COMPLETE STREETS NEEDS ASSESSMENT AND PRIORITIZATION PLAN

CITY OF NORTH ADAMS, MA

Winter-Spring 2017

PREPARED BY:
Berkshire Regional Planning Commission (BRPC)
& the City of North Adams

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INTRODUCTION

The City of North Adams recognizes the need for a multimodal approach to transportation investments, as there is a growing awareness that street design is traditionally focused on vehicle travel rather than providing safe accommodations for bicycles and pedestrians. As nonmotorized transportation for travel and recreation becomes increasingly popular, the need to accommodate cyclists and pedestrians in North Adams is clear.

Complete Streets are roadways designed to safely and comfortably accommodate all users, regardless of age, ability or mode of transportation. Users include motorists, cyclists, pedestrians, and all vehicle types, including school buses, emergency responders, and freight and delivery trucks among others. In addition to providing safety and access for all users, Complete Street design treatments consider accommodations for disabled persons as required by the Americans with Disabilities Act (ADA). Design considerations for connectivity and access management are also considered with regards to nonmotorized users of the facility.

Enhancements to the multimodal network must be done in a balanced and context-sensitive approach that looks at a wide range of factors from safety to livability and economic development to connectivity. All of these criteria must be considered when thinking about Complete Streets improvements that accommodate all users and all abilities. Complete Streets components include typical roadway design features such as traffic calming, bicycle lanes, shared lanes (sharrows), wayfinding, safe crossings, landscaping, sidewalks, and/or wide shoulders to accommodate nonmotorized travelers in more rural areas. However, not all streets need to include every Complete Streets element. Certain criteria generally dictate which design features are appropriate. In other words, the appropriate level of roadway completeness depends upon its context and function. Complete Streets can be planned as a retrofit to existing streets or incorporated into the design of new streets.

This report has three key expected outcomes. The first is to support North Adams's Complete Streets Policy, which was adopted by the Mayor on April 21, 2016. The second is to evaluate existing conditions for nonmotorized users of the transportation system. The third is to recommend an implementation strategy for Complete Streets projects that follows a template designed by MassDOT to fulfill the requirements for a Complete Street Project Prioritization Plan.

The newest federal transportation legislation, the Fixing American's Surface Transportation (FAST) Act, supports the multimodal approach to transportation planning and programming, and encourages communities to consider all users of the system in designing a safe, and well-connected system. MassDOT's Complete Streets Funding Program has provided North Adams with the opportunity to look at existing conditions, potential improvements, and implementation strategies that support Complete Streets in North Adams.

MassDOT Complete Streets Funding Program

Technical assistance to the City of North Adams by BRPC was made possible through funding from MassDOT's Complete Streets program. The Complete Streets program was "authorized by the 2014 Transportation Bond Bill, [and] offers Massachusetts municipalities incentives to adopt policies and practices that provide safe and accessible options for all travel modes." Technical assistance funding of up to $50,000 was available to communities to "conduct a needs assessment, network gap analysis, and/or safety audit to determine a targeted investment strategy for Complete Streets infrastructure."[1]

To participate and maintain eligibility in the funding program, communities were required to proceed through three tiers of the program. At Tier 1, a City employee was required to attend a Complete Streets 101 training

[1] Mass. Dept. of Transportation (MassDOT). 2016. Complete Streets Flyer. Available from: http://www.massdot.state.ma.us/Portals/8/docs/CompleteStreets/flyer.pdf

session and the City had to adopt a policy affirming the community's commitment to Complete Streets in all aspects of transportation design and construction. At Tier 2, communities were required to draft a prioritization plan that outlined at least 15 eligible projects programmed over a 5-year period. This needs assessment and prioritization plan prepared by BRPC and the City of North Adams Complete Streets Working Group meets the requirements for the City's Tier 2 eligibility. At Tier 3, communities were required to submit projects to MassDOT for potential construction funding. Up to $400,000 is available in construction funding yearly through the Complete Streets program. However, this funding is distributed as in a grant program, with no guarantee of funding from year to year. In fiscal year FY 2018, North Adams applied for $400,000 of project funding for replacement of existing sidewalk, curb ramps, and addition of new bike lanes along Beaver St.

Eligible Roadways and Project Types

The MassDOT Complete Streets funding program provides potential funding for projects of four main types including: traffic and safety; bicycle facilities; transit facilities; and pedestrian facilities. For a complete list of eligible project types, refer to MassDOT Complete Streets Program Guidance.[2] Additionally, only locally maintained roadways are eligible for potential funding, state highways and roads maintained by other entities are not. However, this assessment examines complete streets needs on all roadways within the City of North Adams, regardless of jurisdiction in an effort to ensure maximum connectivity throughout the transportation network. While some projects identified may not be eligible for funding, this needs assessment could become a tool to advocate for future changes to state roadways.

Background

The City of North Adams developed this report with the support of their Complete Streets Working Group, and technical assistance provided by the Berkshire Regional Planning Commission.

The City of North Adams's Complete Streets Working Group was established in 2016, after the City adopted their Complete Streets Policy. This Working Group is made up of various stakeholders, with representation from various City departments (the Mayor's Office, Department of Public Works, Office of Community Development, Traffic Commission, and the Northern Berkshire Community Coalition's (NBCC) Mass In Motion Program. More specifically, participation and input were provided by these individuals:

- Richard Alcombright, Mayor of North Adams
- Michael Canales, North Adams Administrative Officer
- Amanda Chilson, NBCC Mass in Motion Program, North Adams Traffic Commission
- Timothy Lescarbeau, Commissioner of Public Services
- Michael Nuvallie, Office of Community Development

Complete Streets have many benefits including safety, multimodal transportation options, economic development, environmental benefits, public health, and accessibility. The Complete Streets Working Group discussed these benefits and how completing the streets in North Adams can better the community, for residents and visitors alike. For a complete summary of the public involvement for this planning process, please see **Appendix A**.

[2] Available from: http://www.massdot.state.ma.us/highway/DoingBusinessWithUs/LocalAidPrograms/CompleteStreets/FundingProgram.aspx

PLANNING FRAMEWORK

Implementing North Adams's Complete Streets Policy will have various benefits that are experienced by many different stakeholders. With full-scale implementation of Complete Streets elements, the community can see benefits in safety, increased transportation options, support for the City's economic vitality, environmental benefits, public health impacts, and accessibility for persons with disabilities.

Vision and Intent

As it states in the City of North Adams's Complete Streets Policy:

> *The goal of the Complete Streets initiative is to create a policy that will better guide and inform planners, engineers and policy makers in the formation of new transportation projects that are reflective of as many of its key goals as much as possible. [A] Complete Street is defined as one that provides safe and accessible options for all travel modes---walking, biking, transit and vehicles---for people of all ages and abilities. Complete Streets improvements may be large scale such as corridor wide improvements or focused on the needs of a single mode…. In order to carry out this new policy, local government intends to formalize the planning, design, operation, and maintenance of streets so they are hitting upon as many of the goals as desired by Complete Streets. The City of North Adams recognizes that users of various modes of transportation are all legitimate users of the transportation network and therefore deserve safe facilities, which again is for people of all ages and abilities.*

Goals and Objectives

The goals and objectives of this Complete Streets Project Prioritization plan, guided by the North Adams Complete Streets Working Group, were developed to provide safety, comfort, mobility, and accessibility for all users of the street network, including pedestrians, cyclists, other non-motorists, transit riders, motorists, commercial vehicles, and emergency vehicles.

1. **Safety** | Prioritize safety for all users of the transportation system.

2. **Traffic Calming** | Promote traffic calming measures in North Adams to encourage access for all modes, reduce speeds in activity hubs, and promote attractive streetscapes.

3. **Usability** | Increase the livability of the City by prioritizing projects that will impact the most number of residents.

4. **Connectivity** | Provide transportation choices by improving system connectivity within and between modes.

5. **Project Readiness** | Prioritize projects that are "shovel ready," require minimal or no design/engineering work, or are currently under design.

6. **Safe Routes to School** | Prioritize projects that will provide greater and safer connectivity to schools in North Adams.

Performance Measures

Mode Share

The City of North Adams currently sees a commute mode-share that overall is dominated by automobile travel (84% of commuters). However, unlike most communities in Berkshire County, over 11% of North Adams workers walk to work. The mode-share is described in **Table 1**. The City would like to see modest increases in all nonmotorized modes, which collectively could reduce the number of automobile commuters. For additional discussion, see **Sociodemographic Profile**.

Table 1. North Adams Mode-Share for Commuters

Mode	Percent of Commuters
Car	84.7%
Transit	1.1%
Bicycle	0.2%
Walk	11.2%
Motorcycle, etc.	0.1%
Other	1.1%
Work from Home	1.7%

Source: 2006-2010 CTPP data

During the development of their planning framework, the North Adams Complete Streets Working Group developed system-wide performance measures for each of their six goals. The performance measures, listed by goal area, are shown in **Table 2**.

Table 2. Annual System Performance Measures

Goal	Performance Measure	Data Source
Safety	Total crashes by severity and mode	MassDOT HSIP Crash Clusters[3]
Traffic Calming	Annual number of citations for speeding	North Adams Police Dept.
Usability	Number of residents within ¼ mile of a dedicated active mode facility	MassGIS – Land Use (2005)[4]
Connectivity	Share of non-automobile commuters	U.S. American Community Survey (ACS)[5]
Project Readiness	Number of projects in design / engineering phase	North Adams Highway Dept.
Safe Routes to School	Participation in Safe Routes to School programs, Parent Surveys, Annual number of nonmotorized projects within a ¼ mile of a school	City of North Adams Complete Streets Working Group

Related Plans and Initiatives

The City of North Adams worked with the Berkshire Regional Planning Commission (BRPC) in 2016 and 2017 to develop this Complete Streets Prioritization Plan, which examines needs for Complete Streets in the City and maps out potential projects for implementation. Several existing and relevant plans were consulted, including the City's recent Comprehensive Plan of 2014, which was developed through the North Adams Vision 2030 Initiative, and several studies that focused on walkability and bikeability in specific areas of the City. Both the municipality of North Adams and several civic organizations have been hard at work developing a vision for the future of North Adams that is more walkable, bikeable, safe, and thriving.

North Adams Vision 2030 – Comprehensive Plan[6]

North Adams Vision 2030 was conducted over a period of three years and was the first comprehensive plan undertaken by in over 40 years. This document is intended to serve as a long-range blueprint for initiatives, investments, regulatory changes, and development or redevelopment in the city. All the goals and action

[3] http://geo.massdot.opendata.arcgis.com/datasets/cc323741010d4b17b71ca664e2050457_1
[4] http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/lus2005.html
[5] http://factfinder.census.gov/
[6] BRPC. 2014. *North Adams Vision 2030, Comprehensive Plan.* Pittsfield, MA.

steps called for in the plan are intended, ultimately, to enable the city to achieve its desired future. The actions called for in the plan are the result of a combination of data analysis, best practice research and a broad public outreach process that occurred between July 2011 and February 2014. A 16-member group of North Adams stakeholders helped to guide and shape the plan. A walkability audit of the downtown and three surrounding neighborhoods was conducted as part of this effort.

Throughout the plan nonmotorized transportation themes revolved around safely connecting people to places for work, school, services, outdoor recreation, and improved health. One of 10 key priorities that emerged from the Comprehensive Plan was to "Improve Mobility Through Viable Multi-Modal Options," noting that:

> *"while the city itself has a compact footprint, there are a number of multi-modal system challenges posed by poor street and sidewalk connectivity, narrow roadways, and limited parking space in certain neighborhoods or streets. There are also areas difficult for non-natives to navigate. Pedestrian connections within the downtown and between the downtown and local neighborhoods are a critical component to improving mobility both for those without a car and those who would prefer to walk or bike. Simple amenities like bike racks, benches, signage, and safe sidewalks can go a long way in improving the pedestrian environment. These have the added benefits of increased exercise, reduced energy use and emissions, and making a more lively and interactive community setting."*

Improving connections would also support other key priorities, such as addressing obesity rates and offering safe routes to recreational sites for people of all ages.

Connecting people to work was a key element of the plan. Employment opportunities are found throughout the City, including along the commercial corridors of State Road (Rt. 2) and Curran Memorial Highway (Rt. 8). The Plan specifically called for safe routes to key employment centers such as Wal-Mart and the Industrial Park on Rt. 8 and safe routes to school for both employees and students.

Expanding the opportunities to walk, hike, and bike within North Adams to promote healthy active living was a key theme that resonated throughout the open space and recreation section of the Comprehensive Plan. Establishing a network of walking routes and trails, creating linkages from residential neighborhoods trail systems within the state forests and parks, and actively pursuing the design and construction of a shared-use path that will connect with those being constructed in Adams and Williamstown. The shared-use path, once constructed, would serve as a portion of the route for the Western New England Greenway, a multi-state US Bicycle Route that travels through Berkshire County, from the Connecticut to the Vermont state borders. Lastly, establishing a wayfinding system to help residents and visitors safely navigate their way to their destinations and providing facilities such as benches and bike rack was discussed through the Plan.

Because North Adams has one of the highest percentages in the county of residents without access to a vehicle, promoting and supporting a broader use of the transit system was specifically listed as an action item.

City of North Adams Open Space and Recreation Plan[7]

The *City of North Adams's Open Space and Recreation Plan* (OSRP) was completed and approved by the state in 2015. Developed concurrently with the North Adams Vision 2030 initiative, many of the nonmotorized transportation goals and actions mirror those discussed in the Comprehensive Plan. The OSRP highlighted the need for walking tours, connecting people to attractions, goods and services with trail and path systems, and strengthening the physical connection between the Mass. College of Liberal Arts[8] (MCLA) and the Mass.

[7] North Adams Office of Community Development, 2015. *City of North Adams Open Space and Recreation Plan,* North Adams, MA.
[8] http://www.mcla.edu/

Museum of Contemporary Art (MASS MoCA). Developing a shared-shared-use path to connect with the Mohawk Bike/Pedestrian path to the west in Williamstown and the Ashuwillticook path to the south in Adams was specifically listed as having a High Importance in the plan. Other items of importance to Complete Streets include support for branding and wayfinding to highlight existing assets.

Mohawk Bicycle and Pedestrian Trail Feasibility Study[9] / Ashuwillticook Trail Extensions

With funding from the National Scenic Byways Grant Program, the City of North Adams and the Town of Williamstown began a process of developing a route that would connect the two downtown areas with a shared-use path. Phase I of the project consisted of three main components: 1) conduct a feasibility study to determine the preferred and alternative routes, 2) open dialogs with landowners and abutters along the preferred and alternate routes, and 3) develop conceptual designs for particularly challenging sections of the route and estimate design and construction cost estimates for the preferred route. The completion of the *Mohawk Bicycle and Walking Path Feasibility Study* in 2010 resulted in a Preferred Route that was a combination of an off-road and on-road shared-use path. As of January 2017, the Williamstown section of the path is approaching the 25% design phase, with the expectation that 100% design will be achieved in 2017-18, with construction funding of $4.29 million included in the Berkshire County TIP for FY 2020.

Because the terrain and land use patterns in North Adams are more complex, final location and design of the shared-use path through the City has not been realized. The 2016 Phase II feasibility study relocated the western-most section of the route in North Adams, directing the path away from State Road (Rt. 2) and to a route that runs along the northern edge of the city-owned Harriman/West Airport for approximately 0.9 miles. The City of North Adams, working with the Town of Williamstown and the MassDOT, hopes to begin design of this section of the path in 2017. The terminus for this section of the path will end at the airport. Once constructed, the Williamstown/North Adams shared-use path will be approximately 3.5 miles in length, all of which will be off-road except for road crossings at Cole Avenue in Williamstown and a crossing of State Road near the Galvin Road intersection.

From the airport, the route eastward to downtown North Adams the route is expected to consist of off-road and on-road sections, with the bulk of the route being off-road. At this time, there are no funds to extend the shared-use path eastward from its terminus at the airport, but once the 3.5 miles of path are constructed the City hopes that momentum for the eastern extension will aid in further design and construction. In the interim, and in an effort to increase bicycle travel between the two downtowns, bike lanes have been marked along State Road (Rt. 2) from Cole Avenue in Williamstown to Sacco Bridge in North Adams. The City of North Adams is investigating the option of extending the bike lanes eastward into downtown, but needs to address the issue of on-road parking at two key areas of the route. The preferred and alternative routes for the shared-use path through North Adams is illustrated in **Figure 1**.

[9] BRPC, 2016. Mohawk Bicycle and Walking Trail Feasibility Study, Phase II. Pittsfield, MA

Figure 1. Mohawk Bike / Ped Path

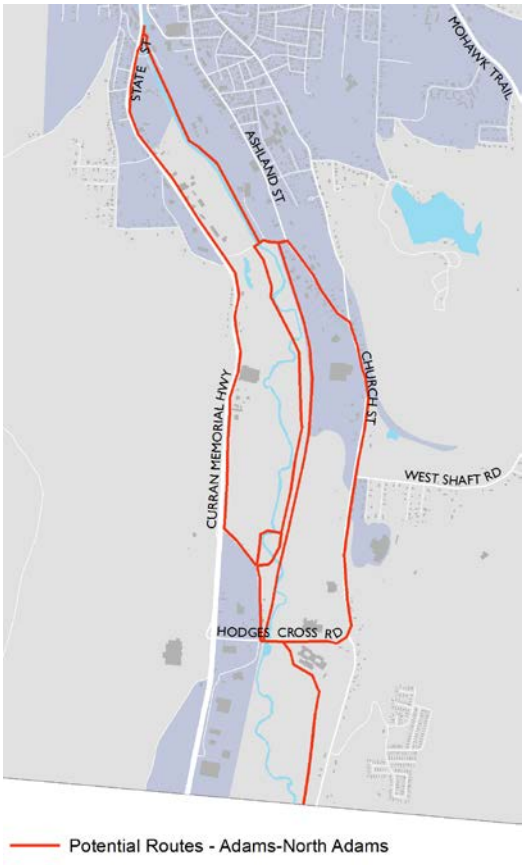
Ashuwillticook Rail Trail and Extensions

The Ashuwillticook Rail Trail follows a former railroad corridor as it winds from Lanesborough to Adams through the Hoosic River Valley. The trail is paved, and around 10' wide, complete with vistas of Mount Greylock and the Hoosac range; it's off-road nature makes it a popular facility for recreation and family outings. The shared-use path is over 11 miles long and has extensions planned at each existing terminus. This facility is the spine of the off-road nonmotorized system in the Berkshires and, once extensions are constructed, will connect Pittsfield to North Adams. The Ashuwillticook Rail Trail is a designated portion of the US Bicycle Route 7 (Western New England Greenway), a long-distance bicycle touring route that connects the East Coast Greenway to the Route Verte in Montreal.

The mile-long southern extension of the trail, from the entrance near the Berkshire Mall, will connect south to Crane Avenue in Pittsfield. This section is under design in 2017 and programmed for construction in FY 2018. Another mile-long extension is under construction and scheduled to open in 2017, this section connects the northern terminus in Adams at Hoosac St. to Lime St. An extension from Lime St. in Adams, north to Hodges Cross Rd. in North Adams is under design in 2017 and scheduled for construction in FY 2022.

Identifying potential routes from the planned terminus at Hodges Cross Rd. in North Adams, to connect through downtown to the Mohawk Bike / Ped. Trail, is critical. The city should invest in solidifying an alignment and garnering local support as this connection would provide an off-road trail connecting Williamstown to Pittsfield, a facility that would attract residents and visitors alike. Some potential routes for the Ashuwillticook north of Hodges Cross Rd. can be seen in **Figure 2**.

Figure 2. Ashuwillticook Extension Potential Routes



Mass in Motion Initiatives

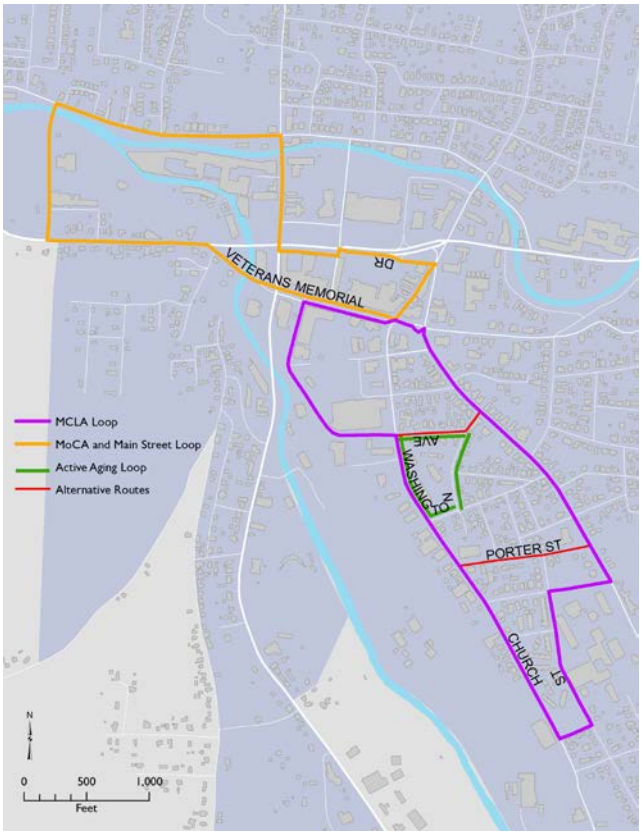
In 2012, North Adams became a Mass in Motion[10] community. This program is hosted by the Northern Berkshire Community Coalition and has been sponsored by the Massachusetts Department of Public Health. The northern Berkshire Mass in Motion program also includes the communities of Adams, Williamstown, Savoy and Florida, and focuses on two primary goal areas – Active Living and Healthy Eating. In North Adams, the program coordinator was influential in encouraging the inclusion of Health and Wellness in the City's new comprehensive plan, and has been instrumental in several other ongoing initiatives, as well as the development of this Complete Streets Prioritization Plan.

Walking Loops

The Mass in Motion program has identified and promoted "Urban Walking Loops"[11] to encourage greater use of the downtown for walking and running while providing exposure to the anchor institutions in the area, such as MASS MoCA and MCLA. The program coordinator has helped link the City with technical assistance from the WalkBoston[12] group (which extends its reach to the entire Commonwealth), MassBike,[13]and the Safe Routes to School program. Walking Routes in North Adams were identified in the downtown area and incorporate streets with gentle grades that are also served by existing sidewalk while connecting downtown destinations and amenities. Walking loop routes can be seen in **Figure 3**.

[10] http://www.mass.gov/eohhs/gov/departments/dph/programs/community-health/mass-in-motion/
[11] http://www.nbccoalition.org/assets/na-loop-brochure.pdf
[12] http://walkboston.org/
[13] http://www.massbike.org/

Figure 3. Walking Loops



Safe Routes to School

Safe Routes to School[14] (SRTS) is a federally-funded initiative of the Massachusetts Department of Transportation (MassDOT). Safe Routes to School works with schools, communities, students, and families to increase biking and walking among elementary and middle school students in Massachusetts. It promotes a collaborative, community-focused approach that fosters mutual partnerships that all work together to promote safer routes for elementary and middle school students to get to school.

In North Adams, the Mass in Motion program through NBCC has been instrumental in organizing Safe Routes to School activities for local elementary schools. As part of activities, the Mass in Motion coordinator held two pedestrian safety workshops, organized two walk to school days, and eight walking school buses in 2016.[15] Around 250-300 individuals, consisting of families, students, faculty and staff, Principals, school Superintendent, Mayor, City Councilors, Police, Fire, and Parent Champions participated in these SRTS activities. Overall efforts to promote walking among elementary school students and implement SRTS activities have been successful, but a sustained campaign of promotion and education is needed for the city.

Some next steps for the SRTS program in North Adams include:

- Pedestrian Training for Physical Education (PE) teachers - this information will then be integrated into the PE curriculum
- Bike Safety trainings for North Adams Police - to support future bike safety trainings for youth and students

[14] http://www.saferoutesinfo.org/
[15] http://www.iberkshires.com/story/53095/North-Adams-Elementary-Pupils-Set-for-Walk-to-School.html

- Continue and increase number of walk to school days – eventually leading to creation of a bike to school program
- Ongoing Parent Travel surveys for elementary school families
- North Adams School Wellness Committee – to help create health policies around public school system and guide future bike and walk to school policies
- Implementing student crossing guards and safety patrols

Walking School Bus Routes

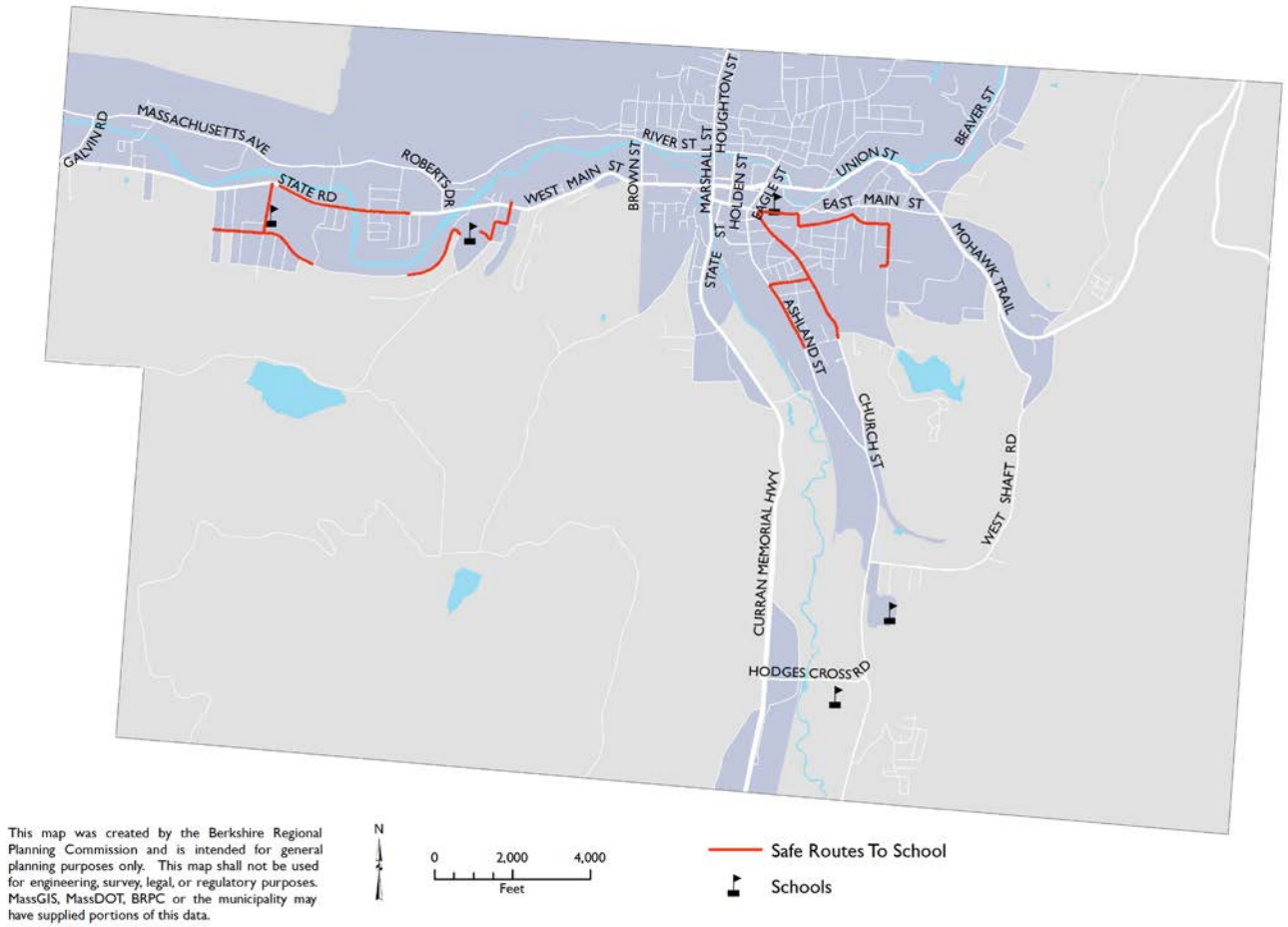
As part of its SRTS program, routes for walking school buses to each of the City's three elementary schools were developed (see **Figure 4**). A walking school bus is a group of children walking to school with one or more adults. The City could use these walking school bus routes to identify gaps or problem areas or prioritize these areas for walking and biking improvements.

Brayton Walking School Bus
Marion Ave > 1st St. > Notch Rd > Trail > School
Brayton Hill Terrace > Brickyard Court > School

Colgrove Walking School Bus
Ashland St > Porter St > Church St > School
Church St > School

Greylock Walking School Bus
Route 2 > Phelps Ave > School
Barbour Ave > Phelps Ave > School

Figure 4. Public School Locations and Walking School Bus Routes



Mohawk Trail and Mount Greylock Scenic Byway Corridor Management Plans

North Adams is at the intersection of two state-designated scenic byways. The Mohawk Trail Scenic Byway consists of Route 2 from its western terminus in Williamstown to its eastern terminus in Athol. Transportation-related goals focused around enhancing the quality of recreational experiences and promoting safety measures for roadway users, including motorists, pedestrians and nonmotorized vehicles. Actions specific to North Adams as they pertain to the Mohawk Trail are:

- Establish a pedestrian and bike trail between North Adams and Williamstown
- Continue to monitor crash incidences at three major intersections, one of which is Rt. 2 and Rt. 8
- Explore opportunities for alternate transportation, especially in the North Adams/Williamstown area[16]

The Mount Greylock Scenic Byway consists largely of the state roads that traverse the state reservation, from its southwestern terminus in Lanesborough to its northeastern terminus in North Adams. Transportation-related goals include investigating ways to safely link the assets of the byway through alternate and varied modes of transportation. Actions specific to North Adams as they pertain to the Greylock Scenic Byway are:

[16] BRPC & FRCOG, 2002. *Mohawk Trail Scenic Byway Corridor Management Plan,* Pittsfield, MA

- Improving safety at the following intersections: Furnace Street/Furnace Street Bypass, Reservoir Road/West Mountain Road, West Mountain Road/Notch Road
- Traffic calming on byway roads[17]

Ashland Street Corridor Study[18]

The North Adams Comprehensive Plan called for the development of an Ashland St. corridor study, which the city developed in 2015 utilizing funding from the Mass. Dept. of Housing and Community Development (DHCD) Massachusetts Downtown Initiative. The report was drafted by the Boston-based Cecil Group (now Harriman[19]). The report recommends several streetscape and general transportation improvements, and focuses on the section of the roadway from between Main Street and the railroad bridge near Davenport Street. The report notes that the street:

> *"is lined by a diverse collection of commercial, institutional, and residential uses and serves as an important north-south connector road within North Adams. As a regional roadway, Route 8A extends to the southern end of North Adams and meets with Route 8, an important regional roadway that goes north to Vermont and south to Adams, Massachusetts."*

The report provides several conceptual improvements, but will require more thorough engineering and design should the city move forward with plans for construction. The report identified four segments of the Ashland St. corridor that could help to guide design needs as well as phases of future construction.

Corridor Segments

- Downtown Segment – Intersection of Ashland and Main St. south to intersection of Ashland and Chestnut.
- Civic Segment – Intersection of Ashland and Chestnut south to Hoosac St. intersection.
- Campus Segment –Hoosac St. intersection south to Bond St. intersection.
- Transition Segment – Bond St. intersection south to beyond railroad bridge underpass.

Major recommendations of the corridor study

- Use the available right-of-way to provide for all modes of transportation while enhancing the landscape – There is sufficient right-of-way to provide for dedicated bike lanes, sidewalks, and landscaping along with appropriate automobile travel lanes. Narrower lanes and other measures can be used to help slow traffic and better utilize the entire right-of-way.
- Provide continuous sidewalks along both sides of the entire corridor - Provide fully accessible sidewalks with crosswalks at every intersection along the entire corridor.
- Provide landscape and streetscape enhancements – The addition of appropriate shade and ornamental tree and shrub species will enhance vibrancy and interest in the streetscape. A consistent program of streetscape amenities will foster streetscape activity and provide a distinct character to the corridor.
- Complete bicycling infrastructure – Make provisions for appropriate bicycle circulation and provide bike racks near destinations.
- Enhance the pedestrian realm – A more walkable and complete streetscape can be produced by implementing a consistent network of sidewalks that are adequately wide enough along Ashland Street, provide quality and signalized crosswalks, and provide better lighting that together create a safer and more attractive pedestrian experience.

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[17] BRPC, 2000. *Mount Greylock Scenic Byway Corridor Management Plan*, Pittsfield, MA.
[18] Cecil Group. 2015. *A Complete Street Initiative for Ashland Street – Final Report*. Boston, MA
[19] http://harriman.com/

- Provide better access management – The strategic consolidation reduction of excessive curb cuts and driveways will result in less congestion and safer conditions for motorists and pedestrians.
- Transform streetlighting - Improved streetlighting with attractive fixtures and contemporary technologies can provide a safer, more attractive and more pedestrian-friendly environment.
- Relocate overhead utilities - Pursue funding that will allow utilities to be placed underground along this segment of Ashland Street, substantially improving the visual character of the area.
- Improve signage - Provide clear signage indicating the intersecting streets, and incorporate improved, appropriate standards for business signage to enhance the legibility and attractiveness of the corridor.
- Provide and invite special features - Special features should be encouraged such as sponsored landscapes, improvements on private property that complement the streetscape and perhaps public art, if opportunities arise.
- Provide Parallel Parking - The existing right-of-way north of Chestnut Street can accommodate parallel parking.
- Provide a "central" park – Ashland Street could feature a significantly-sized green space to meet the community's desire for a large green space. This would provide a respite for pedestrians and bicyclists along the corridor and provide an opportunity for residents and students to engage in a public green space.
- Provide Strategic Street Realignments - The intersections with Washington Avenue was identified as a challenging, and sometimes dangerous intersection. Ashland Street under the railway bridge could also undergo a street realignment. This turn is narrow and could be realigned to provide for greater use of limited space to provide for sidewalks and bicycle sharrows.

Walkability Study[20]

In 2011, several Williams College students under the direction of Professor Sarah Gardner, performed a walkability assessment of the downtown area of North Adams as well as four residential neighborhoods: Church Street neighborhood, UNO (United Neighborhood Organization[21]), Ashland Street/MCLA (Massachusetts College of Liberal Arts) neighborhood, and State Street neighborhood. The walkability study notes the importance of walkable neighborhoods and downtowns, the importance of the built environment to encouraging physical activity and the failure of many American cities to do so. As well the study makes the connection between walkable areas and public health metrics such as obesity and other preventable disease. Beyond this, the study stresses the importance of walkability to tourism and overall economic development and in building social capital before engaging in a comprehensive review of the history of the City of North Adams and accompanying changes to its urban form brought about by natural features, urban renewal and reuse/redevelopment projects such as MASS MoCA.

Study Methodology

The walkability study used both qualitative and quantitative methods that looked at sidewalks, crosswalks, signage, aesthetics, amenities, and safety. Each street segment included in the study and audit was assigned a score of 1 (worst) to 5 (best) based on aspects of walkability and infrastructure. As the walkability audits were carried out, the students interviewed pedestrians they encountered. These informal interviews gave insight into intangible aspects of walkability, such as perceptions of personal safety. Several formal interviews were also conducted with community members, city staff, and staff of local non-profit groups.

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[20] Williams College. 2011. Environmental Studies 302: Environmental Planning Workshop. *A Walkability Study for North Adams, Ma.* Williamstown, MA.

[21] UNO consists of Bracewell Ave, River St., Hall St, Liberty St, Chase Ave, Freeman Ave, Houghton St., North Holden, Grove St., Chase Hill, Brook Terrace, Eagle St., all neighborhoods close to and/or part of the North Adams downtown.

Problem Intersections identified

- Route 2 and Eagle St.
- Route 2 and Holden St.
- River St. and Eagle St.
- Main St. (Route 8) and Ashland St.
- Main St. and Church St.
- South St. and Washington Ave.
- Oak Ave. and Route 8 / State St.
- Furnace Bypass and Route 8 / State St.

Potential Projects

(sidewalk repair, replacement or addition (lack of/gap in sidewalk), add/repair curb ramps or curb cuts):

- Sperry Ave.
- State St.
- Walnut St.
- Furnace St. (overgrown, overall condition, gaps)
- Francis St.
- Hooker St. (gaps, overall condition)
- Ashland St.
- Blackinton St. (Curb cuts/ramps)
- Montana St. (Curb cuts/ramps)
- Highland Ave (gap near Davenport St)
- Porter St. (gap near Royal St.)
- Elmwood (overgrown sidewalk, gaps, curb cuts/ramps)
- Church St. (gaps + overall condition)
- Royal St (no sidewalk present)
- Willow St.
- Perry St (no sidewalk present)
- Spring St.
- Chestnut St.
- Quincy St.
- River St. (curb cuts and driveways in areas)
- Chase Hill (no sidewalks present)
- Hall St. (gaps)
- Brook Terrace (no sidewalk present)
- Chase Ave. (Gaps, overgrown, overall condition)
- Grove St. (curb cuts)

North Adams Partnership Initiatives

The North Adams Partnership is a non-profit founded "as a response to the economic challenges facing North Adams and as a vehicle to fully leverage North Adams' cultural, educational, and recreational assets." The organization's mission is "to enhance the economy of North Adams and establish and maintain the city's

position as a small city center of commerce, culture, education and innovation."[22] The Partnership has spearheaded several large initiatives related to Complete Streets and transportation within the city.

North Adams Strategic Economic Development Plan

The North Adams Strategic Economic Development Plan[23] was developed with consultants HR&A Advisors, Inc. & SHoP Architects in 2013. The Plan is a far reaching physical Master Plan that proposes broad changes to the North Adams downtown landscape. While the plan makes some policy recommendations, it is largely focused on a broad physical redesign of the downtown area of the city. The Plan utilized several strategies that helped to guide the overall design, including:

- Orienting visitors to the city with strategic sculpture and signage
- Redefining the urban scale to privilege the pedestrian
- Sustainably reclaiming underutilized space
- Activating outdoor space with public programming
- Transforming untapped resources into public amenities

The Plan concentrates design interventions around several focus areas including:

- Downtown
- Connectivity Areas (major roadways connecting to surrounding communities including Route 8, Eastern portions of Route 2, as well as connectivity between the downtown and MCLA, Natural Bridge State Park and Eclipse Mill
- Heritage State Park
- Main St.
- Route 2 Corridor

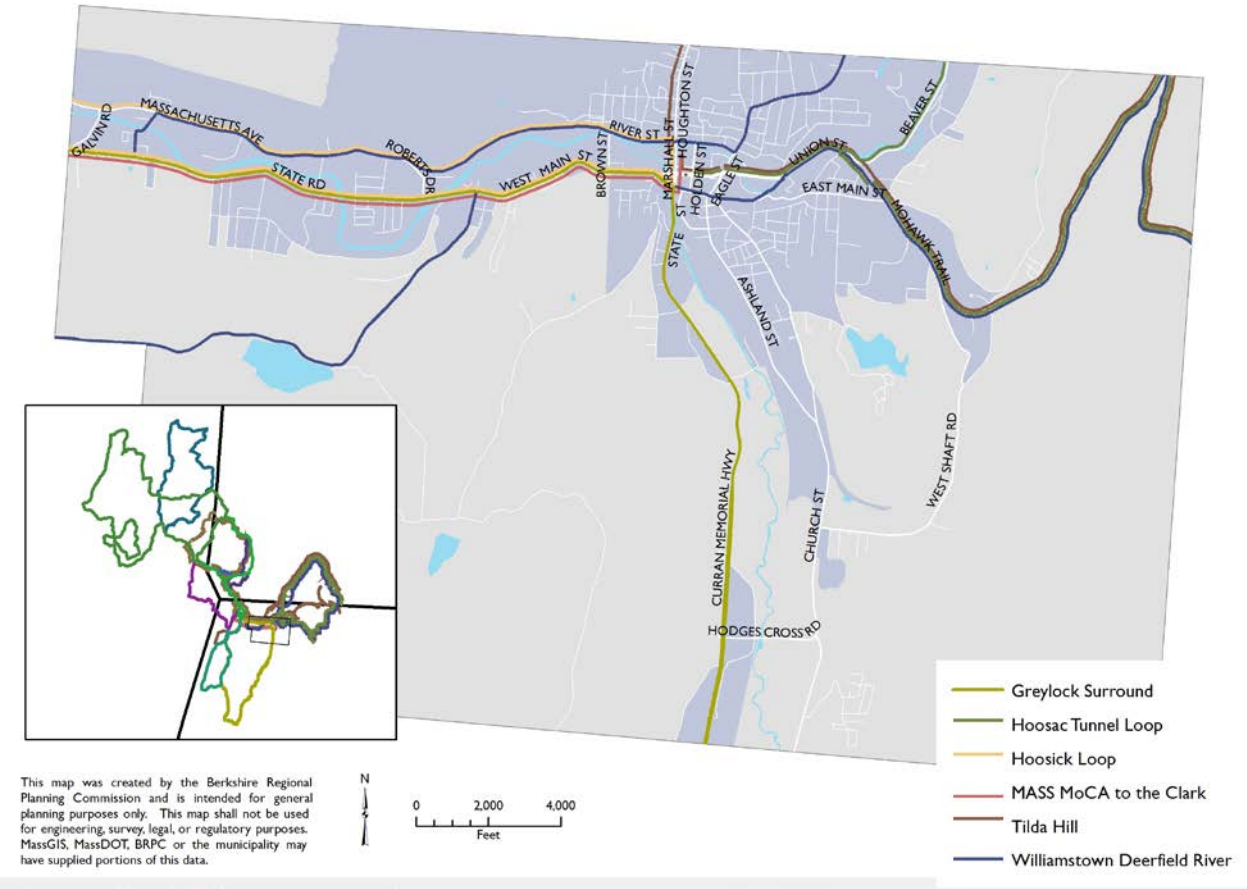
The Plan makes recommendations for enhanced public space, including constructing new parks and a "town common" in the parking lot south of Main St. and along American Legion Drive. The Partnership's Plan integrates the proposed Hoosic River Revival project as well as the proposed route of a future shared-use path through the downtown. Throughout the plan, bike lanes and other dedicated cycling facilities are proposed for city streets.

Bike Berkshire North

Bike Berkshire North[24] is a website created by the Partnership to promote cycling and bike tourism in the northern Berkshires and surrounding region. The website lists several popular cycling routes, areas to mountain bike, and displays on-going organized rides in the area in addition to promoting local bike shops. Nationwide, bike tourism is a growing segment of the travel market.[25] Studies have found that bike tourism brings millions of dollars annually to surrounding states such as Maine and Vermont.[26] Roadways in North Adams that are part of Bike Berkshire North identified routes can be seen in **Figure 4**.

[22] http://www.northadamspartnership.com
[23] http://www.northadamspartnership.com/?page_id=8
[24] http://www.bikeberkshirenorth.org/
[25] https://www.adventurecycling.org/about-us/media/press-releases/10-new-indicators-that-bicycle-travel-and-tourism-are-booming-and-changing/
[26] http://www.peopleforbikes.org/statistics/category/economic-statistics

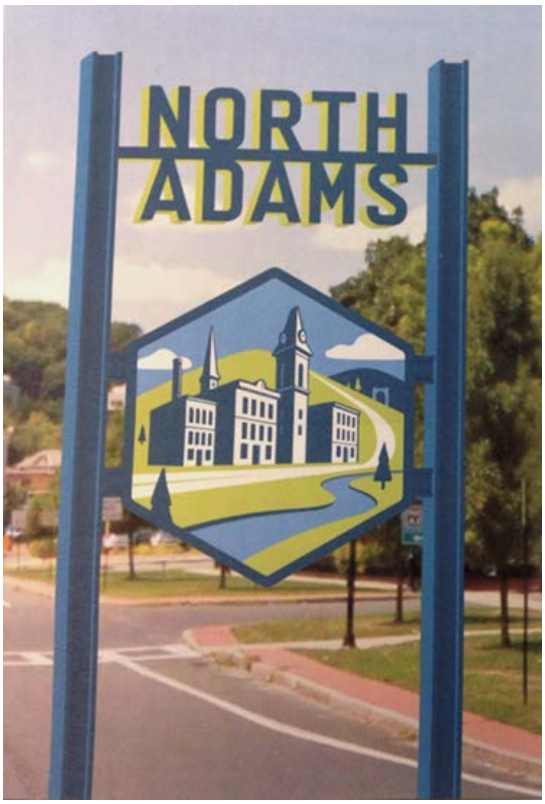
Figure 4. Identified Bike Routes



North Adams Branding and Wayfinding

An update to the city's wayfinding and branding signage has been spearheaded by the North Adams Partnership Group recently. The Partnership has already installed three gateway signs along Route 2 (east and west of city) and Route 8 (south of the city) (see **Figure 5**). The group is continuing with phase two of the project which will replace approximately 20 existing wayfinding signs (**Figure 5**) throughout the city and is also examining locations and content for building mounted wayfinding signs. One goal of this wayfinding project has been to encourage visitors to the city, many of whom are visiting Mass. MoCA, to explore and visit the downtown and other destinations.

Figure 5. North Adams Gateway Branding Signs (Left) and Existing Wayfinding (Right)



Massachusetts Museum of Contemporary Art (MoCA) Building Six Expansion and Other Initiatives

The Massachusetts Museum of Contemporary Art, also known as MASS MoCA, redeveloped the former Sprague Electric Company factory in the downtown and opened in 1999. The museum and the Solid Sound and Fresh Grass music festivals that it hosts are major attractions to the city. One estimate places "nonlocal" visits to the museum at 96,000 people per year.[27] MASS MoCA is now engaged in a major renovation and expansion of Building 6 at the museum campus which when complete will add both permanent and rotating exhibits to make the museum the largest contemporary art museum in the country.[28] As part of this expansion project, the museum has unveiled plans for the area's future shared-use path projects to travel directly through the renovated Building 6 to "form the strategic linchpin of two of the region's largest bicycle trails."[29] The project is anticipated to be largely complete, with exhibits open by May of 2017.[30]

MoCA has also partnered with the city to advance projects focused on comprehensively addressing the layout and organization of the city as well as advancing portions of the North Adams Partnership Strategic Economic Development Plan. In 2014, MoCA and the city submitted a MassWorks infrastructure grant application which proposed a $6.8 million-dollar redesign of Marshall and Center St[31]. The project proposed the removal of the existing building at 25 Marshall St. to make way for a public park area with amphitheater dubbed "Phoenix Mill Commons." The project was also aimed at increasing connectivity between the MoCA

[27] https://web.williams.edu/Economics/ArtsEcon/library/pdfs/MassMoCASummary.pdf
[28] https://www.bostonglobe.com/arts/2014/11/16/mass-MoCA-unveils-expansive-vision-for-future-including-artists-laurie-anderson-jenny-holzer-rauschenberg-bourgeois-james-turrell/oPu459PK72ZJUIYd15HmbL/story.html
[29] http://massMoCA.org/bike_path/
[30] http://massMoCA.org/event/building-6-architecture/
[31] http://www.iberkshires.com/story/47537/North-Adams-Mass-MoCA-Plan-Marshall-Street-Makeover.html

Campus and downtown North Adams, advocating for a pedestrian bridge over the Hoosic River and addition of bicycle facilities along West Main St. and Marshall St.

Recently, MoCA has announced plans for a wayfinding system to orient visitors around its campus as well as direct them to the downtown.[32]

Hoosic River Revival

The Hoosic River Revival was founding in 2008 "as a coalition of dreamers with the vision of reconnecting the people of North Adams with a restored river."[33] The project is an ambitious venture to de-channelize portions of the South Branch of the Hoosic River and restore it to a more natural state, reconnecting the river with the existing floodplain and creating a massive public park for all to enjoy at the same time. The project intends for the Hoosic River to be:

> *Reinvented as a river filled with life, both in the channel and along its banks, the preliminary design for the pilot project includes improved habitat for river species, reimagined recreational facilities, well-planned paths, and a host of amenities for residents and visitors. These improvements will transform the area while still maintaining the existing level of flood protection[34].*

The Revival efforts are currently focused around a pilot project area near Noel Field south of downtown and parallel and east of Route 8. This area offers the greatest flexibility in design due to the existing athletic fields and existing commercial and industrial operations. The Revival organization has recently completed a 30% conceptual design[35] for the pilot project area with consultants Inter-Fluve[36] and Sasaki.[37] The Revival views construction at this pilot project area as only the first step in an eventual transformation of other segments of the Hoosic throughout the city and anticipates the park will be open to the public by 2019-2020.

The project is an important and visionary effort supported in the 2014 Comprehensive plan. The project has implications for Complete Streets and nonmotorized transportation within the city as it is likely that extensions of the Ashuwillticook shared-use path will pass through the pilot project area as it stretches toward downtown. The project should also consider prioritizing and improving other connections to the pilot project area, such as along Route 8 and possibly from the east, although the existing rail line may present a barrier to this.

Extreme Model Railroad and Contemporary Architecture Museum

The Extreme Model Railroad and Contemporary Architecture Museum[38] is proposed at the current site of Western Gateway Heritage State Park immediately southwest of Main St. The project is still in the early stages of design and conceptualization, but is anticipated to draw new visitors to the city. The city should examine strengthening pedestrian and cycling connections to this destination.

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[32] http://www.iberkshires.com/story/54191/Mass-MoCA-Looking-to-Orient-Visitors-Send-Them-Downtown.html
[33] Hoosic River Revival. No date. Hoosic River Revival : Re-envisioning the South Branch in North Adams, Ma.
[34] http://www.hoosicriverrevival.org/
[35] http://www.hoosicriverrevival.org/1901
[36] http://www.interfluve.com/
[37] http://www.sasaki.com/
[38] http://www.berkshireeagle.com/stories/incoming-rail-and-architecture-museum-puts-north-adams-on-track-for-tourism-boost,492337

Global Contemporary Art Museum (GCAM)

The proposed GCAM art museum is another museum project[39] that is anticipated to be located along Route 2 near the Harriman-and-West Airport in North Adams. The city should examine strengthening pedestrian and cycling connections to this destination.

EXISTING CONDITIONS

The City of North Adams is in northern Berkshire County, MA and is bordered by the towns of Adams to the south, Clarksburg to the north, Florida to the east and Williamstown to the west. North Adams encompasses 20.6 square miles (13,193 acres). The city is in the Hoosac Valley at the confluence of the northern and southern branches of the Hoosic River. The City's historic core industry has been manufacturing, although recent years have seen an emerging cluster of art, music and recreation venues, with a substantial base of land for commercial and industrial purposes. The City is governed by a Mayor with a nine-member city council.

Sociodemographic Profile

The City's population in 2010 was recorded at 13,708 people, far from the 1900 population of 24,200 (2010 U.S Census). The city first dipped under 20,000 in the 1960 census (19,905) and has seen a steady decline since then, experiencing a 29% decrease between 1970 and 2010. This decline is partially due to the closure of Sprague Electric, a large electrical manufacturing facility that was a significant employer for several decades.[40] The population decline is projected to continue, with a projected population of 12,655 in 2030 and 12, 557 in 2035 (**Figure 6**).[41]

Also notable is that 2011-2015 US Census American Community Survey (ACS) data indicates that the percentage of disabled individuals under the age of 65 in North Adams (14.9%) is greater than that national average (8.6%). This has specific implications on the availability of and types of public transit available within the city, as well as access to nonmotorized facilities, specifically sidewalks.

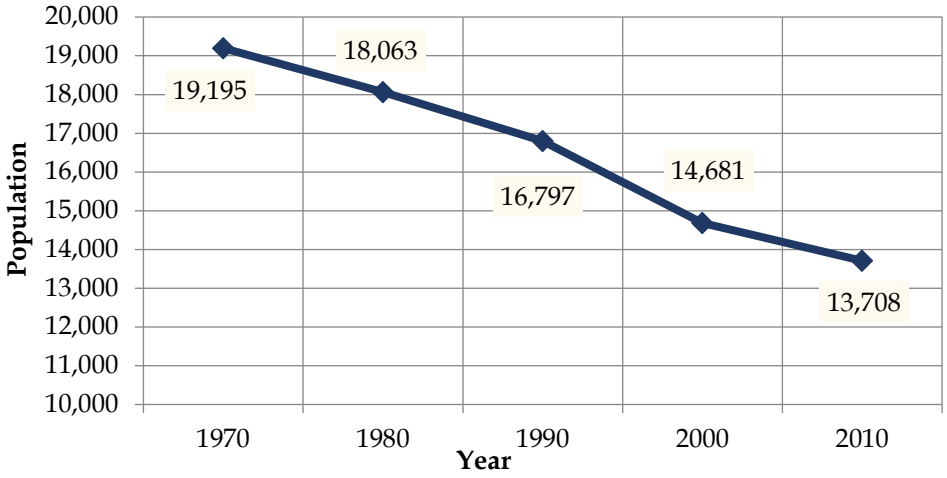
Moreover, 2015 ACS data suggests 20% of North Adams households had no vehicle and 42% of households had only one vehicle available. However, this figure includes households with no workers, such as retired seniors. Limited access to vehicles by residents of North Adams might explain why the commute mode share reveals a higher percentage of workers who walk to work than other Berkshire county communities.

[39] http://www.artnews.com/2015/08/12/thomas-krens-is-planning-another-contemporary-art-museum-for-north-adams-massachusetts/

[40] BRPC, 2014. *North Adams Vision 2030, Comprehensive Plan.* Pittsfield, MA.

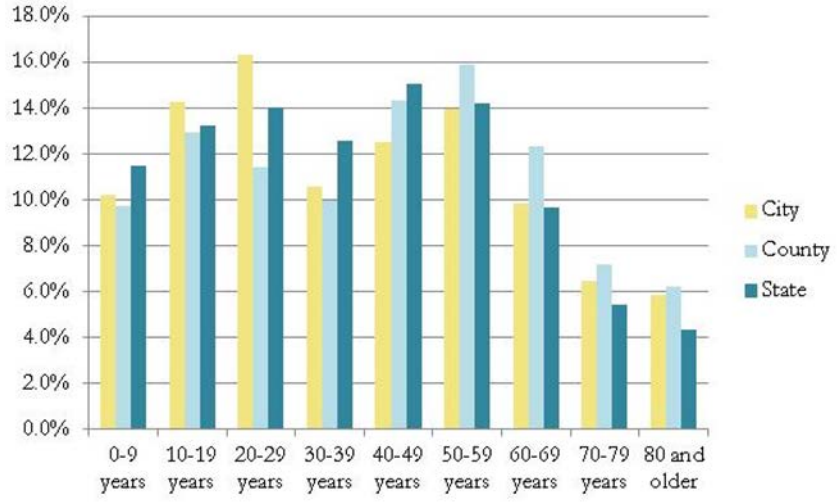
[41] UMass Donahue Institute 2015 Population Projections.

Figure 6. North Adams Population



Source: U.S. Census Bureau, 1970, 1980, 1990, 2000 and 2010 Census data

Figure 7. North Adams Age Distribution 2010



Source: U.S. Census Bureau, 2010 Census

North Adams has an unusually lower median age than much of Berkshire County, reflecting the presence of its college student population. According to the 2010 Census data, 34.6% of the City's population was below 25 years of age; 22.6% between the ages of 25 and 44, and 43% aged 45 years and over. Since 2000, the city has seen a notable increase in the number 20-24 year olds, which is perhaps attributable, at least in part, to the growth of MCLA and its increasing student enrollments (**Figure 7**). The median age in the city is currently 38.9 years of age, much lower than the county (44.7 years).[42]

According to data from the U.S. Census Bureau and the American Community Survey, household incomes in North Adams have moderately increased. Persons making $50,000 or greater have increased by 31 percent

[42] BRPC, 2014. *North Adams Vision 2030, Comprehensive Plan.* Pittsfield, MA.

(658 persons) since 2000. While the income gap is slowly shrinking, 37.5 percent of the City's population earns less than $50,000 annually. Between 2000 and 2009, the median household income rose 21% from $27,601 to $35,020.[43] However, median household income within Massachusetts during the 2005-2009 ACS was estimated at $64,496, nearly double that of North Adams households.

Major employers within the City in 2012 were the North Adams Regional Hospital (now Berkshire Medical Center North Adams Campus), MCLA and the North Adams School District. Other industry sector employers include the Retail Trade (14%) and Arts, Entertainment and Recreation, and Accommodation and Food Service (8%). While the unemployment rate in North Adams tends to follow the overall trend in Berkshire County, the City's rate is consistently 1-1.5 percentage points higher.

Climate

There are about 188 sunny days per year and about 146 precipitation days per year,[44] the latter of which may make travelling by bicycle or foot difficult at times throughout the year. Berkshire County receives snowfall throughout the winter months, and is at a higher elevation than most of Massachusetts, with a July high temperature of around 81° F and January low of 14° F. The snow and ice cover are the greatest detriments to walking and biking in the city and these can be present any time between late November through mid-March.

Topography

The City has a dramatic landscape, nestled in a deeply incised valley and surrounded by the Green Mountain range to the north, the Hoosac Range to the east, and Mount Greylock, the state's highest peak, to the southwest. These mountains form a strong physical boundary that has historically constricted development to the valley floor. Elevation ranges from 2,963 ft. on Mount Williams to 609 ft. along the Hoosic River near the Williamstown/North Adams line. Slopes of 15% and greater account for approximately 20 percent of the land area, with relatively gentle terrain within the Hoosic River valley often exceeding slopes of 5-8%. Many of the residential neighborhoods that surround the city downtown are located on these steep areas, making cycling and pedestrian connections a challenge and exacerbating speeding by vehicles traveling down slope toward commercial areas.

Land Use Characteristics

According to MassGIS land use data (2005), 78% of the land within the city is forest or wetlands. Residential land uses occupy 9% of the total land and tend to be concentrated within the downtown area. Commercial uses (2% of land area) tend to be focused in the downtown area and along the Route 2 and Route 8 corridors.[45]

Neighborhood Density

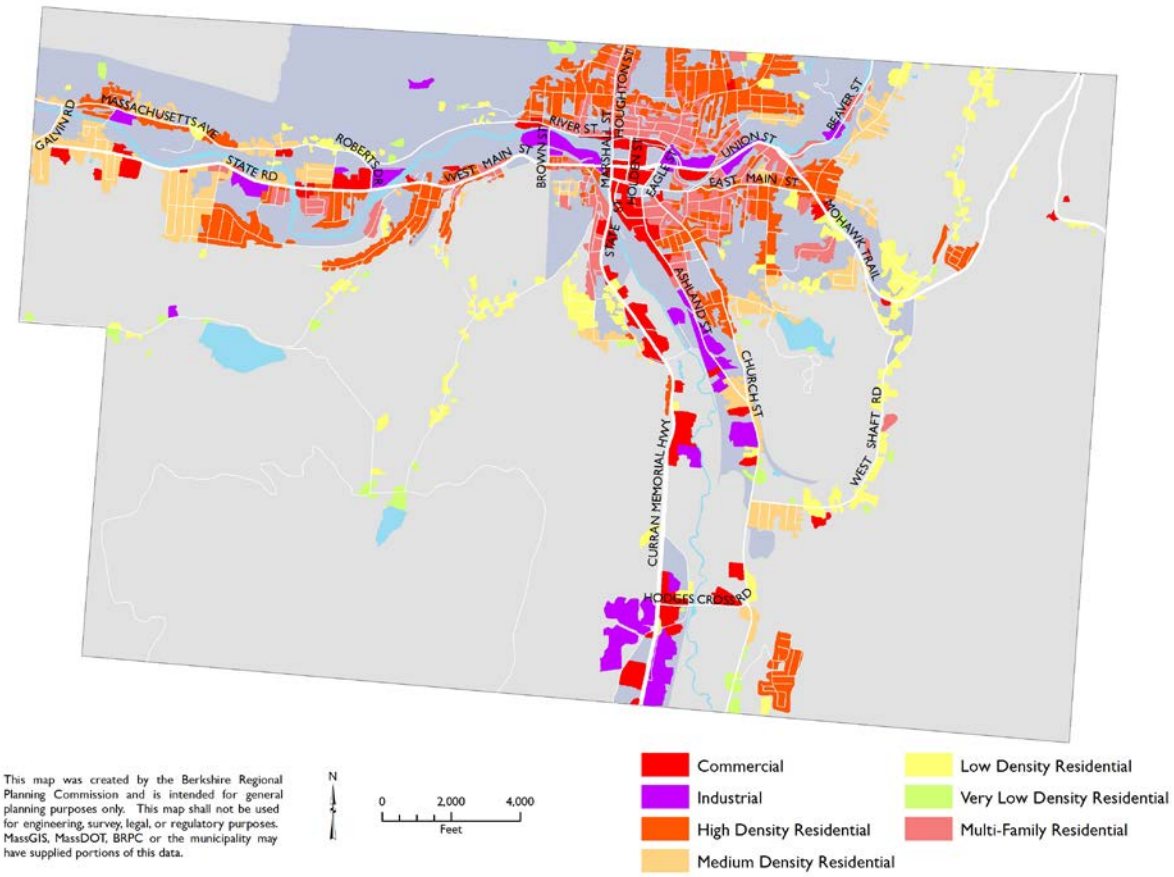
Because of the city's surrounding steeply sloped geography and the river's role in supporting industrial uses, the majority of development has occurred in the gentler valley floor areas. At the time of the 2010 Census, 61.4 percent (8,420 persons) of the community's population resided within 1-mile of the downtown, as illustrated in **Figure 8**. The Route 2 corridor west towards Williamstown is the next most populous area in the city, with limited rural development elsewhere in the city.

Neighborhood density is derived from the MassGIS Land Use dataset that was last updated in 2005. High density neighborhoods are identified as areas where housing is located on lots smaller than ¼ acre. Medium density neighborhoods are areas where housing is located on ¼ to ½ acre lots. Low density neighborhoods

[43] BRPC, 2014. *North Adams Vision 2030, Comprehensive Plan.* Pittsfield, MA.
[44] http://www.bestplaces.net/climate/city/massachusetts/North_Adams
[45] BRPC, 2014. *North Adams Vision 2030, Comprehensive Plan.* Pittsfield, MA.

are areas where housing is located on ½ to 1 acre lots. Finally, very low density neighborhoods are areas where housing is located on lots greater than 1 acre in size and very remote rural housing. Notes from the land use dataset describe more about the residential land use interpretation process, stating: "residential densities were determined either from the parcel data, or by visually comparing the house to surrounding houses, observing the spacing between the houses as well as the relative amount of yard space between them. If housing in an area seemed to fall between two classes, the most accurate density was chosen to maintain consistency throughout blocks and subdivisions or neighborhoods."

Figure 8. Land Use and Residential Density



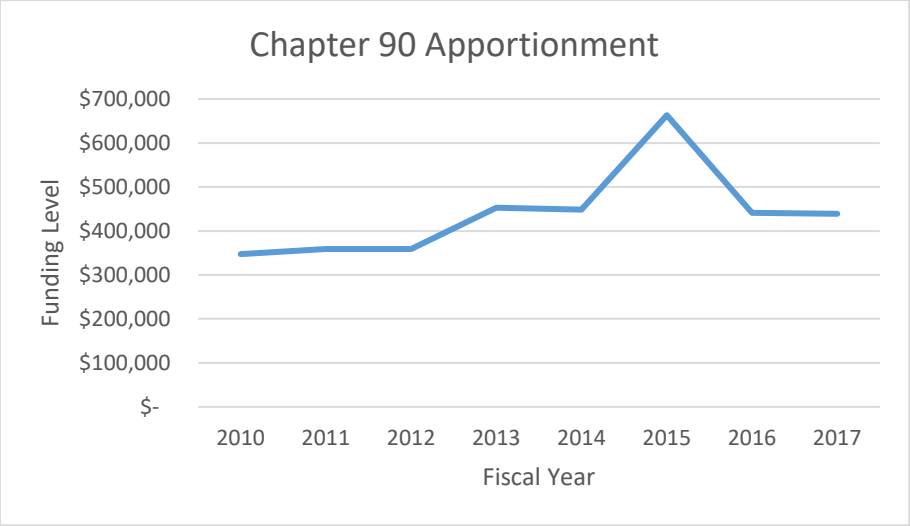
Fiscal Conditions

In Massachusetts, the Chapter 90 highway funding program was enacted in 1973 to entitle municipalities to reimbursement of documented expenditures on approved highway projects. Funds are provided through state Transportation Bond Issues, and can be used for a variety of project types and municipal uses including preservation and improvement projects that create or extend the life of capital facilities, garages, salt sheds, buildings for storage of equipment, and road building machinery, equipment and tools.

The MassDOT Complete Streets funding program is designed to function much like a grant of Chapter 90 funds to communities, but with important differences. As noted previously, funding may only go to projects related to Complete Streets priorities, and may not be used for design and engineering. However, yearly Chapter 90 funding can be used for design and engineering, and could be used to supplement potential complete streets funding awards and help advance nonmotorized projects within the city.

Chapter 90 apportionments fluctuate from year to year and are distributed based on a formula that factors in road miles (58.33%), population (20.83%) and employment (20.83%). In North Adams, Chapter 90 funding is generally around $450,000 each fiscal year (FY), with a significant increase in 2015 due to additional statewide funding that fiscal year that was allocated by the Governor Baker administration (see **Figure 9**).

Figure 9. Chapter 90 Apportionment FY2010-FY2017

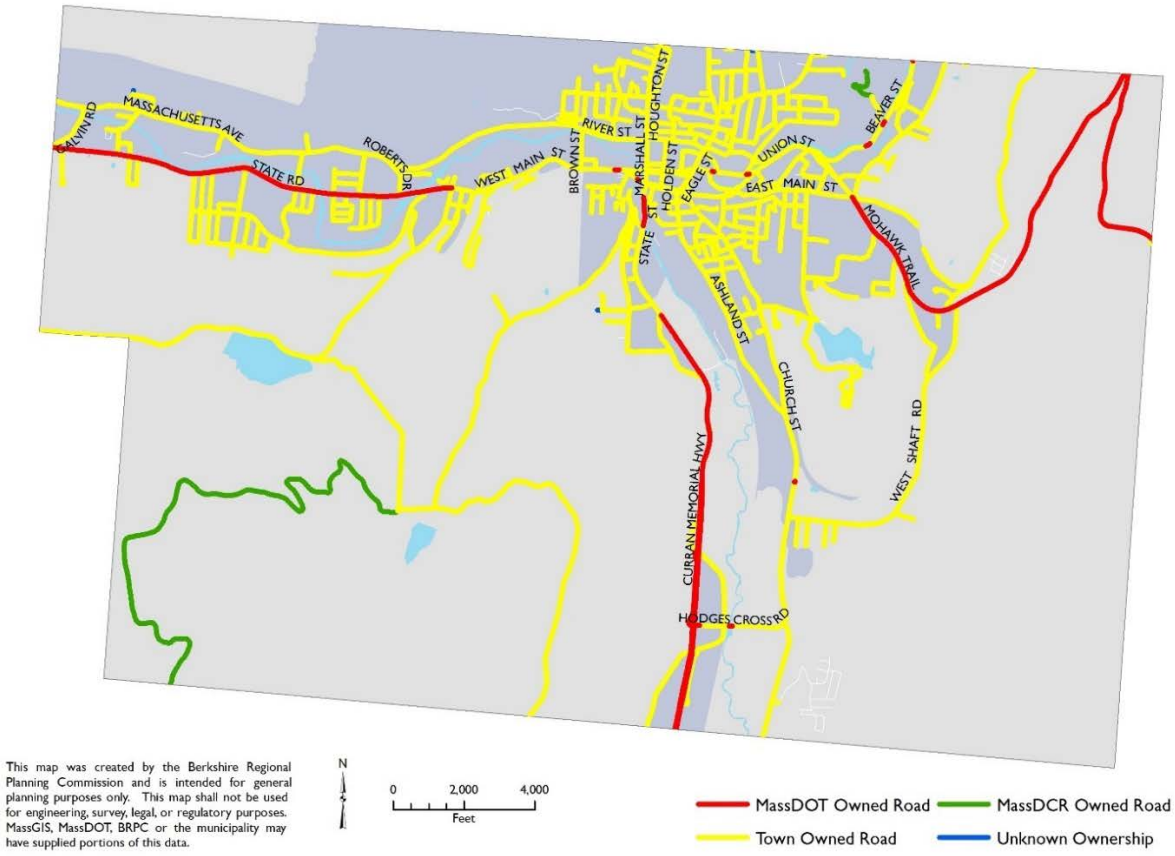


Transportation Conditions

Road Network

There are 90.8 miles of road in North Adams, of which 9.9 miles are under MassDOT's jurisdiction, 4.4 miles are privately owned, 3.6 miles are maintained by the Department of Conservation and Recreation (DCR), 0.1 miles are of unknown jurisdiction, and the remaining 72.8 miles are City accepted roads (see **Table 3**). MassDOT's road segments consist of Curran Memorial Highway (Rt. 8), State Road (Rt. 2) west of downtown, and Mohawk Trail (Rt. 2) east of downtown, all of which are designated truck routes. Curran Highway and State Road are major transportation thoroughfares both locally and regionally. The DCR roads travel through Mount Greylock State Reservation in the southwestern portion of the City and Clarksburg State Forest in the northern portion of the City.

Figure 10. Road Jurisdiction



Users of the roads include private motor vehicles, freight/commercial vehicles, emergency vehicles, bicyclists, pedestrians, school bus riders, and the occasional farm equipment, and equestrians that can be found in a small rural city.

Table 3. North Adams Road Jurisdiction

Jurisdiction	Mileage	Percent of All Roads
MassDOT	9.9	10.9%
City	72.8	80.1%
DCR	3.6	4.0%
Private	4.4	4.9%
Unknown	0.1	0.1%
Total	**90.8**	**100%**

Functional Classification

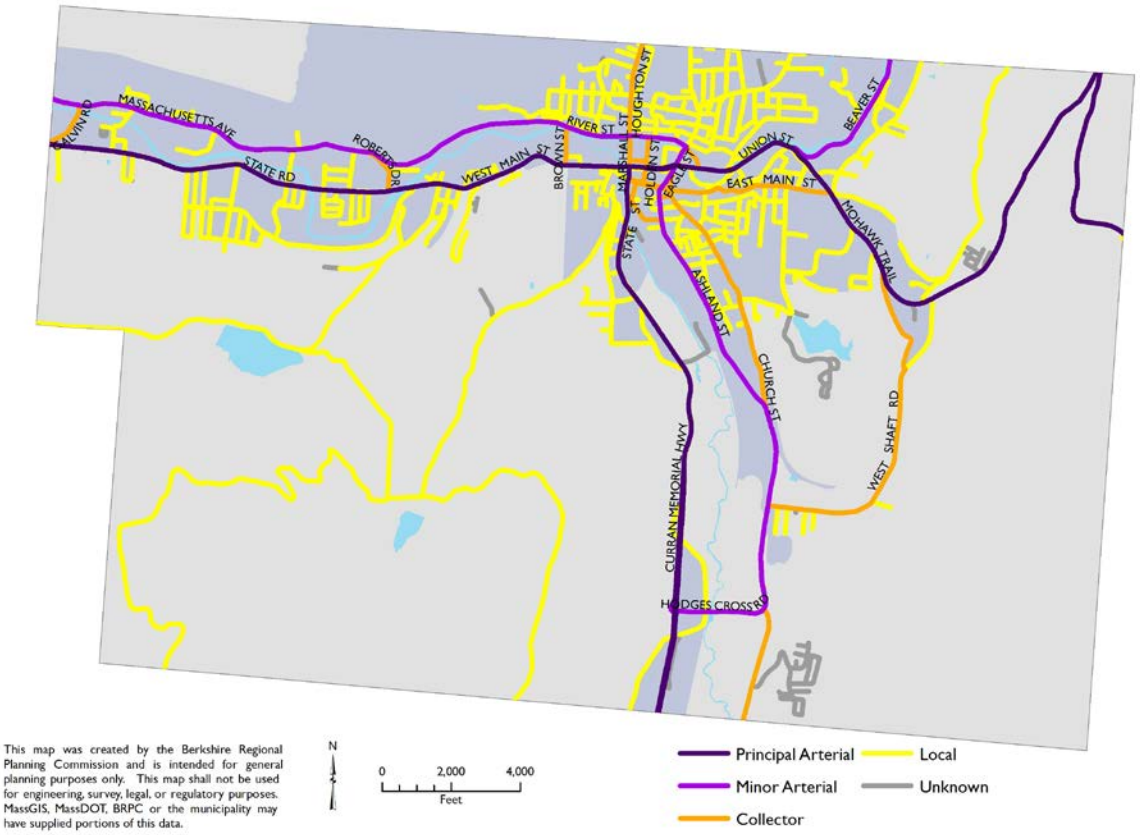
Functional classification is a way of grouping roadways into classes or systems based on character and type of traffic service they are intended to provide. All roadways are grouped into one of three classes (arterial, collector or local), and provide for transportation based on a spectrum between overall mobility and land access. Arterials provide for travel over long distances, but offer a lesser degree of land access than local or collector roads. Conversely, local roadways provide a high degree of land access, but traverse shorter distances and provide less overall mobility (see **Table 4**).

Table 4. Functional Classification Descriptions [46]

Functional System	Services Provided
Arterial	Provides the highest level of service at the greatest speed for the longest uninterrupted distance, with some degree of access control.
Collector	Provides a less highly developed level of service at a lower speed for shorter distances by collecting traffic from local roads and connecting them with arterials.
Local	Consists of all roads not defined as arterials or collectors; primarily provides access to land with little or no through movement.

Within North Adams, the main travel and commercial corridors are the principal arterials of Routes 8 and 2 as they travel through the City. Locally, Route 8 arterials are known as Curran Memorial Highway, State Street, Veterans Memorial Highway, Union Street, while locally Route 2 arterials are known as State Road, West Main Street, Veterans Memorial Highway, Union Street and Mohawk Trail. Minor arterial roads that branch from these roads are Route 8A, known locally as Hodges Cross Road and Ashland Street, which deliver traffic to MCLA and the eastern portion of the city center, and Beaver Street, a route to Stamford and other destinations in Vermont. Another minor arterial is River Street, which runs parallel to Route 2 and serves as a local alternate route to Route 2. Classifications are illustrated in **Figure 7**.

Figure 7. Roads by Functional Classification



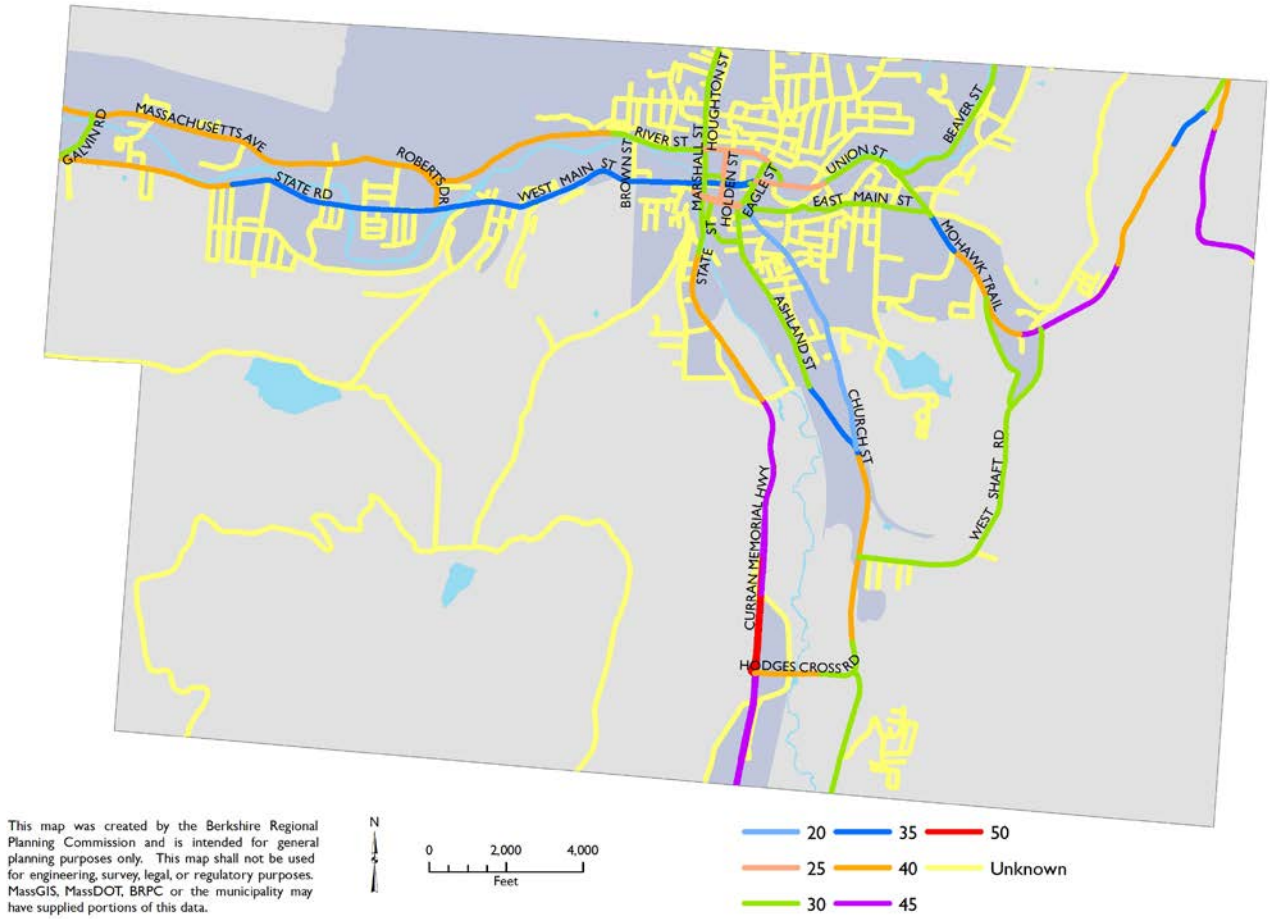
[46] Table adapted from Federal Highway Administration, Flexibility in Highway Design. Available from: http://www.fhwa.dot.gov/environment/publications/flexibility/ch03.cfm

Speed Limits

Speed limits, in conjunction with other factors like traffic volume, shoulder width, sight distance, have an impact on both the actual and perceived safety of nonmotorized travelers when they travel along a roadway without a dedicated facility. When speeds are higher, the severity of accidents involving nonmotorists is drastically increased, and separation from fast moving vehicle traffic is preferred. On low-volume roadways with high speed limits, ensuring safety for nonmotorized travelers within the corridor is critical for safety (actual and perceived). When speeds are high and there is little room to accommodate nonmotorists, looking at parallel routes, or separate facilities is important.

GIS speed limit data is currently limited to the roads that serve as arterials and collectors. In general, the higher speeds of 40 mph and higher are posted on the arterial Routes 8 and 2, with lower speeds posted on these roads as they travel through the city center. In general, roads leading into the more densely developed corridors leading to the center tend to have posted speeds of 30 mph (**Figure 8**). The lowest speeds of 25 mph are restricted to West Main Street, Main Street, Holden Street, East River Street and the western portion of Union Street.

Figure 8. Speed Limits



Road Surface Type

Road surface type has potential implications for Complete Streets improvements, specifically for pedestrian and bicycling facilities. Generally, unpaved (dirt or gravel) roadways are considered exempt from many potential improvements. Unpaved roadways cannot be striped, and thus rely solely on warning signage to

convey information, which means that elements such as bike lanes or shared lane markings cannot be added to these roadways. Moreover, pedestrian facilities, such as sidewalks are generally not included along unpaved roadways, unless they are in the form of an informal path alongside the roadway.

In general, vehicle speeds on unpaved roadways are lower due to road width and the surface type. Traffic volumes are generally lower as well. Low traffic speeds and volumes can make these roadways ideal for pedestrians, particularly recreational walkers. However, the surface type may create issues with accessibility as required by the Americans with Disabilities Act (ADA). ADA regulations requires that all accessible floor and ground surfaces be "firm, stable and slip resistant" and other ADA guidance notes that "most loose materials, including gravel will not meet these requirements unless properly treated to provide sufficient surface integrity and resilience [47]." Additionally, unpaved roads are sometimes used by cyclists, particularly those who ride mountain bikes with wider tires, and may be preferred due to relatively low traffic volumes. The narrow tires of many road bikes limit their use on unpaved roadways.

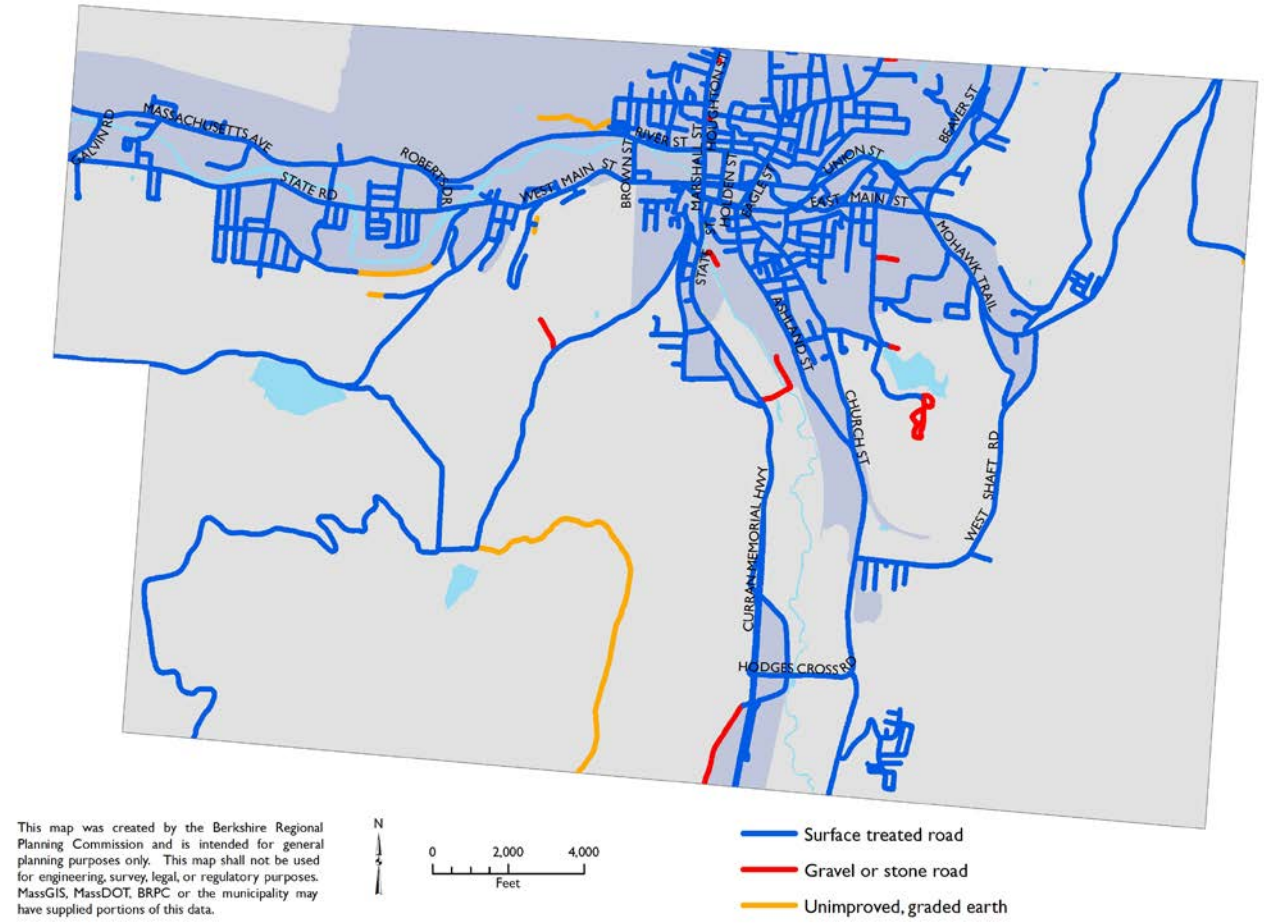
The majority (94.5%) of roads in North Adams are paved, while about the remaining 5% are unimproved/graded earth or gravel or stone (See **Table 5** and **Figure 9**). Two of the three miles of unimproved/graded earth roadway is West Mountain Road from its intersection with Notch Road to the city boundary. Much of the gravel/stone roads are the South State Street segment west of Curran Memorial Highway and the Windsor Lake campground road system.

Table 5. North Adams Road Surface

Surface Type	Mileage	% of Roads
Paved	85.8	94.5
Gravel/Stone	2.0	2.2
Unimproved/graded earth	3.0	3.3
Total	**90.8**	**100**

[47] https://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-ada-standards/guide-to-the-ada-standards/chapter-3-floor-and-ground-surfaces#3021

Figure 9. Roads by Surface Type



Pedestrian Conditions

Sidewalk Network

The City of North Adams has approximately 50.5 miles of sidewalk, covering much of the more densely developed residential areas and commercial areas which could serve as destinations for pedestrians.

Sidewalk Condition

North Adams has an extensive sidewalk network that provides connectivity to the downtown and surrounding residential areas. Much of the network is in relatively good condition; however, deteriorating sidewalks are an issue and can impact pedestrian activity where deterioration is severe. Most of the sidewalks in the town's inventory are made of concrete; and while this material is generally long lasting, the tiles can become skewed and uneven from shifting subsoils or expanding tree roots. Severely uneven sidewalk can create dangerous conditions to anyone, but are especially dangerous and possibly unnavigable for disable individuals who may use wheelchairs, scooters or walkers, seniors and others with reduced mobility, and for families using baby strollers. Severely uneven sidewalks entice or force some pedestrians to avoid the sidewalk and walk in the road, and in some cases, may deter them from walking in their neighborhoods.

The condition of the sidewalks was assessed during the fall and winter of 2016. The sidewalks were evaluated for the surface type, condition, width, presence of a buffer, curbs, ramps, and obstructions. The condition evaluation looked at how easy it would be for a person with mobility limitations (such as in a wheel chair) to

traverse the segment. Surface condition was evaluated on a scale of Excellent (no cracks, lifts or overgrowth), Good (minor cracking, lifting or overgrowth but would not significantly impair movement), Fair (significant cracks, lifts or overgrowth that would impede movement, but not prevent movement) and Poor (extremely difficult to traverse for those with mobility limitations). Reference images for determining sidewalk condition are shown in **Figure 10**.

Sixty-eight percent of the City's sidewalks are rated in excellent or good condition. All sidewalks rated as being in fair or poor condition are identified in **Table 7**. Notable segments of sidewalks that are in fair condition are West Main Street, the western gateway into the city center, the outer segment of State Street, on which the Noel Athletic Field complex is located. Notable segments where the sidewalk is in poor condition include Roberts Drive, a main connection between Massachusetts Avenue and State Road, and the length of sidewalk along Walker Street, the latter of which consists of approximately 0.8 miles of the 1.3 total miles of sidewalk in poor condition. Refer to **Table 6 & 7** and **Figure 10** for a more detailed overview of the City's sidewalk network. For a discussion of gaps identified in the sidewalk network, please refer to the **Needs** section.

Figure 10. Sidewalk Condition Reference Images

Excellent Good Fair Poor

Of the 50.5 miles of sidewalk network, 68.3% is in good or excellent condition and the other 31.7% is in fair or poor condition. Sidewalks that were rated either fair or poor are listed in **Table 7** and represent the sidewalks in North Adams most in need of repair or replacement. Mapped sidewalk conditions can be seen in **Figure 11**.

Table 6. North Adams Sidewalk Mileage and Condition

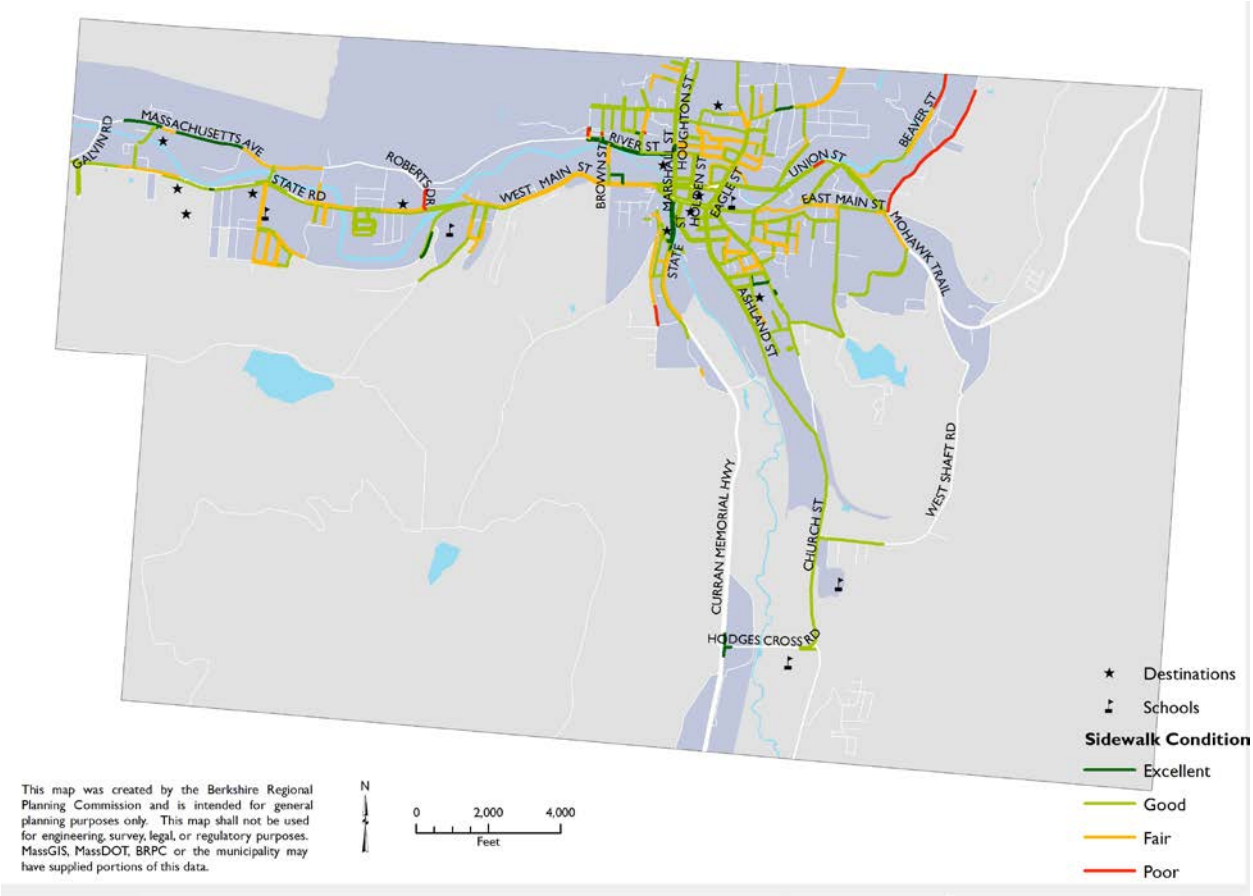
Sidewalk Condition	Mileage	Percent
Excellent	2.6	5.1%
Good	31.9	63.2%
Fair	14.7	29.1%
Poor	1.3	2.6%
Total	**50.5**	**100%**

Table 7. North Adams Sidewalk in Fair or Poor Condition

Street Name	Feet	Street Name	Feet
Ballou Street	85.4	Marietta Street	471.0
Barbour Street	1108.3	Marion Avenue	956.7
Beacon Street	121.5	Massachusetts Ave.	2750.2
Beaver Street	3576.7	Meade Avenue	898.8
Bracewell Avenue	1864.3	Meadow Street	548.5
Brown Street	596.5	Mohawk Trail	1113.0
Bryant Street	640.8	Montana Street	596.4
Canal Street	742.3	Nelson Street	402.8
Catherine Street	768.2	North Holden Street	949.5
Central Avenue	627.3	Notch Road	954.9
Chase Avenue	351.8	Pershing Street	295.0
Cherry Street	1003.8	Phelps Avenue	2208.9
Church Street	673.5	Prospect Street	1164.3
Cliff Street	1075.0	Protection Avenue	1054.3
Dover Street	148.4	Reed Street	241.0
Eagle Street	490.4	River Street	1697.3
East Main Street	2671.5	Roberts Drive	570.8
Elmwood Avenue	464.7	Robinson Street	180.9
Foucher Avenue	688.8	Royal Avenue	118.2
Francis Street	110.5	South Street	654.1
Franklin Street	2247.7	Sperry Avenue	513.9
Frederick Street	796.2	Spring Street	861.8
Freeman Avenue	267.7	State Road	4002.8
Furnace Street	1397.6	State Street	2207.0
Glen Avenue	176.4	Taft Street	590.2
Greylock Avenue	201.8	Tyler Street	316.3
Grove Street	253.1	Union Street	276.5
Hall Street	1380.6	Veazie Street	669.6
Harris Street	82.3	Walker Street	4330.9
Hooker Street	290.2	Wall Street	270.4
Hospital Avenue	335.9	Walnut Street	1390.9
Hudson Street	521.4	West Main Street / Route 2	5557.8
Jackson Street	596.0	Willow Street	538.8
Kemp Avenue	338.5	Yale Street	891.8
Lincoln Street	469.8	–	–

Note: Lengths listed are length of street, not actual sidewalk. Sidewalk lengths may be twice the calculated length if located on both sides of roadway

Figure 11. North Adams Sidewalk Network and Condition



Crossings

Many intersections in the downtown area of North Adams are signalized, and most of these intersections are equipped with pedestrian signals, but not countdown timers. One notable signalized intersection that lacks pedestrian signalization is the intersection of Eagle and River St. Here, the crosswalks are marked on all four approaches, but pedestrian safety could be improved by installing pedestrian signals.

Notable mid-block crossings include those on Main St. which include in-street pedestrian yield signs. The usage of mid-block crossings enhances the walkability of the Main St. area and potentially fuel greater demand as these crossings cause less of a burden for pedestrians to wait for their signal and rush across. There is no usage of curb-extensions or RRFBs (Rapid Rectangular Flashing Beacons) to enhance the crossings, but there is certainly potential to improve all the crossings downtown.

Overall, the city primarily relies on crosswalks at unsignalized intersections. There is minimal usage of crosswalk enhancements that include curb-extensions, flashing beacons, etc. In the MCLA area, there are some flashing signs indicating pedestrians are/about to cross which enhances the walkability of the student-populated area.

Off-Road Pedestrian Network and Trails

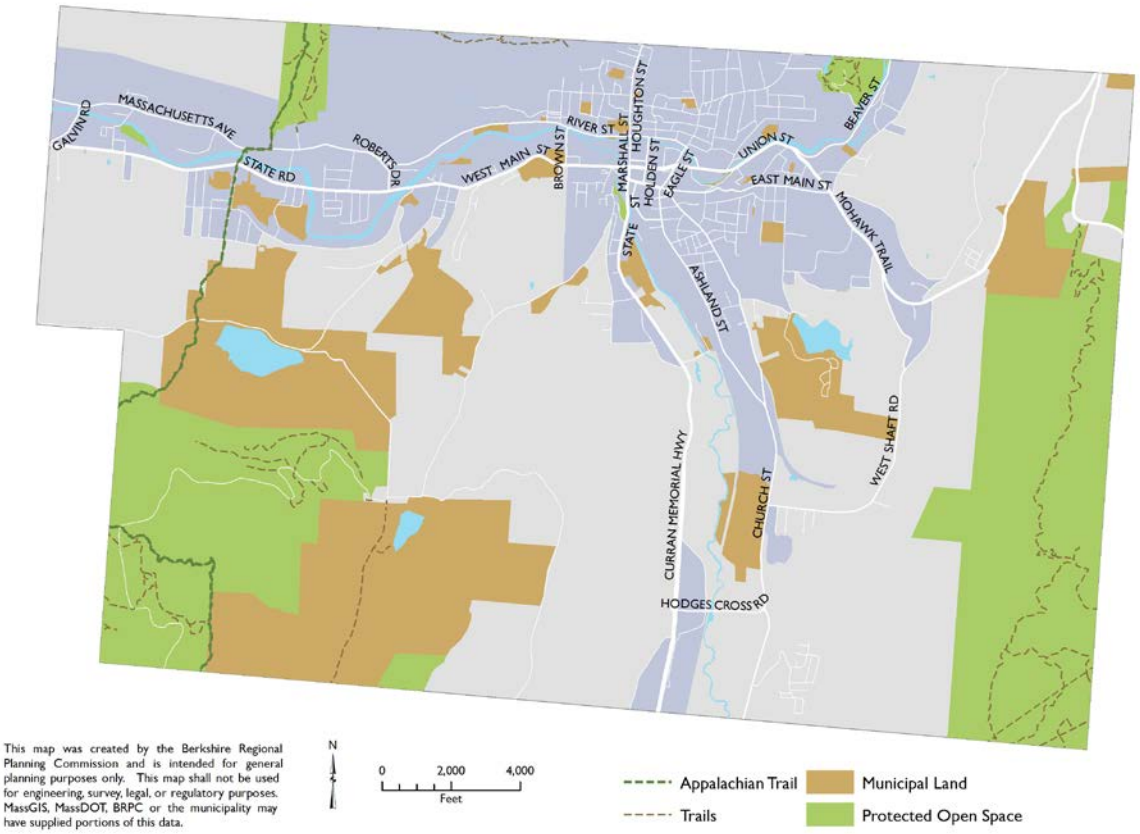
There are a few key areas within North Adams that host an array of hiking trails, some of which also allow mountain biking. Access to major hiking networks that host several miles of trails are found in Mount Greylock State Reservation, Clarksburg State Forest and the Hoosac Range Preserve (which connects to the trail in Savoy Mountain State Forest). The Appalachian National Scenic Trail travels through the center of North Adams, with trailhead access not only from both Mount Greylock and Clarksburg state forests, but also from Massachusetts Avenue, State Road and Catherine Street (**Figure 12**). It should be noted, however, that parking for trailheads is found only in Mount Greylock State Reservation. Smaller hiking trails are also found in Natural Bridge State Park and the Cascades. Many trails within the Mount Greylock State Reservation are also designated as mountain biking trails.

While the City has access to several trail networks, the *Mohawk Trail Corridor Management Plan* noted that there are three key challenges for city residents who wish to access trails.

1. The existing trail systems are found in rugged, steep terrain, inaccessible to less hardy less hardy bicyclists or pedestrians (e.g. families with children, the elderly or disabled). Residents who wish to walk or bike on gentle terrain must travel south to utilize the Ashuwillticook Rail Trail in Adams.
2. The larger trail systems are in outlying areas of the City whereas the dense residential neighborhoods tend to be concentrated in the Hoosic River Valley; the distance between these neighborhoods and the trail systems limits many residents' access to them.
3. There is no off-road route that links the North Adams city center to the town centers of Williamstown or Adams.

To address these challenges, the City of North Adams is pursuing the creation of two shared-use path segments, one westward to Williamstown and one southward to Adams. As envisioned the path would be located off-road as much as possible and be designed to accommodate users of all abilities.

Figure 12. Open Space and Trails



Bicycle Conditions

Off-Road Bicycle Conditions

There are no shared-use bicycle/pedestrian paths in North Adams, although the City is actively working with the neighboring towns of Adams and Williamstown to connect to both existing and proposed shared-use paths. The northern terminus of the Ashuwillticook Rail Trail, the regional 11-mile rail trail, is currently located in downtown Adams. The City and Town of Adams are jointly working with an engineering firm to design a northward extension to the Ashuwillticook to Hodges Cross Road, which would bring the rail trail into North Adams city limits. Design and construction of this extension of the Rail Trail is proposed within the FFY 2017-2021 TIP. From here the shared-use path is envisioned to continue northward to the North Adams city center, although the exact route north of Hodges Cross Road has not yet been determined.

The City is also working closely with the Town of Williamstown to create a 3.5-mile shared-use path that is envisioned to connect the two downtown areas. Williamstown is currently in the engineering design phase of developing their shared-use path, which will travel eastward from Syndicate Road near Route 7 to the Spruces, which is in the Williamstown/North Adams border. The Williamstown path is approximately 2.5 miles in length and generally travels along the Hoosic River. Except for road crossings the path is entirely off-road. As of February 2017, the path is approaching 25% design, with construction currently targeted for FY 2020. Funding for design of this path is largely derived from the federal Congestion Mitigation and Air Quality (CMAQ) funding program in FY 2020.

The City of North Adams is working with Williamstown and MassDOT District 1 staff to extend the Williamstown shared-use path eastward into North Adams. The route of this extension is from the Spruces,

crossing State Road (Rt. 2), traveling south through undeveloped land to reach the city-owned Harriman and West Municipal Airport, where it will continue eastward along the northern border of the airport land. The terminus of this section of path will end at airport at the end of Bud Dougherty Airport Road. This extension from the Spruces to Airport Road is approximately 0.9 miles. When completed, this will be the City's first accessible, shared-use path. While a small portion of the funding for design of the path is derived from the scenic byways grant being administered by Williamstown, the bulk of the cost for design is the responsibility of the City of North Adams. FY 2020 funding for the Mohawk Bike / Ped. Trail is currently in the region's Transportation Improvement Program (TIP) scheduled at $4.2 million dollars.

While the route for the 0.9-mile extension along the airport has been determined, the route eastward to the city center of North Adams is still not finalized. However, the City has established a favored off-road route with some alternatives being offered in areas with constraints. As envisioned the shared-use path will travel north on Dougherty Airport Road and, utilizing the existing signalized traffic lights, will cross Route 2 to travel eastward on the northern side of the road to Phelps Avenue intersection, where it will cross Route 2 using the existing traffic signal. Once on the south side of the road the path will continue eastward and will turn south of Route 2 to travel through the Alcombright Athletic Fields.

From the Alcombright fields the route travels eastward across the Hoosic River and along the northern and western shoreline of the large meandering bend of the Hoosic River. The path crosses State Road at the Sacco Bridge, which is already signaled for pedestrian crossing due to proximity of the Brayton School and YMCA facility. Once crossing to the north side of Rte. 2, the path follows the river and tunnels under the Pan Am Railroad tracks that are bermed approximately 20 feet high in this area. The shared use path will follow existing trails that transect this large, forested parcel. The path will cross the Hoosic River on the Brown Street bridge and move eastward on the south side of River Street. The route will again cross the Hoosic River to pass through a tunnel created on the ground floor of Building 5 and wind its way through the campus, exiting onto or possibly tunneling under West Main Street. The path enters Heritage Park using the existing (and improved) pedestrian bridge that crosses over the railroad tracks. The proposed shared-use path from Williamstown is show in red in **Figure 1**.

North Adams is the northern gateway to the Mount Greylock State Reservation, which hosts several mountain biking trails. From Notch Road in North Adams, mountain bikers can travel the Bellows Pipe Trail to Theil Road in Adams. Although this is a popular biking trail, the terrain is steep and is not used as a commuter route.

On-Road Bicycle Conditions

The City of North Adams has very few miles of dedicated bicycle facilities. The former shoulders of State Road (Route 2) from the Williamstown boarder eastward to Protection Avenue, approximately 1.4 miles, have been designated as bicycle lanes, with pavement marking that were installed in 2016. From here eastward to Sacco Bridge the road includes shared lane or "sharrow" pavement markings. Although in general the shoulders of the road east of Sacco Bridge are wide enough for bike lane designation, there are areas where the shoulders narrow significantly (eastbound lane near the Hillside Cemetery) and two areas where on-street parking is allowed and utilized.

Western New England Greenway

The Western New England Greenway, or U.S. Bicycle Route 7, is a multi-segment, multi-state bike route that links New York City and Montreal.[48] The route largely follows Route 7 through the western portions of Connecticut, Massachusetts, and Vermont. The route links with East Coast Greenway at the Merritt Parkway near Norwalk, CT at its Southern terminus, and with Quebec's Route Verte at its northern terminus at the

[48] http://wnegreenway.org/

Canadian Border. The Greenway passes through Berkshire County and North Adams. Most of the route is located along existing roadway, but the Greenway also takes advantage of existing shared-use paths, such as the Ashuwillticook Trail, which passes through Lanesborough, Cheshire, and Adams. North of Adams, at the northern end of the Ashuwillticook Trail, the Greenway continues along Route 8. In North Adams, the Greenway travels through the center of the city, along Marshall St, before turning east on River St. and Massachusetts Ave. as it makes its way toward Williamstown (**Figure 13**). Once additional shared use path mileage is constructed, the route will likely be updated to include the off-road facilities.

There are plans to add wayfinding and signage to the multi-state route in the coming years. The effort will be coordinated across state lines to ensure a consistent look and feel to the route. This effort is not yet underway as of 2017, but is a short- to mid- term plan of the Western New England Greenway's Executive Committee.

Figure 13. Western New England Greenway Route

Bicycle Competency Mapping

Competency mapping is method of classifying roadways that indicates the level of experience that is generally required for cycling on the roadway and accounts for various roadway characteristics including shoulder width, traffic speed and volume, or the presence of existing facilities, such as bike lanes. BRPC evaluated all roadways in the city as part of this planning process. A flow-chart explaining the categorization process is described in **Figure 14**, and a description of the five competency levels can be found in **Table 8**. Final mapped competency levels are found in **Figure 15**.

The levels rank competency needed to safely cycle on a road, and describe both the easiest and the most difficult areas to ride. The levels enable a quick reading of how useable the existing roadway network is for residents of and visitors to the North Adams area. For example, most cyclists will be able to use Level 1

categorized routes, but far fewer will feel comfortable using level 4 or 5 roadways. The resulting map shows the roads that are most difficult to navigate, and is useful for identifying gaps and barriers to nonmotorized travel as well as the planning of alternative routes on easier to travel routes to bypass higher competency level roadways.

Table 8. Bicycle Competency Levels[49]

Competency Level	Route Ease/Safety	Usability
Level 1	Easiest routes	Learning to bike, beginner, casual, experienced, expert - **everyone**
Level 2	Easy routes	Beginner, casual, experienced, expert – **most people**
Level 3	Moderately difficult routes	Casual, experienced, expert – **confident, but cautious riders**
Level 4	Difficult routes	Experienced, expert – **experienced riders**
Level 5	Most difficult	Expert (rider with a lot of experience riding on-road) – **expert riders, with caution**

Though there are two planned Level 1 facilities, the Ashuwillticook Extension to Hodges Cross Rd, and the Mohawk Bike/Ped. Trail, at present there are no entirely separate facilities for cyclists in the city. This is a major barrier for those that are interested in bicycling but have little to no experience. Planning and constructing a shared-use path would provide north-south and east-west connectivity within North Adams and to neighboring communities, Williamstown and south through Adams, Cheshire, Lanesborough, and Pittsfield. Separated shared-use paths are user friendly, and safe for cyclists uncomfortable on roadway facilities, and could serve as the spine to the entire future nonmotorized network in the city.

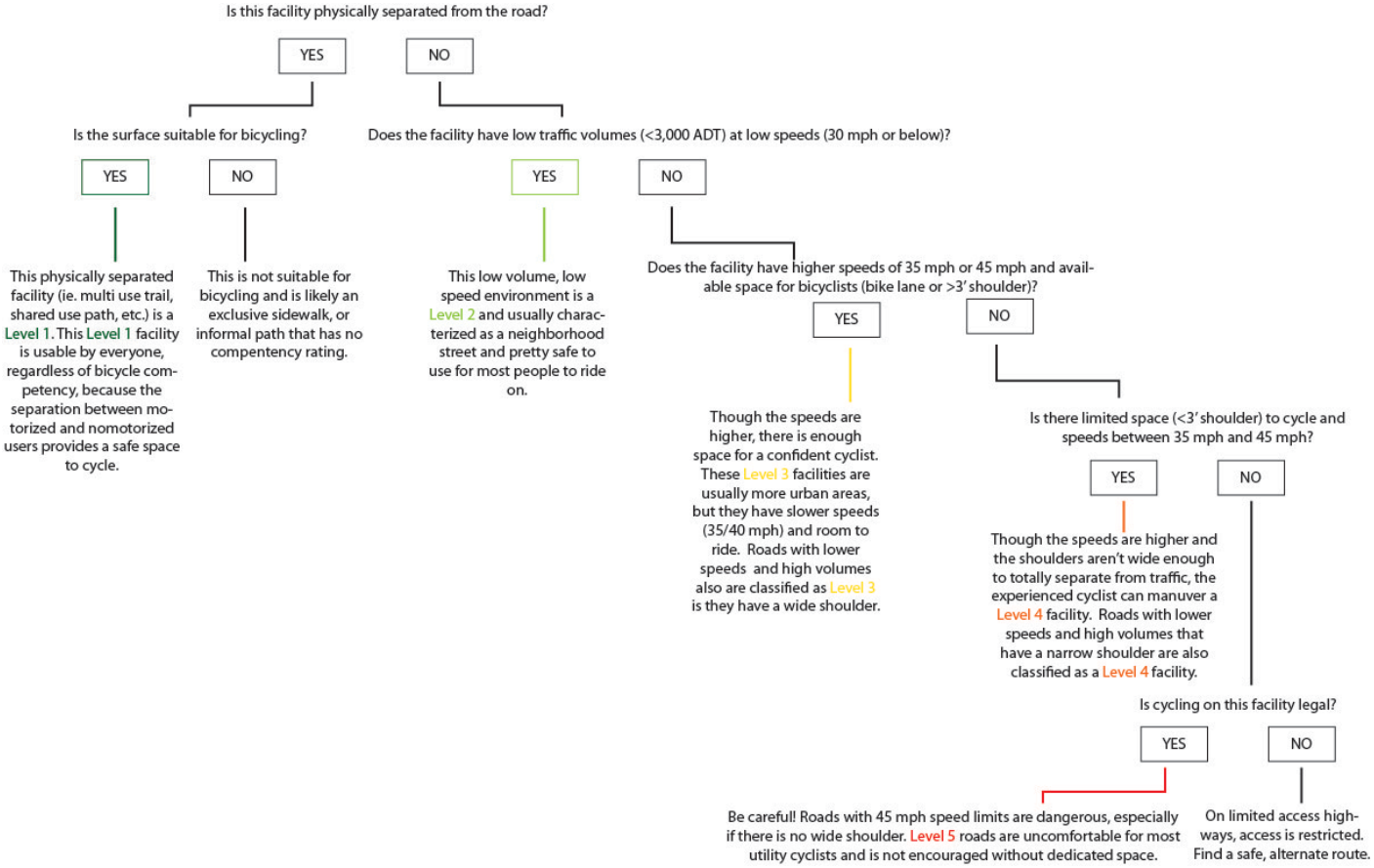
There are many Level 2 facilities in North Adams and these are usually low-volume neighborhood streets where cyclists have room to ride and aren't exposed to higher speed motorized vehicles. These streets present few barriers to cyclists, except when there is a complicated intersection without adequate crossing time/space. Attention to how and where these Level 2 facilities connect to, and/or cross other facilities is paramount, especially in areas where Level 2 facilities are in proximity but do not connect to major destinations, and/or retail/commercial areas. While not included in the classification, topography plays a role in examining bicycle competency. The many residential neighborhoods that surround the North Adams downtown are great places for cyclists to explore; however, they are found on some of the steepest terrain in the city.

Level 3 facilities are sparsely located around North Adams. There are small portions along higher volume roadways, like Massachusetts Ave, Route 2, and downtown, and their presence suggests an opportunity to improve Level 4 facilities and maximize connectivity for cyclists desiring movement in and across the city. The lack of Level 3 facilities that are continuous and well-connected is a barrier for the majority of interested cyclists in choosing active transportation. Even one intersection that is impassable or dangerous along a route can prohibit the choice to ride a bicycle for a daily trip. Improving the connectivity between Level 3 facilities would provide increased connectivity and route choice for cyclists in North Adams. The lack of dedicated facilities on major north-south and east-west routes is a barrier to cyclists across the city. Ensuring ease of use on major routes (Massachusetts Ave, River St., Route 2, Church St., Route 8) is necessary to provide a spine

[49] Adapted from Pikes Peak Area Council of Governments. 2015. Regional Nonmotorized Transportation System Plan.

to the bike network in the city; investments to these facilities should be considered to improve the bike network for most users.

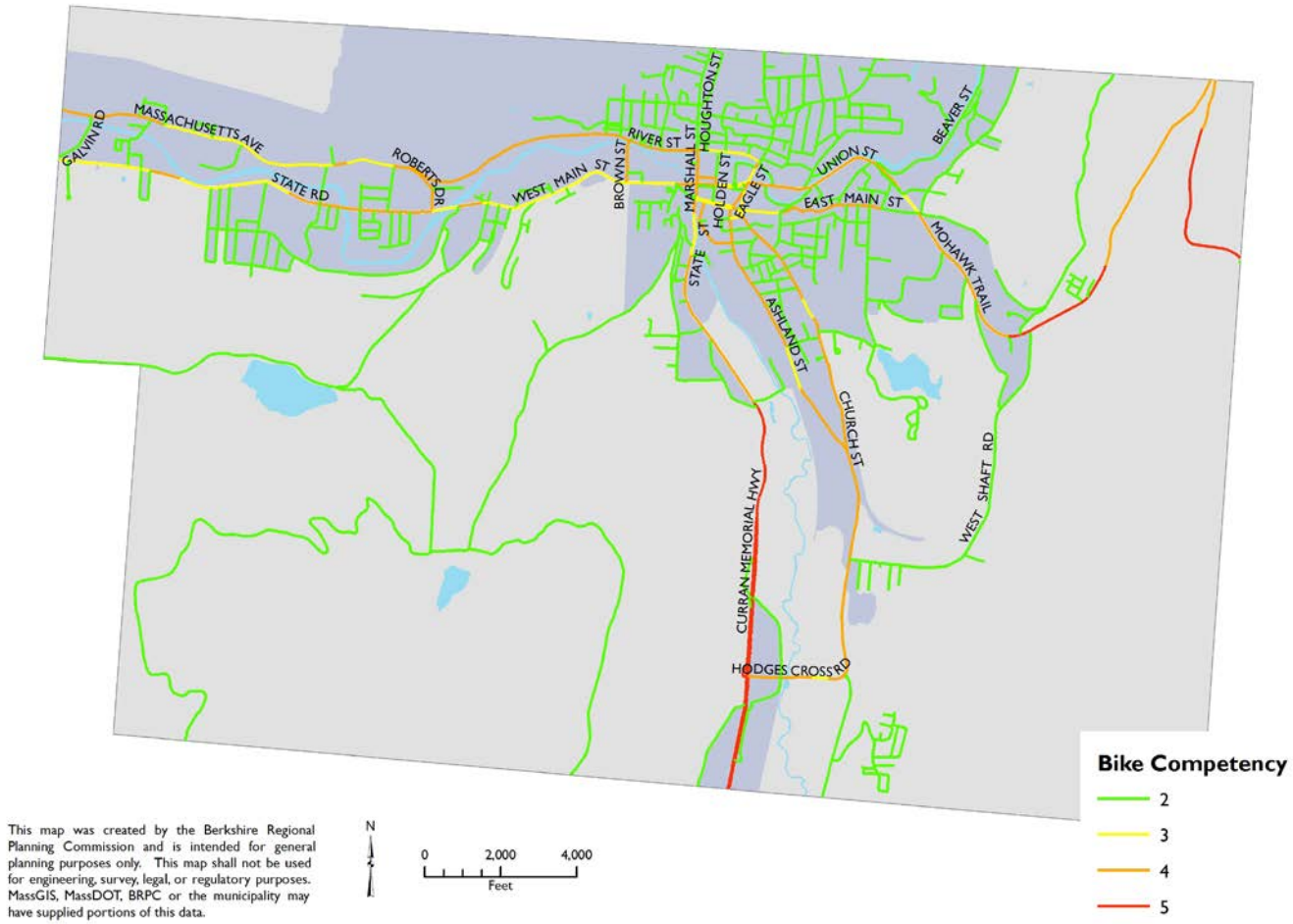
Figure 14. Bicycle Competency Classification Methodology



Level 4 facilities are highlighted on almost all of the major routes in and around North Adams. These facilities are generally difficult to ride on, and for non-experienced riders, a deterrent. Level 4 facilities suggest major barriers for cyclists, whether in the form of high speeds and volumes or lack of separation from motorized traffic. Safety improvements and dedicated facilities should be considered on these roadways so that riders are separated from the higher volumes/speeds. Hodges Cross Rd. and Church St. will need to be improved to better connect residents to the Ashuwillticook extension, and to provide on-road alternatives for north-south movements.

Level 5 facilities along Route 2 and Route 8 are obvious barriers to cycling in North Adams. These roadways should look to physically separated solutions for bicycle travel, and in the case of Route 8, attention to connectivity to the Ashuwillticook extension should be considered.

Figure 15. Bicycle Competency Map



Safety

Safety is a major reason many communities look at Complete Streets improvements, and though safer infrastructure is absolutely a way to reduce the injuries and deaths of cyclists, pedestrians, and other vulnerable users, there is also a behavioral component that must be supported through encouragement and education.

Table 9 shows available crash data in North Adams from 2012 through 2014. This includes all crashes involving automobiles, with and without injuries, and not just those that involved bicyclists or pedestrians. Crash data is collected from state and local police reports and is compiled by MassDOT. Data from the three-year period shows just over 1,200 crashes. The clear majority of these crashes resulted in Property Damage Only or "PDO." Only around 16% of all crashes resulted in a non-fatal injury and unfortunately, crashes led to four fatalities in the city.

Because the reporting threshold is any crash involving an injury or fatality, or damage to any one vehicle or other personal property in excess of $1,000, there are certainly limitations in relying on this data for nonmotorized crashes, which often go unreported. The lack of comprehensive nonmotorized safety data makes it difficult to rely on MassDOT's dataset for such analyses. In addition to not all crashes being reported, near-misses aren't recorded, and combined with the underreported bicycle and pedestrian crashes, this should be considered when evaluating this data.

Crash Clusters

MassDOT uses the crash data collected in each three-year period to identify areas that have multiple crashes; these locations are called Crash Clusters. Each cluster is given a rating that measures the "equivalent property damage only" of all crashes within the cluster. "Equivalent property damage only" is a method of combining the number of crashes with the severity of crashes based on a weighted scale where a fatal crash is worth 10, an injury crash is worth 5 and a property damage only (PDO) crash is worth 1. Cluster locations are determined by grouping crashes that occur within a certain distance of each other - 25 meters for vehicle crashes and 100 meters for bike and pedestrian crashes. The clusters are then ranked based on the sum of the Equivalent Property Damage Only (EPDO) values of the crashes within the clusters.

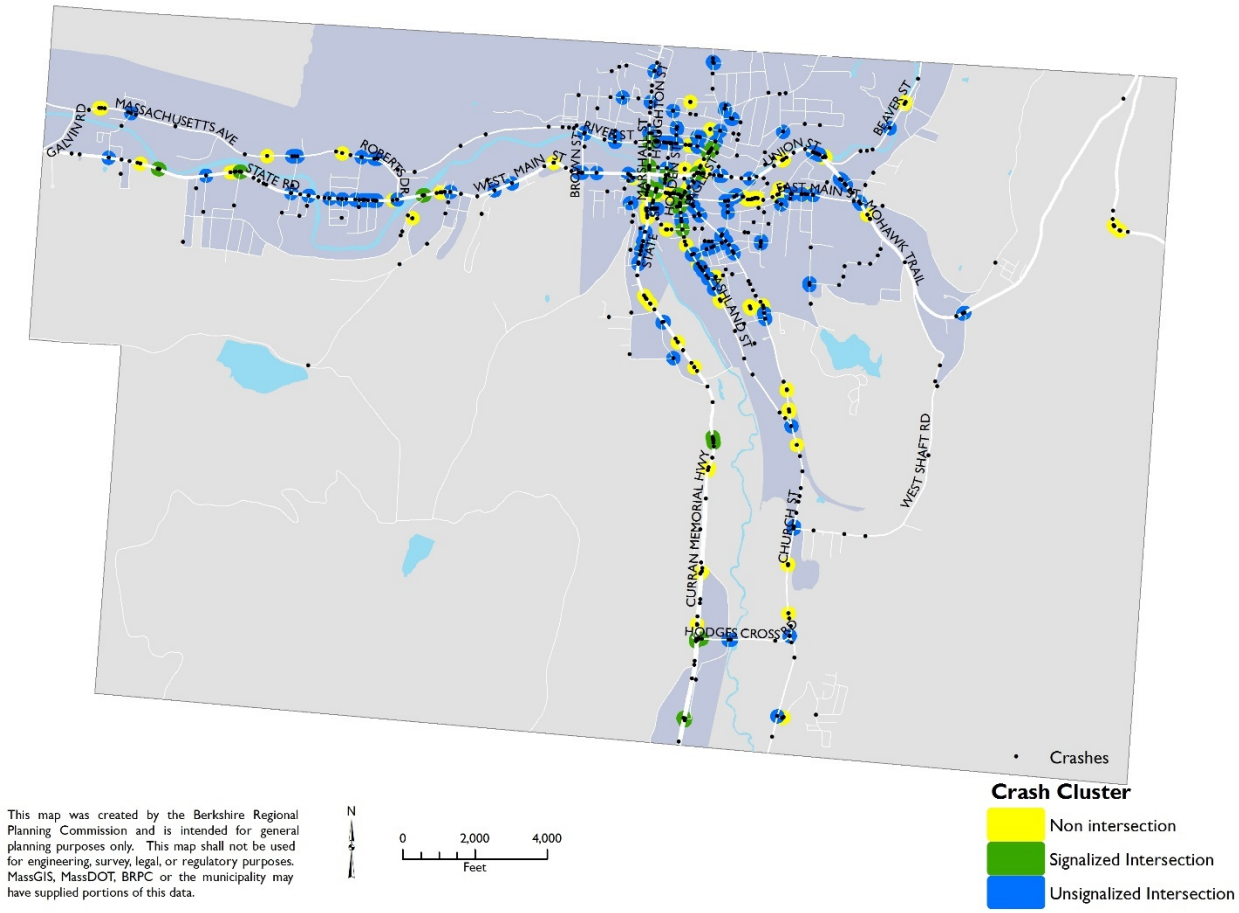
Figure 16 shows crash locations and clusters recorded in North Adams between 2012 and 2014. From the over 1200 crashes, 162 crash clusters were identified. Of these clusters, 17 occur at signalized intersections, 89 occur at non-signalized intersections and 56 occur mid-block and are not located around an intersection. All clusters at signalized intersections occur in the North Adams downtown area, along Route 8 and Route 2.

Table 9. Accidents by Year, 2012-2014

City of North Adams					
Source: MassDOT 2012-2014 Crash Data					
CRASHES BY TYPE	**2012**	**2013**	**2014**		**NOTES**
Total Crashes	397	413	391		
Fatality	1	2	1		
Non-fatal Injury	63	68	66		
PDO	320	331	301		
Not reported	13	12	23		
DAY OF WEEK	**2012**	**2013**	**2014**		**NOTES**
Sunday	44	38	39		18% on Fridays
Monday	62	52	42		
Tuesday	45	59	52		
Wednesday	53	71	73		
Thursday	67	57	52		
Friday	57	83	77		
Saturday	69	53	56		
TIME OF DAY	**2012**	**2013**	**2014**		**NOTES**
4 AM - 10 AM	48	68	59		Daytime
10 AM -4 PM	183	203	181		
4 PM - 10 PM	124	102	113		
10 PM - 4 AM	42	40	38		
WEATHER	**2012**	**2013**	**2014**		**NOTES**
Clear	213	204	182		
Clear/Cloudy	33	42	54		

Clear/Other	14	4	6		
Cloudy	52	63	48		
Cloudy/Other	14	4	9		
Cloudy/Rain	19	34	18		
Cloudy/Snow	6	16	21		
Rain	15	16	14		
Snow/Ice	28	29	34		
Other	3	1	4		
ROAD SURFACE	**2012**	**2013**	**2014**		**NOTES**
Dry	313	291	266		Over 72% on dry roads
Wet	43	65	48		
Ice	10	13	15		
Snow/Slush	24	41	55		
Sand/Dirt/Mud	2	3	4		
Not Reported	5	-	3		
MONTH	**2012**	**2013**	**2014**		**NOTES**
January	43	35	35		
February	29	28	45		
March	36	33	38		
April	37	30	31		
May	45	52	23		
June	28	30	40		
July	27	39	28		
August	16	26	24		
September	30	26	30		
October	37	29	37		
November	38	39	26		
December	31	46	34		
COLLISION TYPE	**2012**	**2013**	**2014**		**NOTES**
Angle	118	111	95		27% are angle collisions 26% are rear-end
Head-on	11	8	10		
Not Reported	6	5	4		
Rear-end	110	120	98		
Rear-to-rear	13	10	8		
Sideswipe	48	51	66		
Single Vehicle Crash	91	108	110		

Figure 16. Crash Locations and Clusters



Pedestrian and Bike Crash Clusters

There are 11 pedestrian and bike accident clusters in North Adams. Most of the clusters are in the North Adams downtown area, along Route 2, the Mohawk Trail, and Ashland St. These cluster locations can be seen in **Figures 17 – 20**. Clusters are derived from a broader range of accident data from the years 2005 – 2014. Pedestrian and bike crash cluster locations are identified using a larger 100-meter radius.

Pedestrian Crash Cluster Locations:

- Area near intersection of Marshall St. and Saint Anthony's Drive
- Area near intersection of Houghton St. / Marshall St. / Bracewell Ave.
- Intersection of Route 2 / Veteran's Memorial Dr. and Main St.
- Area near intersection of Route 2 / Veteran's Memorial Dr. and Eagle St.
- Intersection of Main St. / Eagle St. / Ashland St.
- Area near intersection of Ashland and Quincy St.
- Area near intersection of Ashland St. and Crowley St.
- Intersection of Ashland St. and Hoosac St.
- Area near intersections of Ashland St. / Washington Ave / Windom Terrace
- Area near intersection of Route 2 and Harding Ave.

- Area near intersection of Route 2 / Mohawk Trail and East Main St.

Figure 17. Pedestrian and Bike Crash Clusters in North Adams Downtown

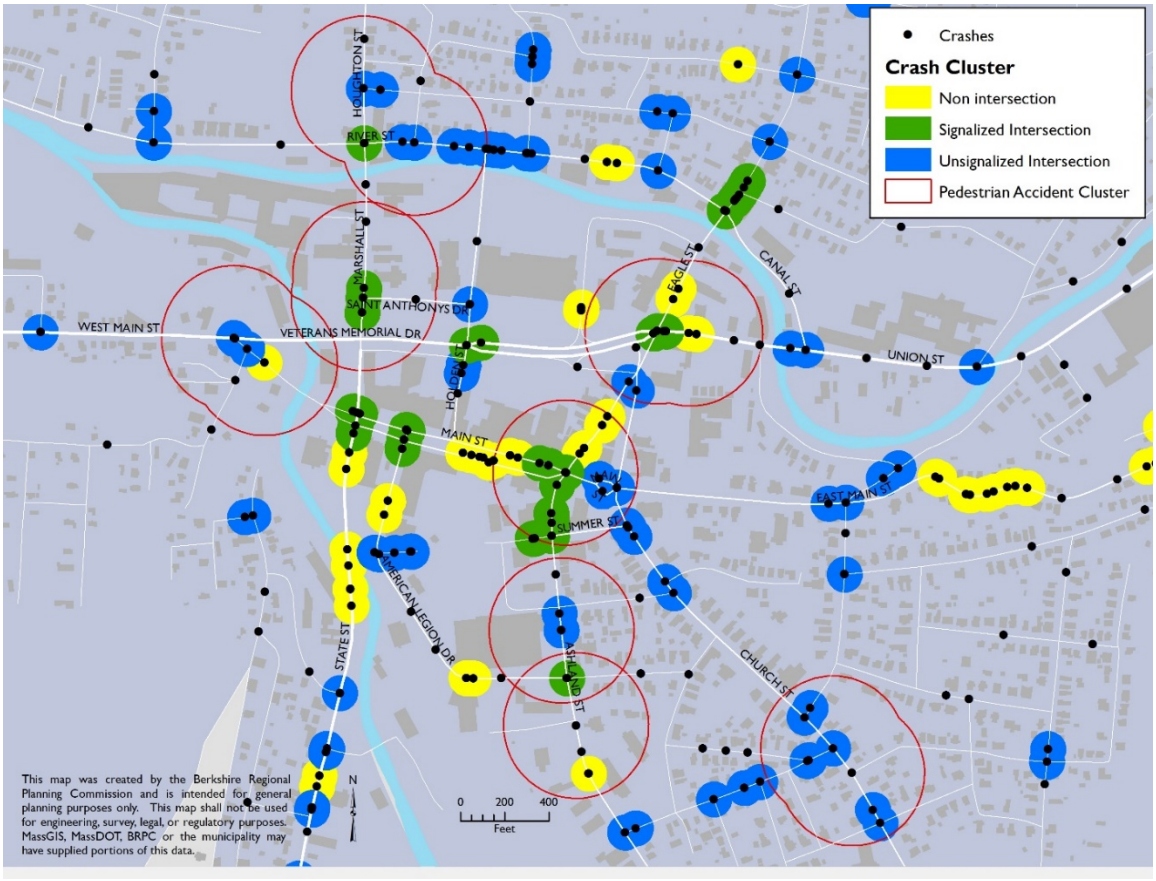


Figure 18. Pedestrian and Bike Crash Clusters Along Route 2 (West of Downtown)

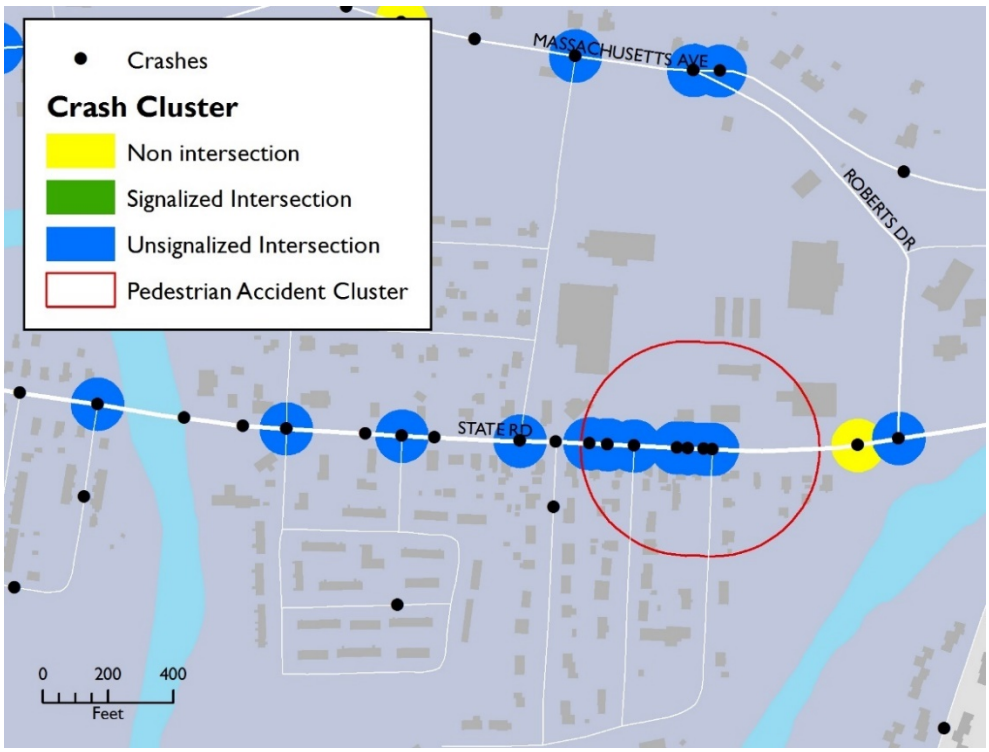


Figure 19. Pedestrian and Bike Crash Clusters Along Route 2 (East of Downtown)

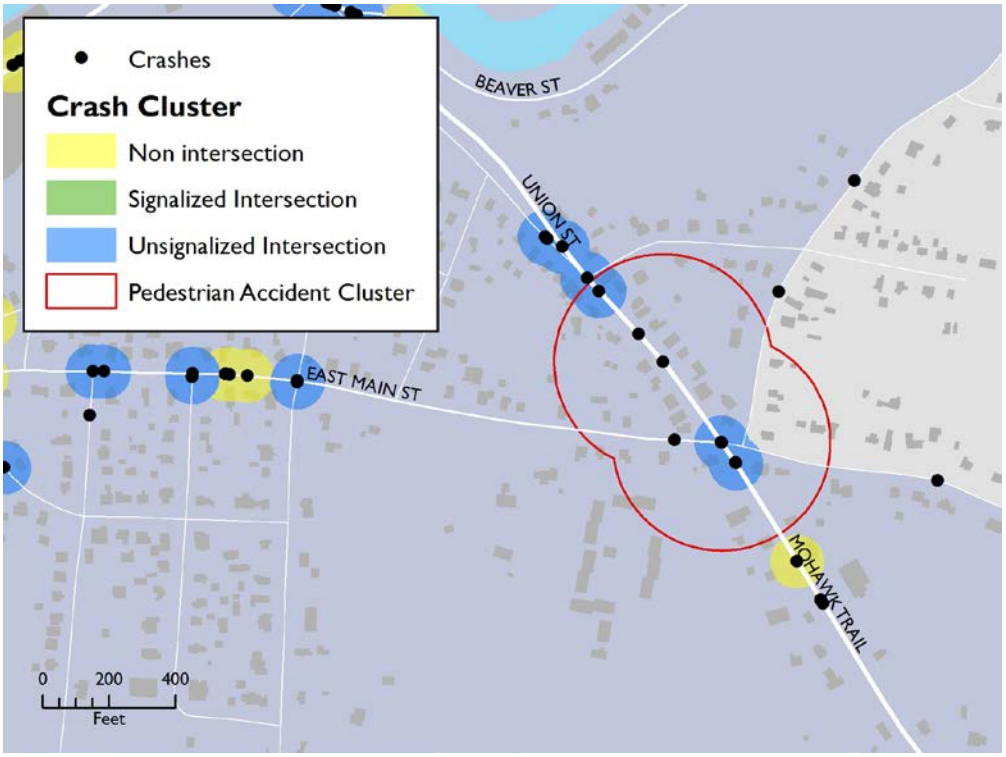
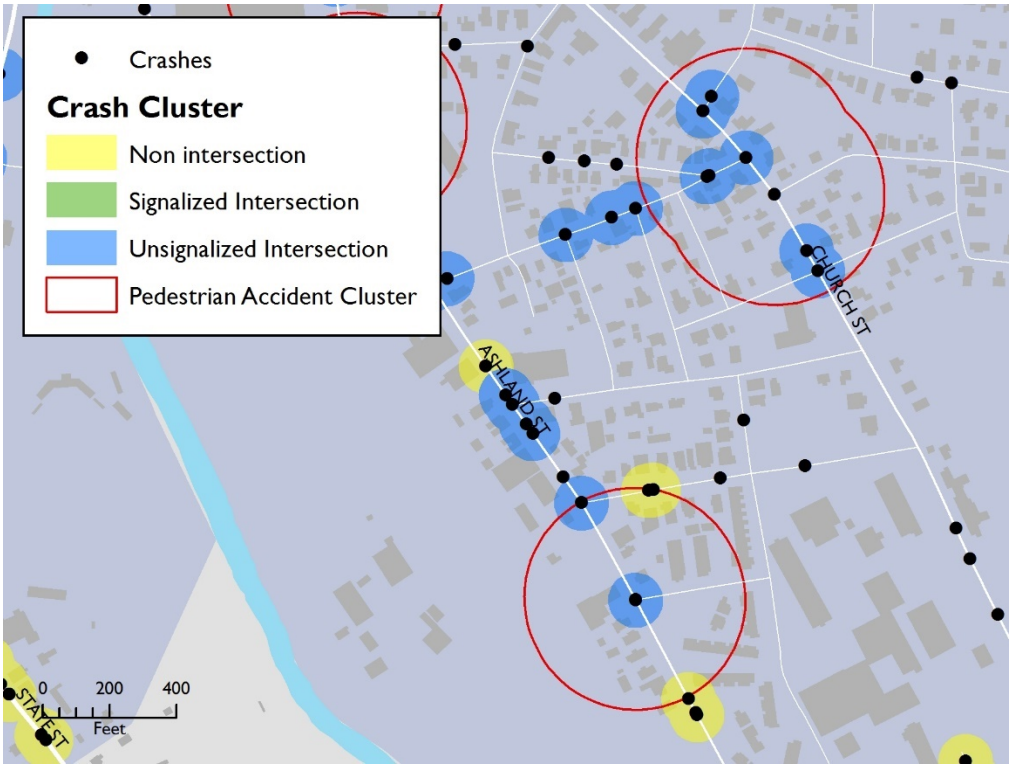


Figure 20. Pedestrian and Bike Crash Clusters Along Ashland St.



Public Transportation (BRTA Bus Route)

The City of North Adams is a participating community is the Berkshire Regional Transit Authority (BRTA). Through the BRTA system, residents can access other parts of the community and region. The schedules and fees are dependent upon the route and length of the trip. BRTA routes are illustrated in **Figure 21**. Note that the bus route includes loops through specific destinations, such as the North Adams Regional Hospital on Hospital Ave., Wal-Mart on (Route 8) Curran Memorial Highway and Greylock Valley Apartments on Angeli St., an affordable housing complex.

Although there are fixed bus stops and shelters at six locations, residents on a bus route can flag the bus, which will stop and let passengers board if it is safe to do so. Flag stop systems are flexible and easy for regular transit riders, but not obvious for tourists and visitors. BRTA identified that Ashland Park Apartments and the Big Y grocery store are common pick-up and drop-off locations that do not have bus shelters. These are potential areas where the city could invest to provide shelters for transit riders.

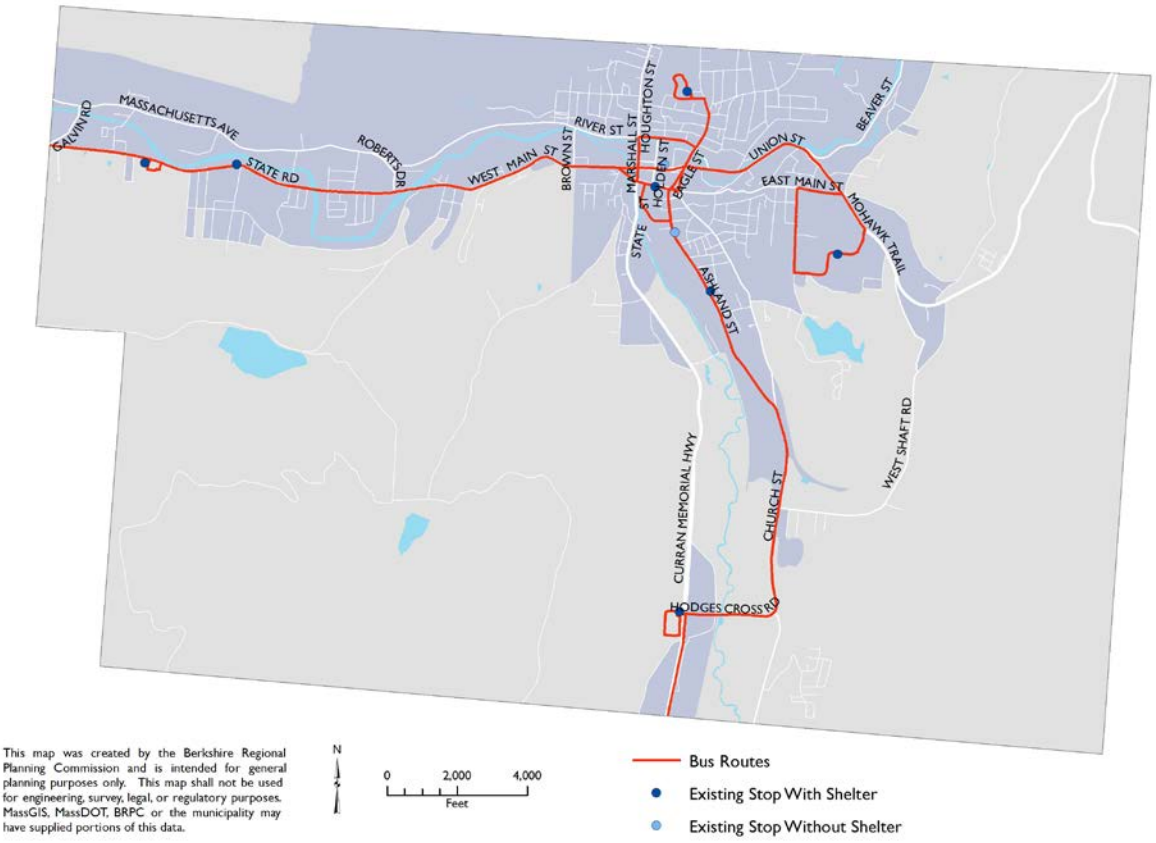
<u>Locations of Existing Bus Shelters:</u>

- Main St. (south side)
- Mohawk Forest Blvd. (at apartment complex)
- MCLA (Ashland St.)
- North Adams Regional Hospital
- Route 2 (north side near Phelps Ave. intersection)
- Route 2 (south side near Stop and Shop Grocery Store)

Bus Pick-Up / Drop Off Locations Without Shelters:

- Ashland Park Apartments & North Adams Housing Authority (Ashland St.)
- Big Y Grocery Store (Route 2/Mohawk Trail)

Figure 21. BRTA Bus Routes and Shelter Locations



Route 2 Area Audits

As part of fieldwork for this project, BRPC staff audited Massachusetts Avenue, Route 2 (State Road), West Main Street and their surrounding neighborhoods. For a detailed report of the audit, please refer to **Appendix B**. Assessments are listed by road segment.

NEEDS

The following is a qualitative system gap analysis based on field observations, existing planning documents and GIS data, aerial imagery, and public input. The analysis looks at on- and off-road networks and has identified gaps in the network as well as areas and intersections that are barriers to nonmotorized travel. This is a baseline to be used for the identification of potential Complete Streets Improvements in North Adams.

Major Challenges

Bicycle Facilities and Infrastructure

Cycling throughout North Adams is challenging. There are currently no existing dedicated cycling facilities on city-controlled roadways within the city, and while USBR 7 passes through the heart of the city, no dedicated facilities serve it. The only existing cycling facilities are recently marked bike lanes along State Road (Rte. 2) under the jurisdiction of MassDOT. While this improvement is welcomed by bicyclists, State Road is

a major arterial, with heavy commercial truck traffic and some segments with posted speed limits of 35-40 mph, although residents say drivers consistently exceed the speed limits. Moreover, while there is an extensive network of relatively low volume residential streets that can accommodate more inexperienced cyclists, none of these roadways provide adequate alternatives to travelling along major roadways or allow east-west and north-south connectivity through the city.

Plans are in motion that will put North Adams at the confluence of two major regional shared-use path projects, and already Mass. MoCA is planning for its expanded Building 6 project to be the "linchpin" of these paths when they eventually pass through the center of the city. However, these projects are large, complex, and will take many years to complete. Nevertheless, they will create a crucial nonmotorized spine through the city and connect it to Williamstown and Adams once they are constructed.

Linear Gaps and Barriers

Linear gaps are considered "missing links" greater than ½-mile where bike/pedestrian facilities are desired but do not currently exist or are not currently adequate if they do exist based on existing/future demand. Generally, these are areas that are main travel corridors or desirable in connecting residential areas to key activity centers.

Major linear gaps and barriers identified by the Complete Streets Working Group include:

- **Massachusetts Avenue** lacks a sidewalk east of Protection Avenue until River Street. While adding sidewalk along this route may be difficult due to a constrained right-of-way and topographic limitations, it could be an important alternative route to Route 2 as it has a lower traffic volume and less commercial truck traffic. It should also be noted that over ½-mile of the sidewalks along this road are in fair/poor condition.
- **Route 8 / Curran Memorial Highway** lacks a sidewalk for much of its length. The existing sidewalk ends south of downtown near the intersection of Oak Avenue. Extending sidewalk from this location to Hodges Cross Rd. would provide a pedestrian connection between downtown and a major employer/destination (Walmart) as well as improve pedestrian access to a major commercial corridor.
- **Route 2 / West Main St.** west of downtown is the longest section of "fair" condition sidewalk in the city and has the greatest potential to improve cycling connections within the city. Replacement of sidewalk along this section of road would improve connections toward Williamstown and a major commercial corridor. However, many retaining walls along this section of road may make sidewalk repairs difficult and cost prohibitive. Moreover, bike lanes were recently striped along Route 2 on MassDOT controlled sections of the road. These bike lanes have helped improve bicycle connections between Williamstown and North Adams. However, a nearly 1 ¼ mile section of Route 2 from the Sacco Bridge west to downtown is wide enough to be restriped to accommodate bike lanes, although this would require the removal of on-street parking on one side of the street (likely the south side) if it were to be implemented.
- **Walker St.** has the longest section of "poor condition" sidewalk in the city at over ¾-mile in length.
- **East Main St**. has over ½-mile of fair/poor condition sidewalk.
- **Beaver St /Union St (Rte. 8)** has nearly ½-mile of fair/poor condition sidewalk. As the road crosses, north into Clarksburg it becomes under MassDOT jurisdiction, and is scheduled for improvements in FY 2017. Improving sidewalks in North Adams would create an improved connection between the two municipalities and offer a significant and challenging segment for walking or jogging due to existing grade.
- **State St.** has nearly ½-mile of fair condition sidewalk.

- **Phelps Ave**., on which Greylock Elementary School is located, has nearly ½-mile of fair condition sidewalk.
- **Church Street** between Overlook Terr. and Ashland Ave. is a ½ - mile segment with no sidewalk. While land use along this segment of road is low density residential, adding sidewalk here would allow the creation of an approximately two-mile walking loop and would create connections to Drury High School and McCann Technical High School. While City officials are concerned that the railroad underpasses on Church St. is too narrow to accommodate a new sidewalk and the angle of the road in this area creates a safety hazard, this gap is one that should be considered for future complete streets modifications.

Location-specific Gaps and Barriers

Location specific gaps and barriers are either point-specific locations such as a crosswalk or lack of ADA ramps or an entire intersection that presents a barrier to nonmotorized travel and is unsafe for vulnerable users. This might be due to inadequate crossing treatments, confusing geometry, long crossing distances, lack of crosswalks or traffic control devices. Generally, these are areas that provide access to or within major destinations or are desirable in connecting residential areas to primary activity centers.

Sidewalk Condition and Gap Analysis

Sidewalk condition and curb ramp condition/presence can create barriers to pedestrian movement and connectivity through the city, particularly for individuals with disabilities, seniors, or children. Overall sidewalk condition was assessed as part of this study and is discussed in the **Pedestrian Conditions** section. It is recommended the City further explore the extent that the curb ramp inventory is ADA accessible.

Sidewalk Gap Analysis

BRPC mapped locations of existing sidewalk and identified gaps within the network (**Table 10** & **Figure 22**). Gaps were identified by connecting two segments of existing sidewalk through the shortest possible route. This method does not examine existing conditions, such as Right-of-Way width or existing topography that will affect potential construction. Moreover, gaps were only assessed from street to street or along streets containing a large sidewalk gap along both sides. Smaller sidewalk gaps, such as a gap in sidewalk along one side of a street, where sidewalk on the opposite side is continuous, were not identified.

Figure 22. Sidewalk Network Gaps

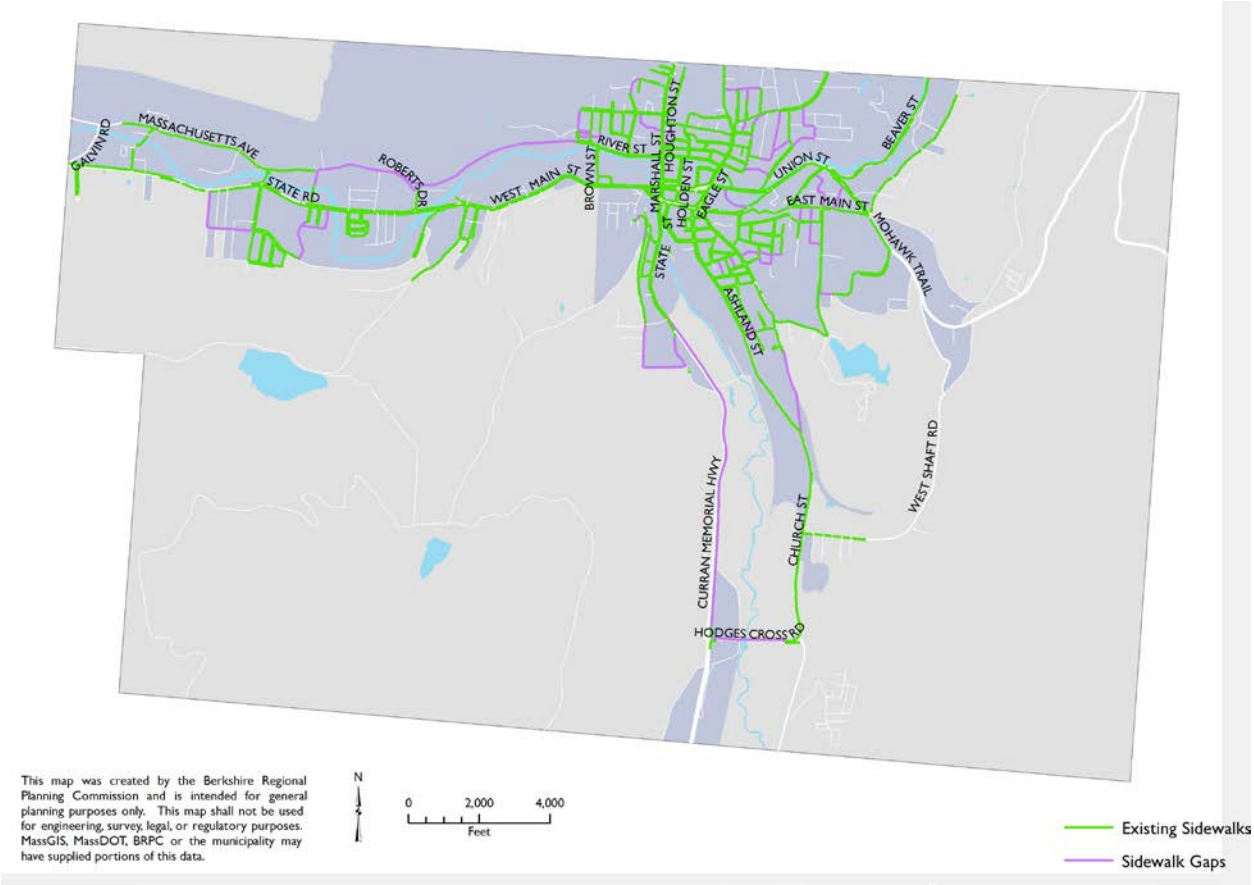


Table 10. Sidewalk Network Gaps

Street Name	Feet	Street Name	Feet
Adams Street	387	Marietta Street	322
Barbour Street	1304	Massachusetts Avenue	7355
Barth Street	1048	Meadow Street	294
Beacon Street	247	Montgomery Street	743
Beech Street	549	Murray Avenue	743
Bliss Street	609	New Street	1236
Bond Street	279	Palmer Avenue	388
Brook Terrace	270	Park Avenue	1045
Central Avenue	280	Parker Street	965
Charlene Street	695	Pebble Street	98
Chase Hill	474	Perry Street	381
Church Street	2558	Prospect Street	543
Cleveland Avenue	164	Protection Avenue	1724
Corinth Street	303	Ray Street	383

Curran Memorial Highway (Route 8)	9335	Rich Street	435
Davenport Street	300	River Street	427
Dean Street	1199	Roberts Drive	868
Dover Street	431	Robinson Street	59
Duggan Street	389	Royal Avenue	384
East Avenue	330	State Street	917
Elder Avenue	350	Summit Avenue	438
Folsom Street	672	Tyler Street	582
Frederick Street	245	Veazie Street	322
Furnace Street	230	Walnut Street	1208
Gregory Avenue	408	Wells Avenue	1486
Hathaway Street	381	Willow Dell	981
Hawthorne Avenue	1047	Windom Terrace	568
Hodges Cross Road	2122	Winter Street	637
Lake Street	291	-	-

Rail Bridges and Crossings

Rail bridges were identified as barriers to pedestrian and cyclist movement in several locations in the city, including Church St., Ashland St. and Brown St. The existing rail line in North Adams crosses both Church and Ashland St., and the roadway is constricted as it passes underneath, making pedestrians and cyclists exposed to fast moving traffic. Additionally, the rail line crosses both these roadways at an acute angle, reducing visibility for approaching drivers or nonmotorized users. This was noted in the Cecil Group's study of the Ashland St corridor, and potential realignment of the road was recommended. Historically, the railroads have been reluctant and slow to act to address similar constriction problems, and any potential improvements to add bike or pedestrian facilities or widen the roadway under these bridges would be extremely expensive. Long-term planning in the city should address alignment of Church and Ashland St. near the rail bridges to enhance visibility and safety.

At Brown St., the narrow rail bridge footings prevent the creation of sidewalks or bike lanes from being installed underneath; however, the street intersects the bridge at a right angle, allowing good visibility for pedestrians, cyclists, and motorists. It should be noted that the proposed route of the Williamstown/North Adams multi-use path will cross Brown St. just north of the rail bridge, so pedestrian-safety signage or treatments may be warranted along Brown St. in the future.

In general, the location of the Pan Am Rail is a barrier that creates difficulty as the city develops the route for the Williamstown/North Adams multi-use path. The railroad will not consider approving the creation of an at-grade crossing of its rail tracks, so this linear ROW effectively creates a physical barrier that must be avoided in route location. However, the railroad has stated that it would allow the installation of a tunnel under the bermed rail bed east of Sacco Bridge if construction could be done in a manner that would allow uninterrupted use of the tracks.

There is currently an elevated pedestrian bridge that crosses the railroad between West Main Street and Western Gateway Heritage State Park. The City in interested in repairing and maintaining the aging steel bridge as an important pedestrian way, as it may be recruited in the future to serve as a critical segment of the

Williamstown/North Adams multi-use path. Given the railroad's refusal to consider new rail track crossings, it is important for the city to maintain this pedestrian connection.

Hoosic River

The main (south) branch and north branch of the Hoosic River merge just west of downtown as the river moves toward Williamstown. Through much of the city, the river has been channelized and a series of bridges connect the downtown area with residential neighborhoods to the north and west. Public comments noted that the Furnace St / Francis St. neighborhood west of downtown is cut off from much of the downtown area. It was reported that many residents use the existing rail bridge near Western Gateway Heritage Park to access the area immediately south of Main St. In long term planning, the city may consider ways to better connect this neighborhood with downtown given this existing pedestrian "desire line."[50] Moreover, as the Extreme Model Railroad and Contemporary Architecture Museum has been proposed for the Gateway Heritage Park site, it would be important to strengthen nonmotorized connections between this area downtown and MASS MoCA as a way of encouraging foot traffic between the two sites.

The Hoosic River is also major barrier to the City as it continues to find a feasible route for extensions of the Mohawk Bike / Ped. Trail from Williamstown. Due to the high cost of bridge construction, avoiding or minimizing river and stream crossings was a major factor in identifying favored and alternate routes through the City. The preferred route currently requires a new bridge crossing of the river at the Alcombright Athletic Complex, a crossing of the river over a new Brown Street Bridge, and a third crossing on the MASS MoCA property. River and stream crossings have also been factors in locating the shared-use path that will connect the Ashuwillticook Rail Trail to Hodges Cross Road.

Route 2 is a Barrier to Nonmotorized Travel

Route 2, both the State Road and the Veteran's Memorial Highway, serves as a physical barrier to pedestrian travel due to the number of vehicle travel lanes, the volume of traffic and the number of commercial trucks. Public comments and meetings of the working group identified that many of the intersections along this road are difficult for pedestrians to navigate. Veteran's Memorial Highway is a major four-lane roadway with a median that presents barrier to nonmotorized travel that bisects the downtown area, separating it from nearby residential neighborhoods and discouraging visitors from walking from one attraction or business to another.

The Rt. 2 / Eagle St. intersection has been identified by the CS Working Group and public forum participants as a particularly dangerous intersection due to road configuration and busy Dunkin Donuts driveways. It was also noted that jay-walking is common at a few key sites along the corridor, leading to potential conflicts with vehicles. Two jay-walking sites specifically noted by residents and the police were near the Price Chopper Plaza and at West's Package and Variety.

Another site-specific barrier on Route 2 is where a short section of the road goes from bike lane to sharrow and back to bike lane. The drop of a dedicated facility through a busy stretch of roadway ought to deter cyclists that feel safe on dedicated facilities, but not shared facilities, to opt for a vehicle trip in lieu of a nonmotorized trip.

Intersections

Several intersections in North Adams were identified by the Complete Streets Working Group as being unsafe for both drivers and pedestrians and in need of possible redesign and reconfiguration. Some of these intersections are currently in a "Y" configuration, where two roadways meet at an acute angle. Reconfiguring and redesigning these intersections to make the roadways meet at a 90º (right) angle could help to improve

[50] https://en.wikipedia.org/wiki/Desire_path

safety for drivers as well as reduce the distance needed to cross the intersection for pedestrians. The Federal Highway Administration (FHWA) states that:

> *"There is broad agreement that right-angle intersections are the preferred design. Decreasing the angle of the intersection makes detection of and judgments about potential conflicting vehicles on crossing roadways much more difficult. In addition, the amount of time required to maneuver through the intersection increases, for both vehicles and pedestrians, due to the increased pavement area"*[51]

Right angle intersections can also provide a measure of traffic calming by preventing drivers from treating Y-intersections as a "merge lane" by requiring them to complete a full stop before proceeding through the intersection. Some intersections in North Adams that could benefit from reconfiguration include:

- Main Street / Church Street / Eagle Street
- Union Street / Veteran's Memorial Highway / Eagle Street
- St. Anthony Drive and Holden Street
- Massachusetts Avenue and Roberts Drive
- Notch Road / Route 2 intersection
- Ashland Street at Washington Street intersection

Another option that may be considered in certain circumstances is installation of a roundabout or mini-roundabout.

Intersection of Main St. & Church St.

The intersection of Main St. and Church St. at the Civil War Soldier's monument (**Figure 23**) was identified as a complex and confusing unsignalized intersection by both the Working Group, focus group meetings, and in Wikimapping comments. It is possible that this intersection could be reconstructed into a roundabout or mini-roundabout, however, further engineering study is needed. If not feasible, possible improvements could narrow corner radii and reduce pedestrian crossing distances. This intersection is the location of automobile, pedestrian, and bike crash clusters.

[51] https://www.fhwa.dot.gov/publications/research/safety/humanfac/01103/ch1.cfm

Figure 23. Intersection of Main & Church St.

Intersection of Eagle St & Route 2

The intersection of Eagle St and Route 2 (**Figure 24**) was identified as another confusing and complex intersection by Working Group members and many public comments. This intersection is the location of automobile, pedestrian, and bike crash clusters. It might be feasible to reconstruct this intersection as a roundabout; however, further engineering study is needed.

Figure 24. Intersection of Eagle St. & Route 2

Intersection of Eagle St., Franklin St., Liberty St. and Wesleyan St.

The intersection of Eagle St., Franklin St., Liberty St. and Wesleyan St. (**Figure 25**) was identified as a confusing and complex intersection by members of the public. The intersection is controlled by a Yield sign for south moving traffic along Eagle St. and Liberty St. is controlled with a stop sign. None of the other intersecting streets are controlled with signage. Some potential improvements might include a flashing yield sign, striping the roadway to better define the intersection and adding stop signs on Franklin and Wesleyan. The city might also consider removing some pavement or realigning Eagle and Franklin so that they intersect at a 90º (right) angle.

Figure 25. Intersection of Eagle St., Franklin St., Liberty St. and Wesleyan St.

Intersection of Massachusetts Ave. and Roberts Drive

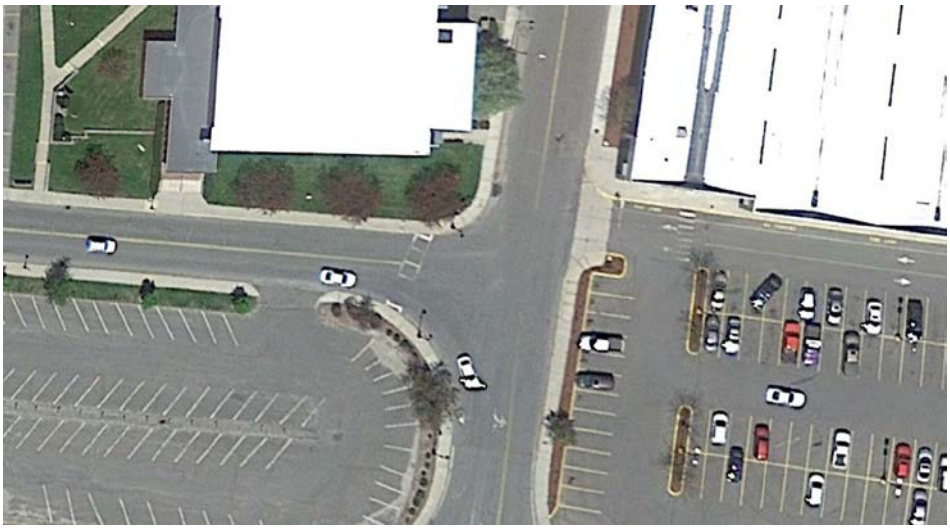
The intersection of Mass. Ave. and Roberts Dr. (**Figure 26**) is controlled by a Yield sign on Roberts. Members of the working group and the public cited this intersection as a place of frequent "near misses" due to drivers who do not obey the existing Yield sign, and the intersection is shown as an automobile crash cluster. Possible improvements might include realignment of Roberts Dr. so that it intersects Mass. Ave. at a right angle. Some design challenges include the existing driveway of Big Shirl's Kitchen, which might need to be relocated if the road is realigned.

Figure 26. Intersection of Massachusetts Ave. & Roberts Drive.

Intersection of St. Anthony Dr., Holden St. and Big Y Parking Lot

The intersection of St. Anthony Dr., Holden St. and Big Y Parking Lot (**Figure 27**) is controlled by a Yield sign on Roberts. Members the public cited this intersection as a confusing intersection due to the misalignment of St. Anthony Dr. with the Big Y parking lot entrance. This area is shown as an automobile crash cluster.

Figure 27. Intersection of St. Anthony Dr., Holden St. and Big Y Parking Lot



Intersection of Union St /Route 2 and Beaver St. / Route 8

The intersection of Union St /Route 2 and Beaver St. / Route 8 (**Figure 28**) was identified as a confusing intersection due to the sharp turn along Route 8 and steep grades in the area. The intersection is controlled with a flashing yellow light and stop sign along Beaver St. and is listed as a crash cluster. The city should consider lane narrowing and improved crosswalks in this area if it pursues improvements. This also might be

a location to place a pedestrian crossing "pork-chop" island to reduce crossing distance and calm turning traffic at the intersection.

Figure 28. Intersection of Union St /Route 2 and Beaver St. / Route 8

Intersection of Route 2 and Holden St.

The intersection of Route 2 and Holden St. (**Figure 29**) was identified as a confusing intersection for pedestrians with long crossing distances. The intersection is signalized and contains several automobile crash clusters. Possible improvements might include reducing corner radii or eliminating lanes.

Figure 29. Intersection of Route 2 and Holden St.

Intersection of River St., Eagle St. and Canal St.

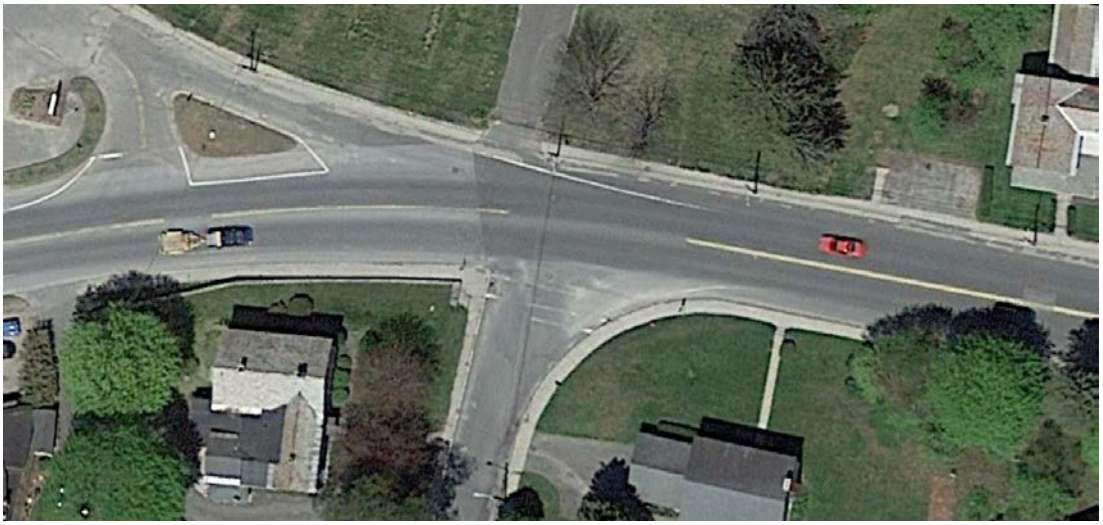
The intersection of River St., Eagle St. and Canal St. (**Figure 30**) was identified as a confusing intersection for pedestrians. The intersection is signalized and is the location of several automobile crash clusters. Possible improvements might include reducing corner radii, improving crosswalks and existing curb ramps, as well as installing pedestrian countdown timers.

Figure 30. Intersection of River St., Eagle St. and Canal St.

Intersection of Route 2 and Notch Rd.

The intersection of Notch Rd. and Route 2 (**Figure 31**) was cited as a difficult intersection due to poor visibility and its location near a curve along Route 2. This intersection is also crash cluster location. Some potential improvements might include reducing the corner radii on Notch Rd. or realignment. Additionally, a low retaining wall at a residence on the west side of Notch Rd. might be causing visibility issues and lowering or removing sections of the wall might be one solution.

Figure 31. Intersection of Route 2 and Notch Rd.



Intersection of Ashland St. and Church St.

The intersection of Ashland St. and Church St. (**Figure 32**) was identified by the Working Group and members of the public as a place of frequent "near misses" due to drivers who do not obey the existing stop

sign on Church. Possible improvements might include realignment of Church so that it intersects Ashland St. at a right angle.

Figure 32. Intersection of Ashland St. & Church St.

Intersection of East Main St. and Route 2

The intersection of East Main St. and Route 2 (**Figure 33**) was identified as a confusing intersection for pedestrians and drivers. The intersection is an automobile crash cluster and is unsignalized. The intersection is controlled via stop signs located on East Main. There is no existing stop sign found on Walker St. There is one marked crosswalk on the north side of the intersection along Route 2.

Figure 33. Intersection of East Main St. and Route 2

Road Alignment Hazards

Protection Ave. was noted by the working group as having a dangerous corner w/ limited visibility near Alcombright Fields and can be seen in **Figure 34**. The city has purchased the building near the corner so that it can be demolished and intends to remove this hazardous road condition by realigning the roadway.

Figure 34. Protection Ave. Corner

Local Access Scores

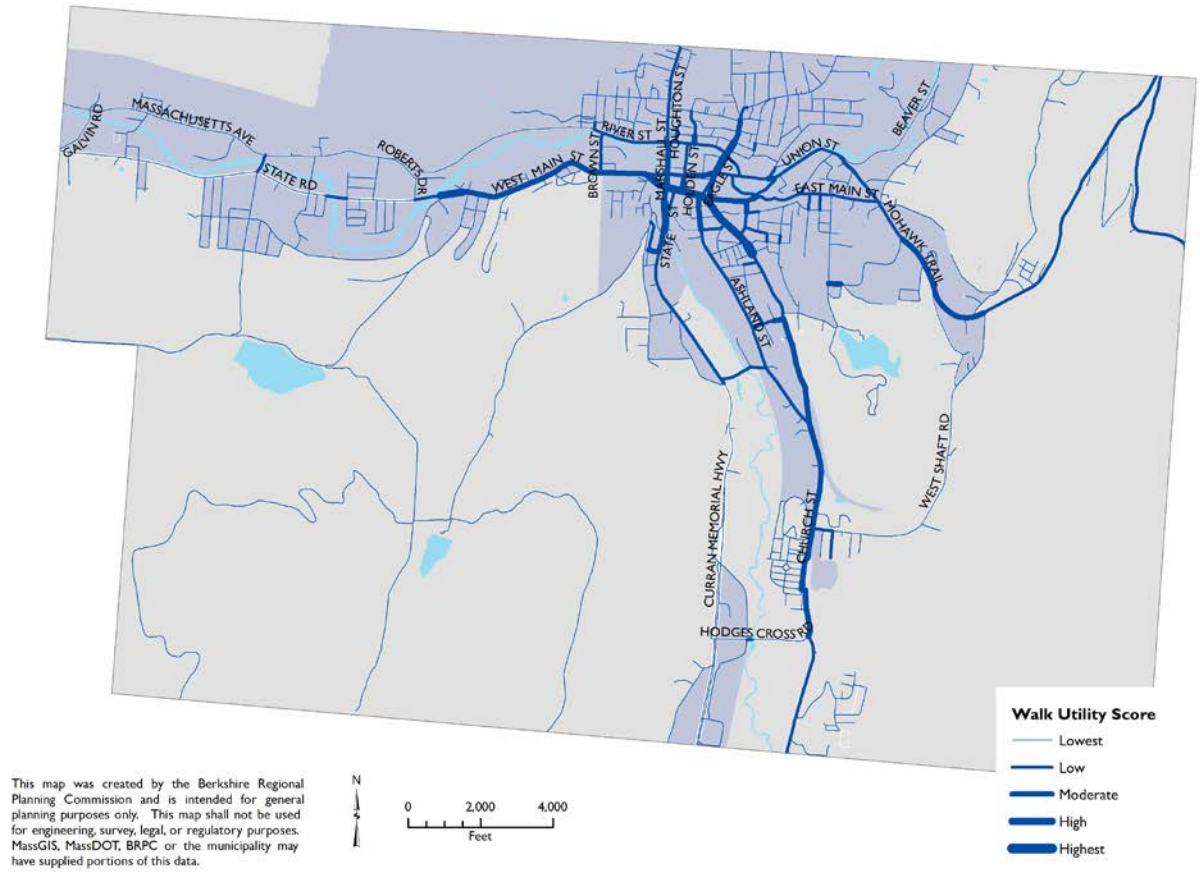
The Metropolitan Area Planning Council (MAPC) acts as the Regional Planning Agency (RPA) for the Boston area, but also works on larger statewide planning projects. Recently, this organization released its Local Access Scores dataset, which examines biking and walking utility on roadways across the state. As explained in the MAPC dataset, utility scores ask "if this were a good place to walk or bike, would many people find it a useful route between point A and point B?"[52] The local access scores examine several aspects of transportation utility, including biking, walking, walking to school, and a composite score that combines the other three factors. The scores are calculated using a travel demand software that looks at populations and destinations and makes an estimate based on the potential number of trips that households are likely to make, the potential destinations of these trips, and the most direct routes connecting the two. When roadways are estimated to have more potential trips, they receive a higher utility score. For walking and biking score calculation, potential destinations included nearby shopping and retail, parks and open space, and available transit. For walk to school scores, destinations included local public schools, as would be expected. This dataset provides decision-makers with another data point to look at in assessing potential complete streets improvements. This data is not intended to be used as a definitive source that says one project is better/worse than another, rather it is to be used as a tool in the decision-making process that supplements the conversation.

Walk Utility Score

Based on the MAPC Local Access dataset, walk utility scores are highest on streets around downtown, as well as Route 2 / West Main St., Church St., Ashland St., and Route 2 east downtown (see **Figure 35**). Higher utility scores correlate to potential demand based on the factors described above. High scores do not necessarily reflect existing destinations, but can represent connectivity to residential areas with limited route options (lack of parallel facilities, etc.). The walk utility evaluates potential trips that are shorter than one mile or less, a threshold under which people are likely to walk to a destination.

[52] http://localaccess.mapc.org/

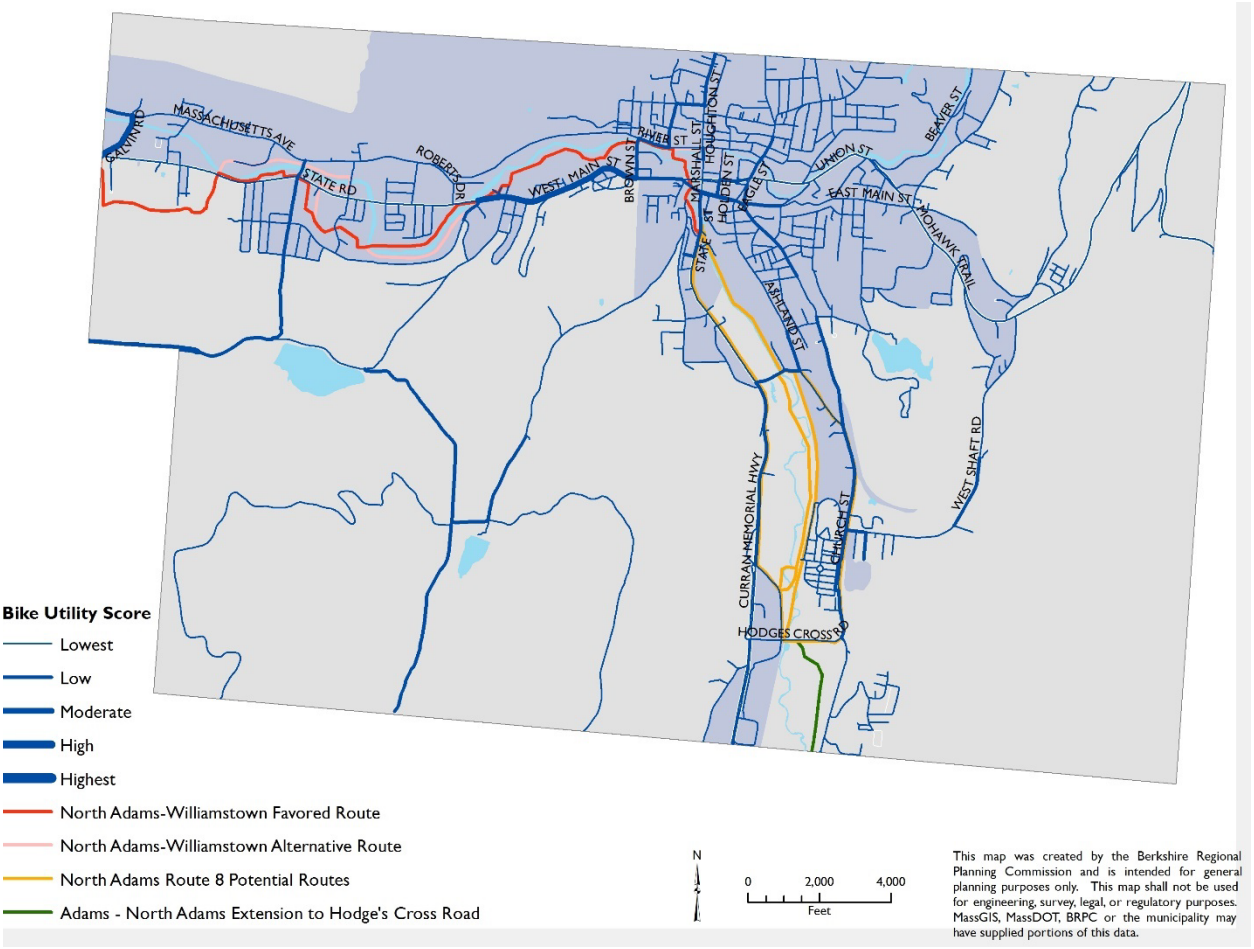
Figure 35. Walk Utility Score



Bicycle Utility Score

West Main St. / Route 2 stands out as one roadway that received a high bicycle utility score (see **Figure 36**). The bicycle utility score shows potential demand; these are areas with higher residential populations and where there is potential to convert daily trips to nonmotorized modes (generally less than three miles, the distance under which people would tend to consider bicycling rather than driving). A higher score suggests a facility that connects the most number of people to a network that accesses destinations. Because there are few alternative routes, it is natural to see higher scores near intersections that connect higher density residential areas to the transportation network.

Figure 36. Bike Utility Score



GENERAL RECOMMENDATIONS AND POTENTIAL IMPROVEMENTS

This section outlines some general recommendations that are not site-specific and may occur at a higher level than the project level. These recommendations are intended to outline opportunities to support Complete Streets in North Adams and are known as the "5 E's."

Engineering + Design

This element broadly covers some of the design and engineering recommendations that will enhance multimodal accommodations, and encourage people to utilize active modes.

Complete Streets improvements can come in many forms, whether signage or entire sidewalks, the different elements are based on their context and needs. Improvements are for a variety of modes, whether motorists, cyclists, or pedestrians, Complete Streets are for everyone.

Below are recommendations for general and specific improvements to the transportation network that support Complete Streets principles and goals. Recommended projects that were also included on the city's Tier 2 list have been noted throughout this section. Any improvements will likely need design and/or engineering and it is encouraged that the City reference the following detailed best practices, as applicable, which include but are not limited to:

- MassDOT Project Development and Design Guide

- FHWA Manual of Uniform Traffic Control Devices (MUTCD)
- AASHTO A Policy on the Geometric Design of Highways and Streets
- NACTO Urban Street Design Guide
- NACTO Urban Bikeway Design Guide
- NACTO Transit Street Design Guide
- ITE Designing Walkable Urban Thoroughfares: A Context Sensitive Approach
- US Access Board Streets and Sidewalks Guidelines
- AASHTO Guide for Planning, Designing, and Operating Pedestrian Facilities
- National Complete Streets Coalition Resources

These improvements may be paid for by a variety of funding sources, which include but are not limited to:

- MassDOT Complete Streets Funding Program
- Chapter 90 Funds
- MassWorks Grants
- Federal TIP Funds (STBGP, CMAQ, TA Set-Aside, etc.)

General Multimodal and Nonmotorized Recommendations

Leverage and Connect Future Development Projects to Advance Pedestrian and Cycling Improvements

North Adams has an array of in-progress development projects occurring, including the MASS MoCA expansion, and the possibility of two new museums in the city's future. The city should use these projects to bring positive change and prioritize cycling, pedestrian and wayfinding projects that will encourage visitors to the area to take full advantage of all of them, viewing North Adams as the ultimate destination, not just its individual attractions. In the long term, the region's shared-use path projects are likely to connect these proposed destinations and allow for easy pedestrian and cycling access to each. The city should ensure that these proposed development projects are not only connected to shared use paths, but also to surrounding neighborhoods and commercial areas.

Moreover, the city will benefit from examining these development proposals and their potential impacts on cycling and walking in their environs. The city may determine improved pedestrian and cycling facilities could be made a condition of future permitting and project approval or incorporated into site plans going forward through negotiation and the leveraging of private and public funds.

Continue to Invest in and Support Regional Shared-use Path Projects

The Mohawk Bike/Ped Trail from Williamstown and extension of the Ashuwillticook from Adams are important regional shared-use path projects that will meet in North Adams. The city should continue to invest in design and engineering that will ultimately place both these paths at its doorstep and eventually link them in the heart of the city. If and when these paths are constructed, it will create a major pedestrian and cycling spine that will vastly improve nonmotorized connections within the city and to surrounding communities and destinations. It will also help to realize a larger regional vision of a Route 2 Cultural Corridor[53] connecting multiple destinations in North Adams and Williamstown.

Specific Recommendations and Projects

- *Project 37:* Advance extension of the Ashuwillticook Trail from Hodges Cross Road north to the North Adams Downtown. Continue to coordinate with the Town of Adams and MassDOT on this work and refine options for possible inclusion of the trail extension along the Route 8 right-of-way.

[53] https://www.nytimes.com/2015/12/06/arts/design/cultural-corridor-proposed-for-northern-berkshires.html

- *Project 27 & 28*: Advance extension of the Mohawk Bike / Ped. Trail east from the Harriman-West Airport to the North Adams Downtown.

Connect MCLA to Downtown by Advancing the Ashland St. Corridor Project

The importance of the Ashland St. corridor was identified in the Comprehensive Plan, and the city has furthered plans for this street through a corridor study and conceptual plan. The city should continue to advance this project, which will provide better connectivity between MCLA and the downtown, as well as improving biking and walking on a major roadway in the city.

Specific Recommendations and Projects

- *Projects 1-4:* Begin initial survey and design work for Ashland St. Corridor. For more about the potential Ashland St. project, please refer to Cecil Group's Ashland St. Corridor Study. See also recommendations for potential one-way streets along Ashland and Church (*Project 14*) later in this section.

Slow Traffic in Key Areas

Traffic calming takes elements of design and landscaping together to slow down vehicles and increase awareness of pedestrians and cyclists. This can improve nonmotorized safety, enhance walkability, improve stormwater management, and contribute to character in downtown areas. Traffic calming comes in many different forms and may include vertical deflections (speed humps or raised intersections), horizontal shifts (traffic circle or chicane), and/or roadway narrowing (choker or center island). These treatments are often accompanied by visual enhancements like trees, plantings, wayfinding, and/or street furniture.

Speed feedback signs are another traffic calming element that have been proven successful. These signs, particularly newer or enhanced models, can also collect data about roadways, such as total number of vehicles and the number of speeding and non-speeding vehicles that pass the sign. There are several areas in North Adams that were identified as areas where vehicle speed was cited as a concern. These areas were identified by town officials and through focus group meetings. Areas where speed feedback signs or other traffic calming would be beneficial include:

- *Project 8*: Greylock Elementary School (Phelps Ave.)
- *Project 9*: Brayton Elementary School (Brayton Hill Terrace)
- *Project 6*: Colgrove Elementary (East Main St.)
- *Project 15*: West Main St. / Route 2 (as part of bike lane installation)

Use the 2016 Municipal Modernization Act to Reduce Speed Limits in Key Areas and Prioritize Nonmotorized Users

The City should consider lowering speed limits in specific areas where pedestrian safety may be at risk. Studies have correlated increased risk of injury or death with rising vehicle speeds. Risk of death from a collision at 23 mph is only 10%. However, as vehicle speed increases to 32 mph, the risk of death during a collision increases to 25%, and at 42 mph rises to 50%.[54] Moreover, high vehicle speeds can act as a deterrent to potential pedestrians and cyclists.

The 2016 Municipal Modernization Act[55] gives municipalities greater flexibility and control over reducing speed limits and establishing 20 mph "safety zones" on local roadways. Municipalities can now opt-in to the statutory 25 mph limits on local roadways within a "thickly settled" area or business district without conducting a traffic study. MGL Chapter 90, Section 1 defines a thickly settled or business district as, "the territory contiguous to any way which is built up with structures devoted to business, or the territory

[54] https://www.aaafoundation.org/sites/default/files/2011PedestrianRiskVsSpeed.pdf
[55] http://www.mass.gov/dor/docs/dls/city-town/2016/16ctown-aug18.pdf

contiguous to any way where dwelling houses are situated at such distances as will average less than two hundred feet between them for a distance of a quarter of a mile or over.[56]" Additionally, safety zones of 20 mph can be established near adjacent to land uses where "where vulnerable road users are likely to be present" – such as parks and playgrounds, senior housing and centers, hospitals and medical facilities, high schools and higher education centers, and daycare facilities.[57] Pursuing a 25 mph statutory speed limit in areas of the city would not alter the speed limit on roads with "special speed regulations" – essentially those roads with existing posted speed limits. The City of Pittsfield recently utilized the new legislation to reduce speed limits along North St.[58]. Refer to **Figure 8** for mapped speed limits throughout the city. Most "unknown" speed limits are likely statutory speed zones that the city could pursue a reduced 25 mph speed limit for.

Specific Recommendations and Potential Projects

BRPC examined the "thickly settled" designation in North Adams as part of work on this planning report. Most of the city can be classified as thickly settled due to existing building density. The city could likely reduce speed limits to 25 mph on many of its residential streets without approval from MassDOT. The city should determine if areas of the city could benefit from reduced speed limits. The city should also explore designation of Safety Zones around areas such as larger parks, the Hospital, MCLA, and its High Schools.

View Every Repaving Project as an Opportunity to "Complete the Street"

During every repaving project, the city should assess the condition of the existing sidewalk, the width of the existing lanes and shoulder, streetscape amenities (trash receptacles, trees and shrubs, bike racks, lighting, wayfinding signs, etc.) and determine if low cost improvements could be added to each project.

Additionally, shoulder widening and lane narrowing are crucial ways to improve cycling and walking on roadways that do not have dedicated nonmotorized facilities like sidewalks or bike lanes. Paved shoulders have benefits for vehicle drivers, cyclists and pedestrians.[59] Shoulders are often an option to accommodate nonmotorized travelers in low density areas where dedicated facilities aren't feasible. Wide shoulders are shown to increase the safety for nonmotorized travelers by separating them from the vehicle lane, although there is the potential that with wider shoulders, speeds can increase. Cyclists report feeling more comfortable having extra space that is outside the vehicle lane, and an extra 4-6 feet[60] can provide them with precious separation from moving vehicles.

The City of North Adams should evaluate the usage of wider shoulders to accommodate bicycle and pedestrian travelers where dedicated facilities are infeasible. Providing paved shoulders as part of routine resurfacing, restoration, rehabilitation, and/or reconstruction work on roadways is a way to implement the North Adams Complete Streets Policy given due consideration. Based on guidance from MassDOT, shoulder widths to accommodate pedestrians and cyclists should be at least 4' wide for a Case 4 Shared Bicycle/Pedestrian Accommodation.[61]

Jeff Speck is one designer who has been working to make "10 not 12" the new mantra for lane width in urban areas. Mr. Speck visited North Adams and Williamstown in 2015 as part of an MCLA lecture series

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[56] http://www.massdot.state.ma.us/highway/Departments/TrafficandSafetyEngineering/SpeedLimits/FrequentlyAskedQuestions.aspx

[57] http://www.massdot.state.ma.us/highway/Departments/TrafficandSafetyEngineering/SpeedLimits/FrequentlyAskedQuestions.aspx

[58] http://www.berkshireeagle.com/stories/pittsfield-trims-speed-limit-on-north-street-from-30-to-25-mph,498393

[59] http://safety.fhwa.dot.gov/ped_bike/tools_solve/walkways_brochure/

[60] https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/multimodal_networks/8_paved_shoulders.pdf

[61] https://www.massdot.state.ma.us/Portals/8/docs/designGuide/CH_5.pdf

and to promote his work on urban walkability.[62] Writing in a recent article for Atlantic Magazine's online publication CityLab,[63] Speck urges municipalities to move toward a 10' lane width standard that will reduce pedestrian crossing distances and make it easier to fit bike lanes on existing roadways. Speck cites the American Association of State Highway and Transportation Officials (AASHTO) Green Book (A Policy on Geometric Design of Highways and Streets) which states that:

> *For rural and urban arterials, lane widths may vary from 10 to 12 feet. 12-foot lanes should be used where practical on higher-speed, free-flowing, principal arterials. However, under interrupted-flow (signalized) conditions operating at lower speeds (35mph or less), narrower lane widths are normally quite adequate and have some advantages[64].*

As most speed limits in the downtown area of North Adams are relatively low (35 mph or below), lane widths can likely be reduced significantly, providing additional room for dedicated bicycle facilities or, at a minimum, wide shoulders. The city should contact an engineer to verify appropriate lane widths before future repaving or restriping projects.

Continue Ongoing Wayfinding Projects

The North Adams Partnership has taken the lead in updating the city's wayfinding, and has already developed and installed gateway branding signs in the community. Now they plan to continue with future phases of the project to replace existing wayfinding and install targeted wayfinding signs on buildings. Moreover, Mass. MoCA has also recently sought to advance wayfinding initiatives for its campus and the surrounding area. There are also other wayfinding needs for the city that could be addressed comprehensively including marking urban walking loops.

Specific Recommendations and Projects

- *Project 30*: Continue replacement of existing wayfinding signs and advance on-building wayfinding signage. Add wayfinding to mark urban walking loops. The City of Pittsfield has used wayfinding signs to mark loops around its downtown (**Figure 37**). North Adams could pursue similar options, or explore alternative building or sidewalk mounted markers.

Figure 37. City of Pittsfield Walking Loop Wayfinding

[62] http://www.mcla.edu/About_MCLA/news_events/pressrelease/2015September/jeff-speck-to-give-presentations
[63] http://www.citylab.com/design/2014/10/why-12-foot-traffic-lanes-are-disastrous-for-safety-and-must-be-replaced-now/381117/
[64] AASHTO. A Policy on Geometric Design of Highways and Streets, pg. 473, AASHTO, Washington, D.C., 2004.

Advocate for Needs and Opportunities along State Roadways

Route 8

The approximately 2 ½ -mile stretch of Route 8 in North Adams is under the jurisdiction of the state and therefore outside the control of the City. Nevertheless, the City has a vested interest in the road and how it contributes to the implementation of Complete Streets in North Adams, in addition to how it impacts bicycle and pedestrian connectivity in and around the City.

Specific Recommendations and Projects

In the City of North Adams, the recommendation is to advocate for the maintenance, replacement, and completion of the sidewalk gap along Route 8 to ensure network connectivity and safety for pedestrians.

The nearby Town of Adams has also been exploring potential changes to Route 8 and is advocating for a road diet that would reduce the number of lanes and significantly narrow the roadway, while providing sidewalks and bicycle accommodations either in the form of a buffered or separated bike lane. A road diet along Route 8 extending through North Adams could also be a boon to the proposed Ashuwillticook shared-use path extension from the south. The current width of the road in some areas of Route 8 is almost 90', so reducing the road width could allow a low stress bicycle facility (separated bicycle lanes, shared use path, or side path) to travel along the existing road bed, eliminating the need for expensive land acquisitions from private owners to the east. Aside from the potential bicycle facility alignment, as the primary north-south connection to/from North Adams, Route 8 has potential to provide dedicated facilities for pedestrians, cyclists, and transit riders, transforming the arterial from a car-centric roadway to a space that is friendly to all modes. The road diet would also provide the opportunity to implement green gateways to/from the City of North Adams, something that would provide traffic calming to the higher-speed route. Route 8 in North Adams is identified as a level 5 roadway in our competency mapping exercise and is a major barrier for cyclists and pedestrians alike. Improvements to this major spine could enhance the connectivity and accessibility for the entire city.

The City should continue to collaborate with the Town of Adams to advance plans for a possible road diet along Route 8 and continue to explore inclusion of future Ashuwillticook Trail extensions (*Project 37*) as part of the Route 8 right of way. Both municipalities should approach MassDOT and begin advocating for changes to the roadway. As a road diet along the current four-lane section of this roadway will be extensive and likely constructed in several phases, both municipalities and MassDOT should coordinate on developing a schedule that will see project phases listed for federal TIP funding.

Route 2

Route 2 is an important commercial corridor, but also the location of several neighborhoods and elementary schools. The public process identified that crossing Route 2 is difficult for pedestrians, and there is a pedestrian crash cluster located along this roadway. A detailed audit conducted by BRPC also identified many potential improvements.

Specific Recommendations and Projects

The city should consider advocating for improved crossings along Route 2 at key locations. This could take the form of a Rapid Rectangular Flashing Beacon or Pedestrian Hybrid Beacon. Potential locations include the pedestrian crash cluster located near the intersection of Route 2 and Harding Ave., or around the intersection of Route 2 with Greylock Ave. near the liquor store. Audits performed by BRPC also identified other issues along Route 2, including deteriorating sidewalks and curb ramps, gaps in existing sidewalk, pedestrian obstructions, and inconsistent shoulder widths. These findings are summarized in **Appendix B.**

Though the MassDOT portion of Route 2 that currently has bike lanes is certainly a good first step, the striping needs to be updated to current best practices in terms of intersection treatments. The current striping

returns to the curbs at intersections instead of continuing straight. The existing section where the bike lane on the south side of the street is dropped into a sharrow at the intersection in front of Stop & Shop and picked up after the intersection should be attended to as this is a gap for riders that do not wish to share a lane with automobiles. Ensuring MassDOT facilities are implemented according to best practices is an important tool in advocating for better bicycle infrastructure, as pointing to facilities that "work" tends to be a good tool in advocating for new facilities.

Examine the Potential of One-Way Streets to Alleviate Safety Concerns and Expand Options for Nonmotorized Transportation

Begin a Conversation with Neighborhoods about One-Way Streets

Several focus group participants and Wikimapping commenters noted the desire for one-way streets in their neighborhoods. As many of North Adams' residential neighborhoods are located on steep hillsides and served by narrow roadways, one-way streets could help to reduce potential safety conflicts, especially on streets where parking is located on both sides and two-way travel is permitted. The city should facilitate a discussion with neighborhood representatives to determine if safety concerns are founded and explore designation of one-way streets in certain residential neighborhoods.

Evaluate One-Way Streets along Ashland and Church St.

Ashland St. (Route 8a) and Church St. are important gateways to the city from the south, and connect MCLA and the downtown. The city has already invested in an initial conceptual study for Ashland St. The city should pursue additional studies to examine the feasibility of converting Church and Ashland St. to one-way travel. Doing so would free up additional right-of-way for nonmotorized improvements and reduce potential barriers, such as limited space beneath the two Pan Am Rail bridges that intersect Church and Ashland St. It is likely that northbound one-way travel could be permitted on Ashland St. while southbound one-way travel could be created on Church St. - effectively creating a one-way loop around the MCLA area.

Specific Recommendations and Projects

Potential Ashland St. improvements are included as Projects 1-4. Proposed changes to Church St. are included as Project 14.

Recommendations for Pedestrian and Walking Improvements

Invest in Low Cost Pedestrian Improvements, Particularly in the Downtown Area

Simple improvements could benefit pedestrian movement in the downtown area. Firstly, the city should ensure that all marked crosswalks in the downtown area are well maintained and not allowed to fade or deteriorate. The city should consider investing in high visibility crosswalks, such as red colored stamped asphalt, and in-street pedestrian yield signs at crossings in the downtown area where speed limits are 25 mph or below. A study of crosswalk markings by the FHWA found that continental or "ladder" type crosswalk designs were detected by drivers about twice the distance upstream as standard transverse or "bar" type crosswalks. The city should consider using these crosswalk types as a standard throughout the community. In the downtown area. Moreover, the city should ensure that signalized intersections in the downtown area are equipped with pedestrian countdown timers and ADA compliant ramps are present at each marked crosswalk.

Specific Recommendations and Potential Projects

- Repaint crosswalks, especially in the downtown area. Adopt a standard continental "ladder" type crosswalk design throughout the city. (*Crosswalk repainting is a component of several projects*)
- *Project 13*: Add pedestrian curb extensions or "bump-outs" at existing crossings on Main St.
- Add pedestrian countdown timers at the intersection of Eagle and River St. (*Included as part of Project 20*)

Consider Pedestrian / Cycling Only Streets in Key Areas

The city should consider the possibility of designating certain streets for pedestrian and cycling only use. These streets could be made off limits to through traffic, with exceptions made for delivery vehicles or maintenance. Communities across the country have implemented streets of these types, which have made their downtown areas sought-after by tourists and cherished destinations by residents. Some examples of pedestrian malls include the Dunham Mall in nearby Pittsfield, Church St. Marketplace[65] in Burlington, VT and Ithaca Commons[66] in Ithaca, NY. The city has examined the potential for a pedestrian plaza on Eagle St. in the past (see **Figure 38**). Additionally, the city applied for a MassWorks Infrastructure grant application in 2013 to fund construction of a pedestrian plaza on Center St. The city should continue to pursue construction of these projects; however, further study might be needed to examine potential impacts on surrounding streets. For example, if automobile travel on Eagle St. is restricted, the city should consider allowing two-way travel on Church St. between Route 2 and Main.

Specific Recommendations and Potential Projects

- *Project 36*: Study options for, and convert a portion of, Center St. into a pedestrian / cycling only street while respecting the existing parking lots. It was reported by the Working Group that Center St. is often used by visitors to travel between MASS MoCA and Main St. This street is a key area to orient and connect visitors with the downtown.
- *Project 34*: Study options for and convert Eagle St. between Route 2 and Main St. into a pedestrian / cycling only street.

Figure 38. Eagle St. Mall Rendering

Maintain and Complete the City's Sidewalk Network

Sidewalks are a critical component of urban and rural living to ensure safe pedestrian movement and connectivity, improve public health, and promote economic development. Sidewalks should be vertically and horizontally separated from the roadway where possible. It is desirable for a sidewalk through-zone to be a minimum of 6 feet, although 5 feet is acceptable if right-of-way does not allow it. The minimum of 5 feet is

[65] http://www.churchstmarketplace.com/
[66] http://www.downtownithaca.com/

due to ADA requirements, to ensure all ages and abilities can use the facility. Sidewalk extends along just over 50 miles of road in North Adams. Most areas of the city are accessible by walk

In the City of North Adams, sidewalk recommendations include repairing those that are deteriorating as well as filling in critical gaps. It also includes installing ADA curb ramps. Priority areas include:

Specific Recommendations and Potential Projects

- *Project 26:* Comprehensive curb ramp and replacement of portions of sidewalk along Union St / Route 2.
- *Project 19:* Replacement of sidewalk and curb ramps along Beaver St. / Route 8
- *Project 20:* Replacement of sidewalk and curb ramps along River St.
- *Project 35:* Replacement of existing sidewalk along Walker St.
- *Project 29:* Addition of sidewalk near Alcombright Fields (and realignment of a dangerous corner as part of *Project 33*).
- *Projects 1-4:* Replacement/repair of sidewalk along Ashland St.
- *Project 23:* Construct new sidewalk along Church St. from sidewalk end south to the intersection with Ashland St.
- *Project 31:* Replace existing sidewalk along West Main St. and Route 2 from the Sacco Bridge east to downtown.
- Prioritize sidewalks identified in **Table 7** that were not listed in the city's Tier 2 Plan. Determine if these sidewalks could be repaired as part of routine repaving or other maintenance.

Recommendations for Cycling Improvements

Invest in "Easy Wins" to Improve Cycling in the City

As noted in the needs section, cycling facilities in North Adams are non-existent on city maintained roadways. However, several roadways in the city are wide enough to be striped for bike lanes but will require the removal of some on-street parking. These projects will likely require some engineering to ensure standards are met, but will not widen the existing road or require construction beyond new road striping and signage.

Moreover, the city has several small parks and playgrounds and numerous public buildings and facilities, such as City Hall and libraries. The city should ensure that bike racks are installed at these locations to encourage cycling.

As the North Adams Partnership is promoting the region as a bicycle tourism destination, the city could support this with low cost improvements that support cycling, such as the installation and promotion of bicycle repair station somewhere in the city.

Specific Recommendations and Potential Projects

- *Project 15:* Restripe Route 2 / West Main St. from the Sacco Bridge east until the intersection with Holden St. with new bike lanes.
- *Project 11:* Restripe Holden St. north of its intersection with Route 2 until River St. with new bike lanes.
- *Project 10:* Restripe American Legion Drive after repaving with new bike lanes.
- *Project 19:* Restripe Beaver St. / Route 8 with new bike lanes to complement proposed MassDOT work on this route in FY2018 (in conjunction with other sidewalk work).
- *Project 26:* Restripe Union St with new bike lanes (in conjunction with other sidewalk work).
- Ensure bike parking is available at all public facilities, city parks, and trailheads.
- Install a bicycle repair station in the city to support the cycling community and bike tourism.

Advance Long-Term Projects to Improve Cycling in the City

While overall the downtown is walkable, there are no existing cycling facilities in the downtown area. The North Adams Partnership's Strategic Economic Development Plan proposes a broad redesign of the downtown area and conceptually lays out improved cycling facilities on streets throughout the downtown area. The city should invest in advancing these or similar long term designs that enable cycling around the downtown area.

Moreover, Mass. Ave. is currently the part of US Bicycle Route 7 and the Western New England Greenway; however, it lacks any dedicated cycling facilities. As a part of US Bicycle Route 7, the roadway should facilitate long-distance travel by touring cyclists. These are generally experienced cyclists who do not require dedicated infrastructure, but certainly need a safe space to travel, as they often have panniers. To better accommodate touring cyclists on Mass Ave, the City should ensure there is a long-term vision to provide dedicated accommodations and explore the idea of providing amenities (water fountain, picnic tables, repair station, etc.) along US Bicycle Route 7. In the long-term, the city should investigate improvements to this street that enhance nonmotorized transportation, recognize its status as a US Bicycle Route, and better connect neighborhoods in this area to the downtown.

Specific Recommendations and Potential Projects

- *Projects 25,16, 12, & 14:* Advance long-term comprehensive redesigns to incorporate cycling facilities and examine improved pedestrian facilities for streets surrounding downtown, including: Main St, Marshall St, Route 2 / Veteran's Memorial Highway and Church St. (between Route 2 and Main St.)
- *Project 24*: Advance a comprehensive redesign of Mass. Ave. to improve biking and walking along this section of roadway.

Recommendations for Transit Improvements

Ensure Sheltered Stops at remaining Unsheltered Locations

The Big Y Grocery Store and Ashland Park Apartments have been identified as areas in need of transit shelters. The city may consider installing shelters at these locations. Additionally, BRTA officials identified the existing Ashland St. (MCLA) shelter as a location where an additional shelter could be placed on the opposite side of the street. Installing a shelter in this location would be helpful to transit riders during inclement weather. BRTA reported that transit riders currently wait in the shelter during snow or rain, but then cross the road to reach the southbound bus. A shelter on the west side of the street would allow them to wait for the bus under shelter and not cross the road. This may be considered a stand-alone project or part of the larger reconstruction of Ashland St.

Specific Recommendations and Potential Projects

- Install a new transit shelter at the Big Y.
- *Projects 1-4*: Install a new transit shelter near Ashland Park Apartments and the North Adams Housing Authority. Install a new transit shelter on the west side of Ashland St. near the existing MCLA stop. These new transit shelters would likely be added as part of larger corridor level projects along Ashland St.

Recommendations for Traffic Safety Improvements

Evaluate and invest in Intersection Reconstruction Projects and Safety Enhancements

Intersections are important nodes in the city's transportation system that warrant special attention. The city's Comprehensive Plan, as well as the process to develop this plan identified several intersections that in need of reconstruction or general safety improvements. It was noted that many of the intersections on Route 2 and Main St., the north and south bounds of the city's downtown blocks, were imposing to cross for pedestrians and complicated to navigate for vehicles.

Many intersections will not require full reconstruction to improve safety and compliance with existing regulations. The city should examine if enhancing existing signage could help improve compliance and reduce speeds at some intersection locations. For intersections that have experienced issues with drivers failing to recognize the intersection or obey stop signs, LED (Light Emitting Diode) embedded signs have been found to increase compliance and are much cheaper alternatives to expensive intersection reconfiguration. The Federal Highway Administration (FHWA) notes that studies of LED-embedded stop sign installations (**Figure 40**) have shown reductions in the speed of vehicles approaching intersections as well as the number of vehicles not fully stopping at the signs.[67]

Figure 40. LED-Embedded Signage

In terms of ensuring the transportation system is for people, rather than just vehicles, intersections are critical to pay attention to for cyclists, pedestrians, and transit drivers/passengers. Evaluating the intersections that were identified in this plan, whether for improvements or reconstruction, should include a comprehensive approach that considers a variety of factors like:

- **Speed**: if speeds are high traffic calming should be considered in downtown or areas with key destinations, additionally if speeds are a concern at mid-block crossings communities should consider RRFB or other more visible crossing treatments. Speed is also a factor when identifying the appropriate bicycle facility type and should be considered when looking at any on-street facility. Advance stop lines may also be helpful at intersections to better separate pedestrians and vehicles as they cross the street.
- **Volumes**: in intersections that see high volumes, pedestrian signals should be used whenever warranted. If there are high volumes of right turning traffic, right-turn-on-red restrictions may be necessary to protect pedestrians crossing. If volumes are high and bicycle demand is prevalent it may be worth considering bike boxes to encourage bicycle movement.
- **Crossing Distance**: where crossing distance is long it is important to provide pedestrians a refuge island so they can safely navigate across the lanes of traffic, often designers opt to minimize the crossing distance by providing curb extensions. For cyclists, at intersections, bicycle facility treatment should be clear (dashed through, painted through, etc.) so cyclists and motorists can clearly demarcate their space on the roadway.
- **Signalization**: traffic signals create a pause in traffic flow to allow for pedestrians to safely cross the street. Signals should be used when warranted and are important at high-use, mid-block crossings, multi-lane roads, and/or congested intersections. At signalized intersections pedestrian signal timing should be customized for the given intersection, considering leading pedestrian intervals where

[67] https://safety.fhwa.dot.gov/intersection/conventional/unsignalized/tech_sum/fhwasa09006/

appropriate. There are a variety of signal enhancements that benefit nonmotorized travelers and can include: bicycle/pedestrian detectors, bike visible signals, countdown timers for pedestrians, etc.

- **Signage**: signs can provide vital information and improve safety. Ensuring adequate wayfinding is available for pedestrians, and that signs for vehicles are highly visible/well maintained is critical. Pavement markings for cyclists and vehicles should be maintained to ensure facilities are safe and effective for all travelers.

Specific Recommendations and Potential Projects

- *Project 5:* Reconstruct intersection of Main St. / Church St. @ Civil War Soldier's Memorial
- *Project 7*: Reconstruct intersection of Union St / Eagle St. / Veteran's Memorial Highway (Route 2 @ Dunkin Donuts
- *Project 17*: Reconstruct intersection of Furnace St / Reservoir Rd.
- *Project 18*: General safety improvements at the intersection of Franklin St. / Eagle St. / Liberty St. / Wesleyan St. (new signage and striping).
- *Project 20*: Installation of pedestrian countdown signals at intersection of River and Eagle St. (as part of sidewalk replacement on River St.
- *Project 21*: Safety improvements at the intersection of Route 2 and Notch Rd. (improve visibility, reduce turning radii)
- *Project 22*: Safety improvements at the intersection of Furnace St. and Furnace St. Bypass (reduce turning radii)
- *Project 32*: Realignment and reconstruction of the intersection of Massachusetts Ave. and Roberts Dr. (construct T-shaped intersection)
- *Project 38*: Realignment and reconstruction of the intersection of Church St. and Ashland St. (construct T-shaped intersection)

Education

Education is an important component of implementing any new traffic pattern, nonmotorized infrastructure, or trail. Safety increases as more people become aware of the rules of the road (see Enforcement section below), and as options become safer people are more likely to use facilities. Educating residents and visitors is an important part of encouragement too (see below), as visitors may not be aware of new facilities, sidewalks, or trails connecting them to key destinations.

Education can be undertaken by the City, schools, tourism officials, and/or local nonprofits. Encouraging organizations to educate their stakeholders on transportation options, opportunities, and safety is key to a comprehensive Complete Streets approach.

There are opportunities to educate the public about concepts like "Share the Road" or even how bike lanes work. Additionally, there is an education component that should be geared towards cyclists, because their compliance with the rules of the road will greatly impact how cyclists are perceived in the community and enhance their own safety.

Encouragement

With new multimodal options, users must be encouraged to utilize multimodal infrastructure. Whether it is Bike to School day or a weekend walk to the library, the opportunities should be encouraged and highlighted so residents and visitors are aware of the multimodal options. Encouragement may mean designated a Bike to Work day, or distributing walking maps to residents that show where safe sidewalks, paths, or trails exist and connect to their key destinations.

Continue Safe Routes to School Programming and Advocacy

The city, along with the Mass. in Motion coordinator have developed a robust series of Safe Routes to School (SRTS) programs and engaged a diverse group of city staff and residents to help implement these programs. The city and its partners are encouraged to build on existing momentum and continue these activities.

Encouraging schools to document their activities (Bike/Walk to School Day(s)) and conduct fall and spring parent surveys will allow the City to track participation in active mode choices of its students. Ideally, the City could partner with local businesses to provide extra incentives for those who chose to bike/walk to school.

Enforcement

Ensuring the rules of the road are enforced across all modes of transportation is an important component of ensuring safe travel for all. There are key violations that occur by vehicle drivers and cyclists which impact the safety of the road for everyone. Massachusetts General Law addresses some of the key rules of the road for motorists and cyclists across the Commonwealth, and enforcing these laws is important for vehicle drivers and cyclists alike. Cyclists must adhere to the rules of the road (ex. obeying traffic signals) and there are special regulations outlined in the Massachusetts General Law [68] that guide cyclist behavior:

- Cyclists may keep right when passing a motor vehicle moving in the travel lane.
- Cyclists must signal by either hand the intention to stop or turn, except when the use of both hands is necessary for the safe operation of the bicycle.
- Cyclists may ride on sidewalks outside of business districts when necessary in the interest of safety (unless expressly prohibited). When cyclists ride on sidewalks, they must yield the right of way to pedestrians and give an audible signal before passing any pedestrians.
- Cyclists riding together may not ride more than 2 abreast, but on a road with more than one lane in the direction of travel, must ride within a single lane.
- Cyclists must only ride on or astride a permanent seat attached to the bicycle, although passengers may ride on a permanent seat attached to the bicycle or in a trailer towed by the bicycle.
- Cyclists may not transport anyone between the ages of one to four (or weighing 40 pounds or less), on a bicycle except in a "baby seat." Cyclists may not transport any person under the age of one year.
- Cyclists and passengers 16 and younger must wear a helmet.
- Cyclists must give an audible warning whenever needed to insure safe operation of the bicycle, however the use of a siren or whistle is prohibited.
- Cyclists must park the bicycle in a manner as not to obstruct vehicular or pedestrian traffic.
- Cyclists cannot be drawn by another moving vehicle, nor can they City any other vehicle or person except when a bicycle trailer is property attached to the bicycle that allows for firm control and braking.
- Cyclists cannot carry a package/bundle except in or on a basket, rack, trailer, or other device designed for such purposes. The operator shall keep at least one hand upon the handlebars at all times.
- Bicycles must be equipped with a braking system that enables the operator to bring the bicycle traveling at a speed of 15 mph to a smooth, safe stop within 30 feet on a dry, clean, hard, level surface.
- Cyclists riding between one-half hour after sunset to one-half hour before sunrise, must display to the front of the bicycle a white light from a distance of at least 500 feet, and to the rear a red light or

[68] [68] https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXIV/Chapter85/Section11b

reflector visible for no less than 600 feet when directly in front of lawful lower beams of motor vehicle headlights.

- Cyclists riding between one-half hour after sunset to one-half hour before sunrise, must display a reflector on each pedal of the bicycle or, around each angle a reflective material visible from the front and rear for a distance of 600 feet.
- Cyclists riding between one-half hour after sunset to one-half hour before sunrise, must display a reflector on each pedal of the bicycle or, around each angle a reflective material visible from the side for a distance of 600 feet.
- Cyclists many not operate a bicycle in the public way with handlebars raised so that the operator's hands are above their shoulders while gripping them.
- Cyclists must report any accident involving either personal injury or property damage in excess of $100, or both, to the police department in the community in which the accident occurred.

Because bicycles are more commonly used as a mode of transportation for many people, it is important the rules of the road are understood and enforced. Additionally, there are laws [69] outlining motorist's responsibility as they relate to bicycle travel:

- Drivers of motor vehicles must slow down and pass cyclists at a safe distance and at a reasonable and proper speed.
- Drivers of motor vehicles that overtake and pass a cyclist proceeding in the same direction shall make a right turn at an intersection or driveway unless the turn can be made at a safe distance from the cyclist at a speed that is reasonable and proper.
- Drivers of motor vehicles approaching for a left turn on a two-way street must do so yielding the right of way to any vehicle approaching from the opposite direction, including a bicycle on the right of other approaching vehicles, which is within the intersection or so close thereto as to constitute an immediate hazard.
- Drivers and passengers of motor vehicles shall not open a door of the motor vehicle unless it is reasonable safe to do so without interfering with the movement of other traffic, including cyclists and pedestrians.

Engage the Community and Landowners to Improve Snow Removal

In Massachusetts, the recent (2010) Supreme Court ruling (*Papadopoulos v. Target Corp* [70]) overruled 125 years of legal precedent and announced that all Massachusetts property owners can be held legally responsible for failing to remove snow and ice from their property. This ruling rejects the old common law rule that property owners could simply leave naturally accumulated snow and ice untreated and still escape liability. The court held that all property owners must remove or treat snow and ice like any other dangerous property condition. [71]

The Comprehensive Plan, as well as public comments received as part of Wikimapping identified that snow removal is an issue in the city. It is recommended that the city update its snow removal ordinance (Chapter 21 – Streets and Sidewalks Sections 12-13). There are also several resources available in Massachusetts, including the MAPC Snow Removal Toolkit [72] and the Walk Boston Keep It Clear [73] report that can help guide development and implementation of snow removal ordinances.

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[69] https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXIV/Chapter90/Section14
[70] http://masscases.com/cases/sjc/457/457mass368.html
[71] http://massrealestatelawblog.com/tag/massachusetts-snow-removal-law/
[72] http://www.mapc.org/resources/snow-removal-policy
[73] http://www.walkboston.org/sites/default/files/snowReport.pdf

The City's snow and ice removal policies state:

> *Sec. 21-12 Snow and ice removal from sidewalks.*
> *Whenever any snow shall fall or ice shall fall or accumulate or be collected or deposited upon any sidewalk, any tenant or occupant or the owner or person having charge of the land abutting upon such sidewalk, shall cause the same to be removed therefrom within 12 hours.*
> *Whenever any sidewalk shall be encumbered with snow or ice contrary to the provisions of this section, the chief of police shall notify any tenant or the owner or person having the care of the land abutting thereon, to cause such sidewalk to be made safe and convenient for travel by removing the snow, and as far as practicable the ice therefrom, within six hours from the time of receiving such notice.*

> *Sec. 21-13 Snow and ice removal from roofs abutting on sidewalks.*
> *Whenever snow or ice collects upon the roof of any building near the line of any sidewalk, the owner or person in charge of such building shall immediately erect barriers, or take other suitable measures to prevent the fall of snow and ice therefrom upon persons traveling on such sidewalk.*

Several ways that the city could strengthen its snow removal policies include:

- It is not clear in the city's ordinance who has the primary responsibility for snow/ice removal – "any tenant or occupant or the owner or person having charge of the land abutting." Establish one party who is clearly responsible for snow/ice removal (likely the owner), unless there is a pre-arranged agreement for the tenant or others to be responsible. A clear chain of responsibility needs to be stated if the city intends to enforce the ordinance. Other cities, such as Arlington clearly state who is responsible for snow removal for residences, apartments and businesses. The City of Northampton sets a higher standard for their business districts, requiring owners to remove snow/ice in a shorter time span.
- There is no penalty for noncompliance. Establish a penalty for noncompliance. The City could establish fines like Pittsfield and many others have adopted. Alternatively, the City could have snow/ice removed at the expense of the owner, with the bill/lien being attached to the owner's tax bill (as found in Chelsea or Somerville's policy, for example). The City of Northampton allows the city to charge the owner for the cleanup and add a fine on top of that (below).
- The City could state that there is an exemption for elderly or disabled (as in City of Arlington policy)
- If the City is committed to clearing a few key sidewalks, such as on larger streets, they should be listed specifically.
- The City may want to state that no one can shovel/plow snow into the city's streets. A similar requirement is found in the Town of Adams' policy.
- Sending out a brochure to residents in the Fall – perhaps in a tax or water bill – would be a good forward step in educating people about their responsibility. Adding some language about the *Target* court case cited in the Toolkit, which clearly assigns responsibility (and potential liability), may help convince property owners that they should be more vigilant in the future.

Evaluation

Per the City of North Adams's Complete Streets Policy, it is important to integrate Complete Streets elements into the daily operations, planning, design, and implementation of transportation projects. To make this easier, the Complete Streets Working Group developed a checklist for the Department of Public Works to refer to during the project development process.

Context

- What is the adjacent land use? Are there any activity centers that might attract cyclists or pedestrians?
- What is the available right-of-way? How is it allocated by mode?
- What are the challenges for the project to address bicycle and pedestrian travel?

Function

- What is the functional classification of the roadway?
- What connections does the roadway provide?
- Are there options for nonmotorized users on/near the facility (ex. path, shared-use trail, sidewalk)?

Safety

- What is the crash history at or along the project area?
- Is there a high percentage of crashes involving nonmotorized travelers?
- Is there a difficult crossing or intersection for nonmotorized travelers?

Formalize a Complete Streets Review and Implementation Process

The City of North Adams should formalize a complete streets review process that ensures that its Complete Streets policy is implemented. During discussions of the Working Group, an outline of this capital planning process was developed. The Public Works Director should begin project proposals yearly by formulating a budget and identifying roadway needs. This initial project list will be reviewed by key staff members including the Mayor, City Administrator, and Director of Community Development. After this initial review, the annual project list will be provided to the Traffic Commission where it will review and approve the projects for compliance with the Complete Streets Policy as well as suggest potential changes. Moreover, the Traffic Commission, working closely with key staff members will draft a yearly memorandum that evaluates implementation progress based on the performance measures listed in **Table 2** and describing each Complete Streets project.

Invest in Pedestrian and Cycling Counters to Drive Data Based Transportation Decisions in the City

A variety of pedestrian and cyclist counting products[74,75] exist today which free municipalities from total reliance on volunteer based counting methods. The city could purchase and install these counters at key locations such as Main St., Eagle St. or along Marshall St. between Mass MoCA and downtown destinations. Counters would allow the city to obtain continuous data about the number of individuals using sidewalks or traveling by bicycle. Additionally, it could supplement these counters using traditional hand counts organized with volunteers at regular intervals during the year.

PRIORITIZATION PLAN AND IMPLEMENTATION

Methodology

In order to develop a data-driven process to guide the prioritization of Complete Streets projects in North Adams, the Complete Streets Working Group developed a planning framework that outlined: goals, performance measures, evaluation criteria/scoring, and weighting. This framework ensured the goals were measurable, and that scoring of the projects directly related to the plan's goals. The Working Group was asked to weight and rank each goal, and that was integrated into the multi-criteria analysis used to prioritize the City's improvements. Based on combined weighting and ranking scores from each Working Group

[74] http://www.eco-compteur.com/en/products/pyro-range/pyro-sensor
[75] https://www.trafx.net/products.htm

member, projects related to the safety and traffic calming goal areas received the greatest weight. Projects related to the goal area of Safe Routes to School were weighted the lowest.

The planning framework matrix can be seen in **Table 11**.

Table 11. Planning Framework Matrix

SYSTEM			PROJECT-SPECIFIC	
Goal Area/Theme	Goal	System Performance Measure	Project Scoring	Weight
Project Readiness	Prioritize Complete Streets projects in North Adams that are "shovel ready", require minimal or no design/engineering work, or are currently under design.	Number of projects in design/engineering phase	0 - project has been identified but requires design 1 - project at 25% design stage 2 - project at 50% or 75% design stage 3 - project does not require design, or is at 100% design stage	1.48
Usability	Prioritize projects in North Adams that will impact the most number of residents.	Number of residents within 1/4 mile of a dedicated active mode facility	0 - not in a residential or urban area 1 - in/adjacent to a low-density residential area 2 - in/adjacent to a medium-density residential area 3- in/adjacent to a high-density residential area or commercial area	1.81
Safety	Prioritize safety for all users of the transportation system.	Total crashes by severity and mode	0 - project reduces or does not impact safety for users of the transportation system 1 - project addresses safety concern for vulnerable user (cyclist, pedestrian, etc.) 2 - project addresses safety concern for all users (drivers, vulnerable users, etc.) 3 - project addresses safety concern for all users and is in a Crash Cluster (2011-2013)	2.45
Safe Routes to School	Prioritize projects that will provide greater and safer connectivity to schools	Safe Routes to School participation, parent surveys, Annual number of improvements within ¼ mile of an elementary school	0 - project is greater than 1/4 mile from a school and not on a known walk to school route 1 - project is within 1/4 mile of a school 2 - project addresses an identified walking school bus route 3 - project is within 1/4 mile of a school and addresses an identified walking school bus route	0.8
Traffic Calming	Promote traffic calming measures in North Adams to encourage access for all modes, reduce speeds in activity hubs, and promote attractive streetscapes.	Annual number of citations for speeding	0 - project has no traffic calming component 1 - project has traffic calming component that impacts ONE of the following: speed reduction, streetscape improvement, encourages access for all modes 2 - project has traffic calming component that impacts TWO of the following: speed reduction, streetscape improvement, encourages access for all modes 3 - project has traffic calming component that impacts ALL of the following: speed reduction, streetscape improvement, encourages access for all modes	2.00

SYSTEM			PROJECT-SPECIFIC	
Goal Area/Theme	Goal	System Performance Measure	Project Scoring	Weight
Connectivity	Provide transportation choices by improving system connectivity within and between modes.	Share of non-automobile commuters (ACS)	0 - does not address connectivity within or between modes 1 - addresses existing gap, barrier, and/or connectivity between modes 2 - addresses more than one existing gap, barrier, and/or connectivity between modes 3 - addresses more than two existing gaps, barriers, and/or connectivity between modes	1.46

Project Selection and Final List

Using the final scores (weighted and unweighted), the Working Group developed its final list of projects to submit to MassDOT. Project readiness was a key factor in decision making, as well as overall budgeting based on an anticipated $400,000 per year for construction funding. For the final Tier 2 list of projects, see **Table 12** below; for detailed project descriptions and results of project scoring see **Appendix C**; for the spreadsheet which was submitted to MassDOT, see **Appendix D**.

Funding Schedule

In FY 2018, North Adams applied for $400k in construction funding for sidewalk replacement and installation of bike lanes along Beaver St (*Project 19*). A tentative schedule outlining potential construction start dates is found in **Table 12**. This schedule is contingent on construction funding from MassDOT or other sources such as Chapter 90, CDBG or the TIP, if pursued, as well as investment in design and engineering from the City necessary to advance many of these projects.

Table 12. Final Complete Streets Project Prioritization (Tier 2) List

Potential Start Date	Project Type	Project Location	Project Ranking
2018	Pedestrian and Biking Corridor Improvements, possible one-way designation	Ashland St. (Phase 1)	Project 1
2019	Pedestrian and Biking Corridor Improvements, possible one-way designation	Ashland St. (Phase 2)	Project 2
2020	Pedestrian and Biking Corridor Improvements, possible one-way designation	Ashland St. (Phase 3)	Project 3
2021	Pedestrian and Biking Corridor Improvements, possible one-way designation	Ashland St. (Phase 4)	Project 4
2018	Intersection Reconstruction	Main St./ Church St. intersection @ library	Project 5
2019	Traffic Calming	East Main St @ Colgrove School	Project 6
2019	Intersection Reconstruction	Union St./Eagle St./ Veterans Memorial Highway	Project 7
2019	Traffic Calming	Phelps Rd. @ Greylock School	Project 8

Potential Start Date	Project Type	Project Location	Project Ranking
2019	Traffic Calming	Barbour St. @ Brayton School	Project 9
2017	Designated Bike Lanes	American Legion Drive	Project 10
2019	Designated Bike Lanes	Holden St.	Project 11
2022	Bike / Pedestrian Accommodations	Church St - from Main St. to Union St./Route 2	Project 12
2019	Bike / Pedestrian Accommodations	Main St. - Marshall to Eagle	Project 13
2025	Bike / Pedestrian Accommodations and One-Way street designation	Church St. - South of Main St.	Project 14
2019	New Bike Lanes and traffic calming (feedback sign)	Route 2 Sacco Bridge to West Main St. and overpass to Holden St.	Project 15
2025	Bike / Pedestrian Accommodations	Marshall St. - Main to River	Project 16
2020	Intersection safety improvements	Furnace St / Reservoir Rd.	Project 17
2019	Intersection safety Improvements	Franklin / Eagle / Liberty / Wesleyan	Project 18
2018	Sidewalk replacement	Beaver St.	Project 19
2019	Sidewalk replacement and intersection improvements	River St. - East End, countdown timers at River St. / Eagle St. int. + Repaint Crosswalks	Project 20
2021	Intersection Reconstruction	Notch Rd / Route 2	Project 21
2021	Intersection improvements / reduce turning radii	Furnace St / Furnace St. Bypass	Project 22
2025	New Sidewalk	Church St. -- sidewalk (gap to Ashland Int.)	Project 23
2023	Bike / Pedestrian Accommodations	Mass. Ave.	Project 24
2025	New Curb Extensions (Bump-outs @ 6 locations), bike rack, crosswalk restriping, pedestrian yield signs	Main St. bump-outs at crossings (6 locations) + New Crosswalks + Bike Racks + In street ped. yield sign.	Project 25
2020	Sidewalk repairs (sections), Install new ADA compliant curb ramps, stripe new bike lanes	Union St.	Project 26
2022	Shared-Use Path	Bike path extension from Williamstown	Project 27
2019	New Sidewalk and Sharrows	Bud Dougherty Airport Way to State Rd. (Rt. 2) (end of bike path to route 2 corridor)	Project 28
2018	Providing new sidewalks	Protection Ave through Alcombright Athletic Fields	Project 29
2019	Comprehensive wayfinding system	Replace existing wayfinding + Walking loop wayfinding + On-building signs	Project 30
2026	New Sidewalk	West Main St.	Project 31
2023	Intersection Reconstruction	Mass. Ave. @ Roberts Dr.	Project 32

Potential Start Date	Project Type	Project Location	Project Ranking
2017	Road Realignment – remove dangerous corner	Protection Ave @ Alcombright Athletic Fields	Project 33
2027	Pedestrian Street	Eagle St.	Project 34
2018	New Sidewalk	Walker St. (coincide with full depth reclamation in 2018)	Project 35
2025	Pedestrian Street	Center St. (portions)	Project 36
2020	Shared-Use Path	Bike path extension from Hodges Cross Rd.	Project 37
2022	Intersection Reconstruction	Church St. / Ashland St.	Project 38

APPENDIX A: PUBLIC OUTREACH AND ENGAGEMENT

North Adams City Staff and board members formed a Complete Streets Working Group which led this planning effort. Key individuals who participated in this planning process include:

Complete Streets Working Group Members

- Richard Alcombright, Mayor of North Adams
- Mike Canales, North Adams Administrative Officer
- Amanda Chilson, NBCC Mass in Motion Program, North Adams Traffic Commission
- Timothy Lescarbeau, Commissioner of Public Services
- Mike Nuvallie, Office of Community Development

Berkshire Regional Planning Commission (BRPC) Staff

- Eammon Coughlin, Senior Planner
- Lauren Gaherty, Senior Planner
- Mark Maloy, GIS, Data, and IT Manager
- Emily Lindsey, Senior Transportation Planner
- Clete Kus, Transportation Program Manager
- Thomas Matuszko, Assistant Director

Complete Streets Working Group Meeting #1: November 16, 2016

The first meeting of the Working Group meeting occurred on Weds., November 16, 2016 at 4:00am at North Adams City Hall.

The goal of this meeting was to kick off the project and provide Working Group members an outline of the process. The Working Group reviewed existing conditions, goals and performance measures, and the project schedule. Working Group members were asked to bring a list of project ideas to the following meeting.

Complete Streets Working Group Meeting #2: December 21, 2016

The second meeting of the Working Group meeting occurred on Weds., December 21, 2016 at 9:00am at North Adams City Hall.

The goal of this meeting was to develop a planning framework for the project. Working Group members discussed project goals. Working Group members then shared their project ideas. Initial existing conditions analysis, including sidewalk gaps and condition, were also reviewed at this meeting.

Complete Streets Working Group Meeting #3: January 24, 2016

The third meeting of the Working Group meeting occurred on Tuesday, January 24th, 2017 at 9:00am at North Adams City Hall.

The goal of this meeting was to rank and weight the project goals to begin scoring the initial list of projects.

Complete Streets Working Group Meeting #4: February 10, 2016

The fourth meeting of the Working Group meeting occurred on Friday, February 10, 2017 at 1:00pm at North Adams City Hall.

The goal of this meeting was to review the initial project ranking.

Complete Streets Working Group Meeting #5: March 8, 2017

The fifth meeting of the Working Group occurred on Wednesday March 8, 2017 at 10:00am at North Adams City Hall.

The goal of this meeting was to finalize the Tier 2 project list and determine a project to apply for during Fiscal Year 2018.

As part of this planning process BRPC engaged North Adams residents and stakeholders. Public engagement took the form of two focus group meetings, utilization of the online Wikimapping[76] tool and stakeholder interviews.

Adams / North Adams Complete Streets Coordination Meeting: March 15, 2017

This meeting was held at North Adams City Hall and was attended by officials from Adams and North Adams, BRPC, as well as VHB - the Town of Adam's engineer working to develop their Complete Streets Project.

VHB presented three concepts for a road diet along Route 8 that would integrate improved bicycle facilities along the corridor. Including cycling facilities along this section of roadway is one potential way to extend the Ashuwillticook Rail Trail north from Adams to North Adams that could avoid costly property acquisitions or complicated landowner agreements.

Concept 1

Concept 1 proposes a road diet that would reduce Route 8 from four vehicle lanes to two with a left turn lane to access the Specialty Minerals Plant. North of the Plant, the turn lane would disappear, leaving the two vehicle lanes. A 10'-wide two direction bike lane would be located along the eastern side of the roadway separated by an 8'-wide planting strip. Sidewalks would be located on both sides of the roadway.

Concept 2

Concept 2 proposes a road diet that would reduce Route 8 from four vehicle lanes to two with a left turn lane near the Specialty Minerals Plant and a shared left turn lane extending north of the plant. As with Concept 1, a 10'-wide two direction bike lane would be located along the eastern side of the roadway separated by an 8'-wide planting strip. Sidewalks would be located on both sides of the roadway. Concept 2 was preferred by North Adams staff.

Concept 3

Concept 3 proposes a road diet that would reduce Route 8 to two vehicle lanes separated by a 10'-wide planting strip. A 6'-wide bike lane would be located on each side of the roadway and would be separated by a

[76] http://www.wikimapping.com/

two-foot wide striped buffer. As with the other concepts, sidewalk would be located on both sides of the roadway.

Bike North Berkshire Focus Group – December 6, 2016

BRPC met with members of Bike North Berkshire on December 6, 2016. Bike North Berkshire is a "grassroots coalition working to promote cycling in Northern Berkshire county for fun, transportation, and fitness.[77]" The group discussed a variety of cycling topics including the recent addition of bike lanes along Route 2 west of downtown, the status of regional shared-use path projects. Group members were asked about cycling and walking in the city and asked to identify areas for improvement.

Stakeholder Focus Group – January 25, 2017

BRPC helped organize a stakeholder focus group meeting that was held on January 26, 2017. An invitation letter from Mayor Alcombright was sent to stakeholders across the City, including relevant city departments and boards, and local organizations listed in **Table A1** requesting that a representative attend the meeting. Organizations that were invited included those who represent targeted populations (seniors, students, low income, disabled, bicyclists), businesses and institutions. The meeting was held at the American Legion Hall in North Adams. The meeting began with a short presentation that introduced the topic of Complete Streets, discussed the MassDOT funding program, and outlined potential projects that could be applicable to North Adams. Participants were seated around three large tables with maps of the city which were available for them to review and mark up. After the presentation, participants identified streets and areas they liked to bike and walk - as well as positive aspects of nonmotorized transportation in the city - with a green marker. Participants were also given a red marker to identify problem areas, such as difficult to navigate intersections, areas in need of nonmotorized improvements, and other issues, within the city. After this exercise, each table was asked to appoint a representative who would report back to the larger group with the top five issues identified at each table. Issues and potential projects identified by focus group participants can be found in **Table A2**.

Table A1. Stakeholder Groups Represented on January 25, 2017

Focus Group Invitee list	
North Adams Traffic Commission	Bike North Berkshire
Berkshire Rides	Hoosic River Revival Coalition
Mass. Collage of Liberal Arts	North Adams Partnership
North Adams Police Dept.	North Adams ADA Coordinator
North Adams Council on Aging	Roots Teen Center
North Adams Public School District	Northern Berkshire Community Coalition (NBCC)
North Adams City Councilors	North Adams Housing Authority
Mass. Museum of Contemporary Art (MoCA)	North Adams Chamber of Commerce
North Adams Office of Tourism	Berkshire Regional Transit Authority
Berkshire Bike Path Council	North Adams Planning Board
Hoosic River Watershed Association	

[77] https://www.facebook.com/bikenorthberkshire/

Table A2. Focus Group Recommended Projects

TYPE	LOCATION
Intersection reconstruction / Roundabout	*Church / Main @ Library (recommended roundabout)*
Bike parking	*Cascades Trailhead*
Traffic Calming	*East Quincy St onto Pleasant St.*
No Parking Signage	*Pleasant St.*
Traffic Calming	*Greylock School / Phelps Rd.*
Intersection reconstruction	*Notch Rd / Route 2*
Bike Lane / Shoulder widening	*West Main St @ Cemeteries*
Wayfinding	*Mass MoCA to downtown*
Wayfinding	*Gateway Heritage Park to downtown*
Intersection reconfiguration	*St. Anthony Drive / Holden St / Big Y Entrance*
Pedestrian St.	*Make Eagle St. a pedestrian only St.*
Sidewalk widening	*Ashland St (improve sidewalk for wheelchair access)*
Bus Shelter	*Ashland St. (West side across from existing shelter)*
Intersection reconstruction	River St / Marshall St.
Dangerous intersection	Route 2 / West Main
New Sidewalk	Willow Dell
Eliminate on street parking	West Main St.
Sharrows and signage	Btwn Brown St. and High St. - West Main
Sidewalk gap	Union St.
Intersection reconstruction	Ashland / Church
Intersection reconstruction	Union St. / Beaver St.
Dangerous Intersection	Furnace St. / Furnace St. bypass to Gateway Heritage Park
Bike Lanes	Ashland St.
Intersection safety signage	Franklin / Eagle / Liberty / Weslayan
Note: Italicized text indicates priority issue identified by focus group members	

Wikimapping Engagement Tool

Wikimapping is an online public engagement tool that allows the crowdsourcing of data around transportation projects. The Wikimapping tool allows users to tag and comment on sections of roadway to identify potential issues with the transportation system in two main types of categories – lines and points. Line categories allowed users to identify routes they like to bike or walk, areas they avoid biking and walking, and areas where they would like to bike and walk. Point categories allowed users to identify gaps in sidewalk, transit issues, barriers and obstacles, dangerous crossings and maintenance needs. One unique feature of the tool is that it allows users to see all other comments and add to those comments as well as agree and disagree with data provided by other users.

The Wikimapping tool was promoted at each of the focus group meeting, in the focus group invitation letter, and an email notification was distributed to various stakeholder groups by the NBCC Mass. in Motion

Coordinator. North Adams city staff, and board and committee members were also notified of the Wikimapping effort through a notification slip that was placed in staff mailboxes at City Hall. Issues identified through the Wikimapping tool can be found in **Table A3**. Emergency repair needs noted in the Wikimapping comments were referred to the city.

Table A3. Wikimapping Comments

Category	Location	Initial Comment
Dangerous Crossing	Intersection of Eagle/Ashland/Main	Please, please replace the light bulbs on Eagle and Church St. At night, it's impossible to see and someone will get hit. Please replace ASAP before someone is hurt. Thank you.
Dangerous Crossing	Union St	Union Street from the corner of Gallup Street ALL the way down past the mills. When there's snow weather, the snow and ice bury the sidewalks, as well as far out into the road so for days after bicyclists and pedestrians have to walk at least a foot into traffic, which with all the blind turns makes it beyond dangerous, especially when it is dark out. Even in good weather there's no crosswalks, slow signs, or lights, so crossing the street is made impossible by drivers winding the blind turns at high speeds.
Dangerous Crossing	Union St	the part of Union Street between the Eclipse Mill and the hideous crap mill needs attention. Pedestrians are in DANGER when they cross the street and no one enforces the speed limit!!!!!!!!!!!!!!!!!!
Dangerous Crossing	Intersection of Eagle/Ashland/Main	The sidewalk in front of Dunkin Donuts is never shoveled which is dangerous for pedestrians and impassable for friend in a wheelchair.
Dangerous Crossing	Intersection of Eagle/Ashland/Main	The lights are not timed with traffic to make walking friendlier. Route 2 and 8 combined near Big Y and St. Joseph's Court very dangerous for pedestrians
Dangerous Crossing	Intersection of Eagle/Ashland/Main	There used to be crosswalks on all four sides of Ashland, Main, Eagle intersection. When road was resurfaced only three crosswalks were repainted. There is no crosswalk on the east between the Baptist and Congregational churches, yet many people cross there to the surprise of some drivers. It is an accident waiting to happen.
Dangerous Crossing	Intersection of Main / Marshall	This has become a really congested location which could create more opportunities for accidents and danger for pedestrians. It feels like an ideal spot for a rotary to promote a smooth flow of traffic
Dangerous Crossing	Intersection of Main / Marshall	Very very difficult to cross here. There is no actual time where it is safe for pedestrians to cross because there is always a constantly flow of turning.
Other	Eagle St.	Wider sidewalks would be nice to provide more usable seating space and trash cans on the street. It could also create some traffic calming.
Other	Eagle St.	The period lights where the bulbs need replacing on North Church Street and on Eagle street around the Flat Iron Building. Two fixtures need bulb replacement. New Bulbs need to be added to the pole lamps to provide a more safe and secure walkway for pedestrians.
Other	Eagle St.	Love the idea of wider sidewalks, trash cans and WORKING lights!
Dangerous Crossing	Intersection of Church / Main	Always challenging, especially when non-locals don't know which person has the right of way and also when folks make u-turns back down main street.

Dangerous Crossing	Intersection of Church / Main	Very dangerous crossing Church St. at the war memorial! I was nearly hit by a pickup truck crossing from Main St. to East Main St., 7 pm about a month ago. Inches away from me. I would like traffic lights here. NOT roundabout. Roundabouts are not pedestrian friendly enough for this intersection.
Dangerous Crossing	Intersection of Church / Main	Please, please replace the light bulbs on Eagle and Church st. At night, it's impossible to see and someone will get hit. Please replace ASAP before someone is hurt. Thank you.
Dangerous Crossing	Intersection of Church / Main	It has been recommended a roundabout be considered here
Dangerous Crossing	Intersection of Church / Main	I Agree! Crossing Church St from E. Main is risky especially at commuter time and even more so at night. Although the crossing distance is shorter on the north side of E. Main, cars coming from downtown on E.Main often swing around the monument to go north on Church without seeming to look for pedestrians.
Dangerous Crossing	Intersection of Church / Main	People coming from Colegrove often take a right at the stop sign without fulling paying attention for pedestrians. They have been stopped and ive been mid crossing, and they just roll through and almost hit me (and this has happened a number of times)
Dangerous Crossing	Intersection of Church / Main	Crossing here is always difficult and people tend to drive down church street unreasonable fast. It is rather dangerous.
Dangerous Crossing	Intersection of Main and Route 2 (Immediately north of City Hall)	Always a space where I worry about folks crossing the road. No well marked crosswalk, no slowing of traffic, and no clear visibility until you are basically upon people crossing the road. Not well lit and there are significant residential populations that walk along this corridor every day.
Bike Parking Needed	Main St.	I feel like there WAS bike parking here at one point, not sure why it got removed. With the new pizza place on the street it would be nice to provide easily seen and accessible bike parking.
Other	Route 8 / Marshall St @ overpass	Constantly getting backed up now. Not sure where the influx of traffic is coming from, but with the new MASSMoCA building opening I can only imagine it will get worse. Even more so if the train museum opens in the Heritage park.
Other	Route 8 / Marshall St @ overpass	the traffic light needs readjustment here - always traffic back ups
Dangerous Crossing	Intersection of Route 2 / Union / Eagle	pedestrian crossing difficult due to multiple sequence of lights and folks get frustrated waiting for walk light. Also congested due to Dunkin Donuts and McDonald's
Dangerous Crossing		Please, please replace the light bulbs on Eagle and Church st. At night, it's impossible to see and someone will get hit. Please replace ASAP before someone is hurt. Thank you.
Dangerous Crossing	Intersection of River /Eagle/Canal	No pedestrian crossing light at this intersection
Dangerous Crossing	Intersection of Route 2 / Holden St.	Similar issue as further east. Too long of sequence for pedestrian crossing light due to multiple streets converging here.
Dangerous Crossing	Intersection of Route 2 / Holden St.	I Agree. Many people go right on red here without even looking either
Other	Main St.	Main St. as configured is a race way! Though cross walks present, people just go too fast. And, as Holden intersects with Main St. this crossing area is a challenge

Gap (needs sidewalk/bike lane)	Union St	The stretch of Union Street between the Eclipse and Delftree mills is narrow and dangerous for bicycles because of the Jersey barriers.
Dangerous Crossing	Intersection of Route 8 /Union St.	The left turn from Union Street to Rte. 8 is difficult for bicycles because of the hill.
Dangerous Crossing	Windom Terrace	Windom Terrace between Dover and Church - It is next to imposable to walk down this road it is not wide enough for the traffic we have everything from tractor trailers, dump trucks, garbage truck, fuel trucks and automobile that will not slow down. We have had accidents on this road people, Bicycles and pets have been hit by cars it is difficult for emergency vehicles to get through. Besides the fact that the road is to narrow cars are parked on the sides of the road. This street needs stop signs that are enforced and it most definitely should be a one way street. Most of the people at this location are tired of this being an intersection of inconvenience and annoyance that everyone from the above street try to fly through so they can get to work.
Dangerous Crossing	American Legion Drive / Hoosac River	It would be fantastic to have some sort of foot bridge over the railroad tracks by the American Legion. A lot of people cross here to get back and forth between downtown and Rte. 8.
Dangerous Crossing	American Legion Drive / Hoosac River	Yes. There needs to be an easier and more direct way to get from downtown to Heritage Park on foot. Now one must either risk walking over the railroad tracks or stick to the streets which requires many crossings.
Dangerous Crossing	Intersection of Ashland and Quincy St.	used to be two crosswalks at this intersection - would be good to have the one on the south side of the intersection repainted.
Gap (needs sidewalk/bike lane)	Willow Dell	Sidewalk needed here
Other	Intersection of Ashland and Church	Approaching from the south at the Y where Ashland and Church intersect it would be beneficial to have a sign "Please use directionals" so that driver exiting Church would know if car plans to cross in front of him/her and continue on Ashland or plans to bear right and follow Church; in the latter case the driver going towards Adams could exit Church and continue on south.
Barrier/Obstacle	Ashland St	A section of sidewalk floods with water during rain between Fisher auto and Biscuit Co. Building.
Barrier/Obstacle	Marion Ave.	Sidewalks are in bad condition on Marion Ave.
Other	Intersection of Route 2 / Holden St.	Better winter maintenance and snow removal needed here - hard to get from sidewalk to street
Other	Intersection of Route 2 / Holden St.	Absolutely
Other	Union St.	better winter maintenance / snow removal needed to get to downtown from Eclipse Mill
Other	Union St	On the Sidewalk by the Eclipse Mill is a 3ft x 3ft Metal Gas Valve Cover. From time to time, this Cover gets removed by Snow Equipment, etc. and remains dangerously exposed for weeks at a time, even after the Mayor has received multiple Notices.

Gap (needs sidewalk/bike lane)	Massachusetts Ave.	Not sure what can be done due to limited space but come warmer weather, many cyclist travel via Mass Ave. But between the Tyler St. and Roberts Dr. intersections, there is limited space and a couple of blind areas that make it inconvenient and dangerous to travel.
Other	Center St / Route 2	The small center street parking lot (between the large one and the bank lot) needs more attention paid after storms.
Other	Eagle st. / North Church St.	Lights need to be fixed on Eagle and N. Church St. Additional lighting for this walk would make this area safer.
Other	Heritage Park Pedestrian Bridge	Pedestrian bridge here is not well marked and not well maintained. It is one of the easiest/only ways to get to Heritage Park on foot and should be improved to increase ease of access to the Park.
Bike Parking Needed	Marion Ave.	Trailhead for the Cascades trail needs better places for people to park and signage
Needs Maintenance	Route 2	Sidewalks along this stretch of Rte. 2 (in front of Greylock works and adjacent lots) are in bad shape. As there is now parking here for the AT, this should be a more welcoming and attractive introduction to North Adams for hikers.
Gap (needs sidewalk/bike lane)	Massachusetts Ave.	There is no sidewalk or bike lane along this windy stretch into downtown
Dangerous Crossing	Intersection of Route 2 / Roberts Dr.	There needs to be easier pedestrian crossing along here - perhaps a blinking light with a crossing signal
Other	Route 2 / West Main St.	Better winter maintenance of sidewalks needed
Walking Route	Loop created by Church /Summer/Ashland/Davenport St.	lovely walk
Bicycling Route	Route 2	Bike Commute - Wish there were actual bike lanes on Rt. 2 by the cemetery.
Bicycling Route	Route 2	Commuter route to and from work (61 Main St.) I love using the bike lanes and knowing the sharrows are along Rt. 2 to Saco Bridge. It would be great to extend bike facilities to downtown via overpass, Holden St to Main St. Park my bike at a great NAMA bike rack outside my office!
Walking Route	Union St / Beaver St	Walking from the Eclipse Mill to Natural Bridge is difficult.
Route I'd like to bike	Route 2	It's bike-able, but it could be more so with better swept bike lane, separation from traffic, or, ideally, a separate bike path.
Walking Route	Phelps Ave @ Barbour and Catherine	Hello, I work for Greylock Elementary School and have always wanted to incorporate educational walks up Phelps Ave. heading south on the Appalachian Trail. But we would need cross walks on Barbour St. and Catherine St. to go. I think it could be an inexpensive task to paint two cross walks and would greatly encourage our school to explore the trail that is so close to our location.

North Adams Partnership Interview – February 10, 2017

BRPC staff met with Valerie Hall, executive Director of the North Adams Partnership, an organization comprised of key businesses and tourism entities working together to enhance the economy of North Adams and establish and maintain the city's position as a small city center of commerce, culture, education and innovation. The interview focused on the need to encourage and improve the experience of walking and biking as modes of travel within the City, and to ensure that future wayfinding improvements would be coordinated with new tourism initiatives.

North Adams City Council Update – February 14, 2017

Mayor Alcombright and BRPC staff updated the North Adams City Council about progress being made on the Williamstown-North Adams bike path, which is a key component of the City's Complete Streets program.

APPENDIX B: AUDITS AND ASSESSMENTS

Route 2 Area Audit Report

Massachusetts Avenue

Williamstown Line to Ashton Avenue

On the south side of the road, the first 750 feet of road have no pedestrian facilities. There is no sidewalk and the shoulder averages around 1 foot. Beyond the old Galvin Road intersection, the shoulder on the south side widens to 3-4 feet. At 1,500 feet, a sidewalk begins on the south side of the road. This is a new sidewalk in excellent condition. This sidewalk continues to the intersection of Ashton Avenue. The sidewalk begins at a dense area of housing on the south side of the road, but does not have any sort of connection or ramp to the shoulder. The sidewalk has numerous obstacles on it, including telephone poles and fire hydrants. Some of these are close to the curb, allowing mostly unimpeded passage along the sidewalk, however a few obstacles are a foot or more into the sidewalk and impede transit. There is also a section of the sidewalk that has bushes overgrowing into the vertical space above the sidewalk. At the intersection with Ashton Avenue, there is a ramp with a detectable warning that leads to a marked crosswalk across Ashton Avenue. There is also a shoulder next to the sidewalk, which averages around 4-5 feet, although it narrows down to 1 foot where the road bends.

On the north side of the road, there is no sidewalk. The shoulder gradually widens from less than one foot to 1 foot paved and 2-foot gravel at the old Galvin Road intersection, and then widens to about 3 foot paved. The shoulder continues to the intersection with Ashton Avenue, with an average width of around 3 feet. There is a concreate wall starting at the cemetery and running for 375 feet which makes the shoulder feel narrower, even though it is 4 feet wide at that point.

Challenges	Opportunities
Incomplete sidewalk network	Widening of shoulder or installation of sharrows
Inconsistent shoulder widths/surface types	Sidewalk repairs
Sidewalk obstructions	

Ashton Avenue to Amidon Road

The south side of Massachusetts Avenue has a sidewalk the entire length. It begins with a detectable warning and curb ramp at Ashton Avenue and ends with a detectable warning and curb ramp at Amidon Road; however, in front of Blackinton Mill the sidewalk is interrupted by a parking area. The parking area has a sidewalk adjoining the mill, however it only in fair condition, while the remaining sidewalks are in excellent condition. There are no detectable warnings between the different sidewalks, which may hinder mobility. Throughout the entire length of sidewalk, there are telephone pole and fire hydrant obstructions. There is

also a shoulder next to the sidewalk, ranging in width of one foot around bends in the road to 8-10 feet in front of the mill and in front of the church for on-street parking. The parking in front of the mill is heavily used during the week and the parking in front of the church is heavily used during church services. The rest of the time the on-street parking is limited.

On the north side of the road there is no sidewalk. The shoulder varies in width at the beginning, however shortly past the mill it widens to allow on-street parking. There are a few spots where parking is not allowed and the shoulder narrows. There are also several drainage grates on the north side that are dangerous to bicycles along this stretch of road.

Challenges	Opportunities
Sidewalk continuity	Sidewalk replacement in front of mill
Sidewalk obstructions	Bike lane or sharrow installation
Drainage grates hazardous to bicycles	Replace drain grates

Amidon Road to Protection Avenue

The south side of Massachusetts Avenue has a sidewalk throughout the length, however it is only in fair condition. There are numerous obstructions in the sidewalk, including telephone poles and fire hydrants. The first 650 feet is concrete; however, the rest of the sidewalk is asphalt. The asphalt section has several sections where the curbs curl in at the driveways, preventing full ADA accessibility. The start of the sidewalk at Amidon Road has a detectable warning and curb ramp, however the end of the sidewalk at Protection Avenue abruptly ends and does not connect to the road. There is a shoulder next to the sidewalk that is mostly 6-10 feet wide and allows on street parking, however it does narrow in a few locations.

The north side has no sidewalk; however, the shoulders are wide at approximately 6-8 feet and allow on street parking. There is no visibility concerns for bicyclists on the shoulder.

Of note in this section is the crossing of the Appalachian Trail. The trail comes in from the south on the pedestrian bridge, which is not accessible due to stairs. and then follows the sidewalk east for 750 ft., where it crosses the road and heads north. There are no crosswalks available for the trail and there is no pedestrian warning signage.

Challenges	Opportunities
Sidewalk condition	Sidewalk replacement
Sidewalk obstructions	Appalachian Trail Crossing
Driveway curb cuts	Ramp at Protection Avenue
	Bike lane or sharrow installation

Protection Avenue to Roberts Drive

The south side of the road has no sidewalk and has a shoulder that averages 3 feet wide, but can narrow down to 18 inches. There are sections of this shoulder that are overgrown. There is also a blind corner with a driveway on it.

On the north side of the road the shoulder is generally is around 2 feet, however there are a few sections that are wider.

The intersection of Roberts Drive and Massachusetts Avenue is a dangerous intersection for traffic as well as pedestrians and bicyclists. This Y-Intersection does not have any stop signs and the traffic approaches at a high speed. There are fog lines on Massachusetts Avenue, but they just end as Roberts Drive enters. In

addition, there is a popular dining establishment on the corner, so cars are trying to enter and exit directly into the intersection.

Challenges	Opportunities
Lack of sidewalk	Shoulder expansion / bike lane
Roberts Drive Intersection	Redesign of Roberts Drive Intersection
Inconsistent shoulder width	

Roberts Drive to River Street

Both sides of Massachusetts Avenue in this section are dangerous for pedestrians and bicyclists. The road is characterized by hills and curves with only a 0-1foot shoulder with no sidewalk. Off the road, the north side of the road is wide enough to walk on in most spots, however the south side has a guardrail and drops steeply down to the river.

Challenges	Opportunities
Narrow shoulders	Widen shoulder on north side
Terrain	Installation of Sharrows
No Sidewalks, sidewalk condition	

River Street

Massachusetts Avenue to Brown Street

The south side of the road has a sidewalk for most of it, with the exception being the very beginning of the road. The sidewalk is in good condition, however there is no ramp to get onto the sidewalk at the west end. In addition, there are numerous telephone poles in the sidewalk, partially obstructing the walking path. Just past the intersection with Tyler Street there are detectable warnings and curb ramps, however the purpose of these ramps is unknown as there is no marked crosswalk and it is not at an intersection. There is a ramp and sidewalk on the north side of the crosswalk. The marked crosswalk and ramps should be at the intersection with Tyler Street. There is a sign to yield to pedestrians in crosswalks, but it is after these ramps. The is also a sidewalk on the north side of the road starting at Tyler Street. There is no ramp at the Tyler Street intersection. Shortly after Tyler Street at the crosswalk to the south side there is a very wide rough driveway that would impede those with disabilities. The intersection with Harris Street on the north side has detectable warnings and curb ramps, but no marked crosswalk. Beyond Harris Street there is a hydrant obstruction as well as a driveway entrance that cuts into the sidewalk, preventing the full width of the sidewalk from being useable. There is a marked crosswalk to cross Brown Street on the south side of the road. This intersection has detectable warnings and curb ramps and is marked.

The shoulders on the south side of the road are approximately 3 feet wide. On the north side of the road, the shoulder is less than 3 feet west of Tyler Street, around 10 feet between Tyler Street and Harris Street and then 1-3 feet east of Harris Street.

Challenges	Opportunities
Parking on both sides of street	Restripe for bike lanes or sharrow
Harris Street geometry	Pedestrian crossing signage
	Harris Street intersection crosswalks/ramps

Brown Street to Marshall Street

There are sidewalks on both sides of the road with detectable warning and curb ramps at crosswalks, except for Temple Street which has ramps that do not have detectable warnings. The southern crosswalk has

telephone pole obstructions and the northern sidewalk has sign obstructions, but these tend to be more minor. The driveway curb cuts on the north side are not pedestrian friendly as the curbs often return into the sidewalk and reduce its width. There is a crosswalk crossing River Street, with pedestrian signs, detectable warnings, and curb ramps, however it is below the crest of the hill (Brown Street) and could be dangerous to pedestrians with cars coming from the west.

There are no delineated shoulders on this section of the road, however there is plenty of room available for them, except for around Veazie Street, where the road narrows as it bends.

Challenges	Opportunities
Crosswalk below hilltop	Wide shoulders can be restriped for bike lanes

Route 2 (State Road)

Williamstown Line to Airport Road

State Road has a sidewalk along the entirety of the north side of the road, until it reaches the Stop and Shop entrance, where it abruptly stops with no crosswalk, although the sidewalk is ramped to the street. The sidewalk tends to be separated from the road by a grass strip, however as it approaches Airport Road it disappears. The sidewalk is also narrow in spots and has obstacles such as telephone poles dispersed throughout. At the Ashton Avenue intersection as well as the Rickard Avenue intersection there are detectable ramps.

On the south side of State Road there is no sidewalk except directly in front of Stop and Shop. There is a crosswalk at the beginning of the sidewalk that connects with the sidewalk on the north side of the road. This crosswalk has detectable ramps, line paintings as well as pedestrian crossing signs and a bus stop. The sidewalk in front of Stop and Shop has detectable ramps and crosswalks at each driveway intersection. The Chenaille Terrace intersection has detectable ramps, as Chenaille Terrace has sidewalks on both sides. The intersections with Lois Street and George Avenue do not have any pedestrian facilities. At the intersection with Airport Road there is a crosswalk as well as detectable ramps.

The entire section has bike lanes on both sides of the road. These bike lanes range from 5 to 8 feet in width. The lanes have bicycle lane symbols, however the fog lines at the intersections are incorrectly painted for the bike lanes. There also are not enough bicycle lane symbols. After the Chenaille Terrace intersection there is a bicycle lane sign. In front of stop and shop the bicycle lanes becomes a sharrow on the south side where there is a turning lane, however shortly after that it becomes a bicycle lane, but there are no painted indications of this. Also, on the north side from Airport Road westward until it is in front of the Stop and Shop driveway the bike lane is only around 3 feet wide.

Challenges	Opportunities
Obstacles in sidewalk	Sidewalk expansion on north to Phelps Avenue
Inconsistent sidewalk on both sides	Crosswalk lines
Lack of marked crosswalks	

Airport Road to Phelps Road

The north side of the road has no pedestrian facilities except at the very end in front of the church. This small segment also has a bus shelter. On the south side of State Road there is a sidewalk for the entire length. From Airport Road to Hawthorne Avenue the sidewalk is adjacent to the road, however after Hawthorne Avenue a grass strip separates the sidewalk from the road. The intersections of Hawthorne Avenue, Versilles Avenue and Chantilly Avenue all have new detectable ramps, but no crosswalks.

Both sides of the road have bike lanes that are 6-8 feet wide, except for as it approaches Phelps Avenue where both bike lanes are reduced to 4-5 feet wide. The lanes have bicycle lane symbols, however the fog lines at the intersections are incorrectly painted for the bike lanes. There also are not enough bicycle lane symbols.

The intersection with Phelps Road has crosswalks on the south and west sides, but the ramps are not detectable. Both crosswalks also have pedestrian crossing signals. There are non-detectable ramps on the north side of State Road, but no crosswalk. There are no ramps or crosswalks on the east side of the intersection. The Appalachian Trail comes down Phelps Road, crosses State Road and then heads up to the pedestrian bridge that crosses the Hoosic River. This bridge has a ramp to access it. There is a school crossing sign, but no other pedestrian signs at this intersection.

Challenges	Opportunities
Lack on sidewalk on most of north side	Sidewalk expansion on north to Phelps Avenue
Lack of crosswalks	Crosswalk lines
	Improved signage for Appalachian Trail

Phelps Road to Protection Avenue

The north side of State Road has a sidewalk for the first 800 feet, which has a grass strip separating it from the road. The sidewalk abruptly ends with no connection to another sidewalk or the road. The road then does not have a sidewalk for about 850 feet, where it then picks up a short sidewalk of about 70 feet. This then ends and there is no sidewalk for another 130 feet and then there is a sidewalk to the intersection with Protection Avenue. This last segment is next to the road with no separation. On the south side, there is a sidewalk for the entire length.

On both sides of the road there is a 6-8 foot bike lane until midway past the Greylock Mill where it transitions to a sharrow. There are signs at this transition at both sides that the bike lake starts/ends. Where there is a sharrow, the shoulder narrows to 1-2 feet due to having a turning lane in the middle of the road.

The intersection with Protection Avenue has detectable ramps on the south and west sides and detectable ramps on the north side. The northwest corner has a diagonal ramp, while the northeast and south east ramps faces west. The southwest ramp and detectable warning only faces east, so there is no warning for those crossing to the north.

Challenges	Opportunities
Inconsistent sidewalk on north	New sidewalk on north

Protection Avenue to Roberts Drive

Both sides of the road have sidewalks their entire length. The sidewalks are separated from the road by a grass strip, except for a section on the north side between the bridge and Greylock Avenue. In this small section, there are also obstructions in the sidewalk. The bridge over the Hoosic River has lips preventing easy passage on the sidewalk on the north.

The intersection with Taft Street has a crosswalk and detectable ramps, however the ramps are diagonal while the crosswalk is only east-west. The intersection with New Street has detectable ramps and a crosswalk. The Greylock Avenue intersection has detectable ramps and crosswalks on the north and south side, however the ramp on the northwest corner is diagonal and almost south facing. There is a crosswalk crossing State Road on the west side of Grant Street that has ramps with detectable warnings and pedestrian crossing signs. The actual Grant Street intersection has an east/west crosswalk, however the detectable ramps are diagonal.

Biltmore Avenue has a similar ramp configuration with Grant. The Demond Avenue intersection has a crosswalk with detectable ramps and there is a crosswalk across State Road after the intersection. This crosswalk has detectable ramps and pedestrian signs. College Avenue and Harding Avenue both have detectable ramps and east-west crosswalks. There is a crosswalk across State Road between Biltmore Avenue and Harding Avenue. This crosswalk has detectable ramps and pedestrian signs.

The sidewalk on the north side Demond Avenue and Roberts Drive has numerous driveway entrances to commercial businesses, however all the sidewalk ramps at the driveways are in poor condition. There is a Pedestrian warning sign on the north side shortly after Roberts Drive.

The Roberts Drive intersection has a crosswalk across Roberts, but the ramps are perpendicular to the sidewalks and face into State Road, which may cause problems for the handicapped

Due to a turning lane in the middle of the road, both sides have a sharrow and only a 1-2 foot shoulder.

Roberts Drive to Notch Road

There is a sidewalk on both sides of State Road the entire length of this segment. The sidewalk is separated from the road by a grass strip. The intersection with Brayton Hill Terrace has a crosswalk on the south and east sides, but the ramps are not detectable. There are pedestrian crossing signals for both crosswalks. The Notch Road intersection has a crosswalk and detectable ramp.

There is a sharrow on the west side of the bridge, but no bike facilities east of the bridge. The north shoulder /fog line is about 8 feet wide where the sharrow is but then reduces to 2-3 feet across the bridge. At the old gas station, it widens back to 6-8 feet. On the south side the shoulder is consistently 2-3 feet wide.

Challenges	Opportunities
Inconsistent sidewalk	New sidewalk on north side
Lack of modern crosswalks and ramps	Upgrade ramps and crosswalks
	Wide shoulders could be restriped for bike lanes

West Main Street

Notch Road to Brown Street

Both sides of West Main Street have sidewalks immediately adjacent to the road. There are a few spots where the sidewalks are narrow than 5 feet and there are obstructions on the sidewalk throughout the segment, especially on the north side. The sidewalks also are interrupted by driveways, cutting the width of the sidewalk in half. Between West End Terrace and Richview Avenue there is a retaining wall on the south side which dangerously leans over the sidewalk.

The intersections of Marion, West End Terrace, Goodrich Street, Richview Avenue, and Walden Street have ramps, but none of them are detectable. The Brown Street intersection has two crosswalks, one on the north side and one on the east side, however neither has ramps.

There is a crosswalk crossing West Main Street at Marion, however there are no ramps. The crossing does have a pedestrian crossing sign, but only for westbound traffic. At Richview Avenue there are two crosswalks across West Main Street. They both start at the south west corner and one crosses directly north while the second crosses diagonally to the north west. The purpose of having both crosswalks in unknown. None of these crossings have ramps

There are no bicycle facilities throughout this segment. The shoulder and fog line throughout is generally between 8 and 10 feet. It is reduced to around 3 feet on the north side just west of Goodrich Street and on

the south side in front of the cemetery on the curve. The shoulder on the both sides allows on-street parking, with the north side often being used in the residential areas. The south side gets used to a lesser degree.

Challenges	Opportunities
Crosswalks and ramps not up to code	Wide shoulders can be restriped for bike lanes
Some On-Street parking	Replace sidewalks
Sidewalk condition	Upgrade ramps and crosswalks
Lack of modern ramps	

Brown Street to Veterans Memorial Drive

Both sides of West Main Street have sidewalks, which are adjacent to the roads. The sidewalks are slightly narrower and have obstructions throughout as well as driveways interrupting the width of the sidewalk. The south sidewalk between Grimes street and Veterans Memorial Drive has retaining wall that are in various conditions and may impact pedestrians. The Grimes Street intersection has a crosswalk with detectable ramp. The Veterans Memorial Drive intersection has a crosswalk across west Main Street, but the ramps are not detectable.

There are no bicycle facilities on this segment of the road. The shoulders are 6-8 feet wide except on the south side close to Veterans Memorial Drive. On street parking is allowed on the north side just beyond Grimes Street until Main Street, but is not allowed on the south side.

Challenges	Opportunities
On-Street parking	Restripe for bike lane
Failing retaining walls	Replace sidewalks and address retaining walls
Sidewalk condition	

Veterans Memorial Drive to State Street

West Main from Veterans Memorial Drive to State Street has sidewalk on both sides with some obstructions, such as light poles and signs. The intersection with High Street has detectable ramps, but they are diagonal and face into the West Main Street, even though the crossing is on High Street. There are no shoulders on West Main Street.

Challenges	Opportunities
Lack of shoulders	Widen shoulders

Brown Street

Brown Street has a sidewalk on the west side from River Street south to the railroad bridge. This sidewalk is overgrown with major cracks and heaves and has obstructions in the middle (hydrants and poles). There is also a lip at the bridge over the Hoosic River. The east side has a sidewalk the entire length and has similar issues to the west side north of the railroad bridge. After the railroad bridge the sidewalk improves and has detectable warnings and curb ramps at Grimes Street.

Throughout the entire road, there is no fog line, however the road is wide enough to support shoulders, except at the railroad bridge which restricts the width of the road.

Challenges	Opportunities
Inconsistent sidewalk	New Sidewalk
Sidewalk condition	Shoulder markings
Narrow bridge underpass	

Roberts Drive

There is a sidewalk on the east side of the road from State Road north to West Main Street. The sidewalk is overgrown in places and does not have any ramps at the road/driveway intersections.

There is no shoulder or fog line through the entirety of Roberts Drive. The road is of sufficient width to include shoulders, except for the west side from Massachusetts Avenue south to West Main Street.

Challenges	Opportunities
Massachusetts Ave intersection	New sidewalk
Incomplete sidewalk	
Sidewalk condition	
Narrow bridge underpass	

Protection Avenue

State Road to Massachusetts Avenue

There is a sidewalk on the west side of the road from State Road until it crosses the river at which point the sidewalk stops. The sidewalk is directly next to the road and has a single obstruction of a telephone pole. There is a shoulder and fog lines on both sides of the road from State Road until the railroad crossing, however it is only about 1 foot wide. Beyond the railroad tracks there is no shoulder.

Challenges	Opportunities
Incomplete sidewalk	New sidewalk
Sidewalk condition	

State Road to Barbour Street

There is a sidewalk on both sides of Protection Avenue from State Road southward until it turns west. They are narrow sidewalks with telephone poles obstructing the east side. There are no shoulders on this road. When the sidewalks end, it is a sharp corner west followed by a sharp corner south. This is a dangerous corner for all forms on travel. Shortly after the second corner is a public park and athletic fields.

Challenges	Opportunities
Incomplete sidewalk	New sidewalk

Ashton Avenue

State Road to Massachusetts Avenue

There is a narrow sidewalk adjacent to the road the entire length of the west side, except for around the corner after Kateley Way. There is also a sidewalk on the east side for about 250 feet ending at Massachusetts Avenue. The sidewalk ramps are not detectable. There is no shoulder or fog line on this road.

Challenges	Opportunities
Incomplete sidewalk	New sidewalk

Chenaille Terrace

Chenaille Terrace has a sidewalk on both sides and ramps onto State Road, however the sidewalks are narrow and have some obstructions. There are no shoulders or fog lanes on the road.

Barbour Street Neighborhood

This neighborhood has sidewalks on Phelps Avenue, Meade Avenue, Foucher Avenue, and Greene Avenue as well as Catherine Street and Barbour Street east of Phelps Avenue. These sidewalks are narrow and have few ramps connecting them to the road. There are two crosswalks, one across Phelps Avenue and one across Watson Street. Both are due to the school on the east side of Phelps Avenue. The Watson Street crossing has ramps, but they are not detectable. The Phelps Avenue crossing has a ramp on the west side, but does not connect to a sidewalk on the east side. There are no shoulders or bicycle facilities in this neighborhood.

Challenges	Opportunities
Sidewalk conditions	New sidewalks
Lack of ramps	New ramps/crosswalks for school
School	

Taft Street

There is a sidewalk on both sides of Taft Street. The sidewalks are narrow, but are separated from the road with a grass strip. Both sides abruptly end just before New Street. There are also missing sidewalk segments that are now grass. The intersection with State Road does not have ramps or crosswalks. There are no shoulders or fog lines on this road.

Challenges	Opportunities
Sidewalk condition	New sidewalk
	Sidewalk Connection to Protection Avenue

Greylock Apartments Neighborhood

Angeli Street, Grant Street, Greylock Avenue, Isebell Street, and Sutton Street all have sidewalks, however the sidewalks do not have ramps. There are no shoulders or fog lines in this neighborhood.

Challenges	Opportunities
Accessible curb ramps	Install accessible curb ramps

Brayton Hill Terrace

There is a sidewalk on the west side of this road. There is a crosswalk across Brayton Hill Terrace that connects to the school without detectable ramps. There is also an unused bus shelter across from the school at the crosswalk. A sidewalk is located on the east side of the road that cuts the corner of State Road and connects to Brayton Hill Terrace shortly before the school driveway, however it does not continue to the school or connect to the remaining sidewalk. There are informal trails leading to the school, one from Brayton Hill Terrace and one from Notch Road. There are no shoulders or painted fog lines in this neighborhood.

Challenges	Opportunities
Terrain	Identify informal trails and make accessible

Notch Road Neighborhood

There is a sidewalk on the east side of Notch Road extending from West Main Street to the intersection with Woodlawn Avenue as well as on the west side from West Main Street to Pershing Street. The sidewalk is immediately adjacent to the road and has obstructions from telephone poles. The driveway ramps are also

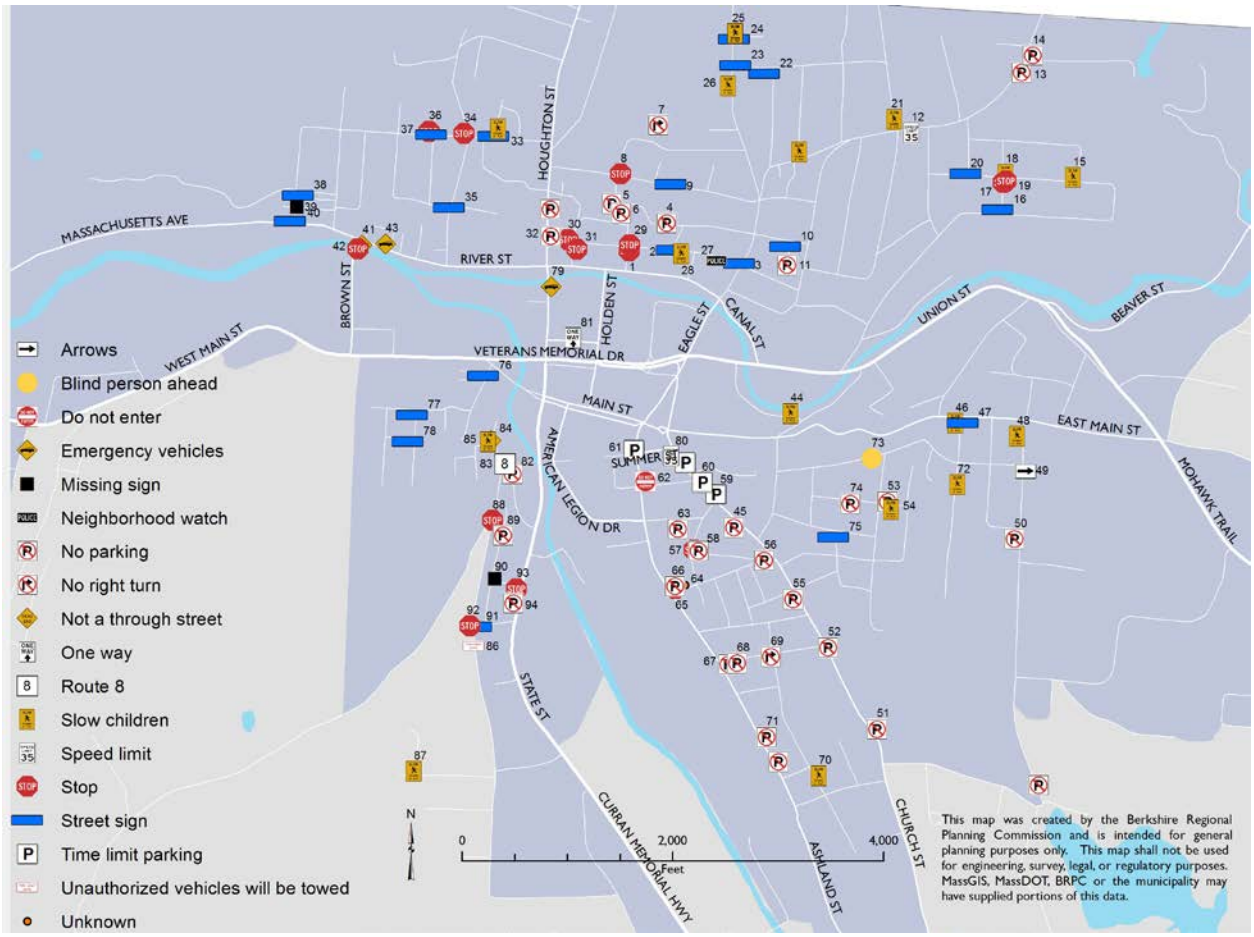
steep in some areas. There are also sidewalks on Pershing Street and Marion Avenue. These sidewalks do not have accessible curb ramps. There are no shoulders or painted fog lines in this neighborhood.

Challenges	Opportunities
Sidewalk conditions	New sidewalks
Intersection with West Main Street	Crosswalks and ramps at Notch and Marion with West Main Street

Traffic Sign Assessment

As part of field work and at the request of the city, BRPC identified damaged, faded, and defaced traffic and street signs to prioritize replacement. Locations of street and traffic signs in need of replacement can be seen in **Figure B1**.

Figure B1. Replacement Sign Locations



APPENDIX C: COMPLETE LIST OF POTENTIAL IMPROVEMENTS

Table C1 outlines the complete list or "universe" of all potential complete streets improvements identified by the North Adams Complete Streets Working Group. Project locations have also been mapped in **Figure C1.**

Red text in the table denotes projects that are located along state highways, and which are not eligible for funding through the MassDOT Complete Streets Program. The City should work closely with MassDOT to advocate for and include these improvements in future state roadway work. The projects were not given a project number, but ranked as 17th (Route 8) and 22nd (Route 2). They are displayed in their rank location in **Table C1**.

Below the table are project descriptions for each of the potential improvements, in order of weighted score. If a detailed cost estimate was developed, it is displayed below each project.

Table C1. Complete List of Potential Improvements

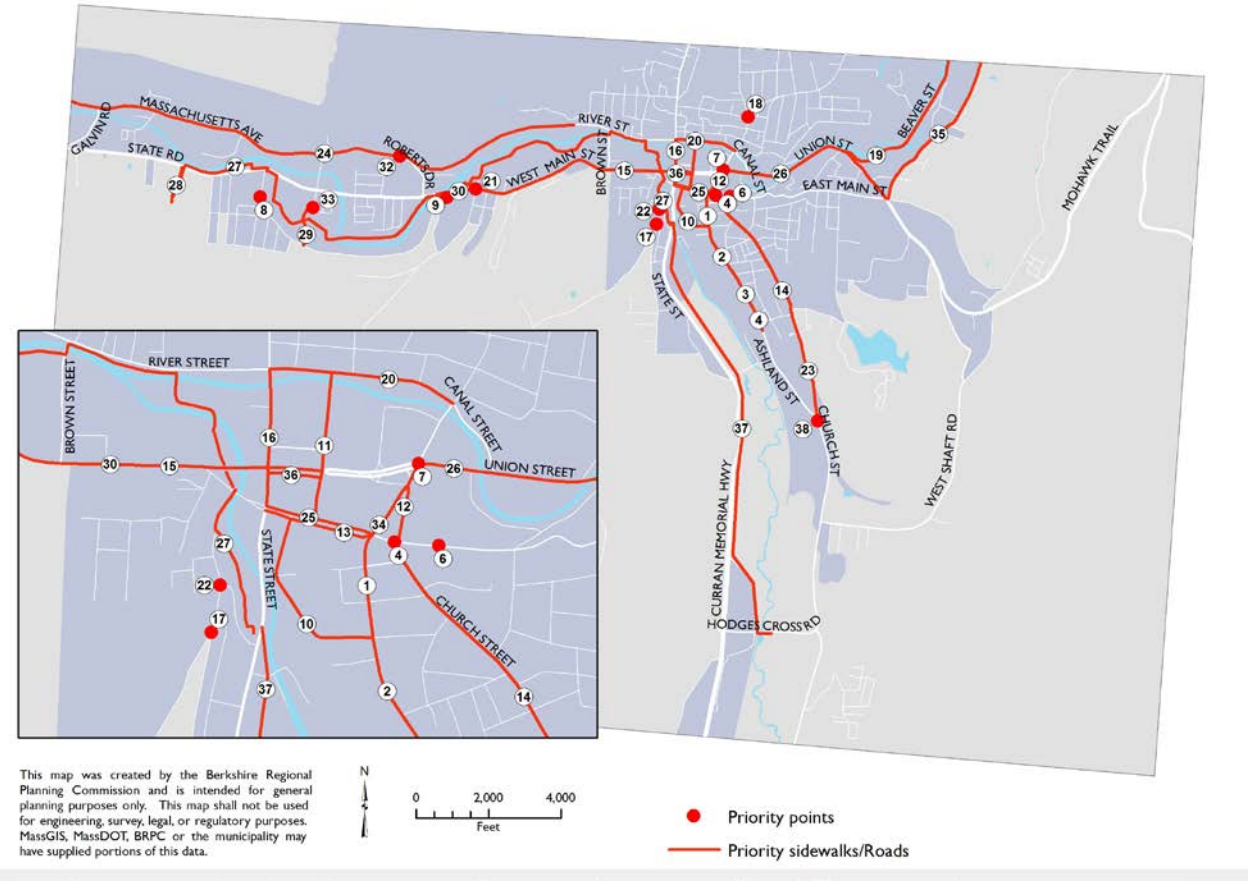
			Project Readiness	Usability	Safety	Safe Routes to School	Traffic Calming	Connectivity	Score Unweighted	Score Weighted
PROJECT #	PROJECT TYPE	PROJECT LOCATION WEIGHT	1.48	1.81	2.45	0.8	2	1.46	-	-
PROJECT 1	Pedestrian and Biking Corridor Improvements, possible one-way designation	Ashland St. (Phase 1)	0	3	3	2	3	3	14	24.76
PROJECT 2	Pedestrian and Biking Corridor Improvements, possible one-way designation	Ashland St. (Phase 2)	0	3	3	2	3	3	14	24.76
PROJECT 3	Pedestrian and Biking Corridor Improvements, possible one-way designation	Ashland St.(Phase 3)	0	3	3	2	3	3	14	24.76
PROJECT 4	Pedestrian and Biking Corridor Improvements, possible one-way designation	Ashland St (Phase 4)	0	3	3	2	3	3	14	24.76
PROJECT 5	Intersection Reconstruction	Main St./ Church St. intersection @ library	0	3	3	2	3	3	14	24.76
PROJECT 6	Traffic Calming	East Main St @ Colgrove School	0	3	3	2	3	3	14	24.76
PROJECT 7	Intersection Reconstruction	Union St./Eagle St./ Veterans Memorial Highway	0	3	3	3	2	3	14	23.56
PROJECT 8	Traffic Calming	Phelps Rd @ Greylock School	0	3	3	3	3	1	13	22.64

			Project Readiness	Usability	Safety	Safe Routes to School	Traffic Calming	Connectivity	Score Unweighted	Score Weighted
PROJECT 9	Traffic Calming	Brayton Hill Terr/Barbour St. @ Brayton School	0	3	3	1	2	3	12	21.96
PROJECT 10	Designated Bike Lanes	American Legion Drive	0	2	3	3	3	1	12	20.83
PROJECT 11	Designated Bike Lanes	Holden St.	0	2	3	3	3	1	12	20.83
PROJECT 12	Bike / Pedestrian Accommodations	Church St - from Main St. to Union St./Route 2	3	1	3	0	2	1	10	19.06
PROJECT 13	Bike / Pedestrian Accommodations	Main St. - Marshall to Eagle	3	1	3	0	2	1	10	19.06
PROJECT 14	Bike / Pedestrian Accommodations and One-Way street designation	Church St. - South of Main St.	0	3	3	1	1	2	10	18.5
PROJECT 15	New Bike Lanes and traffic calming (feedback sign)	Route 2 Sacco Bridge to West Main St. and overpass to Holden St.	0	3	3	1	1	2	10	18.5
PROJECT 16	New Bike Lanes and traffic calming (feedback sign)	Route 2 Sacco Bridge to West Main St. and overpass to Holden St.	0	3	3	0	2	1	9	18.24
	Pedestrian and Cycling Improvements	Route 8(MassDOT)	0	1	3	0	3	1	8	16.62
PROJECT 17	Bike / Pedestrian Accommodations	Marshall St. - Main to River	0	3	3	0	1	2	9	17.7
PROJECT 18	Intersection safety improvements	Furnace St / Reservoir Rd.	0	3	1	0	2	3	9	16.26
PROJECT 19	Intersection safety Improvements	Franklin / Eagle / Liberty / Wesleyan	0	3	1	0	2	3	9	16.26
PROJECT 20	Sidewalk replacement	Beaver St.	0	3	3	0	1	1	8	16.24

			Project Readiness	Usability	Safety	Safe Routes to School	Traffic Calming	Connectivity	Score Unweighted	Score Weighted
PROJECT 21	Sidewalk replacement and intersection improvements	River St. - East End, countdown timers at River St. / Eagle St. int. + Repaint Crosswalks	0	3	3	0	1	1	8	16.24
	Pedestrian and Cycling Improvements	Route 2 (MassDOT)	0	3	1	2	2	1	9	14.94
PROJECT 22	Intersection Reconstruction	Notch Rd / Route 2	0	2	1	0	2	3	8	14.45
PROJECT 23	Intersection improvements / reduce turning radii	Furnace St / Furnace St. Bypass	0	2	1	0	2	3	8	14.45
PROJECT 24	New Sidewalk	Church St. -- sidewalk (gap to Ashland Int.)	0	2	3	0	1	1	7	14.43
PROJECT 25	Bike / Pedestrian Accommodations	Mass. Ave.	0	1	3	0	1	2	7	14.08
PROJECT 25	New Curb Extensions (Bump-outs @ 6 locations), bike rack, crosswalk restriping, pedestrian yield signs	Main St. bumpouts at crossings (6 locations) + New Crosswalks + Bike Racks + In street ped. yield sign.	0	3	1	0	3	0	7	13.88
PROJECT 26	Sidewalk repairs (sections), Install new ADA compliant curb ramps	Union St	0	1.5	3	0	1	1	6.5	13.525
PROJECT 27	Shared-Use Path	Bike path extension from Williamstown	0	2	1	0	1	3	7	12.45
PROJECT 28	New Sidewalk and Sharrows	Bud Dougherty Airport Way to State Rd. (Rt. 2) (end of bike path to route 2 corridor)	0	2	1	0	1	3	7	12.45

			Project Readiness	Usability	Safety	Safe Routes to School	Traffic Calming	Connectivity	Score Unweighted	Score Weighted
PROJECT 29	Providing new sidewalks	Protection Ave through Alcombright Athletic Fields	0	3	1	1	1	1	7	12.14
PROJECT 30	Comprehensive wayfinding system	Replace existing wayfinding + Walking loop wayfinding + On-building signs	0	3	0	2	0	3	8	11.41
PROJECT 31	New Sidewalk	West Main St.	0	3	1	0	1	1	6	11.34
PROJECT 32	Intersection Reconstruction	Mass. Ave. @ Roberts Dr.	0	1	3	0	1	0	5	11.16
PROJECT 33	Road Realignment – remove dangerous corner	Protection Ave @ Alcombright Athletic Fields	0	3	1	1	1	0	6	10.68
PROJECT 34	Pedestrian Street	Eagle St.	0	3	1	1	1	0	6	10.68
PROJECT 35	New Sidewalk	Walker St. (coincide with full depth reclamation in 2018)	0	2.5	1	0	1	1	5.5	10.435
PROJECT 36	Pedestrian Street	Center St. (portions)	0	3	1	0	1	0	5	9.88
PROJECT 37	Shared-Use Path	Bike path extension from Hodges Cross Rd.	0	0	1	1	1	3	6	9.63
PROJECT 38	Intersection Reconstruction	Church St. / Ashland St.	0	2	1	0	0	1	4	7.53

Figure C1. Potential Improvements



Project Descriptions (in order of weighted score) and Cost Estimates

Cost Estimates

Cost estimates were prepared by BRPC for the City of North Adams. Cost estimates are for conceptual purposes only and are not based on construction drawings or other engineering design. Only by City investment in design and engineering and full evaluation by an engineer or designer will more accurate project costs be developed. Project area sizes and sidewalk lengths were estimated using Google Earth Pro and conditions were evaluated through field work by BRPC staff. Estimated costs were prepared using data from the MassDOT Weighted Bid Averages.[78] All projects costs were estimated with a 15% contingency added to the total, and potential design/engineering costs were estimated as 10% of anticipated construction costs (including contingency). It is crucial that the City update its Tier 2 spreadsheet in **Appendix D** from year to year as cost estimates and project descriptions are revised. MassDOT requires that cost estimate totals submitted as part of Tier 3 match those provided in its Tier 2 spreadsheet.

Projects 1-4: Ashland St. Corridor Improvements

This project is based on the recommendations of the Ashland St. Corridor Study conducted by the Cecil Group, and was budgeted based on a middle construction cost value of $5 million dollars provided by the designers and was divided equally amongst the four proposed project segments and phases ($1.25 million per

[78] Available from: https://hwy.massdot.state.ma.us/CPE/WeightedAverageCriteria.aspx

phase). This project will enhance the streetscape along Ashland St and improve both pedestrian and cycling facilities. The motivation for this project is to improve nonmotorized connections between MCLA and the North Adams Downtown. During the planning process BRPC noted several potential aspects of the project which could be added to the scope of work. Firstly, Ashland St. is home to senior housing at the Ashland Park Apartments. Anecdotally, focus group participants noted that some residents of the apartments use motorized wheelchairs and often travel on the shoulder of Ashland St. to and from downtown. The city should consider installing a wider sidewalk along Ashland St. near the apartments to enable easier travel by disabled residents. The need for an additional transit shelter on the opposite side of Ashland St. near the existing MCLA stop was also noted so that transit riders can avoid crossing the street during bad weather. Thirdly, the has expressed a desire to examine creation of one-way streets along Ashland and Church. Conversion to one-way street will increase the width available for nonmotorized improvements. The city should keep these potential additions to the project in mind as it advances design and engineering of the Ashland St. Corridor. A detailed cost estimate for Projects 1-4 was not prepared. The city can request up to $400,000 in construction funding per year for each of these phases.

Project 5: Main St. / Church St. Intersection Reconstruction

This project would reconstruct the intersection of Main St. and Church St near the war memorial with the goal of reducing its complexity for all users. It may be possible to reconstruct this intersection as a roundabout, however, more detailed study is needed. Project costs were estimated based on recent roundabout construction along Route 8 in Adams. For Project 5, a detailed cost estimate was not developed. Estimates are based on recent roundabout work in Adams. The project was estimated at $900,000 in total.

Projects 6, 8, 9: Colgrove, Greylock, and Brayton School Traffic Calming

These projects are proposed as a suite of potential traffic calming options near the city's three elementary schools. The projects include budget line items for restriping, repainting of crosswalks, potential speed feedback signs and replacement of existing stop signs near the schools with LED-embedded flashing signage.

School Traffic Calming Projects					
	Materials	NA			
	Side	NA			
	Lengths	NA			
Item #	**Site Prep and Demolition**	**Units**	**Cost/Unit**	**Estimate**	**Cost**
850.41	Police Detail (2x for 2 days)	HR	40	32	$ 1,280.00
Item #	**Speed Feedback Sign (2x)**	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
	Concrete Footing	Each	$ 300.00	2	$ 600.00
	Speed feedback sign w/ solar panel	Each	$5,000.00	2	$ 10,000.00
	Delivery	LS	$300.00	1	$ 300.00
	Mounting Pole	Each	$400.00	2	$ 800.00
Item #	**New Signage & Mark Lanes**	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
	Allowance for new striping/crosswalks	Allow	$2,000.00	1	$ 2,000.00
	Allowance for new signage	Allow	$1,000.00	1	$ 1,000.00
Item #	**Flashing Stop Sign**	**Unit**	**Cost/Unit**	**Estimate**	**Cost**

	Flashing Stop Sign w/ solar panel	Each	2,000	3	$ 6,000
	Mounting Pole	Each	400	3	$ 1,200
	Concrete Footing	Each	$ 300.00	3	$ 900
	Subtotal				$ 24,080
	15% Contingency				$ 3,612
	Total Requested from MassDOT				**$ 27,692**
	Design and Engineering				
	10% of Project Total				$ 2,769
	Total (Request + design and permitting)				**$ 30,461**

Project 7: Eagle St. / Union St. / Route 2 Intersection Reconstruction

This project would reconstruct the intersection of Eagle St. Union St. and Route 2 near the Dunkin' Donuts. As with Project 5, it might be possible for this intersection to be reconstructed as a rotary, however, further study is needed. Conceptual costs were estimated at $900,000.

Project 10: American Legion Drive Bike Lanes

This project would install two six-foot wide bike lanes along both sides of American Legion Drive. Installation of the bike lanes would require the removal of parking along one side of the street. This project was proposed to accompany proposed bike lanes along Ashland St (Projects 1-4) and provide an alternative route for cyclists travelling between MCLA and downtown. The city is expected to repave American Legion Drive during the summer of 2017, during which bike lanes could be easily striped and new signage added for little additional cost to the project. However, the cost estimate was developed anticipating potential reimbursement for pavement milling and repaving. While included on the city's Tier 2 list, it is likely that that the city will pursue construction of this project with its own funding.

American Legion Drive - Bike Lanes - Striping and Signage Only					
	Materials	NA			
	Side	Both			
	Lengths	1650			
Item #	**Site Prep and Demolition**	**Units**	**Cost/Unit**	**Estimate**	**Cost**
874.2	Parking Meter Removed and Stacked	Each	75	6	$ 450.00
	New Bike Lanes	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
860.106	New Center Line	FT	0.37	3,300	$ 1,221.00
860.106	New Fog Line / Bike Lane	FT	0.37	6600	$ 2,442.00
877.3	No Parking/Bike Lane Sign Post	Each	$300.00	8	$ 2,400.00
832	No Parking/Bike Lane Sign (4 -Bike Lane MUTCD R3-17) (4 - No Parking / Bike Lane R7-9)	Each	$20.00	8	$ 160.00

	Bike Lane Marking Stencil (Figure 9C-3 -Helmeted Bicyclist and Arrow)	Each	$200.00	2	$ 400.00
	Misc. Bike Lane Marking/Paint	Allow	$300.00	1	$ 300.00
	Total				**$ 7,373**

Project 11: Holden St. Bike Lanes

This project would install two five-foot wide bike lanes along Holden St. between River St. and Veterans Memorial Drive. To install the lanes, the city would need to eliminate on-street parking along both sides of this roadway.

Holden St. - Bike Lanes					
	Materials	NA			
	Side	Both			
	Lengths	850			
Item #	**Site Prep and Demolition**	**Units**	**Cost/Unit**	**Estimate**	**Cost**
850.41	Police Detail (2x for 2 days)	HR	40	32	$ 1,280.00
	Site Prep and Demolition	**Units**	**Cost/Unit**	**Estimate**	**Cost**
415	Micro Milling (5' bike lane each side)	SY	5	950	$ 4,750.00
	New Bike Lanes	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
460	1" Asphalt overlay for lanes (5' each side) DOES NOT INCLUDE ASPHALT FOR VEHICLE LANE	Ton	85.00	55	$ 4,675.00
464	Asphalt Emulsion for Tack Coat (.05 Gal/Sq Yd)	Gal	$10.00	50	$ 500.00
860.106	New Center Line	FT	0.40	1,700	$ 680.00
860.106	New Fog Line / Bike Lane	FT	0.40	3400	$ 1,360.00
877.3	No Parking/Bike Lane Sign Post	Each	$289.50	6	$ 1,737.00
832	No Parking/Bike Lane Sign	Each	$10.50	6	$ 63.00
	Repaint Crosswalks	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
861.112	Assume 2 x 12" stripes at 40' length each with ladder bars (180' of stripe per crosswalk)	FT	$1.00	360	$ 360.00
	Subtotal				$ 15,405
	15% Contingency				$ 2,311
	Total Requested from MassDOT				**$ 17,716**

	Design and Engineering				
	10% of Project Total				$ 1,772
	Total (Request + design and permitting)				**$ 19,487**

Project 12: Church St. Pedestrian and Cycling Accommodations (Long Term)

This project would improve nonmotorized transportation along Church St. from Route 2 south to Main St. This project would potentially widen the roadway to allow two-way traffic, replace existing sidewalk and install bike lanes or other cycling accommodations. This project is proposed as a long-term solution to enhance nonmotorized transportation in the downtown area. Due to the long-term nature of the project, a detailed cost estimate was not prepared. Construction costs were estimated at $500,000.

Project 13: Main St. Pedestrian Improvements

This project would install pedestrian curb extensions, also known as bump-outs or bulb outs, at six existing crossings along Main St. Proposed work also includes repainting existing crosswalks and new in-street pedestrian yield signs, as well as installation of a bike rack along Main St. This project is proposed as a short-term intervention to address walkability on Main St. In the long-term the city should examine a more comprehensive project along Main St. to improve both biking and walking (see Project 37).

Main St. Bump-outs and Pedestrian Improvements					
	Materials	Concrete w/ Granite curb			
	Side	both			
	Lengths	NA			
Item #	**Site Prep and Demolition**	**Units**	**Cost/Unit**	**Estimate**	**Cost**
850.41	Police Detail (2x for 14 days)	HR	40	224	$ 8,960.00
	Site Prep and Demolition	**Units**	**Cost/Unit**	**Estimate**	**Cost**
129	Concrete Excavation (assume 6" depth @ 50sy per bumpout)	CY	75	120	$ 9,000.00
120.1	Unclassified Excavation (assume 1')	CY	35	200	$ 7,000.00
	Sidewalk Replacement	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
701	New Concrete sidewalk (estimate 40sy per bumpout @ 12 bumpouts)	SY	60.00	480	$ 28,800.00
151	Gravel Borrow (assume 6" at each bumpout location)	CY	$38.00	80	$ 3,040.00
503	New Granite Curb (estimate 30 ft of new curb per bumpout)	FT	$40.00	360	$ 14,400.00
580	Reseting granite curb (estimate 10 ft /bumpout)	FT	$22.00	120	$ 2,640.00
701.2	Curb Ramps (Assume 10 sq yds / bumpout @ 12 bumpouts)	SY	$80.00	120	$ 9,600.00

451	Asphalt pavement patching (assume 1 ton at each bumpout location)	Ton	$85.00	12	$ 1,020.00
	New Bike Rack	Each	$1,000.00	1	$ 1,000.00
	Repaint Crosswalks and Pedestrian Signs	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
860.106	Assume 2 x 12" stripes at 80' length each with ladder bars (360' of stripe per crosswalk)	FT	$1.00	2,160	$ 2,160.00
	In-street Pedestrian Yield Sign (MUTCD RI-6)	Each	$400.00	6	$ 2,400.00
	Subtotal				$ 87,620
	15% Contingency				$ 13,143
	Total Requested from MassDOT				**$ 100,763**
	Design and Engineering				
	10% of Project Total				$ 10,076
	Total (Request + design and permitting)				**$ 110,839**

Project 14: Church St. Pedestrian and Bicycle Accommodations and One-Way Designation

This project is proposed as a long-term comprehensive redesign of Church St. from Main St. south to the intersection with Ashland St. to improve walking and biking. Due to the long-term nature of the project and its complexity, a detailed cost estimate was not developed.

Project 15: Route 2 / West Main St. Bike Lanes

This project would install bike lanes along Route 2 / West Main St. from the Sacco Bridge east to Holden St. As with other proposed bike lanes projects, addition of bike lanes requires the elimination of on-street parking on West Main, likely on the south side of the street. Installation of bike lanes along West Main St. would help connect the North Adams downtown with bike lanes along the Route 2 corridor and into Williamstown. This segment of roadway was also noted as having a high bicycle utility score. The cost estimate includes line items for pavement milling and overlay with a fresh layer of asphalt, as well as new signage and striping. However, if constructed as part of an upcoming repaving project, costs would be minimal. Installation of two traffic calming speed feedback signs was also included in the project budget.

West Main - Bike Lanes					
	Materials	NA			
	Side	Both			
	Lengths	6900			
Item #	**Site Prep and Demolition**	**Units**	**Cost/Unit**	**Estimate**	**Cost**
850.41	Police Detail (2x for 7 days)	HR	40	112	$ 4,480.00

Item #	Site Prep and Demolition	Units	Cost/Unit	Estimate	Cost
415	Micromilling (5 foot lane on both sides)	SY	5	7,700	$ 38,500.00
415	Micromill center line	SY	5	310	$ 1,550.00
Item #	**New Bike Lanes**	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
460	1" Asphalt overlay for lanes	Ton	85.00	431	$ 36,635.00
460	1" Asphalt overlay for center stripe	Ton	85.00	43	$ 3,655.00
464	Asphalt Emulsion for Tack Coat (.05 Gal/Sq Yd)	Gal	$10.00	400	$ 4,000.00
860.106	New Fog Lines / Bike Lane (2 @ 6" both sides)	FT	$0.40	27,600	$ 11,040.00
860.106	New Center Lines (2 @ 6")	FT	$0.40	13,800	$ 5,520.00
	Misc. Bike Lane Markings	Allow	$3,000.00	1	$ 3,000.00
877.3	No Parking/Bike Lane Sign Post	Each	$289.50	7	$ 2,026.50
832	No Parking/Bike Lane Sign	Each	$10.50	7	$ 73.50
Item #	**Repaint Crosswalks**	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
861.112	Assume 2 x 12" stripes at 40' length each with ladder bars (180' of stripe per crosswalk)	FT	$1.00	1,440	$ 1,440.00
Item #	**Speed Feedback Sign (2x)**	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
	Concrete Footing	Each	$ 300.00	2	$ 600.00
	Speed feedback sign w/ solar panel	Each	$5,000.00	2	$ 10,000.00
	Delivery	LS	$300.00	1	$ 300.00
	Mounting Pole	Each	$400.00	2	$ 800.00
	Subtotal				$ 123,620
	15% Contingency				$ 18,543
	Total Requested from MassDOT				**$ 142,163**
	Design and Engineering				
	10% of Project Total				$ 14,216
	Total (Request + design and permitting)				**$ 156,379**

Project 16: Marshall St. Pedestrian and Cycling Accommodations

This project is proposed as a long-term comprehensive redesign of Marshall St. to improve walking and biking. Due to the long-term nature of the project and its complexity, a detailed cost estimate was not developed.

Project 17: Furnace St. / Reservoir Road Intersection Reconstruction

This project would reconstruct the intersection of Furnace St. and Reservoir Road. The intersection is currently in a Y-configuration and is controlled by a stop sign along Furnace St. Due to the need for replacement of a large retaining wall, the project was estimated at $300,000 and a detailed cost estimate was not developed.

Project 18: Franklin / Eagle / Liberty / Wesleyan Intersection Safety Improvements.

The project is proposed as low cost measures to improve safety at this complex intersection. This project would install new signage, including a flashing Yield sign along Eagle St. and allow for restriping of the intersection and installation of flexible delineator posts.

Intersection Safety Improvements - Franklin / Eagle / Liberty / Wesleyan					
	Materials	NA			
	Side	NA			
	Lengths				
Item #	**Site Prep and Demolition**	**Units**	**Cost/Unit**	**Estimate**	**Cost**
Item #	**New Signage & Mark Lanes on Eagle**	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
	Flashing Yield Sign	Each	$2,000.00	1	$ 2,000.00
	Reflectorized Flexible Delineator Post (allowance for 150' of posts spaced every 18")	Each	$42.50	100	$ 4,250.00
860.106	Allowance for new striping	Allow	$3,000.00	1	$ 3,000.00
	Allowance for new signage	Allow	$1,500.00	1	$ 1,500.00
	Subtotal				$ 10,750
	15% Contingency				$ 1,613
	Total Requested from MassDOT				**$ 12,363**
	Design and Engineering				
	10% of Project Total				$ 1,236
	Total (Request + design and permitting)				**$ 13,599**

Project 19: Beaver St. Pedestrian and Cycling Improvements

This project would replace all existing sidewalk and repaint crosswalks along Beaver St. as well as mill and overlay new bike lanes from the city line with Clarksburg south to the intersection with Route 2/Union St. As with other proposed bike lane projects, on-street parking may need to be eliminated. During FY 2018, MassDOT will repave Route 8 from the North Adams city line to the border with Vermont and improve sidewalks and bike lanes shoulders for this segment of roadway. This project is proposed to accompany that work. The city selected this project for potential funding during FY 2018.

The project has not yet undergone any engineering survey or design work. If the sidewalk and bike lane project stays strictly within the footprint of the existing road/sidewalk configuration, and involves little or no work in wetland resource areas, then the project is not likely to trip any Massachusetts Environmental Policy Act (MEPA) thresholds. Listed here are threshold criteria that would require an Environmental Notification Form and other possible MEPA review:

1. Unless the Project consists solely of an internal or on-site roadway or is located entirely on the site of a non-roadway Project:
   - construction of a New roadway one-quarter or more miles in length; or
   - widening of an existing roadway by four or more feet for one-half or more miles.

2. Construction, widening or maintenance of a roadway or its right-of-way that will:
   - alter the bank or terrain located ten more feet from the existing roadway for one-half or more miles, unless necessary to install a structure or equipment;
   - cut five or more living public shade trees of 14 or more inches in diameter at breast height; or
   - eliminate 300 or more feet of stone wall.

3. Wetland alteration:
   - alteration of 500 or more linear feet of bank along a fish run or inland bank;
   - alteration of 5,000 or more sf of bordering or isolated vegetated wetlands;
   - New fill or structure or Expansion of existing fill or structure, except a pile-supported structure, in a velocity zone or regulatory floodway; or
   - alteration of one half or more acres of any other wetlands.

Beaver St. - Sidewalk Replacement, Mill and Stripe New Bike Lanes					
	Materials	Concrete w/ Granite curb			
	Side	both			
	Lengths	4500 (road only)			
	South	Total Length	Driveway	Sidewalk	
	Int. of Union to corner	1000	140	860	
	corner to bridge	398	90	308	
	Bridge to end	670	130	540	
	North			0	
	End south to bridge	1900	140	1760	
	Bridge to bridge	630	180	450	
	bridge to south end	800	180	620	
	Totals	5398	860	4538	
Item #	**Site Prep and Demolition**	**Units**	**Cost/Unit**	**Estimate**	**Cost**
850.41	Police Detail (2x for 14 days)	HR	40	224	$ 8,960.00
	Site Prep and Demolition	**Units**	**Cost/Unit**	**Estimate**	**Cost**
129	Concrete Excavation (assume 6" depth	CY	75	550	$ 41,250.00
120.1	Excavation (assume 6" for entire Length)	CY	35	550	$ 19,250.00

	Sidewalk Replacement	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
701	New concrete sidewalk (5' width)	SY	50.00	2,520	$ 126,000.00
701.1	Concrete @ driveways	SY	60.00	480	$ 28,800.00
151	Gravel Borrow (assume 25% of entire length needs replacement to 6" depth)	CY	$38.00	125	$ 4,750.00
503	Allowance for new Granite Curb (20% of length)	FT	$40.00	910	$ 36,400.00
580	Allowance for resetting granite curb (80% of length)	FT	$22.00	3,630	$ 79,860.00
701.2	Curb Ramps (Assume 6 sq yds / ramp @ 6 ramps)	SY	$80.00	36	$ 2,880.00
	Repaint Crosswalks	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
861.112	Assume 2 x 12" stripes at 40' length each with ladder bars (180' of stripe per crosswalk)	FT	$1.00	540	$ 540.00
	Mill & Stripe Bike Lanes	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
415	Micromilling (5 foot lane on both sides)	SY	5	5,000	$ 25,000.00
460	1" Asphalt overlay for bike lanes	Ton	85.00	280	$ 23,800.00
464	Asphalt Emulsion for Tack Coat (.05 Gal/Sq Yd)	Gal	$10.00	250	$ 2,500.00
860.106	New Fog Lines / Bike Lane (2 @ 6" both sides)	FT	$0.40	18,000	$ 7,200.00
860.106	New Center Lines (2 @ 6")	FT	$0.40	9,000	$ 3,600.00
	Misc. Bike Lane Markings	Allow	$3,000.00	1	$ 3,000.00
877.3	No Parking/Bike Lane Sign Post	Allow	2,500	1	$ 2,500.00
832	No Parking/Bike Lane Sign	Allow	500	1	$ 500.00
	Subtotal				$ 416,790
	15% Contingency				$ 62,519
	Total Requested from MassDOT				**$ 400,000**
	Design and Engineering				
	10% of Project Total				$ 47,931
	Total (Request + design and permitting)				**$ 527,239**

Project 20: River St. Sidewalk Replacement and Intersection Improvements

This project would replace all existing sidewalk along River St. from the intersection of Marshall St. east to the intersection with Eagle St. In addition to sidewalk work, all curb ramps will be replaced, all crosswalks restriped, and pedestrian countdown signals will be installed at the intersection of River and Eagle St.

River St. - Sidewalk Replacement					
	Materials	Concrete w/ Granite and Concrete curb			
	Side	East			
	Lengths				
	South	Total Length	Driveway	Sidewalk	
	Marshall to Holden	525	225	300	
	Holden to Eagle	1130	435	695	
	North				
	Houghton to Chase	180	20	160	
	Chase to N. Holden	515	167	348	
	N. Holden to Freeman	600	105	495	
	Freeman to Eagle	360	115	245	
	Totals	3310	1067	2243	
Item #	**Site Prep and Demolition**	**Units**	**Cost/Unit**	**Estimate**	**Cost**
850.41	Police Detail (2x for 14 days)	HR	40	224	$ 8,960.00
	Site Prep and Demolition	**Units**	**Cost/Unit**	**Estimate**	**Cost**
129	Concrete Excavation (assume 5" depth	CY	75	320	$ 24,000.00
120.1	Excavation (assume 6" for entire Length)	CY	35	320	$ 11,200.00
	Sidewalk Replacement	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
701	New Concrete sidewalk (5' width)	SY	50.00	1,160	$ 58,000.00
701.1	Concrete sidewalk @ driveways	SY	60.00	595	$ 35,700.00
151	Gravel Borrow (assume 25% of entire length needs replacement to 6" depth)	CY	$38.00	80	$ 3,040.00
503	Allowance for New Granite Curb (20% of length)	FT	$40.00	400	$ 16,000.00
580	Allowance for reseting granite curb (80% of length)	FT	$22.00	1,800	$ 39,600.00
520	Allowance for New Concrete Curb (25% of Length)	FT	$35.00		$ -
701.2	Curb Ramps (Assume 6 sq yds per ramp @ 16 ramps)	SY	$80.00	96	$ 7,680.00
	Ped. Countdown signals at River/Eagle	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
	Assume 6 total signals	Each	$6,000.00	6	$ 36,000.00
	Repaint Crosswalks	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
861.112	Assume 2 x 12" stripes at 40' length each with ladder bars (180' of stripe per crosswalk)	FT	$1.00	1,440	$ 1,440.00
	Subtotal				$ 241,620
	15% Contingency				$ 36,243

	Total Requested from MassDOT				**$ 277,863**
	Design and Engineering				
	10% of Project Total				$ 27,786
	Total (Request + design and permitting)				**$ 305,649**

Project 21: Route 2 / Notch Rd. Intersection Safety Improvements

This project would address the intersection of Route 2 and Notch Rd. Potential improvements include reducing the corner radii at the intersection and removing or altering a stone wall at a residence immediately west of the intersection to improve visibility.

Route 2 / Notch Rd. Intersection Reconstruction					
	Materials	NA			
	Side	NA			
	Area	3000sf			
Item #	**Site Prep and Demolition**	**Units**	**Cost/Unit**	**Estimate**	**Cost**
129.3	Old Pavement Excavation	CY	50	60	$ 3,000.00
129	Cement Concrete excavation (sidewalk)	CY	75	15	$ 1,125.00
120.1	Unclassified Excavation (assume 6" over 3000 sf + misc. for wall removal)	Allow	10,000	1	$ 10,000.00
	Narrow Lanes & Reduce Corner Radii & Remove and Rebuild Portion of Stone Wall	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
451	New asphalt Roadway & driveway patching	Ton	85.00	75	$ 6,375.00
151	Gravel Borrow (allowance)	Allow	$4,000.00	1	$ 4,000.00
	New Signage	Allow	$1,000.00	1	$ 1,000.00
860.106	Allowance for new striping	Allow	$2,000.00	1	$ 2,000.00
	Loam and Seed	Allow	$3,000.00	1	$ 3,000.00
690	Remove and rebuild stone wall	Allow	$20,000.00	1	$ 20,000.00
701	Replace sidewalk along new radii (150 ft)	SY	$55.00	85	$ 4,675.00
580	Reset Granite Curb	FT	$22.00	150	$ 3,300.00
	Loam and Seed	Allow	$2,000.00	1	$ 2,000.00
701.2	Curb Ramps (Assume 6 sq yds/ramp @ 2 ramps)	SY	$80.00	12	$ 960.00
	Subtotal				$ 61,435
	15% Contingency				$ 9,215
	Total Requested from MassDOT				**$ 70,650**
	Design and Engineering				

	10% of Project Total				$ 7,065
	Total (Request + design and permitting)				**$ 77,715**

Project 22: Furnace St. / Furnace St. Bypass Intersection Safety Improvements

This project would address the intersection of Furnace St. and Furnace St. Bypass. Potential improvements include reducing the size of corner radii to slow traffic, replacing existing sidewalk, and installation of new guardrail.

Furnace St. Intersection Reconstruction					
	Materials	NA			
	Side	NA			
	Lengths				
Item #	**Site Prep and Demolition**	**Units**	**Cost/Unit**	**Estimate**	**Cost**
129.3	Old Pavement Excavation	CY	50	60	$ 3,000.00
120.1	Excavation (assume 6" over 3000 sf)	CY	50	60	$ 3,000.00
	Narrow Lanes and Reduce Corner Radii	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
702	5' asphalt sidewalk (3" Depth)	Ton	85.00	10	$ 850.00
450	New Asphalt Roadway & driveway patching	Ton	85.00	60	$ 5,100.00
151	Gravel Borrow (assume 6" over 1000sf)	CY	$38.00	50	$ 1,900.00
402.12	Dense Grade Crushed Stone	CY	$65.00	20	$ 1,300.00
503	Allowance for New Granite Curb	FT	$40.00	75	$ 3,000.00
580	Allowance for resetting granite curb	FT	$22.00	150	$ 3,300.00
701.2	Curb Ramps (Assume 10 sq yds per ramp @ 2 ramps)	SY	$80.00	20	$ 1,600.00
	New Guardrail	FT	$50.00	200	$ 10,000.00
	New Signage	Allow	$1,000.00	1	$ 1,000.00
	Loam and Seed	Allow	$2,000.00	1	$ 2,000.00
	Repaint Crosswalk	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
860.106	Assume 2 x 12" stripes at 40' length each with ladder bars (180' of stripe per crosswalk)	FT	$1.00	180	$ 180.00
	Subtotal				$ 36,230
	15% Contingency				$ 5,435

	Total Requested from MassDOT				**$ 41,665**
	Design and Engineering				
	10% of Project Total				$ 4,166
	Total (Request + design and permitting)				**$ 45,831**

Project 23: Church St. Sidewalk Extension

This project would install new sidewalk along Church St. from the end of the existing sidewalk south to the intersection with Ashland St. Design challenges along this section of roadway include some steep banks that would need to be excavated to construct the sidewalk as well as tree removal. The city should consider this project if it moves forward with potential one-way designation of Church and Ashland St. A potential one-way designation could free up right-of-way for sidewalk construction that might avoid costly excavation.

	Church St. - New Sidewalk				
	Materials	Concrete w/ Granite and Concrete curb			
	Side	TBD			
	Lengths				
	West	Total Length	Driveway	Sidewalk	
		2200	200	2000	
Item #	**General**	**Units**	**Cost/Unit**	**Estimate**	**Cost**
850.41	Police Detail (2x for 8 days)	HR	40	128	$ 5,120.00
	Site Prep and Demolition	**Units**	**Cost/Unit**	**Estimate**	**Cost**
120.1	Excavation	CY	35	600	$ 21,000.00
	Relocate Utility Pole	Each	10,000	3	$ 30,000.00
	Tree removal (dia. under 24")	Each	900	15	$ 13,500.00
	Tree removal (dia. over 24")	Each	2000	5	$ 10,000.00
	Sidewalk Replacement	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
701	New Concrete sidewalk (5' width)	SY	50.00	1,150	$ 57,500.00
701.1	Concrete sidewalk @ driveways	SY	60.00	120	$ 7,200.00
151	Gravel Borrow (6" depth)	CY	$38.00	250	$ 9,500.00
503	New Granite Curb	FT	$40.00	2,200	$ 88,000.00
	Subtotal				$ 241,820
	15% Contingency				$ 36,273
	Total Requested from MassDOT				**$ 278,093**

	Design and Engineering				
	10% of Project Total				$ 27,809
	Total (Request + design and permitting)				**$ 305,902**

Project 24: Mass. Ave. Pedestrian and Bicycle Accommodations

This project is proposed as a long-term comprehensive redesign of Mass. Ave. to improve walking and biking. Due to the long-term nature of the project and its complexity, a detailed cost estimate was not developed.

Project 25: Main St. Pedestrian and Bicycle Accommodations

This project is proposed as a long-term comprehensive redesign of Main St. to improve walking and biking. Due to the long-term nature of the project and its complexity, a detailed cost estimate was not developed.

Project 26: Union St. Sidewalk, ADA Improvements, and Cycling Improvements

This project would Replace all existing curb ramps along Union St./ Route 2 from the intersection of Eagle St. east to the intersection with Beaver St. The project would also replace approximately 20% (or 1200) of existing sidewalk.

Union St. - Sidewalk Replacement (20%) and replacement of existing curb ramps					
	Materials	Concrete w/ Granite curb			
	Side	both			
	Lengths				
	South	Total Length	Driveway	Sidewalk	
	eagle to willow dell	400	60	340	
	willow to miner	1175	130	1045	
	miner to gallup	1875	120	1755	
	North			0	
	Eagle to canal	570	125	445	
	canal to cliff	800	40	760	
	cliff to end	1090	120	970	
	Totals	5910	595	5315	
	Gap to Beaver (North Side)	930			
Item #	**Site Prep and Demolition**	**Units**	**Cost/Unit**	**Estimate**	**Cost**
850.41	Police Detail (2x for 5 days)	HR	40	80	$ 3,200.00
	Site Prep and Demolition	**Units**	**Cost/Unit**	**Estimate**	**Cost**
129	Concrete Excavation (assume 6" depth)	CY	75	150	$ 11,250.00
120.1	Excavation (assume 6")	CY	35	150	$ 5,250.00
	Sidewalk Replacement	**Unit**	**Cost/Unit**	**Estimate**	**Cost**

701	New Concrete sidewalk (5' width)	SY	55.00	670	$ 36,850.00
151	Gravel Borrow (assume 500' needs replacement to 6" depth)	CY	$38.00	50	$ 1,900.00
503	Allowance for New Granite Curb (240 ft)	FT	$40.00	240	$ 9,600.00
580	Allowance for reseting granite curb (960 ft)	FT	$22.00	960	$ 21,120.00
701.2	Curb Ramps (Assume 10 sq yds per ramp @ 14 ramps)	SY	$80.00	140	$ 11,200.00
	Repaint Crosswalks	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
	Assume 2 x 12" stripes at 40' length each with ladder bars (180' of stripe per crosswalk)	FT	$1.00	1,260	$ 1,260.00
	Subtotal				$ 101,630
	15% Contingency				$ 15,245
	Total Requested from MassDOT				**$ 116,875**
	Design and Engineering				
	10% of Project Total				$ 11,687
	Total (Request + design and permitting)				**$ 128,562**

Project 27: Mohawk Bike / Ped. Trail Extension

This project would extend the proposed Mohawk Bike / Ped. Trail from near the Harriman-West Airport east into the North Adams downtown. The current phase of the trail is currently planned to travel along the northern border of the airport and end at the airport parking lot. Construction of this phase is funded in the FY 2020 TIP project list. The next leg of the bike/ped trail is planned to travel along Airport Road (*Project 28*) and then eastward paralleling State Road (Rt. 2) and then traveling through the Alcombright Athletic Fields. Due to the long-term nature of this project, a detailed cost estimate was not developed.

Project 28: Mohawk Bike / Ped. Trail Connector

This project would extend pedestrian and cycling facilities from the proposed terminus of the Mohawk Bike / Ped. Trail along Bud Dougherty Airport Way to Route 2. Due to the long-term nature of this project, a detailed cost estimate was not developed.

Project 29: Alcombright Fields Sidewalk Extension

This project would extend sidewalk along Protection Ave. from the existing sidewalk end south past the athletic fields. This project is related to *Project 33* which would eliminate a dangerous curve in the road along Protection Ave.

Protection Ave - New Sidewalk					
	Materials	Concrete w/ Granite			
	Side	TBD			
	Lengths				
		Total Length	Driveway	Sidewalk	
		550	0	550	

Item #	**General**	**Units**	**Cost/Unit**	**Estimate**	**Cost**
850.41	Police Detail (2x for 2 days)	HR	40	32	$ 1,280.00
	Site Prep and Demolition	**Units**	**Cost/Unit**	**Estimate**	**Cost**
120.1	Excavation	CY	35	175	$ 6,125.00
	Sidewalk Replacement	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
701	New Concrete sidewalk (5' width)	SY	50.00	320	$ 16,000.00
151	Gravel Borrow (6" depth)	CY	$38.00	150	$ 5,700.00
503	New Granite Curb	FT	$40.00	550	$ 22,000.00
	Subtotal				$ 51,105
	15% Contingency				$ 7,666
	Total Requested from MassDOT				**$ 58,771**
	Design and Engineering				
	10% of Project Total				$ 5,877
	Total (Request + design and permitting)				**$ 64,648**

Project 30: Comprehensive Wayfinding System

This project would improve wayfinding throughout the city. The proposed budget includes line items intended to advance wayfinding efforts by the North Adams Partnership, install signage along existing walking loops and provide for on-building wayfinding in the downtown area.

Wayfinding System				
Materials	NA			
Assumed Project Area (SF)	NA			
Side	NA			
Wayfinding System	**Unit**	**Cost/Unit**	**Estimate**	**Total Cost**
Proposed North Adams Partnership Sign Replacements	Each	3600	10	$36,000
Walking Loop Signs/Markers	Each	600	25	$15,000
On-Building Wayfinding	Each	500	10	$5,000
Subtotal				$ 56,000

15% Contingency				$	8,400
Total Requested from MassDOT				**$**	**64,400**
Design and Engineering					
10% of Project Total				$	6,440
Total (Request + design and permitting)				**$**	**70,840**

Project 31: West Main St. Sidewalk Replacement

This project would replace existing sidewalk along West Main St. between the Sacco Bridge and Holden St. Several retaining walls on the south side of the street will likely be replaced as part of this project as they sloping and in poor condition. Due to the retaining walls and further engineering study needed, project costs were estimated at $1,000,000 and a more detailed estimate was not developed.

Project 32: Mass. Ave / Roberts Dr. Intersection Reconstruction

This project would reconstruct the intersection of Mass. Ave. and Roberts Drive. Currently, the intersection is in a Y-configuration and is controlled by a Yield sign along Roberts. Reconstruction would reconfigure this intersection into a "T" shape. Design challenges include existing driveways near the intersection, which may need to be relocated.

Mass Ave / Roberts Intersection Reconstruction					
	Materials	NA			
	Side	NA			
	Area	8000sf			
Item #	**Site Prep and Demolition**	**Units**	**Cost/Unit**	**Estimate**	**Cost**
129.3	Old Pavement Excavation	CY	50	120	$ 6,000.00
120.1	Unclassified Excavation (assume 6" over 8000 sf)	CY	50	200	$ 10,000.00
	Narrow Lanes and Reduce Corner Radii	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
451	New Asphalt Roadway & driveway patching	Ton	85.00	250	$ 21,250.00
	Reflectorized Flexible Delineator Post (allowance for 200' of posts spaced every 18")	Each	$42.50	150	$ 6,375.00
151	Gravel Borrow (assume 6" over 8000sf)	CY	$38.00	150	$ 5,700.00
402.12	Dense Grade Crushed Stone (shoulders)	CY	$65.00	25	$ 1,625.00
	New Signage	Allow	$1,000.00	1	$ 1,000.00
860.106	Allowance for new striping	Allow	$2,000.00	1	$ 2,000.00
	Loam and Seed	Allow	$3,000.00	1	$ 3,000.00
	Subtotal				$ 56,950
	15% Contingency				$ 8,543

	Total Requested from MassDOT				**$ 65,493**
	Design and Engineering				
	10% of Project Total				$ 6,549
	Total (Request + design and permitting)				**$ 72,042**

Project 33: Protection Ave. Road Realignment

This project would remove a dangerous corner along Protection Ave. Immediately north of the Alcombright Athletic Fields. The city has already purchased a residence along this roadway and intends to raze the structure to allow for the realignment.

Protection Ave - Remove Dangerous Corner					
	Materials				
	Side	NA			
	Lengths	220			
	Width	30			
	Site Prep and Demolition	**Units**	**Cost/Unit**	**Estimate**	**Cost**
129.3	Old pavement excavation	CY	35	150	$ 5,250.00
120.1	Excavation (1" depth over road area + 5000sf)	CY	35	450	$ 15,750.00
	Road Replacement	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
451	New Asphalt Roadway & driveway patching	Ton	85.00	200	$ 17,000.00
151	Gravel Borrow (6" depth)	CY	$38.00	120	$ 4,560.00
503	Allowance for new Granite Curb	FT	$40.00	500	$ 20,000.00
860.106	Allowance for new striping	Allow	$1,000.00	1	$ 1,000.00
	Allowance for new signage	Allow	$1,000.00	1	$ 1,000.00
	Loam and seed + new topsoil	Allow	$6,000.00	1	$ 6,000.00
	Subtotal				$ 70,560
	15% Contingency				$ 10,584
	Total Requested from MassDOT				**$ 81,144**
	Design and Engineering				
	10% of Project Total				$ 8,114
	Total (Request + design and permitting)				**$ 89,258**

Project 34: Eagle St. Pedestrian Plaza

This project would close Eagle St. from Route 2 south to Main St. to motorized traffic and install a pedestrian plaza. The street would remain open to delivery and emergency vehicles. Potential improvements include sidewalk widening, new signage and lighting, new site furnishings, as well as other landscape features such as street trees, plantings, and streetscape enhancements. If automotive traffic along this street is restricted, the city may allow 2-way traffic along Church St. to the east (see *Project 13*).

Project 35: Walker St. Sidewalk Replacement

This project would install new asphalt sidewalk with asphalt curb along approximately 3600 feet of Walker St. The city has proposed repaving the street during the summer of 2018.

Walker St. - Sidewalk Replacement					
	Materials	Asphalt w/ asphalt curb			
	Side	east			
	Lengths	4350			
Item #	**Site Prep and Demolition**	**Units**	**Cost/Unit**	**Estimate**	**Cost**
850.41	Police Detail (2x for 3 days)	HR	40	48	$ 1,920.00
	Site Prep and Demolition	**Units**	**Cost/Unit**	**Estimate**	**Cost**
129	Sidewalk Removal (assume 3" depth)	CY	35	150	$ 5,250.00
120.1	Excavation (assume 6" for entire Length)	CY	35	500	$ 17,500.00
	New Sidewalk	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
702	5' asphalt sidewalk (3" Depth)	Ton	85.00	405	$ 34,425.00
703	Asphalt at Driveway (5' x 15' @ 20 driveways)	Ton	100.00	40	$ 4,000.00
570.2	Asphalt curb	FT	$9.00	4,350	$ 39,150.00
151	Gravel Borrow (assume 6" depth for entire length)	CY	$38.00	400	$ 15,200.00
	Subtotal				$ 117,445
	15% Contingency				$ 17,617
	Total Requested from MassDOT				**$ 135,062**
	Design and Engineering				
	10% of Project Total				$ 13,506
	Total (Request + design and permitting)				**$ 148,568**

Project 36: Center St. Pedestrian Plaza

This project would close a portion of Center St. to automobile traffic and install a pedestrian plaza. Access to the existing parking lot immediately east of the intersection of Marshall and Center St. would be preserved. However, the parking lot at the corner of Center and Holden would see its northern entrance/exit eliminated. This project is intended to enhance connections between Mass. MoCA and the downtown area.

Project 37: Ashuwillticook Shared-use Path Extension

This project is proposed as an extension of the Ashuwillticook Rail Trail from its planned end-point near Hodges Cross Rd. north into the downtown area. Due to the long-term nature of this project, a detailed cost estimate was not developed.

Project 38: Ashland St. / Church St. Intersection Reconstruction

This project would reconstruct the intersection of Ashland and Church St. This project should be studied and considered along with proposed improvements to Ashland St. (see Projects 1-4) and Church St. (Project 40) as well as potential one-way designation.

Church / Ashland intersection Safety Improvements					
	Materials	NA			
	Side	NA			
	Area	3000sf			
Item #	**Site Prep and Demolition**	**Units**	**Cost/Unit**	**Estimate**	**Cost**
129.3	Old Pavement Excavation	CY	50	60	$ 3,000.00
120.1	Unclassified Excavation (assume 6" over 3000 sf)	CY	50	60	$ 3,000.00
	Narrow Lanes and Reduce Corner Radii	**Unit**	**Cost/Unit**	**Estimate**	**Cost**
451	New Asphalt Roadway & driveway patching	Ton	85.00	50	$ 4,250.00
	Reflectorized Flexible Delineator Post (allowance for 150' of posts spaced every 18")	Each	$42.50	100	$ 4,250.00
151	Gravel Borrow	CY	$38.00	50	$ 1,900.00
402.12	Dense Grade Crushed Stone	CY	$65.00	10	$ 650.00
	New Signage	Allow	$1,000.00	1	$ 1,000.00
860.106	Allowance for new striping	Allow	$2,000.00	1	$ 2,000.00
	Loam and Seed	Allow	$2,000.00	1	$ 2,000.00
	Subtotal				$ 22,050
	15% Contingency				$ 3,308
	Total Requested from MassDOT				**$ 25,358**
	Design and Engineering				
	10% of Project Total				$ 2,536
	Total (Request + design and permitting)				**$ 27,893**

APPENDIX D: MASSDOT COMPLETE STREETS PROJECT PRIORITIZATION PLAN

The following Appendix section (**Table D1**) is a copy of the Tier 2 Prioritization Plan that was submitted to MassDOT. Projects are identical to those found in **Table 12** but includes additional information such as estimated start and end locations, anticipated construction duration and other information.

Table D1. MassDOT Complete Streets Tier 2 Prioritization Plan

Project Details			EJ	Complete Streets Location			Project Origin and Type		Complete Streets Needs								Complete Streets Funding Request			Construction Schedule	
Rank	Project Name	Project Description	Environmental Justice Population	Project Limits	Project Start Location: X,Y Coordinates (MA State Plane meter)	Project End Location: X,Y Coordinates (MA State Plane meter)	Complete Streets Project Origin (planning documentation or supporting analysis)	Complete Streets Project Type (refer to the Eligible Projects Worksheet)	Safety	ADA Accessibility	Pedestrian Mobility	Bicycle Mobility	Transit Operations and Access	Vehicular Operations	Freight Operations	Will this project be in Coordination with other Communities? (list, if applicable)	Total Estimated Project Cost	Complete Streets Funding Requested	Other Funding Source(s) and Amount (if applicable)	Anticipated Construction Duration (number of months)	Desired Construction Start Date (month/year)
1	Ashland St. Pedestrian and Cycling Corridor Improvements - Phase 1	Improve sidewalks, create bike lanes, add consistent ADA ramps and repaint crosswalks, add transit shelter, consider one-way designation	Yes	Main St intersection south to Davenport St at MCLA	680682, 939930	680719, 939648	CS Needs Assessment	S12, B2, P1, P2, P5, P9, P13, T3	X	X	X	X	X			No	$1,250,000	$400,000	850000 (Potential MassWorks)	10	06/01/18
2	Ashland St. Pedestrian and Cycling Corridor Improvements - Phase 2	Improve sidewalks, create bike lanes, add consistent ADA ramps and repaint crosswalks, add transit shelter, consider one-way designation, public plaza	Yes	Main St intersection south to Davenport St at MCLA	680719, 939648	683409, 939150	CS Needs Assessment	S12, B2, P1, P2, P5, P9, P13, T3	X	X	X	X	X			No	$1,250,000	$400,000	850000 (Potential MassWorks)	10	06/01/19
3	Ashland St. Pedestrian and Cycling Corridor Improvements - Phase 3	Improve sidewalks, create bike lanes, add consistent ADA ramps and repaint crosswalks, add transit shelter, consider one-way designation	Yes	Main St intersection south to Davenport St at MCLA	683409, 939150	684699, 938899	CS Needs Assessment	S12, B2, P1, P2, P5, P9, P13, T3	X	X	X	X	X			No	$1,250,000	$400,000	850000 (Potential MassWorks)	10	06/01/20
5	Main St. / Church St. Intersection Reconstruction	Intersection reconstruction to reduce complexity and reduce pedestrian crossing distance. Potential roundabout construction.	Yes	Intersection Main St., Church St., Eagle St	681319, 939910		CS Needs Assessment	S13, S18	X	X	X	X		X		No	$900,000	$400,000	500000 (Potential MassWorks)	6	04/01/18

Project Details			EJ	Complete Streets Location			Project Origin and Type		Complete Streets Needs							Complete Streets Funding Request			Construction Schedule	
6	Colgrove School Traffic Calming	Safety improvements at school; restriping, repainting crosswalks, potential speed feedback signs and LED-flashing stop signs in vicinity	Yes	Church St. between Main St. and Veterans Memorial Highway/Union St. intersections	68252, 939901		CS Needs Assessment	S5, S7, S17, S0, P12	X		X			X		No	$30,461	$27,692	$2,769	2	04/01/19
7	Union St. / Eagle St. / Church St. Intersection Reconstruction	Intersection reconstruction to reduce complexity and reduce pedestrian crossing distance. Potential roundabout construction.	Yes	Intersection at Veterans Memorial Highway/Union St/Eagle St/ Church St	68196, 940125		CS Needs Assessment	S13	X		X			X		No	$900,000	$400,000	500000 (Potential MassWorks)	4	07/01/19
8	Greylock School Traffic Calming	Safety improvements at school; restriping, repainting crosswalks, potential speed feedback signs and LED-flashing stop signs in vicinity	Yes	Phelps Ave., between Barbour St. and State Rd. (Rt. 2)	64292, 939898		CS Needs Assessment	S5, S7, S17, S0, P12	X		X			X		No	$30,461	$27,692	$2,769	2	04/01/19
9	Brayton School Traffic Calming	Safety improvements at school; restriping, repainting crosswalks, potential speed feedback signs and LED-flashing stop signs in vicinity	Yes	Brayton Hill Terrace between Barbour St. and State Rd. (Rt. 2)	65867, 939894		CS Needs Assessment	S5, S7, S17, S0, P12	X		X			X		No	$30,461	$27,692	$2,769	2	04/01/19
10	American Legion Drive Bike Lanes	During repaving of 1650' of road - install 6-ft bike lanes on each side of the road with new road striping, bike lane markings, no parking signs	Yes	Main St. to Ashland St.	67847, 939975	68071,939647	CS Needs Assessment	B2	X			X				No	$7,373	$0	7373 (Ch. 90)	2	07/01/17
11	Holden St. Bike Lanes	Micro-mill and overlay 850' of road, install 2 5' bike lanes with new road striping, bike lane markings, crosswalks, no parking signs	Yes	Between Main St. and River St.	67960, 940376	67914,939976	CS Needs Assessment	B2	X			X				No	$19,487	$17,716	$1,772	4	07/01/19
12	Church St. Pedestrian and Cycling Accommodations	Widening and addition of improved sidewalk and bike facility (long term)	Yes	Main St./ Church St. intersection north to Veterans Memorial Highway / Union St./ Eagle St intersection	68196, 940125	68140,939911	CS Needs Assessment	S15, B2, P5, P9	X	X	X	X				No	$500,000	$400,000	$100,000	8	07/01/22
13	Main St. Pedestrian and Cycling Accommodations	Install pedestrian curb extensions (bump-outs) for 6 existing crossings; work includes repainting crosswalks, new RI-6 ped Yield signs and 1 bike rack	Yes	Marshall St./Rt. 8 intersection eastward to Ashland St., / Eagle St. intersection	67781, 940003	68071,939930	CS Needs Assessment	S7, P8, P9, P12	X	X	X	X	X			No	$110,839	$100,763	$10,076	6	04/01/19
14	Church St. Pedestrian and Cycling Accommodations and one-way designation	Potential one-way designation; addition of bike facilities and sidewalk repairs (long term)	Yes	Main St. intersection to Ashland St. intersection	68140, 939909	68990,937989	CS Needs Assessment	S10, B2, P1								No	$500,000	$400,000	$100,000	10	04/01/25
15	West Main St. / Route 2 Bike Lanes and Traffic Calming	Micro-mill and overlay approx. 6900' of road to install bike lanes on both sides. restriping; misc. bike lane/no parking signs; speed feedback signs	Yes	State Rd. (Rt. 2) Sacco Bridge eastward along overpass to Holden St. intersection	65779, 939921	67932,940106	CS Needs Assessment	B2, B8, S5	X			X				No	$156,379	$142,163	$14,216	4	04/01/19
16	Marshall St. Pedestrian and Cycling Accommodations	Sidewalk replacement and addition of bike facility, intersection safety improvements, creation of public plaza (long term)	Yes	Between River St. and Main St.	67790, 940386	67781,940009	CS Needs Assessment	S13, B2, P1, P2, P5, P9, P14	x	x	x	x		x		No	$1,000,000	$400,000	600000 (Potential MassWorks)	10	04/01/25
17	Furnace St. / Reservoir Rd. Intersection Reconstruction	Intersection reconstruction to remove "Y"-configured intersection. Replacement of retaining wall.	Yes	Furnace St./Reservoir Rd. intersection	67633, 939662		CS Needs Assessment	S6	X					X		No	$330,000	$300,000	$30,000	5	04/01/20

Project Details			EJ	Complete Streets Location			Project Origin and Type		Complete Streets Needs								Complete Streets Funding Request			Construction Schedule	
18	Franklin St. / Eagle St. Intersection Safety Improvements	Install flashing yield sign, restripe the intersection and install flexible delineator posts	Yes	Franklin St./ Eagle St./Liberty St./ Wesleyan	68405, 940578		CS Needs Assessment	S1, S7, S17	X					X		No	$13,599	$12,363	$1,236	2	04/01/19
19	Beaver St. Pedestrian and Cycling Improvements	For approx. 4500' replace all existing sidewalk with new concrete and granite curbed 5' wide sidewalk with ADA curb ramps; repaint crosswalks; micromill and overlay 5' bike lanes with bike lane markings and misc.; bike lane/no parking signs	No	Clarksburg town line south to Union St. (Rt. 2) intersection	69222, 940281	70084,941058	CS Needs Assessment	P1, P2, P9,	X	X	X					No	$527,252	$400,000	$127,252	6	04/01/18
20	River St. Pedestrian and Intersection Safety Improvements	Replace all existing sidewalk, ADA curb ramps, repaint crosswalks; install pedestrian countdown signals at River/Eagle St. intersection	Yes	Marshall St. eastward to Eagle St.	67792, 940385	68291,940290	CS Needs Assessment	P1, P2, P9, P13	X	X	X					No	$305,649	$277,863	$27,786	6	04/01/19
21	Notch Rd. / Route 2 Intersection Safety Improvements	Improve sightline visibility for cars exiting Notch Rd., Reduce curb/turning radii at intersection and/or altering a stone wall on southwest corner	Yes	State Rd. (Rt 2) / Notch Rd. intersection	66109, 939964	,	CS Needs Assessment	S6, S13	X					X		No	$77,715	$70,650	$7,065	2	04/01/21
22	Furnace St. / Furnace St. Bypass Intersection Safety Improvements	Improve intersection by reducing corner radii to slow traffic, replacement of existing sidewalk and relocation of guardrail	Yes	Furnace St./Furnace Bypass intersection	67658, 939791		CS Needs Assessment	S6	X					X		No	$45,831	$41,665	$4,166	4	04/01/21
23	Church St. Sidewalk Infill	Extend existing sidewalk by installing approx. 2200' of new sidewalk on the eastern side of the street to the Ashland St. intersection	Yes	End of existing sidewalk on Church St. (south of Overlook Terr.) south to Ashland St. intersection	68839, 938680	68989,937991	CS Needs Assessment	P2, P5,	X	X	X					No	$305,902	$278,093	$27,809	5	04/01/25
24	Massachusetts Ave. Pedestrian and Cycling Improvements	Shoulder widening for potential new sidewalk and improved bike facility (long term)	No	Williastown boundary east to River St.	62698, 940710	66930,940512	CS Needs Assessment	S15, B2, P5	X	X	X	X				No	$1,000,000	$400,000	$600,000	8	04/01/23
25	Main St. Pedestrian Improvements	Lane narrowing, sidewalk replacement, and addition of bike facility (long term)	Yes	Marshall St./Rt. 8 intersection eastward to Ashland St., / Eagle St. intersection	67781, 940003	68071,939930	CS Needs Assessment	S10, B6, P1, P9, T3	X	X	X			X		No	$500,000	$400,000	$100,000	8	04/01/25
26	Union St. Accessibility and Cycling Improvements	Replace all existing curb ramps with ADA compliant ramps and repair approx. 1200 ' of existing sidewalk;	Yes	Union St. from the Eagle St. intersection to the Beaver St. intersection	68195, 940128	69563,939884	CS Needs Assessment	P1, P2,	X	X	X					No	$128,562	$116,875	$11,687	6	04/01/20
27	Mohawk Bike / Ped. Trail Extension	Construction of an off-road, shared-use bike/ped path from Airport Rd./State Rd. intersection eastward to downtown North Adams	Yes	Airport Rd. eastward to Main St.	63560, 939903	67745,939660	CS Needs Assessment	NA	X		X	X				Yes	$1,000,000	$400,000	600000 (Potential MassWorks or TIP)	12	04/01/22
28	Mohawk Bike / Ped Trail Connector	Install sidewalk from terminus of bike/ped trail at airport on Bud Dougherty Airport Way to State Rd. (Rt. 2) for approx. 1100'; restripe road, install "Share the Rd." signs and sharrow markings.	Yes	Along Bud Dougherty Airport Way, from the terminus of Mohawk Bike/Ped Path at Harriman-West Airport to State Rd. (Rt. 2)	63631, 940162	63544,939854	CS Needs Assessment	B8, P5,	X	X	X	X				No	$125,000	$100,000	$25,000	4	06/01/19
29	Alcombright Fields Sidewalk	Construct a new concrete sidewalk on Protection Ave. for approx. 550'	Yes	From terminus of existing sidewalk at	64736, 939808	64655,939485	CS Needs	P2, P5, P9	X	X	X			X		No	$64,648	$58,771	$5,877	2	04/01/18

Project Details			EJ	Complete Streets Location			Project Origin and Type		Complete Streets Needs								Complete Streets Funding Request			Construction Schedule	
		southward through athletic field complex		steep curve north of St. Pierre Way to the end of the playing fields			Assessment														
30	Comprehensive Wayfinding System	Purchase and install 10 large wayfinding signs, 10 on-building directional signs and 25 walking loop signs	Yes	City-wide	Multiple Locations	,	CS Needs Assessment	P4, B7			X	X		X		No	$70,840	$64,400	$6,440	6	05/01/19
31	West Main St. / Route 2 Pedestrian Improvements	Replacement of existing sidewalk, repair of retaining wall, repainting crosswalks, lane narrowing and traffic calming	Yes	State Rd. (at Sacco Bridge) eastward to Marshall St. intersection	65872, 939936	67613,940116	CS Needs Assessment	S10, P1, P9, S17	X	X	X					No	$1,000,000	$400,000	600000 (Potential MassWorks)	10	04/01/26
32	Mass. Ave. / Roberts Drive Intersection Reconstruction	Realign roadway to remove "Y"-shaped intersection. Reduce existing corner radii, replace signage, restripe roadway, possible relocation of existing driveways	No	Mass. Ave./Roberts Dr. intersection	65468, 940243		CS Needs Assessment	S6	X		X			X		No	$72,042	$65,493	$6,549	4	04/01/23
33	Protection Ave Road Realignment	Realign roadway at a dangerous corner to improve safety at the main entrence to the city's athletic field complex	Yes	Protection Ave. at the curve just north of St. Pierre Way	64737, 939805		CS Needs Assessment	S6	X		X	X		X		No	$89,258	$81,144	$8,114	6	05/19/17
34	Eagle St. Pedestrian Mall	Close the street from motorized traffic and install pedestrian plaza; the existing road footprint would be redesigned with new sidewalks and other paving, site furnishings and landscaped features; new signage would be added	Yes	Main St./Church St. intersection to Veterans Memorial Highway / Union St. (Rt. 2) intersection	68167, 940068	68070,939931	CS Needs Assessment	P5, P15			X			X		No	$500,000	$400,000	100000 (Potential MassWorks)	12	04/01/27
35	Walker St. Pedestrian Improvements	Replace existing sidewalk with new asphalt sidewalk with asphalt curb for approx. 3600'	No	Union St. intersection northward to Clarksburg town line.	69581, 939878	70361,941039	CS Needs Assessment	P1, P2,	X	X	X					No	$148,568	$135,062	$13,506	8	04/01/18
36	Center St. Pedestrian Mall	Close a section of street from motorized traffic and install pedestrian plaza	Yes	Marshall St. intersection to Holden St. intersection	67795, 940100	67923,940088	CS Needs Assessment	P5, P15		X	X			X		No	$500,000	$400,000	100000 (Potential MassWorks)	10	04/01/25
37	Ashuwilltico ok Rail Trail Extension	Shared-Use Path	No	From Adam/North Adams boundary to downtown North Adams	67775, 939674	68592,936162	CS Needs Assessment	B10			X	X				Yes	$1,000,000	$400,000	600000 (Potential MassWorks or TIP)	6	05/01/20
38	Church St. Ashland St. Intersection Reconstruction	Realign roadway to remove "Y"-shaped intersection. Reduce existing corner radii, replace signage, restripe roadway	Yes	Church St. / Ashland St. intersection	68992, 937988		CS Needs Assessment	S6	X		X			X		No	$27,893	$25,358	$2,536	4	04/01/22