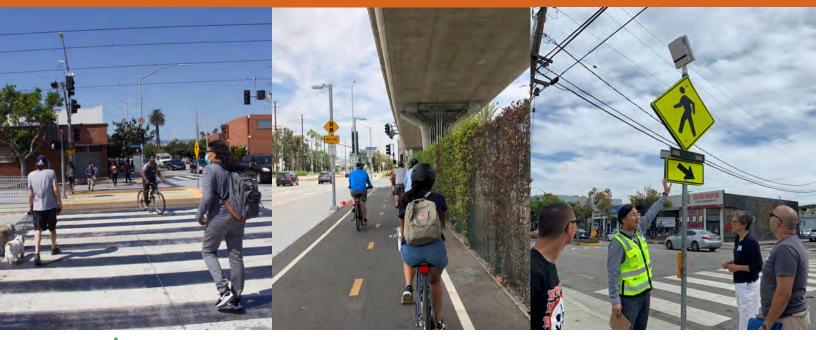


### Santa Monica Pico Neighborhood Pedestrian & Bicycle Safety Workshop Summary and Recommendations

**Community Pedestrian & Bicycle Safety Training and Action Planning** Creating Safer Streets for Walking and Biking









October 2019

Funding for this program was provided by a grant from the California Office of Traffic Safety, through the National Highway Traffic Safety Administration.



Pico Neighborhood, Santa Monica, California

### Acknowledgments

We would like to thank the Planning Committee for inviting us into their community to host the Community Pedestrian and Bicycle Safety Training in the Santa Monica Pico Neighborhood.

### **Planning Committee**

Tara Barauskas	Community Corporation of Santa Monica (CCSM)
Bryan Beretta	Santa Monica Spoke
Michael Brodsky	Santa Monica Spoke
Dee Cappelli	Community Resident
Stephen Corbel	Community Resident
Carla Fantozzi	Virginia Avenue Park Center
Barbara Filet	Community Resident
Cris Gutierrez	Climate Action Santa Monica
Peter James	City of Santa Monica, Planning & Community Development Department
Ana Maria Jara	Community Resident
Scott Johnson	City of Santa Monica, Planning & Community Development Department
Ferris Kawar	Santa Monica College
Jason Kligier	City of Santa Monica, Planning & Community Development Department
Catalina Langen	City of Santa Monica, City Manager's Office
Amy Miller	City of Santa Monica, Planning & Community Development Department
Carlos Morales	City of Santa Monica, Planning & Community Development Department
Terry O'Day	Mayor Pro Tempore, Santa Monica City Council
Lisa Parson	City of Santa Monica, City Manager's Office
Cynthia Rose	Santa Monica Spoke
Julie Rusk	City of Santa Monica, City Manager's Office
Francie Stefan	City of Santa Monica, Planning & Community Development Department
Frank Strauss	Community Resident
Kent Strumpell	Community Resident
Jennifer Taylor	City of Santa Monica, Housing and Economic Development Department

Thank you to the City of Santa Monica for providing lunch in support for this training and Virginia Avenue Park Center for providing the workshop space. Thank you to KTI Translations for being available for simultaneous interpretation. Thank you to Cynthia Rose and Santa Monica Spoke for planning and facilitating the on-bike assessment.

This report was prepared by:

California Walks

Miha Tomuta Tony Dang Wendy Ortiz Alma Leyva Orozco http://calwalks.org UC Berkeley Safe Transportation Research & Education Center Alexandra von Klan Garrett Fortin Jill Cooper https://safetrec.berkeley.edu



### **Table of Contents**

- 3 Acknowledgments
  - 3 Planning Committee
- 5 Introduction
- 7 Pedestrian and Bicycle Collision History
  - 7 Pedestrian Collisions
  - 8 Bicycle Collisions
  - 8 Equity Concerns
- 9 Walking & Biking Assessment
  - 10 Routes
  - 11 Reflections
    - 11 Biking Infrastructure
    - 12 Road User Behavior
    - 12 Train Track Crossing Challenges
    - 12 Lighting
    - 13 Sidewalk Conditions
    - 15 Lack of Shade Trees
    - 15 Accessibility Challenges
    - 17 Crossing Conditions

### **18** Recommendations to Improve Walking and Biking Safety

- **18** Community Recommendations
- 27 Cal Walks & UC Berkeley SafeTREC Recommendations
- 29 Appendix A: Community Plans & Policies Review
- 30 Appendix B: Resources
- **31** Appendix C: Data Analysis

### Introduction

Santa Monica Spoke, the Planning Committee, California Walks (Cal Walks), and the University of California at Berkeley's Safe Transportation Research and Education Center (SafeTREC) collaboratively planned and facilitated a Community Pedestrian and Bicycle Safety Training (CPBST) in the Pico neighborhood of Santa Monica on September 22, 2019 from 12:00 p.m. to 3:30 p.m. at Virginia Avenue Park Teen Center. The CPBST is a joint project of California Walks and SafeTREC (Project Team) that works with local residents and safety advocates to develop a community-driven action plan to improve walking and biking safety in their communities by collaborating with local officials and agency staff.

The Planning Committee identified the Pico neighborhood as the workshop focus area and the following workshop goals:

- 1. Identify and develop pedestrian and bicycle safety priorities and next steps in collaboration with Pico residents and community members;
- 2. Help make the Pico neighborhood safer for walking and biking; and
- 3. Encourage community residents to engage in active transportation.

The training consisted of:

- 1. Walking and biking assessments along three key routes;
- 2. An overview of strategies to improve walking and biking safety using the intersectional 6 E's framework: Evaluation, Equity & Empowerment, Engineering, Education, Encouragement, and Enforcement; and
- 3. A small group action-planning session to prioritize and plan for programs, policies, and infrastructure projects.

We would like to acknowledge the 21 participants who attended the workshop, including Santa Monica residents, Santa Monica Spoke, Climate Action Santa Monica, Familias Latinas Unidas, Santa Monica Safe Street Alliance, the Santa Monica Planning Commission, and the City of Santa Monica Planning and Community Development Department, Housing and Economic Development Department, and City Manager's Office. Their collective participation meaningfully informed and strengthened the workshop's outcomes.

This report summarizes the workshop proceedings, as well as recommendations for programs, policies, and infrastructure to improve walking and biking safety in the Pico neighborhood.

### **The Planning Process**



### Step 1: Assemble a Planning Committee - February 2019

• Enlist key stakeholders to serve as the Planning Committee to define the CPBST workshop goals and refine curriculum to meet the community's needs

### Step 2: Review and Analyze Existing Plans and Data - February 2019

- Review existing community documents (policies and plans)
- Analyze injury collision data and identify trends

### Step 3: Conduct CPBST Site Visit - August 21, 2019

- Review current pedestrian and bicycle safety data and conditions
- Discuss workshop logisitcs
- Conduct preliminary walk assessments
- Identify instructional activities and goals for the workshop
- Develop outreach and recruitment plan for the workshop

### Step 4: Conduct CPBST Workshop - September 22, 2019

- Conduct a walking and/or biking assessment
- Participate in workshop instructional activities
- Develop an action plan, including identifying actionable next steps for advancing workshop goals

### Step 5: Implement CPBST Actions - Ongoing

- Review CPBST report summarizing workshop proceedings and recommendations
- Work with partners to secure resources for programs/projects identified during the CPBST
- Update California Walks and SafeTREC about changes as a result of the CPBST workshop





### Pedestrian and Bicycle Collision History

The following data is based on police-reported pedestrian and bicycle collisions resulting in injuries to pedestrians<sup>1</sup> and bicyclists within the Pico Neighborhood of Santa Monica, as determined by the workshop's planning committee. Data reported in this section are from the Statewide Integrated Traffic Records Systems (SWITRS) for the years 2008 to 2017. Collision data for 2016 and 2017 are provisional as of March, 2019. A full discussion of the pedestrian and bicycle collision data, as well as Supplemental Data requested by the planning committee, can be found in Appendix C.

### **Pedestrian Collisions**

Over the 10-year period from 2008 to 2017, pedestrian collisions appear to be decreasing beginning in 2012 and have remained relatively low throughout the last three years (2015-2017). In the most recent five years of data available, 2013 to 2017, pedestrian collisions were concentrated on main thoroughfares: Pico Boulevard, Olympic Boulevard, and Broadway. There were clusters of pedestrian collisions at the following intersections: Pico Boulevard/20th Street, Pico Boulevard/Cloverfield Boulevard, and Olympic Boulevard/Cloverfield Boulevard. Pedestrian collisions primarily occurred between 12 p.m. and 3 p.m., with a peak on Thursdays. The top primary collision factors were driver failure to yield right-of-way to pedestrians at a marked or unmarked crosswalk (45.5%) and pedestrian failure to yield right of way to vehicles when crossing outside of a marked or unmarked crosswalk (10.6%).<sup>2</sup> There were 69 pedestrian victims injured, including one (1) fatality and eleven (11) severe injuries. Close to one quarter (23.2%) of pedestrian victims were younger than 24.



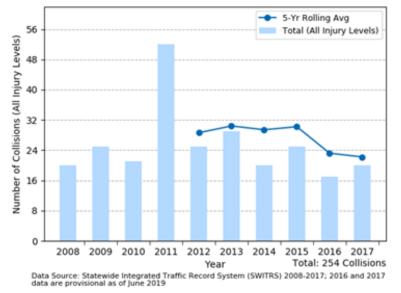
### Santa Monica Pico Neighborhood Pedestrian Injury Collisions (2008 - 2017)

<sup>1</sup> A pedestrian is defined as any person who is afoot or using a non-motorized personal conveyance other than a bicycle. This includes skateboards, strollers, wheelchairs, and any electric assistive mobility device.

<sup>2</sup> Pedestrians have the right-of-way at marked and unmarked crossings, and drivers are legally required to yield to pedestrians in these instances. However, when pedestrians cross outside of a marked or unmarked crosswalk, pedestrians must yield the right-of-way to drivers. A pedestrian is legally allowed to cross outside of a marked or unmarked crossing between two intersections where one or none of the intersections is signalized but only after the pedestrian yields the right-of-way to oncoming drivers. This is not the same as "jaywalking," which refers to crossing outside of a marked or unmarked crossing between two signalized intersections.

### **Bicycle Collisions**

Over the 10-year period from 2008 to 2017, bicycle collisions appear to be declining after a sharp spike in 2011. In the most recent five years of data, 2013 to 2017, bicycle collisions were concentrated on thoroughfares: Pico Boulevard, Olympic Boulevard, Cloverfield Boulevard, and Broadway. There were clusters of bicycle collisions at the following intersections: Olympic Boulevard /20th Street, Olympic Boulevard /Cloverfield Boulevard, Broadway/16th Street Broadway/11th Street, Pico Boulevard/ 16th Street, Pico Boulevard/17th Street, and Pico Boulevard/18th Street. Bicycle collisions primarily occurred during relatively higher traffic volume times in the early and evening commute hours, with a peak between 9 p.m. and 12 p.m. The top primary collision factors for bicycle collisions were unsafe turning or moving right or left on a roadway (18%), driver failure to yield right of way when making a left turn or U-turn (16.2%) and bicyclist failure to ride on the right edge of the roadway (10.8%).<sup>3</sup> There were 109 bicyclist victims injured in 111 bicycle collisions. Over a third (37.6%) of bicyclist victims were between the ages of 25 to 34.





### **Equity Concerns**

Equity in this project means working to ensure that all groups of people, regardless of age, race, gender, ability or income, are considered in planning and decision-making processes. For transportation, we aim to address inequities in vulnerable communities, which have disproportionately high levels of injuries. Improving safety requires tackling the complicated interplay between inequities, the walking and biking built environment, and driver, bicyclist, and pedestrian behaviors.

At the national level, pedestrian fatality rates in lower-income communities are more than twice that of higher income communities.<sup>4</sup> SafeTREC used SWITRS, U.S. Census Bureau, and American Community Survey (ACS) data to overlay pedestrian and bicycle collisions with income data to understand how collisions are distributed in this area based on income level. This analysis indicated that many pedestrian and bicycle collisions occurred at intersections or along roads that adjoined with relatively lower-income census blocks.

<sup>3</sup> These violations could have either been committed by a motor vehicle driver or bicyclist, since bicycles are considered vehicles and therefore must follow all the same rules of the road as vehicles.

<sup>4</sup> Pedestrian Deaths in Poorer Neighborhoods Report," Governing, August 2014. Available at http://www.governing.com/gov-data/pedestrian-deaths-poor-neighborhoods-report.html

Santa Monica-Pico Pedestrian Collision Map with Income (2013 - 2017)



Santa Monica-Pico Bicycle Collision Map with Income (2013 - 2017)

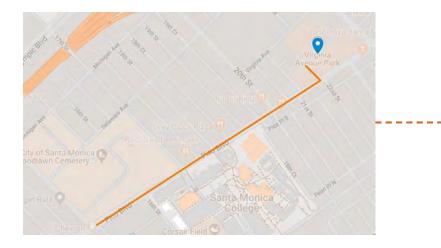
As programs affecting the Pico neighborhood such as the Pico Wellbeing Project move forward, attending to equity will require that the city address disproportionate transportation safety impacts. People experiencing homelessness, older adults, students at Santa Monica College, and Santa Monica's sizeable cycling community all use Pico Boulevard in varying ways and may have unique transportation safety concerns and needs. Santa Monica's Vision Zero policy, as described in the <u>2016 Pedestrian Action Plan</u>, is a positive step in promoting safe walking and cycling for all pedestrians and cyclists by establishing a goal to eliminate all traffic fatalities and severe injuries.

### Walking & Biking Assesment

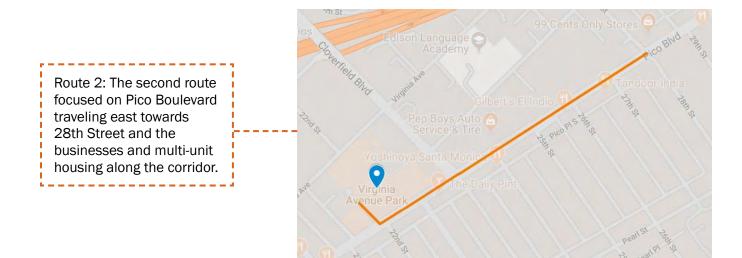
### **Routes**

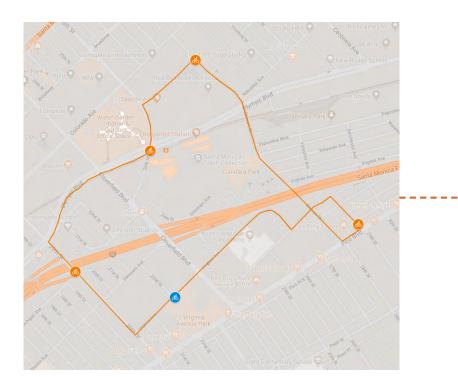
Workshop participants conducted two walking and biking assessments and one on-bike assessment and were asked to:

- 1. Observe infrastructure conditions and the behavior of all road users;
- 2. Assess the qualitative and emotional experience of walking or biking along the route;
- 3. Identify positive community assets and strategies which can be built upon; and
- 4. Consider how the walking and biking experience might feel different for other vulnerable users.



Route 1: The first route focused on Pico Boulevard traveling west towards Santa Monica College and the businesses and multiunit housing along the corridor.





Route 3: The third route was performed on-bike and focused on streets and arterials commonly used by Pico residents to travel within the neighborhood.

### Reflections

Following the walking and biking assessment, participants shared the following reflections:

### Biking Infrastructure

- 20th Street is not only a dedicated bike route (with shared lane markings or "sharrows") but also an
  officially designated truck route. Without a standard bike lane on 20th Street, bicyclists compete for
  use of the vehicle lane with motorists and truck drivers who appear to be driving above the posted
  speed limit of 30 miles per hour (mph). Motorists traveling northwest on 20th Street towards the
  Interstate 10 freeway appear to travel even faster due to the downhill slope.
- While Olympic Boulevard contains the Exposition Corridor Bike Path for much of its length heading northwest, the bike route on Olympic Boulevard southwest of 21st Court only provides sharrows.
- 20th Street and Olympic Boulevard southwest of 21st Court have minimal bike route signage.
- Exposition Corridor Bike Path requires bicyclists to use the pedestrian crosswalks at Cloverfield Boulevard and 26th Street in order to continue, which creates potential points of conflict between pedestrians and bicyclists.
- Participants were concerned about the safety of people experiencing homelessness residing on the Exposition Corridor Bike Path, especially where it curves, because there are blind spots that can lead to potential points of conflict between bicyclists and people residing on the path.
- The Exposition Corridor Bike Path also presents a potential point of conflict between pedestrians and bicyclists where the path directly crosses the sidewalk at the 26th Street/Bergamot light rail station entrance.
- Participants observed a bicyclist observed riding on the sidewalks on Pico Boulevard between Cloverfield Boulevard and 16th Street.
- While bicycle parking is available in front of businesses along the south side of Pico Boulevard, between Cloverfield Boulevard and 22nd Street and in front of Santa Monica College, there is no bicycle parking available for the businesses between 22nd Street and 16th Street.



<u>Left:</u> Exposition Corridor Bike Path leading bicyclists to the pedestrian crosswalk at Cloverfield Boulevard. Note also the poorly lit highway underpass in the daytime.

<u>Right:</u> A bicyclist rides on the sidewalk across from Santa Monica College.

### Road User Behavior

- Pedestrians and bicyclists who work at the business park on the east side of Olympic Boulevard often dart across the street while the light is red so they can catch an upcoming train.
- Motorists appear to travel at above the posted speed limit of 35 mph along Pico Boulevard.
- Participants witnessed pedestrians crossing outside marked crosswalks, as well as crossing Pico Boulevard after alighting the bus.

### Train Track Crossing Challenges

• Participants shared that when the train track arms are lowered for an oncoming train, the traffic signal on Olympic Boulevard is also red. This results in the intersection coming to a complete standstill with all users prohibited from crossing 26th Street, as well as Olympic Boulevard. Participants expressed that in these instances, travel parallel to the train tracks for pedestrians and bicyclists to cross Olympic Boulevard should be allowed.

### Lighting

- The highway underpass near the Stewart Avenue/Virginia Avenue intersection lacks sufficient lighting for a comfortable ride or walk.
- The Pico Boulevard corridor generally lacked sufficient lighting and pedestrian-scale lighting. There is pedestrian-scale lighting leading up to Santa Monica College, but participants shared it is not sufficient lighting for nighttime walking. Participants and a business owner requested additional lighting in front of businesses to increase visibility of local shops and restaurants and to draw in customers.
- Tree branches near Santa Monica College obscured the little pedestrian-scale lighting that was present. Participants on Route 2 shared that the existing pedestrian-scale lighting fixtures do not provide adequate light and are more ornamental than functional.
- Participants on Route 1 noted that the lack of lighting influenced their decision and their neighbors' decision to walk, bike, or scoot at



 $\label{eq:constraint} \textit{Tree branches block the pedestrian-scale lighting fixture.}$ 

night. In particular, one youth participant shared that there has been gang-related activity at Virginia Park at night that has discouraged them from walking near the park at night, especially without additional lighting.

- Participants also noted that the lighting that was present in the assessment area used sodium lamps and produced a dull, warm light compared to modern LED lights.
- A participant representing Familia Latinas Unidas shared during the action planning session that families living along Kansas Avenue between Cloverfield Boulevard and Stewart Street are particularly concerned with the lack of lighting on Kansas Avenue and other residential neighborhood streets.

### Sidewalk Conditions

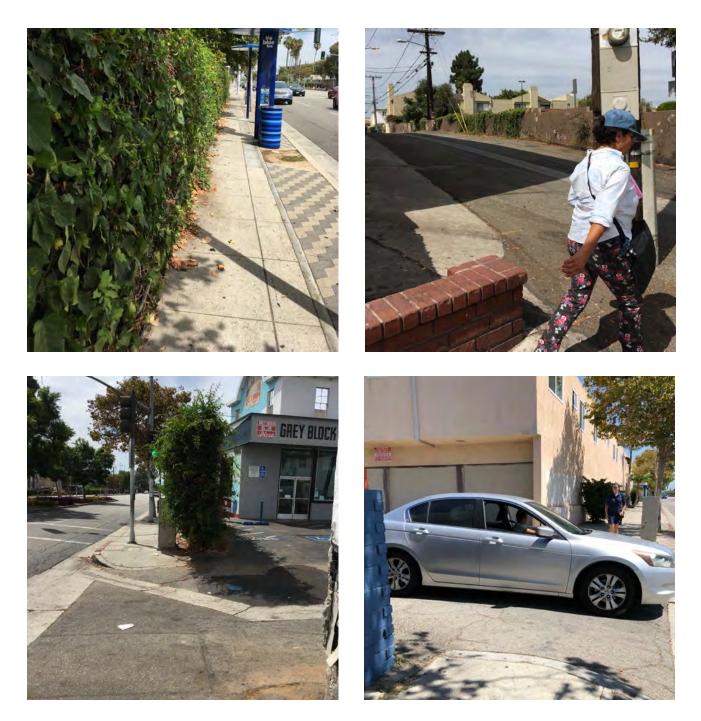
- While sidewalks were present in the assessment area along Pico Boulevard, the sidewalks varied greatly in terms of width and maintenance. Participants noted that the sidewalks felt narrow and that it was difficult to travel comfortably for two adults walking side-by-side or passing, someone using an assistive mobility device, or someone using a stroller.
- Tree roots have uplifted the sidewalk along the south side of the Pico Boulevard/22nd Street intersection.
- Sidewalks along Santa Monica College are wide and comfortable but narrow after the bus stop at the Pico Boulevard/18th Street intersection. There is a gravel pad and grass area along the sidewalk that could be paved to expand the sidewalk, making it more comfortable for pedestrians and creating space for additional bus stop seating and shelters. City of Santa Monica staff shared that this bus stop has the highest ridership of any stop along the Pico Boulevard corridor.



Left: Tree roots uplift the sidewalk at Pico Boulevard/22nd Street.

Right: Sidewalk expansion opportunity across from Santa Monica College between 18th Street and 17th Court.

- The usable width of sidewalks narrowed in front of several businesses and apartment complexes on the north side of Pico Boulevard between Cloverfield Boulevard and 16th Street from overgrown vegetation-including an ivy wall along the City of Santa Monica Woodlawn Cemetery between 14th Street and 17th Street-and on the north east corner of the Pico Boulevard/Cloverfield Boulevard intersection due to the adjacent property's landscaping wall.
- E-scooters and e-bikes parked on the sidewalk narrowed the sidewalk in many areas along Pico Boulevard and in some instances, created obstructions for people trying to pass.
- The visibility of pedestrians and motorists is limited at the 17th Court, 18th Court, and 19th Court alleys due to utility poles, building walls, and overgrown vegetation.
- A participant representing Familia Latinas Unidas shared during the action planning session that older adults living along Kansas Avenue between Cloverfield Boulevard and Stewart Street had great difficulty navigating the sidewalks along Kansas Avenue due to uplifted sidewalks and other maintenance issues.



<u>Upper Left:</u> Climbing ivy narrows the pedestrian path of travel along Pico Boulevard along the City of Santa Monica Woodlawn Cemetery.

<u>Upper Right:</u> A utility pole blocks visibility for pedestrians crossing 19th Court as well as visibility of motorists exiting the alley.

<u>Lower Left:</u> Overgrown vegetation blocks pedestrians crossing 18th Court as well as visibility of motorists exiting the alley.

Lower Right: A motorist exiting the 17th Court alley fails to see a pedestrian crossing.

### Lack of Shade Trees

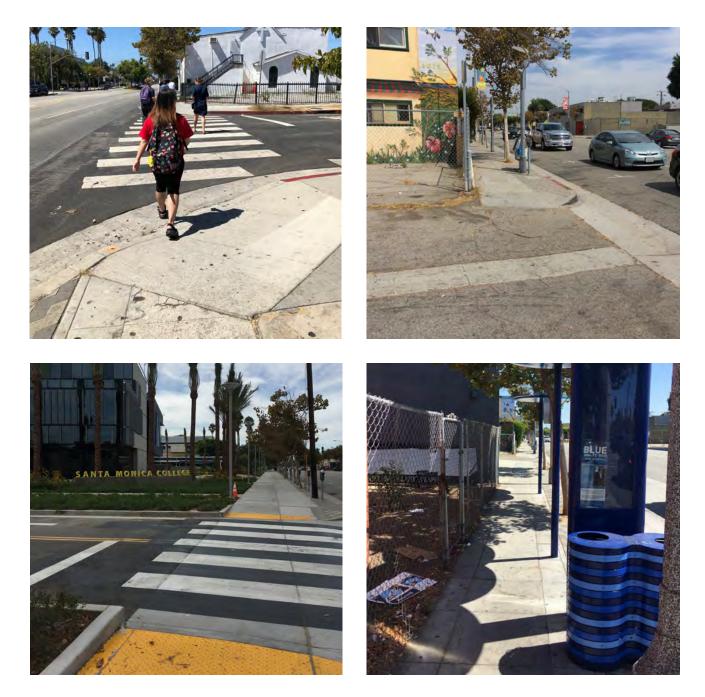
• There is a lack of shade trees along Pico Boulevard, and participants noted the noticeable "heat island" effect while walking next to the numerous surface parking lots that lacked landscaping and other green infrastructure. Empty tree wells and paved sidewalk buffers can be used to plant droughttolerant, native shade trees to improve comfort for pedestrians and bicyclists and provide other environmental benefits.



Shade tree opportunity along the south side of Pico Boulevard.

### Accessibility Challenges

- While the assessment area along Pico Boulevard between 16th Street to 28th Street largely
  contained curb ramps, many of the ramps were older apex-style ramps that directed pedestrians
  diagonally into the intersection rather than directly into a crosswalk and that lacked accessibility
  features, such as detectable warning strips for people with visual disabilities.
- Along Pico Boulevard, many driveway entrances/exits to businesses and residential alleys presented serious challenges to people using wheelchairs and other mobility assistance devices. The sidewalks that crossed these driveways appeared to have a cross slope greater than the 2% recommended by the federal Public Rights-of-Way Accessibility Guidelines (PROWAG). Specific locations included: the entrance to alleys along the north side of Pico Boulevard including at 17th Court, 18th Court, and 19th Court, as well as the numerous business and commercial development entrances on both the north and south side of Pico Boulevard heading north east toward 28th Street.
- Newer infrastructure at the Santa Monica College did provide more current accessibility features for pedestrians with disabilities.
- Pedestrian signal placement in some locations made it difficult for people using assistive mobility devices to access the push-buttons.
- The bus stop along the north side of Pico Boulevard at 20th Street has no seating, making it difficult and uncomfortable for older adults and those using walking aids to wait for the bus for extended periods of time.



<u>Upper Left:</u> Older style concrete curb ramps along the north side of Pico Boulevard.

<u>Upper Right:</u> Sidewalks leading into alleys appear to have a non-ADA compliant cross slopes and direct pedestrians across an uneven path of travel.

<u>Lower Left:</u> Detectable warning strips for pedestrians with visual disabilities at the Santa Monica College vehicle entrance.

Lower Right: Missing bus stop seating at the bus stop on Pico Boulevard/20th Street.

### Crossing Conditions

- Colored and stamped concrete crosswalks along Pico Boulevard between 28th Street and 16th Street blend in with the concrete road and are difficult for pedestrians and motorists to see. Some crosswalks also lacked stop bars or advanced yield markings ("shark's teeth"). Stop bars are solid white lines that extend across all vehicle lanes and indicate to road users where to stop in advance of the crosswalk. Shark's teeth inform drivers of the point they need to yield to other road users as they approach a crosswalk.
- Participants on Route 2 shared that it is often difficult to cross Pico Boulevard in unsignalized marked crosswalks and in unmarked crosswalks due to the high volume and speed of cars. Motorists regularly fail to yield to pedestrians in the crosswalk, forcing them to wait in the center median for cross traffic to pass before proceeding. Participants identified pedestrian refuge islands as a feature to improve visibility and safety of pedestrians crossing at the Pico Boulevard/20th Street intersection.



<u>Left:</u> The color has faded from the crosswalks at the Pico Boulevard/20th Street intersection.

<u>Right:</u> A high-visibility marked crosswalk at Pico Boulevard/20th Street across from Virginia Avenue Park with space for a refuge island.

- Participants on Routes 1 and 2 shared that the time provided to cross Pico Boulevard was barely sufficient. While participants were able to cross in a single signal cycle, they shared that it would be difficult for pedestrians with disabilities, older adults, and children to cross in the time provided.
- One participant shared that the controller for the Rectangular Rapid Flashing Beacon (RRFB) marked crosswalk at the southern leg of the Kansas Avenue/Cloverfield Boulevard intersection was not in working order.

## Recommendations to Improve Walking and Biking Safety in Santa Monica Pico Neighborhood

Participants engaged in small-group action planning discussions to identify community programs and infrastructure projects aimed at increasing the health and safety of the community. Small groups were separated into four thematic areas: encouragement, education, enforcement, and engineering, to brainstorm a list of programs and projects. Each small group then chose one recommendation to prioritize and expand on via preliminary planning. The other results of the brainstorm are listed by theme below.

### Virginia Avenue Park Activation

• Participants on Route 2 spoke to a local business owner who requested additional pedestrian activities in the area to draw community members to shops and restaurants. He suggested a food truck in the Virginia Avenue Park Teen Center parking lot along Pico Boulevard to extend park visiting hours and draw potential customers to the businesses across the street later into the afternoon and evening.

### **Education**

- Identify education program targets and safety messaging for:
  - Car Share Services: Speeding, driving around pedestrians, bicyclists, scooters
  - Parent Drivers: Driving around pedestrians, bicyclists, scooters
  - Drivers: Dutch Reach and dooring

### Encouragement

- Integrate climate change educational programming for middle and high school students
- Develop an Earn-a-Bike program
- Develop a Safe Routes to School Senior Plan
- Create community walking groups
- Create an inclusive women-led/focused biking group
- Expand upon the Buy Local, Bike Local program

### **Community Recommendations**

The following tables summarize the recommendations developed by the community during the workshop.

Encouragement Project: Rebranding Kidical Mass

Project Description: Kidical Mass is a program of Santa Monica Spoke (SM Spoke) that provides bike safety education for children and youth through a fun ride with their families. SM Spoke is currently working on rebranding the Kidical Mass program to be more inclusive of all ages, from kids to grandparents and modes of active transportation, including walking and scooting.

# Project Goals:

- Integrate seniors into Kidical Mass programming to create streams of intergenerational experiences and knowledge sharing; and
   Integrate walking events and pedestrian safety education into programming.

Action Steps	Timeline	<b>Responsible Party</b>	Resources
<ul> <li>Soft launch of rebranding for October 2019 ride</li> <li>Conduct targeted outreach to older adults by partnering with the Commission to the Elderly</li> <li>Collaborate with Santa Monica College and Ferris Bike Club to attract volunteers and participants</li> <li>Collaborate with Climate Core to integrate climate change education into the active transportation conversation</li> <li>Contact Breeze Bike Share to borrow a fleet of bikes for the ride</li> </ul>	October 2019	SM Spoke	Spare the Air Youth. Transportation and Climate Change Lesson Plans from the Bay Area California Air Resources Board. Climate Curriculum Resources
<ul> <li>Host brainstorming session for rebranding</li> <li>Convene local partners including Climate Action, Safe Streets</li> <li>Convene local partners including Climate Action, Safe Streets</li> <li>Alliance, RDC architectural firm, and the Transportation Management</li> <li>Organization</li> <li>Discuss renaming of Kidical Mass, establishing walking events, groups, and tours, and rebranding of Handle Bar Happy Hour to multimodal mobility</li> </ul>	Winter 2019	SM Spoke	<u>Vision Zero Santa Monica</u> <u>Santa Monica Conservancy</u> <u>Events + Tours</u> <u>Santa Monica College</u> <u>Emeritus program</u> <u>Buy Local Rike Local</u>
			Day Loval, DIN Loval

# Education Project: Safe Routes to School District-City Education Program

to encourage safe walking, biking, and scooting to and from school and reduce collisions involving students. The City of Santa Monica would like to partner with neighborhood schools through the Santa Monica-Malibu Unified School District to transform and present the City's SRTS education Project Description: As more pedestrians, bicyclists, scooters, and cars share the road in the Pico neighborhood, targeted student education is needed curriculum to Pico students.

## **Project Goals:**

- Identify partnership opportunities for City-District education programs; 4 0 0 <del>4</del>
- Develop and implement Safe Routes to School (SRTS) education programs within Pico neighborhood schools;
  - Reduce unsafe student walking, biking, scooting behaviors; and
    - Reduce collisions and injuries involving students.

Action Steps	Timeline	Timeline Responsible Party	Resources
<ul> <li>City of Santa Monica to meet with the school district to discuss opportunities to use existing City of Santa Monica SRTS curriculum within the school setting:</li> <li>Target age groups with highest levels of injuries and fatalities</li> <li>Within existing school day or after school programs</li> <li>Crest After-School Program</li> <li>Gym and Spin Classes</li> <li>Outside Educators during Physical Education period</li> <li>Teacher education</li> </ul>	Fall- Winter 2019	City of Santa Monica Santa Monica- Malibu Unified School District	City of Santa Monica SRTS Curriculum
<ul> <li>Redesign SRTS education program to fit the needs of Pico neighborhood schools:</li> <li>Discuss how curriculum meets many common core state standards and how to redesign curriculum to encourage use in schools</li> <li>Consider District endorsed approach to implementation of curriculum</li> <li>Consider teacher-led or community-based organization led program</li> <li>Consider various education formats:</li> <li>Video education</li> <li>Social Media</li> <li>Friday School and Walk Days (Carfree Fridays)</li> <li>Other education methods preferred by teachers and students</li> </ul>	Winter 2019 - Spring 2020	City of Santa Monica Santa Monica- Malibu Unified School District	Creative formats for existing curriculum, videovoice, social media education, schoology website

Education Project: Safe Routes to School District-City Education Program (continued)

	neline F	Timeline Responsible Party Resources	Resources
Begin school-focused education programs within Santa Monica elementary Fall 202 and middle schools.	1 2020 C	ity of Santa Monica	Fall 2020 City of Santa Monica Updated SRTS curriculum
	0	Santa Monica Spoke	
	U) Z ()	Santa Monica- Malibu Unified School District	

pedestrians and bicyclists crossing Exposition Light Rail Line; proposed spot improvements to Cloverfield Boulevard/20th Street; identified categories of improvements for long-term discussion (improved lighting, physically separated facilities, speed control, volume control, driveway design and access Project Description: Short-term action steps for improving bicycle detection, signalization, and crossings citywide and improving crossing conditions for management)

Project Goals:

- 1. Implement short-term, high-impact improvements;
- Improve communication between Transportation Engineering & Management Division and residents and community-based organizations for longer-term improvements; and *с*і
- Improve coordination between the City of Santa Monica Mobility Division and Transportation Engineering & Management Division. *т*

Action Steps	Timeline	Responsible Party	Resources
Pedestrian/Bicycle Crossings with Expo Light Rail Line Problem: existing signal timing and control unnecessarily restricts pedestrian and bicyclist mobility. For example, at the Olympic Boulevard/26th Street intersection, pedestrians and bicyclists are required to stop when traveling east/west on Olympic Boulevard parallel to the train tracks even if there is no north/south traffic.	October 2019	City of Santa Monica Mobility Division	
Actions Take an intersection-by-intersection approach to discussing with California Public Utilities Commission (PUC) and Metro Meet with PUC and Metro to discuss Olympic Boulevard/26th Street intersection at the 26th Street/Bergamot Station Main Ask: Can the intersection be re-signalized to work better for pedestrians and bicyclists? Can pedestrians and bicyclists be provided a signal to cross 26 Street when traveling east/west on Olympic parallel to the train tracks?			

Engineering Project Name: Short-Term High-Impact Improvements (continued)

Action Steps	Timeline	Responsible Party	Resources
<ul> <li>Improving Bicyclist Detection</li> <li>Problem: existing in-pavement bicycle loop detectors are not functioning properly. The City is shifting to video detection with traffic cameras that will work for bicyclists, and in effect, are abandoning the loop detectors. Where video detection has been installed, the "bicyclist detected" feedback signs do not appear to be functioning correctly 100% of the time.</li> <li>Actions</li> <li>Develop educational materials on City's shift from loop detectors to video detection</li> <li>Develop educational materials to residents via partnerships with community organizations</li> <li>Evaluate potential addition of signage and/or enhanced markings to signal to bicyclists where to position themselves for video detection</li> <li>Identify locations where "bicyclist detected" feedback signs are not functioning and report to the Transportation Engineering and Management Division</li> </ul>	Fall 2019/ 2020 2020	Planning Committee City of Santa Monica Mobility Division City of Santa Monica Transnsportation Engineering & Management Division	
<ul> <li>Scramble Crossings &amp; Bicyclists</li> <li>Problem: There has been inconsistent enforcement around bicyclists using scramble crossings across the City and there is a lack of consistent signage to indicate when bicyclists may or may not use a scramble crossing.</li> <li>Actions <ul> <li>Identify existing City policy on bicyclist use of scramble crossing.</li> <li>If no City policy currently exists, develop a City policy in consultation with community organizations</li> <li>Share existing City policy with Santa Monica Police Department to align enforcement efforts with City policy</li> <li>Install clear signage at all scramble crossings in alignment with City policy</li> <li>Develop educational materials on when bicyclists may/may not use a scramble crossing</li> <li>Distribute educational materials to residents via partnerships with community organizations</li> </ul> </li> </ul>	Fall 2019 / Winter 2020	Planning Committee City of Santa Monica Mobility Division City of Santa Monica Transportation Engineering & Management Division City of Santa Monica Police Department	

Action		Timolino	Deconcible Darty	
ACHO	Action Steps		השקטוואוטופ דמונו	RESOURCES
Inters	Intersection Improvements	Winter	Planning Committee	
Proble	Problem: Participants identified numerous intersections that could benefit	2020/		
from ir	from improvements to increase visibility issues between different road users.	Summer	City of Santa Monica	
		2020	Mobility Division	
Actions	S			
•	Evaluate implementing a "no right-turn on red" restriction on the		City of Santa Monica	
	southern leg of the 20th Street/Pico Boulevard intersection. This may		Transportation	
	require the addition of a right-turn queuing lane.		Engineering &	
•	Evaluate separation of signal phases for all modes at the 20th Street/		Management	
	Pico Boulevard intersection, including a dedicated right-turning phase		Division	
	that is separated from the pedestrian crossing phase.			
•	Implement already identified crossing improvements at the Pico			
	Boulevard/Cloverfield Boulevard intersection to enhance access to			
	Virginia Avenue Park, including curb radius reduction, high-visibility			
	crosswalk markings, and leading pedestrian intervals.			

# Enforcement Project Name: Traffic Ticket Diversion Program

safe driving, walking, biking, skating, and scooting around schools and residential neighborhoods. A ticket diversion program in Santa Monica would take a Project Description: Traffic ticket diversion programs can deter unsafe driver, pedestrian, bicyclist, skateboarder, and scooter operator behaviors and encourage community-led approach to provide an opportunity for bike, pedestrian, skateboard, and scooter safety education and community service, in lieu of the fines associated with traffic citations that are often prohibitive in cost to low-income community residents. Project Goals:

- Deter unsafe road user behaviors for walking, biking, scooting, skateboarding, and driving;
- Educate users through a city-sanctioned safety course to replace traffic fines with community service and education; τi ci m
  - Implement a ticket diversion program to reduce unsafe driving around schools; and

4. Enhance concentration of community enforcement activities around schools.	S.		
Action Steps	Timeline	Responsible Party	Resources
Investigate existing programs statewide to understand how to implement a sustainable traffic ticket diversion program. Decide whether to replace fines with community service, educational trainings, or a mixture of both.	October 2019 - January 2020	City of Santa Monica Mobility Division Neighborhood Champions Santa Monica Safe Streets Alliance Santa Monica Police Department	<ul> <li>Bike San Gabriel Valley Traffic Diversion Program Bike East Bay Bicycle Traffic Safety Program The Bike Center Assembly Bill, 902: Traffic Diversion Programs</li> </ul>
<ul> <li>Determine resources needed:</li> <li>Staffing requirements</li> <li>Program location</li> <li>Training materials</li> <li>Time allotment</li> </ul>	January 2020 - May 2020	City of Santa Monica Mobility Division Parent Champions Santa Monica Spoke Santa Monica Safe Streets Alliance Santa Monica Police Department	See above.
<ul> <li>Apply for funding to establish the program:</li> <li>Active transportation safety grants</li> <li>Donations</li> <li>Other possible revenue streams</li> </ul>	January 2020 - May 2020	City of Santa Monica Mobility Division Neighborhood Champions Santa Monica Safe Santa Monica Safe Santa Monica Police Santa Monica Police Department	LA Metro Funding Sources Guide

Action Steps	Timeline	Responsible Party	Resources
Launch pilot traffic ticket diversion program during the summer months, in time for tourism peak.	June 2020 - Aug 2020	City of Santa Monica Mobility Division Neighborhood Champions Santa Monica Spoke Santa Monica Safe Streets Alliance Santa Monica Police Department	
Ensure the sustainability of the program by evaluating the program's intended goals and uncover unintended consequences. Use TIMS data to determine whether there has been a crash reduction within the study area.	Sept. 2020 - Nov. 2020	City of Santa Monica Mobility Division Neighborhood Champions Santa Monica Spoke Santa Monica Safe Streets Alliance Santa Monica Police Department Berkeley SafeTREC	Traffic Injury Mapping System (https://tims.berkeley.edu)

### Cal Walks & UC Berkeley SafeTREC Recommendations

### Apply to America Walks' Community Change Grant

The Project Team recommends Santa Monica Spoke apply for <u>America Walks' Community Change</u> <u>Grant</u> to rebrand and expand Kidical Mass to be more inclusive of all ages, and modes of active transportation and integrate a climate change focus. Applications are due November 8, 2019. The program awards grantees with \$1,500 in community stipends for projects related to creating healthy, active, and engaged places to live, work, and play. The rebranding of the Kidical Mass program aligns well with this funding opportunity. Furthermore, the integration of climate change as a focus moves beyond health as a consequence of individual and community choices and integrates the environmental impacts on individual and community wellness.

### Identify Funding to Implement City Project

The Project Team recommends the Planning Committee work with the City of Santa Monica, and local partners, including community residents to prioritize affordable housing, public transit, and park activation projects (which are related to safe travel for pedestrians and bicyclists) so that the City and public transit agencies can apply for grants using the <u>Funding Navigation for California</u> <u>Communities</u> tool. Application deadlines vary by project type. Workshop participants understand how the intersection between walking and biking safety and options for affordable housing, public transit, and access to safe places impact the community's safety and wellness.

### Establish an Earn-a-Bike Program

The Project Team recommends Santa Monica Spoke work with local partners, including Climate Action and the Santa Monica Police Department to establish an Earn-a-Bike Program for Santa Monica youth and older adults. Program participants earn their bikes by engaging in rules of the road and bike mechanics workshops to build their self confidence while riding on the road. Since Santa Monica Spoke is currently working on rebranding their Kidical Mass program to include older adults, doing so in this program would mean that more older adults get access to bikes and bike safety education. Furthermore, it creates additional opportunities for intergenerational experiences and knowledge share. Santa Monica Spoke can collaborate with the Santa Monica Police Department who may have a fleet of working and non-working bicycles to donate for the program.

### Address Cycling Gender Gap

According to TIMS victim data, nearly 80 percent of bicyclist victims in the Santa Monica Pico Neighborhood were male, a statistic which reflects national trends suggesting that fewer women bike for transportation compared to men. In an effort to address the cycling gender gap in Santa Monica's Pico neighborhood, the Project Team suggests that Santa Monica Spoke, the Santa Monica's Safe Streets Alliance, Santa Monica College, and the City of Santa Monica's Mobility Division target education and encouragement initiatives to boost ridership among womanidentifying bicycle and scooter riders.

### Establish a Bicycle Pedestrian Advisory Committee

The robust discussion during the workshop underscored the high level of community interest and readiness to work with the City to improve pedestrian and bicycle safety in Santa Monica. The Project Team recommends establishing a Bicycle Pedestrian Advisory Committee (BPAC)—either standalone or as a subcommittee of a larger transportation advisory committee—to create an ongoing dialogue between residents, community groups, the City of Santa Monica Mobility Division, and the City of Santa Monica Traffic Engineering and Management Division. The engineering discussions during the workshop needed critical input from the Traffic Engineering and Management Division, and the more formalized structure of a BPAC may facilitate more conversations with the Division, residents, and community organizations. Especially as new transportation technologies emerge on Santa Monica streets, the BPAC can serve as an important sounding board for City staff and the City Council on new policies, programs, and practices impacting pedestrian and bicycle safety and mobility.

### **Appendix A: Community Plans & Policies Review**

Community Plans and Policies Review: Cal Walks conducted a review of current community planning documents to inform the training and prepare to build off existing efforts. The following documents were reviewed prior to the site visit:

- City of Santa Monica General Plan: Land Use and Circulation Element, 2010
- Santa Monica Bike Action Plan, 2011
- City of Santa Monica Pedestrian Action Plan, 2016
- <u>City of Santa Monica Safe Routes to School</u>
- Math in My World: California Common Core math problems featuring Santa Monica stories and the ways we move around our community.
- <u>Accessible Santa Monica</u>
- Santa Monica Bike Map

### **Appendix B: Resources**

- Funding Navigation for California Communities
- <u>America Walks Community Change Grant</u>
- We Bike NYC: Women and Gender Non-Conforming Led Bike Group
- Earn- a-Bike Program Manual
- Building Community Through Bike Repair
- <u>Project for Public Spaces, Programming for Inclusion: Enhancing Equity Through Public</u> <u>Space Activation.</u>
- Take the Friendly Road

Workshop participants were given the option to share their walking and biking experiences in the Pico neighborhood as part of an in-class activity using the City of Santa Monica's interactive mapping tool, Take the Friendly Road, but all participants decided to join a walking and biking assessment route.

Take the Friendly Road is a community resource and engagement platform that allows Santa Monica residents, visitors, and community partners to identify transportation safety issues on City streets. Road users are the experts on the streets they walk, bike, drive, and take transit and their experiences and observations are used to improve the safety and wellbeing of all. The platform is part of the City's commitment to Vision Zero, an initiative to improve safety and mobility while eliminating all traffic fatalities and injuries.

The Take the Friendly Road platform is publically available at: <u>https://cityofsantamonica.mysocialpinpoint.</u> <u>com/friendlyroad#/</u>

For a summary of outcomes from past CPBST workshops, please visit: <u>https://www.calwalks.org/cpbst</u> and <u>https://safetrec.berkeley.edu/programs/cpbst</u>

### **Appendix C: Data Analysis**

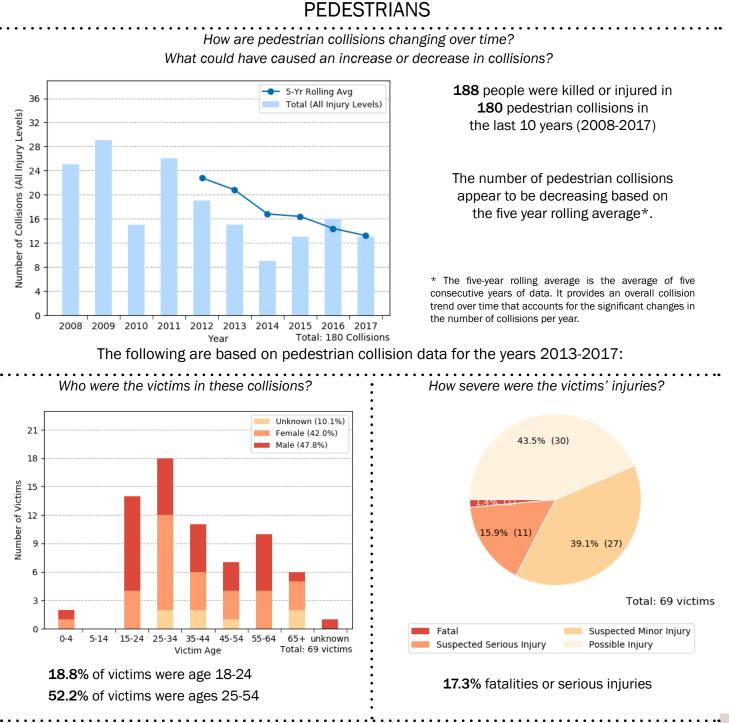
Pedestrian and Bicycle Collision Data Analysis

- Santa Monica Pico Neighborhood CPBST Workshop Data Factsheet
- Santa Monica Pico Neighborhood CPBST Site Visit Data Presentation
- Santa Monica Pico Neighborhood CPBST Site Visit Data Follow-Up

### Pedestrian & Bicycle Data Analyses for Pico Neighborhood Community Pedestrian and Bicycle Safety Training Workshop (CPBST) Santa Monica, CA | September 22, 2019

In California, more than one in four people who died in a collision is a pedestrian or bicyclist. There was a 13.9 percent increase in pedestrian deaths from 2015 to 2016 and a 14.0 percent increase in cycling deaths (FARS 2015 and 2016). In this workshop, we provide you with local collision data so that we can identify ways to make walking and biking safer in your community.

The local data seen below reflects collisions within Pico Neighborhood in Santa Monica, as determined per the workshop's planning committee.



Data Source: California Statewide Integrated Traffic Records System (SWITRS). Collision data for 2016 and 2017 are provisional as of March 2019. Funding for this program was provided by a grant from the California Office of Traffic Safety through the National Highway Traffic Safety Administration.

### BICYCLES

How are bicycle collisions changing over time? What could have caused an increase or decrease in collisions?

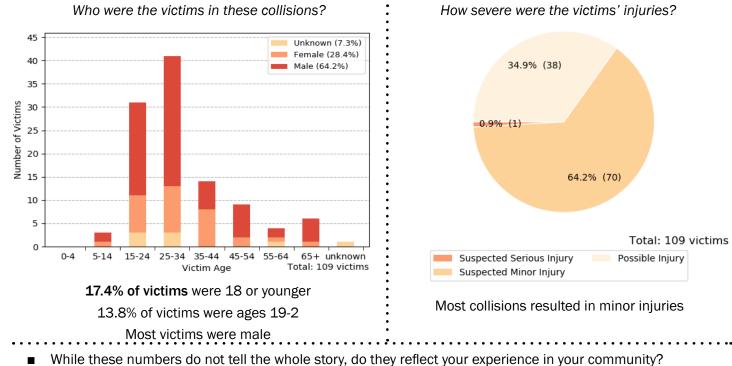


248 people were killed or injured in 254 bicycle collisions in the last 10 years (2008-2017)

The number of bicycle collisions appear to be slightly **decreasing** based on the five year rolling average\*.

\* The five-year rolling average is the average of five consecutive years of data. It provides an overall collision trend over time that accounts for the significant changes in the number of collisions per year.

The following are based on bicycle collision data for the years 2013-2017:



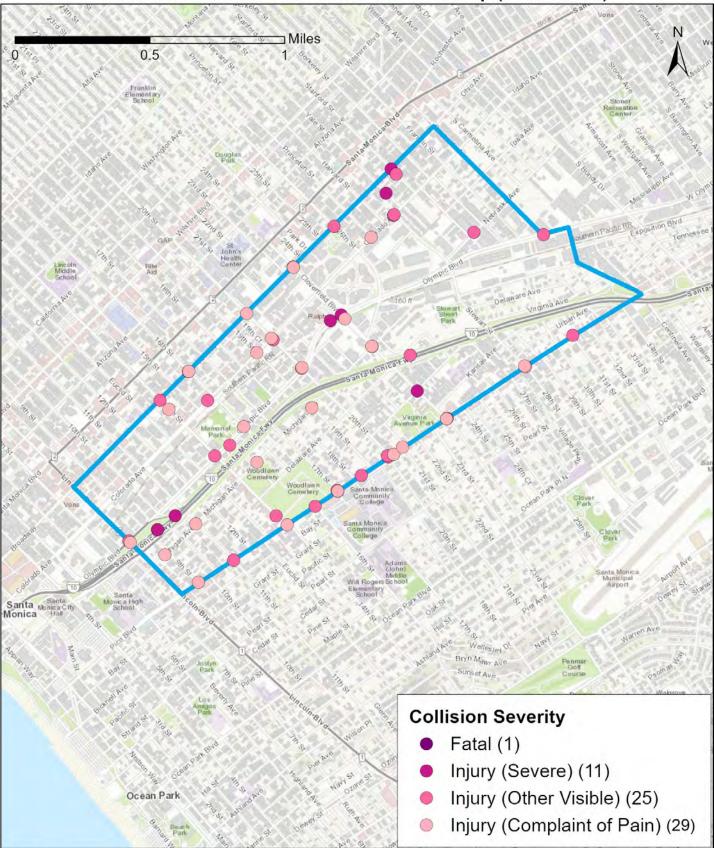
- What kinds of improvement do you think could help make walking and biking safer in your community?
- What other data could help inform decision-making?

To explore collision data in your community, please visit the free tools available through the Transportation Injury Mapping System (<u>tims.berkeley.edu</u>). For additional assistance, please email <u>safetrec@berkeley.edu</u>.

Berkeley SafeTREC







Santa Monica-Pico Pedestrian Collision Map (2013 - 2017)

Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional Date: 7/24/2019 as of March 2019



Santa Monica-Pico Bicycle Collision Map (2013 - 2017)

Data Source: Statewide Integrated Traffic Record System (SWITRS) 2013-2017; 2016 and 2017 data are provisional Date: 7/24/2019 as of March 2019

# Bicycle Safety Training (CPBST) **Community Pedestrian** Site Visit

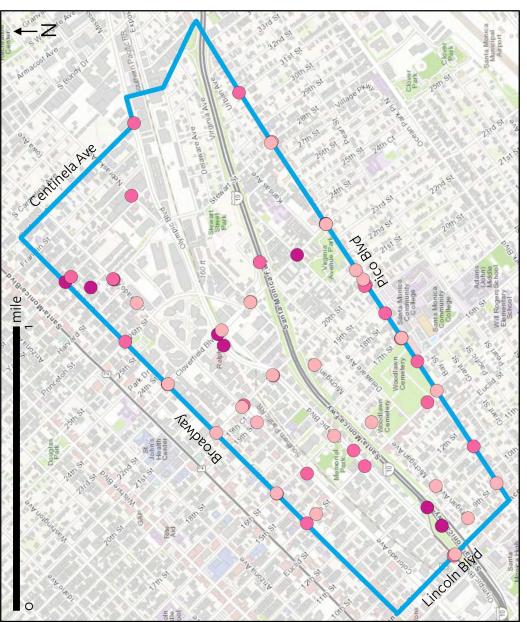
PICO NEIGHBORHOOD, SANTA MONICA

Garrett Fortin, Program and Policy Analyst Wednesday, August 21, 2019



SAFE TRANSPORTATION RESEARCH AND EDUCATION CENTER

# Pedestrian Injury Collisions (2013-2017)



Data Source: Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of March 2019.

Collision Severity
Fatal (1)
Injury (Severe) (11)
Injury (Other Visible) (25)
Injury (Complaint of Pain) (29)

66 Pedestrian Injury Collisions

# Pedestrian Injury Collisions (2013-2017)



Data Source: Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of June 2019.

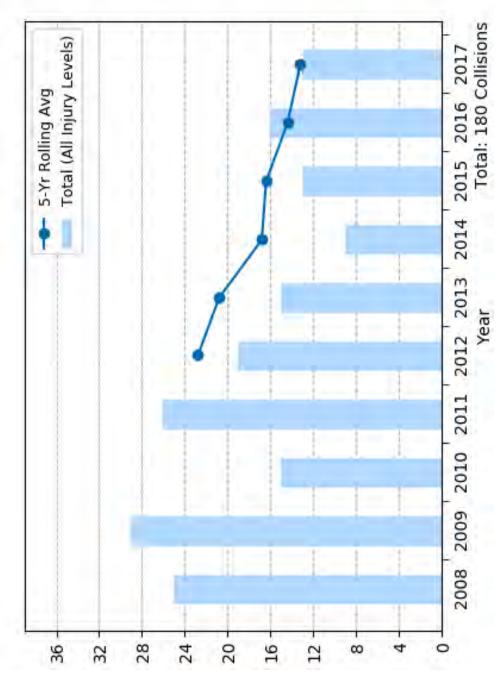
 $\sim$ 

35K - 50K 50K - 75K

> 75K

< 35K

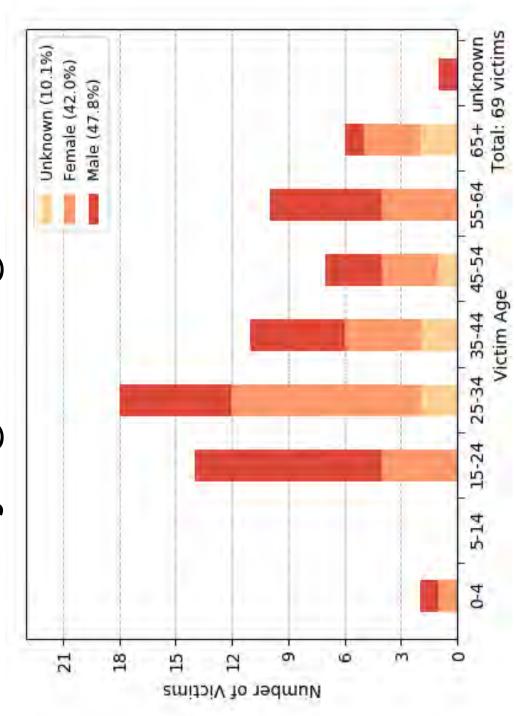
# Pedestrian Injury Collision Trend with 5-year rolling average



Data Source: Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of June 2019.

 $\triangleleft$ 

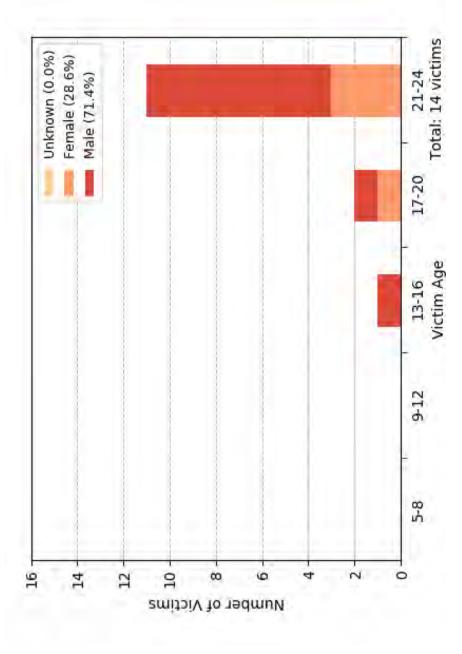
# Pedestrian Victim Injury by age and gender



Data Source: Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of June 2019.

ഹ

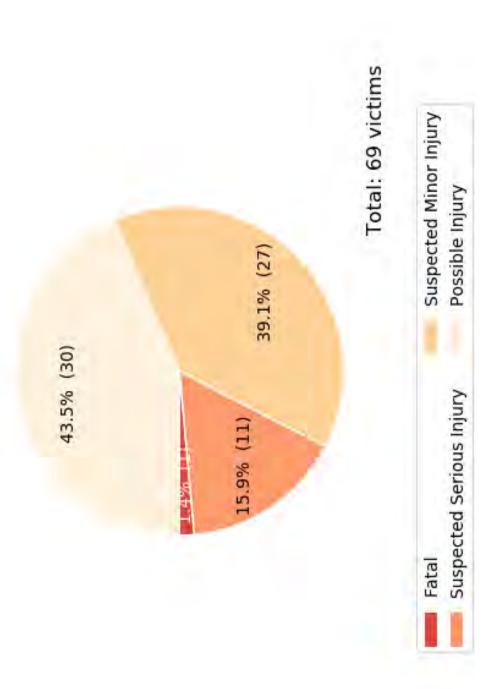
# by age and gender (child/youth) Pedestrian Victim Injury



Data Source: Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of June 2019.

Q

# Pedestrian Victim Injury by injury severity



Data Source: Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of June 2019.

# by time of day and day of week **Pedestrian Collisions**

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	k
- M462:11-M400:60	1	Ŧ	I	0	I	0	0	
06:00PM-08:59PM -	e	2	4	1	0	2	0	12
03:00PM-05;59PM -	5	2	£	1	1	0	1	13
Naon-02;59PM -	2	2	1	10	e	2	0	18
- MA62:11-MA00:00	1	m	0	εŋ	4	0	0	П
06:00AM-08:59AM -	1	0	2	1	T	0	0	2
03:00AM-05:59AM -	0	0	2	0	0	0	0	2
Midnight-02:59AM -	0	0	1	0	0	0	0	
Total	13	10	14	14	10	4	1	66

Data Source: Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of June 2019.

 $\infty$ 

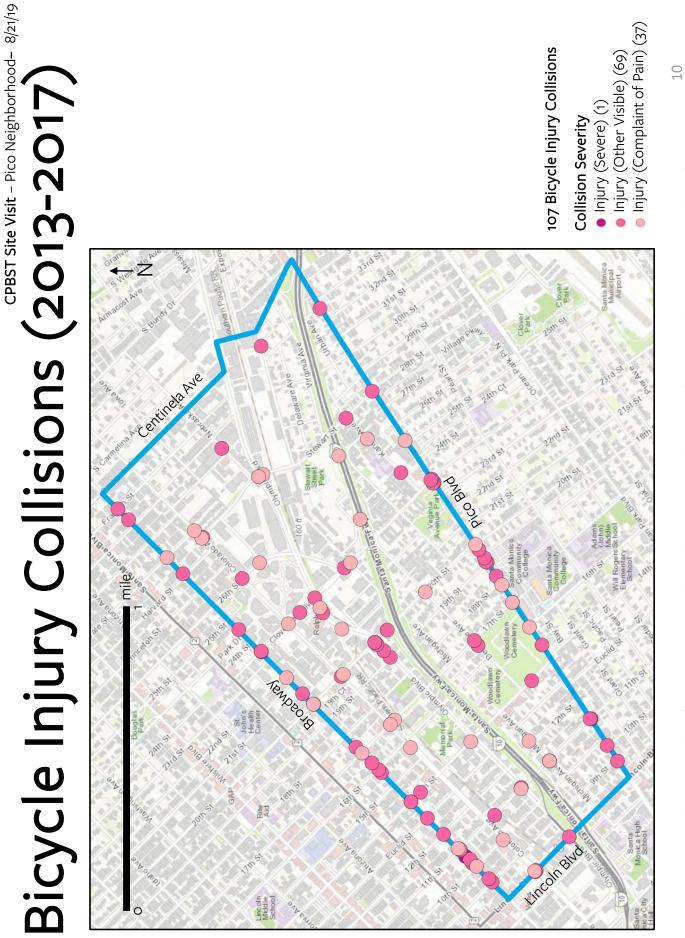
8/21/19
Neighborhood –
Visit - Pico
CPBST Site '

## **Pedestrian Collisions** by type of violation

Total: 66 Collisions

CVC No.	Description	Number of Collisions
21950	Driver failure to yield right-of-way to pedestrians at a marked or unmarked crosswalk	30 (45.5%)
21954	Pedestrian failure to yield right-of-way to vehicles when crossing outside of a marked or unmarked crosswalk	7 (10.6%)
21456	Pedestrian failure to yield right-of-way at traffic signal / Failure of pedestrian to yield right-of-way to vehicles already in intersection Failure to obey crosswalk symbols or finish crossing before "countdown" ends	4 (6.1%)
22350	Speeding on the highway / Driving at a dangerously high speed given highway conditions like weather, visibility, traffic, and highway measurements, or driving at a speed that endangers people or property	4 (6.1%)
21451	Driver or pedestrian failure to yield right-of-way at an intersection or adjacent crosswalk	3 (4.5%)
21801	Driver failure to yield right-of-way when making a left turn or U-turn	3 (4.5%)
21453	Failure to stop at a limit line or crosswalk at a red light Failure to yield right-of-way to pedestrian when turning on a red light	2 (3.0%)
21952	Driver failure to yield right-of-way to pedestrians on sidewalks	2 (3.0%)
21955	Pedestrian failure to cross at crosswalks between adjacent traffic signal controlled intersections	2 (3.0%)

Data Source: Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of June 2019.



Data Source: Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of June 2019.

CPBST Site Visit - Pico Neighborhood- 8/21/19

# Bicycle Injury Collisions (2013-2017)



107 Bicycle Injury Collisions

- **Collision Severity**
- Injury (Severe) (1)
- Injury (Other Visible) (69)
- Injury (Complaint of Pain) (37)

35K - 50K < 35K

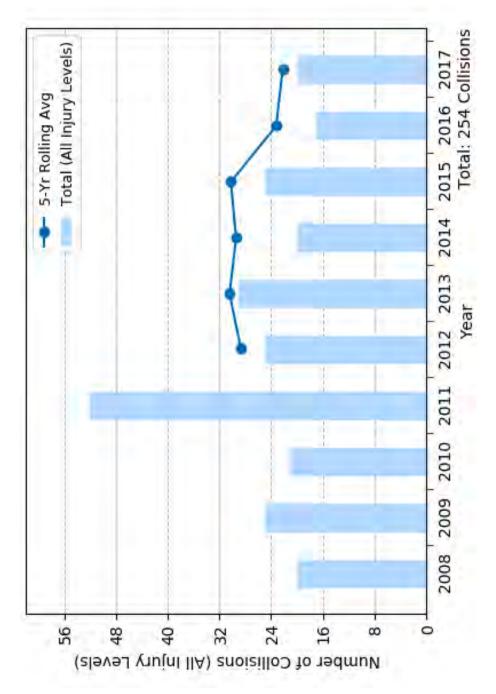
50K - 75K

> 75K

2017 Median Household Income

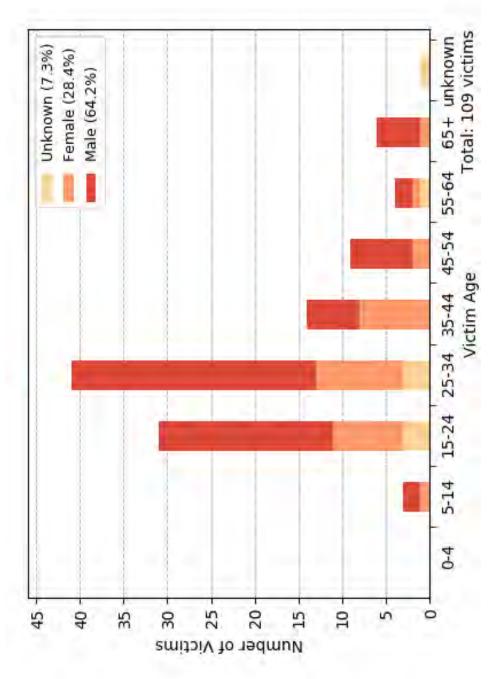
Data Source: Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of March 2019.

# Bicycle Injury Collision Trend with 5-year rolling average



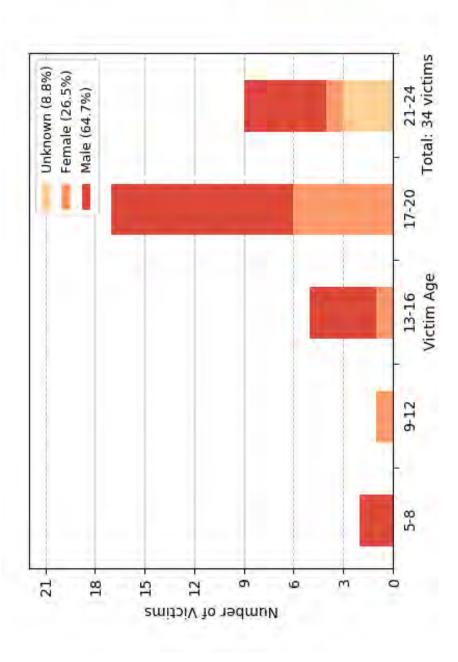
Data Source: Statewide Integrated Traffic Records System (SWITRS), 2008-2017. Collision data for 2016 and 2017 are provisional as of March 2019.

# Bicycle Victim Injury by age and gender



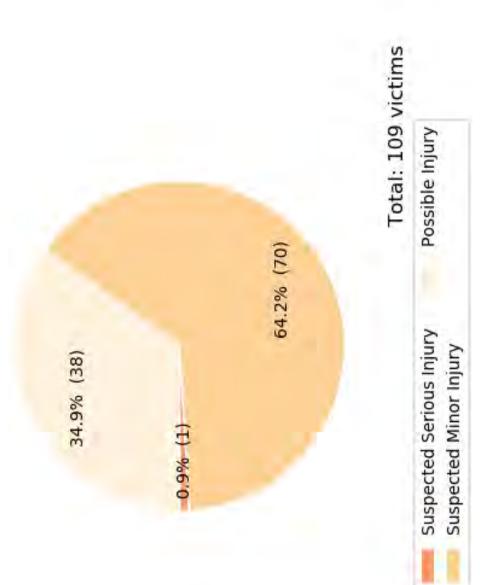
13 Data Source: Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of March 2019.

# by age and gender (child/youth) **Bicycle Victim Injury**





# **Bicycle Victim Injury** by injury severity



Data Source: Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of June 2019.

# by time of day and day of week **Bicycle Collisions**

DB:00PM:11:5PM         0         1         0         1         0         1         0           DB:00PM:05:5PM         4         3         5         4         0         3         3           DB:00PM:05:5PM         5         2         4         4         3         3         3           DB:00PM:05:5PM         5         2         4         3         4         2         3         3           OB:00PM:05:5PM         5         4         4         5         4         2         2         1           OB:00PM:05:5PM         6         2         3         4         2         2         1         1           OB:00PM:05:5PM         6         3         5         1         2         1         1           OB:00PM:05:5PM         6         3         5         1         2         1         1           OB:00PM:05:5PM         2         6         3         5         1         2         1         1         1           OB:00PM:05:5PM         2         6         7         1         1         1         1         1           OB:00PM:05:5PM         2         1 <th< th=""><th></th><th>Monday</th><th>Tuesday</th><th>Wednesday</th><th>Thursday</th><th>Friday</th><th>Saturday</th><th>Sunday</th><th>Total</th></th<>		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total
4     3     5     4     4     0     3       5     2     4     4     2     2       4     3     0     5     4     2     2       6     6     3     0     5     4     2       2     6     7     7     0     0       2     6     3     5     1     0       0     0     0     0     1     0       21     20     15     24     16     9	- M962:11-M900:6	0	0	0	T	0	-	0	2
5         2         4         4         2         2         2           4         3         0         5         4         2         2           6         6         3         5         7         0         0           2         6         3         5         1         0         0           0         0         0         0         1         0         0           21         20         15         24         16         9	5:00PM-08:59PM -	4	e	5	4	0	e	e	22
4         3         0         5         4         2           6         6         3         5         7         0           2         6         3         5         7         0           2         6         3         5         1         0           0         0         0         0         1         0           21         20         15         24         16         9	- M962:50-M900:	5	2	4	4	2	2	0	19
6         3         5         7         0           2         6         3         5         1         0           0         0         0         0         1         0         1           0         0         0         0         1         0         1         1           21         20         15         24         16         9         9	Naan-02:59PM -	4	e	0	5	4	2	1	19
2         6         3         5         1         0           0         0         0         0         0         1         0           0         0         0         0         1         0         0           21         20         15         24         16         9	- MA62:11-MA00:	6	ġ	e	5	7	0	1	28
0         0         0         0         1         0           0         0         0         0         0         1         1           21         20         15         24         16         9	:00AM-08:59AM -	2	9	e	5	1	0	1	18
0         0         0         0         1         1         1           21         20         15         24         16         9	:00AM-05:59AM -	o	0	0	0	1	0	0	ų
21 20 15 24 16 9	dnight-02:59AM -	0	0	0	0	1	1	0	2
	Total	21	20	15	24	16	6	9	III

Data Source: Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of June 2019.

## **Bicycle Collisions** by type of violation

CVC No.	Description Number	Number of Collisions
22107	Unsafe turning or moving right or left on a roadway Turning without signaling	20 (18.0%)
21801	Driver failure to yield right-of-way when making a left turn or U-turn	18 (16.2%)
21202	Bicyclist failure to ride on right edge of roadway if riding below the normal speed of traffic	12 (10.8%)
21453	Failure to stop at a limit line or crosswalk at a red light Failure to yield right-of-way to pedestrian when turning on a red light	8 (7.2%)
22517	Opening the door of a vehicle on the side of moving traffic unsafely as to interfere with traffic or leaving the door open for a longer period of time than is necessary	7 (6.3%)
21804	Driver failure to yield right-of-way when entering/crossing a highway	6 (5.4%)
22350	Speeding on the highway / Driving at a dangerously high speed given highway conditions like weather, visibility, traffic, and highway measurements, or driving at a speed that endangers people or property	6 (5.4%)
21650	Failure to drive/ride on right half of the roadway (with some exceptions)	4 (3.6%)
21802	Failure to stop or yield right-of-way at a stop sign	4 (3.6%)
22106	Unsafe starting or backing of a vehicle on a highway	3 (2.7%)
21658	Failure to drive vehicle in single lane	3 (2.7%)

Data Source: Statewide Integrated Traffic Records System (SWITRS), 2013-2017. Collision data for 2016 and 2017 are provisional as of June 2019.

17

CPBST Site Visit – Pico Neighborhood – 8/21/19

# Additional Resources



## Transportation Injury Mapping System (TIMS)

TIMS is a web-based tool that allows users to analyze and map data from California's Statewide Integrated Traffic Records System (SWITRS).

To further explore collision data, register for a free account to access the tools and resources on TIMS.

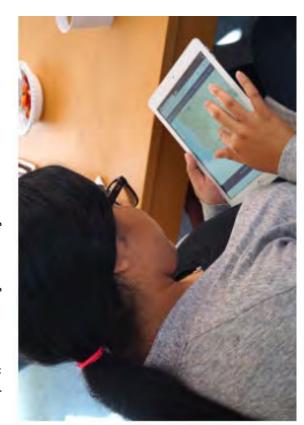
https://tims.berkeley.edu

## Street Story



Share stories on Street Story of where you've been in a crash or near miss, or where you feel safe or unsafe traveling.

https://streetstory.berkeley.edu



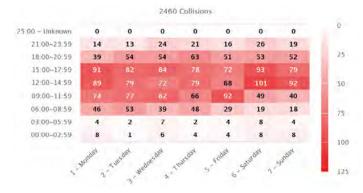


SAFE TRANSPORTATION RESEARCH AND EDUCATION CENTER 18

## **Pico Neighborhood CPBST 2019** SUPPLEMENTAL DATA

### **VEHICLE COLLISION DATA**

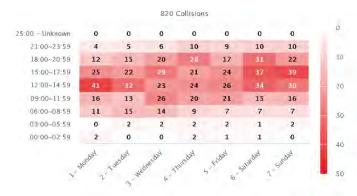
### Total Collisions per Day of Week and Time (2008-2017)



**2,460** collisions occurred in the focus area between 2008 and 2017. Almost 40% of all collisions occurred on state highways.

**8.8%** of collisions involved pedestrians. **12.6%** of collisions involved bicyclists.

### Vehicle-Vehicle Collisions per Day of Week and Time (2013-2017)



**820** vehicle-vehicle collisions occurred in the focus area between 2013-2017 with peaks on Monday early afternoons and weekends between 3:00 pm and 6:00pm.

### Vehicle-Vehicle Collisions (2008-2017)

Berkeley SafeTREC

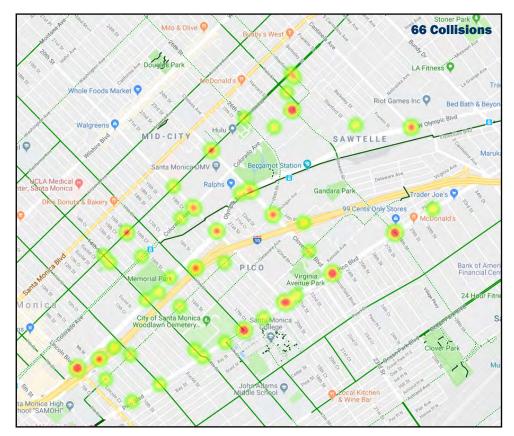


Notable hot spots include the following intersections:

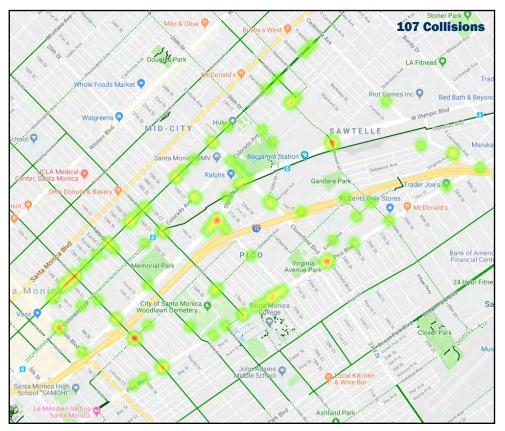
- Cloverfield Boulevard and Broadway
- Cloverfield Boulevard and Pico Boulevard
- Olympic Boulevard and Centinela Avenue
- Olympic Boulevard and Stewart Street
- Olympic Boulevard and Cloverfield Boulevard
- Pico Boulevard and 20th
- Pico Boulevard and 23rd
- Broadway and 16th Street

### **METRO STOP + BIKEWAY OVERLAYS**

Pedestrian Collisions (2013-2017)



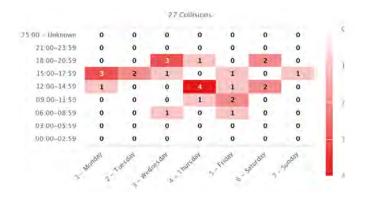
**Bicycle Collisions (2013-2017)** 



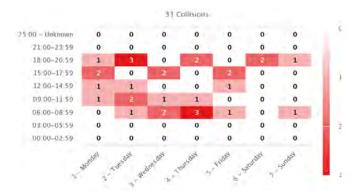
Berkeley SafeTREC Data Source: Statewide Integrated Traffic Records System (SWITRS) 2013 - 2017; 2016 - 2017 are provisional as of March 2019.

### **GENDER BY DAY OF WEEK AND TIME**

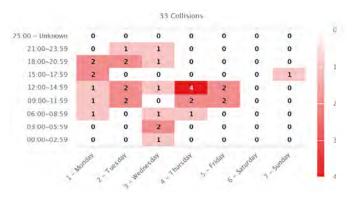
## Pedestrian Collisions Involving Female Victims (2013-2017)



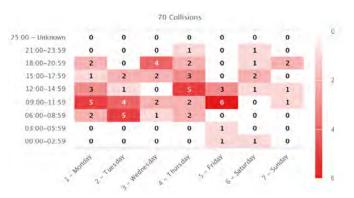
## Bicycle Collisions Involving Female Victims (2013-2017)



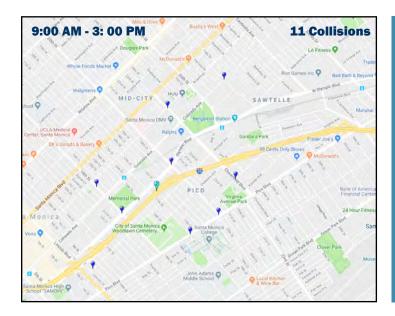
## Pedestrian Collisions Involving Male Victims (2013-2017)



## Bicycle Collisions Involving Male Victims (2013-2017)



### **THURSDAY PEDESTRIAN COLLISIONS**



### **MODE SHARE**

Findings from a recent survey<sup>1</sup> reveal that private vehicles are the predominant mode choice for Santa Monica residents, accounting for 71.9% of all trips.

Walking and biking account for 17.6% and 4.7% of trips, respectively. Despite its relatively low mode share, bicycle-related crashes in Santa Monica account for 12.6% of road user collisions<sup>2</sup>.

1 Nustats Research Solutions. City of Santa Monica Transportation Survey. 2017.

2 Statewide Integrated Traffic Records System (SWITRS) 2013 - 2017; 2016 - 2017 are provisional as of March 2019.

## BerkeleySafeTREC