



CHAPTER 5 SUMMARY

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5. SUMMARY

This final chapter of this report includes a summary of recommendations, a proposed implementation timeline, and a concluding thought about this update to the Regional Bicycle and Pedestrian Plan.

5.1 Recommendations

This plan's recommendations were developed collaboratively by PVPC staff and the Joint Transportation Committee's Bicycle and Pedestrian Complete Streets Advisory Committee. Additional input was gathered from public outreach events, local organizations, MassDOT, MassBike, and the JTC, and through surveys. PVPC staff conducted extensive public outreach, including various stakeholder engagements. The voiced concerns, ideas, questions, and comments were central to the development of recommendations. Developing a regional plan that addresses both walking and bicycling is challenging because of the inherent differences in these modes of travel. The following recommendations provide a broad range of opportunities for improving opportunities for both modes. These recommendations will further advance the development of a safe network that encourages mode shift and supports local communities in the implementation of bicycle and pedestrian initiatives. The recommendations have been categorized as immediate actions, long-term initiatives, and ongoing measures.

Not all recommendations will be easy to implement. The goal is to incorporate the work into the MPO's annual work program (UPWP) and also inform future planning efforts such as the Regional Transportation Plan, Coordinated Human Services Plan, Regional Safety Action Plan, and State and local initiatives. This work relies on the support of engineers, planners, public works, and elected officials, and advocates. Some require resources, tools, and funding to design, build, support, and maintain these initiatives that exist today; however, additional resources will need to be identified to build the infrastructure necessary for bicycling and walking to become a safe, dependable, and thriving option. Some communities may require millions to build a new facility.

Implementing the recommendations of this plan will create a safer community for bicyclists and pedestrians, and a healthier and more vibrant community for all residents. Expanding transportation options will result in increased numbers of bicyclists and pedestrians, less traffic, and a higher level of health. Linking our neighborhood and town centers together to create a regionally integrated network of healthy, safe places for residents to use for work and play is an effort with tangible returns.

5.1.1 Regional Recommendations

The Regional Bicycle and Pedestrian Transportation Plan offer an overview of how the Pioneer Valley can become a safer and more inviting place for people to walk and ride



bicycles. In the Pioneer Valley, we need to support enforcement and education of existing crosswalk laws, ensure sidewalk construction and maintenance, establish bylaws for sidewalks in new developments, and foster cooperation between private developers and municipalities. Safe and efficient pedestrian travel contributes to overall health and neighborhood vitality.

Investing in bicycle and pedestrian infrastructure and promoting transit can yield significant economic, health, and environmental benefits. The region needs to continue to support public transportation and provide the resources needed to maintain a high level of service. According to the American Public Transportation Association, encouraging bike travel has been positively correlated with an increase in transit ridership.

5.1.2 Local Recommendations

Setting community priorities in the development of local community plans (Comprehensive Plan, Bike/Ped Plans, Open Space and Recreation Plans, intersection designs, review of subdivision and site plans can facilitate improvements for biking and walking. The adoption of a Complete Streets Plan and Policy has proven to be a key step in mobilizing energy and resources for local initiatives. While the diverse geography and community types within the PVPC region make it challenging to develop a uniform approach to bicycle and pedestrian facilities, many communities have expressed interest in these facilities. The differences in the structure of local governance, geography, and population density make it difficult to find a one-size solution. Each community faces a unique set of challenges. Local governments and citizen groups play a critical role in modifying the built environment, changing public policies, and improving practices that make walking and biking a safe and attractive alternative.

Bicycle parking is a critical tool for local municipalities seeking to encourage cycling as a mode of transportation. Providing safe and convenient parking makes biking a more practical option for daily activities such as commuting, shopping, or running errands. When cyclists know their bikes will be secure, they are more likely to choose this mode of travel. Insufficient safe and secure bicycle parking is often cited as a key factor deterring individuals from cycling. Municipal bylaws that currently focus on vehicle parking requirements can also be adapted to address bicycle parking needs. Funding opportunities are available from a variety of sources, and businesses can invest in cost-effective racks and shelters that not only support cycling but also attract customers, benefiting local economic development. Short-term parking designed for brief stops includes inverted U-racks, post-and-ring racks, and other simple structures commonly located near shops, commercial areas, and other short-trip destinations. Long-term parking for all-day or overnight use includes bike lockers, indoor storage, sheltered racks, or covered parking areas. Weather protection and good lighting are particularly important, as they both encourage use and reduce theft. The MassDOT [Municipal Resource Guide for Walking](#) and the [Guide for Bicycling](#) provide additional resources



and opportunities.

5.2 Regional, State, and Federal Partnerships

Collaboration and coordination at all levels is the most effective and productive approach toward implementing change. National Standards included in the AASTHO Greenbook for Design, updates to the MassDOT Design Guide, Pioneer Valley RTP, MassDOT Bicycle and Pedestrian Plans, Beyond Mobility, Strategic Highway Safety Plan, MUTCD, and the NACTO Guides all provide clear direction and foundation for decision-making and provide a framework for future collaboration.

5.3 Implementation Timeline

The Pioneer Valley Regional Bicycle and Pedestrian recommendations focus on creating comprehensive, connected networks by implementing infrastructure improvements, prioritizing safety for all users, especially vulnerable ones, and promoting active transportation to reduce reliance on motor vehicles. These recommendations resulted from a thorough outreach process and were reviewed by the Joint Transportation Committee (JTC) and the Bicycle, Pedestrian, Complete Streets Subcommittee. PVPC staff organized the recommendations into seven distinct categories, after which JTC representatives assisted in further classification via an online survey to help prioritize implementation. The three priority levels for implementation are:

- **Immediate:** Areas that are a high priority and must be addressed through the implementation of planning studies, programs, or projects in the next 2 to three years.
- **Future:** Areas of medium importance that should be addressed in the development of planning studies, programs, projects, or initiatives in the next 3-5 years.
- **Ongoing:** Areas that require routine attention and should be included as part of the ongoing regional planning process.

The recommendations are grouped into seven key areas. These recommendations will be added to upcoming Unified Planning Work Program tasks as resources allow. The following is a listing of the recommendations under each of the seven categories. Each recommendation is given one of the three implementation priority labels discussed above.

1) Infrastructure Inventory, Maintenance, and Improvements

Identifying existing facilities and creating connectivity for the future with a focus on building and maintaining complete, connected networks of bike paths, trails, and sidewalks that link residential areas, business centers, parks, and transit stations.



Table 5.1 Recommendations in Infrastructure Inventory, Maintenance, and Improvements

Infrastructure Inventory, Maintenance, and Improvements Recommendations	Priority Level
Update the Regional Bicycle Infrastructure Inventory database.	Ongoing
Inventory of existing bicycle parking and identify where there is a need for bicycle parking facilities.	Future
Inventory raised crosswalks, speed tables, and related traffic calming installations in the Pioneer Valley.	Future
Identify bicycle lanes that are frequently blocked (loading or parked cars) and recommend solutions.	Immediate
Identify and inventory specific bicycle and pedestrian connectivity and safety improvements needed around underpasses or overpasses provide "best case" examples of potential improvements.	Immediate
Inventory current practices for winter maintenance and interview stakeholders on the effectiveness of snow and ice removal on bicycle lanes and monitor the progress of pilot projects on shared-use paths that improve winter conditions.	Immediate
Document and share with communities the best local street lighting policies and success stories that address pedestrian safety.	Future
Provide education on snow removal responsibilities on sidewalks and at bus stops	Future

2) Network Planning, Gap Identification, and Facility Design

There are many factors that go into developing sidewalk networks, on-street bike lanes, off-road trails, and safe pedestrian crossings. The availability of rights-of-way, safety concerns, wetlands, steep slopes, cultural resources, cost, public opinion, ADA accessibility, proximity to destinations, roadway volumes and speeds, utilities, sidewalk conditions, scenic qualities, and on-street parking. Decisions need to be considered all these factors and often there is no perfect answer. The goal is to identify routes that close gaps in the network. These strategies advance initiatives that support this effort:



Table 5.2 Recommendations in Network Planning, Gap Identification, and Facility Design

Network Planning, Gap Identification, and Facility Design Recommendations	Priority Level
Conduct network analysis to identify gaps in the regional system and identify which types of projects could fill these gaps. Plan, identify and complete an age friendly regional bicycle network that provides connections between communities and to high value destinations. Identify connections that overcome significant physical barriers, such as river crossings, high traffic corridors that address the need for additional north-south corridors, and additional east-west corridors.	Immediate
Incorporate safety for bicycling and walking into all the MPO's future studies and prioritize a "Safe Systems" approach to this work.	Ongoing
Identify opportunities for improved navigation and wayfinding when walking and bicycling, including age friendly strategies to help users locate destinations and attractions.	Future
When requested, collect "before" and "after" data on effectiveness new crosswalk installations including raised crosswalks, high visibility midblock crosswalks and other safety improvements.	Ongoing
Identify traffic signal locations that do not provide MUTCD compliant pedestrian signal equipment.	Immediate
Identify, plan, design, and construct a low-stress network comprised of bicycle routes for people of all ages and abilities. Meet the MPO's goal of increases total regional bike facility mileage by 10% by 2030 over 2020 mileage.	Ongoing
Increase the total regional sidewalk mileage by 10% by 2030 over 2018 mileage.	Ongoing
Create an online resource for communities that provides access to the best practices for street design for rural, suburban, and urban communities that exemplifies the principles of Complete Streets and Vision Zero. Include "quick build" safety improvements such as striping, signage.	Immediate

3) Safety, Enforcement, Accessibility and Vision Zero

Designing for All by implementing "Complete Streets" concepts, ensuring that new and existing road projects accommodate users of all ages and abilities, including



pedestrians, cyclists, and people using mobility devices. Prioritize reducing severe and fatal crashes by identifying and addressing dangerous intersections and high-crash locations. Protecting Vulnerable Users: Design for the needs of vulnerable populations like children, the elderly, and people with disabilities, ensuring safe and comfortable access for everyone. Use infrastructure design to improve visibility, helping pedestrians and cyclists to be seen and be predictable to drivers.

Table 5.3 Recommendations in Safety, Enforcement, Accessibility and Vision Zero

Safety, Enforcement, and Vision Zero Recommendations	Priority Level
Work with the Massachusetts Bicycle and Pedestrian Advisory Board and other organizations to support efforts that address speeding, red light running, and dangerous driving.	Future
Continue to collaborate with the Baystate Trauma Center in Springfield, MA to identify high-risk VRU crash locations.	Ongoing
Continue to support the vulnerable road user law by providing education to the public during relevant outreach events such as Bay State Bike Month and through content posted to the MPO's website.	Ongoing
Assess the safety effects of an ongoing growth in electric bike usage along shared-used trails on non-motorized users. Explore the implications of speed disparity between users. Explore methods for addressing and lessening potential negative impacts, such as providing passing opportunities, posting restrictions and speed limits, and other traffic control devices appropriate for the types of trails.	Future
Study "pre" and "post" implementation of safety measures that have been implemented.	Ongoing
Perform an assessment of driver citation data to study trends related to speeding and distracted driving.	Immediate
Identify and implement strategies to meet the established performance measures as reflected in the RTP or as updated annually.	Ongoing
Work with local municipalities to identify locations for 20 mph Safety Speed Zones in compliance with MassDOT speed management principles.	Immediate
Assist municipalities in adopting MGL c. 90 § 17C, reducing the statutory speed limit from 30 mph to 25 mph in thickly settled or business districts.	Immediate



4) Data Collection, Monitoring, and Analysis

Information and data collection is a critical tool in advancing initiatives. PVPC continually collects bicycle and pedestrian traffic data along sidewalks, multi-use paths, and recreational trails throughout the region. We use “TrafX” and “Eco-counters” and “Jamar” on-road tubes to count traffic at new and recurring sites across the region. Volumes are also collected as part of studies. Data collected from these counts is used to analyze trends in bicycle and pedestrian activity and aid in project planning to accommodate and promote safe, non-motorized transportation and recreational travel. Counting how many people walking, biking, or scooting on a road or at an intersection can also help planners and engineers identify where sidewalks, crosswalks, or paths need to be built or improved, recognize where future demand should be anticipated. This data is also useful when applying for grant-based funding.

Table 5.4 Recommendations in Data Collection, Monitoring, and Analysis

Data Collection, Monitoring, and Analysis Recommendations	Priority Level
Improve the MPO’s capacity to gather public feedback through online mapping tools and surveys. Research and incorporate new outreach technologies and methodologies that engage the public related to walking and bicycling issues and opportunities.	Immediate
Continue the bicycle and pedestrian count program and expand the counts to reach more locations. Improve access to count data, including the sharing of data from other sources and data platforms (such as MassDOT MS-2) and expand permanent and short-term counts to evaluate trends.	Ongoing
Work with the Regional Transit Agencies (RTA)s to review transit stop locations to determine the need for pedestrian and bicycle infrastructure improvements.	Immediate
Encourage and participate in local walk audits with community members and partner organizations to better understand pedestrian experiences and challenges.	Ongoing



5) Policy, Funding, and Interagency Coordination

Identify and pursue local, state, and federal funding sources to support plan implementation. Encourage policies that shift from automobile-dependent travel to walking, biking, and other forms of active transportation for short trips and errands. Recognize and promote the health benefits of active transportation, including reducing obesity and chronic diseases.

Table 5.5 Recommendations in Policy, Funding, and Interagency Coordination

Policy, Funding, and Interagency Coordination Recommendations	Priority Level
Continue to perform Complete Streets Analysis at the community level by official request and support local efforts to participate in Complete Streets initiative.	Ongoing
Collaborate with local, regional, and state partners to ensure that MPO bicycle and pedestrian initiatives, projects, programs and tasks align with the Massachusetts Bicycle Plan, the Massachusetts Transportation Plan, and Beyond Mobility, the Massachusetts 2050 Transportation Plan.	Ongoing
Work with MassDOT and local stakeholders to advance the goals of the Massachusetts Strategic Highway Safety Plan (SHSP).	Ongoing
Collaborate with regional housing, economic development, and environmental stakeholders to ensure bicycle and pedestrian access is included in the local planning process.	Immediate
Expand the MPO's work with MassDOT and other partners to expand Safe Routes to School activities and local participation (including local high schools).	Ongoing

6) Education, Outreach, and Community Engagement

Involve the public in the planning process to build support and ensure that plans meet community needs. PVPC should help local communities incorporate bicycling and walking projects into their own planning and development efforts.



Table 5.6 Recommendations in Education, Outreach, and Community Engagement

Education, Outreach, and Community Engagement Recommendations	Priority Level
Develop and distribute educational materials to the public to promote safe and legal bicycling and walking behavior.	Ongoing
Increase engagement with Title VI populations through tailored outreach on bicycle and pedestrian specific strategies.	Ongoing
Develop a regional branding strategy for the bicycle and pedestrian network to foster recognition and support.	Future
Partner with local organizations and schools to host community events that promote walking and biking.	Ongoing
Facilitate peer exchanges and best practice sharing between municipalities with support from the MPO's Joint Transportation Committee's Bicycle, Pedestrian and Complete Streets Subcommittee.	Future
Create training programs for municipal staff and boards on best practices in bicycle and pedestrian planning and design.	Future
Host walking and biking tours to highlight infrastructure successes and opportunities.	Ongoing
Educate elected officials and decision-makers on the benefits of investments in walking and biking.	Immediate

7) Shared-use Paths and Regional Connections

With longer-range regional trail networks expanding in the Pioneer Valley, there is an opportunity for communities to work together and leverage knowledge and expertise. Off-road facilities include shared-use paths and traditional rail trails, and sidepaths can be effective components of the transportation network when they:

- Introduce new users, including children and the elderly, to the benefits of walking and bicycling
- Isolate users from potential conflicts with motorized traffic and preserve existing corridors for future transportation use like light rail and express transit routes.
- Provide economic benefits from shared utility leases, increased property values, and tourism.
- Increase the percentage of bicycling and walking commutes and other utilitarian trips.



- Provide access not offered by the roadway system (shortcuts, links to road segments).

The growing list of multi-town project in the Pioneer Valley includes: Agawam, Springfield, West Springfield, Holyoke, South Hadley, Northampton and Hatfield are part of the Connecticut Riverwalk and Bikeway corridor; Northampton, Easthampton, Southampton and Westfield that join with twelve partner communities in the New Haven and Northampton Canal Greenway (NHNCG); Williamsburg, Northampton, Hadley, Amherst, Belchertown, Palmer, and Ware that are part of a 25 community effort on the Mass Central Rail Trail; Palmer, Monson, Holland, and Brimfield that are part of the 16 communities that comprise the Grand Trunk (Titanic Railroad) corridor. These partnerships need to be supported and recognized as catalysts for inspiration and innovation.

Table 5.7 Recommendations in Shared-use Paths and Regional Connections

Shared-use Paths and Regional Connections Recommendations	Priority Level
Identify opportunities to development of long-distance shared-use paths that connect the regional bikeway network to major destinations, central business districts, village centers, and neighborhoods and encourage private connections.	Immediate
Coordinate with local communities, MassDOT, community-based organizations, land trusts, DCR, public health institutions, and other entities to protect and enhance share-use path corridors for transportation.	Ongoing
Study opportunities to improve access to shared-use paths from bikeshare, the sidewalk networks, transit.	Future
Support the creation of rail-with-trail and rail-to-trail projects where feasible.	Future
Conduct an inventory of trail head amenities on shared-use paths such as restrooms, water stations, maps, benches and repair stations.	Future



5.4 Conclusion

The Pioneer Valley Metropolitan Planning Organization worked with many partners on this plan, including the 43 cities and towns in our region. For bicyclists and pedestrians, this relationship is significant, as 80% of roadways, and 92% of sidewalks are owned and maintained by our local communities. Together, FHWA, MassDOT, DCR, PVTA, FRTA, EOEEA, FRCOG, MassBike, UMass, Mill River Greenway Committee, Amherst Transportation Committee, Walk Massachusetts, Wayfinders, WalkBike Springfield, Friends of Northampton Trails, Friends of the Southwick Rail Trail, Friends of Columbia Greenway, East Quabbin Land Trust, the PVMPO, and municipalities can advance bicycle and walking for transportation and recreation for people across the Region.

By using resources such as the Safe Streets for All, the Transportation Improvement Program, Unified Planning Work Program, Complete Streets Funding Program, Chapter 90, ADA Transition Plans, and Safe Routes to School, municipalities can take advantage of programs and projects that support accessibility, connectivity, and mobility. This plan acknowledges the important relationship between walking, bicycling, and transit and the support from local transit agencies. Thank you to all of those who contributed to this Plan, including individuals who provided valuable feedback on the challenges and opportunities for walking and biking in the Pioneer Valley region. Together, these partnerships will be critical to achieving our collective vision:

“The Pioneer Valley Region is a safe, accessible, and enjoyable place to walk and to ride a bicycle. An expanding network of bikeways, sidewalks, and friendly roadways to a variety of active modes of transport provides residents of all ages with many travel options for reaching any destination.”

Learn more about ways you can get involved to help make your community safer for walking and bicycling, more sustainable, connected, efficient, and better able to meet the needs of all users by visiting the plan’s online page at <https://pvpc.org/our-work/regional-bicycle-and-pedestrian-plan/> .