

TABLE 4.16.1 REDWOOD ELEMENTARY SCHOOL RECOMMENDATIONS

ID	Improvement	Description	Location
1a	High-Visibility Crosswalk	Install high-visibility crosswalk on all four legs of the intersection	Arrow Route and Cherry Avenue
1b	High-Visibility Crosswalk	Install high-visibility crosswalk on all four legs of the intersection	Arrow Route and Redwood Avenue
1c	High-Visibility Crosswalk	Install high-visibility crosswalk on the north and east legs of the intersection	Country Lane and Redwood Avenue
1d	High-Visibility Crosswalk	Install high-visibility crosswalk on the east leg of the intersection	Valencia Avenue and Redwood Avenue
1e	High-Visibility Crosswalk	Install high-visibility crosswalk on the north leg of the intersection	Whittram Avenue and Redwood Avenue
1f	High-Visibility Crosswalk	Install high-visibility crosswalk on all four legs of the intersection	Whittram Avenue and Cherry Avenue
2a	ADA Compliant Curb Ramps	Install ADA compliant curb ramps on all four corners of the intersection	Arrow Route and Redwood Avenue
2b	ADA Compliant Curb Ramps	Install ADA compliant curb ramps on the northwest northeast and southeast corners of the intersection	Country Lane and Redwood Avenue
2c	ADA Compliant Curb Ramps	Install ADA compliant curb ramps on the northeast and southeast corners of the intersection	Valencia Avenue and Redwood Avenue
2d	ADA Compliant Curb Ramps	Install ADA compliant curb ramps on the northeast and northwest corners of the intersection	Whittram Avenue and Redwood Avenue
3a	Sidewalk	Construct sidewalk	Arrow Route (S) between Almond Avenue and Live Oak Avenue
3b	Sidewalk	Construct sidewalk	Redwood Avenue (W) between Arrow Route and Whittram Avenue
3c	Sidewalk	Construct sidewalk	Redwood Avenue (E) between Arrow Route and Whittram Avenue
3d	Sidewalk	Construct sidewalk	Whittram Avenue (N) between Almond Avenue and Live Oak Avenue
3e	Sidewalk	Construct sidewalk	Cherry Avenue (W) between Whittram Avenue and Merrill Avenue
3f	Sidewalk	Construct sidewalk	Cherry Avenue (E) between Whittram Avenue and Merrill Avenue
4	Rectangular Rapid Flashing Beacon (RRFB)	Install RRFB crossing Redwood Avenue	Country Lane and Redwood Avenue
5	Red curb paint	Extend red curb	Redwood Avenue (W) along School Frontage
6a	Planned Class II Bike Lane (SBCTA)	Coordinate with SBCTA to construct Class II Bike Lanes per SBCTA planned bikeways	Arrow Route from Hickory Avenue to Almeria Avenue
6b	Planned Class II Bike Lane (SBCTA)	Coordinate with SBCTA to construct Class II Bike Lanes per SBCTA planned bikeways	Cherry Avenue from Valley Boulevard to Foothill Boulevard

4.17 DORIS DICKSON ELEMENTARY SCHOOL

3930 Pamela Dr, Chino, CA 91710
Chino Valley Unified School District

Doris Dickson Elementary School is located in unincorporated San Bernardino County within the City of Chino Sphere of Influence. Doris Dickson Elementary School is located on the northeast corner of the intersection of Roswell Avenue and Pamela Drive. The school is located approximately 0.8 miles south of the State Route 60 (SR-60) freeway and approximately one mile east of the State Route 71 (SR-71) freeway. The land uses surrounding Doris Dickson Elementary School are primarily residential with some commercial, industrial, and civic land uses nearby. Figure 4.17.1 shows the school area and the overall context of the school site.



Figure 4.17.1 Context Map

SCHOOL PROFILE

Doris Dickson Elementary School is located in unincorporated San Bernardino County within the City of Chino Sphere of Influence and is part of the Chino Valley Unified School District. It serves approximately 597 students in grades Kindergarten through 6th with a student/teacher ratio of 19:1. The demographic composition of the students is shown in Figure 4.17.2, which shows that Doris Dickson Elementary School has a majority Hispanic population, according to the census estimates. Approximately 88% of Doris Dickson Elementary School students received free or reduced-price lunch during the 2023-2024 school year, which is considerably higher than the state and the county averages (Figure 4.17.3).

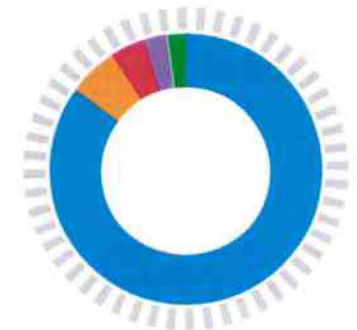


Figure 4.17.2 Demographic Composition

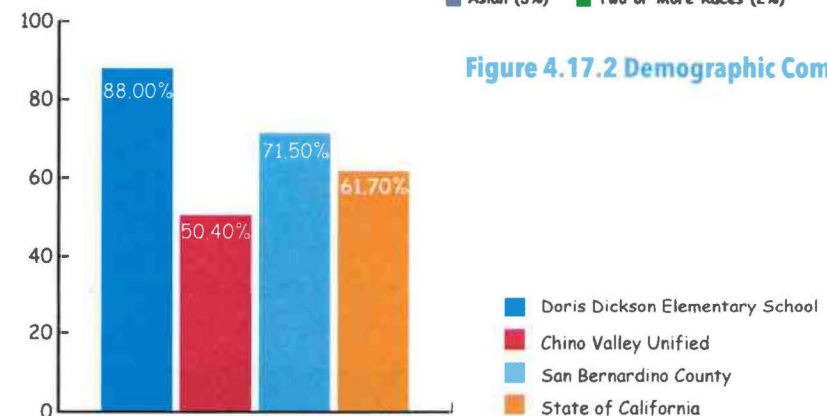


Figure 4.17.3 Free or Reduced Meals (Compare between district and county)

Student Tallies

The Safe Routes to School Student Arrival and Departure Tally Sheet was administered by Doris Dickson Elementary School staff from January 28 to January 30, 2025, to better understand what mode(s) students use to travel to and from the campus. As displayed in Figure 4.17.4, the vast majority of students arrived and departed in a family vehicle (81% average), followed by school bus (12% average), walking (4% average), carpooling (2% average), and other (1% average), respectively. Doris Dickson Elementary School has six buses that drop-off and pick-up students on Roswell Avenue. Approximately 69 students reported taking the school bus.

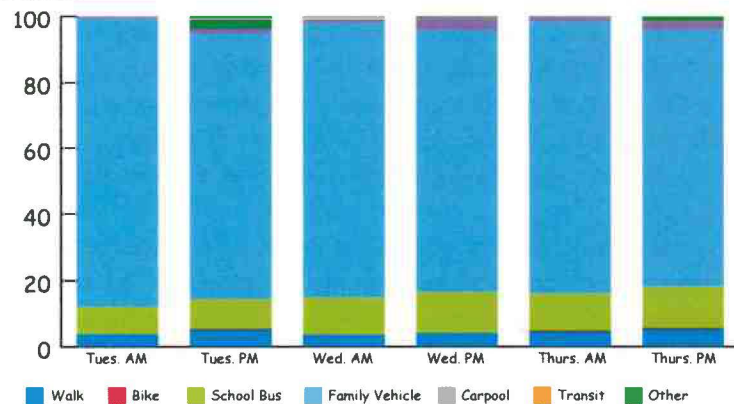


Figure 4.17.4 Doris Dickson Elementary School Student Arrival and Departure Tallies

Mobility Assessment

A walk audit and on-site meetings for Doris Dickson Elementary School in unincorporated San Bernardino County were conducted on January 28, 2025. The purpose of the event was to identify any issues related to student drop-off or pick-up operations 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 deficiencies, 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 mobility assessment included the Doris Dickson Elementary School Principal, San Bernardino County staff, and CR Associates staff. Although an online survey was administered as part of the school mobility assessment for Doris Dickson Elementary School, no parents/caregivers participated.

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. Factors 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 4.17.5 illustrates the CES scores for Doris Dickson Elementary School and its surrounding area scoring in the 60th to 70th percentile which indicates the area is moderately burdened by pollutants.



Figure 4.17.5 CalEnviroScreen 4.0 Score - Doris Dickson Elementary 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 the 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 4.17.6 illustrates the area surrounding Doris Dickson Elementary School, which shows an HPI score of 41.6, indicating less healthy conditions surrounding the school.



Figure 4.17.6 Healthy Place Index Score - Doris Dickson Elementary School

Walking

Figure 4.17.7 provides an overview of the existing pedestrian network and challenges observed and analyzed. The sidewalk network surrounding Doris Dickson Elementary School is incomplete. During the site visit, it was observed that there were no sidewalks on the west side of Roswell Avenue and the north and south sides of Christina Road. There is a lack of interest in walking and biking because families do not believe the infrastructure is conducive to walking or safe. The intersection of Pamela Drive and Roswell Avenue is very wide. Pedestrians contend with low visibility crossings, missing truncated domes, poor driving behavior at intersections, minimal tree canopy, and a culture of using buses and driving, despite being considered a neighborhood school.

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 4.17.8 shows the results of the PES scoring. A sidewalk network with medium and high PES scores indicates relatively low stress for walking, whereas a low or very low PES score can be considered a stressful walking environment. The roadways near Doris Dickson Elementary School show a variety of PES scores, including very low scores on Riverside Drive, Chino Avenue, Pipeline Avenue and East End Avenue. Roswell Avenue along the school frontage received a low score. This indicates a stressful walking environment near the school along these roadways and may create a barrier to walking.

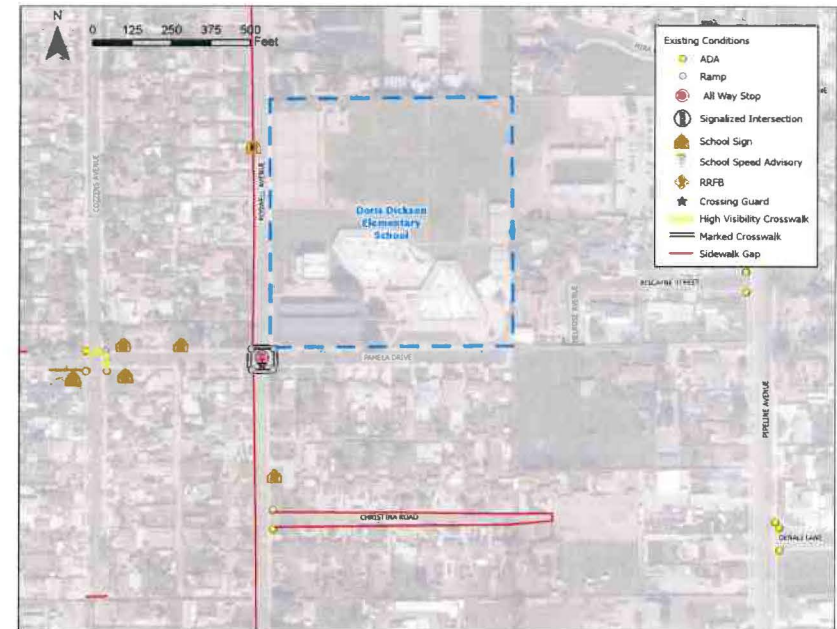


Figure 4.18.7 Existing Pedestrian Conditions

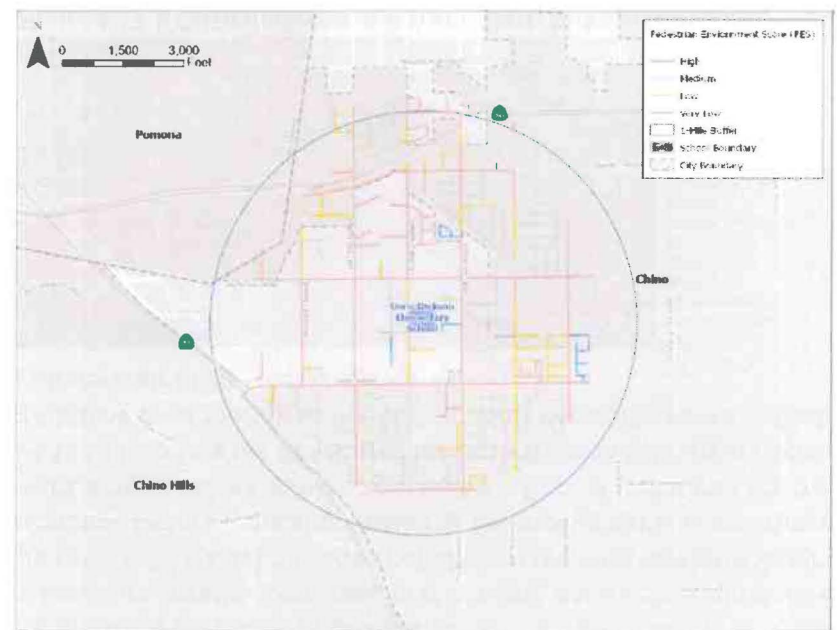


Figure 4.17.8 Pedestrian Evaluation Score

Figure 4.17.9 shows the walkshed for Doris Dickson Elementary School. The walkshed shows the area where a student can walk a one-half mile from the school. The walkshed has been reviewed for sidewalk connectivity and accessibility.

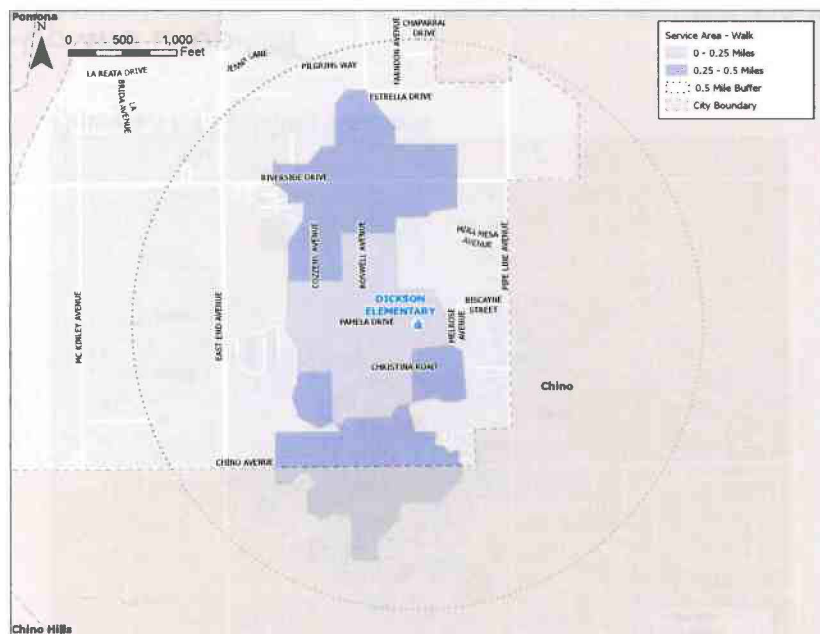


Figure 4.17.9 Existing Pedestrian Walkshed



Riding and Rolling

Currently, there are no bicycle facilities surrounding Doris Dickson Elementary School. The San Bernardino County Transportation Authority (SBCTA) plans to implement a Class II bike lane along Pipeline Avenue (Figure 4.17.10).

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 classifies the street network into categories according to the level of stress it causes cyclists, taking into account a number of factors. The LTS assessment conducted by MBI concluded that the roads immediately surrounding Doris Dickson Elementary School have LTS scores of 1 to 4 indicating a combination of low and high stress levels for cyclists (Figure 4.17.11).

Figure 4.17.12 shows the bikeshed for Doris Dickson Elementary School. The bikeshed shows the area which a student can bike one mile from the school.



Figure 4.17.10 Existing and Planned Bicycle Condition

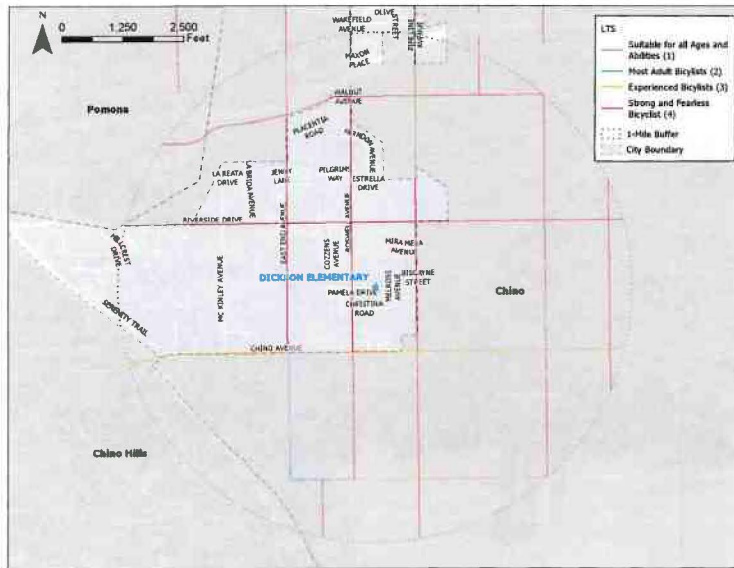


Figure 4.17.11 Bicycle Level of Traffic Stress

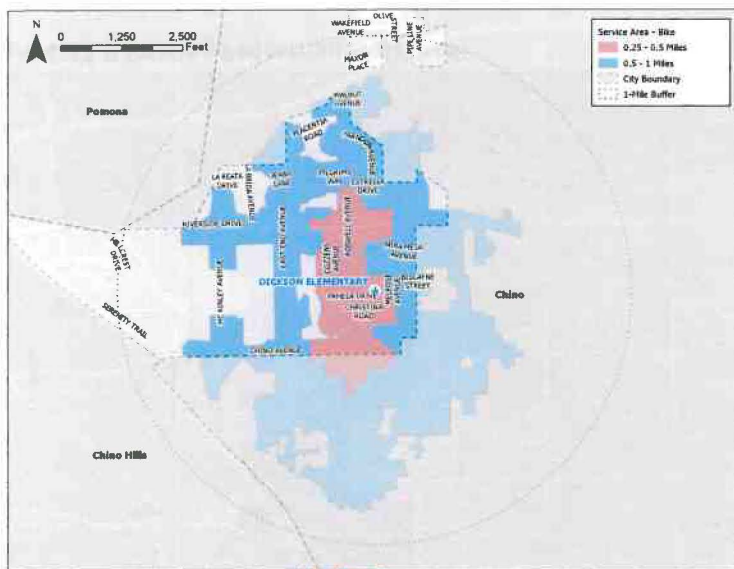


Figure 4.17.12 Existing Bikeshed

Pick-Up and Drop-Off

Doris Dickson Elementary School is accessed via Pamela Drive and Roswell Avenue. Figure 4.17.13 illustrates the existing conditions and the behaviors observed during the mobility assessment.

There is currently one crossing guard at the intersection of Pamela Drive and Roswell Avenue, which is an all-way stop-controlled intersection with low-visibility crosswalks and signage. The following signs are present along the east and west side of Roswell Avenue and north and south side of Pamela Drive:

- "School Crossing Ahead"
- "No Parking School Days only"
- "Stop Ahead"
- "No Outlet"

Parents dropping off their student are noted to park along the west side of Roswell Avenue and cross the street with their children at unmarked segments of Roswell Avenue.

Pick-up currently occurs primarily at the school parking lot pick-up and drop-off loop on Pamela Drive. During the site visit, parents were observed arriving nearly 15 minutes prior to the dismissal bell. The bus loading zone is located on the east side of Roswell Avenue near the exit of the pick-up and drop-off loop. Many parents were seen dropping off students at the official unloading area right in front of the school, while other parents were seen dropping off within the emergency vehicle loop on Pamela Drive. School staff recognize that vehicles use unofficial spots to drop off students such as the bus loading zone, the on-street curbsides of Roswell Avenue and Pamela Drive, and the travel lanes within the school's parking lot loop. Parents also park in the red curb/ fire lane areas on Roswell Avenue near the exit of the driveway loop.



Safety Analysis

Between 2019 and 2023, there were seven bicycle and pedestrian collisions within a one-half mile radius of Doris Dickson Elementary School. Of the seven reported collisions, two collisions involved a pedestrian who sustained severe injuries, one of which was fatal. These collisions were located on East End Avenue near Riverside Drive (2021) and on Chino Avenue (2020) (Figure 4.17.14).



Figure 4.17.14 Bicycle and Pedestrian Involved Collisions (2019-2023)

Travel Pattern Analysis

A travel pattern analysis was conducted for Dorris Dickson 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 the tools 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, which refers to travel by car. 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 4.17.15 and Figure 4.17.16 for active trip and auto trip maps, respectively). A thicker line means more people are estimated to travel using that mode of transportation from that neighborhood. Line thickness can be compared within the same type of travel, such as comparing two walking routes. One can also get a general sense of how walking and driving compare by looking at both sets of lines side by side. However, the lines are scaled differently for each mode of travel, 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.

For Doris Dickson Elementary School, auto and active modes have similar magnitudes for TAZs that are closer to the school TAZ. There is generally higher activity for auto travel modes compared to active modes for TAZs that are farther away from the school. This is likely due to poor active transportation connectivity throughout the area, active infrastructure barriers, or more car-dominant lifestyles.

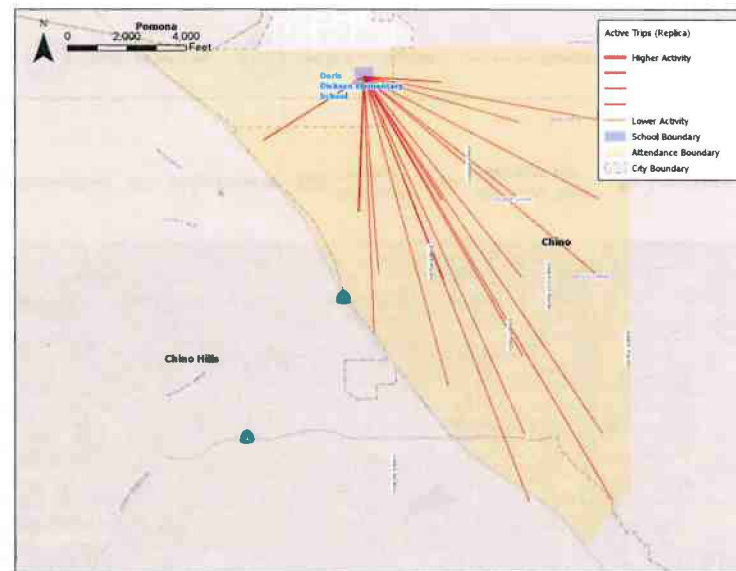


Figure 4.17.15 Active Travel Pattern

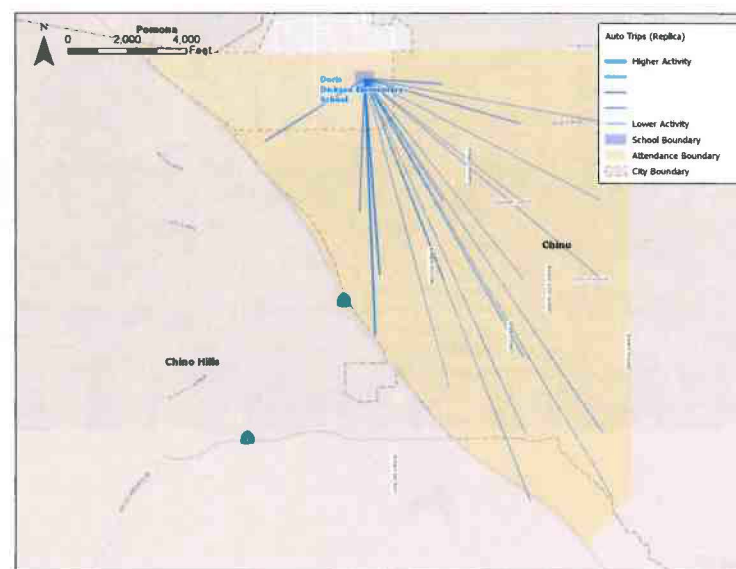


Figure 4.17.16 Auto Travel Pattern

SCHOOL RECOMMENDATIONS

Several improvement opportunities were identified in the mobility assessment conducted for Doris Dickson Elementary School. Through the student tallies, it was found that the primary mode of travel for most students commuting to and from Doris Dickson Elementary School was the use of a family vehicle. The crossing guard indicated that this may be due to the pedestrian environment, as it feels unsafe with the missing sidewalks and erratic driver behavior at intersections.

There are two controlled crossings near the school. One is an all-way stop controlled intersection at Pamela Drive and Roswell Avenue, and one is a side street-stop controlled intersection at Pamela Drive and Cozzens Avenue. There is no bicycle infrastructure near the school.

A dedicated southbound left-turn lane is recommended at the intersection of Roswell Avenue and Pamela Drive to assist with queuing issues in the southbound direction at the intersection due to the combination of through turning and left-turning vehicles in one lane. This would be coupled with red curb to prevent parking along the portion of the roadway leading to this intersection. Advance stop bars are recommended at all four legs of this intersection to add a buffer between pedestrians crossing and vehicles proceeding through the intersection. To improve visibility and accessibility, high visibility crosswalks, ADA-compliant curb ramps, and sidewalks are recommended at the school frontage and surrounding intersections. All recommendations are highlighted in Figure 4.17.17. A summary list of recommendations is provided Table 4.17.1.



DORIS DICKSON ELEMENTARY SCHOOL

ID	Improvement	Description	Location
1	Red Curb	Install red curb paint on west side of Roswell Avenue to accommodate a southbound left-turn lane.	Roswell Avenue (W) north of Pamela Drive
2	Pavement Markings	Add a southbound dedicated left-turn lane	Pamela Drive and Roswell Avenue
3a	High-Visibility Crosswalk	Install high-visibility crosswalk on north and east legs of the intersection	Cozzens Avenue and Pamela Drive
3b	High-Visibility Crosswalk	Install high-visibility crosswalk on all four legs of the intersection	Roswell Avenue and Pamela Drive
3c	High-Visibility Crosswalk	Install high-visibility crosswalk on the east and south legs of the intersection	Roswell Avenue and Riverside Drive
4a	ADA Compliant Curb Ramps	Install ADA compliant curb ramps on the southeast and northeast corners of the intersection	Cozzens Avenue and Pamela Drive
4b	ADA Compliant Curb Ramps	Install ADA compliant curb ramps on all four corners of the intersection	Roswell Avenue and Pamela Drive
4c	ADA Compliant Curb Ramps	Install ADA compliant curb ramps and applicable sidewalk to connect the existing internal crosswalk located at the west school driveway on Pamela Drive	Pamela Drive and West School Driveway
5	Advance Stop Bars	Install advance stop bars at the intersection	Roswell Avenue and Pamela Drive
6a	Sidewalk	Construct sidewalk	Roswell Avenue (W) from Riverside Drive to Chino Drive
6b	Sidewalk	Construct sidewalk	Riverside Drive from East End Avenue to Pipeline
6c	Sidewalk	Construct sidewalk	Chino Avenue from East End Avenue to Pipeline
7	Planned Class II Bike Lane (SBCTA)	Coordinate with SBCTA to construct Class II Bike Lanes per SBCTA planned bikeways	Pipeline Path from Francis Avenue to Drainage Channel

4.18 LYLE S. BRIGGS FUNDAMENTAL SCHOOL

11880 Roswell Ave, Chino, CA 91710
Chino Valley Unified School District

Lyle S. Briggs Fundamental School is located in unincorporated San Bernardino County, California, within the City of Chino Sphere of Influence. Lyle S. Briggs Fundamental School is located on the west side of Roswell Avenue, between Francis Avenue and Compton Street. The school is located approximately 0.75 miles north of the State Route 60 (SR-60) freeway and approximately 2.0 miles east of the State Route 71 (SR-71) freeway. The land uses surrounding Lyle S. Briggs Fundamental School are primarily residential with some industrial land uses to the west. Figure 4.18.1 shows the school area and the overall context of the school site.



Figure 4.18.1 Context Map

SCHOOL PROFILE

Lyle S. Briggs Fundamental School is located in unincorporated San Bernardino County within the City of Chino Sphere of Influence and is a part of the Chino Valley Unified School District. It serves approximately 644 students in grades Kindergarten through 8th with a student/teacher ratio of 18:1. The demographic composition of the students is shown in Figure 4.18.2, which shows that Lyle S. Briggs Fundamental School has a majority Hispanic population, according to the census estimates. Approximately 69.2% of Lyle S. Briggs Fundamental School students received free or reduced-price lunch during the 2023-2024 school year, which is higher than the state average, but lower than the county average (Figure 4.18.3).

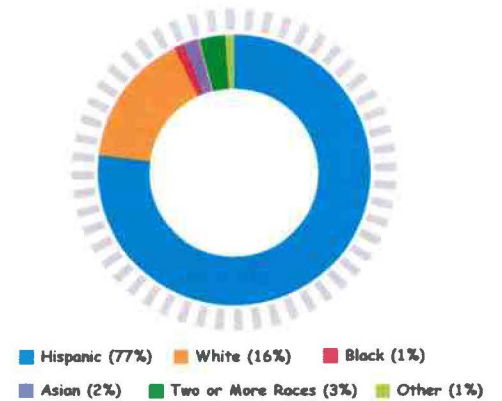


Figure 4.18.2 Demographic Composition

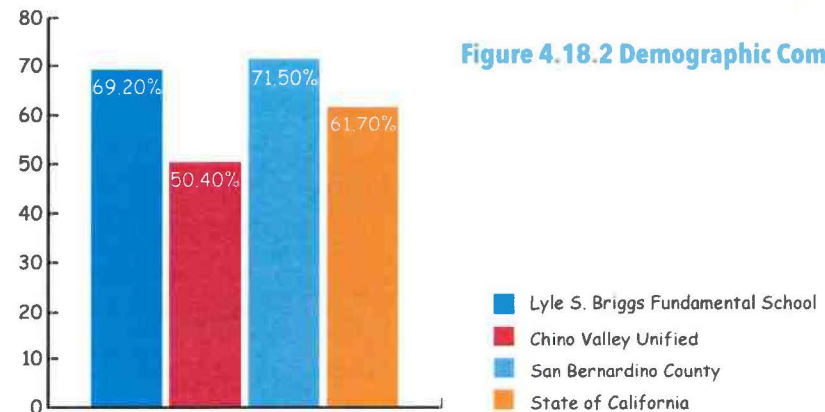


Figure 4.18.3 Free or Reduced Meals (Compare between district and county)

Student Tallies

The Safe Routes to School Student Arrival and Departure Tally Sheet was administered by Lyle S. Briggs Fundamental School staff from January 28 to January 30, 2025, to better understand what mode(s) students use to travel to and from the campus. As displayed in Figure 4.18.4, the vast majority of students arrived and departed in a family vehicle (90% average), followed by carpooling (4% average), walking (4% average), other (2% average) and biking (1% average), respectively.

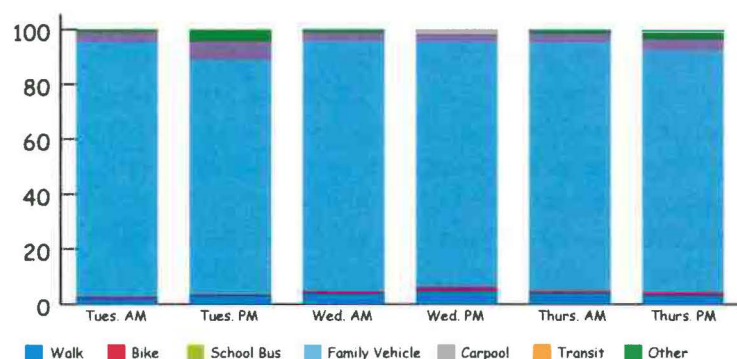


Figure 4.18.4 Lyle S. Briggs Fundamental School Student Arrival and Departure Tallies

Mobility Assessment

A walk audit and on-site meeting for Lyle S. Briggs Fundamental School in unincorporated San Bernardino County were conducted on January 28, 2025. The purpose of the event was to identify any issues related to student drop-off or pick-up operations that may make it unsafe or uncomfortable for students to walk, bike/roll to and from school. Included in this assessment are discussions of observed deficiencies, 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 mobility assessment included the Lyle S. Briggs Fundamental School Principal, San Bernardino County staff, CR Associates staff, one school staff member and four caregivers.

Although an online survey was administered as part of the school mobility assessment for Lyle S. Briggs Fundamental School, no parents/caregivers participated.

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. Factors 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 4.18.5 illustrates the CES scores for Lyle S. Briggs Fundamental School and its surrounding area score in the 60th to 70th percentile, which indicates the area is moderately burdened by pollutants.



Figure 4.18.5 CalEnviroScreen 4.0 Score - Lyle S. Briggs Fundamental 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 4.18.6 illustrates the area surrounding Lyle S. Briggs Fundamental School, which shows an HPI score of 40.6, indicating less healthy conditions surrounding the school.



Figure 4.18.6 Healthy Place Index Score - Lyle S. Briggs Fundamental School

Walking

Figure 4.18.7 provides an overview of the existing pedestrian network and challenges observed and analyzed. The sidewalk network surrounding Lyle S. Briggs Fundamental School is incomplete. During the site visit, it was observed that there were missing sidewalks on East End Avenue, Pipeline Avenue, Francis Avenue, the north side of Philadelphia Street, and Roswell Avenue north of Francis Avenue and south of Philadelphia Street. Pedestrians contend with low visibility crossings, missing truncated domes, poor driving behavior, and minimal tree canopy.

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 4.18.8 shows the results of the PES scoring. A sidewalk network with medium and high PES scores indicates relatively low stress for walking, whereas a low or very low PES score can be considered a stressful walking environment. With the exception of some residential streets, most of the streets nearby or adjacent to the school show very low PES scores. This indicates a stressful walking environment near the school and may create a barrier to walking.

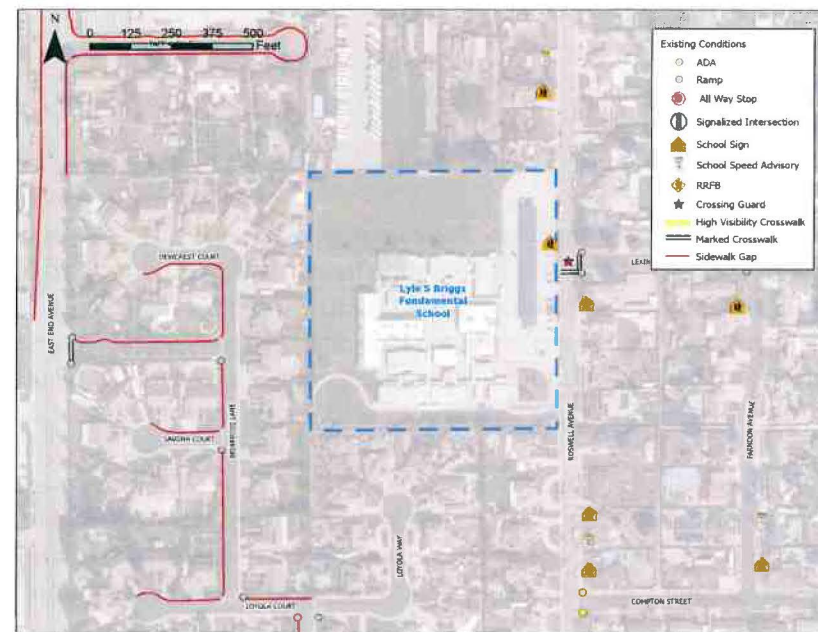


Figure 4.18.7 Existing Pedestrian Conditions

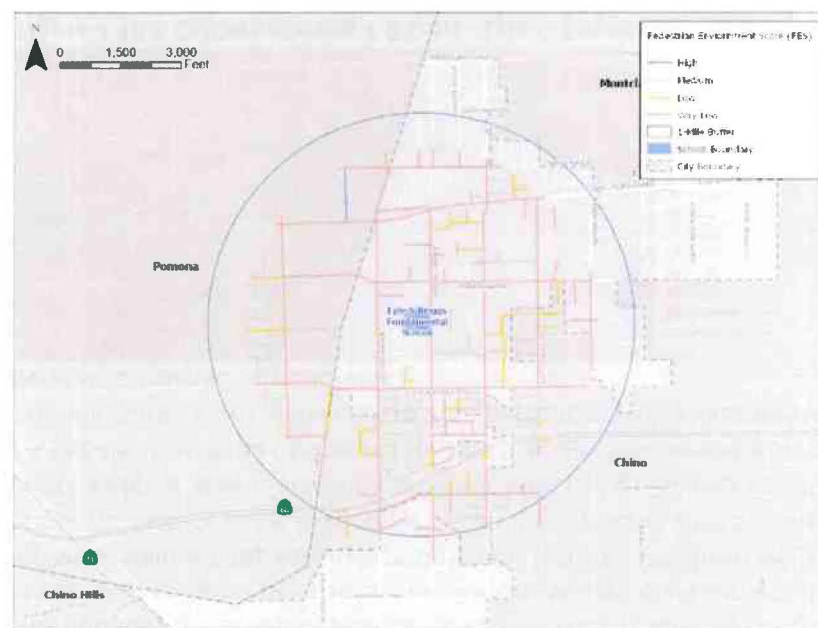


Figure 4.18.8 Pedestrian Evaluation Score

Figure 4.18.9 shows the walkshed for Lyle S. Briggs Fundamental School. The walkshed shows the area where a student can walk 0.5 mile from the school. The walkshed has been reviewed for sidewalk connectivity and accessibility.

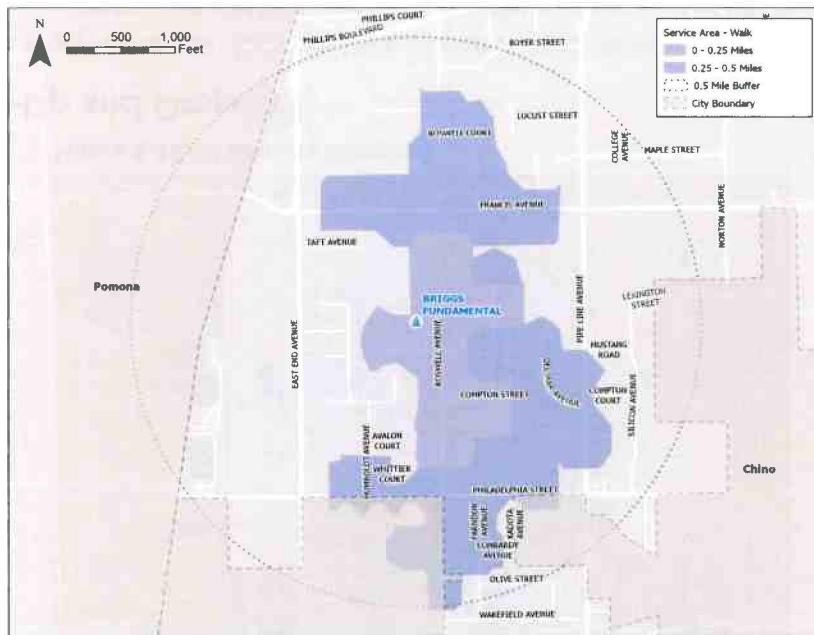


Figure 4.18.9 Existing Pedestrian Walkshed



Riding and Rolling

Currently, there are no bicycle facilities surrounding Lyle S. Briggs Fundamental School. The San Bernardino County Transportation Authority (SBCTA) plans to implement a Class II bike lane along East End Avenue (Figure 4.18.10).

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 classifies the street network into categories according to the level of stress it causes cyclists, taking into account a number of factors. The LTS assessment conducted by MBI concluded that the roads immediately surrounding Lyle S. Briggs Fundamental School have LTS scores of 2 and 4 indicating a combination of low and high stress levels for cyclists (Figure 4.18.11).

Figure 4.18.12 shows the bikeshed for Lyle S. Briggs Fundamental School. The bikeshed shows the area which a student can bike 1.0 mile from the school.



Figure 4.18.10 Existing and Planned Bicycle Condition

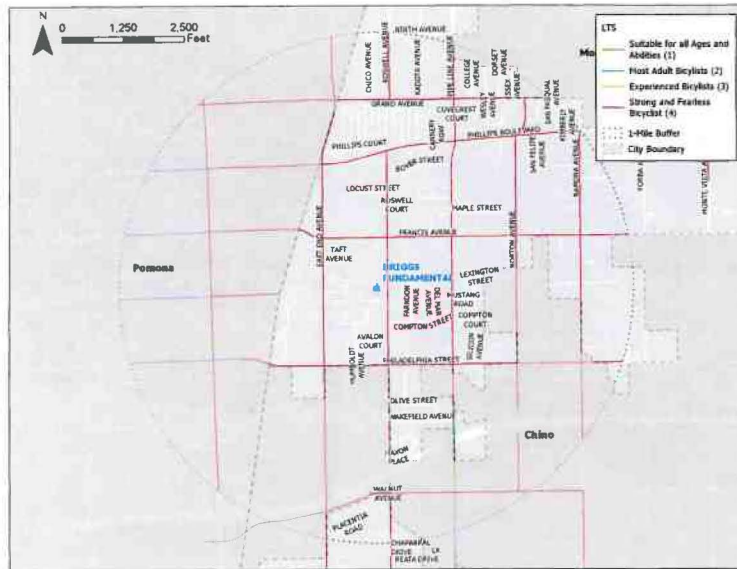


Figure 4.18.11 Bicycle Level of Traffic Stress

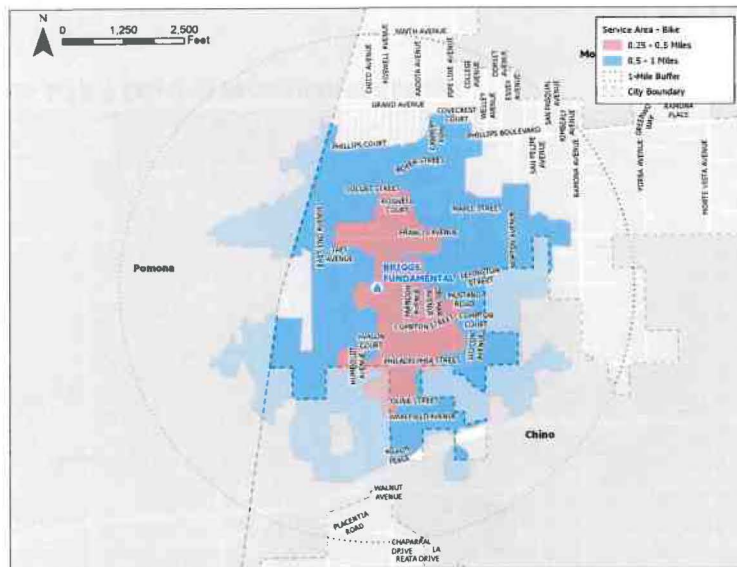


Figure 4.18.12 Existing Bikeshed
Pick-Up and Drop-Off

Lyle S. Briggs Fundamental School is accessed via Roswell Avenue. Figure 4.18.13 illustrates the existing conditions and the behaviors observed during the mobility assessment.

There is currently one crossing guard at the intersection of Roswell Avenue and Lexington Avenue, which is a side-street stop controlled intersection with low-visibility crosswalks and signage. The following signs are present along the east and west side of Roswell Avenue:

- "School Crossing Ahead"
- "Speed Limit (25 mph)"
- "Stop Ahead"

Parents dropping off their children are advised to park along the east side of Roswell Avenue and cross the street with their children. Drop-off currently occurs primarily at the school parking lot drop-off/pick-up loop on Roswell Avenue or along Roswell Avenue. During the site visit, parents were observed arriving nearly 15 minutes prior to the first bell. Many parents were seen dropping off students at the official unloading area along Roswell Avenue. The bus loading zone is located within the pick-up/drop-off loop on Roswell Avenue. School staff recognize that vehicles use unofficial spots to drop off students such as the travel lanes within the school loop, the entrance of the closed loop south of the school, the red curb zones, and private residential driveways on Roswell Avenue.

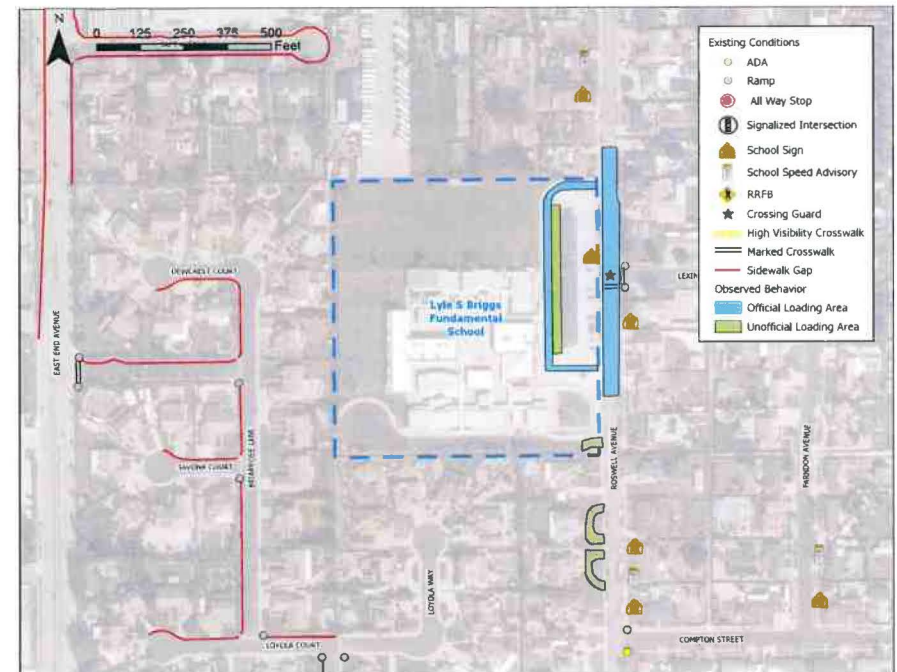


Figure 4.18.13 Existing Pick-Up and Drop-Off Vehicle Behavior

Safety Analysis

Between 2019 and 2023, there were two bicycle and pedestrian collisions within a 0.5 mile radius of Lyle S. Briggs Fundamental School. Of the two reported collisions, there was one collision involving a pedestrian who sustained severe injuries. This was located on Francis Avenue near East End Avenue (2021) (Figure 4.18.14).

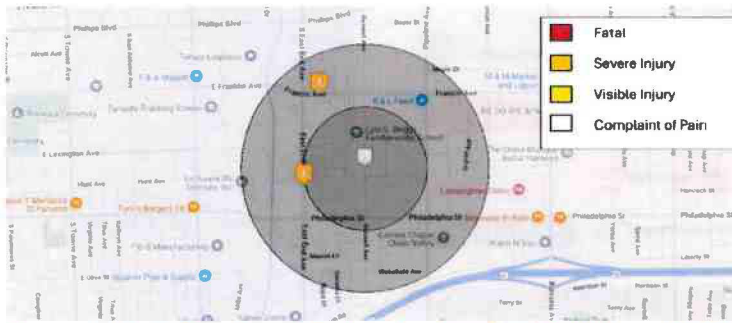


Figure 4.18.14 Bicycle and Pedestrian Involved Collisions (2019-2023)

Travel Pattern Analysis

A travel pattern analysis was conducted for Lyle S. Briggs Fundamental 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 the tools 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, which refers to travel by car. 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 4.18.15 and Figure 4.18.16 for active trip and auto trip maps, respectively). A thicker line means more people are estimated to travel using that mode of transportation from that neighborhood. Line thickness can be compared within the same type of travel, such as comparing two walking routes. One can also get a general sense of how walking and driving compare by looking at both sets of lines side by side. However, the lines are scaled differently for each mode of travel, 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.

For Lyle S. Briggs Fundamental School, auto and active modes have similar magnitudes for TAZs that are closer to the school TAZ. There is generally higher activity for auto travel modes compared to active modes for TAZs that are farther away from the school. This is likely due to poor active transportation connectivity throughout the area, active infrastructure barriers, or more car-dominant lifestyles.

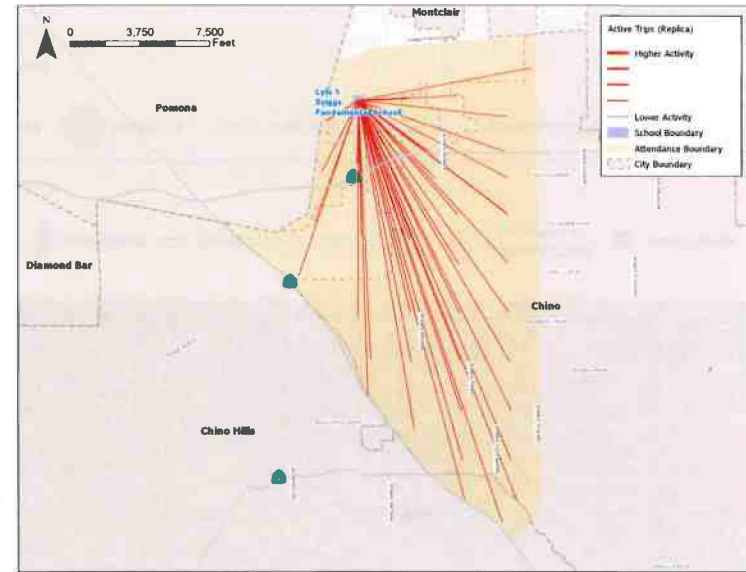


Figure 4.18.15 Active Travel Pattern

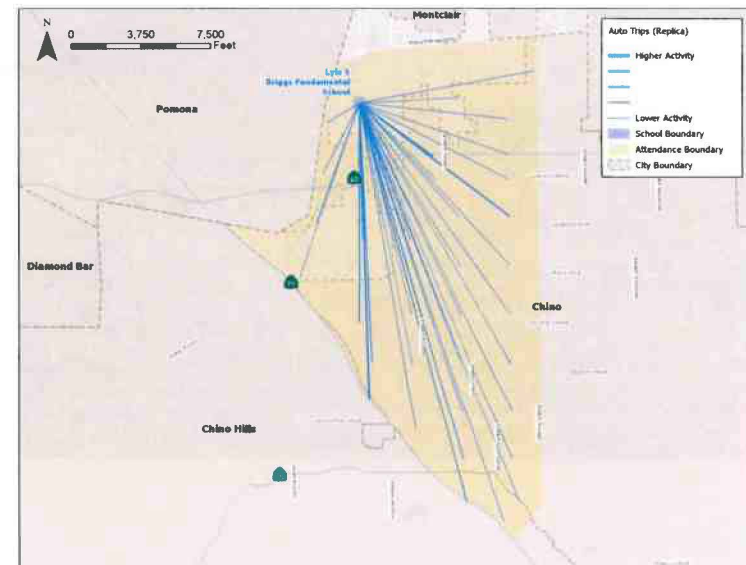


Figure 4.18.16 Auto Travel Pattern

SCHOOL RECOMMENDATIONS

Several improvement opportunities were identified in the mobility assessment conducted for Lyle S. Briggs Fundamental School. Through the student tallies, it was found that the primary mode of travel for most students commuting to and from Lyle S. Briggs Fundamental School was the use of the family vehicle. Parents during the walk audit explained this was due to the pedestrian environment, and the drop off culture that supports vehicles.

There are three controlled crossings near the school. Two are at the all-way stop controlled intersections of Francis Avenue at Roswell Avenue and Philadelphia Street at Roswell Avenue. The third crossing is at the side street-stop-controlled intersection of Lexington Avenue and Roswell Avenue, which is the nearest east-west crossing to the school and the only one with a crossing guard. There is also no bicycle infrastructure near the school.

One of the walk audit participants mentioned that there is confusion and frustration occurring near the entrance of the pick-up/drop-off loop on Roswell Avenue, as drivers enter from both the north and the south, despite the double yellow line on Roswell Avenue, which would indicate northbound left-turn movements are allowed at the school entrance driveway. Also, excess speeding and inopportune U-turns were cited as concerns for parents along Roswell Avenue.

A speed feedback sign is recommended along Roswell Avenue to discourage speeding. To improve visibility and accessibility, high visibility crosswalks, ADA-compliant curbs, ramps, and sidewalks are recommended at the school frontage and surrounding intersections. Planned Class II bike lanes are recommended along East End Avenue, Francis Avenue, Pipeline Avenue, and Philadelphia Street in accordance with SBCTA's plans. An all-way stop is recommended at the intersection of Lexington Street and Roswell Avenue, pending further analysis. A Rectangular Rapid Flashing Beacon (RRFB) crossing is recommended at the intersection of Roswell Avenue and the South School Driveway to increase crossing opportunities along Roswell Avenue. These recommendations are highlighted in Figure 4.18.17. A summary list of recommendations is provided Table 4.18.1.



LYLE S. BRIGGS FUNDAMENTAL SCHOOL

TABLE 4.18.1 LYLE S. BRIGGS FUNDAMENTAL SCHOOL RECOMMENDATIONS

ID	Improvement	Description	Location
1a	High-Visibility Crosswalk	Install high-visibility crosswalk on south and west legs of the intersection	Francis Avenue and Roswell Avenue
1b	High-Visibility Crosswalk	Install high-visibility crosswalk on south and east legs of the intersection	Lexington Avenue and Roswell Avenue
1c	High-Visibility Crosswalk	Install high-visibility crosswalk on north and west legs of the intersection	Roswell Avenue and South School Driveway
1d	High-Visibility Crosswalk	Install high-visibility crosswalk on all legs of the intersection	Roswell Avenue at Philadelphia Street
2a	ADA Compliant Curb Ramps	Install ADA compliant curb ramps on the northwest and southwest corners of the intersection	Francis Avenue and Roswell Avenue
2b	ADA Compliant Curb Ramps	Install ADA compliant curb ramps on the northeast, southeast, and southwest corners of the intersection	Lexington Avenue and Roswell Avenue
2c	ADA Compliant Curb Ramps	Install ADA compliant curb ramps on the northwest, northeast, and southwest corners of the intersection	Roswell Avenue and South School Driveway
3	No Left-Turn Sign	Install signage to restrict northbound left-turns at the intersection	Roswell Avenue and North School Driveway
4	All-Way Stop	Add all-way stop (*)	Roswell Avenue/Lexington Street
5	Rectangular Rapid Flashing Beacon (RRFB)	Add RRFB crossing	Roswell Avenue and South School Driveway
6	Speed Feedback Sign	Add a speed feedback sign on Roswell Avenue.	Roswell Avenue between South School Driveway and Compton Street
7a	Sidewalk	Construct sidewalk	Francis Avenue (N) between East End Avenue and Norton Avenue
7b	Sidewalk	Construct sidewalk	Francis Avenue (S) between East End Avenue and Norton Avenue
7c	Sidewalk	Construct sidewalk	East End Avenue (W) from Francis Avenue to Philadelphia Street
7d	Sidewalk	Construct sidewalk	East End Avenue (E) from Francis Avenue to Philadelphia Street
7e	Sidewalk	Construct sidewalk	Taft Avenue (S) east of East End Avenue
7f	Sidewalk	Construct sidewalk	Dewcrest Court (S) and Lexington Street (N) east of East End Avenue
7g	Sidewalk	Construct sidewalk	Briar Rose Lane (W) between Dewcrest Lane and Loyola Court
7h	Sidewalk	Construct sidewalk	Loyola Court (N) west of Humbolt Place
7i	Sidewalk	Construct sidewalk	Pipeline Avenue (W) between Francis Avenue and Philadelphia Street
7j	Sidewalk	Construct sidewalk	Pipeline Avenue (E) between Francis Avenue and Philadelphia Street
7k	Sidewalk	Construct sidewalk	Mustang Road (N and S) between Pipeline Avenue and Silicon Avenue

ID	Improvement	Description	Location
7l	Sidewalk	Construct sidewalk	Philadelphia Street (N) between East End Avenue and Pipeline Avenue
8a	Planned Class II Bike Lane (SBCTA)	Coordinate with SBCTA to construct Class II Bike Lanes per SBCTA planned bikeways	Francis Avenue from .11m W East End Ave to .13m E Telephone
8b	Planned Class II Bike Lane (SBCTA)	Coordinate with SBCTA to construct Class II Bike Lanes per SBCTA planned bikeways	East End Avenue from Grand Avenue to Maxon Lane
8c	Planned Class II Bike Lane (SBCTA)	Coordinate with SBCTA to construct Class II Bike Lanes per SBCTA planned bikeways	Pipeline Path from Francis Avenue to Drainage Channel
8d	Planned Class II Bike Lane (SBCTA)	Coordinate with SBCTA to construct Class II Bike Lanes per SBCTA planned bikeways	Philadelphia Street from W County Limit

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

4.19 MISSION ELEMENTARY SCHOOL

5555 Howard St, Ontario, CA 91762
Ontario-Montclair Unified School District

Mission Elementary School is located in unincorporated San Bernardino County, California, within the City of Ontario and the City of Montclair Spheres of Influence. Mission Elementary School is located on the southeast corner of the intersection of Vernon Avenue and Howard Street. The school is located approximately 1.5 miles north of State Route 60 (SR-60) freeway and approximately 5 miles west of the Ontario International Airport. The land uses surrounding Mission Elementary School are primarily residential with some industrial land uses to the north. Figure 4.19.1 shows the school area and the overall context of the school site.



Figure 4.19.1 Context Map

SCHOOL PROFILE

Mission Elementary School is located in unincorporated San Bernardino County within the City of Ontario and the City of Montclair Spheres of Influence, and is a part of the Ontario-Montclair Unified School District. It serves approximately 545 students in grades Kindergarten through 6th with a student/teacher ratio of 25:1. The demographic composition of the students is shown in Figure 4.19.2, which shows that Mission Elementary School has a majority Hispanic population, according to the census estimates. Approximately 88.9% of Mission Elementary School students received free or reduced-price lunch during the 2023-2024 school year, which is significantly higher than the state and county (Figure 4.19.3).

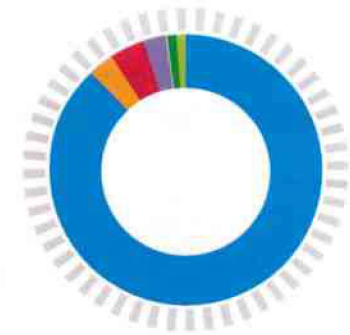


Figure 4.19.2 Demographic Composition

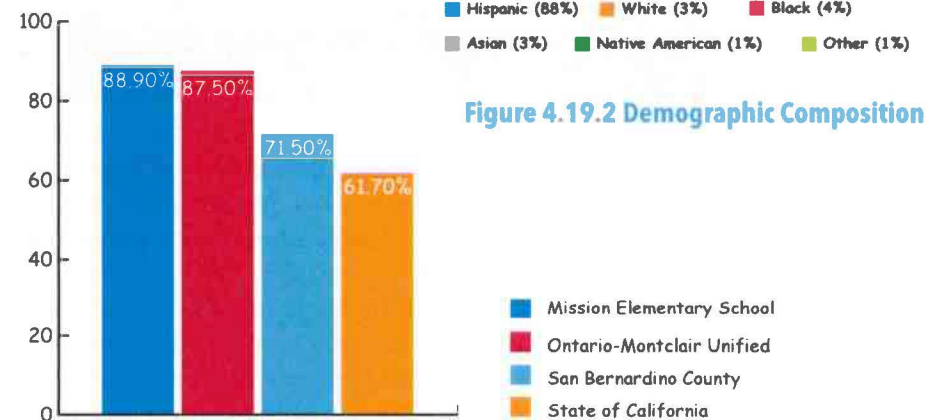


Figure 4.19.3 Free or Reduced Meals (Compare between district and county)

Student Tallies

The Safe Routes to School Student Arrival and Departure Tally Sheet was administered by Mission Elementary School staff from January 28 to January 30, 2025, to better understand what mode(s) students use to travel to and from the campus. As displayed in Figure 4.19.4, the vast majority of students arrived and departed in a family vehicle (83% average), followed by school bus (7% average), walking (5% average), biking (2% average), and carpooling (2% average), respectively. Mission Elementary School provides one bus for their general student population and 4 buses for students in the special education program. The buses drop students off within the loop on Howard Street, and load students on the curbside of Howard Street in the afternoon.

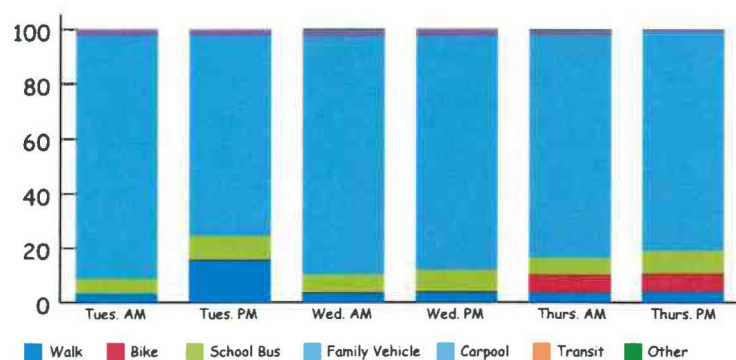


Figure 4.19.4 Mission Elementary School Student Arrival and Departure Tallies

Mobility Assessment

A walk audit and on-site meeting for Mission Elementary School in unincorporated San Bernardino County were conducted on January 29, 2025. The purpose of the event was to identify any issues related to student drop-off or pick-up operations 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 deficiencies, 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 mobility assessment included Mission Elementary School Principal, San Bernardino County staff and CR Associates staff. Although an online survey was administered as part of the school mobility assessment for Mission Elementary School, no parents/caregivers participated.

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. Factors 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 4.19.5 illustrates the CES scores for Mission Elementary School and its surrounding area scoring in the 80th to 90th percentile, which indicates the area is significantly burdened by pollutants.



Figure 4.19.5 CalEnviroScreen 4.0 Score - Mission Elementary 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 4.19.6 illustrates the area surrounding Mission Elementary School, which shows an HPI score of 28.0, indicating less healthy conditions surrounding the school.

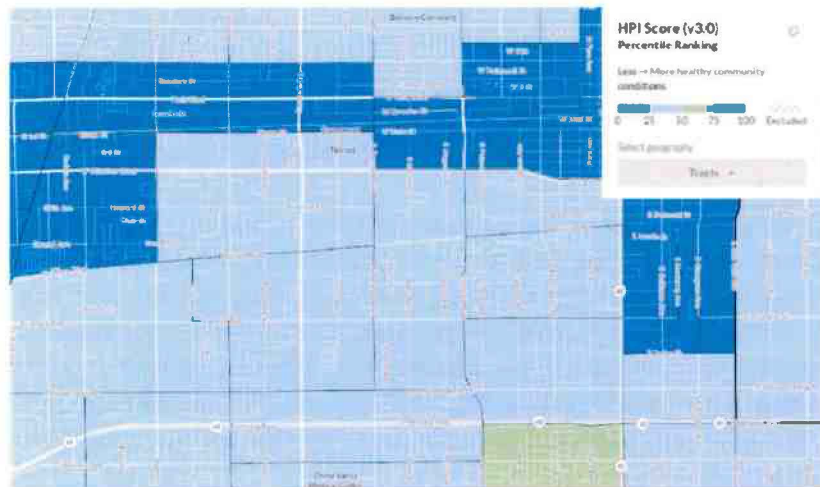


Figure 4.18.6 Healthy Place Index Score - Mission Elementary School

Walking

Figure 4.19.7 provides an overview of the existing pedestrian network and challenges observed and analyzed. The sidewalk network surrounding Mission Elementary School is incomplete. During the site visit, it was observed that there were no sidewalks on the east and west sides of Bel Air Avenue north of Howard Street, the west side of Vernon Avenue south of Clair Street and the north and sides of Phillips Boulevard within the school vicinity. There are no crossing guards and the Principal reported that most students live east of the school on, or east of Benson Avenue, a busy north-south roadway.

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 4.19.8 shows the results of the PES scoring. A sidewalk network with medium and high PES scores indicates relatively low stress for walking, whereas a low or very low PES score can be considered a stressful walking environment. The roadways near Mission Elementary School show primarily low PES scores, with very low scores on Howard Street, Mission Boulevard, Central Avenue, and Benson Avenue. This indicates a stressful walking environment near the school along these roadways and may create a barrier to walking.

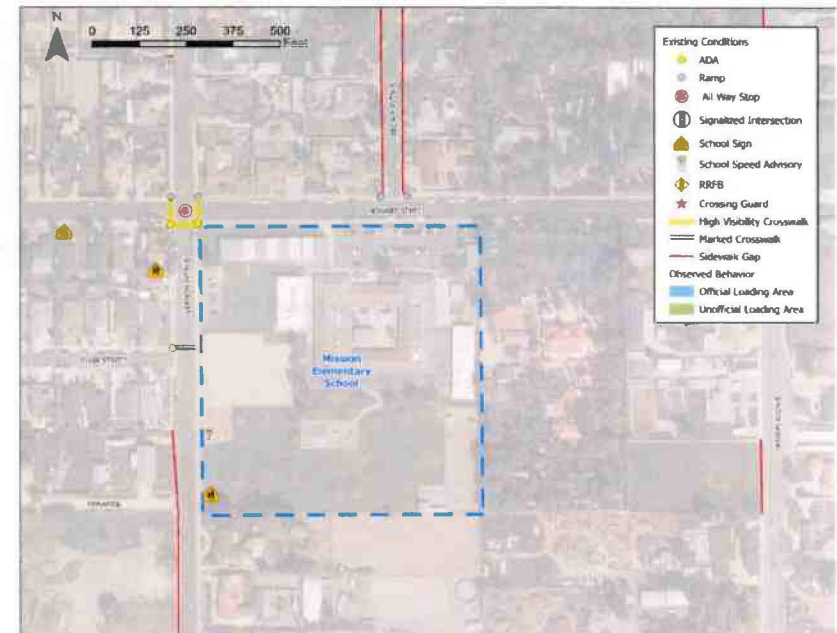


Figure 4.19.7 Existing Pedestrian Conditions

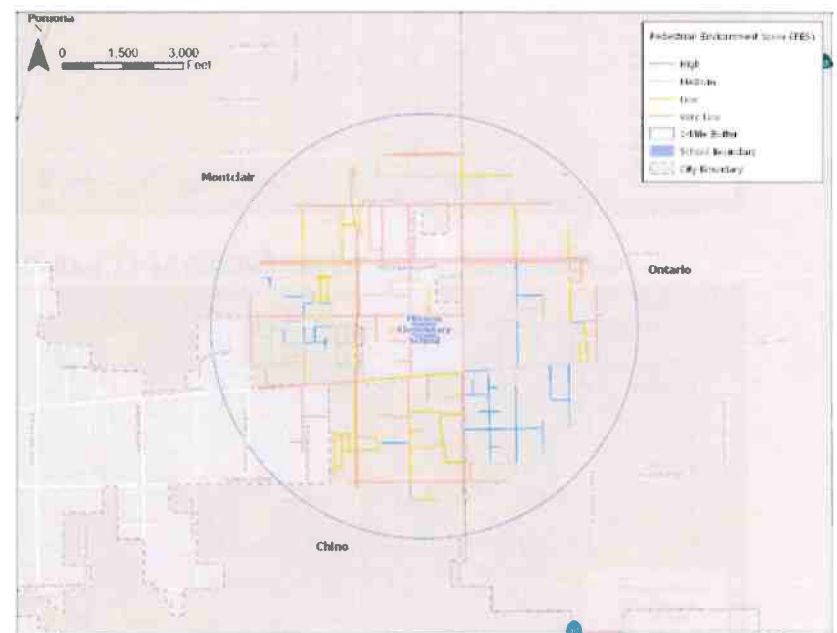


Figure 4.19.8 Pedestrian Evaluation Score