Terry Taplin
Councilmember District 2

SUPPLEMENTAL AGENDA MATERIAL for Supplemental Packet 1

Meeting Date: **November 14, 2023**

Item Number: **1**

Item Description: **Alameda County Transportation Commission San Pablo Avenue Multimodal Corridor Program: Safety Enhancement and Parallel Bike Improvements Projects**

Submitted by: **Councilmember Taplin**

Adopt Resolution with the following additions:

1. Reaffirm the City's commitment to the Vision Zero Action Plan;
2. Authorize the City Manager to direct staff to implement traffic calming measures on parallel bike routes as consistent as possible with the City of Oakland's Neighborhood Bike Route (NBR) design standards.
3. Authorize the City Manager to integrate Project work to the extent feasible with traffic calming improvements in adjacent and intersecting projects (e.g. traffic semi-diverter at Bonar and Dwight in the Parker-Addison Mobility and Safety Improvements Project).

CURRENT SITUATION / RATIONALE FOR RECOMMENDATION

The City of Berkeley is currently experiencing increased traffic collisions, according to data from the Berkeley Police Department: the third quarter of 2023 saw a 9% increase in injury collisions and a 125% increase in bike collisions over the previous quarter.[1] On Halloween, a seven year-old child was struck by an unidentified motorist and sent to the hospital with a broken leg.[2] However, the City's Public Works

[1] Berkeley Police Transparency Hub: https://bpd-transparency-initiative-berkeleypd.hub.arcgis.com/pages/traffic-safety. Accessed Nov 9, 2023.

[2] Raguso, E. (2023, Oct. 31). Halloween hit-and-run sends boy to hospital with broken leg.

Department is currently strained under a severe staffing shortage, which has indefinitely delayed many critical traffic calming projects.[3] This undermines Berkeley's Vision Zero Action Plan, which states that "no one should lose their life or suffer a life-altering injury when traveling in our city."

The Alameda CTC San Pablo Avenue Multimodal Corridor Program's Safety Enhancement and Parallel Bike Improvements Projects offer an unprecedented opportunity to advance major traffic calming improvements that are consistent with the City's adopted plans, including its Climate Action Plan (2020), Bicycle Plan (2017), Pedestrian Plan (2020), and aforementioned Vision Zero Action Plan (2019), in spite of significant financial and administrative shortfalls at the municipal level.

ATTACHMENTS

1. Resolution
2. City of Oakland - Neighborhood Bike Route Implementation Guide
3. City of Berkeley – Vision Zero Action Plan

Berkeley Scanner. https://www.berkeleyscanner.com/2023/11/01/traffic-safety/berkeley-hit-run-driver-strikes-boy-trick-treating-halloween/

[3] Williams-Ridley, D. (2023. Oct. 5). Update on Public Works Transportation Division's Staffing and Work Priorities. *Berkeley City Manager Off Agenda Memo.* https://berkeleyca.gov/sites/default/files/documents/2023-10-05%20Update%20on%20Public%20Works%20Transportation%20Division%27s%20Staffing%20and%20Work%20Priorities.pdf

RESOLUTION NO. ##,###-N.S.

SAN PABLO AVENUE MULTIMODAL CORRIDOR PROGRAM: SAFETY ENHANCEMENTS AND PARALLEL BIKE IMPROVEMENT PROJECTS

WHEREAS, the San Pablo Avenue Multimodal Corridor Program is a central program to achieving the goals and strategies adopted in the 2020 Countywide Transportation Plan; and

WHEREAS, San Pablo Avenue is on the countywide High-injury Network and is identified in the City's 2020 Vision Zero Action Plan as a high-injury street. San Pablo Avenue has the third highest incidence of injury collisions in Alameda County; and

WHEREAS, the City Council of the City of Berkeley reaffirms its commitment to the City's Vision Zero Action Plan; and

WHEREAS, promoting environmentally beneficial alternatives to driving, including bicycling, walking, and taking transit, supports the goals of the City's Climate Action Plan and City's Strategic Plan and may also lead to improved public health outcomes; and

WHEREAS, the San Pablo Avenue corridor is an Equity Priority Community and a Priority Development Area, which is planned for growth and increased density; improved multimodal options are needed to accommodate growth and better serve residents that may rely on alternatives to driving; and

WHEREAS, in order to enhance safety for all travel modes and to improve comfort and quality of trips for all users, Alameda County Transportation Commission staff have developed conceptual designs for the Safety Enhancements Project and the Parallel Bike Improvements Project, and Staff have developed a conceptual design for the Addison Bike Boulevard Connector; and

WHEREAS, if this item is approved, Alameda County Transportation Commission would implement the Addison Street Bike Boulevard Connector as part of the Safety Enhancements Project.

NOW THEREFORE, BE IT RESOLVED by the Council of the City of Berkeley that the conceptual designs for the San Pablo Avenue Multimodal Corridor Program: Safety Enhancements and Parallel Bike Improvements projects and the Addison Street Bike Boulevard Connector within the City of Berkeley are approved; and

BE IT FURTHER RESOLVED that the Council of the City of Berkeley authorizes the City Manager to direct Staff to partner with the Alameda County Transportation Commission on final design and implementation of these projects; and

BE IT FURTHER RESOLVED that the Council of the City of Berkeley authorizes the City Manager to direct Staff to implement traffic calming measures on parallel bike routes as consistent as possible with adjacent jurisdictions, such as the City of Oakland's Neighborhood Bike Route (NBR) design standards; and

BE IT FURTHER RESOLVED that the Council of the City of Berkeley to integrate Project work to the extent feasible with traffic calming improvements in adjacent and intersecting projects (e.g. traffic semi-diverter at Bonar and Dwight in the Parker-Addison Mobility and Safety Improvements Project); and

BE IT FURTHER RESOLVED that the Council of the City of Berkeley authorizes the City Manager to direct staff to grant permits for construction activities within City right-of-way, contingent on City staff approval of final construction drawings and specifications from Alameda County Transportation Commission.

City of Oakland
Neighborhood Bike Route Implementation Guide

City of Oakland, Department of Transportation (OakDOT)
Safe Streets Division, Bicycle & Pedestrian Program | June 2021

Introduction

This Guide provides direction on implementing the City of Oakland's Bike Plan (2019) recommendations for "neighborhood bike routes" (NBRs) also known as "bicycle boulevards." The Bike Plan proposes over 75 centerline miles of NBRs (see Figure 1, Neighborhood Bike Route Map, next page) which are defined as:

- Calm local streets where bicyclists have priority but share roadway space with automobiles.
- Include shared roadway bicycle markings on pavement and additional traffic calming measures like speed humps or traffic diverters to keep streets comfortable for bicyclists.
- Comfortable for bicyclists with wider range of comfort levels.

The Bike Plan outlines four actions for streets to be designated as NBRs:

1. Improving Major Street Crossings;
2. Reducing or Preventing Speeding;
3. Preventing High Car Volumes; and
4. Increasing Pavement Quality.

This Guide describes implementation in the following five subject areas: Scoping & Monitoring, Route Establishment, Traffic Calming, Traffic Control, and Public Notification & Comment.

Some of the proposed NBRs in the Bike Plan are beyond the scope of this document. These include streets with significant AC Transit service and streets that are designated as thoroughfares for motor vehicles (i.e., arterials and collectors). Some collectors are residential streets with modest traffic volumes, and this guide is intended for these streets. However, other collectors and arterials have significantly higher traffic volumes and provide key connections in the street network. This guide does not provide all of the resources necessary for determining the feasibility and desirability of these more ambitious proposals. For a preliminary assessment of all NBRs, see the screening analysis at https://tinyurl.com/OaklandNBR and accompanying map at https://arcg.is/0LXmbK.

1. Scoping & Monitoring

To evaluate the level of traffic calming required, average daily traffic counts, speeds, and five-year crash data should be consulted. (Note: If 311 data is found to be accessible and helpful, this should be included as well.) If access restrictions or stop sign modifications are proposed, other data will be required (see Sections 2 and 3).

OakDOT sets target traffic speeds and volumes for NBRs based on NACTO's Contextual Guidance for Selecting All Ages and Abilities Bikeways, March 2014[1] as follows:

- Speeds less than or equal to 20 mph (95th percentile), less than or equal to 2,000 average vehicles per day, and less than 50 vehicles per hour per direction at peak hour; or
- Speeds less than or equal to 25 mph (95th percentile), less than or equal to 1,500 average vehicles per day, and less than 50 vehicles per hour per direction at peak hour.

1 *nacto.org/publication/urban-bikeway-design-guide/designing-ages-abilities-new/choosing-ages-abilities-bicycle-facility*

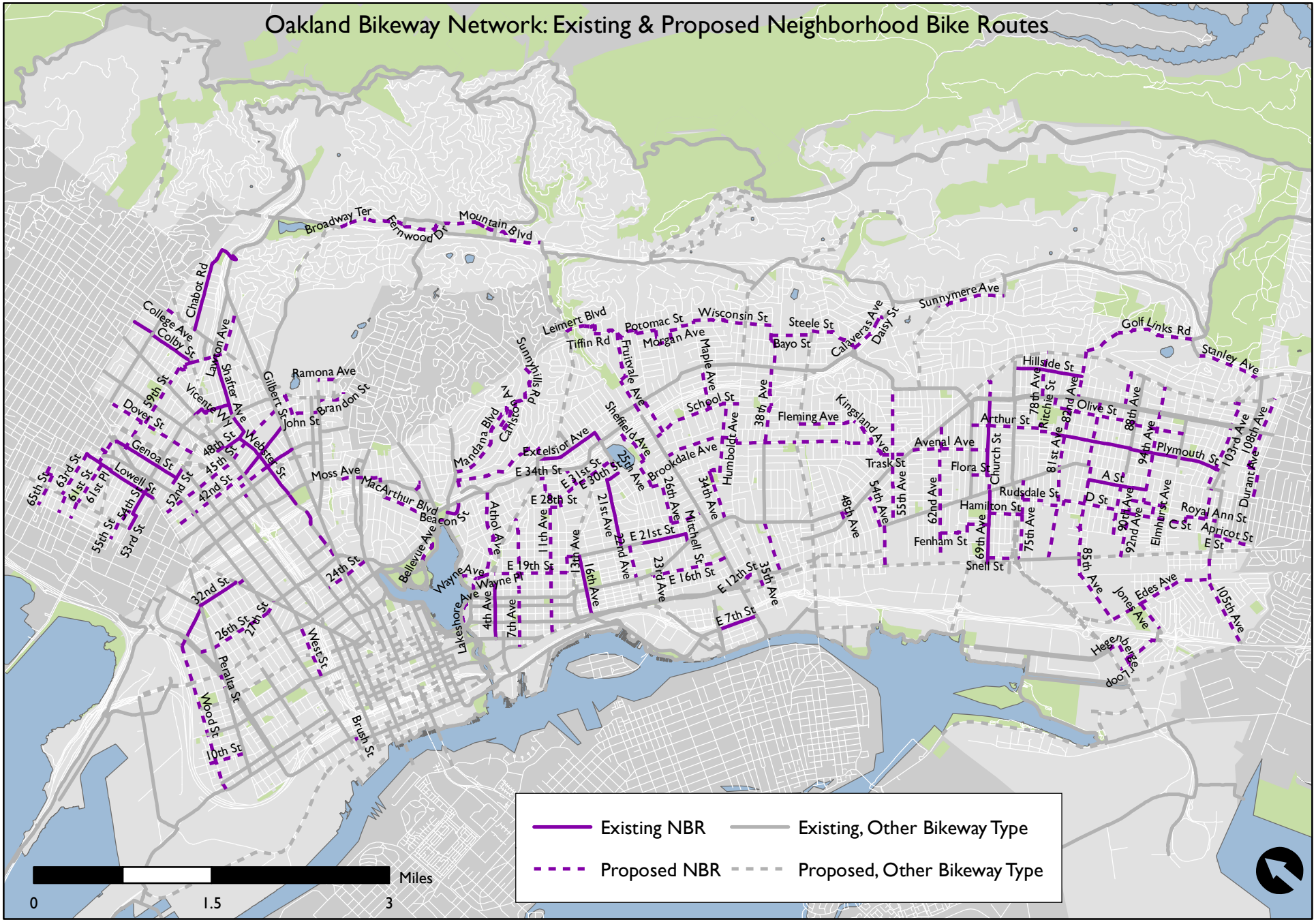


Figure 1: Neighborhood Bike Routes Map

Projects implementing NBRs on streets with traffic speeds and volumes above these thresholds should strive to reduce speeds and volumes to below these targets. Existing bikeways that exceed these targets will be classified as bike routes, not as NBRs.

Some proposed NBRs may need ongoing monitoring if the existing traffic calming is insufficient to achieve the targets, or if traffic patterns change. If the route is not meeting those targets, additional traffic calming should be considered. This new monitoring system can be incorporated into Oakland's annual counts program.

2. Route Establishment

An NBR includes pavement markings, bike route signs, traffic calming (typically a minimum of one speed hump/table/cushion per block as feasible), and consideration of pavement quality.

Mid-Block Bicycle Pavement Markings

Install sharrows per current City standards (Figure 2). (Also see Issues for Further Discussion, page 11.)

Intersection Bicycle Pavement Markings

No markings are needed at unsignalized rectilinear local/local intersections, where both streets are 40' wide or less. At other intersections apply the following:

Use chevrons (Figure 3, and see OakDOT Design Detail RM-10) at:

- Signalized and/or skewed intersections with four or fewer approaches;
- In large traffic circles;
- Transitions to/from bike lanes; and
- Where one or more streets are wider than 40'.

Use green-backed sharrows (Figure 4) at:

- Offset intersections;
- Intersections where a bikeway turns;
- Complex multi-legged intersections; and
- Across divided roadways.

Figure 2: Oakland sharrow

Figure 3: Intersection chevron markings, 38th Ave and Brookdale Ave

Figure 4: Green-backed sharrows, Waller St and Pierce St, San Francisco

Figure 5: 50 ft double centerline

Other Pavement Markings

Include speed hump markings, stop stencils (as needed), and centerlines (50 LF) approaching controlled intersections (Figure 5). Avoid the use of edge line stripes and continuous center lines. (Per CA MUTCD Section 3B.01, centerlines are not required on local streets. On urban collectors and arterials, centerlines are required on roads that are at least 20' wide and have ADTs of 6,000 vehicles per day or greater.)

Bicyclist Guide Signs

Install bicycle guide signs per current City standards (Figure 6) [2]. In areas with few supported destinations (per City standards) and where an NBR does not connect to other signed bikeways, guide signs and decision signs may be sufficient. Where the new NBR does not connect to another signed bikeway, signs can be deferred. Also see Issues for Future Discussion, below.

Figure 6: Oakland bike route sign

Pavement Considerations

Projects implementing new NBRs should consider the pavement quality on the proposed route in determining the feasibility of the project. If resurfacing would be beneficial but is cost-prohibitive, consider spot pavement repairs or paving only the travel lanes and not the parking lanes. Where possible, work should be coordinated with the City Council-adopted paving prioritization plan.

If the paving plan (or another project) will pave only part of a proposed NBR, the new route should only be implemented in the following situations:

- where the new segment connects to another existing bikeway (example: 45th St, Linden St to Market St);
- where the pavement quality of adjacent segments allows the installation of a longer bikeway; or
- if additional resources for paving have been secured for the adjacent segments.

If one of these three criteria is not met, the new NBR should not yet be designated. However, speed humps and/or other traffic calming should be considered.

3. Traffic Calming

All NBRs should include traffic calming with a minimum of one speed hump per block (as feasible). Additional traffic calming may be necessary to achieve the targeted speeds and volumes specified above.

Volume and Speed Management

Discourage through traffic and reduce motor vehicle volumes and speeds through the implementation of traffic calming measures, such as vertical deflection (speed humps/cushions/tables), traffic circles (Figure 7), islands (Figure 8), and diverters (Figure 9). At minimum, an NBR should include one speed hump per block as feasible.

2 *https://tinyurl.com/OakDOTBikeWayfinding*

Figure 7: Traffic circle (Shafter Ave, Oakland)

Figure 8: Island cut-through (Channing St, Berkeley)

Figure 9: Diverters (left to right, Milvia St, Berkeley; 55th St east of Telegraph Ave, Oakland; Russell St, Berkeley)

Speed humps may not be feasible on all blocks due to block length, street grade, or conflicts with utilities or driveways [3]. Additional speed humps and/or other calming measures should be applied when traffic volumes and/or speeds exceed OakDOT's guidelines.

Daylighting

Parking may be removed up to 20 feet from the curb return on intersection approaches (standard best practice for all streets).

Traffic Restrictions

Current City policy governing street closures is in City Council Resolution 71056 C.M.S. (1994) "Resolution Adopting Rules and Regulations Governing the Prohibition of Entry To, or Exit From, or Both From City Streets." To close a street, the following conditions must be met:

1. the street's functional classification designates it as a local street;
2. where unwarranted through traffic is using the street;
3. 67% or more of residents support the change; and
4. a determination that the health and safety of the residents of the street and of neighboring streets will not be adversely affected.

3 *www.oaklandca.gov/services/apply-for-a-speed-bump*

Access restrictions (Figures 8 and 9) should be considered where the volume of cut-through traffic is incompatible with a street's designation as an NBR. Access restrictions should be designed to reduce or eliminate through traffic while allowing local access (e.g., right-in/right-out only at collectors and arterials). Proposals for traffic restrictions require basic study and outreach (per Resolution 71056) and may need an area-wide traffic study to determine where the traffic would be diverted to help communicate the diversion to affected residents, and, potentially, to determine if additional traffic calming is needed to address impacts created by that diversion.

Resolution 71056 does not allow partial or full closures to streets classified as collectors or arterials. Such streets could be reclassified as local streets to allow for access restrictions. This reclassification process is managed by Caltrans, as designated by the Federal Highway Administration to oversee the functional classification of California's roadways. The request process requires a City Council resolution, concurrence by the Metropolitan Transportation Commission, and approval by Caltrans.

4. Traffic Control

Through and cross-traffic on NBRs should be controlled to give bicyclists priority and create safe crossings.

Stop Control at Local Streets

Minimize the number of intersections along NBRs where cross traffic does not stop.

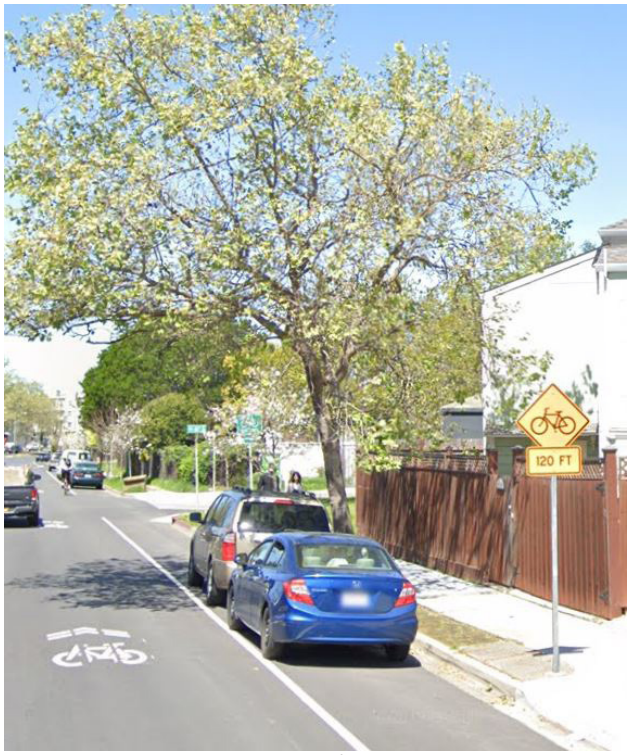
- Intersections of NBRs and local streets should be either: (1) stop-controlled on the local approaches only (preferred); or (2) all-way stop-controlled.
- Intersections of two NBRs should be all-way stop-controlled.
- Where stops remain on the NBR, install the supplemental stop sign placards (Figure 10), "ALL WAY" or "CROSS TRAFFIC DOES NOT STOP" as applicable.
- When stops are eliminated on an NBR, monitor post-project traffic volumes and speeds to determine if changes in stop control should be accompanied by traffic calming (if not already included).

Figure 10: Stop Sign Supplmental Placards

Prior to the removal of stop signs:

- Review traffic volumes (vehicle, bicyclist, pedestrian) to ensure the volumes are lower than the thresholds that typically warrant stop signs.
- Conduct a visibility study including sight triangle analysis and approach speed data collection.
- If visibility is limited, can obstructions be removed or approach speeds reduced? If not, do not remove stop signs. Existing speed data must show speeds that do not create sight distance triangle limitations prior to stop sign removal. (Speed data should not be inferred based on future installation of traffic calming features.)
- Review crash history to ensure there are no crash trends that would be exacerbated by stop sign removal.

Figure 11: Treatments for Uncontrolled Crossings of Arteials and Collectors



Bicycle warning sign (Market St/61st St, Oakland)

High-visibility crosswalk (Lowell St/Stanford Ave, Oakland)

Median island (source: NACTO Guide)

RRFBs (Broadway/23rd St, Oakland)

Curb extension (Virginia St/Shattuck Ave, Berkeley)

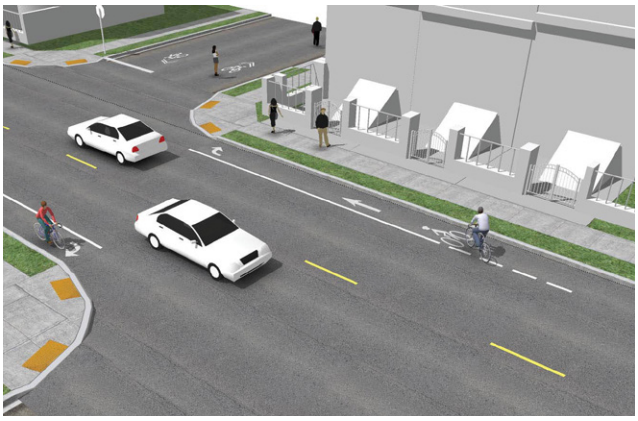
Passive bike detection (Hillegass Ave/Ashby Ave, Berkeley)

Uncontrolled Crossings of Collectors and Arterials

Work to eliminate such crossings. Where they cannot be eliminated, install treatments that support bicyclists at uncontrolled crossings of collectors and arterials. Possible treatments (see Figure 11, previous page), from low to high intensity and cost, include:

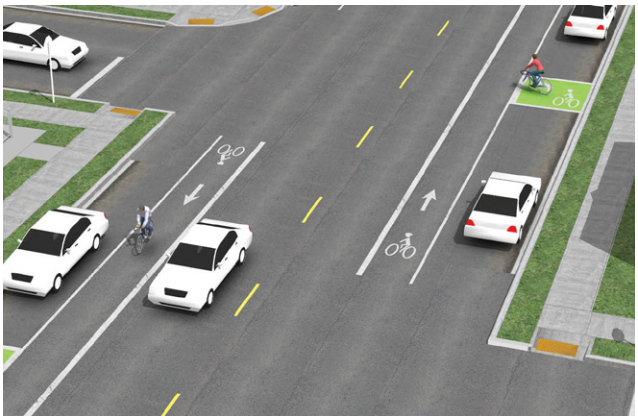
- Bicycle warning signs;
- "BIKE XING AHEAD" pavement legends;
- High-visibility crosswalks;
- Bikeway markings through the intersection;
- Stop signs;
- Median islands;
- Rectangular rapid flashing beacons (RRFBs) with bicyclist-accessible push button actuation;
- Curb extensions;
- Pedestrian hybrid beacons (PHBs) with passive bicyclist detection; and
- Traffic signals.

Figure 12: Treatments for Offset Intersection Crossings of Arteials and Collectors *(source: NACTO Guide)*



Bike lanes

Bicycle turn pockets



Two-stage turn queue boxes

Two-way cycle track

Offset Intersections at Collectors and Arterials

NBRs should avoid shared-lane situations on the major street wherever possible. Possible offset intersection treatments (Figure 12, previous page) may include:

- Bike lanes;
- Bicycle turn pockets;
- Two-stage turn queue boxes;
- Two-way cycle tracks;
- Pedestrian hybrid beacons with passive bicyclist detection; and
- Traffic signals.

Treatments are context-sensitive and respond to available width, traffic volumes, and the presence of a center turn lane, bike lanes, and/or a traffic signal.

5. Public Notification and Comment

Residents on and near proposed NBRs should be notified early in the project development process when public comments can be addressed. Typically, the City will send a project mailer to addresses within 400' of the proposed bikeway describing the project and providing an opportunity to weigh in and, optionally, to provide supporting comments. For NBR projects, an additional notification should be sent to addresses immediately adjacent to the locations of proposed traffic calming. Projects that restrict traffic (e.g., street closures, turn restrictions) may involve a broader process to address neighborhood concerns associated with diverted traffic.

Whether from mailers, surveys, meetings, or other contacts, the City should strive to resolve concerns as feasible within the scope of the project and with the design tools available to OakDOT. Possible solutions include expanding the scope of work to address the concerns of neighbors on nearby streets; or reducing the scope of work to eliminate traffic calming elements proposed in particular locations. General concerns regarding the project's goals (e.g., slowing traffic) may not lead to changing the project but may entail additional outreach. Conversely, a proposed speed hump may be deleted or relocated, for example, in response to a resident with a physical disability who benefits from a level parking space in front of their home. The purpose of public notification and comment is to achieve the OakDOT Strategic Plan goal on Responsive Trustworthy Government by "providing Oaklanders with an open, accessible and efficient transportation agency."

Issues for Future Discussion

Type of Pavement Marking

These guidelines assume that low stress bike routes are going to be referred to as Neighborhood Bike Routes in maps and communications materials, and thus recommend the use of sharrows per current City standards (Figure 1). However, some favor City of Berkeley style BIKE BLVD pavement markings (Figure 12) which are larger and convey an understandable "brand." However, BIKE BLVD markings would not be consistent with the NBR naming. Further, concerns have been raised that local residents may perceive such markings as a harbinger of unwanted gentrification. Some favor an enlarged sharrow marking. Concerns include the ability of contractors to procure and use custom pavement legends.

Figure 13: Bicycle boulevard marking

Additional Placemaking Signs

To address the following recommendation from the Bike Plan: "OakDOT will engage communities in a collaborative design process to develop placemaking signage for Neighborhood Bike Routes. The signs will complement bicycle wayfinding signage by depicting neighborhood identities." (p.121)

Modified Street Name Sign

In addition to placemaking signs, and to complement guide signs, modified street name signs, similar in purpose to those used to mark bike boulevards in Emeryville and Berkeley (Figure 13) could be considered. The advantage of a modified street name sign is that NBRs would be easier to identify—particularly at intersections. A preliminary estimate indicates that 50 street name signs would be required per centerline mile of NBR. To meet this standard along the 14 centerline miles of existing NBRs, it is estimated that 700 street name signs would need to be replaced or modified. (This estimate is based on Cavour St which is 0.2 miles long, with five intersections, and two street name signs per intersection.)

Figure 14: Street name signs

The "Idaho Rule"

When approaching STOP controlled intersections on local streets, most bicyclists yield and do not come to a complete stop. In recognition of this, the state of Idaho passed a law in 1982 allowing bicyclists to treat STOP signs as yield signs. Similar rules have since been adopted in Delaware, Colorado, Oregon, and Washington (https://en.wikipedia.org/wiki/Idaho_stop). Various attempts have been made to pass this law in California, but to date, they have not been successful. With such a law this typical behavior by bicyclists would become legal behavior, thus reducing the impetus for removing STOP signs on NBRs. A possible disadvantage is that bicyclists could exercise less caution at STOP signs than they do today.

Emergency Response Classification Map

OakDOT should consider partnering with OFD, OPD, and other stakeholders to develop a map of emergency vehicle stations and routes and seek review and vetting when proposing traffic calming on major emergency vehicle routes.

CITY OF BERKELEY VISION ZERO ACTION PLAN

Approved March 10, 2019
by the Berkeley City Council

ACKNOWLEDGEMENTS

Thank you to the Task Force and Advisory Committee for helping to shape this plan.

VISION ZERO PROGRAM

Eric Anderson, Vision Zero Program Coordinator
Beth Thomas, Principal Transportation Planner
Farid Javandel, Transportation Manager

TASK FORCE

Dominika Bednarska, Public Works Department
Kerry Birnbach, City Council Office - District 8
Chief Dave Brannigan, Fire Department
Andrew Brozyna, Public Works Department
Steven Buckley, Planning Department
Paul Buddenhagen, City Manager's Office
Jim Cunradi, AC Transit
Lori Droste, City Council – District 8
Stefan Elgstrand, City Mayor's Office
Joe Enke, Public Works Department
Beth Gerstein, City Council Office – District 1
Timothy Green, UC Berkeley Physical and Environmental Planning
Phillip Harington, Public Works Department
Todd Henry, UC Berkeley Physical and Environmental Planning
Lisa Hernandez, Health, Housing and Community Services Department
Lt. Randy Files, Police Department
Jordan Klein, Economic Development Department
Hamid Mostowfi, Public Works Department
Ryan Murray, Police Department
Nisha Patel, Public Works Department
Alene Pearson, Planning Department
Abe Roman, Fire Department
Lars Skjerping, City Mayor's Office

ADVISORY COMMITTEE

Gwen M. Allamby, Police Review Commission
Stuart Baker, Telegraph Business Improvement District
Dave Campbell, Bike East Bay
Eugenie Candau, Commission on Aging
John Caner, Downtown Berkeley Association
Ben Gerhardstein, Walk Bike Berkeley
Barnali Ghosh, Transportation Commission
Shane Krpata, Public Works Commission
Beatriz Leyva-Cutler, Berkeley Unified School Board
Liza Lutzker, Safe Routes to Schools and Walk Bike Berkeley
Petra Liljestrand, Berkeley resident
Ethel Murphy, Commission on Aging
Helen Walsh, Commission on Disability
Sara Zimmerman, Safe Routes Partnership

CONSULTANT TEAM

Natalie Chyba, Fehr & Peers
Meghan Mitman, Fehr & Peers
Karina Schneider, Fehr & Peers
Dana Weissman, Fehr & Peers
Katie Miller, Left Lane Advisors

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ABOUT VISION ZERO

Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries while increasing safe, healthy, and equitable mobility for all. Vision Zero is, first and foremost, an *engineering* strategy that aims to design and build our streets to eliminate all severe and fatal traffic injuries. These engineering efforts are supported by public awareness education and traffic enforcement. Equity-driven Vision Zero traffic enforcement utilizes the best possible data and is focused on areas of Berkeley where engineering and education efforts have already been implemented.

INTRODUCTION

CAPTURING SITES OF FATAL AND SEVERE COLLISIONS

All photos in this plan were taken at locations in Berkeley where someone lost their life or sustained a severe injury in a traffic collision. The images demonstrate that there is rarely any way for someone passing by to know a tragedy took place, since things often continue as they did before. Vision Zero challenges this status quo and strips away the societal acceptance that fatal and severe traffic collisions are a necessary byproduct of mobility. As part of this plan, rapid-response communications and safety project protocols will be established to help tell victims' stories and deliver quick-build projects where engineering countermeasures may effectively improve safety.

Every year, an average of two people die and 21 people are severely injured in Berkeley due to traffic violence. Vision Zero is about recognizing that these deaths and severe injuries are preventable and unacceptable – no one should lose their life or experience a life-altering injury while traveling on Berkeley streets, no matter who they are or how they travel.

We began our commitment to Vision Zero in 2018 through the adoption of a Vision Zero resolution to end all traffic-related deaths and severe injuries on City streets by 2028. Since then, we have established two working groups: a Task Force, comprised of key City staff, elected officials, and partner agencies; and an Advisory Committee, comprised of representatives from advocacy groups, the public, Berkeley Unified School District, and City of Berkeley Commissions. The Task Force and Advisory Committee have worked together to craft the Vision, Guiding Principles, and Actions presented in this plan. To learn more about the process, see **Appendix A: Vision Zero Action Plan Development**.

While every action item introduced in this plan is fundamental to the success of Vision Zero, the priority actions presented on the next page are the near-term focus of Vision Zero in Berkeley, based on feedback from the Task Force and Advisory Committee on existing resources, and staff and community priority. The full list of actions for the City of Berkeley is introduced later in this plan, in "Taking Action."

Throughout the development of this plan, two key themes were frequently discussed: this plan must be accountable, and this plan must be crafted through an equity lens.

ACCOUNTABILITY

This plan takes strategic and pointed actions to keep Vision Zero front and center in the City of Berkeley – calling for continuous plan updates to remain in line with best practices and trends; an audit conducted by the City Auditor to make sure Vision Zero has the appropriate level of staff and resources to be effective; and building redundancy by integrating Vision Zero actions into other guiding documents, including the Berkeley Strategic Plan and departmental work plans.

EQUITY

This plan is equity-driven, starting with recognizing that we do not understand the full magnitude of inequities today due to gaps in key safety datasets. The plan recommends that we utilize Berkeley Police Department collision report data to better understand who are the victims of traffic collisions; perform a robust assessment of other key gaps in safety datasets as part of the first update to this plan; and elevate community voices to understand the perception of safety and personal security in our most vulnerable communities. This plan also includes actions to create a traffic ticket diversion program for bicyclists and pedestrians, and calls for partnerships with community-based organizations and culturally-relevant and context-specific outreach and educational campaigns. The plan emphasizes engineering and education actions first, supported by equity- and data-driven traffic enforcement conducted consistent with the City of Berkeley's Fair and Impartial Policing Policy.

PRIORITY ACTIONS

- **Establish a standing Vision Zero Coordinating Committee** consisting of City staff, Commissioners, partner institutions, members of the community, advocacy groups, and community-based organizations who have a role in advancing Vision Zero action items with quarterly meetings organized around a predetermined annual agenda. Seek to establish a funding source to compensate members of the community and community-based organizations to enable their participation.
- **Conduct a citywide Vision Zero Action Plan assessment** of existing staffing and funding capacity to complete Vision Zero action items.
  - **Create a staffing matrix** of existing and proposed staff for the delivery of high-priority Vision Zero action items. New or realigned staff needs are anticipated in Public Works safety project team; Public Works Vision Zero Program support staff; Public Information Officers in key Vision Zero departments, including Police and Health, Housing, and Community Services; Berkeley Police Department Vision Zero collision data analysis; Health, Housing, and Community Service Vision Zero data analysis and public awareness programs.
  - **Establish a milestone staffing and funding schedule** to complete high-priority Vision Zero action items, including City and grant funds.
- **Proactively build capital-intensive and quick-build safety projects** on all Vision Zero High-Injury Streets on a schedule to complete such projects by 2028.

PRIORITIZATION APPROACH

This plan prioritizes engineering, education, and public awareness before enforcement to achieve Vision Zero in Berkeley. Each action item is prioritized based on feedback from the Task Force and Advisory Committee on existing resources, and staff and community priority, as well as the potential transformative impact of each item:

- **Existing Resources:** Actions are prioritized that likely already have the needed resources, both staff and funding, to deliver.
- **Staff Priority:** Actions are prioritized that are of interest and priority to the Task Force and Vision Zero Program staff.
- **Community Priority:** Actions are prioritized that are of interest and priority to the Advisory Committee**.**
- **Transformative/High Impact:** Actions are prioritized that would have major positive impacts on safety or City collaboration, based on the Institute of Transportation Engineer's *Core Elements of Vision Zero* and ongoing City efforts.

The actions introduced here are the near-term focus for the City of Berkeley. The full list of actions in priority order can be reviewed in **Appendix B: Prioritized Actions Matrix.**

- **Request a Vision Zero Performance Audit** to be performed during the FY21 audit period to evaluate the implementation of the Action Plan and make any additional needed recommendations, including additional and/or realigned staffing and funding, for effective Vision Zero Action Plan implementation. Provide required six-month updates to City Council.
- **Establish a Vision Zero Rapid Response Safety Communication Protocol.** Employ a communication strategy in response to recent severe and fatal collisions aimed at the human element of traffic safety, including health and prevention messaging to the Berkeley community.
- **Support statewide traffic safety legislation** allowing automated speed enforcement by local agencies, designation of speed limits on local streets based on desired safety outcomes rather than the existing prevailing speed, and the reduction of local residential street speed limits to below 25 MPH, which would allow for 20 MPH speed limit on local residential streets, consistent with "20 Is Plenty" campaigns. Utilize existing legislated automated enforcement strategies, such as red light cameras.
- **Establish a Complete Streets Repaving and Development Project Checklist** to ensure proactive and reactive Vision Zero safety infrastructure for people of all ages and abilities are included with each repaving project and in the conditions of approval for development projects. With the Vision Zero Coordinating Committee, consider establishing an equity-driven approach to prioritizing repaving projects.
- **Develop and proactively deliver a Vision Zero branding, promotional, and educational campaign** to increase awareness about Vision Zero and the top traffic violations for severe and fatal injuries in Berkeley, elevating victims' stories. Regularly update the campaign to ensure it is context-specific, accessible, and culturally relevant. Collaborate with community-based organizations to distribute material and promote messages and public events that normalize active transportation and transit as healthy and responsible transportation choices.
- **Develop a publicly accessible matrix and map to prioritize and track projects.** Prioritize both new/existing requests/referrals and delivery of established infrastructure project lists (e.g., Five Year Repaving Program, BeST Plan, etc.) according to the Vision Zero High-Injury Streets map and equity-driven prioritization from City Council adopted plans such as the Bicycle Plan and forthcoming Pedestrian Plan.
- **Utilize the Berkeley Police Department's collision report data on parties involved**, such as housing status or whether parties involved are disabled, to help address equity gaps in Statewide Integrated Traffic Records System (SWITRS) collision data. Confirm that Berkeley Police Department report training emphasizes consistent use of these collision report data fields and, if needed, provides training resources for avoiding transportation mode bias in collision reporting. When necessary, update the collision report form to be consistent with emerging mobility modes.
- **Focus traffic enforcement efforts proportionately on the most significant traffic violations for severe and fatal collisions by party at fault.** Focus enforcement efforts on areas of Berkeley where engineering and education efforts have already been implemented. Conduct traffic enforcement consistent with the City of Berkeley's Fair and Impartial Policing Policy.

GLOSSARY

Equity
Race, ethnicity, gender, age, socioeconomic status, or physical or mental ability can no longer be used to predict access to safe transportation, and safety and access for all groups are improved.

This definition is adapted from the Government Alliance on Race & Equity's *Racial Equity Toolkit.* The City of Berkeley is a core member of the Government Alliance on Race & Equity (GARE).

Severe Injury
A severe injury is based on the reporting police officer's visual assessment of a victim at the scene of the collision. The California Highway Patrol's *Collision Investigation Manual* defines a severe injury as an injury other than a fatal injury which results in broken bones, dislocated or distorted limbs, severe lacerations, or unconsciousness at or when taken from the collision scene. It does not include minor lacerations. Some severe injuries may not be classified as such by the reporting officer if they are not visible or otherwise apparent.

Vulnerable Users
Users of the roadway that are more vulnerable to traffic-related death or injury due to their demographic, socioeconomic status, physical or mental ability, or mode of travel. This may include people of color, people with no or low income, people with no or limited English proficiency, people experiencing homelessness, youth, seniors, people with disabilities, and people who walk and bike.

WHY WE NEED VISION ZERO

BERKELEY NEEDS VISION ZERO

Every year, on average two people die and 21 people sustain severe injuries on Berkeley streets due to traffic violence. This is unacceptable and preventable – no one should lose their life or suffer a life-altering injury when traveling in our city. All statistics presented on this page are based on data between 2013 and 2017 - the most recent five years of collision data available through the Statewide Integrated Traffic Records System (SWITRS).

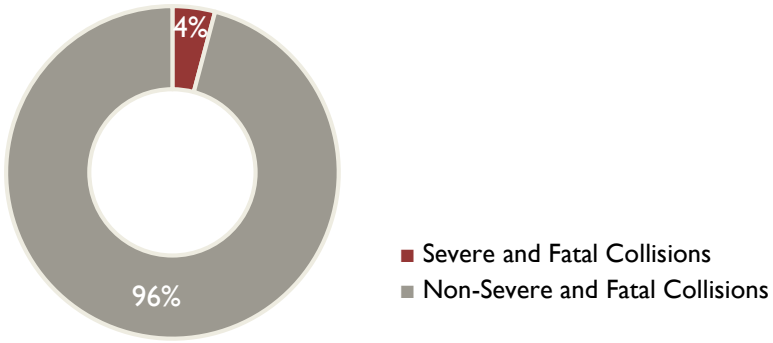
DISPROPORTIONATE BURDEN

We know that people of color, people with no or low income, people with no or limited English proficiency, people experiencing homelessness, youth, seniors, and people with disabilities are over-represented in fatal and severe injury collisions, but we currently have limited data within SWITRS collision reports to understand the magnitude of the disproportionate burden. This plan addresses those data gaps head-on and establishes strategies to start collecting and utilizing more meaningful data to understand inequities on our streets. We also are not waiting for more data to take an equity-driven approach to Vision Zero. Read more about our proposed strategies in "Taking Action."

VISION ZERO IS ABOUT THE 4%

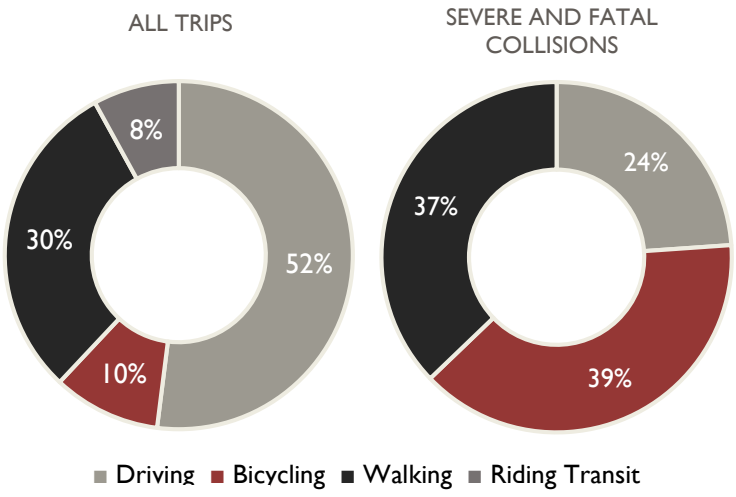
On average, 4% of collisions on Berkeley streets result in a fatality or severe injury.

That is 4% too many.



VISION ZERO IS ABOUT MODE

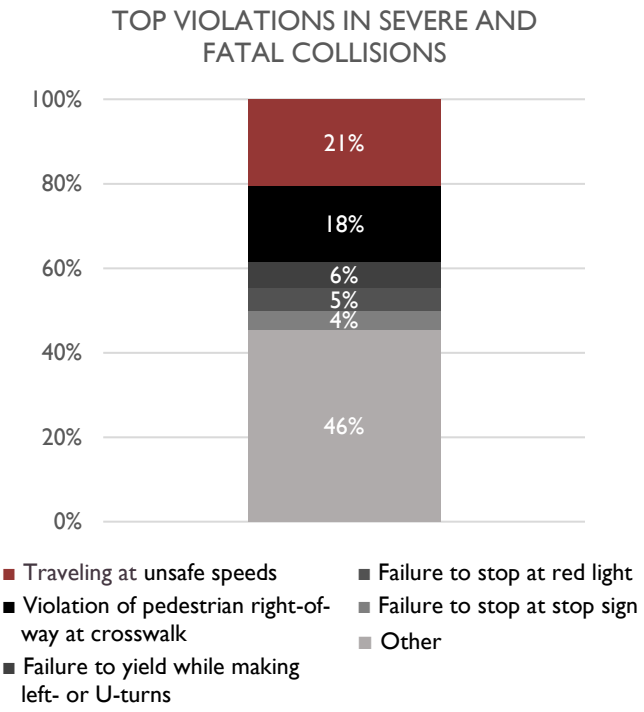
Collisions disproportionately impact people riding bicycles and people walking. The numbers are stark – collisions involving someone riding a bicycle or walking make up almost **80%** of collisions that result in death or severe injury, despite making up just **40%** of trips in Berkeley.



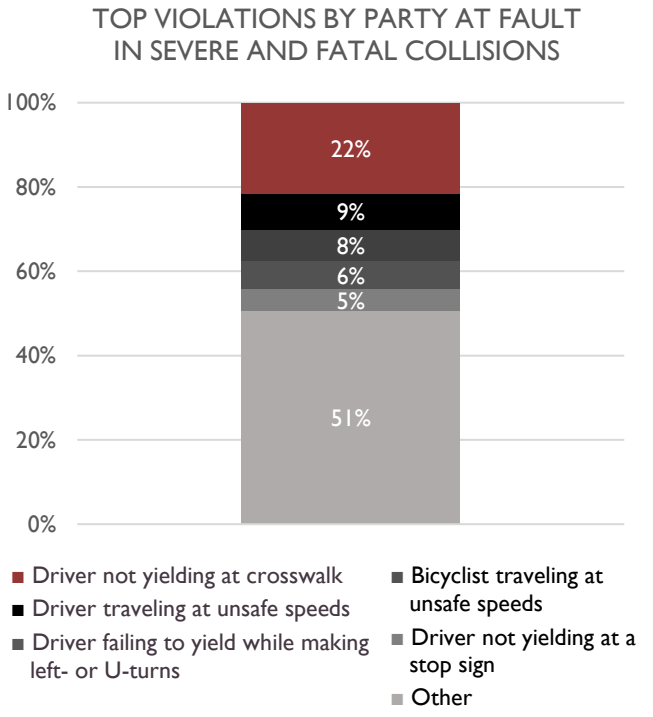
Collision Data: SWITRS five-year injury collision data, 2013-2017
Mode Data: California Household Travel Survey for the City of Berkeley, 2012

VISION ZERO IS ABOUT TRAFFIC VIOLATIONS

Every collision involves multiple factors. The top traffic violations reported during the years 2013 to 2017 for collisions in Berkeley that resulted in death or severe injury were **traveling at unsafe speeds, violation of pedestrian right-of-way at a crosswalk, failure to yield while making left or U-turns, failure to stop at a red light, and failure to stop at a stop sign.** Vision Zero focuses on the most significant factors associated with severe and fatal traffic collisions in order to make the greatest impact.



Safety is also about how we share public space and how we interact on our streets. When we consider the primary party at fault, the top traffic violations for severe and fatal vehicle-involved collisions in Berkeley were **drivers not yielding at crosswalks; drivers traveling at unsafe speeds; drivers failing to yield to oncoming traffic when making a left- or U-turn; bicyclists traveling at unsafe speeds; and drivers not yielding at stop signs.** While party at fault data is subjective and may not include the victim's perspective, it can add to our understanding of the unsafe behaviors that result in severe and fatal collisions.



Violation data tables are provided in **Appendix C: SWITRS Violation Code Data Tables**.

Collision Data: SWITRS five-year injury collision data, 2013-2017

Source: US Department of Transportation, Literature Review on Vehicle Travel Speeds and Pedestrian Injuries March 2000

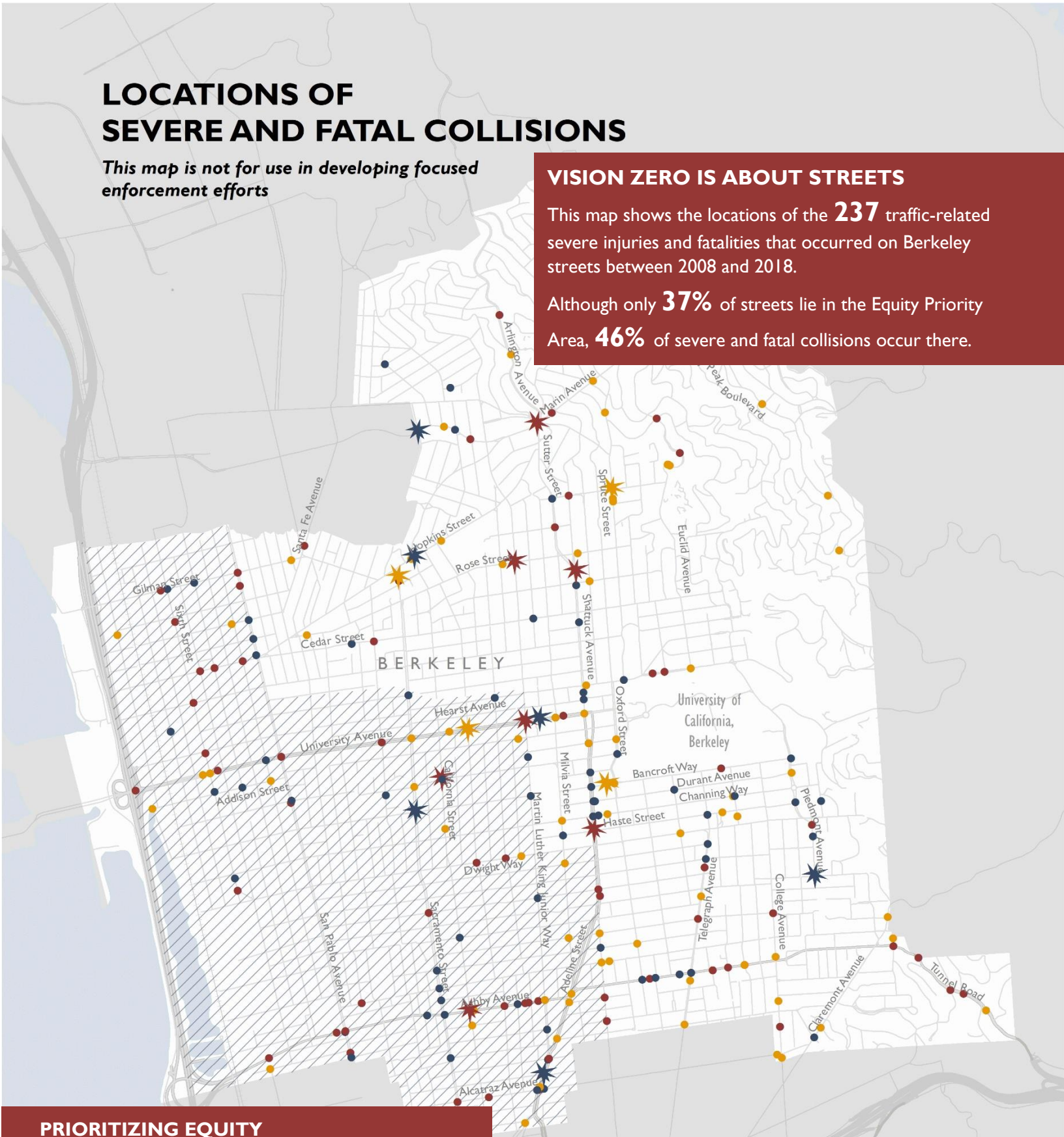
LOCATIONS OF SEVERE AND FATAL COLLISIONS

This map is not for use in developing focused enforcement efforts

VISION ZERO IS ABOUT STREETS

This map shows the locations of the **237** traffic-related severe injuries and fatalities that occurred on Berkeley streets between 2008 and 2018.

Although only **37%** of streets lie in the Equity Priority Area, **46%** of severe and fatal collisions occur there.



PRIORITIZING EQUITY

Lower income residents and people of color are disproportionately impacted by the risk of traffic injuries and fatalities. The Equity Priority Area considers historic Home Owners' Loan Corporation "redlining," racial/ethnic composition, property value, and cultural centers to guide the City of Berkeley in prioritizing infrastructure projects that remedy systemic inequity. A full description of the Equity Priority Area methodology can be found in the City of Berkeley Pedestrian Plan.

Equity Priority Area

Collision Type

- Bicycle - Fatal
- Bicycle - Severe Injury
- Pedestrian - Fatal
- Pedestrian - Severe Injury
- Driver - Fatal
- Driver - Severe Injury

Collision Data: SWITRS ten-year injury collision data, 2008-2018

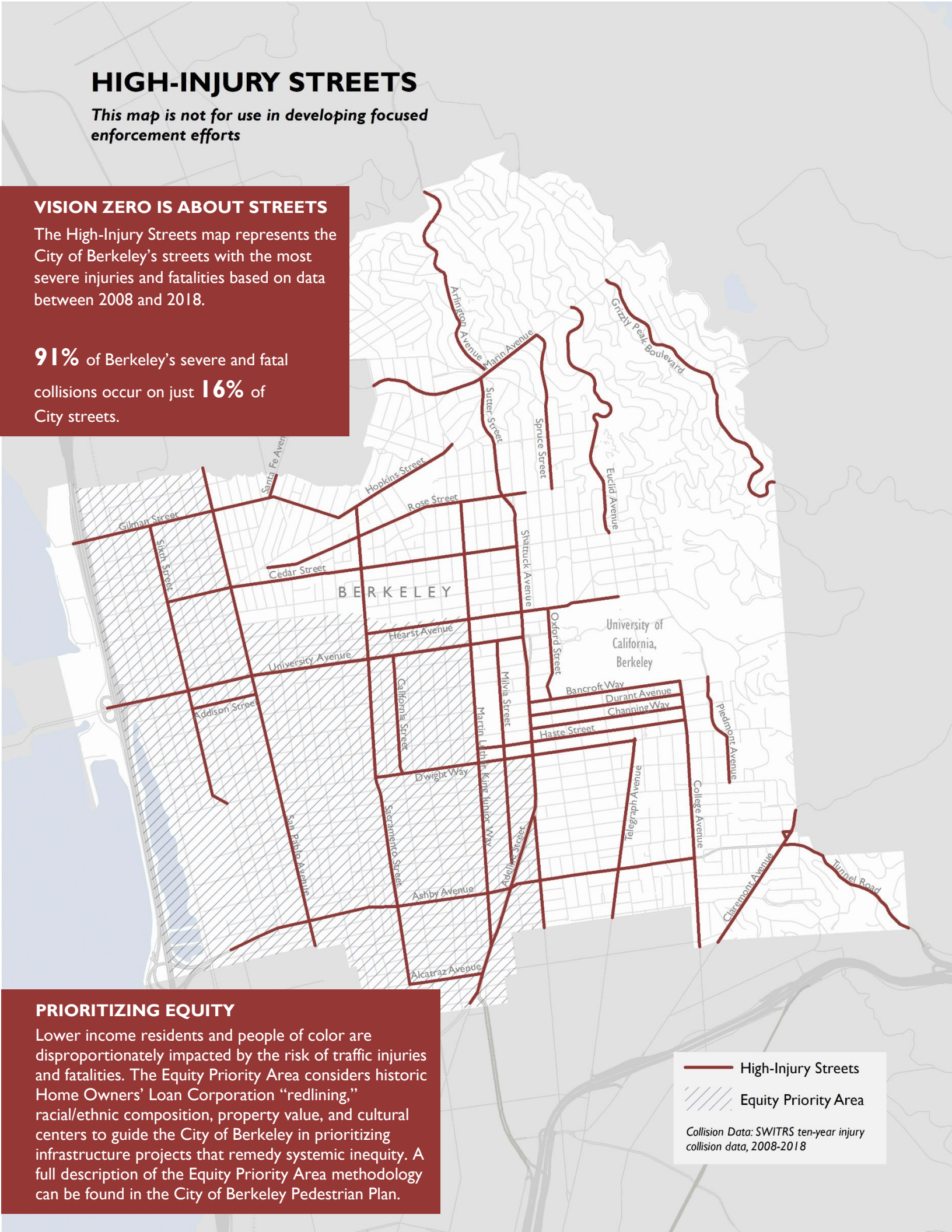
HIGH-INJURY STREETS

This map is not for use in developing focused enforcement efforts

VISION ZERO IS ABOUT STREETS

The High-Injury Streets map represents the City of Berkeley's streets with the most severe injuries and fatalities based on data between 2008 and 2018.

91% of Berkeley's severe and fatal collisions occur on just **16%** of City streets.



PRIORITIZING EQUITY

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High-Injury Streets

Equity Priority Area

Collision Data: SWITRS ten-year injury collision data, 2008-2018

VISION AND GUIDING PRINCIPLES

The City of Berkeley is committed to an equity-focused, data-driven effort to eliminate traffic deaths and severe injuries on our city streets by 2028.

1. **Safety is our highest priority.** Human life is more important than speed, convenience, or property. We will evaluate trade-offs and make both proactive and reactive engineering decisions about street design based on this value.

2. **Traffic deaths and severe injuries are preventable and unacceptable.** Using a holistic, data-driven, systems-level approach to street design, we will treat fatal and severe collisions as preventable and unacceptable incidents that can and must be addressed.

3. **People make mistakes.** We will design our streets so that mistakes do not result in death or severe injury.

4. **Slower streets are safer streets.** We will design, construct, and operate our streets for slower speeds with the goal of eliminating all fatal and severe collisions, and protecting our most vulnerable street users.

5. **We will create safer transportation options for people who walk, bike, and take transit.** Creating safer and more comfortable transportation options for people to walk, bike, and take transit can make these modes more attractive and reduce the number of car trips in Berkeley. Fewer car trips can mean fewer severe and fatal collisions.

6. **Street safety must be achieved equitably.** We will respond to the disproportionate burden of traffic deaths and severe injuries on people of color, people with no or low income, people with no or limited English proficiency, people experiencing homelessness, youth, seniors, people with disabilities, and people who walk and bike. Enforcement strategies recommended as part of this plan will be designed to minimize racial profiling. Further, this plan emphasizes engineering and education actions first, supported by equity- and data-driven enforcement in an effort to conduct equitable traffic enforcement consistent with the City of Berkeley's Fair and Impartial Policing Policy.

7. **Vision Zero will be accountable, transparent, and data-driven.** Actions will be data-driven to respond to the causal factors of deaths and severe injuries on Berkeley streets. This response will utilize both proven methods and innovative strategies. We will perform annual monitoring, reporting, and evaluation through an equity lens. We will communicate clearly what resources are necessary to achieve Vision Zero, why street design modifications are proposed, and the basis for prioritizing competing improvements.

TAKING ACTION

The City of Berkeley's Vision Zero action items described on the following pages demonstrate a **comprehensive, integrated approach** to get the City to zero. They rest on three pillars: 1) The Vision Zero Program, 2) Safer Streets for Everyone, and 3) Safer Streets by Everyone. This plan prioritizes engineering, education, and public awareness before enforcement strategies to achieve Vision Zero in Berkeley.

THE VISION ZERO PROGRAM

1.1 Collaboration

Collaborate with City departments, regional and community partners, and mobility providers to achieve Vision Zero goals. Continue commitment from Berkeley elected officials.

1.2 Capacity

Build sustainable funding and staffing to complete Vision Zero action items, including program management, data analysis, infrastructure projects, and education, engagement, and enforcement.

1.3 Transparency and Equity

Establish a milestone reporting schedule. Incorporate equity into data collection, analytics, evaluation, engagement, and reporting.

SAFER STREETS FOR EVERYONE

2.1 Project Planning and Development

Prioritize high-injury streets and the most vulnerable street users.

ACTION ITEM DEVELOPMENT

These actions represent months of collaboration and coordination between the Task Force and Advisory Committee and build on opportunity areas established through a comprehensive review of best practices and Berkeley's current safety efforts.

2.2 Project Design

Design for vulnerable users of the transportation network, including people of all ages and abilities.

2.3 Project Delivery

Deliver Vision Zero traffic safety infrastructure improvements both reactively and proactively.

SAFER STREETS BY EVERYONE

3.1 Public Awareness

Create a culture of traffic safety by promoting awareness through public information programs and campaigns.

3.2 Enforcement

Transition from a request-based to an equitable and data-driven enforcement strategy focused on the most significant safety violations resulting in fatalities and severe injuries.

1.1 THE VISION ZERO PROGRAM: COLLABORATION

Priority	Action	Lead Department	Timeline
☆	***Establish a standing Vision Zero Coordinating Committee*** consisting of City staff, Commissioners, partner institutions, members of the community, advocacy groups, and community-based organizations who have a role in advancing Vision Zero action items with quarterly meetings organized around a predetermined annual agenda. Seek to establish a funding source to compensate members of the community and community-based organizations to enable their participation.	City Manager's Office	
	Incorporate Vision Zero goals and actions into plan and policy updates of all departments and partner institutions, including the upcoming City of Berkeley Zoning Ordinance update and General Plan Update, UC Berkeley's Long-Range Development Plan, Berkeley Unified School District's Sustainability Plan, the City's Strategic Plan, Departmental Priority Projects Lists, and departmental and individual staff work plans.	City Manager's Office	
	With the Metropolitan Transportation Commission, Alameda County Transportation Commission, and Alameda County Department of Public Health, establish a peer-to-peer Bay Area Vision Zero Network for information-sharing and collaboration on countywide and regional initiatives such as a public health analysis of collision victim hospital data.	Mayor's Office	
	Develop a focused, strategic Vision Zero staff training plan to send key staff responsible for implementing the Vision Zero Action Plan, such as Public Works, Police, Health, Housing, and Community Services, and City Manager's Office and elected officials, to Vision Zero-related conferences and trainings.	City Manager's Office	

1.2 THE VISION ZERO PROGRAM: CAPACITY

Priority	Action	Lead Department	Timeline

☆	***Conduct a citywide Vision Zero Action Plan assessment*** of existing staffing and funding capacity to complete Vision Zero action items.
	• ***Create a staffing matrix*** of existing and proposed staff for the delivery of high-priority Vision Zero action items. New or realigned staff needs are anticipated in the areas listed below:
	  ○ Public Works safety project team
	  ○ Public Works Vision Zero Program support staff
	  ○ Public Information Officers in key Vision Zero departments including Police and Health, Housing, and Community Services
	  ○ Berkeley Police Department Vision Zero collision data analysis
	  ○ Health, Housing, and Community Services Vision Zero data analysis and public awareness programs
	• ***Establish a milestone staffing and funding schedule*** to complete high-priority Vision Zero action items, including City and grant funds.
		City Manager's Office; Public Works	

☆	***Request a Vision Zero Performance Audit*** to be conducted during the FY21 audit period to evaluate the implementation of the Action Plan and make any needed recommendations, including additional and/or realigned staffing and funding, for effective Vision Zero Action Plan implementation. Provide required six-month updates to City Council.	Public Works	

1.3 THE VISION ZERO PROGRAM: TRANSPARENCY AND EQUITY

Priority	Action	Lead Department	Timeline
☆	***Utilize the Berkeley Police Department's collision report data on parties involved***, such as housing status or whether parties involved are disabled, to help address equity gaps in Statewide Integrated Traffic Records System (SWITRS) collision data. Confirm that Berkeley Police Department report training emphasizes consistent use of these collision report data fields and, if needed, provides training resources for avoiding transportation mode bias in collision reporting. When necessary, update the police collision report form to be consistent with emerging mobility modes.	Public Works; Police	
	Provide an annual Vision Zero Progress Report, reviewed by the City Auditor, to City Council, City Department Directors, Vision Zero Coordinating Committee, and Transportation Commission, on progress reducing fatal and severe collisions, including in historically underserved neighborhoods, equity in traffic enforcement, and on meeting the funding, staffing, and Vision Zero program delivery schedules. Include an updated Vision Zero High-Injury Streets map. Utilize Berkeley Police Department collision data to supplement the Statewide Integrated Traffic Records System dataset to avoid lag in data availability.	Public Works	
	Complete a full update of the Vision Zero Action Plan every three years to ensure continued relevancy of the Action Plan by integrating advancements in best practices and technologies. The first update will include an equity evaluation to identify gaps in safety and collision datasets and develop milestones to address inequities, as well as identify strategies to include hospital data provided by Alameda County Department of Public Health, linked to emergency medical services data and police reports, in Vision Zero analyses and maps.	Public Works	
	Maintain an understanding of the Berkeley community's perception of safety and personal security. Focus direct public engagement to residents of Berkeley's historically underserved neighborhoods and other vulnerable users.	Health, Housing, and Community Services	

2.1 SAFER STREETS FOR EVERYONE: PROJECT PLANNING AND DEVELOPMENT

Priority	Action	Lead Department	Timeline
☆	***Develop a publicly accessible matrix and map to prioritize and track projects.*** Prioritize both new/existing requests/referrals and delivery of established infrastructure project lists (e.g., Five Year Repaving Program, BeST Plan, etc.) according to the Vision Zero High-Injury Streets map and equity-driven prioritization from City Council adopted plans such as the Bicycle Plan and forthcoming Pedestrian Plan.	City Manager's Office	
☆	***Establish a Complete Streets Repaving and Development Project Checklist*** to ensure proactive and reactive Vision Zero safety infrastructure for people of all ages and abilities are included with each repaving project and in the conditions of approval for development projects. With the Vision Zero Coordinating Committee, consider establishing an equity-driven approach to prioritizing repaving projects.	Public Works	
	Establish a Vision Zero Rapid Response Safety Project Protocol that utilizes data from the renamed Fatal Accident Investigation Team (FAIT), to identify quick-build projects if engineering countermeasures may effectively improve safety. The protocol should outline a path forward for Public Works staff to be a part of the immediate on-the-ground response to an investigation of severe and fatal collisions.	Public Works; Police	
	Conduct before and after studies of a sample of Vision Zero quick-build projects to evaluate countermeasure effectiveness where existing understanding is insufficient.	Public Works	
	Undertake a Standards of Coverage/Response Time Study to provide a data-driven understanding of how safety improvements impact emergency response times.	Fire	
	Establish a pre-approved toolbox of traffic safety infrastructure design treatment improvements with the Vision Zero Coordinating Committee to streamline the implementation of projects.	Public Works	

2.2 SAFER STREETS FOR EVERYONE: PROJECT DESIGN

Priority	Action	Lead Department	Timeline
	Establish Vision Zero Design Guidelines that consolidate policies and design guidelines from Council-adopted plans such as the Pedestrian Plan, Bicycle Plan, and Complete Streets Policy to guide Berkeley's street design, traffic, and parking procedures in order to prioritize safety and reduce the incidence of severe and fatal collisions. Ensure revisions and updates are reviewed by the Vision Zero Coordinating Committee to maintain accessibility for people of all ages and abilities.	Public Works	
	Develop Curbside Management Guidelines and incorporate them into the Vision Zero Guidelines to ensure Berkeley addresses safety concerns at the curb due to existing and emerging mobility options.	Public Works	
	Update the Berkeley Municipal Code to be consistent with the Vision Zero Design Guidelines.	Public Works	
	Refine the existing traffic calming toolbox to include design guidelines for all street types, utilizing Council-adopted plans where applicable. Ensure the traffic calming toolbox is reviewed by the Vision Zero Coordinating Committee to streamline the implementation of projects.	Public Works	

2.3 SAFER STREETS FOR EVERYONE: PROJECT DELIVERY

Priority	Action	Lead Department	Timeline
☆	***Proactively build capital-intensive and quick-build safety projects*** on all Vision Zero High-Injury Streets on a schedule to complete such projects by 2028.	Public Works	
	Reactively build newly identified quick-build projects at locations with recent severe and fatal collisions if engineering countermeasures may effectively improve safety, based on Rapid Response Safety Project Protocol.	Public Works	
	Continue to deliver traffic calming projects. Utilize the traffic calming toolbox and evaluate requests based on an equity- and data-driven approach to implementation for both residential and Vision Zero High-Injury Streets. Increase public awareness of the traffic calming program.	Public Works	

3.1 SAFER STREETS BY EVERYONE: PUBLIC AWARENESS

Priority	Action	Lead Department	Timeline
☆	***Develop and proactively deliver a Vision Zero branding, promotional, and educational campaign*** to increase awareness about Vision Zero and the top traffic violations for severe and fatal injuries in Berkeley, elevating victims' stories. Regularly update the campaign to ensure it is context-specific, accessible, and culturally relevant. Collaborate with community-based organizations to distribute material and promote messages and public events that normalize active transportation and transit as healthy and responsible transportation choices.	Health, Housing, and Community Services	
☆	***Establish a Vision Zero Rapid Response Safety Communication Protocol.*** Employ a communication strategy in response to recent severe and fatal collisions aimed at the human element of traffic safety, including health and prevention messaging to the Berkeley community.	Public Works	
	Partner with UC Berkeley, Berkeley City College, and Berkeley Unified School District to distribute targeted Vision Zero messaging for students.	Public Works	
	Integrate Vision Zero traffic safety awareness and education into training for City employees who drive City vehicles or drive while on City business, including Police, Fire, Public Works, and all City departments and divisions.	City Manager's Office	

3.2 SAFER STREETS BY EVERYONE: ENFORCEMENT

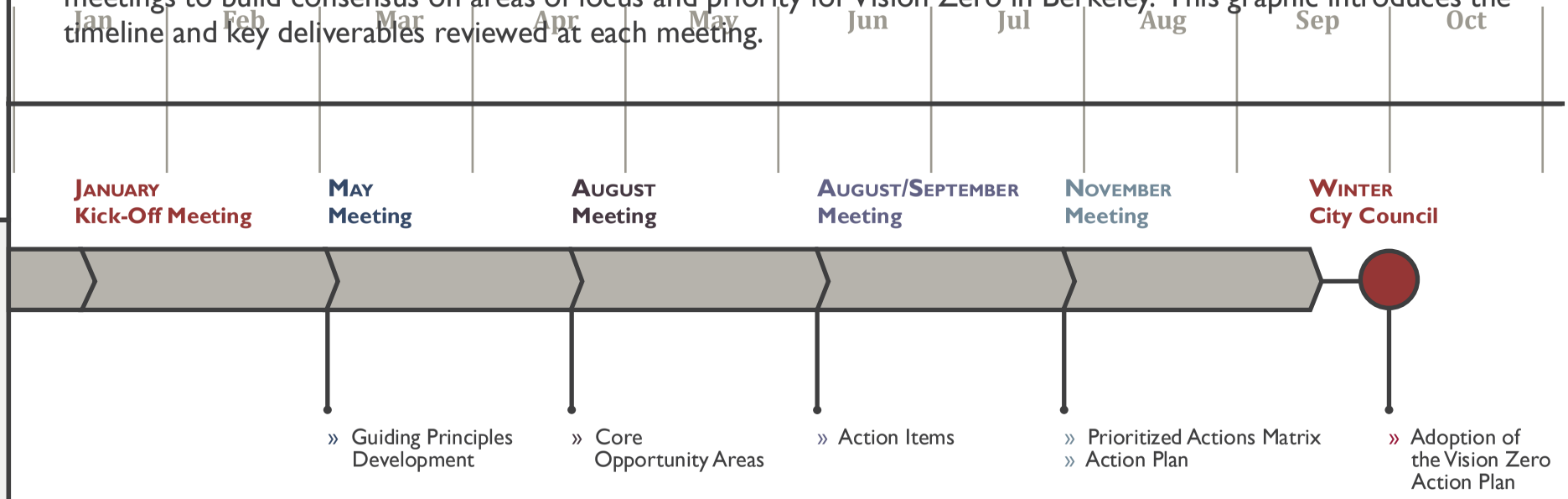
Priority	Action	Lead Department	Timeline
☆	***Focus traffic enforcement efforts proportionately on the most significant traffic violations for severe and fatal collisions by party at fault.*** Focus enforcement efforts on areas of Berkeley where engineering and education efforts have already been implemented. Conduct traffic enforcement consistent with the City of Berkeley's Fair and Impartial Policing Policy.	Police	
☆	***Support state-wide traffic safety legislation*** allowing automated speed enforcement by local agencies, designation of speed limits on local streets based on desired safety outcomes rather than the existing prevailing speed, and the reduction of local residential street speed limits to below 25 MPH, which would allow for 20 MPH speed limit on local residential streets, consistent with "20 Is Plenty" campaigns. Utilize existing legislated automated enforcement strategies, such as red light cameras.	City Manager's Office	
	Rename the Fatal Accident Investigation Team to replace the word "accident" with "collision" and include reference to near-fatal and major collisions, to acknowledge that most collisions are preventable, and to be in line with Vision Zero philosophies.	Police	
	Continue and regularly update a collision data-driven enforcement strategy focusing on collision reports from the renamed Fatal Accident Investigation Team (FAIT) to supplement collision data from SWITRS. Focus on areas of Berkeley where engineering and education efforts have already been implemented. Conduct traffic enforcement consistent with the City of Berkeley's Fair and Impartial Policing policy.	Police	
	Seek opportunities to educate before issuing citations during traffic enforcement.	Police	
	Develop a traffic ticket diversion program for bicycle and pedestrian traffic tickets to promote access to bicycle and pedestrian safety courses and programs.	Police	

APPENDICES

APPENDIX A:
VISION ZERO ACTION PLAN TIMELINE & PROCESS DIAGRAM

MEETING SCHEDULE

The Vision Zero Action Plan development was facilitated by a series of five Task Force and Advisory Committee meetings to build consensus on areas of focus and priority for Vision Zero in Berkeley. This graphic introduces the timeline and key deliverables reviewed at each meeting.



DETAILS & DELIVERABLES

GUIDING PRINCIPLES DEVELOPMENT

An introduction to key Vision Zero concepts that resonate in the City of Berkeley. Meetings included a group exercise to develop Guiding Principles for the Vision Zero Action Plan.

CORE OPPORTUNITY AREAS

A best practices review and benchmarking assessment summarized as core opportunity areas for Berkeley Vision Zero. The best practices review focused on systemic safety strategies from other U.S. cities, while the benchmarking assessment provided an understanding of baseline safety conditions and practices in the City of Berkeley.

ACTION ITEMS

A list of actions to address the identified safety needs, as documented in the Core Opportunity Areas memo.

PRIORITIZED ACTIONS MATRIX

A matrix of prioritized Vision Zero actions for the City of Berkeley, based on input provided throughout the Task Force and Advisory Committee meeting series.

ACTION PLAN

The final summarizing document, documenting the significance of Vision Zero in Berkeley and introducing the City's Vision Zero action items.

APPENDIX B: PRIORITIZED VISION ZERO ACTIONS MATRIX

This matrix documents the action item prioritization for Berkeley's Vision Zero Action Plan. The intention of this prioritization is to help the City determine the list of near-term, immediate actions the City should embark on to achieve Vision Zero. The matrix is not intended to be static – it can be used for each Vision Zero Action Plan update to re-evaluate the near-term focus of Vision Zero for the City. The criteria the prioritization utilizes are:

- **Transformative/High Impact:** Actions are prioritized that would have major positive impacts on safety or City collaboration, based on the Institute of Transportation Engineer's Core Elements of Vision Zero and ongoing City efforts.

- **Existing Resources:** Actions are prioritized that likely already have the needed resources, both staff and funding, to deliver.

- **Staff Priority:** Actions are prioritized that are of interest and priority to the Task Force.

- **Community Priority:** Actions are prioritized that are of interest and priority to the Advisory Committee.

These criteria are based on the existing priorities of the City of Berkeley. The criteria are meant to be fluid and re-evaluated with each new Vision Zero Action Plan update. Each action item will receive a point for each criterion it fulfills. The top performing actions should be the near-term focus of Vision Zero efforts.

PRIORITIZATION RUBRIC

All actions that have a score of 3.5 or greater are considered near-term priorities for the City of Berkeley.

Metric	1	0.5	0
Transformative/ High Impact	Action directly correlates to an ITE Vision Zero Core Element *and* is an item the City is not currently doing	A Core Element, but lesser transformative impact because the City is already undertaking this effort	Not a Core Element
Existing Resources	High existing staff availability (based on Task Force and Vision Zero Program staff feedback)	Medium existing staff availability	Low existing staff availability
Staff Priority	High priority item (based on Task Force and Vision Zero Program staff feedback)	Medium priority item	Low priority item
Community Priority	High priority item (based on Advisory Committee feedback)	Medium priority item	Low priority item

Pillar	Opportunity Area	Action	Transformative/ High Impact	Existing Resources	Staff Priority	Community Priority	Score
VZ Program	Collaboration	*Establish a standing Vision Zero Coordinating Committee*	1	1	1	1	4
VZ Program	Capacity	*Conduct a citywide Vision Zero Action Plan assessment*	1	1	1	1	4
Safe Streets for Everyone	Project Delivery	*Proactively build capital-intensive and quick-build safety projects*	1	0.5	1	1	3.5
VZ Program	Capacity	*Request a Vision Zero Performance Audit*	1	1	0.5	1	3.5
Safe Streets by Everyone	Public Awareness	*Establish a Vision Zero Rapid Response Safety Communication Protocol*	1	0.5	1	1	3.5
Safe Streets by Everyone	Enforcement	*Support state-wide traffic safety legislation*	1	0.5	1	1	3.5
Safe Streets for Everyone	Project Planning & Development	*Establish a Complete Streets Repaving and Development Project Checklist*	1	0.5	1	1	3.5
Safe Streets by Everyone	Public Awareness	*Develop and proactively deliver a Vision Zero branding, promotional, and educational campaign*	1	0.5	1	1	3.5
Safe Streets for Everyone	Project Planning & Development	*Develop a publicly accessible matrix and map to prioritize and track projects*	1	0.5	1	1	3.5
VZ Program	Transparency & Equity	*Utilize the Berkeley Police Department's collision report data on parties involved*	1	0.5	1	1	3.5
Safe Streets by Everyone	Enforcement	*Focus traffic enforcement efforts proportionately on the most significant traffic violations for severe and fatal collisions by party at fault.*	1	1	1	0.5	3.5
VZ Program	Collaboration	*Incorporate Vision Zero goals and actions into near-term plan and policy updates*	1	1	0	1	3
Safe Streets for Everyone	Project Delivery	*Reactively build newly identified quick-build projects*	1	0.5	0.5	1	3
Safe Streets for Everyone	Project Planning & Development	*Establish a Vision Zero Rapid Response Safety Project Protocol*	1	0.5	0.5	1	3
Safe Streets for Everyone	Project Design	*Establish Vision Zero Design Guidelines that consolidate policies and design guidelines from Council-adopted plans*	0.5	0.5	1	1	3
VZ Program	Transparency & Equity	*Provide an annual Vision Zero Progress Report*	0.5	1	0.5	1	3
VZ Program	Transparency & Equity	*Complete a full update of the Vision Zero Action Plan every three years*	0.5	1	0.5	1	3
VZ Program	Collaboration	*Develop a focused, strategic Vision Zero staff training plan*	0.5	0.5	1	1	3
Safe Streets by Everyone	Enforcement	*Continue and regularly update a collision data-driven enforcement strategy*	0.5	0.5	1	1	3
Safe Streets for Everyone	Project Planning & Development	*Conduct before and after studies*	1	0.5	1	0.5	3
Safe Streets by Everyone	Enforcement	*Seek opportunities to educate before issuing citations*	0.5	0.5	0.5	1	2.5

Pillar	Opportunity Area	Action	Transformative/ High Impact	Existing Resources	Staff Priority	Community Priority	Score
Safe Streets by Everyone	Enforcement	*Rename the Fatal Accident Investigation Team*	0.5	1	0.5	0.5	2.5
VZ Program	Transparency & Equity	*Maintain an understanding of the Berkeley community's perception of safety and personal security*	1	0	0.5	1	2.5
Safe Streets by Everyone	Public Awareness	*Partner with UC Berkeley, Berkeley City College, and Berkeley Unified School District*	0.5	0.5	0.5	1	2.5
Safe Streets for Everyone	Project Delivery	*Continue to deliver traffic calming projects*	1	0.5	0.5	0.5	2.5
Safe Streets by Everyone	Public Awareness	*Integrate Vision Zero traffic safety awareness and education into training for City employees*	0.5	0.5	0.5	1	2.5
Safe Streets for Everyone	Project Design	*Update the Berkeley Municipal Code*	0.5	0.5	0.5	0.5	2
Safe Streets for Everyone	Project Planning & Development	*Undertake a Standards of Coverage/Response Time Study*	0	0.5	0.5	0.5	1.5
Safe Streets by Everyone	Enforcement	*Develop a traffic ticket diversion program*	0	0	0.5	1	1.5
VZ Program	Collaboration	*With the Metropolitan Transportation Commission, Alameda County Transportation Commission, and Alameda County Department of Public Health, establish a peer-to-peer Bay Area Vision Zero Network*	0	1	0	0.5	1.5
Safe Streets for Everyone	Project Design	*Refine the existing traffic calming toolbox*	0.5	0	0.5	0.5	1.5
Safe Streets for Everyone	Project Planning & Development	*Establish a pre-approved toolbox of traffic safety infrastructure design treatments*	0	0.5	0	0.5	1
Safe Streets for Everyone	Project Design	*Develop Curbside Management Guidelines*	0	0	0.5	0.5	1

APPENDIX C: SWITRS VIOLATION CODE DATA TABLES

Table 1: Cited California Vehicle Code Violation by Party at Fault[1]

	Party Cited as at Fault						
Cited California Vehicle Code Violation	Driver	Ped	Parked Vehicle	Bicyclist	Other	None Cited	Total
Traveling at unsafe speeds	11			12			23
Failure to yield at crosswalk	20						20
Failure to yield to oncoming traffic when making a left turn or U-turn	7						7
Failure to stop at a red light	3			3			6
Failure to yield at a stop sign	5						5
Opening door in unsafe conditions	3		1		1		5
Failure to signal	2			2			4
Crossing outside crosswalk or legal crossing	1	3					4
Pedestrian suddenly leaving curb		4					4
Failure to yield to oncoming traffic when entering or crossing road from property or alley	2			1			3
Pedestrian had flashing DON'T WALK		3					3
Passing unsafely	2						2
Driving with 0.04% or more alcohol in blood with a passenger for hire in the vehicle	2						2
Failure to proceed straight or yield properly	1						1
Driving on the wrong side of the road	1						1
Driver passes bicyclist unsafely	1						1
Disobeying traffic control device	1						1
Reckless driving causing bodily injury	1						1
Driving under the influence	1						1
Driving under the influence and driving unlawfully, leading to bodily injury to any person other than the driver	1						1
Driving a vehicle in an unsafe condition or not safely loaded	1						1
Bicyclist has same rights and subject to same rules as motor vehicles				1			1
Driver not yielding to pedestrians during right turn on red		1					1
Pedestrian crossing between signalized intersections		1					1
Failure to stop at stop bar				1			1
No violation cited	1	1		4		6	12
Total	*67*	*13*	*1*	*24*	*1*	*6*	*112*

Notes:
1. SWITRS five-year severe and fatal injury collision data, 2013-2017

Table 2: Cited CA Vehicle Code Violations by Parties Involved in Severe and Fatal Collisions[1]

Violation by Party at Fault for Severe or Fatal Collisions			Other Parties Involved[2]					
Cited Party at Fault	California Vehicle Code Summary	# of Severe or Fatal Collisions[3]	Driver	Pedestrian	Parked Vehicle	Bicyclist	Other	Solo Collisions
Driver	Failure to yield at crosswalk	20	1	21	0	0	0	0
Driver	Traveling at unsafe speeds	8	3	3	3	1	0	3
Driver	Failure to yield to oncoming traffic when making a left turn or U-turn	7	5	0	0	2	0	0
Bicyclist	Traveling at unsafe speeds	6	5	0	0	1	0	6
Driver	Failure to yield at a stop sign	5	3	0	0	2	0	0
Pedestrian	Pedestrian suddenly leaving curb	4	4	0	0	0	0	0
Driver	Opening door in unsafe conditions	3	0	0	0	3	0	0
Pedestrian	Crossing outside crosswalk or legal crossing	3	3	0	0	0	0	0
Pedestrian	Pedestrian had flashing DON'T WALK	3	3	0	0	0	0	0
Bicyclist	Failure to stop at a red light	3	2	0	0	0	1	0
Driver	Failure to stop at a red light	3	1	1	0	1	0	0
Driver	Driving with 0.04% or more alcohol in blood with a passenger for hire in the vehicle	2	0	1	0	1	0	0
Driver	Failure to signal	2	1	0	0	1	0	0
Driver	Failure to yield to oncoming traffic when entering or crossing road from property or alley	2	1	0	0	1	0	0
Bicyclist	Failure to signal	1	0	0	1	0	0	1
Driver	Passing unsafely	1	1	0	0	0	0	1
Driver	Driving under the influence and driving unlawfully, leading to bodily injury to any person other than the driver	1	0	1	0	0	0	0
Driver	Reckless driving causing bodily injury	1	1	1	0	0	0	0
Other	Opening door in unsafe conditions	1	0	0	0	1	0	0
Parked Vehicle	Opening door in unsafe conditions	1	0	0	0	1	0	0
Bicyclist	Failure to stop at stop bar	1	1	0	0	0	0	0
Driver	Disobeying traffic control device	1	1	0	0	0	0	0
Pedestrian	Pedestrian crossing between signalized intersections	1	1	0	0	0	0	0
Driver	Crossing outside crosswalk or legal crossing	1	0	1	0	0	0	0

Violation by Party at Fault for Severe or Fatal Collisions		# of Severe or Fatal Collisions[3]	Other Parties Involved[2]					
Cited Party at Fault	California Vehicle Code Summary		Driver	Pedestrian	Parked Vehicle	Bicyclist	Other	Solo Collisions
Bicyclist	Failure to yield to oncoming traffic when entering or crossing road from property or alley	1	1	0	0	0	0	0
Driver	Driver passes bicyclist unsafely	1	0	0	0	1	0	0
Pedestrian	Driver not yielding to pedestrians during right turn on red	1	0	0	0	1	0	0
Driver	Failure to proceed straight or yield properly	1	1	0	0	0	0	0
Bicyclist	Bicyclist has same rights and subject to same rules as motor vehicles	1	1	0	0	0	0	0
Driver	Driving a vehicle in an unsafe condition or not safely loaded	0	0	0	0	0	0	1
Driver	Driving under the influence	0	0	0	0	0	0	1
Driver	Driving on the wrong side of the road	0	0	0	0	0	0	1
	No Violation Cited	7	7	1	0	4	0	5
	Total	*93*	*47*	*30*	*4*	*21*	*1*	*19*

Notes:
1. SWITRS five-year severe and fatal injury collision data, 2013-2017
2. Parties involved will not sum to total number of collisions
3. This number excludes solo collisions. To understand the total number of severe of fatal collisions, sum this column with the number of solo collisions.