



**Town of Princeton
Central Massachusetts Regional Planning Commission**

**Route 140 Safety Improvement
Planning Information Meeting**
Thursday – June 18, 2009 – 7:00 PM

Thomas Prince School
170 Sterling Road, Princeton

AGENDA

1. Call to Order & Introduction
2. Why are we here tonight?
3. What is a "Charrette"?
4. "Corridor Profile" Outline
5. Discussion: Questions, Comments, Suggestions
6. Adjournment

Why are we here tonight?

Community Leadership: *Dennis Rindone*

Legislative Leadership

Establish Safety Improvement Task Force

- Professional Staff: *CMRPC, MRPC & MassHighway*
- Metropolitan Planning Organization: *Planning Project Selection*
- Task Force Meetings: *September 2008, October 2008, January 2009, March 2009, May 2009, September 2009...*
- Public Information Sessions: *June 2009*
- Community Websites: *Ongoing*
- Walkable Communities Presentation: *September*

“Corridor Profile” document with Technical Appendix

- Suggested Improvement Options for Host Communities: *Early 2010*
- Task Force Public Outreach

Next Steps

- Determine Project Priority
- Pursue Project Funding, Design, Environmental, Right-of-Way, Easements
- Award Construction Contract through Competitive Bid Process

What is a “Charrette”?

A charrette is a period of intense consultation and interaction intended to solve a planning or design challenge.

It typically brings together design expertise with broad and diverse segments of the general community to address a challenge together.

First, a team is assembled that has the particular expertise needed to address the issue at hand (*Route 140 Safety Improvement Task Force*).

- Public input sessions are held to gain an understanding of the issue/situation from the perspective of local citizens, decision makers and stakeholders (*Route 140 Planning Information Meeting*).
- Some sessions may target particular segments of the public that have a stake or special knowledge in a given sub-issue (*Walkable Communities, East Princeton Village: September*).

Next, the team formulates responses to the overall issue, based upon what they have heard from the public, in combination with their specialized knowledge or expertise (*CMRPC, MRPC & MassHighway*).

Finally, the team makes a public presentation where they may offer solutions to the problem at hand or present different options for the community to consider (*Suggested Improvement Options*).

- *The charrette process is effective because it combines local knowledge, concerns and values with outside expertise.*
- *It is the community that drives and guides the answer.*
- *Every community has the answers it needs to solve an issue; the charrette process allows these answers to emerge while using expertise to refine these answers so that they can be effectively implemented.*

Corridor Profile Working Outline

Planning Agencies:

Central Massachusetts Regional Planning Commission (CMRPC)
Montachusett Regional Planning Commission (MRPC)

1.0 INTRODUCTION

- 1.1 The Transportation Management System “Corridor Profile”
- 1.2 The Route 140 Safety Improvement Task Force
- 1.3 The Route 140 Corridor: Sterling, Princeton & Westminster
- 1.4 Historical & Existing Traffic Levels

2.0 LAND USE & ENVIRONMENT

- 2.1 Sterling, Princeton & Westminster
- 2.2 East Princeton Village
- 2.3 Route 140 Curb Cut Inventory
- 2.4 Environmental Consultation

3.0 CONGESTION MANAGEMENT PROCESS (CMP)

- 3.1 Overview of the Central Massachusetts CMP
- 3.2 Route 140 Travel-Time and Delay Studies
- 3.3 Route 140 Intersection Peak Hour Traffic Volumes
- 3.4 Route 140 Intersection Peak Hour Level-of-Service (LOS)
- 3.5 Route 140 Roadway Segment Level-of-Service (LOS)

4.0 ROADWAY SAFETY ANALYSES

- 4.1 Crash Analysis at Focus Intersections
- 4.2 Crash Analysis along Route 140 Roadway Segments
- 4.3 Route 140 Roadway Safety Audit

5.0 PAVEMENT MANAGEMENT SYSTEM (PMS)

- 5.1 Pavement Management Concepts
- 5.2 Route 140 Overall Condition Index (OCI)

6.0 BRIDGE MANAGEMENT SYSTEM (BMS)

- 6.1 Statewide Bridge Management System
- 6.2 Route 140 Corridor Profile Bridges
- 6.3 Route 140 Corridor Profile Culverts

Corridor Profile Working Outline

(Continued)

7.0 ALTERNATIVE MODES

- 7.1 Transit (SCM Elderbus)
- 7.2 Bicycle
- 7.3 Pedestrian

8.0 FREIGHT MOVEMENT

- 8.1 Regional Freight Planning Efforts
- 8.2 Route 140 Heavy Vehicle Classifications

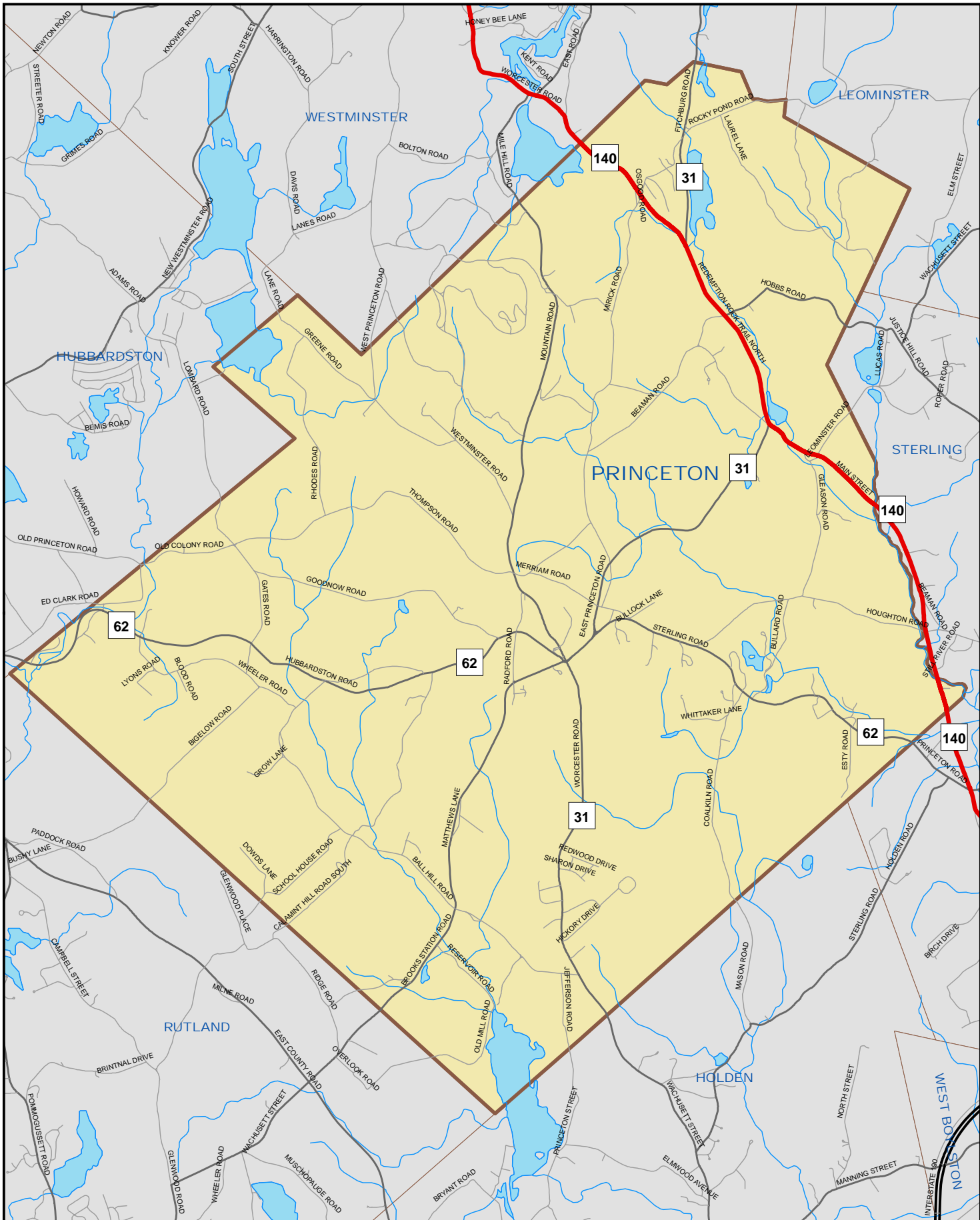
9.0 SUGGESTED IMPROVEMENT OPTIONS

- 9.1 Preface
- 9.2 Corridor-Wide Improvement Options
- 9.3 Town of Sterling Improvement Options
- 9.4 Town of Princeton Improvement Options
- 9.5 Town of Westminster Improvement Options

-
- A ***Corridor Profile*** correlates the information generated by the transportation management systems along a particular corridor and analyzes performance-based data, recommends both operational and physical improvements, and identifies candidates for further study.
 - A ***Corridor Profile*** will be conducted for Route 140 in Princeton, Westminster and Sterling in cooperation with Montachusett Regional Planning Commission (MRPC). MRPC will coordinate with MRPC regarding the data collection, analysis and suggested improvements to the corridor. A Route 140 Safety Improvement Task Force will lead a proactive outreach effort.

Major Corridor Profile Components

- Summarize adjacent land use and prepare "Environmental Profile"
- Develop short, medium and longer-term improvements, both operational and physical-*some may require further study*
- Prepare report document, complete with color graphics and maps, along with accompanying Technical Appendix
- Host meetings with communities and MassHighway

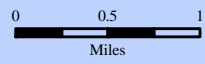


**TOWN OF PRINCETON
ROUTE 140
SAFETY IMPROVEMENT
TASK FORCE
ORIENTATION MAP**

Legend

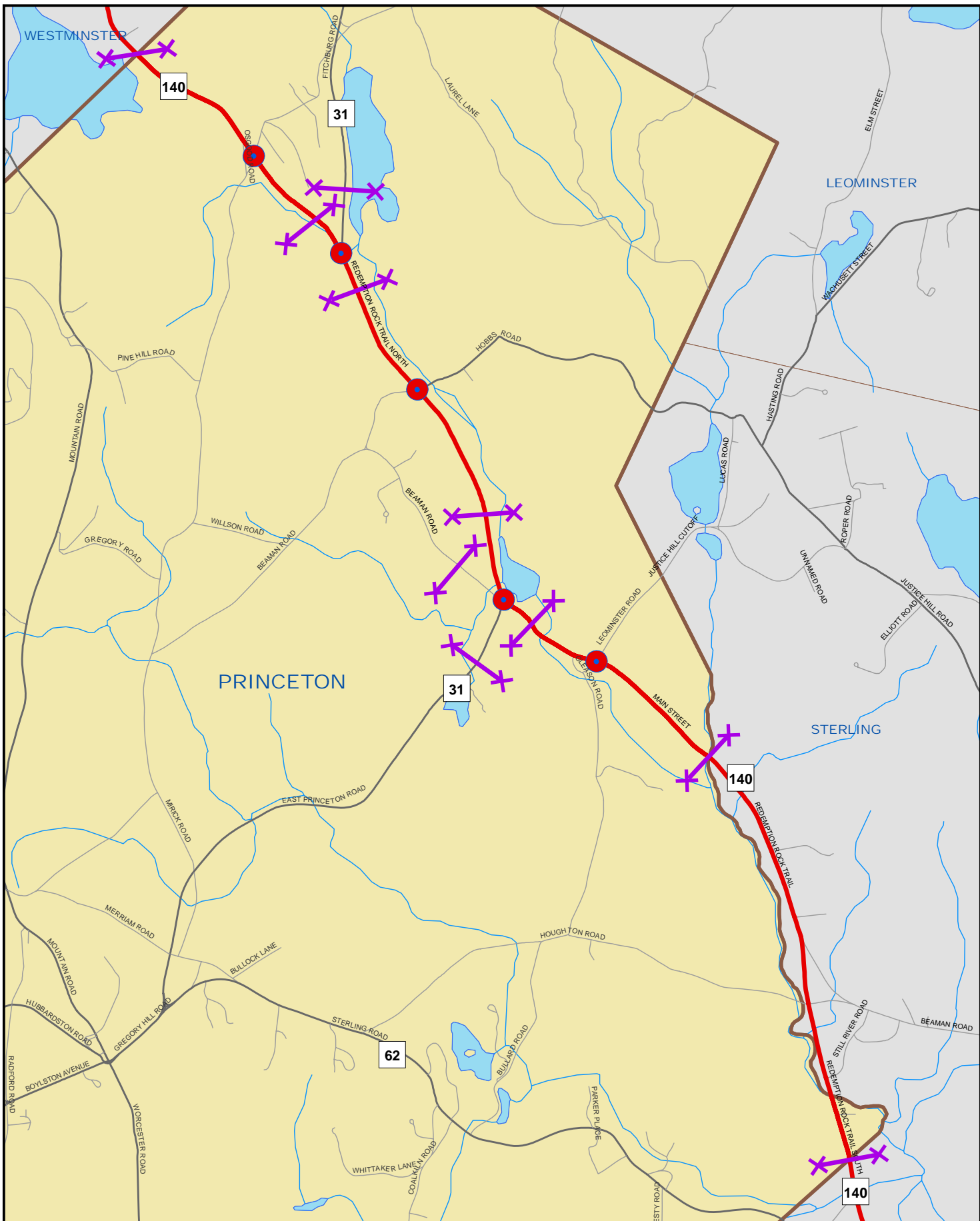
 Route 140 Princeton

 Road Network







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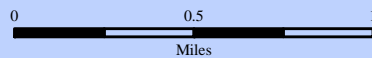
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TOWN OF PRINCETON
ROUTE 140
SAFETY IMPROVEMENT
TASK FORCE
PROPOSED TRAFFIC COUNTS

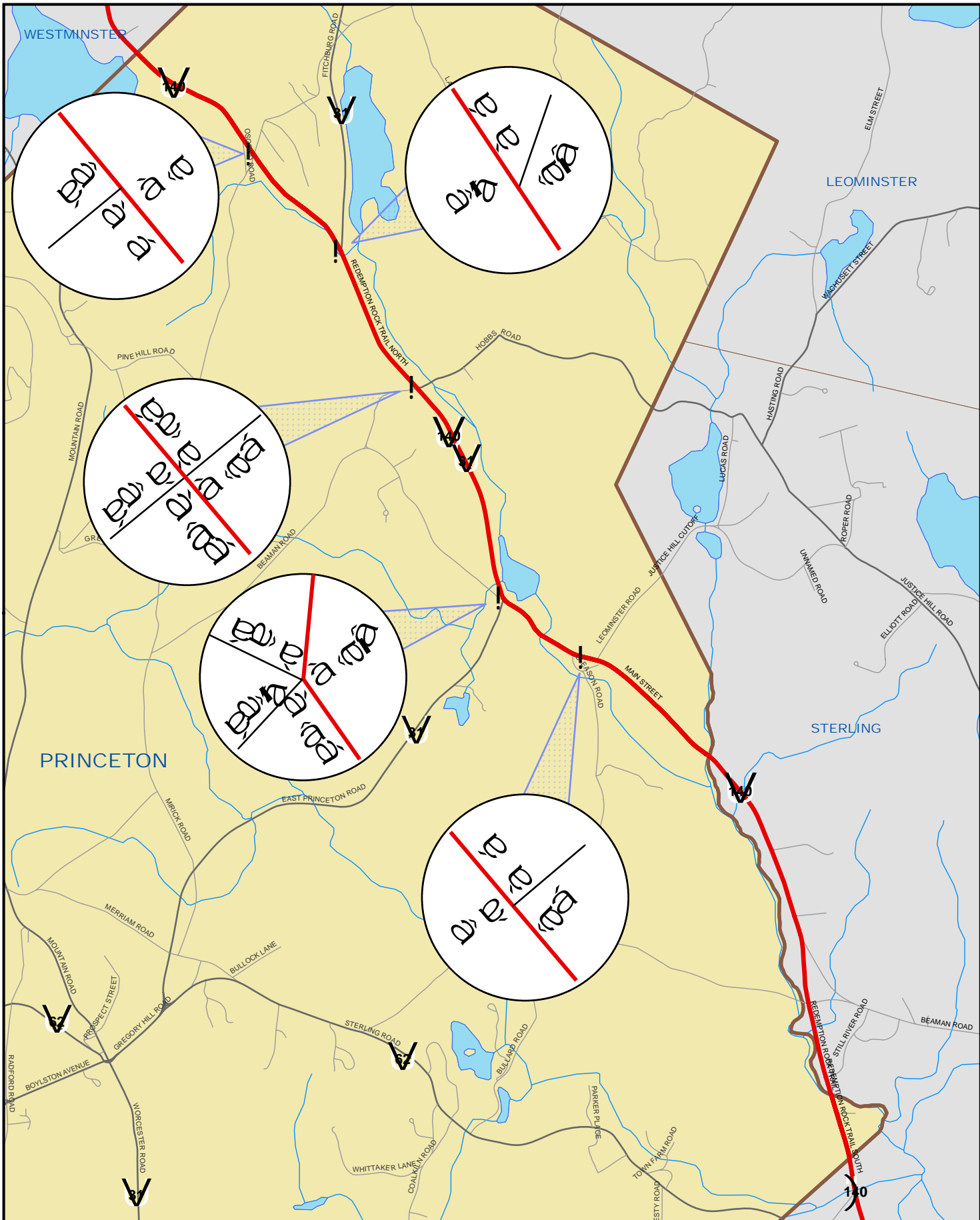
Legend

-  Route 140 Princeton
-  Road Network
-  Turning Movement Count (TMC)
-  Automatic Traffic Recorder (ATR)





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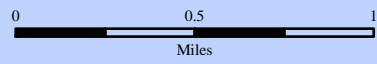
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**TOWN OF PRINCETON
ROUTE 140
EXISTING TRAFFIC FLOWS
PM PEAK HOUR PERIOD**

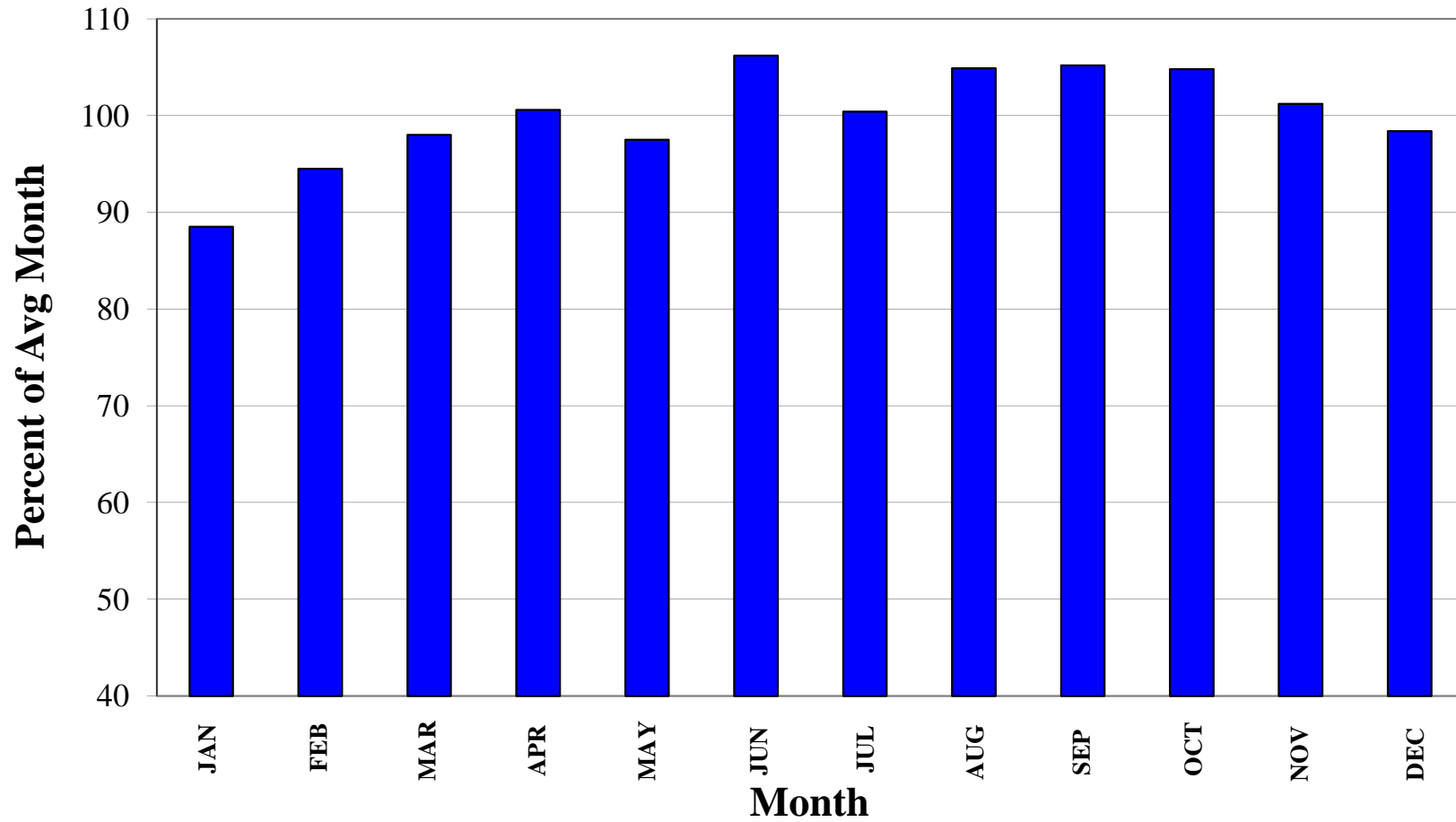
Legend

-  Route 140 Princeton
-  Road Network



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**MHD
Permanent Count Station
Greater Area Average***



* 1) Route 12 - N of I-190, 2) Route 2 - E of Route 140, 3) I-190 - N of Route 12, 4) I-190 - N of Route 12

* M H D Crash Data 2004-2006 : Route 140, Princeton, MA

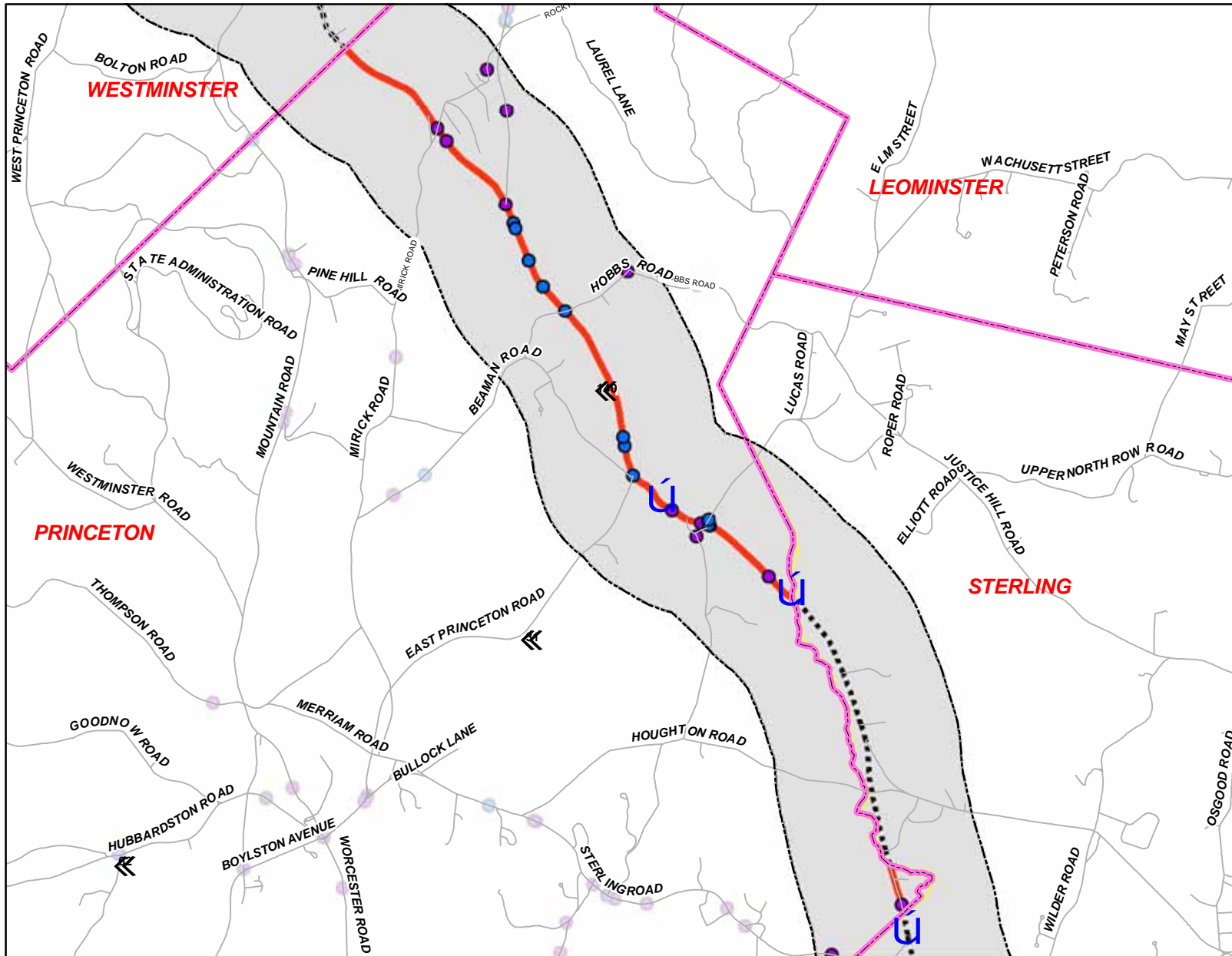
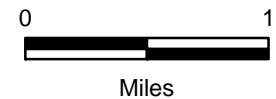
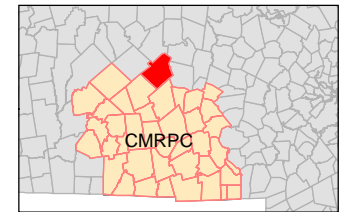


Figure B



March 2009

- Legend:**
- Bridge
 - Town Line
 - Study Area .5 Mile Buffer

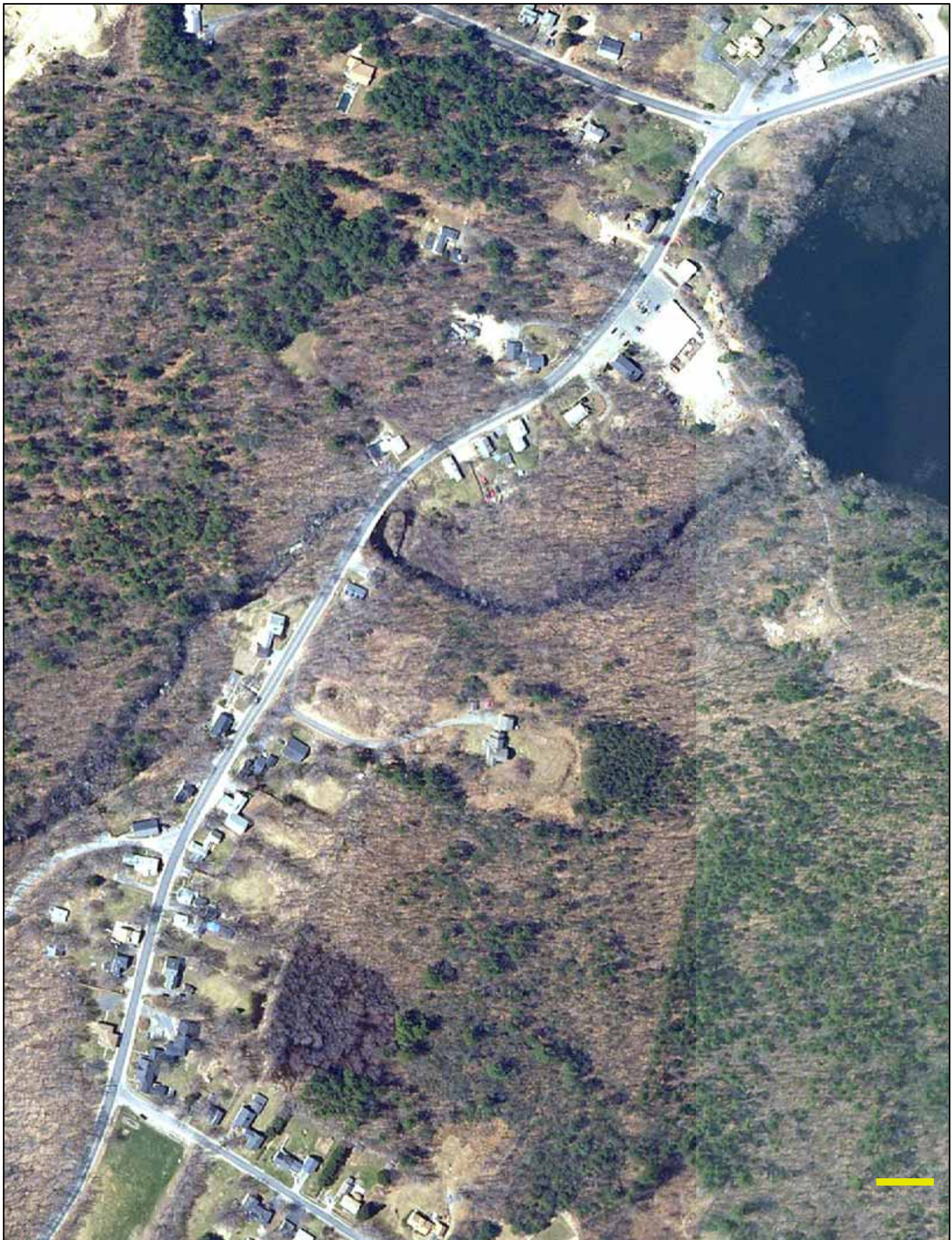
- Crashes 2004_2006
- Fatal injury
 - Non-fatal injury
 - Property damage only
 - Ped_Crashes
 - Bike_Crashes

* Massachusetts Highway Department (MHD)

SR140 Crash Data 2004-2006

| Town | Mileage | Fatal Crashes | Injury Crashes | Property Damage Only | Ped Crashes | Bike Crashes | Total Crashes |
|--------------|-----------|---------------|----------------|----------------------|-------------|--------------|---------------|
| Princeton | 4 | 0 | 10 | 9 | 0 | 0 | 19 |
| Sterling | 5 | 0 | 27 | 39 | 0 | 0 | 66 |
| Westminister | 3 | 0 | 23 | 46 | 0 | 0 | 69 |
| Total | 12 | 0 | 60 | 94 | 0 | 0 | 154 |

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* DCR Conservation Areas : Route 140, Princeton, MA

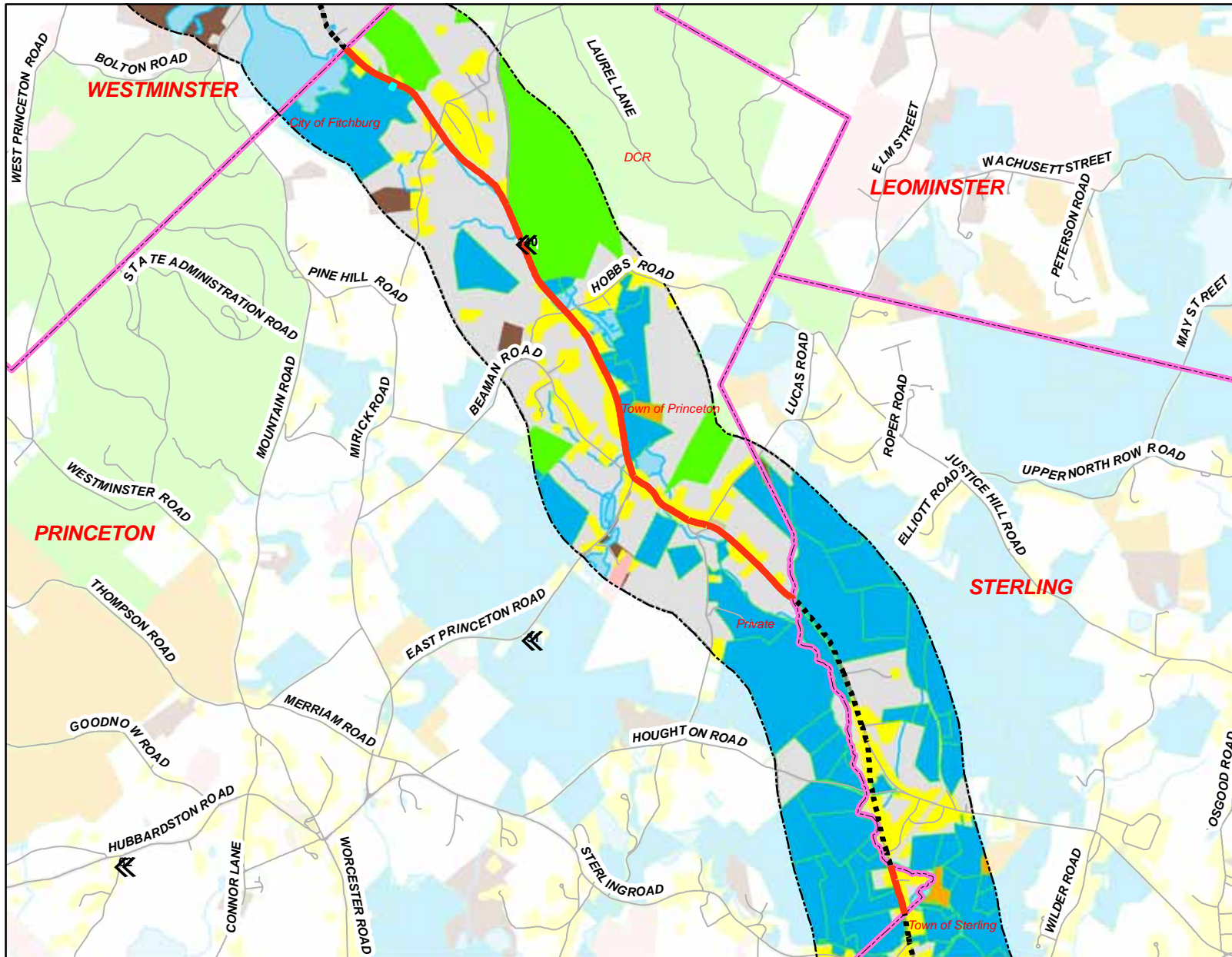
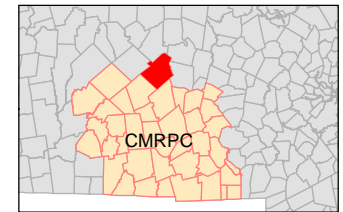


Figure 3



March 2009

Legend:

- Town Line
- Water Ways
- Water Bodies
- Study Area .5 Mile Buffer
- Residential

- *DCR Conservation:
- Open Space In Perpetuity
- Conservation (Non Facility)
- Recreation (Facility Based)
- Recreation / Conservation
- Water Supply Protection
- Forest Stewardship Property

* Department of Conservation & Recreation (DCR)

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***DEP Monitored Areas : Route 140, Princeton, MA**

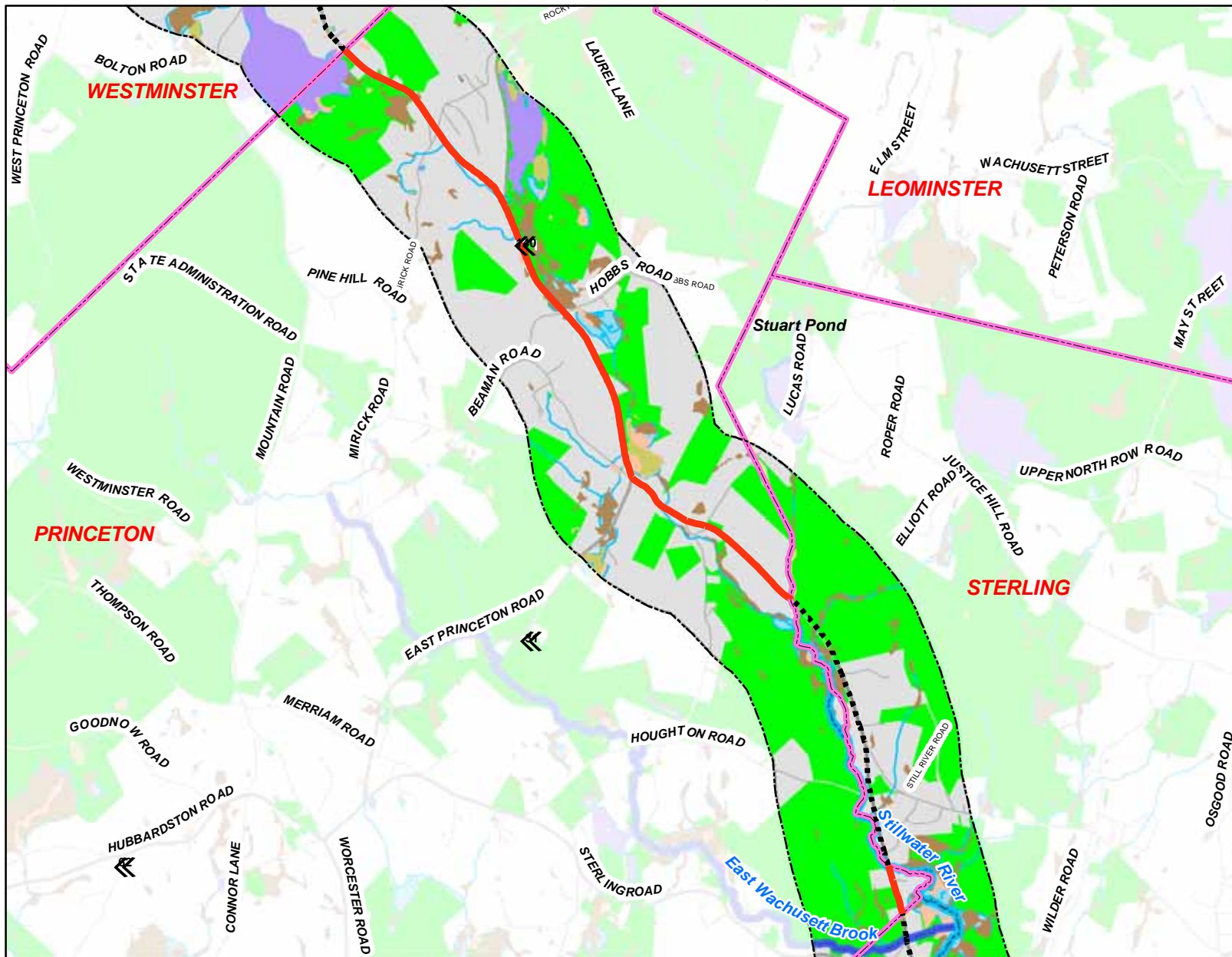
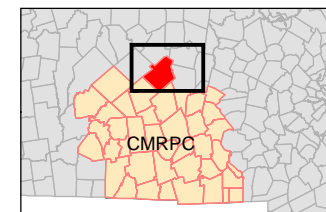


Figure 6



March 2009

Legend:

- Town Line
- Water Ways
- Water Bodies
- Open Space In Perpetuity
- Study Area .5 Mile Buffer

DEP* Monitored Waterways & Wetlands

- Impaired Waterway(2005) - Pathogens
- Monitored Waterway (2005)
- Impaired Waterbody (2005)
- DEEP MARSH
- OPEN WATER
- SHRUB SWAMP
- WOODED SWAMP

* Department of Environmental Protection (DEP)

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*** NHESP Conservation Areas : Route 140, Princeton, MA**

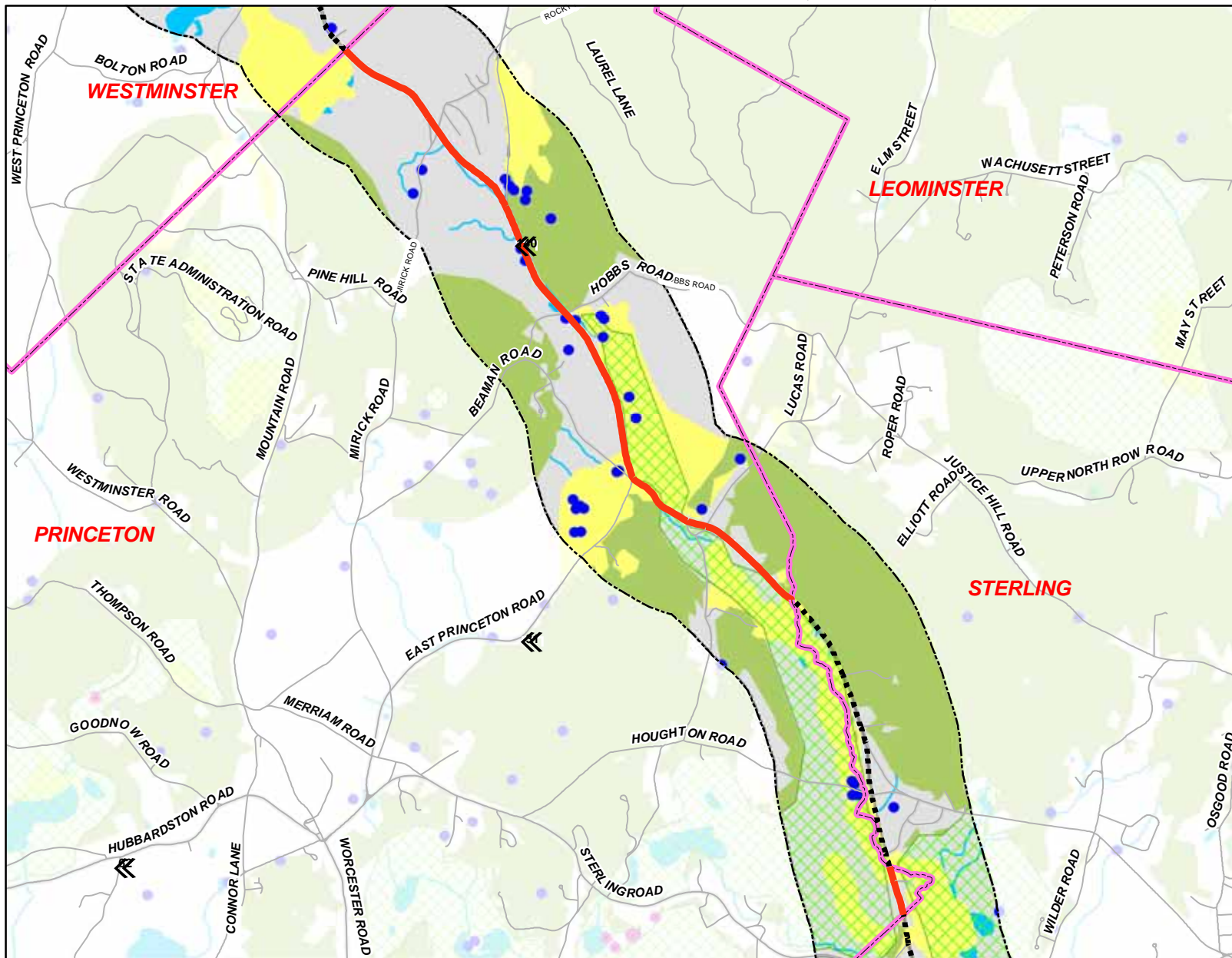
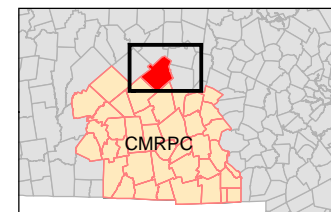


Figure 9



March 2009

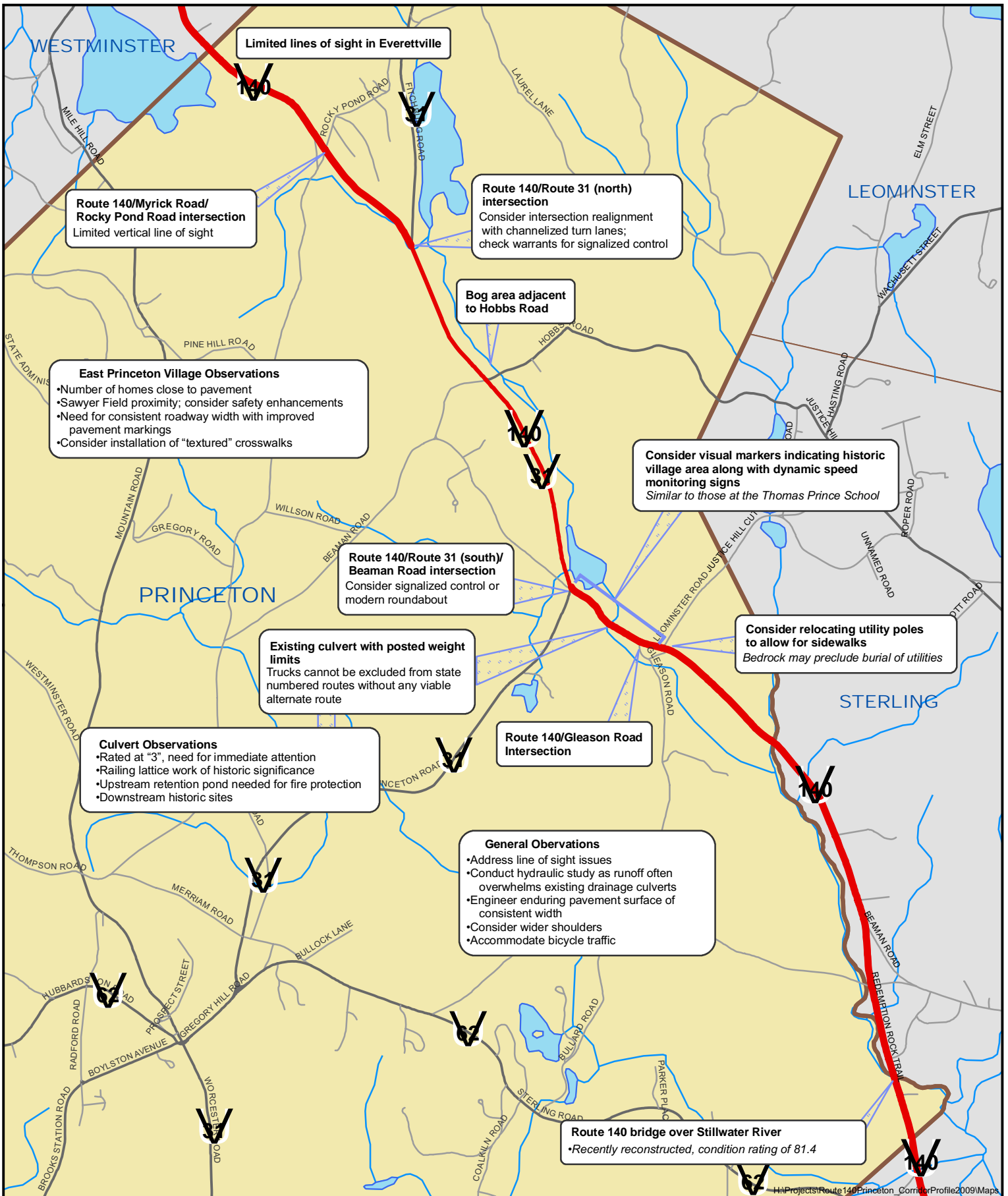
Legend:

- Water Ways
- Water Bodies
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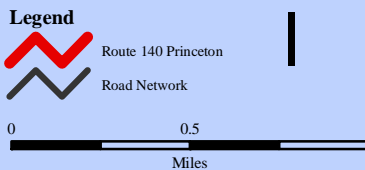
- * NHESP Conservation Program
- Certified Vernal Pools(2009)
- Potential Vernal Pools(2000)
- BioMap Core Habitat (2008)
- BioMap Core Habitat Supporting Landscape (2008)
- Priority Habitats for Rare Species (2008)

* National Heritage & Endangered Species Program (NHESP)

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ROUTE 140
SAFETY IMPROVEMENT
TASK FORCE
CHARETTE MAP**



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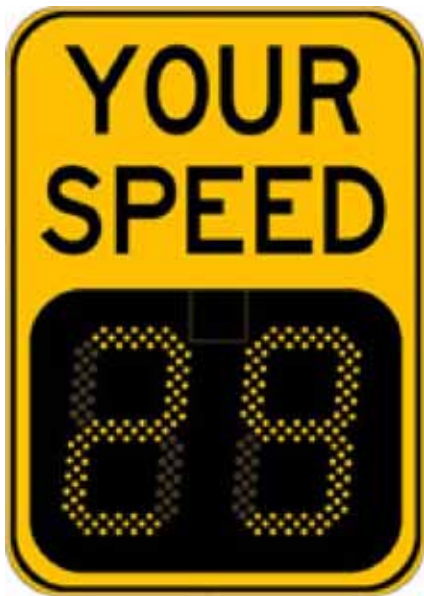


Map produced May 2009



**Route 140 East Princeton Village
Potential Village Signage Example**





Standard driver feedback sign with "YOUR SPEED" message

Driver feedback sign with variable message capability



Message options include:
"YOUR SPEED"
"SLOW DOWN"
"SPEED LIMIT" (static number)



F
Typical Installations



Radar speed signs display the speed of oncoming vehicles using highly visible light-emitting diodes (LED) to make motorists aware when they are driving at unsafe speeds. They are a traffic calming solution that has been proven to slow traffic down and is ideal for use on local roads or in school zones. Similar, larger dynamic driver feedback signs are widely used by the New York State Thruway Authority in construction zones.

Radar speed sign capability demonstration courtesy of ITS vendor Traffic Logix (C) <http://www.trafficlogix.com>

Route 140 East Princeton Village Potential ITS Application: Active Speed Monitoring Devices

