

Safety and Intersection Capital Programs

March 20, 2024



Table of Contents

3. Modernization Programs
4. Safety & Intersection Programs – Overview
5. Intersection Improvement Projects
6. Safety Improvement Projects
7. Vulnerable Road User (VRU) Assessment
8. VRU Implementation
9. Safety Integration in All Programs
11. Appendix

Modernization Programs

Working toward the vision of safety, mobility, and resiliency in our infrastructure

3

PRIORITIES → PROGRAMS → PROJECTS



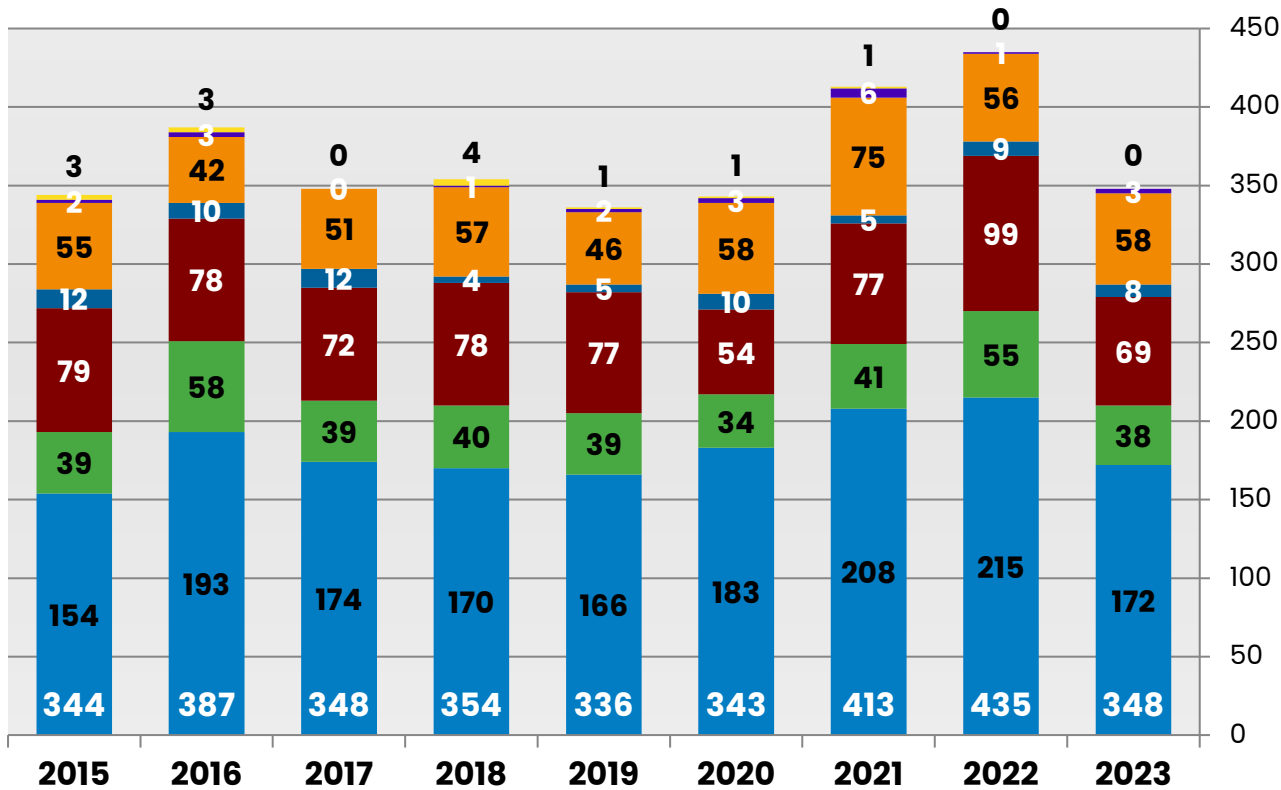
Safety & Intersection Programs – Overview

Shared goal of proactively preventing serious crashes

4

Overall Fatalities

PRELIMINARY RESULTS – YTD through 12/31/23



Three-part strategy:

1. Stand-alone safety & intersection projects
2. Safety integration into ALL projects
3. Municipal support

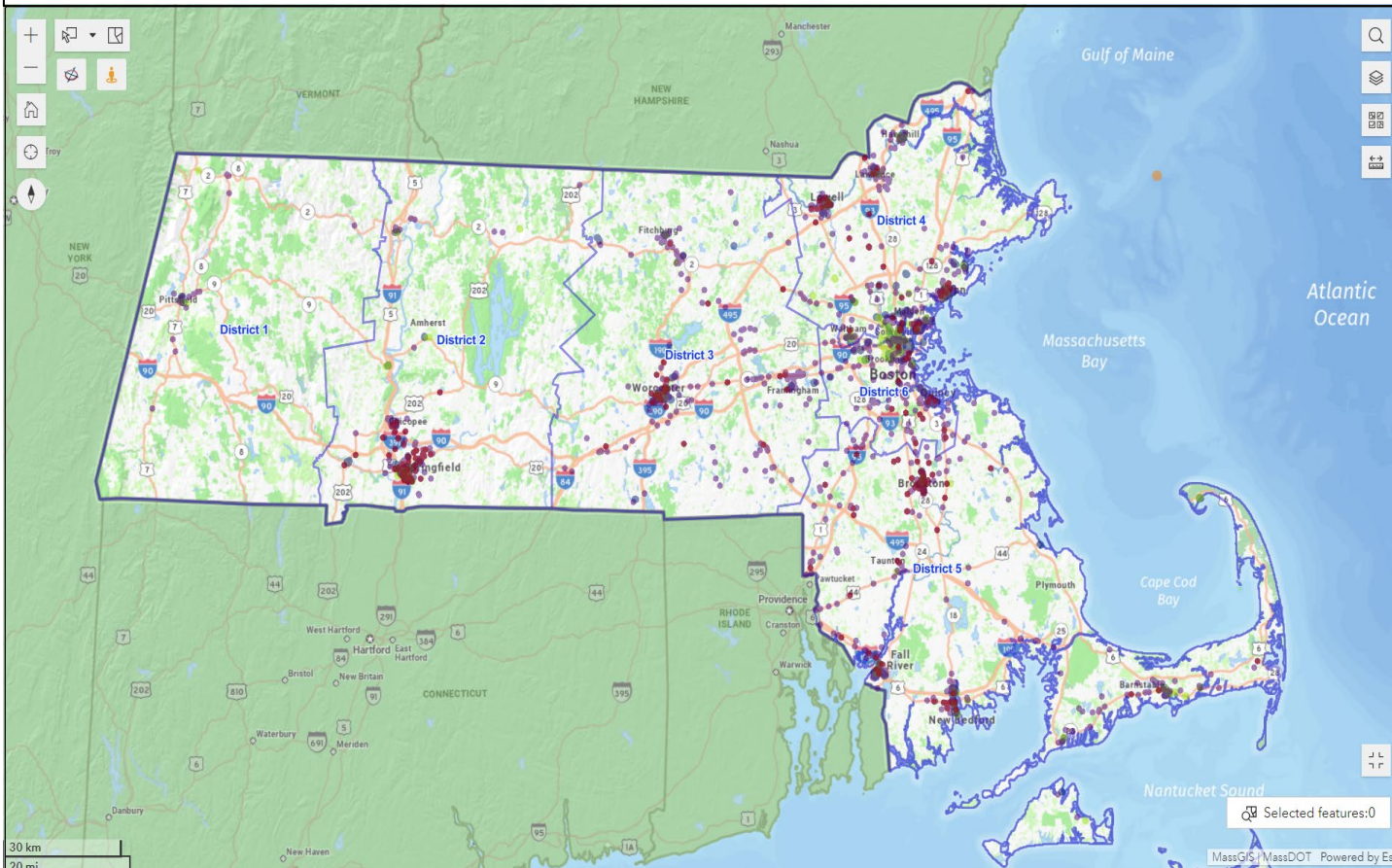


Intersection Improvement Projects

Standalone intersection reconstruction projects following a data-driven approach

5

TOP CRASH LOCATIONS MAP

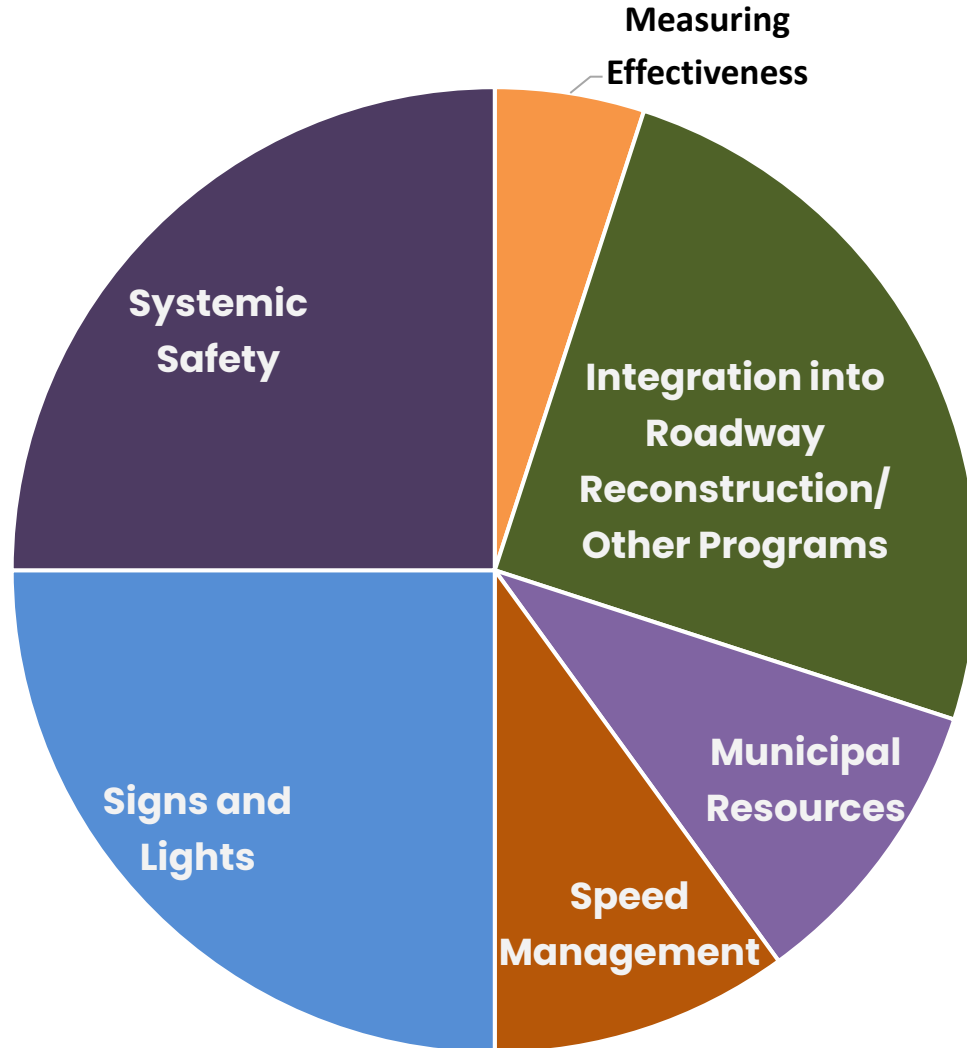


**21 intersection projects:
\$118 million total**

Safety Improvement Projects

Identify and mitigate risks to reduce fatal and injury crashes

6



26 safety projects are programmed in next 5-year STIP for **~\$108 million total**

Vulnerable Road User (VRU) Assessment

Highlights and Key Findings

7

Fatal & Serious Injuries

within 300 ft



40% pedestrian
35% bicyclist

within 2000 ft



40% pedestrian
& bicyclist

within ¼ mile



1/3 pedestrian

Top 5% (17 total)



40% pedestrian
& bicyclist



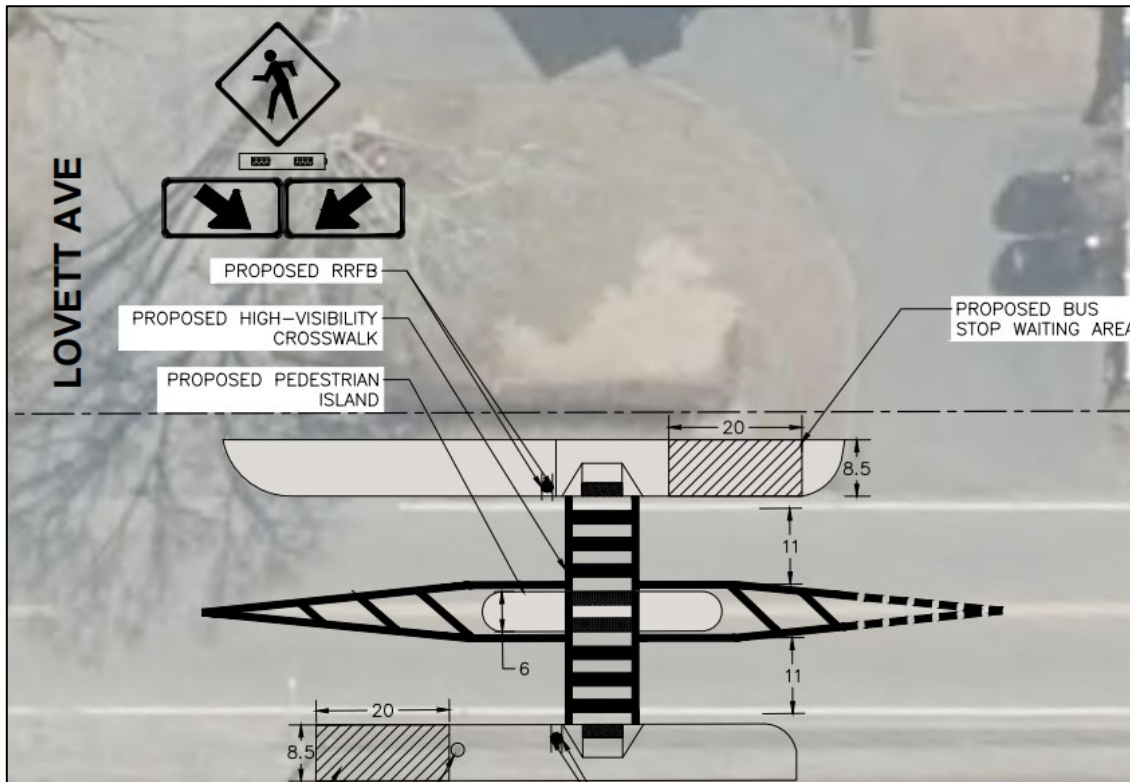
VRU Implementation

Addressing high-risk municipalities and bus stops through multi-year programs

8

BUS STOPS

First year: unsignalized crossings



TOP 5% COMMUNITIES

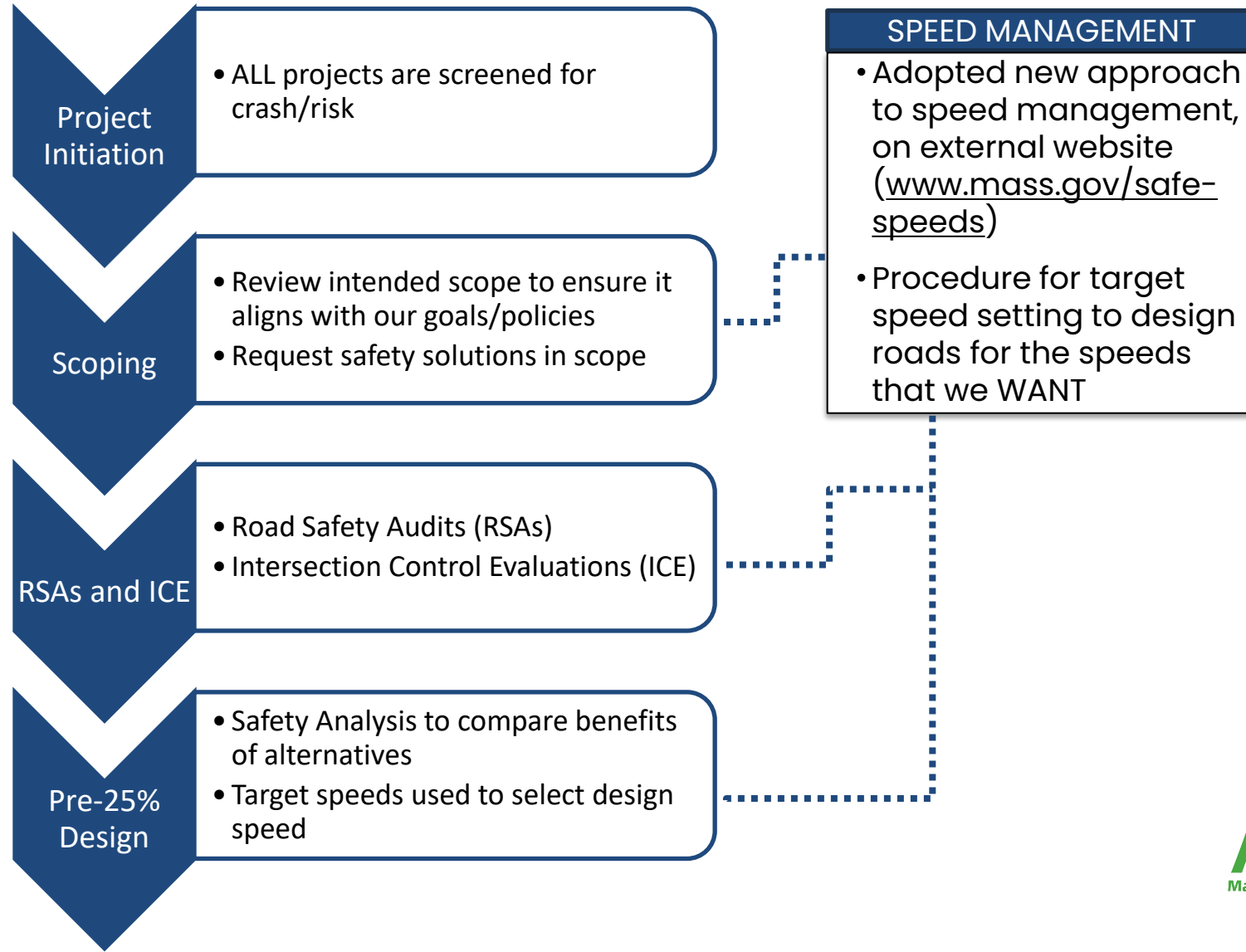
First year: locally owned signals



Safety Integration in All Programs

Using speed management and other policies to institutionalize safety through design

9



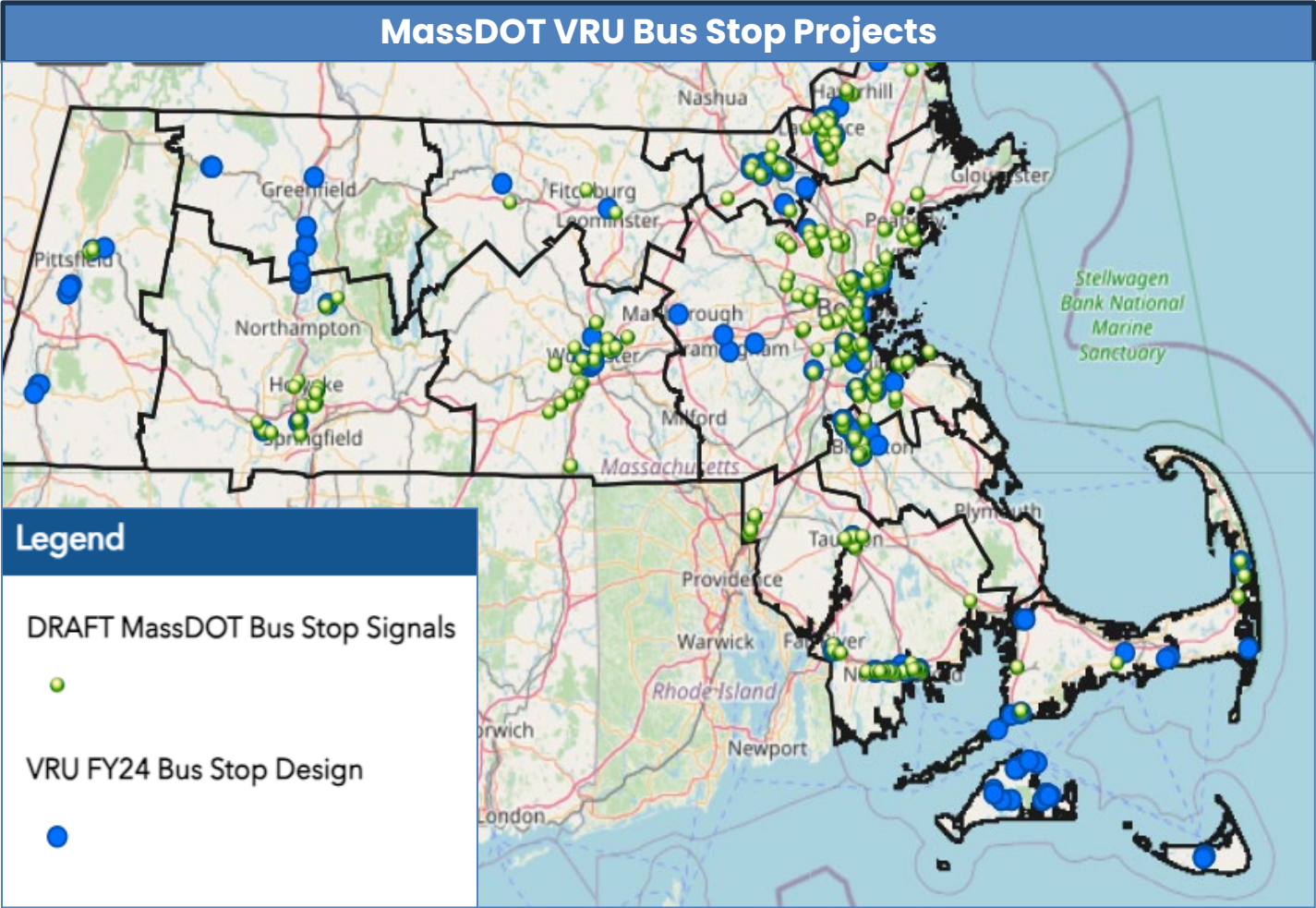
Thank You



Appendix

VRU Implementation Projects – mapped

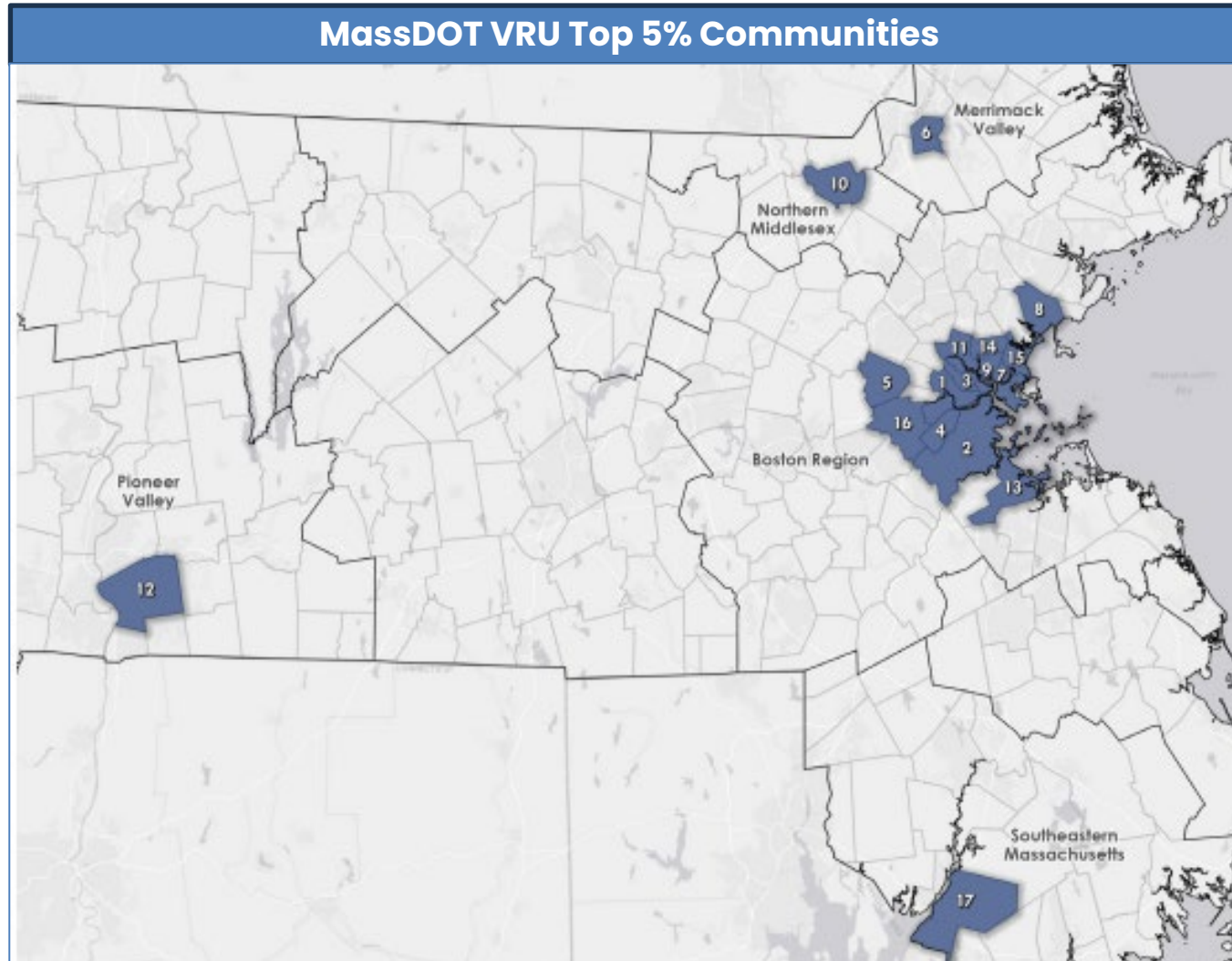
Bus Stops Projects



VRU Implementation Projects – mapped

Top 5% Communities

13



1. Cambridge
2. Boston
3. Somerville
4. Brookline
5. Waltham
6. Lawrence
7. Chelsea
8. Lynn
9. Everett
10. Lowell
11. Medford
12. Springfield
13. Quincy
14. Malden
15. Revere
16. Newton
17. Fall River



Municipal Support – Federal Safe Streets and Roads For All Grant Program (SS4A) [MassDOT not eligible]

14

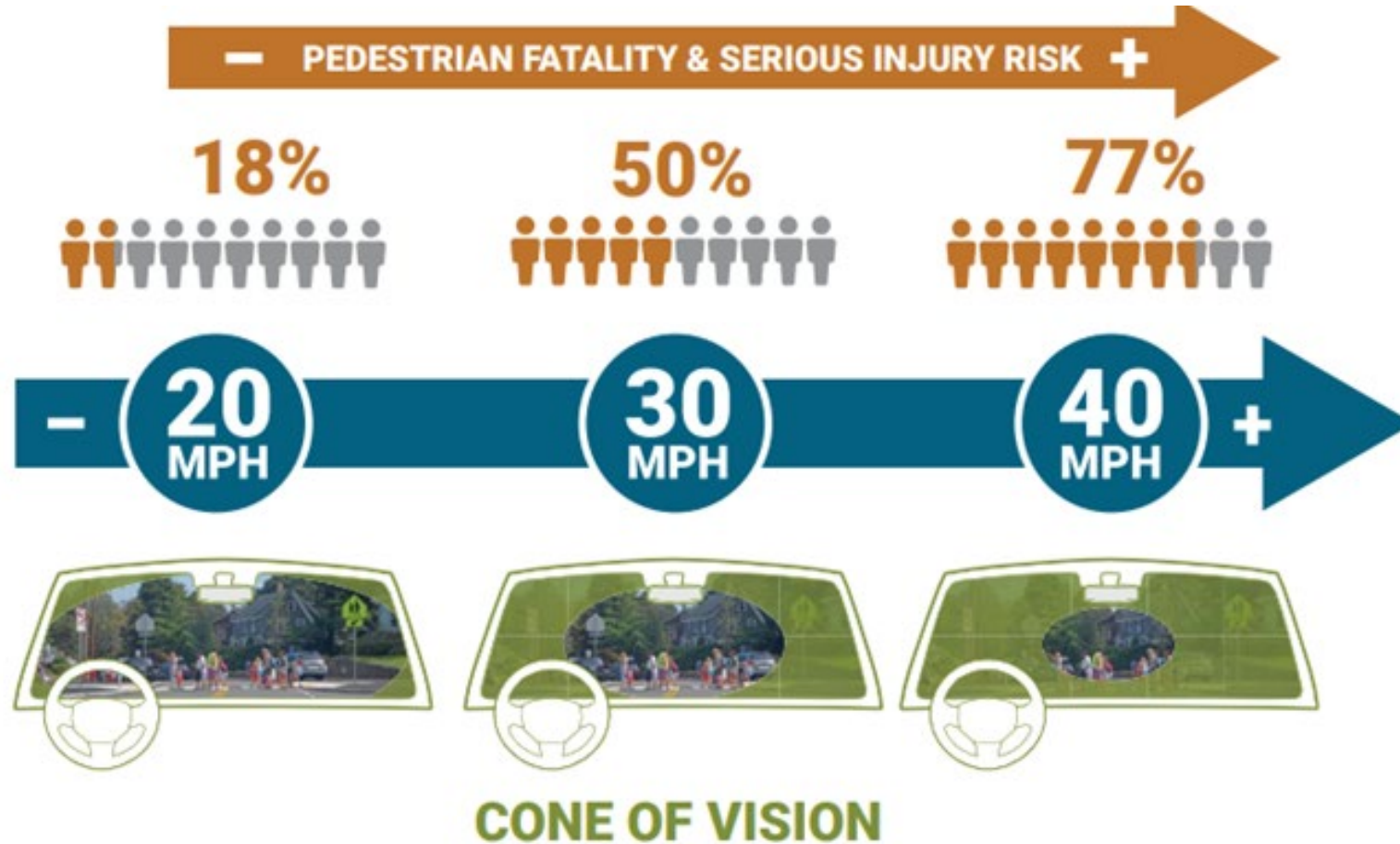
Provided technical assistance and data resources to communities for plan development & grant

Springfield	Brockton	Lynn	General
<ul style="list-style-type: none">• MassDOT funded and facilitated the development of Springfield's SS4A Action Plan, provided application assistance via consultant• Springfield was one of 2 communities in Massachusetts to receive implementation grants in first round (other was Boston)• Awarded Amount: \$15,012,800, covers design & construction	<ul style="list-style-type: none">• Awarded Amount: \$188,480 demonstration grant in October• MassDOT following and learning from the successful model set with Springfield to assist Brockton with development of a SS4A Action Plan, which would allow them to apply for Implementation grants	<ul style="list-style-type: none">• Playbook published in January 2021 before SS4A NOFO• Construction funding for quick-build safety improvements programmed into STIP• Actively working to build off the Playbook to create an SS4A Action Plan to apply for Implementation funding this Spring	<ul style="list-style-type: none">• Creating a Community of Practice document to share process that we have used in Action Plan Development with others• Hosted an SS4A webinar in August 2022 about how MassDOT can support• Set up a website that compiles SS4A Data Resources https://arcg.is/1Knnv1• Presented at Transportation Manager Group meetings to offer SS4A support

Speed management work in addition to capital program

Reducing speeds to reduce fatal and injury crashes

15



- Provided community funding through the Shared Streets and Spaces Grant
- New target speed guidance in the new Project Development and Design Guide (PDDG). Anticipated release at Innovation Conference April 30/May 1
- Amend Massachusetts regulations related to speed (expand the definition of a school zone, adjust speed limit setting)
- Active Statewide Planning and Research (SPR) project to address emergency personnel and snow & ice operations concerns with speed management treatments

Safety Integration Examples

Using speed management and other policies to institutionalize safety through design

16

