Complete Streets Prioritization Tool

A New Resource for Massachusetts Communities

MMA Conference

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Metropolitan Area Planning Council

Objectives and Focus of the Tool

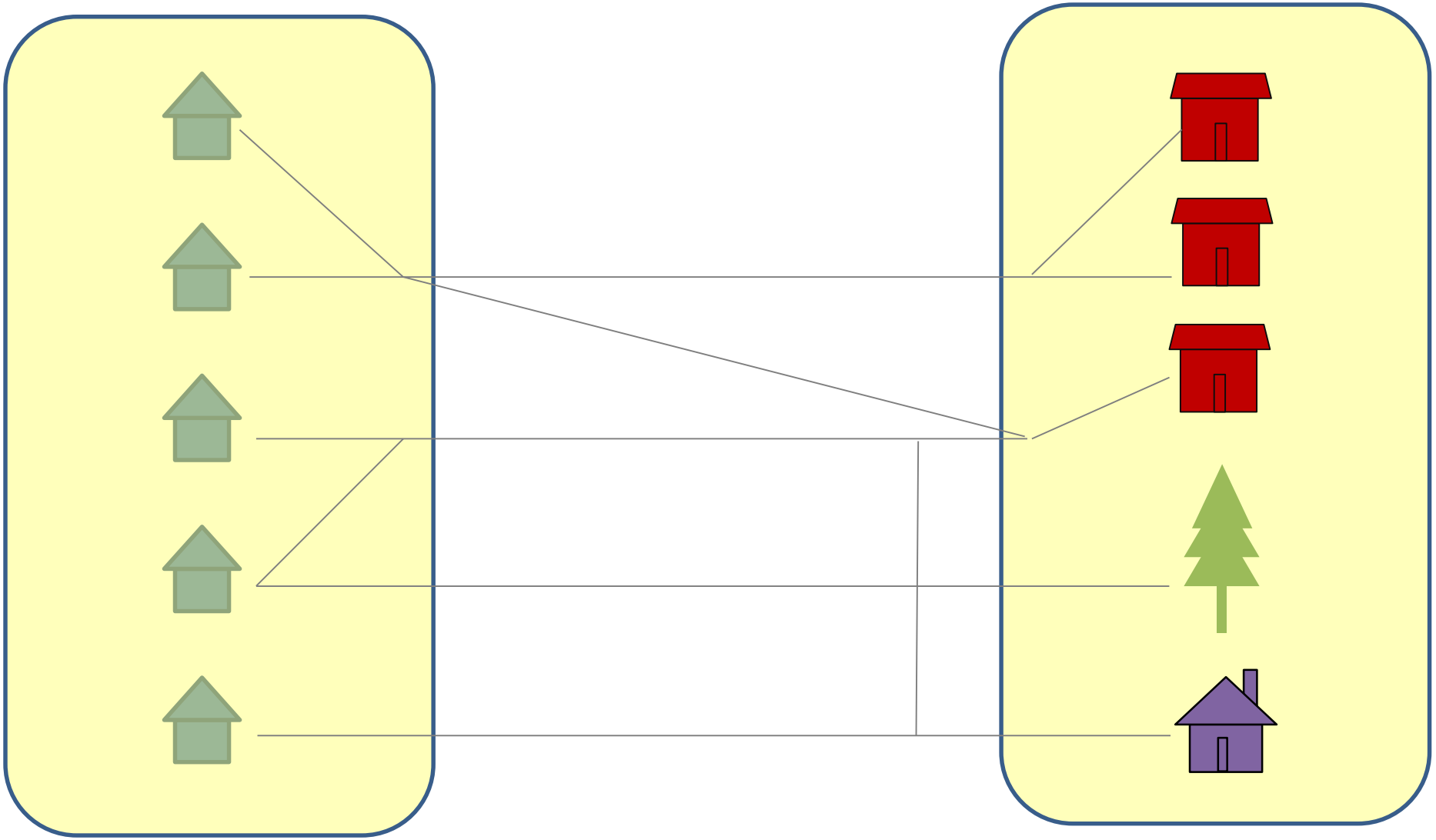
Identify which roadway segments are likely to have **greatest utility for pedestrians and cyclists** traveling to certain local destinations? ("Latent demand")

- Shopping, Services, Restaurants
- Schools
- Open Space

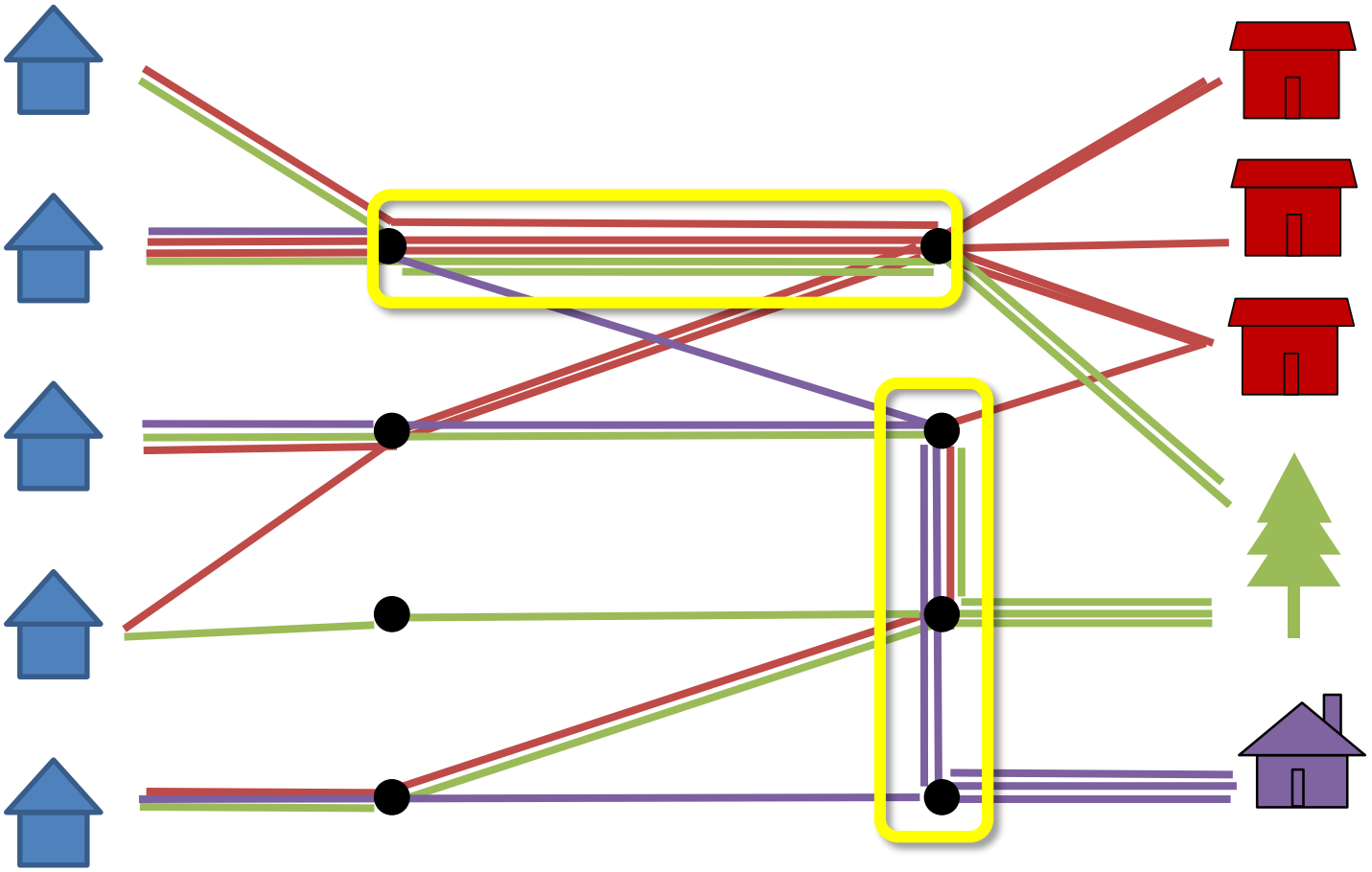
Present information in a way that can inform municipal decisions about capital investments, maintenance, and operations

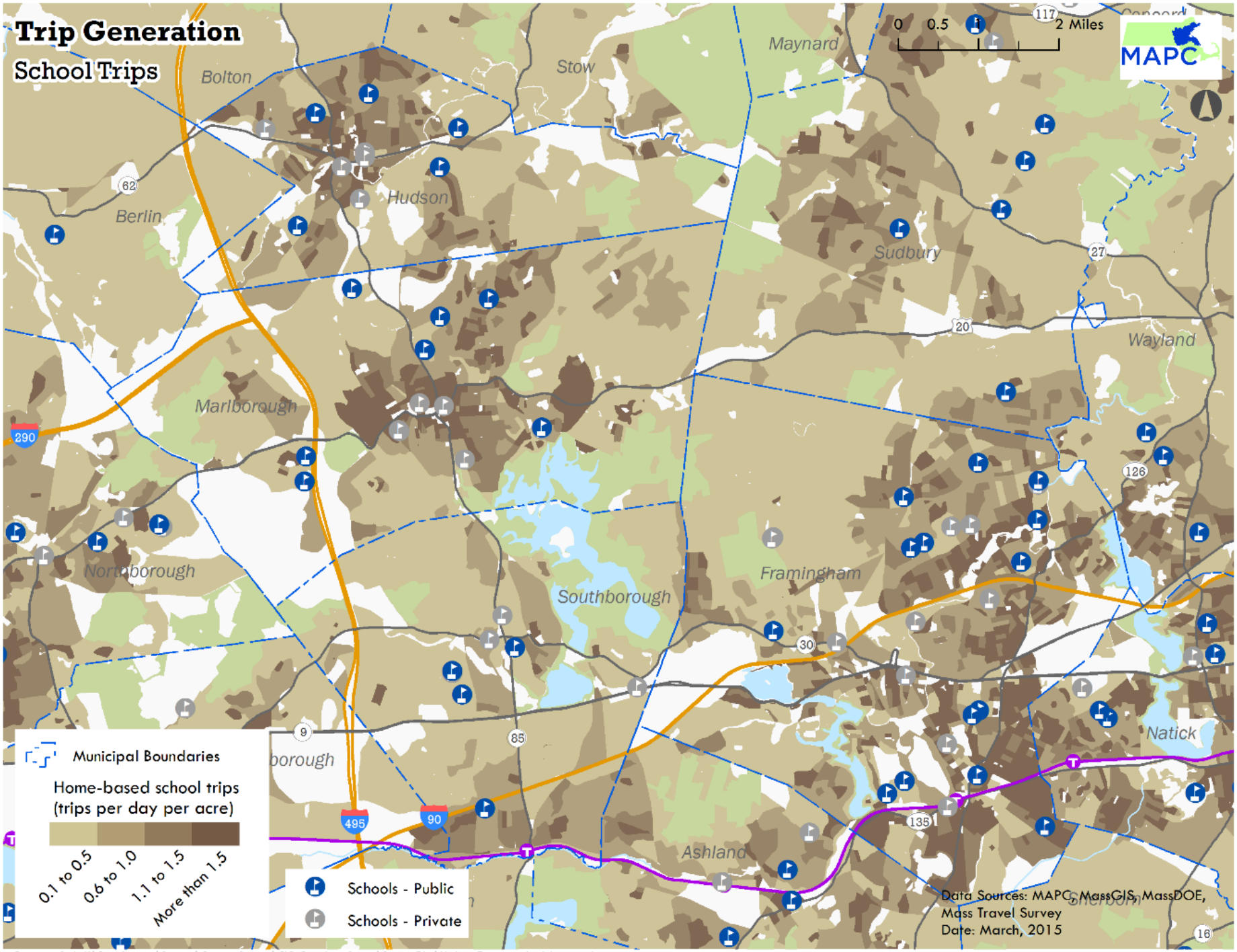
- Sidewalk construction / reconstruction
- ADA compliance efforts
- Bike lanes
- Snow clearance / enforcement

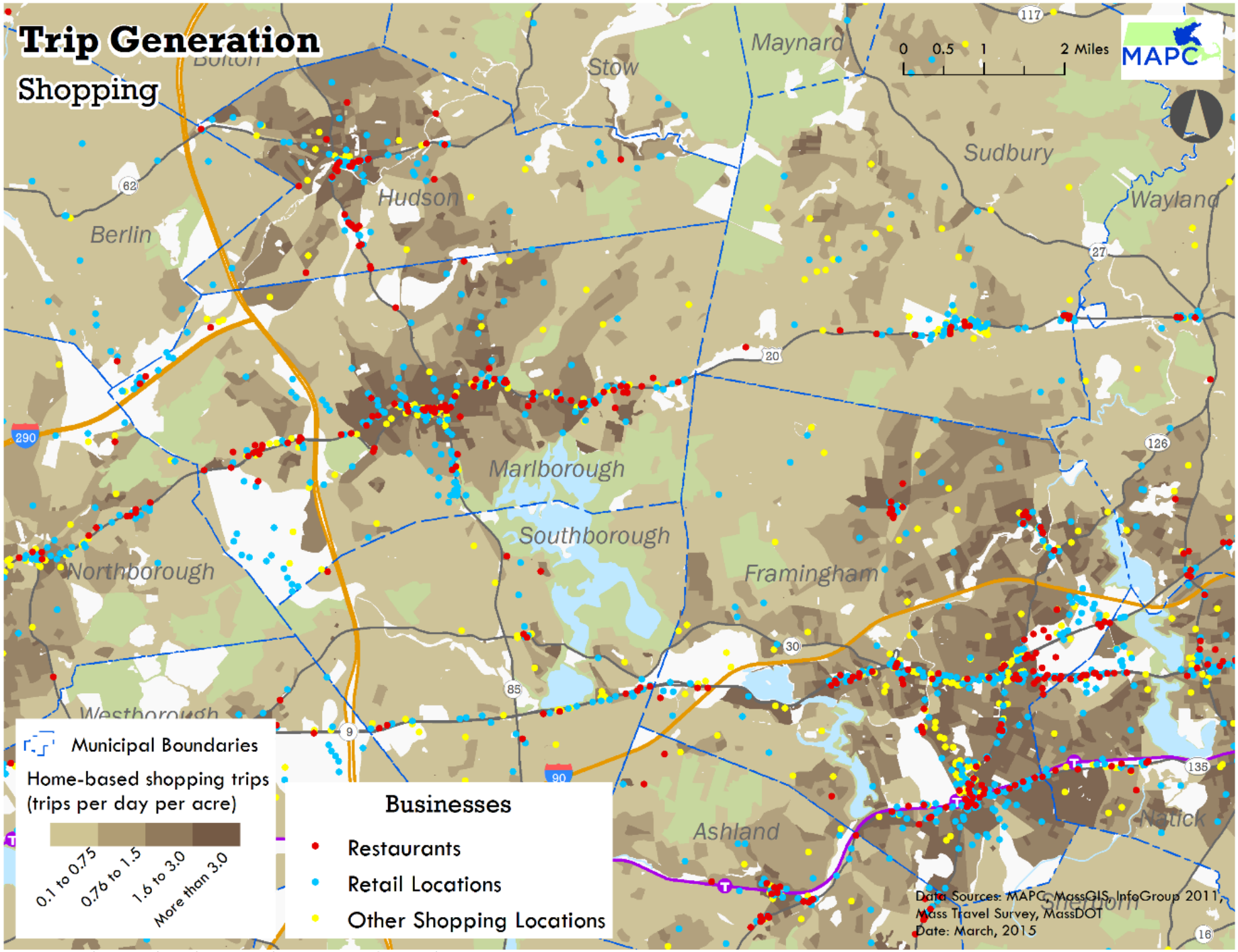
“Proximity-Based” Approach

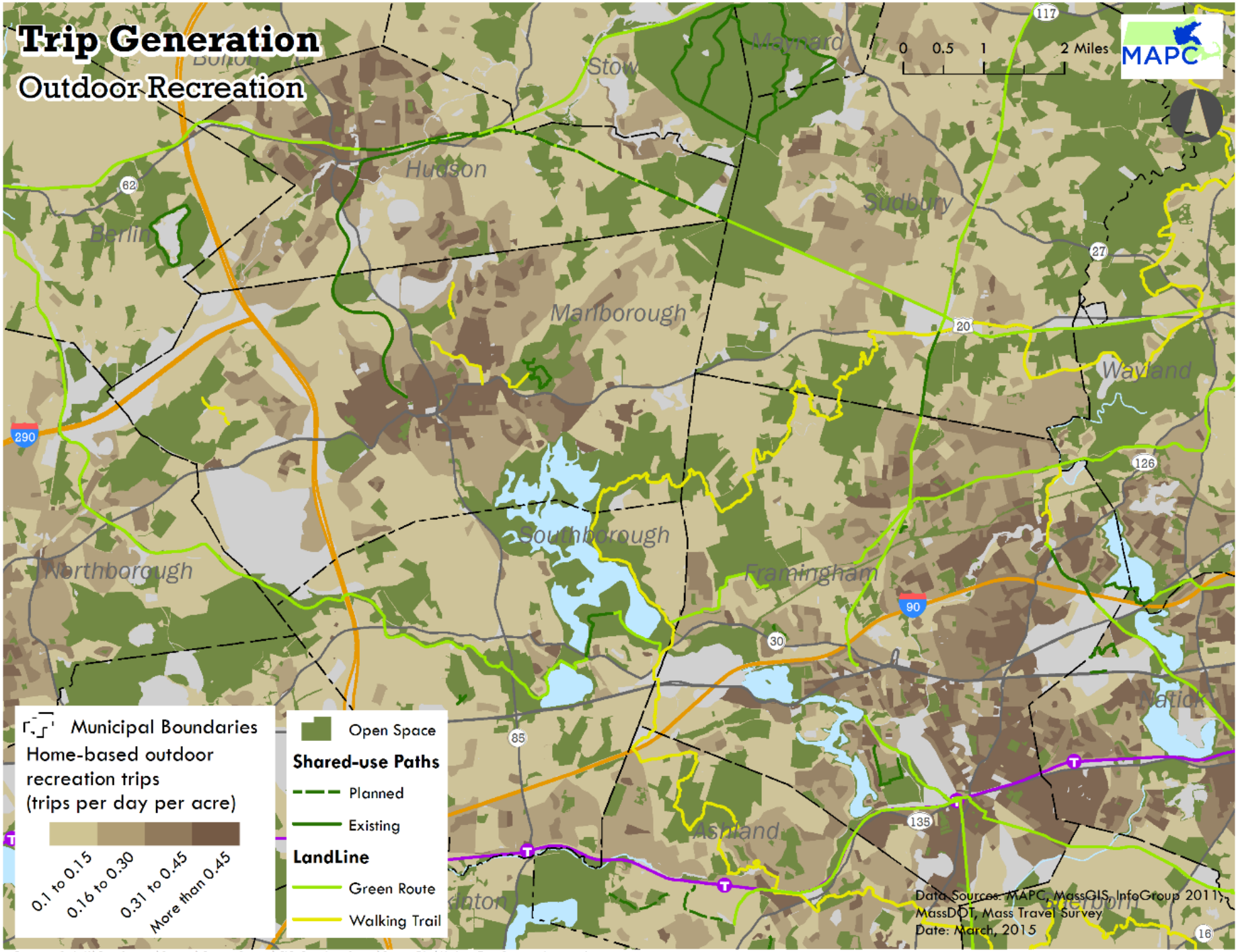


Network Based Approach




Trip Generation
School Trips
0 0.5 1 2 Miles
MAPC
Bolton
Stow
Maynard
Hudson
Berlin
Sudbury
Wayland
Marlborough
Framingham
Southborough
Natick
Ashland
Municipal Boundaries
Home-based school trips
(trips per day per acre)
0.1 to 0.5
0.6 to 1.0
1.1 to 1.5
More than 1.5
Schools - Public
Schools - Private
Data Sources: MAPC, MassGIS, MassDOE,
Mass Travel Survey
Date: March, 2015
Document Path: K:\DataServices\Projects\Current_Projects\CIC_Complete_Streets\Project Files\Hudson_Trip_Att_school_letter.mxd


Trip Generation
Shopping
Maynard
Stow
Sudbury
Wayland
Hudson
Berlin
Marlborough
Southborough
Framingham
Northborough
Ashland
Natick
0 0.5 1 2 Miles
MAPC
Municipal Boundaries
Home-based shopping trips (trips per day per acre)
0.1 to 0.75
0.76 to 1.5
1.6 to 3.0
More than 3.0
Businesses
Restaurants
Retail Locations
Other Shopping Locations
Data Sources: MAPC, MassGIS, InfoGroup 2011, Mass Travel Survey, MassDOT
Date: March, 2015



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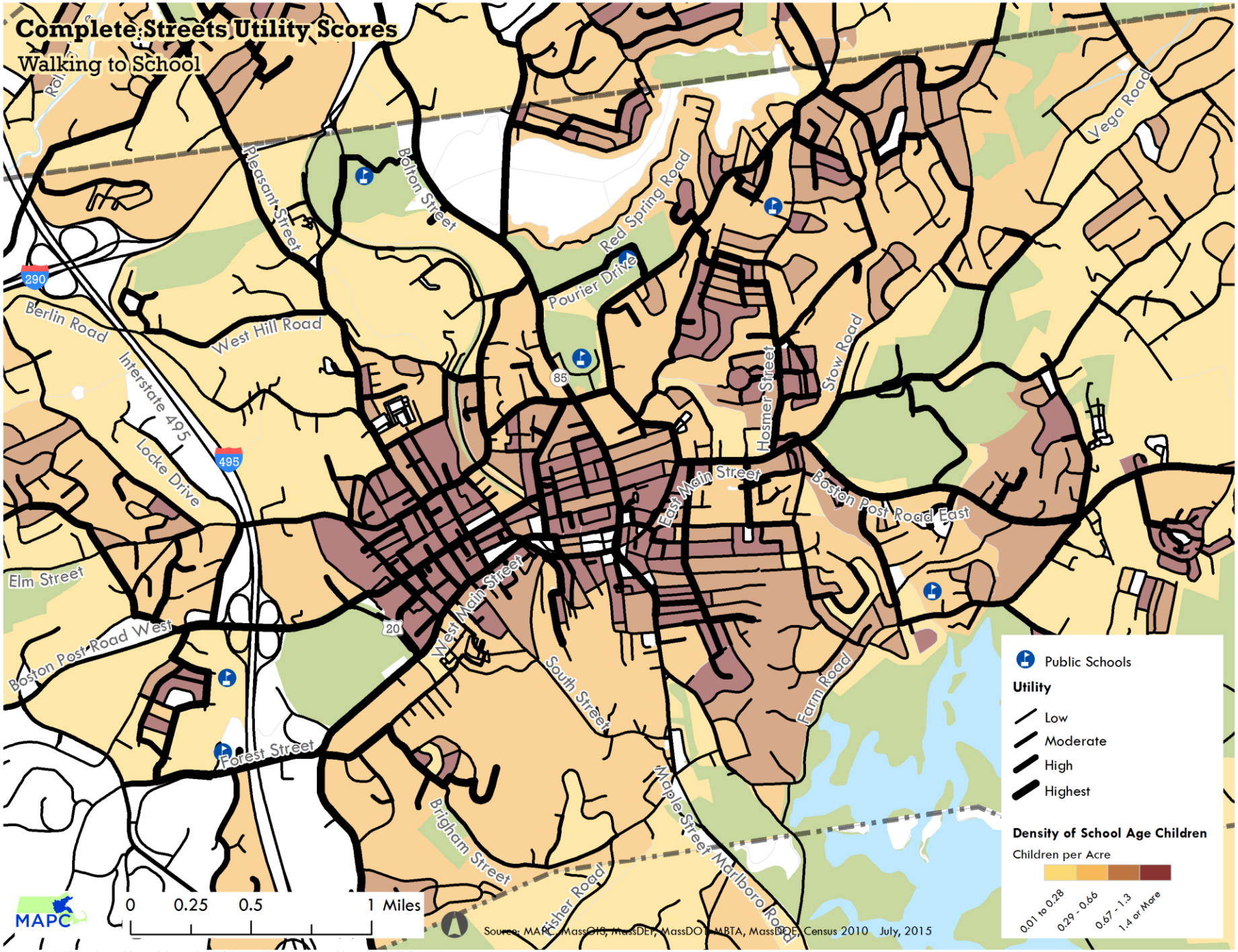
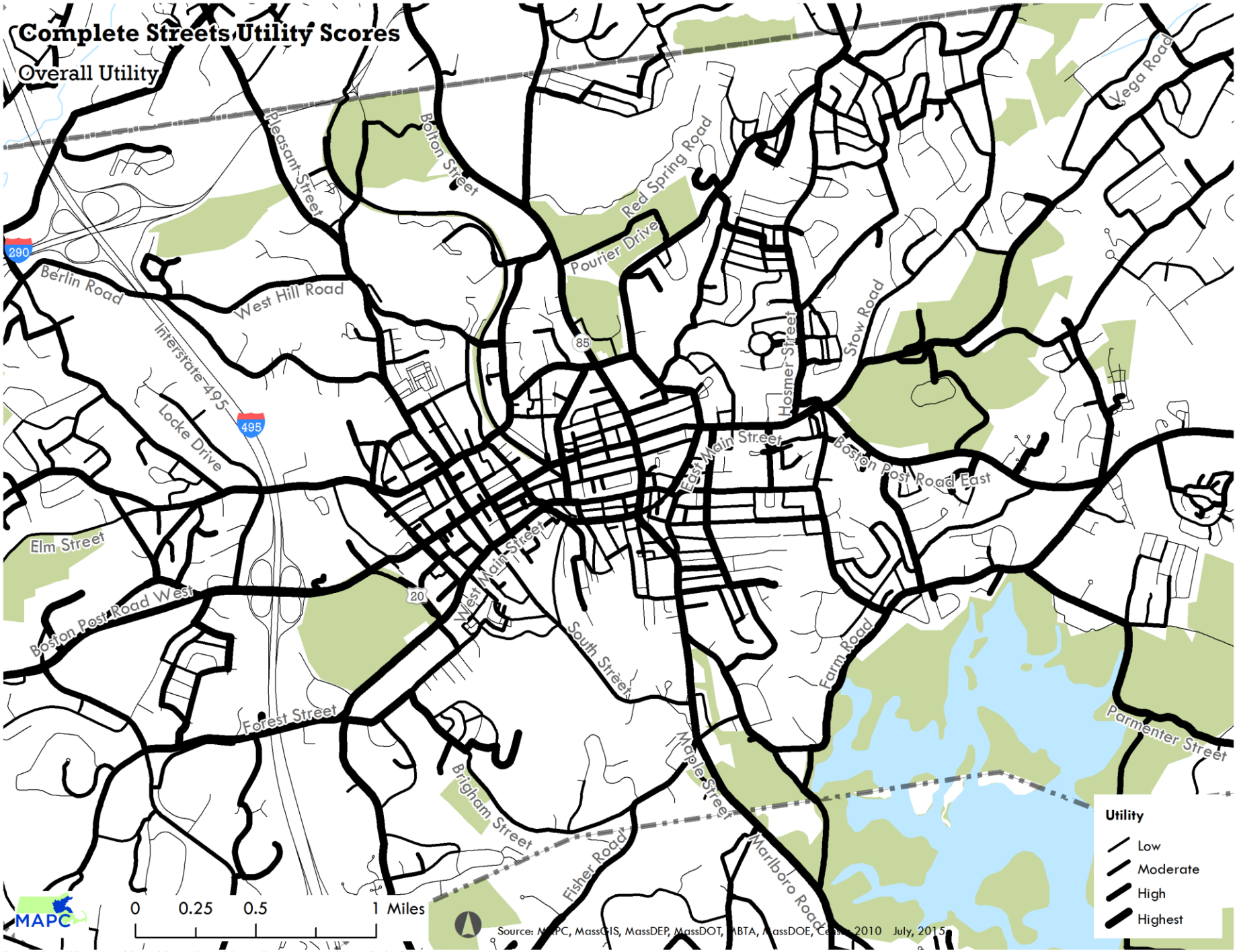
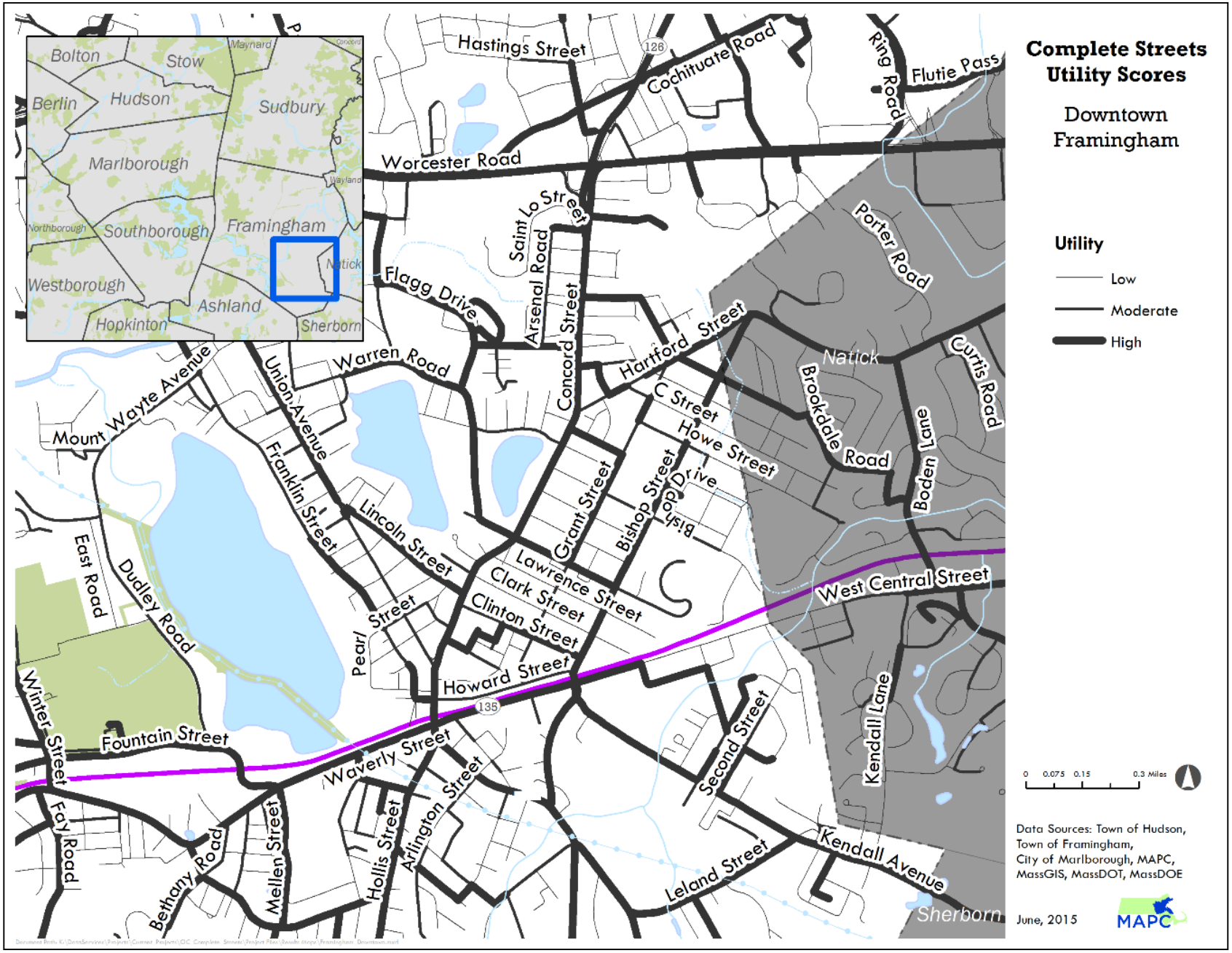
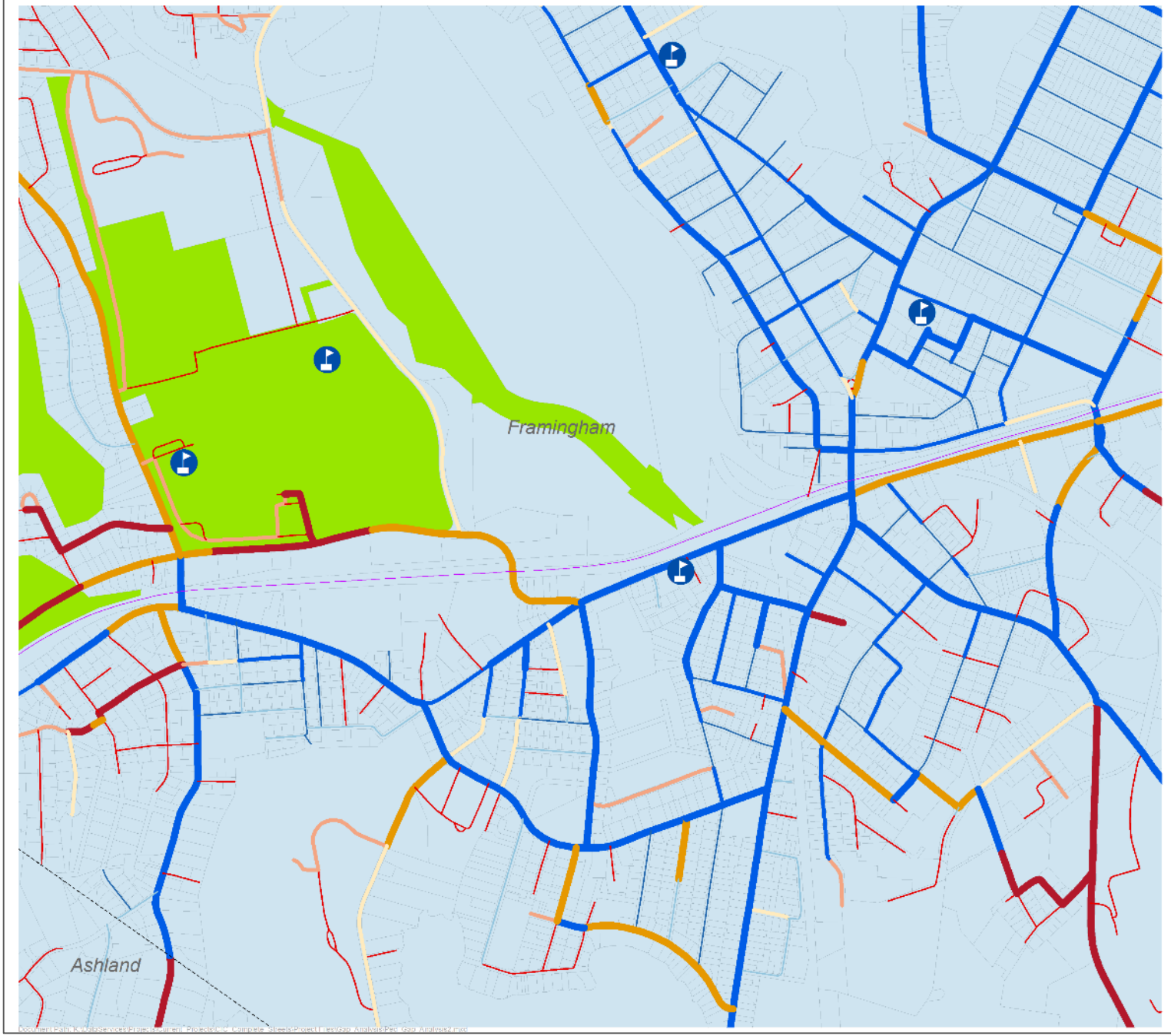

Complete Streets Utility Scores
Walking to School
Pleasant Street
Bolton Street
Red Spring Road
Vega Road
290
Berlin Road
West Hill Road
Pourier Drive
85
Hosmer Street
Stow Road
Interstate 495
Locke Drive
495
East Main Street
Boston Post Road East
Elm Street
West Main Street
20
South Street
Farm Road
Boston Post Road West
Forest Street
Brigham Street
Maple Street
Marlboro Road
Fisher Road
Public Schools
Utility
Low
Moderate
High
Highest
Density of School Age Children
Children per Acre
0.01 to 0.28
0.29 - 0.66
0.67 - 1.3
1.4 or More
MAPC
0
0.25
0.5
1 Miles
Source: MAPC, MassGIS, MassDEP, MassDOT, MBTA, MassDOE, Census 2010 July, 2015
Document Path: K:\DataServices\Projects\Current_Projects\Quincy_Climate_Adaptation\Project Files\MIT_Talk.mxd


Complete Streets Utility Scores
Overall Utility
Pleasant Street
Bolton Street
Red Spring Road
Vega Road
290
Berlin Road
West Hill Road
Pourier Drive
Interstate-495
85
Hosmer Street
Stow Road
Locke Drive
495
East Main Street
Boston Post Road East
Elm Street
West Main Street
20
Boston Post Road West
South Street
Farm Road
Forest Street
Parmenter Street
Brigham Street
Maple Street
Fisher Road
Marlboro Road
Utility
Low
Moderate
High
Highest
MAPC
0
0.25
0.5
1 Miles
Source: MAPC, MassGIS, MassDEP, MassDOT, MBTA, MassDOE, Census 2010 July, 2015
Document Path: K:\DataServices\Projects\Current_Projects\Quincy_Climate_Adaptation\Project Files\MIT_Talk_totalscore.mxd


Complete Streets
Utility Scores
Downtown
Framingham
Utility
Low
Moderate
High
Bolton
Stow
Berlin
Hudson
Sudbury
Marlborough
Northborough
Southborough
Framingham
Natick
Westborough
Ashland
Hopkinton
Sherborn
Hastings Street
Cochituate Road
Ring Road
Flutie Pass
Worcester Road
Saint Lo Street
Arsenal Road
Concord Street
Flagg Drive
Porter Road
Hartford Street
Natick
Curtis Road
Brookdale Road
Boden Lane
C Street
Howe Street
Bishop Street
Top Drive
Grant Street
Warren Road
Union Avenue
Mount Wayte Avenue
Franklin Street
Lincoln Street
Lawrence Street
Clark Street
Clinton Street
Howard Street
West Central Street
East Road
Dudley Road
Pearl Street
Winter Street
Fountain Street
Waverly Street
Arlington Street
Hollis Street
Mellen Street
Bethany Road
Fay Road
Second Street
Kendall Lane
Kendall Avenue
Leland Street
Sherborn
0 0.075 0.15 0.3 Miles
Data Sources: Town of Hudson,
Town of Framingham,
City of Marlborough, MAPC,
MassGIS, MassDOT, MassDOE
June, 2015
MAPC



Complete Streets Utility Scores

Sidewalk Gap Analysis

Schools_2015

Ped_Rank, Sidewalk

- High, 0
- High, 1
- High, 2
- Medium, 0
- Medium, 1
- Medium, 2
- Low, 0
- Low, 1
- Low, 2

0 0.05 0.1 0.2 Miles

MAPC

Complete Streets Utility Scores

Sidewalk Gap Analysis

Ped_Rank, Sidewalk

- High, 0
- High, 1
- High, 2
- Medium, 0
- Medium, 1
- Medium, 2
- Low, 0
- Low, 1
- Low, 2

0 0.005 0.01 0.02 Miles

The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.

Produced by
Metropolitan Area Planning Council
60 Temple Place, Boston, MA 02111 | (617) 933-0700

Data Sources
Metropolitan Area Planning Council (MAPC)
Massachusetts Geographic Information System (MassGIS)
Massachusetts Department of Transportation (MassDOT)

January 2016

MAPC

Desire Lines:
the best indicator of
sidewalk need

Next Steps / Future Improvements

Add more trip types/destinations

- Transit
- Workplaces

Learn more about potential municipal applications

Move toward fully automated online tool with functionality for local officials to modify inputs and tailor to local conditions.

Thank You!

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