

Arroyo High School Mobility & Active Transportation Plan

Prepared for:
Arroyo High School

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FEHR  PEERS

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School Mobility & Active Transportation Plan

Introduction

This School Mobility & Active Transportation Plan was developed for Arroyo High School with the goal of identifying school-related mobility needs and solutions that will encourage active transportation. The Plan is part of larger clean transportation efforts that are underway to electrify El Monte Union High School District's school bus fleet, funded by a Clean Mobility in Schools grant from the California Air Resources Board (CARB).

Project Goals

The goal of the School Mobility & Active Transportation Plan (Plan) is to identify project ideas that will make it more safe, comfortable, and fun to walk, bike, or take other types of low-emission transportation to get to campus. The Plan is tailored to the specific conditions and needs of Arroyo High School and draws from industry best practices to inform future actions that can be taken in years to come. The Plan is informed by an analysis of existing conditions, an inventory of existing infrastructure, circulation patterns, and a school community survey.

School Overview & Enrollment

Arroyo High School is located at 4921 North Cedar Avenue, El Monte, CA 91732, adjacent to El Monte Union High School Community Day. The school's frontage is along Cedar Avenue and the school is generally bound by Kings Row and Vista Lane. The surrounding area is primarily comprised of residential streets. A map of the area can be found in Figure 1 below. A brief overview of the school's enrollment data is presented in Table 1. Based on the 2019-2020 student enrollment data, enrollment numbers are lower compared to previous years, possibly due to COVID-19.

Table 1. Arroyo High School Enrollment Data

Enrollment Data Type ¹	Total
2019-2020 Cumulative Day Student Enrollment ²	1,983
2018-2019 Census Day Student Enrollment ³	2,048
2018-2019 Cumulative Student Enrollment	2,138
Free & Reduced-Price Meals	83.5%
English Learners	9.2%
Languages of English Learners	Spanish: 138 Cantonese: 18 Vietnamese: 16
2017-2018 Number of Faculty	119
2017-2018 Number of Staff	12
2017-2018 Number of Classified Staff	52

¹ Source: Education Data Partnership

² According to ED-Data.org, "Cumulative" enrollment counts are collected at the end of the year and consist of the total number of unduplicated primary and short-term enrollments within the academic year.

³ According to ED-Data.org, "Census Day" enrollment is measured by counting the number of students enrolled in school on the first Wednesday in October. Short term enrollments are not accounted for in this number.

School Kick-Off Meeting

On November 9th, 2020, the project team met with Gabriel Flores, Principal of Arroyo High School, and Lena Luna, the District facilities manager to discuss the goals and expectations for the project, review the key transportation issues at the school, and finalize data collection efforts.

Principal Flores shared that there are no school bus drop-offs for the school. He also mentioned that there were complaints from school neighbors due to how constrained the student drop-off is along Cedar Avenue. The most congested time for student arrival falls between 7:35 A.M and 7:55 A.M. Some key issues identified for the school are summarized below:

- Kings Row is closed during the school day, though it is open for drop-off and accessible from the west side of the school only
- The parking lot on the west side is not used except for football games
- Juniors and seniors are allowed to park on campus (with approval)
- Pedestrians access campus from both sides of the school
- People may be dropping students off in the McDonald's lot or Sam's Club lot, resulting in ample concentrated pedestrian and vehicle activity near the school
- Directions for student drop-offs are not formalized and shared through word of mouth

Existing Conditions

An existing conditions assessment was conducted for Arroyo High School. The project team conducted field observations, evaluated circulation patterns, analyzed historical collision data, and reviewed transit options offered by the City of El Monte, Foothill Transit, and Los Angeles County Metropolitan Transportation Authority (Metro).

School Location, Circulation & Access

Arroyo High School is located on Cedar Avenue and surrounded by Lower Azusa Road to the south, Vista Lane to the north, and Kings Row to the west. The school is in the northern portion of El Monte, encompassed by commercial and residential areas. Northwest of the school is the Rio Hondo Bike Path which leads to the Peck Road Water Conservation Park, about a quarter mile from the school. Adjacent to the school is El Monte Union High School Community Day. Notable, regional adjacent infrastructure and community assets include:

- Rio Hondo Bike Path
- El Monte Union High School Community Day
- Shield of Faith Christian School
- Peck Road Water Conservation Park

Figure 1 provides a diagram of school circulation.



Legend

- Arroyo High School
- Vehicular Circulation
- City Boundary

Parking Lot

- 1** Community day school and football games only, otherwise unused
- 2** Maintenance staff, & some students
- 3** Staff only
- 4** Clerical staff, teachers, & some students

Figure 1

Arroyo High School Circulation

Kings Row to the west of the school campus becomes a private street with a gated community on Vista Lane. Kings Row intersects the Rio Hondo Bike Path but there are no formal entrances connecting the Rio Hondo Bike Path to Kings Row.

Main access to the school occurs on Cedar Avenue, leading into a parking lot of the school. Students coming from the north walk along Santa Anita Avenue to access the entrance on Kings Row. Most students traveling from the west and east directions must travel on Lower Azusa Road which was observed to have high travel speeds and narrow or limited sidewalks. There is one crosswalk along Cedar Avenue at Fairview Street that provides direct pedestrian access to the entrance of the school.

The school has four parking lots, each designated to staff, faculty, or students. The main student parking lot can be accessed off Cedar Avenue. Parents can drop off students at the western entrance and then travel eastbound on Kings Row. Some students are dropped off at a parking lot on Santa Anita Avenue and cross to access campus at the intersection with Kings Row, though there is no pedestrian crossing on the northern leg of Santa Anita Avenue & Kings Row. None of the corridors around the school have existing bicycle facilities. There is no access to the Rio Hondo Bike Path from school grounds.

Field Observations

On October 22nd, 2020, a site visit was conducted at Arroyo High School. During the site visit, the school was assessed for existing primary and secondary access points, usage of various modes, existing circulation patterns, and existing bicycle and pedestrian infrastructure. An audit of the entire school perimeter was conducted. Due to COVID-19 public health guidelines, school was not in session during the site visit, on-site school conditions were not observed, and walk audits did not offer an opportunity to assess drop-off and pick-up conditions or normal school traffic and circulation.

Cedar Avenue is a residential street with a wide sidewalk and high visibility pedestrian crossing directly in front of the school. No sidewalk exists along Cedar Avenue, south of Fairview Street on the eastside of the street. Kings Row, a private utility road managed by the school, runs east to west along the southern side of the school. The pedestrian crossing at Lower Azusa Road & Cedar Avenue has no enhancements or high visibility striping. The north-western part of the school campus, near El Monte Union High School Community Day, has limited pedestrian facilities with limited sidewalk and no curb cuts across the driveways into the parking lot along the western edge of campus. Kings Row extends north to the Rio Hondo Bicycle Path but no entrance to the bike path exists.

Observations made for each corridor and intersection surrounding the school are summarized below, with some additional details added based on the kick-off conversation with the school principal:

➤ **Santa Anita Avenue**

- Student entrance available through Santa Anita Avenue on Kings Row
- No pedestrian crossing exists on the northern leg at Santa Anita Avenue & Kings Row
- McDonald's and Sam's Club is located across the street where students get dropped-off and cross the street to access campus
- Parents can drop off students on Kings Row in either direction

- Students arriving from the north walk along Santa Anita Avenue
- **Kings Row**
 - A section of Kings Row is private and maintained by the school, and gated on both ends except at drop-off and pick-up time
 - Students enter on Kings Row in the morning
 - El Monte Union High School Community Day located on the northwest corner of campus
 - School staff use the parking lot by the football field
 - Kings Row to the west of the school campus dead-ends at the Rio Hondo Bike Path and a gated community
- **Cedar Avenue**
 - Frontage of the school is located on Cedar Avenue
 - Along the school frontage at Cedar Avenue, some driveways appear to have been closed off, but sidewalks have not been reconstructed to create a level, uninterrupted walking path
 - No sidewalk exists on the eastern side of Cedar Avenue, south of Fairview Street
- **Cedar Avenue & Fairview Street**
 - Striped, yellow crosswalk on northern leg of Cedar Avenue to school entrance; no striping across Fairview Street
 - No curb ramp on the southeast corner of the intersection
- **Cedar Avenue & Lower Azusa Road**
 - Crosswalks have no enhancements
 - No tactile warning pads on corners
 - Bus stop located on the northeast corner of Cedar Avenue
- **Lower Azusa Road**
 - Lower Azusa Road is wide and observed to serve fast vehicle speeds, with narrow sidewalks and no bike lanes
 - No signalized crossing between Santa Anita Avenue and Cedar Avenue, approximately 1,540 feet
 - Very little shade along Lower Azusa Road
 - Travel speed is posted at 35 MPH and cars seem to travel faster along the corridor
 - There is narrow sidewalk on both sides of the road
- **Lower Azusa Road & Santa Anita Avenue**
 - Large intersection west of the school that students walking from the east must cross
 - No tactile warning pad on the northwest, northeast, and southeast corners

Figure 2. Crosswalk on Cedar Avenue & Fairview Street



Figure 3. Existing Conditions on Fairview Street



Figure 4. Existing Conditions at Cedar Avenue & Lower Azusa Road



Collision History

Collision data from 2015 through 2019 was analyzed to assess roadway safety conditions near Arroyo High School. Collision data from the UC Berkeley Transportation Injury Mapping System (TIMS) database was used to conduct the collision analysis. The purpose of the collision analysis was to determine the roadway safety conditions, and identify locations where vehicle, pedestrian, and bicycle collisions are concentrated near the school. Collision data was analyzed by mode, year, collision severity, and school age (14-19) within one mile of Arroyo High School. Highway collisions were excluded from the analysis.

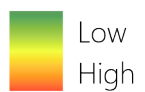
Figure 5 below visualizes the collision patterns as a heat map over the five-year period. The hotspots represent vehicle, pedestrian, and bicycle collision densities. The collisions are concentrated along Peck Road and Lower Azusa Road. Intersections with notable collision hotspots are summarized in Table 2 below.

Table 2. Collision Hotspot Characteristics

Local Intersections of Major Collision Hotspots	Adjacent Built Environment Characteristics	Signalized/Unsignalized
Lower Azusa Rd. & Peck Rd.	Commercial	Signalized
Lower Azusa Rd. & Cedar Ave.	Commercial	Signalized
Peck Rd. & Lambert Ave.	Commercial	Signalized
Santa Anita Ave. & Live Oak Ave.	Commercial	Signalized



Density of Collisions



■ High School

○ Approx. 1 mi. radius



Figure 5
Arroyo High School:
Collision Heat Map (2015-2019)

Collisions by Mode

In addition to the summary hotspot map, understanding the location patterns of collisions involving bicyclists and pedestrians can help inform where improvements to bicycle and pedestrian infrastructure are needed. Figure 6 below presents the reported bicycle-vehicle and pedestrian-vehicle collisions from 2015 to 2019 within one mile of Arroyo High School.

Bicycle and pedestrian collisions span across major corridors such as Lower Azusa Road, Santa Anita Avenue, and Peck Road. Most proximate to the school are concentrations of collisions at or near the intersection of Cedar Avenue & Lower Azusa Road.



- Pedestrian
- Bicyclist
- Arroyo High School
- Approx. 1 mi. radius

Figure 6

Bicycle and Pedestrian Collisions Within One Mile of Arroyo High School (2015-2019)



Figure 7 and Figure 8 below display the total collisions near Arroyo High School. Between 2015-2019, there were 350 collisions within one mile of the school. Most of the collisions were vehicle-vehicle collisions, followed by bicycle-vehicle and pedestrian-vehicle collisions, respectively. The number of vehicle collisions has been trending upward since 2015, with a slight decrease in 2016 compared to 2015. There were 49 people between the ages of 14 through 19 involved in the collisions in the area, with 34 reporting injuries. Of the student-aged individuals who were involved in collisions, 34 were drivers, nine were pedestrians, and six were bicyclists.

Figure 7. Mode Share of Student-Aged Collisions

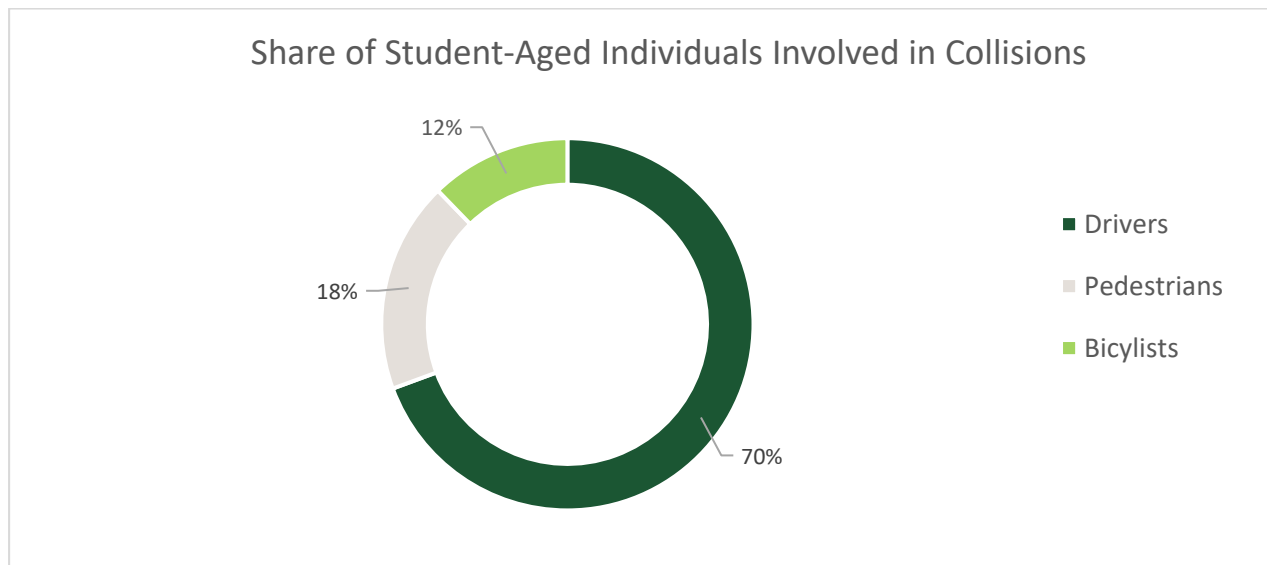
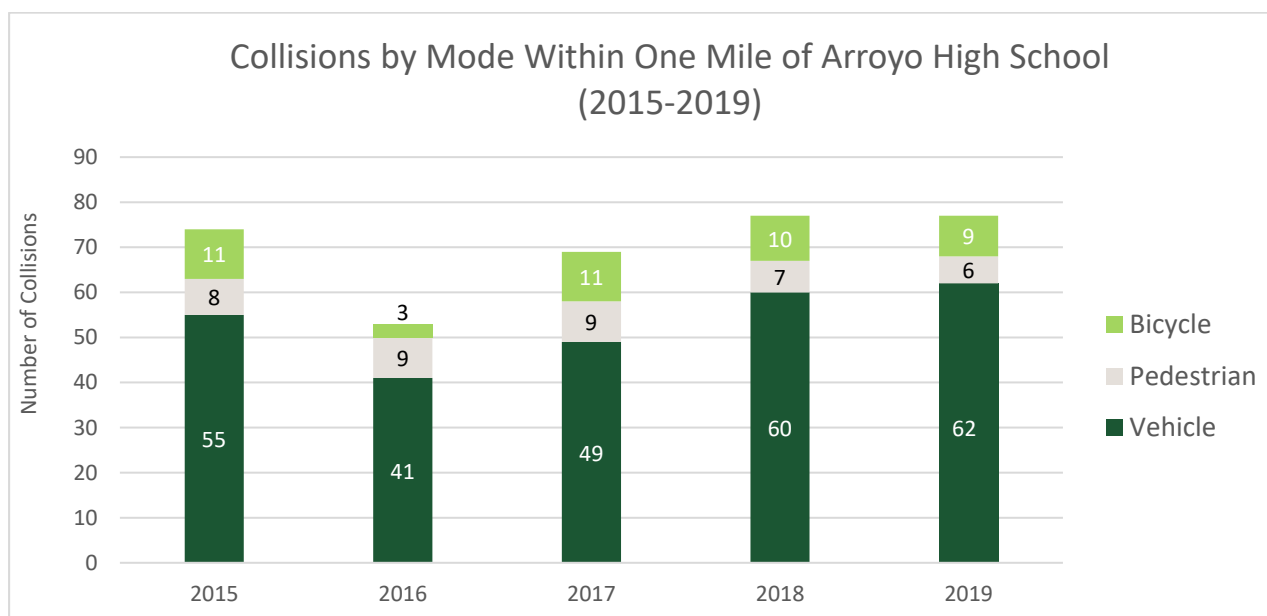


Figure 8. Collisions by Mode Within One Mile of Arroyo High School



Collision Severity

Throughout the five-year period, the collisions resulted in four fatalities. There were 20 reports of serious injuries, 154 reports of visible injuries, and 231 complaints of pain. None of the fatalities involved people between the ages of 14 and 19. Reports of severe injuries and other visible injuries have been steadily increasing since 2015, as shown in Figure 9. Figure 10 depicts the levels of severity for all collisions within one mile of Arroyo High School.

Figure 9. Collision Severity Year by Year Within One Mile of Arroyo High School

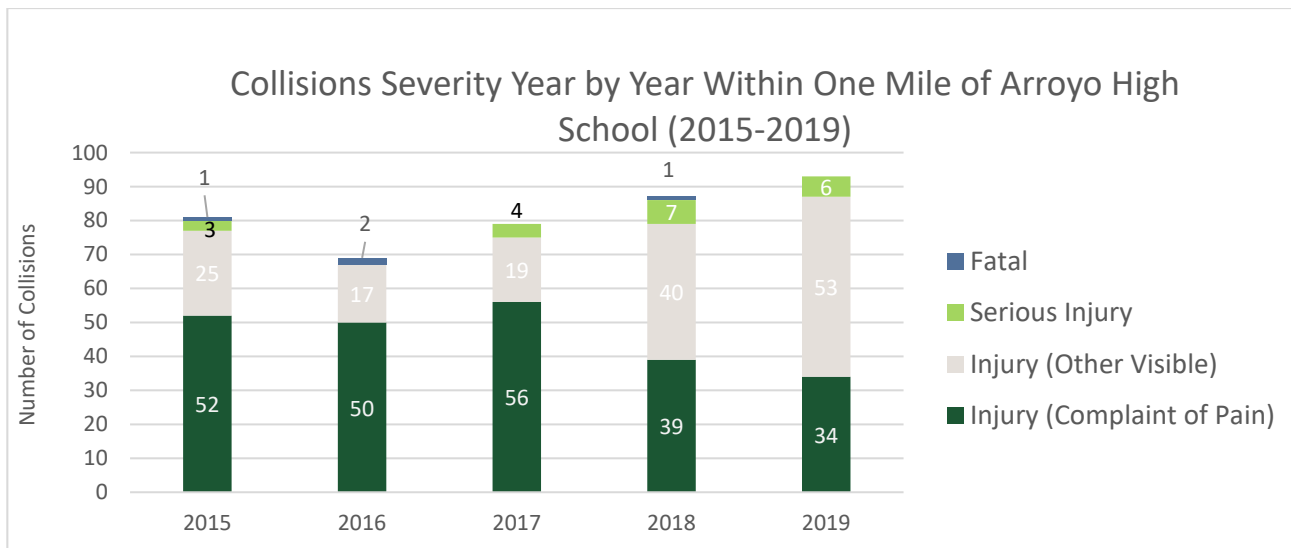
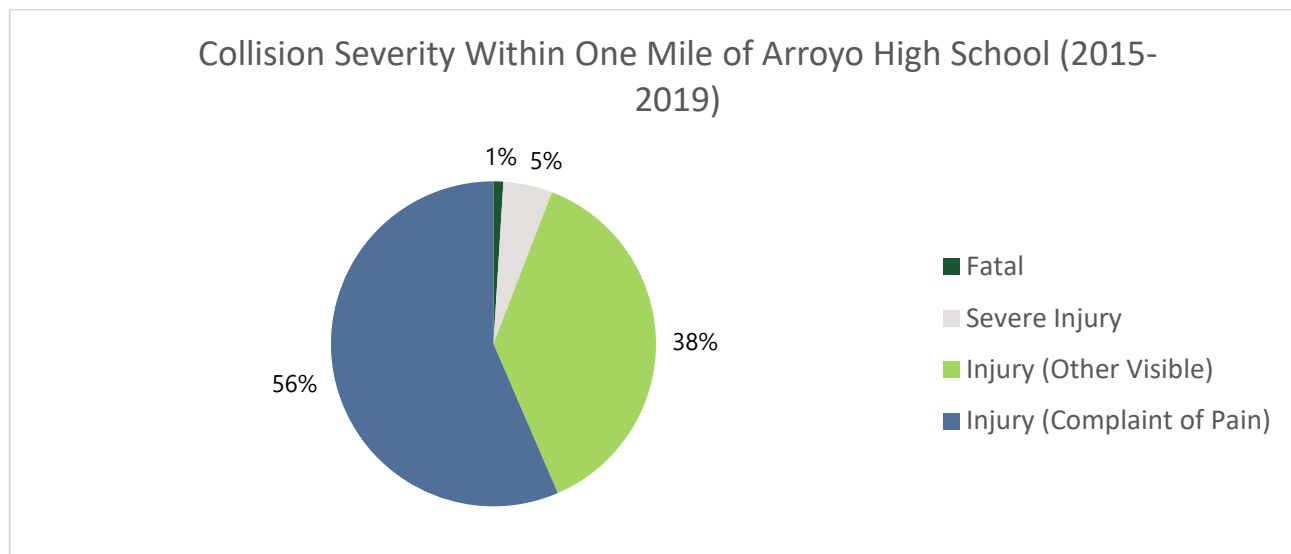


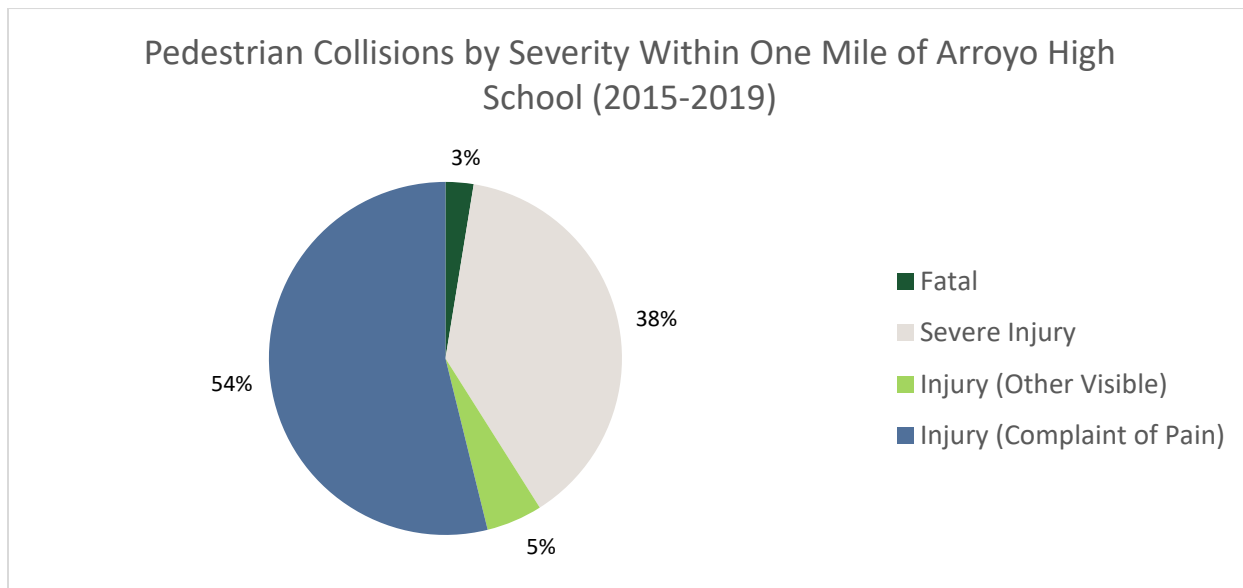
Figure 10. Collision Severity Within One Mile of Arroyo High School



Pedestrian Collision Severity

Figure 11 below depicts the levels of severity for pedestrian collisions near Arroyo High School. One pedestrian fatality was reported but was not a school-aged individual. Nine of the pedestrians that reported injuries were people between the ages of 14 and 19.

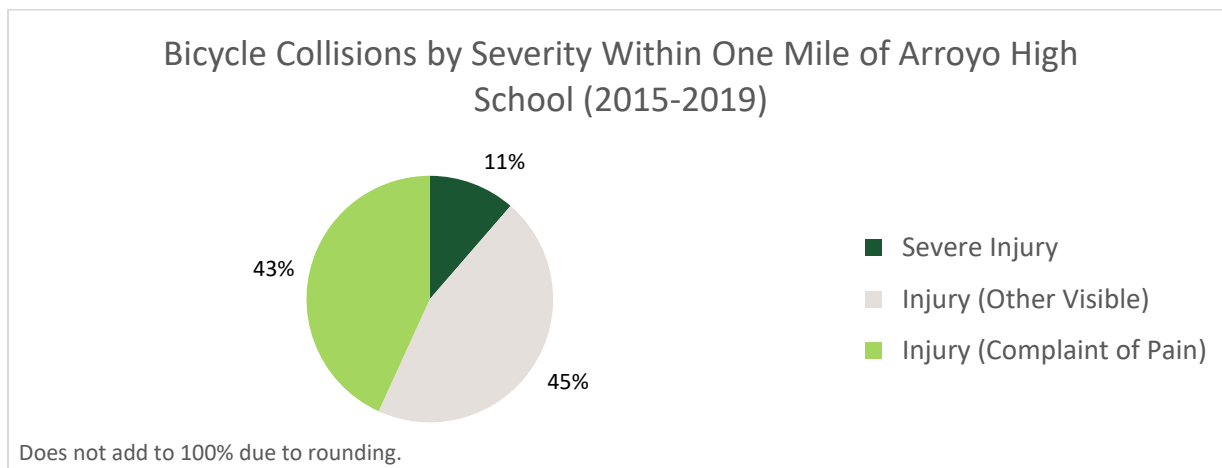
Figure 11. Pedestrian Collisions by Severity Within One Mile of Arroyo High School



Bicycle Collision Severity

Figure 12 below depicts the levels of severity for bicycle collisions near Arroyo High School. Of the 44 bicyclists who reported injuries, six were identified to be people between the ages of 14 and 19. No fatalities involving bicyclists were reported, though five reported severe injuries.

Figure 12. Bicycle Collisions by Severity Within One Mile of Arroyo High School

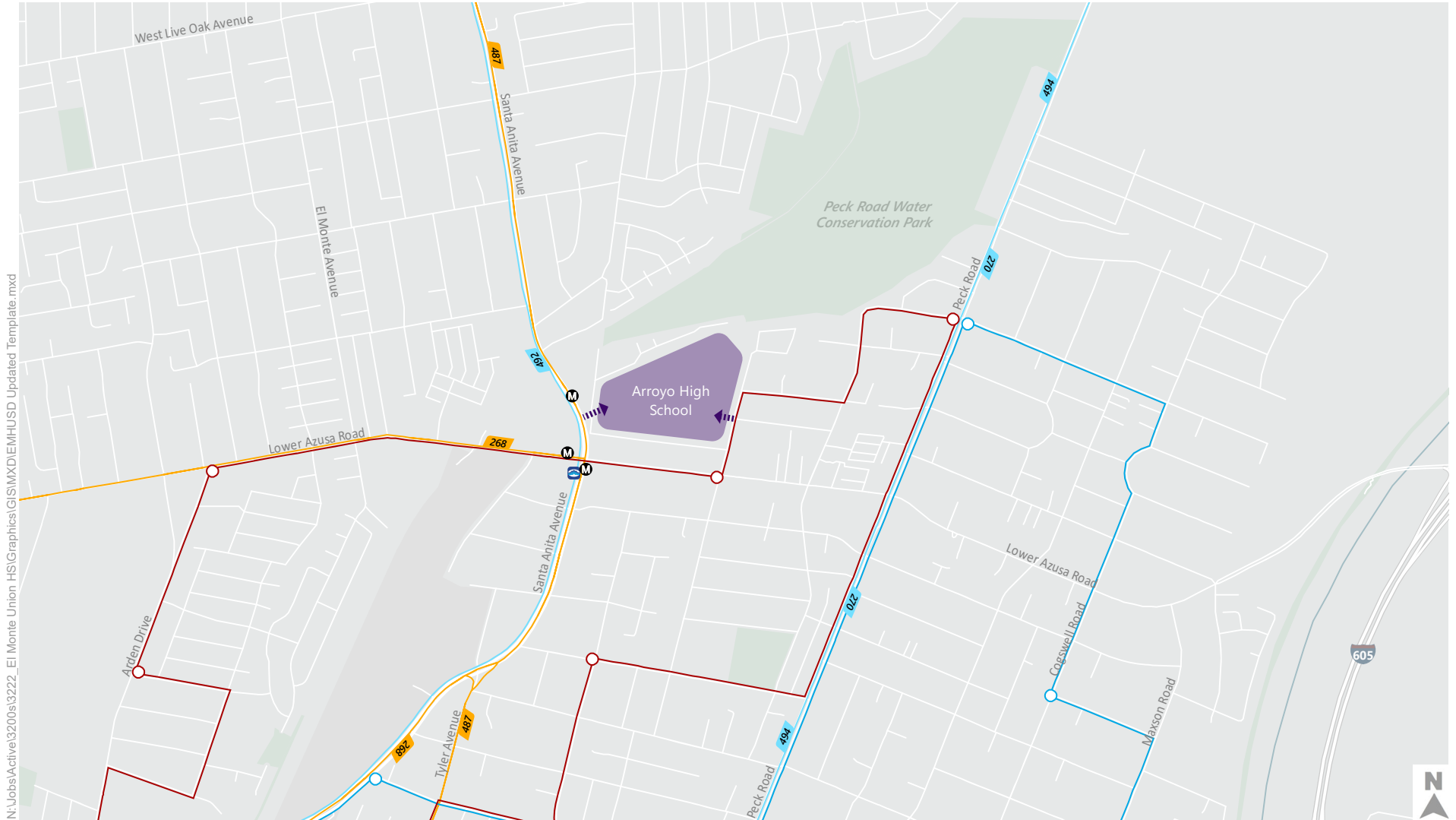


Community Transit Systems

The City of El Monte operates its own transit system, with two Red Route bus stops near Arroyo High School:

- Lower Azusa Road & Santa Anita Avenue
- Lower Azusa Road & Cedar Avenue

The Red Route provides service on weekdays every 50 minutes beginning at 6:00 AM. Metro provides local bus service along Lower Azusa Road & Santa Anita Avenue. Metro Local Routes 287 and Foothill Transit Route 492 provide service along Santa Anita Avenue, while Local Route 268 serves Lower Azusa Road before heading south on Santa Anita Avenue. Existing transit conditions in the vicinity of Arroyo High School are shown in Figure 13.



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El Monte Bus Routes

- Blue Route
- Red Route
- Stops

Metro

- Stops
- Routes

Foothill Transit

- Stops
- Routes

Access

- School
- Pedestrian Entryway



Figure 13
City of El Monte
Transit Access

Community Input

In addition to the review of existing conditions, the project team conducted a survey inviting students, parents, and staff to describe their school travel experiences and offer input to the process of developing project ideas. The survey was made available for four weeks during Spring 2021, in English, Spanish, Mandarin, and Vietnamese. The surveys were created using the Survey Monkey platform and were distributed as links at various after-school meetings. In addition, the link was circulated through social media and other communications channels by another project partner, VMA Communications, Inc. Table 3 shows the survey response totals for Arroyo High School.

Table 3. Arroyo High School Survey Response Totals

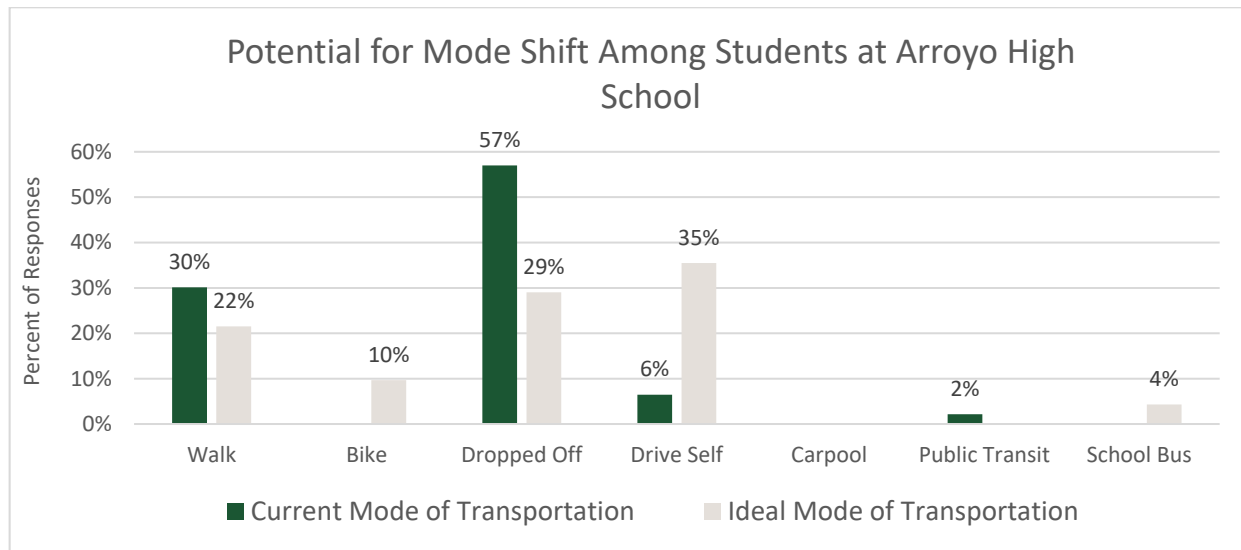
Groups	Total Number of Respondents
Students	93
Parents	134
Staff ⁴	1

Mode Share

Mode share refers to the percentage of travelers who use a particular type of transportation including walking, biking, driving, transit, or other options. Mode shift represents a change in travel patterns based on previous mode share. The survey asked respondents about their current mode share (how they get to school on most days, assuming in-person instruction during non-COVID conditions), as well as the potential for mode shift (how they would prefer to get to school in an ideal world). Results are shown in Figure 14 and Figure 15 for students, and students' behavior reported by parents, respectively.

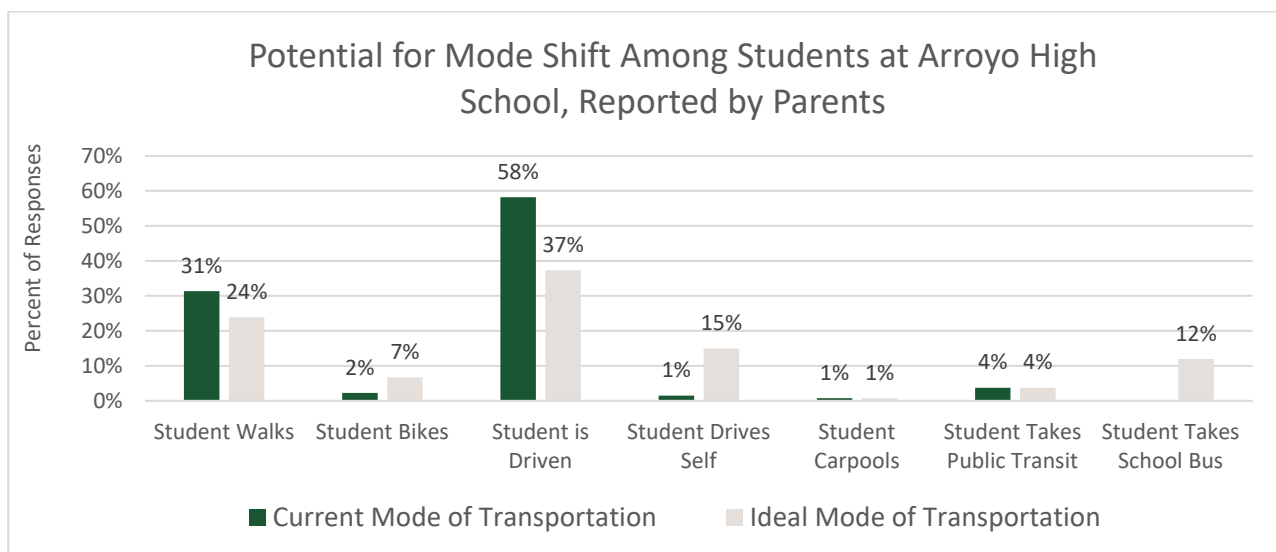
⁴ Includes faculty, staff, and classified staff

Figure 14. Potential for Student Mode Shift



Students being dropped off and walking to school comprise most of the current mode share according to survey results. There are also a small percentage of students who drive themselves and take public transit to school. Driving oneself saw the largest desire for mode shift among students, representing 6% of the current mode share and 35% of student's ideal mode of transportation, with a corresponding drop in desire to be dropped off. The data shows opportunities for improving non-auto modes such as bike and school bus access, as these modes are not represented in the current mode share but 10% of respondents selected bike and 4% of respondents selected school bus as an ideal mode of transportation. In addition, the desire to drive oneself signals a latent demand for independent travel, which could be met (in part) by non-auto options if improvements to walking and bicycling infrastructure were made.

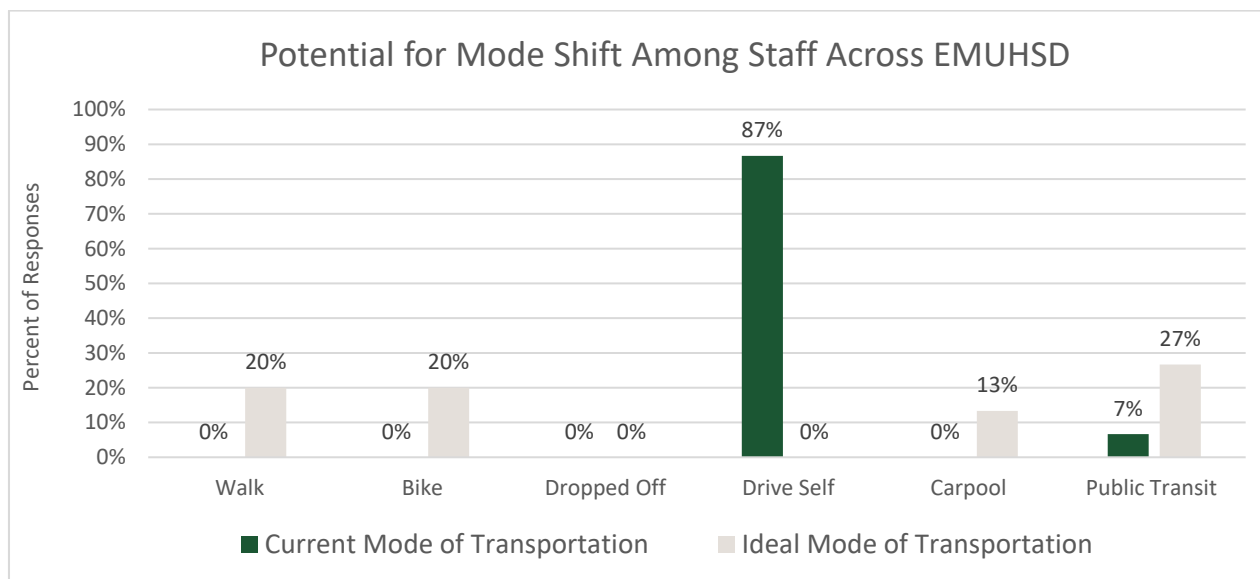
Figure 15. Potential for Student Mode Shift, Reported by Parents



Mode share results among parents aligned with the student responses that showed driving students to school and students walking as the predominant modes of transportation. Parents also shared that a small percentage of student's bike, drive themselves, carpool, or take public transit to school. In terms of mode shift, though "Student is Driven" represented a smaller share of ideal mode compared to current mode share, it remained the top mode among parents. "Student Walks" comprised a smaller share of ideal mode of transportation at 24% compared to 31% of current mode share, however it remained the second most popular mode among parents. "Student Drives Self" grew from 1% of current mode share to 15% of ideal mode. The share of "Student bikes" and "Student Takes School Bus" grew compared to current mode, which presents opportunities for improved access and availability of non-auto modes.

Only one staff member responded to the survey and though the datapoint provides insight into potential mode shift preferences for staff, it is not representative of staff trends for the school or the district. Due to the low response rate among staff across all schools, a graph of the staff responses across all surveyed high schools is Figure 16, representing fifteen total staff responses.

Figure 16. Staff Mode Shift Across the District

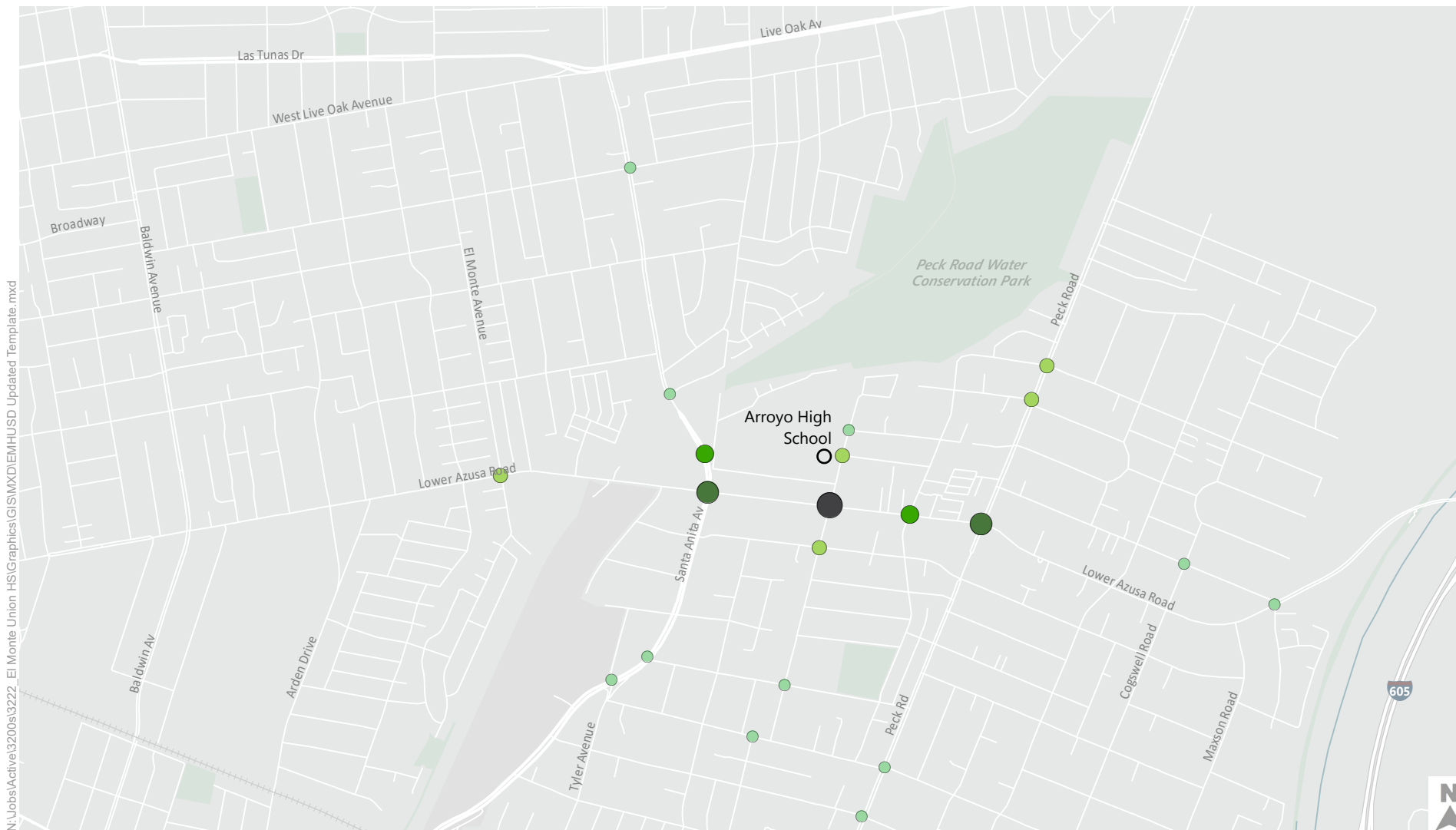


Reported Safety Concerns

Survey respondents identified locations where they experienced near-misses with vehicles and/or streets with safety concerns. Survey mentions were aggregated and mapped, resulting in the identification of key locations. This information helps to inform the locations of project ideas that prioritize safety-related active transportation improvements.

Figure 17 shows key intersections along Lower Azusa Road, Peck Road, and Santa Anita Avenue. Intersections along Lower Azusa Road were the most frequently mentioned, particularly when at the intersections with Santa Anita Avenue and Peck Road. The most notable intersection is at Lower Azusa Road & Cedar Avenue, directly south of Arroyo High School.

Figure 18 shows key corridors where students, parents, and staff reported feeling unsafe. For Arroyo High School, Peck Road, Lower Azusa Road, Santa Anita Avenue and Cedar Avenue represent the top corridors where respondents feel unsafe traveling to school. Cedar Avenue is of particular interest as it connects Lower Azusa Road to Arroyo High School itself. School-related traffic from the other three roadways is funneled into Cedar Avenue as a result.



Survey Mentions

- 1
- 2
- 3 - 4
- 5 - 13
- 14 - 30



Figure 17

Survey Results Arroyo High School-Key Intersections



Figure 18

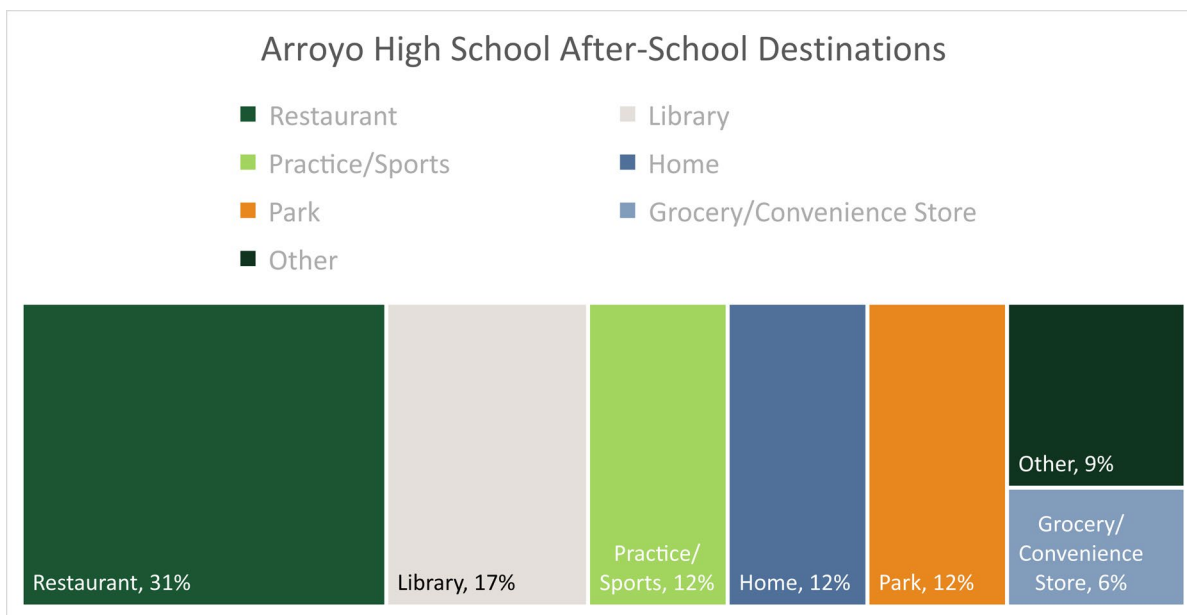
Survey Results Arroyo High School-Key Corridors

Short-Answer Survey Questions

The survey also asked respondents open-ended questions related to travel after-school and desired transportation improvements.

Students and parents were asked where they often go after school to get a better idea of students' travel patterns. This information helps guide the project development process, informing improvement locations and potential programmatic approaches to encouraging more walking and biking. Figure 19 presents the after-school destinations. Restaurants were the top after-school destination, followed by the library.

Figure 19. After-School Destinations

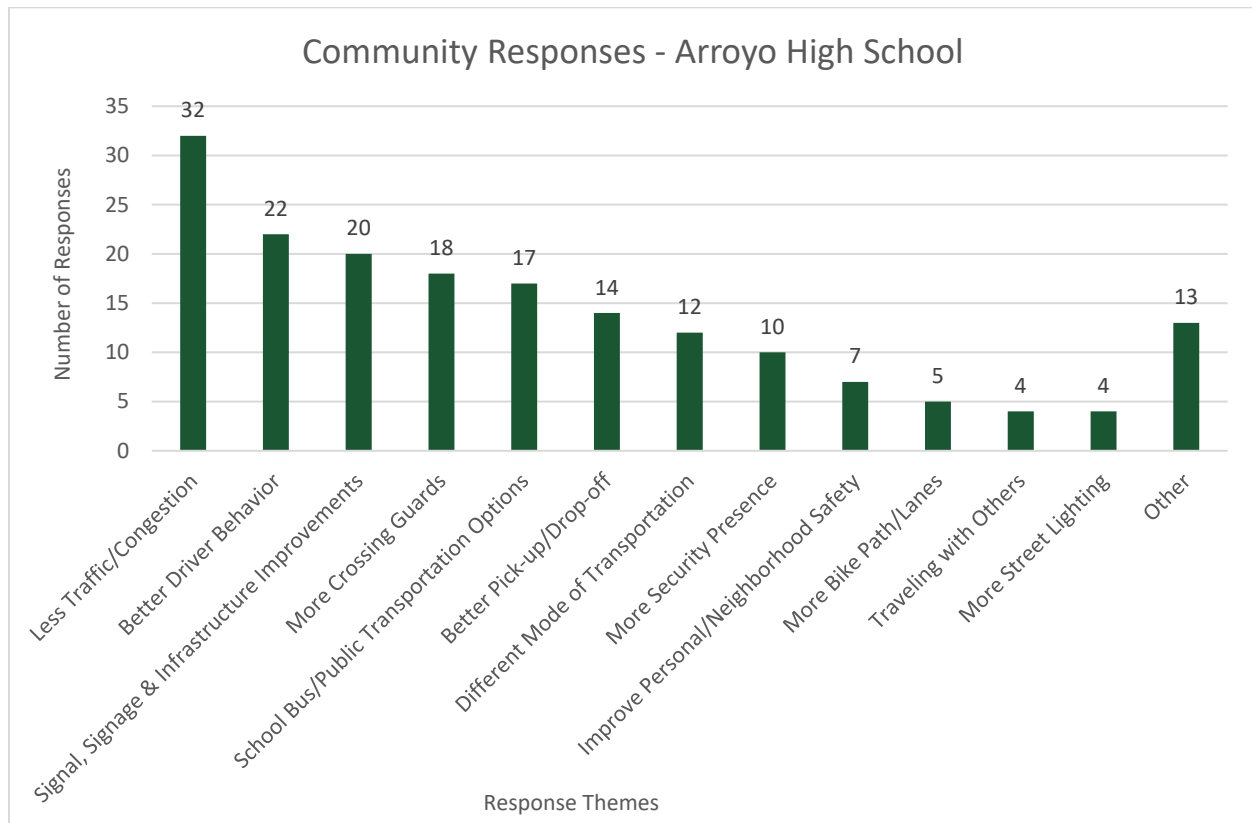


In response to the question, "If there were one thing you could change that would make your trip to school easier, safer, more comfortable, or more pleasant, what would it be?" students and parents shared insights on the concerns they have commuting to and from school, as shown in Figure 20.

The most frequent concern in responses from Arroyo High School parents and students was the amount of traffic congestion around the school in the morning, followed by aggressive or dangerous driver behavior. Additional concerns were related to safeguards around the school itself, including better signals and signage, crossing guards, and the desire for alternative ways to arrive at the school. Many answers included first-hand descriptions of congested drop-off zones around the school and near-miss incidents where aggressive drivers almost collide with students crossing the street in the area.

Other suggestions included adding school bus/shuttle service and to start the school day later "so [they] are not competing with people trying to get to work by 8[AM]", as one student offered. One parent also noted how aggressive drivers discourage parents from using drop-off points further away from the school, saying "For example, I used to drop one of my children off at a corner and they would walk. However, now with all the traffic and crazy ways people drive down to Cedar Avenue, I just don't trust it anymore."

Figure 20. Desired Improvements for the Journey to Arroyo High School



The community response from the figure above shows the major causes of concern being congestion and driver behavior. The ideal mode shift for both students and parents were driving to school or dropping-off students. This disconnect highlights the needs for improvements in the area.

Project Ideas

Based on the review of existing conditions and the input offered from the survey, the project team developed a set of targeted recommendations, including infrastructure improvements and programs, to improve active transportation and mobility options around Arroyo High School.

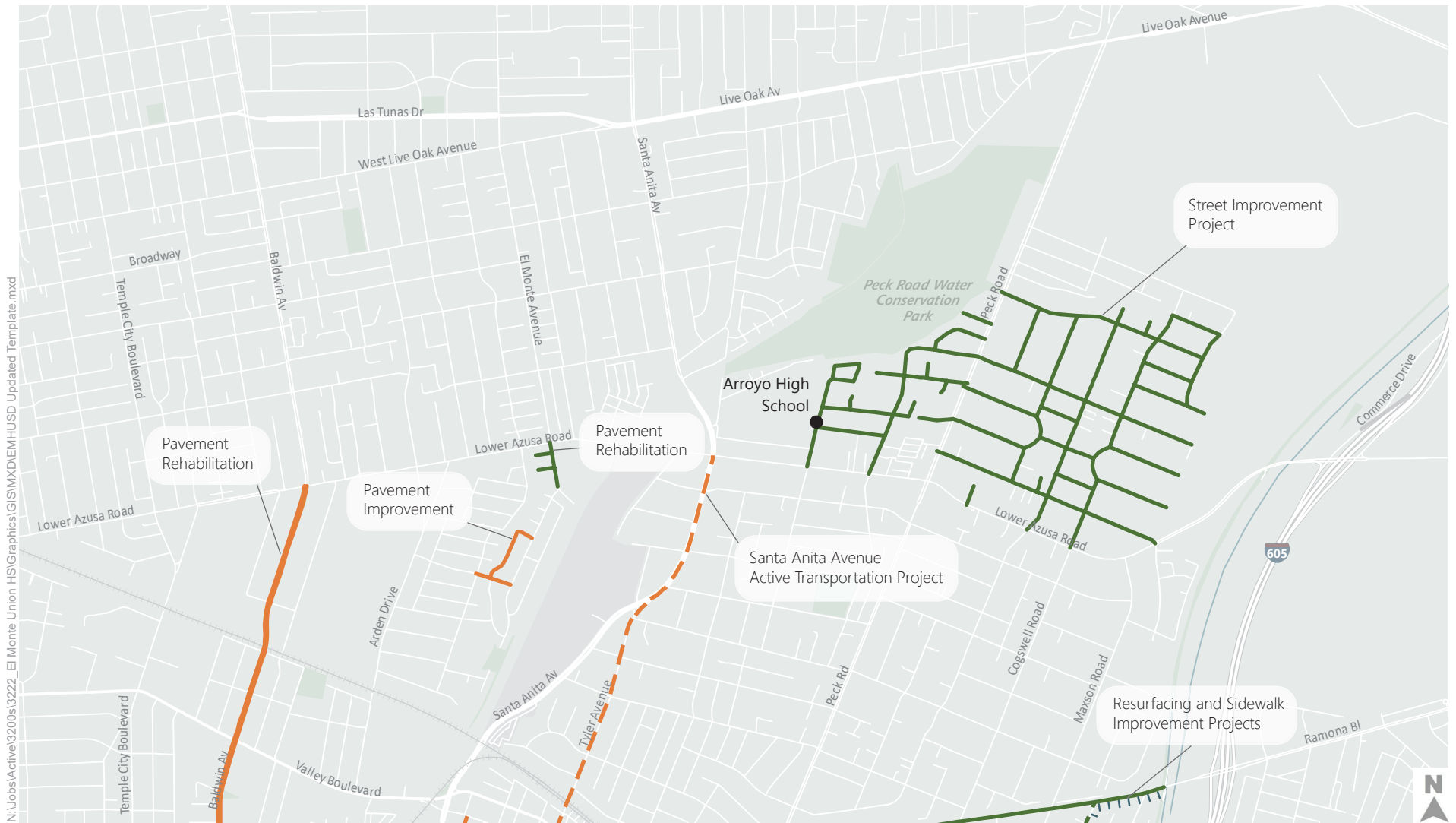
El Monte Union High School District has control over the campus conditions but not the public right of way within adjacent cities. Therefore, the project team engaged City of El Monte traffic engineering and transportation staff to understand what project improvements may already be underway and where there is opportunity for further improvements.⁵ In addition to vehicle-related street improvement projects near the school, the City of El Monte is enhancing active transportation connectivity to Arroyo High School with a bicycle project for the Santa Anita Avenue corridor that will connect to Lower Azusa Road. Once complete, this project will provide an additional non-auto mobility option connecting students to the school.

⁵ The project team connected with City of El Monte staff and received follow-up information about City efforts.

Figure 21 and Figure 22 show the City of El Monte's Capital Improvement Plan for the next three years and safety related projects that have been identified in the City of El Monte's Systemic Safety Analysis Report (SSAR).

The City of El Monte's Capital Improvement Projects, shown in Figure 21 below, reflect major improvements to City facilities and infrastructure. These projects may require years of planning and construction. The City's SSAR involves identifying countermeasures at various locations for safety improvements. These include, but are not limited to, improving signal timing, installing curb ramps, adding intersection lighting and signage, and enhancing crosswalks.

In addition to vehicle-related street improvement projects near the school, the City of El Monte is enhancing active transportation connectivity to Arroyo High School with a bicycle project for the Santa Anita Avenue corridor that will connect to Lower Azusa Road. Once complete, this project will provide an additional non-auto mobility option connecting students to the school.

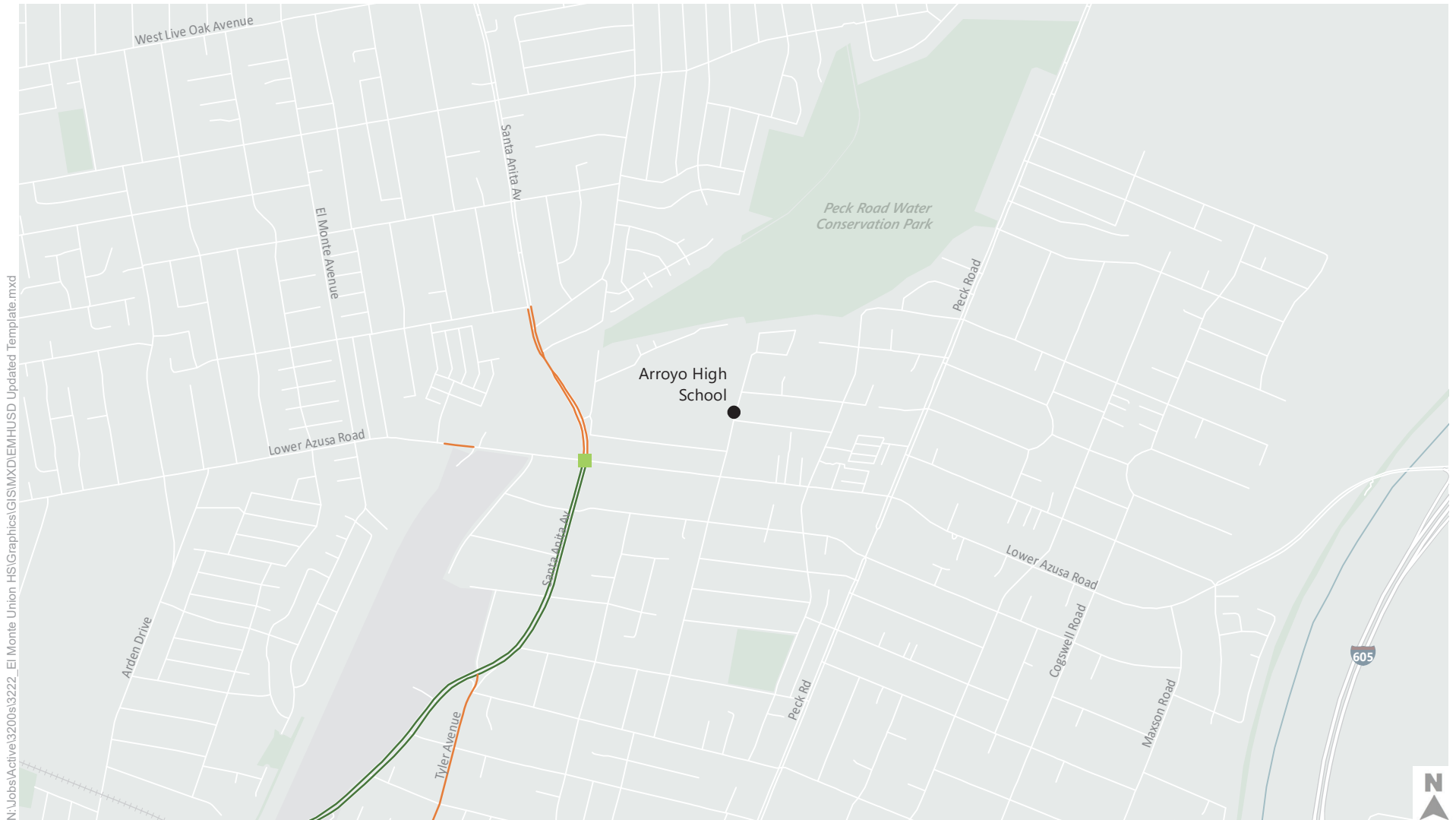


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Project Year	Project Type
■ 2020-2021	— Automobile
■ 2021-2022	- - Bicycle
	 Pedestrian



Figure 21
City of El Monte
Capital Improvement Projects



Proposed Safety Projects

- **Automobile**
- **Intersection**
- **Bicycle**



Figure 22
City of El Monte
Systemic Safety Analysis Report

Location-specific Recommendations

The project team developed the following targeted recommendations in Figure 23, located within one mile of the school, which captures the reasonable walkshed (distance someone is willing to walk) for the school. Recommendations were prioritized for intersections and corridors that were bicycle and pedestrian collision hotspots, and/or where survey participants noted they felt unsafe. Table 4 details the intersections and corridor of interest, along with their recommended improvements.

Table 4. Arroyo High School Project Development Recommendation List

Location	Location Type	Recommended Improvements
Santa Anita Ave. & Kings Row	Intersection	<ul style="list-style-type: none"> Convert crosswalk to a high-visibility continental crosswalk Extend median on south leg of Santa Anita Ave. Open Rio Hondo Bike Path entrance at Kings Row
Santa Anita Ave. & Lower Azusa Rd.*	Intersection	<ul style="list-style-type: none"> Extend median on north and south legs of Santa Anita Ave. (U-turns may be prohibited for certain vehicle types at this intersection) Add school zone signage near the intersection Study the potential for a raised median on Lower Azusa Rd. Consider removing the northbound curb lane on Santa Anita Ave. south of the intersection and making it a bus loading zone Consider narrowing the southbound curb-adjacent lane on Santa Anita Ave. north of the intersection Consider closing driveways to reduce conflict zones <p>* Identified as a site for proposed safety improvements under the City's SSAR and active transportation improvements under the City's Capital Improvement Projects</p>
Tyler Ave. & Santa Anita Ave.	Intersection	<ul style="list-style-type: none"> Close right turn slip lane on Tyler Ave. and extend island Realign intersection to shorten crosswalks Add leading pedestrian interval (LPI) in all directions Extend median on north and south legs of Santa Anita Ave.

Location	Location Type	Recommended Improvements
Peck Rd. & Lambert Ave.	Intersection	<ul style="list-style-type: none"> • Add left-turn protection for left-turn lanes on Peck Rd. • Extend median on north and south legs of Peck Rd. • Convert crosswalk to high-visibility continental crosswalk • Add new curb extensions on Peck Rd. • Add bus stop improvements such as shade and seating
Lower Azusa Rd. & Cedar Ave.	Intersection	<ul style="list-style-type: none"> • Convert crosswalk to high-visibility continental crosswalk • Add curb ramps in compliance with the Americans with Disabilities Act (ADA) at each corner • Add leading pedestrian interval for north and south legs of the crosswalk • Repair and add sidewalks along Cedar Ave.
Peck Rd. & Lower Azusa Rd.	Intersection	<ul style="list-style-type: none"> • Extend median from north and south legs of Peck Rd. • Convert crosswalk to high-visibility continental crosswalk • Add/update curb ramps in compliance with the ADA at each corner • Potential for street facing driveway closures
La Madera Ave. & Lower Azusa Rd.	Intersection	<ul style="list-style-type: none"> • Update curb ramps in compliance with the ADA at each corner • Convert crosswalk into high-visibility continental crosswalk • Consider signaling this intersection
Peck Rd. & Emery St.	Intersection	<ul style="list-style-type: none"> • Extend median on north and south legs of Peck Rd. • Add curb ramps in compliance with the ADA at each corner • Convert crosswalk into high-visibility continental crosswalk • Add left turn protection for left turn lanes on Peck Rd.
Peck Rd. & McGirk Ave.	Intersection	<ul style="list-style-type: none"> • Add a crosswalk with a rectangular rapid flashing beacon (RRFB)

Location	Location Type	Recommended Improvements
Peck Rd.	Corridor	<ul style="list-style-type: none"> • Potential for Class IV protected bike lane in both directions • Consider closing driveways to reduce conflict zones
Lower Azusa Rd.	Corridor	<ul style="list-style-type: none"> • Revise/lower speed limit • Widen sidewalks • Consider closing driveways to reduce conflict zones • Add street trees or shade
Santa Anita Ave.*	Corridor	<p>*This corridor is identified as a site for proposed safety improvements under the City's SSAR and active transportation improvements under the City's Capital Improvement Projects</p>



Project Development Sites

- Intersection
- ▭ 1 Mile Walkshed
- Corridor
- Improvement/Recommendation Type



Figure 23

Project Development Recommendations Arroyo High School

Figure 24 provides a closer look at what these recommendations could look like on the ground for the intersection of Santa Anita Avenue & Lower Azusa Road. This type of conceptual drawing helps to illustrate the ideas in the previous table. The proximity of this intersection to the school demonstrates a need for active transportation improvements, particularly for students on foot.

Recommended improvements include additional signage, adjusting roadway geometry, and improving the visibility of marked crossings. Extending the median on Santa Anita Avenue would enhance pedestrian safety by providing a pedestrian refuge island. However, this may limit the ability for larger vehicles (buses or trucks) to make U-turns on Santa Anita Avenue. Narrowing the lanes on the northbound and southbound approaches along Santa Anita Avenue can encourage lower speeds, further enhancing the safety of the intersection. Curb extensions shorten the crossing distance for pedestrians and provide more room for ADA compliant curb ramps. The bulb-out on the southeast corner of Santa Anita Avenue allows buses to stop and load passengers without interfering with traffic and shortens the crossing distance for pedestrians.

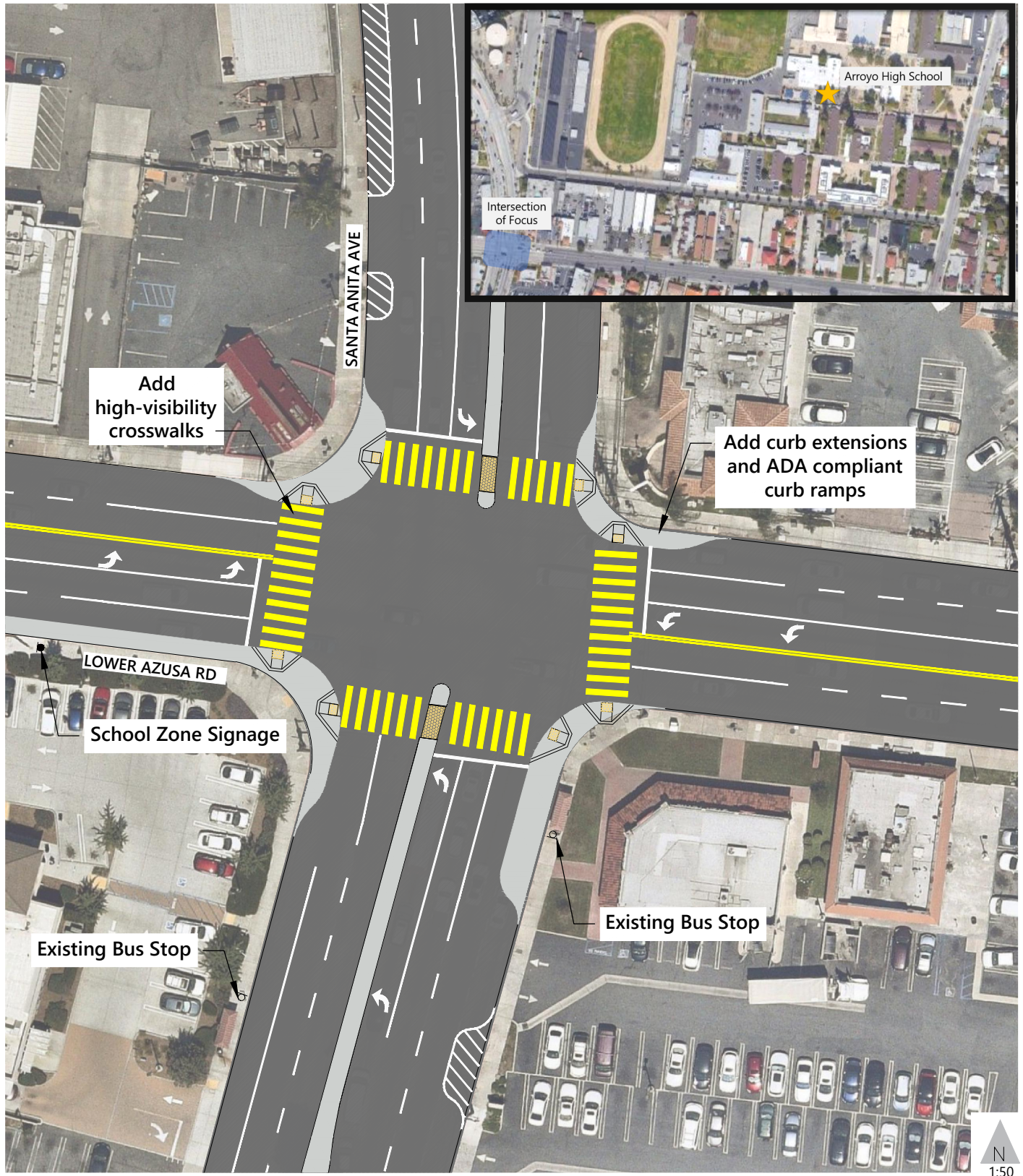


Figure 24

Conceptual Improvements Intersection of Santa Anita Ave. & Lower Azusa Rd. Arroyo High School

CONCEPTUAL - NOT FOR CONSTRUCTION. ADDITIONAL
DETAILED ANALYSIS AND ENGINEERING DESIGN REQUIRED.



Recommended Policies & Programs

In addition to infrastructure recommendations, the following policies and programs provide for broader systemwide improvements to help support and enhance active transportation at the school and local level. Policies and program recommendations include:

- Station additional crossing guards near large intersections during arrival and dismissal times
- Develop off-site drop-off locations with chaperoned routes that pass intersections supported by crossing guards
- Standardize drop-off/pick-up circulation approach, communicating patterns and expectations to parents at multiple times throughout the school year
- Partner with transit agencies to offer reduced transit fare to students or advocate for fare-free transit with local transit agencies
- Advocate for city policies to improve near-school intersections with infrastructure that includes more frequent pedestrian crossings, curb ramps, and signal timing review to add LPIs and extend crossing time
- Designate a District staff person to actively engage city staff around these ideas, emphasizing the importance of standardizing the approach to providing pedestrian and bicycle infrastructure near schools
- Open new entrances to the Rio Hondo Bike Path
- Add bicycle parking on campus, near both the eastern and western entrances to the school
- Partner with popular student destinations (nearby restaurants, library) to offer incentives and discounts for students who walk or bike
- Build transit/biking confidence among students by disseminating information to students through education programs

Example Costs for Recommended Improvements

The following table provides an overview of example costs⁶ associated with typical projects by type, to provide additional information that can support the District in prioritizing project ideas, coordinating with City engineering staff, pursuing grant funding or identifying other funding opportunities.

Table 5. Example Costs for Recommended Improvements

Recommended Improvements	Project Type	Cost Estimate
Sidewalk Enhancements	Sidewalks (per mile, one side)	\$1,800,000
Pedestrian Crossing Enhancements	High-visibility crosswalk	\$5,000
	Painted curb extensions (varying extents)	\$15,000-\$40,000

⁶ Costs are based on Fehr & Peers cost estimates of transportation and infrastructure projects from the California market.

Recommended Improvements	Project Type	Cost Estimate
	Concrete curb extensions (varying extents)	\$100,000-\$125,000
	Rapid rectangular flashing beacon	\$45,000
	Pedestrian hybrid beacon	\$170,000
	Pedestrian signs (per sign)	\$3,000
	Existing signal timing adjustments	\$5,000-\$10,000
	New or upgraded signal	\$400,000-\$500,000
	Reconstruct corners to reduce curb radius and close slip lanes	\$200,000-\$450,000
Speed Management	Re-stripe with narrowed or reconfigured lanes (per mile)	\$300,000
Lighting	Roadway lighting (per mile)	\$750,000
	Pedestrian-scale lighting (per mile)	\$2,000,000
	Intersection lighting	\$40,000
Bicycle Enhancements	Class I bicycle path (per mile)	\$1,847,000
	Class II bicycle lane (per mile)	\$245,000
	Class III bicycle lane (per mile)	\$358,000
	Class IV bicycle lane (per mile)	\$2,634,000

Conclusion

Overall, the Arroyo High School analysis highlights some key themes and recommendations for the District to consider:

- Some latent demand for bicycling to school has been identified, offering an opportunity to provide more support for students who currently or would consider arriving to school by bicycle
- Safety concerns are a key issue for students, parents, and staff, regardless of mode
- Opportunities exist to partner with local restaurants and the Norwood Library – key after-school destinations – to encourage walking and bicycling, to install bicycle parking, and to improve the pedestrian environment
- Key intersections of focus include Santa Anita Avenue & Lower Azusa Road, Cedar Avenue & Lower Azusa Road, and Peck Road & Lower Azusa Road
- Key corridors of focus include Lower Azusa Road, Cedar Road, Santa Anita Avenue and Peck Road, as well as the gated section of Kings Row along the southern edge of the campus

- On-campus improvements could focus on information dissemination around drop-off and pick-up using Kings Row, options for traveling to school using modes other than a personal car, and installation of secure bicycle parking
- Non-infrastructure improvements off-campus could include additional staff/crossing guards, especially located at major intersections around the school
- Coordination with the Cities of El Monte and Temple City, and with the County of Los Angeles will be necessary to advance off-campus infrastructure improvements to the roadway, sidewalks, intersections, and connection to regional facilities like the Rio Hondo Bicycle Path

The Arroyo High School Mobility & Active Transportation Plan provides a starting point and a roadmap to address school-related mobility needs and offers solutions that will encourage active transportation for both the school and local community. The School District and the City of El Monte should work together to prioritize both infrastructure and policy solutions that will encourage safer, more active, and sustainable transportation options for students and families.

Appendix A: Glossary of Active Transportation Terms

Term	Description
Class III Bike Route	<p>Class III bike routes provide for shared use with motor vehicle traffic either to: (1) provide continuity to other bicycle facilities (typically Class II); or (2) designate preferred routes through high demand corridors. Established with bike route signs and shared roadway markings along the route.</p> <p><i>Caltrans, 2020</i></p>
Class IV Bikeway	<p>Class IV bikeways provide space on the roadway set aside for the exclusive use of bicycles, physically separated from vehicle traffic. Types of separation include, but are not limited to, grade separation, flexible posts, physical barriers, or on-street parking.</p> <p><i>Fehr & Peers, 2021</i></p>
Closed Slip Lane	<p>Modifies the corner of an intersection to remove the sweeping right turn lane for vehicles. Results in shorter crossings for pedestrians, reduced speed for turning vehicles, better sight lines, and space for landscaping and other amenities.</p> <p><i>Fehr & Peers, 2021</i></p>
Curb Extensions	<p>Widens the sidewalk at intersections or midblock crossings to shorten the pedestrian crossing distance, to make pedestrians more visible to vehicles, and to reduce the speed of turning vehicles at intersections.</p> <p><i>Fehr & Peers, 2021</i></p>



Term	Description
High-Visibility Crosswalk	<p>A crosswalk that is designed to be more visible to approaching drivers. Crosswalks should be designed with continental markings and use high-visibility material, such as inlay tape or thermoplastic tape instead of paint.</p> <p><i>Fehr & Peers, 2021</i></p>
In-Roadway Warning Lights (IRWL)	<p>In-Roadway Lights are special types of highway traffic signals installed in the roadway surface to warn road users that they are approaching a condition on or adjacent to the roadway that might not be readily apparent and might require the road users to slow down and/or come to a stop.</p> <p><i>MUTCD, 2003</i></p>
Lane Narrowing	<p>A reduction in lane width produces a traffic calming effect by encouraging motorists to travel at slower speeds, lowering the risk of collision with bicyclists, pedestrians, and other motorists.</p> <p><i>Fehr & Peers, 2021</i></p>
Leading Pedestrian Interval (LPI)	<p>Gives people walking a head start, making them more visible to drivers turning right or left. "WALK" signal comes on a few seconds before drivers get a green light. May be used in combination with No Right Turn on Red restrictions.</p> <p><i>Fehr & Peers, 2021</i></p>
Pedestrian Refuge Island	<p>Pedestrian refuge islands provide a protected area for pedestrians at the center of the roadway within a marked crosswalk. They reduce the exposure time for pedestrians crossing the road. They simplify crossings by allowing pedestrians to focus on one direction of traffic at a time.</p> <p><i>Fehr & Peers, 2021</i></p>



Term	Description
Pedestrian Scramble	<p>A form of pedestrian “WALK” phase at a signalized intersection in which all vehicular traffic is required to stop, allowing pedestrians to safely cross through the intersection in any direction, including diagonally.</p> <p><i>Fehr & Peers, 2021</i></p>
Rectangular Rapid-Flashing Beacon (RRFB)	<p>A Rectangular Rapid Flashing Beacon (RRFB) is a pedestrian-actuated conspicuity enhancement used in combination with a pedestrian, school, or trail crossing warning sign to improve safety at uncontrolled, marked crosswalks. The device includes two rectangular shaped yellow indications, each with an LED-array-based light source, that flash with high frequency when activated.</p> <p><i>FHWA, 2018</i></p>
Lane Reconfiguration (Road Diet)	<p>Depending on the street, a lane reconfiguration, sometimes called a road diet, may change the number of lanes, turn lanes, center turn lanes, bike lanes, parking lanes, and/or sidewalks. Lane reconfigurations optimize street space to benefit all users by reallocating excess travel lanes, improving the safety and comfort of pedestrians and bicyclists, and reducing vehicle speeds and the potential for rear end collisions.</p> <p><i>Fehr & Peers, 2021</i></p>
Stop Bar	<p>A stop bar is a solid white line extending across approach lanes to indicate the point at which the stop is intended or required to be made. A stop bar should be placed to allow sufficient sight distance to all other approaches to an intersection.</p> <p><i>MUTCD, 2003</i></p>



Term	Description
Tactile Warning Pad	<p>Tactile warning pads (sometimes called “truncated domes” or “warning domes”) are applied to provide pedestrians physical notice that they are about to enter the roadway environment; these applications need to be detectable underfoot or by a long cane. The tactile warning should be complimented with a visual warning, as the use of a contrasting color will increase its conspicuity to pedestrians whose sight is limited but who are not completely blind.</p> <p><i>ITE, 2015</i></p>
Walkshed	<p>A walkshed is the area around a school – or any central destination—that is reachable on foot for the average person, typically up to ¼ or ½ mile, depending on the destination.</p> <p><i>MWCOG, 2019</i></p>



Appendix B: El Monte Union High Schools Transportation Survey

The California Air Resources Board (CARB) awarded \$9.8 million dollars to implement the Clean Mobility in Schools Pilot Project in disadvantaged neighborhoods throughout El Monte Union High School District. The Clean Mobility in Schools Pilot Project will provide all electric school buses, school bus charging infrastructure, and other clean mobility options throughout the District. The Clean Mobility in Schools Pilot Project is part of California Climate Investments, a statewide program that puts billions of Cap-and-Trade dollars to work reducing greenhouse gas emissions, strengthening the economy and improving public health and the environment — particularly in disadvantaged communities.

We want to make our schools safer and easier to get to. Help us make the best plan to get you or your student to school by taking this survey. The survey should take about 5 minutes. To thank you, we have a raffle for a \$25 Gift Card from a local store in the El Monte Union High School District community. A winner will be selected from each of the student, parent, and staff/teacher groups.

Answer the survey questions as if we are holding in-person classes (pre-COVID).

1. Survey Language Preference/Preferencia de idioma de la encuesta
 - a. English (Inglés)
 - b. Spanish (Español)
 - c. Chinese
 - d. Vietnamese

If select D will be redirected to this survey.

2. Choose the option that best describes you:
 - a. I'm a student
 - b. I'm a parent or guardian with a student at this school
 - c. I'm a teacher
 - d. I'm a school employee

Student Survey

1. What school do you attend?
 - a. El Monte High School
-



- b. Ledesma High School
 - c. South El Monte High School
 - d. Rosemead High School
 - e. Arroyo High School
 - f. Mountain View High School
 - g. Granada Transition Center
2. How do you get to school most days?
- a. Walking
 - b. Biking
 - c. I get dropped off
 - d. I drive myself
 - e. I carpool with another driver
 - f. Public transit
 - g. School bus
3. In an ideal world, how would you prefer to get to school?
- a. Walking
 - b. Biking
 - c. Getting dropped off
 - d. Driving myself
 - e. Carpooling with another driver
 - f. Public transit
 - g. School bus
 - h. Other
4. Are there streets that feel unsafe when traveling to school? If so, please list the street in the box below along with why/how it feels unsafe. For example, cars speed on the street or there isn't enough time for you to cross the street.
- a. [comment box here]
5. What places do you go after school? This can be a restaurant, library, park, or other places.
- a. [comment box here]
6. Are there locations where you have experienced close calls with getting hit by a car on your way to or from school? If so, please list them below.
- a. [comment box here]
7. What are some of the streets you use on your way to school?



- a. [comment box here]
- 8. If there were one thing you could change that would make your trip to school easier, safer, more comfortable, or more pleasant, what would it be?
- 9. Thank you for taking the survey! Don't forget to provide your email to be entered into the raffle! (optional)
 - a. [enter email]

Parent Survey

- 1. What school does your student attend?
 - a. El Monte High School
 - b. Ledesma High School
 - c. South El Monte High School
 - d. Rosemead High School
 - e. Arroyo High School
 - f. Mountain View High School
 - g. Granada Transition Center
- 2. How does your student get to school?
 - a. Walking
 - b. Biking
 - c. I or another family member drop them off
 - d. They drive themselves
 - e. They carpool with another driver
 - f. Public transit
 - g. School bus
- 3. In an ideal world, how would you prefer your student get to school?
 - a. Walking
 - b. Biking
 - c. Getting dropped off
 - d. Driving themselves
 - e. Carpooling with another driver
 - f. Public transit
 - g. School bus
 - h. Other



4. Are there streets that seem unsafe when traveling to your student's school? If so, please list the street in the box below along with why/how it feels unsafe. For example, cars speed on the street or there isn't enough time for you to cross the street.
 - a. [comment box here]
5. What places does your student go after school? This can be a restaurant, library, park, or other places.
 - a. [comment box here]
6. Are there locations where you have experienced close calls with getting hit by a car on your way to or from your student's school? If so, please list them below.
 - a. [comment box here]
7. What are some of the streets you use on your way to school?
 - b. [comment box here]
8. If there were one thing you could change that would make your trip to your student's school easier, safer, more comfortable, or more pleasant, what would it be?
9. Thank you for taking the survey! Don't forget to provide your email to be entered into the raffle! (optional)
 - a. [enter email]

School Employee and Teacher Survey

1. What school do you work at?
 - a. El Monte High School
 - b. Ledesma High School
 - c. South El Monte High School
 - d. Rosemead High School
 - e. Arroyo High School
 - f. Mountain View High School
 - g. Granada Transition Center
2. How do you get to school?
 - a. Walking
 - b. Biking
 - c. I drive myself
 - d. I carpool with another driver



- e. I get dropped off
 - f. Public transit
3. In an ideal world, how would you prefer to get to school?
- a. Walking
 - b. Biking
 - c. Driving myself
 - d. Carpooling with another driver
 - e. Public transit
 - f. School bus
4. Are there streets that seem unsafe when traveling to campus? If so, please list the street in the box below along with why/how it feels unsafe. For example, cars speed on the street or there isn't enough time for you to cross the street.
- a. [comment box here]
5. What places do you go after work near the school? This can be a restaurant, library, park, or other places.
- a. [comment box here]
6. Are there locations where you have experienced close calls with getting hit by a car on your way to or from school? If so, please list them below.
- a. [comment box here]
7. What are some of the streets you use on your way to school?
- a. [comment box here]
8. If there were one thing you could change that would make your trip to school easier, safer, more comfortable, or more pleasant, what would it be?