REGIONAL SAFE ROUTES TO SCHOOL PLAN PHASE II

Volume II

sbcta
san bernardino county transportation authority

KOA CORPORATION
PLANNING & ENGINEERING

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Jurisdictional Participation

Phase II of the San Bernardino County Transportation Authority (SBCTA) Regional Safe Routes to School (SRTS) Plan is centrally focused on enabling alternative modality usage to and from school sites as well as enhancing the safety of local routes to school. For each of the selected schools listed here in Volume II, Phase II included student travel data collection, tabulation of specific network improvement recommendations, and formulation of cost estimates for the proposed improvements. Local agency involvement and integration within the SBCTA Regional SRTS Plan Phase II has established the nexus for forthcoming action to secure funding and implementation of identified recommendations.

Within each member agency jurisdiction of the SBCTA, project efforts saw the completion of walk audits at the school listed below. The selection of the target school was a task that combined insights from the previously completed Regional SRTS Plan Phase I, as well as from the jurisdiction's engineering and executive staff, SBCTA staff, the offices of the local school district superintendents, and the consulting team members whose facilitation unified the respective bodies for this task. The completed walk audits, per jurisdiction, were:

City of Adelanto
- *Victoria Magathan Elementary School – November 18th, 2016*

City of Barstow
- *Montara Elementary School – May 17th, 2016*
- *Crestline Elementary School – May 10th, 2016*
- *Barstow High School – May 17th, 2016*

City of Big Bear Lake
- *Big Bear Elementary School – May 16, 2017*
- *Big Bear Middle School – May 4, 2017*

City of Chino Hills
- *Glenmeade Elementary School – September 1st, 2016*
- *Chaparral Elementary School – September 1st, 2016*

City of Fontana
- *Alder Middle School – May 9th, 2016*
- *Ted J. Porter Elementary School – May 19th, 2016*

City of Hesperia
- *Hesperia Junior High School – September 7th, 2016*
- *Joshua Circle Elementary School – September 7th, 2016*

City of Highland
- *Warm Springs Elementary School – November 14th, 2016*
- *Lankershim Elementary School – October 28th, 2016*

City of Loma Linda
- *Mission Elementary School – May 31st, 2016*

City of Montclair

Moreno Elementary School – October 26th, 2016
Serrano Middle School – October 19th, 2016

City of Needles

Needles High School – December 6th, 2016
Needles Middle School – December 6th, 2016
Vista Colorado Elementary School – December 6th, 2016

City of Ontario

Vina Danks Middle School – October 7th, 2016
Lincoln Elementary School – October 10th, 2016
Elderberry Elementary School – October 11th, 2016

City of Rancho Cucamonga

Los Amigos Elementary School – September 12th, 2016 and September 23rd, 2016
Cucamonga Elementary School – November 7th, 2016
Rancho Cucamonga Middle School – September 23rd, 2016

City of Redlands

Clement Middle School – October 10th, 2016
Lugonia Elementary School – May 18th, 2016
Franklin Elementary School – October 4th, 2016

City of Rialto

Maple Elementary School – December 8th, 2016
Joe Baca Middle School – November 29th, 2016
Ruth Grimes Elementary School – November 4th, 2016
Virginia Primrose Elementary School – May 9th, 2016

San Bernardino City

Marshall Elementary School – October 13th, 2016
Riley Elementary School – November 2nd, 2016
Hillside Elementary School – October 25th, 2016

City of Twentynine Palms

Palm Vista Elementary School – May 23rd, 2016
Oasis Elementary School – May 16th, 2016
Twentynine Palms Elementary School – May 24th, 2016

County of San Bernardino

Joshua Tree Elementary School – October 25th, 2016
Vermont Elementary School – October 28th, 2016
Muscoy Elementary School – October 28th, 2016
Mary B. Lewis Elementary School – October 20th, 2016
Gerald A. Smith Elementary School – April 13th, 2017

City of Upland

Sycamore Elementary School – September 19th, 2016
Baldy View Elementary School – December 14th, 2016
Citrus Elementary School – September 19th, 2016

City of Victorville

Hollyvale Elementary School – November 7th, 2016
University Preparatory School – November 29th, 2016

Town of Yucca Valley

Yucca Valley Elementary School – November 10th, 2016
Yucca Valley High School – November 30th, 2016
Onaga Elementary School – November 17th, 2016

City of Yucaipa

Dunlap Elementary School – June 1st, 2016

Following the selection of the target school, the outreach effort began in order to identify dates, times, and details pertaining to the scheduling of the walk audit. This process was carried out between the school staff (principal, assistant principal, and support staff) and the consultant staff directly. The same personnel were involved in issuing notices about the walk audits to key outlets to generate the most participation during the events. Methods used to publicize the walk audit included: backpack express (hard copy flyers), email blasts, automated phone calls, social media outlet notification, and district website promotion.

The walk audits held at each school followed a proven methodology while retaining flexibility to ensure that data best incorporated input from the community members that were in attendance. The approach integrated school site field observation with participants as well as briefing and de-briefing sessions. For detailed walk audit methodology and procedures, please refer to the Regional SRTS Plan Phase II Volume I.

Municipalities with Existing Plans

The Town of Apple Valley, the City of Chino, and the City of Colton, at the time of Phase II, each had already developed or were in the process of developing either a comprehensive Safe Routes to School Plan or an Active Transportation Plan with a Safe Routes to School component. Therefore these municipalities were excluded by condition from the regional implementation initiatives encompassed by the Phase. The following sections detail the independent SRTS plans being implemented by the three municipalities outside the scope of the SBCTA Regional SRTS Plan Phase II:

The Town of Apple Valley Safe Routes to School Master Plan: 2016-2017
The City of Chino Bicycle and Pedestrian Master Plan (SRTS component): 2016
The City of Colton Active Transportation Plan: 2016-2017

Within each of these plans or plan components, the respective agency has outlined SRTS or active transportation visions and goals. Having detailed the existing conditions, each plan gives network improvement recommendations and guidance for implementation. Detailed reports of each plan can be found at the appropriate agency's webpage pending availability.

Note on the City of Grand Terrace

The City of Grand Terrace, a member agency of SBCTA, had walk audits completed at some schools prior to the Regional SRTS Plan Phase II as part of the data collection process for its Active Transportation Plan. However, specific engineering recommendations were not compiled. For Phase II, two of the city's schools were selected to have further data collected and engineering recommendations proposed. To develop these components, supporting data were received from the City. The two completed walk audits (prior to Phase II) were:

Grand Terrace Elementary School – April 27, 2015
Terrace View Elementary School – April 14, 2015

City of Adelanto

Victoria Magathan Elementary School

Victoria Magathan Elementary School is an Adelanto Elementary School District (AESD) school located in a sparsely-developed rural part of Adelanto, California. The school is positioned along Holly Road and Fremontia Avenue. The walk audit was held on November 18th, 2016 from 12:30PM to 2:00PM, and attracted 15 participants. The group met in an on-campus classroom where participants were briefed and de-briefed before and after the walk into the field took place. Observations extended into the surrounding neighborhood, along Holly Road and Fremontia Avenue. The walk audit time was chosen to coincide with the afternoon release bell to ensure the observation of the afternoon characteristics of the school.

"I won't allow my kids to walk to school due to the amount of the pedophiles that live close to the school."

"I walk with my children to school and home. I would love to see the cars in my area driver safer and not rush pedestrians out of the crosswalk."

**All remarks received from walk audit participants at Victoria Magathan Elementary **

Number of Students Assessed in Tally	144
Number of Tallies	741
» Morning (To School)	370
» Afternoon (From School)	371

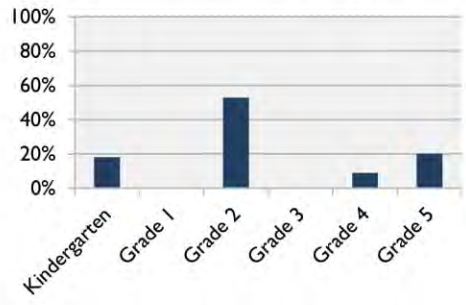
Number of Surveys Received	68

Data source: KOA Corporation, processed by the National Center for SRTS. Data and figures accurate as of Spring 2016.

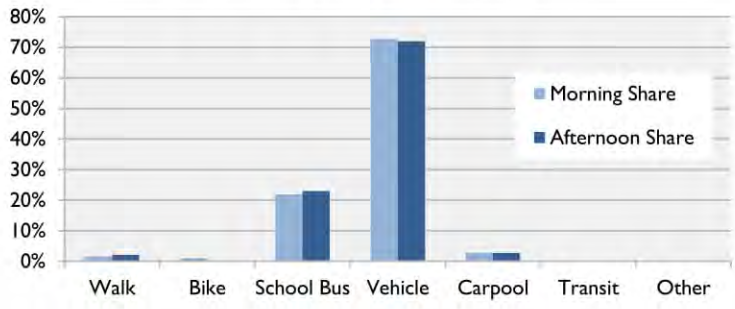
Tallies were conducted by teachers in six classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to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

Students who walk or bike to school	**7.5%**
Students who don't walk/bike but have asked parents for permission	**+ 25.4%**
Students who walk/bike or have asked parents for permission	**32.8%**
Student enrollment	**x 535**
Potential walking/biking student base	**175**

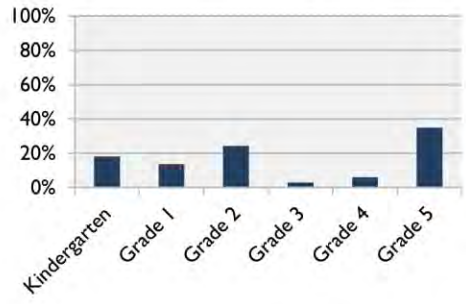
Grade Distribution of Tallies



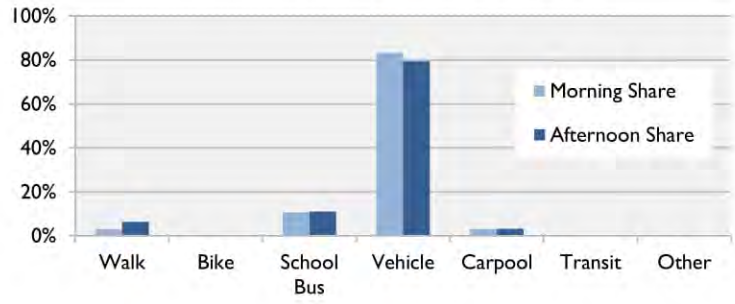
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

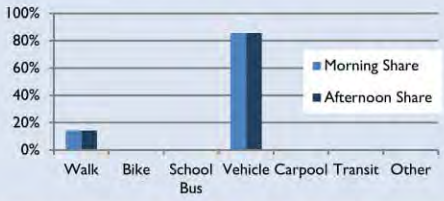


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

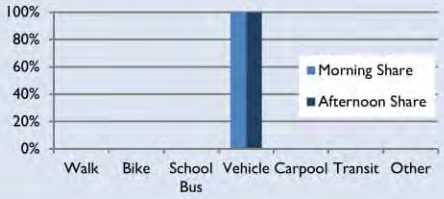
11%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 57%
Violence or Crime – 57%
Safety of Intersections & Crossings – 43%
Weather or Climate – 43%
Crossing Guards – 29%

Students Living Between ¼ and ½ Mile from School

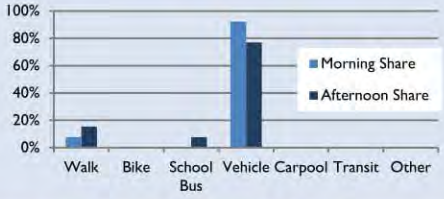
10%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 100%
Weather or Climate – 83%
Safety of Intersections & Crossings – 50%
After-School Program Participation – 33%
Adults to Walk/Bike With – 33%

Students Living Between ½ and 1 Mile from School

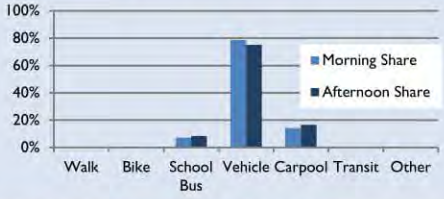
21%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 62%
Distance – 39%
Safety of Intersections & Crossings – 31%
Speed of Traffic Along Route – 31%
Amount of Traffic Along Route – 23%

Students Living Between 1 and 2 Miles from School

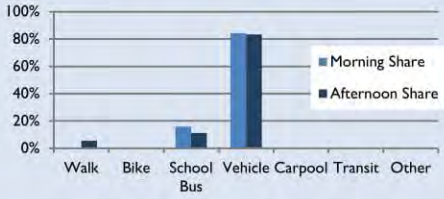
25%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 47%
Violence or Crime – 47%
Distance – 40%
Safety of Intersections & Crossings – 40%
Crossing Guards – 33%

Students Living Farther than 2 Miles from School

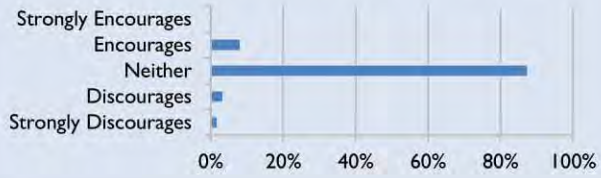
33%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 60%
Distance – 55%
Weather or Climate – 50%
Safety of Intersections & Crossings – 45%
Speed of Traffic Along Route – 35%

Parents' Perspectives

Whether School Encourages Walking/Biking



71%
consider walking/biking healthy or very healthy.

79%
would not feel comfortable having their child walk/bike at any age with current conditions.

VICTORIA MATHAGAN ELEMENTARY - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Adelanto
School Enrollment - 535
Free or Reduced Lunch - 92.80%

Environmental Indicators:

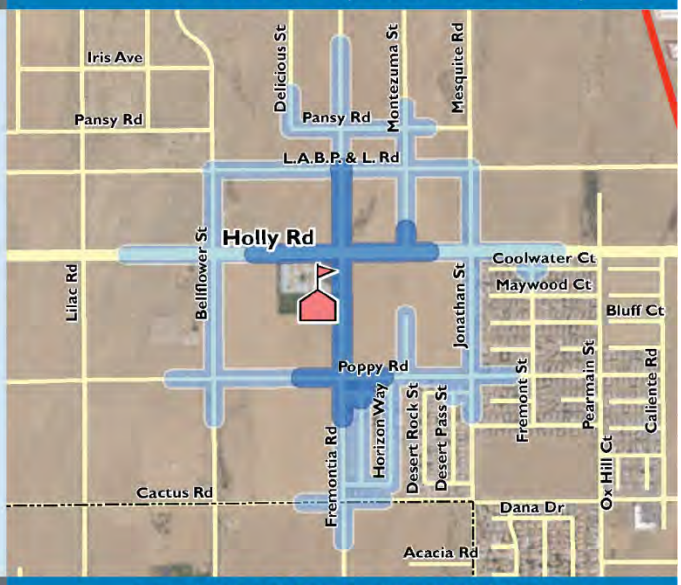
Cal Enviro Score % Range - 51-55%
Cal Enviro Score (CES2.0*) - 26.11

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

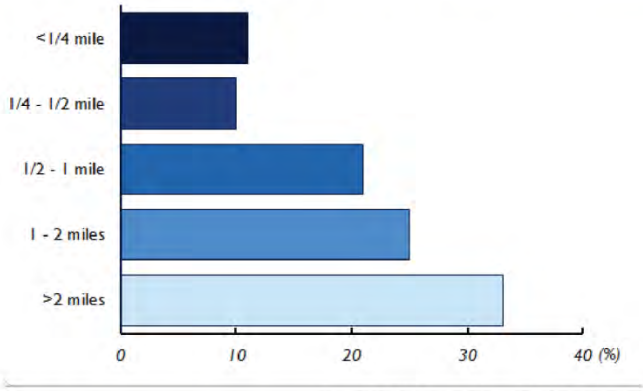
Walk Audit Highlights

of Walk Audit Participants - 15
# of Surveys Received - 68

WALKSHED *(1/4 and 1/2 mile)*



COMMUTE DISTANCE (%)



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

COLLISION ANALYSIS

Pedestrian Related Collisions

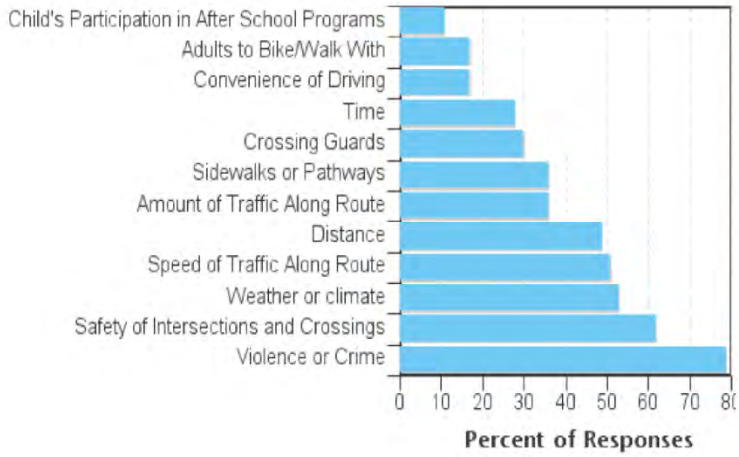
0 within 1/4 mile
0 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



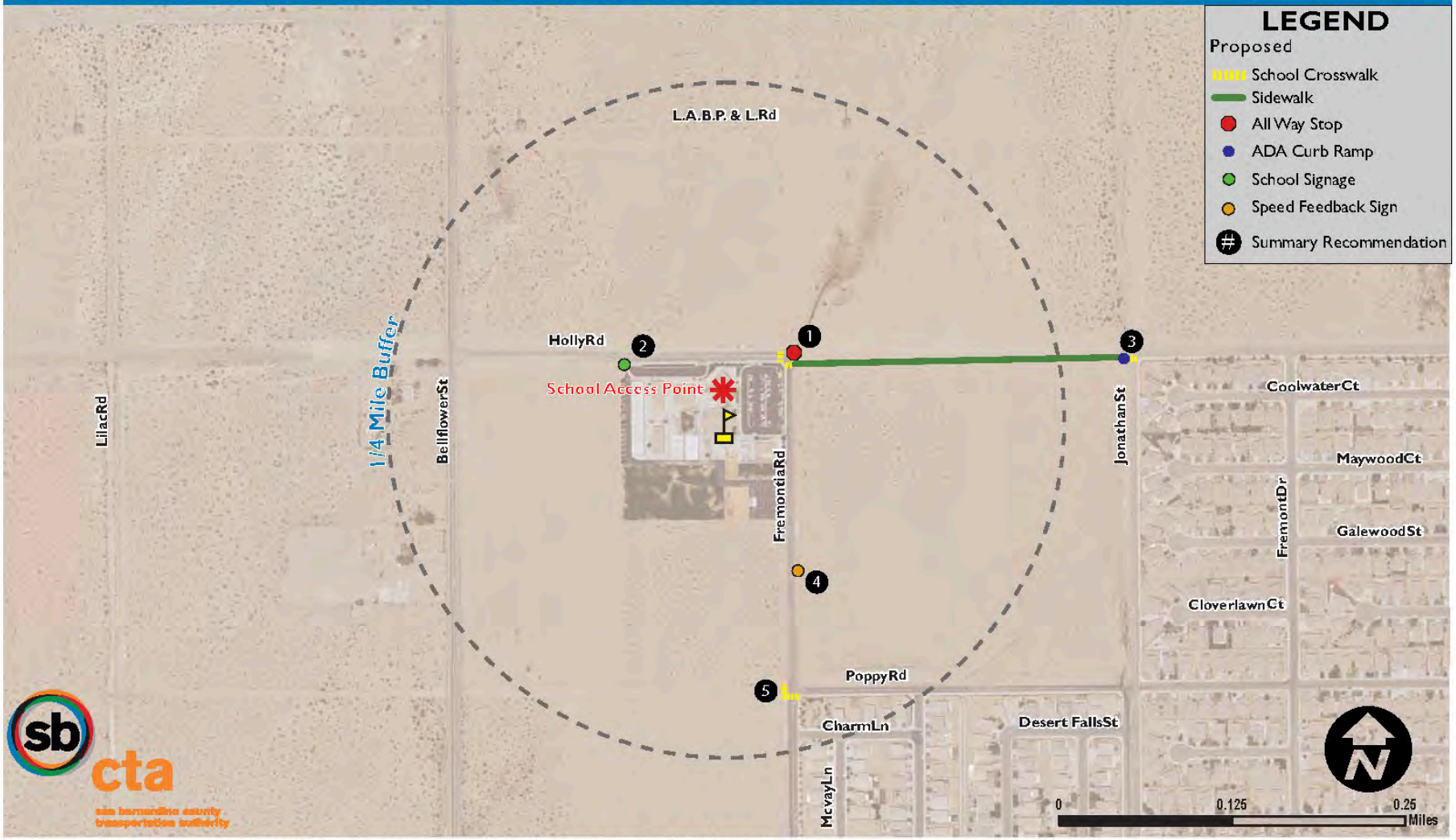
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	3%	6%
bike	0%	0%
bus	11%	11%
vehicle	83%	79%
carpool	3%	3%
transit	0%	0%
other	0%	0%

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

SBCTA SRTS PHASE II: *VICTORIA MAGATHAN ELEMENTARY SCHOOL, ADELANTO*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Holly Road and Fremontia Road:* Install high visibility ladder style crosswalk for the west and south legs of the intersection. Install all-way stop signs after new road and sidewalk construction is complete.
2. *Holly Road and Bus Loop Entrance:* Remove existing school signs and install SR4-1 (CA) Assembly C school speed limit sign. Reconfigure stripping plan for two-way left turn arrows to be correctly positioned.
3. *Holly Road and Jonathan Street:* Install ADA curb ramp to connect between proposed sidewalk extension and school crossing. Install high visibility ladder style crosswalk on south leg of intersecton.
4. *Fremontia Road (east side):* Upgrade existing SR4-1 (CA) Assembly C school speed limit sign to the conventional roadway size of 36x72". Install a speed feedback unit at this location providing service to northbound traffic.
5. *Fremontia Road and Poppy Road:* Install high visibility ladder style crosswalk along the west and south legs of the intersection.

Background/Discussion of the Proposed Engineering Recommendations

Victoria Magathan Elementary School

Recommendation #	Location	Improvement	Background/Discussion
1	**Holly Road and Fremontia Road**	Sidewalk, high visibility ladder style crosswalk and all way stop control	Recommendations adhere to CA MUTCD Part 7 guidelines, which are in place to increase driver awareness of pedestrians along Holly Road, a primary walking route to school. Crosswalks address comments received during survey process. See below, "General - sidewalk."
2	**Holly Road and Bus Loop Entrance**	School signage and striping	Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along Holly Road, a primary walking route to school (noted during field observation).
3	**Holly Road and Jonathan Street**	Sidewalk, ADA compliance and high visibility ladder style crosswalk	Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along Holly Road, a primary walking route to school (noted during field observation). See below, "General - sidewalk." and "General - ADA curb ramps."
4	**Fremontia Road (east side)**	School signage and speed feedback sign	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	**Fremontia Road and Poppy Road**	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).
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 Victoria Magathan Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Holly Rd.	New Sign on Post	Each	$181	5	$906
	School Area Pavement Marking (Per Word)	Each	$254	2	$507
	High Visibility Ladder Crosswalk	Each	$1,788	2	$3,576
	36' New Roadway	Per Linear Foot	$174	1321	$229,854
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	2642	$137,179
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	2642	$95,706
	Segment Total				**$467,728**
Fremontia Ave.	Speed Awareness Sign	Each	$14,490	1	$14,490
	New Sign on Post	Each	$181	1	$181
	High Visibility Ladder Crosswalk	Each	$1,788	3	$5,364
	Segment Total				**$20,035**
ALL SEGMENTS					**$487,763**

City of Barstow

Montara Elementary School

Montara Elementary School is a Barstow Unified School District (BUSD) school located in a low-density residential area of Barstow, California. The school is situated along Montara Road between Forane Street and Aurora Way. The walk audit performed at Montara Elementary School was held in the afternoon, prior to the afternoon release bell ringing, from 1:30PM to 2:30PM on May 17th, 2016. Participants were recruited in the time leading up to the afternoon release bell as they waited for their students, totaling 44 participants. Observations extended into the surrounding neighborhood, along Montara Road, Aurora Way, and Sunset Court.

"Even though we live two blocks away, I walk with my daughter to school and will not allow her to walk by herself."

"The amount of loose dogs and crime is concerning. Also my child's decision-making ability regarding crossing streets and behavior around strangers prevents me from allowing her to walk to school."

**All remarks received from walk audit participants at Montara Elementary **

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	164
Number of Tallies	713
» Morning (To School)	364
» Afternoon (From School)	349

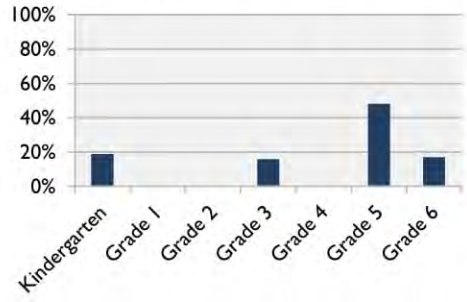
Number of Surveys Received	32

Data source: KOA Corporation, processed by the National Center for Safe Routes to School. Data and figures accurate as of Spring 2016.

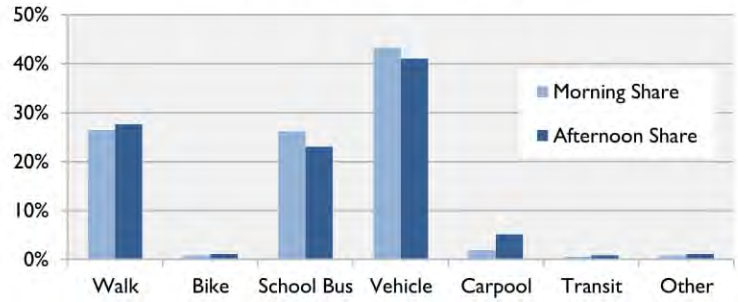
Tallies were conducted by teachers in six classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to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

Students who walk or bike to school	**25.0%**
Students who don't walk/bike but have asked parents for permission	**+ 21.9%**
Students who walk/bike or have asked parents for permission	**46.9%**
Student enrollment	**x 659**
Potential walking/biking student base	**309**

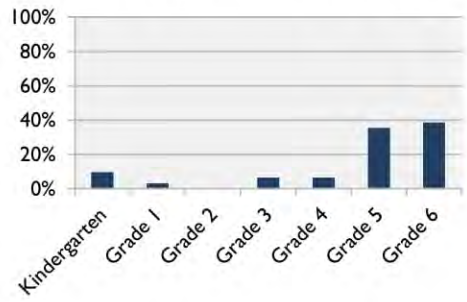
Grade Distribution of Tallies



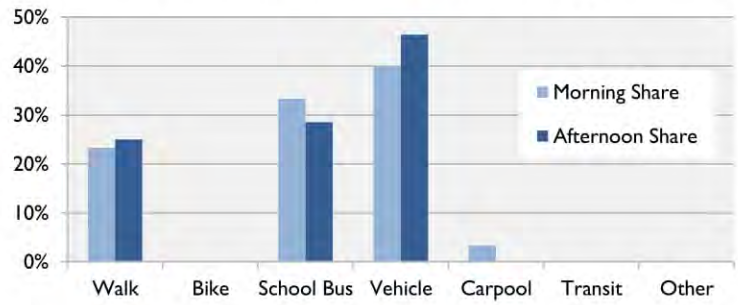
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

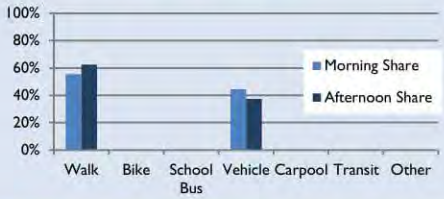


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

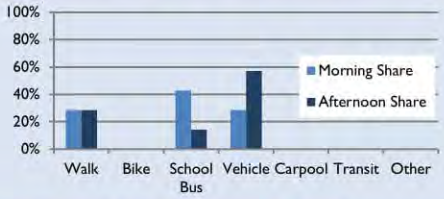
30%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Crossing Guards – 33%
Sidewalks or Pathways – 22%
Violence or Crime – 22%
Weather or Climate – 22%
Speed of Traffic Along Route – 11%

Students Living Between ¼ and ½ Mile from School

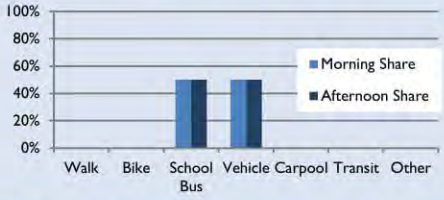
23%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 43%
Safety of Intersections or Crossings – 43%
Violence or Crime – 43%
Distance – 29%
Amount of Traffic Along Route – 29%

Students Living Between ½ and 1 Mile from School

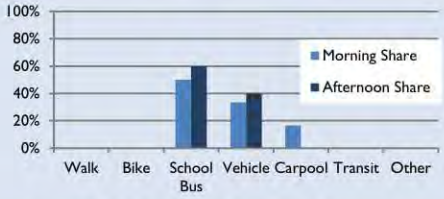
13%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 50%
Time – 50%
Amount of Traffic Along Route – 50%
Safety of Intersections or Crossings – 50%
Weather or Climate – 50%

Students Living Between 1 and 2 Miles from School

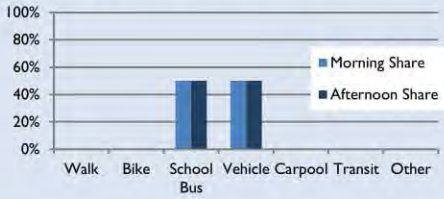
20%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 67%
Speed of Traffic Along Route – 67%
Sidewalks or Pathways – 67%
Weather or Climate – 67%
Amount of Traffic Along Route – 50%

Students Living Farther than 2 Miles from School

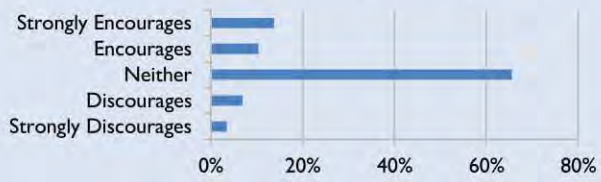
13%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 50%
Convenience of Driving – 50%
Time – 50%
Speed of Traffic Along Route – 50%
Sidewalks or Pathways – 50%

Parents' Perspectives

Whether School Encourages Walking/Biking



77%
consider walking/biking healthy or very healthy.

56%
would not feel comfortable having their child walk/bike at any age with current conditions.

MONTARA ELEMENTARY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Barstow
School Enrollment - 659
Free or Reduced Lunch - 84.40%

Environmental Indicators:

Cal Enviro Score % Range - 81-85%
Cal Enviro Score (CES2.0*) - 43.38

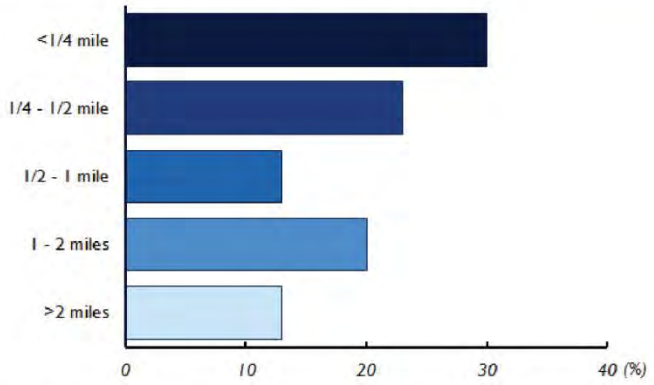
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 44
# of Surveys Received - 32

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE (%)



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

COLLISION ANALYSIS

Pedestrian Related Collisions

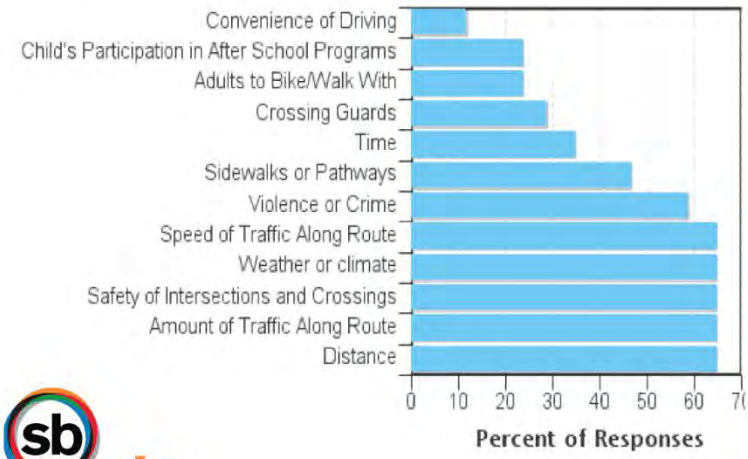
0 within 1/4 mile
1 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sbcta
san bernardino county transportation authority

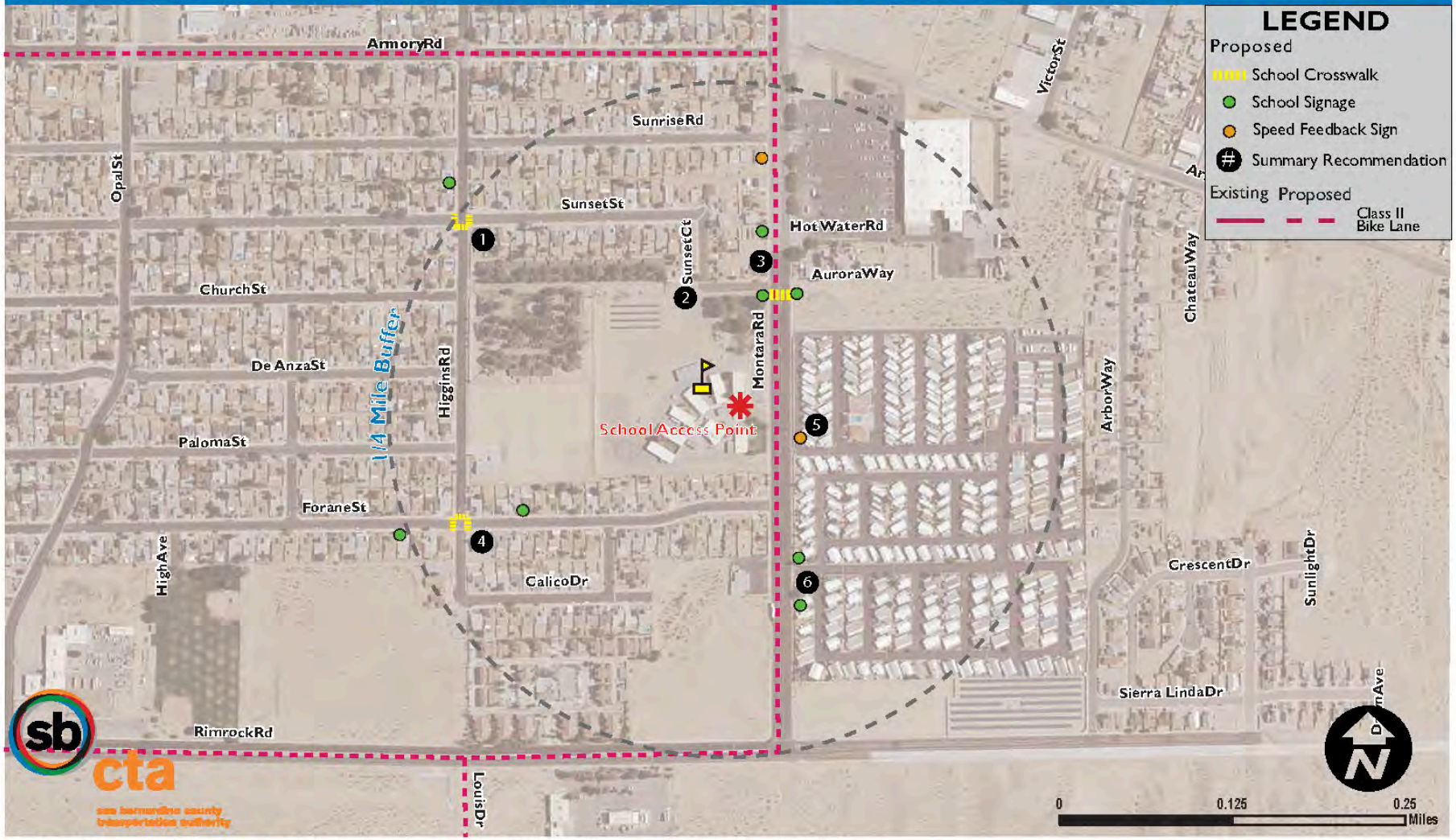
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	*afternoon*
walk	23%	25%
bike	0%	0%
bus	33%	29%
vehicle	40%	46%
carpool	3%	0%
transit	0%	0%
other	0%	0%

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

SBCTA SRTS PHASE II: *MONTARA ELEMENTARY SCHOOL, BARSTOW*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Sunset Street at Higgins Road:* Restripe existing school crosswalks with high visibility paint (ladder style). Replace existing sign with SW24-3(CA) Assembly D sign for southbound traffic. Paint red curb to improve the visibility of pedestrians.

2. *Sunset Court at Aurora Way:* Install sidewalk on southwest corner of Sunset Court and Aurora Way and clear sidewalk on south side of Aurora Way to provide an accessible route.

3. *Montara Road at Aurora Way:* Install speed feedback sign for southbound traffic. Replace existing SR4-1(CA) Assembly C sign with same sign of larger size. Install in road flasher system at high visibility crosswalk.

4. *Forane Street at Higgins Road:* Install SW24-3(CA) Assembly D signs for eastbound and westbound traffic. Repaint red curb at the southwest corner, and paint red curb at the northeast corner to improve visibility of pedestrians. Restripe existing school crosswalks with high visibility paint (ladder style).

5. *Montara Road:* Repaint red curb along roadway, indicating where "no parking" zone starts and ends. Install speed feedback sign for northbound traffic. Station crossing guard at crosswalk at Forane Street.

6. *Montara Road at Elm Lane:* Install SW24-3(CA) Assembly D sign for northbound traffic. Replace existing SR4-1(CA) Assembly C sign with same sign of larger size.

Background/Discussion of the Engineering Recommendations

	Recommendation #	Location	Improvement	Background/Discussion
Montara Elementary School	1	Sunset Street at Higgins Road	High visibility ladder style crosswalk, school signage and red curb	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 difficultly crossing and feel unsafe. Engineering recommendations used to increase pedestrian visibility while crossing the uncontrolled intersection.
	2	Sunset Court at Aurora Way	Sidewalk	See below, "General - Sidewalk."
	3	Montara Road at Aurora Way	School signage and in road flasher system	Improvements are located along the primary walking route to school (noted during field observation), responding to comments received during the school-wide surveying and the walk audit. Engineering recommendations used to increase pedestrian visibility while crossing the uncontrolled crosswalk.
	4	Forane Street at Higgins Road	School signage, red curb and high visibility ladder style crosswalk	Improvements are located along the primary walking route to school (noted during field observation), responding to comments received during the school-wide surveying and the walk audit. Engineering recommendations used to increase pedestrian visibility while crossing. See below, "General - Red curb."
	5	Montara Road	Red curb, no parking indications, speed feedback sign and crossing guard	Speed feedback signage installation addresses speeding in the area, per walk audit observations and comments received during the survey process. Crossing guard helps with pedestrian safety near the school. See below, "General - Red curb."
	6	Montara Road at Elm Lane	School signage	Adherence to MUTCD Part 7 guidelines, which are in place to increase driver awareness of pedestrians along Montara Road at Elm Lane, a primary walking route to school (noted during field observation).
	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 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.

The following cost estimation table details the Montara Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Montara Rd.	In-Road Flashers Crosswalk	Each	$66,413	1	$66,413
	Speed Awareness Sign	Each	$14,490	2	$28,980
	New Sign on Post	Each	$181	3	$543
	Segment Total				**$95,936**
Higgins Rd.	New Sign on Post	Each	$181	1	$181
	High Visibility Ladder Crosswalk	Each	$1,788	5	$8,940
	Segment Total				**$9,121**
Forane St.	New Sign on Post	Each	$181	2	$362
	High Visibility Ladder Crosswalk	Each	$1,788	1	$1,788
	Segment Total				**$2,150**
ALL SEGMENTS					**$107,207**

Crestline Elementary School

Crestline Elementary School is a Barstow Unified School District (BUSD) school located in a low-density residential area of Barstow, California. The school is situated along a major arterial roadway (Rimrock Road) as it intersects with Monterey Avenue. Held on May 10th, 2016, the Crestline Elementary walk audit took place from 1:00PM to 2:30PM, prior to the afternoon release bell ringing. Participants were recruited in the time leading up to the afternoon release bell as they waited for their students, totaling ten participants. Observations extended into the surrounding neighborhood, along the following streets: Rimrock Road, Monterey Avenue, Big Horn Drive, and Zion Drive.

"Walking is very healthy but due to the amount and speed of traffic along Rimrock Rd, between Barstow Rd & Muriel Rd, it is not safe for my children to walk alone."

"Crestline provides a crossing guard on Armory which makes me feel safe. However, there have been many instances where cars disregard the crossing guard. This experience is scary and prevents me from allowing my child to cross by herself."

"I would like my kid to be able to walk home but I don't feel safe, especially with other older kids harassing each one another."

All remarks received from walk audit participants at Crestline Elementary

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	27
Number of Tallies	146
» Morning (To School)	73
» Afternoon (From School)	73

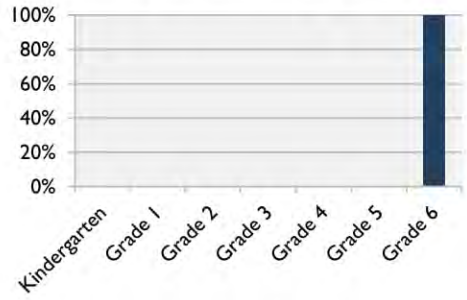
Number of Surveys Received	32

Data source: KOA Corporation, processed by the National Center for Safe Routes to School. Data and figures accurate as of Spring 2016.

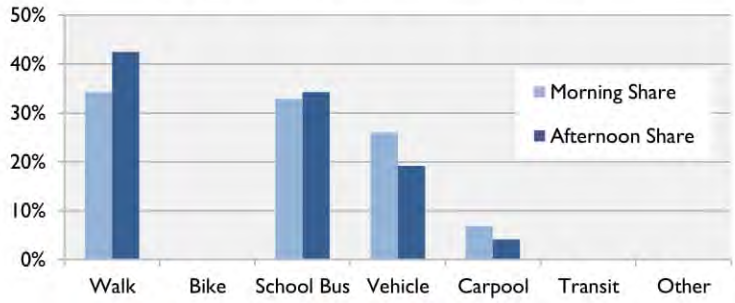
Tallies were conducted by a teacher in one class on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to take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

Students who walk or bike to school	**31.0%**
Students who don't walk/bike but have asked parents for permission	**+ 17.2%**
Students who walk/bike or have asked parents for permission	**48.3%**
Student enrollment	**x 605**
Potential walking/biking student base	**255**

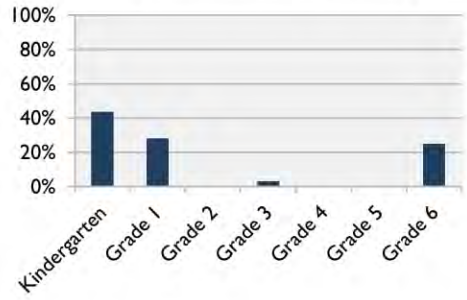
Grade Distribution of Tallies



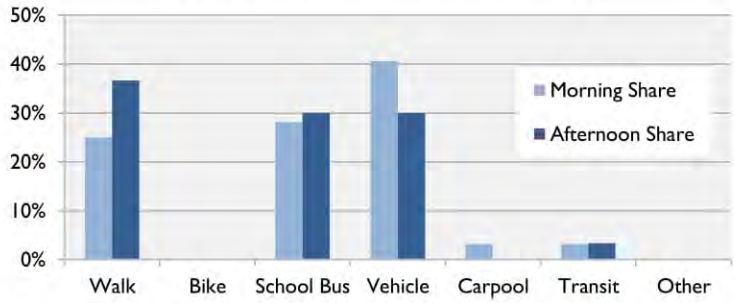
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

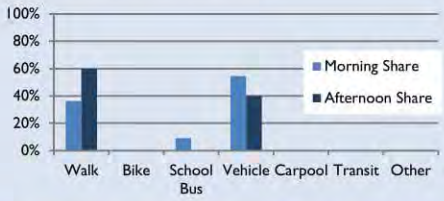


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

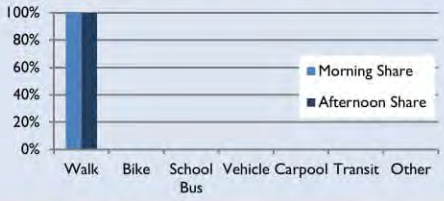
35%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 55%
Safety of Intersections or Crossings – 45%
Speed of Traffic Along Route – 36%
Convenience of Driving – 18%
Amount of Traffic Along Route – 18%

Students Living Between ¼ and ½ Mile from School

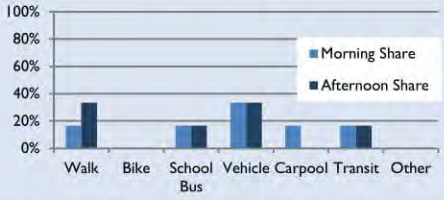
6%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 100%
Amount of Traffic Along Route – 50%
Adults to Bike/Walk With – 50%
Crossing Guards – 50%
(No other issues ranked.)

Students Living Between ½ and 1 Mile from School

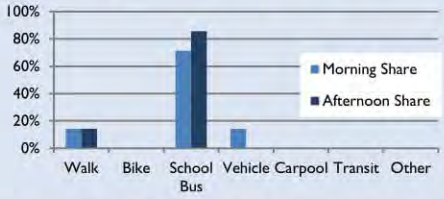
19%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 33%
Weather or Climate – 33%
Convenience of Driving – 17%
Speed of Traffic Along Route – 17%
Amount of Traffic Along Route – 17%

Students Living Between 1 and 2 Miles from School

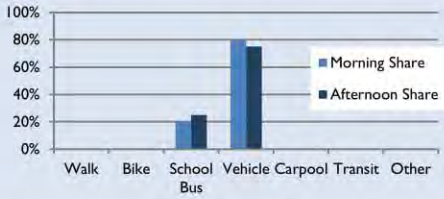
23%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 71%
Speed of Traffic Along Route – 71%
Amount of Traffic Along Route – 71%
Weather or Climate – 71%
Safety of Intersections or Crossings – 57%

Students Living Farther than 2 Miles from School

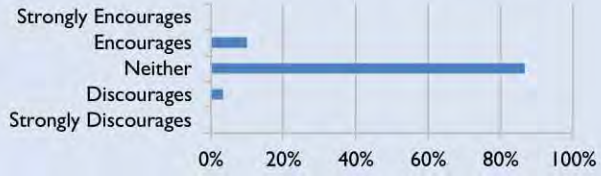
16%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 20%
Speed of Traffic Along Route – 20%
Amount of Traffic Along Route – 20%
Safety of Intersections or Crossings – 20%
Violence or Crime – 20%

Parents' Perspectives

Whether School Encourages Walking/Biking



71%
consider walking/biking healthy or very healthy.

56%
would not feel comfortable having their child walk/bike at any age with current conditions.

CRESTLINE ELEMENTARY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Barstow
School Enrollment - 605
Free or Reduced Lunch - 89.40%

Environmental Indicators:

Cal Enviro Score % Range - 56-60%
Cal Enviro Score (CES2.0*) - 27.95

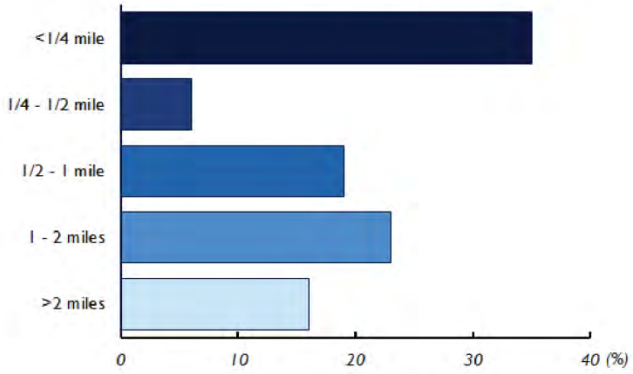
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 10
# of Surveys Received - 32

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE (%)



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

COLLISION ANALYSIS

Pedestrian Related Collisions

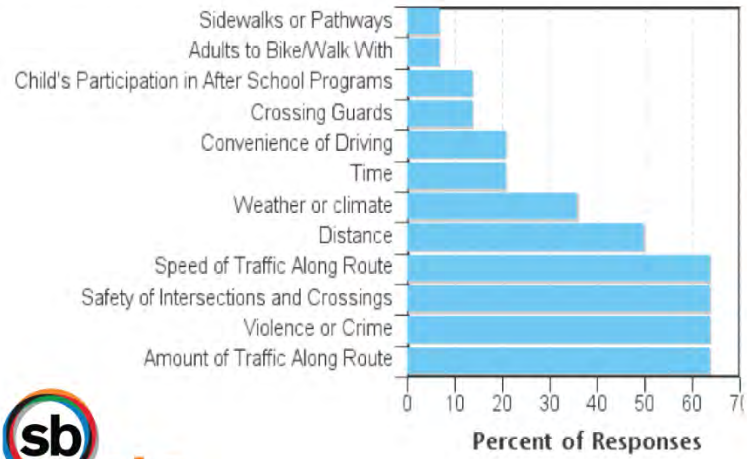
0 within 1/4 mile
1 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sb cta
san bernardino county transportation authority

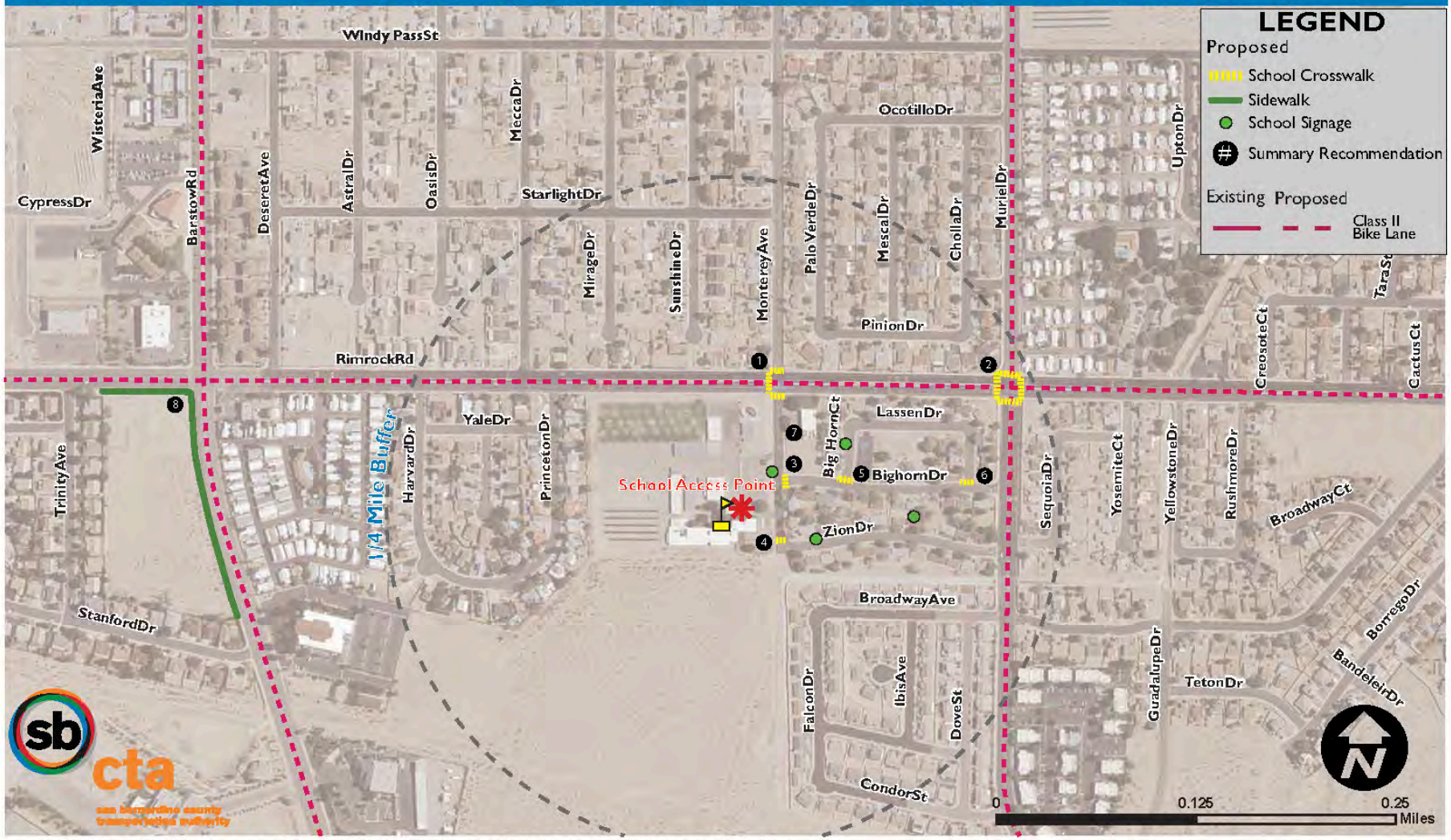
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	25%	37%
bike	0%	0%
bus	28%	30%
vehicle	41%	30%
carpool	3%	0%
transit	3%	3%
other	0%	0%

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

SBCTA SRTS PHASE II: *CRESTLINE ELEMENTARY SCHOOL, BARSTOW*



PROPOSED ENGINEERING RECOMMENDATIONS

1. Monterey Ave at Rimrock Road: Install bulbouts at the NW, NE, and SW corners of the intersection. Restripe existing crosswalks with high visibility paint or thermoplastic. Install in pavement flashers at each crosswalk. Install traffic signals (pending passed signal warrant). If not passed, install all way stop control.
2. *Rimrock Road at Muriel Drive: Install traffic signals (pending passed signal warrant). Restripe existing crosswalks with high visibility white paint or thermoplastic*
3. *Monterey Ave at Bighorn Drive:* Restripe existing school crosswalk with high visibility paint/thermoplastic.
4. *Monterey Ave at Zion Drive:* Restripe existing school crosswalk with high visibility paint/thermoplastic. Install SW24-3 (CA) Assembly D signs approaching school crossing.
5. *Bighorn Drive at Bighorn Court:* Paint school crosswalk with high visibility paint/thermoplastic.
6. *Bighorn Drive at Lassen Court:* Paint school crosswalk with high visibility paint/thermoplastic.
7. *Monterey Avenue Corridor:* Repaint red curb along the street, indicating where parking is not allowed.
8. *Barstow Road at Rimrock Road:* Install sidewalk along these streets, connecting existing sidewalks.

Background/Discussion of the Engineering Recommendations

	Recommendation #	Location	Improvement	Background/Discussion
Crestline Elementary School	1	Monterey Avenue at Rimrock Road	Bulbouts, High visibility crosswalks, Pavement flashers, Traffic signal or All way stop control	Bulbouts shorten the crossing distance for pedestrians along this primary walking route to school, and narrow the roadway, naturally slowing down traffic. High visibility crosswalks provide clearer paths for pedestrians and draw drivers' attention to the crossing. Pavement flashers may alert drivers of pedestrians in the crosswalk. Traffic signal or all way stop control installation (pending warrants in CA MUTCD Part 4) will provide necessary gaps for pedestrians in the area while controlling speed in the area, which addresses comments received during the survey process.
	2	Rimrock Road at Muriel Drive	Traffic signal (pending warrants), High visibility crosswalks	Traffic signal installation (pending warrants in CA MUTCD Part 4) will accommodate vehicular and pedestrian volumes at this intersection, providing necessary gaps in traffic for pedestrians to cross. High visibility crosswalks alert drivers of crossings in the area.
	3	Monterey Avenue at Bighorn Drive	High visibility crosswalks	Improvements alert drivers of crossings in the area and provide clearer paths for pedestrians along a primary walking route.
	4	Monterey Avenue at Zion Drive	High visibility crosswalks, Advanced warning school signage	High visibility crosswalks alert drivers of crossings in the area and provide clearer paths for pedestrians along a primary walking route. Signage improvements adhere to CA MUTCD Part 7 guidelines, which are in place to increase driver awareness of pedestrian crossings in the area.
	5	Bighorn Drive at Bighorn Court	High visibility crosswalks	Improvements alert drivers of crossings in the area and provide clearer paths for pedestrians along a primary walking route.
	6	Bighorn Drive at Lassen Court	High visibility crosswalks	Improvements alert drivers of crossings in the area and provide clearer paths for pedestrians along a primary walking route.
	7	Monterey Avenue Corridor	Red curb	See item below, "General - Red curb."
	8	Barstow Road at Rimrock Road	Sidewalk	See item below, "General - Sidewalk."
	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 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 Crestline Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
E Rimrock Rd.	New Sign on Post	Each	$181	4	$725
	High Visibility Ladder Crosswalk	Each	$1,788	6	$10,728
	Curb Extension - Raised	Per Intersection	$87,766	0.5	$43,883
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1245	$64,644
	Segment Total				**$119,979**
Monterey Ave.	New Sign on Post	Each	$181	1	$181
	High Visibility Ladder Crosswalk	Each	$1,788	2	$3,576
	Segment Total				**$3,757**
Bighorn Dr.	High Visibility Ladder Crosswalk	Each	$1,788	2	$3,576
	Segment Total				**$3,576**
Zion Dr.	New Sign on Post	Each	$181	1	$181
	High Visibility Ladder Crosswalk	Each	$1,788	1	$1,788
	Segment Total				**$1,969**
ALL SEGMENTS					**$129,281**

Barstow High School

Barstow High School is a Barstow Unified School District (BUSD) school located in a low-density residential area of Barstow, California. The school is located along 1st Avenue between Buena Vista Street and Mountain View Street. The Barstow High School walk audit was held on May 17th, 2016 from 6:00AM to 7:00AM. During this time there were 14 participants who provided insights into the surrounding neighborhood. Engineer field observations into these areas took place following the morning start bell along the following streets: 1st Street, Buena Vista Street, Mountain View Street, Campus Way, Flora Street, and May Avenue.

> *"I do not allow my child to walk because there are loose dogs along the long block where she would have to walk."*
>
> *"It's not safe for a student to walk alone anywhere surrounding the school or beyond."*
>
> **All remarks received from walk audit participants at Barstow High**

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	252
Number of Tallies	1,232
» Morning (To School)	655
» Afternoon (From School)	577

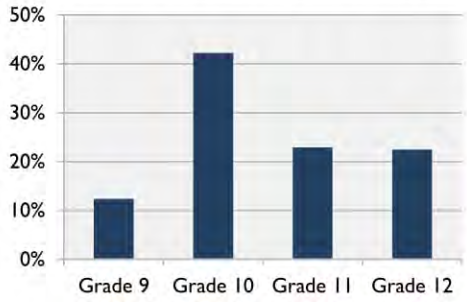
Number of Surveys Received	120

Data source: KOA Corporation, processed by the National Center for Safe Routes to School. Data and figures accurate as of Spring 2016.

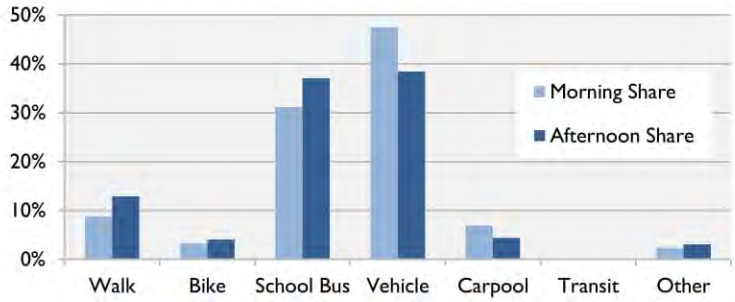
Tallies were conducted by teachers in 11 classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to take home.

Students who walk or bike to school	**16.7%**
Students who don't walk/bike but have asked parents for permission	**+ 13.3%**
Students who walk/bike or have asked parents for permission	**30.0%**
Student enrollment	**x 1,409**
Potential walking/biking student base	**423**

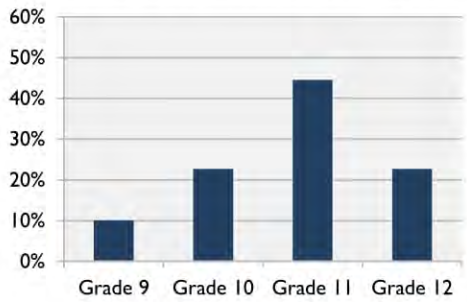
Grade Distribution of Tallies



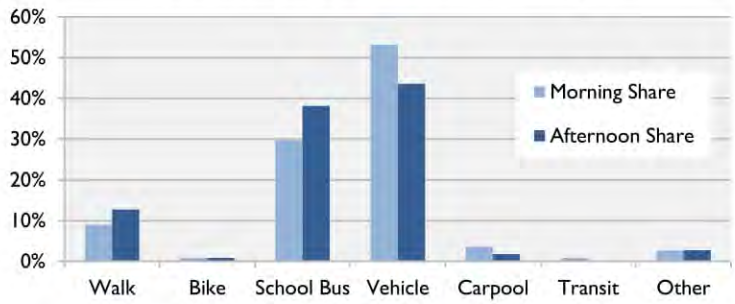
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

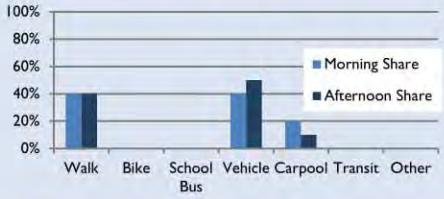


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

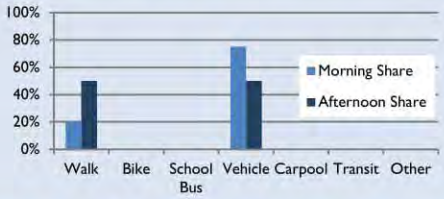
10%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Time – 50%
Distance – 40%
Convenience of Driving – 40%
Participation in After-School Programs – 40%
Safety of Intersections or Crossings – 30%

Students Living Between ¼ and ½ Mile from School

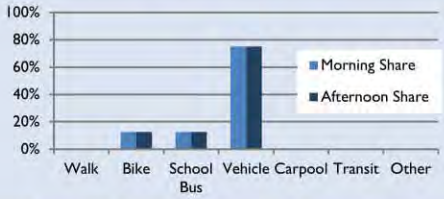
5%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 60%
Violence or Crime – 60%
Weather or Climate – 60%
Time – 40%
Amount of Traffic Along Route – 40%

Students Living Between ½ and 1 Mile from School

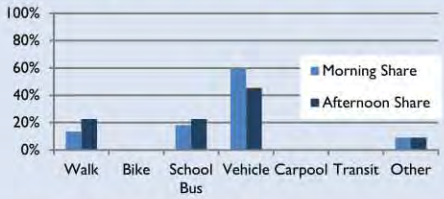
8%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 38%
Time – 25%
Participation in After-School Programs – 25%
Sidewalks or Pathways – 25%
Violence or Crime – 25%

Students Living Between 1 and 2 Miles from School

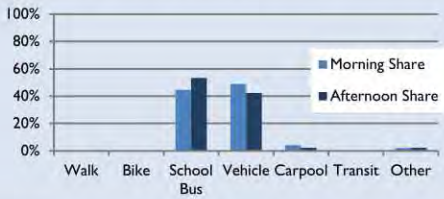
26%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 40%
Distance – 28%
Safety of Intersections or Crossings – 24%
Convenience of Driving – 20%
Weather or Climate – 20%

Students Living Farther than 2 Miles from School

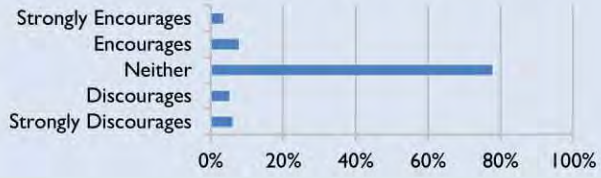
50%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 58%
Time – 38%
Participation in After-School Programs – 29%
Weather or Climate – 29%
Violence or Crime – 27%

Parents' Perspectives

Whether School Encourages Walking/Biking



62%
consider walking/biking healthy or very healthy.

37%
would not feel comfortable having their child walk/bike at any age with current conditions.

BARSTOW HIGH SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - Barstow
School Enrollment - 1409
Free or Reduced Lunch - 68.80%

Environmental Indicators:

Cal Enviro Score % Range - 91-95%
Cal Enviro Score (CES2.0*) - 54.51

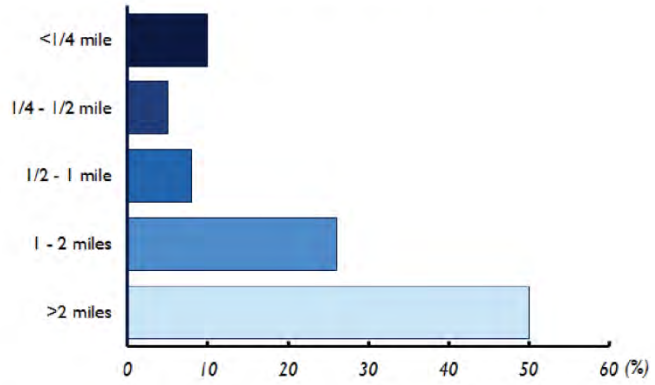
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 14
# of Surveys Received - 120

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

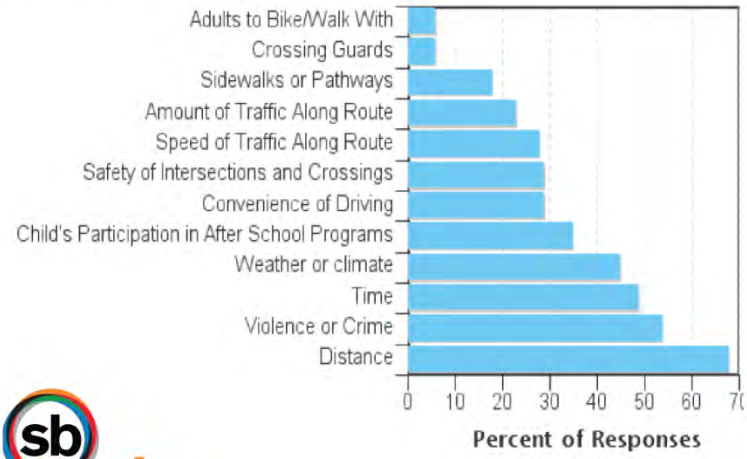
1 within 1/4 mile
7 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



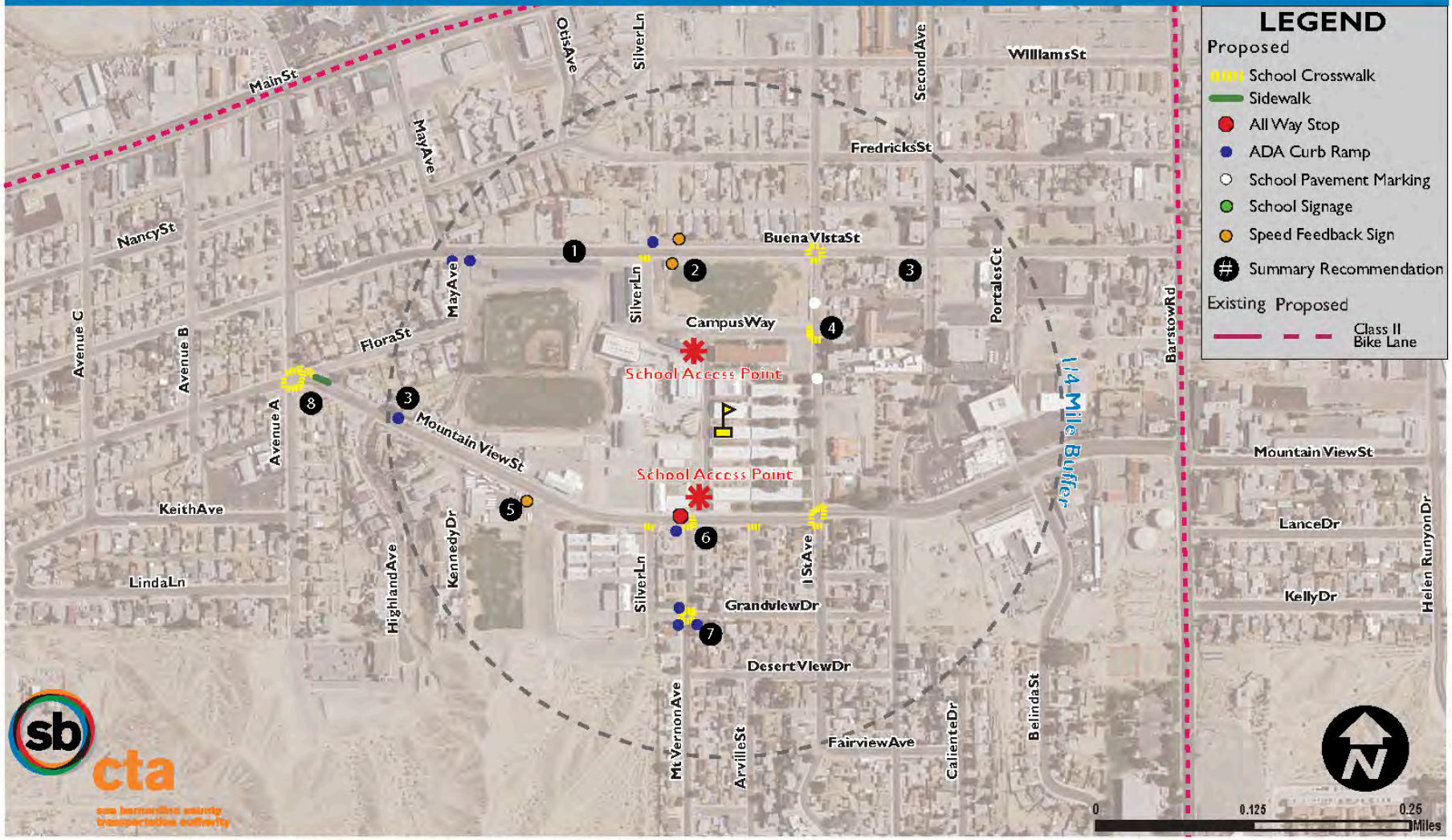
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	*afternoon*
walk	9%	13%
bike	0.9%	0.9%
bus	30%	38%
vehicle	53%	44%
carpool	4%	2%
transit	0.9%	0%
other	3%	3%

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

SBCTA SRTS PHASE II: *BARSTOW HIGH SCHOOL, BARSTOW*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Buena Vista Street:* Restripe coorridor to include Class II Bike Lane. Install ADA compliant curb ramps at intersections with May Ave and with Silver Lane.
2. *Buena Vista Street:* Install speed feedback sign for both westbound and eastbound traffic.
3. Ensure sidewalk is ADA compliant, i.e. raised sidewalk or hydrant placement recommended to be altered.
4. *1st Street:* Install bulbouts at school crossing for south leg. Repaint school pavement markings leading towards school crossing that read, "SLOW SCHOOL XING."
5. *Mountain View Street:* Install speed feedback sign for eastbound traffic
6. *Mountain View Street and Mt. Vernon Avenue:* Install an all way STOP if warrant is met. Install an ADA compliant curb ramp on the SW corner.
7. *Mt. Vernon Avenue and Grandview Drive:* Install ADA compliant curb ramps at NW, SW, and SE curbs as well as depicted crosswalk restriping with high visibility ladder style crosswalk.
8. *Mountain View Street at Avenue A:* Realign Flora Street by providing bulbouts and install missing sidewalk to complete the gaps. Remove existing crosswalks on west leg and southeast leg. Replace existing school crosswalks at north and south legs with high visibility ladder crosswalks and install new crosswalk at east leg of Avenue A and Mountainn View Street.

Background/Discussion of the Engineering Recommendations

	Recommendation #	Location	Improvement	Background/Discussion
Barstow High School	1	**Buena Vista Street**	ADA curb ramps, Class II Bike Lane	The improvements are along primary walking route to and from school (noted during field observation). The addition of bike lane promotes riding to and from school per comments received via the survey process. See item below, "General - ADA curb ramps."
	2	**Buena Vista Street**	Speed feedback signs	The improvements address comments received during walk audit observation regarding high speeds in front of the school.
	3	**Mountain View Street/Buena Vista Street**	Sidewalk	See item below, "General - Sidewalk."
	4	**1st Street**	Bulbouts, school pavement markings	The improvements at school crossing are along primary walking route and shorten crossing distance at heavily used crossings. Improvements to school pavement markings adhere to CA MUTCD Part 7 regarding traffic control for schools.
	5	**Mountain View Street**	Speed feedback sign	The improvements address comments received during walk audit observation regarding high speeds in front of the school.
	6	**Mountain View Street at Mt. Vernon Avenue**	All-Way Stop, ADA curb ramps	The engineering recommendation made at this intersection used to respond to comments during walk audit regarding speeds and safety along Mountain View Street. See below, "General - ADA curb ramps."
	7	**Mt. Vernon Avenue at Grandview Drive**	ADA curb ramps, high visiblity crosswalk	See item below, "General - ADA curb ramps." These suggested improvements provide clearer walking routes from neighborhoods south of the school and can alert drivers of pedestrians in the area.
	8	**Mountain View Street at Avenue A**	Street realignment, bulbouts, sidewalk, high visiblity crosswalks	These improvements create clearer paths for pedestrians and vehicular traffic alike, per comments made during walk audit. Bulbouts shorten the crossing distance for pedestrians walking along this route. High visibility crosswalks improve the conditions along primary walking route to school, and can alert drivers of pedestrians in the area. See item below, "General - Sidewalk."
	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 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 Barstow High School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Buena Vista St.	Speed Awareness Sign	Each	$14,490	2	$28,980
	High Visibility Ladder Crosswalk	Each	$1,788	3	$5,364
	ADA Curb Ramps	Each	$3,623	3	$10,868
	Segment Total				**$45,212**
Mountain View St.	Existing Roadway Striping Removal (Sand Blast)	Per Linear Foot	$6	42	$254
	Speed Awareness Sign	Each	$14,490	1	$14,490
	High Visibility Ladder Crosswalk	Each	$1,788	10	$17,880
	ADA Curb Ramps	Each	$3,623	1	$3,623
	Curb Extension - Raised	Per Intersection	$87,766	0.25	$21,942
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	65	$3,375
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	55	$1,992
	Segment Total				**$63,555**
Mt. Vernon Ave.	High Visibility Ladder Crosswalk	Each	$1,788	5	$8,940
	ADA Curb Ramps	Each	$3,623	3	$10,868
	Segment Total				**$19,808**
S. 1st Ave.	School Area Pavement Marking (Per Word)	Each	$254	6	$1,521
	High Visibility Ladder Crosswalk	Each	$1,788	6	$10,728
	Curb Extension - Raised	Per Intersection	$87,766	0.75	$65,825
	Segment Total				**$78,074**
ALL SEGMENTS					**$206,649**

City of Big Bear Lake

Big Bear Elementary School

Big Bear Elementary School is a Bear Valley Unified School District (BVUSD) school located in a low-density residential neighborhood. The school is positioned at the corner of Pennsylvania Avenue and Knickerbocker Road about 0.25 miles south of Big Bear Boulevard, the closest major arterial roadway. The walk audit performed at Big Bear Elementary School was held during the afternoon, prior to the afternoon release bell ringing, at 12:30PM on May 16, 2017. A classroom was used as the staging area for the participants where briefing and de-briefing sessions were conducted. Observations with 14 participants extended into the neighborhood surrounding the school, along Pennsylvania Avenue, Village Drive, and Knickerbocker Road.

"I prefer to take my child to school and home so I know she is safe. Too much can happen in a short time without adult supervision."

"More sidewalks are needed all over Big Bear. Also if there were sidewalks they would need to be cleared of snow in the winter. It's very unsafe to walk on narrow snowy roads."

"My child is too far from school to walk or bike."

All remarks received from walk audit participants at Big Bear Elementary

SafeRoutes
National Center for Safe Routes to School

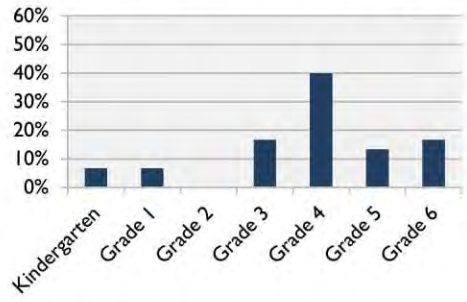
Number of Surveys Received	34

Data source: KOA Corporation, processed by the National Center for Safe Routes to School. Data and figures accurate as of Spring 2017.

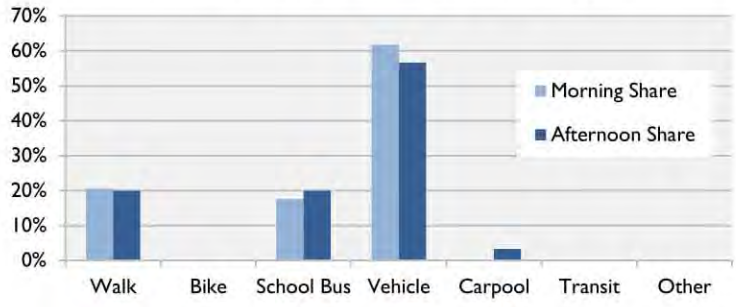
Surveys were printed on two-page forms and distributed to parents to take home. Tally data are not available for this school.

Students who walk or bike to school	**12.9%**
Students who don't walk/bike but have asked parents for permission	**+ 25.8%**
Students who walk/bike or have asked parents for permission	**38.7%**
Student enrollment	**x 300**
Potential walking/biking student base	**116**

Grade Distribution of Surveys

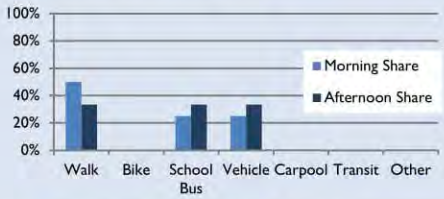


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

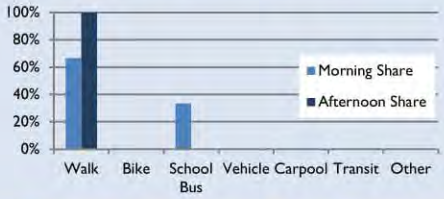
13%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 50%
Amount of Traffic Along Route – 50%
Sidewalks or Pathways – 50%
Safety of Intersections & Crossings – 50%
Distance – 25%

Students Living Between ¼ and ½ Mile from School

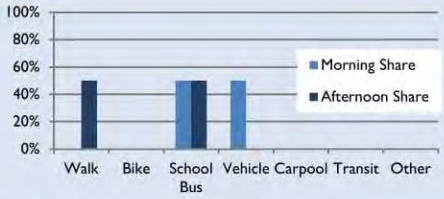
10%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 67%
Time – 67%
Amount of Traffic Along Route – 67%
Sidewalks or Pathways – 67%
Safety of Intersections & Crossings – 67%

Students Living Between ½ and 1 Mile from School

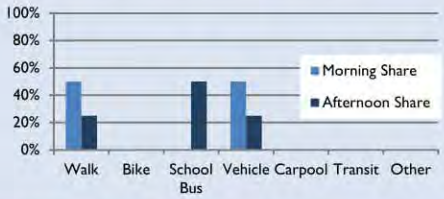
6%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 50%
Safety of Intersections & Crossings – 50%
Weather or Climate – 50%
(No other issues ranked.)

Students Living Between 1 and 2 Miles from School

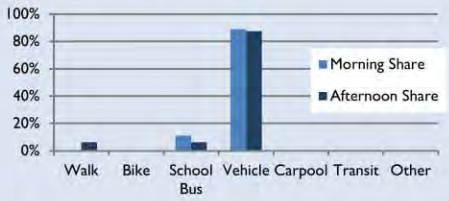
13%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 50%
Adults to Walk/Bike With – 25%
Safety of Intersections & Crossings – 25%
Violence or Crime – 25%
(No other issues ranked.)

Students Living Farther than 2 Miles from School

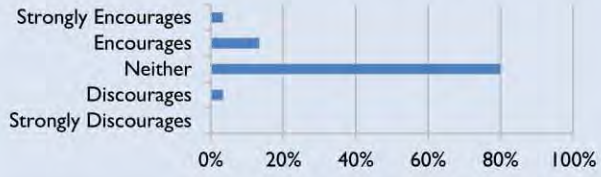
58%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 61%
Weather or Climate – 44%
Violence or Crime – 39%
Time – 33%
Speed of Traffic Along Route – 33%

Parents' Perspectives

Whether School Encourages Walking/Biking



74%
consider walking/biking healthy or very healthy.

38%
would not feel comfortable having their child walk/bike at any age with current conditions.

BIG BEAR ELEMENTARY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Big Bear Lake
School Enrollment - 300
Free or Reduced Lunch - 61.30%

Environmental Indicators:

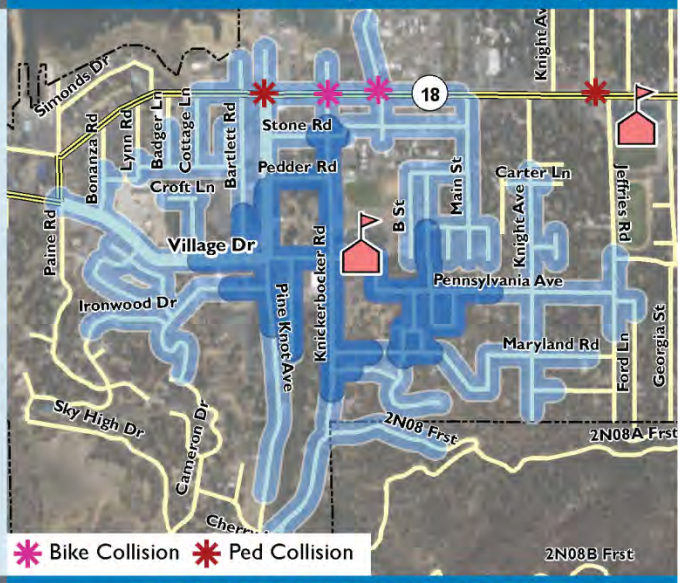
Cal Enviro Score % Range - 61-65%
Cal Enviro Score (CES2.0*) - 30.32

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

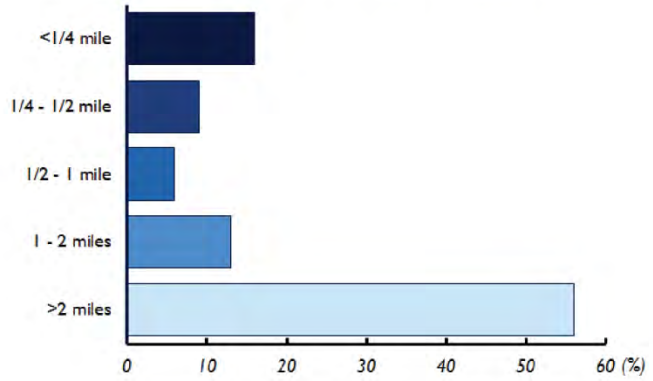
Walk Audit Highlights

of Walk Audit Participants - 13
# of Surveys Received - 35

WALKSHED *(1/4 and 1/2 mile)*



COMMUTE DISTANCE (%)



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

COLLISION ANALYSIS

Pedestrian Related Collisions

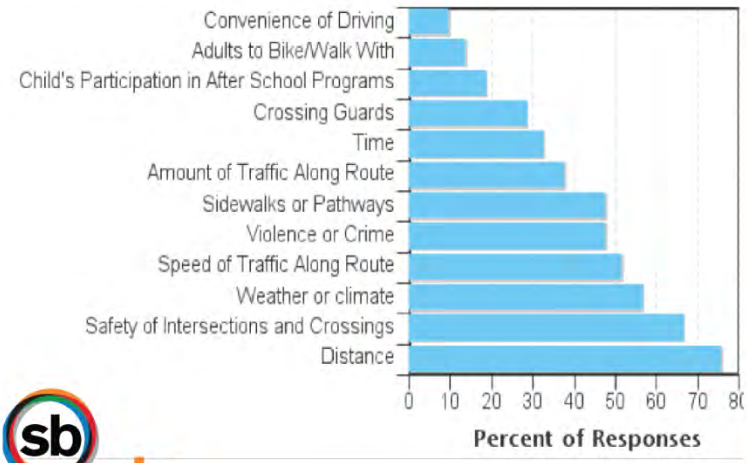
1 within 1/4 mile
3 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sbcta
san bernardino county transportation authority

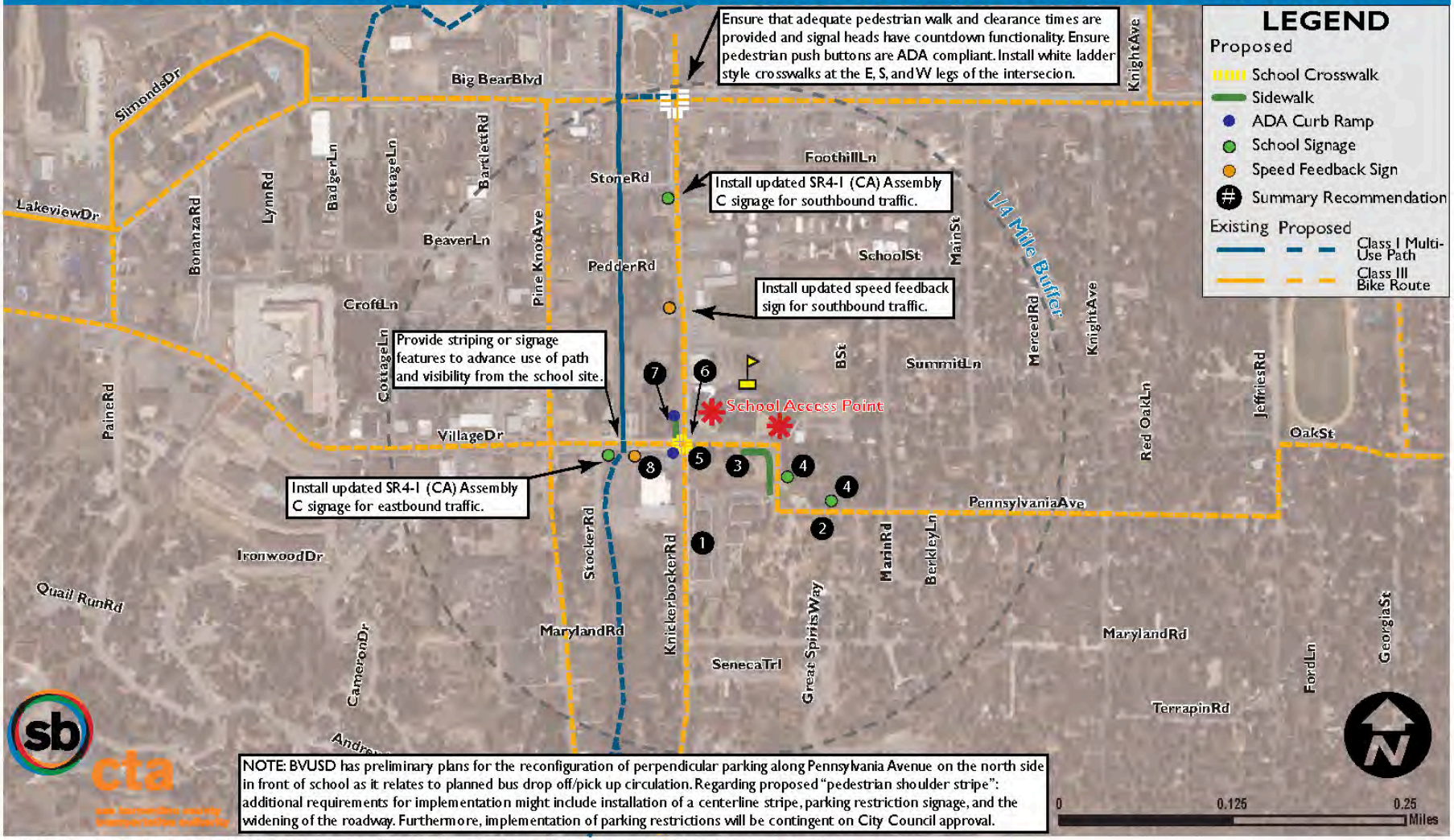
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	23%	23%
bike	0%	0%
bus	17%	19%
vehicle	60%	55%
carpool	0%	3%
transit	0%	0%
other	0%	0%

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

SBCTA SRTS PHASE II: *BIG BEAR ELEMENTARY SCHOOL, BIG BEAR LAKE*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Knickerbocker Road:* Install Class III painted roadway "sharrows" and/or refurbish existing. Install R117 (CA) and/or R4-11 signs along route.
2. *Pennsylvania Avenue:* Install 5 ft pedestrian shoulder stripe between school site and extending east to Knight Avenue. Install Class III painted roadway "sharrows" and/or refurbish existing. Install R117 (CA) and/or R4-11 signs along route. Install centerline stripe for curved sections of roadway adjacent to school.
3. *Owen Street:* Coordinate with City to develop an agreement to utilize parking for school drop off and pickup.
4. *Pennsylvania Avenue:* Install SW24-1 (CA) Assembly A signage for westbound traffic and Install SR4-1 (CA) Assembly C signage for northbound traffic along Pennsylvania Avenue. Install heightened time of day flashers above both sign to operate during school hours. Ensure signage is positioned to be resistance to heavy snow fall.
5. *Knickerbocker Road & Pennsylvania Avenue:* Repaint STOP legends and bars for all approaches. Ensure R1-1 signs are properly positioned. Install yellow high visibility ladder style crosswalks on all legs of intersection. Install ADA compliant curb ramp on the SW curb.
6. *Knickerbocker Road & Pennsylvania Avenue:* (NE drop off triangle) Eliminate the two lanes of pick up/drop off closest to the NE curb of the intersection and install raised pedestrian median in place of vehicle area.
7. *Knickerbocker Road:* Install sidewalk, curb and gutter at this location. Provide wood fencing to buffer between pedestrians and vehicular traffic. Install ADA compliant curb ramps.
8. *Pennsylvania Avenue:* Install Class III painted roadway "sharrows" and/or refurbish existing. Install R117 (CA) and/or R4-11 signs along route. Install pedestrian shoulder stripe for south side of Village Drive where sidewalk is lacking. Install "No Parking" signage in this area. Install updated speed feedback sign for eastbound traffic.

Background/Discussion of the Engineering Recommendations

Big Bear Elementary School

Recommendation #	Location	Improvement	Background/Discussion
1	**Knickerbocker Road**	Bicycle infrastructure	Improvements are located along primary walking and biking route to school (noted during field observations). Engineering recommendations respond to comments received during the walk audit and provide greater visibility for those bicycling along the corridor.
2	**Pennsylvania Avenue**	Pedestrian and bicycle infrastructure	Improvements adress school-wide survey comments, regarding a lack of sidewalk. Recommendations increase pedestrian and bicyclist right of way along primary walking and biking route to school (noted during field observation).
3	**Owen Street**	Parking lot use agreement	In response to walk audit participant comments, a parking facility could provide an area separated from the roadway for students to be picked up.
4	**Pennsylvania Avenue**	School signage	The recommendations adhere to MUTCD Part 7 guidelines to attempt to increase driver awareness of the school zone along primary walking and biking route to school (noted during field observation).
5	**Knickerbocker Road & Pennsylvania Avenue**	Pavement markings, school signage, high visibility ladder style crosswalk, and ADA curb ramp	Improvements are located at an intersection along the primary walking route to school (noted during field observation) aimed at increasing pedestrian visibility within a crosswalk. Location was identified by walk audit participants and school-wide surveying as a focus intersection. See below, "General - ADA curb ramps."
6	**Knickerbocker Road & Pennsylvania Avenue**	Pick up/drop off configuration	Engineer recommendations aim to tapper the drop off/pick up triangle down to two lanes to adhere to concerns received from the walk audit participants. The drop off/pick up triangle is located along a primary walking route to school and a key entrance/exit into the school building (as noted during field observations).
7	**Knickerbocker Road**	Sidewalk and ADA curb ramp	See below, "General - Sidewalk and ADA curb ramps."
8	**Pennsylvania Avenue**	Pedestrian and bicycle infrastructure	Improvements respond to school-wide survey comments, regarding a lack of sidewalk. Recommendations increase pedestrian and bicyclist right of way along primary walking and biking route to school (noted during field observation).
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 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 Big Bear Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Knickerbocker Rd.	Bike Route with Sharrows & Signs (2 sides)	Per Linear Foot	$4	2793	$11,172
	Speed Awareness Sign	Each	$14,490	1	$14,490
	New Sign on Post	Each	$181	1	$181
	School Area Pavement Marking (Per Word)	Each	$254	4	$1,014
	High Visibility Ladder Crosswalk	Each	$1,788	2	$3,576
	ADA Curb Ramps	Each	$3,623	2	$7,245
	Standard Crosswalks	Each	$497	3	$1,491
	Asphalt Curb (1 Side of Street)	Per Linear Foot	$17	187	$3,161
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	72	$3,738
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	72	$2,608
	Segment Total				**$48,677**
Pennsylvania Ave. / Village Dr.	Bike Route with Sharrows & Signs (2 sides)	Per Linear Foot	$4	3049	$12,196
	Dashed 4" Yellow Centerline Stripe (Detail 2)	Per Linear Foot	$2	272	$493
	Pedestrian Flashing Beacon (Post/Pole Mount)	Each	$9,056	2	$18,113
	Speed Awareness Sign	Each	$14,490	1	$14,490
	New Sign on Post	Each	$181	1	$181
	High Visibility Ladder Crosswalk	Each	$1,788	2	$3,576
	Shoulder Stripe (Both Sides)	Per Linear Foot	$2	1945	$3,758
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	444	$23,054
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	444	$16,084
	Segment Total				**$91,944**
ALL SEGMENTS					**$140,621**

Big Bear Middle School

Big Bear Middle School is a Bear Valley Unified School District (BVUSD) school located on a low-density commercial corridor. The school is situated along Big Bear Boulevard between Jeffries Road and Georgia Street. Held on May 4, 2017, the Big Bear Middle School walk audit began at 12:00PM prior to the afternoon release bell. Participants were briefed inside the cafeteria as well as in front of the school. There were a total of eight participants engaged in the walk audit who along with consultant team members observed conditions on Big Bear Boulevard, Jeffries Road, and Georgia Street.

"My boy loves riding his bike to school but I feel the roads are not safe at all."

"Next year my student will be in high school and the lack of sidewalks is a big concern especially in the snow conditions."

"I live a half mile from the bus stop and if there was a place to chain bikes up my children would ride their bikes to the bus stop."

All remarks received from walk audit participants at Big Bear Middle

SafeRoutes
National Center for Safe Routes to School

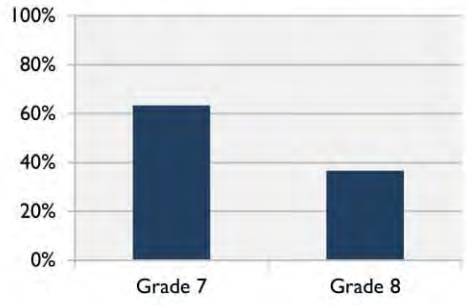
Number of Surveys Received	60

Data source: KOA Corporation, processed by the National Center for Safe Routes to School. Data and figures accurate as of Spring 2017.

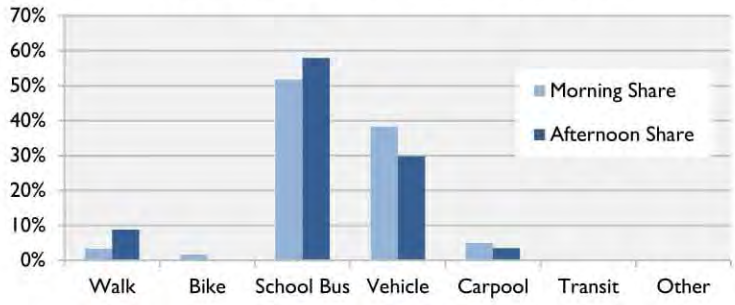
Surveys were printed on two-page forms and distributed to parents to take home. Tally data are not available for this school.

Students who walk or bike to school	**8.5%**
Students who don't walk/bike but have asked parents for permission	**+ 23.7%**
Students who walk/bike or have asked parents for permission	**32.2%**
Student enrollment	**x 364**
Potential walking/biking student base	**117**

Grade Distribution of Surveys

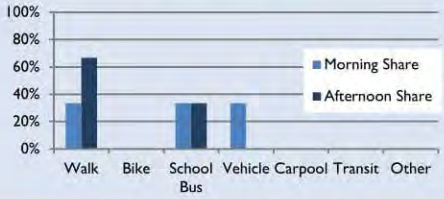


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

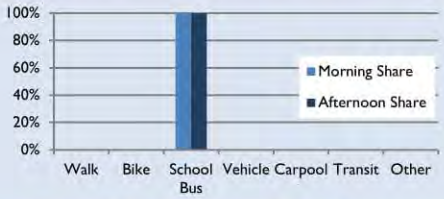
5%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 67%
Participation in After-School Programs – 67%
Weather or Climate – 67%
Time – 33%
Speed of Traffic Along Route – 33%

Students Living Between ¼ and ½ Mile from School

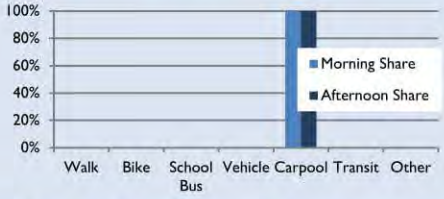
2%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
(No issues ranked.)

Students Living Between ½ and 1 Mile from School

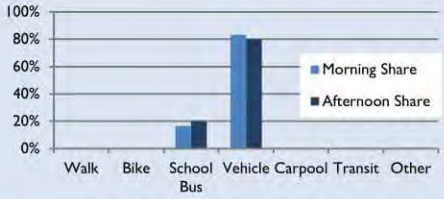
4%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Convenience of Driving – 50%
Participation in After-School Programs – 50%
Speed of Traffic Along Route – 50%
Amount of Traffic Along Route – 50%
Safety of Intersections & Crossings – 50%

Students Living Between 1 and 2 Miles from School

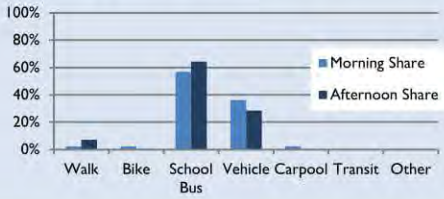
11%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Amount of Traffic Along Route – 33%
Safety of Intersections & Crossings – 33%
Weather or Climate – 33%
Convenience of Driving – 17%
Participation in After-School Programs – 17%

Students Living Farther than 2 Miles from School

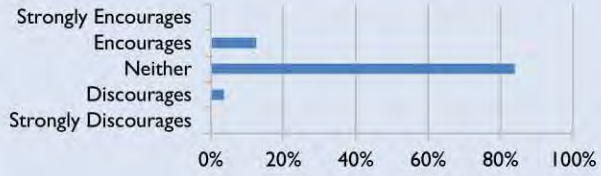
79%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 70%
Weather or Climate – 59%
Speed of Traffic Along Route – 43%
Amount of Traffic Along Route – 36%
Safety of Intersections & Crossings – 32%

Parents' Perspectives

Whether School Encourages Walking/Biking



76%
consider walking/biking healthy or very healthy.

33%
would not feel comfortable having their child walk/bike at any age with current conditions.

BIG BEAR MIDDLE SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Big Bear Lake
School Enrollment - 364
Free or Reduced Lunch - 68.20%

Environmental Indicators:

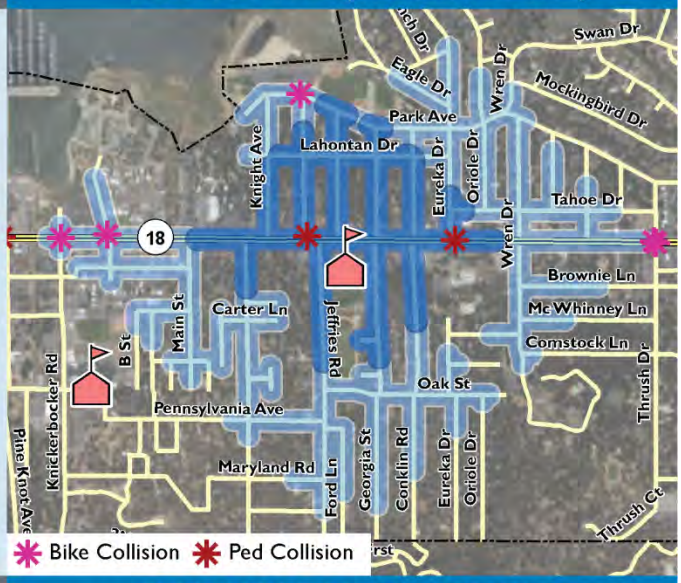
Cal Enviro Score % Range - 61-65%
Cal Enviro Score (CES2.0*) - 30.32

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

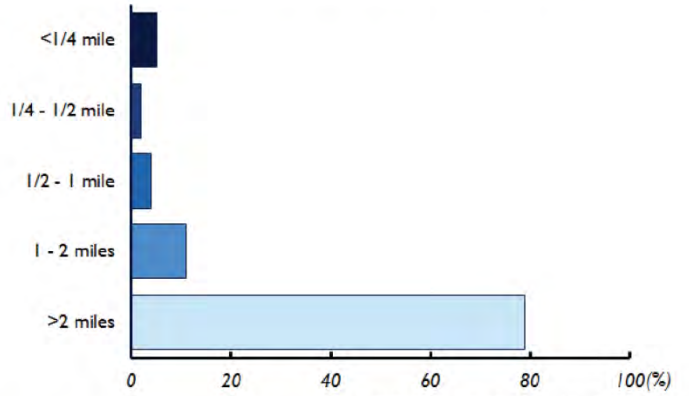
Walk Audit Highlights

of Walk Audit Participants - 8
# of Surveys Received - 60

WALKSHED *(1/4 and 1/2 mile)*



COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

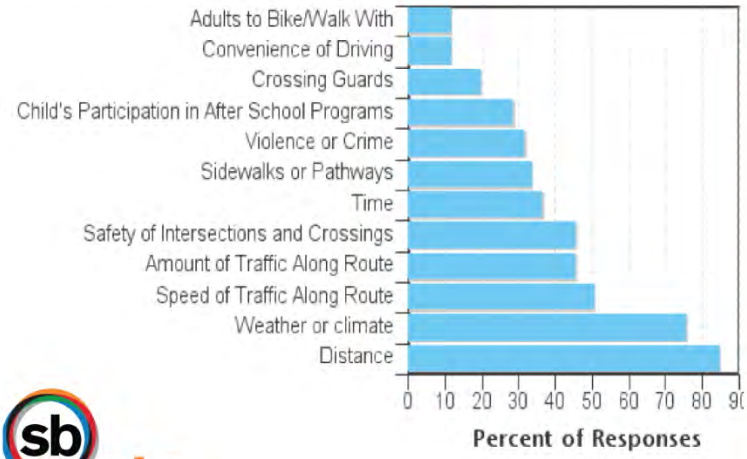
2 within 1/4 mile
3 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



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

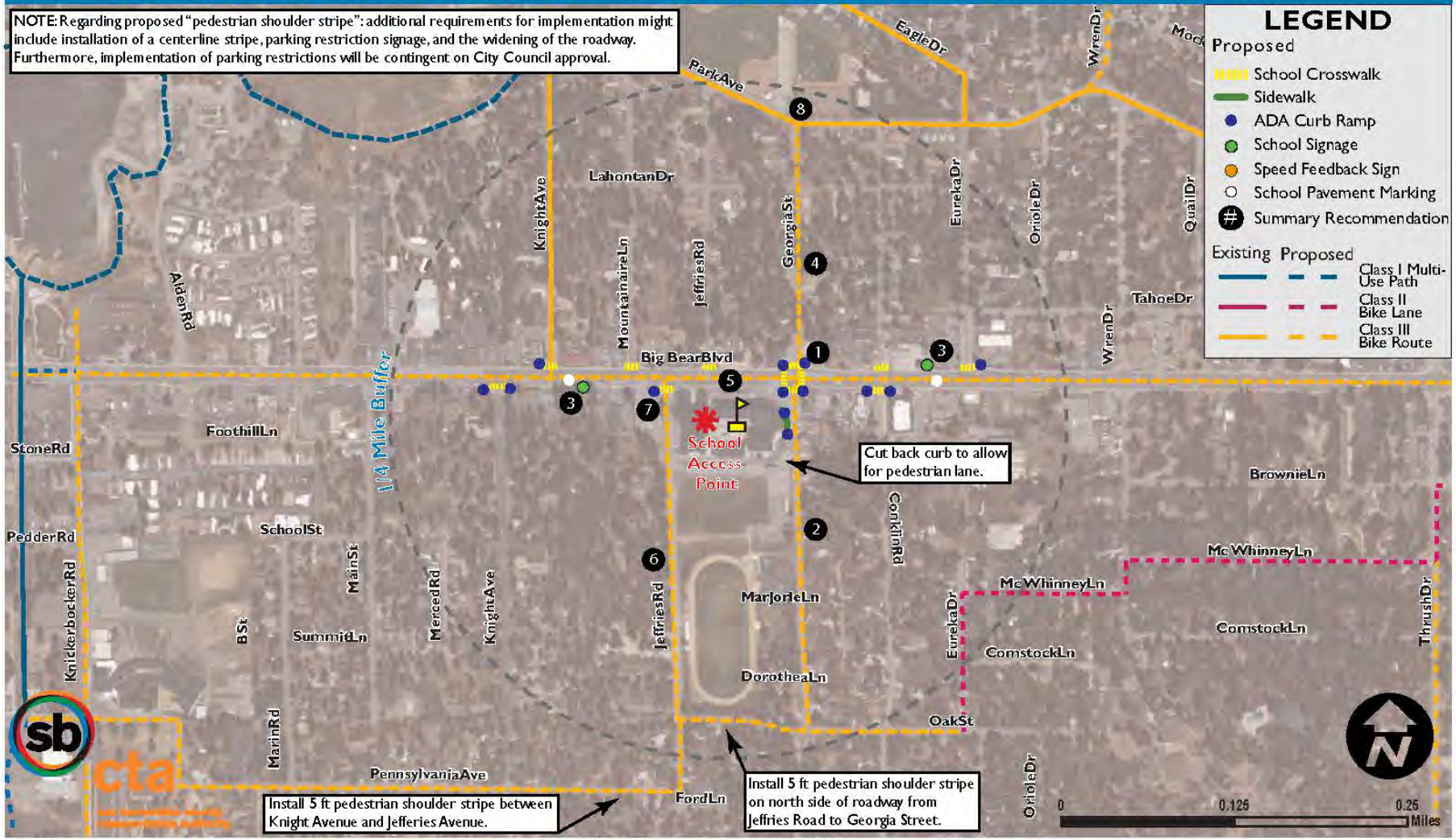
TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	3%	9%
bike	2%	0%
bus	52%	58%
vehicle	38%	30%
carpool	5%	4%
transit	0%	0%
other	0%	0%

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

sb cta
san bernardino county transportation authority

SBCTA SRTS PHASE II: *BIG BEAR MIDDLE SCHOOL, BIG BEAR LAKE*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Big Bear Blvd & Georgia St:* Install yellow high visibility ladder style crosswalks at each leg and ADA compliant curb ramps. Ensure signal timing provides adequate clearance times for pedestrians and the pedestrian signal heads have coutdown functionality and are ADA compliant.
2. *Georgia Street:* Refurbish on street "Sharrow: pavement markings for the Class III Bike Route. Install R117 (CA) and/or R4-11 signs. Install 5 ft pedestrian shoulder stripe from Big Bear Blvd to Oak St on west side of roadway.
3. *Big Bear Blvd* Install mast arm for westbound traffic approaching school zone. Install time of day flashers for signs on mast arm during school hours. Install updated SR4-1 (CA) Assembly C sign on the proposed mast arm.
4. *Georgia Street:* Install sidewalk on east side of roadway OR depending on adverse weather and snow plow/ROW - install pedestrian shoulder stripe on both sides of roadway between Big Bear Blvd and Park Ave (sidewalk to be installed within same extents.)
5. *Big Bear Blvd:* Install Class III route on both sides of roadway for 1 mile in each direction of school. Install pavement "sharrow" markings. Install R117 (CA) signs and/or R4-11 signs.
6. *Jeffries Road:* Refurbish on street "Sharrow: pavement markings for the Class III Bike Route. Install R117 (CA) and/or R4-11 signs. Install 5 ft pedestrian shoulder stripe from Big Bear Blvd to Pennsylvania Ave on east side.
7. *Big Bear Blvd & Jeffries Road:* Improve pedestrian access to existing parking lot to the west of campus with striped walking areas into lot. Restripe STOP legend and bar for northbound traffic and install high visibility ladder style crosswalk on the south leg. Install ADA compliant curb ramp on the SW corner.
8. *Big Bear Blvd & Jeffries Road:* Install pedestrian shoulder stripe on south side of Park Avenue extending 1/2 miles east and west of Georgia Street.

Background/Discussion of the Engineering Recommendations

	Recommendation #	Location	Improvement	Background/Discussion
Big Bear Middle School	1	Big Bear Blvd. & Georgia St.	High visibility ladder style crosswalk, ADA curb ramps, and signal timing	Improvements are located at a popular intersection and primary walking route to school (noted during field observation). Engineer recommendations are implemented to respond to comments received during walk audit and school-wide surveying regarding vehicular behavior. See below - "General - ADA curb ramps."
	2	Georgia Street	Bicycle infrastructure: Class III	Engineering recommendations respond to comments received during the walk audit and school-wide surveying to provide greater visibility for those bicycling along the corridor. Improvements are located along a primary route to school (noted during field observations).
	3	Big Bear Blvd.	School signage and mast arm flashers	The improvements are located along primary walking/biking route to school, where two pedestrian and two bicycle related collisions took place. The recommendations adhere to MUTCD Part 7 guidelines to increase driver awareness of school zone along primary walking route to school (noted during field observation).
	4	Georgia Street	Pedestrian infrastructure	See below, "General - Sidewalk." Improvements aim to provide increased pedestrian right of way, responding to walk audit participant comments. Improvements are located along primary walking route to school (noted during field observation).
	5	Big Bear Blvd.	Pedestrian and bicycle infrastructure	Engineer improvements consider the two bicycle and two pedestrian collisions, with a focus on improving the right of way for pedestrians and bicyclists along the primary route to school. Recommendations respond to school-wide survey comments and walk audit participant comments received during field observation.
	6	Jeffries Road	Bicycle infrastructure: Class III	Along primary route to school (noted during field observations) engineering recommendations respond to comments that were received during the walk audit and school-wide surveying to provide greater visibility for those bicycling along the corridor.
	7	Big Bear Blvd. & Jeffries Road	High visibility ladder style crosswalk, and ADA curb ramps	Improvements are located along primary walking/biking route to school, where two pedestrian and two bicycle related collisions took place. See below, "General - ADA curb ramps."
	8	Big Bear Blvd. & Jeffries Road	Pedestrian shoulder stripe	Walk audit comments and school-wide surveying focus improvements to be located along primary walking/biking route to school, where one bicycle related collisions took place.
	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 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 Big Bear Middle School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Big Bear Blvd.	Bike Route with Sharrows & Signs (2 sides)	Per Linear Foot	$4	10560	$42,240
	School Area Pavement Marking (Per Word)	Each	$254	8	$2,029
	High Visibility Ladder Crosswalk	Each	$1,788	10	$17,880
	ADA Curb Ramps	Each	$3,623	11	$39,848
	Mast Arm Mounted School Zone Flasher/Sign	Each	$20,528	2	$41,055
	Segment Total				**$143,051**
Georgia St.	Bike Route with Sharrows & Signs (2 sides)	Per Linear Foot	$4	1343	$5,372
	ADA Curb Ramps	Each	$3,623	3	$10,868
	Shoulder Stripe (Both Sides)	Per Linear Foot	$2	2307	$4,457
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	118	$6,127
	Segment Total				**$26,823**
Jeffries Rd.	Bike Route with Sharrows & Signs (2 sides)	Per Linear Foot	$4	1568	$6,272
	Shoulder Stripe (Both Sides)	Per Linear Foot	$2	1568	$3,029
	Segment Total				**$9,301**
Park Ave.	Bike Route with Sharrows & Signs (2 sides)	Per Linear Foot	$4	5280	$21,120
	Shoulder Stripe (Both Sides)	Per Linear Foot	$2	2640	$5,100
	Segment Total				**$26,220**
Oak St.	Bike Route with Sharrows & Signs (2 sides)	Per Linear Foot	$4	484	$1,936
	Shoulder Stripe (Both Sides)	Per Linear Foot	$2	484	$935
	Segment Total				**$2,871**
Pennsylvania Ave.	Bike Route with Sharrows & Signs (2 sides)	Per Linear Foot	$4	671	$2,684
	Shoulder Stripe (Both Sides)	Per Linear Foot	$2	671	$1,296
	Segment Total				**$3,980**
ALL SEGMENTS					**$212,246**

City of Chino Hills

Glenmeade Elementary School

Glenmeade Elementary School is a Chino Valley Unified School District (CVUSD) school that is located in a low-density residential area of Chino Hills, California. The school is positioned along Whirlaway Lane at the intersection with Determined Way, with the closest major arterial roadway (Chino Hills Parkway) located 0.25 mile to the north. The walk audit was held during a back-to-school night event from 4:00PM to 6:00PM where the SRTS team facilitated conversation with over 16 participants to identify areas of concern in the surrounding neighborhood. Observations extended into the surrounding neighborhood along Whirlaway Lane, Determined Way, Aqueduct Lane, Rolling Ridge Drive, and Terrace Drive.

"Rolling Ridge Drive is my main concern for students walking and biking to school. Drivers consistently drive at speeds of 45 to 50 mph."

"I will never let my students walk home or to school due to the amount of bad people in this world!"

"We wouldn't mind walking her to school, we are just short on time, hence why we drive her. We would never let her walk alone though."

**All remarks received from walk audit participants at Glenmeade Elementary **

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	239
Number of Tallies	1,291
» Morning (To School)	646
» Afternoon (From School)	645

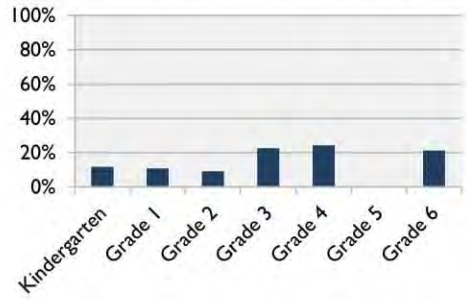
Number of Surveys Received	118

Data source: KOA Corporation, processed by the National Center for Safe Routes to School. Data and figures accurate as of Fall 2016.

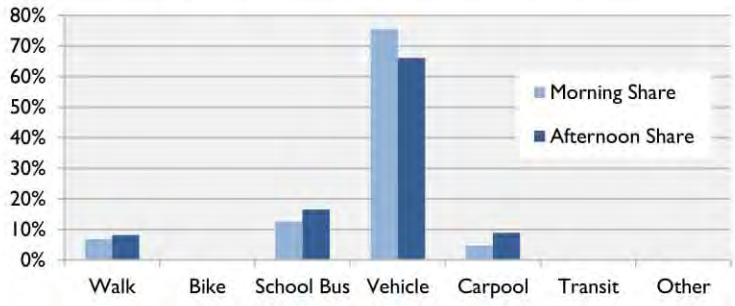
Tallies were conducted by teachers in nine classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to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

Students who walk or bike to school	**7.0%**
Students who don't walk/bike but have asked parents for permission	**+ 16.7%**
Students who walk/bike or have asked parents for permission	**23.7%**
Student enrollment	**x 517**
Potential walking/biking student base	**123**

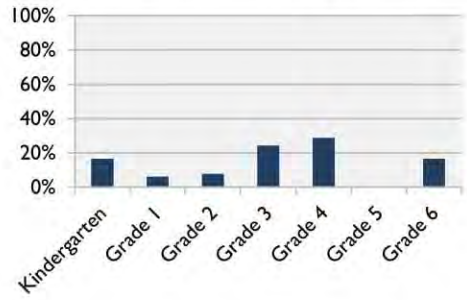
Grade Distribution of Tallies



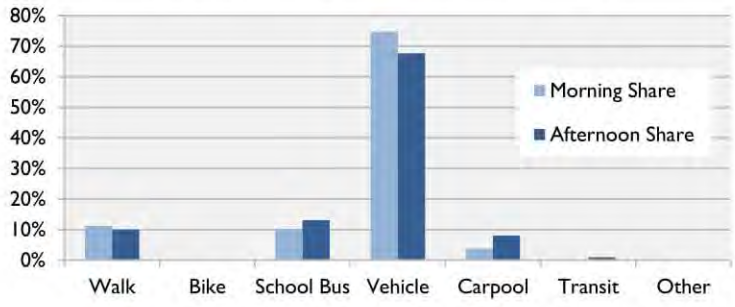
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

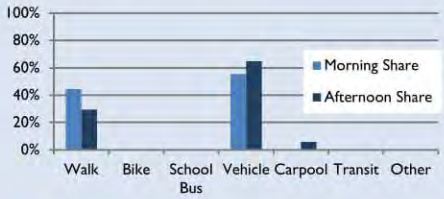


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

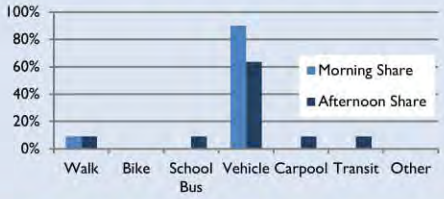
18%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 42%
Safety of Intersections & Crossings – 37%
Amount of Traffic Along Route – 21%
Speed of Traffic Along Route – 16%
Adults to Walk/Bike With – 16%

Students Living Between ¼ and ½ Mile from School

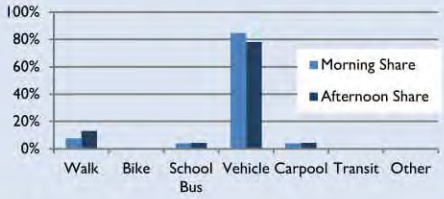
10%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 36%
Speed of Traffic Along Route – 7%
Amount of Traffic Along Route – 27%
Safety of Intersections & Crossings – 27%
Convenience of Driving – 18%

Students Living Between ½ and 1 Mile from School

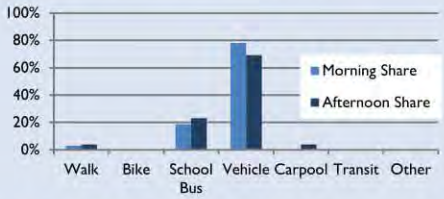
30%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 53%
Safety of Intersections & Crossings – 50%
Speed of Traffic Along Route – 41%
Amount of Traffic Along Route – 34%
Violence or Crime - 345

Students Living Between 1 and 2 Miles from School

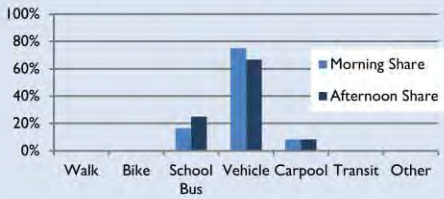
30%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 44%
Safety of Intersections & Crossings – 38%
Weather or Climate – 34%
Time – 25%
Violence or Crime – 25%

Students Living Farther than 2 Miles from School

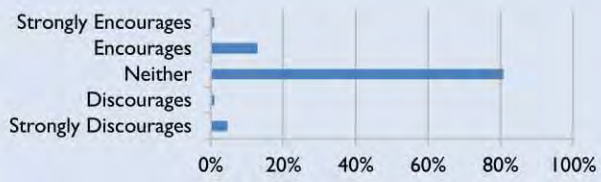
12%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 58%
Safety of Intersections & Crossings – 50%
Speed of Traffic Along Route – 42%
Amount of Traffic Along Route – 42%
Time – 33%

Parents' Perspectives

Whether School Encourages Walking/Biking



75%
consider walking/biking healthy or very healthy.

56%
would not feel comfortable having their child walk/bike at any age with current conditions.

GLENMEADE ELEMENTARY - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Chino Hills
School Enrollment - 517
Free or Reduced Lunch - 60.50%

Environmental Indicators:

Cal Enviro Score % Range - 46-50%
Cal Enviro Score (CES2.0*) - 24.9

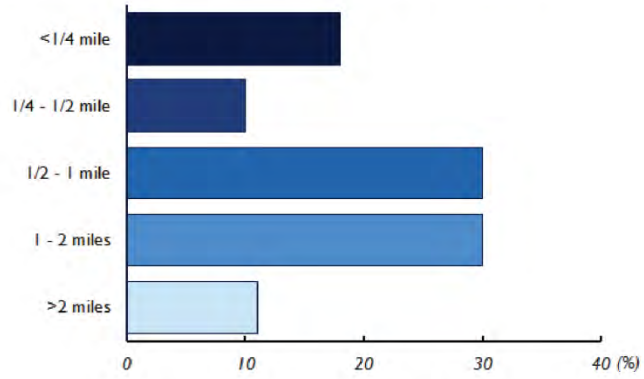
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 15
# of Surveys Received - 119

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

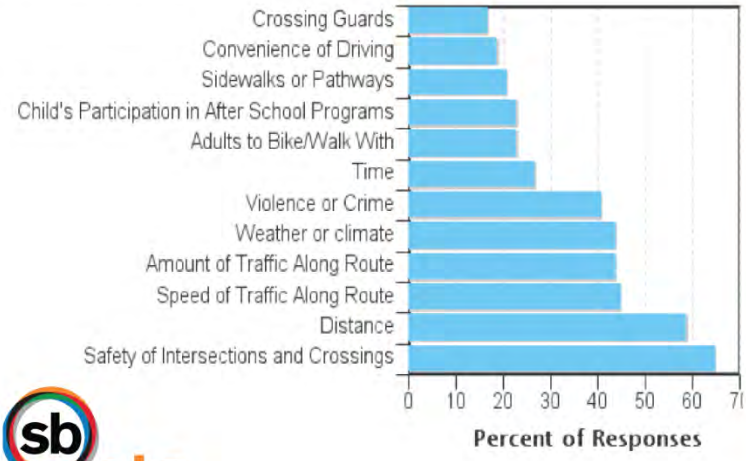
3 within 1/4 mile
7 within 1/2 mile
2 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sbcta
san bernardino county transportation authority

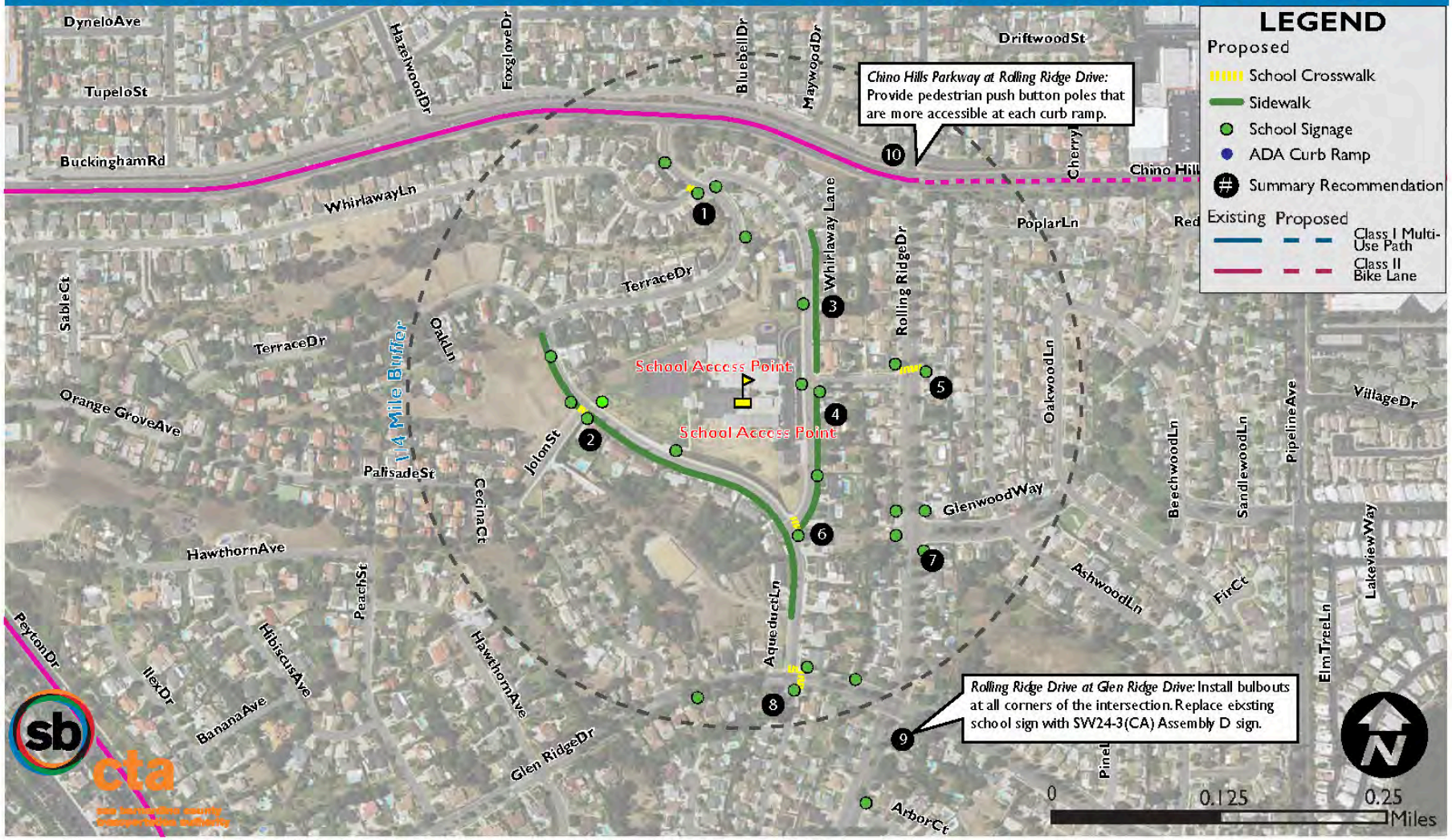
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	*afternoon*
walk	11%	10%
bike	0%	0%
bus	10%	13%
vehicle	74%	67%
carpool	5%	9%
transit	0%	1%
other	0%	0%

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

SBCTA SRTS PHASE II: *GLENMEADE ELEMENTARY SCHOOL, CHINO HILLS*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Terrace Drive at Whirlaway Lane:* Restripe existing school crosswalk with high visibility paint ladder style crosswalk. Install SW24-3(CA) Assembly D signs facing north and south. Install SW24-2(CA) Assembly B signs facing north and south.
2. *Aqueduct Lane at Jolon Street:* Replace existing school sign with SW24-3(CA) Assembly D signs facing north and south. Install SW24-2(CA) Assembly B signs at both ends of uncontrolled crosswalks. Restripe existing school crosswalk with high visibility paint (ladder style).
3. *Whirlaway Lane:* Replace existing school sign with SW24-3(CA) Assembly D sign. Install missing link sidewalk along east side of Whirlaway Lane pending removal of fences.
4. *Whirlaway Lane at Determined Way:* Install SW24-2(CA) Assembly B signs at both ends of uncontrolled crosswalk. Replace existing sign with SW24-3(CA) Assembly D signage. Remove existing sign near northeast corner.
5. *Rolling Ridge Drive at Determined Way:* Install SW24-2(CA) Assembly B signs at both ends of the crosswalk. Paint red curb near the crosswalk to ensure pedestrians are visible along west and east side. Install bulbouts at both ends of crosswalk. Restripe existing school crosswalk with high visibility paint (ladder style).
6. *Whirlaway Lane at Aqueduct Lane:* Paint red curb near intersection. Restripe existing school crosswalk with high visibility paint (ladder style). Replace existing school sign with SW24-3(CA) Assembly D sign at this location.
7. *Glenwood Way at Rolling Ridge Drive:* Install SW24-2(CA) Assembly B signs at both ends of uncontrolled crosswalks. Install ADA curb ramp.
8. *Aqueduct Lane at Glen Ridge Drive:* Replace existing signs with SW24-3(CA) Assembly D signs facing east and west. Install SW24-2(CA) Assembly B signs at both ends of uncontrolled crosswalk. Restripe existing school crosswalks with high visibility paint (ladder style). Paint red curb near the intersection's east leg.

Background/Discussion of the Engineering Recommendations

Glenmeade Elementary School

Recommendation #	Location	Improvement	Background/Discussion
1	**Terrace Drive at Whirlaway Lane**	High visibility crosswalks, School signage	High visibility crosswalks provide clearer paths for pedestrians along a primary walking route to school. School signage installation adheres to CA MUTCD Part 7 guidelines, which are in place to increase driver awareness of pedestrians in the area.
2	**Aqueduct Lane at Jolon Street**	High visibility crosswalks, School signage	High visibility crosswalks provide clearer paths for pedestrians along a primary walking route to school. School signage installation adheres to CA MUTCD Part 7 guidelines, which are in place to increase driver awareness of pedestrians in the area.
3	**Whirlaway Lane**	School signage, Sidewalk	School signage installation adheres to CA MUTCD Part 7 guidelines, which are in place to increase driver awareness of pedestrians in the area during peak school periods. See item below, "General - Sidewalk." Sidewalk installation would benefit this primary walking route to school.
4	**Whirlaway Lane at Determined Way**	School signage	Signage improvements adhere to CA MUTCD Part 7 guidelines, which are in place to increase driver awareness of pedestrian crossings in the area.
5	**Rolling Ridge Drive at Determined Way**	School signage, Red curb, Bulbouts, High visibility crosswalks	Signage improvements adhere to CA MUTCD Part 7 guidelines, which are in place to increase driver awareness of pedestrian crossings in the area. See item below, "General - Red curb." Red curb installation removes parking and consequently improves sight distance and visibility of pedestrians for drivers. Bulbouts shorten the crossing distance at this location. High visibility crosswalks provide clearer paths for pedestrians and grab the attention of drivers in the area, alerting them of this crossing.
6	**Whirlaway Lane at Aqueduct Lane**	Red curb, High visibility crosswalk, School signage	See item below, "General - Red curb." High visibility crosswalks provide clearer paths for pedestrians along a primary walking route to school. School signage installation adheres to CA MUTCD Part 7 guidelines, which are in place to increase driver awareness of pedestrians in the area.
7	**Glenwood Way at Rolling Ridge Drive**	School signage, ADA curb ramp	Signage improvements can increase driver awareness of crossings in the area, per CA MUTCD Part 7 standards. See item below, "General - ADA curb ramp."

Glenmeade Elementary School	Recommendation #	Location	Improvement	Background/Discussion
	8	**Aqueduct Lane at Glen Ridge Drive**	Red curb, High visibility crosswalk, School signage	See item below, "General - Red curb." High visibility crosswalks provide clearer paths for pedestrians along a primary walking route to school. School signage installation adheres to CA MUTCD Part 7 guidelines, which are in place to increase driver awareness of pedestrians in the area.
	9	**Rolling Ridge Drive at Glen Ridge Drive**	Bulbouts, School signage	Bulbouts shorten the crossing distance at this location, a primary walking route for pedestrians coming from the region south of the school. Sign installation recommendations address the need to alert drivers of the upcoming school area.
	10	**Chino Hills Parkway at Rolling Ridge Drive**	Pedestrian push buttons	More accessible pedestrian push buttons adhere to ADA compliancy and can create a more comfortable environment for all pedestrians in the area.
	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 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.

cc

The following cost estimation table details the Glenmeade Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Terrace Dr.	New Sign on Post	Each	$181	3	$543
	High Visibility Ladder Crosswalk	Each	$1,788	1	$1,788
	Segment Total				**$2,331**
Whirlaway Ln.	New Sign on Post	Each	$181	4	$725
	High Visibility Ladder Crosswalk	Each	$1,788	1	$1,788
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1102	$57,219
	Segment Total				**$59,731**
Aqueduct Ln.	New Sign on Post	Each	$181	6	$1,087
	High Visibility Ladder Crosswalk	Each	$1,788	3	$5,364
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1562	$81,103
	Segment Total				**$87,554**
Glen Ridge Dr.	New Sign on Post	Each	$181	6	$1,087
	High Visibility Ladder Crosswalk	Each	$1,788	1	$1,788
	Curb Extension - Raised	Per Intersection	$87,766	1	$87,766
	Segment Total				**$90,641**
Rolling Ridge Dr.	New Sign on Post	Each	$181	7	$1,268
	High Visibility Ladder Crosswalk	Each	$1,788	1	$1,788
	ADA Curb Ramps	Each	$3,623	1	$3,623
	Curb Extension - Raised	Per Intersection	$87,766	1.25	$109,708
	Segment Total				**$116,386**
ALL SEGMENTS					**$356,643**

Chaparral Elementary School

Chaparral Elementary School is a Chino Valley Unified School District (CVUSD) school that is located in a low-density residential area of Chino Hills, California. The school site is located along Bird Farm Road at Wallace Avenue. Held on September 1, 2016, the Chaparral Elementary walk audit took place from 6:30AM to 8:00AM, prior to the morning start bell ringing. During the walk audit 20 participants were engaged in the observations of the surrounding school area. Observations were made of the following streets: Bird Farm Road, Pomona Rincon Road, Murray Avenue, and Yorba Avenue.

"The lack of sidewalk on the streets makes me uncomfortable to allow my child to walk to/from school."

"My child gets to school in our family car. Recently we've been walking due to the traffic outside of school."

"There are too many stray dogs that get loose in the neighborhood. This is a primary reason for why I do not allow my student to walk to school."

**All remarks received from walk audit participants at Big Bear Middle **

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	298
Number of Tallies	1,658
» Morning (To School)	827
» Afternoon (From School)	831

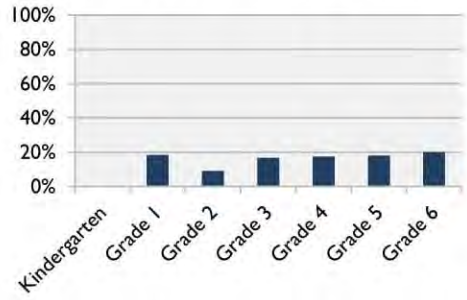
Number of Surveys Received	157

Data source: KOA Corporation, processed by the National Center for Safe Routes to School. Data and figures accurate as of Fall 2016.

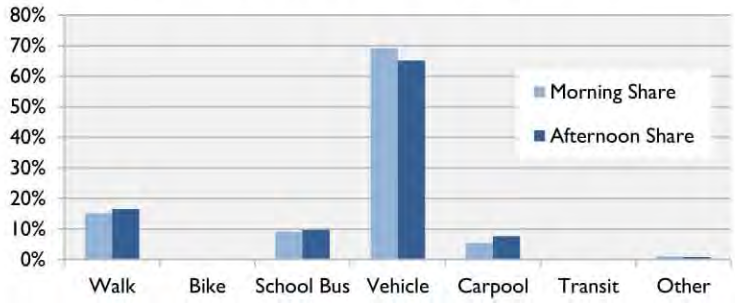
Tallies were conducted by teachers in 11 classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to take home.

Students who walk or bike to school	**14.5%**
Students who don't walk/bike but have asked parents for permission	**+ 15.1%**
Students who walk/bike or have asked parents for permission	**29.6%**
Student enrollment	**x 590**
Potential walking/biking student base	**175**

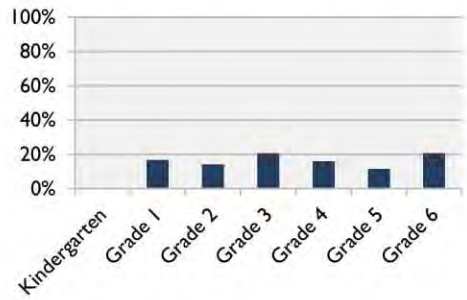
Grade Distribution of Tallies



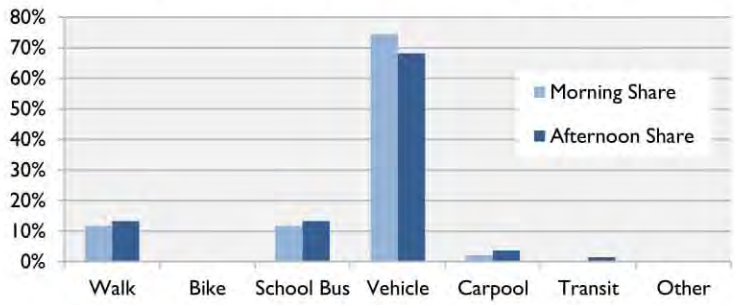
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

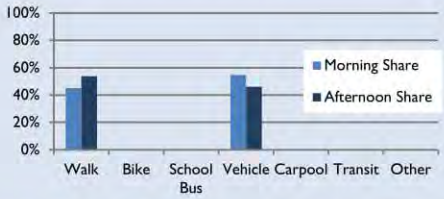


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

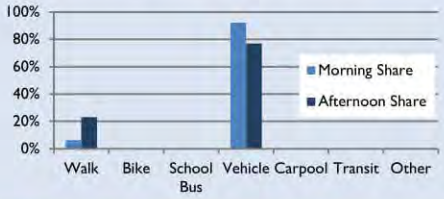
22%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 24%
Amount of Traffic Along Route – 24%
Distance – 21%
Sidewalks or Pathways – 21%
Safety of Intersections & Crossings – 21%

Students Living Between ¼ and ½ Mile from School

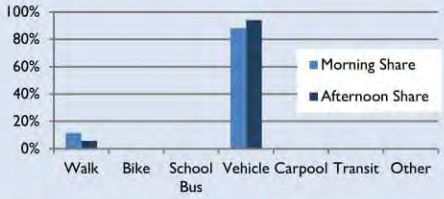
11%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Sidewalks or Pathways – 38%
Distance – 31%
Safety of Intersections & Crossings – 31%
Speed of Traffic Along Route – 19%
Weather or Climate – 19%

Students Living Between ½ and 1 Mile from School

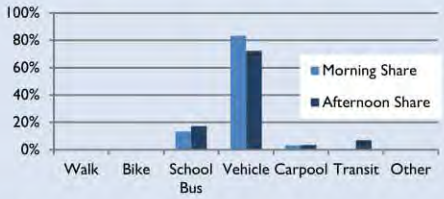
11%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Weather or Climate – 29%
Time – 24%
Speed of Traffic Along Route – 24%
Amount of Traffic Along Route – 24%
Violence or Crime – 24%

Students Living Between 1 and 2 Miles from School

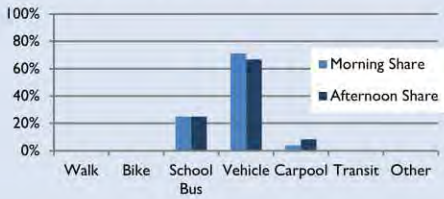
20%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 61%
Safety of Intersections & Crossings – 61%
Speed of Traffic Along Route – 45%
Amount of Traffic Along Route – 42%
Sidewalks or Pathways – 35%

Students Living Farther than 2 Miles from School

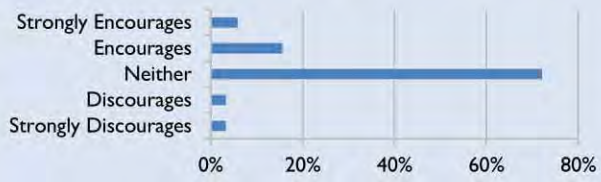
36%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 69%
Amount of Traffic Along Route – 43%
Safety of Intersections & Crossings – 41%
Speed of Traffic Along Route – 37%
Violence or Crime – 37%

Parents' Perspectives

Whether School Encourages Walking/Biking



77%
consider walking/biking healthy or very healthy.

52%
would not feel comfortable having their child walk/bike at any age with current conditions.

CHAPARRAL ELEMENTARY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Chino Hills
School Enrollment - 590
Free or Reduced Lunch - 49.00%

Environmental Indicators:

Cal Enviro Score % Range - 66-70%
Cal Enviro Score (CES2.0*) - 34.8

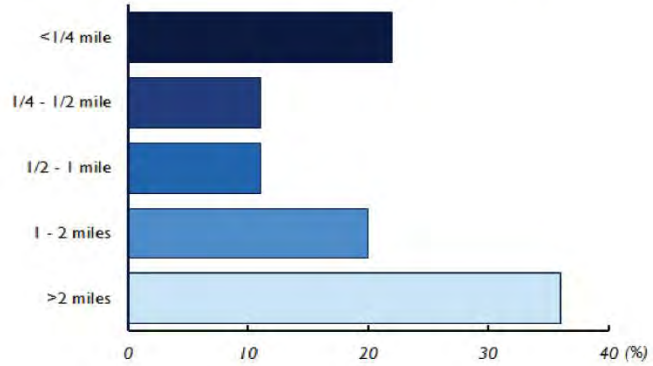
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 20
# of Surveys Received - 157

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

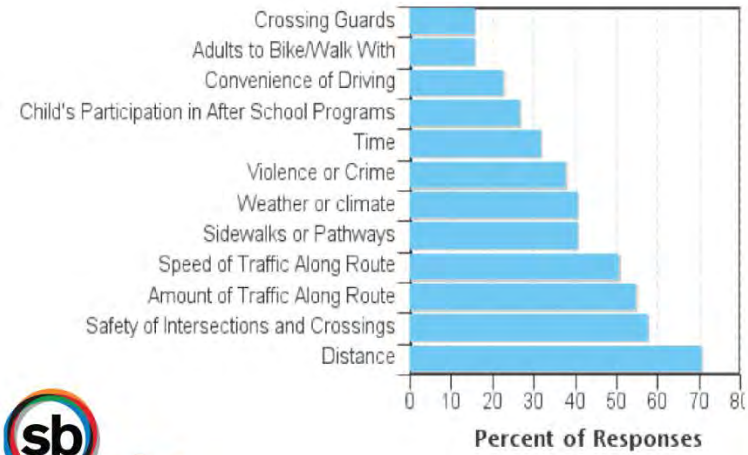
1 within 1/4 mile
3 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sb cta
san bernardino county transportation authority

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

TRAVEL MODE BEHAVIOR

	morning	*afternoon*
walk	12%	13%
bike	0%	0%
bus	12%	13%
vehicle	74%	68%
carpool	2%	4%
transit	0%	1%
other	0%	0%

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

SBCTA SRTS PHASE II: *CHAPARRAL ELEMENTARY SCHOOL, CHINO HILLS*

PROPOSED ENGINEERING RECOMMENDATIONS

1. *North and West of School Campus:* Install sidewalk and ADA curb ramps throughout neighborhoods to the north of Bird Farm Road and to the west of the school campus.

2. *Bird Farm Road at Yorba Avenue:* Restripe existing school crosswalks with high visibility paint (ladder style). Trim trees along south side of Bird Farm Road.

3. *Bird Farm Road at Murray Avenue:* Remove existing signs with R1-5 signs and corresponding yield lines. Trim trees along south side of Bird Farm Road. Restripe existing school crosswalks with high visibility paint (ladder style). Install high visibility ladder style crosswalk along the west leg of the intersection. Install All Way Stop Control at this location per CAMUTCD 2B.07 paragraph 05.

4. *Bird Farm Road at Banbury Court and Wallace Avenue:* Install SW24-3(CA) Assembly D sign. Install high visibility school crosswalks (ladder style).

5. *Pomona Rincon Road:* Install sidewalk, curb, and gutter at this location.

6. *South of School Campus:* Install sidewalk and ADA curb ramps throughouts neighborhoods to the south of Fairway Boulevard.

Background/Discussion of the Engineering Recommendations

	Recommendation #	Location	Improvement	Background/Discussion
Chaparral Elementary School	1	North and West of School Campus	Sidewalk	See item below, "General - Sidewalk." The recommendation addresses comments received during walk audit, as well as during the survey process.
	2	Bird Farm Road at Yorba Avenue	High visibility crosswalk, tree trimming	These recommendations provide clearer paths for pedestrians walking along Bird Farm Road, a primary walking route. Tree trimming can improve sight distance and visibility of pedestrians in the area.
	3	Bird Farm Road at Murray Avenue	School signage, yield lines, tree trimming, high visibility crosswalks, All-Way Stop Control	Recommendations adhere to CA MUTCD Part 7 guidelines, which are in place to increase driver awareness of conflicting pedestrian movements along Bird Farm Road, a primary walking route to school. Crosswalks address comments received during survey process.
	4	Bird Farm Road at Banbury Court and Wallace Avenue	School signage, high visiblity crosswalks	Recommendations adhere to CA MUTCD Part 7 guidelines, which are in place to increase driver awareness of pedestrians along Bird Farm Road, a primary walking route to school. Crosswalks address comments received during survey process.
	5	Pomona Rincon Road	Sidewalk, curb and gutter	See item below, "General - Sidewalk." Curb and gutter installation will improve drainage near the school campus.
	6	South of School Campus	Sidewalk, ADA curb ramps	See item below, "General - Sidewalk" and "General - ADA curb ramps."
	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 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.

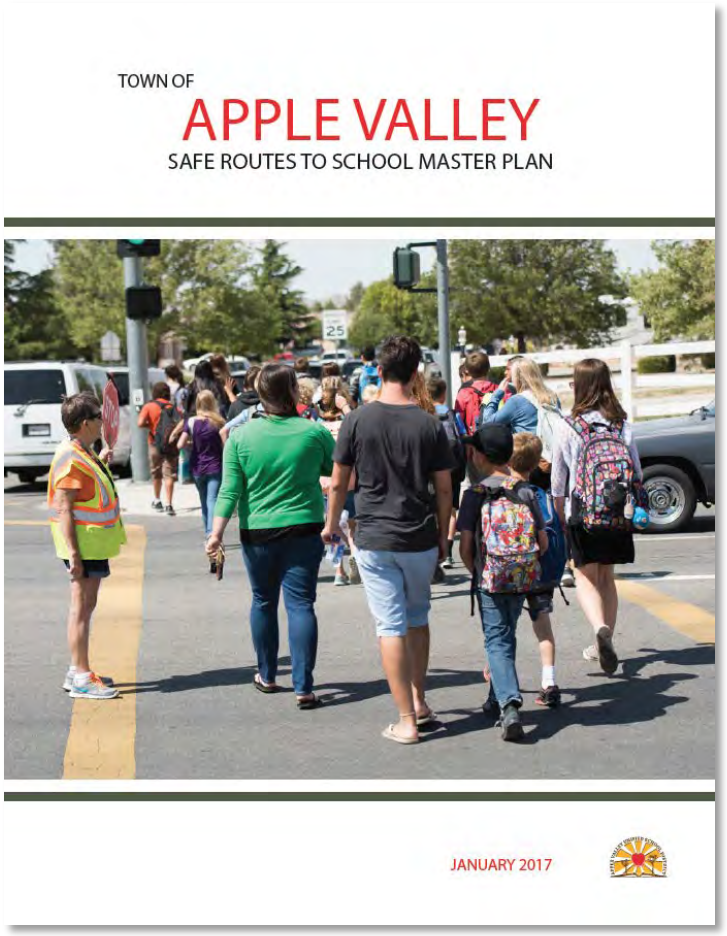
The following cost estimation table details the Chaparral Elementary School network engineering recommendations by corridor/neighborhood.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Neighborhood between Mesa Blvd. and Bird Farm Rd.	ADA Curb Ramps	Each	$3,623	8	$28,980
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	7613	$395,286
	Segment Total				**$424,266**
Neighborhood between Bird Farm Rd. and Fairway Blvd.	ADA Curb Ramps	Each	$3,623	6	$21,735
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	5171	$268,491
	Segment Total				**$290,226**
Bird Farm Rd.	High Visibility Ladder Crosswalk	Each	$1,788	7	$12,516
	ADA Curb Ramps	Each	$3,623	2	$7,245
	Segment Total				**$19,761**
Pomona Rincon Rd.	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1414	$73,418
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	228	$8,259
	Segment Total				**$81,678**
Neighborhood between Fairway Blvd. and Los Serranos Rd.	ADA Curb Ramps	Each	$3,623	24	$86,940
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	14068	$730,446
	Segment Total				**$817,386**
Neighborhood between Los Serranos Rd. and Palomino Dr.	ADA Curb Ramps	Each	$3,623	2	$7,245
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	5524	$286,820
	Segment Total				**$294,065**
ALL SEGMENTS					**$1,927,382**

Existing Plan Agencies

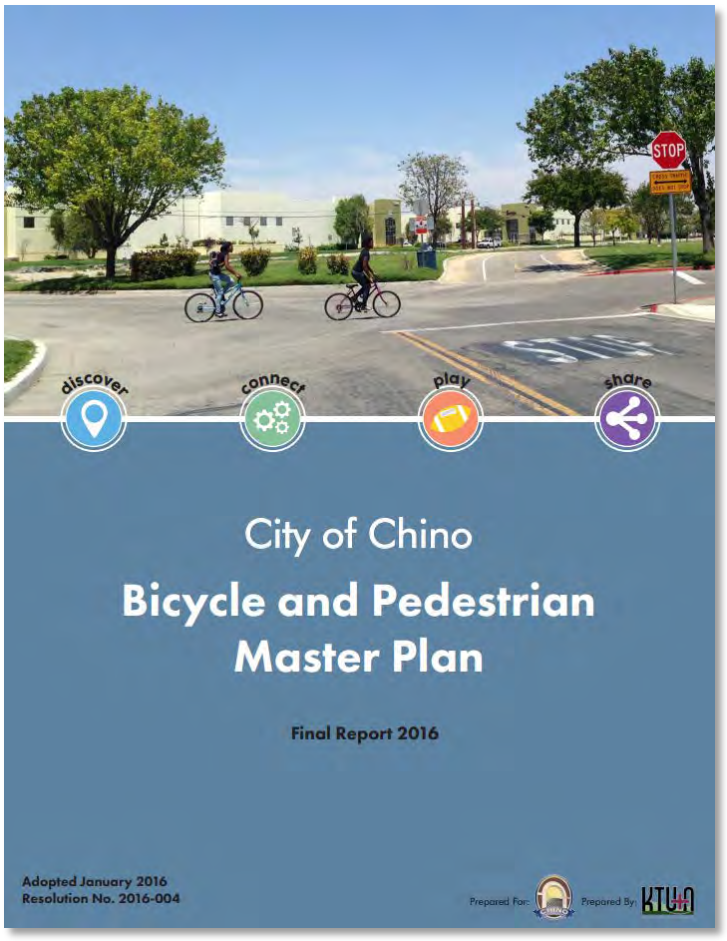
Town of Apple Valley Safe Routes to School Master Plan

The Town of Apple Valley Safe Routes to School Master Plan summarizes the existing conditions and deficiencies of school-zone transportation networks in Apple Valley and tabulates engineering recommendations to mitigate these issues. The Plan examines ten schools across the town, incorporating multiple sources of quantitative data (i.e. parent surveys and teacher tallies, collision data, walkshed analysis, student density, and latent demand). Engineering recommendations are made for each school site as well as cost estimations and preliminary cross sections of those recommendations. The Plan also incorporates detailed guidance on strategies for fulfilling townwide goals and visions for SRTS with recommendations for programs to ensure long-term success. A detailed report will be available on the Town of Apple Valley webpage.



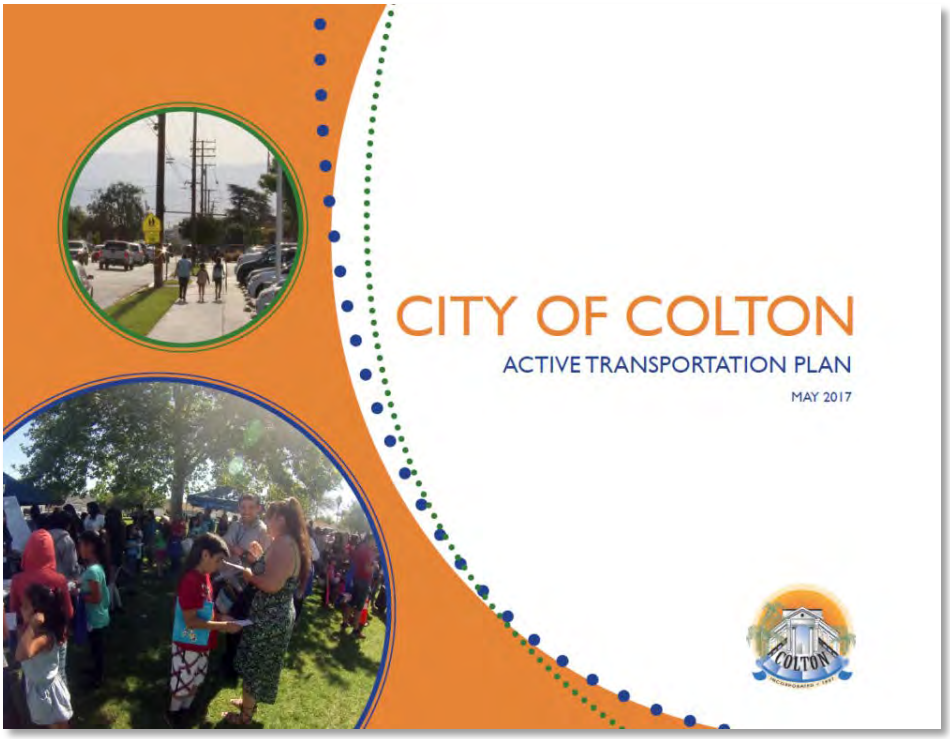
City of Chino Bicycle and Pedestrian Master Plan

The City of Chino Bicycle and Pedestrian Master Plan lays out a framework for the citywide development of accessible bicycle and pedestrian facilities. The public was engaged at numerous community events (ex.: July Firework Spectacular, farmers markets, and local 5K's) as well as through workshops and walk audits. Furthermore, a detailed analysis was conducted into existing bicycle and pedestrian network conditions, vehicle network conditions, and traffic conditions. The plan makes recommendations for upgrades and expansions of bicycle and pedestrian networks at multiple scales, suggests non-infrastructural programs for education and encouragement of safe travel around the city, and identifies funding sources for future implementation. A more detailed account of this plan can be found on the City of Chino webpage filed under the community development section of government services.



City of Colton Active Transportation Plan

The City of Colton Active Transportation Plan is a document providing comprehensive overview of existing conditions as well as recommendations for future improvements. The plan has built upon the city's General Plan Mobility Element to modernize the city's vision and goals associated with active transportation: to assess the needs of bicyclists and pedestrians, examine gaps in the active transportation network, identify a set of engineering improvements and non-infrastructural programs that will encourage more people to partake in active transportation, and provide tools to implement the recommendations. As a part of the Colton ATP, there is an independent chapter detailing ten respective school walk audits, the community outreach efforts, and suggested recommendations in an effort to increase the number of residents electing to walk or bike to school. The overall ATP incorporates the understanding of the existing bicycle and pedestrian network, the circulation network, and available funding sources in its improvement strategies and recommendations. A detailed report can be found once public at the City of Colton webpage.



City of Fontana

Alder Middle School

Alder Middle School is a Fontana Unified School District (FUSD) school located in a low-density residential area of Fontana, California. The school is positioned along Alder Avenue between Miller Avenue and Baseline Road. The walk audit took place on May 9th, 2016 from 12:30PM to 1:30PM. Participants were recruited in the time leading up to the afternoon release bell as they waited for their students, totaling eight participants. Observations were made of the following streets: Alder Avenue, Shamrock Avenue, Miller Avenue, Laurel Avenue, and Wabash Avenue.

"I would feel a lot better if there were sidewalks along the street where my son walks on his way to school."

"I have seen drivers be very aggressive at the intersection of Alder Ave/Miller Ave. Some drivers turn when kids are still crossing. It's very dangerous."

"We live about 2.5 miles away from the school. I don't feel comfortable allowing my daughter to walk/bike and either does she."

**All remarks received from walk audit participants at Alder Middle **

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	209
Number of Tallies	881
» Morning (To School)	462
» Afternoon (From School)	419

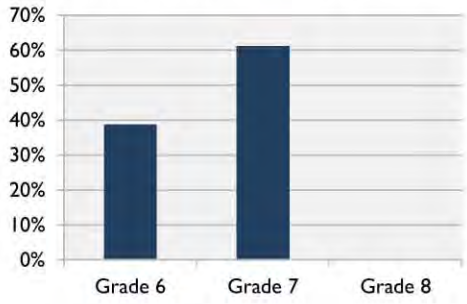
Number of Surveys Received	175

Data source: KOA Corporation, processed by the National Center for Safe Routes to School. Data and figures accurate as of Fall 2016.

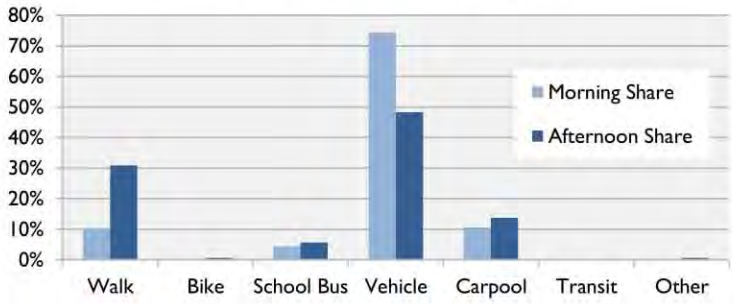
Tallies were conducted by teachers in seven classes on a consecutive Tuesday, Wednesday, and Thursday, surveying students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to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

Students who walk or bike to school	**23.3%**
Students who don't walk/bike but have asked parents for permission	**+ 23.8%**
Students who walk/bike or have asked parents for permission	**47.1%**
Student enrollment	**x 1,180**
Potential walking/biking student base	**556**

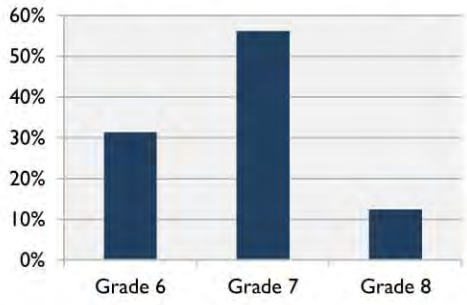
Grade Distribution of Tallies



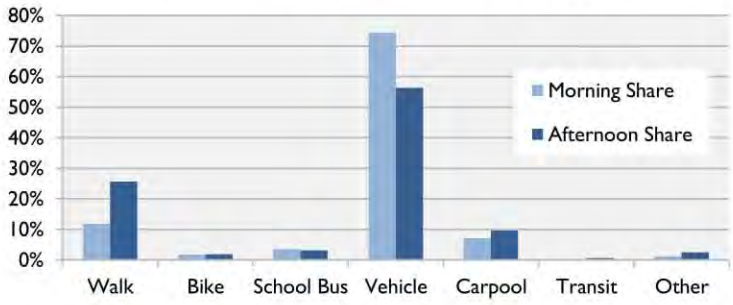
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

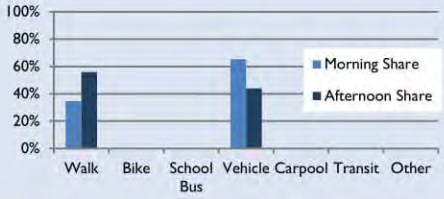


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

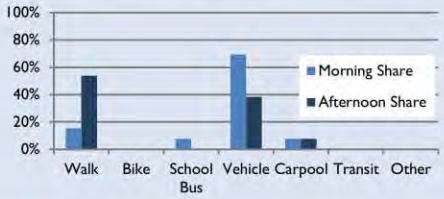
18%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 35%
Violence or Crime – 35%
Distance – 31%
Time – 19%
Speed of Traffic Along Route – 19%

Students Living Between ¼ and ½ Mile from School

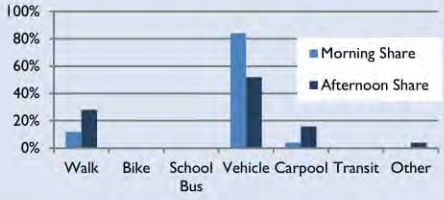
9%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 54%
Safety of Intersections & Crossings – 38%
Crossing Guards – 15%
Distance – 8%
Speed of Traffic Along Route – 8%

Students Living Between ½ and 1 Mile from School

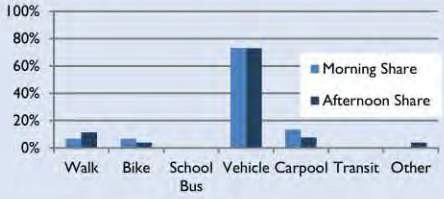
19%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 41%
Safety of Intersections & Crossings – 37%
Weather or climate – 37%
Distance – 33%
Speed of Traffic Along Route – 26%

Students Living Between 1 and 2 Miles from School

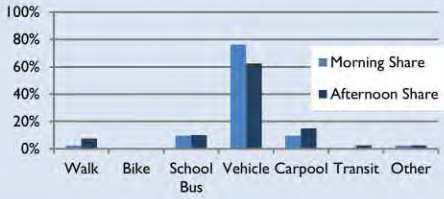
22%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 52%
Violence or Crime – 52%
Distance – 42%
Speed of Traffic Along Route – 42%
Sidewalks or Pathways – 35%

Students Living Farther than 2 Miles from School

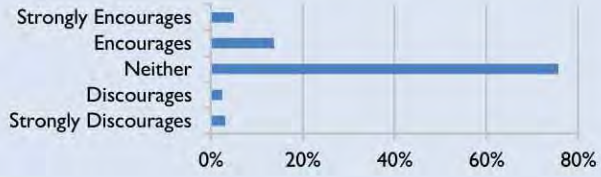
31%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 64%
Violence or Crime – 43%
Safety of Intersections & Crossings – 41%
Weather or climate – 36%
Speed of Traffic Along Route – 34%

Parents' Perspectives

Whether School Encourages Walking/Biking



71%
consider walking/biking healthy or very healthy.

57%
would not feel comfortable having their child walk/bike at any age with current conditions.

ALDER MIDDLE SCHOOL- *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Fontana
School Enrollment - 1180
Free or Reduced Lunch - 89.70%

Environmental Indicators:

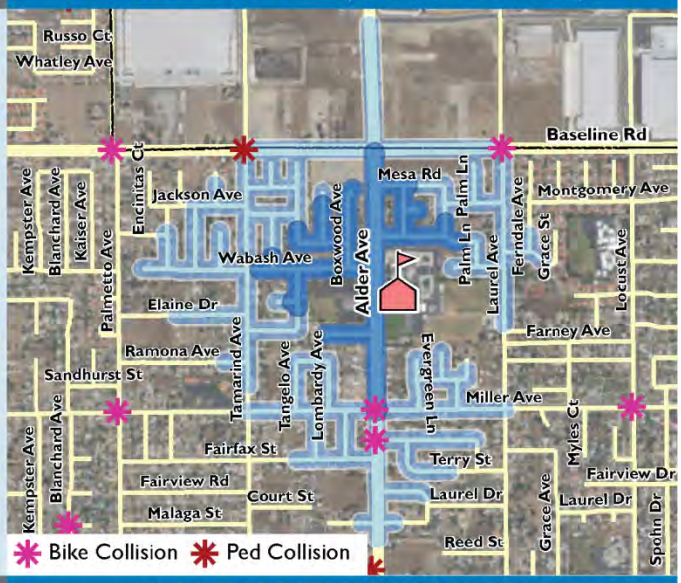
Cal Enviro Score % Range - 56-60%
Cal Enviro Score (CES2.0*) - 28.78

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

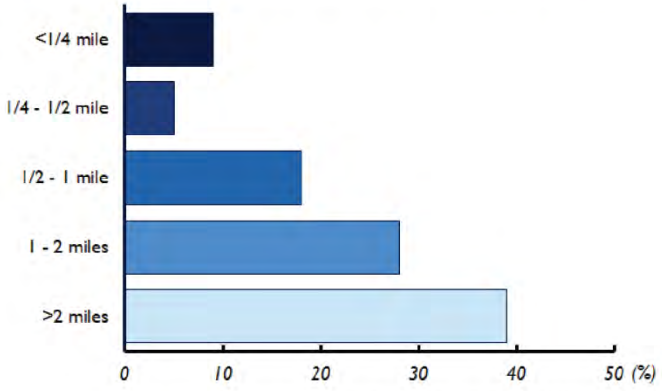
Walk Audit Highlights

of Walk Audit Participants - 8
# of Surveys Received - 175

WALKSHED *(1/4 and 1/2 mile)*



COMMUTE DISTANCE (%)



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

COLLISION ANALYSIS

Pedestrian Related Collisions

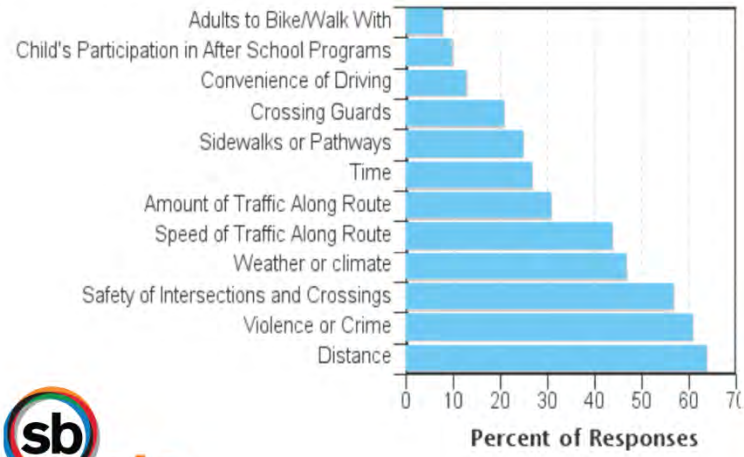
2 within 1/4 mile
4 within 1/2 mile
1 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sb cta
san bernardino county transportation authority

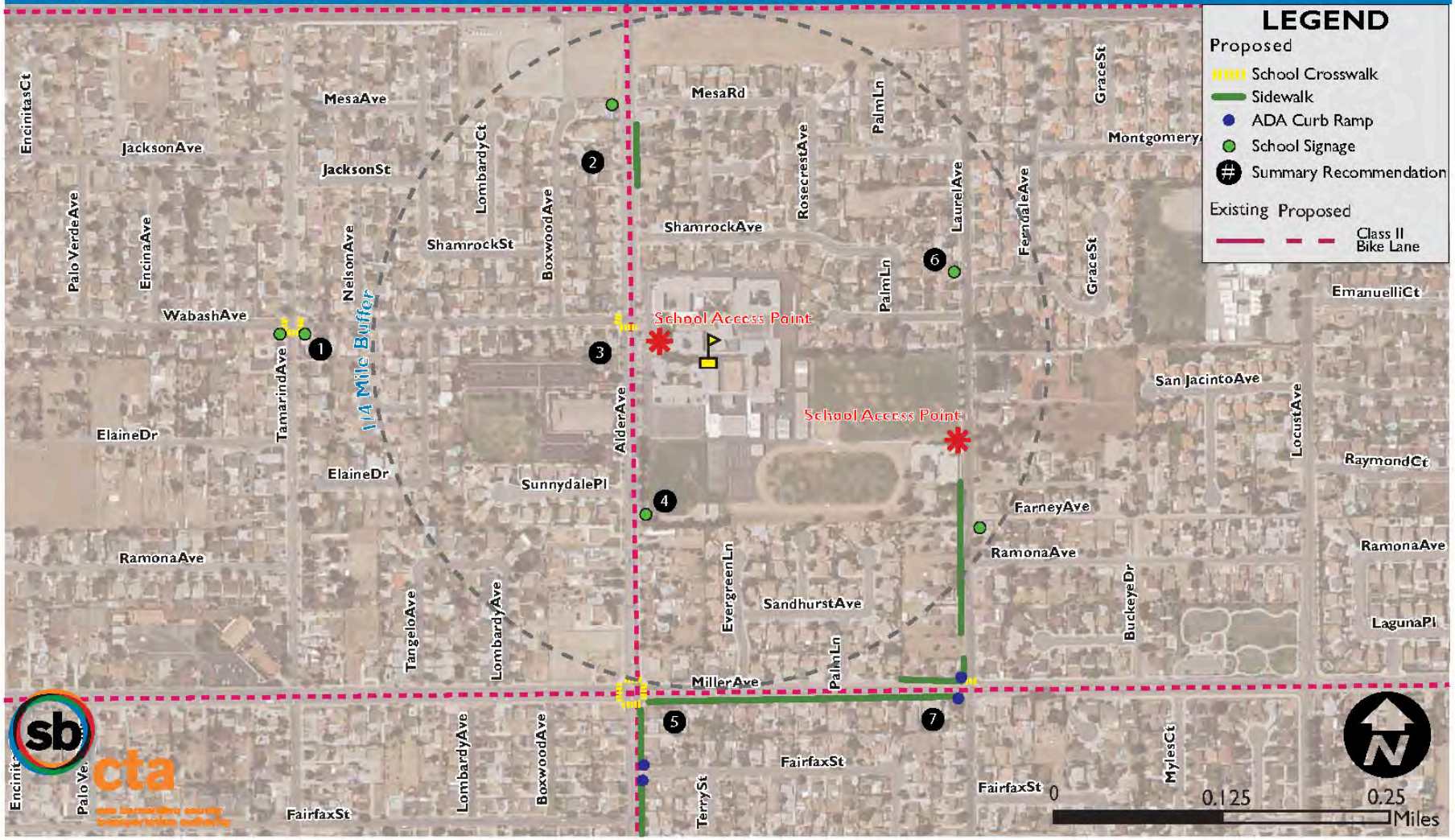
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	12%	26%
bike	2%	2%
bus	4%	3%
vehicle	74%	56%
carpool	7%	10%
transit	0%	0.6%
other	1%	3%

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

SBCTA SRTS PHASE II: *ALDER MIDDLE SCHOOL, FONTANA*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Wabash Avenue at Tamarind Avenue:* Modify existing pedestrian crossing warning signs to be two-sided for added visibility, including flashing beacon for northbound and southbound traffic. Add parking prohibition (red curb and/or No Parking signs) to ensure pedestrians entering the crossing are visible to oncoming traffic. Apply restrictions 20' from crossing. Install bulbouts to increase visibility and slow down traffic along Wabash Avenue. Restripe all crosswalks with high visibility paint (ladder style).
2. *Alder Avenue Corridor:* Install curb, gutter, and sidewalk along east side of Alder Avenue. Install SR4-1(CA) Assembly C sign and relocate the existing SW24-3(CA) Assembly D sign, with flashing beacon, to be located further north on Alder Avenue.
3. *Alder Avenue at Wabash Avenue:* Install raised median north of Wabash Avenue. Restripe both existing school crosswalks with high visibility paint (ladder style). Upgrade SR4-1(CA) Assembly C sign with flashing beacon.
4. *Alder Avenue at Sunnydale Place:* Upgrade SW24-3(CA) Assembly D sign to include flashing beacon for advanced warning.
5. *Alder Avenue at Miller Avenue:* Restripe existing school crosswalks with high visibility paint (ladder style). Install sidewalk up to one mile away along east side of Alder Avenue. Install two ADA curb ramps at Fairfax Street.
6. *Laurel Avenue:* Replace existing sign with SW24-1(CA) Assembly A sign for southbound traffic.
7. *Miller Avenue at Laurel Avenue:* Install sidewalk on both sides of Miller Avenue (pending removal of fences at right of way), and on west side of Laurel Avenue. Restripe existing school crosswalk with high visibility paint (ladder style). Install bulbouts at northeast, southeast, and southwest corners of the intersection, which will include ADA curb ramps. Remove existing sign and replace with SW24-1(CA) Assembly A sign for northbound traffic.

Background/Discussion of the Engineering Recommendations

Alder Middle School

Recommendation #	Location	Improvement	Background/Discussion
1	**Wabash Avenue & Tamarind Avenue**	Parking Restriction Signage, flashing beacons, red curbs, bulbouts, high visibility ladder crosswalk	Improvements are located along primary walking route to school (noted during field observations). Engineering recommendations are implemented to respond to comments received during the walk audit and increase pedestrian visibility as well as decrease pedestrian exposure while crossing. See item below, "General - red curb."
2	**Alder Avenue**	Sidewalk and signage relocation	See item below, "General - sidewalk." Signage relocation corresponds with MUTCD Part 7 guidelines, aimed at providing increased driver awareness of pedestrians in school zone ahead.
3	**Alder Avenue**	High visibility ladder crosswalk, median installation, School signage	Improvements are located at the most utilized intersection and primary walking route to school (noted during field observation). Engineer recommendations are implemented to respond to comments received during walk audit and school-wide surveying regarding vehicular behavior.
4	**Alder Avenue**	Advanced warning school signage and flashing beacon installation	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.
5	**Alder Avenue & Miller Avenue**	High visibility ladder style crosswalk, ADA curb ramps, and sidewalk	Improvements are located along primary walking route to school, where one pedestrian and two bicycle related collisions took place. Location was identified by walk audit participants and school-wide surveying as a focus intersection. See below, "General - ADA curb ramps and sidewalk."
6	**Laurel Avenue**	School signage	The recommendations adhere to MUTCD Part 7 guidelines to increase driver awareness of school zone along primary walking route to school (noted during field observation).
7	**Miller Avenue**	Sidewalk, high visibility ladder crosswalk, bulbouts, ADA curb ramps, School signage	See item below, "General - sidewalk and ADA curb ramp." Engineer improvements are located along primary walking route to school and respond to comments received during the walk audit, regarding pedestrian visibility and vehicle behavior.
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 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 Alder Middle School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Alder Ave.	Pedestrian Flashing Beacon (Post/Pole Mount)	Each	$9,056	1	$9,056
	New Sign on Post	Each	$181	4	$725
	High Visibility Ladder Crosswalk	Each	$1,788	3	$5,364
	ADA Curb Ramps	Each	$3,623	2	$7,245
	Median Refuge	Each	$6,105	1	$6,105
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	786	$40,811
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	786	$28,473
	Segment Total				**$97,778**
Miller Ave.	High Visibility Ladder Crosswalk	Each	$1,788	3	$5,364
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1456	$75,599
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	1456	$52,744
	Segment Total				**$133,707**
Wabash Ave.	Pedestrian Flashing Beacon (Post/Pole Mount)	Each	$9,056	2	$18,113
	New Sign on Post	Each	$181	2	$362
	High Visibility Ladder Crosswalk	Each	$1,788	4	$7,152
	Curb Extension - Raised	Per Intersection	$87,766	1	$87,766
	Segment Total				**$113,393**
Laurel Ave.	New Sign on Post	Each	$181	2	$362
	Curb Extension - Raised	Per Intersection	$87,766	0.5	$43,883
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	677	$35,152
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	677	$24,524
	Segment Total				**$103,921**
ALL SEGMENTS					**$448,799**

Ted J. Porter Elementary School

Ted J. Porter Elementary School is a Fontana Unified School District (FUSD) school located in a low-density residential area of Fontana, California. The school is located along Locust Avenue near the intersection with the Pacific Electric Bike Trail. The Ted J. Porter Elementary School walk audit took place on May 19, 2016 from 6:45AM to 8:30AM, prior to the morning bell ringing. There were a total of 10 participants, including parents, community members, and school staff. Briefing and debriefing took place in the school cafeteria, with the walking portion extending into the surrounding neighborhood along the following streets: Locust Avenue, Owen Street, Upland Avenue, and the Pacific Electric Trail.

"A lot of drivers don't respect pedestrians and don't follow the speed limits."

"The majority of streets don't have any sidewalk. Cars speed by as if they were in a race."

"We walk every day to and from school. There is no sidewalk so we walk in the dirt and sometimes by parked cars and in the street. It is very dangerous! People drive fast regardless if there are school signs. Everyday I worry about walking to and from school for our safety."

All remarks received from walk audit participants at Ted J. Porter Elementary

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	102
Number of Tallies	534
» Morning (To School)	267
» Afternoon (From School)	267

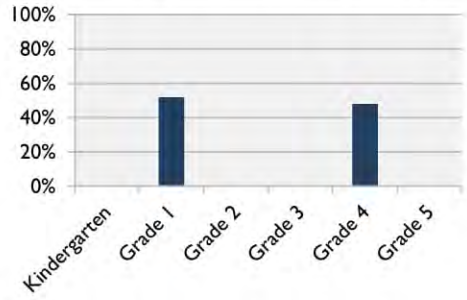
Number of Surveys Received	214

Data source: KOA Corporation, processed by the National Center for Safe Routes to School. Data and figures accurate as of Fall 2016.

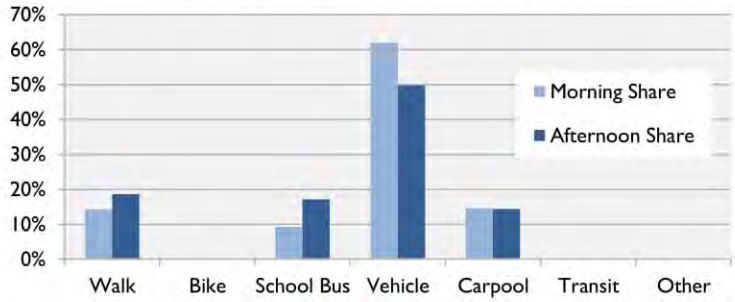
Tallies were conducted by teachers in four classes on a consecutive Tuesday, Wednesday, and Thursday, surveying students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to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

Students who walk or bike to school	**8.2%**
Students who don't walk/bike but have asked parents for permission	**+ 23.6%**
Students who walk/bike or have asked parents for permission	**31.7%**
Student enrollment	**x 750**
Potential walking/biking student base	**238**

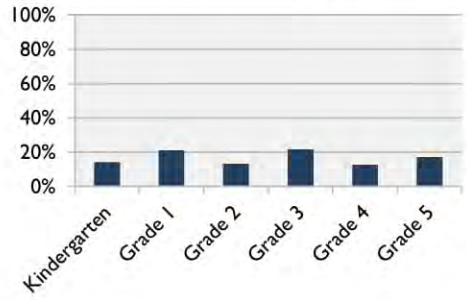
Grade Distribution of Tallies



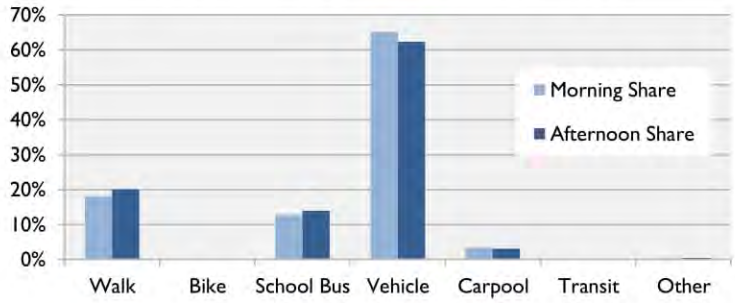
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

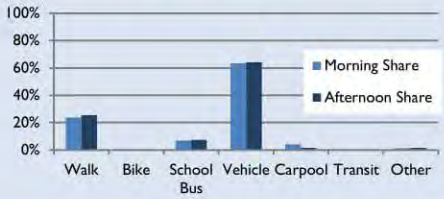


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

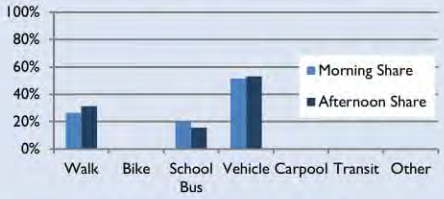
18%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 41%
Speed of Traffic Along Route – 34%
Violence or Crime – 34%
Amount of Traffic Along Route – 31%
Sidewalks or Pathways – 26%

Students Living Between ¼ and ½ Mile from School

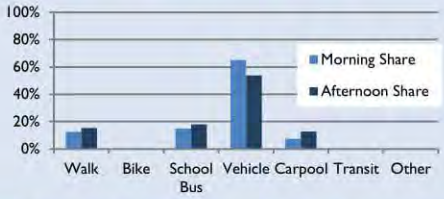
20%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 42%
Sidewalks or Pathways – 37%
Speed of Traffic Along Route – 34%
Violence or Crime – 29%
Weather or Climate – 29%

Students Living Between ½ and 1 Mile from School

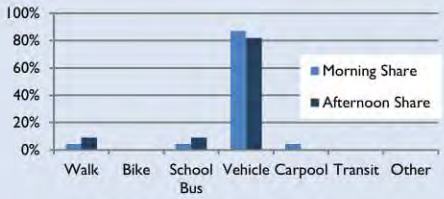
21%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 39%
Safety of Intersections & Crossings – 34%
Speed of Traffic Along Route – 32%
Amount of Traffic Along Route – 29%
Sidewalks or Pathways – 29%

Students Living Between 1 and 2 Miles from School

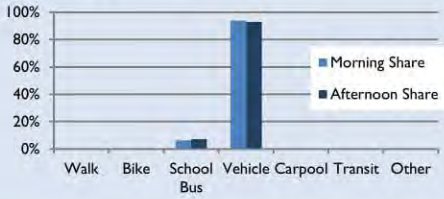
12%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 50%
Violence or Crime – 46%
Speed of Traffic Along Route – 33%
Amount of Traffic Along Route – 33%
Safety of Intersections & Crossings – 33%

Students Living Farther than 2 Miles from School

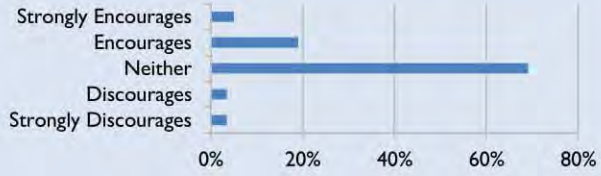
8%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 81%
Weather or Climate – 44%
Violence or Crime – 38%
Amount of Traffic Along Route – 31%
Speed of Traffic Along Route – 25%

Parents' Perspectives

Whether School Encourages Walking/Biking



83%
consider walking/biking healthy or very healthy.

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

TED J. PORTER ELEMENTARY - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Fontana
School Enrollment - 750
Free or Reduced Lunch - 90.00%

Environmental Indicators:

Cal Enviro Score % Range - 76-80%
Cal Enviro Score (CES2.0*) - 39.93

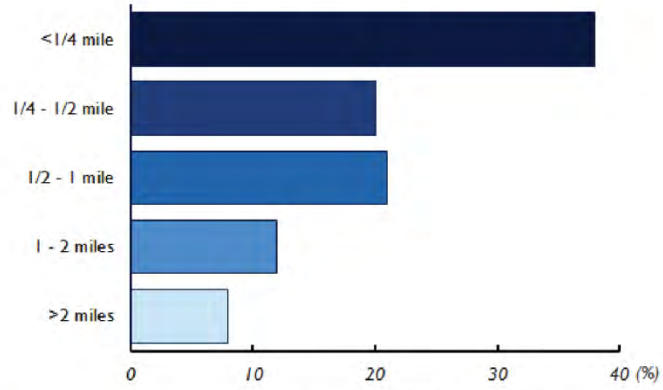
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 9
# of Surveys Received - 214

WALKSHED (1/4 and 1/2 mile)

COMMUTE DISTANCE (%)



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

COLLISION ANALYSIS

Pedestrian Related Collisions

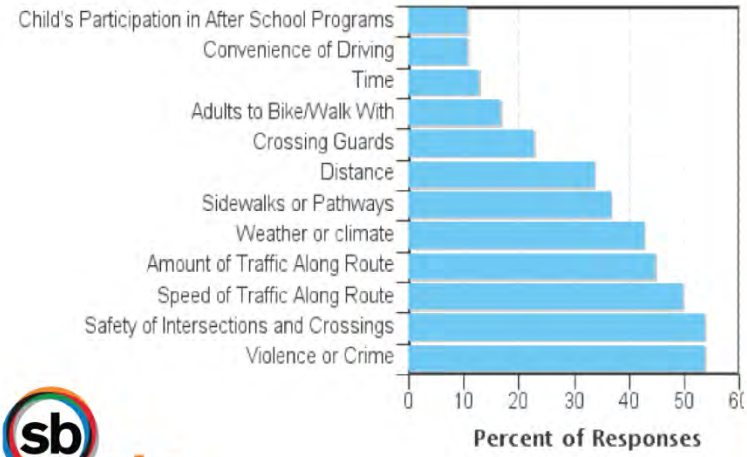
2 within 1/4 mile
7 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sbcta
san bernardino county transportation authority

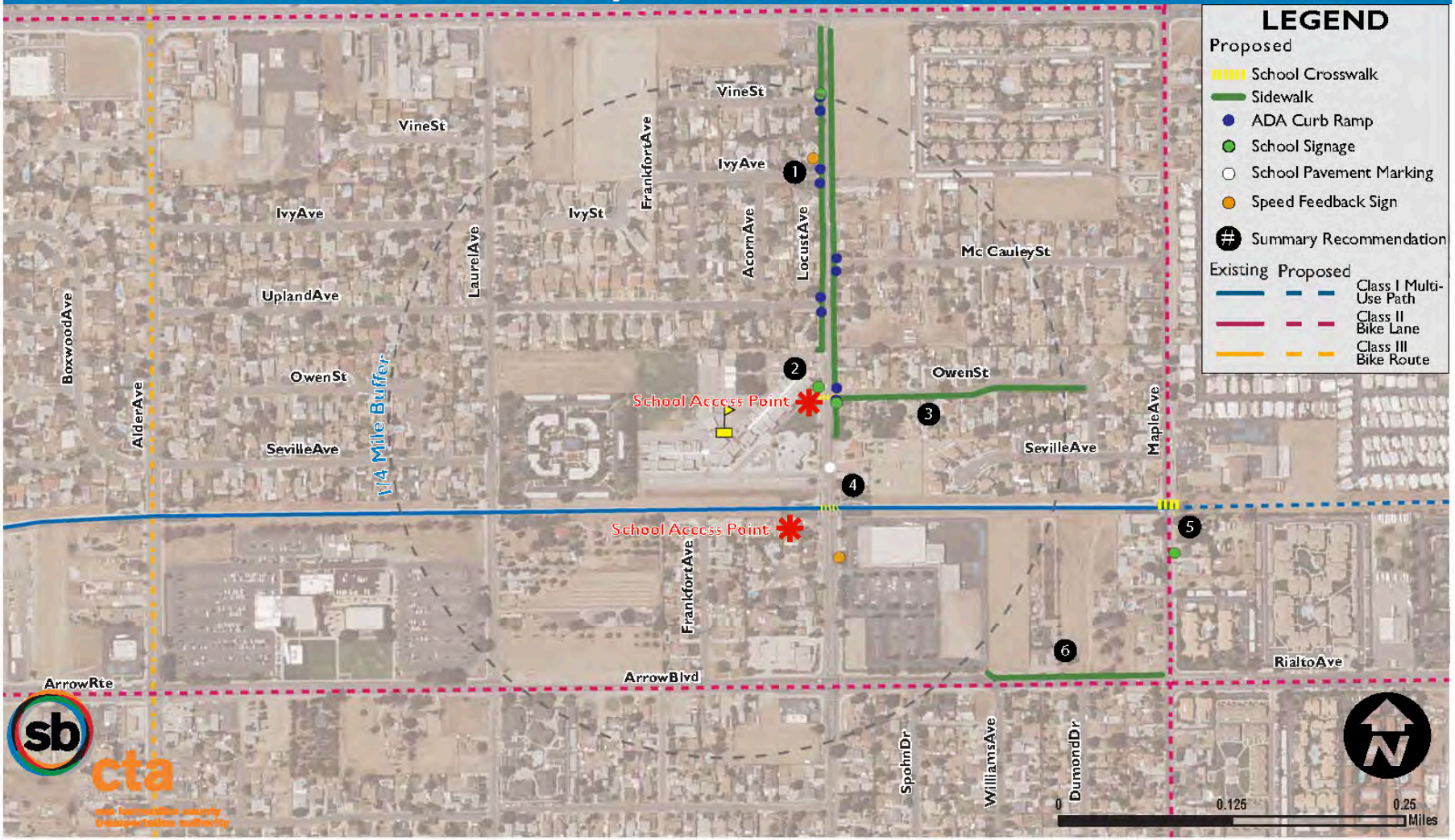
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	18%	20%
bike	0%	0%
bus	13%	14%
vehicle	65%	62%
carpool	3%	3%
transit	0%	0%
other	0.5%	0.5%

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

SBCTA SRTS PHASE II: *TED J. PORTER ELEMENTARY SCHOOL, FONTANA*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Locust Avenue:* Install ADA curb ramps at various locations as shown in the above map. Trim trees to improve visibility of existing school sign. Install sidewalk on both sides of Locust Avenue. Install speed feedback sign for southbound traffic.

2. *Locust Avenue at Owen Street:* Move SW24-2(CA) Assembly B signs to be located closer to the existing school crosswalk. Restripe crosswalks with high visibility paint (ladder style). Install bulbout at west end of existing crosswalk. Repaint red curb on the west side of Locust Avenue.

3. *Owen Street:* Install sidewalk on the south side of the street. Install street lighting along street.

4. *Locust Avenue at Bike Path:* Restripe existing crosswalk with high visibility paint (ladder style). Relocate pavement legend reading "SLOW SCHOOL XING." Install speed feedback sign for northbound traffic.

5. *Maple Avenue:* Restripe existing school crosswalk with high visibility paint (ladder style). Install SW24-3(CA) Assembly D sign.

6. *Arrow Boulevard:* Install sidewalk on the north side of the street.

Background/Discussion of the Engineering Recommendations

	Recommendation #	Location	Improvement	Background/Discussion
Ted J. Porter Elementary School	1	Locust Ave	ADA compliance, trim trees, sidewalk, and speed feedback sign	Location falls along primary walking route to school (noted during field observation). School-wide survey comments describe this segment as unsafe due to vehicle speeds. Trees need to be trimmed due to visibility of signs along Locust Ave. Improvements address comments received during walk audit observation regarding high speeds in front of the school. See below, "General - sidewalk."
	2	Locust Ave at Owen Street	School signage, high visibility ladder style crosswalk, bulbout, and red curb	Bulbouts will ensure pedestrian safety when waiting to cross the street. See below, "General - ADA curb ramps." & See below, "General - red curb." Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along Locust Ave at Owen Street, a primary walking route to school (noted during field observation). 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).
	3	Owen Street	Sidewalk and street lighting	See below, "General - sidewalk." Street lighting will help with overall visibility.
	4	Locust Avenue at Bike Path	High visibility ladder style crosswalk, relocate school pavement markings, and speed feedback sign	Location falls along primary walking route to school (noted during field observation). School-wide survey comments describe this segment as unsafe due to vehicle speeds. Improvements address comments received during walk audit observation regarding high speeds in front of the school.
	5	Maple Avenue	High visibility ladder style crosswalk and 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	Arrow Boulevard	Sidewalk	See below, "General - sidewalk."
	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 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 Ted J. Porter Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
N Maple Ave.	Speed Awareness Sign	Each	$14,490	2	$28,980
	New Sign on Post	Each	$181	2	$362
	High Visibility Ladder Crosswalk	Each	$1,788	1	$1,788
	Segment Total				**$31,130**
Arrow Blvd	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	693	$35,982
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	693	$25,104
	Segment Total				**$61,086**
Locust Ave.	Speed Awareness Sign	Each	$14,490	2	$28,980
	New Sign on Post	Each	$181	2	$362
	School Area Pavement Marking (Per Word)	Each	$254	3	$761
	High Visibility Ladder Crosswalk	Each	$1,788	3	$5,364
	ADA Curb Ramps	Each	$3,623	10	$36,225
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	3793	$196,942
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	3793	$137,401
	Segment Total				**$406,035**
ALL SEGMENTS					**$498,251**

City of Grand Terrace

Grand Terrace Elementary School

Grand Terrace Elementary School is a Colton Joint Unified School District (CJUSD) school located in a low-density residential neighborhood of Grand Terrace, CA. The school is positioned along Barton Road at Vivienda Avenue, which is immediately adjacent to Interstate 215. The City of Grand Terrace previously conducted walk audits at this site on April 27th, 2015 from 1:45-2:45PM in the Administration Building as a part of the data collection process for its Active Transportation Plan. The walk audit extended into the surrounding streets: Barton Road, Vivienda Avenue, Michigan Avenue, McClarren Street, and Carhart Avenue. The data from that walk audit have been absorbed into the following report. Surveys and tallies were not conducted as part of the Active Transportation Plan but a teacher tally was conducted as part of Phase II. Reference can be directed to the City of Grand Terrace for updates pertaining to this school site.

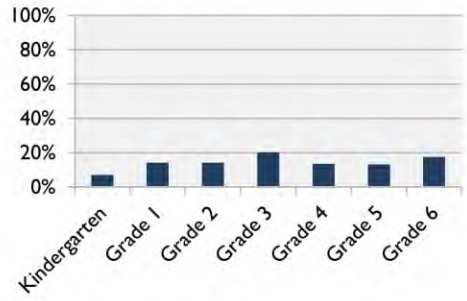
SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	669
Number of Tallies	3,526
» Morning (To School)	1,759
» Afternoon (From School)	1,767

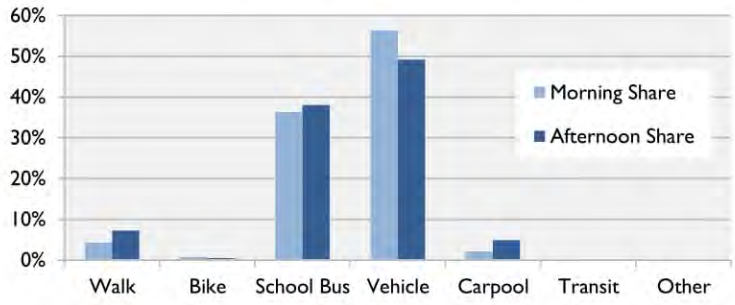
Data source: KOA Corporation, processed by the National Center for Safe Routes to School. Data and figures accurate as of Spring 2015.

Tallies were conducted by teachers in 26 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. Survey data are not available for this school.

Grade Distribution of Tallies



Travel Mode Distribution of Tallies



GRAND TERRACE ELEMENTARY - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Grand Terrace
School Enrollment - 693
Free or Reduced Lunch - 78.10%

Environmental Indicators:

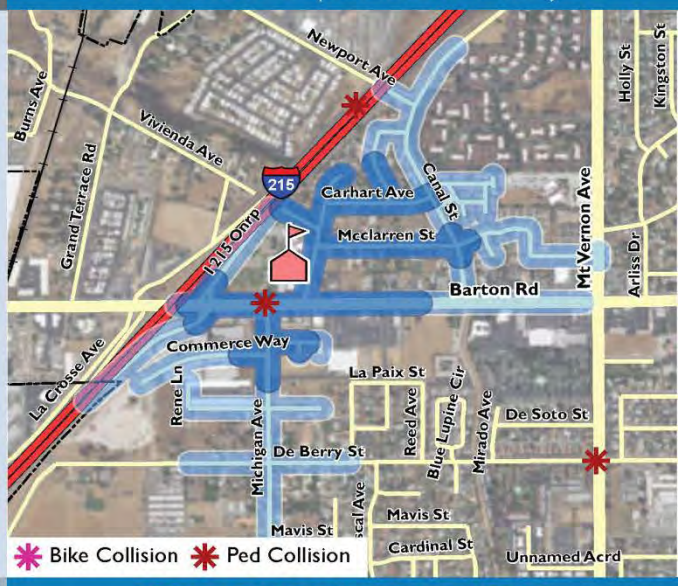
Cal Enviro Score % Range - 86-90%
Cal Enviro Score (CES2.0*) - 47.32

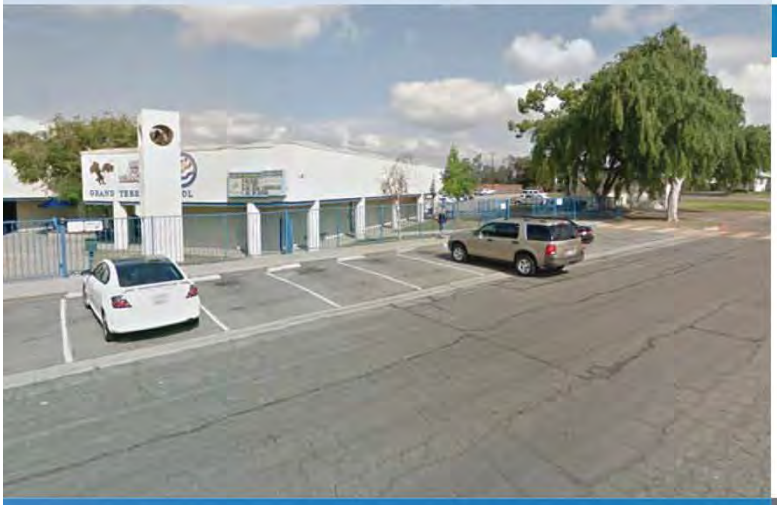
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - N/A
# of Surveys Received - 27

WALKSHED *(1/4 and 1/2 mile)*





COLLISION ANALYSIS

Pedestrian Related Collisions

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

Bicyclist Related Collisions

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

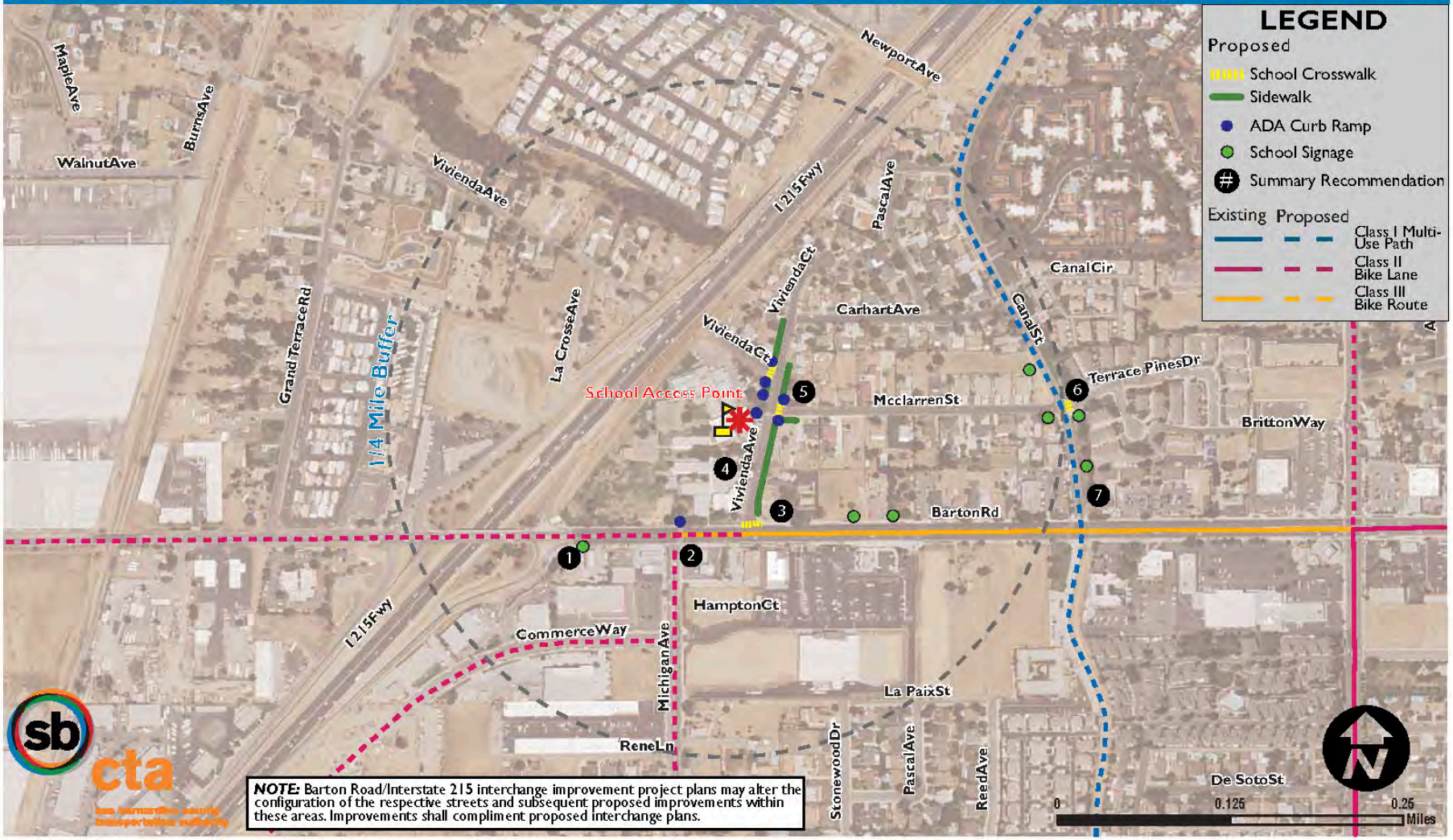
Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	5%	10%
bike	1%	1%
bus	37%	40%
vehicle	52%	43%
carpool	4%	4%
transit	0%	0%
other	2%	2%

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

SBCTA SRTS PHASE II: *GRAND TERRACE ELEMENTARY SCHOOL, GRAND TERRACE*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Barton Road and I-215 Off Ramp:* Upgrade existing sign to SW24-3 (CA) Assembly D. Location pending Barton/ Interstate 215 interchange improvement plans (SBCTA).
2. *Barton Road and Michigan Avenue:* Install ADA compliant curb ramp at crossing locations. Restripe crosswalk paint on east leg of intersection. Improvements pending Barton/Interstate 215 interchange improvement plans (SBCTA).
3. *Barton Road and Vivienda Avenue:* Install bulbout on NE corner. Remove existing SW24-3 (CA) sign that is placed 108ft east of intersection and install SW24-3 (CA) Assembly D 500ft east of intersection. Upgrade existing SR4-1 (CA) Assembly C sign to conventional roadway size (36x72").
4. Relocate existing school pick-up/drop-off area to faculty parking lot and reconfigure bus drop off area.
5. *Vivienda Avenue:* Install ADA compliant curb ramps at locations designated along with restriping of crosswalks with high visibility ladder style crossing as shown. Replace "Wrong Way Do Not Enter" sign that is in poor condition located at loop exit. Install ADA compliant curb ramps as noted and sidewalk gap closures.
6. *Canal Street and McClarren Street:* Remove existing outdated signs at crossing and replace with SW24-2 (CA) Assembly B signs on north and south approaches to crossing. Upgrade both existing SW24-3 (CA) Assembly D signs on north and south approaches.
7. *Canal Street:* Remove existing school signage placed 125 feet north of Barton Road and install the SW24-3 (CA) Assembly D as listed in #6 above.

Background/Discussion of the Engineering Improvements

	Recommendation #	Location	Improvement	Background/Discussion
Grand Terrace Elementary School	1	Barton Road at I-215 Off Ramp	School signage	Signage improvements at this location can increase driver awareness regarding the nearby school area and potential pedestrians in the area during school hours, per CA MUTCD Part 7 guidelines.
	2	Barton Road at Michigan Avenue	ADA curb ramp, Crosswalk restripe	See item below, "General - ADA curb ramp." Crosswalk improvements provide clearer paths for pedestrians along a primary walking route and a heavily used vehicular corridor. Recent collision data shows a collision involving a pedestrian at this location.
	3	Barton Road at Vivienda Avenue	School signage	Signage improvements adhere to CA MUTCD Part 7 guidelines, which are in place to increase driver awareness of the nearby school area ahead. Additionally, sign improvements address speeding issues near the school and may alert drivers of the speed limit when children are present.
	4	School Campus	School pick-up and drop-off area	This recommendations addresses congestion near the school and create more apparent drop off/pick up methods at the school, per observations made during the walk audit process.
	5	Vivienda Avenue	ADA curb ramps. High visibility ladder crosswalks, School signage, Sidewalk	See item below, "General - ADA curb ramp." High visibility crosswalks provide clearer paths for pedestrians along a primary walking route to school. Signage improvements at the loop exit inform drivers of the one way traffic pattern at the school loop. Sidewalk installation improves conditions along this primary walking route to school.
	6	Canal Street and McClarren Street	School signage	Signage improvements at this location can increase driver awareness regarding the nearby school area and potential pedestrians in the area during school hours, per CA MUTCD Part 7 guidelines.
	7	Canal Street	School signage	Signage removal accommodates Recommendation #6, and eliminates sign pollution in the area.
	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 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 Grand Terrace Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Vivienda Ave.	New Sign on Post	Each	$181	2	$362
	High Visibility Ladder Crosswalk	Each	$1,788	2	$3,576
	ADA Curb Ramps	Each	$3,623	6	$21,735
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	850	$44,134
	Segment Total				**$69,807**
Canal St.	New Sign on Post	Each	$181	5	$906
	High Visibility Ladder Crosswalk	Each	$1,788	1	$1,788
	Segment Total				**$2,694**
Barton Rd.	New Sign on Post	Each	$181	4	$725
	High Visibility Ladder Crosswalk	Each	$1,788	2	$3,576
	ADA Curb Ramps	Each	$3,623	1	$3,623
	Curb Extension - Raised	Per Intersection	$87,766	0.25	$21,942
	Segment Total				**$29,865**
ALL SEGMENTS					**$102,366**

Terrace View Elementary School

Terrace View Elementary School is a Colton Joint Unified School District (CJUSD) school located in a low-density residential neighborhood of Grand Terrace, CA. The school is positioned along Grand Terrace Rd. and Brentwood St. The closest major arterial roadway is Mt. Vernon Avenue, which is located 0.22 miles west of the school site. Supporting documents show that Terrace View Elementary School received attention in the citywide Active Transportation Plan that was begun in 2015. However, no walk audit information is available at this time. Reference can be directed to the City of Grand Terrace for updates pertaining to this school site, pending the release of the Active Transportation Plan and respective supporting documentation.

No tally or survey data are available for Terrace View Elementary School.

TERRACE VIEW ELEMENTARY - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Grand Terrace
School Enrollment - 820
Free or Reduced Lunch - 45.80%

Environmental Indicators:

Cal Enviro Score % Range - 86-90%
Cal Enviro Score (CES2.0*) - 47.32

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

Walk Audit Highlights

of Walk Audit Participants - N/A
# of Surveys Received - N/A

WALKSHED *(1/4 and 1/2 mile)*

COLLISION ANALYSIS

Pedestrian Related Collisions

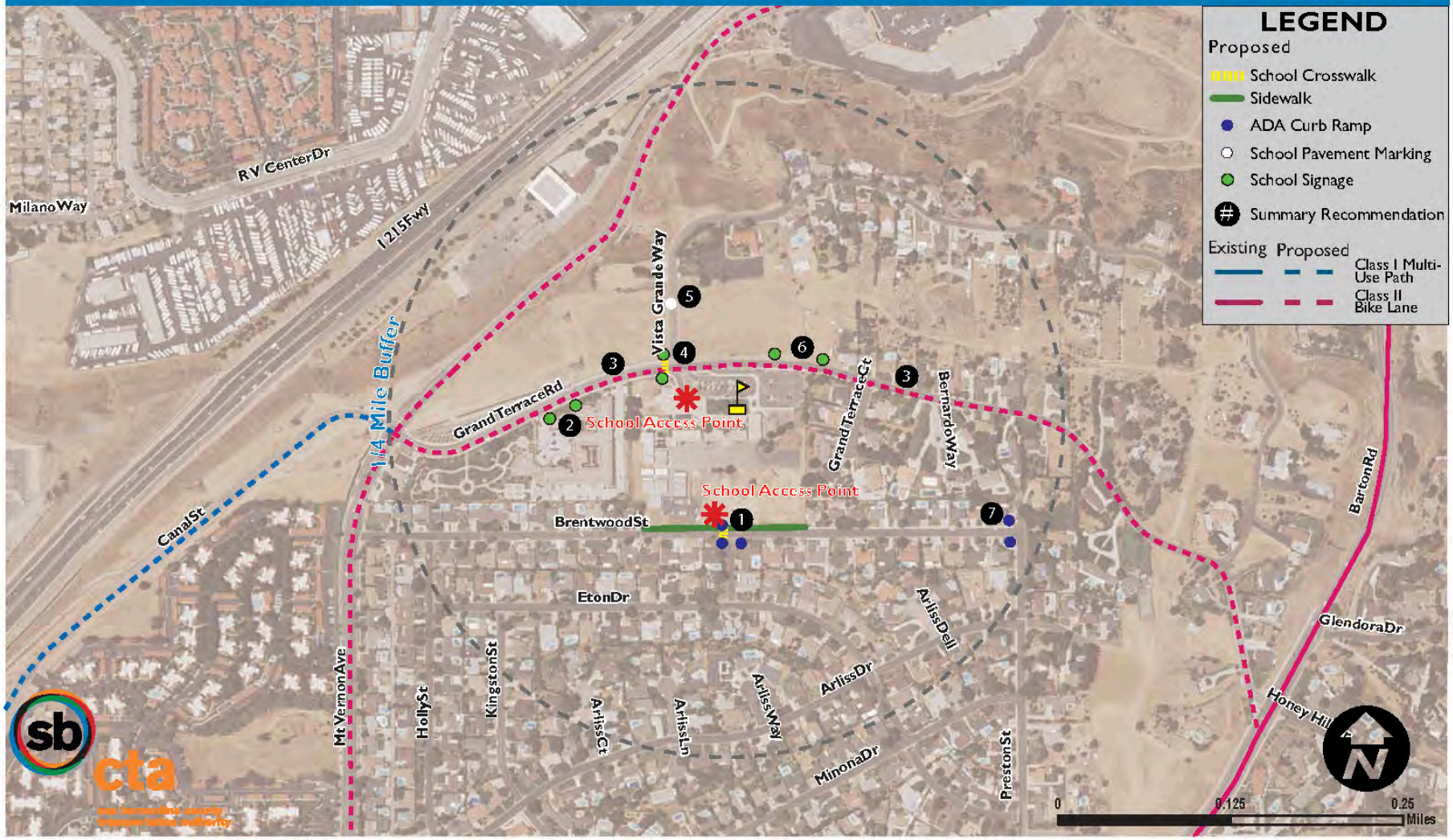
0 within 1/4 mile
0 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

SBCTA SRTS PHASE II: *TERRACE VIEW ELEMENTARY SCHOOL, GRAND TERRACE*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Brentwood Street and Thames Street:* Repaint high visibility crosswalk and install ADA compliant curb ramps at NW, SW, and SE curbs. Relocate portable restroom to different location for better line of sight intersection characteristcs.
2. *Grand Terrace Road:* Increase size of existing SR4-1 (CA) Assembly C to conventional roadway size of 36x72".
3. *Grand Terrace Road:* Install Class II Bike Lane along Grand Terrace Road corridor within school extent.
4. *Grand Terrace Road and Vista Grande Way:* Install high visibility yellow ladder style crosswalk for service on west leg of intersection. Install SW24-2 (CA) Assembly B signs on each side of crossing for east and west traffic.
5. *Vista Terrace Way:* Repaint existing school pavement marking on the southbound segment to read, "SLOW SCHOOL XING."
6. *Grand Terrace Road:* Install SR4-1 (CA) Assembly C and SW24-3 (CA) Assembly D signage approaching school crossing.
7. *Brentwood Street and Preston Street:* Install ADA compliant pedestrian curb ramps on NW and SW curbs.

Background/Discussion of the Engineering Recommendations

Terrace View Elementary School

Recommendation #	Location	Improvement	Background/Discussion
1	Brentwood Street and Thames Street	High visibility ladder style crosswalk, ADA compliance	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). See below, "General - ADA curb ramps."
2	Grand Terrace Road	School signage	Adherence to MUTCD Part 7 guidelines to increase driver awareness of Grand Terrace Road crossing are referenced in Recommendation #1.
3	Grand Terrace Road	Class II bike lane	Improvements are along primary walking route to and from school (noted during field observation). Addition of bike lane promotes riding to and from school per comments from the walk audit.
4	Grand Terrace Road and Vista Grande Way	High visibility ladder style crosswalk, school signage	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). Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along Grand Terrace Road, a primary walking route to school (noted during field observation).
5	Vista Terrace Way	School pavement marking	Adherence to MUTCD Part 7 guidelines to increase awareness of Vista Terrace Way crossing.
6	Grand Terrace Road	School signage	Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along Grand Terrace Road, a primary walking route to school (noted during field observation).
7	Brentwood Street and Preston Street	ADA compliance	See below, "General - sidewalks" and "ADA curb ramps."
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 Terrace View Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Grand Terrace Rd.	Class II Bicycle Lane Striping (2 sides of road)	Per Linear Foot	$12	4200	$50,400
	New Sign on Post	Each	$181	6	$1,087
	School Area Pavement Marking (Per Word)	Each	$254	1	$254
	High Visibility Ladder Crosswalk	Each	$1,788	1	$1,788
	Segment Total				**$53,528**
Brentwood St.	High Visibility Ladder Crosswalk	Each	$1,788	1	$1,788
	ADA Curb Ramps	Each	$3,623	5	$18,113
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	650	$33,750
	Segment Total				**$53,650**
ALL SEGMENTS					**$107,178**

City of Hesperia

Hesperia Junior High School

Hesperia Junior High School is a Hesperia Unified School District (HUSD) school located in a low-density residential neighborhood of Hesperia, California. The school is positioned along Cypress Avenue, Willow Street, and 11th Avenue. The walk audit performed at Hesperia Junior High School was held prior to the morning start bell ringing, from 8:00AM to 9:00AM on September 7th, 2016. Parent participants were recruited as they dropped off their students, totaling 17 participants. Observations extended into the surrounding neighborhood along Willow Street, Hercules Street, 11th Avenue, Cypress Avenue, and Cashew Street.

"I am not comfortable with my child walking or biking to and from school due to the fact that there are no sidewalks and vehicular traffic drives by without slowing down for pedestrians."

"There are a lot of dogs wandering around and there are no street lights."

"My child safely walks to and from school, but I am often concerned for her."

All remarks received from walk audit participants at Hesperia Junior High

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	57
Number of Tallies	220
» Morning (To School)	110
» Afternoon (From School)	110

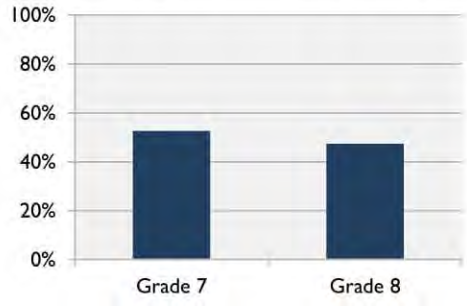
Number of Surveys Received	147

Data source: KOA Corporation, processed by the National Center for Safe Routes to School. Data and figures accurate as of Fall 2016.

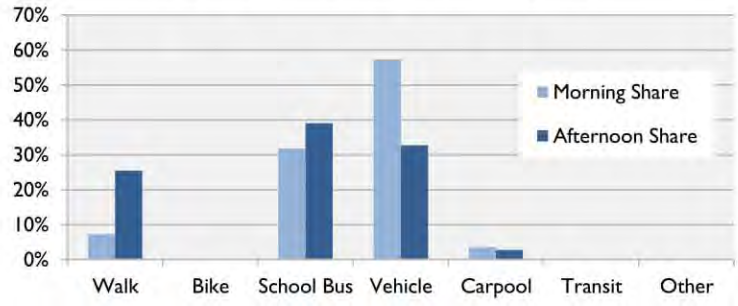
Tallies were conducted by teachers in two classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to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

Students who walk or bike to school	**12.4%**
Students who don't walk/bike but have asked parents for permission	**+ 26.9%**
Students who walk/bike or have asked parents for permission	**39.3%**
Student enrollment	**x 985**
Potential walking/biking student base	**387**

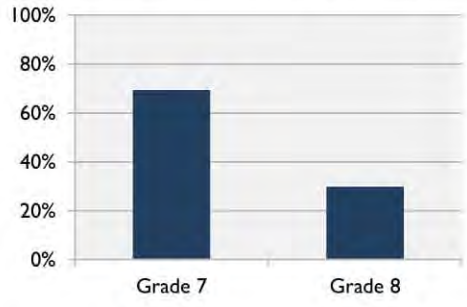
Grade Distribution of Tallies



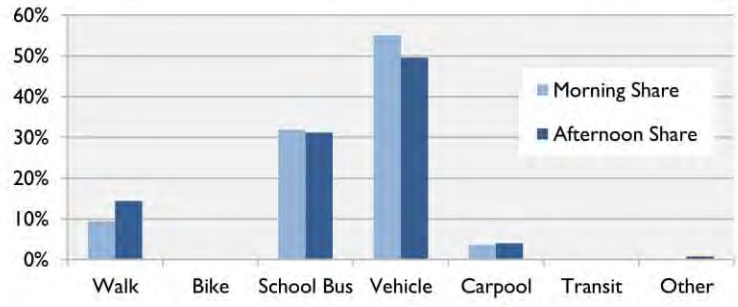
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

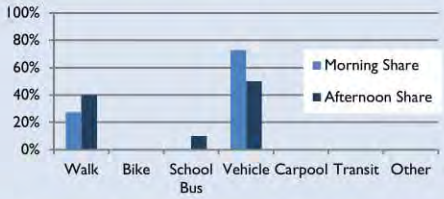


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

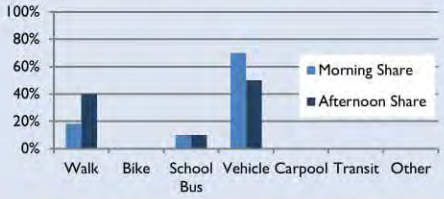
9%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 36%
Safety of Intersections & Crossings – 36%
Speed of Traffic Along Route – 27%
Amount of Traffic Along Route – 27%
Crossing Guards – 27%

Students Living Between ¼ and ½ Mile from School

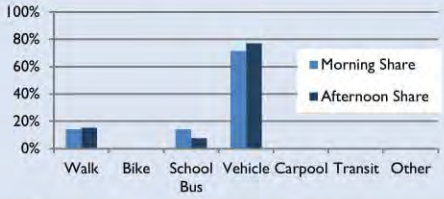
9%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 55%
Amount of Traffic Along Route – 55%
Safety of Intersections & Crossings – 45%
Distance – 36%
Sidewalks or Pathways – 36%

Students Living Between ½ and 1 Mile from School

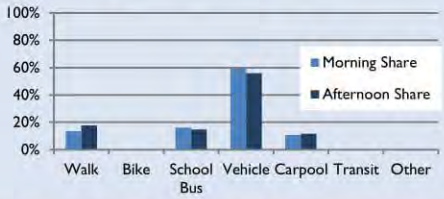
11%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 43%
Amount of Traffic Along Route – 43%
Distance – 36%
Weather or Climate – 36%
Safety of Intersections & Crossings – 29%

Students Living Between 1 and 2 Miles from School

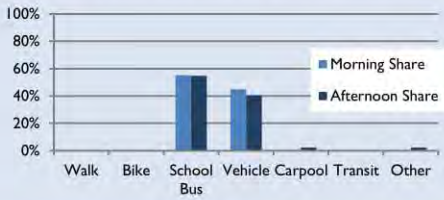
31%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 43%
Sidewalks or Pathways – 38%
Weather or Climate – 38%
Speed of Traffic Along Route – 35%
Safety of Intersections & Crossings – 35%

Students Living Farther than 2 Miles from School

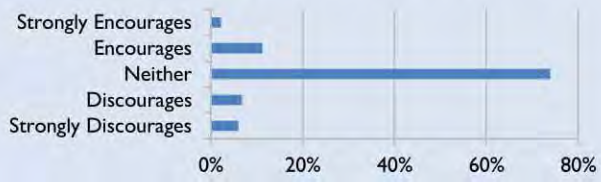
41%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 50%
Safety of Intersections & Crossings – 37%
Violence or Crime – 37%
Amount of Traffic Along Route – 29%
Speed of Traffic Along Route – 27%

Parents' Perspectives

Whether School Encourages Walking/Biking



73%
consider walking/biking healthy or very healthy.

59%
would not feel comfortable having their child walk/bike at any age with current conditions.

HESPERIA JUNIOR HIGH SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Hesperia
School Enrollment - 985
Free or Reduced Lunch - 81.80%

Environmental Indicators:

Cal Enviro Score % Range - 56-60%
Cal Enviro Score (CES2.0*) - 28.59

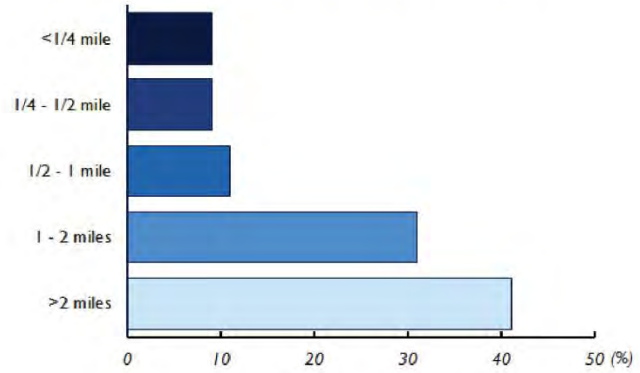
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 17
# of Surveys Received - 147

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

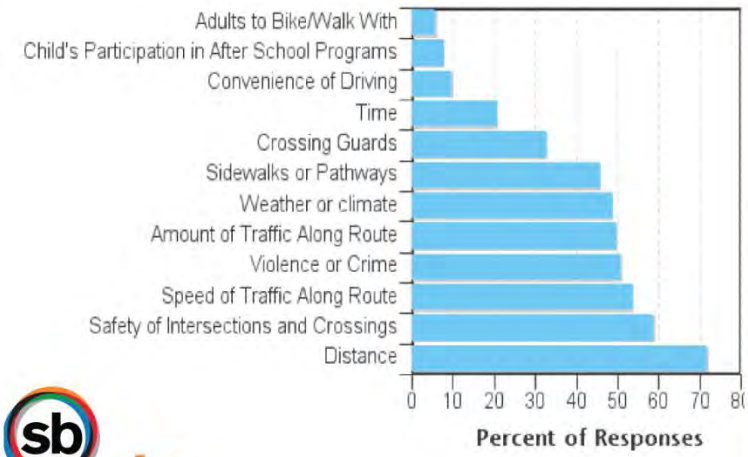
0 within 1/4 mile
0 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



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

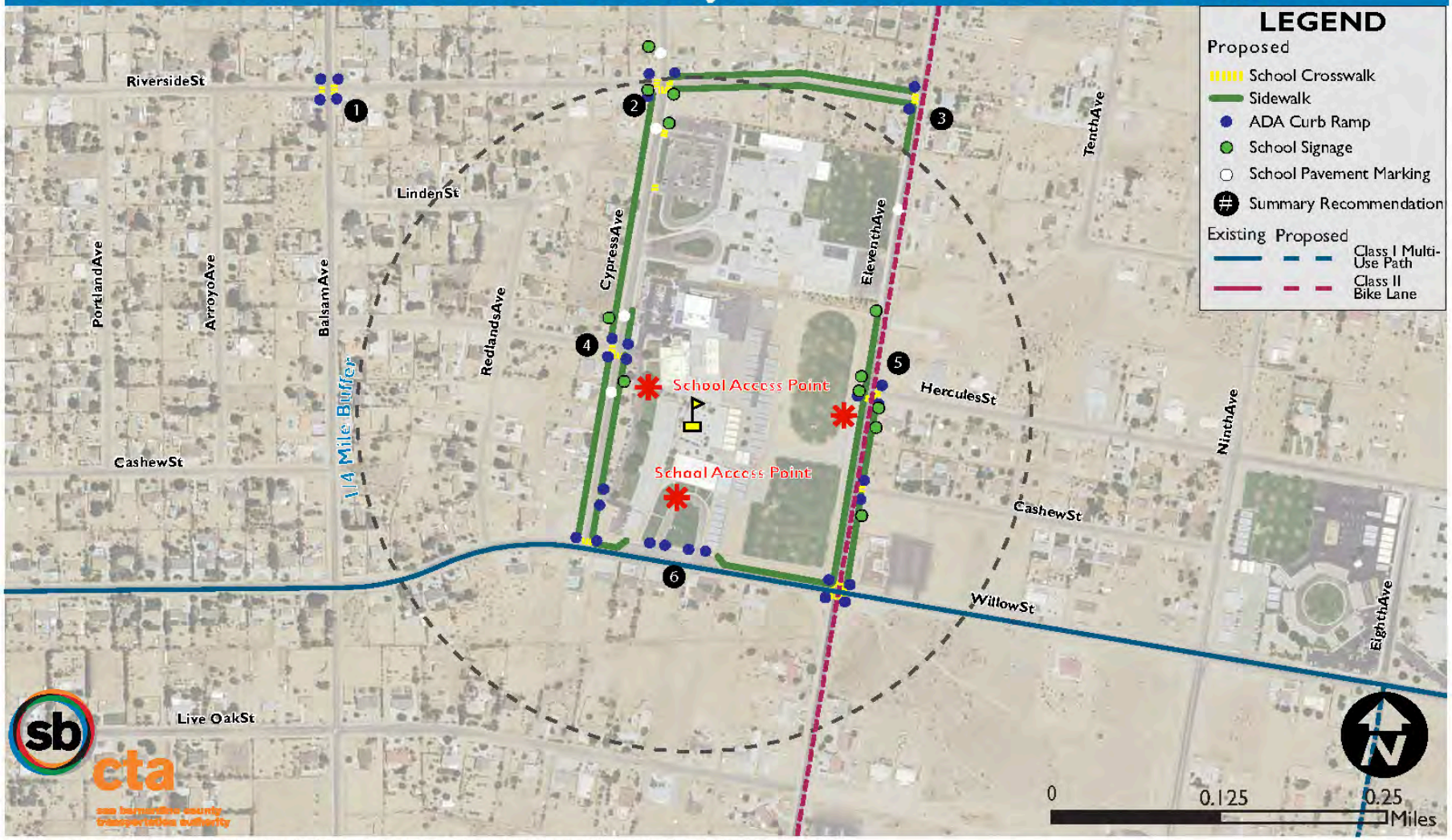
TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	9%	14%
bike	0%	0%
bus	32%	31%
vehicle	55%	50%
carpool	4%	4%
transit	0%	0%
other	0%	0.8%

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

sb cta
san bernardino county transportation authority

SBCTA SRTS PHASE II: *HESPERIA JUNIOR HIGH SCHOOL, HESPERIA*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Balsam Avenue at Riverside Street:* Install ADA compliant curb ramps at this locations. Neighborhoods west of the school are missing sidewalk. Restripe existing school crosswalks with high visibility paint (ladder style).

2. *Cypress Avenue at Riverside Street:* Restripe existing school crosswalks with high visibility paint (ladder style). Install ADA curb ramps. Install SW24-3(CA) Assembly D signs for both directions of traffic. Install SW24-2(CA) Assembly B signs for uncontrolled crossing. Restripe both school pavement markings near the intersection. Install sidewalk on both sides of Riverside Street.

3. *Riverside Street at 11th Avenue:* Install ADA curb ramps. Install sidewalk on west side of 11th Street. Restripe existing school crosswalk with high visibility paint (ladder style). Restripe and realign school pavement marking south of the intersection.

4. *Cypress Avenue at Hercules Street:* Install SW24-3(CA) Assembly D signs for both directions of traffic. Restripe both school pavement markings. Install sidewalk on both sides of Cypress Avenue. Install ADA curb ramps. Restripe existing crosswalks with high visibility paint (ladder style). Install bulb outs at south corners of the intersection. Station crossing guard at this intersection during peak periods of the day.

5. *11th Avenue at Hercules Street:* Install ADA curb ramps. Restripe existing school crosswalks with high visibility paint (ladder style). Install sidewalk on both sides of the street. Install SW24-3(CA) Assembly D signs for northbound and southbound traffic. Install R1-5 signs with yield lines for northbound and southbound traffic. Install SW24-2(CA) Assembly B signs for northbound and southbound traffic.

6. *Willow Street:* Install ADA curb ramps at locations shown above. Install sidewalk on north side of the street. Restripe existing school crosswalk with high visibility paint (ladder style). Restripe all bicycle lane legends and pavement legends at stop controlled intersection (Willow Street at 11th Avenue).

Background/Discussion of the Engineering Improvements

	Recommendation #	Location	Improvement	Background/Discussion
Hesperia Junior High School	1	Balsam Avenue at Riverside Street	ADA curb ramps, Sidewalk, High visibility crosswalk	See item below, "General - ADA curb ramp" and "General - Sidewalk." High visibility crosswalks alert drivers of conlficting pedestrian movements at this location.
	2	Cypress Avenue at Riverside Street	ADA curb ramps, Sidewalk, High visibility crosswalk, School signage, School pavement markings	See item below, "General - ADA curb ramp" and "General - Sidewalk." High visibility crosswalks alert drivers of conflicting pedestrian movements at this location and provide clearer paths for pedestrians along this primary walking route to school. School signage and school pavement markings are in place to alert drivers of pedestrian crossings in the vicinity.
	3	Riverside Street at 11th Avenue	ADA curb ramps, Sidewalk, High visibility crosswalk, School pavement markings	See item below, "General - ADA curb ramp" and "General - Sidewalk." High visibility crosswalks alert drivers of conlficting pedestrian movements at this location and provide clearer paths for pedestrians along this primary walking route to school. School pavement markings are in place to alert drivers of pedestrian crossings in the vicinity.
	4	Cypress Avenue at Hercules Street	ADA curb ramps, Sidewalk, High visibility crosswalk, School signage, School pavement markings	See item below, "General - ADA curb ramp" and "General - Sidewalk." High visibility crosswalks are in place alert drivers of conflicting pedestrian movements at this location and provide clearer paths for pedestrians along this primary walking route to school. School signage and school pavement markings can increase driver awareness of pedestrian crossings in the vicinity.
	5	11th Avenue at Hercules Street	ADA curb ramps, Sidewalk, High visibility crosswalk, School signage, School pavement markings, Yield lines	See item below, "General - ADA curb ramp" and "General - Sidewalk." High visibility crosswalks alert drivers of conlficting pedestrian movements at this location and provide clearer paths for pedestrians along this primary walking route to school. School signage and school pavement markings can increase driver awareness of pedestrian crossings in the vicinity. Yield lines can increase driver awareness of crossings at this location, while also creating an additional cushion between vehicle and pedestrian, per CA MUTCD Part 3 guidelines.
	6	Willow Street	ADA curb ramps, Sidewalk, High visibility crosswalk, Bicycle legends and pavement legends	See item below, "General - ADA curb ramp" and "General - Sidewalk." High visibility crosswalks are in place to alert drivers of conlficting pedestrian movements at this location. Bicycle improvements and pavement legend improvements can increase driver awareness of bicyclists and pedestrians in the area.
	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 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 Hesperia Junior High School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
11th Ave.	Roadway Lighting (1 side of road)	Per Linear Foot	$102	200	$20,400
	New Sign on Post	Each	$181	6	$1,087
	School Area Pavement Marking (Per Word)	Each	$254	1	$254
	ADA Curb Ramps	Each	$3,623	5	$18,113
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	2025	$105,143
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	200	$7,245
	Segment Total				**$152,241**
Cypress Ave.	New Sign on Post	Each	$181	4	$725
	School Area Pavement Marking (Per Word)	Each	$254	12	$3,043
	High Visibility Ladder Crosswalk	Each	$1,788	4	$7,152
	ADA Curb Ramps	Each	$3,623	6	$21,735
	Curb Extension - Raised	Per Intersection	$87,766	0.5	$43,883
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	2050	$106,441
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	1750	$63,394
	Segment Total				**$246,372**
Riverside St.	Roadway Lighting (1 side of road)	Per Linear Foot	$102	1900	$193,800
	High Visibility Ladder Crosswalk	Each	$1,788	6	$10,728
	ADA Curb Ramps	Each	$3,623	9	$32,603
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1900	$98,653
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	1900	$68,828
	Segment Total				**$404,611**
Willow St.	Class II Bicycle Lane Striping (2 sides of road)	Per Linear Foot	$12	1400	$16,800
	School Area Pavement Marking (Per Word)	Each	$254	4	$1,014
	High Visibility Ladder Crosswalk	Each	$1,788	5	$8,940
	ADA Curb Ramps	Each	$3,623	10	$36,225
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	625	$32,452
	Segment Total				**$95,431**
ALL SEGMENTS					**$898,655**

Joshua Circle Elementary School

Joshua Circle Elementary School is a Hesperia Unified School District (HUSD) school located in a low-density residential neighborhood of Hesperia, California. The school is situated along the following four roadways: Willow Street, 8th Avenue, 9th Avenue, and Hercules Street. Held on September 7th, 2016, the Joshua Circle Elementary School walk audit began at 12:30PM. Parent participants were recruited in the time leading up to the afternoon release bell as they waited for their students, totaling 26 participants. Observations extended into the surrounding neighborhood along Willow Street, Hercules Street, Cashew Street, and 7th Avenue.

"There's got to be a better way to pick-up children. There are too many children let out at the same location. It causes a dangerous situation."

"Both the high traffic speeds and the lack of sidewalks are my biggest concern."

"After school it has been a mess to pick-up children. It's very unsafe. Cars block one another and it gets too backed-up on the back side of the school. Too many children exit at the same location."

All remarks received from walk audit participants at Joshua Circle Elementary

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	56
Number of Tallies	260
» Morning (To School)	133
» Afternoon (From School)	127

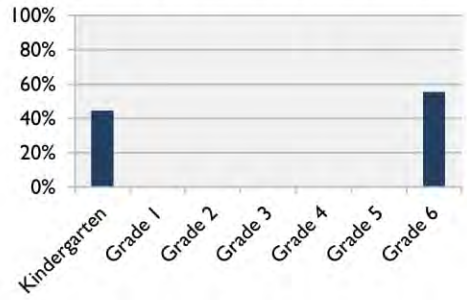
Number of Surveys Received	144

Data source: KOA Corporation, processed by the National Center for Safe Routes to School. Data and figures accurate as of Fall 2016.

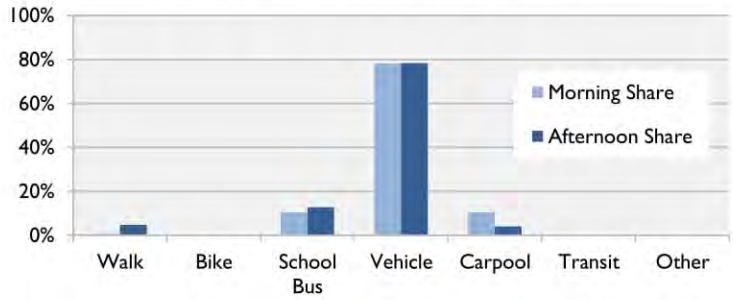
Tallies were conducted by teachers in two classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to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

Students who walk or bike to school	**9.9%**
Students who don't walk/bike but have asked parents for permission	**+ 21.3%**
Students who walk/bike or have asked parents for permission	**31.2%**
Student enrollment	**x 728**
Potential walking/biking student base	**227**

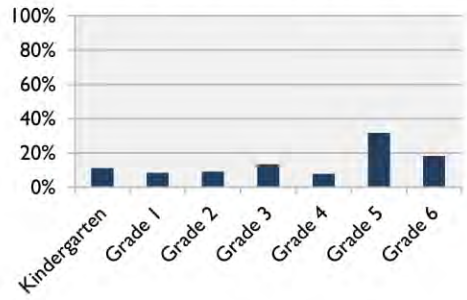
Grade Distribution of Tallies



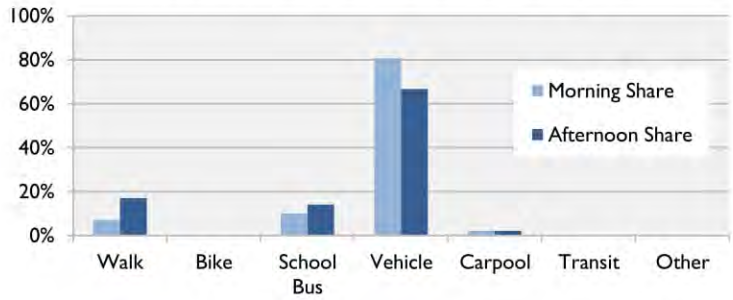
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

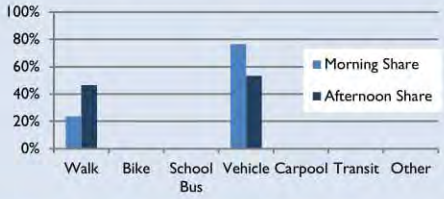


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

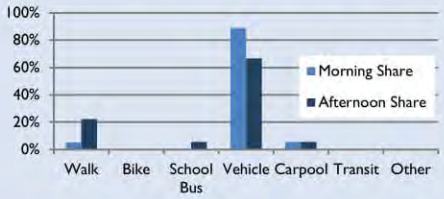
14%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 44%
Amount of Traffic Along Route – 33%
Safety of Intersections & Crossings – 33%
Adults to Bike/Walk With – 28%
Sidewalks or Pathways – 22%

Students Living Between ¼ and ½ Mile from School

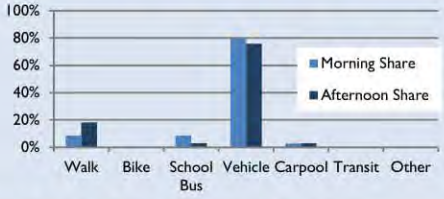
15%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 32%
Safety of Intersections & Crossings – 32%
Speed of Traffic Along Route – 26%
Crossing Guards – 26%
Amount of Traffic Along Route – 21%

Students Living Between ½ and 1 Mile from School

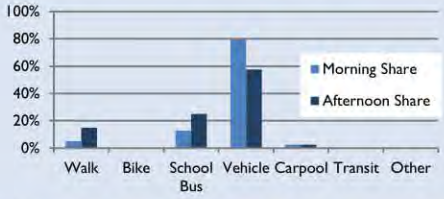
28%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 58%
Safety of Intersections & Crossings – 47%
Violence or Crime – 47%
Amount of Traffic Along Route – 42%
Sidewalks or Pathways – 42%

Students Living Between 1 and 2 Miles from School

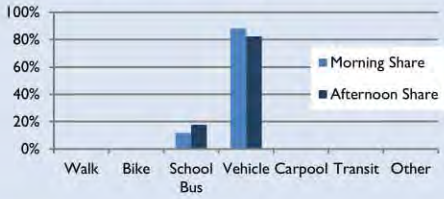
31%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 53%
Speed of Traffic Along Route – 48%
Weather or Climate – 48%
Sidewalks or Pathways – 43%
Violence or Crime – 40%

Students Living Farther than 2 Miles from School

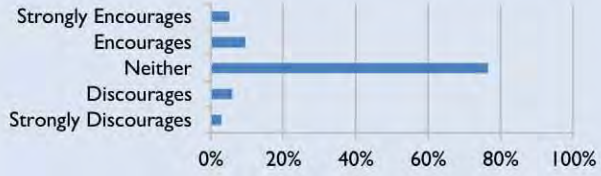
13%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 59%
Speed of Traffic Along Route – 53%
Safety of Intersections & Crossings – 47%
Violence or Crime – 41%
Amount of Traffic Along Route – 35%

Parents' Perspectives

Whether School Encourages Walking/Biking



71%
consider walking/biking healthy or very healthy.

69%
would not feel comfortable having their child walk/bike at any age with current conditions.

JOSHUA CIRCLE ELEMENTARY - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Hesperia
School Enrollment - 728
Free or Reduced Lunch - 88.50%

Environmental Indicators:

Cal Enviro Score % Range - 56-60%
Cal Enviro Score (CES2.0*) - 28.59

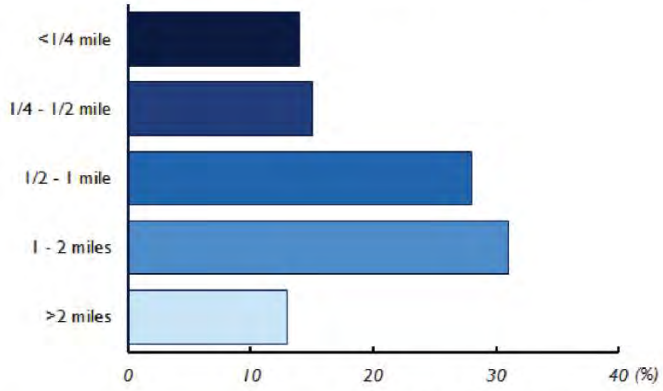
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 26
# of Surveys Received - 144

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

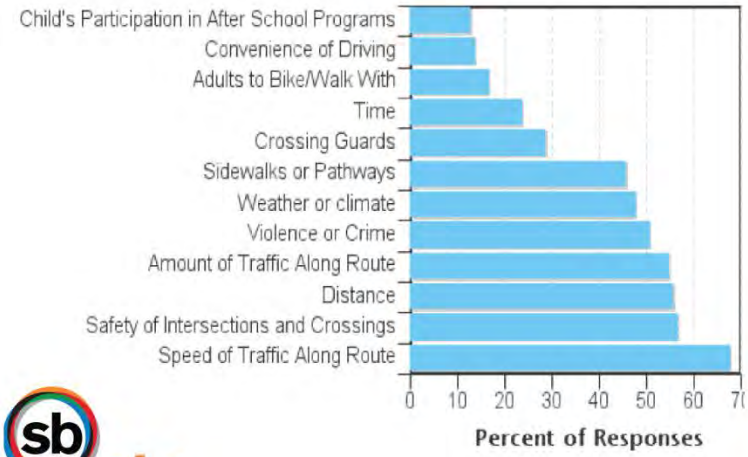
1 within 1/4 mile
2 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



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

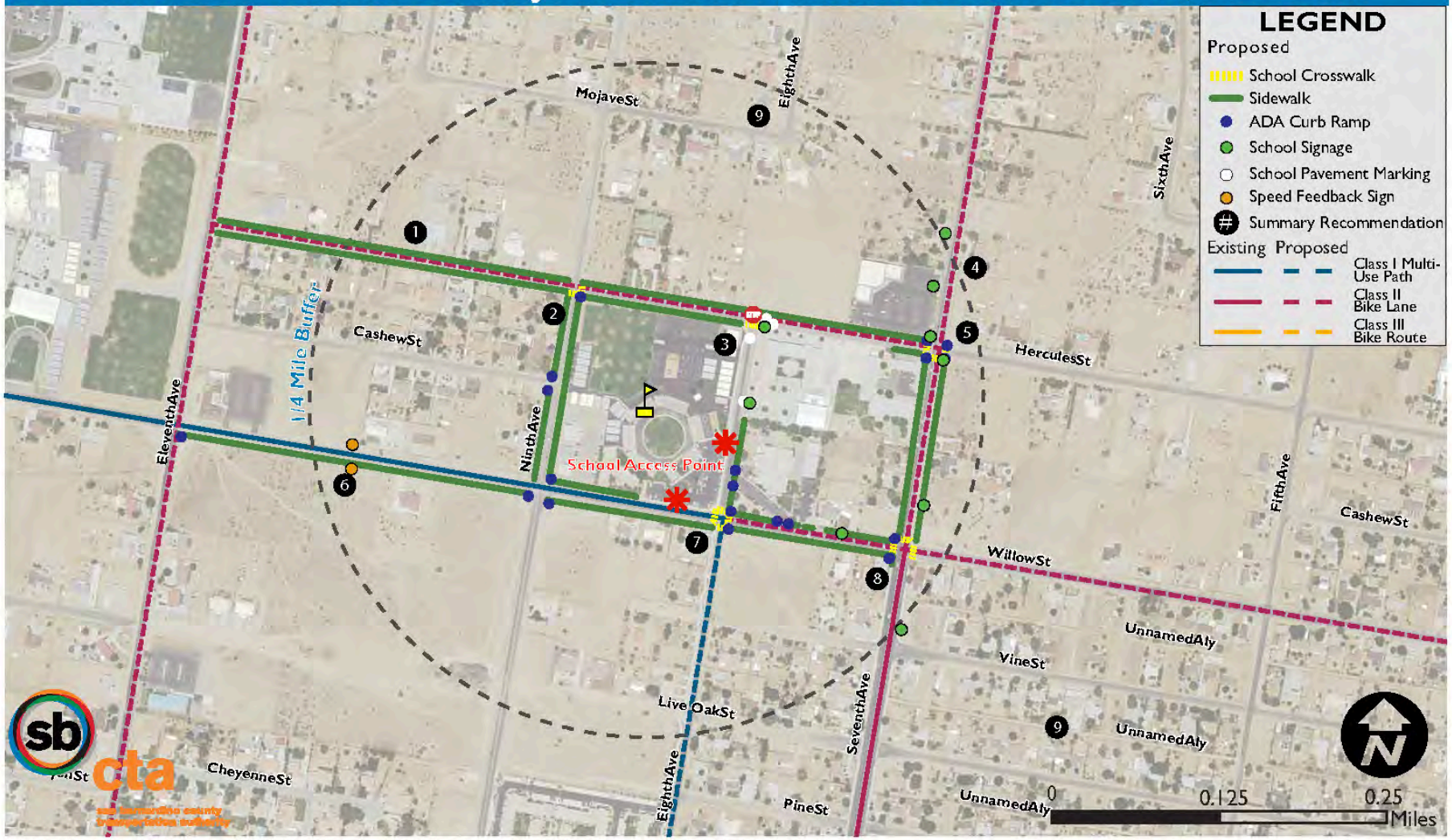
TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	7%	17%
bike	0%	0%
bus	10%	14%
vehicle	81%	67%
carpool	2%	2%
transit	0%	0%
other	0%	0%

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

sbcta
san bernardino county transportation authority

SBCTA SRTS PHASE II: *JOSHUA CIRCLE ELEMENTARY SCHOOL, HESPERIA*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Hercules Street:* Install sidewalk on both sides of the street. Install curb ramps at various locations. Install Class II bike lane connecting Eleventh Avenue and Seventh Avenue.
2. *Hercules Street at Ninth Avenue:* Restripe existing school crosswalks with high visibility paint (ladder style). Install ADA curb ramp. Restripe existing school pavement markings.
3. *Hercules Street at Eighth Avenue:* Install All Way Stop Control (AWSC), pending passed warrants. Restripe existing school pavement markings near the intersection. Replace existing SR4-1(CA) Assembly C sign with larger sign of same type.
4. *Seventh Avenue:* Install SW24-3(CA) Assembly D sign for southbound traffic. Replace existing SR4-1(CA) Assembly C sign with larger sign of same type.
5. *Hercules Avenue at Seventh Avenue:* Install ADA curb ramps. Restripe existing school crosswalks with high visibility paint (ladder style). Provide sidewalk north along Seventh Avenue and east along Hercules Street.
6. *Willow Street:* Install speed feedback signs facing east and west. Install ADA curb ramps at various locations.
7. *Willow Street at Eighth Avenue:* Install sidewalk on both sides of Willow Street. Restripe existing school crosswalks with high visibility paint (ladder style). Restripe all pavement legends at the intersection.
8. *Willow Street at Seventh Avenue:* Restripe existing school crosswalks with high visibility paint (ladder style). Replace SR4-1(CA) Assembly C signs with larger signs of same type (facing east and south). Install SW24-3(CA) Assembly D sign for northbound traffic.
9. *Surrounding Area:* All neighborhoods surrounding the school campus are missing sidewalk, which should eventually be installed throughout.

Background/Discussion of the Engineering Recommendations

Joshua Circle Elementary School

Recommendation #	Location	Improvement	Background/Discussion
1	Hercules Street	Sidewalk, ADA curb ramps, Class II Bike Lane	See items below, "General - Sidewalk" and "General - ADA curb ramp." Bicycle improvements provide better connectivity between existing facilities for those riding their bicycles in the area.
2	Hercules Street at Ninth Avenue	High visibility crosswalks, ADA curb ramp, School pavement markings	High visibility crosswalks provide clearer paths for pedestrians along a primary walking route to school. See item below, "General - ADA curb ramp." School pavement markings can increase driver awareness of pedestrian crossings in the area.
3	Hercules Street at Eighth Avenue	All Way Stop Control, School pavement markings, School signage	Stop control can provide adequate gaps in traffic for pedestrians to cross comfortably. Stop control may also control speeding in the area, as observed during the walk audit process. Stop control installation will occur pending a warrant study. School pavement markings and signage alert drivers of crossings in the area, per CA MUTCD Parts 3 and 7 guidelines.
4	Seventh Avenue	School signage	Signage improvements adhere to CA MUTCD Part 7 guidelines, which are in place to increase driver awareness of pedestrian crossings in the area.
5	Hercules Avenue at Seventh Avenue	High visibility crosswalks, ADA curb ramps, Sidewalk	High visibility crosswalks provide clearer paths for pedestrians along a primary walking route to school. See item below, "General - ADA curb ramp" and "General - Sidewalk."
6	Willow Street	Speed feedback signs, ADA curb ramps	Speed feedback signage installation addresses speeding in the area, per walk audit observations and comments received during the survey process. See item below, "General - ADA curb ramp."
7	Willow Street at Eighth Avenue	Sidewalk, High visibility crosswalks, School pavement markings	High visibility crosswalks provide clearer paths for pedestrians along a primary walking route to school. See item below, "General - Sidewalk." School pavement markings can increase driver awareness of crossings in the area, per CA MUTCD Part 7 guidelines.
8	Willow Street at Seventh Avenue	High visibility crosswalks, School signage	High visibility crosswalks provide clearer paths for pedestrians along a primary walking route to school. School signage installation can increase driver awareness of crossings in the area, per CA MUTCD Part 7 guidelines. Recent collision data shows a collision involving a pedestrian at this location.
9	Surrounding Area	Sidewalk	See item below, "General - Sidewalk."
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 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 Joshua Circle Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
7th Ave.	New Sign on Post	Each	$181	6	$1,087
	High Visibility Ladder Crosswalk	Each	$1,788	6	$10,728
	ADA Curb Ramps	Each	$3,623	6	$21,735
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1550	$80,480
	Segment Total				**$114,030**
8th Ave.	New Sign on Post	Each	$181	8	$1,449
	School Area Pavement Marking (Per Word)	Each	$254	9	$2,282
	High Visibility Ladder Crosswalk	Each	$1,788	5	$8,940
	ADA Curb Ramps	Each	$3,623	3	$10,868
	Curb Extension - Raised	Per Intersection	$87,766	0.25	$21,942
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	400	$20,769
	Segment Total				**$66,249**
9th Ave.	School Area Pavement Marking (Per Word)	Each	$254	4	$1,014
	High Visibility Ladder Crosswalk	Each	$1,788	2	$3,576
	ADA Curb Ramps	Each	$3,623	7	$25,358
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1500	$77,884
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	750	$27,169
	Segment Total				**$135,000**
Hercules St.	Class II Bicycle Lane Striping (2 sides of road)	Per Linear Foot	$12	3000	$36,000
	School Area Pavement Marking (Per Word)	Each	$254	2	$507
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	5300	$275,189
	Segment Total				**$311,696**
Willow St.	Speed Awareness Sign	Each	$14,490	2	$28,980
	New Sign on Post	Each	$181	1	$181
	ADA Curb Ramps	Each	$3,623	2	$7,245
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	5450	$282,978
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	3700	$134,033
	Segment Total				**$453,416**
ALL SEGMENTS					**$1,080,391**

City of Highland

Warm Springs Elementary School

Warm Springs Elementary School is a San Bernardino City Unified School District (SBCUSD) school located in a low-density residential neighborhood in Highland, CA. The school site is situated along Sterling Avenue between 9th Street and Baseline Street. The walk audit was held in conjunction with the monthly Coffee with the Principal meeting on November 14th, 2016 from 8:00AM to 9:00AM. In attendance were parents, school staff, a City Engineer, and a City SRTS Liaison. This event was used as the staging area for the participants where a briefing and de-briefing were conducted. Observations extended into the surrounding neighborhood along Sterling Avenue, 9th Street, Baseline Street, and Rogers Lane. The walk audit itself had 11 participants.

"Many kids cross in the middle of the block at school because it's too far for them to walk around on the other side of the street."

"Walking to school is healthy and fun for my children ONLY with my supervision! Safety is my number one priority and as a parent it is my responsibility to keep my kids protected."

"The neighborhood is unsafe for elementary-school-aged children to walk home."

All remarks received from walk audit participants at Warm Springs Elementary

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	399
Number of Tallies	2,154
» Morning (To School)	1,079
» Afternoon (From School)	1,075

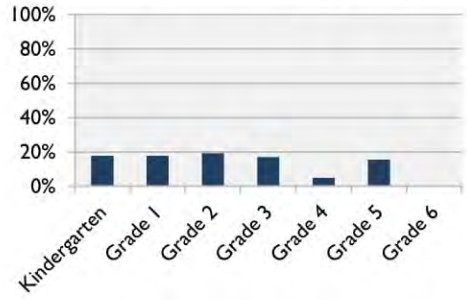
Number of Surveys Received	200

Data source: KOA Corporation, processed by the National Center for Safe Routes to School. Data and figures accurate as of Fall 2016.

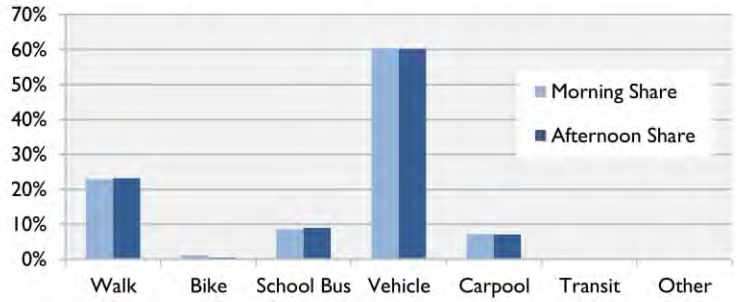
Tallies were conducted by teachers in 18 classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of surveys. **Surveys** were printed on two-page forms and distributed to parents to take home.

Students who walk or bike to school	**20.3%**
Students who don't walk/bike but have asked parents for permission	**+ 19.8%**
Students who walk/bike or have asked parents for permission	**40.1%**
Student enrollment	**x 565**
Potential walking/biking student base	**227**

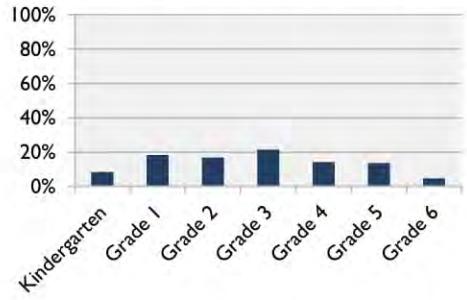
Grade Distribution of Tallies



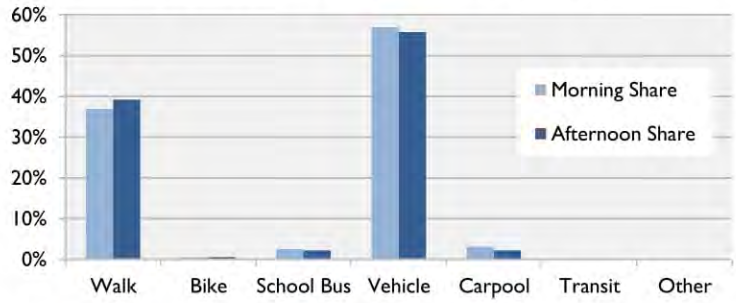
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

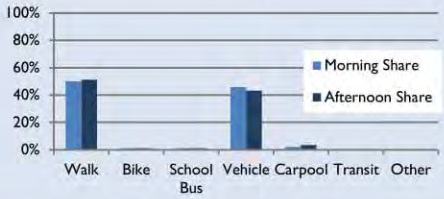


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

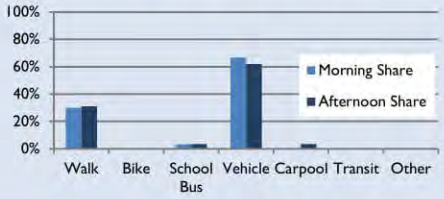
56%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 36%
Speed of Traffic Along Route – 26%
Safety of Intersections & Crossings – 23%
Amount of Traffic Along Route – 21%
Weather or Climate – 17%

Students Living Between ¼ and ½ Mile from School

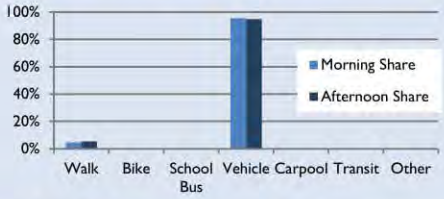
18%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 37%
Safety of Intersections & Crossings – 33%
Speed of Traffic Along Route – 30%
Weather or Climate – 27%
Amount of Traffic Along Route – 23%

Students Living Between ½ and 1 Mile from School

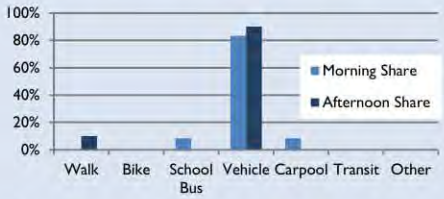
13%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 59%
Speed of Traffic Along Route – 50%
Amount of Traffic Along Route – 36%
Distance – 23%
Sidewalks or Pathways – 23%

Students Living Between 1 and 2 Miles from School

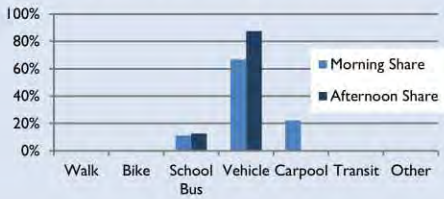
7%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 38%
Distance – 23%
Weather or Climate – 23%
Speed of Traffic Along Route – 15%
Safety of Intersections & Crossings – 15%

Students Living Farther than 2 Miles from School

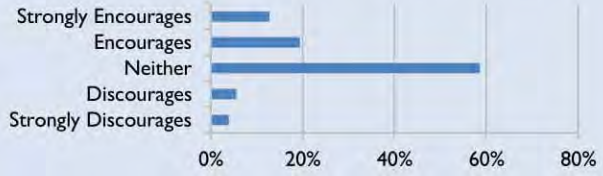
5%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 56%
Weather or Climate – 44%
Convenience of Driving – 33%
Time – 33%
Violence or Crime – 33%

Parents' Perspectives

Whether School Encourages Walking/Biking



77%
consider walking/biking healthy or very healthy.

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

WARM SPRINGS ELEMENTARY - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Highland
School Enrollment - 565
Free or Reduced Lunch - 97.10%

Environmental Indicators:

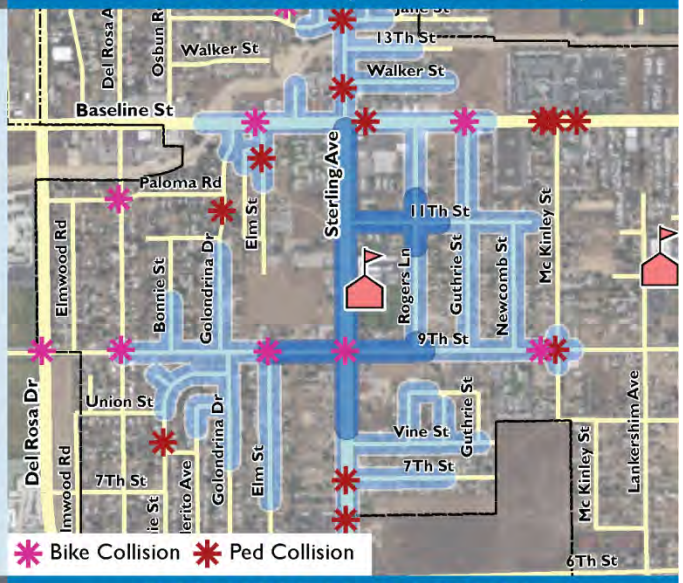
Cal Enviro Score % Range - 81-85%
Cal Enviro Score (CES2.0*) - 45.58

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

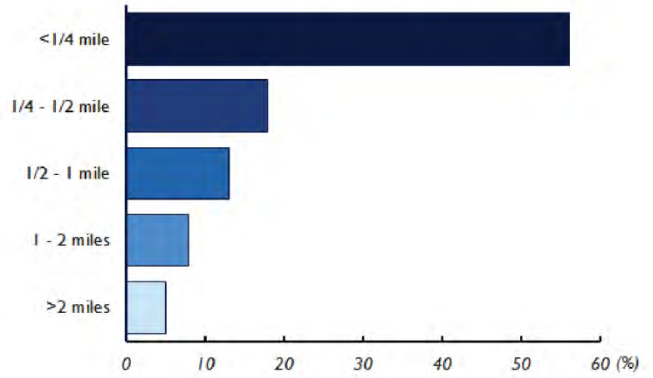
Walk Audit Highlights

of Walk Audit Participants - 11
# of Surveys Received - 200

WALKSHED *(1/4 and 1/2 mile)*



COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

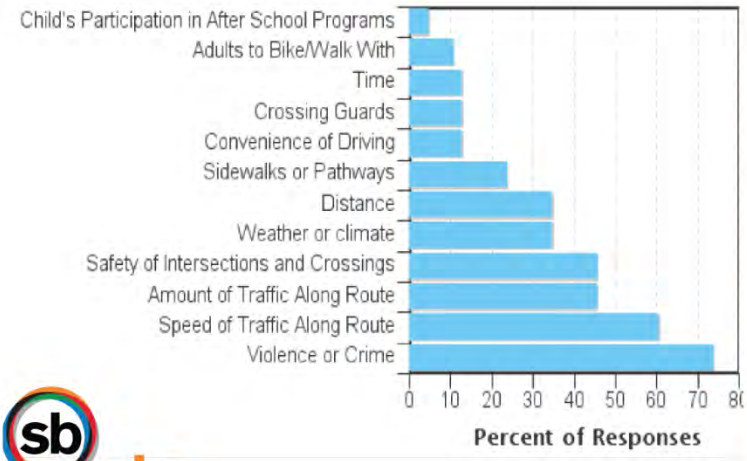
2 within 1/4 mile
14 within 1/2 mile
1 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sbcta
san bernardino county transportation authority

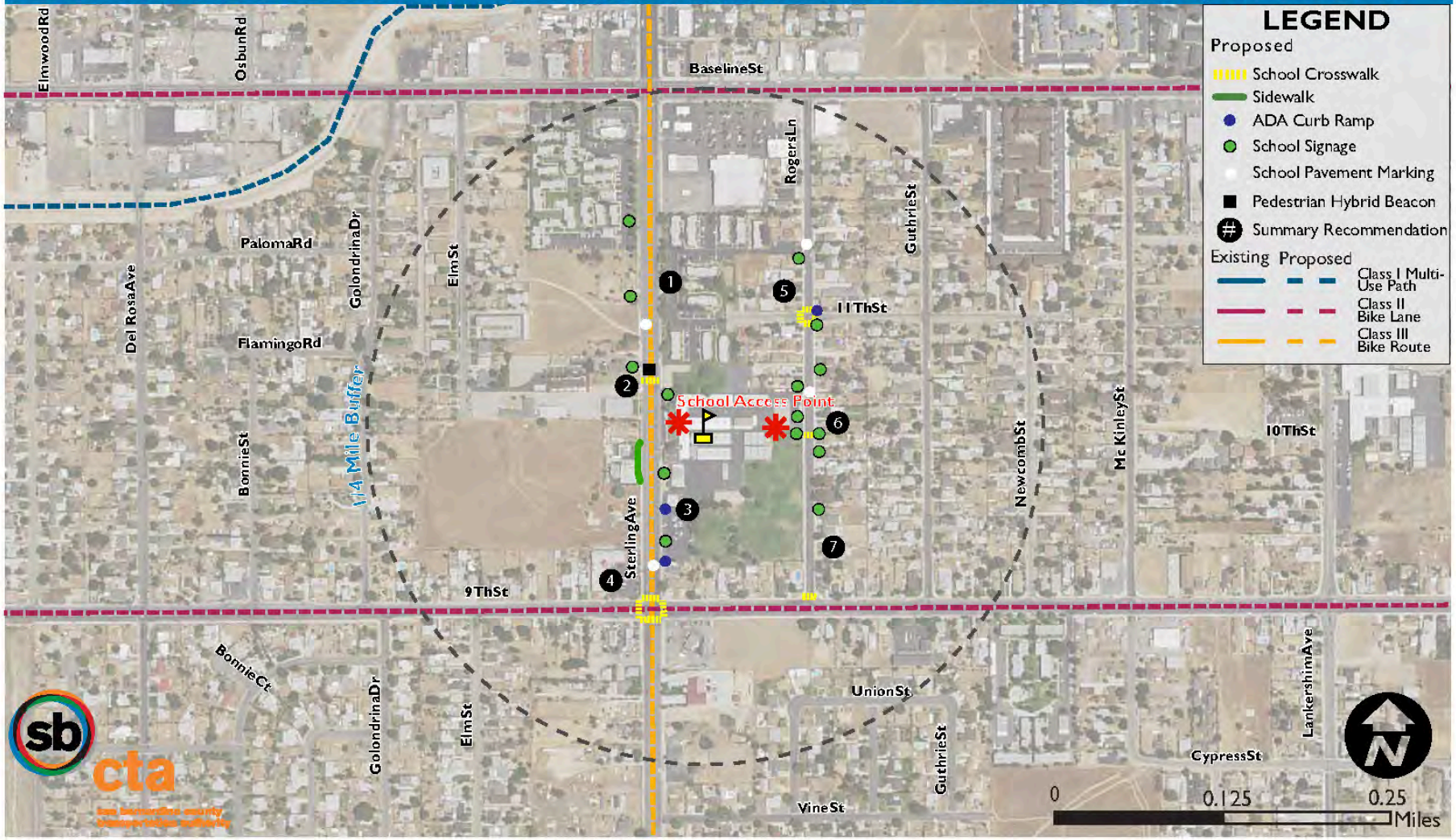
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	37%	39%
bike	0.5%	0.6%
bus	3%	2%
vehicle	57%	56%
carpool	3%	2%
transit	0%	0%
other	0%	0%

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

SBCTA SRTS PHASE II: *WARM SPRINGS ELEMENTARY SCHOOL, HIGHLAND*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Sterling Avenue:* Install SW24-3(CA) Assembly D sign facing north. Install SR4-1(CA) Assembly C sign facing north. Restripe school pavement marking for southbound traffic.
2. *Sterling Avenue Midblock Crossing:* Install midblock crossing across Sterling Avenue. Include corresponding signage. Install R1-5 signs and corresponding yield lines for both directions of traffic. Install pedestrian hybrid beacon with pedestrian push buttons on both ends of the proposed crosswalk. Install bulbouts at both ends of the proposed crosswalk.
3. *Sterling Avenue south of School Campus:* Install sidewalk on west side of street. Install SR4-1 (CA) Assembly C sign facing south. Install SW24-3(CA) Assembly D sign facing south. Install ADA curb ramps at both ends of school parking lot driveways. Restripe school pavement marking for northbound traffic.
4. *Sterling Avenue at 9th Street:* Restripe all school crosswalks with high visibility paint (ladder style). Ensure curb ramp at southeast corner is ADA compliant.
5. *Rogers Lane at 11th Street:* Repaint school pavement marking. Replace existing sign with SW24-3(CA) Assembly D sign. Restripe all school crosswalks with high visibility paint (ladder style). Replace existing sign with SW24-2(CA) Assembly B sign. Install additional ADA curb ramp at northeast corner. Install bulbouts at all corners of the intersection.
6. *Rogers Lane:* Install SW24-3(CA) Assembly D signs facing north and south. Repaint school pavement marking. Install midblock crossing. Install SW24-2(CA) Assembly B sign. Install R1-5 signs and corresponding yield lines. Install bulbouts at both ends of proposed crosswalk. Paint red curb extending twenty feet from bulbouts.
7. *Rogers Lane at 9th Street:* Install SW24-3(CA) Assembly D sign facing south. Remove existing S1-1 sign that is in poor condition. Restripe school crosswalk with high visibility paint (ladder style).

Background/Discussion of the Engineering Recommendations

Warm Springs Elementary School

Recommendation #	Location	Improvement	Background/Discussion
1	**Sterling Avenue**	School signage, school pavement marking	Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along Sterling Ave, a primary walking route to school (noted during field observation). Restripe the school pavement marking in order to increase visibility of the striping for drivers.
2	**Sterling Avenue**	High visibility ladder style crosswalk, pedestrian hybrid beacon, and bulbouts	Installation of a midblock high visibility ladder style crosswalk with two bulbouts and a pedestrian hybrid beacon will enhance safety for pedestrians crossing the street to access School from the west side of Sterling Avenue.
3	**Sterling Avenue**	Sidewalk, school signage, ADA compliance, school pavement marking	See below, "General - sidewalks" and "ADA curb ramps." The school signage and school pavement marking improvements will enhance awareness of school zone for Northbound traffic along Sterling Avenue.
4	**Sterling Avenue at 9th Street**	High visibility ladder style crosswalk, ADA compliance	Repainting of the four High visibility ladder style crosswalks will ehance visibility for drivers. See below, "General - ADA curb ramps."
5	**Rogers Lane at 11th Street**	Advanced warning school signage, high visibility ladder style crosswalk, ADA compliance, bulbouts and red curb	The upgrades to signage and repainting of high visibility ladder style crosswalks at each corner will help with drivers visibility of pedestrians and the upcoming school zone. The installation of bulbouts at all four corners of the intersection may improve safety for pedestrians walking to and from school. See below, "General- ADA curb ramps." & "General - Red curb."
6	**Rogers Lane**	School signage, school pavement marking, bulbouts and red curb	The upgrades to signage and repainting of high visibility ladder style crosswalks at each corner will help with drivers visibility of pedestrians and the upcoming school zone. The installation of bulbouts at all four corners of the intersection will increase safety for pedestrians walking to and from school. See below, "General- Red curb."
7	**Rogers Lane at 9th Street**	School signage and high visibility ladder style crosswalk	Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along Rogers Lane, a primary walking route to school (noted during field observation). Restriping of school crosswalk to a high visibility ladders style crosswalk enhances visibility for drivers.
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 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.

TTT

The following cost estimation table details the Warm Springs Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Sterling Ave.	Pedestrian Flashing Beacon (Post/Pole Mount)	Each	$9,056	2	$18,113
	New Sign on Post	Each	$181	4	$725
	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	2	$7,245
	Curb Extension - Raised	Per Intersection	$87,766	0.5	$43,883
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	152	$7,892
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	152	$5,506
	Segment Total				**$93,825**
Rogers Ln.	New Sign on Post	Each	$181	7	$1,268
	School Area Pavement Marking (Per Word)	Each	$254	6	$1,521
	High Visibility Ladder Crosswalk	Each	$1,788	6	$10,728
	ADA Curb Ramps	Each	$3,623	1	$3,623
	Curb Extension - Raised	Per Intersection	$87,766	1.5	$131,650
	Segment Total				**$148,789**
ALL SEGMENTS					**$242,614**

Lankershim Elementary School

Lankershim Elementary School is a San Bernardino City Unified School District (SBCUSD) school located in a low-density residential neighborhood of Highland, CA. The school is located along Lankershim Avenue, just north of 9th Street. Held on October 28th, 2016, the Lankershim Elementary School walk audit took place from 8:00AM to 9:00AM after the morning start bell and immediately followed a School Site Council Meeting. In attendance were an engineer from the City of Highland, parents, and school staff. Participants utilized large-format maps of the school area as a tool to convey areas of concern. There were a total of 15 participants engaged in the walk audit event which included observations of the surrounding neighborhood along Lankershim Avenue, 9th Street, McKinley Avenue, and Eucalyptus Drive.

"I wouldn't ever let my child walk due to the amount of crime in the city."

"At times it is very difficult getting out of the school due to the amount of traffic. I'm concerned there might be accidents. Many people park in the red curb zones."

"Children these days act reckless and play around too much. They make their commute unsafe at times."

All remarks received from walk audit participants at Lankershim Elementary

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	673
Number of Tallies	3,702
» Morning (To School)	1,885
» Afternoon (From School)	1,817

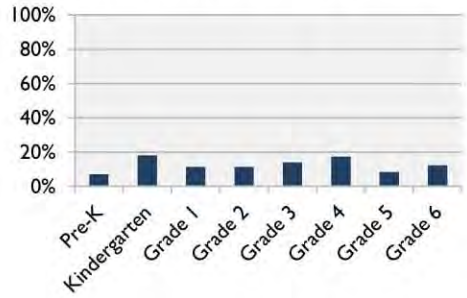
Number of Surveys Received	376

Data source: KOA Corporation, processed by the National Center for Safe Routes to School. Data and figures accurate as of Fall 2016.

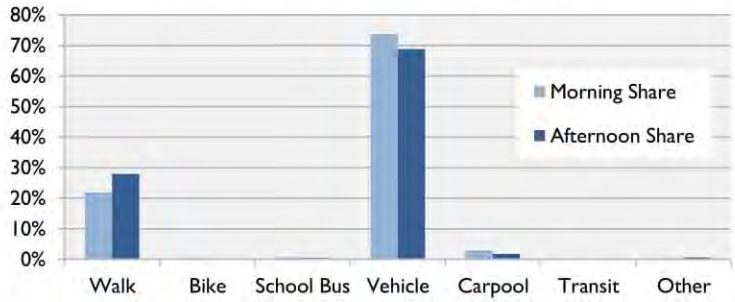
Tallies were conducted by teachers in 28 classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to take home.

Students who walk or bike to school	**19.9%**
Students who don't walk/bike but have asked parents for permission	**+ 29.1%**
Students who walk/bike or have asked parents for permission	**49.0%**
Student enrollment	**x 764**
Potential walking/biking student base	**374**

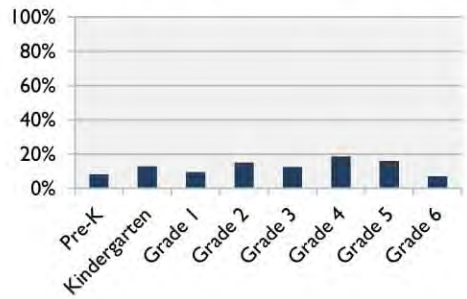
Grade Distribution of Tallies



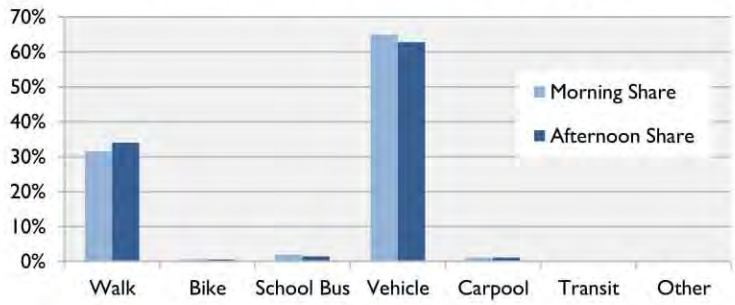
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

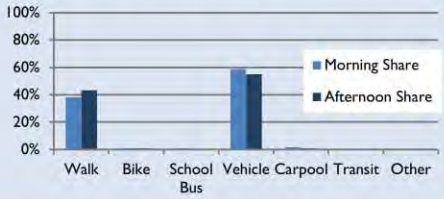


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

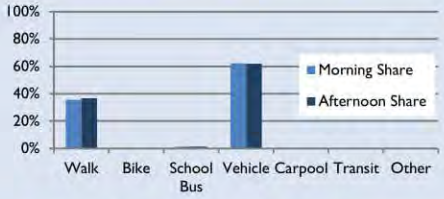
38%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 33%
Speed of Traffic Along Route – 32%
Safety of Intersections & Crossings – 26%
Amount of Traffic Along Route – 24%
Weather or Climate – 16%

Students Living Between ¼ and ½ Mile from School

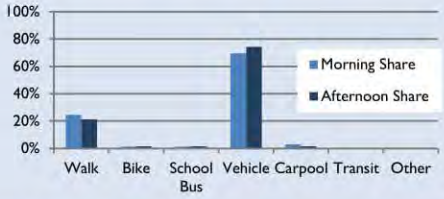
24%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 45%
Safety of Intersections & Crossings – 42%
Speed of Traffic Along Route – 39%
Amount of Traffic Along Route – 38%
Weather or Climate – 34%

Students Living Between ½ and 1 Mile from School

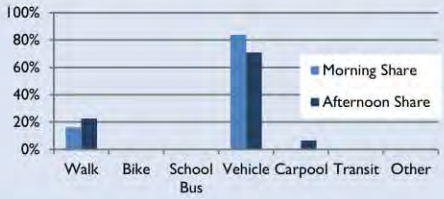
22%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Weather or Climate – 34%
Violence or Crime – 31%
Speed of Traffic Along Route – 30%
Amount of Traffic Along Route – 23%
Distance – 20%

Students Living Between 1 and 2 Miles from School

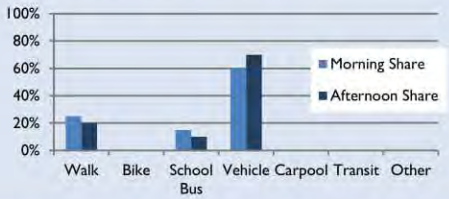
10%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 29%
Speed of Traffic Along Route – 26%
Amount of Traffic Along Route – 26%
Safety of Intersections & Crossings – 26%
Distance – 23%

Students Living Farther than 2 Miles from School

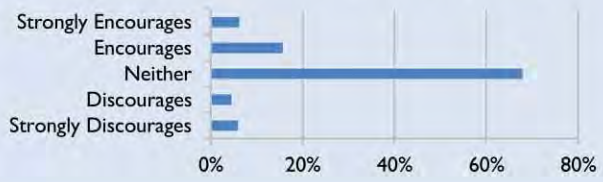
7%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Amount of Traffic Along Route – 52%
Distance – 48%
Speed of Traffic Along Route – 43%
Safety of Intersections & Crossings – 43%
Violence or Crime – 43%

Parents' Perspectives

Whether School Encourages Walking/Biking



77%
consider walking/biking healthy or very healthy.

61%
would not feel comfortable having their child walk/bike at any age with current conditions.

LANKERSHIM ELEMENTARY - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Highland
School Enrollment - 764
Free or Reduced Lunch - 95.80%

Environmental Indicators:

Cal Enviro Score % Range - 81-85%
Cal Enviro Score (CES2.0*) - 45.58

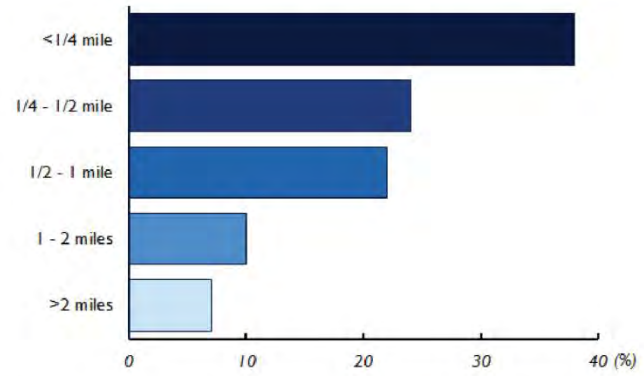
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 9
# of Surveys Received - 376

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

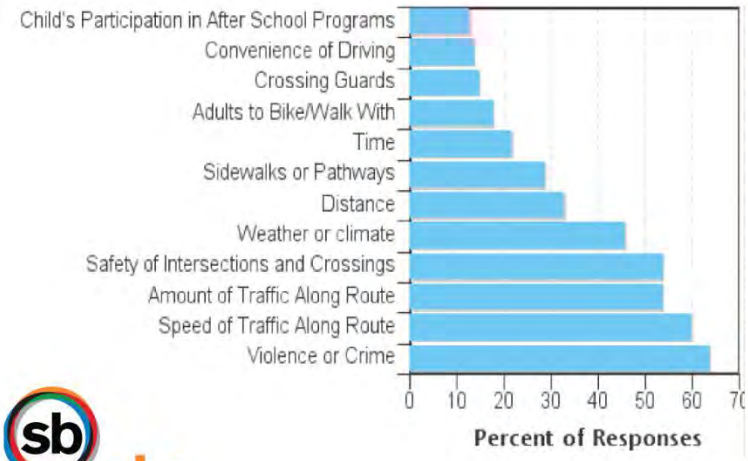
0 within 1/4 mile
8 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sbcta
san bernardino county transportation authority

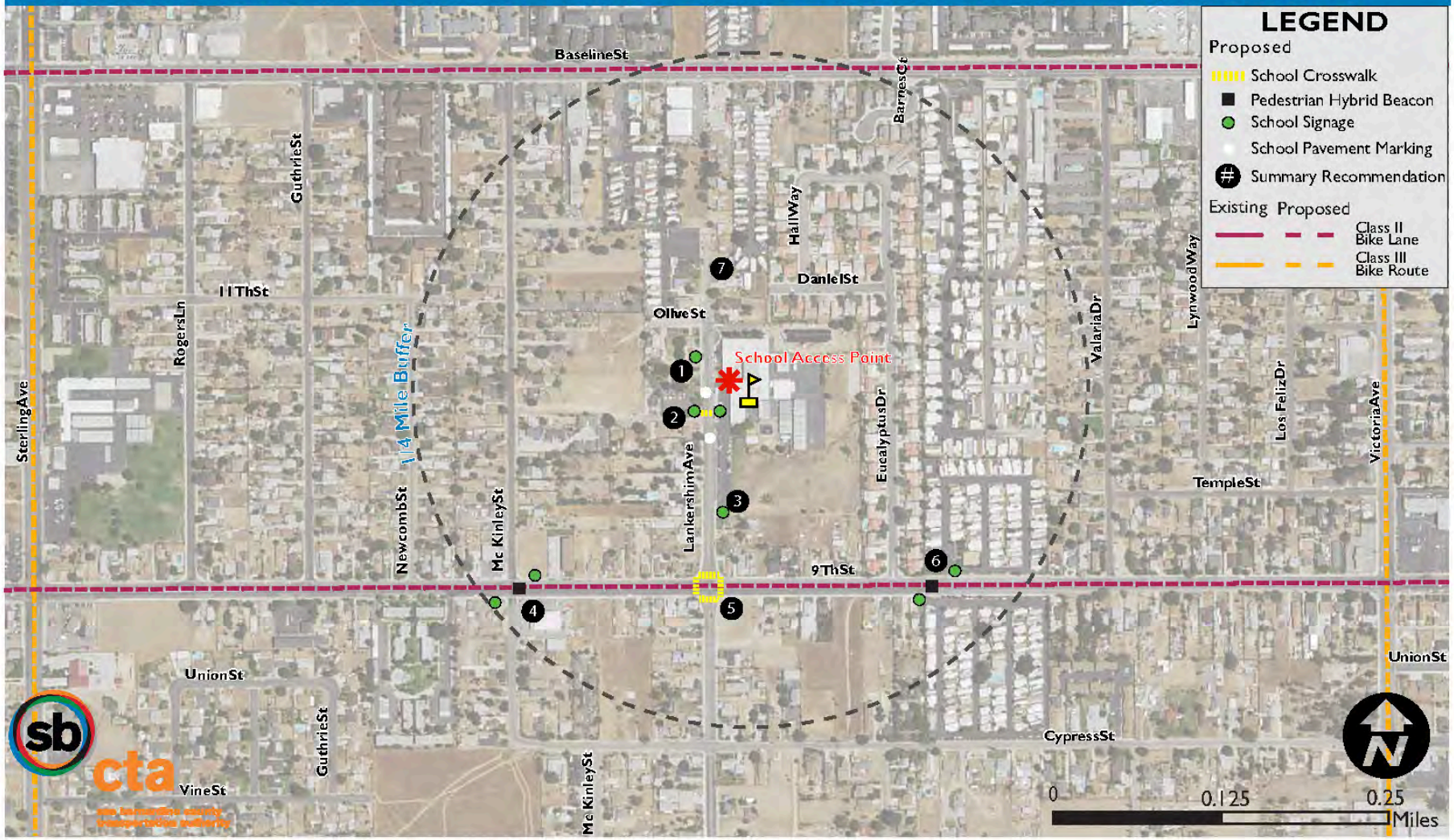
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	32%	34%
bike	0.5%	0.6%
bus	2%	1%
vehicle	65%	63%
carpool	1%	1%
transit	0%	0%
other	0%	0%

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

SBCTA SRTS PHASE II: *LANKERSHIM ELEMENTARY SCHOOL, HIGHLAND*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *LankershimAvenue:* Install SW24-3(CA) Assembly D sign facing north. Paint "SLOW SCHOOL XING" pavement legends 100 feet from midblock crossing for northbound and southbound traffic. Paint red curb on east side of street extending 20' from crosswalk to provide more pedestrian visibility.
2. *LankershimAvenue Midblock Crossing:* Restripe school crosswalk with high visibility paint (ladder style). Install SW24-2(CA) Assembly B signs at both ends of school crosswalk facing north and south. Trim trees on west side of street. Paint red curb on both sides of the street extending 20' from crosswalk to provide more pedestrian visibility. Install bulbout at east end of school crosswalk.
3. *LankershimAvenue south of School Campus:* Replace existing school sign with SW24-3(CA) Assembly D sign for northbound traffic.
4. *9th Street at McKinley Street:* Install pedestrian hybrid flashing beacon with pedestrian push button actuation on both sides of the street. Install R1-5 signs and corresponding advanced yield lines for eastbound and westbound traffic.
5. *LankershimAvenue at 9th Street:* Restripe all existing school crosswalks with high visibility (ladder style) crosswalks at the intersection.
6. *9th Street Midblock Crossing:* Install pedestrian hybrid flashing beacon with pedestrian push button actuation on both sides of the street. Install R1-5 signs and corresponding advanced yield lines for eastbound and westbound traffic.
7. *LankershimAvenue:* Install street improvemets (curb, gutter, and sidewalk) for area north of Olive Street.

Background/Discussion of the Engineering Improvements

Lankershim Elementary School

Recommendation #	Location	Improvement	Background/Discussion
1	Lankershim Avenue	School signage, School pavement markings, Red curb	School pavement markings and school signage can increase driver awareness regarding pedestrian crossings in the area. See item below, "General - Red curb."
2	Lankershim Avenue Midblock Crossing	High visibility crosswalk, School signage, Tree trimming, Red curb, Bulbout	High visibility crosswalks alert drivers of crossings in the area. School signage can inform drivers of conflicting crossing movements at this location. Tree trimming can improve sight distance and visibility for drivers in the area. Bulbouts shorten the crossing distance at this location (immediately adjacent to the school campus). See item below, "General - Red curb."
3	Lankershim Avenue south of School	School signage	School signage can increase driver awareness regarding crossings in the area.
4	9th Street at McKinley Street	Pedestrian hybrid flashing beacon, Yield lines and signage	Pedestrian flashing beacons, with actuation, can increase driver awareness regarding a pedestrian's presence at this location. Yield lines and corresponding signage provide a cushion between pedestrians and vehicular traffic, thus creating a more comfortable environment for pedestrians.
5	Lankershim Avenue at 9th Street	High visibility crosswalks	High visibility crosswalks can increase driver awareness regarding crossings in the area.
6	9th Street Midblock Crossing	Pedestrian hybrid flashing beacon, Yield lines and signage	Pedestrian flashing beacons, with actuation, can increase driver awareness regarding a pedestrian's presence at this location. Yield lines and corresponding signage provide a cushion between pedestrians and vehicular traffic, thus creating a more comfortable environment for pedestrians.
7	Lankershim Avenue	Sidewalk	See item below, "General - Sidewalk."
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 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.

QTT

The following cost estimation table details the Lankershim Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Lankershim Ave.	New Sign on Post	Each	$181	4	$725
	School Area Pavement Marking (Per Word)	Each	$254	6	$1,521
	High Visibility Ladder Crosswalk	Each	$1,788	3	$5,364
	Curb Extension - Raised	Per Intersection	$87,766	0.25	$21,942
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	360	$18,692
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	360	$13,041
	Segment Total				**$61,285**
9th St.	Pedestrian Flashing Beacon (Post/Pole Mount)	Each	$9,056	2	$18,113
	New Sign on Post	Each	$181	4	$725
	High Visibility Ladder Crosswalk	Each	$1,788	2	$3,576
	Segment Total				**$22,413**
ALL SEGMENTS					**$83,698**

City of Loma Linda

Mission Elementary School

Mission Elementary School is a Redlands Unified School District (RUSD) school located on the city border of Loma Linda with access provided by Redlands Boulevard and California Street. The school is located amongst multiple land uses, including agricultural, business/commercial, and residential. The walk audit that was conducted at Mission Elementary School was held on May 31, 2016 from 2:30PM to 4:00PM. An on-campus facility was used as the staging area for the eight participants where briefing and de-briefing were conducted. Observations extended into the surrounding neighborhood along Redlands Boulevard, and California Street.

"The roadways to school are tight and very congested with traffic, especially during the bell periods. There is also no sidewalk at California Street."

"I don't think it is safe to let my daughter walk to school. There is a lot of homeless activity."

"Walking and biking is extremely healthy, but I personally would never let my child walk or bike in this day and age. If I lived across the street it would be different."

All remarks received from walk audit participants at Mission Elementary

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	539
Number of Tallies	1,784
» Morning (To School)	462
» Afternoon (From School)	419

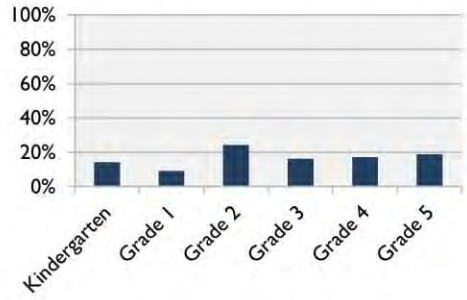
Number of Surveys Received	216

Data source: KOA Corporation, processed by the National Center for Safe Routes to School. Data and figures accurate as of Fall 2016.

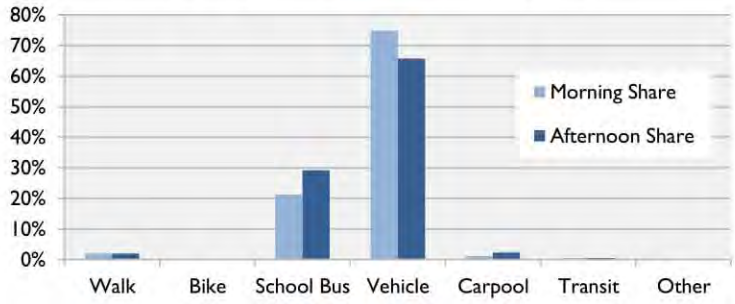
Tallies were conducted by teachers in 24 classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to take home.

Students who walk or bike to school	**1.9%**
Students who don't walk/bike but have asked parents for permission	**+ 11.7%**
Students who walk/bike or have asked parents for permission	**13.6%**
Student enrollment	**x 551**
Potential walking/biking student base	**75**

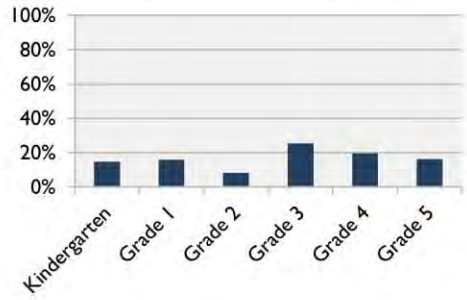
Grade Distribution of Tallies



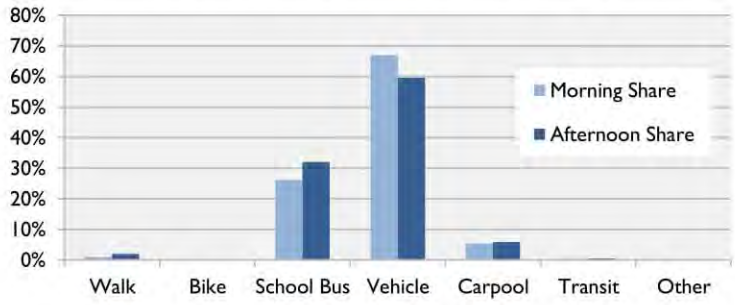
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

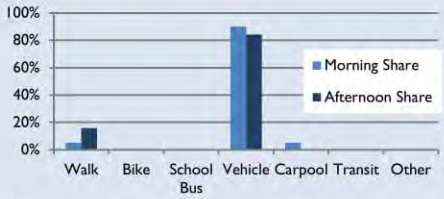


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

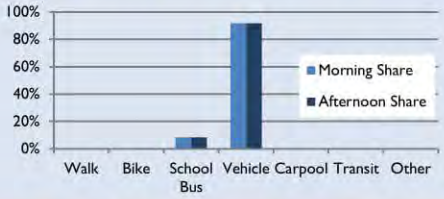
10%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 55%
Speed of Traffic Along Route – 50%
Amount of Traffic Along Route – 45%
Sidewalks or Pathways – 30%
Violence or Crime – 30%

Students Living Between ¼ and ½ Mile from School

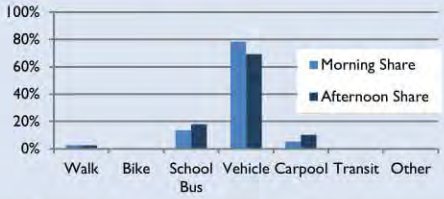
6%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 58%
Safety of Intersections & Crossings – 58%
Amount of Traffic Along Route – 50%
Violence or Crime – 50%
Sidewalks or Pathways – 42%

Students Living Between ½ and 1 Mile from School

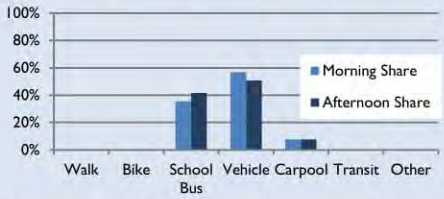
19%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Amount of Traffic Along Route – 51%
Speed of Traffic Along Route – 46%
Safety of Intersections & Crossing – 44%
Sidewalks or Pathways – 41%
Violence or Crime – 31%

Students Living Between 1 and 2 Miles from School

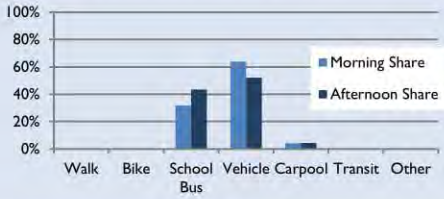
41%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 52%
Amount of Traffic Along Route – 45%
Speed of Traffic Along Route – 44%
Distance – 43%
Sidewalks or Pathways – 43%

Students Living Farther than 2 Miles from School

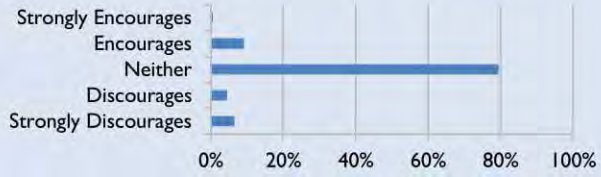
24%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 61%
Safety of Intersections & Crossings – 45%
Violence or Crime – 45%
Speed of Traffic Along Route – 39%
Amount of Traffic Along Route – 39%

Parents' Perspectives

Whether School Encourages Walking/Biking



69%
consider walking/biking healthy or very healthy.

75%
would not feel comfortable having their child walk/bike at any age with current conditions.

MISSION ELEMENTARY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Loma Linda
School Enrollment - 551
Free or Reduced Lunch - 71.20%

Environmental Indicators:

Cal Enviro Score % Range - 41-45%
Cal Enviro Score (CES2.0*) - 21.35

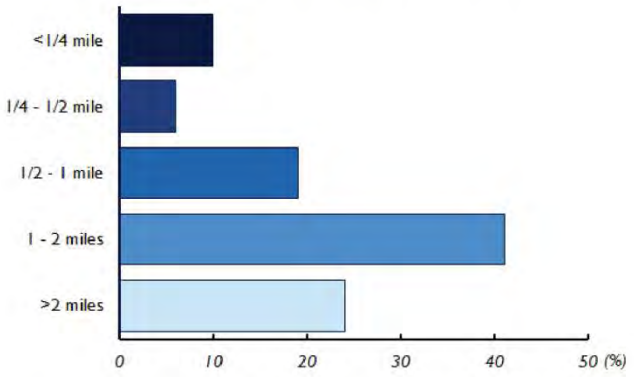
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 8
# of Surveys Received - 216

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

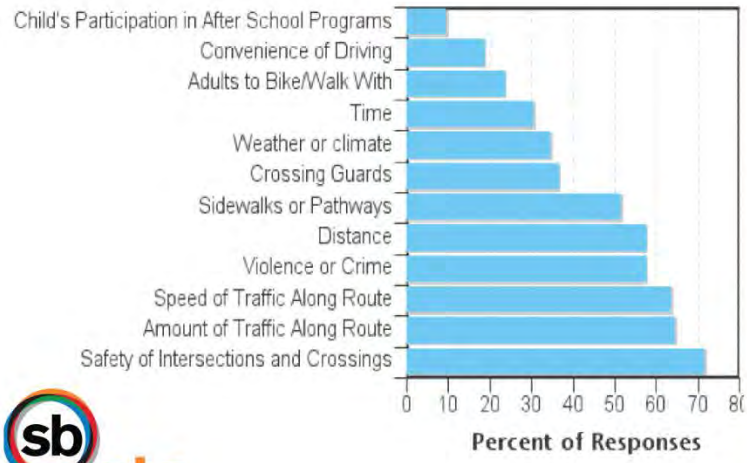
1 within 1/4 mile
3 within 1/2 mile
1 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sb cta
san bernardino county transportation authority

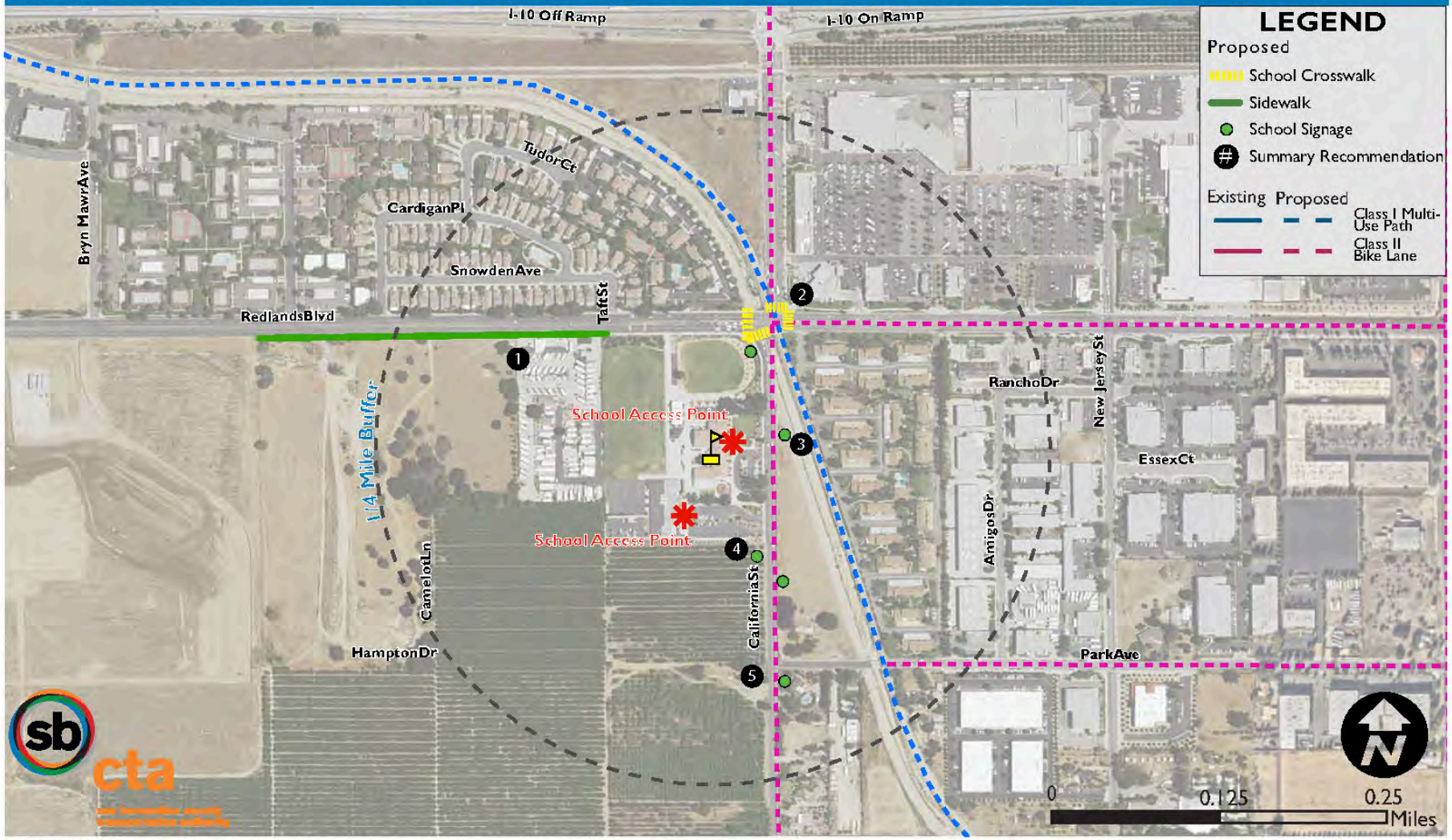
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	*afternoon*
walk	1%	2%
bike	0%	0%
bus	26%	32%
vehicle	67%	60%
carpool	5%	6%
transit	0.5%	0.5%
other	0%	0%

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

SBCTA SRTS PHASE II: *MISSION ELEMENTARY SCHOOL, LOMA LINDA*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Redlands Boulevard:* Install sidewalk along south side of street, since the school boundary extends farther west of the school.
2. *Redlands Boulevard at California Street:* Restripe all existing school crosswalks with high visibility paint (ladder style) at this intersection. Realignment of this intersection is in progress. Replace existing school sign with SR4-1(CA) Assembly C sign.
3. *California Street:* Replace existing school sign that is faded with SW24-3(CA) Assembly D sign at this location.
4. *California Street South of School Campus:* Install shoulder striping on west side of California Street to avoid sudden reduction in road width south of the school. Remove sign on west side of street. Replace sign on east side of the road with SR4-1(CA) Assembly C sign.
5. *California Street at Park Avenue:* Install S4-5 sign at this location.

Background/Discussion of the Engineering Recommendations

Mission Elementary School

Recommendation #	Location	Improvement	Background/Discussion
1	**Redlands Boulevard**	Sidewalk	See below, "General - sidewalk."
2	**Redlands Boulevard at California Street**	High visibility ladder style crosswalk and school signage	Adherence to MUTCD Part 7 guidelines to increase driver awareness of Redland's Boulevard at California Street crossing. Adherence to MUTCD Part 7 standards to increase driver awareness of pedestrians along Hawthorne Ave, a primary walking route to school (noted during field observation).
3	**California Street**	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).
4	**California Street South of School Campus**	Striping and school signage	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	**California Street at Park Avenue**	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).
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.

The following cost estimation table details the Mission Elementary School network engineering recommendations by corridor.

SEGMENT	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Mountain View Ave.	ADA Curb Ramps	Each	$3,623	2	$7,245
	Segment Total				**$7,245**
W Redlands Blvd.	High Visibility Ladder Crosswalk	Each	$1,788	4	$7,152
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1360	$70,615
	Segment Total				**$77,767**
California St.	New Sign on Post	Each	$181	5	$906
	Shoulder Stripe (Both Sides)	Per Linear Foot	$2	500	$966
	Segment Total				**$1,872**
ALL SEGMENTS					**$86,884**

City of Montclair

Moreno Elementary School

Moreno Elementary School is an Ontario-Montclair School District (OMSD) school located in a medium-density residential/office park area of Montclair. The school is positioned along Moreno Street between Monte Vista Avenue and Mills Avenue. The walk audit held was held during the afternoon, prior to the afternoon release bell ringing, from 2:00PM to 3:10PM on October 26th, 2016. A classroom was used as the staging area for the 14 participants where briefing and de-briefing were conducted. Observations extended into the surrounding neighborhood along Moreno Street, Monte Vista Avenue, and Surrey Avenue.

"Traffic on Monte Vista Ave is always fast and congested, making it dangerous to walk. Walking would be very healthy for kids if violence and kidnapping were also not an issue."

"I feel safer dropping and picking up my grandchildren daily."

"My friend's son passed away while walking to school and I intend to do everything I can so that my own child does not suffer the same threat."

All remarks received from walk audit participants at Moreno Elementary

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	351
Number of Tallies	1,890
» Morning (To School)	961
» Afternoon (From School)	929

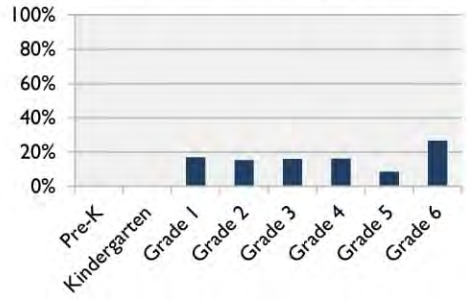
Number of Surveys Received	217

Data source: KOA Corporation, processed by the National Center for Safe Routes to School. Data and figures accurate as of Fall 2016.

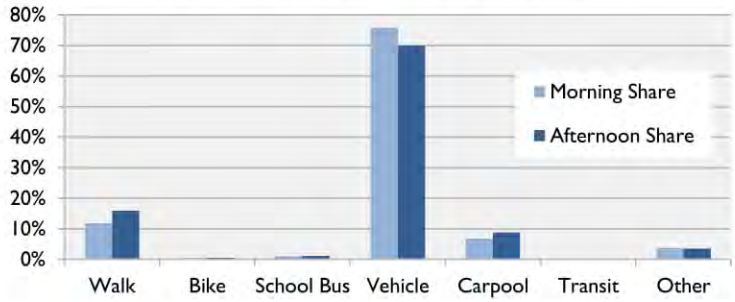
Tallies were conducted by teachers in 13 classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to take home.

Students who walk or bike to school	**16.6%**
Students who don't walk/bike but have asked parents for permission	**+ 21.3%**
Students who walk/bike or have asked parents for permission	**37.9%**
Student enrollment	**x 555**
Potential walking/biking student base	**210**

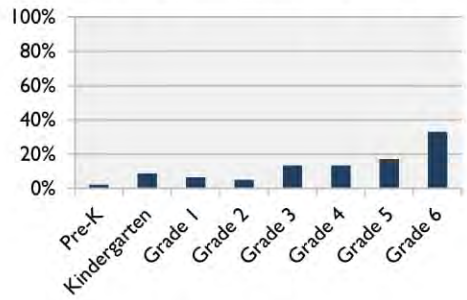
Grade Distribution of Tallies



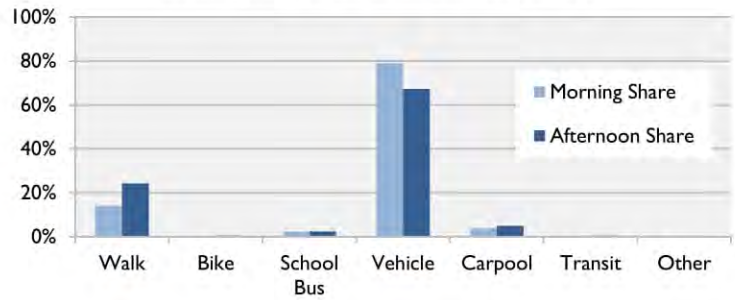
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

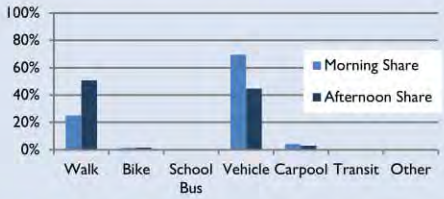


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

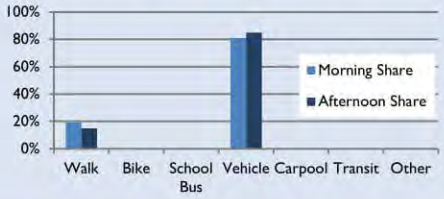
39%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 36%
Amount of Traffic Along Route – 23%
Safety of Intersections & Crossings – 23%
Weather or Climate – 19%
Speed of Traffic Along Route – 16%

Students Living Between ¼ and ½ Mile from School

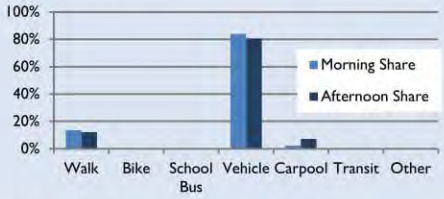
11%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 62%
Speed of Traffic Along Route – 38%
Weather or Climate – 38%
Safety of Intersections & Crossings – 33%
Amount of Traffic Along Route – 29%

Students Living Between ½ and 1 Mile from School

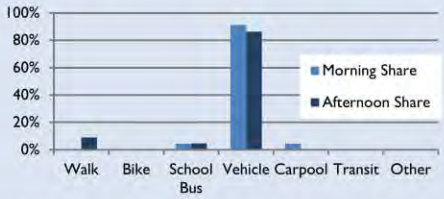
23%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 33%
Violence or Crime – 29%
Speed of Traffic Along Route – 20%
Weather or Climate – 20%
Distance – 18%

Students Living Between 1 and 2 Miles from School

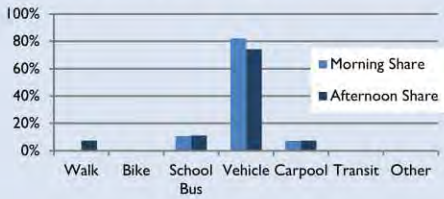
12%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 57%
Speed of Traffic Along Route – 48%
Safety of Intersections & Crossings – 43%
Amount of Traffic Along Route – 39%
Sidewalks or Pathways – 26%

Students Living Farther than 2 Miles from School

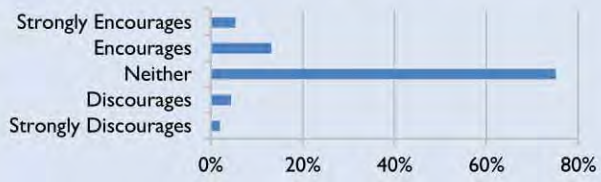
15%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 46%
Speed of Traffic Along Route – 46%
Violence or Crime – 39%
Weather or Climate – 39%
Amount of Traffic Along Route – 36%

Parents' Perspectives

Whether School Encourages Walking/Biking



76%
consider walking/biking healthy or very healthy.

54%
would not feel comfortable having their child walk/bike at any age with current conditions.

MORENO ELEMENTARY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Montclair
School Enrollment - 555
Free or Reduced Lunch - 81.80%

Environmental Indicators:

Cal Enviro Score % Range - 91-95%
Cal Enviro Score (CES2.0*) - 51-78

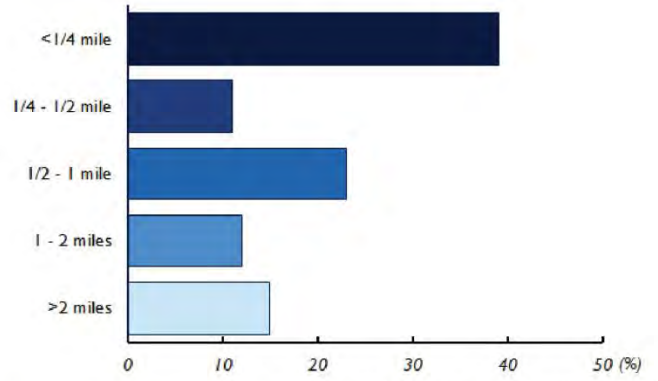
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 14
# of Surveys Received - 218

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

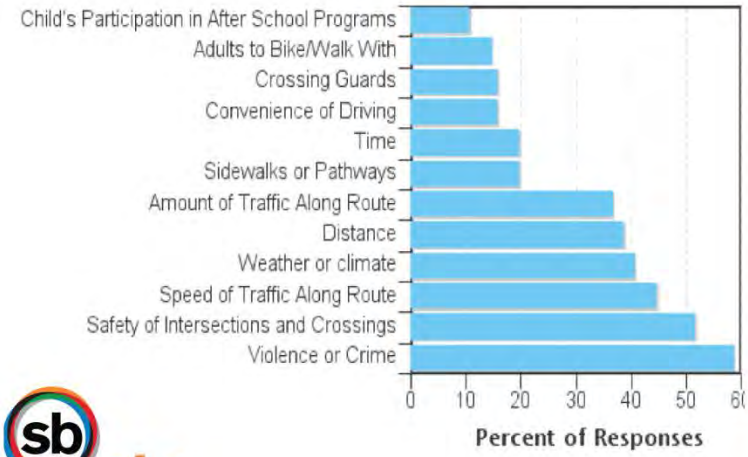
1 within 1/4 mile
8 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sbcta
san bernardino county transportation authority

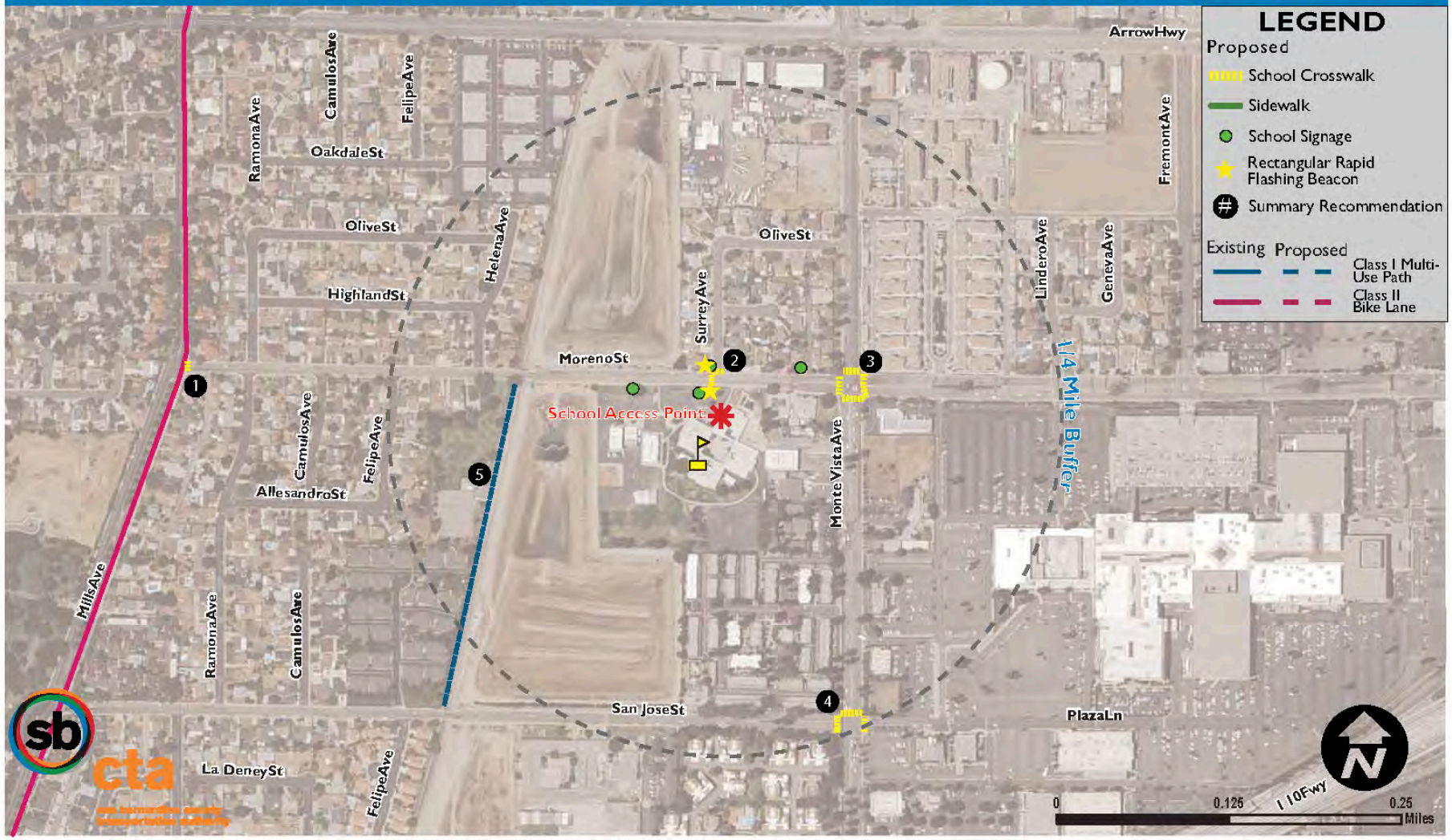
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	*afternoon*
walk	14%	24%
bike	0.5%	0.5%
bus	2%	2%
vehicle	79%	67%
carpool	4%	5%
transit	0.5%	0.5%
other	0%	0%

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

SBCTA SRTS PHASE II: *MORENO ELEMENTARY SCHOOL, MONTCLAIR*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Moreno Street and Mill Avenue:* Install high visibility ladder style crosswalk along the east leg of the intersection.

2. *Moreno Street and Surey Avenue:* Install bulbouts on NW and SW curb. Install high visibility ladder style crosswalks on north and west legs. Install SW24-2(CA) Assembly B at crossing on both sides of crossing for eastbound and westbound traffic. Install Assembly D for eastbound and westbound traffic. Install rectangular flashing beacons (RRFB) for heightened warning at crossing for both directions.

3. *Moreno Street and Monte Vista Avenue:* Install ADA compliant push buttons. Pull medians out of crosswalk right of way. Install high visibility ladder style crosswalk along all legs of intersection.

4. *Monte Vista Avenue and San Jose Street:* Install ADA compliant push buttons. Pull medians out of crosswalk right of way. Install high visibility ladder style crosswalk along north, east, and west legs of the intersection.

5. *Existing Path (Moreno Vista Park extending south 1300 feet to San Jose Street):* Install Class I Bike Path, including striping for north and south lanes, and signage at entrances/exits.

TCT

Background/Discussion of the Engineering Recommendations

	Recommendation #	Location	Improvement	Background/Discussion
Moreno Elementary School	1	Moreno Street and Mill 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).
	2	Moreno Street and Surey Avenue	Bulbouts, high visibility ladder style crosswalk, school signage and RRFB	These improvements alert drivers of pedestrian crossings in the area. Bulbouts shorten the crossing distance at this location, which is along a primary walking route to school and immediately adjacent to the school campus. Recent collision data shows a collision involving a bicyclist near this location.
	3	Moreno Street and Monte Vista Avenue	ADA compliance, median work and high visibility ladder style crosswalk	See below, "General - ADA curb ramps." 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).
	4	Monte Vista Avenue and San Jose Street	ADA compliance, median work and high visibility ladder style crosswalk	See below, "General - ADA curb ramps." 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	Existing Path (Moreno Vista Park)	Class I bike path, signing and striping	Engineering recommendations used to respond to comments received during the walk audit and through school-wide surveying regarding access to school via bike.
	General	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 Moreno Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Moreno St.	Rectangular Rapid Flashing Beacon (2/Uncontrolled X-walk)	Each	$15,698	1	$15,698
	New Sign on Post	Each	$181	4	$725
	High Visibility Ladder Crosswalk	Each	$1,788	5	$8,940
	Curb Extension - Raised	Per Intersection	$87,766	0.5	$43,883
	Segment Total				**$69,245**
Monte Vista Ave.	High Visibility Ladder Crosswalk	Each	$1,788	4	$7,152
	Segment Total				**$7,152**
San Antonio Creek Channel	Dashed 4" Yellow Centerline Stripe (Detail 2)	Per Linear Foot	$2	1300	$2,355
	Segment Total				**$2,355**
San Jose St.	ADA Curb Ramps	Each	$3,623	1	$3,623
	Segment Total				**$3,622**
ALL SEGMENTS					**$82,374**

Serrano Middle School

Serrano Middle School is an Ontario-Montclair School District (OMSD) school located in a medium-density residential/office park area of Montclair. The school is positioned along San Jose Street between Monte Vista Avenue and Mills Avenue. Held on October 19th, 2016, the Serrano Middle School walk audit began at 3:00PM, following the afternoon release bell. Participants were briefed and debriefed in the multi-purpose room, which served as the staging area for the event. There were a total of two participants engaged in the walk audit in which observations were made of San Jose Street, Monte Vista Avenue, Ramona Avenue, and Mills Avenue.

"Around the 10 freeway on-ramps, it gets too busy that at times the traffic does not want to stop for our kids crossing the street."

"The middle school my child attends passes a freeway entrance / exit. This is one of the main reasons I don't allow my son to walk home, that and because drivers don't always respect the laws."

All remarks received from walk audit participants at Serrano Middle

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	588
Number of Tallies	3,158
» Morning (To School)	1,616
» Afternoon (From School)	1,542

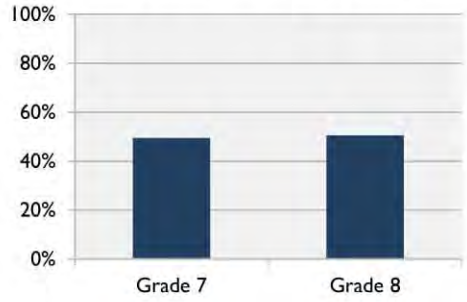
Number of Surveys Received	166

Data source: KOA Corporation, processed by the National Center for Safe Routes to School. Data and figures accurate as of Fall 2016.

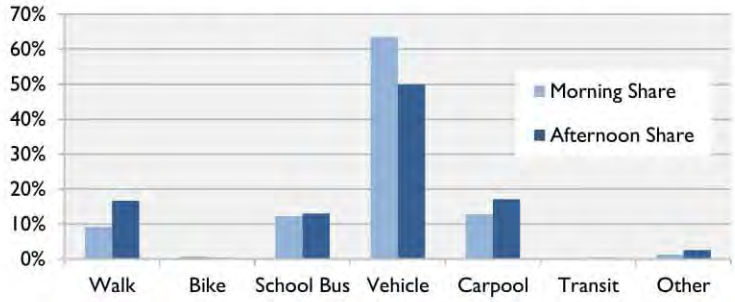
Tallies were conducted by teachers in 25 classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to take home.

Students who walk or bike to school	**21.5%**
Students who don't walk/bike but have asked parents for permission	**+ 35.0%**
Students who walk/bike or have asked parents for permission	**56.4%**
Student enrollment	**x 722**
Potential walking/biking student base	**407**

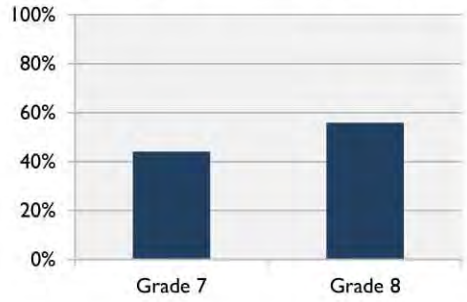
Grade Distribution of Tallies



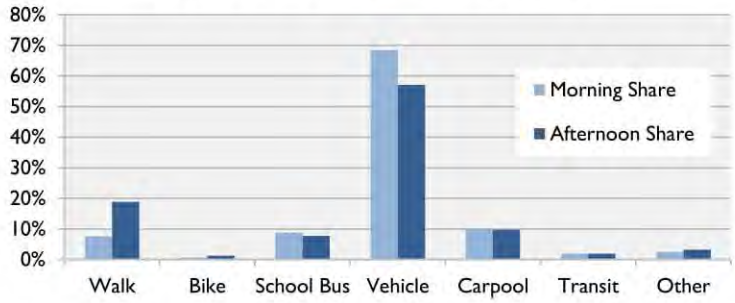
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

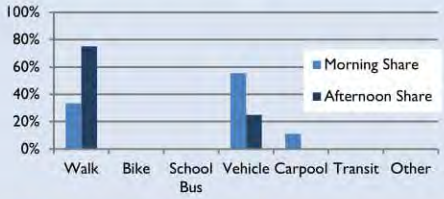


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

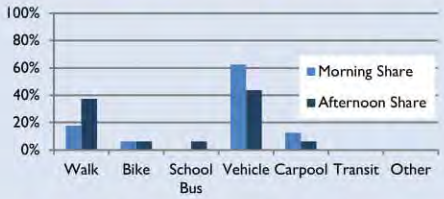
7%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 40%
Safety of Intersections & Crossings – 30%
Amount of Traffic Along Route – 20%
Violence or Crime – 20%
Weather or Climate – 20%

Students Living Between ¼ and ½ Mile from School

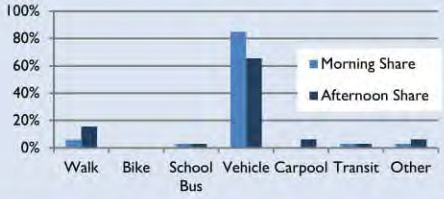
12%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 35%
Speed of Traffic Along Route – 24%
Safety of Intersections & Crossings – 24%
Amount of Traffic Along Route – 18%
Sidewalks or Pathways – 18%

Students Living Between ½ and 1 Mile from School

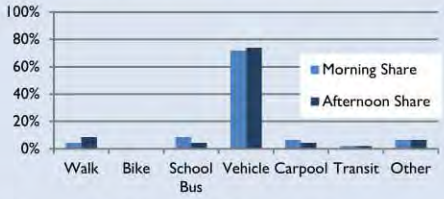
24%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 33%
Time – 26%
Distance – 21%
Weather or Climate – 21%
Convenience of Driving – 18%

Students Living Between 1 and 2 Miles from School

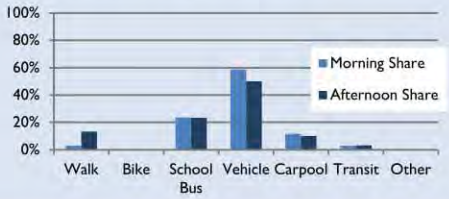
33%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 36%
Speed of Traffic Along Route – 28%
Violence or Crime – 26%
Amount of Traffic Along Route – 23%
Safety of Intersections & Crossings – 21%

Students Living Farther than 2 Miles from School

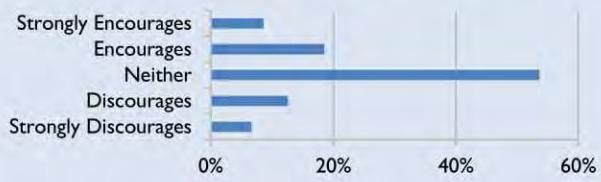
24%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 56%
Safety of Intersections & Crossings – 41%
Violence or Crime – 29%
Weather or Climate – 26%
Sidewalks or Pathways – 21%

Parents' Perspectives

Whether School Encourages Walking/Biking



77%
consider walking/biking healthy or very healthy.

38%
would not feel comfortable having their child walk/bike at any age with current conditions.

SERRANO MIDDLE SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Montclair
School Enrollment - 722
Free or Reduced Lunch - 77.00%

Environmental Indicators:

Cal Enviro Score % Range - 91-95%
Cal Enviro Score (CES2.0*) - 51.78

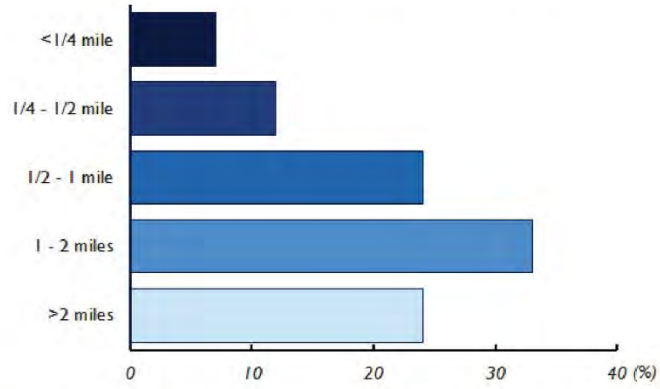
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 2
# of Surveys Received - 166

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

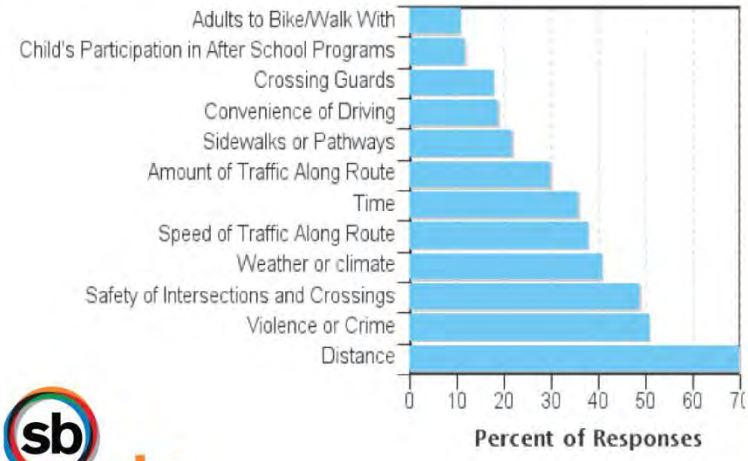
3 within 1/4 mile
12 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sb cta
san bernardino county transportation authority

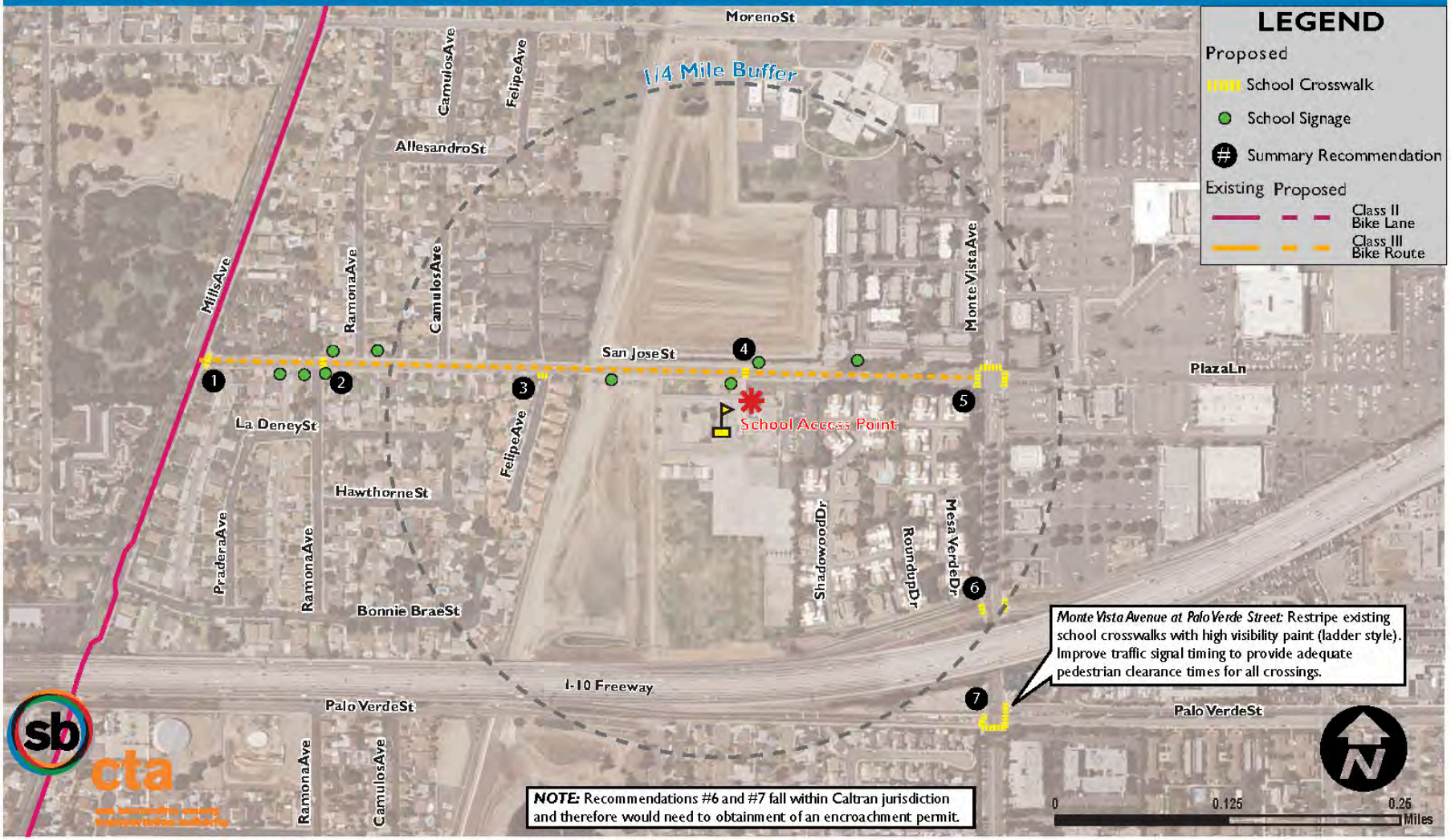
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	*afternoon*
walk	8%	19%
bike	0.6%	1%
bus	9%	8%
vehicle	69%	57%
carpool	10%	10%
transit	2%	2%
other	3%	3%

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

SBCTA SRTS PHASE II: *SERRANO MIDDLE SCHOOL, MONTCLAIR*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Mills Avenue at San Jose Street:* Restripe existing crosswalk with high visibility paint (ladder style).
2. *San Jose Street at Ramona Avenue:* Install SW24-3(CA) Assembly D sign for eastbound and westbound traffic. Install R1-5 signs with yield lines for eastbound and westbound traffic. Install SW24-2(CA) Assembly B signs on both sides of the crosswalk for eastbound and westbound traffic. Restripe existing crosswalk with yellow high visibility paint (ladder style). Paint 20 feet of red curb on both sides of the crosswalk to improve the visibility of pedestrians.
3. *San Jose Street at Felipe Avenue:* Install yellow high visibility school crosswalk (ladder style) at this location.
4. *San Jose Street:* Install R1-5 signs with yield lines for eastbound and westbound traffic, leading towards crossing. Install SW24-3 (CA) Assembly D signs 400 ft on east and west approach to crossing, replacing existing S1-1 signage. Install bulbouts on both sides of the street where the curb and sidewalk meet (north and south side of roadway). Install Class III bike sharrows or stripped Class II Bike Lane with along San Jose Street from Mills Avenue to Monte Vista Avenue. For Class III Bike Route install (R117 (CA) and/or R4-11) and for Class II Bike Lane install (R81 (CA) and R7-9) signs throughout the corridor.
5. *San Jose Street at Monte Vista Avenue:* Restripe existing school crosswalks with yellow high visibility paint (ladder style).
6. *Monte Vista Avenue at I-10 WB Ramps:* Restripe existing school crosswalks with high visibility paint (ladder style). Improve traffic signal timing to provide adequate pedestrian clearance times for all crossings.

OCT

Background/Discussion of the Engineering Recommendations

	Recommendation #	Location	Improvement	Background/Discussion
Serrano Middle School	1	Mills Avenue at San Jose Street	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).
	2	San Jose Street at Ramona Ave	School signage and striping, high visibility ladder style crosswalk, and red curb	Adherence to MUTCD Part 7 guidelines to increase driver awareness of San Jose Street at Ramona Ave. 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). See below, "General - red curb."
	3	San Jose Street at Felipe Ave	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).
	4	San Jose Street	School signage and striping, bulbouts, class III bike sharrows	Improvements located along primary walking and biking route to school (noted during field observation), where one pedestrian collision took place. Location identified by walk audit participants and explicitly through school-wide surveys as a focus intersection, where students/parents have difficultly crossing and feel unsafe.
	5	San Jose Street at Monte Vista 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).
	6	Monte Vista Avenue at I-10 WB Ramps	Traffic signal timing and high visibility ladder style crosswalk	Reports of multiple pedestrian and bicycle collisions at this intersection justify improving traffic signal timing. 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).
	7	Monte Vista Avenue at Palo Verde Street	Traffic signal timing and high visibility ladder style crosswalk	Reports of multiple pedestrian and bicycle collisions at this intersection justify improving traffic signal timing. 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).
	General		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 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 Serrano Middle School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
San Jose St.	Bike Route with Sharrows & Signs (2 sides)	Per Linear Foot	$4	3100	$12,400
	New Sign on Post	Each	$181	9	$1,630
	High Visibility Ladder Crosswalk	Each	$1,788	7	$12,516
	Curb Extension - Raised	Per Intersection	$87,766	0.5	$43,883
	Segment Total				**$70,429**
Monte Vista Ave.	High Visibility Ladder Crosswalk	Each	$1,788	5	$8,940
	Segment Total				**$8,940**
ALL SEGMENTS					**$79,369**

City of Needles

Needles High School

Needles High School is a Needles Unified School District (NUSD) school located in a low-density residential area of Needles, California. The school is positioned along Washington Street at the corner of Park Avenue. The walk audit for Needles High School was held in the afternoon, prior to the afternoon release bell, from 2:00PM to 3:00PM on December 6th, 2016. An on-campus facility was utilized as the staging area for the four participants where briefing and de-briefing were conducted. Observations extended into the surrounding neighborhood along Highland Avenue, Park Avenue, Bailey Avenue, Erin Drive, Fairmont Avenue, and L Street.

Survey and tally data are not available for Needles High School.

NEEDLES HIGH SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Needles
School Enrollment - 220
Free or Reduced Lunch - 58.60%

Environmental Indicators:

Cal Enviro Score % Range - 61-65%
Cal Enviro Score (CES2.0*) - 31.88

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

Walk Audit Highlights

of Walk Audit Participants - 4
# of Surveys Received - 1

WALKSHED *(1/4 and 1/2 mile)*

COLLISION ANALYSIS

Pedestrian Related Collisions

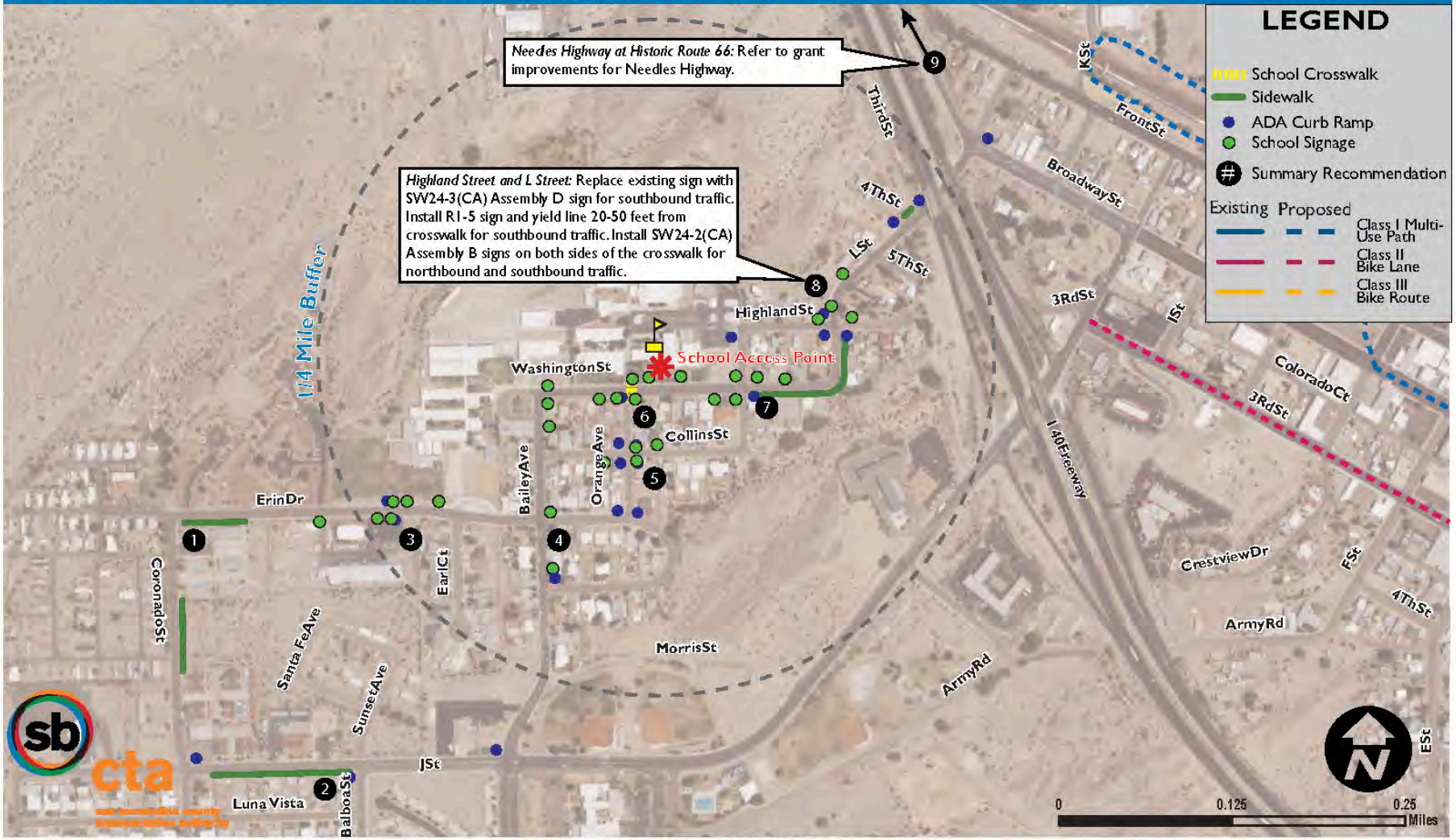
0 within 1/4 mile
1 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

SBCTA SRTS PHASE II: *NEEDLES HIGH SCHOOL, NEEDLES*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Erin Drive and Coronado Street:* Remove high visibility crosswalk across east leg.
2. *Balboa Street at J Street:* Remove high visibility crosswalk across east leg.
3. *Erin Drive near Earl Court:* Install/replace SW24-3(CA) Assembly D signs for eastbound and westbound traffic. Install R1-5 signs and yield lines 20-50 feet from crosswalk for eastbound and westbound traffic. Install SW24-2(CA) Assembly B signs on both sides of the crosswalk for eastbound and westbound traffic.
4. *Bailey Avenue:* Relocate power pole to install ADA curb ramp. Replace signs with new SW24-3(CA) Assembly D signs for northbound traffic. Replace existing sign with SW24-1(CA) Assembly A with W16-6P school sign.
5. *Collins Street at Orange Avenue:* For eastbound and westbound traffic, install R1-5 signs and yield lines 20-50 feet from crosswalk at east leg. Install SW24-2(CA) Assembly B signs on both sides of the crosswalk for eastbound and westbound traffic.
6. *Washington Street at Orange Avenue:* Remove existing sign with SW24-3(CA) Assembly D sign for eastbound traffic. Install SW24-3(CA) Assembly D sign for westbound traffic. Install R1-5 signs and yield lines 20-50 feet from crosswalk for eastbound and westbound traffic. Install SW24-2(CA) Assembly B signs on both sides of the crosswalk for eastbound and westbound traffic. Restripe all pavement markings in front of the school, including high visibility crosswalks. Replace R1-1 signs at Bailey Avenue.
7. *Washington Street at Park Avenue:* Replace existing sign with SW24-3(CA) Assembly D sign for westbound traffic. Install R1-5 signs and yield lines 20-50 feet from crosswalk for eastbound and westbound traffic. Install SW24-2(CA) Assembly B signs on both sides of the crosswalk for eastbound and westbound traffic.

Background/Discussion of the Engineering Recommendations

Needles High School

Recommendation #	Location	Improvement	Background/Discussion
1	Erin Drive and Coronado Street	Remove high visibility ladder style crosswalk	Improvements suggest removing a crosswalk in order to have pedestrians cross at a different and safer crossing.
2	Balboa Street at J Street	Remove high visibility ladder style crosswalk	Improvements suggest removing a crosswalk in order to have pedestrians cross at a different and safer crossing.
3	Erin Drive and Earl Court	School signage	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	Bailey Avenue	ADA compliance and school signage	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. See below, "General - ADA curb ramps."
5	Collins Street at Orange Avenue	School signage and striping	Adherence to MUTCD Part 7 guidelines to increase driver awareness on Feron Boulevard. Improvements at school crossing are along primary walking route and shorten crossing distance.
6	Washington Street at Orange Avenue	School signage and striping and high visibility ladders style crosswalk	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. See below, "General - ADA curb ramps."
7	Washington Street at Park Avenue	School signage	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.
8	Highland Street and L Street	School signage and striping	Adherence to MUTCD Part 7 guidelines to increase driver awareness on Feron Boulevard. Improvements at school crossing are along primary walking route and shorten crossing distance.
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 Needles High School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Bailey Ave.	New Sign on Post	Each	$181	4	$724
	Segment Total				**$724**
Collins St.	New Sign on Post	Each	$181	4	$725
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	4	$208
	Segment Total				**$932**
Coronado St.	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	270	$14,019
	Segment Total				**$14,019**
Erin Dr.	New Sign on Post	Each	$181	6	$1,087
	ADA Curb Ramps	Each	$3,623	4	$14,490
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	250	$12,981
	Segment Total				**$28,557**
Highland Ave.	New Sign on Post	Each	$181	2	$362
	ADA Curb Ramps	Each	$3,623	4	$14,490
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	100	$5,192
	Segment Total				**$20,044**
Broadway St. (Historic U.S. 66)	ADA Curb Ramps	Each	$3,623	1	$3,623
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	560	$29,077
	Segment Total				**$32,699**
J St.	ADA Curb Ramps	Each	$3,623	3	$10,868
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	550	$28,557
	Segment Total				**$39,425**
L St.	New Sign on Post	Each	$181	2	$362
	ADA Curb Ramps	Each	$3,623	3	$10,868
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	50	$2,596
	Segment Total				**$13,826**
Washington St.	New Sign on Post	Each	$181	12	$2,174
	School Area Pavement Marking (Per Word)	Each	$254	15	$3,804
	High Visibility Ladder Crosswalk	Each	$1,788	6	$10,728
	ADA Curb Ramps	Each	$3,623	2	$7,245
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	800	$41,538
	Segment Total				**$65,488**
ALL SEGMENTS					**$215,714**

Needles Middle School

Needles Middle School is a Needles Unified School District (NUSD) school located in a low-density residential area of Needles, California. The school is positioned along Washington Street at the corner of Bailey Avenue. Held on December 6th, 2016, the Needles Middle School walk audit took place from 2:00PM to 3:00PM, prior to the afternoon release bell. An on-campus facility was utilized as the staging area for the four participants where briefing and de-briefing were conducted. Observations extended into the surrounding neighborhood along Highland Avenue, Park Avenue, Bailey Avenue, Erin Drive, Fairmont Avenue, L Street, and J Street.

"During the summer months the hot weather is extreme, making walking impractical."

"For a decent amount of my route there is no sidewalk for my children walk on."

"We live right by the school, but with the amount of traffic and how fast they go it is too dangerous to walk to school."

All remarks received from walk audit participants at Needles Middle

SafeRoutes
National Center for Safe Routes to School

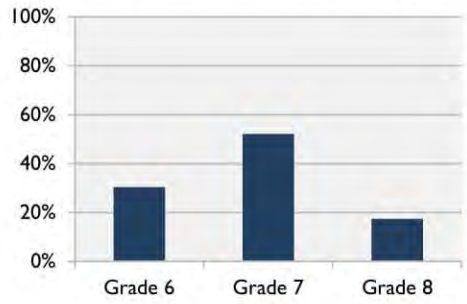
Number of Surveys Received	29

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

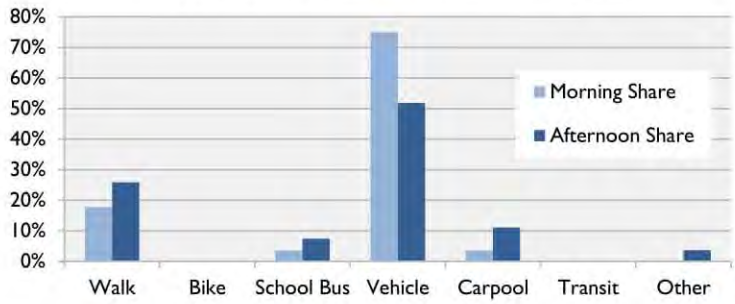
Surveys were printed on two-page forms and distributed to parents to take home. Tally data are not available for this school.

Students who walk or bike to school	**17.2%**
Students who don't walk/bike but have asked parents for permission	**+ 41.4%**
Students who walk/bike or have asked parents for permission	**58.6%**
Student enrollment	**x 228**
Potential walking/biking student base	**134**

Grade Distribution of Surveys

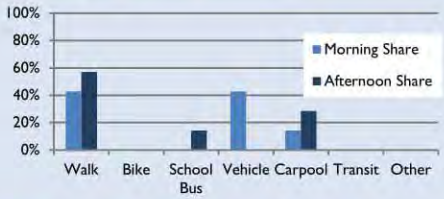


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

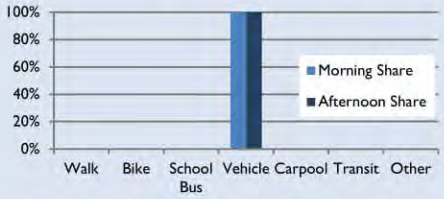
25%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 43%
Speed of Traffic Along Route – 29%
Adults to Bike/Walk With – 29%
Weather or Climate – 29%
Participation in After-School Programs – 14%

Students Living Between ¼ and ½ Mile from School

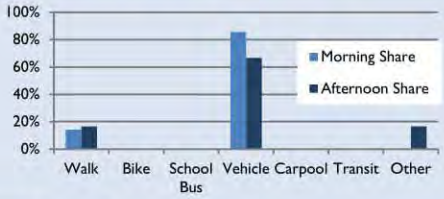
4%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Convenience of Driving – 100%
Speed of Traffic Along Route – 100%
Violence or Crime – 100%
(No other issues ranked.)

Students Living Between ½ and 1 Mile from School

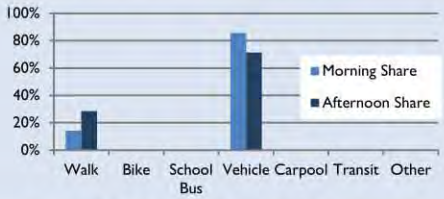
25%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Participation in After-School Programs – 43%
Convenience of Driving – 29%
Time – 14%
Amount of Traffic Along Route – 14%
Adults to Bike/Walk With – 14%

Students Living Between 1 and 2 Miles from School

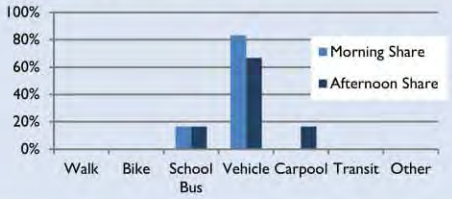
25%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Weather or Climate – 86%
Safety of Intersections & Crossings – 71%
Violence or Crime – 71%
Participation in After-School Programs – 57%
Amount of Traffic Along Route – 57%

Students Living Farther than 2 Miles from School

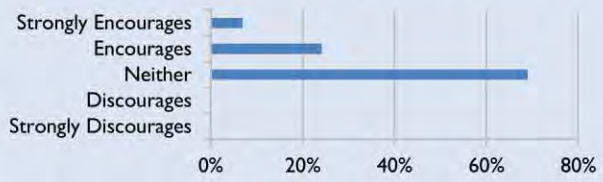
21%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 67%
Time – 33%
Participation in After-School Programs – 33%
Safety of Intersections & Crossings – 33%
Convenience of Driving – 17%

Parents' Perspectives

Whether School Encourages Walking/Biking



76%
consider walking/biking healthy or very healthy.

38%
would not feel comfortable having their child walk/bike at any age with current conditions.

NEEDLES MIDDLE SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Needles
School Enrollment - 228
Free or Reduced Lunch - 70.70%

Environmental Indicators:

Cal Enviro Score % Range - 61-65%
Cal Enviro Score (CES2.0*) - 31.88

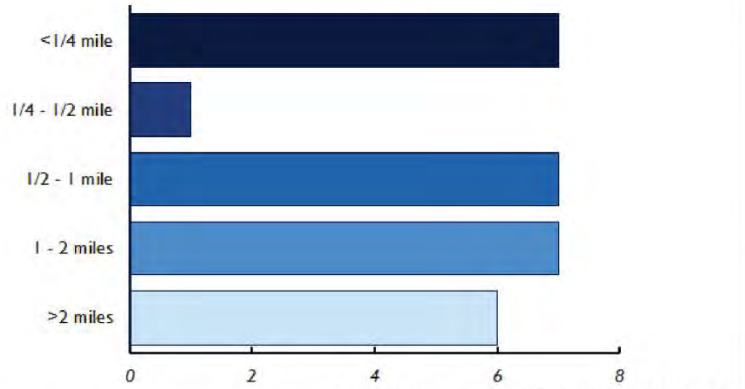
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 4
# of Surveys Received - 29

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE (%)



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

COLLISION ANALYSIS

Pedestrian Related Collisions

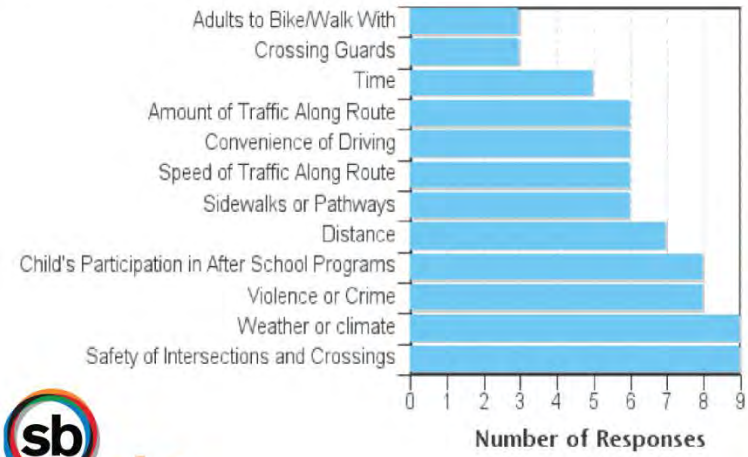
0 within 1/4 mile
0 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



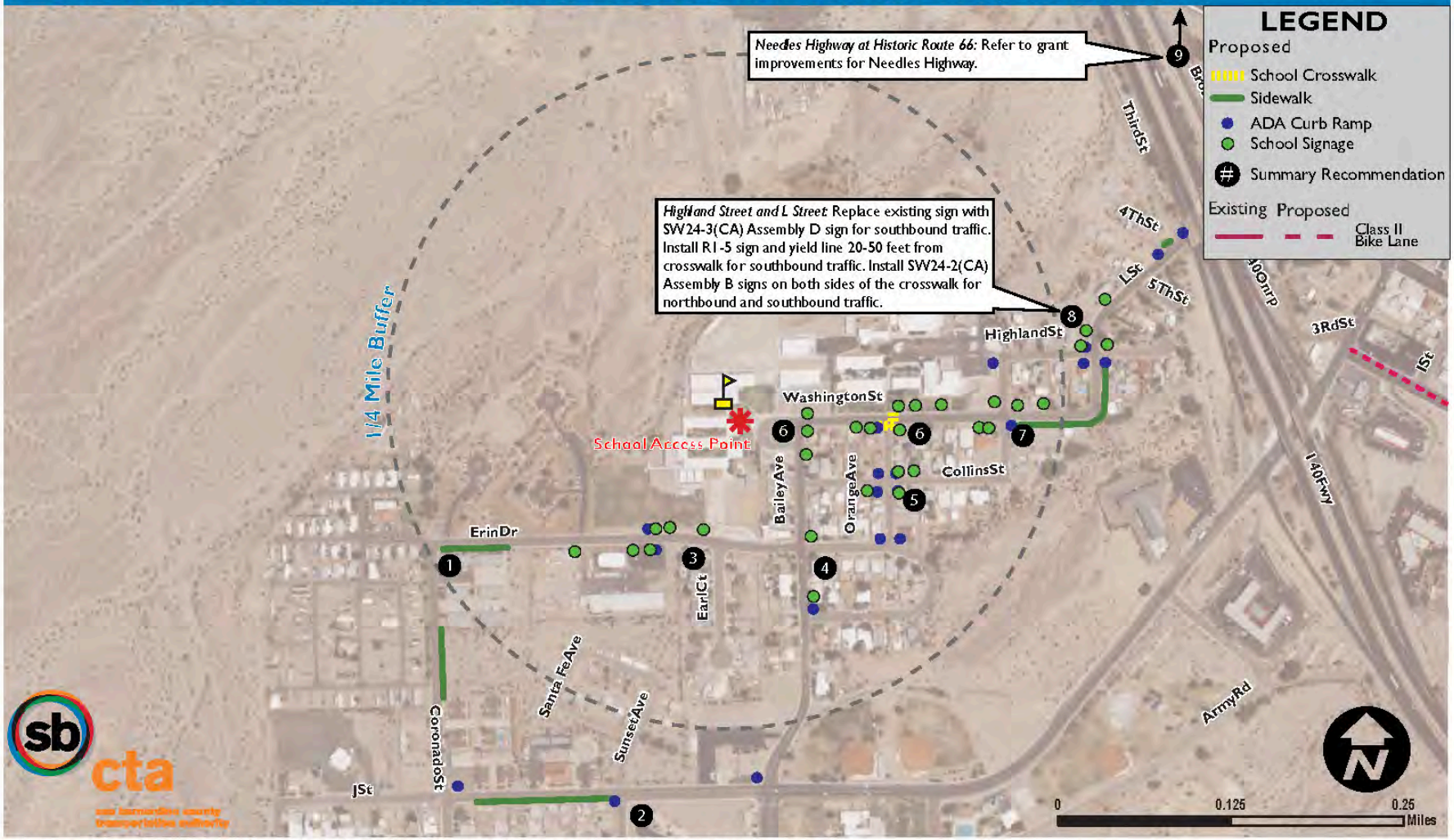
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	5	7
bike	0	0
bus	1	2
vehicle	21	14
carpool	1	3
transit	0	0
other	0	1

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

SBCTA SRTS PHASE II: *NEEDLES MIDDLE SCHOOL, NEEDLES*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Erin Drive and Coronado Street:* Remove high visibility crosswalk across east leg.
2. *Balboa Street at J Street:* Remove high visibility crosswalk across east leg.
3. *Erin Drive near Earl Court:* Install/replace SW24-3(CA) Assembly D signs for eastbound and westbound traffic. Install R1-5 signs and yield lines 20-50 feet from crosswalk for eastbound and westbound traffic. Install SW24-2(CA) Assembly B signs on both sides of the crosswalk for eastbound and westbound traffic.
4. *Bailey Avenue:* Relocate power pole to install ADA curb ramp. Replace signs with new SW24-3(CA) Assembly D signs for northbound traffic. Replace existing sign with SW24-1(CA) Assembly A with W16-6P school sign.
5. *Collins Street at Orange Avenue:* For eastbound and westbound traffic, install R1-5 signs and yield lines 20-50 feet from crosswalk at east leg. Install SW24-2(CA) Assembly B signs on both sides of the crosswalk for eastbound and westbound traffic.
6. *Washington Street at Orange Avenue:* Remove existing sign with SW24-3(CA) Assembly D sign for eastbound traffic. Install SW24-3(CA) Assembly D sign for westbound traffic. Install R1-5 signs and yield lines 20-50 feet from crosswalk for eastbound and westbound traffic. Install SW24-2(CA) Assembly B signs on both sides of the crosswalk for eastbound and westbound traffic. Restripe all pavement markings in front of the school, including high visibility crosswalks. Replace R1-1 signs at Bailey Avenue. Repave circle drive in front of school.
7. *Washington Street at Park Avenue:* Replace existing sign with SW24-3(CA) Assembly D sign for westbound traffic. Install R1-5 signs and yield lines 20-50 feet from crosswalk for eastbound and westbound traffic. Install SW24-2(CA) Assembly B signs on both sides of the crosswalk for eastbound and westbound traffic.

Background/Discussion of the Engineering Recommendations

Needles Middle School

Recommendation #	Location	Improvement	Background/Discussion
1	Erin Drive and Coronado Street	Remove high visibility ladder style crosswalk	Improvements suggest removing a crosswalk in order to have pedestrians cross at a different and safer crossing.
2	Balboa Street at J Street	Remove high visibility ladder style crosswalk	Improvements suggest removing a crosswalk in order to have pedestrians cross at a different and safer crossing.
3	Erin Drive and Earl Court	School signage	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	Bailey Avenue	ADA compliance and school signage	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. See below, "General - ADA curb ramps."
5	Collins Street at Orange Avenue	School signage and striping	Adherence to MUTCD Part 7 guidelines to increase driver awareness on Feron Boulevard. Improvements at school crossing are along primary walking route and shorten crossing distance.
6	Washington Street at Orange Avenue	School signage and striping and high visibility ladders style crosswalk	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. See below, "General - ADA curb ramps."
7	Washington Street at Park Avenue	School signage	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.
8	Highland Street and L Street	School signage and striping	Adherence to MUTCD Part 7 guidelines to increase driver awareness on Feron Boulevard. Improvements at school crossing are along primary walking route and shorten crossing distance.
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 Needles Middle School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Bailey Ave.	New Sign on Post	Each	$181	4	$724
	Segment Total				**$724**
Collins St.	New Sign on Post	Each	$181	4	$725
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	4	$208
	Segment Total				**$932**
Coronado St.	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	270	$14,019
	Segment Total				**$14,019**
Erin Dr.	New Sign on Post	Each	$181	6	$1,087
	ADA Curb Ramps	Each	$3,623	4	$14,490
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	250	$12,981
	Segment Total				**$28,557**
Highland Ave.	New Sign on Post	Each	$181	2	$362
	ADA Curb Ramps	Each	$3,623	4	$14,490
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	100	$5,192
	Segment Total				**$20,044**
Broadway St. (Historic U.S. 66)	ADA Curb Ramps	Each	$3,623	1	$3,623
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	560	$29,077
	Segment Total				**$32,699**
J St.	ADA Curb Ramps	Each	$3,623	3	$10,868
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	550	$28,557
	Segment Total				**$39,425**
L St.	New Sign on Post	Each	$181	2	$362
	ADA Curb Ramps	Each	$3,623	3	$10,868
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	50	$2,596
	Segment Total				**$13,826**
Washington St.	New Sign on Post	Each	$181	12	$2,174
	School Area Pavement Marking (Per Word)	Each	$254	15	$3,804
	High Visibility Ladder Crosswalk	Each	$1,788	6	$10,728
	ADA Curb Ramps	Each	$3,623	2	$7,245
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	800	$41,538
	Segment Total				**$65,488**
ALL SEGMENTS					**$215,714**

Vista Colorado Elementary School

Vista Colorado Elementary School is a Needles Unified School District (NUSD) school located in a low-density residential area of Needles, California. The school is positioned along Washington Street at the corner of Bailey Avenue. The Vista Colorado Elementary School walk audit took place on December 6th, 2016 from 7:30AM to 9:30AM, following the morning start bell. Eight participants were briefed and debriefed in the on-site cafeteria as well as in front of the school. Observations extended into the surrounding neighborhood along Highland Avenue, Park Avenue, Bailey Avenue, Erin Drive, Fairmont Avenue, L Street, and J Street.

"My child walks to school because we live very nearby. However, if we lived father from the school I would not let him walk due to my safety concerns."

"It is very unsafe for kids to walk down Collins St. Parents and high school students speed down this street to avoid traffic on Washington St."

"It is too hot to walk to and from school."

All remarks received from walk audit participants at Vista Colorado Elementary

SafeRoutes
National Center for Safe Routes to School

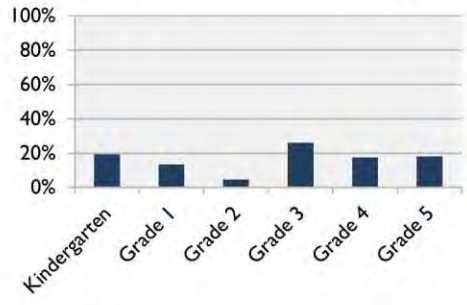
Number of Surveys Received	156

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

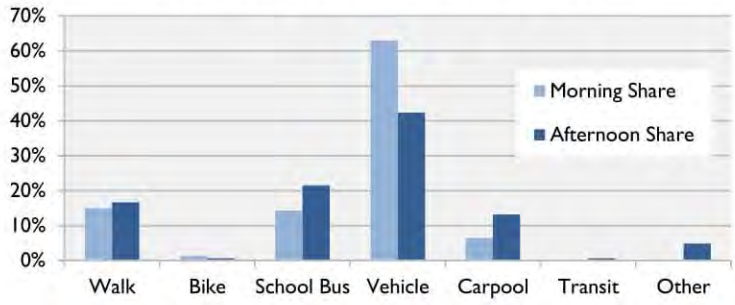
Surveys were printed on two-page forms and distributed to parents to take home. Tally data are not available for this school.

Students who walk or bike to school	**16.8%**
Students who don't walk/bike but have asked parents for permission	**+ 31.5%**
Students who walk/bike or have asked parents for permission	**48.3%**
Student enrollment	**x 439**
Potential walking/biking student base	**212**

Grade Distribution of Surveys

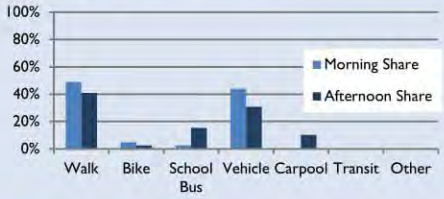


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

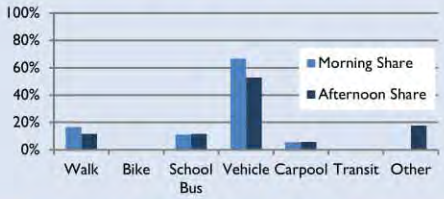
28%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Amount of Traffic Along Route – 37%
Safety of Intersections & Crossings – 34%
Speed of Traffic Along Route – 32%
Violence or Crime -32%
Weather or Climate – 27%

Students Living Between ¼ and ½ Mile from School

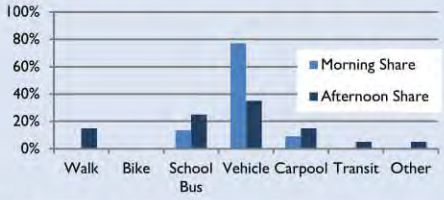
12%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 44%
Speed of Traffic Along Route – 39%
Weather or Climate – 39%
Amount of Traffic Along Route – 33%
Safety of Intersections & Crossings – 33%

Students Living Between ½ and 1 Mile from School

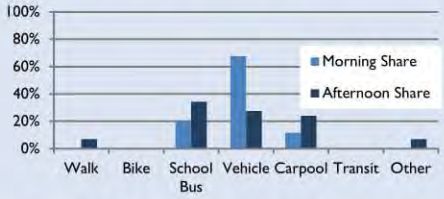
15%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 59%
Distance – 50%
Amount of Traffic Along Route – 50%
Weather or Climate – 50%
Violence or Climate – 50%

Students Living Between 1 and 2 Miles from School

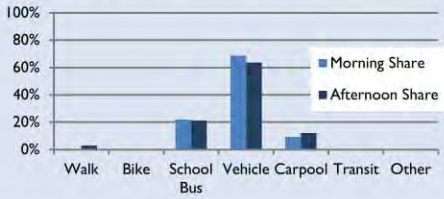
23%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 41%
Violence or Crime – 38%
Weather or Climate – 38%
Amount of Traffic Along Route – 35%
Safety of Intersections & Crossings – 32%

Students Living Farther than 2 Miles from School

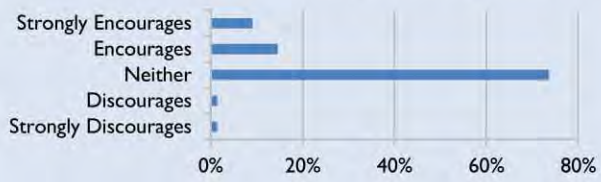
22%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 48%
Amount of Traffic Along Route – 27%
Safety of Intersections & Crossings – 21%
Violence or Crime – 21%
Time – 18%

Parents' Perspectives

Whether School Encourages Walking/Biking



66%
consider walking/biking healthy or very healthy.

48%
would not feel comfortable having their child walk/bike at any age with current conditions.

VISTA COLORADO ELEMENTARY - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Needles
School Enrollment - 439
Free or Reduced Lunch - 78.80%

Environmental Indicators:

Cal Enviro Score % Range - 61-65%
Cal Enviro Score (CES2.0*) - 31.88

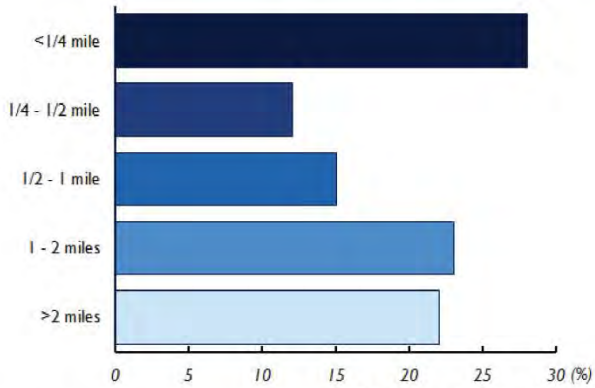
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 8
# of Surveys Received - 156

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

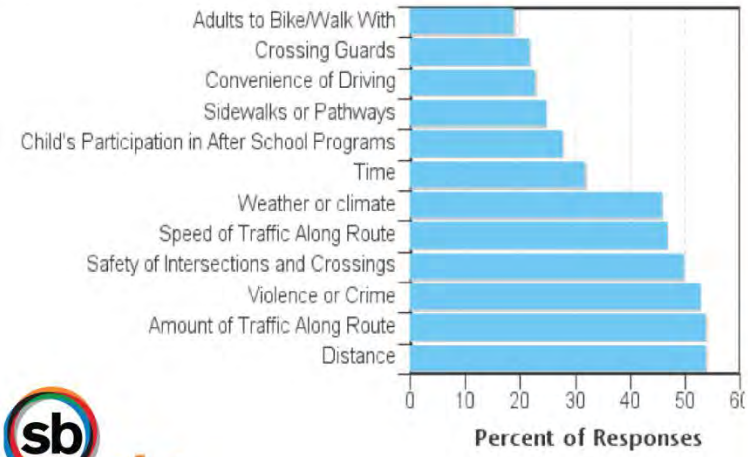
0 within 1/4 mile
0 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sbcta
san bernardino county transportation authority

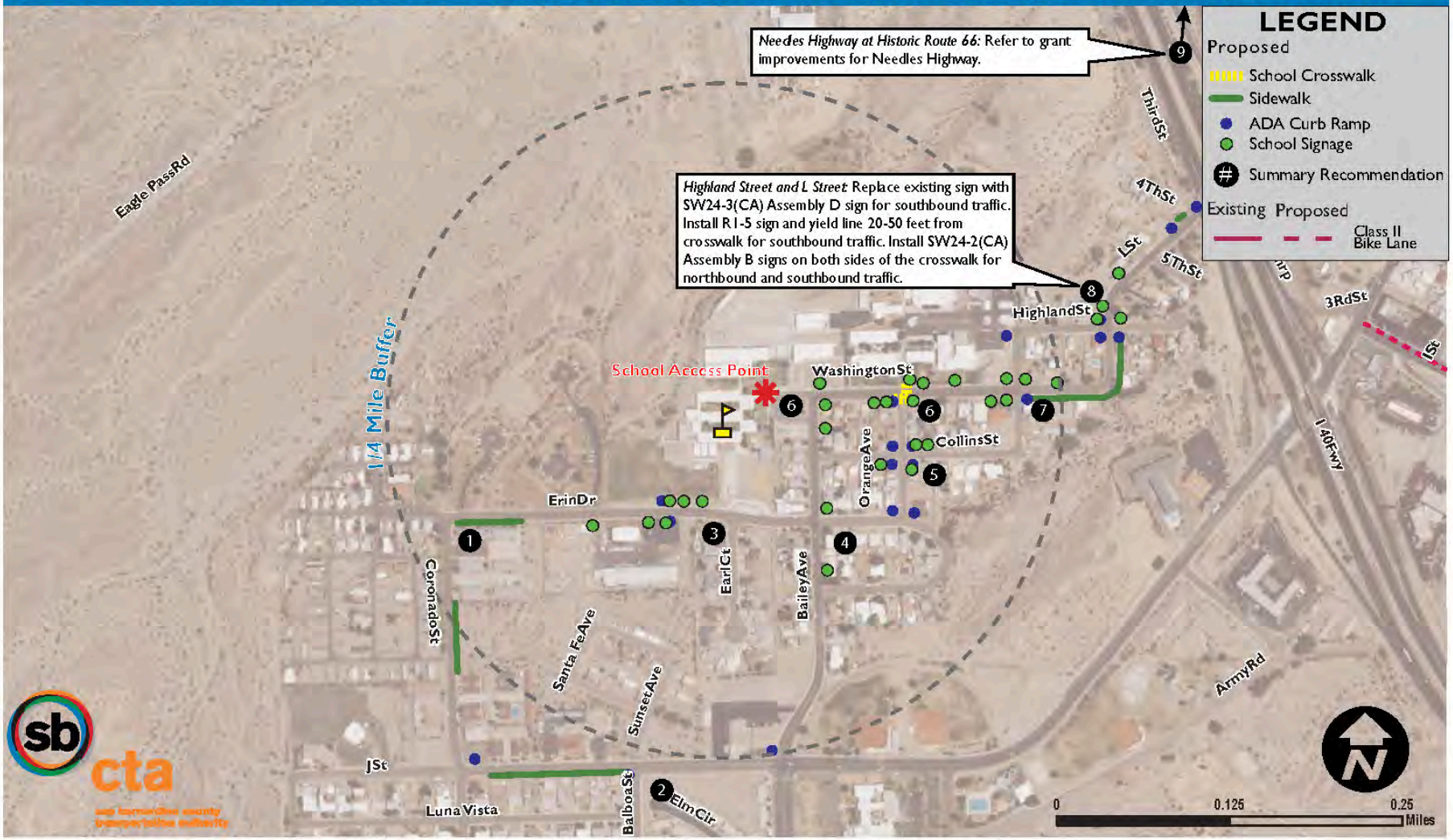
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	*afternoon*
walk	15%	17%
bike	1%	0.7%
bus	14%	21%
vehicle	63%	42%
carpool	6%	13%
transit	0%	0.7%
other	0%	5%

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

SBCTA SRTS PHASE II: *VISTA COLORADO ELEMENTARY SCHOOL, NEEDLES*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Erin Drive and Coronado Street:* Remove high visibility crosswalk across east leg.
2. *Balboa Street at J Street:* Remove high visibility crosswalk across east leg.
3. *Erin Drive near Earl Court:* Install/replace SW24-3(CA) Assembly D signs for eastbound and westbound traffic. Install R1-5 signs and yield lines 20-50 feet from crosswalk for eastbound and westbound traffic. Install SW24-2(CA) Assembly B signs on both sides of the crosswalk for eastbound and westbound traffic.
4. *Bailey Avenue:* Relocate power pole to install ADA curb ramp. Replace signs with new SW24-3(CA) Assembly D signs for northbound traffic. Replace existing sign with SW24-1(CA) Assembly A with W16-6P school sign.
5. *Collins Street at Orange Avenue:* For eastbound and westbound traffic, install R1-5 signs and yield lines 20-50 feet from crosswalk at east leg. Install SW24-2(CA) Assembly B signs on both sides of the crosswalk for eastbound and westbound traffic.
6. *Washington Street at Orange Avenue:* Remove existing sign with SW24-3(CA) Assembly D sign for eastbound traffic. Install SW24-3(CA) Assembly D sign for westbound traffic. Install R1-5 signs and yield lines 20-50 feet from crosswalk for eastbound and westbound traffic. Install SW24-2(CA) Assembly B signs on both sides of the crosswalk for eastbound and westbound traffic. Restripe all pavement markings in front of the school, including high visibility crosswalks. Replace R1-1 signs at Bailey Avenue. Repave circle drive in front of school.
7. *Washington Street at Park Avenue:* Replace existing sign with SW24-3(CA) Assembly D sign for westbound traffic. Install R1-5 signs and yield lines 20-50 feet from crosswalk for eastbound and westbound traffic. Install SW24-2(CA) Assembly B signs on both sides of the crosswalk for eastbound and westbound traffic.

Background/Discussion of the Engineering Recommendations

Vista Colorado Elementary School

Recommendation #	Location	Improvement	Background/Discussion
1	Erin Drive and Coronado Street	High visibility ladder style crosswalk	Removal of high visibility crosswalk across east leg of Erin Drive to discourage crossing at that point and encourage crossing at a safer spot.
2	Balboa Street at J Street	High visibility ladder style crosswalk	Removal of high visibility crosswalk across east leg of J Street to discourage crossing at that point and encourage crossing at a safer spot.
3	Erin Drive near Earl Court	School signage and striping	Installation of school signs will increase visibility and safety for eastbound and westbound traffic. Yield lines and signs will make drivers aware of upcoming pedestrian crossings.
4	Bailey Avenue	relocate power pole, ADA compliance and school signage	See below, "General - ADA curb ramps". Relocation of power pole will allow for an ADA curb ramp to be installed. School signs will help northbound drivers awareness for the upcoming school.
5	Collins Street at Orange Avenue	School signage and striping	Installation of school signs will increase visibility and safety for eastbound and westbound traffic. Yield lines and signs will make drivers aware of upcoming pedestrian crossings.
6	Washington Street at Orange Avenue	School signage and striping, school pavement markings and high visibility crosswalk, and repave road	Installation of school signs will increase visibility and safety for eastbound and westbound traffic. Yield lines and signs will make drivers aware of upcoming pedestrian crossings and help keep pedestrians safe. Restriping of pavement markings in front of school will ensure visibility for drivers. Repaving of circle drive in front of school ensures safe conditions for vehicles, bicyclists and pedestrians.
7	Washington Street at Park Avenue	School signage and striping	Installation of school signs will increase visibility and safety for eastbound and westbound traffic. Yield lines and signs will make drivers aware of upcoming pedestrian crossings.
8	Highland Street and L Street	School signage and striping	Installation of school signs will increase visibility and safety for northbound and southbound traffic. Yield lines and signs will make drivers aware of upcoming pedestrian crossings.
General	School area	ADA curb ramps	Improvements made to comply with ADA standards for increased accessibility for students/parents along their primary routes to school.

OCT

The following cost estimation table details the Vista Colorado Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Bailey Ave.	New Sign on Post	Each	$181	4	$724
	Segment Total				**$724**
Collins St.	New Sign on Post	Each	$181	4	$725
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	4	$208
	Segment Total				**$932**
Coronado St.	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	270	$14,019
	Segment Total				**$14,019**
Erin Dr.	New Sign on Post	Each	$181	6	$1,087
	ADA Curb Ramps	Each	$3,623	4	$14,490
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	250	$12,981
	Segment Total				**$28,557**
Highland Ave.	New Sign on Post	Each	$181	2	$362
	ADA Curb Ramps	Each	$3,623	4	$14,490
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	100	$5,192
	Segment Total				**$20,044**
Broadway St. (Historic U.S. 66)	ADA Curb Ramps	Each	$3,623	1	$3,623
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	560	$29,077
	Segment Total				**$32,699**
J St.	ADA Curb Ramps	Each	$3,623	3	$10,868
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	550	$28,557
	Segment Total				**$39,425**
L St.	New Sign on Post	Each	$181	2	$362
	ADA Curb Ramps	Each	$3,623	3	$10,868
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	50	$2,596
	Segment Total				**$13,826**
Washington St.	New Sign on Post	Each	$181	12	$2,174
	School Area Pavement Marking (Per Word)	Each	$254	15	$3,804
	High Visibility Ladder Crosswalk	Each	$1,788	6	$10,728
	ADA Curb Ramps	Each	$3,623	2	$7,245
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	800	$41,538
	Segment Total				**$65,488**
ALL SEGMENTS					**$215,714**

City of Ontario

Vina Danks Middle School

Vina Danks Middle School is an Ontario-Montclair School District (OMSD) school located in a low-density residential area of Ontario. The school is positioned along 4th Street between Vine Avenue and Laurel Avenue with Euclid Avenue being the closest major arterial roadway 0.25 miles to the east. The walk audit at Vina Danks Middle School took place on October 7th, 2016 from 9:00AM to 10:00AM, following the morning start bell ringing. The Media Center was used as the staging area for the participants where briefing and de-briefing were conducted. Observations with 15 participants extended into the surrounding neighborhood along 4th Street, Vine Avenue, Laurel Avenue, J Street, Rosewood Court, I Street, Palm Avenue, and Euclid Street.

"My son currently walks to school with a group of friends. I am available to drive him but he likes to walk. I feel it is healthier for him to get some exercise before and after school."

"I would never allow my child to walk to or from school because I have observed most parents speeding and/or not giving children priority while crossing at corners, which makes me uneasy."

All remarks received from walk audit participants at Vina Danks Middle

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	196
Number of Tallies	794
» Morning (To School)	402
» Afternoon (From School)	392

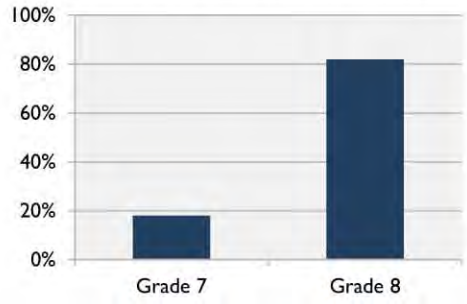
Number of Surveys Received	223

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

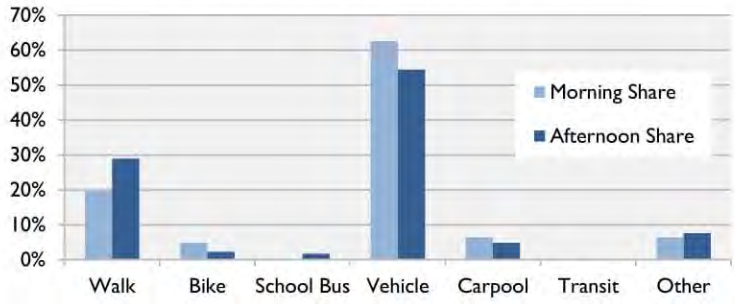
Tallies were conducted by teachers in six classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to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

Students who walk or bike to school	**29.2%**
Students who don't walk/bike but have asked parents for permission	**+ 28.2%**
Students who walk/bike or have asked parents for permission	**57.4%**
Student enrollment	**x 750**
Potential walking/biking student base	**431**

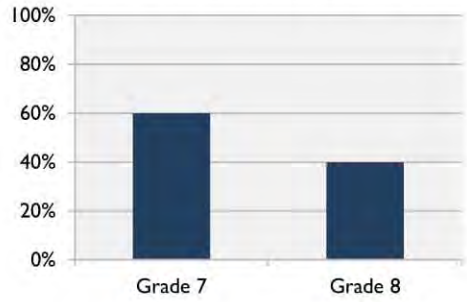
Grade Distribution of Tallies



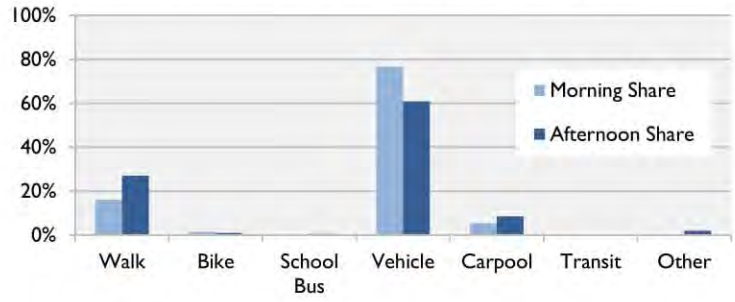
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

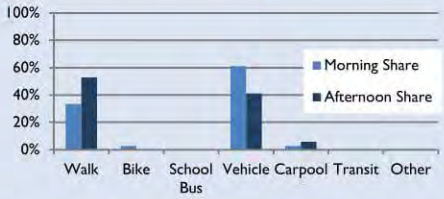


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

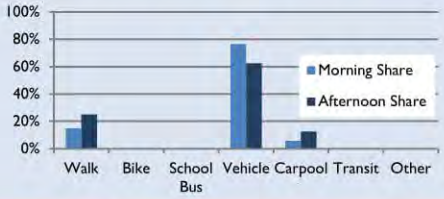
20%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 38%
Violence or Crime – 35%
Distance – 33%
Amount of Traffic Along Route – 33%
Speed of Traffic Along Route – 28%

Students Living Between ¼ and ½ Mile from School

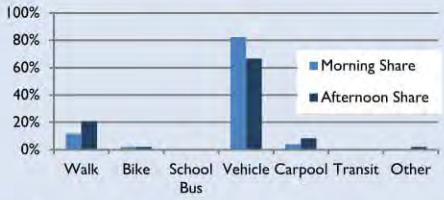
10%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 40%
Speed of Traffic Along Route – 35%
Amount of Traffic Along Route – 35%
Distance – 30%
Crossing Guards – 30%

Students Living Between ½ and 1 Mile from School

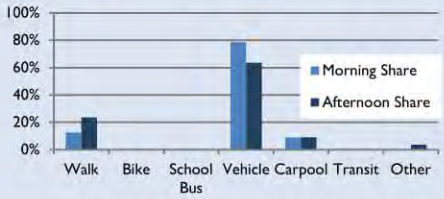
26%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 47%
Safety of Intersections & Crossings – 35%
Speed of Traffic Along Route – 31%
Amount of Traffic Along Route – 29%
Distance – 24%

Students Living Between 1 and 2 Miles from School

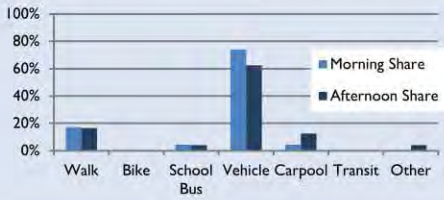
31%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 33%
Distance – 31%
Violence or Crime – 31%
Weather or Climate – 31%
Amount of Traffic Along Route – 26%

Students Living Farther than 2 Miles from School

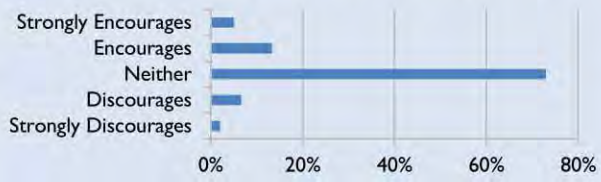
14%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 52%
Speed of Traffic Along Route – 33%
Safety of Intersections & Crossings – 33%
Amount of Traffic Along Route – 26%
Time – 22%

Parents' Perspectives

Whether School Encourages Walking/Biking



78%
consider walking/biking healthy or very healthy.

42%
would not feel comfortable having their child walk/bike at any age with current conditions.

VINA DANKS MIDDLE SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Ontario
School Enrollment - 750
Free or Reduced Lunch - 78.60%

Environmental Indicators:

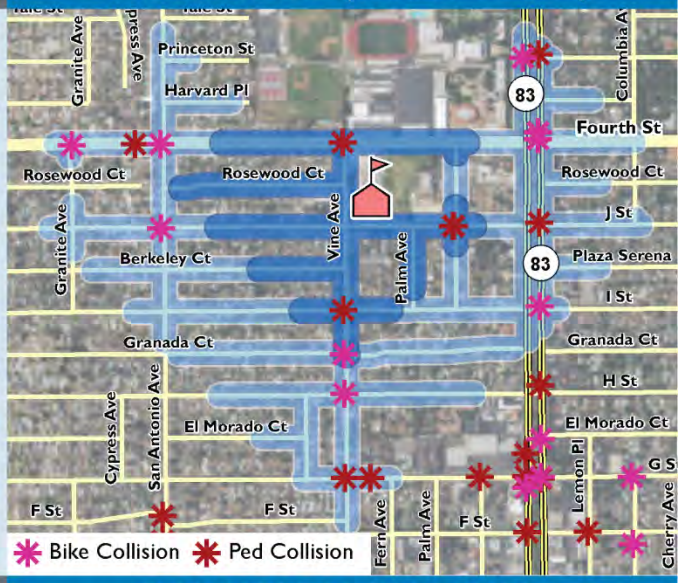
Cal Enviro Score % Range - 81-85%
Cal Enviro Score (CES2.0*) - 46.63

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

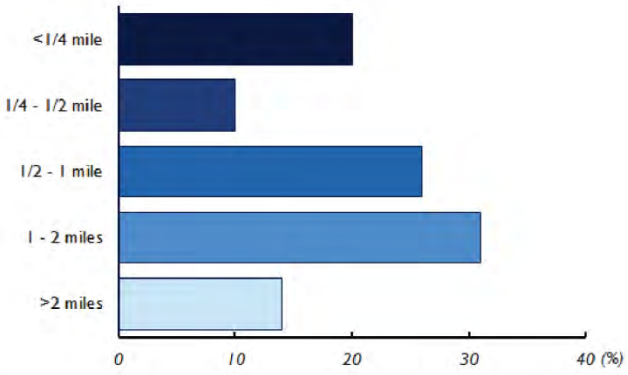
Walk Audit Highlights

of Walk Audit Participants - 15
# of Surveys Received - 223

WALKSHED *(1/4 and 1/2 mile)*



COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

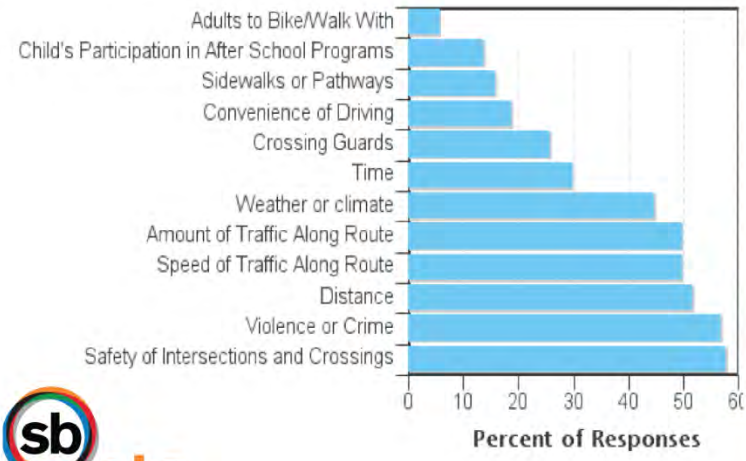
4 within 1/4 mile
16 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sb cta
san bernardino county transportation authority

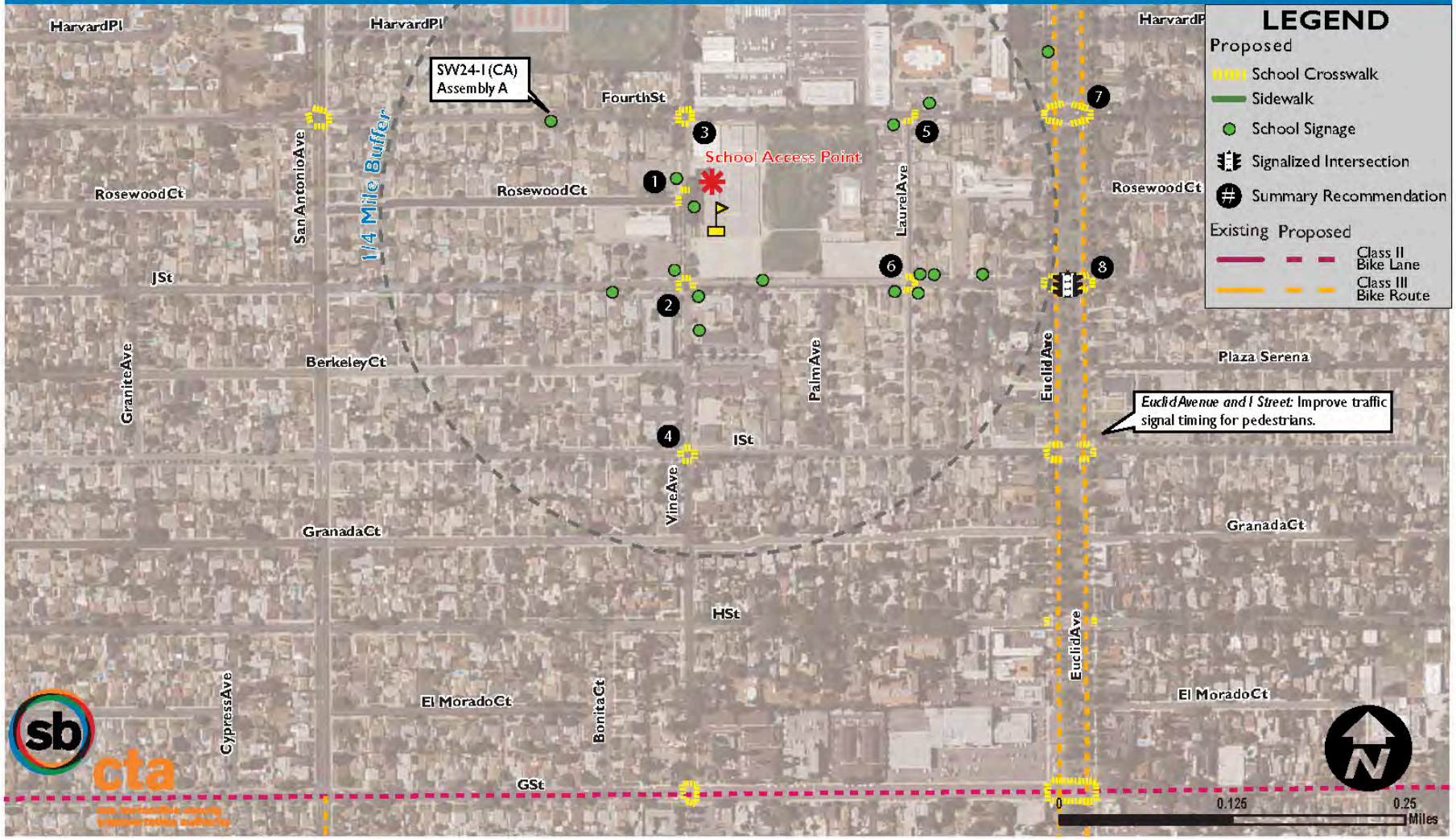
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	16%	27%
bike	1%	1%
bus	0.5%	0.5%
vehicle	77%	61%
carpool	5%	9%
transit	0%	0%
other	0%	2%

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

SBCTA SRTS PHASE II: *VINA DANKS MIDDLE SCHOOL, ONTARIO*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Vine Avenue and Rosewood Court:* Install high visibility ladder style crosswalk for north and west leg. Install bulbouts on the NW and NE corners. Install R1-5 sign with yield lines 20-50' prior to north leg crossing.
2. *Vine Avenue and J Street:* Install high visibility ladder style crosswalk for north, east, and and west legs. Install bulbouts at each corner of intersection. Install SW24-2(CA) Assembly B signs on both sides of the north leg crossing for northbound and southbound traffic. Install SW24-3(CA) Assembly D signs leading into intersection for northbound, westbound, and eastbound traffic.
3. *Vine Avenue and Fourth Street:* Install high visibility ladder style crosswalk for all legs. Install bulbouts at each corner of the intersection.
4. *Vine Avenue and I Street:* Install high visibility ladder style crosswalk for all legs. Install bulbouts at each corner of the intersection.
5. *Fourth Street and Laurel Avenue:* Install high visibility ladder style crosswalk on east and south legs. Install bulbouts on NE and SE corners as well as R1-5 signs and yield lines on both sides of east leg crossing.
6. *J Street and Laurel Avenue:* Install high visibility ladder style crosswalk on the north, east, and south legs. Install bulbouts on NE and SE curbs. Install SW24-2(CA) Assembly B signs on both sides of east leg crossing for eastbound and westbound traffic. Install R1-5 with yield lines on both sides of east leg crossing and SW24-3(CA) Assembly D sign for westbound traffic.
7. *Euclid Avenue and Fourth Street:* Improve traffic signal timing for pedestrians. Install pedestrian scramble as well as high visibility ladder style crosswalks on all legs. Install SW24-3(CA) Assembly D sign for southbound traffic.
8. *Euclid Avenue and J Street:* Install signalized intersection, pending passed warrants. Install high visibility ladder style crosswalks as shown.

Background/Discussion of the Engineering Recommendations

Vina Danks Middle School

Recommendation #	Location	Improvement	Background/Discussion
1	**Vine Avenue and Rosewood Court**	High visibility ladder style crosswalk, bulbouts, school signage and striping	Improvements located along primary walking route to school (noted during field observation), where one pedestrian collision took place. Location identified by walk audit participants and explicitly through school-wide surveys as a focus intersection, where students/parents have difficultly crossing and feel unsafe. Engineering recommendations used to increase pedestrian visibility while crossing the uncontrolled intersection.
2	**Vine Avenue and J Street**	High visibility ladder style crosswalk, bulbouts, school signage	Improvements located along primary walking route to school (noted during field observation). Location identified by walk audit participants and explicitly through school-wide surveys as a focus intersection, where students/parents have difficultly crossing and feel unsafe. Engineering recommendations used to increase pedestrian visibility while crossing the uncontrolled intersection.
3	**Vine Avenue and Fourth Street**	High visibility ladder style crosswalk and bulbouts	Improvements located along primary walking route to school (noted during field observation), where one pedestrian collision took place. Location identified by walk audit participants and explicitly through school-wide surveys as a focus intersection, where students/parents have difficultly crossing and feel unsafe. Engineering recommendations used to increase pedestrian visibility while crossing the uncontrolled intersection.
4	**Vine Avenue and I Street**	High visibility ladder style crosswalk and bulbouts	Improvements located along primary walking route to school (noted during field observation), where one bicycle collision took place. Location identified by walk audit participants and explicitly through school-wide surveys as a focus intersection, where students/parents have difficultly crossing and feel unsafe. Engineering recommendations used to increase pedestrian visibility while crossing the uncontrolled intersection.
5	**Fourth Street and Laurel Avenue**	High visibility ladder style crosswalk, bulbouts and striping	Improvements located along primary walking route to school (noted during field observation). Location identified by walk audit participants and explicitly through school-wide surveys as a focus intersection, where students/parents have difficultly crossing and feel unsafe. Engineering recommendations used to increase pedestrian visibility while crossing the uncontrolled intersection.

Vina Danks Middle School	Recommendation #	Location	Improvement	Background/Discussion
	6	**J Street and Laurel Avenue**	High visibility ladder style crosswalk, bulbouts, school signage and striping	Improvements located along primary walking route to school (noted during field observation), where one pedestrian collision took place. Location identified by walk audit participants and explicitly through school-wide surveys as a focus intersection, where students/parents have difficultly crossing and feel unsafe. Engineering recommendations used to increase pedestrian visibility while crossing the uncontrolled intersection.
	7	**Euclid Avenue and Fourth Street**	Signal timing, pedestrian scramble, high visibility ladder style crosswalk, and school signage	Reports of multiple pedestrian and bicycle collisions at this intersection justify reviewing traffic signal timing. 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).
	8	**Euclid Avenue and J Street**	Traffic signal and high visibility ladders style crosswalk	Reports of multiple pedestrian and bicycle collisions at this intersection justify a Traffic signal, pending warrant study. 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).

The following cost estimation table details Vina Danks Middle School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
W 4th St.	New Sign on Post	Each	$181	3	$543
	High Visibility Ladder Crosswalk	Each	$1,788	16	$28,608
	Curb Extension - Raised	Per Intersection	$87,766	1.5	$131,650
	Standard Crosswalks	Each	$497	2	$994
	Segment Total				**$161,795**
W J St.	New Sign on Post	Each	$181	7	$1,268
	High Visibility Ladder Crosswalk	Each	$1,788	12	$21,456
	Curb Extension - Raised	Per Intersection	$87,766	2	$175,533
	Traffic Signal	Per Intersection	$332,063	1	$332,063
	Segment Total				**$530,319**
N Vine Ave.	New Sign on Post	Each	$181	5	$906
	High Visibility Ladder Crosswalk	Each	$1,788	6	$10,728
	Curb Extension - Raised	Per Intersection	$87,766	1.5	$131,650
	Segment Total				**$143,283**
CA-83 (Euclid Ave.)	New Sign on Post	Each	$181	1	$181
	High Visibility Ladder Crosswalk	Each	$1,788	12	$21,456
	Segment Total				**$21,637**
ALL SEGMENTS					**$857,034**

Lincoln Elementary School

Lincoln Elementary is an Ontario-Montclair School District (OMSD) school located in a low-density residential neighborhood of Ontario. The school is positioned at the corner of Allyn Avenue and D Street. The Lincoln Elementary School walk audit took place on October 10, 2016, from 3:00PM to 4:00PM, following the afternoon release bell ringing. The Library was used as the staging area for the participants where briefing and de-briefing were conducted. Observations with 18 participants extended into the surrounding neighborhood along Allyn Avenue, D Street, E Street, Florence Avenue, Elma Street, and Berlyn Avenue.

"There are no crossing guards. Some parents don't respect the school zone speed limit and also block intersections."

"Too many speeding cars fail to stop at intersections around the school."

"Cars driving in the area where students are dismissed drive too fast. The speed limit should be enforced!"

All remarks received from walk audit participants at Lincoln Elementary

SafeRoutes
National Center for Safe Routes to School

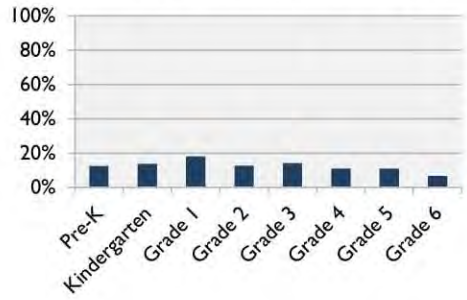
Number of Surveys Received	297

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

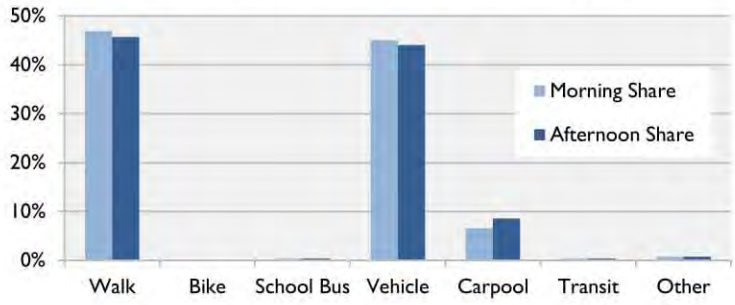
Surveys were printed on two-page forms and distributed to parents to take home. Tally data are not available for this school.

Students who walk or bike to school	**11.9%**
Students who don't walk/bike but have asked parents for permission	**+ 15.0%**
Students who walk/bike or have asked parents for permission	**26.8%**
Student enrollment	**x 563**
Potential walking/biking student base	**151**

Grade Distribution of Surveys

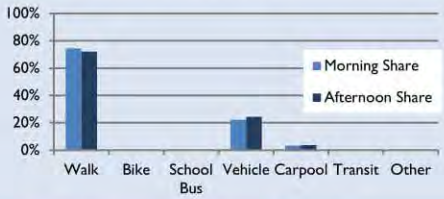


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

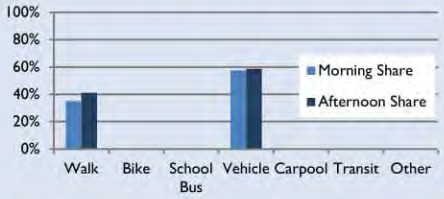
43%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 31%
Speed of Traffic Along Route - 26%
Violence or Crime – 25%
Crossing Guards – 24%
Amount of Traffic Along Route – 21%

Students Living Between ¼ and ½ Mile from School

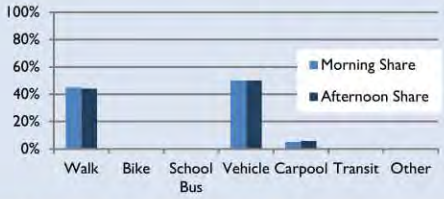
17%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 60%
Speed of Traffic Along Route – 40%
Weather or Climate – 40%
Crossing Guards – 33%
Violence or Crime – 33%

Students Living Between ½ and 1 Mile from School

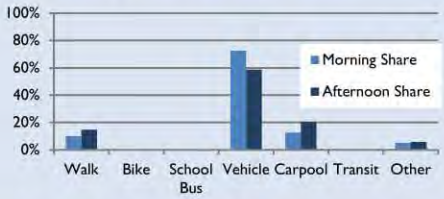
18%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 49%
Safety of Intersections & Crossings – 46%
Violence or Crime – 34%
Amount of Traffic Along Route – 32%
Weather or Climate – 32%

Students Living Between 1 and 2 Miles from School

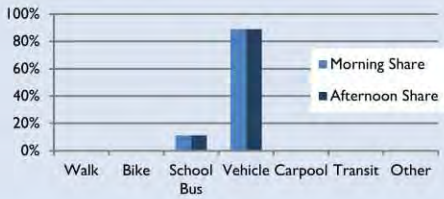
18%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 51%
Safety of Intersections & Crossings – 37%
Weather or Climate – 37%
Violence or Crime – 34%
Speed of Traffic Along Route – 32%

Students Living Farther than 2 Miles from School

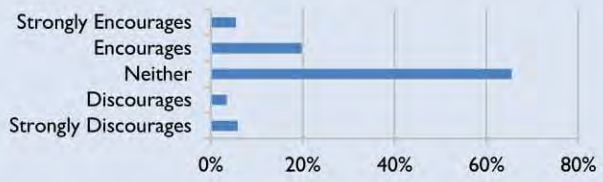
4%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 56%
Violence or Crime – 56$
Distance – 44%
Adults to Walk/Bike With – 44%
Time – 33%

Parents' Perspectives

Whether School Encourages Walking/Biking



79%
consider walking/biking healthy or very healthy.

76%
would not feel comfortable having their child walk/bike at any age with current conditions.

LINCOLN ELEMENTARY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Ontario
School Enrollment - 563
Free or Reduced Lunch - 76.80%

Environmental Indicators:

Cal Enviro Score % Range - 96-100%
Cal Enviro Score (CES2.0*) - 62.04

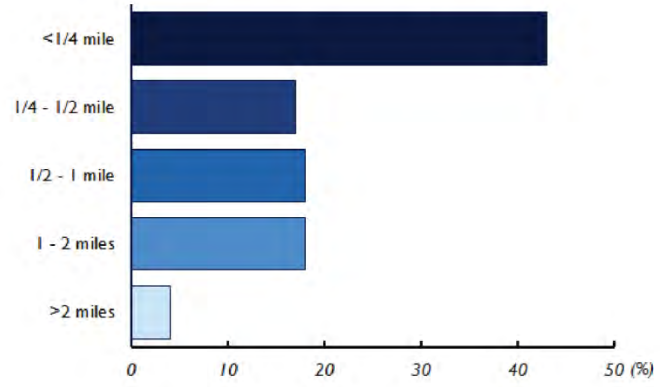
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 18
# of Surveys Received - 297

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE (%)



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

COLLISION ANALYSIS

Pedestrian Related Collisions

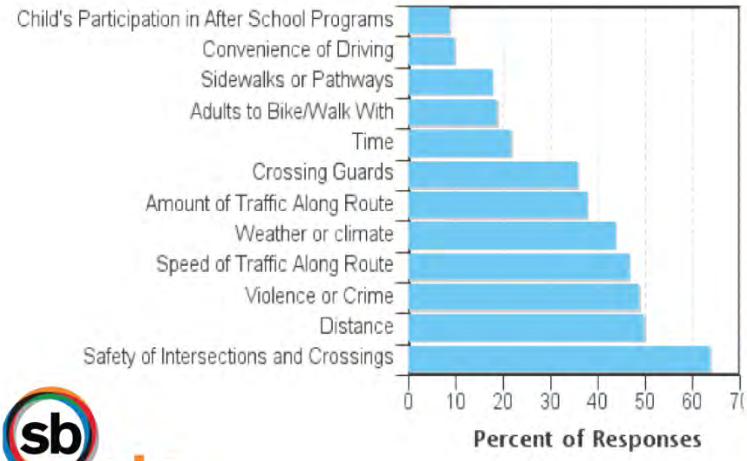
2 within 1/4 mile
18 within 1/2 mile
2 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sb cta
san bernardino county transportation authority

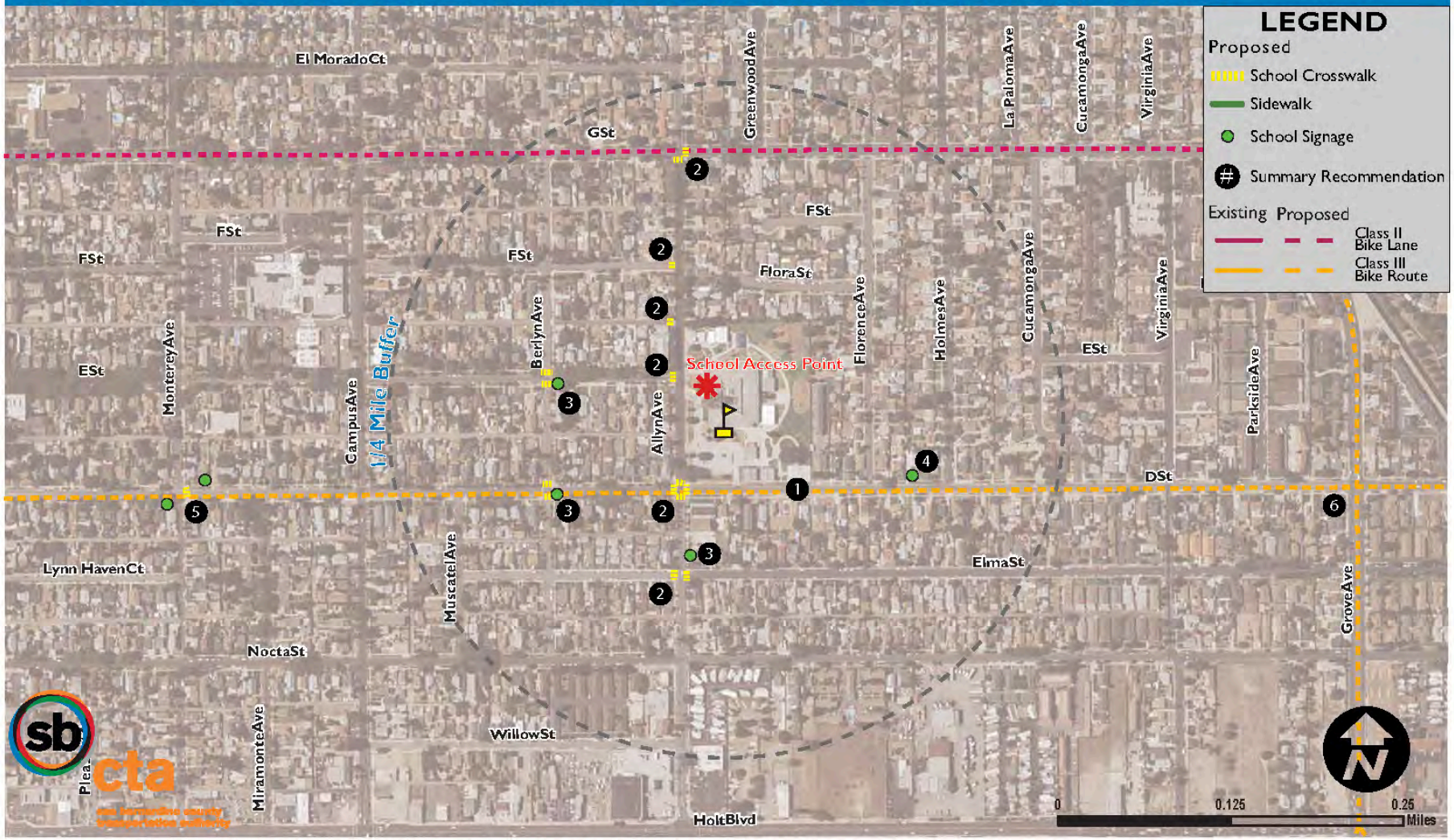
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	47%	46%
bike	0%	0%
bus	0.4%	0.4%
vehicle	45%	44%
carpool	7%	9%
transit	0.4%	0.4%
other	0.7%	0.8%

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

SBCTA SRTS PHASE II: *LINCOLN ELEMENTARY SCHOOL, ONTARIO*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *D Street:* Install proper signage and sharrow pavement markings along D Street Corridor between Euclid Avenue and Vineyard Avenue.

2. *Allyn Avenue:* Install high visibility ladder style school crosswalks at the locations specified and the intersection legs specified within the school extent.

3. *Allyn Avenue/D Street/E Street:* Install SW24-3(CA) Assembly D signs leading towards the school site. Allyn Avenue - sign for northbound traffic. D Street/E Street - signs for eastbound traffic.

4. *D Street and Holmes Avenue:* Relocate SR4-1(CA) Assembly C sign to the location specified on the map - sign for westbound traffic.

5. *D Street and Monterey Avenue:* Install high visibility ladder style school crosswalk on east leg of intersection with R1-5 signs and yield lines located 20-50 feet prior to east leg crossing for eastbound and westbound traffic.

6. *D Street and Grove Avenue:* Upgrade pedestrian push buttons and signal heads to be ADA compliant.

Background/Discussion of the Engineering Improvements

	Recommendation #	Location	Improvement	Background/Discussion
Lincoln Elementary School	1	D Street	Class III Bike Route sharrows and signage	Bike improvements provide better connectivity for those wanting to ride their bicycle in the area. Sharrows and signage may alert vehicular traffic of the fact that the road is being shared amongst vehicles and bicycles alike.
	2	Allyn Avenue	High visibility crosswalks	High visibility crosswalks alert drivers of crossings in the area.
	3	Allyn Avenue, D Street, and E Street	School signage	School signage increases driver awareness regarding pedestrians in the area, per CA MUTCD Part 7 guidelines.
	4	D Street at Holmes Avenue	School signage	School signage can inform drivers of the speed limit in the school area when children are present, per CA MUTCD Part 7 guidelines.
	5	D Street at Monterey Avenue	High visibility crosswalks, Yield lines and signage	High visibility crosswalks alert drivers of crossings in the area. Yield lines and signage can create a cushion between pedestrians and vehicles at this location, allowing for a more comfortable crossing for pedestrians.
	6	D Street at Grove Avenue	Pedestrian push buttons, Pedestrian signal heads	ADA compliancy should be met by providing adequate push buttons and countdown signal heads for all crossing movements at this location, in order to better serve pedestrians in the area.
	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 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 Lincoln Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Allyn Ave.	New Sign on Post	Each	$181	1	$181
	High Visibility Ladder Crosswalk	Each	$1,788	9	$16,092
	Segment Total				**$16,273**
D St.	Bike Route with Sharrows & Signs (2 sides)	Per Linear Foot	$4	12104	$48,416
	New Sign on Post	Each	$181	3	$543
	High Visibility Ladder Crosswalk	Each	$1,788	5	$8,940
	Segment Total				**$57,899**
E St.	New Sign on Post	Each	$181	1	$181
	High Visibility Ladder Crosswalk	Each	$1,788	2	$3,576
	Segment Total				**$3,757**
ALL SEGMENTS					**$77,929**

Elderberry Elementary School

Elderberry Elementary School is an Ontario-Montclair School District (OMSD) school located in a low-density residential neighborhood of Ontario. The school is positioned at the corner of Elderberry Avenue and I Street. The walk audit at Elderberry Elementary School took place on October 11th, 2016 from 7:50AM to 8:50AM, following the morning start bell. Participants were briefed and debriefed in the multi-purpose room, which acted as the staging area for the event. There were a total of 25 participants engaged in the walk audit. Along with SRTS team members, the group observed I Street, Elderberry Avenue, J Street, San Bernardino Street, and Mountain Avenue.

"The intersection of Elderberry and J Street is in need of a crossing guard. Cars drive fast and do not stop for the kids crossing. There have been plenty of times that my son or I were almost hit by cars that did not stop."

"Vehicles arriving to and leaving from school do not respect speed limit signs or other drivers."

All remarks received from walk audit participants at Elderberry Elementary

SafeRoutes
National Center for Safe Routes to School

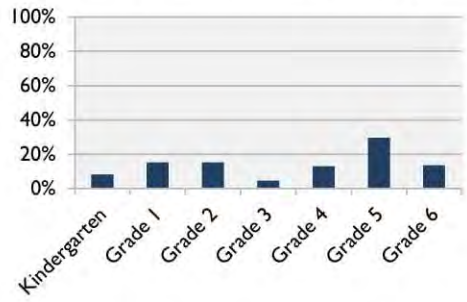
Number of Surveys Received	176

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

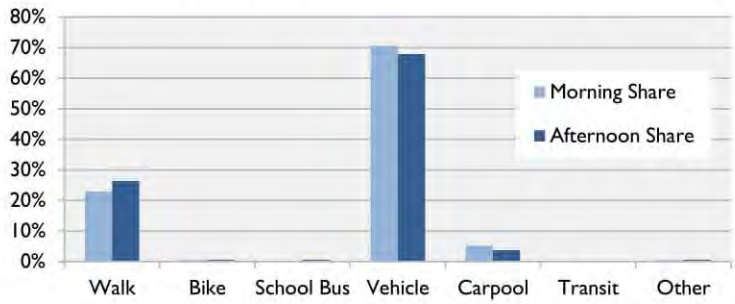
Surveys were printed on two-page forms and distributed to parents to take home. Tally data are not available for this school.

Students who walk or bike to school	**19.6%**
Students who don't walk/bike but have asked parents for permission	**+ 19.6%**
Students who walk/bike or have asked parents for permission	**39.3%**
Student enrollment	**x 822**
Potential walking/biking student base	**323**

Grade Distribution of Surveys

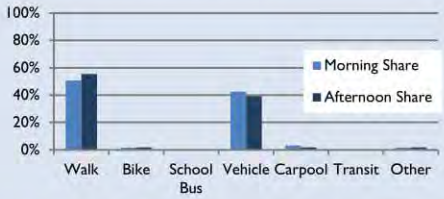


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

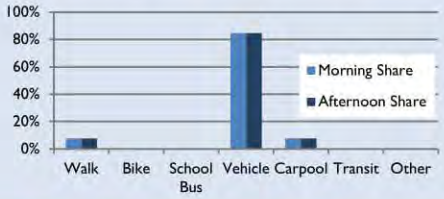
42%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 39%
Violence or Crime – 31%
Weather or Climate – 30%
Distance – 28%
Speed of Traffic Along Route – 22%

Students Living Between ¼ and ½ Mile from School

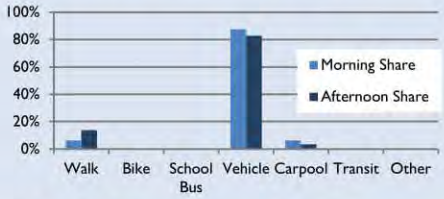
8%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 85%
Amount of Traffic Along Route – 62%
Violence or Crime – 62%
Speed of Traffic Along Route – 54%
Crossing Guards – 38%

Students Living Between ½ and 1 Mile from School

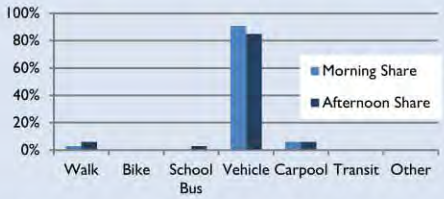
21%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 41%
Violence or Crime – 38%
Amount of Traffic Along Route – 34%
Speed of Traffic Along Route – 31%
Distance – 28%

Students Living Between 1 and 2 Miles from School

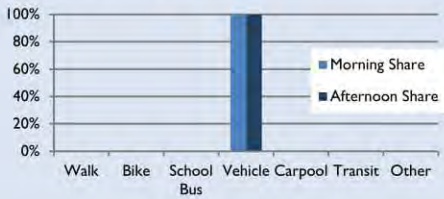
21%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 58%
Speed of Traffic Along Route – 52%
Violence or Crime – 52%
Amount of Traffic Along Route – 45%
Distance – 42%

Students Living Farther than 2 Miles from School

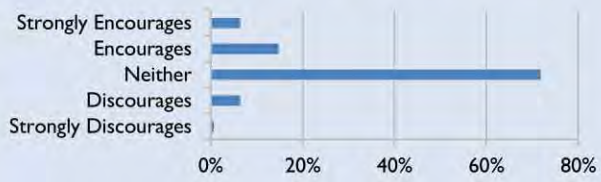
8%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 50%
Distance – 42%
Violence or Crime – 42%
Convenience of Driving- 33%
Speed of Traffic Along Route – 33%

Parents' Perspectives

Whether School Encourages Walking/Biking



79%
consider walking/biking healthy or very healthy.

52%
would not feel comfortable having their child walk/bike at any age with current conditions.

ELDERBERRY ELEMENTARY - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Ontario
School Enrollment - 822
Free or Reduced Lunch - 90.60%

Environmental Indicators:

Cal Enviro Score % Range - 91-95%
Cal Enviro Score (CES2.0*) - 55.35

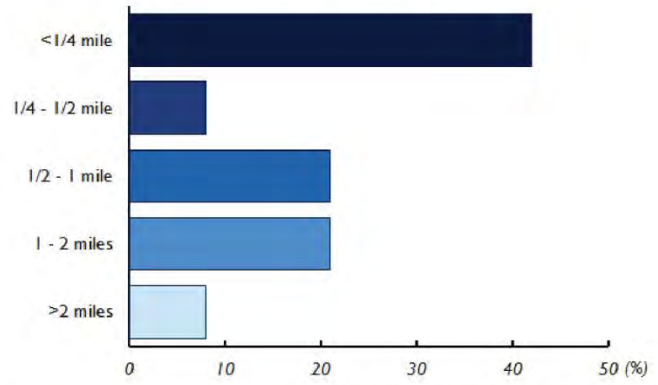
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 25
# of Surveys Received - 176

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

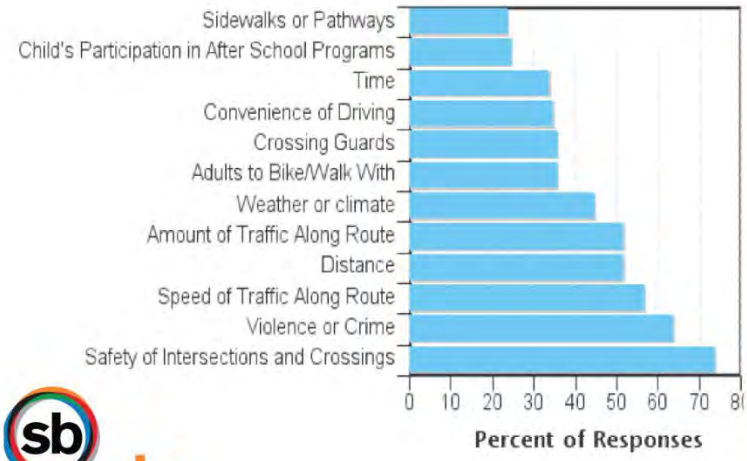
3 within 1/4 mile
23 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sb cta
san bernardino county transportation authority

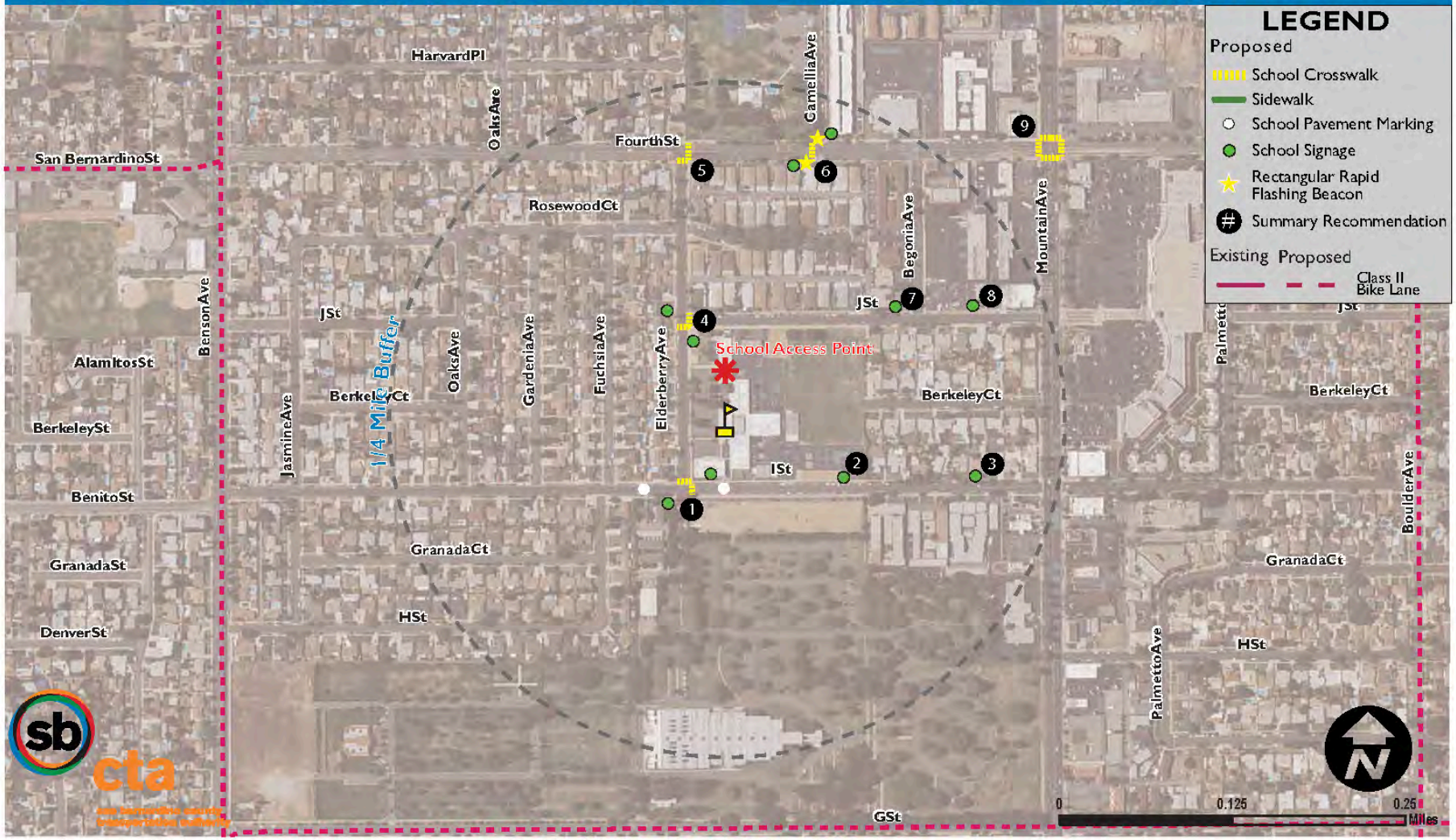
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	*afternoon*
walk	23%	26%
bike	0.6%	0.6%
bus	0%	0.6%
vehicle	71%	68%
carpool	5%	4%
transit	0%	0%
other	0.6%	0.6%

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

SBCTA SRTS PHASE II: *ELDERBERRY ELEMENTARY SCHOOL, ONTARIO*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *I Street and Elderberry Avenue:* Install high visibility ladder style crosswalks on the north and east legs. Install R1-5 signs with yield lines on approach to the east leg crossing 20-50 feet prior. Repaint school pavement markings to read, "SLOW SCHOOL XING." Install bulbouts on the NE and NW corners of the intersection.
2. *I Street:* Remove SR4-1(CA) sign and replace with SW24-3(CA) Assembly D sign for westbound traffic.
3. *I Street:* Remove S4-5 sign and replace with SR4-1(CA) Assembly C sign for westbound traffic.
4. *Elderberry Avenue and J Street:* Install high visibility ladder style crosswalks on the south and east legs. In approach to the south leg crossing install R1-5 signs with yield lines 20-50' for northbound and soutbound traffic.
5. *Fourth Street and Elderberry Avenue:* Install bulbouts on NE and SE corners. Install high visibility ladder style crossing for east and south legs.
6. *Fourth Street and Camella Avenue:* Install bulbouts on NW and SW corners. Install high visibility ladder style crossing for west leg and install rectangular rapid flashing beacons (RRFB's) for eastbound or westbound traffic. Install R1-5 sign with yield lines for eastbound and westbound traffic.
7. *J Street and Begonia Avenue:* Install SR4-1(CA) Assembly C sign at this location for westbound traffic.
8. *J Street and Begonia Avenue:* Install SW24-3 (CA) Assembly D sign at this location for westbound traffic.
9. *Fourth Street and Mountain Avenue:* Install high visibility ladder style crosswalk at each leg of intersection.

Background/Discussion of the Engineering Recommendations

Elderberry Elementary School

Recommendation #	Location	Improvement	Background/Discussion
1	I Street and Elderberry Avenue	High visibility crosswalks, Yield signage, School pavement markings, Bulbouts	These improvements can alert drivers of pedestrian crossings in the area. Bulbouts shorten the crossing distance at this location, which is along a primary walking route to school and immediately adjacent to the school campus.
2	I Street	Advanced warning school signage	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.
3	I Street	School speed limit signage	Improvements can increase driver awareness of the speed limit near the school when children are present, addressing speeding along the roadway near the school. Recent collision data shows a collision involving a pedestrian along this street.
4	Elderberry Avenue and J Street	High visibility crosswalks, Yield signage	These improvements can increase driver awareness of pedestrian crossings in the area.
5	Fourth Street and Elderberry Avenue	Bulbouts, High visibility crosswalks	Proposed bulbouts shorten the crossing distance at this location. High visibility crosswalks provide clearer paths for pedestrians along this primary walking route to school. Recent collision data shows a collision involving a bicyclist at this location.
6	Fourth Street and Camella Avenue	Bulbouts, High visibility crosswalks, Rectangular rapid flashing beacons (RRFBs), Yield signage	These improvements can increase driver awareness of pedestrian crossings in the area. Bulbouts shorten the crossing distance at this location, which is along a primary walking route to school and immediately adjacent to the school campus. Recent collision data shows a collision involving a pedestrian at this location.
7	J Street and Begonia Avenue	School speed limit signage	Improvements can increase driver awareness of the speed limit near the school when children are present, addressing speeding along the roadway near the school.
8	J Street and Begonia Avenue	Advanced warning school signage	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.
9	Fourth Street and Mountain Avenue	High visibility crosswalks	These improvements can increase driver awareness of crosswalks in the area, per CA MUTCD Part 7 guidelines.
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	ADA curb ramps	These improvements are 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 Elderberry Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
W 4th St.	Rectangular Rapid Flashing Beacon (2/Uncontrolled X-walk)	Each	$15,698	1	$15,698
	New Sign on Post	Each	$181	2	$362
	High Visibility Ladder Crosswalk	Each	$1,788	6	$10,728
	Curb Extension - Raised	Per Intersection	$87,766	1	$87,766
	Segment Total				**$114,554**
N Elderberry Ave.	New Sign on Post	Each	$181	2	$362
	High Visibility Ladder Crosswalk	Each	$1,788	2	$3,576
	Segment Total				**$3,938**
W J St.	New Sign on Post	Each	$181	2	$362
	High Visibility Ladder Crosswalk	Each	$1,788	1	$1,788
	Segment Total				**$2,150**
W I St.	New Sign on Post	Each	$181	5	$906
	School Area Pavement Marking (Per Word)	Each	$254	6	$1,521
	High Visibility Ladder Crosswalk	Each	$1,788	1	$1,788
	Curb Extension - Raised	Per Intersection	$87,766	0.5	$43,883
	Segment Total				**$48,098**
ALL SEGMENTS					**$168,740**

City of Rancho Cucamonga

Los Amigos Elementary School

Los Amigos Elementary School is a Cucamonga School District school located in a low-density residential neighborhood of Rancho Cucamonga, California. The school is positioned at the corner of 9th Street and Baker Avenue. The walk audit performed at Los Amigos Elementary School was held from 8:30AM to 9:45AM on September 23rd, 2016, following the morning start bell ringing and during an existing Coffee with the Principal monthly meeting. The school cafeteria was used as the staging area for the 17 participants where briefing and de-briefing were conducted. Observations extended into the surrounding neighborhood, along 9th Street, Arrow Route, Baker Avenue, Salina Street, and Comet Street.

"I would feel a lot safer if we didn't have to walk directly on the street along with running traffic. Many areas have missing sidewalk."

"The main reason I don't allow my child to walk is the speed of the cars on the two streets in front of the school; it is not enforced."

"We live too far from the school for me to allow them to walk to and from school."

All remarks received from walk audit participants at Los Amigos Elementary

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	109
Number of Tallies	579
» Morning (To School)	293
» Afternoon (From School)	286

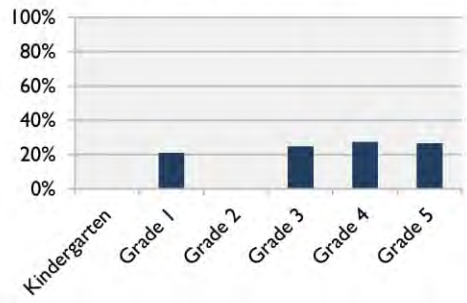
Number of Surveys Received	98

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

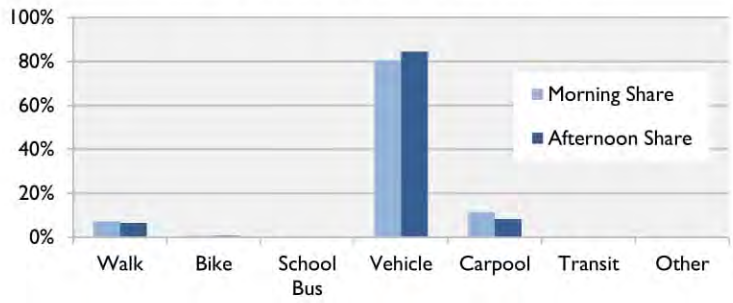
Tallies were conducted by teachers in four classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to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

Students who walk or bike to school	**6.4%**
Students who don't walk/bike but have asked parents for permission	**+ 27.7%**
Students who walk/bike or have asked parents for permission	**34.0%**
Student enrollment	**x 524**
Potential walking/biking student base	**178**

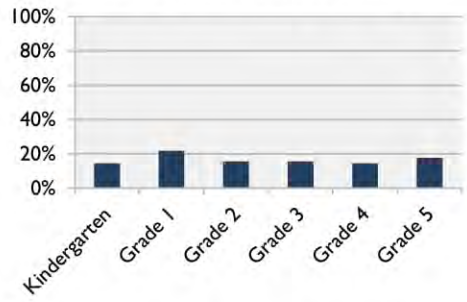
Grade Distribution of Tallies



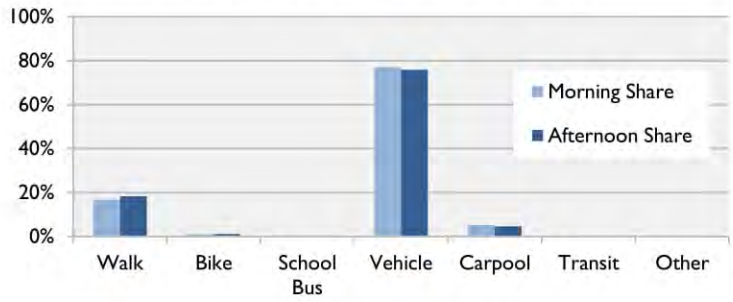
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

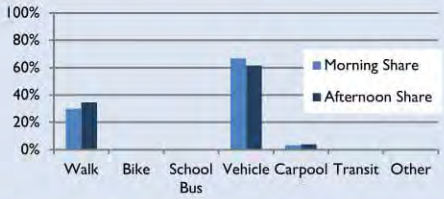


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

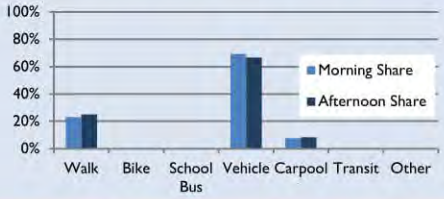
35%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 38%
Safety of Intersections & Crossings – 28%
Speed of Traffic Along Route – 22%
Amount of Traffic Along Route – 13%
Weather or Climate – 13%

Students Living Between ¼ and ½ Mile from School

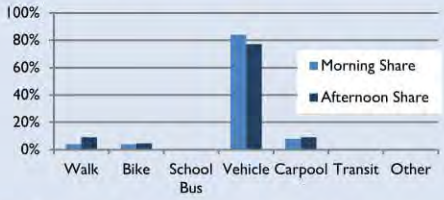
14%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Amount of Traffic Along Route – 46%
Safety of Intersections & Crossings – 46%
Violence or Crime – 46%
Convenience of Driving – 38%
Participation in After-School Programs – 38%

Students Living Between ½ and 1 Mile from School

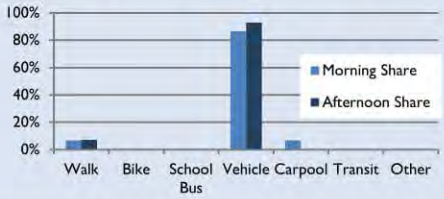
27%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 40%
Safety of Intersections & Crossings – 32%
Violence or Crime – 32%
Amount of Traffic Along Route – 28%
Distance – 24%

Students Living Between 1 and 2 Miles from School

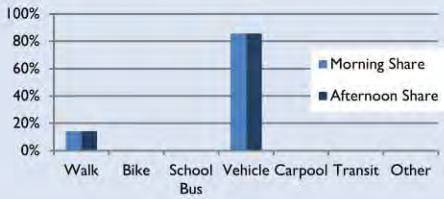
16%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 60%
Amount of Traffic Along Route – 47%
Distance – 40%
Sidewalks or Pathways – 33%
Weather or Climate – 33%

Students Living Farther than 2 Miles from School

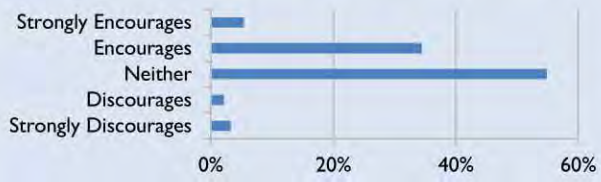
8%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 57%
Speed of Traffic Along Route – 57%
Amount of Traffic Along Route – 57%
Convenience of Driving – 43%
Time – 43%

Parents' Perspectives

Whether School Encourages Walking/Biking



84%
consider walking/biking healthy or very healthy.

73%
would not feel comfortable having their child walk/bike at any age with current conditions.

LOS AMIGOS ELEMENTARY - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Rancho Cucamonga

School Enrollment - 524

Free or Reduced Lunch - 81.90%

Environmental Indicators:

Cal Enviro Score % Range - 71-75%

Cal Enviro Score (CES2.0*) - 39.3

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

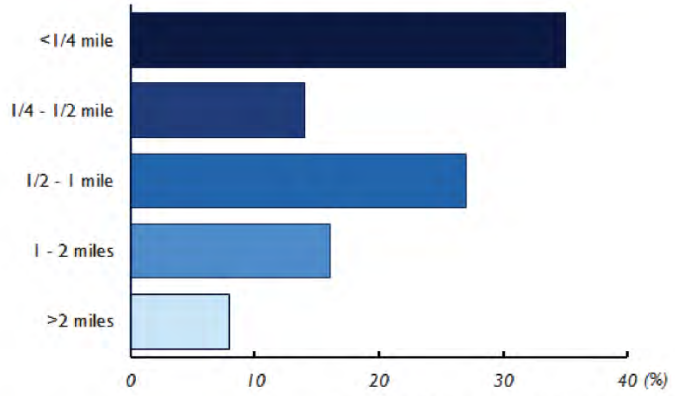
Walk Audit Highlights

of Walk Audit Participants - 17

# of Surveys Received - 98

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE (%)



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

COLLISION ANALYSIS

Pedestrian Related Collisions

0 within 1/4 mile

1 within 1/2 mile

1 fatal within (1/2 mile)

Bicyclist Related Collisions

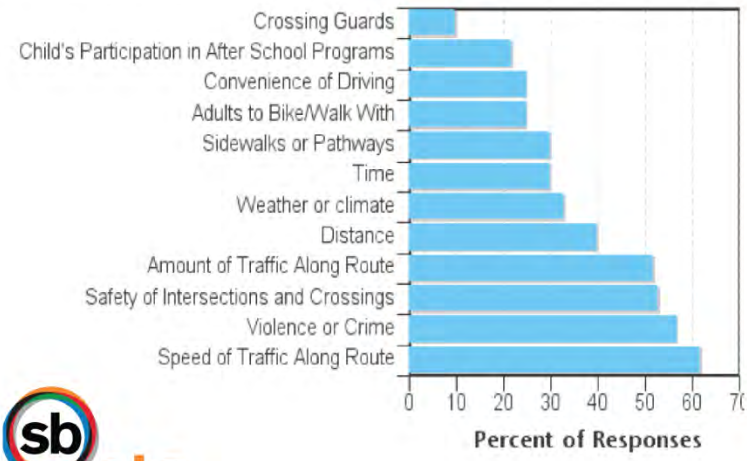
1 within 1/4 mile

7 within 1/2 mile

0 fatal within (1/2 mile)

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sbcta
san bernardino county transportation authority

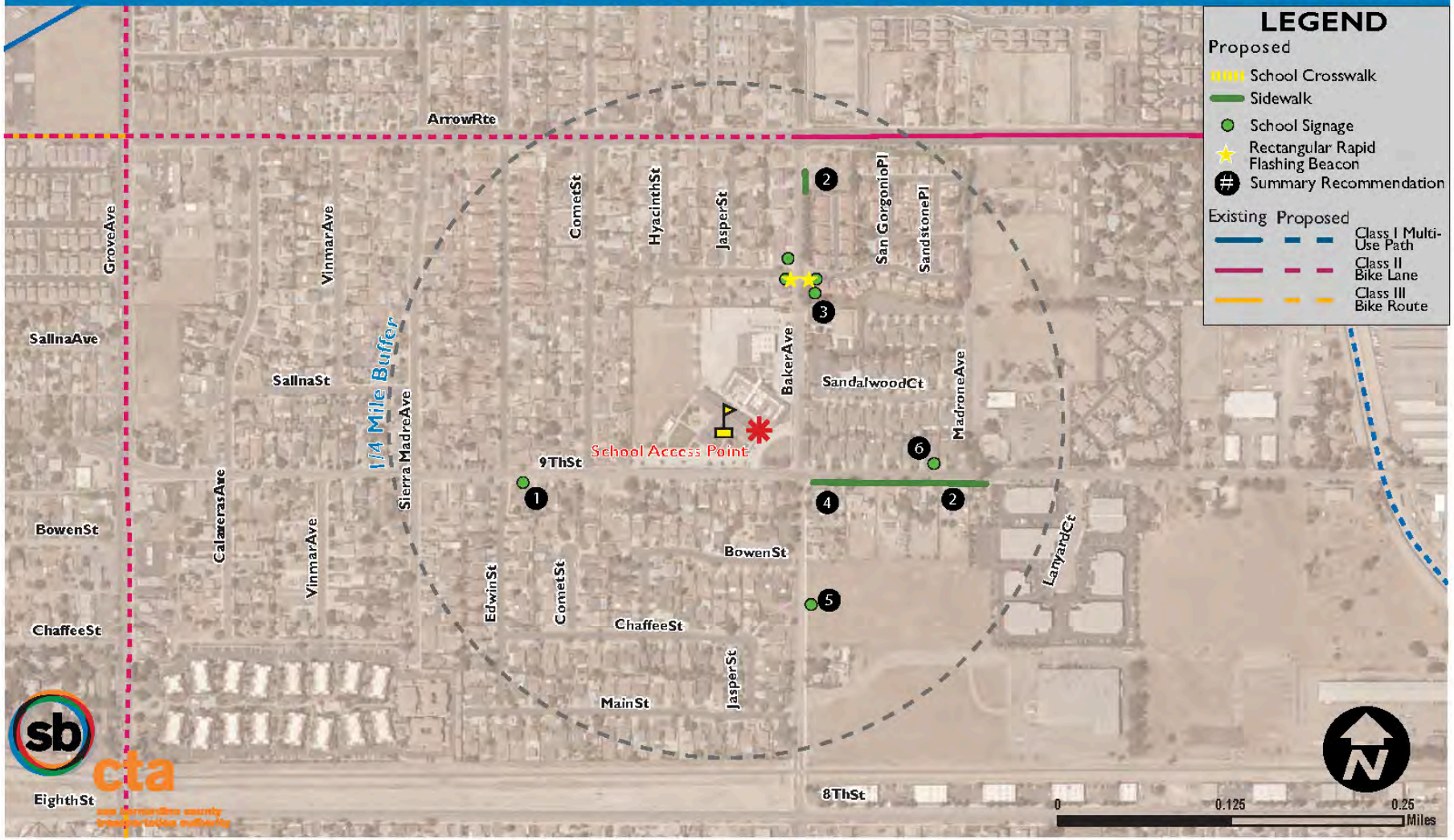
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	17%	18%
bike	1%	1%
bus	0%	0%
vehicle	77%	76%
carpool	5%	5%
transit	0%	0%
other	0%	0%

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

SBCTA SRTS PHASE II: *LOS AMIGOS ELEMENTARY SCHOOL, RANCHO CUCAMONGA*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Edwin Street at 9th Street:* Relocate SR4-1(CA) Assembly C sign to be 500 feet west of the school property along 9th Street for eastbound traffic.
2. Install sidewalk at this location (*Baker Avenue at Arrow Route) and at (9th street along the south side 700 feet from Baker Avenue)* .
3. *Baker Avenue at Salina Street:* Paint red curb along east side of Baker Avenue to improve visibility of pedestrians. Upgrade existing signs to be SW24-2(CA) Assembly B signs on both sides of the crosswalk for northbound and southbound traffic. Install RRFB for northbound and southbound traffic.
4. *Baker Avenue at 9th Street:* Relocate SR4-1(CA) Assembly C sign to be located 500 feet east of the school property on 9th Street. Relocate SR4-1(CA) Assembly C sign to be located 500 feet south of the school property on Baker Avenue.
5. *Baker Avenue:* Install SR4-1(CA) Assembly C sign for northbound traffic.
6. *9th Street:* Install SR4-1(CA) Assembly C sign for westbound traffic.

Background/Discussion of the Engineering Recommendations

	Recommendation #	Location	Improvement	Background/Discussion
Los Amigos Elementary School	1	Edwin Street at 9th Street	School signage	School signage may inform drivers of the speed limit in the school area when children are present, per CA MUTCD Part 7 guidelines.
	2	Baker Avenue, 9th Street	Sidewalk	See item below, "General - Sidewalk."
	3	Baker Avenue at Salina Street	Red curb, School signage, Rectangular rapid flashing beacons (RRFB's)	See item below, "General - Red curb." School signage may inform drivers of the crossing at this location. Rectangular rapid flashing beacons draw drivers' attention to the crossing at this location.
	4	Baker Avenue at 9th Street	School signage	School signage can inform drivers of the speed limit in the school area when children are present, per CA MUTCD Part 7 guidelines.
	5	Baker Avenue	School signage	School signage can inform drivers of the speed limit in the school area when children are present, per CA MUTCD Part 7 guidelines.
	6	9th Street	School signage	School signage can inform drivers of the speed limit in the school area when children are present, per CA MUTCD Part 7 guidelines.
	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 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 Los Amigos Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Baker Ave.	Rectangular Rapid Flashing Beacon (2/Uncontrolled X-walk)	Each	$15,698	1	$15,698
	New Sign on Post	Each	$181	4	$725
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	100	$5,192
	Segment Total				**$21,614**
E 9th St.	New Sign on Post	Each	$181	4	$725
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	750	$38,942
	Segment Total				**$39,666**
ALL SEGMENTS					**$61,280**

Cucamonga Elementary School

Cucamonga Elementary School is a Cucamonga School District school located in a medium-density residential/office park neighborhood of Rancho Cucamonga, California. The school is situated along Archibald Avenue, a major arterial roadway, on the east side between 9th Street and Arrow Route. The Cucamonga Elementary School walk audit took place on November 7, 2016, from 7:30AM to 9:30AM, during the morning start bell period. Participants were briefed and debriefed inside the cafeteria, which served as the staging area for the event. There were a total of 24 participants engaged in the walk audit who, along with project team members, observed and discussed the following roadways: Archibald Avenue, 9th Street, Feron Boulevard, and Arrow Route.

"There is too much traffic at the start and end of school along Feron St. Drivers are not respectful of pedestrians and it is hard to get the right of way. To cross the street sometimes you have to go behind cars."

My child is too young to bike or walk to school. It is also too far as well."

All remarks received from walk audit participants at Cucamonga Elementary

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	27
Number of Tallies	154
» Morning (To School)	77
» Afternoon (From School)	77

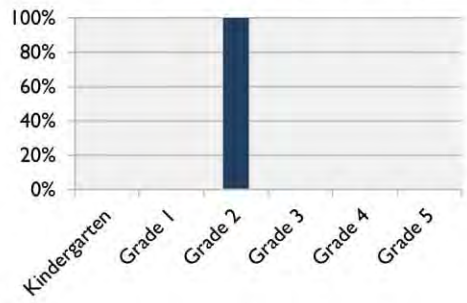
Number of Surveys Received	67

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

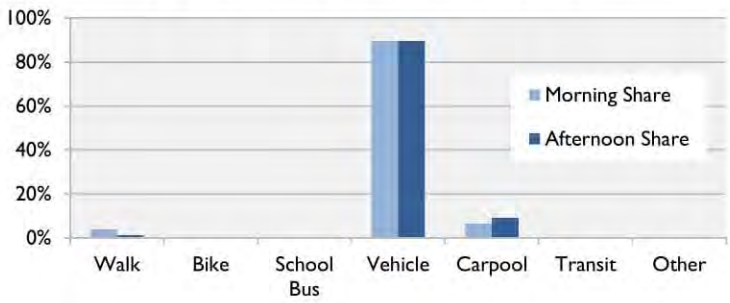
Tallies were conducted by a teacher in one class on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to take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

Students who walk or bike to school	**7.8%**
Students who don't walk/bike but have asked parents for permission	**+ 23.4%**
Students who walk/bike or have asked parents for permission	**31.3%**
Student enrollment	**x 560**
Potential walking/biking student base	**175**

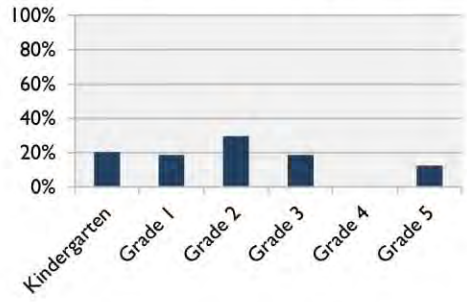
Grade Distribution of Tallies



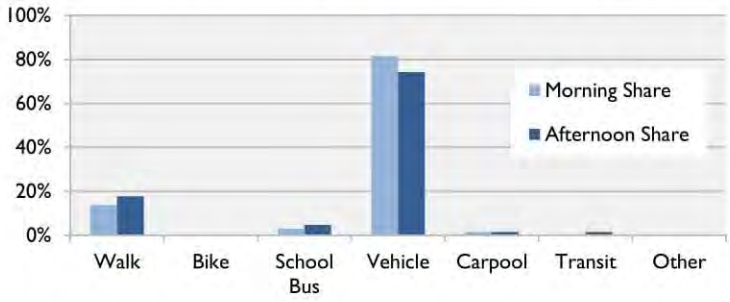
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

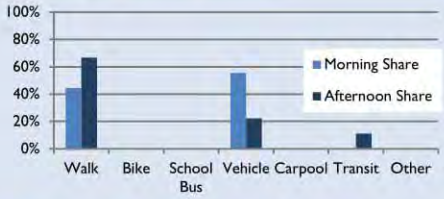


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

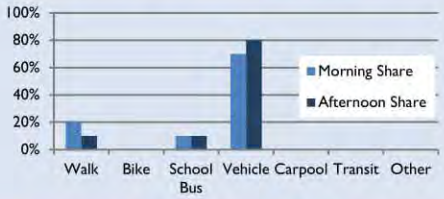
15%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 67%
Amount of Traffic Along Route – 56%
Speed of Traffic Along Route – 44%
Violence or Crime – 33%
Weather or Climate – 33%

Students Living Between ¼ and ½ Mile from School

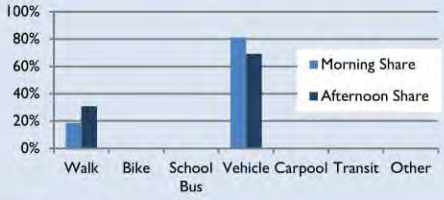
16%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 50%
Speed of Traffic Along Route – 40%
Amount of Traffic Along Route – 40%
Sidewalks or Pathways – 30%
Weather or Climate – 30%

Students Living Between ½ and 1 Mile from School

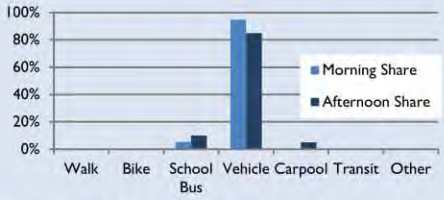
26%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 25%
Speed of Traffic Along Route – 25%
Adults to Walk/Bike With – 25%
Safety of Intersections & Crossings – 25%
Time – 19%

Students Living Between 1 and 2 Miles from School

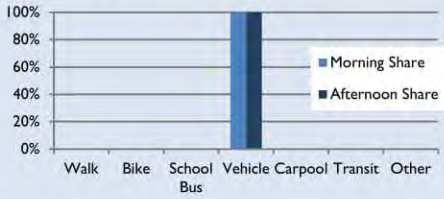
34%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Amount of Traffic Along Route – 38%
Safety of Intersections & Crossings – 33%
Violence or Crime – 33%
Weather or Climate – 33%
Distance – 24%

Students Living Farther than 2 Miles from School

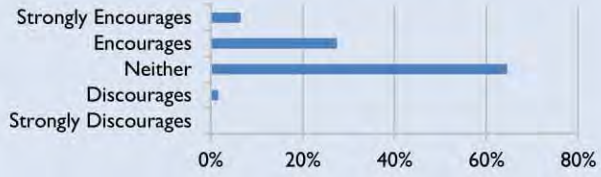
8%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 60%
Speed of Traffic Along Route – 40%
Safety of Intersections & Crossings – 40%
Crossing Guards – 40%
Participation in After-School Programs – 20%

Parents' Perspectives

Whether School Encourages Walking/Biking



79%
consider walking/biking healthy or very healthy.

52%
would not feel comfortable having their child walk/bike at any age with current conditions.

CUCAMONGA ELEMENTARY - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Rancho Cucamonga

School Enrollment - 560

Free or Reduced Lunch - 76.20%

Environmental Indicators:

Cal Enviro Score % Range - 81-85%

Cal Enviro Score (CES2.0*) - 43.76

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

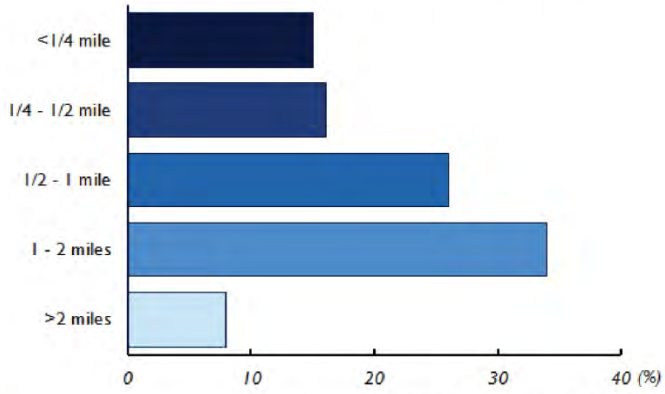
Walk Audit Highlights

of Walk Audit Participants - 24

# of Surveys Received - 67

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

0 within 1/4 mile

1 within 1/2 mile

0 fatal within (1/2 mile)

Bicyclist Related Collisions

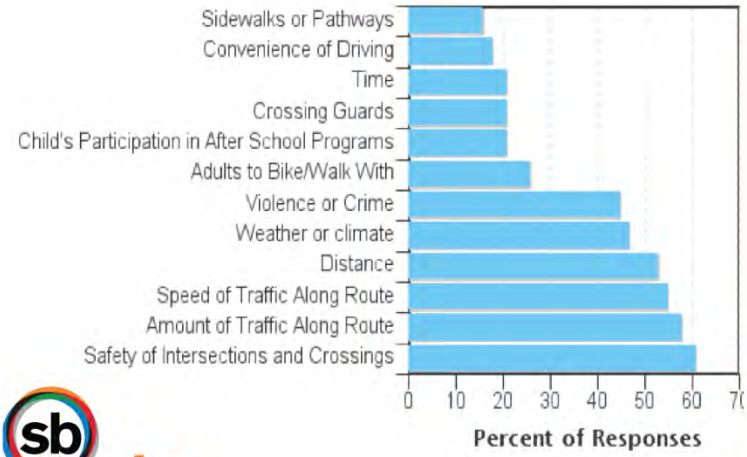
0 within 1/4 mile

2 within 1/2 mile

0 fatal within (1/2 mile)

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sb cta
san bernardino county transportation authority

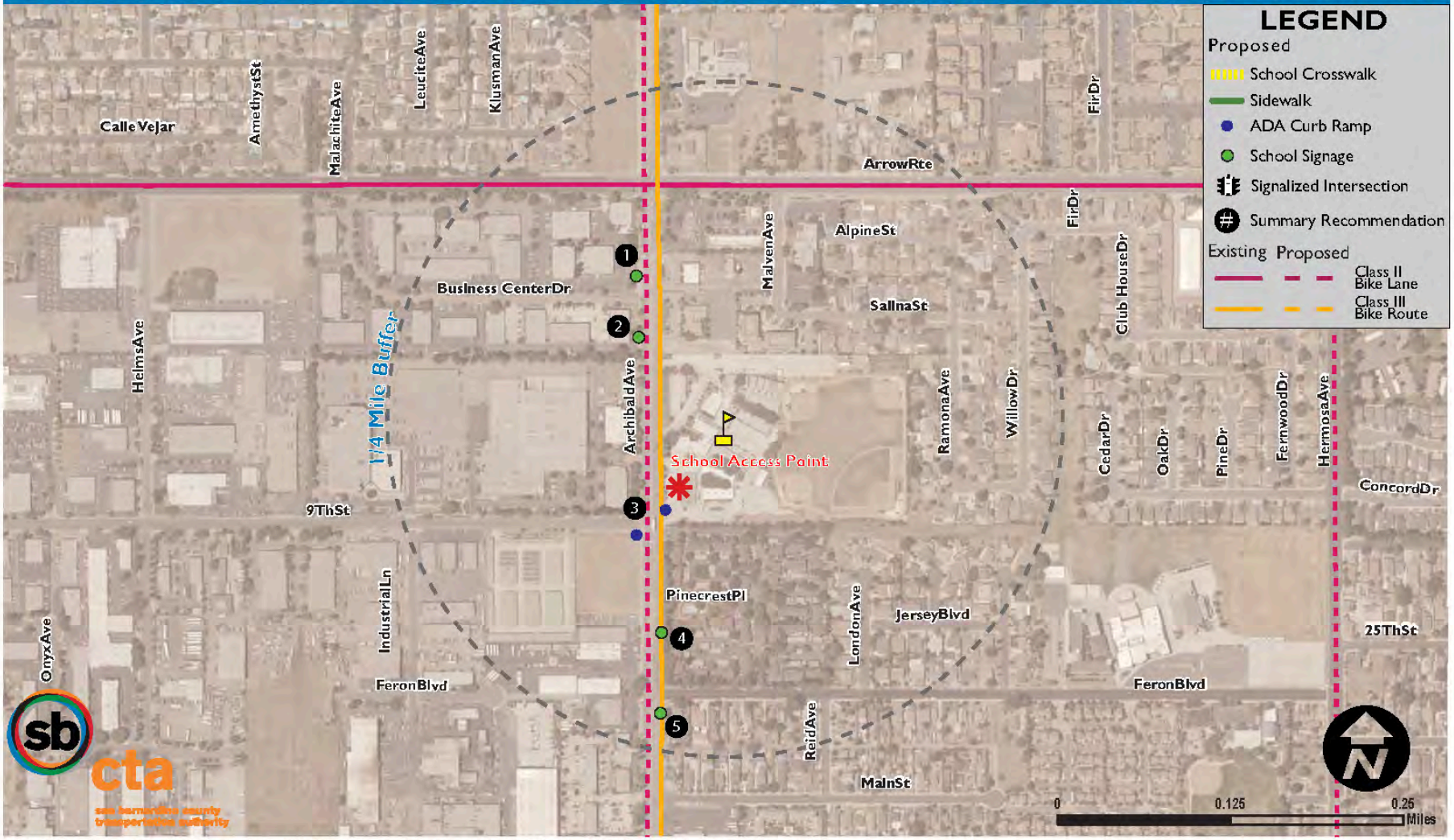
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	*afternoon*
walk	14%	18%
bike	0%	0%
bus	3%	5%
vehicle	82%	74%
carpool	2%	2%
transit	0%	2%
other	0%	0%

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

SBCTA SRTS PHASE II: *CUCAMONGA ELEMENTARY SCHOOL, RANCHO CUCAMONGA*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Archibald Avenue and Business Center Drive:* Install SW24-3 (CA) Assembly C School Ahead Signage for southbound traffic.

2. *Archibald Avenue and Business Center Drive:* Install SR4-1 (CA) speed limit sign to increase awareness for southbound traffic. Install time-of-day flashers above SR4-1 (CA) Assembly C. Ensure line of sight is maintained by trimming trees.

3. *Archibald Avenue and 9th Street:* Install ADA compliant curb ramps at NE and SW curbs. Ensure ramp location is in line with existing crosswalks.

4. *Archibald Avenue and Feron Boulevard:* Install SR4-1 (CA) speed limit sign to increase awareness for northbound traffic. Install time-of-day flashers above SR4-1 (CA) Assembly C.

5. *Archibald Avenue and Feron Boulevard:* Install SW24-3 (CA) Assembly D School Ahead Signage for northbound traffic.

Background/Discussion of the Engineering Recommendations

	Recommendation #	Location	Improvement	Background/Discussion
Cucamonga Elementary School	1	Archibald Avenue at Business Center Drive	Advanced warning school signage	Improvements adhere to CA MUTCD Part 7 guidelines, which are in place to increase driver awareness of pedestrian crossings in the area.
	2	Archibald Avenue at Business Center Drive	School speed limit signage, flashing beacons, tree trimming	Improvements adhere to CA MUTCD Part 7 guidelines, and address speeding issues in the area, as noted within survey comments. Tree trimming may improve driver sight distance and visibility of pedestrians.
	3	Archibald Avenue at 9th Street	ADA curb ramps	See item below, "General - ADA curb ramps."
	4	Archibald Avenue at Feron Boulevard	School speed limit signage, flashing beacons	Improvements adhere to CA MUTCD Part 7 guidelines, and address speeding issues in the area, as noted within survey comments.
	5	Archibald Avenue at Feron Boulevard	Advanced warning school signage	Improvements adhere to CA MUTCD Part 7 guidelines, which are in place to increase driver awareness of pedestrian crossings in the area.
	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 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 Cucamonga Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Archibald Ave.	Pedestrian Flashing Beacon (Post/Pole Mount)	Each	$9,056	2	$18,113
	New Sign on Post	Each	$181	4	$725
	ADA Curb Ramps	Each	$3,623	3	$10,868
	Segment Total				**$29,704**
ALL SEGMENTS					**$29,704**

Rancho Cucamonga Middle School

Rancho Cucamonga Middle School (RCMS) is a Cucamonga School District school located in a low-density residential neighborhood of Rancho Cucamonga, California. The school is situated at the corner of Hermosa Avenue and Feron Boulevard and is in close proximity to Archibald Avenue - a major arterial roadway. The walk audit at RCMS was held on September 23rd, 2016, from 6:30AM to 7:30AM, prior to the morning start bell ringing. A total of eight participants were secured in the time leading up to the morning student drop off. The participants and project engineers observed the surrounding neighborhood including the following streets: Feron Boulevard, Archibald Avenue, Hermosa Avenue, 26th Street, and Haven Avenue.

"The biggest issues are reckless drivers in a rush who don't obey traffic signs/laws; they speed, they think they have right of way vs. pedestrians, they text and drive, they make U-turns in front of no-U-turn signs, they turn left when the sign says not to exit left, etc."

"The street students must walk along is very busy with commercial traffic, which makes me nervous."

All remarks received from walk audit participants at Rancho Cucamonga Middle

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	430
Number of Tallies	2,189
» Morning (To School)	1,094
» Afternoon (From School)	1,095

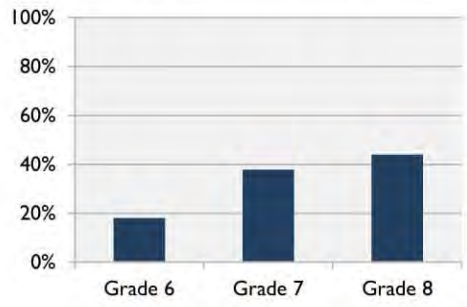
Number of Surveys Received	200

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

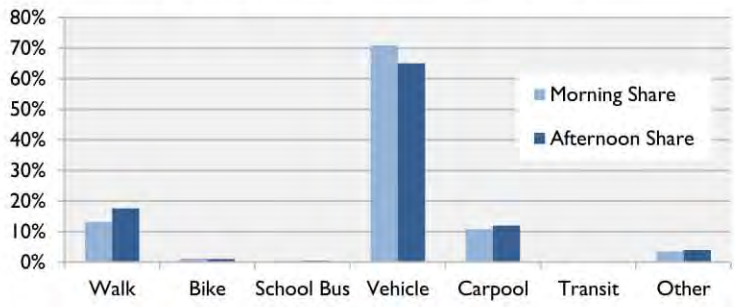
Tallies were conducted by teachers in seventeen classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents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

Students who walk or bike to school	**21.4%**
Students who don't walk/bike but have asked parents for permission	**+ 35.0%**
Students who walk/bike or have asked parents for permission	**56.0%**
Student enrollment	**x 769**
Potential walking/biking student base	**431**

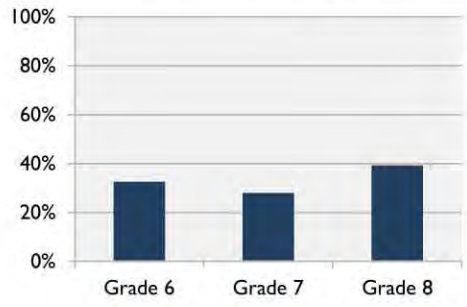
Grade Distribution of Tallies



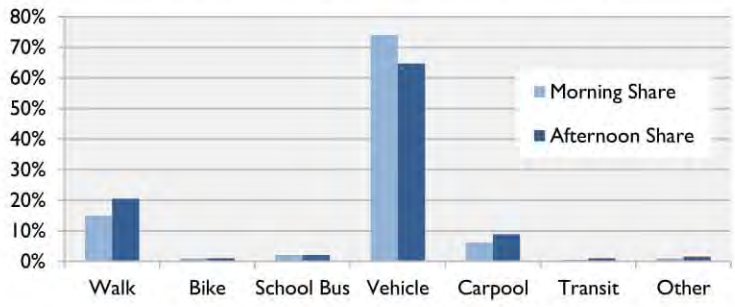
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

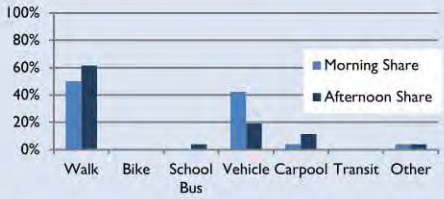


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

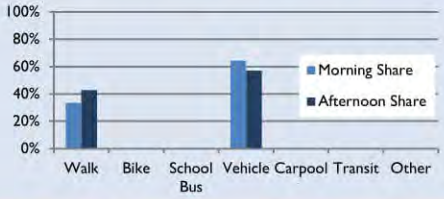
15%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 19%
Violence or Crime – 19%
Weather or Climate – 15%
Time – 12%
Safety of Intersections & Crossings – 12%

Students Living Between ¼ and ½ Mile from School

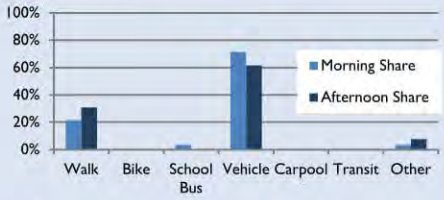
9%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 53%
Weather or Climate – 47%
Sidewalks or Pathways – 47%
Distance – 33%
Crossing Guards – 33%

Students Living Between ½ and 1 Mile from School

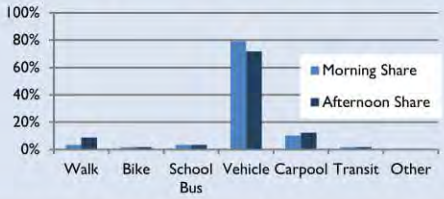
18%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 35%
Safety of Intersections & Crossings – 29%
Amount of Traffic Along Route – 26%
Violence or Crime – 26%
Convenience of Driving – 23%

Students Living Between 1 and 2 Miles from School

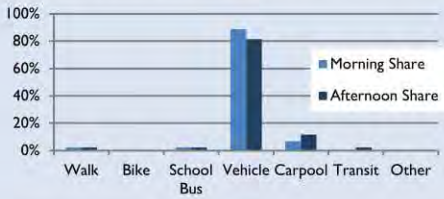
34%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 47%
Speed of Traffic Along Route – 47%
Safety of Intersections & Crossings – 42%
Violence or Crime – 40%
Amount of Traffic Along Route – 37%

Students Living Farther than 2 Miles from School

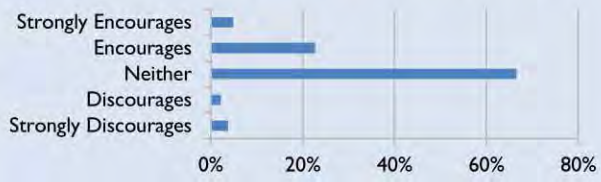
25%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 61%
Violence or Crime – 39%
Speed of Traffic Along Route – 34%
Amount of Traffic Along Route – 32%
Time – 27%

Parents' Perspectives

Whether School Encourages Walking/Biking



72%
consider walking/biking healthy or very healthy.

56%
would not feel comfortable having their child walk/bike at any age with current conditions.

RANCHO CUCAMONGA MIDDLE SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Rancho Cucamonga

School Enrollment - 769

Free or Reduced Lunch - 77.00%

Environmental Indicators:

Cal Enviro Score % Range - 81-85%

Cal Enviro Score (CES2.0*) - 43.19

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

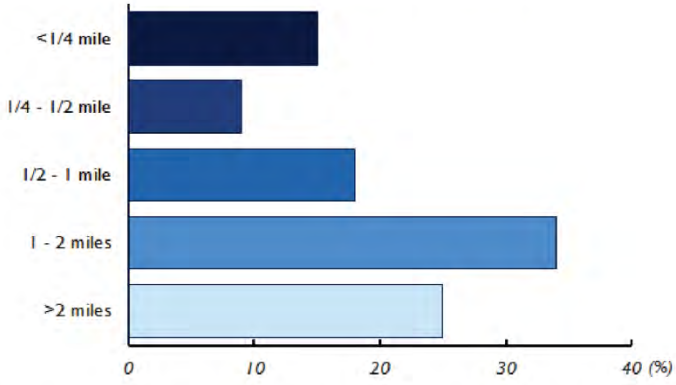
Walk Audit Highlights

of Walk Audit Participants - 8

# of Surveys Received - 200

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

1 within 1/4 mile

1 within 1/2 mile

0 fatal within (1/2 mile)

Bicyclist Related Collisions

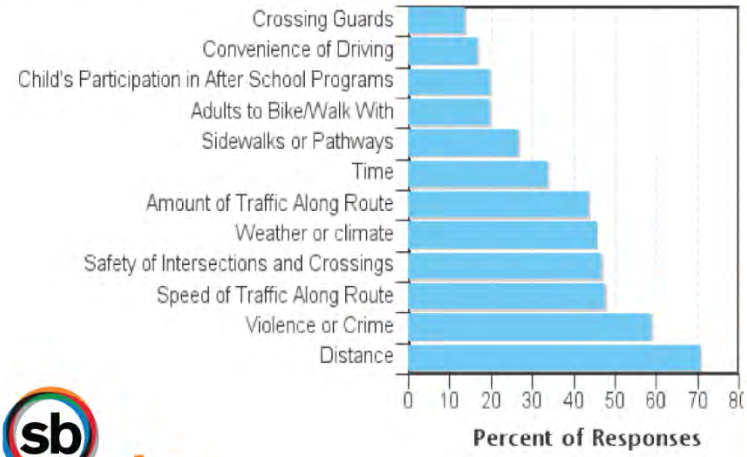
0 within 1/4 mile

3 within 1/2 mile

0 fatal within (1/2 mile)

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sbcta
san bernardino county transportation authority

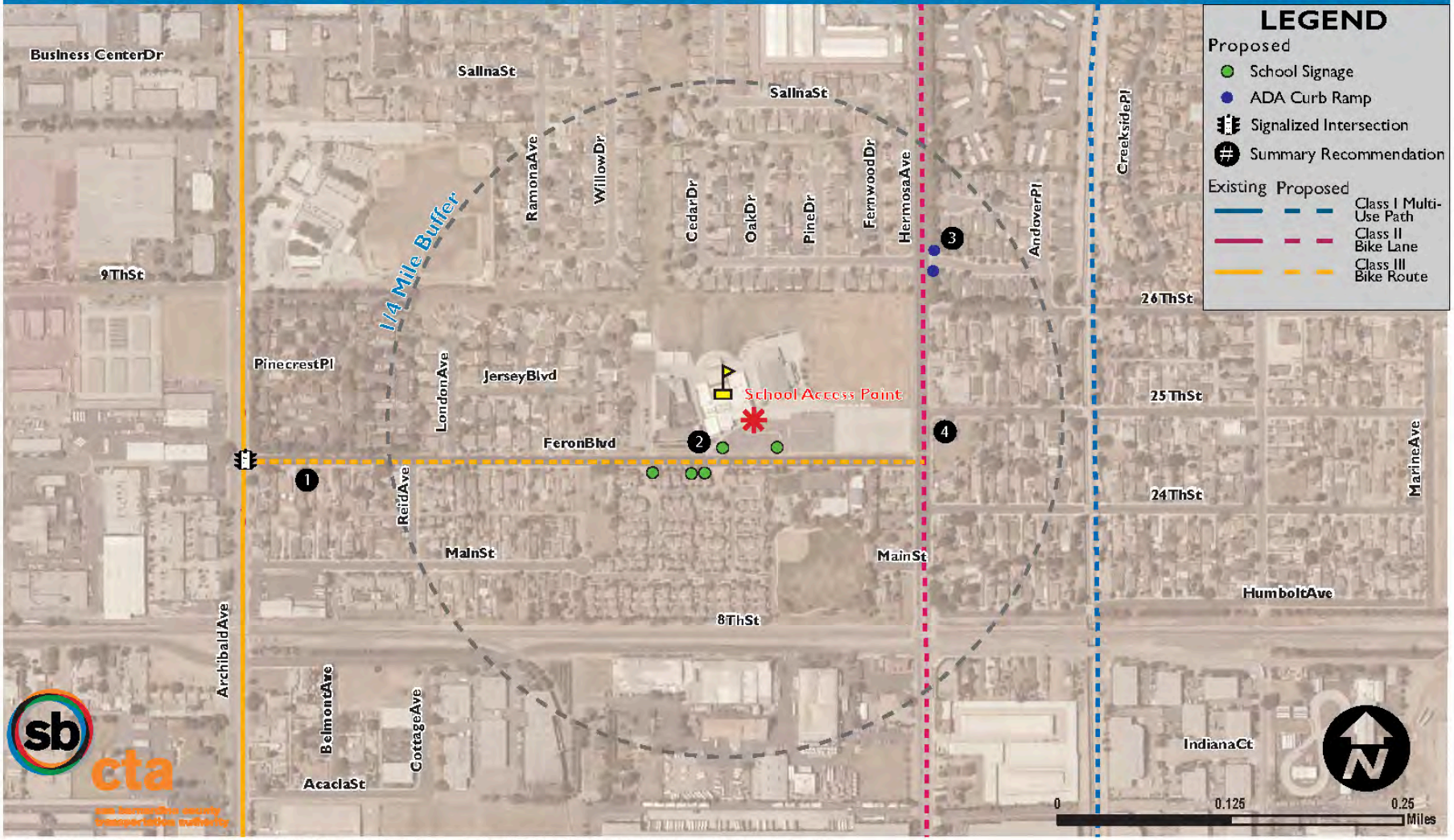
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	*afternoon*
walk	15%	21%
bike	1%	1%
bus	2%	2%
vehicle	74%	65%
carpool	6%	9%
transit	0.5%	1%
other	1%	2%

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

SBCTA SRTS PHASE II: *RANCHO CUCAMONGA MIDDLE SCHOOL, RANCHO CUCAMONGA*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Archibald Avenue at Feron Boulevard:* Install traffic signal, pending signal warrant analysis. Install sharrows along Feron Boulevard to connect existing bicycle infrastructure on Hermosa Avenue and Archibald Avenue. Install R4-11 sign to correspond with proposed sharrows at both ends of Feron Boulevard.

2. *Feron Boulevard:* Replace existing signs with SW24-3(CA) Assembly D signs for eastbound and westbound traffic. Install yield lines 20-50 feet from crosswalk for eastbound and westbound traffic. Install SW24-2(CA) Assembly B signs on both sides of the crosswalk for eastbound and westbound traffic. Include flasher with Assembly B signs. Install bulbout at south end of existing school crosswalk, ensuring design and implementation do not hinder proper drainage.

3. *Hermosa Avenue at McKinley Street:* Install ADA compliant curb ramps.

4. *Hermosa Avenue at 25th Street:* Remove W1-8 chevron sign at this location.

Background/Discussion of the Engineering Recommendations

	Recommendation #	Location	Improvement	Background/Discussion
Rancho Cucamonga Middle School	1	**Archibald Avenue at Feron Boulevard**	Traffic Signal, sharrows and signage	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 difficultly crossing and feel unsafe. Engineering recommendations used to increase pedestrian visibility while crossing the uncontrolled intersection. Sharrows will alert drivers to share the road with bicyclists on their way to school.
	2	**Feron Boulevard**	School signage, striping and bulbout	Adherence to MUTCD Part 7 guidelines to increase driver awareness on Feron Boulevard. Improvements at school crossing are along primary walking route and shorten crossing distance.
	3	**Hermosa Avenue at Mckinley Street**	ADA compliance	See below, "General - ADA curb ramps."
	4	**Hermosa Avenue at 25th Street**	Signage	Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along Hermosa Ave, a primary walking route to school (noted during field observation).
	General	**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 Rancho Cucamonga Middle School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Feron Blvd.	Bike Route with Sharrows & Signs (2 sides)	Per Linear Foot	$4	2700	$10,800
	New Sign on Post	Each	$181	7	$1,268
	Curb Extension - Raised	Per Intersection	$87,766	0.5	$43,883
	Segment Total				**$55,951**
Hermosa Ave.	New Sign on Post	Each	$181	1	$181
	ADA Curb Ramps	Each	$3,623	2	$7,245
	Segment Total				**$7,426**
ALL SEGMENTS					**$63,377**

City of Redlands

Clement Middle School

Clement Elementary School is a Redlands Unified School District (RUSD) school positioned near the intersection of San Bernardino Avenue and Church Street in a low-density residential neighborhood of Redlands. The Clement Middle School walk audit was held on October 10th, 2016, following the afternoon release bell. An on-campus facility was used as the staging area for the 14 participants, which included parents, school staff, PTA members, City Engineers, and RUSD district personnel. Observations extended into the surrounding neighborhood along Pennsylvania Avenue, Church Street, and San Bernardino Avenue.

"I do not feel comfortable when my children cross the intersections in front of the school. Some cars do not stop. I feel there is a need for a crossing guard."

"I walk my son to school. I am concerned about traffic, and how most cars don't give the right of way to students who are crossing the roadway."

"Distance is the biggest factor for me. The second factor is that there are many busy streets where it would be unsafe for children to walk without an adult."

"We live too far to walk or bike to school."

All remarks received from walk audit participants at Clement Middle

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	809
Number of Tallies	2,841
» Morning (To School)	1,496
» Afternoon (From School)	1,345

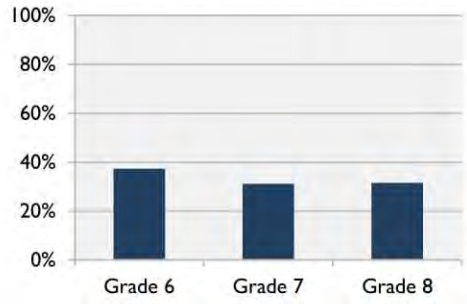
Number of Surveys Received	369

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

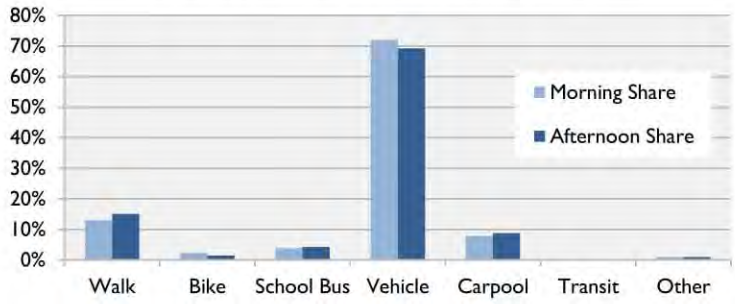
Tallies were conducted by teachers in 28 classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to take home.

Students who walk or bike to school	**19.7%**
Students who don't walk/bike but have asked parents for permission	**+ 27.2%**
Students who walk/bike or have asked parents for permission	**46.8%**
Student enrollment	**x 1,101**
Potential walking/biking student base	**515**

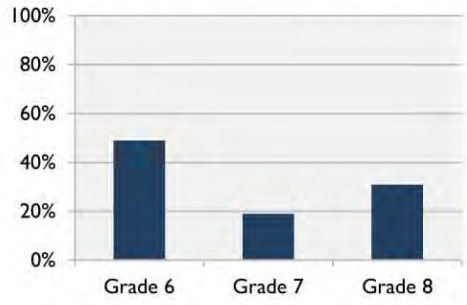
Grade Distribution of Tallies



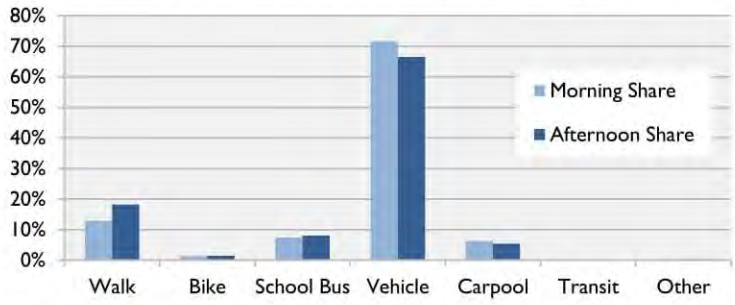
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

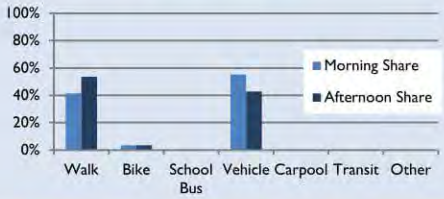


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

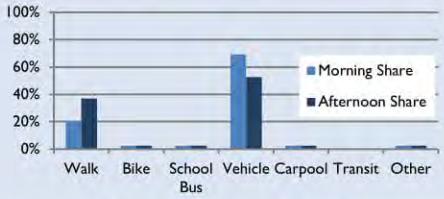
19%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 34%
Amount of Traffic Along Route – 28%
Distance – 27%
Violence or Crime – 23%
Sidewalks or Pathways – 19%

Students Living Between ¼ and ½ Mile from School

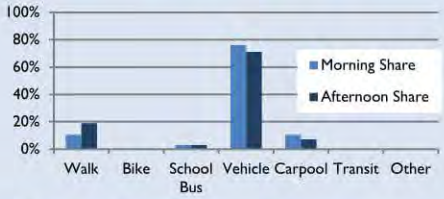
12%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 41%
Speed of Traffic Along Route – 38%
Amount of Traffic Along Route – 38%
Violence or Crime – 38%
Weather or Climate – 28%

Students Living Between ½ and 1 Mile from School

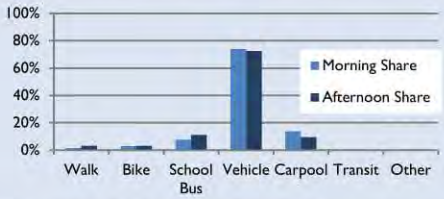
22%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 43%
Safety of Intersections & Crossings – 41%
Speed of Traffic Along Route – 31%
Amount of Traffic Along Route – 28%
Weather or Climate – 26%

Students Living Between 1 and 2 Miles from School

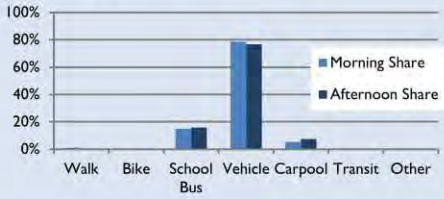
19%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 55%
Speed of Traffic Along Route – 52%
Safety of Intersections & Crossings – 52%
Amount of Traffic Along Route – 42%
Distance – 38%

Students Living Farther than 2 Miles from School

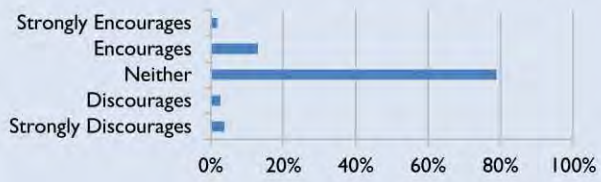
29%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 74%
Safety of Intersections & Crossings – 45%
Violence or Crime – 44%
Speed of Traffic Along Route – 43%
Amount of Traffic Along Route – 39%

Parents' Perspectives

Whether School Encourages Walking/Biking



77%
consider walking/biking healthy or very healthy.

48%
would not feel comfortable having their child walk/bike at any age with current conditions.

CLEMENT MIDDLE SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Redlands
School Enrollment - 1101
Free or Reduced Lunch - 72.40%

Environmental Indicators:

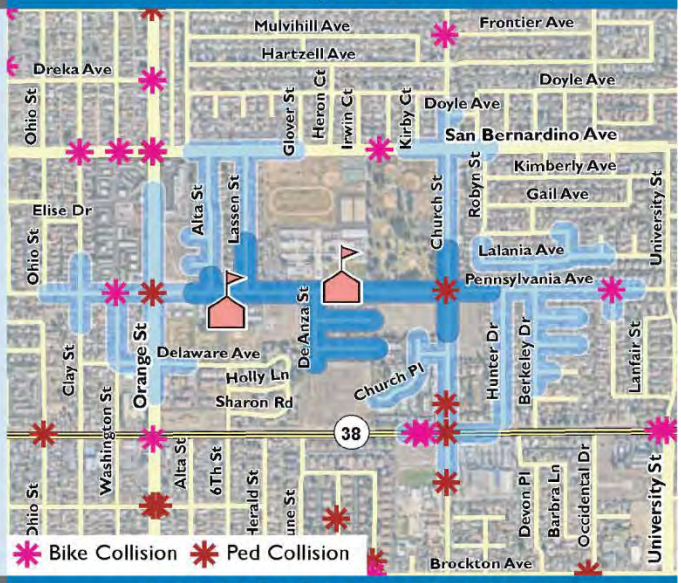
Cal Enviro Score % Range - 86-90%
Cal Enviro Score (CES2.0*) - 46.66

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

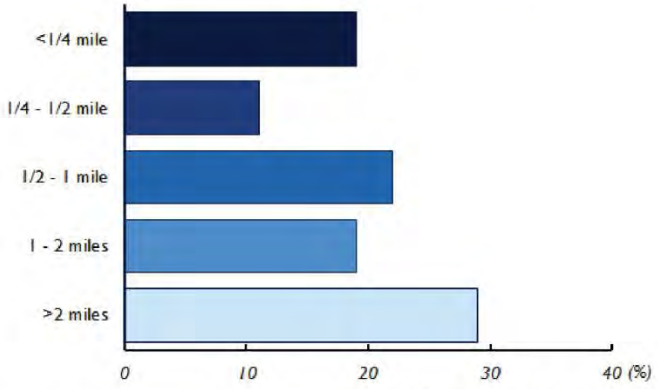
Walk Audit Highlights

of Walk Audit Participants - 10
# of Surveys Received - 369

WALKSHED *(1/4 and 1/2 mile)*



COMMUTE DISTANCE (%)



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

COLLISION ANALYSIS

Pedestrian Related Collisions

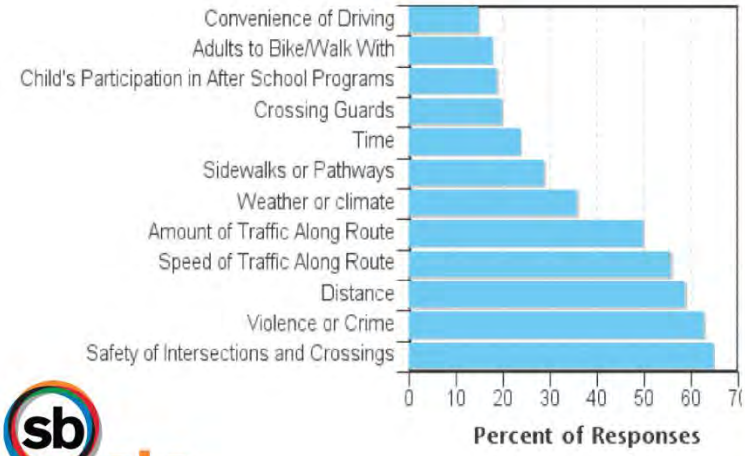
1 within 1/4 mile
17 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sbcta
San Bernardino County Transportation Authority

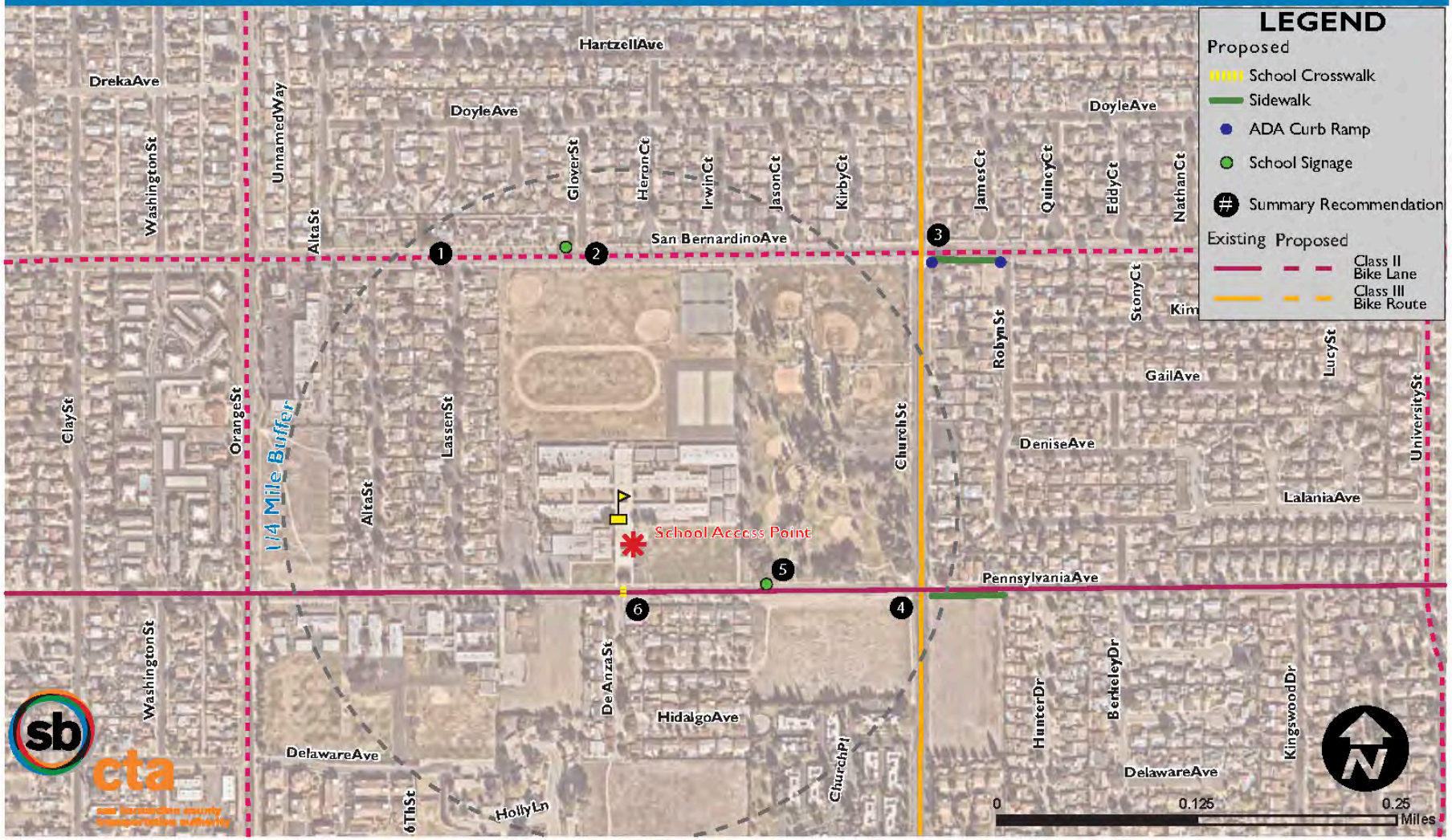
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	13%	18%
bike	1%	1%
bus	7%	8%
vehicle	72%	66%
carpool	6%	5%
transit	0%	0%
other	0.3%	0.3%

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

SBCTA SRTS PHASE II: *CLEMENT MIDDLE SCHOOL, REDLANDS*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *San Bernardino Avenue and Lassen Street:* Install bulbouts to shorten crossing at NW and SW corners. Upgrade the overhead signs to the R1-9 (CA) Assembly E. Restrict parking on eastbound travel lanes along curb to ensure line of sight is maintained.
2. *San Bernardino Avenue:* Install buffered Class II Bike Lane similar to the facilities present on Chruch Street, as well as install two-way left turn lanes (reference existing agency striping plans). Install SW24-3 (CA) Assembly D signage.
3. *San Bernardino Avenue and Church Street:* Install bulbouts with bicycle cut outs for maneuvering.Install crosswalk at each leg of intersection, but not with high visibility paint. Install sidewalk, and ADA curb ramps on south side of San Bernardino Avenue.
4. *Church Street and Pennsylvania Avenue:* Install full roundabout depending on property/right of way constraints for undeveloped land on SW and SE corners or maintain existing all way stop control. Ensure bicycle accessibility is mainteined for existing Class II/III facilities. Install sidewalk on south side of Pennsylvania Avenue to close gap in existing network, pending city right of way constraints.
5. *Pennsylvania Avenue:* Upgrade existing speed limit sign to the conventional roadway size of 36"x72".
6. *Pennsylvania Avenue and De Anza Street:* Install bulbouts at school crossing as well as install high visibility crosswalk.

Background/Discussion of the Engineering Recommendations

	Recommendation #	Location	Improvement	Background/Discussion
Clement Middle School	1	San Bernardino Avenue at Lassen Street	Bulbouts, School signage, red curb	Bulbouts shorten the pedestrian crossing distance and narrow the roadway, which may naturally slowing down traffic. School signage adheres to CA MUTCD Part 7 standards, which is in place to increase driver awareness of pedestrian crossings in the area. See item below, "General - Red curb."
	2	San Bernardino Avenue	Class II Bike Lane, Roadway striping, School signage	Bike improvements improve connectivity in the area for bicyclists and encourage ridership in the area. Roadway striping improvements accommodate existing agency striping plans. School signage adheres to CA MUTCD Part 7 standards, which are in place to increase driver awareness of pedestrian crossings in the area.
	3	San Bernardino Avenue at Church Street	Bulbouts, school crosswalks, Sidewalk, ADA curb ramps	Bulbouts shorten the pedestrian crossing distance and narrow the roadway, which may naturally slowing down traffic. Crosswalk installation provides a clearer route along a primary walking route to school. See items below, "General - Sidewalk" and "General - ADA curb ramps."
	4	Church Street at Pennsylvania Avenue	Roundabout, Sidewalk	Recommended improvements facilitate traffic and may potentially decrease delay while providing a safer environment for pedestrians at this intersection, which addresses recent collision data along this primary walking route to school.
	5	Pennsylvania Avenue	School signage	Improvements adhere to CA MUTCD Part 7 standards, which are in place to increase driver awareness of the speed limit near the school when children are present.
	6	Pennsylvania Avenue at De Anza Street	Bulbouts, High visibility crosswalk	Bulbouts shorten the pedestrian crossing distance and narrow the roadway, which may naturally slowing down traffic. High visibility crosswalks provide a clearer path for pedestrians along a primary walking route and may draw drivers' attention to the crosswalk and any possible pedestrians at the time.
	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 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 Clement Middle School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
E San Bernardino Ave.	Two-Way left Turn Lane (Detail 32)	Per Linear Foot	$5	2700	$13,041
	Buffered Bike Lane Striping (2 sides of road)	Per Linear Foot	$10	2700	$27,000
	New Sign on Post	Each	$181	2	$362
	High Visibility Ladder Crosswalk	Each	$1,788	4	$7,152
	ADA Curb Ramps	Each	$3,623	2	$7,245
	Curb Extension - Raised	Per Intersection	$87,766	1.5	$131,650
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	350	$18,173
	Segment Total				**$204,623**
W Pennsylvania Ave.	Neighborhood Traffic Circle	Each	$15,215	1	$15,215
	New Sign on Post	Each	$181	1	$181
	High Visibility Ladder Crosswalk	Each	$1,788	1	$1,788
	Curb Extension - Raised	Per Intersection	$87,766	0.5	$43,883
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	300	$15,577
	Segment Total				**$76,644**
ALL SEGMENTS					**$281,267**

Lugonia Elementary School

Lugonia Elementary School is a Redlands Unified School District (RUSD) school located at the intersection of Pennsylvania Avenue and Orange Street in a medium-density residential neighborhood of Redlands, California. The Lugonia Elementary walk audit was held on May 17th, 2016 from 7:00AM to 8:30AM. This time was chosen to coincide with the morning start bell. Four participants including parents and a City of Redlands engineer observed with the consultant team the following streets: Pennsylvania Avenue, Orange Street, Lassen Street, Alta Street, and Lugonia Avenue.

No survey or tally data are available for Lugonia Elementary School.

LUGONIA ELEMENTARY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Redlands
School Enrollment - 684
Free or Reduced Lunch - 92.20%

Environmental Indicators:

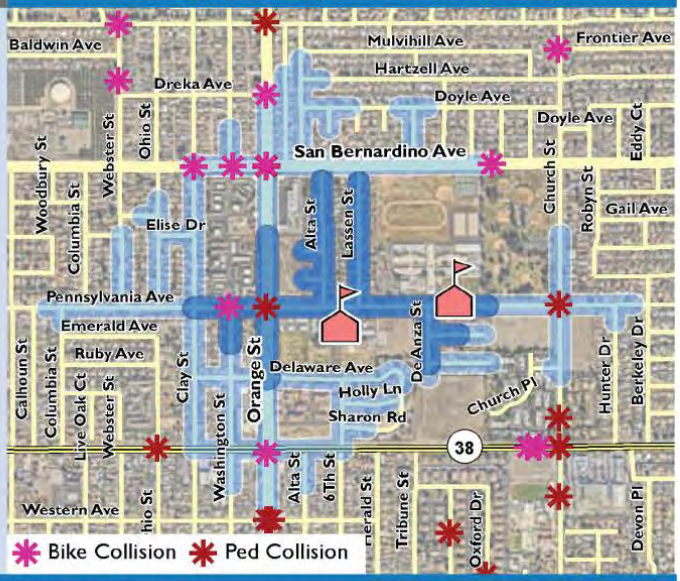
Cal Enviro Score % Range - 86-90%
Cal Enviro Score (CES2.0*) - 46.66

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

Walk Audit Highlights

of Walk Audit Participants - 4
# of Surveys Received - 0

WALKSHED *(1/4 and 1/2 mile)*



COLLISION ANALYSIS

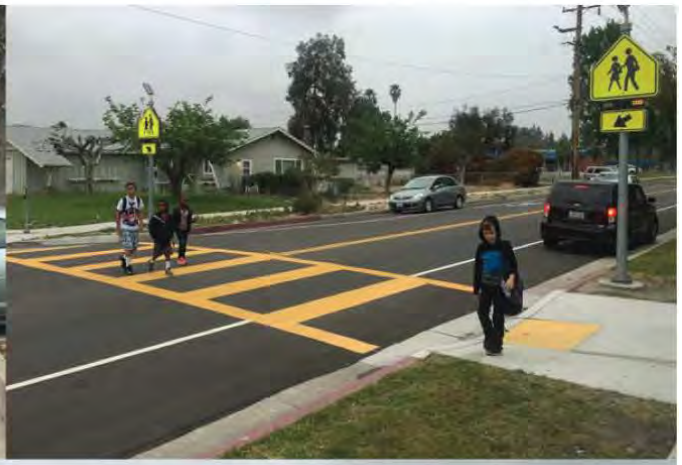
Pedestrian Related Collisions

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

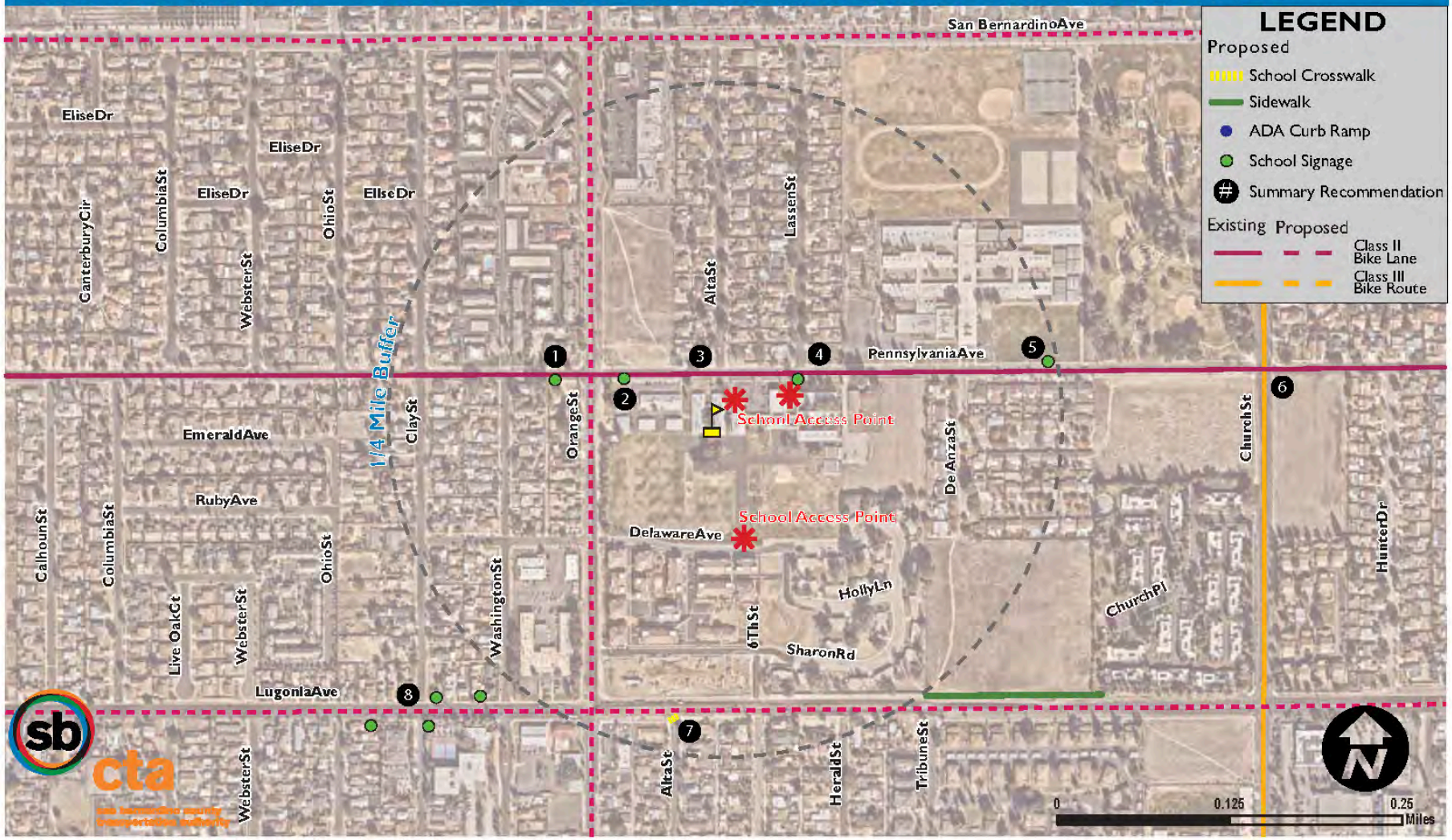
Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)



SBCTA SRTS PHASE II: *LUGONIA ELEMENTARY SCHOOL, REDLANDS*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Pennsylvania Avenue:* Install SW24-3 (CA) Assembly D signage for eastbound traffic.
2. *Pennsylvania Avenue:* Upgrade existing SR4-1 (CA) signage to the conventional roadway size of 36x72".
3. *Pennsylvania Avenue and Alta Street:* Install bulbouts on NW and SW curbs with ADA compliant curb ramps for crossing accessibility.
4. *Pennsylvania Avenue and Lassen Street:* Relocate existing SW24-3 (CA) Assembly D sign to be farther west for service to intersection and eastbound traffic. Install red curbs on north side of Pennsylvania Avenue to ensure tje visibility of pedestrians within intersection is not obstructed by parked vehicles.
5. *Pennsylvania Avenue and De Anza Street:* Install SW24-3 Assembly D sign for service to intersection and westbound traffic.
6. *Church Street and Pennsylvania Avenue:* Install full roundabout depending on property/right of way constraints for undeveloped land on SW and SE corners or maintain existing all way stop control. Ensure bicycle accessibility is mainteined for existing Class II/III facilities. Install sidewalk on south side of Pennsylvania Avenue to close gap in existing network, pending city right of way constraints.
7. *Lugonia Avenue and Alta Street:* Install high visibility ladder style crosswalk for service on south leg of intersection.
8. *Lugonia Avenue and Clay Street:* Install bulbouts on NE and SE curbs and install SW24-2 (CA) Assembly B signage for eastbound and westbound traffic. Upgrade existing signage to SW24-3(CA) Assembly D signs for eastbound and westbound approaches to crossing

Background/Discussion of the Engineering Improvements

Lugonia Elementary School

Recommendation #	Location	Improvement	Background/Discussion
1	Pennsylvania Avenue	School signage	Signage improvements adhere to CA MUTCD Part 7 guidelines, which are in place to increase driver awareness of pedestrian crossings in the area.
2	Pennsylvania Avenue	School signage	Signage improvements adhere to CA MUTCD Part 7 guidelines, which are in place to inform drivers of the speed limit in the school area when children are present.
3	Pennsylvania Avenue at Alta Street	Bulbouts, ADA curb ramps	Bulbouts shorten the crossing distance at this location. See item below, "General - ADA curb ramp."
4	Pennsylvania Avenue at Lassen Street	School signage, Red curb	Signage improvements adhere to CA MUTCD Part 7 guidelines, which are in place to increase driver awareness of pedestrian crossings in the area. See item below, "General - Red curb."
5	Pennsylvania Avenue at De Anza Street	School signage	Signage improvements adhere to CA MUTCD Part 7 guidelines, which are in place to increase driver awareness of pedestrian crossings in the area.
6	Pennsylvania Avenue at Church Street	Roundabout, Sidewalk	Roundabout installation will decrease congestion at this location, while still allowing for an inclusive environment for pedestrians, bicyclists, and vehicular traffic alike. See item below, "General - Sidewalk."
7	Lugonia Avenue at Alta Street	High visibility crosswalk	High visibility crosswalks provide clearer paths for pedestrians at this location, which exists along a primary walking route to school.
8	Lugonia Avenue at Clay Street	Bulbouts, School signage	Bulbouts shorten the crossing distance at this location, which conflicts with vehicular traffic. School signage can increase driver awareness of the conflicting crossing at this location.
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 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 Lugonia Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Lugonia Ave.	New Sign on Post	Each	$181	4	$725
	Curb Extension - Raised	Per Intersection	$87,766	0.5	$43,883
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	700	$36,346
	Segment Total				**$80,953**
Pennsylvania Ave.	Neighborhood Traffic Circle	Each	$15,215	1.7	$25,865
	New Sign on Post	Each	$181	4	$725
	Curb Extension - Raised	Per Intersection	$87,766	0.5	$43,883
	Segment Total				**$70,472**
ALL SEGMENTS					**$151,425**

Franklin Elementary School

Franklin Elementary School is a Redlands Unified School District (RUSD) school that is situated at the intersection of Colton Avenue and Division Street in a low-density residential neighborhood of Redlands, California. The walk audit briefing and debriefing was held in the school cafeteria on October 4th, 2016 from 2:30PM to 4:00PM, taking place after the afternoon release bell. The neighborhood streets surveyed included Colton Avenue, Stillman Avenue, Division Street, and High Avenue, with over a dozen participants from the community.

"We live by Lugonia/Hwy 38 and have to cross it to get to the school by foot, which is very dangerous. There are frequent accidents, some of which have resulted in pedestrian fatalities."

"My main concerns for allowing my daughters to walk to and from school are local crime and of course adverse weather."

"Traffic is horrible around the school; along with speeding in the school parking lot. My sister got hit there."

"I would allow my children to walk to school if they didn't have to cross such busy streets."

All remarks received from walk audit participants at Franklin Elementary

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	686
Number of Tallies	3,548
» Morning (To School)	1,763
» Afternoon (From School)	1,785

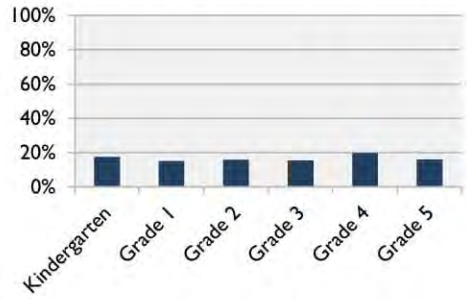
Number of Surveys Received	166

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

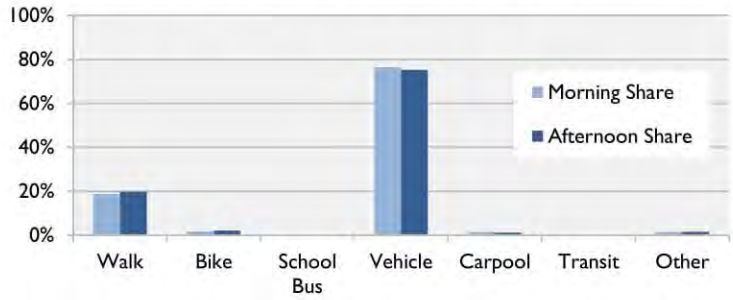
Tallies were conducted by teachers in 26 classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to take home.

Students who walk or bike to school	**16.0%**
Students who don't walk/bike but have asked parents for permission	**+ 28.8%**
Students who walk/bike or have asked parents for permission	**44.8%**
Student enrollment	**x 705**
Potential walking/biking student base	**316**

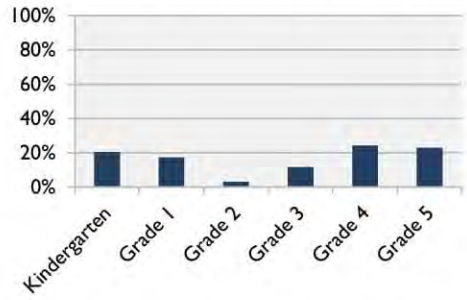
Grade Distribution of Tallies



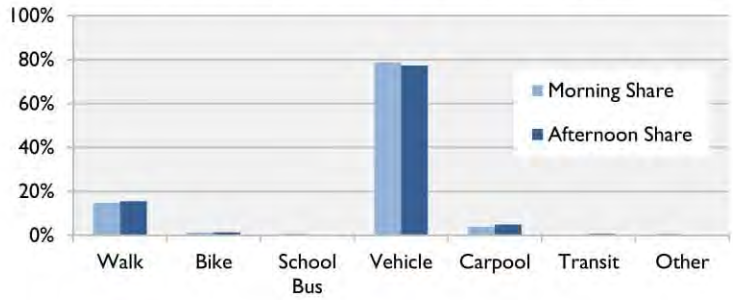
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

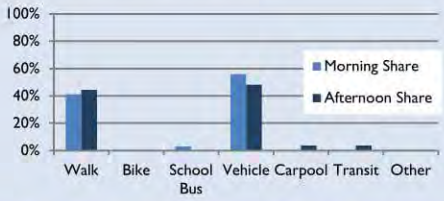


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

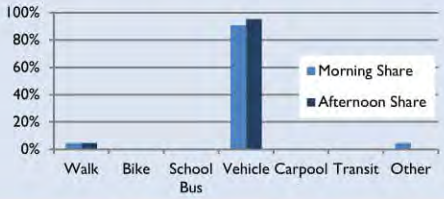
25%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 30%
Speed of Traffic Along Route – 19%
Crossing Guards – 16%
Amount of Traffic Along Route – 14%
Adults to Bike/Walk With – 11%

Students Living Between ¼ and ½ Mile from School

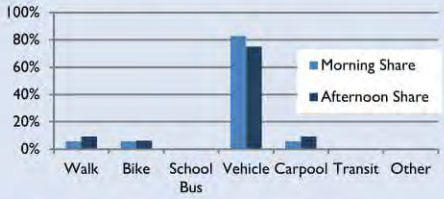
15%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 45%
Violence or Crime – 36%
Speed of Traffic Along Route – 32%
Distance – 27%
Amount of Traffic Along Route – 23%

Students Living Between ½ and 1 Mile from School

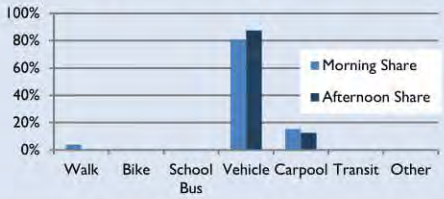
25%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 43%
Violence or Crime – 43%
Speed of Traffic Along Route – 41%
Amount of Traffic Along Route – 41%
Distance – 27%

Students Living Between 1 and 2 Miles from School

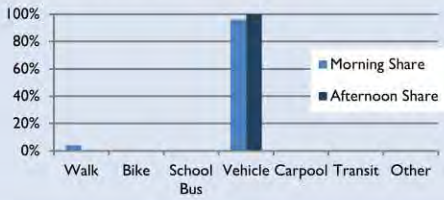
18%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 56%
Distance – 48%
Amount of Traffic Along Route – 48%
Violence or Crime – 48%
Safety of Intersections & Crossings – 44%

Students Living Farther than 2 Miles from School

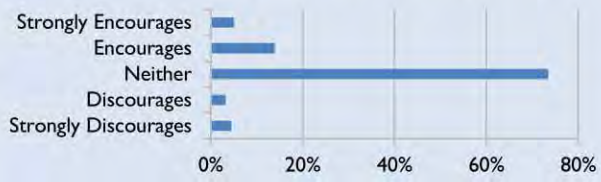
17%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 50%
Safety of Intersections & Crossings – 31%
Time – 27%
Violence or Crime – 27%
Speed of Traffic Along Route – 23%

Parents' Perspectives

Whether School Encourages Walking/Biking



83%
consider walking/biking healthy or very healthy.

58%
would not feel comfortable having their child walk/bike at any age with current conditions.

FRANKLIN ELEMENTARY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Redlands
School Enrollment - 705
Free or Reduced Lunch - 87.90%

Environmental Indicators:

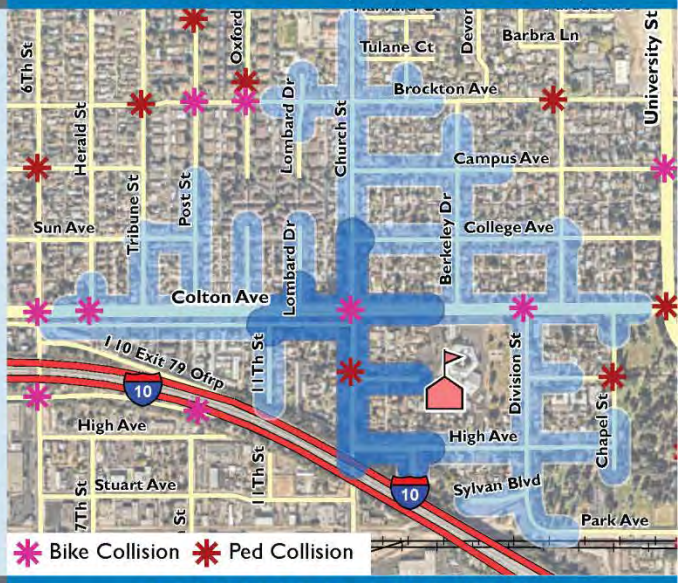
Cal Enviro Score % Range - 61-65%
Cal Enviro Score (CES2.0*) - 32.91

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

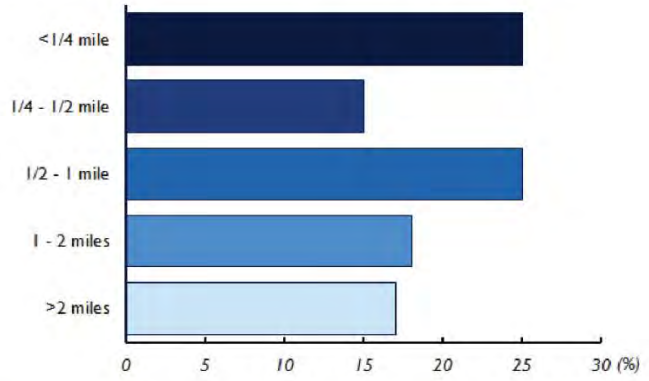
Walk Audit Highlights

of Walk Audit Participants - 7
# of Surveys Received - 166

WALKSHED *(1/4 and 1/2 mile)*



COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

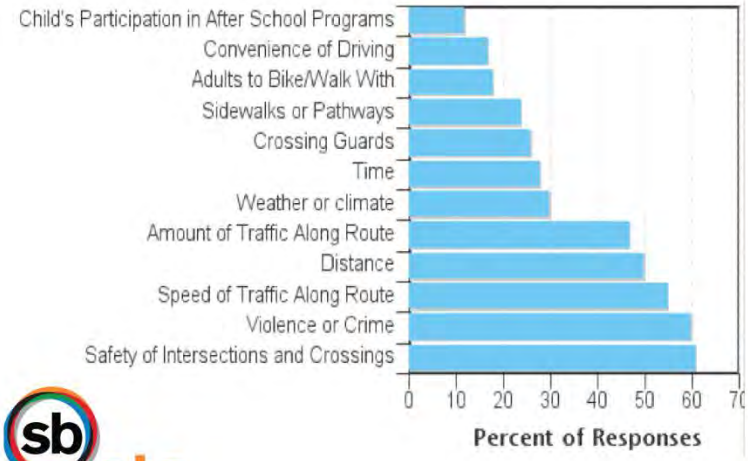
2 within 1/4 mile
19 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



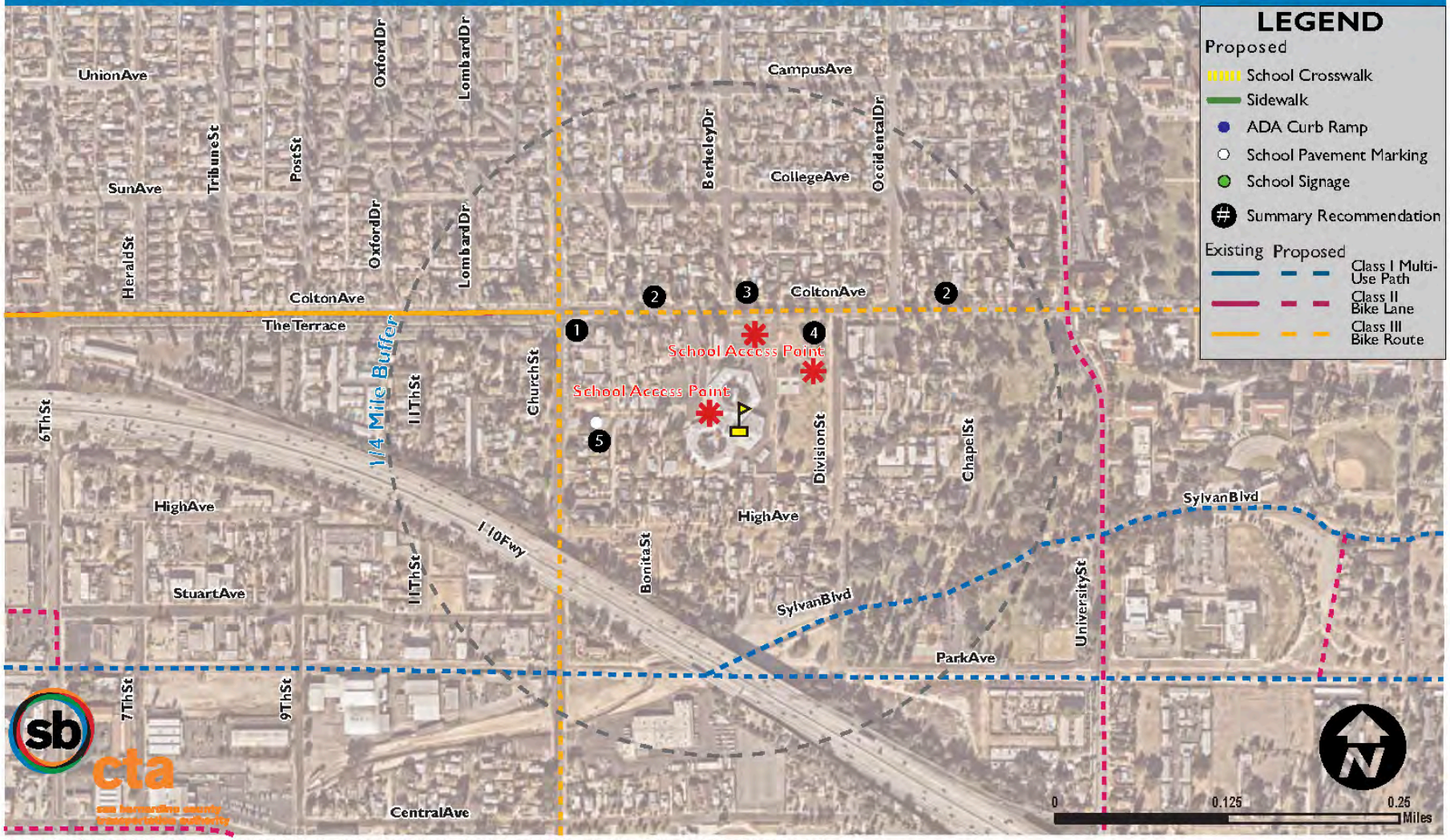
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	15%	16%
bike	1%	1%
bus	0.6%	0%
vehicle	79%	77%
carpool	4%	5%
transit	0%	0.7%
other	0.6%	0%

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

SBCTA SRTS PHASE II: *FRANKLIN ELEMENTARY SCHOOL, REDLANDS*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Colton Avenue and Church Street:* Increase pedestrian signal timing for crossing at intersection to provide access to school.
2. *Colton Avenue:* Install Class III Bike Route Sharrows within school extent east of Church Street.
3. *Colton Avenue and Berkeley Drive:* Install bulbouts on NE and NW curbs of intersection. Install high visibility ladder style crosswalk for the north leg. Refreash red curb paint for parking restrictions in this area.
4. *Colton Avenue and Division Street:* Refurbish sidewalk segment on south side of Colton Avenue to replace panels that are buldging from tree root growth. Install high visibility ladder style crosswalk along south leg of T-intersection.
5. *Stillman Avenue and Church Street:* Repaint school pavement marking to read, "SLOW SCHOOL XING." Tree trimming needed to see school signage for eastbound traffic.

Background/Discussion of the Engineering Recommendations

	Recommendation #	Location	Improvement	Background/Discussion
Franklin Elementary School	1	Colton Avenue and Church Street	Signal timing - pedestrian clearance	This recommendation can provide necessary gaps in traffic for pedestrians, allowing them to cross the street comfortably. Recent collision data shows a collision involving a bicyclist at this location.
	2	Colton Avenue	Class III Bike Route Sharrows	This recommendation can increase driver awareness of bicycles sharing the road with vehicular traffic at this location, per CA MUTCD Part 9.
	3	Colton Avenue and Berkeley Drive	Bulbouts, High visibility crosswalks, Red curb	Bulbouts shorten the crossing distance for pedestrians at this location, which is immediately adjacent to the school campus. High visibility crosswalks alert drivers of pedestrian crossings in the area and provide clearer paths for pedestrians accessing the school campus. See item below, "General - Red curb."
	4	Colton Avenue and Division Street	Sidewalk, High visibility crosswalks	See item below, "General - Sidewalk." The recommended sidewalk improvement addresses observations made during the walk audit process. High visibility crosswalks alert drivers of crossings in the area. Recent collision data shows a collision involving a bicyclist at this location.
	5	Stillman Avenue and Church Street	School pavement markings, tree trimming	School pavement markings can increase driver awareness regarding crossings that lie ahead. Tree trimming addresses sight distance and visibility issues and can provide a better line of sight for vehicular traffic.
	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 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 Franklin Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Division St.	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	400	$20,769
	Segment Total				**$20,769**
E Colton Ave.	Bike Route with Sharrows & Signs (2 sides)	Per Linear Foot	$4	2000	$8,000
	High Visibility Ladder Crosswalk	Each	$1,788	2	$3,576
	ADA Curb Ramps	Each	$3,623	1	$3,623
	Curb Extension - Raised	Per Intersection	$87,766	0.5	$43,883
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	300	$15,577
	Segment Total				**$74,658**
Stillman Ave.	School Area Pavement Marking (Per Word)	Each	$254	3	$761
	Segment Total				**$761**
ALL SEGMENTS					**$96,188**

City of Rialto

Maple Elementary School

Maple Elementary School is a Fontana Unified School District (FUSD) school located in a low-density residential neighborhood of Rialto, California. The school is situated along Maple Avenue on the east side between Merrill Avenue and Randall Avenue. The Maple Elementary walk audit took place from 1:30PM to 2:30PM on December 8th, 2016, prior to the afternoon release bell ringing. An on-campus facility was used as the staging area where briefing and de-briefing were conducted with five participants. Observations extended into the surrounding neighborhood along Pine Avenue, Athol Street, Maple Avenue, Linden Avenue, and Merrill Avenue.

"The Merrill Ave./Maple Ave. intersection is very dangerous. Cars speed along both roadways without regard for the children walking to and from school."

"We like to walk and bike, but we live far from school."

"On Locust Ave. and Merrill Ave. there is no sidewalk, which is unsafe for parents and students."

All remarks received from walk audit participants at Maple Elementary

SafeRoutes
National Center for Safe Routes to School

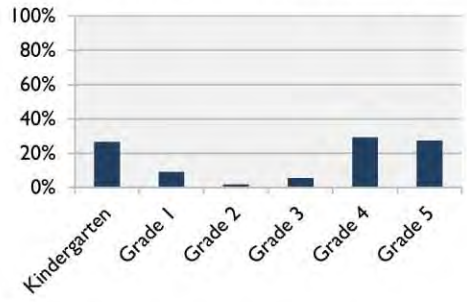
Number of Surveys Received	109

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

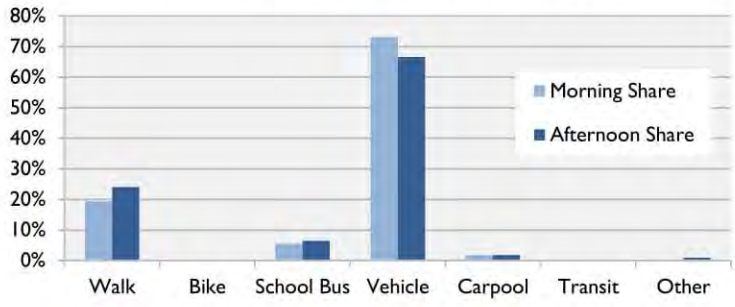
Surveys were printed on two-page forms and distributed to parents to take home. Tally data are not available for this school.

Students who walk or bike to school	**14.8%**
Students who don't walk/bike but have asked parents for permission	**+ 20.4%**
Students who walk/bike or have asked parents for permission	**35.2%**
Student enrollment	**x 629**
Potential walking/biking student base	**221**

Grade Distribution of Surveys

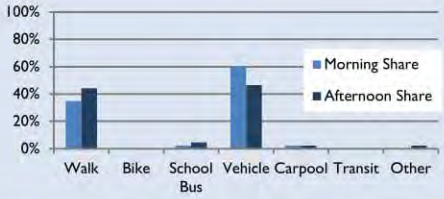


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

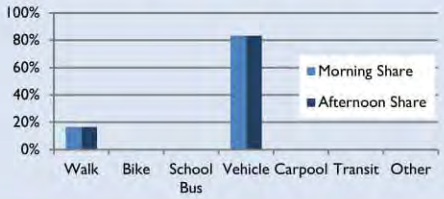
43%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 41%
Safety of Intersections & Crossings – 36%
Speed of Traffic Along Route – 30%
Amount of Traffic Along Route – 30%
Weather or Climate – 25%

Students Living Between ¼ and ½ Mile from School

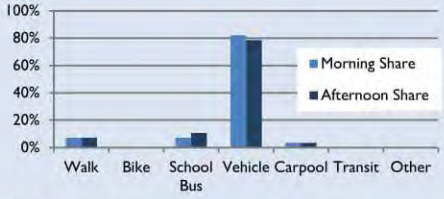
17%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersection & Crossings – 39%
Violence or Crime – 39%
Sidewalks or Pathways – 33%
Speed of Traffic Along Route – 28%
Crossing Guards – 28%

Students Living Between ½ and 1 Mile from School

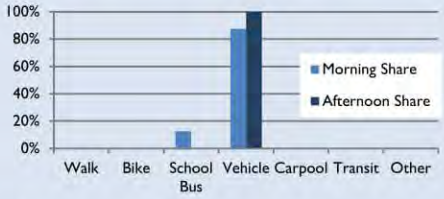
27%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings -61%
Speed of Traffic Along Route – 57%
Violence or Crime – 54%
Weather or Climate – 43%
Amount of Traffic Along Route – 39%

Students Living Between 1 and 2 Miles from School

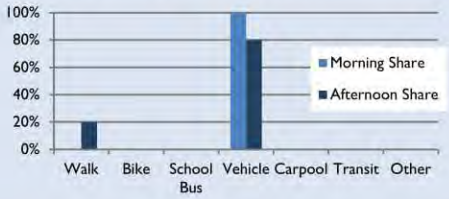
7%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 38%
Speed of Traffic Along Route – 38%
Amount of Traffic Along Route – 38%
Weather or Climate – 38%
Safety of Intersections & Crossings – 25%

Students Living Farther than 2 Miles from School

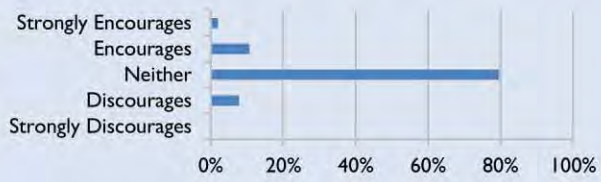
5%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 80%
Violence or Crime – 60%
Weather or Climate – 60%
Speed of Traffic Along Route – 40%
Sidewalks or Pathways – 40%

Parents' Perspectives

Whether School Encourages Walking/Biking



80%
consider walking/biking healthy or very healthy.

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

MAPLE ELEMENTARY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Rialto
School Enrollment - 629
Free or Reduced Lunch - 85.40%

Environmental Indicators:

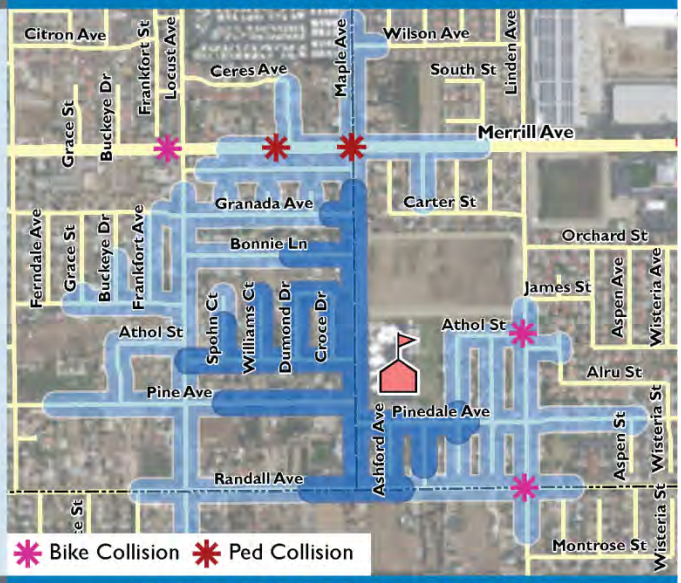
Cal Enviro Score % Range - 71-75%
Cal Enviro Score (CES2.0*) - 37.15

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

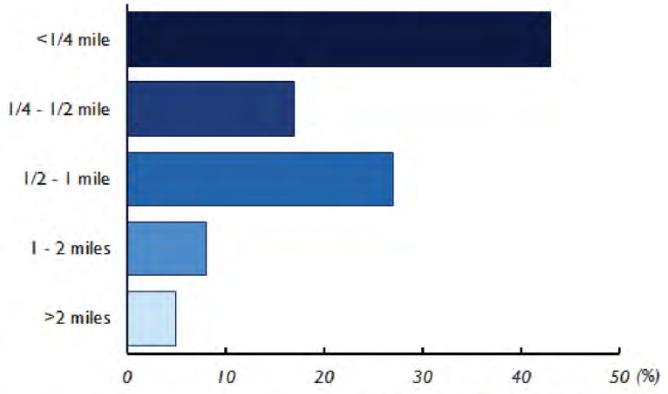
Walk Audit Highlights

of Walk Audit Participants - 5
# of Surveys Received - 109

WALKSHED *(1/4 and 1/2 mile)*



COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

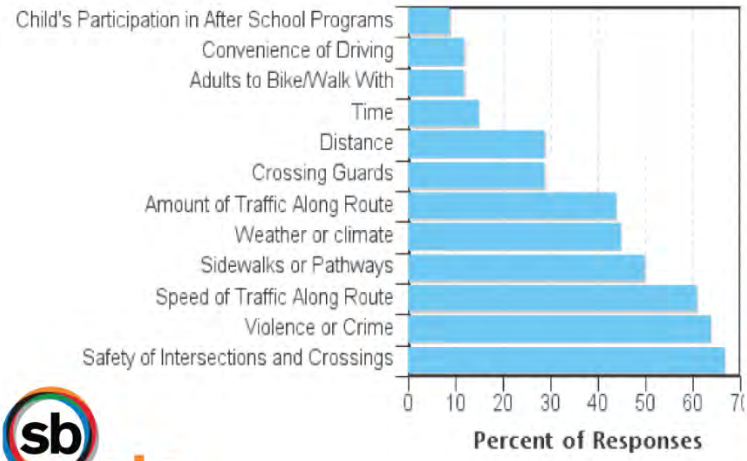
0 within 1/4 mile
4 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sb cta
san bernardino county transportation authority

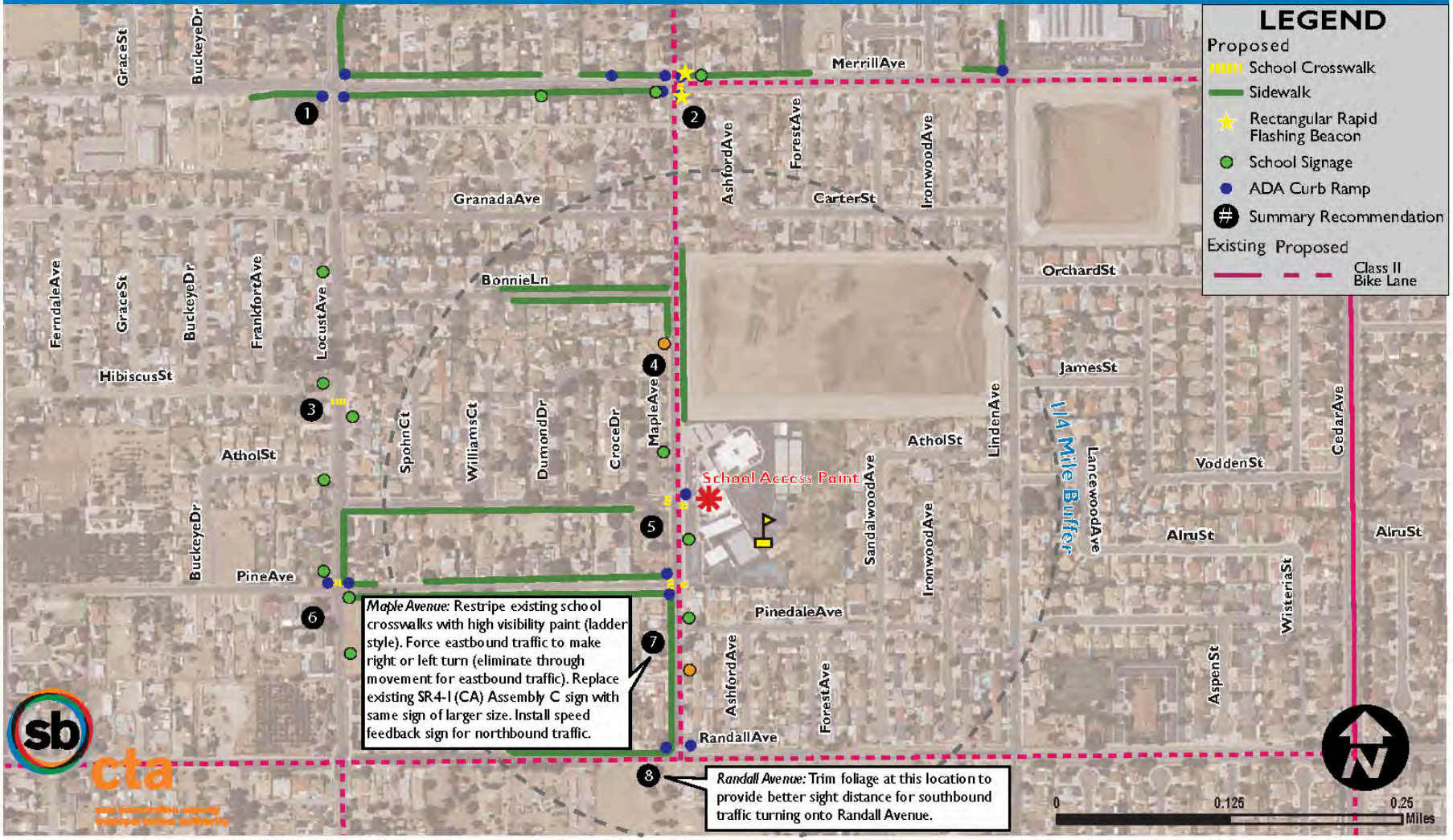
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	19%	24%
bike	0%	0%
bus	6%	6%
vehicle	73%	67%
carpool	2%	2%
transit	0%	0%
other	0%	0.9%

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

SBCTA SRTS PHASE II: *MAPLE ELEMENTARY SCHOOL, RIALTO*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Locust Avenue at Merrill Avenue:* Upgrade all pedestrian push buttons and signal heads to be ADA compliant and up to date with MUTCD standards.
2. *Merrill Avenue at Maple Avenue:* Install SR4-1(CA) Assembly C sign for eastbound traffic. Remove existing Assembly D just east of proposed sign. Install R1-5 signs with yield lines 20-50 feet from crosswalk for eastbound and westbound traffic. Restripe existing school crosswalk with high visibility paint (ladder style). Install SW24-2(CA) Assembly B signs on both sides of the crosswalk for eastbound and westbound traffic. Install RRFB signs for eastbound and westbound traffic.
3. *Locust Avenue at Hibiscus Street:* Install SW24-3(CA) Assembly D sign for southbound traffic. Install R1-5 signs with yield lines 20-50 feet from crosswalk for northbound and southbound traffic. Restripe existing school crosswalk with high visibility paint (ladder style).
4. *Maple Avenue:* Install speed feedback sign for southbound traffic. Stripe yellow centerline to discourage U-turns.
5. *Maple Avenue at Athol Street:* Install SW24-3(CA) Assembly D signs for northbound and southbound traffic. Restripe existing school crosswalk with high visibility paint (ladder style) at west leg of intersection. Install high visibility crosswalk across parking lot driveway. Install bulbout at east end of crosswalk at north leg. Force eastbound traffic to make a right or left turn only (do not allow through movement for eastbound traffic into parking lot). Force driveway to be entrance only. If not desired, force driveway to be right turn access and right turn exit only.
6. *Locust Avenue at Pine Avenue:* Restripe existing school crosswalk with high visibility paint (ladder style). Install SW24-3(CA) Assembly D sign for northbound traffic. Install R1-5 signs with yield lines 20-50 feet from crosswalk for northbound and southbound traffic.

Background/Discussion of the Engineering Recommendations

Maple Elementary School

Recommendation #	Location	Improvement	Background/Discussion
1	Locust Avenue at Merrill Avenue	ADA compliance	See below, "General - ADA curb ramps."
2	Merrill Avenue at Maple Avenue	School signage and striping, high visibility ladder style crosswalks and RRFB	Improvements located along primary walking route to school (noted during field observation). Location identified by walk audit participants and explicitly through school-wide surveys as a focus intersection, where students/parents have difficultly crossing and feel unsafe. Engineering recommendations used to increase pedestrian visibility while crossing the uncontrolled intersection.
3	Locust Avenue at Hibiscus Street	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	Maple Avenue	Speed feedback sign and stripe yellow centerline	Speed feedback signage installation addresses speeding in the area, per walk audit observations and comments received during the survey process. Restriping the yellow line will discourage unsafe U turns at the location marked on the map.
5	Maple Avenue at Athol Street	School signage and striping, high visibility ladder style crosswalk, bulbouts, pavement markings	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). Bulbouts shorten the crossing distance for pedestrians at this location. Pavement markings direct traffic to better facilitate vehicle movements.
6	Locust Avenue at Pine Avenue	High visibility ladder style crosswalk and school signage and striping	Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along Locust Ave at Pine Ave, a primary walking route to school (noted during field observation).
7	Maple Avenue	High visibility ladder style crosswalk, pavement markings, signs and speed feedback sign	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). Bulbouts shorten the crossing distance for pedestrians at this location. Pavement markings direct traffic to better facilitate vehicle movements. Speed feedback signage installation addresses speeding in the area, per walk audit observations and comments received during the survey process.
8	Randall Avenue	Trim foliage	Trim foliage at the location shown in the recommendations to provide better sight distance for southbound traffic turning onto Randall Avenue.
General	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 Maple Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Athol St.	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1200	$62,307
	Segment Total				**$62,307**
Bonnie Ln.	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1250	$64,903
	Segment Total				**$64,903**
Locust Ave.	New Sign on Post	Each	$181	7	$1,268
	High Visibility Ladder Crosswalk	Each	$1,788	1	$1,788
	ADA Curb Ramps	Each	$3,623	2	$7,245
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	600	$31,154
	Segment Total				**$41,454**
Merrill Ave.	Rectangular Rapid Flashing Beacon (2/Uncontrolled X-walk)	Each	$15,698	1	$15,698
	New Sign on Post	Each	$181	4	$725
	ADA Curb Ramps	Each	$3,623	8	$28,980
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	3170	$164,594
	Segment Total				**$209,996**
Pine Ave.	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1150	$59,711
	Segment Total				**$59,711**
Randall Ave.	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	650	$33,750
	Segment Total				**$33,750**
Maple Ave.	Double Yellow Centerline Stripe (Detail 22)	Per Linear Foot	$2	2650	$6,400
	Speed Awareness Sign	Each	$14,490	1	$14,490
	New Sign on Post	Each	$181	3	$543
	ADA Curb Ramps	Each	$3,623	5	$18,113
	Curb Extension - Raised	Per Intersection	$87,766	0.5	$43,883
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1300	$67,499
	Segment Total				**$150,928**
ALL SEGMENTS					**$623,049**

Joe Baca Middle School

Joe Baca Middle School is a Colton Joint Unified School District (CJUSD) school located in an area of Rialto, California with multiple nearby types of land use, including low-density residential, commercial, and industrial uses. The school is located at the intersection of Valley Boulevard and Lilac Avenue. Held on November 29th, 2016 from 9:30AM to 11:00AM, the walk audit at Joe Baca Middle School coincided with an existing on campus meeting, where the consultant team was able to engage twelve participants. The observations extended into the surrounding neighborhood along the following streets: Valley Boulevard, Lilac Avenue, Cactus Avenue, and Pomona Avenue.

"If there were higher security for the students, crossing guards, and fixed sidewalks, it would make it safer for the students to walk to school."

"I had a child that was struck by a vehicle and killed last year on Cactus Avenue."

All remarks received from walk audit participants at Joe Baca Middle

SafeRoutes
National Center for Safe Routes to School

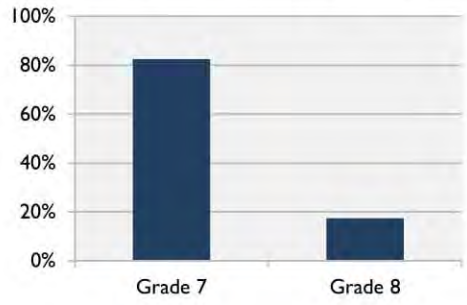
Number of Surveys Received	126

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

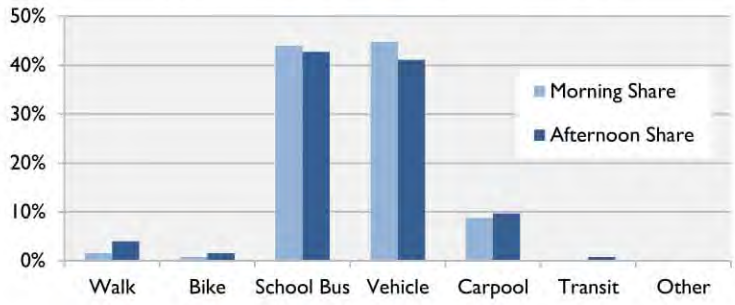
Surveys were printed on two-page forms and distributed to parents to take home. Tally data are not available for this school.

Students who walk or bike to school	**5.7%**
Students who don't walk/bike but have asked parents for permission	**+ 23.8%**
Students who walk/bike or have asked parents for permission	**29.5%**
Student enrollment	**x 895**
Potential walking/biking student base	**264**

Grade Distribution of Surveys

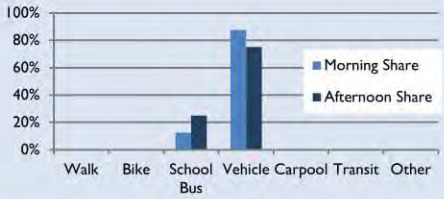


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

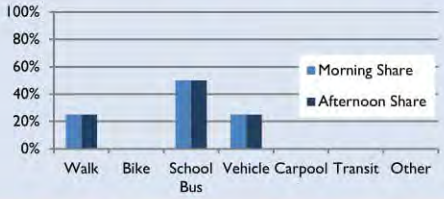
7%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 25%
Amount of Traffic Along Route – 25%
Crossing Guards – 25%
Violence or Crime – 25%
Weather or Climate – 25%

Students Living Between ¼ and ½ Mile from School

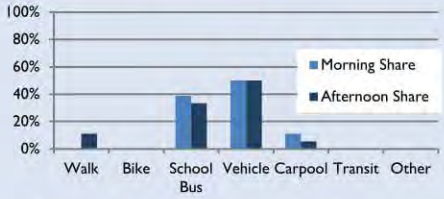
4%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 25%
Amount of Traffic Along Route – 25%
Safety of Intersections & Crossings – 25%
(No other issues ranked.)

Students Living Between ½ and 1 Mile from School

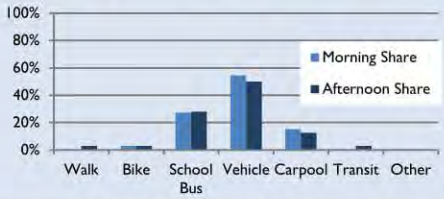
16%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 44%
Violence or Crime – 44%
Amount of Traffic Along Route – 39%
Distance – 33%
Speed of Traffic Along Route – 28%

Students Living Between 1 and 2 Miles from School

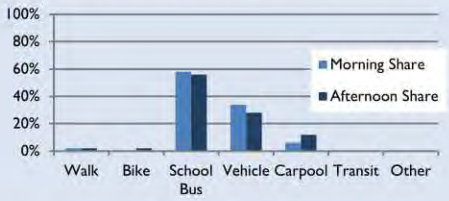
29%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 48%
Safety of Intersections & Crossings – 395
Violence or Crime – 36%
Weather or Climate – 27%
Time – 24%

Students Living Farther than 2 Miles from School

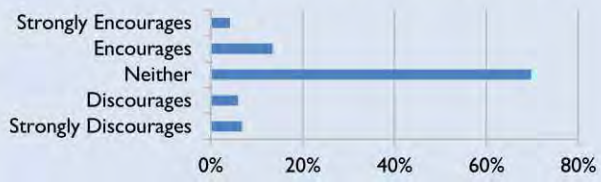
44%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 60%
Violence or Crime – 46%
Safety of Intersections & Crossings – 44%
Speed of Traffic Along Route – 42%
Amount of Traffic Along route – 40%

Parents' Perspectives

Whether School Encourages Walking/Biking



66%
consider walking/biking healthy or very healthy.

69%
would not feel comfortable having their child walk/bike at any age with current conditions.

JOE BACA MIDDLE SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - Rialto
School Enrollment - 895
Free or Reduced Lunch - 90.70%

Environmental Indicators:

Cal Enviro Score % Range - 86-90%
Cal Enviro Score (CES2.0*) - 78.94

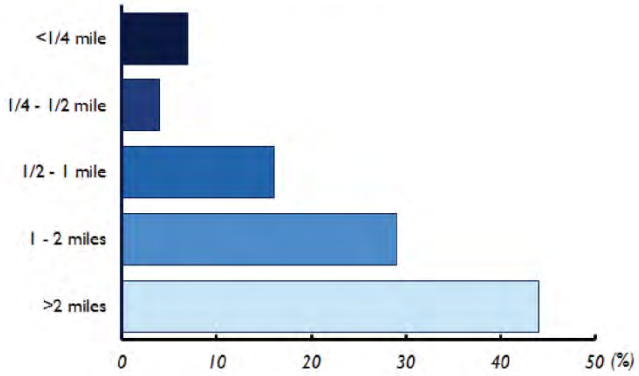
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 12
# of Surveys Received - 126

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE (%)



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

COLLISION ANALYSIS

Pedestrian Related Collisions

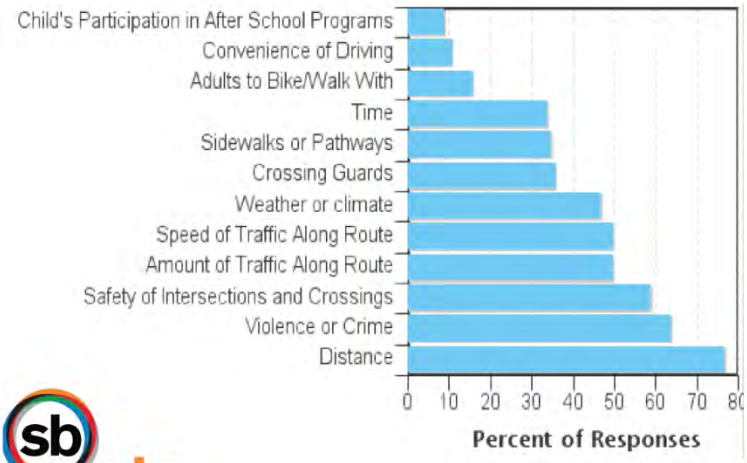
4 within 1/4 mile
9 within 1/2 mile
1 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sbcta
san bernardino county transportation authority

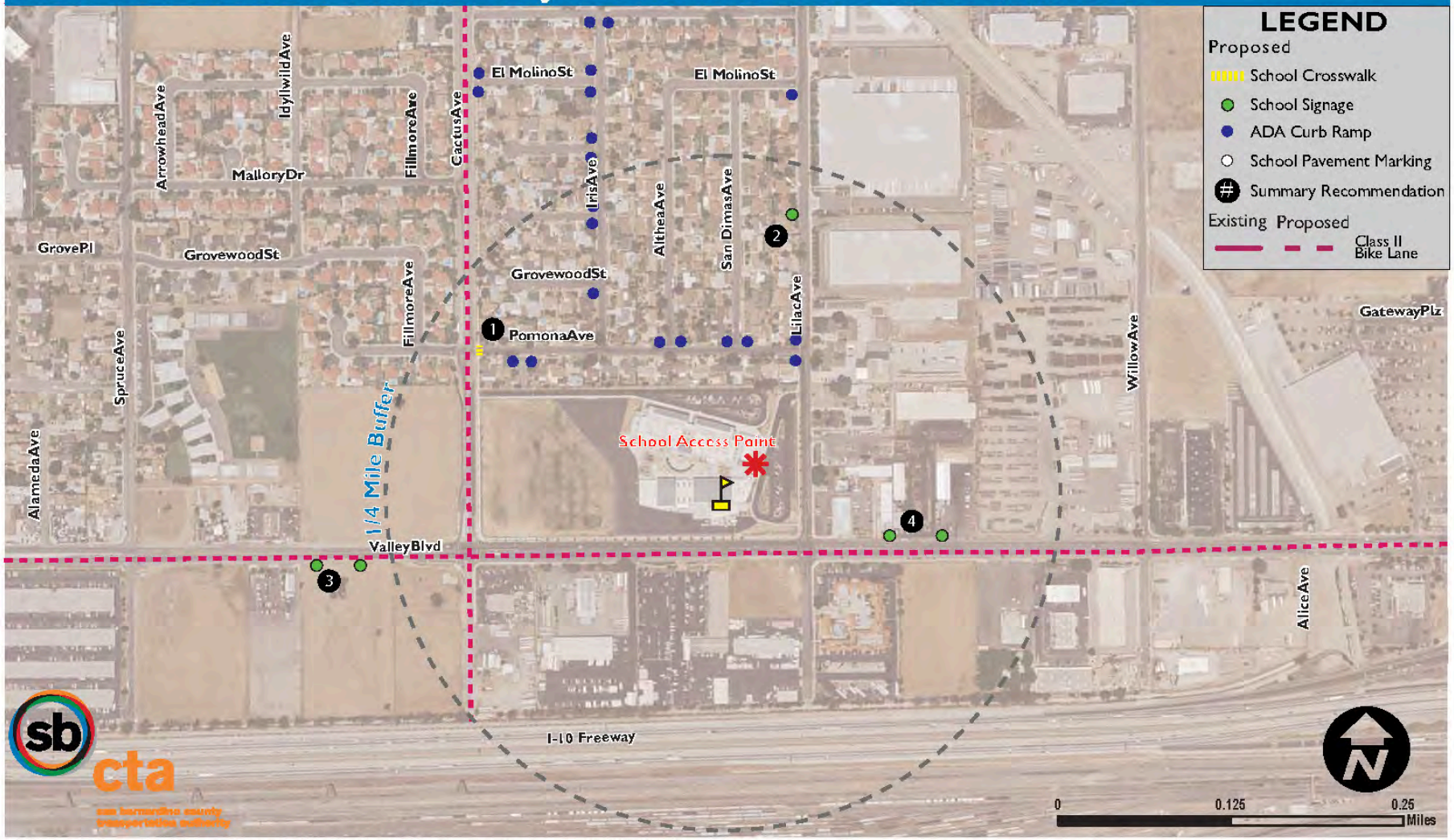
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	*afternoon*
walk	2%	4%
bike	0.8%	2%
bus	44%	43%
vehicle	45%	41%
carpool	9%	10%
transit	0%	0.8%
other	0%	0%

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

SBCTA SRTS PHASE II: *JOE BACA MIDDLE SCHOOL, RIALTO*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Pomona Avenue at Cactus Avenue:* Eliminate north leg school crosswalk per agency specific crosswalk removal analysis report. Restripe existing school crosswalk on east leg with high visibility paint (ladder style).
2. *Lilac Avenue:* Install SW24-1(CA) Assembly A sign at this location for southbound traffic.
3. *Valley Boulevard near Cactus Avenue:* Install SR4-1(CA) Assembly C sign at this location for eastbound traffic. Relocate SW24-3(CA) Assembly D sign to be 100 feet west of proposed SR4-1(CA) Assembly C sign.
4. *Valley Boulevard near Lilac Avenue:* Install SR4-1(CA) Assembly C sign at this location for westbound traffic. Relocate SW24-3(CA) Assembly D sign to be 200 feet east of proposed SR4-1(CA) Assembly C sign.

Background/Discussion of the Engineering Recommendations

	Recommendation #	Location	Improvement	Background/Discussion
Joe Baca Middle School	1	Pomona Avenue at Cactus Avenue	High visibility crosswalk installation and removal	High visibility crosswalks provide a clearer path for pedestrians along this primary walking route to school. Removal of the crosswalk corresponds with the agency specific crosswalk removal analysis report.
	2	Lilac Avenue	School signage	School signage can increase driver awareness of the school area nearby, per CA MUTCD Part 7 guidelines.
	3	Valley Boulevard near Cactus Avenue	School signage	School signage can increase driver awareness of the speed limit in the school area when children are present, as well as alert drivers of pedestrian crossings in the area. All signage improvements adhere to CA MUTCD Part 7 guidelines. Recent collision data shows a collision involving a bicyclist at this location.
	4	Valley Boulevard near Lilac Avenue	School signage	School signage can increase driver awareness of the speed limit in the school area when children are present, as well as alert drivers of pedestrian crossings in the area. All signage improvements adhere to CA MUTCD Part 7 guidelines. Recent collision data shows a collision involving a pedestrian at this location.
	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 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 Joe Baca Middle School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
S Cactus Ave.	Existing Roadway Striping Removal (Sand Blast)	Per Linear Foot	$6	150	$906
	High Visibility Ladder Crosswalk	Each	$1,788	1	$1,788
	ADA Curb Ramps	Each	$3,623	2	$7,245
	Segment Total				**$9,939**
S Iris Ave.	ADA Curb Ramps	Each	$3,623	10	$36,225
	Segment Total				**$36,225**
S Lilac Ave.	New Sign on Post	Each	$181	1	$181
	ADA Curb Ramps	Each	$3,623	3	$10,868
	Segment Total				**$11,049**
W Valley Blvd.	New Sign on Post	Each	$181	6	$1,087
	Segment Total				**$1,087**
W Pomona Ave.	ADA Curb Ramps	Each	$3,623	6	$21,735
	Segment Total				**$21,735**
ALL SEGMENTS					**$80,035**

Ruth Grimes Elementary School

Ruth Grimes Elementary School is a Colton Joint Unified School District (CJUSD) school located in an area of Rialto, California with multiple types of land use, including low-density residential, commercial, and industrial uses. The school is situated along Spruce Avenue near the intersection with Pomona Avenue. The Ruth Grimes Elementary walk audit was held on November 4th, 2016 from 2:00PM to 3:30PM, prior to the afternoon release bell ringing. Nine participants were secured in the time leading up to the afternoon student pick-up, and they were engaged in discussions and observations of the following streets: Spruce Avenue, Pomona Avenue, Valley Boulevard, Grovewood Street, and Cactus Avenue.

"My son walks home with his brother some days. We live off Valley Blvd., which is a busy street that is dangerous even for adults to cross, but they take their time waiting on the traffic and enjoy their walk home."

"Too many people speed in the school area. There is a big issue with double-parking, during pick-up and drop-off."

"Student pick-up is total chaos. It seems unorganized and dangerous."

All remarks received from walk audit participants at Ruth Grimes Elementary

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	219
Number of Tallies	1,031
» Morning (To School)	516
» Afternoon (From School)	515

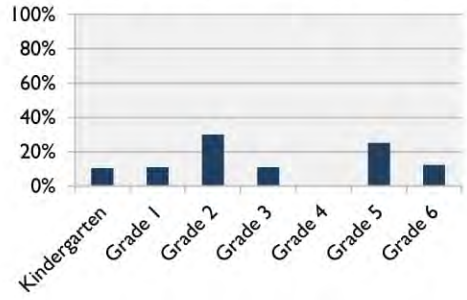
Number of Surveys Received	201

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

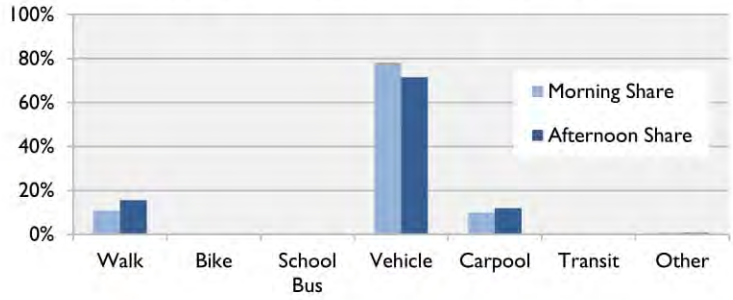
Tallies were conducted by teachers in nine classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to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

Students who walk or bike to school	**6.7%**
Students who don't walk/bike but have asked parents for permission	**+ 22.3%**
Students who walk/bike or have asked parents for permission	**29.0%**
Student enrollment	**x 632**
Potential walking/biking student base	**183**

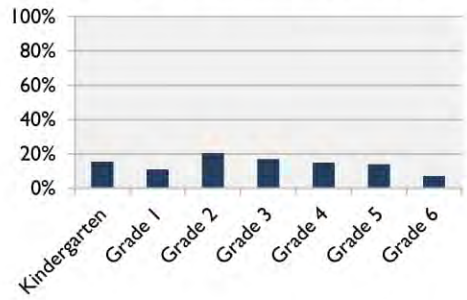
Grade Distribution of Tallies



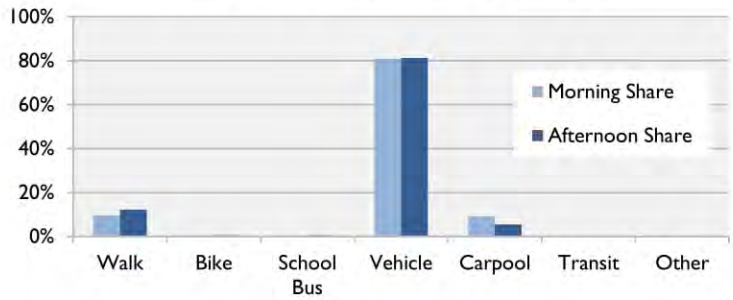
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

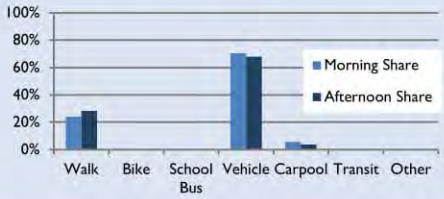


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

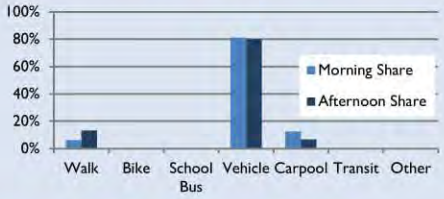
33%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 45%
Speed of Traffic Along Route – 32%
Violence or Crime – 30%
Amount of Traffic Along Route – 27%
Weather or Climate – 27%

Students Living Between ¼ and ½ Mile from School

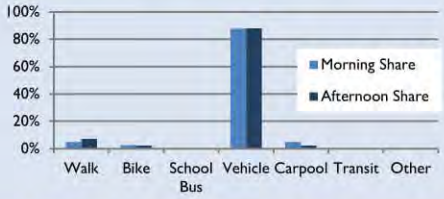
17%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Amount of Traffic Along Route – 47%
Safety of Intersections & Crossings – 47%
Speed of Traffic Along Route – 44%
Violence or Crime – 38%
Sidewalks or Pathways – 28%

Students Living Between ½ and 1 Mile from School

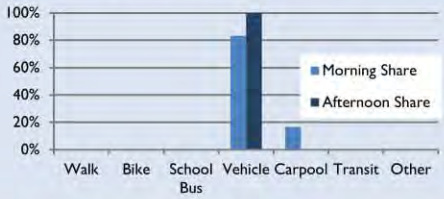
24%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 55%
Violence or Crime – 53%
Safety of Intersections & Crossings – 45%
Amount of Traffic Along Route – 41%
Distance – 34%

Students Living Between 1 and 2 Miles from School

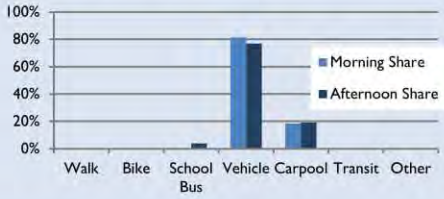
11%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 55%
Weather or Climate – 50%
Amount of Traffic Along Route – 45%
Violence or Crime – 45%
Distance – 40%

Students Living Farther than 2 Miles from School

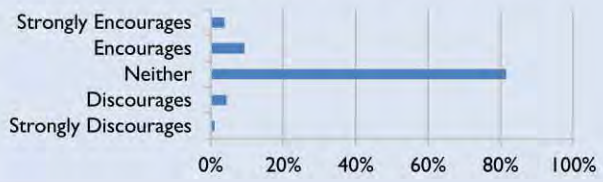
15%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 78%
Safety of Intersections & Crossings – 48%
Speed of Traffic Along Route – 41%
Amount of Traffic Along Route – 37%
Violence or Crime – 37%

Parents' Perspectives

Whether School Encourages Walking/Biking



79%
consider walking/biking healthy or very healthy.

70%
would not feel comfortable having their child walk/bike at any age with current conditions.

RUTH GRIMES ELEMENTARY - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Rialto
School Enrollment - 632
Free or Reduced Lunch - 88.20%

Environmental Indicators:

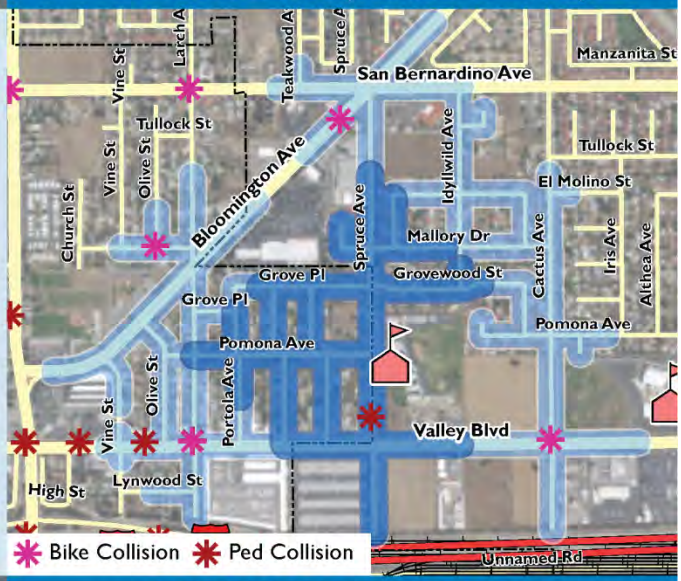
Cal Enviro Score % Range - 81-85%
Cal Enviro Score (CES2.0*) - 45.37

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

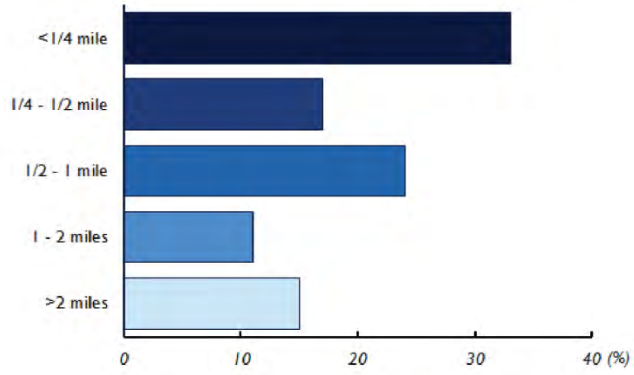
Walk Audit Highlights

of Walk Audit Participants - 9
# of Surveys Received - 201

WALKSHED (1/4 and 1/2 mile)



COMMUTE DISTANCE (%)



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

COLLISION ANALYSIS

Pedestrian Related Collisions

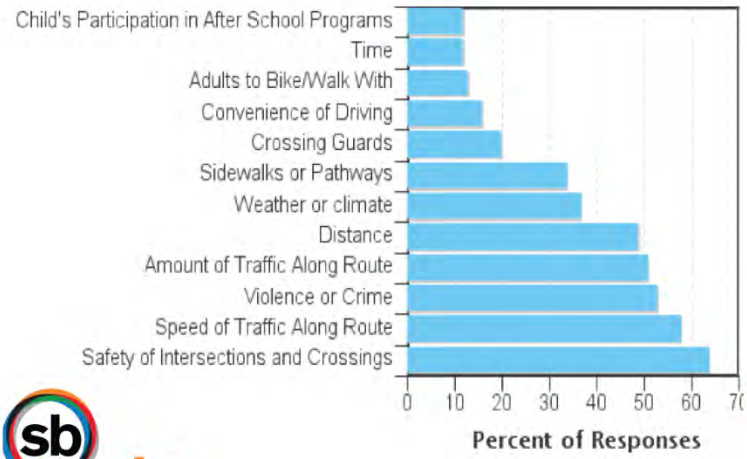
0 within 1/4 mile
7 within 1/2 mile
1 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sb cta
san bernardino county transportation authority

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

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	10%	12%
bike	0.5%	0.6%
bus	0%	0.6%
vehicle	81%	81%
carpool	9%	6%
transit	0%	0%
other	0%	0%

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

SBCTA SRTS PHASE II: *RUTH GRIMES ELEMENTARY SCHOOL, RIALTO*

PROPOSED ENGINEERING RECOMMENDATIONS

1. *West neighborhood:* Install sidewalk within the neighborhood to the west of campus to allow for a better sidewalk network.
2. *Spruce Avenue and Pomona Avenue:* Install high visibility ladder style crosswalks along the west and south corners of intersection. Install R1-5 signs and yield lines on the approach to the south leg crossing. Install high visibility ladder style crosswalk for access from intersection to front of school. Prohibit parking adjacent to either side of the south leg crossing.
3. *Spruce Avenue:* Restripe existing school pavement marking to read, "SLOW SCHOOL XING." Install upgraded SW24-3 (CA) Assembly D facing south.
4. *Valley Boulevard and Spruce Avenue:* Relocate stop sign to be closer to stop limit line on southbound travel lane.
5. *Spruce Avenue:* Restripe existing school pavement marking to read, "SLOW SCHOOL XING." Install ADA compliant curb ramps at the locations specified.
6. *Spruce Avenue and Grovewood Street:* Install high visibility laddder style school crosswalk for east and west legs of the intersection.
7. *Spruce Avenue and Mallory Drive:* Construct a driveway straight into street for vehicle use and keep pedestrian ramp exclusive for pedestrian use. Maintain pedestrian ramp for use only by pedestrians. Install SR4-1 (CA) Assembly C for southbound traffic at this intersection.

Background/Discussion of the Engineering Recommendations

Ruth Grimes Elementary School

Recommendation #	Location	Improvement	Background/Discussion
1	West neighborhood	Sidewalk	See item below, "General - Sidewalk."
2	Spruce Avenue and Pomona Avenue	High visibility ladder style crosswalk, School signage, ADA curb ramp	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). See item below, "General - ADA curb ramps." Adherence to MUTCD Part 7 guidelines to increase driver awareness of Spruce Avenue & Pomona Avenue crossing.
3	Spruce Avenue	School pavement marking and school signage	Adherence to MUTCD Part 7 guidelines to increase driver awareness on Spruce Avenue.
4	Valley Boulevard and Spruce Avenue	Stop sign	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	Spruce Avenue	School pavement marking and ADA compliance	Adherence to MUTCD Part 7 guidelines to increase driver awareness on Spruce Avenue. See below, "General - ADA curb ramps."
6	Spruce Avenue and Grovewood Street	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).
7	Spruce Avenue and Mallory Drive	Driveway and school signage	Driveway improvements allow for vehicle use while keeping pedestrian ramp exclusive in order to separate the two safely (per comments received during the walk audit.) Adherence to MUTCD Part 7 guidelines to increase driver awareness on Spruce Avenue.
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 Ruth Grimes Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Spruce Ave.	New Sign on Post	Each	$181	4	$725
	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	7	$25,358
	Segment Total				**$36,543**
Pomona Ave.	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	2600	$134,999
	Segment Total				**$134,998**
ALL SEGMENTS					**$171,541**

Virginia Primrose Elementary School

Virginia Primrose Elementary School is a Fontana Unified School District (FUSD) school located in a low-density residential neighborhood of Rialto, California. The school is situated at the intersection of Etiwanda Avenue and Maple Avenue. Held on May 9th, 2016, the Virginia Primrose Elementary School walk audit took place from 7:30AM to 9:30AM, during the morning start bell period. There were a total of nine participants comprising community members, parents, and school staff. Briefing and debriefing took place on-site and observations extended into the surrounding neighborhood along Etiwanda Avenue, Maple Avenue, and Foothill Boulevard.

"I don't think I would ever let my kids walk by themselves, because I think it is not safe."

"In our area it is not safe to walk or bike to school. If we lived closer it would be different."

**All remarks received from walk audit participants at Virginia Primrose Elementary **

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	24
Number of Tallies	88
» Morning (To School)	44
» Afternoon (From School)	44

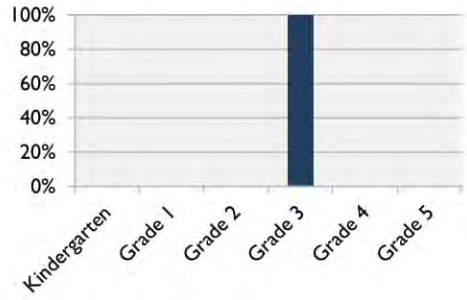
Number of Surveys Received	82

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

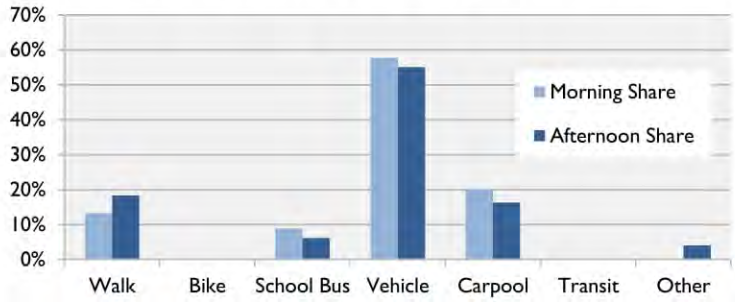
Tallies were conducted by a teacher in one class on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to take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

Students who walk or bike to school	**7.6%**
Students who don't walk/bike but have asked parents for permission	**+ 24.1%**
Students who walk/bike or have asked parents for permission	**31.7%**
Student enrollment	**x 538**
Potential walking/biking student base	**171**

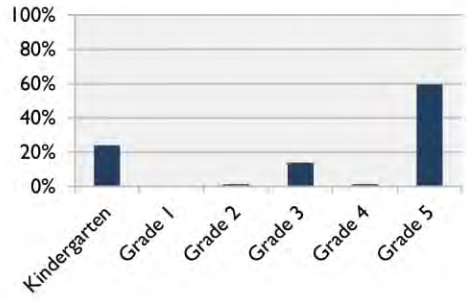
Grade Distribution of Tallies



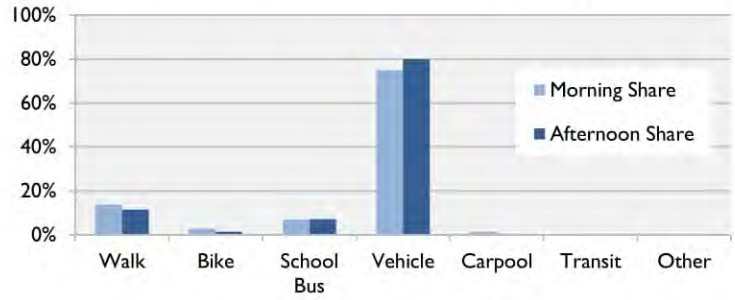
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

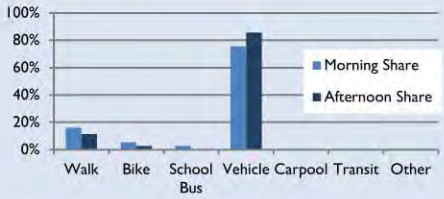


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

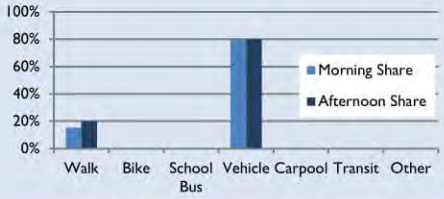
58%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 35%
Safety of Intersections & Crossings – 33%
Speed of Traffic Along Route – 30%
Amount of Traffic Along Route – 30%
Weather or Climate – 26%

Students Living Between ¼ and ½ Mile from School

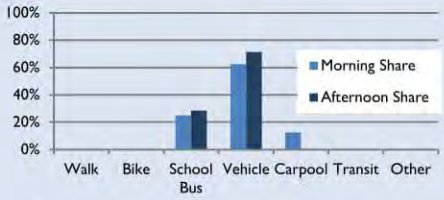
18%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 31%
Sidewalks or Pathways – 31%
Convenience of Driving – 23%
Amount of Traffic Along Route – 23%
Safety of Intersections & Crossings – 23%

Students Living Between ½ and 1 Mile from School

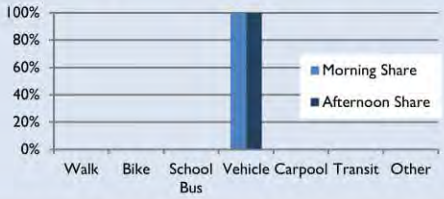
11%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 25%
Safety of Intersections & Crossings – 25%
Violence or Crime – 25%
Weather or Climate – 25%
Distance – 13%

Students Living Between 1 and 2 Miles from School

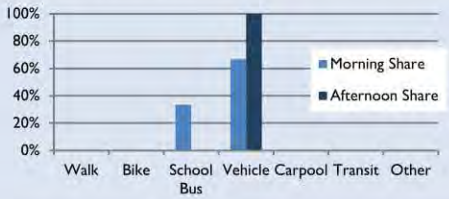
9%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 57%
Distance – 43%
Speed of Traffic Along Route – 43%
Violence or Crime – 43%
Weather or Climate – 43%

Students Living Farther than 2 Miles from School

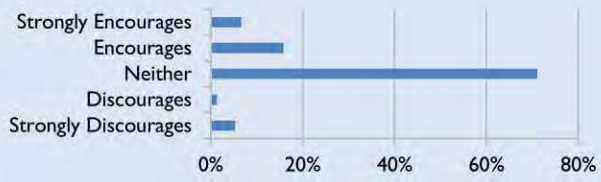
4%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 76%
Time – 33%
Sidewalks or Pathways – 33%
Safety of Intersections & Crossings – 33%
Crossing Guards – 33%

Parents' Perspectives

Whether School Encourages Walking/Biking



84%
consider walking/biking healthy or very healthy.

59%
would not feel comfortable having their child walk/bike at any age with current conditions.

VIRGINA PRIMROSE ELEMENTARY - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Rialto
School Enrollment - 538
Free or Reduced Lunch - 83.50%

Environmental Indicators:

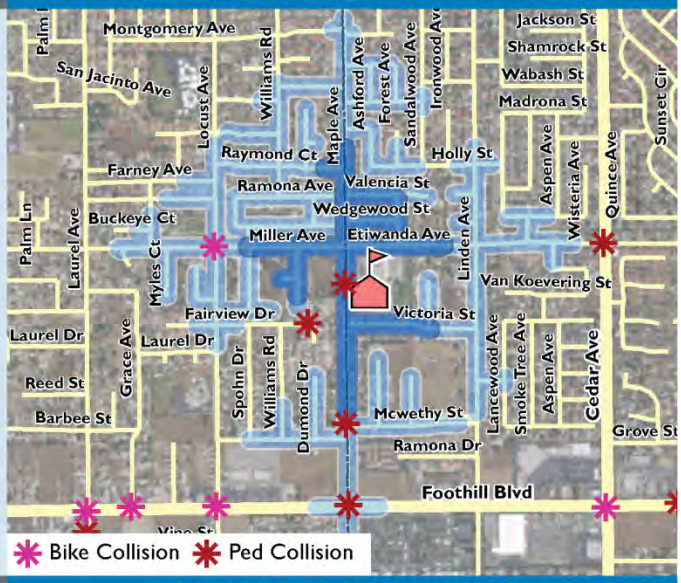
Cal Enviro Score % Range - 61-65%
Cal Enviro Score (CES2.0*) - 32.21

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

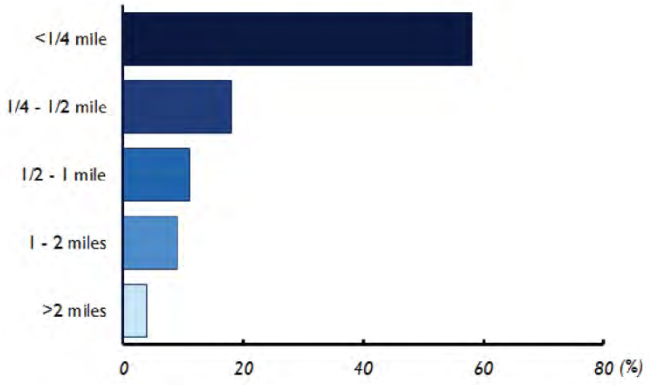
Walk Audit Highlights

of Walk Audit Participants - 9
# of Surveys Received - 82

WALKSHED *(1/4 and 1/2 mile)*



COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

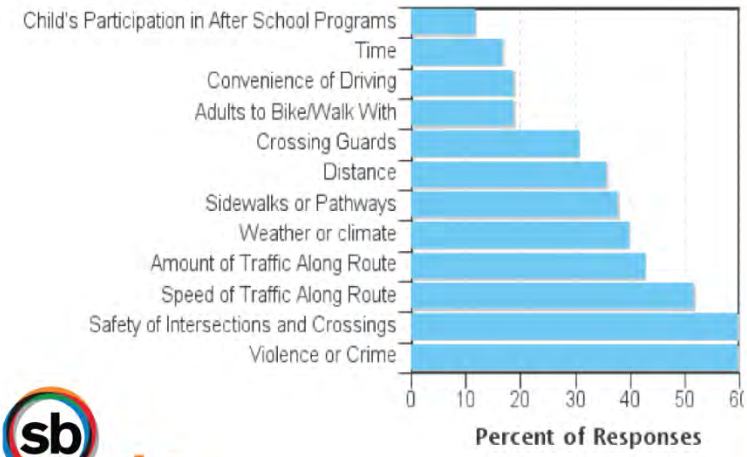
2 within 1/4 mile
5 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sb cta
san bernardino county transportation authority

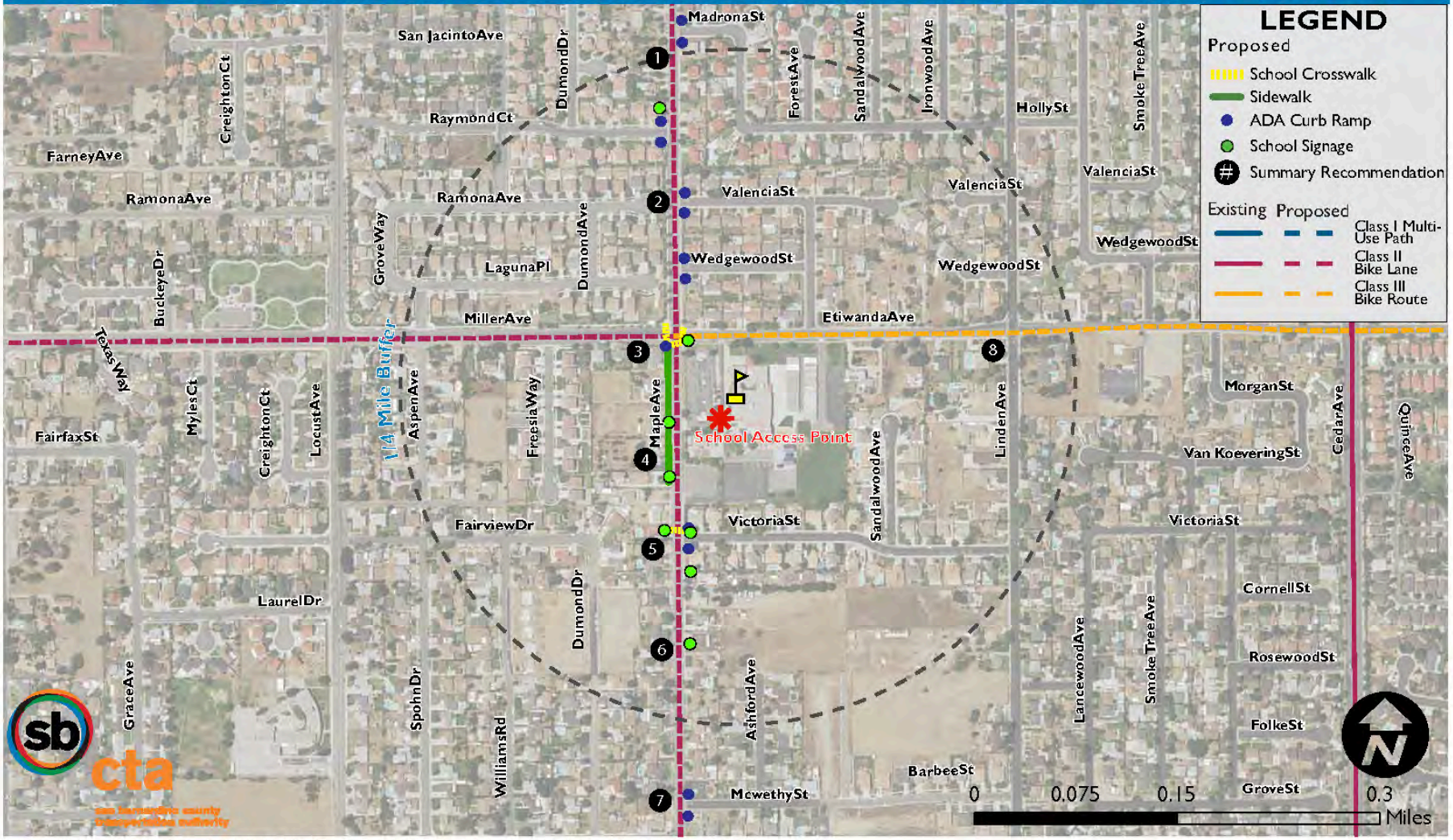
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	*afternoon*
walk	14%	11%
bike	3%	1%
bus	7%	7%
vehicle	75%	80%
carpool	1%	0%
transit	0%	0%
other	0%	0%

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

SBCTA SRTS PHASE II: *VIRGINIA PRIMROSE ELEMENTARY SCHOOL, RIALTO*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Maple Avenue at Madrona Street:* Install two ADA curb ramps at this intersection.
2. *Maple Avenue from Raymond Court to Wedgewood Street:* Install six total ADA curb ramps along on east and west sides of the street as shown. Install SW24-3(CA) Assembly D sign 150 feet north of existing SR4-1(CA).
3. *Maple Avenue at Etiwanda Avenue:* Install bulbout at northwest and southwest corners of the intersection. Install ADA curb ramp at southwest corner. Replace existing SR4-1(CA) sign with larger sign of the same kind (36"x72"). Restripe existing school crosswalks with high visibility paint (ladder style). Paint red curb extending twenty (20) feet from the intersection.
4. *Maple Avenue:* Install missing link sidewalk on the west side of Maple Avenue. Install SW24-3(CA) Assembly D sign facing north. Install SR4-1(CA) Assembly C sign facing north.
5. *Maple Avenue at Victoria Street:* Install high visibility school crosswalk (ladder style). Install two ADA curb ramps. Install bulbouts at both ends of the proposed crosswalk. Install SW24-2(CA) Assembly B signs at both ends of the proposed crosswalk.
6. *Maple Avenue:* Replace existing SR4-1(CA) sign with larger sign of the same kind (36"x72").
7. *Maple Avenue at Mcwethy Street:* Install two ADA curb ramps at this location.
8. *Etiwanda Avenue at Linden Avenue:* Paint red curbs extending twenty (20) feet from the intersection.

Background/Discussion of the Engineering Recommendations

Virginia Primrose Elementary School

Recommendation #	Location	Improvement	Background/Discussion
1	**Maple Avenue at Madrona St**	ADA compliance	See below, "General - ADA curb ramps."
2	**Maple Avenue from Raymond Court to Wedgewood Street**	ADA compliance and school signage	See below, "General - ADA curb ramps." Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along Maple Ave, a primary walking route to school (noted during field observation).
3	**Maple Avenue at Etiwanda Avenue**	Bulbout, ADA compliance, school signage, high visibility ladder style crosswalk, red curb	Bulbouts will ensure pedestrian safety when waiting to cross the street. See below, "General - ADA curb ramps." & See below, "General - red curb." Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along Maple Ave at Etiwanda Ave, a primary walking route to school (noted during field observation). 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).
4	**Maple Avenue**	High visibility ladder style crosswalk and school signage	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	**Maple Avenue at Victoria Street**	High visibility ladder style crosswalk, ADA compliance, bulbouts and school signage	Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along Maple Ave, a primary walking route to school (noted during field observation). Restriping of school crosswalk to a high visibility ladders style crosswalk ensures visibility for drivers. Bulbouts will ensure pedestrian safety when waiting to cross the street.
6	**Maple Avenue**	School signage	Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along Maple Ave, a primary walking route to school (noted during field observation).
7	**Maple Avenue at Mcwethy Street**	ADA compliance	See below, "ADA curb ramps."
8	**Etiwanda Avenue at Linden Avenue**	Red curb	See below, "General - red curb."
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	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 Virginia Primrose Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
N Maple Ave.	New Sign on Post	Each	$181	7	$1,268
	High Visibility Ladder Crosswalk	Each	$1,788	4	$7,152
	ADA Curb Ramps	Each	$3,623	13	$47,093
	Curb Extension - Raised	Per Intersection	$87,766	1	$87,766
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	525	$27,259
	Segment Total				**$170,538**
ALL SEGMENTS					**$170,538**

San Bernardino City

Marshall Elementary School

Marshall Elementary School is a San Bernardino City Unified School District (SBCUSD) school located in a low-density residential neighborhood of San Bernardino. The school is situated at the intersection of West 33rd Street and North G Street. The walk audit that was held at Marshall Elementary took place on the morning of October 13, 2016 from 9:15AM to 10:15AM, following the morning start bell ringing. The school cafeteria was used as the staging area for the 18 participants where briefing and de-briefing were conducted. Observations extended into the surrounding neighborhood along 33rd Street, G Street, Marshall Boulevard, H Street, and Crescent Avenue.

"There are too many children darting across the streets, cars speeding, and strangers walking up and down the streets. All this makes me feel uneasy about letting my student walk or bike to school."

"When I have a day off my kids and I do walk to school. They enjoy it. I don't feel comfortable letting them walk alone."

All remarks received from walk audit participants at Marshall Elementary

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	134
Number of Tallies	769
» Morning (To School)	384
» Afternoon (From School)	385

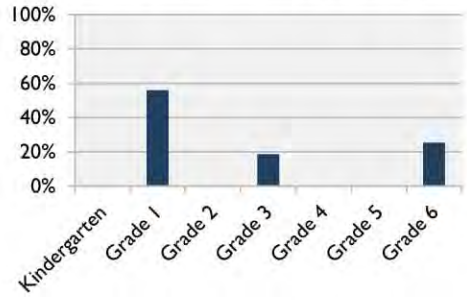
Number of Surveys Received	93

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

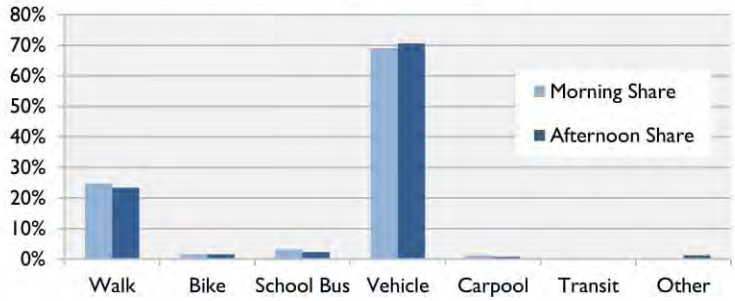
Tallies were conducted by teachers in five classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to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

Students who walk or bike to school	**8.8%**
Students who don't walk/bike but have asked parents for permission	**+ 26.4%**
Students who walk/bike or have asked parents for permission	**35.2%**
Student enrollment	**x 426**
Potential walking/biking student base	**150**

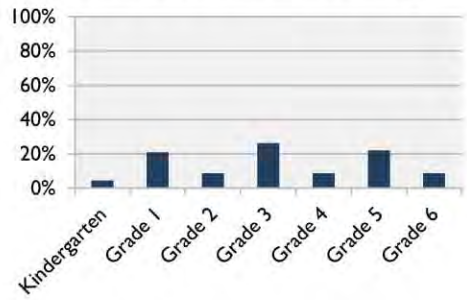
Grade Distribution of Tallies



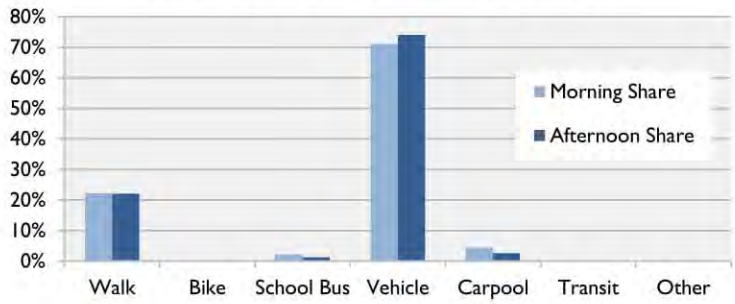
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

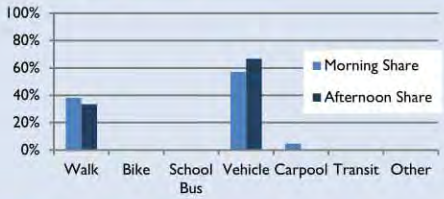


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

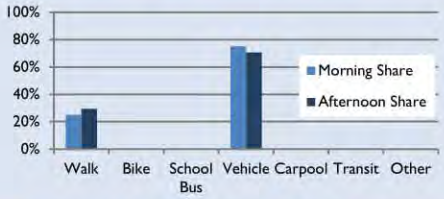
28%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 42%
Violence or Crime – 42%
Speed of Traffic Along Route – 38%
Amount of Traffic Along Route – 33%
Sidewalks or Pathways – 29%

Students Living Between ¼ and ½ Mile from School

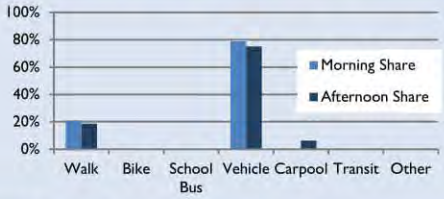
23%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 45%
Violence or Crime – 45%
Speed of Traffic Along Route – 30%
Amount of Traffic Along Route – 30%
Sidewalks or Pathways – 20%

Students Living Between ½ and 1 Mile from School

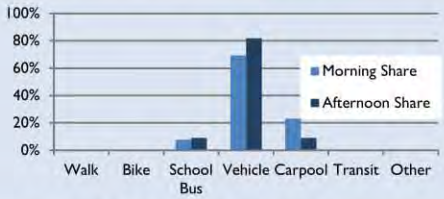
22%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 47%
Violence or Crime – 47%
Safety of Intersections & Crossings – 42%
Sidewalks or Pathways – 37%
Distance – 26%

Students Living Between 1 and 2 Miles from School

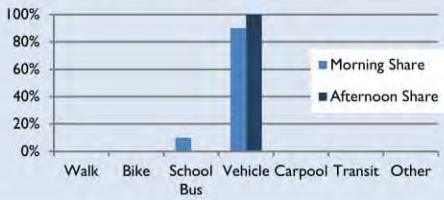
15%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Sidewalks or Pathways – 62%
Violence or Crime – 62%
Safety of Intersections & Crossings – 54%
Speed of Traffic Along Route – 46%
Weather or Climate – 46%

Students Living Farther than 2 Miles from School

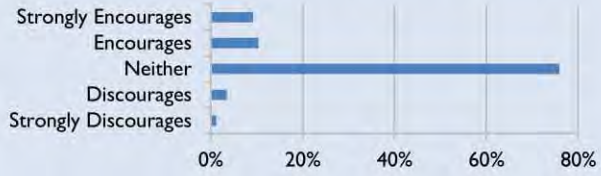
12%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 70%
Convenience of Driving – 40%
Time – 40%
Violence or Crime – 40%
Sidewalks or Pathways – 30%

Parents' Perspectives

Whether School Encourages Walking/Biking



73%
consider walking/biking healthy or very healthy.

69%
would not feel comfortable having their child walk/bike at any age with current conditions.

MARSHALL ELEMENTARY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of San Bernardino
School Enrollment - 426
Free or Reduced Lunch - 87.80%

Environmental Indicators:

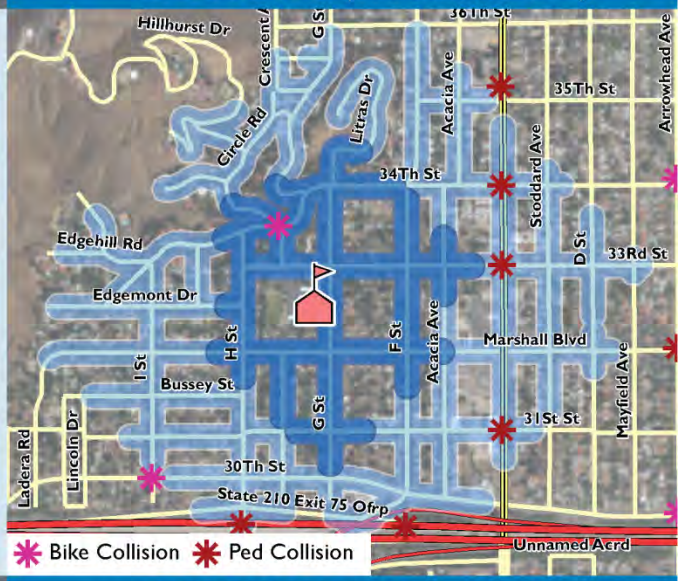
Cal Enviro Score % Range - 76-80%
Cal Enviro Score (CES2.0*) - 39.54

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

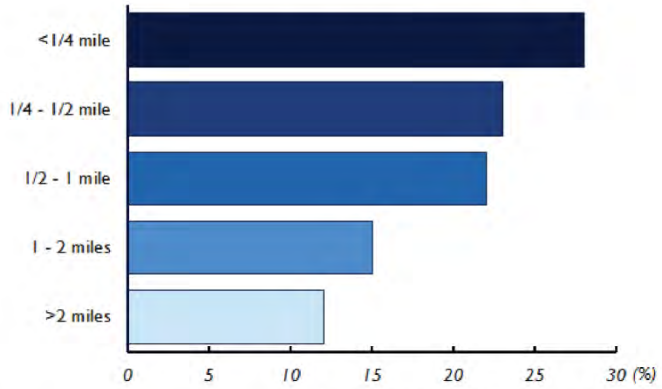
Walk Audit Highlights

of Walk Audit Participants - 18
# of Surveys Received - 93

WALKSHED *(1/4 and 1/2 mile)*



COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

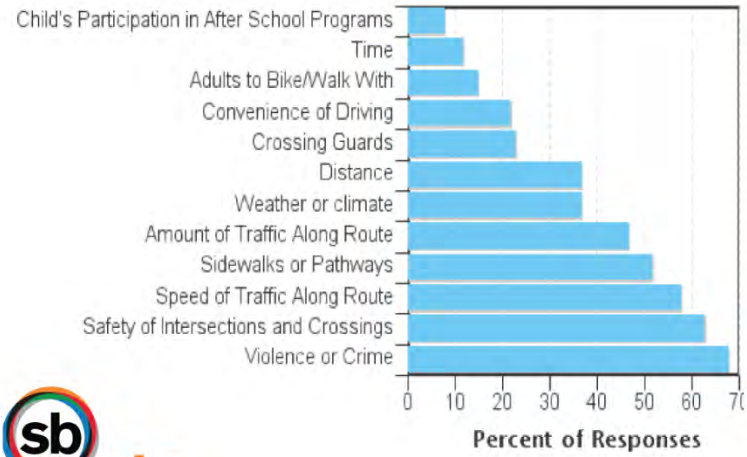
0 within 1/4 mile
10 within 1/2 mile
1 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sb cta
san bernardino county transportation authority

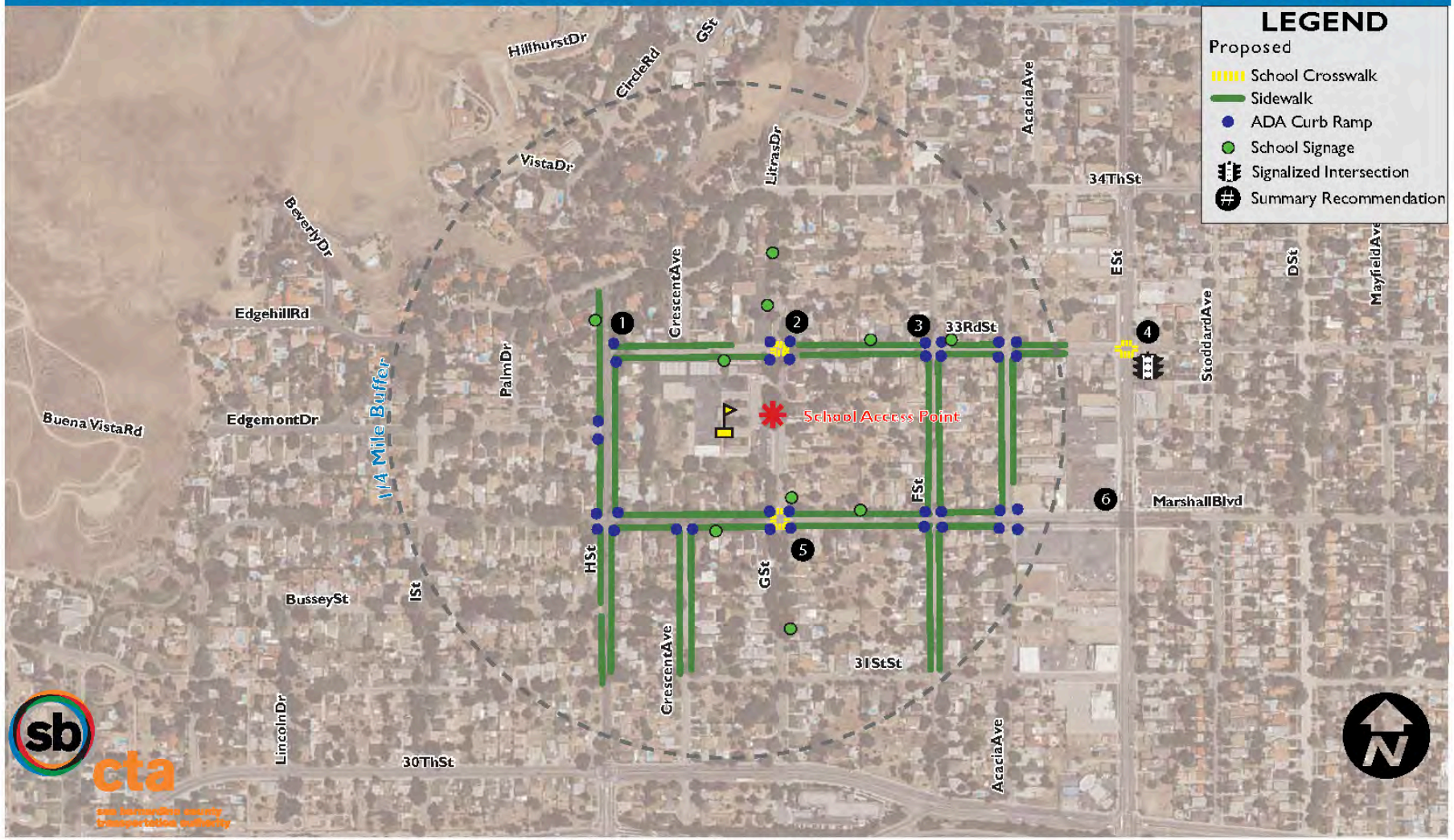
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	*afternoon*
walk	22%	22%
bike	0%	0%
bus	2%	1%
vehicle	71%	74%
carpool	4%	3%
transit	0%	0%
other	0%	0%

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

SBCTA SRTS PHASE II: *MARSHALL ELEMENTARY SCHOOL, SAN BERNARDINO*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *H Street at 33rd Street:* Install SR4-1(CA) Assembly C sign for southbound traffic.
2. *G Street at 33rd Street:* Restripe existing school crosswalks with high visibility paint (ladder style). Install SR4-1(CA) Assembly C sign for southbound traffic. Install SW24-3(CA) Assembly D sign for southbound, westbound, and eastbound traffic.
3. *F Street at 33rd Street:* Install SR4-1(CA) Assembly C sign for westbound traffic.
4. *E Street at 33rd Street:* Restripe existing school crosswalks with high visibility paint (ladder style). Install traffic signal, pending passed warrants. Install pedestrian lighting near bus stop at south leg of the intersection.
5. *G Street at Marshall Boulevard:* Restripe existing school crosswalks with high visibility paint (ladder style). Install SW24-3(CA) Assembly D signs for northbound, eastbound, and westbound traffic. Install SR4-1(CA) Assembly C sign for northbound traffic north of the intersection. .
6. *E Street at Marshall Boulevard:* Optimizesignal timing to ensure that adequate pedestrian clearance times are provided for all crossing movements.

Background/Discussion of the Engineering Improvements

	Recommendation #	Location	Improvement	Background/Discussion
Marshall Elementary School	1	H Street at 33rd Street	School signage	Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along H Street at 33rd Street, a primary walking route to school (noted during field observation).
	2	G street at 33rd Street	High visibility ladder style crosswalk and school signage	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). Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along G Street at 33rd Street, a primary walking route to school (noted during field observation).
	3	F Street at 33rd Street	Signage	Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along H Street at 33rd Street, a primary walking route to school (noted during field observation).
	4	E Street at 33rd Street	High visibility ladder style crosswalk, traffic signal (pending warrants) and pedestrian lighting	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	G Street at Marshall Boulevard	High visibility ladder style crosswalk and school signage	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). Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along G Street at Marshall Boulevard, a primary walking route to school (noted during field observation).
	6	E Street at Marshall Boulevard	Signal timing	This recommendation provides necessary gaps in traffic for pedestrians, allowing them to cross the street comfortably. Recent collision data shows a collision involving a pedestrian east of this location.
	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 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 Marshall Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
N. Acacia Ave.	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1200	$62,307
	Segment Total				**$62,307**
N. Crescent Ave.	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1200	$62,307
	Segment Total				**$62,307**
N. F St.	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	2400	$124,614
	Segment Total				**$124,614**
N. G St.	New Sign on Post	Each	$181	4	$725
	Segment Total				**$724**
N. H St.	ADA Curb Ramps	Each	$3,623	2	$7,245
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	2600	$134,999
	Segment Total				**$142,244**
W. 33rd St.	New Sign on Post	Each	$181	3	$543
	High Visibility Ladder Crosswalk	Each	$1,788	8	$14,304
	ADA Curb Ramps	Each	$3,623	14	$50,715
	Traffic Signal	Per Intersection	$332,063	1	$332,063
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	2950	$153,171
	Segment Total				**$550,796**
W. Marshall Blvd.	New Sign on Post	Each	$181	2	$362
	High Visibility Ladder Crosswalk	Each	$1,788	4	$7,152
	ADA Curb Ramps	Each	$3,623	18	$65,205
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	3000	$155,768
	Segment Total				**$228,487**
ALL SEGMENTS					**$1,171,479**

Riley Elementary School

Riley Elementary is a San Bernardino City Unified School District (SBCUSD) school located in a low-density residential neighborhood of San Bernardino. The school is situated at the intersection of 13th Street and G Street. Held on November 2nd, 2016, the Riley Elementary School walk audit took place from 10:00AM to 11:00AM, following the morning start bell. An on-campus multi-purpose room was used as the staging area for the 33 participants where briefing and de-briefing were conducted. Observations extended into the surrounding neighborhood along G Street, H Street, Baseline Road, 13th Street, and Berkeley Avenue.

"It is too dangerous around the neighborhood to allow students to walk. We have experienced some tragic incidents in our family."

"I have two children that walked most of the time in 8th grade and through 11th grade, but I still worry about violence and the lack of crossing guards in the area."

"Parents that are dropping off their children do not respect the all-way stop controlled intersections and put children's lives at risk."

All remarks received from walk audit participants at Riley Elementary

SafeRoutes
National Center for Safe Routes to School

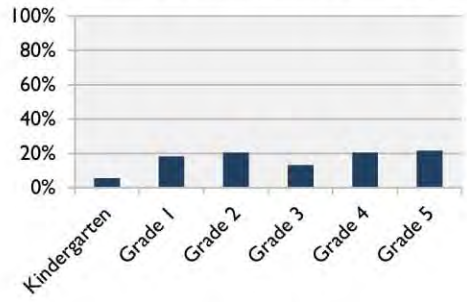
Number of Surveys Received	195

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

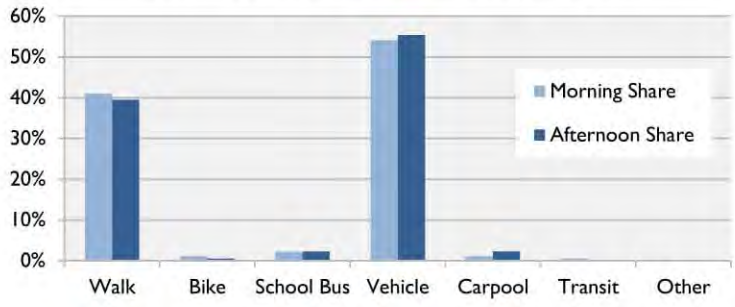
Surveys were printed on two-page forms and distributed to parents to take home. Tally data are not available for this school.

Students who walk or bike to school	**11.5%**
Students who don't walk/bike but have asked parents for permission	**+ 29.1%**
Students who walk/bike or have asked parents for permission	**40.7%**
Student enrollment	**x 620**
Potential walking/biking student base	**252**

Grade Distribution of Surveys

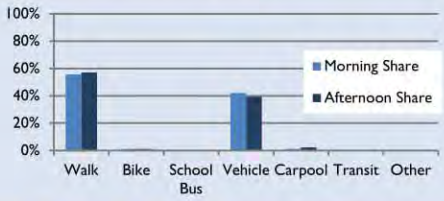


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

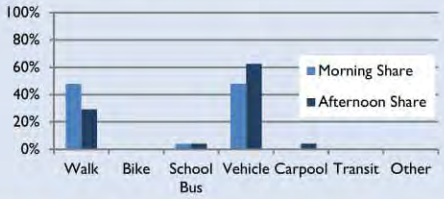
56%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 68%
Safety of Intersections & Crossings – 59%
Speed of Traffic Along Route – 54%
Distance – 48%
Weather or Climate – 47%

Students Living Between ¼ and ½ Mile from School

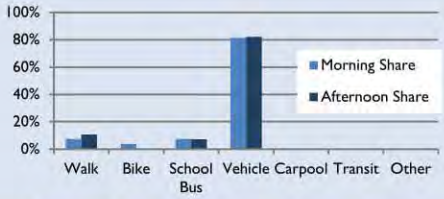
15%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 64%
Speed of Traffic Along Route – 60%
Weather or Climate – 40%
Distance – 36%
Time – 36%

Students Living Between ½ and 1 Mile from School

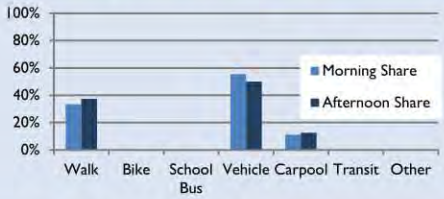
17%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 76%
Safety of Intersections & Crime – 59%
Distance – 52%
Speed of Traffic Along Route – 52%
Weather or Climate – 52%

Students Living Between 1 and 2 Miles from School

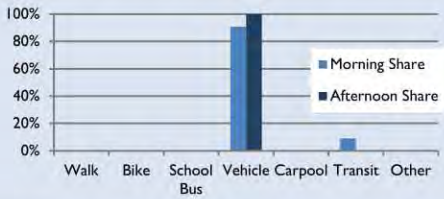
5%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 78%
Violence or Crime – 78%
Convenience of Driving – 67%
Time – 67%
Speed of Traffic Along Route – 67%

Students Living Farther than 2 Miles from School

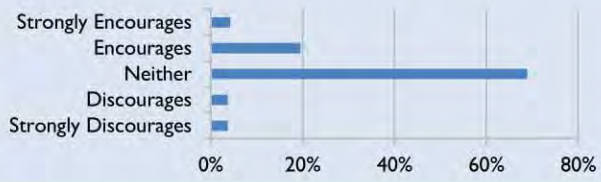
7%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 91%
Violence or Crime – 64%
Time – 55%
Speed of Traffic Along Route – 55%
Amount of Traffic Along Route – 36%

Parents' Perspectives

Whether School Encourages Walking/Biking



75%
consider walking/biking healthy or very healthy.

71%
would not feel comfortable having their child walk/bike at any age with current conditions.

RILEY ELEMENTARY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of San Bernadino
School Enrollment - 620
Free or Reduced Lunch - 97.4%

Environmental Indicators:

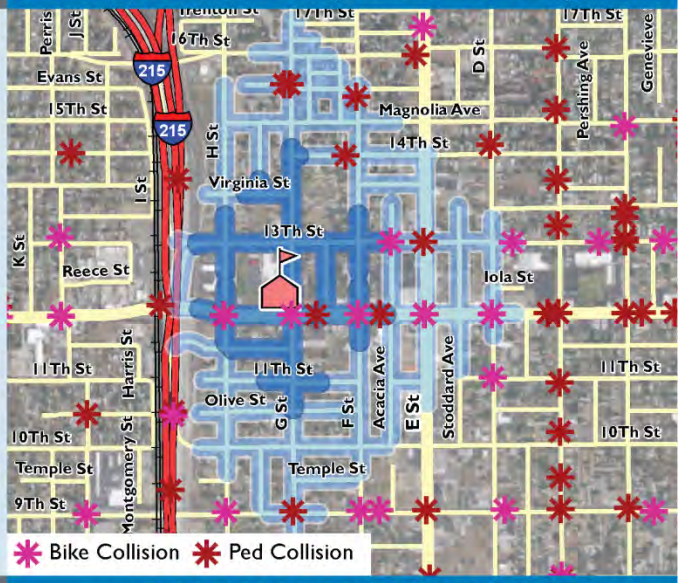
Cal Enviro Score % Range - 96-100%
Cal Enviro Score (CES2.0*) - 64.69

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

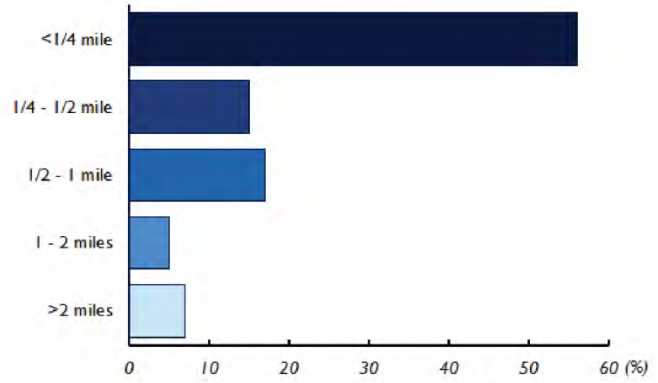
Walk Audit Highlights

of Walk Audit Participants - 33
# of Surveys Received - 195

WALKSHED *(1/4 and 1/2 mile)*



COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

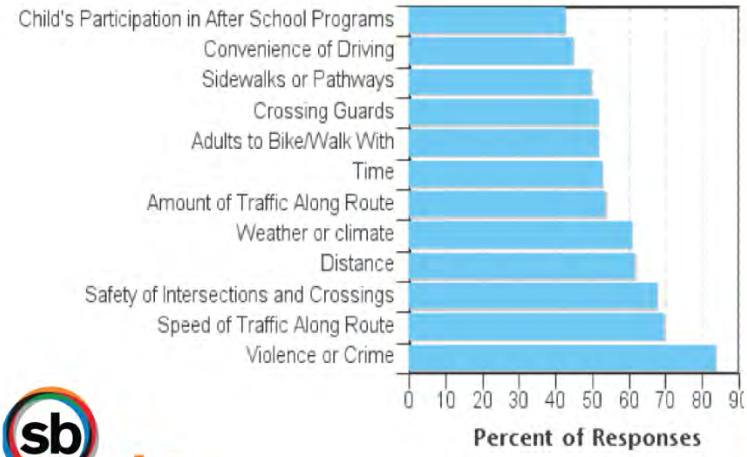
8 within 1/4 mile
23 within 1/2 mile
1 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sbcta
san bernardino county transportation authority

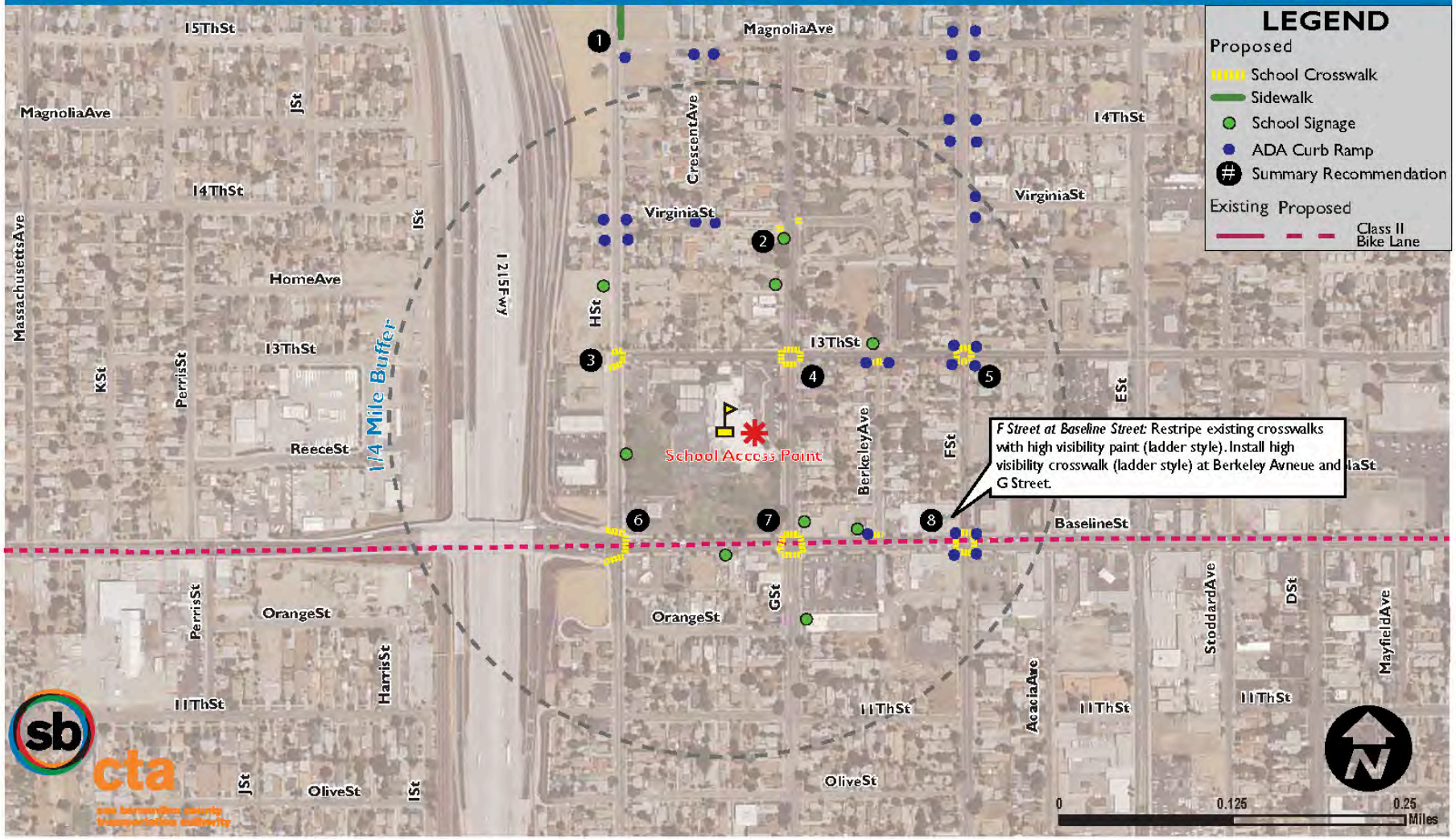
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	41%	40%
bike	1%	0.6%
bus	2%	2%
vehicle	54%	55%
carpool	1%	2%
transit	0.5%	0%
other	0%	0%

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

SBCTA SRTS PHASE II: *RILEY ELEMENTARY SCHOOL, SAN BERNARDINO*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *H Street at Magnolia Avenue:* Install sidewalk on east side of roadway from this location to intersction of H Street and 16th Street to close gap in existing sidewalk network.
2. *G Street at Virginia Street:* Install high visibility school crosswalks (ladder style) at the west and east legs of the intersection. Install SR4-1(CA) Assembly C sign for southbound traffic. Install SW24-3(CA) Asssembly D sign for southbound traffic.
3. *H Street at 13th Street:* Restripe existing crosswalks with high visibility paint (ladder style).
4. *G Street at 13th Street:* Restripe existing school crosswalks with high visibility paint (ladder style). Install SW24-3(CA) Assembly D sign for westbound traffic. Install high visibility crosswalk (ladder style) at Berkeley Avenue.
5. *F Street at 13th Street:* Install high visibility school crosswalks (ladder style) at this location.
6. *Baseline Street at H Street:* Restripe existing crosswalks with high visibility paint (ladder style). Improve traffic signal timing to provide adequate pedestrian clearance times for all crossings.
7. *Baseline Street at G Street:* Restripe existing school crosswalks with high visibility paint (ladder style). Improve traffic signal timing to provide adequate pedestrian clearance times for all crossings. Traffic signal modification plan needed for ADA compliance. Install SW24-3(CA) Assembly D signs for northbound, eastbound, and westbound traffic. Install SR4-1(CA) Assembly C sign for northbound traffic at north leg.

Background/Discussion of the Engineering Recommendations

Riley Elementary School

Recommendation #	Location	Improvement	Background/Discussion
1	H Street at Magnolia Avenue	Sidewalk	See below, "General - sidewalks." In this instance, applicable outside of the 1/4 mile radius.
2	G Street at Virginia Street	High visibility ladder style crosswalk and school signage	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). Adherence to MUTCD Part 7 guidelines to increase driver awareness of G Street at Virginia Street crossing.
3	H Street at 13th Street	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).
4	G Street at 13th Street	High visibility ladder style crosswalk and school signage	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). Adherence to MUTCD Part 7 guidelines to increase driver awareness of G Street at 13th Street crossing.
5	F Street at 13th Street	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).
6	Baseline Street at H Street	High visibility ladder style crosswalk and traffic signal timing	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). Signal timing improvement is recommended due to comments made from the walk audit and a pedestrian accident at the intersection.
7	Baseline Street at G Street	High visibility ladder style crosswalk, school signage, traffic signal modification/timing, and ADA compliance	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). Adherence to MUTCD Part 7 guidelines to increase driver awareness of G Street at Virginia Street crossing. Signal hardware and timing review is recommended due to comments made from the walk audit and multiple pedestrian/bicycle accidents at this intersection. See below, "General - ADA curb ramps."
8	F Street at Baseline Street	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).
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 Riley Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
H St.	New Sign on Post	Each	$181	2	$362
	ADA Curb Ramps	Each	$3,623	5	$18,113
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	650	$33,750
	Segment Total				**$52,224**
N Cres Ave.	ADA Curb Ramps	Each	$3,623	4	$14,490
	Segment Total				**$14,490**
N F St.	High Visibility Ladder Crosswalk	Each	$1,788	8	$14,304
	ADA Curb Ramps	Each	$3,623	18	$65,205
	Segment Total				**$79,509**
N G St.	New Sign on Post	Each	$181	4	$725
	High Visibility Ladder Crosswalk	Each	$1,788	2	$3,576
	Segment Total				**$4,300**
W 13th St.	New Sign on Post	Each	$181	1	$181
	High Visibility Ladder Crosswalk	Each	$1,788	8	$14,304
	ADA Curb Ramps	Each	$3,623	2	$7,245
	Segment Total				**$21,730**
W Baseline St.	New Sign on Post	Each	$181	2	$362
	High Visibility Ladder Crosswalk	Each	$1,788	8	$14,304
	ADA Curb Ramps	Each	$3,623	1	$3,623
	Segment Total				**$18,289**
ALL SEGMENTS					**$190,542**

Hillside Elementary School

Hillside Elementary School is a San Bernardino City Unified School District (SBCUSD) school located in a low-density residential neighborhood of San Bernardino. The school is situated at the intersection of Mayfield Avenue and West 49th Street. The walk audit at Hillside Elementary School took place on October 25th, 2016 from 9:00AM to 10:00AM, following the morning start bell. Participants were briefed and debriefed in the on-campus multi-purpose room, which served as the staging area for the event. There were a total of nine participants, who along with SRTS team members made observations of Electric Avenue, Mayfield Avenue, 49th Street, Sequoia Street, Northpark Boulevard, and 48th Street.

"I used to walk my four kids to school but stopped after almost being hit by a car on 48th Street and Mayfield Avenue. The traffic does not stop to allow anyone to cross; it is dangerous!"

"San Bernardino is too dangerous to have any child out without any adult supervision. Too many crimes and child abuse/abductions happen to encourage children to walk without supervision. There are too many crazy drivers to allow a child to ride a bike in the street to school."

"I do not let my child walk because it's too far and they are too young at this time."

All remarks received from walk audit participants at Hillside Elementary

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	268
Number of Tallies	698
» Morning (To School)	373
» Afternoon (From School)	325

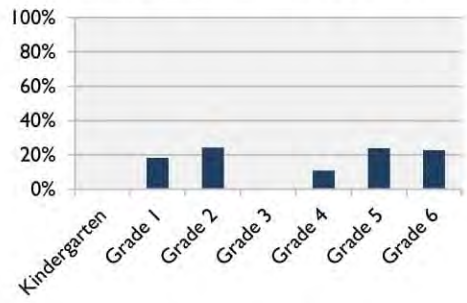
Number of Surveys Received	129

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

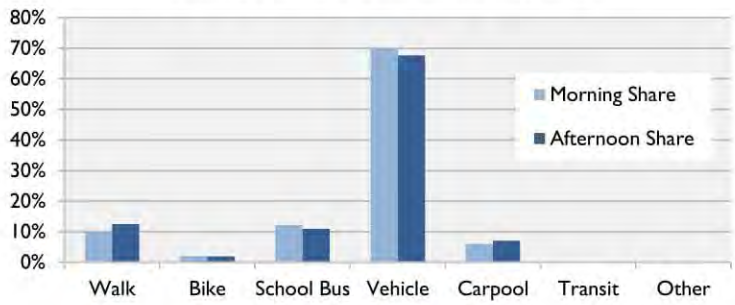
Tallies were conducted by teachers in 10 classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to take home.

Students who walk or bike to school	**13.4%**
Students who don't walk/bike but have asked parents for permission	**+ 37.0%**
Students who walk/bike or have asked parents for permission	**50.4%**
Student enrollment	**x 745**
Potential walking/biking student base	**375**

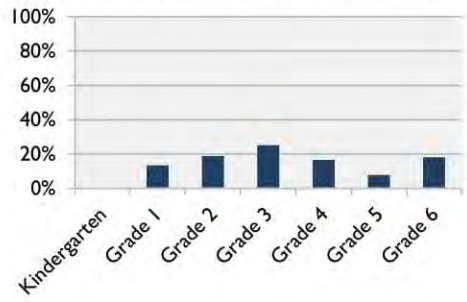
Grade Distribution of Tallies



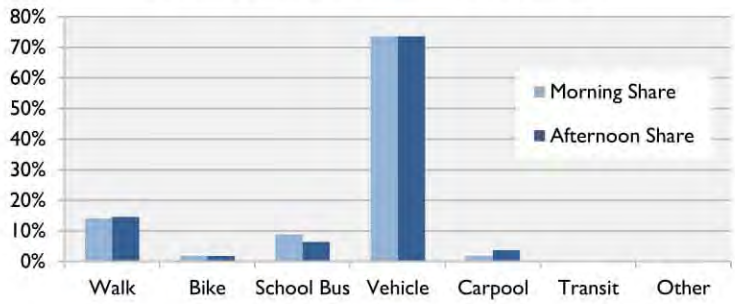
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

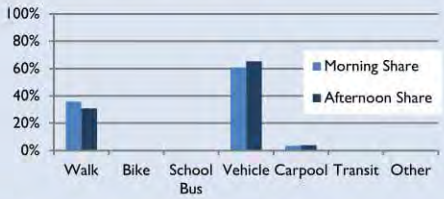


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

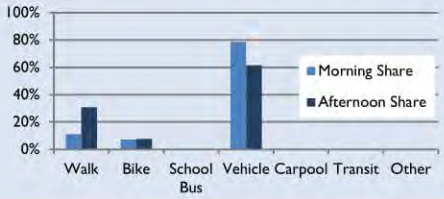
27%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 42%
Speed of Traffic Along Route – 29%
Safety of Intersections & Crossings – 26%
Amount of Traffic Along Route – 23%
Distance – 13%

Students Living Between ¼ and ½ Mile from School

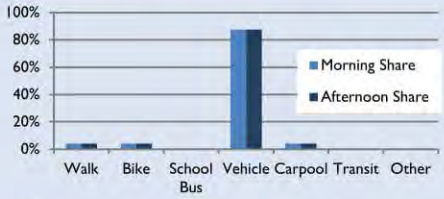
15%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 28%
Safety of Intersections & Crossings – 22%
Amount of Traffic Along Route – 17%
Violence or Crime – 17%
Distance – 11%

Students Living Between ½ and 1 Mile from School

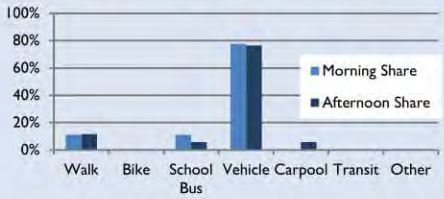
21%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 52%
Safety of Intersections & Crossings – 40%
Weather or Climate – 32%
Speed of Traffic Along Route – 24%
Sidewalks or Pathways – 24%

Students Living Between 1 and 2 Miles from School

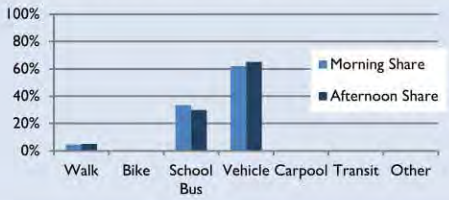
15%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 56%
Violence or Crime – 56%
Speed of Traffic Along Route – 39%
Safety of Intersections & Crossings – 33%
Participation in After-School – 28%

Students Living Farther than 2 Miles from School

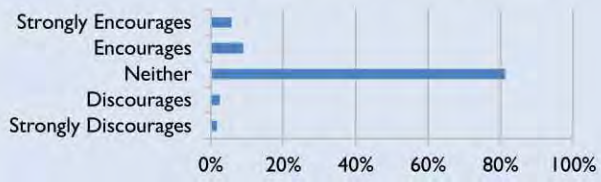
21%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 72%
Violence or Crime – 56%
Safety of Intersections & Crossings – 48%
Weather or Climate – 48%
Speed of Traffic Along Route – 44%

Parents' Perspectives

Whether School Encourages Walking/Biking



85%
consider walking/biking healthy or very healthy.

61%
would not feel comfortable having their child walk/bike at any age with current conditions.

HILLSIDE ELEMENTARY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of San Bernardino
School Enrollment - 745
Free or Reduced Lunch - 84.70%

Environmental Indicators:

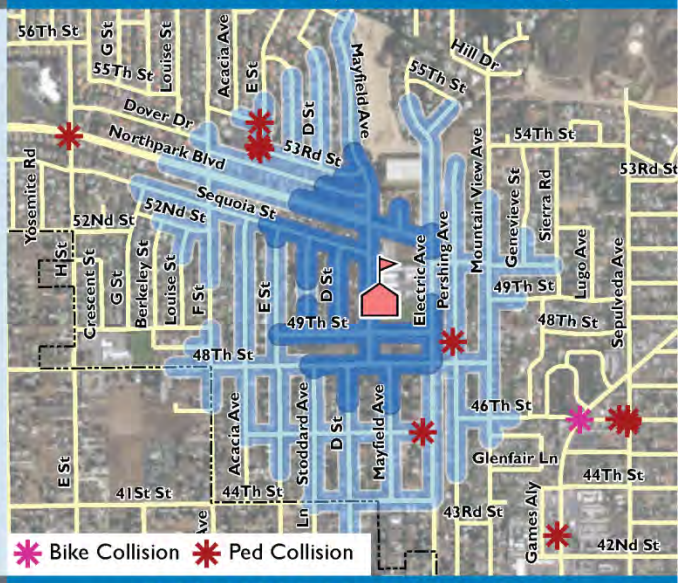
Cal Enviro Score % Range - 66-70%
Cal Enviro Score (CES2.0*) - 31.17

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

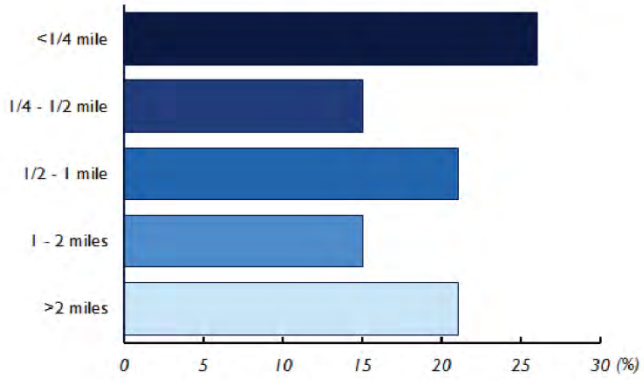
Walk Audit Highlights

of Walk Audit Participants - 9
# of Surveys Received - 129

WALKSHED *(1/4 and 1/2 mile)*



COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

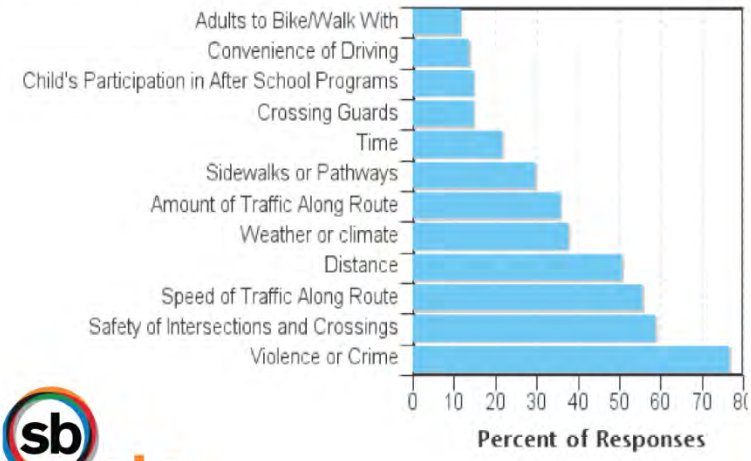
1 within 1/4 mile
6 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



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

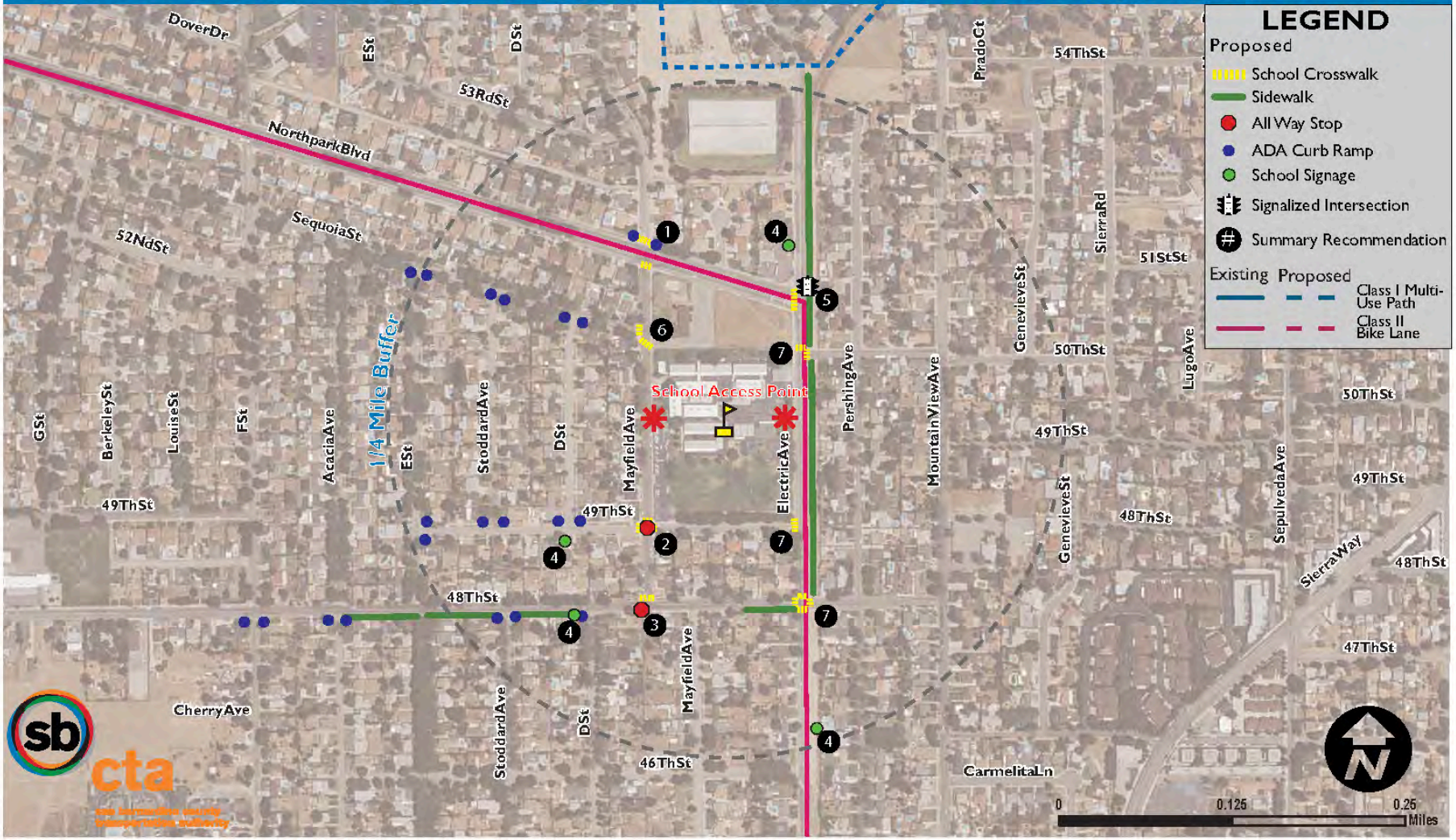
TRAVEL MODE BEHAVIOR

	morning	*afternoon*
walk	14%	15%
bike	2%	2%
bus	9%	6%
vehicle	74%	74%
carpool	2%	4%
transit	0%	0%
other	0%	0%

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

sbcta
san bernardino county transportation authority

SBCTA SRTS PHASE II: *HILLSIDE ELEMENTARY SCHOOL, SAN BERNARDINO*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Northpark Boulevard and Mayfield Avenue:* Install high visibility ladder style crosswalks along the north and south legs of the intersection. Install ADA compliant curb ramps on the NE and NW curbs.
2. *Mayfield Avenue and 49th Street:* Install high visibility ladder style crosswalks along the north, east, and west legs. Install an all way stop controlled intersection, pending passed warrants.
3. *Mayfield Avenue and 48th Street:* Install high visibility ladder style crosswalks along the north legs. Install an all way stop controlled intersection, pending passed warrants.
4. Install SW24-3(CA) Assembly D school signage as follows: Electric Avenue signs for northbound and southbound traffic; 48th Street facing for eastbound traffic; 49th Street for eastbound traffic.
5. *Electric Avenue and Northpark Boulevard:* Install signalized intersection, pending passed warrants. Install high visibility ladder style crosswalks along the west leg of the intersection
6. *Mayfield Avenue and Sequoia Street:* Restripe existing high visibility ladder style crosswalks along the south and west legs of the intersection.
7. *Electric Avenue:* Install high visibility ladder style crosswalks along designated locations to connect to sidewalk network within the school area.

Background/Discussion of the Engineering Improvements

	Recommendation #	Location	Improvement	Background/Discussion
Hillside Elementary School	1	**Northpark Boulevard and Mayfield Avenue**	High visibility crosswalks, ADA curb ramps	High visibility crosswalks provide a clearer path for pedestrians along this primary walking route to school. See item below, "General - ADA curb ramp."
	2	**Mayfield Avenue and 49th Street**	High visibility crosswalks, All Way Stop Control	High visibility crosswalks provide a clearer path for pedestrians along this primary walking route to school. All way stop control (pending warrants) may provide necessary gaps in traffic for pedestrians to cross at this location which is nearby the school. The proposed stop control may also address speeding in the area by naturally slowing down vehicular traffic at this location.
	3	**Mayfield Avenue and 48th Street**	High visibility crosswalks, All Way Stop Control	High visibility crosswalks provide a clearer path for pedestrians along this primary walking route to school. All way stop control (pending warrants) may provide necessary gaps in traffic for pedestrians to cross at this location which is nearby the school. The proposed stop control may also address speeding in the area by naturally slowing down vehicular traffic at this location.
	4	**Electric Avenue**	School signage, Sidewalk	School signage can increase driver awareness of pedestrian crossings in the area, per CA MUTCD Part 7 standards. See item below, "General - Sidewalk."
	5	**Electric Avenue and Northpark Boulevard**	Traffic Signal, High visibility crosswalks	High visibility crosswalks provide a clearer path for pedestrians along this primary walking route to school. A traffic signal (pending warrants) can provide necessary gaps in traffic for pedestrians to cross at this location which is nearby the school. The proposed signalized control may also address speeding in the area by naturally slowing down vehicular traffic at this location. With this implemented, pedestrian clearance times and pedestrian signal infrastructure (push buttons and countdown signal heads) will create an inclusive environment for pedestrians, vehicles, and bicycles alike.
	6	**Mayfield Avenue and Sequoia Street**	High visibility crosswalks	High visibility crosswalks provide a clearer path for pedestrians along this primary walking route to school.
	7	**Electric Avenue**	High visibility crosswalks, Sidewalk	High visibility crosswalks provide a clearer path for pedestrians along this primary walking route to school. See item below, "General - Sidewalk."
	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 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 Hillside Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Electric Ave.	New Sign on Post	Each	$181	2	$362
	High Visibility Ladder Crosswalk	Each	$1,788	4	$7,152
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	2000	$103,845
	Segment Total				**$111,359**
Mayfield Ave.	New Sign on Post	Each	$181	4	$725
	School Area Pavement Marking (Per Word)	Each	$254	4	$1,014
	High Visibility Ladder Crosswalk	Each	$1,788	8	$14,304
	ADA Curb Ramps	Each	$3,623	2	$7,245
	Segment Total				**$23,288**
Sequoia St.	ADA Curb Ramps	Each	$3,623	6	$21,735
	Segment Total				**$21,735**
48th St.	New Sign on Post	Each	$181	5	$906
	School Area Pavement Marking (Per Word)	Each	$254	4	$1,014
	High Visibility Ladder Crosswalk	Each	$1,788	5	$8,940
	ADA Curb Ramps	Each	$3,623	7	$25,358
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1150	$59,711
	Segment Total				**$95,928**
49th St.	New Sign on Post	Each	$181	1	$181
	ADA Curb Ramps	Each	$3,623	6	$21,735
	Segment Total				**$21,916**
ALL SEGMENTS					**$274,226**

City of Twentynine Palms

Palm Vista Elementary School

Palm Vista Elementary School is a Morongo Unified School District (MUSD) school located in a sparsely-developed rural area of Twentynine Palms, California. The school is positioned along Baseline Road just west of the intersection with Utah Trail. The walk audit performed at Palm Vista Elementary School was held on May 23rd, 2016 from 9:45AM to 10:45AM. An on-campus multi-purpose room was used as the staging area for the six participants where briefing and de-briefing were conducted. Observations extended into the surrounding neighborhood along Baseline Road, Utah Trail, Serrano Drive, and Star Avenue.

"Due to the local climate, speed limits of 50 mph, and the lack of signals or sidewalk, my child would not be allowed to walk, bike, or travel by any means other than parent drop-off/pick-up. Drivers do not yield to crossing children and do not pay attention."

"I have always wished that we had sidewalks or bike paths to use for a healthier life style and increased safety at intersections while crossing."

All remarks received from walk audit participants at Palm Vista Elementary

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	347
Number of Tallies	1,669
» Morning (To School)	836
» Afternoon (From School)	833

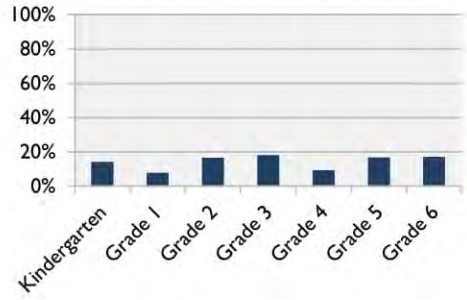
Number of Surveys Received	71

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

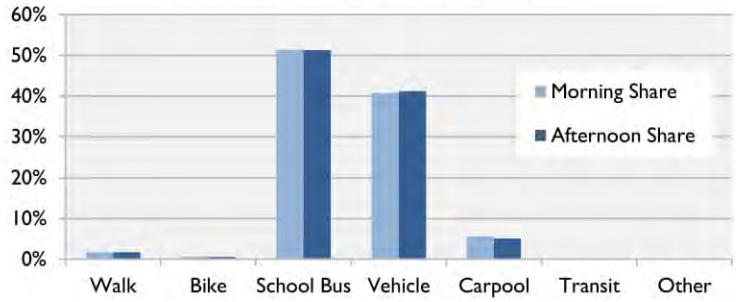
Tallies were conducted by teachers in 13 classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to take home.

Students who walk or bike to school	**2.8%**
Students who don't walk/bike but have asked parents for permission	**+ 23.9%**
Students who walk/bike or have asked parents for permission	**26.8%**
Student enrollment	**x 416**
Potential walking/biking student base	**111**

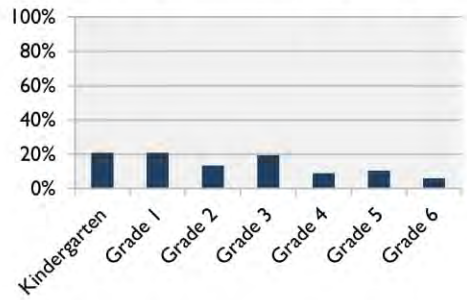
Grade Distribution of Tallies



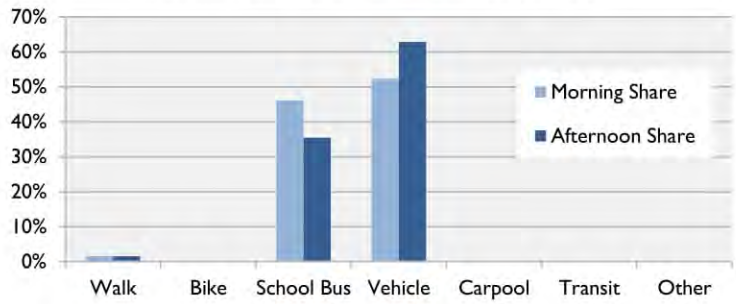
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

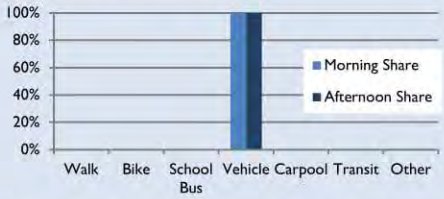


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

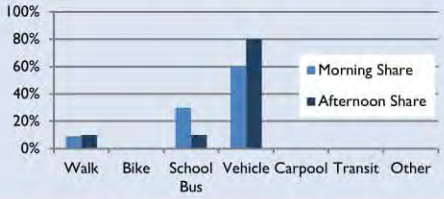
3%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 100%
Time – 100%
Speed of Traffic Along Route – 100%
Amount of Traffic Along Route – 100%
Adults to Walk/Bike With – 100%

Students Living Between ¼ and ½ Mile from School

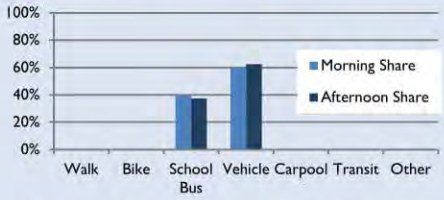
17%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Sidewalks or Pathways – 73%
Safety of Intersections & Crossings – 55%
Distance – 45%
Speed of Traffic Along Route – 45%
Convenience of Driving – 36%

Students Living Between ½ and 1 Mile from School

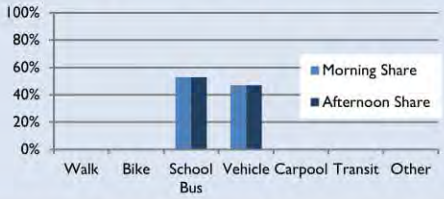
17%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 82%
Safety of Intersections & Crossings – 64%
Amount of Traffic Along Route – 55%
Sidewalks or Pathways – 55%
Distance – 27%

Students Living Between 1 and 2 Miles from School

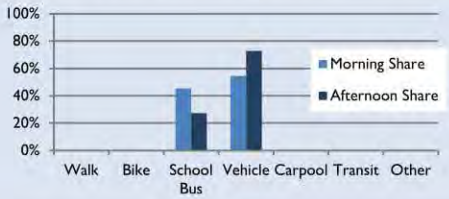
27%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 61%
Safety of Intersections & Crossings – 56%
Weather or Climate – 56%
Amount of Traffic Along Route – 50%
Sidewalks or Pathways – 50%

Students Living Farther than 2 Miles from School

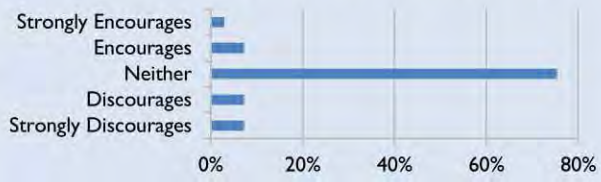
36%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 75%
Sidewalks or Pathways – 42%
Safety of Intersections & Crossings – 38%
Speed of Traffic Along Route – 33%
Weather or Climate – 33%

Parents' Perspectives

Whether School Encourages Walking/Biking



78%
consider walking/biking healthy or very healthy.

58%
would not feel comfortable having their child walk/bike at any age with current conditions.

PALM VISTA ELEMENTARY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Twentynine Palms

School Enrollment - 416

Free or Reduced Lunch - 75.90%

Environmental Indicators:

Cal Enviro Score % Range - 36-40%

Cal Enviro Score (CES2.0*) - 19.53

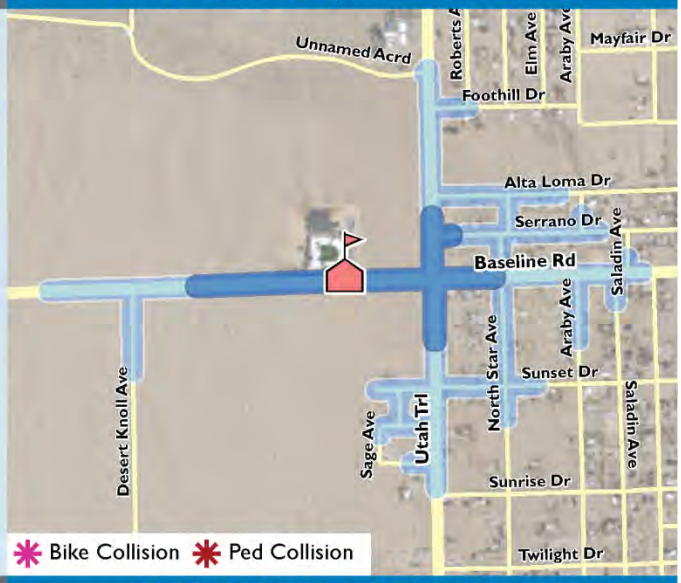
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

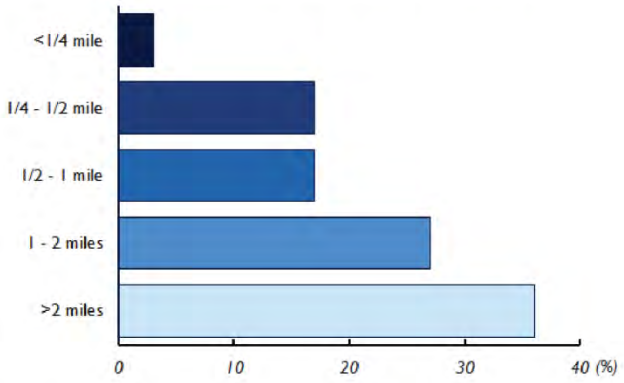
of Walk Audit Participants - 6

# of Surveys Received - 71

WALKSHED *(1/4 and 1/2 mile)*



COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

0 within 1/4 mile

0 within 1/2 mile

0 fatal within (1/2 mile)

Bicyclist Related Collisions

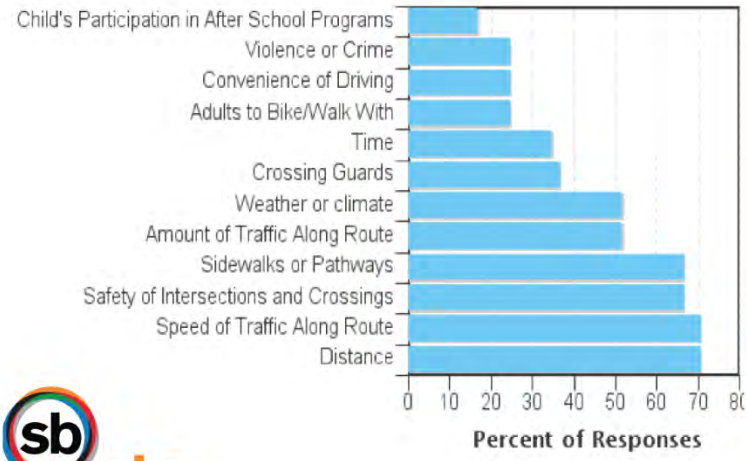
0 within 1/4 mile

0 within 1/2 mile

0 fatal within (1/2 mile)

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sbcta
san bernardino county transportation authority

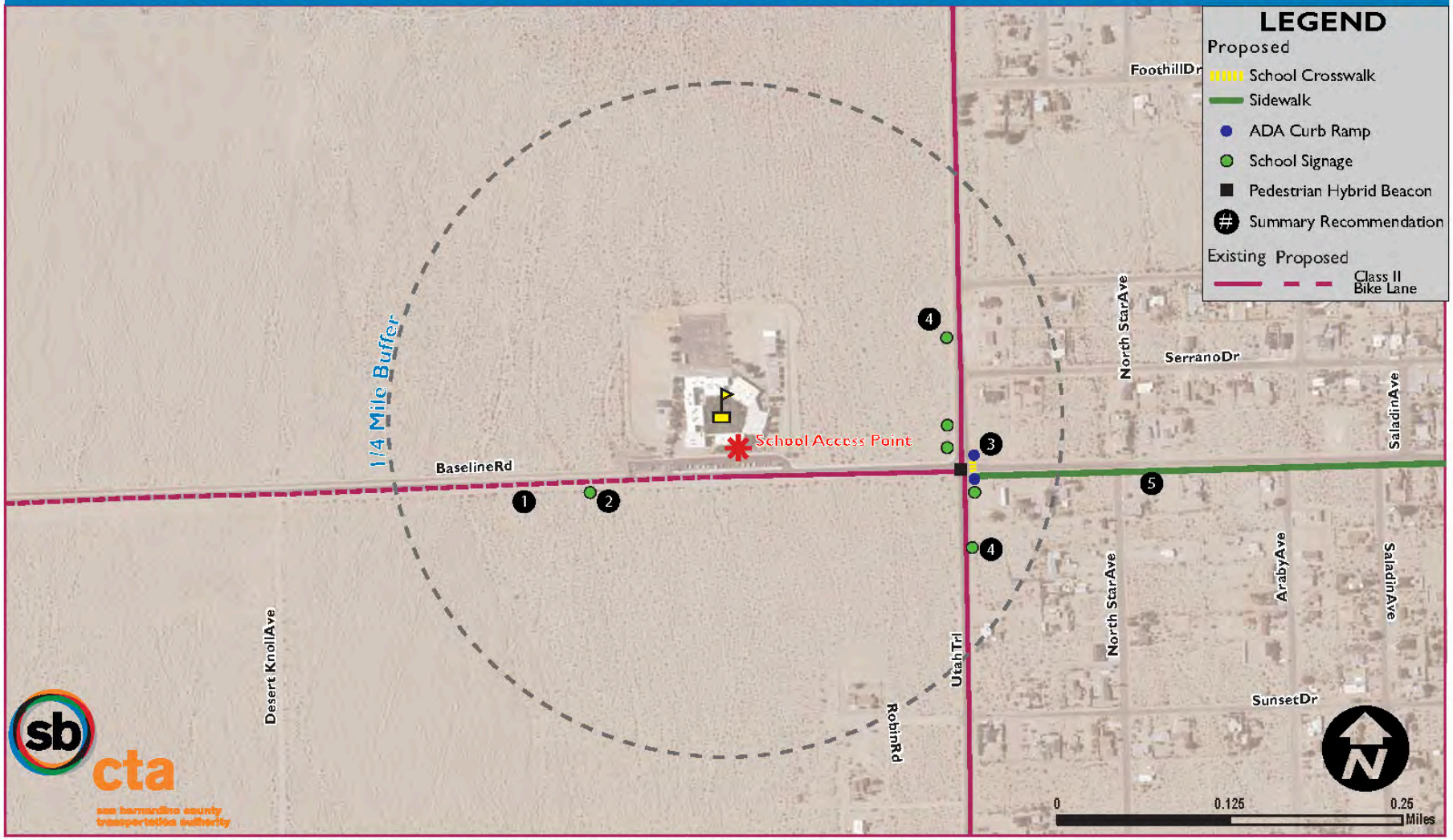
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	2%	2%
bike	0%	0%
bus	46%	35%
vehicle	52%	63%
carpool	0%	0%
transit	0%	0%
other	0%	0%

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

SBCTA SRTS PHASE II: *PALM VISTA ELEMENTARY SCHOOL, TWENTYNINE PALMS*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Baseline Road:* Install multi-use path in place where existing path is located, complete with street trees and lighting.
2. *Baseline Road:* Install SR4-1(CA) Assembly C sign for eastbound traffic.
3. *Baseline Road and Utah Trail:* Install high visibility ladder style crosswalk for school access on the east leg of the intersection. Install ADA compliant curb ramps on the NE and SE corners to connect sidewalk and crossing network. Upgrade existing flashing beacon to push button activated and upgrade to SW24-2(CA) Assembly B signs. Coordinate the system with the advanced warning beacons as well. Install R1-5 signs with yield lines for northbound and soutbound traffic.
4. *Baseline Road and Utah Trail:* Install solar flashing beacon with SW24-3(CA) Assembly D to coordinate with mast arm flashing beacon at intersection #3 for northbound and southbound traffic.
5. *Baseline Road:* Install curb, gutter, and sidewalk along south side of Baseline Road from Utah Trail to Bedouin Avenue.

Background/Discussion of the Engineering Recommendations

	Recommendation #	Location	Improvement	Background/Discussion
Palm Vista Elementary School	1	**Baseline Road**	Multi use path	Improvements are along a primary walking route to and from school. The multi use path with allow for both pedestrians and bicyclists to access the school safely.
	2	**Baseline Road**	School signage	Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along Baseline Road, a primary walking route to school (noted during field observation).
	3	**Baseline Road and Utah Trail**	High visibility ladder style crosswalk, flasher beacon and school signage	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). Adherence to MUTCD Part 7 guidelines to increase driver awareness of Baseline Road and Utah Trail crossing.
	4	**Baseline Road and Utah Trail**	Solar flashing beacon	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).
	5	**Baseline Road**	Sidewalk with curb and gutter	See below, "General - sidewalks."
	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 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 Palm Vista Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Baseline Rd.	Roadway Lighting (1 side of road)	Per Linear Foot	$102	3518	$358,836
	Dashed 4" Yellow Centerline Stripe (Detail 2)	Per Linear Foot	$2	3518	$6,372
	New Sign on Post	Each	$181	2	$362
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	3518	$182,663
	Segment Total				**$548,234**
Utah Trail	Pedestrian Flashing Beacon (Post/Pole Mount)	Each	$9,056	2	$18,113
	In-Road Flashers Crosswalk	Each	$66,413	1	$66,413
	New Sign on Post	Each	$181	2	$362
	ADA Curb Ramps	Each	$3,623	2	$7,245
	Segment Total				**$92,132**
ALL SEGMENTS					**$640,366**

Oasis Elementary School

Oasis Elementary School is a Morongo Unified School District (MUSD) school located in a sparsely-developed residential neighborhood of Twentynine Palms, California. The school is located on El Paseo Drive west of the intersection with Split Rock Avenue. The Oasis Elementary School walk audit took place on May 16, 2016 from 3:00PM to 4:00PM, following the afternoon release bell ringing. The grassy quad open space was used as the staging area for the five participants where briefing and de-briefing were conducted. Observations extended into the surrounding neighborhood along El Paseo Drive, Split Rock Avenue, Mesquite Springs Road, and Hillside Avenue.

"I would let my kids walk home but the traffic doesn't stop when trying to cross the street."

"The only reason my children do not walk to school is that there are no crossing guards by our house. The cars go too fast and they sometimes run the stop sign."

"There are no sidewalks and the weather is too extreme to be walking."

All remarks received from walk audit participants at Oasis Elementary

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	354
Number of Tallies	1,673
» Morning (To School)	878
» Afternoon (From School)	795

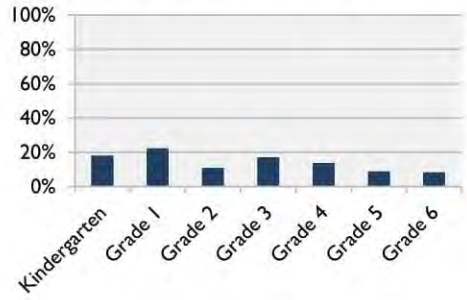
Number of Surveys Received	238

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

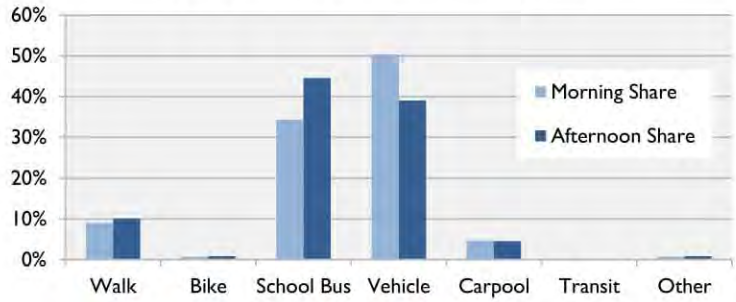
Tallies were conducted by teachers in15 classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to take home.

Students who walk or bike to school	**8.7%**
Students who don't walk/bike but have expressed interest	**+ 23.9%**
Students who walk/bike or have expressed interest	**32.6%**
Student enrollment	**x 573**
Potential walking/biking student base	**187**

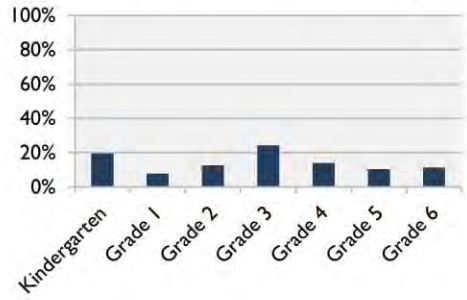
Grade Distribution of Tallies



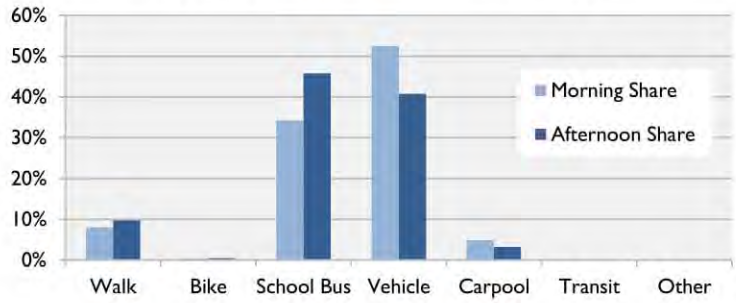
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

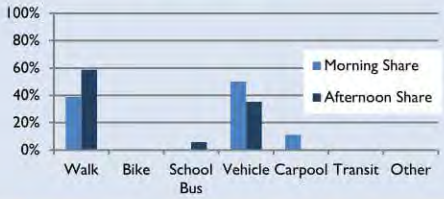


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

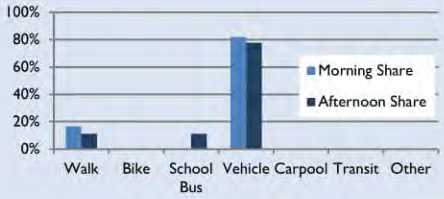
9%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 40%
Speed of Traffic Along Route – 30%
Amount of Traffic Along Route – 30%
Crossing Guards – 30%
Violence or Crime – 25%

Students Living Between ¼ and ½ Mile from School

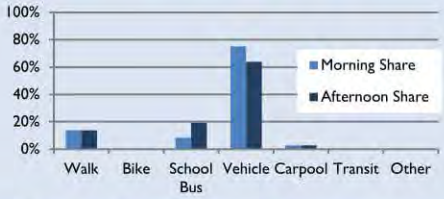
9%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Amount of Traffic Along Route – 58%
Distance – 42%
Speed of Traffic Along Route – 42%
Safety of Intersections & Crossings – 42%
Crossing Guards – 42%

Students Living Between ½ and 1 Mile from School

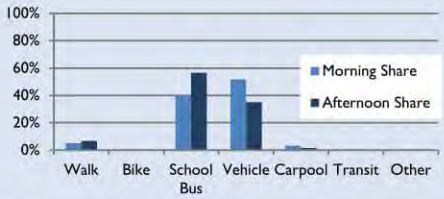
18%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 44%
Weather or Climate – 36%
Safety of Intersections & Crossings – 31%
Distance – 28%
Sidewalks or Pathways – 28%

Students Living Between 1 and 2 Miles from School

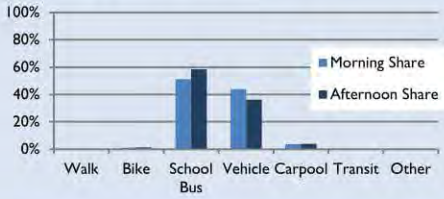
28%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 71%
Distance – 61%
Speed of Traffic Along Route – 61%
Sidewalks or Pathways – 61%
Amount of Traffic Along Route – 58%

Students Living Farther than 2 Miles from School

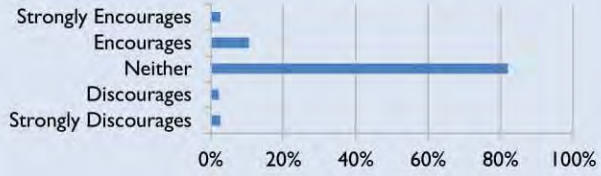
39%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 61%
Speed of Traffic Along Route – 47%
Sidewalks or Pathways – 45%
Safety of Intersections & Crossings – 41%
Amount of Traffic Along Route – 40%

Parents' Perspectives

Whether School Encourages Walking/Biking



72%
consider walking/biking healthy or very healthy.

54%
would not feel comfortable having their child walk/bike at any age with current conditions.

OASIS ELEMENTARY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Twentynine Palms

School Enrollment - 573

Free or Reduced Lunch - 68.70%

Environmental Indicators:

Cal Enviro Score % Range - 36-40%

Cal Enviro Score (CES2.0*) - 19.53

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

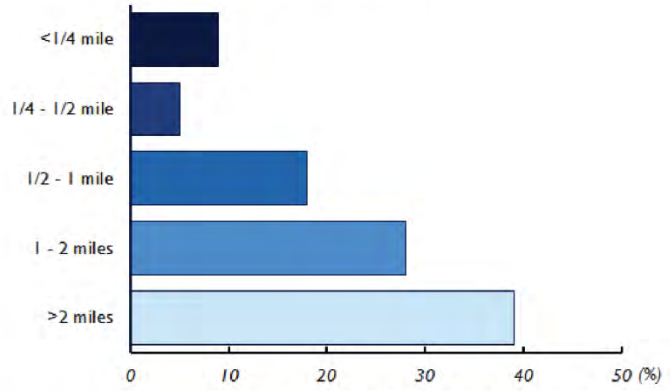
Walk Audit Highlights

of Walk Audit Participants - 5

# of Surveys Received - 238

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

1 within 1/4 mile

1 within 1/2 mile

0 fatal within (1/2 mile)

Bicyclist Related Collisions

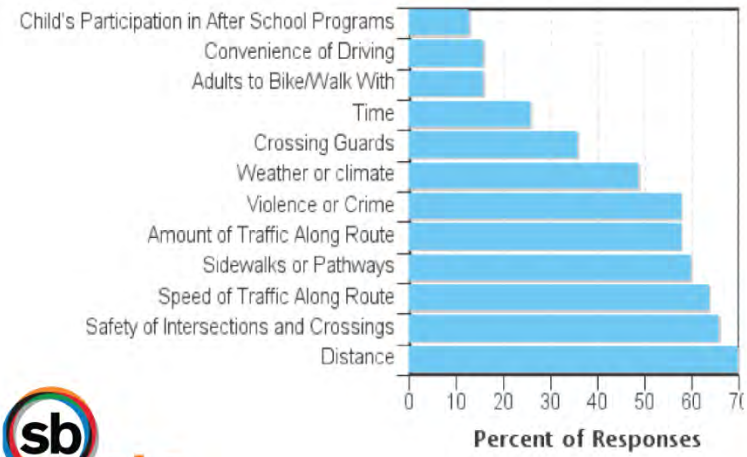
0 within 1/4 mile

0 within 1/2 mile

0 fatal within (1/2 mile)

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sbcta
san bernardino county transportation authority

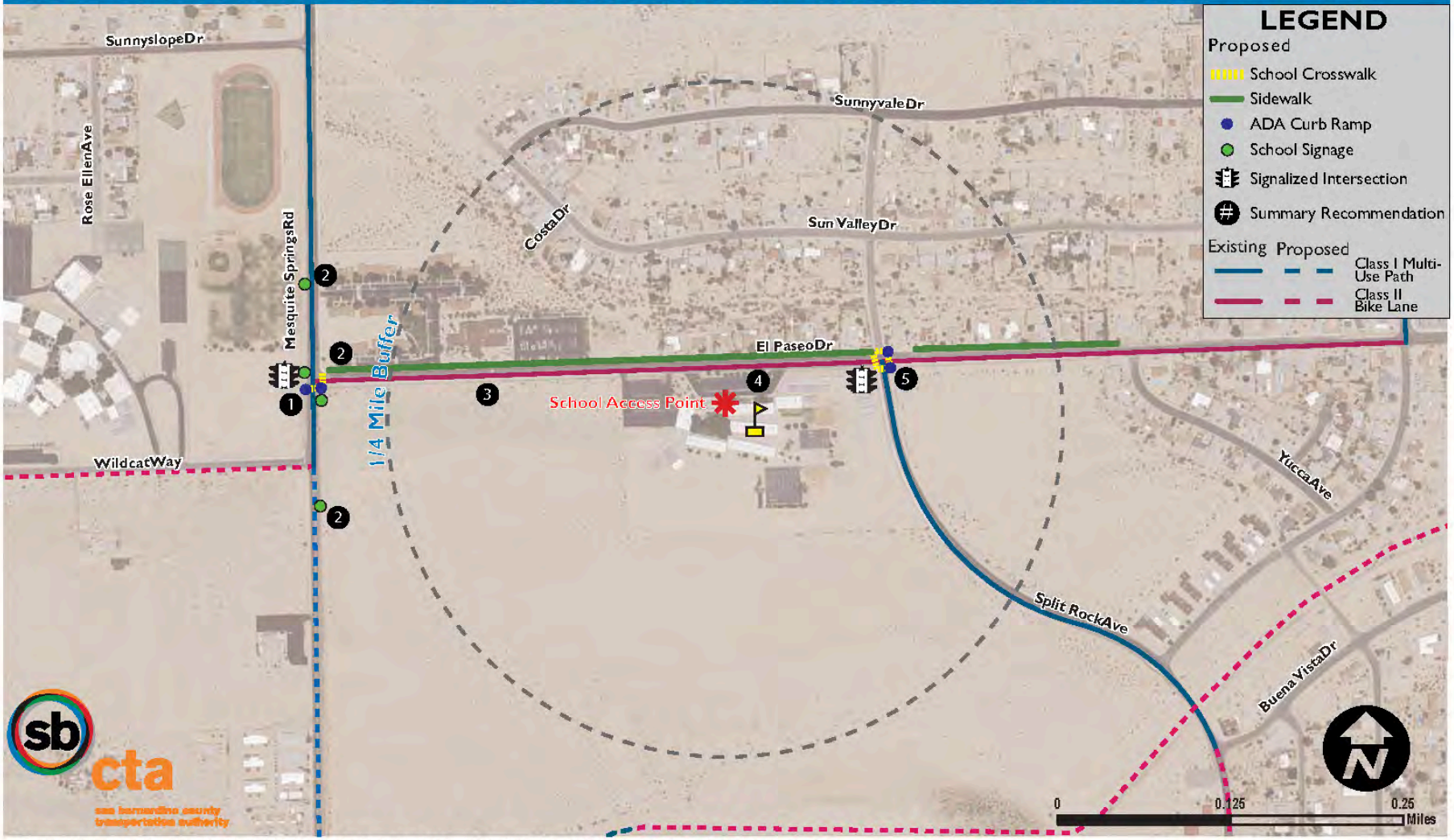
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	8%	10%
bike	0.4%	0.5%
bus	34%	46%
vehicle	52%	41%
carpool	5%	3%
transit	0%	0%
other	0%	0%

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

SBCTA SRTS PHASE II: *OASIS ELEMENTARY SCHOOL, TWENTYNINE PALMS*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *El Paseo Drive and Mesquite Springs Road:* Install signalized intersection, pending passed warrants. Install high visibility ladder style crosswalk along east and south legs of intersection. Install ADA compliant curb ramps on SW and SE curbs and connections to existing Class I Bike Route on west side. If approved, do not proceed with recommendation #2 below as signage should then not be posted.

2. *El Paseo Drive and Mesquite Springs Road:* **Install sigange only if signalized intersection is not implemented** Install SW24-2(CA) Assembly B signage adjacent to the south crossing on both sides for northbound and southbound traffic. Install SW24-3(CA) Assembly D signage approaching south leg crossing for northbound and southbound traffic.

3. *El Paseo Drive and Mesquite Springs Road:* Install upgrades to existing bike path to be accessible as a multi-use path with pedestrian lighting and street trees.

4. *El Paseo Drive and Front of School:* Install pedestrian lighting within school zone extent El Paseo Dr from Mesquite Springs Rd and Bagley Ave.

5. *El Paseo Drive and Hillside Avenue:* Install signalized intersection, pending passed warrants. Install high visibility ladder style crosswalks on all legs of intersection. Install ADA curb ramps on NE and SE curbs.

Background/Discussion of the Engineering Recommendations

	Recommendation #	Location	Improvement	Background/Discussion
Oasis Elementary School	1	El Paseo Drive and Mesquite Springs Road	Traffic Signal, high visibility ladder style crosswalk, ADA compliance	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 difficultly crossing and feel unsafe. Signal installation will be determined by a signal warrant study. Engineering recommendations used to increase pedestrian visibility while crossing the uncontrolled intersection. See below, "General - ADA curb ramps."
	2	El Paseo Drive and Mesquite Springs Road	School signage	Adherence to MUTCD Part 7 guidelines to increase driver awareness of El Paseo Drive and Mesquite Springs Road.
	3	El Paseo Drive and Mesquite Springs Road	Multi use path	Improvements are along a primary walking route to and from school. The multi use path with allow for both pedestrians and bicyclists to access the school safely.
	4	El Paseo Drive and Front of School	Pedestrian lighting	Improvements are along primary walking route to and from school (noted during field observation). Improvements provide adequate lighting for pedestrians and bicylists along the schools extent.
	5	El Paseo Drive and Hillside Avenue	Traffic Signal, high visibility ladder style crosswalk, ADA compliance	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 difficultly crossing and feel unsafe. Singal installation will be determined by a signal warrant study. Engineering recommendations used to increase pedestrian visibility while crossing the uncontrolled intersection. See below, "General - ADA curb ramps."
	General	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 Oasis Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Mesquite Springs Rd.	Roadway Lighting (1 side of road)	Per Linear Foot	$102	1571	$160,242
	Dashed 4" Yellow Centerline Stripe (Detail 2)	Per Linear Foot	$2	1571	$2,846
	New Sign on Post	Each	$181	4	$725
	High Visibility Ladder Crosswalk	Each	$1,788	1	$1,788
	Segment Total				**$165,600**
El Paseo Dr.	Roadway Lighting (1 side of road)	Per Linear Foot	$102	1635	$166,770
	Dashed 4" Yellow Centerline Stripe (Detail 2)	Per Linear Foot	$2	1350	$2,445
	High Visibility Ladder Crosswalk	Each	$1,788	5	$8,940
	ADA Curb Ramps	Each	$3,623	4	$14,490
	Traffic Signal	Per Intersection	$332,063	2	$664,125
	Segment Total				**$856,770**
ALL SEGMENTS					**$1,022,370**

Twentynine Palms Elementary School

Twentynine Palms Elementary School is a Morongo Unified School District (MUSD) school located in a sparsely-developed rural area of Twentynine Palms, California. The school is located along Playa Vista Drive, and near the intersection of 2 Mile Road and Utah Trail. The Twentynine Palms Elementary School walk audit was held on May 24th, 2016 from 3:00PM to 4:00PM, following the afternoon release bell. The front office was used as the staging area for the three participants where briefing and de-briefing were conducted. Observations extended into the surrounding neighborhood along Utah Trail, 2 Mile Road, Marine Avenue, Luckie Avenue, Wainwright Avenue, and Halsey Avenue.

No survey or tally data are available for Twentynine Palms Elementary School.

TWENTYNINE PALMS ELEMENTARY - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Twentynine Palms

School Enrollment - 588

Free or Reduced Lunch - 49.10%

Environmental Indicators:

Cal Enviro Score % Range - 11-15%

Cal Enviro Score (CES2.0*) - 9.71

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

Walk Audit Highlights

of Walk Audit Participants - 3

# of Surveys Received - 0

WALKSHED *(1/4 and 1/2 mile)*

COLLISION ANALYSIS

Pedestrian Related Collisions

0 within 1/4 mile

0 within 1/2 mile

0 fatal within (1/2 mile)

Bicyclist Related Collisions

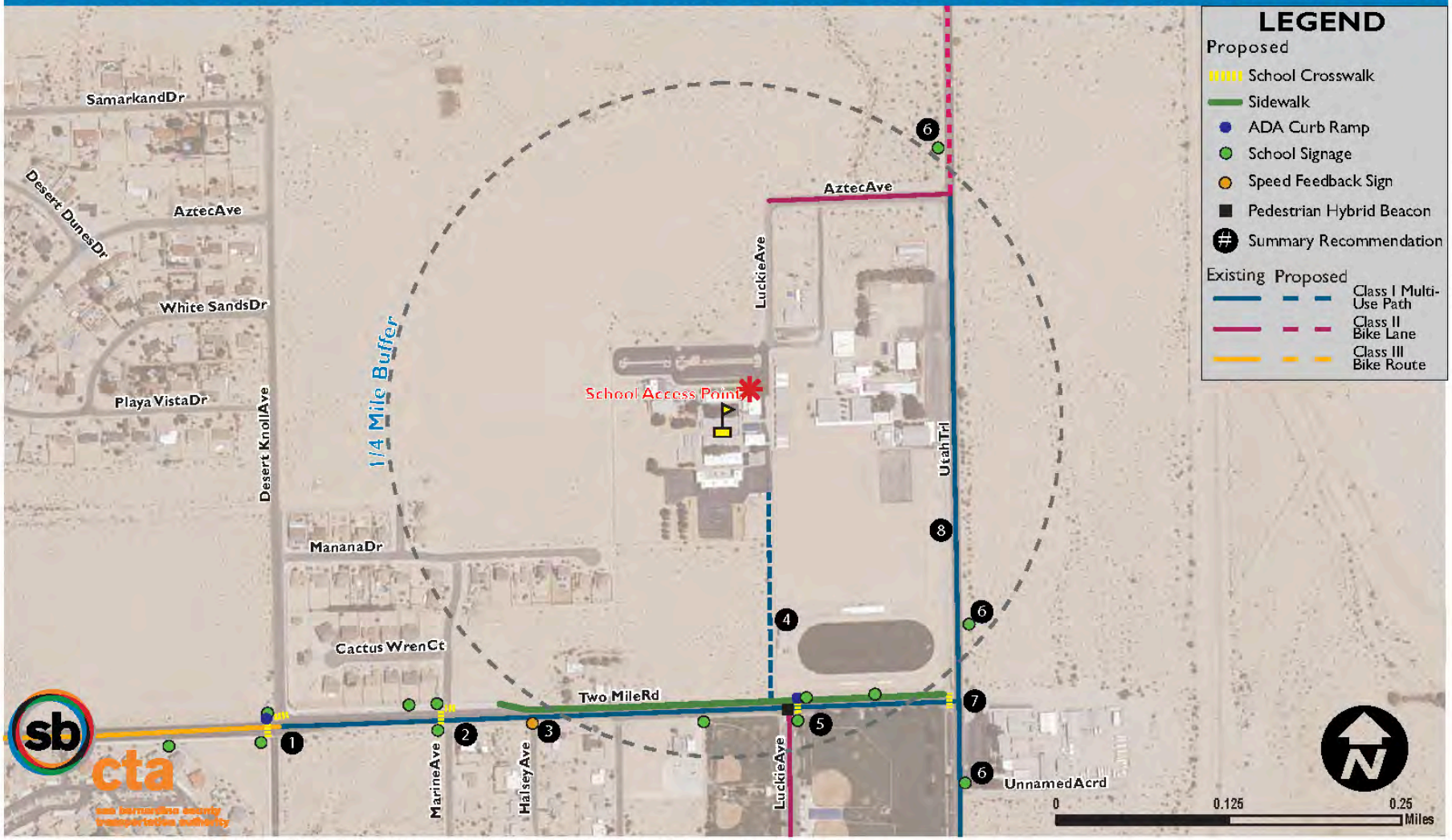
0 within 1/4 mile

0 within 1/2 mile

0 fatal within (1/2 mile)

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

SBCTA SRTS PHASE II: *TWENTYNINE PALMS ELEMENTARY SCHOOL, TWENTYNINE PALMS*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Two Mile Road and Desert Knolls Avenue:* Install high visibility crosswalks on north and west legs of intersection and ADA curb ramp on the NW curb. Install SW24-2(CA) Assembly B signage on both sides of crossing for eastbound and westbound traffic. Install SW24-3 (CA) Assembly D signage approaching crossing for eastbound and westbound traffic.
2. *Two Mile Road and Marine Avenue:* Install high visibility crosswalk on north and west legs of intersection. Install SW24-2(CA) Assembly B signage on both sides of crossing for eastbound and westbound traffic.
3. *Two Mile Road and Halsey Avenue:* Install speed feedback signage for eastbound traffc. Install pedestrian lighting and street trees along existing Class I Bike Route.
4. Install Class I multi-use path to access school with street lighting and street trees.
5. *Two Mile Road and Luckie Avenue:* Install high visibility ladder style crosswalk on east leg and an ADA compliant curb ramp on the NE corner. Install pedestrian hybrid beacon for eastbound and westbound traffic. Install SW24-2(CA) Assembly B signage on both sides of crossing. Install SW24-3(CA) Assembly D for eastbound and westbound traffic.
6. *Utah Trail:* Install SR4-1 (CA) Assembly C signage at these locations for southbound traffic.
7. *Two Mile Road and Utah Trail:* Install high visibility ladder style crosswalk on west leg.
8. *Utah Trail:* Install pedestrian lighting and street treees for existing multi use path.

Background/Discussion of the Engineering Recommendations

Twentynine Palms Elementary School

Recommendation #	Location	Improvement	Background/Discussion
1	**Two Mile Road and Desert Knolls Avenue**	High visibility ladder style crosswalk, ADA compliance and school signage	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). Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along Two Mile Road and Desert Knolls Avenue, a primary walking route to school (noted during field observation). See below, "General - ADA curb ramps."
2	**Two Mile Road and Marine Avenue**	High visibility ladder style crosswalk and school signage	Adherence to MUTCD Part 7 guidelines to increase driver awareness of Two mile road and Marine Ave crossing are referenced in Recommendation #1.
3	**Two Mile Road and Halsey Avenue**	Speed feedback sign, pedestrian lighting and street trees	Improvements address comments received during walk audit observation regarding high speeds in front of the school. Improvements provide adequate lighting for pedestrians and bicylists along the Class I bike route.
4	**Linden Ave & San Bernardino Ave**	Class I mutli-use path, street lighting and street trees	Improvements are along primary walking route to and from school (noted during field observation). Addition of bike lane promotes riding to and from school per comments received during the walk audit. Improvements provide adequate lighting for pedestrians and bicylists along the Class I multi use path.
5	**Two Mile Road and Luckie Avenue**	High visibility ladder style crosswalk, Pedestrian hybrid beacon, ADA compliance and school signage	"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). Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along Two Mile Road and Desert Knolls Avenue, a primary walking route to school (noted during field observation). See below, "General - ADA curb ramps."
6	**Utah Trail**	School signage	Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along Utah Trail, a primary walking route to school (noted during field observation).
7	**Two Mile Road and Utah Trail**	High visibility ladder style crosswalk and sidewalk/ curb and gutter	Improvements located at this intersection per comments received during the walk audit regarding vehicular speeds and safety issues for pedestrians. See below, "General - sidewalks." Curb and gutter installation will improve drainage near the school campus.
8	**Utah Trail**	Pedestrian lighting and Street trees	Improvements provide adequate lighting for pedestrians and bicylists along the Class I multi use path based off of the walk audit.
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 Twentynine Palms Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
2 Mile Rd.	Roadway Lighting (1 side of road)	Per Linear Foot	$102	1720	$175,440
	Dashed 4" Yellow Centerline Stripe (Detail 2)	Per Linear Foot	$2	1720	$3,115
	Pedestrian Flashing Beacon (Post/Pole Mount)	Each	$9,056	2	$18,113
	New Sign on Post	Each	$181	10	$1,811
	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	1741	$90,397
	Landscaped Buffer (1 Side)	Per Linear Foot	$72	1720	$124,614
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	1741	$63,068
	Segment Total				**$490,955**
Utah Trail	Roadway Lighting (1 side of road)	Per Linear Foot	$102	1220	$124,440
	Dashed 4" Yellow Centerline Stripe (Detail 2)	Per Linear Foot	$2	1220	$2,210
	Speed Awareness Sign	Each	$14,490	1	$14,490
	New Sign on Post	Each	$181	3	$543
	High Visibility Ladder Crosswalk	Each	$1,788	1	$1,788
	Landscaped Buffer (1 Side)	Per Linear Foot	$72	1220	$88,389
	Segment Total				**$231,860**
ALL SEGMENTS					**$722,815**

Unincorporated San Bernardino

Joshua Tree Elementary School

Joshua Tree Elementary School is a Morongo Unified School District (MUSD) school located in a sparsely-developed rural neighborhood within the unincorporated community of Joshua Tree, California. The school is situated at the intersection of Calle Los Amigos and Sunburst Avenue. The walk audit performed at Joshua Tree Elementary School was held on October 25th, 2016 from 3:00PM to 4:00PM. An on-campus classroom was used as the staging area for the participants where briefing and de-briefing were conducted (there was only one participant). Observations extended into the surrounding neighborhood along Sunburst Avenue, Calle Los Amigos, and Avenue La Manana.

"If we lived closer to my child's school, I would walk or bike with them. Our area has few bike lanes so I feel pretty unsafe letting him bike to school."

"If we lived closer we would love to walk, but it's just too far and too hot."

All remarks received from walk audit participants at Joshua Tree Elementary

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	169
Number of Tallies	826
» Morning (To School)	413
» Afternoon (From School)	413

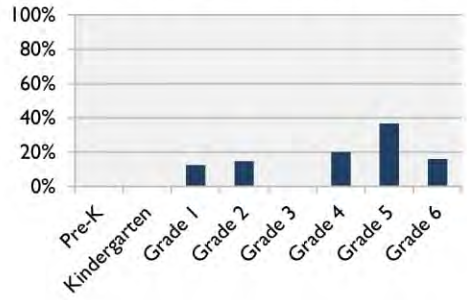
Number of Surveys Received	81

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

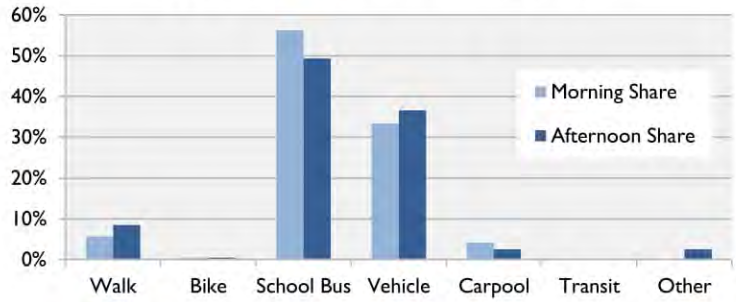
Tallies were conducted by teachers in six classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to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

Students who walk or bike to school	**8.8%**
Students who don't walk/bike but have asked parents for permission	**+ 15.0%**
Students who walk/bike or have asked parents for permission	**23.8%**
Student enrollment	**x 374**
Potential walking/biking student base	**89**

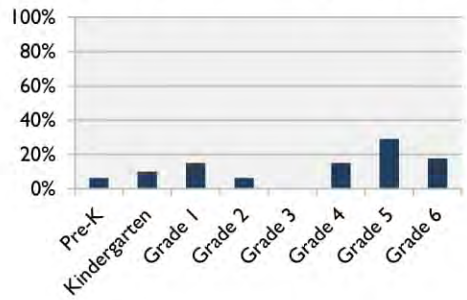
Grade Distribution of Tallies



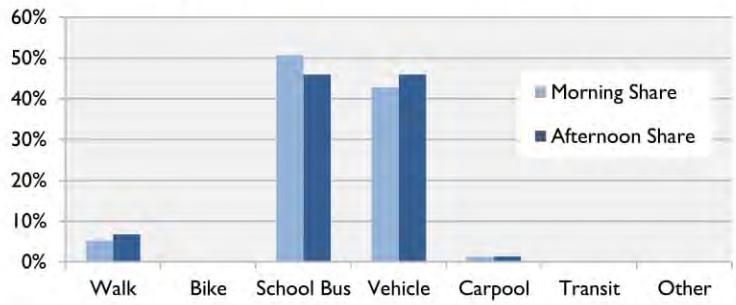
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

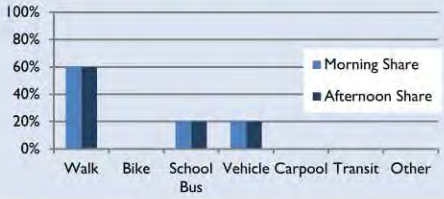


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

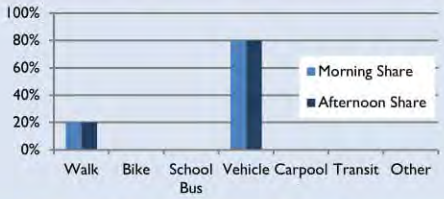
8%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 33%
Amount of Traffic Along Route – 33%
Sidewalks or Pathways – 33%
Safety of Intersections & Crossings – 33%
Violence or Crime – 33%

Students Living Between ¼ and ½ Mile from School

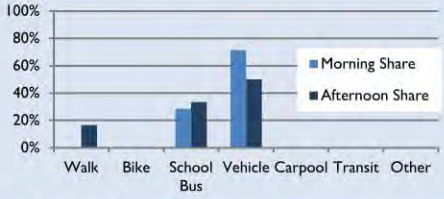
7%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Sidewalks or Pathways – 60%
Speed of Traffic Along Route – 40%
Safety of Intersections & Crossings – 40%
Weather or Climate – 40%
Distance – 20%

Students Living Between ½ and 1 Mile from School

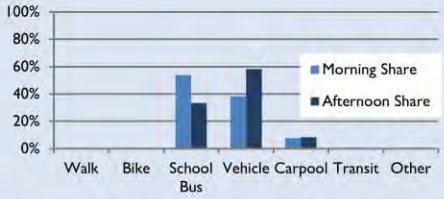
11%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 25%
Speed of Traffic Along Route – 25%
Sidewalks or Pathways – 25%
Weather or Climate – 25%
Convenience of Driving – 13%

Students Living Between 1 and 2 Miles from School

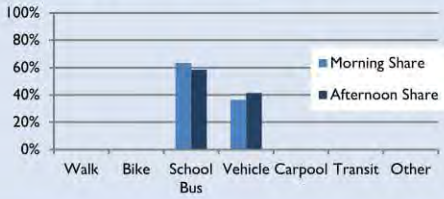
17%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 62%
Violence or Crime – 62%
Distance – 54%
Speed of Traffic Along Route – 54%
Amount of Traffic Along Route – 54%

Students Living Farther than 2 Miles from School

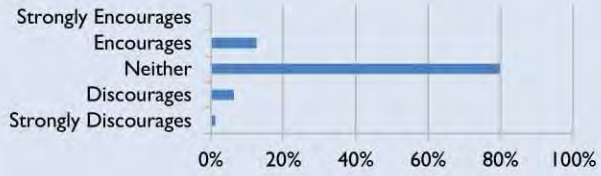
57%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 74%
Speed of Traffic Along Route – 51%
Sidewalks or Pathways – 49%
Violence or Crime – 49%
Weather or Climate – 49%

Parents' Perspectives

Whether School Encourages Walking/Biking



70%
consider walking/biking healthy or very healthy.

63%
would not feel comfortable having their child walk/bike at any age with current conditions.

JOSHUA TREE ELEMENTARY - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - Unincorporated
School Enrollment - 374
Free or Reduced Lunch - 87.70%

Environmental Indicators:

Cal Enviro Score % Range - 16-20%
Cal Enviro Score (CES2.0*) - 12.25

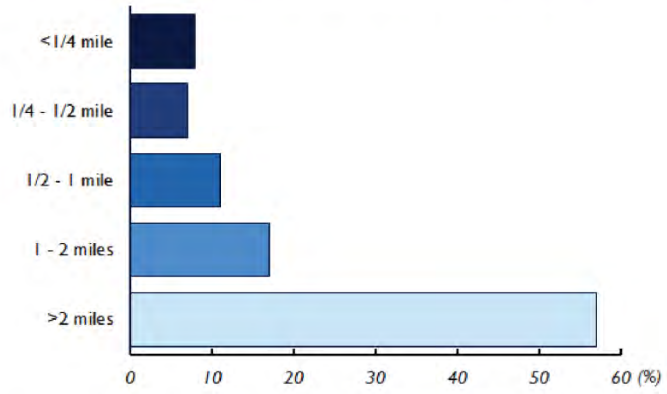
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 1
# of Surveys Received - 81

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

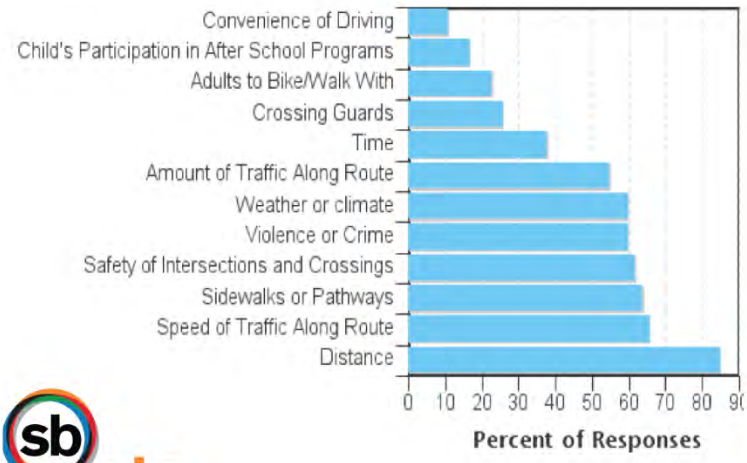
0 within 1/4 mile
0 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sbcta
san bernardino county transportation authority

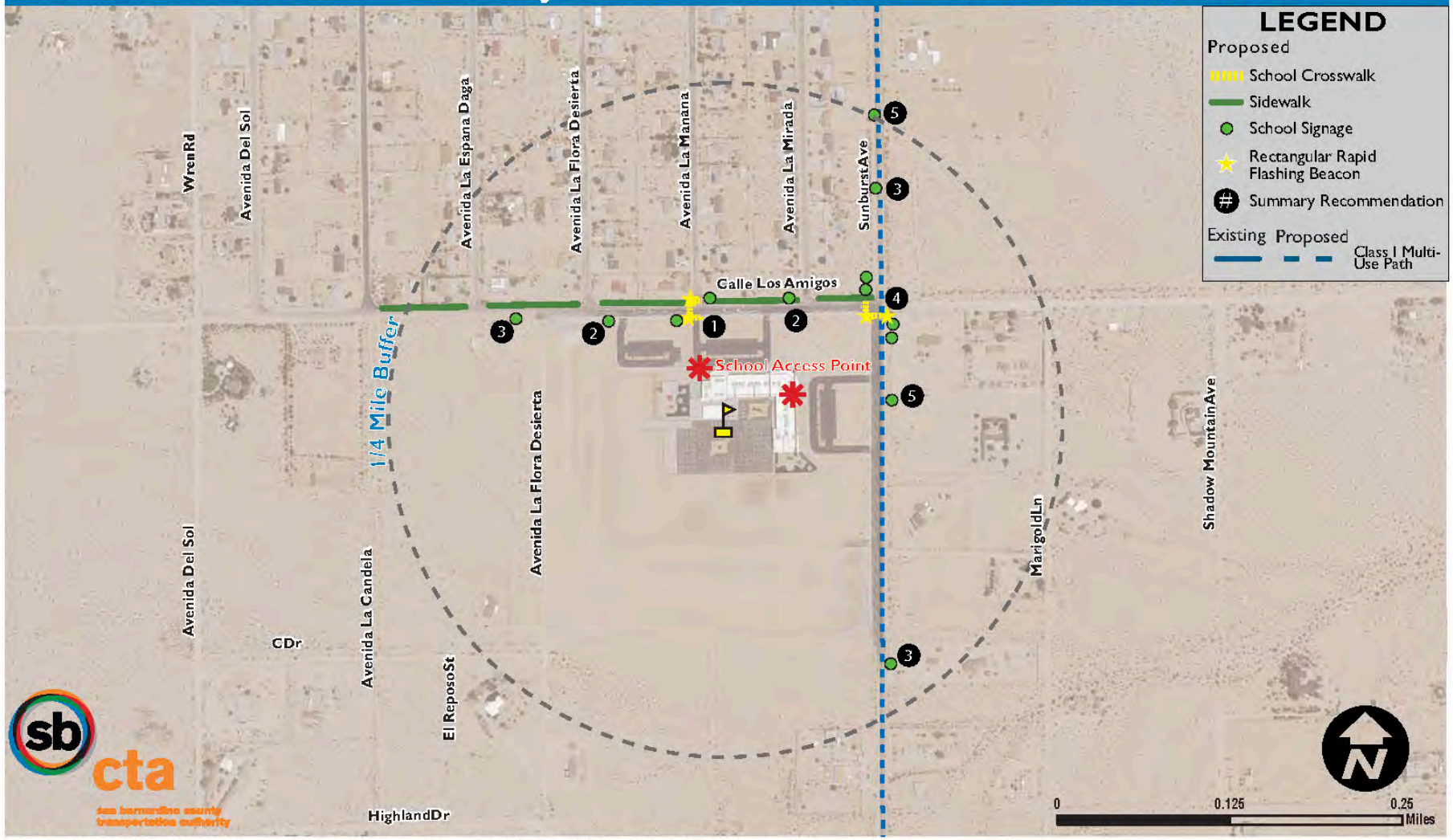
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	5%	7%
bike	0%	0%
bus	51%	46%
vehicle	43%	46%
carpool	1%	1%
transit	0%	0%
other	0%	0%

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

SBCTA SRTS PHASE II: *JOSHUA TREE ELEMENTARY, UNINCORPORATED*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Calle Los Arrigos and Avenida La Manana:* Install high visibility ladder style crosswalk on north, south, and west legs of intersection. Install rectangular rapid flashing beacons on either side of west crossing for eastbound and westbound traffic along with SW24-2 (CA) Assembly B placed in conjunction with RRFB's.
2. *Calle Los Arrigos and Avenida La Manana:* Install SW24-3 (CA) Assembly D signage approaching west leg crossing for eastbound and westbound traffic.
3. *Surrounding school area:* Install SR4-1 (CA) Assembly C sign in this location for traffic approaching the school zone extent along Calle Los Amigos and Sunburts Avenue.
4. *Calle Los Arrigos and Sunburst Street:* Install high visibility ladder style crosswalks on south and west legs of intersection. Install rectangular rapid flashing beacons for service to north and south traffic at the south leg of the intersection. In stall R1-5 signs and yield lines 20-50 feet prior to south leg. Install SW24-2(CA) Assembly B signage on both sides of south leg crossing.
5. *Calle Los Arrigos and Sunburst Street:* Install SW24-3 (CA) Assembly D signage on south and northbound approaches to south leg crossing.

Background/Discussion of the Engineering Recommendations

	Recommendation #	Location	Improvement	Background/Discussion
Joshua Tree Elementary School	1	Calle Los Amigos at Avenida La Manana	High visibility crosswalks, Rectangular rapid flashing beacons (RRFB's), school signage	High visibility crosswalks provide clearer paths for pedestrians along this primary walking route to school, adjacent to the school campus itself. High visibility crosswalks also alert drivers of crossings in the area. Rectangular rapid flashing beacons draw attention to the crossing at this location. School signage alerts drivers of crossings in the area, per CA MUTCD Part 7 guidelines.
	2	Calle Los Amigos at Avenida La Manana	School signage	School signage can increase driver awareness of crossings and pedestrians in the area, per CA MUTCD Part 7 guidelines.
	3	Surrounding School Area	School signage	School signage can increase driver awareness of the speed limit in the school area when children are present, per CA MUTCD Part 7 guidelines.
	4	Calle Los Amigos and Sunburst Street	High visibility crosswalks, Rectangular rapid flashing beacons (RRFB's), school signage, Yield lines	High visibility crosswalks provide clearer paths for pedestrians along this primary walking route to school, adjacent to the school campus itself. High visibility crosswalks also alert drivers of crossings in the area. Rectangular rapid flashing beacons can draw attention to the crossing at this location. School signage can increase driver awareness of crossings in the area, per CA MUTCD Part 7 standards. Yield lines can also increase driver awareness of conflicting crossing patterns at this location, and create a cushion between pedestrians and vehicular traffic.
	5	Calle Los Amigos and Sunburst Street	School signage	School signage can increase driver awareness of crossings and pedestrians in the area, per CA MUTCD Part 7 standards.
	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 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 Joshua Tree Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Sunburst Ave.	Rectangular Rapid Flashing Beacon (2/Uncontrolled X-walk)	Each	$15,698	1	$15,698
	New Sign on Post	Each	$181	7	$1,268
	High Visibility Ladder Crosswalk	Each	$1,788	2	$3,576
	Segment Total				**$20,541**
Calle Los Amigos	Rectangular Rapid Flashing Beacon (2/Uncontrolled X-walk)	Each	$15,698	1	$15,698
	New Sign on Post	Each	$181	5	$906
	High Visibility Ladder Crosswalk	Each	$1,788	3	$5,364
	8' Paved Asphalt Shoulder (2 sides of road)	Per Linear Foot	$78	2000	$156,000
	Segment Total				**$177,967**
ALL SEGMENTS					**$198,508**

Vermont Elementary School

Vermont Elementary School is a San Bernardino City Unified School District (SBCUSD) school located in a low-density residential neighborhood within the unincorporated community of Muscoy, near the City of San Bernardino. The school is situated at the intersection of 2nd Avenue and Vermont Street. The walk audit at Vermont Elementary School took place on October 28, 2016 from 2:00PM to 4:00PM, during the after-school Fall Carnival. The inner quad was used as the setting for an assessment session incorporating large format maps and participant feedback to identify problem areas in the transportation network of the surrounding neighborhood. Over 150 participants' feedback was solicited, directing attention to the following streets: Vermont Street, 2nd Avenue, 3rd Avenue, June Street, Bronson Street, and Ogden Street.

"Cars usually drive fast. There are no sidewalks for pedestrians."

"My daughters and I walk from school sometimes when the weather is not too hot, but they never walk without an adult."

All remarks received from walk audit participants at Vermont Elementary

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	72
Number of Tallies	379
» Morning (To School)	201
» Afternoon (From School)	178

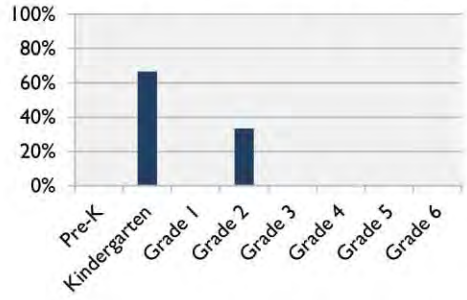
Number of Surveys Received	91

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

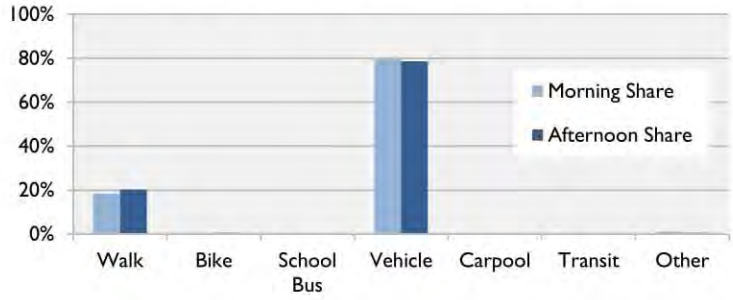
Tallies were conducted by teachers in three classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to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

Students who walk or bike to school	**6.9%**
Students who don't walk/bike but have asked parents for permission	**+ 29.9%**
Students who walk/bike or have asked parents for permission	**36.8%**
Student enrollment	**x 763**
Potential walking/biking student base	**281**

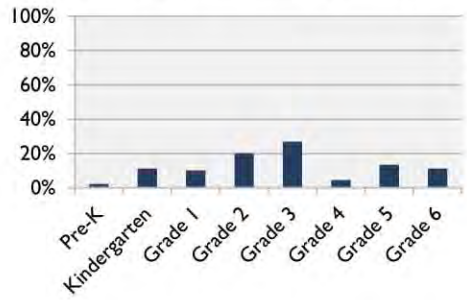
Grade Distribution of Tallies



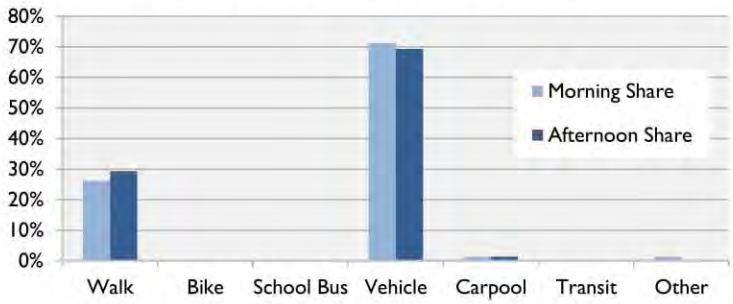
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

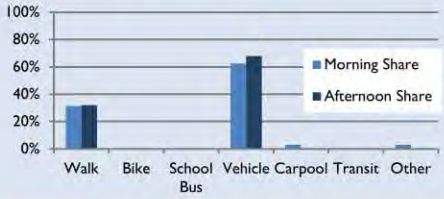


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

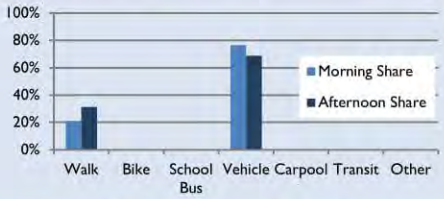
45%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 32%
Violence or Crime – 32%
Speed of Traffic Along Route – 29%
Sidewalks or Pathways – 26%
Amount of Traffic Along Route – 16%

Students Living Between ¼ and ½ Mile from School

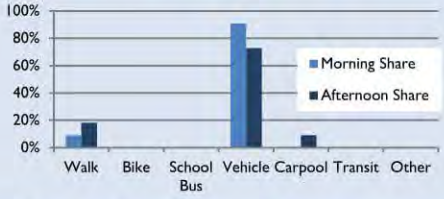
23%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Sidewalks or Pathways – 42%
Violence or crime – 42%
Distance – 32%
Speed of Traffic Along Route – 32%
Amount of Traffic Along Route – 26%

Students Living Between ½ and 1 Mile from School

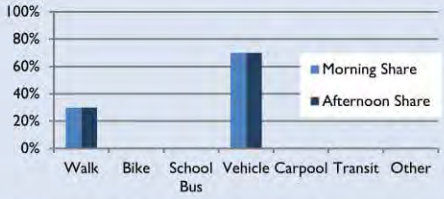
14%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Sidewalks or Pathways – 50%
Violence or Crime – 42%
Speed of Traffic Along Route – 33%
Safety of Intersections & Crossings – 33%
Weather or Climate – 33%

Students Living Between 1 and 2 Miles from School

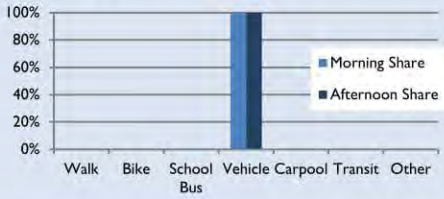
13%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 55%
Speed of Traffic Along Route – 55%
Violence or Crime – 55%
Safety of Intersections & Crossings – 45%
Amount of Traffic Along Route – 27%

Students Living Farther than 2 Miles from School

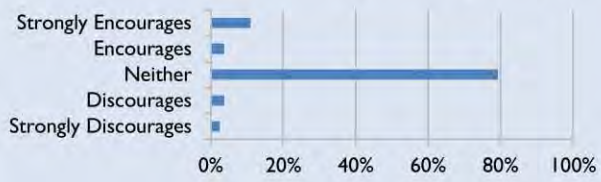
5%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 25%
Violence or Crime – 25%
(No other issues ranked.)

Parents' Perspectives

Whether School Encourages Walking/Biking



79%
consider walking/biking healthy or very healthy.

71%
would not feel comfortable having their child walk/bike at any age with current conditions.

VERMONT ELEMENTARY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - Unincorporated
School Enrollment - 763
Free or Reduced Lunch - 95.00%

Environmental Indicators:

Cal Enviro Score % Range - 91-95%
Cal Enviro Score (CES2.0*) - 54.41

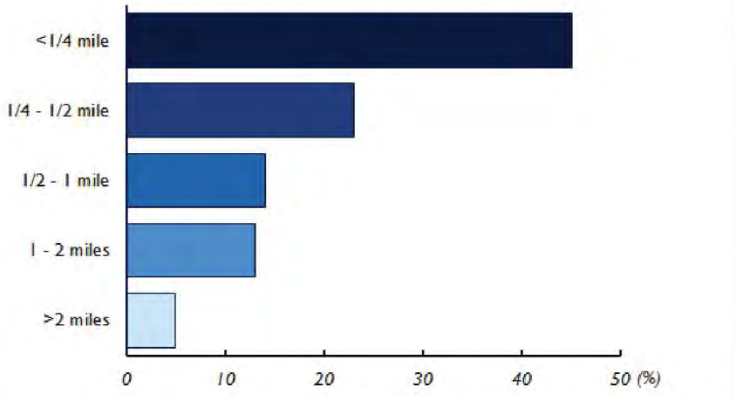
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 150+
# of Surveys Received - 91

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

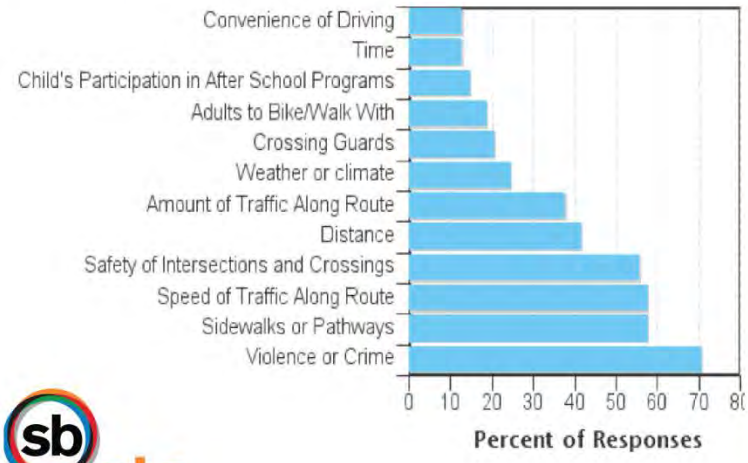
1 within 1/4 mile
4 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sbcta
san bernardino county transportation authority

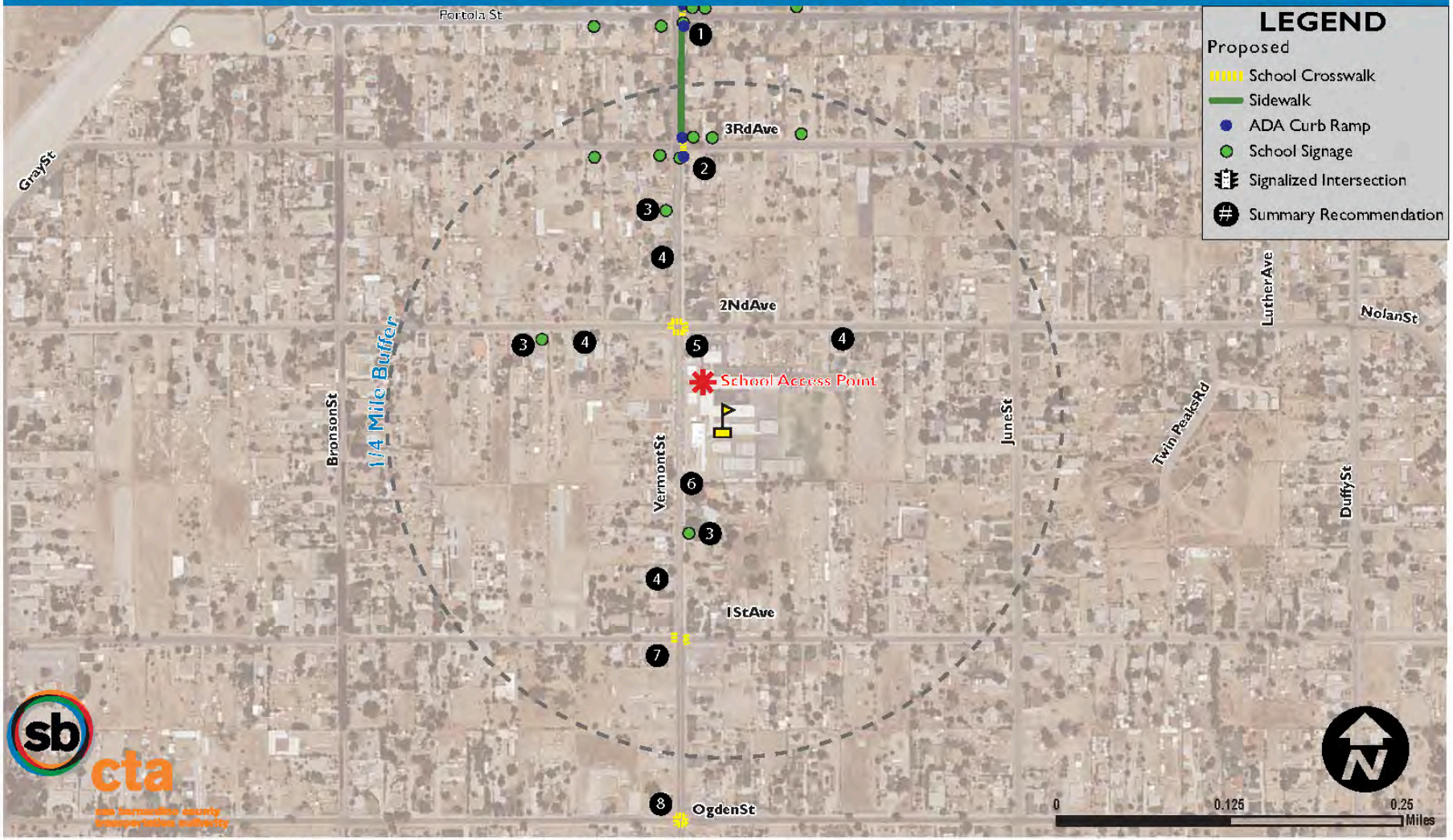
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	*afternoon*
walk	26%	29%
bike	0%	0%
bus	0%	0%
vehicle	71%	69%
carpool	1%	1%
transit	0%	0%
other	1%	0%

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

SBCTA SRTS PHASE II: *VERMONT ELEMENTARY SCHOOL, UNINCORPORATED*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Vermont Street and Portola Street:* Install high visibility ladder style crosswalk on the east leg along with ADA compliant curb ramps to join with proposed sidewalk network. Install SW24-2 (CA) Assembly B signage on either side of the east leg for both west and eastbound traffic. Install R1-5 signs 20-50ft from crossing as well as SW24-3 (CA) Assembly D signage leading into crossing for eastbound and westbound traffic.
2. *Vermont Street and 3rd Street:* Install high visibility ladder style crosswalk on the east leg along with ADA compliant curb ramps to join with proposed sidewalk network. Install SW24-2 (CA) Assembly B signage on either side of the east leg for both west and eastbound traffic. Install R1-5 signs 20-50ft from crossing as well as SW24-3(CA) Assembly D signage leading into crossing for eastbound and westbound traffic.
3. Install flashing yellow beacons to existing school warning signage place at this location leading towards the school site.
4. *Surrounding School Area:* Install sidewalk within school zone to connect proposed recommendations with school facility. Focus should be placed on Vermont Street and 2nd Avenue.
5. *Vermont Street and 2nd Avenue:* Install high visibility ladder style crosswalk along all legs of the intersection.
6. *Vermont Street:* Install red curbs to ensure adequate visibility of pedestrians in school area is provided.
7. *Vermont Street and 1st Street:* Install high visibility ladder style crosswalk on the east and west legs.
8. *Vermont Street and Ogden Street:* Install high visibility ladder style crosswalk on all legs of intersection.

Background/Discussion of the Engineering Recommendations

Vermont Elementary School

Recommendation #	Location	Improvement	Background/Discussion
1	Vermont Street and Portola street	High visibility ladder style crosswalk, school signage and sidewalk	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). 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). See below, "General - sidewalks"
2	Vermont Street and 3rd Street	High visibility ladder style crosswalk and school signage	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). 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).
3	Along 2nd Ave and Vermont Street	Flashing yellow beacons	The three locations fall along primary walking route to school (noted during field observation). School-wide survey comments describe this uncontrolled intersection as unsafe due to vehicle speeds.
4	Surrounding School	Sidewalk	See below, "General - sidewalks"
5	Vermont Street and 2nd Ave	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).
6	Vermont Street	Red curb	See below, "General - red curb."
7	Vermont Street and 1st Street	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).
8	Vermont Street and Ogden Street	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).
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 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.

The following cost estimation table details the Vermont Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Vermont St.	Pedestrian Flashing Beacon (Post/Pole Mount)	Each	$9,056	2	$18,113
	High Visibility Ladder Crosswalk	Each	$1,788	12	$21,456
	ADA Curb Ramps	Each	$3,623	4	$14,490
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	777	$40,344
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	450	$16,301
	Segment Total				**$110,704**
W. 3rd Ave.	New Sign on Post	Each	$181	6	$1,087
	Segment Total				**$1,087**
W. 2nd Ave.	Pedestrian Flashing Beacon (Post/Pole Mount)	Each	$9,056	1	$9,056
	Segment Total				**$9,056**
ALL SEGMENTS					**$120,847**

Muscoy Elementary School

Muscoy Elementary School is a San Bernardino City Unified School District (SBCUSD) school located in a low-density residential neighborhood within the unincorporated community of Muscoy, near the City of San Bernardino. The school is situated at the intersection of Blake Street and Macy Street. The Muscoy Elementary School walk audit was held on October 28th, 2016 from 2:00PM to 5:00PM, during the after-school Harvest Festival. The inner quad was used as the setting for an assessment session incorporating large format maps and participant feedback to identify problem areas in the transportation network of the surrounding neighborhood. Forty-four participants' feedback was solicited, directing attention to the following streets: Blake Street, Macy Street, Darby Street, Duffy Street, and Kent Street.

"There are no sidewalks for children and parents to walk to and from school. There is a lot of crime and violence in this area."

"Muscoy needs more sidewalks and more safety classes for the students."

"I don't let my child walk to or from school because there are too many child molesters in the city, loose dogs, and not many sidewalks."

All remarks received from walk audit participants at Muscoy Elementary

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	115
Number of Tallies	482
» Morning (To School)	259
» Afternoon (From School)	223

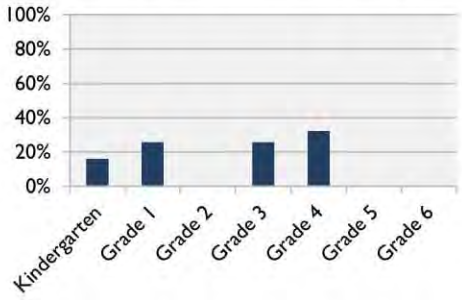
Number of Surveys Received	115

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

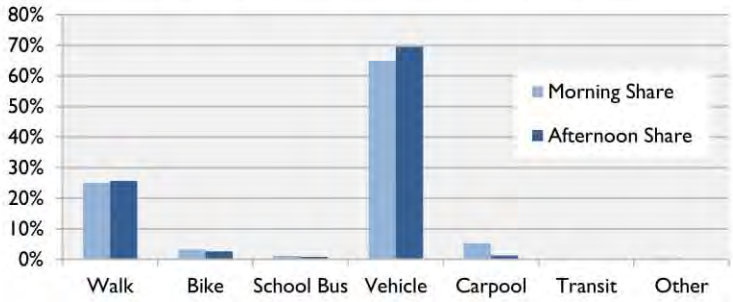
Tallies were conducted by teachers in five classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to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

Students who walk or bike to school	**6.3%**
Students who don't walk/bike but have asked parents for permission	**+ 23.4%**
Students who walk/bike or have expressed parents for permission	**29.7%**
Student enrollment	**x 779**
Potential walking/biking student base	**231**

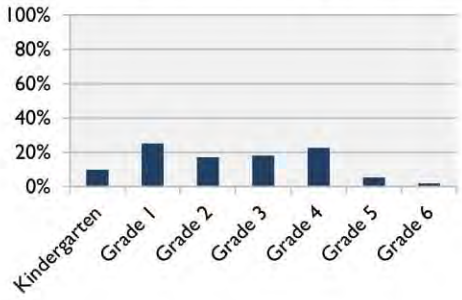
Grade Distribution of Tallies



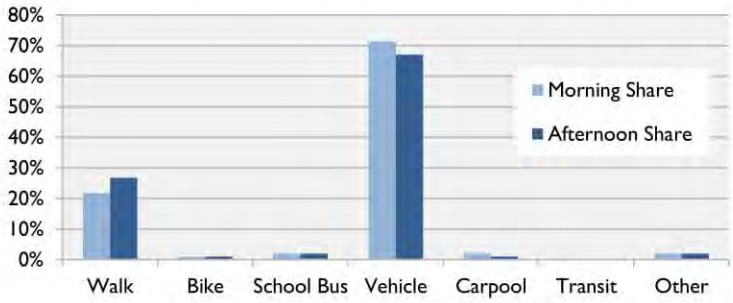
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

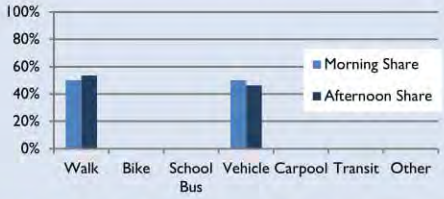


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

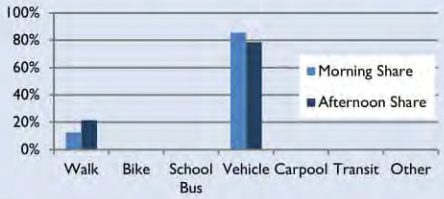
33%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 52%
Speed of Traffic Along Route – 39%
Safety of Intersections & Crossings – 39%
Sidewalks or Pathways – 33%
Amount of Traffic Along Route – 30%

Students Living Between ¼ and ½ Mile from School

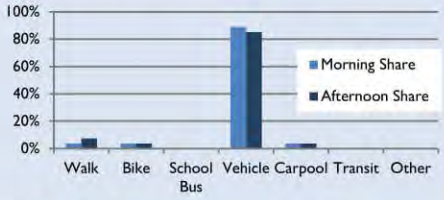
16%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 44%
Speed of Traffic Along Route – 38%
Safety of Intersections & Crossings – 38%
Sidewalks or Pathways – 31%
Amount of Traffic Along Route – 25%

Students Living Between ½ and 1 Mile from School

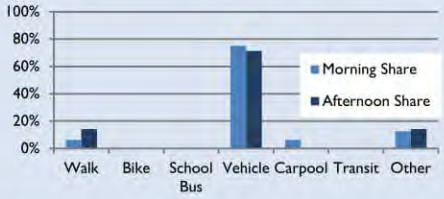
30%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 47%
Safety of Intersections & Crossings – 37%
Weather or Climate – 37%
Distance – 33%
Speed of Traffic Along Route – 27%

Students Living Between 1 and 2 Miles from School

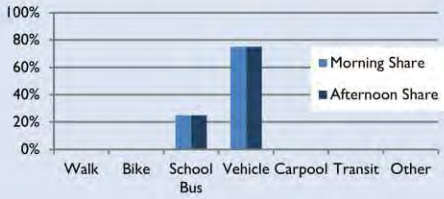
17%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 47%
Sidewalks or Pathways – 41%
Safety of Intersections & Crossings – 41%
Amount of Traffic Along Route – 30%
Speed of Traffic Along Route – 24%

Students Living Farther than 2 Miles from School

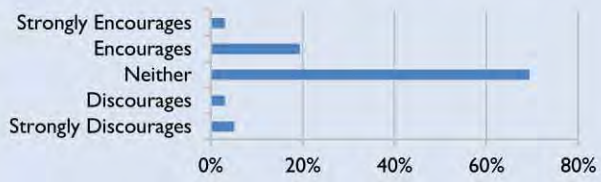
4%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 50%
Weather or Climate – 25%
(No other issues ranked.)

Parents' Perspectives

Whether School Encourages Walking/Biking



79%
consider walking/biking healthy or very healthy.

74%
would not feel comfortable having their child walk/bike at any age with current conditions.

MUSCOY ELEMENTARY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - Unincorporated
School Enrollment - 779
Free or Reduced Lunch - 97.20%

Environmental Indicators:

Cal Enviro Score % Range - 96-100%
Cal Enviro Score (CES2.0*) - 63.49

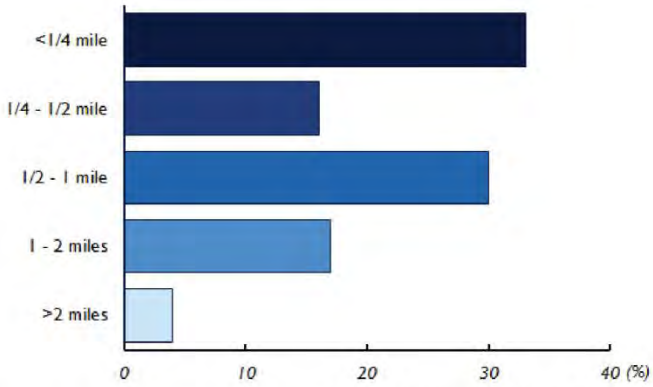
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 44
# of Surveys Received - 115

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

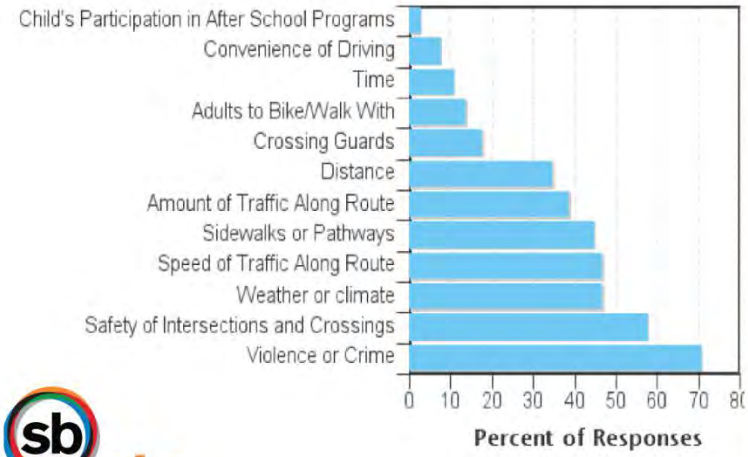
3 within 1/4 mile
9 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sb cta
san bernardino county transportation authority

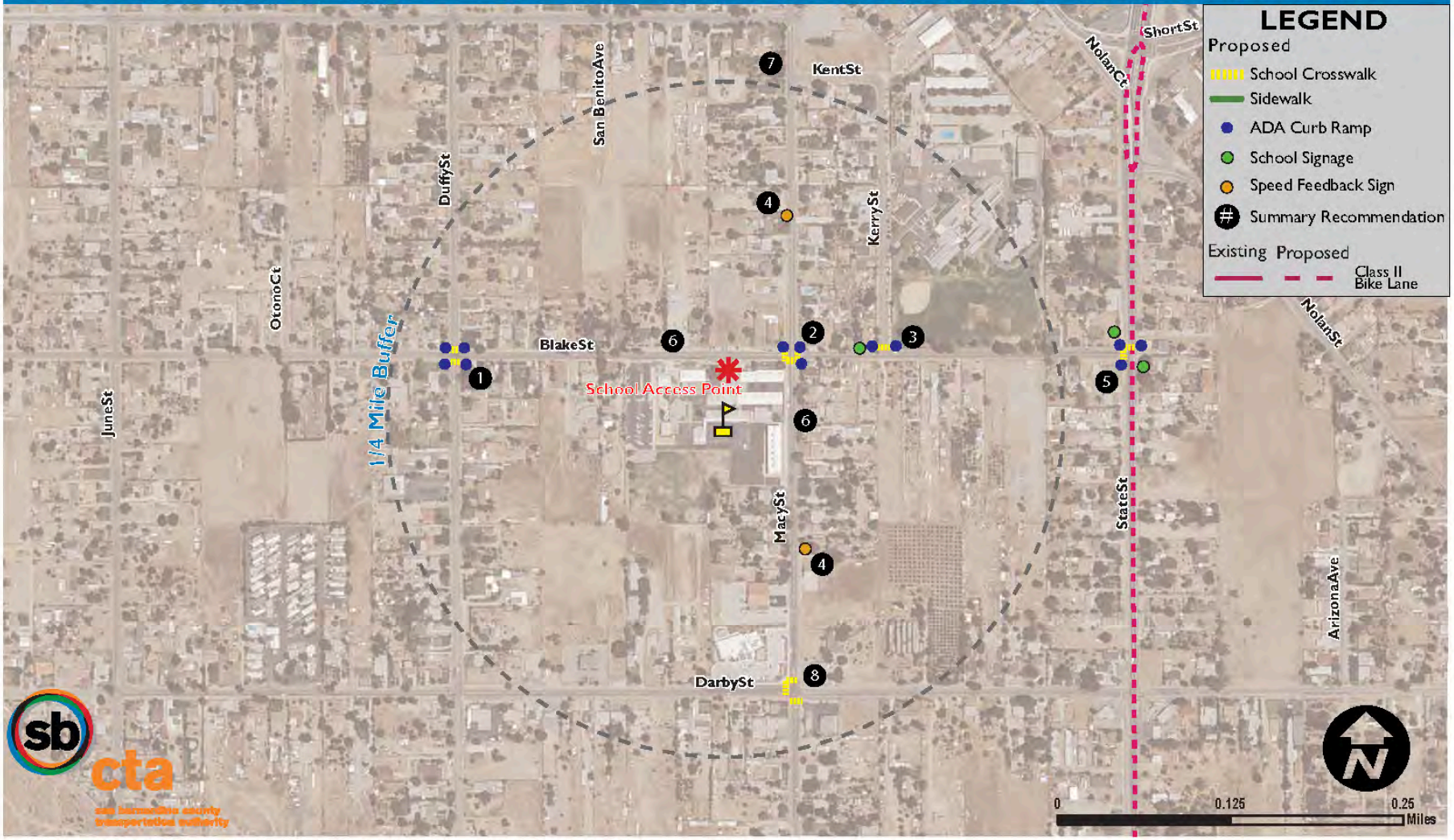
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	*afternoon*
walk	22%	27%
bike	1%	1%
bus	2%	2%
vehicle	71%	67%
carpool	2%	1%
transit	0%	0%
other	2%	2%

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

SBCTA SRTS PHASE II: *MUSCOY ELEMENTARY SCHOOL, UNINCORPORATED*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Blake Street and Duffy Street:* Install high visibility crosswalk (ladder style) on the north and south legs. Install ADA compliant curb ramps on all corners.
2. *Blake Street and Macy Street:* Install high visibility crosswalk (ladder style) on the east, south, and west legs of the intersection. Install ADA compliant curb ramps on all corners.
3. *Blake Street and Kerry Street:* Install high visibility crosswalk (ladder style) on the north leg of the intersection. Install ADA compliant curb ramps on the NW and NE corners. Install SR4-1 (CA) Assembly C signage to upgrade existing school signage.
4. *Macy Street:* Install speed feedback sign at this location where existing school speed limit sign is placed. Service to northbound and southbound traffic.
5. *Blake Street and State Street:* Install high visibility crosswalk (ladder style) on north and west legs of the intersection with ADA compliant curb ramps to compliment the additions. Install R1-5 signs and yield lines on either side of north leg crossing for north and southbound traffic approaching.
6. *Surrounding School Area:* Install sidewalk within school zone extend to connect proposed recommendations with school facility. Focus should be placed on Blake Street and Macy Street.
7. *Macy Street:* Tree trimming and maintenance needed to improve visibility of school signage.
8. *Macy Street and Darby Street:* Install high visibility crosswalk (ladder style) along north, south, and west legs of intersection.

Background/Discussion of the Engineering Recommendations

Muscoy Elementary School

Recommendation #	Location	Improvement	Background/Discussion
1	Blake Street and Duffy Street	High visibility ladder style crosswalk and ADA compliance	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). See below, "General - ADA curb ramps."
2	Blake Street and Macy Street	High visibility ladder style crosswalk and ADA compliance	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). See below, "General - ADA curb ramps."
3	Blake Street and Kerry Street	High visibility ladder style crosswalk and school signage	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). Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along Blake Street and Kerry Street, a primary walking route to school (noted during field observation).
4	Macy Street	Speed feedback sign	Improvements address comments received during walk audit observation regarding high speeds in front of the school.
5	Blake Street and State Street	High visibility ladder style crosswalk, ADA compliance and school signage and striping	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). Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along Blake Street and State Street, a primary walking route to school (noted during field observation). See below, "General - ADA curb ramps."
6	Surrounding School Area	Sidewalk	See below, "General - Sidewalk."
7	Macy Street	Tree trimming	The trees need to be trimmed near existing signs to improve visibility for drivers.
8	Macy Street and Darby Street	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).
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.

TTC

The following cost estimation table details the Muscoy Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Blake St.	New Sign on Post	Each	$181	3	$543
	High Visibility Ladder Crosswalk	Each	$1,788	6	$10,728
	ADA Curb Ramps	Each	$3,623	12	$43,470
	Segment Total				**$54,741**
N Macy St.	Speed Awareness Sign	Each	$14,490	2	$28,980
	High Visibility Ladder Crosswalk	Each	$1,788	4	$7,152
	Segment Total				**$36,132**
ALL SEGMENTS					**$90,873**

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

SafeRoutes
National Center for Safe Routes to School

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

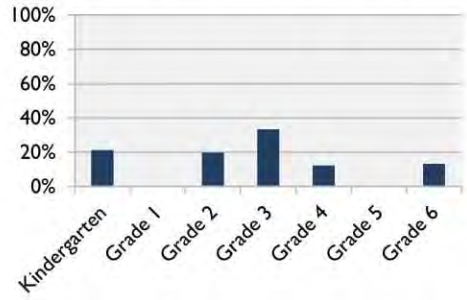
Number of Surveys Received	99

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

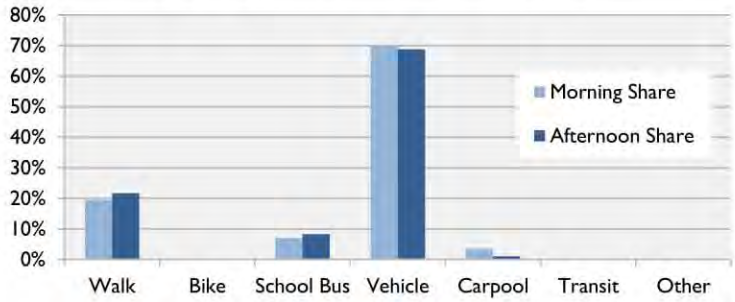
Tallies were conducted by teachers in ten classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to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

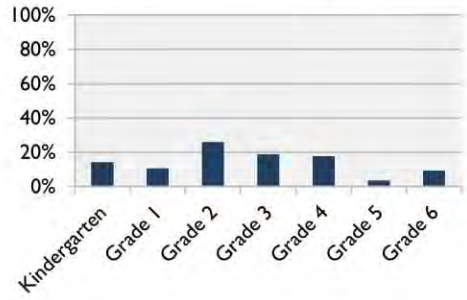
Grade Distribution of Tallies



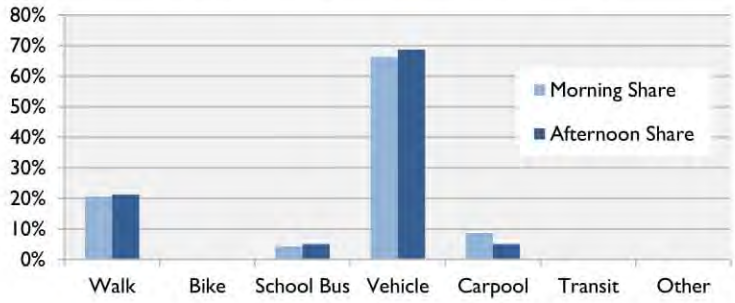
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

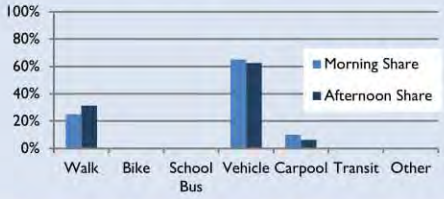


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

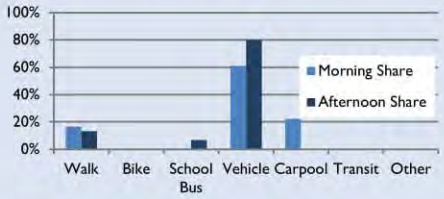
28%
of survey responses



Top 5 Issues Affecting Likeliness 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

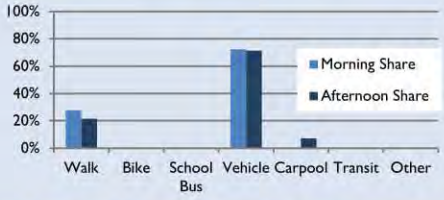
22%
of survey responses



Top 5 Issues Affecting Likeliness 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

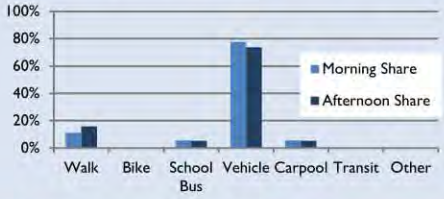
23%
of survey responses



Top 5 Issues Affecting Likeliness 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

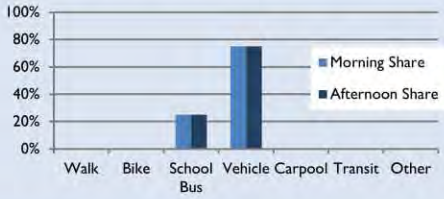
23%
of survey responses



Top 5 Issues Affecting Likeliness 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

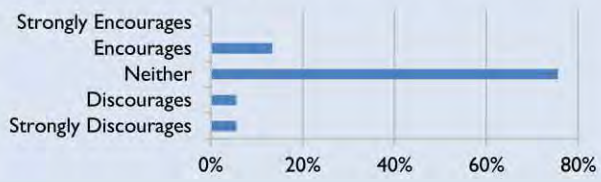
5%
of survey responses



Top 5 Issues Affecting Likeliness 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

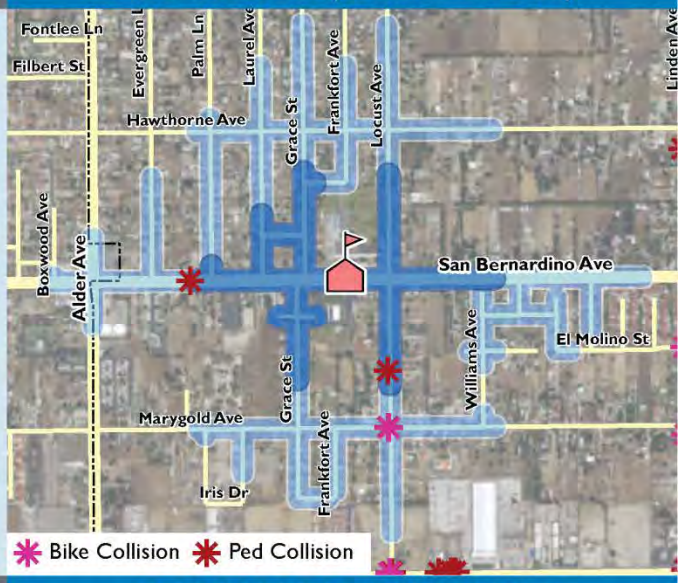
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

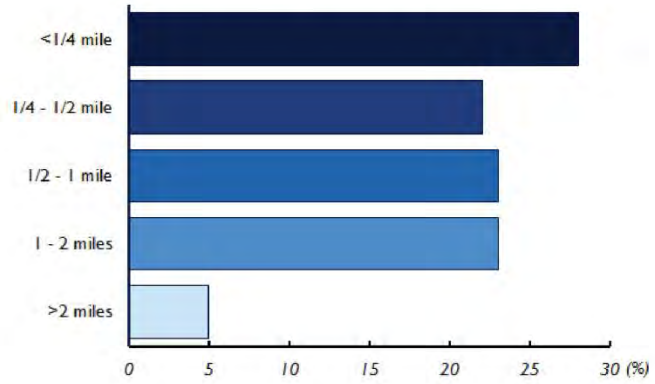
of Walk Audit Participants - 8

# of Surveys Received - 99

WALKSHED *(1/4 and 1/2 mile)*



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

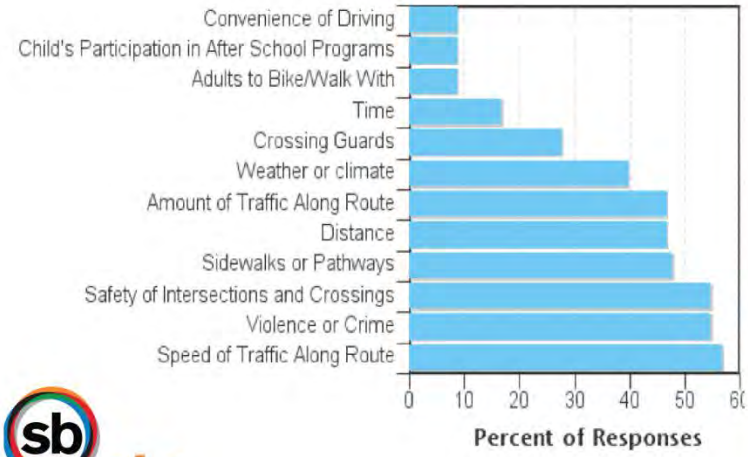
0 within 1/4 mile

1 within 1/2 mile

0 fatal within (1/2 mile)

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sb cta
san bernardino county transportation authority

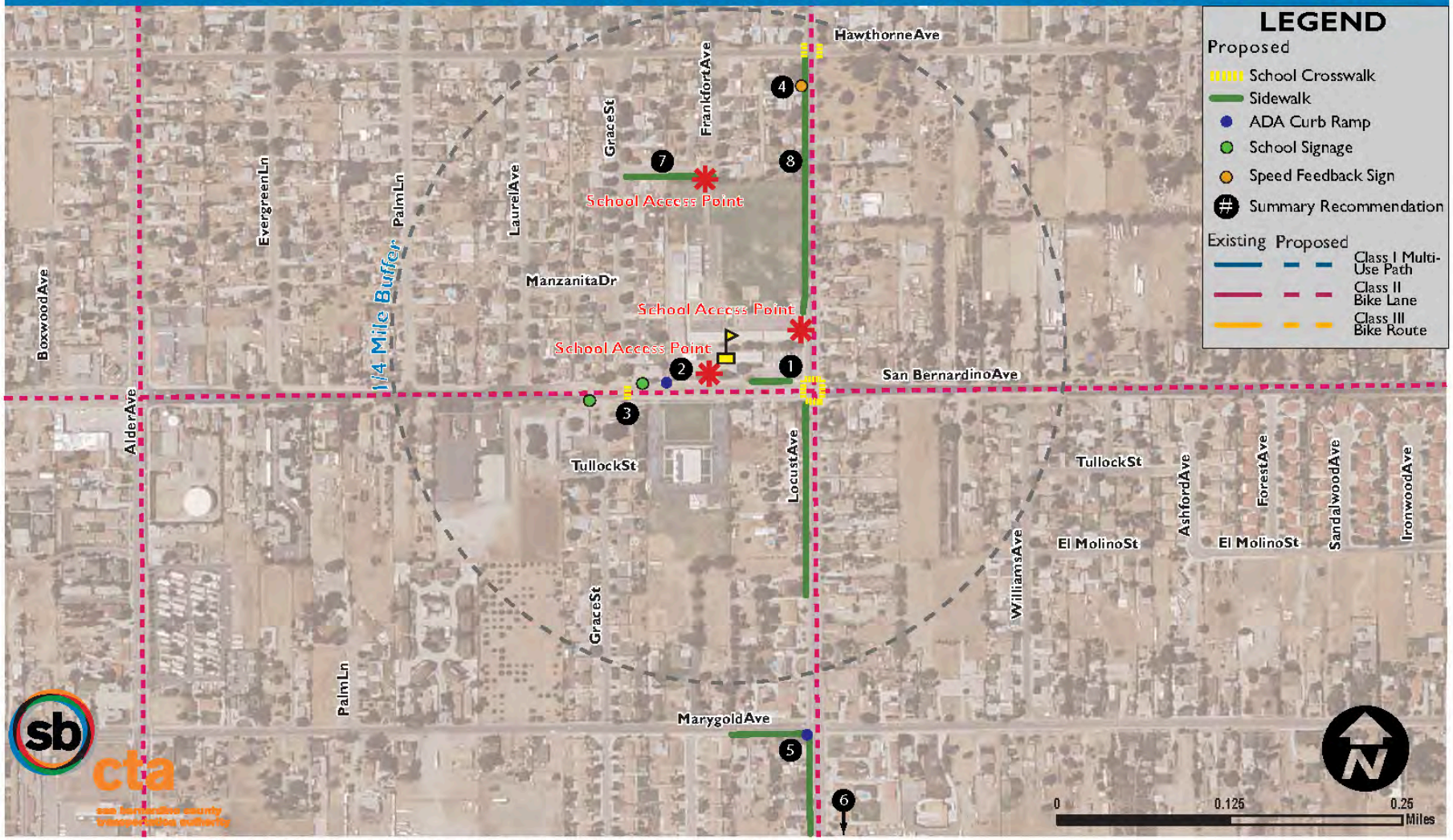
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

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

1. *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.
2. *San Bernardino Avenue:* Install ADA compliant concrete driveway entrance.
3. *San Bernardino Avenue:* Install R1-5 Sign and yeild 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.
4. *Locust Avenue:* Install speed feedback sign where already existing SR4-1 (CA) Assembly C signage is located.
5. *Locust Avenue:* Install ADA compliant curb ramp at SW corner to connect to proposed sidewalk gap closures depicted on the map view extent.
6. *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.
7. *Manzanita Drive:* Install sidewalk for drop off/pick up area between Grace Street and Frankfort Avenue.
8. *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

	Recommendation #	Location	Improvement	Background/Discussion
Mary B. Lewis Elementary School	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 Berneradino 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 compliancy 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

SafeRoutes
National Center for Safe Routes to School

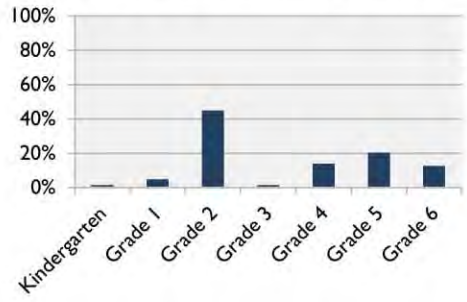
Number of Surveys Received	151

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

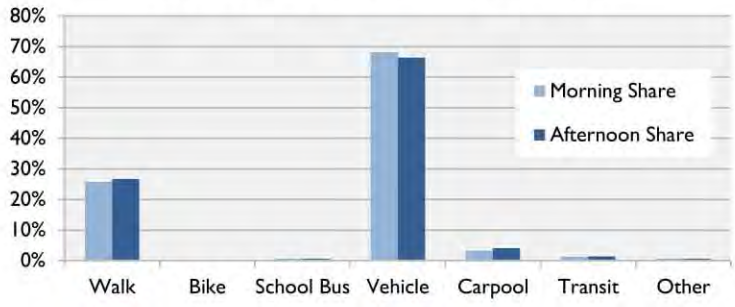
Surveys were printed on two-page forms and distributed to parents to take home. Tally data are not available for this school.

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

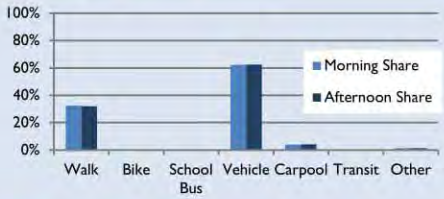


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

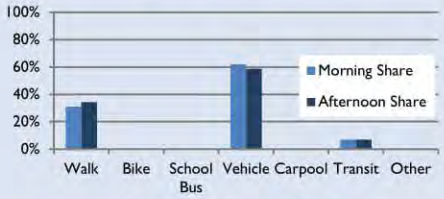
54%
of survey responses



Top 5 Issues Affecting Likeliness 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

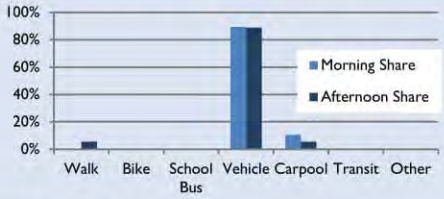
21%
of survey responses



Top 5 Issues Affecting Likeliness 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

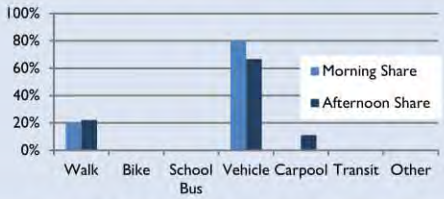
14%
of survey responses



Top 5 Issues Affecting Likeliness 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

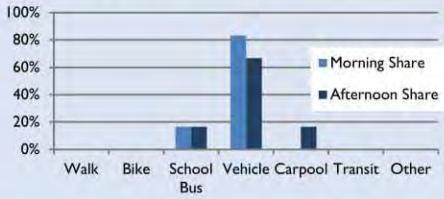
7%
of survey responses



Top 5 Issues Affecting Likeliness 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

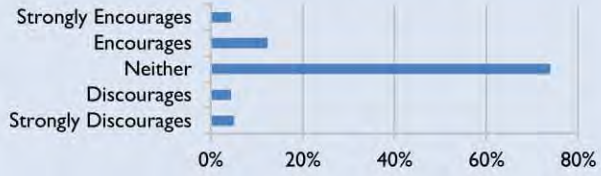
4%
of survey responses



Top 5 Issues Affecting Likeliness 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

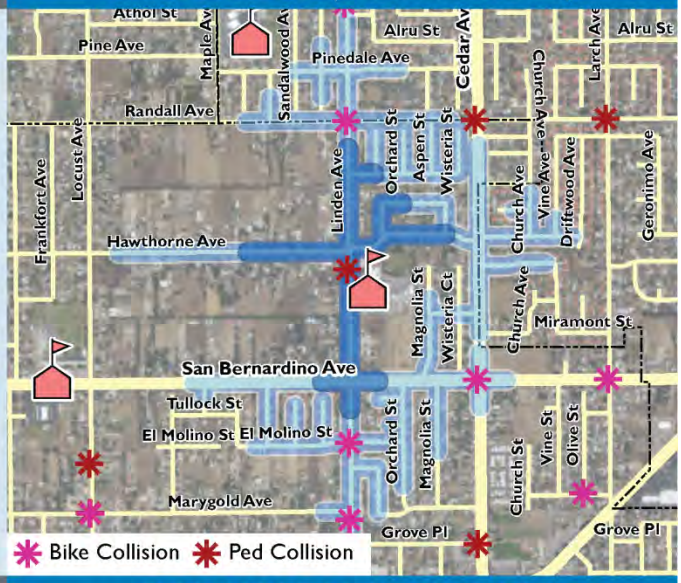
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

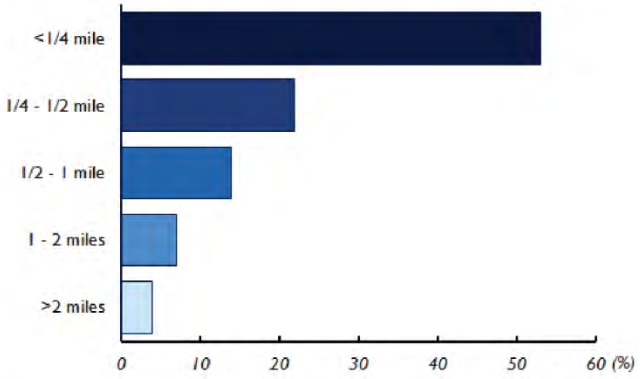
\# of Walk Audit Participants - 12

\# of Surveys Received - 152

WALKSHED *(1/4 and 1/2 mile)*



COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

2 within 1/4 mile

4 within 1/2 mile

0 fatal within (1/2 mile)

Bicyclist Related Collisions

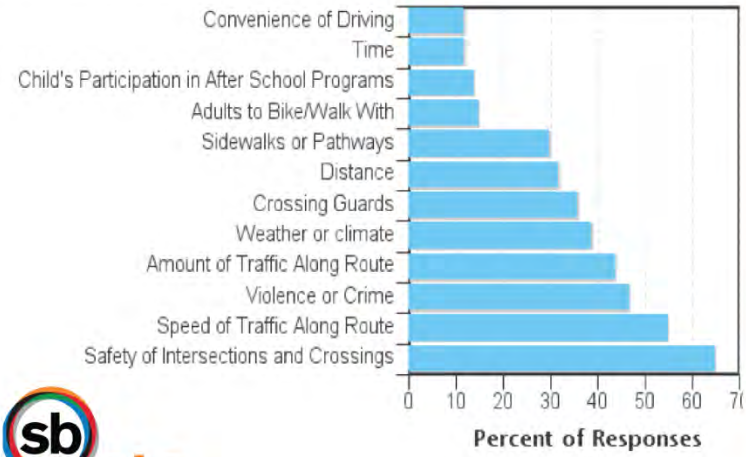
0 within 1/4 mile

4 within 1/2 mile

0 fatal within (1/2 mile)

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sb cta
san bernardino county transportation authority

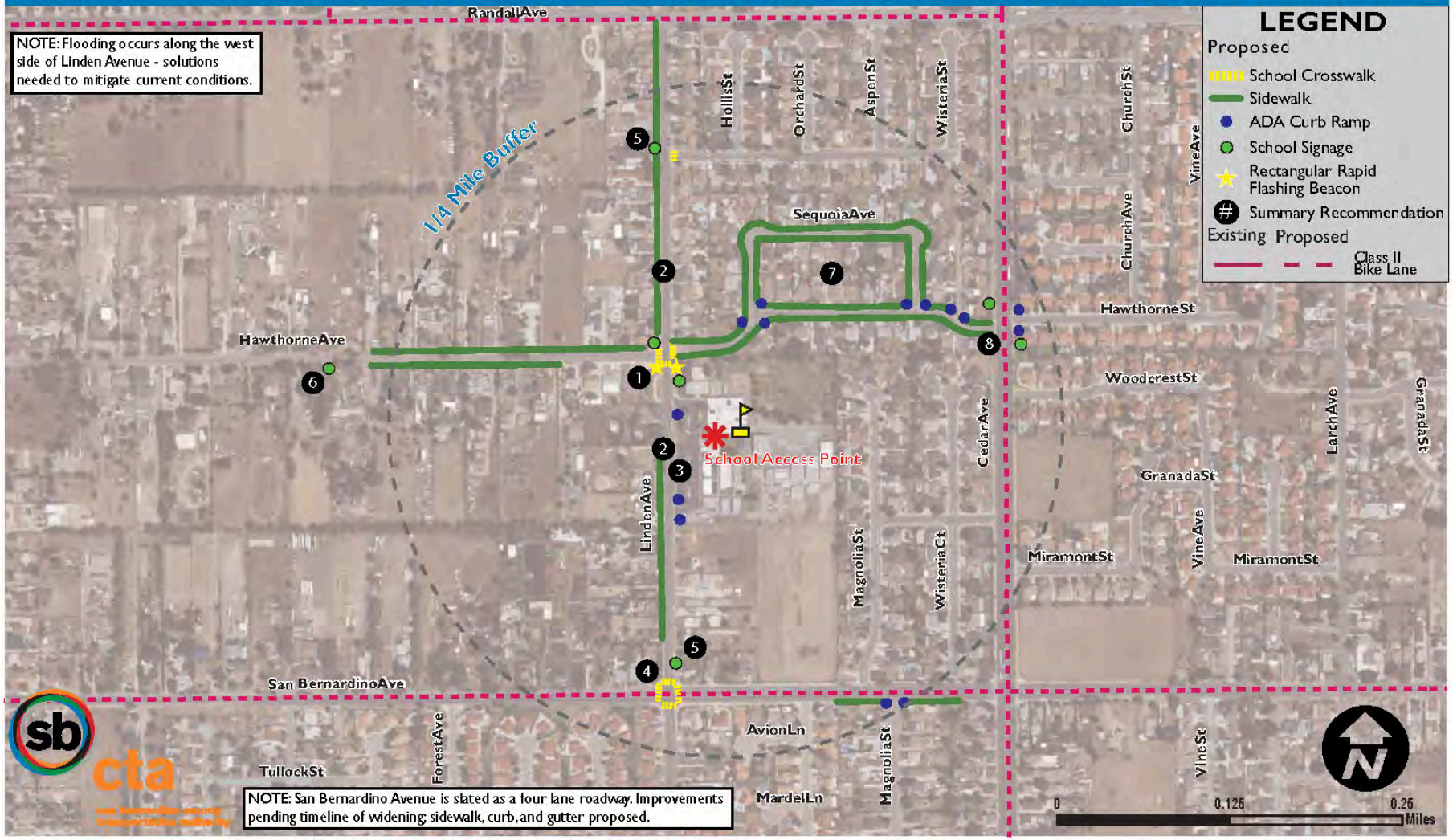
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

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 RRFB for north and southbound traffic on existing SW24-2 (CA) Assembly B. Install R1-5 signs with yield lines and pavement markings on appraoch 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

	Recommendation #	Location	Improvement	Background/Discussion
Gerald A. Smith Elementary School	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 difficultly 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 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 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**

City of Upland

Sycamore Elementary School

Sycamore Elementary School is an Upland Unified School District school located in a low-density residential neighborhood of Upland, California. The school is situated along 13th Street between Erin Avenue and Mulberry Avenue. The Sycamore Elementary walk audit took place from 6:30AM to 8:00AM on September 19th, 2016, prior to the morning start bell ringing. Participants (16) were secured in the time leading up to the morning start bell as they dropped their students off for school. Observations extended into the surrounding neighborhood along 13th Street, Erin Avenue, Mulberry Avenue, Pine Street, Mountain Avenue, and San Antonio Avenue.

"My child is not allowed to walk/ride a bike to school due to local crime and traffic."

"Parents still continue to drive to fast around school zones. Our children are at risk!"

All remarks received from walk audit participants at Sycamore Elementary

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	54
Number of Tallies	244
» Morning (To School)	125
» Afternoon (From School)	119

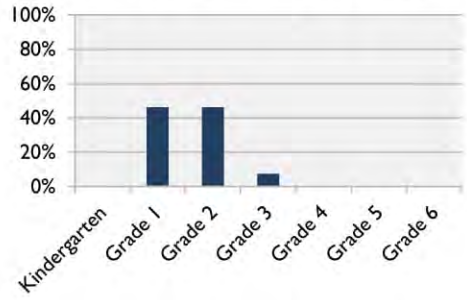
Number of Surveys Received	75

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

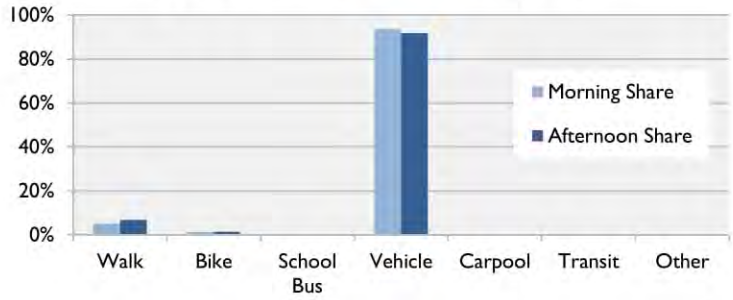
Tallies were conducted by teachers in eight classes on a consecutive Tuesday, Wednesday, and Thursday, assessing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents to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

Students who walk or bike to school	**12.3%**
Students who don't walk/bike but have asked parents for permission	**+ 21.9%**
Students who walk/bike or have asked parents for permission	**34.3%**
Student enrollment	**x 441**
Potential walking/biking student base	**151**

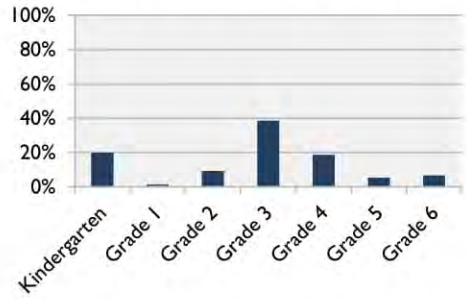
Grade Distribution of Tallies



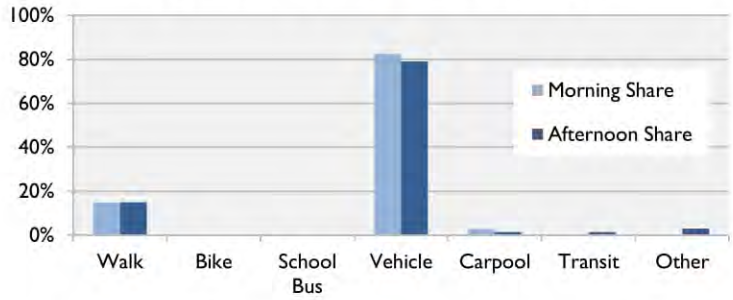
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

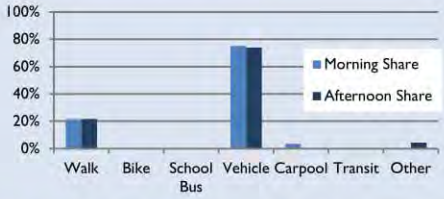


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

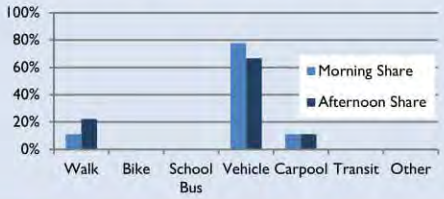
39%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 46%
Amount of Traffic Along Route – 29%
Safety of Intersections & Crossings – 29%
Speed of Traffic Along Route – 21%
Distance – 14%

Students Living Between ¼ and ½ Mile from School

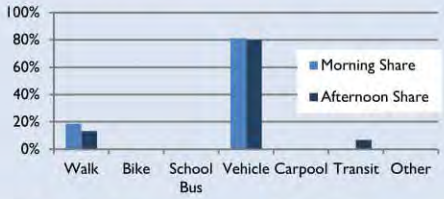
13%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 56%
Amount of Traffic Along Route – 56%
Safety of Intersections & Crossings – 56%
Crossing Guards – 33%
Distance – 22%

Students Living Between ½ and 1 Mile from School

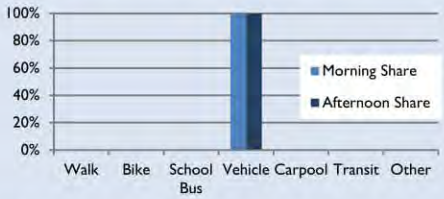
22%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 31%
Safety of Intersections & Crossings – 31%
Speed of Traffic Along Route – 25%
Sidewalks or Pathways – 25%
Crossing Guards – 25%

Students Living Between 1 and 2 Miles from School

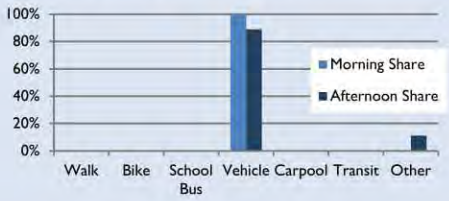
13%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 67%
Speed of Traffic Along Route – 56%
Amount of Traffic Along Route – 56%
Safety of Intersections & Crossings – 33%
Time – 22%

Students Living Farther than 2 Miles from School

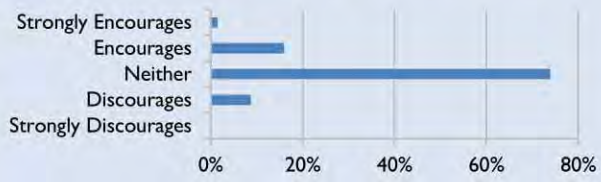
14%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 60%
Violence or Crime – 30%
Participation in After-School Programs – 20%
Speed of Traffic Along Route – 20%
Amount of Traffic Along Route – 20%

Parents' Perspectives

Whether School Encourages Walking/Biking



72%
consider walking/biking healthy or very healthy.

59%
would not feel comfortable having their child walk/bike at any age with current conditions.

SYCAMORE ELEMENTARY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Upland
School Enrollment - 441
Free or Reduced Lunch - 42.90%

Environmental Indicators:

Cal Enviro Score % Range - 46-50%
Cal Enviro Score (CES2.0*) - 24.6

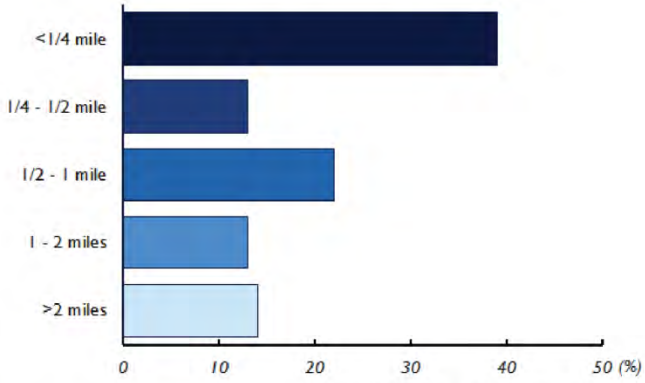
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 16
# of Surveys Received - 75

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE (%)



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

COLLISION ANALYSIS

Pedestrian Related Collisions

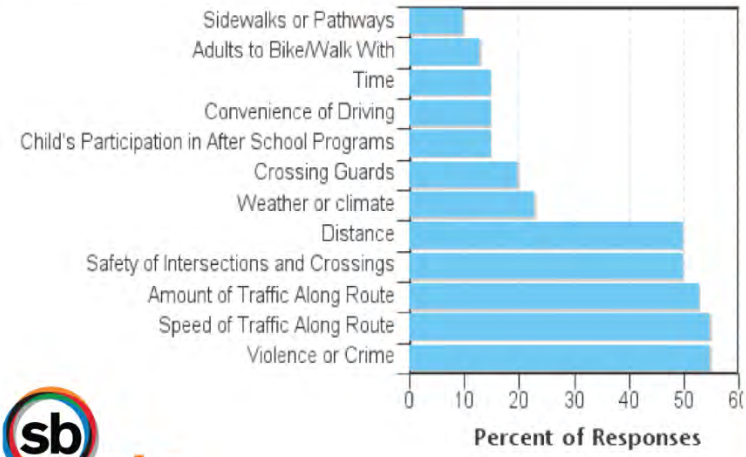
1 within 1/4 mile
12 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sb cta
san bernardino county transportation authority

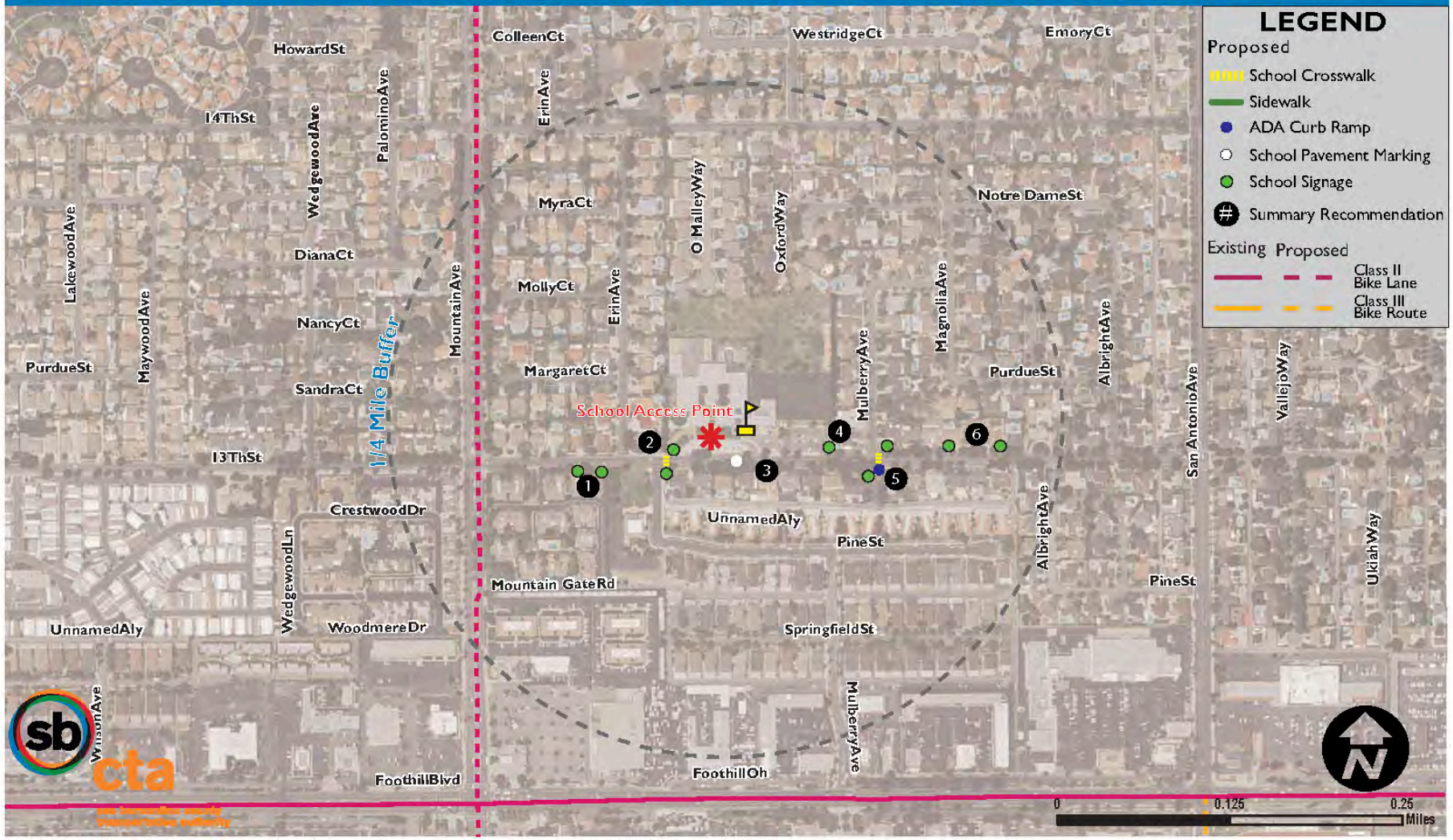
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	15%	15%
bike	0%	0%
bus	0%	0%
vehicle	82%	79%
carpool	3%	1%
transit	0%	1%
other	0%	3%

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

SBCTA SRTS PHASE II: *SYCAMORE ELEMENTARY SCHOOL, UPLAND*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *13th Street:* Upgrade existing SW24-3 (CA) Assembly D sign to new condition. Install SR4-1 (CA) Asselmbly C sign to the conventional roadway size of 36x72"(For eastbound traffic.)
2. *13th Street and Pine Street:* Remove existing faded SW24-2 (CA) Assembly B signs and replace with new SW24-2 (CA) Assembly B School Crosswalk with downward arrow on both sides of the crossing provided for west and eastbound traffic. Ensure trees are trimmed to provide ample line of sight. Install high visibility ladder style crosswalk for east leg of intersection. Install flashing beacon or in ground flashing lights at this location. Install pavement marking, "KEEP CLEAR" westbound in front of school driveway.
3. *13th Street:* Remove all school pavement markings and reinstall with proper stencil size that read, "SLOW SCHOOL XING." Repaint red curbs on north side of roadway.
4. *13th Street:* Install signage that restricts eastbound left turns into pick up/drop off loop during the AM and PM pick up and drop off hours.
5. *13th Street and Mulberry Avenue:* Remove out dated school crossing signage not in proper location. Install SW24-2 (CA) Assembly B signs for school crossing provided for east and westbound traffic. Paint curbs red leading into the intersection on the eastbound curb and leading into the intersection on the westbound curb. Install high visibility ladder style crosswalk on east leg. Install ADA compliant curb ramp on SE corner.
6. *13th Street:* Upgrade existing SW24-3 (CA) Assembly D sign to new condition. Install SR4-1 (CA) Asselmbly C sign to the conventional roadway size of 36x72" (For westbound traffic.)

TCC

Background/Discussion of the Engineering Recommendations

	Recommendation #	Location	Improvement	Background/Discussion
Sycamore Elementary School	1	13th Street	School signage	Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along 13th street, a primary walking route to school (noted during field observation).
	2	13th Street and Pine Street	School signage, tree trimming, high visibility ladder style crosswalk and pavement marking	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).
	3	13th Street	School pavement markings and red curb	Adherence to MUTCD Part 7 guidelines to increase driver awareness of 13th street crossing. See below, "General - red curb."
	4	13th Street	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	13th Street and Mulberry Ave	School signage, red curb, high visibility ladder crosswalk and ADA compliance	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). See below, "General - ADA curb ramps."
	6	13th Street	School signage	Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along 13th street, a primary walking route to school (noted during field observation).
	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	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 Sycamore Elementary School engineering recommendations by major corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
W. 13th St.	New Sign on Post	Each	$181	9	$1,630
	School Area Pavement Marking (Per Word)	Each	$254	4	$1,014
	High Visibility Ladder Crosswalk	Each	$1,788	2	$3,576
	ADA Curb Ramps	Each	$3,623	1	$3,623
	Segment Total				**$9,843**
ALL SEGMENTS					**$9,843**

Baldy View Elementary School

Baldy View Elementary School is an Upland Unified School District school located in a low-density residential neighborhood of Upland, California. The school is located along 11th Street, between San Antonio Avenue and Mountain Avenue. Held on December 14th, 2016, the Baldy View Elementary School walk audit took place from 12:30PM to 1:30PM, leading up to the afternoon release bell ringing. Participants (4) were secured in the time leading up to the morning bell as they dropped their students off for school. The observations extended into the surrounding neighborhood along 11th Street, Magnolia Avenue, Birch Avenue, Mountain Avenue, and San Antonio Avenue.

"I would not feel comfortable with my daughter walking to or from school at any age because of predators, traffic, and weather. I work, so I am able to drop her off at school. As long as I can drop her off and pick her up I will continue to do so."

"Vehicle traffic near the school is too dangerous for children to walk. Parents of children at our school do not follow traffic rules. J-walking in front of the school is prevalent."

All remarks received from walk audit participants at Baldy View Elementary

SafeRoutes
National Center for Safe Routes to School

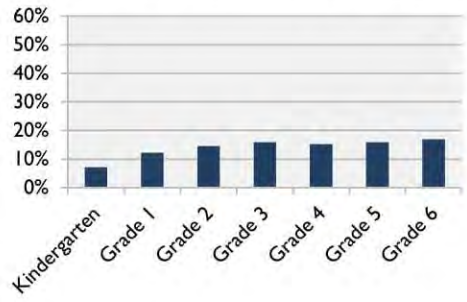
Number of Surveys Received	299

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

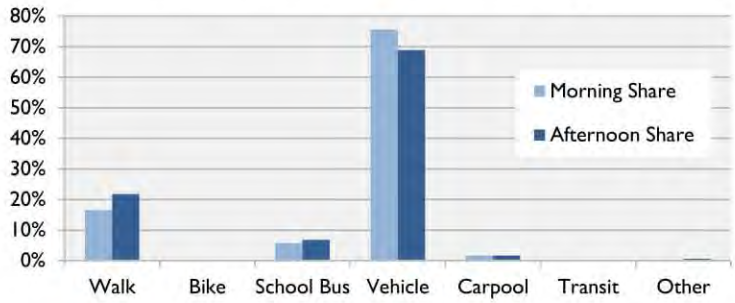
Surveys were printed on two-page forms and distributed to parents to take home. Tally data are not available for this school.

Students who walk or bike to school	**12.6%**
Students who don't walk/bike but have asked parents for permission	**+ 25.9%**
Students who walk/bike or have asked parents for permission	**38.6%**
Student enrollment	**x 635**
Potential walking/biking student base	**245**

Grade Distribution of Surveys

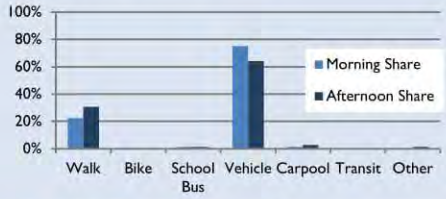


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

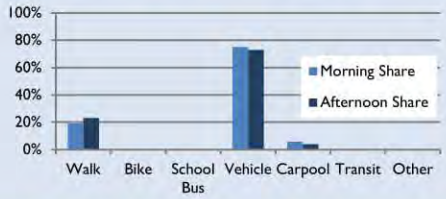
28%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 43%
Violence or Crime – 37%
Amount of Traffic Along Route – 33%
Speed of Traffic Along Route – 32%
Weather or Climate – 25%

Students Living Between ¼ and ½ Mile from School

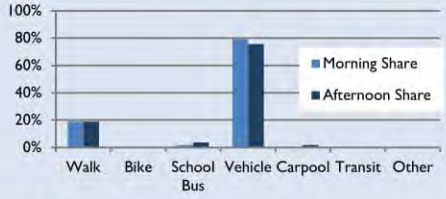
19%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 63%
Amount of Traffic Along Route – 60%
Speed of Traffic Along Route – 56%
Violence or Crime – 44%
Crossing Guards – 35%

Students Living Between ½ and 1 Mile from School

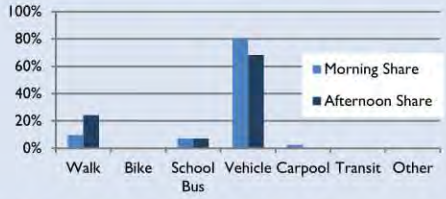
19%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 58%
Safety of Intersections & Crossings – 51%
Amount of Traffic Along Route – 43%
Speed of Traffic Along Route – 38%
Weather or Climate – 34%

Students Living Between 1 and 2 Miles from School

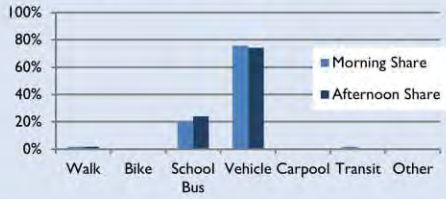
15%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 54%
Violence or Crime – 46%
Amount of Traffic Along Route – 44%
Speed of Traffic Along Route – 41%
Distance – 32%

Students Living Farther than 2 Miles from School

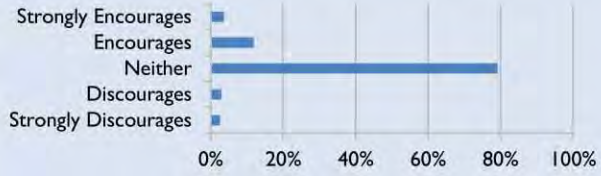
20%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 81%
Safety of Intersections & Crossings – 61%
Amount of Traffic Along Route – 59%
Speed of Traffic Along Route – 57%
Violence or Crime – 56%

Parents' Perspectives

Whether School Encourages Walking/Biking



78%
consider walking/biking healthy or very healthy.

51%
would not feel comfortable having their child walk/bike at any age with current conditions.

BALDY VIEW ELEMENTARY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - Upland
School Enrollment - 635
Free or Reduced Lunch - 77.90%

Environmental Indicators:

Cal Enviro Score % Range - 76-80%
Cal Enviro Score (CES2.0*) - 42.29

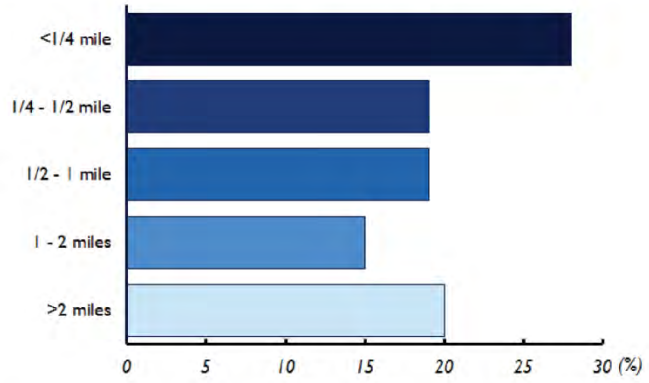
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 4
# of Surveys Received - 299

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

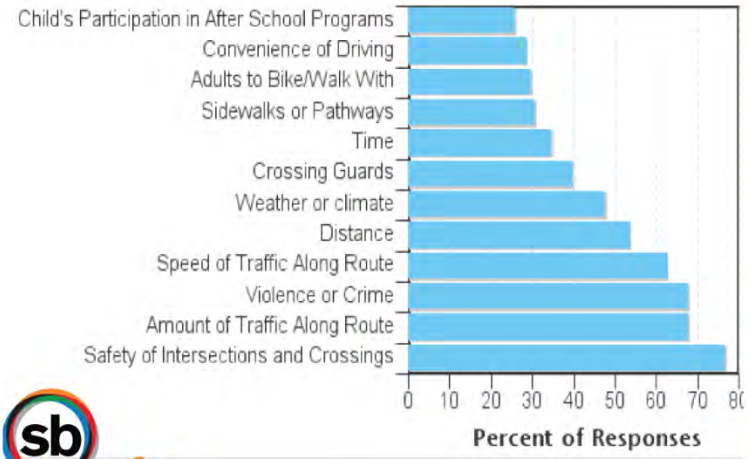
2 within 1/4 mile
23 within 1/2 mile
2 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sbcta
san bernardino county transportation authority

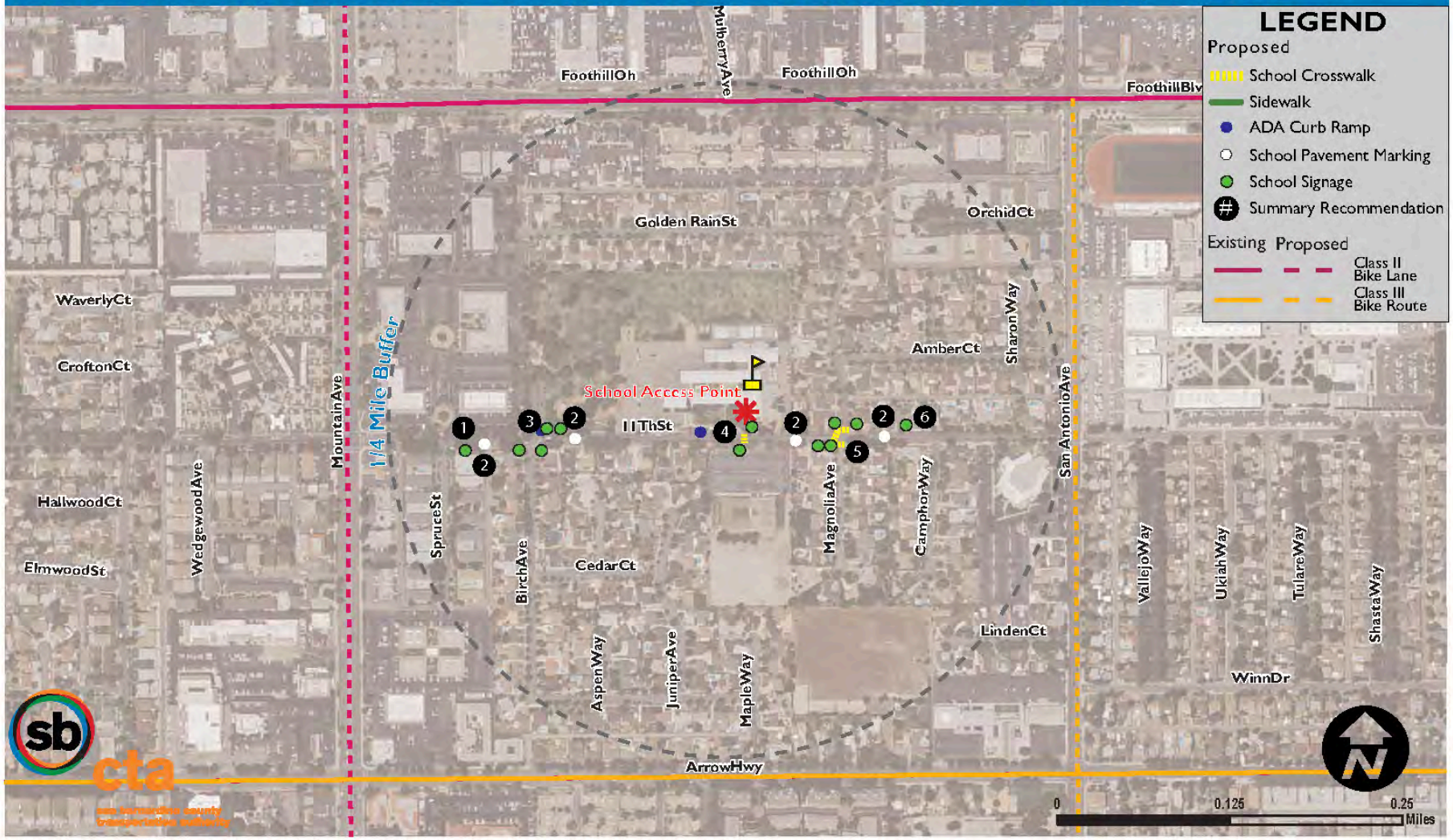
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	*afternoon*
walk	17%	22%
bike	0%	0%
bus	6%	7%
vehicle	76%	69%
carpool	2%	2%
transit	0.3%	0%
other	0%	0.7%

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

SBCTA SRTS PHASE II: *BALDY VIEW ELEMENTARY SCHOOL, UPLAND*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *11th Street and Spruce Street:* Upgrade existing SR4-1 (CA) Assembly C to the conventional roadway size of 36x72". Ensure trees are trimmed to maintain visibility of overhead SR4-1 (CA) Assembly C.

2. *11th Street:* Repaint school pavement markings to read, "SLOW SCHOOL XING."

3. *11th Street and Birch Avenue:* Install R1-5 signage 20-50" prior to school crossing. Remove yellow limit lines and replace with white triangular (shark teeth) yield lines. Install bulbouts to choke street width down on NE and SE curbs. Install SW24-2 (CA) Assembly B signs at crossing for both eastbound and westbound traffic.

4. *11th Street and Front of School:* Install high visibility ladder style crosswalk. Install SW24-2 (CA) Assembly B signage on either side of crossing for eastbound and westbound traffic. Repaint red curbs leading eastbound to crossing. Replace sidewalk panels on north side impacted by trees. Install inroad pavement flashers and flashing beacon system for mid-block crossing.

5. *11th Street and Magnolia Avenue:* Install R1-5 signage 20-50" leading into school crossing. Remove yellow limit lines and replace with white (shark teeth) triangular yield lines. Install high visibility yellow ladder style crosswalk on north, west, and south legs of intersection. Install bulbouts on NW and SW corners and straighten crossing. Install red curb on eastbound lane leading into crossing. Repaint "STOP" legend and stop bar.

6. *11th Street and Camphor Way:* Upgrade existing SR4-1 (CA) Assembly C signage to the conventional roadway size of 36x72". Replace signal flasher bulbs to operate with optimal vibrancy.

Background/Discussion of the Engineering Recommendations

Baldy View Elementary School

Recommendation #	Location	Improvement	Background/Discussion
1	**11th Street at Spruce Street**	School signage	Adherence to MUTCD Part 7 guidelines to increase driver awareness of school zone speed limit. Improvement recommendations respond to comments received during the walk audit, regarding vehicular speeds along primary walking route to school (noted during field observations).
2	**11th Street**	School pavement marking	Improvement references Recommendation #1, in adherence to MUTCD guidelines and comments received from the walk audit.
3	**11th Street at Birch Avenue**	Signage, bulbouts	Improvements fall along primary walking route to school (noted during field observations). Adherence to MUTCD guidelines were made to respond to comments were received during school-wide surveying and during the walk audit to increase pedestrian visibility and decrease pedestrian exposure while crossing. See below, "General - ADA curb ramp and red curb."
4	**11th Street at Front of School**	High visibility ladder crosswalk, school signage, sidewalk, in-road pavement flashers	Improvements are located along the primary walking route to school (noted during field observation), responding to comments received during the school-wide surveying and the walk audit. Engineering recommendations used to increase pedestrian visibility while crossing the uncontrolled crosswalk.
5	**11th Street at Magnolila Avenue**	Yield signs and lines, high visibility ladder crosswalk, bulbouts, red curb	Location falls along primary walking route to school (noted during field observation). School-wide survey comments describe this uncontrolled intersection as unsafe and difficult to cross, recommendations respond to these comments and walk audit comments. See below, "General - red curb."
6	**11th Street at Camphor Way**	School signage and flashing beacons	Adherence to MUTCD Part 7 guidelines to increase driver awareness of school zone speed limit. Improvement recommendations respond to comments received during the walk audit, regarding vehicular speeds along primary walking route to school (noted during field observations).
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	ADA curb ramps	These improvements are made to comply with ADA standards for increased accessibility for students/parents along their primary routes to school.

The following cost estimation table details Baldy View Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
W. 11th St.	Roadway Lane Line Striping (Both Directions)	Per Linear Foot	$8	56	$448
	Existing Roadway Striping Removal (Sand Blast)	Per Linear Foot	$6	56	$338
	Pedestrian Flashing Beacon (Post/Pole Mount)	Each	$9,056	1	$9,056
	In-Road Flashers Crosswalk	Each	$66,413	1	$66,413
	New Sign on Post	Each	$181	10	$1,811
	School Area Pavement Marking (Per Word)	Each	$254	10	$2,536
	High Visibility Ladder Crosswalk	Each	$1,788	4	$7,152
	ADA Curb Ramps	Each	$3,623	2	$7,245
	Curb Extension - Raised	Per Intersection	$87,766	1	$87,766
	Segment Total				**$182,765**
ALL SEGMENTS					**$182,765**

Citrus Elementary School

Citrus Elementary School is an Upland Unified School District school located in a medium-density residential neighborhood of Upland, California. The school is situated along 7th Avenue between San Antonio Avenue and Mountain Avenue. The Citrus Elementary School walk audit took place on September 19th, 2016 from 12:00PM to 2:00PM, attracting 27 participants including parents, school staff, and community members. Participants were secured in the time leading up to the afternoon release bell as they picked their students up from school. Observations extended into the surrounding neighborhood along the following roadways: 7th Avenue, Bixby Way, Austin Way, Harrington Avenue, Mountain Avenue, and San Antonio Avenue.

"Intersections where we live are dangerous, even for an adult. I prefer they take the bus home when I can't pick them up."

"Too many cars run red lights. This is why we stopped walking to school."

"I walk with my boys. I wouldn't let them walk alone; this world just isn't what it used to be."

All remarks received from walk audit participants at Citrus Elementary

SafeRoutes
National Center for Safe Routes to School

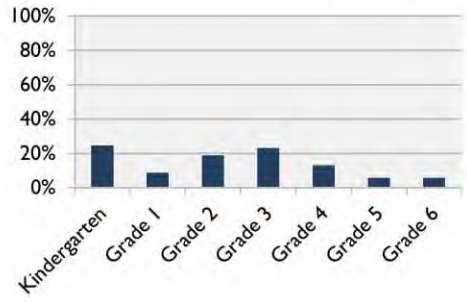
Number of Surveys Received	71

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

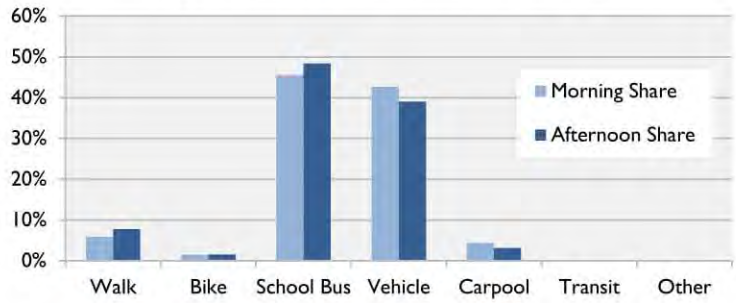
Surveys were printed on two-page forms and distributed to parents to take home. Tally data are not available for this school.

Students who walk or bike to school	**5.7%**
Students who don't walk/bike but have asked parents for permission	**+ 17.1%**
Students who walk/bike or have asked parents for permission	**22.9%**
Student enrollment	**x 762**
Potential walking/biking student base	**175**

Grade Distribution of Surveys

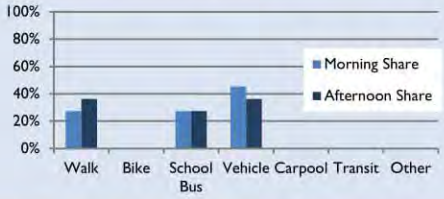


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

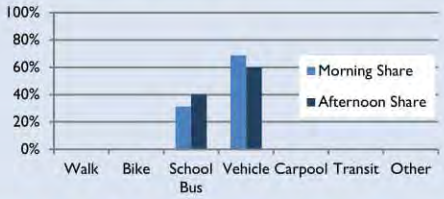
18%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 33%
Amount of Traffic Along Route – 25%
Distance – 17%
Safety of Intersections & Crossings – 17%
Convenience of Driving – 8%

Students Living Between ¼ and ½ Mile from School

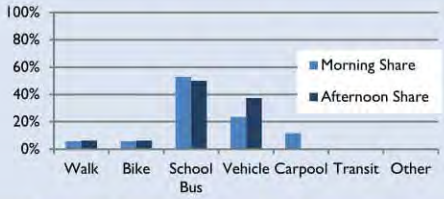
24%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 44%
Speed of Traffic Along Route – 38%
Violence or Crime – 38%
Amount of Traffic Along Route – 25%
Distance – 19%

Students Living Between ½ and 1 Mile from School

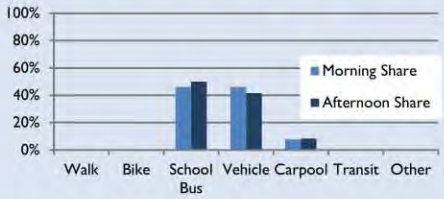
27%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 44%
Speed of Traffic Along Route – 39%
Amount of Traffic Along Route – 28%
Violence or Crime – 22%
Weather or Climate – 22%

Students Living Between 1 and 2 Miles from School

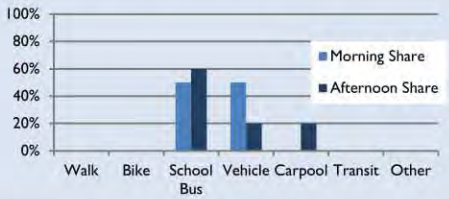
21%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 71%
Speed of Traffic Along Route – 43%
Amount of Traffic Along Route – 36%
Distance – 29%
Participation in After-School Programs – 21%

Students Living Farther than 2 Miles from School

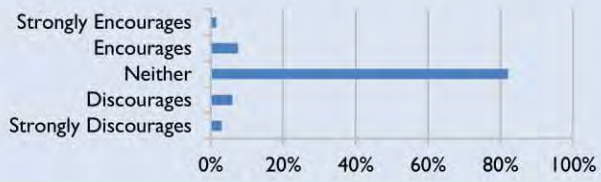
9%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 33%
Speed of Traffic Along Route – 33%
Amount of Traffic Along Route – 17%
Safety of Intersections & Crossings – 17%
Violence or Crime – 17%

Parents' Perspectives

Whether School Encourages Walking/Biking



72%
consider walking/biking healthy or very healthy.

79%
would not feel comfortable having their child walk/bike at any age with current conditions.

CITRUS ELEMENTARY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Upland
School Enrollment - 762
Free or Reduced Lunch - 74.50%

Environmental Indicators:

Cal Enviro Score % Range - 76-80%
Cal Enviro Score (CES2.0*) - 41.56

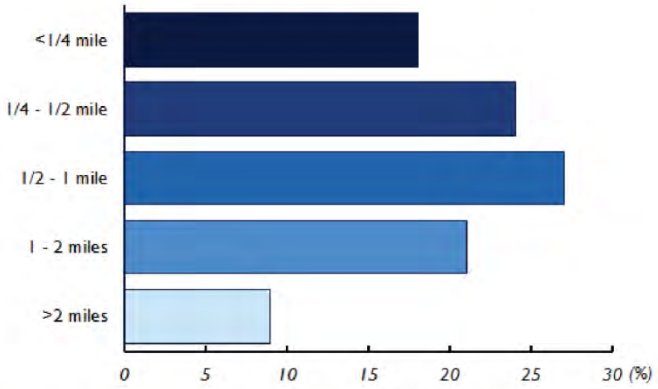
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 27
# of Surveys Received - 71

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

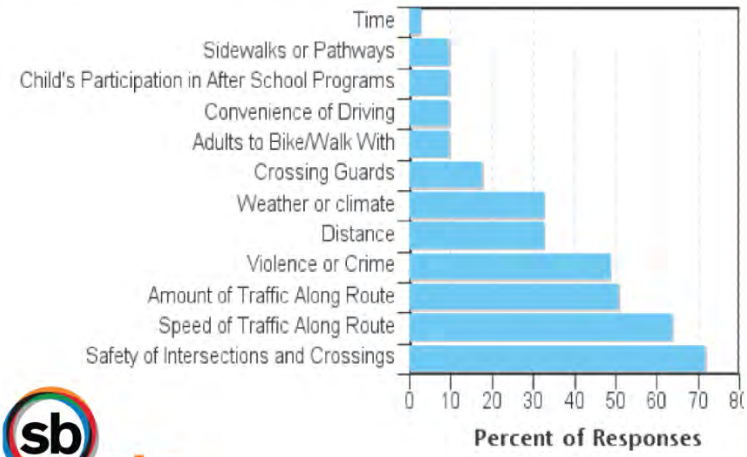
0 within 1/4 mile
12 within 1/2 mile
1 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sbcta
san bernardino county transportation authority

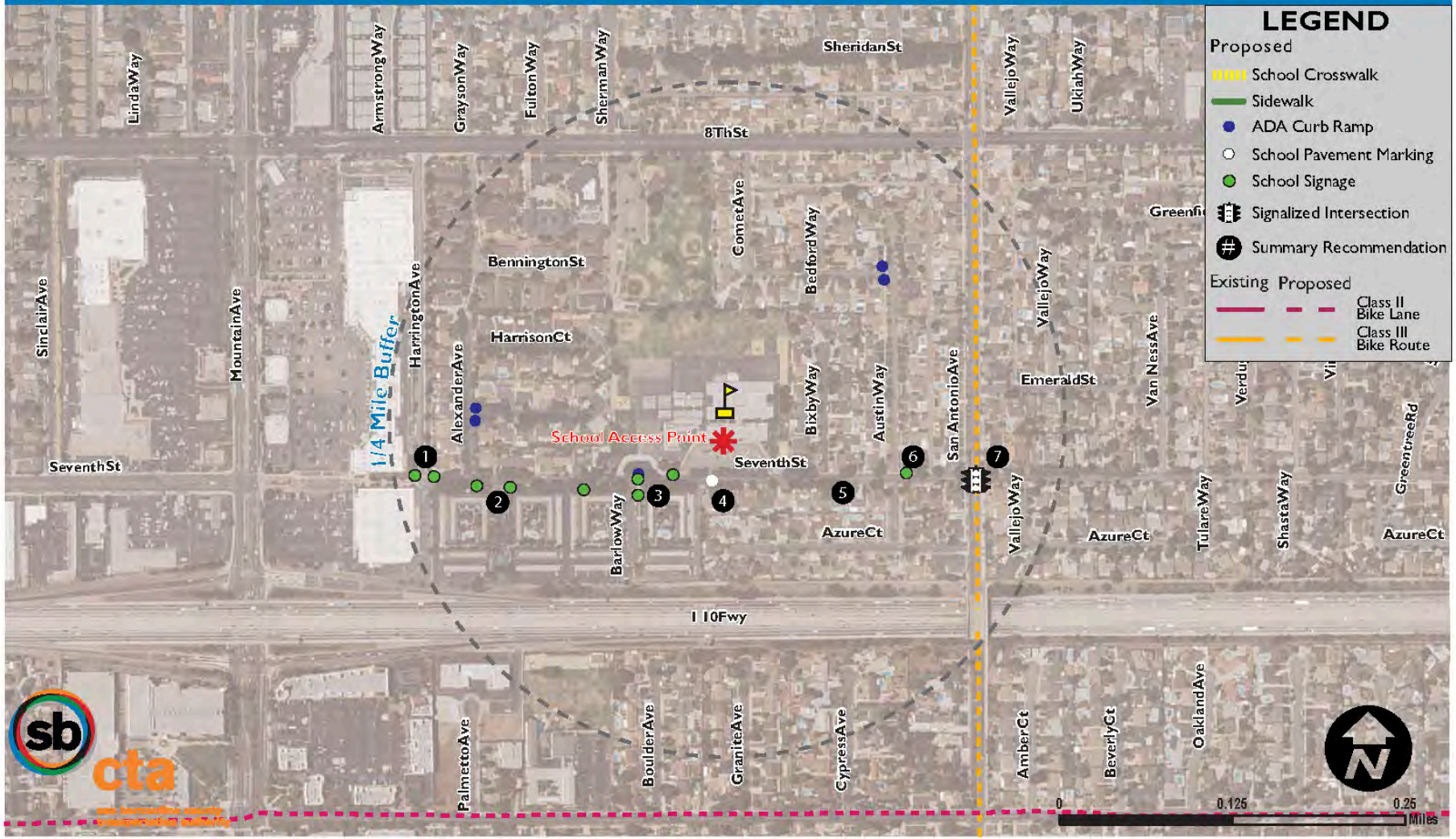
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	6%	8%
bike	1%	2%
bus	46%	48%
vehicle	43%	39%
carpool	4%	3%
transit	0%	0%
other	0%	0%

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

SBCTA SRTS PHASE II: *CITRUS ELEMENTARY SCHOOL, UPLAND*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Seventh Street and Harrington Avenue:* Install SW24-2(CA) Assembly B signs on both sides of the crossing for northbound and southbound traffic.
2. *Seventh Street:* Install SW24-3(CA) Assembly D signage approaching overhead signage. Remove existing school signage since recommendations relocate signage upstream. Install SR4-1(CA) Assembly C sign on overhead mast that is the conventional roadway size of 36"x72". Ensure trees are trimmed to maintain proper line of sight to overhead mast arm for eastbound traffic.
3. *Seventh Street and Front of School:* Install bulbouts on NE and SE curbs, ensuring ADA compliance is met. Install SW24-2(CA) Assembly B signage on both sides of crossing for eastbound and westbound traffic. Install SW24-1(CA) Assembly A signage approaching the crossing on both sides. Extend no parking zone with red paint or signage.
4. *Seventh Street:* Remove existing school pavement markings and repaint new marking that reads, "SLOW SCHOOL XING."
5. *Seventh Street:* Install SR4-1(CA) Assembly C signage for overhead mast arm that is the conventional roadway size 36"x72".
6. *Seventh Street:* Replace school crossing sign with SW24-3(CA) Assembly D signage for westbound traffic.
7. *Seventh Street and San Antonio Avenue:* Install signalized intersection at this location if warrant permtis.

Background/Discussion of the Engineering Recommendations

Citrus Elementary School

Recommendation #	Location	Improvement	Background/Discussion
1	**Seventh Street at Harrington Avenue**	School signage	Improvements adhere to CA MUTCD Part 7 standards for traffic control at schools. Additional signage can increase driver awareness of conflicting pedestrian crossings in the area.
2	**Seventh Street**	Advanced warning school signage, tree trimming	Improvements adhere to CA MUTCD Part 7 standards for traffic control at schools. Increased signage can increase driver awareness of pedestrian crossings in the area. Tree trimming can improve sight distance and decrease any visibility issues.
3	**Seventh Street at Front of School**	Bulbouts, School signage, Red curb	Bulbouts decrease crossing distance for pedestrians and improve driver visibility of said pedestrians. School signage improvements adhere to CA MUTCD Part 7 standards for traffic control at schools and can increase driver awareness of pedestrian crossings in the area. See item below, "General - Red curb."
4	**Seventh Street**	School pavement markings	Improvements adhere to CA MUTCD Part 7 standards for traffic control at schools and can increase driver awareness of pedestrians crossings in the area.
5	**Seventh Street**	School signage	Improvements adhere to CA MUTCD Part 7 standards for traffic control at schools. Increased signage can increase driver awareness of speed limits near school when children are present.
6	**Seventh Street**	Advanced warning school signage	Improvements adhere to CA MUTCD Part 7 standards for traffic control at schools. Increased signagecan increase driver awareness of pedestrian crossings in the area.
7	**Seventh Street**	Traffic signal (pending warrants)	Installation of a signal at this intersection will decrease delay at the intersection. Signal warrant analysis (via CA MUTCD Part 4) will need to be conducted to determine the appropriateness of signalized intersection installation.
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 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 Citrus Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
W. 7th St.	New Sign on Post	Each	$181	10	$1,811
	High Visibility Ladder Crosswalk	Each	$1,788	1	$1,788
	ADA Curb Ramps	Each	$3,623	1	$3,623
	Curb Extension - Raised	Per Intersection	$87,766	0.75	$65,825
	Traffic Signal	Per Intersection	$332,063	1	$332,063
	Segment Total				**$405,109**
S. Alexander Ave.	ADA Curb Ramps	Each	$3,623	2	$7,245
	Segment Total				**$7,245**
S. Austin Way	ADA Curb Ramps	Each	$3,623	2	$7,245
	Segment Total				**$7,245**
ALL SEGMENTS					**$419,599**

City of Victorville

Hollyvale Elementary School

Hollyvale Elementary School is a Hesperia Unified School District (HUSD) school located in a low-density residential neighborhood of Victorville. The school is situated at the intersection of Sycamore Street and Hollyvale Avenue. The walk audit was held from 12:30PM to 2:00PM on November 7th, 2016, prior to the afternoon release bell ringing. Participants (11) were recruited in the time leading up to the afternoon release bell as they waited to pick their students up in front of school. Observations extended into the surrounding neighborhood along Hollyvale Avenue, Sycamore Street, Laurel Oak Road, and Mesa Linda Street.

> "Parking is an issue at Hollyvale. Parents frequently park in the fire lane. There is so much speeding along Sycamore Street. I'm afraid that a child might get hit. Parents do not care about the speed limit."
>
> "My main concern is that the street south from Hollyvale Elementary School has no sidewalk for kids to walk without getting hit by a car."
>
> **All remarks received from walk audit participants at Hollyvale Elementary**

SafeRoutes
National Center for Safe Routes to School

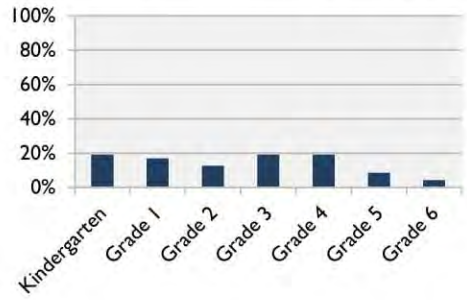
Number of Surveys Received	47

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

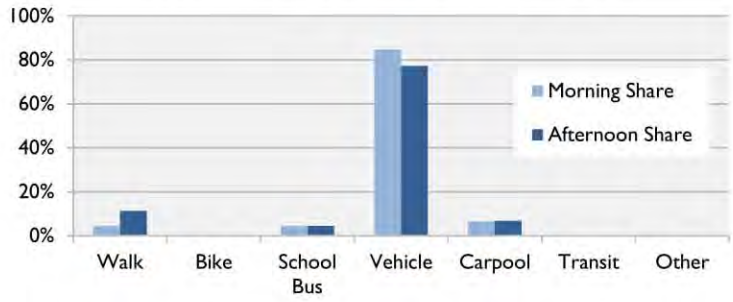
Surveys were printed on two-page forms and distributed to parents to take home. Tally data are not available for this school.

Students who walk or bike to school	**23.3%**
Students who don't walk/bike but have asked parents for permission	**+ 23.8%**
Students who walk/bike or have asked parents for permission	**47.1%**
Student enrollment	**x 401**
Potential walking/biking student base	**189**

Grade Distribution of Surveys

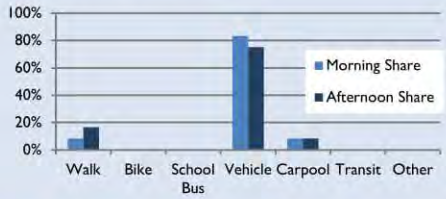


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

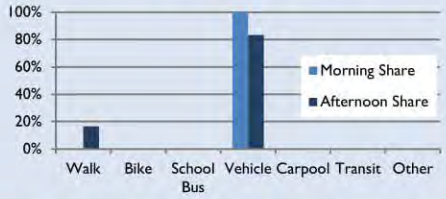
26%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 50%
Sidewalks or Pathways – 50%
Violence or Crime – 50%
Amount of Traffic Along Route – 42%
Safety of Intersections & Crossings – 42%

Students Living Between ¼ and ½ Mile from School

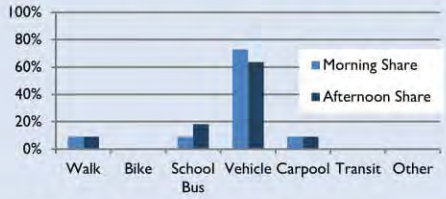
17%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 50%
Sidewalks or Pathways – 50%
Crossing Guards – 50%
Violence or Crime – 50%
Safety of Intersections & Crossings – 38%

Students Living Between ½ and 1 Mile from School

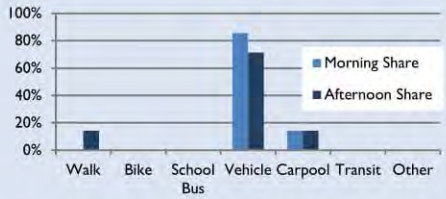
24%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 55%
Sidewalks or Pathways – 55%
Safety of Intersections & Crossings – 55%
Violence or Crime – 55%
Distance – 36%

Students Living Between 1 and 2 Miles from School

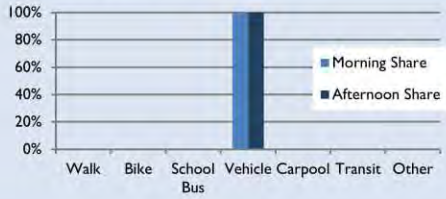
15%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Weather or Climate – 57%
Sidewalks or Pathways – 43%
Safety of Intersections & Crossings – 29%
Speed of Traffic Along Route – 14%
Amount of Traffic Along Route – 14%

Students Living Farther than 2 Miles from School

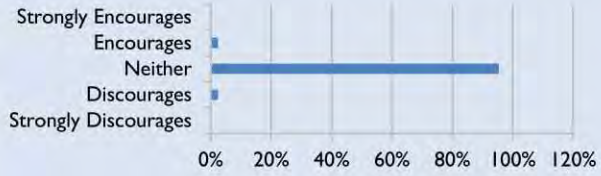
17%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 75%
Distance – 63%
Speed of Traffic Along Route – 63%
Amount of Traffic Along Route -50%
Sidewalks or Pathways – 50%

Parents' Perspectives

Whether School Encourages Walking/Biking



74%
consider walking/biking healthy or very healthy.

77%
would not feel comfortable having their child walk/bike at any age with current conditions.

HOLLYVALE ELEMENTARY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Victorville
School Enrollment - 401
Free or Reduced Lunch - 68.80%

Environmental Indicators:

Cal Enviro Score % Range - 51-55%
Cal Enviro Score (CES2.0*) - 27.32

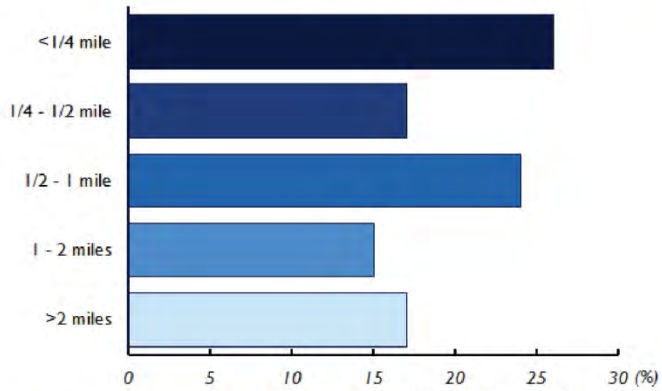
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 11
# of Surveys Received - 47

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

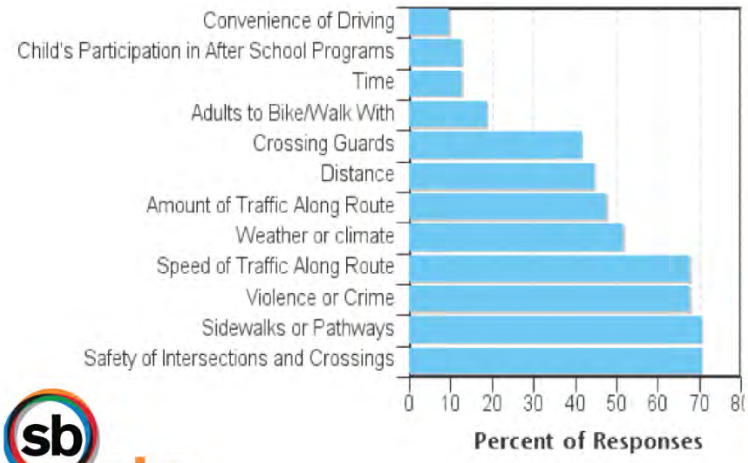
0 within 1/4 mile
0 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sbcta
san bernardino county transportation authority

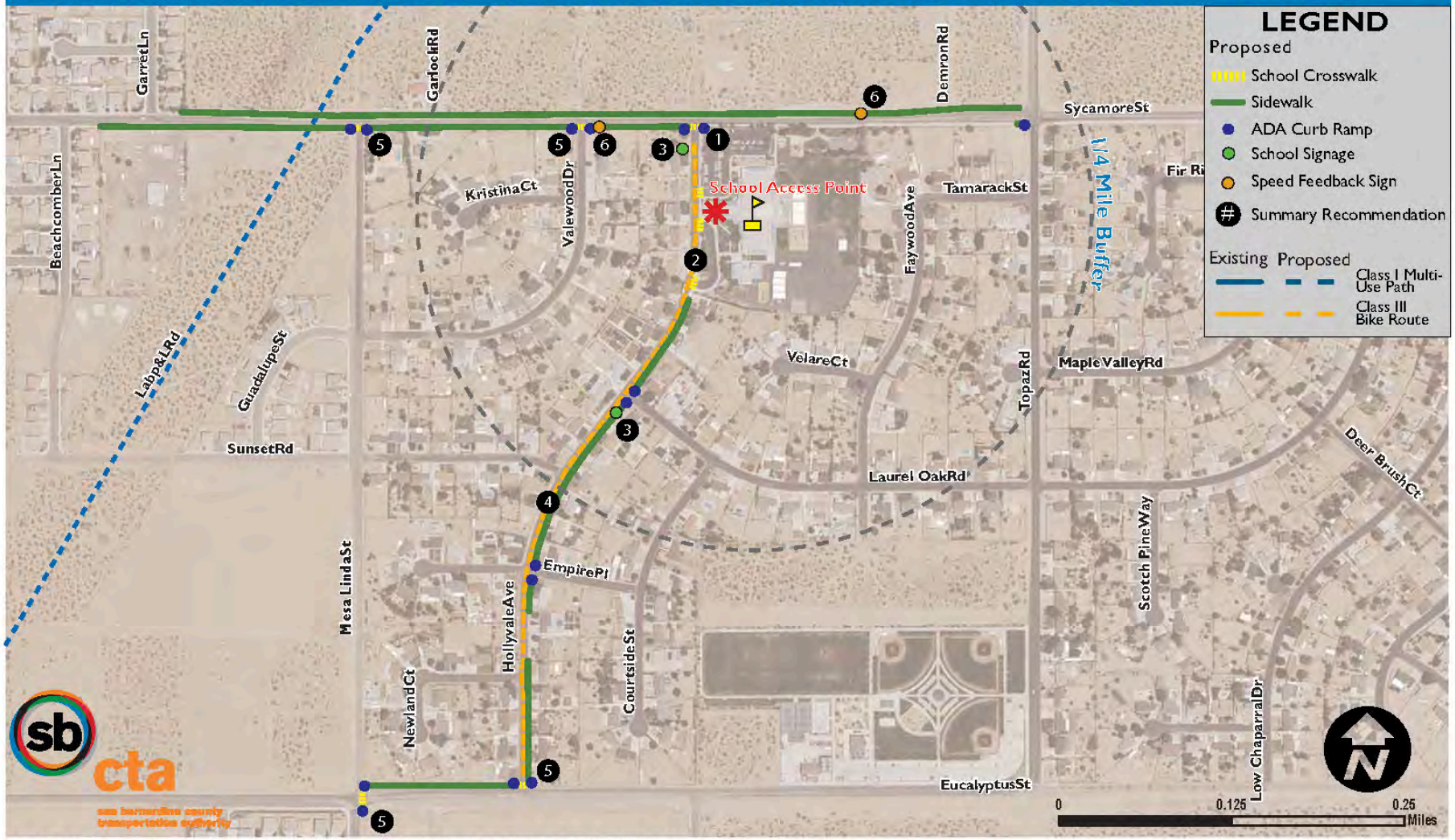
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	4%	11%
bike	0%	0%
bus	4%	5%
vehicle	85%	77%
carpool	7%	7%
transit	0%	0%
other	0%	0%

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

SBCTA SRTS PHASE II: *HOLLYVALE ELEMENTARY SCHOOL, VICTORVILLE*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Hollyvale Avenue and Sycamore Street:* Install high visibility ladder style crosswalk on south leg. Install ADA compliant curb ramps to connect proposed sidewalk extensions to existing network and crossings. Install red curbs leading north into intersection along east side to ensure visibility at intersection.
2. *Hollyvale Avenue:* Restrip existing crosswalk along entrance/exit to parking and bus loops. Install red curbs to ensure vehicles maintain line of sight for pedestrians, which should be located fronting the school site where the bus bay is located.
3. *Hollyvale Avenue:* Install SW24-3(CA) Assembly D in advance of SR4-1(CA) Assembly C signs to meet MUTCD standards for both southbound and northbound approaches into the school area.
4. *Hollyvale Avenue:* Install Class III Bike Route along corridor to allow for connection north and south as well as east west along proposed sidewalk to the proposed Class I Bike Path. Install R117 (CA) and R4-11 signs.
5. Install high visibility ladder style crosswalk with ADA compliant curb ramps to join the crossing into existing sidewalk network and proposed sidewalk network.
6. *Sycamore Street:* Install speed feedback sign for eastbound traffic. Install speed feedback sign with SR4-1 (CA) Assembly C signage to join for westbound traffic.

Background/Discussion of the Engineering Improvements

Hollyvale Elementary School

Recommendation #	Location	Improvement	Background/Discussion
1	Hollyvale Avenue at Sycamore Street	High visibility crosswalks, ADA curb ramps, Sidewalk, Red curb	High visibility crosswalks provide a clearer path for pedestrians along this primary walking route to school. See items below, "General - ADA curb ramp," "General - Sidewalk," and "General - Red curb."
2	Hollyvale Avenue	High visibility crosswalk, Red cub	High visibility crosswalks provide a clearer path for pedestrians along this primary walking route to school. See item below, "General - Red curb."
3	Hollyvale Avenue	School signage	School signage can increase driver awareness of potential pedestrians in the area, while also alerting drivers of the speed limit in the school area when children are present. Signage installation adheres to CA MUTCD Part 7 guidelines.
4	Hollyvale Avenue	Class III Bike Route, Bicycle signage	Bicycle improvements can inform drivers and bicyclists alike of the fact that the roadway is to be shared amongst the two groups. This installation also provides a more direct route to school for those wanting to ride their bicycle to and from school.
5	Hollyvale Avenue at Eucalyptus Street	High visibility crosswalk, ADA curb ramp, Sidewalk	High visibility crosswalks provide a clearer path for pedestrians along this primary walking route to school. See items below, "General - ADA curb ramp" and "General - Sidewalk."
6	Sycamore Street	Speed feedback signage, School signage	School feedback signage addresses any speeding along this roadway, as this was an issue observed and discussed during the walk audit process, as well as during the survey process. School signage complements that feedback signage and can increase driver awareness of the speed limit in the school area when children are present.
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 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 Hollyvale Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Sycamore St.	Speed Awareness Sign	Each	$14,490	2	$28,980
	New Sign on Post	Each	$181	4	$725
	High Visibility Ladder Crosswalk	Each	$1,788	3	$5,364
	ADA Curb Ramps	Each	$3,623	7	$25,358
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	5630	$292,324
	Segment Total				**$352,750**
Hollyvale Ave.	Bike Route Signage Only (2 Sides)	Per Linear Foot	$1	1744	$1,914
	New Sign on Post	Each	$181	4	$725
	High Visibility Ladder Crosswalk	Each	$1,788	2	$3,576
	ADA Curb Ramps	Each	$3,623	4	$14,490
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1825	$94,759
	Segment Total				**$115,463**
Eucalyptus St.	High Visibility Ladder Crosswalk	Each	$1,788	2	$3,576
	ADA Curb Ramps	Each	$3,623	4	$14,490
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	600	$31,154
	Segment Total				**$49,220**
ALL SEGMENTS					**$517,433**

University Preparatory School

University Preparatory School is a Victor Valley Union High School District (VVUHSD) school located in low-density residential neighborhood of Victorville. The school is positioned along Seneca Road between Amethyst Road and South Trail. Held on November 29th, 2016 the University Preparatory School walk audit was held from 6:45AM to 8:30AM, prior to the morning start bell ringing. Participants (12) were briefed primarily inside an on-site classroom as well as in front of the school. Observations extended into the surrounding neighborhood along Seneca Road, Amethyst Road, and the back access road of the school.

"I am not comfortable with allowing my children to walk across the crosswalk because of all the parents who are careless when students are present. They almost run over kids daily."

"Bus transportation would be great. It would help decrease traffic."

"I am not comfortable with allowing my children to even cross the school crosswalk due to parent's lack of awareness when driving in the school zone. They have no regards for the safety of the kids!"

All remarks received from walk audit participants at University Preparatory

SafeRoutes
National Center for Safe Routes to School

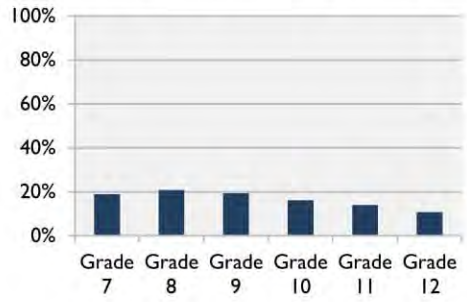
Number of Surveys Received	556

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

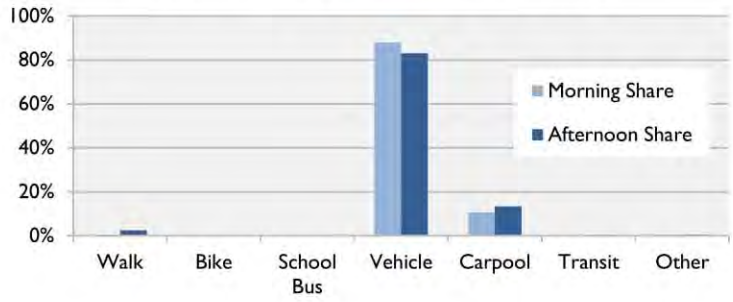
Surveys were printed on two-page forms and distributed to parents to take home. Tally data are not available for this school.

Students who walk or bike to school	**4.0%**
Students who don't walk/bike but have asked parents for permission	**+ 16.3%**
Students who walk/bike or have asked parents for permission	**20.3%**
Student enrollment	**x 1,125**
Potential walking/biking student base	**228**

Grade Distribution of Surveys

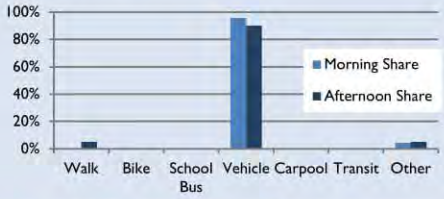


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

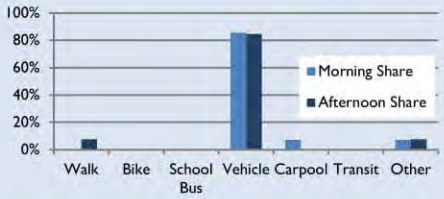
7%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 29%
Amount of Traffic Along Route – 25%
Time – 21%
Participation in After-School Programs – 21%
Violence or Crime – 21%

Students Living Between ¼ and ½ Mile from School

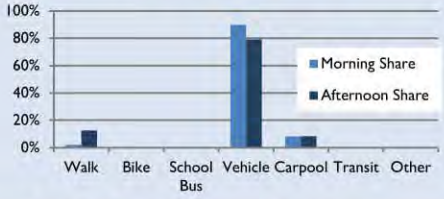
3%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Violence or Crime – 33%
Speed of Traffic Along Route – 27%
Amount of Traffic Along Route – 27%
Safety of Intersections & Crossings – 27%
Distance – 20%

Students Living Between ½ and 1 Mile from School

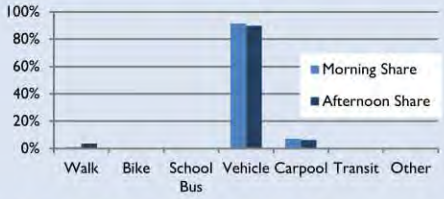
10%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 35%
Violence or Crime – 35%
Weather or Climate – 33%
Distance – 29%
Speed of Traffic Along Route – 25%

Students Living Between 1 and 2 Miles from School

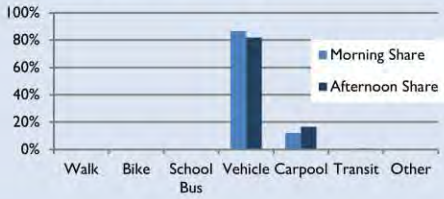
17%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 50%
Violence or Crime – 48%
Safety of Intersections & Crossings – 44%
Weather or Climate – 40%
Amount of Traffic Along Route – 31%

Students Living Farther than 2 Miles from School

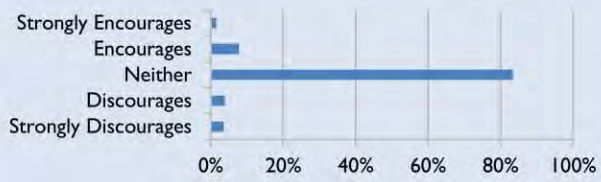
66%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 69%
Violence or Crime – 47%
Safety of Intersections & Crossings – 40%
Weather or Climate – 39%
Time – 39%

Parents' Perspectives

Whether School Encourages Walking/Biking



64%
consider walking/biking healthy or very healthy.

71%
would not feel comfortable having their child walk/bike at any age with current conditions.

UNIVERSITY PREPARTORY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Victorville
School Enrollment - 1125
Free or Reduced Lunch - 69.50%

Environmental Indicators:

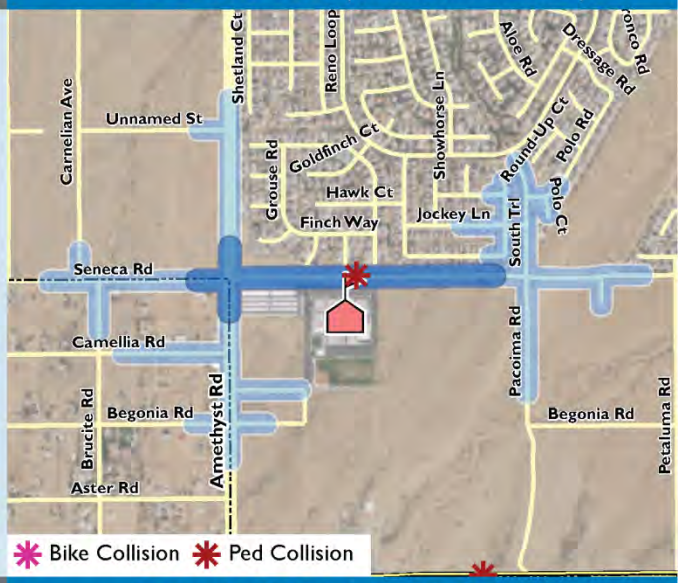
Cal Enviro Score % Range - 56-60%
Cal Enviro Score (CES2.0*) - 27.82

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

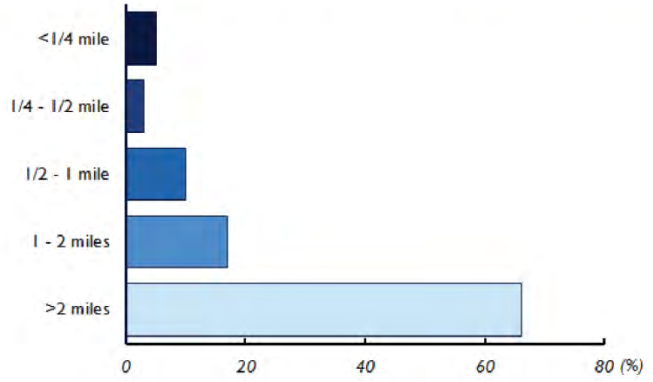
Walk Audit Highlights

of Walk Audit Participants - 12
# of Surveys Received - 556

WALKSHED *(1/4 and 1/2 mile)*



COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

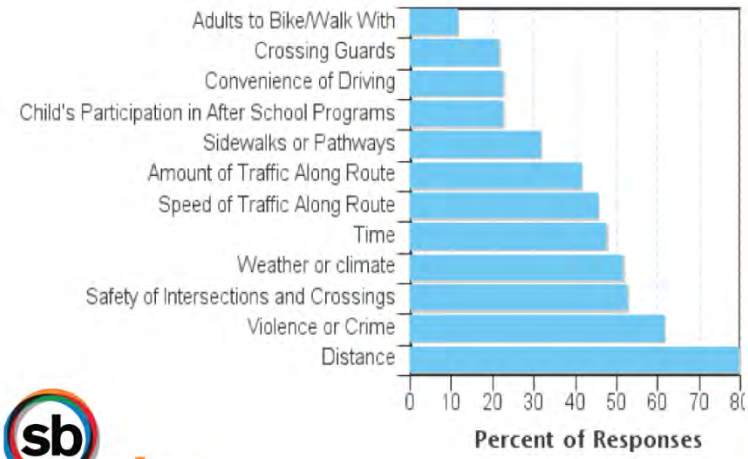
1 within 1/4 mile
1 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sb cta
san bernardino county transportation authority

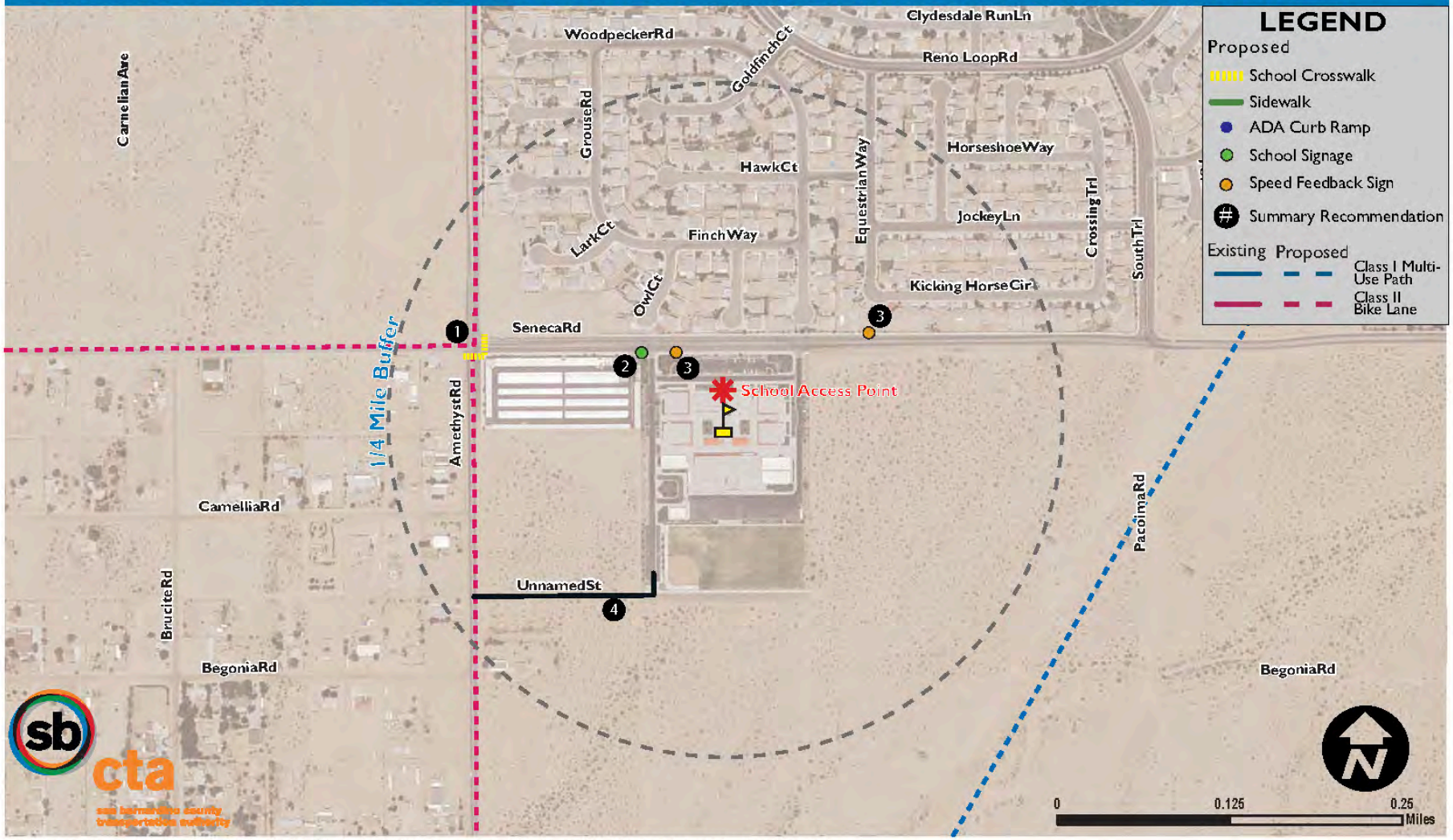
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	*afternoon*
walk	0.4%	2%
bike	0.2%	0.2%
bus	0.2%	0%
vehicle	88%	83%
carpool	11%	13%
transit	0.2%	0.4%
other	0.5%	0.6%

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

SBCTA SRTS PHASE II: *UNIVERSITY PREPARATORY SCHOOL, VICTORVILLE*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Seneca Road and Amethyst Road:* Install high visibility ladder style crosswalk on the south and east legs of intersection.
2. *Seneca Road and Amethyst Road:* Install pavement markings with thru arrows and the word "Only" in the far lane to control eastbound right turn movement. Install a modified R61-5(CA) sign in advance to movement, facing west for service to eastbound traffic appraoching pick up and drop off loop.
3. *Seneca Road and Amethyst Road:* Install speed feedback to provide advanced warning for school crossing for eastbound and westbound traffic.
4. *Back of School/Unnamed Road:* Install one way roadway with entry on Amethyst Road to existing parking lot in back of school to advance school AM and PM drop off circulation and eliminate vehicular traffic off of *Seneca* Road.

Background/Discussion of the Engineering Recommendations

University Preparatory School

Recommendation #	Location	Improvement	Background/Discussion
1	**Seneca Road and Amethyst Road**	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).
2	**Seneca Road and Amethyst Road**	School pavement marking and school signage	Adherence to MUTCD Part 7 guidelines to increase driver awareness of Seneca Road and Amethyst crossing are referenced in Recommendation #1.
3	**Seneca Road and Amethyst Road**	Speed feedback sign	Improvements address comments received during walk audit observation regarding high speeds in front of the school.
4	**Back of School/Unnamed Road**	Pave Road	Improvements recommended to pave unnamed road to improve pick up and drop off circulation noted in the walk audit and the school-wide survey.

The following cost estimation table details the University Preparatory School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Seneca Rd.	Speed Awareness Sign	Each	$14,490	2	$28,980
	New Sign on Post	Each	$181	1	$181
	High Visibility Ladder Crosswalk	Each	$1,788	1	$1,788
	Segment Total				**$30,949**
Amethyst Rd.	High Visibility Ladder Crosswalk	Each	$1,788	1	$1,788
	Segment Total				**$1,788**
ALL SEGMENTS					**$32,737**

Town of Yucca Valley

Yucca Valley Elementary School

Yucca Valley Elementary School is a Morongo Unified School District (MUSD) school located in a low-density residential neighborhood of Yucca Valley, California. The school is situated along Hopi Trail between Pueblo Trail and Onaga Trail. The walk audit performed at Yucca Valley Elementary School was held on November 10th, 2016 from 3:30PM to 4:30PM. An on-campus multi-purpose room was used as the staging area for the participants (four) where briefing and de-briefing were conducted. Observations extended into surrounding neighborhood along Hopi Trail, Pueblo Trail, Onaga Trail, and Fox Trail.

"Traffic along Hwy 62 is concerning, as well as the speed of traffic and congestion on Hopi Trail in front of the school. Kids and adults dart in and out of parked cars and moving traffic. There is no requirement to utilize crosswalks."

"Adults get hit on our highway. It is not safe for anyone, including our students."

"If there was sidewalk with a crossing guard at the intersection I would certainly let my child walk."

All remarks received from walk audit participants at Yucca Valley Elementary

SafeRoutes
National Center for Safe Routes to School

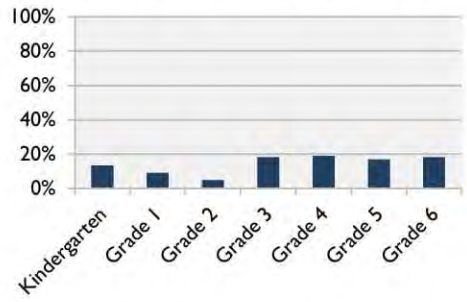
Number of Surveys Received	150

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

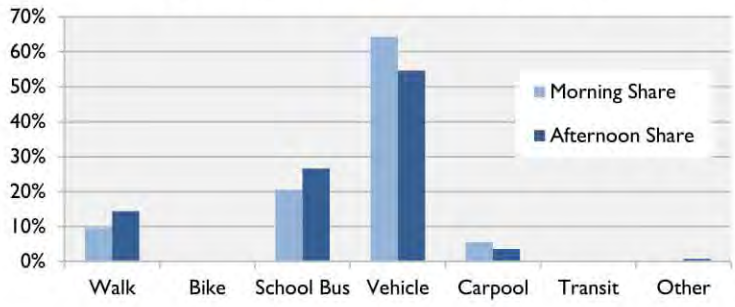
Surveys were printed on two-page forms and distributed to parents to take home. Tally data are not available for this school.

Students who walk or bike to school	**14.8%**
Students who don't walk/bike but have asked parents for permission	**+ 26.1%**
Students who walk/bike or have asked parents for permission	**40.9%**
Student enrollment	**x 591**
Potential walking/biking student base	**242**

Grade Distribution of Surveys

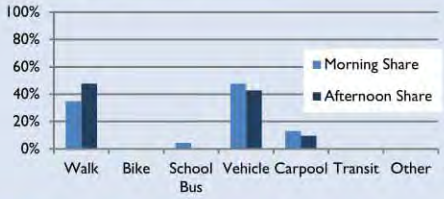


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

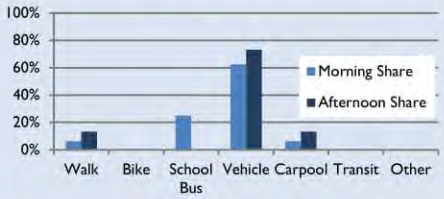
18%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 83%
Amount of Traffic Along Route – 83%
Sidewalks or Pathways – 83%
Crossing Guards – 83%
Time – 79%

Students Living Between ¼ and ½ Mile from School

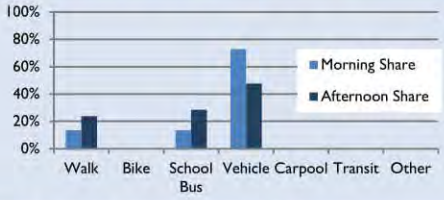
12%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Sidewalks or Pathways – 63%
Amount of Traffic Along Route – 50%
Safety of Intersections & Crossings – 50%
Violence or Crime – 50%
Speed of Traffic Along Route – 44%

Students Living Between ½ and 1 Mile from School

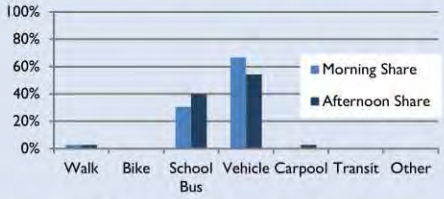
16%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 68%
Speed of Traffic Along Route – 64%
Amount of Traffic Along Route – 64%
Violence or Crime – 59%
Sidewalks or Pathways – 50%

Students Living Between 1 and 2 Miles from School

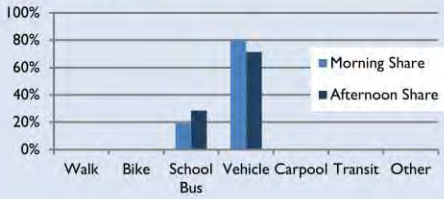
27%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 78%
Safety of Intersections & Crossings – 75%
Sidewalks or Pathways – 72%
Amount of Traffic Along Route – 69%
Distance – 64%

Students Living Farther than 2 Miles from School

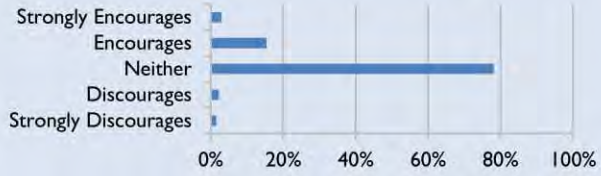
27%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 95%
Amount of Traffic Along Route – 86%
Speed of Traffic Along Route – 84%
Sidewalks or Pathways – 78%
Safety of Intersection & Crossings – 73%

Parents' Perspectives

Whether School Encourages Walking/Biking



75%
consider walking/biking healthy or very healthy.

53%
would not feel comfortable having their child walk/bike at any age with current conditions.

YUCCA VALLEY ELEMENTARY - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - Town of Yucca Valley
School Enrollment - 591
Free or Reduced Lunch - 83.50%

Environmental Indicators:

Cal Enviro Score % Range - 36-40%
Cal Enviro Score (CES2.0*) - 19.48

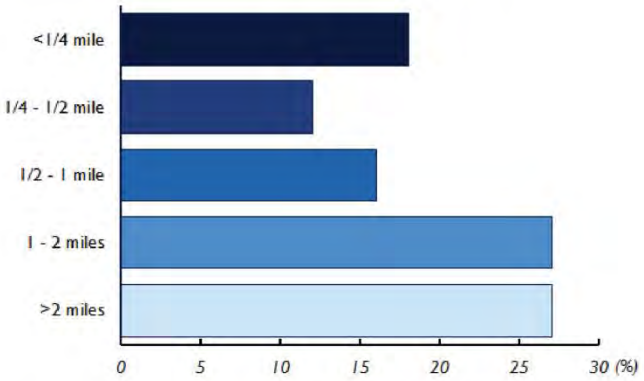
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 4
# of Surveys Received - 150

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

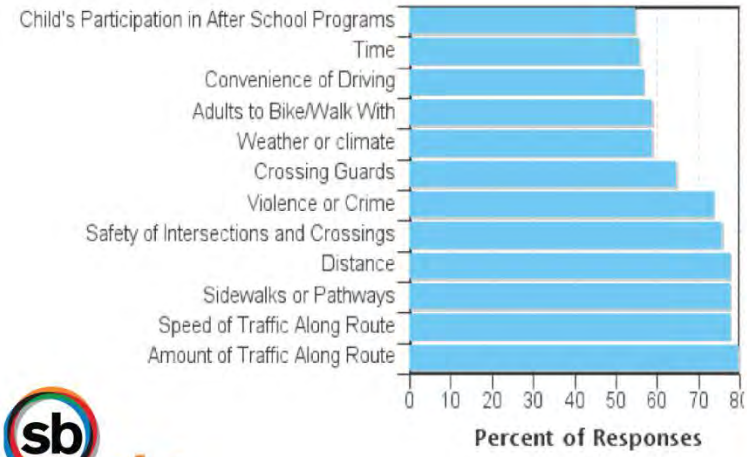
0 within 1/4 mile
0 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sbcta
san bernardino county transportation authority

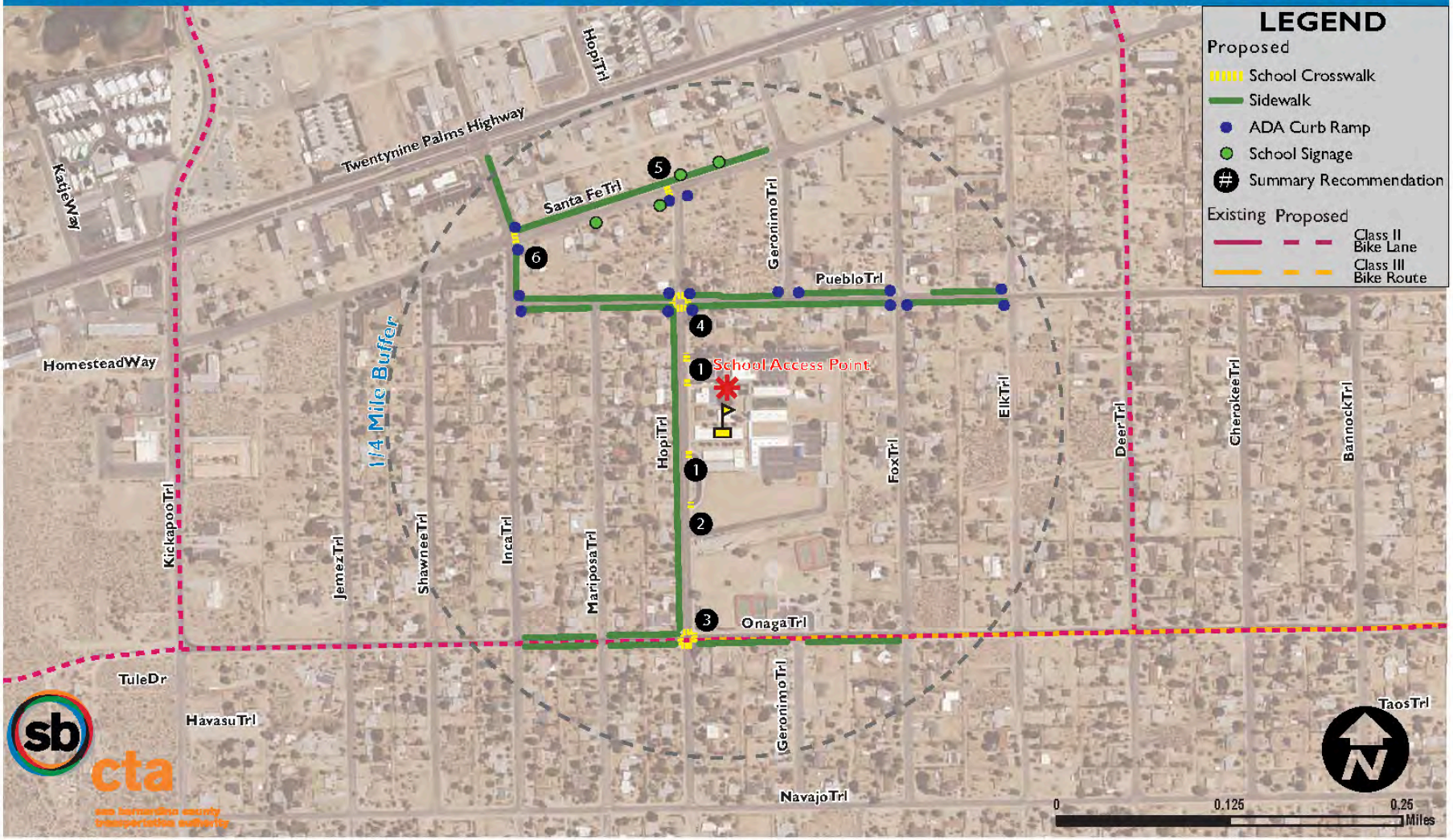
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	10%	14%
bike	0%	0%
bus	21%	27%
vehicle	64%	55%
carpool	5%	4%
transit	0%	0%
other	0%	0.7%

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

SBCTA SRTS PHASE II: *YUCCA VALLEY ELEMENTARY SCHOOL, YUCCA VALLEY*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Hopi Trail and Front School:* Install high visibility ladder style crosswalks at entrance and exit to bus loop and install widened sidewalk in the front of school.
2. *Hopi Trail:* Install red curbs between Pueblo Trail and Onaga Trail along Hopi Trail.
3. *Hopi Trail and Onaga Trail:* Install high visibility ladder style crosswalk along existing north, east, and south legs. Install a high visibility ladder style crosswalk along the west leg, where there is currently no crossing.
4. *Hopi Trail and Onaga Trail:* Restripe existing crosswalks along existing east, south, and west legs with high visibility paint (ladder style). Install a high visibility ladder style crosswalk along the north leg, where there is currently no crossing. Address flooding issues at this intersection with proposed curb, gutter, and sidewalk.
5. *Santa Fe Trail and Hopi Trail:* Install high visibility ladder style crosswalk on the west leg of the intersection. Install ADA compliant curb ramps on the SW curb to connect to proposed sidewalk. Install SW24-2 (CA) Assembly B signage on both sides of the crossing. Install SW24-3(CA) Assembly D signs for eastbound and westbound traffic.
6. *Santa Fe Trail and Inca Trail:* Install high visibility ladder style crosswalk on the east leg of the intersection. Install ADA compliant curb ramps on NE and SE corners to connect to existing sidewalk network.

Background/Discussion of the Engineering Recommendations

	Recommendation #	Segment	Type	Justification
Yucca Valley Elementary School	1	Hopi Trail and Front of School	High visibility ladder style crosswalk, sidwalk	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). See below, "General - sidewalk."
	2	Hopi Trail	Red curb	See below, "General - red curb."
	3	Hopi Trail and Onaga Trail	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). A previous pedestrian accident along Onaga Trail justifies a high visibility ladder style crosswalk to help improve pedestrian crossing safety.
	4	Hopi Trail and Onaga Trail	High visibility ladder style crosswalk, sidewalk and curb and gutter	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). See below, "General - Sidewalk." Curb and gutter installation will improve drainage near the school campus.
	5	Santa Fe Trail and Hopi Trail	High visibility ladder style crosswalk, ADA compliance, school signage	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). See below, "General - ADA curb ramps." Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along Santa Fe Trail, a primary walking route to school (noted during field observation).
	6	Santa Fe Trail and Inca Trail	High visibility ladder style crosswalk, ADA compliance	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). See below, "General - ADA curb ramps."
	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 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 Yucca Valley Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Inca Trail	High Visibility Ladder Crosswalk	Each	$1,788	1	$1,788
	ADA Curb Ramps	Each	$3,623	4	$14,490
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	488	$25,338
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	488	$17,678
	Segment Total				**$59,294**
Hopi Trail	High Visibility Ladder Crosswalk	Each	$1,788	13	$23,244
	ADA Curb Ramps	Each	$3,623	5	$18,113
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1617	$83,959
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	1617	$58,576
	Segment Total				**$183,891**
Santa Fe Trail	New Sign on Post	Each	$181	4	$725
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1017	$52,805
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	1017	$36,841
	Segment Total				**$90,371**
Pueblo Trail	ADA Curb Ramps	Each	$3,623	7	$25,358
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	3245	$168,489
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	3245	$117,550
	Segment Total				**$311,396**
Onaga Trail	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1754	$91,072
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	1754	$63,539
	Segment Total				**$154,611**
ALL SEGMENTS					**$799,563**

Yucca Valley High School

Yucca Valley High School is a Morongo Unified School District (MUSD) school located in a low-density residential neighborhood of Yucca Valley, California. The school is located at the intersection of Sage Avenue and Onaga Trail. Held on November 30th, 2016 the walk audit at Yucca Valley High School took place from 1:20PM to 2:30PM, prior to the afternoon bell ringing. The front office was used as the staging area for the participants (three) where briefing and de-briefing were conducted. Observations extended into the surrounding neighborhood along Sage Avenue, Onaga Trail, Aster Avenue, Pueblo Trail, Amador Avenue, and Grand Avenue.

"The 40 mph speed of traffic on Onaga Trail is too dangerous for my student to cross. There is a fairly wide shoulder but no curb or sidewalk. Two miles is a long way on 100-degree days or 35-40 degree mornings in winter."

"The vehicle traffic and lack of safety features within our drop off/pickup area make it unsafe for our students."

"The school is very congested. Students have almost been hit by cars during the bell periods."

All remarks received from walk audit participants at Yucca Valley High

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	948
Number of Tallies	3,532
» Morning (To School)	1,754
» Afternoon (From School)	1,778

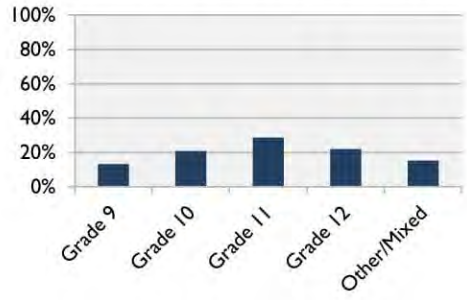
Number of Surveys Received	465

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

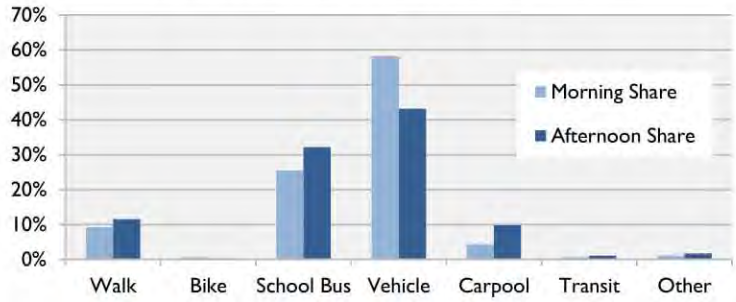
Tallies were conducted by teachers in fourty-one classes on a consecutive Tuesday, Wednesday, and Thursday, categorizing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents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

Students who walk or bike to school	**13.2%**
Students who don't walk/bike but have asked parents for permission	**+ 11.7%**
Students who walk/bike or have asked parents for permission	**24.9%**
Student enrollment	**x 1,351**
Potential walking/biking student base	**336**

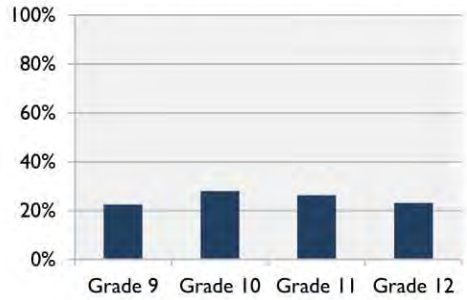
Grade Distribution of Tallies



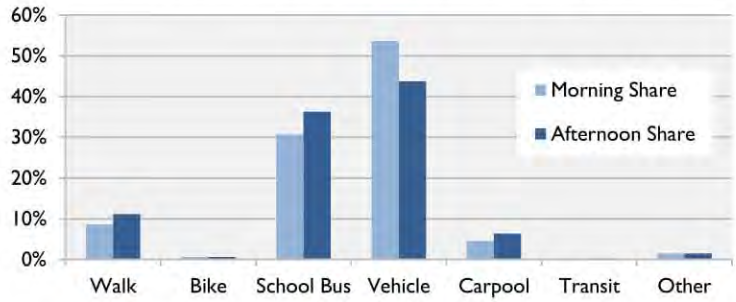
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

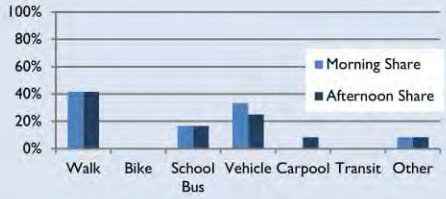


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

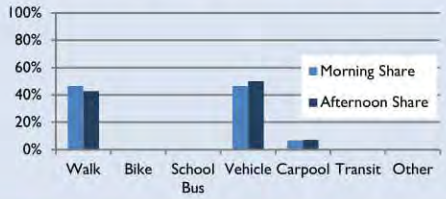
3%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Convenience of Driving – 50%
Distance – 42%
Time – 42%
Participation in After-School Programs – 42%
Speed of Traffic Along Route – 42%

Students Living Between ¼ and ½ Mile from School

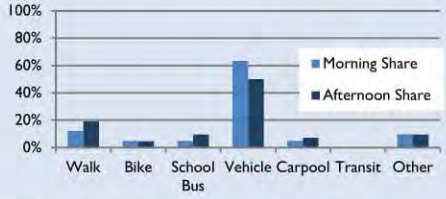
4%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 53%
Convenience of Driving – 53%
Participation in After-School Programs – 47%
Speed of Traffic Along Route – 47%
Amount of Traffic Along Route – 47%

Students Living Between ½ and 1 Mile from School

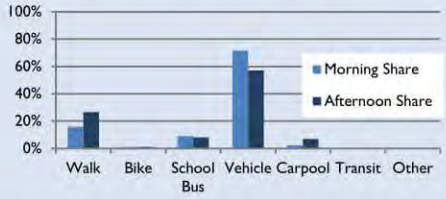
10%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 83%
Time – 71%
Violence or Crime – 71%
Weather or Climate – 69%
Sidewalks or Pathways – 67%

Students Living Between 1 and 2 Miles from School

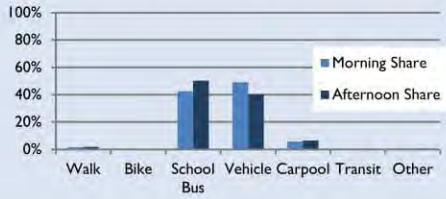
21%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 72%
Weather or Climate – 67%
Speed of Traffic Along Route – 60%
Violence or Crime – 60%
Safety of Intersections & Crossings – 59%

Students Living Farther than 2 Miles from School

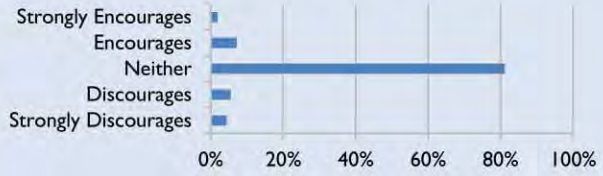
62%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 85%
Time – 67%
Speed of Traffic Along Route – 67%
Weather or Climate – 65%
Amount of Traffic Along Route – 62%

Parents' Perspectives

Whether School Encourages Walking/Biking



64%
consider walking/biking healthy or very healthy.

46%
would not feel comfortable having their child walk/bike at any age with current conditions.

YUCCA VALLEY HIGH SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - Town of Yucca Valley
School Enrollment - 1351
Free or Reduced Lunch - 63.40%

Environmental Indicators:

Cal Enviro Score % Range - 36-40%
Cal Enviro Score (CES2.0*) - 19.48

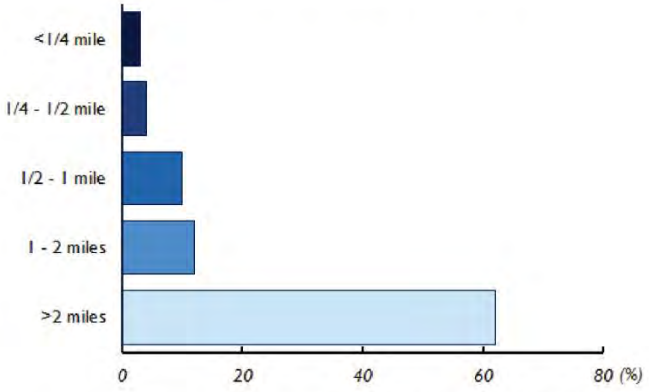
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 3
# of Surveys Received - 467

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE (%)



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

COLLISION ANALYSIS

Pedestrian Related Collisions

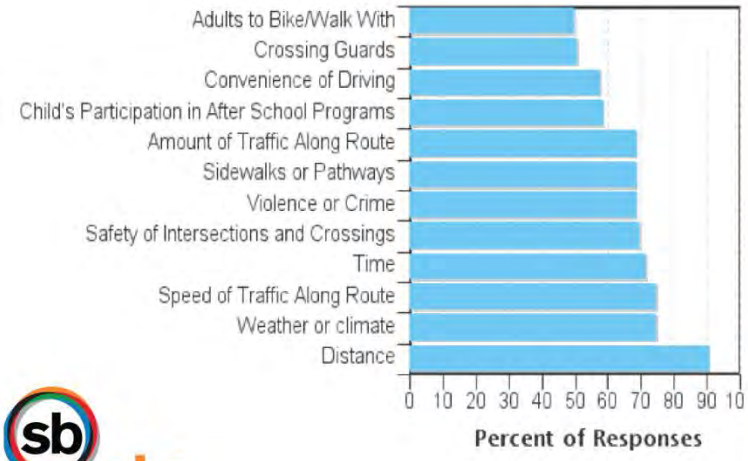
0 within 1/4 mile
1 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sbcta
san bernardino county transportation authority

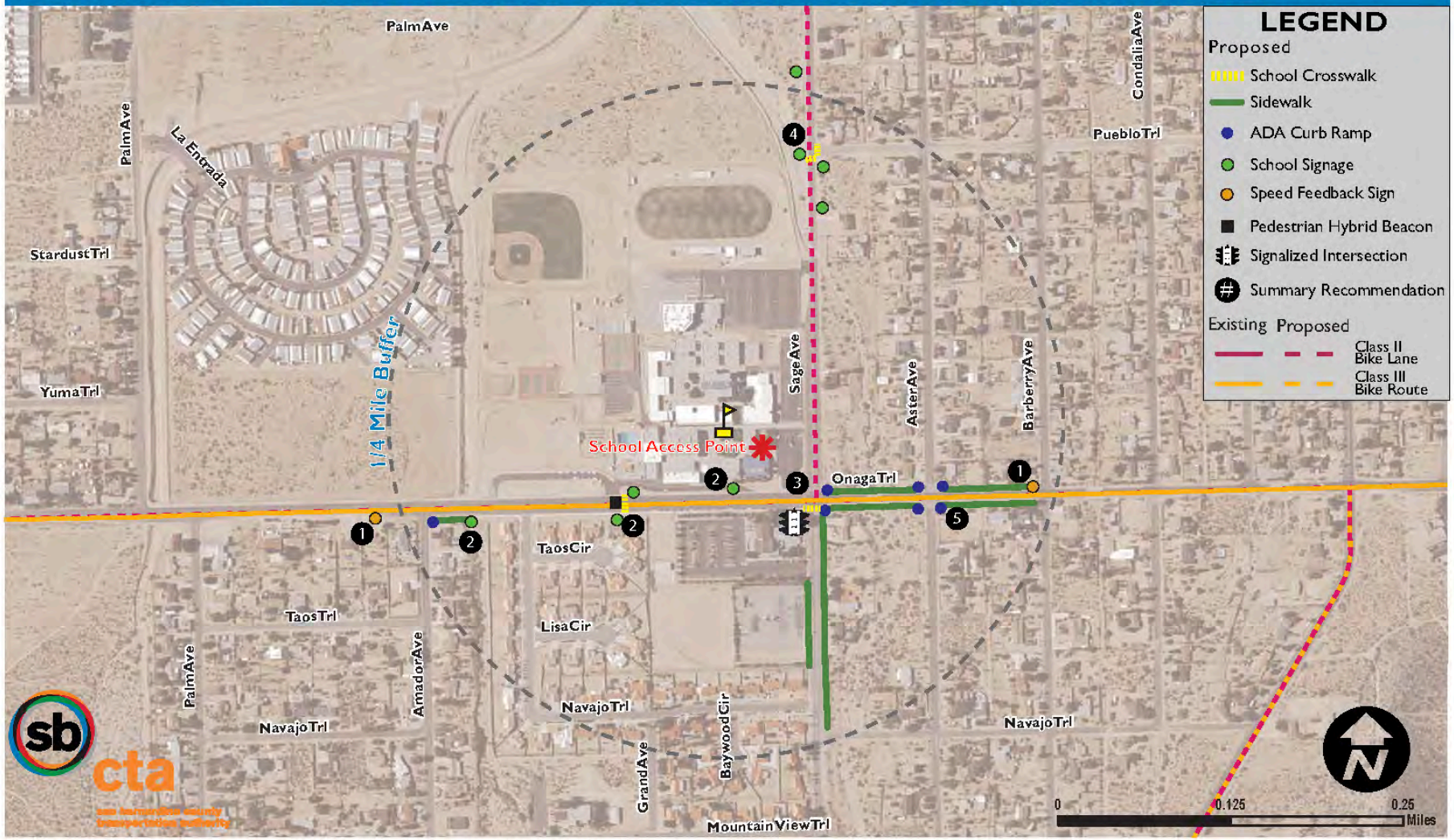
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	9%	11%
bike	0.6%	0.7%
bus	31%	36%
vehicle	54%	44%
carpool	5%	6%
transit	0.2%	0.5%
other	2%	2%

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

SBCTA SRTS PHASE II: *YUCCA VALLEY HIGH SCHOOL, YUCCA VALLEY*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Onaga Trail:* Install speed feedback signage units approaching the school zone for eastbound and westbound traffic.
2. *Onaga Trail and Front of School:* Install high visibility ladder style crosswalk mid-block. Install pedestrian hybrid beacon with pedestrian actuation and SW24-2 (CA) Assembly B signage on either side of crossing for eastbound and westbound traffic. Install SW24-3 (CA) Assembly D signage in approach to crossing.
3. *Onaga Trail and Sage Avenue:* Install high visibility ladder style crosswalk for south leg. Install signalized intersection pending passed warrants. Install ADA compliant curb ramps on NE and SE curbs.
4. *Sage Avenue: and Pueblo Trail:* Install high visibility ladder style crosswalks for the east and south leg of the intersection. Install SW24-2 (CA) Assembly B signage on either side of crosswalk for northbound and southbound traffic. Install SW24-3 (CA) Assembly D signs for northbound and southbound traffic.
5. *Onaga Trail and Aster Avenue:* Install ADA compliant curb ramps at all four corners of intersection to connect to existing sidewalk network.

Background/Discussion of the Engineering Recommendations

	Recommendation #	Location	Improvement	Background/Discussion
Yucca Valley High School	1	Onaga Trail	Speed feedback signs	Improvements address comments received during walk audit observation regarding high speeds in front of the school.
	2	Onaga Trail	High visibility ladder style crosswalk, school signage, Pedestrian hybrid beacon	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). Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along Onaga Trail, a primary walking route to school (noted during field observation). Pedestrian hybrid beacon draws drivers' attention to the crossing at this location.
	3	Onaga Trail and Sage Avenue	High visibility ladder style crosswalk, traffic signal, and ADA compliance	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). Installation of traffic signal pending passed warrants may improve safety for pedestrians and bicyclists along this route. See below, "General - ADA curb ramps."
	4	Sage Avenue and Pueblo Trail	High visibility ladder style crosswalk and school signage	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). Adherence to MUTCD Part 7 guidelines to increase driver awareness of pedestrians along Sage Ave, a primary walking route to school (noted during field observation).
	5	Onaga Trail and Aster Avenue	ADA compliance	See below, "General - ADA curb ramps."
	General	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 Yucca Valley High School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Onaga Trail	Pedestrian Flashing Beacon (Post/Pole Mount)	Each	$9,056	2	$18,113
	Speed Awareness Sign	Each	$14,490	2	$28,980
	New Sign on Post	Each	$181	4	$725
	High Visibility Ladder Crosswalk	Each	$1,788	2	$3,576
	ADA Curb Ramps	Each	$3,623	7	$25,358
	Traffic Signal	Per Intersection	$332,063	1	$332,063
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1596	$82,868
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	1428	$51,729
	Segment Total				**$543,411**
Sage Ave.	New Sign on Post	Each	$181	4	$725
	High Visibility Ladder Crosswalk	Each	$1,788	2	$3,576
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1176	$61,061
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	1176	$42,601
	Segment Total				**$107,962**
ALL SEGMENTS					**$651,373**

Onaga Elementary School

Onaga Elementary School is a Morongo Unified School District (MUSD) school located in a low-density residential neighborhood of Yucca Valley, California. The school is situated along Onaga Trail west of the intersection with Balsa Avenue. The Onaga Elementary School walk audit was held on November 17th, 2016 from 5:30PM to 6:30PM, prior to the "Bingo for Books" school event. An on-campus facility was used as a staging area for the participants (six) where briefing and de-briefing were conducted. Observations extended into the surrounding neighborhood along Onaga Trail, Balsa Avenue, Frontera Avenue, Alaba Avenue, Victoria Avenue, and Hilton Avenue.

"There are no sidewalks to safely walk or bike on. There are no crossing guards to safely get kids across the street other than across from the school."

"We have a lack of safe paths for walking and biking to and from schools in our community."

All remarks received from walk audit participants at Onaga Elementary

SafeRoutes
National Center for Safe Routes to School

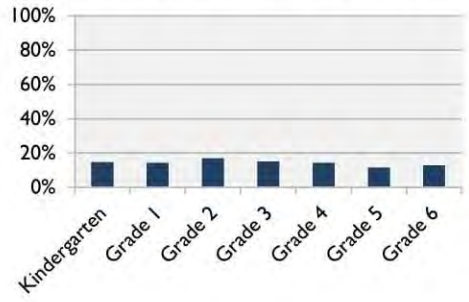
Number of Surveys Received	219

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

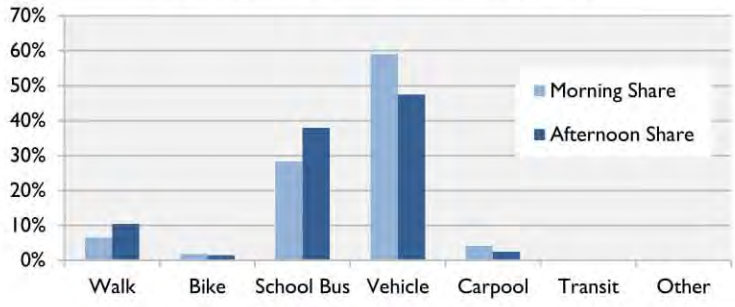
Surveys were printed on two-page forms and distributed to parents to take home. Tally data are not available for this school.

Students who walk or bike to school	**9.3%**
Students who don't walk/bike but have asked parents for permission	**+ 20.9%**
Students who walk/bike or have asked parents for permission	**30.2%**
Student enrollment	**x 646**
Potential walking/biking student base	**195**

Grade Distribution of Surveys

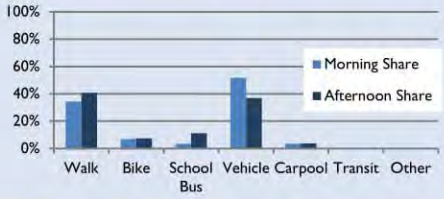


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

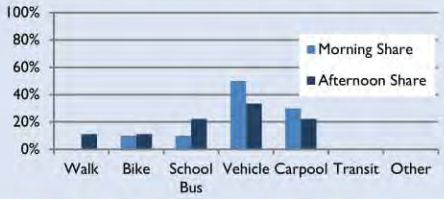
15%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Amount of Traffic Along Route – 66%
Sidewalks or Pathways – 66%
Speed of Traffic Along Route – 62%
Weather or Climate – 62%
Safety of Intersections & Crossings – 59%

Students Living Between ¼ and ½ Mile from School

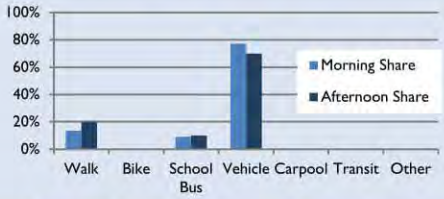
5%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 90%
Amount of Traffic Along Route – 70%
Sidewalks or Pathways – 60%
Safety of Intersections & Pathways – 60%
Distance – 50%

Students Living Between ½ and 1 Mile from School

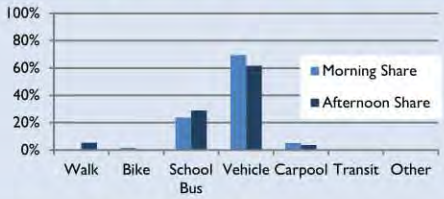
11%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 77%
Speed of Traffic Along Route – 77%
Sidewalks or Pathways – 77%
Safety of Intersections & Crossings – 77%
Time – 73%

Students Living Between 1 and 2 Miles from School

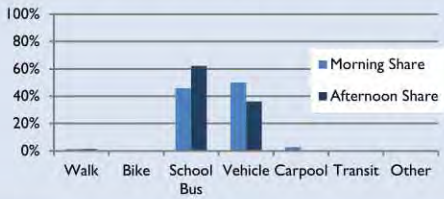
31%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 85%
Amount of Traffic Along Route – 85%
Distance – 82%
Sidewalks or Pathways – 82%
Safety of Intersections & Crossings – 75%

Students Living Farther than 2 Miles from School

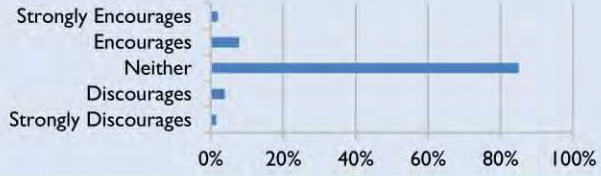
38%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 97%
Safety of Intersections & Crossings – 84%
Sidewalks or Pathways – 77%
Speed of Traffic Along Route – 75%
Amount of Traffic Along Route – 75%

Parents' Perspectives

Whether School Encourages Walking/Biking



72%
consider walking/biking healthy or very healthy.

69%
would not feel comfortable having their child walk/bike at any age with current conditions.

ONAGA ELEMENTARY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Yucca Valley
School Enrollment - 646
Free or Reduced Lunch - 67.30%

Environmental Indicators:

Cal Enviro Score % Range - 31-35%
Cal Enviro Score (CES2.0*) - 18.2

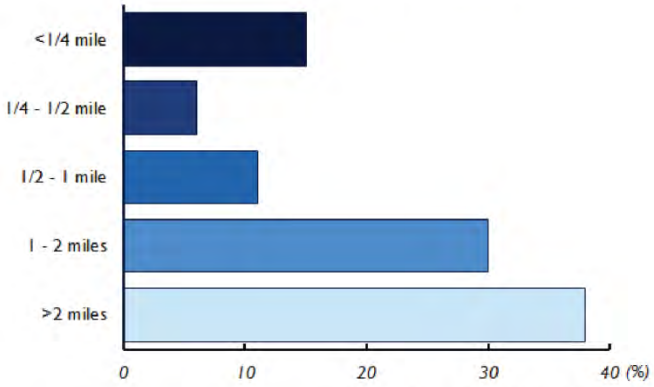
**CES2.0: Screening method that identifies communities that are disproportionately burdened by multiple sources of pollution.*

Walk Audit Highlights

of Walk Audit Participants - 6
# of Surveys Received - 221

WALKSHED *(1/4 and 1/2 mile)*

COMMUTE DISTANCE (%)



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

COLLISION ANALYSIS

Pedestrian Related Collisions

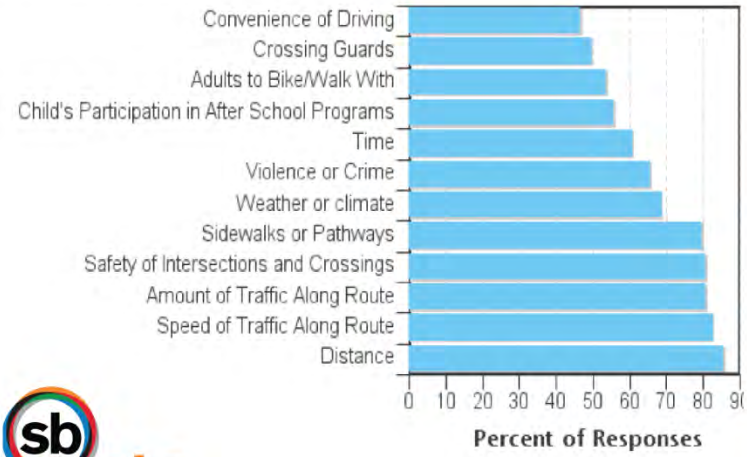
1 within 1/4 mile
4 within 1/2 mile
1 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sbcta
san bernardino county transportation authority

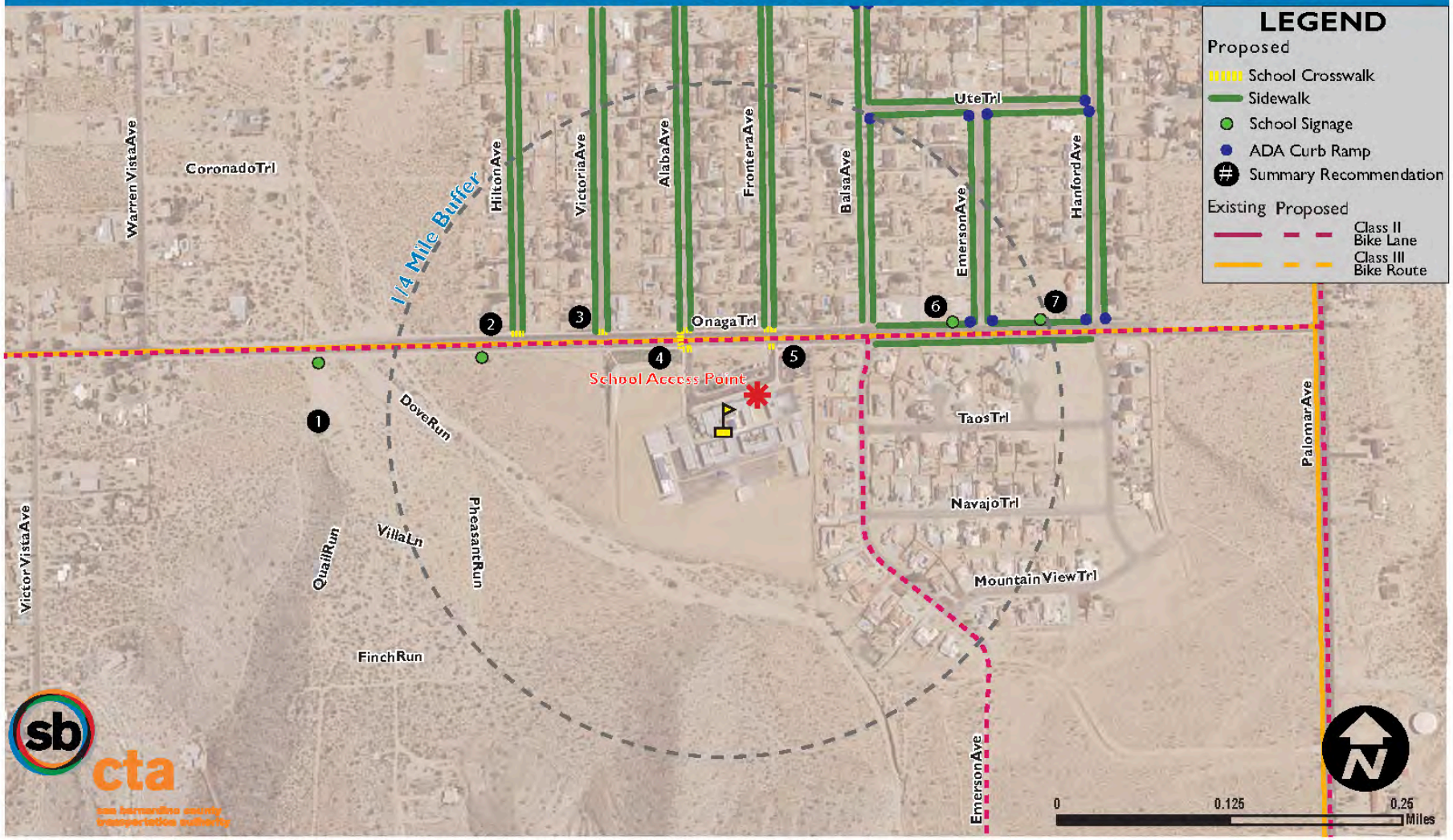
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	afternoon
walk	6%	10%
bike	2%	1%
bus	28%	38%
vehicle	59%	48%
carpool	5%	3%
transit	0%	0%
other	0%	0%

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

SBCTA SRTS PHASE II: *ONAGA ELEMENTARY SCHOOL, YUCCA VALLEY*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Onaga Trail:* Install SW24-3(CA) Assembly D sign for eastbound traffic.
2. *Onaga Trail at Hilton Avenue:* Install SR4-1(CA) Assembly C sign for eastbound traffic. Restripe existing school crosswalk with high visibility paint (ladder style).
3. *Onaga Trail at Victoria Avenue:* Restripe existing school crosswalk with high visibility paint (ladder style).
4. *Onaga Trail at Alaba Avenue:* Resgtripe existing school crosswalks with high visibility paint (ladder style).
5. *Onaga Trail at Frontera Avenue:* Restripe existing crosswalks with high visibility paint (ladder style).
6. *Onaga Trail at Emerson Avenue:* Install SR4-1(CA) Assembly C sign for westbound traffic.
7. *Onaga Trail near Hanford Avenue:* Install SW24-3(CA) Assembly D sign for westbound traffic.

Background/Discussion of the Engineering Recommendations

	Recommendation #	Location	Improvement	Background/Discussion
Oasis Elementary School	1	El Paseo Drive and Mesquite Springs Road	Traffic Signal, high visibility ladder style crosswalk, ADA compliance	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 difficultly crossing and feel unsafe. Signal installation will be determined by a signal warrant study. Engineering recommendations used to increase pedestrian visibility while crossing the uncontrolled intersection. See below, "General - ADA curb ramps."
	2	El Paseo Drive and Mesquite Springs Road	School signage	Adherence to MUTCD Part 7 guidelines to increase driver awareness of El Paseo Drive and Mesquite Springs Road.
	3	El Paseo Drive and Mesquite Springs Road	Multi use path	Improvements are along a primary walking route to and from school. The multi use path with allow for both pedestrians and bicyclists to access the school safely.
	4	El Paseo Drive and Front of School	Pedestrian lighting	Improvements are along primary walking route to and from school (noted during field observation). Improvements provide adequate lighting for pedestrians and bicylists along the schools extent.
	5	El Paseo Drive and Hillside Avenue	Traffic Signal, high visibility ladder style crosswalk, ADA compliance	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 difficultly crossing and feel unsafe. Singal installation will be determined by a signal warrant study. Engineering recommendations used to increase pedestrian visibility while crossing the uncontrolled intersection. See below, "General - ADA curb ramps."
	General	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 Onaga Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Hilton Ave.	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	2486	$129,079
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	2486	$90,055
	Segment Total				**$219,135**
Victoria Ave.	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	2506	$130,118
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	2506	$90,780
	Segment Total				**$220,898**
Alaba Ave.	High Visibility Ladder Crosswalk	Each	$1,788	1	$1,788
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	2517	$130,689
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	2517	$91,178
	Segment Total				**$223,655**
Frontera Ave.	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	2510	$130,325
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	2510	$90,925
	Segment Total				**$221,250**
Balsa Ave.	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	2404	$124,822
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	2404	$87,085
	Segment Total				**$211,907**
Emerson Ave.	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1629	$84,582
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	1629	$59,011
	Segment Total				**$143,592**
Hanford Ave.	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	2474	$128,456
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	2474	$89,621
	Segment Total				**$218,077**
Pueblo Trail	ADA Curb Ramps	Each	$3,623	3	$10,868
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	836	$43,407
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	836	$30,284
	Segment Total				**$84,559**
Ute Trail	ADA Curb Ramps	Each	$3,623	5	$18,113
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1587	$82,401
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	1587	$57,489

	Segment Total				**$158,003**
Onaga Trail	New Sign on Post	Each	$181	4	$725
	High Visibility Ladder Crosswalk	Each	$1,788	6	$10,728
	ADA Curb Ramps	Each	$3,623	4	$14,490
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	1568	$81,414
	Concrete Curb and Gutter (1 side of Street)	Per Linear Foot	$36	1568	$56,801
	Segment Total				**$164,158**
ALL SEGMENTS					**$1,865,234**

City of Yucaipa

Dunlap Elementary School

Dunlap Elementary School is a Yucaipa-Calimesa Joint Unified School District (YCJUSD) school located in a low-density residential and agricultural neighborhood of Yucaipa. The school is situated along Avenue E and 12th Street. The walk audit performed at Dunlap Elementary school took place on June 1st, 2016 from 2:30pm to 4:00PM, following the afternoon release bell. There were a total of six participants who, along with the consultant team, ventured into the surrounding neighborhoods, observing the following streets: 12th Street, Avenue E, Avenue D, and 13th Street.

"Many intersections and the lack of sidewalks throughout Yucaipa are scary and lack safety. Oak Glen Road, which has a 45mph speed limit and missing crosswalks, is of extra concern."

"I prefer to drive my child due to safety concerns. When he does walk home it stresses me out wondering if he made it okay. There are missing sidewalks, many loose dogs, and sometimes it is too hot or raining/flooding."

"If conditions were somehow as safe as they were when I was a child I would maybe let my daughters walk or bike to school like I did. Things are just so different now."

All remarks received from walk audit participants at Dunlap Elementary

SafeRoutes
National Center for Safe Routes to School

Number of Students Assessed in Tally	300
Number of Tallies	1,139
» Morning (To School)	586
» Afternoon (From School)	553

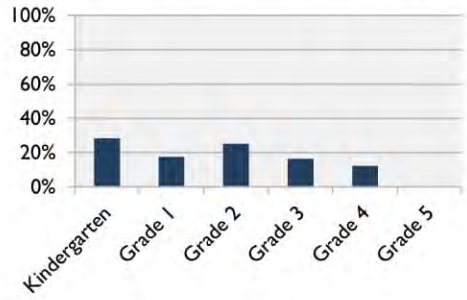
Number of Surveys Received	156

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

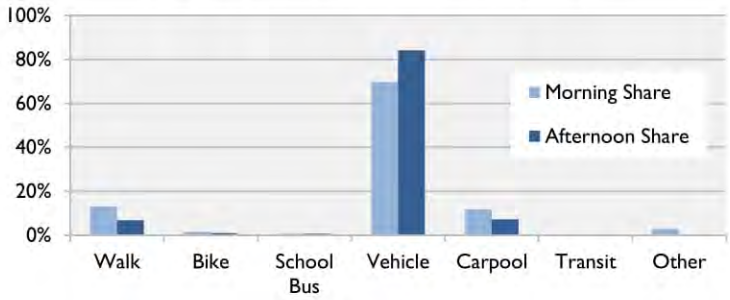
Tallies were conducted by teachers in thirteen classes on a consecutive Tuesday, Wednesday, and Thursday, categorizing students' trips both to and from school that day. The number of tallies is ideally six times the number of students. **Surveys** were printed on two-page forms and distributed to parents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

Students who walk or bike to school	**11.2%**
Students who don't walk/bike but have asked parents for permission	**+ 17.8%**
Students who walk/bike or have asked parents for permission	**29.0%**
Student enrollment	**x 405**
Potential walking/biking student base	**117**

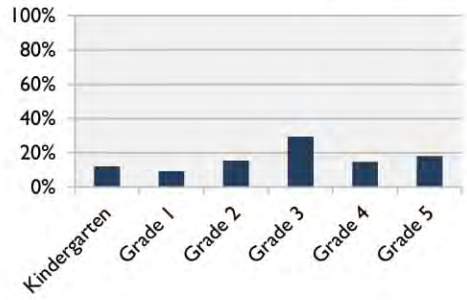
Grade Distribution of Tallies



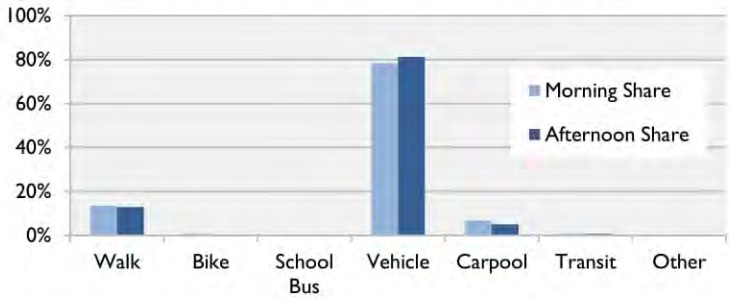
Travel Mode Distribution of Tallies



Grade Distribution of Surveys

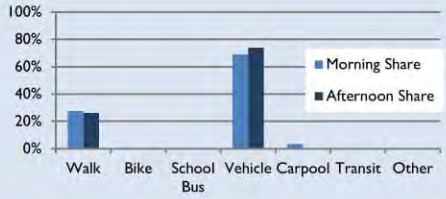


Travel Mode Distribution of Surveys



Students Living Less than ¼ Mile from School

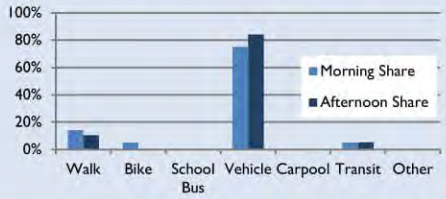
22%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 48%
Sidewalks or Pathways – 45%
Speed of Traffic Along Route – 42%
Crossing Guards – 42%
Weather or Climate – 39%

Students Living Between ¼ and ½ Mile from School

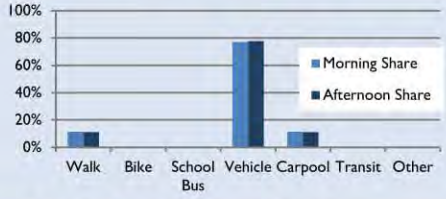
15%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 48%
Speed of Traffic Along Route – 43%
Violence or Crime – 38%
Amount of Traffic Along Route – 33%
Sidewalks or Pathways – 33%

Students Living Between ½ and 1 Mile from School

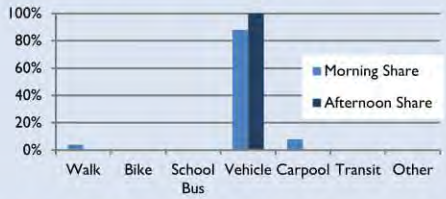
20%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Speed of Traffic Along Route – 61%
Safety of Intersections & Crossings – 50%
Amount of Traffic Along Route – 46%
Sidewalks or Pathways – 46%
Violence or Crime – 36%

Students Living Between 1 and 2 Miles from School

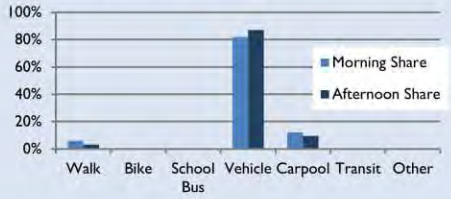
19%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Safety of Intersections & Crossings – 56%
Speed of Traffic Along Route – 44%
Sidewalks or Pathways – 44%
Violence or Crime – 44%
Amount of Traffic Along Route – 41%

Students Living Farther than 2 Miles from School

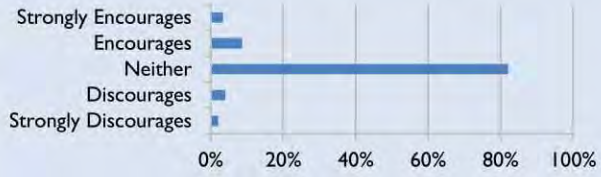
24%
of survey responses



Top 5 Issues Affecting Likeliness to Walk/Bike:
Distance – 61%
Amount of Traffic Along Route – 33%
Speed of Traffic Along Route – 30%
Safety of Intersections & Crossings – 27%
Sidewalks or Pathways – 18%

Parents' Perspectives

Whether School Encourages Walking/Biking



68%
consider walking/biking healthy or very healthy.

68%
would not feel comfortable having their child walk/bike at any age with current conditions.

DUNLAP ELEMENTARY SCHOOL - *Fact Sheet*

OVERVIEW

General Information:

Jurisdiction - City of Yucaipa
School Enrollment - 405
Free or Reduced Lunch - 81.40%

Environmental Indicators:

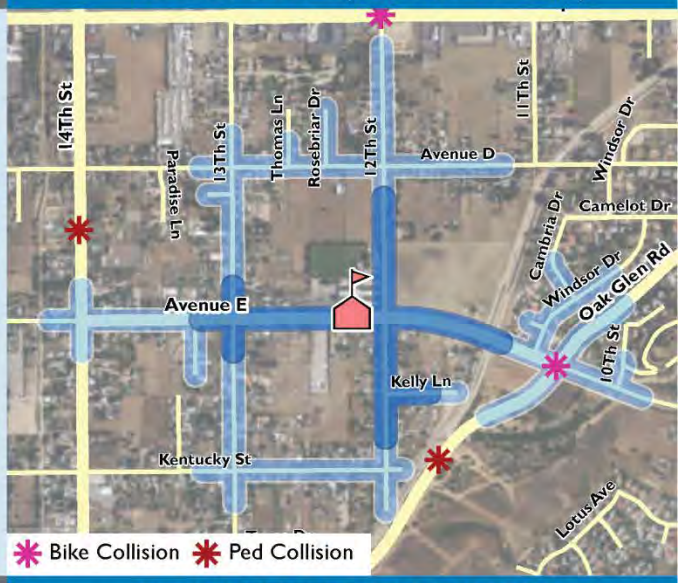
Cal Enviro Score % Range - 71-75%
Cal Enviro Score (CES2.0*) - 36.99

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

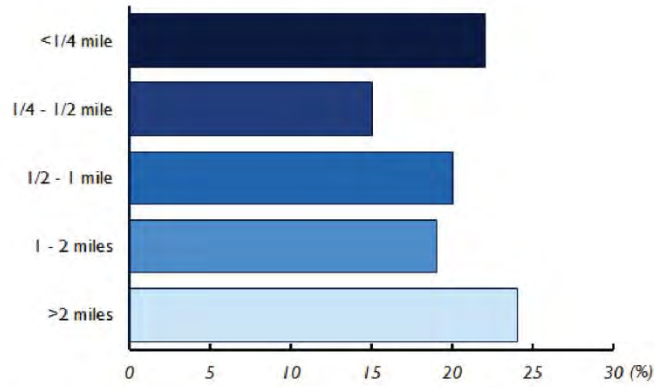
Walk Audit Highlights

of Walk Audit Participants - N/A
# of Surveys Received - 156

WALKSHED *(1/4 and 1/2 mile)*



COMMUTE DISTANCE *(%)*



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

COLLISION ANALYSIS

Pedestrian Related Collisions

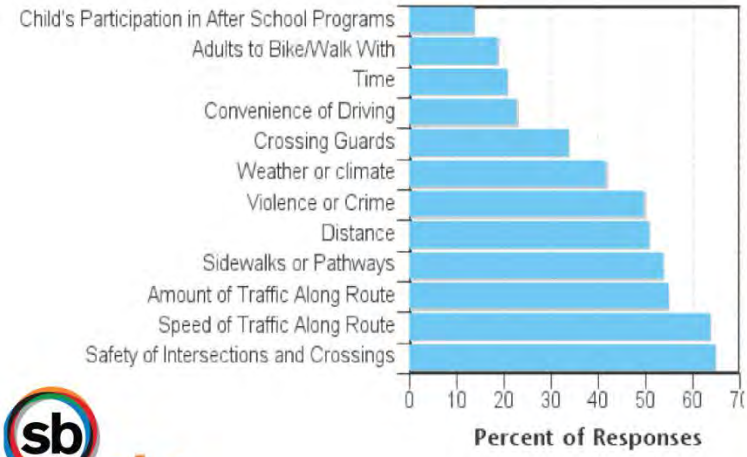
0 within 1/4 mile
2 within 1/2 mile
0 fatal within (1/2 mile)

Bicyclist Related Collisions

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

Source: https://tims.berkeley.edu/ - (Years: 2010 - 2016)

REASONS FOR NOT WALKING/BIKING



sb cta
san bernardino county transportation authority

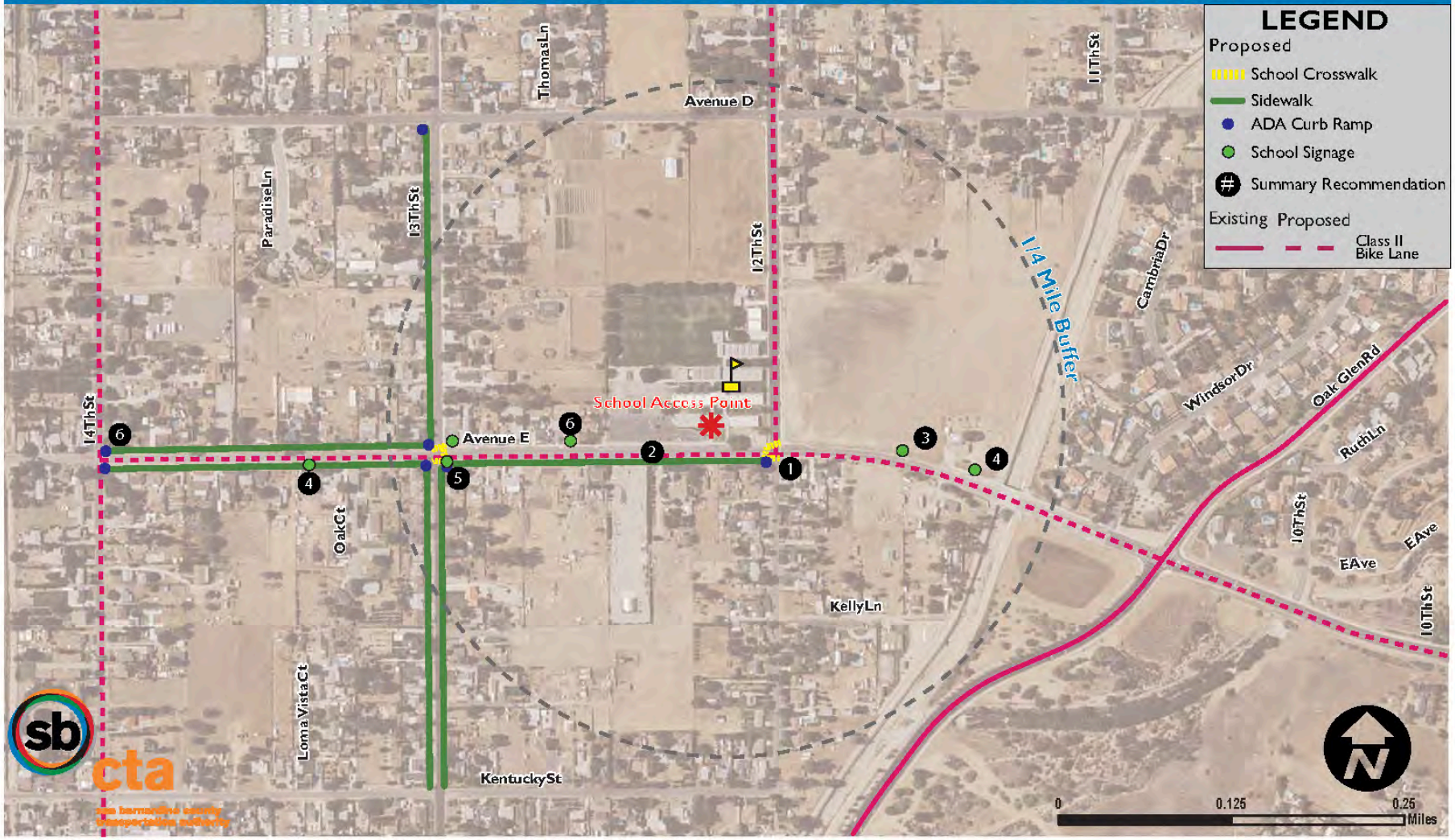
Source: SBCTA SRTS Consultant Team - School Specific National SRTS Center Data

TRAVEL MODE BEHAVIOR

	morning	*afternoon*
walk	14%	13%
bike	0.7%	0%
bus	0%	0%
vehicle	78%	81%
carpool	7%	5%
transit	0.7%	0.7%
other	0%	0%

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

SBCTA SRTS PHASE II: *DUNLAP ELEMENTARY SCHOOL, YUCAIPA*



PROPOSED ENGINEERING RECOMMENDATIONS

1. *Avenue E and 12th Street:* Repaint crosswalk with high visibility ladder style crossing on north and west leg. Install high visibility lader style crossing on south leg. Install ADA compliant curb ramp on SW corner.
2. *Avenue E:* Install shoulder stripe along north side of Avenue E for vehicular parking.
3. *Avenue E:* Install upgraded SR4-1 (CA) Assembly C to replace existing SR4-1 (CA).
4. *Avenue E:* Install SW24-3 (CA) Assembly D signage at this location.
5. *13th Street and Avenue E:* Install bulbout on the NE corner and SE corner. Straighten the north leg crosswalk. Install high visibility crosswalk on north, east, and south legs. Install ADA compliant curb ramps at the NW and SW corners.
6. *Avenue E and 14th Street:* Install ADA compliant curb ramps at NE and SE corners.
7. *Avenue D and 13th Street:* Install ADA compliant curb ramps at the SW corner.

Background/Discussion of the Engineering Recommendations

	Recommendation #	Location	Improvement	Background/Discussion
Dunlap Elementary School	1	**Avenue E at 12th Street**	High visibility crosswalks, ADA curb ramps	Improvements may alert drivers of pedestrian crossings in the area, and provide clearer paths for pedestrians along a primary walking route to school.
	2	**Avenue E**	Roadway shoulder and parking striping	Improvements provide adequate parking space near the school.
	3	**Avenue E**	School speed limit signage	Improvements can increase driver awareness of the speed limit near the school when children are present, addressing speeding along the roadway near the school. Recent collision data shows a collision involving a bicycle at this location.
	4	**Avenue E**	Advanced warning school signage	Improvements are located along primary walking route to school, respond to comments received during the walk audit, and adhere to the MUTCD Part 7 standards.
	5	**13th Street at Avenue E**	Bulbouts, High visibility crosswalks, ADA curb ramps	Improvements are located along primary walking route to school, where one pedestrian and two bicycle related collisions took place. Location identified by walk audit participants and school-wide surveying as a focus intersection. See items below, "General - ADA curb ramps and, "General - Sidewalk."
	6	**Avenue E at 14th Street**	ADA curb ramps	See item below, "General - ADA curb ramps."
	7	**Avenue D at 13th Street**	ADA curb ramps	See item below, "General - ADA curb ramps."
	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 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 Dunlap Elementary School network engineering recommendations by corridor.

CORRIDOR	IMPROVEMENT	UNIT	COST	QTY	TOTAL
Avenue E	New Sign on Post	Each	$181	5	$906
	High Visibility Ladder Crosswalk	Each	$1,788	6	$10,728
	ADA Curb Ramps	Each	$3,623	6	$21,735
	Curb Extension - Raised	Per Intersection	$87,766	1	$87,766
	Standard Crosswalks	Each	$497	1	$497
	Shoulder Stripe (Both Sides)	Per Linear Foot	$2	350	$676
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	4000	$207,690
	Segment Total				**$329,998**
13th St.	ADA Curb Ramps	Each	$3,623	1	$3,623
	Concrete Sidewalk (1 side of street)	Per Linear Foot	$52	4000	$207,690
	Segment Total				**$211,312**
ALL SEGMENTS					**$541,310**