

# 

# Guidelines for Accessible Building Blocks for Bicycle Facilities



SFMTA Municipal Transportation Agency



Mayor's Office on Disability



SAN FRANCISCO PLANNING DEPARTMENT

## **Table of Contents**

Introduction	3
Applicable Standards and Definitions	4
Guiding Principles	5
General Design Consideration	6
Guidelines for Buffers, Barriers, and Platforms	8
Appendix A: Applicable Standards	13
Appendix B: Definitions	14
Appendix C : SFMTA Blue Zone Criteria	16
Appendix D: Process	17

## Introduction

The City of San Francisco's Municipal Transportation Agency (SFMTA), Mayor's Office on Disability (MOD), Department of Public Works, and Planning Department have jointly developed the following guidelines for the design and construction of separated bicycle facilities in the City of San Francisco. Specifically, these guidelines address accessibility for seniors and people with disabilities along streets with separated bicycle facilities. The guidelines are part of the City's effort to make the public realm accessible to and usable by individuals with disabilities.

Separated bikeways are a key component of the SFMTA's strategy to improve safety and connectivity for people traveling by bicycle. When designed appropriately, separated bikeways provide direct and indirect accessibility benefits to city streets by increasing the predictability and visibility of all users, decreasing conflicts between modes of travel, and lowering traffic speeds, risk of crashes, and injuries<sup>1,2,3</sup>.

The guidelines in this document are necessary because neither the California Building Code, nor the 2010 ADA Standards for Accessible Design Guidelines (2010 ADAS) currently contain accessible design criteria for bicycle facilities. Regardless, Title II of the Americans with Disabilities Act (ADA) requires the City and County of San Francisco and the SFMTA to provide programatic access to all facilities and programs, including new bicycle facilities.

To develop these guidelines, the City relied on the overarching principle of equal access and looked to code provisions that most closely apply. The Department of Justice's Technical Assistance Manual provides guidance for instances in which the 2010 ADAS do not contain specific standards for a particular type of facility:

...the ADAS standards should be applied to the extent possible. Where appropriate technical standards exist, they should be applied. If there are no applicable scoping requirements (i.e., how many features must be accessible), then a reasonable number, but at least one, must be accessible.

To the best of our knowledge, these guidelines are the first of their kind. Because of this, it is important that they take the form of a living document that will evolve as lessons are learned through implementation, as new technologies and strategies emerge, and as we receive feedback from internal and external stakeholders.

<sup>1.</sup> Reynolds, Harris, Teschke, et al., "The impact of transportation infrastructure on bicycling injuries and crashes: A review of the literature". Environmental Health 8:47 (October 2009).

<sup>2.</sup> NYC Department of Transportation (January 22, 2012) Prospect Park West Bicycle Path and Traffic Calming, Presented at TRB Workshop on the NACTO Urban Bikeway Design Guide, <u>http://www.nyc.gov/html/dot/downloads/pdf/2012\_ppw\_trb2012.pdf</u>.

<sup>3.</sup> Alta Planning and Design (2009), Cycle Tracks: Lessons Learned.

## **Applicable Standards and Definitions**

The City relied upon the following documents to provide direction with regard to existing standards and guidelines: The San Francisco Better Streets Plan, California Building Code, the Code of Federal RegulationsTitles 49 and 36 (including the 2010 ADAs), the National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide, the Manual on Uniform Traffic Control Devices (MUCTD), the American Association of State Highway Officials (AASHTO), the Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG), the California Vehicle Code, the Caltrans Highway Design Manual, and the Department of Public Works Director's Orders.

For links to applicable standards see Appendix A, for a glossary of terms (**in bold**) used throughout this document, please see Appendix B; and for a list of curent criteria for designated accessible parking spaces, see Appendix C.

## **Guiding Principles**

The City of San Francisco is rich in varied topography, unique neighborhoods, a diverse population, and a variety of transportation modes and technologies that traverse City streets. The resulting heterogeneity among City streets sometimes calls for unique and innovative solutions to create a better public realm that is accessible for all. Improving accessibility and bicycling conditions in San Francisco is no exception to the need for a context-sensitive approach. When responding to unique circumstances, and in pioneering new bicycle facilities and street designs that are accessible to people with disabilities, the City of San Francisco will keep to the following guiding principles:

- Bicycle riders and pedestrians, including those who have mobility, sensory, or cognitive disabilities, can co-exist on the streets of San Francisco when the appropriate safety features are included in project designs to provide predictability and distinguish areas intended for the two modes of travel. Such safety features include, but are not limited to, pedestrian crosswalks, accessible pedestrian signals, traffic islands or refuges, curbs, designated bike lanes, and effective messaging such as signs and pavement markings.
- 2. The City of San Francisco has a Transit First Policy to encourage multi-modalism, including the use of transit and other transportation choices, such as bicycling and walking, rather than the continued use of the single-occupant vehicle. However, some people with disabilities rely on personal automobiles, paratransit vans and taxis for closer access to their origins and destinations. As the City of San Francisco makes improvements to the safety and convenience of walking and cycling, it is important to always consider access for people with disabilities, which may entail the use of other modes of transportation, such as transit, paratransit, and private automobiles.
- 3. If vehicle parking, passenger loading zones, and commercial loading zones are provided on a City street alongside a bicycle facility, then unobstructed access to accessible parking spaces (blue zones), and passenger loading zones (white zones) shall be maintained.
- 4. Bicycle facilities should be designed so that paratransit vans and taxis can safely discharge and pick up passengers with mobility disabilities on to the sidewalk near building entrances, even if the bikeway is temporarily blocked in order to do so.
- 5. When there is a significant reduction in parking spaces to create a new bicycle facility, then any design process must include an analysis of the surrounding blocks in order to ensure that the project meets the required saturation and distribution of accessible parking spaces (blue zones) in metered parking areas according to the Architectural and Transportation Barriers Compliance Board in the Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG). In addition, any blue zones removed to create a new bicycle facility must be replaced.

## **General Design Considerations**

## **Sidewalk Zones**

The Better Streets Plan divides the sidewalk into five zones: frontage zone, **throughway zone**, **furnishings zone**, edge zone, and extension zone<sup>4</sup>.



Image 1: Five Sidewalk Zones

## **Streetscape Elements**

Bus shelters and street furniture elements, including bike racks and bike share stations, shall be located within the furnishings zone where possible, and should not block or reduce the clear path of travel in the pedestrian throughway zone or at bus stops<sup>5</sup>.

# Bicycle Facilities on One-Way Streets

When bicycle facilities are planned on one-way streets, the City of San Francisco should strongly consider placing the bikeway on the left side of the street in order to reduce conflicts with transit stops, accessible loading zones, and paratransit service boarding and alighting. However, other factors such as safety issues, trip generators, and bike route network connectivity may warrant right- side bicycle lanes<sup>6</sup>.

## Accessible Parking in Projects with Dedicated Bicycle Facilities

When on-street vehicle parking is removed in order to install a bicycle facility, the design process should include an analysis of metered parking in blocks abutting the project area (see Image 2) to meet the accessible parking ratios recommended by PROWAG Table R214 (see Table 1).

If the project parking analysis finds that accessible parking is warranted in the area in order to meet the guidelines proposed by PROWAG, the SFMTA will make all efforts to accommodate these blue zone parking areas in a **block face** adjacent to that affected by the project (see

<sup>4.</sup> San Francisco Better Streets Plan, 4.2

<sup>5.</sup> San Francisco Better Streets Plan, 4.2,5.5

<sup>6.</sup> For guidance on when a left-side bike lane is appropriate, and design guidance, see NACTO Urban Bikeway Design Guide: <u>http://nacto.org/cities-for-cycling/design-guide/bike-lanes/left-side-bike-lanes/</u>

Total Number of Marked or Metered Parking Spaces on the Block Perimeter	Minimum Required Number of Accessible Parking Spaces		
1 to 25	1		
26 to 50	2		
51 to 75	3		
76 to 100	4		
101 to 150	5		
151 to 200	6		
201 and over	4 percent of total		

#### Table R214 On-Street Parking Spaces

**Table 1**: PROWAG Table R214, showing the minimum required number of accessible parking spaces in metered parking areas.



Image 2: In this diagram, each square represents a block.

Image 3 for guidance). If **trip generators important to the accessibility community** that do not provide off-street accessible parking are present on the project block face, then accessible parking spaces on the project block face may be warranted. The preferred location for this blue zone is along an adjacent block face within 300 ft. of the accessible entrance for the trip generator; however, if this is not possible, providing a blue zone along the project block face is acceptable if a parking lane exists. Accessible parking spaces along bicycle facilities may be accommodated according to guidelines set forth in this document.

If, due to physical constraints, not enough parking spaces meet blue zone criteria (see Appendix C) at the block level, project sponsors should provide enough accessible parking so that the corridor cumulatively has 4% of metered spaces designated as accessible parking.



Image 3: The square in this image represents one block. The block face affected by the project is shown here in the thick black stripe; the adjacent block faces are shown with a dotted line

When planning new bicycle projects, care should be taken to avoid undoing measures from previous projects. For example, Image 4 shows the intersection of two projects, Project A and Project B. This image illustrates the overlap in block faces abutting the project areas. Thus, if project A establishes accessible parking spaces in response to project impacts, Project B's project management team should take care not to undo these provisions in the implementation of Project B.



Image 4: Overlap in blocks abutting project areas

#### **Crosswalk and Pavement Markings**

When a new bicycle facility is provided or upgraded, the SFMTA will perform paint maintenance on any existing marked crosswalks or existing bicycle facility markings that the new bicycle facility crosses or intersects. This includes providing **continental striping** on any marked crosswalks crossed by the bicycle facility. As a general note, per ADA Standards, any new painted crosswalks, where no crosswalk was painted before, must have curb ramps on both sides of the crosswalk<sup>7</sup>.

## **Guidelines for Buffers, Barriers, and Platforms**

Table 2 below summarizes the widths for various buffers discussed in this section. Raised buffer width minimum excludes curb width<sup>8</sup>. However, if the raised buffer is constructed in a way that results in a uniform flat surface, then the entire width of the buffer may be counted toward minimums. Raised buffers will have a maximum cross slope of two percent (2%)<sup>9</sup>.

The recommended width for **raised buffers** at the sidewalk level adjacent to parked vehicles is five feet (5'); the minimum width is four feet (4'). Adjacent to items such as poles, electrical boxes etc., the path of travel can be reduced to as narrow as three feet (3') for no more than twenty-four continuous inches (24").

Table of Separated Bikeway Dimensions			
Description	Recommended Width (ft.)	Minimum Width (ft.)	
Separated Bikeway*	8	5	
Painted buffer adjacent to parking * *	5	4	
Raised buffer adjacent to parking * * *	5	4	
Buffer adjacent to white zone or blue zone	5	5	
Buffer adjacent to van accessible blue zone	8	8	
Bus platform adjacent to a bikeway	8	8	

\* Minimum should only be applied at pinch points

**\*\*** Although four feet (4') is the preferred minimum, in exceptional cases, such as when the buffer area, bikeway, and parking lane add up to less than eighteen feet (18') and parking turnover is low, a painted buffer may be as narrow as three feet (3') with approval by SFMTA Accessible Services.

\*\*\* Raised buffer minimum width is exclusive of the width of the curb (typically 6" on each side). Thus, the net width of the minimum buffer is five feet (5').

Table 2: Dimensions for elements of separated bikeways

<sup>7. 28</sup> CFR 35.151(i)(1) and 35.151(i)(2)

<sup>8.</sup> PROWAG R302.3

<sup>9. 2002</sup> ADA Guidelines 4.3.7

Accessible parking may still be integrated along the raised buffer. Where accessible parking spaces are provided, the raised buffer shall be a minimum of five feet (5') wide and located on the passenger side (see Image 5). Where van accessible blue zones are provided, the raised buffer shall be a minimum of eight feet (8') wide.



Image 5: shows an accessible blue space along a raised buffer.

Raised buffers at the sidewalk level adjacent to parked vehicles shall have at least one curb ramp or at-grade accessible crossing to provide access from the buffer to a marked crosswalk. When the raised buffer extends the length of the block or to a second marked crosswalk, then additional curb ramps or at-grade accessible crossings are required. Where raised buffers are adjacent to parking or loading zones, they shall not include planting or course paving materials.



Image 6: Potential pavement markings to alert pedestrians and cyclists to each other's presence.

When parking is allowed adjacent to a raised buffer, curb ramps and crosswalks or at-grade accessible crossings should be provided to access an adjacent sidewalk roughly every 600 feet so that people must travel no more than roughly 300 feet to reach a crosswalk from the raised buffer. Designers should take factors such as grade, parking turnover, buffer width, and location of designated accessible parking when determining where to place mid-block crossings

#### **Guidelines for Buffers, Barriers, and Platforms**

connecting raised buffers to the sidewalk. Mid-block pedestrian crossings through bikeway will be marked with reminders for people crossing on foot to look in the direction of bicycle traffic and reminders for cyclists to yield to pedestrians (see Image 6).

Raised islands/transit platforms adjacent to bus stops shall be a minimum of eight feet (8') wide to allow the deployment of a bus lift or ramp<sup>10</sup>.

Transit shelters on raised bus islands/platforms must maintain a clear path of travel to and from the shelter that is at least four feet (4') wide<sup>11</sup> (see Image 7).



Image 7: shows a raised transit platform with a curb ramp that leads to a crosswalk.

Raised islands/transit platforms must always have at least one curb ramp leading to a crosswalk or an at-grade accessible connection to the sidewalk. When the raised island/transit platform extends to a second crosswalk, then additional curb ramps are required at each crosswalk. In general, multiple accessible routes should be considered for long transit platforms.

Bikeway designers should use the SFMTA's Accessible Pedestrian Signals (APS) Safety and Access Tool to conduct an evaluation to determine the appropriateness of APS whenever they make traffic signal modifications such as adding pedestrian countdown signals, bicycle signals, or separate turn phases.

## Parking-Separated Bicycle Lanes with Painted Buffer Zones

When parked vehicles are used as the barrier to protect bicycle lanes, the painted buffer zone

10. 2002 ADA Guidelines 10.2.1

<sup>11. 2002</sup> ADA Guidelines 10.2.1, Better Streets Plan, 5.5.



Image 9: Accessible parking along a painted buffer.

shall be clearly marked with cross-hatching<sup>12</sup>. Bikeway designers should consider using signs, pavement messages, and colored pavement treatments to clearly delineate between areas intended for parking, passenger loading, and bicycling. Raised devices such as flexible plastic posts or wheel stops can be used to deter vehicle encroachment into the buffer zone if they do not pose a tripping hazard, obstruct access through the buffer space, or prevent paratransit vehicles from entering the bikeway to pick-up or drop-off customers with mobility disabilities.

When parked vehicles are used as the barrier to separate bicycle lanes from traffic, the painted buffer between the parked vehicles and the bicycle lane is recommended to be four feet (4') wide. Although four feet (4') is the preferred minimum, in exceptional cases, such as when the buffer area, bikeway, and parking lane add up to less than eighteen feet (18') and parking turnover is low, a painted buffer may be as narrow as three feet (3') with approval by SFMTA Accessible Services<sup>13</sup>. Where accessible blue zones are provided along a painted buffer, the loading zone shall be on the passenger side of the vehicle and shall be five feet wide (5') minimum. Where van accessible blue zones are provided along a painted buffer, the loading zone shall be eight feet (8') minimum in width<sup>14</sup>.

## **Raised Cycle Tracks**

Raised **cycle tracks** are bicycle facilities that are vertically separated from motor vehicle traffic. San Francisco has not implemented a raised cycle track, but two current projects in the design phase include bikeways set at an intermediate height between the roadway and sidewalk to segregate bicycle traffic from the pedestrian area while aiming to maintain a 4" vertical curb between the bikeway and sidewalk.

<sup>12.</sup> NACTO Design Guide (http://nacto.org/cities-for-cycling/design-guide/bike-lanes/buffered-bike-lanes/)

<sup>13.</sup> In compliance with 2010 ADAS Clear Width minimum, 403.5

<sup>14. 2002</sup> ADA Guidelines, A4.6.3

Raised cycle tracks may also be at the level of the adjacent sidewalk or raised parking buffer, but the design should include visual and tactile cues to clearly delineate between areas intended for bicycle and pedestrian travel.

When placed adjacent to a travel lane, raised cycle tracks should have a mountable curb to allow bicyclists to enter and leave the bikeway to pass other bicyclists or avoid obstructions. The raised cycle track should also be designed to allow taxi and paratransit vehicles to access the curb at all building entrances.

## **Appendix A: Applicable Standards**

#### 2010 Americans with Disabilities Act (ADA) Standards for Accessible Design

http://www.ada.gov/2010ADAstandards\_index.htm

#### **ADA Accessibility Guidelines**

http://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/background/adaag

The American Association of State Highway Officials (AASHTO)

http://www.transportation.org

# Architectural and Transportation Barriers Compliance Board's Architectural Barriers Act Accessibility Guidelines

https://www.federalregister.gov/agencies/architectural-and-transportation-barriers-compliance-board

## California Building Code

http://www.bsc.ca.gov/

#### California Vehicle Code (2013)

http://www.dmv.ca.gov/pubs/vctop/vc/vc.htm

#### Caltrans Highway Design Manual (2012)

http://www.dot.ca.gov/hq/oppd/hdm/pdf/english/HDM\_Complete\_06-21-13.pdf

# Code of Federal Regulations, Title 49- Transportation , Parts 27 and 37; and Title 36- Parks, Forests, and Public Property

http://www.ecfr.gov/cgi-bin/ECFR?page=browse

## National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide http://nacto.org/cities-for-cycling/design-guide/

Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG) http://www.access-board.gov/guidelines-and-standards/streets-sidewalks/public-rights-of-way/

#### San Francisco Better Streets Plan

http://www.sf-planning.org/ftp/BetterStreets/index.htm

#### The Manual on Uniform Traffic Control Devices (MUCTD) (2009)

http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/pdf\_index.htm

## **Appendix B: Definitions**

**Accessible Pedestrian Signal:** Accessible pedestrian signals are devices that communicate information about the WALK and DON'T WALK intervals at signalized intersections in non-visual formats to pedestrians who are blind or who have low vision.

**Bikeway:** A facility that is provided primarily for bicycle travel

**Bike Lane:** A Class II Bikeway, which provides a striped lane for one-way bike travel on a street or highway.

**Block Face:** One side of a street between two consecutive intersections, such as one side of a city block.

**Continental Striping**: San Francisco's chosen crosswalk striping style for high-visibility crosswalk locations. The design is created with white longitudinal lines at a 90 degree angle to the line of the crosswalk.

**Cycle Track:** A bike lane separated from pedestrians, travel and parking lanes by a physical barrier such as on-street parking, a curb, or grade-separation.

**Furnishings Sidewalk Zone**: T Transportation he portion of the sidewalk used for street trees, landscaping, transit stops, street lights, and site furnishings.

**Painted Buffer:** A striped area designed to separate a bike lane from a vehicle lane. In general, painted buffers are marked with white, wide, retro-reflective cross-hatching.

**Pavement Markings:** Lines, symbols, and words painted on a roadway help to direct riders and control traffic flow.

Raised Buffer: A grade-separated buffer between a bicycle lane and vehicle lane.

Separated Bikeway: A bicycle lane physically separated from vehicle lanes by a buffer.

Throughway Sidewalk Zone: The portion of the sidewalk for pedestrian travel along the street

**Trip Generators Important to the Disability Community**: The following is a list of buildings considered trip-generators important to the disability community, which was taken from the Color Curb Program's Blue Zone Administrative Policy:

1) Government buildings serving the public, such as Federal, State or City and County administration buildings, public employment offices, post offices, public libraries, police stations, etc.

- 2) Hospitals and convalescent homes with more than a 75-bed capacity.
- 3) Doctors' offices and other medical facilities staffed by a minimum of five practitioners.
- 4) Community service facilities, such as senior citizen's service centers, etc.
- 5) Employment office for major enterprises employing more than 200 persons.

6) Public recreational facilities, such as municipal swimming pools, recreation halls, museums, parks, playgrounds, etc.

7) Public theaters, auditoriums, meeting halls, arenas, or stadiums with more than 300

seating capacity.

8) Other places of assembly, such as public and private schools, vocational training facilities, churches, etc.

9) Other buildings (i.e., office buildings) with an aggregate of more than 20,000 square feet of gross floor space.

## **Appendix C: SFMTA Blue Zone Criteria**

1. For typical blue space layout and dimensions, reference Caltrans Standard Plan A90B.

2. Accessible parking spaces shall be so located that persons with disabilities are not compelled to wheel or walk behind parked vehicles other than their own. (Caltrans Standard Plan A90B)

3. All accessible parking zones should be served by nearby curb ramps and should be located as close to intersections as possible. Diagonal parking zones for disabled persons should comply with all requirements of PROWAG R309.3.

4. The grade of the street on which the blue zone is located must be less than 8.333%.

5. The cross-slope of the street is recommended to be less than two percent (2%). However, exceptions for locating blue zones on a street with cross-slope greater than two percent (2%), but less than four percent (4%), may be made on a case-by-case basis.

6. Blue zones should not be located where egress from a parked vehicle is obstructed by a permanent sidewalk fixture, such as a utility or light pole, a controlled parking sign, a tree, etc.

7. Mid-block and near side blue spaces may be supplemented with red-painted curb behind the space to ensure space for a rear lift/ramp.

8. When no suitable sites for blue zones exist on the right side of one-way streets, blue zones spaces may be located on the left side.

9. A last resource location for blue zones is along tow-away parking lanes. This change is pending policy changes on signage to ensure awareness of strict tow-away enforcement for all vehicles.

## **Appendix D: Process**

In February 2013 Livable Streets and SFMTA Accessible Services hosted a workshop to discuss separated bikeways and accessibility concerns. The following stakeholders were invited to the workshop:

- Troy Barnes, MV Transportation (Paratransit provider)
- Beth Berenson, community stakeholder
- Robin Brasso, Pedestrian Safety Advisory Committee
- jakkee bryson, Multimodal Accessibility Advisory Committee
- Howard Chabner, community stakeholder
- Les Clark, Multimodal Accessibility Advisory Committee
- Jean Green, Multimodal Accessibility Advisory Committee
- Vera Haile, Long Term Care Coordinating Council, Aging & Adult Services Advisory Council
- Heidi Hubrich, SFUSD Developmental Disabilities
- Edna James, Aging and Adult Services Commission
- Wendy James, Mayor's Disability Council
- Marie Jobling, Community Living Campaign
- Miro Kielbus, Multimodal Accessibility Advisory Committee
- Anna Krevets, Bay Med Express (Paratransit provider)
- John Liang, California Council for the Blind
- Jessie Lorenz, Independent Living Resource Center of San Francisco
- John Alex Lowell, Pedestrian Safety Advisory Committee
- Jeanne Lynch, Paratransit Coordinating Council
- Bruce Oka, Former SFMTA Board Member
- Neal Patel, San Francisco Bicycle Coalition
- Bob Planthold, Calwalks and Accessible Parking Working Group
- Pi Ra, Senior Disability Action
- Athan Rebelos, Paratransit Taxi
- Jane Redmond, Paratransit Coordinating Council
- Richard Rothman, Pedestrian Safety Advisory Committee
- Cristina Rubke, SFMTA Board of Directors and Bay Area Outreach and Recreation Program
- Stu Smith, Paratransit Coordinating Council
- Vernon Smith, Multimodal Accessibility Advisory Committee
- Marc Soto, SF Paratransit
- Elizabeth Stampe, Walk San Francisco
- Howard Strassner, Pedestrian Safety Advisory Committee
- Chip Supanich, Mayor's Disability Council
- Frank Welte, Lighthouse for the Blind
- Roland Wong, Mayor's Disability Council

The discussion provided the SFMTA with key community priorities and concerns related to accessibility in street designs with protected bikeways. The following is a summary of takeaways by the SFMTA from this community workshop.

Key community priorities:

- Clear distinction of separate spaces for people on bicycles and pedestrians
- Providing marked spaces for people on bicycles to slow down and allow for pedestrians to cross bicycle lanes
- Pedestrian access to bus stops along bikeways

- Paratransit drop-offs at the curb
- On-street accessible Parking/Blue Zones

Subsequent to this workshop, an inter-agency working group was formed to create a set of guidelines that responded to community priorities for accessibility in protected bikeway designs. The working group met several times over the course of six months to come up with the guiding principles and guidelines set forth in this document. The following is a list of agency staff that took part in shaping the guidelines in this document.

- •
- Paul Chasan, SF Planning Department
- Kevin Jensen, SF Department of Public Works
- Carla Johnson, San Francisco Mayor's Office on Disability
- Luis Montoya, SFMTA Livable Streets
- Cristina Olea, SF Department of Public Works
- Sandra Padilla, SFMTA Accessible Services
- Seleta Reynolds, SFMTA Livable Streets
- John Thomas, SF Department of Public Works
- Annette Williams, SFMTA Accessible Services
- The following staff provided policy guidance:
- Bryant Woo, SFMTA Traffic Engineering
- Bridget Smith, SFMTA Livable Streets
- Ricardo Olea, SFMTA Traffic Engineering

A draft of this document was presented to the following commissions and advisory bodies on the dates noted:

- SFMTA Multimodal Accessibility Advisory Committee Thursday, July 17, 2014
- Mayor's Disability Council (MDC) Friday, July 28, 2014
- SFMTA Bicycle Advisory Committee (BAC) Monday, July 28, 2014