



Capital District Trails Plan

*Advancing a Vision for Connecting Communities*

# Trail Management Best Practices

January

# 2019

Case Studies in Creating Successful Community Trails

# TRAILS MANAGEMENT

## BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT

The Capital District Transportation Committee (CDTC), as the designated MPO for the Albany, Rensselaer, Saratoga and Schenectady metropolitan area, provides stewardship and vision for transportation planning throughout the Capital District. A growing component of our local transportation system includes the bicycle and pedestrian multi-use paths which our communities have been developing. These multi-use paths are an amenity which improve quality of life, offer recreational opportunities, and provide an increasingly popular alternative to driving.



To support this future vision, it is important that local communities and trail advocates have the information and tools they need to plan and organize the development of their own trails at the local level. There are numerous examples of successful trails throughout the Capital District and the larger region which can be used as case studies. It is the goal of this section to showcase some examples of these successful trails—how were they developed, what lessons were learned—so that other communities can follow their example and be better prepared for implementing their own trail efforts.

These case studies include a mix of different sponsorship/partnership types which have been used to develop and build successful trails, including arrangements between public municipalities, county and state agencies and not-for-profit groups:

- **FRIENDS OF THE RAIL TRAIL (“FORT”):**  
The Albany County Helderberg-Hudson Rail Trail
- **FARMINGTON VALLEY TRAILS COUNCIL:**  
Farmington Canal Heritage Trail and Farmington River Trail
- **SARATOGA COUNTY:** Zim Smith Trail
- **MASSACHUSETTS BAY TRANSPORTATION AUTHORITY:**  
Minuteman Bikeway Trail

A stand-alone copy of this case study guide—which also includes an Example Trail Proposal and an Example Trail Agreement—is available from the Capital District Transportation Committee as its own guide for distribution and sharing.

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**It is our hope that these examples in trail planning and organization will inspire future groups to take up the mantle of trail advocacy and use this information to begin developing successful trails of their own which will add to the growing network of the Capital District.**

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# FRIENDS OF THE RAIL TRAIL (FORT)

BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT

## THE ALBANY COUNTY HELDERBERG-HUDSON RAIL TRAIL

### Partnership: Public/Private

Albany County (Landowner)

Town of Bethlehem

Town of New Scotland

Village of Voorheesville

Mohawk Hudson Land Conservancy (Lessee)

**Supported by Mohawk-Hudson Cycling Club**



## BACKGROUND

The Albany County Helderberg-Hudson Rail Trail (HHRT) is constructed on the former bed of the Delaware and Hudson railroad, which ran from Albany, through Delmar and Slingerlands, and eventually connecting to Binghamton. This section of rail line provided passenger train service from 1863 up until the 1930's, and continued freight service up until the 1990's, after which it became dormant and the railroad tracks were eventually removed in 2004.

In 2010, Albany County purchased over nine miles of the railway corridor for approximately \$700,000—with funding equally split between Scenic Hudson and a grant from the New York State Office of Parks Recreation and Historic Preservation—for the purposes of creating the multi-use path. A year after the purchase, a collection of volunteer trail advocates formed the Friends of the Rail Trail (FORT), established as a committee of the Mohawk Hudson Land Conservancy (MHLC). This advocacy group was instrumental in organizing the effort and encouraging local

officials to move forward on the project of creating the trail that is in use today.

Due to a unique agreement between Albany County, the Town of Bethlehem and the Mohawk Land Conservancy, the conservancy was able to lease a 1.9 mile stretch of the rail corridor. This lease agreement allowed volunteers to begin clearing and cleaning up the trail route, which helped to generate local support and excitement for what was to come. The first section of the trail, which extended from Veterans Memorial Park to the Firefighters Park in Slingerlands, was opened to the public in June of 2011. To help maintain the active portions of the trail which it was leasing, the Mohawk Hudson Land Conservancy developed the "Trail Ambassador" program, which recruited volunteers who were eager to keep the trail active, safe and clean. The success of this initial strategy led to similar leases on new sections of the corridor, which eventually reached five miles in length to the Village of Voorheesville.

BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT:  
FRIENDS OF THE RAIL TRAIL (FORT)



## CURRENT STATUS

Since its official opening, approximately 9.1 miles of the trail have been successfully paved and opened to the public, extending from South Pearl Street in Albany to Voorheesville, with the last four miles being just recently completed in 2018.

They have recently completed a signage program that was funded by a grant from the Hudson River Valley Greenway. This signage program was developed as part of communication plan which sought to create a “brand identity” for the Albany County Helderberg-Hudson Rail Trail that was easily identifiable, educate the public about the history of the rail line and encourage local

support. The sign program included a new logo and trailhead identification to help welcome visitors and establish its identity.





**BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT:  
FRIENDS OF THE RAIL TRAIL (FORT)**

## **TRAIL EVENTS & ACTIVITIES**

The FORT advocacy group helps to organize and sponsor events throughout the year which boost activity and local support. Some examples of these events and supporting groups are:

- **FAIRY TALES AND FIREFLIES**  
Summer Solstice (Annual) twilight walk
- **TRAIL CLEARING WORK PARTY**
- **BIKE-TO-WORK DAY (ANNUAL)**
- **EDIBLE & MEDICINAL  
PLANTS OF THE RAIL TRAIL**
- **ART OF THE RAIL TRAIL (ART)**

This committee works to support and improve the trail by creating public works of art, enriching the lives of Rail Trail visitors and encouraging a sense of community ownership for the trail.

## **MAINTENANCE & UPKEEP**

In order to keep the trail maintained and active, Friends of the Rail Trail (FORT) developed a program of Rail Trail Ambassadors – Over 50 local volunteers, directed by a coordinator, help to monitor the trail and provide weekly reports on trail conditions and issues. The purpose of the Trail Ambassadors is to greet trail users and provide a sense of comfort and security on the trail. They also provide the eyes and ears for the management of the trail, reporting back any issues which need to be addressed. The clear list of guidelines and procedures which was developed for the Trail Ambassadors has been instrumental in giving clear direction to volunteers so that everyone knows what is expected of them. A list of their duties and responsibilities include:

- **Walk and monitor the condition of a section of trail at least once a week**
- **Meet and greet trail users**
- **Observe trail conditions and potential hazards**
- **Observe improper uses and encroachments**
- **Perform light maintenance**
- **Report trail conditions**
- **Place brochures in the holders placed at entrances to the trail**

To aid them in their volunteer effort, Trail Ambassadors were encouraged to always wear a trail vest, hat and ID tag which were provided to help readily identify them as stewards of the trail to the general public. They were also advised to carry with them a notebook and pencil, trash bag, camera/cellphone and trail brochures when on the trail. These items would allow them to help keep the trail clean and document any issues they may come across.





## BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT: FRIENDS OF THE RAIL TRAIL (FORT)

**T**rail Ambassadors are given weekly assignments to walk the trails, with staggered schedules set up to assure that people could fill in for others if they had a schedule conflict, with particular emphasis on monitoring the trail during heavy weekend peaks and just after storm events. Ambassadors are always encouraged to greet people on the trail and ask about their experience to learn about any issues and concerns people may have. Specific guidelines were provided on how to handle situations such as unleashed dogs, motor bikes/ATVs and other prohibited activity. When faced with potential confrontations, they are advised to avoid conflict but photograph or document any prohibited activity so that the police or other officials could follow up. Above all, they were reminded that they should always be friendly, acting as ambassadors to the trail, and not the “trail police”.

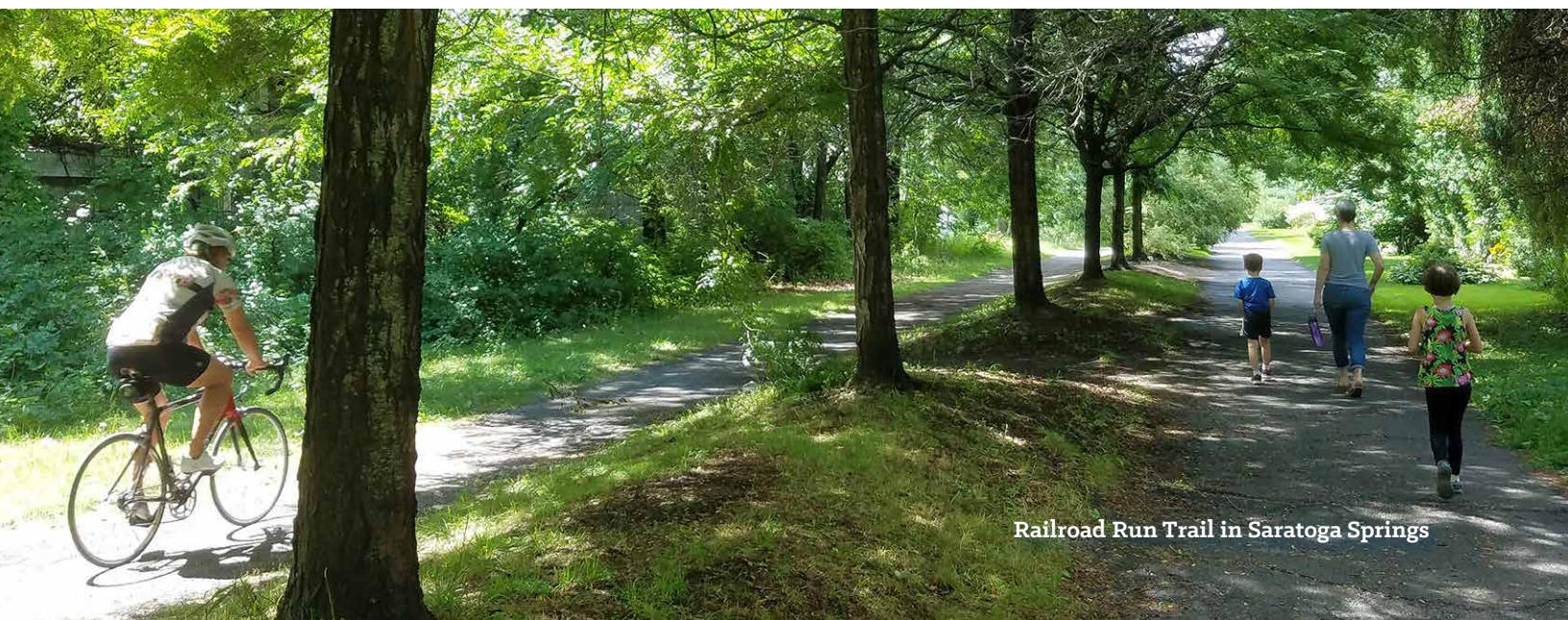
Trail ambassadors are also expected to perform some regular light maintenance, including filling in any holes which could be tripping hazards, removing fallen branches and monitoring culverts for wash-outs or blockages. After completing a trail walk, ambassadors are asked to submit an email report to the Trail Steward, even if just to say they found no issues. The Trail Steward would then identify any items which needed action, and report those directly to the appropriate people, such

as the Town, Village, Highway Superintendent, Police, County or State DOT. In order to help effectuate reporting, mile markers are planned to be installed along the trail to better identify locations for follow up.

Other maintenance had been provided by the local village or town DPW, such as mowing the grass when it could be combined with other mowing efforts nearby. In general, the grass was mowed when it reached a height of six inches or more, however springtime mowing is often delayed to allow for more wildflower growth. This maintenance arrangement has since been changed, and Albany County Department of Public Works now provides all of the trail maintenance.

Based on estimates from the Albany County Department of Public Works, the costs of equipment and labor for regular trail maintenance is roughly \$70,000 per year for the 9.5 miles of trail. This would equate to approximately \$7,300 per mile of trail per year.

In terms of more significant maintenance, it is anticipated that the asphalt pavement will need to be repaired or overlaid after about 15 years of use. The Department of Public Works estimates that the cost to overlay the 10 foot wide trail in today’s dollars would be approximately \$31,000 per mile.



Railroad Run Trail in Saratoga Springs

**BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT:  
FRIENDS OF THE RAIL TRAIL (FORT)**

**ALBANY COUNTY HELDERBERG-HUDSON RAIL TRAIL  
COMMON TRAIL MAINTENANCE COSTS**

EQUIPMENT COST	COST/HOUR	HOURS/DAY	DAYS/WEEK	WEEKS/YEAR	TOTAL EQUIPMENT COST/YEAR
Mower	\$20	6	2	32	\$7,680
Weed Wacker	\$1.65	6	3	32	\$950
Plow Truck	\$40	1	1	20	\$800

**SUBTOTAL:**

**\$9,430 PER YEAR EQUIPMENT COSTS**

LABOR COST	COST/HOUR	HOURS/DAY	DAYS/WEEK	WEEKS/YEAR	TOTAL EQUIPMENT COST/YEAR
Mowing	3 @\$20/hr	6	2	32	\$23,040
Weed Wacking	3 @\$20/hr	6	3	32	\$34,560
Inspection	1 @\$20/hr	1	5	32	\$3,200
Plowing	1 @\$20/hr	1	1	30	\$400

**SUBTOTAL:**

**\$61,200 PER YEAR LABOR COSTS**

**TOTAL:**

**\$70,630 PER YEAR TOTAL EQUIPMENT AND LABOR COSTS**

*Source: Albany County Department of Public Works*

## LONG-TERM GOALS

Building upon the previous successes, the remaining 4 miles of unpaved surface were recently paved in 2018, connecting Slingerlands to the Village of Voorheesville. Additional improvements are also planned, such as trailhead information kiosks, benches, signage, beautification improvements and the creation of the adjacent Captain Joseph Hilton Town Park in New Scotland. Adjacent property near the trail has been purchased by the county, with plans to repurpose some of the area to provide additional amenities, such as bathrooms.

The eventual long-term plan for this trail is to connect it from its eastern terminus at South Pearl Street to the Corning Preserve in Albany, where it can link into the Mohawk-Hudson Hike-Bike Trail. This stage would allow it to become an integral link of the Empire State Trail which connects Albany to Buffalo.

A planned linkage between the current trail terminus on South Pearl Street in the south end of Albany and the Corning Preserve along the Hudson River in Albany will connect the HHRT to the Mohawk Hudson Bikeway.



BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT:  
FRIENDS OF THE RAIL TRAIL (FORT)

## PROJECT SUCCESSES & KEY TAKEAWAYS

- A key to the success of this trail program was having a dedicated leadership. The stewardship of the Trail Ambassadors program, which had developed very clear guidelines to assist volunteers in what they needed to know and do, greatly helped to advance their goals.
- Successful trail projects like this often start with an advocate at either the grass-roots level (working its way up) or at the highest government level (working its way down). When the HHRT project started, it started as a grass-roots movement that worked its way up. Either way it is done, the overall success of a trail project requires building strong buy-in and support at all levels.
- Trail projects often suffer from start/stop pauses that can halt momentum and lose public attention. It is important to have a plan in place that will help to bridge the gaps during the inevitable pauses and help keep a feeling of momentum so that you don't lose public support.
- When the land was initially purchased by Albany County, they didn't have the money to construct the trail, and so "No Trespassing" signs had to be erected until construction money could be acquired. This caused a large delay. In order to bridge this gap and maintain some momentum, they developed a strategy of accomplishing a small interim project which would hold the interest of the public and show results. They identified a two-mile section of trail between two town parks which could easily be converted to pedestrian use. By obtaining liability insurance through the conservancy, and developing a three-way licensing agreement with the town, county and the conservancy, they were able to get the No Trespassing signs removed and volunteer labor to open up a small section of the trail and have a ribbon cutting. This interim project was seen as a great success and milestone to maintaining the public support through seeing a goal achieved.
- Once they had the initial success and ribbon cutting of the interim project, they found it was easier to get the same partnerships together for the next section of trail between the Town of New Scotland and the Village of Voorheesville.
- Each successful segment of the trail which was achieved made building support and getting approval for subsequent work that much easier.
- It is recommended that early on in the process, supporters should focus on building an interested constituency and strategic partnerships.
- Always make sure to give ample credit to those who helped make the trail possible – especially policy makers and people in government who help provide crucial funding and approvals.
- When the rail line was originally abandoned, there were five separate advocacy groups who were looking to build a trail. To consolidate efforts, the five groups were consolidated into a central committee of the Mohawk Hudson Land Conservancy.



**BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT:  
FRIENDS OF THE RAIL TRAIL (FORT)**

## **PROJECT SUCCESSES & KEY TAKEAWAYS**

(CONTINUED)

- In order to help maintain momentum, they chose projects which were commensurate with their available resources by picking “low hanging fruit,” making sure there was a role for volunteers, and making sure their work had high visibility.
- It is important to always be doing something, always keep going, and develop programs that will keep people involved and create a sense of ownership. The Trail Ambassador program was essential in this regard.
- Availability of food and drink along the trail corridor are in high demand, as are public restrooms.

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## **WHAT IS RAILBANKING?**

Albany County Rail Trail was developed through railbanking. In 1983, an amendment was established to Section 8(d) of the National Trails System Act to allow a railroad to remove all of its equipment, with the exception of bridges, tunnels and culverts, from a corridor, and turn the corridor over to any qualified private organization or public agency that has agreed to maintain it for future rail use. This allows for corridors that would otherwise be abandoned to be converted to trails in the interim to future rail. A railbanked corridor gives railroads the right to transfer all forms of ownership, including easements, to a trail group. Keeping the railroad intact is beneficial to both the railroads and trail groups – the railroad saves money in transaction costs by selling an entire corridor instead of pieces, and trail groups acquire a corridor that would otherwise be vulnerable to ownership challenges and high costs. Railroad corridors make good trail corridors because they usually connect population centers and key destinations, and are generally flat and conducive to non-motorized travel.

For more information on how to railbank, visit:

[www.railstotrails.org/buildtrails/trail-building-toolbox/acquisition/howto-railbank/](http://www.railstotrails.org/buildtrails/trail-building-toolbox/acquisition/howto-railbank/)

*Source: Rails-to-Trails Conservancy*

# FARMINGTON VALLEY TRAILS COUNCIL

BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT

## FARMINGTON CANAL HERITAGE TRAIL & FARMINGTON RIVER TRAIL

### Partnership: Intermunicipal Public

#### The Towns of:

Avon	East Granby	New Haven
Burlington	Farmington	Plainville
Canton	Granby	Simsbury
Cheshire	Hamden	Southington



## BACKGROUND

Built on the site of an abandoned railway and canalway, the Farmington Canal Heritage Trail is an 80-mile trail connecting New Haven, Connecticut to Northampton, Massachusetts. In the early 1800's the Farmington Canal was built and operated briefly before being converted into a railway in the mid 1800's. By the 1980's the railway was almost entirely abandoned and the state of Connecticut secured the right of way as part of a railbanking program. When the Intermodal Surface Transportation Efficiency Act (ISTEA) was passed in 1991, funding was available to build the trail. Six towns came together to provide a 20% cash match for federal grant funding and work on the first segment began. The Farmington Valley Trails Council (FVTC) was formed as a 501(c) 3 in 1992 to support the development of the trail.

In 1993 the first sections of the trail opened. The Connecticut Department of Energy and Environmental Protection (DEEP) built and owns the Farmington Canal Heritage Trail. Local municipalities have been responsible for the trails upkeep which the FVTC has played a role in coordinating.

The FVTC has served as an advocacy and educational group for the development of the trails and has allowed for regular coordination between trailside communities as they have advocated for the trails completion.



# BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT: FARMINGTON VALLEY TRAILS COUNCIL

## CURRENT STATUS

### THE TRAIL

The Farmington Canal Heritage Trail is almost complete. The primary gap in the 80 miles trail is located at the Town of Plainville, the other 75+ miles are completed or under construction.

There are over 35 official parking areas for The Farmington Canal Heritage Trail throughout 11 towns.

Many trailheads include informational kiosks, public restrooms, and parking spaces. Others are dirt parking lots with simple signage. The FVTC maintains a database of trailhead location and details on what types of amenities they offer.

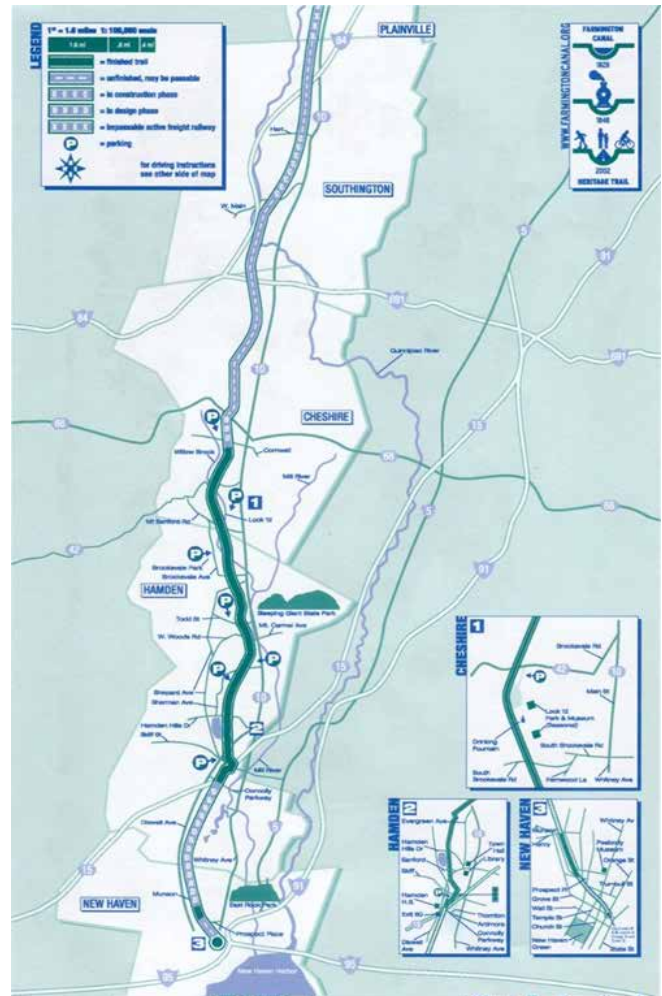
Trail usage has been rising along the trail. In 2013 the FVTC counted 262,874 total trail users and 326,050 in 2015. This number is estimated to have increased since additional portions of the trail have been completed since.

### THE FVTC

The FVTC has over 800 paying members. According to the FVTC, their spending on maintenance, construction, and amenities averaged over \$38,000 a year over a 7-year period.<sup>1</sup> None of the operational funding for the FVTC comes from municipalities.

FVTC programs include a Maintenance Matching Fund, trail etiquette signage, and commercial signage standards.

The FVTC organization includes 10 committees: Strategic Planning, Advocacy & Outreach, Volunteer, Membership, Maintenance & Enhancements, Publicity, Electronic Communications, Finance, Safety & Education and Fundraising/Corporate Liaison Committee.



FVTC maintains a website that features events, newsletters, safety updates, trail closures, and information about municipal decisions regarding the trail throughout all of the communities so that members can stay abreast of what the status of trail improvements and expansions are.

In addition to their website the FVTC maintains a Facebook page to engage a wider audience.

<sup>1</sup><http://fchtrail.org/pdfs/FVTC%202016%20Ambassador%20Package.pdf>



**BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT:  
FARMINGTON VALLEY TRAILS COUNCIL**

## **TRAIL EVENTS & ACTIVITIES**

The Farmington Canal Heritage Trail has become a vital part of the communities it passes through. Some of the events hosted by trail groups, not for profits and the FVTC include:

- **In the Town of Cheshire community groups organize events like half marathons, bike rides, 5k races and Dog Parades.**
- **The FVTC celebrates National Bike Month each May by organizing a 30-mile Fun Ride.**
- **Local “friends of” groups help coordinate annual bulb plantings, statewide trail census data collection days, long range vision information sessions, work days and spring clean ups.**
- **The New Haven Friends of the Farmington Trail work with community groups to sponsor family fitness programs on the trail including wellness walks and Zumba classes.**
- **Working with the Hamden Land Trust, Audubon Connecticut developed an “Urban Oasis” for migratory birds. This program helps establish pockets of habitat in otherwise urbanized areas. Volunteers and students learn about the importance of habitat protection and beautify the trail.**
- **FVTC runs a Trail Ambassador program, which allows trained volunteers to patrol trails for maintenance and safety issues, advocate for the FCHT, and promote trail etiquette.**
- **Trail Safety Expos are held at local community gathering spaces to educate trail users on safety and etiquette.**
- **Yale University in New Haven contributed to the completion of the final portion of the trail. Yale has since incorporated the trail into wellness programs and advertises their proximity to the trail in marketing materials.**

## **MAINTENANCE & UPKEEP**

**E**ach municipality along the FCHT is responsible for their own section of trail. The state of Connecticut owns the Farmington Canal Heritage Trail but does not maintain it. The FVTC serves as a clearinghouse for best practices and public works departments plow trailheads, maintain bathrooms and repave the trails. Volunteer groups organized by the FVTC and ‘friends of’ groups help patrol the trails, sponsor clean-up days and perform landscaping along the trails.

The FVTC helps secure grants for trail maintenance and will support municipalities pursuing grants for trail projects. FVTC helps keep municipalities informed of grant opportunities.

FVTC makes recommendations to towns on path and parking lot design and repairs.

The FVTC has a symbiotic relationship with local departments of public works. Recently the FVTC secured a grant from the outdoor company REI to purchase five bike repair stations. The FVTC worked with municipal departments of public works to install them. Similarly, the FVTC coordinates volunteer trail improvements like fundraising for pedestrian bridges, helping Eagle Scouts with projects along the trails, and coordinating with other charitable groups on trail improvements like benches, signage and gazebos.

The FVTC shares best practices amongst the member communities. Monthly meetings of the FVTC board keep community representatives in touch with current issues and opportunities along the trail.

## BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT: FARMINGTON VALLEY TRAILS COUNCIL

### LONG-TERM GOALS

In early 2018, the “Gap Closure Trail Study” was published, outlining potential routes that would close the final 4-mile gap in the FCHT through Plainville, CT. This final gap may be closed as soon as 2019.

The FCHT is part of the East Coast Greenway, a 3,000-mile trail envisioned to run from Florida to Maine. As the East Coast Greenway continues to grow, the FCHT may see an increase in users from even further distances.

As the Farmington Canal Heritage Trail nears completion, local municipalities are taking harder looks at how they can develop their own, internal bike and pedestrian networks. Some communities are working to strengthen their sidewalk networks while others are developing comprehensive bike and pedestrian plans.



### PROJECT SUCCESSES & KEY TAKEAWAYS

- The Farmington Canal Heritage Trail benefited immensely from railbanking in the 1990’s. Proactively identifying opportunities to secure large rights of way is immensely helpful for establishing a multi-use trail.
- The FVTC has helped to coordinate volunteers and local department of public works to get trail improvements done for low to no cost.
- Identifying with a larger trail network like the East Coast Greenway lends more significance to a local trail project. A local understanding of where the FCHT fits into a bigger project can help set long-term goals.
- Since the FCHT has opened, community groups have used the trail for public health and engagement activities. Many areas around the trail have benefited from community pride and more active lifestyles.
- State ownership but municipal maintenance of the FCHT has allowed for fewer long-term costs from the state.
- Volunteer groups like the FVTC are invaluable. But, the ultimate responsibility for maintaining and operating a trail is that of the municipality. Local DPWs need to be trained and have the proper equipment to maintain their trails in the same way they have specialized equipment and training to maintain their local roads.
- When first building the trail, consider the implications of material choices. For example, split rail fences are a lower cost option to install, but they will need more maintenance over the long-term.
- When planning a multi-use trail, work with the local police department to establish a presence on the trail (bike or otherwise).

**BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT:  
FARMINGTON VALLEY TRAILS COUNCIL**



## CANALWAY TRAIL AMBASSADORS

The Canalway Trails Association New York (CTANY), in collaboration with Parks & Trails New York and the New York State Canal Corporation, initiated the Canalway Trail Ambassadors to provide a presence on the Erie Canalway Trail, which includes the Mohawk-Hudson Bike-Hike Trail, and enhance the experiences of trail users. The program began in 2008 in Schenectady County as a pilot project by the Friends of the Mohawk-Hudson Bike-Hike Trail. In 2012 the program expanded to Rochester and has continued to expand in areas from Albany to Buffalo.

Trail Ambassadors assist and inform trail users on locations about locations of trailheads, restrooms, food and water sources, and other key information and services. They carry a copy of the Cycling the Erie Canal guidebook and report issues to local governments and state agencies responsible for managing the trail and NYS Canal Corporation. Ambassadors also promote trail courtesy, safety and awareness through their interaction with people on the trail. They do not enforce rules but do provide information in a friendly and positive manner. Lastly, Trail Ambassadors serve as “cheerleaders” for the Canalway Trail. They foster an appreciation of the rich history and significance the Erie Canal played in New York history, and the route that trail users now get to enjoy.

There are currently 26 ambassadors serving across the system, with an estimated 5,000 miles logged in just 2016. More information about how to get involved in the Trail Ambassador program can be found at: [www.ptny.org/get-involved/volunteer/trail-ambassadors](http://www.ptny.org/get-involved/volunteer/trail-ambassadors)

Source: Parks & Trails New York

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# SARATOGA COUNTY: THE ZIM SMITH TRAIL

BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT

## THE ZIM SMITH TRAIL

### **Partnership: Intermunicipal Public and Not-for-Profit**

Albany County (Landowner)

Town of Ballston

Town of Malta

Village of Halfmoon

Village of Round Lake

**Supported by Saratoga PLAN**



## BACKGROUND

The Zim Smith Trail is a nine-mile multi-use trail in Saratoga County. The trail's northern terminus is in the Village of Ballston Spa and the southern terminus is in the Town of Halfmoon. The trail gets its name from Zimri Smith, an outdoor recreation advocate who developed the concept for the trail in the 1980's. Saratoga County purchased most of the trail right-of-way in 1968 with the intent of using it for a sewer line.

The trail connects highly developed areas of the Capital District and is intended serve as a recreational amenity as well as a practical alternative to automotive travel.

The Saratoga County Planning Department has been instrumental in organizing property acquisition and leases as well as pursuing state and federal grant funding. The local not-for-profit Saratoga PLAN (Preserving Land and Nature) has provided technical

assistance and worked out agreements with landowners for trail easements. Saratoga PLAN organizes the Countywide Trails Committee which serves as a forum for municipalities to prioritize and coordinate trail improvements, extensions and connections.

The Zim Smith Trail has been under development since the early 2000's. In 2002 Saratoga County captured almost \$1 million in federal funding through the Transportation Equality Act for the 21st Century to begin construction of the trail. The first 6 miles were officially opened at a ribbon cutting in 2010. Since then the trail has been extended north and south as planning efforts, land acquisition and development funds become available.

In recognition of the trail's importance, the Zim Smith Trail was designated a National Recreation Trail by the U.S. Department of Interior and National Park Service in 2012.

BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT:  
SARATOGA COUNTY: THE ZIM SMITH TRAIL



## CURRENT STATUS

Since the first 6-mile section was officially opened in 2010, the Zim Smith Trail has been extended to 9 miles. Increased efforts to expand the Champlain Canal Trail (on the eastern edge of Saratoga County) and the Erie Canalway Trail (on the southern edge of Saratoga County) are providing an opportunity for the Zim Smith to serve as a major link to the statewide trail system.

An approximately 2.5 mile extension from the current northern terminus in Ballston Spa to the Saratoga Spa State Park would connect the trail with the city of Saratoga's trail system and to points further north. Portions of a railroad right-of-way have been identified as a potential route, but private ownership of other parcels along this route have caused this portion of the project to stall.

\$4.94 million has been secured to connect the trail from Coons Crossing Road in Halfmoon to the City of Mechanicville as well as to pave sections of the trail that are currently stone dust. \$2 million of this is from federal transportation funding that is matched by state and county funds, including a \$500,000 grant from the New York State Office of Parks, Recreation and Historic Preservation (OPRHP). Construction of this portion should be completed in 2018.







**BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT:  
SARATOGA COUNTY: THE ZIM SMITH TRAIL**

## **TRAIL EVENTS & ACTIVITIES**

Various groups and trailside communities host events on the Zim Smith Trail throughout the year. The trail has also proven to be an attractive place to locate some types of businesses. Some examples of these events, businesses and supporting groups are:

- **NATIONAL TRAILS DAY**  
Trailside events hosted by The Town of Malta Parks and Recreation Department.
- **THE CHARLTON SNOWMOBILE CLUB**  
Provides information about trail conditions and keeps snowmobilers up-to-date on trail closures.
- **CROSSFIT ROUND LAKE**  
Gym opened in 2015 on the Zim Smith Trail and incorporates the trail into workout regimens.
- **THE CROOKED CANES**  
A social and exercise group of retirees uses the trail on a regular basis for organized outings.

## **MAINTENANCE & UPKEEP**

In order to keep the trail maintained and active, Saratoga County budgets approximately \$3,500 for upkeep and devotes one full-time County Department of Public Works (DPW) employee. While the trail is a county initiative, support from town supervisors and local DPWs is vital to the trail's success. Diligence and creativity by the County Planning Department have enabled improvements to trailheads and the trail itself to occur at the same time as other road improvement and maintenance projects on nearby roadways. Coordination with utility transmission projects have allowed for valuable site preparation work to be done at a fraction of the cost. Most municipalities have taken responsibility for the maintenance of trailheads.

The Zim Smith Trail is not plowed during the winter as it is used for snowshoeing, snowmobiling and cross-country skiing. Snowmobile clubs have taken the initiative to provide trail maintenance support at various points along the Zim Smith Trail.



BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT:  
SARATOGA COUNTY: THE ZIM SMITH TRAIL

## LONG-TERM GOALS

The Zim Smith Trail will ultimately connect to Saratoga Springs to the north and to the Erie Canalway to the South. Once connected, the Zim Smith Trail will serve as an important link between the two statewide trails.

The county has taken a formal approach to managing and developing the trail. In 2007 the Saratoga County Board of Supervisors Economic Development Committee established the “Zim Smith Trail Use Policy Committee” to craft a series of policies to guide the development of the trail and its operation.

The Saratoga County Planning Department grants \$100,000 on a semi-annual basis to trail programs. This has incentivized local communities to take responsibility for developing connections to the Zim Smith Trail, ultimately making the regional trail network stronger.



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## PROJECT SUCCESSES & KEY TAKEAWAYS

- Long range vision has been key to the Zim Smith Trail. From Zimri Smith’s first conceptual drawings to the day to day efforts of the Saratoga County Planning Department, there has been a clear vision for the trail.
- Strong support from the Saratoga County Board of Supervisors and Planning Department has enabled the project to be developed as a regional priority. Coordination at the county level as opposed to the municipal level has ensured that all involved parties can see the ‘big picture.’
- A partnership with Saratoga PLAN, the local land trust has been crucial to engaging property owners and securing leases and easements. The technical and staff capacity that they provided in the early stages of trail development have been vital.
- Careful attention to pending development proposals and utility projects have allowed the county to help municipalities and developers reach agreements to secure trail right-of-ways.
- New businesses like CrossFit Round Lake and existing businesses like Leah’s Cakery and housing developments are incorporating their location along the Zim Smith Trail into their business plans, highlighting the trails positive contribution not only to residents’ quality of life but to the regional economy as well.



**BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT:  
SARATOGA COUNTY: THE ZIM SMITH TRAIL**



## **D.C. TRAIL RANGERS**

The Washington (D.C.) Area Bicyclists Association established a Trail Ranger program to support and encourage a growing community of trail users by putting a fresh set of eyes on D.C. area trails. The Association identified a grant funding source which enables them to pay trail rangers. The rangers cover nearly 25 miles of DC area trails from May to September, during morning and evening peak travel times and on weekends. The program gives trail users peace of mind and help when they need it. The program also encourages volunteers to pitch in throughout the spring and summer on group clean ups, lending tools and providing snacks for volunteers. Monthly coffee hours on the trail help foster a sense of community and connect trail users with the rangers.

To learn more about the D.C. Trail Ranger program, visit:  
[www.waba.org/programs/d-ctrail-ranger](http://www.waba.org/programs/d-ctrail-ranger)

Source: Washington Area Bicyclists Association

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### **CONTACT INFO:**

**SARATOGA COUNTY  
PLANNING DEPARTMENT**  
518-884-4705

**SARATOGA PLAN**  
518-587-5554

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# MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT

## MINUTEMAN BIKEWAY TRAIL - BOSTON, MA

### Massachusetts Bay Transportation Authority (Owner)

Town of Bedford (lessee)

Town of Lexington (lessee)

Town of Arlington (lessee)

Town of Cambridge (lessee)

Bedford, Lexington and Arlington Bike Committees (advocate/volunteer groups)

The trail property is owned by the Massachusetts Bay Transportation Authority, which leases the land to each of the municipalities which the trail passes through.



## BACKGROUND

The Minuteman Bikeway Trail is said to follow the route that Paul Revere famously took on his historic ride, marking the beginning of the American Revolution in 1775. This passage was later developed as a rail line by the Lexington and West Cambridge Railroad and the Middlesex Central Railroad in the mid and late 1800's. These rail lines operated successfully for over 100 years until 1977 when passenger service was discontinued, and eventually all rail service was discontinued shortly after in 1981. The trail today occupies the formerly active railroad right-of-way land.

The idea for the trail first began in 1974 due to the tireless efforts of local advocates who wanted to see this abandoned line converted into a useful resource. The current Red Line commuter subway—which terminates at Alewife Station—had been proposed to continue further north along the old rail line route, however there was much local opposition to this plan. Many homeowners and residents were not happy with the idea of the

train passing through their neighborhood every day. As an alternative, local trail advocates proposed the idea that the former rail line could be converted into a bicycle trail. Their intent was to market it as a “commuter” bicycle transportation alternative at a time when bicycles were not seriously considered as a viable method of transport. At the time, many government departments, including the local transportation authority, did not take the idea seriously and laughed at the idea of funding it.

Over time however, the movement persisted. Local trail advocates spent almost 20 years planning and lobbying for the construction of the trail. As the plans developed, and the idea of the trail began to be taken more seriously, it began to get opposition from residents abutting the rail line who feared that it would be inviting strangers into their backyards. There was fear of increased crime. The pros and cons of the trail were debated fiercely at many town meetings, with large numbers of people showing up in force to argue both sides of the issue.



## BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT: MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

By 1991, the design plans to convert the former rail line into a multi-use trail were eventually approved for construction. The Minuteman Commuter Bikeway was officially completed in 1993, and was later expanded from East Arlington to Cambridge several years later. The popularity of the new trail grew immediately. Due to its widespread success, the Rails-to-Trails Conservancy inducted the Minuteman Bikeway into The National Rail-Trail Hall of Fame in 2008. Today, it still holds its place there as 5th in the nation.

## CURRENT STATUS

This year marks the 25th anniversary of the Minuteman Bikeway. It is today considered one of the most popular and successful rail-trails in the United States, providing over 10 miles of paved multi-use path in Middlesex County just outside of the metro Boston area. The bikeway currently connects from the City of Cambridge to the north through Arlington, Lexington and into the Town of Bedford. Along this route are dozens of points of interest, including parks, picnic areas, historic sites, nature paths, hiking trails, wildlife preserves, museums, shops and restaurants and the popular Alewife bus and subway transit station. At its southern end, the bikeway connects with four other area bike paths, and at the northern end, it connects with two additional rail trails which together greatly expand the reach of the combined trail network.

Area residents use the bikeway for walking, jogging and inline skating, however bicycling remains the most popular mode of travel by far. During the winter, it was often enjoyed by cross country skiers, although today the popularity of the trail as a commuter route has grown so much that the full length of the trail is now plowed to keep it free and clear of snow and ice as much as possible. Motorized vehicles are not permitted on the trail, except for powered wheelchairs, snowplows and emergency vehicles.

### MINUTEMAN BIKEWAY COUNTS

September 19, 2015

Bicycles	2,467	72%
Pedestrians	545	16%
Joggers	307	9%
Baby Carriages	52	1.5%
Rollerbladers	51	1.5%

**TOTAL: 3,422**

The popularity of the trail can be seen in the extremely high number of users it experiences every day. A trail user study in 2015 counted more than 3,400 people passing along one point of the trail on a single Saturday, with a peak of over 400 people per hour. With an estimated 2 million users per year, it is one of the busiest rail trails in the country. The trail's growing popularity has forced them to look into widening portions of the trail in high volume areas to help accommodate the rising number of users and look for new ways to reduce bicycle and pedestrian conflicts.

The abutting property owners—who were once opposed to the construction of the trail—have now found it is an amenity. Properties for sale along the path now showcase the Minuteman Trail as a selling point feature.

**A wonderful video profiling the making of the Minuteman Trail: “Revival: The Story of the Minuteman Commuter Bikeway” can be watched on YouTube at: <https://youtu.be/gBY81vjAD2E>**

BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT:  
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY



## TRAIL EVENTS & ACTIVITIES

- There are informal “Bike-to-Work” week events which occur each year in May.
- Large events, such as foot races or charity rides, are generally not permitted on the trail due to issues of crowding, and need to get approval from the towns.
- There are a number of events planned along the trail this year as part of the 25th anniversary.



**BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT:  
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY**

## MAINTENANCE & UPKEEP

The overall trail is divided into segments which are individually managed and maintained by the respective municipalities it passes through. Overall, trail maintenance is provided through a mixture of volunteer efforts and the local Department of Public Works (DPW) offices, which is an arrangement that has evolved over time.

- Since there is no single entity which oversees the entire trail, this work is left to the three individual bike committee groups in Bedford, Lexington and Arlington.
- The three town bike Committees meet a couple times each year to review the status of the trail and identify items which need to be addressed. They have found that it

is often difficult to make decisions since each bike committee can only report to their own town officials and request assistance, but there is little assurance that their town will approve their request, or that the same decisions will be made in each town.

- In order to help lobby local officials for needed trail work, volunteer “Conservation Stewards” will often go out to help discuss important issues with town selectmen.
- During the winter months, the entire length of the trail is plowed to remove snow, but a majority of the trail does not use salt due to the proximity of many sensitive natural areas.

### MINUTEMAN BIKEWAY – TRAIL SEGMENT MAINTENANCE RESPONSIBILITY

TRAIL SEGMENT	DISTANCE	SNOW REMOVAL	LEAF/LITTER CLEANUP	MOWING	FUNDING ORGANIZATION
Bedford		DPW	DPW	DPW	DPW
Lexington	5.5 miles	Private contractor through donations	Weekly cleanup by DPW  Volunteer spring and fall cleanup events	Every 4-6 weeks by DPW  Pruning twice a year by volunteers	Lexington Bikeway Advisory Committee
Arlington	3.5 miles	DPW	Volunteer Spring cleanup with DPW assistance		Lexington Bikeway Advisory Committee
Cambridge	Although the trail technically connects slightly into Cambridge, the City of Cambridge typically has very little role in maintenance, and it is generally not considered one of the “three towns” of the trail.				



## BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT: MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

- Snow removal through the Lexington segment is paid for by donations to the Friends of Lexington Bikeways, who contract with a private snow removal company. Volunteers also help to keep things in order with Spring and Fall cleanup events. On average, it typically costs about \$4,000-\$5,000 per year to plow the 5.5 miles of trail, although in heavy winters it has cost as high as \$10,000.
- In Arlington, the Department of Public Works provides all snow removal. Other maintenance, such as litter and leaf pickup, is provided by volunteers during a Spring cleanup event where the DPW picks up bags collected by volunteers.
- Originally—to the delight of cross-country skiers—the Arlington segment of the trail was not plowed, however as more and more trail visitors began to rely it, the demand increased and eventually long-term plans were set up to keep it clear from snowstorms.
- In Bedford, the local DPW handles all regular trail maintenance, however they plan a volunteer cleanup each spring.
- Improvements along the Lexington portion of the trail are partially funded through the Friends of the Lexington Bikeways group, a 501(c)(3) non-profit organization, which helps to raise money for the trail.
- Generally speaking, safety can be an issue in areas that do not have local police on bike patrols, which can be a budget problem for most towns.
- Bikeway visitors are kept informed of trail conditions via regular posts on the Minuteman Bikeway twitter account (@bikeminman)
- A common issue in maintaining trails is dealing with root invasion. Asphalt trails built near encroaching trees often suffer damage from heaving due to the growth of tree roots underneath. This leads to complaints from many users who recognize the tree roots as creating hazardous tripping/biking conditions or barriers to accessibility. Fixing these hazards after they have occurred is often costly. The installation of root barriers is recommended to help limit the costs of future maintenance, however they must be installed properly to be effective. It is recommended that they be installed at a depth of about two feet to minimize the likelihood of trail damage.

## FUTURE PLANS

- The Minuteman Trail is expected to be extended an additional two miles along the existing rail line to the Town of Concord.
- Other related future trail connections include a proposed path from Lexington to the Battle Road Trail, and another to the Charles River Bike Path.
- Due to the popularity of the Minuteman Trail and the high volume of users it experiences, the trail has been found to be too narrow in some areas to properly handle the amount of visitors passing each other. For this reason, it has been recommended that some areas which experience the highest use need to be widened to 14 or 16 feet.



## PROJECT SUCCESSES & KEY TAKEAWAYS

- The trail would not have been possible without the grassroots organization efforts and perseverance of local trail advocates. The heavy opposition to the trail was overcome by repeated lobbying work—and in the pre-internet age before email was available—utilizing “phone-chains” to get supporters to show up for town meetings.
- It is important to determine who is going to maintain the trail and how it will be maintained before it is built. When the Minuteman Trail was constructed, the state paid for it, however the local towns did not want any responsibility for maintenance. After some time, as the trail began to deteriorate, the towns were reluctantly forced to step in and begin taking care of it. Because the trail had deteriorated, it cost much more to repair than it would have if it had been maintained normally.
- With local town ownership, there are the benefits of lots of volunteer work and pride that goes a long way in making a path more than just a path. Another benefit is that users constantly compare how maintenance and management are handled differently in each municipality. Good practices in one town are praised, acting as a role model for the other towns to aspire to and emulate.
- A downside of having the trail being managed by 3 separate entities is that it is often difficult to get the three separate municipalities to agree on the same thing. The goals, vision and priorities of each town can often be very different. This creates a disjointed effort that can make progress more difficult than it normally would be. Other trails that have a single entity in charge--such as the Cape Cod Rail Trail--have much more consistent funding and overall management.
- There are trade-offs on having the trail being managed by multiple municipalities instead of being managed by a single entity.
- It is recommended that advocates should figure out who the trail users should be in advance, and establish clear rules and etiquette that accommodate all users in a safe and fair fashion. Because the Minuteman Bikeway was originally established as a “commuter bikeway,” its original premise was solely for efficient bicycle transportation. When it evolved into more of a multi-use path with walkers, joggers and small children, this created conflicts and some disputes over who should be on the trail.
- It is recommended that advocates properly address and clarify the legal rules for safe travel where the trail crosses public roadways. There is often confusion over who has legal right-of-way in some areas. On portions of the Minuteman Trail, the police had to order all bicycles to dismount and walk their bikes through the road crossing to prevent accidents. This has led to new signage being needed which is more “context sensitive,” allowing trail users to “yield” instead of requiring them to come to a full stop in areas where it was appropriate.

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### CONTACT INFO:

**MINUTEMANBIKEWAY.ORG**

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# PARKS & TRAILS NEW YORK:

ROAD AND TRAIL INTERSECTION SAFETY RATING  
BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT

## Road and Trail Intersection Safety Rating



**Instructions:** Use the following checklist to assess the safety of a Road and Trail Intersection. The checklist is split into three sections; add the scores from all three sections to determine the final rating. The three sections focus on the characteristics of the roadway leading up to and through the intersection (in either direction, where applicable); the characteristics of the trail leading up to and through the intersection (again, in either direction where applicable); and the characteristics of the intersection itself.

This rating system is primarily designed for intersections where a multi-use trail crosses a public road and continues in either direction. However, the rating system can also be used where a trail terminates at a roadway or continues along the roadway, or where a road has a dead-end stop.

Complete a separate checklist for each trail approach if conditions are substantially different. The final score calculated in the checklist corresponds to the Safety Rating included on Page 3.

Please consider uploading your intersection to the statewide database maintained by PTNY. You can also check the database to see how others have scored your local intersection. Guidance related to the completion of each question is included on the sheet. More information can be found online at ([ptny.org/intersection-safety](http://ptny.org/intersection-safety))

<b>Trail Name</b>	
<b>Intersecting Roadway</b>	
<b>Location (City/State/Zip)</b>	
<b>County</b>	
<b>Date</b>	
<b>Rating</b>	

v. 8.18

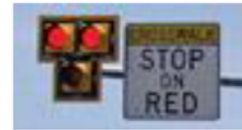
Funded by the National Highway Traffic Safety Administration with a grant from the New York State Governor's Traffic Safety Committee



# PARKS & TRAILS NEW YORK:

## ROAD AND TRAIL INTERSECTION SAFETY RATING BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT

Roadway Characteristics		Score	Guidance
1	What is the nature of the road? Neighborhood or Side Street <b>(20)</b> Secondary or Rural Road <b>(10)</b> Major Arterial <b>(0)</b>		Generally, neighborhood or side streets are unstriped, while secondary or rural roads and major arterials have full markings. Major Arterials are generally those used by more than 5,000 cars per day (AADT or Annual Average Daily Traffic), while Secondary or Rural Roads have 2,000 to 5,000 AADT, and neighborhood or side streets have fewer than 2,000 AADT.
2	What is the posted speed limit for the section of road being crossed? 30 mph or less <b>(20)</b> 31-40 mph <b>(15)</b> 41-50 mph <b>(5)</b> 55+ mph <b>(0)</b>		The speed limit posted on the nearest sign approaching the intersection. If posted speeds are not the same in both directions, use the higher of the two posted speeds.
3	How many travel lanes (including turning lanes) does the roadway have at this point? 2 lanes <b>(15)</b> 3 lanes <b>(5)</b> 4 lanes <b>(0)</b>		How many total traffic lanes would a trail user need to cross to continue the trip? One travel lane in each direction would be a 2 lane road; a 2-lane road with a turning lane would be 3 lanes, etc.
4	Do motorists have a stop or yield sign, traffic signal, or Pedestrian Hybrid Beacon at the intersection? Pedestrian Hybrid Beacon or Traffic Signal with phase for trail crossing <b>(10)</b> Stop Sign on Road <b>(7)</b> Yield Sign on Road <b>(5)</b> Traffic Signal, but no trail crossing phase <b>(2)</b> No traffic sign or signal at intersection <b>(0)</b>		Are motorists required to slow or stop at either a sign, traffic signal, or another form of traffic control? Choose the traffic control characteristic from this list that most closely resembles that found at the intersection.  A Pedestrian Hybrid Beacon (or HAWK Signal) as is seen to the right, is activated only when a pedestrian is entering the intersection.
5	Are stop/yield lines used on road as it approaches the intersection? Yes <b>(2)</b> No <b>(0)</b>		Are lines painted on the road clearly marking where vehicular traffic should stop to allow cyclists or pedestrians to cross?
6	Are there signs alerting motorists to the upcoming trail intersection? Yes, far from the intersection <b>(4)</b> Yes, but only in one direction, or too close to the intersection <b>(2)</b> No <b>(0)</b>		The recommended distance between signs and the intersection varies based on the speed and design of the roadway, and on how much motorists are directed to slow down. Generally, 100 feet from the intersection will suffice; although additional distance is required on higher speed roads.
7	Is additional signage present or are other means used to alert motorists of trail crossing ahead? Yes <b>(2)</b> No <b>(0)</b>		Additional measures may include supplemental plaques with distance or other information, signs that notify road users who has right of way at the intersection or direct motorists to reduce speed, or flashing beacons that alert motorists to trail users crossing ahead.
8	Is traffic calming infrastructure or median islands used on the roadway? Yes, multiple kinds <b>(4)</b> Yes, one kind <b>(2)</b> No <b>(0)</b>		Traffic calming attempts to bring motor vehicle speeds closer to those of bicyclists. Traffic calming infrastructure can include (but are not limited to) speed humps/tables, curb bump outs, pinch points, or chicanes, or median Islands allowing for multi-stage crossing
9	Is on-street parking permitted near the trail crossing? Yes <b>(0)</b> No <b>(2)</b>		Per New York State law, parking is not allowed within 20 feet of a crosswalk at an intersection, or within 30 feet of a traffic light, stop or yield sign, unless explicitly permitted by posted signs or meters.
10	Is there a bicycle lane available on the roadway being crossed? Yes <b>(3)</b> No <b>(0)</b>		If the roadway is used to cyclists access the trail, motorists are likely to be more aware of the presence of cyclists and pedestrians, calming traffic.
<b>ROADWAY TOTAL SCORE</b>			Add score from Questions 1 through 10



# PARKS & TRAILS NEW YORK:

## ROAD AND TRAIL INTERSECTION SAFETY RATING BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT

Trail Characteristics		Score	Guidance
11	Are measures that prevent vehicular access (bollards, gates, signs) used properly?	Yes (2) No bollards or improperly used (0)	Bollards and/or gates that prevent vehicular access should be located no closer than 20 feet from intersection, and should permit passage without dismounting for cyclists. Bollards should be at least 3.2 feet tall and indicated with diamond-shaped pavement marking. Signs saying "No Motor Vehicles" should be easily readable.
12	Is trail paved in asphalt, concrete or other "hard" surface within 20 ft. of intersection?	Both sides paved (2) Only one side paved (1) Neither side paved (0)	Paving decreases the likelihood of exposed roots, overgrowth that infringes the travel way and other negative trail conditions, as well as allowing use of safety measures such as pavement marking and centerlines on intersection approach.
13	Are advance warning signs or pavement markings present on trail?	Yes, both signage and pavement markings (5) Yes, either signage or pavement markings (2) No (0)	Advance warning signage or pavement marking should be placed at least 50 feet from intersection. Signage includes "Stop", "Yield", and "Traffic Control Ahead" signs, among others. Pavement markings include "X ING AHEAD" in white lettering.
14	Is there a painted centerline present on intersection approach?	Yes (2) No (0)	A solid centerline (4 - 6 inches in width) is preferred within 50 feet of the intersection to indicate a no passing area. Edge lines may also be added at intersection approach.
15	Are there working lights on the trail within 75 feet of the intersection?	Yes (2) No (0)	If it is not possible to assess whether lighting is functioning, the presence of lighting within 75 feet of the intersection is sufficient.
16	Does the trail have a significant grade approaching the intersection? If so, are measures used to mitigate?	Significant grade with mitigation (2) Significant grade without mitigation (0) No grade (4)	Does the trail have a significant grade approaching the intersection (5% or greater)? If so, are measures such as a switchback, signage, and/or other interventions used to mitigate?
17	Is curb cut and ramp of equal width of trail available for crossing use?	Yes (2) No (0)	Curb cuts and ramps should be at least as wide as the trail; for high volume trails/intersections where queuing may be an issue, wider ramps should be considered.
18	Are there surface conditions, overgrowth or other trail issues that affect safety within 50 ft. of intersection?	Yes (0) No (2)	Negative conditions could include overgrowth that infringes on the travel way, exposed roots, pavement deterioration, holes, standing water, and the presence of loose rock or soil.
19	What is the distance between the trail/road intersection and the next closest road/road intersection?	More than 24 feet (4) Between 6.5 and 24 ft. (2) Less than 6.5 feet (0)	Sidepaths, or trails that travel alongside and parallel to roadways, should maintain physical distance from the parallel roadway through the crossing, to ensure that visibility is maintained for all users.
20	If the next closest intersection is less than 24 feet from the trail intersection, is there a traffic signal or signage warning motorists to the presence of the trail intersection?	Yes, traffic signal with specific signal for trail users (4) Yes, signage warning of trail (2) No (0) Next intersection more than 24 feet away (2)	Are motorists turning from a parallel road onto the road that intersects the trail made aware of the potential presence of trail users, either by means of signage or a traffic signal?
<b>TRAIL TOTAL SCORE</b>			Add score from Questions 11 through 20

# PARKS & TRAILS NEW YORK:

## ROAD AND TRAIL INTERSECTION SAFETY RATING BEST PRACTICES: CASE STUDIES IN TRAIL DEVELOPMENT

Intersection Control / Right of Way		Score	Guidance
21	At what angle does the trail cross the road?	Less than 60 degrees (0) Between 60 and 90 degrees (8) Approx. 90 degrees (12)	Midblock crossings should intersect the roadway at as close to a 90-degree angle as is possible, with 60 degrees being the minimum acceptable crossing angle.
22	What type of crossing treatment is used?	No crosswalk (0) Marked Crosswalk (3) Raised and/or High Visibility Crosswalk (6)	A marked and signed crosswalk should be used at all trail intersections. A basic crosswalk consists of two parallel lines running across the roadway; while a high visibility (also known as continental or ladder) crosswalk consists of a series of lines 12" to 24" in width and separated by gaps of 12" to 60".
23	Is it clear which user has right of way at the intersection - is the higher use travelway afforded right of way?	Yes (4) No or Unclear (0)	At unmarked or uncontrolled trail intersections, bicyclists and pedestrians are required to yield to vehicles in the roadway. At marked crosswalks, drivers are required to yield to pedestrians. Sidepaths should be given the same priority through intersections as the parallel roadway. For the purposes of this checklist, those evaluating the intersection should answer "No" only when right of way assignment is not clearly defined or assigned in error to the lower volume roadway.
24	Are crossing signals timed for use by pedestrians?	Yes (2) No or No Signal (0)	Standard crossing intervals are 3.5 feet per second for pedestrians (i.e a 35-foot wide roadway would require a 10 second pedestrian crossing phase).
25	Are crossing signal push button detectors clearly identified and located in accessible spot?	Yes (2) No or No Signal (0)	If a push button detector is used, path users of all dimensions should be able to access it without leaving the trail, including cyclists. Push buttons should be used at a height of 3.5 feet.
26	Are accessible crossing signals (audible tones or speech messages) and/or detectable warning pavers used to facilitate intersection crossing?	Yes (2) No (0)	Detectable warning pavers alert visually-impaired trail users to their location at a transition from curb to crosswalk or roadway. They are generally installed within the curb ramp. Accessible crossing tones include a variety of audible signals that transmit crossing information to users, such as announcing the time left on the crossing signal phase or loud beeping that indicates the crossing phase.
<b>INTERSECTION TOTAL SCORE</b>			Add score from Questions 21 through 26
<b>OVERALL SCORE</b>			Add Roadway Total Score, Trail Total Score, and Intersection Total Score to get overall score

TOTAL SCORE	SAFETY RATING	DESCRIPTION
<59	F	Significant safety issues present that may lead to high likelihood of motorist-trail user conflicts at intersections; candidate for engineering/planning attention
60-74	D	Safety issues present that may degrade trail user experience; candidate for engineering/planning improvements
75-84	C	Potentially serious safety issues present; candidate for safety enhancements
85-94	B	Few safety issues present; candidate for safety enhancements
95+	A	Few safety issues present; case study candidate

<b>Trail Name</b>	
<b>Intersecting Roadway</b>	
<b>Location (City/State/Zip)</b>	
<b>Date</b>	



# TRAIL RESOURCES

## RESOURCES TO HELP START YOUR TRAIL PROJECT

[Getting Started: A Guide to Planning Trails in New York State, Parks & Trails New York](#)

[Getting on Track: Working with Railroads to Build Trails in New York State, Parks & Trails New York](#)

[Railbanking and Rail-Trails: A Legacy for the Future, Rails-to-Trails Conservancy](#)

[Acquiring Rail Corridors: A How to Manual, Rails-to-Trails Conservancy](#)

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