



**Santa Cruz County Regional
Transportation Commission's
BICYCLE ADVISORY COMMITTEE**

AGENDA

Monday, October 19, 2015

6:00 pm to 8:30 pm

<p>RTC Office 1523 Pacific Ave Santa Cruz, CA 95060</p>
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1. Call to Order
2. Introductions
3. Announcements – RTC staff
4. Oral communications – members and public

The Committee will receive oral communications during this time on items not on today's agenda. Presentations must be within the jurisdiction of the Committee, and may be limited in time at the discretion of the Chair. Committee members will not take action or respond immediately to any Oral Communications presented, but may choose to follow up at a later time, either individually, or on a subsequent Committee agenda.

5. Additions or deletions to consent and regular agendas

CONSENT AGENDA

All items appearing on the consent agenda are considered to be minor or non-controversial and will be acted upon in one motion if no member of the Committee or public wishes an item be removed and discussed on the regular agenda. Members of the Committee may raise questions, seek clarification or add directions to Consent Agenda items without removing the item from the Consent Agenda as long as no other committee member objects to the change.

6. Accept draft minutes of the August 10, 2015 Bicycle Committee meeting (pages 3-4)
7. Accept summary of Bicycle Hazard reports (page 5-6)

REGULAR AGENDA

8. Planned Projects on Highway 9 – Presentation from Doug Hessing, Caltrans Project Manager (pages 7-8)

9. Highway 1 Rumble Strip Project – Discussion (emails to Commissioner Coonerty and Caltrans on problem areas as reported by Jim Langley: pages 9-17)
10. Silicon Valley Bicycle Coalition Bicycle Summit and Vision Zero Report – Amelia Conlen and Melissa Ott, Bicycle Advisory Committee members (Vision Zero presentation and Tool Kit: pages 18-70)
11. Monterey Bay Sanctuary Scenic Trail/Coastal Rail Trail update – Presentation from Cory Caletti, RTC Senior Transportation Planner (page 71-72)
12. Member updates related to Committee functions
13. Adjourn

NEXT MEETING: The next Bicycle Committee meeting is scheduled for Monday, December 14, 2015 from 6:00pm to 8:30pm at the RTC office, 1523 Pacific Ave, Santa Cruz, CA.

HOW TO REACH US

*Santa Cruz County Regional Transportation Commission
1523 Pacific Avenue, Santa Cruz, CA 95060
phone: (831) 460-3200 / fax (831) 460-3215
email: info@sccrtc.org / website: www.sccrtc.org*

AGENDAS ONLINE

To receive email notification when the Bicycle Committee meeting agenda packets are posted on our website, please call (831) 460-3201 or email ccaletti@sccrtc.org to subscribe.

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Si gusta estar presente o participar en esta junta de la Comisión Regional de Transporte del condado de Santa Cruz y necesita información o servicios de traducción al español por favor llame por lo menos con tres días laborables de anticipo al (831) 460-3200 para hacer los arreglos necesarios. (Spanish language translation is available on an as needed basis. Please make advance arrangements (at least three days in advance by calling (831) 460-3200.

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**Santa Cruz County Regional
Transportation Commission's**

BICYCLE ADVISORY COMMITTEE

Minutes - Draft

**Monday, August 10, 2015
6:00 p.m. to 8:30 pm**

**RTC Office
1523 Pacific Ave
Santa Cruz, CA 95060**

1. Call to Order: 6 pm
2. Introductions

Members Present:

Kem Akol, District 1
David Casterson, District 2, Chair
Peter Scott, District 3
Will Menchine, District 3 (Alt.)
Melissa Ott, City of Santa Cruz
Andy Ward, City of Capitola
Daniel Kostelec, City of Capitola (Alt.)
Gary Milburn, City of Scotts Valley (Alt.)
Leo Jed, CTSC, Vice-Chair
Emily Glanville, Ecology Action/Bike to Work

Staff:

Cory Caletti, Sr Transportation Planner

Vacancies:

District 4 and 5 – Alternates
City of Watsonville – Alternate

Unexcused Absences:

Excused Absences:

Holly Tyler, District 1 (Alt.)
Jim Cook, District 2 (Alt.)
Rick Hyman, District 5
Myrna Sherman, City of Watsonville
Piet Canin, Ecology Action/Bike-to-Work (Alt.)
Jim Langley, CTSC (Alt.)
Amelia Conlen, District 4
Bill Fieberling, City of Santa Cruz (Alt.)
Lex Rau, City of Scotts Valley

Guests:

Eric Friedrich, Santa Cruz METRO Transit District
Senior Transportation Planner
Claire Fliesler – City of Santa Cruz Transportation
Planner
Marty Demare – Member of the Public

3. Announcements – Cory Caletti provided information regarding final award of a Federal Lands Access Program grant for a north coast rail trail project, and a brief summary of the quantity of surveys and comments received on the Draft Rail Feasibility Study.
4. Oral communications – Marty Demur, a member of the public, commented on the value of electric bikes, the need for more charging stations for electric bikes and asked for recommendations on which agencies he should contact to request more recharging stations. Emily Glanville provided flyers for a planned FORT fundraiser. Kem Akol announced an upcoming public meeting regarding

the Harbor's parking study. An update was provided on the Highway 1 resurfacing and rumble strip installation project.

5. Additions or deletions to consent and regular agendas – None

CONSENT AGENDA

A motion (Jed/Ward) to approve the consent agenda passed unanimously with members Akol, Casterson, Scott, Ott, Ward, Milburn, Jed and Glanville voting in favor. No votes were cast in opposition.

6. Accepted draft minutes of the June 8, 2015 Bicycle Advisory Committee meeting
7. Accepted summary of Bicycle Hazard reports
8. Accepted letter from the Bicycle Advisory Committee to Caltrans in support of the City of Santa Cruz Bay Street Bicycle and Pedestrian Safety Project grant application
9. Accepted letter from the Bicycle Advisory Committee to the RTC requesting that the RTC develop a Santa Cruz Yacht Harbor Transportation Plan
10. Accepted letter from the Bicycle Advisory Committee to the RTC requesting a celebratory event honoring the Committee's 40th year anniversary

REGULAR AGENDA

11. City of Santa Cruz Active Transportation Plan (ATP) development – Claire Fliesler, City of Santa Cruz Transportation Planner, summarized the City's development of an ATP, completion schedule and upcoming public workshops. She also asked Committee members for ideas regarding priority projects and indicated that she would return at a future meeting with a draft list once that's been compiled.
12. Watsonville Transit Center redesign – Erich R. Friedrich, Santa Cruz METRO Senior Transportation Planner, presented plans for a redesign of the Transit Center in Watsonville and shared a video of 3 different renderings. He indicated that one of the three options will be presented to the METRO board in September.
13. Updates related to Committee functions – Claire Fliesler indicated that the City of Santa Cruz is reapplying for a Bicycle Friendly Community designation from the League of American Bicyclists (LAB). The City had previously received a silver level designation which expired in 2010. Bike Santa Cruz County is taking the lead in compiling the application with assistance from a number of volunteers. RTC staff will serve as one of LAB's reviewers.
14. Adjourned – 8:03 p.m.

NEXT MEETING: The next Bicycle Committee meeting is scheduled for **Monday, October 19, 2015**, from 6:00 pm to 8:30 pm at the RTC office, 1523 Pacific Ave, Santa Cruz, CA.

Minutes respectfully prepared and submitted by:

Cory Caletti, Senior Transportation Planner

Date	First Name	Last Name	Contact Info	Location	Cross Street	City	Category	Additional Comments	Forwarded To	Forwarded Date	Response	Images
10/08/15	Peter	Meyer	peter_meyer@me.com	Glenwood Dr		Scotts Valley	rough pavement or potholes	rider states potholes on downhill side of road above high school and below san hill dr. heading towards high from sand hill there are two potholes with sharp edges, can cause pinch flats on tires.	General Dept of Co of SC	10/08/15		
09/30/15	Peter	Stanger	pj@rattlebrain.com	Bonita Dr	San Andreas Rd	Santa Cruz County	plant overgrowth or interference	rider states 30 mph sign obscured by limb of oak tree. Another sign vandalized.	General Dept of Co of SC	10/01/15		
09/30/15	Peter	Stanger	pj@rattlebrain.com	San Andreas Rd	Seascape Blvd	Santa Cruz County	plant overgrowth or interference, debris on shoulder or bikeway	rider states san andreas before seascape has dirt covering asphalt most of bike lane width. Brush and vegetation intruding into bike lane causing cyclist to enter vehicle lane.	General Dept of Co of SC	10/01/15		
09/29/15	Sarah	Reed	sarah.dwiggins@gmail.com	Soquel Ave	Riverside Ave	Santa Cruz	not supplied	rider states brickwork in bike lane is damaged directly next to drain cover creating rough uneven spot that causes bike to wobble while riding over it. cannot be avoided due to drain in bike lane	Cheryl Schmitt	09/30/15	From Cheryl - Forwarded to Streets Maintenance. - 09/30/15	
09/22/15	Trician	Comings	trainstripes@comcast.net	Broadway	Riverside Ave	Santa Cruz	not supplied	rider states cars going east on broadway come around curve by dog park, they go into bike lane at s/e corner of this intersection. Very dangerous, fatal accident waiting to happen	Cheryl Schmitt	09/22/15	From Cheryl - Forwarded to Traffic Engineering. - 09/22/15	
09/18/15	Jan	Ledoux	janfun002@gmail.com	Center St	New St	Santa Cruz	hazardous drain grate	rider states drainage ditch turning right from new st onto center st. - on 9/23 Ms. Ledoux corrected the information to read that the hazard is at Center (cross street Elm) and a second is on Center (cross street Lincoln).	Cheryl Schmitt	09/21/15	From Cheryl - I did not find any drainage inlets at the intersection of Center and New. - 09/23/15 - Forwarded to Storm Water Engineer Steve Wolfman. - 09/24/15	Bicycle Hazard Downloaded Images\2015\September\150918-CenterSt-ElmSt.jpg
09/17/15	not supplied	not supplied	dvbetty@yahoo.com	West Cliff Dr	Fair Ave	Santa Cruz	debris on shoulder or bikeway	rider states glass and tail lights in road	Cheryl Schmitt	09/17/15	From Cheryl - Forwarded to Street Sweeping. 09/17/15	
09/13/15	Philip	Boutelle	philboutelle@gmail.com	Hall St	Seabright Ave	Santa Cruz	pothole	rider states pothole on our bike route to school	Cheryl Schmitt	09/14/15	From Cheryl - Forwarded to Streets Maintenance. - 09/14/15	Bicycle Hazard Downloaded Images\2015\September\150913-HallSt-SeabrightAve.jpg
09/09/15	David	Foster	abikepilot@gmail.com	Water St	Ocean St	Santa Cruz	not supplied	rider states intersection @ ocean-potholes and cracks in bike lane that could catch a bike wheel and cause cyclist to crash. To avoid holes/cracks cyclists must move into vehicle path or move into crosswalk.	Cheryl Schmitt	09/09/15	From Cheryl - Forwarded to Streets Maintenance. - 09/09/15	Bicycle Hazard Downloaded Images\2015\September\150909-WaterSt-OceanSt.jpg
09/09/15	not supplied	not supplied	Pmfulton8@netscape.net	Beach St	Beach St	Santa Cruz	not supplied	rider states garbage dumpster blocking both lanes of bike traffic forcing cyclist to blindly swerve into oncoming traffic. This establishment repeatedly blocks the bike lane in increasingly obnoxious way.	Cheryl Schmitt	09/09/15	From Cheryl - Forwarded to Sanitation. - 09/09/15	Bicycle Hazard Downloaded Images\2015\September\150909-BeachSt.jpg
08/27/15	Thomas	Brandow	tom.brandow@gmail.com	High St	Bay Dr	Santa Cruz	not supplied	rider states looks like a sink hole, made me lose control	Cheryl Schmitt	08/31/15	From Cheryl - Forwarded to Streets Maintenance. - 08/31/15	

Date	First Name	Last Name	Contact Info	Location	Cross Street	City	Category	Additional Comments	Forwarded To	Forwarded Date	Response	Images
08/20/15	Pureheart	Steinbruner	env071@co.santa-cruz.ca.us	Commercial Crossing & Aptos Rancho Rd	Soquel Dr	Santa Cruz County	traffic signal problem	rider states lights at aptos rancho rd and commercial crossing in soquel have begun to turn red with no waiting cross traffic affecting travel on Soquel Dr. ped signals do not appear to be involved	General Dept of Co of SC	08/21/15		
08/16/15	Orry	Korb	8314761044	Seabright	Windsor-Broadway	Santa Cruz	not supplied	rider states pavement is steeply raised by a tree root at least 2 inches and caused me to loose control of my bike	Cheryl Schmitt	08/17/15	From Cheryl - Forwarded to Streets Maintenance. - 08/16/15	

TO: Bicycle Committee

FROM: Doug Hessing, Project Manager, Caltrans

RE: Planned Projects on Highway 9

DATE: October 19, 2015

RECOMMENDATION

Receive information from Caltrans District 5 Project Management and about four planned projects on Highway 9, and provide preliminary input.

DISCUSSION

Four Highway 9 projects are in the early phases of project development, ranging from project initiation to environmental document development. Additional information and project details are listed in Table 1. These projects are included in the State Highway Operation and Protection Program (SHOPP), which includes projects addressing collision reduction, restoring damaged roadways, bridge preservation, roadway preservation, roadside preservation, mobility enhancement, and preservation of other transportation facilities related to the state highway system.

While the purposes and needs for these projects are not directly related to bicycle mobility, Caltrans Project Management is collecting input from the Santa Cruz bicycling community to explore potential provisions that could be incorporated into these projects to accommodate all users.

BACKGROUND

In 1998, Caltrans established a Rumble Strip Task Force to evaluate rumble strip treatments that could be safely traversed by bicyclists and provide adequate warning to errant drivers. This evaluation resulted in new standard plans to make rumble strips more accommodating for bicyclists and traversable with little discomfort or control issues. The rumble strip policy was updated in 2011 to provide a design that gives additional shoulder area for cyclists and other users. District 5 staff attended the April, 2012 Bicycle Committee meeting to provide a complete overview on the purpose, history, and design of rumble strips. For more information, refer to these documents via the links listed below:

Rumble Strip Study and Evaluation:
<http://www.dot.ca.gov/dist05/traffic/rsreport01.pdf>

Caltrans 2011 Rumble Strip Policy:
<http://www.dot.ca.gov/dist05/traffic/rspoldir.pdf>

SUMMARY

Caltrans Project Management is beginning early stakeholder engagement for four Highway 9 projects.

PROJECTS IN DEVELOPMENT										
	Project	Location	Description	Construction Timeline	Construction Cost	Funding Source	Implementing Agency	Project Manager	Contractor	Comments
1.	Hwy. 9 Center Rumble and Guardrails (05-1C650)	In Castle Rock State Park from 5.0 miles to 3.0 miles south of SR 35	Guardrail, shoulder paving, and centerline rumble strips	2018	\$7.7 Million	SHOPP	CT	Doug Hessing	TBD	Current Phase: Project Approval and Environmental Document.
2.	Hwy. 9 South Drainage and Erosion Control Improvements (05-1F920)	From SR 1 to 0.4 miles north of Glen Arbor Rd	Drainage system upgrades (install and repair) and slope stabilization at inlets/outlets	2020	\$1.4 Million	SHOPP	CT	Doug Hessing	TBD	Current Phase: Project Initiation Document, scheduled for completion 6/30/16. 2016 SHOPP Candidate.
3.	Hwy. 9 Central Drainage and Erosion Control Improvements (05-1G950)	From Holiday Ln, just south of Ben Lomond, to SR 236 in Boulder Creek	Drainage system upgrades (install and repair) and slope stabilization at inlets/outlets	2021	TBD	SHOPP	CT	Doug Hessing	TBD	Current Phase: Project Initiation Document, scheduled for completion 6/30/16. 2018 SHOPP Candidate.
4.	Hwy. 9 North Drainage and Erosion Control Improvements (05-1G940)	From SR 236 in Boulder Creek to 3.1 miles north of SR 236	Drainage system upgrades (install and repair) and slope stabilization at inlets/outlets	2021	TBD	SHOPP	CT	Doug Hessing	TBD	Current Phase: Project Initiation Document, scheduled for completion 6/30/16. 2018 SHOPP Candidate.

From: [Leo Jed](#)
To: ["Hessing, Douglas P@DOT"](#)
Cc: ["Mcclintic, Paul@DOT"](#); ["Wilson, Jennifer A@DOT"](#); [Dussell, Pat W@DOT](#); ["Cruz, Susana@DOT"](#); ["Jones, Colin@DOT"](#); [Adam Fukushima](#); [Cory Caletti](#); ["Aileen Loe"](#); [dario_senor@dot.ca.gov](#); [gracevoss@sbcglobal.net](#); ["Maura Noel"](#); ["Jim Langley"](#); ["David Bruce Casterson"](#); ["Lilly Ann Popken"](#)
Subject: FW: Highway 1 North and South Santa Cruz rumble strip concerns and recommendations
Date: Friday, October 09, 2015 1:46:15 PM

Doug and interested Parties,
Santa Cruz's Highway 1 overlay and rumble strip (RS) project is nearly complete and many Santa Cruz bicyclists have now cycled Hwy 1. I have heard many comments and am providing several here. The e-mail below from Jim Langley presents his experience and recommendations.

Linear Options, CT's subcontractor to Granite Construction, seems to have erred and placed the white edge line along the RS's shoulder side, instead of on top of the RS, along most of the RS alignment. Comments received from many cyclists state they prefer this 'as is' condition to the original design.

The shoulder width along several stretches of RS alignment, with and without guardrail, are less than 5 feet. There are also several locations where the RS's placement is potentially hazardous to cyclists and Jim reviews many of these below.

The shoulder backing, in most locations is fairly loose, that is inadequately compacted, thereby can easily cause cyclists to crash when either straying onto the dirt or attempting to stop off the asphalt shoulder.

I'll talk to Cory to schedule a time when RTC's bicycle committee members can discuss these and other concerns with you and others from CT. In the interim, please join Jim and I on a short bicycle ride for a firsthand experience of these issues.

Looking forward to hearing from you.

Thank you,
Leo Jed

From: Jim Langley [mailto:jim@jimlangley.net]
Sent: Tuesday, October 06, 2015 2:51 PM
To: 'Leo Jed'
Subject: Highway 1 North and South Santa Cruz rumble strip concerns and recommendations

Hello Leo,
Here is my report on the rumble strips installation, including a few photos showing hazards to cyclists that would ideally be fixed/repaired/addressed:

Please note that below I provide the closest mile markers I could find to each problem location and used "onward" or gave an approximate distance for the problem spot.

First, I want to start by stating that there are 2 new safety hazards caused wherever rumble strips are installed the way they have been on Highway 1.

1) Oversize RVs (often driven by senior retired folks) and tour busses, frequent Hwy 1. Right away, I noticed that some of these oversize vehicles refuse to move left for fear of hitting the center rumble strips. Instead they come perilously close to me on my bike. This was never an issue before rumble strips. Any safe driver could move over and not

From: [Jim Langley](#)
To: ryan.coonerty@santacruzcounty.us
Cc: [Cory Caletti](#)
Subject: Highway 1 North and South Santa Cruz rumble strip concerns and recommendations
Date: Wednesday, October 07, 2015 10:31:49 AM

Dear Supervisor Coonerty,

As a lifelong cyclist, west-side Santa Cruzan for 33 years, and long-serving Community Traffic Safety Coalition and Regional Transportation Dept.'s Bike Committee member, I – and many other local cyclists, bike clubs and even national cycling organizations, tried unsuccessfully to persuade Caltrans NOT to install rumble strips on Highway 1 north/south from before Wilder Ranch past 4-mile beach.

This wide effort took place back in 2012. As you know, Highway 1 is part of a major bicycle touring route that's been widely used since the 1970s, plus it's the site of lots of huge cycling events, such as the Diabetes and AIDS rides. In fact, it's now an official Ironman course – a huge honor for our community. These things made it an amazing disconnect that Caltrans would even consider installing such a hazard to cyclists out there.

Yet, even though a huge standing-room-only crowd of determined-to-stop-it cyclists met with Caltrans explaining the known dangers of rumble strips, and though letters were sent from across the country and there was almost zero support from cyclists and cycling groups, this August and September, Caltrans put the rumble strips in. Today, they're finishing the work on the drainage grates, but for all intents and purposes, the rumble strips are installed and that stretch of Hwy 1 may never be the same again.

Going back to the meetings that were held and communications between the RTC (I've cc'd Cory Caletti) and Caltrans, they told us that they would only install rumble strips where there was enough room for them on the road. Unfortunately, in multiple areas where the rumble strips have been installed, the road is too narrow for them and the rumble strips are now endangering cyclists. Since Caltrans agreed to only install them where there was ample shoulder width, I measured the shoulder width and identified the danger zones created by the rumble strips.

To help Caltrans make now-essential safety repairs, either widening the shoulder, repairing the road or removing the rumble strips, I prepared the photos attached and the email below (with the photos pasted in this email, too) so that Caltrans and others can see the issues (the report below is being sent to Caltrans, too). I identify the mile markers where the danger zones are and describe the risks created. These risks were clearly explained to Caltrans back in 2012 as things to avoid doing if they insisted on installing the rumble strips, in fact.

I am sending this to you so that you know about these dangerous conditions created by Caltrans' faulty installation of rumble strips in the areas detailed in this email. We hope that no one gets killed on Highway 1 from hitting the rumble strips, wobbling and losing control of their bike and swerving into traffic. We hope Caltrans will immediately follow our suggestions and make the needed repairs or remove the rumble strips in these danger zones. We're concerned they will ignore us again, so I am sending this to you hoping that by doing that, we might have your support.

Thanks very much. Please let me know if you have any questions,
Jim Langley
239 Sheldon Ave.
Santa Cruz, CA 95060
cell 831 713 7702

Here is my report on the rumble strips installation, including a few photos showing hazards to cyclists that would ideally be fixed/repaired/addressed immediately:

Please note that below I provide the closest mile markers I could find to each problem location and used "onward" or gave an approximate distance for the problem spot.

First, I want to start by stating that there are 2 new safety hazards caused wherever rumble strips are installed the way they have been on Highway 1.

1) Oversize RVs (often driven by senior retired folks) and tour busses, frequent Hwy 1. Right away, I noticed that some of these oversize vehicles refuse to move left for fear of hitting the center rumble strips. Instead they come perilously close to me on my bike. This was never an issue before rumble strips. Any safe driver could move over and not worry about hitting anything in the middle of the road.

2) Safer drivers in normal vehicles are sometimes now crossing the center rumble strips to give more room, which is nice. **HOWEVER**, recently the rumble strips knocked the hubcap off one of these cars and it rocketed past me at 50mph!! So, rumble strips are even more dangerous than we already knew. Think about gravel trucks or logging or firewood/agricultural, etc. and what might be thrown at cyclists from these vehicles should they hit the rumble strips. Not safe.

PROBLEM AREAS

HEADING NORTH/TOWARD DAVENPORT (2 PHOTOS of the same problem area are below) **THERE IS ONLY ONE PROBLEM AREA I FOUND HEADING NORTH.**

Just past mile marker 23.35 and onward about ¼ mile, the shoulder is quite a bit too narrow and yet the rumble strip has been installed there. It doesn't seem like there should be a rumble strip here. The hillside is crumbling and falling down here leaving sand and gravel in this already too narrow spot.

Removing the rumble strip or removing the dirt hill would seem to be the best solution here to widen the shoulder to a safe width. As is, the rumble strip should not have been installed here.

PHOTO 1: The rumble strip begins ahead of the orange-covered grate shown. This long view shows how the white line pushes cyclists over, crowding them toward the dirt/gravel on the road right where the rumble strip begins. In this area, the shoulder width without dirt/gravel is down to 2 feet in places. Dangerous for cyclists. Cars move over to let faster cars pass. Cyclists need more room. The rumble strips add a hazard that wasn't there before, now meaning one more thing cyclists might hit and lose control. As I said above, the best solution may be to remove the rumble strips, or the hillside or send road-sweeping machines out there weekly to keep it safe by cleaning and widening it. The key thing is to make it wider and keep it clean of gravel/dirt.



PHOTO 2 of the same area/mile marker: This shows how narrow it is where the rumble strip begins, actually about 2 feet. The rumble strip should be removed here or the shoulder should be widened significantly for safety for cyclists. Notice again how the white line veers to the right a little further along. Removing the hillside would be a possible solution.



HEADING SOUTH/TOWARD SANTA CRUZ (multiple problem areas that need fixing)

At mile marker 24 and onward for about 1/4 mile there are spots where the distance from the rumble strip to the edge of the road is less than 4.5 feet. With the guardrail endangering cyclists on the right (it's closer to the cyclist than the edge of the road is because the guardrail leans and bulges toward the cyclist), and the rumble strip too close on the left, and cars accelerating to pass other cars, this area has become more dangerous than ever. If you hit the rumble strip you could lose control and if you swerve to not go into traffic you hit the guardrail and get thrown into traffic. This has made these passing zones way more dangerous for cyclists.

PHOTO: It was too dangerous to try to lay down a tape measure [for a photo that shows](#) it's too narrow in spots. Caltrans needs to [measure it](#) along all the passing lane areas where rumbles strips were installed going south. They will see that along these sections the rumble strips are too close to cyclists in places and should be moved over or removed (I don't think it's possible to remove the guardrails but that would surely make it safer by providing a safe exit route). Please note – and the photo shows this – that the guardrails lean in toward the cyclist here crowding them even more. For safety, the distance to measure would be from the closest part of the guardrail to the center of the rumble strip. It's too narrow for safety for cyclists. Removing the rumble strips would make it safe

again because it would remove that hazard on the left of the cyclist.



At mile marker 23.70, the shoulder is too narrow, there's constantly dirt on the road making cyclists move left to miss it, and the rumble strip starts shortly after this mile marker. The rumble strips are too close as a result.

PHOTO: The issue seems to be that cars are now driving up the dirt embankment to park. This was always a hill, never meant for driving over. The cars are making it into a driveway and the road now is full of dirt/gravel here all the time. Either the rumble strip needs to be removed or the dirt needs to be removed to widen the shoulder. But, somehow the erosion from cars driving over it, has to be addressed if the rumble strip is to remain. [This is an obvious problem that Caltrans should have seen and realized not to install the rumble strips here.](#)



Mile marker 22.47 onward for ¼ mile. This is the same issue explained for mile marker 24. Measure the width of the shoulder along this section and you will find that it is not a constant width, sometimes becoming nearly 4 feet and forcing cyclists to ride too close to the guardrail or the cars. It's not safe [having hazards and both sides of the cyclist](#).

PHOTO: As I wrote for the other section at mile marker 24, the guardrails are part of the problem here. They are not always vertically placed, or perhaps they lean toward the curve over time. In any case, the guardrails crowd the cyclists and add more danger by effectively reducing the shoulder width. The rumble strips should not have been installed along these passing lane sections. If you hit the rumble strip or the guardrail it can cause veering into traffic and getting hit and killed. Like the other section, if the rumble strip stays the guardrail should go so that cyclists have a safe way to exit dangerous situations. [Putting two hazards placed side by side forces cyclists to have to "thread the needle," which is not so easy.](#)



Mile marker 21.74, just past the entrance driveway to Wilder Ranch. (NO PHOTO)

The way the rumble strip begins here is inconsistent with how it has been placed all along Hwy 1 North and South. It starts closer to the shoulder and then curves out toward the traffic lane. This creates a risk of hitting it for cyclists. Ideally, it would be a straight beginning to the rumble strip as it is everywhere else. As you ride down the hill to this area, you can approach 40 mph on a bicycle [without even pedals](#). You shouldn't have to swerve to miss a rumble strip suddenly in your path. You don't expect it to have a crooked alignment since it hasn't been like that anywhere else.

Mile markers 21.61 to 21.51 (approximate). This is the entire stretch beside the defacto parking lot for Wilder Ranch State Park. (NO PHOTO) This is a super busy stretch of road. Cars pull in and out constantly to park and leave or just to move to a better spot. People ride bikes around testing the adjustments before hitting the trails [since they just took it off the rack on their car and had to put the wheel back on, etc.](#) Walkers, hikers and [even the occasional horse rider](#) walk around as there is a trailhead heading to the right into Wilder Ranch trails and across Highway 1 and up the embankment to the trails that head uphill and away from the ocean. So cars and people cross the road regularly.

In this area, cyclists riding south toward Santa Cruz must be very careful to avoid the

cars pulling in and out and all the other hazards from pedestrians and mountain bikers unloading their bikes and checking them out riding around.

By putting rumble strips along this section, it forces through cyclists to have to veer across the rumble strips to avoid cars and other traffic in this area that force cyclists to move left to avoid accidents. For safety, rumble strips should be removed in this area. It would also be wise to change the speed limit here and right along into Santa Cruz to a safer and saner 25mph. It's just way too dangerous an area now since it's become recreation-central for so many users 24/7 365.

Submitted 10/6/2015 by Jim Langley, CTSC [831-713-7702](#)
[end]

SILICON VALLEY
BICYCLE
COALITION



Adopting Vision Zero

A toolkit for cities who want to
promote roadway safety



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Vision Zero =
zero deaths or
major injuries on
our roadways

History of Vision Zero

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1997: Sweden
introduces Vision
Zero policy with
2020 goal

2011: SVBC
launches Vision
Zero initiative

2014: New York
City and San
Francisco debut
Vision Zero plans

2015: Launch of
Vision Zero
Network; Your City
adopts Vision Zero

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Why now?

- United States Department of Transportation “Mayor’s Challenge for Safer People, Safer Streets”
- Proposed Federal Vision Zero Act of 2015
- Vision Zero San José, Vision Zero policy in San Mateo
- SVBC responding to numerous requests for implementation assistance

Why Vision Zero? Safety

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	Population (2010)	Walking Trips (2012)	Pedestrians Injured and Killed (2012)	Biking Trips (2012)	Bicyclists Injured and Killed (2012)	Total Fatal or Injury Collisions
San Mateo County	718,451	2.6%	256	1.3%	244	3,428
Santa Clara County	1,781,642	2.1%	577	1.7%	746	8,829

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California Walks

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Mission

California Walks is the statewide voice for pedestrian safety & healthy, walkable communities for people of all ages and abilities.

Vision

Walking in every California community is safe, convenient & accessible, and transportation investments prioritize the creation of vibrant, healthy, equitable, sustainable, safe & walkable places with complete streets.





Vision Zero Toolkit basics

- The Essentials, adding Engagement and Equity to involve and empower partner organizations and underrepresented communities
- 5 “E’s”: Evaluation and Planning, Engineering, Enforcement, Education, Encouragement
- Short-, mid-, and long-term tactics



The Essentials

1. Adopt a Vision Zero policy
2. Develop a Vision Zero implementation plan



The Essentials: Equity and Engagement

- Build community-driven coalitions
- Incorporate equity goals and policies into plans
- Make planning and street design approachable

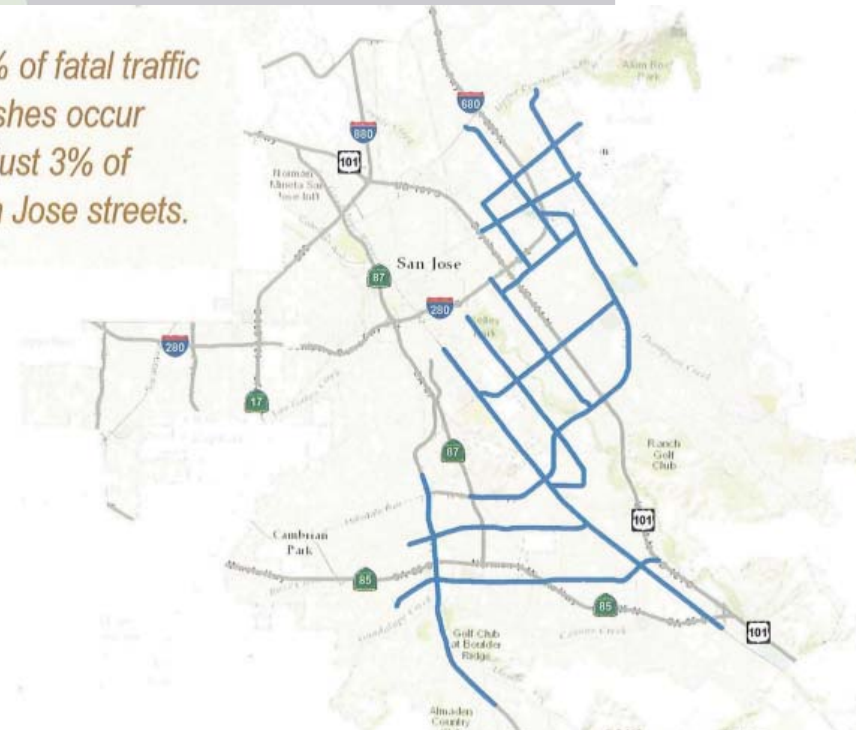
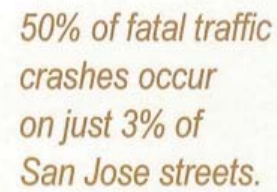




Evaluation and Planning



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Engineering

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PATIO



Ocean Park Blvd, Santa Monica, CA
Photo Credit: Santa Monica Spoke

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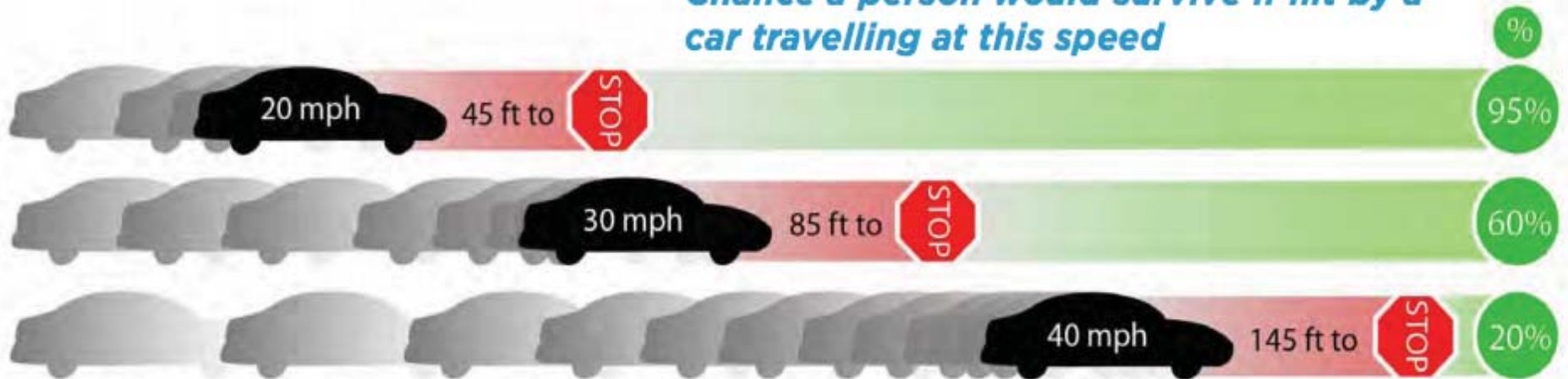
Enforcement

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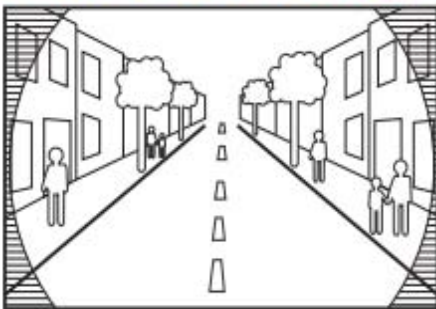


California Walks
Stepping Up for Health, Equity, & Sustainability

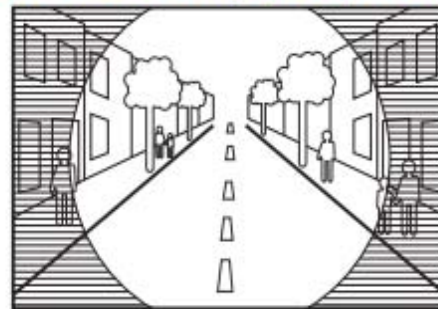
Chance a person would survive if hit by a car travelling at this speed



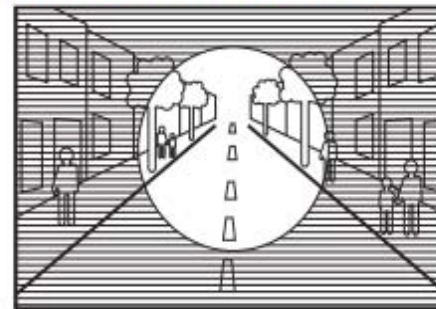
Tunnel Vision: as speed increases, peripheral vision decreases.



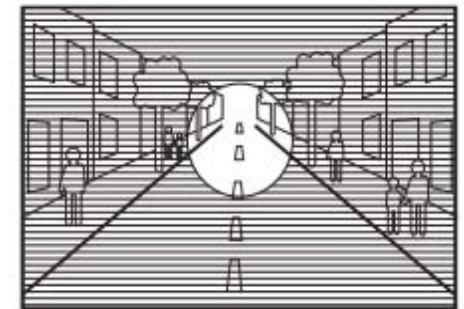
10-15 MPH



20-30 MPH



30-40 MPH



45+ MPH

Education

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BIKE CLUB



**STREET
SMART**
BeStreetSmart.net

**Pedestrians don't
come with airbags.**

Yield to pedestrians when turning.



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Encouragement





How: Local Advocates

- Environmental organizations
- Neighborhood organizations
- Health organizations
- Cultural groups
- Volunteer organizations
- SVBC and CalWalks!



Questions?

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I. ACKNOWLEDGMENTS

This Toolkit would not be possible without the years of work put in by the Roadway Safety Solutions Team and its stakeholders, including co-leader Stanford Health Care. In particular, we thank the Steering Committee members: Corinne Winter, Ellen Corman, Cindy Welton, Ariadne Delon Scott, Lucy Wicks, Menlo Park Councilmember Kirsten Keith, Jessica Manzi, Joe LoCoco, CHP Commander Mike Maskarich, and Menlo Park Police Department Commander Dave Bertini.

Silicon Valley Bicycle Coalition and California Walks would like to thank Daly City Councilmember Michael Guingona for the initial inspiration for this document.

We would also like to thank the following individuals and organizations that provided valuable feedback on drafts of the Vision Zero Toolkit:

- Ellen Barton, San Mateo County Office of Sustainability and City and County Association of Governments for San Mateo County
- Ken Chin, City of San Mateo
- Jessica Osborne, San Mateo County Health System
- Susan Stuart, Santa Clara County Public Health Department
- Leah Shahum, Vision Zero Network
- Beth Thomas, California Department of Transportation (Caltrans) District 4

A very special thanks to Angela Chih for graphic design services.

II. INTRODUCTION & EXECUTIVE SUMMARY

Vision Zero seeks the elimination of deaths and serious injuries from our roadways. Sweden was the first country to introduce such a policy, when in 1997 its parliament approved a policy to halve deaths and severe injuries by 2020 and bring them to zero by 2050. Since 1997, Sweden and other European countries practicing Vision Zero have been able to reduce their traffic fatalities by almost 50%.

At its core, Vision Zero is the straightforward goal of zero traffic-related deaths and severe injuries. However, achieving Vision Zero requires a fundamental paradigm shift in how our culture views traffic collisions—we must affirm the fact that every roadway death and life-altering injury is preventable. By focusing on preventing severe collisions by examining the main causes and locations in a data-driven and systematic manner, communities can achieve real results and save lives. With vehicle collisions remaining among the leading causes of death worldwide,¹ Vision Zero applies to all roadway users, traffic collision injuries, and traffic-related deaths. That said, it is especially important to protect our vulnerable users, including people walking, people with disabilities, people using skateboards, scooters, electric assist vehicles, people riding bicycles, and those using other mobility devices.

The Office of Traffic Safety and the American Community Survey show the following rates of transportation mode, traffic injury, and fatality: ^{2,3}

	Population (2010)	Walking trips (2012)	Pedestrians Injured and Killed (2012)	Biking trips (2012)	Bicyclists Injured and Killed (2012)	Total Fatal or Injury Collisions
San Mateo County	718,451	2.6%	256	1.3%	244	3,428
Santa Clara County	1,781,642	2.1%	577	1.7%	746	8,829

¹ Jacobsen, P., 2003, "Safety in numbers: more walkers and bicyclists, safer walking and bicycling," Injury Prevention, 9(3), 205-209

² California Office of Traffic Safety, "2012 OTS Rankings," California Office of Traffic Safety, 2012, http://www.ots.ca.gov/Media_and_Research/Rankings/default.asp.

³ United States Census, "Community Facts," "2010 Demographic Profile Data," "Commuting Characteristics by Sex, 2008-12 American Community Survey 5-year estimates" American FactFinder, <http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>

In recent years, Vision Zero has gained momentum around the United States, with New York City and San Francisco adopting Vision Zero policies and action plans in 2014. In 2015, the United States Department of Transportation issued the *Mayor's Challenge for Safer People, Safer Streets*, which entreats cities to address safety concerns on their roadways.⁴ In an effort to address traffic safety, the cities of Cupertino, Menlo Park, Palo Alto, and San José have all accepted the Mayor's Challenge for Safer People, Safer Streets. Shortly after, the Vision Zero Act of 2015 was introduced in Congress; the Act would provide a dedicated funding stream to cities that have adopted a Vision Zero plan. Locally, both the City of San Mateo and the City of San José adopted Vision Zero policies in 2015.

Silicon Valley Bicycle Coalition (SVBC) and California Walks (Cal Walks) have always advocated for safe streets that work for everyone—when streets are safe for people walking and biking, they are safe for drivers and transit riders as well. We are not alone in this belief, and this toolkit is meant to serve as a resource for those who want to pursue Vision Zero policies in an effort to improve traffic safety in their communities.

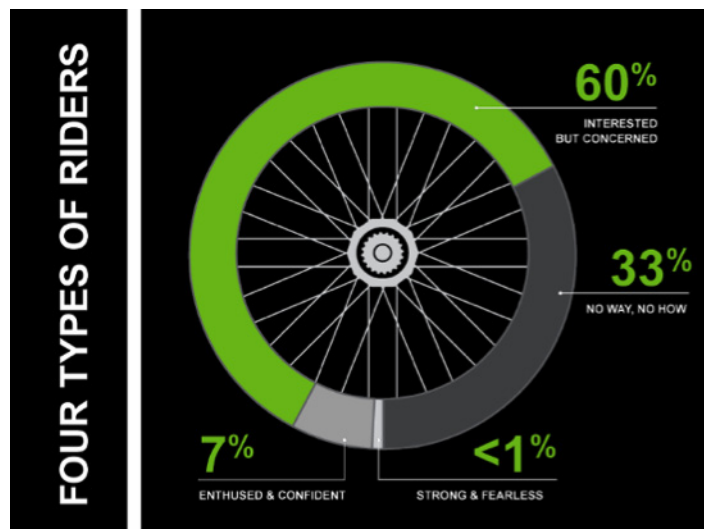


Image source: People for Bikes.

Research shows that the public can be categorized into four categories regarding their views on bicycling: strong and fearless, enthused and confident, interested but concerned, and no way, no how.⁵ It is typically the “interested but concerned” group that is the largest, and it is those people we must target when thinking of building infrastructure that will attract them to try riding a bike or creating new policies to support bicycling. A study in the Pacific Northwest found that “Those who rate bicycling safety in their community a 10 (out of 10) ride bike more than twice as often in an average week compared

⁴ <http://www.transportation.gov/mayors-challenge>

⁵ Roger Gellar, “Four Types of Cyclists,” *Portland Office of Transportation*, Accessed July 2015, <http://www.portlandoregon.gov/transportation/article/158497>

to those who rate safety a 0 or 1.”⁶ Similarly, walkable communities provide quantifiable health, environmental and economic benefits.⁷ There is no doubt that many people will walk more both for their daily activities and for recreation if their environment feels—and truly is—safe and inviting.

In 2011, SVBC co-hosted a safety summit with Stanford Health Care, which was concerned about the high rate of bicyclists being transported to its trauma center with fatal or life-threatening injuries. Out of this meeting, the Roadway Safety Solutions Team (RSST) was born as a coalition of diverse stakeholders with the purpose of overcoming the challenges of the multijurisdictional nature of Silicon Valley, helping to coordinate efforts between cities, and minimizing roadway user confusion. Since then, the RSST has been working on projects focused on infrastructure, education and behavior, and enforcement to help further these goals.

Timeline: History of Vision Zero



The time is now to eliminate traffic deaths in your city. This Toolkit outlines key steps that city staff and policymakers can take to adopt and implement a Vision Zero policy and plan. It is based on our work with the RSST, as well as current practices from New York City, San Francisco, Portland, and San Diego, alongside the United States Department of Transportation’s recommendations and other resources on street safety. We have designed this Toolkit to be used alongside the Santa Clara County Public Health Department’s “Traffic Safety and Active Transportation in Santa Clara County” brief and their “Bicycle Transportation and Safety in Santa Clara County” report released in

⁶ Inavero Institute for Service Research, “Bicycling Perceptions and Experiences in Oregon and Southwest Washington,” *Inavero Institute for Service Research*, 2009, <http://bikeportland.org/wp-content/uploads/2009/10/btasurveyreportfull2.pdf>

⁷ http://switchboard.nrdc.org/blogs/kbenfield/data_summaries_show_walkable_c.html

August 2015, as well as the Get Healthy San Mateo County Bicycle and Pedestrian Collision Report, released in fall of 2015.

The “Five E’s” are a common framework used in street safety to categorize the types of projects and improvements that will lead to systemic change. These are Engineering, Enforcement, Education, Encouragement, and Evaluation. The Safe Routes to School National Partnership and the League of American Bicyclists are two well-known organizations using this framework. We encourage municipalities to incorporate two more E’s – Engagement and Equity – as they work toward a Vision Zero program that is inclusive, impactful, and transparent. Keep in mind that all the categories of recommendations are interrelated and interdependent. Vision Zero cannot be achieved with a focus on only one of the E’s alone.

The recommendations are grouped into short-, mid-, and long-term steps to help your jurisdiction use a phased approach to implementation. The short-term recommendations are actions that can be implemented almost immediately, with little planning or funding (1-2 years). The mid-term suggestions will take a little bit longer to develop (2-5 years). The long-term recommendations will require a more concerted effort to achieve (5+ years).

The authors consider this publication of the Vision Zero Toolkit a “first edition.” We expect to revise and reprint the Toolkit regularly as new research and case studies become available.

III. THE ESSENTIALS

The first step is to **adopt a Vision Zero policy at a city council or county board of supervisors level (see Appendix A for some examples)**. Additionally, partners such as public works, transportation, law enforcement, and/or your public health department should endorse the policy and participate in its implementation. The basic policy is a goal to have zero deaths or life-altering injuries on a jurisdiction's roadways by a certain date and to accept that all deaths are preventable. In essence, new road projects and improvements can and should be designed to achieve zero deaths and serious injuries. In 2014, over 300 participants at the first Vision Zero for Cities Symposium developed the following Vision Zero Statement of Principles:⁸

- Recognize the Vast Scale of Traffic Fatalities and Serious Injuries
 - Recognize the power of crash survivors and the families of people killed and seriously injured in traffic, and the widespread scale of traffic violence.
- Focus Messaging to Promote a Culture of Traffic Safety
 - Communicate with singular focus on the behaviors that kill and injure the most people.
- Ensure Accountability
 - Ensure the justice system holds individuals accountable for killing and injuring others in traffic.
- Institutionalize Collaboration
 - Institutionalize collaboration across various levels of government and between government officials and the public. Incorporate communities into traffic safety decision-making.
- Protect the Most Vulnerable
 - Prioritize the most vulnerable street users with the goal of creating a culture where everyone knows to think twice and exercise due care.

⁸ <https://www.transalt.org/news/wrap-up-vision-zero-for-cities-symposium/11-19-2014>

- **Employ Data-Driven Enforcement**
 - Employ data-driven and automated enforcement at every opportunity.
- **Design Forgiving Streets**
 - Design streets in such a way that mistakes made by street users are less likely to result in serious injuries or fatalities.
- **Fund Safety**
 - Prioritize safety in funding decisions.
- **Track Progress**
 - Create time-bound goals to track progress toward Vision Zero and regularly re-evaluate strategy.
- **Empower Professional Drivers**
 - Empower professional drivers to lead by example and imbue them with the understanding that their livelihood depends on safe driving.

Secondly, it is essential to **develop a Vision Zero implementation plan and strategies** to execute this high-level goal. Each strategy should include sub-goals, measurable objectives, and timelines for accomplishment. This Toolkit aims to assist with establishing these short-, mid-, and long-term strategies and goals.

“[R]esidents of low-income and minority neighborhoods are disproportionately represented in bike and pedestrian injuries and fatalities, and low-income neighborhoods often have fewer sidewalks and other safe infrastructure. Safe non-motorized travel, and safe access to transit stops, is essential for disadvantaged Americans seeking to reach jobs, schools, and other opportunities...”

– US Department of Transportation report, “Safer People, Safer Streets”

Engagement and Equity are often referred to as the sixth and seventh “E’s,” crucial to the success of your Evaluation, Engineering, Enforcement, Education, and Encouragement efforts. Throughout your Vision Zero implementation process, you should place an emphasis on engaging diverse constituencies within your community, particularly those most affected by traffic violence. Vulnerable populations frequently rely on walking, bicycling, and transit use to meet their daily needs, and income is a considerable indicator in the

likelihood to be involved in a serious traffic collision. Often, these people are underrepresented and disempowered in community planning, governance, and other political processes that affect their daily lives. However, without their input and involvement, any Vision Zero effort will not be successful. Vision Zero implementation should focus on incorporating these groups in decision-making and collaborative, community-focused efforts that allow real grassroots leadership.

The following components will help ensure that Engagement and Equity are woven into your Vision Zero implementation:

- 1. Form a permanent Vision Zero task force** or advisory committee composed of city staff, advocates, law enforcement, first responders, public health, and elected leaders. Ensure coordination between law enforcement and transportation staff.
- 2. Engage underrepresented groups**, including seniors, youth, women, multicultural groups, disabled groups, vision impaired, and developmentally disabled members to ensure they are part of the conversation about what improvements work for them.
- 3. Complement the Vision Zero task force with a coalition.** Advocates on the task force are representative of the diverse body of the coalition, and the coalition allows for open, grassroots discussions from all members of the community.

Engagement: Advocates are here to help!

Groups like SVBC and Cal Walks are here to help – whether it's just by spreading the word and driving attendance to your outreach events, or acting as a consultant to implement new programs.

- Lead rides
- Lead walks and walk assessments
- Implement and manage Safe Routes to School (SR2S) programs
- Review designs and grant applications
- Provide letters of support
- Assist with community outreach

IV. EVALUATION AND PLANNING

We must know where we have started to understand how far we have come. To that end, when implementing any of the policies and strategies outlined in this document, it is necessary to track data before and after any interventions. There is currently a particular lack of reliable data on how many people bike or walk and there is incomplete data on collisions involving people walking or biking.

The collision reports recently completed by the San Mateo County Health System and Santa Clara County Public Health Department are great first steps in quantifying these indicators. These can help jurisdictions to understand where the most essential engineering, enforcement, and education investments are needed. Appropriate plans and evaluation methods can help determine what has been accomplished and help guide future decisions.



Short-term

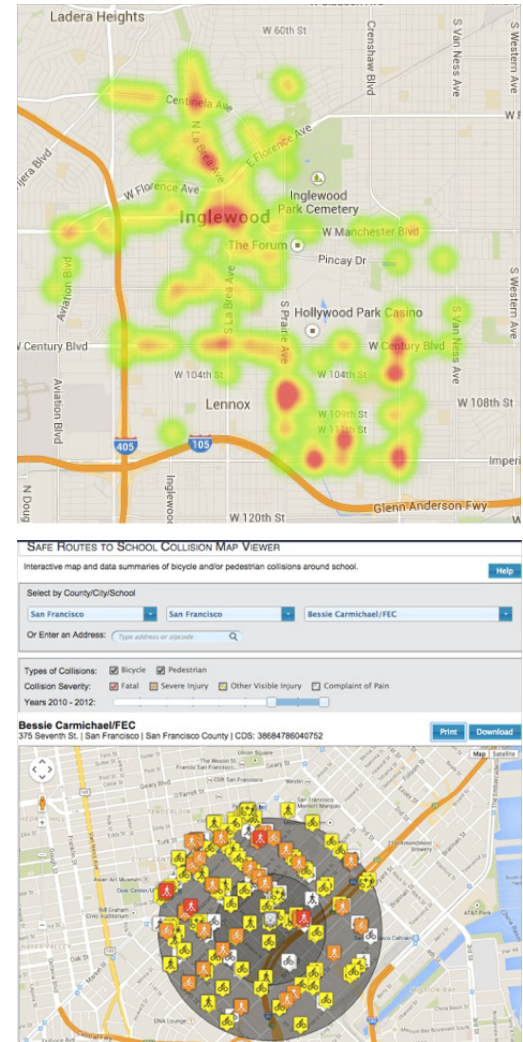
1. **Track and publish walking and biking volume data** on both city streets and off-street paths. Conducting regular counts (manual or electronic) on different roads is one way to track this. If your municipality does not yet have the capacity to perform these counts on a regular basis, recruit and train interested volunteer community members and create walking and biking events around these activities.

Engagement idea: Reach out to established community groups, churches, and neighborhood associations for volunteers to help conduct walking and biking counts.

2. **Create short-term (2-3 years) and long-term time-bound goals** to track progress toward Vision Zero and regularly reevaluate your strategy. Enable your Vision Zero Task Force or Advisory Committee to lead this.⁹
3. **Create and utilize a Bicycle and Pedestrian Advisory Committee** or similar body that regularly gives input on development and transportation projects and helps staff and elected officials set priorities to improve safety and accessibility. This committee should include representation from seniors, people with disabilities, members of disproportionately impacted communities, and other user groups.
4. As a city, **work with health care providers** (trauma centers, emergency rooms, and other healthcare facilities) to start tracking injuries resulting from collisions. Get Healthy San Mateo County and Santa Clara County Public Health Department have started this effort with their respective collision reports. This can become the basis for a more concerted and consistent data collection effort.

Mid-term

1. **Conduct outreach to high-risk communities.**
Engage residents so that engineering, education, and encouragement efforts are understood and supported broadly. Make sure to include people who already bike, walk, and take transit, and those who may choose these transportation options if they are made safer.



Transportation Injury Mapping System (TIMS) is available to the public, and enables users to access the California Highway Patrol's Statewide Integrated Traffic Records System (SWITRS) database to create maps and download collision statistics: www.tims.berkeley.edu

⁹ See <http://visionzerosf.org/about/two-year-action-strategy/> and <http://www.nyc.gov/html/visionzero/pages/initiatives/initiatives.shtml> for examples

2. **Create biking and walking transportation plans.** Utilize your Bicycle and Pedestrian Advisory Committee (BPAC), Bicycle Advisory Commission (BAC), Pedestrian Advisory Commission (PAC), or similar advisory body to work with staff and create a strategy and project list that will boost safety and accessibility for people on foot and on bike in your municipality.
3. **Collect local crash and safety data and publish it online.** Include maps of high-injury corridors for people biking, walking, and driving. Review data annually and integrate analysis into Vision Zero strategy. Be sure to combine this effort with Enforcement strategies, and to partner with your local enforcement agencies in order to gather, access, and share accurate data. Accurate, timely collision data can help municipalities prioritize the use of limited resources.
4. **Install digital automated counters** at key locations to publicize daily walking and biking counts and collect on-going data.

Long-term

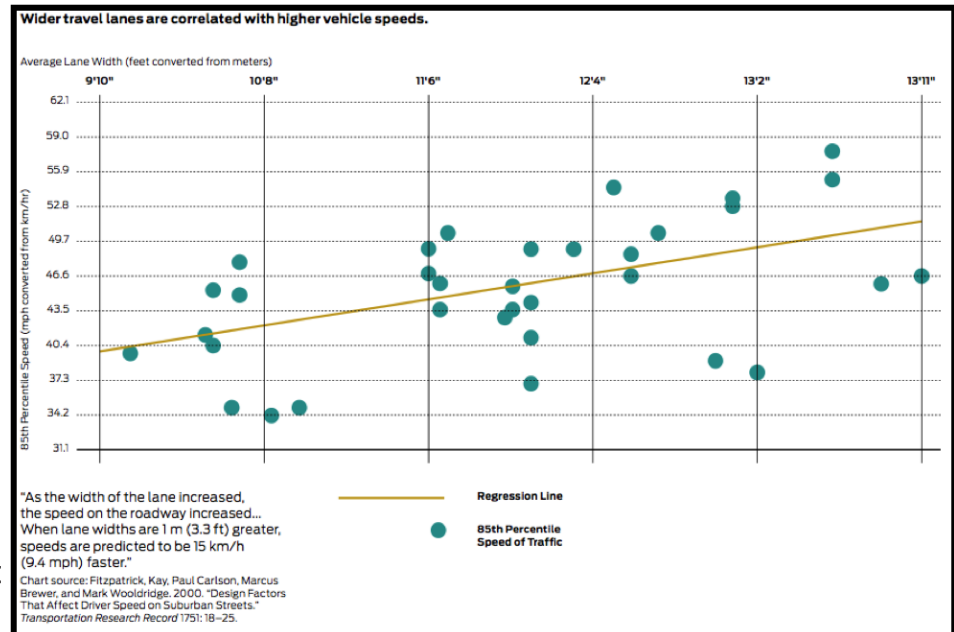
1. **Index funding to mode share goals.** Create a transportation budget that reflects your municipality's goals for walking, biking, and transit use.
Case study: In San Luis Obispo, CA, the city council voted in 2015 to amend the circulation element of the general plan to feature a target mode share of 50% motor vehicles, 12% transit, 20% bicycles, and 18% percent walking, car pools, and other forms. At the same time, the city created a policy that allocates general fund transportation spending by mode to match the target mode share percentages.
2. **Prepare project proposals** from your Biking and Walking Transportation plans' priority lists ahead of time to expedite grant applications.
3. In Santa Clara County, **apply to include bicycle projects** in Santa Clara County Valley Transportation Authority (VTA)'s Bicycle Expenditure Program (BEP).¹⁰
4. **Establish outreach opportunities** to support long-term community engagement for Regional Transportation Infrastructure Projects (TIP) list and Plan Bay Area.¹¹

¹⁰ <http://www.vta.org/projects-and-programs/planning/bikes-bicycle-expenditure-program-bep>

¹¹ <http://www.mtc.ca.gov/funding/tip/> and http://www.mtc.ca.gov/planning/plan_bay_area/

V. ENGINEERING

The engineering category focuses on physical changes to streetscapes that calm traffic, reduce speeds, minimize conflicts with motor vehicles, and create a safe and attractive environment for people who walk, bike, take transit, drive, or use other methods of transportation. Vision Zero policies acknowledge that humans make mistakes, and our streetscapes should be designed and built to account for this. For example, recent studies show that higher speeds are correlated with wider lanes widths on municipal streets; by reducing lane widths, we can increase safety for all users and continue to efficiently move vehicular traffic.¹²



Reducing lane widths in accordance with NACTO guidelines can help slow traffic speeds. Source: <http://nacto.org/usdg/street-design-elements/lane-width/>

Short-term:

- 1. Adopt a Complete Streets Resolution.**¹³ *Complete Streets* is the concept that streets are for everyone and should be designed in a way to make them equally accessible and safe for all users and transportation options. A resolution ensures that a city or county is accountable for creating and maintaining complete streets, in particular when redesigning or creating new roadways.

¹² <http://www.citylab.com/cityfixer/2015/07/10-foot-traffic-lanes-are-saferand-still-move-plenty-of-cars/399761/>

¹³ The San Francisco Bay Area Metropolitan Transportation Commission (MTC) requires that jurisdictions adopt Complete Streets resolutions in order to be eligible for One Bay Area Grant (OBAG) funding. A sample resolution can be found here: http://changelabsolutions.org/publications/MTC-complete_streets

2. **Incorporate Complete Streets improvements into the city's Capital Improvement Program or repaving and maintenance schedule.** Every city has a regular maintenance schedule to repair and otherwise improve existing roads. Take advantage of this process to improve bicycle and pedestrian networks; repaving roads is an ongoing opportunity to add striped bike lanes, widen existing bike lanes, add buffers and painted curb extensions, implement a road diet, or otherwise change the street design at little to no extra cost.

Equity Check-in: Pay attention to which neighborhoods your municipality is investing in. Are biking and walking facilities being improved in the communities that need them most? Are residents in those communities being consulted so that any new infrastructure meets the needs, desires, and character of the community?

3. **Adopt NACTO guidelines and provide training for public works or transportation staff.**

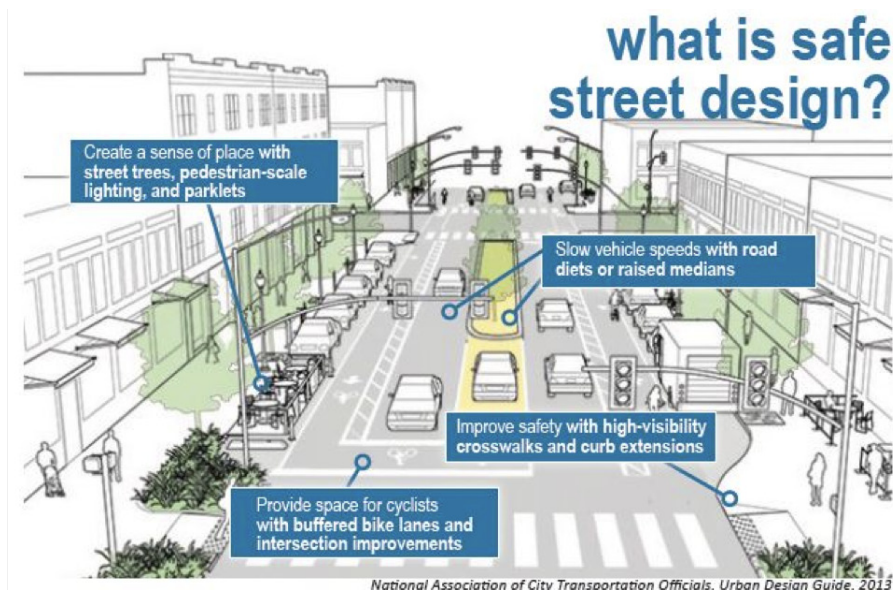


Image source: NACTO.

In 2014, Caltrans endorsed National Association of City Transportation Officials' (NACTO) guidelines,¹⁴ which have innovative bikeway and street design solutions. Since the passage of AB1193,¹⁵ California cities have the option of adopting the NACTO Urban Street Design Guide and Urban Bikeway Design Guide. Doing so allows for greater flexibility in designing streets that are

¹⁴ <http://www.dot.ca.gov/hq/paffairs/news/pressrel/14pr036.htm>

¹⁵ http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB1193

inviting and safe for all users. Many NACTO design elements enhance safety for vulnerable users, including shortened crossing distances for pedestrians, traffic calming solutions, and protected facilities for bicyclists.

4. **Implement a pilot road diet or temporary “pop-up” cycletrack.** These short-term, low-cost changes to a roadway give the community the chance to try out new facilities while public agencies collect data in preparation for more permanent solutions.

Mid-term

1. **Incorporate Complete Streets into the Circulation Element of your city’s General Plan** so that the consideration of all transportation choices becomes business as usual when redesigning streets in your jurisdiction.¹⁶
2. **Create and adopt (or revise) your municipality’s Pedestrian Master Plan, Bicycle Master Plan, and ADA Compliance and Accessibility Plan** using the framework of Vision Zero.
3. **Revise how your municipality analyzes transportation impacts** to focus on Vehicle Miles Traveled (VMT) rather than vehicular Level of Service (LOS) as outlined by the Governor’s Office of Planning & Research (OPR) in response to SB 743. Locally, in 2005, the City of San José adopted an alternative to LOS downtown and at specific protected intersections citywide to allow for the funding of neighborhood improvements that are safe, efficient, and environmentally friendly.¹⁷
4. Using data on collisions and areas of high usage (see Evaluation section), **identify and analyze high-risk locations** where people who walk, bike, and drive are injured or killed and determine appropriate solutions to address the problems. Engage local advocacy groups and partner with other jurisdictions in this task when appropriate.
5. Use available resources to **implement relatively low-cost safety strategies to calm traffic and address problem locations**. The NACTO Urban Street Design Guide and Urban

¹⁶ Passed in 2011, the California Complete Streets Act requires that cities and counties updating their general plans must include complete streets guidelines in the circulation element.

¹⁷ <http://circulatesd.nationbuilder.com/visionzerosd>

Bikeway Design Guide have helpful information on how to implement these treatments in different settings, including on an interim or pilot basis. This can be accomplished through, for example:

- a. Pavement markings,
 - b. Crossing beacons, and
 - c. Physical elements to protect vulnerable road users,
 - d. Shorten street crossing distances and calm intersection traffic, such as the use of planters and/or flexible posts.
 - e. Consider reversing the location of bike lanes relative to on-street parking to create more protected bike lanes.
 - f. Focus on signal timing adjustments to allow safe crossing for people of all ages and abilities, and
 - g. Consider a Leading Pedestrian Interval (LPI), which allows pedestrians a few seconds to enter the intersection to cross before motorists get the green light.
6. If needed, **streamline the processes in place** to implement smaller-scale projects like those highlighted above.
 7. Establish development guidelines that **include strong bike parking minimums and increase the number of bike parking options in your city**, including short-term (bike racks and bike corrals)¹⁸ and long-term solutions (e-lockers, bike stations).

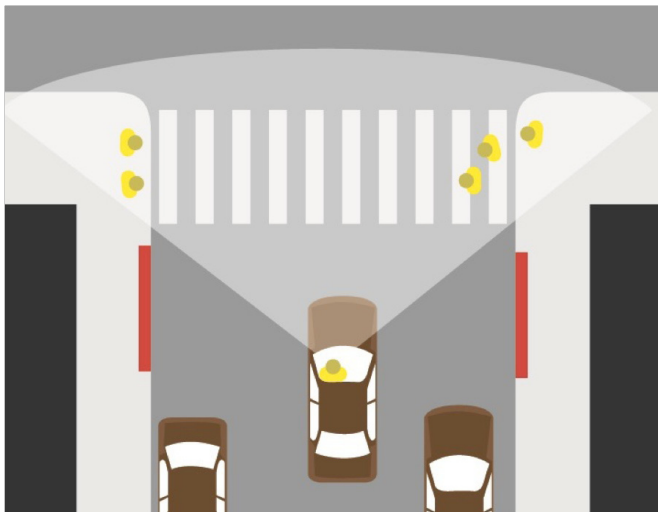


Cycletracks in Vancouver, Canada, utilize landscaping to provide protection from traffic for people on bikes. Image source: pricetags.wordpress.com.

¹⁸ A bike corral is a bike parking facility with multiple bike racks that can accommodate 10-15 bicycles. They are often located in an on-street parking space and are especially useful in business districts.

Long-term

1. **Fix high-risk locations** where people are being injured and killed on streets. Having Complete Streets Guidelines can help your city staff and engineers in this process:
 - a. Redesign major barriers, such as freeway crossings, and large, arterial roads;
 - b. Reduce pedestrian and bicyclist risk by implementing hardscape treatments like curb extensions and crossing islands or medians to reduce crossing distances, increase vehicle turning radii, and provide protected facilities;
 - c. Institute corner parking restrictions—also known as “daylighting”—to increase the visibility of pedestrians crossing at signalized, marked, and unmarked crossings;
 - d. Consider turning restrictions—like no right turns on red or left turn restrictions—to limit the chance of collisions at intersections;
 - e. Install pedestrian actuated signals—Rectangular Rapid Flashing Beacons (RRFBs) or Pedestrian Hybrid Beacons (PHBs)—at high-pedestrian activity mid-block and/or uncontrolled crossings;
 - f. Install raised crosswalks to both elevate the visibility of pedestrians and to slow traffic at crossings, particularly at channelized turn lanes and highway on/off-ramps; and
 - g. Implement road diets or “rightsizing” on corridors to calm traffic, provide room for marked bike lanes, and allow for safer crossing.



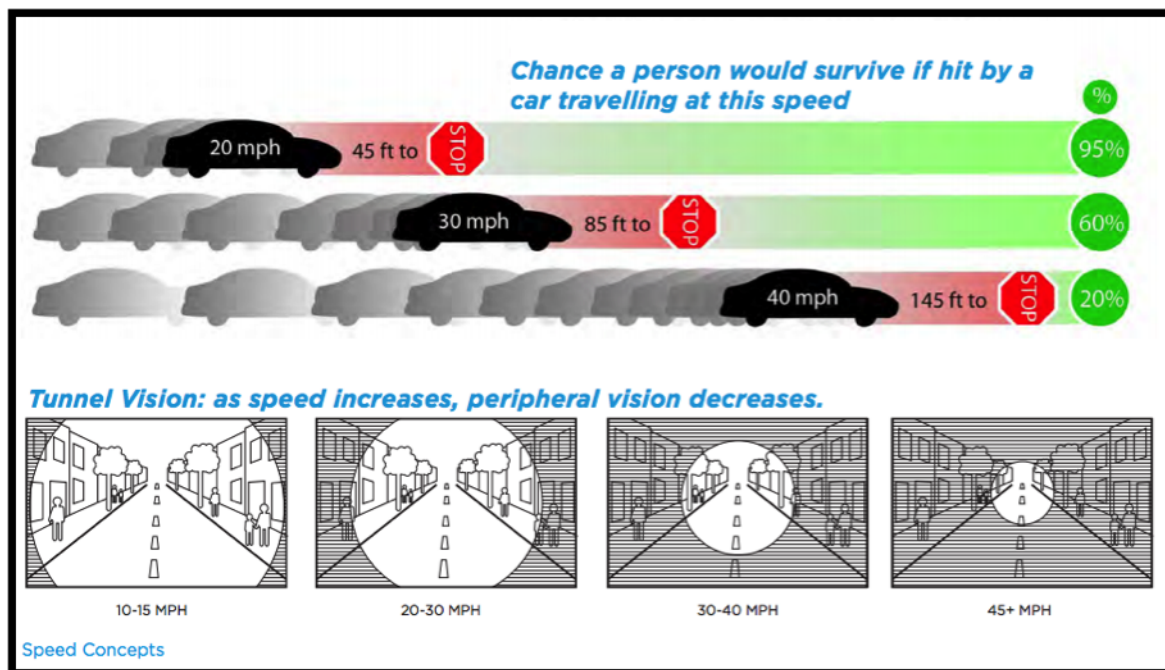
Corner parking restrictions—or “daylighting”—improves visibility between drivers and people crossing the street, as well as for drivers making turns at intersections.

Image source: SFMTA

VI. ENFORCEMENT

In addition to physical improvements to streets, strong rules and regulations governing roadway behavior for all users are needed, and law enforcement is a crucial component to enforcing these laws. Enforcement is critical to long-term behavior change, and drivers who receive a traffic citation for a violation are less likely to kill or seriously injure someone in a future collision.¹⁹ Jurisdictions should work with their corresponding law enforcement agency (local police, sheriff, or California Highway Patrol) when implementing strategies in all the E categories, and in particular when executing tactics that require police enforcement.

Unsafe speed is the primary cause of many collisions (see images below). In 2012, speeding contributed to 30% of all fatal collisions in the United States.²⁰ Increased speeds also increase



Higher speeds result in reduced peripheral vision for drivers.

Source: Complete Streets Chicago Design Guidelines
<http://www.cityofchicago.org/content/dam/city/depts/cdot/Complete%20Streets/CompleteStreetsGuidelines.pdf>
 pg. 118

¹⁹ Donald Redelmeier, et al, "Traffic-Law Enforcement and Risk of Death from Motor-Vehicle Crashes: Case-Crossover Study," Science Direct, (June, 2003), <http://www.sciencedirect.com/science/article/pii/S0140673603137701>.

²⁰ <http://www-nrd.nhtsa.dot.gov/Pubs/812021.pdf>

the severity of collisions, and high speeds (over 20 mph) exponentially correlate to the severity of injuries and likelihood of death. To achieve Vision Zero, managing traffic speeds to favor safety over convenience is crucial, and requires a combination of Enforcement, Engineering, Education, and Evaluation tactics.

Short-term

1. **Lowering traffic speeds:** In addition to the engineering solutions described earlier in this toolkit, your city can take several steps to legally lower speed limits:
 - Advocate a change California State law to enable cities to lower speed limits where or when needed from 25 mph to 20 mph.
 - Create neighborhood, school and senior slow zones at 20 mph.
 - Lower speed limits to 15 mph at all schools (where allowed by AB 321).²¹
2. Your city can also begin to **advocate for the State of California to allow municipalities to gain legislative authority for automated speed cameras** to aid in enforcement. In the interim, your city can install portable speed feedback signs and implement a speed radar-lending program.
3. Police departments, sheriff's departments and California Highway Patrol are key partners in traffic enforcement. These entities should recognize, along with your jurisdiction, that all crashes are preventable and **replace “accident” with “collision” in all official documents and reporting**. This helps to change the perception of law enforcement and public members that collisions are not simply an act of destiny but have real causes that can be prevented through engineering, enforcement, and education.
4. **Law enforcement should make reports on all collisions involving people biking or walking.** Many collisions involving people biking or walking are not reported by law enforcement. In 2009, San Francisco Police Department began to require that collisions involving people biking or walking, whether or not a vehicle is involved, should be reported, with several stipulations.²² This aids in data collection and tracking, and can help your

²¹ <http://saferoutescalifornia.org/2011/02/01/ab-321-california-existing-law-that-helps-local-communities-reduce-speed-limits/>

²² San Francisco Police Department, “Department Bulletin 9.02 B Traffic accidents/incidents involving bicycles,” San Francisco Police Department, 2009, http://www.sfbike.org/download/resources/SFPD_Bulletin_Bicycle_Accidents.pdf

jurisdiction to identify and address the most dangerous locations and behaviors that cause collisions. (See Evaluation section for more on data collection and tracking).

5. Advocate for California state legislation to **have all law enforcement agencies use the same electronic collision reporting system.**
6. **Implement a progressive ticketing campaign** that focuses traffic citations on known dangerous behaviors affecting vulnerable road users, such as speeding and distracted driving.

Mid-term

1. Using data (discussed more in the Evaluation section), **focus enforcement on the most dangerous behaviors** and high-risk locations to yield the greatest reduction in collisions and set an enforcement target on the most dangerous behaviors (see San Francisco Police Department's Focus on the Five Campaign, where the Department has set a minimum target of 50% of all citations focused on the five most dangerous behaviors). The target areas will result from the analysis of existing data.
2. **Standardize a collision investigation process** so that all involved parties are appropriately interviewed to determine the cause of collisions.
3. **Make sure that law enforcement is trained regularly** on laws related to the rights of people biking and walking to ensure fair ticketing.

Long-term

1. Looking in-depth at the data results, **install red-light running cameras** at appropriate intersections.

VII. EDUCATION



An image from an outdoor advertisement, part of Washington D.C.'s "Street Smart" campaign.

Image source: Region Forward.

Education of all roadway users is key. This means forming lifelong habits and practices by educating people of all ages on how to safely use the streets and different transportation options. Incorporating age-appropriate lessons at all levels of schooling starts the process young and can teach children how to use streets safely, whether biking, walking, taking transit, or using another device. People who drive must also be made aware of the laws governing people walking and biking, and how to behave safely and responsibly around these users and on the streets.

Short-term

1. **Implement a public safety messaging campaign** that utilizes multiple outreach methods (online, social media, fliers, billboards, bus ads, radio, TV) to communicate important and

often-overlooked tips about staying safe on the road. Topics can include, but are not limited to:

- Avoiding common causes of collisions (all modes of transportation);
- The dangers of speeding;
- The dangers of distracted driving;
- Looking for bicyclists before opening your car door;
- Stopping for pedestrians in crossings (both marked and unmarked); and
- Staying visible at night.

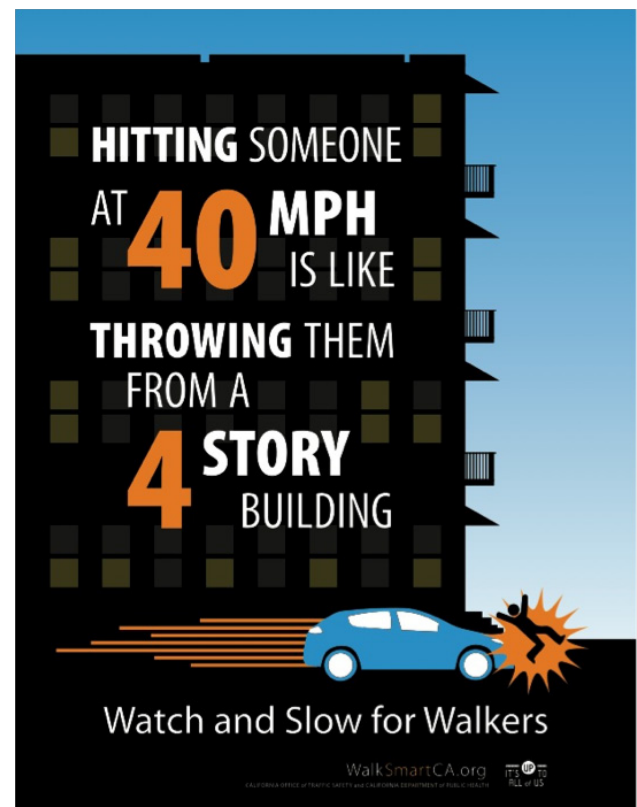
2. Work with school district partners to **provide bicycle and pedestrian safety education classes for youth** (Safe Routes to School program). Connect with your local Walk n' Roll or Safe Routes to School provider to help establish these programs.
3. **Provide bicycle and pedestrian safety education classes for adults.** These can be implemented at the workplace, churches, community centers, libraries, or retail locations.
4. Implement a policy that requires or incentivizes private companies operating in the city to **institute professional driver training programs** to engage drivers of buses, taxis, delivery trucks, and garbage trucks as partners in roadway safety and ensure proper training for driving safely around people walking and biking. Local transit agencies (Samtrans, VTA, Caltrain, and others) typically already have safety trainings in place.
5. **Require driver training programs** for operators of city and county vehicles.
6. **Leverage the media** to expand the reach of your educational message through tactics such as: op-eds, letters to the editor, crosswalk safety demonstrations, and traffic safety vigils.

Commercial Vehicle Driver Training, offered by Silicon Valley Bicycle Coalition to companies that utilize professional drivers for employee alternative transportation, provides information on best practices for driving large commercial vehicles when sharing the road with bicycles and pedestrians. We cover bicycling rules of the road, common causes of bicycle/vehicle/pedestrian conflict, anticipated bicyclist behavior in various situations, Bay Area-specific cases, and maneuvering skills for optimum predictability and collision prevention. This training is designed to improve safety and comfort for all users of the road.

Mid-term

1. Leverage an existing adult bicycle safety education class to **begin a bicycling ticket diversion program**. Such programs use enforcement of bicycle violations as a tool for better educating bicyclists about the rules of the road and the consequences of unsafe behavior on a bicycle. Current California State Assembly Bill 902 will allow a person of any age who is cited for an infraction while on a bicycle to participate in a bicycle education class to reduce the citation fee.
2. Work with your school district(s) to **get walking and bicycling safety education integrated into safety, health, and physical education curricula**. This would be done so that the school has internal capacity to provide education. This is different from special workshops of after-school programs.
3. Collaborate with local advocacy groups to **create short educational videos on proper roadway behavior for all types of users**. This should be included in outreach of all different types of events so that the message reaches a broad audience (not just people already biking or walking). For example, a short video could be played at the beginning of the movie in the park nights, at the beginning of council sessions recorded and featured online, or at the beginning of an unrelated community group meeting.

IT'S **UP** TO
ALL of US



It's Up to All of Us / Walk Smart CA, created by the California Department of Public Health, provides free and ready-to-use campaign materials: <http://www.cdph.ca.gov/programs/SACB/Pages/ItsUp2Us.aspx>

Long-term

1. **Advocate at the state level for bicycle safety education** to be integrated into statewide teaching curriculum. In Germany, where bicycling rates are much higher, all school children are required to complete comprehensive bicycling education courses and are tested (similar to U.S. driving license tests) by traffic police.²³
2. **Incorporate long-term reliable funding for adult bicycle education classes** into local sales tax or general fund budgeting. Alameda County currently dedicates a portion of its sales tax revenue to bicycle safety education programs.

²³ John Pucher and Ralph Buehler, “Making Cycling Irresistible: Lessons from The Netherlands, Denmark, and Germany,” *Transport Reviews*, Vol. 28, No. 4, 495–528, July 2008, <https://ralphbu.files.wordpress.com/2015/03/mci.pdf>

VIII. ENCOURAGEMENT

Encouragement activities promote a cultural shift to increase walking, bicycling, and transit trips, which in turn increases safety. Safety in numbers is not just a perception but a proven effect: research shows that increased rates of walking and bicycling actually causes a dramatic reduction in collisions involving people who walk and bike.²⁴

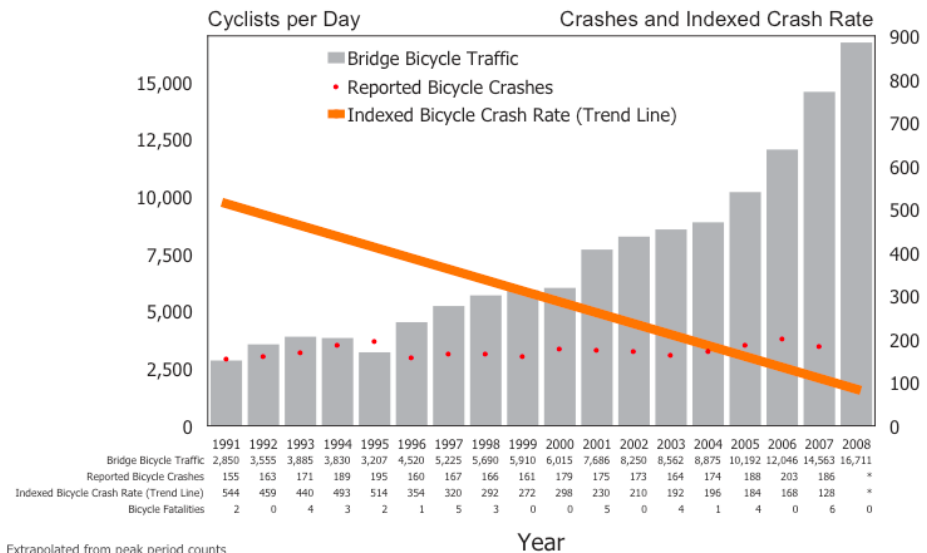
Once people understand how to take these trips and are given the opportunities to do so, they become more likely to take part.

Short-term

1. **Implement a Bikepool program** that brings people together to ride bikes to and from work and home or other popular destinations together.²⁵
2. **Participate in Bike to Work Day and Walk to Work Day** events and activities in May:
 - Have your municipality or agency host an energizer station.
 - Encourage your own employees to participate.
 - Work with local business and community leaders to organize events.

<https://grist.files.wordpress.com/2010/10/bikecount2009reportfinal.pdf>

Combined Bicycle Traffic over Four Main Portland Bicycle Bridges Juxtaposed with Bicycle Crashes



Extrapolated from peak period counts

Crash Rate represents an indexing of annual reported crashes to daily bicycle trips across the four main bicycle bridges.

*2008 Reported Bicycle Crashes data not yet available

²⁴ Jacobsen, P., 2003, "Safety in numbers: more walkers and bicyclists, safer walking and bicycling," Injury Prevention, 9(3), 205-209

²⁵ <http://bikesiliconvalley.org/bikepool/>



CicLAvia, an Open Streets program in Los Angeles, during which several miles of streets are closed to motor vehicle traffic.

Image source:
CicLAvia.

- Have your elected leaders lead a PEDal pool for biking or walking to work.
- Issue a formal city proclamation supporting Bike/Walk to Work Day.

3. Work with your school district(s) to promote and participate in Walk and Bike to School Day events and activities:

- International Walk to School Day in October.
- National Bike to School Day in May.
- Have your school board and elected leaders lead a walking school bus,
- Launch a Golden Sneaker competition between classes to reward students for participating in Walk to School Day,

4. Launch a weekly/monthly community walk/bike day at schools or workplaces, such as Walking Wednesdays.

²⁶ <http://parkingday.org/>

5. **Participate in and promote Bike to Shop Day** events and activities in May.
6. **Provide valet bike parking** at events in your municipality.
7. **Participate in PARK(ing) Day** to create temporary parklets in curbside parking spaces.²⁶
8. **Establish a parklet program** to allow for permanent parklets along retail corridors in partnership with local business owners to create expanded sidewalk space and bike parking.

Mid-term

1. Establish development guidelines that include strong bike parking minimums. **Install bike parking (bike racks or bike corrals) at high-traffic/high-demand locations.** Studies have found that people are more likely to bike if there are secure bike parking options at their destination.^{27, 28}
2. **Institute bicycle and pedestrian wayfinding systems** that incorporate distance, direction, destinations including community assets, and area maps to encourage biking and walking, direct people to appropriate routes, and help them accurately navigate the biking and walking networks.
3. **Invest in a public bike sharing system** that provides an additional transportation option for your community. A key component of an effective bike share system is effective marketing and outreach to potential users. This also reaches new audiences that may be unable or unwilling to purchase a bike.
4. **Start Open Streets and Play Streets programs in your community.** Open Streets events are when streets are temporarily closed to cars, making them available for walking, biking, and other activities and fun uses. These programs not only encourage more biking and walking, but also are great opportunities to share educational materials and provide safety training.²⁹ San José will hold its first Open Streets event, VivaCallesSJ on October 11, 2015.

²⁷ Ipek N. Sener, Naveen Eluru, and Chandra R. Bhat, “*An Analysis of Bicyclists and Bicycling Characteristics: Who, Why, and How Much are they Bicycling?*,” The University of Texas at Austin, 2008.

²⁸ Ralph Buehler with Andrea Hamre, Dan Sonenklar, and Paul Goger, “*Trends and Determinants of Cycling in the Washington, DC Region*,” Virginia Tech, Urban Affairs and Planning, 2009.

²⁹ For more information and a map of cities in the U.S. with Open Streets initiatives about Open Streets: <http://openstreetsproject.org/> and Play Streets: <http://ahealthieramerica.org/play-streets/play-streets-full/>.

5. **Create a series of themed, community walks that promote walkability and highlight community assets.** California Walks, in partnership with City Fabrick, is currently working on a new series of walking loops based on City Fabrick's work with Walk Long Beach.³⁰ Other communities have launched annual walks; for example, Walk Bike Glendale hosts an Annual Pastry Walk, which tours the community's many wonderful Armenian bakeries.
6. Conduct a marketing campaign that **normalizes biking and walking** and changes the image to be more inclusive of all demographics and ability levels, not just, for example, recreational cyclists. There are many types of people walking and biking and when people see others like themselves doing an activity, it helps to encourage them to try it out.

Long-term

1. Establish long-term secure funding for a comprehensive community-wide **Transportation Demand Management program** like Portland's Smart Trips. These programs utilize strategies and policies to reduce travel demand, particularly that of single-occupancy vehicles.

³⁰ <http://www.cityfabrick.org/project/walk-long-beach/>

IX. REFERENCES & ADDITIONAL RESOURCES

References

California Active Transportation Program

<http://www.dot.ca.gov/hq/LocalPrograms/atp/>

League of American Bicyclists, Bicycle Friendly Community program

http://www.bikeleague.org/sites/default/files/Attributes_of_BFC.pdf

National Association of City Transportation Officials (NACTO)

Urban Street Design Guide and Urban Bikeway Design Guide
<http://nacto.org/>

New York City Vision Zero Action Plan

<http://www.nyc.gov/html/visionzero/pdf/nyc-vision-zero-action-plan.pdf>

Office of Traffic Safety

<http://www.ots.ca.gov/>

Santa Clara County Public Health Department, “Traffic Safety and Active Transportation in Santa Clara County”

https://www.sccgov.org/sites/sccphd/en-us/Partners/Data/Documents/Traffic%20safety%20and%20active%20transportation%202014/Traffic%20safety%20and%20active%20transportation_Final.pdf

Sustainable Streets San Mateo

<http://sustainablestreetssanmateo.com/>

Transportation Injury Mapping System (TIMS)

www.tims.berkeley.edu

U.S. Department of Transportation Mayors’ Challenge

<http://www.dot.gov/mayors-challenge>

Vision Zero for Cities Symposium

<http://transalt.org/news/wrap-up-vision-zero-for-cities-symposium/11-19-2014>

Vision Zero Portland

<http://www.portlandoregon.gov/transportation/40390>

Vision Zero San Diego

<http://circulatesd.nationbuilder.com/visionzerosd>

Vision Zero San Francisco

<http://visionzerosf.org/>

Vision Zero San José

<http://www.sanjoseca.gov/DocumentCenter/View/42849>

Additional Resources

- Vision Zero Network:

<http://visionzeronetwork.org/>

- Vision Zero Cities Symposium: Jan. 14-16, 2016 in NYC: <http://www.transalt.org/getinvolved/vision-zero-now/visionzero2016>

X. APPENDIX A

Vision Zero policy goal

City of San Mateo

Sustainable Streets Plan 2015

To ensure that human life and health are paramount and take priority over mobility and other road traffic system objectives, improve safety through the design and maintenance of sidewalks, streets, intersections, and other roadway improvements such as signage, lighting, and landscaping, as well as best practice programs to enhance and improve the overall safety.

Objective 1.A Eliminate pedestrian- and bicycle-related fatalities and reduce the number of non-fatal pedestrian- and bicycle-related collisions by 50% from 2010 levels by 2020.

Policy 1.A.1 Annually review collision data, including causes, to implement ongoing improvements at intersections and throughout the transportation network.

Policy 1.A.2 Identify opportunities to reduce pedestrian and bicyclist risk by reducing crossing distances and providing protected facilities.

Policy 1.A.3 Develop and implement an enforcement program to encourage safe travel behavior and to reduce aggressive and/or negligent behavior among drivers, bicyclists, and pedestrians.

Objective 1.B Work to improve walking and bicycling conditions at intersections with the highest rates of collisions.

Policy 1.B.1 Coordinate with Caltrans to provide median refuge islands on El Camino Real.

DRAFT Vision Zero Resolution

City of San Diego

A RESOLUTION OF THE CITY OF SAN DIEGO
TO ADOPT A VISION ZERO PLAN TO REDUCE
TRAFFIC FATALITIES TO ZERO IN THE NEXT TEN
YEARS

WHEREAS, on average one person each day is seriously injured or killed on the road while walking, biking, or driving the streets of San Diego; and,

WHEREAS, a high percentage of traffic injuries and fatalities involve pedestrians, bicyclists, and other vulnerable users; and,

WHEREAS, traffic fatalities are the leading cause of accidental death among children ages 0 to 13 in the City; and,

WHEREAS, traffic violence for people walking and bicycling is on par with the number of homicides in the City; and,

WHEREAS, the City has adopted numerous studies and plans that outline design concepts to improve safety for people walking and biking on the City's most dangerous corridors including a Pedestrian Master Plan and Bicycle Master Plan; and,

WHEREAS, the City of San Diego's Climate Action Plan proposes to achieve 50 percent of commuter mode share for walking, biking, and transit use in transit priority areas by 2035 and safer conditions for walking and biking can help implement this Plan; and,

WHEREAS, the City will increase in population by approximately 30 percent by 2035 and the majority of growth will result from infill development thereby increasing demand for safe walking and bicycling; and,

WHEREAS, communities in San Diego have prioritized infrastructure projects that improve walking and biking safety among other project types as represented by the Community Planning Committee report to Infrastructure Committee in November 2013; and,

WHEREAS, the City incurs costs to respond to lawsuits on the City's failure to provide safer streets; and,

WHEREAS, restoring infrastructure in the City is a priority of the Council and Mayor; and,

WHEREAS, Vision Zero provides a framework for reducing traffic deaths to zero through a combination of safe engineering measures, education, and enforcement practices; and,

WHEREAS, Vision Zero has been adopted in many cities throughout the country, most notably in New York City which has seen the lowest number of pedestrian fatalities in its first year of implementation since documentation began in 1910; and,

WHEREAS, Circulate San Diego is convening an Advisory Committee to advance Vision Zero goals,

THEREFORE,

BE IT RESOLVED, by the Council of the City of San Diego, that it hereby adopts a vision of reducing traffic deaths to zero by 2025 by prioritizing safety within infrastructure projects already underway, and combining with education, and enforcement practices; and,

BE IT FURTHER RESOLVED, by the Council of the City of San Diego, that it recommends for City staff from the Mayor's office, Transportation and Stormwater Department, San Diego Police Department, San Diego Unified School District and Caltrans to participate in and attend meetings of Circulate San Diego's Vision Zero Advisory Committee for a limited time.

XI. APPENDIX B

Pedestrian and Bicycle Project Funding Sources

Much of this data prepared by San Mateo County Transportation Authority.
Grant programs are subject to change.

Program	Administrator	Geographical Area	Eligible projects	Match	Funding	Status	Notes
SMC Measure A Ped & Bicycle Program	SMC Transportation Authority	San Mateo County	New capital infrastructure projects, including project planning. City/area-wide planning & maintenance not eligible.	None	\$5.8m in FY 2014	Next call: projected late fall 2015 with awards spring 2016	During the funding call held in FY2014, a max of 3 applications, up to a total of \$1m, could be submitted per applicant.
State Active Transportation Program (ATP)	California Transportation Commission (CTC)	California	Infrastructure & non-infrastructure. Also funds bicycle & pedestrian plans for disadvantaged communities only.	None	\$180m in FY 2015	FY 2015 applications were due 6/1/15. CTC adopts program of projects in October 2015	CTC to adopt program of projects every 2 years after release of FY 2016 call. Min. request of \$250k for infrastructure projects. Minimum 25% of all funding awarded to disadvantaged communities.
Regional Active Transportation Program (ATP)	MTC delegated by CTC for the SF Bay Area	SF Bay Area	Infrastructure & non-infrastructure. Also funds bicycle & pedestrian plans .	Minimum 11.47%. Waivers for projects benefiting communities of concern, stand-alone non-infrastructure projects & safe routes to school projects.	\$30m in FY 2015	FY 2015 applications were due 6/1/15. MTC adopts program of projects in October 2015, then CTC in December 2015.	Guidelines similar to CA ATP with additional evaluation criteria.
Transportation Development Act (TDA), Article 3	C/CAG in San Mateo County and VTA in Santa Clara County, delegated by MTC	SF Bay Area	Comprehensive bicycle & pedestrian plans, bicycle safety education, & design & construction of capital infrastructure projects.	None for capital infrastructure. 50% for planning & education.	Varies by cycle		Processes vary by county.

Program	Administrator	Geographical Area	Eligible projects	Match	Funding	Status	Notes
One Bay Area Grant (OBAG) Program				11.47%	\$800 million over the four-year Cycle 2 period (FYs 2012-13 through 2015-16)	Next call pending, likely within 2 years	70% of funds to be used in priority development areas (PDAs) or for projects that connect or provide proximate access to PDAs. Guidelines for next cycle under development.
Cap & Trade Affordable Housing & Sustainable Communities Program (AHSC)	California Strategic Growth Council	California	Capital infrastructure as part of 1) Transit-Oriented Development (TOD) projects linked with affordable housing or housing-related infrastructure or 2) capital infrastructure projects or programs as part of Integrated Connectivity Projects (ICP).	None	Per state legislation, 20% of future Cap & Trade proceeds are to be apportioned to the AHSC	FY 2015 ongoing, CSGC to award projects late June 2015	Funds projects that reduce greenhouse gas emissions & vehicle miles traveled to support infill/compact development & improve low-carbon mobility options. 50% set-aside for affordable housing & 50% set-aside for projects benefiting disadvantaged communities (not cumulative). TOD grants from \$1m to \$15m. ICP grants from \$500k to \$8m.
Bicycle e-Locker and Rack Voucher Programs	Bay Area Air Quality Management District	SF Bay Area	Purchase & installation of bicycle parking e-lockers and/or racks. Options to continue funding for parking projects & expand the program to include bikeways for FY 2016 are under consideration.	Minimum of 10% for e-lockers, none for vouchers.	\$900k total for both programs in FY 2015	FY 2015 call for e-lockers closed 2/9/15, funding for racks open until funding runs out.	e-Lockers: \$10k to \$50k per agency annually (limited to \$2,500 per locker). Awards for bicycle racks (up to \$60 per space) via vouchers redeemable for equipment through Air District-contracted vendors. Up to \$15k per agency annually for bicycle racks.
Bicycle Parking Incentive Program	Commute.org	San Mateo County	Purchase & installation of bicycle lockers & racks for employers in San Mateo County.	None	\$40k in FY 2015	FY 2015 ongoing on a first-come, first served basis until funding runs out.	Up to \$500 per unit, capped at \$10k per employer.



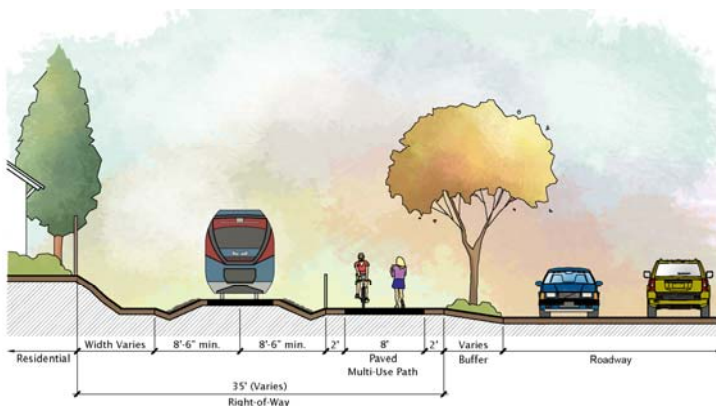


COASTAL RAIL TRAIL

MONTEREY BAY SANCTUARY SCENIC TRAIL NETWORK

PROJECT STATUS – FALL 2015

- The Monterey Bay Sanctuary Scenic Trail Network (MBBST) is a Regional Transportation Commission (RTC) proposed 50-mile bicycle and pedestrian trail project.
- The spine of the trail network will be the 32-mile rail trail from Davenport to Watsonville, to be built within the RTC-owned rail right-of-way. Remaining miles will be connecting paths, on-road bike lanes improvements or unpaved coastal spur trails.
- The trail will connect to neighborhoods, schools, parks, transit hubs, commercial and other activity centers.
- Half the county population, 92 parks and 44 schools are located within 1 mile of the rail line
- 25% of the rail-with-trail project, or 8 miles, has been funded with construction to begin as soon as design, engineering and environmental permitting is completed.
 - North Coast: 5 miles from Wilder Ranch up-coast to access Panther and Yellowbank beaches
 - Westside Santa Cruz: 2.1 miles from Santa Cruz Wharf to Natural Bridges Dr
 - Capitola: 300 ft from City Hall parking lot to Monterey Avenue
 - Watsonville: 1.2 miles from Lee Road to Walker Street
- More than \$14.5 million in public funds and \$3.6 million in private funds have been secured to build those projects.
- 94% of the rail corridor is wide enough for a 12 foot trail next to the existing railroad tracks, with most other sections wide enough for at least an 8 foot trail.* Less than 1/3 of a mile, in small pieces spread out throughout the corridor, is narrower than the absolute minimum of 25 feet needed for a rail-with-trail system and solutions have been identified.**
- Following extensive public outreach, the RTC prepared and adopted a Master Plan which provides cost estimates, designs and divides the trail network into 20 segments to be built as funding becomes available (15 are within the rail corridor). Local jurisdictions have also adopted the Master Plan as a guide for implementation.



*Footnotes: * Right-of-way width evaluations are based on planning level right-of-way maps and not field surveys. Not factored in the analysis are street crossings, Beach Street in Santa Cruz where a cycletrack exists, Walker Street in Watsonville where on-road improvements are proposed, and inland of the "Y" at the Santa Cruz Depot. ** Locations are primarily on the north coast and in the City of Santa Cruz where design solutions have been identified; other locations where the corridor is constrained are adjacent to public roads and public right-of-ways that may potentially be utilized.*



STATUS OF FUNDED PROJECTS

NORTH COAST RAIL TRAIL: WILDER RANCH PARKING LOT TO ACCESS PANTHER AND YELLOWBANK BEACHES AT RAIL MILE POST 28.6

- **Benefits:** Provides a car-free paved path as an alternative to Highway 1; connects to Wilder Ranch hiking and biking trails; provides access to numerous beaches; connects to the soon to be opened Coast Dairies trails; provides connection to Wilder Ranch path and links to the City of Santa Cruz Beach Street bikeway (providing approximately 9 miles of continuous and separated bike/pedestrian paths)
- **Distance:** 5 miles / **Cost:** \$10,550,000 / **Schedule:** Currently being initiated. Construction scheduled for 2018/19.

CITY OF SANTA CRUZ RAIL TRAIL: PACIFIC AVE/SANTA CRUZ WHARF TO NATURAL BRIDGES DRIVE

- **Benefits:** Connects over 30,000 residents, who live within one mile of the trail, to schools, work, beaches, shopping and other activity centers. Provides safe car-free alternative to Mission Street and connects to the Beach Street bike-way. 9 schools and 28 parks are located within a mile of this section of trail.
- **Distance:** 2.1 miles / **Cost:** \$5,300,000 / **Schedule:** Open house to provide input on initial design is scheduled for fall 2015. Construction expected to start 2017.

CITY OF WATSONVILLE RAIL TRAIL: LEE ROAD TO WALKER STREET (PENDING GRANT CONFIRMATION FOR SEGMENT TO WALKER ST)

- **Benefits:** Close to 20,000 residents live within one mile of the corridor where 12 schools and 12 parks are also located. Provides a connection to the Slough Trail network, the city's center and nearby neighborhoods. Provides a safe alternative to biking and walking on West Beach Street.
- **Cost:** \$2,050,000 / **Distance:** 1.2 miles / **Schedule:** Currently in environmental phase. Construction estimated in 2017 and 2018.

CITY OF CAPITOLA RAIL TRAIL: UPPER PACIFIC COVE PARKING LOT TO MONTEREY AVENUE

- **Benefits:** Approximately 12,000 residents are located within a mile of the project area, as are 2 schools and 8 parks. Will provide a safe bicycle and pedestrian connection from the City Hall parking lot to Monterey Avenue and future trail projects.
- **Cost:** \$300,000 / **Distance:** 300 feet / **Schedule:** Currently in design phase. Construction is scheduled for summer 2016.

FUNDING SOURCES - NORTH COAST PROJECT: FEDERAL LANDS ACCESS PROGRAM – \$6,300,000; LAND TRUST OF SANTA CRUZ COUNTY - \$3,300,000; COASTAL CONSERVANCY - \$950,000. **CITY OF SANTA CRUZ PROJECT:** RTC PROVIDED \$4,060,000 FROM FEDERAL EARMARK AND STATE TRANSPORTATION IMPROVEMENT PROGRAM (STIP); CITY OF SANTA CRUZ - \$1,190,000; CALIFORNIA COASTAL CONSERVANCY - \$50,000. **FRIENDS OF THE RAIL & TRAIL** CONTRIBUTED \$33,000 AND BIKE SANTA CRUZ COUNTY CONTRIBUTED \$9,000 FOR INITIAL ENVIRONMENTAL ASSESSMENT. **CITY OF CAPITOLA PROJECT:** RTC PROVIDED \$250,000 IN REGIONAL SURFACE TRANSPORTATION PROGRAM (RSTP) FUNDS; CITY OF CAPITOLA: \$50,000. **CITY OF WATSONVILLE PROJECT:** RTC PROVIDED \$1,040,000 FROM FEDERAL EARMARK AND STATE TRANSPORTATION IMPROVEMENT PROGRAM; LAND TRUST OF SANTA CRUZ COUNTY - \$335,000; ACTIVE TRANSPORTATION PROGRAM (PENDING) - \$600,000; CITY OF WATSONVILLE - \$64,000; FRIENDS OF THE RAIL & TRAIL - \$11,000.

PARTNERS: CONGRESSMAN SAM FARR; CITIES OF SANTA CRUZ, CAPITOLA AND WATSONVILLE; THE COUNTY OF SANTA CRUZ; THE CALIFORNIA COASTAL CONSERVANCY; STATE PARKS; THE LAND TRUST OF SANTA CRUZ COUNTY; ECOLOGY ACTION; FRIENDS OF THE RAIL AND TRAIL; BIKE SANTA CRUZ COUNTY; FEDERAL HIGHWAY ADMINISTRATION'S CENTRAL FEDERAL LANDS DIVISION; IOWA PACIFIC HOLDINGS.