



COMPLETE STREETS TOOLKIT UPDATE

06.15.23 TAC Meeting

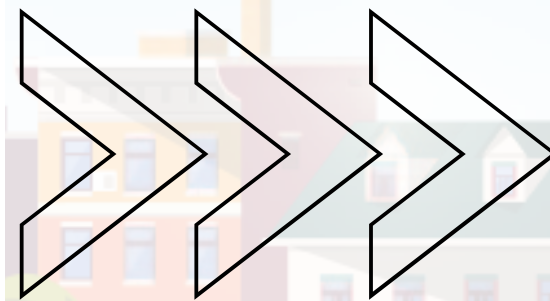




COMPLETE STREETS TOOLKIT

For the Southern New Hampshire
Planning Commission Region

January 2017



COMPLETE STREETS TOOLKIT



JUNE 2023



TOOLKIT CONTENTS



Overview



Planning & Policy



Design & Engineering



Steering Committee &
Pilot Projects (2016)

Paved Shoulders



Figure 27: Paved Shoulder Widening on Pleasant Street, Concord, NH

Paved shoulders provide a recovery area for errant motor vehicles and lengthen the lifespan of the roadway by providing pavement structure support, reducing edge deterioration, and improving drainage. Paved shoulders significantly reduce maintenance costs and are proven to reduce crashes. Paved shoulders provide space for pedestrian and bicycle travel, which facilitates safer passing behaviors and improves comfort for all users.

Paved shoulders serve many purposes. All users should be considered to develop the most appropriate design given the intended use of the shoulder. Designers have flexibility in determining when to pave shoulders, as well as on factors such as shoulder width and rumble strip design and placement.⁴

Shared-Use Paths

A shared-use path serves as part of a transportation circulation system and supports multiple recreation opportunities, such as walking, bicycling, and inline skating. A shared-use path typically has a surface that is asphalt, concrete, or firmly-packed crushed aggregate. The 1999 AASHTO Guide for the Development of Bicycle Facilities defines a shared-use path as being physically separated from motor vehicular traffic with an open space barrier (AASHTO, 1999). Shared-use paths should always be designed to include pedestrians even if the primary anticipated users are bicyclists.

There are various surface materials that can be used in outdoor environments. Shared-use paths are generally paved with asphalt or concrete but may also use prepared surfaces such as crushed stone or soil stabilizing agents mixed with native soils or aggregates. High use trails passing through developed areas or fragile environments are commonly surfaced with asphalt or concrete to maximize the longevity of the shared-use path surface and promote bicycle and inline skating use.⁵



Figure 29: Photo from NACTO's Urban Street Design Guide

Pedestrian Facilities

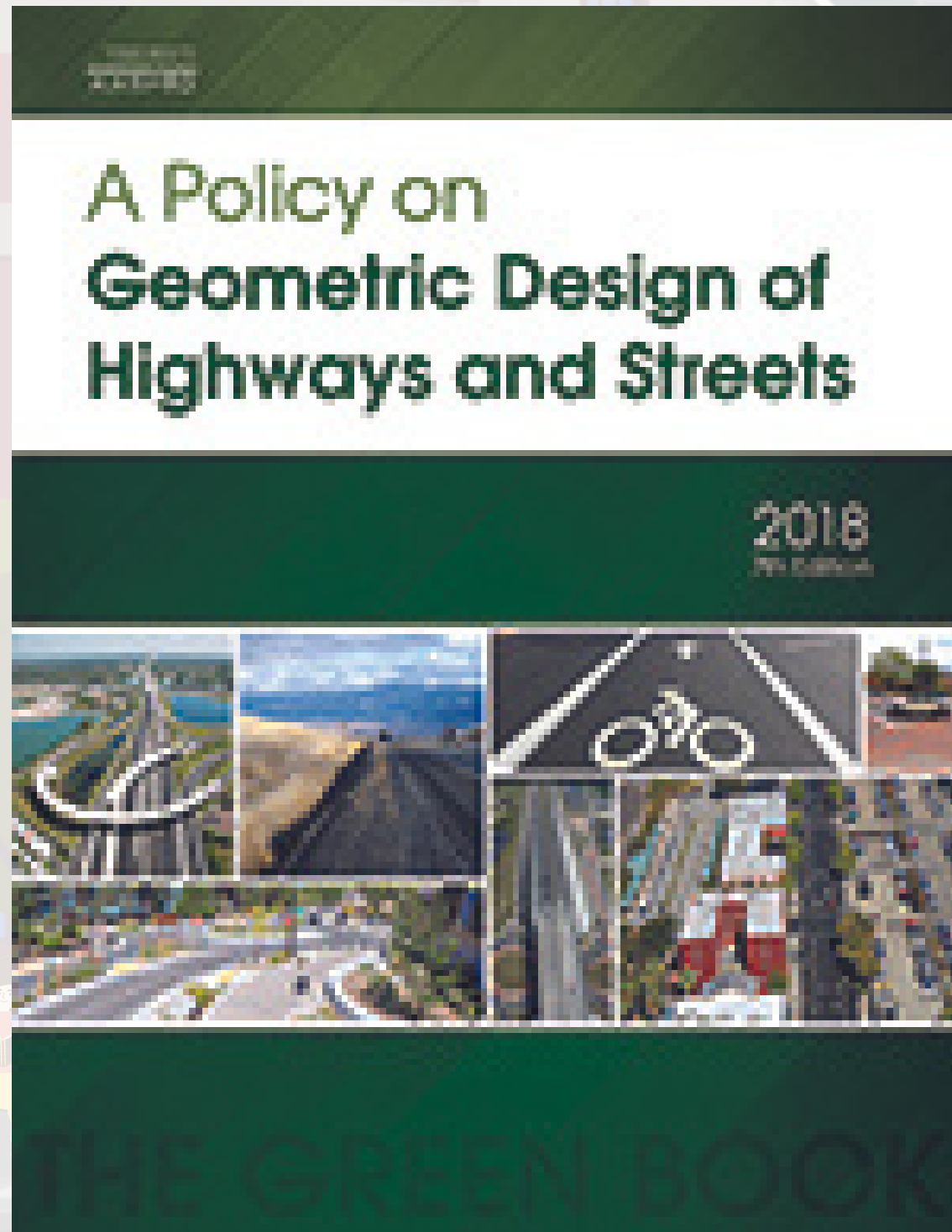
Sidewalks

Sidewalks are one of the most important elements of a complete street. Without sidewalks, public rights-of-way are inaccessible to all

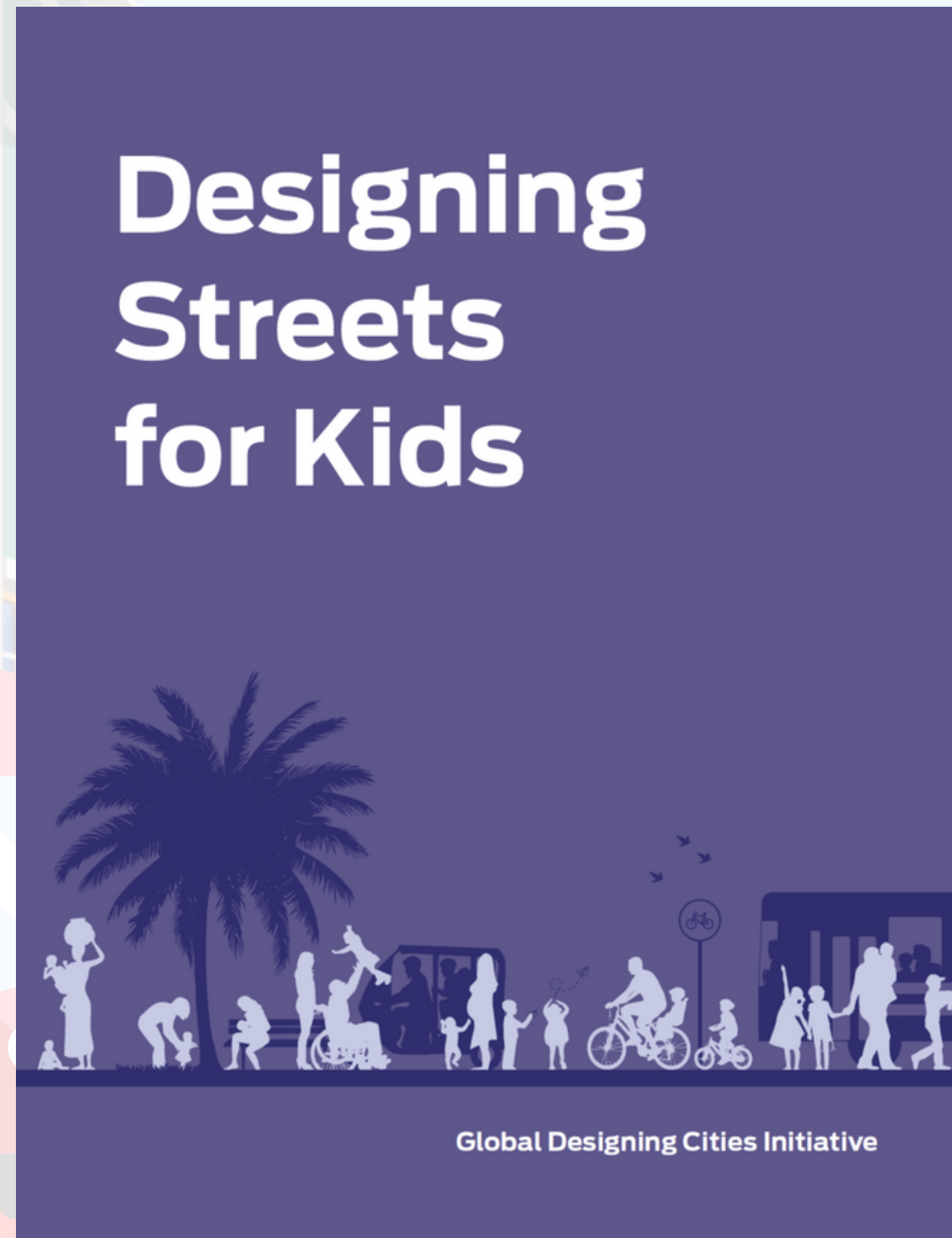


Figure 28: Piscataquog River Rail Trail Bridge, Manchester, NH. Photo from myggm.org

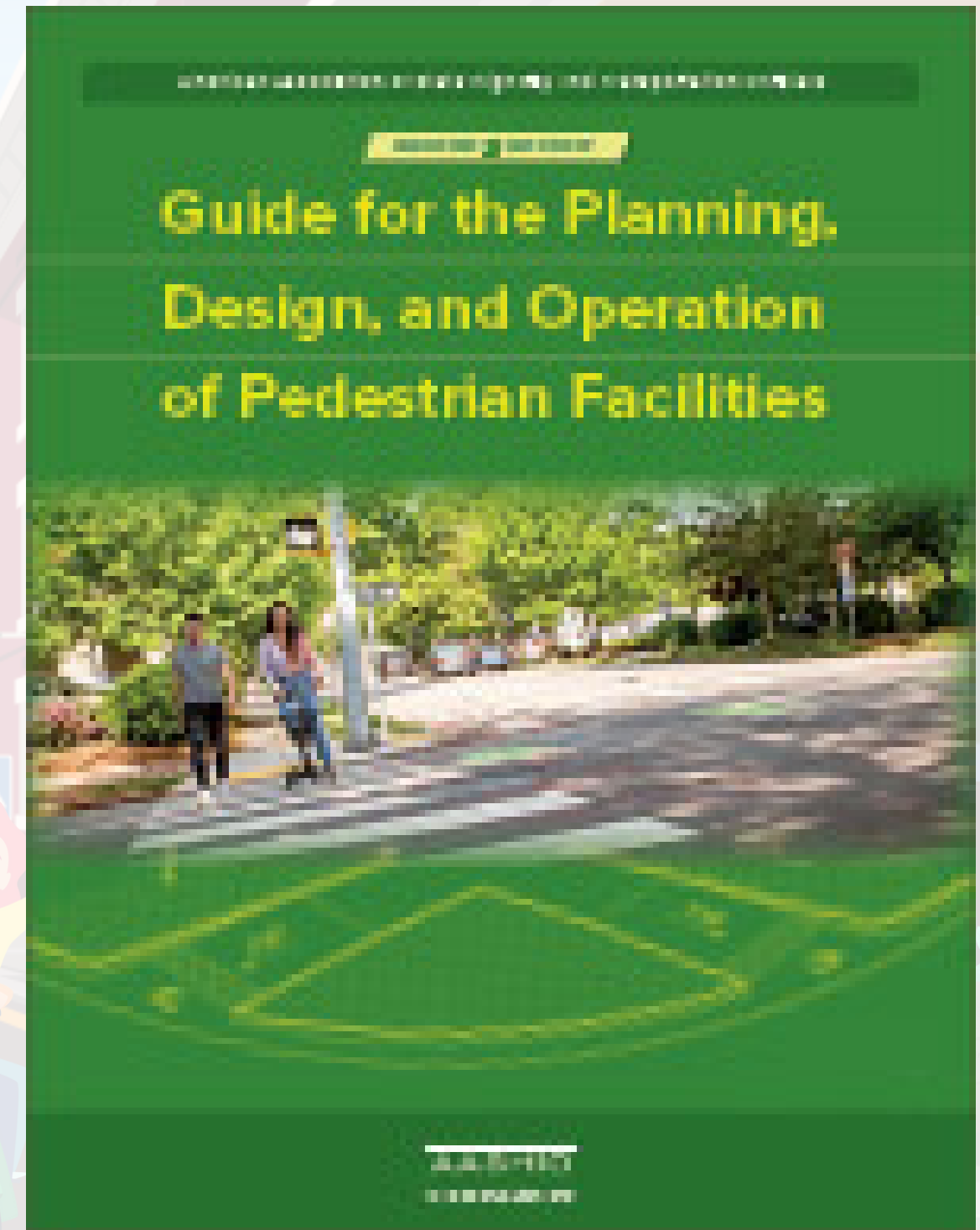
STANDARDS & GUIDELINES



2018



2020



2021

MAINTENANCE UPDATE



Includes latest & greatest resources



Reflects current best practices



Updated local, regional, national & international examples



ROLE MODELS



HOBOKEN STREET DESIGN GUIDE

Complete Streets Design and
Implementation Plan

June 2019



2019

COMMUNITY PLANNING GUIDE: COMPLETE STREETS POLICIES

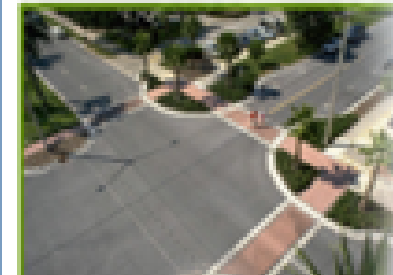


DEFINITION

Complete Streets are streets that are designed and operated to provide safe access for all users.

Communities wishing to increase the safety and accessibility of their streets may consider adopting Complete Streets policies. By having Complete Streets policies in place, communities can help ensure that safe and accessible design measures are implemented during roadway improvement projects and maintenance activities.

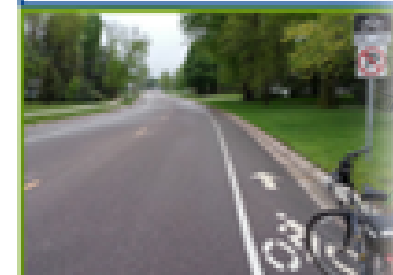
DESIGN EXAMPLES



Curb bump outs help calm traffic and create a safer environment for pedestrians.



Curb ramps allow those with mobility challenges to access sidewalks and roads easier.



Paved shoulders are able to provide space for bike lanes in suburban and rural contexts.

INCREASED SAFETY & ACCESSIBILITY

Complete Streets incorporate design features which allow all users of the street to be safer.



Pedestrian safety is increased by having shorter crossings, well-marked crossings (signage, flashing beacons, brightly colored crossings), adequate sidewalk widths, and increased driver awareness.



Cyclist safety is increased by introducing bike lanes and using traffic calming measures to slow down drivers.



The safety of those with mobility challenges is increased by incorporating design features which remove barriers and allow them to maneuver independently.



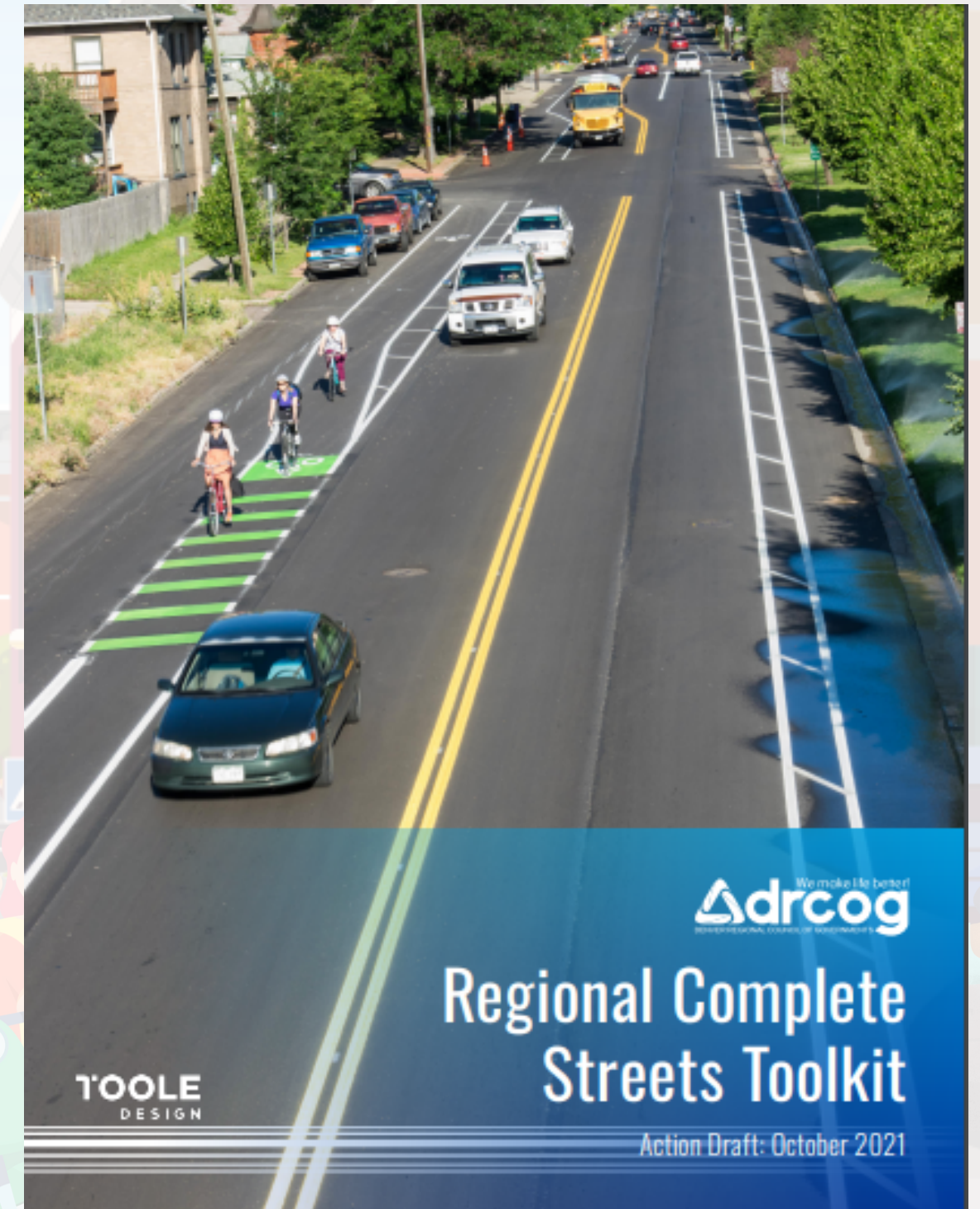
To reduce the chance of safety risks associated with flooding and natural disasters, the incorporation of green infrastructure can be considered as part of Complete Streets policies.

GREEN INFRASTRUCTURE



is the practice of integrating plants and other natural features, or pormaculture, into the built environment to better manage stormwater. The incorporation of green infrastructure reduces the strain that heavy storms can have on stream crossings, culverts, and combined sewer overflows.

2020



Regional Complete Streets Toolkit

Action Draft: October 2021

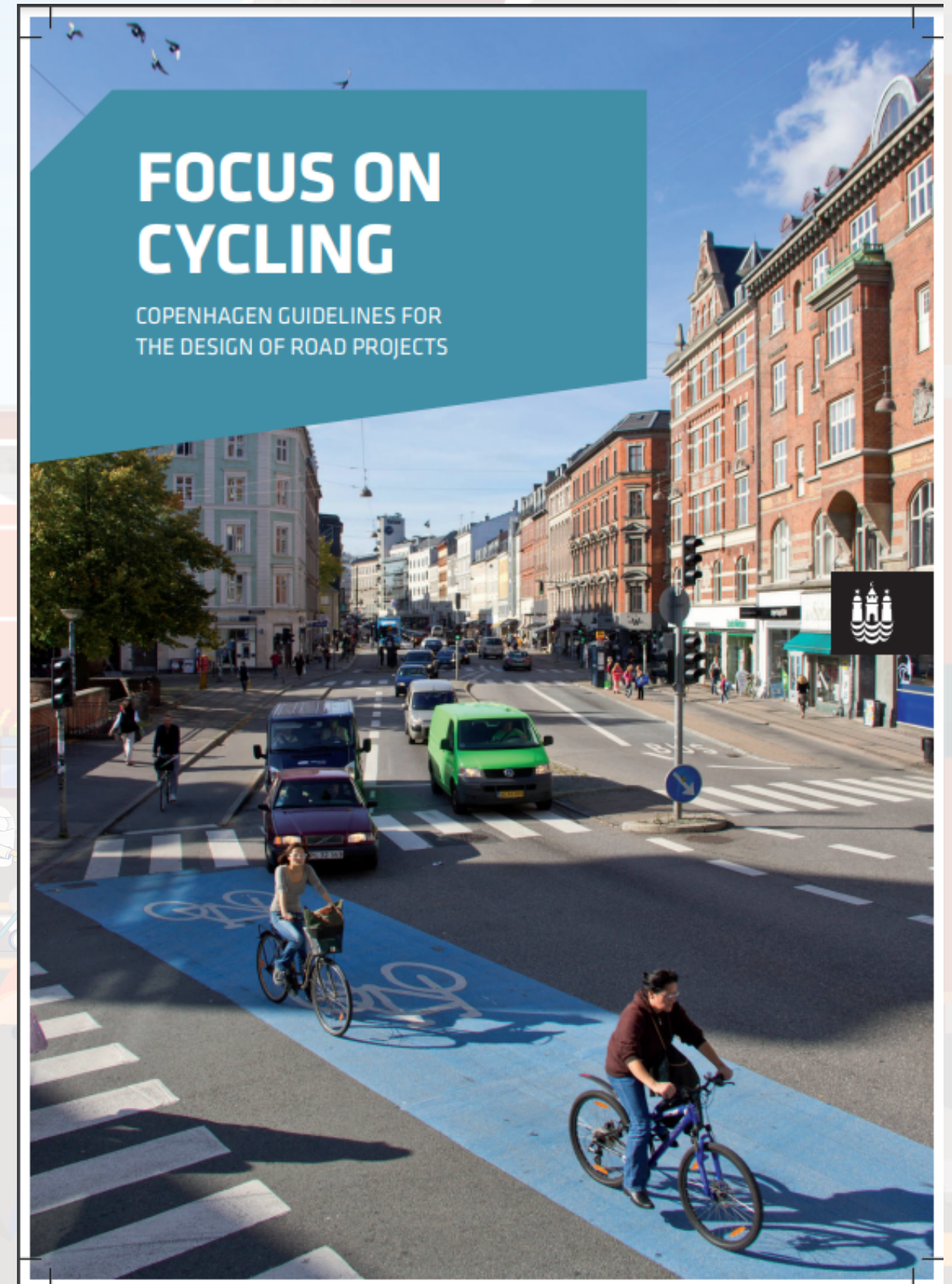
TOOLE
DESIGN

2021

INTERNATIONAL INFLUENCE



Focus on Cycling- Copenhagen Guidelines for the Design of Road Projects



REGIONAL PROJECTS



Maple Street shown in October 2015 and again in October 2022, before and after its road diet.



Looking north along NH Route 13 (Main Street), Sept. 2013/August 2018

EDUCATION & TRAINING



2018 NH Complete Streets Conference



2022 Designing for Bicyclist Safety training



Ongoing Bike-Walk Alliance of NH trainings



DESIGN & ENGINEERING

BICYCLIST DESIGN USER PROFILES

Interested but Concerned

51%-56% of the total population

Often not comfortable with bike lanes, may bike on sidewalks even if bike lanes are provided; prefer off-street or separated bicycle facilities or quiet or traffic-calmed residential roads. May not bike at all if bicycle facilities do not meet needs for perceived comfort.

Somewhat Confident

5-9% of the total population

Generally prefer more separated facilities, but are comfortable riding in bicycle lanes or on paved shoulders if need be.

Highly Confident

4-7% of the total population

Comfortable riding with traffic; will use roads without bike lanes.



LOW STRESS TOLERANCE

HIGH STRESS TOLERANCE

Preferred Bikeway Type

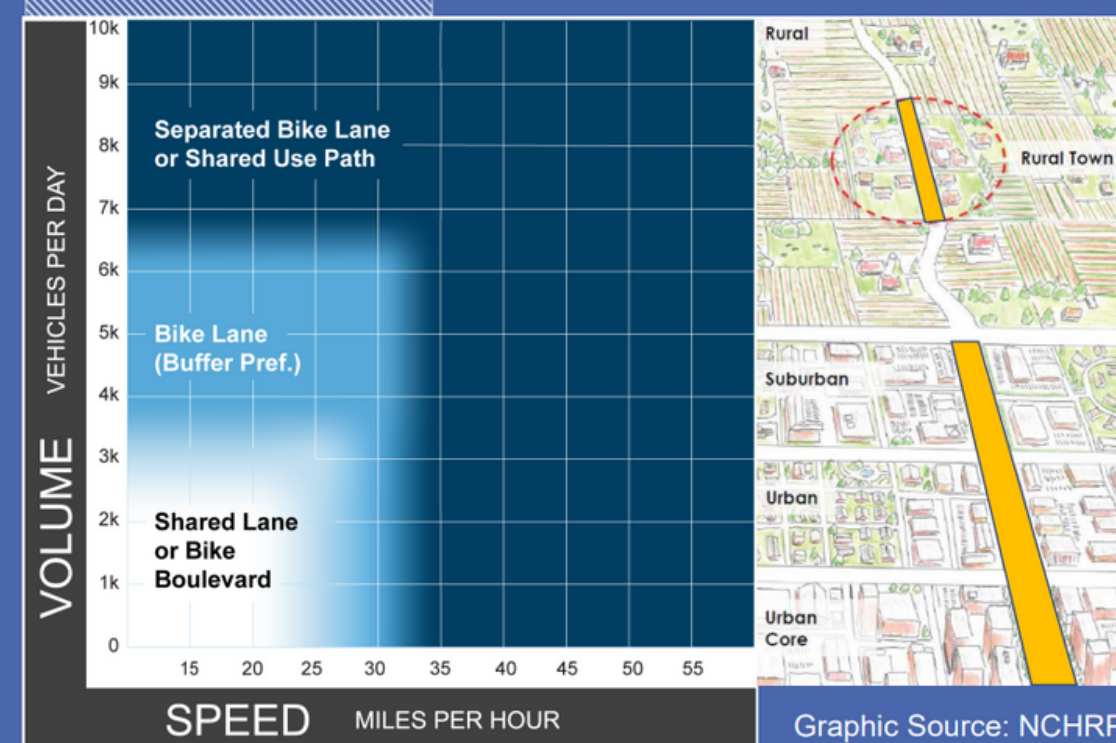
Urban, Urban Core, Suburban, and Rural Town Contexts

Identify Desired Bikeway Type (For Preferred Design User)

Assess and Refine

Evaluate Feasibility

Select Preferred Bikeway Type



Design User Assumption = Interested But Concerned Bicyclist

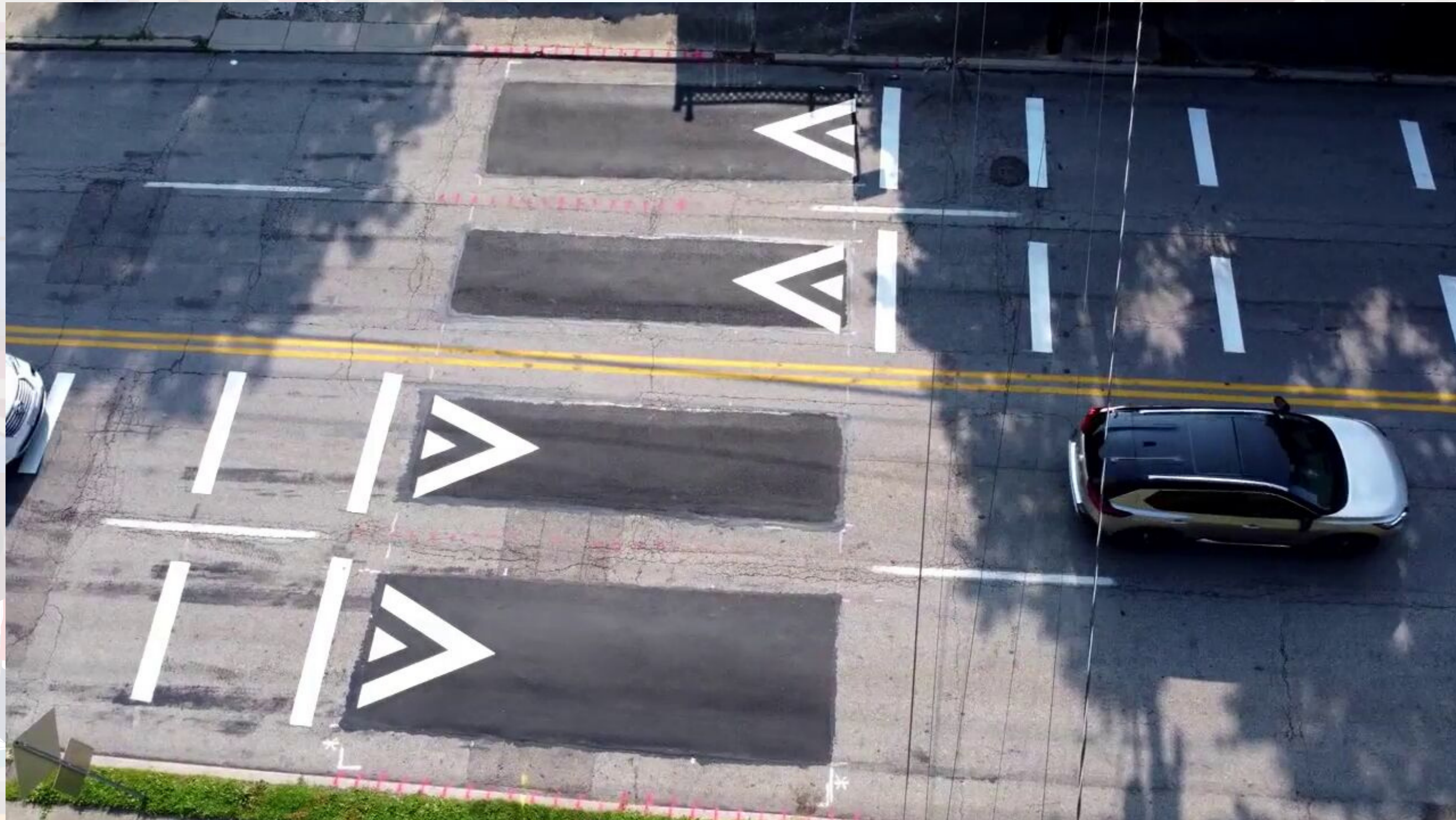
Notes

1. Chart assumes operating speeds are similar to posted speeds. If they differ, use operating speed rather than posted speed.
2. Advisory bike lanes may be an option where traffic volume is <3K ADT.
3. See Section 4.4 for a discussion of alternatives if the preferred bikeway type is not feasible.

Graphic Source: NCHRP 855



DESIGN & ENGINEERING



QUICK THINKING IN BOSTON!



NEXT STEPS



model Complete Streets policy template



technical assistance for adopting policy



QUESTIONS?



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