

Source: FHWA

Improving Safety for Pedestrians and Bicyclists Accessing Transit

FHWA-SA-21-130



U.S. Department of Transportation
Federal Highway Administration

ZERO IS OUR GOAL
A SAFE SYSTEM IS HOW WE GET THERE



1. Introduction: Purposes of the Guide

- Available for transit agencies, State and local roadway owners, and regional planning organizations
- Addresses the safety of a variety of vulnerable road users, such as pedestrians, bicyclists, and micromobility users.
- Emphasizes the importance of considering the needs of all users when agencies consider safety improvements to accessing transit.
- Emphasizes that agencies should ensure that all people:
 1. Are considered in the planning and design of facilities.
 2. Feel safe and welcome accessing facilities.
 3. Have confidence that the spaces were planned and designed for them.



1. Introduction: Core Principles

The five core principles for pedestrian and bicyclist safety accessing transit are:

01

The physical safety of transit passengers while using and accessing transit facilities is crucial to the success of the transit system.

02

Transit use can decrease an area's overall motor vehicle crashes.

03

Transit stops are pedestrian and bicyclist generators.

04

Pedestrians and bicycling routes to access transit should reflect a connected network of roadway, sidewalk, and bicyclist facilities.

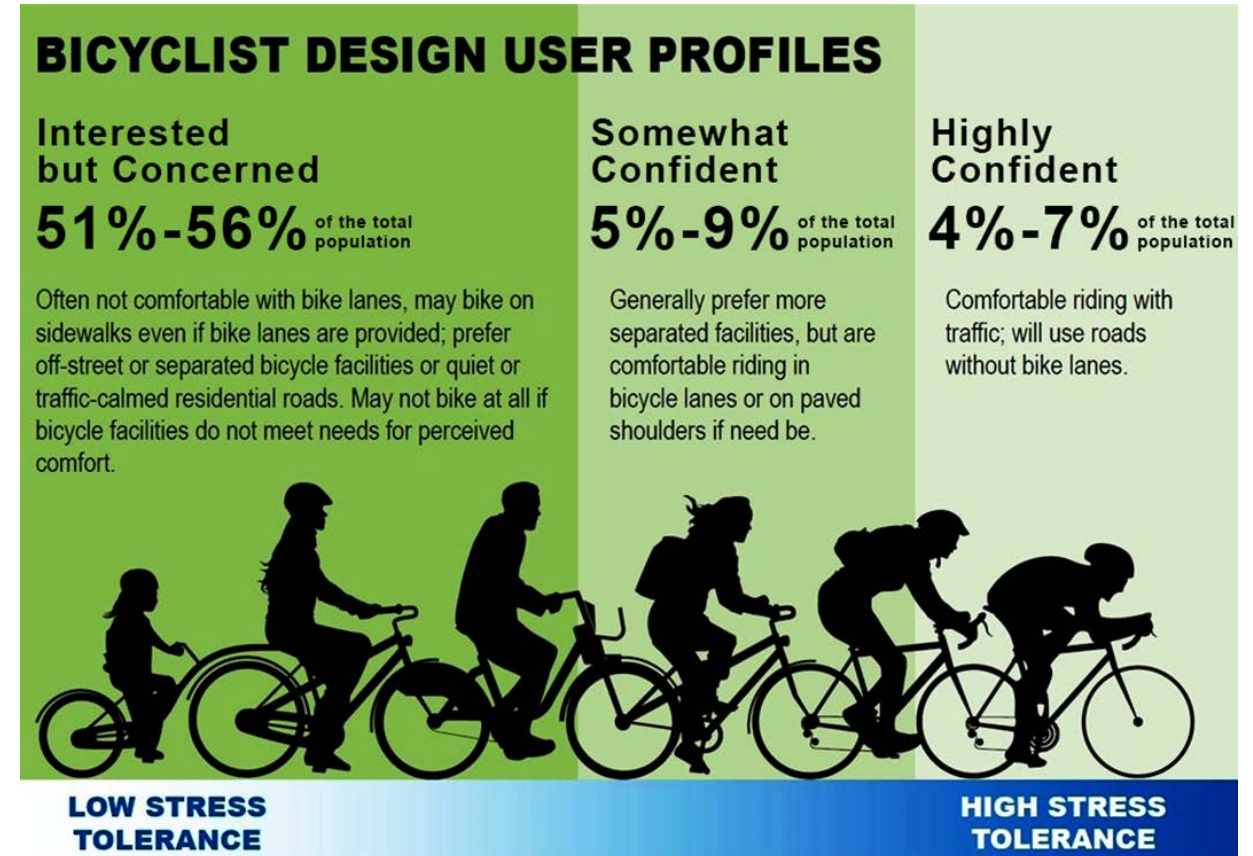
05

Transit stops can enhance the safety of riders, but only if they are usable and welcoming to everyone.



2. Background

- Who Uses Transit?
- Distance Pedestrians and Bicyclists Are Willing to Travel to Transit
- Pedestrian and Bicyclist Characteristics and Behavior
 - Age, gender, race, physical ability, etc. all play a role in how infrastructure and transit should be planned and integrated to enhance safety
- Crash Factors for Pedestrians and Bicyclists Accessing Transit

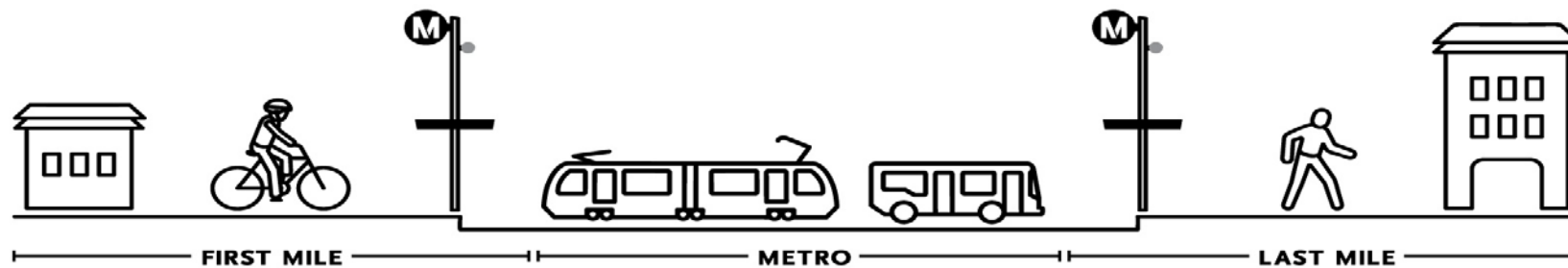


Source: Revisiting the Four Types of Cyclists, Dill & McNeil



3. Tools for Identifying Pedestrian and Bicyclist Safety Issues

- **Gathering direct feedback** from transit users and providers or other groups.
- **Evaluating Safety and Accessibility with Transit Stop Assessment Tools**, including transit stop checklists, road safety audits (RSAs), pedestrian and bicyclist facility inventories, and transit stop balancing.
- **Estimating First-Mile/Last-Mile Access** surrounding a transit facility by using factors such as transit ridership, land use, parking availability, and pedestrian and bicyclist network connectivity.
- **Observing Pedestrian and Bicyclist Behavior** can help agencies identify common activities, issues, or conditions that may not frequently be reported to suggest improvements to transit stop locations and design.



Source: Image courtesy of Metro. ©LACMTA 2021



4. Approaches to Enhancing Pedestrian and Bicyclist Safety

Several actions transit agencies may employ to enhance traffic safety include (but are not limited to):

- Take internal actions to foster a culture of safety.
- Form partnerships with public agencies and public-private organizations.
- Organizing transit operator training programs.
- Re-evaluate internal agency documentation and policies.
- Consider improvements to transit service.
- Incorporate safety features into design.
- Make enhancements to the pedestrian and bicyclist design standards.



Source: Denver's Big Moves and Strategies, City of Denver



5. Design and Operational Measures

Sidewalk Features	Facility Type Considerations	Shared Bus-Bicycle Lanes	Marked Crossings	Refuge Islands	Curb Extensions	Reduced Corner Radii
Raised Crossings	RRFBs and PHBs	Modifying Motor Vehicle Travel Lanes	Regulatory and Warning Signs	Pedestrian and Bicycle Signals	Two-Stage Bicycle Turn Box	LPIs and LBIs
Turning Restrictions	Rail, Light Rail, and Streetcar Crossings	Transit Stop Placement and Design	Curbside Stops	Curbside Pullouts	Bus Bulb Outs	Floating Transit Stops
	Median Stop	Lighting	Transit Stop Amenities	Mobility Hubs and Micromobility		



6. Overcoming Barriers to Safe Accessible Transit

- Changing Driver Behavior Near Transit Stops
- Co-locating Mobility Options
- Technological Solutions to Route Planning
- Addressing Sidewalk Maintenance
- Resilience Planning for Emergency Response

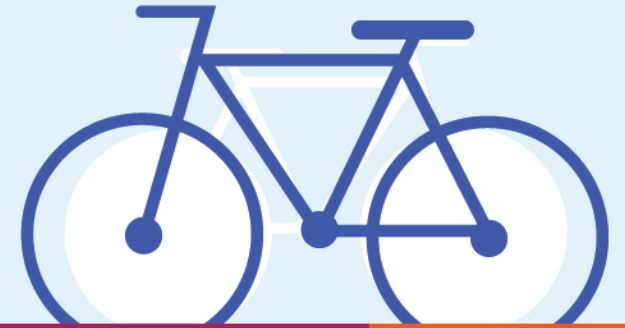


Source: Mobility Hubs Guidance, CoMoUK



Free Webinar: Improving Safety for Pedestrians and Bicyclists Accessing Transit Guide

- Mon, Oct 24, 2022 12:30 PM - 2:00 PM EDT
- Register at <https://register.gotowebinar.com/register/7104826861641657870>



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A blue line-art illustration of a person walking, positioned on the left side of the slide. The person is shown in profile, facing right, with a simple frame, arms, and legs. The person is walking on a path that is represented by a horizontal line with a green segment on the left, a blue segment in the middle, and an orange segment on the right.