

Economic Vitality

Introduction

The MRPC has an ongoing commitment to the goal of improving economic vitality in the Montachusett Region (Region) by focusing on improving the transportation infrastructure that services the diverse economic drivers within the Region. The MRPC has and will continue to work with MassDOT, MRPC Member Communities, and Devens to improve the transportation infrastructure. The following content provides a snapshot of the existing transportation infrastructure critical to the economic vitality of the Region that should be the focus of future improvement and recommendations for improving the infrastructure.

Economic Vitality Needs

Critical Rural Freight Corridors (CRFCs) & Critical Urban Freight Corridors (CUFCs)

One of the ten federal requirements from the current [2017 Ma Freight Plan](#) (see below for more) was to develop two freight corridor listings:

- **CRFCs:** Are public roads not in an urbanized area which provide access and connection to the *Primary Highway Freight System* (PHFS) and the Interstate with other important ports, public transportation facilities, or other intermodal freight facilities.
- **CUFCs:** Are public roads in urbanized areas which provide access and connection to the PHFS and the Interstate with other ports, public transportation facilities, or other intermodal transportation facilities.

Purpose and Implications of CUFCs and CRFCs Regional Freight Corridors (RegionFCs*)

*RegionFCs: MRPC highways that facilitate regional freight traffic for the Region

Massachusetts highways that facilitate inbound and outbound freight traffic in Massachusetts include:

- Five major Interstate corridors: Interstates 84, 90, 91, 93, and 95;
- Seven auxiliary corridors: Interstates 190, 290, 291, 391, 295, 395, and 495;

- Seven major non-Interstate corridors include US-3, US-6, MA-2, MA-3, MA-24, MA-128, and MA-146

Of the above Highways, the following are RegionFCs:

- I-190 and MA-2: The two RegionFCs form an interchange in Leominster at Exit 19 and Exit 101 respectively

The following highways provide freight truck access and egress for the RegionFCs from outside the Region:

- I-495 to MA-2 via Exit 78 in Littleton (MA-2 Exit 113)
- I-495 to MA-2 via the following Routes and Exits (south to north):
 - Route 62 via Exit 67; Route 117 via Exit 70; Route 111 via Exit 75; Route 2A/110 via Exit 79; Route 119 via Exit 80
- I-290 to I-190 via Exit 22 in Worcester
- I-91 to MA-2 via Exit 46 in Greenfield
- I-91 to Route 202 to MA-2 via Exit 14

RegionFCs, CRFCs and CUFCs & National Highway Freight Network (NHF^N) National Highway Freight Program (NHFP) Funding

The FHWA defines the NHF^N for the purpose of prioritizing through routes critical to interstate commerce:

- The RegionFCs are included in the NHF^N
- The Region CRFCs and CUFCs (listed below) provide connectivity to the NHF^N for manufacturers and consumers in the Region
- The Montachusett MPO used its own analysis and discretion to designate their mileage allotment to develop Region CRFCs and CUFCs to address the greatest regional freight needs
- The CRFC and CUFC designations increase NHF^N in Massachusetts allowing expanded use of NHFP formula funds and, if renewed, the FASTLANE Grant Program funds for eligible projects that support identified national goals (23 U.S.C. 167(b), 23 U.S.C. 117(a)(2))

- MassDOT directs funds toward projects that will improve system performance and the efficient movement of freight on the NHF^N in Massachusetts
- By programming these projects using a mix of NHF^P and other funds, MassDOT will advance projects on the roadway segments deemed most critical to freight needs by the MPOs
- Additionally, each project is screened to make sure it meets at least one statutory requirement before NHF^P funds are applied
- After the development of the STIP and CIP, the project list is updated annually

The following four CUFCs and three CRFCs received MPO endorsement in 2017. The two Route 2 CRFCs also serve as part of the Route 2 RegionFC:

- **Jackson Road (CUFC)** in Harvard/Devens connects Route 2 (Exit 106) to the developing industrial and freight centers at Devens and indirect access to the railroad freight terminal as well as destinations in Ayer.
- **Barnum Road (CUFC)** in Ayer/Devens provides indirect access via Jackson Road to the developing industrial and freight centers at Devens and direct access to the railroad freight terminal as well as destinations in Ayer.
- **Lunenburg/Fort Pond Road (Route 70) (CUFC)** in Lancaster/Lunenburg allows access from Route 2 (Exit 103) to mining facilities at P.J. Keating, a manufacturer of construction earth products and installer of hot mix asphalt, and its mines and truck terminals.
- **Route 111 (CRFC)** from Route 2 (Exit 109) through the Town of Harvard is a connection between two PHFS - Route 2 and I-495 (Exit 75) in the Town of Boxborough.
- Two **Route 2 CRFCs** (also serve as part of the Route 2 RegionFC): One in Phillipston / Templeton, and one in Harvard. Route 2 is the main east-west corridor in the Region. It is parallel to significant freight and commuter rail infrastructure as well as connecting the regional industrial centers of Devens, Leominster, Fitchburg, and Gardner. Exits 82, 79, and 109 connect the two Route 2 CRFCs to destinations north and south of Route 2. Route 2 connects to interstates I-495 to the east, I-190 within the Region and to the south, and I-91 to the west.

Figure 4.5-1: Narrow Rd & Dangerous S-shaped Horizontal Curve at Rt 31 RR Bridge



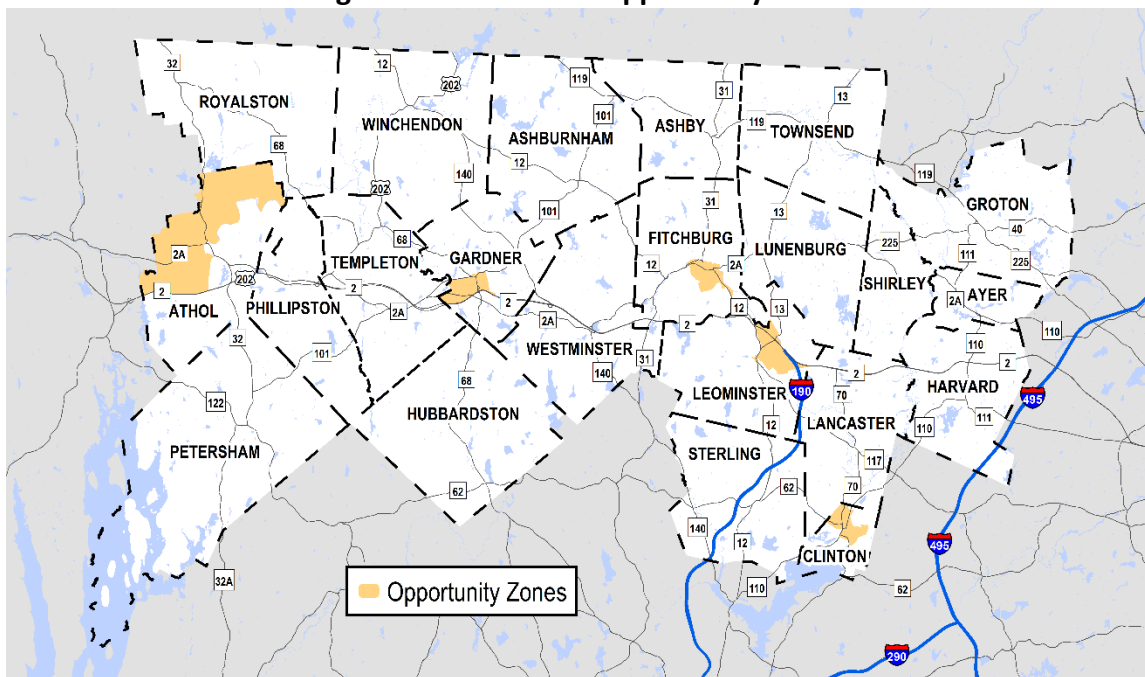
- **Princeton Road (Route 31) (CUFC)** in Fitchburg allows direct access to Wachusett Station and an industrial park and other numerous industrial facilities north of Route 2 (Exit 95). South of Route 2 it provides access to New England Renewable Power, a biomass power plant.

Federal Opportunity Zone Program

2021 Montachusett Region Comprehensive Economic Development Strategy (MRCEDS)

MRCEDS (see below for more) provides a description of the federal *Opportunity Zone* program and the *Opportunity Zones* that are within the Region. Opportunity Zones are census tracts generally composed of economically distressed areas. Ten census tracts were approved within five communities in the Region. The Opportunity Zones are distributed evenly (two each) among the following communities – Athol, Clinton, Fitchburg, Gardner, and Leominster (**Figure 4.5-2**).

Figure 4.5-2 - Federal Opportunity Zones



The *Athol Route 2 Interchange Study* evaluated the feasibility of a new interchange on Route 2 at South Athol Road where Athol continues to seek the initiation of an interchange project. The proposed interchange project falls within the **Athol Opportunity Zone** that includes Route 2 as does much of the study area examined the interchange study.

Road Network Constraints

The MRPC road network constraints are a land use conflict that impacts, or potentially impacts, economic vitality. The constraints include:

- Congested roads and bottlenecks, include at-grade railroad crossings.
 - Economic vitality is hindered by the same congested roads and bottlenecks that affect all traffic in the Region. Please refer to the *Systems Preservation* section of this document for a more detailed description of the congested roads and bottleneck constraints.
 - Railroad at-grade crossings also present a potential congested road and bottleneck problem in several municipalities throughout the Region.
- Roadway safety, including safety at at-grade railroad crossings.

- Economic vitality is hindered by the same High Crash Intersections and At-Risk Road Segments that affect all traffic in the Region. Please refer to the Safety Needs section of this document for a more detailed description of the safety constraints.
- Railroad at-grade crossings also present a potential safety problem in several municipalities throughout the Region.

Montachusett Region Trail Coalition (MRTC)

The MRPC will continue to work with the MRTC to improve the transportation infrastructure that services the regional recreational destinations. Refer to the *Bike & Pedestrian* section of this document for a more detailed description of the transportation infrastructure constraints of the regional recreational destinations.

Future Improvement Projects and Activities

- Continue to seek to improve freight truck access on the RegionFCs, CUFCs, and CRFCs
- Continue to seek to improve external and internal freight truck access for the 10 Opportunity Zones
- Continue to seek an interchange project on Route 2 at South Athol Road in Athol
- Continue to seek to improve congested roads and bottleneck locations
- Continue to seek to safety improvement at High Crash Intersections and on At-Risk Road Segments
- Continue to seek to improve external and internal access to the regional recreational destinations

Current and Future Guidance Plans

Four of the following plans provided guidance for the completion of this Economic Vitality chapter while two will provide guidance to improve economic vitality in the Region after the plans are completed.

2017 Ma Freight Plan & DRAFT 2023 Ma Freight Plan

The draft of the 2023 Ma Freight Plan (23MFP) that builds on the 2017 Ma Freight Plan (17MFP) was released for public comment that will end on June 29, 2023. The draft 23MFP will then be submitted to the Federal Highway Administration for final review and approval. The draft 23MFP is available at [DRAFT 23MFP](#). The [17MFP](#) remains in effect until the 23MFP becomes approved.

The MRPC will continue to work with MassDOT, MRPC Member Communities, and Devens to apply the 17MFP improvement strategies to the Region until the draft 23MFP is approved. The 17MFP (endorsed April, 2018) follows a “scenario-based analysis” model which recognizes that many plausible futures exist. The 17MFP identifies drivers of change in the world and the range of ways in which they could progress and combines these into multiple plausible futures and presents strategies which will allow Massachusetts to thrive across the widest range of outcomes. The 17MFP is a companion plan to the **Ma State Rail Plan** discussed below.

17MFP & DRAFT 23MFP Improvement Strategies

The draft 23MFP presents several draft improvement strategies and several that will possibly be carried over from the 17MFP. The strategies are located in chapter seven of the 23MFP.

- Improvement Strategies that may be **CARRIED OVER** from the 17MFP will include:
 - improve the condition of freight network assets
 - Improve truck parking
 - Improve congestion and bottlenecks, including last-mile access
 - Upgrade railroad freight lines to the 286K standard
 - Strategies to address deliveries and curbside demand in urban districts and town centers
 - Policies to reduce greenhouse gas emissions from transportation
 - Coordinate with states in the region on freight planning
 - Freight related workforce development
- **Draft** Improvement Strategies to the 23MFP will include:
 - Improve safety on roadways and at highway-rail grade crossings

- Other improvements to highway-rail grade crossings
- Better integrate freight planning into MassDOT activities
- Alternative fuels/zero-emission freight vehicles
- Real-time and new data sources
- Improve and preserve freight connections to and from Boston’s freight facilities

Freight Study (under development) – Ayer, Lancaster, Lunenburg, Shirley

This study is under development with a preferred completion date of October, 2024. The study will identify the major truck routes that provide heavy truck access to destinations within these communities and address their concerns with heavy truck traffic. There are currently several large commercial operations, as well as a number of planned developments, that generate/will generate heavy truck traffic and safety concerns for these communities. The planned developments include the Capital Commerce Center and Unified Global Packaging in Lancaster and the recently completed Industrial Development in Lunenburg that is unoccupied at this time. The freight study will also provide potential solutions/improvement alternatives to mitigate current and future heavy truck conditions and needs.

2018 Ma State Rail Plan (MSRP)

The MRPC will seek to apply the MSRP ([Ma State Rail Plan](#)) recommendations to the Region. The purpose of the MSRP is to guide the future of the rail system and rail services in Massachusetts. The Goals of the MSRP are:

1. Maintain existing rail system in a state-of-good-repair, expand accessibility, and preserve railroad rights-of-way
2. Support economic growth throughout Massachusetts and enable the State to compete in the changing global economy
3. Improve the safety and security of the rail system
4. Provide a rail system that is environmentally and financially responsible
5. Improve intermodal connectivity for both passenger and freight rail facilities by stronger coordination between rail system users to promote system use and efficiency

6. Maximize the return on public dollars towards rail investment by maximizing the use of existing rights-of-way

2021 MRCEDS

The MRPC will seek to apply the 2021 MRCEDS roadway infrastructure recommendations to the Region. The Economic Development Administration (EDA) administers the *Comprehensive Economic Development Strategy* (CEDS) program. The CEDS program was established as an economic development planning tool to assist communities, regions, and states to advance economic development activities, programs, and projects. Through CEDS, a qualifying economic development organization works to identify a region's flexibility to adapt to the everchanging global economy, persistent economic distresses and learn to utilize a region's assets to maximize economic opportunity that fosters growth and job creation and retention for the residents of a region.

Athol Route 2 Interchange Study

The purpose of this study is to assist Athol in evaluating the feasibility of a new Interchange project on Route 2 at South Athol Road where Athol is seeking to initiate an Interchange project. The study evaluates the potential effects of converting the existing grade separated roads into an interchange on the existing transportation system and on the surrounding environment as well as providing ramp alternatives.

The Interchange project was first identified in the Montachusett 2016 RTP and then again in the 2020 RTP. Since these roads are already grade separated, only ramps would be needed to connect them to create the Interchange. The proposed Interchange project is based on the following comments received from the Town:

- The proposed Interchange project falls within the **Athol Opportunity Zone** (see above)
- Freight movement in Athol is limited due to railroad bridge height restrictions that results in heavy trucks using side streets and driving through residential areas
- The North Quabbin Commons commercial development on Templeton Road (Route 2A) has the potential of producing traffic backups on Route 2 at Exit 77

- The Interchange would **reduce greenhouse gas emissions** as it would improve heavy truck access and egress to Route 2 for South Athol Road
- The Interchange would promote economic growth in Athol primarily along the South Athol Road Corridor
- Heavy truck traffic on smaller local roads would cease thus creating a safer roadway environment in neighborhoods, extending the pavement life of neighborhood roads, and healthier neighborhoods through **decreased greenhouse gas emissions**
- The Interchange would improve South Athol Road access and egress to essential community and regional services that includes the following:
 - Athol Fire Department
 - Athol Hospital
 - MA State Police Barracks in Athol
 - Athol High School
- The Interchange would reduce school bus pick-up and drop-off travel times

Trends

The MRPC recognizes that the transportation network plays an important role in the economic growth of the Region. Many sectors of the economy depend heavily on safe and efficient movement of goods and services by truck and rail.

The Economic Vitality Needs section above reveals two existing issues that continue to facilitate an increasing trend that hinders growth in economic vitality in the Region:

- Aging railroad bridges, most of which were constructed approximately 100 years ago, are narrow and many have bridge height restrictions. Also, the bridge alignment geometry of many railroad bridges is not aligned with the geometry of the intersecting road creating dangerous S-shaped horizontal curves with poor sight distance
- Many of the Route 2 interchanges, including the ramps, do not have the capacity to meet traffic volume demand. One new interchange in Athol has been proposed

Devens is an [EPA Smartway Affiliate Partner \(press release here\)](#) that has connected numerous businesses directly to active rail lines by installing rail spurs. This helps to improve economic efficiencies and avoid unnecessary truck trips through the Region. The companies that have been connected to active rail lines by installing rail spurs are:

- New England Sheets
- 66 Saratoga (three spurs installed)
- US Gypsum
- Devens Recycling

Potential rail spurs:

- P&G/Gillette/Sonoco

Existing rail spurs:

- Southern Container (previous name)
- Armed Forces and Army National Guard
- PanAm/Guilford Intermodal Facility

Many types of organizations can become a [Smartway Affiliate Partner](#). Devens also operates the [Devens Eco-Efficiency Center](#) that supports businesses in improving operational efficiencies.

Devens enforces the state's [Anti-Idling Law](#) and requires shore and auxiliary power technologies for freight operations. To enforce anti-idling laws, Devens has two requirements:

- It is included as a condition of approval in any development that requires compliance so that it can be enforced locally
- Projects are required to post signage at all loading docks to inform drivers

Devens partners with the State Police (contracted as the Devens Police Force) to assist with enforcement.

To reduce the potential for idling, Devens requires projects with loading docks to:

- Install shore power systems as part of their development so that refrigeration trailers can plug in and not have to rely on the diesel cab engine for power while at the loading dock

- Install auxiliary power units to keep the truck cabs conditioned during cold and hot weather
- Businesses must include these components in their operations and maintenance manuals for the property to raise maximum awareness of these requirements

On a cyclical basis, MassDOT solicits new candidate projects for funding under the **Industrial Rail Access Program (IRAP)**. The IRAP accepts applications from freight rail-supported businesses across the state for projects to expand or improve rail or freight access that will support economic opportunity, safety, and job growth. IRAP is a competitive state-funded public/private partnership program that provides financial assistance to eligible applicants to invest in industry-based rail infrastructure access improvement projects. Applicants must match public funds with private funds, with private funds paying at least 40 percent of a project's total cost. Applicants may match more than the required minimum. MassDOT manages IRAP and typically solicits new candidate projects in the spring of each year.

Below is a listing of previously funded projects by funding round in the Region

- Arrowhead Environmental Partners , Ayer (2023)
- Leominster Packaging & Warehousing, Inc., Leominster (2021)
- United Material Management, Leominster (2020)
- Pan Am Southern, LLC., Ayer (2018, 2020)
- Pan Am Intermodal Yard Improvements, Ayer (IRAP IV)
- Catania Spagna Track Expansion, Ayer (IRAP III)
- Ardent Mills Loop Track Restoration, Ayer (IRAP II)

Economic Vitality Recommendations and Action Items

Future & Ongoing Economic Vitality Projects and Action Items to Improve Safety & Reduce Greenhouse Gas Emissions in the Region

- Improve the narrow road and/or dangerous S-shaped horizontal curves and the height restrictions of the aging railroad bridges

- Improve Route 2 interchanges to meet current design standards and future traffic volume demand
- Encourage organizations in the Region to become EPA Smartway Affiliate Partners to improve freight sustainability
- Encourage organizations in the Region to apply for IRAP funded projects to expand or improve rail or freight access to support economic growth and safety
- Continue to seek to improve freight truck access on the RegionFCs, CUFCs, and CRFCs
- Continue to seek to improve external and internal freight truck access for the 10 Opportunity Zones
- Continue to seek a new interchange on Route 2 at South Athol Road in Athol
- Continue to seek to improve congested roads and bottleneck locations
- Continue to seek to safety improvement at High Crash Intersections and on At-Risk Road Segments
- Continue to seek to improve external and internal access to the regional recreational destinations
- MRPC will continue conducting freight corridor analyses