of Traffic Stress (LTS) methodology for characterizing cycling environments, as developed by Mekuria, et al (2012) of the Mineta Transportation Institute. LTS considers a number of factors to classify the street network into categories according to the level of stress it causes cyclists. The LTS assessment conducted by MBI concluded that the roads immediately surrounding Redlands East Valley High have high LTS scores indicating higher stress levels for cyclists (Figure 4.10.12).

Figure 4.10.13 shows the bikeshed for Redlands East Valley High School. The bikeshed shows the area which a student can bike one mile from the school.

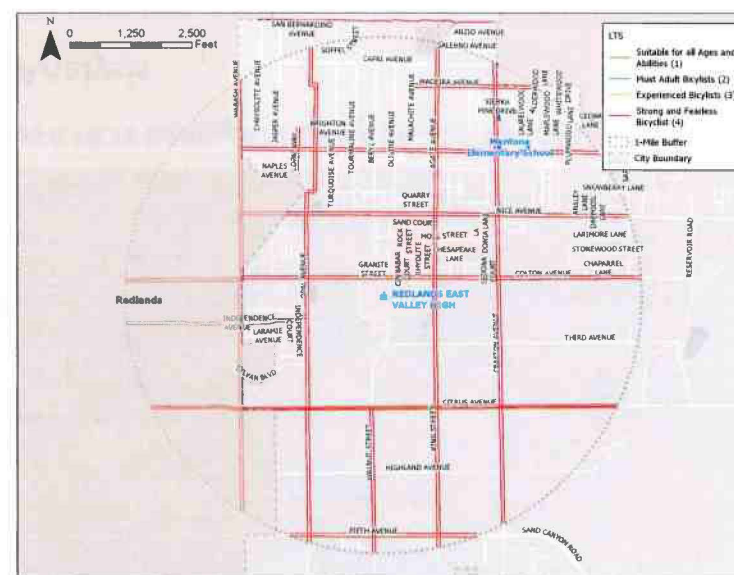


Figure 4.10.12 Bicycle Level of Traffic Stress

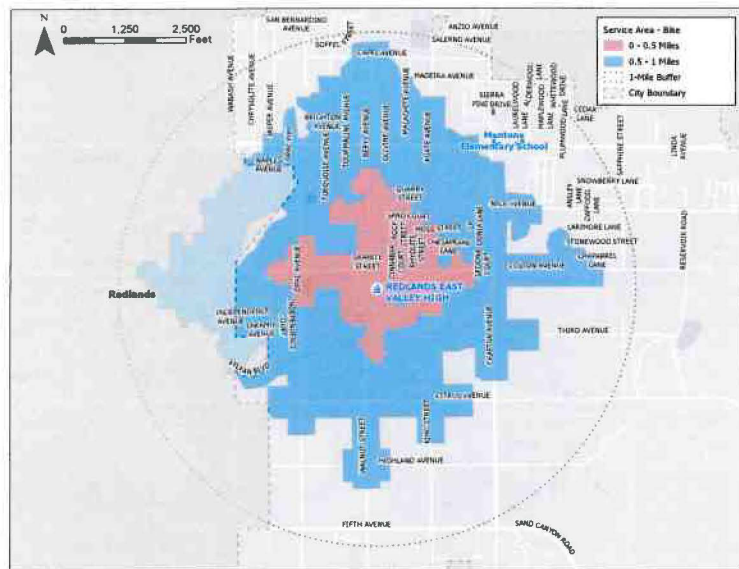


Figure 4.10.13 Existing Bikeshed

Pick-Up and Drop-Off

Redlands East Valley High School is accessed via Colton Avenue, a four-lane road with centerline delineators. Figure 4.10.14 illustrates the existing conditions, and the behaviors observed during the mobility assessment.

Vehicles were seen parking on both sides of Colton Avenue, creating a backup vehicles along the road. Many students were seen using the all-way stop sign at the front of the school to cross the street and meet with parked vehicles in the neighborhood north of the school.

One of the biggest concerns the school noted was that the intersection of Colton Avenue and Opal Avenue has seen some collisions between vehicles and pedestrians and feel like the intersection is not safe.

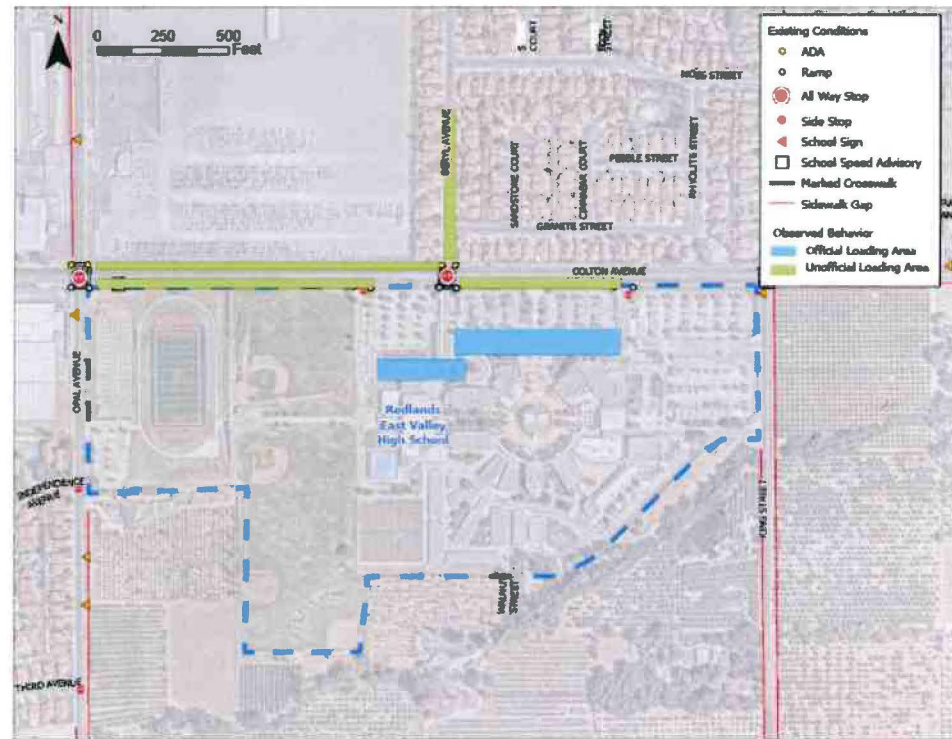


Figure 4.10.14 Existing Pick-Up and Drop-Off Vehicle Behavior

Safety Analysis

Between 2019 and 2023, there were three collisions within a half mile radius of Redlands East Valley High School (Figure 4.10.15). Two of those collisions caused visible injury involving a pedestrian.

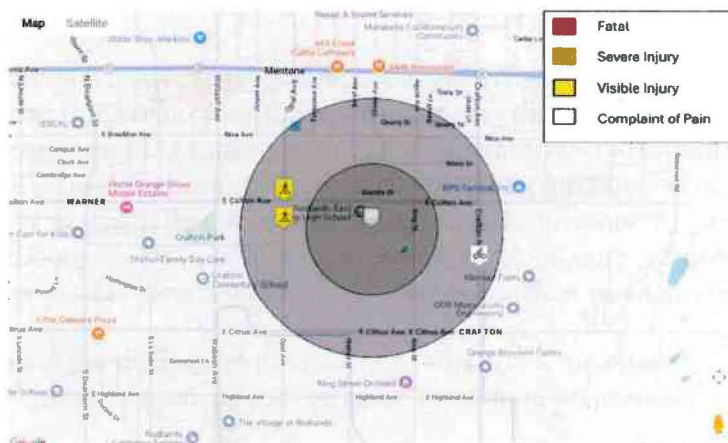


Figure 4.10.15 Bicycle and Pedestrian Involved Collisions (2019-2023)