

# 2019



## REPORTING THE RESULTS

SAFE STREETS EVALUATION  
2019 YEAR-END REPORT





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# A NOTE FROM THE DIRECTOR OF TRANSPORTATION

Last May, the SFMTA published our first Safe Street Evaluation Report detailing our effectiveness in advancing the city's goals and Vision Zero efforts over the course of 2018. The program has grown to offer more insights into progress made and lessons learned; I am pleased to share our advancing work in the 2019 Safe Streets Evaluation Report.

Under the direction of Mayor London Breed and with support from the Board of Supervisors, in 2019 the SFMTA initiated the Vision Zero Quick-Build Program. The Quick-Build Program is a robust policy change, representing our agency's effort to quickly build pedestrian and bicycle safety improvements on the city's High Injury Network and make iterative design changes once implemented. These projects can be put in the ground in as little as 10% of the time and cost of many traditional design-build projects – and we can't afford that time or money. San Franciscans need safer streets, right now. The Program has also proved invaluable in helping the agency respond to the COVID crisis and making our street design work more equitable and responsive to communities most impacted by the intertwined crises of COVID, traffic deaths, and structural racism.

A key part of the Quick-Build Program is a commitment to evaluating these fast-tracked projects so we can make the right changes as we learn more; quick-build projects such as the 6th Street, 7th Street, Taylor Street, and Indiana Street are assessed in this report. Similar to last year, the report also continues to discuss key findings from completed large capital projects and dozens of city-wide safety measures.

As we continue to innovate in street design in San Francisco, our city strives to be at the forefront of change and to lead the region and nation in transformative transportation policies and design. Please join me in reading this report and our commitment to making streets safer for all San Franciscans.

Jeffrey Tumlin



**Initiated in 2017, the SFMTA's Safe Streets Evaluation Program tracks progress and measures performance for key traffic calming, bicycle, and pedestrian safety projects throughout San Francisco.**

**The goals of the Safe Streets Evaluation Program are to:**



**Inform refinements to project designs:**

By collecting location-specific data related to transportation behaviors, project design elements are analyzed for their effectiveness and areas are targeted for refinement.



**Communicate the effects of a project to the public, decision makers and other transportation professionals:**

Evaluation results are shared with members of the public so they may understand the impact of the SFMTA's work on their experience of the city, or with decision makers who want to understand the effects of safety-related infrastructure investments.



**Support the use of innovative design treatments:**

Also referred to as "proof-of-concept," project evaluations are often used to analyze innovative design treatments that are new to San Francisco. The data associated with proof-of-concept project evaluations are used to demonstrate the applicability of national or international best practices to the local context.



**Streamline the design of future projects that incorporate similar elements:**

Project evaluations use consistent metrics and analysis techniques to allow for tracking trends over time.

# 1

## MAKING PROGRESS

A citywide policy passed in 2014, Vision Zero is a commitment to build better and safer streets, educate the public on traffic safety, enforce traffic laws, and adopt policy changes that save lives.

Even with this important initiative, several cities across the nation have been seeing a rise in traffic fatalities. Every year in San Francisco, approximately 30 people lose their lives and more than 500 more are severely injured while traveling on city streets. While both the causes and the solutions may not be solely infrastructure changes—we must do all that we can to prevent traffic violence and implement safety changes as quickly as possible.



## CALL TO ACTION

Under the direction of Mayor London Breed and with support from the Board of Supervisors, the SFMTA has developed a new quick-build initiative. **Quick-build projects are reversible, adjustable, traffic safety improvements that can be installed relatively quickly and are located on San Francisco's High Injury Network**, the 13% of city streets that account for 75% of severe and fatal injuries. Unlike major capital projects that may take years to plan, design, bid and construct, quick-build projects are buildable within weeks and months and are and are reviewed, evaluated, and adjusted for a 24-month period following initial construction.

**Quick-build projects are fast installations that improve safety.** They are bypassing much of the typical approval processes, with the caveat that **each fast-tracked project will be evaluated under the Safe Streets Evaluation Program, and changes will be made where needed.**

To meet this challenge, the Safe Streets Evaluation Program has adapted to evaluate more projects at a faster pace. This Year-End Report details the successes and lessons of completed quick-build projects together with our longer-term projects.



## PROJECT LEVEL PROGRESS

In the last year, through both quick-build and longer-term projects, the SFMTA installed or upgraded **18 miles of bike lanes, including 9 miles of new protected bike lanes**. We also made **significant pedestrian improvements along many major corridors**. In 2018, we found that our investments create positive impacts across many metrics. We saw this trend continue in 2019 as we increased the amount of protected bike lanes, made more impactful, corridor-wide improvements for pedestrians, upgraded intersections to include separate bicycle signals, and installed neighborhood wide traffic calming measures. The SFMTA's **pedestrian, traffic calming and bicycle projects completed in 2019 are providing clear safety benefits**.

**We are also learning what doesn't work.** These lessons are summarized in the next section and are important tools in determining the scope of new projects.

**Lastly, this report does not include collisions analysis.** The purpose of the Safe Streets Evaluation Program is to understand project performance soon after projects are implemented. Collision level analysis will take place after projects have been in place for longer periods of time and can be correlated with mobility data to understand high-level trends.

To find out more about the methodologies used and to see full project evaluation reports, please visit: [sfmta.com/safestreetsevaluation](https://sfmta.com/safestreetsevaluation)



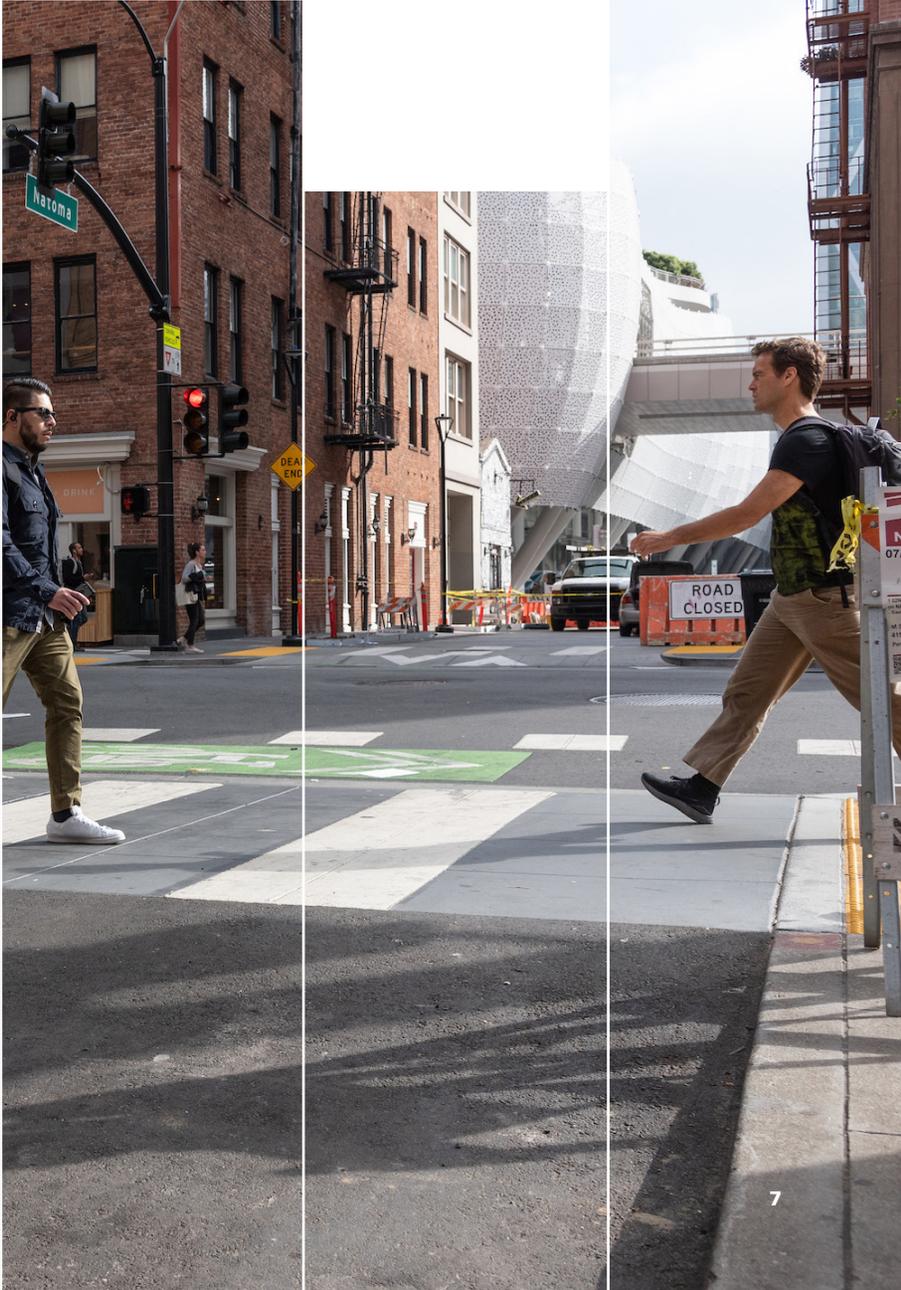


# 2

## TOP TAKEAWAYS

### Key Findings and Lessons Learned

Much of the work the SFMTA undertook in 2019 is strongly supported by positive data trends. Our evaluations also revealed important lessons to carry forward in our work in 2020. Key successes, as well as lessons learned, are summarized in the following section.



## Key Findings



The findings are clear; **protected bike facilities** increase bicycle ridership, decrease blockages of the bike lanes, and nearly eliminate mid-block vehicle-bike conflicts such as near-dooring incidents.

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Through introducing **corridor-wide pedestrian safety projects**, we are reducing vehicle speeds and improving loading experiences.

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**Proactive, neighborhood-wide traffic calming is leading to reduced vehicle speeds** and may help prevent future severe injuries and fatalities, especially on residential streets.

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**Separated bike signals are doing their job** by greatly reducing the probability of people driving and people riding bikes interacting and significantly reducing close calls.

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**Quick-build projects** cost a fraction of large capital projects, can be swiftly implemented, and are extremely effective.

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We heard from a wide range of voices that while we have some things to improve on, new and improved bicycle and pedestrian facilities **make people feel safer and more comfortable**.

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## Lessons Learned



**Partially raised bikeways, especially on commercial corridors, are not successful.** After the first phase of the 2nd Street Improvement Project was installed, vertical posts had to be added to the raised bikeway to prevent motorists from blocking the bike lane. On Masonic Avenue (a largely residential corridor), loading violations occur with less frequency but people driving do at times mount and block the raised bikeway.

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**Without the right signal timing and enforcement, some sequential bike signals have issues with compliance.** Both bicycle and vehicle compliance are low at the four new separated bike signals on lower Polk Street and will require both changes to signal timing and increased enforcement.

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**Left turn restrictions need enforcement.** While compliance is relatively high in locations where left turns were restricted, many people driving still make the turn. To amplify this safety improvement, turn restrictions need enforcement during peak congestion times.

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While providing clear public realm benefits and a variety of safety improvements, large capital streetscape projects have long timelines and high price tags. **Large capital projects should be accompanied by quick-build efforts to implement changes as soon as possible.**

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**We need more reporting on equity.** While we improved our survey methods and techniques to better represent a wider demographic and socio-economic range of users, our program must go further. We lack metrics that specifically measure equity and inclusivity of both the process and product.

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# 3

## PRIORITIZING PEOPLE

### Pedestrian Safety

Much of SFMTA's engineering efforts in the past year have been directed towards protecting the most vulnerable users of our streets—pedestrians. **The SFMTA completed several corridor safety projects that reduced vehicle lanes and introduced pedestrian improvements. Results from these projects include reduced vehicle speeds, improved loading experiences, and minimal impacts to vehicle travel times.**

In addition to corridor improvement projects, the SFMTA has also completed a series of neighborhood-wide traffic calming projects that included new speed humps, raised crosswalks, and correlating pavement markings. **This holistic approach to traffic calming is helping to proactively reduce speeds on residential streets.**





## Vehicle Speeds

A primary goal of most of our safety projects is to reduce vehicle speeds, which is important as even small decreases in speed can dramatically increase the probability of surviving a collision. **In 2019, vehicle speeds were reduced on many arterial streets where we made significant safety changes, including vehicle travel lane reductions and striping improvements.** Most of these streets are on the High Injury Network.

The SFMTA also implements traffic calming measures such as speed humps and raised crosswalks to reduce speeds on residential corridors. After observing traffic calming projects completed in 2019, we have found **people driving are traveling at safer speeds on streets where humps and raised crosswalks are installed.**





**6TH STREET  
PEDESTRIAN SAFETY  
QUICK-BUILD PROJECT**

**21%**  
**decrease**

in 85th percentile speeds  
on average.

**24%**

reduction in 85th  
percentile vehicle speeds  
specifically at 6th Street  
between Market and  
Mission (from 25mph to  
19mph).

**POLK STREETScape  
PROJECT**

**16%**  
**decrease**

in 85th percentile vehicle  
speeds (from 20 to 18  
mph on average) on  
northbound Polk Street  
after implementation.

**2ND STREET  
IMPROVEMENT\***

**13%**  
**decrease**

in 85th percentile speeds  
(from 28 to 24mph on  
average), on 2nd Street.

\*Harrison to Market Streets



### EXCELSIOR NEIGHBORHOOD TRAFFIC CALMING

**18%**

reduction in the average number of vehicles traveling over 20mph. Vehicles traveling over 30 mph fell **3.5%**.

**13%**

reduction, on average, in 85th percentile speeds at ten different streets where humps were installed

### GOLDEN GATE PARK TRAFFIC SAFETY

The number of vehicles traveling over 30 mph fell by

**42%**

park-wide. The 85th percentile speeds decreased by **13%** on Martin Luther King Jr. Drive, and by **8%** on John F. Kennedy Drive.

### 8TH AVENUE NEIGHBORWAY

**18%**

decrease in the 85th percentile speeds (5 mph).

Vehicles are traveling at safer speeds on 8th Avenue, especially in the northbound direction.

**89%**

decrease in vehicles traveling between 30 and 40 mph; more people driving are traveling under 20 mph.

Comparing corridors, the 85th percentile speed on 8th Avenue is 6mph slower than both 7th and 9th Avenues.





**GOLDEN GATE PARK  
TRAFFIC SAFETY**

Thirteen raised crosswalks were installed in Golden Gate Park in 2019. At two observed crosswalks, vehicles yielding to pedestrians increased by an average of

**21%**

and close-call incidents have been reduced to almost zero.

**JOHN MUIR BOULEVARD  
RAISED CROSSWALKS**

Three sequential raised crosswalks were installed on a block of John Muir Boulevard near Lake Merced. The 85th percentile speeds fell by

**14 mph**

or from 43 to 29mph.



## Loading Behavior

Overall, the SFMTA's safety projects are **improving the passenger loading experience by decreasing both double parking and loading duration.** Our safety projects have also installed several new passenger and transit boarding islands, introducing potential conflicts between pedestrians and bicyclists. **Across different projects we have found little to no conflicts between pedestrians and bicyclists at boarding islands.**





### SAFER TAYLOR QUICK-BUILD

BEFORE:

**40%**

of loading occurred  
through double parking.

AFTER:

**100%**

reduction in double  
parking due to large  
buffers and ample  
floating loading zones.

**5%**

reduction in loading time.

### 6TH STREET PEDESTRIAN SAFETY QUICK-BUILD

**9%**

reduction in double parking.

**76%**

reduction in loading time.



### VALENCIA STREET PILOT

## No close calls

observed at a new school passenger loading island. While a high number of interactions take place between pedestrians and bicyclists at the island, the two parties yield to each other to prevent conflicts.



### MASONIC AVENUE STREETScape IMPROVEMENT

## No close calls

observed at the transit boarding island. The number of observed bicycle and pedestrian interactions were insignificant in comparison to the overall volume of foot and bike traffic.





## LOOK AHEAD

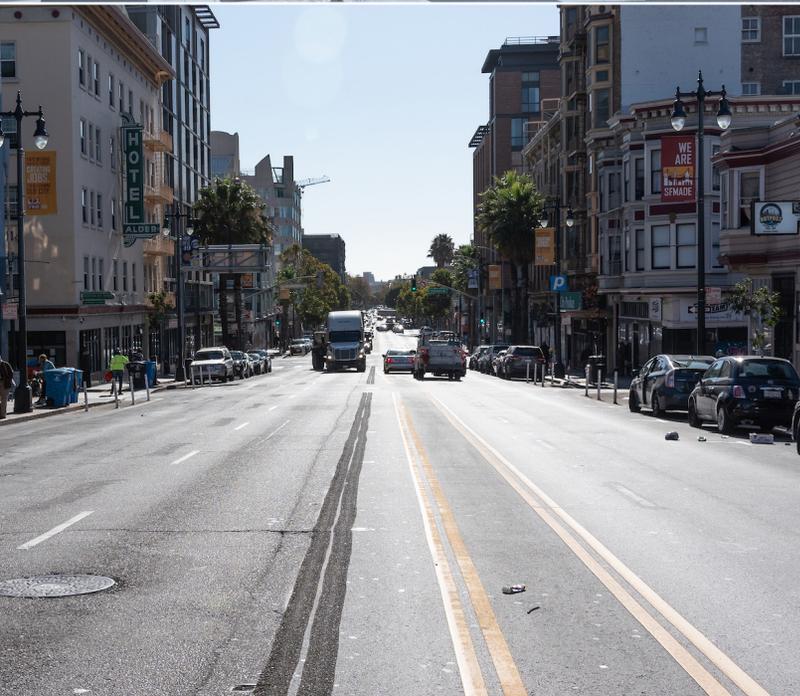
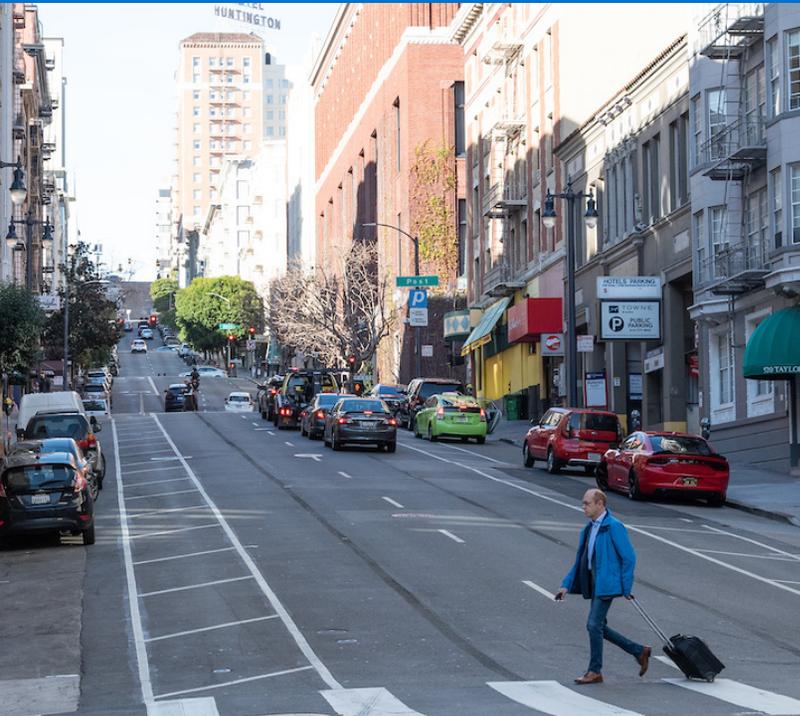
The SFMTA is undertaking a quick-build project on California Street from Arguello Boulevard to Park Presidio Boulevard. There have been 57 injury collisions on this segment of California Street in the past five years, including four pedestrian-involved collisions. Changes will include a vehicle travel lane reduction, daylighting, high-visibility crosswalks, and pavement marking to improve safety for people of all ages.



### Vehicle Travel Time

To achieve changes to pedestrian safety, many of our improvement projects reduce vehicle travel lanes and restrict turns. However, each project works to mitigate these impacts through additional loading zones, turn pockets, and changes to signal timing. To understand the impacts of both the tradeoffs and mitigation measures, vehicle travel time studies were conducted both before and after the implementation of three major corridor projects. **While travel times increased on Polk Street, changes to vehicle travel times were less impactful on both Taylor and 6th Streets within the project limits.**





**POLK STREETScape**

Vehicle travel times on Polk Street from McAllister to Union Streets (1.3 miles) increased by an average of

**3.4 minutes**  
during the morning peak.

Polk Street travel times may have been affected by ongoing construction on Van Ness Avenue, which runs parallel to Polk Street.

**SAFER TAYLOR QUICK-BUILD**

The project had little effect on vehicle travel time with an increase of approximately

**35 seconds**  
in the morning peak hours.

**6TH STREET PEDESTRIAN SAFETY QUICK-BUILD**

The vehicle travel time increased by

**1.6 minutes**  
in morning peak hours.



# 4 BETTER BIKING

## Upgrading Our Bike Network

The SFMTA is upgrading and building more bicycle lanes every year, with a record amount of protected bicycle lanes and separated bike signals installed in 2019. In 2019, SFMTA installed protected lanes on Valencia Street, Polk Street, 2nd Street, Masonic Avenue, 7th Street, and other corridors. The quick-build initiative has led to further progress, with many of the new facilities completed in record time. We are building better and more protected bike lanes for one simple reason- we know they work.





## Bike Counts

Mobility trends for of the protected bike lanes reveal **steady increases in bicycle ridership during commute hours.**





### VALENCIA STREET PILOT

# 49%

increase in bike volumes during the evening peak commute hours after the pilot was installed (from 423 to 631 cyclists on average).

### POLK STREETScape

# 127%

increase in number of cyclists (from 63 to 141 cyclists on average) during peak commute hours.



### 7TH STREET SAFETY QUICK-BUILD\*

Up to a

# 52%

increase in the evening peak commute hours (from 129 to 197 cyclists) at 7th and 16th Streets after installation.

\*Townsend to 16th Streets

### MASONIC AVENUE STREETScape

# 387%

increase in bike volumes in the peak hours (from 23 to 112 on average). The highest increase occurred at Masonic and Geary, where peak volumes increased by 154 cyclists after the project was implemented.



## Blocking the Bike Lane

Protected bike lanes increase safety by providing a physical barrier and preventing loading vehicles from stopping in the bike lane. However, there are often trade-offs with the protected facilities including reduced parking and loading. To minimize impacts, the SFMTA prioritizes commercial and passenger loading over general parking and increases loading on side streets. **Parking-protected bike lanes prevent blockage of the bikeway, and most loading is taking place in the designated loading zones.** We sometimes see exceptions to this when physical barriers cannot be installed due to driveways, or when fewer cyclists/bikes are present.





**VALENCIA STREET PILOT**

**90%**

of loading is taking place in the floating loading zones. Floating loading zone usage has steadily increased, while loading at other locations (i.e. double parking + bike lane) has decreased.



**2ND STREET IMPROVEMENT\***

**91%  
reduction**

in bikeway blocking.

\*Harrison to Market Streets



POLK STREETScape

64%

of loading events observed where vehicles are parking legally in loading zones at the curb during both the weekday and weekend. Illegal blocking of the bike lane does occur on Polk Street, but has been found to take place more frequently on the weekends when fewer people riding bikes are present.





## **LOOK AHEAD**

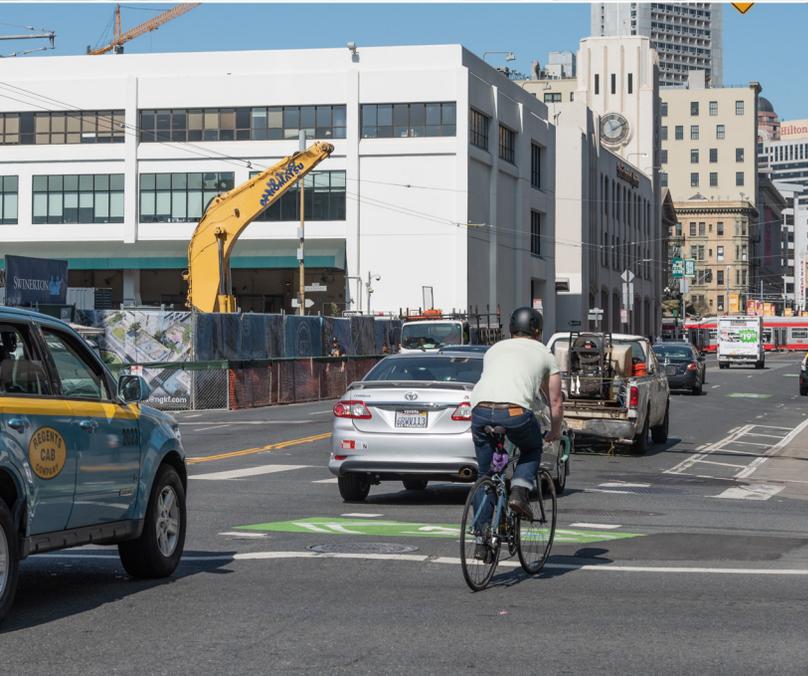
The 5th Street Improvement Quick-Build project was completed in October 2019, installing protected bike lanes on the entire length of 5th Street from Townsend to Market Streets. The SFMTA will report on changes to bicycle ridership and yielding behaviors in the next annual report.



## Vehicle-Bike Conflicts

Through our evaluations, the SFMTA has found that protected bike lanes not only lead to greater ridership and safer loading, but **also reduce or eliminate mid-block dooring conflicts**. Furthermore, when the protection continues through the intersections with the use of separated bike signals, we see **dramatic decreases in intersection conflicts, specifically right-hook conflicts**.





#### VALENCIA STREET PILOT

**99%  
decrease**

in mid-block vehicle/bike interactions, and a complete reduction in observed near-dooring incidents.

**67%  
decrease**

in number of interactions between right-turning vehicles and through bikes (from 60 to 20) at Duboce and Valencia Streets after upgrading a mixing zone to a separated bike signal.

**29%  
reduction**

in close calls (7 to 5) after a bike signal was installed at Duboce and Valencia.

#### POLK STREETScape

**91%  
decrease**

in number of interactions between right turning vehicles and through bicycles (from 35 to 3 interactions) at Polk and Geary Streets after a mixing zone was converted to a bike signal.

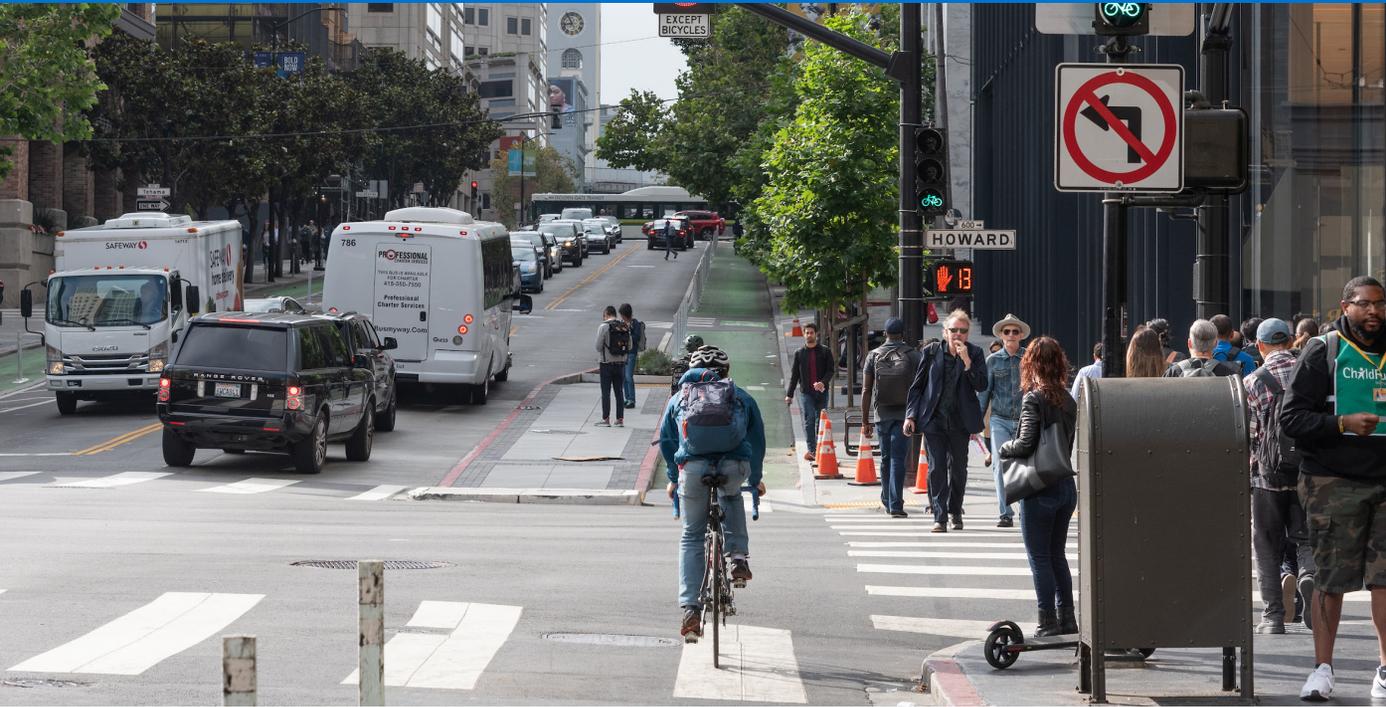
Close calls dropped from 6 out of 55 vehicle right turns (11%) at the mixing zone to 1 out of 139 right turns (.7%) at the new bike signal.



## Left Turn Compliance

Left turn restrictions can reduce the probability of left-turning vehicles conflicting with a pedestrian or bicyclist in the adjacent crosswalk or bike lane. The SFMTA systematically implemented restrictions in some of our larger streetscape projects, and results at two corridors reveal **relatively high compliance with the turn restrictions, with room for improvement.** Specifically, left turns on northbound 2nd Street from Harrison to Market Streets will be monitored to understand changes needed to improve compliance.





**2ND STREET IMPROVEMENT\***

**99%**

of vehicles complied with no left turn restriction in the southbound direction.

**93%**

of vehicles complied in the northbound direction.

\*Harrison to Market Streets



**MASONIC AVENUE  
STREETSCAPE**

**98%**

of vehicles complied with the no left turn restriction during the AM-Peak on Southbound Masonic to Eastbound Oak.



## Separated Bicycle Signals

Building on information from 2018, we have continued to evaluate the performance of a growing portfolio of separated bicycle signals.

**We continue to see separated bike signals doing their job** by greatly reducing the probability of vehicles and bikes interacting and significantly reducing close calls.

Many existing mixing zones across the city were upgraded in 2019 to separated bike signals, including locations on 8th Street, Valencia and 2nd Street. **Observations show dramatic drops in interactions and close calls between vehicles and bikes.**





# 81%

of people biking complied with separated signals at observed locations.

# 92%

of people driving complied with separated signals at observed locations.

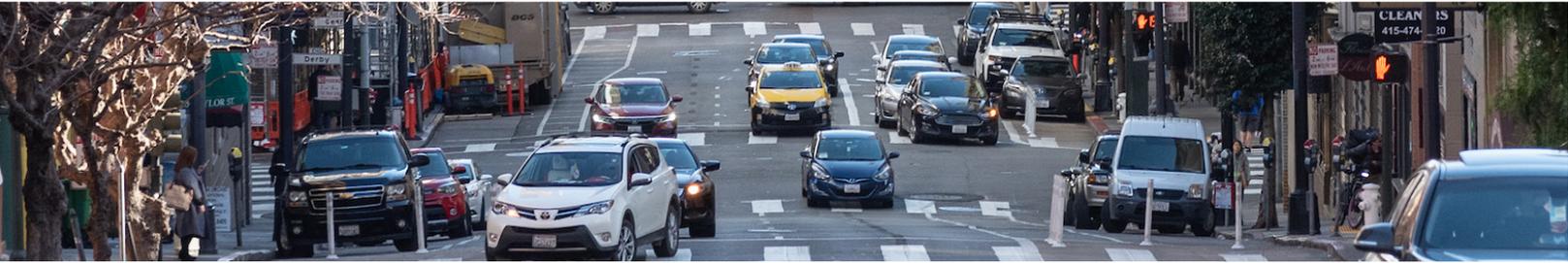
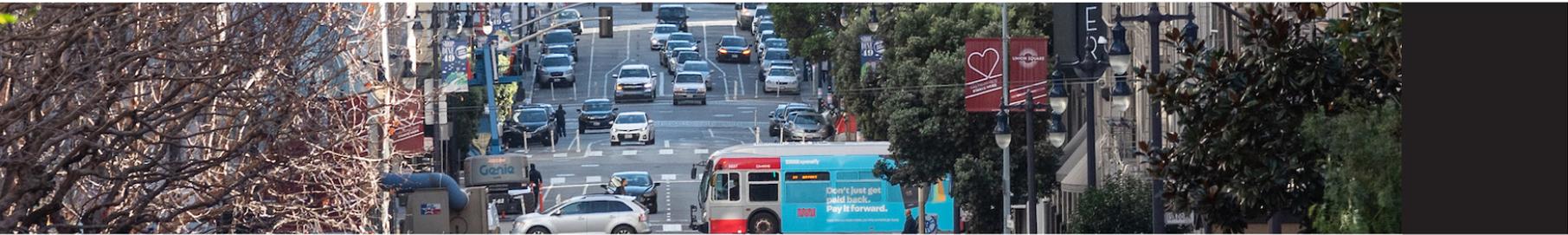
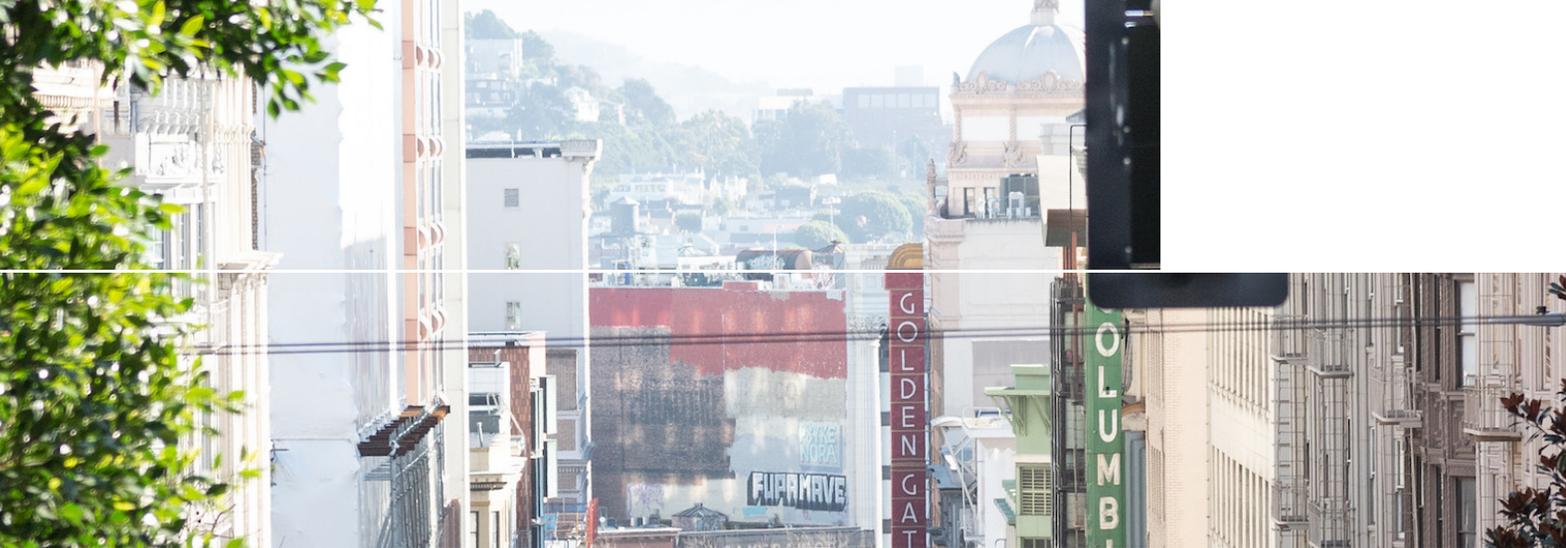
# 89%

decrease in interactions between right-turning vehicles and through bicyclists at the intersection after the conversion of a mixing zone to a bicycle signal.

# 90%

reduction in close calls at observed mixing zones that were upgraded to separated bicycle signals (from 53 to 5 close calls).

\*Note: Polk Street signals are not included in this average as compliance was unusually low at Polk street locations. The SFMTA is making changes to signal timing and will re-evaluate compliance at a later date.



# 5

## PUSHING THE ENVELOPE

### Innovative Design

The SFMTA continues to test new ideas to increase safety on our streets. Over the past year we have installed a short two-way bike facility and are planning others; we have closed streets to vehicular traffic while keeping them open to transit, people walking, and bikes; and we have made small changes to our speed hump designs to make them more bike-friendly.





## Two-Way Bike Facilities

On Indiana Street from 23rd to 25th Streets, the SFMTA installed a short two-way bike facility where southbound illegal bike riding and riding on the sidewalk frequently occurred. Prior to the project, 15 cyclists were observed traveling illegally southbound on Indiana north of 25th Street. After the project was installed, overall ridership increased and 22 cyclists were observed traveling southbound legally in the new dedicated two-way bike lane. **The new two-way bike lane on Indiana Street provides protection for movement that was illegally taking place and allowed for an increase in overall bicycle ridership.**



## Open Streets

As part of the Octavia Boulevard Enhancement Program, the SFMTA has closed one block of Octavia Street - between Linden and Hayes streets - to vehicular traffic to create safer travel conditions around Patricia's Green. Additional changes include a new contraflow bike lane on Hayes Street adjacent to Patricia's Green. **As a result, there was an average 38% increase in bike volumes measured on Linden Street**, and more than half of the cyclists observed used the new contraflow lane on Hayes Street.



## Bike Positioning and Speed Humps

As part of the 8th Avenue Neighborway, a series of speed humps were installed on the 8th Avenue corridor from Lake Street to Fulton Street. To allow for minimal impact on bikes on this major bicycle route to and from Golden Gate Park, this unique hump design includes slits to accommodate cyclists. **We found most cyclists (more than 80%) are choosing to use the slits as intended.**



## LOOK AHEAD

The SFMTA is currently piloting different innovative treatments across the city including a series of protected intersections on Valencia Street, temporary bus boarding islands on Townsend Street, and closing Market Street to all vehicles except transit and taxis. These new measures will be evaluated to determine their success and potential for replication.



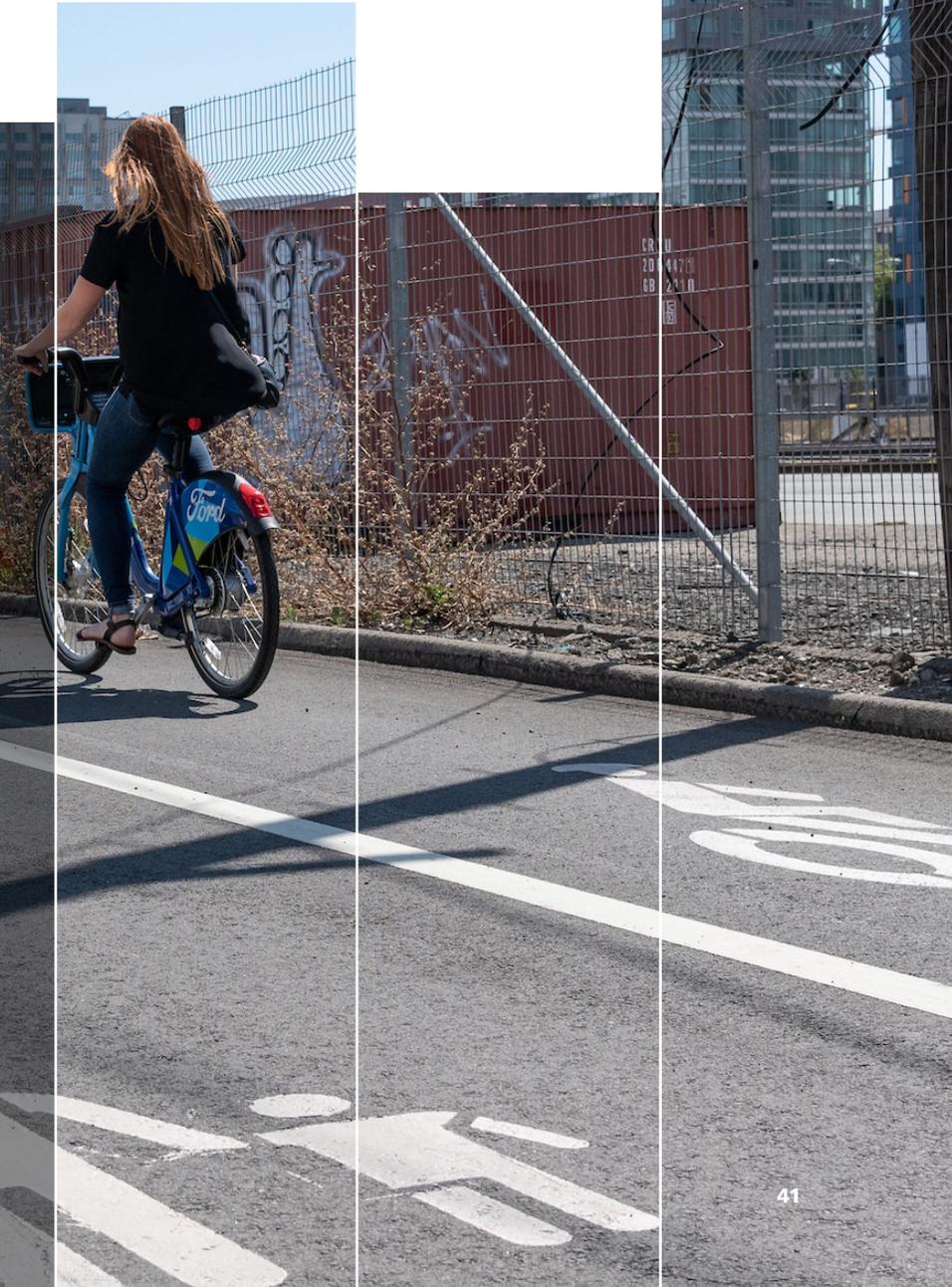


# 6

## BUT HOW DO YOU FEEL?

### Public Perception

In 2019, the Safe Street Evaluation Program improved our survey methods and techniques to better represent a wider demographic and socio-economic range of users. Responses were gathered through wide-ranging intercept surveys and online surveys by a third-party consultant. Each project survey received more than 200 responses. We heard from bicyclists, transit riders, motorists, pedestrians, and other community members. Overall, large public realm projects are resulting in **pedestrians feeling safer** and frequenting the corridors more often. Bicyclists are also feeling **safer after protected bike lanes are installed**.





SURVEY RESULTS

## Valencia

# 82%

of people riding bikes reported great improvement in their sense of safety, followed by **30%** of people who walk.

**30%** of people who drive felt that their safety decreased somewhat or greatly.

Overall, people riding bikes, walking, and riding transit reported that they traveled Valencia more often following the installation of the improvements, while **10%** of people who drive reported traveling Valencia less frequently as a result of the changes.

SURVEY RESULTS

# Masonic Avenue

**82%** people who bike      **90%** transit users      **80%** people who walk

reported a more positive experience after the public realm improvements.

The raised bikeways received mixed reviews. When asked about raised bikeways, **48%** of people riding bikes feel somewhat safe, while **34%** report feeling somewhat unsafe.





## SURVEY RESULTS

# Polk Street

**90%** of people walking reported continuing to visit Polk Street at either the same rate or more frequently.

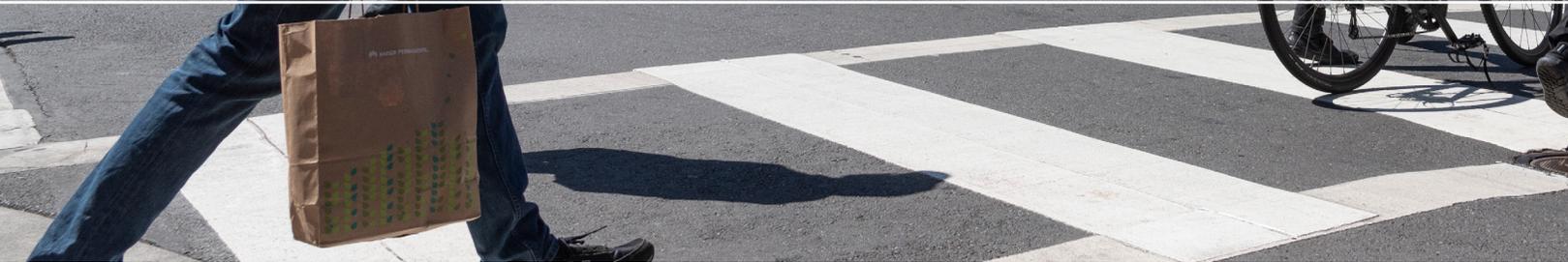
**93%** of transit riders reported having a more positive experience, or no change at all, with the new bus bulbs on the project corridor.

**65%** of people walking reported a more positive experience as a result of the improvements. A majority of both people riding bikes and transit also reported a more positive experience as a result of the streetscape project.

People riding bicycles report wanting to see additional protection of the bike lanes and more enforcement.

“

**The protected sections are fantastic but please add protected bikeways between 15th and 22nd. Biking along there requires constant weaving in and out of the traffic lane because of Uber/Lyft, parking, loading, etc ”**

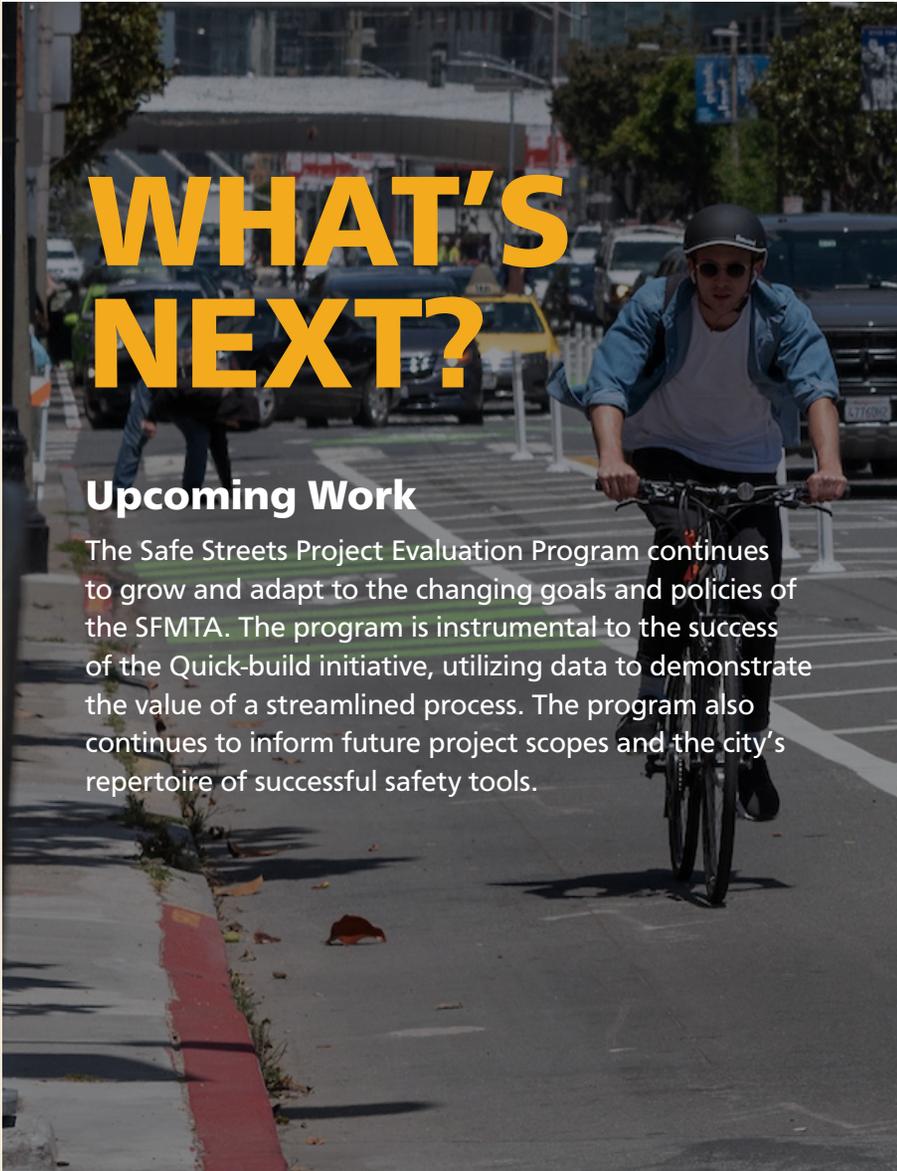


# 7

## WHAT'S NEXT?

### Upcoming Work

The Safe Streets Project Evaluation Program continues to grow and adapt to the changing goals and policies of the SFMTA. The program is instrumental to the success of the Quick-build initiative, utilizing data to demonstrate the value of a streamlined process. The program also continues to inform future project scopes and the city's repertoire of successful safety tools.



## Program goals for 2020 include:



Continue to evaluate street safety projects while also reflecting changes to the transportation field in the wake of the COVID-19 pandemic

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Further diversify survey techniques and methodologies

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Incorporate new evaluation metrics to report on equity and how projects are serving the community

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Create a publicly accessible dashboard of metrics, data, and findings

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Communicate findings regularly to public and stakeholders

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Advance data collection techniques

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# APPENDICES

Please see the following standard definitions for terms used throughout this document as well as descriptions of all projects evaluated for the year-end report.

**Mixing Zone:** A mixing zone is a combined bike lane/turn lane with distinctive markings to delineate that people riding bikes are merging with people driving in the vehicle turn lane. The zone is intended to minimize conflicts with turning vehicles at intersections and is an alternative to an exclusive bike signal phase.

**Protected Intersection:** A protected intersection reduces conflict between people riding bikes and people driving by increasing visibility and delineating by slowing turning vehicles and clarifying right-of-way through median islands and/or paint, soft-hit posts, and signs for people riding bikes as they move through the intersection.

**Protected Bikeway:** Bikeways that are at street level and use a variety of methods for physical protection from passing traffic, including a parking lane, concrete/landscaped buffers, or flexible soft-hit posts.

**Close call (or Near-Miss):** Refers to instances when people walking, riding bikes or driving make sudden, reactive moves to avoid a collision with one another. Close calls can indicate the degree of safety that people riding bikes experience at mixing zones and people walking experience when crossing the street.

**Conflict:** Instances where people walking, riding bikes or driving encounter another mode of transportation.

**Bicycle Signal Compliance:** When a person riding a bicycle obeys a signal (or, for non-compliance, continues through the intersection against a signal).

## PROJECT INDEX



### 2nd Street Improvements

The 2nd Street Improvements project includes improved safety and access for people walking, riding bikes and riding transit as well as driving. The project features a raised protected bikeway, pedestrian refuge islands, plazas, roadway resurfacing, concrete curb construction, upgrading the traffic signal system, and special crosswalks.



### 6th Street Pedestrian Safety Quick-Build (Market to Howard Streets)

The 6th Street corridor is an important north-south artery for people walking and driving. The street has also been identified as an area where vulnerable populations are in particular need of pedestrian safety improvements. In fall 2019, the SFMTA implemented quick-build safety improvements in correlation with the longer-term 6th Street Pedestrian Safety Project. Quick-build improvements includes re-striping the street (updating advanced limit lines), removing a southbound traffic lane, installing pedestrian safety zones at all intersections, daylighting into all alleyways, restricting left turns off 6th Street onto Mission Street, and allowing northbound left turns from 6th Street onto Howard Street.



### 7th Street Safety Quick-Build (Townsend to 16th Streets)

In summer 2019, the SFMTA installed a northbound and southbound protected bike lane along 7th Street between Townsend and 16th streets. The scope of changes include more consistent northbound travel lanes, high visibility crosswalks, and on-street parking removal.

## PROJECT INDEX



### 8th Avenue Neighborway (Lake to Fulton Streets)

Implemented in fall 2019, the 8th Avenue Neighborway project aims to create a safe and pleasant north-south route for people walking and biking in the Inner Richmond. This project includes speed humps, painted markings, stop signs, and other measures to improve safety and comfort for bicyclists, pedestrians, and drivers.



### Excelsior Neighborhood Traffic Calming (Supervisorial District 11)

The SFMTA worked with the community to identify neighborhood traffic challenges, including locations with excess speeding and “cut-through” traffic. Over 40 speed humps were installed in spring 2019.



### Golden Gate Park Traffic Safety

This project implemented several improvements throughout the park, including 13 raised crosswalks, 10 speed humps, upgraded crosswalk striping, bicycle safety improvements, and other traffic calming features. The project aimed to slow vehicle speeds and increase the safety and visibility of people walking and bicycling.

## PROJECT INDEX



### **Indiana Street Two-Way Bikeway (23rd to 25th Street)**

A portion of Indiana Street experiences a high number of bicyclists riding the wrong direction due to a gap in the bicycle network. To address this issue, a two-way bikeway was installed on Indiana Street from 23rd to 25th Streets in late 2019. Project elements include a new two-way protected bike lane and upgraded striping and signs. Additional project elements to be added in 2020 include speed tables and a separated bike signal.



### **John Muir Boulevard Raised Crosswalks (Skyline to Lake Merced Boulevard)**

In early 2019, three raised crosswalks were installed on a block of John Muir Boulevard in response to a pedestrian fatality. Daylighting at each crossing was also implemented.



### **Masonic Avenue Streetscape**

The Masonic Avenue Streetscape project is an effort to improve safety for people walking, biking, taking transit and driving. Improvements to the corridor include wider sidewalks, a new median, new paving, landscaping, raised bikeways, better lighting, and upgraded sewer infrastructure. The project was completed in late 2018 and post-data collection was completed in spring 2019.

## PROJECT INDEX



### Octavia Boulevard Enhancement Program (Linden to Hayes Streets)

The Octavia Boulevard Enhancement Program is a series of capital projects, guided by the Market-Octavia Area Plan, to make the boulevard and surrounding streets safer, more pedestrian-friendly, and better at serving multiple users. As part of the Octavia Boulevard Enhancement Program, in late 2019 the SFMTA closed one block of Octavia Street - between Linden and Hayes streets - to vehicular traffic to create safer travel conditions around Patricia's Green. The project simplifies the Hayes & Octavia intersection by providing shorter crosswalks and a more defined bicycle crossing. Altogether, the changes additionally benefit transit and vehicle flow on Hayes Street and provide additional loading on Fell Street.



### Polk Streetscape

The Polk Streetscape project was completed in spring 2019 to enable safe access for all road users of all ages and abilities. Corridor-wide safety improvements include protected bike lanes and separated bike signals, pedestrian safety improvements such as painted safety zones, leading pedestrian intervals, loading improvements, boarding islands, and additional streetscape amenities at key locations.



### Safer Taylor Quick-Build

In strong collaboration with the Tenderloin community, the SFMTA is developing a new vision for Taylor Street between Market and Sutter Streets that improves transportation safety and livability for all users of this corridor. The SFMTA completed a quick-build effort to deliver critical traffic safety improvements in summer 2019. Quick-build improvements include a road diet, a turn restriction, daylighting, color curb changes, and signal timing changes. A long-term streetscape project, scheduled to begin construction in 2020, will add wider sidewalks, bulb-outs, and landscape features to bring long-term transportation safety and livability improvements.

## PROJECT INDEX



### Valencia Street Pilot (Market to 15th Streets)

Valencia Street serves as a major north-south bike route for those who live, work, visit or travel through the neighborhood. As the street has grown in popularity, so have traffic conflicts for its users. Ride-hailing services and commercial vehicles frequently double park in the bike lane, posing safety concerns. The SFMTA implemented a pilot protected bikeway from Market to 15th Streets in early 2019. The pilot serves two purposes: to implement safety treatments to immediately address safety concerns, and to help inform the next phases of the project. The pilot was observed shortly after implementation in summer 2019, and then fully evaluated a year after installation in late 2019/early 2020.



### Bike Signals (City-wide)

On streets across the City, the SFMTA is upgrading mixing zones into separated bike signals. In this report, we observed signals on Valencia Street, 2nd Street, 8th Street, and Polk Street.

## PROJECT ELEMENTS MATRIX

	Protected Bike Lanes	Separated Bike Signal(s)	Public Realm Amenities	Turn Restrictions	Striping Upgrades	Curb Management/ Prioritized Loading	Passenger or Loading Boarding Islands	Vehicle Lane Reduction	Speed Humps	Raised Crosswalks
2nd Street Improvements	✓	✓	✓	✓	✓	✓	✓	✓		✓
6th Street Pedestrian Safety Quick-Build				✓	✓	✓		✓		
7th Street Safety Quick-Build	✓				✓	✓		✓		
8th Avenue Neighborway					✓				✓	
Excelsior Neighborhood Traffic Calming					✓				✓	✓
Golden Gate Park Traffic Safety					✓				✓	✓
Indiana Street Two-Way Bikeway	✓	✓			✓					
John Muir Boulevard Raised Crosswalks					✓					✓
Masonic Avenue Streetscape	✓	✓	✓	✓	✓	✓	✓			
Octavia Boulevard Enhancement Program	✓				✓	✓				
Polk Streetscape	✓	✓	✓	✓	✓	✓	✓	✓		
Safer Taylor Quick-Build				✓	✓	✓		✓		
Valencia Street Pilot	✓	✓		✓	✓	✓	✓			
City Wide Bike Signals	✓	✓								

This project is made possible by the San Francisco County Transportation Authority through a grant of Proposition K Local Transportation Sales Tax Funds. For more information about the Safe Streets Evaluation Program, please visit:

[sfmta.com/safestreetsevaluation](https://sfmta.com/safestreetsevaluation)



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