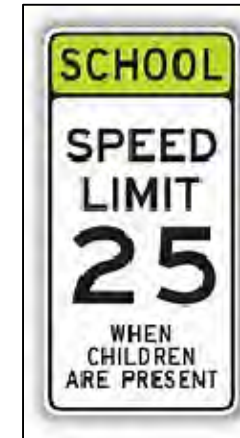




Typical ADA Curb Ramp



SR4-1 School Speed Limit Sign



Red Paint Curb & Gutter, with Sidewalk



Speed Feed Back Signal



Yellow Ladder Crosswalk



Countdown Traffic Head Signal



Curb & Gutter with Sidewalk



R1-5 Yield to Pedestrian Sign

REGIONAL SAFE ROUTES TO SCHOOL PLAN PHASE II

Volume II



Mary B. Lewis Elementary School

Mary B. Lewis Elementary School is a Colton Joint Unified School District (CJUSD) school located in a low-density neighborhood within the unincorporated community of Bloomington, between the Cities of Fontana and Rialto. The school site is situated at the intersection of San Bernardino Avenue and Locust Avenue. The walk audit performed at Mary B. Lewis Elementary School was held on October 20th, 2016 from 8:00AM to 10:00AM, following the morning start bell. There were a total of ten participants engaged in the walk audit. Observations extended into the surrounding neighborhood along San Bernardino Avenue, Grace Street, Locust Avenue, Manzanita Drive, and Marygold Avenue.

“The fact that a lot of parents break important traffic laws makes me feel uneasy about my kids walking. There are no sidewalks on the streets either.”

“My daughter would love to walk to school but I’ve explained to her the dangers of walking. There are too many stray dogs, and registered sexual offenders.”

“My children enjoy walking to school or home from school but our route on Marygold Ave & Grace has no sidewalks. I would walk with them more but it can be dangerous. Cars don’t usually stop at crosswalks and they drive really fast on San Bernardino Ave.”

****All remarks received from walk audit participants at Mary B. Lewis Elementary****





Number of Students Assessed in Tally	226
Number of Tallies	1,238
» Morning (To School)	462
» Afternoon (From School)	419

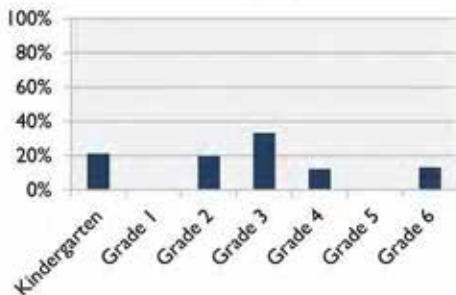
Number of Surveys Received	99
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Data source: KOA Corporation. Data and figures accurate as of Fall 2016.

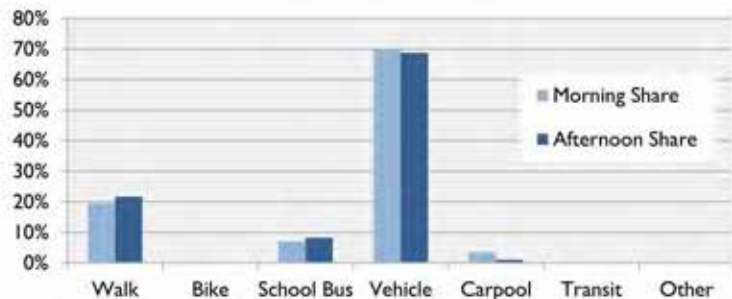
Tallies were conducted by teachers in ten classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to take home.

Students who walk or bike to school	10.2%
Students who don't walk/bike but have asked parents for permission	+ 24.5%
Students who walk/bike or have asked parents for permission	34.7%
Student enrollment	x 720
Potential walking/biking student base	250

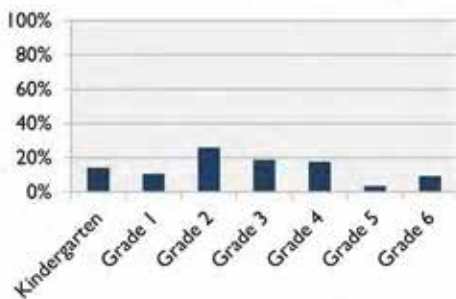
Grade Distribution of Tallies



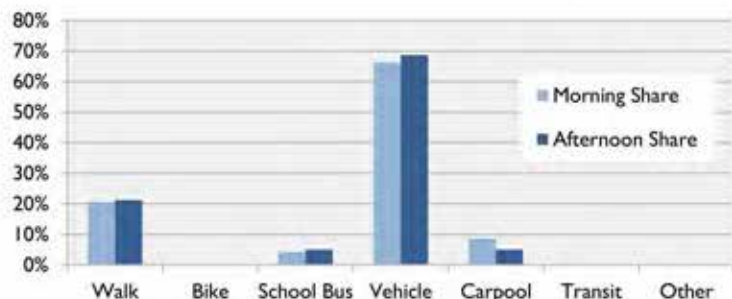
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

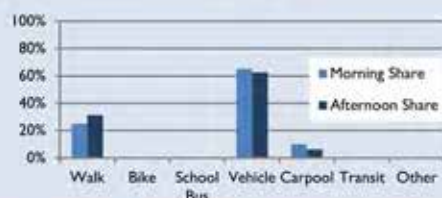


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

28%
of survey responses

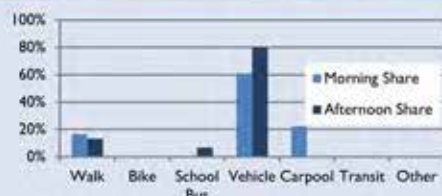


Top 5 Issues Affecting Likelihood to Walk/Bike:

Sidewalk or Pathways – 43%
Speed of Traffic Along Route – 39%
Safety of Intersections & Crossings – 39%
Amount of Traffic Along Route – 35%
Violence or Crime – 35%

Students Living Between ¼ and ½ Mile from School

22%
of survey responses

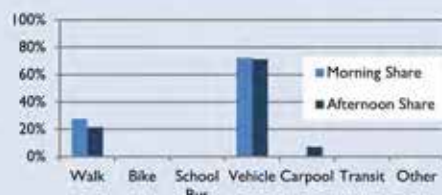


Top 5 Issues Affecting Likelihood to Walk/Bike:

Safety of Intersections & Crossings – 56%
Violence or Crime – 56%
Distance – 39%
Speed of Traffic Along Route – 39%
Amount of Traffic Along Route – 33%

Students Living Between ½ and 1 Mile from School

23%
of survey responses

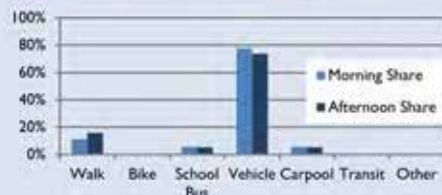


Top 5 Issues Affecting Likelihood to Walk/Bike:

Distance – 37%
Safety of Intersections & Crossings – 37%
Speed of Traffic Along Route – 32%
Violence or Crime – 32%
Amount of Traffic Along Route – 26%

Students Living Between 1 and 2 Miles from School

23%
of survey responses



Top 5 Issues Affecting Likelihood to Walk/Bike:

Distance – 32%
Speed of Traffic Along Route – 32%
Sidewalks or Pathways – 32%
Violence or Crime – 26%
Weather or Climate – 26%

Students Living Farther than 2 Miles from School

5%
of survey responses

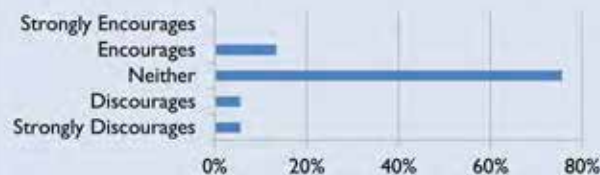


Top 5 Issues Affecting Likelihood to Walk/Bike:

Distance – 75%
Speed of Traffic Along Route – 75%
Amount of Traffic Along Route – 75%
Time -50%
Safety of Intersections & Crossings – 50%

Parents' Perspectives

Whether School Encourages Walking/Biking



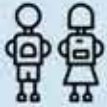
74%
consider walking/biking healthy or very healthy.

67%
would not feel comfortable having their child walk/bike at any age with current conditions.

MARY B. LEWIS ELEMENTARY - Fact Sheet

OVERVIEW

General Information:



Jurisdiction - City of
Colton/Bloomington
School Enrollment - 720
Free or Reduced Lunch - 91.60%

Environmental Indicators:



Cal Enviro Score % Range - 71-75%
Cal Enviro Score (CES2.0*) - 37.15

*CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.

Walk Audit Highlights



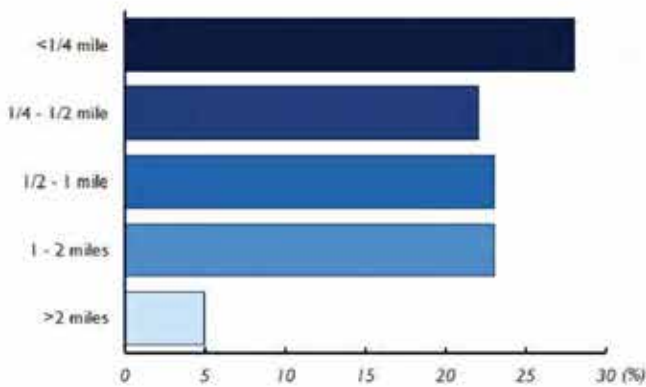
of Walk Audit Participants - 8
of Surveys Received - 99

WALKSHED (1/4 and 1/2 mile)



* Bike Collision * Ped Collision

COMMUTE DISTANCE (%)



Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

COLLISION ANALYSIS

Pedestrian Related Collisions



2 within 1/4 mile
3 within 1/2 mile
1 fatal within (1/2 mile)

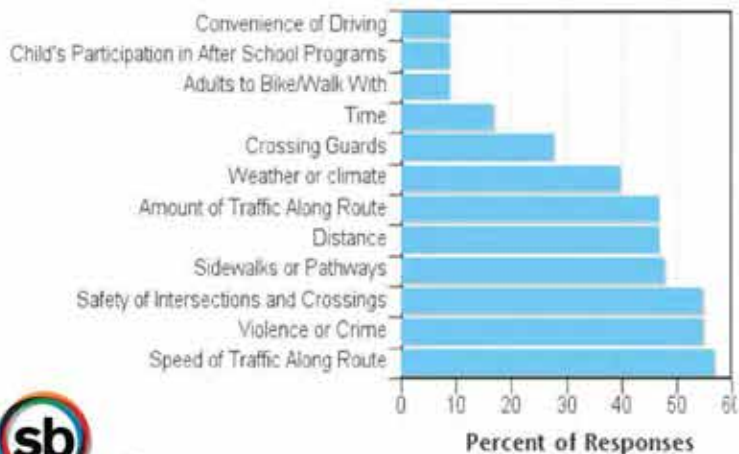
Bicyclist Related Collisions



0 within 1/4 mile
1 within 1/2 mile
0 fatal within (1/2 mile)

Source: <https://times.berkley.edu/> (Years: 2010 - 2014)

REASONS FOR NOT WALKING/BIKING



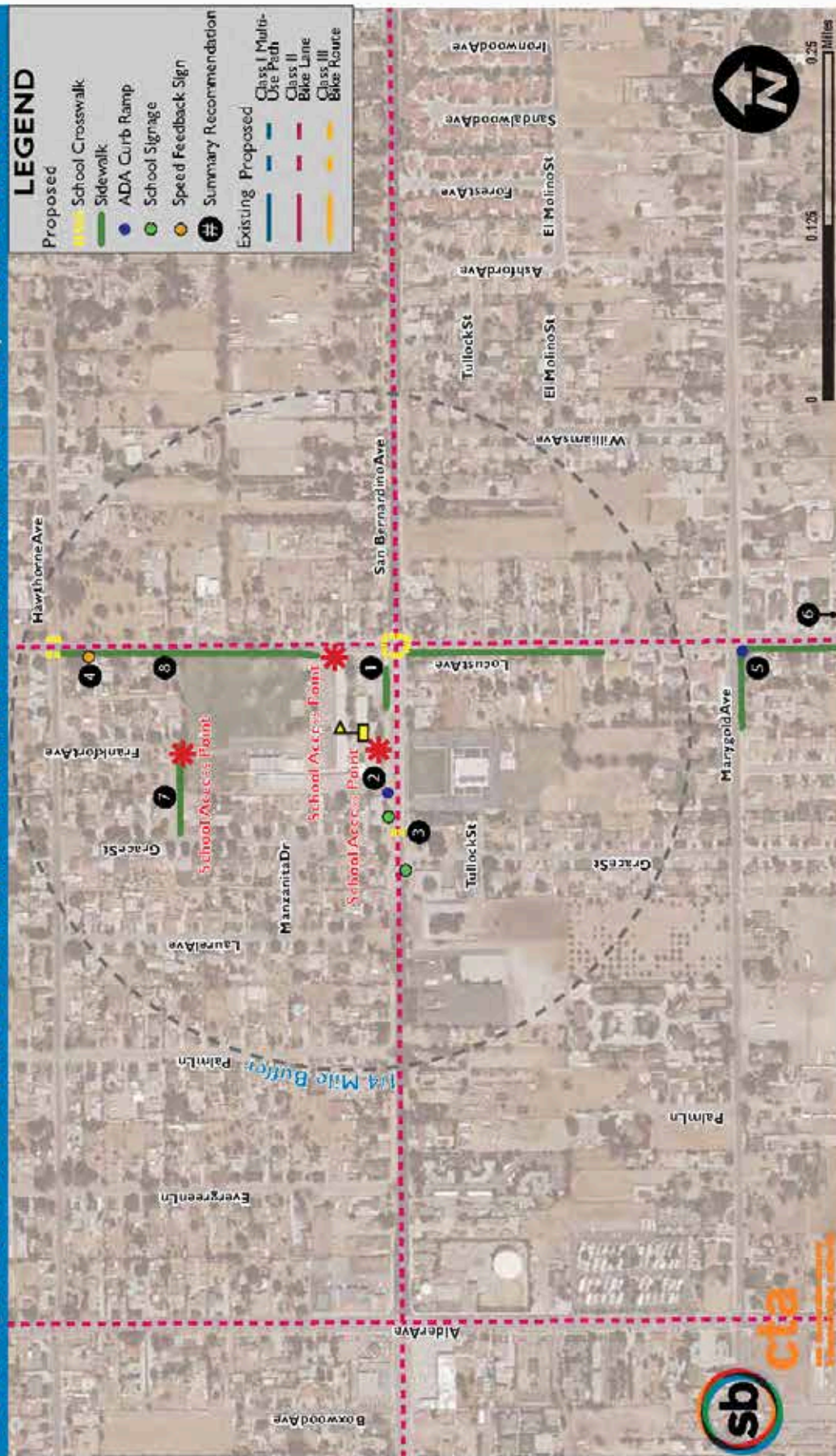
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

		morning	afternoon
	walk	21%	21%
	bike	0%	0%
	bus	4%	5%
	vehicle	66%	69%
	carpool	9%	5%
	transit	0%	0%
	other	0%	0%

Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

SBCTA SRTS PHASE II: MARY B. LEWIS ELEMENTARY SCHOOL, UNINCORPORATED



PROPOSED ENGINEERING RECOMMENDATIONS

- San Bernardino Avenue and Locust Avenue:** Install high visibility ladder style crosswalks at all legs. Install sidewalk in front of school area to provide access to intersection listed and Omni Bus Stop facilities; install needed retaining wall due to slope.
- San Bernardino Avenue:** Install ADA compliant concrete driveway entrance.
- San Bernardino Avenue:** Install R1-5 Sign and yield line 20'-50" from crosswalk on both east and west approaches. Install a flashing beacon for mid-block crossing and red curbs 25" east and west of crossing.
- Locust Avenue:** Install speed feedback sign where already existing SR4-1 (CA) Assembly C signage is located.
- Locust Avenue:** Install ADA compliant curb ramp at SW corner to connect to proposed sidewalk gap closures depicted on the map view extent.
- Valley Boulevard and Locust Avenue:** Install sidewalk to close gaps in network. Install ADA curb ramp on NW curb and upgrade pedestrian push buttons and countdown heads to be ADA compliant.
- Manzanita Drive:** Install sidewalk for drop off/pick up area between Grace Street and Frankfort Avenue.
- Locust Avenue:** Install sidewalk, curb, and gutter for students walking to school access gate on Locust Avenue along the school property.

Background/Discussion of the Engineering Improvements

Mary B. Lewis Elementary School							
Recommendation #	Location	Improvement	Background/Discussion				
1	San Bernardino Ave and Locust Ave	High visibility ladder style crosswalk and retaining wall	Improvements alert drivers of crossings in the area and provide clearer paths for pedestrians along a primary walking route. The retaining wall is needed because of slope of grade.				
2	San Bernerardino Ave	ADA compliance	See below, "General - ADA curb ramps."				
3	San Bernardino Ave	Signage and striping	Improvements are located along primary walking route to school, respond to comments received during the walk audit, and adhere to the MUTCD Part 7 guidelines.				
4	Locust Ave	Speed feedback sign	Improvements address comments received during walk audit observation regarding high speeds in front of the school.				
5	Locust Ave	ADA compliance	See below, "General - ADA curb ramps."				
6	Valley Boulevard and Locust Avenue	Sidewalk, ADA curb ramps, Pedestrian push buttons, Pedestrian signal heads	See below, "General - Sidewalk" and "General - ADA curb ramps." Pedestrian infrastructure should meet ADA compliance by providign up to date push buttons and countdown signal heads for all crossing movements.				
7	Manzanita Drive	Sidewalk	See below, "General - Sidewalk."				
8	Locust Avenue	Sidewalk and curb and gutter	See below, "General - Sidewalk."				
General	School area	Sidewalk	Sidewalks recommended along primary walking routes to school within ¼ mile radius of the school to close gap in existing sidewalk network. Recommendation attends to comments received on the walk audit and during school-wide surveying.				
	School area	ADA curb ramps	Improvements made to comply with ADA standards for increased accessibility for students/parents along their primary routes to school.				

The following cost estimation table details the Mary B. Lewis Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Locust Ave.	Speed Awareness Sign	Each	\$14,490	1	\$14,490
	High Visibility Ladder Crosswalk	Each	\$1,788	4	\$7,152
	ADA Curb Ramps	Each	\$3,623	2	\$7,245
	Concrete Sidewalk (1 side of street)	Per Linear Foot	\$52	3372	\$175,083
Segment Total					\$203,970
Manzanita Dr.	Concrete Sidewalk (1 side of street)	Per Linear Foot	\$52	341	\$17,706
	Segment Total				\$17,706
San Bernardino Ave.	New Sign on Post	Each	\$181	2	\$362
	High Visibility Ladder Crosswalk	Each	\$1,788	3	\$5,364
	ADA Curb Ramps	Each	\$3,623	1	\$3,623
	Concrete Sidewalk (1 side of street)	Per Linear Foot	\$52	149	\$7,736
Segment Total					\$17,085
ALL SEGMENTS					\$238,761

Gerald A. Smith Elementary School

Gerald A. Smith Elementary School is a Colton Joint Unified School District (CJUSD) school located in a low-density residential neighborhood within the unincorporated community of Bloomington, between the Cities of Fontana and Rialto. The school site is located on Linden Avenue between Hawthorne Avenue and San Bernardino Avenue. Held on April 13th, 2017, the Gerald A. Smith Elementary School walk audit took place from 1:45PM to 2:45PM, leading into the afternoon release bell. Twelve participants were secured in the time leading up to the afternoon release bell as they waited for their students. Observations extended into the surrounding neighborhood along Linden Avenue, Hawthorne Avenue, San Bernardino Avenue, Cedar Avenue, and Sequoia Avenue.

“My concern about my kids walking to school is the traffic on Cedar Avenue. There is a lot of traffic and the cars travel too fast, making it difficult for kids trying to cross the street.”

“It is very dangerous for children to be crossing streets by themselves; cars don’t stop. People are always speeding even when there are adults in crosswalk. When it rains it is nearly impossible to not get wet up to your ankles and above. Drainage is poor.”

“There are a lot of vehicles driving too fast, making it difficult for people to cross the street.”

****All remarks received from walk audit participants at Gerald A. Smith Elementary****





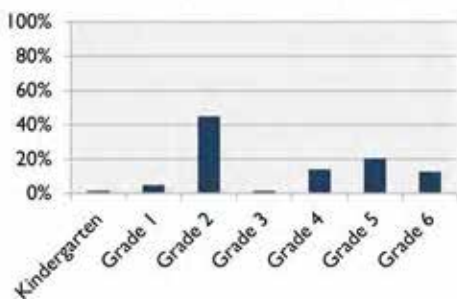
Number of Surveys Received 151

Data source: KOA Corporation. Data and figures accurate as of Fall 2016.

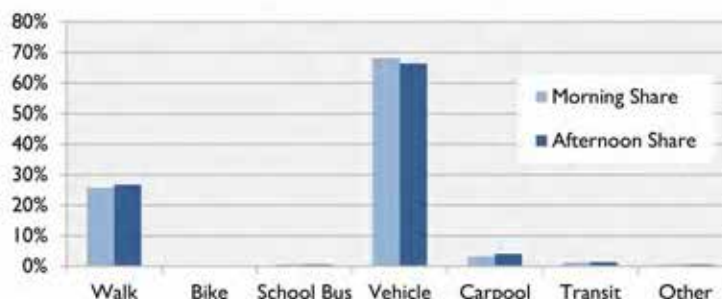
Surveys were printed on two-page forms and distributed to parents to take home. Tally data are not available for this school.

Students who walk or bike to school	13.6%
Students who don't walk/bike but have asked parents for permission	+ 23.1%
Students who walk/bike or have asked parents for permission	36.7%
Student enrollment	x 729
Potential walking/biking student base	268

Grade Distribution of Surveys



Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

54%
of survey responses

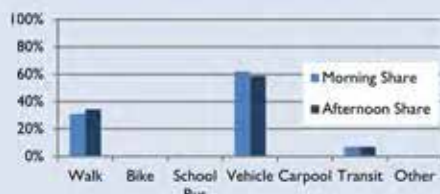


Top 5 Issues Affecting Likelihood to Walk/Bike:

Safety of Intersections & Crossings – 43%
Speed of Traffic Along Route – 32%
Violence or Crime – 31%
Crossing Guards – 28%
Weather or Climate – 27%

Students Living Between ¼ and ½ Mile from School

21%
of survey responses



Top 5 Issues Affecting Likelihood to Walk/Bike:

Safety of Intersections & Crossings – 41%
Distance – 38%
Speed of Traffic Along Route – 38%
Amount of Traffic Along Route – 24%
Weather or Climate – 24%

Students Living Between ½ and 1 Mile from School

14%
of survey responses

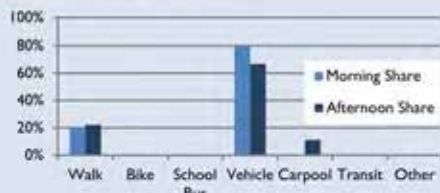


Top 5 Issues Affecting Likelihood to Walk/Bike:

Speed of Traffic Along Route – 53%
Violence or Crime – 47%
Amount of Traffic Along Route – 37%
Safety of Intersections & Crossings – 32%
Crossing Guards – 21%

Students Living Between 1 and 2 Miles from School

7%
of survey responses



Top 5 Issues Affecting Likelihood to Walk/Bike:

Safety of Intersections & Crossings – 70%
Sidewalks or Pathways – 60%
Speed of Traffic Along Route – 50%
Amount of Traffic Along Route – 50%
Distance – 40%

Students Living Farther than 2 Miles from School

4%
of survey responses

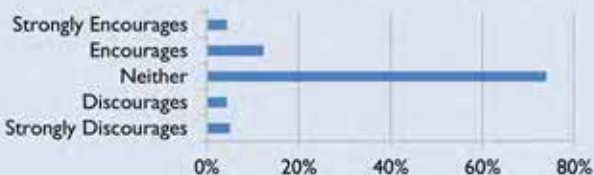


Top 5 Issues Affecting Likelihood to Walk/Bike:

Distance – 50%
Safety of Intersections & Crossings – 50%
Violence or Crime – 50%
Weather or Climate – 50%
Time – 33%

Parents' Perspectives

Whether School Encourages Walking/Biking



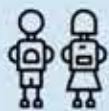
78%
consider walking/biking healthy or very healthy.

72%
would not feel comfortable having their child walk/bike at any age with current conditions.

GERALD A. SMITH ELEMENTARY - Fact Sheet

OVERVIEW

General Information:



Jurisdiction - City of
Colton/Bloomington
School Enrollment - 729
Free or Reduced Lunch - 94.10%

Environmental Indicators:



Cal Enviro Score % Range - 66-70%
Cal Enviro Score (CES2.0*) - 34.56

*CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.

Walk Audit Highlights

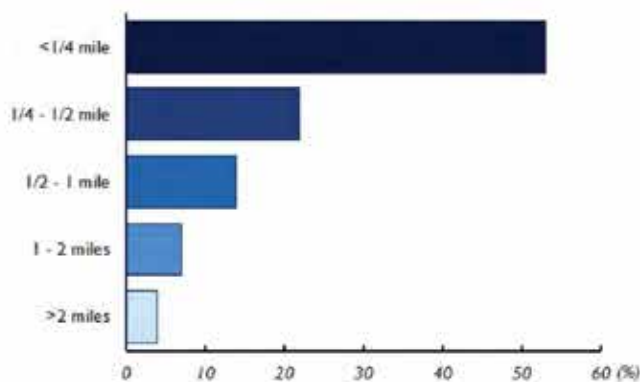


of Walk Audit Participants - 12
of Surveys Received - 152

WALKSHED (1/4 and 1/2 mile)

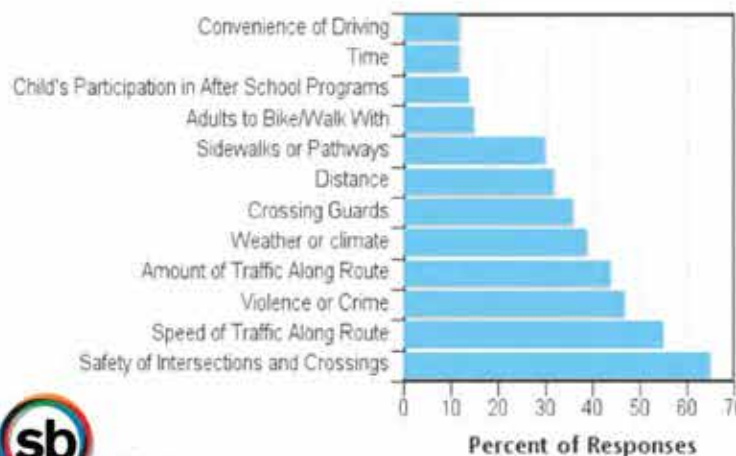


COMMUTE DISTANCE (%)



Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

REASONS FOR NOT WALKING/BIKING



san bernardino county
transportation authority

Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

COLLISION ANALYSIS

Pedestrian Related Collisions



2 within 1/4 mile
4 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions



0 within 1/4 mile
4 within 1/2 mile
0 fatal within (1/2 mile)

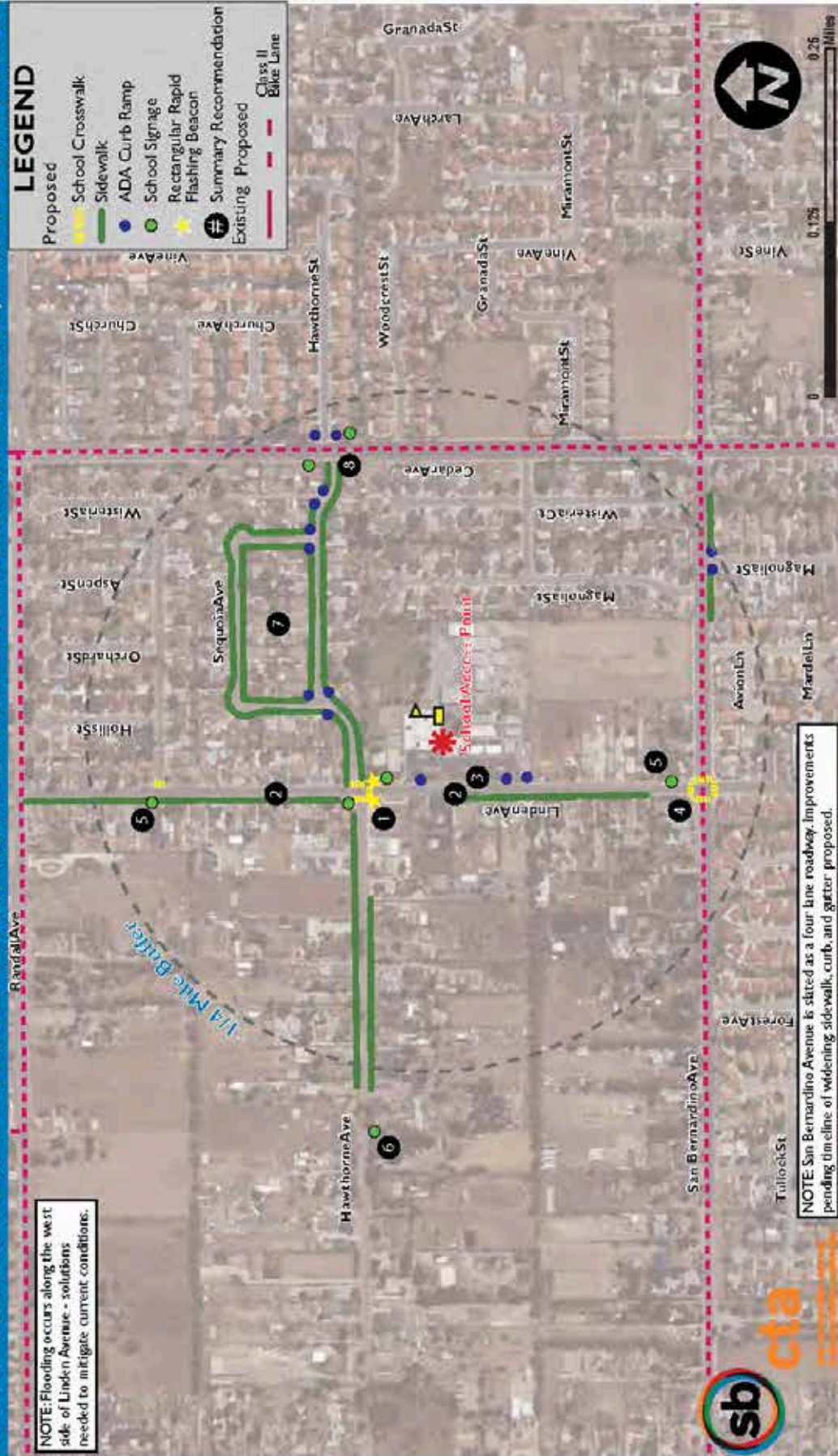
Source: <https://tms.berkeley.edu/> (Years: 2010 - 2016)

TRAVEL MODE BEHAVIOR

		morning	afternoon
	walk	26%	27%
	bike	0%	0%
	bus	0.7%	0.7%
	vehicle	68%	67%
	carpool	3%	4%
	transit	1%	1%
	other	0.7%	0.7%

Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

SBCTA SRTS PHASE II: GERALD A. SMITH ELEMENTARY SCHOOL, UNINCORPORATED



PROPOSED ENGINEERING RECOMMENDATIONS

1. Linden Avenue and Hawthorne Avenue: Install RFB for north and southbound traffic on existing SW24-2 (CA) Assembly B. Install R1-5 signs with yield lines and pavement markings on approach to south leg crossing. Install red curbs to leading into intersection on both sides of roadway. Install yellow high visibility ladder style crosswalks at the E, S, and W legs of intersection. Pending availability - place crossing guard at the south leg crossing.
2. Linden Avenue: Remove "SLOW SCHOOL XING" and restripe 100 feet from R1-5 yield lines for north and southbound traffic.
3. Linden Avenue & front of school: Install red curbs along drop off island for approximately 380 feet.
4. Linden Avenue & San Bernardino Avenue: Install yellow high visibility ladder style crosswalks at each leg.
5. Linden Avenue: Install time of day solar powered flasher above existing SW24-23(CA) Assembly D for southbound and northbound traffic at the specific locations.
6. Hawthorne Avenue: Install SW24-3 (CA) Assembly D sign for eastbound approach to school zone.
7. Hawthorne Avenue: Install sidewalk and ADA curb ramps along Hawthorne Avenue between Linden Avenue and Cedar Avenue and along Sequoia Avenue - pending right of way availability/property lines/set backs.
8. Hawthorne Avenue & Cedar Avenue: Remove and replace flasher and sign on mast arm with SW24-2 Assembly B. Add ADA compliant pedestrian push button and post on NW & NE corner and integrate with existing hawk system. Install R1-5 signs leading into intersection with yield lines.

Background/Discussion of the Engineering Recommendations

Gerald A. Smith Elementary School			
Recommendation #	Location	Improvement	Background/Discussion
1	Linden Avenue & Hawthorne Avenue	RRFB installation, yield sign installation, high visibility ladder style crosswalk	Improvements located along primary walking route to school (noted during field observation), where two pedestrian collisions took place. Location identified by walk audit participants and explicitly through school-wide surveys as a focus intersection, where students/parents have difficulty crossing and feel unsafe. Engineering recommendations used to increase pedestrian visibility while crossing the uncontrolled intersection.
2	Linden Avenue	School pavement marking relocation	Adherence to MUTCD Part 7 guidelines to increase driver awareness of Linden Avenue & Hawthorne Avenue crossing are referenced in Recommendation #1.
3	Linden Avenue	Red curb	See below, "General - red curb."
4	Linden Avenue & San Bernardino Avenue	High visibility ladder style crosswalk	Improvements located at this intersection per comments received during the walk audit regarding vehicular speeds and safety issues for pedestrians. Improvements fall along primary walking route to school (noted during field observation).
5	Linden Avenue	Advanced warning school signage	Engineering recommendations used to respond to comments received during the walk audit and through school-wide surveying regarding vehicular speeds and safety concerns along the primary focus corridor and walking route to school (noted during field observation).
6	Hawthorne Avenue	School signage	Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along Hawthorne Ave, a primary walking route to school (noted during field observation).
7	Hawthorne Avenue	Sidewalk and ADA curb ramps	See below, "General - sidewalks" and "ADA curb ramps."
8	Cedar Avenue	School signage flasher updates, signage install, and ADA compliance	Location falls along primary walking route to school (noted during field observation). School-wide survey comments describe this uncontrolled intersection as unsafe due to vehicle speeds.
General	School area	Red curb	Red curbs are recommended for driveways/intersections for primary walking routes to school (noted during field observation) to increase visibility of pedestrians and vehicles.
	School area	Sidewalk	Sidewalks recommended along primary walking routes to school within 1/4 mile radius of the school to close gap in existing sidewalk network. Recommendation attends to comments received on the walk audit and during school-wide surveying.
	School area	ADA curb ramps	Improvements made to comply with ADA standards for increased accessibility for students/parents along their primary routes to school.

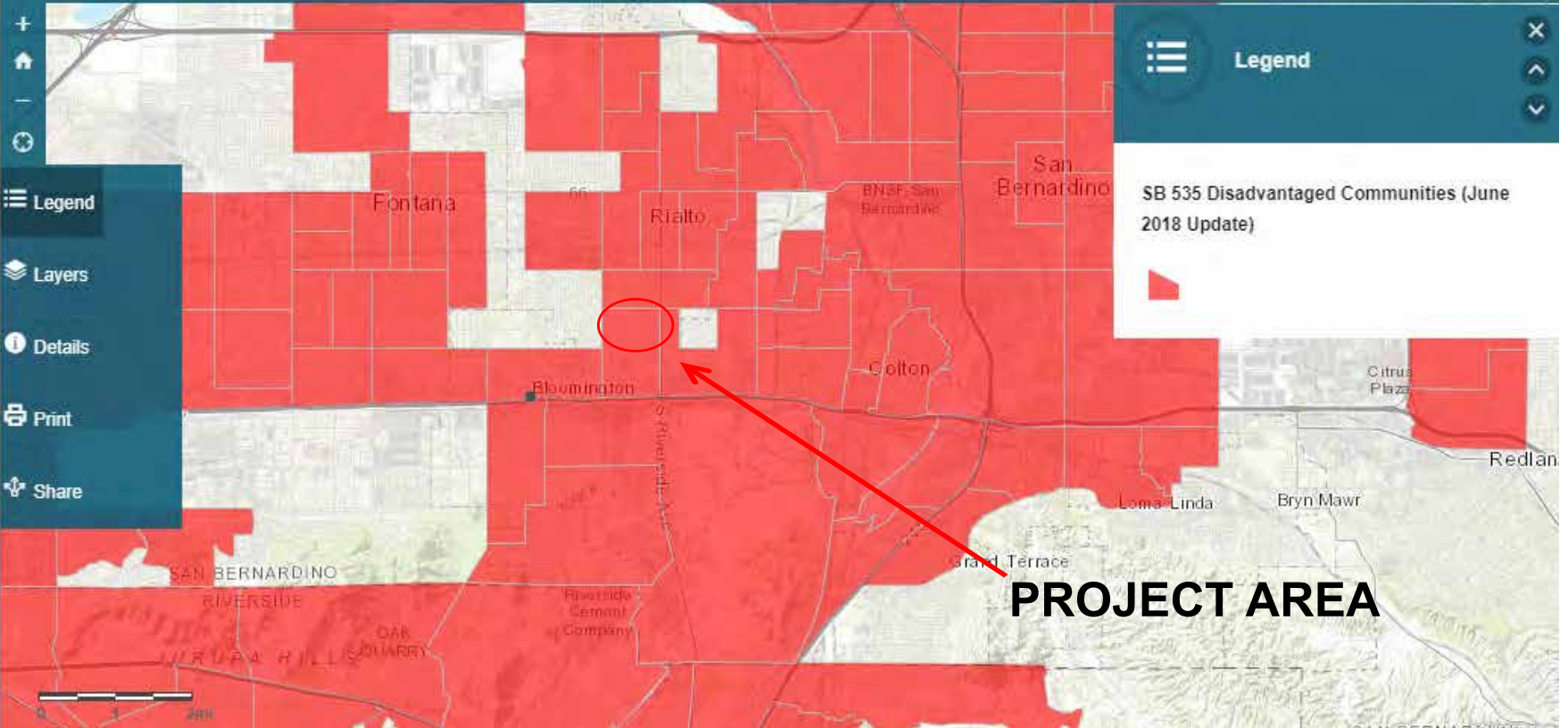
The following cost estimation table details the Gerald A. Smith Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Linden Ave.	Existing Roadway Striping Removal (Sand Blast)	Per Linear Foot	\$6	266	\$1,606
	Pedestrian Flashing Beacon (Post/Pole Mount)	Each	\$9,056	2	\$18,113
	Rectangular Rapid Flashing Beacon (2/Uncontrolled X-walk)	Each	\$15,698	1	\$15,698
	New Sign on Post	Each	\$181	2	\$362
	School Area Pavement Marking (Per Word)	Each	\$254	6	\$1,521
	High Visibility Ladder Crosswalk	Each	\$1,788	5	\$8,940
	ADA Curb Ramps	Each	\$3,623	5	\$18,113
	Shoulder Stripe (Both Sides)	Per Linear Foot	\$2	21	\$41
	Concrete Sidewalk (1 side of street)	Per Linear Foot	\$52	1974	\$102,495
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	\$36	1974	\$71,508
	Segment Total				\$238,396
Hawthorne Ave.	New Sign on Post	Each	\$181	4	\$725
	High Visibility Ladder Crosswalk	Each	\$1,788	1	\$1,788
	ADA Curb Ramps	Each	\$3,623	9	\$32,603
	Shoulder Stripe (Both Sides)	Per Linear Foot	\$2	35	\$68
	Concrete Sidewalk (1 side of street)	Per Linear Foot	\$52	3993	\$207,327
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	\$36	3993	\$144,646
	Segment Total				\$387,156
Sequoia Ave.	Concrete Sidewalk (1 side of street)	Per Linear Foot	\$52	1235	\$64,124
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	\$36	1235	\$44,738
	Segment Total				\$108,862
San Bernardino Ave.	High Visibility Ladder Crosswalk	Each	\$1,788	2	\$3,576
	ADA Curb Ramps	Each	\$3,623	2	\$7,245
	Concrete Sidewalk (1 side of street)	Per Linear Foot	\$52	435	\$22,586
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	\$36	435	\$15,758
	Segment Total				\$49,165
El Molino St.	Concrete Sidewalk (1 side of street)	Per Linear Foot	\$52	583	\$30,271
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	\$36	583	\$21,119
	Segment Total				\$51,390
ALL SEGMENTS					\$834,969

SB 535 Disadvantaged Communities

using CalEnviroScreen 3.0 results (June 2018 Update)

BLOOMINGTON, CA



BLOOMINGTON AREA SCHOOLS DAC BOUNDARIES

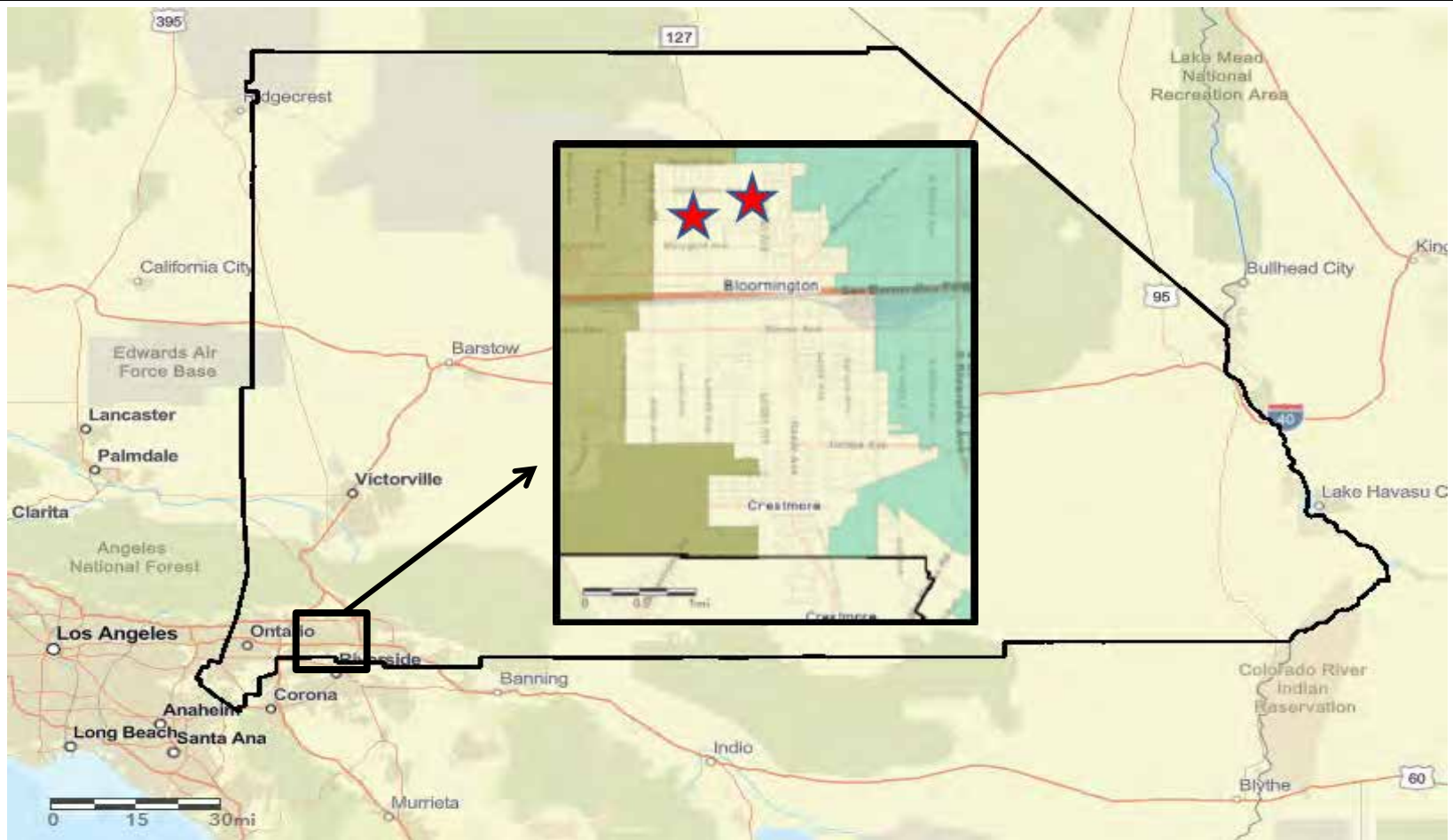
**MARY B. LEWIS SCHOOL
PROJECT AREA**

**GERALD A. SMITH ELEMENTARY
SCHOOL PROJECT AREA**



**COUNTY OF SAN BERNARDINO
DEPARTMENT OF PUBLIC WORKS**

**BLOOMINGTON COMMUNITY
BLOOMINGTON AREA SCHOOLS
PEDESTRIAN IMPROVEMENT PROJECT
ATP CYCLE 6 GRANT APPLICATION**



COUNTY OF SAN BERNARDINO PROJECT LOCATION

LOCATION MAP



**COUNTY OF SAN BERNARDINO
DEPARTMENT OF PUBLIC WORKS**

**BLOOMINGTON COMMUNITY
SAFE ROUTES TO SCHOOL
ATP CYCLE 6 2022 GRANT**

Lat.: 34.07844 Long.: -117.41057



Location #1



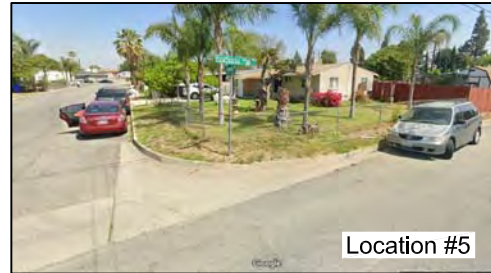
Location #2



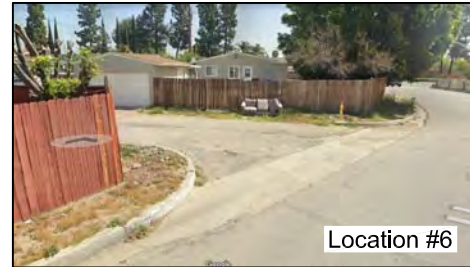
Location #3



Location #4



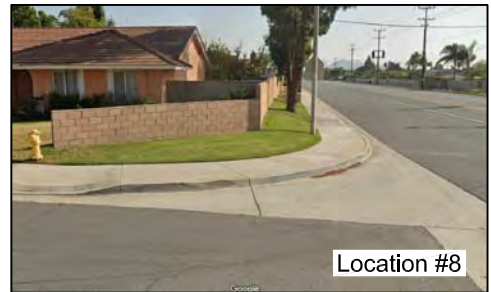
Location #5



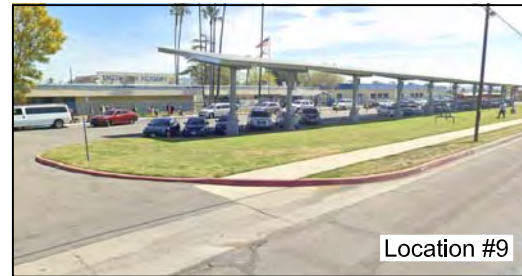
Location #6



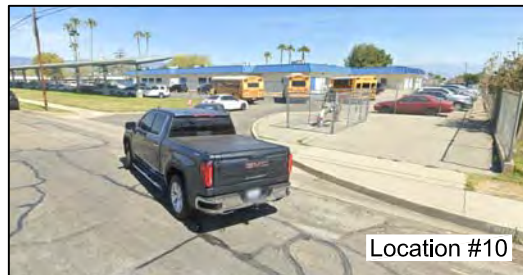
Location #7



Location #8



Location #9



Location #10



Location #11



Location #12



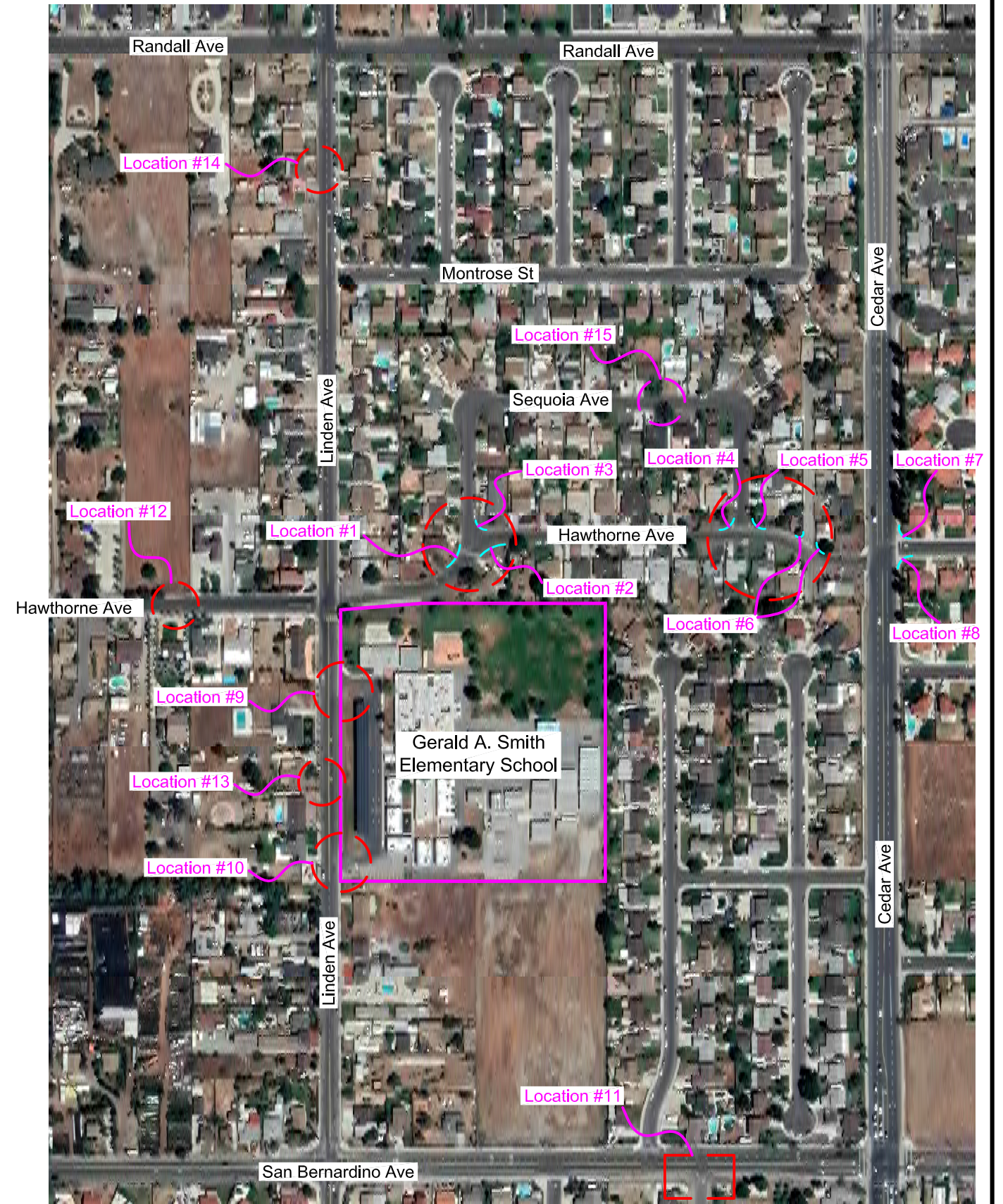
Location #13



Location #14



Location #15



COUNTY OF SAN BERNARDINO
DEPARTMENT OF PUBLIC WORKS

GERALD A. SMITH ELEMENTARY SCHOOL
Existing Conditions at Locations of Proposed Improvements