

# Agenda Item 5.

## Enhancing and Expanding the System: Safe and Complete Streets



San Francisco  
County Transportation  
Authority

October 14, 2021

# Preliminary Draft New Expenditure Plan



San Francisco  
County Transportation  
Authority

On today's agenda:

## Transit Maintenance & Enhancements, 43.7%

Muni, BART, Caltrain, Ferry  
Maintenance, rehabilitation and replacement  
Station/Access improvements  
Next generation transit planning

## Major Transit Projects, 22.1%

Muni Bus Reliability & Efficiency Improvements  
Muni Rail Core Capacity  
BART Core Capacity  
Caltrain Service Vision: Capital Investments  
Downtown Rail Extension & Pennsylvania Alignment

## Transportation System Development & Management, 6.7%

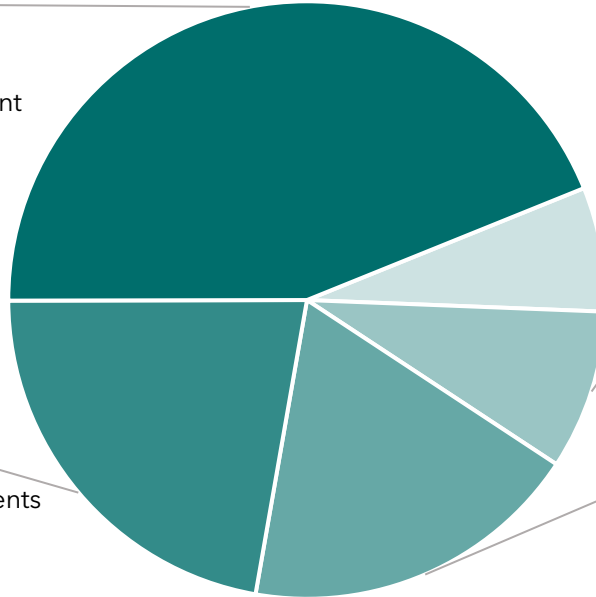
Community-based and citywide planning  
Equity studies  
Demand management (including pilots)

## Paratransit, 8.6%

Transit service for seniors and  
people with disabilities

## Streets & Freeways, 18.4%

**Bicycle & pedestrian improvements**  
**Traffic calming and signals**  
Street repaving  
Bicycle & pedestrian facility maintenance  
**Freeway safety and operations\***  
Freeway redesign planning



*\*partially covered on 10/14 (Vision Zero Ramps) and on 11/4 with freeway redesign planning*

# Safe and Complete Streets



San Francisco  
County Transportation  
Authority

- San Francisco adopted its Vision Zero goal of zero traffic deaths in 2014
- **The Safe and Complete Streets programs (Safer Streets, Curb Ramps and Street Trees) make up 11.5% of the Preliminary Draft Expenditure Plan**
- Broad eligibility within the Safer Streets program provides flexibility to direct funds as needed



## Project Types Eligible in Safer Streets\*

New Signals and Signs

Signals and Signs Maintenance and Renovation

Traffic Calming

Bicycle Improvements & Safety Education

Pedestrian Improvements & Safety Education

*\*See more enclosed draft program description.*



## Street safety improvements are also eligible in other programs in the Preliminary Draft Expenditure Plan:

- Muni Bus Reliability & Efficiency Improvements
- Transit Enhancements
- Vision Zero Ramps
- Freeway Safety & Operational Improvements
- ***Neighborhood Transportation Program\*\****
- ***Equity Priority Transportation Program\*\****
- Development-Oriented Transportation Program

*\*\*indicates key focus on safer streets*

# Safe and Complete Streets



New funding sources have become available to help fund safe and complete streets since voters approved the 2003 Expenditure Plan. Examples include:

- **Prop AA Vehicle Registration Fee (2010):** Half the program (\$2.5 million annually), is for Pedestrian Safety and Transit Reliability & Mobility Improvements (e.g bike, walk, signals)
- **CA Active Transportation Program (2013):** Approximately \$200 million per year statewide; includes increased funding from Senate Bill 1 (state gas tax) (2017).
- **Prop E Street Tree Maintenance (2016):** Approximately \$18 million per year to maintain trees in the City; planting new street trees is not eligible.
- **TNC Tax (2019):** Fifty percent of funding goes to street safety. Funding amount is TBD due to pandemic impacts.



SFMTA

San Francisco Transportation Sales Tax Reauthorization

# Improving Safety and Access

## Street Safety and Accessibility

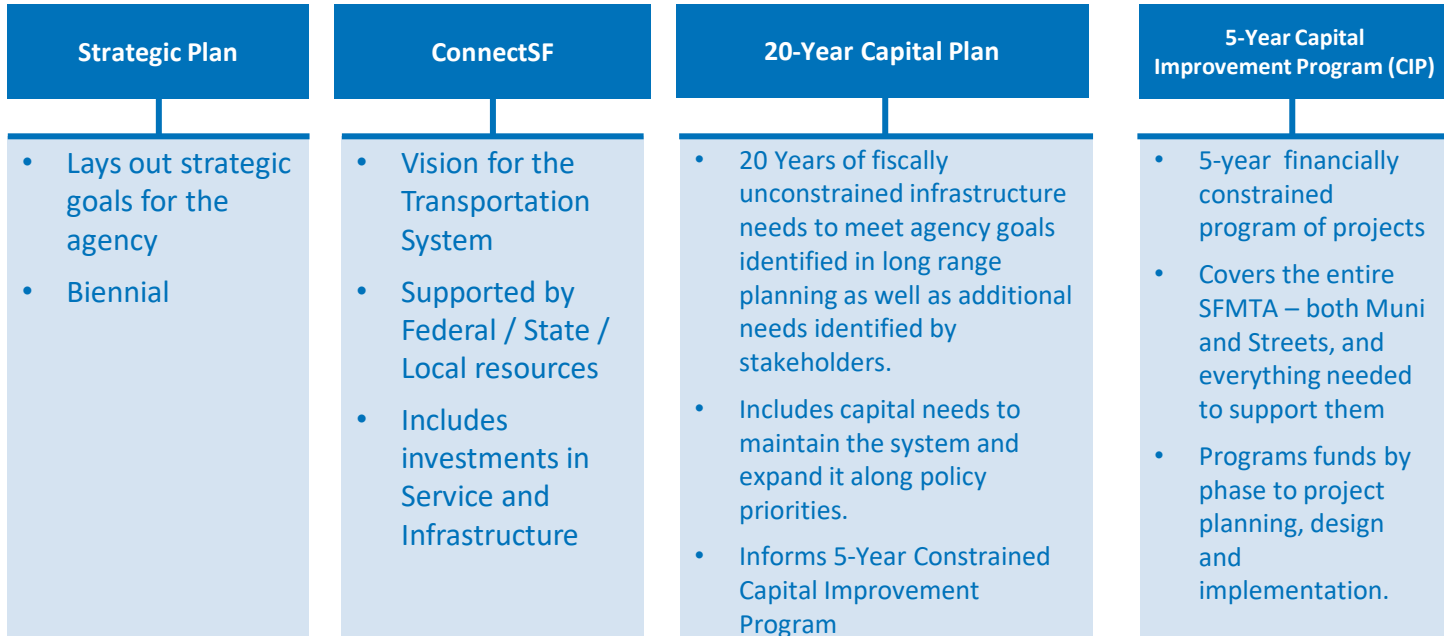
Expenditure Plan Advisory Committee  
October 14, 2021

Transportation 2050





## Transportation 2050 – Needs and Gaps



The SFMTA took the vision of ConnectSF and the capital needs in the agency’s capital plan and forecasted operational and capital needs for the next 30-years. The result was **Transportation 2050**.

# What are Street Safety and Access Improvements?



- **Traffic signal and street crossing upgrades** to improve safety and visibility at intersections and other places where people may cross the street.
- **Street redesigns and upgrades** to make it easier to walk, bike, and connect to Muni such as redesigning major corridors, adding or upgrading bike lanes and signals, and pedestrian infrastructure to reduce collisions and traffic related injuries.
- **Speed Management Programs** such as traffic calming and other speed reduction tools proven to slow speeds and reduce the severity and frequency of crashes.





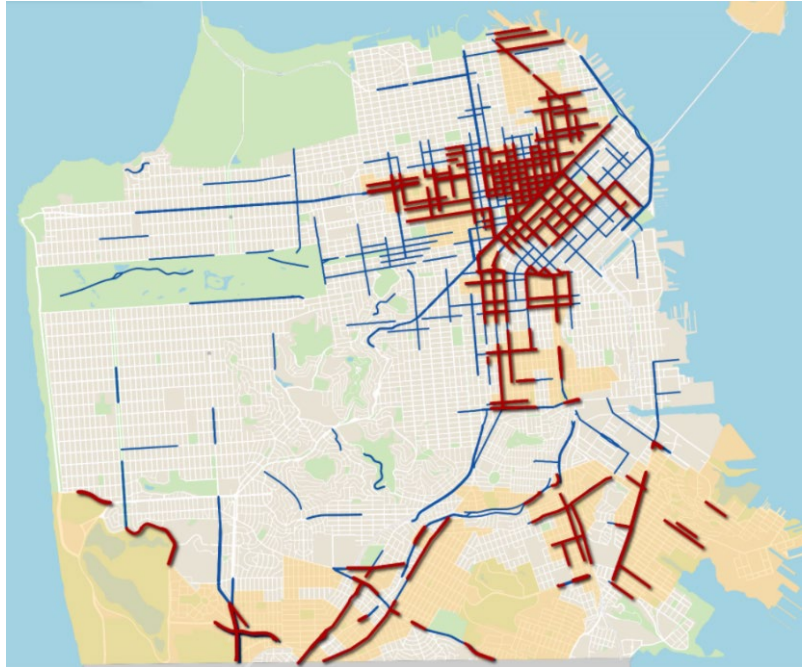
# How do we prioritize Safety and Access Projects?



- **Collision history:** Locations on the High Injury Network and with a history of speed-related crashes.
- **Equity:** Neighborhoods with a high concentration of residents that have been historically marginalized.
- **Nearby destinations:** Parks, commercial corridors, schools, senior centers, and other busy places that attract vulnerable road users.
- **Community requests:** Places that San Franciscans have identified as needing improvement.



# San Francisco's High Injury Network



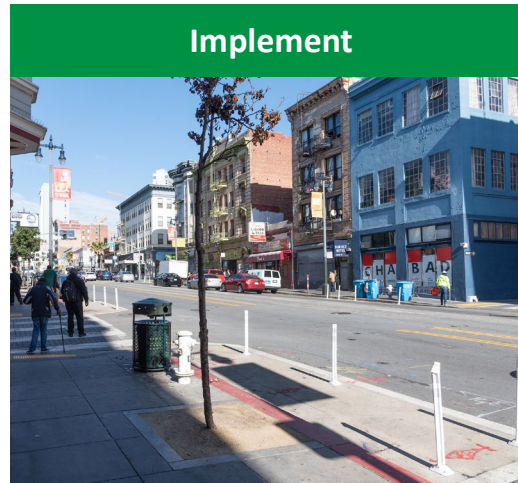
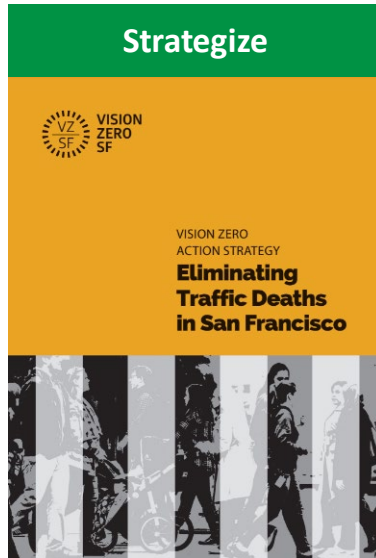
**THE HIGH INJURY NETWORK (HIN)** includes 13 miles of city streets that account for 75% of all fatal and severe crashes. The map guides the city's Vision Zero investments.

**50%** of the High Injury Network, in red, is also in a Community of Concern, low-income community, or community of color, whose residents rely on walking and transit as their primary means of transportation.

# SFMTA's Commitment to Safer Streets

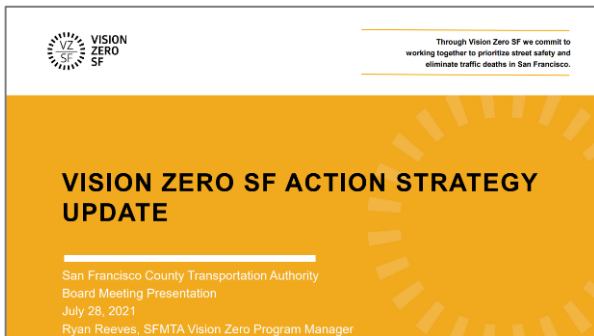


As a partner in SF's Vision Zero Action Strategy, the SFMTA prioritizes investments that mitigate collisions that result in a loss of life.

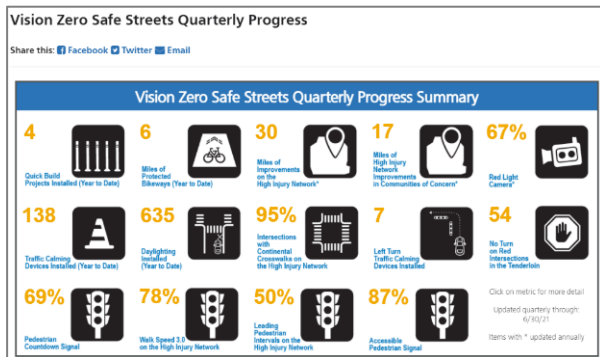


Reference: [https://www.visionzerosf.org/wp-content/uploads/2019/04/VZAS\\_040419\\_web.pdf](https://www.visionzerosf.org/wp-content/uploads/2019/04/VZAS_040419_web.pdf); <https://www.sfmta.com/vision-zero-safe-streets-quarterly-progress>

# SFMTA's Commitment to Safer Streets



Vision Zero Action Strategy Update identified **\$5M in annual unfunded need** to support Safer Streets.



Public dashboards track Vision Zero Safe Streets progress by quarter.

Reference: [https://www.sfcta.org/sites/default/files/2021-07/Item%2012%20%20SFMTA%20Vision%20Zero%20Action%20Strategy%20Update%20July%202021%20Presentation\\_0.pdf](https://www.sfcta.org/sites/default/files/2021-07/Item%2012%20%20SFMTA%20Vision%20Zero%20Action%20Strategy%20Update%20July%202021%20Presentation_0.pdf)

# Safety and Access Project Types and Success Stories – Innovations

## Slow Streets

- During COVID, the SFMTA implemented Slow Streets, a program to provide more space for socially distant essential travel and exercise during the pandemic.
- Signage and barricades have been placed to minimize through vehicle traffic and prioritize walking and biking.



# Safety and Access Project Types and Success Stories – Corridor Upgrades

## Bicycle Network Expansion

- As of today, there are 459 miles of bike network facilities.
  - 42 miles are protected bike lanes.
  - 78 miles are bike paths.
  - 135 miles are bike lanes.
  - 204 are either bike routes or neighborways.
- Prop K has leveraged successful state grants for projects such as 6<sup>th</sup> Street, Folsom Street, 20<sup>th</sup> Avenue, Mission Excelsior and the Hairball



# Safety and Access Project Types and Success Stories – Quick Build Program

## Quick Build Program

- Quick-build safety projects are critical to realizing the physical changes to street design required to reach San Francisco's Vision Zero commitment.
- These projects have a streamlined approval process and use reversible, adjustable, and lower-cost materials that can be installed quickly (and removed if the project is ineffective).

### After Two Years:

Transit Boarding Islands



10

Painted Safety Zones



86+

New or Upgraded Bikeways



12+ miles



# Safety and Access Project Types and Success Stories – Quick Build Program Results

- Drivers traveling over 40 mph decreased by 94% along Taylor St
- Bicycle use increased by 52% along 7<sup>th</sup> Street
- Time spent on loading activities reduced by 76% on 6<sup>th</sup> Street



Beale Street



Reference: [SFMTA.com/SafeStreetsEvaluation](https://www.sfmta.com/SafeStreetsEvaluation)



# Safety and Access Project Types and Success Stories – Traffic Calming

## Traffic Calming

- Application Based Traffic Calming Program
- Vision Zero Proactive Traffic Calming Program
- Vision Zero Rectangular Rapid Flashing Beacon Program
- School-based Engineering Program
- Speed Radar Signs Program



# Safety and Access Project Types and Success Stories – Neighborhood Planning

## Active Communities Plan

A Community-Based Transportation Plans seeks to **improve mobility, safety, and access** by identifying solutions **in collaboration with** residents, community-based organizations and businesses.

Bayview

Visitation Valley

Lake Merced



# Safety and Access Project Types and Success Stories – Education

## Pedestrian / Bicycle Education Programs

Hosted 29 Adult Bicycle Education Classes and 10 Freedom from Training Wheels events, engaging over 6,600 individuals



## Safe Routes to Schools Program

88% of SFUSDs public, non-charter schools participated in Safe Routes to School activities.

Continued meaningful engagement with students and families throughout the COVID-19 Pandemic, reaching more than 32,000 individuals.



## 4<sup>th</sup> Year of Motorcycle Safety Program

Partnering with SFPD to offer free defensive riding courses to address an increasing vulnerable road user group.



# Safety and Access Project Types and Success Stories – Traffic Signals and Upgrades

## Traffic Signals and Upgrades

- SFMTA’s Traffic Signal Program replaces, rehabs, and upgrades signals and signs across the City and supports new signal installation on major corridor projects.
- The Traffic Signal Program has installed pedestrian crossing signals at almost every signal in the City and is currently installing Accessible Pedestrian Signals at the highest priority intersections.
- Transit Signal Priority
- Prop K has historically funded X percent of SFMTA’s traffic signal program

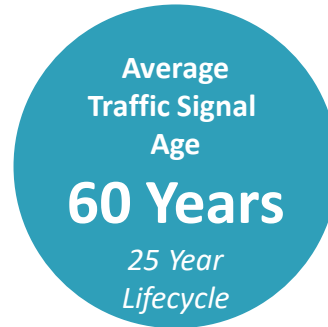
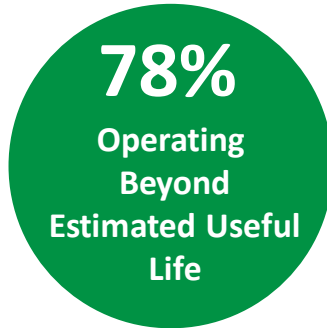


# Traffic Signals and Upgrades

## State of Good Repair



SFMTA is responsible for over 1,200 traffic signals throughout the City. Traffic signals are the foundational elements to safe streets in support of Vision Zero goals. Older signals increase operating and maintenance costs.



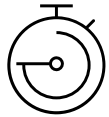
Repair and replacement  
driven primarily by 311

# Traffic Signals and Upgrades

## Condition Assessment



Understanding the current state of our traffic signal inventory is the first step to developing a proactive replacement program for traffic signals. We are evaluating a representative sample of 25% of traffic signals.



**Evaluate and update useful life assumptions**  
25 Years, 30 Years, 40 Years



**Update repair and replacement cost estimates**



**Use updated condition data to model a long-term replacement program**



# What is needed to move the needle?

## Financial Need:

- \$1.86 B need through 2050 for Signals and Signs State of Good Repair, critical infrastructure that impacts all modes and types of road users.
- \$5M annual unfunded need identified in the recent update of the Vision Zero Strategy.

## Available Funding:

- No dedicated sources outside of Prop K.
- Currently funded through SFMTA Operating Budget.



Improving Safety  
and Access



Investing Equitably

# Questions?







## Sales Tax Reauthorization

Curb Ramps

Tree Planting and Establishment

Safer Streets

Expenditure Plan Advisory Committee

October 14, 2021

# Sales Tax Reauthorization Curb Ramps Program



- The program seeks to provide accessible paths of travel for all public sidewalks
- The curb ramp program prioritizes locations requested by the members of the public with disabilities, in coordination with San Francisco's Mayor's Office on Disability
- San Francisco's standards for curb ramps are above and beyond the federal requirements

## Curb Ramps Program: Locations with Sub-sidewalk Basement



Curb ramp with a sub-sidewalk basement below

**Cost: \$215,000 – \$515,000**

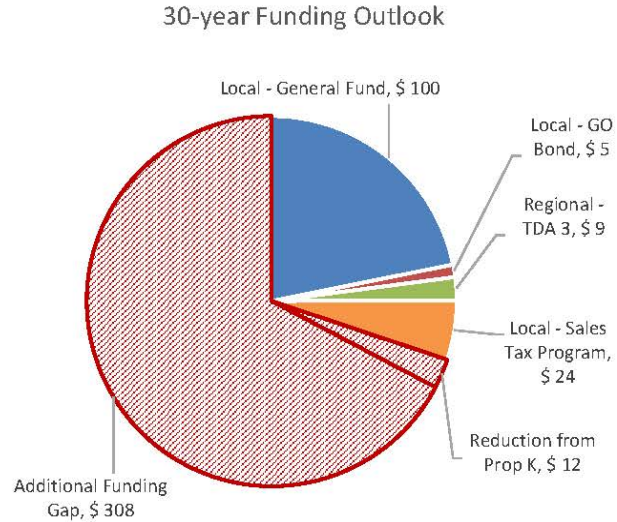
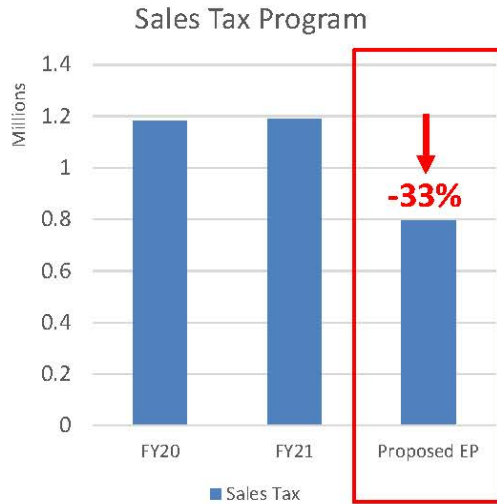


Curb ramp with no sub-sidewalk basement below

**Typical cost: \$32,000**

# Curb Ramps Program: Funding Outlook

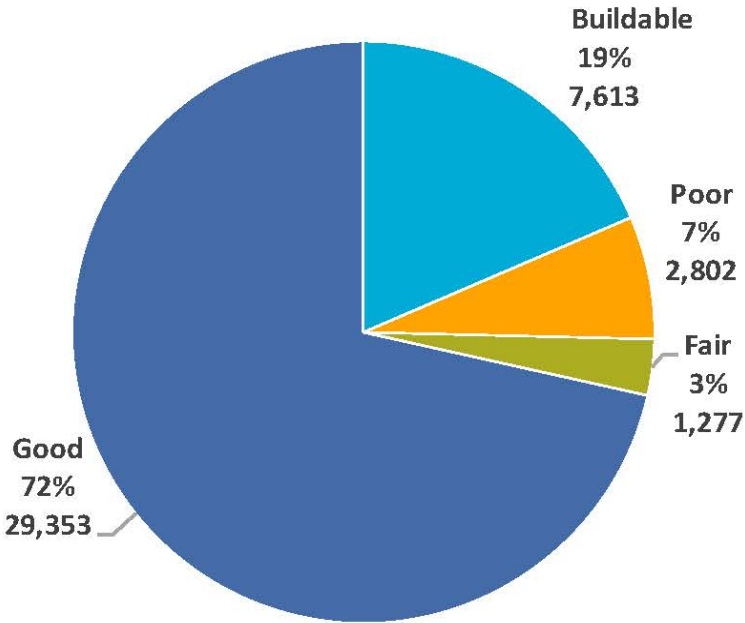
30-Year Cost (in Millions)	Sales Tax	Other Sources	Shortfall	% Funded
458	24	114	320	30.1%



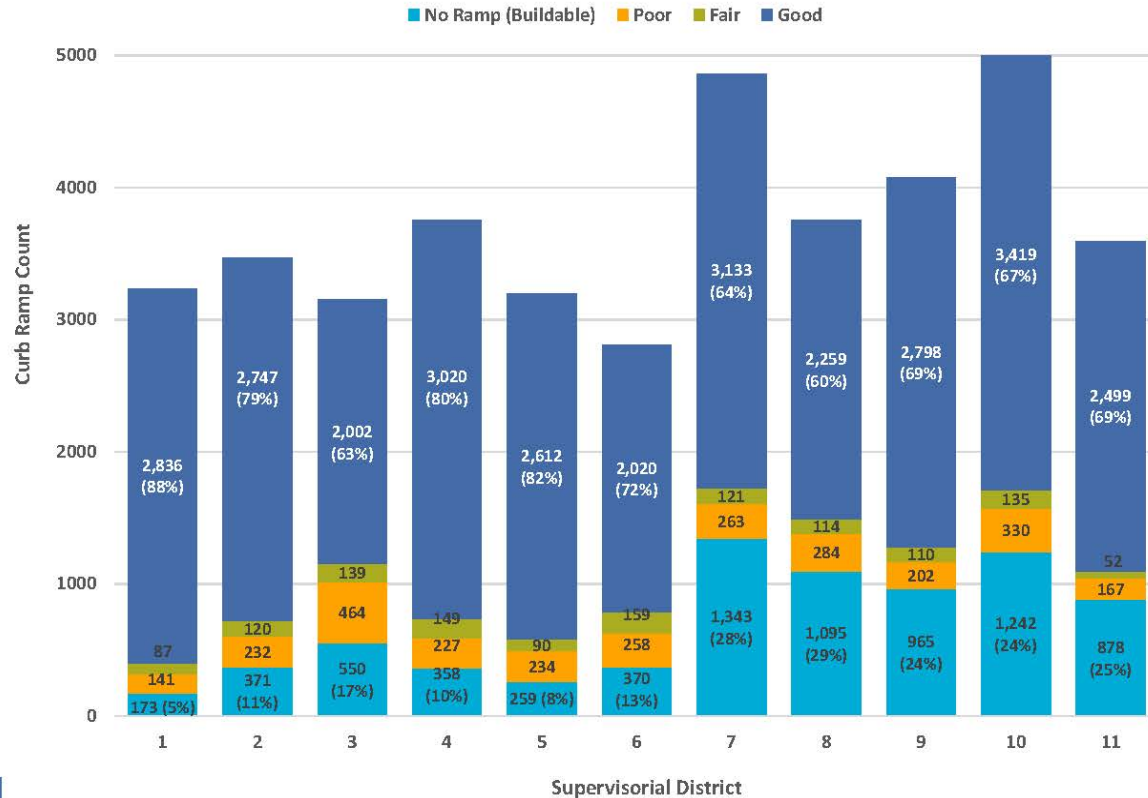
FY21 based on pre-Covid Sales Tax revenue projections. Overall revenue declined by 25% between FY19 and FY21

# Curb Ramps Program: Condition of Existing Curb Ramps

## 41,045 Locations

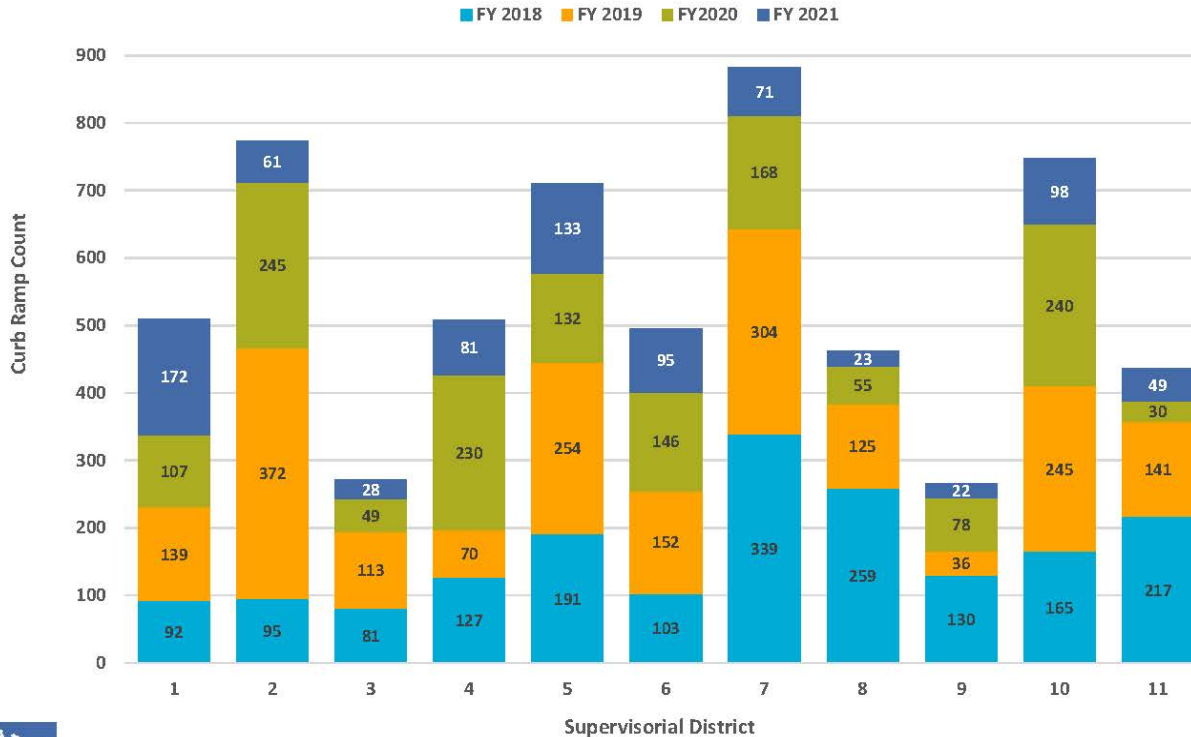


# Curb Ramps Program: Need by District (Buildable Only)



# Curb Ramps Program: Constructed Ramps by District

## 6,082 from FY 2018 to FY 2021



# Curb Ramps: Prioritization Criteria



Is there an existing curb ramp?



What's the condition of the existing curb ramp?



Is the location in a high-injury corridor and/or near public facilities?



What are the number of requests at that location?



Does the requestor have a disability?



What is the number of requests in that district?



What does the path of travel look like?



Geographic equity

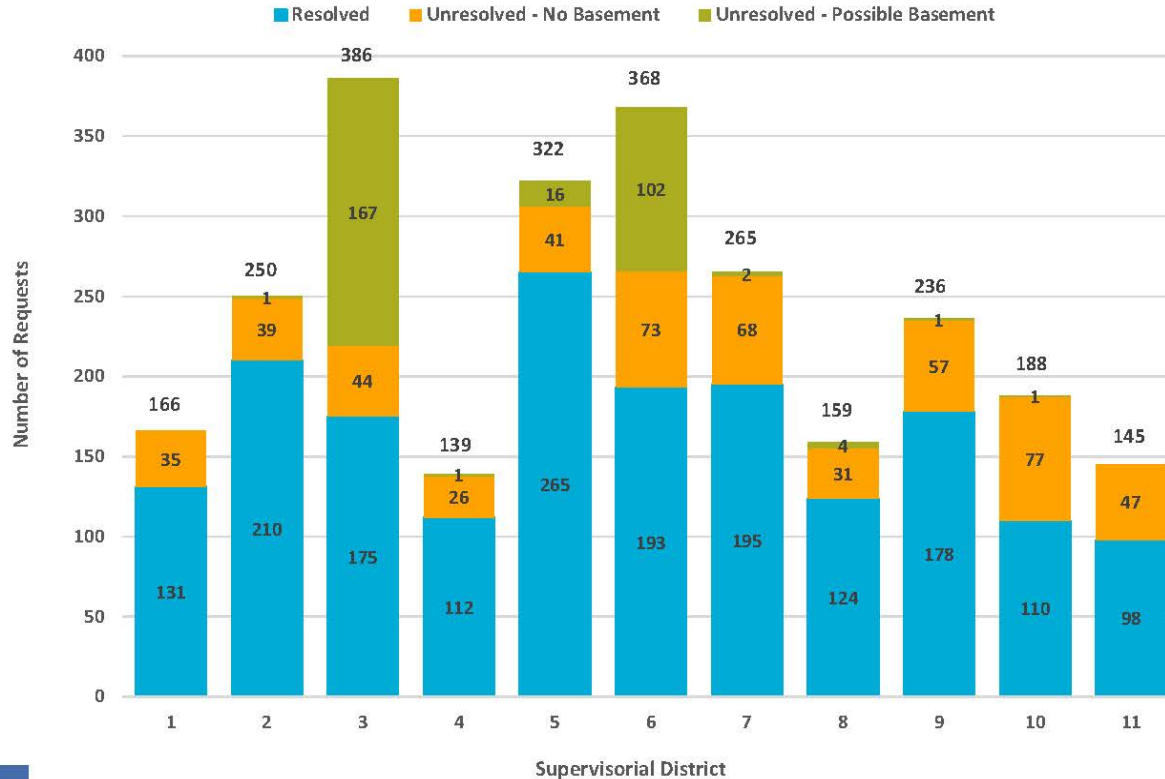


# Curb Ramps: Resources and How to Submit a Request

- **Mayor's Office on Disability:** [sf.gov/mod](https://sf.gov/mod)
  - Select “Curb Ramps and Sidewalks” and then click on “To File a Curb Ramp request online”
- **Public Works’ Curb Ramp website:** [sfpublicworks.org/curbrampprogram](https://sfpublicworks.org/curbrampprogram)
- **311:** Call, visit online or download the mobile app

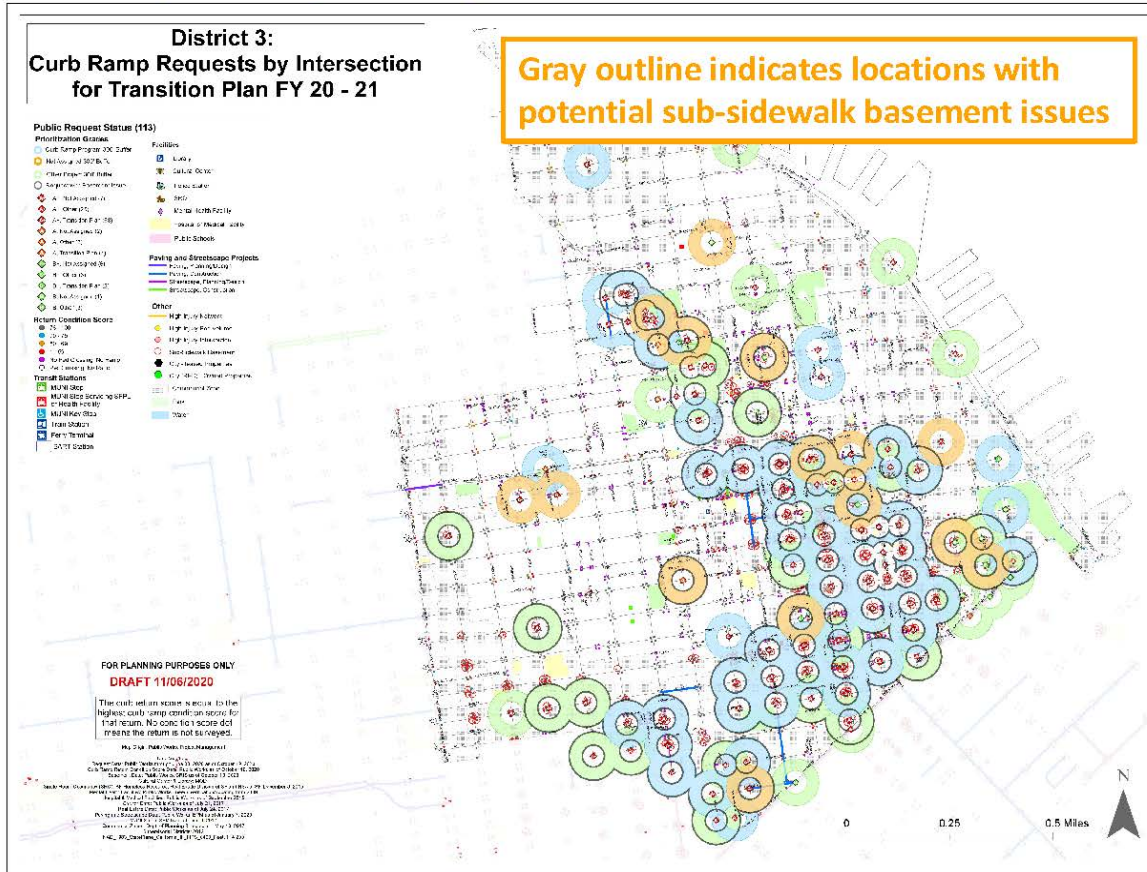


# Curb Ramps Program: Request Resolution Status



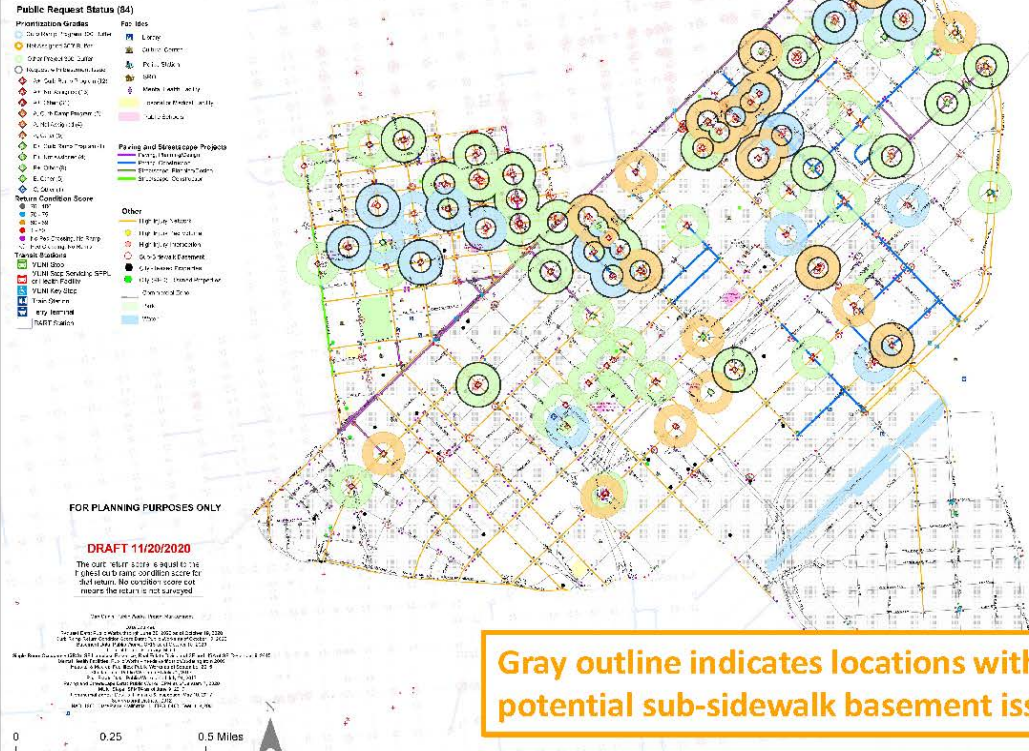
Requests FY1994-95 through FY2021-22 (To Date)

# Curb Ramps: Requests by Intersection in District 3



# Curb Ramps: Requests by Intersection in District 6

## District 6: Curb Ramp Requests by Intersection for Curb Ramp Program FY 20 - 21



# Tree Planting and Establishment

Trees contribute to a more walkable, livable and sustainable city and play a vital role in the City's urban forest providing social, economic and environmental benefits.



## Benefits of street trees include:

- Improved air quality and reduced air pollution
- Create shade and mitigate impacts of urban heat island effect
- Equity is prioritized by planting new trees in neighborhoods with the lowest tree canopy and fewest street trees

## Street Tree Maintenance: StreetTree SF



- Approved by San Francisco voters in 2016, Proposition E transfers responsibility for the maintenance of street trees and tree-related sidewalk damage from property owners to Public Works.
- The proposition established a dedicated annual fund (\$18 million in FY 2020/21) for street tree maintenance.
- StreetTreeSF is the Public Works Bureau of Urban Forestry program started in 2017 to professionally maintain and care for San Francisco's 125,000 street trees.

# Street Tree Planting: Planting Goal

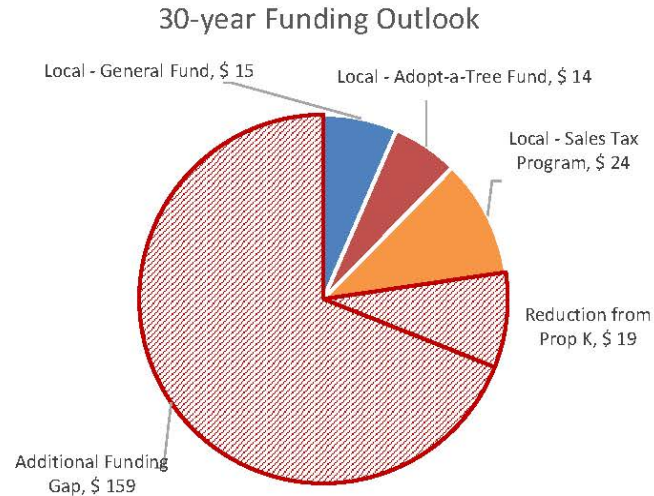
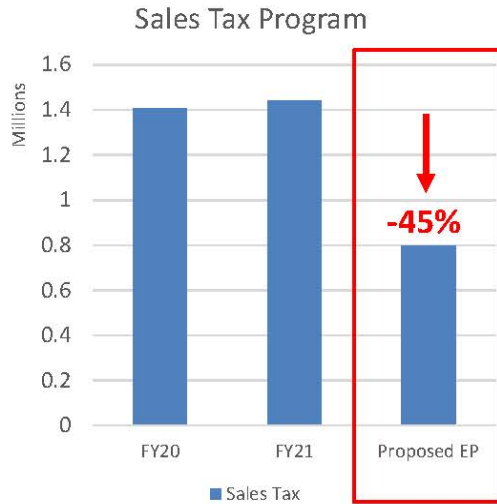
## 155,000 street trees by 2040

- 125,000: Current population of street trees
- 30,000 new trees
- 50,000 replacement trees (2% annual tree mortality)
- To achieve this goal, 4,000 trees to be planted annually
  - 1,500 new trees
  - 2,500 replacement trees
- \$2,200: Average cost to plant and establish a tree
  - \$550 to plant
  - \$1,650 to water until established



# Street Tree Planting: Funding Outlook

30-Year Cost (in Millions)	Sales Tax	Other Sources	Shortfall	% Funded
231	24	29	179	22.5%



FY21 based on pre-Covid Sales Tax revenue projections. Overall revenue declined by 25% between FY19 and FY21

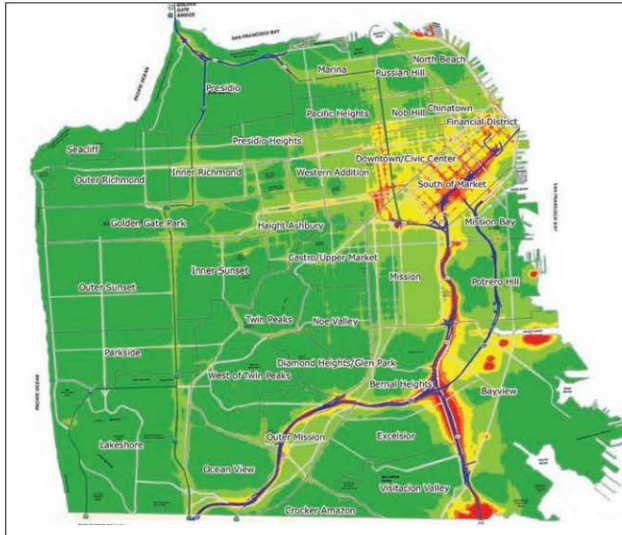


# Impact of Transportation on Air Quality

## AIR QUALITY

### Particulate Matter Concentration

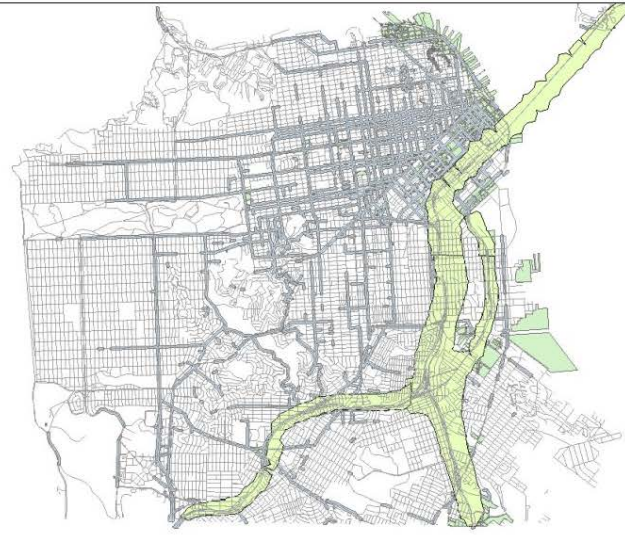
This map displays the location of particulate matter pollution within San Francisco such as areas with a high intensity of vehicle traffic. Trees in these areas can help improve air quality by intercepting airborne particles.



SF Department of Public Health, Bay Area Quality Management District

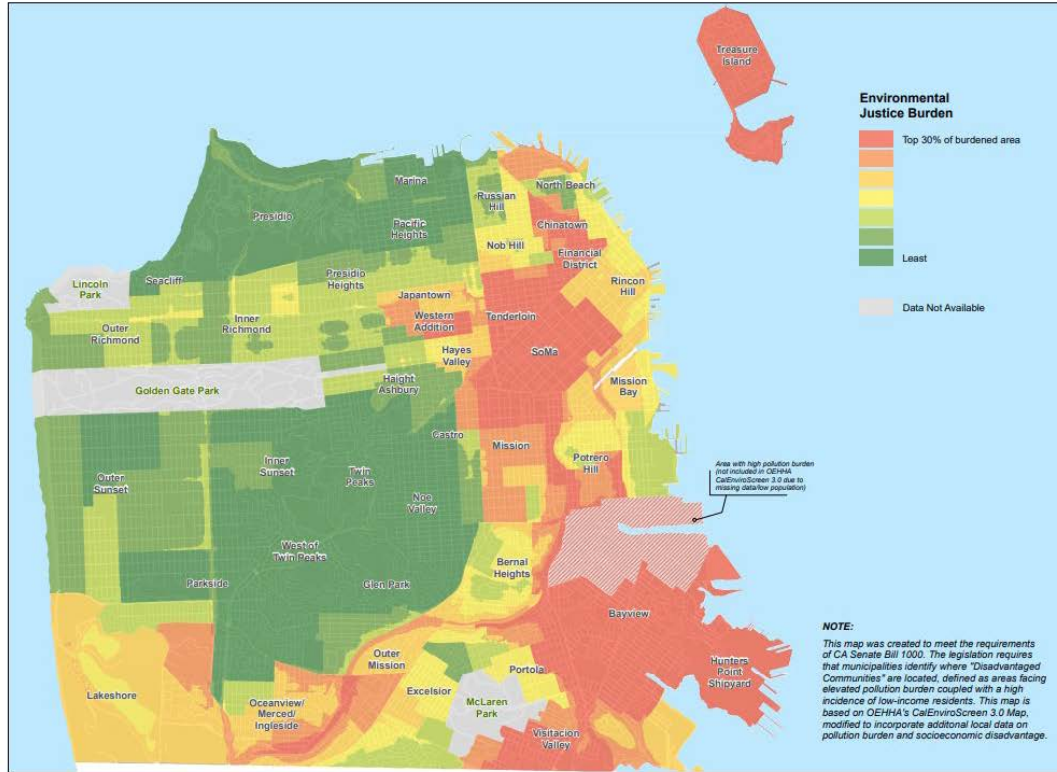
### Air Pollution

Air pollution sources in San Francisco are largely tied to the vehicle network. Trees can help improve air quality in affected areas by absorbing gaseous pollutants (carbon dioxide, Sulphur dioxide and nitrous oxide) and by capturing airborne particulate matter on leaf surfaces.

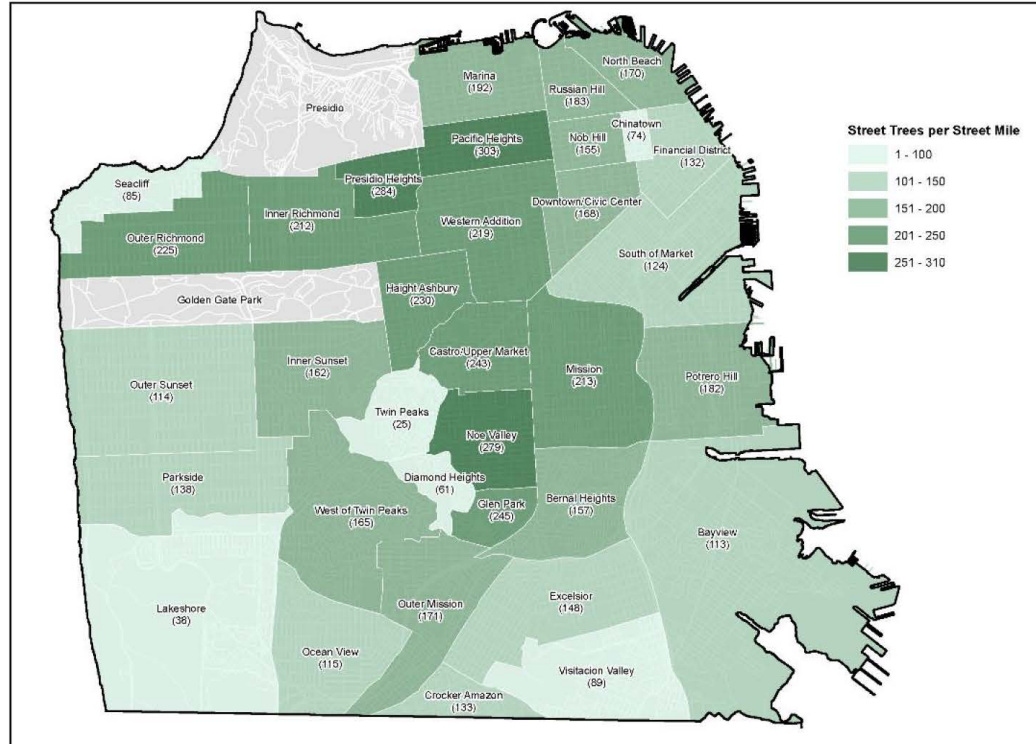


San Francisco Planning Department

# SF Planning Environmental Justice Map (2020 draft)

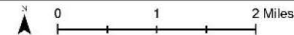


# San Francisco's Street Tree Coverage



Street Trees Per Street Mile by Neighborhood

SAN FRANCISCO  
9/15/21



# Tree Planting and Workforce Development

- **Friends of the Urban Forest Green Teens Program:** Urban forestry vocational skills training for teens from communities that are underrepresented or have historically been excluded from the environmental field.
- **Friends of the Urban Forest Green Crew Program:** In partnership with San Francisco General Hospital's Wraparound Project, participants gain arboriculture experience and can move to permanent full-time positions at FUF or other organizations in the environmental field.
- **San Francisco Clean City Coalition:** Provides tree planting and watering services, hiring low-income, formerly incarcerated, homeless and formerly homeless San Franciscans.



# Tree Planting: Resources and How to Submit a Request

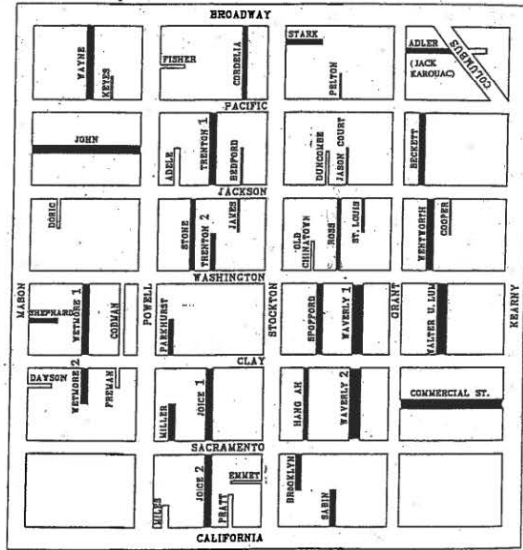
- **Public Works volunteer opportunities and special events**
- **Public Works' Street Tree web page:** [sfpublicworks.org/trees](https://sfpublicworks.org/trees)
- **Interactive Street Tree Map:** [sfpublicworks.org/services/street-tree-map](https://sfpublicworks.org/services/street-tree-map)
- **How to plant a street tree:** [sfpublicworks.org/plant-street-tree](https://sfpublicworks.org/plant-street-tree)



# Sales Tax Reauthorization

## Safer Streets - Alleyways

### Chinatown Alleyway Master Plan (1998)



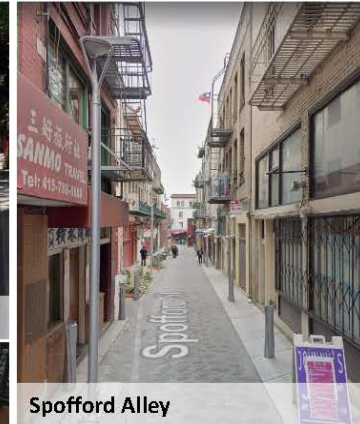
### Projects Completed in 2021



Trenton Alley



Ross Alley



Spofford Alley

# Sales Tax Reauthorization

## Safer Streets - Alleyways

### Market - Octavia Living Alleyways



APPENDIX C. Market and Octavia Community Improvements, Detailed Project Scope and Costs

February 2008



Map 7 Alleys for "Living Street" Improvements



Map 1 Alleys for "Living Street" Improvements

# Questions?



**San Francisco  
County Transportation  
Authority**

**Email: [ExpenditurePlan@sfcta.org](mailto:ExpenditurePlan@sfcta.org)**