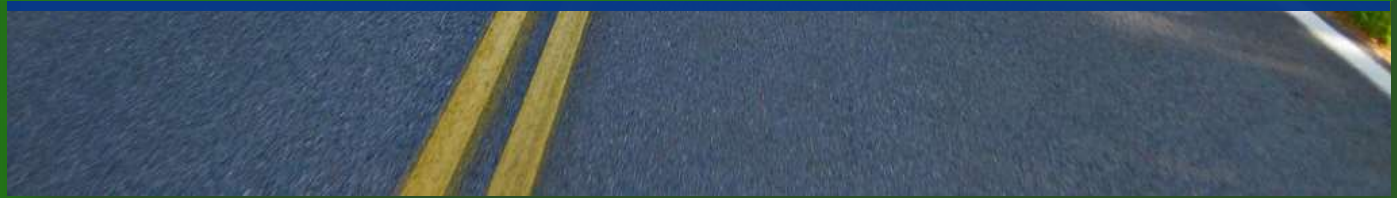




Regional Transportation Workshop

Developing a long term vision for transportation in the Nashua Region



February 12, 2013

Nashua Regional
Planning Commission





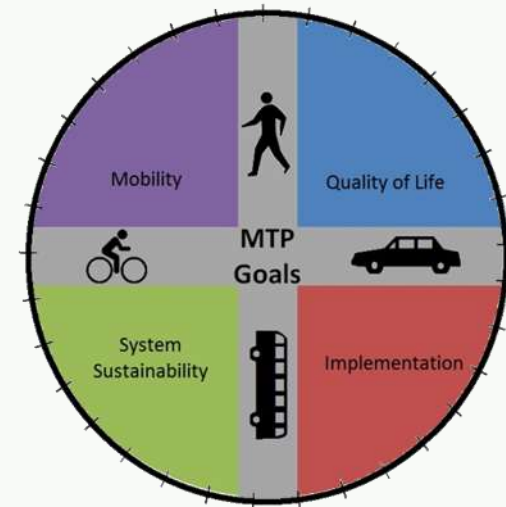
Regional Transportation Workshop

Today's Presentation

- Overview of the Metropolitan Transportation Plan
- Existing Conditions
- Future Conditions
- Outreach - What we have heard so far....

Workshop Discussion

- Break-out Groups
 - What's good about transportation in the Region?
 - What are the challenges?
 - What are the regional needs?
- Follow-up discussion





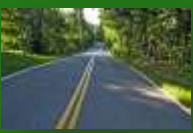
Metropolitan Transportation Plan

What does the MTP do?

- Identifies short- and long-range transportation policies and projects
- Uses the latest available estimates, assumptions and projections
- Programs fiscally constrained improvements
- Ensures projects and policies do not degrade air quality
- Maintains a 20-year planning horizon

Why do we need it?

- To establish a *regional vision* for the transportation system
- To set policy-level *goals* to reach that vision
- To identify *objectives* to reach those goals
- To document specific projects that have been prioritized for funding
- Guide to make investment decisions**
- Data and analysis to support those decisions**
- To maximize the benefit of scarce re\$ource\$**



Metropolitan Transportation Plan

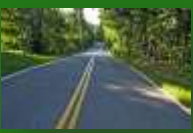
What goes into the MTP?

- Public input**
- Summary of existing and proposed facilities and projects
- Pedestrian and bicycle improvements
- Transit enhancements
- Projected transportation demand
- Operational and management strategies
- Congestion Management Process
- Environmental Mitigation Activities
- Financial Plan with cost estimates and revenue sources
- MAP-21: Performance metrics

...According to 23 CFR Part 450.322



Your participation in the MPO gives communities a voice in decision making process.



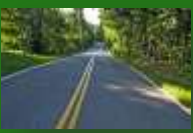
Metropolitan Transportation Plan

Planning Factors

- Support economic vitality
- Increase safety
- Emphasize the preservation of the existing transportation system
- Increase security
- Promote efficient system management and operation
- Increase accessibility and mobility
- Enhance the integration and connectivity of the transportation system, across and between modes
- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and planned growth

Livability Principles

- Traditional Settlement Patterns
- Natural Resource Functions & Quality
- Housing Choices
- Community & Economic Vitality
- Transportation Choices
- Climate Change and Energy Efficiency



Metropolitan Transportation Plan

The 2040 Vision (draft)

*The Nashua region has a **comprehensive and reliable multi-modal transportation system** that enables **universal access for all travelers**, including disabled, youth, and seniors, to all points within and beyond the region. Our transportation system enables a highly mobile community and **promotes economic growth, public health, and enhances the natural environment**. The Transportation system is **adaptable to changes** in demographics, economic conditions and energy related forces. **Sufficient funding** supports the operations maintenance and expansion of our transportation infrastructure to continuously meet the needs of the region.*

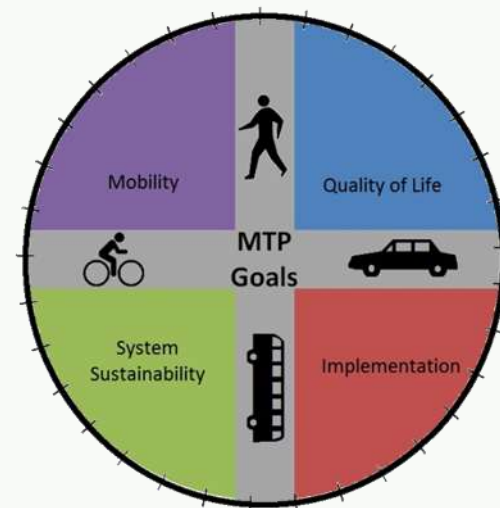


Metropolitan Transportation Plan

The Goals

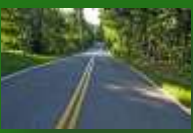
MOBILITY

- Improve the availability of transportation options for people and goods.
- Support travel efficiency measures and system enhancements targeted at congestion reduction and management.
- Assure all communities are provided access to the regional transportation system and planning process.



QUALITY OF LIFE

- Preserve and enhance the natural environment, improve air quality, and promote active lifestyles.
- Encourage livable communities which support sustainability and economic vitality.

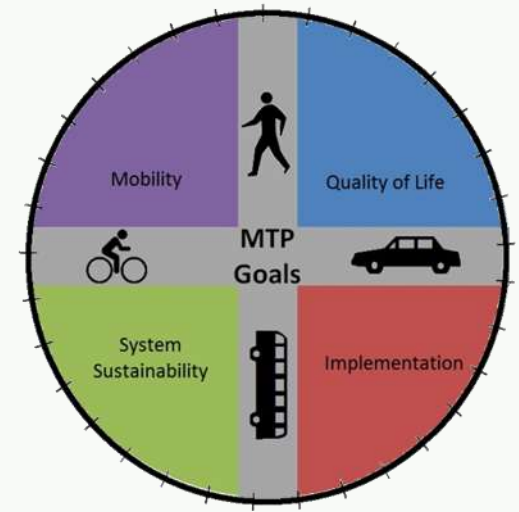


Metropolitan Transportation Plan

The Goals

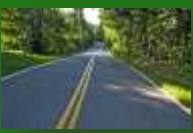
SYSTEM SUSTAINABILITY

- Ensure adequate maintenance and enhance the safety and reliability of the existing transportation system.
- Pursue long-term sustainable revenue sources to address regional transportation system needs.



IMPLEMENTATION

- Provide for timely project planning and implementation.
- Develop cost-effective projects and programs aimed at reducing the costs associated with constructing, operating, and maintaining the regional transportation system.



Metropolitan Transportation Plan

How does one predict the future?

- Review existing conditions
- Analyze recent trends
- Travel demand and demographic models

But 2040? Really?

- Local and regional demographic trends
- Cost of owning personal transportation
- Congestion
- Alternatives to the Single Occupancy Vehicle
- High density and mixed-use development
- Energy prices
- Reliance on foreign oil



How sensitive is the forecast to these variables?



EXISTING CONDITIONS

- Demographics
 - Population Trends
 - Age Distribution
 - Underserved Populations

- Land Use
 - Housing Growth
 - Economic Development
 - Sensitive Environmental Areas

- Infrastructure
 - Highways and Bridges
 - Fatal and Injury Crashes
 - Transit
 - Non-motorized
 - Freight

- Employment

Baby Boomers The Silver Tsunami !!!

United States™
**Census
2010**

**“Numbers of young adults fall in
Nashua, Hillsborough County”**

Telegraph - May 12, 2011



**“Water under troubled state
bridges: N.H. ranked 11th worst
state for structural deficiencies”**

Fosters - Apr 18, 2011

BAE SYSTEMS

**MERRIMACK
PREMIUM
OUTLETS™**



NH Fatalities
Year-To-Date:

12

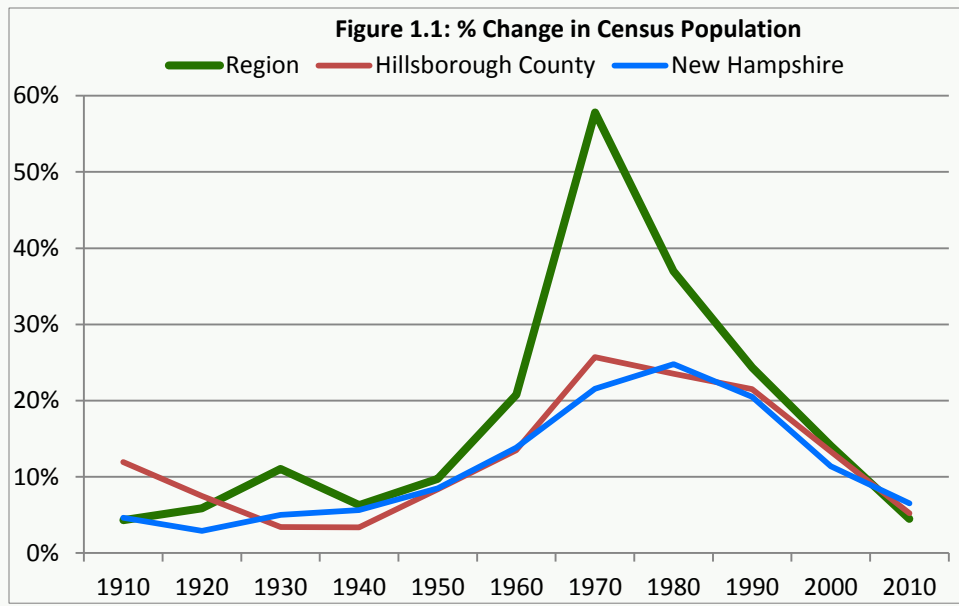
**DRIVING
TOWARD
ZERO**

One Death is Too Many

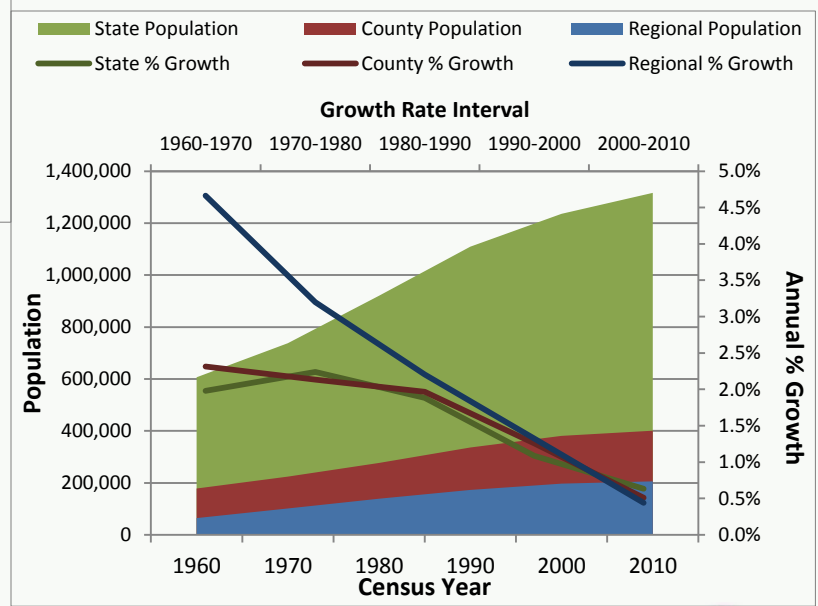




EXISTING CONDITIONS – Population Trends



For the first time in nearly 100 years, the 2010 Census showed a lower percent growth in the Nashua Region than in Hillsborough County or the State.

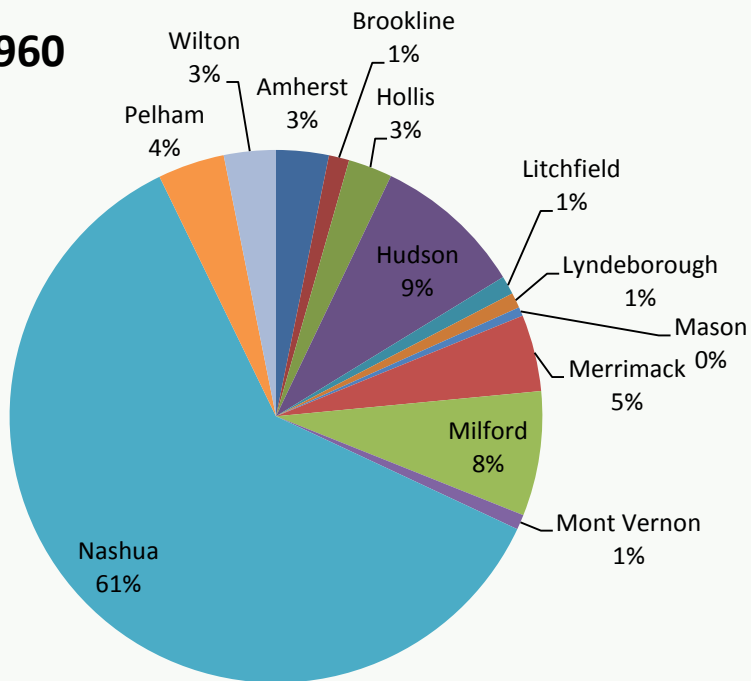


Regional population over the last decade has become flat at less than 0.5% growth between 2000 and 2010.

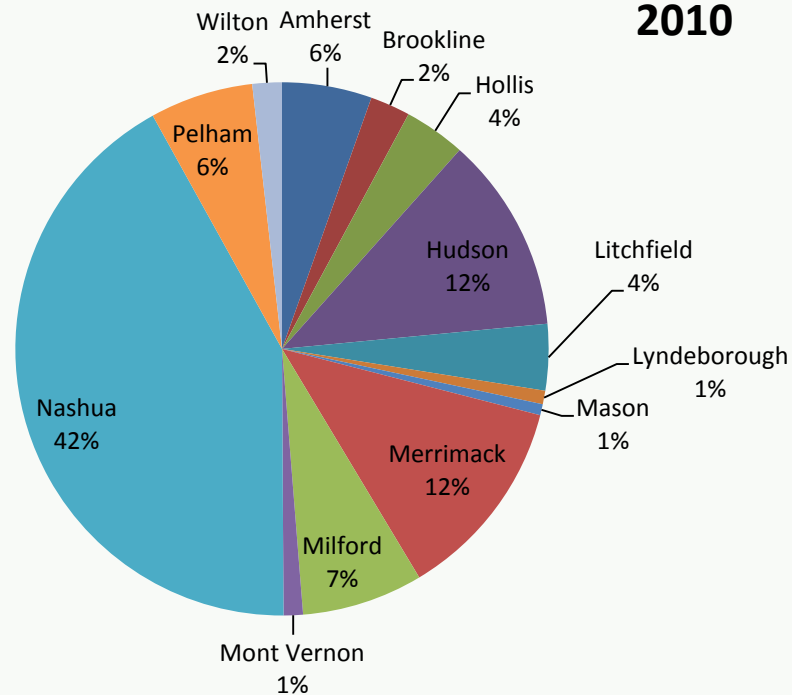


EXISTING CONDITIONS – Population Distribution

1960

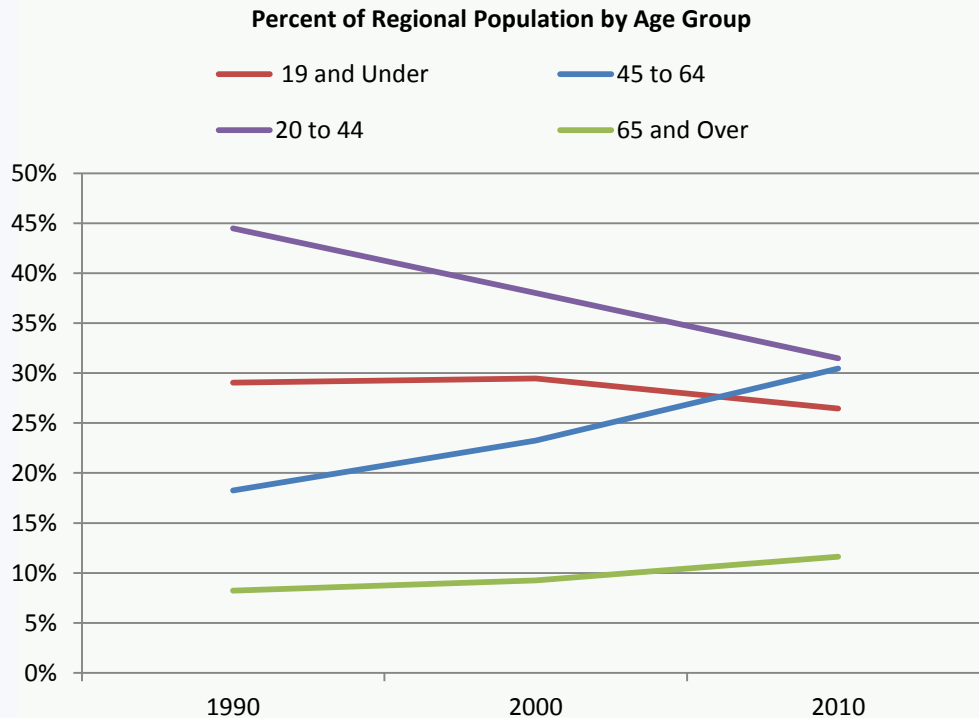


2010





EXISTING CONDITIONS – Age Distribution



The percentage of the population 65+ increased in every community - a trend that is seen across the state and country.

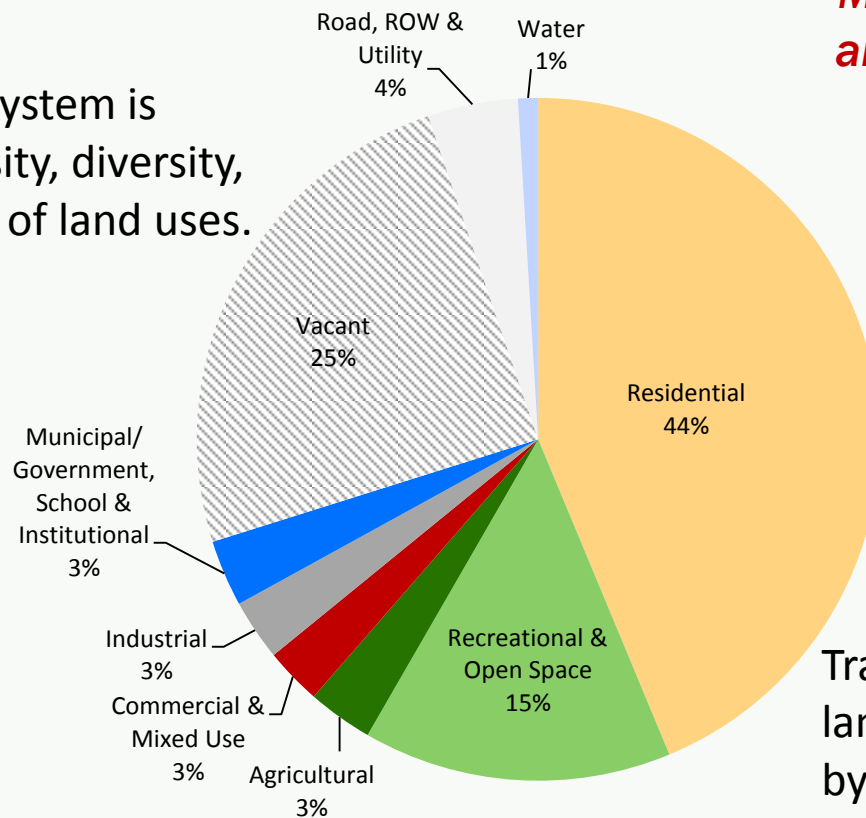
Providing our aging population with viable transportation alternatives to the private automobile will continue to be an issue as the baby boomers approach retirement.





EXISTING CONDITIONS – Regional Land Use

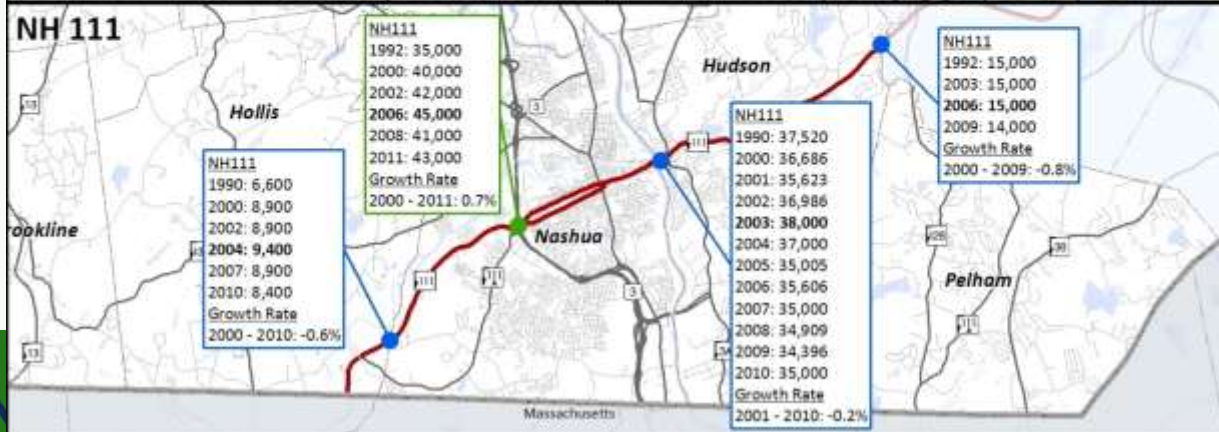
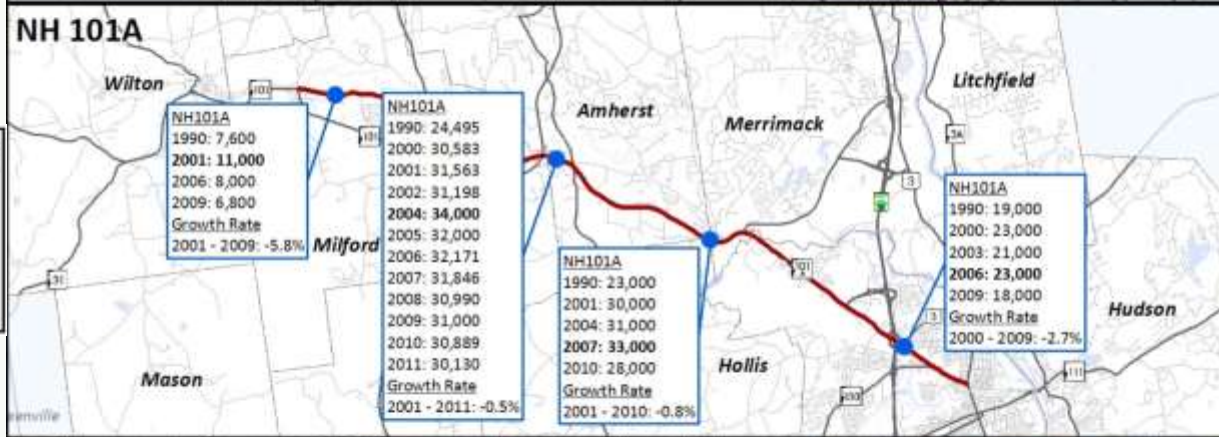
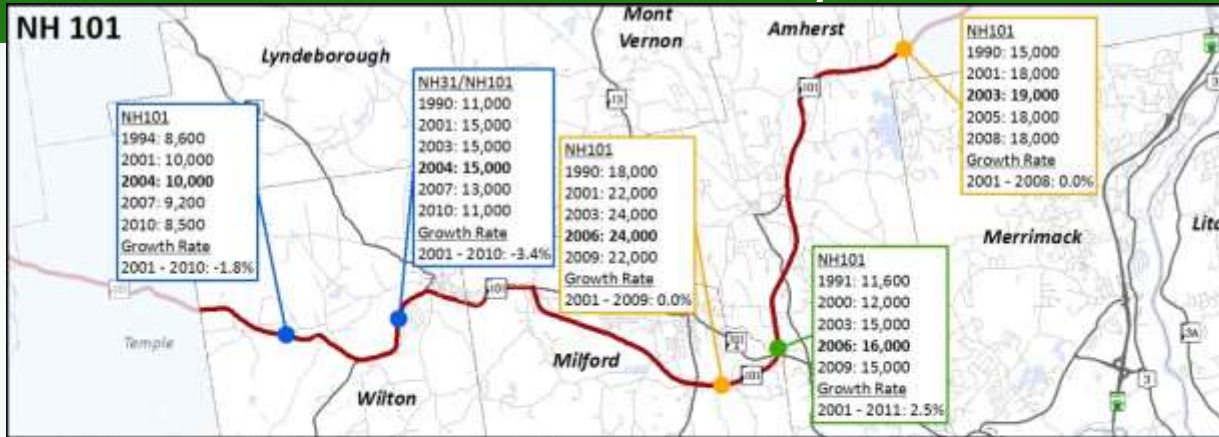
The transportation system is affected by the density, diversity, design, and location of land uses.



Mobility and accessibility are fundamental benefits that planners try to achieve through transportation.

Transportation systems affect land development patterns by providing access.

EXISTING CONDITIONS – East/West Traffic Volumes



Annual Average Daily Traffic

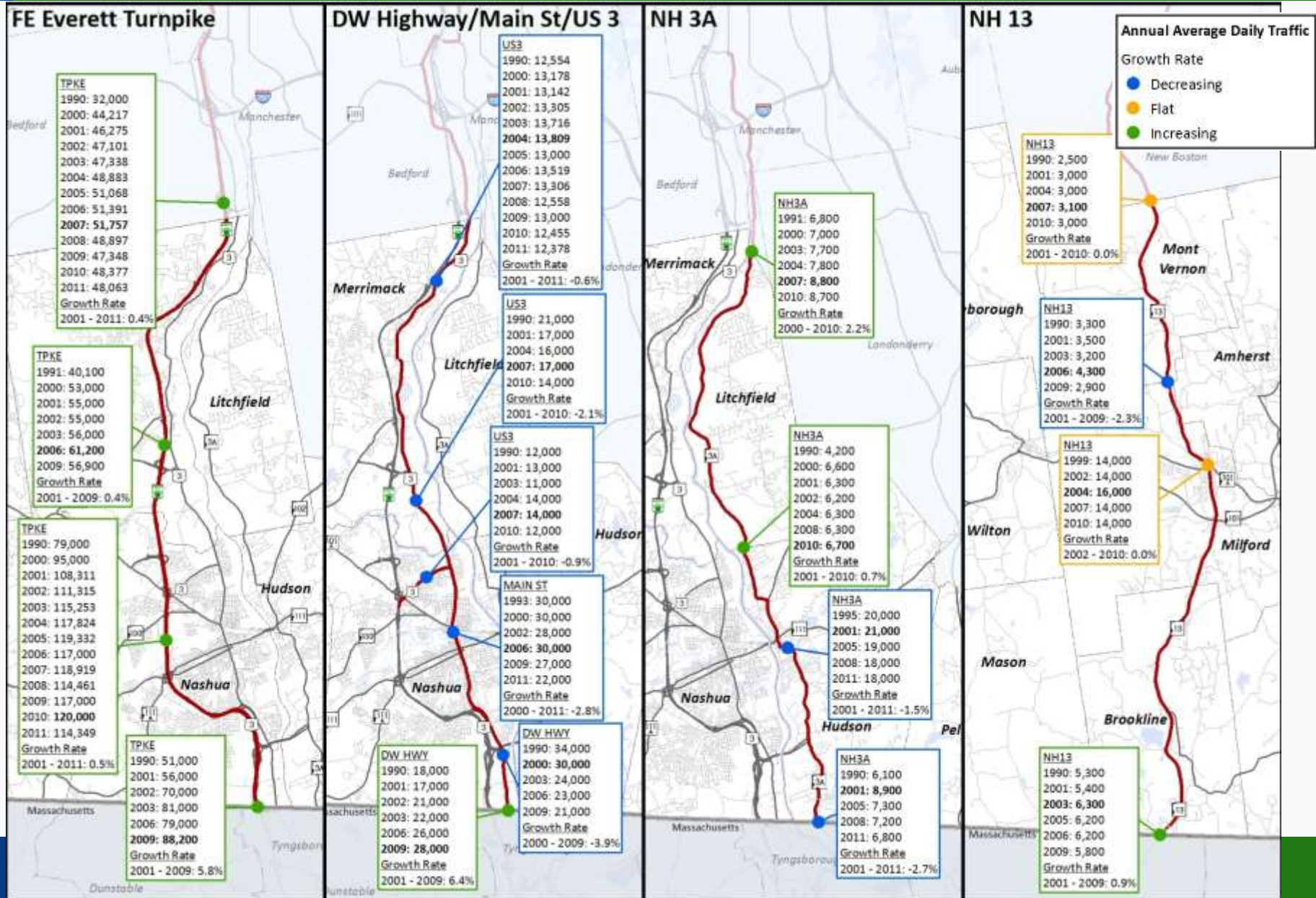
Growth Rate

- Decreasing
- Flat
- Increasing

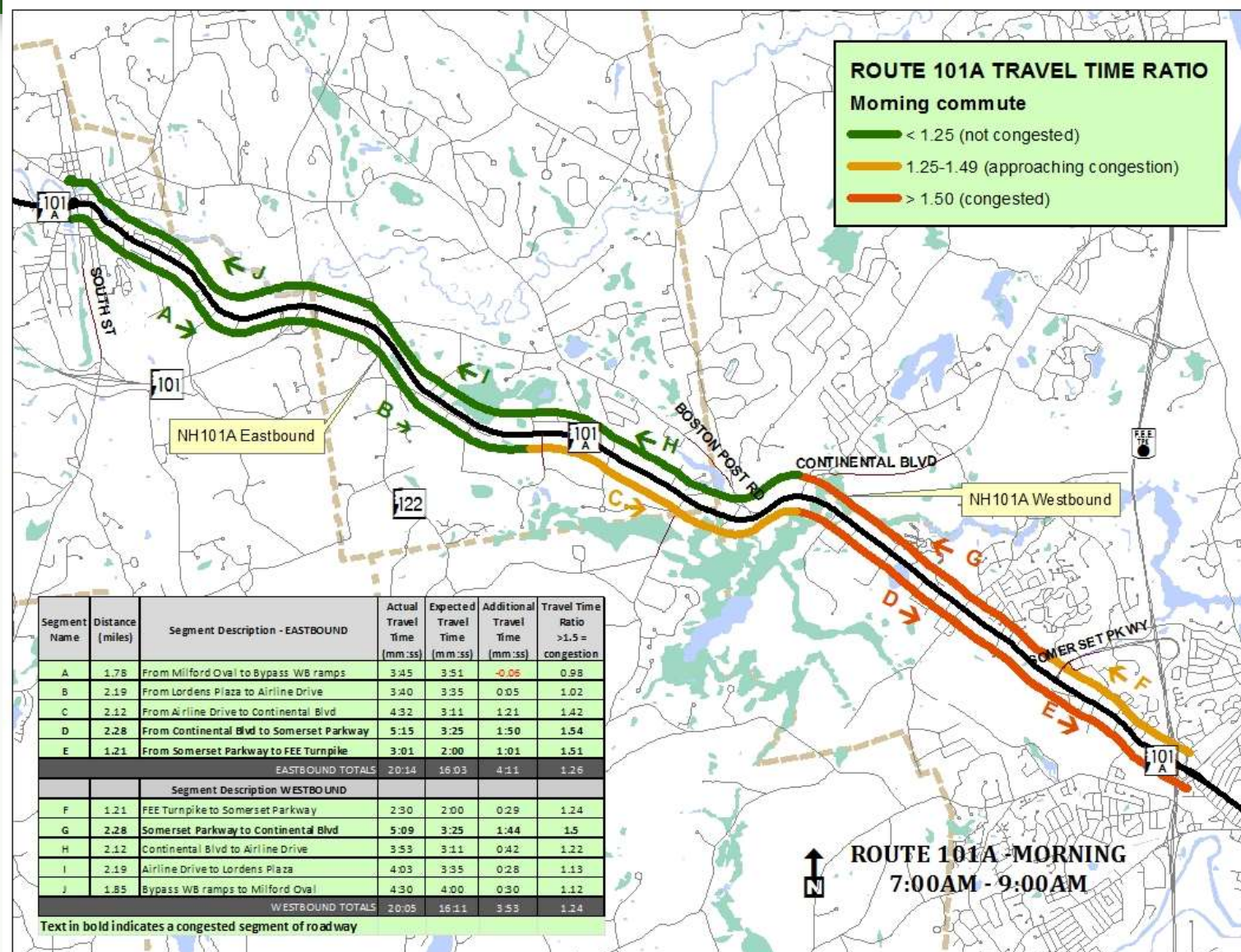




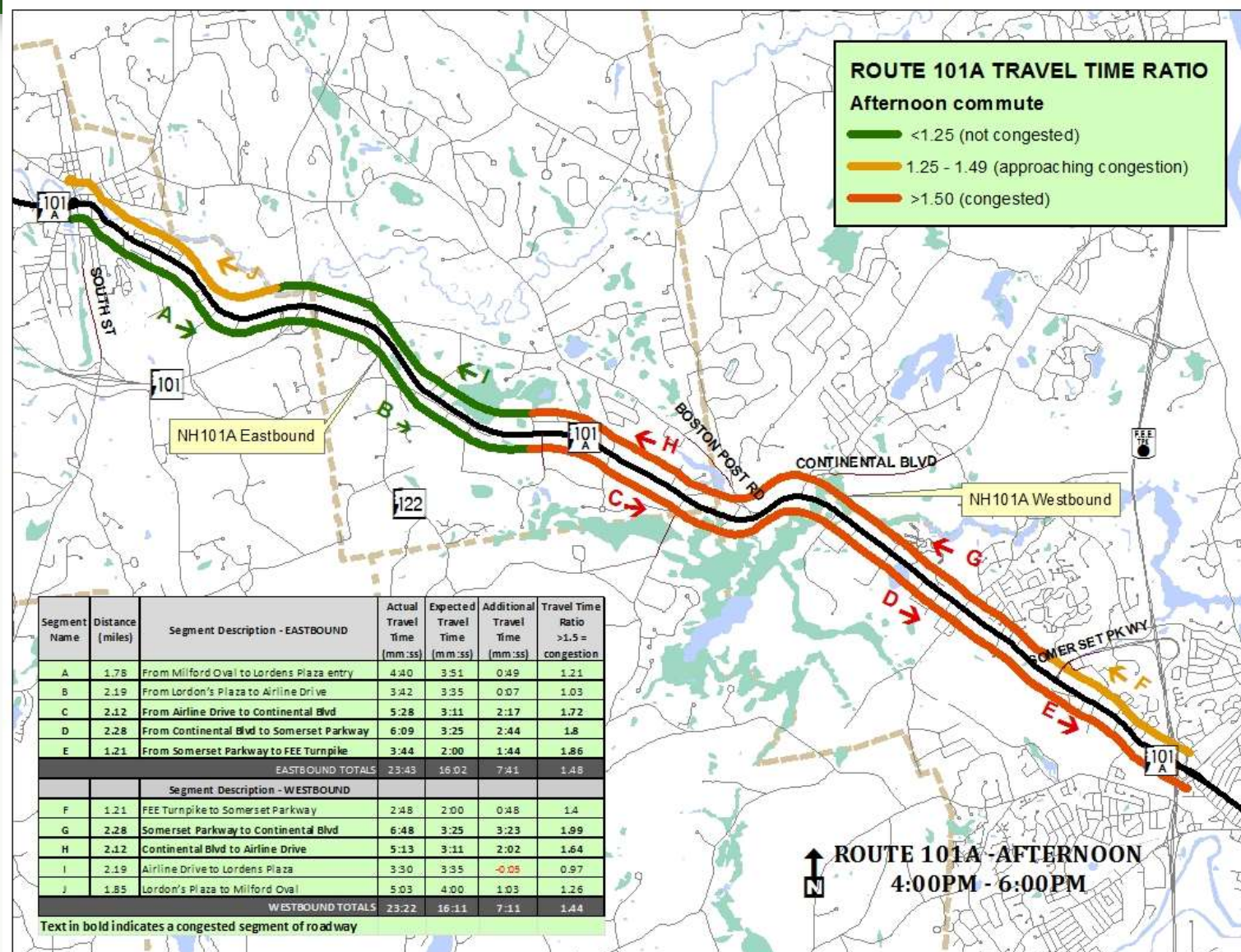
EXISTING CONDITIONS – North/South Traffic Volumes



EXISTING CONDITIONS – Congestion Management

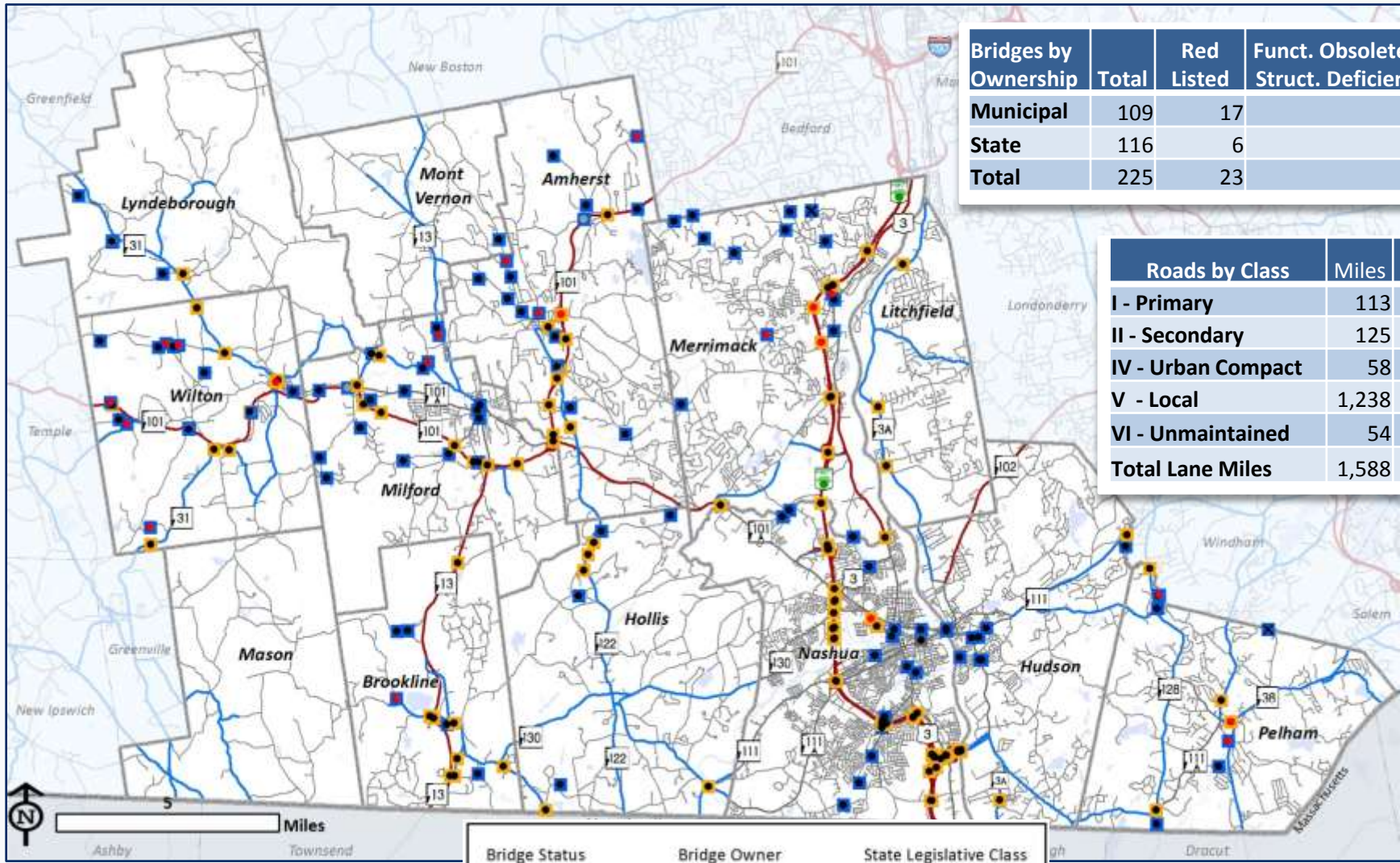


EXISTING CONDITIONS – Congestion Management





EXISTING CONDITIONS – Highway System



Bridges by Ownership	Total	Red Listed	Funct. Obsolete/ Struct. Deficient
Municipal	109	17	17
State	116	6	11
Total	225	23	28

Roads by Class	Miles	%
I - Primary	113	7.1%
II - Secondary	125	7.9%
IV - Urban Compact	58	3.6%
V - Local	1,238	78.0%
VI - Unmaintained	54	3.4%
Total Lane Miles	1,588	100%

Bridge Status	Bridge Owner	State Legislative Class
● Redlisted	■ State Owned	— Class I
● Not on the Redlist	■ Municipally Owned	— Class II
○ Historic or Bypassed	■ Railroad Owned	— Class IV
✕ Closed Bridge		— Class V

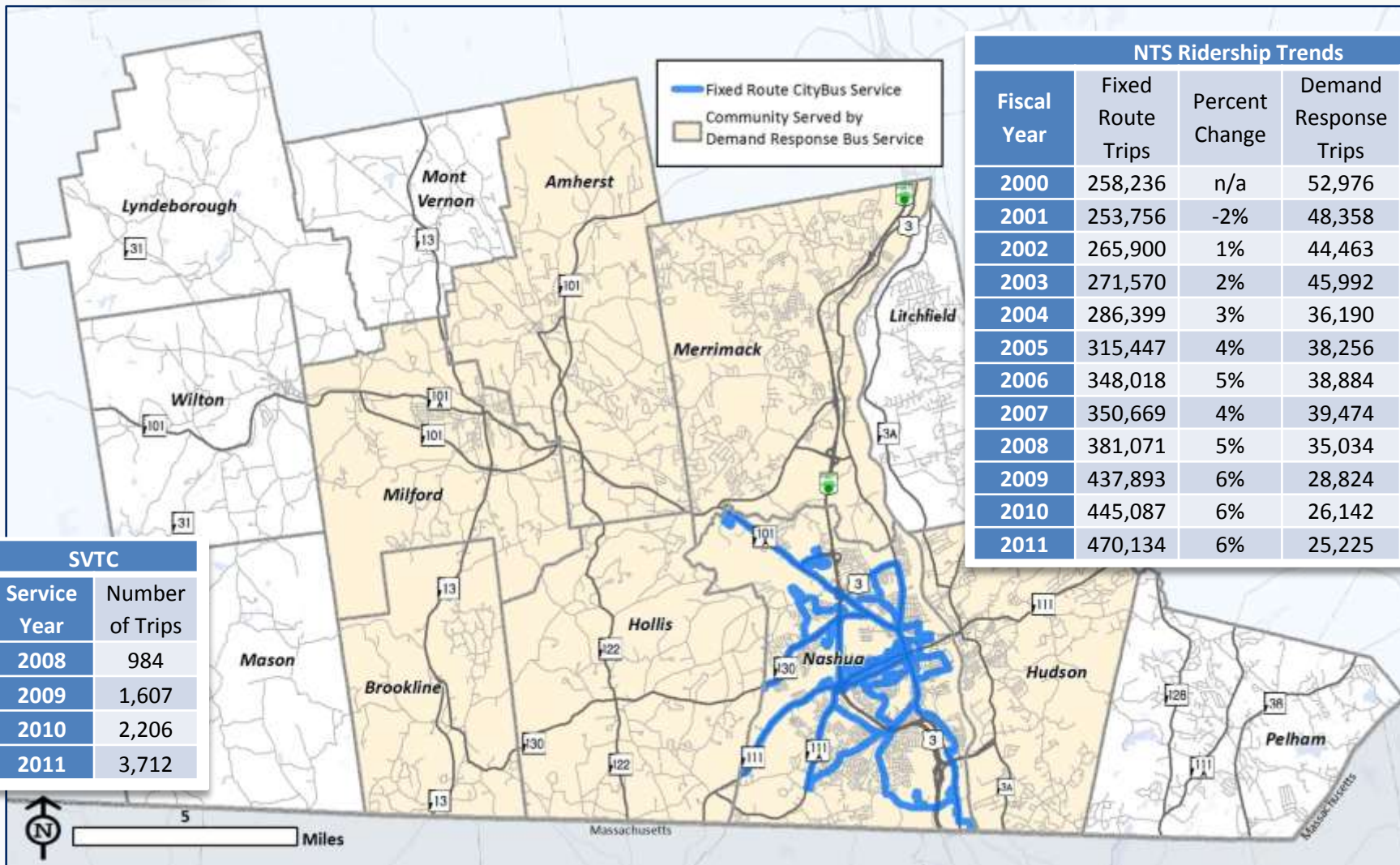


Workshop
ation in the Nashua Region





EXISTING CONDITIONS - Transit

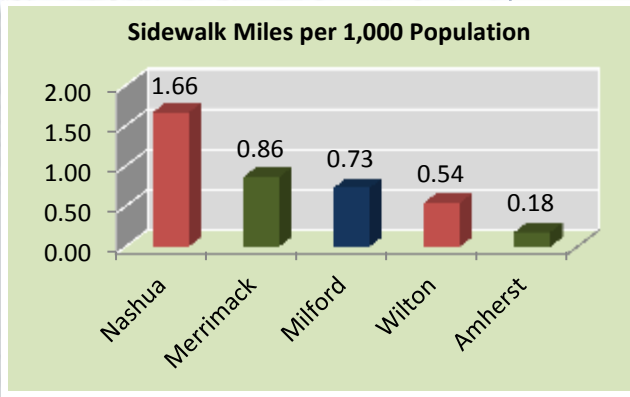
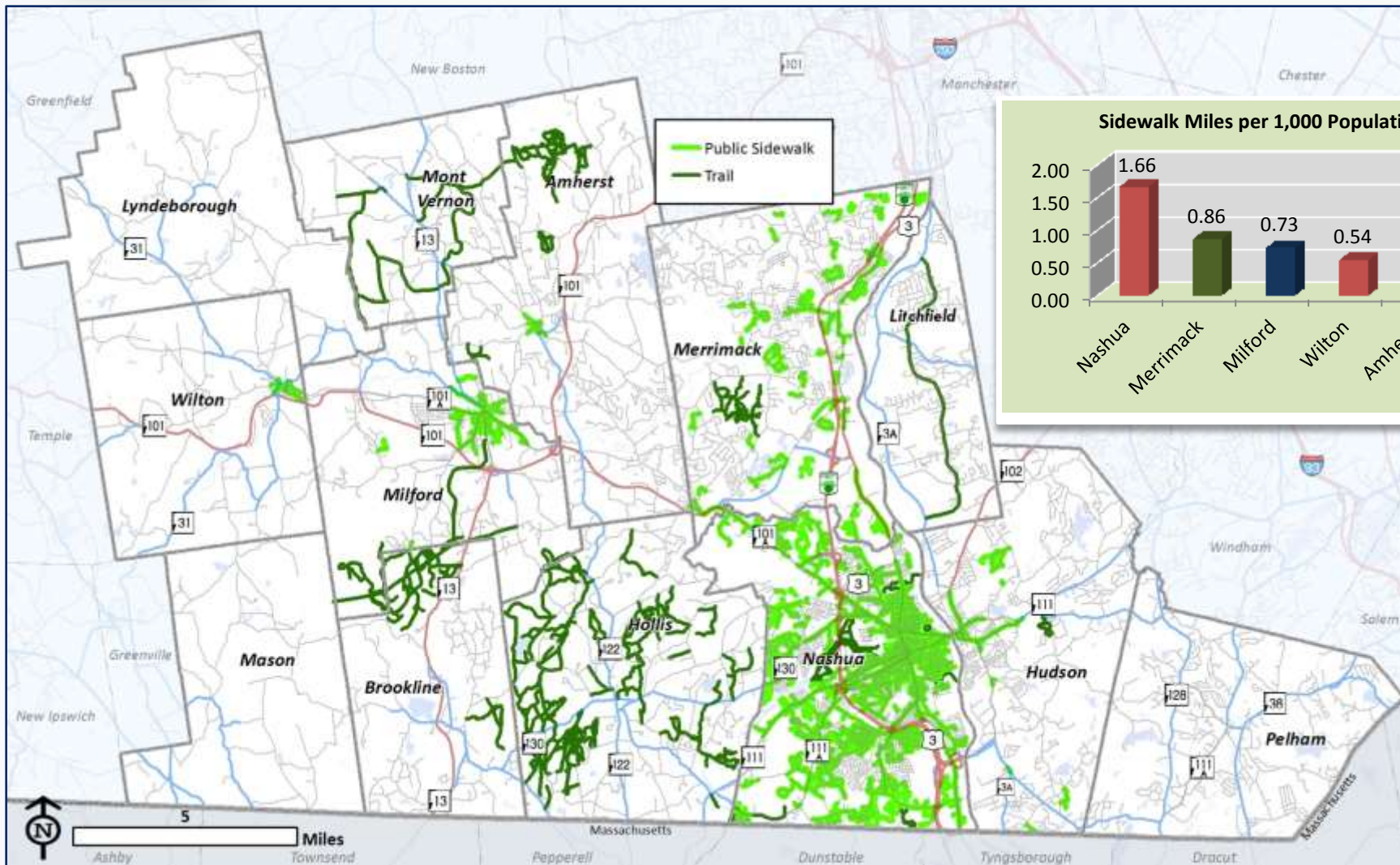


NTS Ridership Trends				
Fiscal Year	Fixed Route Trips	Percent Change	Demand Response Trips	Percent Change
2000	258,236	n/a	52,976	n/a
2001	253,756	-2%	48,358	-9%
2002	265,900	1%	44,463	-8%
2003	271,570	2%	45,992	3%
2004	286,399	3%	36,190	-21%
2005	315,447	4%	38,256	6%
2006	348,018	5%	38,884	2%
2007	350,669	4%	39,474	2%
2008	381,071	5%	35,034	-11%
2009	437,893	6%	28,824	-18%
2010	445,087	6%	26,142	-9%
2011	470,134	6%	25,225	-4%

SVTC	
Service Year	Number of Trips
2008	984
2009	1,607
2010	2,206
2011	3,712



EXISTING CONDITIONS – Nonmotorized Facilities





FUTURE CONDITIONS - Population

Projecting Population

- Existing Population by Age Cohort

- Natural Population Change:
 - Historic and Projected Birth Rates
 - Survival Rates

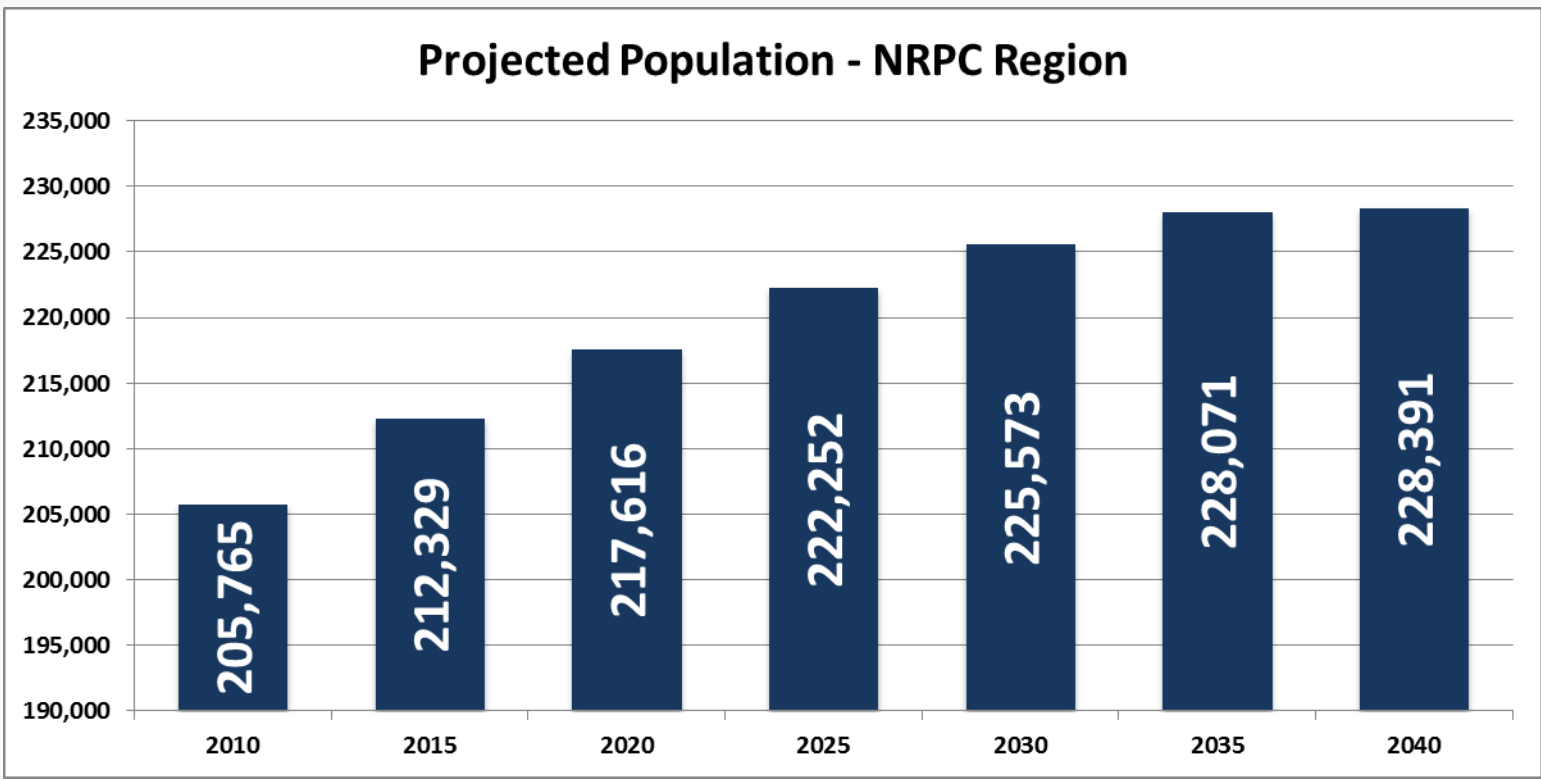
- Historic and Projected Net Migration:
 - Employment opportunities
 - Existing highway access and planned expansions
 - Community build-out conditions
 - Planned or anticipated developments
 - Local regulations including growth control
 - Land availability and urban/rural conditions
 - Other anticipated policy changes



FUTURE CONDITIONS - Population

Projected Population Changes

- ❑ Annualized Growth Rate of 0.35% from 2010 to 2040
- ❑ Deaths begin to exceed births by 2030

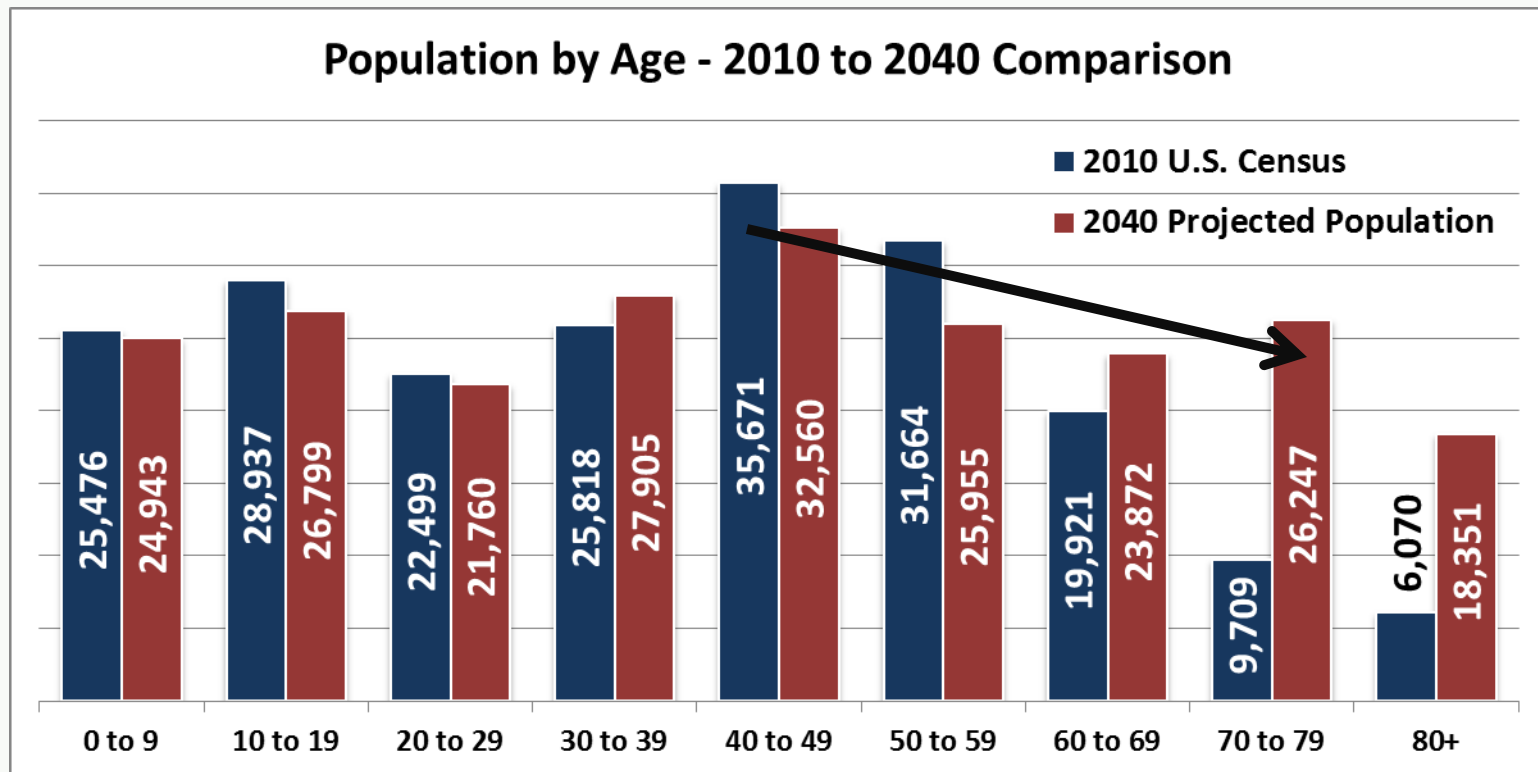




FUTURE CONDITIONS - Population

Projected Population Changes

- ❑ 2040 Senior Population 2 to 3 Times Current Population
- ❑ Limited Projected Change in Younger Populations





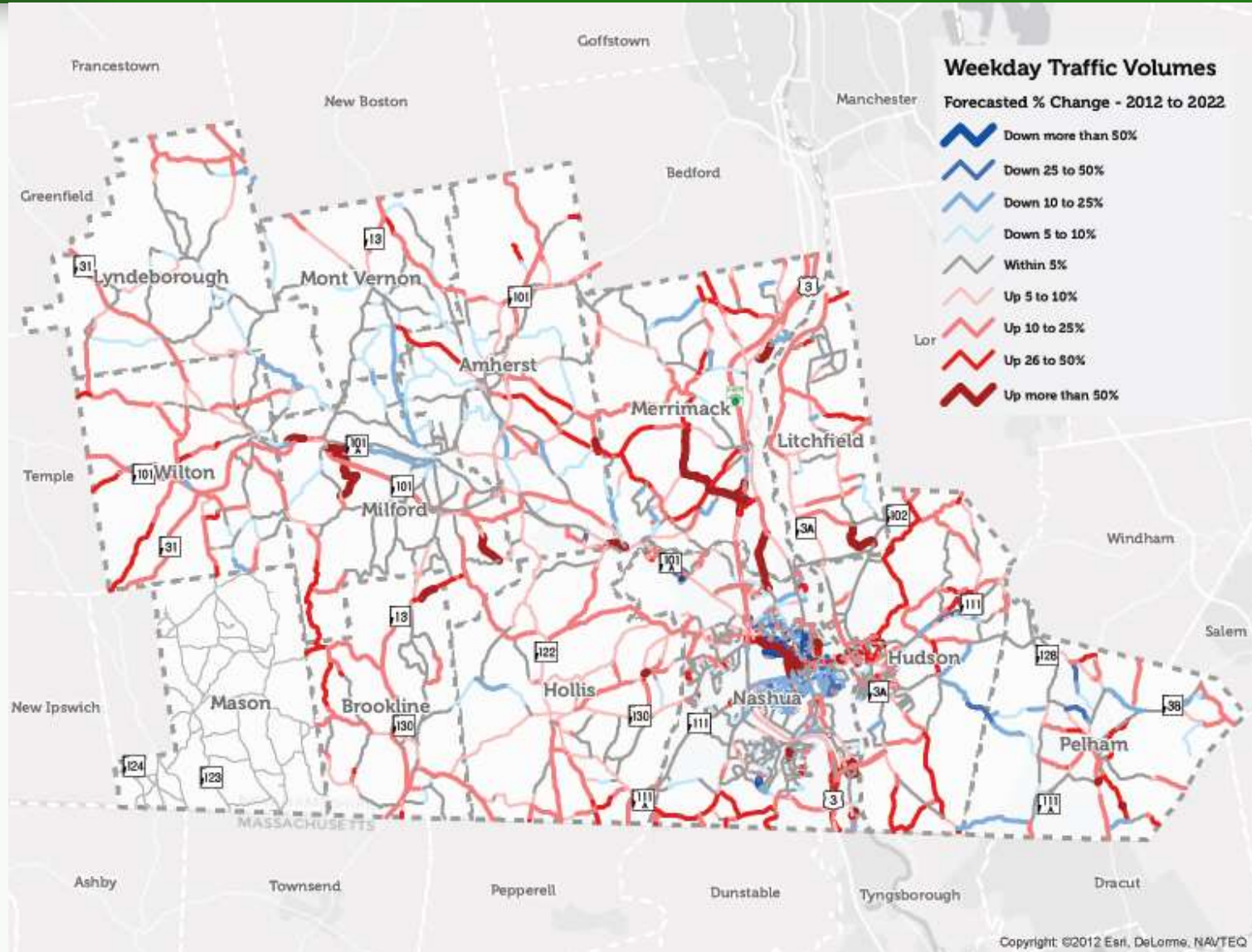
FUTURE CONDITIONS

Regional Travel Demand Model

- Traffic Model Basics**
 - Roads and zones
 - Households and employment
 - Calibration
 - Scenarios
 - Sub-Area models
- Current Regional Model**
 - Updated base year land use assumptions
 - Census 2010 data
 - 2010 employment data
 - Updated horizon years and list of projects
 - New population projections
 - 2013-2040 MTP

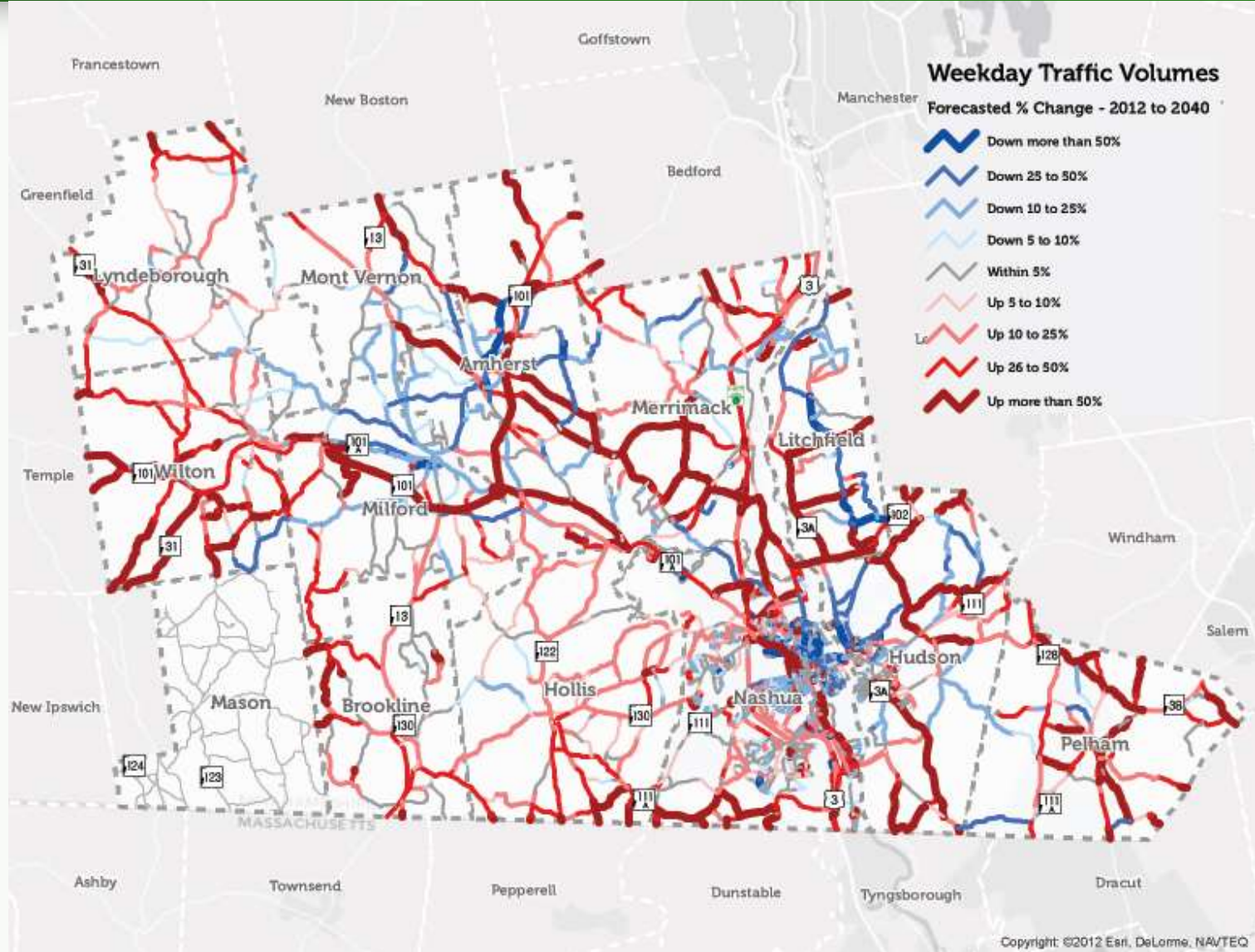


FORECASTED VOLUME CHANGE - 2022





FORECASTED VOLUME CHANGE - 2040



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FORECASTED ROADS OVER CAPACITY





OUTREACH – Fall 2012

What is best about this area?

- Rural Character
- Economic Vitality
- Small Town Feel

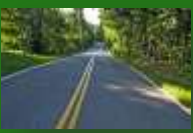


What could make this area even better?

- Economic Vitality
- Non-Auto Transportation
- Recreation

Common Themes:

Rural Character, Economic Vitality & Transportation Choices



OUTREACH – Fall 2012

What We Heard about Transportation

What is best about this area?

- Bike / Recreation Paths
- Traffic – good/minimal
- Public Transportation



What could make this area even better?

- Public Transportation
- Improved Roadways
- Public Transportation - Rail



OUTREACH – Fall 2012 Visual Preference Survey

How would you like to get around?



#1 – Walking
#4 – Rail

#2 – Automobile
#5 – Bus

#3 – Bicycle
#6 – Airplane



Transportation Needs Survey – Fall 2012

The Most Critical Transportation Issues in the Region:

- Limited transit options (bus & passenger rail)
- Limited options for east-west travel
- Traffic Congestion & delays

The Least Critical Transportation Issues in the Region:

- Parking availability
- Too much heavy truck traffic
- Pedestrian and/or bicycle safety



Transportation Needs Survey – Fall 2012

The Most Important Transportation Improvements that could be made in the region:

- Bring passenger rail to the Nashua Region
- Maintain and improve existing roadways and bridges
- Improve and/or expand existing bicycle and pedestrian facilities

The Least Important Transportation Improvements that could be made in the region:

- Add capacity by building new roadways
- Provide real-time driver information
- Add capacity by widening existing roadways



MUNICIPAL MASTER PLANS – Common Themes

Every NRPC municipality includes the following transportation themes in their Master Plans:



Preserve rural/historic character



Promote alternative modes of transportation



Reduce or prevent traffic congestion



Improve safety conditions



Improve pedestrian facilities



MUNICIPAL MASTER PLANS – Common Themes

Most, but not all, NRPC communities address the following transportation objectives in their plans:

- Expand public transit options
- Improve bicycle facilities
- Minimize harmful environmental effects of transportation system
- Require roadway connectivity
- Improve pedestrian facilities
- Better integrate land use and transportation planning
- Implement access management strategies
- Implement traffic calming measures
- Improve site design regulations for walkability



Regional Transportation Workshop

Break-out Session:

- For Each Goal....
 - What's good about transportation in the region?
 - What are the challenges?
 - What are the regional needs?

