Paving the Way for Safe Routes to School: Auburn Elementary Walkability and Active Design Audit March 2015







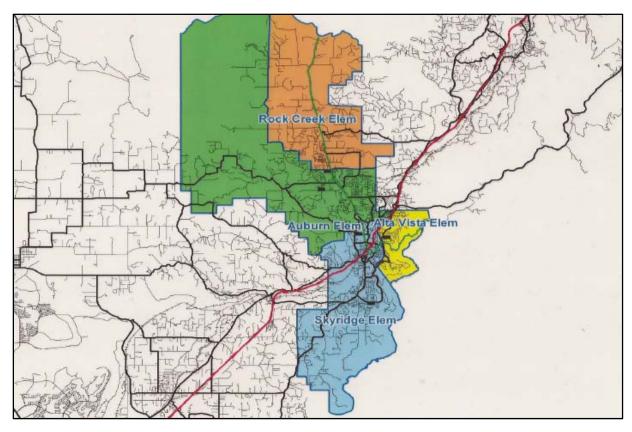
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SCHOOL INFORMATION

Auburn Elementary School is located at 4850 Atwood Avenue in Auburn California. Auburn Elementary is part of the Auburn Unified School District. For the 2013-2014 school year, 508 students were enrolled, of which 60% were eligible for free or reduced price meals. The following map shows the attendance boundary of schools in the Auburn Unified School District. The Auburn Elementary boundary is shown in green.



¹ California Department of Education, Free/Reduced Meals Program and CalWORKS Data Files, 2013. Available from http://www.cde.ca.gov/ds/sd/sd/filessp.asp. Accessed on December 12, 2014.

Existing Conditions

Auburn Elementary is located in a suburban neighborhood west of Highway 49. Crosswalks are located at the intersection of Bean Road and Lariat Ranch Road, and across Sombrero Court and Ranch House Court at Lariat Ranch Road. Crossing guards help students cross at the intersection of Bean Road and Lariat Ranch before and after school. Sidewalks span both sides of Bean Road except for a length of 100 yards before Atwood Road on the left-hand side. Although Lariat Ranch Road is a two-lane road, it is not separated by a centerline striping. The lack of striping has been identified as a potential reason for higher traffic speeds along this stretch of roadway. There are no dedicated bike lanes around the school, although painted shoulders have been installed between Lariat Ranch Road and Atwood Road along Bean Road. Although Kemper Road has an incomplete sidewalk network, a proposed development adjacent to Kemper Road will be

responsible for completing the roadway with curb, gutter, and sidewalk improvements.

Further away from the school, the route to school is less comfortable for walkers and bikers. Atwood Road between Bean Road and Highway 49 has intermittent sidewalks on the south and no sidewalks on the north. There are no crosswalks across Atwood Road along this entire span, although pedestrian actuated signals have been installed at the intersection of Atwood Road and 1st Street. While an unprotected painted shoulder runs along the north side of Atwood Road, average vehicle speeds average around 45 - 50 miles per hour making bicycling unsafe, especially for children. A number of students live across Highway 49, the heavily trafficked 10 lane intersection creates a significant barrier to students walking and biking to and from school.

Some parents choose to use the school's bus system instead of allowing their student to walk or bike to school. The school's bus service currently serves around 100 students throughout the community.

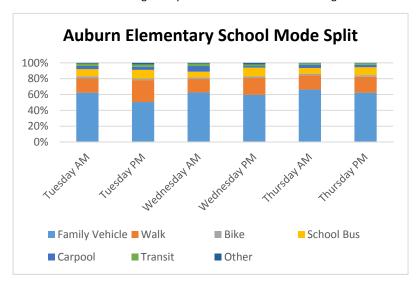


Mode Split

Using the National Center for Safe Routes to School Student Travel Tally², in-class tallies of student travel mode were conducted over a period of three days in January 2014. The tally results are shown below.

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Tuesday AM	194	18%	3%	20%	63%	4%	3%	1%
Tuesday PM	196	28%	2%	22%	51%	4%	3%	2%
Wednesday AM	215	17%	2%	18%	62%	7%	3%	1%
Wednesday PM	204	21%	2%	20%	59%	2%	2%	2%
Thursday AM	222	18%	2%	18%	66%	4%	2%	0.5%
Thursday PM	221	20%	2%	21%	62%	3%	2%	0.5%

Percentages may not total 100% due to rounding.



² National Center for Safe Routes to School, Evaluation: Student In-Class Travel Tally, 2013, available http://saferoutesinfo.org/program-tools/evaluation-student-class-travel-tally. Accessed December 12, 2014.

Parent Concerns

National Center for Safe Routes to School Parent Survey

Parents' attitudes toward walking and biking were surveyed using the National Center for Safe Routes to School Parent Survey.³ Out of 510 surveys, 107 were returned (21%).

Key Results:

- The issues most frequently reported to affect the decision to **not** allow a student to walk or bike to/from school is the lack of safe infrastructure, safety of intersections and crossings, distances from home and unsafe drivers
- The most common reason cited for allowing a student to walk or bike to/from school is the presence of crossing guards.
- While the majority of parents estimated the distance between home and school to be less than 2 miles, 38% of parents estimated that to be greater than 2 miles.
- The majority of parents reported the family vehicle as the typical mode of arrival and departure from school regardless of the distance a student lives from school

One of the most prevalent concerns of parents who do not their students to walk or bike to school is the lack of sidewalks and crosswalks. Many parents cited the lack of sidewalks and high speeds along Kemper Road as deterrents to walking and biking. Furthermore, the parent surveys revealed concerns about the lack of crosswalks across lariat ranch road where traffic commonly queues during pick-up and drop-off times.

Another significant concern of parents is the behavior of drivers around the school. Parents expressed concern about drivers making quick U-Turns in the crosswalks on Sombrero Court and Ranch House Court. Also, while many parents commented that the presence of crossing guards as a major determinant in their decision to allow their student to walk or bike to/from school, some parents pointed out that when crossing guards are not present, drivers tend to park in crosswalks diminishing both a student's ability to safely cross and the crosswalk's visibility to other drivers. In addition, parents expressed concerns about drivers speeding along Kemper, Bean, and Lariat Ranch Road, often not fully yielding to students in crosswalks.

Finally, many parents expressed that they either live too far from the school, or that crossing Highway 49 is too dangerous to allow their student to walk or bike. The intersections at Highway 49 and Atwood and Kemper Roads are particularly wide and carry significant volumes of high speed traffic. According to the school's principal, a significant number of the students living east of Highway 49 use the bus.

³ National Center for Safe Routes to School, Evaluation: Parent Survey, 2009, available http://saferoutesinfo.org/program-tools/evaluation-parent-survey; Internet: accessed May 2012.

Identifying barriers to walking and biking

Infrastructure and non-infrastructure barriers to walking and biking to school were identified through a walk audit, field observations, and discussions with school staff, Placer County engineering staff, and local law enforcement.

Walk Audit

A walk audit was conducted on October 28, 2014. Participants included Auburn Elementary School administration, Placer County engineering staff, and local law enforcement. Discussions regarding pick-up and drop-off procedures, current routes to school, common traffic violations, and future development plans helped inform the recommendations made in this report.

Traffic Observations

Traffic observations were performed at several locations during pick-up and drop-off periods in February 2015. WALKSacramento staff and Safe Kids Placer County volunteers collected data and information about driver behavior, pedestrian and bicyclist behavior, pedestrian counts, and other traffic factors.

The most common observations are listed below:

→ Drop-off

- Parents often left their cars idling on Bean and Lariat Ranch Road to walk their student across the street. Parents and students were not willing to use the crosswalk at the intersection, but rather crossed wherever they had parked.
- Pedestrians were observed running (in and out of crosswalks) and not looking before crossing.
- Drivers were observed not using turn signals when entering and exiting the school parking lot.
- There was no crossing guard at the crosswalk many pedestrians did not use the crosswalk.

→ Pick-up

- A crossing guard was at the crosswalk more pedestrians used the crosswalk.
- Parents were observed leaving their cars idling while waiting to pick up their student across the street or to walk across the street to do so.
- Although more pedestrians used the crosswalk when the crossing guard was present, some were still observed jaywalking.
- Students would often run across the intersection at the crosswalks.

INFRASTRUCTURE RECOMMENDATIONS

The following recommendations were placed in order of urgency and significance based on input from a school administrator, local law enforcement, and Placer County Department of Public Works Staff.

ID	Location	Recommendation	Justification
1	Intersection of Lariat Ranch Road and Ranch House Court	Install a 4-way controlled intersection with high visibility crosswalks.	During pick-up and drop-off periods traffic backs up along Lariat Ranch Road. Controlled intersections create separation between traffic to make possible unobstructed and more visible crossing opportunities for pedestrians. Marked crosswalks help direct pedestrians to cross at a central location. Without crosswalks, pedestrians cross Lariat Ranch Road at various locations nearest to their destinations instead of the marked crossing at Bean Road. When pedestrian crossing locations are unpredictable to motorists, a roadway can become unsafe for all modes. A 4-way stop at Ranch House Court and Lariat Ranch Road will provide a break in the traffic queue, a consolidated crossing opportunity, and traffic calming adjacent to the school.

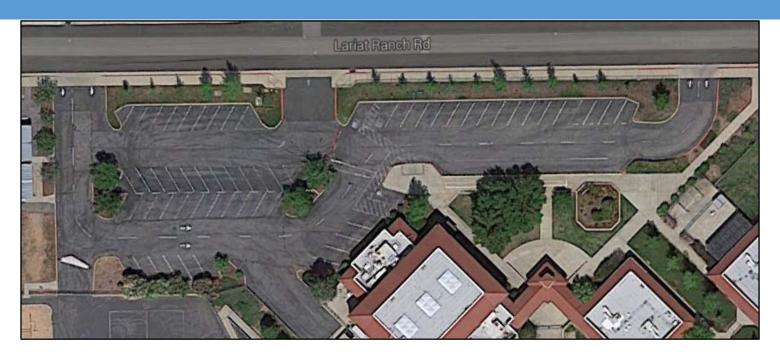


ID Location Recommendation **Justification** Lariat Ranch Road Speeding has been reported along Lariat Ranch Road. The lack of a center dividing line effectively 2 Stripe a center dividing line doubles the width of the road for reckless drivers. A dividing line will narrow the site line for drivers along Lariat Ranch Road between Bean Road and and may serve to reduce speeds adjacent to the elementary school. If striping a line is infeasible, temporary or permanent mid-road school zone signage can be installed to help delineate travel Richardson Drive. Install lanes and remind motorists to slow within the school zone. additional school zone signage.





ID	Location	Recommendation	Justification
3	Auburn Elementary	Restripe the parking lot and	Striping throughout the school's parking lot has worn off in areas making it difficult to delineate
	School parking lot	pick-up/drop-off areas to	vehicle lanes, crosswalks, and other travel indicators. A lack of clear direction can become a
		make paths of travel more	particular issue during pick-up and drop-off times when pedestrians and motorists are both
		clear.	navigating the parking lot.



ID	Location	Recommendation	Justification
4	Intersection of Kemper Road and Bean Road	Install "no parking" signs on the southern side of Kemper Road.	This intersection has become an offsite pick-up and drop-off location. There is no crosswalk across Kemper Road. Parents will park along the southern side of Kemper Road, encouraging students to cross the relatively high speed roadway where there is no crosswalk.

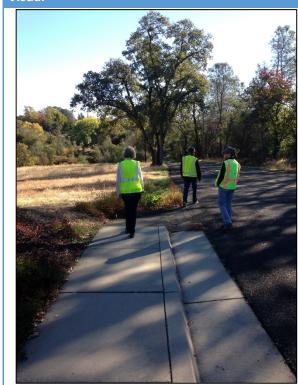


ID	Location	Recommendation	Justification
6	Auburn Elementary School parking lot	Install "No Idling" signs.	Idling near schools can create a severe detriment to local air quality and student health. Parents were observed during the walk audit and traffic observations leaving their vehicles idling within the queue of vehicles waiting to pick-up or drop-off their students. "No idling" signs may be effective in reducing rates of idling and improving air quality near the school.





ID	Location	Recommendation	Justification
7	Kemper Road	Complete the sidewalk network along Kemper Road.	Students who travel to and from school along Kemper road are forced to walk on incomplete sidewalk, in drainage ditches, through overgrown shrubbery, and in the street. Proposed development to the south will be required to construct curb, gutter and sidewalks along Kemper. However, an opportunity exists to work with property owner (Saint Joseph's Catholic School) to the north to fund sidewalk improvements along this stretch.





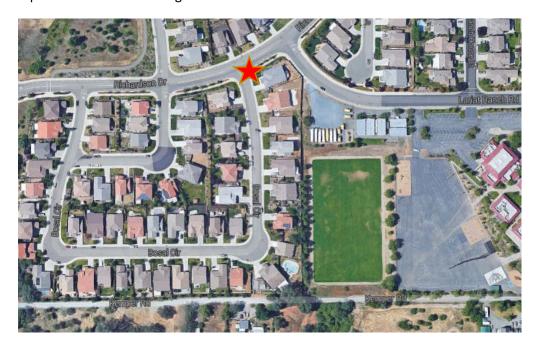
GENERAL RECOMMENDATIONS

The following recommendations apply to both Placer County Public Works and the Auburn Union Unified School District:

- Repaint all existing crosswalks to yellow continental/zebra or ladder type crosswalks.
- Consider starting a walking school bus or bike train to facilitate safe and supervised student travel.
- Conduct routine maintenance of roadways to ensure that bike lanes are clear of debris and trash piles.
- Review all arterial and collector roads to determine if sufficient width is available to install or mark bike lanes without pavement widening.
- Place a crossing guard at all major intersections during pick-up and drop-off periods.

Non-infrastructure recommendations:

• A great opportunity exists to start a walking school bus at Auburn Elementary School. Walking school busses are groups of children who walk to school together, usually with a parent or teacher. The program can be as informal as a few families offering to take turns walking the group to school or as a school sponsored weekly walking group. To start the program, inform regular and potential walkers of a convenient meeting place and designate an adult to facilitate the walk to school. An alternative to the walking school bus is a bicycle train. Walk audit participants and school staff indicated the following location as the best place to initiate a walking school bus:



MAP OF IDENTIFICATIONS:



APPENDIX A: National Safe Routes to School Parent Survey Form

Parent Survey About Walking and Biking to School	+ + + +
Dear Parent or Caregiver, Your child's school wants to learn your thoughts about children walking and biking to school. This survey will take about 5 - 10 minut complete. We ask that each family complete only one survey per school your children attend. If more than one child from a school bri survey home, please fill out the survey for the child with the next birthday from today's date.	
After you have completed this survey, send it back to the school with your child or give it to the teacher. Your responses will be kept confidential and neither your name nor your child's name will be associated with any results. Thank you for participating in this survey! + CAPITAL LETTERS ONLY — BLUE OR BLACK INK ONLY	Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box 10. What of the following issues affected your decision to allow, or not allow, your child to walk or bike to/from school if this problem were changed or improved? (Select one choice per line, mark box with X)
School Name:	My child already walks or bikes to/from school Distance
1. What is the grade of the child who brought home this survey? Grade (PK,K,1,2,3)	Convenience of driving
2. Is the child who brought home this survey male or female?	
3. How many children do you have in Kindergarten through 8 th grade?	Child's before or after-school activities
4. What is the street intersection nearest your home? (Provide the names of two intersecting streets)	Speed of traffic along route
and	Amount of traffic along route
Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box. 5. How far does your child live from school?	Adults to walk or bike with
Less than ¼ mile ½ mile up to 1 mile More than 2 miles	Sidewalks or pathways
1 mile up to ½ mile 1 mile up to 2 miles Don't know	Safety of intersections and crossings
Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box.	+ Crossing guards
6. On most days, how does your child arrive and leave for school? (Select one choice per column, mark box with X)	Violence or crime
Arrive at school Walk Walk Walk	Weather or climate
	+ Place a clear `X' inside box. If you make a mistake, fill the entire box, and then mark the correct box
Bike Bike	12. In your opinion, how much does your child's school encourage or discourage walking and biking to/from school?
School Bus	Strongly Encourages Encourages Neither Discourages Strongly Discourages
Family vehicle (only children in your family)	13. How much fun is walking or biking to/from school for your child?
Carpool (Children from other families)	Very Fun Fun Neutral Boring Very Boring
Transit (city bus, subway, etc.)	14. How healthy is walking or biking to/from school for your child?
Other (skateboard, scooter, inline skates, etc.)	Very Healthy Neutral Unhealthy Very Unhealthy
+ Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box	+ Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box 15. What is the highest grade or year of school you completed?
7. How long does it normally take your child to get to/from school? (Select one choice per column, mark box with X)	Grades 1 through 8 (Elementary) College 1 to 3 years (Some college or technical school)
Travel time to school Travel time from school	
Less than 5 minutes Less than 5 minutes 5 – 10 minutes 5 – 10 minutes	Grades 9 through 11 (Some high school) College 4 years or more (College graduate)
11 – 20 minutes	Grade 12 or GED (High school graduate) Prefer not to answer
More than 20 minutes More than 20 minutes More than 20 minutes	16. Please provide any additional comments below.
Don't know / Not sure	
+	+

APPENDIX B: National Safe Routes to School Travel Tally Form

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APPENDIX C: WALKSacramento Traffic Observations Form

Sch	ool:				Date:	'/_	Observer Name:	
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		UT INTERSECTION & MO	VEMENT SUF					
	s there a signal light at t s there a crossing signal	the intersection? for the movement surve	yed?	Yes Yes			sections difficult to negotiate? Yes No Iriving safely and obeying the law? Yes No	
:) I:	the intersection assist	ed by Crossing Guard/Stu	ident Safety F	atrol? Yes	No f)	In general, are	drivers yielding (closest to intersection)? Yes No	
OBS		BEHAVIORS: [Please use	e one (1) obse	ervation line per pe	erson]:			
#	MODE	DEMOGRAPHIC (#)					Notes: Example- Arrived at crossing alone, pair, groups. Crossing behind cars.	
	Pedestrian Cyclist, Helmet? Yes No Other (specify):	Preschool (0-5): Child (6-12): Teen (13-18): Adult (19-60): Senior (60+):	designated crossing?	designated crossing?	Pushed signal button (individual or group)? Yes	Waited for light/ guard to cross? Yes	Looked L/R/L before crossing? Yes	
	Pedestrian Cyclist, Helmet? Yes No Other (specify):	Preschool (0-5): Child (6-12): Teen (13-18): Adult (19-60):	Crossing at designated crossing? Yes	Pushed signal button (individual or group)?	Waited for light/ guard to cross?	Looked L/R/L before crossing? Yes		
	Pedestrian Cyclist, Helmet? Yes No Other (specify):	Senior (60+): Preschool (0-5): Child (6-12): Teen (13-18): Adult (19-60): Senior (60+):	Crossing at designated crossing? or group)? Yes Yes No No		No Waited for light/ guard to cross? Yes	No Looked L/R/L before crossing? Yes		
	Pedestrian Cyclist, Helmet? Yes No Other (specify):	Preschool (0-5): Child (6-12): Teen (13-18): Adult (19-60): Senior (60+):	Crossing at designated crossing? Yes	Pushed signal button (individual or group)?	Waited for light/ guard to cross? Yes	Looked L/R/L before crossing? Yes		
‡of	Motorists:	# of Motorists parked in No Parking zone:		s don't yield to	# of Motorists street:		Other Motorist behavior:	