Safe Routes to School:

Anne Darling Elementary School and San José High School

San José State University, Urban and Regional Planning Department
Graduate Students Fall 2010 - Spring 2011

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Executive Summary

This report is a culmination of two semesters spent assessing conditions in the vicinity of two schools within San José's Five Wounds/Brookwood Terrace (FWBT) neighborhood: Anne Darling Elementary and San José High School. Graduate students in San José State University's Masters of Urban Planning Program conducted the work in 2010 and 2011. Our primary objective in this report is to synthesize our assessment findings and make recommendations for the implementation of Safe Routes to School programs for these two schools. Such programs aim to identify and eliminate barriers to active commuting as one component of public health improvements.

The report is divided into five chapters that synthesize the yearlong research effort. In brief, the primary contents of each chapter include:

Chapter 1: A Community's Priority: Creating Safe Routes to School

- There are five main components of Safe Routes to School programs, collectively known as the "Five E's": evaluation, engineering, education, encouragement, and enforcement. These components formed the framework for our research effort.
- The graduate student team was assisted by key stakeholders including CommUniverCity, HealthTrust, the Silicon Valley Bicycle Coalition, TransForm, and a task force of FWBT parents and their children attending Anne Darling Elementary School.

Chapter 2: Community Snapshot: What Does the Community Look Like?

- The demographics of the study area, based on Census 2010 data, reveal that the FWBT community is predominantly Hispanic and Latino and almost one-third of the population is younger than 18.
- 328 students attend Anne Darling and 770 students attend San Jose High School. A large proportion of these students are Hispanic (82% and 78%, respectively), a relatively high percentage of students are English as a Second Language learners (77% and 50%, respectively) and many students are eligible for free or reduced lunches (90% and 73%, respectively).
- The FWBT community possesses many important and valued assets including active and committed parents, a number of worship centers, health clinics, an active and popular community center, and active community groups.
- Numerous major transit improvements are slated for the neighborhood, including a future BART station, bike route improvements, and Bus Rapid Transit service along East Santa Clara Street.

Executive Summary

Chapter 3: Student Mobility Assessment: What does the Environment Look Like?

- A street by street audit of pedestrian and vehicle conditions in the FWBT community revealed a largely auto-oriented environment, although sidewalks exist on almost all streets. The quality of street lighting, bus stops, facilities for disabled persons, speed limits, road lanes, and crossing aids were also evaluated.
- A survey of students at the two study schools revealed that 74% of Anne Darling Elementary students are driven to school and that 47% of parents feel that their children would be unsafe walking to this school. At San Jose High School, 47% of students drove, 36% walked, and 3% biked. The percentage of high school students walking home in the afternoon is 56%.
- Community residents expressed a number of concerns about walking and biking in their neighborhood including speeding cars, traffic congestion at major intersections, insufficient street lighting, the narrow overpass over Highway 101, homeless encampments, and gang activities.

Chapter 4: Community Involvement via the Collaborative Neighborhood Planning Model

Planners who do not advocate government-directed, "top-down" planning techniques instead employ the collaborative neighborhood planning model because it places primary emphasis on the expertise, energy, and enthusiasm available in local communities to shape their own density. The graduate student team put this model into practice through the following efforts:

- Formed of a Parents Task Force to guide outreach efforts and pilot project development
- Designed and executed a Walking School Bus on May 4, 2011 to promote the safety and health benefits of a group walking to school
- Designed and executed a Bicycle Rodeo on May 4, 2011 to emphasize bicycle-riding safety
- Engaged Anne Darling students in a photo walking tour and photo collage exercise in which they noted positive and negative aspects of their walk between home and school
- Participated in a "pen pal" letter-writing campaign between Anne Darling students and San Jose State University English majors
- Staffed a Bike to Work Day energizer station on May 12, 2011 at San Jose High School in order to promote non-motorized modes of transportation

Chapter 5: Recommendations and Implementation Bridges

The work of the graduate student team culminated in the development of specific recommendations for future student teams, school leaders, and community organizers to continue the Safe Routes to School effort. Some of these recommendations included:

- Ideas for further research on physical and environmental barriers to safely walking and biking to school
- Consideration of gender and socio-economic factors that shape Safe Routes encouragement and marketing techniques

- Consideration of past studies on the critical McKee and 33rd intersection
- Tips for parents, students and schools including putting risk into perspective, setting a positive example, creating incentives for Safe Routes, and fostering long-term partnerships between the neighborhood, city staff, and law enforcement professionals
- Ideas for specific action items around each of the "Five E's" of Safe Routes planning that identify the likely timeframe, lead agencies, and potential funding sources

The report concludes with evidence that our research and community engagement has resulted in heightened interest in Safe Routes to School planning for the Anne Darling Elementary and San Jose High School neighborhoods.

If there are any questions about the contents of this report, or if mistakes are discovered that warrant correction, please contact Professor Rick Kos, AICP at San Jose State University at rickkos@gmail.com. We hope you enjoy our report!

Executive Summary

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Chapter 1: A Community's Priority: Creating Safe Routes to School

This report is a culmination of two semesters spent assessing conditions in the vicinity of two schools within San José's Five Wounds/Brookwood Terrace (FWBT) neighborhood: Anne Darling Elementary and San José High School. Graduate students in San José State University's Masters of Urban Planning Program conducted the work in 2010 and 2011. Our primary objective in this report is to synthesize our assessment findings and make recommendations for the implementation of Safe Routes to School programs for these two schools. Such programs aim to identify and eliminate barriers to active commuting as one component of public health improvements.

The first semester (Fall 2010) involved the collection of information regarding existing neighborhood conditions and the subsequent development of preliminary recommendations for the work of the succeeding class of students. Specifically, the analysis included:

- Careful documentation of demographic data and physical conditions in the study area
- Pinpointing key topical and geographic areas of concern based specifically on the ideas and viewpoints shared by parents, students, school administrators, and other community leaders
- Identification of potential funding sources for community leaders to draw upon when implementing the Anne Darling Elementary and San José High School Safe Routes to School programs

With a solid platform of facts in place from the community assessment, the second semester of the project (Spring 2011) implemented the Collaborative Neighborhood Planning model to bring together the SJSU graduate students, students and parents from the study area schools, and school administrators and faculty to develop Safe Routes demonstration projects. Afterwards, the SJSU students formulated specific recommendations to carry the Safe Routes work forward (these recommendations appear in Chapter 5). The outcomes of the spring 2011 semester included:

- Preparation of educational materials for students and parents to educate and promote Safe Routes to School demonstration projects
- Assistance with the planning and execution of a Walking School Bus, coupled with a bike rodeo at Anne Darling Elementary to teach students in grades 3-5 how to safely ride their bicycles on urban streets
- Participation in the May 12, 2011 Bike to Work Day activities through the staffing of an information table at San José High School
- Further identification of funding sources that future proponents of this work can use to bring more Safe Routes programs to fruition

1.1 Introducing Safe Routes to School

Safe Routes to School is an international movement that aims to increase the number of children who walk or bicycle to school in order to promote a healthier, more active lifestyle. These programs include recurring activities such as weekly Walk and Bike to School days or annual events like a bike rodeo.

With growing concerns for child safety when commuting to and from school, many grassroots Safe Routes to School efforts grew from successful pilot programs around the country, in particular the very successful program in Marin County, CA. Other noteworthy San Francisco Bay Area examples include programs in Palo Alto, Los Altos, and Solano County.

Figure 1 Safe Routes to School participation, Vienna, Virginia
Source: http://fabbbikes.blogspot.com/2009/05/vienna-safe-routes-to-school-challenge.html (Accessed December 11, 2010)

Marin County was selected to pilot a Safe Routes to School Program in 2000, which led efforts to create a national model. A nine school pilot program was implemented and resulted in a 57 percent increase in the number of children walking and biking and a 29 percent decrease in the number of children arriving alone in a car."[1]

In 1994, parents and teachers in Palo Alto created a committee to focus on school commute safety and worked towards reducing single-family car trips to school. This committee has grown into the City/School Traffic Safety Committee and the City/School Liaison Committee.

Walk or Wheel! in Los Altos is a component of GreenTown Los Altos, a grassroots initiative of residents and businesses. The group works with the Los Altos School District to improve school commuting safety and parent comfort with their children walking and biking to school.

In response to obesity, commuting safety, and congestion around schools, the Solano Transportation Authority adopted their Safe Routes to School Plan and launched its

[1] Safe Routes to School National Partnership, "Changing the Habits of an Entire Generation," http://www.saferoutespartnership.org/state/network/california (accessed October 20, 2010).

program in 2008. The agency expanded its program in 2010 to include all county schools. The plan involved over 100 committee members, over 450 parents, teachers and students at its 29 schools around the county.

With funding for local initiatives procured from local, state and national sources, projects are implemented that aim to remove the physical and emotional barriers that currently prevent children from actively walking or biking to school. These barriers include lack of sidewalks or other infrastructure, unsafe walkways and crossings, and lack of educational and encouragement programs for children, parents, and the community that promote walking and bicycling.

1.2 Components of Safe Routes to School

There are five main components of Safe Routes to School programs, collectively known as the "Five E's":

1.2.1 Evaluation

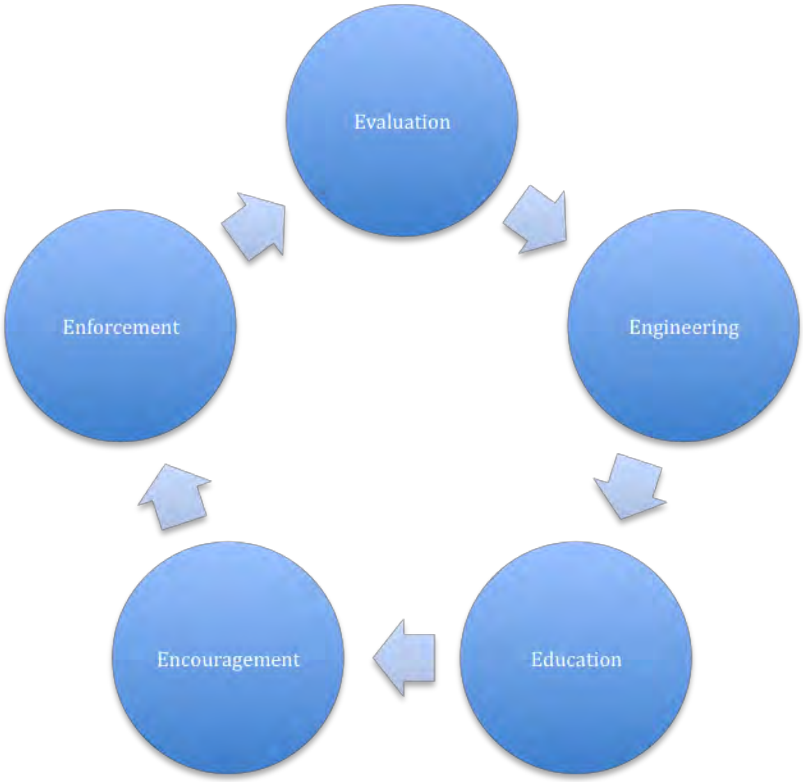

Figure 2 Five E's of Safe Routes to School

Implementation of a Safe Routes to School program generally begins with a thorough evaluation of existing neighborhood conditions to understand concerns regarding active transportation in the neighborhood. This was the focus of the first semester of our research efforts. Typically, Safe Routes to School evaluations include:

- **Parent surveys** help to reveal why parents are driving their children to school, and what changes might result in a shift in their behavior.
- **Student surveys** elicit the attitudes of the children and help determine how to develop programs and strategies that will appeal to the target demographic.
- **Travel surveys** show the percentages of students that are using each travel mode to reach school, such as walking, biking, taking the bus, being driven alone, or carpooling. By including a record of the weather and time of year on each survey, travel surveys also help examine how weather affects commute behavior.
- **Accident reports** highlight where collisions occur and can be used to identify accident hot spots that may merit additional consideration in the later steps of the program establishment process.

Evaluation data is key to determining the scope and likely success of a Safe Routes to School program. In addition, most funding sources that support Safe Routes planning efforts require ongoing evaluation in order to ascertain if project objectives are being met.

1.2.2 Engineering

Changes to the built environment through engineering improvements are also a key component of many Safe Routes programs. The most successful programs begin with a thorough community assessment of the existing barriers for children walking and bicycling to school.

Figure 3 Example of pedestrian crossing issue

Source: http://www.pedbikeimages.org (Accessed December 11, 2010)

- Safe Routes programs often organize walkabouts so that parents can join city staff and enforcement professionals in walking the primary routes to school in order to identify everyday problems that children encounter, including complaints such as: "it's impossible to cross the street," "the sidewalk ends," "there is no bike trail,"

"the cars go too fast," etc. Walkabouts can also identify opportunities like short cuts and preferred routes that children take to schools.

- A "wish list" of capital improvements may be generated. This list might contain two categories of improvements, one for the short-term and one for longer-term projects.
- Short-term improvements such as maintaining landscaping, altering the timing of traffic lights, painting crosswalks, or installing stop signs are changes that can be completed with a relatively small budget and within a short time frame.
- Long-term improvements such as installing sidewalks, pathways, bridges, and reconstructing intersections require more engineering effort and dedicated funding so that they may be prioritized in the city's capital improvement plan to improve routes to school.

1.2.3 Education

Education is an important component for programs that seek to teach positive behaviors. Since Safe Routes to School planning is multi-disciplinary in nature, there are many opportunities for educational outreach.

Many U.S. programs offer bicycle and pedestrian safety training in the classroom and "in the field" (through obstacle courses set up outdoors) to teach children the basics of walking and bicycling with traffic. Young elementary school children (6-8 years old) are taught skills such as how to cross the street safely and how to look for cars when walking past driveways. When children reach the fourth and fifth grades (8-10 years old), they are often taught the basics of bicycling, including balancing, signaling, following traffic rules, and properly wearing a helmet. Police officers can assist with this training and can help instruct children about other matters, like what to do when approached by a stranger.

Figure 4 Pedestrian and Bicycle Training

Source: http://www.pedbikeimages.org/ (Accessed December 11, 2010)

Parents' education includes instruction to follow the rules of the road when they are driving, walking and bicycling. They are also encouraged to walk and bicycle with their children, as traffic safety is learned behavior that can be best acquired through hands-on experience.

Driver safety campaigns can extend to high school students and, from there, to the community as a whole so that all drivers become aware that children are walking and bicycling, and that sharing the road is instrumental in ensuring safe routes to school.

Figure 5 Bicycle Safety Training

Source: http://www.pedbikeimages.org/ (Accessed December 11, 2010)

1.2.4 Encouragement

Making the change to daily walking or bicycling to school is often difficult for families; however, many parents are willing to let their children participate in occasional encouragement activities such as a "Walk and Bike to School Day."

- **Special events** are one form of encouragement to provide a way for families try a new mode for commuting to school. Conducting an annual "Walk and Bike to School Day" is one type of special event, while weekly "Walking Wednesdays" offer more frequent opportunities to try a mode change.
- **Contests**, which can foster friendly competition between students and classrooms, help encourage kids to walk and bike to school. Some schools run contests such as the "Frequent Rider Miles Program" where students track how they come to school and receive points for "pollution free" miles.[2] Other contests like Walk and Bike Across America encourage classrooms to track the overall number of miles the children have covered by walking and

Figure 6 Walking School Bus

Source: http://www.pedbikeimages.org/ (Accessed December 11, 2010)

[2] Safe Routes to School, "Frequent Rider Miles Award Guidebook," http://www.saferoutestoschools.org/Forms/FRMGuide2006.pdf (Accessed January 19, 2012)

bicycling, and these distances are plotted on a map. The exercise results in a math lesson and can also become a geography lesson as students virtually "visit" the locations on the map.

- "**Walking school buses**" or "**bike trains**" create closer community bonds and facilitate ways for parents to walk and bicycle with groups of children who live together in a neighborhood.

Special events and contests have been proven effective in inspiring students, parents, elected officials, and school leaders to try new things; in turn, this enthusiasm can result in the development of ongoing programs to encourage walking and bicycling.

1.2.5 Enforcement

The fifth "E," enforcement, is also vitally important for creating safe routes for children. Safe Routes programs partner with law enforcement professionals to create community programs like stationing crossing guards at busy street corners to help children cross the street.

Figure 7 Crossing Guard

Source: http://www.pedbikeimages.org/ (Accessed December 11, 2010)

Other possibilities related to enforcement include:

- **Target unsafe driving behaviors**, such as speeding, to help make areas around schools safer for children to walk and bike to school.
- **Reinforce safe bicycling and walking behaviors** with students by increasing police presence. A child who is stopped by a police officer for not wearing a helmet or for riding through a red light can learn a valuable lesson through a conversation or warning from a law enforcement officer.
- The presence of more "**eyes on the street**" helps make the area feel safer, and drivers and cyclists alike are typically on their best behavior when a police officer is stationed in front of a school.

1.3 Key Players in this Research Effort

The key players responsible for this project are CommUniverCity, Health Trust and graduate students in San José State's Urban & Regional Planning 201 and 203 classes. As the name implies, CommUniverCity is a collaborative partnership of service and learning

between the *community* (residents of FWBT), the *university* (San José State University – SJSU), and the *city* (the City of San José). The goals of the partnership are to improve the quality of life in FWBT by creating a physically safe, healthy, and empowered community through proactive collaborations between residents and students. To achieve these goals, participants engage in service learning projects that are based on residents' documented priorities.

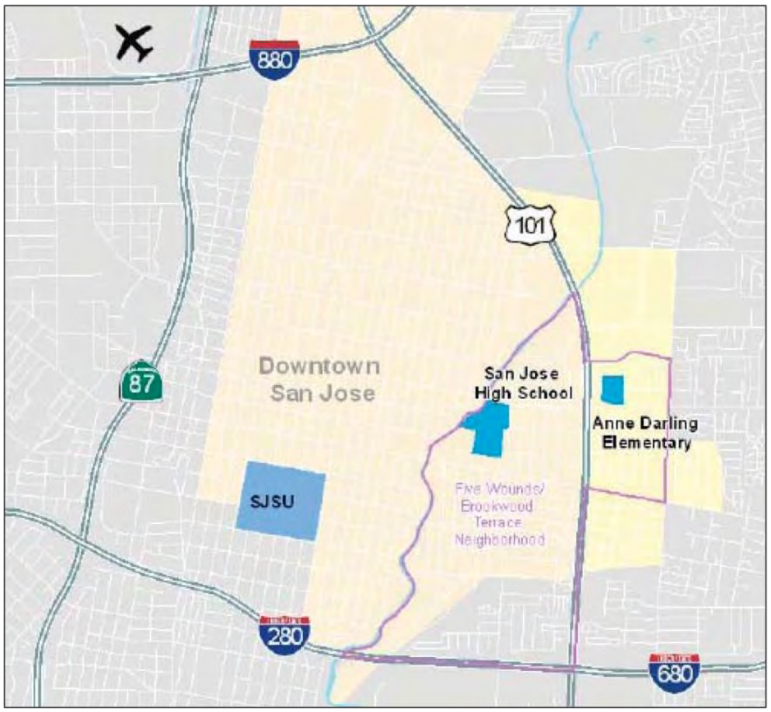

Figure 8 Five Wounds Brookwood Terrace Neighborhood

CommUniverCity has embarked on a new program, *Pathways to Healthy and Active Living* (PHAL), in an effort to create a pedestrian and bicycle friendly neighborhood that encourages active living and commuting. PHAL has four key components:

1. Planning for a future Bay Area Rapid Transit (BART) station in the central part of the FWBT neighborhood
2. Bus Rapid Transit and East Santa Clara/Alum Rock corridor streetscape improvements
3. A Rail-to-Trail conversion along an abandoned industrial rail line that passes through FWBT
4. Safe Routes to School planning for Anne Darling Elementary and San Jose High School

PHAL was made possible, in part, by a grant from Health Trust, a local charitable foundation originating in 1996 that strives to make Silicon Valley the healthiest region in America. In an effort to increase the health of the community, the foundation has three key programs: healthy living, healthy aging, and healthy communities. In 2010, Health Trust awarded CommUniverCity a $100,000 grant to develop the PHAL program, a two-year effort that promotes healthy people and healthy places in FWBT.

Students from the Masters of Urban Planning program at SJSU have utilized this opportunity to put their skills to the test in a real-world setting. Specifically, students performed research and engaged various stakeholders to identify, analyze, and assess existing neighborhood conditions. For one academic year, SJSU students forged relationships with residents, civic leaders, city staff, and school officials to analyze the

environment that students encounter when commuting to Anne Darling Elementary and San José High.

In the next chapter, we focus on current conditions in the neighborhood surrounding the two study schools, including a description of the assessment study area, student population, community assets, and current land use and transportation information.

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Chapter 2: Community Snapshot: What Does the Community Look Like?

As the foundation for our analysis, a comprehensive community assessment was conducted. As a result, this chapter represents a synthesis of our findings of existing conditions in the project study area surrounding Anne Darling Elementary School and San José High School. We begin with a brief overview of the current residential demographics, community assets, and land use and transportation aspects of the study area. Next, we present the primary findings from a review of current Safe Routes literature in order to provide background on barriers to active transportation, including physical constraints and social/economic status.

2.1 The Project Study Area

The study area is primarily the neighborhoods adjacent to Anne Darling Elementary School and San José High School. Specific emphasis during the evaluation phase was placed on the full attendance area for Anne Darling Elementary (including areas outside the FWBT neighborhood). In order to place this relatively small area in context, we remained mindful of the entire FWBT neighborhood, whose boundaries include Coyote Creek to the west, North King Road to the east, Santa Clara Street and Alum Rock Avenue to the south, and Silver Creek to the north. Highway 101 divides the community, and Anne Darling and San Jose High School are located on opposite sides of this divide. Major arterials within the study area include Julian Street, Santa Clara Street, Alum Rock Avenue, North King Road, and McKee Road.

2.2 Demographics and Student Population

As one aspect of the platform of facts we assembled for this project, we considered the demographic composition of the study area as well as the student population at Anne Darling Elementary and San Jose High School.

2.2.1 FWBT Neighborhood Demographics

Table 1 2010 Neighborhood Demographics

	Total Population	17,129	100%
Ethnicity	Non Hispanic or Latino	4,562	27%
	Hispanic or Latino	11,840	69%
	White	7,575	44%
	Asian	2,524	15%
	Other/Multiple	6,832	40%
Gender	Male	8,994	53%
	Female	8,135	47%
Age	Under 18	4,975	29%
	Over 18	12,154	71%

Source: www.census.gov

According to the census, almost one-third of the population is younger than 18 and two-thirds of the population have a Hispanic or Latino background. The majority of the population (59%) lives in renter-occupied units. The official "Two Adult, Two Child Poverty Threshold" for 2010 is $22,113. Of the 4,604 households in the study area, 462 households (10%) are below the poverty level and make less than $15,000.

2.2.2 Student Population

Anne Darling Elementary is a public school within the San José Unified School District for kindergarten through fifth grade students. For the 2010-2011 academic year, there were 328 students enrolled at Anne Darling. The majority of those students are Hispanic or Latino, over half are English as a Second Language (ESL) learners, and nine out of every ten students at the school are eligible for free or reduced lunch.

San José High School (SJHS) is a public high school in the San José Unified School District that serves students in grades nine through twelve. The student population at SJHS is primarily Hispanic or Latino, almost half of the student population is learning English as a second language, and nearly three quarters of the students are eligible for a reduced price lunch. The student demographics at both schools are summarized in **Table 2**.

Table 2 Student Demographics at Anne Darling Elementary and San Jose High, 2010-2011 Academic Year

	Total Student Population	Ethnic Diversity				% ESL Learners	% eligible for free or reduced lunch
		Hispanic or Latino	White	Asian	Other/ Multiple		
Anne Darling Elementary School	328	82%	7%	6%	5%	77%	90%
San José High School	770	78%	7%	7%	8%	50%	73%

2.3 Community Assets and Strengths

All communities have strengths upon which improvement efforts such as Safe Routes programs can be founded. To ascertain these strengths, we began by considering published neighborhood plans for FWBT including the 2006 FWBT Neighborhood Improvement Plan produced as part of the city's Strong Neighborhoods Initiative program. This helped us gain a better understanding of the positive attributes of the community surrounding Anne Darling Elementary and San José High School.

The definition of "assets" for this particular study includes features such as physical structures as well as established neighborhood organizations within the community. As reinforcement, many of these community assets were noted during walking tours with community members, which are described in greater depth in Chapter 3. The identified assets, including parks, local businesses, places of worship, and community centers that are within walking distance of the neighborhoods surrounding Anne Darling Elementary School and San José High School are included in Figure 9.

Figure 9: Community Assets

Map Created by San Jose State Graduate Students in Urban and Regional Planning, 2010-2011
Data sources: City of San Jose, Santa Clara County VTA, SJUSD

- Anne Darling Attendance Area
- SJHS Attendance Area
- Schools Studied for this Project
- Community Centers
- Religious Centers
- Community Health Clinics
- Grocery Market

2.3.1 School Assets

The two schools within the neighborhood of study are Anne Darling Elementary School located at 333 North 33rd Street and San José High School at 275 North 24th Street. Other schools in the study area are Rocketship Discovery Prep, a new elementary charter school, the Metropolitan Adult Education located on Julian Street, across from SJHS and alternative schools San Jose Plus, Community Middle and Community High Schools. San Jose Plus is located on the San Jose High campus and the community schools are located across the street with Metropolitan Adult Education. Five Wounds School, which enrolled elementary and middle school students, closed in the fall of 2009.

Figure 10 Anne Darling Elementary School

Figure 11 San Jose High School

For the 2008-2009 school year, the Academic Performance Index (API) ranked Anne Darling a one out of ten compared with similar schools in the neighborhood and state, whereas San José High School had a score of six out of ten.[3] For the 2010-2011 school year, the API scores for Anne Darling and San José High School were 742 and 725, respectively. The scores range from 200 to 1000. The target for schools is 800, and this is set by the state. A school that falls below this target is required to meet annual growth targets until it reaches its target of 800.[4]

[3] Great Schools, www.greatschools.org (accessed November 29, 2010).

[4] Education.com, "API Report," http://www.education.com/reference/article/Ref_API_Report/ (accessed November 2010)

2.3.2 Worship Center Assets

There are currently four churches and two Buddhist temples in the neighborhood of Anne Darling Elementary and San José High School:

- Five Wounds Church located at Alum Rock Avenue and 30th Street
- New Horizon Bible Church located at Wilshire Road and North King Road
- Seventh Day Adventist Church located 33rd Street and St. James
- Mathias Memorial Church of Christ located at North 27th Street & Julian Street
- Dao Trang Phat Ho Buddhist Temple located at 147 North King Road
- Chua An Lac Buddhist Temple located at 1648 E. San Fernando Street

2.3.3 Library Assets

East San José Carnegie Library is located at the corner of 23rd Street and East Santa Clara Street, and is the only public library in the study area.

2.3.4 Health Clinic Assets

The Indian Health Center of Santa Clara Valley has a Community Wellness and Outreach Center located at 605 East Santa Clara Street. There are additional health care facilities in the study area located to the west on Santa Clara Street and further east of Alum Rock Avenue.

Figure 12 Plata Arroyo Park

2.3.5 Community Center Assets

The Roosevelt Community Center is located at 901 East Santa Clara Street next to Roosevelt Park. The center is open six days a week and offers amenities including a fitness center, dance studio, classrooms, and multi-purpose rooms.

2.3.6 Park and Trail Assets

Three major recreational facilities can be found within the project study area:

- Roosevelt Park, located at E. Santa Clara Street and 21st Street, is eleven acres in size and includes a public skate park. Watson Park, located north of SJHA, spans more than twenty-six acres adjacent to Coyote Creek. It is currently undergoing a master plan study to provide better recreational amenities for residents.

- Plata Arroyo Park, located at the corner of North King Road and McKee Road, features approximately ten acres of amenities including a skate park, basketball courts, and a playground for toddlers and children.
- Coyote Creek and Silver Creek pass through the study area, and include trail access for recreational use.

Figure 13 Food Bowl Commercial Center

The 2006 Neighborhood Improvement Plan for Five Wounds Brookwood Terrace indicates that the city plans to convert abandoned railroad tracks into a lighted trail network for use by residents.[5] This project is referred to as "Rails to Trails" and is part of the Pathways to Healthy and Active Living grant from Health Trust mentioned in Chapter 1.

2.3.7 Kellogg Manufacturing Company

A large economic contributor in the neighborhood (and the city at large) is the Kellogg Manufacturing Company, located at 475 Eggo Way. The San José location of Kellogg primarily produces Eggo waffles and operates seven days a week. The company has approximately one hundred employees working to produce and package Eggo waffles.

2.3.8 Commercial Centers and Businesses

There are four commercial centers within walking distance of Anne Darling Elementary School and San José High School:

- The most prominent is Food Bowl Supermarket plaza, located at McKee Road and 33rd Street. The Food Bowl is the only fully stocked grocery store within walking distance of the two schools. Across McKee Road from the Food Bowl Supermarket is another center that includes eateries, a dry cleaner, and a laundromat. Additionally, there is a Walgreens at the corner of North King Road and McKee Road.

[5] City of San José, "Five Wounds Brookwood Terrace Strong Neighborhood Initiative Plan," 2002.

- On the west side of Highway 101, near San José High School, is a commercial center located at Julian Street and 25th Street. This center contains a pizza restaurant, a mini-mart, a dry cleaner, and a laundromat.
- The shops and commercial areas along East Santa Clara Street and Alum Rock Avenue are a major business community, including small restaurants and convenience stores.
- The intersection between North King Road and Santa Clara Street is known locally as "Little Portugal" for its unique shops and restaurants specializing in Portuguese foods and cultural items.

2.3.9 Childcare Centers

Oanh Vu Day Care is located at 147 North King Road, near the Buddhist temple. The Mam Non Daycare/Preschool, located on East San Fernando Street, offers pre-kindergarten and tutoring services in the FWBT neighborhood.

2.3.10 Neighborhood and Community Groups and Stakeholders

The Five Wounds Brookwood Terrace Neighborhood Action Coalition (NAC) consists of neighborhood stakeholders and representatives who work with city staff to advocate for neighborhood priorities such as public safety, open space, and community centers. There are neighborhood associations in adjacent communities, including the Olinder Neighborhood Association and the Brookwood Terrace Neighborhood Association within the FWBT neighborhood boundary.

The Acknowledgments section of this report contains a complete list of stakeholders who have been generously involved with the study of the neighborhood surrounding San José High School and Anne Darling Elementary School.

2.4 Land Use and Transportation

A community assessment focused on Safe Routes to School planning must include a documentation of existing land use and transportation conditions. Our key findings are summarized briefly in this section.

2.4.1 Current Land Uses

The area surrounding Anne Darling Elementary and San José High School is primarily comprised of single-family homes, with some apartment buildings or low to medium density residential areas scattered throughout the community. East Santa Clara Street, Alum Rock Avenue, Julian Street, and McKee Road are identified in the city's General Plan and zoning maps as crucial commercial corridors for the surrounding neighborhood.

2.4.2 Light Rail and Bus Rapid Transit Corridor

The city's General Plan indicates that East Santa Clara Street and Alum Rock Avenues are planned to support light rail and Bus Rapid Transit (BRT) lines within the coming decades. It is expected that as the downtown area continues to redevelop its commercial and retail businesses, this corridor will provide a crucial link between downtown and eastern San José.[6]

2.4.3 Future Alum Rock Bart Station

While outside of the immediate vicinity of Anne Darling Elementary and San José High School, a future BART station is currently being planned north of the Five Wounds Church at 28th Street. The FWBT community is actively engaged in shaping the development of this vital portion of the neighborhood. When completed, the site will be a mixed-use urban center that will include transit-oriented development, general commercial, and public park/open space. The City of San José is currently researching future funding for the Alum Rock BART Station, and there is no anticipated construction date.[7]

2.4.4 Bike Plans

The closest city designated bike path for the FWBT neighborhood is located on 21st Street between Taylor Street and Williams Street. The 2009 Bike Plan Update for the City of San José targets the neighborhood for bike path installation; however, funding resources have yet to be established.[8] Bicycle facilities, including parking facilities and bike lanes, are addressed further in Chapter 3.

[6] San José Planning Department, "2020 General Plan", City of San José., http://www.sanjoseca.gov/planning/gp_maps/default.asp [accessed November 28, 2010].
[7] Ibid.
[8] San José Transportation Department, "2020 Bike Plan Update", City of San José, http://www.sanjoseca.gov/transportation/bikeped/bikeped_update.asp [accessed November 28, 2010]

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Chapter 3: Student Mobility Assessment: What does the Environment Look Like?

As noted in Chapter 1, evaluation is one of the key components of a successful Safe Routes to School program. Consistent with that requirement, this chapter summarizes the evaluation of existing neighborhood conditions that community residents experience when walking and biking to school. Included in this assessment are the pedestrian safety concerns noted by students, parents, and community members, and those observed by the graduate students team during the investigation of the study area.

3.1 Evaluation of Existing Conditions

A full evaluation of the existing conditions was conducted to ascertain the circumstances faced by students commuting to school within the study area. This assessment involved performing a walk audit of the study area and later producing maps using this walk audit data to show the conditions of the community. The evaluation also involved walking tours with students and parents to document their concerns about walking and bicycling conditions and to evaluate the routes that are typically used in the commute to school.

3.1.1 Evaluation Method #1: Mobility Audit

To obtain quantifiable information related to the physical environment of student commutes, a walkability audit was chosen as the primary method of evaluation. Previous audit work conducted by a recent alumnus of the SJSU graduate urban planning program served as a starting point since it included preliminary information about the neighborhood as well as a professionally-vetted audit tool to use in the physical assessment of the survey area.

In late 2009, alumnus George Schroeder completed an analysis of the pedestrian environment in FWBT. He utilized an existing walk audit tool called "PEDS" (Pedestrian Environment Data Scan) and customized it to be more relevant and useful to addressing his research focus, which closely matched ours. This walk audit tool was used to collect data related to the pedestrian environment for each of the streets in FWBT.[9] Schroeder's raw data was collected into a spreadsheet that he generously provided to this project. We started by eliminating attributes that were deemed irrelevant to a Safe Routes assessment, primarily those related to urban design and aesthetic considerations such as overhead power lines. Next, the graduate student team fanned out across the study area and collected new data within the school attendance areas, parts of which extended beyond the confines of

[9] George D. Schroeder, "Transforming Auto-centric Communities into Walkable Neighborhoods: Walkability Audits of Two Neighborhoods in San José" (Master's thesis, San Jose State University, 2010).

Schroeder's study area. We paid particular attention to areas within a half mile of the study schools since this distance is generally acknowledged to be the maximum that most people will walk to reach school destinations.[10] Figure 3-1 shows the FWBT neighborhood outlined in blue, and the two additional survey areas are outlined in orange. The green lines in the additional survey areas indicate the individual road segments evaluated.

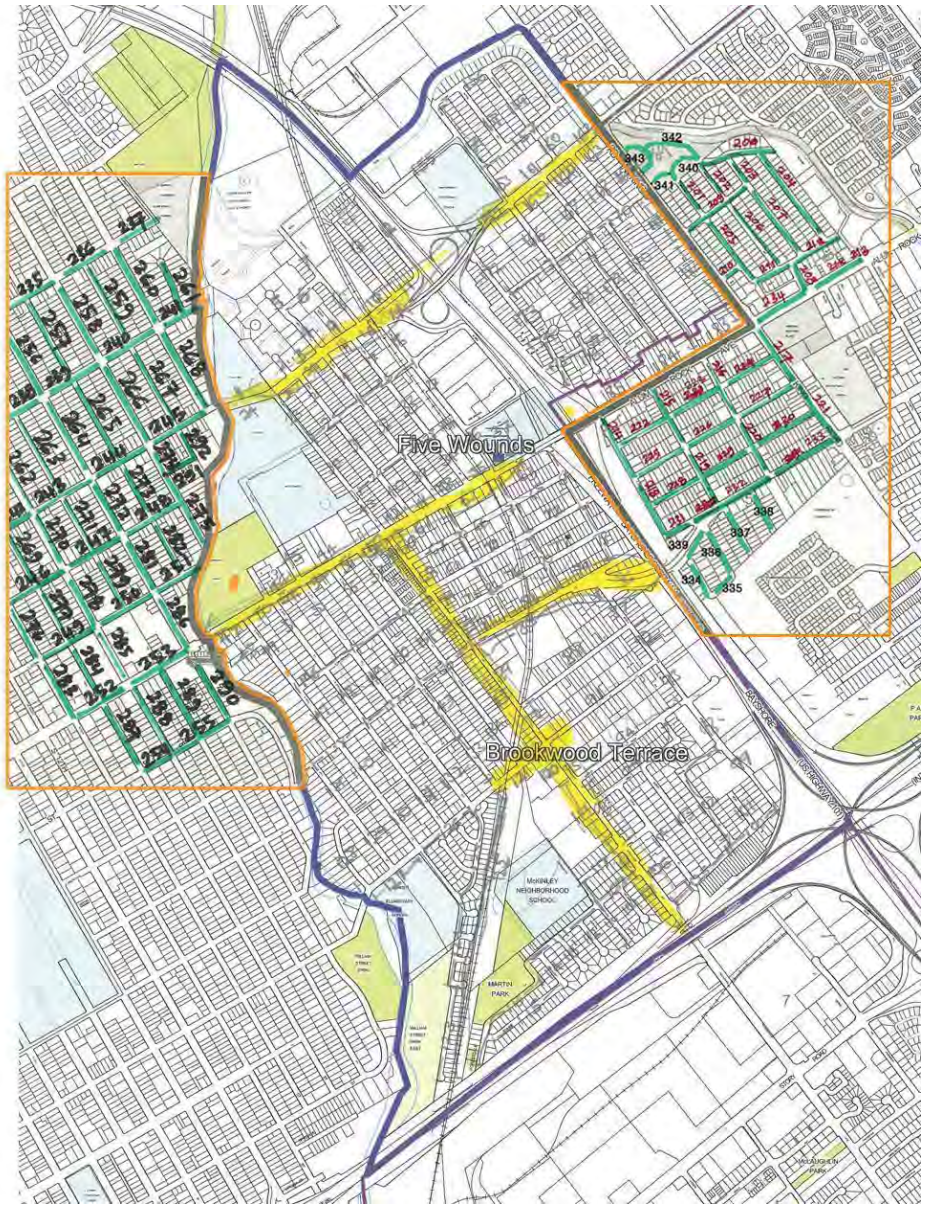


Figure 14 Walk Audit Boundary Areas

[10] Anna Timperio and others, "Personal, Family, Social, and Environmental Correlates of Active Commuting to School," *American Journal of Preventive Medicine* 30, no. 1 (January 2006): 48.

The evaluation of the pedestrian environment was based on the students' perception of variables related to the quality of the walking experience such as sidewalk condition, the prevalence of active driveways, cleanliness, and tree density. Please see Appendix A for a sample of the tool utilized for the fieldwork. For more background, consider reviewing Appendix C of Schroeder's research methods[11] as well as the original PEDS audit tool.[12]

The nature of the evaluation was somewhat subjective, particularly for criteria such as the level of cleanliness, the consistent measurement of sidewalk width, and nighttime lighting. For example, the measure of overall street cleanliness observed during one day of auditing may have been impacted by the previous night's Halloween activities. In another instance, one group of surveyors encountered difficulty in measuring sidewalk width since local residents sometimes augment the sidewalk along the front of their properties by filling the small open green space between the original sidewalk and curb with concrete, creating variable walking surface widths. For consistency, the students opted to include only the width of the original sidewalk in their analysis. Furthermore, because the evaluation was conducted between the daytime hours of noon and 4 p.m., students were unable to completely evaluate the effectiveness of street lighting. Instead, students noted the presence of, but not the functioning of, all streetlights that they encountered.

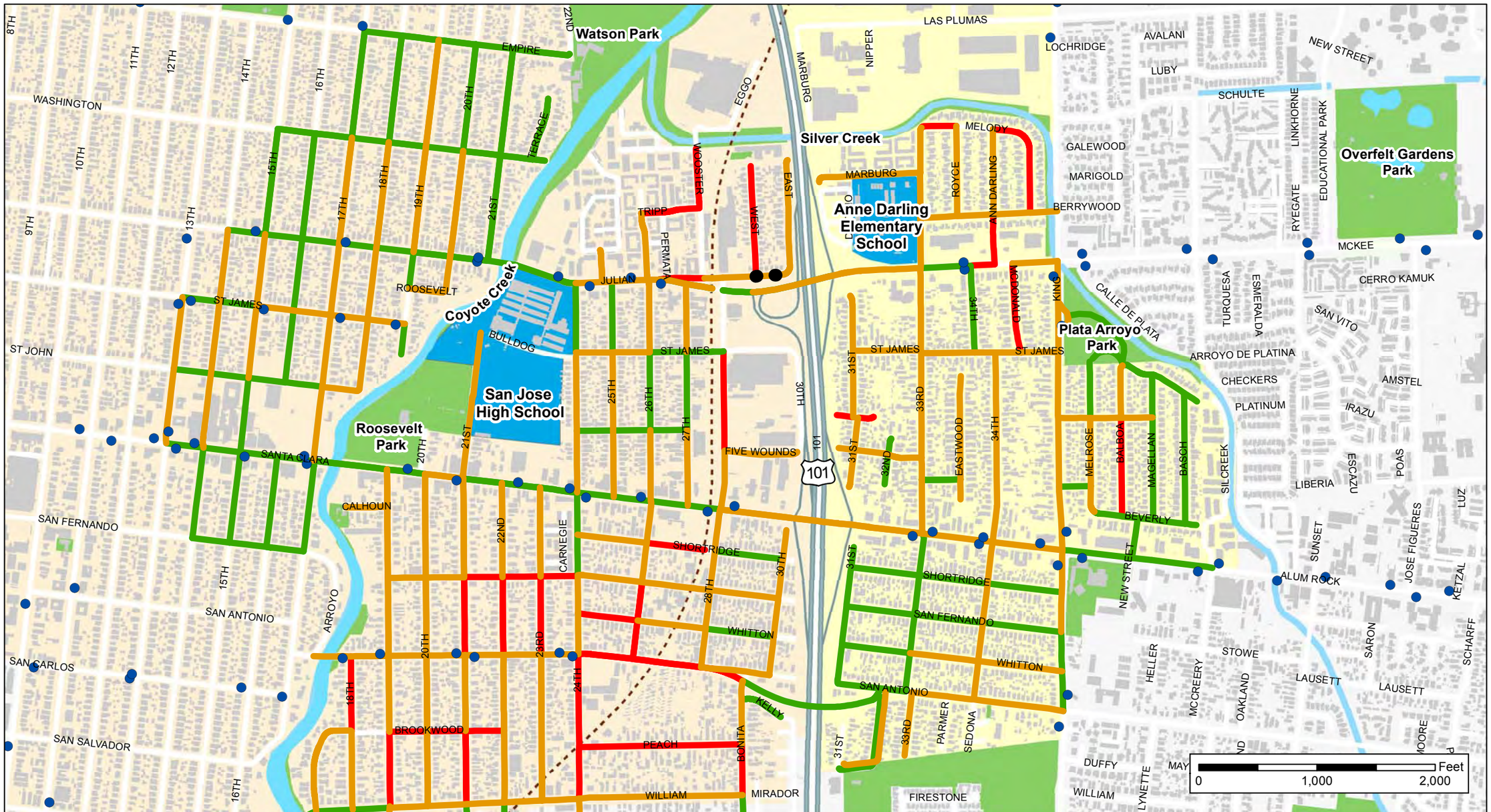
The result of the walkability audit was a rich database of information that was used to create a variety of maps depicting neighborhood conditions that may impact active commuting for the two schools. Each map includes a brief explanation of how the map data elements were analyzed in the walk audit and how each map was prepared. We present these maps next.

3.1.2 Condition of Pedestrian Facilities

Figure 15 summarizes three key streetscape elements that are of importance to pedestrians: the location of bus stops, path conditions, and the availability of street lighting. As you review the map, please note that the city of San José does not require that every crossing point include a striped crosswalk since many intersections have minimal vehicle traffic and thus crossing aids are not considered essential for pedestrian safety.

[11] George D. Schroeder, "Transforming Auto-centric Communities into Walkable Neighborhoods: Walkability Audits of Two Neighborhoods in San José" (Master's thesis, San Jose State University, 2010), 141-154.
[12] Andréa D. Livi and Kelly J. Clifton, *Pedestrian Environment Data Scan Audit Protocol*. (College Park: National Center for Smart Growth, University of Maryland, 2004), 2-13, http://www.kellyjclifton.com/PEDS/AuditProtocol.v.2.pdf (accessed November 10, 2010).

Figure 15: Condition of Pedestrian-Oriented Facilities in Five Wounds/Brookwood Terrace



Map Created by San Jose State Graduate Students in Urban and Regional Planning, 2010-2011
Data sources: City of San Jose, Santa Clara County VTA, SJUSD

- VTA Bus Stops
- Rails-To-Trails
- Good sidewalk condition
- Fair sidewalk condition
- Poor sidewalk condition
- Anne Darling Attendance Area
- SJHS Attendance Area
- Schools Studied for this Project

N

Path Condition: Path condition describes the condition of the sidewalk within a specific street segment. Three categories were established:

- **Good**, indicating few bumps, cracks, and holes
- **Fair**, indicating some bumps, cracks, and holes
- **Poor**, indicating many bumps, cracks, and holes.

Figure 16 Crossing Aids

According to our audit, 37 percent of sidewalks in the study area were *good*, 50 percent of the sidewalks were *fair*, and 11 percent were *poor*.

The map shows that the majority of segments graded as "poor" were located south of East Santa Clara Street between Coyote Creek and Highway 101. Additionally, most of the remaining segments were graded "fair" with only a few designated as "good." In contrast, the portion of the study area west of Coyote Creek contained no streets having a "poor" rating, with an equal distribution of segments rated either "fair" or "good."

Street Lighting. Road-facing lighting for the benefit of motorists was present in 96 percent of the study area. However, a small portion of the study area along 24th Street featured pedestrian-scale lighting specifically designed to illuminate adjacent sidewalks. One study area road segment lacked lighting: the portion of East Julian Street immediately west of Highway 101 terminating at East Street.

Bus Stops. Bus stops are included in the map because they are an indicator of pedestrian activity.

Crossing Aids. Crossing aids and marked crosswalks are important elements in assessing the condition of pedestrian facilities, as seen in Figure 16. Marked crosswalks, as seen in Figure 17, were lacking in 55 percent of street segments in the study area and the majority of segments, 63 percent, did not have crossing aids such as pedestrian signals and audible/visual countdown signals.

3.1.3 Roadway Characteristics

Figure 18 shows the lane count and posted speed limit for streets within the study area; both have been found to have an influence on actual and perceived pedestrian safety based on input received from CommUniverCity staff and interviews with local residents.

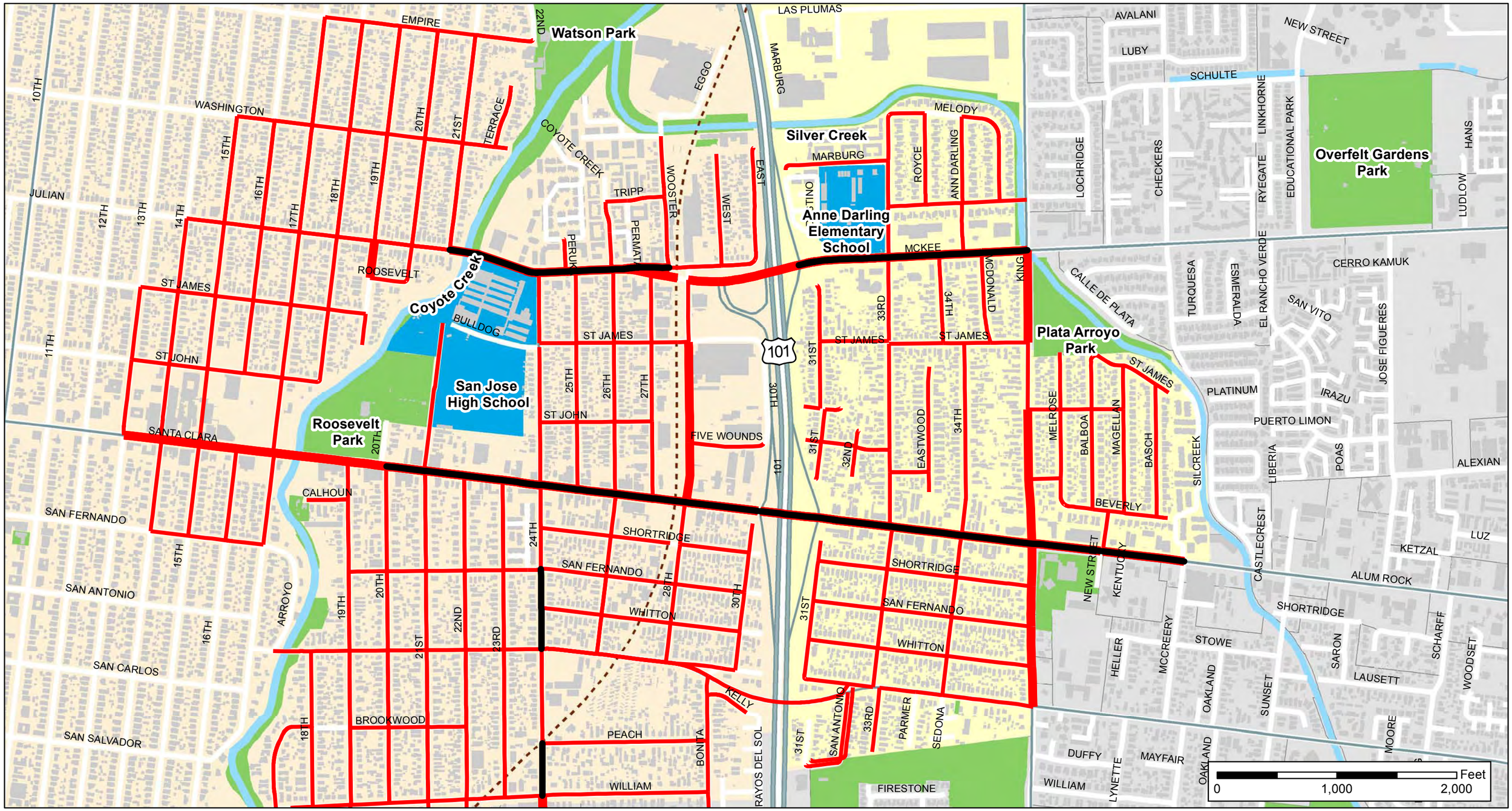
Number of Lanes of Traffic. Streets with two travel lanes (82 percent of streets in the student area) generally correlate with relatively narrow, pedestrian-friendly streets. Wider arterials or streets with higher traffic volume (18 percent of streets in the study area) are less inviting to pedestrians, and generally feature three or more lanes.

Figure 17 Marked Crosswalks at King and St. James

Posted Speed Limit. Speed limits below 25 mph encourage safety for pedestrians, slowing vehicles and increasing reaction times of both pedestrians and drivers. Roadways with speeds above 25 mph, therefore, are considered less pedestrian-friendly. Within the study area, 74 percent of the segments had posted speed limits of 25 mph with the remaining streets posted with a higher limit.

Traffic Control Devices. Such devices include traffic lights, stop signs, traffic circles, speed bumps, chicanes or chokers, raised crosswalks, and medians. Within the study area, approximately 77 percent of the segments had some type of traffic control device, typically a stop sign on residential streets and a traffic light on arterial roadways. However, more advanced pedestrian-friendly devices, such as traffic circles and speed bumps, were found on only two percent of the segments.

Figure 18: Auto Oriented Conditions in Five Wounds/Brookwood Terrace



Map Created by San Jose State Graduate Students in Urban and Regional Planning, 2010-2011
Data sources: City of San Jose, Santa Clara County VTA, SJUSD

Posted Speed Limit

More than 25 mph
(Other streets are posted 25 mph)

Number of Lanes

2 or less
3 or more

Rails-To-Trails
Anne Darling Attendance Area
SJHS Attendance Area
Schools Studied for this Project

N

3.1.4 Bicycle Facilities

The data for Figure 21 include field observations and bicycle lane data from Santa Clara Valley Transportation Authority (VTA).[13] The map indicates which roadways feature bicycle facilities such as on-street bicycle lanes and/or bicycle parking facilities. Public bicycle parking facilities were observed in abundance along Alum Rock Avenue east of U.S Highway 101 and at the Walgreens at the intersection of McKee Road and King Road. Recently, bicycle parking facilities were installed on Anne Darling Elementary grounds. There were two bicycle parking facilities on the grounds of San Jose High School. The East Julian Street/McKee Road corridor lacks adequate bicycle parking facilities, with only one private bicycle parking facility observed. Conversely, Alum Rock Avenue was adequately supplied with public bicycle parking facilities

Figure 19 Bicycle Rack along Alum Rock Avenue

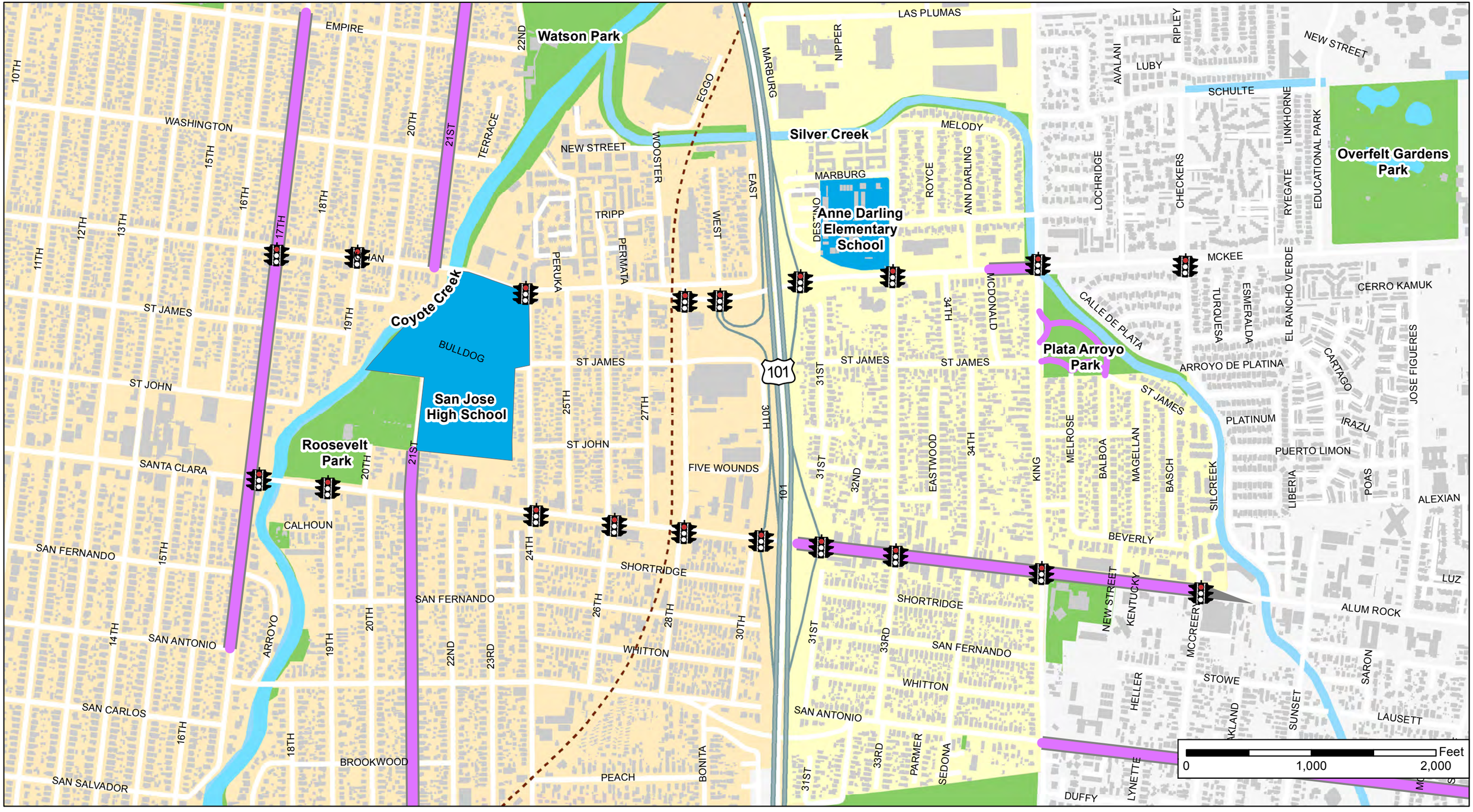
3.1.5 Compliance of Sidewalks with ADA Requirements

The Americans with Disabilities Act (ADA) addresses access and equality concerns for disabled citizens. ADA design criteria standardize sidewalks and public facilities to include points of access and routes for persons with disabilities. Non-ADA compliant segments have the potential to create unwelcome physical barriers for persons with disabilities.

Figure 20 ADA Compliant Sidewalk

[13] VTA, "Santa Clara Valley Bikeways Map," http://www.vta.org/schedules/gmaps/index.html (Accessed January 21, 2012)

Figure 21: Bicycle Facilities in Five Wounds/Brookwood Terrace



Map Created by San Jose State Graduate Students in Urban and Regional Planning, 2010-2011
Data sources: City of San Jose, Santa Clara County VTA, SJUSD

Established Bicycle Routes
Traffic Signals
Rails-To-Trails

Anne Darling Attendance Area
SJHS Attendance Area
Schools Studied for this Project

N

Figure 23 depicts the graduate student team's findings including the availability of safe slopes, truncated domes (textured plates within safe slopes aprons), and perpendicular curbs at sidewalk and road intersections. Purple segments indicate that the segment is non-ADA compliant. Blue segments represent segments that are either partially or fully compliant with ADA accessibility guidelines.

The map shows that the study area had a general pattern of ADA compliance: 87 percent of the street segments were fully or partially compliant with ADA accessibility guidelines, while 13 percent were non-compliant. One pattern that emerged was a lack of ADA compliance on certain streets within the vicinity of Anne Darling Elementary and SJHS.

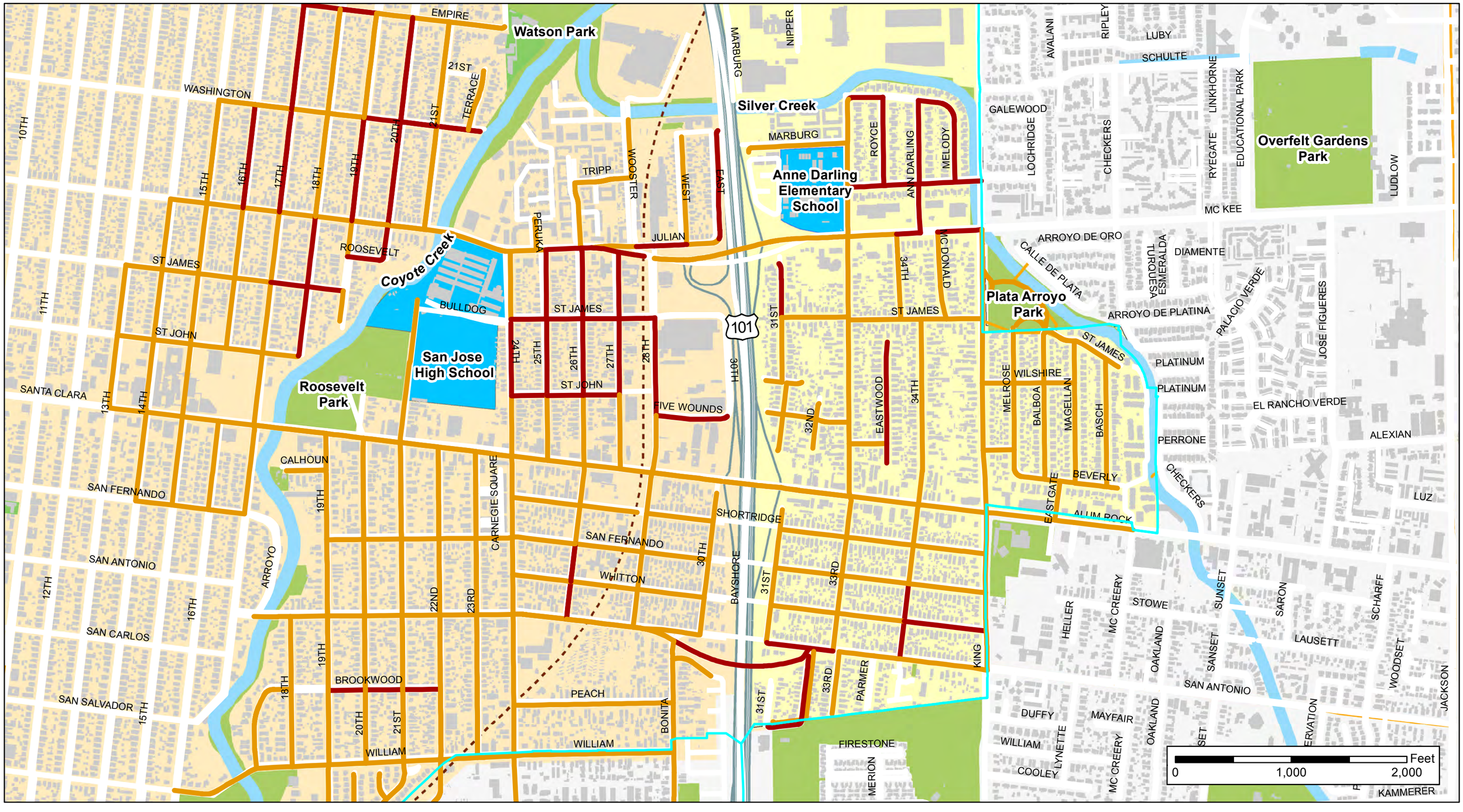
Figure 22 ADA Compliant Ramp

3.1.6 Parking Facilities

The number of spaces available in parking lots was indicative of the number of visitors to that particular destination which may suggest a greater potential for pedestrian/vehicle conflicts. Approximately 30 percent of the observed street segments had six or more off-street parking spaces. The highest level of off-street parking space on consecutive segments was observed on East Santa Clara Street and Julian Street/McKee Road, both of which are busy commercial corridors. Anne Darling Elementary and SJHS are both located on Julian Street/McKee Road, near commercial corridors with higher vehicle congestion.

Figure 24 shows the off-street parking available in the study area. This helps to identify potential areas of conflict between pedestrians on the sidewalks and vehicles accessing parking lots.

Figure 23: ADA Compliance in Five Wounds/Brookwood Terrace



Map Created by San Jose State Graduate Students in Urban and Regional Planning, 2010-2011
Data sources: City of San Jose, Santa Clara County VTA, SJUSD

Anne Darling Attendance Area
SJHS Attendance Area
Schools Studied for this Project

ADA compliant sidewalks and/or curb ramps identified
Partial to no sidewalk/curb ramp/ ADA facilities identified
Rails-to-Trails

N

Figure 24: Off-Street Parking in Five Wounds/Brookwood Terrace

This map represents parking spaces in parking lots. The colors on the map indicate the number of parking lot spaces adjacent to each street segment. Note that darker colors correspond generally to commercial corridors. Our audit process took this variable into consideration as one factor that shapes the pedestrian experience. The ingress and egress of vehicles from parking lots creates potential conflicts between pedestrians on the sidewalks and vehicles accessing parking lots.

0 1,000 2,000 Feet

Map Created by San Jose State Graduate Students in Urban and Regional Planning, 2010-2011
Data sources: City of San Jose, Santa Clara County VTA, SJUSD

- 0-5 Parking Spaces
- 6+ Parking Spaces
- Rails-To-Trails
- Anne Darling Attendance Area
- SJHS Attendance Area
- Schools Studied for this Project

N

On-Street Parking. Within the walk audit boundary area, just over 86 percent of the segments had either parallel or diagonal on-street parking. On-street curbside parking typically creates a safer pedestrian environment since parked cars serve as a buffer between pedestrians and moving vehicles. Thus, roadways that lack on-street parking were not considered the safest routes for children.

Presence of Medium to High Volume Driveways. Driveways where cars are consistently pulling in and out, such as those serving retail stores, gas stations, or apartment buildings, were designated *medium to high volume*. Driveways serving single family homes are considered *low volume* and are therefore not included in this category. Medium to high volume driveways are considered potential points of conflict between vehicles and pedestrians; hazards might be created when drivers are not observant of pedestrians prior to pulling into or out of a driveway, and if motorists are obstructing the sidewalk path while waiting to enter or exit.

Within the walk audit survey area, 28 percent of the segments had three or more medium to high volume driveways. A prime example of a high volume driveway was found at the intersection of 33rd Street and McKee Road, across from Anne Darling Elementary. There are two gas stations located at this intersection that offer low cost gasoline, creating significant backups across sidewalks and onto adjacent streets.

3.2 Evaluation Method #2: Student Survey

Surveys designed to uncover transportation-related attitudes and behaviors held by study area students were administered in spring 2011. All surveys were produced in English and Spanish.

At San Jose High School, the surveys were distributed to freshman and sophomore classes during their physical education classes. At Anne Darling Elementary, surveys were distributed to parents because they are far more likely to make the decision of how their child gets to and from school. The surveys were included in student homework packets and returned to the school the following week.

The surveys produced a great deal of useful information about the climate of the neighborhood. For example, although many parents at Anne Darling Elementary stated that their neighborhood was, overall, a safe place to walk or bike to school, 74 percent of children arrive to the school by car. Very few children (31) walk to school and no children bike. In addition, most parents responded that they would not feel comfortable allowing their students to walk to school at any age (47 percent). Despite these findings, many parents recognized that walking or biking to school is “very healthy” or “healthy” for their child.

A large percentage of the high school surveys commented on gang activity in the neighborhood and many commented that the prevalence of homeless persons created a deterrent to the desire to walk or bike to school. In the journey TO school, almost half of the students surveyed took a car (47%), 36% walked, and only 3% biked. However, the journey FROM school was a very different matter: 56% of students reported walking home, with only 32% in a family car or carpool, and again only 3% biking. 87% of the students believed that their parents would allow them to walk or bike to school if asked, so parental concern does not appear to be a significant contributing factor. About half of the students noted that they had access to a bicycle, despite the low percentage of students who utilize it for regular transportation.

3.3 Evaluation Method #3: Documenting Resident Concerns Regarding Student Mobility

This section summarizes mobility-related concerns observed by the graduate student team and reported by residents of the study area to CommUniverCity staff. CommUniverCity staff led three walking tours of the study area and these provided the graduate student team an excellent opportunity to observe conditions firsthand. The first walking tour, conducted on September 8, 2010, involved exploring a route that began at SJHS and ended at Anne Darling Elementary. The second walking tour, conducted on November 3, 2010 with parents and students of Anne Darling Elementary and community members, involved exploring the neighborhood southeast of Anne Darling Elementary. The third, conducted at the start of the spring 2011 semester, included Anne Darling parents and students and covered the route between SJHS and Anne Darling in order to bring new graduate student team members up to speed.

To supplement tour observations, two public meetings were held to gather additional public input about the condition of the neighborhood. First, a focus group at San José High was held on September 13, 2010 and attended by students and parents. The focus group was intended to initiate discussion regarding neighborhood concerns and identify specific student commute patterns to and from the high school. On December 8, 2010, parents, community members, teachers, and the principals of both schools attended a community outreach workshop facilitated by the graduate student team at the Carnegie Library on East Santa Clara Street.

It is important to note that while this section focuses on challenging aspects in the neighborhood related to mobility, the majority of community participants expressed pride in their community. Put another way, both students and parents focused on negative aspects only because they served as distractions from what they feel makes the neighborhood such a great place. Residents specifically noted the neighborhood's diversity and the recent improvements to Anne Darling Elementary School’s building and grounds. They also noted their enjoyment of the neighborhood's closeness to parks and retail stores. Participants also applauded recent anti-drug and anti-graffiti campaigns.

3.3.1 General Study Area Concerns

McKee and Julian corridor. The McKee and Julian corridor consists of heavily utilized roadways that meet at U.S. Highway 101. These roads are used by local residents and pass-through traffic traveling between downtown, Interstate 680, and Highway 101, and tend to be highly congested.

Insufficient Street Lighting. The majority of the lighting in the neighborhood is automobile-oriented, with lights shining on the streets and not necessarily illuminating the sidewalks. Due to the proximity of the City of San José to nearby Lick Observatory, the City has required low-pressure sodium lights to be installed in private developments. These lights, although energy efficient and able to preserve the night sky for astronomical research, cast an amber glow. The City is presently working to install LED lighting with a spectral color that can be filtered out by the observatory's telescopes. These lights would cast a white light that would make the area better lit in the evening and night hours.

Figure 25 Highway 101 Overcrossing

The proposed Five Wounds Rails to Trails segment will include nighttime lighting with the exception of the trail segments along Coyote Creek that cannot be lit due to their proximity to a riparian corridor. With large trees and auto-oriented lighting, 24th Street is not considered well-lit for pedestrians during the evening. The segment of East Julian Street that terminates at East Court, immediately west of Highway 101, lacks street and pedestrian-scale lighting.

Community members have also reported insufficient street lighting on Royce Drive and Berrywood Drive. However, this issue has not yet been fully resolved because the City and Pacific Gas & Electric, the local utility provider, disagree on street light ownership and responsibility for maintenance. Insufficient street lighting has also been raised as a concern near 33rd and 34th Streets, and along 24th Street between Bulldog Blvd. and Julian Street.

Overpass at Julian/McKee and Highway 101. A pedestrian fence was added as a safety measure to protect pedestrians walking along the north side of the overpass. The pedestrian path was found to contain considerable amounts of litter and tumbleweeds. The path is sufficient for two pedestrians to walk side-by-side, but is too narrow to allow for a cyclist and pedestrian to safely pass at the same time. In the winter months, sunrise can be as late as 7:20 a.m. and sunset can be as early as 4:50 p.m.,[14] making it dark when some students are travelling to and from school across the overpass.

Figure 26 Bicyclist Crossing Highway 101

The Future of McKee Road. In the city's long-range transportation plan, McKee Road will be widened between Highway 101 and Interstate 680. This planned widening has resulted in increased setback requirements for businesses along McKee Road to allow for future roadway expansion, while adhering to the city's parking requirements. These requirements mean that the Food Bowl Shopping Center at McKee Road and 33rd Street could move forward with improvements intended to create a more pedestrian-friendly interface for its street-facing frontage. However, these requirements negatively affect a small commercial parcel at McKee and 34th Street that has remained vacant despite expressed interest from national retail chains. The lack of space for adequate parking due to the roadway widening plans has driven away potential occupants. Some have cited this lingering situation as a prime example of "policy blight".

Figure 27 Litter and Tumbleweeds

Figure 28 Homeless Encampments

[14] Steve Edwards, "Custom Sunrise and Sunset Calendar for San José, CA," SunriseSunset.com, http://www.sunrisesunset.com/custom_srss_calendar.asp (accessed Nov. 30, 2010).

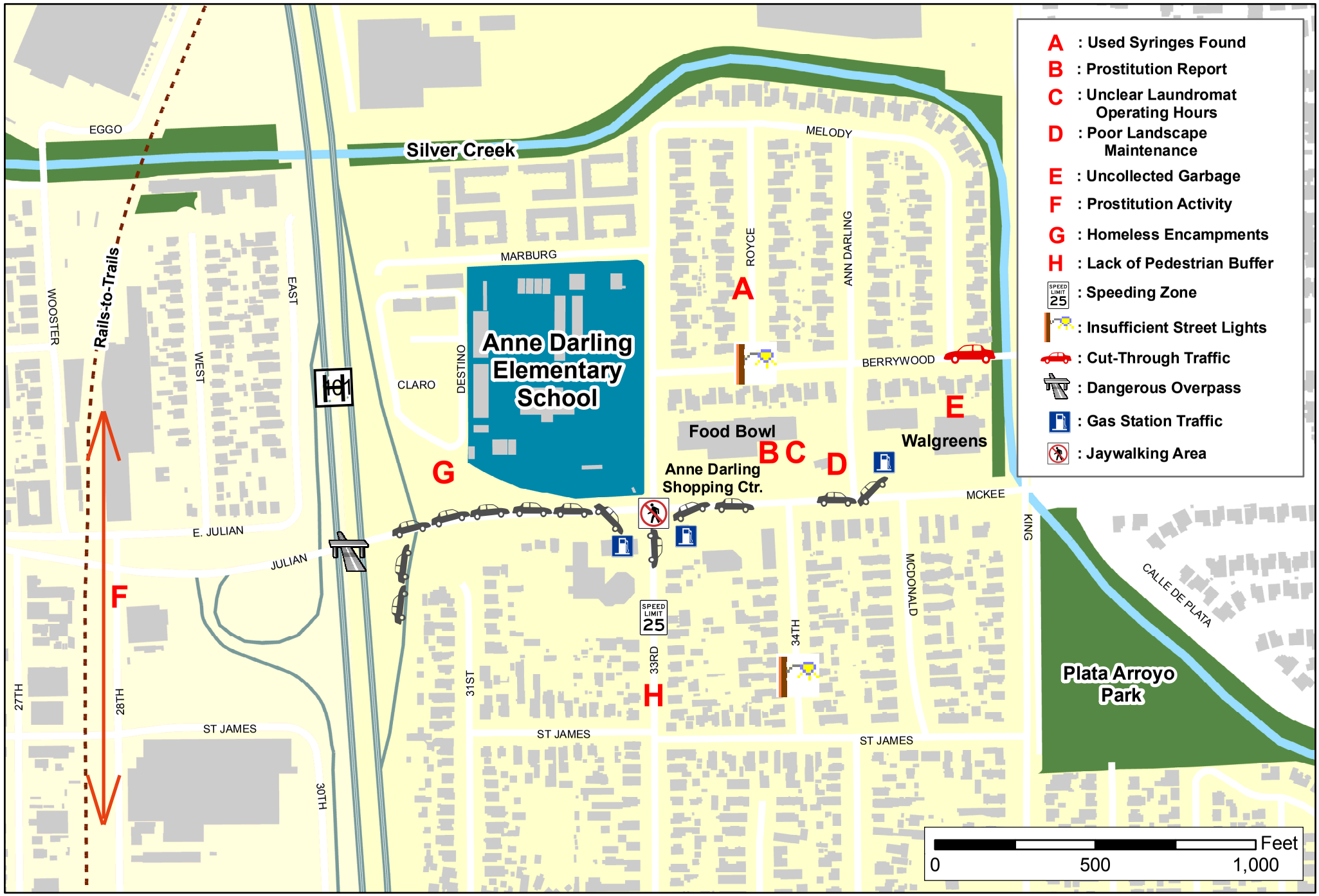
Homeless Encampments. There are many homeless encampments found in the vicinity of Roosevelt Park and SJHS, along Coyote Creek, and in the open space brush near the on-ramp to northbound Highway 101 from McKee Road. The latter area is located adjacent to and behind Anne Darling Elementary. Some community members have expressed fear of walking or biking near these homeless encampments.

Reported Prostitution Activities. Community members have reported prostitution activities at the café next to the Food Bowl in the Anne Darling Shopping Center, as well as at warehouses near the former Union Pacific railroad tracks.

Bicycle Infrastructure. San José High has only two bicycle racks on its property to serve nearly 1,000 students. SJHS has a policy that does not allow bicycles to be locked to poles, leaving students with insufficient bicycle storage capacity during the school day. Anne Darling Elementary recently had bicycle racks installed at the school.

Skateboarding Infrastructure. SJHS students noted that skateboarding was a popular form of transportation to and from the school. To meet the needs of its students, SJHS should explore Safe Routes policies regarding the accommodation of skateboarding commuters.

Figure 29: Anne Darling Community Liabilities Map



Map Created by San Jose State Graduate Students in Urban and Regional Planning, 2010-2011
Data sources: Resident Complaints Registered with CommUniverCity

3.3.2 Concerns Specific to the Anne Darling Neighborhood

Intersection at McKee and 33rd. This intersection is considered by many in the neighborhood to be the most dangerous. The length of the signal timing for pedestrians crossing 33rd Street meets the city standard (crossing at a rate of four feet per second), but it may not be long enough for mobility-challenged pedestrians to completely cross the roadway before the signal light turns red. With an aging population residing in the Little Portugal neighborhood near this intersection, allowing adequate crossing time for mobility-challenged residents is important. Additionally, this intersection is often congested from customers of two competing gas stations that are on the southeast and southwest corners of the intersection. Since these gas stations often sell the cheapest gas in the San José area, the lines of vehicles waiting to enter the stations can stretch as far as the opposite side of the Highway 101 overpass. These problems are further exacerbated by the fact that the two gas stations have conflicting driveway access points.

Figure 30 Moe's Gas Station at 33rd and McKee Intersection

Figure 31 33rd and McKee Intersection

The San José Department of Transportation (SJDOT) has worked on resolving pedestrian safety problems at this intersection since 2004. SJDOT changed the timing of the traffic signal to provide protected left turns from 33rd Street to McKee Road. Due to vehicle and pedestrian conflicts at the west crosswalk on McKee, SJDOT removed the west crosswalk for pedestrians and added a barrier to encourage use of the east crosswalk. However, some school children and their parents still use the west side of McKee to get to school, despite the absence of a crosswalk and the increased risk of conflict with vehicles.

Figure 32 Pedestrian Crossing at 33rd and McKee

33rd Street between McKee and Alum Rock. This stretch of roadway was considered by the parents to be the worst in the neighborhood for pedestrian safety. Drivers use 33rd to cut between McKee and Alum Rock at high speeds, creating an unsafe environment for pedestrians and bicyclists. The roadway is narrow and allows for on-street parking on only one side, eliminating a potential buffer from traffic for pedestrians.

Figure 33 33rd and St. James

On the side of the street that lacks the on-street parking buffer, many residents have filled in the sidewalk strip reserved for street trees (typically the area between the roadway and the sidewalk) with concrete, creating a sidewalk with inconsistent widths. Bicyclists often choose to ride on the sidewalks rather than on the busy, narrow street, but some areas of the sidewalk are in such poor condition that bicyclists will weave unpredictably between the roadway and the sidewalk.

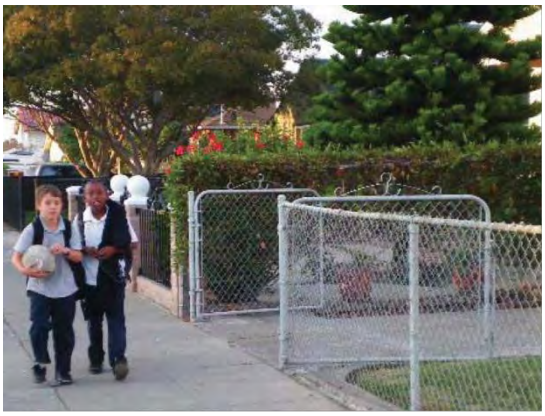


Figure 34 Children Walking

Intersection at McKee and King. This intersection is the most travelled and congested in the study area and it also has the most reported accidents. Children who attend Anne Darling and live in the Plata Arroyo neighborhood must cross both McKee Road and King Road to commute to and from school. A check cashing business located at that intersection has high vehicle traffic on Fridays and an unstructured parking lot, creating potential pedestrian and vehicle conflict points.

Figure 35 Pedestrian Signals at King and St. James

Intersection and 33rd and Berrywood. This intersection is busy during student drop-off and pick-up hours. Crossing guards are stationed at this intersection, but they report that the intersection is unsafe for children, their presence notwithstanding.

Plata Arroyo Park. Although pedestrian signals have been installed to aid people crossing King Road to access the park, children and adults have been observed crossing the street between intersections and without utilizing the signal.

Drug Paraphernalia. Residents reported finding used syringes on the ground at Royce Drive and Berrywood Drive. The police were contacted and recommended that the Narcotics Enforcement Team (NET) be involved for this and future incidents.

Business Operations. The laundromat in the Anne Darling Shopping Center has been reported to remain open beyond posted operating hours. Neighbors report that the store has been open as late as 1 a.m., based on customer demand. The business owner was cited for late night operation. No update is currently available.

Trash Collection. Neighbors reported empty boxes and refuse piled in an alley behind the Walgreens Plaza. Staff from CommUniverCity spoke to the property manager and warned that a citation might be issued for failure to comply with trash collection regulations.

Poor Landscape Maintenance. The trees and shrubs at the parking area of the Anne Darling Shopping Center are not consistently maintained.

Cut-Through Traffic. Neighbors have cited concerns about cut-through traffic in the residential area on Berrywood Drive. Many drivers use this street to avoid traffic congestion at the intersection of McKee Road and King Road during peak commute hours.

3.3.3 Concerns Specific to the San José High School Neighborhood

19th Street at St. James. Students consider this intersection dangerous because vehicles traveling north on St. James turn left onto 19th Street to access Julian travel at high speeds. These vehicles do not consistently stop for pedestrians crossing the roadway, creating unsafe conditions in this area. There are also no crosswalks or stop signs at the T-intersection to assist pedestrians with crossing safely.

Speeding Problems. SJDOT recently completed converting Julian Street and St. James Street from one-way roadways to bi-directional roadways in an attempt to slow vehicular traffic. However, drivers are not consistently aware of the presence of school children, and the change now requires pedestrians and bicyclists to look both ways when crossing those streets.

Gang Activities. Neighbors have reported gang activities, some involving guns, in the neighborhood near the intersection of 19th Street and East Santa Clara Street.

Figure 36: San Jose High Community Liabilities Map

Map Created by San Jose State Graduate Students in Urban and Regional Planning, 2010-2011
Data sources: Resident Complaints Registered with CommUniverCity

Student Drop-Off. The driving behaviors of parents during morning drop-off times sometimes cause safety problems for those walking and bicycling to school at that time. Students and parents noted that drivers should be educated about proper drop-off driving behavior and that educational materials should focus on preventing accidents.

Intersection of 24th and Bulldog. This intersection is congested before and after school, and students often cross 24th Street outside of the marked crosswalk. Parking on one side of the street can lead to visibility obstructions at the intersection.

Lack of Police Presence. The participants in the focus group noted that there was little police presence before or after school in the vicinity of SJHS, and that an increased presence could improve safety in the neighborhood.

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Chapter 4: Involvement in the Community using the Collaborative Neighborhood Planning Model

With the results of the community assessment in place, the graduate student team next turned its attention to targeted, results-focused engagement with community members to institute the basic framework of a Safe Routes program and to implement pilot projects to stimulate interest in safe biking and walking to schools. Specifically, we formed a Parents Task Force with the assistance of CommUniverCity, we organized a very popular Walk to School Day event and Bike Rodeo, and we elicited the views of schoolchildren through a photographic survey and letter-writing campaign. We also participated in educational outreach activities as part of the regional Bike to Work Day events in early May 2011. Each of these enjoyable and productive efforts will be described below.

Our approach to all of this collaborative work was guided by the implementation of the Collaborative Neighborhood Planning (CNP) model employed by contemporary urban planners. In short, the model represents the antithesis of government-directed, "top-down" planning techniques commonly employed by past generations of planners because it places primary emphasis on the expertise, energy, and enthusiasm available in local communities to shape their own destiny. The SJSU graduate students embraced this model and put it into practice by implementing its three primary components:

> **Community Assessment**: the spring semester students built upon the comprehensive, primarily quantitative, research conducted by their predecessors in the fall semester by directly collaborating with neighborhood residents and students to collect important, qualitative assessment information and stories about the experience of living, working, walking and biking in the community.
>
> **Community Building**: this phase of the process involves the discovery of the community's leaders in order to tap into their local expertise and enthusiasm for positive community change. Another objective of this phase is to build a sense of shared goals by involving previously uninvolved members of the community.
>
> **Implementation Bridges**: the final step in the CNP process is to translate research findings and the community building results into clear action steps. In this instance, the graduate students synthesized all of the collected information from one academic year to form the implementation recommendations contained in Chapter 5.

The previous three chapters focused primarily on the assessment component of this model, so this fourth chapter summarizes our work in the Community Building phase by describing the variety of outreach techniques and pilot projects implemented during the

spring 2011 semester. As you will see, the techniques involved direct collaboration with community activists, school administrators, teachers, school children and parents in FWBT.

4.1 Parents Task Force Formation

Figure 37 Parents Task Force Meeting

With CommUniverCity's assistance, a Task Force of Anne Darling Elementary School parents, SJSU students, and CommUniverCity staff members was formed for the purpose of bringing the Safe Routes to School pilot programs to fruition.
For several weeks in spring 2011, the Task Force met to conduct Safe Routes planning in the Anne Darling and San Jose High neighborhoods.
During the meetings, it was agreed with enthusiasm to implement several Safe Routes to School projects, described below. For the elementary school, these projects included a Walking School Bus program, a Bike Rodeo and a photographic field study. At the high school, participation in the Bay Area Bike to Work day event was planned.

Figure 38 Walking School Bus Planning with Parents Task Force

4.2 Walking School Bus

On May 4, 2011, a walking school bus[15] was conducted at Anne Darling Elementary School. The goal of the walking school bus is for an adult (paid, or volunteer) to accompany children to school[16] and to encourage parents to take an active role in their children's commute by walking or biking with them.[17] Three walking school bus routes were selected by the Task Force, as shown in Figure 39.

[15] Walking School Bus: a group of children walking to school with one or more adults.
[16] Kathryn N. Ahlport et al, "Barriers to and facilitators of walking and bicycling to school: Formative results from the Non-Motorized Travel Study," *Health Education & Behavior* 35, no. 2 (April 2008): 221–44.

A walking school bus, complete with props designed by Anne Darling Elementary parents and their children, travelled along three routes to the school just in time for the school day to begin. The event was a major success and involved over 100 parents and students walking to school that day in a large and lively group. CommUniverCity staff calculated that 162 hours of volunteer labor were instrumental in this success.

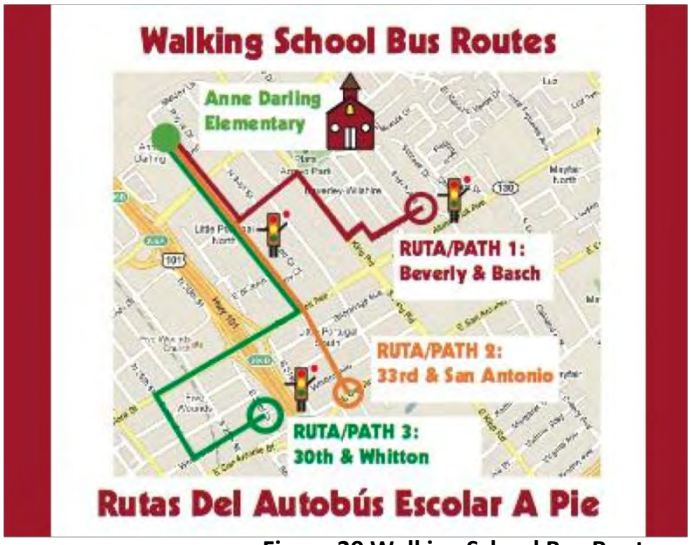

Figure 39 Walking School Bus Routes

Highlights:

- Task Force members effectively reached out to fellow parents in the surrounding neighborhoods to take part in this event.
- Parents and children finished the event excited to continue doing more walking school buses in the future to promote safer walking to school.
- The colorful props prepared by the Task Force members were highly effective at drawing attention to the event by passersby along the route.

Figure 40 Anne Darling Walking School Bus Event

[17] California State Automobile Association (CSAA), "Parents Can Be Serious Traffic Hazards," American Automobile Association, http://www.csaa.com/portal/site/CSAA/menuitem.cl3d2427e527f6a08e7ea35492278a0c/?vgnextoid=e0a3727e4181d010VgnVCM100000c512daceRCRD&cpsextcurrchannel=1 (accessed September 7, 2010).

4.3 Bicycle Rodeo

Figure 41 Bicycle Rodeo Participants

On May 4th, 2011, spring semester SJSU students worked with Anne Darling Elementary School, CommUniverCity, the Silicon Valley Bike Coalition, Specialized Bicycles, and parents and children in the community to implement the first Bike Rodeo at Anne Darling Elementary School. There were three assemblies with various combinations of 3rd, 4th and 5th graders. The assemblies occurred at 8:05 a.m., 9:05 a.m. and 1:30 p.m. and lasted from 45 minutes to an hour with an average of 100 children per assembly. Four stations were set up on the school playground and helmet fitting and instruction was provided at each station.

Figure 42 Bicycle Rodeo Station 1

The four stations helped young riders in a variety of ways:

- Station 1: Controlled Riding, Rights Turns and Stopping
- Station 2: Scanning and Moving Left
- Station 3: Driveway Yielding
- Station 4: How Slow Can You Go (slow race)

Figure 43 Bicycle Rodeo Station 4

In the early morning, a third of the graduate students also participated in the Walking School Bus project while the remaining students worked with the partner organizations to set up for the Bike Rodeo. After the walking school bus students arrived, those graduate students helped at the first assembly and throughout the day.

Bike Rodeo event preparations consisted of unloading supplies, setting

up the four stations, and receiving assignments of where to go and what to do to assist station leaders. After the two assemblies in the morning, the graduate students helped clear the stations so elementary school students could use the playground during the lunch hour. Surveys were administered by the teachers of each classroom that asked if students had bicycles and helmets, how much they biked to school, their perceptions of safety around their neighborhood, and finally, their feedback of the Bike Rodeo.

CommUniverCity staff members calculated that this highly successful pilot effort involved the work of 21 parent volunteers, 18 SJSU service learners, 5 CommUniverCity staff members with a total of 396 volunteer hours contributed.

Highlights:

- *"I liked that we got to learn to be more safe when you are riding a bike."* –Student Survey Comment

- As a result of the Bike Rodeos, the surveys showed an overwhelming positive change in how students felt about riding their bicycles, and how likely they are to ride their bicycle to school in the future.

- The Spartan Daily printed an article about the Bike Rodeo that was distributed to parents, teachers and Rigo Elenas, the Anne Darling Elementary principal.

4.4 Photo Walking Tour and Photo Collage

A collection of photographs was gathered by the children of Task Force members that conveyed positive or negative factors influencing their journey to and from school. To facilitate this effort, the graduate student team acquired twenty Fuji 35mm 400 speed 27 exposure disposable cameras. Approximately twelve cameras were distributed to the students, one per family, during the third Task Force meeting. The instructions were for the students to take pictures of factors that were unsafe or unsightly and those that they thought were helpful or enjoyable along their route. The cameras were returned to the

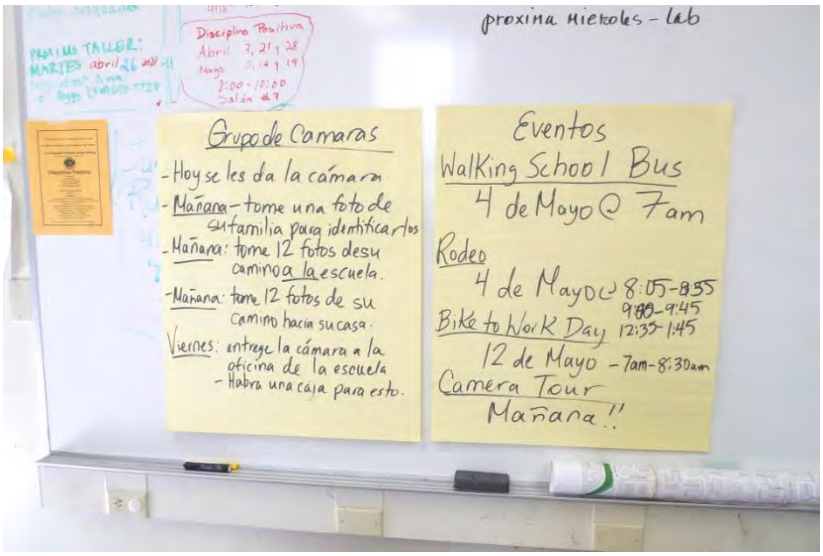

Figure 44 Photo Walking Tour Instructions

administrative offices upon completion. Approximately 50% of the developed photographs were usable for the project and the return rate for the cameras was around 75%.

The following Task Force meeting involved having the students, with the assistance of the parents and graduate student team, organize the photos and create captions that expressed their negative or positive qualities. The photos were then separated into two separate collages based on these categories. There were different photographs on each side of each board with one side in English and the other in Spanish.

Figure 45 Photo Collages

The collage was presented to the parents, students, and faculty of the school on May 4th to coincide with the Bike Rodeo and Walking School Bus events. They were also set along the wall of the school buildings nearest to the Bike Rodeo activities and playground so that students, parents, and faculty could reflect on the photographs and discuss them.

Highlights:

- The students were able to work with their parents to convey their unique perspective of their journey to and from school
- The parents were able to learn from the experiences of other parents and to build a sense of empowerment that their efforts could lead to tangible community benefits
- The parents developed hope that outsiders care about their community, thereby strengthening their optimism for change
- The faculty, parents, SJSU students, and decision makers developed greater understanding of the thought process and needs of the young travelers.

4.5 Letter Writing Campaign

Fifth grade students at Anne Darling Elementary School were paired with an English class at San Jose State University as pen pals. Sarah Price, a member of the graduate team, helped to facilitate this pairing. This partnership is employed regularly by CommUniverCity and emphasizes a college-going culture within the Five Wounds – Brookwood Terrace neighborhood. The children typically write a series of three letters to the SJSU students, concluding in a field trip where the children travel to the university campus to meet their writing partners. At that time, the children are taken on tour of the campus so that they can get a taste of what it might be like when they decide to enroll in college in the future.

The third and final letter the elementary school children wrote to their writing partners concerned their likes and dislikes related to walking or biking in the neighborhood. A presentation by Sarah Price was given to the children explaining the Safe Routes to School program and the many benefits of walking or biking to school. The children were actively encouraged to attend the May 4th Bike Rodeo and Walking School Bus events.

4.6 Bike to School/Work Day Energizer Station

On May 12th, 2011, spring semester SJSU students joined CommUniverCity staff members and the Silicon Valley Bike Coalition to set up a Bike to Work/School Day energizer station on the highly visible front lawn of San Jose High School. Materials at the station promoted "Bike to School" day in conjunction with Bike to Work Day.

Figure 46 Bike to School Promotion at Anne Darling Elementary School

Tasks for the team included disseminating information, rewarding and congratulating riders, taking pictures, and counting bicyclists in the area. At the energizer station, the team distributed and rewarded riders with fresh fruit, drinks, canvas bags, information on biking and an opportunity to win a bicycle. Participants were also asked to sign up for more information. Organizations and agencies that were represented at the station included the Metropolitan Transportation Commission, the Bay Area Bicycle Coalition, and the Silicon Valley Bicycle Coalition.

Highlights:

- We counted over 50 bicyclists riding in the neighborhood in one hour. 32 of them stopped at the energizer station.
- District 3 Councilmember Sam Liccardo rode his bicycle to the energizer station to support all of the students who rode their bicycles.
- The volunteer effort involved four SJSU service learners, two CommUniverCity staff members and a total of seven hours of volunteer time.

Chapter 5: Recommendations and Implementation Bridges

With our community assessment and collaborative planning work completed, we conclude this report with a look ahead by providing recommendations for subsequent Safe Routes planning efforts. It is our sincerest hope that this report, highlighting invaluable input from community leaders, parents, and students, will serve as a starting point for the creation of permanent Safe Routes to School programs at Anne Darling Elementary and San Jose High Schools in order to create a safer environment for students to actively commute to school.

This chapter is divided into three sections. First, we provide an overview of overarching considerations and past physical improvement plans that should be taken into account when formulating a regular Safe Routes program. Next, we provide a table of suggested short- and long-term objectives that can serve as framework for plan implementation. We conclude the chapter with suggestions for possible funding sources that might be tapped into to achieve Safe Routes planning objectives.

5.1 Recommendations for Creating, Developing and Promoting Safe Routes to School Programs

The recommendations are divided into three sections. First, overarching recommendations are presented for developing a SR2S program based on best practices from a review of current literature. Next, highlights from past physical improvement plans designed to improve the 33rd and McKee area are taken into account since we did not wish to lose sight of this solid effort. In the final section, information from recent SR2S-related workshops and conferences attended by the graduate student team is summarized to glean ideas for specific recommendations for the study area.

5.1.1 Overarching Considerations When Developing SR2S Programs

The literature suggests that in establishing and/or improving programs related to safe routes planning, local physical, environmental, and social/economical conditions must to be taken into consideration in a comprehensive, inter-linked manner. In particular, physical or intangible barriers that may prevent or discourage children and/or their parents from participating in active transportation need to be identified.

Physical and Environmental Barriers. The physical environment is the first element that comes to mind when evaluating the walkability and bikeability of a neighborhood, though it should not be viewed in isolation from demographic and social conditions. Physical infrastructure projects, including improved pedestrian signage, crosswalks, sidewalk improvements, speed bumps, better lighting, and speed detection, can greatly improve safety and encourage more children to walk to

school.[18] Programs to improve pedestrian and bicycle safety may also include posting crossing guards and police patrols at school drop-off and pick-up times.

Gender. Many studies have found that boys are more likely to use active transportation than girls.[19] Parents are also more likely to allow their son to walk or bicycle to school than their daughter.[20] However, the likelihood of females using active transportation seems to increase as a family's economic status decreases and the viability of other alternative transportation options decrease.[21] Perceptions of neighborhood safety and street connectivity may also be connected to the number of females actively commuting.[22]

Socio-Economic Factors. Research indicates that race, gender, education, and income all have a bearing on the likelihood that children and their parents will walk to school.[23] For example, children from low-income families are likely more compelled to walk to school due to limited access to a vehicle. Parents from low-income families are also more likely to be unable to either pick up or drop off their children due to job-related time constraints, thus making their children more dependent on walking, biking, or using public transportation.[24]

The 5 E's provide considerable guidance to planning and implementing Safe Routes to School programs. According to the reviewed literature, many researchers have concluded that a wide variety of programs and policies can be implemented to improve safety for children walking to and from school, including implementing traffic calming measures, improving sidewalk

[18] Mark Braza, Wendy Shoemaker, and Anne Seeley, "Neighborhood design and rates of walking and biking to elementary school in 34 California communities," *American Journal of Health Promotion* 19, no. 2 (November/December 2004): 128–136.

[19] Kelly R. Evenson, Sara L. Huston, Bradley J. McMillen, Phillip Bors, and Dianne S. Ward, "Statewide Prevalence and Correlates of Walking and Bicycling to School," *Archives of Pediatrics & Adolescent Medicine* 157 (2003): 887-992; Tracy McMillan, Kristen Day, Marlon Boarnet, Mariela Alfonzo, and Craig Anderson, "Johnny Walks to School – Does Jane? Sex Differences in Children's Active Travel to School," *Children, Youth, and Environments* 16, no. 1 (2006): 75-89; Janhet E. Fulton, Jessica L. Shisler, Michelle M. Yore, and Carl J. Caspersen, "Active Transportation to School: Findings from a National Survey," *Research Quarterly for Exercise and Sport* 76, no. 3 (September 2005): 352-357; Kristian Larsen, Jason Grilliand, Paul Hess, Patricia Tucker, Jennifer Irwin, and Meizi He, "The Influence of the Physical Environment and Socio-Economic Characteristics on Children's Mode of Travel to and from School," *American Journal of Public Health* 99, no. 3 (March 2009): 520-526.

[20] Evenson et al.

[21] Dafna Merom, Catrine Tudor-Locke, Adrian Bauman, and Chris Rissel, "Active Commuting to School Among NSW Primary School Children: Implications for Public Health," *Health and Place* 12, no. 4 (2006): 678-687.

[22] Ibid.

[23] Kristian Larsen, Jason Gilliland, Paul Hess, Patricia Tucker, Jennifer Irwin, and Meizi He, "The Influence of the Physical Environment and Socio-demographic Characteristics on Children's Mode of Travel to and from School", *American Journal of PublicHealth* 99, no. 3 (March 2009): 520-26.

[24] Sarah L. Martin, Sarah M. Lee, and Richard Lowry, "National Prevalence and Correlates of Walking and Bicycling to School," *American Journal of Preventative Medicine* 33, no. 2 (August 2007): 98-105.

conditions and traffic signaling, and developing educational and marketing programs for community members. Installing pedestrian level lighting, creating and leveling sidewalks, installing traffic signs and planting trees can also be considered, although these solutions are potentially expensive. For great ideas, consider Ewing's report of lower-cost traffic calming measures implemented in Naglee Park and the resultant decline in pedestrian/vehicle accidents, air pollution from traffic, and noise.[25]

5.1.2 Past Analysis of the McKee and 33rd Intersection

In Spring 2003, graduate urban planning students at San Jose State studied the busy intersection of 33rd Street and McKee Road in an effort to improve the visual appeal and safety of this commercial node. The project began with an analysis of the physical, environmental, and socio-demographic factors in the Anne Darling neighborhood, followed by a listing of safety improvement recommendations based on land use surveys, input from community members, and neighbors' concerns, hopes, and ideas for the community voiced through a community workshop.

Many of the recommendations in the resulting Improvement Plan have direct relevance to the Safe Routes planning effort. The recommendations were divided into three main categories: business improvements, physical improvements, and transportation improvements. The physical improvements are related to buildings, façades, driveways and parking lots (specifically at the Anne Darling Shopping Center). The transportation improvements focus on improving the traffic and pedestrian flow at the intersection of McKee Road and 33rd Street.

Six recommendations, in particular, are worth noting for their relevance to Safe Routes program planning:

1. Limit the hours of operation at the local businesses. There are some businesses at the Anne Darling Shopping Center with late business hours, creating negative impacts on the community such as noise, uncollected garbage, inappropriate behavior, and illegal business activity. Zoning controls, stricter code enforcement, and better use of the conditional permit approval process were recommended to reduce these concerns.[26]

2. Improve the traffic flow within the parking lot of the Anne Darling Shopping Center. The parking lot is poorly designed with multiple access points from 33rd Street, 34th Street, and McKee Road, which create potential pedestrian safety

[25] Reid H. Ewing, *Traffic Calming: State of the Practice,* Washington DC: Institute of Transportation Engineers, 1999, 1-58, http://www.ite.org/traffic/tcstate.asp#tcsop (accessed September 14, 2010).
[26] Ibid.

concerns. Using marked arrows to designate the direction of traffic could improve traffic flow. Installing stop signs and speed bumps at appropriate places in the parking lot could also help to minimize pedestrian conflicts with automobiles.[27]

3. Improve gas station circulation. Two nearby gas stations (Gas & Shop and Moe's Gas) located on the south side of the 33rd and McKee intersection attract large volumes of customers because they sell the least expensive gasoline in the county and are accessible to Highway 101. These gas stations present a few circulation problems. First, left turns onto McKee Road from Gas & Shop are prohibited, and neighbors have reported that drivers often disregard the traffic regulations. Neighbors also expressed concern about the gas delivery trucks making illegal left turns during school hours when the children use the sidewalk. Also, poorly defined driveways often cause car backups resulting in sidewalk obstacles.[28] Figure 47 shows the poorly defined driveways into and out of Moe's Gas, which often result in vehicle and pedestrian circulation issues. Reducing the width of driveways to restrict vehicle movement to a single direction was recommended as well as the installation of a landscape buffer between the two redefined driveways.

Figure 47 Poorly Defined Sidewalk at Moe's Gas Station

4. Improve pedestrian environment. It was recommended that pedestrian-oriented lighting be installed along the pathway on the Highway 101 overpass. This could remedy the insufficient lighting problem that has contributed to nighttime safety concerns. Other recommendations include redefining crosswalks with high-visibility designs in places like the northbound Highway 101 on-ramp, the southbound Highway 101 on-ramp, the 33rd and McKee intersection, and McKee Road and 34th Street; installing an in-pavement lighted crosswalk at the unsignalized 34th and McKee intersection near the VTA bus stops and increasing enforcement of jaywalking laws. In fact, jaywalking reports increased since the west crosswalk at 33rd and McKee was removed.[29]

[27] San Jose State University Urban and Regional Planning URBP 201 Spring 2003, "The 33rd and McKee Commercial Node Improvement Plan," May 2003, http://urbp201saferoutes.pbworks.com/w/file/32222816/33rd_McKee_Commercial_Node_Improvements.pdf (accessed December 1).
[28] Ibid.
[29] Ibid.

5. Increase enforcement of traffic laws. Speeding has long been cited as a neighborhood problem, particularly along 33rd Street near Anne Darling Elementary. Illegal left turns out of the Gas & Shop westbound onto McKee Road have also been reported. An increased police presence at the intersection of 33rd and McKee was recommended to address these problems.[30]

6. Improve Anne Darling Drive. Although it has been improved since 2003, Anne Darling Drive is still in poor condition (see Figure 48). The roadway has a sidewalk and gutter to the east; however, it has none of these facilities on the west side. There are also very few streetlights. It is recommended that the necessary curbs, sidewalks, and gutters be added, and that the necessary streetlights and a dividing centerline stripe should be added as well.[31]

Figure 48 Poor Landscape Maintenance at Anne Darling Drive

5.1.3 Tips for Students, Parents, Schools and Communities for Fostering SR2S Programs

The primary objective of a Safe Routes program is to raise awareness of the benefits of walking and biking to school for both students and parents. Additionally, local schools and communities should work together to develop and encourage a safe environment for students. Below are useful tips gathered from recent workshops and conferences attended by the graduate student team:

Tips for Parents and Students

- **Put risk into perspective**. The risk of having a sedentary lifestyle is greater than the perceived dangers of walking and biking to school (e.g. being abducted by strangers).[32] For example, children are much more likely to be abducted by someone that they know than by a complete stranger.

[30] Ibid.
[31] San Jose State University Urban and Regional Planning URBP 201 Spring 2003, "The 33rd and McKee Commercial Node Improvement Plan," May 2003, http://urbp201saferoutes.pbworks.com/w/file/32222816/33rd_McKee_Commercial_Node_Improvements.pdf (accessed December 1). Ibid.
[32] "Sacramento 2nd Annual Safe Routes to School 5 E's Conference." Lecture, Sacramento County Office of Education, Mather, CA, November 12, 2010.

- **Set a positive example**. Parents can create traffic hazards themselves by practicing poor driving habits such as ignoring the speed limit, double parking in crosswalks near school, and blocking the visibility for children and other drivers.[33]
- **Travel with your children**. Parents should walk or take public transportation with their children; this can create opportunities for parents to point out possible traffic hazards and practice safe walking habits.[34]

Tips for Schools

- **Integrate Safe Routes into regular school curriculum**, as this type of education tends to be more successful if taught during school hours. Physical education classes provide an opportunity for bicycle education. Afterschool programs and clubs also offer further educational opportunities.[35]
- **Create incentives**. Incentive programs might help to keep Safe Routes fresh and exciting (e.g. stickers, "Muffin Mondays," or any weekly event).[36]
- **Develop programs** for different age groups.[37]
- **Encourage baby steps**. For example, encourage parents and children to try walking and biking to school just once.[38] The first attempt could be an opportunity to encourage children to continue walking and biking to school.
- **Create partnerships** to assist with Safe Routes programs. Potential partners could include parents, neighborhood residents, city staff, and law enforcement. Programs can include weekly walking clubs.[39] For example, recruit parents who are already walking their children to school to include more children on their walks. Supply safety equipment, including orange vests and first aid kits with parents if necessary.[40]
- **Take a close look** at Transform's Models and Strategies for getting to school by bike.[41]
- **In-school promotions, events, and assemblies** provide opportunities to educate students and reward participating students. They are also opportunities for parent education. Also, integrate bicycle education into physical education

[33] California State Automobile Association (CSAA), "Parents Can Be Serious Traffic Hazards," American Automobile Association, http://www.csaa.com/portal/site/CSAA/menuitem.cl3d2427e527f6a08e7ea35492278a0c/?vgnextoid=e0a3727e4181d010VgnVCM100000c512daceRCRD&cpsextcurrchannel=1 (accessed September 7, 2010).
[34] Ibid.
[35] Fitness for Life: http://www.fitnessforlife.org/
[36] Ibid.
[37] Fitness for Life: http://www.fitnessforlife.org/
[38] "Sacramento 2nd Annual Safe Routes to School 5 E's Conference" (lecture, Sacramento County Office of Education, Mather, CA, November 12, 2010).
[39] Ibid.
[40] Nora Cody, "Best Practices from Transform" (lecture, Urban Planning 201: Safe Route School, San Jose State University, San Jose, CA. November 3rd, 2010).
[41] Ibid.

curriculum. The possible examples of afterschool programs and clubs include YMCA, Cycles of Change[42] and Fitness for Life[43].

Tips for Communities

- **Emphasize public health**. Public health organizations like health centers, hospitals, and hospital foundations could serve as potential partners.[44] Also, consider issuing a press release of what's going on to encourage media outlets to report on the school.[45]
- **Ask what the principal can offer**.[46] The support of school principals is vital for developing a successful Safe Routes to School program.
- **Remind the neighborhood about Safe Routes**. Signs and announcements work well in helping community residents remember that Safe Routes is a continual effort.[47]
- **Conduct walk audits**. These can be conducted to address infrastructure-related needs as they apply to walkability. Getting parents and school members to participate in collecting walk audit data is invaluable because during the process they realize that pedestrian concerns also involve travel behavior, not just traffic calming and infrastructure-specific improvements.[48]
- **Ask for donations from neighboring businesses**. These donations could serve as one component of an incentive program.[49]

5.2 Preliminary Program Implementation

This section summarizes our recommendations for SR2S program implementation in an action matrix, including a timeline for implementation, ideas for a lead agency to head up the actions to facilitate creating a bridge between this work and future programs, and finally potential funding sources that may be available to provide monies for the venture. These recommendations have been categorized using the 5E's approach to Safe Routes to School planning.

[42] Cycles of Change: http://www.cyclesofchange.org/
[43] Fitness for Life: http://www.fitnessforlife.org/
[44] "Sacramento 2nd Annual Safe Routes to School 5 E's Conference." Lecture, Sacramento County Office of Education, Mather, CA, November 12, 2010.
[45] Ibid.
[46] Ibid.
[47] Ibid.
[48] Ibid.
[49] "Sacramento 2nd Annual Safe Routes to School 5 E's Conference." Lecture, Sacramento County Office of Education, Mather, CA, November 12, 2010.

Table 3 Engineering Recommendations by Task

Engineering Recommendations

Action #	Action Item	Time Frame	Lead Agency	Potential Funding Sources
1	Paint new crosswalks and repaint faded existing crosswalks	Short-term	San Jose Public Works	General Fund; CDBG funds
2	Continue to install pedestrian-scaled lights on 24th Street near East Santa Clara Street.	Long-term	San Jose Public Works	General Fund; CDBG funds
3	Repaint red curbs.	Short-term	San Jose Public Works	General Fund
4	Create medians on Julian at 33rd.	Long-term	San Jose Public Works; SJDOT	General Fund; Caltrans Grants
5	Consider cost/feasibility of in-pavement blinking lights at 33rd and McKee.	Long-term	San Jose Public Works; SJDOT	Caltrans Grants; VTA/MTC grants
6	Add more bike racks at Anne Darling and San Jose High School.	Short-term	School principals	Grant funding through SR2S programs and SJDOT-led grants, VTA/MTC grants; MTC-CMAQ Funding
7	Wooster Ave. is anticipated to become a major pedestrian route over time but new sidewalks need to be installed since area was unincorporated.	Long-term	San Jose Public Works; SJDOT	General Fund; Caltrans Grants

Table 4 Enforcement Recommendations by Task

Enforcement Recommendations

Action #	Action Item	Time Frame	Lead Agency	Potential Funding Sources
1	Bi-weekly police patrol at intersection.	Short-term	San Jose Police Department	General Fund
2	Digital speed displays	Short-term	San Jose Police Department; SJDOT	General Fund; Caltrans Grants
3	Parent volunteers at drop-off/pick-up to monitor driving.	Short-term	School principals	Ideally, no funding needed; principals can provide other incentive for volunteers

Table 5 Education Recommendations by Task

Education Recommendations

Action #	Action Item	Time Frame	Lead Agency	Potential Funding Sources
1	Install informative banners or posters at intersections for pedestrians.	Short-term	School principals; SJDOT, San Jose Public Works	National Center for Safe Routes to School; Non-profit groups such as TransForm or SJSU provide raw materials, parents design final products and install with city approval
2	Create addition to curriculum focusing on safe walking/biking.	Ongoing	School principals; local and state SR2S proponents	Local and state SR2S grants; San Jose Unified School District
3	Encourage use of walking/biking examples in math/science/etc. lessons	Ongoing	School principals	San Jose Unified School District
4	Web links to Safe Routes-related reports on school web sites; Enhance school websites with SR2S information.	Ongoing	School principals	San Jose Unified School District
5	Partner with physical education teachers to provide regular SR2S “refreshers”.	Ongoing	School principals	San Jose Unified School District

Table 6 Encouragement Recommendations by Task

Encouragement Recommendations

Action #	Action Item	Time Frame	Lead Agency	Potential Funding Sources
1	Create routines or rituals to reinforce visibility of SR2S programs	Short-term	School principals; Parents Task Force created for this project	National Center for Safe Routes to School Mini-grants; San Jose Unified School District
2	Sponsor a contest with prizes to design SR2S logo for Anne Darling.	Short-term	School principals	National Center for Safe Routes to School Mini-grants; San Jose Unified School District
3	Sponsor a poster contest for Walk to School Day at Anne Darling and San Jose High.	Short-term	School principals	National Center for Safe Routes to School Mini-grants; San Jose Unified School District

Table 7 Evaluation Recommendations by Task

Evaluation Recommendations

Action #	Action Item	Time Frame	Lead Agency	Potential Funding Sources
1	Assess pedestrian accident reports/data using state-level SWITRS and local police data	Ongoing	SJSU graduate students	Ideally, no cost to schools or other organizations except for student time
2	Consider perception of gang activity in terms of impacting decisions to walk/bike to school (injunction maps, reported problem areas from surveys, crime data)	Short-term	SJSU graduate students	Ideally, no cost to schools or other organizations except for student time
3	Consider possibility of remote drop-off/pick-up site for San Jose High School to reduce congestion.	Long-term	School principals; SJDOT; SJSU graduate students	San Jose Unified School District; MTC-CMAQ Funding
4	Note that half of Eggo employees walk to work.	Ongoing	SJSU graduate students	Ideally, no cost to schools or other organizations except for student time to collect data and monitor
5	Incorporate ped/bike infrastructure to Ace Charter School, Rocketship	Long-term	CommUniverCity; SJDOT	General Fund, CDBG grants, Caltrans grants, VTA/MTC grants

	Discovery Prep, BART, and all major new developments			
6	28th and Julian – 3rd highest accident rate in FWBT 33rd and McKee – highest accident rate in FWBT.	Ongoing	SJSU graduate students; San Jose Police Department	Ideally, no cost to schools or other organizations except for student time to collect data and monitor

5.3 Funding Sources

Securing funding is critical to developing, implementing, and sustaining a successful Safe Routes to School Program within schools and this is especially important in these lean economic times. This chapter details the funding process for Safe Routes to School from Federal, State, local, and private sources in an effort to show where possible funding sources for local efforts might present themselves.

5.3.1 Federal Funding

Federal Highway Administration

Federal funding for Safe Routes to School federal programs (SRTS) was created in 2005. This program was housed under the Federal Highway Administration (FHWA), which allocated an initial $612 million in funding for SRTS programs for five consecutive years, through 2009. The extensions of SAFETEA-LU legislations have resulted in the funding of the Safe Routes program at $978 million through Fiscal Year 2011.[50] Managed by the California Department of Transportation (CalTrans), funding is distributed to various Caltrans geographic districts based on total student enrollment. As a reimbursement program, schools or applicants utilize their own funds up front, and then submit all invoices to Caltrans for reimbursement. Additional costs incurred before the project approved by FHWA are not eligible for reimbursement.[51] Therefore, before implementing SRTS projects, schools are encouraged to review the entire requirement standard and guidelines for the program.

Infrastructure and non-infrastructure projects are eligible for federal funding. Infrastructure related projects can cover costs related to the planning, design and

[50] Federal Highway Administration, "Safe Routes to School: Funding," http://safety.fhwa.dot.gov/saferoutes/funding/ (Accessed January 21, 2012)

[51] Federal Highway Administration, "FHWA Program Guidance: Safe Routes to Schools (SRTS)," U.S. Department of Transportation Federal Highway Administration, http://safety.fhwa.dot.gov/saferoutes/guidance/ (Accessed September 22, 2010).

construction of infrastructure that will improve the ability of students actively commuting to schools. Examples include sidewalk improvements, traffic calming measures, and off-street bicycle and pedestrian improvements. Non-infrastructure activities can be awarded up to 30 percent of the total funding provided within an allocation cycle. Non-infrastructure projects include those that encourage students to walk and bike to school, such as encouragement campaigns, outreach events, traffic education, and seminars.[52]

Federal Mini –Grants

Another federal funding program, Mini Grants, is managed by the National Center for Safe Routes to School. This program provides mini-grants of $1,000 to implement the SRTS goals of enabling and encouraging children to safely walk and bicycle to school. The program offers 25 mini-grants per cycle and applications are accepted for disbursement of funds in the fall and the spring. Eligible applicants include:

- Faculty, staff, or parent volunteers at elementary or middle schools
- Adult-supervised elementary or middle school groups or clubs
- Local governments
- Tribal governments
- Community-based or private non-profit organizations involved in SRTS activities.[53]

One of the goals of the Mini-Grants program is to utilize student's "creativity and leadership skills to increase safe walking and bicycling to school."[54] Activities funded by this program must be a part of a larger, established Safe Routes to School program. Examples of eligible activities include students encouraging friends and parents to walk and bike to school, and students working to increase safety in school driving zones such as promoting 'no texting while driving' campaigns.

With a $1,000 mini-grant, San Jose High and Anne Darling could:

- Provide age-appropriate safety education in the classrooms
- Continue the Walking School Bus program
- Track mileage walked to school with inexpensive pedometers

[52] Ibid.
[53] National Center for Safe Routes to School, "Safe Routes to School Mini Grants," National Center for Safe Routes to School, http://www.saferoutesinfo.org/news_room/minigrants/index.cfm (Accessed September 22, 2010)
[54] National Center for Safe Routes to School, "Safe Routes to School Mini Grants," National Center for Safe Routes to School, http://www.saferoutesinfo.org/news_room/minigrants/index.cfm (Accessed September 22, 2010)

- Collaborate with educators to include walking and bicycling into the general curriculum through math, English, and science activities
- Develop school or district policies that support safe walking and bicycling activities

To apply for the mini-grants, schools must identify the number of students that will be impacted by the program(s), the needs that have been identified by the school, activities that will be funded by the mini-grant, expected changes in behavior, safety, and attitudes as a result of these activities, and planned program progress tracking.

MTC-CMAQ Funding

Additional federal funding is available from the Congestion Mitigation and Air Quality Improvement Program (CMAQ) through the Metropolitan Transportation Commission (MTC). The MTC Safe Routes to School (MTC-SR2S) program was established to expand the federal Safe Routes to School (SRTS) and the State of California's Safe Routes to School (SR2S) programs; however, to be eligible for this funding, the projects must also meet the CMAQ program objectives of containment or maintenance of the National Ambient Air Quality Standards.[55]

MTC-CMAQ funding is provided to the county congestion management agency (CMA) based on student enrollment of each county. The CMAs then have the discretion to allocate the funds to achieve the region's transportation objectives as outlined in the Transportation Improvement Plan.[56] Santa Clara County's responsible CMA is the Santa Clara Valley Transportation Authority (VTA).[57]

5.3.2 State Funding

In California, Caltrans administers the state-legislated Safe Routes to School Program (SR2S) as well as the federally legislated SRTS Program. Although both programs aim to accomplish the same goals of increasing walking and biking to school, they differ in their implementation, including enabling legislation, eligible applicants, required matching funds and targeted beneficiaries.[58] Similar to the federal program, funding is reimbursed to the grantee after work has been completed.

[55] The Metropolitan Transportation Commission, "Funding—STP/CMAQ," The Metropolitan Transportation Commission Website, http://www.mtc.ca.gov/funding/STPCMAQ/ (accessed October 6, 2010).
[56] Ibid.
[57] Ibid.
[58] Caltrans Division of Local Assistance, "Safe Routes to School Programs," California Department of Transportation, http://www.dot.ca.gov/hq/LocalPrograms/saferoutes/saferoutes.htm (accessed November 3, 2010).

Table 8 State and Federal Funding Comparison Matrix

Source: http://www.dot.ca.gov/hq/LocalPrograms/saferoutes/saferoutes.htm (Accessed January 23, 2012)

Program Features	State-Legislated Program - SR2S	Federal Program - SRTS
Legislative Authority	Streets & Highways Code Section 2330-2334	Section 1404 in SAFETEA-LU
Expires	AB 57 extended program indefinitely	Pending SAFETEA-LU reauthorization. Extensions have been granted through September 30, 2011.
Eligible Applicants	Cities and counties	State, local, and regional agencies and Native American Tribes experienced in meeting federal transportation requirements. Non-profit organizations, school districts, and public health departments must partner with a city, county, MPO, or RTPA to serve as the responsible agency for their project.
Eligible Projects	Infrastructure projects	Stand-alone infrastructure or non-infrastructure projects
Local Match	10% minimum required	None
Project Completion Deadline	Within 4 ½ years after project funds are allocated to the agency	Within 4 ½ years after project is amended into FTIP
Restriction on Infrastructure Projects	Must be located in the vicinity of a school	Infrastructure projects must be within 2 miles of a grade school or middle school
Targeted Beneficiaries	Children in grades K-12	Children in grades K-8
Cycles Completed	9 cycles	3 cycles
Current Status	Cycle 9 Final Project List dated 10/14/2010	Cycle 3 Final Project List dated 10/11/2011
Funding	$24.25M annual funding	$23M annual funding

5.3.3 Private Funding

There are various corporations and foundations that could provide funding to implement the goals of a Safe Routes to School program at Anne Darling Elementary and San José High School. This section highlights a small sample of the available options.

The Kellogg's Food Corporation has a long history of providing grants through the W.K. Kellogg's Foundation. The Eggo Waffle Factory north of the Safe Routes to School project area is a major employer of residents and parents in the neighborhood, and Kellogg's Food Corporation owns the Eggo Waffle brand.

The mission of the Kellogg's Foundation is oriented towards the betterment of children in underserved populations and their goals include education, health, secure families, racial equity, and civic engagement.[59] The W.K. Kellogg Foundation has an online application and a rolling application period. The Foundation does not fund established programs, capital requests, equipment, conferences or workshops, media programs, endowments, development campaigns, and research studies.[60]

If additional research is deemed necessary to implement a Safe Routes program, this research could be funded through the Active Living Research Program from the Robert Wood Johnson Foundation and administered by San Diego State University. The Active Living Research program started in 2001 and supports research that aims to identify environmental factors that influence physical activity, specifically in children in underserved populations.[61] While this type of research may not be directly related to vehicle congestion and could not prove causality, it is reasonable to infer that additional research in the area of physical activity would be beneficial to the neighborhood, as well as the Safe Routes to School program. The aim of research conducted with Active Living Research grants is to inform environmental design and public policy that encourage physical activity.[62] This type of evidence is directly related to the Safe Routes to School program in the Five Wounds/Brookwood Terrace neighborhood.

[59] The W.K. Kellogg's Foundation, "What we support," *W.K. Kellogg Foundation website* (accessed October 13, 2010).
[60] Ibid.
[61] Active Living Research, "About us," *Active Living Research website* (accessed October 6, 2010).
[62] Active Living Research, "About us," *Active Living Research website* (accessed October 6, 2010).

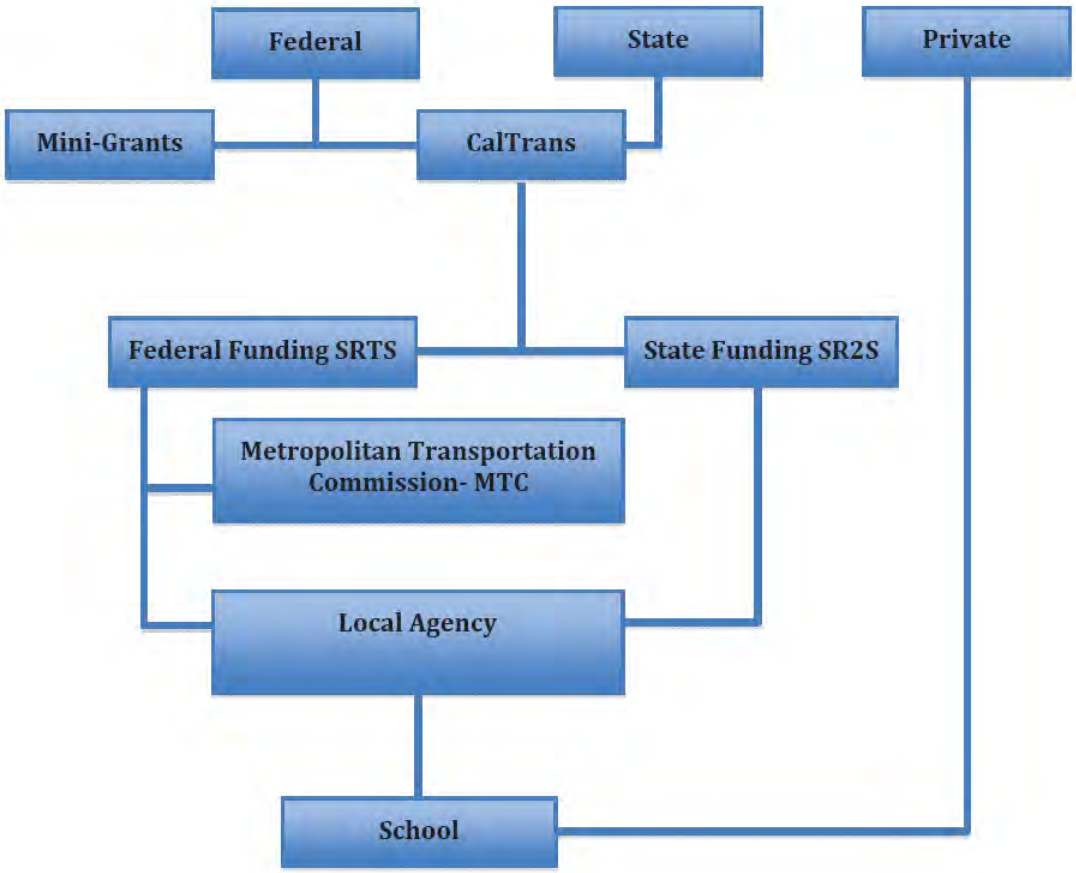

Figure 49 Safe Routes to School Funding Flowchart

5.3.4 Local Funding Success Story

Safe Routes to School programs have been provided in Marin County since 2000, when the Marin County Bicycle Coalition (MCBC) received federal funding to create a national model for the Safe Routes to School program. A nine school pilot program was implemented and resulted in a 57 percent increase in the number of children walking and biking and a 29 percent decrease in the number of children arriving alone in a car."[63]

Marin County voters approved Measure A in 2004; the half-cent sales tax increase over 20 years includes 11 percent of funding ($36 million) for Marin's Safe Routes to School efforts. With the success of this local funding measure, the county's Safe Routes to School programs serve 18,000 students from 43 elementary, middle and high schools.[64]

[63] Safe Routes to Schools, "Marin County, Creators of the National Model Program," http://www.saferoutestoschools.org/about.shtml (accessed November 6, 2010).
[64] Safe Routes to School National Partnership, "Changing the Habits of an Entire Generation," http://www.saferoutespartnership.org/state/network/california (accessed October 20, 2010).

5.4 The Good Work Continues

We are pleased to report that the work undertaken by community and school leaders, and facilitated by the SJSU graduate students, created momentum that continued after the students completed their final semester of involvement with the project. To start with, the Safe Routes to School Task Force now features 12 Champions and 38 members. Champions include the original founders, including Juan and Veronica Alcala who have been enthusiastic participants during all phases of the project. The Task Force met regularly through October 2011 and now meets informally as needed.

As further evidence that our Safe Routes to School pilot projects were a success, Anne Darling Elementary has declared October to be a Walk to School Month. To kick off the program, the school leaders held an assembly for all 4th and 5th grade children to explain the benefits of walking to school. Additionally, the students were trained to maintain booklets where they log miles that they walked. This data is used in the classroom so that students can compare their walking distances with one another. The entire month of October was dedicated to weekly Walking School Bus events (four in total) and two Bike Rodeos (two in total). The school plans to hold similar events in October 2012. The most recent Walking School Bus took place on February 1, 2012.

These events have created awareness within the Anne Darling school community and there has been a notable increase in bicycle ridership. Reflecting this momentum, the San Jose Department of Transportation installed the first bike rack at Anne Darling Elementary School in spring 2011, and in October 2011 a second rack was installed.

An especially exciting development was announced in late 2011: the Five Wounds/Brookwood Terrace neighborhoods will receive $500,000 in Community Development Block Grant funds for Community Development Improvements, of which about $100,000 will go towards Safe Routes to School improvements for Anne Darling Elementary and San Jose High. A number of Safe Routes-related projects are being evaluated, and funding will be awarded by July 2012. Community leaders have requested that this report be included in the funding evaluation process.

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Appendix A: Walkability Audit Tool

WALKABILITY AUDIT INSTRUMENT (MODIFIED VERSION OF PEDS)

Segment: _____ **Date:** _____

Segment Number: _____ **Time:** _____

0. Segment type
- High volume road
- Low volume road
- Bike or Ped path
- Total

A. Environment

1. Uses in Segment

Check all that apply
- Vacant/Undeveloped
- Industrial
- Housing - Single Family Detached
- Housing - Mobile Homes
- Office/Institution
- Housing - Multi-Family
- Restaurant/Café/Commercial
- Recreation

B. Pedestrian Facility (Skip to C if none)

4. Type(s) of pedestrian facility
- Footpath (worn dirt trail)
- Paved trail
- Sidewalk

6. Path condition/maintenance
- Under Repair
- Poor(many bumps/crack/holes)
- Fair (some bumps/crack/holes)
- Good (very few bumps/crack/holes)

7. Path obstructions

uctions? Yes / No

If yes, check all that apply
- Neg pts. Poles or signs
- Neg pts. Parked cars
- Neg pts. Greenery
- Neg pts. Garbage cans
- Neg pts. Pay phones
- Neg pts. Other

10. Sidewalk width
- Less than 4 feet
- Between 4 and 8 feet
- More than 8 feet

11. Is the facility fully or partially ADA accessible?
- No
- Yes

If yes, check all that apply
- Bonus Safe curb slope
- Bonus Truncated domes
- Bonus Perpendicular curbs
- Bonus Other

C. Road attributes

If there is only a ped. path and no road, add 20 points

14. Conditions of road
- Under Repair
- Poor (many bumps/cracks/holes)
- Fair (some bumps/cracks/holes)
- Good (very few bumps/cracks/holes)

15. Number of lanes (# of travel lanes for whole street)
- 3 or more
- 2 or less

16. Posted speed limit
- more than 25 mph
- 25 mph or less

17. On-street parking
- None
- Parallel or Diagonal

18. Off-street parking lot spaces
- 6+
- 0-5

20. Presence of driveways
- 3 or more
- 0-2

21. Traffic control devices

Are there traffic control devices? No / Yes

If yes, check all that apply
- Bonus Traffic circle
- Bonus Speed bumps
- Bonus Chicanes or chokers
- Bonus Raised crosswalk
- Bonus Traffic light
- Bonus Stop Sign
- Bonus Median
- Bonus Other

22. Marked crosswalks
- None
- 1-3
- 4 or more

23. Crossing aids

Are there crossing aids? No / Yes

Check all that apply
- Bonus Curb extension
- Bonus Pedestrian signal
- Bonus Audible/vis countdown
- Bonus Yield to ped paddles
- Bonus Overpass/Underpass
- Bonus Ped. xing warning sign
- Bonus Flashing warning sign
- Bonus Share the Rd sign
- Bonus Refuge/traffic islands
- Bonus Other

24. Bicycle facilities

Are there bicycle facilities? No / Yes

Check all that apply
- Bonus Segregated bike lane
- Bonus Striped bike lane
- Bonus Bike parking
- Bonus Bike crossing warning
- Bonus Bike route sign
- Bonus Other

D. Walking/Cycling Environment

25. Roadway/path lighting

Check all that apply
- No lighting
- Other lighting from buildings etc
- Road-oriented lighting
- Pedestrian-scale lighting

26. Amenities

Are there any amenities/street furniture? No / Yes

- Bonus Public garbage cans

28. Number of trees shading walking area
- None or very few
- Some
- Many/dense

31. Overall cleanliness and building maintenance
- Poor (much litter/graffiti/broken facilities)
- Fair (some litter/broken/broken facilities)
- Good (no litter/broken/broken facilities)

35. Bus stops
- No bus stop
- Bus stop with signage only
- Bus stop with bench
- Bus stop with shelter

Appendix B: Surveys Administered to San Jose High Students and Anne Darling Elementary Parents

San José High School Student Survey: How do you get to school?

This survey is being conducted to understand how students arrive at and leave from school. Your responses will be kept confidential and your name will not be associated with any results. Results may be used to create a Safe Routes to Schools program for San José High School.

The survey should take 5-10 minutes to fill out. Once complete, please return to your teacher. **Please check only one box per question, unless directed otherwise.** Answer each question as honestly as possible.

Thank you for your participation!

1. **On most days, how do you arrive at school?** (select one) *¿La mayoría de los días, cómo llegas a la escuela? (Elige uno)*
   - ☐ Walk / *Caminando*
   - ☐ Bike / Bicicleta
   - ☐ School Bus *Autobús escolar*
   - ☐ Family vehicle (only students in your family) *Vehículo de la familia (solo con niños de la familia)*
   - ☐ Carpool (students from other families) *Compartiendo el viaje en auto con niños de otras familias*
   - ☐ VTA bus / *VTA Autobús*
   - ☐ Other (skateboard, scooter, skates, etc.) *Otra (patineta, moto, patines, etc.)*

2. **How long does it normally take you to get to school in the morning?** *¿Normalmente, cuánto tiempo toma a llegar a la escuela por la mañana? (Elige uno)*
   - ☐ Less than five minutes/*Menos de 5 minutos*
   - ☐ 5 – 10 minutes/*minutos*
   - ☐ 11 – 20 minutes/*minutos*
   - ☐ More than 20 minutes/*Más de 20 minutos*
   - ☐ Don't know/not sure *No lo sé / No estoy seguro/a*

3. **On most days, how do you leave from school?** (select one) *¿La mayoría de los días, cómo te vas de la escuela? (Elige uno)*
   - ☐ Walk / *Caminando*
   - ☐ Bike / Bicicleta
   - ☐ School Bus *Autobús escolar*
   - ☐ Family vehicle (only students in your family) *Vehículo de la familia (solo con niños de la familia)*
   - ☐ Carpool (students from other families) *Compartiendo el viaje en auto con niños de otras familias*
   - ☐ VTA bus / *VTA Autobús*
   - ☐ Other (skateboard, scooter, skates, etc.) *Otra (patineta, moto, patines, etc.)*

4. **How long does it normally take you to get home from school in the afternoon?** *¿Normalmente, cuánto tiempo toma para llegar a casa por la tarde? (Elige uno)*
   - ☐ Less than five minutes/*Menos de 5 minutos*
   - ☐ 5 – 10 minutes/*minutos*
   - ☐ 11 – 20 minutes/*minutos*
   - ☐ More than 20 minutes/*Más de 20 minutos*
   - ☐ Don't know/not sure *No lo sé / No estoy seguro/a*

5. **Will your parent(s) or guardian(s) allow you to walk or bike to school?** *¿Tus padres o guardiánes permiten que camines o ir en bicicleta a la escuela?*
   - ☐ Yes / *Sí*
   - ☐ No / *No*
   - ☐ Not sure/do not know / *No lo sé / No estoy seguro/a*

6. **Do you have access to a bike to take to/from school?** *¿Tienes acceso a una bicicleta para llevar a/o desde la escuela?*
   - ☐ Yes / *Sí*
   - ☐ No / *No*
   - ☐ Not sure/do not know / *No lo sé / No estoy seguro/a*

Please continue to the next page →

Por favor siga a la siguiente página →

7. **Do you enjoy walking or biking in your neighborhood?** *¿Te gusta caminar o andar en bicicleta en tu vecindad?*
   - ☐ Yes / *Sí*
   - ☐ No / *No*
   - ☐ Not sure/do not know */ No lo sé / No estoy seguro/a*

   If not, why not? *¿Si no, por qué no?*

_____

_____

_____

_____

_____

_____

8. **Do you know where a bike rack is located on campus?** *¿Sabes dónde está situado un lugar para estacionar tu bicicleta en la escuela?*
   - ☐ Yes / *Sí*
   - ☐ No / *No*

9. **What of the following issues affect your family's decision on how you get to/from school?** (select all that apply) *¿Cuál de las siguientes situaciones afectan la decisión de tu familia sobre cómo llegas y te vas de la escuela? (Elige todos que se apliquen)*
   - ☐ Distance / *Distancia*
   - ☐ Convenience of driving / *Conveniencia de manejar*
   - ☐ Time / *Tiempo*
   - ☐ Before or after school activities / *Actividades antes o después de la escuela*
   - ☐ Speed of traffic along route / *Velocidad del tránsito en la ruta*
   - ☐ Amount of traffic along route / *Cantidad de tránsito en la ruta*
   - ☐ Adults or students to walk or bike with / *Adultos o estudiantes que acompañen*
   - ☐ Sidewalks or pathways / *Aceras o caminos*
   - ☐ Safety of intersections and crossings / *Seguridad de las intersecciónes y cruces*
   - ☐ Crossing guards / *Guardias de cruce*
   - ☐ Violence or crime / *Violencia o crimen*
   - ☐ Weather or climate / *Tiempo o clima*

10. **How could the neighborhood be improved for walking/bicycling?** (choose all that apply) *¿Cómo se puede mejorar la vecindad para caminar/o andar en bicicleta? (Elige todos que apliquen)*
    - ☐ More lights on the street / *Más luces*
    - ☐ Improve/repair sidewalks / *Mejore/las aceras de la reparación*
    - ☐ Decrease speeding vehicles / *Disminuya los vehículos que apresuran*
    - ☐ Plant more trees / *Plante más árboles*
    - ☐ Build more benches on the sidewalks / *Construya más bancos en las aceras*
    - ☐ Have a crossing guard near the school / *Tenga un protector de travesía cerca de la escuela*
    - ☐ Increase police patrols before and after school / *Aumente a las patrullas de policía antes y después de escuela*
    - ☐ Don't know/cannot choose / *No se/no puede elegir*

11. **What gender do you identify with?**
    - ☐ Male / *Hombre*
    - ☐ Female / *Mujer*
    - ☐ Decline to state / *Niego a mencionarlo*

Any additional comments on this topic? *¿Otros comentarios sobre este asunto?*

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Thank you for your time and assistance!

¡Muchas gracias por su tiempo y assistencia!

Go Bulldogs!

Anne Darling Parent Survey

Dear Parent or Guardian,

Students at San José State University want to learn your thoughts about children walking and biking to school as part of a community assessment project. Your responses will be kept confidential and neither your name nor your child's name will be associated with any results. Results may be used by to create a Safe Routes to Schools program for Anne Darling Elementary School.

This survey will take about 5-10 minutes to complete. After you have completed the survey, send it back to school with your child by **Thursday, April 1.** Students in the class that turn in the most completed survesy will win a prize!

Thank you for your participation!

1. **On most days, how does your child <u>arrive at</u> school?** (select one)
   - ☐ Walk
   - ☐ Bike
   - ☐ School Bus
   - ☐ Family vehicle (only children in your family)
   - ☐ Carpool (children from other families)
   - ☐ Transit (VTA bus)
   - ☐ Other (skateboard, scooter, skates, etc.)

2. **How long does it normally take your child to get to school in the morning?**
   - ☐ Less than five minutes
   - ☐ 5 – 10 minutes
   - ☐ 11 – 20 minutes
   - ☐ More than 20 minutes
   - ☐ Don't know/not sure

3. **On most days, how does your child <u>leave from</u> school?** (select one)
   - ☐ Walk
   - ☐ Bike
   - ☐ School Bus
   - ☐ Family vehicle (only children in your family)
   - ☐ Carpool (children from other families)
   - ☐ Transit (VTA bus)
   - ☐ Other (skateboard, scooter, skates, etc.)

4. **How long does it normally take your child to get from school in the afternoon?**
   - ☐ Less than five minutes
   - ☐ 5 – 10 minutes
   - ☐ 11 – 20 minutes
   - ☐ More than 20 minutes
   - ☐ Don't know/not sure

5. **Has your child asked for your permission to walk or bike to/from school in the last year?**
   - ☐ Yes
   - ☐ No

6. **Does your child have access to a bicycle to take to/from school?**
   - ☐ Yes
   - ☐ No
   - ☐ Don't know/not sure

7. **At what grade would you allow your child to walk or bike to/from school without an adult?**
   - ☐ Kindergarten/First grade
   - ☐ Second/Third grade
   - ☐ Fourth/Fifth grade
   - ☐ Middle School
   - ☐ High School
   - ☐ I would not feel comfortable at any grade

8. **How much fun is walking or biking to/from school for your child?**
   - ☐ Very Fun
   - ☐ Fun
   - ☐ Neutral
   - ☐ Boring
   - ☐ Very boring

Please continue to the other side of the page →

9. **How healthy is walking or biking to/from school for your child?**
   - ☐ Very Healthy
   - ☐ Healthy
   - ☐ Neutral
   - ☐ Unhealthy
   - ☐ Very Unhealthy

10. **Do you believe your neighborhood is a safe and healthy place to walk and bike?**
   - ☐ Yes
   - ☐ No
   - ☐ Not sure/do not know

11. **Does your child like to walk or bike in your neighborhood?**
   - ☐ Yes
   - ☐ No
   - ☐ Not sure/do not know

12. **What grade level is your child in?**
   - ☐ 3rd
   - ☐ 4th
   - ☐ 5th

13. **What of the following issues affected your decisions to allow or not allow your child to walk or bike to/from school?** (select all that apply)
   - ☐ Distance
   - ☐ Convenience of driving
   - ☐ Time
   - ☐ Child's before or after school activities
   - ☐ Speed of traffic along route
   - ☐ Amount of traffic along route
   - ☐ Adults to walk or bike with
   - ☐ Sidewalks or pathways
   - ☐ Safety of intersections and crossings
   - ☐ Crossing guards
   - ☐ Violence or crime
   - ☐ Weather or climate

14. **What of the following issues are most important in improving the environment your child does or could walk/bike to school in?** (select up to THREE)
   - ☐ Speed of traffic along route
   - ☐ Amount of traffic along route
   - ☐ Adults to walk or bike with
   - ☐ Sidewalks or pathways
   - ☐ Safety of intersections and crossings
   - ☐ Crossing guards
   - ☐ Violence or crime
   - ☐ Weather or climate

Please share other thoughts or ideas on this issue:

_____

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Thank you for your time and assistance!

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Appendix C: Marketing Materials for Walking School Bus

Safe Routes to School, Anne Darling and San José High Academy program seeks to build a safe and healthy environment to walk and bike to school, encourage active living, and reduce traffic and air pollution near our schools.

Vehicle accidents are unfortunate and tragic when people are affected. The number of us getting to and from school by car is rising. Almost half of pedestrian accidents near schools involve cars driven by student's parents. Help build a brighter future where children can safely walk and bike to school.

We need your help to make Safe Routes to School, Anne Darling and San José High Academy a reality. To learn how you can get involved and help form the future of our communities contact CommUniverCity today.

CommUniverCity San José
McKinley Neighborhood Center
651 Macredes Ave. San José, CA 95116
(408) 297-3301

Safe Routes to School Postcard

Don't Refuel...
Safe Routes to School

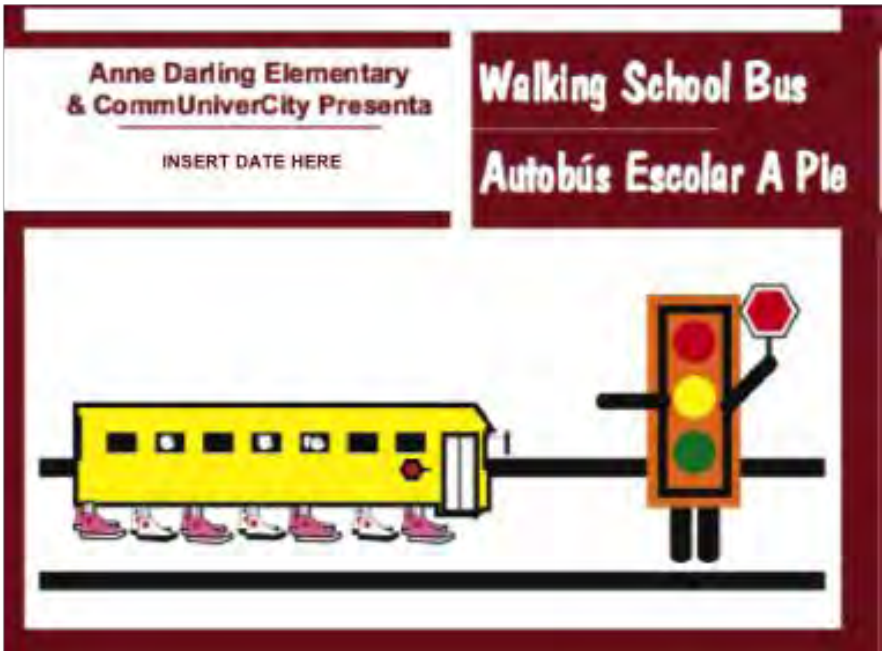
Safe Routes to School is a program aimed to create a safe and healthy environment for our children to walk or bike to school by encouraging active lifestyles, and reducing traffic and air pollution near our schools.

We have all witnessed pedestrian and vehicle near misses, and we often feel safer in our cars, but driving our children to school only increases the problem. Almost half of pedestrian accidents near schools involve cars driven by student's parents. It is simply not enough to drive our children to school, we must demonstrate our presence as pedestrians and practice safe walking and biking habits. Unless we act, we may never see a community where our children can walk or bike to school.

We need you!

To learn how you can get involved in making *Safe Routes to School, Anne Darling and San Jose High* a reality for today's children, come visit us at our upcoming event:

Event Poster



Walking School Bus Event Postcard

Appendix D: Bike Rodeo Stations

Sources: Santa Clara County
Silicon Valley Bike Coalition

STATION #__1__: CONTROLLED RIDING, RIGHT TURN & STOP *10/05*

Skills this station teaches:

- Riding in a straight line and stopping in a controlled manner
- Executing right turns at a corner after checking for cross traffic
- Avoiding obstacles in a controlled manner without excessive swerving

Why do this? Riding predictably is key to avoiding collisions with cars. This includes controlling one's bike, communicating with other road users and following the rules of the road.

STATION LEADER Instructions:

1. **Have students line up their bikes as indicated and quickly come forward to the "START" line on foot.** Help those without helmets feel included, noting that they can walk/jog through as if they are on bikes, learning skills they can practice at home.

2. Explain what they'll be learning at this station and why (see above), but **keep your explanation short – students will learn best by practicing.**
   - Ask a volunteer to demonstrate hand signals with his/her back to the children (see refresher on next page). Have the students quickly practice right, left and stop signals.
   - **Ask them if just using a hand signal makes it safe to turn.** (Answer: Need to check traffic.)

3. Have students watch while one of the volunteers jogs through the course as if on a bike, demonstrating each point as you explain:
   - "Start by riding straight, staying in the bike lane." (Indicate the left side of the course.)
   - "Just before you get to the other end of the course, **signal** a right turn, **look for traffic (left, right, left),** and then make the turn."
   - "When you come back up the other side, you'll have to **avoid these obstacles** while still staying in the bike lane." (Show sponges.)
   - "**Signal a stop, and brake to a safe stop at this line**." (Point out the stop line at the end of the course.) **"Then get back in line for your next turn."**

4. Have the children get on their bikes. For the first group, assist with working out partners for children with helmets but not bicycles. Sharing bikes works more smoothly if partners do not stand together but with 3 students in between.

5. As the students go through the course, observe them from the middle of the course as indicated in the diagram. **As each child comes back toward the start, offer specific praise and guidance on what to work on next time.**

- **Focus first on control of the bike** (staying in the lane, keeping a safe distance from the other riders, making a controlled turn, avoiding sponges and braking to a safe stop.
- **Also make sure they check for cross traffic by looking left, right, left.** Gently remind those who forget that they must look to be sure it's safe to turn!
- Finally, **encourage proper use of hand signals,** but remember that control of the bike must come first. Signals let other people on the road know what they plan to do, which is good, but some third graders have difficulty controlling their brakes one-handed. Praise progress and urge them to keep practicing at home.

6. When it's time to rotate to the next station, remind the children that it's important to practice what they've learned about controlled riding, using signals and checking for traffic whenever they ride on the street. Then make sure the children walk their bikes to the next station.

STATION #_1__: CONTROLLED RIDING, RIGHT TURN & STOP

10/05

Volunteer Instructions

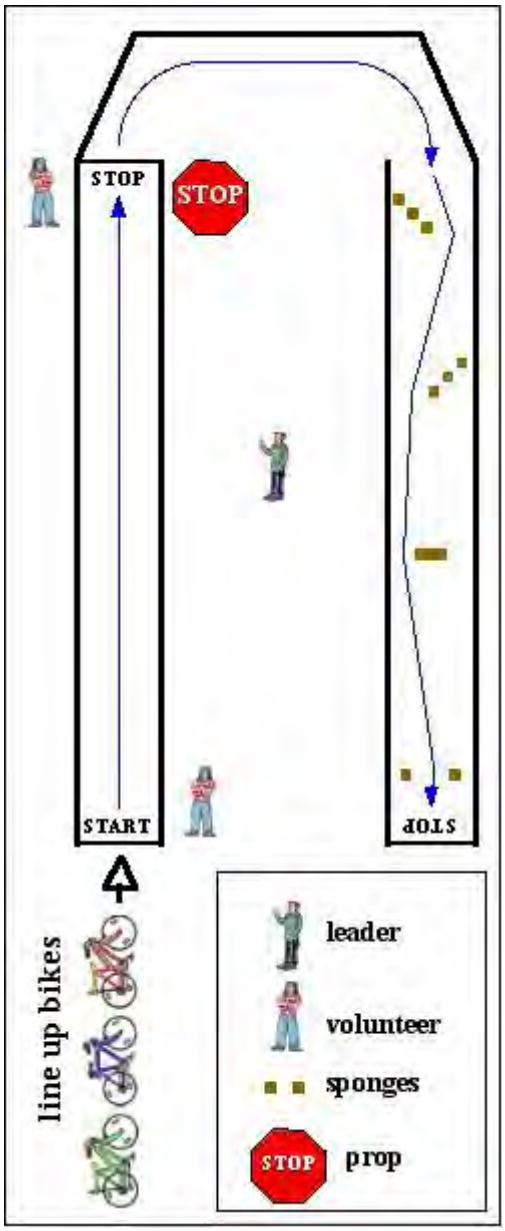
At least two volunteers are needed at this station.

Volunteer at the beginning of the course.

1. Organize the students into a line as they arrive. Ensure that walkers participate; space out bike sharing partners.
2. Start each student clockwise through the course, spaced so that one starts when the other has made the right turn.
3. Make sure that they stop safely at the line when they come back to the end of the course, but then get out of the way of the next child.
4. Gently remind all but the most flustered cyclists to use their stop signal prior to braking and stopping.
5. **Keep the line from interfering with the end of the station** while children wait.

Volunteer at the opposite end.

1. Help with the hand signal demonstration (with your back towards the students). **Also demonstrate what the students do here by walking through while the station leader explains — this really helps the kids "get it".**
2. Help keep students on course as they turn (so they don't turn too soon).
3. Have them make their right turn signal before they actually start turning (but be gentle with wobbly riders).
4. Gently remind those who forget to check for traffic by saying "What's the most important thing to do before turning?" Commend those who remember to look left, right and left again before turning.



Here's a brief refresher on hand signals:

Right Turn

Make an "L" with left arm OR extend right arm straight out. Either is legal in California. For many children, using the left arm for all signals works best, but experienced cyclists prefer the right arm out signal.

Left Turn

Extend left arm straight out from shoulder.

Stop

Hold left arm out with forearm down at a 90-degree angle.

Signals should be given ***before*** making the turn or putting brakes on. Third graders should have both hands on their handlebars when turning for better control.

STATION #__2__: SCANNING & MOVING LEFT *STATION LEADER GUIDE*

10/07

Skills this station teaches:

- Scanning back over the left shoulder without swerving.
- Moving left only after checking behind you to be sure it's safe.

Why do this? Moving left without looking back is a major cause of serious bike/car crashes. Most third graders can master the skill of scanning without swerving after a few minutes of practice.

> **Note: this is only the first part of learning how to turn left.** Besides scanning, a safe left turn involves moving left in the traffic lane and checking for on-coming as well as cross traffic.

Station Leader Instructions [*see diagram on next page*]

1. **As students arrive at station, have them quickly line up their bikes single file on arrows, then leave their bikes in line and come stand by the word "START".** This and keeping the explanation to 3 minutes helps maximize practice time.
2. **Briefly explain what they'll be learning at this station and why – see above.** Ask: "What would you do if you are riding a bike and suddenly there's broken glass right in front of you?"
   - Respond to answers like "go around" or "signal" by asking: "Okay, but what do you need to do FIRST?" (Answer: Check for cars.)
   - **Have students practice scanning, following lead of demonstrator.** Ask them to touch their left shoulder, then hold out their hands as if on handlebars and scan to the rear over their left shoulder. Explain that the secret is riding straight to **keep shoulders straight and square with the handlebars while looking over their left shoulder.**
   - Have your car prop volunteers show the image of the vehicle, and ask the students to shout "CAR!". Then when they see the blank side, ask them to shout "NO CAR!"
3. **Explain that they will practice scanning in 3 different places as they ride in a bike lane:**
   - **At the first place marked LOOK, they are just checking if there's a car coming or not.** There's no need to stop, but they do need to shout CAR or NO CAR. **Pause here to observe the demonstrator.**
   - "When you see the second LOOK, you want to cross the street. So you check over your shoulder again. Shout CAR or NO CAR, but **only go across if there's no car coming**!"

- "On your way back, you'll find a hazard in the bike lane — but before you go around it, you will need to scan again. Be sure there are no cars before you make your move!"

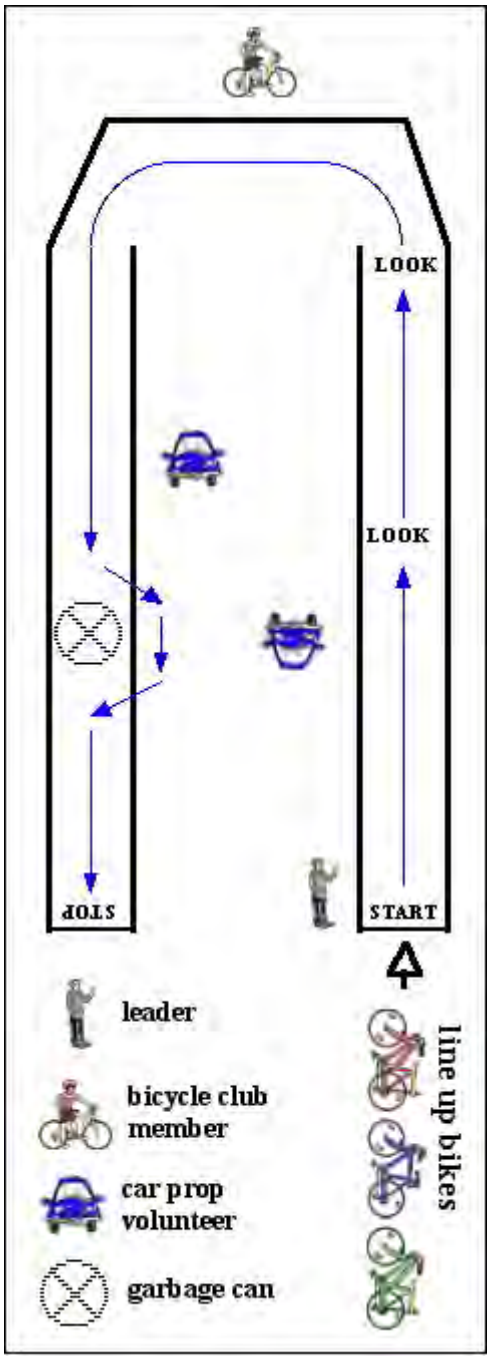
4. **Then have the children get back in line and ride through the course, spaced so that a child starts the return leg before starting the next child.** Work out partners for those with helmets but no bikes. Children without helmets walk through as if on bikes. You stand at the start of the course and cue them about what they'll be doing.
5. **On the first pass focus on the critical new skill: scanning back while riding straight.** Emphasize that they need to shout CAR or NO CAR. Most children will just look at first.
    - **Help the next child in line observe what the child ahead of them does at the opposite end of the course.** Make clear that at the second LOOK, they do need to stop if they see a car behind them, because it's not safe to cross. Similarly, the coast should be clear before they go around the obstacle on the return leg of the course.
6. **On subsequent passes, keep emphasizing the 3 different scans and the key point: move left only when they see no car behind them**. Add the left turn signal at the opposite end and vary whether or not the volunteers show or hide the car props**.** Emphasize that "scanning" behind is an important safety skill to use every time before moving left.

STATION #__2__: SCANNING & MOVING LEFT *VOLUNTEER GUIDE*

10/07

Volunteer Instructions

At least three volunteers are needed at this station in addition to the station leader.



Volunteer demonstrator (from Stanford Cycling Club)

1. **Serve as a model when the station leader asks kids to practice scanning.** Stand in the bike lane at the beginning of the course with your back to the children, and hands on handlebars. Scan over your left shoulder, holding shoulders straight and square with the handlebars. Cyclists who do this don't swerve while scanning.
2. **Then, as the station leader explains what you are doing, model how to ride through the course.**
   - Scan when your wheel goes over the chalked word LOOK and then shout CAR or NO CAR depending on what you see.
   - Scan again at the second LOOK and before the obstacle — and don't move left until the coast is clear.
   - Even if you don't have a helmet and bike, demonstrate as if you do — it really helps kids "get" what to do.
3. **While children ride through, you stand at the far end of the course to give feedback to the kids.**
   - Help each student make the connection between what they SEE at the second look (Car or No Car) and what they DO (stop until it's clear, or keep on going). **Be sure to stop them if they're about to turn in front of a car!**

Two volunteers with car props, as if they are cars going in each direction on a street

1. While station leader explains, show the students what to look for when students scan back over their left shoulder: the front of your car prop (meaning they should shout "CAR") or the blank side ("NO CAR").
2. Then stand at the designated points with car props and assist with the demonstration by the cyclist.

3. **Start by showing the car at all three points where students scan.** On later passes, challenge good cyclists by varying whether the coast is clear. Be gentler with others.
   Discourage peaking by letting them go by you before you hold up or hide your prop.
4. **Do not talk to the children as they ride by – you are a car!** Station leader and demonstrator will be giving the students feedback.
5. **Ham it up with horn sound effects or squealing brakes to emphasize the consequences** if a child starts to move left when you're showing the car at the second LOOK or at the obstacle and the child doesn't scan, and then stop **until the** coast is clear.

STATION # __3__ : Driveway Yielding

STATION LEADER GUIDE *10/05*

Skills this station teaches:

- Checking for cross traffic and waiting until it is safe to turn before entering a roadway.
- Pushing off quickly and smoothly from a stop.

Why do this? Riding out from a driveway, sidewalk or parked cars without yielding to cross traffic is a major cause of serious bike/car accidents for young cyclists. Practicing quick starts also improves safety.

Instructions for station leader:

- **Have students leave their bikes in line and quickly come forward to the "START" line on foot.** Tell them to imagine that they're in a driveway in their neighborhood. Point out that there is no stop sign where the driveway ends. **Ask:** *"Does this mean it's ok to ride out into the street without stopping?*"
  - **Briefly explain what yielding to cross traffic means.** Why can't they just assume that drivers will see them, even on quiet streets?
- **Walk the group down the "driveway" to the "curb", pretending to be on bikes.** Instruct them to **stop at the curb, but stay on their bikes and edge out slowly until they can see and be seen.**
  - At the edge of the parked cars, have volunteers with car props demonstrate when cars are approaching (car props visible) vs. when the coast is clear (blank side of car props shows). Then **have the students practice checking for cross traffic by looking left, right and left again.**
  - Walk them through what to do when it's safe to cross: **Go straight across the car lanes and turn into the bike lane on the right of the "street".** Be sure to walk them all the way back to the start following the indicated route (this reduces the number who get lost the first time riding through).

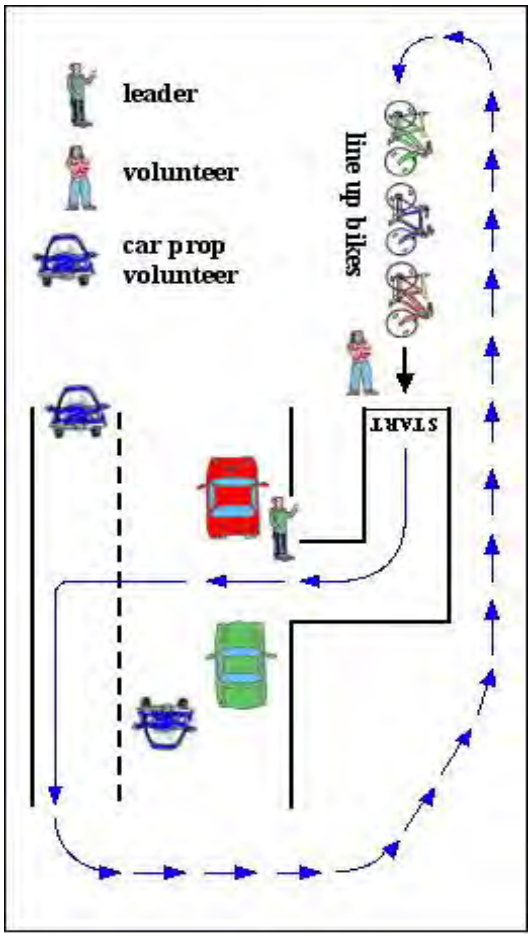
- At the start, help children with helmets but no bikes find partners who will share bikes. Help children without helmets feel included by telling them how important it is to practice coming out of driveways, even if they don't have a bike.
- Then position yourself at the "curb" as in diagram, moving to edge of cars with each child. **Give encouraging and specific pointers**, such as ***"Always look LEFT first, then RIGHT, then LEFT AGAIN until it's safe in both directions."***
  - If a child starts to go across when the coast isn't clear in both directions, gently but firmly bring them back to try again.
  - Encourage the "cars" to challenge the most confident riders, but keep the children moving through quickly.
  - After a child has mastered driveway yielding, focus on his/her pedal position and pushing off quickly.

Note: Hand signals are not used here – cyclists coming out of driveways must yield to vehicles on road.

- Before each group rotates, ask them to always practice this important traffic rule: **Always check for traffic, and yield when other traffic has the right**

of way.

- Have them walk bikes to the next station.



STATION # ___3__ : Driveway Yielding ***VOLUNTEER GUIDE*** *10/05*

Skills this station teaches:

- Checking for cross traffic and waiting until it is safe to turn before entering a roadway.
- Pushing off quickly and smoothly from a stop.

Why do this? Riding out from a driveway or sidewalk without yielding to cross traffic is a major cause of serious bike/car accidents for young cyclists. Practicing quick starts also improves safety.

Instructions for volunteers:

Volunteer at beginning of course (lead volunteer):

- Before event starts, train the other parent volunteers in their roles as cars (see below).
- **As students arrive at this station, assist the station leader in getting the students to line up their bikes up on the arrows in front of the start line**. It's also important to have them put their kickstands down, leave their bikes in line and go stand near the word start. Move quickly down the line to speed up the process. In the first group, almost every child will need guidance, e.g. if they don't have a kickstand, they just lay their bike down flat.
- **As the students start to ride through, you keep the line moving without bunching up at the exit to the street.** Have the next in line ready to go, when the child before them successfully starts across the street, or when the station leader signals.
- **Facilitate sharing of bikes, especially in the first group.** Children who have helmets but not bikes should be paired up with same gender same sized children if at all possible. The best way is for the partners NOT to stand together but separated. Then after the child with the bike goes through, he or she brings the bike to their bikeless partner who is standing 2-3 places back in line. This way both children get their turns, but the line is not slowed down by when the bike is passed back and forth.
- **Help all children without helmets feel included** – they cannot share bikes but tell them it's important that they practice this skill. Make sure they stand in line with everyone else and walk/jog through as if they are riding a bike (hold hands up as if on handlebars). .
- **Be sure students stop safely at end of course, and that they line up out of the way** while waiting their turn.
- **After the first time through, help students practice quick, smooth "power starts".** The key is to have one foot in the "ready" position (about 2 o'clock, slightly forward from straight up), and push down while pushing off with the other foot.

Volunteers with car props (2):

- Stand at designated points with car props. **You are stationary but vary whether there's a "car" coming from your direction or not by either showing or hiding the car** on your prop as the cyclist checks for traffic in both directions when emerging from the driveway.
- First time through, have the car showing at the first look in your direction but
- **Challenge the good cyclists and be gentler with others, but keep the line moving.** Don't make the cyclist look back and forth too many times before the coast is clear.
- **Do not talk to the children as they ride by – you are a car! However, feel free to ham it up with horn sound effects or squealing brakes** to emphasize the consequences when the coast is not clear in your direction!

STATION # __4__ : Intersections, Yielding and Eye Contact

10/05

STATION LEADER GUIDE

What this station teaches: Students will practice how to:

- Yield to traffic that has the right of way at intersections with and without stop signs.
- Proceed into an intersection, even if they have the right of way, ***only*** if certain that they have been seen and cross traffic will yield.

Why this station is important: Cyclist failure to yield right of way at stop signs is one of the main causes of bike/car accidents for children and teenagers. This basic lesson in vehicle right-of-way rules can help children understand why they need to yield, and practice what to do at low-traffic intersections. They also practice using eye contact or hand motions to confirm who goes first.

Station leader instructions:

- **Have students line up their bikes as indicated and quickly come forward to the "START" line on foot.** For the first group, help work out partners for children with helmets but no bikes. Invite any non-riding children to walk through as if on bikes.
- Explain briefly what they'll be learning at this station and why it's important. When **Point out the two streets in this intersection: one with stop signs and the other without stop signs.** A stop sign means not only to stop, but to yield to traffic that has the right of way. **People riding bikes need to follow the same rules about yielding as car drivers do to cross safely.**
- **Quickly *walk* all students through the station with you as a group.** Make sure they stay to the right, where a cyclist would ride. Explain as you go that first they'll be stopping at a stop sign, going across the intersection when it's safe, then coming back around on another street without a stop sign, deciding when it's safe to go and getting back in line.
  - Stop briefly at the first stop sign. **Q: Besides stopping, what else do you have to do at a stop sign? A: You must yield to traffic with the right of way.** This means that any vehicle at the intersection before you gets to go first. Also, point out any cross traffic on the street without a stop sign.
  - Cross when safe, then stop at the beginning of the cross street to point out that coming back, they do not have a stop sign. Q: What should they do differently? Answer: if no traffic is coming, or if the cross traffic is at the stop sign, you don't have to stop. **But, to be safe, even if they have the right of way cyclists should check to be sure that the driver has seen them and is going to yield.** Emphasize making eye contact with the drivers.
- Tell them the best way to learn all this is by practice. Stand by the first stop sign where you can observe them in both directions. Signal when each one should start the course but encourage them to make the decision about when to enter the intersection.

- **Always insist that cyclists make look left, right and left again, making eye contact with drivers before proceeding.** Commend proper yielding. Gently enforce a "one foot down" stop at the stop sign.
- When a child is on the return leg without the stop sign, encourage the cyclists to make eye contact with the drivers at the stop sign or waiting to turn, but proceed without stopping when it's safe. Help them "read" nods and waves if need be.
- When children have gone multiple times, have volunteers challenge the best cyclists, e.g. signaling a left turn on the street without stop signs.

- **At end, before each group rotates, ask them to remember and practice the rules about who goes first at intersections *whenever* they ride their bikes.**

STATION # __4__ : Intersections, Yielding and Eye Contact *10/05*

VOLUNTEER GUIDE

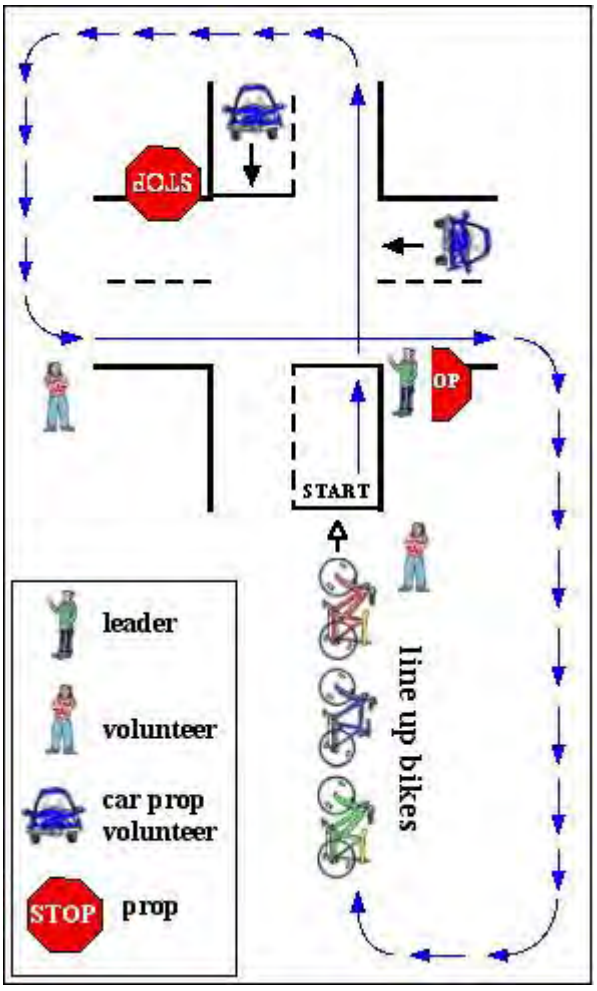
Instructions for volunteers:

Volunteer at beginning of course:

- Start students through and **keep the line moving**. Have the next student start as the previous one starts approaching the intersection on the return leg. Ensure that non-riders walk through as if they were cyclists.
- **Facilitate sharing of bikes, especially in the first group.** Children who have helmets but not bikes should be paired up with same sized (and gender) children willing to share. Partners do not stand together but with 3 students in between. Both children get their turns, passing the bike back and forth.
- **Have students line up on the arrows,** so that those at the head of the line will start where a cyclist would be riding on the street [on the right]. Be sure that the line does not back up onto the end of course.

Volunteer "coach" on the return leg of the course (if available):

- Gently guide the children the first time through, pointing out that they ride all the way across the intersection before getting back in line.
- Remind them that there's no stop sign, so they do not need to stop – but they do need to be sure that the drivers see them and will yield to them.



Volunteers with car props (2):

- Stand at designated points, holding up car props. As cyclists ride through the intersection, walk briskly up the cross street and back on the leg directed, as if you are a slow moving car on a residential street.
- **Help the students learn some basic right of way rules a car driver follows:**
  - At stop signs, both you and the students should yield properly to cross traffic without stop signs and to vehicles arriving at other stop signs first. Do not wave them across when you have the right of way!
  - On the way back, when the students do not have a stop sign, make it easy for them to understand that they have right of way over cross traffic with a stop sign. Wave them on or nod to confirm that they go first and do not have to stop.
- **Communicate with the children as a car driver would: not by talking with them but by making eye contact and waving them through when they have the right of way.** The station leader will be giving the students feedback. You can honk if they proceed when you have the right of way – like a driver would. Sometimes you may pretend to be on your cell phone before making eye contact.

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Appendix E: Potential Funding Sources for California Safe Routes to School Programs

Agency	Funding Program	Link
California Air Resources Board	Congestion Mitigation Air Quality Funds	www.arb.ca.gov/planning/tsaq/cmaq/cmaq.htm
California Department of Public Health	California Kids' Plates Program	www.injurypreventionnetwork.org www.kidsplates.org
California Office of Traffic Safety	Various Grants	www.ots.ca.gov/Grants/Program_Information/default.asp
Caltrans	Bicycle Transportation Account	www.dot.ca.gov/hq/LocalPrograms/bta/btawebPage.htm
Caltrans	Community-Based Transportation Planning	www.dot.ca.gov/hq/tpp/grants.html
Caltrans	Environmental Justice Planning Grants	www.dot.ca.gov/hq/tpp/grants.html
Caltrans	Highway Safety Improvement Program	www.dot.ca.gov/hq/LocalPrograms/hsip.htm
Caltrans	SRTS (Federal) and SR2S (State)	www.dot.ca.gov/hq/LocalPrograms/saferoutes/saferoutes.htm
Federal Highway Administration (FHWA)	Transportation Enhancements Program/ Pedestrian and Bicyclist Safety and Education	www.enhancements.org/Factsheets/TE_2.htm
National Center for Safe Routes to School	SRTS Mini-Grants	www.saferoutesinfo.org
Safe Kids USA Coalitions and Chapters	Walk This Way Grants	www.safekids.org/in-your-area/coalitions
U.S. Environmental Protection Agency	Environmental Education Grants Program	www.epa.gov/ogd/grants/information.htm

Source: California Safe Routes to School Technical Assistance Resource Center. "Potential Funding Sources for California Safe Routes to School Programs." Sacramento 2nd Annual Safe Routes to School 5 Es Conference. 2010.

Appendix F: Safe Routes to School Case Studies

A. Marin County, California

Introduction

Safe Routes to Schools Demonstration Project Final Report was prepared for the National Highway Traffic Safety Administration, on September 27th 2001, to the Marin County Bicycle Coalition. The report explains the objectives of the pilot program and actions that made it possible to achieve them. The objectives are as follows:

- **Objective I:** Getting a higher number of children walking and bicycling to schools, and reducing traffic congestion around school areas by getting a lower number of parents driving their children.
- **Objective II:** Encouraging stakeholders and residents to participate in implementing and educating transportation modes and usage instructions. These programs will increase a child's knowledge of street safety and proper walking and biking methods.
- **Objective III:** Placing "Safe Route to School" paths within 1.2 miles from schools and reducing driving speeds and improving roads, crossings, and trail conditions.

Overview

The pilot program's success in the Fairfax and Mill Valley regions has encouraged other schools to join the program or follow its guidelines. "High visibility crosswalk, additional school warning lights, signage, crossings, accessible ramps, curb extension, and reconfiguration/extension of existing traffic islands" were a few physical improvements that have been built for these areas.[1]

Most of the work was based on volunteer participation and community involvement from both parents and elected officials. Team members gathered children to walk or bike to schools on a weekly basis, attended educational classes related to transportation modes, wrote articles that would inform the community and other stakeholders about the program's progress. Importantly, "a community wide task force" encouraged stakeholders to enhance route conditions through "engineering and enforcement" solutions.

Below is a contact list of all the groups involved in the program:

- Parents from the schools involved in the program
- Neighbors
- Elected officials
- Staff from public works
- Fire and police departments
- City council members
- School and board members
- Parks and recreation community

Educational sessions provided a highly effective learning environment to teach children the rules and regulations regarding street safety and proper bicycle riding methods. Local government and law enforcement implemented appropriate physical and safety policies to help decease vehicle speeds on streets.

1 "Safe Pathways to Schools Projects Funded in 2007," Transportation Authority of Marin, http://www.tam.ca.gov/Modules/ShowDocument.aspx?documentid=3307 (accessed September 28, 2010).

Additionally, the pilot program aimed to provide safe routes for students within a 1.2-mile radius from the school. For this analysis, the class used the spatial analysis tool in GIS. Walking and biking maps have proved valuable to identify the best and safest routes for the students.

Funding Sources

In 1999, State of California's legislators adopted the SR2S program as a part of the state's regular transportation funding. The federal government has also allocated separate funds for safe routes projects. Bruce S. Appleyard, AICP estimated that California would need $240 million to fund needed infrastructure improvements; unfortunately, the state only received $45 million.[2] The Transportation Equity Act for the 21st Century was one federal funding source identified by the Marin County Bicycle Coalition.[3]

Fundraising had a major role in the program's continuation after 2001. Due to funding shortages, many schools that wanted to join the program were only given guidelines to follow and encouraged to continue safe routes planning on their own.
Fairfax and Mill Valley received funds from the following sources:

- Safe Routes to Schools Capital Grant, to make improvements in bicycle and handicapped access;
- Caltrans Pedestrian Enhancement Grant, to improve infrastructure and educate students; and
- California Department of Health Services, to discuss safety.

Solutions

The Transportation Authority of Marin instituted the Streets Smarts Marin Program to help lower travel vehicle speeds and create safer routes in the Marin County.

Secondly in 2000, Safe Kids Worldwide and FedEx Express created the Safe Kids Walk This Way Program to promote safe communities by teaching safe behavior for child pedestrians and motorists. One of the goals is to reduce hazards, especially for the early age groups.
Walk This Way Programs are implemented in every county by a local coalition. Safe Kids Santa Clara Co./San Mateo Co. is the local coalition, and Packard Children's Hospital at Stanford coordinates the program.

Figure 1. Loma Verde Students with the Traffic Transformer (aka SR2S instructor Frances Barbour) and Novato Councilwomen Pat Eklund in Marine County
Source: http://www.saferoutestoschools.org/index.shtml

2 Appleyard, Bruce S, "Planning Safe Routes to Schools." National Highway Traffic Safety Administration. May 2003.
3 Marin County Bicycle Coalition, "Promoting Safe Bicycling for Everyday Transportation and Recreation," http://www.marin-bike.org/Campaigns/SafeRoutes/FinalReport.shtml (accessed on October 12, 2010).

Figure 2. Marin students participate in the 'Go for the Green' spring challenge which encourages travel to and from school via bike, foot, carpool or bus.
Source: http://www.saferoutestoschools.org/GreenWaysToSchool/GoingGreen/Gallery.shtml

Results

The project identified several issues in evaluating the Safe Routes Program. Data analysis was difficult due to incompatible methods of data gathering and varying availability of data collectors during several phases of the project.

Encouraging the students to walk or bike to schools will result in fewer parents driving their children to school and helping to reduce the percentage of private motor vehicle usage overall. The use of public transportation, such as buses, was not urged in this project. While there was nearly a 57% increase in walking, biking and carpooling, there was actually a 17% decrease in bus usage. It was not clear in the report as to why there was not much encouragement in public transit use.

B. Kawana Elementary School, Santa Rosa, California

Introduction

Kawana Elementary School was examined as a case study for Anne Darling Elementary and San José High Academy because all three schools share a few key characteristics:

- All three school neighborhoods express need for improving walking and safety conditions,
- All three are located in suburban, car-oriented settings near major freeways, and
- All three are located in low-income, ethnically diverse areas.

Overview

Kawana Elementary is located in south Santa Rosa, California and serves 616 students, 93% of whom qualify for free and reduced lunch programs.[4] The school is located in an ethnically diverse neighborhood: 74% of students are Hispanic, 15% are White, 4% are Black, and 2% are Asian.[5]

The school has enormous potential for a Safe Routes Program because over 90% of its students live within a 2-mile radius of the school, with 50% of those students living within a half mile.[6] However, the majority of students rides the bus rather than actively commute. This may be because two major freeways (Luther Burbank Memorial Highway and Redwood Highway) intersect the area within that 2-mile school radius (see Figure 1).[7] These two major freeways may contribute to what parents stated as the top two reasons for not letting their children walk to school: traffic safety and crime.[8]

Solutions

Kawana Elementary implemented what is considered to be a "well-rounded Safe Routes to School approach including education, enforcement, and encouragement."[9] This approach included:[10]

- Participating in International Walk to School Day,
- Implementing Walking Wednesdays,
- Implementing Walking School Buses,
- Conducting walkability audits by parents, the school principal, public works officials, and law enforcement officials, and
- Launching educational programs, such as
  - Helmet Safety Day,
  - Bicycle and pedestrian safety assemblies, and
  - Age-specific classroom lessons for grades 3-5.

4 Safe Routes to School National Partnership, "Safe Routes to School: Putting Traffic Safety First: How Safe Routes to Schools Initiatives Protect Children Walking and Bicycling," December 2009, http://www.saferoutespartnership.org/media/file/Safety_report_final.pdf (accessed September 27, 2010).
5 Ibid.
6 Ibid.
7 Google Maps, searched "Kawana Elementary School, Santa Rosa, CA," (accessed December 11, 2010).
8 Safe Routes to School National Partnership, "Safe Routes to School: Putting Traffic Safety First: How Safe Routes to Schools Initiatives Protect Children Walking and Bicycling," December 2009, http://www.saferoutespartnership.org/media/file/Safety_report_final.pdf (accessed September 27, 2010).
9 Ibid.
10 Ibid.

Funding Sources

The Safe Routes to School National Partnership funded the first efforts of Kawana Elementary's Safe Routes Plan by directly funding the Sonoma County Bicycle Coalition, which acts as the Safe Routes coordinator for the school.[11] In 2010, the program received $611,700 in federal funds, which will go towards constructing new sidewalks and making crosswalk and sidewalk safety improvements (specifically to fix cracked sidewalks and improve the crosswalk at one major school drop-off location).[12] Sonoma County Health Department contributed $500,000 to "continue outreach and education at Kawana Elementary and to expand the program to eight other schools for three additional years."[13]

Results

Results were measured by conducting arrival and departure counts, parent surveys, and safety observations in Fall 2008 and Spring 2009 to identify any trends in travel modes to school and perceptions of active transportation. The results suggested the following:[14]

- Improved perceptions from both parents and children of walking to school
- More children used safer behavior when walking to school
- 20% increase of parents who felt their child's school supports active transportation
- 13% increase of parents who felt active transportation was a fun activity for their child
- 63% increase in children who used crosswalks rather than unmarked crossing

Locations

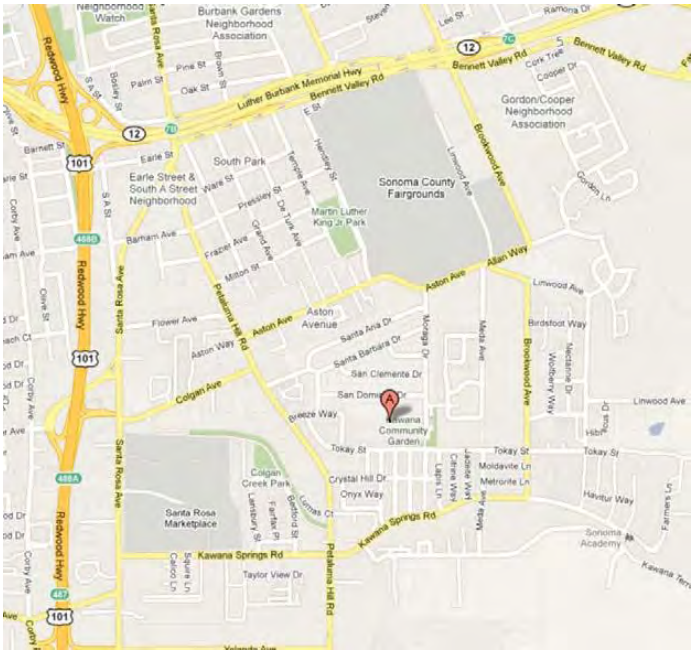


Figure 3. Kawana Elementary School, Santa Rosa, California

11 Safe Routes to School National Partnership, "Safe Routes to School: Putting Traffic Safety First: How Safe Routes to Schools Initiatives Protect Children Walking and Bicycling," December 2009, http://www.saferoutespartnership.org/media/file/Safety_report_final.pdf (accessed September 27, 2010).
12 Ibid.
13 Ibid.
14 Ibid.

C. Miami-Dade County, Florida

Introduction

This case study was chosen because of the purely educational approach used in this very successful SRTS program. This program achieved results without infrastructure changes, and it was able to become a permanent part of the educational system for children in Miami-Dade County.

Overview

Miami-Dade County is located on the southeast coast of Florida, and it has a population of approximately 2.5 million.[15] The county population is 62 percent Hispanic, 19 percent black, and 18 percent white.[16] In 2001, Florida had the fourth highest population in the country, while also having the most pedestrian fatalities.[17] Additionally, Miami-Dade posted the highest number of child pedestrian deaths and injuries.[18]

Solutions

Miami-Dade County formed a task force of community members, traffic engineers, law enforcement, and school personnel.[19] The task force developed the WalkSafe Program, which aimed to improve child pedestrian safety, increase physical activity levels by walking to and from school, and improve walkability around elementary schools.[20]

WalkSafe uses videos, educational curriculum, and workbooks to teach grade-level specific activities to students.[21] The program is taught over a period of three days: Day One is video and classroom discussion, Day Two is an outside simulation of how to safely cross streets, and Day Three concludes with a safety poster contest.[22] The program is now part of the entire Miami-Dade County school curriculum; each year one representative from each school is trained, and that representative then trains the school teachers.[23]

Figure 4. Students participate in walksafe program in Miami Dade County
Source: http://www.saferoutespartnership.org/media/file/Safety_report_final.pdf

15 U.S. Census, "State & County QuickFacts," http://quickfacts.census.gov/qfd/states/12/12086.html (accessed October 27, 2010).
16 Ibid.
17 Safe Routes to School National Partnership, "Safe Routes to School: Putting Traffic Safety First: How Safe Routes to Schools Initiatives Protect Children Walking and Bicycling," December 2009, http://www.saferoutespartnership.org/media/file/Safety_report_final.pdf (accessed September 27, 2010), 10.
18 Ibid.
19 Ibid.
20 Ibid.
21 Ibid.
22 Ibid.
23 Ibid.

Funding Sources

The WalkSafe program has been a part of the school curriculum since 2003.[24]Since 2007, the Florida Department of Transportation has allocated $403,983 of federal funds to help additional schools in Florida develop similar WalkSafe programs.[25]

Results

Since the program began in 2001, there has been a 43 percent decrease in the number of children hit by cars in Miami-Dade County.[26] Additionally, there has been a 66 percent reduction in the overall number of children hit by cars that required trauma care, which suggests a decrease in the severity of accidents as well.[27] Due to the program's success, WalkSafe has been implemented in eleven other Florida counties, and 213 Florida schools having participated during the 2008-2009 academic year.[28]

24 Safe Routes to School National Partnership, "Safe Routes to School: Putting Traffic Safety First: How Safe Routes to Schools Initiatives Protect Children Walking and Bicycling," December 2009, http://www.saferoutespartnership.org/media/file/Safety_report_final.pdf (accessed September 27, 2010), 10.
25 Ibid.
26 Ibid, 11.
27 Ibid.
28 Ibid.

D. Mount Vernon Elementary School, Alexandria, Virginia

Introduction

Mount Vernon Elementary School was selected because of the ethnic diversity of the student population, proximity of students living near the school, and mix of educational and infrastructure projects that comprised the school's Safe Routes to Schools Program.

Overview

Mount Vernon Elementary is located in northern Alexandria, Virginia, a city with a population of approximately 128,000.[29] Of the school's nearly 558 students, 57 percent are Hispanic, 32 percent are black, and 6 percent are Asian. 76 percent of the school is eligible to participate in the free/reduced lunch program.[30] Traffic is an issue at this school, but "scheduling issues were the greatest obstacles to caregivers walking their children to school."[31]

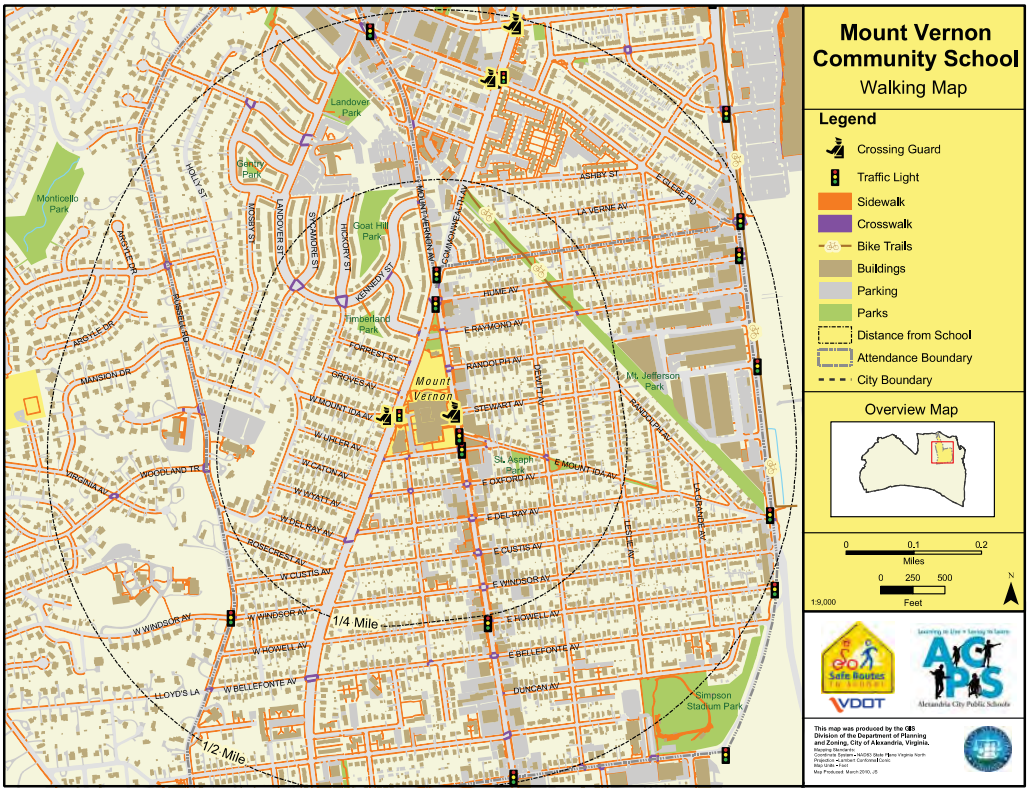
Solutions

The entire student body lives within two miles of Mount Vernon Elementary, 47 percent of which live less than a half-mile away. The school received a mini-grant in June 2009 to provide a bike skills clinic, offer giveaways, generate walking maps, and participate in a Walk and Bike to School Day.[32]

The school implemented a Walking Wednesdays Program and improved infrastructure near the school, including the installation of bicycle lanes, crossing signals, street medians, and bike racks.[33] Educational efforts at the school included a bicycle skills clinic and a special event, Healthy Fun Day.[34]

Figure 5. Children and parents from walking school bus on their way to school
Source: http://www.saferoutesinfo.org/case_studies/pdfs/WA.mountvernon.pdf

29 Jill Cooper and Tracy E. McMillan, "Safe Routes to School Local School Project: A Health Evaluation at 10 Low-Income Schools," Safe Transportation Research & Education Center, 2010, 6.
30 Ibid.
31 Ibid, 18.
32 Ibid, 8.
33 Ibid.
34 Ibid.



Map 1.

Walking map of Mount Vernon community school
Source: http://alexandriava.gov/uploadedFiles/localmotion/info/Mount%20Vernon%20Community.pdf

Funding Sources

Mount Vernon received $5,000 in SRTS state grant funds. The school neighborhood also received a portion of a $2 million budget for citywide traffic safety improvements.[35]

Results

Mount Vernon experienced minimal change in walking rates (about a one percent difference) as a result of this program.[36] However, almost 75 percent of students participated in Walk to School Day, and 200 bike helmets were distributed to students during the bicycle skills clinic.[37]

35 Jill Cooper and Tracy E. McMillan, "Safe Routes to School Local School Project: A Health Evaluation at 10 Low-Income Schools," Safe Transportation Research & Education Center, 2010, 6.
36 Ibid, 21.
37 Safe Routes to School National Partnership, "Safe Routes to School State Network Project: Final Report, 2007-2009," November 2009, 51.

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