

Amherst Bicycle/Pedestrian Advisory Committee

Informational Session

June 28, 2018

Amherst Project Context

- The purpose of this effort is to define and develop a multi-modal transportation **network**.
- The focus is on **all** modes of transportation, not just automobiles.
- Multimodal **Networks** are interconnected pedestrian and/or bicycle transportation facilities that allow people of **all ages and abilities** to safely and conveniently get to where they want to go.

Small Town/Rural Needs

ONE SIZE DOES NOT FIT ALL.



LONGER NON-LOCAL TRIP
DISTANCES



HEALTH
DISPARITIES



HIGHER CRASH RATES



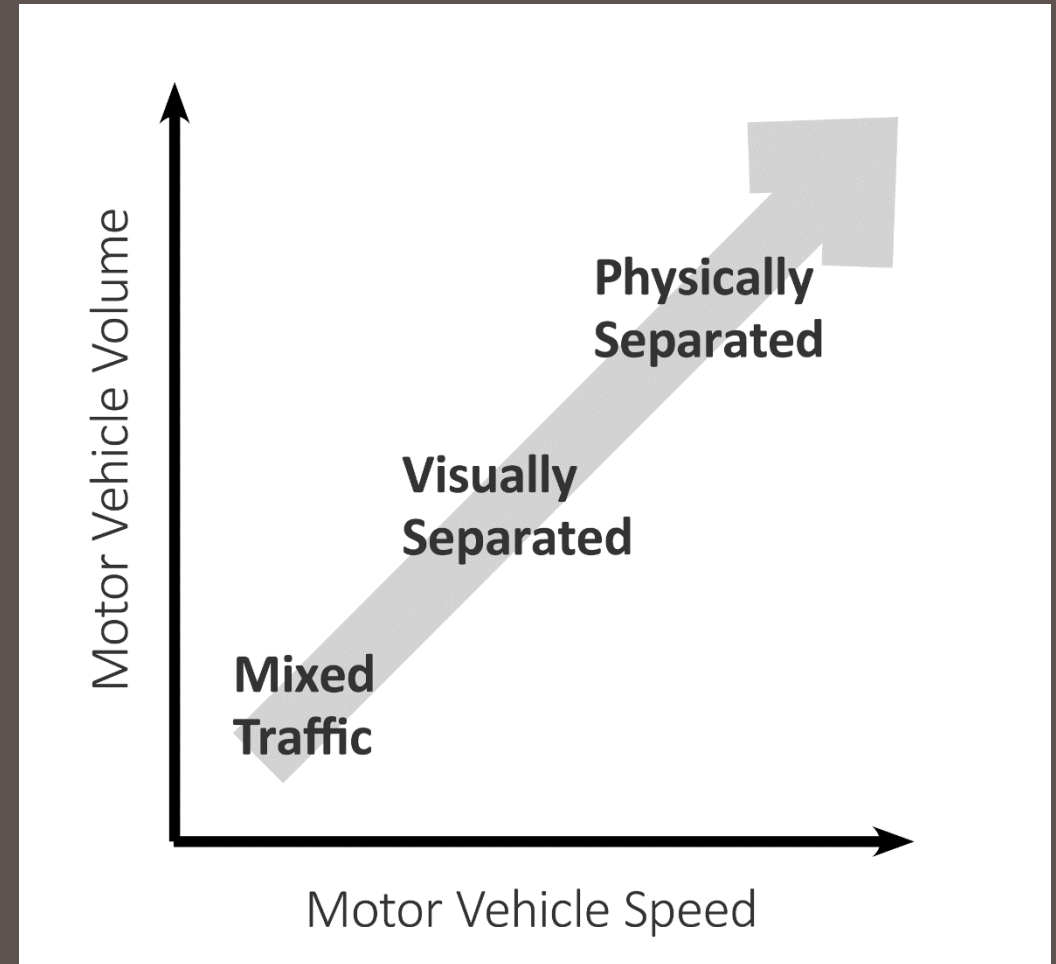
INCOME
DISPARITIES

Focus on Complete Networks of Facilities

Networks are interconnected pedestrian and/or bicycle transportation facilities that allow people of all ages and abilities to safely and conveniently get where they want to go.

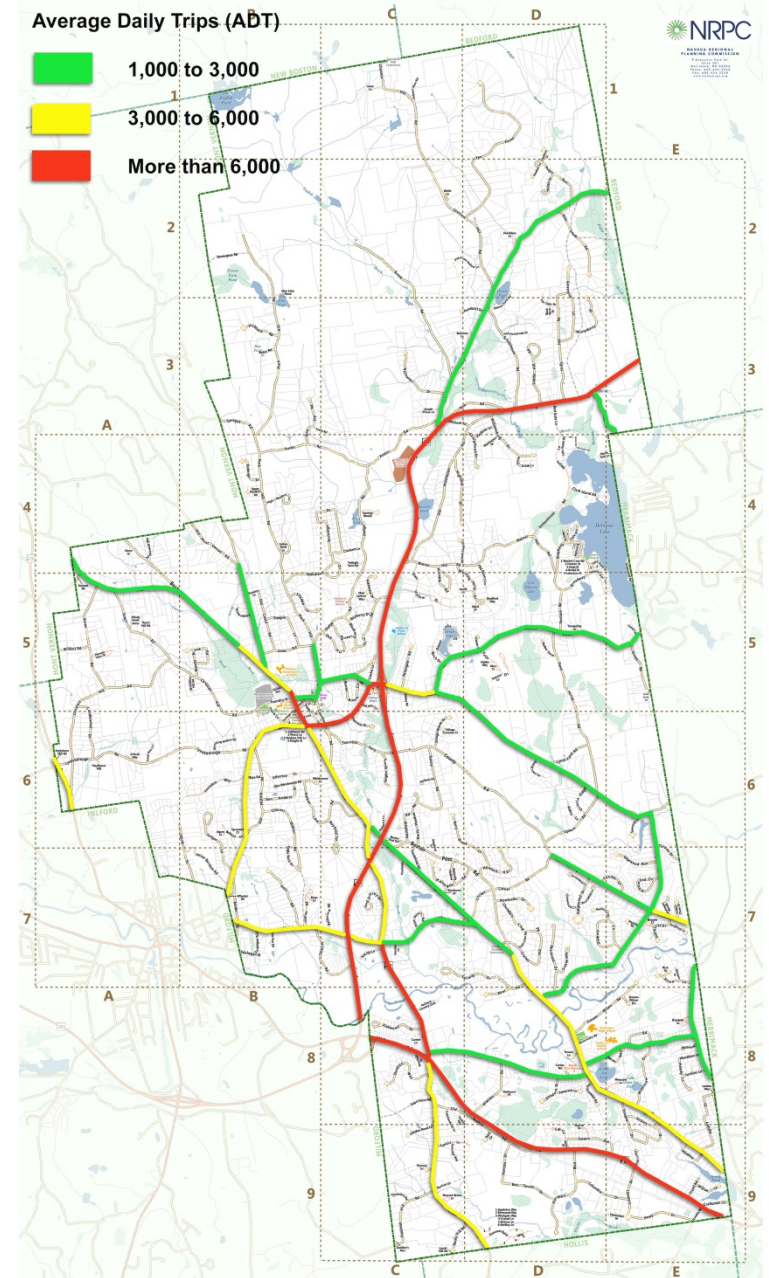
Facility Categories:

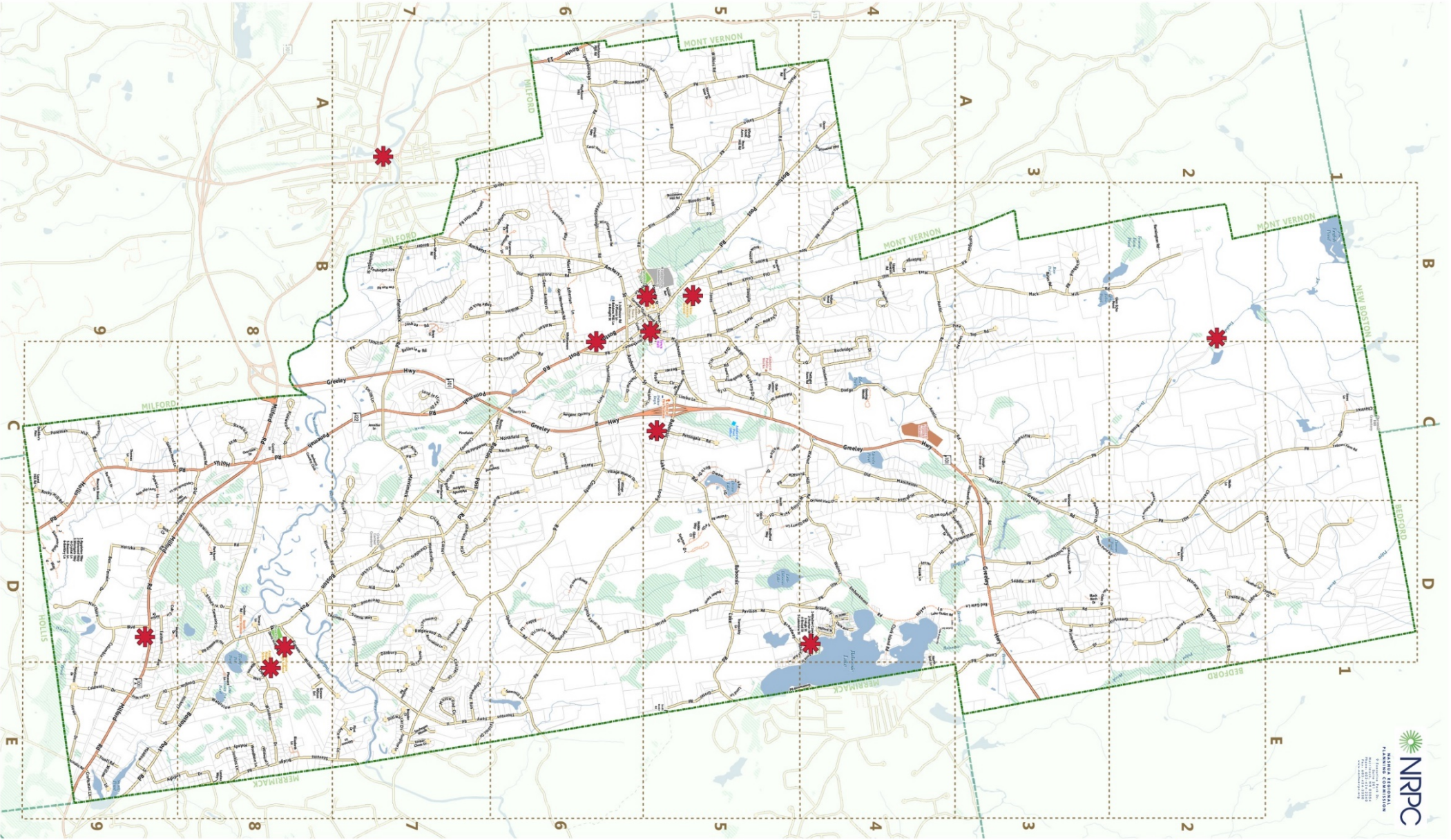
- Mixed Traffic
- Visually Separated
- Physically Separated

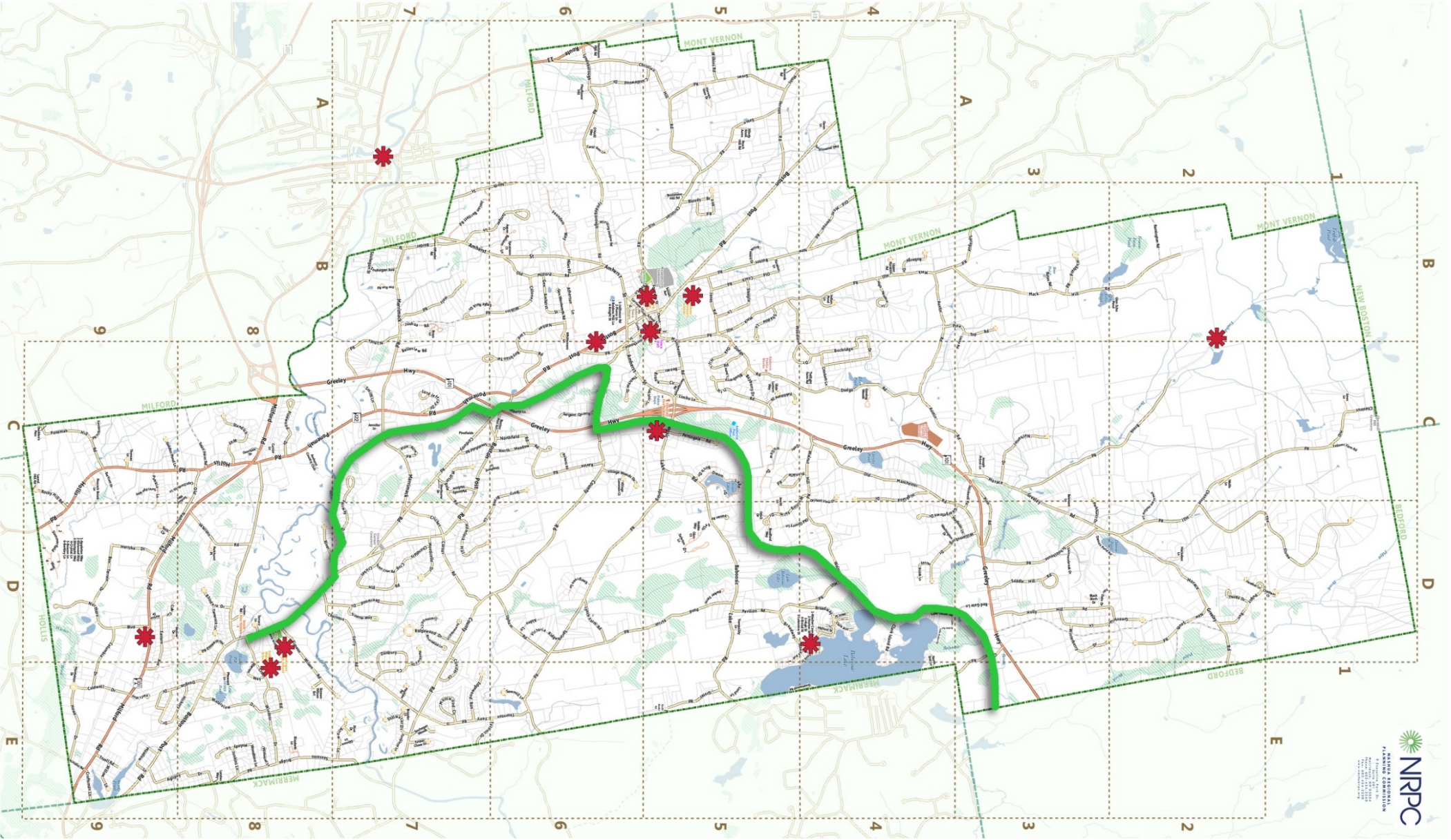


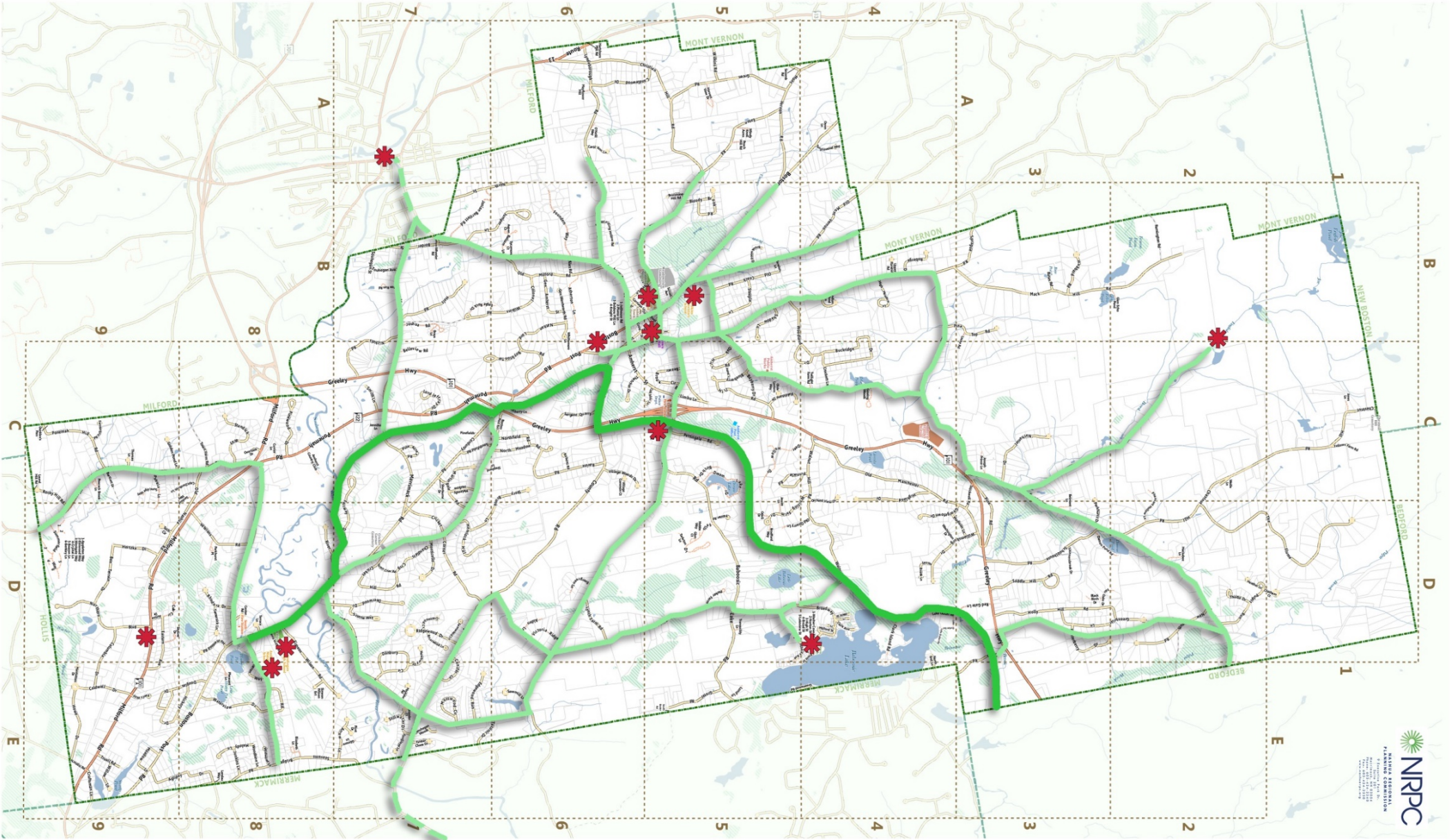
Traffic Volumes

- High volume roadways are barriers to mobility, and are challenging to ride and walk.
- <1,000 VPD is a very low volume roadway.
- 1,000 to 3,000 VPD is a low volume roadway.
- 3,000 to 6,000 VPD is a medium volume roadway.
- >6,000 VPD is a high volume roadway.









Small Town and Rural Multimodal Networks (2016-17)

The multimodal design guidelines for the rest of us.



DECEMBER 2016

Small Town *and* Rural Multimodal Networks



U.S. Department of Transportation
Federal Highway Administration

Applications



Mixed Traffic

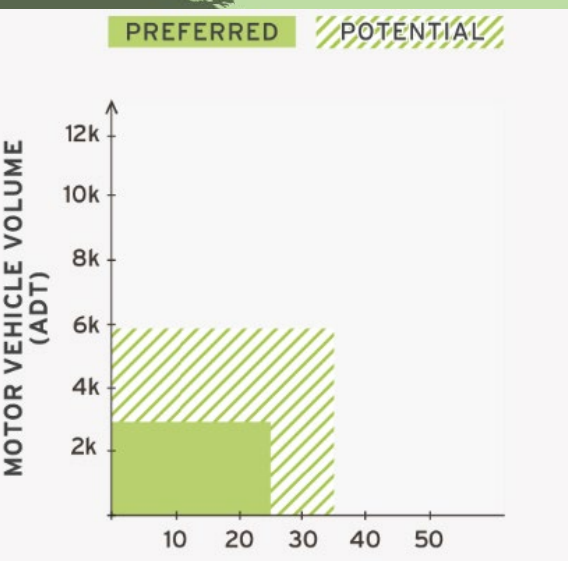
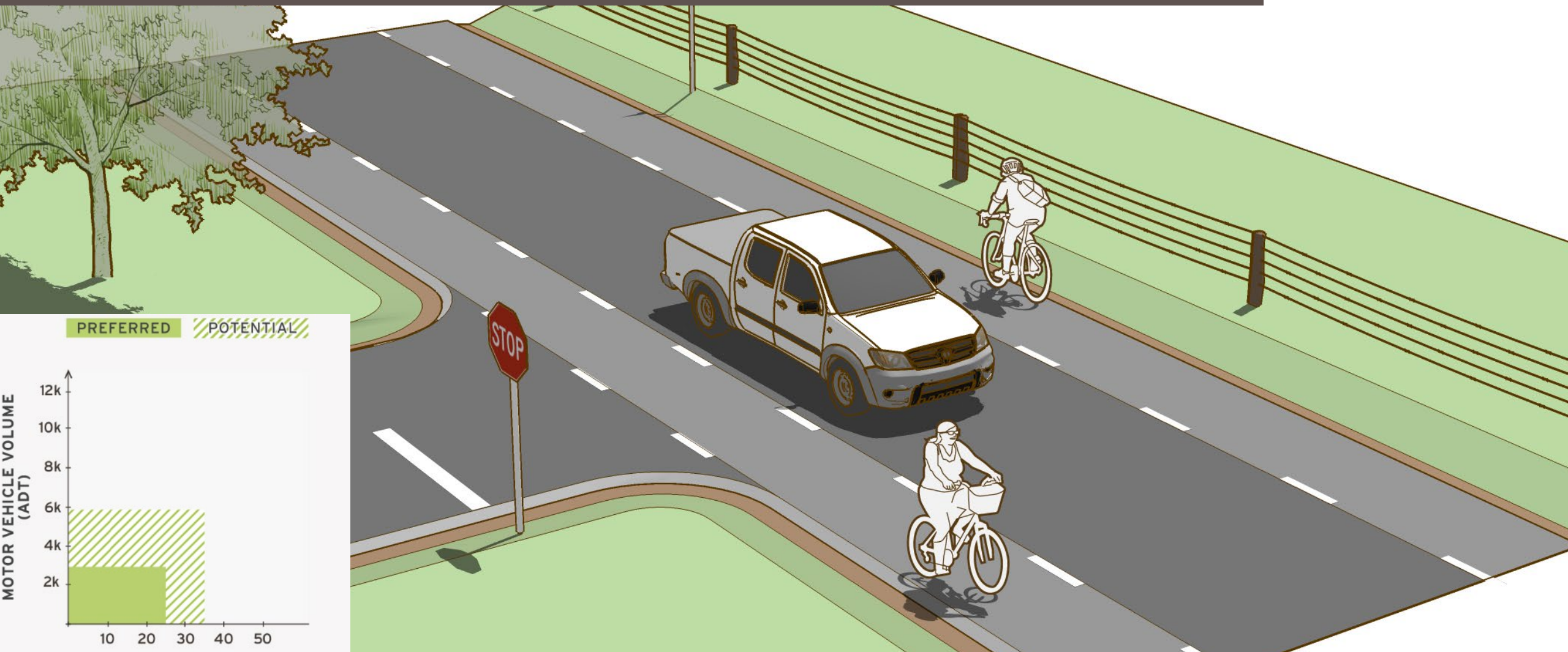


Visually Separated

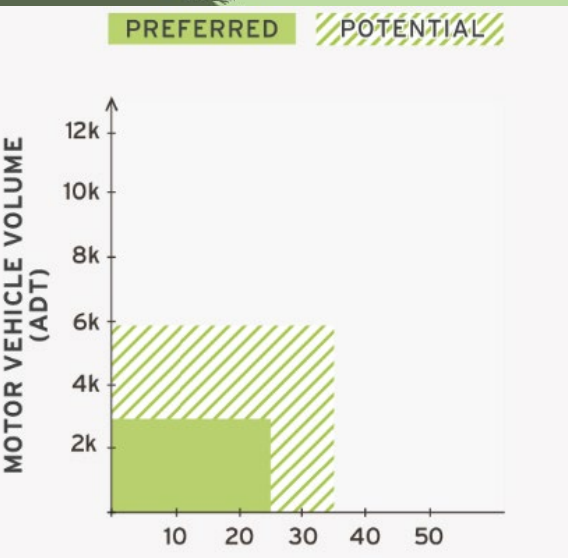
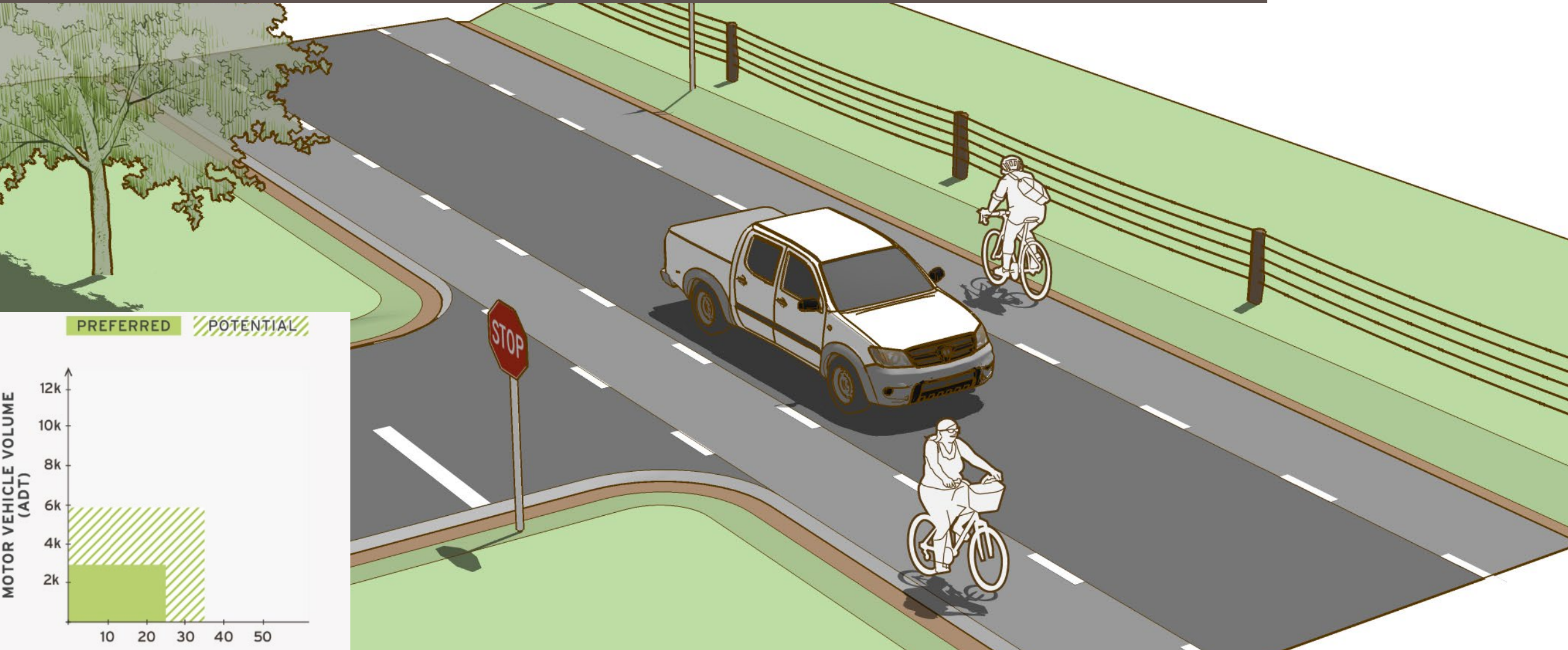


Physically Separated

Advisory Shoulder/Yield Roadway



Advisory Shoulder/Yield Roadway



Advisory Shoulder

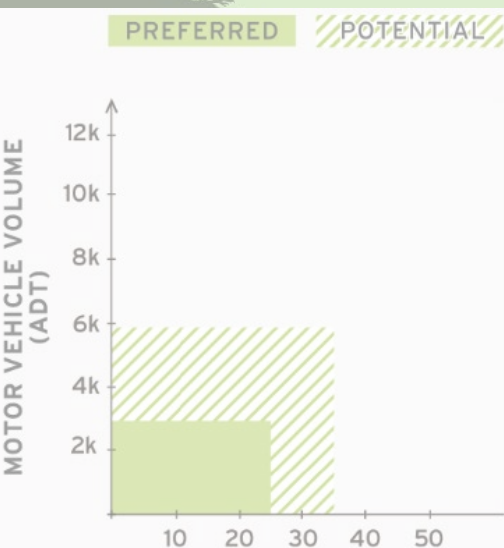
Two-way Center Travel Lane

- Establishes a shoulder on an otherwise too narrow road
- Delineated by pavement markings
- Colored pavement optional
- Must exit shoulder to overtake bicyclists
- Must enter shoulder when yielding to oncoming traffic

Yield to Bicyclists

Permissive broken lane line

Contrasting Paving Materials



Advisory Shoulder- Benefits

Benefits

- May reduce motor vehicle travel speeds.
- Increases predictability and clarifies desired lateral positioning of users.
- Functions well within a rural and small town traffic and land use context.
- Provides a delineated space on a roadway otherwise too narrow for dedicated shoulders.
- Minimizes potential impacts to visual or natural resources.
- May function as an interim measure where plans include shoulder widening or traffic calming in the future.

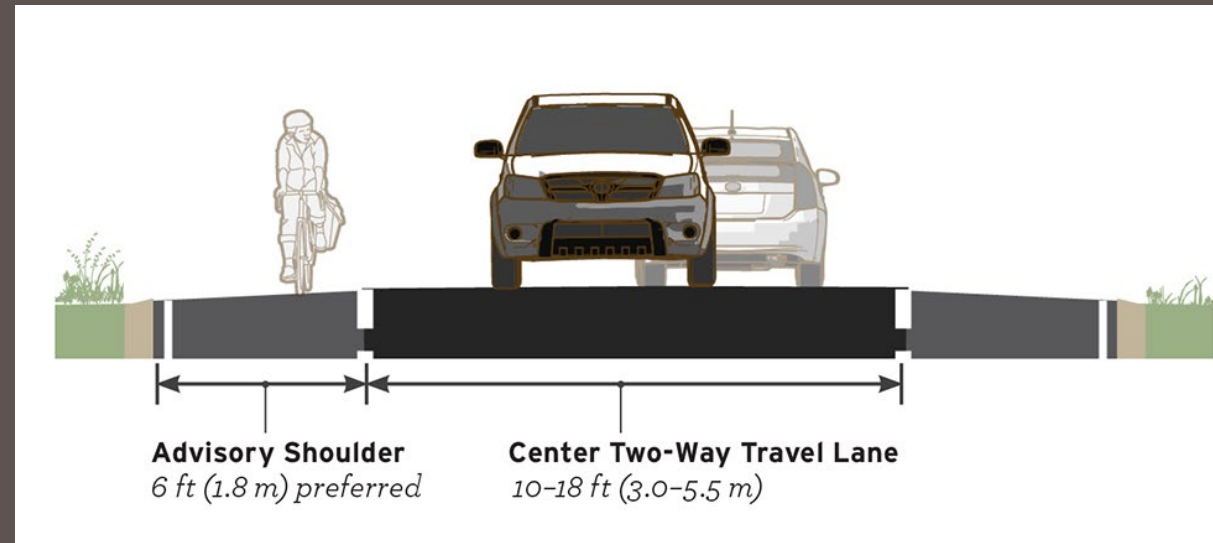
Advisory Shoulder- Geometric Design

Advisory Shoulder

- The preferred width of the advisory shoulder space is 6 ft (2.0 m). Absolute minimum width is 4 ft (1.2 m) when no curb and gutter is present.
- No center line (assumes AADT is <6,000)

Two-way Center Travel Lane

- Preferred two-way center travel lane width is 13.5–16 ft (4.1–4.9 m) although may function with widths of 10–18 ft (3.0–5.5 m).





Hanover, NH
Population: 11,000



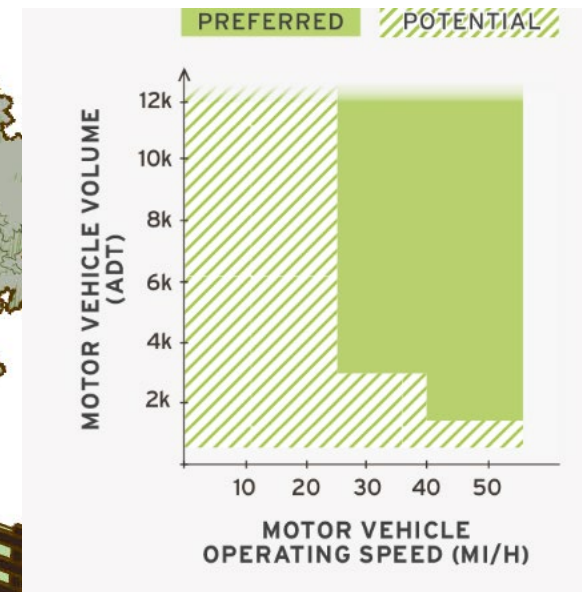
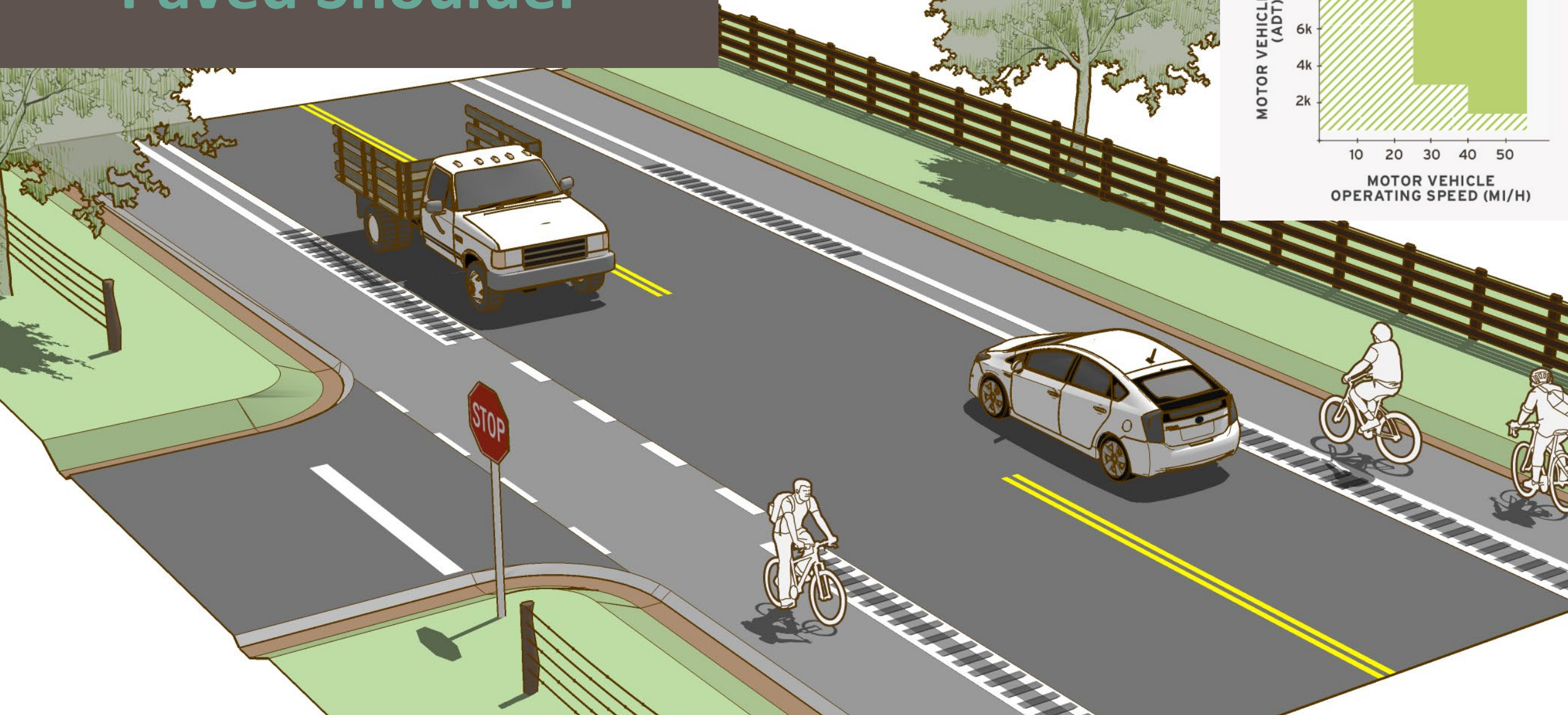
Thornton Ferry Road I, Amherst, NH

Visually Separated

Paved Shoulder



Paved Shoulder



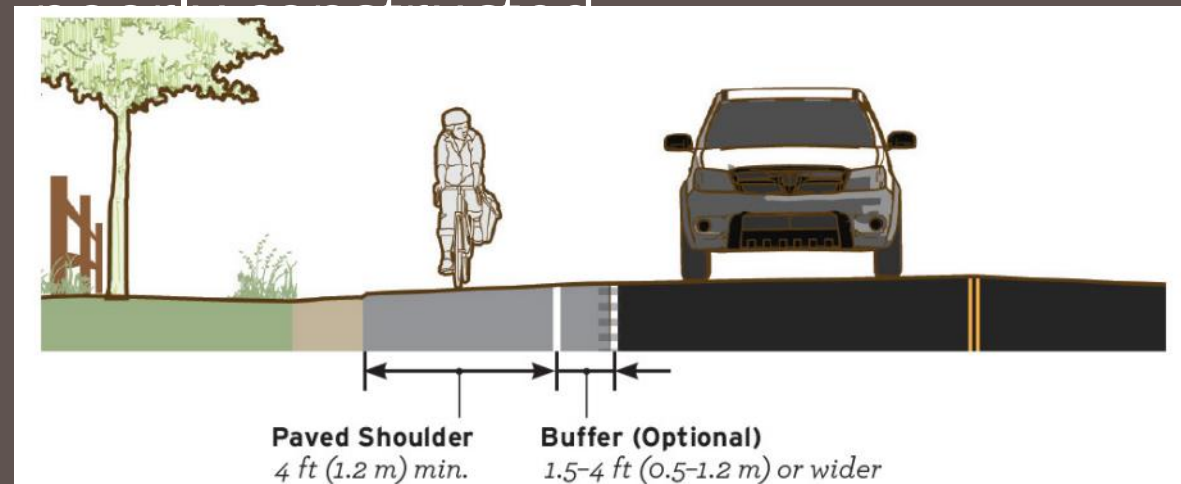
Paved Shoulder – Geometric Design

Shoulder

- To accommodate bicyclists and pedestrian use of the shoulder, **provide a minimum width of 4 ft (1.2 m)** adjacent to a road edge or curb, exclusive of any buffer or rumble strip.
- Where possible, provide greater width for added comfort, user passing, and side-by-side riding.

Rumble Strips

- Rumble strips are an **FHWA Proven Safety Countermeasure** for reducing roadway departure crashes.
- Installing rumble strips can reduce severe crashes but may negatively impact bicycle travel if they are





Rt. 103, NH

Physically Separated

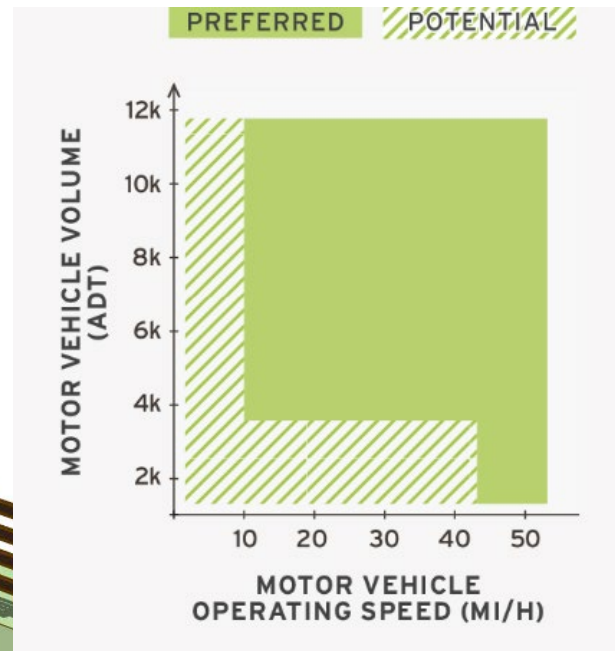
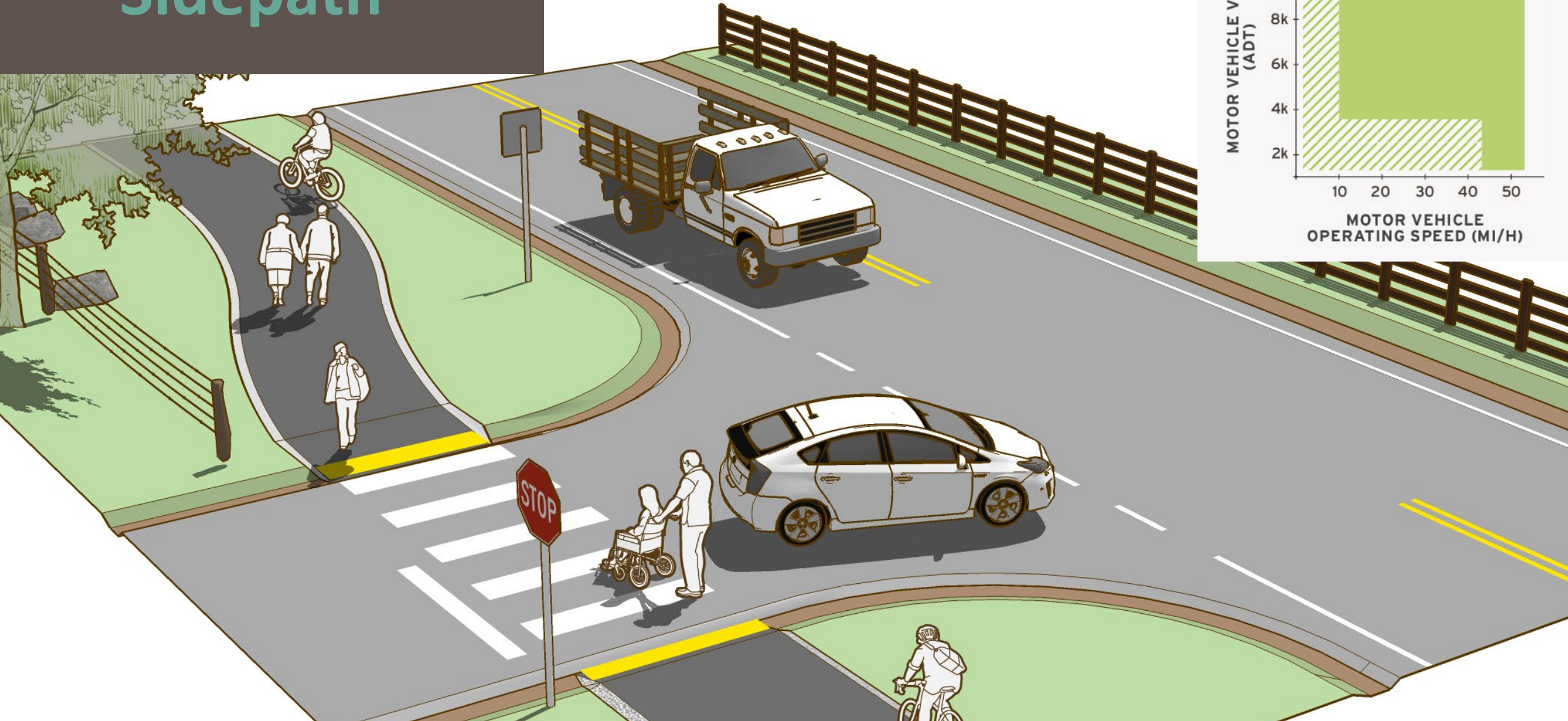
Shared Use Path

Sidepath

Sidewalks



Sidepath



Sidepath – Geometric Design

Pathway

- Minimum recommended pathway width is 10 ft (3.0 m).
- In low-volume situations and constrained conditions, the absolute minimum sidepath width is 8 ft (2.4 m)
- Provide a minimum of 2 ft (0.6 m) clearance to signposts or vertical elements.

Roadway Separation

- Preferred minimum separation width is 6.5 ft (2.0 m). Minimum separation distance is 5 ft (1.5 m).
- Separation narrower than 5 ft is not recommended, although may be accommodated with the use of a physical barrier between the sidepath and the roadway.



East Bay Bike Path
East Providence RI

www.ruraldesignguide.com



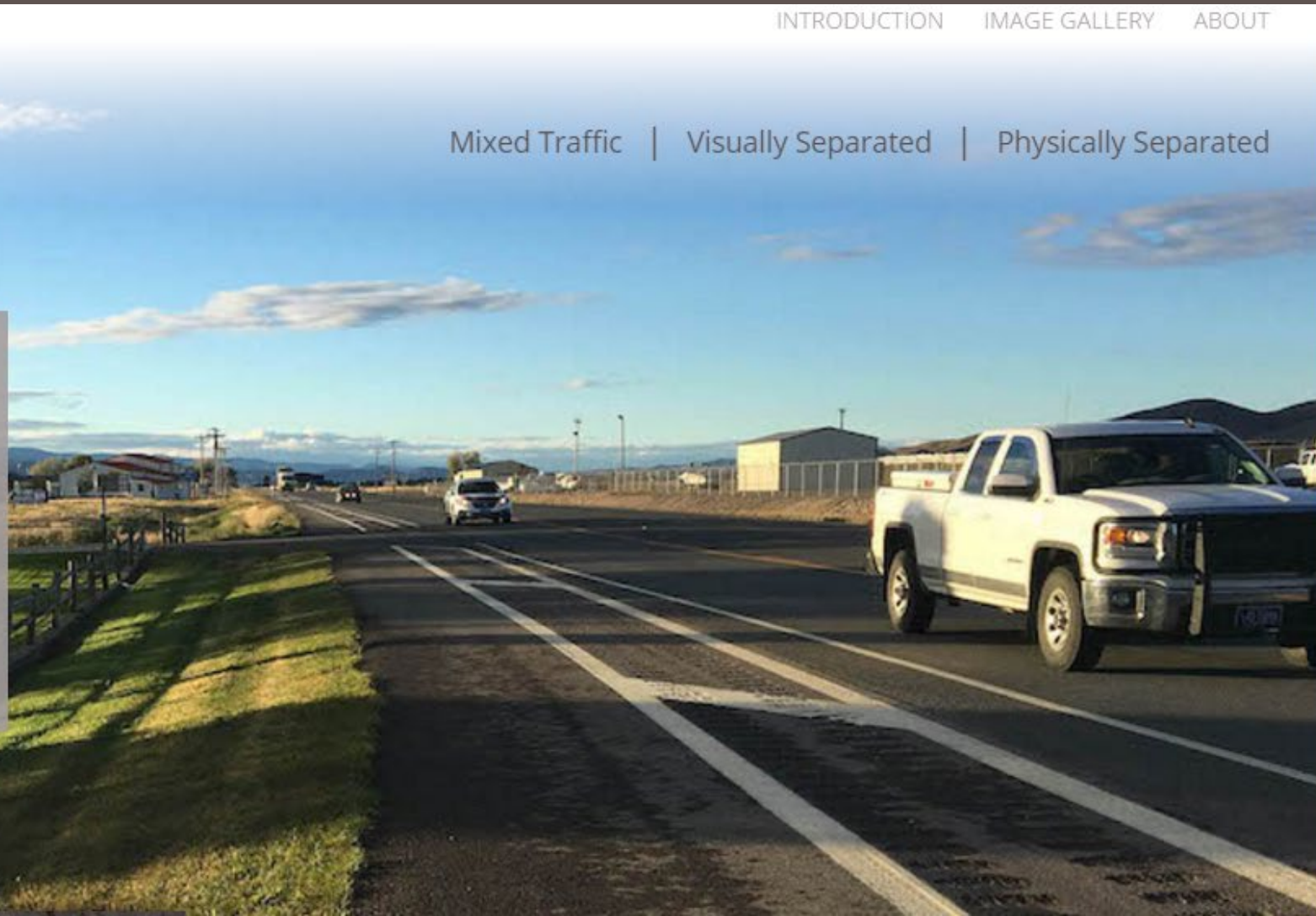
Small Town *and* Rural Design Guide

for Walking, Bicycling, and Biking

[INTRODUCTION](#)[IMAGE GALLERY](#)[ABOUT](#)

Mixed Traffic | Visually Separated | Physically Separated

Welcome to the **Small Town and Rural Design Guide** — an online design resource and idea book, intended to help small towns and rural communities support safe, comfortable, and active travel for people of all ages and abilities.



www.amherstnh.gov/community-development-office/pages/bicycle-and-pedestrian-master-plan

- Info session presentations
- Maps
- Plans

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Interactive Poll

Go to www.sli.do ask questions and answer the poll.