



CENTRAL MASSACHUSETTS
METROPOLITAN PLANNING
ORGANIZATION (CMMPO)

2018 REGIONAL BICYCLE PLAN





In order to balance the needs of all system users, multimodal transportation options will become essential in the future. Municipalities across the Commonwealth are working hard to keep up with demands on the existing transportation network. Through this struggle, it has become apparent that cities and towns that seek a positive health outcome in the future will need to balance various modes of transport through an integrated, multimodal network. A balanced multimodal network will create a system that works to move people and goods in an effective, efficient, and safe manner.

Indeed, the recognition that a balanced transportation system will lead to healthier outcomes for the residents and visitors to the region has moved to the forefront of transportation decision making. Land use patterns greatly influence regional quality of life and the efficiency of transportation investments. Cities across the nation have begun to reexamine development patterns and transportation systems, looking beyond transportation infrastructure alone.

The Central Massachusetts Metropolitan Planning Organization (CMMPO) region includes the City of Worcester and the thirty-nine (39) surrounding municipalities in southern Worcester County, Massachusetts. The transportation staff of the Central Massachusetts Regional Planning Commission, who serve as the staff to the CMMPO, have been charged with creating a comprehensive, multi-modal strategy that includes bicycling as an integral part of the region's transportation system. The vision of the most recent CMMPO Long Range Transportation Plan, Mobility2040 is as follows:

The CMMPO envisions Central Massachusetts in 2040 as a growing region of 40 well connected, livable communities with congestion reduction, and improved multi-modal mobility and air quality. Healthy, creative transportation methods that integrate active travel modes through the use of technology will safely and efficiently move people between homes, jobs, and services and move products between places of manufacturing and sale.

The CMMPO vision strives to take advantage of bicycling's benefits to the region: improved health outcomes, air quality and environmental impact, transportation efficiency, safety, economic development and activity, attraction and retention of employers and employees, social engagement, and overall improved quality of life at a neighborhood and regional level. In cities and towns across the nation, bicycling has become a key factor for measuring a community's quality of life. Improved availability of efficient and safe bicycling networks has played a strong role in making a city or region more competitive economically, attractive to a talented workforce, and sparked interest in public and private investment. The intent of this plan is to take an essential step toward a future where bicycling is seen as a key component of a well-balanced multimodal transportation network.

Purpose

The CMMPO Regional Bicycle Plan is intended to identify opportunities for encouraging and enhancing bicycle travel within the CMMPO region. The recommendations contained herein should be used as a guide for local jurisdictions in taking advantage of these opportunities. The intent of this plan is not to secure funding for every project, but to identify potential opportunities.

The CMMPO Regional Bicycle Plan will serve as the bicycle component of the upcoming CMMPO Long Range Transportation Plan (LRTP). The goals of the Regional Bicycle Plan must be consistent with the goals of Mobility2040, the current LRTP, but also the LRTP that will begin development over the next year. Implementation of the recommendations of this plan will provide for a comprehensive bicycle transportation network that is focused on accessibility, mobility, and safety.

Table 1: Mobility 2040 Goals

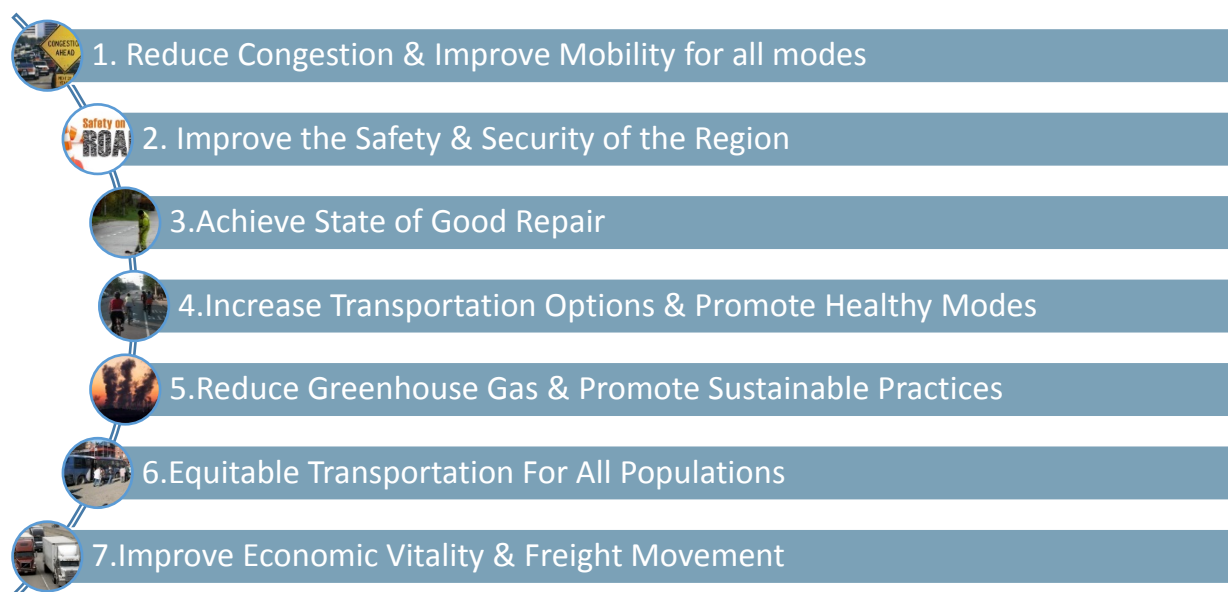


Table 2: CMMPO Regional Bicycle Plan Goals

Goal 1: To provide a network of safe, comfortable, continuous, direct, and convenient bicycle facilities for all users of various skill levels and abilities

Goal 2: To reduce the reliance on automobiles while increasing the bicycle mode split

Goal 3: To increase the safety of bicyclists for all users of various skill levels and abilities, while reducing injuries and deaths involving motorists and bicyclists.

Goal 4: To maximize the multimodal capacity of existing roadways

Goal 5: To provide improved bicycle connections to existing and future public transit facilities

Goal 6: To facilitate and encourage government and public involvement in the planning and design of regional bicycle facilities

Goal 7: To facilitate the connection between neighborhoods and recreational opportunities via bicycle

Goal 8: To provide regional bicycle facilities that connect attractors and generators, such as schools, employment centers, town centers, parks, etc.

Goal 9: To ensure that the needs of bicyclists are considered during the planning and design of future projects in the public and private sector

Goal 10: To provide a more balanced and affordable transportation network

Plan Development

The 2018 CMMPO Regional Bicycle Plan serves as an update to the 2011 Regional Bicycle & Pedestrian Plan. In order to allow for a more thorough analysis, the two components of the former plan have been split for the current update. This decision was made to reflect MassDOT's current efforts with the Statewide Bicycle Plan and the Statewide Pedestrian Plan. The 2018 Regional Bicycle Plan has seven major associated tasks: Existing Conditions/Data Collection, Analysis of Existing Conditions, Strategies/Facility Recommendations, Implementation/Benchmarking, Documentation, CMMPO Bicycle & Pedestrian Advisory Committee, Public Participation/Outreach.

Existing Conditions/Data Collection

The data collection phase involved the accumulation of Geographic Information System (GIS) data from CMRPC, MassDOT, and municipalities throughout the region. The data was collected to create draft regional maps of the existing conditions. Data collected included the following: schools, streets, rivers, railroads, Interstate Highways, existing bicycle facilities, land uses, attractors and generators.

Analysis of Existing Conditions

After pulling together all of the available regional data, CMMPO staff began to analyze what was collected. Through careful analysis of the GIS data gathered, meetings with planning and engineering staff, local leaders and stakeholders, and a public involvement effort detailed in a later section, staff

highlighted opportunities and constraints within the region. Additionally, staff evaluated bicycle network needs for commuting and recreation.

Strategies/Facility Recommendations

A proposed strategy for addressing the regional bicycle network needs was then prepared. Included were policies and programs that will assist CMMPO member jurisdictions in prioritization, end of trip amenities, infrastructure, maintenance, and education.

Implementation/Benchmarking

Staff created an implementation plan in order to provide guidance to completing the regional bicycle network. The implementation plan includes policies and programs to address the Five E's: engineering, education, encouragement, enforcement, and evaluation. Benchmarks for gauging the success of the plan have also been included.

Documentation

All of the above tasks are detailed in this document. The documentation and recommendations within this plan are intended to provide a clear guide for the CMMPO and municipalities in the region to achieve the goal of a well-designed bicycle network.

CMMPO Bicycle & Pedestrian Advisory Committee (BPAC)

The CMMPO BPAC was established with the development of the 2011 Regional Bicycle & Pedestrian Plan. This committee has been restructured and revived for the 2018 Regional Bicycle Plan to provide direction and input on the development of a bicycle network in the CMMPO region. Representatives from various municipalities, regional departments, and community groups have been invited to join the group. The committee is a valuable resource in the shaping of the plan and the final recommendations for the region.

Public Participation + Community Outreach

A survey was developed in an effort to provide additional input and feedback about the regional needs regarding cycling. The intention behind the survey was to collect a voluntary response from across the region, with the knowledge that the typical responder would already have an interest in bicycling. The survey was administered mainly online, but hard paper copies were also made available.

Walk Bike Worcester, a local multimodal transportation advocacy group, was an integral partner in the dissemination of the survey and key stakeholder in the public outreach process. CMMPO staff utilized Facebook and Twitter to promote the development of the plan and provide links to surveys, information, and public meeting notices.

Sub-regional meetings with planning, public works, or engineering staff of the various CMMPO subregions were held to gain further input on local efforts and to provide a regional consistency to the plan. Each subregional meeting was presented with data and maps from stakeholder input sessions and asked to clarify or revise as necessary related to local needs and priorities. This approach was taken in order to try and receive the most amount of feedback from the 40 municipalities in the CMMPO region, allowing for citizen comment and a feedback loop with government officials.



Benefits

Data from the U.S. Census Bureau shows that, in the time period from 2012-2016, less than 1.2% percent of work commute trips in the CMMPO region were made via bicycle. On the other hand, 80.74% percent of work commute trips in the region were made via single occupant vehicles (SOVs). Providing well-designed bicycle networks is a key component to the overall transportation vision for the region. This plan will illustrate how investment in the bicycle network, with additional education, policies, and campaigns, will encourage the safe and efficient use of the bicycle as an alternative to not only commuting to work, but also shorter trips that will help to reduce dependence on the automobile. Additional benefits of bicycling are described in the following paragraphs.

Health Benefits

The level of physical inactivity in the United States has become one of the most pressing health related issues facing our nation, and the CMMPO region is no exception to the problem. However, cycling presents a low-cost option to begin to combat the issue. According to research reported in the British Medical Journal (April 2017), cycling to work has been associated with very large health benefits. Commuters who rode to work had a 41% lower risk of dying from all causes than people who drove or took public transport. They also had a 46% lower risk of developing and a 52% lower risk of dying from cardiovascular disease, and a 45% lower risk of developing and a 40% lower risk of dying from cancer. According to the CDC, the prevalence of obesity was 39.8% and affected about 93.3 million of US adults



Image 1 – Cycling is one way to add healthy exercise to daily life.

in 2015-2016, while the rate was 18.5% in youth. Massachusetts fairs slightly better, with a 25.9% rate in adults and 11% in youth.

The automobile has become the dominate form of transportation for almost all trips in the United States, greatly exacerbating the sedentary lifestyle of the majority of Americans. Health advocates suggest that children and adults participate in a moderate level of activity for at least 30 minutes per day. Cycling could be the answer for many people, be it to school or to work. A 15-minute ride on the way to and from school or work could provide the recommended level of activity to remain healthy. Cycling can not only help in the fight against obesity, it may help prevent a host of other health issues including stroke, types of diabetes, colon cancer, hypertension, osteoporosis, depression, and lower back pain. Cycling can also help to improve a person's immune system and respiratory function. (<http://www.walk.com.au/pedestriancouncil/Page.asp?PageID=3906>) There are any number of ways to incorporate cycling into everyday trips in the CMMPO region, providing health benefits to users of all ages.

Main Physical Benefits of Cycling (<https://www.health.harvard.edu/staying-healthy/the-top-5-benefits-of-cycling>)

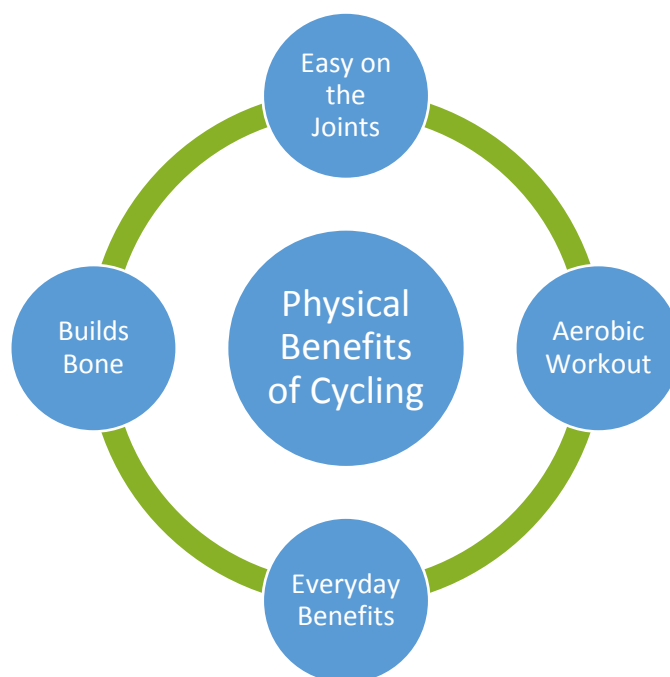


Figure 1 Main Physical Benefits of Cycling (<https://www.health.harvard.edu/staying-healthy/the-top-5-benefits-of-cycling>)

Environmental Benefits

The American Lung Association gives Worcester County a grade of “C” related to Ozone air quality in its *State of the Air 2017* report, which represents an improvement over 1995-1996 levels. However, there is always room for air quality improvement and a reduction in ground level ozone. Motor vehicle emissions are responsible for a large percentage of gasses that contribute to lung cancer, heart and lung disease, asthma, etc. Ozone can lead to premature death, breathing problems, central nervous system issues, and reproductive and developmental harm. (Source: <http://www.lung.org/our-initiatives/healthy-air/outdoor/air-pollution/ozone.html>)

Vehicles produce the most environmentally dangerous pollutants during their first minutes of operation after start up. Using a bicycle for shorter trips will not only improve regional air quality, but it is more energy efficient as well. According to the Institute for Transportation and Development Policy, bicycling could help cut carbon emissions from urban transportation by 11 percent. (Source: <https://usa.streetsblog.org/2015/11/18/how-much-can-bicycling-help-fight-climate-change-a-lot-if-cities-try/>)

Transportation Benefits

Congestion is a growing concern in the CMMPO region, leading to wasted time, resources, and increased pollution. The shift of some daily trips from automobile to bicycle could help to ease congestion and lessen pollution. Approximately 50% percent of all trips in metropolitan areas are less than three miles in length, and 28% are one mile or less. In rural areas, 30% of all trips are two miles or less, and yet a vast majority of these trips are by automobile. Congestion is not solely an urban issue. Regions of all sizes have experienced increased congestion, costing the economy \$87.2 billion in hours lost to traffic jams and wasted fuel in 2007 alone.

50% OF TRIPS IN METRO AREAS ARE LESS THAN 3 MILES

28% OF TRIPS ARE LESS THAN 1 MILE

70% OF CMMPO SURVEY RESPONDENTS INDICATED THEY WOULD BE WILLING TO TRAVEL OVER 5 MILES VIA BICYCLES.

Figure 2 Trip Data (Source: Smart Growth America and CMMPO Survey Results)

(<https://smartgrowthamerica.org/app/uploads/2016/08/cs-congestion.pdf>)

Maintenance costs for non-Interstate roadways across the region could be reduced with a shift to the bicycle as an alternate mode of transportation. Bicycles do less damage to roadway surfaces than cars and heavy trucks. As more network users switch to completing their trips via bicycle, the lifecycle of roadway resurfacing could improve. Additionally, bicycles use less space on the roadway than vehicles, potentially reducing the need for costly widening projects or at least postponing said initiatives. The more complete the roadway network is for all users, the more efficient the system can function for all users.

An increase in bicycle ridership can also improve public transit ridership. All WRTA buses have bicycle racks installed in order to allow for trip chaining to cover greater distances without the need for an automobile. Bicycle racks and storage facilities at larger transit stops can encourage more people to use transit, and also encourage more users to ride their bicycle to transit instead of driving. It is essential that the network developed in this plan provide connections between attractors/generators and transit facilities.

Bicycle facilities provide a range of options for all users within the transportation system, regardless of a user's age or level of income. A bicycle is a low-cost option for children, young adults, senior citizens, or others who cannot afford to or choose not to own an automobile. About 44% of all vehicle trips in both congested areas and other areas made during the morning peak are not to work or related to a work trip. Instead, they are for shopping, going to school or the gym, or running



Image 2 – Local trips made via bicycle can reduce congestion and lower greenhouse gas emissions.

errands. Many such trips are short and could be made by bicycling if a proper regional network is in place. Even if a small percentage of trips within the CMMPO region could be moved from an automobile to a bicycle, there would be a marked effect on congestion. The development of a bicycle network in the region is a much more cost-effective measure than trying to expand roadway lane miles in an already constrained fiscal climate.

Safety Benefits

A well designed, connected network can provide significant safety benefits for cyclists in the region. Properly striped bike lanes greatly reduce the likelihood that drivers will encroach the three-foot safe zone when passing a cyclist and reduce the frequency of run-off-the-road, head-on, and sideswipe auto/bike collisions. Complete Streets improve safety indirectly as well, by encouraging non-motorized travel and increasing the number of people bicycling. According to an international study, as the number and portion of people bicycling and walking increases, deaths and injuries decline. This is known as the safety in number hypothesis: more people walking and biking can reduce the risk per trip. Roadway design and engineering approaches commonly found in Complete Streets applications create long-lasting safety improvements through speed reduction. This type of engineering approach can encourage safer bicycling as well. Sidewalk bicycle riding, especially against the flow of adjacent traffic, is more dangerous than riding in the road due to unexpected conflicts at driveways and intersections. A recent review of bicyclist safety studies found that the addition of well-designed bicycle-specific infrastructure tends to reduce injury and crash risk. On-road bicycle lanes reduced these rates by about 50 percent.



Image 3 – Separated or buffered bicycle lanes provide an added level of safety for cyclists and motorists alike. Source: Boston Globe

Economic Benefits

Travelling via bicycle is a very affordable form of transportation for all system users. It is significantly more affordable than vehicle ownership, resulting in a greater share of income that is free to circulate into the economy via other means. It should be noted that this is not a practical option for a variety of situations, however, it can still lead to savings if certain trips are taken via bicycle or a reduction in the necessary number of cars per household. Additionally, it is possible that a reduction in healthcare costs could be realized due to the increased physical activity and health benefits of traveling via bicycle as opposed to sitting in a motor vehicle.

The benefits of travelling via bicycle can be seen in the local economy as well. Residents who choose to travel via bike will more than likely shop in their local community as opposed to travelling a greater distance via automobile. This allows for more money and tax dollars to stay in the local community, supporting local merchants and residents. According to the National Complete Streets Coalition, this “green dividend” means that residents can spend money in other ways, such as housing, restaurants, and entertainment, that keep money circulating in the local economy. Furthermore, the Wisconsin Bike Federation adds that through manufacturing, retail, recreation and tourism, bicycling provides more than 13,200 jobs and brings in \$535 million in tourism from out-of-state visitors alone.



Image 4 – Bicycle infrastructure can help provide an economic boost to a neighborhood or corridor. Source: strongtowns.org

(<http://www.bfw.org/advocacy/economic-impact/>) The travel and tourism benefits of bicycling can

provide a sizable source of revenue for the CMMPO region with the implementation of a network of bicycle facilities. Bicycling is a part of the \$887 billion in annual consumer spending creates the outdoor recreation economy that directly supports 7.6 million American jobs and generates \$125 billion in federal, state and local tax revenue. This annual consumer spending is higher than Education, Gasoline, and Pharmaceuticals just to name a few sectors of the economy. (OIA Recreation Economy)

A study by the Political Economy Research Institute at the University of Massachusetts, Amherst found that pedestrian and bicycle infrastructure projects create 11-14 jobs per \$1 million of spending while road infrastructure projects create approximately 7 jobs per \$1 million of expenditures. Because of the higher engineering intensity and labor requirements related to bicycle and pedestrian facilities, the employment impacts of said projects are higher than routine maintenance and resurfacing.

Employer Benefits

Having employees who bicycle to work can provide employers with a host of benefits such as increased productivity, improved health, a lower number of missed days, and lower healthcare costs. It has been mentioned previously how people who choose to travel via bicycle are more connected to their communities and generally have a higher level of well-being. Bicycle parking takes up a dramatically smaller amount of physical space as opposed to automobile requirements, leading to potential development and land acquisition savings. Furthermore, the time savings of not being stuck in automobile traffic can lead to increased productivity that benefits employees and employers alike. A well-connected bicycle network can foster travel options for people who might otherwise be limited economically. This alternative travel network can open up employment opportunities for residents as well as expand the potential pool of employees.



Image 5 – The availability of end of trip facilities can open up options for employees.

Livability Benefits

Complete Streets, including bicycle facilities, are designed to be an important aspect of the livability of a community and region. The addition of bicycle facilities to the transportation network is a key part of creating networks that are for all users, increasing safety and system efficiency. The regional reliance on automobile travel leaves residents with a lack of modal choice.

More urban areas such as Worcester or Southbridge feature destinations that are close in distance, but may be lacking in accessibility due to streets that are designed solely to move as many automobiles as possible throughout the day. The focus on the automobile as the main mode of travel also has a greater impact on neighborhoods inhabited by people of color and people with limited economic means. An integrated transportation network that includes bicycle facilities can help residents who may not be able to afford a personal vehicle and rely instead on alternative transportation modes.

Safety also plays a large role in the livability of a region. High speed, auto focused roads are unsafe for bicyclists and pedestrians alike. According to the National Highway Traffic Safety Association, the 5-year moving average for cyclist fatalities in the Commonwealth from 2012-2016 was 10 deaths per year. The average for the CMMPO region from 2011-2015 is much lower, 0.2 per year. While it could be seen as a positive trend that bicycle fatalities are lower in the CMMPO region, it could be argued that ridership is much lower due to a lack of a bicycle facility network that makes it safe and convenient for riders. A bicycle facility network that is well defined, safe, and reflects the community in which it is located will enhance the livability of a community for all residents and visitors.

A greater sense of community can develop when people in a neighborhood have the option to get out of their automobiles and stroll down the sidewalk or ride along in a bike lane or multiuse pathway. Social interaction is possible at a level that is unimaginable when residents are encased in automobiles. A well-designed bicycle network allows residents and visitors to interact with one another and their environment that enriches community character and builds a sense of place while increasing the perception of safety.



*Image 6 – Cycling provides residents and visitors with level of neighborhood interaction not possible in a vehicle.
Source: Worcester Telegram & Gazette*



This chapter is intended to provide definitions, descriptions and other useful technical information regarding bicycle facilities. Consistent design and descriptions of bicycle facilities will provide a network that is predictable for all transportation system users, increasing safety and efficiency in the region. The guidelines and descriptions provided in this chapter are based primarily on the national guidelines established by the American Association of State Highway and Transportation Officials' (AASHTO) 1999 and 2012 Guide for the Development of Bicycle Facilities, and the U.S. Department of Transportation Federal Highway Administration's 2009 edition of the Manual on Uniform Traffic Control Devices (MUTCD). Additional information is provided by the 2014 National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide and the MassDOT Separate Bike Lane Planning and Design Guide.

Bicycle Facilities / "Bikeways"

Bikeways are facilities that provide primarily for, and promote, bicycle travel. Bikeway is a term for any road, street, path, or other way which is in some manner specifically designated for bicycle travel. Such facilities do not have to be designated for exclusive use by bicycles and may or may not be shared with other modes of transportation. Bikeways include on-street facilities that accommodate the use of bicycles within the right of way whether they are intended to share a lane with motor vehicle traffic or are provided designated lanes. The table below highlights the basic categories on on-street facilities.

Types of Bicycle Facilities

Facility Type	Roadway Volume	Roadway Speed	Setting	Cost	Preferred Width
Shared Lane	Low	Low	Urban/Rural	Low	14ft. +
Marked Shared Lane	Low	Low	Urban	Medium	14ft. +
Paved Shoulder	Low-High	Low-High	Rural	Medium	4ft. +
Bicycle Lane	Low-High	Low-High	Urban/Rural	Medium	5ft.
Bicycle Boulevard	Low	Low	Urban	High	Varies
Cycle Track	Low-High	Low-High	Urban	High	6.5ft.+
Shared Use Path	N/A	N/A	Urban/Rural	Medium-High	10ft. +

Shared Roadway Facilities

Bicycles have the right to be operated on all roadways except where prohibited by state statute or regulations. In this respect, shared roadways exist all across the CMMPO region: local streets, city streets, urban, suburban, and rural roads and highways. There are a number of ways that bicycles can be accommodated along with motor vehicle traffic be it through existing lanes or along paved shoulders.

Shared Lanes

Shared lanes include roadways in which travel lanes are intended for use by motor vehicles and bicycles. Typically, roadways that have low volumes of traffic, and/or where traffic typically operates at low speeds (less than 20mph), would be potentially suitable as shared lanes in their current condition. Roadways that fit into this category can often be comfortable to bicycle on without a need for bicycle lanes or any other accommodations.

Design features can be incorporated to make shared lanes more compatible with bicycling, including pavement quality, trimming of vegetation for sight distances, right of way design that encourages lower speeds, and bicycle detection and signals at intersections. Furthermore, bicycle friendly drainage grates, expansion joints, and rail crossings can dramatically improve cycling conditions. Appropriate signage is essential to alert the motoring public to the presence of bicycle traffic. Way-finding signs can be installed to direct cyclists to a specific destination or provide route continuity.



Image 7 – Shared lanes are appropriate for low volume, low speed roads. Source: MUTCD

Shared lanes include roads with designated wide outside shoulders or curb lanes, where the paved right of way has the width to accommodate bicyclists and motorists in the same travel lane. Appropriate signage and adequate lane width of 14 feet or greater should be used in the designation of these routes.

Marked Shared Lanes / Sharrows

On some roads it is advantageous to provide a higher level of guidance for bicyclists and motorists as to where a cyclist should be located in the right of way. In this case, the shared lanes may be marked with a pavement marking symbol, known as a Shared Lane Marking (SLM) or Sharrow. Sharrows can be useful in a right of way when there is insufficient room to provide standard bicycle lanes. This technique is intended to allow for safer passing practices, including changing lanes on multi-lane streets. According

to the National Association of City Transportation Officials (NACTO), the shared lane marking is a pavement marking with a variety of uses to support a complete bikeway network; it is not a facility type and should not be considered a substitute for bike lanes, separated bike lanes, or other separation treatments where these types of facilities are warranted or space permits. Furthermore, NACTO provides guidance regarding desirable shared lane marking applications:

- To indicate a shared lane situation where the speed differential between bicyclist and motorist travel speeds is very low.
- As a reasonable alternative to a bike lane in limited circumstances.
- To strengthen connections in a bikeway network.
- To clarify bicyclist movement and positioning in challenging environments.
- Generally, shared lane markings are not desirable on streets that have a speed limit above 35 miles per hour.



Image 8 – Shared Lane Markings help to alert cyclists and motorists as to where a bike should be ridden in a given lane. Source: strongtowns.org

Paved Shoulders

The addition of paved shoulders can create a safe space for bicycles to operate that is similar to bicycle lanes in terms of separation from motor vehicle traffic. High speed, high volume, or rural roadways are most often constructed with paved shoulders. It should be noted that paved shoulders are not travel lanes (unlike striped bicycle lanes) and can be used for emergency stopping, temporary storage, or parking for bicycles. According to the Pedestrian and Bicycle Information Center, prior research has shown that paved shoulders tend to result in fewer erratic motor vehicle driver maneuvers, more predictable bicyclist riding behavior and enhanced comfort levels for both motorists and bicyclists.

MassDOT requires paved shoulders to be at a minimum 5 feet wide to accommodate bicycle travel. It is desirable to increase paved shoulder widths in areas where a higher level of bicycle use is anticipated. Furthermore, when roadway speeds exceed 50 miles per hour, heavy truck, bus, or other larger vehicle use is high, or there are a number of obstructions along the right of way, attempts should be made to increase shoulder widths accordingly.

Rumble strips that have been installed to prevent motor vehicles from running off the side of the roadway are an important safety measure that can be unsafe and uncomfortable for cyclists. If it is found that rumble strips are necessary in areas where heavy bicycle traffic is observed or expected, periodic gaps in the strips should be provided to allow for safe bicycle maneuverability. FHWA provided guidance in a 1998 memo out of the Wyoming Division Office regarding bicycle considerations and the design of shoulder rumble strips.

Bicycle Lanes

Bicycle lanes are typically designated by striping and a symbol of a cyclist along with signage alerting all transportation system users of the presence of the facility. Bike lanes are typically installed as one-way facilities that travel in the same direction as the adjacent vehicle lane or parking. The lanes allow cyclists to travel at speed and in a predictable manner. In some instances, lanes will be painted on the opposite side of a one-way street that has a high number of potential conflicts along the right side, such as bus stops, driveways, or loading zones. Bicycle lanes are the appropriate and preferred facility for

thoroughfares in both urban and suburban areas. In some circumstances, it may be desirable to install bike lanes on rural roads within the vicinity of urban or suburban areas.

Bike lane configuration and type selection should involve an analysis of existing traffic conditions and roadway behavior, safety measures to protect people who bike from parked and moving vehicles, as well as enforcement to prohibit vehicles from standing or parking in the facility.

Types of Bike Lanes:

Conventional Bike Lanes – Bike lanes designate an exclusive space for bicyclists through the use of pavement markings and signage. The bike lane is located adjacent to motor vehicle travel lanes and flows in direction as motor vehicle traffic. Bike lanes are typically on the right side of the street, between the adjacent travel lane and curb, road edge, or parking lane. This facility type may be located on the left side when installed on one-way streets or may be buffered if space permits.

Buffered Bike Lanes – Buffered bike lanes are conventional bicycle lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane. A buffered bike lane is allowed as per MUTCD guidelines for buffered preferential lanes (section 3D-01).

Contra-Flow Bike Lanes – Contra-flow bicycle lanes are designed to allow bicyclists to ride in the opposite direction of motor vehicle traffic. They convert a one-way traffic street into a two-way street: one direction for motor vehicles and bikes, and the other for bikes only. Contra-flow lanes are separated with yellow center lane striping. Combining both direction bicycle travel on one side of the street to accommodate contra-flow movement results in a two-way cycle track. The contra-flow design introduces new design challenges and may introduce additional conflict points as motorists may not expect oncoming bicyclists.

Left-Side Bike Lanes – Conventional bike lanes placed on the left side of one-way streets or two-way median divided streets. Left-side bike lanes offer advantages along streets with heavy delivery or transit use, frequent parking turnover on the right side, or other potential conflicts that could be associated with right-side bicycle lanes. The reduced frequency of ride-side door openings lowers dooring risk.

Bicycle Boulevards

A bicycle boulevard is a local street or series of contiguous segments that have been modified to function as a through street for bicyclists while discouraging through automobile travel. Local access for motor vehicles is maintained. According to the Urban Bikeway Design Guide, bicycle boulevards use signs, pavement markings, and speed and volume management measures to discourage through trips by vehicles and create safe, convenient bicycle crossings of busy arterial streets.

Design Elements of Bicycle Boulevards

The Urban Bikeway Design Guide provides guidance regarding enhancements to streets in order to develop bicycle boulevards. These treatments are grouped into the following categories:

- Route Planning: Direct access to destinations
- Signs and Pavement Markings: Easy to find and follow
- Speed Management: Slow motor vehicle speeds
- Volume Management: Low or reduced motor vehicle volumes



Image 9 – Bike Lanes can take many forms, but all provide dedicated roadway space.

- Minor Street Crossings: Minimal bicyclist delay
- Major Street Crossings: Safe and convenient crossings
- Offset Crossings: Clear and safe navigation
- Green Infrastructure: Enhancing environments

Cycle Tracks

Cycle tracks are physically separated bicycle facilities that are distinct from the sidewalk and are exclusively used for bicycling. It merges the feeling of a separated bike path with on-street bike lane striping. There are many forms of cycle tracks, but they have common elements: space that is intended to be exclusive or primarily for bicycles, separation from motor vehicle travel lanes, parking lanes, and sidewalks. Where on-street parking is allowed, cycle tracks are located to the curb side of parking, unlike traditional bicycle lanes. Cycle tracks can be one or two-way, level with the street or sidewalk, or in-between. According to the Urban Bikeway Design, if a cycle track is at sidewalk level, a curb or median separates them from motor traffic, while different pavement color/texture separates the cycle track from the sidewalk. If at street level, they can be separated from motor traffic by raised medians, on-street parking, or bollards. By separated cyclists from motor traffic, cycle tracks can offer a higher level of security than bike lanes and are attractive to a wider spectrum of the public. There are three main types of cycle track:



Image 10 – Cycle Tracks can take on many forms, and provide a higher level of separation than bike lanes. Source: Beyond DC Flickr

- One-way Protected Cycle Track – Typically at street level and use a variety of methods for physical protection from passing traffic. A one-way protected cycle track may be combined with a parking lane or other barrier between the cycle track and the motor vehicle travel lane.
- Raised Cycle Track – A facility that is separated vertically from motor vehicle traffic. Many are paired with a furnishing zone between the cycle track and the motor vehicle lane and/or pedestrian area. A raised cycle track may be one or two-way. As previously noted, two-way cycle tracks require further study due to operational characteristics. At intersections, a raised cycle track can be dropped and merged onto the street or treated as a raised crosswalk with appropriate signage. When placed next to a travel lane, a raised cycle track is typically configured with a mountable curb to allow for entry and exit from the track for turns or passing other cyclists.
- Two-way Cycle Track – Physically separated cycle tracks that allow bicycle movement in both directions on one side of the road. Two-way cycle tracks share some of the same design characteristics as one-way tracks but may require additional considerations at driveway and side-street crossings. A two-way cycle track may be configured as a protected cycle track and/or as a raised cycle track to provide vertical separation from the adjacent motor vehicle lane.

End of Trip Facilities

Convenient facilities such as bicycle parking (racks), lockers, water fountains, bathrooms, or even showers can be a large incentive to get commuters or even recreational cyclists to travel via bicycle. The focus of these facilities is to make it as easy as possible for commuters to choose cycling as opposed to another form of transportation. The combination of facilities allows people who cycle the opportunity to secure their bicycle, store their belongings, and shower/change in order to go about their workday.



Image 11 – End of trip facilities such as lockers or bike racks can greatly help to encourage cycling.

Shared Use Facilities

Some facilities are designed to be separated from traffic for use by both cyclists and pedestrians, they are typically referred to as shared use paths. Shared use paths are seen as an excellent way to promote cycling and walking due to their perceived increased level of safety. Shared use paths are often constructed along rivers or other waterways, utility corridors, limited access roadways, abandoned or active rail lines, or in parks or other open space areas. Shared use paths often attract a wide variety of users with an equally wide variety of skill levels. It is important that the paths are wide enough for two-way travel, with typical widths from 10 to 14 feet. Some consideration should be taken regarding the following in relation to shared use paths:

http://www.pedbikeinfo.org/planning/facilities_ped_paths.cfm

- Shared-use paths are a complement to the roadway network; they are not a substitute for providing access on streets.
- Connections to the regular street network are important, but a high number of crossing at intersections create potential conflicts with turning traffic.
- At intersections with roadways, paths should be signed, marked, and/or designed to discourage or prevent unauthorized motorized access.
- All users should be encouraged to stay right. An exception may be paths along waterways or other features that capture the attention of pedestrians. In these instances, markings and/or signage may be used to encourage pedestrians to stay on the side of the path closest to the attraction to reduce conflicts associated with pedestrians crossing the pathway.
- Since nearly all shared use paths are used by pedestrians, they need to meet the accessibility requirements of the Americans with Disabilities Act (ADA).
- In areas with extremely heavy pathway volume, it may be necessary to segregate pedestrians from wheeled cyclists.



A thorough analysis of existing conditions in the Central Massachusetts Metropolitan Planning Organization region is necessary before providing recommendations for new facilities, programs, and policies. The cataloging of existing conditions allowed MPO staff, along with regional stakeholders and citizens, to develop a baseline for developing and prioritizing new projects. The analysis of existing conditions included looking at all existing bicycle facilities, projects that are programmed for construction in the near future, origins and destinations that are or could be popular for people who bike, and existing opportunities and constraints that could play a role in how cycling infrastructure is developed in the future.

Most of the CMMPO region's existing cycling infrastructure consists of signed shared roadways, however, an increasing number of bicycle lanes are being installed across the region through the MassDOT Healthy Transportation Directive, issued in the fall of 2013, which that required all state transportation projects to increase bicycling, transit and walk options, there has been an uptick in the number of projects in the CMMPO region that promote multimodal access for system users, the MassDOT Complete Streets Program, the Transportation Improvement Program (TIP), or through municipal action in local construction programs. These lanes are being installed to improve safety and visibility for people who bike as an alternative mode of transportation. The existing facilities along with the programmed Transportation Improvement Projects form the basis for the recommendations listed in this plan. Maps and locations of existing facilities were collected from local municipalities as well as the Commonwealth of Massachusetts, and verified in the field by CMMPO staff.

There is a general lack of data when it comes to presence, location, and condition of bicycle facilities in the CMMPO region. While a few communities do have bicycle facilities, there is a lack of uniformity and consistency in the region. Design standards and signage have changed since the first bicycle facilities or signed routes were implemented many years ago. These issues have led to a bicycle network in the region that has a large number of gaps in connectivity, leading to a multitude of barriers for people who choose to travel via bicycle. These barriers occur at the regional and the neighborhood level.

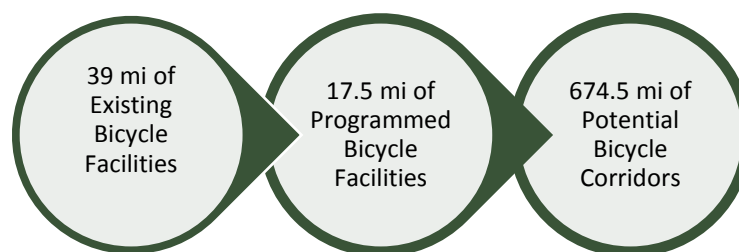


Figure 3: Bicycle Corridor Statistics (Source CMMPO Regional Bicycle Plan)

Constraints and Opportunities

The existing conditions in the CMMPO region were evaluated by the Transportation staff in order to understand where potential opportunities and constraints exist in the region regarding travelling via bicycle. Opportunities and constraints do not always have to be physical in nature, they can be created by a culture of travel that is dominated by the automobile, cyclist/motorist/pedestrian behavior, municipal policies, or general attitudes toward people who bike.

The recommendations of this plan are intended to serve as a baseline cycle network for the region, however, the CMMPO and the 40 municipalities in the region should always be on the lookout for new opportunities to provide the best network possible for residents and visitors who bike. New opportunities could present themselves in the future that may reduce or eliminate constraints identified in this plan, leading to a more connected network for cyclists. One of the goals of this plan is to provide a network of safe, comfortable, continuous, direct, and convenient bicycle facilities for all users of various skill levels and abilities, the reduction of constraints is essential in the achievement of said goal.

Constraints

Most of the factors that present constraints to developing a connected bicycle network are common to many metropolitan areas across the United States, the Worcester Metropolitan area is no exception to this challenge. Listed below are some of the constraints that present the greatest challenge to connectivity:

- Interstates/Limited Access Highways
- Active Railways
- Rivers, Streams, other bodies of water
- High-speed/High-volume roads
- Right of way issues (funding/acquisition)
- Cycling Ordinances
- Perception of safety
- Land use/Development patterns
- Climate
- Terrain

- Roadway/Facility Maintenance

Interstates/Limited Access Highways

The Interstate and limited access highway system in the CMMPO Region consists of I-90, I-190, I-290, I-395, I-495, and MA-146; all of which present barriers to mobility in the communities that they pass through. Additionally, in some instances, the crossings provided are large, multi-lane, higher speed roadways or bridges that add to the difficult and often dangerous nature of cycling around highways. High-speed, high-volume roadways often have minimal accommodations for people who bike and are some of the most difficult segments of roadway to retrofit for bicycle facilities.



Image 12 – Interstate 290

Active Railways

In addition to the safety hazard that train tracks pose to people who bike when crossing them, active railways can also serve as barriers to bicycle travel. Lack of crossings or grade separation over long distances, or a high level of rail traffic, can create a barrier similar to that of an Interstate Highway. Much like highway interchanges, extra planning is required in many cases.



Image 13 – Active rail can be an impediment to the regional network. Source: railpictures.net

Rivers, Streams, other bodies of water

There are a large number of rivers, streams, lakes, reservoirs, and other bodies of water in the CMMPO region that provide a high level of natural resources, recreation opportunities, and scenic beauty to each of the 40 cities and towns of southern Worcester County. While providing a needed natural resource, waterways and other bodies of water can present barriers to bicycle travel. Narrow pre-existing bridges or long intervals without a crossing are two of the ways that people who bike can be affected by waterways.

High-Speed / High-Volume Roads

Many of the major roads in the region carry large volumes of traffic that travels at higher speeds. These roadways are unsafe for people who bike without the proper infrastructure in place. Many of these roadways are the most direct route between town centers or other attractors or generators. They present a large barrier to bicycle connectivity.

Right of way issues

In many instances, it may be necessary to acquire additional right of way in order to accommodate bicycle facilities along roadways. The cost for adding or developing additional right of way can be prohibitive when it comes to locating bicycle facilities, especially in urbanized areas. Gaps in the cycling network can occur when right of way becomes a problem, this can diminish the functionality of the network.

Cycling Ordinances

Local ordinances have the possibility of creating conditions that are not friendly to people who bike, or encourage behavior that leads to unsafe roadway and sidewalk conditions for all transportation system users. Municipalities in the CMMPO region are encouraged to review their local ordinances in an attempt to modernize anything pertaining to cycling. Municipalities should ensure that their regulations

are in line with federal and state ordinances. Inconsistency can lead to confusion for all transportation system users and make it difficult for education and enforcement campaigns. Fees related to violation of said ordinances should be set to a level that increases the level of awareness while decreasing the level of offenses.

Perception of Safety

Perhaps more than any other reason, perception of safety colors people's attitudes toward cycling. People will not embrace cycling as a valid form of transportation if they do not feel safe while doing so, they will choose another form of transport almost every time. Feedback received through public outreach, as well as stakeholder interviews, indicates that a good deal of the region's residents and workforce do not cycle more often because of their perceived level of safety. Motorist behavior, lack of facilities, presence of street lights/ bicycle and pedestrian scale lighting, enforcement, roadway debris, and lack of visibility at night were some of the issues listed regarding perception of safety.

**ALMOST 60% OF SURVEY
RESPONDENTS STATED THAT THEY
FELT A LACK OF SAFETY WHEN
CYCLING.**

Land Use Patterns

Segregated land use patterns in many of the forty CMMPO communities can discourage travel via bicycle. Long distances or difficult connections between residential and other forms of land use can create barriers between origins and destinations. These barriers lead many who are able to choose automobile travel to do so. In order to increase the viability of bicycling, an effort should be made to incorporate mix-use into new development in the region. The blending of uses will help to bolster the multimodal network in the region.

Climate

The CMMPO region typically has long winters with significant snowfall totals. This can be a deterrent to cycling due to snow removal, cold, and lack of end-of-trip facilities. People who bike may feel an increased perceived lack of safety in winter months due to narrowed useable right of way and the general unpleasant nature of commuting in winter.

Roadway and Facility Maintenance

Many communities in the CMMPO region struggle to maintain their transportation networks. This can create a barrier for people who bike in the region. A lack of or faded lane striping leads to reduced visibility and perceived safety for cyclists. Patched pavement from utility construction as well as deterioration from winter storms and plowing can make travel difficult for people who bike and may even create hazardous conditions related to crashes.



Image 14 – Climate plays a major role in the ability of residents and visitors to travel via bicycle.

Opportunities

The CMMPO region also has a great deal of opportunities when it comes to establishing or improving cycling facilities in each of its forty communities. Some areas with high opportunity potential are:

- Future Roadway Improvements
- Active Railway Right of Way
- Abandoned and Inactive Railway Right of Way
- Utility Easements
- Topography in Town Centers
- Existing Roads with excess width
- End of Trip Facilities

Future Roadway Improvements

Roadway Improvement projects, whether they occur through the Transportation Improvement Program, Town Initiatives, Chapter 90, Complete Streets Program, or other avenues, are excellent opportunities to expand or improve the cycling transportation network. When bicycle facilities are included in the planning + design, right of way, and construction of roadway improvements, the cost can be lower than retrofitting existing roads with the same facilities. Projects identified in various local and regional plans, such as the CMMPO Long Range Transportation Plan, CMMPO Transportation Improvement Plan, local Complete Streets Tier II Prioritization Plans, as well as municipal master plans can provide opportunities for the CMMPO and local municipalities to expand the regional cycling network, as well as fill in gaps.



Image 15 – Roadway Improvement Projects are opportunities for the expansion of the bicycle network. Source: MassDOT

Active Railway Right of Way

Rail corridors are often wide and contained cleared areas alongside tracks in order to provide access for maintenance or visibility. In some areas, it is feasible to locate a multi-use path within the railroad right of way, as is the case with a portion of the Blackstone River Bikeway in northern Rhode Island. This use of rail corridor to form connections between origins and destinations, is referred to as “Rails-with-Trails.” While these corridors are often located in ideal locations for town to town connections and are usually graded in a manner that is conducive to cycling, it is often difficult to create agreements between freight rail operators and municipalities.

Abandoned and Inactive Railway Right of Way

Much like the corridors mentioned in the previous paragraph, abandoned or inactive railway corridors can provide excellent opportunities for regional connectivity if the proper agreements can be developed. “Rails-to-Trails” projects typically provide regional connections that are useful for recreational and commuting needs due to the historic layout of railroads. Typically, an abandoned rail

corridor may be owned by a municipal, state, or other governmental entity, although in some cases a private interest may control the property.

Utility Easements

Powerline corridors, pipeline corridors, and other utility easements can also serve as regional additions to the cycling network. Utility easements typically cover long distances and provide direct connections between potential origins and destinations. In most cases, the land located in the easement is used as an access road to maintain the infrastructure. This lends to the potential for using the easement for alternative travel modes. As with the rail corridors mentioned previously, extensive agreements need to be reached in order to add easements to the transportation network. A good deal of coordination is necessary with utility operations as well as adjacent land owners in order to reach a shared use agreement.

Topography in Town Centers

While the CMMPO region is known for its hilly terrain, it does have a number of town centers that are relatively flat, which lend themselves to bicycling networks that are easy to navigate. Town centers that are not physically challenging to traverse via bicycle will allow for a shift in local trips from the automobile to bicycle with the appropriate investment in bicycle facilities and coordinated land use activity.

Existing Roads with excess width

Many roads in the CMMPO region have wide lanes that are not painted with shoulder or “fog” lines or have multiple travel lanes that are larger than required. This extra width could be used to accommodate travel via bicycle. Extra wide lanes can be narrowed to modern acceptable standards to allow for bike lanes to be installed, and shoulders can be striped and properly signed to allow for bicycle travel. Additionally, some of the multi-lane roadways in the region could be narrowed through a “road diet” to accommodate cycling infrastructure. Traffic analysis can be performed in order to determine a road’s eligibility for a reduction in lanes and associated levels of service.



Image 16 – Roads with excess width are prime candidates for bicycle network expansion.

End of trip facilities

Bicycle racks, parking, storage, along with other end of trip facilities can make travel via bicycle a more enjoyable and convenient choice. This is especially true in areas that are highly conducive to biking, or contain a lot of attractors and generators. End of trip facilities are an important factor taken into account when people who bike are making a decision whether or not to commute to work via bicycle.

Commuter Needs

According to US News and World Report, the average commute in the Worcester Metro area is 28.3 minutes, which is approximately 2.2 minutes longer than the national average. Additionally, approximately 90% of commuters travel via automobile, leading to congestion and air pollution. One of the main goals of this regional bicycle plan is to reduce reliance on the automobile for daily travel. In order to do this, it is necessary to make it easy and practical for CMMPO region residents and workers to make some daily commute trips via bicycle instead of by automobile. In order to make the shift from

automobile to bicycle more practical, the CMMPO and municipal governments should focus on providing a connected bicycle network that not only has on and off-road facilities, but the following characteristics should be present as well:

- A Convenient Network of Facilities – Lanes, shoulders, and paths should be installed to provide logical and safe connections between major attractors and generators, such as residential areas and commercial districts. People who bike usually prefer on-road lanes and shoulders for their commute, however, greenways or other multi-use paths would also be beneficial to creating a robust network in the CMMPO region.
- End of trip facilities – Amenities such as showers, locker rooms, bicycle racks or other parking options should be located at larger employment centers or other popular destinations.
- Facility maintenance– Road debris and broken pavement can create very dangerous situations for cyclists. An online system with a map component for reporting and addressing maintenance issues would go a long way to ensure a safe bicycle network.
- Integration with WRTA and MBTA transit – In order to establish a truly interconnected transportation network, bicycling improvements should be coordinated with regional transit planning whenever possible to provide a robust system that allows for efficient movement across modes.
- Safety & Enforcement – Up-to-date design standards are necessary when constructing the bicycle network for the CMMPO region in order to provide an acceptable level of safety and connectivity. Furthermore, a proactive enforcement approach from local police departments would go a long way to reduce rates of crashes and aggressive transportation system user behavior.
- Information Availability – Municipalities and CMMPO staff should work together to provide the most up-to-date information regarding bicycle network travel, available routes, maps, end of trip facilities, ways to report maintenance related issues, and more. All town websites as well as the CMRPC website should include relevant links regarding the bicycle network.
- Encouragement – Activities such as those that take place during Bay State Bike Week, with bike to work day, safety campaigns, and commuter incentive programs such as MassRIDES all help to encourage more CMMPO region residents to choose to bike to work or school. Educational campaigns should focus on the rules of the road for all transportation system users so that everyone on the road or other facilities knows their rights and responsibilities.



Image 17 – End of Trip Facilities

Recreational + Casual Rider Needs

The needs of recreational cyclists are quite different from that of people who commute via bicycle. People who commute via bicycle typically prefer to travel along major roadways that provide the most direct connection between home and work. On the other hand, recreational cyclists often prefer to travel in loops through neighborhoods or along greenways that provide exercise, shade from the summer sun, visual variety, and other features.

The CMMPO region has an abundance of areas that lend themselves to recreational cycling and bicycle tourism. There are a good deal of public parks and other passive recreation resources in the forty municipalities that make up the region. A number of the goals of this plan lend themselves to developing a bicycle network that provides links between neighborhoods, commercial centers, and recreational spaces such as parks or other features. Recreational cycling is an essential component to the region's quality of life and to developing a bicycling component to travel and tourism efforts in

Central Massachusetts. A well-connected bicycle network can serve as a place where people can interact, connect with nature, exercise, and simply enjoy all that the region has to offer.

A well-connected bicycle network can also provide health benefits to the CMMPO region. Positive health outcomes have been attributed to cycling and daily moderate physical activity. The bicycle network should be developed to provide convenient access to recreational areas, allowing the region's residents to easily add bicycling to their day to day living. The CMMPO region offers a vast array of parks, both municipally operated as well as state and private land trust open space.

There is already a good deal of recreational cycling that takes place in the region, the development of an interconnected bicycle network of lanes, shoulders, and signage will provide an opportunity to fill in and connect the gaps between parkland and residents. The CMMPO region lacks adequate recreational bicycle connections between communities as current designated routes contain little in the way of striped lanes or shoulders. Experienced riders may be comfortable riding in mixed traffic, but the larger group of potential riders desires a greater feeling of safety that is provided by greenways, multi-use paths, parks, or low-traffic neighborhood streets. With this in mind, the regional bicycle network should be developed with less experienced cyclists in mind. The linking of local and regional recreation spaces with residential areas and commercial centers will improve the accessibility and connectivity of the CMMPO region. The recommendations in this plan deal with the following recreation related needs:

AN OVERWHELMING NUMBER OF RESPONDENTS LISTED EXERCISE (90%) OR RECREATION (83%) AS THEIR TOP REASONS FOR CYCLING.

- Connections – Safe and convenient connections between residential areas and recreational space will help the region's residents reach destinations via bicycle, reducing reliance on the automobile and generating positive health outcomes.
- Design – Connected facilities that are usable for all groups and ages will lead to a greater range of appeal. Separated, multi-use pathways such as rail trails, greenways, or the Blackstone River Greenway are helpful to users who don't have the experience level of daily cycling commuters, as well as those that use alternative mobility devices. Facilities should be clearly marked when they are installed in on-road locations, with both pavement markings and signs to provide information to cyclists and drivers. Additionally, consideration should be given to bicycle racks at municipal parks and other public facilities.
- Aesthetics – Consideration should be given to the design of recreational facilities in terms of proper lighting, shade from the summer sun, drinking water availability, and restroom facilities. This is especially important for longer facilities such as the Boston/Worcester Airline Trail and the Blackstone River Greenway.
- Encouragement / Education – Public Safety Campaigns, Service Announcements, rules of the road, and training classes can provide encouragement for people who may be interested in cycling, but unsure of how to go about using the network. The CMMPO and local municipalities should coordinate efforts to encourage local residents and visitors to increase the level of bicycling in the region. Highlights should include local ordinances, the promotion of the environmental and health benefits of cycling, and safety tips.



Image 18 – Encouragement Activities

Attractors and Generators

The connectivity of the regional bicycle network is one of the most important goals of this plan. Convenient and direct routes between popular origins and destinations, or generators and attractors, are essential in providing the option of an alternative form of travel such as bicycling or walking. Appropriate end of trip facilities such as racks, lockers, or shower/restroom facilities can make destinations even more attractive to potential cyclists or pedestrians.

In order to establish as baseline determination of where bicycle facilities and sidewalks should be located in the CMMPO Region, the major origins and destinations were identified using Geographic Information System data that CMRPC holds in its database, as well as input received during stakeholder meetings and public outreach held for the plan update. Stakeholders and survey respondents indicated typical locations for origins and destinations in the region for recreational or commuting needs. CMMPO staff then using some of the following datasets to aid in the mapping analyses:

- Schools / Colleges
- Libraries
- Hospitals
- Open Space/Parks
- Town Halls
- Shopping Centers

Due to the variety that exists in terms of development the CMMPO region, as well as its geographic size, it is not practical to provide direct connections to each and every attractor and generator in the region. However, attempts have been made to connect town centers and areas of significant density or mix of uses. The network that has been developed through this planning process will focus on providing connections between the aforementioned locations. Through the mapping exercise, CMMPO staff were able to develop a hybrid “hot spot” map of likely trip origin and destination locations. This map will prove useful in the prioritization of bicycle and pedestrian projects in the Long-Range Transportation Plan, Transportation Improvement Plan, or municipal Complete Streets Prioritization Plans.



Image 19 – Downtown Worcester holds a great deal of the CMMPO region’s attractors and generators, such as Union Station.



The intent of this plan is to provide a planning tool for the CMMPO, the Massachusetts Department of Transportation (MassDOT), and the forty (40) local Municipalities within the CMRPC region to develop a connected network of bicycle facilities that is safe, convenient, and continuous for residents and visitors. It should be noted that collaboration between neighboring MPO's (MAPC, MRPC, PVPC, Rhode Island State Planning Council, and the Northeastern Connecticut Council of Governments) and the CMMPO is essential to improving regional connectivity. The recommendations contained in this plan are broad in scope, and include policy and legislative changes as well as physical improvements to the transportation network. The intended result is a region that is well connected and friendly to cyclists of all abilities.

The Five Es

This plan follows what are known as the “5Es”: Engineering, Education, Enforcement, Encouragement, and Evaluation in order to provide greater opportunity for bicycling to be an option for commuting or recreation. The 5Es are common to many aspects of Transportation Planning, including Safe Routes to School, Safety Planning (Road Safety Audits), etc. This approach allows municipalities to build on previous efforts and plan for the future while developing a bicycle network.

- **Engineering:** Physical improvements to infrastructure to support bicycling, including policies and design standards that are designed to support the development of a bicycle network.
- **Education:** Municipal and State initiatives to teach or train users of the bicycle network the appropriate techniques and skills they will need in order to operate in a safe manner. This

category also includes the education of the motoring public to raise awareness of alternative mode users in the transportation network.

- **Enforcement:** Law enforcement efforts intended to ensure the safety of all road users. Basic laws and regulations/ordinances that respect the rights of all transportation system users should be held up by local and state agencies.
- **Encouragement:** Coordinated activities that encourage residents and visitors to choose to bicycle for commuter or recreational activities instead of driving a vehicle. These efforts can include local events or statewide events such as Bay State Bike Week.
- **Evaluation:** Data collection and analysis to identify milestones and justify future investments in infrastructure and programs.

Engineering

The installation of facilities on the ground is the most compelling evidence of a region's commitment to cyclists as a fully supported member of the transportation system. The Regional Bicycle and Pedestrian Survey results indicated that the physical presence of bicycle facilities plays a large role in determining whether or not someone will cycle to a destination, as well as perception of safety. Best practices from around the country and across the Commonwealth have shown that communities that are committed to embracing cyclists and pedestrians have adopted a Complete Streets policy in order to try and make every street, over time, a safe and inclusive street for all modes of transportation, including bicycle and pedestrian users. Complete Street design standards and best practices should be reviewed over time to make sure that the most up to date information is available.

MassDOT Complete Streets Funding Program

The MassDOT Complete Streets Funding Program, created by legislative authorization in the 2017 Transportation Bond Bill, provides technical assistance and construction funding to eligible municipalities. Eligible municipalities must pass a Complete Streets Policy and develop a Prioritization Plan. The program is structured into three tiers that assist communities wherever they are in the process:

MassDOT Complete Streets Funding Program Levels

- Tier I – Complete Streets Training & Policy Development
- Tier II – Complete Streets Prioritization Plan Development
- Tier III – Project Construction Funding

The MassDOT Complete Streets Funding Program has helped CMRPC staff to work with communities across the CMMPO region to make great strides in adopting policies and developing Prioritization Plans, which have led to a number of communities receiving funding to construct their first Complete Streets project. At the time of the development of this chapter, 18 of the 40 CMMPO communities have Complete Streets policies that have been approved by MassDOT, 9 of those 18 communities have approved Prioritization Plans, with 4 of those communities having received Tier II construction grants. A number of additional CMMPO communities have expressed interest in working with CMRPC staff on developing Prioritization Plans, and their future efforts will be guided by, and amended into, this plan at appropriate intervals. For more information, please visit <http://www.masscompletestreets.com>

A variety of infrastructure, from bicycle shoulders, to lanes, to multi-use pathways are necessary for a region to be considered welcoming to cyclists of all ages and abilities. A connected network of on and off-road facilities that provides a safe route between origins and destinations would be considered successful in terms being friendly to cyclists. In the development of the bicycle network, there are a few elements that should be considered when selecting potential infrastructure projects. The limitation, whenever possible, of abrupt transitions in the network – While it is nearly impossible to implement facilities regionwide in one fell swoop, care should be taken to ensure that when projects are constructed, thought is given to transitions between segments where there are and are not bicycle facilities, with an eye to limiting sharp changes in roadway configuration. End of trip facilities, such as lockers, parking, bathroom/shower facilities, etc. have a positive effect on creating a region that is friendly to cyclists and other alternative travel modes. Connections to transit are essential in urbanized areas that are concerned with being friendly to bicycle travel. A well-connected bicycle network can supplement the transit network by providing safe connections to and from origins and destinations that are not located directly along fixed route transit service. Finally, recreational cycling is an integral part of alternative mode travel in the CMMPO region, and efforts should be made to incorporate facilities that encourage this form of travel. Furthermore, opportunities exist to integrate recreational cycling, with regional travel and tourism via bicycle rapidly becoming an opportunity for growth.

Other Engineering-related recommendations include:

- The CMMPO and member municipalities should work together, in coordination with MassDOT, to ensure that any new bicycle facilities installed in the region follow current best practices and guidelines
- The CMMPO should work with MassDOT and the UMass Transportation Center to continue to provide and highlight training opportunities for municipal staff such as engineering, planning, and local law enforcement
- Increase the number of bicycle racks and other bicycle parking facilities in CMMPO member municipalities. MAPC has a collective purchasing program , with more information available here: <https://www.mapc.org/our-work/services-for-cities-towns/public-works-collective-purchasing-program/#bicycleparking>
- Increase on-road bicycle connections to public open space to provide opportunities for travel to and from recreational spaces
- Explore the possibility of region-wide wayfinding signage that is geared toward bicycle commuting and recreational cycling/travel and tourism
- Provide additional end of trip facilities such as showers, lockers, water stations, seating, lighting, etc. There are opportunities to form public/private partnerships with larger employers in the region
- Collaboration between the CMMPO, member municipalities, and MassDOT to measure the level of service on the roadways of the region in order to develop a bike-ability index
- Explore the use of Road Diets to create space for bicycle facilities, and improve motorist and pedestrian safety through traffic calming
- Work to streamline communication and coordination between municipal officials, MassDOT, developers, and utility companies to incorporate network design and implementation into roadway maintenance and construction activities.

Education

Education is perhaps the most difficult aspect of the 5Es, as it rarely rises to the top of any survey when people are asked what would encourage them to cycle more often. Education and safety training are important parts of a well-functioning bicycle network, yet many users are unsure of local cycling ordinances or rules of the road. A coordinated campaign or training materials that focused on network use and traffic safety would be beneficial for all roadway users, regardless of mode. It should be noted that any coordinated campaign or educational effort is typically highly labor intensive to get off the ground, and takes another great deal of effort to sustain year after year in order to achieve any level of successful impact.

Outreach efforts should be targeted to all transportation system users, including pedestrians, professional drivers (transit, taxi, Uber/Lyft), and cyclists. Coordination with the Registry of Motor Vehicles for the dissemination of the materials through driver training, or re-training courses would be highly beneficial. There are other ways to reach the community through an educational campaign, below are a few examples of successful efforts in other regions:

- Newspaper/Newsletter columns or online blog posts
- Utility Bill inserts
- Public Service Announcements (PSAs) on transit, television, radio, billboards, and forms of print media
- Facebook, Twitter, and Instagram posts
- Municipal, State, and large employer websites

Additional efforts that CMMPO member communities can undertake to get the message about bicycle safety are:

- Incorporate safety education into tax bills, registration renewals, or other town issued communication
- Implement educational opportunities in schools, and through summer recreation programs

Enforcement

Law enforcement agencies and local laws/ordinances should work in concert to ensure that cyclists' rights are protected as transportation system users, that they are protected against dangerous, reckless, or generally unsafe motorists, and that cyclists themselves follow the rules of the road accordingly. Public safety officers should be well versed in the laws and ordinances of the various CMMPO communities in order to equitably enforce them to ensure a safe and efficient transportation network. When appropriate, or available through funding, having bicycle police patrols or law enforcement participation on bicycle related network planning can help to increase the level of communication and

Public Survey Highlights

Over 50% of respondents described themselves as “beginner” or “intermediate” in terms of bicycling ability.

Less than 25% of respondents classified their knowledge of local cycling ordinances as “Complete Knowledge”

understanding between those who enforce the law and those who are users of the transportation system. Law enforcement has a unique public safety perspective on traffic issues that lead to a large portion of bicycle and pedestrian crashes/injuries, such as wrong way riding, running red lights, jaywalking, or failure to use lights while riding in the dark. The potential for traffic diversion programs through the court system could play a large role in creating safer streets for network users. Cyclists, pedestrians, and motor vehicle operators that have committed a moving violation could potentially have educational efforts and outreach related to traffic safety included as part of their sentencing.

Additional efforts that CMMPO member communities can undertake to incorporate enforcement into network development include:

- Regular training for officers on bicycle related issues, especially traffic laws, regulations, and “Share the Road”
- Encourage police officers to use targeted enforcement, similar to the MassDOT Safety Grant employed by the Worcester PD in 2016, to encourage motorists, cyclists, and pedestrians to share the road. The information brochure that was used in the MassDOT program proved useful
- Increased police patrols in areas that have high levels of bicycle traffic or where safety concerns have been identified, ideally the patrols would be on bicycle and not in a vehicle

Encouragement

Municipalities, the business community, higher education, and other members of the region will play an essential role in encouraging people to bicycle to their destination by giving residents and visitors the opportunity or incentive to use an alternative form of transportation. Events such as Walk and Bike to School Day, Baystate Bike Week, and National Bike Month are a few examples of how to bring together community partners in order to get more people out and traveling via bicycle. Activities related to encouragement can vary greatly, but all of them help to work toward a shift in community culture that is friendlier to bicycle travel. Advocacy groups such as Walk Bike Worcester are key partners to engage when planning events and campaigns related to supporting cycling.



Image 20 – Encouragement Activity during Bay State Bike Week in Southbridge.

There are four general categories that most encouragement activities fall into:

- Financial – Commuter programs that offer some sort of financial benefits, rewards, or incentives can be highly useful in the push to encourage cycling as a mode of travel.
- Information – Commuters or recreational cyclists that may be on the fence about getting out on a bike need information on where to ride, and safe routes to work or other destinations. Informational programs that provide maps, wayfinding, signage, mobile apps, and coaching can help to alleviate potential riders’ concerns.
- Community – People naturally like to cycle when there are other cyclists present, and in situations where motor vehicle traffic is not a concern. Open Streets, Ciclovias, or other events where streets or neighborhoods are closed off to traffic to allow for cycling and walking to occur, usually with some sort of festival or celebration are excellent ways to get people out on a bike and able to see their everyday world from a different perspective.

- Bicycles – There are a number of people who do not ride simply because they do not own a bicycle, or have the means to do so. The recent introduction of bike share programs into a number of CMMPO member municipalities has helped to alleviate this issue, and provide a higher level of bicycle access to the general public.

Some additional recommendations for encouragement include:

- Work with local businesses to promote bicycle friendliness to customers and in the workplace
- Participation in Baystate Bike Week by municipalities, large employers, and universities
- Municipalities and the CMMPO should work to gather more community input into bicycle planning efforts
- Explore the idea of zoning ordinance changes to require larger employers to provide on-site bicycle parking and other end of trip facilities, such as locker rooms/showers
- Implement community and region-wide signage and wayfinding to make it easier for cyclists to navigate the network. Create a local bicycle map for distribution
- Hold community events surrounding the completion of a new bicycle related infrastructure project
- Explore the potential of holding Open Streets events during the warmer months to encourage residents and visitors to get out and enjoy a major traffic corridor in a safe manner



Image 21 – Bike Share is a new development in the CMMPO Region, providing bicycle access to a wider range of citizens.

Evaluation

Data collection and monitoring, as well as Performance Measures, are important aspects of planning for and developing a regional bicycle network. One of the main initiatives of this plan was to collect a baseline dataset of local infrastructure that currently exists in the region. This local dataset will be used to supplement statewide travel survey and other available data. It can be difficult for communities to come up with the resources needed to implement bicycle projects, the addition of this plan and the accompanying dataset will help CMMPO municipalities prioritize and demonstrate the purpose and need of bicycle network projects. Similar to, and in coordination with, the Complete Streets Prioritization efforts, this localized data will allow municipal staff to work with MassDOT and the CMMPO to provide recommendations suited for the region.

Some additional recommendations for evaluation include:

- Increase efforts related to bicycle safety planning by using MassDOT Bicycle Crash datasets to prioritize regional hotspots in order to reduce the number of crashes/injuries
- Work with Regional Trails efforts to expand access to and connections between, off-road mountain bike and hiking trails via bicycle
- Work with CMRPC Regional Collaboration & Community Planning staff to integrate the development of the regional bicycle network into regional land use and development planning/projects
- Explore the feasibility of conducting an economic impact study on bicycling and walking in one or more CMMPO communities

Prioritization

The 2011 CMMPO Regional Bicycle and Pedestrian Plan was evaluated, and the decision to break the plan into two separate plans focusing on Bicycle and Pedestrian was made in order to provide a greater level of focus on each of the modes. Plan updates, combined with feedback received over the past seven years through public meetings, a public outreach survey and stakeholder input, along with the development of the MassDOT Complete Streets Funding Program, has allowed for the development of a baseline dataset and initial listing of recommended corridors for a regional bicycle network. This network, employing both on-street facilities and longer shared-use pathways, is envisioned to provide increased accessibility and connectivity. In a similar vein to CMRPC's Regional Evacuation planning efforts, corridors have been broken down into tiers based on their proximity to centers of activity as follows:

Regional and Multi-Use Connectors

These corridors connect various centers of activity throughout the CMMPO region to one another. They are envisioned to provide connectivity between jurisdictions across a larger geographic area. These corridors may be located along arterial and collector roadways or take the form of multi-use pathways, such as the Blackstone River Greenway or Boston-Worcester Airline Trail.

Major Connectors

Corridors that have been identified as major connectors are intended to provide a somewhat more localized accessibility and connectivity than regional connectors, but will still serve as the main connections between a large amount of activity centers. These corridors also are located primarily along arterial and collector roadways, and provide connections between regional priorities.

Minor Connectors

Corridors that didn't rise to the level of regional or major connectors have been assigned a secondary, or minor status. These corridors are typically located on local roadways and serve as connections between higher level connectors or provide access to other local corridors. Outside of main connections in rural areas of the CMMPO, most of the connectors will be listed as minor.

Problem Corridors and Perceived Trouble Spots

Throughout the public input process, related meetings, and stakeholder outreach, a number of intersections, bridges, interchanges, and other barriers to bicycle travel were identified. Additionally, certain corridors in the region were highlighted for their perceived lack of safety or being unaccommodating to non-motorized travel. It should be noted that these locations are merely the result of comments received, and have not been studied in any way through the development of this plan. The highlighted areas should be further investigated by local jurisdictions and/or MassDOT when deemed appropriate. The following tables highlight the perceived trouble spots and corridors.

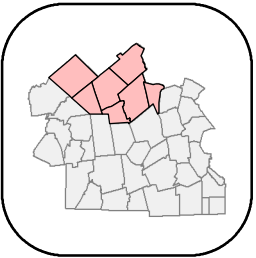
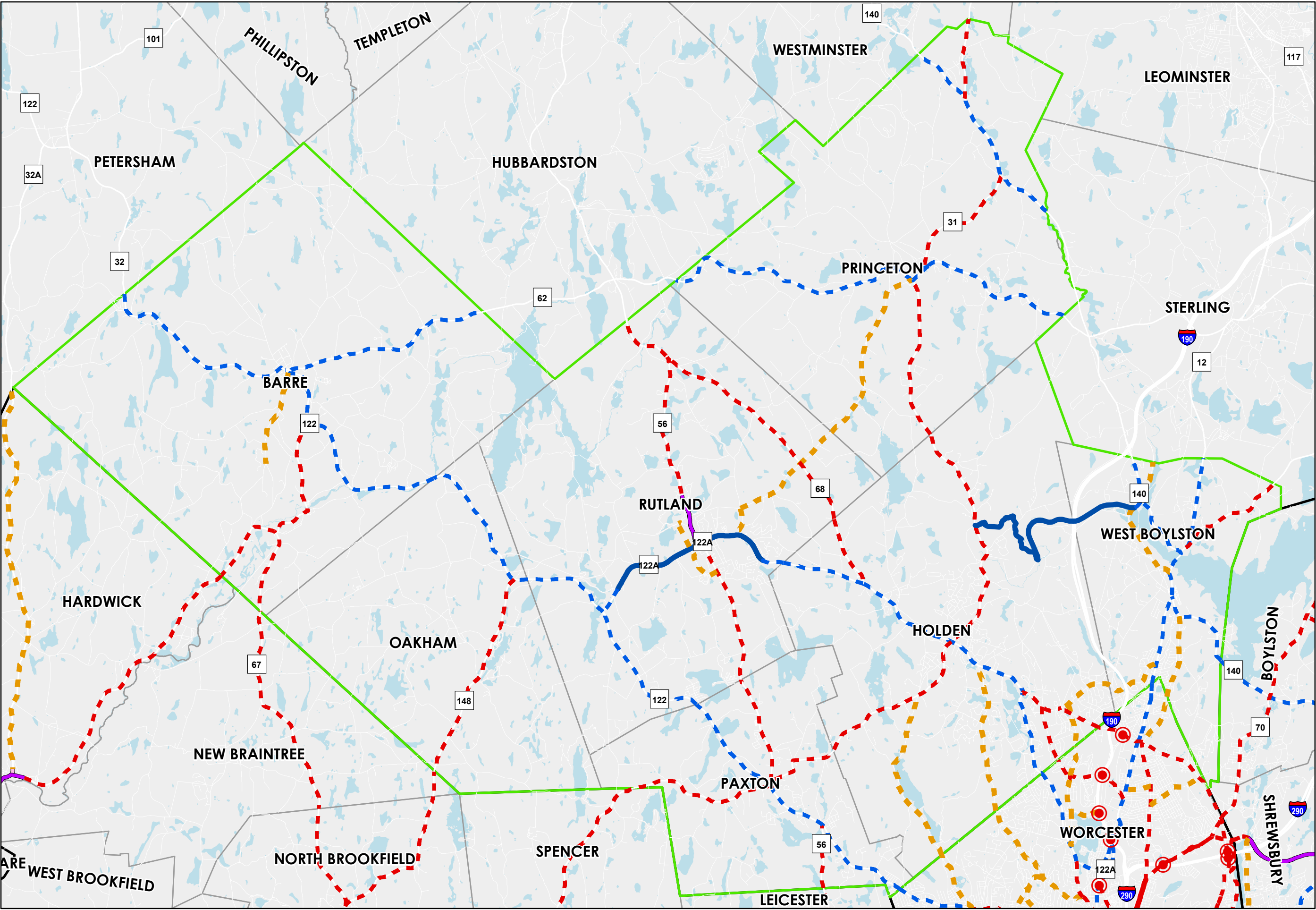
Table 3: Problem Locations

Location	Type	Municipality
I-190 @ Gold Star Boulevard	Highway Interchange	Worcester
Webster Square: Main @ Webster	Complicated Intersection	Worcester
Webster Square: Main @ Stafford	Complicated Intersection	Worcester
Webster Square: Park @ Mill	Complicated Intersection	Worcester
Belmont Street @ Plantation Street	Complicated Intersection	Worcester
I-290 @ Plantation Street	Highway Interchange	Worcester
I-290 @ Plantation Street	Highway Interchange	Worcester
MA-9 @ Lake Avenue	High Volume/High Speed Roadway	Worcester
MA-146 @ McKeon Road	Highway Interchange	Worcester
Kelley Square	Complicated Intersection	Worcester
MA-9 @ Shrewsbury Street	Complicated Intersection	Worcester
I-290 @ MA-70	Highway Interchange	Worcester
I-190 @ Ararat Street	Highway Interchange	Worcester
I-190 @ Shore Drive	Highway Interchange	Worcester
I-190 @ Mountain Street E	Highway Interchange	Worcester
Lincoln Square North	Complicated Intersection	Worcester
Lincoln Square South	Complicated Intersection	Worcester
Grove St/Park Ave/Gold Star Blvd	Complicated Intersection	Worcester
MA-12 @ I-90 / I-395 / I-290	Highway Interchange	Auburn
MA-12 @ US-20 (East End)	High Volume/High Speed Roadway	Auburn
MA-12 @ US-20 (West End)	High Volume/High Speed Roadway	Auburn
Blackstone Valley Shoppes	High Volume/High Speed Roadway	Millbury
US-20 @ I-84	Highway Interchange	Sturbridge
Cambridge St @ Freemont Street	Perception of Safety	Worcester
Southbridge St @ Hammond St	Perception of Safety	Worcester

Table 4: PROBLEM CORRIDORS

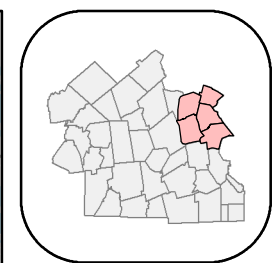
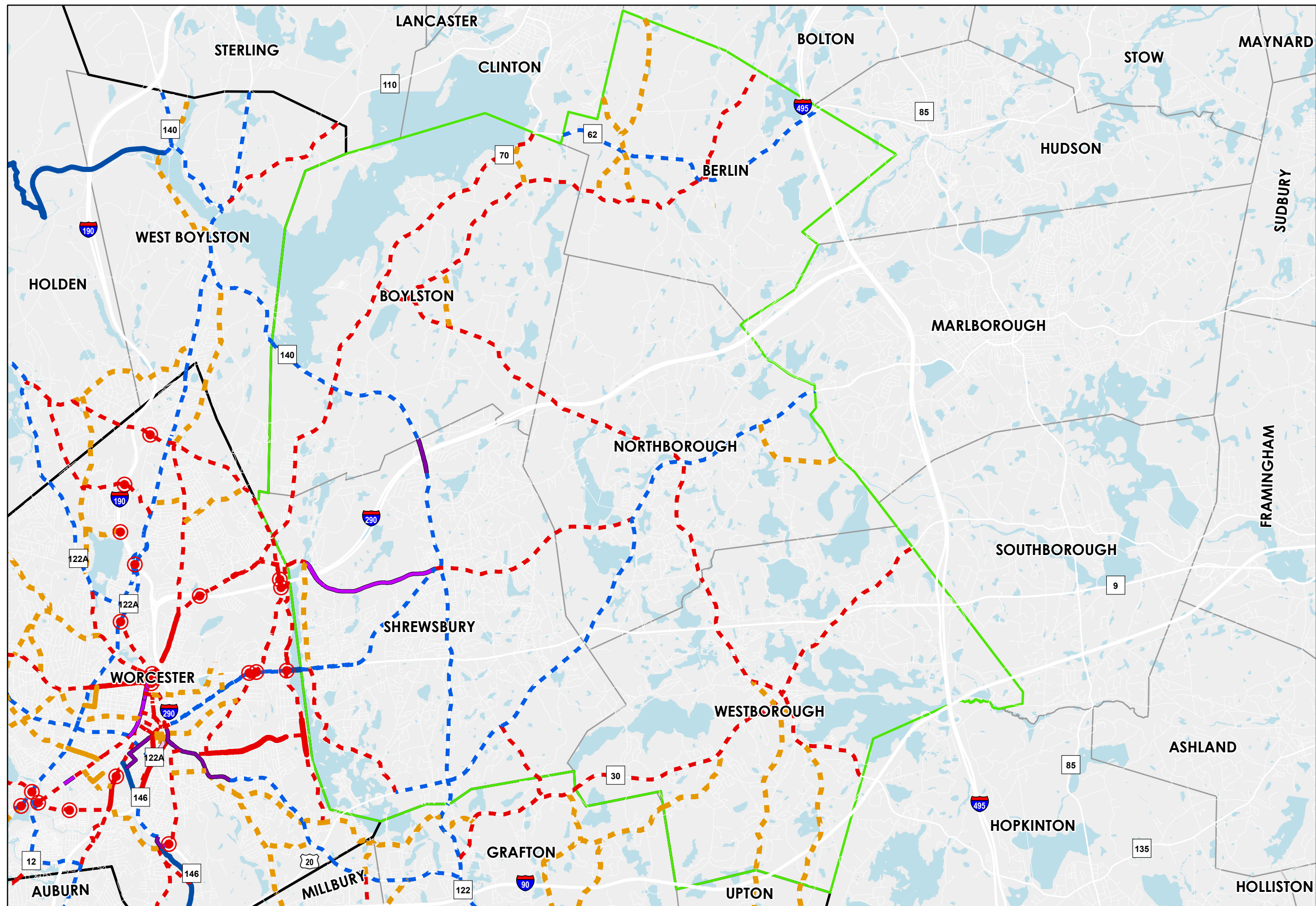
Municipality	Problem Corridor
WORCESTER	Chandler Street/Madison Street - Kelley Sq. to Park Ave.
WORCESTER	Park Avenue - Webster Sq. to Grove St.
WORCESTER	Gold Star Boulevard/West Boylston Street - Grove St. to Andover St.
WORCESTER	Main Street - Webster Sq. to Leicester Town Line
OXFORD	US-20 - Auburn Town Line to Charlton Town Line
CHARLTON	US-20 - Oxford Town Line to Sturbridge Town Line
STURBRIDGE	US-20 - Charlton Town Line to Hall Rd.
STURBRIDGE	US-20 - MA-131 to Brimfield Town Line

Subregional Maps

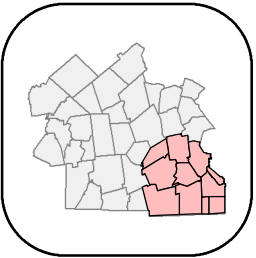
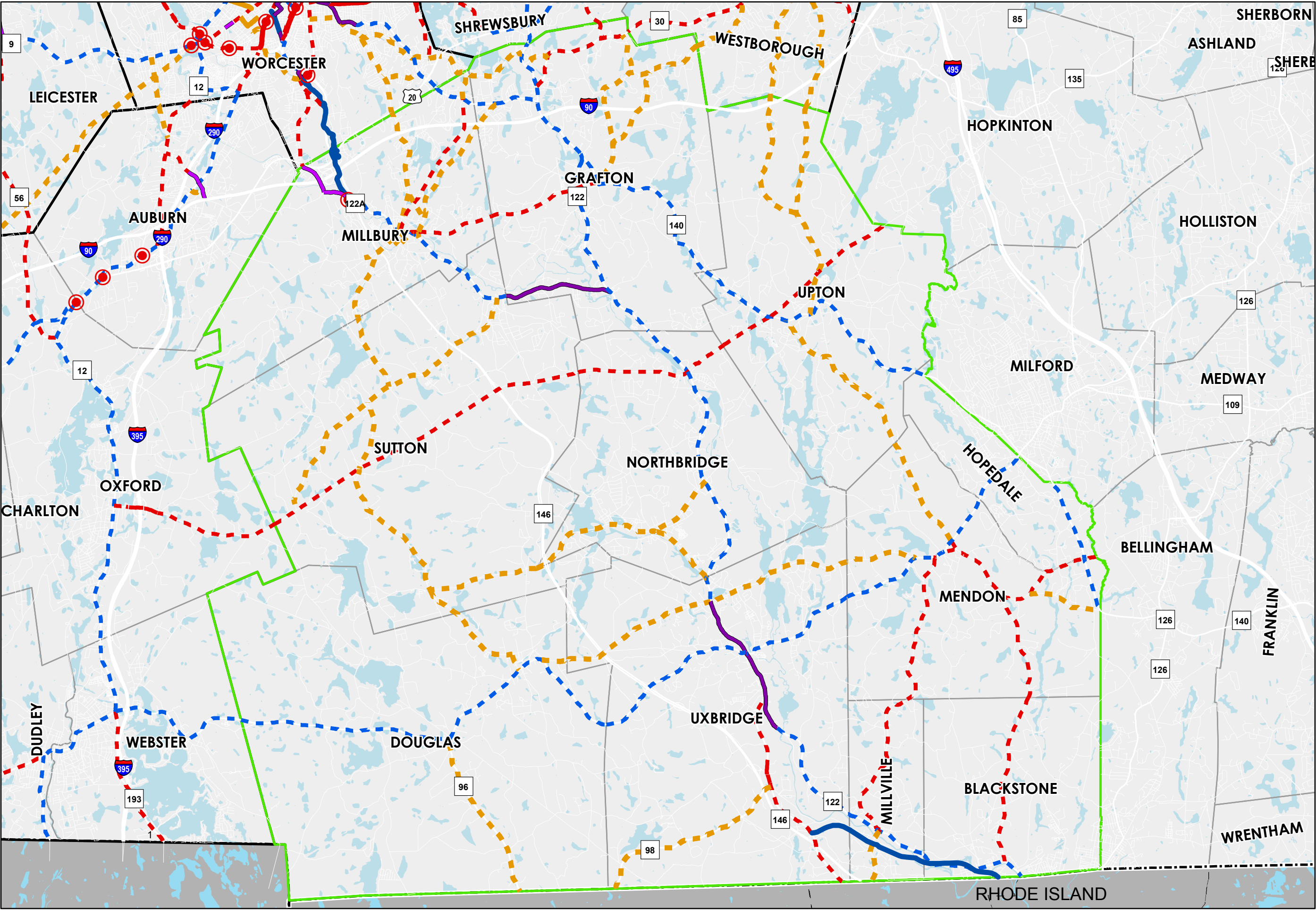


- Bicycle Facilities**
- Regional - Existing
 - Major - Existing
 - Minor - Existing
 - Regional - Programmed
 - Major - Programmed
 - Minor - Programmed
 - Regional - Potential
 - Major - Potential
 - Minor - Potential
 - Connectivity Barrier

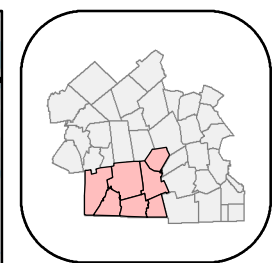
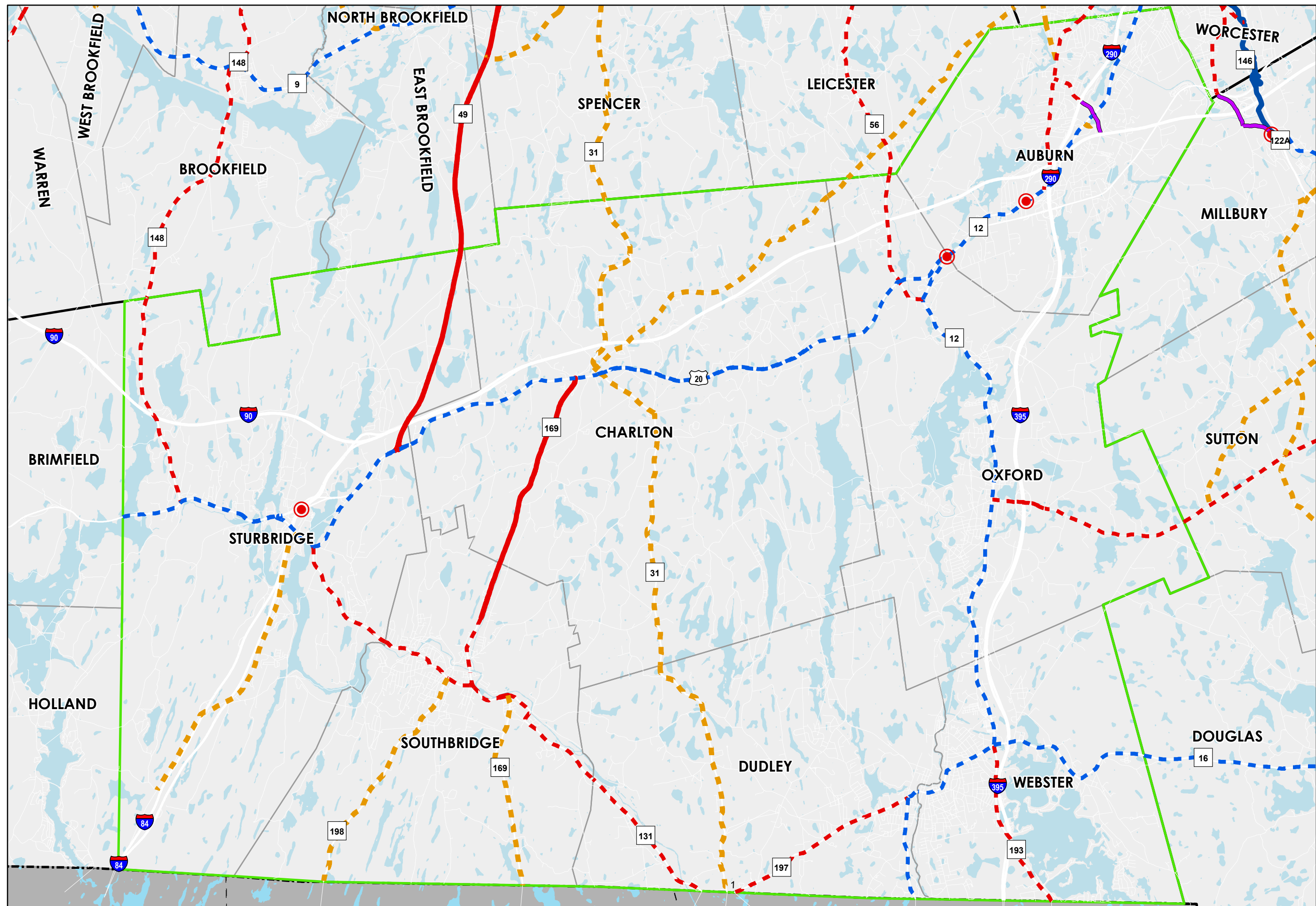
NORTH



- Bicycle Facilities**
- Regional - Existing
 - Major - Existing
 - Minor - Existing
 - Regional - Programmed
 - Major - Programmed
 - Minor - Programmed
 - Regional - Potential
 - Major - Potential
 - Minor - Potential
 - Connectivity Barrier

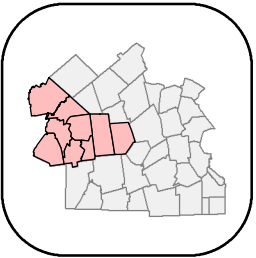
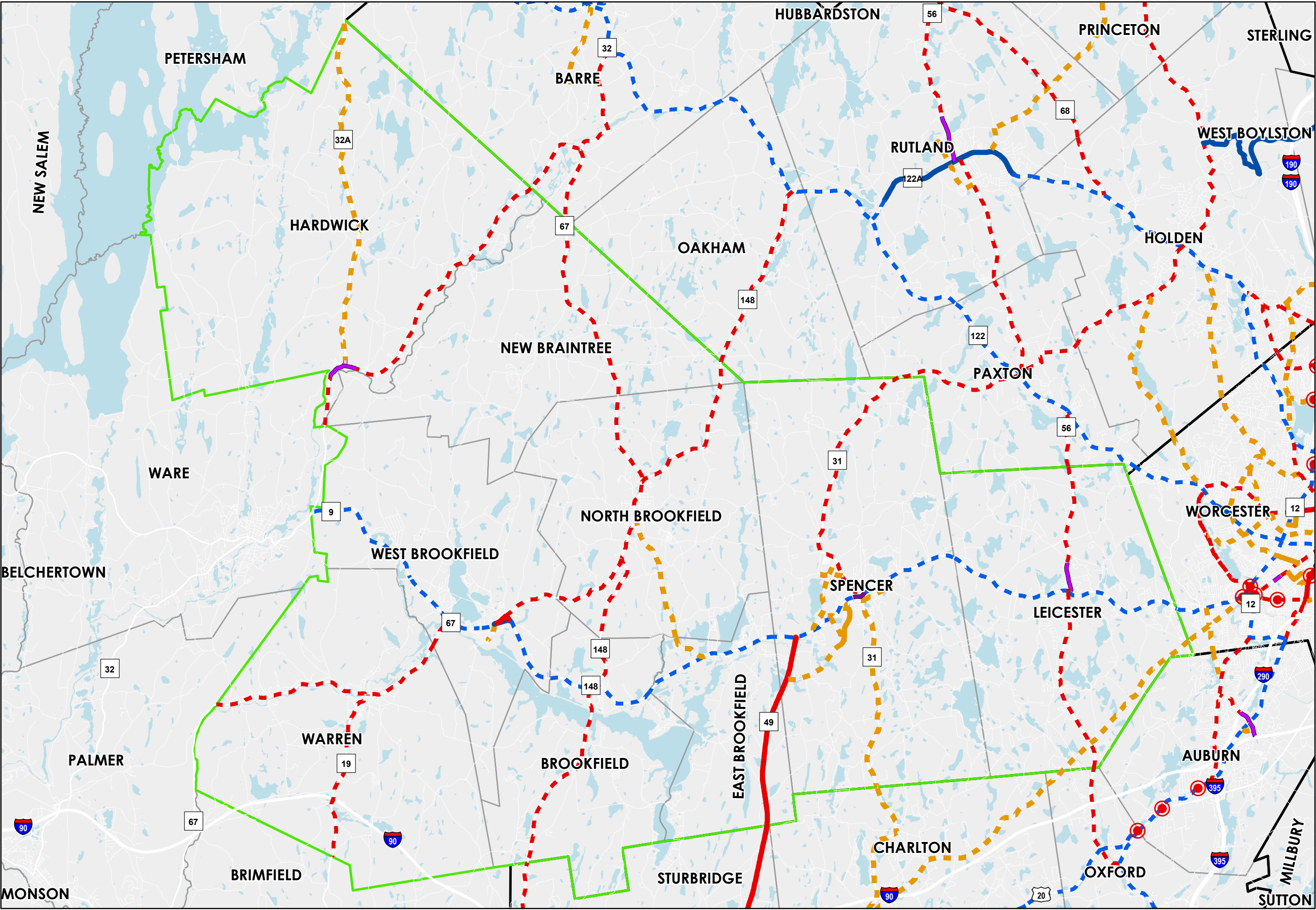


- Bicycle Facilities**
- Regional - Existing
 - Major - Existing
 - Minor - Existing
 - Regional - Programmed
 - Major - Programmed
 - Minor - Programmed
 - Regional - Potential
 - Major - Potential
 - Minor - Potential
 - Connectivity Barrier

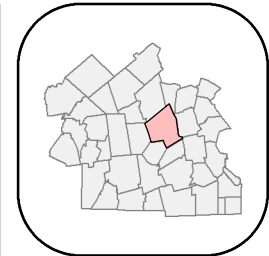
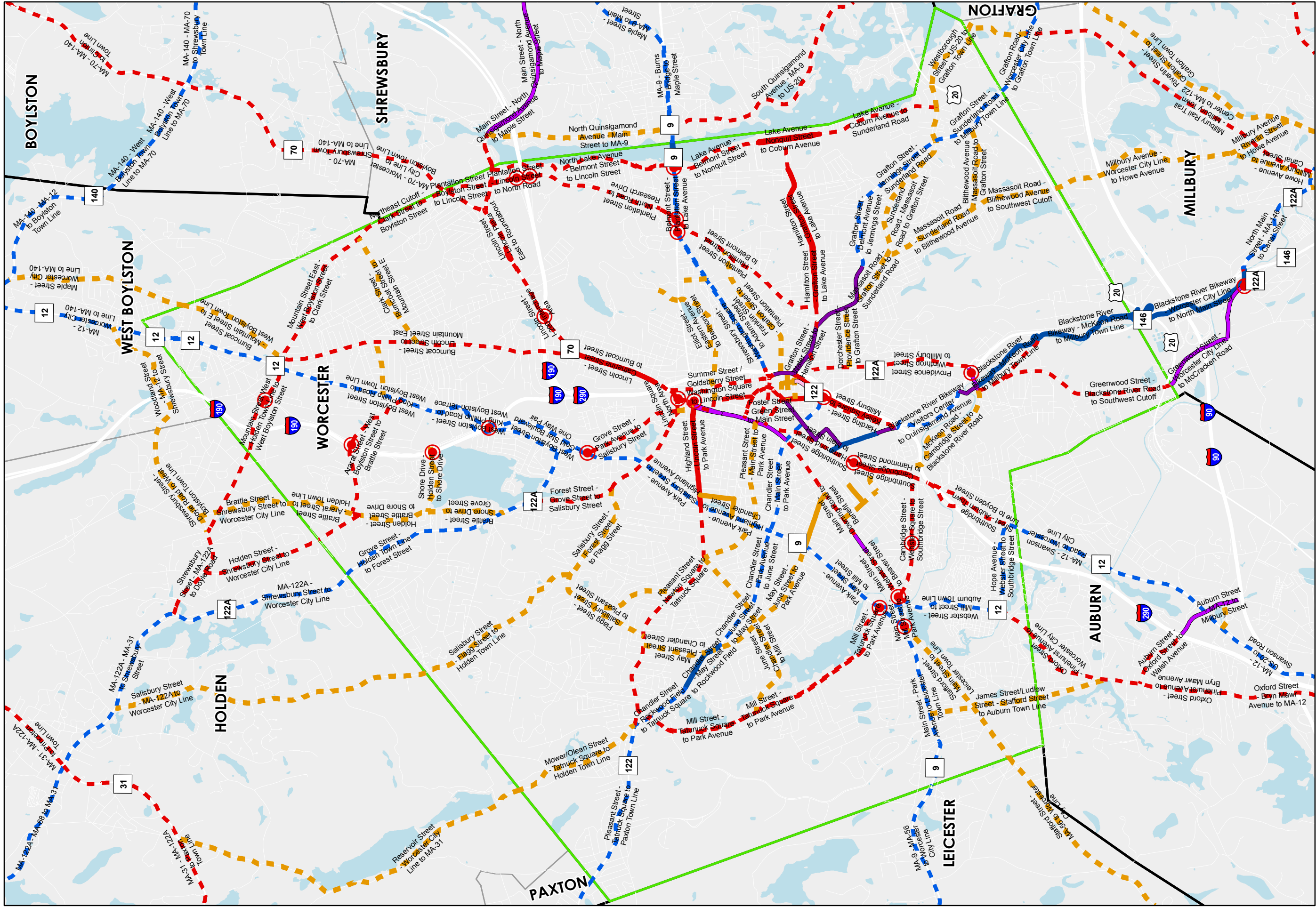


- Bicycle Facilities**
- Regional - Existing
 - Major - Existing
 - Minor - Existing
 - Regional - Programmed
 - Major - Programmed
 - Minor - Programmed
 - Regional - Potential
 - Major - Potential
 - Minor - Potential
 - Connectivity Barrier

SOUTHWEST



- Bicycle Facilities**
- Regional - Existing
 - Major - Existing
 - Minor - Existing
 - Regional - Programmed
 - Major - Programmed
 - Minor - Programmed
 - Regional - Potential
 - Major - Potential
 - Minor - Potential
 - Connectivity Barrier



- Bicycle Facilities**
- Regional - Existing
 - Major - Existing
 - Minor - Existing
 - Regional - Programmed
 - Major - Programmed
 - Minor - Programmed
 - Regional - Potential
 - Major - Potential
 - Minor - Potential
 - Connectivity Barrier

CENTRAL

Table 5: Recommended Bicycle Network Corridors – REGIONAL PRIORITY

Municipality	Facility Name	Location	Miles	Status	Priority
AUBURN	MA-12 - Swanson Road to Worcester City Line	Paved Road	2.03	Potential	Regional
AUBURN	MA-12 - US-20 to Swanson Road	Paved Road	2.69	Potential	Regional
AUBURN	US-20 / MA-12 - Oxford Town Line to MA-12	Paved Road	0.80	Potential	Regional
BARRE	MA-122 - Oakham Town Line to Town Center	Paved Road	4.44	Potential	Regional
BARRE	MA-122 / MA-32 - Town Center to Petersham Town Line	Paved Road	3.89	Potential	Regional
BARRE	MA-62 - Town Center to Hubbardston Town Line	Paved Road	4.08	Potential	Regional
BERLIN	MA-62 - Clinton Town Line to Hudson Town Line	Paved Road	4.52	Potential	Regional
BLACKSTONE	Blackstone Valley Bikeway - Millville Town Line to Rhode Island State Line	Multi-Use Pathway	1.48	Existing	Regional
BLACKSTONE	Main Street - Millville Town Line to Rhode Island State Line	Paved Road	2.10	Potential	Regional
BOYLSTON	MA-140 - MA-70 to Shrewsbury Town Line	Paved Road	1.69	Potential	Regional
BOYLSTON	MA-140 - West Boylston Town Line to MA-70	Paved Road	1.15	Potential	Regional
BROOKFIELD	MA-9 - East Brookfield Town Line to MA-148	Paved Road	1.45	Potential	Regional
BROOKFIELD	MA-9 - MA-148 to West Brookfield Town Line	Paved Road	0.94	Potential	Regional
CHARLTON	US-20 - MA-169 to Masonic Home Road	Paved Road	0.41	Potential	Regional
CHARLTON	US-20 - MA-31 to Oxford Town Line	Paved Road	7.71	Potential	Regional
CHARLTON	US-20 - Sturbridge Town Line to MA-169	Paved Road	2.98	Potential	Regional
DOUGLAS	Davis Street - Main Street to Uxbridge Town Line	Paved Road	1.80	Potential	Regional
DOUGLAS	Main Street - Webster Street to Davis Street	Paved Road	2.42	Potential	Regional
DOUGLAS	Webster Street - Webster Town Line to Main Street	Paved Road	4.04	Potential	Regional
DUDLEY	MA-12 - MA-197 to Connecticut State Line	Paved Road	1.66	Potential	Regional
DUDLEY	MA-12 - MA-197 to Webster Town Line	Paved Road	0.18	Potential	Regional
EAST BROOKFIELD	MA-9 - Spencer Town Line to Brookfield Town Line	Paved Road	2.93	Potential	Regional
GRAFTON	MA-122 - MA-122A to Northbridge Town Line	Paved Road	1.06	Potential	Regional
GRAFTON	MA-122 - MA-140 to Millbury Street	Paved Road	0.54	Potential	Regional
GRAFTON	MA-122 - Millbury Street to MA-122A	Paved Road	2.17	Potential	Regional
GRAFTON	MA-122 / MA-140 - MA-30 to Providence Road	Paved Road	1.61	Potential	Regional
GRAFTON	MA-122A - Sutton Town Line to MA-122	Paved Road	2.07	Programmed	Regional
GRAFTON	MA-140 - Grafton Town Common to Upton Town Line	Paved Road	3.11	Potential	Regional
GRAFTON	MA-140 - MA-122 to Grafton Town Common	Paved Road	0.60	Potential	Regional
GRAFTON	North Main Street - MA-122 to MA-30	Paved Road	0.32	Potential	Regional
GRAFTON	Shrewsbury Street - Shrewsbury Town Line to MA-30 (Waterville Street)	Paved Road	0.95	Potential	Regional
GRAFTON	Worcester Street - Deernolm Street to MA-140	Paved Road	0.84	Potential	Regional
GRAFTON	Worcester Street - Millbury Town Line to Deernolm Street	Paved Road	0.43	Potential	Regional
HOLDEN	Central Massachusetts Rail Trail - Manning Street to MA-31	Multi-Use Pathway	1.06	Existing	Regional
HOLDEN	Central Massachusetts Rail Trail - River Street to Manning Street	Multi-Use Pathway	0.96	Existing	Regional
HOLDEN	MA-122A - MA-31 to Shrewsbury Street	Paved Road	1.71	Potential	Regional
HOLDEN	MA-122A - MA-68 to MA-31	Paved Road	2.05	Potential	Regional
HOLDEN	MA-122A - Rutland Town Line to MA-68	Paved Road	1.57	Potential	Regional
HOLDEN	MA-122A - Shrewsbury Street to Worcester City Line	Paved Road	1.62	Potential	Regional
HOPEDALE	Mendon Street - Mendon Town Line to Milford Town Line	Paved Road	1.14	Potential	Regional
HOPEDALE	South Main Street - Milford Town Line to Mendon Town Line	Paved Road	1.61	Potential	Regional
HOPEDALE	West Street - Upton Town Line to Milford Town Line	Paved Road	0.21	Potential	Regional
LEICESTER	MA-9 - MA-56 to Worcester City Line	Paved Road	2.56	Potential	Regional
LEICESTER	MA-9 - Spencer Town Line to MA-56	Paved Road	2.67	Potential	Regional
MENDON	Cape Road - Hopedale Town Line to Bellingham Town Line	Paved Road	1.04	Potential	Regional
MENDON	Hastings Street - Maple Street to Main Street	Paved Road	0.27	Potential	Regional
MENDON	Hastings Street - Uxbridge Road to Maple Street	Paved Road	0.15	Potential	Regional
MENDON	Milford Street - Main Street to Hopedale Town Line	Paved Road	0.97	Potential	Regional
MENDON	Uxbridge Road - Uxbridge Town Line to Hastings Street	Paved Road	1.97	Potential	Regional
MILLBURY	Blackstone River Bikeway - Worcester City Line to North Main Street	Multi-Use Pathway	1.58	Existing	Regional
MILLBURY	Canal Street - North Main Street to Providence Street	Paved Road	0.35	Potential	Regional
MILLBURY	Grafton Road - Worcester City Line to Grafton Town Line	Paved Road	0.79	Potential	Regional
MILLBURY	North Main Street - MA-146 to Canal Street	Paved Road	1.12	Potential	Regional
MILLBURY	Providence Street - Canal Street to Sutton Town Line	Paved Road	1.24	Potential	Regional
MILLVILLE	Blackstone Valley Bikeway - Uxbridge Town Line to Blackstone Town Line	Multi-Use Pathway	1.57	Existing	Regional
MILLVILLE	Main Street - Lincoln Street to Blackstone Town Line	Paved Road	0.99	Potential	Regional
MILLVILLE	Main Street - Uxbridge Town Line to Lincoln Street	Paved Road	0.65	Potential	Regional
NORTHBOROUGH	US-20 - Shrewsbury Town Line to West Main Street	Paved Road	2.14	Potential	Regional
NORTHBOROUGH	US-20 - South Street to Marlborough Town Line	Paved Road	2.28	Potential	Regional
NORTHBOROUGH	US-20 - West Main Street to South Street	Paved Road	1.28	Potential	Regional
NORTHBRIDGE	Providence Road - Grafton Town Line to Sutton Street	Paved Road	1.09	Potential	Regional
NORTHBRIDGE	Providence Road - Riverdale Road to Church Street	Paved Road	1.16	Potential	Regional
NORTHBRIDGE	Providence Road - Sutton Street to Riverdale Road	Paved Road	1.11	Potential	Regional
NORTHBRIDGE	Providence Road - Church Street to Uxbridge Town Line	Paved Road	2.09	Potential	Regional

Recommended Bicycle Network Corridors – REGIONAL PRIORITY

Municipality	Facility Name	Location	Miles	Status	Priority
OAKHAM	MA-122 - Rutland Town Line to Barre Town Line	Paved Road	2.89	Potential	Regional
OXFORD	MA-12 - MA-56 to US-20	Paved Road	0.78	Potential	Regional
OXFORD	MA-12 - Sutton Avenue to MA-56	Paved Road	3.69	Potential	Regional
OXFORD	MA-12 - Webster Town Line to Sutton Avenue	Paved Road	2.65	Potential	Regional
OXFORD	US-20 - Charlton Town Line to MA-56	Paved Road	1.37	Potential	Regional
OXFORD	US-20 - MA-56 to MA-12 / Auburn Town Line	Paved Road	1.03	Potential	Regional
PAXTON	MA-122 - MA-56 to Worcester City Line	Paved Road	2.01	Potential	Regional
PAXTON	MA-122 - Town Center to Rutland Town Line	Paved Road	2.09	Potential	Regional
PAXTON	MA-122 / MA-31 - Town Center Area	Paved Road	0.01	Potential	Regional
PAXTON	MA-122 / MA-56 - MA-56 to Town Center	Paved Road	1.26	Potential	Regional
PRINCETON	MA-140 - Sterling Town Line to Westminster Town Line	Paved Road	3.94	Potential	Regional
PRINCETON	MA-31 / MA-62 - MA-31 South to MA-31 North	Paved Road	0.83	Potential	Regional
PRINCETON	MA-62 - MA-31 North to Sterling Town Line	Paved Road	2.97	Potential	Regional
PRINCETON	MA-62 - MA-31 to Hubbardston Town Line	Paved Road	5.11	Potential	Regional
RUTLAND	MA-122 - Paxton Town Line to Oakham Town Line	Paved Road	4.81	Potential	Regional
RUTLAND	MA-122A - Fisherman Road to MA-122	Paved Road	0.52	Potential	Regional
RUTLAND	MA-122A - MA-56 N to Fisherman Road	Paved Road	1.79	Existing	Regional
RUTLAND	MA-122A - MA-56 N to Naquag Street	Paved Road	1.52	Existing	Regional
RUTLAND	MA-122A - Naquag Street to Holden Town Line	Paved Road	0.41	Potential	Regional
SHREWSBURY	MA-140 - MA-9 to Grafton Town Line	Paved Road	2.20	Potential	Regional
SHREWSBURY	MA-140 - MA-9 to Main Street	Paved Road	1.39	Potential	Regional
SHREWSBURY	MA-140 - Main Street to Wachusett Avenue	Paved Road	1.47	Potential	Regional
SHREWSBURY	MA-140 @ I-290 Interchange	Paved Road	1.04	Programmed	Regional
SHREWSBURY	MA-9 - Burns Bridge to Maple Street	Paved Road	1.87	Potential	Regional
SHREWSBURY	Maple Street - MA-9 to Main Street	Paved Road	1.83	Potential	Regional
SHREWSBURY	US-20 - Centech Boulevard to Northborough Town Line	Paved Road	1.79	Potential	Regional
SHREWSBURY	US-20 - MA-140 to Centech Boulevard	Paved Road	1.19	Potential	Regional
SHREWSBURY	US-20 - South Quinsigamond Avenue to MA-140	Paved Road	0.81	Potential	Regional
SPENCER	MA-9 - Grove Street to High Street	Paved Road	0.28	Programmed	Regional
SPENCER	MA-9 - Grove Street to Leicester Town Line	Paved Road	2.08	Potential	Regional
SPENCER	MA-9 - High Street to Meadow Road	Paved Road	1.10	Potential	Regional
SPENCER	MA-9 - Meadow Road to East Brookfield Town Line	Paved Road	1.11	Potential	Regional
STURBRIDGE	Hall Road - MA-131 to US-20	Paved Road	1.08	Potential	Regional
STURBRIDGE	MA-131 - Maple Street to Hall Road	Paved Road	0.34	Potential	Regional
STURBRIDGE	MA-131 - US-20 to Maple Street	Paved Road	0.70	Potential	Regional
STURBRIDGE	US-20 - Brimfield Town Line to MA-148	Paved Road	0.99	Potential	Regional
STURBRIDGE	US-20 - Cedar Street to MA-131	Paved Road	1.28	Potential	Regional
STURBRIDGE	US-20 - Hall Road to Charlton Town Line	Paved Road	1.71	Potential	Regional
STURBRIDGE	US-20 - MA-148 to Cedar Street	Paved Road	1.05	Potential	Regional
SUTTON	Providence Road - Millbury Town Line to Grafton Town Line	Paved Road	1.11	Potential	Regional
UPTON	Main Street - Hartford Avenue to School Street	Paved Road	0.78	Potential	Regional
UPTON	Main Street - School Street to Grove Street	Paved Road	0.30	Potential	Regional
UPTON	Milford Street - Grove Street to Hopedale Town Line	Paved Road	2.52	Potential	Regional
UPTON	West Main / Main Street - Grafton Town Line to Hartford Avenue	Paved Road	1.55	Potential	Regional
UXBRIDGE	Blackstone Valley Bikeway - Quaker Highway to Millville Town Line	Multi-Use Pathway	0.77	Existing	Regional
UXBRIDGE	Douglas Street - Douglas Town Line to North Main Street	Paved Road	3.29	Potential	Regional
UXBRIDGE	Mendon Street - South Main Street to Mendon Town Line	Paved Road	2.35	Potential	Regional
UXBRIDGE	Millville Road - Susan Parkway to Millville Town Line	Paved Road	2.34	Potential	Regional
UXBRIDGE	North Main Street - Hartford Avenue to Douglas Street	Paved Road	1.22	Programmed	Regional
UXBRIDGE	North Main Street - Northbridge Town Line to Hartford Avenue	Paved Road	0.48	Potential	Regional
UXBRIDGE	South Main Street - Douglas Street to Susan Parkway	Paved Road	1.63	Programmed	Regional
WEBSTER	MA-12 - Dudley Town Line to MA-193	Paved Road	1.54	Potential	Regional
WEBSTER	MA-12 - MA-193 to Oxford Town Line	Paved Road	1.42	Potential	Regional
WEBSTER	MA-16 - MA-12 to Douglas Town Line	Paved Road	2.87	Potential	Regional
WEST BOYLSTON	Central Mass Rail Trail to MA-140	Paved Road	0.28	Potential	Regional
WEST BOYLSTON	Central Massachusetts Rail Trail - Thomas Street to Holden Town Line	Multi-Use Pathway	1.23	Existing	Regional
WEST BOYLSTON	Central Massachusetts Rail Trail - West Boylston Town Line to River Street	Multi-Use Pathway	1.54	Existing	Regional
WEST BOYLSTON	MA-12 - MA-110 to Sterling Town Line	Paved Road	1.71	Potential	Regional
WEST BOYLSTON	MA-12 - MA-140 to MA-110	Paved Road	0.18	Potential	Regional
WEST BOYLSTON	MA-12 - Worcester City Line to MA-140	Paved Road	1.67	Potential	Regional
WEST BOYLSTON	MA-12/MA-140 - Central Street to Goodale Street	Paved Road	0.46	Potential	Regional
WEST BOYLSTON	MA-12/MA-140 - Goodale Street - End of Causeway	Paved Road	0.39	Potential	Regional
WEST BOYLSTON	MA-140 - MA-12 to Boylston Town Line	Paved Road	1.76	Potential	Regional
WEST BOYLSTON	MA-140 - MA-12 to Thomas Street	Paved Road	1.49	Potential	Regional

Recommended Bicycle Network Corridors – REGIONAL PRIORITY

Municipality	Facility Name	Location	Miles	Status	Priority
WEST BROOKFIELD	MA-9 - Central Street to North Main Street	Paved Road	0.06	Existing	Regional
WEST BROOKFIELD	MA-9 - Cross Street to Warepoint Road	Paved Road	0.44	Potential	Regional
WEST BROOKFIELD	MA-9 - Milk Street to Central Street	Paved Road	0.12	Potential	Regional
WEST BROOKFIELD	MA-9 - Milk Street to Cross Street	Paved Road	0.21	Potential	Regional
WEST BROOKFIELD	MA-9 - North Main Street to Maple Street	Paved Road	0.29	Existing	Regional
WEST BROOKFIELD	MA-9 - Pierce Road to Cutler Road	Paved Road	0.76	Potential	Regional
WEST BROOKFIELD	MA-9 - School Street to Brookfield Town Line	Paved Road	1.56	Potential	Regional
WEST BROOKFIELD	MA-9 - Ware Town Line to Pierce Road	Paved Road	2.14	Potential	Regional
WEST BROOKFIELD	MA-9 - Warepoint Road to Cutler Road	Paved Road	1.46	Potential	Regional
WORCESTER	Belmont Street - Lake Avenue to Shrewsbury Town Line	Paved Road	0.43	Existing	Regional
WORCESTER	Belmont Street - Plantation Street to Lake Avenue	Paved Road	0.91	Potential	Regional
WORCESTER	Belmont Street - Shrewsbury Street to Plantation Street	Paved Road	0.31	Potential	Regional
WORCESTER	Blackstone River Bikeway - McKeon Road - Visitors Center - MA-146 Overpass	Paved Road	0.20	Programmed	Regional
WORCESTER	Blackstone River Bikeway - McKeon Road to Millbury Town Line	Multi-Use Pathway	1.82	Existing	Regional
WORCESTER	Blackstone River Bikeway - Quinsigamond Avenue Connector	Paved Road	0.17	Programmed	Regional
WORCESTER	Blackstone River Bikeway - Visitors Center to Quinsigamond Avenue	Paved Road	0.73	Potential	Regional
WORCESTER	Blackstone Valley Bikeway - Segment 7	Paved Road	0.78	Programmed	Regional
WORCESTER	Chandler Street - June Street to May Street	Paved Road	0.44	Potential	Regional
WORCESTER	Chandler Street - Main Street to Park Avenue	Paved Road	0.82	Potential	Regional
WORCESTER	Chandler Street - May Street to Rockwood Field	Paved Road	0.46	Existing	Regional
WORCESTER	Chandler Street - Park Avenue to June Street	Paved Road	0.70	Potential	Regional
WORCESTER	Chandler Street - Rockwood Field to Tatnuck Square	Paved Road	0.56	Potential	Regional
WORCESTER	Grafton Street - Delmont Avenue to Jennings Street	Paved Road	0.77	Potential	Regional
WORCESTER	Grafton Street - Hamilton Street to Rice Square	Paved Road	0.45	Programmed	Regional
WORCESTER	Grafton Street - Jennings Street to Sunderland Road	Paved Road	0.66	Potential	Regional
WORCESTER	Grafton Street - Rice Square to Delmont Avenue	Paved Road	0.30	Programmed	Regional
WORCESTER	Grafton Street - Sunderland Road to Millbury Town Line	Paved Road	0.76	Potential	Regional
WORCESTER	Grafton Street - Water Street to Hamilton Street	Paved Road	0.57	Programmed	Regional
WORCESTER	Grafton Street - Winter Street to Washington Square	Paved Road	0.18	Programmed	Regional
WORCESTER	Grove Street - Forest Street to West Boylston Street	Paved Road	0.49	Potential	Regional
WORCESTER	Grove Street - Holden Town Line to Forest Street	Paved Road	1.83	Potential	Regional
WORCESTER	Hope Avenue - Webster Street to Southbridge Street	Paved Road	0.77	Potential	Regional
WORCESTER	Madison Street - Kelley Square to Main Street	Paved Road	0.45	Potential	Regional
WORCESTER	Main Street - Mill Street to Park Avenue	Paved Road	0.20	Potential	Regional
WORCESTER	Main Street - Park Avenue to Leicester Town Line	Paved Road	1.46	Potential	Regional
WORCESTER	Mill Street - Park Avenue to Webster Street	Paved Road	0.24	Potential	Regional
WORCESTER	Park Avenue - Chandler Street to May Street	Paved Road	0.33	Potential	Regional
WORCESTER	Park Avenue - Grove Street to Salisbury Street	Paved Road	0.44	Potential	Regional
WORCESTER	Park Avenue - Highland Avenue to Chandler Street	Paved Road	0.81	Potential	Regional
WORCESTER	Park Avenue - May Street to Mill Street	Paved Road	0.85	Potential	Regional
WORCESTER	Park Avenue - Mill Street to Main Street	Paved Road	0.27	Potential	Regional
WORCESTER	Park Avenue - Salisbury Street to Highland Avenue	Paved Road	0.62	Potential	Regional
WORCESTER	Pleasant Street - Tatnuck Square to Paxton Town Line	Paved Road	1.44	Potential	Regional
WORCESTER	Quinsigamond Avenue - Ashmont Ave to Southbridge Street	Paved Road	0.43	Existing	Regional
WORCESTER	Shrewsbury Street - Adams Street to Aitchison Street	Paved Road	0.87	Potential	Regional
WORCESTER	Shrewsbury Street - Washington Square to Adams Street	Paved Road	1.82	Potential	Regional
WORCESTER	Southbridge Street - Auburn Town Line to Hope Avenue	Paved Road	0.10	Potential	Regional
WORCESTER	Webster Street - Mill Street to Auburn Town Line	Paved Road	0.87	Potential	Regional
WORCESTER	West Boylston Street - Gold Star Boulevard One Way Pair	Paved Road	1.30	Potential	Regional
WORCESTER	West Boylston Street - King Phillip Road to West Boylston Town Line	Paved Road	2.99	Potential	Regional
WORCESTER	West Boylston Street - King Phillip Road to West Boylston Terrace	Paved Road	1.80	Potential	Regional

Table 6: Recommended Regional Multi-Use Corridors

Municipality	Facility Name	Location	Miles	Status	Paved	Priority
Barre	Ware River Trail	Hubbardston Town Line to Oakham Town Line	6	Existing	No	Regional Multi-Use
Barre	Mass Central Rail Trail	New Braintree Town Line to White Valley Bridge	3	Potential	No	Regional Multi-Use
Barre	Mass Central Rail Trail	Barre Town Garage to Oakham Town Line	1	Existing	No	Regional Multi-Use
Berlin	Mass Central Rail Trail	Clinton Town Line to Coburn Road	2	Potential	No	Regional Multi-Use
Berlin	Mass Central Rail Trail	Coburn Road to Hudson Town Line	2	Considered	No	Regional Multi-Use
Berlin	Boston Worcester Airline Trail - Aqueduct Branch	Northborough Town Line to Mass Central Rail Trail	2.21	Potential	No	Regional Multi-Use
Blackstone	Southern New England Trunkline Trail	Millville Town Line to Bellingham Town Line	4	Existing	No	Regional Multi-Use
Douglas	Southern New England Trunkline Trail	Connecticut State Line to Uxbridge Town Line	7	Existing	No	Regional Multi-Use
Dudley	Grand Trunk Trail	Southbridge Town Line to Connecticut State Line	3	Considered	No	Regional Multi-Use
Dudley	Grand Trunk Trail	Connecticut State Line to MA-12	1	Considered	No	Regional Multi-Use
Grafton	Blackstone River Bikeway	Sutton Town Line to Northbridge Town Line	3	Considered	No	Regional Multi-Use
Hardwick	Mass Central Rail Trail	New Braintree Town Line to New Braintree Town Line	1	Considered	No	Regional Multi-Use
Hardwick	Mass Central Rail Trail	New Braintree Town Line to Ware Town Line	3	Considered	No	Regional Multi-Use
Holden	Mass Central Rail Trail	Rutland Town Line to MA-31	4	Considered	No	Regional Multi-Use
Holden	Mass Central Rail Trail	MA-31 to West Boylston Town Line	5.2	Existing	No	Regional Multi-Use
Millbury	Blackstone River Bikeway	Worcester City Line to MA-122A	1	Existing	Yes	Regional Multi-Use
Millbury	Blackstone River Bikeway	MA-122A to Sutton Town Line	3	Considered	No	Regional Multi-Use
Millbury	Millbury Rail Trail	Canal Street (MA-122A) to Westborough Street	3	Potential	No	Regional Multi-Use
Millville	Southern New England Trunkline Trail	Uxbridge Town Line to Blackstone Town Line	2	Existing	No	Regional Multi-Use
Northborough	Boston Worcester Airline Trail	Shrewsbury Town Line to Westborough Town Line	0.88	Potential	No	Regional Multi-Use
Northborough	Boston Worcester Airline Trail - Aqueduct Branch	Westborough Town Line to Bartlett Street	1.61	Potential	No	Regional Multi-Use
Northborough	Boston Worcester Airline Trail - Aqueduct Branch	Bartlett Street to Rice Street	2.05	Potential	No	Regional Multi-Use
Northborough	Boston Worcester Airline Trail - Aqueduct Branch	Rice Street to the Berlin Town Line	2.22	Potential	No	Regional Multi-Use
Northbridge	Blackstone River Bikeway	Grafton Town Line to Uxbridge Town Line	6	Considered	No	Regional Multi-Use
Oakham	Mass Central Rail Trail	Barre Town Line to Rutland Town Line	3	Existing	No	Regional Multi-Use
Rutland	Mass Central Rail Trail	Oakham Town Line to Whitehall Road	0.5	Existing	No	Regional Multi-Use
Rutland	Mass Central Rail Trail	Whitehall Road to Barrack Hill Road	1	Existing	No	Regional Multi-Use
Rutland	Mass Central Rail Trail	Barrack Hill Road to Miles Road	2	Existing	No	Regional Multi-Use
Rutland	Mass Central Rail Trail	Miles Road to Pommogussett Road	0.35	Existing	On-Road/No	Regional Multi-Use
Rutland	Mass Central Rail Trail	Pommogussett Road to Holden Town Line	4	Existing	No	Regional Multi-Use
Shrewsbury	Boston Worcester Airline Trail	Quinsigamond Avenue to Oak Street	1.4	Potential	No	Regional Multi-Use
Shrewsbury	Boston Worcester Airline Trail	Oak Street to Lake Street	1.92	Potential	No	Regional Multi-Use
Shrewsbury	Boston Worcester Airline Trail	Lake Street to Fruit Street	1.23	Potential	No	Regional Multi-Use
Shrewsbury	Boston Worcester Airline Trail	Fruit Street to Northborough Town Line	1.33	Potential	No	Regional Multi-Use
Southbridge	Grand Trunk Trail	Sturbridge Town Line to Ballard Court	0.25	Existing	No	Regional Multi-Use
Southbridge	Grand Trunk Trail	Cross Street to Dudley Town Line	3	Considered	No	Regional Multi-Use
Sturbridge	Grand Trunk Trail	MA-15 to Southbridge Town Line	3	Existing	No	Regional Multi-Use
Sutton	Blackstone River Bikeway	Millbury Town Line to Grafton Town Line	0.9	Considered	No	Regional Multi-Use
Uxbridge	Southern New England Trunkline Trail	Douglas Town Line to Millville Town Line	5	Existing	No	Regional Multi-Use
Uxbridge	Blackstone River Bikeway	Northbridge Town Line to SNETT	6	Considered	No	Regional Multi-Use
West Boylston	Mass Central Rail Trail	Holden Town Line to Thomas Street	1	Existing	No	Regional Multi-Use
West Boylston	Mass Central Rail Trail	Thomas Street to Sterling Town Line	2	Potential	No	Regional Multi-Use
Westborough	Boston Worcester Airline Trail	Northborough Town Line to Sassacus Drive	1.38	Potential	No	Regional Multi-Use
Westborough	Boston Worcester Airline Trail	Sassacus Drive to Park Street	1.05	Potential	No	Regional Multi-Use
Westborough	Boston Worcester Airline Trail	Park Street to East Main Street	1.37	Potential	No	Regional Multi-Use
Westborough	Boston Worcester Airline Trail	East Main Street to Connector Road	0.85	Potential	No	Regional Multi-Use
Westborough	Boston Worcester Airline Trail	Connector Road to West Park Drive	0.88	Potential	No	Regional Multi-Use
Westborough	Boston Worcester Airline Trail	West Park Drive to Southborough Town Line	1.63	Potential	No	Regional Multi-Use
Westborough	Boston Worcester Airline Trail - Aqueduct Branch	Lyman Street to the Northborough Town Line	2	Potential	No	Regional Multi-Use
Worcester	Blackstone River Bikeway	Visitors Center to Millbury Town Line	3	Existing	Yes	Regional Multi-Use

Table 7: Recommended Bicycle Network Corridors – MAJOR PRIORITY

Municipality	Facility Name	Location	Miles	Status	Priority
AUBURN	Auburn Street - MA-12 to Millbury Street	Paved Road	0.31	Programmed	Major
AUBURN	Auburn Street - Oxford Street to Walsh Avenue	Paved Road	0.61	Potential	Major
AUBURN	Auburn Street - Walsh Avenue to MA-12	Paved Road	0.29	Programmed	Major
AUBURN	Oxford Street - Bryn Mawr Avenue to MA-12	Paved Road	1.03	Potential	Major
AUBURN	Oxford Street - Pinehurst Avenue to Bryn Mawr Avenue	Paved Road	1.05	Potential	Major
AUBURN	Oxford Street - Pinehurst Avenue to Worcester City Line	Paved Road	0.85	Potential	Major
BARRE	MA-31 - MA-122 to MA-67	Paved Road	2.55	Potential	Major
BARRE	MA-31 - MA-67 to Hardwick Town Line	Paved Road	1.51	Potential	Major
BARRE	MA-67 - MA-31 to New Braintree Town Line	Paved Road	1.60	Potential	Major
BERLIN	Carter Street - MA-62 to Highland Street	Paved Road	0.30	Potential	Major
BERLIN	Highland Street - Carter Street to Bolton Town Line	Paved Road	1.59	Potential	Major
BERLIN	Linden Street - Boylston Town Line to Rail Trail	Paved Road	1.38	Potential	Major
BERLIN	Linden Street - Rail Trail to MA-62	Paved Road	0.66	Potential	Major
BERLIN	Woodward Avenue - MA-62 to Carter Street	Paved Road	0.11	Potential	Major
BLACKSTONE	Blackstone Street - Mendon Town Line to Main Street	Paved Road	3.29	Potential	Major
BOYLSTON	French Drive / Central Street - MA-70 to Northborough Town Line	Paved Road	3.04	Potential	Major
BOYLSTON	Linden Street - Central Street to Cross Street	Paved Road	0.70	Potential	Major
BOYLSTON	Linden Street - Cross Street to Mile Hill Road	Paved Road	1.94	Potential	Major
BOYLSTON	Linden Street - Mile Hill Road to Berlin Town Line	Paved Road	0.88	Potential	Major
BOYLSTON	MA-70 - MA-140 to Clinton Town Line	Paved Road	5.22	Potential	Major
BOYLSTON	MA-70 - Shrewsbury Town Line to MA-140	Paved Road	1.89	Potential	Major
BROOKFIELD	MA-148 - MA-9 to North Brookfield Town Line	Paved Road	1.15	Potential	Major
BROOKFIELD	MA-148 - MA-9 to Sturbridge Town Line	Paved Road	4.16	Potential	Major
CHARLTON	MA-169 - Southbridge Town Line to US-20	Paved Road	3.23	Existing	Major
DUDLEY	MA-131 - Southbridge Town Line to Connecticut State Line	Paved Road	2.55	Potential	Major
DUDLEY	MA-197 - Connecticut State Line to MA-12	Paved Road	3.20	Potential	Major
EAST BROOKFIELD	MA-49 - Spencer Town Line to Sturbridge Town Line	Paved Road	2.85	Existing	Major
GRAFTON	Centech Boulevard - Shrewsbury Town Line to MA-30	Paved Road	0.34	Potential	Major
GRAFTON	MA-30 - MA-140 to Westborough Town Line	Paved Road	2.31	Potential	Major
GRAFTON	Millbury Street - MA-122 to Grafton Town Common	Paved Road	0.40	Potential	Major
GRAFTON	Millbury Street - Millbury Town Line to MA-122	Paved Road	1.76	Potential	Major
HARDWICK	MA-32 - Barre Town Line to MA-32A	Paved Road	5.78	Potential	Major
HARDWICK	MA-32 - Barre Town Line to MA-32A	Paved Road	0.25	Programmed	Major
HARDWICK	MA-32 - MA-32A To New Braintree Town Line	Paved Road	0.89	Potential	Major
HARDWICK	MA-32 - MA-32A To New Braintree Town Line	Paved Road	0.25	Programmed	Major
HARDWICK	MA-32 - MA-32A To New Braintree Town Line	Paved Road	0.13	Programmed	Major
HOLDEN	Doyle Road - Shrewsbury Street to Worcester City Line	Paved Road	0.83	Potential	Major
HOLDEN	Holden Street - Shrewsbury Street to Worcester City Line	Paved Road	1.06	Potential	Major
HOLDEN	MA-31 - MA-122A to Paxton Town Line	Paved Road	3.27	Potential	Major
HOLDEN	MA-31 - MA-122A to Princeton Town Line	Paved Road	4.54	Potential	Major
HOLDEN	MA-68 - Rutland Town Line to MA-122A	Paved Road	1.40	Potential	Major
HOLDEN	Shrewsbury Street - MA-122A to Doyle Road	Paved Road	0.91	Potential	Major
LEICESTER	MA-56 - Leicester High School to Main Street	Paved Road	0.59	Programmed	Major
LEICESTER	MA-56 - MA-9 to Paxton Street	Paved Road	0.07	Potential	Major
LEICESTER	MA-56 - Oxford Town Line to Pleasant Street	Paved Road	2.14	Potential	Major
LEICESTER	MA-56 - Paxton Town Line to Leicester High School	Paved Road	2.07	Potential	Major
LEICESTER	MA-56 - Pleasant Street to MA-9	Paved Road	1.83	Potential	Major
MENDON	Hartford Avenue E - Providence Street to Hopedale Town Line	Paved Road	1.12	Potential	Major
MENDON	Hartford Avenue East - Neck Hill Road to Bellingham Town Line	Paved Road	1.02	Potential	Major
MENDON	Main Street - Maple Street to George Street	Paved Road	0.16	Potential	Major
MENDON	Main Street - Milford Street to Maple Street	Paved Road	0.20	Potential	Major
MENDON	Maple Street - Hastings Street to Main Street	Paved Road	0.28	Potential	Major
MENDON	Millville Road - Uxbridge Road to Millville Town Line	Paved Road	3.07	Potential	Major
MENDON	Providence Street - George Street to Hartford Avenue E	Paved Road	1.07	Potential	Major
MENDON	Providence Street - Hartford Avenue E to Blackstone Town Line	Paved Road	2.16	Potential	Major
MILLBURY	Canal Street - Providence Street to Grafton Street	Paved Road	0.16	Potential	Major
MILLBURY	Grafton Street - Riverlin Street to Grafton Town Line	Paved Road	1.48	Potential	Major
MILLBURY	Greenwood Street - Worcester City Line to McCracken Road	Paved Road	0.67	Programmed	Major
MILLBURY	Main Street - McCracken Road to North Main Street	Paved Road	0.15	Potential	Major
MILLBURY	McCracken Road - Greenwood Street to Blackstone Valley Shoppes	Paved Road	0.51	Programmed	Major
MILLBURY	Millbury Rail Trail - Millbury Town Center to MA-122	Multi-Use Pathway	2.90	Potential	Major
MILLVILLE	Chestnut Hill Road - Mendon Town Line to Oak Street	Paved Road	2.75	Potential	Major
MILLVILLE	Chestnut Hill Road - Oak Street to Lincoln Street	Paved Road	0.36	Potential	Major
MILLVILLE	Lincoln Street - Chestnut Hill Road to Main Street	Paved Road	0.03	Potential	Major

Recommended Bicycle Network Corridors – MAJOR PRIORITY

Municipality	Facility Name	Location	Miles	Status	Priority
NEW BRAintree	MA-148 - Oakham Town Line to North Brookfield Town Line	Paved Road	0.46	Potential	Major
NEW BRAintree	MA-32 - Hardwick Town Line to Ware Town Line	Paved Road	0.16	Potential	Major
NEW BRAintree	MA-67 - Oakham Town Line to North Brookfield Town Line	Paved Road	4.12	Potential	Major
NORTH BROOKFIELD	MA-148 - Brookfield Town Line to MA-67	Paved Road	1.83	Potential	Major
NORTH BROOKFIELD	MA-148 - Hillside Avenue to New Braintree Town Line	Paved Road	2.95	Potential	Major
NORTH BROOKFIELD	MA-148 / MA-67 - North Main Street to MA-148 / MA-67 Split	Paved Road	0.91	Potential	Major
NORTH BROOKFIELD	MA-67 - Hillside Avenue to New Braintree Town Line	Paved Road	2.00	Potential	Major
NORTH BROOKFIELD	MA-67 - West Brookfield Town Line to MA-148	Paved Road	1.82	Potential	Major
NORTH BROOKFIELD	MA-67 / MA-148 - Gilbert Street to Hillside Avenue	Paved Road	0.83	Potential	Major
NORTHBOROUGH	Church Street - Boylston Town Line to US-20	Paved Road	2.43	Potential	Major
NORTHBOROUGH	MA-135 - US-20 to Westborough Town Line	Paved Road	1.88	Potential	Major
NORTHBOROUGH	West Main Street - Shrewsbury Town Line to US-20	Paved Road	1.24	Potential	Major
NORTHBRIDGE	Sutton Street - Sutton Town Line to Providence Road	Paved Road	2.13	Potential	Major
NORTHBRIDGE	Upton Street - Golf Course ROW	Gravel ROW	0.55	Potential	Major
NORTHBRIDGE	Upton Street - Providence Street to Golf Course	Paved Road	0.32	Potential	Major
OAKHAM	MA-148 - MA-122 to New Braintree Town Line	Paved Road	3.95	Potential	Major
OXFORD	MA-56 - MA-12 to Leicester Town Line	Paved Road	2.30	Potential	Major
OXFORD	Sutton Avenue - MA-12 to Sutton Town Line	Paved Road	3.86	Potential	Major
PAXTON	MA-31 - MA-122 to MA-56	Paved Road	0.07	Potential	Major
PAXTON	MA-31 - MA-56 to Holden Town Line	Paved Road	1.48	Potential	Major
PAXTON	MA-31 - Town Center to Spencer Town Line	Paved Road	2.78	Potential	Major
PAXTON	MA-56 - MA-122 to Leicester Town Line	Paved Road	1.19	Potential	Major
PAXTON	MA-56 - MA-122 to MA-31	Paved Road	0.12	Potential	Major
PAXTON	MA-56 - Town Center to Rutland Town Line	Paved Road	2.03	Potential	Major
PRINCETON	MA-31 - Holden Town Line to MA-62	Paved Road	3.06	Potential	Major
PRINCETON	MA-31 - MA-140 to Westminster Town Line	Paved Road	1.51	Potential	Major
PRINCETON	MA-31 - MA-62 to MA-140	Paved Road	2.39	Potential	Major
RUTLAND	MA-56 - Brunelle Drive to MA-68	Paved Road	2.74	Potential	Major
RUTLAND	MA-56 - MA-122A to Brunelle Drive	Paved Road	0.98	Programmed	Major
RUTLAND	MA-56 - MA-122A to Paxton Town Line	Paved Road	2.76	Potential	Major
RUTLAND	MA-68 - Holden Town Line to Hubbardston Town Line	Paved Road	5.61	Potential	Major
SHREWSBURY	Centech Boulevard - US-20 to Grafton Town Line	Paved Road	0.98	Potential	Major
SHREWSBURY	MA-70 - Worcester City Line to Boylston Town Line	Paved Road	0.71	Potential	Major
SHREWSBURY	Main Street - Maple Avenue to Northborough Town Line	Paved Road	2.02	Potential	Major
SHREWSBURY	Main Street - North Quinsigamond Avenue to Maple Street	Paved Road	2.62	Programmed	Major
SHREWSBURY	Main Street - Worcester City Line to North Quinsigamond Avenue	Paved Road	0.62	Potential	Major
SHREWSBURY	South Quinsigamond Avenue - MA-9 to US-20	Paved Road	2.59	Potential	Major
SOUTHBRIDGE	MA-131 - Elm Street to Roundabout	Paved Road	0.38	Potential	Major
SOUTHBRIDGE	MA-131 - MA-169 to Dudley Town Line	Paved Road	2.08	Potential	Major
SOUTHBRIDGE	MA-131 - Sturbridge Town Line to MA-198	Paved Road	1.21	Potential	Major
SOUTHBRIDGE	MA-131 / MA-169 - 400' West of North Woodstock Road to North Woodstock Road	Paved Road	0.13	Existing	Major
SOUTHBRIDGE	MA-131 / MA-169 - Roundabout to 400' West of North Woodstock Road	Paved Road	0.51	Potential	Major
SOUTHBRIDGE	MA-169 - Charlton Town Line to Vinton Street	Paved Road	0.92	Existing	Major
SOUTHBRIDGE	MA-169 - North Street to Roundabout	Paved Road	0.15	Potential	Major
SOUTHBRIDGE	MA-169 - Vinton Street to North Street	Paved Road	0.93	Potential	Major
SOUTHBRIDGE	MA-169 / MA-131 Roundabout Area	Paved Road	0.31	Potential	Major
SPENCER	MA-31 - Paxton Town Line to MA-9	Paved Road	5.58	Potential	Major
SPENCER	MA-49 - East Brookfield Town Line to MA-9	Paved Road	1.36	Existing	Major
STURBRIDGE	MA-131 - Hall Road to Southbridge Town Line	Paved Road	2.03	Potential	Major
STURBRIDGE	MA-148 - Brookfield Town Line to US-20	Paved Road	3.41	Potential	Major
STURBRIDGE	MA-49 - East Brookfield Town Line to US-20	Paved Road	3.67	Existing	Major
SUTTON	Central Turnpike - Oxford Town Line to Northbridge Town Line	Paved Road	6.56	Potential	Major
UPTON	Hartford Ave N / High Street - Main Street to School Street	Paved Road	1.23	Potential	Major
UPTON	Hartford Avenue South - Northbridge Town Line to Main Street	Paved Road	1.02	Potential	Major
UPTON	Hopkinton Road - School Street to Hopkinton Town Line	Paved Road	1.58	Potential	Major
UXBRIDGE	Quaker Highway - Millville Road to Rhode Island State Line	Paved Road	4.48	Potential	Major
WARREN	MA-19 - MA-67 to Brimfield Town Line	Paved Road	3.68	Potential	Major
WARREN	MA-67 - MA-19 to Palmer Town Line	Paved Road	3.36	Potential	Major
WARREN	MA-67 - West Brookfield Town Line to MA-19	Paved Road	1.81	Potential	Major

Recommended Bicycle Network Corridors – MAJOR PRIORITY

Municipality	Facility Name	Location	Miles	Status	Priority
WEBSTER	MA-193 - MA-12 to Connecticut State Line	Paved Road	2.78	Potential	Major
WEST BOYLSTON	MA-110 - MA-12 to Sterling Town Line	Paved Road	2.16	Potential	Major
WEST BROOKFIELD	MA-67 - MA-9 to School Street	Paved Road	0.24	Existing	Major
WEST BROOKFIELD	MA-67 - School Street to North Brookfield Town Line	Paved Road	1.21	Potential	Major
WEST BROOKFIELD	MA-67 - Warren Town Line to MA-9	Paved Road	0.62	Potential	Major
WEST BROOKFIELD	School Street - MA-67 to MA-9	Paved Road	0.13	Existing	Major
WESTBOROUGH	MA-135 - Northborough Town Line to Westborough Rotary	Paved Road	2.28	Potential	Major
WESTBOROUGH	MA-135 - Westborough Rotary to Hopkinton Town Line	Paved Road	2.04	Potential	Major
WESTBOROUGH	MA-30 - Grafton Town Line to Westborough Rotary	Paved Road	3.67	Potential	Major
WESTBOROUGH	MA-30 - Westborough Rotary to Southborough Town Line	Paved Road	3.02	Potential	Major
WORCESTER	Ararat Street - West Boylston Street to Brattle Street	Paved Road	1.24	Potential	Major
WORCESTER	Blackstone River Road - Greenwood Street to Blackstone River Bikeway	Paved Road	0.51	Potential	Major
WORCESTER	Blackstone River Road - McKeon Road to Greenwood Street	Paved Road	0.23	Potential	Major
WORCESTER	Boylston Street - Boylston Town Line to Lincoln Street	Paved Road	0.46	Potential	Major
WORCESTER	Brattle Street - Holden Street to Ararat Street	Paved Road	0.08	Potential	Major
WORCESTER	Burncoat Street - Lincoln Street to Mountain Street East	Paved Road	2.60	Potential	Major
WORCESTER	Cambridge Street - Webster Square to Southbridge Street	Paved Road	1.11	Potential	Major
WORCESTER	Forest Street - Grove Street to Salisbury Street	Paved Road	0.69	Potential	Major
WORCESTER	Foster Street - Green Street to Main Street	Paved Road	1.04	Potential	Major
WORCESTER	Franklin Street - Main Street to Foster Street	Paved Road	0.40	Potential	Major
WORCESTER	Front Street - Main Street to Foster Street	Paved Road	0.32	Potential	Major
WORCESTER	Front Street - Washington Square to Foster Street	Paved Road	0.05	Potential	Major
WORCESTER	Green Street - Kelley Square to Temple Street	Paved Road	0.28	Existing	Major
WORCESTER	Green Street - Temple Street to Franklin Street	Paved Road	0.05	Potential	Major
WORCESTER	Greenwood Street - Blackstone River Road to Southwest Cutoff	Paved Road	1.51	Potential	Major
WORCESTER	Greenwood Street - Southwest Cutoff to Millbury Town Line	Paved Road	0.05	Potential	Major
WORCESTER	Grove Street - Park Avenue to Salisbury Street	Paved Road	0.96	Potential	Major
WORCESTER	Hamilton Street - Grafton Street to Lake Avenue	Paved Road	2.02	Existing	Major
WORCESTER	Hamilton Street - Grafton Street to Lake Avenue	Paved Road	0.18	Potential	Major
WORCESTER	Hamilton Street - Grafton Street to Lake Avenue	Paved Road	0.27	Potential	Major
WORCESTER	Harding Street - Kelley Square to Millbury Street	Paved Road	0.63	Potential	Major
WORCESTER	Highland Street - Lincoln Street to Park Avenue	Paved Road	1.08	Existing	Major
WORCESTER	Highland Street - Park Avenue to Newton Square	Paved Road	0.46	Potential	Major
WORCESTER	Holden Street - Holden Town Line to Brattle Street	Paved Road	0.42	Potential	Major
WORCESTER	Lake Avenue - Belmont Street to Nonquit Street	Paved Road	0.83	Potential	Major
WORCESTER	Lake Avenue - Coburn Avenue to Sunderland Road	Paved Road	1.07	Potential	Major
WORCESTER	Lake Avenue - Nonquit Street to Coburn Avenue	Paved Road	1.04	Existing	Major
WORCESTER	Lincoln Square North Area	Paved Road	1.50	Potential	Major
WORCESTER	Lincoln Street - Boylston Street to Shrewsbury Town Line	Paved Road	0.78	Potential	Major
WORCESTER	Lincoln Street - Burncoat Street to I-290 Interchange Area	Paved Road	0.30	Potential	Major
WORCESTER	Lincoln Street - Catherine Street to Burncoat Street	Paved Road	0.74	Existing	Major
WORCESTER	Lincoln Street - Country Club Boulevard to Lincoln Plaza East	Paved Road	0.12	Existing	Major
WORCESTER	Lincoln Street - I-290 Area to Country Club Boulevard	Paved Road	0.58	Potential	Major
WORCESTER	Lincoln Street - I-290 Interchange Area	Paved Road	0.58	Potential	Major
WORCESTER	Lincoln Street - Lincoln Plaza East to Roundabout	Paved Road	0.85	Potential	Major
WORCESTER	Main Street - Beaver Street to Downing Road	Paved Road	0.19	Programmed	Major
WORCESTER	Main Street - Benefit Street to Chandler Street	Paved Road	0.49	Potential	Major
WORCESTER	Main Street - Chandler Street to Thomas Street	Paved Road	0.69	Programmed	Major
WORCESTER	Main Street - Downing Road to Benefit Street	Paved Road	0.53	Potential	Major
WORCESTER	Main Street - Mill Street thru Webster Square East	Paved Road	0.11	Potential	Major
WORCESTER	Main Street - School Street to Highland Street	Paved Road	0.48	Programmed	Major
WORCESTER	Main Street - School Street to Salisbury Street	Paved Road	0.33	Potential	Major
WORCESTER	Main Street - Webster Street to Beaver Street	Paved Road	0.43	Potential	Major
WORCESTER	Major Tayler Boulevard - MLK Boulevard to School Street	Paved Road	0.26	Potential	Major
WORCESTER	Major Taylor Boulevard - Front Street to MLK Boulevard	Paved Road	0.40	Potential	Major
WORCESTER	McKeon Road - Millbury Street to Blackstone River Road	Paved Road	0.22	Programmed	Major
WORCESTER	Mill Street - Tatunuck Square to Park Avenue	Paved Road	4.55	Potential	Major
WORCESTER	Millbury Street - Ashmont Avenue to Kelley Square	Paved Road	0.48	Existing	Major
WORCESTER	Millbury Street - Quinsigamond Avenue to Ashmont Avenue	Paved Road	0.18	Potential	Major
WORCESTER	Mountain Street East - West Boylston Street to Clark Street	Paved Road	1.36	Potential	Major
WORCESTER	Mountain Street West - Holden Town Line to West Boylston Street	Paved Road	0.81	Potential	Major
WORCESTER	North Lake Avenue - Belmont Street to Lincoln Street	Paved Road	2.09	Potential	Major
WORCESTER	Northeast Cutoff - Clark Street to Boylston Street	Paved Road	0.87	Potential	Major

Recommended Bicycle Network Corridors – MAJOR PRIORITY

Municipality	Facility Name	Location	Miles	Status	Priority
WORCESTER	Plantation Street - Boylston Street to Lincoln Street	Paved Road	0.40	Potential	Major
WORCESTER	Plantation Street - Hamilton Street to Belmont Street	Paved Road	1.50	Potential	Major
WORCESTER	Plantation Street - Lincoln Street to North Road	Paved Road	1.52	Potential	Major
WORCESTER	Plantation Street - North Road to Research Drive	Paved Road	0.68	Potential	Major
WORCESTER	Plantation Street - Research Drive to Belmont Street	Paved Road	0.40	Potential	Major
WORCESTER	Pleasant Street - Mill Street to Chandler Street	Paved Road	0.14	Potential	Major
WORCESTER	Pleasant Street - Newton Square to Tatnuck Square	Paved Road	1.57	Potential	Major
WORCESTER	Providence Street - Dorchester Street to Winthrop Street	Paved Road	0.21	Potential	Major
WORCESTER	Providence Street - Waverly Street to Dorchester Street	Paved Road	0.31	Potential	Major
WORCESTER	Providence Street - Winthrop Street to Millbury Street	Paved Road	0.85	Potential	Major
WORCESTER	Salisbury Street - Forest Street to Park Avenue	Paved Road	0.36	Potential	Major
WORCESTER	Salisbury Street - Park Avenue to Humboldt Avenue	Paved Road	0.39	Potential	Major
WORCESTER	School Street - Major Taylor Boulevard to Main Street	Paved Road	0.10	Potential	Major
WORCESTER	Southbridge Street - Auburn Town Line to Boyden Street	Paved Road	0.45	Potential	Major
WORCESTER	Southbridge Street - Cambridge Street to Hammond Street	Paved Road	0.51	Existing	Major
WORCESTER	Southbridge Street - Hammond Street to Main Street	Paved Road	0.79	Potential	Major
WORCESTER	Southbridge Street - I-290 Interchange #11 Area	Paved Road	0.79	Potential	Major
WORCESTER	Southbridge Street - I-290 Interchange #11 Area to Cambridge Street	Paved Road	0.16	Potential	Major
WORCESTER	Summer Street / Goldsberry Street - Washington Square to Lincoln Street	Paved Road	0.81	Potential	Major
WORCESTER	Washington Square	Paved Road	0.51	Potential	Major
WORCESTER	Water Street - Kelley Square to Grafton Street	Paved Road	0.33	Existing	Major
WORCESTER	Waverly Street - Grafton Street to Providence Street	Paved Road	0.15	Potential	Major
WORCESTER	Webster Street - Mill Street Extension to Main Street	Paved Road	0.12	Potential	Major
WORCESTER	Webster Street / Oxford Street - Hope Avenue to Auburn Town Line	Paved Road	0.32	Potential	Major

Table 8: Recommended Bicycle Network Corridors – MINOR PRIORITY

Municipality	Facility Name	Location	Miles	Status	Priority
AUBURN	Brotherton Way - MA-12 to Auburn Street	Paved Road	0.23	Potential	Minor
AUBURN	South Ludlow Street / Pinehurst Avenue - Worcester City Line to Oxford Street	Paved Road	0.63	Potential	Minor
BARRE	South Street - Summer Street to Quabbin Regional High School	Paved Road	1.81	Potential	Minor
BERLIN	Barnes Hill Road - West Street to Linden Street	Paved Road	0.78	Potential	Minor
BERLIN	Derby Road - West Street to Linden Street	Paved Road	0.75	Potential	Minor
BERLIN	Lancaster Road - Clinton Town Line to Randall Road	Paved Road	1.49	Potential	Minor
BERLIN	Multi Use Pathway - Pleasant Street to South Commons	Multi-Use Pathway	0.09	Potential	Minor
BERLIN	Randall Road - Lancaster Road to West Street	Paved Road	0.43	Potential	Minor
BERLIN	West Street - Randall Road to Clinton Town Line	Paved Road	0.63	Potential	Minor
BERLIN	West Street - Randall Road to MA-62	Paved Road	0.28	Potential	Minor
BOYLSTON	Cross Street - Linden Street to Central Street	Paved Road	0.86	Potential	Minor
BOYLSTON	Mile Hill Road - Linden Street to MA-70	Paved Road	0.61	Potential	Minor
CHARLTON	MA-31 - New Spencer Road to US-20	Paved Road	2.22	Potential	Minor
CHARLTON	MA-31 - North Main Street to Dudley Town Line	Paved Road	4.12	Potential	Minor
CHARLTON	MA-31 - Spencer Town Line to City DePotential Road	Paved Road	1.04	Potential	Minor
CHARLTON	MA-31 - US-20 to Main Street	Paved Road	1.08	Potential	Minor
CHARLTON	Stafford Street - US-20 to Oxford Town Line	Paved Road	5.05	Potential	Minor
DOUGLAS	Manchaug Street - Sutton Town Line to Mechanic Street	Paved Road	1.44	Potential	Minor
DOUGLAS	Mechanic Street - Manchaug Street to Main Street	Paved Road	0.38	Potential	Minor
DOUGLAS	Northeast Main Street - Davis Street to Uxbridge Town Line	Paved Road	0.49	Potential	Minor
DOUGLAS	South Street - Main Street to Rhode Island State Line	Paved Road	3.30	Potential	Minor
DUDLEY	MA-31 - Charlton Town Line to Connecticut State Line	Paved Road	4.07	Potential	Minor
EAST BROOKFIELD	North Brookfield Road - MA-9 to North Brookfield Town Line	Paved Road	0.80	Potential	Minor
GRAFTON	Creeper Hill Road - Grafton Town Line to Worcester City Line	Paved Road	0.12	Potential	Minor
GRAFTON	Creeper Hill Road - Prentice Street to Millbury Town Line	Paved Road	1.14	Potential	Minor
GRAFTON	Deernolm Street - Millbury Town Line to Worcester Street	Paved Road	0.57	Potential	Minor
GRAFTON	North Street - Wesson Road to Grafton Town Common	Paved Road	1.89	Potential	Minor
GRAFTON	Old Westboro Road - Wesson Road to North Street	Paved Road	1.76	Potential	Minor
GRAFTON	Old Westboro Road - Westborough Town Line to Wesson Road	Paved Road	1.11	Potential	Minor
GRAFTON	Prentice Street - MA-140 to Creeper Hill Road	Paved Road	0.12	Potential	Minor
GRAFTON	Wesson Road - Old Westboro Road to North Street	Paved Road	1.03	Potential	Minor
GRAFTON	Westboro Road - MA-30 to MA-140	Paved Road	0.59	Potential	Minor
GRAFTON	Williard Street - MA-30 to Wesson Street	Paved Road	0.77	Potential	Minor
HARDWICK	MA-32A - MA-32 to Petersham Town Line	Paved Road	7.37	Potential	Minor
HARDWICK	MA-32A - MA-32 to Petersham Town Line	Paved Road	0.12	Programmed	Minor
HOLDEN	Brattle Street - Shrewsbury Street to Worcester City Line	Paved Road	0.81	Potential	Minor
HOLDEN	Reservoir Street - Worcester City Line to MA-31	Paved Road	3.38	Potential	Minor
HOLDEN	Salisbury Street - MA-122A to Worcester City Line	Paved Road	2.81	Potential	Minor
HOLDEN	Shrewsbury Street - Doyle Road to West Boylston Town Line	Paved Road	1.05	Potential	Minor
LEICESTER	Stafford Street - MA-56 to Oxford Town Line	Paved Road	0.83	Potential	Minor
LEICESTER	Stafford Street - MA-56 to Worcester City Line	Paved Road	3.02	Potential	Minor
MENDON	Bellingham Street - Hartford Avenue E to Bellingham Town Line	Paved Road	1.44	Potential	Minor
MENDON	Hartford Avenue West - Uxbridge Town Line to Uxbridge Road	Paved Road	1.35	Potential	Minor
MENDON	North Avenue - Upton Town Line to Milford Street	Paved Road	2.19	Potential	Minor
MILLBURY	Elm Street - South Main Street to Canal Street	Paved Road	0.24	Potential	Minor
MILLBURY	Elm Street - South Main Street to West Main Street	Paved Road	0.40	Potential	Minor
MILLBURY	Elmwood Street - West Main Street to Elmwood Elementary	Paved Road	0.31	Potential	Minor
MILLBURY	Howe Avenue - Millbury Avenue to Canal Street	Paved Road	0.74	Potential	Minor
MILLBURY	Maple Street - South Main Street to Providence Road	Paved Road	0.35	Potential	Minor
MILLBURY	Millbury Avenue - Riverlin Street to Howe Avenue	Paved Road	0.60	Potential	Minor
MILLBURY	Millbury Avenue - Worcester City Line to Howe Avenue	Paved Road	1.63	Potential	Minor
MILLBURY	Millbury Rail Trail - MA-122 to Westborough Street	Multi-Use Pathway	0.52	Potential	Minor
MILLBURY	Riverlin Street - Grafton Street to Grafton Town Line	Paved Road	2.39	Potential	Minor
MILLBURY	Riverlin Street - Providence Street to Grafton Street	Paved Road	0.12	Potential	Minor
MILLBURY	South Main Street - Canal Street to Elm Street	Paved Road	0.16	Potential	Minor
MILLBURY	South Main Street - Elm Street to Maple Street	Paved Road	0.17	Potential	Minor
MILLBURY	Sutton Road - West Main Street to Sutton Town Line	Paved Road	0.47	Potential	Minor
MILLBURY	West Main Street - Elm Street to Sutton Road	Paved Road	0.92	Potential	Minor
MILLVILLE	Central Street - Main Street to Rhode Island State Line	Paved Road	1.03	Potential	Minor
NORTH BROOKFIELD	East Brookfield Road - East Brookfield Town Line to Ward Street	Paved Road	2.26	Potential	Minor
NORTH BROOKFIELD	Gilbert Street - Ward Street to South Main Street	Paved Road	0.39	Potential	Minor
NORTHBOROUGH	Bartlett Street - US-20 to Marlborough Town Line	Paved Road	1.51	Potential	Minor

Recommended Bicycle Network Corridors – MINOR PRIORITY

Municipality	Facility Name	Location	Miles	Status	Priority
NORTHBRIDGE	Church Street - Main Street to Providence Road	Paved Road	1.36	Potential	Minor
NORTHBRIDGE	Church Street - Providence Road to Recreation Fields	Paved Road	0.15	Potential	Minor
NORTHBRIDGE	Intersection of Main Street / Church Street / Linwood Avenue	Paved Road	0.22	Potential	Minor
NORTHBRIDGE	Linwood Avenue - Main Street to Uxbridge Town Line	Paved Road	1.33	Potential	Minor
NORTHBRIDGE	Main Street - North Main Street to Douglas Road	Paved Road	0.75	Potential	Minor
NORTHBRIDGE	Main Street - Sutton Town Line to North Main Street	Paved Road	1.82	Potential	Minor
OXFORD	Stafford Street - Charlton Town Line to Leicester Town Line	Paved Road	0.43	Potential	Minor
PRINCETON	Boylston Avenue - Brooks Station Road to MA-62	Paved Road	0.45	Potential	Minor
PRINCETON	Brooks Station Road - Rutland Town Line to Boylston Avenue	Paved Road	3.01	Potential	Minor
RUTLAND	Central Massachusetts Rail Trail - Library Area Access	Multi-Use Pathway	0.66	Potential	Minor
RUTLAND	Glenwood Road - MA-122A to Wachusett Street	Paved Road	0.56	Potential	Minor
RUTLAND	Rutland Heights Way - MA-56 to MA-122	Paved Road	0.81	Potential	Minor
RUTLAND	Wachusett Street - Glenwood Road to Princeton Town Line	Paved Road	2.27	Potential	Minor
SHREWSBURY	North Quinsigamond Avenue - Main Street to MA-9	Paved Road	1.61	Potential	Minor
SOUTHBRIDGE	MA-169 - MA-131 to Connecticut State Line	Paved Road	3.15	Potential	Minor
SOUTHBRIDGE	MA-198 - MA-131 to Connecticut State Line	Paved Road	3.95	Potential	Minor
SPENCER	Bixby Road - MA-9 to Spencer Rail Trail	Paved Road	0.48	Potential	Minor
SPENCER	Cherry Street - MA-31 to Greenville Street	Paved Road	0.68	Potential	Minor
SPENCER	MA-31 - MA-9 to Charlton Town Line	Paved Road	4.21	Potential	Minor
SPENCER	Meadow Road - MA-9 to MA-31	Paved Road	1.57	Potential	Minor
SPENCER	Olde Main Street - MA-9 to Meadow Road	Paved Road	0.30	Potential	Minor
SPENCER	Smithville Road - MA-31 to Spencer Fairgrounds	Paved Road	0.48	Potential	Minor
SPENCER	Spencer Rail Trail	Multi-Use Pathway	0.78	Existing	Minor
SPENCER	Spencer Rail Trail - Existing	Multi-Use Pathway	0.78	Existing	Minor
SPENCER	Spencer Rail Trail - Extension	Multi-Use Pathway	1.54	Potential	Minor
SPENCER	Valley Street - Chestnut Street to Spencer Rail Trail	Paved Road	0.47	Potential	Minor
STURBRIDGE	MA-15 / Haynes Street - MA-131 to Leadmine Road	Paved Road	4.85	Potential	Minor
SUTTON	Boston Road - Providence Road to Putnam Hill Road	Paved Road	3.37	Potential	Minor
SUTTON	Boston Road - Putnam Hill Road to West Sutton Road	Paved Road	2.44	Potential	Minor
SUTTON	Main Street - Whitins Road to Douglas Town Line	Paved Road	0.69	Potential	Minor
SUTTON	Putnam Hill Road - Central Turnpike to Boston Road	Paved Road	1.35	Potential	Minor
SUTTON	Putnam Hill Road - Main Street to Central Turnpike	Paved Road	2.90	Potential	Minor
SUTTON	Singletery Ave - Millbury Town Line to Boston Road	Paved Road	1.47	Potential	Minor
SUTTON	West Sutton Road - Boston Road to Central Turnpike	Paved Road	0.21	Potential	Minor
SUTTON	Whitins Road - Northbridge Town Line to Main Street	Paved Road	2.10	Potential	Minor
UPTON	Mendon Street - Grove Street to Mendon Town Line	Paved Road	2.15	Potential	Minor
UPTON	Mendon Street - Main Street to Grove Street	Paved Road	1.16	Potential	Minor
UPTON	School Street - High Street to Main Street	Paved Road	0.82	Potential	Minor
UPTON	Upton Road / Westboro Road - Westborough Town Line to Southborough Road	Paved Road	1.33	Potential	Minor
UPTON	Westboro Road - Southborough Road to High Street	Paved Road	2.02	Potential	Minor
UXBRIDGE	Aldrich Street - Quaker Highway to Rhode Island State Line	Paved Road	3.87	Potential	Minor
UXBRIDGE	Hartford Avenue East - North Main Street to Mendon Town Line	Paved Road	2.84	Potential	Minor
UXBRIDGE	Hartford Avenue West - North Main Street to Douglas Town Line	Paved Road	3.05	Potential	Minor
UXBRIDGE	Linwood Avenue - Northbridge Town Line to Providence Road	Paved Road	0.02	Potential	Minor
WEST BOYLSTON	Crescent Street / Thomas Street - Goodale Street to Central Mass Rail Trail	Paved Road	1.35	Potential	Minor
WEST BOYLSTON	Goodale Street - MA-12/MA-140 to Crescent Street	Paved Road	0.22	Potential	Minor
WEST BOYLSTON	Maple Street - Worcester City Line to MA-140	Paved Road	1.58	Potential	Minor
WEST BOYLSTON	Shrewsbury Street - Woodland Street to Holden Town Line	Paved Road	0.06	Potential	Minor
WEST BOYLSTON	Wachusett Street - MA-140 to Sterling Town Line	Paved Road	0.65	Potential	Minor
WEST BOYLSTON	Woodland Street - MA-12 to Shrewsbury Street	Paved Road	1.12	Potential	Minor
WEST BROOKFIELD	Central Street - MA-9 to Front Street	Paved Road	0.35	Potential	Minor
WESTBOROUGH	Church Street - MA-135 / Fisher Street to MA-30	Paved Road	0.47	Potential	Minor
WESTBOROUGH	North Street - Westborough Town Line to Westboro Road	Paved Road	2.72	Potential	Minor
WESTBOROUGH	Ruggles Street - MA-30 to Upton Town Line	Paved Road	2.65	Potential	Minor
WESTBOROUGH	School Street - MA-30 to MA-135	Paved Road	0.35	Potential	Minor
WESTBOROUGH	Upton Road - Upton Town Line to MA-135	Paved Road	2.24	Potential	Minor
WESTBOROUGH	West Main Street - Grafton Town Line to MA-30	Paved Road	1.33	Potential	Minor

Recommended Bicycle Network Corridors – MINOR PRIORITY

Municipality	Facility Name	Location	Miles	Status	Priority
WORCESTER	Adams Street - Shrewsbury Street to Belmont Street	Paved Road	0.25	Potential	Minor
WORCESTER	Blithewood Avenue - Massasoit Road to Grafton Street	Paved Road	0.72	Potential	Minor
WORCESTER	Brattle Street - Ararat Street to Holden Town Line	Paved Road	0.57	Potential	Minor
WORCESTER	Brattle Street - Shore Drive to Grove Street	Paved Road	0.69	Potential	Minor
WORCESTER	Burncoat Street - Mountain Street E to West Boylston Town Line	Paved Road	0.99	Potential	Minor
WORCESTER	Clark Street - Burncoat Street to Mountain Street E	Paved Road	1.08	Potential	Minor
WORCESTER	Dorchester Street - Providence Street to Grafton Street	Paved Road	0.52	Potential	Minor
WORCESTER	Elliott Street - Eastern Avenue to Belmont Street	Paved Road	0.67	Potential	Minor
WORCESTER	Elm Street - Russell Street to Park Avenue	Paved Road	0.15	Existing	Minor
WORCESTER	Fales Street - West Boylston Street to Burncoat Street	Paved Road	0.47	Potential	Minor
WORCESTER	Flagg Street - Salisbury Street to Pleasant Street	Paved Road	0.94	Potential	Minor
WORCESTER	Franklin Street - Grafton Street to Foster Street	Paved Road	0.23	Potential	Minor
WORCESTER	Franklin Street - Grafton Street to Plantation Street	Paved Road	1.21	Potential	Minor
WORCESTER	Gardner Street - Main Street to Southgate Street	Paved Road	0.31	Potential	Minor
WORCESTER	Gardner Street - Tainter Street to Hollis Street	Paved Road	0.07	Existing	Minor
WORCESTER	Grandview Avenue - Main Street to Stafford Street	Paved Road	0.38	Potential	Minor
WORCESTER	Grove Street - Salisbury Street to Lincoln Square/Main Street	Paved Road	0.15	Potential	Minor
WORCESTER	Harding Street - Franklin Street to Winter Street	Paved Road	0.11	Existing	Minor
WORCESTER	Harding Street - Winter Street to Kelley Square	Paved Road	0.26	Programmed	Minor
WORCESTER	Holden Street - Brattle Street to Shore Drive	Paved Road	0.61	Potential	Minor
WORCESTER	James Street/Ludlow Street - Stafford Street to Auburn Town Line	Paved Road	0.58	Potential	Minor
WORCESTER	June Street - Chandler Street to Mill Street	Paved Road	1.03	Potential	Minor
WORCESTER	June Street - Newton Square to Chandler Street	Paved Road	0.59	Potential	Minor
WORCESTER	Massasoit Road - Blithewood Avenue to Southwest Cutoff	Paved Road	0.73	Potential	Minor
WORCESTER	Massasoit Road - Grafton Street to Sunderland Road	Paved Road	0.46	Potential	Minor
WORCESTER	Massasoit Road - Sunderland Road to Blithewood Avenue	Paved Road	0.88	Potential	Minor
WORCESTER	May Street - Chandler Street to June Street	Paved Road	0.45	Potential	Minor
WORCESTER	May Street - June Street to Park Avenue	Paved Road	0.84	Potential	Minor
WORCESTER	May Street - Main Street to Park Avenue	Paved Road	0.48	Existing	Minor
WORCESTER	May Street - Pleasant Street to Chandler Street	Paved Road	0.56	Potential	Minor
WORCESTER	McKeon Road - Cambridge Street to Blackstone River Road	Paved Road	1.05	Potential	Minor
WORCESTER	Millbury Avenue - Southwest Cutoff to Millbury Town Line	Paved Road	0.04	Potential	Minor
WORCESTER	Mower/Olean Street - Tatnuck Square to Holden Town Line	Paved Road	1.19	Potential	Minor
WORCESTER	Pleasant Street - Main Street to Park Avenue	Paved Road	0.91	Potential	Minor
WORCESTER	Pleasant Street - Park Avenue to Newton Square	Paved Road	0.53	Potential	Minor
WORCESTER	Richmond Avenue - Flagg Street to Pleasant Street	Paved Road	0.78	Potential	Minor
WORCESTER	Russell Street - Elm Street to Highland Street	Paved Road	0.30	Existing	Minor
WORCESTER	Salisbury Street - Flagg Street to Holden Town Line	Paved Road	1.59	Potential	Minor
WORCESTER	Salisbury Street - Forest Street to Flagg Street	Paved Road	0.91	Potential	Minor
WORCESTER	School Street / Laurel Street - Main Street to Eastern Ave	Paved Road	0.45	Potential	Minor
WORCESTER	Shore Drive - Holden Street to Shore Drive	Paved Road	0.82	Potential	Minor
WORCESTER	Skyline Drive - Belmont Street to Tech High School	Paved Road	0.20	Potential	Minor
WORCESTER	Southgate Street - Gardner Street to Southbridge Street	Paved Road	0.21	Potential	Minor
WORCESTER	Stafford Street - Main Street to Leicester Town Line	Paved Road	1.47	Potential	Minor
WORCESTER	Sunderland Road - Grafton Street to Lake Avenue	Paved Road	0.30	Potential	Minor
WORCESTER	Sunderland Road - Lake Avenue to US-20	Paved Road	0.21	Potential	Minor
WORCESTER	Sunderland Road - Massasoit Road to Grafton Street	Paved Road	1.20	Potential	Minor
WORCESTER	Tainter Street - Gardner Street to Hammond Street	Paved Road	0.13	Potential	Minor
WORCESTER	Tainter Street - Kilby Street to Tainter Street	Multi-Use Pathway	0.14	Existing	Minor
WORCESTER	Temple Street - Grafton Street to Harding Street	Paved Road	0.08	Existing	Minor
WORCESTER	Temple Street - Harding Street to Green Street	Paved Road	0.15	Potential	Minor
WORCESTER	Westborough Street - US-20 to Grafton Town Line	Paved Road	0.64	Potential	Minor
WORCESTER	Winter Street - Green Street to Water Street	Paved Road	0.22	Potential	Minor

Municipal Recommendations

North Subregion - Barre

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
- Work with MassDOT to implement the projects identified in the Town's Tier II Complete Streets Prioritization Plan.
- Work with MassDOT and DCR to ensure that Regional Multi-Use Trails and Pathways are advanced to meet the needs of subregional and regional travel via alternative modes.
- Work with local, regional, and statewide advocacy groups and other stakeholders to expand public education campaigns that promote the rules of the road so that all transportation system users are aware of their responsibilities. Work to incorporate Safe Routes to School materials and practices into local education systems in order to increase active transportation participation and safety.

BARRE FACILITIES

On-Road:

Existing

0 Miles

Programmed

0 Miles

Potential

19.87 Miles

Multi-Use:

Existing

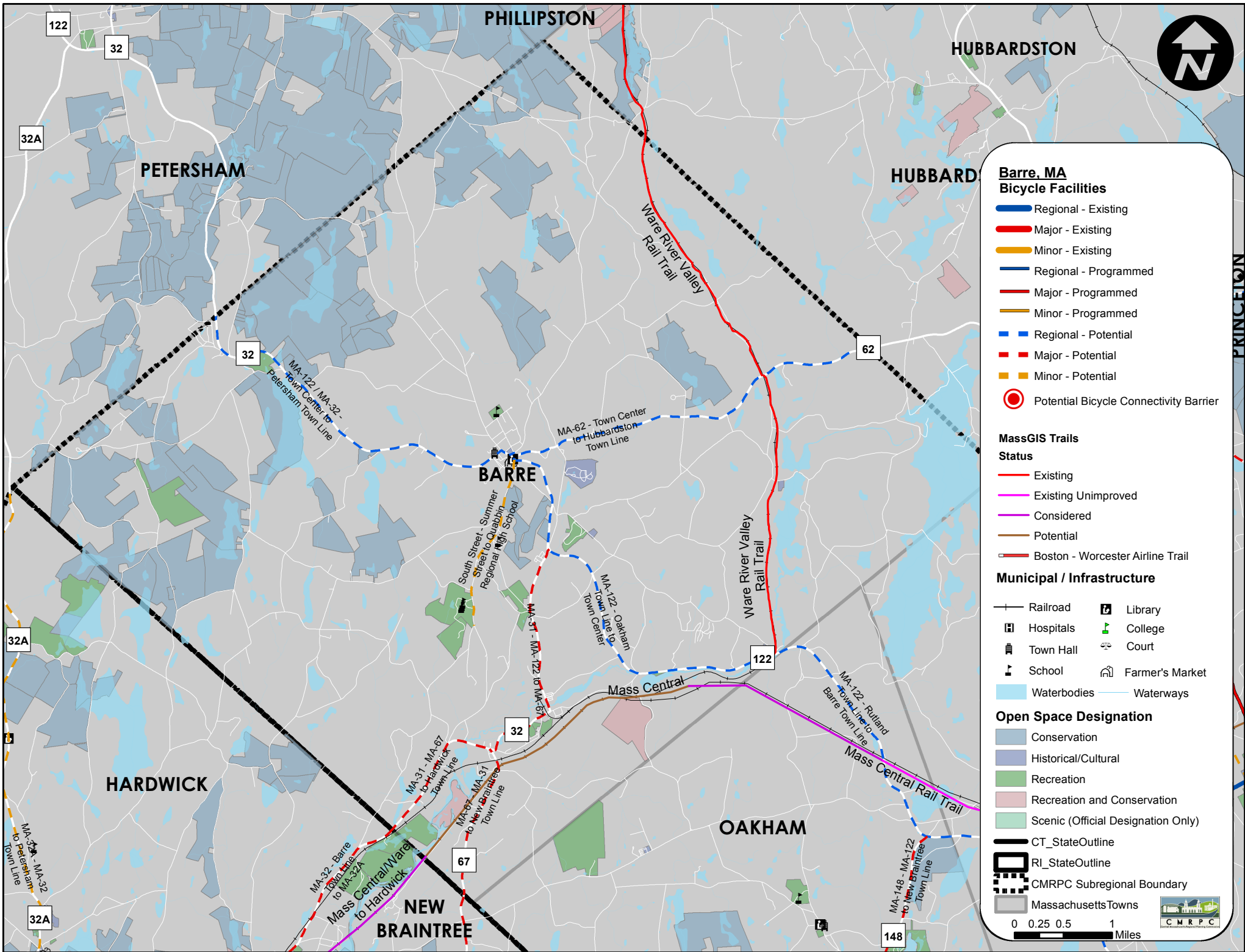
7 Miles

Programmed

0 Miles

Potential

3 Miles



Barre On-Road Recommendations

Facility Name	Location	Miles	Status	Priority
MA-122 - Oakham Town Line to Town Center	Paved Road	4.44	Potential	Regional
MA-122 / MA-32 - Town Center to Petersham Town Line	Paved Road	3.89	Potential	Regional
MA-62 - Town Center to Hubbardston Town Line	Paved Road	4.08	Potential	Regional
MA-31 - MA-122 to MA-67	Paved Road	2.55	Potential	Major
MA-31 - MA-67 to Hardwick Town Line	Paved Road	1.51	Potential	Major
MA-67 - MA-31 to New Braintree Town Line	Paved Road	1.60	Potential	Major
South Street - Summer Street to Quabbin Regional High School	Paved Road	1.81	Potential	Minor

Barre Multi-Use Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
Barre	Ware River Trail	Hubbardston Town Line to Oakham Town Line	6	Existing	Regional Multi-Use
Barre	Mass Central Rail Trail	Barre Town Garage to Oakham Town Line	1	Existing	Regional Multi-Use
Barre	Mass Central Rail Trail	New Braintree Town Line to White Valley Bridge	3	Potential	Regional Multi-Use

North Subregion – Holden

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network.
- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
- Work with MassDOT and DCR to ensure that Regional Multi-Use Trails and Pathways are advanced to meet the needs of subregional and regional travel via alternative modes.
- Work with local, regional, and statewide advocacy groups and other stakeholders to expand public education campaigns that promote the rules of the road so that all transportation system users are aware of their responsibilities. Work to incorporate Safe Routes to School materials and practices into local education systems in order to increase active transportation participation and safety.

HOLDEN FACILITIES

Existing

2.02 Miles

Programmed

0 Miles

Potential

27.01 Miles

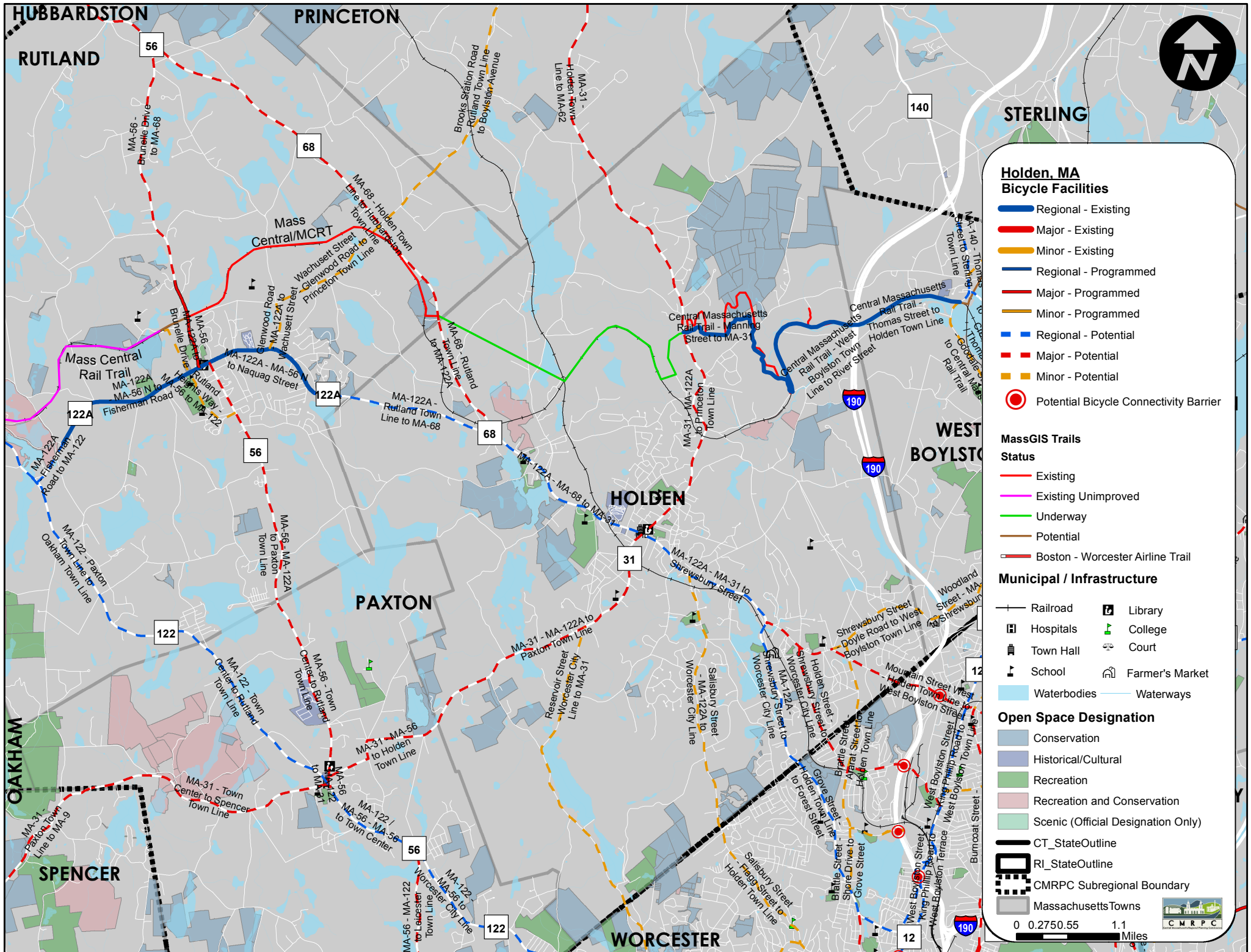
Multi-Use

Existing

5.2 Miles

Considered

4 Miles



**Holden, MA
Bicycle Facilities**

- Regional - Existing
- Major - Existing
- Minor - Existing
- Regional - Programmed
- Major - Programmed
- Minor - Programmed
- Regional - Potential
- Major - Potential
- Minor - Potential
- Potential Bicycle Connectivity Barrier

**MassGIS Trails
Status**

- Existing
- Existing Unimproved
- Underway
- Potential
- Boston - Worcester Airline Trail

Municipal / Infrastructure

- Railroad
- Hospitals
- Town Hall
- School
- Library
- College
- Court
- Farmer's Market
- Waterbodies
- Waterways

Open Space Designation

- Conservation
- Historical/Cultural
- Recreation
- Recreation and Conservation
- Scenic (Official Designation Only)

- CT_StateOutline
- RI_StateOutline
- CMRPC Subregional Boundary
- Massachusetts Towns

0 0.2750.55 1.1 Miles



Holden On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
HOLDEN	Central Massachusetts Rail Trail - Manning Street to MA-31	Multi-Use Pathway	1.06	Existing	Regional
HOLDEN	Central Massachusetts Rail Trail - River Street to Manning Street	Multi-Use Pathway	0.96	Existing	Regional
HOLDEN	MA-122A - MA-31 to Shrewsbury Street	Paved Road	1.71	Potential	Regional
HOLDEN	MA-122A - MA-68 to MA-31	Paved Road	2.05	Potential	Regional
HOLDEN	MA-122A - Rutland Town Line to MA-68	Paved Road	1.57	Potential	Regional
HOLDEN	MA-122A - Shrewsbury Street to Worcester City Line	Paved Road	1.62	Potential	Regional
HOLDEN	Doyle Road - Shrewsbury Street to Worcester City Line	Paved Road	0.83	Potential	Major
HOLDEN	Holden Street - Shrewsbury Street to Worcester City Line	Paved Road	1.06	Potential	Major
HOLDEN	MA-31 - MA-122A to Paxton Town Line	Paved Road	3.27	Potential	Major
HOLDEN	MA-31 - MA-122A to Princeton Town Line	Paved Road	4.54	Potential	Major
HOLDEN	MA-68 - Rutland Town Line to MA-122A	Paved Road	1.40	Potential	Major
HOLDEN	Shrewsbury Street - MA-122A to Doyle Road	Paved Road	0.91	Potential	Major
HOLDEN	Brattle Street - Shrewsbury Street to Worcester City Line	Paved Road	0.81	Potential	Minor
HOLDEN	Reservoir Street - Worcester City Line to MA-31	Paved Road	3.38	Potential	Minor
HOLDEN	Salisbury Street - MA-122A to Worcester City Line	Paved Road	2.81	Potential	Minor
HOLDEN	Shrewsbury Street - Doyle Road to West Boylston Town Line	Paved Road	1.05	Potential	Minor

Holden Multi-Use Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
Holden	Mass Central Rail Trail	Rutland Town Line to MA-31	4	Considered	Regional Multi-Use
Holden	Mass Central Rail Trail	MA-31 to West Boylston Town Line	5.2	Existing	Regional Multi-Use

North Subregion - Oakham

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network.
- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
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- Work with local, regional, and statewide advocacy groups and other stakeholders to expand public education campaigns that promote the rules of the road so that all transportation system users are aware of their responsibilities. Work to incorporate Safe Routes to School materials and practices into local education systems in order to increase active transportation participation and safety.

OAKHAM FACILITIES

Existing

0 Miles

Programmed

0 Miles

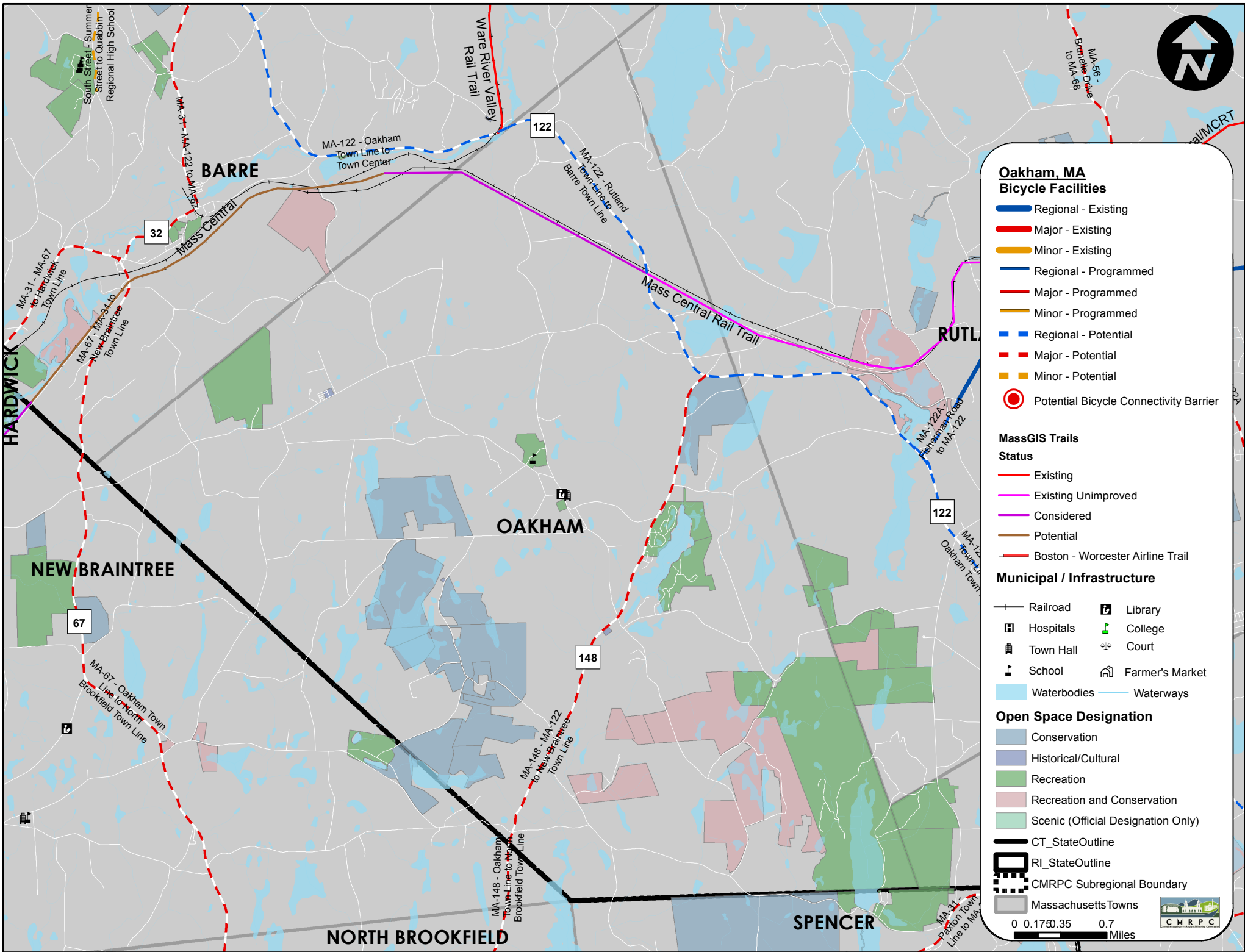
Potential

6.84 Miles

Multi-Use

Existing

3 Miles



Oakham On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
OAKHAM	MA-122 - Rutland Town Line to Barre Town Line	Paved Road	2.89	Potential	Regional
OAKHAM	MA-148 - MA-122 to New Braintree Town Line	Paved Road	3.95	Potential	Major

Oakham Multi-Use Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
Oakham	Mass Central Rail Trail	Barre Town Line to Rutland Town Line	3	Existing	Regional Multi-Use

North Subregion – Paxton

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network.
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PAXTON FACILITIES

Existing

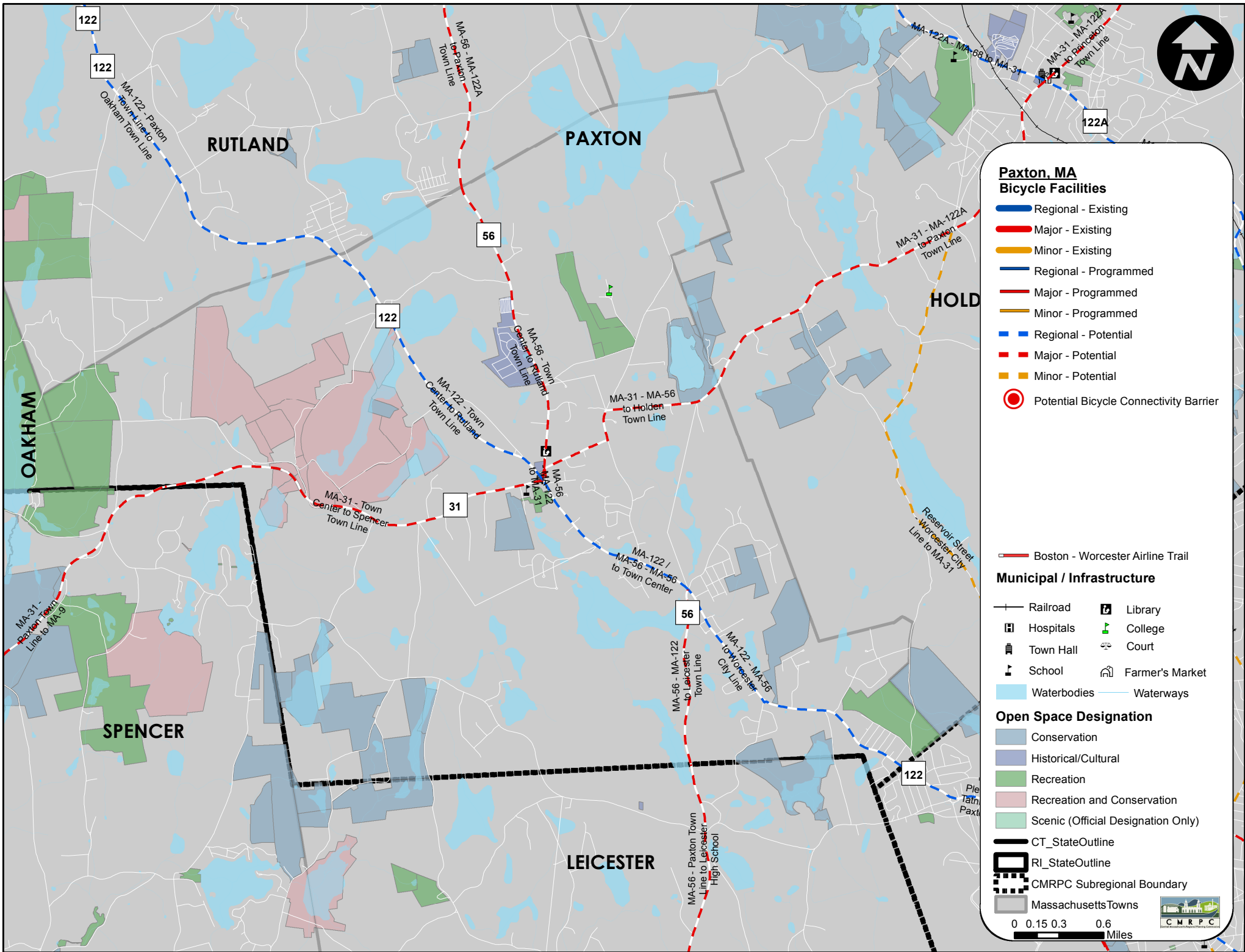
0 Miles

Programmed

0 Miles

Potential

13.05 Miles



Paxton On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
PAXTON	MA-122 - MA-56 to Worcester City Line	Paved Road	2.01	Potential	Regional
PAXTON	MA-122 - Town Center to Rutland Town Line	Paved Road	2.09	Potential	Regional
PAXTON	MA-122 / MA-31 - Town Center Area	Paved Road	0.01	Potential	Regional
PAXTON	MA-122 / MA-56 - MA-56 to Town Center	Paved Road	1.26	Potential	Regional
PAXTON	MA-31 - MA-122 to MA-56	Paved Road	0.07	Potential	Major
PAXTON	MA-31 - MA-56 to Holden Town Line	Paved Road	1.48	Potential	Major
PAXTON	MA-31 - Town Center to Spencer Town Line	Paved Road	2.78	Potential	Major
PAXTON	MA-56 - MA-122 to Leicester Town Line	Paved Road	1.19	Potential	Major
PAXTON	MA-56 - MA-122 to MA-31	Paved Road	0.12	Potential	Major
PAXTON	MA-56 - Town Center to Rutland Town Line	Paved Road	2.03	Potential	Major

North Subregion – Princeton

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network.
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PRINCETON FACILITIES

Existing

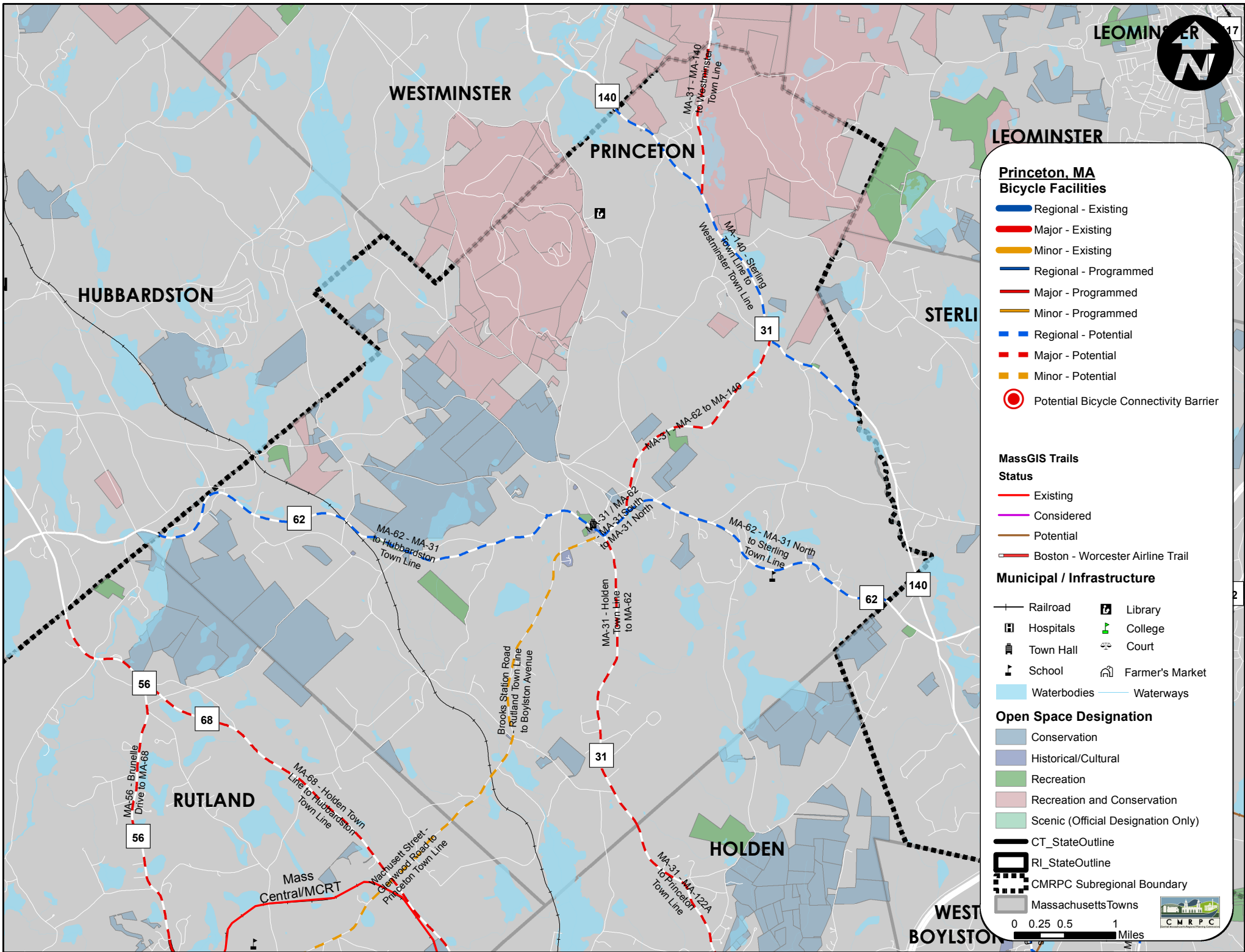
0 Miles

Programmed

0 Miles

Potential

23.27 Miles



Princeton On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
PRINCETON	MA-140 - Sterling Town Line to Westminster Town Line	Paved Road	3.94	Potential	Regional
PRINCETON	MA-31 / MA-62 - MA-31 South to MA-31 North	Paved Road	0.83	Potential	Regional
PRINCETON	MA-62 - MA-31 North to Sterling Town Line	Paved Road	2.97	Potential	Regional
PRINCETON	MA-62 - MA-31 to Hubbardston Town Line	Paved Road	5.11	Potential	Regional
PRINCETON	MA-31 - Holden Town Line to MA-62	Paved Road	3.06	Potential	Major
PRINCETON	MA-31 - MA-140 to Westminster Town Line	Paved Road	1.51	Potential	Major
PRINCETON	MA-31 - MA-62 to MA-140	Paved Road	2.39	Potential	Major
PRINCETON	Boylston Avenue - Brooks Station Road to MA-62	Paved Road	0.45	Potential	Minor
PRINCETON	Brooks Station Road - Rutland Town Line to Boylston Avenue	Paved Road	3.01	Potential	Minor

North Subregion – Rutland

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
- Work with MassDOT to implement the projects identified in the Town's Tier II Complete Streets Prioritization Plan.
- Work with MassDOT and DCR to ensure that Regional Multi-Use Trails and Pathways are advanced to meet the needs of subregional and regional travel via alternative modes.
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RUTLAND FACILITIES

Existing

3.31 Miles

Programmed

0.98 Miles

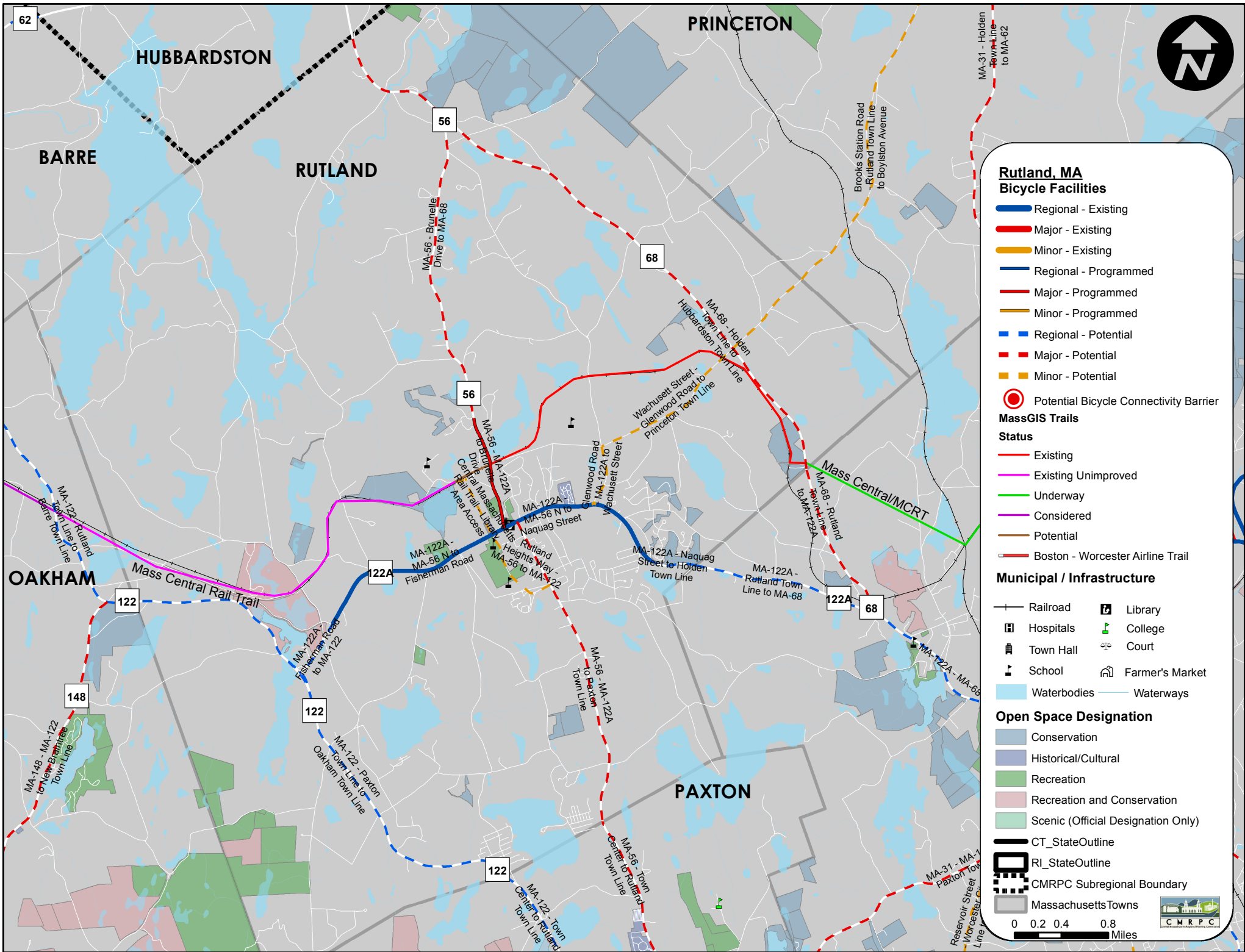
Potential

21.15 Miles

Multi-Use

Existing

7.85



Rutland On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
RUTLAND	MA-122 - Paxton Town Line to Oakham Town Line	Paved Road	4.81	Potential	Regional
RUTLAND	MA-122A - Fisherman Road to MA-122	Paved Road	0.52	Potential	Regional
RUTLAND	MA-122A - MA-56 N to Fisherman Road	Paved Road	1.79	Existing	Regional
RUTLAND	MA-122A - MA-56 N to Naquag Street	Paved Road	1.52	Existing	Regional
RUTLAND	MA-122A - Naquag Street to Holden Town Line	Paved Road	0.41	Potential	Regional
RUTLAND	MA-56 - Brunelle Drive to MA-68	Paved Road	2.74	Potential	Major
RUTLAND	MA-56 - MA-122A to Brunelle Drive	Paved Road	0.98	Programmed	Major
RUTLAND	MA-56 - MA-122A to Paxton Town Line	Paved Road	2.76	Potential	Major
RUTLAND	MA-68 - Holden Town Line to Hubbardston Town Line	Paved Road	5.61	Potential	Major
RUTLAND	Central Massachusetts Rail Trail - Library Area Access	Multi-Use Pathway	0.66	Potential	Minor
RUTLAND	Glenwood Road - MA-122A to Wachusett Street	Paved Road	0.56	Potential	Minor
RUTLAND	Rutland Heights Way - MA-56 to MA-122	Paved Road	0.81	Potential	Minor
RUTLAND	Wachusett Street - Glenwood Road to Princeton Town Line	Paved Road	2.27	Potential	Minor

Rutland Multi-Use Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
Rutland	Mass Central Rail Trail	Oakham Town Line to Whitehall Road	0.5	Existing	Regional Multi-Use
Rutland	Mass Central Rail Trail	Whitehall Road to Barrack Hill Road	1	Existing	Regional Multi-Use
Rutland	Mass Central Rail Trail	Barrack Hill Road to Miles Road	2	Existing	Regional Multi-Use
Rutland	Mass Central Rail Trail	Miles Road to Pommogussett Road	0.35	Existing	Regional Multi-Use
Rutland	Mass Central Rail Trail	Pommogussett Road to Holden Town Line	4	Existing	Regional Multi-Use

North Subregion - West Boylston

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
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WEST BOYLSTON FACILITIES

Existing

2.77 Miles

Programmed

0 Miles

Potential

15.90 Miles

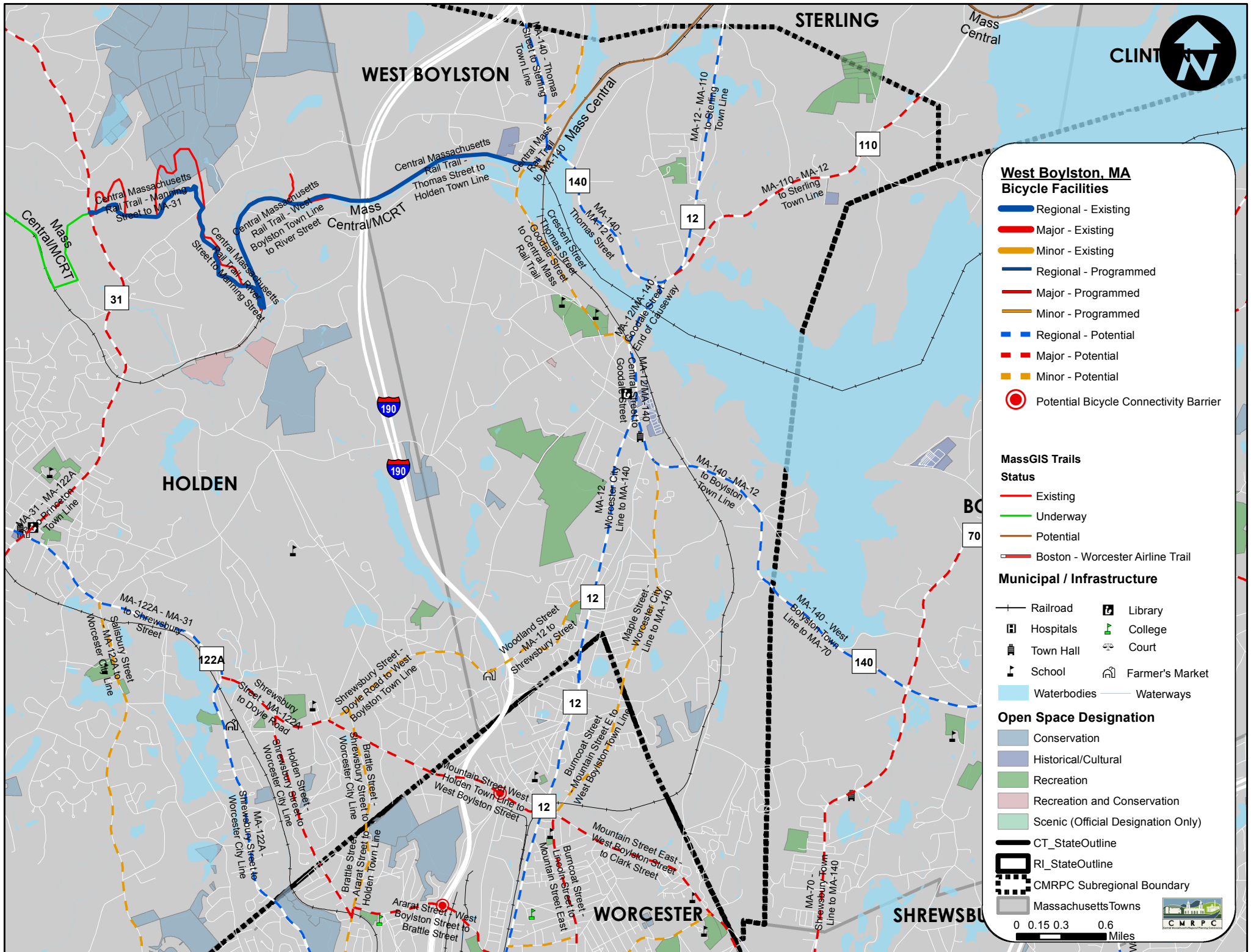
Multi-Use

Existing

1 Mile

Potential

2 Miles



West Boylston, MA Bicycle Facilities

- Regional - Existing
- Major - Existing
- Minor - Existing
- Regional - Programmed
- Major - Programmed
- Minor - Programmed
- Regional - Potential
- Major - Potential
- Minor - Potential
- Potential Bicycle Connectivity Barrier

MassGIS Trails Status

- Existing
- Underway
- Potential
- Boston - Worcester Airline Trail

Municipal / Infrastructure

Railroad	Library
Hospitals	College
Town Hall	Court
School	Farmer's Market
Waterbodies	Waterways

Open Space Designation

- Conservation
- Historical/Cultural
- Recreation
- Recreation and Conservation
- Scenic (Official Designation Only)

CT_StateOutline
RI_StateOutline
CMRPC Subregional Boundary
Massachusetts Towns

0 0.15 0.3 0.6 Miles

West Boylston On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
WEST BOYLSTON	Central Mass Rail Trail to MA-140	Paved Road	0.28	Potential	Regional
WEST BOYLSTON	Central Massachusetts Rail Trail - Thomas Street to Holden Town Line	Multi-Use Pathway	1.23	Existing	Regional
WEST BOYLSTON	Central Massachusetts Rail Trail - West Boylston Town Line to River Street	Multi-Use Pathway	1.54	Existing	Regional
WEST BOYLSTON	MA-12 - MA-110 to Sterling Town Line	Paved Road	1.71	Potential	Regional
WEST BOYLSTON	MA-12 - MA-140 to MA-110	Paved Road	0.18	Potential	Regional
WEST BOYLSTON	MA-12 - Worcester City Line to MA-140	Paved Road	1.67	Potential	Regional
WEST BOYLSTON	MA-12/MA-140 - Central Street to Goodale Street	Paved Road	0.46	Potential	Regional
WEST BOYLSTON	MA-12/MA-140 - Goodale Street - End of Causeway	Paved Road	0.39	Potential	Regional
WEST BOYLSTON	MA-140 - MA-12 to Boylston Town Line	Paved Road	1.76	Potential	Regional
WEST BOYLSTON	MA-140 - MA-12 to Thomas Street	Paved Road	1.49	Potential	Regional
WEST BOYLSTON	MA-140 - Thomas Street to Sterling Town Line	Paved Road	0.82	Potential	Regional
WEST BOYLSTON	MA-110 - MA-12 to Sterling Town Line	Paved Road	2.16	Potential	Major
WEST BOYLSTON	Crescent Street / Thomas Street - Goodale Street to Central Mass Rail Trail	Paved Road	1.35	Potential	Minor
WEST BOYLSTON	Goodale Street - MA-12/MA-140 to Crescent Street	Paved Road	0.22	Potential	Minor
WEST BOYLSTON	Maple Street - Worcester City Line to MA-140	Paved Road	1.58	Potential	Minor
WEST BOYLSTON	Shrewsbury Street - Woodland Street to Holden Town Line	Paved Road	0.06	Potential	Minor
WEST BOYLSTON	Wausacum Street - MA-140 to Sterling Town Line	Paved Road	0.65	Potential	Minor
WEST BOYLSTON	Woodland Street - MA-12 to Shrewsbury Street	Paved Road	1.12	Potential	Minor

West Boylston Multi-Use Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
West Boylston	Mass Central Rail Trail	Holden Town Line to Thomas Street	1	Existing	Regional Multi-Use
West Boylston	Mass Central Rail Trail	Thomas Street to Sterling Town Line	2	Potential	Regional Multi-Use

Northeast Subregion – Berlin

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
- Work with MassDOT to implement the projects identified in the Town's Tier II Complete Streets Prioritization Plan.
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BERLIN FACILITIES

Existing

0 Miles

Programmed

0 Miles

Potential

13.01 Miles

Multi-Use:

Existing

0 Miles

Programmed

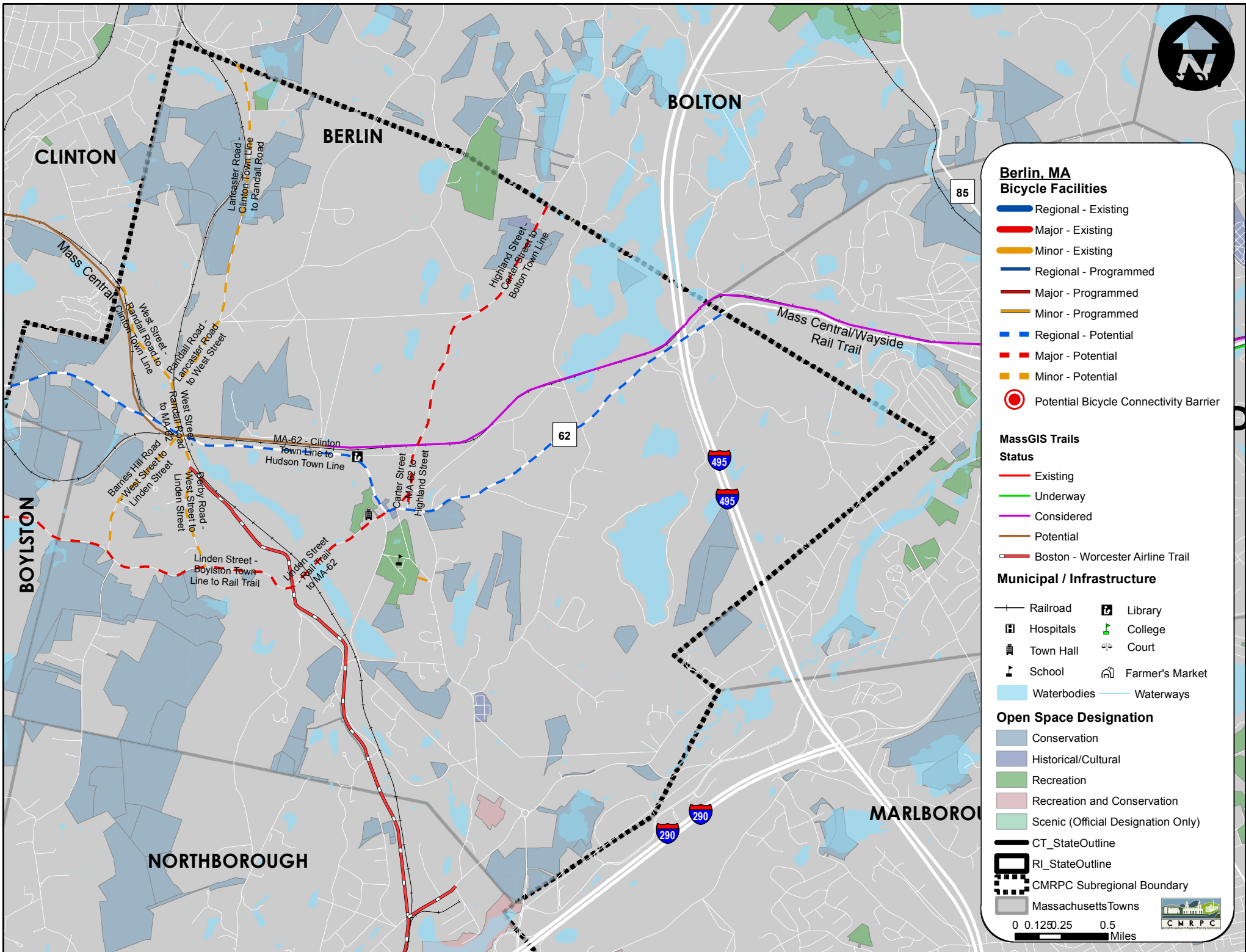
0 Miles

Potential

4.21 Miles

Considered

2 Miles



Berlin On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
BERLIN	MA-62 - Clinton Town Line to Hudson Town Line	Paved Road	4.52	Potential	Regional
BERLIN	Carter Street - MA-62 to Highland Street	Paved Road	0.30	Potential	Major
BERLIN	Highland Street - Carter Street to Bolton Town Line	Paved Road	1.59	Potential	Major
BERLIN	Linden Street - Boylston Town Line to Rail Trail	Paved Road	1.38	Potential	Major
BERLIN	Linden Street - Rail Trail to MA-62	Paved Road	0.66	Potential	Major
BERLIN	Woodward Avenue - MA-62 to Carter Street	Paved Road	0.11	Potential	Major
BERLIN	Barnes Hill Road - West Street to Linden Street	Paved Road	0.78	Potential	Minor
BERLIN	Derby Road - West Street to Linden Street	Paved Road	0.75	Potential	Minor
BERLIN	Lancaster Road - Clinton Town Line to Randall Road	Paved Road	1.49	Potential	Minor
BERLIN	Multi Use Pathway - Pleasant Street to South Commons	Multi-Use Pathway	0.09	Potential	Minor
BERLIN	Randall Road - Lancaster Road to West Street	Paved Road	0.43	Potential	Minor
BERLIN	West Street - Randall Road to Clinton Town Line	Paved Road	0.63	Potential	Minor
BERLIN	West Street - Randall Road to MA-62	Paved Road	0.28	Potential	Minor

Berlin Multi-Use Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
Berlin	Mass Central Rail Trail	Coburn Road to Hudson Town Line	2	Considered	Regional Multi-Use
Berlin	Mass Central Rail Trail	Clinton Town Line to Coburn Road	2	Potential	Regional Multi-Use
Berlin	Boston Worcester Airline Trail - Aqueduct Branch	Northborough Town Line to Mass Central Rail Trail	2.21	Potential	Regional Multi-Use

Northeast Subregion – Boylston

Priority Recommendations

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BOYLSTON FACILITIES

Existing

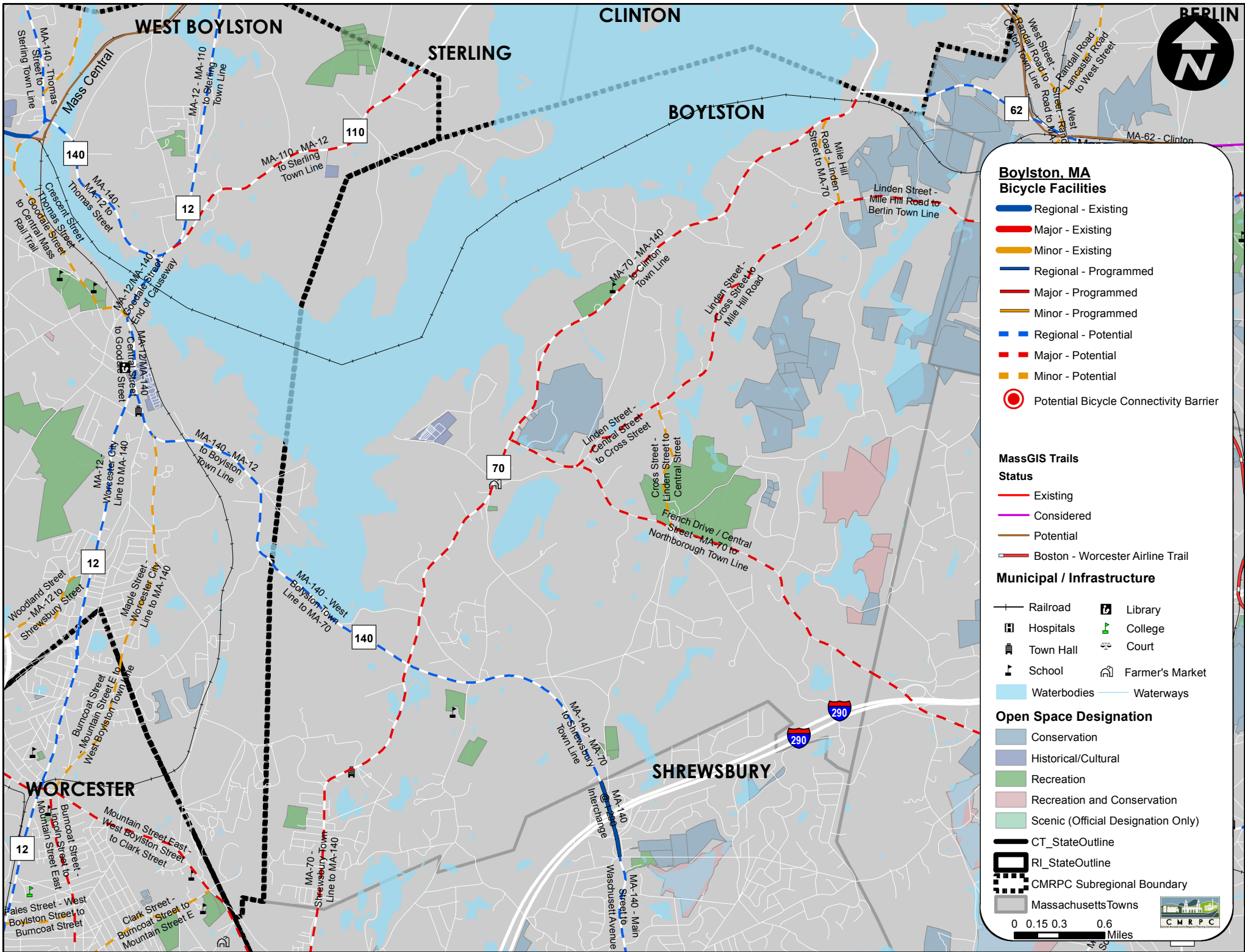
0 Miles

Programmed

0 Miles

Potential

18.00 Miles



**Boylston, MA
Bicycle Facilities**

- Regional - Existing
- Major - Existing
- Minor - Existing
- Regional - Programmed
- Major - Programmed
- Minor - Programmed
- Regional - Potential
- Major - Potential
- Minor - Potential
- Potential Bicycle Connectivity Barrier

**MassGIS Trails
Status**

- Existing
- Considered
- Potential
- Boston - Worcester Airline Trail

Municipal / Infrastructure

- Railroad
- Hospitals
- Town Hall
- School
- Library
- College
- Court
- Farmer's Market
- Waterbodies
- Waterways

Open Space Designation

- Conservation
- Historical/Cultural
- Recreation
- Recreation and Conservation
- Scenic (Official Designation Only)
- CT_StateOutline
- RI_StateOutline
- CMRPC Subregional Boundary
- Massachusetts Towns

0 0.15 0.3 0.6
Miles



Boylston On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
BOYLSTON	MA-140 - MA-70 to Shrewsbury Town Line	Paved Road	1.69	Potential	Regional
BOYLSTON	MA-140 - West Boylston Town Line to MA-70	Paved Road	1.15	Potential	Regional
BOYLSTON	French Drive / Central Street - MA-70 to Northborough Town Line	Paved Road	3.04	Potential	Major
BOYLSTON	Linden Street - Central Street to Cross Street	Paved Road	0.70	Potential	Major
BOYLSTON	Linden Street - Cross Street to Mile Hill Road	Paved Road	1.94	Potential	Major
BOYLSTON	Linden Street - Mile Hill Road to Berlin Town Line	Paved Road	0.88	Potential	Major
BOYLSTON	MA-70 - MA-140 to Clinton Town Line	Paved Road	5.22	Potential	Major
BOYLSTON	MA-70 - Shrewsbury Town Line to MA-140	Paved Road	1.89	Potential	Major
BOYLSTON	Cross Street - Linden Street to Central Street	Paved Road	0.86	Potential	Minor
BOYLSTON	Mile Hill Road - Linden Street to MA-70	Paved Road	0.61	Potential	Minor

Northeast Subregion – Northborough

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
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NORTHBOROUGH FACILITIES

Existing

0 Miles

Programmed

0 Miles

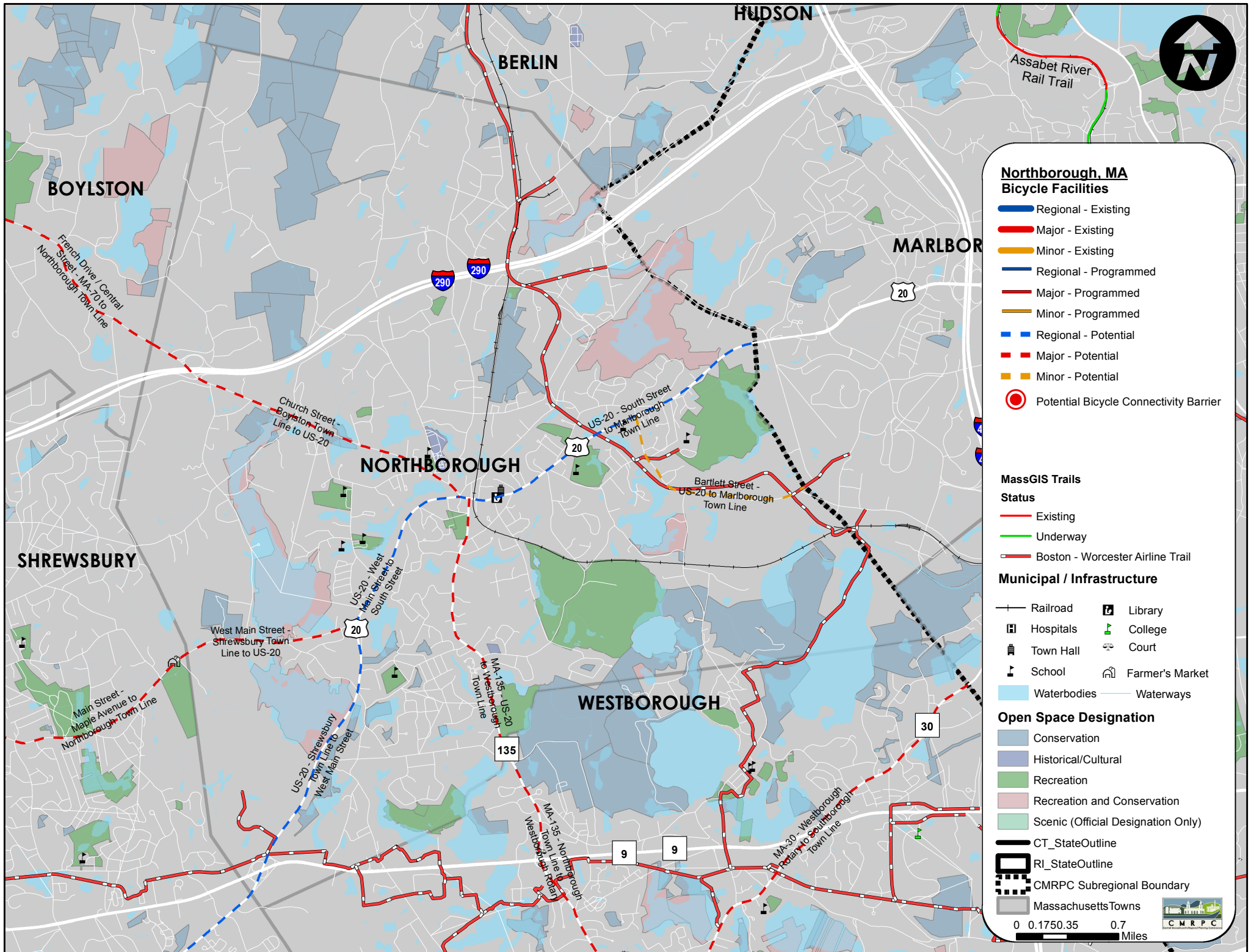
Potential

12.75 Miles

Multi-Use

Potential

6.76 Miles



**Northborough, MA
Bicycle Facilities**

- Regional - Existing
- Major - Existing
- Minor - Existing
- Regional - Programmed
- Major - Programmed
- Minor - Programmed
- Regional - Potential
- Major - Potential
- Minor - Potential
- Potential Bicycle Connectivity Barrier

**MassGIS Trails
Status**

- Existing
- Underway
- Boston - Worcester Airline Trail

Municipal / Infrastructure

- | | |
|-------------|-----------------|
| Railroad | Library |
| Hospitals | College |
| Town Hall | Court |
| School | Farmer's Market |
| Waterbodies | Waterways |

Open Space Designation

- Conservation
- Historical/Cultural
- Recreation
- Recreation and Conservation
- Scenic (Official Designation Only)

- CT_StateOutline
- RI_StateOutline
- CNRPC Subregional Boundary
- Massachusetts Towns

0 0.1750.35 0.7
Miles



Northborough On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
NORTHBOROUGH	US-20 - Shrewsbury Town Line to West Main Street	Paved Road	2.14	Potential	Regional
NORTHBOROUGH	US-20 - South Street to Marlborough Town Line	Paved Road	2.28	Potential	Regional
NORTHBOROUGH	US-20 - West Main Street to South Street	Paved Road	1.28	Potential	Regional
NORTHBOROUGH	Church Street - Boylston Town Line to US-20	Paved Road	2.43	Potential	Major
NORTHBOROUGH	MA-135 - US-20 to Westborough Town Line	Paved Road	1.88	Potential	Major
NORTHBOROUGH	West Main Street - Shrewsbury Town Line to US-20	Paved Road	1.24	Potential	Major
NORTHBOROUGH	Bartlett Street - US-20 to Marlborough Town Line	Paved Road	1.51	Potential	Minor

Northborough Multi-Use Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
Northborough	Boston Worcester Airline Trail	Shrewsbury Town Line to Westborough Town Line	0.88	Potential	Regional Multi-Use
Northborough	Boston Worcester Airline Trail - Aqueduct Branch	Westborough Town Line to Bartlett Street	1.61	Potential	Regional Multi-Use
Northborough	Boston Worcester Airline Trail - Aqueduct Branch	Bartlett Street to Rice Street	2.05	Potential	Regional Multi-Use
Northborough	Boston Worcester Airline Trail - Aqueduct Branch	Rice Street to the Berlin Town Line	2.22	Potential	Regional Multi-Use

Northeast Subregion – Shrewsbury

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
- Work with MassDOT to implement the projects identified in the Town's Tier II Complete Streets Prioritization Plan.
- Work with MassDOT and DCR to ensure that Regional Multi-Use Trails and Pathways are advanced to meet the needs of subregional and regional travel via alternative modes.
- Work with local, regional, and statewide advocacy groups and other stakeholders to expand public education campaigns that promote the rules of the road so that all transportation system users are aware of their responsibilities. Work to incorporate Safe Routes to School materials and practices into local education systems in order to increase active transportation participation and safety.

SHREWSBURY FACILITIES

Existing

0 Miles

Programmed

3.67 Miles

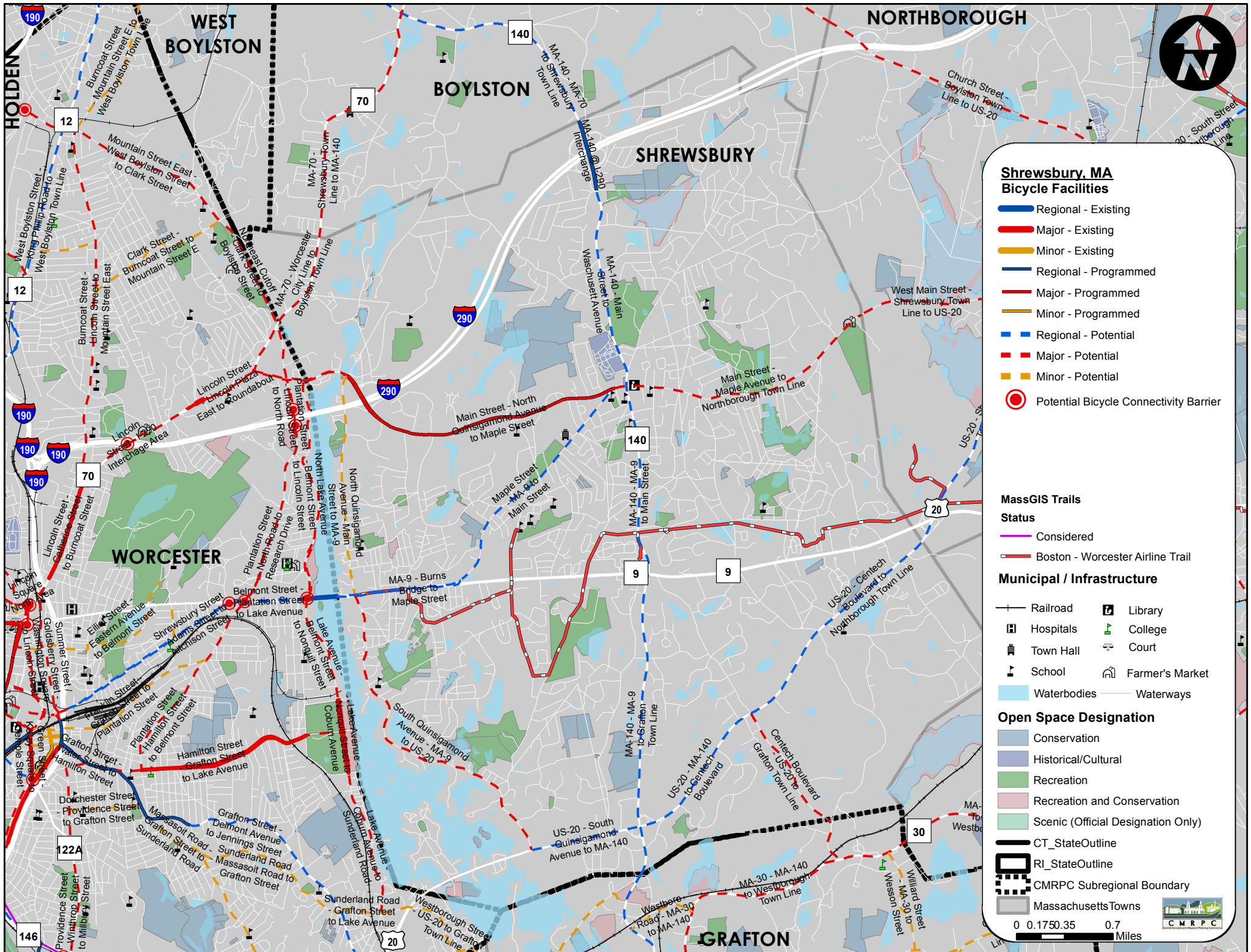
Potential

21.07 Miles

Multi-Use

Potential

5.88



Shrewsbury, MA
Bicycle Facilities

- Regional - Existing
- Major - Existing
- Minor - Existing
- Regional - Programmed
- Major - Programmed
- Minor - Programmed
- Regional - Potential
- Major - Potential
- Minor - Potential
- Potential Bicycle Connectivity Barrier

MassGIS Trails
Status

- Considered
- Boston - Worcester Airline Trail

Municipal / Infrastructure

Railroad	Library
Hospitals	College
Town Hall	Court
School	Farmer's Market
Waterbodies	Waterways

Open Space Designation

- Conservation
- Historical/Cultural
- Recreation
- Recreation and Conservation
- Scenic (Official Designation Only)

CT_StateOutline
RI_StateOutline
CMRPC Subregional Boundary
Massachusetts Towns

0 0.1750.35 0.7 Miles

Shrewsbury On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
SHREWSBURY	MA-140 - MA-9 to Grafton Town Line	Paved Road	2.20	Potential	Regional
SHREWSBURY	MA-140 - MA-9 to Main Street	Paved Road	1.39	Potential	Regional
SHREWSBURY	MA-140 - Main Street to Waschuset Avenue	Paved Road	1.47	Potential	Regional
SHREWSBURY	MA-140 @ I-290 Interchange	Paved Road	1.04	Programmed	Regional
SHREWSBURY	MA-9 - Burns Bridge to Maple Street	Paved Road	1.87	Potential	Regional
SHREWSBURY	Maple Street - MA-9 to Main Street	Paved Road	1.83	Potential	Regional
SHREWSBURY	US-20 - Centech Boulevard to Northborough Town Line	Paved Road	1.79	Potential	Regional
SHREWSBURY	US-20 - MA-140 to Centech Boulevard	Paved Road	1.19	Potential	Regional
SHREWSBURY	US-20 - South Quinsigamond Avenue to MA-140	Paved Road	0.81	Potential	Regional
SHREWSBURY	Centech Boulevard - US-20 to Grafton Town Line	Paved Road	0.98	Potential	Major
SHREWSBURY	MA-70 - Worcester City Line to Boylston Town Line	Paved Road	0.71	Potential	Major
SHREWSBURY	Main Street - Maple Avenue to Northborough Town Line	Paved Road	2.02	Potential	Major
SHREWSBURY	Main Street - North Quinsigamond Avenue to Maple Street	Paved Road	2.62	Programmed	Major
SHREWSBURY	Main Street - Worcester City Line to North Quinsigamond Avenue	Paved Road	0.62	Potential	Major
SHREWSBURY	South Quinsigamond Avenue - MA-9 to US-20	Paved Road	2.59	Potential	Major
SHREWSBURY	North Quinsigamond Avenue - Main Street to MA-9	Paved Road	1.61	Potential	Minor

Shrewsbury Multi-Use Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
Shrewsbury	Boston Worcester Airline Trail	Quinsigamond Avenue to Oak Street	1.4	Potential	Regional Multi- Use
Shrewsbury	Boston Worcester Airline Trail	Oak Street to Lake Street	1.92	Potential	Regional Multi- Use
Shrewsbury	Boston Worcester Airline Trail	Lake Street to Fruit Street	1.23	Potential	Regional Multi- Use
Shrewsbury	Boston Worcester Airline Trail	Fruit Street to Northborough Town Line	1.33	Potential	Regional Multi- Use

Northeast Subregion – Westborough

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network.
- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
- Work with MassDOT and DCR to ensure that Regional Multi-Use Trails and Pathways are advanced to meet the needs of subregional and regional travel via alternative modes.
- Work with local, regional, and statewide advocacy groups and other stakeholders to expand public education campaigns that promote the rules of the road so that all transportation system users are aware of their responsibilities. Work to incorporate Safe Routes to School materials and practices into local education systems in order to increase active transportation participation and safety.

WESTBOROUGH FACILITIES

Existing

0 Miles

Programmed

0 Miles

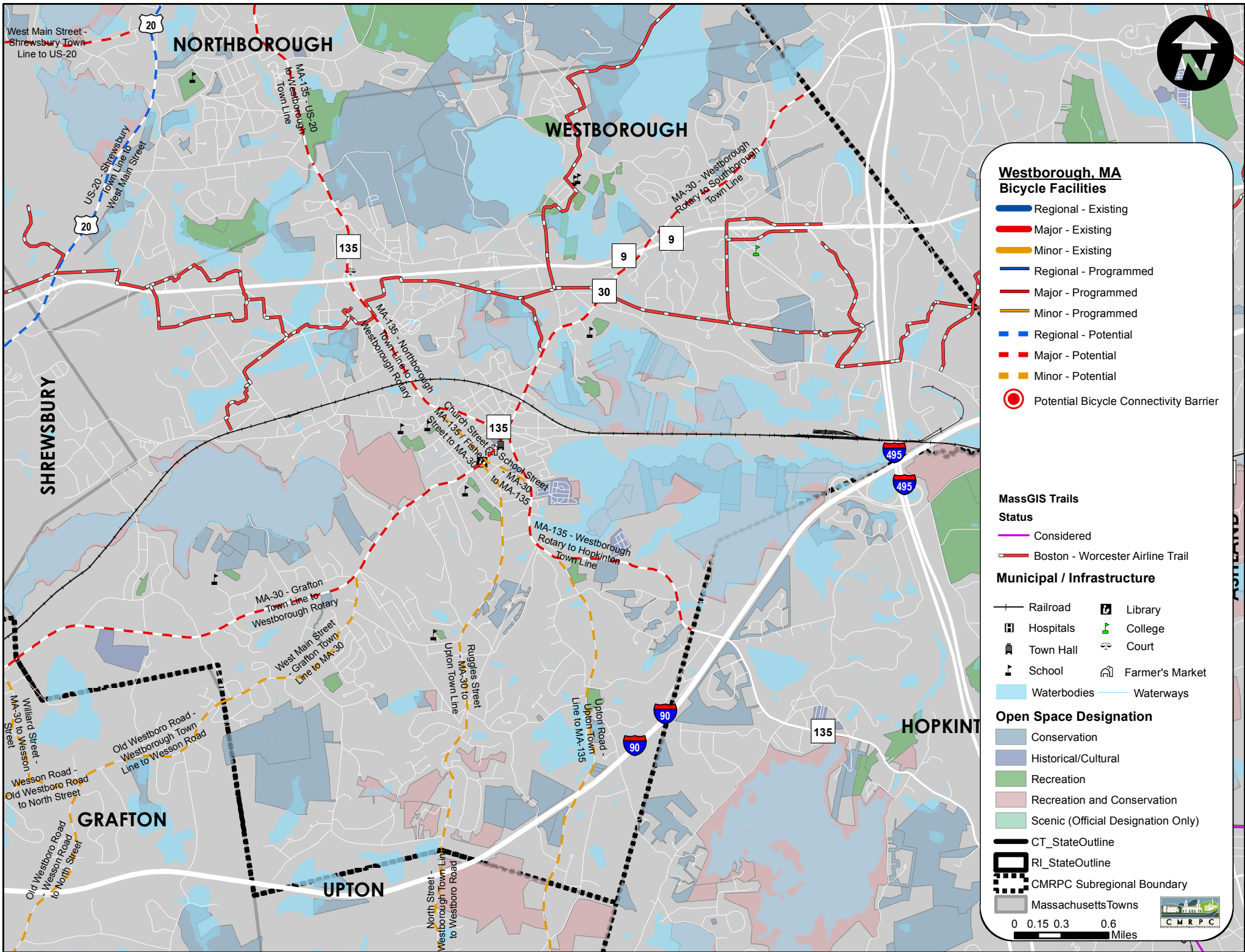
Potential

20.76 Miles

Multi-Use

Potential

9.16 Miles



Westborough On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
WESTBOROUGH	MA-135 - Northborough Town Line to Westborough Rotary	Paved Road	2.28	Potential	Major
WESTBOROUGH	MA-135 - Westborough Rotary to Hopkinton Town Line	Paved Road	2.04	Potential	Major
WESTBOROUGH	MA-30 - Grafton Town Line to Westborough Rotary	Paved Road	3.67	Potential	Major
WESTBOROUGH	MA-30 - Westborough Rotary to Southborough Town Line	Paved Road	3.02	Potential	Major
WESTBOROUGH	Church Street - MA-135 / Fisher Street to MA-30	Paved Road	0.47	Potential	Minor
WESTBOROUGH	North Street - Westborough Town Line to Westboro Road	Paved Road	2.72	Potential	Minor
WESTBOROUGH	Ruggles Street - MA-30 to Upton Town Line	Paved Road	2.65	Potential	Minor
WESTBOROUGH	School Street - MA-30 to MA-135	Paved Road	0.35	Potential	Minor
WESTBOROUGH	Upton Road - Upton Town Line to MA-135	Paved Road	2.24	Potential	Minor
WESTBOROUGH	West Main Street - Grafton Town Line to MA-30	Paved Road	1.33	Potential	Minor

Westborough Multi-Use Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
Westborough	Boston Worcester Airline Trail	Northborough Town Line to Sassacus Drive	1.38	Potential	Regional Multi-Use
Westborough	Boston Worcester Airline Trail	Sassacus Drive to Park Street	1.05	Potential	Regional Multi-Use
Westborough	Boston Worcester Airline Trail	Park Street to East Main Street	1.37	Potential	Regional Multi-Use
Westborough	Boston Worcester Airline Trail	East Main Street to Connector Road	0.85	Potential	Regional Multi-Use
Westborough	Boston Worcester Airline Trail	Connector Road to West Park Drive	0.88	Potential	Regional Multi-Use
Westborough	Boston Worcester Airline Trail	West Park Drive to Southborough Town Line	1.63	Potential	Regional Multi-Use
Westborough	Boston Worcester Airline Trail - Aqueduct Branch	Lyman Street to the Northborough Town Line	2	Potential	Regional Multi-Use

Southeast Subregion – Blackstone

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network.
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- Work with MassDOT and DCR to ensure that Regional Multi-Use Trails and Pathways are advanced to meet the needs of subregional and regional travel via alternative modes.
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BLACKSTONE FACILITIES

Existing

1.48 Miles

Programmed

0 Miles

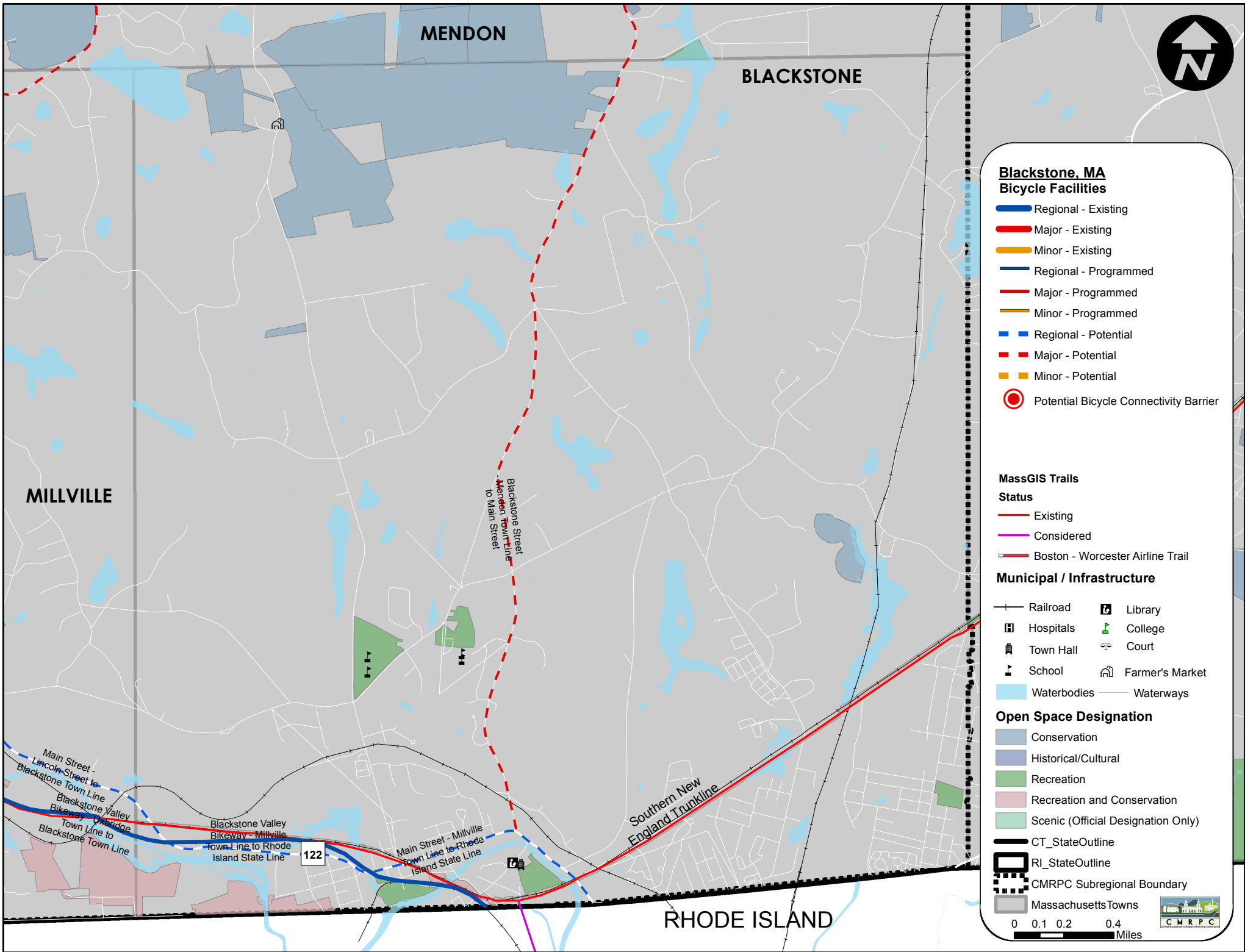
Potential

5.39 Miles

Multi-Use

Existing

4 Miles



Blackstone On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
BLACKSTONE	Blackstone Valley Bikeway - Millville Town Line to Rhode Island State Line	Multi-Use Pathway	1.48	Existing	Regional
BLACKSTONE	Main Street - Millville Town Line to Rhode Island State Line	Paved Road	2.10	Potential	Regional
BLACKSTONE	Blackstone Street - Mendon Town Line to Main Street	Paved Road	3.29	Potential	Major

Blackstone Multi-Use Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
Blackstone	Southern New England Trunkline Trail	Millville Town Line to Bellingham Town Line	4	Existing	Regional Multi-Use

Southeast Subregion – Douglas

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network.
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DOUGLAS FACILITIES

Existing

0 Miles

Programmed

0 Miles

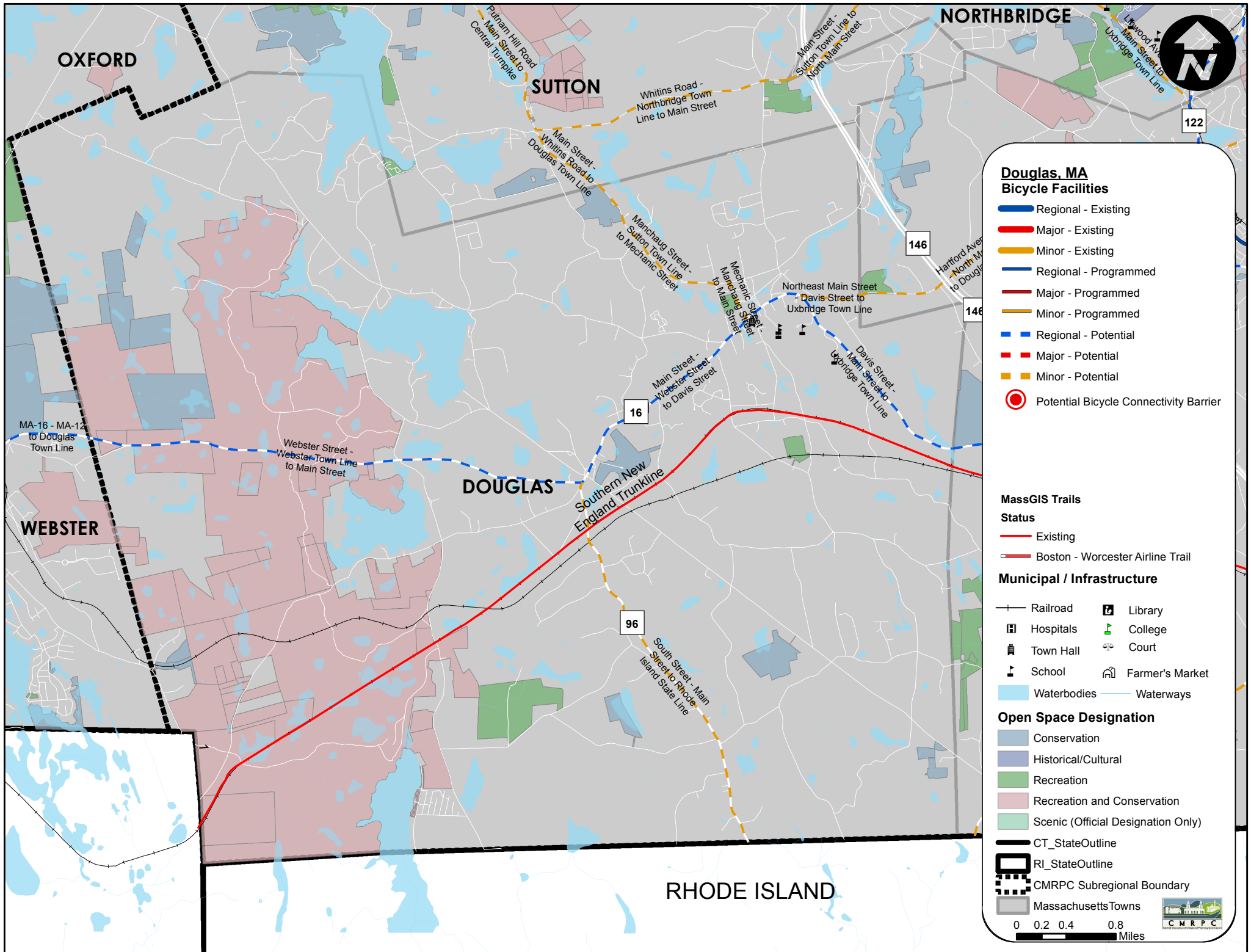
Potential

13.87 Miles

Multi-Use

Existing

7 Miles



**Douglas, MA
Bicycle Facilities**

- Regional - Existing
- Major - Existing
- Minor - Existing
- Regional - Programmed
- Major - Programmed
- Minor - Programmed
- Regional - Potential
- Major - Potential
- Minor - Potential
- Potential Bicycle Connectivity Barrier

**MassGIS Trails
Status**

- Existing
- Boston - Worcester Airline Trail

Municipal / Infrastructure

- Railroad
- Hospitals
- Town Hall
- School
- Library
- College
- Court
- Farmer's Market
- Waterbodies
- Waterways

Open Space Designation

- Conservation
- Historical/Cultural
- Recreation
- Recreation and Conservation
- Scenic (Official Designation Only)

- CT_StateOutline
- RI_StateOutline
- CMRPC Subregional Boundary
- Massachusetts Towns

0 0.2 0.4 0.8
Miles



Douglas On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
DOUGLAS	Davis Street - Main Street to Uxbridge Town Line	Paved Road	1.80	Potential	Regional
DOUGLAS	Main Street - Webster Street to Davis Street	Paved Road	2.42	Potential	Regional
DOUGLAS	Webster Street - Webster Town Line to Main Street	Paved Road	4.04	Potential	Regional
DOUGLAS	Manchaug Street - Sutton Town Line to Mechanic Street	Paved Road	1.44	Potential	Minor
DOUGLAS	Mechanic Street - Manchaug Street to Main Street	Paved Road	0.38	Potential	Minor
DOUGLAS	Northeast Main Street - Davis Street to Uxbridge Town Line	Paved Road	0.49	Potential	Minor
DOUGLAS	South Street - Main Street to Rhode Island State Line	Paved Road	3.30	Potential	Minor

Douglas Multi-Use Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
Douglas	Southern New England Trunkline Trail	Connecticut State Line to Uxbridge Town Line	7	Existing	Regional Multi-Use

Southeast Subregion – Grafton

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network.
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GRAFTON FACILITIES

Existing

0 Miles

Programmed

2.07 Miles

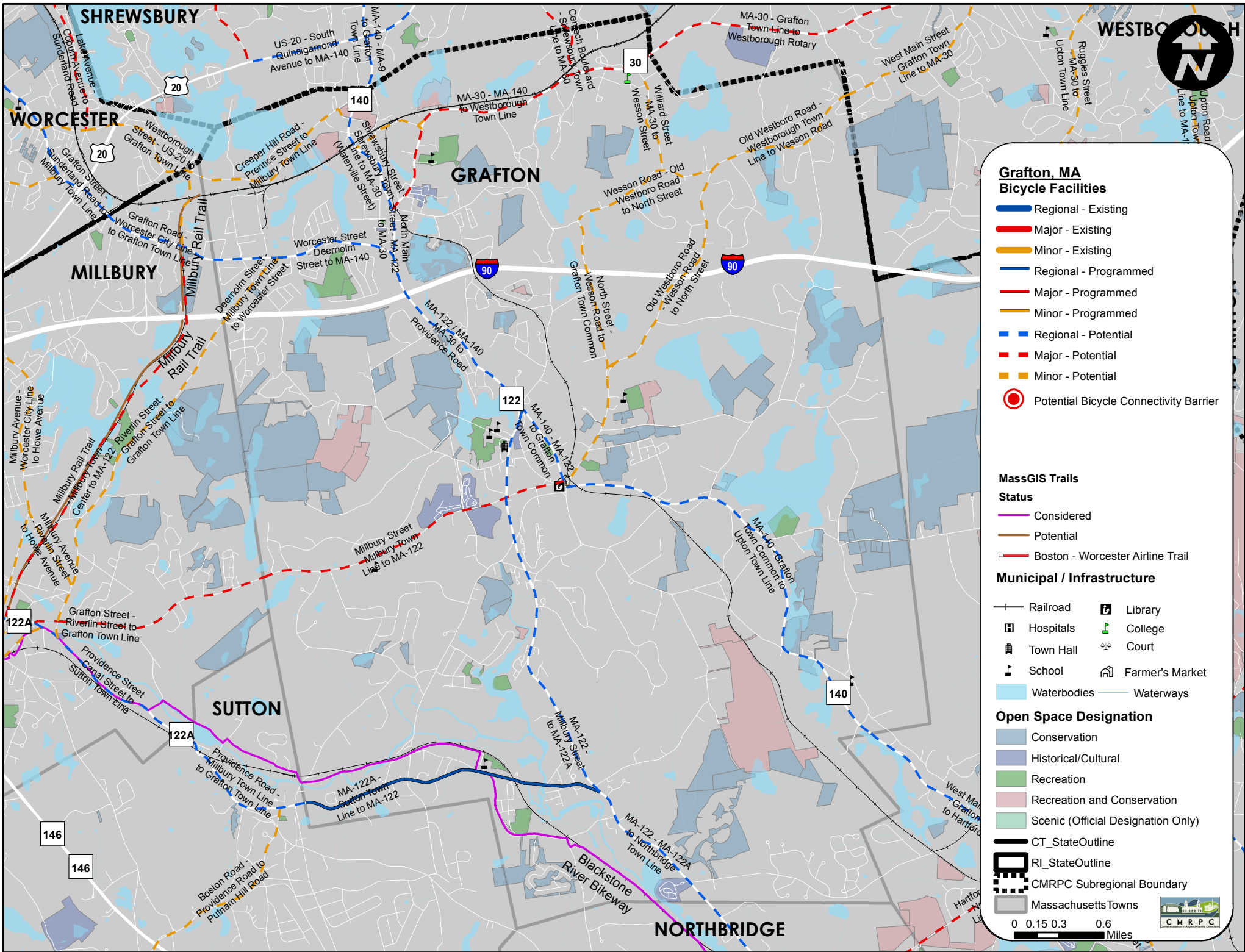
Potential

25.55 Miles

Multi-Use

Considered

3 Miles



Grafton On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
GRAFTON	MA-122 - MA-122A to Northbridge Town Line	Paved Road	1.06	Potential	Regional
GRAFTON	MA-122 - MA-140 to Millbury Street	Paved Road	0.54	Potential	Regional
GRAFTON	MA-122 - Millbury Street to MA-122A	Paved Road	2.17	Potential	Regional
GRAFTON	MA-122 / MA-140 - MA-30 to Providence Road	Paved Road	1.61	Potential	Regional
GRAFTON	MA-122A - Sutton Town Line to MA-122	Paved Road	2.07	Programmed	Regional
GRAFTON	MA-140 - Grafton Town Common to Upton Town Line	Paved Road	3.11	Potential	Regional
GRAFTON	MA-140 - MA-122 to Grafton Town Common	Paved Road	0.60	Potential	Regional
GRAFTON	North Main Street - MA-122 to MA-30	Paved Road	0.32	Potential	Regional
GRAFTON	Shrewsbury Street - Shrewsbury Town Line to MA-30 (Waterville Street)	Paved Road	0.95	Potential	Regional
GRAFTON	Worcester Street - Deernolm Street to MA-140	Paved Road	0.84	Potential	Regional
GRAFTON	Worcester Street - Millbury Town Line to Deernolm Street	Paved Road	0.43	Potential	Regional
GRAFTON	Centech Boulevard - Shrewsbury Town Line to MA-30	Paved Road	0.34	Potential	Major
GRAFTON	MA-30 - MA-140 to Westborough Town Line	Paved Road	2.31	Potential	Major
GRAFTON	Millbury Street - MA-122 to Grafton Town Common	Paved Road	0.40	Potential	Major
GRAFTON	Millbury Street - Millbury Town Line to MA-122	Paved Road	1.76	Potential	Major
GRAFTON	Creeper Hill Road - Grafton Town Line to Worcester City Line	Paved Road	0.12	Potential	Minor
GRAFTON	Creeper Hill Road - Prentice Street to Millbury Town Line	Paved Road	1.14	Potential	Minor
GRAFTON	Deernolm Street - Millbury Town Line to Worcester Street	Paved Road	0.57	Potential	Minor
GRAFTON	North Street - Wesson Road to Grafton Town Common	Paved Road	1.89	Potential	Minor
GRAFTON	Old Westboro Road - Wesson Road to North Street	Paved Road	1.76	Potential	Minor
GRAFTON	Old Westboro Road - Westborough Town Line to Wesson Road	Paved Road	1.11	Potential	Minor
GRAFTON	Prentice Street - MA-140 to Creeper Hill Road	Paved Road	0.12	Potential	Minor
GRAFTON	Wesson Road - Old Westboro Road to North Street	Paved Road	1.03	Potential	Minor
GRAFTON	Westboro Road - MA-30 to MA-140	Paved Road	0.59	Potential	Minor
GRAFTON	Williard Street - MA-30 to Wesson Street	Paved Road	0.77	Potential	Minor

Grafton Multi-Use Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
Grafton	Blackstone River Greenway	Sutton Town Line to Northbridge Town Line	3	Considered	Regional Multi-Use

Southeast Subregion – Hopedale

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network.
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HOPEDALE FACILITIES

Existing

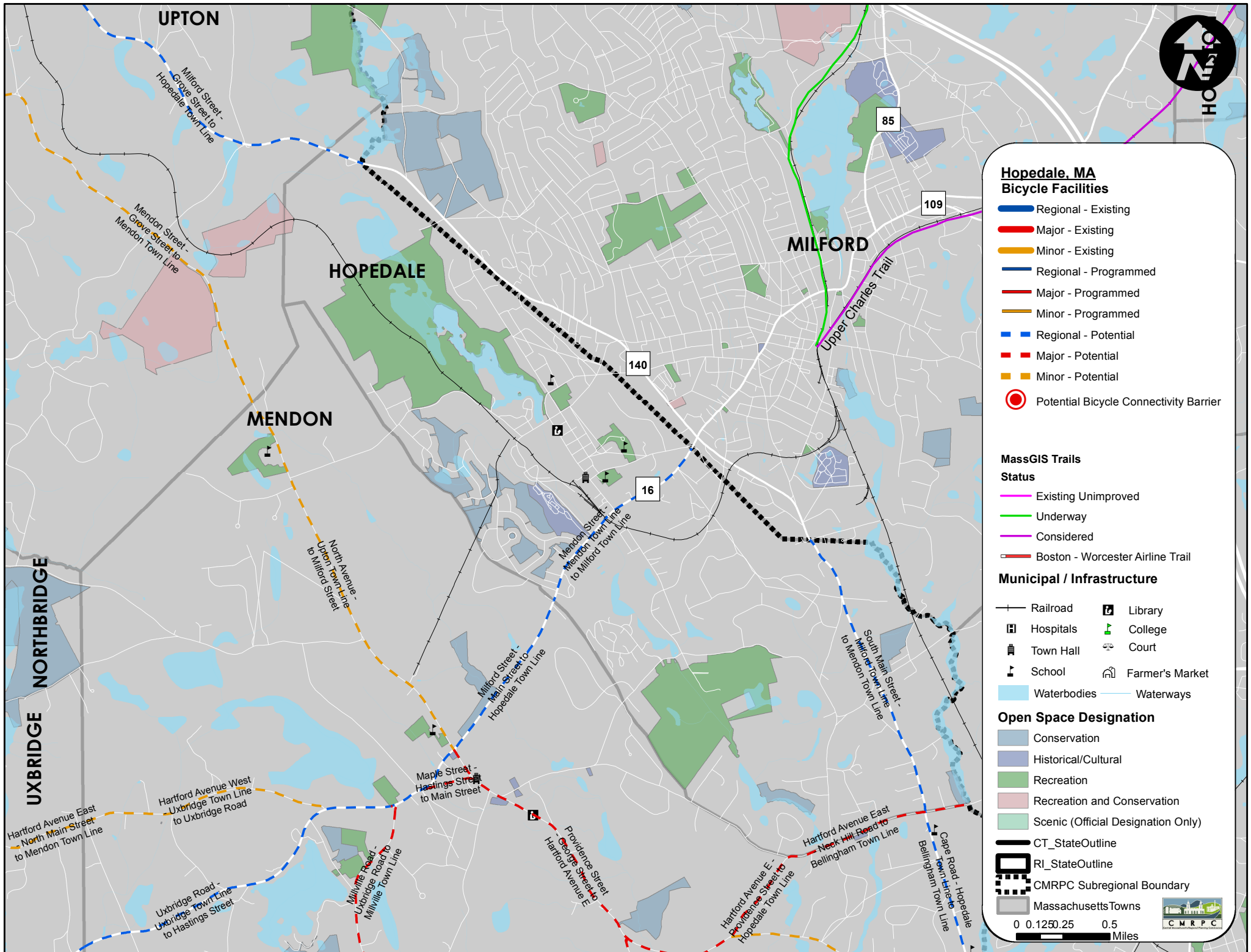
0 Miles

Programmed

0 Miles

Potential

2.96 Miles



Hopedale, MA
Bicycle Facilities

- Regional - Existing
- Major - Existing
- Minor - Existing
- Regional - Programmed
- Major - Programmed
- Minor - Programmed
- Regional - Potential
- Major - Potential
- Minor - Potential
- Potential Bicycle Connectivity Barrier

MassGIS Trails
Status

- Existing Unimproved
- Underway
- Considered
- Boston - Worcester Airline Trail

Municipal / Infrastructure

Railroad	Library
Hospitals	College
Town Hall	Court
School	Farmer's Market
Waterbodies	Waterways

Open Space Designation

- Conservation
- Historical/Cultural
- Recreation
- Recreation and Conservation
- Scenic (Official Designation Only)

CT_StateOutline
RI_StateOutline
CMRPC Subregional Boundary
Massachusetts Towns

0 0.1250.25 0.5 Miles



Hopedale On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
HOPEDALE	Mendon Street - Mendon Town Line to Milford Town Line	Paved Road	1.14	Potential	Regional
HOPEDALE	South Main Street - Milford Town Line to Mendon Town Line	Paved Road	1.61	Potential	Regional
HOPEDALE	West Street - Upton Town Line to Milford Town Line	Paved Road	0.21	Potential	Regional

Southeast Subregion – Mendon

Priority Recommendations

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- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
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MENDON FACILITIES

Existing

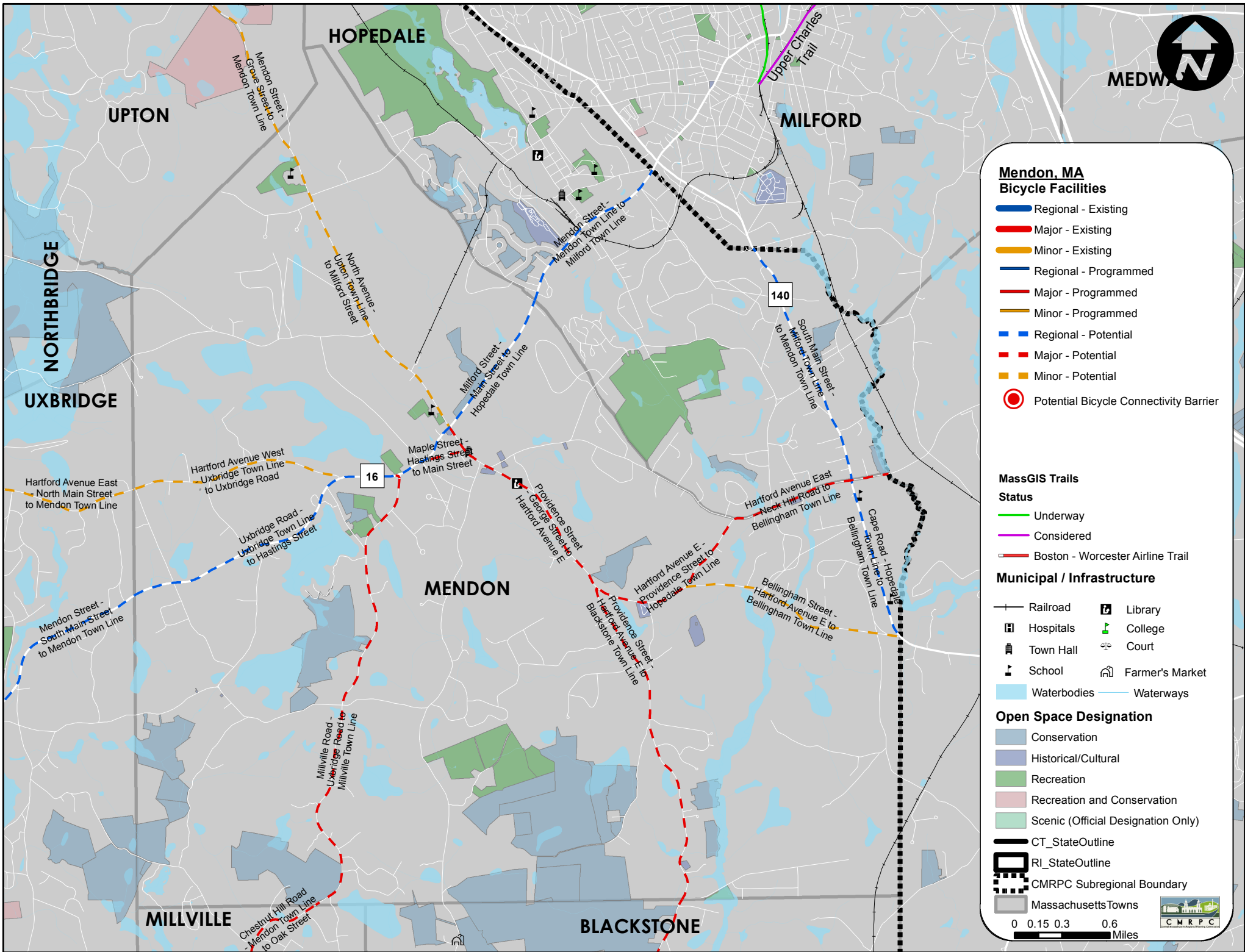
0 Miles

Programmed

0 Miles

Potential

18.48 Miles



Mendon On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
MENDON	Cape Road - Hopedale Town Line to Bellingham Town Line	Paved Road	1.04	Potential	Regional
MENDON	Hastings Street - Maple Street to Main Street	Paved Road	0.27	Potential	Regional
MENDON	Hastings Street - Uxbridge Road to Maple Street	Paved Road	0.15	Potential	Regional
MENDON	Milford Street - Main Street to Hopedale Town Line	Paved Road	0.97	Potential	Regional
MENDON	Uxbridge Road - Uxbridge Town Line to Hastings Street	Paved Road	1.97	Potential	Regional
MENDON	Hartford Avenue E - Providence Street to Hopedale Town Line	Paved Road	1.12	Potential	Major
MENDON	Hartford Avenue East - Neck Hill Road to Bellingham Town Line	Paved Road	1.02	Potential	Major
MENDON	Main Street - Maple Street to George Street	Paved Road	0.16	Potential	Major
MENDON	Main Street - Milford Street to Maple Street	Paved Road	0.20	Potential	Major
MENDON	Maple Street - Hastings Street to Main Street	Paved Road	0.28	Potential	Major
MENDON	Millville Road - Uxbridge Road to Millville Town Line	Paved Road	3.07	Potential	Major
MENDON	Providence Street - George Street to Hartford Avenue E	Paved Road	1.07	Potential	Major
MENDON	Providence Street - Hartford Avenue E to Blackstone Town Line	Paved Road	2.16	Potential	Major
MENDON	Bellingham Street - Hartford Avenue E to Bellingham Town Line	Paved Road	1.44	Potential	Minor
MENDON	Hartford Avenue West - Uxbridge Town Line to Uxbridge Road	Paved Road	1.35	Potential	Minor
MENDON	North Avenue - Upton Town Line to Milford Street	Paved Road	2.19	Potential	Minor

Southeast Subregion – Millbury

Priority Recommendations

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MILLBURY FACILITIES

Existing

1.58 Miles

Programmed

1.19 Miles

Potential

17.20 Miles

Multi-Use

Existing

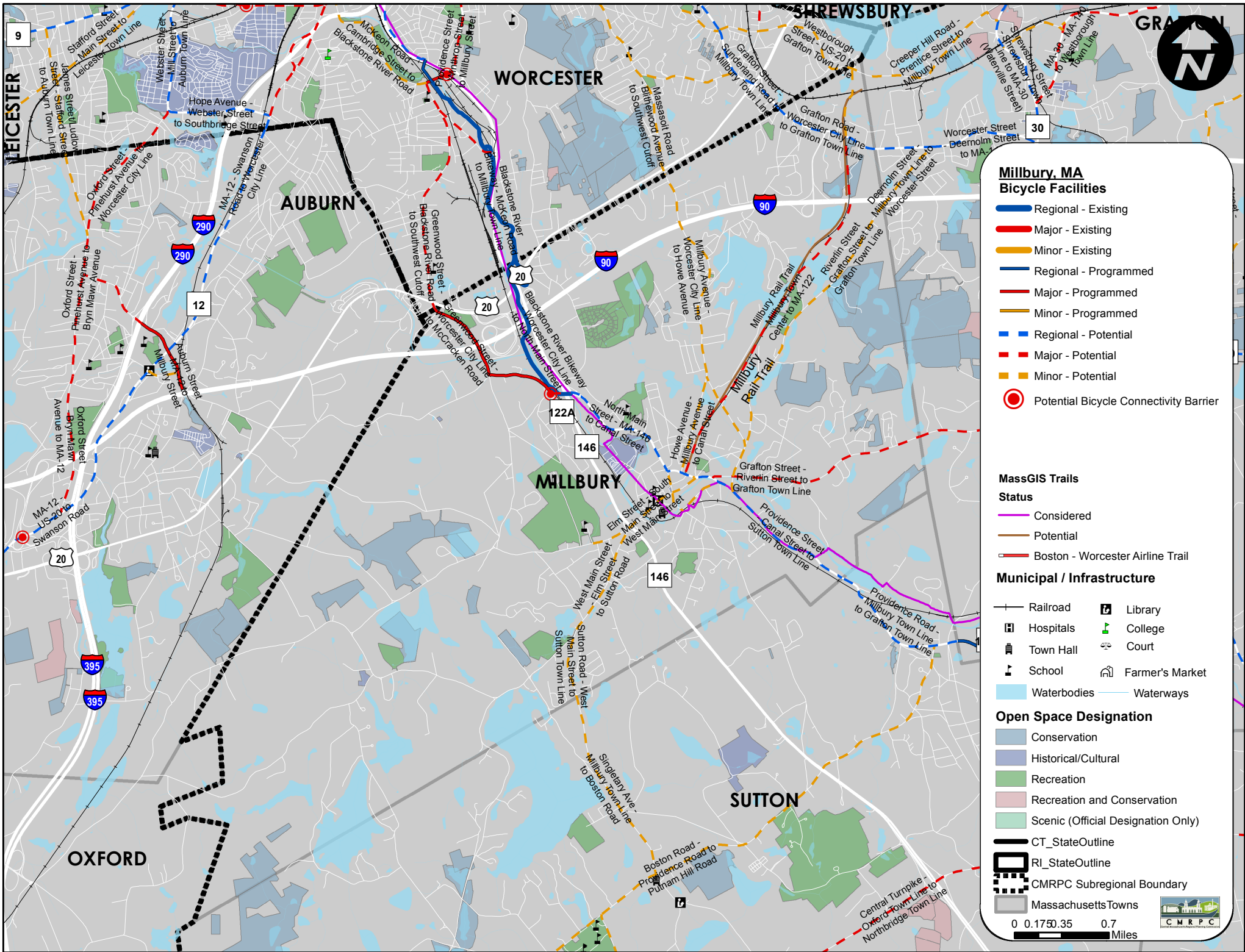
1 Mile

Potential

3 Miles

Considered

3 Miles



**Millbury, MA
Bicycle Facilities**

- Regional - Existing
- Major - Existing
- Minor - Existing
- Regional - Programmed
- Major - Programmed
- Minor - Programmed
- Regional - Potential
- Major - Potential
- Minor - Potential
- Potential Bicycle Connectivity Barrier

**MassGIS Trails
Status**

- Considered
- Potential
- Boston - Worcester Airline Trail

Municipal / Infrastructure

- Railroad
- Hospitals
- Town Hall
- School
- Library
- College
- Court
- Farmer's Market
- Waterbodies
- Waterways

Open Space Designation

- Conservation
- Historical/Cultural
- Recreation
- Recreation and Conservation
- Scenic (Official Designation Only)

- CT_StateOutline
- RI_StateOutline
- CMRPC Subregional Boundary
- Massachusetts Towns

0 0.1750.35 0.7
Miles



Millbury On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
MILLBURY	Blackstone River Bikeway - Worcester City Line to North Main Street	Multi-Use Pathway	1.58	Existing	Regional
MILLBURY	Canal Street - North Main Street to Providence Street	Paved Road	0.35	Potential	Regional
MILLBURY	Grafton Road - Worcester City Line to Grafton Town Line	Paved Road	0.79	Potential	Regional
MILLBURY	North Main Street - MA-146 to Canal Street	Paved Road	1.12	Potential	Regional
MILLBURY	Providence Street - Canal Street to Sutton Town Line	Paved Road	1.24	Potential	Regional
MILLBURY	Canal Street - Providence Street to Grafton Street	Paved Road	0.16	Potential	Major
MILLBURY	Grafton Street - Riverlin Street to Grafton Town Line	Paved Road	1.48	Potential	Major
MILLBURY	Greenwood Street - Worcester City Line to McCracken Road	Paved Road	0.67	Programmed	Major
MILLBURY	Main Street - McCracken Road to North Main Street	Paved Road	0.15	Potential	Major
MILLBURY	McCracken Road - Greenwood Street to Blackstone Valley Shoppes	Paved Road	0.51	Programmed	Major
MILLBURY	Millbury Rail Trail - Millbury Town Center to MA-122	Multi-Use Pathway	2.90	Potential	Major
MILLBURY	Elm Street - South Main Street to Canal Street	Paved Road	0.24	Potential	Minor
MILLBURY	Elm Street - South Main Street to West Main Street	Paved Road	0.40	Potential	Minor
MILLBURY	Elmwood Street - West Main Street to Elmwood Elementary	Paved Road	0.31	Potential	Minor
MILLBURY	Howe Avenue - Millbury Avenue to Canal Street	Paved Road	0.74	Potential	Minor
MILLBURY	Maple Street - South Main Street to Providence Road	Paved Road	0.35	Potential	Minor
MILLBURY	Millbury Avenue - Riverlin Street to Howe Avenue	Paved Road	0.60	Potential	Minor
MILLBURY	Millbury Avenue - Worcester City Line to Howe Avenue	Paved Road	1.63	Potential	Minor
MILLBURY	Millbury Rail Trail - MA-122 to Westborough Street	Multi-Use Pathway	0.52	Potential	Minor
MILLBURY	Riverlin Street - Grafton Street to Grafton Town Line	Paved Road	2.39	Potential	Minor
MILLBURY	Riverlin Street - Providence Street to Grafton Street	Paved Road	0.12	Potential	Minor
MILLBURY	South Main Street - Canal Street to Elm Street	Paved Road	0.16	Potential	Minor
MILLBURY	South Main Street - Elm Street to Maple Street	Paved Road	0.17	Potential	Minor
MILLBURY	Sutton Road - West Main Street to Sutton Town Line	Paved Road	0.47	Potential	Minor
MILLBURY	West Main Street - Elm Street to Sutton Road	Paved Road	0.92	Potential	Minor

Millbury Multi-Use Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
Millbury	Blackstone River Greenway	MA-122A to Sutton Town Line	3	Considered	Regional Multi-Use
Millbury	Blackstone River Greenway	Worcester City Line to MA-122A	1	Existing	Regional Multi-Use
Millbury	Millbury Rail Trail	Canal Street (MA-122A) to Westborough Street	3	Potential	Regional Multi-Use

Southeast Subregion – Millville

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
- Work with MassDOT to implement the projects identified in the Town's Tier II Complete Streets Prioritization Plan.
- Work with MassDOT and DCR to ensure that Regional Multi-Use Trails and Pathways are advanced to meet the needs of subregional and regional travel via alternative modes.
- Work with local, regional, and statewide advocacy groups and other stakeholders to expand public education campaigns that promote the rules of the road so that all transportation system users are aware of their responsibilities. Work to incorporate Safe Routes to School materials and practices into local education systems in order to increase active transportation participation and safety.

MILLVILLE FACILITIES

Existing

1.57 Miles

Programmed

0 Miles

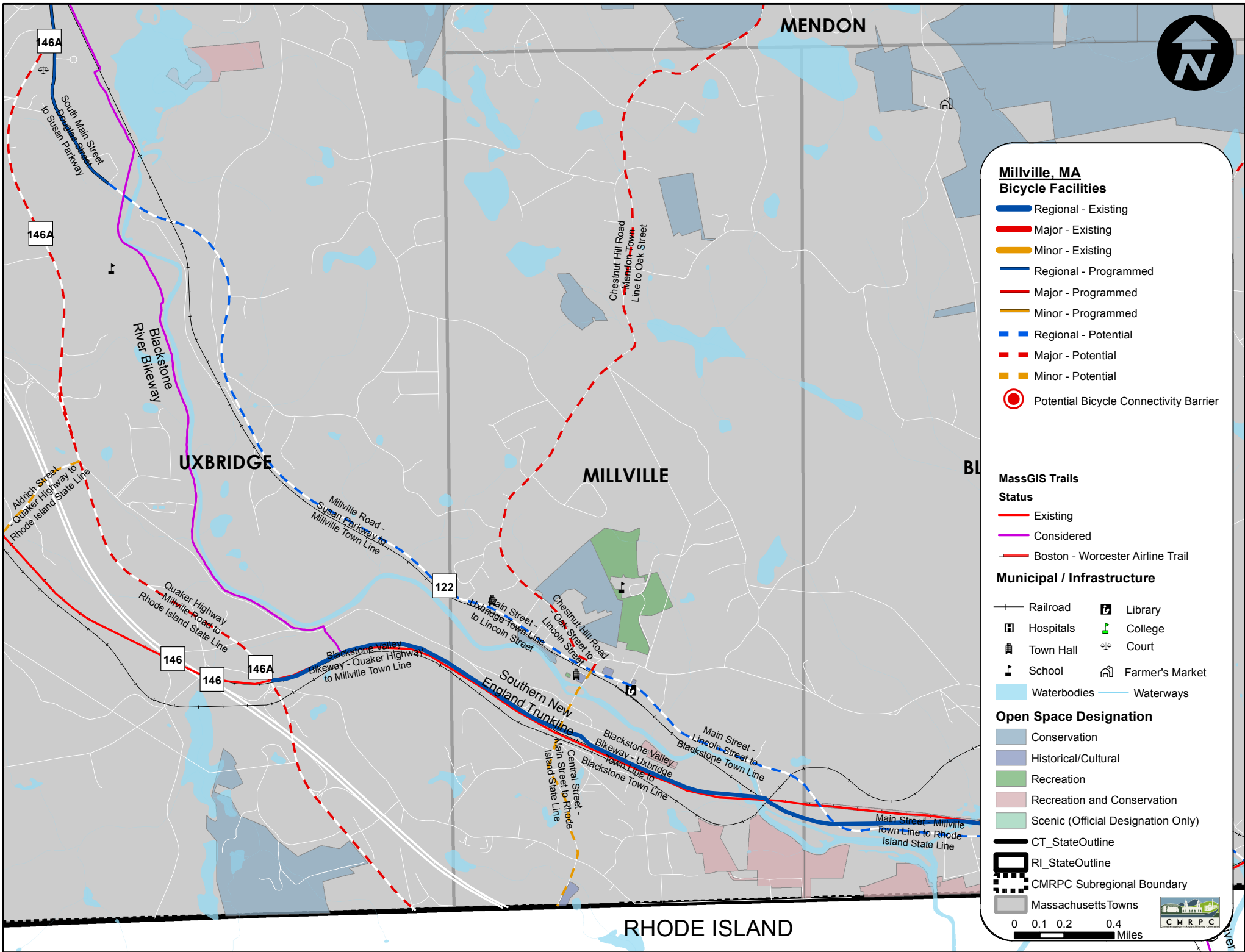
Potential

5.82 Miles

Multi-Use

Existing

2 Miles



Millville On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
MILLVILLE	Blackstone Valley Bikeway - Uxbridge Town Line to Blackstone Town Line	Multi-Use Pathway	1.57	Existing	Regional
MILLVILLE	Main Street - Lincoln Street to Blackstone Town Line	Paved Road	0.99	Potential	Regional
MILLVILLE	Main Street - Uxbridge Town Line to Lincoln Street	Paved Road	0.65	Potential	Regional
MILLVILLE	Chestnut Hill Road - Mendon Town Line to Oak Street	Paved Road	2.75	Potential	Major
MILLVILLE	Chestnut Hill Road - Oak Street to Lincoln Street	Paved Road	0.36	Potential	Major
MILLVILLE	Lincoln Street - Chestnut Hill Road to Main Street	Paved Road	0.03	Potential	Major
MILLVILLE	Central Street - Main Street to Rhode Island State Line	Paved Road	1.03	Potential	Minor

Millville Multi-Use Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
Millville	Southern New England Trunkline Trail	Uxbridge Town Line to Blackstone Town Line	2	Existing	Regional Multi-Use

Southeast Subregion – Northbridge

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network.
- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
- Work with MassDOT and DCR to ensure that Regional Multi-Use Trails and Pathways are advanced to meet the needs of subregional and regional travel via alternative modes.
- Work with local, regional, and statewide advocacy groups and other stakeholders to expand public education campaigns that promote the rules of the road so that all transportation system users are aware of their responsibilities. Work to incorporate Safe Routes to School materials and practices into local education systems in order to increase active transportation participation and safety.

NORTHBRIDGE FACILITIES

Existing

0 Miles

Programmed

0 Miles

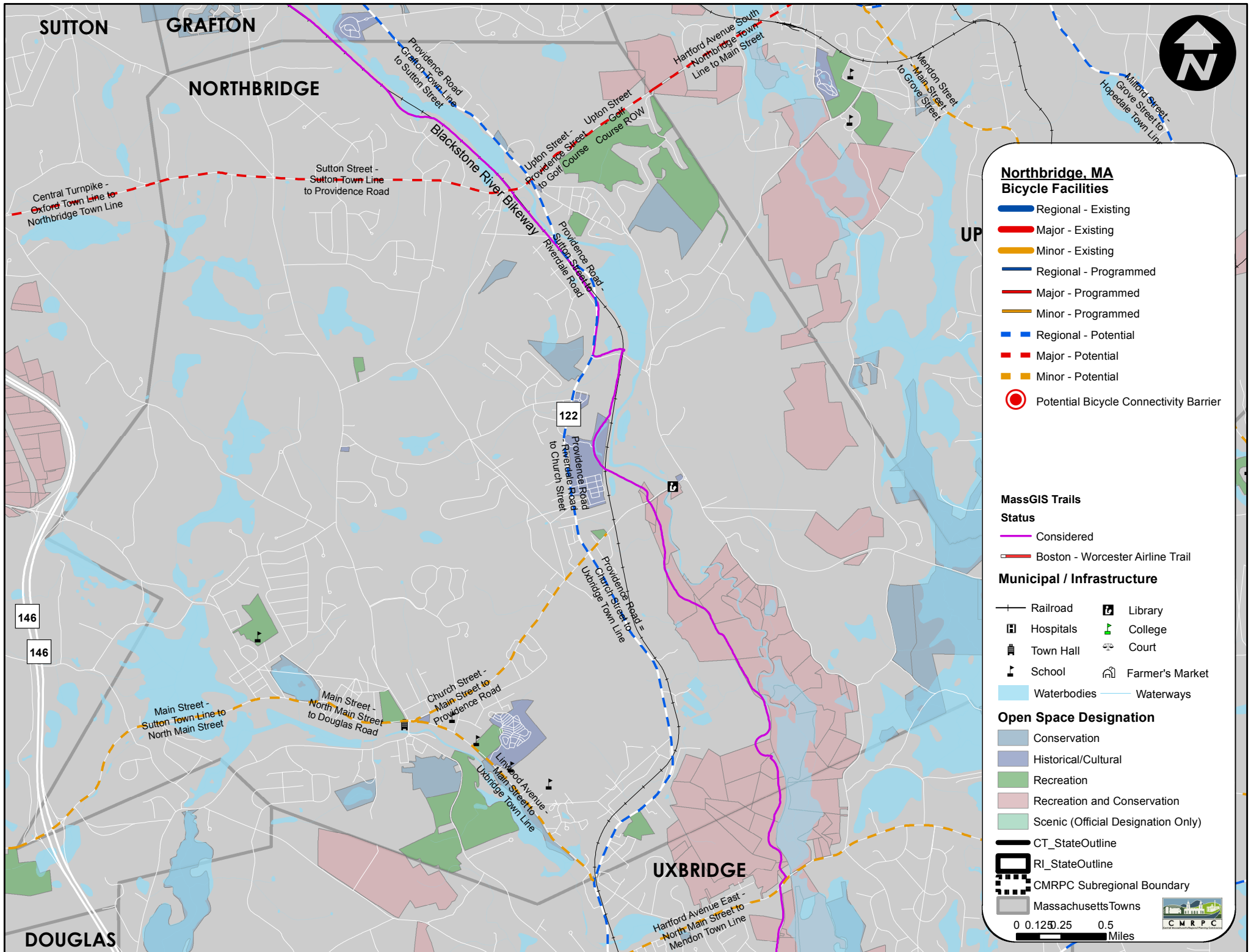
Potential

14.07 Miles

Multi-Use

Considered

6 Miles



**Northbridge, MA
Bicycle Facilities**

- Regional - Existing
- Major - Existing
- Minor - Existing
- Regional - Programmed
- Major - Programmed
- Minor - Programmed
- Regional - Potential
- Major - Potential
- Minor - Potential
- Potential Bicycle Connectivity Barrier


**MassGIS Trails
Status**

- Considered
- Boston - Worcester Airline Trail

Municipal / Infrastructure

- | | |
|-------------|-----------------|
| Railroad | Library |
| Hospitals | College |
| Town Hall | Court |
| School | Farmer's Market |
| Waterbodies | Waterways |

Open Space Designation

- Conservation
 - Historical/Cultural
 - Recreation
 - Recreation and Conservation
 - Scenic (Official Designation Only)
 - CT_StateOutline
 - RI_StateOutline
 - CMRPC Subregional Boundary
 - Massachusetts Towns
- 0 0.125 0.25 0.5 Miles
- 

Northbridge On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
NORTHBRIDGE	Providence Road - Grafton Town Line to Sutton Street	Paved Road	1.09	Potential	Regional
NORTHBRIDGE	Providence Road - Riverdale Road to Church Street	Paved Road	1.16	Potential	Regional
NORTHBRIDGE	Providence Road - Sutton Street to Riverdale Road	Paved Road	1.11	Potential	Regional
NORTHBRIDGE	Providence Road - Church Street to Uxbridge Town Line	Paved Road	2.09	Potential	Regional
NORTHBRIDGE	Sutton Street - Sutton Town Line to Providence Road	Paved Road	2.13	Potential	Major
NORTHBRIDGE	Upton Street - Golf Course ROW	Gravel ROW	0.55	Potential	Major
NORTHBRIDGE	Upton Street - Providence Street to Golf Course	Paved Road	0.32	Potential	Major
NORTHBRIDGE	Church Street - Main Street to Providence Road	Paved Road	1.36	Potential	Minor
NORTHBRIDGE	Church Street - Providence Road to Recreation Fields	Paved Road	0.15	Potential	Minor
NORTHBRIDGE	Intersection of Main Street / Church Street / Linwood Avenue	Paved Road	0.22	Potential	Minor
NORTHBRIDGE	Linwood Avenue - Main Street to Uxbridge Town Line	Paved Road	1.33	Potential	Minor
NORTHBRIDGE	Main Street - North Main Street to Douglas Road	Paved Road	0.75	Potential	Minor
NORTHBRIDGE	Main Street - Sutton Town Line to North Main Street	Paved Road	1.82	Potential	Minor

Northbridge Multi-Use Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
Northbridge	Blackstone River Greenway	Grafton Town Line to Uxbridge Town Line	6	Considered	Regional Multi-Use

Southeast Subregion – Sutton

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network.
- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
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SUTTON FACILITIES

Existing

0 Miles

Programmed

0 Miles

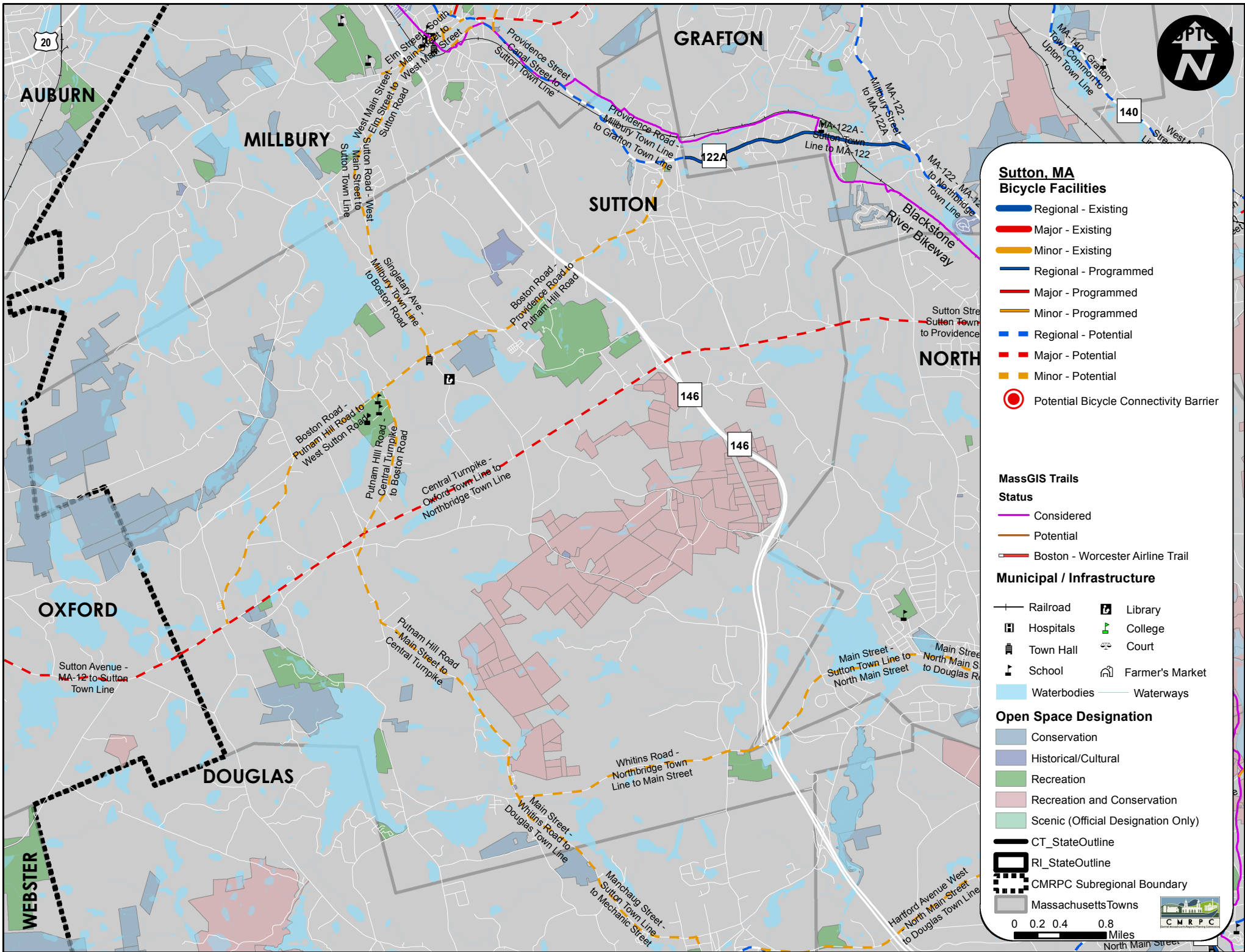
Potential

22.20 Miles

Multi-Use

Considered

0.9 Mile



Sutton On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
SUTTON	Providence Road - Millbury Town Line to Grafton Town Line	Paved Road	1.11	Potential	Regional
SUTTON	Central Turnpike - Oxford Town Line to Northbridge Town Line	Paved Road	6.56	Potential	Major
SUTTON	Boston Road - Providence Road to Putnam Hill Road	Paved Road	3.37	Potential	Minor
SUTTON	Boston Road - Putnam Hill Road to West Sutton Road	Paved Road	2.44	Potential	Minor
SUTTON	Main Street - Whitins Road to Douglas Town Line	Paved Road	0.69	Potential	Minor
SUTTON	Putnam Hill Road - Central Turnpike to Boston Road	Paved Road	1.35	Potential	Minor
SUTTON	Putnam Hill Road - Main Street to Central Turnpike	Paved Road	2.90	Potential	Minor
SUTTON	Singletary Ave - Millbury Town Line to Boston Road	Paved Road	1.47	Potential	Minor
SUTTON	West Sutton Road - Boston Road to Central Turnpike	Paved Road	0.21	Potential	Minor
SUTTON	Whitins Road - Northbridge Town Line to Main Street	Paved Road	2.10	Potential	Minor

Sutton Multi-Use Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
Sutton	Blackstone River Greenway	Millbury Town Line to Grafton Town Line	0.9	Considered	Regional Multi-Use

Southeast Subregion – Upton

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
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- Work with local, regional, and statewide advocacy groups and other stakeholders to expand public education campaigns that promote the rules of the road so that all transportation system users are aware of their responsibilities. Work to incorporate Safe Routes to School materials and practices into local education systems in order to increase active transportation participation and safety.

UPTON FACILITIES

Existing

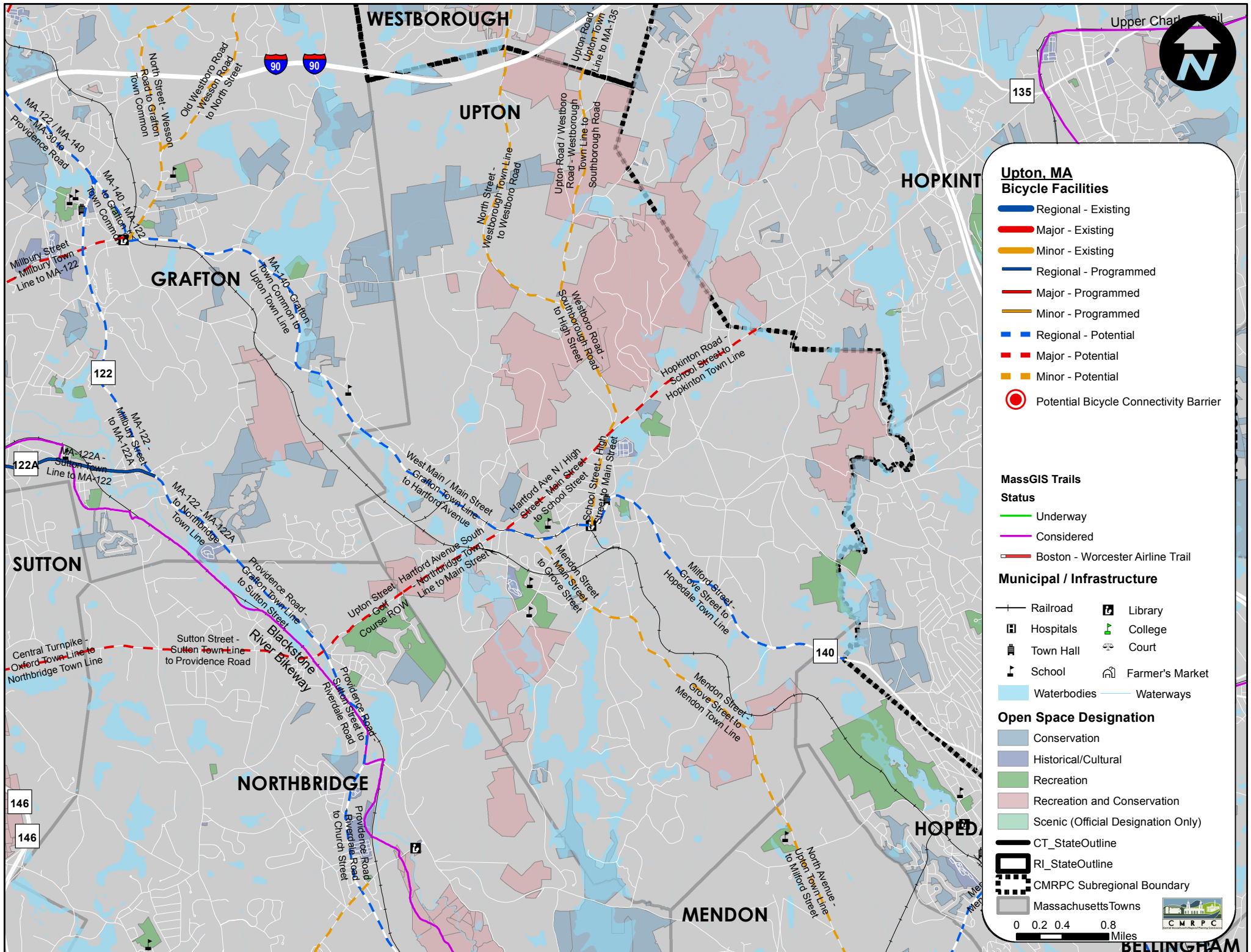
0 Miles

Programmed

0 Miles

Potential

16.47 Miles



**Upton, MA
Bicycle Facilities**

- Regional - Existing
- Major - Existing
- Minor - Existing
- Regional - Programmed
- Major - Programmed
- Minor - Programmed
- Regional - Potential
- Major - Potential
- Minor - Potential
- Potential Bicycle Connectivity Barrier

MassGIS Trails

Status

- Underway
- Considered
- Boston - Worcester Airline Trail

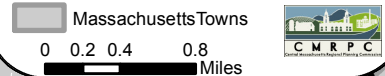
Municipal / Infrastructure

- | | |
|-------------|-----------------|
| Railroad | Library |
| Hospitals | College |
| Town Hall | Court |
| School | Farmer's Market |
| Waterbodies | Waterways |

Open Space Designation

- Conservation
- Historical/Cultural
- Recreation
- Recreation and Conservation
- Scenic (Official Designation Only)

- CT_StateOutline
- RI_StateOutline
- CMRPC Subregional Boundary
- Massachusetts Towns



Upton On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
UPTON	Main Street - Hartford Avenue to School Street	Paved Road	0.78	Potential	Regional
UPTON	Main Street - School Street to Grove Street	Paved Road	0.30	Potential	Regional
UPTON	Milford Street - Grove Street to Hopedale Town Line	Paved Road	2.52	Potential	Regional
UPTON	West Main / Main Street - Grafton Town Line to Hartford Avenue	Paved Road	1.55	Potential	Regional
UPTON	Hartford Ave N / High Street - Main Street to School Street	Paved Road	1.23	Potential	Major
UPTON	Hartford Avenue South - Northbridge Town Line to Main Street	Paved Road	1.02	Potential	Major
UPTON	Hopkinton Road - School Street to Hopkinton Town Line	Paved Road	1.58	Potential	Major
UPTON	Mendon Street - Grove Street to Mendon Town Line	Paved Road	2.15	Potential	Minor
UPTON	Mendon Street - Main Street to Grove Street	Paved Road	1.16	Potential	Minor
UPTON	School Street - High Street to Main Street	Paved Road	0.82	Potential	Minor
UPTON	Upton Road / Westboro Road - Westborough Town Line to Southborough Road	Paved Road	1.33	Potential	Minor
UPTON	Westboro Road - Southborough Road to High Street	Paved Road	2.02	Potential	Minor

Southeast Subregion – Uxbridge

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network.
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- Work with local, regional, and statewide advocacy groups and other stakeholders to expand public education campaigns that promote the rules of the road so that all transportation system users are aware of their responsibilities. Work to incorporate Safe Routes to School materials and practices into local education systems in order to increase active transportation participation and safety.

UXBRIDGE FACILITIES

Existing

0.77 Miles

Programmed

2.85 Miles

Potential

22.70 Miles

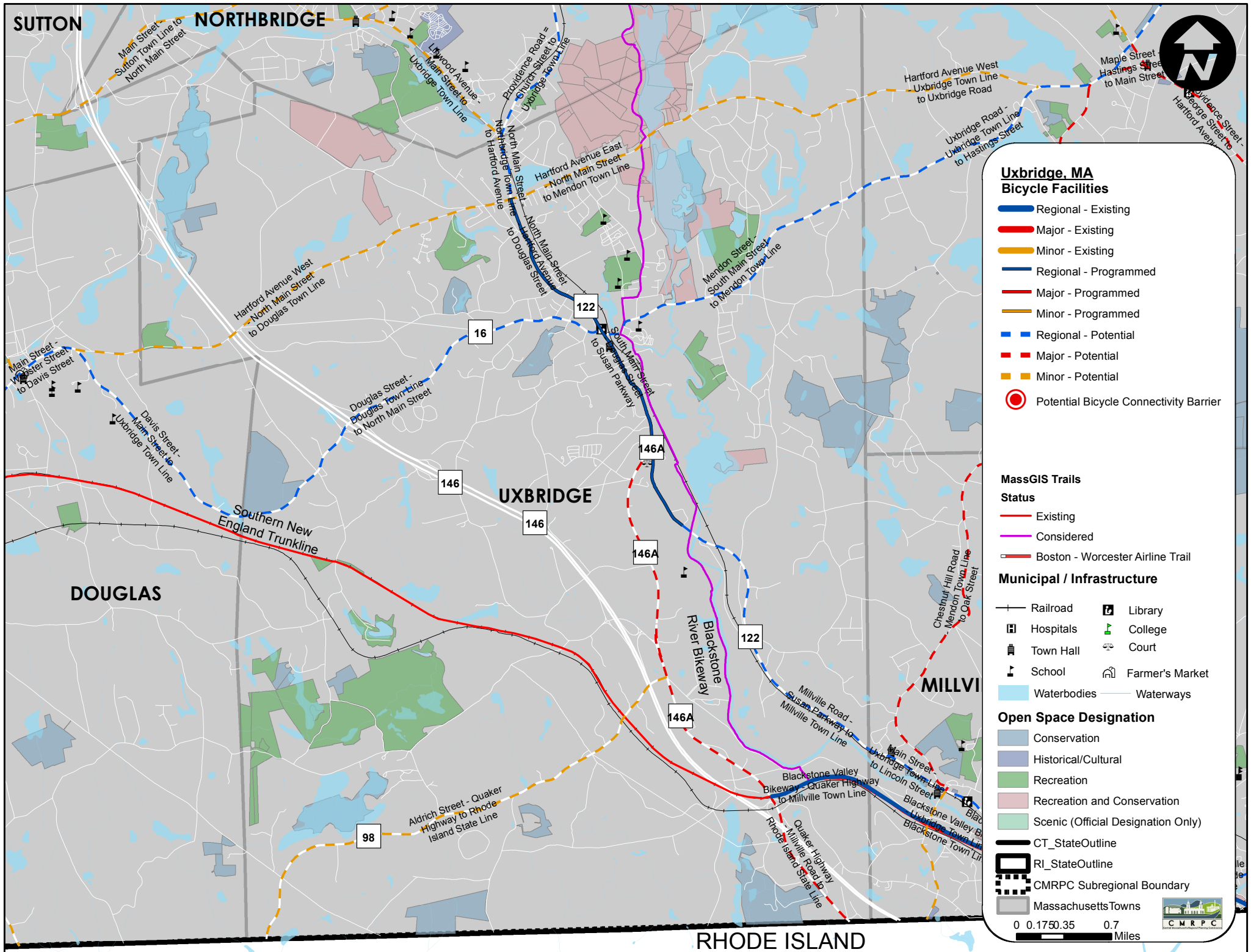
Multi-Use

Existing

5 Miles

Considered

6 Miles



Uxbridge, MA
Bicycle Facilities

- Regional - Existing
- Major - Existing
- Minor - Existing
- Regional - Programmed
- Major - Programmed
- Minor - Programmed
- Regional - Potential
- Major - Potential
- Minor - Potential
- Potential Bicycle Connectivity Barrier

MassGIS Trails
Status

- Existing
- Considered
- Boston - Worcester Airline Trail

Municipal / Infrastructure

Railroad	Library
Hospitals	College
Town Hall	Court
School	Farmer's Market
Waterbodies	Waterways

Open Space Designation

- Conservation
- Historical/Cultural
- Recreation
- Recreation and Conservation
- Scenic (Official Designation Only)

CT_StateOutline
RI_StateOutline
CMRPC Subregional Boundary
Massachusetts Towns

0 0.1750.35 0.7 Miles

Uxbridge On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
UXBRIDGE	Blackstone Valley Bikeway - Quaker Highway to Millville Town Line	Multi-Use Pathway	0.77	Existing	Regional
UXBRIDGE	Douglas Street - Douglas Town Line to North Main Street	Paved Road	3.29	Potential	Regional
UXBRIDGE	Mendon Street - South Main Street to Mendon Town Line	Paved Road	2.35	Potential	Regional
UXBRIDGE	Millville Road - Susan Parkway to Millville Town Line	Paved Road	2.34	Potential	Regional
UXBRIDGE	North Main Street - Hartford Avenue to Douglas Street	Paved Road	1.22	Programmed	Regional
UXBRIDGE	North Main Street - Northbridge Town Line to Hartford Avenue	Paved Road	0.48	Potential	Regional
UXBRIDGE	South Main Street - Douglas Street to Susan Parkway	Paved Road	1.63	Programmed	Regional
UXBRIDGE	Quaker Highway - Millville Road to Rhode Island State Line	Paved Road	4.48	Potential	Major
UXBRIDGE	Aldrich Street - Quaker Highway to Rhode Island State Line	Paved Road	3.87	Potential	Minor
UXBRIDGE	Hartford Avenue East - North Main Street to Mendon Town Line	Paved Road	2.84	Potential	Minor
UXBRIDGE	Hartford Avenue West - North Main Street to Douglas Town Line	Paved Road	3.05	Potential	Minor
UXBRIDGE	Linwood Avenue - Northbridge Town Line to Providence Road	Paved Road	0.02	Potential	Minor

Uxbridge Multi-Use Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
Uxbridge	Blackstone River Greenway	Northbridge Town Line to SNETT	6	Considered	Regional Multi-Use
Uxbridge	Southern New England Trunkline Trail	Douglas Town Line to Millville Town Line	5	Existing	Regional Multi-Use

Southwest Subregion – Auburn

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network.
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AUBURN FACILITIES

Existing

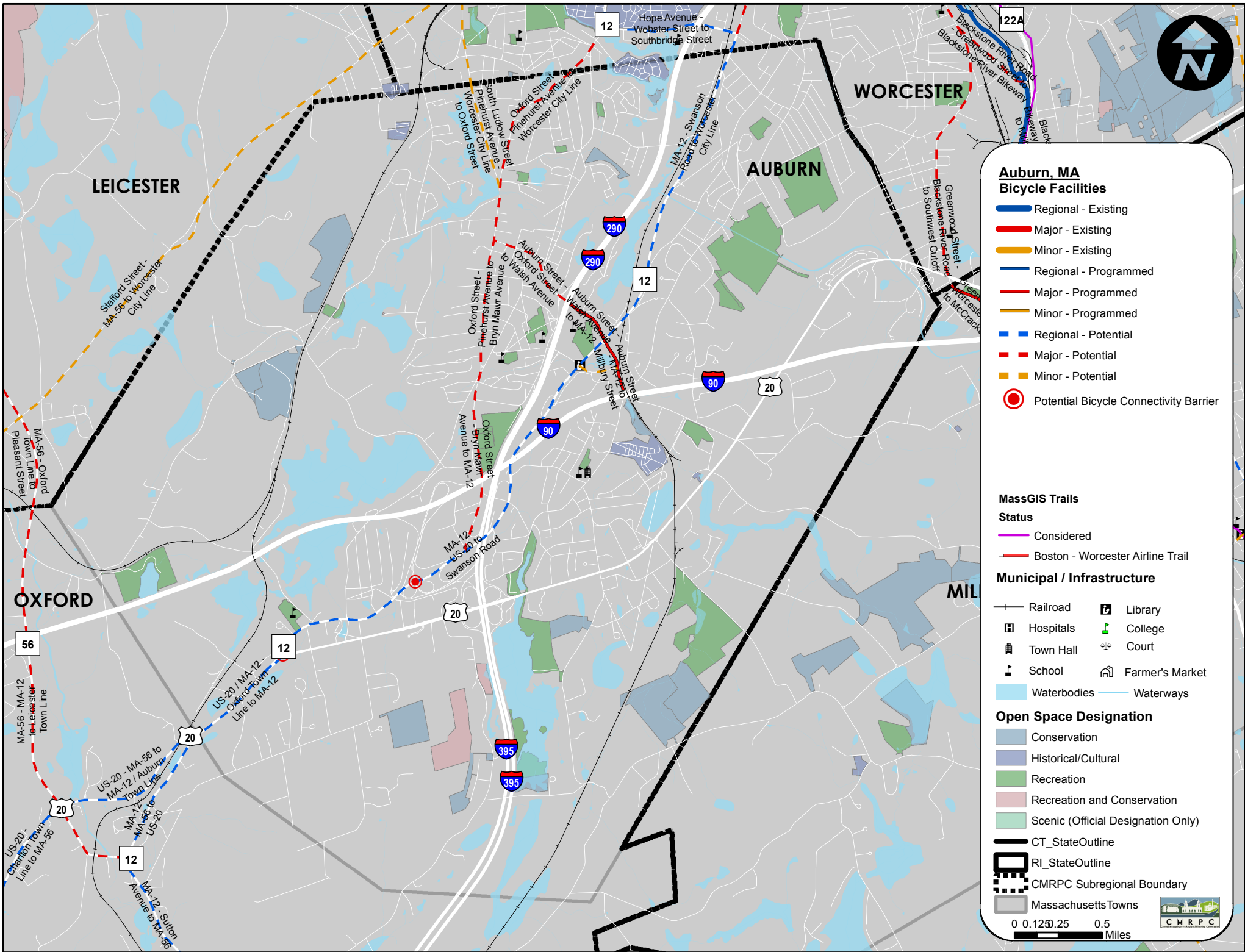
0 Miles

Programmed

0.60 Miles

Potential

9.93 Miles



Auburn On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
AUBURN	MA-12 - Swanson Road to Worcester City Line	Paved Road	2.03	Potential	Regional
AUBURN	MA-12 - US-20 to Swanson Road	Paved Road	2.69	Potential	Regional
AUBURN	US-20 / MA-12 - Oxford Town Line to MA-12	Paved Road	0.80	Potential	Regional
AUBURN	Auburn Street - MA-12 to Millbury Street	Paved Road	0.31	Programmed	Major
AUBURN	Auburn Street - Oxford Street to Walsh Avenue	Paved Road	0.61	Potential	Major
AUBURN	Auburn Street - Walsh Avenue to MA-12	Paved Road	0.29	Programmed	Major
AUBURN	Oxford Street - Bryn Mawr Avenue to MA-12	Paved Road	1.03	Potential	Major
AUBURN	Oxford Street - Pinehurst Avenue to Bryn Mawr Avenue	Paved Road	1.05	Potential	Major
AUBURN	Oxford Street - Pinehurst Avenue to Worcester City Line	Paved Road	0.85	Potential	Major
AUBURN	Brotherton Way - MA-12 to Auburn Street	Paved Road	0.23	Potential	Minor
AUBURN	South Ludlow Street / Pinehurst Avenue - Worcester City Line to Oxford Street	Paved Road	0.63	Potential	Minor

Southwest Subregion – Charlton

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
- Work with MassDOT to implement the projects identified in the Town's Tier II Complete Streets Prioritization Plan.
- Work with local, regional, and statewide advocacy groups and other stakeholders to expand public education campaigns that promote the rules of the road so that all transportation system users are aware of their responsibilities. Work to incorporate Safe Routes to School materials and practices into local education systems in order to increase active transportation participation and safety.

CHARLTON FACILITIES

Existing

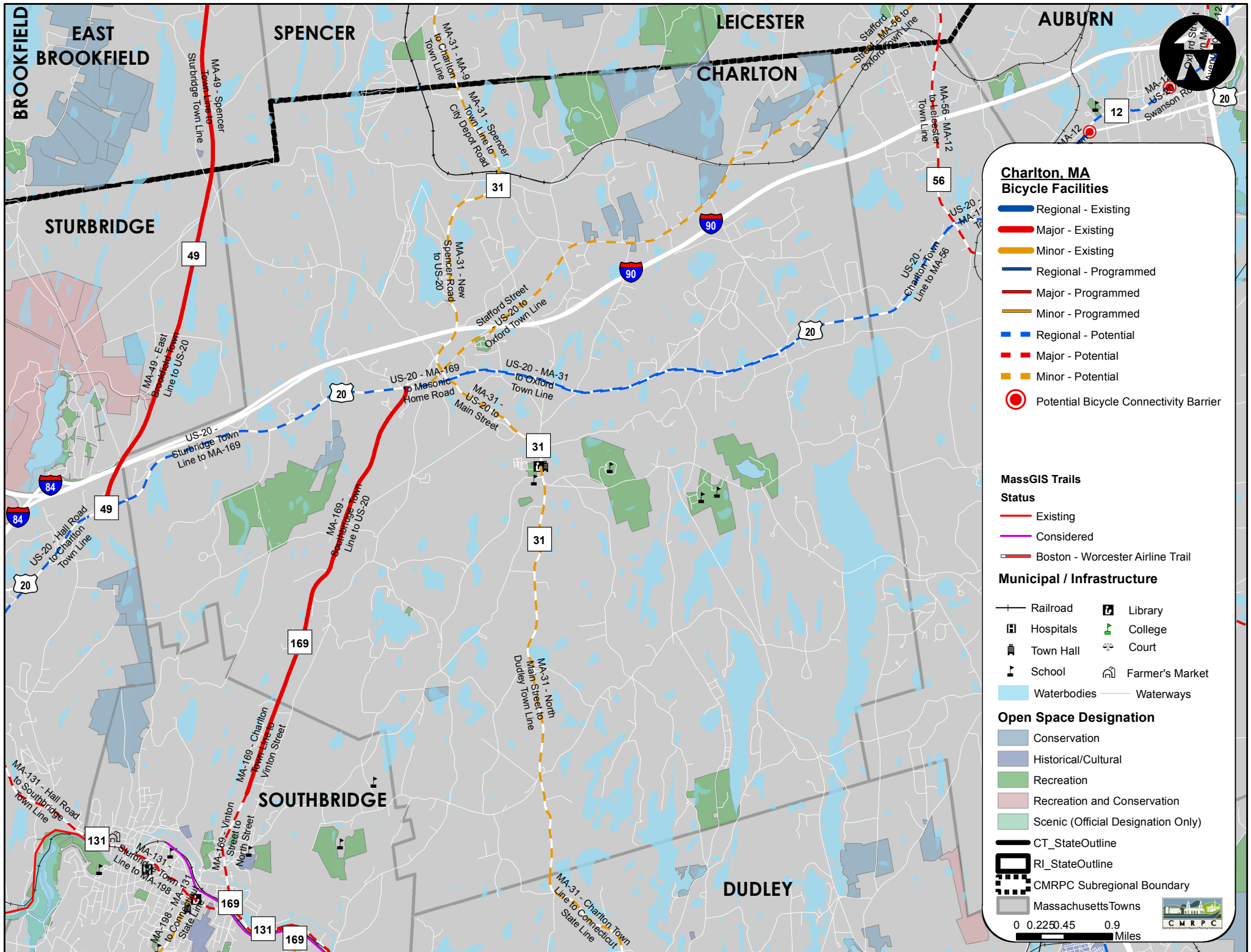
3.23 Miles

Programmed

0 Miles

Potential

24.62 Miles



**Charlton, MA
Bicycle Facilities**

- Regional - Existing
- Major - Existing
- Minor - Existing
- Regional - Programmed
- Major - Programmed
- Minor - Programmed
- Regional - Potential
- Major - Potential
- Minor - Potential
- Potential Bicycle Connectivity Barrier

**MassGIS Trails
Status**

- Existing
- Considered
- Boston - Worcester Airline Trail

Municipal / Infrastructure

Railroad	Library
Hospitals	College
Town Hall	Court
School	Farmer's Market
Waterbodies	Waterways

Open Space Designation

- Conservation
- Historical/Cultural
- Recreation
- Recreation and Conservation
- Scenic (Official Designation Only)

CT_StateOutline
RI_StateOutline
CMRPC Subregional Boundary
Massachusetts Towns

0 0.2250.45 0.9 Miles

Charlton On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
CHARLTON	US-20 - MA-169 to Masonic Home Road	Paved Road	0.41	Potential	Regional
CHARLTON	US-20 - MA-31 to Oxford Town Line	Paved Road	7.71	Potential	Regional
CHARLTON	US-20 - Sturbridge Town Line to MA-169	Paved Road	2.98	Potential	Regional
CHARLTON	MA-169 - Southbridge Town Line to US-20	Paved Road	3.23	Existing	Major
CHARLTON	MA-31 - New Spencer Road to US-20	Paved Road	2.22	Potential	Minor
CHARLTON	MA-31 - North Main Street to Dudley Town Line	Paved Road	4.12	Potential	Minor
CHARLTON	MA-31 - Spencer Town Line to City DePotential Road	Paved Road	1.04	Potential	Minor
CHARLTON	MA-31 - US-20 to Main Street	Paved Road	1.08	Potential	Minor
CHARLTON	Stafford Street - US-20 to Oxford Town Line	Paved Road	5.05	Potential	Minor

Southwest Subregion – Dudley

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network.
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DUDLEY FACILITIES

Existing

0 Miles

Programmed

0 Miles

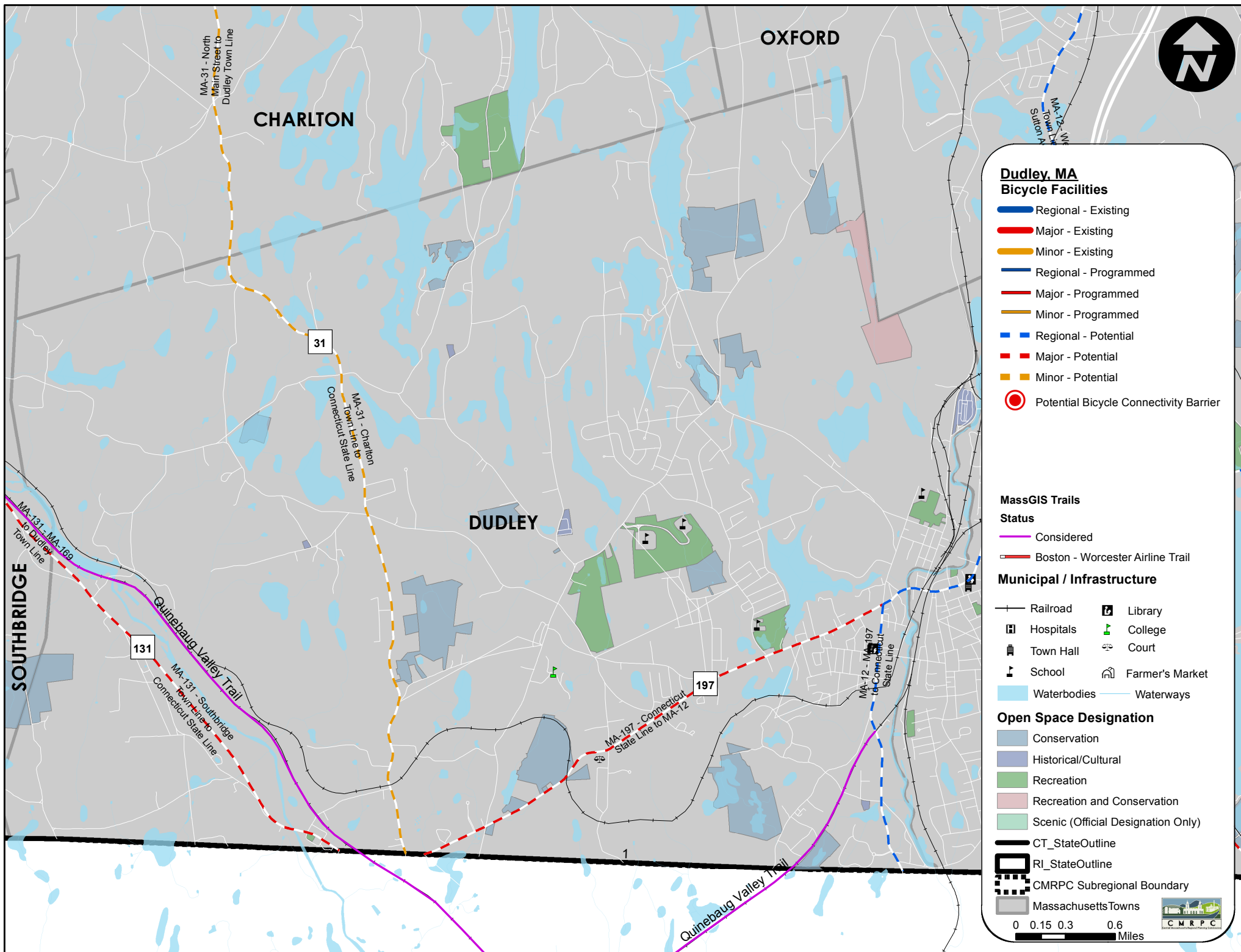
Potential

11.66 Miles

Multi-Use

Considered

4 Miles



Dudley On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
DUDLEY	MA-12 - MA-197 to Connecticut State Line	Paved Road	1.66	Potential	Regional
DUDLEY	MA-12 - MA-197 to Webster Town Line	Paved Road	0.18	Potential	Regional
DUDLEY	MA-131 - Southbridge Town Line to Connecticut State Line	Paved Road	2.55	Potential	Major
DUDLEY	MA-197 - Connecticut State Line to MA-12	Paved Road	3.20	Potential	Major
DUDLEY	MA-31 - Charlton Town Line to Connecticut State Line	Paved Road	4.07	Potential	Minor

Dudley Multi-Use Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
Dudley	Grand Trunk Trail	Southbridge Town Line to Connecticut State Line	3	Considered	Regional Multi-Use
Dudley	Grand Trunk Trail	Connecticut State Line to MA-12	1	Considered	Regional Multi-Use

Southwest Subregion – Oxford

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
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OXFORD FACILITIES

Existing

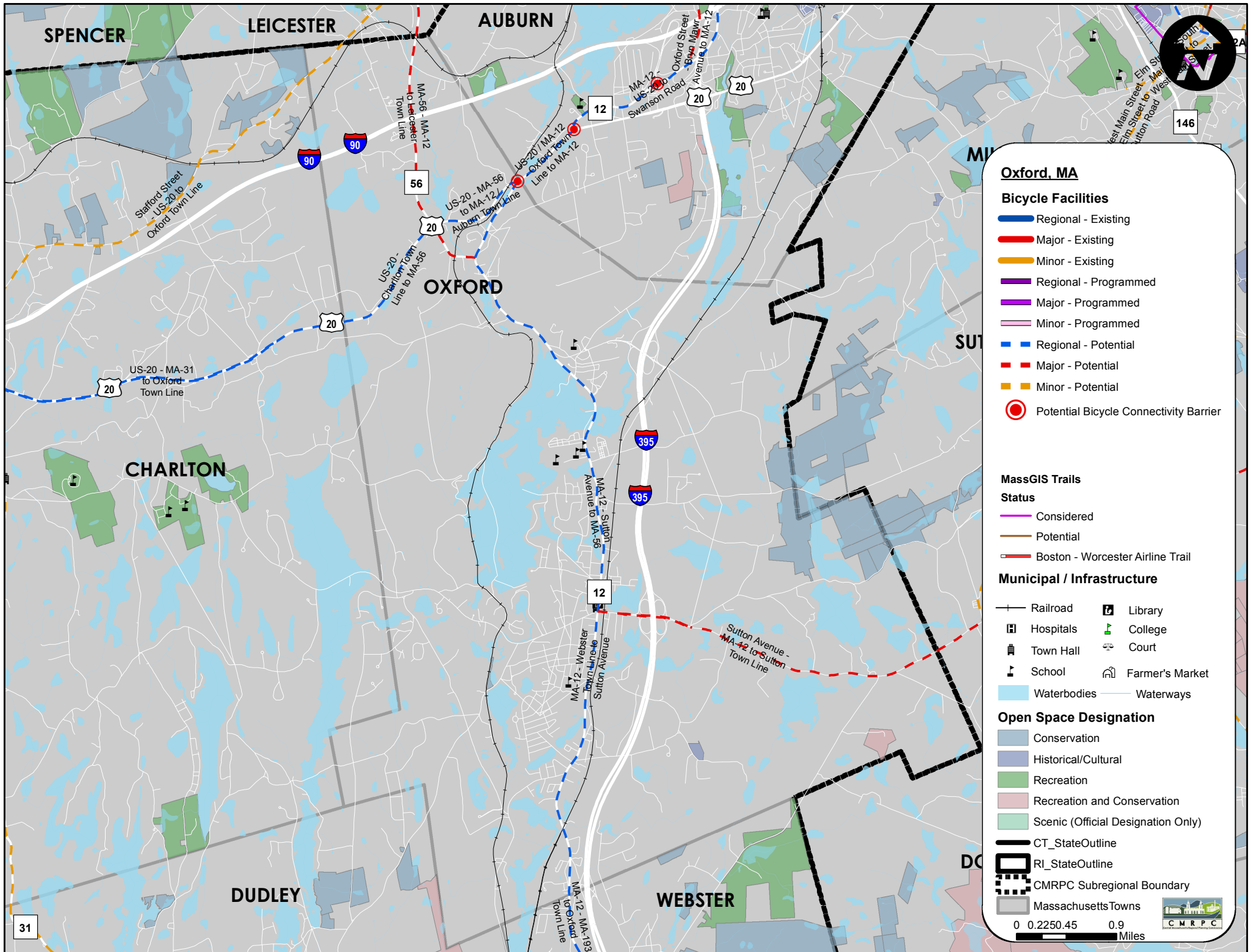
0 Miles

Programmed

0 Miles

Potential

16.11 Miles



Oxford, MA

Bicycle Facilities

Regional - Existing

Major - Existing

Minor - Existing

Regional - Programmed

Major - Programmed

Minor - Programmed

Regional - Potential

Major - Potential

Minor - Potential

Potential Bicycle Connectivity Barrier

MassGIS Trails

Status

Considered

Potential

Boston - Worcester Airline Trail

Municipal / Infrastructure

Railroad

Hospitals

Town Hall

School

Waterbodies

Library

College

Court

Farmer's Market

Waterways

Open Space Designation

Conservation

Historical/Cultural

Recreation

Recreation and Conservation

Scenic (Official Designation Only)

CT_StateOutline

RI_StateOutline

CMRPC Subregional Boundary

Massachusetts Towns

00.2250.450.9

Miles

Oxford On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
OXFORD	MA-12 - MA-56 to US-20	Paved Road	0.78	Potential	Regional
OXFORD	MA-12 - Sutton Avenue to MA-56	Paved Road	3.69	Potential	Regional
OXFORD	MA-12 - Webster Town Line to Sutton Avenue	Paved Road	2.65	Potential	Regional
OXFORD	US-20 - Charlton Town Line to MA-56	Paved Road	1.37	Potential	Regional
OXFORD	US-20 - MA-56 to MA-12 / Auburn Town Line	Paved Road	1.03	Potential	Regional
OXFORD	MA-56 - MA-12 to Leicester Town Line	Paved Road	2.30	Potential	Major
OXFORD	Sutton Avenue - MA-12 to Sutton Town Line	Paved Road	3.86	Potential	Major
OXFORD	Stafford Street - Charlton Town Line to Leicester Town Line	Paved Road	0.43	Potential	Minor

Southwest Subregion – Southbridge

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network.
- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
- Work with MassDOT and DCR to ensure that Regional Multi-Use Trails and Pathways are advanced to meet the needs of subregional and regional travel via alternative modes.
- Work with local, regional, and statewide advocacy groups and other stakeholders to expand public education campaigns that promote the rules of the road so that all transportation system users are aware of their responsibilities. Work to incorporate Safe Routes to School materials and practices into local education systems in order to increase active transportation participation and safety.

SOUTHBRIDGE FACILITIES

Existing

1.05 Miles

Programmed

0 Miles

Potential

12.68 Miles

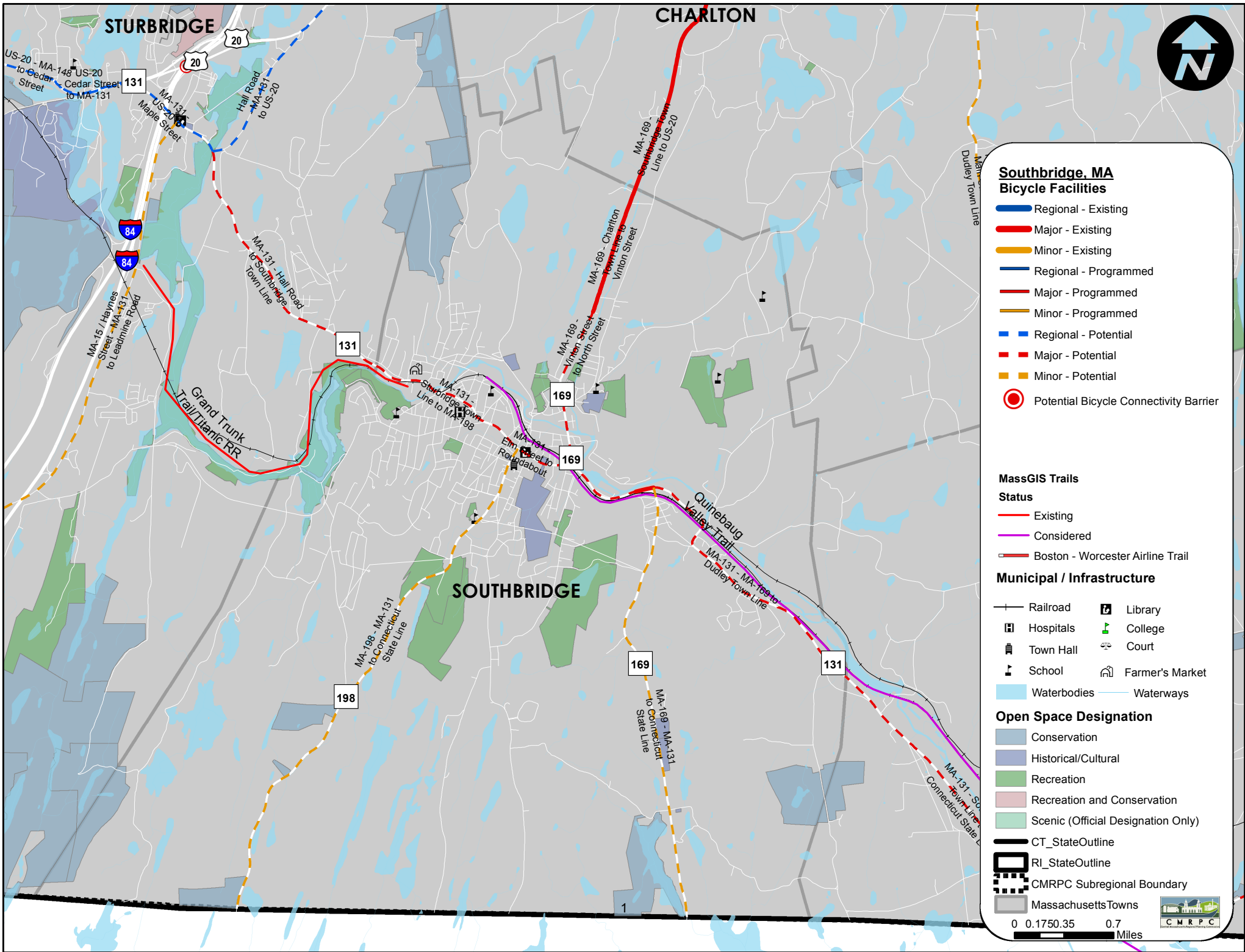
Multi-Use

Existing

0.25 Mile

Considered

3 Miles



Southbridge On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
SOUTHBRIDGE	MA-131 - Elm Street to Roundabout	Paved Road	0.38	Potential	Major
SOUTHBRIDGE	MA-131 - MA-169 to Dudley Town Line	Paved Road	2.08	Potential	Major
SOUTHBRIDGE	MA-131 - Sturbridge Town Line to MA-198	Paved Road	1.21	Potential	Major
SOUTHBRIDGE	MA-131 / MA-169 - 400' West of North Woodstock Road to North Woodstock Road	Paved Road	0.13	Existing	Major
SOUTHBRIDGE	MA-131 / MA-169 - Roundabout to 400' West of North Woodstock Road	Paved Road	0.51	Potential	Major
SOUTHBRIDGE	MA-169 - Charlton Town Line to Vinton Street	Paved Road	0.92	Existing	Major
SOUTHBRIDGE	MA-169 - North Street to Roundabout	Paved Road	0.15	Potential	Major
SOUTHBRIDGE	MA-169 - Vinton Street to North Street	Paved Road	0.93	Potential	Major
SOUTHBRIDGE	MA-169 / MA-131 Roundabout Area	Paved Road	0.31	Potential	Major
SOUTHBRIDGE	MA-169 - MA-131 to Connecticut State Line	Paved Road	3.15	Potential	Minor
SOUTHBRIDGE	MA-198 - MA-131 to Connecticut State Line	Paved Road	3.95	Potential	Minor

Southbridge Multi-Use Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
Southbridge	Grand Trunk Trail	Cross Street to Dudley Town Line	3	Considered	Regional Multi-Use
Southbridge	Grand Trunk Trail	Sturbridge Town Line to Ballard Court	0.25	Existing	Regional Multi-Use

Southwest Subregion – Sturbridge

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network.
- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
- Work with MassDOT to implement the projects identified in the Town's Tier II Complete Streets Prioritization Plan.
- Work with MassDOT and DCR to ensure that Regional Multi-Use Trails and Pathways are advanced to meet the needs of subregional and regional travel via alternative modes.
- Work with local, regional, and statewide advocacy groups and other stakeholders to expand public education campaigns that promote the rules of the road so that all transportation system users are aware of their responsibilities. Work to incorporate Safe Routes to School materials and practices into local education systems in order to increase active transportation participation and safety.

STURBRIDGE FACILITIES

Existing

3.67 Miles

Programmed

0 Miles

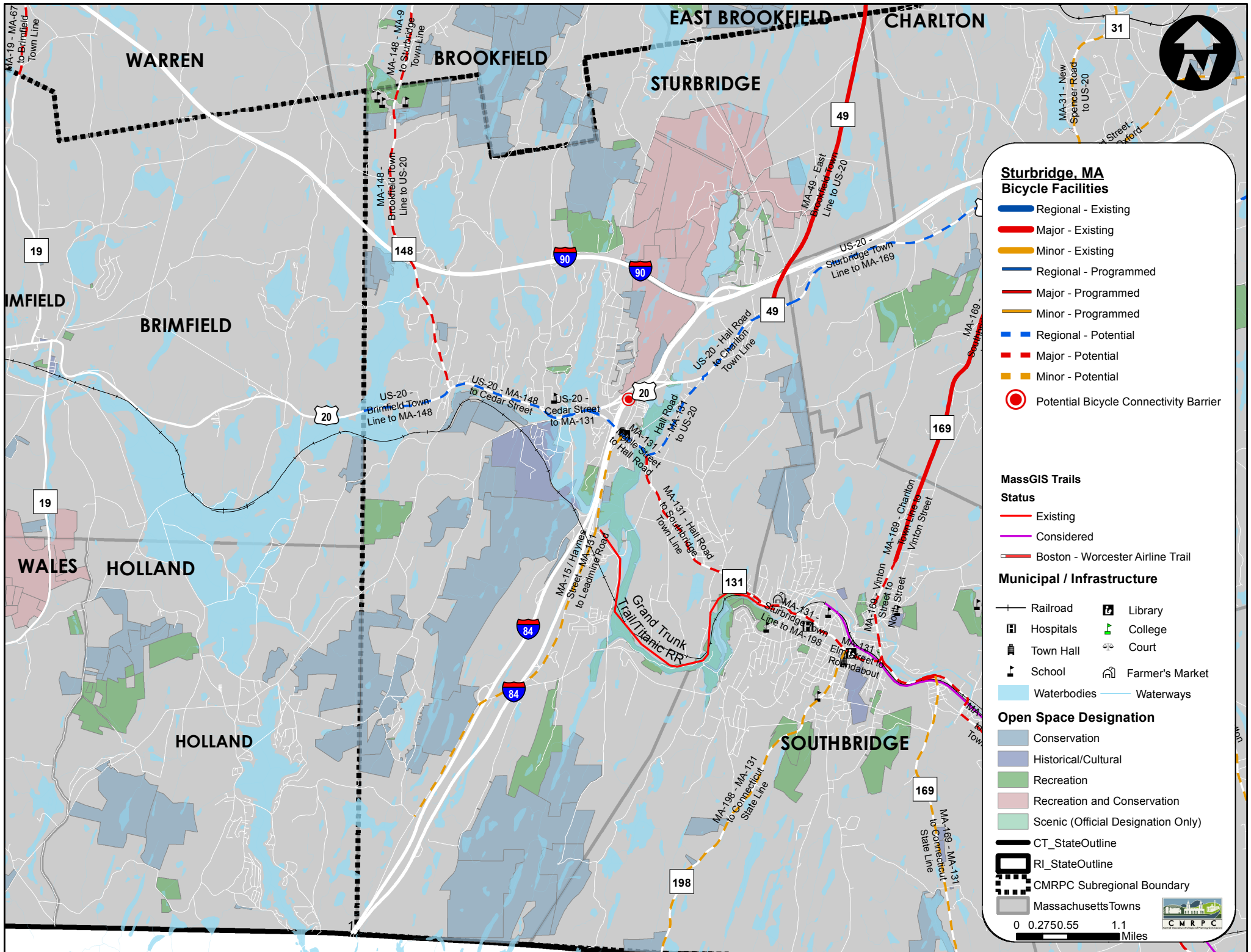
Potential

17.44 Miles

Multi-Use

Existing

3 Miles



**Sturbridge, MA
Bicycle Facilities**

- Regional - Existing
- Major - Existing
- Minor - Existing
- Regional - Programmed
- Major - Programmed
- Minor - Programmed
- Regional - Potential
- Major - Potential
- Minor - Potential
- Potential Bicycle Connectivity Barrier

**MassGIS Trails
Status**

- Existing
- Considered
- Boston - Worcester Airline Trail

Municipal / Infrastructure

- Railroad
- Hospitals
- Town Hall
- School
- Library
- College
- Court
- Farmer's Market
- Waterbodies
- Waterways

Open Space Designation

- Conservation
- Historical/Cultural
- Recreation
- Recreation and Conservation
- Scenic (Official Designation Only)

- CT_StateOutline
- RI_StateOutline
- CMRPC Subregional Boundary
- Massachusetts Towns

0 0.2750.55 1.1 Miles



Sturbridge On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
STURBRIDGE	Hall Road - MA-131 to US-20	Paved Road	1.08	Potential	Regional
STURBRIDGE	MA-131 - Maple Street to Hall Road	Paved Road	0.34	Potential	Regional
STURBRIDGE	MA-131 - US-20 to Maple Street	Paved Road	0.70	Potential	Regional
STURBRIDGE	US-20 - Brimfield Town Line to MA-148	Paved Road	0.99	Potential	Regional
STURBRIDGE	US-20 - Cedar Street to MA-131	Paved Road	1.28	Potential	Regional
STURBRIDGE	US-20 - Hall Road to Charlton Town Line	Paved Road	1.71	Potential	Regional
STURBRIDGE	US-20 - MA-148 to Cedar Street	Paved Road	1.05	Potential	Regional
STURBRIDGE	MA-131 - Hall Road to Southbridge Town Line	Paved Road	2.03	Potential	Major
STURBRIDGE	MA-148 - Brookfield Town Line to US-20	Paved Road	3.41	Potential	Major
STURBRIDGE	MA-49 - East Brookfield Town Line to US-20	Paved Road	3.67	Existing	Major
STURBRIDGE	MA-15 / Haynes Street - MA-131 to Leadmine Road	Paved Road	4.85	Potential	Minor

Sturbridge Multi-Use Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
Sturbridge	Grand Trunk Trail	MA-15 to Southbridge Town Line	3	Existing	Regional Multi- Use

Southwest Subregion - Webster

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network.
- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
- Work with local, regional, and statewide advocacy groups and other stakeholders to expand public education campaigns that promote the rules of the road so that all transportation system users are aware of their responsibilities. Work to incorporate Safe Routes to School materials and practices into local education systems in order to increase active transportation participation and safety.

WEBSTER FACILITIES

Existing

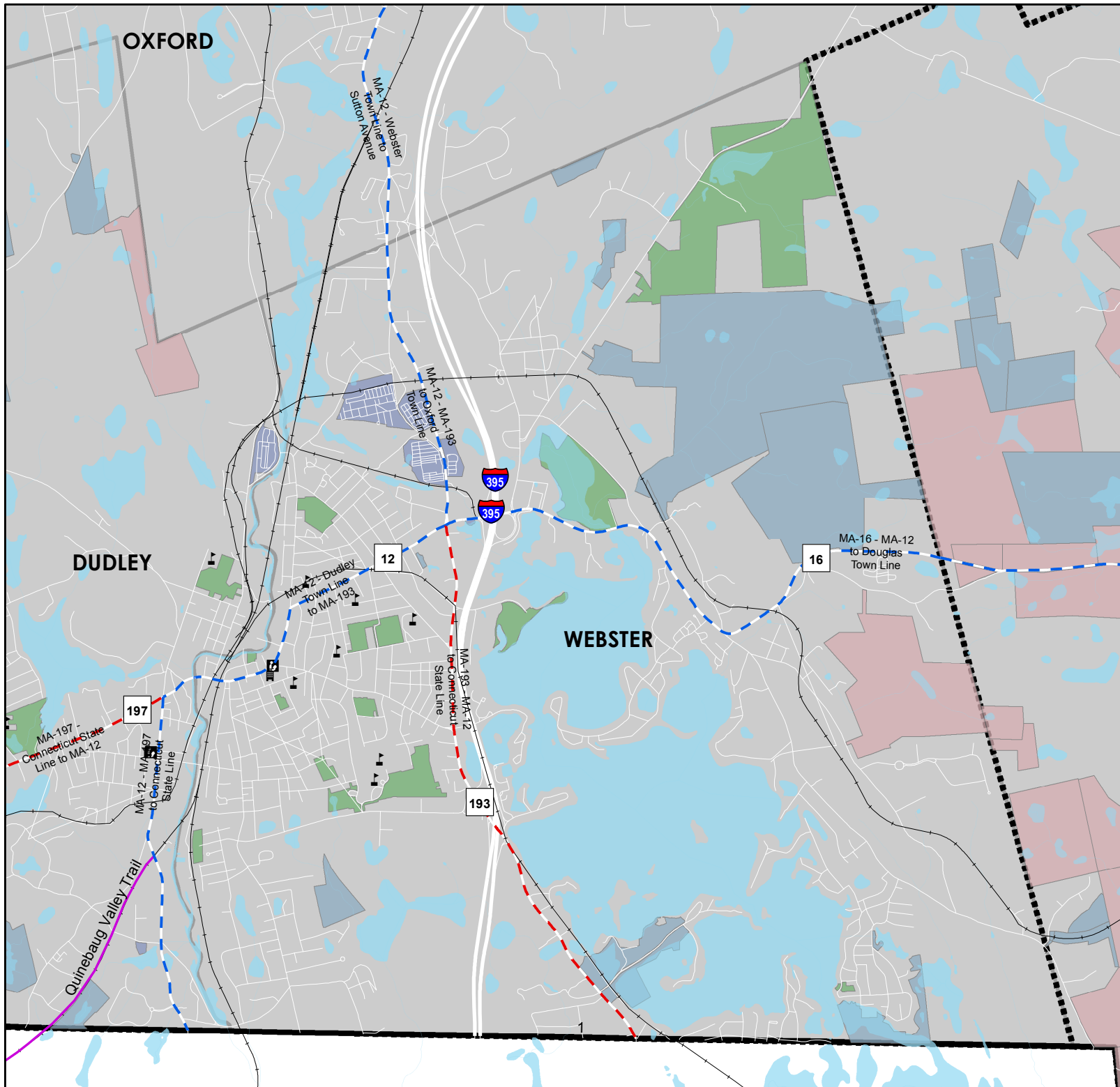
0 Miles

Programmed

0 Miles

Potential

8.61 Miles



Webster, MA
Bicycle Facilities

Regional - Existing

Major - Existing

Minor - Existing

Regional - Programmed

Major - Programmed

Minor - Programmed

Regional - Potential

Major - Potential

Minor - Potential

Potential Bicycle Connectivity Barrier

MassGIS Trails
Status

Existing

Considered

Boston - Worcester Airline Trail

Municipal / Infrastructure

Railroad

Hospitals

Town Hall

School

Library

College

Court

Farmer's Market

Waterbodies

Waterways

Open Space Designation

Conservation

Historical/Cultural

Recreation

Recreation and Conservation

Scenic (Official Designation Only)

CT_StateOutline

RI_StateOutline

CMRPC Subregional Boundary

Massachusetts Towns

0 0.125 0.25 0.5 Miles



Webster On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
WEBSTER	MA-12 - Dudley Town Line to MA-193	Paved Road	1.54	Potential	Regional
WEBSTER	MA-12 - MA-193 to Oxford Town Line	Paved Road	1.42	Potential	Regional
WEBSTER	MA-16 - MA-12 to Douglas Town Line	Paved Road	2.87	Potential	Regional
WEBSTER	MA-193 - MA-12 to Connecticut State Line	Paved Road	2.78	Potential	Major

West Subregion - Brookfield

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network.
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- Work with MassDOT to implement the projects identified in the Town's Tier II Complete Streets Prioritization Plan.
- Work with local, regional, and statewide advocacy groups and other stakeholders to expand public education campaigns that promote the rules of the road so that all transportation system users are aware of their responsibilities. Work to incorporate Safe Routes to School materials and practices into local education systems in order to increase active transportation participation and safety.

BROOKFIELD FACILITIES

Existing

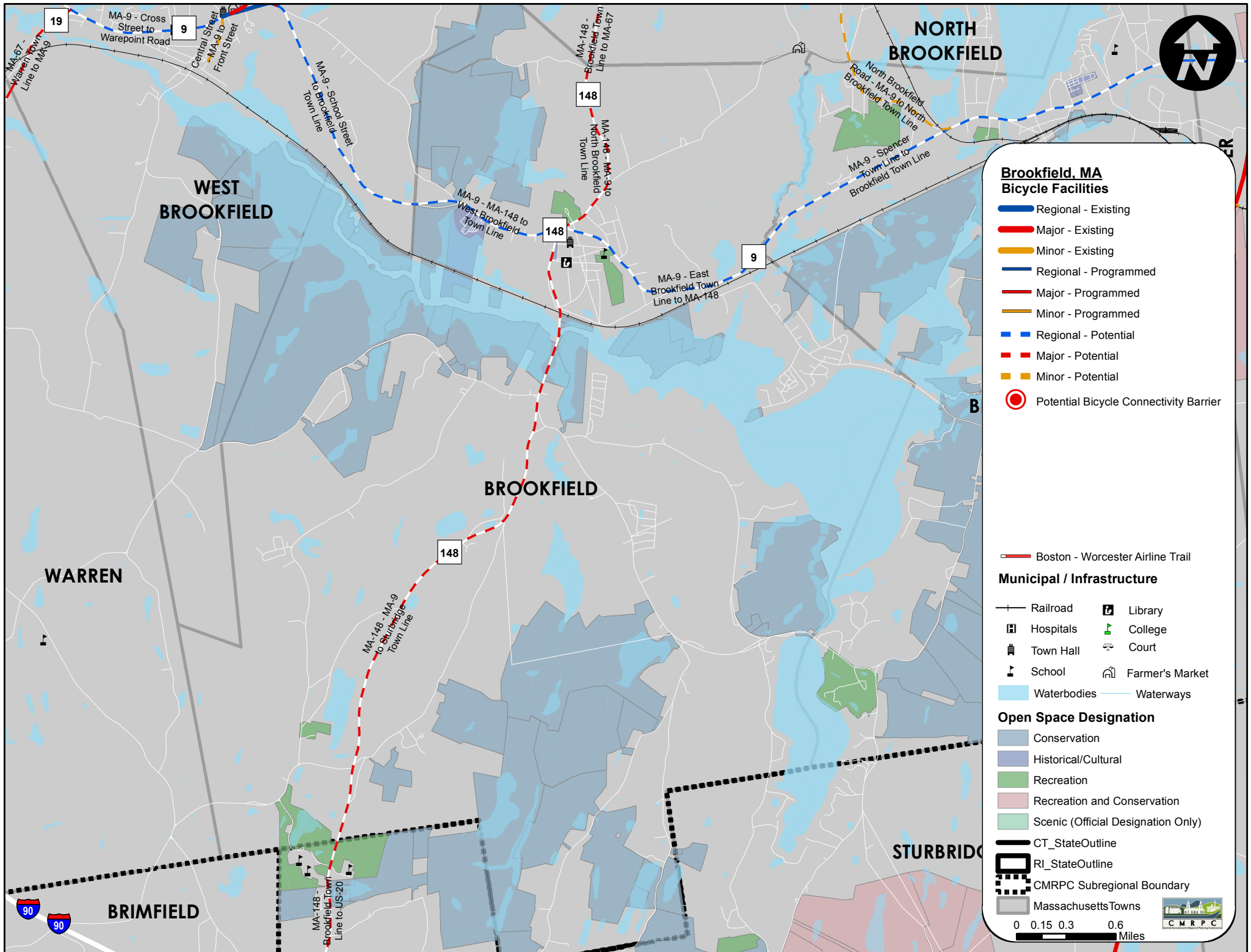
0 Miles

Programmed

0 Miles

Potential

7.70 Miles



Brookfield On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
BROOKFIELD	MA-9 - East Brookfield Town Line to MA-148	Paved Road	1.45	Potential	Regional
BROOKFIELD	MA-9 - MA-148 to West Brookfield Town Line	Paved Road	0.94	Potential	Regional
BROOKFIELD	MA-148 - MA-9 to North Brookfield Town Line	Paved Road	1.15	Potential	Major
BROOKFIELD	MA-148 - MA-9 to Sturbridge Town Line	Paved Road	4.16	Potential	Major

West Subregion – East Brookfield

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network.
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- Work with local, regional, and statewide advocacy groups and other stakeholders to expand public education campaigns that promote the rules of the road so that all transportation system users are aware of their responsibilities. Work to incorporate Safe Routes to School materials and practices into local education systems in order to increase active transportation participation and safety.

EAST BROOKFIELD FACILITIES

Existing

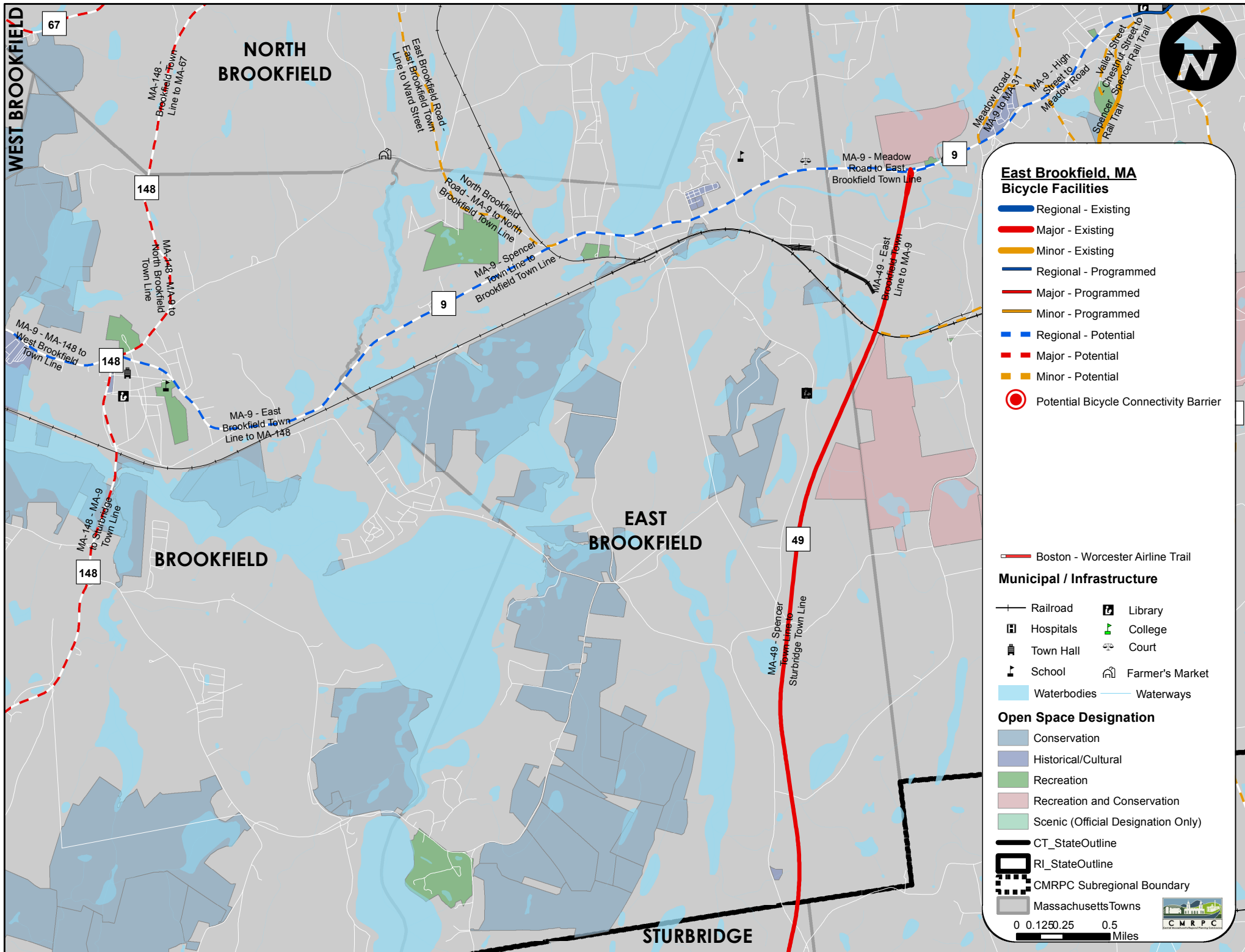
2.85 Miles

Programmed

0 Miles

Potential

3.74 Miles



East Brookfield, MA Bicycle Facilities

- Regional - Existing
- Major - Existing
- Minor - Existing
- Regional - Programmed
- Major - Programmed
- Minor - Programmed
- Regional - Potential
- Major - Potential
- Minor - Potential
- Potential Bicycle Connectivity Barrier

— Boston - Worcester Airline Trail

Municipal / Infrastructure


Railroad	Library
Hospitals	College
Town Hall	Court
School	Farmer's Market
Waterbodies	Waterways

Open Space Designation

- Conservation
- Historical/Cultural
- Recreation
- Recreation and Conservation
- Scenic (Official Designation Only)

CT_StateOutline
RI_StateOutline
CMRPC Subregional Boundary
Massachusetts Towns

0 0.125 0.25 0.5 Miles



East Brookfield On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
EAST BROOKFIELD	MA-9 - Spencer Town Line to Brookfield Town Line	Paved Road	2.93	Potential	Regional
EAST BROOKFIELD	MA-49 - Spencer Town Line to Sturbridge Town Line	Paved Road	2.85	Existing	Major
EAST BROOKFIELD	North Brookfield Road - MA-9 to North Brookfield Town Line	Paved Road	0.80	Potential	Minor

West Subregion - Hardwick

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network.
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HARDWICK FACILITIES

Existing

0 Miles

Programmed

0.75 Miles

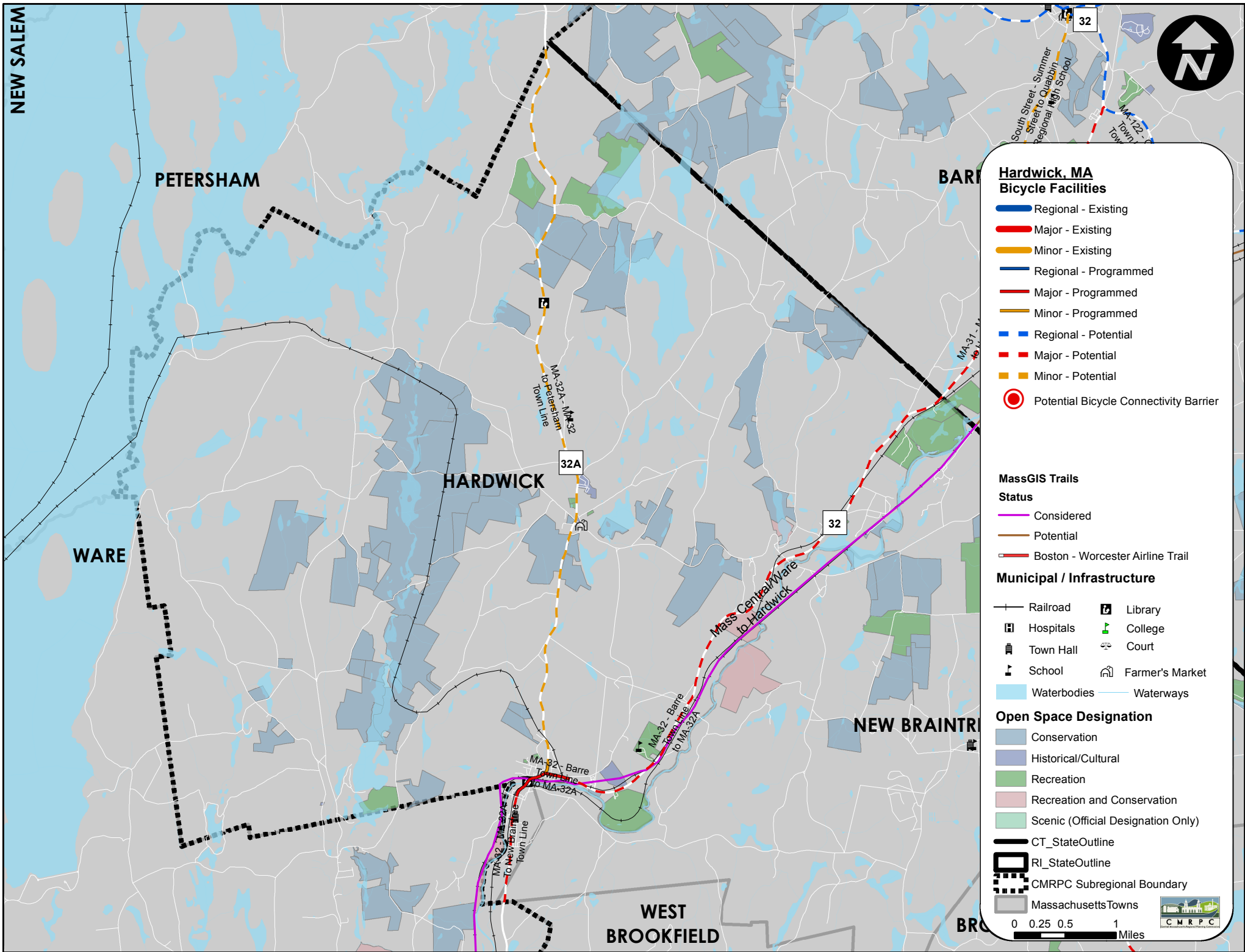
Potential

14.04 Miles

Multi-Use

Considered

4 Miles



Hardwick On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
HARDWICK	MA-32 - Barre Town Line to MA-32A	Paved Road	5.78	Potential	Major
HARDWICK	MA-32 - Barre Town Line to MA-32A	Paved Road	0.25	Programmed	Major
HARDWICK	MA-32 - MA-32A To New Braintree Town Line	Paved Road	0.89	Potential	Major
HARDWICK	MA-32 - MA-32A To New Braintree Town Line	Paved Road	0.25	Programmed	Major
HARDWICK	MA-32 - MA-32A To New Braintree Town Line	Paved Road	0.13	Programmed	Major
HARDWICK	MA-32A - MA-32 to Petersham Town Line	Paved Road	7.37	Potential	Minor
HARDWICK	MA-32A - MA-32 to Petersham Town Line	Paved Road	0.12	Programmed	Minor

Hardwick Multi-Use Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
Hardwick	Mass Central Rail Trail	New Braintree Town Line to New Braintree Town Line	1	Considered	Regional Multi-Use
Hardwick	Mass Central Rail Trail	New Braintree Town Line to Ware Town Line	3	Considered	Regional Multi-Use

West Subregion – Leicester

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
- Work with MassDOT to implement the projects identified in the Town's Tier II Complete Streets Prioritization Plan.
- Work with local, regional, and statewide advocacy groups and other stakeholders to expand public education campaigns that promote the rules of the road so that all transportation system users are aware of their responsibilities. Work to incorporate Safe Routes to School materials and practices into local education systems in order to increase active transportation participation and safety.

LEICESTER FACILITIES

Existing

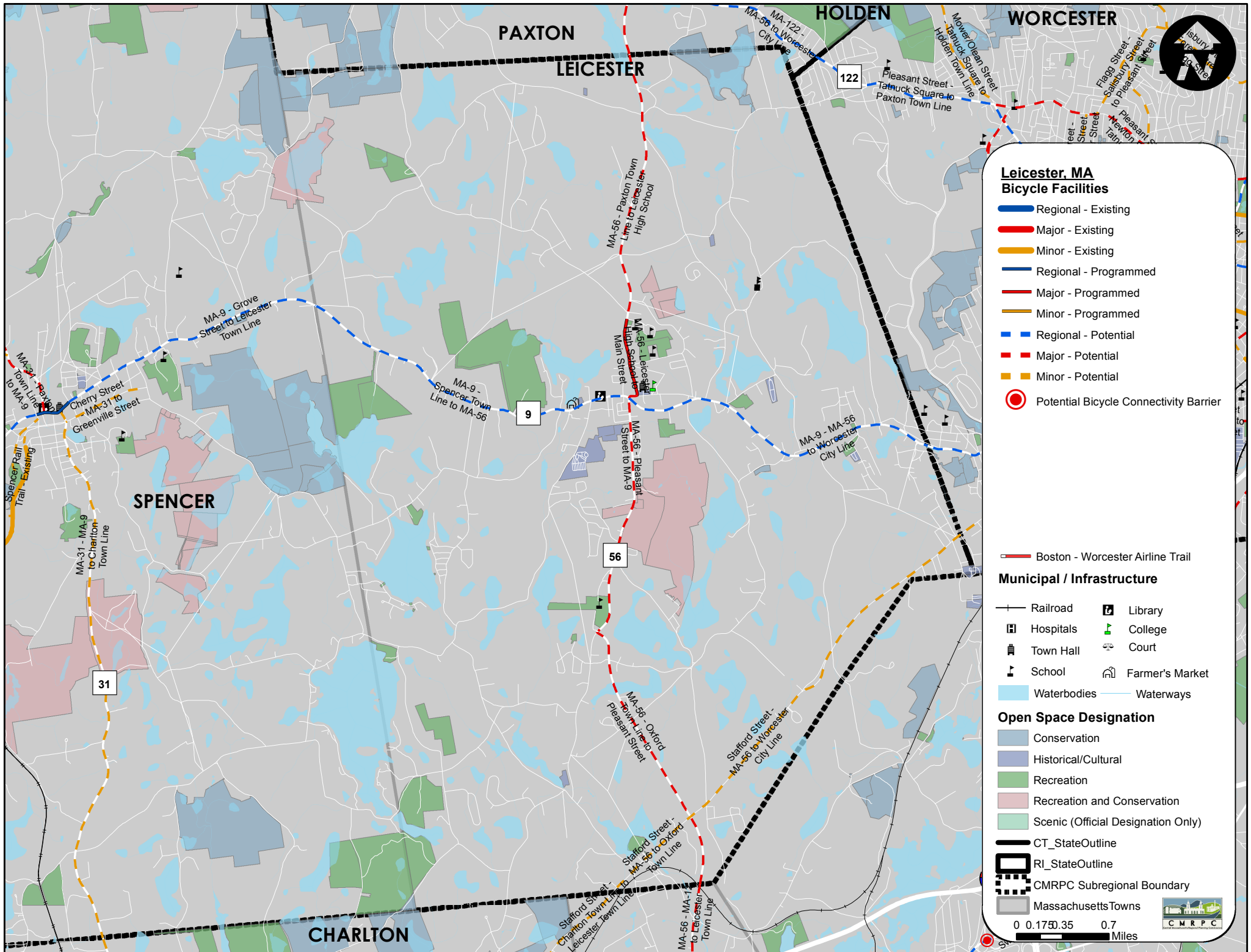
0 Miles

Programmed

0.59 Miles

Potential

15.18 Miles



Leicester, MA Bicycle Facilities

- Regional - Existing
- Major - Existing
- Minor - Existing
- Regional - Programmed
- Major - Programmed
- Minor - Programmed
- Regional - Potential
- Major - Potential
- Minor - Potential
- Potential Bicycle Connectivity Barrier

Municipal / Infrastructure

- Railroad
- Hospitals
- Town Hall
- School
- Waterbodies
- Library
- College
- Court
- Farmer's Market
- Waterways

Open Space Designation

- Conservation
- Historical/Cultural
- Recreation
- Recreation and Conservation
- Scenic (Official Designation Only)
- CT_StateOutline
- RI_StateOutline
- CMRPC Subregional Boundary
- Massachusetts Towns

0 0.175 0.35 0.7 Miles

Leicester On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
LEICESTER	MA-9 - MA-56 to Worcester City Line	Paved Road	2.56	Potential	Regional
LEICESTER	MA-9 - Spencer Town Line to MA-56	Paved Road	2.67	Potential	Regional
LEICESTER	MA-56 - Leicester High School to Main Street	Paved Road	0.59	Programmed	Major
LEICESTER	MA-56 - MA-9 to Paxton Street	Paved Road	0.07	Potential	Major
LEICESTER	MA-56 - Oxford Town Line to Pleasant Street	Paved Road	2.14	Potential	Major
LEICESTER	MA-56 - Paxton Town Line to Leicester High School	Paved Road	2.07	Potential	Major
LEICESTER	MA-56 - Pleasant Street to MA-9	Paved Road	1.83	Potential	Major
LEICESTER	Stafford Street - MA-56 to Oxford Town Line	Paved Road	0.83	Potential	Minor
LEICESTER	Stafford Street - MA-56 to Worcester City Line	Paved Road	3.02	Potential	Minor

West Subregion – New Braintree

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network.
- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
- Work with local, regional, and statewide advocacy groups and other stakeholders to expand public education campaigns that promote the rules of the road so that all transportation system users are aware of their responsibilities. Work to incorporate Safe Routes to School materials and practices into local education systems in order to increase active transportation participation and safety.

NEW BRAINTREE FACILITIES

Existing

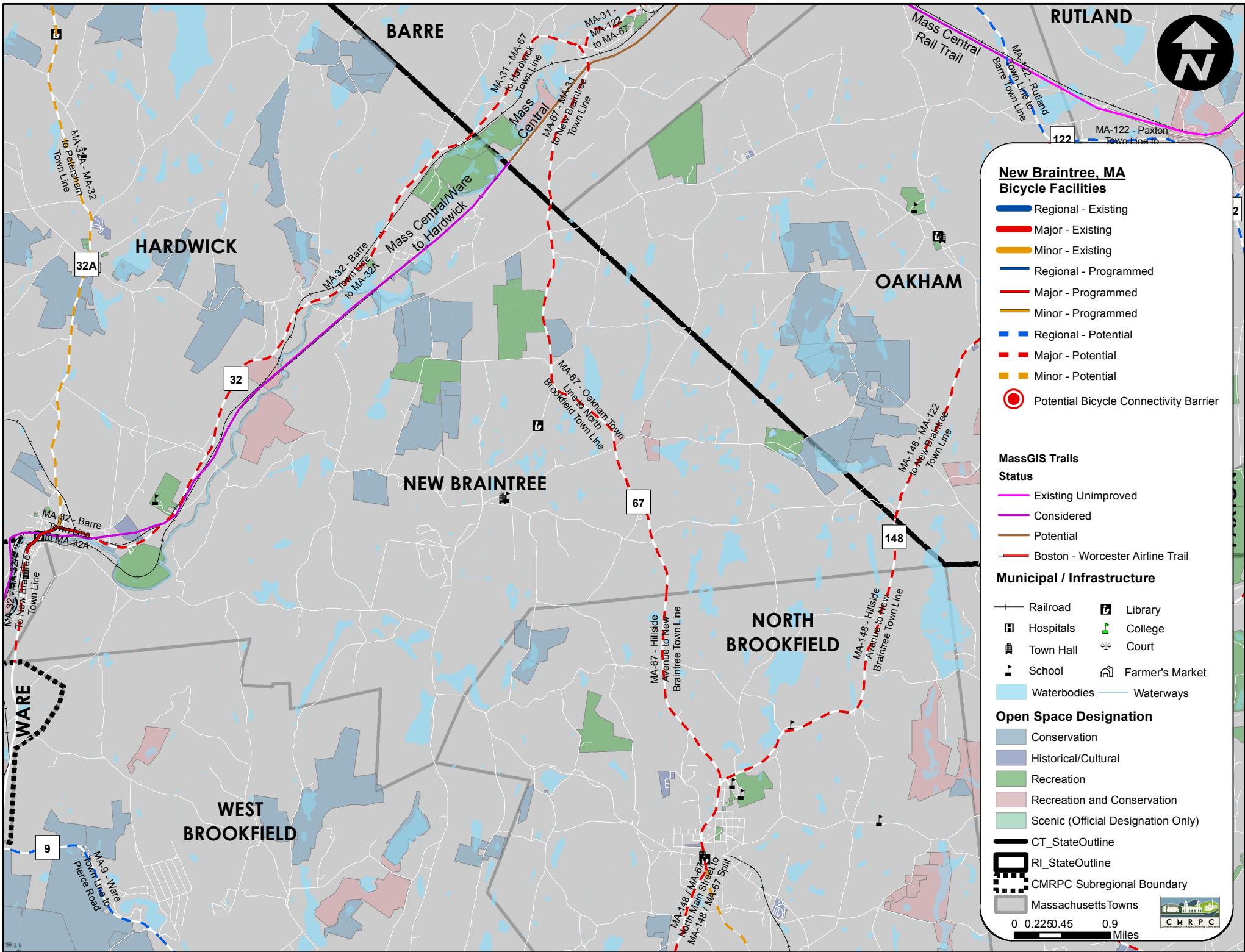
0 Miles

Programmed

0 Miles

Potential

4.74 Miles



New Braintree On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
NEW BRAINTREE	MA-148 - Oakham Town Line to North Brookfield Town Line	Paved Road	0.46	Potential	Major
NEW BRAINTREE	MA-32 - Hardwick Town Line to Ware Town Line	Paved Road	0.16	Potential	Major
NEW BRAINTREE	MA-67 - Oakham Town Line to North Brookfield Town Line	Paved Road	4.12	Potential	Major

West Subregion – North Brookfield

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network.
- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
- Work with local, regional, and statewide advocacy groups and other stakeholders to expand public education campaigns that promote the rules of the road so that all transportation system users are aware of their responsibilities. Work to incorporate Safe Routes to School materials and practices into local education systems in order to increase active transportation participation and safety.

NORTH BROOKFIELD FACILITIES

Existing

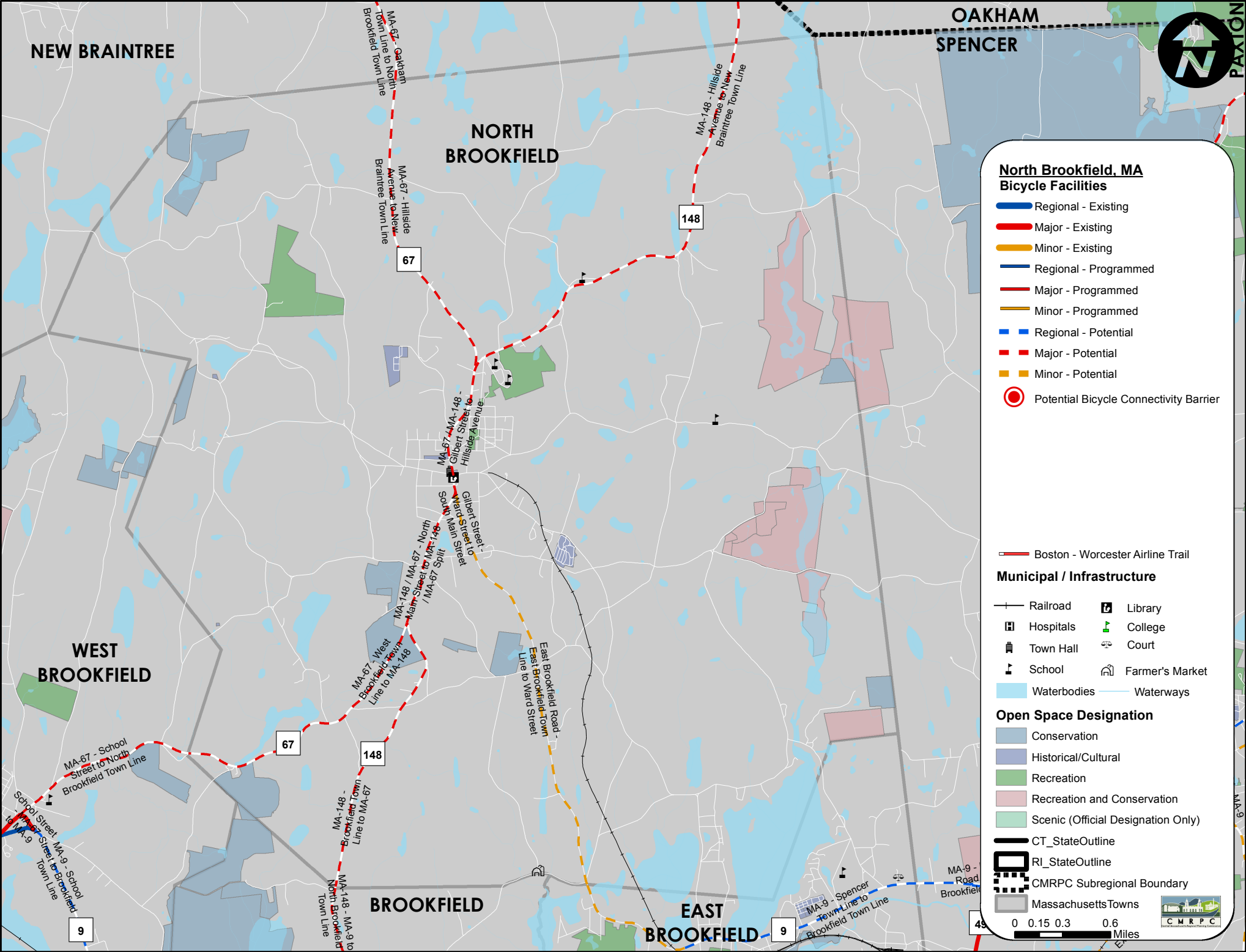
0 Miles

Programmed

0 Miles

Potential

12.99 Miles



North Brookfield On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
NORTH BROOKFIELD	MA-148 - Brookfield Town Line to MA-67	Paved Road	1.83	Potential	Major
NORTH BROOKFIELD	MA-148 - Hillside Avenue to New Braintree Town Line	Paved Road	2.95	Potential	Major
NORTH BROOKFIELD	MA-148 / MA-67 - North Main Street to MA-148 / MA-67 Split	Paved Road	0.91	Potential	Major
NORTH BROOKFIELD	MA-67 - Hillside Avenue to New Braintree Town Line	Paved Road	2.00	Potential	Major
NORTH BROOKFIELD	MA-67 - West Brookfield Town Line to MA-148	Paved Road	1.82	Potential	Major
NORTH BROOKFIELD	MA-67 / MA-148 - Gilbert Street to Hillside Avenue	Paved Road	0.83	Potential	Major
NORTH BROOKFIELD	East Brookfield Road - East Brookfield Town Line to Ward Street	Paved Road	2.26	Potential	Minor
NORTH BROOKFIELD	Gilbert Street - Ward Street to South Main Street	Paved Road	0.39	Potential	Minor

West Subregion – Spencer

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
- Work with MassDOT to implement the projects identified in the Town's Tier II Complete Streets Prioritization Plan.
- Work with local, regional, and statewide advocacy groups and other stakeholders to expand public education campaigns that promote the rules of the road so that all transportation system users are aware of their responsibilities. Work to incorporate Safe Routes to School materials and practices into local education systems in order to increase active transportation participation and safety.

SPENCER FACILITIES

Existing

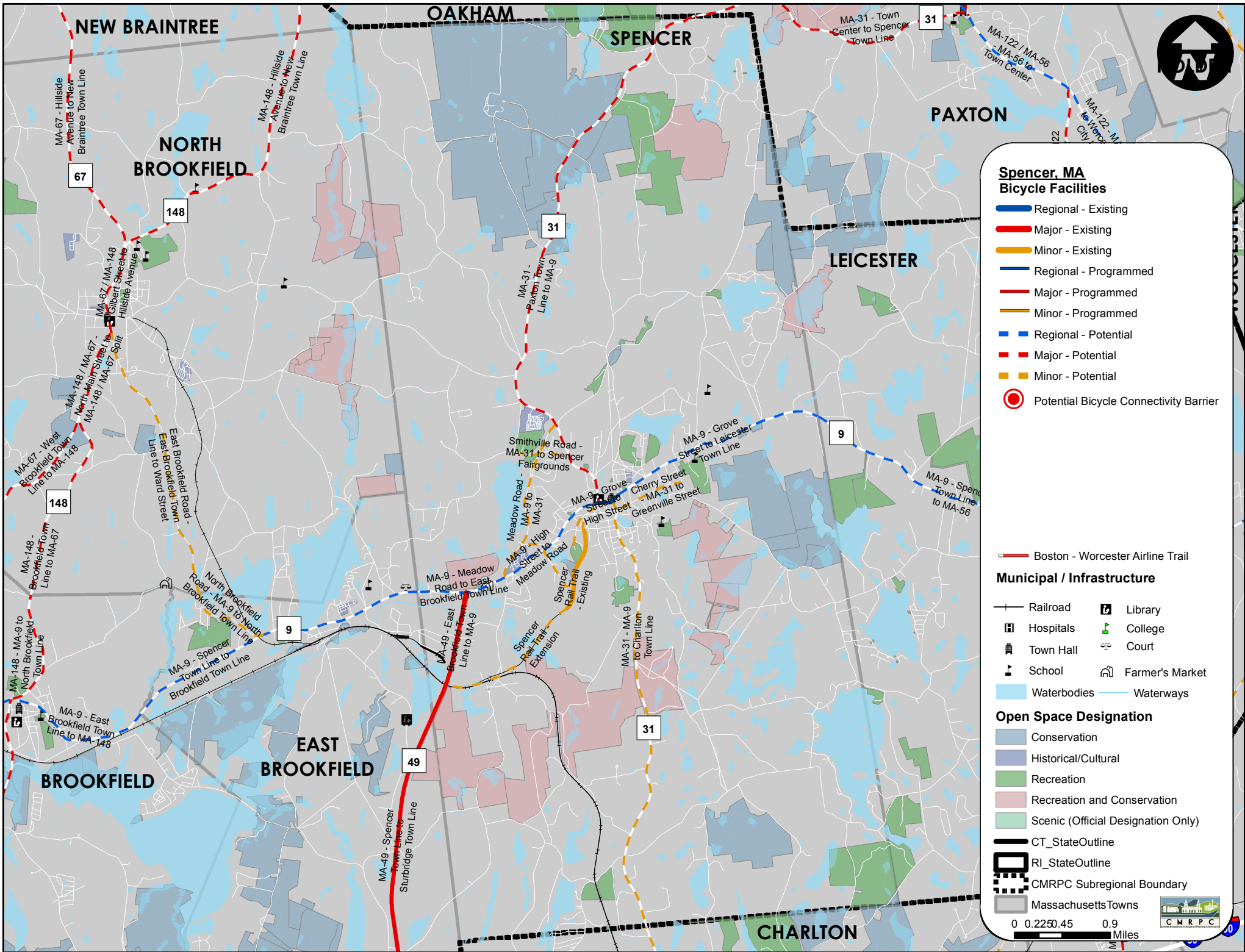
2.91 Miles

Programmed

0.28 Miles

Potential

19.61 Miles



Spencer On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
SPENCER	MA-9 - Grove Street to High Street	Paved Road	0.28	Programmed	Regional
SPENCER	MA-9 - Grove Street to Leicester Town Line	Paved Road	2.08	Potential	Regional
SPENCER	MA-9 - High Street to Meadow Road	Paved Road	1.10	Potential	Regional
SPENCER	MA-9 - Meadow Road to East Brookfield Town Line	Paved Road	1.11	Potential	Regional
SPENCER	MA-31 - Paxton Town Line to MA-9	Paved Road	5.58	Potential	Major
SPENCER	MA-49 - East Brookfield Town Line to MA-9	Paved Road	1.36	Existing	Major
SPENCER	Bixby Road - MA-9 to Spencer Rail Trail	Paved Road	0.48	Potential	Minor
SPENCER	Cherry Street - MA-31 to Greenville Street	Paved Road	0.68	Potential	Minor
SPENCER	MA-31 - MA-9 to Charlton Town Line	Paved Road	4.21	Potential	Minor
SPENCER	Meadow Road - MA-9 to MA-31	Paved Road	1.57	Potential	Minor
SPENCER	Olde Main Street - MA-9 to Meadow Road	Paved Road	0.30	Potential	Minor
SPENCER	Smithville Road - MA-31 to Spencer Fairgrounds	Paved Road	0.48	Potential	Minor
SPENCER	Spencer Rail Trail	Multi-Use Pathway	0.78	Existing	Minor
SPENCER	Spencer Rail Trail - Existing	Multi-Use Pathway	0.78	Existing	Minor
SPENCER	Spencer Rail Trail - Extension	Multi-Use Pathway	1.54	Potential	Minor
SPENCER	Valley Street - Chestnut Street to Spencer Rail Trail	Paved Road	0.47	Potential	Minor

West Subregion – Warren

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network.
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WARREN FACILITIES

Existing

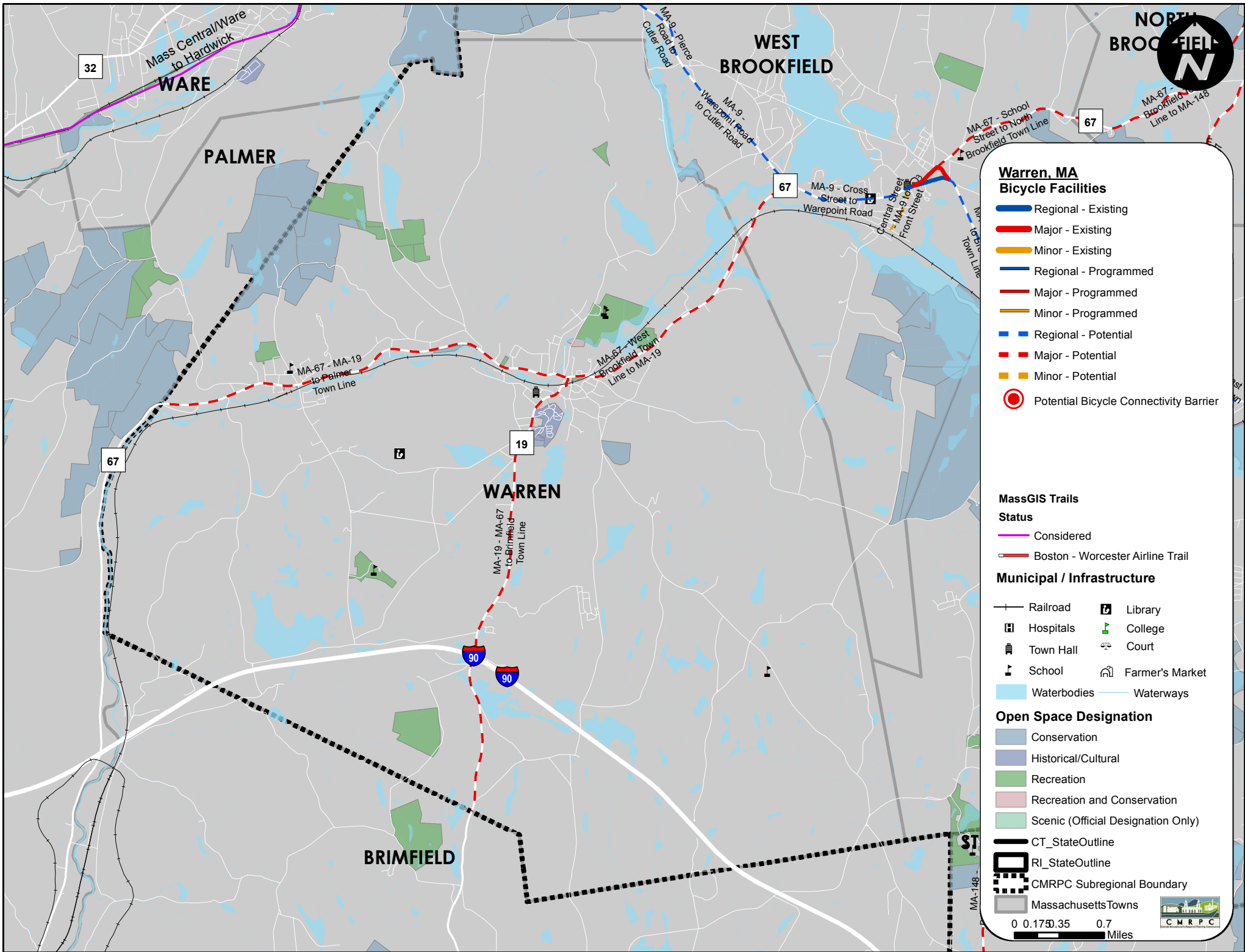
0 Miles

Programmed

0 Miles

Potential

8.86 Miles



Warren On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
WARREN	MA-19 - MA-67 to Brimfield Town Line	Paved Road	3.68	Potential	Major
WARREN	MA-67 - MA-19 to Palmer Town Line	Paved Road	3.36	Potential	Major
WARREN	MA-67 - West Brookfield Town Line to MA-19	Paved Road	1.81	Potential	Major

West Subregion – West Brookfield

Priority Recommendations

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
- Work with MassDOT to implement the projects identified in the Town's Tier II Complete Streets Prioritization Plan.
- Work with local, regional, and statewide advocacy groups and other stakeholders to expand public education campaigns that promote the rules of the road so that all transportation system users are aware of their responsibilities. Work to incorporate Safe Routes to School materials and practices into local education systems in order to increase active transportation participation and safety.

WEST BROOKFIELD FACILITIES

Existing

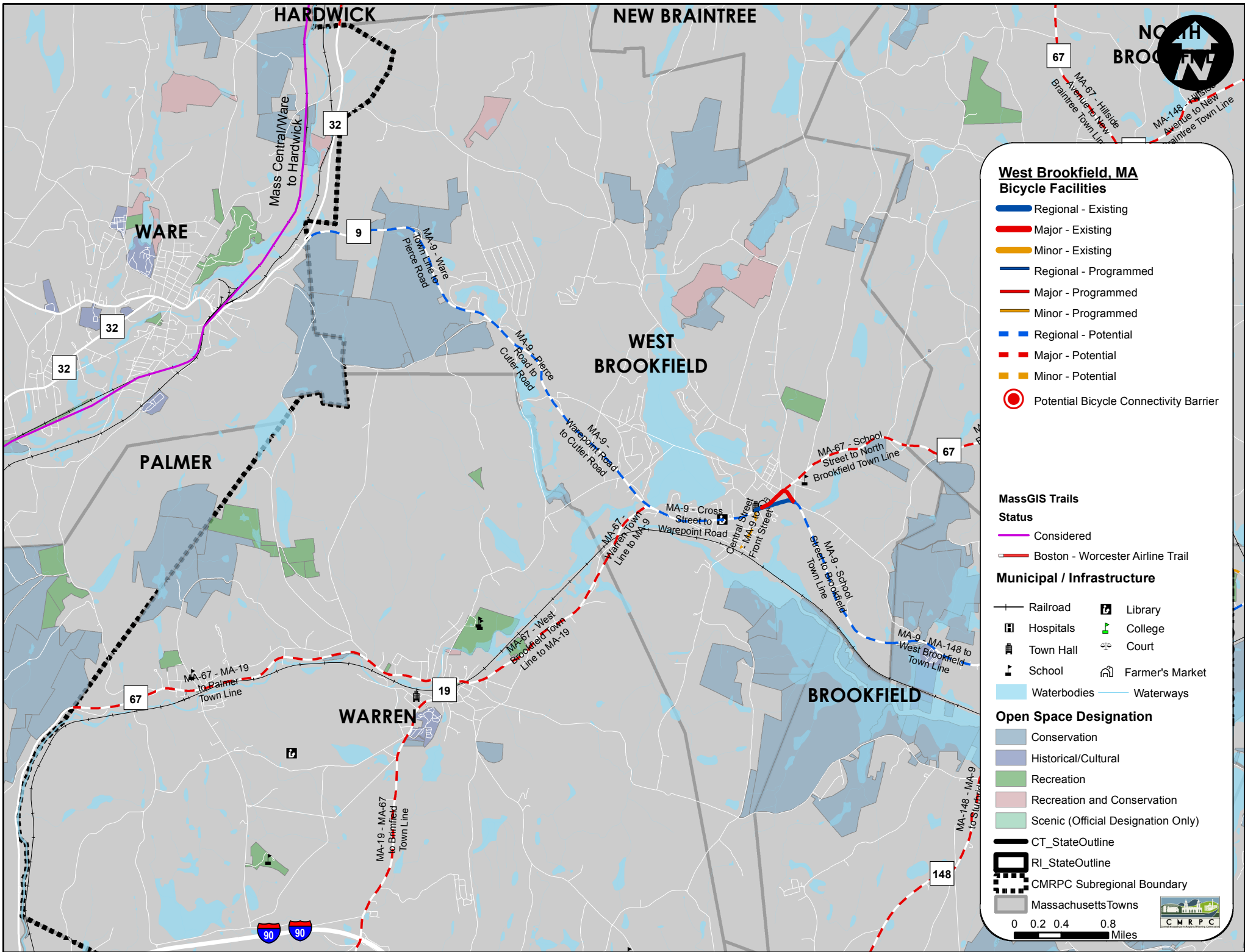
0.72 Miles

Programmed

0 Miles

Potential

8.87 Miles



West Brookfield On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
WEST BROOKFIELD	MA-9 - Central Street to North Main Street	Paved Road	0.06	Existing	Regional
WEST BROOKFIELD	MA-9 - Cross Street to Warepoint Road	Paved Road	0.44	Potential	Regional
WEST BROOKFIELD	MA-9 - Milk Street to Central Street	Paved Road	0.12	Potential	Regional
WEST BROOKFIELD	MA-9 - Milk Street to Cross Street	Paved Road	0.21	Potential	Regional
WEST BROOKFIELD	MA-9 - North Main Street to Maple Street	Paved Road	0.29	Existing	Regional
WEST BROOKFIELD	MA-9 - Pierce Road to Cutler Road	Paved Road	0.76	Potential	Regional
WEST BROOKFIELD	MA-9 - School Street to Brookfield Town Line	Paved Road	1.56	Potential	Regional
WEST BROOKFIELD	MA-9 - Ware Town Line to Pierce Road	Paved Road	2.14	Potential	Regional
WEST BROOKFIELD	MA-9 - Warepoint Road to Cutler Road	Paved Road	1.46	Potential	Regional
WEST BROOKFIELD	MA-67 - MA-9 to School Street	Paved Road	0.24	Existing	Major
WEST BROOKFIELD	MA-67 - School Street to North Brookfield Town Line	Paved Road	1.21	Potential	Major
WEST BROOKFIELD	MA-67 - Warren Town Line to MA-9	Paved Road	0.62	Potential	Major
WEST BROOKFIELD	School Street - MA-67 to MA-9	Paved Road	0.13	Existing	Major
WEST BROOKFIELD	Central Street - MA-9 to Front Street	Paved Road	0.35	Potential	Minor

Central Subregion - Worcester

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt a prioritization plans to continue to close the gaps in the bicycle network. The City of Worcester has a MassDOT scored Complete Streets Policy, and should proceed with a prioritization plan as soon as possible.
- Work with MassDOT and the Worcester Transportation Advisory Group (TAG) to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place.
- Work to expand the bicycle network through municipal roadway projects and associated infrastructure efforts. Lanes, sharrows, signage, shared-use paths, etc. are integral to a transportation network that is effective and safe.
- Work with MassDOT and DCR to ensure that Regional Multi-Use Trails and Pathways are advanced to meet the needs of subregional and regional travel via alternative modes.
- Work with local, regional, and statewide advocacy groups and other stakeholders to expand public education campaigns that promote the rules of the road so that all transportation system users are aware of their responsibilities. Work to incorporate Safe Routes to School materials and practices into local education systems in order to increase active transportation participation and safety.

WORCESTER FACILITIES

Existing

11.08 Miles

Programmed

4.49 Miles

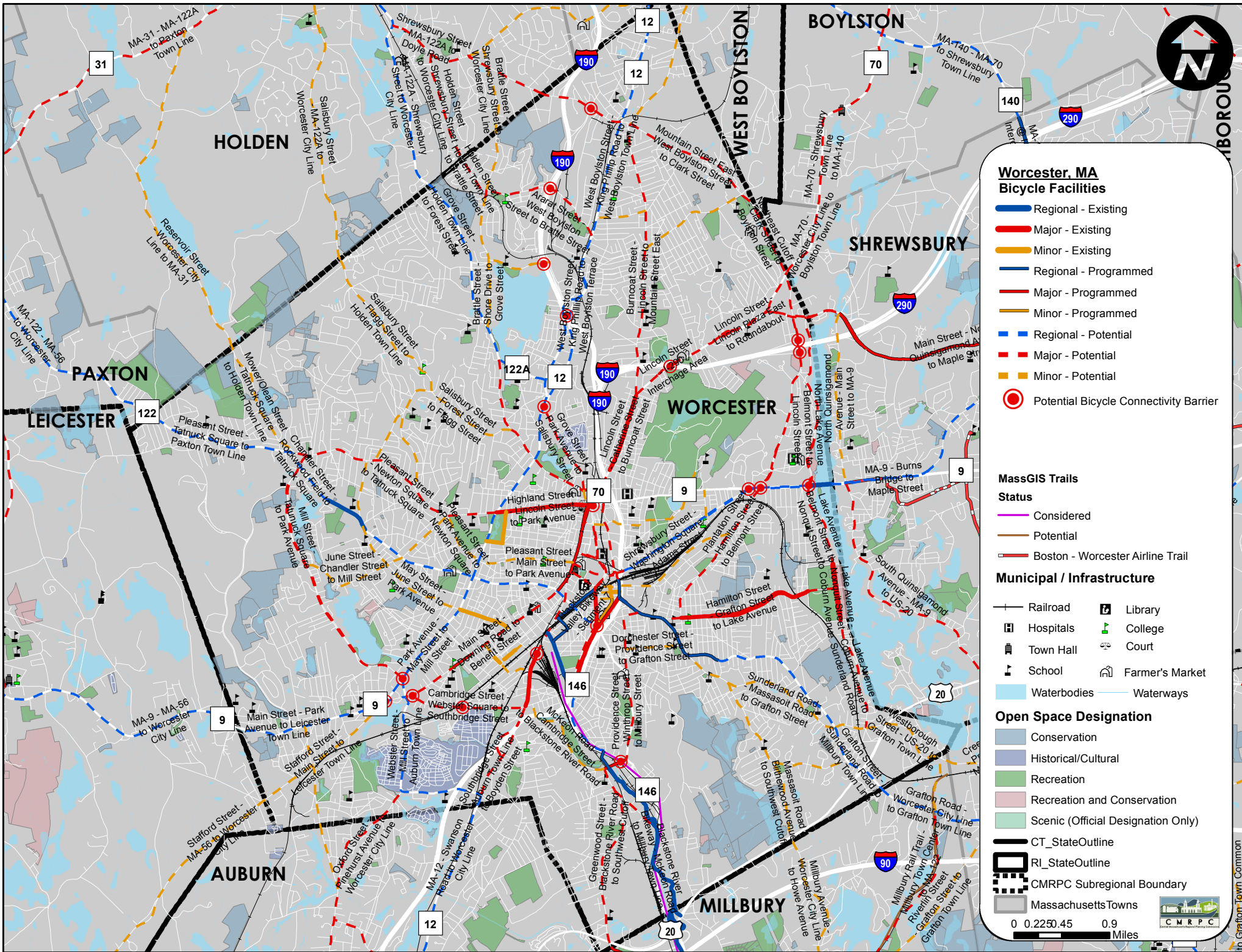
Potential

100.24 Miles

Multi-Use

Existing

3 Miles



Worcester, MA Bicycle Facilities

- Regional - Existing
- Major - Existing
- Minor - Existing
- Regional - Programmed
- Major - Programmed
- Minor - Programmed
- Regional - Potential
- Major - Potential
- Minor - Potential
- Potential Bicycle Connectivity Barrier

MassGIS Trails Status

- Considered
- Potential
- Boston - Worcester Airline Trail

Municipal / Infrastructure

- Railroad
- Hospitals
- Town Hall
- School
- Library
- College
- Court
- Farmer's Market
- Waterbodies
- Waterways

Open Space Designation

- Conservation
- Historical/Cultural
- Recreation
- Recreation and Conservation
- Scenic (Official Designation Only)

- CT_StateOutline
- RI_StateOutline
- CMRPC Subregional Boundary
- Massachusetts Towns

0 0.2250.45 0.9
Miles



Worcester On-Road Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
WORCESTER	Belmont Street - Lake Avenue to Shrewsbury Town Line	Paved Road	0.43	Existing	Regional
WORCESTER	Belmont Street - Plantation Street to Lake Avenue	Paved Road	0.91	Potential	Regional
WORCESTER	Belmont Street - Shrewsbury Street to Plantation Street	Paved Road	0.31	Potential	Regional
WORCESTER	Blackstone River Bikeway - McKeon Road - Visitors Center - MA-146 Overpass	Paved Road	0.20	Programmed	Regional
WORCESTER	Blackstone River Bikeway - McKeon Road to Millbury Town Line	Multi-Use Pathway	1.82	Existing	Regional
WORCESTER	Blackstone River Bikeway - Quinsigamond Avenue Connector	Paved Road	0.17	Programmed	Regional
WORCESTER	Blackstone River Bikeway - Visitors Center to Quinsigamond Avenue	Paved Road	0.73	Potential	Regional
WORCESTER	Blackstone Valley Bikeway - Segment 7	Paved Road	0.78	Programmed	Regional
WORCESTER	Chandler Street - June Street to May Street	Paved Road	0.44	Potential	Regional
WORCESTER	Chandler Street - Main Street to Park Avenue	Paved Road	0.82	Potential	Regional
WORCESTER	Chandler Street - May Street to Rockwood Field	Paved Road	0.46	Existing	Regional
WORCESTER	Chandler Street - Park Avenue to June Street	Paved Road	0.70	Potential	Regional
WORCESTER	Chandler Street - Rockwood Field to Tatnuck Square	Paved Road	0.56	Potential	Regional
WORCESTER	Grafton Street - Delmont Avenue to Jennings Street	Paved Road	0.77	Potential	Regional
WORCESTER	Grafton Street - Hamilton Street to Rice Square	Paved Road	0.45	Programmed	Regional
WORCESTER	Grafton Street - Jennings Street to Sunderland Road	Paved Road	0.66	Potential	Regional
WORCESTER	Grafton Street - Rice Square to Delmont Avenue	Paved Road	0.30	Programmed	Regional
WORCESTER	Grafton Street - Sunderland Road to Millbury Town Line	Paved Road	0.76	Potential	Regional
WORCESTER	Grafton Street - Water Street to Hamilton Street	Paved Road	0.57	Programmed	Regional
WORCESTER	Grafton Street - Winter Street to Washington Square	Paved Road	0.18	Programmed	Regional
WORCESTER	Grove Street - Forest Street to West Boylston Street	Paved Road	0.49	Potential	Regional
WORCESTER	Grove Street - Holden Town Line to Forest Street	Paved Road	1.83	Potential	Regional
WORCESTER	Hope Avenue - Webster Street to Southbridge Street	Paved Road	0.77	Potential	Regional
WORCESTER	Madison Street - Kelley Square to Main Street	Paved Road	0.45	Potential	Regional
WORCESTER	Main Street - Mill Street to Park Avenue	Paved Road	0.20	Potential	Regional
WORCESTER	Main Street - Park Avenue to Leicester Town Line	Paved Road	1.46	Potential	Regional
WORCESTER	Mill Street - Park Avenue to Webster Street	Paved Road	0.24	Potential	Regional
WORCESTER	Park Avenue - Chandler Street to May Street	Paved Road	0.33	Potential	Regional
WORCESTER	Park Avenue - Grove Street to Salisbury Street	Paved Road	0.44	Potential	Regional
WORCESTER	Park Avenue - Highland Avenue to Chandler Street	Paved Road	0.81	Potential	Regional
WORCESTER	Park Avenue - May Street to Mill Street	Paved Road	0.85	Potential	Regional
WORCESTER	Park Avenue - Mill Street to Main Street	Paved Road	0.27	Potential	Regional
WORCESTER	Park Avenue - Salisbury Street to Highland Avenue	Paved Road	0.62	Potential	Regional
WORCESTER	Pleasant Street - Tatnuck Square to Paxton Town Line	Paved Road	1.44	Potential	Regional
WORCESTER	Quinsigamond Avenue - Ashmont Ave to Southbridge Street	Paved Road	0.43	Existing	Regional
WORCESTER	Shrewsbury Street - Adams Street to Aitchison Street	Paved Road	0.87	Potential	Regional
WORCESTER	Shrewsbury Street - Washington Square to Adams Street	Paved Road	1.82	Potential	Regional
WORCESTER	Southbridge Street - Auburn Town Line to Hope Avenue	Paved Road	0.10	Potential	Regional
WORCESTER	Webster Street - Mill Street to Auburn Town Line	Paved Road	0.87	Potential	Regional
WORCESTER	West Boylston Street - Gold Star Boulevard One Way Pair	Paved Road	1.30	Potential	Regional
WORCESTER	West Boylston Street - King Phillip Road to West Boylston Town Line	Paved Road	2.99	Potential	Regional
WORCESTER	West Boylston Street - King Phillip Road to West Boylston Terrace	Paved Road	1.80	Potential	Regional
WORCESTER	Ararat Street - West Boylston Street to Brattle Street	Paved Road	1.24	Potential	Major
WORCESTER	Blackstone River Road - Greenwood Street to Blackstone River Bikeway	Paved Road	0.51	Potential	Major
WORCESTER	Blackstone River Road - McKeon Road to Greenwood Street	Paved Road	0.23	Potential	Major
WORCESTER	Boylston Street - Boylston Town Line to Lincoln Street	Paved Road	0.46	Potential	Major
WORCESTER	Brattle Street - Holden Street to Ararat Street	Paved Road	0.08	Potential	Major
WORCESTER	Burncoat Street - Lincoln Street to Mountain Street East	Paved Road	2.60	Potential	Major
WORCESTER	Cambridge Street - Webster Square to Southbridge Street	Paved Road	1.11	Potential	Major
WORCESTER	Forest Street - Grove Street to Salisbury Street	Paved Road	0.69	Potential	Major
WORCESTER	Foster Street - Green Street to Main Street	Paved Road	1.04	Potential	Major
WORCESTER	Franklin Street - Main Street to Foster Street	Paved Road	0.40	Potential	Major
WORCESTER	Front Street - Main Street to Foster Street	Paved Road	0.32	Potential	Major
WORCESTER	Front Street - Washington Square to Foster Street	Paved Road	0.05	Potential	Major
WORCESTER	Green Street - Kelley Square to Temple Street	Paved Road	0.28	Existing	Major
WORCESTER	Green Street - Temple Street to Franklin Street	Paved Road	0.05	Potential	Major
WORCESTER	Greenwood Street - Blackstone River Road to Southwest Cutoff	Paved Road	1.51	Potential	Major
WORCESTER	Greenwood Street - Southwest Cutoff to Millbury Town Line	Paved Road	0.05	Potential	Major
WORCESTER	Grove Street - Park Avenue to Salisbury Street	Paved Road	0.96	Potential	Major
WORCESTER	Hamilton Street - Grafton Street to Lake Avenue	Paved Road	2.02	Existing	Major
WORCESTER	Hamilton Street - Grafton Street to Lake Avenue	Paved Road	0.18	Potential	Major
WORCESTER	Hamilton Street - Grafton Street to Lake Avenue	Paved Road	0.27	Potential	Major
WORCESTER	Harding Street - Kelley Square to Millbury Street	Paved Road	0.63	Potential	Major
WORCESTER	Highland Street - Lincoln Street to Park Avenue	Paved Road	1.08	Existing	Major
WORCESTER	Highland Street - Park Avenue to Newton Square	Paved Road	0.46	Potential	Major
WORCESTER	Holden Street - Holden Town Line to Brattle Street	Paved Road	0.42	Potential	Major
WORCESTER	Lake Avenue - Belmont Street to Nonquit Street	Paved Road	0.83	Potential	Major
WORCESTER	Lake Avenue - Coburn Avenue to Sunderland Road	Paved Road	1.07	Potential	Major
WORCESTER	Lake Avenue - Nonquit Street to Coburn Avenue	Paved Road	1.04	Existing	Major

Municipality	Facility Name	Location	Miles	Status	Priority
WORCESTER	Lincoln Square North Area	Paved Road	1.50	Potential	Major
WORCESTER	Lincoln Street - Boylston Street to Shrewsbury Town Line	Paved Road	0.78	Potential	Major
WORCESTER	Lincoln Street - Burncoat Street to I-290 Interchange Area	Paved Road	0.30	Potential	Major
WORCESTER	Lincoln Street - Catherine Street to Burncoat Street	Paved Road	0.74	Existing	Major
WORCESTER	Lincoln Street - Country Club Boulevard to Lincoln Plaza East	Paved Road	0.12	Existing	Major
WORCESTER	Lincoln Street - I-290 Area to Country Club Boulevard	Paved Road	0.58	Potential	Major
WORCESTER	Lincoln Street - I-290 Interchange Area	Paved Road	0.58	Potential	Major
WORCESTER	Lincoln Street - Lincoln Plaza East to Roundabout	Paved Road	0.85	Potential	Major
WORCESTER	Main Street - Beaver Street to Downing Road	Paved Road	0.19	Programmed	Major
WORCESTER	Main Street - Benefit Street to Chandler Street	Paved Road	0.49	Potential	Major
WORCESTER	Main Street - Chandler Street to Thomas Street	Paved Road	0.69	Programmed	Major
WORCESTER	Main Street - Downing Road to Benefit Street	Paved Road	0.53	Potential	Major
WORCESTER	Main Street - Mill Street thru Webster Square East	Paved Road	0.11	Potential	Major
WORCESTER	Main Street - School Street to Highland Street	Paved Road	0.48	Programmed	Major
WORCESTER	Main Street - School Street to Salisbury Street	Paved Road	0.33	Potential	Major
WORCESTER	Main Street - Webster Street to Beaver Street	Paved Road	0.43	Potential	Major
WORCESTER	Major Tayler Boulevard - MLK Boulevard to School Street	Paved Road	0.26	Potential	Major
WORCESTER	Major Taylor Boulevard - Front Street to MLK Boulevard	Paved Road	0.40	Potential	Major
WORCESTER	McKeon Road - Millbury Street to Blackstone River Road	Paved Road	0.22	Programmed	Major
WORCESTER	Mill Street - Tatunuck Square to Park Avenue	Paved Road	4.55	Potential	Major
WORCESTER	Millbury Street - Ashmont Avenue to Kelley Square	Paved Road	0.48	Existing	Major
WORCESTER	Millbury Street - Quinsigamond Avenue to Ashmont Avenue	Paved Road	0.18	Potential	Major
WORCESTER	Mountain Street East - West Boylston Street to Clark Street	Paved Road	1.36	Potential	Major
WORCESTER	Mountain Street West - Holden Town Line to West Boylston Street	Paved Road	0.81	Potential	Major
WORCESTER	North Lake Avenue - Belmont Street to Lincoln Street	Paved Road	2.09	Potential	Major
WORCESTER	Northeast Cutoff - Clark Street to Boylston Street	Paved Road	0.87	Potential	Major
WORCESTER	Plantation Street - Boylston Street to Lincoln Street	Paved Road	0.40	Potential	Major
WORCESTER	Plantation Street - Hamilton Street to Belmont Street	Paved Road	1.50	Potential	Major
WORCESTER	Plantation Street - Lincoln Street to North Road	Paved Road	1.52	Potential	Major
WORCESTER	Plantation Street - North Road to Research Drive	Paved Road	0.68	Potential	Major
WORCESTER	Plantation Street - Research Drive to Belmont Street	Paved Road	0.40	Potential	Major
WORCESTER	Pleasant Street - Mill Street to Chandler Street	Paved Road	0.14	Potential	Major
WORCESTER	Pleasant Street - Newton Square to Tatnuck Square	Paved Road	1.57	Potential	Major
WORCESTER	Providence Street - Dorchester Street to Winthrop Street	Paved Road	0.21	Potential	Major
WORCESTER	Providence Street - Waverly Street to Dorchester Street	Paved Road	0.31	Potential	Major
WORCESTER	Providence Street - Winthrop Street to Millbury Street	Paved Road	0.85	Potential	Major
WORCESTER	Salisbury Street - Forest Street to Park Avenue	Paved Road	0.36	Potential	Major
WORCESTER	Salisbury Street - Park Avenue to Humboldt Avenue	Paved Road	0.39	Potential	Major
WORCESTER	School Street - Major Taylor Boulevard to Main Street	Paved Road	0.10	Potential	Major
WORCESTER	Southbridge Street - Auburn Town Line to Boyden Street	Paved Road	0.45	Potential	Major
WORCESTER	Southbridge Street - Cambridge Street to Hammond Street	Paved Road	0.51	Existing	Major
WORCESTER	Southbridge Street - Hammond Street to Main Street	Paved Road	0.79	Potential	Major
WORCESTER	Southbridge Street - I-290 Interchange #11 Area	Paved Road	0.79	Potential	Major
WORCESTER	Southbridge Street - I-290 Interchange #11 Area to Cambridge Street	Paved Road	0.16	Potential	Major
WORCESTER	Summer Street / Goldsberry Street - Washington Square to Lincoln Street	Paved Road	0.81	Potential	Major
WORCESTER	Washington Square	Paved Road	0.51	Potential	Major
WORCESTER	Water Street - Kelley Square to Grafton Street	Paved Road	0.33	Existing	Major
WORCESTER	Waverly Street - Grafton Street to Providence Street	Paved Road	0.15	Potential	Major
WORCESTER	Webster Street - Mill Street Extension to Main Street	Paved Road	0.12	Potential	Major
WORCESTER	Webster Street / Oxford Street - Hope Avenue to Auburn Town Line	Paved Road	0.32	Potential	Major
WORCESTER	Adams Street - Shrewsbury Street to Belmont Street	Paved Road	0.25	Potential	Minor
WORCESTER	Blithewood Avenue - Massasoit Road to Grafton Street	Paved Road	0.72	Potential	Minor
WORCESTER	Brattle Street - Ararat Street to Holden Town Line	Paved Road	0.57	Potential	Minor
WORCESTER	Brattle Street - Shore Drive to Grove Street	Paved Road	0.69	Potential	Minor
WORCESTER	Burncoat Street - Mountain Street E to West Boylston Town Line	Paved Road	0.99	Potential	Minor
WORCESTER	Clark Street - Burncoat Street to Mountain Street E	Paved Road	1.08	Potential	Minor
WORCESTER	Dorchester Street - Providence Street to Grafton Street	Paved Road	0.52	Potential	Minor
WORCESTER	Elliott Street - Eastern Avenue to Belmont Street	Paved Road	0.67	Potential	Minor
WORCESTER	Elm Street - Russell Street to Park Avenue	Paved Road	0.15	Existing	Minor
WORCESTER	Fales Street - West Boylston Street to Burncoat Street	Paved Road	0.47	Potential	Minor
WORCESTER	Flagg Street - Salisbury Street to Pleasant Street	Paved Road	0.94	Potential	Minor
WORCESTER	Franklin Street - Grafton Street to Foster Street	Paved Road	0.23	Potential	Minor
WORCESTER	Franklin Street - Grafton Street to Plantation Street	Paved Road	1.21	Potential	Minor
WORCESTER	Gardner Street - Main Street to Southgate Street	Paved Road	0.31	Potential	Minor
WORCESTER	Gardner Street - Tainter Street to Hollis Street	Paved Road	0.07	Existing	Minor
WORCESTER	Grandview Avenue - Main Street to Stafford Street	Paved Road	0.38	Potential	Minor
WORCESTER	Grove Street - Salisbury Street to Lincoln Square/Main Street	Paved Road	0.15	Potential	Minor
WORCESTER	Harding Street - Franklin Street to Winter Street	Paved Road	0.11	Existing	Minor
WORCESTER	Harding Street - Winter Street to Kelley Square	Paved Road	0.26	Programmed	Minor

Municipality	Facility Name	Location	Miles	Status	Priority
WORCESTER	Holden Street - Brattle Street to Shore Drive	Paved Road	0.61	Potential	Minor
WORCESTER	James Street/Ludlow Street - Stafford Street to Auburn Town Line	Paved Road	0.58	Potential	Minor
WORCESTER	June Street - Chandler Street to Mill Street	Paved Road	1.03	Potential	Minor
WORCESTER	June Street - Newton Square to Chandler Street	Paved Road	0.59	Potential	Minor
WORCESTER	Massasoit Road - Blithewood Avenue to Southwest Cutoff	Paved Road	0.73	Potential	Minor
WORCESTER	Massasoit Road - Grafton Street to Sunderland Road	Paved Road	0.46	Potential	Minor
WORCESTER	Massasoit Road - Sunderland Road to Blithewood Avenue	Paved Road	0.88	Potential	Minor
WORCESTER	May Street - Chandler Street to June Street	Paved Road	0.45	Potential	Minor
WORCESTER	May Street - June Street to Park Avenue	Paved Road	0.84	Potential	Minor
WORCESTER	May Street - Main Street to Park Avenue	Paved Road	0.48	Existing	Minor
WORCESTER	May Street - Pleasant Street to Chandler Street	Paved Road	0.56	Potential	Minor
WORCESTER	McKeon Road - Cambridge Street to Blackstone River Road	Paved Road	1.05	Potential	Minor
WORCESTER	Millbury Avenue - Southwest Cutoff to Millbury Town Line	Paved Road	0.04	Potential	Minor
WORCESTER	Mower/Olean Street - Tatnuck Square to Holden Town Line	Paved Road	1.19	Potential	Minor
WORCESTER	Pleasant Street - Main Street to Park Avenue	Paved Road	0.91	Potential	Minor
WORCESTER	Pleasant Street - Park Avenue to Newton Square	Paved Road	0.53	Potential	Minor
WORCESTER	Richmond Avenue - Flagg Street to Pleasant Street	Paved Road	0.78	Potential	Minor
WORCESTER	Russell Street - Elm Street to Highland Street	Paved Road	0.30	Existing	Minor
WORCESTER	Salisbury Street - Flagg Street to Holden Town Line	Paved Road	1.59	Potential	Minor
WORCESTER	Salisbury Street - Forest Street to Flagg Street	Paved Road	0.91	Potential	Minor
WORCESTER	School Street / Laurel Street - Main Street to Eastern Ave	Paved Road	0.45	Potential	Minor
WORCESTER	Shore Drive - Holden Street to Shore Drive	Paved Road	0.82	Potential	Minor
WORCESTER	Skyline Drive - Belmont Street to Tech High School	Paved Road	0.20	Potential	Minor
WORCESTER	Southgate Street - Gardner Street to Southbridge Street	Paved Road	0.21	Potential	Minor
WORCESTER	Stafford Street - Main Street to Leicester Town Line	Paved Road	1.47	Potential	Minor
WORCESTER	Sunderland Road - Grafton Street to Lake Avenue	Paved Road	0.30	Potential	Minor
WORCESTER	Sunderland Road - Lake Avenue to US-20	Paved Road	0.21	Potential	Minor
WORCESTER	Sunderland Road - Massasoit Road to Grafton Street	Paved Road	1.20	Potential	Minor
WORCESTER	Tainter Street - Gardner Street to Hammond Street	Paved Road	0.13	Potential	Minor
WORCESTER	Tainter Street - Kilby Street to Tainter Street	Multi-Use Pathway	0.14	Existing	Minor
WORCESTER	Temple Street - Grafton Street to Harding Street	Paved Road	0.08	Existing	Minor
WORCESTER	Temple Street - Harding Street to Green Street	Paved Road	0.15	Potential	Minor
WORCESTER	Westborough Street - US-20 to Grafton Town Line	Paved Road	0.64	Potential	Minor
WORCESTER	Winter Street - Green Street to Water Street	Paved Road	0.22	Potential	Minor

Worcester Multi-Use Recommendations

Municipality	Facility Name	Location	Miles	Status	Priority
Worcester	Blackstone River Greenway	Visitors Center to Millbury Town Line	3	Existing	Regional Multi-Use



The development of a well-connected bicycle network that allows for local and regional travel via bicycle is the primary goal of this plan. An emphasis has been placed on developing a baseline dataset with recommended corridors for connecting activity centers. The 5Es of bicycle planning: engineering, education, encouragement, enforcement, and evaluation have been included along with the recommended corridors in order to aid CMMPO member municipalities in the development of the bicycle network.

Land use, access management, and roadway design standards are but a few of the engineering and planning related issues that will interact with the development of a regional bicycle network. As mentioned previously, education, encouragement, and enforcement work in concert to help get more people out on bicycles as an alternative mode of travel. Evaluation and performance measurement help the CMMPO and municipal leaders to measure the return on investment based on identified metrics.

This chapter of the plan provides a higher level of detail regarding policy and program recommendations surrounding the 5Es of bicycle planning and network development. The options listed in the following pages are potential actions by CMMPO member municipalities that will help achieve the goal of developing a regional bicycle network. The options involve policy adoption, creation of positions or committees, or outreach strategies to further the goals of the plan. They are generally grouped as follows:

- Initial Actions: 1st steps toward plan implementation
- Additional Actions: What needs to be done to implement bicycle facilities

- Bicycle & Pedestrian Coordinators or Committees
- Advocate for development that includes bicycle network infrastructure

First Steps

There are a number of initial actions/strategies that are essential toward the development of a regional bicycle network and realizing the goals set forth in this plan. Through the MassDOT engineering directive and the Complete Streets Funding Program, a number of CMMPO municipalities have already begun to take the necessary steps toward incorporating the development of the bicycle network into their policies, programs, and infrastructure planning. It is the hope of this plan that all forty of the CMMPO member municipalities move toward the adoption of the strategies that have been outlined in this document in order to achieve the ultimate goal of a well-connected regional bicycle network. First steps that each municipality in the CMMPO region should prioritize are:

- Adopt the CMMPO Regional Bicycle Plan. Municipal staff should be aware with the recommendations set forth in this plan. Bicycle network planning should be incorporated into a municipality's planning process, with land use development and future transportation plans reflecting compliance with this plan.
- Utilize the MassDOT Complete Streets Funding Program process to create and adopt local Complete Streets policies and prioritization plans to continue to close the gaps in the bicycle network. Regionwide adoption of Complete Streets will allow for a consistent, connected transportation network that not only accommodates cyclists, but pedestrians, motorists, and transit users of all ages and levels of ability. Staff intends to update and amend this plan as more and more municipalities create local plans that will further expand the network.
- Work with MassDOT to ensure that arterial and collector streets with excess shoulder width are closely examined to determine how quickly they can be converted into Complete Streets with bicycle facilities in place. Often times, it may only require minor changes to drainage grates and re-striping. Major roads and State/US numbered routes form the backbone of regional connectivity in Central Massachusetts, and are essential components of this plan.
- Work to expand the bicycle network through municipal roadway projects and associated infrastructure efforts. Lanes, sharrows, signage, shared-use paths, etc. are integral to a transportation network that is effective and safe.
- Work with local, regional, and statewide advocacy groups and other stakeholders to expand public education campaigns that promote the rules of the road so that all transportation system users are aware of their responsibilities. Work to incorporate Safe Routes to School materials and practices into local education systems in order to increase active transportation participation and safety.
- Expand encouragement efforts and opportunities surrounding Baystate Bike Week during May, which is also recognized nationally as "Bike Month," hold promotional events that seek to encourage community participation in rides or challenges.
- Better integrate the CMMPO Bicycle and Pedestrian Advisory Committee into the planning efforts of the CMMPO. This newly re-activated committee should play an active role in planning decisions undertaken by the CMMPO Advisory Committee and the CMMPO itself.

Bicycle Facility Priorities

As mentioned previously, there are multiple types of bicycle facilities that include on-road lanes, off-road multiuse pathways, and things such as bicycle racks or storage lockers that fall into the end-of-trip category. Stakeholder and public survey results show that the lack of on-road or off-road infrastructure and a general lack of safety are primary reasons why people who bike do not do so more often. These facilities provide people who bike with the necessary level of safety and convenience to allow them to choose to cycle more often when they have the option, or for those members of the community who do not have access to a bicycle, provide an improved quality of life. In conjunction with the recommendations listed previously in the plan, the following actions related to bicycle infrastructure are primary recommendations to CMMPO municipalities:

- Work to design and build facilities along corridors identified in this plan
- Work to add bicycle parking at the attractors and generators described earlier in this plan to provide end-of-trip accommodations
- Incorporate bicycle parking guidelines into subdivision regulations and zoning laws to encourage developers to provide facilities as part of new development
- Through the Complete Streets process, or other local means, review all future roadway projects to determine whether or not the addition of a bicycle facility is appropriate
- Work to add way-finding signage to aid local residents and tourists in finding their way around the various communities of the CMMPO
- Host a map and table of local bicycle routes on the municipal website for residents and visitors to use to plan rides and reach various destinations

Bicycle Coordinators

Larger municipalities in the CMMPO Region, and in particular, the City of Worcester, should explore the potential of hiring a bicycle and pedestrian coordinator to oversee the development of the bicycle and pedestrian networks in the more built up environments. The implementation of this position would provide municipalities with the necessary coordination required between and among departments, as well as various agencies that participate in the transportation planning process.

Performance Management / Benchmarks

Beginning with the Mobility 2040 Long Range Transportation Plan, the CMMPO has used Performance Measures to track the progress of the regional transportation system in terms of policies, programs, and investments. The CMMPO adopted a set of regional objects in order to plan, program, and monitor/evaluate transportation system investments across all modes of travel. Listed below are the Performance Management measures related to the Regional Bicycle Network from Mobility 2040, the CMMPO's Long Range Transportation Plan:

- Goal 1: Reduce Congestion & Improve Mobility for all modes
 - Objective 4: Improved Transportation Accessibility for all modes
 - Improvement in the bicycle and pedestrian network within ½ mile of transit stations – for the top 10 high boarding and alighting locations. (2 locations every 5 years)
- Goal 4: Increase Transportation Options and Promote Healthy Modes
 - Objective 1: Increase the share of transit, bicycling & walking in the region
 - Triple walk/bike/transit share in Worcester by 2040
 - Double walk/bike/transit share in urbanized areas outside of Worcester by 2040
 - Objective 2: Expand the walk/bike network in the region

- Expand bicycle infrastructure by 50 miles by 2040
 - Increase bicycle parking at public facilities in the next five years
 - Improve pedestrian network within ½ mile of the top 10 high activity transit stops
 - Identify bicycle/pedestrian/transit gaps in the region
- Objective 3: Work with member communities to implement Complete Streets policies
 - 10% of communities in the region have a local Complete Streets policy over 10 years
- Goal 6: Equitable Transportation for all populations
 - Objective 1: Provide access to essential services; minimize burdens and maximize benefits associated with low-income and minority areas
 - Inventory the bicycle and pedestrian network within a ½ mile of the top 10 transit boarding locations in the next two years

It should be noted that the staff to the CMMPO will kick off the Mobility 2040 – Update 2020 Long Range Transportation Plan update around the same time that this plan is scheduled to be adopted. The goals and objectives of Mobility 2040 are expected to remain unchanged with this update, however, the performance measures and metrics are expected to be adjusted and streamlined based on updated Federal guidance and data collection that has occurred since Mobility 2040 was adopted. It is anticipated that objectives and recommendations of this plan could be amended if necessary at the conclusion to the Long-Range Transportation Plan update process.

Appendix A: Acronyms

AASHTO – American Association of State Highway and Transportation Officials

ACS – American Community Survey

ADA – Americans with Disabilities Act

APBP – Association of Pedestrian and Bicycle Professionals

BLOS - Bicycle Level of Service

CMMPO BPAC – Central Massachusetts Metropolitan Planning Organization Bicycle & Pedestrian Advisory Committee

CMAQ – Congestion, Mitigation, and Air Quality Program

FHWA – Federal Highway Administration

FTA – Federal Transit Authority

GIS – Geographic Information System

HSIP - Highway Safety Improvement Program

LOS – Level of Service

LRTP – Long Range Transportation Plan

MPO – Metropolitan Planning Organization

MUTCD – Manual on Uniform Traffic Control Devices

NACTO – National Association of City Transportation Officials

NHS – National Highway System

PLOS – Pedestrian Level of Service

RTP – Recreational Trails Program

SOV – Single Occupancy Vehicle

SRTS – Safe Routes to School

STP – Surface Transportation Program

TIP – Transportation Improvement Program

Appendix B: Definitions

American Association of State Highway and Transportation Officials (AASHTO): a nonprofit, nonpartisan association representing highway and transportation departments. www.aashto.org

American Community Survey (ACS): the [ACS](https://www.census.gov/programs-surveys/acs/), administered by the U.S. Census Bureau, regularly gathers information previously contained only in the long form of the decennial census, such as ancestry, educational attainment, income, language proficiency, migration, disability, employment, and housing characteristics.

Americans with Disabilities Act (ADA): Americans with Disabilities Act (ADA) is federal legislation enacted in 1990 prohibiting discrimination against persons with disabilities. <https://www.investopedia.com/terms/a/americans-with-disabilities-act-ada.asp>

Association of Pedestrian and Bicycle Professionals (APBP): a non-profit organization established in 1993 to promote walking, bicycling policies, practices, and supportive infrastructure/environments. APBP is focused upon peer knowledge sharing, advancing technical expertise, and supporting members' professional development. <https://www.apbp.org/>

Bicycle Boulevard - A roadway that is shared by motorists and bicyclists and that has been modified to function as a through street for bicyclists while discouraging through automobile traffic. Local access for automobiles is maintained. (AASHTO-*Guide for the Development of Bicycle Facilities*)

Bicycle Level of Service (BLOS) – A methodology developed by the Federal Highway Administration that can be used to evaluate a roadway segment's compatibility for allowing efficient operation for both bicycles and motor vehicles.

Bicycle Facility - A general term denoting improvements and provisions to accommodate or encourage bicycling, including parking facilities, maps, all bikeways, and shared roadways. (NCDOTNorth Carolina Bicycle Facilities Planning and Design Guidelines)

Bicycle Lane (Bicycle Lane) - A portion of a roadway which has been designated by striping, signing, and pavement markings for the preferential or exclusive use of bicyclists. (AASHTO *Guide for the Development of Bicycle Facilities*)

Bicycle Route (Bicycle Route) - A segment of a system of bikeways designated by the jurisdiction having authority with appropriate directional and informational markers, with or without a specific bicycle route number. (NCDOT-North Carolina Bicycle Facilities Planning and Design Guidelines)

Central Massachusetts Regional Public Health Alliance (CMRPHA): a coalition comprised of the Towns of Grafton, Holden, Leicester, Millbury, Shrewsbury, West Boylston, and the City of Worcester. [CMRPHA](http://www.cmrpha.org), managed by Worcester's Division of Public Health, functions as a regional public health district, providing services to partner municipalities.

Community Health Improvement Plan (CHIP): a long-term, systematic effort to address public health problems based on the results of community health assessment activities and the community health improvement process. A plan is typically updated every three to five years (source: [Centers for Disease Control](#))

Code of Federal Regulations (CFR): codification of the general and permanent rules and **regulations** (sometimes called administrative law) published in the **Federal Register** by the executive departments and agencies of the **federal** government of the United States.

Collector - A roadway classification that is designated to roadways that connect local streets to arterial streets. In urbanized areas, collector streets provide land access and traffic circulation within residential and commercial developments.

Congestion Mitigation and Air Quality Program (CMAQ): a flexible federal transportation funding source for state and local governments; funds transportation programs and projects to help meet the requirements of the Clean Air Act. <https://www.fhwa.dot.gov/fastact/factsheets/cmaqfs.cfm>

Complete Streets: a set of principles stating that all people, regardless of age, ability, income, race, or ethnicity, should have safe, comfortable, and convenient access to community destinations and public places—whether walking, driving, bicycling, or taking public transportation.

Connected Networks: A connected pedestrian/bicycle network is a cohesive system of transportation facilities that provide multiple direct routes allowing people of all ages and abilities to safely, comfortably, and conveniently travel to a particular destination.

Countermeasure: a term used in highway safety planning to describe a safety program or program approach focused on a particular type of crash problem.

Crash Modification Factor (CMF): used to calculate the expected number of crashes after implementing a given countermeasure at a specific location. As mentioned above, the Crash 94 Modification Factors Clearinghouse includes a web-based database of CMFs and supporting documentation.

Crash type: classifications of pedestrian crashes based on research into the pre-crash actions taken and errors made by a driver, walker, or bicyclist and the circumstances in which the crash occurs. Countermeasures have been developed and tested for many of the identified crash types, which include turning vehicle, overtaking, dart-out, bus-related, failure to yield, and many other crash types. The Pedestrian and Bicycle Crash Analysis Tool (PBCAT) provides additional information on crash types and how to classify crash data using the PBCAT approach.

Crosswalk - (a) That part of a roadway at an intersection included within the connections of the lateral lines of the sidewalks on opposite sides of the highway measured from the curbs or in the absence of curbs, from the edges of the traversable roadway, and in the absence of a sidewalk on one side of the roadway, the part of a roadway included within the extension of the lateral lines of the sidewalk at right angles to the centerline; (b) Any portion of a roadway at an intersection or elsewhere distinctly indicated for pedestrian crossing by lines or other markings on the surface. (MUTCD)

Cycle Track - A bikeway that is physically separated from motor vehicle traffic and distinct from the sidewalk. (NACTO Urban Bikeway Design Guide)

Exposure: period during or point at which a pedestrian could potentially be involved in a crash with a motor vehicle. Road user exposure is often used as the denominator for calculating pedestrian or bicycle crash rates.

Fatality Analysis Reporting System (FARS): a nationwide census providing NHTSA, Congress and the American public yearly data regarding fatal injuries suffered in motor vehicle traffic crashes.

Federal Highway Administration (FHWA): provides stewardship over the construction, maintenance and preservation of the Nation's highways, bridges and tunnels. FHWA also conducts research and provides technical assistance to state and local agencies in an effort to improve safety, mobility, and livability.

Federal Transit Administration (FTA): provides financial and technical assistance to local public transit systems, including buses, subways, light rail, commuter rail, trolleys and ferries.

Geographic Information System (GIS): a system designed to capture, store, manipulate, analyze, manage, and present all types of geographical data.

Greenways - Greenways are linear corridors that are either natural, such as rivers and streams, or man-made, such as abandoned railroad beds and utility corridors. Some greenways contain trails, which enhance existing recreational opportunities, provide routes for alternative transportation, and improve the overall quality of life in an area. Greenway trails can be paved or unpaved, and can be designed to accommodate a variety of trail users, including bicyclists, walkers, hikers, joggers, skaters, horseback riders, and those confined to wheelchairs. (Greenways, Inc.)

Highway Safety Improvement Program (HSIP): an FHWA program that funds state safety projects administered by State DOTs. States may use HSIP funds for infrastructure improvements (e.g., intersection design, pedestrian crossings, etc.) and non-infrastructure improvements (e.g., safety planning, data collection, enforcement and emergency programs).

Highway Safety Manual (HSM): the HSM presents a variety of methods for quantitatively estimating crash frequency or severity at a variety of locations. The HSM is managed by AASHTO, FHWA Office of Safety, and the Transportation Research Board Highway Safety Performance Committee.

Long Range Transportation Plan (LRTP): Mobility2040 is the current Central Massachusetts Metropolitan Planning Organization (see CMMPO, above).

Marked Shared Roadways - A roadway that is shared by motorists and bicyclists and that has been designed by signing and pavement markings as a preferred route for bicycle use. (*AASHTO Guide for the Development of Bicycle Facilities*)

Major Arterial – A roadway classification that is designated to roadways that are designed to carry moderate to high traffic volumes and to serve through traffic. Major commercial land uses are typically located along these roadways.

Massachusetts Bicyclist and Pedestrian Advisory Board (MABPAB): Established in 2004 to oversee and advise state bicycle and pedestrian program activities. MABPAB also monitors implementation of MA's statewide bicycle and pedestrian transportation plans, and assists the bicycle and pedestrian program office in preparing future plan updates.

Metropolitan Planning Organization (MPO): an organization charged with developing and implementing a transportation planning process in covering all urbanized areas (UZAs) with populations over 50,000, as determined by the U.S. Census.

Manual on Uniform Traffic Control Devices (MUTCD): an FHWA publication that defines standards used by road managers nationwide to design, install, and maintain traffic control devices (i.e., traffic signs, road surface markings, and signals) on all streets and highways. Some State agencies have developed their own sets of standards, but these must conform to the Federal MUTCD.

National Association of City Transportation Officials (NACTO): NACTO represents large cities on transportation issues of local, regional, and national significance. Its Urban Street Design Guide highlights design improvements that can improve pedestrian, bicycle, transit, and motor vehicle safety and mobility, along with case studies from communities around the United States.

<https://www.nacto.org/>

Pedestrian and Bicycle Crash Analysis Tool (PBCAT): a software product developed to assist state and local pedestrian/bicyclist coordinators, planners, and engineers in classifying crash types in conjunction with improving pedestrian and bicycling safety.

Pedestrian Level of Service (PLOS): a TRB Highway Capacity Manual (HCM) qualitative measure used to describe operational conditions of vehicular and pedestrian traffic, "based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience." Pedestrian LOS measures are focused upon pedestrian flow rates and sidewalk space, incorporating pedestrian speed, density, and volume.

Road Safety Audit (RSA): a formal safety performance review of an existing or future road or intersection. The RSA team identifies and analyzes potential road safety issues, and recommends improvements for all road users.

Safety in Numbers: the inverse relationship between biking and walking levels and fatality rates. Facility designs that may encourage walking and biking (bike lanes, sidewalks, signed routes, etc.) also likely contribute to increased safety.

Self-enforcing/self-explaining roadways: facilities that efficiently address safety for all users by implementing designs and operations that explain road function and enforce speeds close to limits

Separated Bike Lane: A separated bike lane is an exclusive facility for bicyclists that is located within or directly adjacent to the roadway and that is physically separated from motor vehicle traffic with a vertical element. Separated bike lanes are differentiated from standard and buffered bike lanes by the vertical element. They are differentiated from shared use paths (and side paths) by their more proximate relationship to the adjacent roadway and the fact that they are bike-only facilities. Separated bike lanes are also sometimes called "cycle tracks" or "protected bike lanes." (FHWA)

Shared Roadway - A roadway which is open to both bicycle and motor vehicle travel. This may be an existing roadway, a street with wide outside lanes (WOLs), or a road with paved shoulders. (AASHTO-Guide for the Development of Bicycle Facilities)

Shared Use Path - Pathways that are physically separated from motorized vehicle traffic by an open space or barrier and can accommodate multiple user types including bicyclists and pedestrians. (AASHTO-Guide for the Development of Bicycle Facilities)

Shoulder - The portion of the roadway contiguous with the traveled way for accommodation of stopped vehicles, for emergency use and for lateral support of sub-base, base and surface courses. (AASHTO-Guide for the Development of Bicycle Facilities)

Sidewalk - The portion of a street or highway right-of-way designed for preferential or exclusive use by pedestrians. (AASHTO-Guide for the Development of Bicycle Facilities)

Shared Roadways - A roadway that is shared by motorists and bicyclists and that has been designed by signing as a preferred route for bicycle use. Shared roadways are typically reserved for arterial or collector streets that have high bicycle traffic/demand, but cannot accommodate bicycle lanes or WOLs due to severe physical constraints. (AASHTO-Guide for the Development of Bicycle Facilities)

Sharrow - A pavement marking used to denote a marked shared roadway. (AASHTO-Guide for the Development of Bicycle Facilities)

Surface Transportation Block Grant Program (STBGP): federal flexible funding that states and localities can use for projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals. Formerly known of as the Surface Transportation Program (STP).

Strategic Highway Safety Plan (SHSP): a statewide-coordinated safety plan that functions as a comprehensive framework for reducing highway fatalities and serious injuries on all public roads. An SHSP identifies a State's safety needs and guides investment decisions towards strategies and countermeasure with the most potential to save lives and prevent injuries.

Shared-use facility: typically, a paved path adjacent to a roadway or separate from a roadway that is designated for nonmotorized use. Most such facilities include pedestrians and bicyclists, but some are also designated for rollerblades, skateboarders, and equestrians.

Safe Routes to Schools (SRTS): a program that examines conditions around schools and conduct projects and activities that work to improve safety and accessibility, and reduce traffic and air pollution in the vicinity of schools. As a result, these programs help make biking and walking to school safer and more appealing transportation choices thus encouraging a healthy and active lifestyle from an early age. These programs are sustained efforts by parents, schools, community leaders and local, State, and Federal governments to improve the health and well-being of children by enabling and encouraging them to walk and bicycle to school.

Toward Zero Deaths (TZD): a vision succinctly describes how an organization can approach safety—in which even one death on our transportation system is unacceptable. Within FHWA, the Office of Safety, Office of Safety Research and Development, and the Resource Center Safety and Design Technical Services Team jointly established a Safety Strategic Plan to focus on a common safety vision. TZD uses a data-driven, interdisciplinary approach, integrating application of education, enforcement, engineering, and emergency medical and trauma services.

Transportation Infrastructure Finance and Innovation Act (TIFIA): federal credit assistance funded through the FAST Act to states, localities, other public authorities, and private entities undertaking projects sponsored by public authorities, three distinct types of financial assistance:

- *Secured loans* are direct Federal loans to project sponsors offering flexible repayment terms and providing combined construction and permanent financing of capital costs.
- *Loan guarantees* provide full-faith-and-credit guarantees by the Federal Government to institutional investors, such as pension funds, that make loans for projects.
- *Lines of credit* are contingent sources of funding in the form of Federal loans that may be drawn upon to supplement project revenues, if needed, during the first 10 years of project operations. [23 U.S.C. 603 and 604]

This assistance is provided for eligible surface transportation projects.

Transportation Improvement Program (TIP): a list of upcoming transportation projects covering four or more years. A TIP's project list should include bicycle and pedestrian facilities and other transportation enhancements. The TIP is developed by a Metropolitan Planning Organization (MPO) covering the region in which a facility is or will be planned/constructed.

Vision Zero (1994): a policy goal by which one should die or suffer serious injury in traffic. The initiative places the main responsibility for safety on system design. A core principle of the vision is that human life and health cannot be exchanged for other benefits within the society (in contrast to the more conventional comparison between costs and benefits, where a monetary value is placed on life and health).

Walking School Bus: a group of children walking to school with one or more adults. It can be as informal as two families taking turns walking their children to school or as structured as a planned route with meeting points, a timetable and a schedule of trained volunteers. More information is available in the National Center for Safe Routes to School Guide.

Wide Outside Lane (WOL) - A right-hand lane of a shared roadway that is typically 14 feet wide to better accommodate both bicyclists and motor vehicles in the same lane. (American Planning Association— *Bicycle Facility Planning*)

U.S. Access Board (USAB): an independent Federal agency that promotes equality for people with disabilities through leadership in accessible design and the development of accessibility guidelines and standards.

Appendix C: Regional Bicycle & Pedestrian Survey

Question 1

How far is your daily trip to work or school?

Answer Choices	Responses	
0-2 miles	21.77%	27
3-5 miles	20.16%	25
6-10 miles	10.48%	13
11-20 miles	12.90%	16
Over 20 miles	23.39%	29
Unknown	0.00%	0
I do not travel to work or school	11.29%	14
Answered		124
Skipped		0

Question 2

How long is your daily trip to work or school?

Answer Choices	Responses	
0-5 minutes	16.39%	20
6-10 minutes	16.39%	20
11-20 minutes	26.23%	32
21-30 minutes	12.30%	15
21-30 minutes	0.00%	0
Over 30 minutes	28.69%	35
I do not travel to work or school by bicycle	0.00%	0
Answered		122
Skipped		2

*Question 3***What form of transportation do you mostly use for your daily travel?**

Answer Choices	Responses	
Car	66.67%	82
Motorcycle	0.81%	1
Bus	4.07%	5
Train	2.44%	3
Carpool/Vanpool	0.00%	0
Bicycle	16.26%	20
Walk/Wheelchair	6.50%	8
I do not travel to work or school	3.25%	4
Other (please specify)		2
Answered		123
Skipped		1

*Question 4***Do you have access to a bicycle?**

Answer Choices	Responses	
Yes	93.50%	115
No	6.50%	8
Answered		123
Skipped		1

*Question 5***Select the option that best describes your bicycle access.**

Answer Choices	Responses	
I own a bicycle	86.78%	105
A bicycle is available in my home	7.44%	9
A bicycle is available at my school or workplace	0.00%	0
friends, co-workers, or relatives have a bicycle I can use	2.48%	3
A Bike Share Program is located in my area	3.31%	4
Answered		121
Skipped		3

*Question 6***If you do not have access to a bicycle, indicate why:**

Answer Choices	Responses	
Cycling is not a convenient method of transportation	12.16%	9
Cost	2.70%	2
No place to store a bicycle	5.41%	4
No time to ride a bicycle	4.05%	3
Don't like riding a bicycle	1.35%	1
Don't know the rules for riding a bicycle	0.00%	0
Don't know how to ride a bicycle	0.00%	0
Physical Limitations	2.70%	2
Other (please specify)	81.08%	60
Answered		74
Skipped		50

*Question 7***How would you describe your abilities as a person who bikes?**

Answer Choices	Responses	
Beginner	8.06%	10
Intermediate	43.55%	54
Expert	45.97%	57
I do not ride bicycles	2.42%	3
Answered		124
Skipped		0

*Question 8***How would you classify your knowledge of local cycling ordinances?**

Answer Choices	Responses	
No Knowledge	20.33%	25
Some Knowledge	55.28%	68
Complete Knowledge	24.39%	30
I have no knowledge of local cycling ordinances	0.00%	0
Answered		123
Skipped		1

*Question 9***What is your perceived level of safety when walking or cycling?**

Answer Choices	Responses	
Very safe	6.45%	8
Generally safe	33.87%	42
Somewhat safe	25.81%	32
Unsafe	21.77%	27
Dangerous	12.10%	15
I do not ride a bicycle or walk to my destinations	0.00%	0
Answered		124
Skipped		0

*Question 10***How often do you walk or ride your bicycle to your destination?**

Answer Choices	Responses	
Daily	6.50%	8
5-6 times per week	15.45%	19
3-4 times per week	13.82%	17
1-2 times per week	13.82%	17
Less than 4 times per month	34.15%	42
I do not travel to work or school	16.26%	20
Answered		123
Skipped		1

*Question 11***Why do you walk or ride your bicycle? Indicate all that apply.**

Answer Choices	Responses	
Exercise	90.32%	112
Recreation	82.26%	102
Cycling is friendly to the environment	54.03%	67
Destinations, i.e. Running Errands or Shopping	25.81%	32
More cost effective than using an automobile	39.52%	49
Commute to work	28.23%	35
Faster mode of transportation than an automobile	14.52%	18
There is a shower/locker room at work	7.26%	9
Commute to school	4.03%	5
Direct bicycle routes between home, work, and/or school	5.65%	7
I do not own a car	5.65%	7
I do not ride bicycles	4.03%	5
Other (please specify)	8.06%	10
Answered		124
Skipped		0

*Question 12***Please select your top three (3) reasons why you don't walk or bike more often**

Answer Choices	Responses	
Physical (Health)	5.65%	7
No Access to a Bicycle	4.03%	5
Do Not Know How to Ride a Bicycle	0.81%	1
No Nearby Destinations	38.71%	48
Concerned About Bicycle Theft	30.65%	38
Concerned About Safety	72.58%	90
Vehicle Required for my Job	24.19%	30
Weather Conditions	58.06%	72
Hilly Terrain	30.65%	38
Other (please specify)	39.52%	49
Answered		124
Skipped		0

Question 13

Please select the top five (5) factors that limit you from cycling or walking more often:

Answer Choices	Responses	
Crossing Barriers (Highways, Bridges, Rivers, Intersections, Etc)	57.26%	71
Route/Lane/Sidewalk Ends Abruptly (Not Continuous)	48.39%	60
Not Enough Off-Road Multi-Use Pathways	65.32%	81
Not Enough On-Road Bicycle Lanes/Facilities	72.58%	90
Lack of Secure Bicycle Parking/Storage/End of Trip Facilities (Shower, Locker, Etc.)	35.48%	44
Bicycle Rack on WRTA Bus is Full	0.00%	0
Poor Transit Connections in my Area	11.29%	14
Volume & Speed of Traffic	60.48%	75
Distance/Time to Walk or Bike to Destinations	33.06%	41
Poor Maintenance of Sidewalks/Streets	47.58%	59
Narrow Roadway Lanes/Shoulders	59.68%	74
No Employer Support	6.45%	8
No Guaranteed Ride Home (Weather, Emergency, Etc)	16.13%	20
MBTA Commuter Rail is difficult to travel to on foot or bicycle.	4.03%	5
MBTA Commuter Rail does not allow bicycles on rush hour trains.	9.68%	12
	Answered	124
	Skipped	0

Question 14

Please list the top five (5) factors that would encourage you to walk or bike more often:

Answer Choices	Responses	
More Off-Road Multi-Use Paths	71.77%	89
On Road Bicycle Lanes/Facilities/Colored Lanes/Wider Shoulders	81.45%	101
Separated/Buffered Bicycle Lanes	76.61%	95
New/Repaired Sidewalks and Curb Ramps that are ADA Compliant	30.65%	38
Improved Crossings @ Intersections/Highways/Bridges/Rail/Etc.	64.52%	80
Better Access to WRTA Bus Stops/Stations	8.87%	11
Better Access to MBTA Commuter Rail / Bikes allowed on all trains.	16.94%	21
Improved Roadway/Sidewalk Maintenance (Paving/Sweeping/Snow Clearance)	62.90%	78
Better Maps/Wayfinding	12.90%	16
Traffic Calming (Speed Reduction) + Increased Enforcement of Traffic Violations	62.90%	78
Secure Bicycle Parking/Storage/End of Trip Facilities (Shower, Locker, Etc.)	34.68%	43
	Answered	124
	Skipped	0

*Question 15***What is the farthest distance you would be willing to cycle to a destination?**

Answer Choices	Responses	
1-3 miles (5-15 minute ride)	14.52%	18
3.1-5 miles (16-30 minute ride)	20.16%	25
Over 5 miles (+30 minute ride)	65.32%	81
Answered		124
Skipped		0

*Question 16***What is the farthest distance you would be willing to walk to a destination?**

Answer Choices	Responses	
0.25 mile - 0.50 mile (5-10 minute walk)	6.45%	8
0.51 mile - 1.0 mile (11-20 minute walk)	25.00%	31
1.1 miles - 2.0 miles (21-40 minute walk)	39.52%	49
2.1 miles - 3.0 miles (41-60 minute walk)	19.35%	24
Greater than 3.0 miles (+60 minute walk)	9.68%	12
Answered		124
Skipped		0

*Question 17***What is the most important bicycle or pedestrian project need in your area?**

Answer Choices	Responses	
#1	100.00%	122
#2	0.00%	0
#3	0.00%	0
Answered		122
Skipped		2

RAW RESPONSES:

Bike lanes

Sidewalk installation and winter clearing

Bike paths and more sidewalks

Trail on public land

Route 122 needs resurfacing with actual bike lanes beyond the white line. It is a very dangerous stretch of road for cyclists that frequently are on it. There is absolutely no shoulder.

Improvement of road infrastructure

More Bike lanes

Safer dedicated bike lanes or sharrows

Earn a Bike

Bike lane

Crosswalk safety (lack of)
 painted crosswalks & no parking so close to the curbs
 Creating safer bike lanes.
 Rehabilitation of roads and sidewalks and creation of bike lanes
 More protected bicycle lanes
 Traffic reduction,
 Traffic calming
 road infrastructure able to accommodate bike riding/commuting
 Safer streets! Bike lanes, protected bike lanes, off road bike paths etc. every city has them besides Worcester!
 Change in driving culture / traffic enforcement
 bike lanes and driver education
 Bike lane/good shoulders
 Bike lanes/signage - nearly non-existent
 better scheduling/prioritizing of construction projects
 improving on-road conditions with bike lanes in town centers and on numbered routes
 Connection to Mass Central Rail Trail in Clinton
 protected bike lanes separated from autos
 bike lanes
 Bike lanes on Pleasant St
 The intersection between 290, 190, Goldstar and West Boylston Street
 Driver education about rights of cyclists
 Separated/Buffered Bicycle Lanes
 On road bicycle lanes
 Traffic/bike interactions at Boston intersections
 Rail trail completion for the section going from Hudson to Berlin under 495. roads here are a death trap
 More bike lanes
 More bike paths
 Bike lanes
 Proper bicycling lanes on roads
 Bike lanes
 Improved shoulders or bike paths
 Wider shoulders
 Mountain biking trails near my house
 More sidewalks for walking safely off the road.
 better trail network
 Dedicated bike paths
 More trails
 NEMBA Leominster State Forest with DCR
 Bike lanes and sidewalks
 More off-road trails
 Vehicle speed
 better off road trail maps
 Add bike lanes to major routes. Today some state roads have no shoulders at all.
 Bike lanes
 Share the Road signage, road repair, markings.
 On Road Bicycle Lanes/Facilities/Colored Lanes/Wider Shoulders
 Continuous sidewalks

Wider well-maintained paved shoulders on the roads.
 Bicycle lanes or bicycle paths
 Need more bike lanes
 Bike lanes
 Safe crosswalk
 Traffic/speed calming measures (Ararat Street / Greendale / Burncoat/ Park Ave)
 Protected bicycle infrastructure
 traffic calming measures
 Crosswalk across from temple on Pleasant Street. Very unsafe. High speed. Nobody stops, even when pedestrian(s) are in the crosswalk.
 Traffic calming measures: Reduced speed limits, more crosswalks, BMUFL signage, etc.
 Safe maintained streets
 Need more trails and sidewalks and better connectivity of those that exist
 Traffic Enforcement. Too many people choosing to zip around town all the time with no regard for safety
 Safer bike Lanes, with enforcement so drivers don't violate them
 More thoughtfully placed bike lanes in Worcester
 Walking in Sutton is very dangerous as the town lacks sidewalks in almost entirely.
 Additional Sidewalks
 widen Route 140 in West Boylston
 More secure bike lock areas
 Safe street crossings
 FLASHING YIELD SIGN ON CORNER OF ADAMS AND KAY
 The path literally goes from one high volume street to another with no sidewalks to connect to the path. I cannot send my children to use it and they hate it because it is just a straight line goes nowhere. There is nothing interesting or useful about it and creates major safety concerns about vandalism and robbery in my neighborhood.
 Bike trails!
 Bike lanes and sidewalks
 improved pedestrian crossing at busy intersections
 Bike paths
 Off street paths
 Bicycle path
 Either a more sidewalks or a bike path. There are few places in town for families to ride safely.
 Sidewalk clearing and continuity
 Designated biking Lane
 paths and trails for healthy recreational activities for families
 BWALT
 Fix Street Lighting and Roads.
 West Boylston Street/Gold Star Blvd needs to be made safe for ped/bike
 Build the BWALT trail
 More trains (both commuter MBTA and Amtrak) allowing bicycles to be carried on board.
 Bike lanes
 Bike lanes
 Better infrastructure (a continuous network of bike lanes/multi-use paths and redesigned intersections)
 Improved sidewalk and pedestrian accommodations i.e. crosswalks, lights, signage
 Paths
 Traffic enforcement
 North Grafton Bike Path

Established him away through town
 Separated bike lanes in Worcester
 Long distance bike path
 education of motorists AND cyclists
 Off road bike path
 Sidewalk improvement, maintenance, and continuity
 BWALT
 Grafton Bike paths
 North Grafton Bikeway
 City of Worcester Bikeways and lanes
 Multi use trail development
 Better road conditions, removal of sand, fix pot holes.
 Safety awareness
 completion of Assabet River and Bruce Freeman Rail trails
 Assabet river rail trail through Stow
 Safe roads w clearly defined bike lanes. Driver awareness/education.
 continuous/uninterrupted rail trails
 sidewalks
 Consistent and safe routes along roads or designated bike paths following common commuting routes.
 NOT NEEDED: more recreational bike paths that cut through wetlands and forests but lead to nowhere a
 daily commuter would go for work
 Creating safer crossings at busy intersections.
 Better on-road signage (my town has NONE). I mean sharrows and painted bike lanes, signage including
 Bicycles May Use Full Lane. My town has done NOTHING for me as a road cyclist.

Question 18

What is the main reason that bicycle and pedestrian facilities should be improved or expanded in your area?

Answer Choices	Responses	
Reason #1	100.00%	117
Reason #2	0.00%	0
Reason #3	0.00%	0
Answered		117
Skipped		7

RAW RESPONSES:

Traffic jams
 Westborough has many walkable areas (e.g., downtown, Charm Bracelet trails) that would see far more
 use if sidewalks were more consistently available (and cleared in winter) for pedestrians.
 Safer for kids and adults to. Bike and walk
 NA
 Economic impacts.
 Encourage more recreation opportunities. Where I live is very rural so commuting by bicycle would be
 difficult.
 Reduction of traffic
 More bicycles=fewer cars and less traffic congestion
 Safer streets
 We have no bike services or even sidewalks. Better services would stimulate more riding. Better for the
 environment

Bus service is being reduced.
 too dangerous to cross the street
 More people might get out and bike
 Because there are a lot of people that bike in the city and the numbers would grow if there were better facilities for us.
 So cyclists can safely ride in the city
 So that more oriole would use them
 Reduce # of auto and greater public health
 so People can stop taking their cars everywhere!
 Reduced fear of dying under an SUV
 cyclists are being hit by cars
 Safety
 Cars are expensive, polluting, and slow in the city
 Many Worcester residents less-experienced at cycling need them for safety/confidence.
 encourage more potential and hesitant cyclists to ride on the roads, facilities and signs that signal that they BELONG on our roads, to reduce carbon footprint, to increase health, reduce congestion and change car culture.
 More people riding & walking - lower collective carbon footprint
 promote environment & health & reduce car traffic
 so motorists recognize bikes belong on the streets
 Get more people to bike commute!
 Better connection between North Worcester and the rest of the city
 To encourage more people to use alternate transportation
 reduce traffic congestion
 Small community with centrally located shopping centers which could be biked to if the infrastructure was built.
 To encourage people to bike to work
 safety
 Tourism, health
 Livability
 Safety
 Safety
 Health
 Reduce traffic congestion
 Will improve the overall health of the population
 Safety, overall health, socializing and better for the environment.
 better for health for both people and the environment
 Safety
 Reduce car travel
 Quality of living in a great wilderness area
 Enabling safe cycling
 Too much auto traffic
 Health
 safety
 Prevent needless injuries and deaths from distracted drivers who aren't punished for consequences.
 Increased general health of population
 Community connections, real estate values
 Low Income people depend on walking, biking

People won't walk unless they see lots of other people doing it and having fun and there's nothing appealing about picking your way along the roads shoulder

Roads too dangerous to ride on for non-expert riders.

Better access to downtown for bicyclists to diversify commuting options

So more people bike

So more people are able to bike and not scared of vehicle traffic

Encourage health and local shops.

Having more people on the street bicycling or walking will improve local economy and make for better property values.

To enable more people to ride and walk. Streets are too dangerous to bike; a large number of protected bike lanes solves this problem.

healthier

It makes for a friendlier environment. People SEE each other. Interact with each other and with the environment around them.

Provide greater freedom of movement for people unable or unwilling to take on the burden of motor vehicle ownership.

Safety

Give people realistic, fun ways to get out of the car

Congestion and beautification

Climate change

Increased safety and better access for those without cars.

Sidewalks are a safer connection to town for health benefits.

safety!!

Worcester is a relatively dense urban area that could facilitate easy bike access.

Safety

Cars cannot see around tree branches on corner okay and Adams and usually ZIP down Adams Street.

Repainted lines in crosswalk have not deterred speeding drivers!

I think they should be removed as they are useless for where they are located. Having a bike/ walking path across the street from senior living facility with no safety guards or crosswalks is just plain dumb.

To promote wellness

Reduce traffic

good for environment and health

Safety & health

Exercise/environmentally friendly

Large population needs

So that families can bike to and from school, to run errands, or to enjoy recreational biking.

Some more people can safely walk and ride

Safety and health

Westboro deans't offer any child friendly trails and town roads are too busy

Alternative Modes should be part of the network.

Improve connectivity of North Worcester with rest of the city

Attract millennials and new business to town

Reduce traffic jams and pollution from gas/diesel engines.

Safety

Public transportation sucks

Transportation choice (also recreation)

Nearby school and local medical facility

Safety

Ease congestion

Reduce traffic

Safety for cars and riders

Latent demand. People drive to Elm Park to bike with their kids, then pack it in the car to drive back home.

For a healthier community.

get some cars off the road

They currently don't exist

Walking is simple exercise

Recreation

They are non-existent

Reduce congestion, create a cohesive community, provide connection to mass transit and schools too much traffic

Better health for those who ride or walk

Ease congestion

Safety for bicyclists

reduce reliance on autos

SAFETY

safety

To encourage more walking/biking

Better for the environment

Reduce vehicle use.

Tells motorists we belong on the road, and might encourage some more people to bicycle. Motorists might give more respect to us.

Question 19

What is your gender?

Answer Choices	Responses	
Female	47.50%	57
Male	52.50%	63
Answered		120
Skipped		4

*Question 20***What is your age?**

Answer Choices	Responses	
18 or younger	0.00%	0
19-25	3.28%	4
26-35	30.33%	37
36-45	21.31%	26
46-60	31.15%	38
61-75	13.93%	17
Over 75	0.00%	0
Answered		122
Skipped		2

*Question 21***In what ZIP code is your home located? (enter 5-digit ZIP code; for example, 01604 or 01501)**

Answered 124
Skipped 0

01602	01602	01005	01581	01609
01581	01692	01602	01581	01545
01532	01606	01581	01581	01519
01612	01602	01581	01581	01536
01366	01452	01606	01581	01609
01331	01540	01604	01581	01581
01068	01772	01609	01581	01564
01605	01749	01607	01581	01602
01610	01473	01606	01581	01752
01452	01543	01609	01581	01752
01607	01602	01602	01608	01581
01608	01005	01602	01606	01520
01501	01453	01610	01606	01505
01603	01543	01610	01581	01532
01602	01740	01609	01562	01581
01505	01453	01602	01752	01581
01571	01068	01602	01602	
01609	01520	01602	01609	
01609	01536	01590	01607	
01610	01566	01606	01566	
01605	01520	01581	01432	
01453	01507	01609	01519	
01602	01504	01602	01519	
01606	01543	01610	01609	
01581	01462	01582	01536	
01609	01543	01581	01602	
01609	01543	01581	01519	

Appendix D: Resources & Guidance

AASHTO Guide for the Development of Bicycle Facilities:

<https://store.transportation.org/Item/CollectionDetail?ID=116>

APBP Bicycle Parking Guidelines:

<https://www.apbp.org/page/publications>

FHWA Achieving Multimodal Networks: Applying Design Flexibility and Reducing Conflicts:

https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/multimodal_networks/

FHWA Interim Approvals:

https://mutcd.fhwa.dot.gov/res-interim_approvals.htm

FHWA Manual on Uniform Traffic Control Devices:

<https://mutcd.fhwa.dot.gov/>

FHWA Small Town and Rural Multimodal Networks:

https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/small_towns/

MassDOT Separated Bike Lane Planning & Design Guide:

<https://www.mass.gov/lists/separated-bike-lane-planning-design-guide>

MassDOT Project Development & Design Guide:

<https://www.mass.gov/lists/design-guides-and-manuals>

NACTO Urban Bikeway Design Guide:

<https://nacto.org/publication/urban-bikeway-design-guide/>

FHWA Bicycle Facilities and the Manual on Uniform Traffic Control Devices:

https://www.fhwa.dot.gov/environment/bicycle_pedestrian/guidance/mutcd/

Appendix E: List of Figures & Images

Figure/Table #	Title	Source
Table 1	Mobility 2040 Goals	Mobility 2040 LRTP - CMRPC
Table 2	CMMPO Regional Bicycle Plan Goals	CMMPO Regional Bicycle Plan
Figure 1	Main Physical Benefits of Cycling	https://www.health.harvard.edu/staying-healthy/the-top-5-benefits-of-cycling
Figure 2	Trip Data	Smart Growth America & CMMPO Bike/Ped Survey Results
Table 3	Problem Locations	CMMPO Regional Bicycle Plan
Table 4	Problem Corridors	CMMPO Regional Bicycle Plan
Table 5	Recommended Bicycle Network Corridors - Regional Priority	CMMPO Regional Bicycle Plan
Table 6	Recommended Regional Multi-Use Corridors	CMMPO Regional Bicycle Plan
Table 7	Recommended Bicycle Network Corridors - Major Priority	CMMPO Regional Bicycle Plan
Table 8	Recommended Bicycle Network Corridors - Minor Priority	CMMPO Regional Bicycle Plan

Image #	Title	Source
Image 1	Wachusett Greenways	CMRPC Photobank
Image 2	Blackstone Valley Bikeway	CMRPC Photobank
Image 3	Protected Bike Lane - Cambridge	Boston Globe
Image 4	Bikes Mean Business	Strong Towns
Image 5	End of Trip Facilities - Bike Racks	CMRPC Photobank
Image 6	Cycling & Neighborhood Interaction	Worcester Telegram & Gazette
Image 7	Share the Road Sign	MUTCD
Image 8	Sharrows	Strong Towns
Image 9	Bike Lanes	CMRPC Photobank
Image 10	Cycle Tracks	Beyond DC
Image 11	End of Trip Facilities - Racks & Lockers	CMRPC Photobank
Image 12	Interstate 290 Congestion	CMRPC Photobank
Image 13	Active Rail + Bicycle Access	railpictures.net
Image 14	Climate Change + Transportation	CMRPC Photobank
Image 15	Roadway Improvement Construction	MassDOT
Image 16	Excess Roadway Width + Options	CMRPC Photobank
Image 17	End of Trip Facilities	CMRPC Photobank
Image 18	Encouragement Activities	CMRPC Photobank
Image 19	Downtown Worcester Aerial	CMRPC Photobank
Image 20	Encouragement Activities - Southbridge	MassRIDES
Image 21	Bike Share	CMRPC Photobank