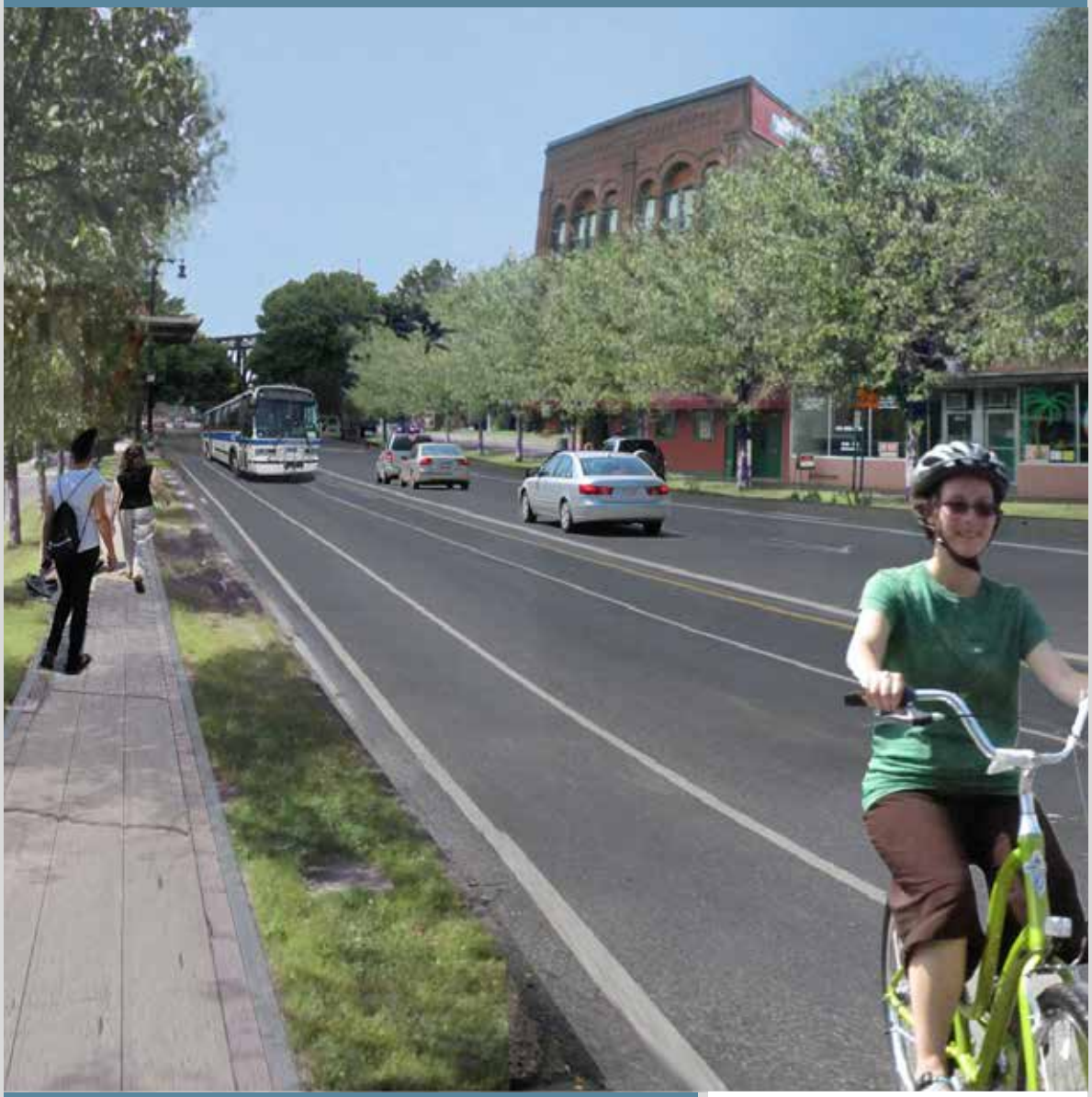
Pioneer Valley Planning Commission

Sustainable Transportation Element Plan

Improving Mobility.
Promoting alternative modes of transportation.



Produced by the Pioneer Valley Planning Commission with the support of the U.S. Department of Housing and Urban Development Sustainable Communities Initiative Regional Planning Grant Program.

March / 2014

Catalyst for Regional Progress
PVPC

Executive Summary

Pioneer Valley Planning Commission

Sustainable Transportation Element Plan

Improving mobility.

Promoting alternative modes of transportation.

Prepared by

Pioneer Valley Planning Commission
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Sustainable Transportation Plan

Improving Mobility and Promoting. Alternative Modes of Transportation.

Sustainable transportation consists of the efficient use of existing resources to increase mobility while positively impacting economic development, quality of life, and the preservation of the natural environment. This document identifies the existing sustainable transportation initiatives in the region and develops strategies to improve the sustainability of the regional transportation system in the Pioneer Valley. The purpose of the plan is to identify how sustainability can be incorporated into the transportation planning process in order to meet existing needs without compromising the assets of future generations.

"My community is sustainable when we strive to create a continuous revenue stream to maintain and enhance mobility through the Region in a cost effective manner."

Jim Czach,
West Springfield, MA

Note: This is the executive summary of our plan. To obtain or view a copy of the full plan, visit pvpc.org.

OUR GOALS

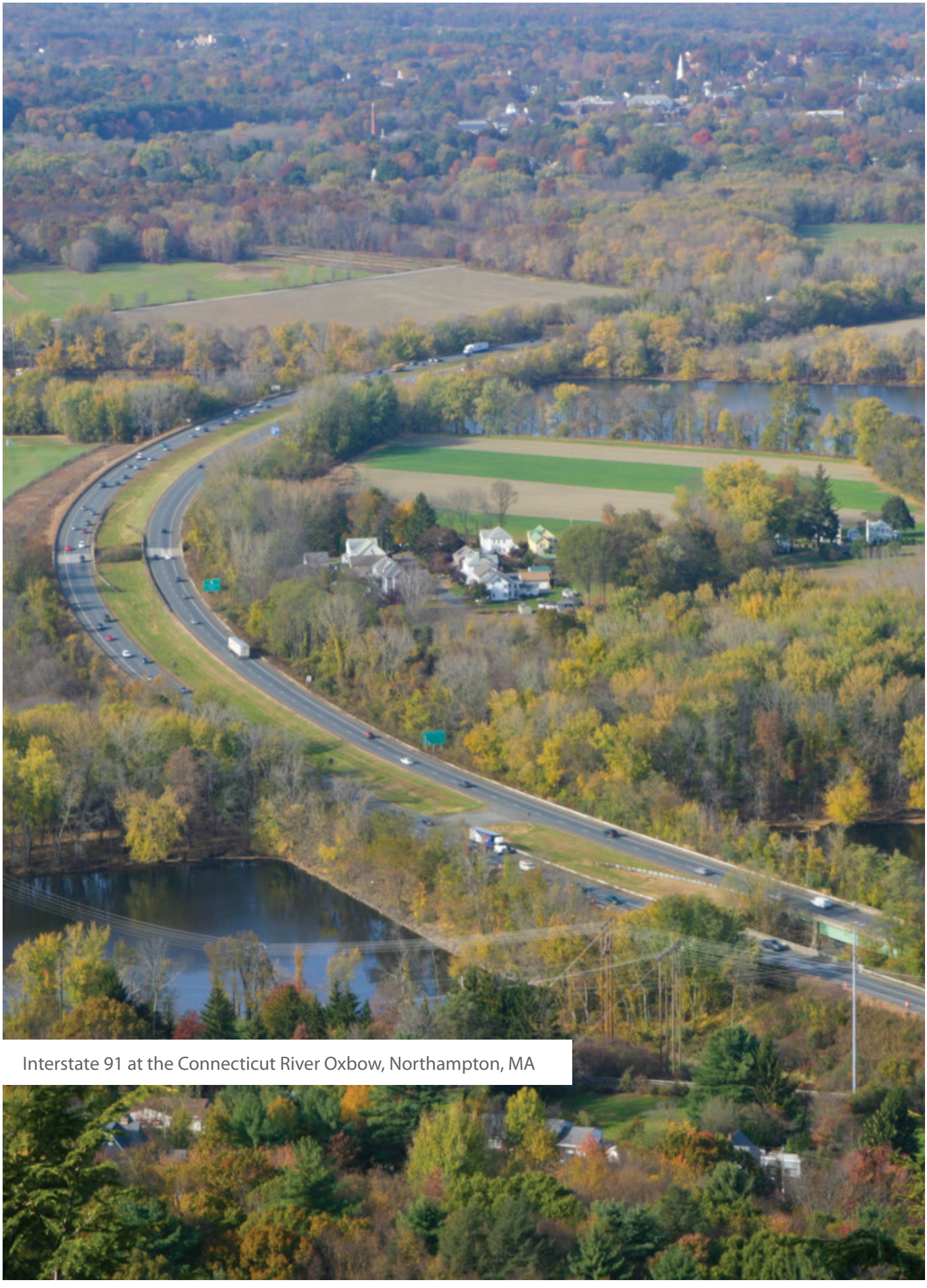
Safety: To provide and maintain a transportation system that is safe for all users and their property.

Intermodal: To provide access between travel modes for people and goods while maintaining quality and affordability of service.

Multimodal: To provide a complete choice of adequate travel options that are accessible to all residents, visitors and businesses.

Sustainability: To incorporate the concepts of Sustainable Development in the regional transportation planning process and transportation improvements.

Holyoke transit center in Holyoke, MA
Photo: Chris Curtis

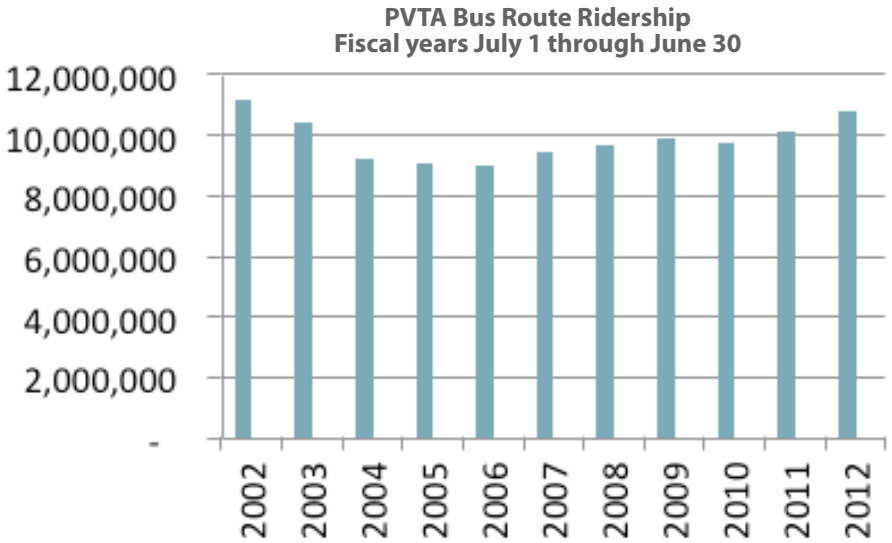


Interstate 91 at the Connecticut River Oxbow, Northampton, MA

OUR FINDINGS

Bus ridership is increasing.

Ridership is the number of trips provided in a given period (as distinguished from individual "riders," who typically make multiple trips during the same period). Capital and service improvements implemented by the Pioneer Valley Transit Authority (PVTA) from 1970-1990 resulted in a ridership peak of nearly 13 million in 1985. However, state-imposed budget reductions in 2002 necessitated deep service cuts, eliminating nearly one-fifth of bus service, including many Sunday trips, resulting in a significant decrease in ridership. This trend has reversed over the last few years and nearly 11 million rides were provided in 2012.

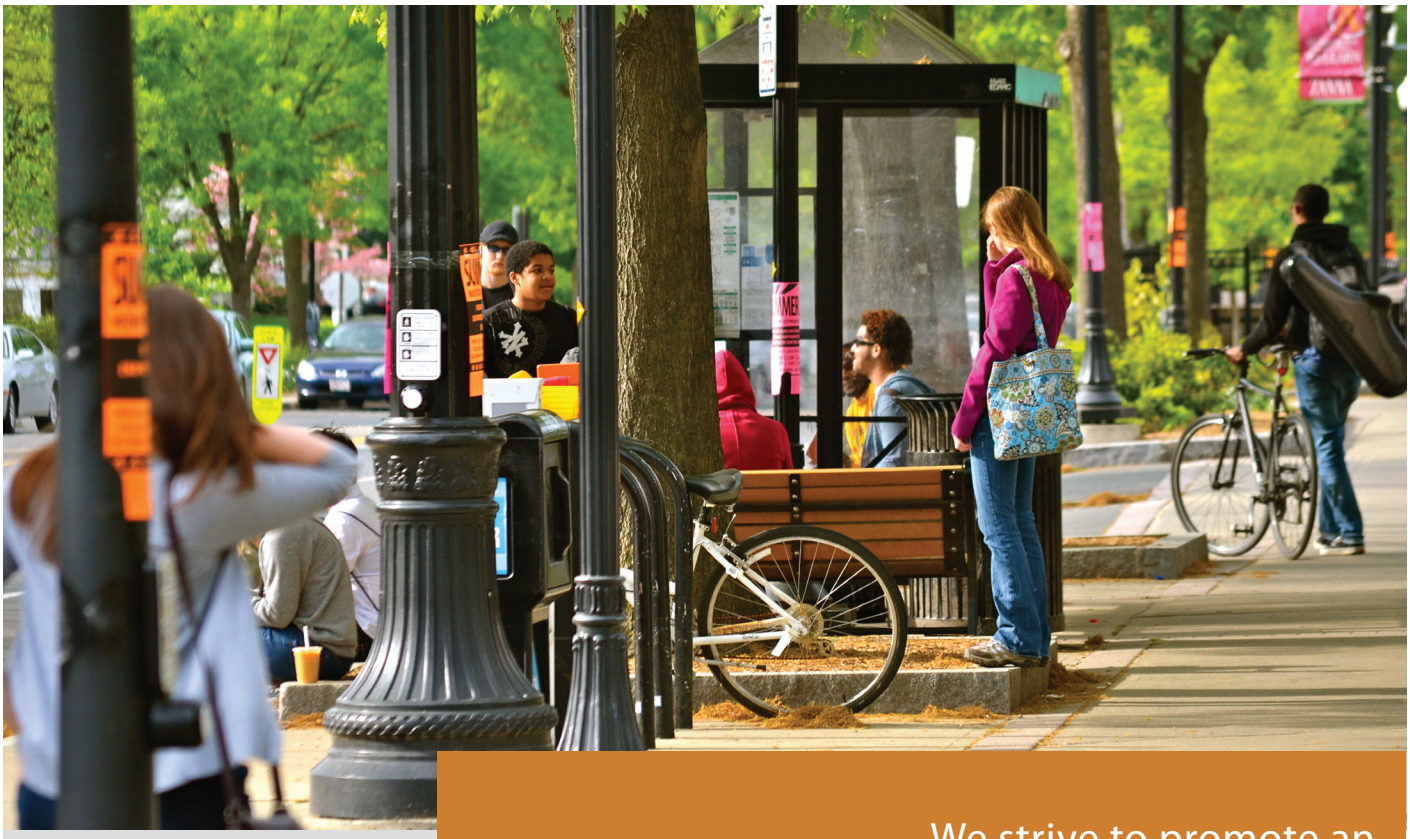


We have an expanding network of off-road trails.

BIkeway in Springfield, MA

With over 80 miles of existing bicycle and pedestrian facilities in the Pioneer Valley Region, the popularity of multiple use trails in the Pioneer Valley has brought new challenges and opportunities to those that use and manage these facilities. In-line skates, push scooters, and baby joggers have been added to the mix with bicyclists and pedestrians on trails. While recreation use dominates trail activity many people also use the facilities for non-recreational trips such as commuting to work, school or shopping. Many of these trips replaced travel that would otherwise have been made with a motor vehicle. These facilities promote the benefits of walking and bicycling while minimizing conflicts with motorized traffic. Many facilities provide economic benefits as well through increased tourism in the Pioneer Valley.

OUR FINDINGS



Bus stop in Amherst MA.

We strive to promote an equitable transportation system.

The 43 communities of the Pioneer Valley Region are diverse in incomes and ethnicity. The Pioneer Valley Metropolitan Planning Organization (MPO) is required to certify to the Federal Highway Administration and the Federal Transit Administration that their planning process addresses the major transportation issues facing the region. The MPO also makes a special effort to seek out and consider the needs of individuals or neighborhoods with Limited English Proficiency. A three-step process was developed to assess the benefits and burdens of transportation system investments for low-income populations and minority populations. These steps are:

1. Identification of transportation investments programmed through the Transportation Improvement Program (TIP) and Regional Transportation Plan (RTP).
2. Scoring and prioritization of programmed TIP projects.
3. Analysis of programmed TIP project locations in relation to census block groups (defined as by the percentage of low-income and/or minority residents that exceed the regional average) to determine the relative distributional equity of programmed transportation investments.

Mass DOT's New Green DOT Plan

"The Plan focuses upon sustainability practices under the direct control of MassDOT, concentrating on system operations and transportation project development. These strategies may also offer opportunities to address our long term fiscal challenges through energy and maintenance cost savings. At the same time, many of these sustainability goals require investments that may be challenging to make given the current situation related to transportation funding. The Divisions and their partners will implement the sustainable activities identified in this plan with sensitivity to how minority, low-income, and limited-English proficient populations are impacted, both in relation to benefits and burdens."

GreenDOT Implementation Plan

Massachusetts has set ambitious sustainability initiatives.

MassDOT launched its GreenDOT initiative on June 2, 2010. GreenDOT was developed to assure a coordinated approach to sustainability and to integrate sustainability into the responsibilities and decision-making of all MassDOT employees. The following three mutually-reinforcing goals form the foundation of GreenDOT:

- Reduce greenhouse gas (GHG) emissions
- Promote the healthy transportation modes of walking, bicycling, and public transit
- Support smart growth development

The initiative is a comprehensive response to a range of state and MassDOT laws, policies and initiatives including: the Global Warming Solutions Act, the Green Communities Act, the Healthy Transportation Compact, Leading by Example, YouMoveMassachusetts, and Complete Streets. The Global Warming Solutions Act requires Massachusetts to reduce economy-wide GHG emissions: 10% -25% below 1990 levels by 2020 and an 80% reduction below 1990 levels by 2050. The transportation sector is the largest GHG emitter, producing 31% of 1990 emissions and projected to produce 38% of 2020 emissions. GreenDOT also incorporates a statewide mode shift goal to triple the percentage of trips made by bicycling, transit and walking.

The Norwottuck Rail trail is a key east-west bicycle and pedestrian linkage in the region

OUR FINDINGS

Proposed Union Station project, Springfield, MA

Source: Springfield Redevelopment Authority

We are advancing many sustainable transportation projects.

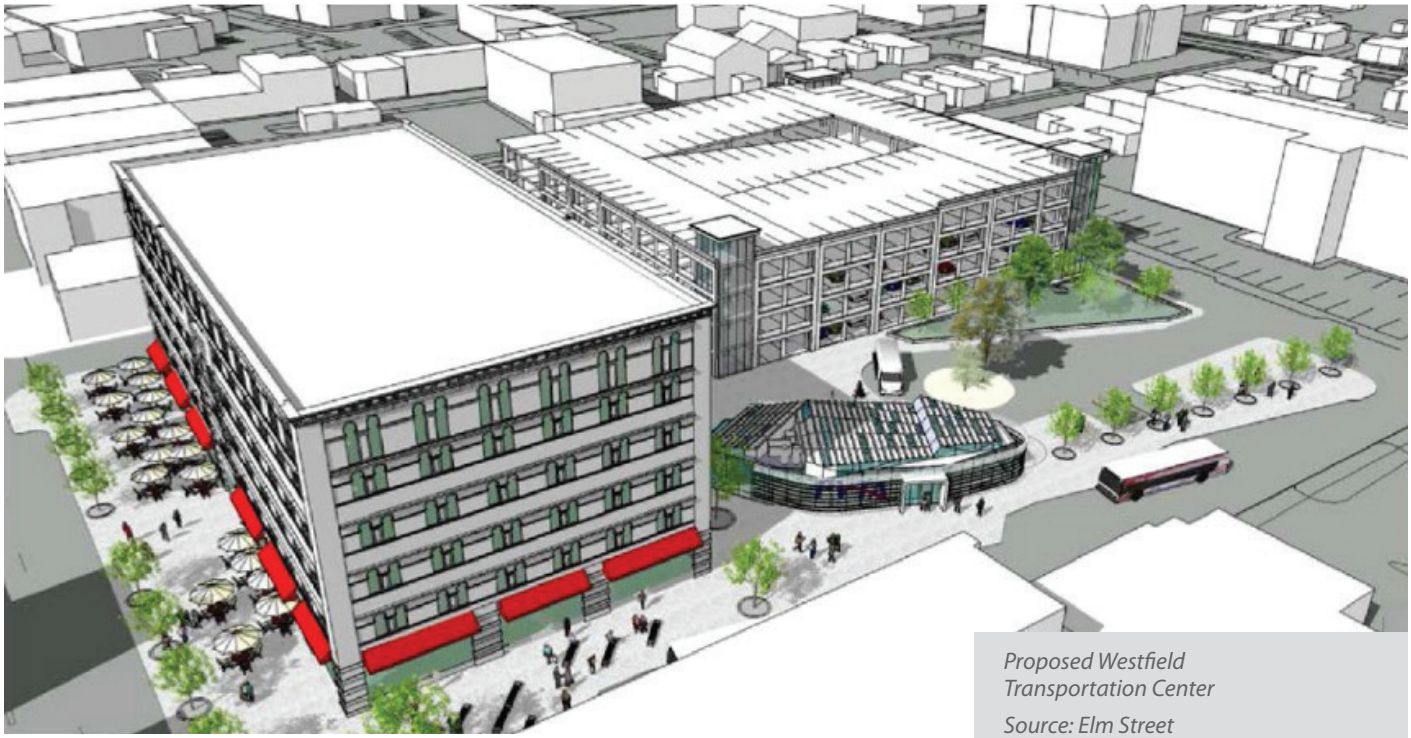
"This (Springfield Union Station Project) will make transportation easier, more convenient, and more efficient for travelers in the region. This will be a hub, a place where passengers can catch a bus or hop a train whether it's Amtrak or a bus operated by the Pioneer Valley Transit Authority. Improving this facility will encourage more people to try public transit. That's a big win for everybody. Through public transit we reduce highway congestion, improve air quality, and give people options."

Raymond H. LaHood, U.S. Secretary of Transportation, 2012

The Pioneer Valley has actively incorporated sustainability planning practices to improve the regional quality of life. These projects improve the livability of neighborhoods, provide alternate modes of transportation, and reduce environmental impacts. These projects typically enhance access for pedestrian, bicycle and transit use. Increased access to these alternative modes reduces individual's reliance on automobiles and can improve the local environment by using a cleaner and healthier mode of transportation.

Regional performance measures consistent with the Moving Ahead for Progress in the 21st Century Act (MAP-21) will be incorporated into the transportation planning process. These measures will assist in tracking the progress made towards attaining regional goals such as Sustainability as a result of investments in the transportation system.

The PVTA has actively pursued planning and construction efforts of intermodal and transportation centers within the region to improve connectivity and increase rider experience. These transportation centers enhance sustainability by improving transit access, increasing livability and promoting healthy transportation options.



Proposed Westfield Transportation Center

Source: Elm Street Urban Renewal Plan, Westfield

The Union Station Regional Intermodal Transportation Center will revitalize the long-vacant Springfield landmark into a comprehensive multimodal facility with business, entertainment, cultural and retail operations. The Union Station Project will consolidate the different transportation terminals of Springfield into one location. The multimodal center will include the Springfield Hub for PVTA routes, Intercity Buses, and Amtrak. The downtown Springfield location has convenient access to the Interstate Highway System, ample parking at local garages, as well as convenient pedestrian access. When complete, the project will provide a 24-bay bus terminal (with 4 additional bus bays on an adjacent site) and a 146-space parking garage. A pedestrian tunnel linking the station with train boarding platforms will also be restored.

PVTA and the City of Westfield are collaborating on the development of the Westfield Transportation Center to be located on Elm Street between Church and Arnold Streets in downtown Westfield. The facility will include bus berths for local and intercity buses, bicycle facilities, and vehicular parking. The project, included as part of the city's Elm Street Urban Renewal Plan, will help anchor new urban and commercial redevelopment in the vicinity and support additional transit ridership related to both the downtown and Westfield State University.

"Communities benefit when decisions about transportation and land use are made at the same time. Deciding to build houses, schools, grocery stores, employment centers, and transit stations close to one another—while providing a well-connected street network and facilities for walking or biking—provides more transportation choices and convenient access to daily activities. It also ensures community resources and services are used efficiently."

FHWA Livability Fact Sheet

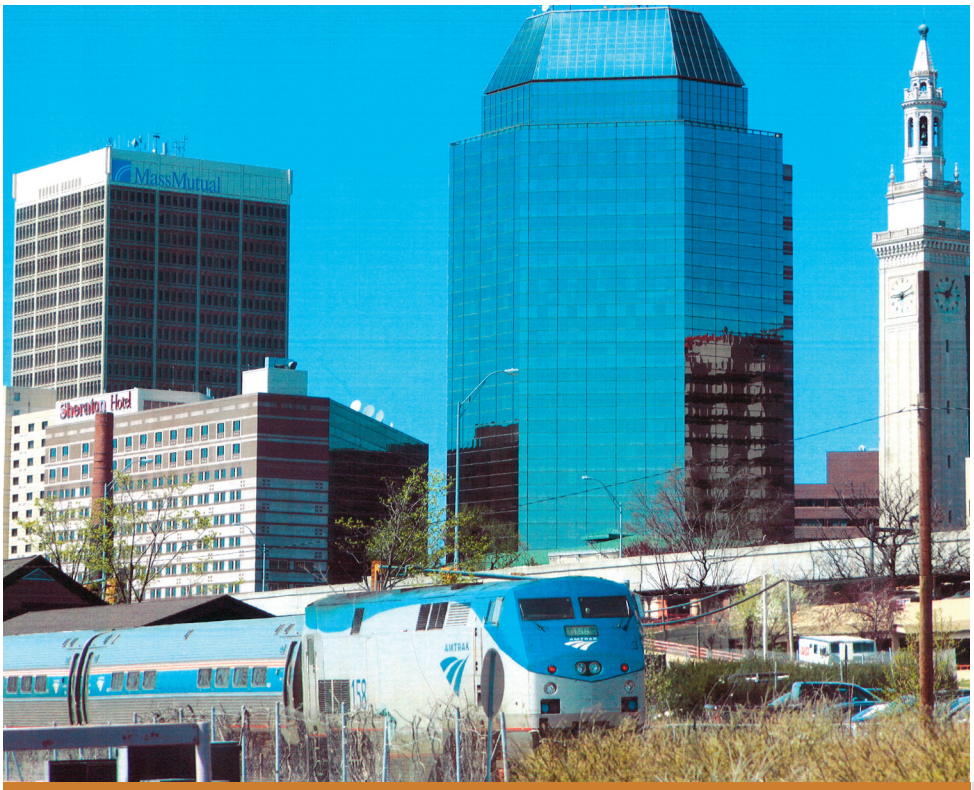
Intelligent transportation systems.

An intelligent transportation system enables systems to operate more efficiently, saving resources and energy, and improving rider experience. These systems use high tech solutions to allow the system to communicate information instantaneously. This information improves the ability of transit operators to react to daily challenges and allows more in depth data on route usage. All PVTA buses are equipped with equipment to perform automatic audio and visual stop announcements, automatically count passengers, and locate the position of the vehicle. Passenger experience will improve, as bus arrival and departure times will be more easily attainable for customer service agents.

Similarly, MassDOT has installed closed circuit television cameras and variable message signs along the entire length of Interstate 91 and portions of Interstate 291. This equipment provides real-time travel information that can be disseminated to increase safety, improve travel efficiency, and reduce congestion.

Promote bike travel.

The Pioneer Valley region possesses high quality bike lanes and bike trails that connect people to neighborhoods, shopping, recreational areas, major places of employment, and schools. These trails and lanes allow users to travel safely and quickly to accomplish daily activities. The extensive network of bike lanes and the areas they serve makes the bicycle a viable transportation option. PVTA's bikes on bus program "Rack and Roll" has dramatically improved access for bicyclists to transit and given thousands of people another choice in their mode of travel. Bicycle racks have been provided on all fixed route buses since 2010.



Existing Amtrak Passenger Rail Service in downtown Springfield, MA.

Source: PVPC

The future is bright for passenger rail.

As demand continues to grow for transportation options for intercity travel, passenger rail has gained support in both popularity and funding to become a viable alternative mode of travel in the Pioneer Valley in the near future. Expanded passenger rail service results in increased ridership, a potential travel time savings, a reduction in emissions, the potential for reduced highway maintenance costs, and improved highway safety.

The Vermonter service runs one train/day in each direction between Washington D.C. and St. Albans, Vermont via Amherst and Springfield, MA. Recently, improvements to the region's Connecticut River line were funded allowing the Vermonter to be rerouted to better serve the region's urbanized area with stops in Greenfield, Northampton and Holyoke, MA. The project will upgrade the existing railroad ties and track along the line, improve the safety of at-grade crossings, and build a bicycle and pedestrian tunnel under the active rail line to connect the Norwottuck Rail Trail to the Manhan Rail Trail in Northampton, MA. Construction on this line is underway and service is anticipated to return to the line in 2014.

Rendering of proposed Holyoke Amtrak train station at Depot Square.

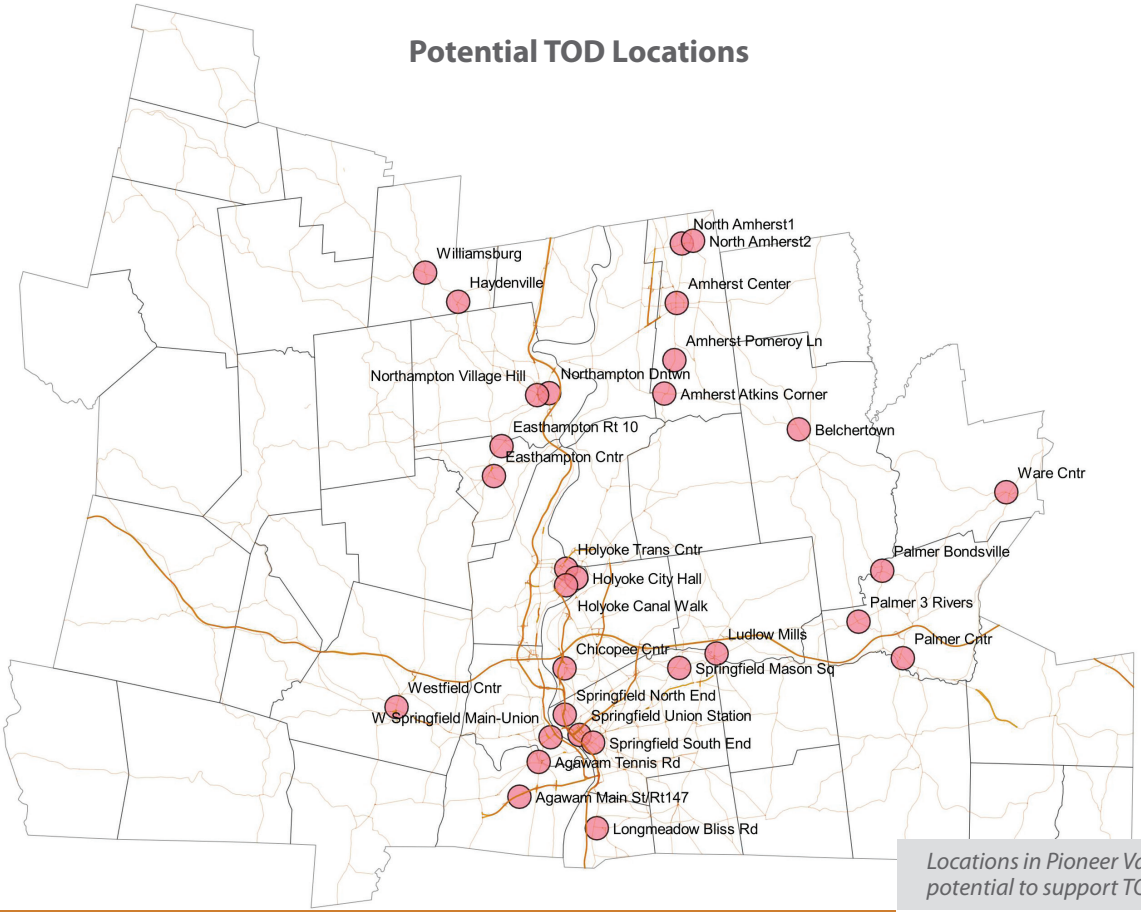
"Expanding passenger rail is directly connected to economic recovery, and the revitalization of Union Station is a powerful step in revitalizing downtown Springfield"

Massachusetts Governor
Deval Patrick, 2012

The New Haven-Hartford-Springfield Rail project represents a broad partnership between the State of Connecticut, Amtrak and the Federal Railroad Administration (FRA), as well as the states of Massachusetts and Vermont. The goal is ambitious – to provide those living, working or traveling between New Haven, CT, Hartford, CT and Springfield, MA with high speed rail service equal to the nation's best rail passenger service. Since 1999, the Pioneer Valley Region and Connecticut have been working toward the implementation of passenger rail service between the three cities.

Intercity Rail service is expected to have a significant impact on the 13 railroad station areas serving the 17 communities along the rail corridor. The service will connect the third, fourth and fifth largest metropolitan areas in New England and provide a connection to both Amtrak and Metro North Service into the New York Region. The project will also result in a coordinated connection to Bradley International Airport in Windsor Locks, CT providing another option for air travelers to access the airport. When the project is complete, service will expand from the existing six trips daily between New Haven and Springfield, to 25 trips per day.

In its 2005 Transportation Appropriations Bill, Congress designated the Boston, MA – Springfield, MA to New Haven, CT as well as the Springfield, MA to Albany, NY corridors as part of the Northern New England High Speed Rail Corridor. Congress further provided funds to study the feasibility of High Speed Rail Service in the Boston – Springfield - New Haven Corridor. MassDOT is advancing a study of the corridor to explore opportunities for passenger rail service and provide a scalable, incremental plan for the implementation of new or expanded services.



Locations in Pioneer Valley with the potential to support TOD.

A number of locations in the region have the potential to support TOD.

Transit Oriented Development (TOD) promotes a balance of jobs and housing, and encourages the use of bus and other transit opportunities, while reducing single occupant vehicle trips and discouraging suburban sprawl. TOD is a land development strategy that seeks to concentrate more homes, jobs and shopping within a 5-10 minute walking distance (usually ¼ to ½ mile) of a well-used transit station or bus stop. TOD attempts to limit sprawl, improve air quality, and provide access to goods, services and jobs in close proximity to residential areas.

A critical component of the Sustainable Knowledge Corridor project was the development of a methodology to analyze the level and type of development transit can support and identify key areas to begin TOD demonstration projects. A matrix analysis was conducted for thirty sites found to have the potential to support TOD. A quantitative methodology was then developed to rank each of the sites based on their transportation merit and prioritize the locations best suited for further analysis. This analysis will be used to assist in the identification of transportation improvement projects that could assist in the implementation of TOD.

OUR PLAN

The strategies included in this element plan are based on those recommended in the 2012 Pioneer Valley Regional Transportation Plan (RTP). The RTP focuses on the attainment of a safe and dependable transportation system. A total of five emphasis areas were identified to assist in the development of the regional transportation strategies required to assist in the achievement of the RTP vision and goals. These emphasis areas are not intended to be a replacement for the regional transportation goals. Instead they were established with the recognition that many of the transportation improvement strategies included as part of the RTP Update can meet multiple regional transportation goals. The five emphasis areas are:

- Safety and Security
- The Movement of People
- The Movement of Goods
- The Movement of Information
- Sustainability

At the same time, we need strategies to prepare for, and adapt to, our already changing climate. For more details about any of the strategies listed in this plan, please see the 52 total strategies in the full Transportation Plan.

Safety & Security

PROMOTE

The Safe Routes to School Program

140

Promote the Safe Routes to Schools Program and assist in identifying potential candidate locations for inclusion in the program.

PARTNERS:
MassDOT, PVPC

PROVIDE

Accommodations for Pedestrians, Transit Users, and Bicyclists in Roadway, Bridge Design and the Maintenance of Existing Facilities

141

Identify and prioritize transportation improvement projects that promote the safety of bicyclists, pedestrians, and transit riders to assist in developing a balanced transportation system.

PARTNERS:
MassDOT, Municipalities

CROSS-CUTTING STRATEGIES:
$

Movement of People

DEVELOP

A Comprehensive Commuter Rail Network

142

Work with officials from the Commonwealth of Massachusetts, the State of Connecticut, local communities, and other interested parties to advance the development of a viable Commuter Rail network.

PARTNERS:
MassDOT

CROSS-CUTTING STRATEGIES:
$ 

Sustainability Strategies

MAINTAIN

Equity in Providing Transportation Services and Access Throughout the Region

143

Incorporate an assessment of transportation equity as part of transportation planning studies as appropriate. Work with local communities to identify neighborhood groups and local organizations to include in ongoing public participation activities.

PARTNERS:
PVPC, PVTA, MassDOT, FHWA, FTA, local communities
CROSS-CUTTING STRATEGIES:

PROMOTE

The Implementation of Bicycle Lanes Where Practical

144

Identify areas where bicycle lanes could be included as part of ongoing transportation improvement projects.

PARTNERS:
MassDOT, Municipalities
CROSS-CUTTING STRATEGIES:

CREATE

Green Streets Policies

145

Work with DPWs and Mass DOT to adopt Green Streets policies to promote on-site stormwater runoff and installation of tree box filters, rain gardens, sheet flow runoff and permeable pavements in road construction or re-construction projects.

PARTNERS:
PVPC, DPWs, MassDOT
CROSS-CUTTING STRATEGIES:

REPLACE

Under-sized Culverts and Stream Crossings

146

Promote replacement of under-sized culverts and stream crossings to accommodate increased storm flows and wildlife passage, through changes in MassDOT and FEMA policies.

PARTNERS:
PVPC, MassDOT, FEMA
CROSS-CUTTING STRATEGIES:

REDUCE

Combined Sewer Overflow (CSO) Impacts

147

Work with MassDOT to reduce combined sewer overflow (CSO) impacts from highway runoff, including I-91, through MassDOT's GreenDOT initiative.

PARTNERS:
PVPC, MassDOT

CROSS-CUTTING STRATEGIES:

INVEST

In the Repair and Maintenance of Existing Transportation Infrastructure.

148

Utilize pavement management to identify roads in need of repair before they reach critical conditions. Maintaining a state of good repair results in more cost effective projects that enhance the safety and efficiency of all modes

PARTNERS:
MassDOT, DPW

CROSS-CUTTING STRATEGIES:
$

DEVELOP

Transportation Facilities to Support and Promote Smart Growth in and Around Existing City and Town Centers

149

Transportation hubs and multimodal centers that provide services such as showers, lockers, bike shelters, and information centers attract residents and customers. They can also assist in increasing the viability of high density development initiatives for town centers.

PARTNERS:
PVTA, Municipalities

CROSS-CUTTING STRATEGIES:

WORK

With Major Employers to Develop Incentives to Decrease Single Occupant Vehicle Use

150

Continue to work with MassRides to reduce the percentage of single occupant vehicles that commute to work. Incorporate strategies as appropriate into ongoing transportation planning studies.

PARTNERS:
Municipalities

CROSS-CUTTING STRATEGIES:
$

Movement of Goods

DEVELOP

Incentives to Encourage Businesses to Utilize a Mix of Freight Transportation Alternatives

151

The movement of goods in the Pioneer Valley is dominated by trucking, which has 98 percent of the market. Identify measures to encourage a wider mix of freight transportation uses.

PARTNERS:
Local Government

CROSS-CUTTING STRATEGIES:
$

IDENTIFY AND MITIGATE

Vertical Clearance Issues at Underpasses

152

Low clearance underpasses restrict the efficient movement of freight in the Pioneer Valley region. Identify locations with vertical clearance issues and advance transportation improvements that enhance freight movement.

PARTNERS:
MASSDOT

Movement of Information

REFINE AND IMPROVE

The Regional Project Prioritization System as Necessary

153

Work with MassDOT and the Pioneer Valley MPO to identify enhancements to the regional project prioritization system. Specifically, develop a separate prioritization system for transit and freight improvement projects.

PARTNERS:
MassDOT, PVPC

CROSS-CUTTING STRATEGIES:

ENCOURAGE

Telecommuting and Video Conferencing

154

Develop initiatives to encourage major employers to offer options for tele-commuting. Promote video conferencing to reduce the rise in vehicle miles traveled in the region.

PARTNERS:
Major Employers

CROSS-CUTTING STRATEGIES:

$

CROSS CUTTING STRATEGIES ICONS: The following icons are used in reference to issues and strategies related to other element plans of this report.

- TRANSPORTATION
- LAND USE
- HOUSING
- ENVIRONMENT
- ECONOMIC DEVELOPMENT
- FOOD SECURITY
- GREEN INFRASTRUCTURE
- CLIMATE ACTION
- BROWNFIELDS

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