

# Mount Auburn Street Project Update

## Town of Watertown

Thursday, May 14, 2015



## *HISTORY*

- Reconstructed by MassHighway in 1980s
- Four lanes, no turn lanes except at Arlington Street
- Designed mainly to process cars through signals



## *HISTORY*

- **2009 – Investigated improvements in Coolidge Square**
- **2010 – Feasibility Study for Road Diet**
- **March 2011 – Public Works Subcommittee Meeting**
- **February 2012 – Functional Design Report**
- **June/July 2013 – Project Updates**
  
- **April 2014 – Project Initiated by MassDOT - \$12.2 million**
- **November 2014 – Topographic Survey Completed**
- **January 2015 – Project Update to Public Works Subcommittee**



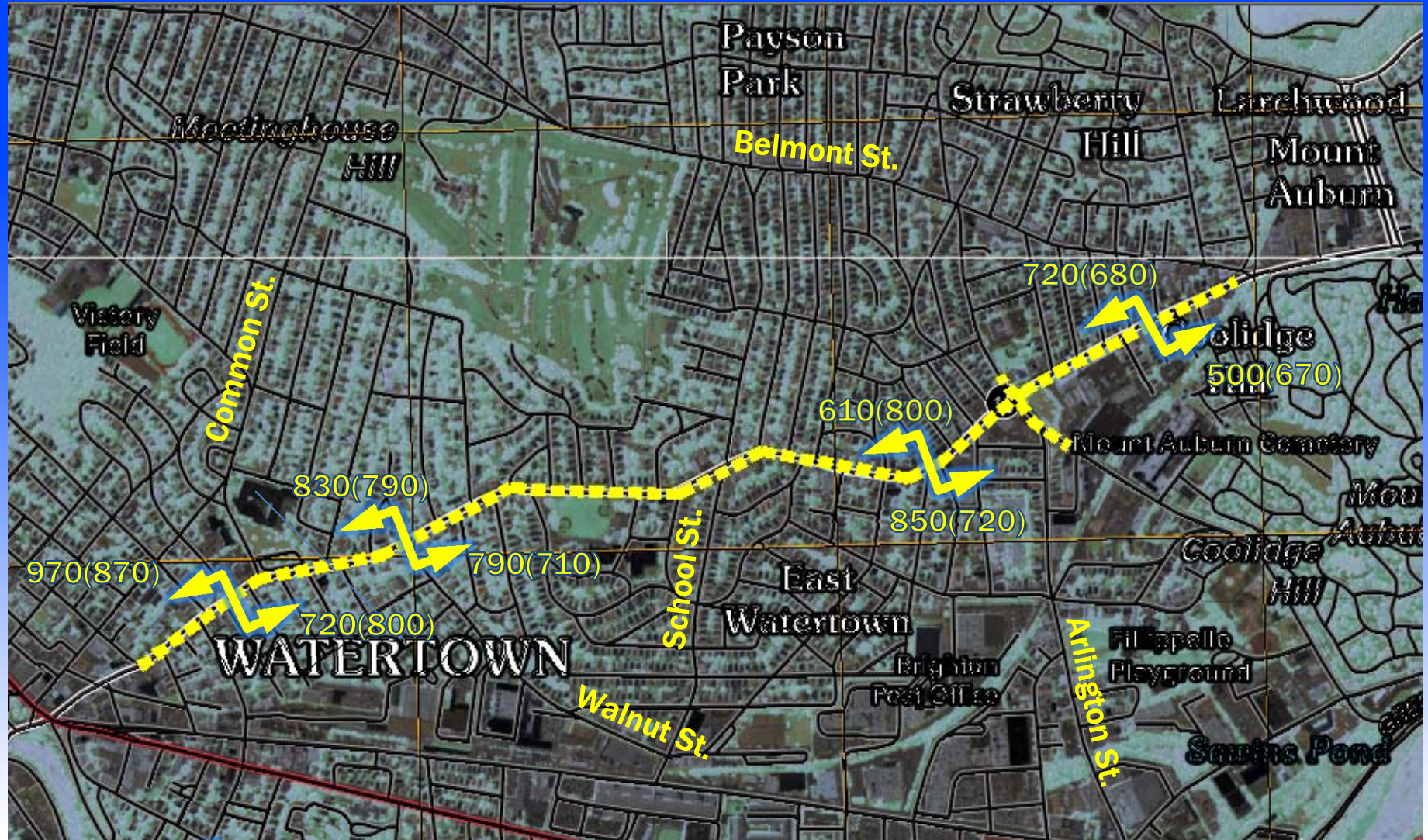
# DATA COLLECTION



2010 two-way average daily traffic (ADT) volumes



# DATA COLLECTION

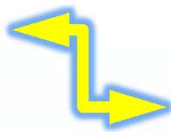
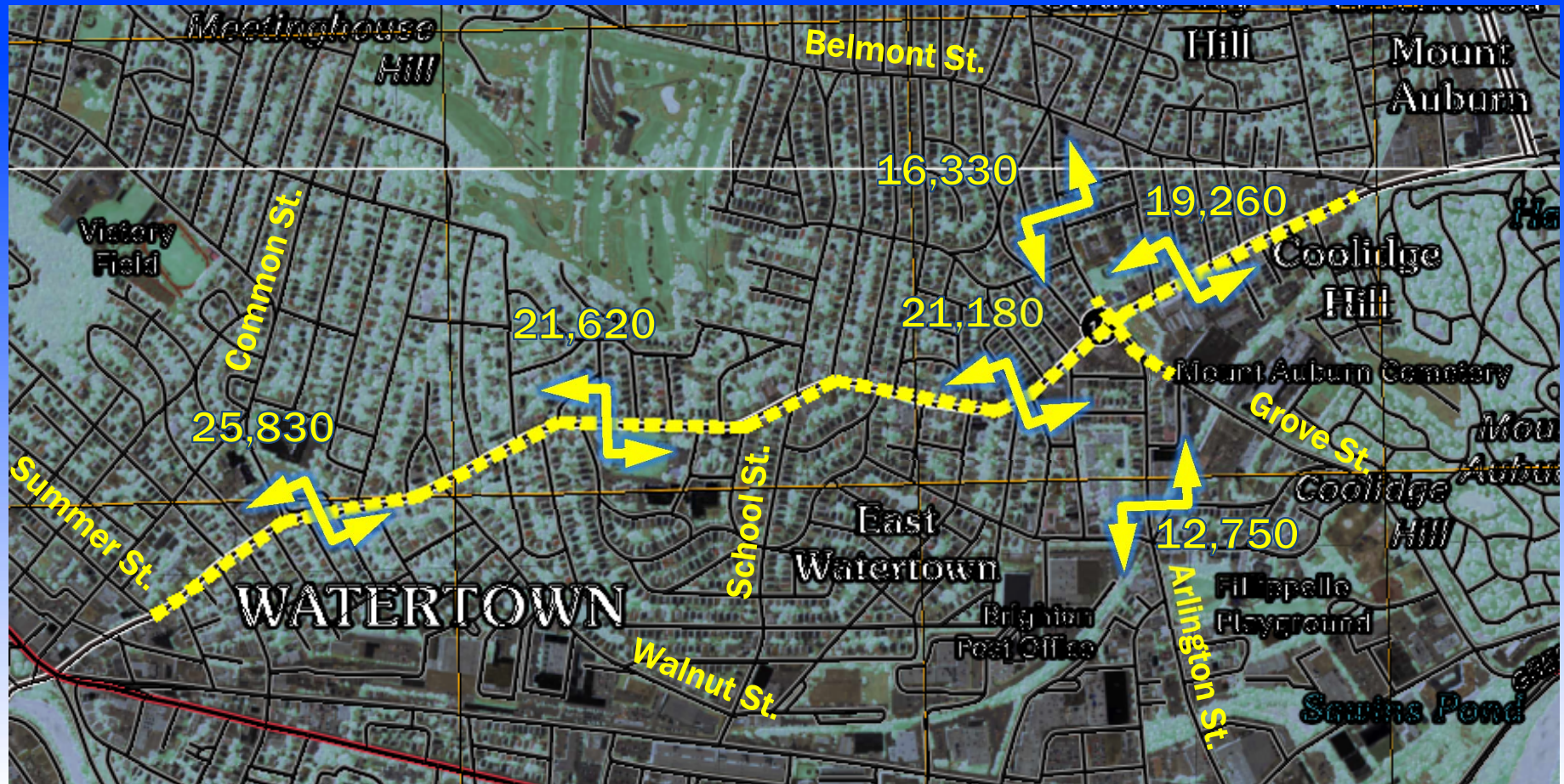


2010 AM(PM) peak hour traffic volumes



# GOALS

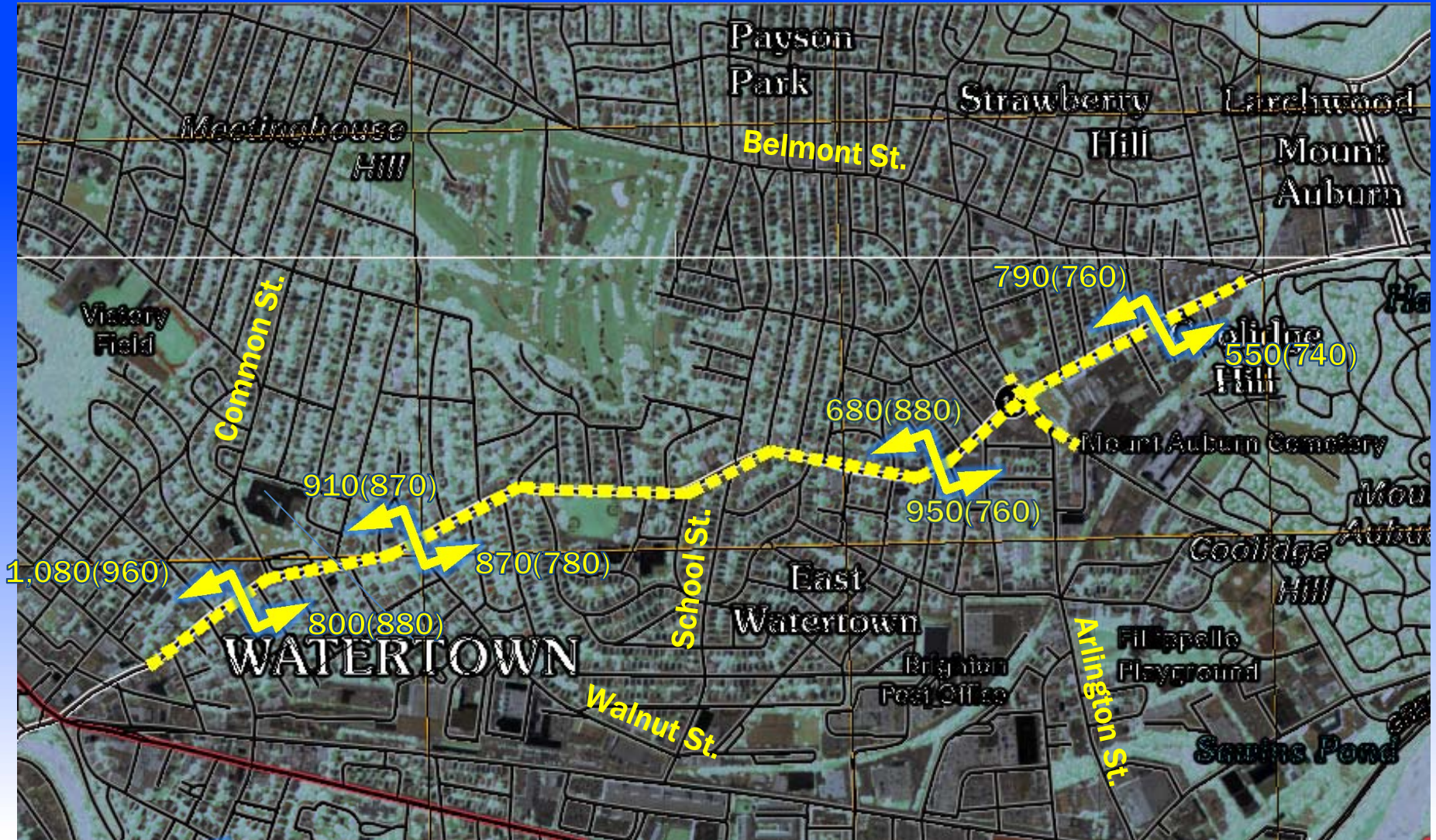
## Accommodate Traffic



Design Year 2030 two-way average daily traffic (ADT) volumes



# DESIGN YEAR TRAFFIC



2030 AM(PM) peak hour traffic volumes

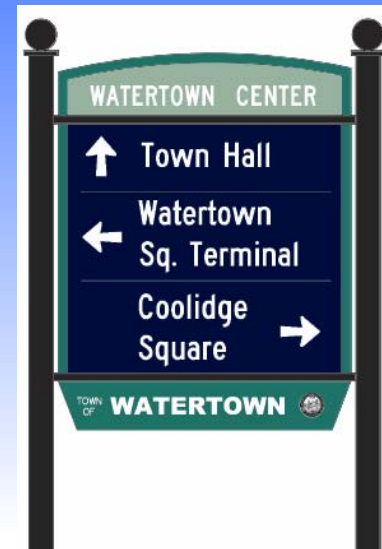


# GOALS

## Perception & Context

“Town Street” instead of “State Highway”

- Welcoming and Wayfinding Signage
- Identify Coolidge Square as a Business District





# GOALS

## Traffic Calming

Keep vehicle speeds appropriate to context while accommodating traffic so it doesn't divert to side streets

- Narrower roadway/Road Diet
- Bump-outs
- Radar signage



# GOALS

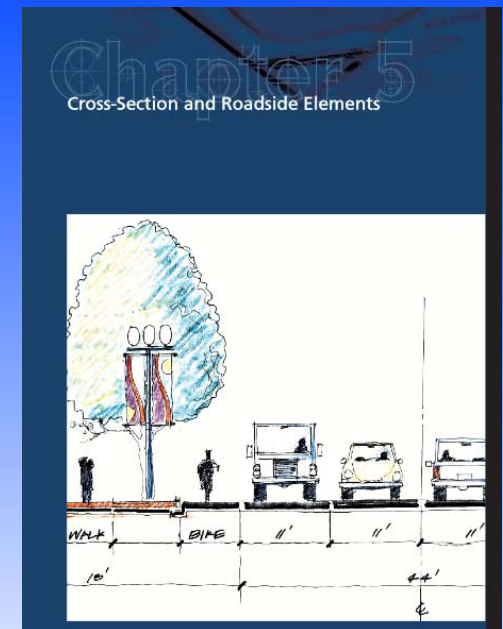
## Complete Streets

### MassDOT Project Development & Design Guide

“The careful selection of roadway cross-section elements...is needed to achieve a context-sensitive design that **accommodates all users safely**...The goals of selecting an appropriate roadway cross-section and the design of roadside elements are [to] develop a transportation infrastructure that provides **access for all**, a real **choice of modes**, and **safety in equal measure** for each mode of travel.



- Promote healthy transportation & livable communities
- Triple bicycling, transit, and walking mode share
- Use CMAQ funds to expand bicycle facilities



# *GOALS*

## Stormwater Management

- Improved drainage
- Reduction in paved area
- Reduction in concentrated run-off



# *ROAD DIET*

Reduction in the number of through roadway lanes



To provide space for all users.



# *ROAD DIET*

## Why a road diet?

Accommodate all roadway users:  
Vehicles, Bicycles, Pedestrians, Transit

Improve traffic operations

Improve safety

Add traffic calming, green space

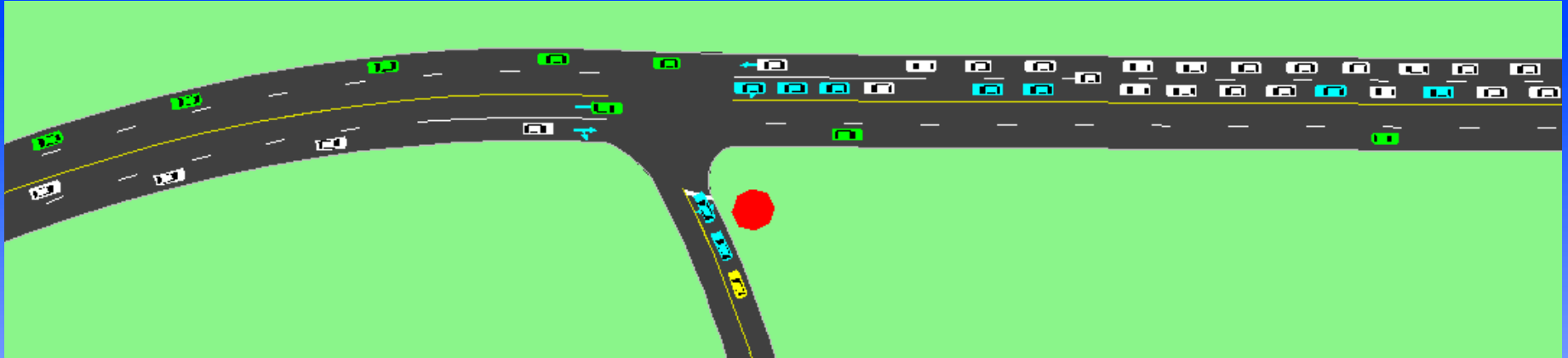
Reduce stormwater runoff

**Achieve Complete Streets objectives**



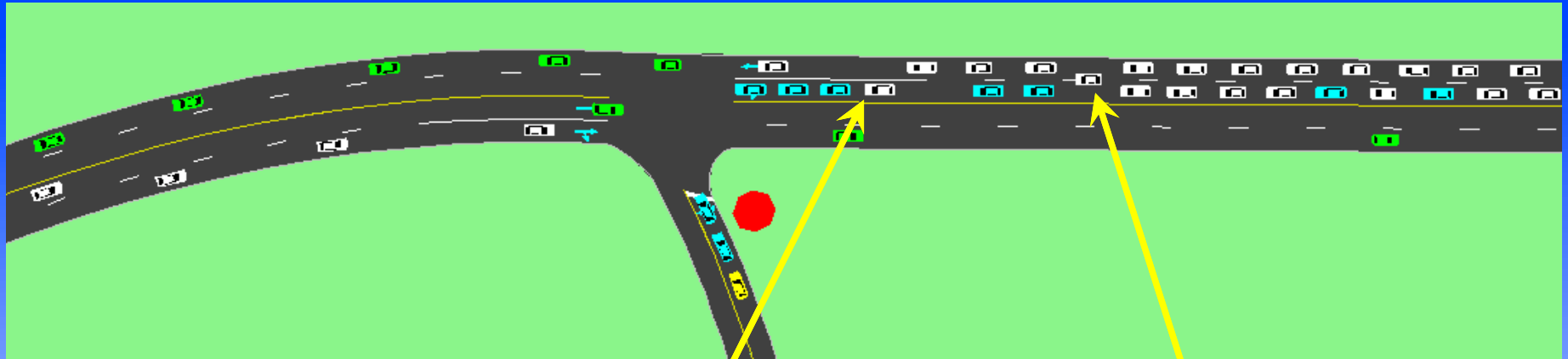
# *ROAD DIET*

Shouldn't fewer lanes mean less capacity?



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Shouldn't fewer lanes mean less capacity?



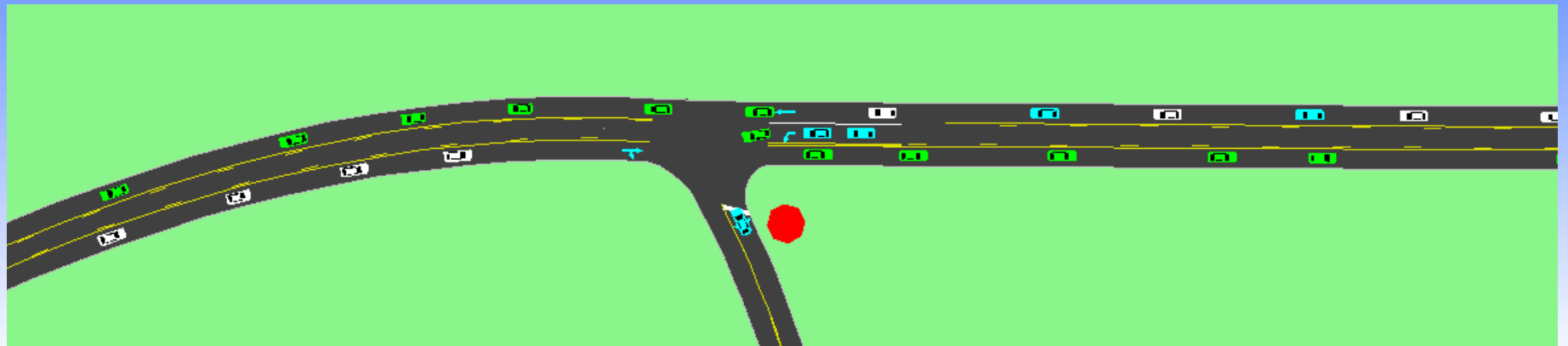
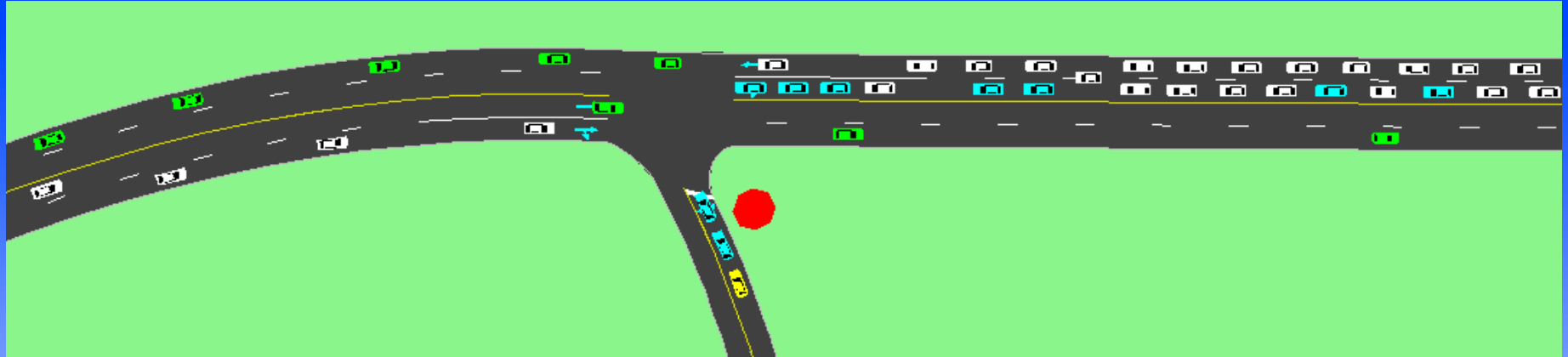
Turning vehicles block left lane

Lane-changers interrupt right lane flow



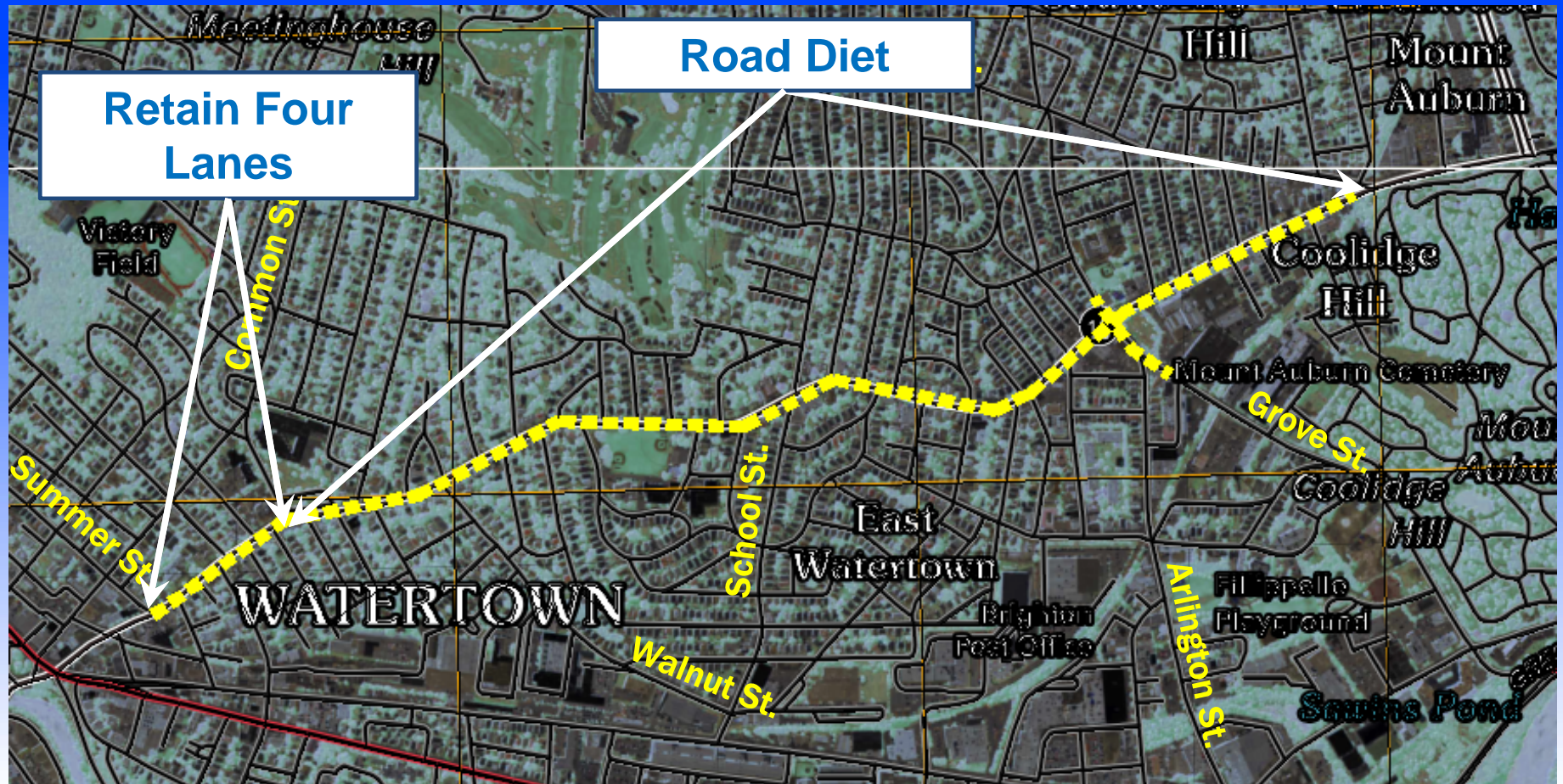
# *ROAD DIET*

Shouldn't fewer lanes mean less capacity?





# CONCEPTS



# *RAISED MEDIAN CONCEPT*



- Inconvenient for minor streets/ driveways and emergency access



# *TWO WAY LEFT TURN LANE*



➤ Closely spaced streets and driveways pose potential conflicts



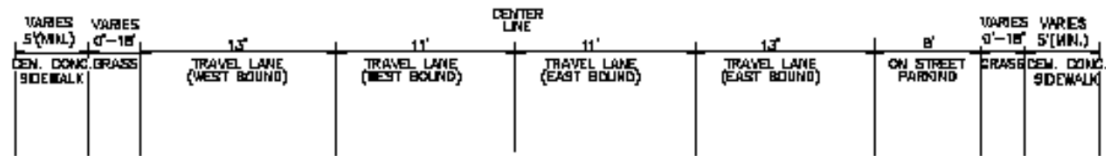
# *SINGLE THROUGH LANE CONCEPT*



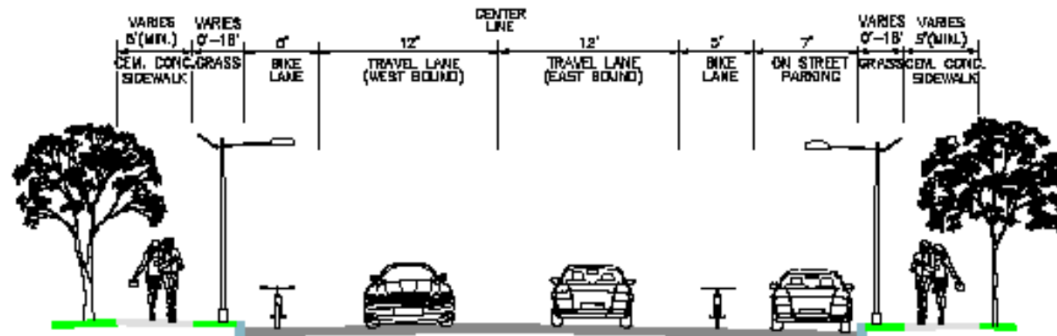
➤ Most flexible for turning movements, bike lane placement



# TYPICAL SECTION



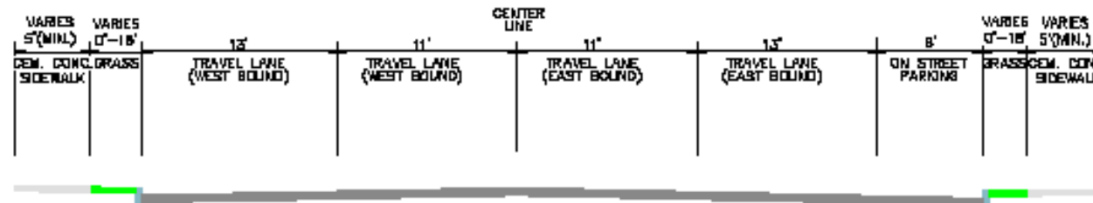
EXISTING ROADWAY SECTION  
SCALE: N.T.S



SINGLE THROUGH LANE ALTERNATIVE  
SCALE: N.T.S

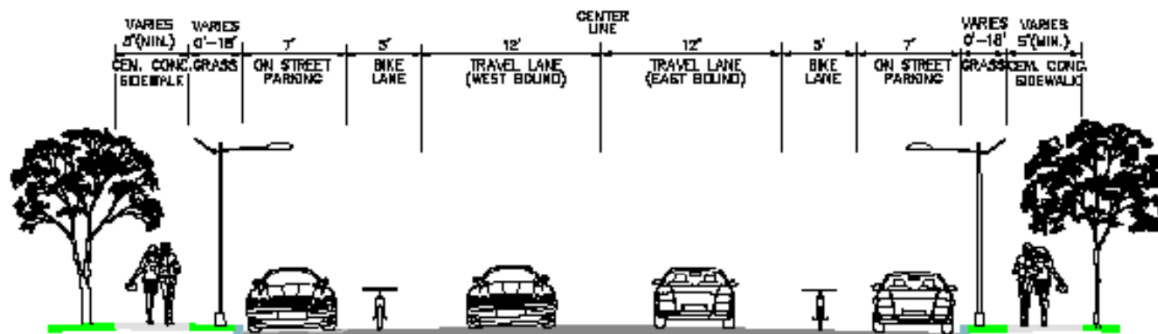


# TYPICAL SECTION



EXISTING ROADWAY SECTION

SCALE: N.T.S



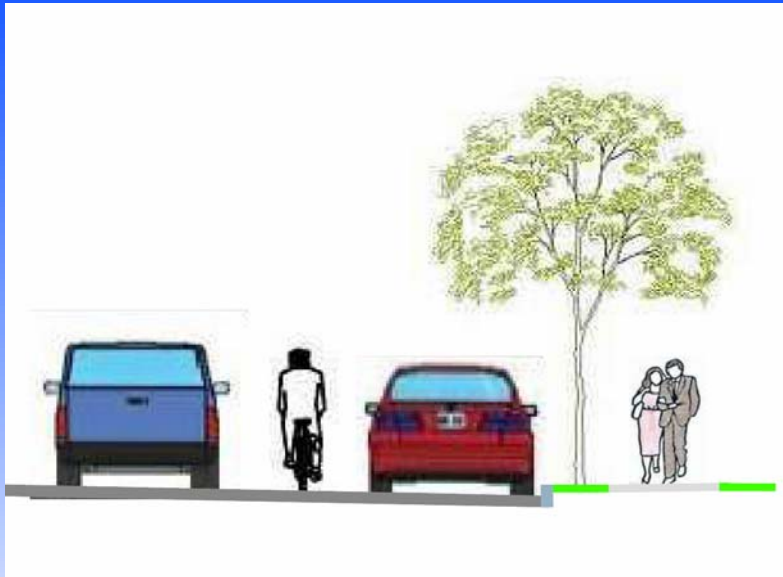
SINGLE THROUGH LANE ALTERNATIVE

SCALE: N.T.S



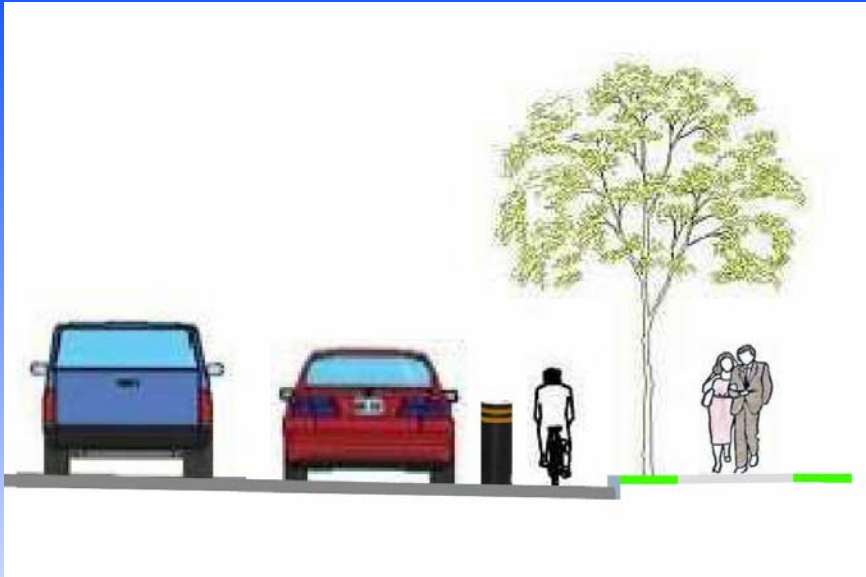
# *SINGLE THROUGH LANE CONCEPT*

## *Conventional Bike Lanes*



# *SINGLE THROUGH LANE CONCEPT*

## *At-Grade Cycle Track*

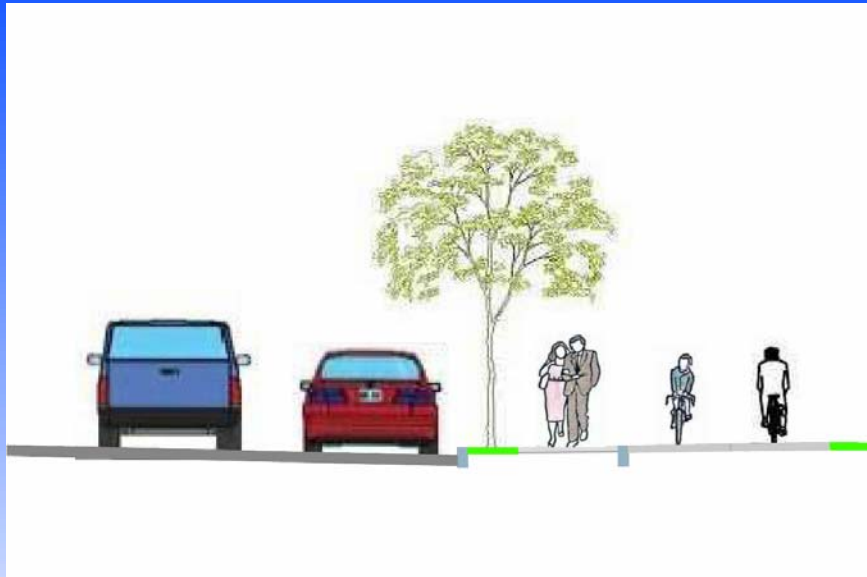




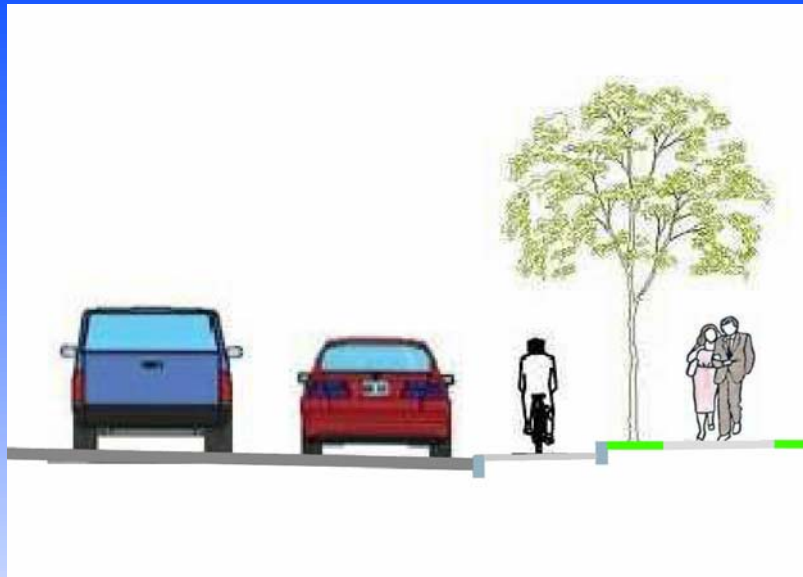
# *SINGLE THROUGH LANE CONCEPT*

## *Raised Cycle Track*

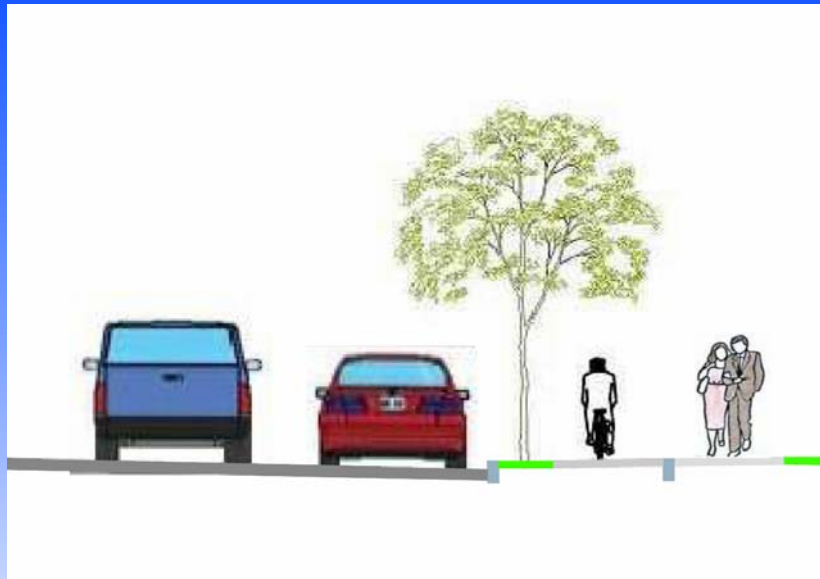
### *(Two-Way)*



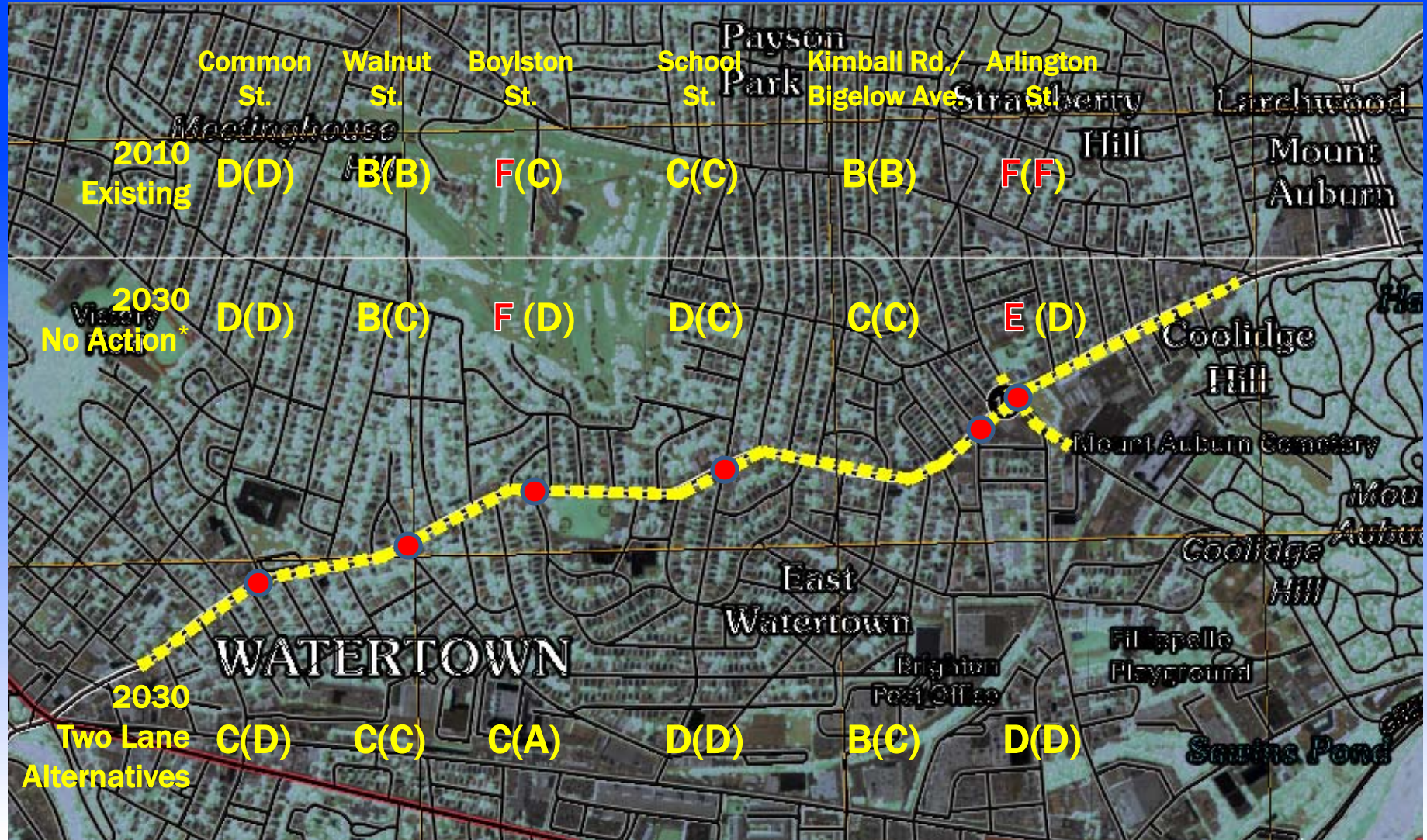
*SINGLE THROUGH LANE CONCEPT*  
*Raised Cycle Track*  
*(One-Way, below sidewalk)*



*SINGLE THROUGH LANE CONCEPT*  
*Raised Cycle Track*  
*(One-Way, at grade with sidewalk)*



# TRAFFIC OPERATIONS



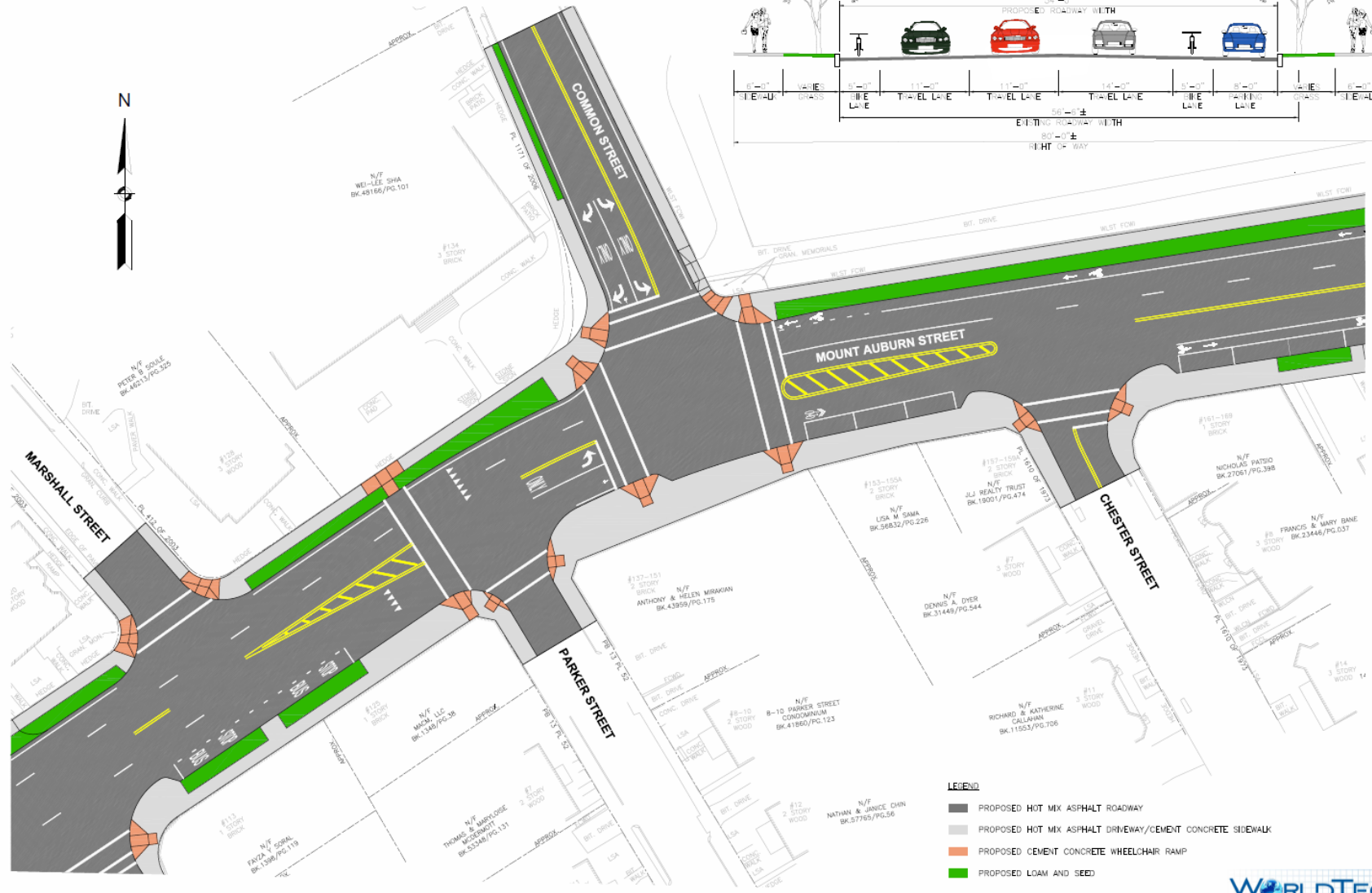
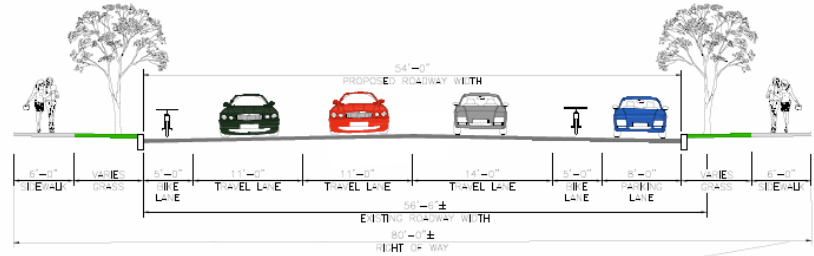
AM(PM) peak hour Level of Service

\* Assumes optimized signal timing in the future



# COMMON STREET INTERSECTION

WATERTOWN, MA.  
MOUNT AUBURN STREET AT COMMON STREET

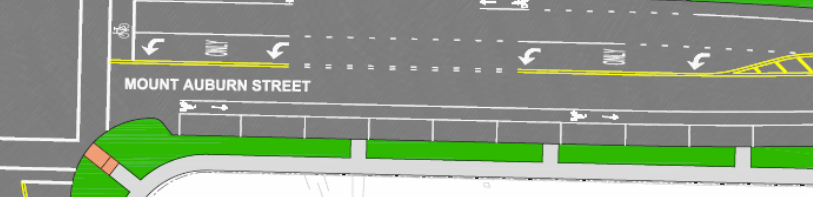
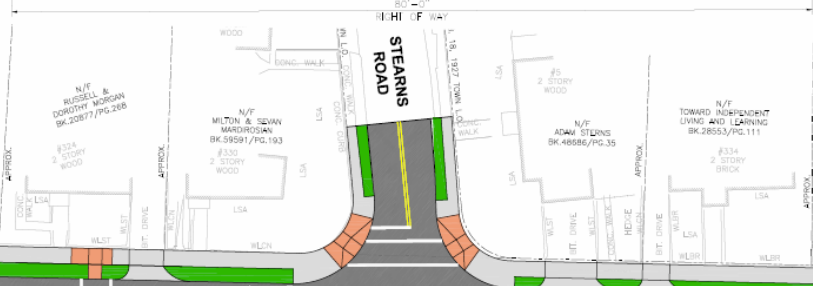
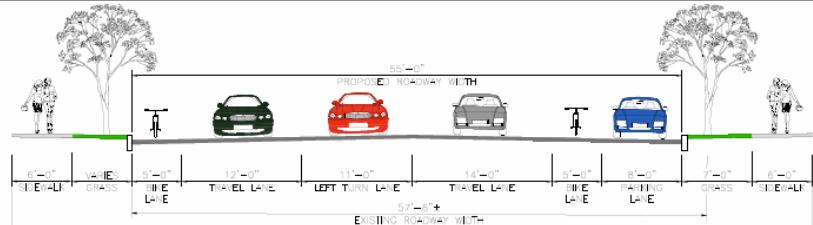


0 20 50 100  
SCALE: 1" = 20'



# BOYLSTON STREET (West) INTERSECTION

WATERTOWN, MA.  
MOUNT AUBURN STREET AT BOYLSTON STREET



- LEGEND**
- PROPOSED HOT MIX ASPHALT ROADWAY
  - PROPOSED HOT MIX ASPHALT DRIVEWAY/CEMENT CONCRETE SIDEWALK
  - PROPOSED CEMENT CONCRETE WHEELCHAIR RAMP
  - PROPOSED LOAM AND SEED

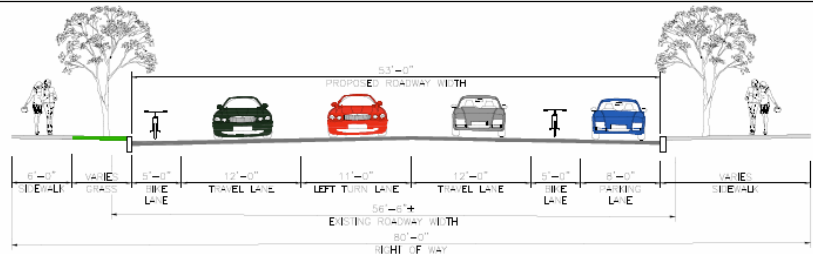


0 20 50 100  
SCALE: 1" = 20'



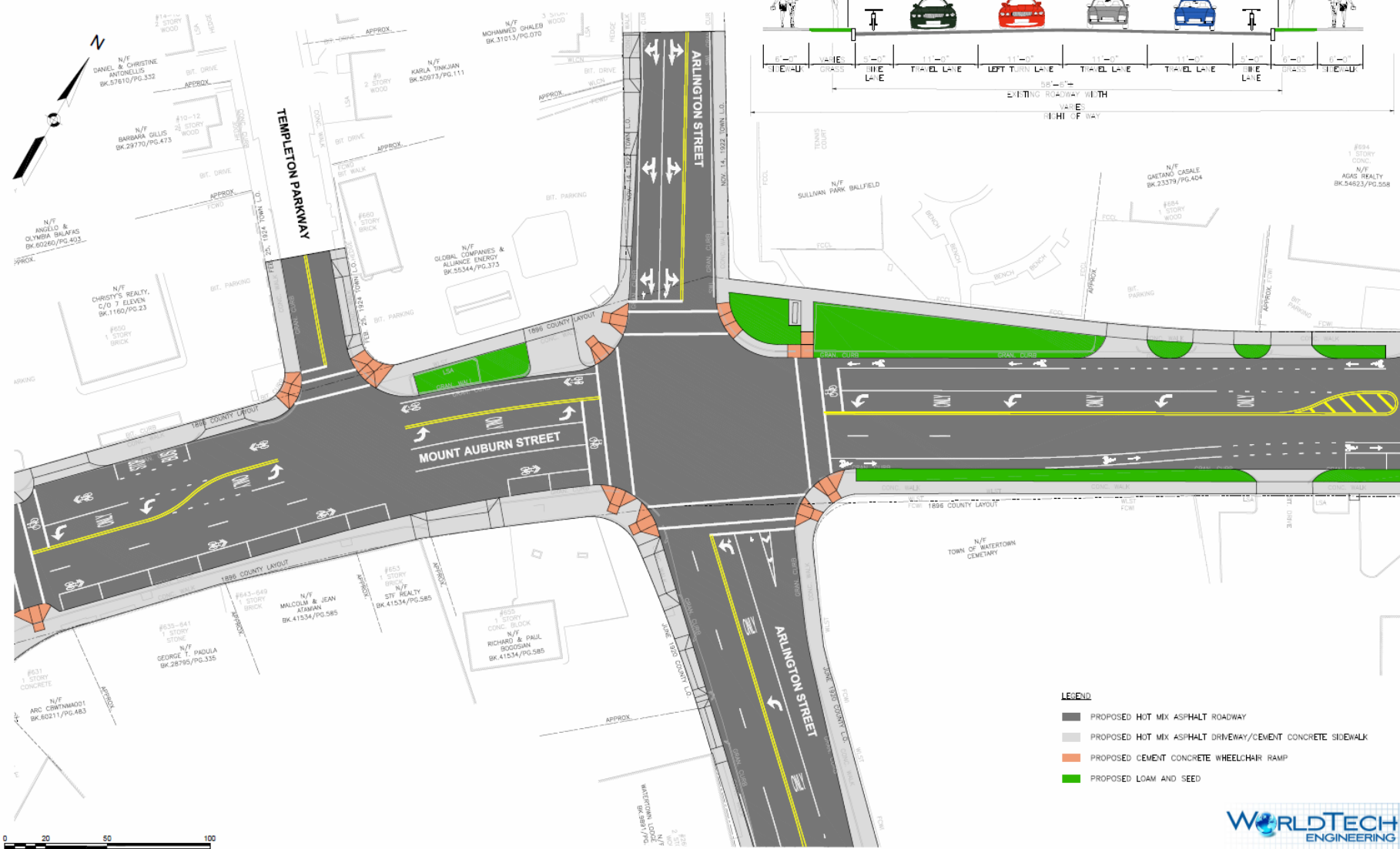
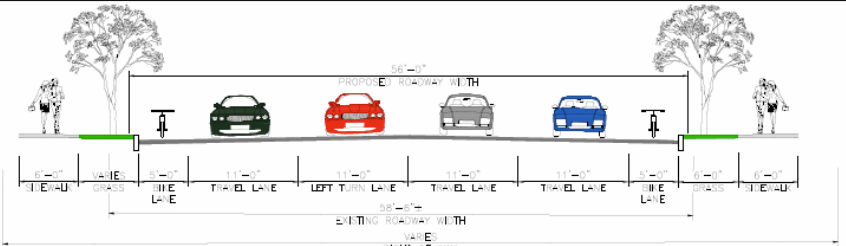
# COOLIDGE SQUARE

## WATERTOWN, MA. MOUNT AUBURN STREET AT COOLIDGE SQUARE

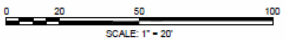


# COOLIDGE SQUARE

## WATERTOWN, MA. MOUNT AUBURN STREET AT ARLINGTON STREET



- LEGEND**
- PROPOSED HOT MIX ASPHALT ROADWAY
  - PROPOSED HOT MIX ASPHALT DRIVEWAY/CEMENT CONCRETE SIDEWALK
  - PROPOSED CEMENT CONCRETE WHEELCHAIR RAMP
  - PROPOSED LOAM AND SEED





# ***NEXT STEPS***

## ***Current Phase***

- **Public Workshops – Working Sessions**
- **Road Safety Audit**
- **Preliminary (25%) Engineered Design**
- **Utility Coordination**

## ***Next Phase***

- **Construction Funding through TIP**
- **Final Design (75%/100%) and Bid Documents**
- **Project Award and Construction**



Questions?

