## Trolley Line Path Scoping Study



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## EXECUTIVE SUMMARY

This report examines the feasibility of converting an abandoned electric trolley car bed in Southwestern Vermont into a 14-mile shared-use path to enhance safety and accessibility for pedestrians and cyclists traveling between Bennington, VT, Pownal, VT, and Williamstown, MA. This project is envisioned and designed primarily as a transportation and commuter corridor, but it meets additional and complementary needs for economic development, public health, and sustainability in the region. The greatest challenges to this project involve right-of-way acquisition and funding. This report concludes that the Trolley Path proposal is feasible, especially if pursued with technical support from the Vermont Agency of Transportation (VTrans), with federal transportation infrastructure funding, and with the support of local communities.

This scoping report was prepared by the Bennington County Region al Commission with the guidance of a citizen steering committee and with financial support from the VTrans Bike/Pedestrian Program

## BENEFITS

- The 14 -mile project would create a continuous 40 -mile path connecting 9 towns and villages along a major commuting corridor
- Connects to existing and planned path projects in Massachusetts and Vermont.
- Would link: North Bennington, VT; Bennington, VT; Pownal, VT; Williamstown, MA, North Adams, MA; Adams, MA; Cheshire MA; Lanesborough, MA; and Pittsfield, MA.
- Would serve as a 14-mile segment of the Western New England Greenway, an initiative to create a greenway between New York City and Montreal.
- Makes the region more attractive to visitors, families, and young people.
- Encourages physical activity in a region with a $10 \%$ rate of type-2 diabetes.
- Project would serve a broad cross-section of society as a fully ADA-compliant public facility.
- Connects many important trip generators.
- Potential to raise property values, which are reportedly higher in proximity to shared-use paths.
- Potential to reduce greenhouse gas (GHG) emissions by providing a safe, fun, and healthy alternative to driving, VT's largest source of GHG emissions.


## Challenges

- Right-of-Way: at least 44 permanent easements required
- Cost: The project would cost between $\$ 29$ and $\$ 37$ million dollars


Berkshire Hills Trolley in Bennington

## INTRODUCTION

In the early $20^{\text {th }}$ century, the Berkshire Hills Trolley Line connected a string of communities nestled in the narrow valley between the Green Mountains and TaconicMountains,operatingregularservicebetweenBennington, VT;Pownal, VT; Williamstown, MA; and North Adams, MA. The communities connected by this 18-mile route were, and are, linked economically, socially, and culturally.

These communities grew in the $18^{\text {th }}, 19^{\text {th }}$ and early $20^{\text {th }}$ centuries around farming and mills powered by the rivers that coursed through the valley. By the late $19^{\text {th }}$ century, Bennington and North Adams were manufacturing boom towns. Land-use and settlement patterns followed available transportation: walking, horses, bicycles, trains, and trolleys,


This cattle pass in Pownal allowed livestock to walk under the trolley tracks.
created a settlement pattern of lively and dense towns surrounded by bucolic farmland. Children walked to the many small schools. Mill worker lived close to the mills. By the late 1920s, the automobile took over and the communities began to spread out. The trolley tracks were torn up.

The trolley's last run was in 1927 after only 20 years of service. In the years since, trees and honeysuckle have reclaimed the trolley bed, but it remains mostly untouched by development and is largely intact.

This report assesses the feasibility of reusing the abandoned trolley bed to create a shared-use path from downtown Bennington, VT to Williamstown Massachusetts, where it would connect to a sequence of planned and existing shared-use paths. The result would be a continuous path from downtown Bennington, VT to downtown Pittsfield, MA, 40 miles to the south, giving pedestrians, cyclists, runners, commuters, local residents, and tourists of all age and abilities a safe, appealing, and physically renewing alternative to driving The beautiful landscapes, the historic towns and villages, and the cultura treasures it will pass through will make it a national attraction that will bring visitors to the area and will improve the quality of life for those living here already. It will offer a different travel experience - slower, yet more invigorating - at a pace well-suited to truly savor the beauty and culture of our region.


The $r$ at North Hoosac Rd and Cole Ave. in Williamstown


The 14-mile project would connect to other existing and planned paths to create a continuous 40-mile path connecting 9 towns and villages along a major commuting corridor. The explosive popularity of E-bikes make 20+ mile trips appealing to many more people

## STUDY AREA

The study area is a 14 -mile corridor which roughly follows the historic trolley route between downtown Bennington, VT and Williamstown MA. A connected shared-use path network is a primary project objective, and the Trolley Path should connect to shared-use paths at both ends. A ogical northern project terminus is the Walloomsac Path in downtown Bennington, southern Vermont's largest town and a major trip generator. The logical southern terminus is the planned Mohawk Bike/Ped Path, which will connect downtown Williamstown, MA, to North Adams, MA and communities to the south via the Ashuwillticook Rail Trail.


The Trolley Line Path would connect to the popular Ashuwillticook Rail Trail via new path projects planned in Massachusetts.


Mass MoCA is one of the many destinations Vermonters could cycle to on the new path network. The planned Ashuwillticook Rail Trail extension will go through the Mass MoCA complex - one of the largest centers for contemporary and performing arts in the US.

## Connecting Shared-use Paths

## Direct Connections

- Walloomsac Path: An existing shared-use path in downtown Bennington that will connect to the planned Bennington Rail Trail and the planned Benmont Ave. Active Transportation Corridor.
- Mohawk Bike/Ped Path © North Adams Adventure Trail: Combined, the two projects will create a continuous shared-use path between Williamstown, MA and North Adams, MA, where it will connect to the Ashuwillticook Rail Trail.


## Network Connections

- Ashuwillticook Rail Trail: An existing path between Adams, MA and Cheshire, MA. Connection planned to North Adams, MA. A southern extension is planned to downtown Pittsfield, MA
- Bennington Rail Trail: A planned path in Bennington. Construction expected in 2021.
- Kocher Drive Path: A shared-use path in Bennington (constructed in 2020).
- Ninja Path: A planned shared-use path that will connect to Bennington to North Bennington and Bennington College. Construction expected 2022.
- Applegate to Willowbrook Path: A shared-use path that will connect an affordable housing complex to Bennington's path and sidewalk system. Construction expected in 2021.


## Trip Generators

## Trip Generators - Direct Connection

- Downtown Bennington and residential neighborhoods
- Williamstown: (residential neighborhoods and businesses)
- Pownal Center (residences, schools, businesses, Town Office)

Pownal (residences, businesses, library)

- Williams College
- Bennington Recreation Park

Hoosic River access

## Trip Generators - Indirect Connection

- Southwestern Vermont Medical Center (Bennington County's largest employer
- Williamstown: (downtown business district)
- The Clark Art Institute (internationally renowned art museum)


## Network Connection

- Bennington College
- Massachusetts College of Liberal Arts
- Mass MoCA (one of the US's largest contemporary art museums)
- Downtown North Adams and residential neighborhoods
- North Bennington


## Towns the fully built path network will connect

- North Bennington (population 1,613 )
- Bennington $(15,764)$
- Pownal $(3,420)$
- Williamstown $(7,754)$
- North Adams (12,904)
- Cheshire (3,144)
- Lanesboro $(2,965)$
- Pittsfield $(42,533)$

Total Population connected by path network $=90,097$

## PROJECT <br> JUSTIFICATION

## Purpose

The project's purpose is to create a safe and appealing active transportation route from downtown Bennington, Vermont, through two village centers of Pownal, Vermont, to the planned Mohawk Bike/Ped Path in Williamstown, Massachusetts. The route is designed to appeal to many different types of path users and connect to important origins and destinations efficiently and safely.

## Need

Safety
There is no safe and direct active transportation route for pedestrians and cyclists between downtown Bennington, VT, Pownal Center, Pownal South, and the planned Mohawk Bike/Ped Path in Williamstown, MA. The 14-mile route is a major commuting corridor, but the only direct route, ROUTE 7, is dangerous and uninviting for cyclists and pedestrians. ROUTE 7 has the following deficiencies for active transportation:

1. The road has a $50-\mathrm{mph}$ speed limit, and most traffic travels between 50 and 60 mph . A collision between a motor vehicle and cyclist or pedestrian would likely be fatal.
2. For 5.8 miles between Pownal Center and downtown Bennington, the road has narrow shoulders and is extremely dangerous for cyclists and pedestrians.
3. The road has a high volume of large truck traffic.


Between Pownal Center and downtown Bennington most of US-7 has narrow shoulders and a speed limit of 50 mph making it very dangerous bicycle on.


Route 7, between the Massachusetts border and Pownal Center, has some sections with shoulders wide enough for cyclists, but with many large trucks and most vehicles traveling 50-60 mph, it is dangerous and unappealing to bicycle on. Note the narrow shoulder between the truck and the edge of pavement.

It is clear from the presence of desire paths and sightings of pedestrians and cyclists that ROUTE 7 is currently traveled by bike and foot under these hazardous conditions, underscoring demand for a safer route along this busy corridor.

## Economic Development

In addition, the 'no build' alternative for this project carries large opportunity costs for a region in need of economic opportunity. The State of Massachu-

A 2016 study by the trail advocacy group Vermont Trails and Greenway Council estimates that just four bike trails across Vermont support 365 jobs, $\$ 9$ million in earnings, and $\$ 22.4$ million in spending in-state each year.


The Western NE Greenway would pass through Bernington County on the Trolley Line Path
setts is planning to extend the popula Ashuwillticook Rail Trail north to North Adams in the coming years. The Town of Williamstown will begin construction of a connecting path, the Mohawk Bike/ Ped Path, in 2021 to bring the Ashuwill ticook Rail Trail network further north to within 2 miles of the Vermont border. Connecting downtown Bennington's path system to the Mohawk Bike/ Ped Path would create a continuous 35mile active transportation path linking 9 towns and villages, which would gen erate great public value for both states

The Ashuwillticook Rail Trail is a region al attraction and local treasure that sees scores of pedestrians, cyclists, and snowshoers year-round. Each year many cyclists pass through Pownal and Bennington in this area to complete the Western New England Greenway route between Montreal and New York City. The Trolley Path has the potential to multiply this number of visitors to the region and to raise southwestern Vermont's profile as an outstanding place to live and work.

Several studies have attempted to quanti fy the economic impact of greenways and bike/ped activity in Vermont in recent years. A 2012 VTrans study, Economic Impact of Bicycling and Walking in Vermont, concludes that each year bike/ped infrastructure, events, and businesses generate $\$ 53.9$ million in direct econom ic benefits and $\$ 35$ million in indirect benefits to the state economy. Notably, the report found that about half of all bike/ped-related business spending was by non-residents. With more than 700,000 people living within an hour's drive, Bennington County is perfectly positioned to attract large numbers of visitors from neighboring Berkshire County, MA and Albany, NY to spend

In Vermont, 2 out of 5 adults do not get enough physical activity, which contributes to chronic diseases such as heart disease, diabetes, stroke, and dementia that cause over $40 \%$ of all deaths in the state. The DOH concludes that the treatment of chronic disease in Vermont costs $\$ 2$ billion per year.


Teenagers crossing Route 7 in Pownal. The brick building in the top photo was a power station for the trolley.
out-of-state dollars in Vermont communities. Additionally, real estate impacts are estimated to be significant, with homes in walkable areas being roughly \$6,500 higher in value than homes located in exclusively car-oriented neighborhoods. Another study from 2010 by the University of Vermont Transportation Research Center reports that an average of $\$ 45,000$ per weekend is spent by users of the lakefront section of the Island Line Trail in Burlington, VT, and A 2016 study by the trail advocacy group Vermont Trails and Greenway Council estimates that just four bike trails across Vermont support 365 jobs, $\$ 9$ million in earnings, and $\$ 22.4$ million in spending in-state each year.

## Equity and Public Health

ROUTE 7 is the major north-south commuter corridor through Bennington and Pownal. Residents of these towns rely on ROUTE 7 to reach places of employment, schools, groceries, social services, and more. Equity and health concerns arise when a population becomes dependent on motor vehicles to access these resources. For individuals and families that lack reliable access to a car, the Trolley Path alternate route along ROUTE 7 could introduce much-needed freedom and flexibility. The region's Green Mountain Express bus system is an important resource, but its schedules cannot serve all residents at the most convenient times, especially extending out into the more remote sections of the corridor. Furthermore, exclusive travel by motor vehicle correlates with a sedentary lifestyle and the bad health outcomes and costs that result from chronic inactivity.

The Vermont Department of Health (VTDOH) reported in December 2019 on the public health benefits that result from increased reliance on walking and biking for transportation. The VTDOH emphasizes that walking and biking help meet physical activity goals that are key to reducing the prevalence of chronic disease. In Vermont, 2 out of 5 adults do not get enough physical activity, which contributes to chronic diseases such as heart disease, diabetes, stroke, and dementia that cause over $40 \%$ of all deaths in the state. The VTDOH concludes that the treatment of chronic disease in Vermont costs $\$ 2$ billion per year. Meanwhile, according to VTDOH's analysis, $40 \%$ of vehicle trips in Vermont are two miles or shorter, a fact that indicates tremendous opportunity to replace those vehicle trips with walking or biking. The Trolley Path, which is routed through southern Vermont's largest town and two village centers, would in-
roduce a safe connection to the following destinations that see frequen short-distance trips: schools and daycare centers, convenience stores and shopping areas, municipal offices, recreational facilities and public open space, post offices, libraries, health clinics, and densely settled neighborhoods

## Compatiblity with Planning Efforts

The Trolley Path project exemplifies the goals of the $\mathbf{2 0 4 0}$ Vermont Long-Range Transportation Plan (2018), which outlines the State's vision for a "safe, reliable and multimodal transportation system that grows the economy, is affordable to use and operate, and serves vulnerable populations" (pES2). In addition, the Trolley Path project advances the objectives of many statewide and local planning ef forts, ranging from land use to economic development planning

## Land Use

Shared-use paths are an attractive asset to connect dense, commercial town centers with scenic stretches of rural countryside. For this and other reasons, they are highly compatible with the cluster-based settlement pattern encouraged throughout the State of Vermont. Accordingly, the Bennington County Regional Plan (2015) advocates that "towns and villages should seek opportunities to develop new bicycle and pedestrian facilities and con nect them to form networks and to provide access to existing trail network and outdoor recreational sites" (p59). The plan highlights multidimensional benefits of shared-use and bike paths in its sections on economic development, transportation, and outdoor recreation and public health. Town plans of the municipalities through which the Trolley Line Path will pass also note the role that paths play in providing a high quality of life to residents, at racting businesses and visitors, and providing efficient and scenic connec tions among community destinations and natural assets. The Bennington Town Plan (2018) highlights the northernmost portion of the trolley line in its municipal Transportation System Map (p78) and commits the town to pursuing opportunities to "ensure that adequate facilities are available" for walking and biking in the community (p67). The Pownal Town Plan (2019) supports use of the area's "extensive natural, scenic and recreation al resources to provide recreational opportunities for both Pownal resident and visitors" (p16) and underscores the town's role in developing recreation opportunities, including walking and biking trails, for its citizens (p65).

## Economic Development \& Outdoor Recreation

Dedicated pedestrian and bike facilities are widely recognized catalysts of economic activity and enhanced community well being (see report VTrans Economic Impact of Bicycling and Walking in Vermont, 2012 Consistent with these findings, construction of the Trolley Path would mark progress toward specific goals outlined in state and regional economic development plans. For example, the statewide Vermont 2020 Comprehensive Economic Development Strategy (2016) report calls for workforce development, infrastructure investments, and bolstering assets that reinforce the Vermont brand. The proposed shared-use path is consis-
ent with these goals as an investment in outdoor recreation infrastructure hat will attract visitors and residents to the region. Similarly at the regional evel, the Southern Vermont Comprehensive Economic Development Strategy (2019) identifies three development goals that emphasize infrastructure improvements to retain and attract young people and famiies, enhance quality of life, and provide abundant recreation opportunities.
$60 \%$ of survey respondents said that outdoor recreation is "essential" to their household, but that low access to recreational assets is a common barrier.

Outdoor recreation is increasingly recognized as a driving force of Vermont's ourism economy and a critical asset that draws families to settle in the state. Vermont's Statewide Comprehensive Outdoor Recreation Plan (SCORP) 2019-2023 reports that $60 \%$ of its survey respondents said that outdoor recreation is "essential" to their household, but that low access to recreational assets is a common barrier (p8). Improving access to outdoor activities that accommodate a wide range of users and ability levels, such as the proposed shared-use path would do, is essential to unlocking the region's full economic potential. To this end, in 2017 the Governor's office estabished the Vermont Outdoor Recreation Economic Collaborative (VOREC) initiative to develop and promote the state's outdoor recreation assets as drivers of economic growth and well being. This initiative has prioritized funding high-profile projects that create a unique and regional draw to Vermont. The Trolley Path fits the profile of such an investment.

## Energy \& Resilience

Non-vehicular modes of transportation like walking and biking may not at first seem viable transportation modes in the largely rural state of Vermont but the State's planning documents reveal that they are key components to achieving the State's future targets for sustainability and lower greenhouse gas emissions. In fact, the Vermont Comprehensive Energy Plan (2016) commits to doubling the 2011 baseline percentage of bicycle and pedestrian commute trips to $15.6 \%$ by year 2030 as a way to lower carbon emissions and achieve greater resilience through diversification of the transportation sector. In particular, the plan notes that rising popularity of electric-assist bicycles is likely to accelerate the use of bicycles for commuting in Vermont The Trolley Path's design requiring limited interaction with vehicle roadways addresses the principal barrier to walking and biking in Vermont: safe y concerns. The Bennington County Regional Energy Plan (2017) emphasizes that member towns should implement "safe and convenient" mprovements to encourage walking and biking (p4). The Trolley Path is an excellent example of such safe development that will help lower overall energy use and reliance on motor vehicles in the transportation sector.

## Public Health

The first strategy outlined in the State Health Improvement Plan 2019-2023, is to invest in infrastructure that creates healthy communities. The plan expounds on this policy with two action items focusing on encouraging physical activity and expanding access to transportation services. This focus underscores the fact that public investments, built infrastructure, and access to a range of mobility options shapes a person's physical and mental health.

## MA/Williamstown Planning

The Berkshire Bike Path Council of the Berkshires region of Massachusetts has been planning and building bike and pedestrian infrastructure to interconnect the region for several decades. The $\mathbf{2 0 2 0}$ Berkshire Re gional Transportation Plan developed by the Berkshire Regional Planning Commission highlights among its top recommendations the goal to complete the Berkshire Bike Path to be a "safe biking and walking spine from Vermont to Connecticut". In accordance with this long-term planning process, the Town of Williamstown, MA will begin construction of a connector called the Mohawk Bike/Ped Path in early 2021. This path will link northern Williamstown to the Ashuwillticook Rail Trail, which will, with planned extensions, connect the city of North Adams to the city of Pittsfield for an estimated 20 miles of bike and pedestrian path. Further path development is projected to link this route to the center of Williamstown, the Williams College campus, and the renowned Clark Art Museum.

To bring this path to the Vermont border, several groups have studied possible routing and developed guidance for visitors on bike. A 2012 Williams College study suggested three possible connections into Pownal and the upper Hoosic River Valley. Similarly, advocates for modern-day use of the Mohawk Trail, an ancient roadway used by Native Americans to travel between the Husdon Valley of New York and the Deerfield Valley of Massachusetts, have contemplated the safe foot and bike access consistent with historic paths between these areas. The Western New England Greenway (WNEG), a bike route linking New York City and Montreal, Canada, has marked a route along ROUTE 7 as the only access point between Massachusetts and Vermont, though users often note the high traffic levels of the corridor and WNEG recommends using side roads where they exist.

## PUBLIC

## INVOLVEMENT

This scoping study has been informed by a series of public meetings, the oversight and guidance of a project steering committee, and a letter out reach campaign to abutting property owners. It should be noted that the COVID-19 pandemic and associated state of public health emergency in the State of Vermont impacted the project's public outreach. Meetings that would otherwise have been in-person were facilitated by videoconference Due to the pervasiveness of internet-based and socially-distant communication used to conduct public business in 2020 and beyond, videoconferenc ing turned out to be highly effective for gathering public input and sharing updates on the status of the draft scoping study. Ultimately, public involvement in development of the scoping study was successful and robust despite the challenges presented during this unprecedented time. A full overview of public involvement efforts is attached to this report as an appendix

## Project Steering Committee

A steering committee formed in 2020 to provide guidance to BCRC staff on the public outreach process and on a draft of the scoping study report. The committee consists of 20 members representing the inter ests of the impacted communities of Bennington, Pownal, and William-
town. The committee held periodic meetings throughout 2020 and early 2021 to provide comments on the overall progress and direction of he scoping study, to advise on the public and property abutter outreach strategies, and to review and provide comments on the draft report.

## Public Meetings

Public meetings occurred as follows:

1. Bennington Select Board Re: Grant Application: June 5th, 2018 (link to relevant minutes)
2. Western New England Greenway Conference, Project Kick-Off: November 9, 2018
3. Local Concerns Meetings. Presentations to each Municipal Select Board and Public:
a. Pownal: July 23, 2020
b. Bennington: July 27, 2020
c. Williamstown: October 26, 2020
4. Alternatives Presentation: September 16, 2020
5. Final Presentation: January 21, 2021

Coordination and feedback sought with VTrans, Berkshire RPC, DCR, MASS DOT for a preliminary draft in November and December 2020 and again for a full draft report in January and February 2021.

## Property Owner Outreach

Following the September 2020 Alternatives Presentation, the BCRC mailed out on behalf of the Project Steering Committee a letter and survey request to all 58 properties that may be impacted by the alternate route alignments under consideration. The letter provided an overview of the Trolley Path proposal, history, purpose, and anticipated impacts. The enclosed survey inquired about general landowner sentiments regarding the project and openness to providing an access easement for the path. As of 10/22/2020, the survey response rate was $43 \%$. See section on Right-of-Way for a discussion of results from the abutter surveys.

## EXISTING <br> CONDITIONS

## Traffic Data

## Traffic Volume

On Route 7 between the Massachusetts state line and Main St./Route 9, the 2018 Average Annual Daily Traffic (AADT) ranged from 5,100 at Barber's Pond Rd. in Pownal to 7,500 at the Route US 7/Main St. intersection in Bennington. (See Appendix for VTrans 2018 AADT's for Route US 7).


The trolley tracks in Pownal in the early 20th century and the same location now (photos from $\mathcal{F o e}^{\text {Hall }}$.

## Speed Limit

The speed limit on Route 7 is 50 mph in most of the project area. There is a $40-\mathrm{mph}$ section in Pownal Center and a $45-\mathrm{MPH}$ near the Vermont/ Massachusetts border.

## Crash History

Between February 1, 2012, and February 1, 2022, there were 3 injury crashes involving pedestrians and 2 injury crashes involving cyclists on Route US 7 between Route 9 and the Massachusetts state line (VTrans Public Crash Query Tool). (See Appendix for a full list of crashes in the project area).

## High-Crash Sections Route 7:

Pownal from mile markers $0.4-0.7$, and between 6.1-6.4 Bennington from mile markers $0.012-0.312$ and $2.712-3.012$ (VTrans High Crash Location Report 2012-2016

## Historic Trolley Line

To determine the location of the Berkshire Hills Trolley Line from Bennington, VT to Williamstown, MA, BCRC referenced historic maps, analyzed GIS data and modern-day satellite imagery, and performed more than fifteen site visits to various portions of the trolley line from the fall of 2018 through the spring of 2020. Field visits to accessible areas of the trolley line revealed that many sections of the trolley bed remain impressively intact. These sections are not paved and are made from compacted soil and gravel. Some well-preserved areas have come under municipal ownership and are functioning as public trails in the Greenberg Headwaters Park and One World Conservation Center near Bennington's downtown. Other intact areas on private land are evidently maintained and

used for personal recreation. Still other tracts of the trolley line are quite overgrown, but recognizable due to the raised or depressed nature of the earth and a lack of aged trees along the surface of the trolley bed.

Other areas of the historic alignment are not visible where topography is flat and unremarkable or where the trolley bed was superseded by active road or railways. In some locations in proximity to ROUTE 7, it is clear that the trolley bed was intentionally dismantled and its foundational fill repurposed for the establishment of ROUTE 7. However, in these cases infrastructure is often present to indicate the original trolley line route. Such infrastructure includes bridge abutments along rivers and streams, cattle-passes, blasted sections of rock, and in one case an old powerhouse that provided electricity to the trolley.

Using the hybrid analysis described above, the BCRC mapped the approximate historic alignment of the trolley bed with a high degree of certainty. The historic alignment served as the primary reference for siting a new shared-use path. Of the proposed 14-mile Trolley Path, about 12 miles are within the original length of trolley line, with the two additional miles consisting of extensions to connect the Trolley Path to existing and planned paths. Of the 12 miles where the proposed Trolley Path coincides with the original trolley line more than 8.5 miles of the trolley bed, in variably disturbed and intact states, would be reused for the shared use path in the preferred alignment scenario. In the northern half of the Trolley Path's preferred alignment, the trolley bed is largely intact in the areas we have highlighted due to its remote location and low exposure to development. In more than half of the highlighted areas in the southern portion of the Trolley Path, the trolley bed has been superseded by road and railways, yet the Trolley Path often follows nearly or exactly the track of the original trolley line by running parallel to these roads and railways.

## Natural and Cultural Resources

Potential impacts to natural resources and cultural resources were assessed through a review of publicly available geographic information systems datasets, consultation of the Vermont historic preservation database, and through site visits to the project area. The table below summarizes findings of the natural and cultural resource review. For full review, see Appendix

| Natural \& Cultural Resource Constraint Summary |  |
| :--- | :--- |
| Wetlands | - 11 Class II wetland complexes intersect the immedi- <br> ate project area in VT. <br> - 4 wetland complexes in MA intersect the immediate <br> project area. |
| Surface Waters | • 19 perennial stream or river crossings occur along the <br> preferred alignment. 6 ponds are within 50 feet of the <br> project area. |
| Floodplains and <br> River Corridors | - The project area passes through FEMA mapped 100- <br> year floodplain and VT river corridors. |
| Significant Natural <br> Communities | - No significant natural communities are impacted by this <br> project. |
| Necessary Wildlife <br> Habitat and En- <br> dangered Species | • More than 10 incidences of VT rare plant/animal spe- <br> cies occur within a quarter mile of the preferred align- <br> ment. <br> - MA mapped priority habitats of rare species intersect <br> extensively with the immediate project area. |
| Hazardous Sites | • There are at least 6 hazardous sites within 100 feet <br> of the preferred alignment in VT. In addition, the path <br> would cross over a capped landfill in MA. |
| Prime Agricultural <br> Soils | •34 units of mapped prime or statewide agricultural soils <br> in VT. |
| Historic and Cul- <br> tural Resources | • Numerous historic properties exist adjacent the project <br> area and should be documented to make sure the project <br> presents no Adverse Impact and qualifies for all funding <br> sources. <br> •There is some potential for archaeological impacts from <br> this project, though the pre-disturbed nature of the trolley <br> line corridor mitigates these impacts. |

The table above covers Act 250 project review criteria. The analysis suggests that in areas where the trolley line is intact, there may be limited nove impacts to natural resources. However, where the historic trolley line no onger exists or is otherwise not viable to repurpose as a shared-use path there are significant impacts to wetlands, river corridors, and wildlife habitats.

## PATH DESIGN

## Path Target Audience

The path will provide the most public benefit, both for transportation and recreation, if it is designed to accommodate as many different kinds of users as possible, including:

- Casual, slower recreational cyclists
- Fast recreational cyclists
- Commuters/utilitarian cyclists
- Children
- E-bikes
- Bike tours (WNG)
- Pedestrians
- Runners
- Tourists/visitors exploring area
- Dog walkers
- Cross-Country Skiers


The Ashuwillticook Rail Trail is family-friendly.

## Electric Bicycles (E-bikes)

With e-bikes, bicyclists can ride more often, farther, and for more trips. Ped-al-assist e-bikes have a computer and built-in sensors that constantly measure pedaling effort. The harder the cyclist pedals, the more assist the small electric motor gives. E-bikes come in three classes: Class 1 is pedal-assist up to 20 mph (above 20 mph , pedaling is completely manual). Class-2 e-bikes have a throttle which provides a maximum assisted speed of 20 mph without any pedaling required. Class 3 is pedal-assist up to 28 mph . E-bikes dramatically expand the potential of using bicycles for transportation and are exploding in popularity. Industry analysts estimate that 130 million e-bikes will be sold worldwide between 2020 and 2023.


## E-bikes are climbing in popularity.

With e-bikes, bicyclists can ride more often and farther over steeper terain. Allowing e-bikes to use the Trolley Line Path will attract more users and will make it far more useful as a transportation facility.

Allowing e-bikes to use the Trolley Line Path will attract more users and will make it far more useful as a transportation facility

In many states, e-bikes are regulated by antiquated laws primarily aimed at combustion vehicles such as mopeds. As of 2020, the Massachusetts Department of Conservation and Recreation defines e-bikes as motorized recreational vehicles, and only allows them on trails designated for motor vehicles Vermont defines e-bikes as "motor-assisted bicycles," which are subject to the same laws as completely human-powered bicycles. Many municipalities with robust path systems such as Boulder, Colorado; Scottsdale Arizona and Boise, Idaho allow e-bikes on some or all trails. There is no evidence that pedal-assist e-bikes are more dangerous than conventional bicycles on shared-use paths. While the average speed of e-bikes is higher than conventional bicycles, conventional bicycles often have higher top speeds because e-bikes are heavy and difficult to pedal fast after the electric assist automatically turns off at 20 mph .

## Design

## Design standards

The project must conform to FHWA guidlines, and must be ADA accessible The AASHTO Guide for the Development of Bicycle Facilities is a useful resource for designing this type of facility.

## Width

Wide paths accommodate different types of path users. At a minimum, the path should be 10 feet wide to comfortably allow a cyclist to pass a pedestrian. The AASHTO Guide for the Development of Bicyde Facilities
Specifies a minimum width of 10 feet unless there are site constraints.

## Crossings

Where feasible, the path should intersect roads and driveways at 90 degrees and where there is adequate sight distance. The path must be prioritized at driveways to minimize the risk of entering and exiting vehicles crashing into path users. Bike/pedestrian underpasses should be considered where it is not safe to install a crosswalk.

## Center line

A centerline is useful for organizing traffic and reducing conflicts between path users. Path users are more likely to stay on the correct side of the path where there is a centerline.

## Path surface

There are advantages and disadvantages to paved paths and gravel paths. Many cyclists prefer paved path surfaces. Runners, pedestrians, and some cyclists may prefer gravel. Gravel requires more frequent maintenance, but pavement can be undermined by tree roots. Gravel paths are less expensive to construct (roughly $80 \%$ of the of cost of a paved path) but can be more expensive to maintain. We recommend a paved path surface where it is feasible.

## Grade

To be ADA accessible, the path's grade should not exceed 5\% (although this may not be possible everywhere). Creative use of bridges and switchbacks may be necessary to reduce steep grades.

## Path connections

The path is only useful if people can get to it. Safe and convenient connections to trip generators should be a priority.

## Path entrances

Use bollards or other obstacles to keep out ATVs and motor vehicles while allowing emergency vehicle access.


A gravel Path in Quebec.

## Amenities

- Parking at trail heads
- Frequent benches, especially at nice vistas
- Clear wayfinding signs explaining how to reach common destina-
tions
- Map kiosks
- Features which explain the trolley line's history
- Bike repair stations
- Bike parking at town and village centers


## Cost Estimate

Scoping report cost estimates are notoriously inaccurate. The complete Trolley Line Path is a big project that must go through a long project development process and many design iterations before it is constructed. At this early stage, there are many unknowns, including the final alignment and future prices for materials and construction. The inten tion of this report is not to provide a detailed cost estimate, but to calculate the likely magnitude of cost to design, permit, and construct it.

|  | VT Section | Mass Section | Total |
| :--- | ---: | ---: | ---: |
| 10' Paved Path | $\$ 27,157,211$ | $\$ 7,022,223$ | $\$ 34,179,433$ |
| 10' Gravel Path | $\$ 23,147,527$ | $\$ 6,279,555$ | $\$ 29,427,082$ |
| 12' Paved Path | $\$ 30,301,038$ | $\$ 7,783,004$ | $\$ 38,084,042$ |
| 12'Gravel Path | $\$ 25,514,543$ | $\$ 6,877,312$ | $\$ 32,391,855$ |

The cost estimate above includes engineering, permitting, right-of-way, project management, construction inspection, incidental items (includes fencing, traffic control, signs, and amenities such as benches), a $20 \%$ contingency, and a 5 -year inflation factor of $16 \%$ Detailed Cost Estimate link


## ROUTE ALTERNATIVES

Due to the large scope of the project, the study area is divided into nine sections to allow for detailed examination and discussion of alternate alignments and their impacts. Four of the nine sections have alternate alignments, while the remaining five sections have a single proposed alignment. Designation of a single alignment occurs where site conditions are uniquely advantageous on the highlighted route and/or other options are not likely to be viable. In Sections 2,4 , and 6 , the single alignment follows the historic trolley line bed In Section 1, the proposed route has minimal cost and ROW impacts and provides the best connections to downtown Bennington trip generators. In Section 8 , the vast majority of land is municipally owned and available for the path along the identified alignment.

For Sections 3, 5, 7, and 9, the alternate alignments present individual benefits and challenges. The reasoning behind selection of the preferred alignment is presented in the Discussion field for each Path Section below. The relative advantages and disadvantages of the alternates have been systematically quantified for comparison and findings are presented in Alternate Matrices in the appendix.

## Preferred Alternative

A preferred alignment was identified over the course of drafting the scoping study and affirmed through public input. The path begins at the eastern terminus of the Walloomsac Pathway in downtown Bennington and heads south through Pownal Center and Pownal South villages to connect to the planned Mohawk path in northern Williamstown, MA. A narrative tour of the route is oriented by the following landmarks:

- Bennington: from the Walloomsac Pathway in downtown, the route goes past the Energizer building on Scott St, past the Recreation Center, crosses the Main Street intersection with Beech Street, goes through the Headwaters Park, through the One World/Greenberg Reserve, to Fuller Rd;
- Pownal: the route hugs Route 7 on its eastern side and heads south along the length of Peaks Pine Rd, then through private, rural properties until it crosses Jackson Cross Rd at the Royal Pine Villa mobile home park, then past Oak Hill Children Center in Pownal Center across to Center St, past the Pownal Center Cemetery and Town Hall, down the west side of Route 7, coming out on Route 346 just south of the vacant Mack building in Pownal South, then along the rail line south to Main St, and on the west side of the rail line through the Racetrack property, then continuing along the rail line to the MA border;


Section 1: Downtown Bennington
reaching the commercial access drive to the Hoosac Water Quality District, then drops down along the northern edge of the Hoosic River, crosses under the Route 7 bridge spanning the Hoosic, and heads east across municipally-owned lands to traverse the Hoosic and connect to the planned Mohawk Path on the Williams College campus.

Overall, more than $70 \%$ of the historic trolley line would be preserved and repurposed for the Trolley Path preferred alignment scenario. The preferred alignment measures 14.02 miles in length. A majority of the path, more than 8.75 miles, would follow the historic trolley bed alignment. Another 1.75 miles is routed on existing roadways, particularly through densely settled downtown Bennington and Pownal Center's village center. The remaining 3.5 miles are sited as close as possible to the original trolley line route.

The preferred alignment experiences a total elevation change of 107 feet, starting at an elevation of 700 feet in Bennington, VT and ending at 593 feet in Williamstown, MA. The path would have a peak elevation of 986 feet in Pownal Center and a low elevation of 538 feet in Pownal South. The total project is estimated to cost upwards of $\$ 30$ million. The alignment has 20 stream and river crossings and crosses 15 public roads and commercial driveways. In
total, 44 privately-owned properties could be impacted by its development
Sections of the Trolley Path are broken down for more detailed analysis below. Each Section indicates which of any alternative alignments is the preferred alignment for that section.

## Section 1: Downtown Bennington

Connects the Walloomsac Path and downtown Bennington to the northern end of the abandoned trolley line

## Alternatives Overview

Alternative: Rec Park Path and Local Streets: Connects to the Walloomsac Path via a $300^{\prime}$ path to the Bennington Recreation Center and then on a 3 -block signed route on low traffic streets.

## Section Length in Miles

Rec Park Path and Local Streets $=0.51$ miles


Soott Street is a low-traffic and low stress street for cycling.

## Features

This section is in Bennington's densely populated town center - a collection of single and multi-family homes, retail businesses and industrial buildings. Rec Park Path and Local Streets would give path users the experience of traveling through a neighborhood with street life and pre-war buildings.

## Trip Generators:

## Direct Connections:

- Businesses on Main St.
- Downtown commercial district
- Downtown residential neighborhoods
- Bennington Recreation Center


## Indirect Connections:

- Mount Anthony Union High School (0.28 miles from path)


## Connecting Paths:

Walloomsac Path

## Grade/Elevation

Both alternatives are fairly flat. The total elevation change is approximately 33 feet.

Road Crossings
Route 9/Main St. at a signal-controlled intersection (AADT 6,600, speed limit 25 mph$)$.

## Right-of-Way Impacts

Rec Park Path and Local Streets is the only alignment proposed for this Section. One permanent easement is needed from a private property. The property is a commercial property that is currently vacant with a large parking lot that could accommodate the path. The remainder of the route is located within the ROW for the following streets: Main Street, Coolidge Avenue, Safford Street, Scott Street, and Park Street.

## Floodplain/River Corridor/Streams

The alternative is partially within the Walloomsac River's River Corridor and the FEMA A AE Zone. The alignment is on existing streets, and the short path section is outside of the River Corridor. Construction in the River


This worn path of desire show the need for a path to the Bennington Recreation Center.
Corridor would require coordination with the Agency of Natural Resources Rivers Program. Technically, the path crosses the Walloomsac River on Park Street, but the existing bridge is adequate to accommodate the path

Wetlands: Alignment does not intersect with any mapped wetlands. No impacts anticipated.

## Impervious Area

Rec Park Path and Local Streets: No increase

## Cultural Resources:

No impacts. Except for a short path section on an existing parking lot, Section 1 is a signed route on existing streets.

## Utility Impacts:

No major impacts anticipated. It is possible the location of some power poles would be adjusted.

## Estimated Project Cost:

Section 1, Rec Park Path and Local Streets $=\$ 167,464$ (10' wide path)

## Discussion

Rec Park Path and Local Streets is recommended. It is feasible and would offer users an appealing and safe route with a direct connection to the Bennington Recreation Center. It is likely the Town could construct the 305 -foot-long path across existing pavement as a locally funded project at a fraction of the above cost (which is for a federally funded project).

The No-Build alternative would not meet the project's Purpose \& Need, because it would not connect the Trolley Line Path to Bennington's path system.


Path along old trolley bed in Section 2 in the Town-owned Greenberg Headwaters Park.

## Section 2: Greenberg Headwaters Park

Main Street/Route 9 to Morgan Street via Greenberg Headwaters Park.

## Alternatives Overview (only one in this section)

- Greenberg Headwaters: Follows the historic Trolley Line from Main Street through land owned by the Town of Bennington. Most of the alignment in section 2 is now used as an unpaved public path. - No other feasible alternatives were identified for this section.


## Section Length in Miles

Alternative A $=1.07$ miles

## Land-use context

C-1 Natural Zone

## Features

The alignment traverses a park and connects to walking paths and boardwalks over wetlands. Kayak/canoe launches provide boating access to the Walloomsac River

## Trip Generators:

Direct Connections

- Greenberg Headwaters Park

Indirect Connections


Section 2: Greenberg Headwaters Park

- Residential neighborhoods to the east and west of the park.


## Connecting Paths

Greenberg Headwaters Park paths

## Elevation Change/Grade

The alignment is fairly flat with a gradual slope. Elevation at northern end of section $=732$ feet. Elevation at southern end of section $=807$ feet. Dif ference $=75$ feet
Average slope $=1.3 \%$

## Separation from Motor Vehicle Traffic

This section is completely separated from motor vehicle traffic except at one road crossing.

## Road Crossings

Morgan St. AADT not available. Speed limit $=35 \mathrm{MPH}$

## Right-of-Way Impacts

All of the land in Section 2 is owned by the Town of Bennington and open
for public recreational use
Floodplain/River Corridor/Streams Resource Map link
A perennial stream crossing occurs at Barney Brook and a river crossing occurs at the Walloomsac River. It is not clear if a new bridge will be needed at Barney Brook or if the existing Beech Streetbridge can be adapted. A new bridge across the Walloomsac River to replace the original trolley bridge is needed, which will require coordination with the Agency of Natural Resources Rivers Program The original abutments are in poor condition and may need to be replaced

Portions of Section 2 are within the River Corridor and the FEMA AE Flood Zone. Construction in the River Corridor would require co ordination with the Agency of Natural Resources Rivers Program.

## Wetlands

Portions of the proposed path Section 2 intersect extensively with mapped Class II Wetlands. Wetlands delineation, a wetlands permit, and mitigation may be required.


Old trolley bridge abutment in Section 2.

## Impervious Area

The existing trolley bed is made from compacted earth and gravel and is not paved. A new 10 -foot-wide paved path would create approximately 57,680 square feet of new paved surface, which may trigger the need for stormwater permitting.

## Cultural \& Historical Resources

The path alignment in this section is in an undeveloped area and there would be no known impacts to cultural and historical resources. It is likely that an Archaeological Resources Assessment would be required.

Utility Impacts: No major impacts anticipated. It is possible the location of some power poles would be adjusted.

## AGT 250 Permits

- 8B0567: New England Tropical Conservatory


## Cost:

Section $2=\$ 2,834,182$ ( 10 ' wide path $)$

## Discussion:

Greenberg Headwaters is feasible because all of the land is owned by the Town of Bennington and much of the alignment is already a public path. The biggest obstacle is replacing the trolley bridge over the Walloomsac.

The No-Build alternative would not meet the project Purpose \& Need, because it would not connect the Trolley Line Path to Bennington's path system.

## Segtion 3: Morgan Street to Fuller Road

This section utilizes the abandoned trolley line to connect Morgan St. to Fuller Rd.

## Alternatives Overview

- Trolley Bed - Historic
- Trolley Bed + State ROW: Follows historic trolley alignment with a small jog into state ROW to avoid impacts to private houses.
- Bennington Bypass: The route utilizes land acquired, cleared, and leveled by the State of Vermont for a new highway (the southern leg of the Bennington Bypass).


Section 2: Overgrown trolley bed.

## Section Length in Miles

- Trolley Bed $=1.32$ miles
- Trolley Bed + State ROW $=1.58$ miles
- Bennington Bypass $=1.53$ miles


## Land-use Context:

C-1 Natural

## Features

Natural environment with views of forests, mountains, streams.

## Trip Generators

Indirect Connections (via Monument Ave.)

- Southwestern Vermont Medical Center (region's largest employer)
- Bennington Monument (3 miles)
- Old First Church (2.6 miles)

We recommend creating a 0.34 mile connecting path to Monument Ave Extension to create a low-stress route to the Southwestern Vermont Medica Center and Old Bennington


Above: Section 3; below: land cleared for Bennington Bypass; top right: view of trolley bed from bypass; bottom right: public path along trolley bed at the One World Conservation Center.

## Connecting Paths:

One World Conservation Center paths

## Elevation Change

Trolley Bed - Historic and Trolley Bed + State ROW alternatives are fairly flat: a gradual climb from 752 feet at the northern end to 782 feet at the southern end for a difference of 40 feet over a distance of 6,997 feet (average slope approximately $0.57 \%$.

Bennington Bypass has a significant slope from the wetland at the base of the bypass (elevation 752 feet) to the top of the bypass (elevation 806 feet) - a steep climb of 54 feet over a distance of 250 feet for an approximate slope of $21.6 \%$.


## Separation from Motor Vehicle Traffic

Yes

## Road Crossings

The path crosses one low-volume road (Strohmaier Rd.). AADT not available. Speed limit $=35 \mathrm{mph}$.

## Right-of-Way Impacts

Most of this section is owned by the State of Vermont, which acquired land for a currently abandoned southern bypass project, and by the Town of Ben nington, which maintains and provides access to the trolley line as a public path at the OneWorld Conservation Area. The preferred alignment along the historic trolley line would impact three private properties. Impacts to private parcels could be mitigated by deviating from the optimal alignment.


In some locations, the trolley bed is at the bottom of two slopes.


## Floodplain/River Corridor/Streams

Portions of Section 3 are within the River Corridor and the FEMA AE Flood Zone. Construction in the River Corridor would require coordination with the Agency of Natural Resources Rivers Program. One stream crossing occurs at Jewett Brook, but new infrastructure is not likely needed because the path will be on-road.

## Wetlands

Portions of the proposed path Section 3 intersect extensively with mapped Class II Wetlands. Wetlands delineation, a wetlands permit, and mitigation (such as boardwalks) may be required.

## Impervious Area

The existing trolley bed is made from compacted earth and gravel and is not paved. A new 10 -foot-wide paved path would create approximately this amount of square feet of paved surface, which may trigger the need for stormwater permitting:

- Trolley Bed - Historic $=69,710 \mathrm{sf}$
- Trolley Bed + State ROW = 67,410 sf
- Bennington Bypass $=72,520 \mathrm{sf}$


## Cultural Resources

The path alignment in this section is in an undeveloped area. There would be no known impacts to cultural and historical resources. It is likely that an Archeological Resources Assessment would be required for Alternative 3-A. Alternative 3-B is on an area filled for the uncompleted Bennington Bypass.

## Utility Impacts

No major impacts anticipated. It is possible the location of some power poles would be adjusted. The alignment crosses an electric transmission line corridor, but the project would not impact it.

## Cost

Trolley Bed - Historic $=\$ 3,245,806$
Trolley Bed + State ROW $=\$ 4,035,735$
Bennington Bypass $=\$ 3,906,431$

## Discussion:

Trolley Bed - Historic has the advantage of being flatter. The Bennington Bypass alternative would require building a path that swoops down from an elevation of 800 feet to 760 feet to connect to the historic trolley bed north of Middle Pownal Road (also known as Strohmaier Road). It would also require the construction of a boardwalk approximately 640 feet long to span a wetland. The unbuilt Bennington Bypass highway project has not been formally canceled - it's still on the books. The Federal Highway Administration would have to allow the change of project scope from a highway to a shared-use path. The historic trolley bed goes near two houses, so it may be necessary to diverge from the historic alignment for a short distance to avoid impacts to the property owners.

## Segtion 4: Fuller Road to Pownal Center

This section connects Fuller Road to Pownal Center.

## Alternatives Overview

Fuller Road to Pownal Center utilizes the historic trolley alignment. No other feasible alternatives were identified for this section.


## Section Length in Miles

4.21 miles

## Land-use Context

C-1 Natural Zone, C-2 Rural Zone

## Features

Natural environment with views of forests, mountains, streams, and a large pond.

## Trip Generators:

Indirect Connections

- Residential streets east of path


## Connecting Paths

None

## Elevation Change

The elevation is 782 feet at the northern end and 960 feet at the southern end for a difference of 178 feet over 19,554 feet. The average slope is approximately $0.9 \%$

## Separation from Motor Vehicle Traffic Yes

## Road Crossings

The alignment crosses 5 roads with low traffic volumes and low speed limits. The busiest of the five, Jackson Cross Road, has a speed limit of 30 mph


## (AADT is not available).

## Right-of-Way Impacts

All of the impacted land in Section 4 is privately owned and would require getting permanent easements from twen-ty-three property owners. Four of the twenty-three properties are commercial, and the remainder are residential. A portion of the path would be on Peaks Pine Rd, a dead-end, public road providing access to residences that was developed over the trolley bed foundation. The trolley line runs through a mobile home park, which has repurposed a short tract of trolley bed for an internal access road. The path would pass within 75 feet of eleven homes, six of which are mobile homes in the mobile home park off Jackson Cross Rd. A difficulty in this section is that the trolley line passes along the property line dividing neighboring parcels. In most cases, this fact doubles the number of easements required to repurpose the trolley bed. It may be necessary to deviate from the original trolley alignment in places to avoid or minimize ROW impacts.

## Floodplain/River Corridor/Streams

There are 7 total stream crossings in Section 4, and at least four but possibly more require new, short bridges, which will require coordination with the Agency of Natural Resources Rivers Program. All original abutments are in poor condition and may need to be replaced.

Portions of Section 4 are within the River Corridor and the FEMA AE Flood Zone. Construction in the River Corridor would require coordination with the Agency of Natural Resources Rivers Program.

## Wetlands

Portions of the proposed path Section 4 intersect extensively with mapped Class II Wetlands. Wetlands delineation, a wetlands permit, and mitigation may be required.

## Impervious Area

The existing trolley bed is made from compacted earth and gravel and is not paved. A new 10 -foot-wide paved path would create approximately 176,640 square feet of new paved surface in Section 4, which may trigger the need for stormwater permitting.

## Cultural Resources

The path alignment in this section is in an undeveloped area on previous y disturbed ground and there would be no known impacts to cultural and historical resources. It is likely that an Archaeological Resources Assessment would be required

## Utility Impacts

No major impacts anticipated. It is possible the location of some power poles would be adjusted. The alignment crosses an electric transmission line corridor, but the project would not impact it.

## ACT 250 Permits

- 8B0239: Janice Bushee
- 8B0008: Marcien Roy
- 8B0239: George Corey
- 8B0457: Aram DiChicranian
- 8B0021: Oak Hill Children’s Center
- 800024: Pownal School District


## Cost

Estimated project cost for Section 4 is $\$ 10,146,586$ for a 10 -wide paved path.

## Discussion

Alternative Fuller Road to Pownal Center is recommended. No other feasible alternatives were identified for this section.

Section 5: Pownal Center to Main Street



Trolley bed in section 5
This section features a big elevation change from 980 feet in Pownal Center to 560 feet in the Hoosic River valley.

## Alternatives Overview

- Center Street © West Side of Route 7: Utilizes Center Street (a low-vol ume, low stress street, continues just west of Route 7, and then folows the historic trolley line down a large embankment at an angle to the plateau below.
- Burrington Road: Uses low-volume roads and a short path section
along Route 7 to reach the valley floor.
- Historic Trolley Bed


## Section Length in Miles

Center Street $\begin{gathered} \\ \text { West Side of Route } 7=3.35 \text { miles }\end{gathered}$
Burrington Road $=3.31$ miles
Historic Trolley Bed $=3.27$ miles

## Land-Use Context

C-1 Natural Zone, C-2 Rural Zone, C-3 Suburban Zone

## Features

Views of mountains, fields, trees, rock faces, and the Hoosic River. Center Street in Pownal Center is a historic village center.

## Trip Generators:

## Direct Connections

- Pownal Center: residences, businesses, town office
- Pownal Elementary School


Trolley bed seen from Route 7

- Oak Hill Children's Center
- Pownal residences, businesses, post office, library, churches


## Connecting Paths

Quarry Hill Path

## Elevation Change/Slope

Three alternatives have long, steady grades. The elevation at the northern end of Section 5 is 980 feet, and the southern end's elevation is 560 feet for a difference of 420 feet over approximately 17,500 feet for an average slope of about $2.4 \%$.

Center Street © West Side of Route 7 and Historic Trolley Bed descend 180 feet into the valley from Route 7 to Route 346 for about 5,500 feet for a slope of
about $3.3 \%$.
Burrington Road has the most climbing and descending. Burrington Road climbs 140 feet above Route 7 before descending to intersect with it.

## Separation from Motor Vehicle Traffic

Center Street © West Side of Route 7

- 2.748 miles of separated path and 0.6 miles of low-stress street.

Burrington Road

- 0.276 miles of separated path and 3.03 miles of low-stress street.

Historic Trolley Bed
3.275 miles of separated path

## Right-of-Way Impacts

- Preferred alignment Center Street © West Side of Route 7 requires per manent easements from eleven property owners.
- Burrington Road requires no permanent easements.
- Historic Trolley Bed requires sixteen permanent easements.


## Floodplain/River Corridor/Streams

Very minor sections of Section 5 alternatives fall within the River Corridor and the FEMA AE Flood Zone. Opting for the alternate route that passes hrough the River Corridor would require coordination with the Agency of Natural Resources Rivers Program. A total of 5 perennial stream crossings occur in Section 5. For two crossings, the path is on-road so those are not ikely to require new infrastructure. One crossing may require a small bridge or culvert, and two crossings will require large bridges, less due to the size of the streams and more due to the surrounding topography.

## Wetlands:

All three alternatives have small areas that intersect with a mapped Class II wetland. The Historic Trolley Bed alignment has the most wetland impacts. Wetlands delineation, a wetlands permit, and mitigation may be required.

## Impervious Area

A new 10 -foot-wide paved path would create approximately the following square feet of new impervious surface, which may trigger the need for stormwater permitting:

Center Street © West Side of Route $7=145,110 \mathrm{sf}$
Burrington Road $=14,590 \mathrm{sf}$


The Cattle Pass where the trolley bed comes down near Route VT346.


Two picutres taken from Lincoln Street in Pownal near Route 346. Above: possible locaction of rail-with-trail. Below: this field might be an alternative to rail-with-trail.


Historic Trolley Bed $=172,810$ sf

## Cultural Resources

The path alignment in this section is in an undeveloped area on previousy disturbed ground and there would be no known impacts to cultural and historical resources. It is likely that an Archaeological Resources Assessment would be required. Alternatives A\&C utilize Genter St. in Pownal which has historic structures, but this will be an on-street signed route and will not mpact the structures.

## Utility Impacts

No major impacts anticipated. The alignments cross 3-phase power lines at least 4 times, but the project would not impact them. It is possible the loca


This sign, originally on the trolley power house, and now in the Pownal Town Clerk's office, describes the elevation change from Pownal Center to Pownal Village in the valley below.


Center Street in Pownal runs parallel to Route 7, is a low-traffic, low-stress street and a Designated Historic District. tion of some power poles would be adjusted.

## Cost

For a 10 -wide paved path, the estimated project cost for Section 5 is: Center Street © West Side of Route $7=\$ 7,200,353$
Burrington Road $=\$ 1,356,894$
Historic Trolley Bed $=\$ 8,756,433$

## Discussion

Burrington Road is the least expensive and would not require any permanent easements, and while most of it is on low-stress streets, it would still offer path users a compelling experience. This alternative would require two bike/ped underpasses under Route 7 because the $50-\mathrm{mph}$ speed limit makes it unsafe for at-grade pedestrian crossings. A disadvantage of Burrington Road is that it has the steepest grade, a disadvantage for cycling. Center Street © West Side of Route 7 may provide the best experience for path users because most of it is fully separated path and has a gentler slope.


## Section 6: Racetrack \& Solar Farm

## Alternatives Overview

Racetrack $\wp^{\circ}$ Solar Farm is a fully separated path across a flat area that was formally used for the Green Mountain Racetrack (now abandoned).

No other feasible alternatives were identified for this section.

## Section Length in Miles

1.14 miles

## Land-Use Context:

C-2 Rural Zone

## Features

Views of mountains and racetrack ruin.

## Trip Generators:

Direct Connections

- Green Mountain Mobile Home Park


## Connecting Paths

None

## Elevation Change

The section is flat. The beginning and ending elevations are 560 feet
Separation from Motor Vehicle Traffic
The path is separate in this section.

## Road Crossings

None

## Right-of-Way Impacts

Section 6 requires permanent easements from three property owners.

## Floodplain/River Corridor/Streams

A section of the alignment is within the River Corridor, although there is existing infrastructure (solar installation) between the river and the proposed path alignment where it intersects the River Corridor. Sections of the alignment are also within the FEMA AE Flood Zone. There is one stream crossing, but due to the path's proximity to the PanAm railway, new infrastructure is likely not needed.


The abandoned Green Mountain Racetrack is visible to the right.

## Wetlands

Path Section 6 does not intersect any mapped Class I or II wetlands. Additional mapping may be necessary to confirm no impacts to wetlands.

## Impervious Area

A new 10 -foot-wide paved path in Section 6 would create approximately 60,160 square feet of new impervious surface.

## Cultural Resources

The path alignment in this section is in an undeveloped area on previous ly disturbed ground and there would be no known impacts to cultural and historical resources. It is likely that an Archaeological Resources Assessment would be required.

## Utility Impacts

No major impacts anticipated. The proposed alignment would pass close to a solar generation facility and cross 3 phase power lines at least 3 times, but the project would not impact these facilities. It is possible the location of some power poles would be adjusted.

## ACT 250 Permits

- 8B0087-1: Green Mountain Racing, Inc


## Cost

The estimated project cost for a 10 ' wide paved path in Section 6 is $\$ 2,805,604$

## Discussion

This section is fairly straight forward. A historic cemetery and solar farm limit alignment options at the southern end.


Floodplain/River Corridor/
Streams
The West of Tracks alignment passe through the River Corridor and FEMA AE Flood Zone. The embankment of the railroad tracks should limit the geographic reach of the River Corridor Permitting for this section will require careful consideration of impacts to the river in coordination with the Agency of Natural Resources Rivers Program There are two stream crossings, but due o the path's proximity to the PanAm railway, new infrastructure is likely not needed

## Wetlands:

The 3 alignments do not intersect with ny mapped Class I or II wetlands in Vermont, but the West of Tracks alignment does intersect with a mapped wetand complex once in Massachusetts. Path development will have to compl with MA DEP permitting requirements.

## Impervious Area

A new 10 -foot-wide paved path would

## Section 7: Solar Farm to Steinerfilm Property

Connects the solar farm in Pownal, VT to a point 0.3 miles south of the Massachusetts border

## Alternatives Overview

Rail with Trail: The path would run on the edge of the railroad berm, sited so it does not impede rail operations.
West of Tracks: The path would run along the midpoint or near the bottom of he rail berm on its west side
East of Tracks: The path would run at the base of the rail berm on its east side.

## Section Length in Miles

Rail with Trail $=1.25$
West of Tracks $=1.22$
East of Tracks $=1.26$

## Land-Use Context:

C-2 Rural Zone, C-3 Suburban Zone

## Features

The West of Tracks and Rail with Trail alternatives offer dramatic mountain vistas and river views. The East of Tracks alternative lacks these views because they are blocked by the rail berm.

## Trip Generators

Businesses and residences along Route 7 and residential neighborhoods east of Route 7

## Elevation Change

The north end is an elevation of 564 feet, and the southern end is 623 feet, for a change of 59 feet over a distance of 6,500 feet (average slope of less than $1 \%$ ).

## Separation from Motor Vehicle Traffic

All alternatives are separated from motor vehicle traffic

## Right-of-Way Impacts

Rail with Trail requires one permanent easement. West of Tracks requires two permanent easements. East of Tracks requires six permanent easements.
create approximately the following square feet of new impervious surface:

Rail weith Trail $=62,210 \mathrm{sf}$
West of Tracks $=64,640 \mathrm{sf}$
East of Tracks $=66,610 \mathrm{sf}$

## Cultural Resources

The path alignment in this section passes alongside existing railroad infrastructure and disturbed areas. There are no known impacts to cultural and historical resources.

## Utility Impacts

No major impact anticipated. The alignments do pass in proximity to 3-phase power lines, but should not impact those facilities. It is possible the location of some power poles would be adjusted.

## Cost

Rail with Trail: \$3,079,09
West of Tracks: $\$ 3,013,444$
East of Tracks: 3,101,154



Much of Section 8 is on Town-owned land.

Segtion 8: Steinerfilm to Route 7 Bridge
This section is from the Steinerfilm property to the Route 7 Bridge.

## Alternatives Overview

Steinerfilm to Route 7 Bridge alignment was the only alternative identified in this section. It runs just to the west side of the railroad right of way.

## Section Length in Miles

Steinerfilm to Route 7 Bridge $=0.98$ miles

## Land-use Context

C-2 Rural Zone, C-3 Suburban Zone

## Features

This section is mostly wooded.

## Trip Generators

Businesses and residences along Route 7 and residential neighborhoods east of Route 7


## Connecting Paths

Bridges Pond public access area.

## Elevation Change

The north end is an elevation of 623 feet, the southern end is 630 feet, change is 7 feet over a distance of 5,100 feet for an average slope of less than $1 \%$.

## Separation from Motor Vehicle Traffic

All alternatives are separated from motor vehicle traffic.

## Right-of-Way Impacts

Section 8 requires just one permanent easement, though access concerns at the commercial property serving some federal clients with strict security requirements may prove a challenge to negotiate.

## Floodplain/River Corridor/Streams

The entirety of Section 9 is within the FEMA AE Flood Zone. Massachusetts has no comparable regulation to that for Vermont River Corridors. Project development will have to comply with MA DEP permitting for flood hazard areas. There is one stream crossing at Broad Brook, but due to the path's proximity to the PanAm railway, new infrastructure is likely not needed

## Wetlands

The alignment intersects with 4 mapped wetland complexes. Path development will have to comply with MA DEP permitting requirements.

## Cultural Resources

The path alignment in this section passes in proximity to existing railroad infrastructure as well as through some undisturbed and riparian areas. There are no known impacts to cultural and historical resources.

## Utility Impacts

No impacts to utilities are anticipated.

## Cost

\$2,613,250

## Discussion

The Steinerflm to Route 7 Bridge alternative is feasible. With the exception of the Steinerfilm parcel, the Town of Williamstown owns all of the necessary right of way


## Segtion 9: Connection to Mohawk Bike/ Ped Path

Connects the Trolley Line Path to the Mohawk Bike/Ped Path

## Alternatives Overview

New Bridge over Hoosic River: Goes under the Route 7 Bridge and along Town owned land and crosses the Hoosic River via a new bridge to connect to the Mohawk Bike/Ped Path.
Public ROW: utilizes the exitsting Route 7 bridge and public ROW to connect at Syndicate ROW.
Cole Ave Connection: is Rail with Trail connectiong to the Mohawk Bike/Ped Path at Cole Ave.

## Section Length in Miles

New Bridge Over Hoosic River $=0.63$ miles

## Land-use Context

C-2 Rural Zone, C-3 Suburban Zone

## Features

Hoosic River views

## Trip Generators

- Williamstown: residential neighborhoods and businesses
- Williams College
- Hoosic River access
- Williamstown: downtown business district
- The Clark Art Institute (internationally renowned art museum)


## Connecting Paths

Mohawk Bike/Ped Path

## Separation from Motor Vehicle Traffic

The proposed alignment is separated from motor vehicle traffic.

## Right-of-Way Impacts

The land is owned by the Town of Williamstown.


The preferred path alignment is accross a former landfill site owned by the Town.


The Hoosic River near the proposed bridge location.

## Floodplain/River Corridor/Streams

The alignment intersects with a floodplain. Roughly 550 feet of the preferred New Bridge alignment passes through the 100 -year flood zone as it crosses the Hoosic River. There are no River Corridor regulations in MA. The preferred New Bridge alignment crosses the Hoosic River, which will require construction of a large bridge.

## Wetlands

The alignment intersects with a mapped wetland complex, including the preferred alignment. Path development will have to comply with MA DEP permitting requirements.

## Cultural Resources

The path alignment in this section passes in proximity to existing railroad infrastructure as well as disturbed landfill and riparian areas. There are no known impacts to cultural and historical resources.

## Utility Impacts

No impacts to utilities are anticipated.
Cost
Section 9 Preferred Alternative $=\$ 2,152,012$


Williams College athletic field near where the Trolley Line Path and the Mohawk Path would intersect.

## Discussion

The Williamstown Select Board voiced preference for the New Bridge over Hoosic River alternative. Evaluation Matrix link

## IMPLEMENTATION

## Ownership and Maintenance

The Trolley Line Path would serve a dual purpose - recreation and transportation. Because the path's purpose is both recreation and transportation, and because it would span multiple municipalities and two states, it is unclear what entities would own and maintain it. There are several possibilities. The path could be owned and maintained by a non-profit, or by the municipalities the path crosses through, or by the State of Vermont and the State of Massachusetts. It is noted that there is little precedent for

VTrans to develop, own and maintain paths for the purpose of non-motorized transportation, and state development and ownership is less likely for the Vermont section of the path. In Massachusetts there is more of a precedent for state development and ownership of paths. The Massachusetts Department of Conservation Recreation (DCR), develops, owns, and maintains shared-use paths across the state, including the Ashuwillticook Rail Trail, which the Trolley Line Path would link to.

Maintenance activities would include resurfacing, landscaping, picking up litter, repairing amenities (benches, signs, map kiosks, etc.), clearing drainage structures, and removing fallen trees and branches. Winter maintenance (snow plowing, salting and sanding) would be optional. The advantage of keeping the path clear of snow and ice is that it would have year-round utility as a transportation facility. The advantage of not clearing snow and ice is that the path could be used for cross-country skiing. Snowmobiles would damage a paved path but might be allowable if the surface is gravel.

In Vermont and Massachusetts, state support for comparable greenways has a solid track record of success. The 26.4-mile Missisquoi Valley Rail Trail (MVRT) in northwestern VT is owned by the State of Vermont and is maintained by VTrans and VT FPR with oversight provided by the regional Northwest Vermont Rail Trail Council. The 19.8-mile Delaware \& Hudson Trail in western VT is owned by VTrans and leased to FPR to manage with the oversight of the D\&H Trail Advisory Council and assistance from the Vermont Association of Snow Travelers (VAST). As noted previously, the 12.7-mile Ashuwillticook Rail Trail in western MA is owned by the State of Massachusetts and managed by MA DCR.

In other cases, a hybrid ownership /maintenance model among state agencies and local organizations has been effective. The hybrid ownership / maintenance model is exemplified by the Lamoille Valley Rail Trail (LVRT) in northern VT, which is owned by the State and maintained by VAST. To date, 34 miles of this 93 -mile path have been developed by VAST, and VTrans committed in the fall of 2020 to funding accelerated construction of the remainder of the path by 2022 with a mix of federal funding ( $\$ 11.3$ million) and specially allocated State funding ( $\$ 2.8$ million). For the LVRT, VAST will retain primary maintenance responsibility for the full pathway.

## Right of Way

Right of way will be a significant challenge to building the path - perhaps the most challenging part of the project. The ROW for the trolley reverted back to the property owners after the Berkshire Hills Trolley Company disbanded, and the preferred path alignment crosses 43 privately owned parcels, plus various sections of Pan Am Railway's ROW and multiple mu-
nicipally-owned parcels, which were not included in the abutter mailing.
To gauge property owner sentiment, each of a total of 57 property owners were mailed an informational letter and survey in the fall of 2020 As of $10 / 22 / 2020,24$ responded ( $42 \%$ response rate). Regarding support for the project generally, roughly $30 \%$ of respondents reported feeling positive about the project, $30 \%$ were undecided, and $40 \%$ were opposed. Of respondents, 3 properties are currently willing to grant access easements, 7 properties would possibly grant easements after receiving more information, and 14 stated they are not willing to grant easements.

A breakdown of mailed survey response by Town is:
Bennington: 8 properties contacted. 7 responded to survey. 1 respondent possibly willing to grant easement, 6 not willing.
Pownal: 47 properties contacted. 16 responded to survey. 3 willing to grant easement. 6 possibly willing. 7 not willing.
Williamstown: 2 properties contacted. 1 responded to survey. Not willing to grant easement.

The preferred alternative also has a long section in land owned by the Pan Am Railway._One track is active, and one track removed allowing space for a rail-with-trail. Dialogue has been initiated with representatives of Pan Am Railway to see if they would be amenable to easements in various areas of the project. This report will be updated with their response.

It is unlikely that all property owners along the 14 -mile alignment will grant easements for the Trolley Path. In some cases, it may be possible to detour around properties. Because the project is large and many easements are required, we recommend that a state agency such as VTrans administer the project to make use of the experience and in-house capacity the Agency has to pursue large-scale ROW acquisition.

We also recommend aquiring donated easements from willing property owners immediately, and before any more formalized project ROW phase begins, because properties change hands and the wishes of current landowners who support this project should be formalized as opportunity arises. Easements acquired before a formal ROW phase should be done in a way that meets FHWA ROW requirements so they will be deemed valid if the project receives federal funding at some point in the future.

## Traffic Management

The project will mostly be off roads and traffic management will not be a significant part of the project. The traffic management plan will be needed where the path crosses roads and highways. The traffic management plan is typically developed by the contractor.

## Project Development

## Scenario 1: Build the project in phases

Because the Trolley Line Path is a big project with some sections requiring extensive ROW acquisition, the most feasible scenario for development is to build it in phases and sections. It will be important to develop path sections hat have independent utility and that are not paths to nowhere. Possible phases are:

1. Create a safe, signed, interim, walking and cycling route befween the two project termini: downtown Bennington and the Mohawk Bike/Ped Path. The interim route could consist of a network of low-stress roads, protected bike lanes on high-stress roads, and low-cost, temporary gravel paths on municipally owned sections of he trolley line.
2. Gradually replace the on-road sections of the route with lowcost gravel paths by acquiring donated easements. Temporary, lowcost timber bridges can be used for stream crossings.
3. Replace the interim route with a paved path and permanent
bridges. This could be done in several phases as funding and ROW
become available. Sections of the path with independent utili-
ty could be developed by Towns, non-profit organizations, or by
VTrans through the VPSP2 process.

## Scenario 2: Build the complete project at once

In this scenario, the project is identified by VTrans as a single capital project through the VPSP2 process, and is designed, permitted, and constructed as a single project - like the way a new highway project is constructed. A big disadvantage of this approach is that it is slow - the ROW acquisition and the project development process for such a large project typically takes many years to complete. Another disadvantage is the high capital cost of doing the entire path as one project.

## PROJECT TIMELINE

## Scenario 1: Build the project in phases

1. Scoping Study Acceptance/Preferred Alternative Endorsement (2022)
2. Develop interim safe cycling and walking route using public ROW and private ROW from willing property owners. (2022-2027)
3. Replace sections of the interim route with sections of paved path that are high priority and that have independent utility and replace temporary timber bridges with permanent bridges (20272037).

## Scenario 2: Build the complete project at once with federal/State funds

Federally funded bike/ped projects typically take 5-7 years to build in Vermont. The large scale of this project and the high number of easements required, the project would likely take more time than a typical bike/ped project.

1. Scoping Study Acceptance/Preferred Alternative Endorsement (2022)
2. Conceptual $25 \%$ Plans
3. Public Informational Meeting
4. NEPA Documentation (CE) Approval
5. Completion of Project Definition
6. $60 \%$ Plan Development
7. Re-evaluation of CE
8. Right of Way
9. Final $85 \%$ Plan Development
10. Re-evaluation of CE
11. Contract $100 \%$ Plans
12. Formal Authorization to Proceed
13. Procurement of Construction Services
14. Construction (2032)


The Interim Ninja Path in Bennington could serve as a blueprint for a phased development of the Trolley Line Path. The interim path was created by volunteers for the public to use while the federally-funded paved project is developed. The single-track gravel path is ridable on most bicycles.


Temporary, low-cost timber bridge constructed by the Town of Bennington for the Ninja
Path. It will be replaced with a much larger steel bridge when the federally-funded project is built.

COST ESTIMATE

| Preferred Alternative - 10' paved path | Units | Unit Price | Estimated Quantity | Total Cost |
| :---: | :---: | :---: | :---: | :---: |
| Path 10 ' wide paved path. Construction \& materials | LF | \$82 | 68,358 | \$5,605,356 |
| Boardwalk | LF | \$220 | 0 | \$- |
| Design, ROW, permitting, construction inspection, incidental items* | LF | \$260 | 68,358 | \$17,773,080 |
| On street bike lanes (durable markings) | LF | \$6.61 | 0 | \$- |
| Signed bicycle route | Per mile | \$25,070 | 1.48 | \$37,092 |
| High visibility crosswalk | EA | \$2,540 | 16 | \$40,640 |
| Bike/ped underpass | EA | \$206,290 | 0 | \$ |
| Prefabricated truss bridge | EA | \$153,221 | 8 | \$1,225,768 |
| Bike/ped bridge | SF | \$150.00 | 3,000 | \$450,000 |
| Total Cost |  |  |  | \$25,131,936 |
|  |  | Contingency | 20\% | \$5,026,387 |
|  |  | 5-yearinflationfactor | 16\% | \$4,021,110 |
|  |  | Estimated Project Cost |  | \$34,179,433 |


| Preferred Alternative - 10' gravel path | Units | Unit Price | Estimated Quantity | Total Cost |
| :---: | :---: | :---: | :---: | :---: |
| Path 10' wide paved path. Construction \& materials | LF | \$72 | 68,358 | \$4,921,776 |
| Boardwalk | LF | \$220 | 0 | \$- |
| Design, ROW, permitting, construction inspection, incidental items* | LF | \$229 | 68,358 | \$15,653,982 |
| On street bike lanes (durable markings) | LF | \$6.61 | 0 | \$- |
| Signed bicycle route | Per mile | \$25,070 | 1.48 | \$37,092 |
| High visibility crosswalk | EA | \$2,540 | 16 | \$40,640 |
| Bike/ped underpass | EA | \$206,290 | 0 | \$- |
| Prefabricated truss bridge | EA | \$153,221 | 8 | \$1,225,768 |
| Bike/ped bridge | SF | \$150.00 | 3,000 | \$450,000 |
| Total Cost |  |  |  | \$22,329,258 |
|  |  | Contingency | 20\% | \$4,465,852 |
|  |  | 5-yearinflationfactor | 16\% | \$3,572,681 |
|  |  | Estimated Project Cost |  | \$30,367,791 |


| Preferred Alternative - 12' paved path | Units | Unit Price | Estimated Quantity | Total Cost |
| :---: | :---: | :---: | :---: | :---: |
| Path 10' wide paved path. Construction \& materials | LF | \$92 | 68,358 | \$6,288,936 |
| Boardwalk | LF | \$264 | 0 | \$- |
| Design, ROW, permitting, construction inspection, incidental items* | LF | \$292 | 68,358 | \$19,960,536 |
| On street bike lanes (durable markings) | LF | \$6.61 | 0 | \$- |
| Signed bicycle route | Per mile | \$25,070 | 1.48 | \$37,092 |
| High visibility crosswalk | EA | \$2,540 | 16 | \$40,640 |
| Bike/ped underpass | EA | \$206,290 | 0 | \$- |
| Prefabricated truss bridge | EA | \$153,221 | 8 | \$1,225,768 |
| Bike/ped bridge | SF | \$150.00 | 3,000 | \$450,000 |
| Total Cost |  |  |  | \$28,002,972 |
|  |  | Contingency | 20\% | \$5,600,594 |
|  |  | 5-yearinflationfactor | 16\% | \$4,480,476 |
|  |  | Estimated Project Cost |  | \$38,084,042 |


| Section 1: Downtown Bennington Rec Center \& Scott St. | Units | Unit Price | Estimated Quantity | Total Cost |
| :---: | :---: | :---: | :---: | :---: |
| Path 10'wide paved path. Construction \& materi als | LF | \$82 | 314 | \$25,748 |
| Boardwalk | LF | \$220 |  | \$- |
| Design, ROW, permitting, constructioninspection incidental items* | LF | \$260 | 314 | \$81,640 |
| On street bike lanes (durable markings) | LF | \$6.61 |  | \$- |
| Signed bicycle route | Per mile | \$25,070 | 0.45 | \$11,206 |
| High visibility crosswalk | EA | \$2,540 | 3 | \$7,620 |
| Bike/ped underpass | EA | \$206,290 |  | \$- |
| Prefabricated truss bridge | EA | \$153,221 |  | \$- |
| Bike/ped bridge | SF | \$150.00 |  | \$- |
| Total Cost |  |  |  | \$126,214 |
|  |  | Contingency | 20\% | \$25,243 |
|  |  | 5-year inflation factor | 16\% | \$20,194 |
|  |  | Estimated Project Cost |  | \$171,650 |


| Section 2: Greenberg Headwaters Park | Units | Unit Price | Estimated Quantity | Total Cost |
| :---: | :---: | :---: | :---: | :---: |
| Path 10'wide paved path. Construction \& materials | LF | \$82 | 5,638 | \$462,316 |
| Boardwalk | LF | \$220 |  | \$- |
| Design,ROW, permitting, constructioninspection, incidental items* | LF | \$260 | 5,638 | \$1,465,880 |
| On street bike lanes (durable markings) | LF | \$6.61 |  | \$- |
| Signed bicycle route | Per mile | \$25,070 |  | \$- |
| High visibility crosswalk | EA | \$2,540 | 1 | \$2,540 |
| Bike/ped underpass | EA | \$206,290 |  | \$- |
| Prefabricated truss bridge | EA | \$153,221 | 1 | \$153,221 |
| Bike/ped bridge | SF | \$150.00 |  | \$- |
| Total Cost |  |  |  | \$2,083,957 |
|  |  | Contingency | 20\% | \$416,791 |
|  |  | 5-year inflation factor | 16\% | \$333,433 |
|  |  | Estimated Project Cost |  | \$2,834,182 |


| Section 3: Morgan St. to Fuller Rd. <br> Bennington Bypass |  |  | Estimated <br> Quantity | Total Cost |
| :--- | :--- | ---: | ---: | ---: |
| Path 10' wide paved path. Construction \& materials | LF | Unit Price | $\$ 82$ | 7,298 |
| Boardwalk | LF | $\$ 598,436$ |  |  |
| Design, ROW, permitting, construction inspection, <br> incidental items | LF | $\$ 220$ | 779 | $\$ 171,380$ |
| On street bike lanes (durable markings) | LF | $\$ 260$ | 8,077 | $\$ 2,100,020$ |
| Signed bicycle route | Per mile | $\$ 6.61$ |  | $\$-1$ |
| High visibility crosswalk | EA | $\$ 25,070$ |  | $\$-1$ |
| Bike/ped underpass | EA | $\$ 2,540$ | 1 | $\$ 2,540$ |
| Prefabricated truss bridge | EA | $\$ 206,290$ |  | $\$-1$ |
| Bike/ped bridge | SF | $\$ 153,221$ |  | $\$-1$ |
| Total Cost |  | $\$ 150.00$ |  | $\$-1$ |
|  |  |  |  | $\$ 2,872,376$ |


| Section 3: Morgan St. to Fuller Rd. Trolley Bed + State ROW | Units | Unit Price | Estimated Quantity | Total Cost |
| :---: | :---: | :---: | :---: | :---: |
| Path 10' wide paved path. Construction \& materials | LF | \$82 | 7,576 | \$621,232 |
| Boardwalk | LF | \$220 | 779 | \$171,380 |
| Design, ROW, permitting, construction inspection, incidental items* | LF | \$260 | 8,355 | \$2,172,300 |
| On street bike lanes (durable markings) | LF | \$6.61 |  | \$- |
| Signed bicycle route | Per mile | \$25,070 |  | \$- |
| High visibility crosswalk | EA | \$2,540 | 1 | \$2,540 |
| Bike/ped underpass | EA | \$206,290 |  | \$- |
| Prefabricated truss bridge | EA | \$153,221 |  | \$- |
| Bike/ped bridge | SF | \$150.00 |  | \$- |
| Total Cost |  |  |  | \$2,967,452 |
|  |  | Contingency | 20\% | \$593,490 |
|  |  | 5-yearinflationfactor | 16\% | \$474,792 |
|  |  | Estimated Project Cost |  | \$4,035,735 |


| Section 3: Morgan St. to Fuller Rd. Historic Trolley Bed | Units | Unit Price | Estimated Quantity | Total Cost |
| :---: | :---: | :---: | :---: | :---: |
| Path 10' wide paved path. Construction \& materials | LF | \$82 | 6,971 | \$571,622 |
| Boardwalk | LF | \$220 |  | \$- |
| Design, ROW, permitting, construction inspection, incidental items* | LF | \$260 | 6,971 | \$1,812,460 |
| On street bike lanes (durable markings) | LF | \$6.61 |  | \$- |
| Signed bicycle route | Per mile | \$25,070 |  | \$- |
| High visibility crosswalk | EA | \$2,540 | 1 | \$2,540 |
| Bike/ped underpass | EA | \$206,290 |  | \$- |
| Prefabricated truss bridge | EA | \$153,221 |  | \$- |
| Bike/ped bridge | SF | \$150.00 |  | \$- |
| Total Cost |  |  |  | \$2,386,622 |
|  |  | Contingency | 20\% | \$477,324 |
|  |  | 5-year inflation factor | 16\% | \$381,860 |
|  |  | Estimated Project Cost |  | \$3,245,806 |


| Section 4: Fuller Rd. to Pownal Center | Units | Unit Price | Estimated Quantity | Total Cost |
| :---: | :---: | :---: | :---: | :---: |
| Path 10' wide paved path. Construction \& materials | LF | \$82 | 19,954 | \$1,636,228 |
| Boardwalk | LF | \$220 |  | \$- |
| Design, ROW, permitting, construction inspection, incidental items* | LF | \$260 | 19,954 | \$5,188,040 |
| On street bike lanes (durable markings) | LF | \$6.61 |  | \$- |
| Signed bicycle route | Per mile | \$25,070 | 0.43 | \$10,873 |
| High visibility crosswalk | EA | \$2,540 | 5 | \$12,700 |
| Bike/ped underpass | EA | \$206,290 |  | \$- |
| Prefabricated truss bridge | EA | \$153,221 | 4 | \$612,884 |
| Bike/ped bridge | SF | \$150.00 |  | \$- |
| Total Cost |  |  |  | \$7,460,725 |
|  |  | Contingency | 20\% | \$1,492,145 |
|  |  | 5-year inflation factor | 16\% | \$1,193,716 |
|  |  | Estimated Project Cost |  | \$10,146,586 |


| Section 5: Pownal Center to Pownal Valley Trolley Bed \& West Side of Route 7 | Units | Unit Price | Estimated Quantity | Total Cost |
| :---: | :---: | :---: | :---: | :---: |
| Path 10 ' wide paved path. Construction \& materials | LF | \$82 | 14,511 | \$1,189,902 |
| Boardwalk | LF | \$220 |  | \$- |
| Design, ROW, permitting, construction inspection, incidental items* | LF | \$260 | 14,511 | \$3,772,860 |
| On street bike lanes (durable markings) | LF | \$6.61 |  | \$- |
| Signed bicycle route | Per mile | \$25,070 | 0.60 | \$15,014 |
| High visibility crosswalk | EA | \$2,540 | 4 | \$10,160 |
| Bike/ped underpass | EA | \$206,290 |  | \$- |
| Prefabricated truss bridge | EA | \$153,221 | 2 | \$306,442 |
| Bike/ped bridge | SF | \$150.00 |  | \$- |
| Total Cost |  |  |  | \$5,294,378 |
|  |  | Contingency | 20\% | \$1,058,876 |
|  |  | 5-yearinflationfactor | 16\% | \$847,100 |
|  |  | Estimated Project Cost |  | \$7,200,353 |


| Section 5: Pownal Center to Pownal Valley Historic Alignment | Units | Unit Price | Estimated Quantity | Total Cost |
| :---: | :---: | :---: | :---: | :---: |
| Path 10' wide paved path. Construction \& materials | LF | \$82 | 17,281 | \$1,417,042 |
| Boardwalk | LF | \$220 | 1 | \$220 |
| Design, ROW, permitting, construction inspection, incidental items* | LF | \$260 | 17,282 | \$4,493,320 |
| On street bike lanes (durable markings) | LF | \$6.61 |  | \$- |
| Signed bicycle route | Per mile | \$25,070 |  | \$- |
| High visibility crosswalk | EA | \$2,540 | 6 | \$15,240 |
| Bike/ped underpass | EA | \$206,290 | 1 | \$206,290 |
| Prefabricated truss bridge | EA | \$153,221 | 2 | \$306,442 |
| Bike/ped bridge | SF | \$150.00 |  | \$- |
| Total Cost |  |  |  | \$6,438,554 |
|  |  | Contingency | 20\% | \$1,287,711 |
|  |  | 5-yearinflationfactor | 16\% | \$1,030,169 |
|  |  | Estimated Project Cost |  | \$8,756,433 |


| Section 5: Pownal Center to Pownal Valley Burrington Road | Units | Unit Price | Estimated Quantity | Total Cost |
| :---: | :---: | :---: | :---: | :---: |
| Path 10' wide paved path. Construction \& materials | LF | \$82 | 1,459 | \$119,638 |
| Boardwalk | LF | \$220 |  | \$- |
| Design, ROW, permitting, construction inspection, incidental items* | LF | \$260 | 1,459 | \$379,340 |
| On street bike lanes (durable markings) | LF | \$6.61 |  | \$- |
| Signed bicycle route | Per mile | \$25,070 | 3.03 | \$76,003 |
| High visibility crosswalk | EA | \$2,540 | 4 | \$10,160 |
| Bike/ped underpass | EA | \$206,290 | 2 | \$412,580 |
| Prefabricated truss bridge | EA | \$153,221 | 0 | \$- |
| Bike/ped bridge | SF | \$150.00 | 0 | \$- |
| Total Cost |  |  |  | \$997,721 |
|  |  | Contingency | 20\% | \$199,544 |
|  |  | 5-yearinflationfactor | 16\% | \$159,635 |
|  |  | Estimated Project Cost |  | \$1,356,900 |


| Section 6: Dog Track \& Solar Farm | Units | Unit Price | Estimated Quantity | Total Cost |
| :---: | :---: | :---: | :---: | :---: |
| Path 10' wide paved path. Construction \& materials | LF | \$82 | 6,032 | \$494,624 |
| Boardwalk | LF | \$220 |  | \$- |
| Design, ROW, permitting, construction inspection, incidental items* | LF | \$260 | 6,032 | \$1,568,320 |
| On street bike lanes (durable markings) | LF | \$6.61 |  | \$- |
| Signed bicycle route | Per mile | \$25,070 |  | \$- |
| High visibility crosswalk | EA | \$2,540 |  | \$- |
| Bike/ped underpass | EA | \$206,290 |  | \$- |
| Prefabricated truss bridge | EA | \$153,221 |  | \$- |
| Bike/ped bridge | SF | \$150.00 |  | \$- |
| Total Cost |  |  |  | \$2,062,944 |
|  |  | Contingency | 20\% | \$412,589 |
|  |  | 5-yearinflationfactor | 16\% | \$330,071 |
|  |  | Estimated Project Cost |  | \$2,805,604 |


| Section 7: Solar Farm to Steinerfilm East of Tracks | Units | Unit Price | Estimated Quantity | Total Cost |
| :---: | :---: | :---: | :---: | :---: |
| Path 10' wide paved path. Construction \& materials | LF | \$82 | 6,660 | \$546,120 |
| Boardwalk | LF | \$220 |  | \$- |
| Design, ROW, permitting, construction inspection, incidental items* | LF | \$260 | 6,660 | \$1,731,600 |
| On street bike lanes (durable markings) | LF | \$6.61 |  | \$- |
| Signed bicycle route | Per mile | \$25,070 |  | \$- |
| High visibility crosswalk | EA | \$2,540 | 1 | \$2,540 |
| Bike/ped underpass | EA | \$206,290 |  | \$- |
| Prefabricated truss bridge | EA | \$153,221 | 0 | \$- |
| Bike/ped bridge | SF | \$150.00 |  | \$- |
| Total Cost |  |  |  | \$2,280,260 |
|  |  | Contingency | 20\% | \$456,052 |
|  |  | 5-yearinflationfactor | 16\% | \$364,842 |
|  |  | Estimated Project Cost |  | \$3,101,154 |


| Section 7: Solar Farm to Steinerfilm Rail with Trail | Units | Unit Price | Estimated Quantity | Total Cost |
| :---: | :---: | :---: | :---: | :---: |
| Path 10' wide paved path. Construction \& materials | LF | \$82 | 6,620 | \$542,840 |
| Boardwalk | LF | \$220 |  | \$- |
| Design, ROW, permitting, construction inspection, incidental items* | LF | \$260 | 6,620 | \$1,721,200 |
| On street bike lanes (durable markings) | LF | \$6.61 |  | \$- |
| Signed bicycle route | Per mile | \$25,070 |  | \$- |
| High visibility crosswalk | EA | \$2,540 |  | \$- |
| Bike/ped underpass | EA | \$206,290 |  | \$- |
| Prefabricated truss bridge | EA | \$153,221 | 0 | \$- |
| Bike/ped bridge | SF | \$150.00 |  | \$- |
| Total Cost |  |  |  | \$2,264,040 |
|  |  | Contingency | 20\% | \$452,808 |
|  |  | 5-yearinflationfactor | 16\% | \$362,246 |
|  |  | Estimated Project Cost |  | \$3,079,094 |


| Section 7: Solar Farm to Steinerfilm West of Tracks | Units | Unit Price | Estimated Quantity | Total Cost |
| :---: | :---: | :---: | :---: | :---: |
| Path 10' wide paved path. Construction \& materials | LF | \$82 | 6,464 | \$530,048 |
| Boardwalk | LF | \$220 |  | \$- |
| Design, ROW, permitting, construction inspection, incidental items* | LF | \$260 | 6,464 | \$1,680,640 |
| On street bike lanes (durable markings) | LF | \$6.61 |  | \$- |
| Signed bicycle route | Per mile | \$25,070 |  | \$- |
| High visibility crosswalk | EA | \$2,540 | 2 | \$5,080 |
| Bike/ped underpass | EA | \$206,290 |  | \$- |
| Prefabricated truss bridge | EA | \$153,221 |  | \$- |
| Bike/ped bridge | SF | \$150.00 |  | \$- |
| Total Cost |  |  |  | \$2,215,768 |
|  |  | Contingency | 20\% | \$443,154 |
|  |  | 5-yearinflationfactor | 16\% | \$354,523 |
|  |  | Estimated Project Cost |  | \$3,013,444 |



| Section 9: Connection to Mohawk Path Public ROW to Syndicate Rd. | Units | Unit Price | Estimated Quantity | Total Cost |
| :---: | :---: | :---: | :---: | :---: |
| Path 10' wide paved path. Construction \& materials | LF | \$82 | 1,674 | \$137,268 |
| Boardwalk | LF | \$220 |  | \$- |
| Design, ROW, permitting, construction inspection, incidental items* | LF | \$260 | 1,674 | \$435,240 |
| On street bike lanes (durable markings) | LF | \$6.61 |  | \$- |
| Signed bicycle route | Per mile | \$25,070 |  | \$- |
| High visibility crosswalk | EA | \$2,540 | 2 | \$5,080 |
| Bike/ped underpass | EA | \$206,290 |  | \$- |
| Prefabricated truss bridge | EA | \$153,221 |  | \$- |
| Bike/ped bridge | SF | \$150.00 | 3,000 | \$450,000 |
| Total Cost |  |  |  | \$1,027,588 |
|  |  | Contingency | 20\% | \$205,518 |
|  |  | 5-yearinflationfactor | 16\% | \$164,414 |
|  |  | Estimated Project Cost |  | \$1,397,520 |


| Section 9: Connection to Mohawk Path New Hoosic River Bridge | Units | Unit Price | Estimated Quantity | Total Cost |
| :---: | :---: | :---: | :---: | :---: |
| Path 10' wide paved path. Construction \& materials | LF | \$82 | 3,311 | \$271,502 |
| Boardwalk | LF | \$220 |  | \$- |
| Design, ROW, permitting, construction inspection, incidental items* | LF | \$260 | 3,311 | \$860,860 |
| On street bike lanes (durable markings) | LF | \$6.61 |  | \$- |
| Signed bicycle route | Per mile | \$25,070 |  | \$- |
| High visibility crosswalk | EA | \$2,540 |  | \$- |
| Bike/ped underpass | EA | \$206,290 |  | \$- |
| Prefabricated truss bridge | EA | \$153,221 |  | \$- |
| Bike/ped bridge | SF | \$150.00 | 3,000 | \$450,000 |
| Total Cost |  |  |  | \$1,582,362 |
|  |  | Contingency | 20\% | \$316,472 |
|  |  | 5-yearinflationfactor | 16\% | \$253,178 |
|  |  | Estimated Project Cost |  | \$2,152,012 |


| Section 9: Connection to Mohawk Path Cole Ave. | Units | Unit Price | Estimated Quantity | Total Cost |
| :---: | :---: | :---: | :---: | :---: |
| Path 10' wide paved path. Construction \& materials | LF | \$82 | 6,377 | \$522,914 |
| Boardwalk | LF | \$220 |  | \$- |
| Design, ROW, permitting, construction inspection, incidental items* | LF | \$260 | 6,377 | \$1,658,020 |
| On street bike lanes (durable markings) | LF | \$6.61 |  | \$- |
| Signed bicycle route | Per mile | \$25,070 |  | \$- |
| High visibility crosswalk | EA | \$2,540 |  | \$- |
| Bike/ped underpass | EA | \$206,290 | 1 | \$206,290 |
| Prefabricated truss bridge | EA | \$153,221 |  | \$- |
| Bike/ped bridge | SF | \$150.00 | 2,200 | \$330,000 |
| Total Cost |  |  |  | \$2,717,224 |
|  |  | Contingency | 20\% | \$543,445 |
|  |  | 5-yearinflationfactor | 16\% | \$434,756 |
|  |  | Estimated Project Cost |  | \$3,695,425 |

## Evaluation Matrixes

| SECTION 1: Downtown Bennington | No-Build | Score | PathtoRecCenter, then on-street | Score | Weight <br> Multiplier |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Estimated Project Cost | \$- | 1 | \$171,650 | 0 | 1 |
| Conformance to plans | No | -3 | Yes | 3 | 3 |
| Meet Purpose \& Need? | No | -3 | Yes | 3 | 3 |
| User Experience |  |  |  |  |  |
| Separation from MV traffic | No, low stress | 0 | Some | 0 | 2 |
| Directness (MI) | 0.4 | 0 | 0.51 | 0 | 1 |
| Grade | Flat | 1 | Flat | 1 | 1 |
| Connection to trip generators | otRecCenter | -1 | Best connections | 1 | 1 |
| Features (views, rivers, etc) | Neighborhood | 1 | Neighborhood | 1 | 1 |
| Stressful road crossings | VT 9 | -1 | VT 9 | -1 | 1 |
| Right of Way |  |  |  |  |  |
| Permanent easements needed | None | 0 | 1 | -1 | 3 |
| Railroad Impacts | None | 0 | None | 0 | 3 |
| Environmental Impacts |  |  |  |  |  |
| Wetlands | None | 0 | None | 0 | 1 |
| Floodplain/River Corridor | None | 0 | None | 0 | 2 |
| Impervious Area | None | 0 | None | 0 | 1 |
| Historic/Cultural Impacts | None | 0 |  | 0 | 1 |


| SECTION2: Greenberg Headwaters Park | No-Build | Score | Greenberg Headwaters | Score | Weight Multiplier |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Estimated Project Cost | \$- | 1 | \$2,834,182 | -1 | 1 |
| Conformance to plans | No | -3 |  | 3 | 3 |
| Meet Purpose \& Need? | No | -3 | Yes | 3 | 3 |
| User Experience |  |  |  |  |  |
| Separation from MV traffic | None | -2 | Yes | 2 | 2 |
| Directness (MI) | N/A | 0 | 1.07 | 0 | 1 |
| Grade | Steeper | -1 | Flatter | 1 | 1 |
| Connection to trip generators | Indirect connections | 0 | Indirect connections | 0 | 1 |
| Features (views, rivers, etc) | None | -1 | Yes | 1 | 1 |
| Stressful road crossings | Yes | -1 | Yes | -1 | 1 |
| Right of Way |  |  |  |  |  |
| Permanent easements needed | 0 | 0 | 0 | 0 | 3 |
| Railroad Impacts | None | 0 | None | 0 | 3 |
| Environmental Impacts |  |  |  |  |  |
| Wetlands | None | 0 | Yes, impacts | -1 | 1 |
| Floodplain/River Corridor | None | 0 | Yes | -2 | 2 |
| Impervious Area | None | 0 | Yes | -1 | 1 |
| Historic/Cultural Impacts | None | 0 | None | 0 | 1 |
|  |  |  |  |  |  |
| Evaluation Rating |  | -10 |  | 4 |  |

[^1]| SECTION 3: Morgan St. to Fuller Rd. | No-Build | Score |  |  | $\begin{aligned} & \text { Trolley + State } \\ & \text { ROW } \end{aligned}$ | Score | Bennington Bypass | Score | Weight Multiplier |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
| Estimated Project Cost | \$- | 1 | \$3,245,806 | 0 | \$4,035,735 | 0 | \$3,906,431 | -1 | 1 |
| Conformance to plans | No | -3 |  | 3 |  | 3 |  | 3 | 3 |
| Meet Purpose \& Need? | No | -3 | Yes | 3 | Yes | 3 | Less | 0 | 3 |
| User Experience |  |  |  |  |  |  |  |  |  |
| Separation from MV traffic | No | -2 | Yes | 2 | Yes | 2 | Yes | 2 | 2 |
| Directness (MI) | N/A | 0 | 1.32 | 1 | 1.58 | 0 | 1.53 | 0 | 1 |
| Grade | Steeper | -1 | Flatter | 1 | Flatter | 1 | Steeper | -1 | 1 |
| Connection to trip generators | Indirect connections | 0 | Indirect connections | 0 | Indirect connections | 0 | Indirect connections | 0 | 1 |
| Features (views, rivers, etc) | No | -1 | Yes | 1 | Yes | 1 | Yes | 1 | 1 |
| Stressful road crossings | Yes |  | 1 unstressful x-ing | 0 | 1 unstressful x-ing | 0 | 1 unstressfulx-ing | 0 | 1 |
| Right of Way |  |  |  |  |  |  |  |  |  |
| Permanent easements needed | None | 0 | 6 | -3 | 4 | -3 | 2 | -3 | 3 |
| Railroad Impacts | None | 0 | None | 0 | None | 0 | None | 0 | 3 |
| Environmental Impacts |  |  |  |  |  |  |  |  |  |
| Wetlands | None | 0 | Yes | -1 | Yes | -1 | Yes | -1 | 1 |
| Floodplain/River Corridor | None | 0 | Yes | -2 | Yes | -2 | Yes | -2 | 2 |
| Impervious Area | None | 0 | Yes | -1 | Yes | -1 | Yes | -1 | 1 |
| Historic/Cultural Impacts | None | 0 | No known impacts | 0 | No known impacts | 0 | No known impacts | 0 | 1 |


| Evaluation Rating | -9 |  | 4 |  | 3 |  | -3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Positive Impact

Number scale: max and min is shown under Weight Multiplier

| SECTION4:FullerRd.toPownalCenter | No-Build | Score | Trolley bed to Pownal Center | Score | Weight Multiplier |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Estimated Project Cost | \$- | 1 | \$10,146,586 | -1 | 1 |
| Conformance to plans | No | -3 |  | 3 | 3 |
| Meet Purpose \& Need? | No | -3 | Yes | 3 | 3 |
| User Experience |  |  |  |  |  |
| Separation from MV traffic | No | -2 | Mostly | 2 | 2 |
| Directness (MI) | N/A | 0 | 4.21 | 0 | 1 |
| Grade | Steeper | -1 | Flatter | 1 | 1 |
| Connection to trip generators | Indirect connections | 0 | Indirect connections | 0 | 1 |
| Features (views, rivers, etc) | No | -1 | Yes | 1 | 1 |
| Stressful road crossings |  |  |  |  | 1 |
| Right of Way |  |  |  |  |  |
| Permanent easements needed | None | 0 | 20 | -3 | 3 |
| Railroad Impacts | None | 0 | None | 0 | 3 |
| Environmental Impacts |  |  |  |  |  |
| Wetlands | None | 0 | Yes | -1 | 1 |
| Floodplain/River Corridor | None | 0 | Yes | -2 | 2 |
| Impervious Area | None | 0 | Yes | -1 | 1 |
| Historic/Cultural Impacts | None | 0 | 1 known impact | -1 | 1 |


| Evaluation Rating | -9 |  | 1 |
| :---: | ---: | :--- | :--- |

Positive Impact
No Impact
A little negative impact
Negative Impact
Number scale: max and min is shown under Weight Multiplier

| SECTION 5: Pownal Center to Pownal Valley | No-Build | Score |  |  |  |  |  |  | Weight Multiplier |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Trolley bed \& west side of Route 7 | Score | Burrington Road | Score | Historic Trolley Bed | Score |  |
| Estimated Project Cost |  | 1 | \$7,200,353 | -1 | \$1,356,900 | 0 | \$8,756,433 | -1 | 1 |
| Conformance to plans | No | -3 |  | 3 |  | 3 |  | 3 | 3 |
| Meet Purpose \& Need? | No | -3 | Yes | 3 | Yes | 3 | Yes | 3 | 3 |
| User Experience |  |  |  |  |  |  |  |  |  |
| Separation from MV traffic | No | -2 | Partial, low stress | 0 | No but, low stress | -2 | Yes | 2 | 2 |
| Directness (MI) | N/A | 0 | 3.35 | 0 | 3.31 | 0 | 3.27 | 0 | 1 |
| Grade | Grade | 0 | Less steep | 0 | Steepest | -1 | Less steep | 0 | 1 |
| Connection to trip generators | Direct connections | 1 | Directconnections | 1 | Directconnections | 1 | Directconnections | 1 | 1 |
| Features (views, rivers, etc) | Yes | 1 | Yes | 1 | Yes | 1 | Yes | 1 | 1 |
| Stressful road crossings |  |  |  |  |  |  |  |  | 1 |
| Right of Way |  |  |  |  |  |  |  |  |  |
| Permanent easements needed | None | 0 | 7 | -3 | 0 | 0 | 10 | -3 | 3 |
| Railroad Impacts | None | 0 | None | 0 | None | 0 | None | 0 | 3 |
| Environmental Impacts |  |  |  |  |  |  |  |  |  |
| Wetlands | None | 0 | None | 0 | None | 0 | Yes | -1 | 1 |
| Floodplain/River Corridor | None | 0 | None | 0 | None | 0 | Yes | -2 | 2 |
| Impervious Area | None | 0 | Yes | -1 | Yes | -1 | Yes | -1 | 1 |
| Historic/Cultural Impacts | None | 0 | No known impacts | 0 | No known impacts | 0 | No known impacts | 0 | 1 |


| Evaluation Rating | -5 |  | 3 |  | 4 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |


| SECTION 6: Racetrack \& Solar Farm | No-Build | Score | Racetrack \& Solar Farm | Score | Weight Multiplier |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Estimated Project Cost |  | 1 | \$2,805,604 |  | 1 |
| Conformance to plans | No | -3 | Yes | 3 | 3 |
| Meet Purpose \& Need? | No | -3 | Yes | 3 | 3 |
| User Experience |  |  |  |  |  |
| Separation from MV traffic | No | -2 | Yes | 2 | 2 |
| Directness (MI) | N/A | 0 | 1.14 | 0 | 1 |
| Grade | Flat | 0 | Flat | 0 | 1 |
| Connection to trip generators | Indirect connections | 0 | Directconnections | 1 | 1 |
| Features (views, rivers, etc) | No | -1 | Yes | 1 | 1 |
| Stressful road crossings |  |  |  |  | 1 |
| Right of Way |  |  |  |  |  |
| Permanent easements needed | None | 0 | 3 | -3 | 3 |
| Railroad Impacts | None | 0 | None | 0 | 3 |
| Environmental Impacts |  |  |  |  |  |
| Wetlands | None | 0 | None | 0 | 1 |
| Floodplain/River Corridor | None | 0 | Yes | -2 | 2 |
| Impervious Area | None | 0 | Yes | -1 | 1 |
| Historic/Cultural Impacts | None | 0 | No known impacts | 0 | 1 |

Evaluation Rating
$-8 \mid$ 4

Positive Impact

Number scale: max and min is shown under Weight Multiplier

| SECTION 7: Solar Farm to Steinerfilm | No-Build | Score |  |  | West of Tracks | Score | East of Tracks | Score | Weight Multiplier |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
| Estimated Project Cost |  | 1 | \$3,079,094 | 0 | \$3,013,444 | 0 | \$3,101,154 | 0 | 1 |
| Conformance to plans | No | -3 | Yes | 3 | Yes | 3 | Yes | 3 | 3 |
| Meet Purpose \& Need? | No | -3 | Yes | 3 | Yes | 3 | Yes | 3 | 3 |
| User Experience |  |  |  |  |  |  |  |  |  |
| Separation from MV traffic | No | -2 | No | 2 | No | 2 | No | 2 | 2 |
| Directness (MI) | N/A | 0 | 1.25 | 0 | 1.22 | 0 | 1.26 | 0 | 1 |
| Grade | Flat | 1 | Flat | 1 | Flat | 1 | Flat | 1 | 1 |
| Connection to trip generators | Direct connections | 1 | Directconnections | 1 | Directconnections | 1 | Directconnections | 1 | 1 |
| Features (views, rivers, etc) | No | -1 | Yes | 1 | Yes | 1 | Fewer | -1 | 1 |
| Stressful road crossings |  |  |  |  |  |  |  |  | 1 |
| Right of Way |  |  |  |  |  |  |  |  |  |
| Permanent easements needed | None | 0 | 1 |  | 0 |  | ? |  | 3 |
| Railroad Impacts | None | 0 | Yes | -3 | Some likely | -1 | Some likely | -1 | 3 |
| Environmental Impacts |  |  |  |  |  |  |  |  |  |
| Wetlands | None | 0 | None | 0 | VT no. MA? |  | VT no. MA? |  | 1 |
| Floodplain/River Corridor | None | 0 | None | 0 | Yes | -2 | None | 0 | 2 |
| Impervious Area | None | 0 | Yes | -1 | Yes | -1 | Yes | -1 | 1 |
| Historic/Cultural Impacts | None | 0 | No known impacts | 0 | No known impacts | 0 | No known impacts | 0 | 1 |



Positive Impact

Number scale: max and min is shown under Weight Multiplier

| SECTION 8: Steinerfilm to Route 7 Bridge | No-Build | Score | Steinerfilm to Route 7 Bridge | Score | Weight Multiplier |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Estimated Project Cost |  | 1 | \$2,613,250 | 0 |  |
| Conformance to plans | No | -3 | Yes | 3 | 3 |
| Meet Purpose \& Need? | No | -3 | Yes | 3 | 3 |
| User Experience |  |  |  |  |  |
| Separation from MV traffic | No | -2 | Driveways | 0 | 2 |
| Directness (MI) | N/A | 0 | 0.32 | 0 |  |
| Grade | Grade | -1 | Grade | -1 |  |
| Connection to trip generators | Indirect connections | 0 | Indirect connections | 0 |  |
| Features (views, rivers, etc) | No | -1 | Fewer | 0 |  |
| Stressful road crossings |  |  |  |  |  |
| Right of Way |  |  |  |  |  |
| Permanent easements needed | None | 0 | 1 |  | 3 |
| Railroad Impacts | None | 0 | None | 0 | 3 |
| Environmental Impacts |  |  |  |  |  |
| Wetlands | None | 0 | ? |  |  |
| Floodplain/River Corridor | None | 0 | ? |  | 2 |
| Impervious Area | None | 0 | Yes | -1 |  |
| Historic/Cultural Impacts | None | 0 | No known impacts | 0 |  |


| Evaluation Rating | -9 |  | 4 |
| :---: | ---: | ---: | ---: |

Number scale: max and min is shown under Weight Multiplier

ositive Impac
No Impact
A little negative impact
Negative Impact
Number scale: max and min is shown under Weight Multiplier

## APPENDIX

## Right-of-Way (ROW) Analysis

## Overview - Right-of-Way (ROW) Analysis

Right-of-way acquisition poses one of the most significant barriers to developing the Trolley Path Project. The Berkshire Street Railway reverted ownership of the trolley line to abutting property owners in the 1940s upon dissolving the company so the vast majority of the trolley bed is currently in private ownership. Given the rural and secluded setting of significant portions of the route, the value that current property owners place on privacy is likely to be heightened. Furthermore, in many sections the original trolley bed ROW was split down the middle when it was restored as private property. This fact doubles the number of easements required in these locations to reuse the original trolley bed foundation for the path.

This Appendix documents the preliminary analysis of right-of-way and property abutter outreach process completed for the scoping study. A summary of findings is included in the body of the report.

## Methodology

Geographical Information Systems (GIS) parcel data used for the property impact analysis was sourced from VCGI and reflects 2017 data for Bennington and Pownal. Parcel data for Williamstown, MA, was sourced from the Town's Planning Department. BCRC overlaid the proposed route alignments over the parcel data to see what properties are intersected. Field work and Google Maps provided insight into current uses of properties.

The property abutter mailing was prepared and sent to all property owners impacted by one or more proposed alignments for the project. To determine current mailing addresses to contact property owners, proprietary information from the parcel data was cross-referenced with the latest Grand List for Bennington and Pownal, and LLC addresses were confirmed through the Vermont Department of Labor's website. Abutter letters were mailed the week of September 21, 2020.

## Results

## Preferred Alignment Overall Impacts

Total 44 private parcels impacted.

## Section 1 - Downtown Bennington, single alternate

In Section 1, one parcel is impacted by the project:

- SPAN: 510-156-7887, owned by North Light Investments LLC

The private parcel is a vacant commercial property. A large parking lot covers much of the western portion of the property from Main Street to Coolidge Street. This unoccupied expanse of impervious surface could be repurposed for a path.

As of $1 / 29 / 2021$, this property owner has not responded to the property abutter survey regarding the Trolley Path.

## Section 2 - Greenberg Headwaters, single alternate

In Section 2, four parcels are impacted by the project. They are all public properties owned by the Town of Bennington:

- SPAN: 510-156-7988
- SPAN: 510-156-9125
- SPAN: 510-156-9623
- SPAN: 510-156-9620

Public and municipal properties were not contacted by letter and survey, but the Town of Bennington's Select Board has expressed support for development of the Trolley Path. The alignment along the historic trolley line comes within 75 feet of a house located on Morgan Street. Impacts to this property may be mitigated by shifting the path alignment further away from the property into municipal lands.

## Section 3 - Morgan Street to Fuller Road, three alternates

Section 3 contains three possible alignments. The preferred alignment would impact three private properties, and the least intrusive alignment would impact no private properties by staying on municipal and state lands. The alternate alignments and impacted properties are as follows:

## Trolley Bed (preferred)

- SPAN: 510-156-9620, owned by the Town of Bennington
- SPAN: 510-156-9661, owned by ONEILL PHILIP J \& FRANCES C
- SPAN: 510-156-9660, owned by FOSTER DONALD \& CHARLENE
- SPAN: 510-156-9956, owned by HOWE ARTHUR M \& JUDITH W
- SPAN: 510-156-9614, owned by the Town of Bennington
- SPAN: 510-156-9985, owned by VTrans
- SPAN: 510-156-9964, owned by VTrans
- SPAN: 510-156-9958, owned by VTrans

Trolley Bed + State ROW

- SPAN: 510-156-9620, owned by the Town of Bennington
- SPAN: 510-156-9658, owned by VTrans
- SPAN: 510-156-9956, owned by HOWE ARTHUR M \& JUDITH W
- SPAN: 510-156-9614, owned by the Town of Bennington
- SPAN: 510-156-9985, owned by VTrans
- SPAN: 510-156-9964, owned by VTrans
- SPAN: 510-156-9958, owned by VTrans


## Bennington Bypass

- SPAN: 510-156-9620, owned by the Town of Bennington
- SPAN: 510-156-9658, owned by VTrans
- SPAN: 510-156-9957, owned by VTrans
- SPAN: 510-156-9985, owned by VTrans
- SPAN: 510-156-9614, owned by the Town of Bennington
- SPAN: 510-156-9964, owned by VTrans
- SPAN: 510-156-9958, owned by VTrans

The preferred alignment impacts 8 parcels, 3 of which are private property and 5 of which are public property. All 3 private landowners responded to the abutter survey. One property feels negatively about the project and is unwilling to grant an easement, noting concerns about loss of privacy, negative impacts on farm enterprise and livestock, and lowering of property value. Another property feels positive and curious about the project, open to the possibility of easement, though noted concerns about the cost of maintenance of the path and the potential fiscal burden on taxpayers. The third property responded to the survey with the comment that they use their property for hunting and do not anticipate benefiting from development of the path, though they did not respond directly to the question regarding openness to an easement.

## Section 4 - Fuller Road to Pownal Center, single alternative

Section 4 has a single proposed alignment along the historic trolley bed. A total of 23 private properties are impacted by this alignment.
For the first portion to reach the municipal boundary between Bennington and Pownal, 4 private parcels are impacted, as follows:

- SPAN: 510-157-0191, owned by Parks Jason M \& Leigh Anne
- SPAN: 510-156-9658, owned by Parks Hilda
- SPAN: 510-156-4361, owned by Greenawalt Duane E \& Betsy
- SPAN: 510-156-4362, owned by Greenawalt Mary E

All 4 properties are private residences. All landowners responded to the abutter survey, explaining that they feel negatively about the project and are not open to considering easements. Three of the properties noted concerns for loss of privacy. One property owner stated concerns for potential littering and drug use near property as a result of the path. They reported using their property and neighboring relative's 135 acre property (also impacted in this path section) for hunting, which they fear would be impacted by the path. One property responded that the path is a great idea, but they do not support using their property for the project. Another stated they did not support the project for the impact to their own property as well as other homeowners. The fourth property responded that they are open to selling their land and home and would be open to a purchase offer, but are not open to staying at the property with an easement.

Continuing into Pownal to the village of Pownal Center, an additional nineteen private properties are impacted, as follows:

- SPAN: 495-156-11449, owned by Reed Gary \& Lana M B
- SPAN: 495-156-10554, owned by Ostler Jason \& Emily
- SPAN: 495-156-10057, owned by Armstrong R Keith Life Estate
- SPAN: 405-156-10637, owned by Forest Nicole \& Bryan G
- SPAN: 495-156-10756, owned by Heil Ethel
- SPAN: 495-156-10283, owned by Bushee Janice
- SPAN: 495-156-11635, owned by King Frank F Jr \& Gloria
- SPAN: 495-156-10787, owned by Hollendonner Philip R
- SPAN: 495-156-11151, owned by Medeiros Joseph G \& Priscilla T Life Estate
- SPAN: 495-156-11517, owned by North Village Properties LLC
- SPAN: 495-156-11521, owned by Roy Marcien L \& Mary Anne D
- SPAN: 495-156-10400, owned by Corey George A
- SPAN: 495-156-12072, owned by New England Power Company
- SPAN: 495-156-10346, owned by Pudvar Thomas \& Tessla N
- SPAN: 495-156-10345, owned by Chapman John D Jr
- SPAN: 495-156-10666, owned by Gray Patrick J \& Connie K
- SPAN: 495-156-11704, owned by Strohmaier Cecily M \& Emma L
- SPAN: 495-156-12056, owned by Pettit William A Sr Trust \& Pettit Barbara J Trust
- SPAN: 495-156-11950, owned by Bates Louisa J Trustee

Four of the 19 properties are commercial properties, including an electric transmission utility, and the remainder are residential. A portion of the path would course along Peaks Pine Rd, a dead-end, public road providing access to residences that was developed over the trolley bed foundation. The trolley line runs through a mobile home park, which has repurposed a short tract of trolley bed for an internal access road. The path would pass within 75 feet of eleven homes, six of which are mobile homes in the mobile home park off Jackson Cross Rd.

Of the 19 properties in this subsection, 10 responded to the abutter survey as of $10 / 22 / 2020$. Of the 10 respondents, 3 reported feeling positive about the project, 3 were mixed or not sure, and 4 felt negatively about the project. On the question of easements, 2 stated they are open to granting an access easement, and an additional 3 said they might consider an easement, but needed more information. Five respondents are not open to easements.

Two of the survey respondents reported concerns about loss of privacy. One property owner shared concern for impacts to a Class II wetland on their property and loss of scenic views from their home. Another respondent expressed concern for ATVs and snowmobiles using the trail "at all hours" and asked how littering along the path would be controlled. Several more questions were posed in the survey comments section, including a request for more detailed maps of the projected path location, a question about how the mobile home park would be impacted by development of the path, and how a driveway crossing the path would be impacted.

## Section 5 - Pownal Center to Main Street, Pownal, three alternates

Section 5 has 3 possible alignments, with one coursing along the historic trolley bed throughout the section, and two more that divert from the trolley line to pass through Pownal Center village along public street ROW. After leaving Pownal Center, one of these two routes connects to the historic trolley line and the other continues along existing road ROW all the way to the village of Pownal (South). Depending on the alignment, this section will may impact no private properties, or as many as 12 private properties, as follows:

Center Street \& West of Route 7 (11 properties impacted) (preferred)

- SPAN: 495-156-10053, owned by Armstrong Holdings Inc
- SPAN: 495-156-10272, owned by Burrington Joel \& Bruce
- SPAN: 495-156-11045, owned by Lounsbury William S
- SPAN: 495-156-10696, owned by Haley Edward E \& Cynthia G
- SPAN: 495-156-11377, owned by Pownal Fire District \#2
- SPAN: 495-156-11053, owned by Lozier George E \& Kara L
- SPAN: 495-156-10253, owned by Burdick Frank \& Harvey
- SPAN: 495-156-11649, owned by Snide Bernadette
- SPAN: 495-156-11013, owned by Lewis Murray R Jr
- SPAN: 495-156-10004, owned by Laurent Lucien \& Dumas Tammy L
- SPAN: 495-156-11801, owned by Kessinger Thomas P \& Dawn M

Historic Trolley Bed - requires 4 more easements than Ctr St and West of Rte7 (16 properties impacted, 13 are private residential)

- SPAN: 495-156-11689, owned by Pownal Preschool Inc
- SPAN: 495-156-11386, owned by Pownal School District
- SPAN: 495-156-10962, owned by Lampman Jan B \& Scott
- SPAN: 495-156-10036, owned by Armstrong Associated Inc
- SPAN: 495-156-10053, owned by Armstrong Holdings Inc
- SPAN: 495-156-10055, owned by Armstrong Frances
- SPAN: 495-156-10050, owned by Armstrong John C III \& Rebecca L
- SPAN: 495-156-11045, owned by Lounsbury William S
- SPAN: 495-156-10696, owned by Haley Edward E \& Cynthia G
- SPAN: 495-156-11377, owned by Pownal Fire District \#2
- SPAN: 495-156-11053, owned by Lozier George E \& Kara L
- SPAN: 495-156-10253, owned by Burdick Frank \& Harvey
- SPAN: 495-156-11649, owned by Snide Bernadette
- SPAN: 495-156-11013, owned by Lewis Murray R Jr
- SPAN: 495-156-10004, owned by Laurent Lucien \& Dumas Tammy L
- SPAN: 495-156-11801, owned by Kessinger Thomas P \& Dawn M

Center Street \& Burrington Road

- No private property impacts

The preferred alignment through Pownal Center and west of Route7, impacts 10 private properties and a parcel owned by the Pownal Fire District \#2. The vast majority of this route passes through uninhabited areas until it reaches the village of Pownal (South), which is densely settled. Here the path would course through the rear of a mobile home park and through three residential properties, coming within 75 feet of two homes. Of the 11 properties impacted by this route, 2 responded to the abutter survey. One respondent was not sure how they felt about the project and was possibly open to granting an easement. That property owner wanted more information about the path, such as where specifically it would be located. The other respondent reported feeling negative about the project and is not open to an easement.

For the historic trolley line alternate alignment, 7 private properties would be impacted that are not impacted in the preferred alignment. Four of the properties are private residences, one is a mobile home park, and two are public properties, specifically a daycare center and elementary school. The path would come within 75 feet of two homes. For this section, only one potentially impacted property responded that they felt very curious about the project, possibly would consider an easement, and expressed support: "Good luck with project. Looking forward to hearing more."

## Section 6 - Racetrack \& Solar Farm, single alternate

Section 6 has a single proposed alignment that courses in parallel to the Pan Am Railway, which likely repurposed trolley bed infrastructure when establishing its tracks. Three private properties are impacted by this alignment, two commercial and one residential. The commercial properties are a waste transfer site and the currently vacant prior location of the Pownal Race Track. Sited on the southern end of the Race Track property is a large solar array and a small cemetery. The impacted properties are as follows:

- SPAN: 495-156-11273, owned by 171 Church St LLC
- SPAN: 495-156-11884, owned by Winchester James \& L Vernell
- SPAN: 495-156-10827, owned by Green Mountain Race Track LLC

Two of these 3 properties responded to the abutter survey expressing positive feelings about the project, with one stating, "This would be a very positive project for Pownal, town is in desperate need of positive activities". One property owner is willing to grant an easement and the other is not.

## Section 7 - Solar Farm to Steiner Film Property, three alternates

Section 7 is a very challenging section for the project. This report highlights 3 possible alignments in this area, with each having drawbacks and some advantages. This section is physically constrained by a major river and infrastructure: the Hoosic River, Pan Am Railway, and Rte 7. These resources run in parallel to each other, at points contracting to leave little-to-no compromise space for path development. This limited space is further complicated by a tall berm abutment along the western side of the project area, a number of residences sited close to the railway on the eastern side of the project area, and strict river corridor protections in the State of Vermont, which are intended to restrict new development within the meander belt of rivers to minimize risks and damage from future fluvial erosion. The treatment of bike and pedestrian pathways under river corridor regulations is not entirely clear and has been mixed in application. In the case of this section of the project, the railway is considered major infrastructure, which limits the range of the river corridor regulatory area up to the railway's embankment. In accordance with this delineation, development of the path upon the railway embankment should exclude the project from the regulated river corridor area, but it remains to be seen how DEC regulators will interpret and review this proposal.

Placement of the path has varying implications for property impacts. The three alignments and their property impacts are as follows:

## Rail with Trail (preferred)

- Pan Am Southern LLC


## West of Tracks

- One parcel of unknown proprietorship. Pownal accessors office does not have records regarding this parcel.
- Pan Am Southern LLC
- SPAN: 495-156-11759, owned by Tietgens John C Jr \& Heather L


## East of Tracks

- SPAN: 495-156-11013, owned by Ron Dwyer Properties LLC
- SPAN: 495-156-10004, owned by Tornabene Janet A Estate
- SPAN: 495-156-11801, owned by Jelley Gary O
- SPAN: 495-156-11013, owned by Stewart's Shops Corp
- SPAN: 495-156-10004, owned by Bisson Ronald E
- SPAN: 495-156-11801, owned by Maloney Kathleen

The preferred alignment is Rail with Trail, which has the advantage of limiting property impacts to a single entity, though this option may not be feasible due to Pan Am Railway's general reluctance to grant access within its ROW. Conversations with Pan Am have been initiated to determine their openness to easements in various sections of the project.

For the western alignment, one private parcel consisting of vacant land would be impacted as well as a parcel of undetermined ownership. Regarding this parcel, the Pownal Accessors Office explained that it does not have any records and assessors assume ownership falls to the municipality. For this alignment to work, it is likely that some cooperation and easements from Pan Am Railway would be required.

Along the eastern alignment, the path would impact six total properties, four of which are commercial and two of which are residential. One property in this section responded to the abutter survey. It is a commercial property that feels positive about the project and is possibly open to granting an access easement.

## Section 8 - Steiner Film to Route 7 Bridge, single alternate

Section 8 has just one proposed route, with two private properties impacted, as follows:

- SteinerFilm Inc


## - Pan Am Southern LLC

The rest of this alternate courses through various municipal properties, including a leach field, a capped landfill with solar array, the transfer station, and a dog pound. To reach the Rte 7 bridge, the path would have to cross a small portion of land belonging to Pan Am Railway since the company owns the land underneath the bridge.

One of the two impacted private properties responded to the abutter survey. SteinerFilm Inc feels generally positive regarding the idea for the path project, but feels uncertain given that their property may be impacted. They are not open to granting an easement. They have concerns about impacts to the narrow entrance and exit road into their property and want to avoid inconveniencing their employees, vendors, and visitors. In addition, government clients have strict rules regarding access to the property.

## Section 9 - Connection to Mohawk Bike/Ped Path, three alternates

Section 9 has three possible alignments to connect the Trolley Path to the planned Mohawk Path in Williamstown, MA. Due to extensive municipal ownership in this area, private property impacts are limited to just two properties:

Route 7 ROW to Syndicate Rd

- Pan Am Southern LLC

New Bridge over Hoosic River (preferred)

- Pan Am Southern LLC

Rail with Trail to Cole Ave

- Pan Am Southern LLC
- FHS Holdings LLC (RK Miles)

The preferred alignment, New Bridge over Hoosic River, would pass through municipally-owned lands and requires an easement from Pan Am Railway to pass under the Rte 7 bridge. It would also one of the more direct routes with minimal road and rail interference. The Rte 7 ROW alignment would minimize property impacts by staying within the boundaries of Rte 7 ROW, but would still require support from Pan Am Railway. The third alignment requires crossing the railroad tracks and passing through the commercial property of RK Miles retail store. As of 10/22/2020, RK Miles has not respond to the abutter survey, and conversations have been initiated with Pan Am Railway to determine their openness to easements throughout the project area.

## Property Owner Sentiment Map

Property owner sentiments are visualized in the following map, with responses color coded as follows:
Survey Question: Are you willing to grant an access easement for this project?
Yes: Green
Possibly: Yellow
No: Red
No Response: Black Lines


## Conclusions

Right-of-way acquisition is the single greatest challenge to development of the proposed Trolley Path. A majority of property owners who responded to the abutter survey are not currently willing to grant an access easement, however a significant number of
property owners have expressed interest in the possibility of an easement. In some cases, the right-of-way challenge along the 14mile proposed path alignment may be addressed by detouring around properties or otherwise mitigating impacts to property owners. Because the project is large and many easements are required, we recommend that a state agency such as VTrans administer the project to make use of the experience and in-house capacity the Agency has to pursue largescale ROW acquisition.

We also recommend pursuing and processing donated easements from willing property owners immediately because properties change hands and the wishes of current landowners who support this project should be formalized as opportunity arises. Easements acquired before the formal ROW phase should be done in a way that meets FHWA ROW requirements so they will be deemed valid if the project receives federal funding at some point in the future.

## Attachments to follow:

ROW maps by section breakdown
Abutter mailing: Letter and survey
Table of property abutter survey responses (10/22/2020)




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Did you know a scoping study is underway to assess the feasibility of building a multi-use path along an abandoned trolley car bed in your area? The proposed path could connect Bennington, Pownal Center, Pownal, and Williamstown, MA and would provide a safe and scenic route for children, seniors, commuters, visitors and residents alike to move among these community centers by foot and by bike, for business and for pleasure.

Members of the scoping study's citizen steering committee are surveying property owners to assess support for the path. If you have received this letter, then your property abuts one of the route alignments being studied, and your property could be impacted if the proposed path is developed. To be clear, there are currently no plans to build the trolley path. If local citizens support the proposal, though, it may be pursued further. The study steering committee would appreciate you completing and returning the enclosed survey by Monday. 10/5/20 to record your initial interest, questions, and concerns regarding this path proposal, If you are not able to
 respond by $10 / 5 / 2020$, please submit your survey response at a later date as you are able.


## History of the Trolley Bed

The Berkshire Hills Trolley Company operated regular electronic trolley car service between Bennington and Williamstown from 1907 to 1929. At its height, the full line ran from Hoosick Falls, NY through Bennington, Pownal and Williamstown, to North Adams and Great Barrington, MA. Its trolley cars were described in the day as the "most elegant....ever built." To limit construction costs, the trolley company built the line away from roads, routing it through picturesque fields and woods. It cost less than a dollar and took 35 minutes to travel between Williamstown and Bennington by trolley car.

A comprehensive history of the trolley line is available as a video presentation from the Bennington Historical Society: https://vimeo.com/157516882. Discussion of the trolley service south of Bermington begins around minute 21 of the presentation and a modernday tour of the trolley bed from Bennington to Williamstown begins around minute 34 .


## Proposed Path

The portion of the historic trolley bed being considered for reuse as a path is the section connecting downtown Bennington through the village centers of Pownal Center and Pownal to a path under development in Williamstown. The trolley path would highlight the historic economic, social, and cultural connections among these communities. Plans are underway to link the planned Williamstown path to North Adams and the Ashuwillticook Rail Trail in Adams, MA in the coming years. If all currently proposed paths are completed, they would create a continuous 33 -mile multi-use pathway from Bennington to Pittsfield, MA.

The imagined path would welcome all forms of non-motorized transportation: pedestrians, joggers, commuting and recreational cyclists, class 1 e-bikes, children getting to school, dog walkers, and families on weekend outings. The study steering committee believes this path would not only be a valuable amenity for the residents of Bennington, Pownal, and Williamstown, but it would also be a major regional attraction to bring visitors, new residents, and desired economic development to the region.


## Your Thoughts?

Municipal parcel records show that the historic Berkshire Hills trolley bed exists on your property at or that your property could otherwise be impacted by development of this path. If the trolley bed passes through your property, you may already be familiar with it since in many areas it is well-preserved and is easily seen. In areas where the trolley bed is not suitable for reuse as a path, alternate route proposals have been developed for study. You can view a recorded presentation on the possible route alternatives at the following weblink: www.bcrcvt.org/trolleypath

You may be excited about this possible trail project or you may have questions or concerns. Perhaps a little of both! Please share your thoughts with the study steering committee by completing and returning the enclosed abutter survey by Monday, 10/5/20 so your input may be recorded. If you request so in your survey response, we can make sure you know where to find the scoping study when it is published later this year. If you have questions about responding to this survey or believe you have received this letter in error, you may contact Catherine Bryars of the Bennington County Regional Commission (BCRC) by email: cbryars@bcrcvt.org

The trolley path scoping study steering committee appreciates your time and attention to this request for your input. All members of the steering committee are your neighbors, living in and treasuring this region of southwestern Vermont and northwestern Massachusetts. Ultimately, we hope this correspondence finds you and yours well during these extraordinary times of pandemic and economic recovery.

Sincerely,
Members of the Trolley Path Scoping Study Steering Committee
Mark Anders (BCRC), Shannon Barsotti (Bennington Community Development), Ashley Brenon (Bennington resident), Catherine Bryars (BCRC), Eammon Coughlis
 (Berkshire RPC), Ken Darmer (Bennington resident), Brad DeBoer (BATS), Amy Dobson (Bennington ACES), Sarah Gardner (Williams College), Andrew Groff (Williamstown Planning), Megan Ilerrington (VT DOH), Andy Hogeland (Williamstown Select Board), Eric Kerns (Tourists Hotel), Kirm Krall (N. Bemuingtou Village School Board), Bruce Lierman (BCRC Transportation Commissioner), Julie Mackaman (HOORWA), Tim Marr (Bennington resident), Matt Nofziger, MD (Bennington resident), Kat hy O'Reilly (VT DOII), Eric Postel (Bennington resident), Ray Rodrigues (Pownal Recreation Task Force), Robert Tarnas, MD (Bennington resident), Jim Trimarchi (SVMC).
The BCRC is completing the scoping study with funding support from the Vermiont Agency of Transportation's Bike and Pedestrian Program. BCRC is a regional plaming organization that provides technical planning assistance to its 17 member municipalities, including Pownal and Bennington.

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## Trolley Path Property Abutter Survey

Property owner(s) should complete this form. Please return by Monday, October 5, 2020.
Thank you for taking the time to complete this survey regarding your property located at:

Your response will be recorded for the trolley path scoping study. Please complete and return this survey in the enclosed, stamped envelope. We look forward to hearing from you!

Date: $\qquad$
Resident/Respondent Name: $\qquad$
Email: $\qquad$ (If you wish to receive notification of study publication)

Phone: $\qquad$

1. Generally, how do you feel about the proposed trolley path? Circle your response(s):
Positive Curious Mixed Negative Not Sure
2. Do you or anyone in your household engage in any of the following activities on a regular basis? Check all that apply:
_ Walking or biking to work, school, or shops
Walking or running for exercise
_ Biking for recreation
_ Dog walking
_Something else that is similar
_ No, none of the above
3. Do you think you would benefit from the proposed path? Circle one:

Yes No Not Sure
4. If applicable to your property, would you be open to donating or selling an access easement so the proposed trail could be developed? An easement is a right to cross a portion of someone's land for a limited, specified purpose. Circle one:

Yes No Possibly, but I need more information
5. Do you wish to be notified by email when the trolley path scoping study is complete? Circle one:

Yes No
6. Do you have questions or concerns you'd like to share with the study committee? Please write your comments/questions/concerns on the back of this page:

SPAN: $\qquad$ September 21, 2020
Response to Question 6:




## Public Meeting Notes

## Notes from Alternatives Presentation

Wednesday, September 16, 2020 at 5:30pm by teleconference

## Attendance List -

Tim Marr, Mike McDonough, Andrew Groff, Callie Fishburn, Jim Sullivan, Al Bashevkin, Charlie Copp, Kathleen O'Reilly, Don Campbell, Rob Tarnas, Sarah Gardner, Shelley Stiles, Eammon Coughlin, Kenneth Darmer, Steven Dravis, Lauren Stevens, Justin
$\qquad$ and Jean $\qquad$ .

Cat Bryars and Mark Anders of BCRC.

## Comments/Questions:

## Section 3

Campbell- Why not consider coming in on Middle Pownal by way of Alt C and then connect down to Alt A? Large grade change.

McDonough - Something to be said about citing path on the trolley bed as much as possible - historic preservation value.

## Section 5

Tarnas - Burrington Rd's grade isn't as bad as Rte 7, and there is no traffic on Burrington Rd.

Sullivan - Pownal has already asked the BCRC to look at Burrington for possible rec development. However, grade would deter many users and lower overall accessibility of trail.

Bryars shared grade averages for W. of Rte7 (3.7\% overall) and Burrington Rd (4.7\% overall)

Bashevkin- Keep path away from traffic to maximize the number of users of the path.

## Section 7

Sullivan - What is RR ROW width? It varies considerably.
Bryars explains that PanAm has been willing to sell easement on edge of their ROW, but not share larger segments of their ROW.

Campbell - Hard to imagine that ANR will allow western route development due to River Corridor regulations Thoughts? It would be a design challenge to develop between the RR and the Hoosic River, but it may be permissible due to embanked nature of RR. Would a fence be necessary with rail by trail? Possibly, though significant grade change between rail tracks and either side could make fencing unnecessary.

Tarnas - Crossing RR will be very expensive. Anders explains that tunneling is less expensive than one might imagine, though dealing with the RR would be major challenge.

Sullivan - PanAm RR may seem amenable to negotiating an arrangement, but they have blocked development proposals at Pownal Racetrack due to liability concerns with cars crossing rail tracks.

## Section 9

Campbell - Where did historic trolley line go? Along Massachusetts Ave. to North Adams.

Lauren Stevens representing the Hoosic River Watershed Alliance. Group is very supportive. Helped with
Ashuwillticook Rail Trail development and excited about this proposal. Mohican-Mohawk Trail from Deerfield, MA to
North Adams could be linked to this project to extend that historic walking path.

Bashevkin - Connection to Williams College doesn't seem critical since they already have paths. Talk with folks in Berkshires about how they've worked with the rail company.

Groff - Question about path development in road ROW. If Route 7 alignment is pursued, there is at least 50 ft of ROW there so should be room to include full path on one side of road.

## General Comments

Sullivan - Back to Section 1, the Energizer Building is being studied for multi-use redevelopment. Good to have in mind for the scoping study.

Marr - Work with Shelley Stiles on areas around Greenberg Headwaters since she knows the property owners.

Copp - Support for trolley line sticking to historic alignment as much as possible. Communicate very clearly about allowed uses on the trail, especially in light of ongoing Pownal ATV ordinance debate.

## Notes from Bennington Local Concerns Presentation

Monday, July 27, 2020 6pm by teleconference

## Attendance:

Select Board members present: Donald Campbell - Chair, Jeannie Jenkins - Vice Chair, Jeanie Conners, Jim Carroll, Bruce Lee Clark, Sarah Perrin

Town Manager: Stuart Hurd

Assistant Town Manager: Dan Monks
Public: about 30 individuals
The meeting was broadcast live on CAT-TV.
Catherine Bryars, BCRC presented the Trolley Line Path Project and Mark Anders attended.

## Comments/Questions:

Ms. Perrin: When will we know the cost? Cost estimates will be included in the Scoping Study.

Ms. Jenkins: Will you be presenting this in Pownal and Williamstown? Yes

Ms. Conner: Encouraged others to visit the Ashuwillticook Rail Trail in Adams, MA, to see a great example of what a shared-use path can do for a community.

Mr. Campbell: Voiced support for the project. Wondered how the alignment would avoid the O'Neil Farm.

All SB members stated they support the project.

## Notes from Pownal Local Concerns Presentation

Monday, July 23, 2020 6pm by teleconference

## Attendance:

Select Board members present: Angie Rawling, Mike Gardner, Harry
Percey, Bob Jarvis, Ron Bisson
Town Clerk: Julie Weber
Town Agent: Rebecca Dragon
Public: about 5 individuals
Catherine Bryars, BCRC presented the Trolley Line Path Project and Mark Anders attended.

## Comments/Questions:

Mr. Jarvis asked who the Trolley Line Path will be owned and operated by. Is it likely the path will be owned and operated by the State since the scoping study is funded by the State? BCRC staff responded that State ownership and management is most likely scenario, though various management schemes will be considered in the scoping study.

Angie Rawling stated that she supported the project and other Select Board members generally agreed.

## Notes from Williamstown Local Concerns Presentation

Monday, October 26, 2020 7pm by teleconference

## Attendance:

Select Board members: Jane Patton, Hugh Daley, Andy Hogeland, Jeffrey Thomas, Anne O'Connor

Town Manager: Jason Hoch
Cat Bryars of BCRC
Public: about 30 individuals
The meeting was broadcast live on Willinet channel 1303.

## Comments/Questions:

Regarding the alignment to connect to the Mohawk Path, avoiding impacts to private landowners is preferred by the Select Board, so the Route $7 /$ Syndicate Rd alternative is not ideal. The most advantageous alignment would be the middle route requiring a new bridge to connect to the Mohawk Path by a baseball diamond.

Questions about how posting racist signs on trail would be handled. Question deferred to later section of the Select Board meeting to discuss recent hate incidents in the Williamstown community.

What is the timeline for developing the trail? Explained that the scoping study will be completed by the end of 2020 , though it will be a living document that will be updated as new information comes to light regarding the project. Advocacy on the part of impacted communities and meetings with state and federal legislators is likely key to pushing the path proposal toward development.

Select Board appreciated hearing about the project and plan to stay updated through Select Board member and Trolley Path Steering Committee member Andy Hogeland.

## Notes from Final Presentation

Thursday, January 21, 2021 at 5:30pm by video/teleconference

## Attendance List -

Cinda Morse, Janet Hurley, Scott Winslow, Lorna Mattern, Anthony MacLaurin, Nancy Shuttleworth, Jock Irons, Leslie Addison, Stephanie Lane, Andrew McKeever, Bruce Lierman, John LaVecchia Sr., John LaVecchia Jr., Megan Herrington, Nancy Feasy, Nick Zaiac, Sheila Kearns, Stephanie Hernandez, Tom Donahue, Mary Morrissey, Heather Parks, 413-346-7353, 802-440-2811

Of BCRC: Callie Fishburn, Jim Sullivan, Bill Colvin, Jonathan Cooper, Allison Strohl, Cat Bryars, and Mark Anders

## Comments/Questions:

M. Morissey: questions about the nature of a scoping study and how close this project is to being built. How have property owners been communicated with regarding this study? Who is on the steering committee and who are current BCRC commissioners?
H. Parks: family would be negatively impacted by this project. There is not sufficient awareness of the project by abutting property owners. What was the notification process for property owners?
M. Anders, C. Bryars, and J. Hurley explained that a scoping study is an initial, exploratory study, not a plan to develop. The scoping study has met and exceeded requirements for public and property owner outreach.

## Traffic Data

Crash Data - Route 7 in Vermont

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| Juy 15, 2016,4:4PM |  | -47 US R outie 7 | UST 7 | Fatal | Ohere-Explan in Naratuve |  | Bemingoon Po. | 2.11 | Noneother | Day | Pak Lavn Conealay | None | None | Notata Junction | None | 47 US Roulur ${ }^{\text {S }}$ | ory |
| Octobe 12, 2018, 8, 52 AM | Pounal | ${ }^{3067 ~ U S ~ S o u t u e 7}$ | Us,7 | Fatal | Head On | Coway | vse-83 Shantsury | 4.92 | Noneother | Day | Notht Poma food | None | Heay Truk | Notata Junction | None | 3067 US foule 7 | ory |
| Maech 4,2018, 6:00 MM | Pooval | 770 US RTE7 | Us 7 | Fatal | Sngivevelice crash | coway | vsp- -83 Shatsoury | ${ }_{7} 723$ | Noneother | Day | Peals Pne foad | None | None | Notata Junction | None | 770 US RTET 7 | wet |
| Feomax $1,2018,5,535 \mathrm{AM}$ | Pounal |  | Us. 7 | Fatal | Let nend Right Tums, Smuluneous Tum Crash | Froemg Prexpration | vsp- B3 Shatsoury | ${ }^{7} .34$ | Noneother | Noht | Peak Rne Road | None | None | Notata Junction |  |  | show |
| Agust $25,2013,3,36.6 \mathrm{PM}$ | Bemington | US7.72088 Route7) | Us. 7 | Inumy | Head on | ${ }^{\text {chear }}$ | ${ }^{\text {Bemingion Po. }}$ | 0.09 | Noneother | Day |  | None | None | Notata Junction |  | US.7(2088 Route7) |  |
| Spemember 30, 2015, 3, 309 PM | Bemingon | 2068 US R Putue 7 | Us, 7 | 1 miny | Rear End | Rain | Bemingor Po. | 0.09 | Noneother | Day |  | None | Heay Truk | Notata Junction |  | 2068 US Roulue 7 | wet |
| Junes, 2010, 12:00 AM | Bemingon | US Route? 7 | Us. 7 | Inumy | Ohtere-Evplan in Nerative | coway | Bemingoon Po. | 0.11 | Noneother | Noht | Rest Hot Repais - | A None | None | Notata Junction | None | US Roule 7 | ory |
| Docember 15, 2017, 5:19 PM | Bemingon | , 1923 Boute 7 South | Us. 7 | Inumy | Sngivevencice crash | cowuy | $B^{\text {Bemingion Po. }}$ | 0.24 | Noneother | Nght |  | Alconol | None | Notata Junction | None | 1923 foute 7 South | ory |
| Oatober $13,2014,5,523 \mathrm{PM}$ | Bemingon | Us Rt7 | Us. 7 | Inum | Snglo velicie crash | clousy | Bemingor Po. | 0.28 | Noneother | Day | Ext2 | None | Motercyce | Oftramp | None | US At 7 | ory |
| June 16, 2010, 12:00 AM | Bemingon | Us Router 7 | US. 7 | ${ }^{\text {minuy }}$ | Sngise Velicle Coash | Rain | Bemingoon Po. | 0.28 | neother | Day | Oerhard Poad | Alconol | None | Notata Junction |  | Us foute 7 S | wet |
| Ocobes 21, 2016, ,720 AM | Beningon | F1518 V T Foute7 7 Suth | Us. 7 | 1 miny | Snglo velicle crash | ${ }^{\text {chear }}$ | Bemingoon Po. | 0.84 | Noneothe | Day | Pobe 97 | None | None | Notata Junction | None | 1518 V T Pouter 7 Suth | wet |
|  | Bemingon | US Route7 7 Suuth | us. 7 | Inury | Sngaivenlicic Crash | ${ }^{\text {chaxt }}$ | Bemingon Po. | 0.81 | Doer | Noht | Fuller food west | None | Moterecre | Notata Junction | None | US Foutie 7 Suath | ory |
| Mey $21,2018,12.45$ PM | Beningon | Us Route 7 | Us. 7 | Iniury | Sngivevelico crash | cher | Bemingoon Po. | 0.88 | Noneother | Day | Fulue food west | None | None | Notata Junction | None | Us foute? | ory |
| Feonay 15, 2019, 12:27M | Beningoon | Us foutio 7 Suuth | Us. 7 | 1 miny | Oher-EEphan in Narative | ${ }^{\text {chear }}$ | Bemingon Po. | 0.88 | Noneother | Day | Fulle food west | None | None | T- Mresescion | None | Us foute7 7 Sucth | or |
| Sepelember $26,2018,6,4.48$ AM | Beningon | Us Route7 | Us. 7 | Inumy | Sngivevenicoco Tash | ${ }^{\text {chear }}$ | ${ }^{\text {Bemmingon Po. }}$ P. | 0.9 | Noneother | Day | Fulle food | None | None | Notata Junction | None | US Route 7 | Ory |
| Maxch $6,2018,5,54$ PM | Beningan | 118 Suits streat | Us. 7 | 1 miny | Sngivevelice crash | ${ }^{\text {chara }}$ | Bemingoon Po. | 0.91 | Noneother | Nght | Union Streat | None | Peosestran | T- Mnessetion | None | 118 South Steet | or |
| Juy $8.2014,4,27 \mathrm{PM}$ | Bemington | vit 7 7 ${ }^{\text {d }}$ | Us. 7 | Inumy | Snagivevicice Crash | chear | Bemingoto Po. | 1.05 | Noneother | Oay | Campeneretull | None | None | Notata Junction | None | VT Rt7s | Ory |
| November 22, 2013, 10.50 OMM | Beaningon | us Riot South | Us. 7 | Inum | Left Tum and Thu, Angl Broasside-sy- | Clousy | Bemingoon Po. | 1.09 | Noneother | Day | Capenenetull foad | None | None | Y- Inessaction | None | US Riei 7 Suth | wet |
| Ma6, $62016,5.54 \mathrm{MM}$ | Bemingon | ,988 Route 7 | Us7 | Inum | Sngive vencico crash | cher | Bemingion Po. | 1.18 | Noneother | Noht |  | None | None | Notata Junction | None | 968 Route 7 | or |
| Macch 28, $2011,1.51$ PM | Bemingon | Foute 7 South | Us. 7 | Inuy | Head On | chear | Bemingoon Po. |  | Noneother | Day | Monur | None | None | Notata Junction | None | Route South | ory |
| Macch 21, 2015, 5:23 PM | Beningon | US.7 (1921 Router South) | Us. 7 | Inpuy | Snglo velicie Cosah | Clousy | Bemingoto Po. | 1.22 | Noneother | Day |  | None | None | Notata Junction | None | US.7 7 (921 Router 7 Suut) | or |
| Juty $20,2019.5 .2727 \mathrm{PM}$ | Bemingon | 693 US Route7 7 Suth | Us. 7 | Intury | Rear nd | ${ }^{\text {chear }}$ | Bemingion Po. | 1.47 | Noneother | Day | Ffitand Dinm | None | None | Notata a Junction | None | 693 US Router 7 Suut | or |
| August 7 ,2010, 12,00 AM | Bemingon | 604 US Roule 7 | Us. 7 | mivy | Left Tum and Thu, Angle Broassso- | ${ }^{\text {chear }}$ | Bemingon Po. | 1.54 | Noneother | Oay | Appeb Bam | None | None | Notata Junction | None | 609 US Roule 7 | or |
| Novenber $25,2012,3,06 \mathrm{PM}$ | Beningon | ${ }^{593 \text { RL } 7 \text { 7 }}$ | us. 7 | 1 miver | Othere Eppanan in Narative | cloux | ${ }^{\text {Bemmingon Po. }}$ | 1.57 | Noneother | Day | Appe Bam | None | None | Notata Junction | Roas Surrece Conditiontwe, ic | 5993 RL 7 s | ${ }^{\circ}$ |
| Januax 9, $2012,4,4.28 \mathrm{PM}$ | Beanigon | Route 7 South | Us. 7 | Inumy | Head On | chax | Bemingoon Po. | 1.99 | Noneother | Day | Pakk Lavn Cemenay | None | None | Notata Junction | Deabs | Route South | ory |
| June26, 2013, 1.59 PM | Beningon | Us.7 South Streed | Us. 7 | Inury | Rear End | coway | ${ }^{\text {Bemmingon Po. }}$ O. |  | Noneother | Day | Cresent Bud. | None | None | T- Intessestion | None | US.7 South Street | ${ }^{0}$ |
| Feonay 14, 2019,9,25 MM | Bemingon | South steed | Us.7 | ${ }^{\text {nimury }}$ | No Tums, Thum moves ony, Biosasside $\wedge$ | coway | Bemingon Po. | 2.56 | Noneother | Day | Proseet Street | None | None | Four-way liesesecion | None | Souts street | wet |
| Macch 8, 2011, 6:20 Am | Bemingon | US.7. Suut stree | Us. 7 | 1 miny | Reat End | Cobuy | ${ }^{\text {Beming}}$ (tor Po. |  | Noneother | Day |  | None | None | Fourway Mnesescion | Ohere-Explan in Neratave | US.7 South Stued | ory |
| Masch 18, 2011, ,2.23 PM | Beningon | South stret | Us. 7 | Inimy | Rear End | ${ }^{\text {chear }}$ | Bemingoon Po. | 2.69 | Noneother | Day | Weess street | None | None | T- Inesesction | None | Souts stret | or |
| Mas 29, 2010, 12:00 AM | Bemingoon | Us.7.7 Scuit streen | Us. 7 | 1 miny | Rear End | Clousy | Bemingoon Po. | 2.69 | Noneother | Day | Weesestreat | None | Motercyce | T- Intesescion | None | US.7 (Souts Stree) | Or |
| Seplember re, 2010, 12:00 AM | Beamingon | Us.7 Souts stoed | Us. 7 | Inumy | Rear nd | chear | Bemingoon Po. | 2.69 | Noneother | Day | Weesestreat | None | None | Notata Junction | None | US.7 Sout Street | oy |
| Fethay $8,2013,8,42 \mathrm{PM}$ | Bemingon | Us.7(329 South stree) | Us. 7 | Intury | Sngise venicico Crash | Freaze P Procopation | miningon P0. |  | oneother | Noht | Weeks streat | None | None | Notata Junction |  | Us.7 7 [292 South Steen) | show |
| Docembee $21,20013,4288 \mathrm{PM}$ | Bemingon | US.7.732 South steen) | Us. 7 | Inuy | Sngig vencico Crash |  | Bemingoon Po. |  | Noneother | Day |  | None | Peosestran | Four-way Inesesecion | None | US.7 7 (232 S Suth Streen) | Wet |
| Spepember 28, 2014, 11:37 AME | Bemingon | Us, 7 Suut streed | us. 7 | mupy | Rear End | chear | Bemingoon Po. | 2.71 | Noneotmer | Day |  | Atonol | None | T- Intesaction | None | US.7 Souts strot | ory |
| Docember $26,2013,9000 \mathrm{AM}$ | Bemington | 305 South streat | Us. 7 | Inum | Head on | Freang Prexporation | Bemmingon Po. | 2.81 | Noneother | Day | Ems Sreet | None | None | Notata Junction |  | 3055 Soun Steet | sow |
| August 16, 2010, $12: 000 \mathrm{AM}$ | Beaniggon | Us.7 Suth stoed | US. 7 | Inumy | Reat nd | Ran | Bemingon Po. | 2.84 | Noneother ${ }^{\text {a }}$ | Day | Em Streat | None | None | Notata Junction |  | Us.7 7 Suth stroet | wet |
| August $23,2012,7,748$ AM | Beaningon | Us.7 South sioet | Us. 7 | Inumy | Left Tum ned Thu, Ange Eloassdo-- | chear | ${ }^{\text {Bemmingon Po. }}$ |  | Noneother | Day | Unoo Streat | None | Motercyce | T- Inessation | None | Us.7 Sout steet | ory |
| Seplember 5, 2017, 220 PM | Bemingon | 118 South steat | Us. 7 | Inius | Reat nd | Clousy | Bemingoon Po. | 2.91 | Noneother | Day |  | None | None | T- Inessation | None | 118 Sutht steet | or |
| ALgust $23,2011,9: 18$ AM | Bemington | Us.7(118 South Stree) | Us. 7 | Inum | Reat nd | chear | Bemingoon Po. | 2.92 | Noneomer | Day | Union Streat | None | None | T- Mnesesetion | None | Us.7(118 South treen) | or |
| Ocobee 24, 2012, 6, 12 AM | Bemingon | Us.7.118 Sutht sreen) | Us, 7 | 1 Inury | Left Tum and Thu, Erasasso K- | chear | ${ }^{\text {Bemingigon Po. }}$ | 2.92 | Noneomer | Nght | Union Streat | None | Biccle | T-Mtesesetion | None | Us.7(118 Sout Stren) | or |
| A00018, 2017, 5 ,37 PM | Beanigoon | Souts stred | Us. 7 | Inury | Reat nd | chear | Bemingoon Po. | 2.92 | Noneomer | Day | Frankn Avenue | None | None | T- Inessation | None | Souts stret | ory |
| Macch 26, 2014, 12:42 PM | Beningon | Us.7 Souts Steed | Us. 7 | Inupy | Rear End | Clouxy | ${ }^{\text {Bemmingon Po. }} \mathrm{P}$. | 2.94 | Noneooner | Oay | FFankln Lane | None | None | Notata Junction | None | Us-7 South street | On |
| Aepl 12, 2017, 1:06 PM | Bemington | 105 Suuth strot | Us. 7 | Inury | Rear End | ${ }^{\text {chear }}$ | Bemingoon Po. |  | Noneomer | Day | Mans steet | None | None | Four-way Inesesecion | None | 105 Souts Steen | or |
| Januax 5, $2013,8.56 .6 \mathrm{mM}$ | Bemingon | Us. 7 Suut stoed | Us. 7 | Inumy | Rear nd | Clousy | Bemingoon Po. | 2.97 | Noneomer | Day | Man Stree | None | None | Fourvay lnesesction | None | Us.7 7 suth stroet | wer |
| June , 2010, 12.00 AM | Beningon | Us7 7 suut Streed | Us. 7 | Inumy | Head On | ${ }^{\text {chear }}$ | Bemmingon Po. |  | Noneomer | Day | Man St. | None | Peosestran | Fourway lnesesction | None | Us.7 7 suth stroet | or |
| Januax 4, 2015, 8,001 AM | Bemingon | US Rt 7 | Us. 7 | Inumy | Sngig venclice Crash | couay | Bemmingon Po. | 999.99 | Noneooner | Day | Ext2 | None | None | Notata sunction |  | US AT 7 | ${ }^{\text {sow }}$ |
| Fennay 5, 201, 4, 430 PM | Bemingon | Us foute? | Us. 7 | Inum | Sngivevelice crash | Freang Preoplation | Bemingoon Po. | 999.99 | Noneomer | Day | Upere UTTum | None | None | Notata Junction |  | Us foule 7 | Sow |
| Doeember $23,2016,2,45 \mathrm{PM}$ | Pownal |  | us 7 | Inupy | Rear End | ${ }^{\text {chear }}$ | Bemingoon cso | 0.04 | Noneooner | Day | Stat Lne ome | None | None | T- memesection | None |  | Oy |
| Octobest, $2019,3,3.3 \mathrm{PM}$ | Pounal | 7599 US R Riep Pownal VT | Us. 7 | Inupy | Head On | ${ }^{\text {chear }}$ | Bemingion CSO | 0.39 | Noneother | Day | Joley ${ }^{\text {s }}$ | None | None | Notata Junction | None | 7599 US Priol Pomava VT | ory |
| Sspemberl, 2011, 6:11 PM | Pounal | 7594 USAT 7 | US 7 | miny | Smeno iraction Scoswie | Coway | vse. cas shatsoury |  | Noneomer | Day | Msson tul | None | None | Notata Junction | None | 7594 US RT7 | wet |
| Januay 13, 2014, 6 6:10 AM | Pouna | US.77594 US R R7) | Us. 7 | Inius | Ohter-Explan in Namative | cher | vse. cas Shatsour |  | Noneother | Day | Sterats Stop | None | None | Notata Junction | None |  | ${ }^{100}$ |
| November 19, 2014, 12:33 PM | Poumal | 7594 USRT7 | US. 7 | ${ }^{\text {minuy }}$ |  | clear | vse. Cas Shantsury |  | Noneother | Day | Stat Lne | None | None | Notata Junction | None | 7594 US Rt 7 | on |
| Docembee $22,2017,12.56 \mathrm{PM}$ | Pounal | 7594 V ret 7 | Us. 7 | Inpury | Head On | Freazng Procoptaion | Bemingoto cso |  | Noneother | Day | State Lne omve/ Maso | None | None | Othe - Expean in Narat | Eat | 7594 U Re7 7 | Wate |
| Ocobore 25, 2014, ,11.53 AM | Pouna | US.7(7488 US RT 7 ) | Us. 7 | 1 miny | Opp Dinetion Stuswive | char | vse. ca shantsury | 0.53 | Noneomer | Day | Puran Duguny Rd | None | None | Notata Junction | None | US.7 (7488 US RT7) | or |
| May 16, 2013, 1:08 PM | Pounal | US77(7275 US R R 7 ) | Us, 7 | Inumy | Rear End | clouxy | vse. C3 Shatsoury | 0.61 | Noneooner | Day | VTLawor Outee | None | None | Notata Juncion | ${ }^{\text {None }}$ |  | ${ }^{\mathrm{or}}$ |
| Seplember , 2015, 4, 4.3 PM | Pouna | 1275 VT TTE7 | Us. 7 | ${ }^{\text {In wiy }}$ | Rear End | chear | Bemmingon Count SO | 0.61 | Noneother | Day |  | None | None | Notata Junction | None | 1275 VT PTE 7 | or |
| June 24, 2010, 12:00 AM | Pounal | 7594 U S R 7 7 | Us. 7 | Intury | Rearetorear | ${ }^{\text {chear }}$ | vse- 83 Shatsoury | 0.83 | Noneomer | Day | Suut Meson tull dd | None | None | Notata Junction | None | 7594 Us Ret 7 | on |
| Max4, 2077, 11:18 PM | Pownal | ${ }^{61929.6222 U S 5} 7$ | us 7 | Inumy | Sngie Ventice Crash | Ran | vse. 83 Shatsuuy | ${ }^{1.23}$ | Noneooner | Nopt | Purael fd | Atonol | None | Notata Junction | None | ${ }^{61929.6222 ~ U S ~} 7.7$ | Or |
| Feonay $17,2015,7$,3:3 PM | Pownal | US.7(E364 US ATT) | Us. 7 | 1 miver | Ohere- Evpahan in Nerative | ${ }^{\text {clousy }}$ | vse. cas Shatsuy | 1.34 | Noneomer | Noht | VT Rt T ${ }^{\text {at }}$ | None | Heamy Tuck | Notata Junction | None | US77(684 US STT) | O\% |
| August $6,2015,6,4.45 \mathrm{AM}$ | Pounal | US Router P Pownal vemont | Us. 7 | mupy | Same irection Sosesve | ${ }^{\text {chear }}$ | Beminglo Count So | 1.44 | Noneomer | Day | Mie Mater | None | Biocre | Notata Junction | None | US foule 7 Pown V vemont | or |
| Max 4, 201, 12.48 PM | Pounal | 1400 Us ${ }^{\text {at } 7}$ | Us, 7 | mivy | Sngivevelicoc crash | Ran | vsp. cas Shatsuyy | 1.48 | Noneomer | Day | ${ }^{\text {B Hulfoad }}$ | None | None | Notata Junction | None | 1400 Us Rt 7 | Wet |
| Macch 22, 2019, 2.:57 PM | Poumal | ${ }^{6275}$ Us, 7 | Us. 7 | mupy | Sngieventicecrash | Ran | vse - 83 Shatstuwy | 1.67 | Noneomer | Day | 8 HIM Cd | None | Heamy Tuck | Notata a Jnetion | None | ${ }^{6275059} 7$ | wet |
| Fobenax 1, 2018, ,7:10 mm | Pouna | Route 7 | Us, 7 | 1 miny | Sngivevelicocrash | Freezng Precoptaion | vse - $\mathrm{B}^{\text {S Shatsour }}$ | 1.76 | N Noneomer | Day | Green Mountin Moble | f None | None | Notata Junction |  | Route 7 | show |
| Docember 1, 2015, 7, 719 MM | Pownal | $593 \mathrm{US} \mathrm{AT7}$ | Us, 7 | Inury | Sngive vencicocrash | ${ }^{\text {cououy }}$ | vse cas shatsuyy | 2.05 | Noneomer | Day | VT RT 3 36 | None | None | Notata Junciom | None | 5939 Us RT7 | ${ }^{\mathrm{om}}$ |
| Docember 8, 2018, 5:01 AM | Pouna | 5700 Us Ritio 7 | Us. 7 | 1 miny | Same ireceion Scosm | ${ }^{\text {chear }}$ | vse- B3 S Shatsour | 2.29 | Noneomer | Nght | Laxd foad | None | None | Notata Junction | None | 5701 Us Rite 7 | ory |
| June 21, 2012, 8, 800 PM | Pownal | 2350 Us At 7 | Us, 7 | Imury | Sngivevencicocrash | ${ }^{\text {chear }}$ | vse -c3 Shatsoury |  | Noneoomer | Noht | Oaktull School Rood | None | None | T- minesation | ${ }^{\text {None }}$ |  | ${ }^{\text {on }}$ |
| Spalember 12,2019,2,26 PM | ${ }_{\text {Pounal }}$ |  |  | ${ }^{\text {minuy }}$ | Singivelicicorash | ${ }_{\text {Ran }}$ | vse. 83 S Shatsury |  | Noneomer | oopy | ${ }^{\text {Jactson Coss foad }}$ | ${ }^{\text {None }}$ | ${ }^{\text {None }}$ | Notata Juction |  | ${ }_{\text {L }}^{1803 \text { U } 4 \text { S Route } 7}$ | Wen |
|  | Pounal |  | ${ }_{\text {US } 7.7}$ |  | Singo Velico Crash | ${ }_{\text {chaxay }}^{\text {chax }}$ | vsp-c. C Shatsour |  | Noneother | ${ }^{\text {Oay }}$ | ${ }_{\text {Bumingoon }}^{\text {Bu }}$ | ${ }_{\text {None }}$ None | $\stackrel{\text { None }}{\text { None }}$ |  |  | Us.7(3700 US Rt ${ }^{\text {a }}$ |  |
| Juy $4,2011,4.45$ mm | Pounal | 3827 Us At7 | Us,7 | Inury | Singivevicicocrash | coucy | vse. cas shatsuury |  | Doer | Noht | Oaxtill shool hd | None | Eyc | Notata Junction | None | 3327 Usett | Dr |
| Feonay 8 , 2011, 11:24 AM | Pounal | 3335 Us Rt7 | Us 7 | ${ }^{\text {minury }}$ | No Tums, Thum moves on, B, Boassise $\sim$ | Fraezeng Prepoptaion | vse. cas hatsuury |  | Noneomer | Day | Mann Hil Noth | None | None | Notata Junction |  | 3335 US RT7 7 | show |
| Apol 12, 2017, 8.52 AM | Pounal | ${ }^{3401-3429 ~ U S .7 ~}$ | Us. 7 | Inupy | Rear End | Rain | vse-83 Shatsoury |  | Noneomer | Day | ${ }^{\text {N Man Hill Reaber Pond fd }}$ | None | None | Notata Juncion |  |  | Wet |


| Docember $23,2017,7: 177$ an | Pownal | ${ }^{33335}$ Us fouter 7 | Us.7 | Inury | Shagovendicoc crash | Freazing Prexpitation | VsP- B3 Shatsour |  | Noneother | Day | Notrt Man rull | None | None | Notata aunction |  | 3335 Us Route7 | ${ }^{100}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Spetember 10,2011, :0, PM | Pounal | 3003 US RT7 | US. 7 | Imury | Left Tum and Thn, Brastsiol v- | ${ }^{\text {chear }}$ | vse. ca shantsury |  | Noneother | Day | NPouna R ${ }^{\text {d }}$ | None | Moterccie | Notata Junction | None | 303 US Rt7 | $\mathrm{or}_{8}$ |
| June 11,2013, 2.45 PM | Pownal | 2605 US RT7 | Us. 7 | Imury | Sngivevelicocirash | Rain | vsp. cas Shatsoury | 5.38 | Noneother | Day | Pettit or | None | None | V-mesesection |  | 2605 US RT7 | wet |
| Octobere $27,2013,5,500 \mathrm{PM}$ | Pounal | US.7 (2546 US RT7) | Us. 7 | Imury | Opp Dinection Sudeswpe | char | vse. Ca Shatsoury | 5.45 | Noneother | Oay | Geneara olla stor | None | Peosestan | Notatauntion | None | US.7 (2546 U S RTT) | ory |
| Fenauy 28, 2013, 3:15 PM | Pouna | US77 (2337 US Rt7) | Us. 7 | Imury | Rear End | cher | vse. cas Shatsour | 5.45 | Noneother | Day |  | Aconol | None | Notata Junction | None | US.7(2337 U S Rti) | wet |
| August 6 , 2010, 12:00 AM | Pouna | 2323 USRT 7 | Us. 7 | miny | Sngivevelicocirash | cher | vse- B3 Shatssury | 5.66 | Noneother | oay | Biusem H HI | None | None | Notata Junction | None | 2323 Us RT 7 | ony |
| Ocoboer $20,2015,7,747 \mathrm{MM}$ | Pounal | US.7 (2092 US Router) | Us. 7 | miny | Sngovevalice crash | coway | Bemmingon Couny So | 5.9 | Noneother | pay |  | None | None | Notata Junction | None | US.7 (2092 US Router) | wet |
| August 3 3, 2019, $11: 2 \mathrm{la} \mathrm{m}$ | Pounal | 1990 Us, 7 | Us. 7 | Imury | Rear End | chear | Bemingto CSS |  | Noneother | Day | Jacteon Coss foad | None | None | Notata Junction |  | 1990 US.7 | ${ }^{0}$ |
| May 13, 2015, 12,25 AM | Pounal | US77(1990 USATT) | Us, 7 | muvy | Sngovevicicocrash | ${ }^{\text {chear }}$ | vsp ca shantsury | ${ }^{6} .01$ | Noneother | Nght | Joclson Cosos hd | Aconol | None | Notata aunction | None | US.719990 US Ri | Or |
| Mev, 2010.012 .000 MM | Pownal | 1990 Us R R7 7 | Us, 7 | minuy | Rear End | cher | vse- E3 Shantsury |  | Noneother | Oay | Jocleson Cosos hd | Aconol | None | T- miesesction | None | 1990 Us Rti | Or |
| Doeembe 5, 2010, 11:00 PM | Pounal | USRT7 | Us. 7 | Imuy | Sngive veliciecrash | Freazg Procoptaion | vsP. 8 B S Santsuly | ${ }^{6} .11$ | Noneother | oay | Joalson Cosos Road | None | None | Notata Junction |  | US RT 7 | ${ }^{160}$ |
| Spelember 3, 201, , 8:816 An | Pownal | US.7 (6300 US RT7) | Us. 7 | Inuy | Sngovevelicocirash | coucy | vsp. cas shatsour |  | Nonoother | Day | Jockson Cooss Rd | Aconol | None | Notata aunction | None | Us.7.7300 Us R 1 | on |
| Feenay 8 , 2011, 9:40 AM | Pounal | 1990 US RT7 | Us. 7 | Imury | No Tums, Thu moves ony, Brassiso $\sim$ | Freazg Prapoptaion | vse. ca shantsury | ${ }^{6} 14$ | Noneother | Day | Juacson Cosos Rd | None | None | Notata Junction |  | 1900 Us RT 7 | snow |
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| Noventer $20,2016,8,3.3 \mathrm{PM}$ | Pounal | 1774 US RT7 | Us, 7 | muvy | Sngovevelicocrash | Freezeng Prexpotaion | vse - 83 Shantsury |  | Noneother | Nght | Jockson Cosos fd | None | None | Notata aunction |  | 1745 US R | sow |
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| June 4, 2011, 2.000 PM | Pounal | 1597 U S RT7 | Us. 7 | Imury | Left Tum and Thu, Brasssdev K - | coucy | vse. Ca S Santsury | 6.29 | Noneother | Day | Knns way | None | Motercyce | T- - mesesction | None | 1597 U S RT7 | ory |
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| Noveneme $23,2013,111: 39 \mathrm{PM}$ | Pounal | US77 (IS50 U S RT7) | Us. 7 | Imury | Shgive vencicocrash | Freezing Prexpipation | vsP-C3 S Santsuly | ${ }^{6.51}$ | Noneother | Nght | ${ }^{\text {Kngs way }}$ | None | None | Notata Junction |  | US.7 (IS50 US RT7) | show |
| M ${ }^{2}$ 2, 2019, 3.01 PM | Pownal | ${ }^{12818}$ Roule 7 | Us, 7 | mowy | Sngobevencococrash | coway | Bemingto CSO | ${ }^{6.69}$ | Noneoother | Day | Jowet Brok Road | Atochol | None | Nootat a unction | None | ${ }^{1288 \text { R Rưue } 7}$ | wet |
| Docember 14, 2018, 5, 528 MM | Pownal | ${ }^{1127}$ Us, 7 | Us. 7 | Iniuy | Sngale Venicico Corash | coudy | vspe B3 Shatsoury |  |  | Noht | Meatale or | None | None | Notata Junction | None | ${ }^{1127}$ Us.7 | wet |
| Januay $27,2012,3,30 \mathrm{PM}$ | Pownal | US77(614 USATT) | Us, 7 | minur | Sngole venlicoc ciash | Ran | vse. Ca shantsury | ${ }^{7.4}$ | Noneother | Oay | Patas Pne Rd | None | None | Notata aunction |  | US77 (614 US RT 7 ) | wer |
| Deeembe 18, 2013, 3.38 PM | Powna | US7. $(614$ US ST7) | Us,7 | Imury | Rear End | coucy | vse. cas Shatsour | ${ }_{7} 7.3$ | Noneother | Day | Sanere Cossing | None | None | Notata aunction |  | US77 7 (14 U S ST7) | wet |
| Novenber 7, 2010, 11:00 PM | Pounal | US.77(760 U S RT7) | Us. 7 | Imury | Sngivevelicocrash | Freezag Procoptation | vsP- B3 S Santsuly | ${ }_{7} 7.3$ | Noneother | Day | Jackson Cosos Rd | None | None | Notata Junction |  | US.77 7800 U S RT7) | sush |
| Mev, 2015, 10:033 AM | Powna | US/7(302 US R P7) | US. 7 | Imury | Sngovevalicocrash | chea | vse. cas Shatsoury | 7.69 | Noneother | Day | Serars Cossing | None | None | Notata aunction | None | UST7(302 US R R 7) | Or |
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| August $2.2013,12.30 \mathrm{PM}$ | Pounal | 65 US RT7 | US.7 | Imury | Snge vevilic Casas | ${ }^{\text {chear }}$ | vse. cs Shatsoury | 7.92 |  | Day | Seames Cossing | None | None | Notata aunction |  | 65 USATT | Or |
| Masch 20, 2015, 6.40 PM | Pownal | US 7 7 6 S US PT 7 | Us,7 | miny | Shagivendicicocrash | Freering Prexplataon | vsP. Cs Shantsuly |  | Noneothe | Noht | Sarate Cossing | None | None | Nootat Junction |  | US.765 US A | ${ }^{100}$ |

Traffic Research Unit

|  |  |  | FC R/U TOWN |  |  | BEGINNING REFERENCE: |  |  | ENDING REFERENCE: |  |  | ATR STA | PERMSTATUS | 2012 <br> AADT |  | $\begin{aligned} & 2015 \\ & \text { AADT } \end{aligned}$ |  | $2018$ <br> AADT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TYPE |  | NAME |  |  |  | MM | NAME | NUMBER | MM | NAME | NUMBER |  |  |  |  |  |  |  |
| US | 5 | MAIN ST | 3 | U | NEWPORT CITY | 1.397 | SECOND ST/FIELD ST |  | 1.512 | ALT US 5 | TH-5 |  |  | 11500 |  | 10900 |  | 10900 E |
| US | 5 | MAIN ST | 3 | U | NEWPORT CITY | 1.512 | ALT US 5 | TH-5 | 1.627 | RAILROAD SQ |  | P179 |  | 15700 |  | 14200 |  | 14500 E |
| US | 5 | E MAIN ST | 3 | U | NEWPORT CITY | 1.627 | RAILROAD SQ |  | 1.834 | GARDENER PARK RD | TH-4 | P222 |  | 10700 |  | 10300 | E | 9400 E |
| US | 5 | E MAIN ST | 3 | U | NEWPORT CITY | 1.834 | GARDENER PARK RD | TH-4 | 1.984 | VT 191 |  | P189 |  | 9900 |  | 9000 | E | 9900 E |
| US | 5 | E MAIN ST | 3 | U | NEWPORT CITY | 1.984 | VT 191 |  | 2.059 | UNION ST | TH-10 |  |  | 7500 |  | 8100 | E | 9400 E |
| US | 5 | E MAIN ST | 3 | U | NEWPORT CITY | 2.059 | UNION ST | TH-10 | 2.550 | WESTERN AVE/SIAS ST | TH-8/6 | P184/185 |  | 7100 |  | 6400 | E | 6400 E |
| US | 5 | DERBY RD | 3 | U | NEWPORT CITY | 2.550 | WESTERN AVE/SIAS ST | TH-8/6 | 2.673 | BLANCHARD AVE |  | P187 |  | 8100 |  | 8000 | A | 8200 E |
| US | 5 | DERBY RD | 3 | U | NEWPORT CITY | 2.673 | BLANCHARD AVE |  | 3.880 | DERBY TL |  |  |  | 10000 |  | 10500 |  | 10700 E |
| US | 5 |  | 4 | R | DERBY | 0.000 | NEWPORT CL |  | 0.548 | QUARRY RD | TH-27 | P101/215 | CTC | 10000 |  | 10500 | A | 10700 A |
| US | 5 |  | 4 | R | R DERBY | 0.548 | QUARRY RD | TH-85 | 0.905 | 191 RAMPS B/C: EXIT 28 |  | P033 |  | 10800 |  | 11600 |  | 11900 E |
| US | 5 |  | 4 | R | DERBY | 0.905 | 191 RAMPS B/C: EXIT 28 |  | 1.122 | 191 RAMPS A/D: EXIT 28 |  |  |  | 9600 |  | 8400 | E | 9300 E |
| US | 5 |  | 4 | R | DERBY | 1.122 | 191 RAMPS A/D: EXIT 28 |  | 2.009 | VT 105 |  | P140 |  | 9900 |  | 8400 | A | 9200 A |
| US | 5 |  | 5 | R | DERBY | 2.009 | VT 105 |  | 2.471 | WALLACE RD | TH-59 | P168 |  | 5800 |  | 5200 | A | 5300 E |
| US | 5 |  | 5 | R | DERBY | 2.471 | WALLCE RD | TH-59 | 2.716 | BEEBE RD | TH-3 |  |  | 2900 |  | 2800 | E | 3000 E |
| US | 5 |  | 5 | R | DERBY | 2.716 | BEEBE RD | TH-3 | 5.354 | VALENTINE AVE |  | P100 |  | 2400 |  | 2200 | A | 2400 A |
| US | 5 |  | 5 | R | R DERBY | 5.354 | VALENTINE AVE |  | 5.715 | ELM ST | TH-2 | P151 |  | 2400 |  | 1800 | E | 7900 E |
| US | 5 |  | 5 | R | R DERBY | 5.715 | ELM ST | TH-2 | 5.899 | ALT US 5 | TH-1 | P154 |  | 2900 |  | 2200 | A | 2200 E |
| US | 5 |  | 5 | R | DERBY | 5.899 | ALT US 5 | TH-1 | 5.937 | CANADIAN BORDER |  |  |  | 940 |  |  | E | 750 E |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ALT US R | ROUT |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ALTUS | 5 | S MAIN ST | 5 | R | ST JOHNSBURY | 0.000 | US 5 |  | 0.394 | FAIBANKS DR | TH-364 | C168/210 |  | 2000 |  | 2000 | E | 2200 E |
| ALTUS | 5 | S MAIN ST | 6 | R | ST JOHNSBURY | 0.394 | FAIRBANKS DR | TH-364 | 0.472 | S MAIN ST/WESTERN AVE | TH-2/US 2 |  |  | 3200 |  | 1800 | E | 2000 E |
| ALTUS | 5 | MAIN ST | 3 | U | St Johnsbury | 0.472 | S MAIN ST/EASTERN AVE | TH-2/US 2 | 0.522 | CENTRAL ST | TH-344 |  |  | 5700 |  | 4100 | E | 3500 E |
| ALTUS | 5 | MAIN ST | 5 | R | ST JOHNSBURY | 0.522 | CENTRAL ST | TH-344 | 0.696 | MAPLE ST | TH-5 | C169 |  | 5400 |  | 4000 | E | 3400 E |
| ALTUS | 5 | MAIN ST | 3 | U | ST JOHNSBURY | 0.696 | MAPLE ST | TH-5 | 0.961 | MT PLEASANT ST | TH-310 | C170 |  | 6100 |  | 4500 | E | 3800 E |
| ALTUS | 5 | MAIN ST | 5 | R | ST JOHNSBURY | 0.961 | MT PLEASANT ST | TH-310 | 1.282 | US 5 (RAILROAD ST) | (TH-1) | C171 |  | 3800 |  | 2100 | E | 2300 E |
| ALTUS | 5 |  | 3 | U | DERBY LINE | 0.000 | US 5 (MAIN ST) | (TH-1) | 0.225 | LEE ST |  | P155 |  | 2100 |  | 2200 | E | 2200 E |
| ALTUS | 5 |  | 3 | U | DERBY LINE | 0.225 | LEE ST |  | 0.467 | I 91 RAMP B: EXIT 29 |  | P158 |  | 1500 |  | 2900 | E | 3000 E |
| ALTUS | 5 |  | 3 | U | DERBY LINE | 0.467 | 191 RAMP B: EXIT 29 |  | 0.604 | DERBY TL |  | P159 |  | 1400 |  | 2500 | E | 2700 E |
| ALTUS | 5 | COVENTRY RD | 3 | U | NEWPORT CITY | 0.000 | US 5 (PLEASANT ST/COVENTRY RD) | (TH-1) | 1.119 | EASTERN AVE |  | P171/PYAL |  | 2800 |  | 2500 | E | 1400 E |
| ALTUS | 5 | COVENTRY RD | 6 | R | NEWPORT CITY | 1.119 | EASTERN AVE |  | 1.283 | US 5 (WEST MAIN ST) | (TH-1) | P178 |  | 4800 |  | 4300 | A | 4400 E |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| US ROUT | E 7 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| US | 7 |  | 3 | R | R POWNAL | 0.000 | MASSACHUSETTS SL |  | 1.864 | VT 346 |  | B037 | CTC | 6700 |  | 6900 | A | 7000 A |
| US | 7 |  | 3 | R | R POWNAL | 1.864 | VT 346 |  | 4.739 | BARBERS POINT RD | TH-3 | B112 |  | 5200 |  | 5200 | A | 5100 A |
| US | 7 |  | 3 | R | POWNAL | 4.739 | BARBERS POINT RD | TH-3 | 4.829 | NORTH POWNAL RD | TH-2 |  |  | 5700 |  | 5700 | E | 5500 E |
| US | 7 |  | 3 | R | P POWNAL | 4.829 | NORTH POWNAL RD | TH-2 | 6.173 | JACKSON CROSSROAD | TH-4 |  |  | 6300 |  | 5900 | E | 5900 E |
| US | 7 |  | 3 | R | POWNAL | 6.173 | JACKSON CROSSROAD | TH-4 | 7.988 | BENNINGTON TL |  | B111 |  | 6600 |  | 6800 | E | 6600 E |
| US | 7 | ETHAN ALLEN HWY | 3 | R | BENNINGTON | 0.000 | POWNAL TL |  | 1.088 | MONUMENT AVE EXTICARPENTER RD | TH-8/TH-48 | B088 |  | 7000 |  | 7300 | E | 5600 E |
| US | 7 | ETHAN ALLEN HWY | 3 | R | BENNINGTON | 1.088 | MONUMENT AVE EXT/CARPENTER RD | TH-8/4TH-8 | 2.156 | BENNINGTON UC LIMIT |  | B110 |  | 5600 |  | 5800 | A | 5300 A |
| US | 7 | ETHAN ALLEN HWY | 3 | U | BENNINGTON UC | 2.156 | BENNINGTON UC LIMIT |  | 2.470 | CRESCENT BLVD/BRYANT ST | TH-436/428 |  |  | 6400 |  | 6600 | E | 6000 E |
| US | 7 | S MAIN ST | 3 | U | BENNINGTON UC | 2.470 | CRESCENT BLVD/BRYANT ST | TH-436/428 | 2.845 | ELM ST | TH-4 | B158 |  | 6700 |  | 7100 | E | 6500 E |
| US | 7 | S MAIN ST | 3 | U | BENNINGTON UC | 2.845 | ELM ST | TH-4 | 2.969 | MAIN ST | VT 9 (TH-2) | B154 |  | 8200 |  | 8400 | E | 7500 E |
| US | 7 | N MAIN ST | 3 | U | BENNINGTON UC | 2.969 | MAIN ST | VT 9 (TH-2) | 3.383 | E/W COUNTY ST | TH-5/326 | B151 |  | 9100 |  | 9000 | E | 8000 E |

## Resource Impacts | Preliminary Assessment

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## Overview

BCRC has conducted a screening assessment of existing databases and existing site conditions to produce this preliminary assessment of the impact of the proposed Trolley Path on natural and cultural resources as well as public utilities and hazardous sites. The expansive project area studied covers roughly 14 linear miles passing through public and private lands, village centers and rural countryside, dense woods and open fields, existing roadways and areas with complex hydrography. This route inevitably impacts a range of natural, cultural, and public resources. It is notable, however, that the proposed path passes for the most part along pre-existing trolley bed infrastructure and along established roadways and railways, so much of the project area is considered pre-disturbed.

This appendix documents the preliminary natural and cultural resource impact review as outlined for VTrans Scoping Studies. The analysis is formatted to generally correspond to Act 250 permitting review standards. A summary of findings is included in the body of the scoping report.

Certain limitations on the scope of this resource impact assessment result from the project's vast geographic scale and uncertainty regarding the timeline, sequencing, and location of future project development. The route alignments presented in this scoping study will in some areas surely be modified if the project moves forward. BCRC considers this study to be an initial yet critical step in a longer process to determine the siting and design of the Trolley Path. As the Trolley Path is likely to be developed in phases over the course of many years, more rigorous and sitespecific resource mapping and analysis will be necessary to obtain all required permits for the project.

## Methodology

A combination of Geographical Information Systems (GIS) data analysis and field assessment identified potential resource impacts from the proposed path. Vermont GIS data was sourced from the Vermont Center for Geographic Information (VCGI), an online hub that disseminates geographic data layers developed by various state agencies, including the Agency of Natural Resources (ANR), the Agency of Commerce and Community Development (ACCD), the Agency of Agriculture, Food and Markets (VAAFM), the Agency of Transportation (VTrans), and the Department of Public Service (DPS). Massachusetts GIS data was sourced from the MassGIS online database, and Williamstown parcel data was provided by the Williamstown Planning Department. BCRC mapped approximate location of the historic trolley bed based on historic and modern aerial photos as well as field verification, where possible.

The immediate impact area for this project was delineated to determine proximity of sensitive sites and resources to proposed path alignments. This area consists of a 25 -foot radius around the route alignments. Summaries of resources present in the immediate impact area are presented in the following sections of this appendix. Findings for the preferred alignment are highlighted. Additionally, a quarter mile radius around the alignments is included to provide scale in all mapping.

To complement the desktop review of the project area for potential resources, BCRC staff completed over 15 site visits. The goal of these visits was to determine the location and current state of the historic trolley line and to assess the presence of nearby sensitive sites. Due to the large geographic area this project covers, the fieldwork was undertaken gradually and in stages from the fall of 2018 through the spring of 2020.

## Results

## Natural Resources

The VCGI database provides data layers, developed by various State agencies, for a range of natural resources and sensitive areas. The following data layers were examined and found NOT to be present within a quarter-mile radius of the study area:

- Act 250 Criterion 9(B) Soils
- Deer Wintering Areas
- Forest Blocks - Highest Priority Connectivity Blocks
- Significant Natural Communities
- Vernal Pools - Confirmed and Unconfirmed
- VSWI Wetlands Advisory Layer

The following data layers were pulled from the VCGI database for this analysis and found to be present in the immediate impact area:

- Agriculturally Important Soils
- FEMA (Federal Emergency Management Agency) Flood Hazard Areas
- Protected (Conserved) Land
- Rare, Threatened, Endangered Species
- River Corridors
- Surface Waters - Waterbodies and Streams
- Wetlands - VSWI Class Layer

The mapping analysis shows the Trolley Path intersects extensively with mapped agricultural soils, streams, and flood areas. River corridors and wetlands also commonly occur in the immediate impact area. Rare, threatened, and endangered species and conserved lands are less impacted, but are present in various sections of the project area. Tabulated results of the mapping analysis are below, with an X indicating likely presence of a sensitive resource within the immediate impact area ( 25 -foot radius) of one or more possible route alignments. Discussion of each resource category follows this summary. Maps of each section follow the narrative assessment. A summary table is presented for the preferred alignment and a second summary table shows results for all alignment alternatives by section.

Table 1：Preferred Alignment－Potential Impact on Natural Resources

|  | VERMONT |  |  |  |  |  |  |  |  |  |  | MASSACHUSETTS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Natural Resource |  |  |  |  |  |  | $\begin{gathered} \text { No } \\ \text { © } \\ \text { © } \\ 0 \end{gathered}$ |  | 岂 |  |  |  | － | ¢ |
| Agriculturally Important Soils（VT） | X | X | X | X | X | X | X | X | X | X | X |  |  |  |
| FEMA Flood Hazard Areas | X | X | X | X | X | X | X |  | X | X | X | X | X | X |
| Protected（Conserved）Land |  | X | X | X |  |  |  |  |  |  |  |  |  |  |
| Priority Habitats of Rare Species（MA） |  |  |  |  |  |  |  |  |  |  |  | X | X | X |
| Rare，Threatened and Endangered Species（VT） |  | X | X |  |  |  |  |  | X |  |  |  |  |  |
| River Corridors（VT） | X | X | X | X | X |  |  |  | X | X | X |  |  |  |
| Surface Waters | X | X | X | X | X | X | X | X | X | X | X | X |  | X |
| Wetlands－VSWI Class Layer |  | X | X | X | X | X | X |  |  |  |  | X | X | X |

Table 2：All Alignment Alternatives－Potential Impacts on Natural Resources

|  | VERMONT |  |  |  |  |  |  |  |  |  |  | MASSACHUSETTS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Natural Resource |  | $\begin{gathered} \text { N్ర } \\ \text { ï } \end{gathered}$ |  | 芥 |  |  | No | ぷ |  | $\begin{gathered} \text { © } \\ \text { © } \\ \text { i゙ } \end{gathered}$ |  |  | 景 |  |
| Agriculturally Important Soils（VT） | X | X | X | X | X | X | X | X | X | X | X |  |  |  |
| FEMA Flood Hazard Areas | X | X | X | X | X | X | X |  | X | X | X | X | X | X |
| Protected（Conserved）Land |  | X | X | X |  |  |  |  | X |  |  |  |  | X |
| Priority Habitats of Rare Species（MA） |  |  |  |  |  |  |  |  |  |  |  | X | X | X |
| Rare，Threatened and Endangered Species（VT） |  | $x$ | X |  |  |  |  |  | X |  |  |  |  |  |
| River Corridors（VT） | X | X | X | X | X |  |  |  | X | X | X |  |  |  |
| Surface Waters | X | X | X | X | X | X | X | X | X | X | X | X |  | X |
| Wetlands－VSWI Class Layer |  | X | X | X | X | X | X |  | X |  |  | X | X | X |

## Agriculturally Important Soils (Prime Agricultural Soils)

Agriculturally important soils as mapped by Vermont ANR are present within the immediate impact area ( 25 ft radius of proposed alignments) throughout all sections of the trolley path. Despite abundance of agriculturally valuable soils along the Trolley Path, it is possible that detrimental impacts to these soils from the path are minimal since the vast majority of the path is restricted to previously disturbed areas and active road and railways. It is possible that Act 250 review by VAAFM would be required due to the presence of these soils. MassGIS does not provide mapping data for the location of agricultural soils in Massachusetts.

The preferred alignment would impact 34 mapped units of agricultural soils in the immediate impact area in VT. Further analysis is needed to determine potential impacts to agricultural soils in MA. However, due to the project's siting in MA mostly adjacent to the PanAm railroad and over a closed landfill, it is unlikely that path development would impact any current or future active agricultural soils.

## FEMA Flood Hazard Areas and River Corridors

Federally-mapped flood hazard zones intersect the Trolley Path in nearly every section, and river corridors as delineated by VT ANR impact a majority of path sections in VT. New development is highly restricted in flood zones and river corridors to preserve a river's natural meander path, to promote public safety, and to avoid costly infrastructure repairs following major natural events. The construction of shared use pathways within flood zones is generally permitted, but their treatment under river corridor regulations in VT has been less clear. It is noted that paths in Vermont communities have been approved within the river corridor, but serious vetting and design adjustments are typically required to achieve approval.

Flood zones and river corridors concerns are heightened in Section 2, where the Path passes through the conserved Greenberg Headwaters Park and several streams and tributaries converge into the Walloomsac River; and in Section 7 VT, where the river corridor for the Hoosic River abuts Pan Am Railway. Both of these areas are especially vulnerable to flooding and shifts of the fluvial erosion zone over time.

Act 250 regulates development in floodways and ANR executes floodway determination for river corridors. It should be noted that neither Bennington nor Pownal have adopted local river corridor regulations into their zoning bylaws. In addition, a 50 -foot riparian buffer around perennial streams and associated wetland compounds may be subject to the Vermont Flood Hazard and river corridor Rule.

Protected (Conserved) Land
The Project passes through two separate, though nearly contiguous, conservation areas in Bennington. Both the Headwaters Park and One World / Greenberg Conservation Area are owned by the Town of Bennington whose staff manages tracts of the trolley bed as active, vegetated paths for the public to walk and jog along. In these sections of the project, namely Sections 2 and 3 in the Natural Resources Maps, the conservation of these lands for public recreational use is consistent with the purpose of the Trolley Path.

Two additional properties in Vermont with which the project intersects are flagged as Protected Lands. One parcel is a 13+ acre property in Section 4 a that has been privately conserved. The other parcel is a $6+$ acre privately conserved property that intersects with the study area of a sub-alternate route in Section 5c of the Project. In Massachusetts the North Street Conservation Area is owned by the Town of Williamstown and passes along the north side of PanAm Railway near the southern terminus of the Project. An alternate alignment is routed along the edge of this protected property.

Ultimately, in the case of this project, the presence of protected and conserved lands appears more often to benefit development of the path than hinder it.

## Rare, Threatened, and Endangered Species (Necessary Wildlife Habitat)

For the purposes of Act 250, the presence of Necessary Wildlife Habitat is often assessed by checking the location of habitat blocks or deer wintering areas. No deer wintering areas, significant natural communities, or priority connectivity forest blocks are mapped within the immediate impact area of this Project. Within the quarter-mile radius of the preferred route alignment, numerous incidences of rare, threatened, and endangered species are recorded. See summary table below.

MassGIS's mapped data on endangered species for Massachusetts does not provide the level of detail that Vermont's database does in terms of species classification and geographic specificity. The Massachusetts data layer for 'Priority Habitat of Rare Species' reveals that extensive areas through which the project passes are considered important habitat for critical species, though the data provides no further explanations.

Necessary Wildlife Habitat near the preferred alignment:

| Path Section | VT - RTE incidences within quarter mile radius | Species Status |
| :--- | :--- | :--- |
| Section 2 | Invertebrate animal | Very rare in VT |
| Section 3 | Vascular plant | Very rare in VT |
| Section 4 | Vascular plant | Rare in VT |
| Section 5 | Vascular plant | Rare in VT |
|  | Vascular plant | Historic in VT |
|  | Vascular plant | Rare to uncommon in VT |
|  | Vascular plant | Very rare to rare in VT |
| Section 6 | Invertebrate animal | Very rare in VT |
| Section 7 | Vascular plant | Rare in VT |
|  | Vascular plant | Very rare in VT |
|  |  |  |
|  | MA - Priority Habitats of Rare Species |  |


| Section 7 | Intersects extensively | $\mathrm{n} / \mathrm{a}$ |
| :--- | :--- | :--- |
| Section 8 | Intersects extensively | $\mathrm{n} / \mathrm{a}$ |
| Section 9 | Intersects extensively | $\mathrm{n} / \mathrm{a}$ |
| This table presents highlights of the preliminary assessment. For full results, see maps section below. |  |  |

## Surface Waters

The preferred alignment of the proposed project has 20 waterway crossings, nineteen (19) perennial streams and rivers and one (1) intermittent stream. In Vermont alone, about 14 streams and rivers cross paths with the path, often multiple times, highlighting the rich hydrography of the region. Based on field findings, somewhere between 8 and 13 new bridges will be required to cross streams and rivers, with the largest crossings over the Walloomsac River near downtown Bennington (Section 2) and over the Hoosic River in northern Williamstown, MA (Section 9). Another two large bridges will be required in Section 5 west of Route 7 to span complex topographical sections.

Act 250 requires that development projects mitigate disruption to streams by preserving existing flow conditions whenever possible. Perennial streams and associated wetlands features are treated with a 50-foot riparian buffer, within which certain activities are restricted by the Vermont Flood Hazard and River Corridor Rule. Perennial streams are reviewed by Vermont Department of Environmental Conservation, and their riparian buffer areas are examined by Vermont Fish and Wildlife. In some cases, the U.S. Army Corps of Engineers (USACE) reviews projects to assure compliance with the Clean Water Act, and it is recommended that applicability of this oversight also be determined. For the large bridge to cross the Hoosic River and connect the Trolley Path to the planned Mohawk Path, the design and construction of that project would have to comply with the applicable Massachusetts regulations.

In sum, the preferred alignment has 20 stream and river crossings, and 6 small waterbodies fall within 50 feet of the path alignment.
Summary of stream crossings for preferred alignment provided in the following table. Infrastructure notes are estimates:

| Path Section | Stream | Category | Notes |
| :--- | :--- | :--- | :--- |
| Section 1 | Walloomsac River | Perennial stream/river | Path will be on Park St. No new infrastructure likely needed |
| Section 2 | Barney Brook | Perennial stream/river | It may be possible to adapt existing Beech St culvert or need a new culvert or <br> short bridge |
|  | Walloomsac River | Perennial stream/river | Large bridge needed. Original trolley bridge abutments in poor shape and <br> likely need replacement. |
|  | Jewett Brook | Perennial stream/river | Likely to rely on existing Middle Pownal Rd culvert with road crossing |
| Section 4 | Unnamed | Perennial stream/river | Small bridge or culvert needed |
|  | Unnamed | Intermittent stream/river | Small bridge or culvert needed |


|  | Unnamed | Perennial stream/river | Small bridge or culvert needed |
| :---: | :---: | :---: | :---: |
|  | Jewett Brook | Perennial stream/river | Small- to medium bridge or culvert needed |
|  | Unnamed | Perennial stream/river | Small bridge or culvert needed |
|  | Unnamed | Perennial stream/river | Small bridge or culvert needed |
|  | Jewett Brook | Perennial stream/river | Small- to medium bridge or culvert needed |
| Section 5 | Jewett Brook | Perennial stream/river | Path will be on Schoolhouse Rd. No new infrastructure likely needed |
|  | Unnamed | Perennial stream/river | Small bridge or culvert needed |
|  | Unnamed | Perennial stream/river | Large bridge needed. Large natural ravine |
|  | Unnamed | Perennial stream/river | Large bridge needed. Large depression where freight truck was removed |
|  | Unnamed | Perennial stream/river | Path will be on Lincoln St. No new infrastructure likely needed |
| Section 6 | Ladd Brook | Perennial stream/river | Path will run parallel to PanAm railway. No new infrastructure likely needed |
| Section 7 | Unnamed | Perennial stream/river | Path will run parallel to PanAm railway. No new infrastructure likely needed |
|  | Unnamed | Perennial stream/river | Path will run parallel to PanAm railway. No new infrastructure likely needed |
| Section 8 | Broad Brook | Perennial stream/river | Path will run parallel to PanAm railway. No new infrastructure likely needed |
| Section 9 | Hoosic River | Perennial stream/river | Large bridge needed |
| This table presents highlights of the preliminary assessment. For full results, see maps section below. |  |  |  |

Several ponds of varying sizes are close to the trail's path. A summary of waterbody proximity to the preferred alignment is provided in the following table:

| Path Section | Waterbody within 50' of path |
| :--- | :--- |
| Section 2 | One unnamed pond |
| Section 3 | Two unnamed ponds |
| Section 4 | Three unnamed ponds |
| This table presents highlights of the preliminary assessment. For full results, see maps section below. |  |

## Wetlands

Consistent with the findings for other hydrologic resources, wetlands are present in much of the immediate project study area. A total of 11 mapped wetland units intersect the preferred path alignment in Vermont, and all mapped Vermont wetlands are Class II wetlands. Act 250 criteria requires that developments comply with the Vermont Wetland Rules (VWR), which restricts activities and infrastructure development in Class $1 \& 2$ wetlands and their buffer areas in order to preserve the 10 ecological functions they provide. Class II wetlands are provided a $50-\mathrm{foot}$ buffer area. To receive a permit, a project must avoid and minimize impacts to the wetlands.

In MA, the immediate project area intersects 4 mapped wetland complexes.
Further field verification and wetland mapping in both states will be required for this project to move to development.

## Public Infrastructure and Hazardous Sites

The VCGI database provides data layers, developed by various State agencies, for a range of potentially hazardous sites and for public infrastructure. The following data layers were examined and found NOT to be present within a quarter-mile radius of the study area:

- Brownfields
- Drinking Water Lines
- Landfills

Possible impacts on public infrastructure, utilities, and hazardous sites were also assessed through GIS and local analysis of the following data:

- Act 250 Permits
- Bridges and Culverts - Short and Long Structures
- Hazardous Waste Sites - Hazardous Sites, Hazardous Waste Generators, Underground Storage Tanks, Waste Facilities,
- Power Utilities - Power Poles, Substations, Transmission Lines, and Phase 3 Distribution Lines
- Railways
- Roads
- Water Infrastructure - Groundwater SPAs, Public Water Sources, Private Wells, Stormwater Lines, Stormwater Permits Issued and Pending, Wastewater Facilities and Wastewater Lines

The mapping analysis shows the Trolley Path intersects with numerous power utilities, roads, railways, and comes in close proximity to several hazardous sites. Discussion follows by infrastructure category.

## Act 250 Permits

According to VCGI data, all Act 250 permits within a quarter mile of the preferred alignment are as follows:

| Path Section | Act 250 Permit | Distance in Feet (approx.) | Notes |
| :--- | :--- | :--- | :--- |
| Section 1 | 50 units elderly housing | $<700$ | Endevor, Inc. |
|  | Morgan Spring water extraction | $<630$ | Town of Bennington |
|  | 20 condos | $<200$ | Mann Hill Development |


|  | Addition to plant | <180 | Union Cable Corp. |
| :---: | :---: | :---: | :---: |
|  | Senior living/assisted living | <500 | Green Mtn. Senior Housing |
|  | Convert Cora B Whitney School to 22 units | >1,000 | Regional Affordable Housing |
| Section 2 | 20 units of housing of Berkshire Builders Inc. | <200 | Apartment complex off Beech St |
| Section 3 | Entry drive, parking, trail area | <900 | New England Tropical Conserv. |
|  | Motel addition, 12 units | >1,000 | Fife 'N Drum Inc |
| Section 4 | 100' monopole tower 12 PCS antenna | >1,000 | CEllco, dba Verizon |
|  | 24 site tent/trailer campground | <1,000 | John Bushee |
|  | Mobile home park expansion | <100 | Marcien Roy |
|  | Self-storage bldgs | <330 | Aram Dicranian |
|  | 80 seat lounge/restaurant | $<700$ | Robert DeSanto |
|  | 15 room addition to school | <440 | Pownal Elementary |
| Section 5 | Daycare | <200 | Oak Hill Children's Center |
|  | Flagpole wireless antenna | <210 | Independent Wireless One |
|  | 1972 addition | <210 | Pownal View Barn |
|  | PCS antenna on barn; Cellco tower/windmill | >1,000 | Independent Wireless One |
|  | Warehouse addition | <300 | General Cable Co. |
|  | Distribution line along Rte 346 | <340 | CVPS |
|  | Meeting hall | >1,000 | James Sinclitico |
| Section 6 | Sawmill/pellets sales | <240 | Northeast Wood Products |
|  | Post Office | <740 | US Post Office |
|  | Boarding kennel | $>1,000$ | Ryan Maturski Realty LLC |
|  | 1976 Dog waster disposal | <1,000 | Green Mountain Racing Inc. |
| Section 7 | Gravel pit | <1,000 | Hart Gravel Bank, LLC |
|  | DENIED - Shopping center and motel | <300 | Pambianchi |
|  | 1976 Shell Station addition | <240 | Clayton Kaiser |
|  | New store and gas | <150 | Stewart's Ice Cream Inc. |
| This table presents highlights of the preliminary assessment. For full results, see maps section below. |  |  |  |

## Bridges and Culverts

Numerous bridges and culverts occur within the general study area. VCGI mapping of bridge and culvert locations is limited, and more surveying will be necessary to confirm the locations and existing conditions of bridges and culverts along the route of the proposed project. MassGIS does not provide datasets with the location of bridges and culverts.

According to VCGI data, the following bridge and culverts are within the immediate study area and would likely intersect with the path:

| Path Section | Location | Size | Type | Condition |  |
| :--- | :--- | :--- | :--- | :--- | :---: |
| Section 1 | Walloomsac River - Park St Bridge | Long | Concrete T-beam | Fairly good condition |  |
|  | Walloomsac River - Main St | Long | Concrete T-beam / <br> Enclosed steel beam | Concrete repairs needed throughout |  |
|  | This table presents highlights of the preliminary assessment. For full results, see maps section below. |  |  |  |  |  |

## Power Utilities

The following findings are based on available GIS data layers from VCGI:

| Path Section | Power Utility | Distance (approx.) | Notes |
| :--- | :--- | :--- | :--- |
| Section 1 | 3 Phase Power Line | Immediate study area | Park St, Scott St, Main St |
|  | Power Pole | Immediate study area | Numerous |
|  | 3-Phase Power Line | Immediate study area | Along the western side of Beech St |
|  | Power Pole | Immediate study area | 2 poles within immediate study area (25-foot buffer) |
| Section 3 4 | 3 Phase Power Line | $>1,000$ feet | Power line runs along Route 7 |
|  | Power Pole | Immediate study area | 2 poles, both within 40 feet |
|  | Substation | $>1,000$ feet | Name: South Bennington |
|  | Transmission Line | Immediate study area | Crosses path |
| Section 5 | 3 Phase Power Line | <400 feet | Power line runs behind Pownal Elementary |
|  | Power Pole | Immediate study area | Numerous poles within immediate study area |
|  | Transmission Line | Immediate study area | Crosses path |
| Section 6 | Powase Power Line | Immediate study area | Crosses path 4 times and runs alongside Route 7 |
|  | 3 Phase Power Line | Immediate study area | Numerous |
|  | Power Pole | Immediate study area | Crosses path 3 times and runs alongside at Racetrack |
|  | 3 Phase Power Line | Immediate study area | Numerous |


|  | Power Pole | Immediate study area | Numerous |
| :--- | :--- | :--- | :--- |
| This table presents highlights of the preliminary assessment. For full results, see maps section below. |  |  |  |

## Hazardous Waste Sites

It is possible that the Berkshire Hills Trolley Line itself harbors some hazardous contaminants. Historic railroad beds have an established record of containing harmful materials and chemicals such as polychlorinated biphenyls ("PCBs"), volatile organic compounds ("VOCs"), semi-VOCs ("SVOCs"), metals, pesticides, and herbicides. It is not clear at this point how comparable the Berkshire Hills trolley bed is to an historic railway in terms of materials used and standard industry practices, but a Phase I Environmental Site Assessment (ESA) is likely appropriate to determine the presence of contaminants. A Phase I ESA would involve a review of historic documents and environmental databases to estimate the range and extent of possible hazards in the trolley bed.

In the final section of the project in MA, Section 9, the preferred alignment crosses over a former Williamstown landfill immediately north of the Hoosic River. There is another capped landfill south of the Hoosic River, but the path's current mapped trajectory does not impact that site. The landfill is regulated by closure permits with MA Department of Environmental Protection (DEP) Solid Waste Division. Review for this section of the path will be coordinated and reviewed by the MA DEP.

A summary of findings regarding the presence of hazardous waste is provided in the table below. GIS datasets consulted for this analysis include VCGI layers for hazardous sites, hazardous waste generators, waste facilities, brownfields, landfills, and underground storage tanks. MassGIS does not provide specific, comparable layers except for a dataset of hazardous waste generators.

Based on VCGI data layers:

| Path Section | Type of Hazard | Distance (approx.) | Notes |
| :--- | :--- | :--- | :--- |
| Section 1 | Active Underground Storage Tank | Closest is <100 feet | 8 mapped underground tanks. <br> Closest is Buckstop Mini Mart |
|  | Hazardous Sites | Closest is <100 feet | 9 mapped hazardous sites. <br> Closest is Mincer's Market on Main St (diesel, gasoline) <br> Also notable is Eveready Battery (non-petroleum) |
|  | Hazardous Waste Generators | Closest is <100 feet | 7 mapped hazardous waste generators. <br> The closest is Inkspot Press |
|  | Hazardous Site | <300 feet | Pownal Elementary (gasoline) |
|  | Hazardous Waste Generator | $<700$ feet | Dollar General Store |
| Section 5 | Active Underground Storage Tank | $>1,000$ feet | Tornabene's Service Center |


|  | Hazardous Sites | Closest is < 50 feet | 7 mapped hazardous sites, closest are: <br> 348 Center St (gasoline) <br> Village Market (gasoline) <br> Warren Wire Plant (PFAS) <br> General Cable (heating oil, non-petroleum, PFAS) |
| :--- | :--- | :--- | :--- |
|  |  |  | TAM Recycling |

## Roads

The Trolley Path will impact public roads and private driveways in two ways: (1) where the path crosses a roadway, and (2) where the path is routed on-road for short distances. All public street crossings should be designed to maximize safety by guaranteeing high visibility through siting and signage and should include traffic calming elements where possible.

The preferred path alignment intersects 11 public roads, 4 commercial driveways, 4 residential driveways, 2 recreational driveways, and a right-of-way access to a small cemetery. See summary of road and driveway crossings:

| Path Section | Road or Driveway Crossing | Type |
| :--- | :--- | :--- |
| Section 1 | Park Street | Public road - low traffic |
|  | Safford St | Public road - medium traffic |
|  | Main Street in Bennington | Public road - high traffic |
| Section 2 | Morgan St | Public road - medium traffic, high speeds |
| Section 3 | Middle Pownal Rd/Strohmaier Rd | Public road - low traffic |


|  | Fuller Rd | Public road - low traffic |
| :---: | :---: | :---: |
| Section 4 | One recreational driveway south of Fuller Rd | Recreational driveway |
|  | One residential driveway north of Searles Crossing Rd | Residential driveway |
|  | Searles Crossing Rd | Public road - low traffic |
|  | One residential driveway just south of Searles Crossing Rd | Residential driveway |
|  | One residential driveway just north of Peaks Pine Rd | Residential driveway |
|  | At least one residential driveway south of Peaks Pine Rd | Residential driveway |
|  | Jackson Cross Rd | Public road - low traffic |
|  | Petitt Dr | Public road - low traffic |
| Section 5 | Route 7 | Public highway - high traffic |
|  | North Pownal Rd | Public road - medium traffic |
|  | Route 346 | Public highway - medium traffic |
|  | Main St in Pownal South | Public road - medium traffic |
| Section 6 | One residential driveway south of Church St and Orchard St | Residential driveway |
|  | Northern driveway into Pownal Racetrack property | Commercial driveway |
|  | Unimproved right-of-way to access Joseph Barber Farm Cemetery | Right-of-way |
|  | Southern driveway into Pownal Racetrack property | Commercial driveway |
| Section 7 | Recreational driveway over railbed to access open land | Recreational driveway |
| Section 8 | Commercial driveway access to Steiner Film Inc | Commercial driveway |
|  | Unnamed commercial access road off Simonds Rd | Commercial driveway |

Extended portions of the path are sited on existing, mostly low-traffic streets. This is particularly the case in downtown Bennington, Pownal Center, and Pownal South, where the trolley bed infrastructure is no longer intact and there is little green land available for trail development. In these densely settled areas with generally low vehicle traffic and speeds, biking and walking along streets is considered safe. Some streets may merit consideration for protected bike lanes, but at this time BCRC imagines that unprotected bike lanes or simple wayfinding signage could be sufficient in many of these locations.

There are also some sections of road or driveways that have been developed upon the foundation of the trolley bed. The preferred alignment sticks to the historic trolley route in these areas. Examples are Peaks Pine Rd and Pine Circle.

The preferred path alignment is routed on-road in the following sections. All on-road routing totals approximately 9,265 feet or 1.75 miles:

| Path Section | Street | Distance (rough estimates) |
| :--- | :--- | :--- |


| Section 1 | Park St | 100 feet |
| :--- | :--- | :--- |
|  | Scott St | 1,400 feet |
|  | Safford St | 50 feet |
|  | Coolidge Ave | 540 feet |
|  | Main St | 200 feet |
| Section 4 | Peaks Pine Rd | 3,000 feet |
|  | Pine Circle | 300 feet |
|  | Schoolhouse Rd | 275 feet |
|  | Center St | 3,000 feet |
|  | Lincoln St | 400 feet |

## Railways

A significant portion of the proposed path would pass in proximity to or directly adjacent to the railway currently owned and operated by PanAm and which is pending sale to a new owner. The underlying reason for this proximity is that the railbed was built upon the foundations of the original trolley line, particularly in the area from Pownal South down to just below the Vermont - Massachusetts state border. This portion of the trail that would run parallel with the railway measures just over 4 miles. For most of these 4 miles, it is possible to site the path outside of the railroad right-of-way, but a section that measures roughly 1.2 miles is particularly challenging and siting the trail as close to the railway as possible, likely within the railroad right-of-way, is recommended. Impacted sections of the project are Sections $5,6,7,8$, and 9 .

An established approach for this type of trail development is called rail-with-trail where a shared use path is developed in parallel with a railbed often with some fencing or other safety barrier dividing the two corridors, but not always. The national Rails-to-Trails Conservancy advocacy group says there are nearly 400 known rails-with-trails in 47 states across the United States, with more projects in the works. While this approach is the preferred option according to BCRC's analysis due to the potential construction cost savings, separation from motor vehicles, and route efficiencies it would present, the rail company that controls the current PanAm railway in the future may be disinclined to support rail-with-trail development due to perceived liability risks or costs to the rail company. Given the demonstrated success of the rail-to-trail model in other locations and the lack of other alignment options in this area, the BCRC recommends further exploring the feasibility of rail-with-trail in the southern portion of the project.

## Water Infrastructure

Summary of water infrastructure in proximity to the project, based on VCGI data, is below:

| Path Section | Type of Infrastructure | Distance (approx.) | Notes |
| :--- | :--- | :--- | :--- |
| Section 1 | Private Well | Closest well is $<540$ feet from path | 6 mapped private wells within quarter mile |


|  | Public Water Source | <520 feet | Morgan Spring |
| :---: | :---: | :---: | :---: |
|  | Stormwater Permit | Closest is <170 | 4 mapped stormwater permits |
|  | Wastewater Line | Immediate study area | Numerous |
|  | Wastewater Facility | Closest is <100 feet | 2 mapped wastewater facilities |
| Section 2 | Private Well | Closest well is <90 feet | 3 mapped private wells within quarter mile Closest is domestic bedrock well, 320 ft deep |
| Section 3 | Private Well | Closest well is < 500 feet | 11 mapped private wells within quarter mile |
|  | Public Water Source | >1,000 feet | Private drilled, Starlight Inn |
| Section 4 | Private Well | Closest is <130 feet | >40 mapped private wells within quarter mile |
|  | Public Water Source | Closest is <80 feet | 6 mapped sources, 2 close sites: <br> (Royal Pine Villa, drilled 250 ft ) <br> (Pownal Elementary School, drilled 350 ft ) |
| Section 5 | Private Well | At least one in immediate study area | >40 mapped private wells within quarter mile |
|  | Public Water Source | Closest is <90 feet | 4 mapped sources, 2 close sites: <br> Takodas Discount Variety, well points 1300 ft Oak Hill Children's Center, drilled 221 ft |
|  | Stormwater Permit | Closest is <140 feet | Town of Pownal MRGP |
|  | Wastewater Line (not mapped) | Immediate study area | VCGI does not have Pownal data |
| Section 6 | Private Well | At least one in immediate study area | 14 mapped private wells within quarter mile |
|  | Public Water Source | Closest is <800 feet | 5 mapped sources |
|  | Stormwater Permit | Closest is < 290 feet | Tam Recycling Center, Harts Gravel Pit |
|  | Wastewater Line (not mapped) | Immediate study area | VCGI does not have Pownal data |
| Section 7 | Private Well | At least two in immediate study area | 13 mapped private wells within quarter mile |
|  | Public Water Source | Closest is $<120$ feet | 3 mapped sources, 1 close site: Stewarts Pownal |

In addition, Vermont mapped groundwater source protection areas intersect with the immediate study area in Sections $2,3,4,5$, and 6 .

## Cultural Resources and Historic Preservation

BCRC has conducted a preliminary database and cultural resources screening assessment for the Trolley Path project. Preliminary results are here presented for above-ground historic resources that have been observed and that may impact development of the project.

The study area consists generally of 12 miles of the abandoned Berkshire Hills Trolley Line as it courses through historically settled areas of southwestern Vermont and northwestern Massachusetts, plus two additional miles that facilitate connections to existing and planned pathways. Specifically, the historic trolley line passes through historic population and commerce centers of the Town of Bennington, the Villages of Pownal Center and Pownal (South), and areas north of the Town of Williamstown, MA. Between these centers of activity, the project al so encompasses residential areas, roads and railways, recreational lands, forests, and fields.

A query in the Vermont Division for Historic Preservation's Online Resource Center database on July 30, 2020 returned 40 results for site nomination forms for State and National Register Historic Places in the Towns of Bennington and Pownal. Of these, 6 filings reference sites or properties located near the project area, with 5 State Register filings in Bennington and 1 State Register filing in Pownal. In addition, GIS data from VCGI and MassGIS was reviewed to flag additional areas and sites of heightened cultural relevance. Background information on the Berkshire Hills Trolley Line was previously gathered by local historian Joe Hall of the Bennington Historical Society and referenced to prepare this report.

Bennington's results from the State's Online Resource center confirm that the downtown Bennington neighborhood where the Trolley Path would initiate has many historic buildings and streets that were developed in the nineteenth and twentieth centuries and that qualify as valued historic properties. Pownal's filing contains documents for select properties within the project study area, including the Pownal Community Church on Center St, and many more outside the scope of the Trolley Path. Paperwork for the Pownal Center Historic District, which the path would pass through, note the local and statewide significance of the village center for its exemplary settlement pattern, variety of buildings and uses, and cemetery. GIS data for historic districts and historic markers further confirm the value that the historic villages of Pownal and the Town of Bennington represent to the state.

As for regulatory compliance of the project with historic preservation requirements, low-impact path development does not necessarily create an Adverse Effect on historic properties. To qualify for a diverse range of funding sources, however, it will be necessary to identify all historic properties adjacent to the proposed Trolley Path. For state funding, 22 VSA 14 review is required; for federal funding, a Section 106 review is needed; and if federal transportation funds will be sought then a Section 106 and Section $4(\mathrm{f})$ will be required.

A critical component of scoping studies is to consider potential impacts to archeologically sensitive areas. For understandable reasons, GIS data regarding the location of confirmed and potential archeological areas is not publicly available. To attempt the most thorough possible initial archeological review of the project, BCRC requested that VTrans archeological resource specialists perform a cursory desktop review of estimated archeological areas in the vicinity of the project to indicate likelihood that the project would impact a sensitive area. Unfortunately,
this initiative was not ultimately successful. It will be necessary to continue to study potential archeological impacts of this project as it develops. Notably, though, initial consideration suggests that the pre-disturbed nature of a large portion of the preferred route along trolley bed, roads, and rail corridors, lowers the likelihood that path development would introduce novel adverse impacts to areas along the path. For example, of the preferred alignment about $60 \%$ adheres generally to the pre-existing trolley bed and $12 \%$ follows existing and active roadways.

Furthermore, the preservation lens offers the opportunity to view the Trolley Path as a project for cultural and historic preservation. A compelling aspect of the proposed trail project is that its construction along the Berkshire Hills Trolley line would in and of itself constitute preservation of an historic transportation corridor that connected the region in the first quarter of the twentieth century. The trolley company provided regional commuter service from 1907 to 1929, at which point growing popularity of the automobile rendered the trolley service obsolete. Though currently fading into various states of dilapidation, the historic trolley line remains largely intact across roughly two thirds of its original alignment in the study area. Of the existing intact infrastructure, a majority would be preserved for reuse and public access through development of the preferred path alignment. The trolley line is a treasured local historic asset that has been extensively documented by the Bennington Historical Society. Development of the trolley line trail could incorporate the research of local historic societies into signs and markers to share the rich context of social, economic, and cultural interconnectedness that this historic transportation route represents so well.

This region has been highlighted by advocates for recreational development of the Mahican-Mohawk Trail, whose alignment coincides with the trolley path as it passes along the Hoosic River from Williamstown, MA to southern Pownal. Project completion could serve to highlight and preserve this region's portion of the Native American travel corridor from the Connecticut River in Central Massachusetts, which passed over the Hoosac Mountains and along the Hoosic River, to the Hudson River in eastern New York. History of the Native American trail and an overview of efforts to preserve the path for public use are summarized by the Massachusetts Department of Conservation and Recreation: https://www.mass.gov/location-details/mahican-mohawk-trail.

## Conclusions

For preparation of the Trolley Path Scoping Report, BCRC conducted a preliminary screening of natural and cultural resources as well as public infrastructure and hazards. Based on BCRC's analysis, the resources and infrastructure that will have the greatest impact on project development will be river corridors, wetlands, stream and river crossings, and roads and railways. These factors will shape initial planning and design, permitting discussions, and the need for further studies and field assessments.

Attachments<br>Natural Resources Maps<br>Infrastructure and Historic Sites Maps



| :.". 50 ft Buffer All Alternatives | $\vDash$ | Railroad (VCGI \& MassGIS) | $\square$ | Rare, Threatened, Endangered Species Habitat (VCGI \& MassGIS) | $\square$ | Wetlands (VCGI \& MassGIS) |  | Forest Blocks (VCGI \& MassGIS) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 171/1/4 Mile Buffer | - | Major Roads (VCGI \& MassGIS) | $\square$ | Protected Lands (VCGI \& MassGIS) | $\square$ | FEMA 100 year Flood Zone (VCGI \& MassGis) | - | Structures (VCGI) |
|  | - | Town Roads (VCGI \& MassGIS) | $\square$ | Waterbody (VCGI \& MassGIS) |  | River Corridors - VT (VCGI) |  | Structures (MassGIS) |
| - Existing and Planned Pathw | $\square$ | Significant Natural Communities - VT (VCGI) |  | Stream (VCGI \& MassGIS) |  | Agriculturally Important Soils - VT (VCGI) |  |  |

## SECHON1




## SECHIOM



| :\%: 50 ft Buffer All Alignments | $\ddagger$ Rairrad (VCGI \& MassGIS) * | $\square$ Rare, Threatened, Endangered Species Habitat (VCGI \& MassGIS) | [-] Wetlands (VCGI \& MassGIs) | Forest Blocks (VCGI \& MassGis) * |
| :---: | :---: | :---: | :---: | :---: |
| :.:. ${ }^{1 / 4}$ mile Butfer | - Major Roads (VCGI \& MassGIS) | $\triangle$ Protected Lands (VCGI \& MassGIS) | \. FEMA 100 year Flood Zone (VCGI \& MassGIS) | Structures (VCGI) |
| * NOTPRESENTINTHISVIEW: | - Town Roads (VCGI \& MassGIS) | Waterbody (VCGI \& Massils) | $\square$ River Corridors - vT (VCGI) | Structures (Mass615) |
| - Existing and Planned Pathways (BCRC) | Significant Natural Communitie | - Stream (VCGI \& MassGIS) | $\square$ Agriculurally Impootant Soils - VT (VCGI) |  |

< SECTION 1

## SECHION 3



| \%.: 50 th Buffer All Alignments |  | Railrad (VCGI \& MassGIS) * | $\square$ | Rare, Threatened, Endangered Species Habitat (VCGI \& MassGIS) | $\square$ | Wetlands (VCGI \& MassGIS) |  | Forest Blocks (VCGI \& MassGis) * |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| :.:.: ${ }^{1 / 4}$ Mile Buffer | - | Major Roads (VCGI \& Massils) | $\square$ | Protected Lands (VCGI \& MassGIS) | 】 | FEMA 100 year Flood Zone (VCGI \& MassGIS) |  | Structures (VCGI) |
| NOT PRESENTINTHIS VIEW: | - | Town Roads (VCGI \& MassGIS) | - | Waterbody (VCGI \& MassGIS) | $\square$ | River Corridors - VT (VCGI) |  | Structures (MassG1s) |
| -- Existing and Planned Pathways (BCRC)* |  | Significant Natural Communitio |  | Stream (VCGI \& MassGis) |  | Agriculturally Important Soils - VT (VCGI) |  |  |

## SEला OMAA



| :-\%: 50 ft Butfer All Alignments | $\#$ Rairroad (VCGI \& MassGIs) * | $\square$ Rare, Threatened, Endangered Species Habitat (VCGI \& MassGIS) | [-] Wetands (VCGI \& MassGIs) | Forest Blocks (VCGI \& MassGIs) * |
| :---: | :---: | :---: | :---: | :---: |
| :.: $1 / 4$ mile Buffer | - Major Roads (VCGI \& MassGis) | $\square$ Protected Lands (VCGI \& MassGIS) | \ FEMA 100 year Flood Zone (VCGI \& MassGIS) | Structures (VCG1) |
| * NOTPRESENTINTHISVIEW: | - Town Roads (VCGI \& MassG19) | - Waterbody (VCG1 \& Massils) | $\square$ River Corridors - vt (VCGI) | Structures (MassG19) |
| -- Existing and Planned Pathways (BCRC)* | $\square$ Significant Natural Communitie | - Stream (VCGI \& MassGis) | $\square$ Agriculturally Important Soils - VT (VCGI) |  |

## SE잉․



| :7.: 50 ft Buffer All Alignments | Railroad (VCGI \& MassGIS) * | $\square$ | Rare, Threatened, Endangered Species Habitat (VCGI \& MassGIS) | $\square$ | Wetlands (VCGI \& MassGIS) |  | Forest Blocks (VCGI \& MassGIs)* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| :.:. ${ }^{1 / 4}$ Mile ${ }^{\text {duffer }}$ | Major Roads (VCGI \& MassGis) | $\square$ | Protected Lands (VCGI \& MassGIS) | $\square$ | FEMA 100 year Flood Zone (VCGI \& MassGIS) | - | Stuctures (VCGI) |
| * NOT PRESENT IN THIS VIEW: | Town Roads (VCGI \& MassGis) | ■ | Waterbody (VCGI \& Massois) | $\square$ | River Corridors - VT (VCGI) |  | Stuctures (MassG1s) |
| -- Existing and Planned Pathways (BCRC)* | Significant Natural Communities |  | Stream (VCGI \& MassGis) |  | Agriculturally Important Soils - VT (VCGI) |  |  |

## SEC10N40




## SECTION 5 A



| :..: 50 ft Buffer All Alignments | \# R | Rairroad (VCGI \& MassGIS) * | $\square$ | Rare, Threatened, Endangered Species Habitat (VCGI \& MassGIS) | [] | Wetlands (VCGI \& MassGIS) |  | Forest Blocks (VCGI \& MassGIS)* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| :.:.: $1 / 4$ mile Buffer | - | Major Roads (VCGI \& MassGis) | Q | Protected Lands (VCGI \& MassGIS) | $\square$ | FEMA 100 year Flood Zone (VCGI \& MassGIS) |  | Stuctures (VCGI) |
| * NOTPRESENTINTHISVIEW: | T | Town Roads (VCGI \& MassGis) | - | Waterbody (VCGI \& MassGis) |  | River Corridors - VT (VCGI) * |  | Structures (MassG15) |
| -- Existing and Planned Pathways (BCRC)* |  | Significant Natural Communities. |  | Stream (VCGI \& MassGis) |  | Agriculturally Important Soils - VT (VCGI) |  |  |

## SECHON 5B



| \%.:.: 50 It Buffer All Alignments | \# | Railroad (VCGI \& MassGis) * | $\square$ | Rare, Threatened, Endangered Species Habitat (VCGI \& MassGIS) | [-] | Wetlands (VCGI \& MassGIS) |  | Forest Blocks (VCGI \& MassGis) * |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| :.:.: $1 / 4$ mile Buffer | - | Major Roads (VCGI \& MassGIS) | $\square$ | Protected Lands (VCGI \& MassGIS) | $\square$ | FEMA 100 year Flood Zone (VCGI \& MassGIS) |  | Structures (VCGI) |
| * NOTPRESENTINTHISVIEW: | - | Town Roads (VCGI \& MassGis) | - | Waterbody (VCGI \& MassGIS) |  | River Corridors - VT (VCGI) * |  | Stuctures (MassG1s) |
| -- Existing and Planned Pathways (BCRC)* |  | Significant Natural Communities. |  | Stream (VCGI \& MassGis) |  | Agriculturally Important Soils - VT (VCGI) |  |  |

## SECIONSC




SEOION6


| \%-:\% 50 Ht Buffer All Alignments |  | Railrad (VCGI \& MassGIS) | $\square$ | Rare, Threatened, Endangered Species Habtat (VCGI \& MassGIS) | -a | Wetiands (VCGI \& MassGis) |  | Forest Blocks (VCGI \& Masscis) * |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| :.:.: 1/4 Mie Butfer | - | Major Roads (VCGI \& MassGIS) | $\square$ | Protected Lands (VCGI \& MassGis)* | ■ | FEMA 100 year Flood Zone (VCGI \& MassGIS) |  | Stuctures (VCGI) |
| * not Present in this view: | - | Town Roads (VCGI \& MassGIS) | $\square$ | Wateribody (VCGI \& MassG15) | $\square$ | River Corridors - VT (VCGI) |  | Stuctures (MassG15) |
| -- Existing and Planned Pattways (BCRC)* |  | Significant Natural Communites | * | Stream (VCGI \& Massis) | $\square$ | Agriculturally Important Soils - VT (VCGI) |  |  |

## SECTION 7



| \%:\% 50 ft Buffer All Alignments | $\ddagger$ Railroad (VCG1 \& MassGIS) | $\square$ Rare, Threatened, Endangered Species Habitat (VCGI \& MassGIS) | [-] Wetlands (VCG1 \& Masscis) | Forest Blocks' (VCG1 \& MassG1s)* |
| :---: | :---: | :---: | :---: | :---: |
| :.:.: $1 / 4$ mile Buffer | Major Roads (VCGI \& MassGis) | $\triangle$ Protected Lands (VCGI \& MassGis) | D. FEMA 100 year Flood Zone (VCGI \& MassGIS) | Structures (VCGI) |
| * NOTPRESENTINTHISVIEW: | - Town Roads (VCGI \& MassGIS) | - Waterbody (VCGI \& MassGIS) | $\square$ River Corridors - VT (VCGI) | Structures (MassG15) |
| -- Existing and Planned Pathways (BCRC)* | Significant Natural Communities - VT (VCGI) | - Stream (VCGI \& MassGII) | $\square$ Agriculturally Important Soils - VT (VCGI) |  |

## SEM1OM:



| :7.: 50 t Butfer All Alignments | $\#$ | Railroad (VCGI \& MassGIS) | $\square$ | Rare, Threatened, Endangered Species Habitat (VCGI \& MassGIS) | $\square$ | Wetlands (VCGI \& MassGIS) |  | Forest Blocks (VCGI \& Massis) * |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| :.:. ${ }^{1 / 4}$ Mile ${ }^{\text {duffer }}$ | - | Major Roads (VCGI \& Masslis) | $\square$ | Protected Lands (VCGI \& MassGIS)* | D | FEMA 100 year Flood Zone (VCGI \& MassGIS) |  | Structures (VCGI) |
| * NOTPRESENTINTHISVIEW: | - | Town Roads (VCEI \& MassGIs) | - | Waterbody (VCGI \& MassGIS) |  | River Corridors - VT (VCGI) * |  | Structures (MassGIS) |
| - Existing and Planned Pathways (BCRC)* | $\square$ | Significant Natural Communite |  | Stream (VCGI \& MassGIS) |  | Agriculturally Important Soils - VT (VCGI) * |  |  |

## SECHONQ



| :\%: 50 ft Buffer All Alignments | \# | Rairroad (VCGI \& MassGIS) | $\square$ | Rare, Threatened, Endangered Species Habitat (VCGI \& MassGIS) | $\square$ | Wetands (VCGI \& Masscis) |  | Forest Blocis (VCGI \& MassGIS) * |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| :.:.: ${ }^{1 / 4}$ mie Butter | - | Major Roads (VCGI \& MassGIS) | Z | Protected Lands (VCGI \& MassGIS) * | $\square$ | FEMA 100 year Flood Zone (VCGI \& MassGIS) | - | Structures (VCGI) |
| NOTPRESENTINTHISVIEW: | - | Town Roads (VCGI \& MassGIs) | - | Wateribody (VCGI \& MassGIs) | $\square$ | River Corridors - Vt (vCGI) |  | Structures (MassGIS) |
| - Existing and Planned Pattiways (BCRC) | $\square$ | Significant Natural Communites - |  | Stream (VCGI \& Massils) |  | Agricuiturally Impoifant Soils - VT (VCGI) |  |  |



## SECHON1


F.:.: sof suffer All Alteratives
:a) $1 / 4$ mie Butifer

* NOT PRESENTINTHIS VIEW:
-- Existing and Planned Pathways (BCR
$\neq$ Railroad (VCGI \& MassGIS) *
- Major Roads (VCGI \& MassGIS)
- 

F Substations (VFG1) *

- Stormwater Permits - Issued (VCGI)
(0) Stormwater Permits - Pending (VCGI)

Power Pole (VCGI)

- Public Water Source (VCGI)
- Wastewater Facility (VCGI)
(2) Pivate Wells (vcGi)

Trolley Path Scoping Study | infrastructure and Historic Sites Map Section

1 VT Roadside Historic Marker (VCGI)
Waste Facilites (VCGI)
Hazardous Waste Generators (VCGI \& MassGIS)
Hazardous Stes (VCGI)
Bridges and Culverts - Long (VCGI)
Bridges and Culverts - Short (VCGI) *

* Active Underground Storage Tank (VCGI)
$\bigoplus$ Act 250 Permits (VCGI)
- Stormwater Lines (VCGI)
- 3 Phase Distribution Lines (BCRC)
.-- Wastewater Lines (vCGI)
- Transmission Lines (VCGI) *

Z $\downarrow$ v State Historic District (VCGI) *

- Cuttural and Historic Sites (MassGIS)

Cultural and Historic Area (MassGIS) *
Groundwater SPA (VCGI)
2017 Parcel Data (VCGI \& Williamstown Plannning

- Waterbody (VCGI \& MassGIS)
- Stream (VCGI \& MassGIS)

WALLOOMSAC PATHWAY

## SEल10以


:": Study Area - 50 tt Butter
:a $1 / 4$ Mile Buffer

* NOTPRESENTINTHIS VIEW:
-- Existing and Planned Pathways (BCRC)
\# Railroad (VCGI \& MassGIS) *
- Major Roads (VCGI \& MassGIS)
- Town Roads (VCGI \& MassGIS

F Substations (VGG1) *
4) Stormwater Permits - Issued (VCGI) *

Stormwater Permits - Pending (VCGI) *
Power Pole (VCGI)

- Public Water Source (VCGI) *
- Wastewater Facility (VCGI) *
(-) Private Wells (VCGI)

$$
\begin{aligned}
& \star \text { Active Underground Storage Tank (VCGI } \\
& \bigoplus \text { Act } 250 \text { Permits (VCGI) } \\
& \text { - Stormwater Lines (VCGI) } \\
& -3 \text { Phase Distribution Lines (BCRC) } \\
& \cdots-\text { Wastewater Lines (VCGI) } \\
& - \text { Transmission Lines (VCGI) * } \\
& \boxed{Z} \text { vT State Historic District (VCGI) * }
\end{aligned}
$$

- Cultural and Historic Sites (MassGIS) *

Cutural and Historic Area (MassGIS) *
Groundwater SPA (VCG1)
2017 Parcel Data (VCGI \& Williamstown Plannning)
Waterbody (VCGI \& MassGIS)

- Stream (VCGI \& MassGIS)


## SECHON 3


\%.: Stuy Area - 50 rit buter
$\because: 114$ mie Bufier

* Not PRESENTINTHISVIEW:
-- Existing and Planned Pathways (BCRC)*
$\models$ Railroad (VCGI \& MassGIS) *
- Major Roads (VCGI \& MassGis)
- Public Water Source (VCGI) *
- Wastewater Facility (VCGI) *
(-) Pivate Wells (VCGI)
* Substations (VCG1)*
Stormwater Permits - Issued (VCGI) *
VT Roadside Historic Marker (VCGI)*
Waste Facilites (NCGI) *
$\star$ Hazardous Waste Generators (VCGI \& MassGIS)
- Bridges and Cuiverts - Short (VCG1) *
$\bigoplus$ Act 250 Permits (VCG
Stormwater Lines (VCGI)
- 3 Phase Distribution Lines (BCRC)
... Wastewater Lines (VCGI) *
- Transmission Lines (VCGI)
SECTION 2
VT State Historic District (VCGI) *
*     - Cultural and Historic Sites (MassGIS) *

Cultural and Historic Area (MassGIS) *
Groundwater SPA (VCGI)
2017 Parcel Data (VCGI \& williamstown Plannning)

- Waterbody (VCGI \& MassGIS)
- Stream (VCGI \& MassGIS)


## SEC1OMAA


:": Study Area - 50 ft Butter
:.: 1/4 Mile Buffer

* NOTPRESENTINTHIS VIEW:
-- Existing and Planned Pathways (BCRC)
$\doteq$ Railroad (VCGI \& MassGIS) *
- Major Roads (VCGI \& MassGis)
- Town Roads (VCG| \& MassGIS)
F Substations ( (yGGI) *
() Stormwater Permits - Issued (VCGI) *
Roadside Historic Marker (VCGI)
Waste Facilities (VCGI) *
- Public Water Source (VCGI) *
- Wastewater Facility (VCG1) *
(0) Pivate Wells (VCGi)
Bridges and Culverts-Long (VCGI) *
Bridges and Culverts - Short (VCGI)
$\bigoplus$ Act 250 Permits (VCGI)
- Stormwater Lines (VCGI)*
- 3 Phase Distribution Lines (BCRC) *
... Wastevater Lines (VCGI) *
- Transmission Lines (VCGI) *
$\boxed{\square}$ VT State Historic District (VCGI) *

SECTION 3

* 0
.
Cultural and Historic Area (MassGIS) *
Groundwater SPA (VCGI)
2017 Parcel Data (NCGI \& Milliamstown Plannning)
- Waterbody (VCG1 \& Masscis)
- Steam (VCGI \& MassGIS)


## JEMOMA:


:": Study Area - 50 ft Butter
:a $1 / 4$ Mile Buffer

* NOT PRESENTINTHIS VIEW:
-- Existing and Planned Pathways (BCRC)
\# Railroad (VCGI \& MassGIS) *
- Major Roads (VCG1 \& MassGis)
- Town Roads (VCG| \& MassGIS)
F Substations ( (yGGI) *
Stormwater Permits - Issued (VCGI) *
Roasside Historic Marker (VCGI) *
Whaste Facilities (VCGI) *
Stormwater Permits - Pending (VCGI) * $\star$ Hazardous Waste Generators (VCGI \& MassGIs
.
- Public Water Source (VCGI)
$\star$ Hazardous Sites (VCGI) *
- Wastewater Facility (VCGI)* Bridges and Culverts - Short (VCGI)
(0) Pivate Wells (vCGi)

> (*) Active Underground Storage Tank (VCGI)
> $\bigoplus$ Act 250 Permits (VCGI)
> Stormwater Lines (VCG1)*
> - 3 Phase Distribution Lines (BCRC) *
> ...- Wastewater Lines (VCGI) *
> - Transmission Lines (VCGI) *
> $\square \backslash \backslash T$ State Historic District (VCGI) *

SECTION AA

- Cultural and Historic Sites (MassGIS) *

Cultural and Historic Area (MassGIS) *
Groundwater SPA (VCGI)
2017 Parcel Data NCGI \& W.lliamstown Plannning)

- Waterbody (VCGI \& MassGIS)
- Stream (VCGI \& MassGIS)


## SHCHONAC


:\% Study Area - 50ft Buffer
:a $1 / 4$ Mile Buffer

* NOT PRESENTINTHIS VIEW:
Substations (VCGI)*
(1) Stormwater Permits - Issued (VCGI) *
IT Roadside Historic Marker (VCGI) *
4 Waste Facilites (VCG)*
- Existing and Planned Pathways (BCRC)
- Ralroad (VCGI \& MassGIS) *
Power Pole (VCGI)
- Pubic Water Source (VCGI)
$\star$ Hazardous Sites (VCGI)
Bidges and Culverts-Long (VCGI) *
Bridges and Culverts - Short (VCGI) *
- Town Roads (VCGI \& MassGIS
- Wastewater Facility (VCGI) *
(0) Pivate Wells (VCGI)
- 

$$
\begin{aligned}
& \text { *) Active Underground Storage Tank (VCGI) * } \\
& \bigoplus \text { Act } 250 \text { Permits (VCGI) } \\
& \text { - Stormwater Lines (VCGI) } \\
& \text { - } 3 \text { Phase Distribution Lines (BCRC) } \\
& \cdots-\text { Wastewater Lines (VCGI) * } \\
& \text { - Transmission Lines (VCGI) } \\
& \boxed{\square} \text { vT State Historic District (VCGI) * }
\end{aligned}
$$

Cultural and Historic Sites (Masscis
Cultural and Historic Area (MassGIS)
Groundwater SPA (VCGI)
2017 Parcel Data (VCGI \& williamstown Plannning)
Waterbody (VCGI \& MassGIS)

- Steam (VCGI \& MassGIS)


## SECHION 5A



| ".,." Study Area - 50tt Bufter | \% | Substations (VCGI) * |  | VT Roadside Historic Marker (VCGI) * | * Active Underground Storage Tank (VCGI)* |  | Cuitural and Historic Sites (MassGII) * |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| :.:.: 1/4 Mile Buffer | - | Stormwater Permits - Issued (VCGI) |  | Waste Facilities (VCGI) * | $\bigoplus$ Act 250 Permits (VCGI) |  | Cultural and Historic Area (MassGIS) * |
| NOT PRESENT INTHIS VIEW: | 0 | Stormwater Permits - Pending (VCGI) * |  | Hazardous Waste Generators (VCGI \& Masscis) |  |  | Groundwater SPA (VCG1) |
| - Existing and Planned Pathways (B |  | Power Pole (VCGI) |  | Hazardous Stes (VCGI) |  |  | 2017 Parcel Data (VCG1 \& Whlliamstown Plannning) |
| - Railroad (VCGI \& MassGII) * |  | Pubic Water Source (VCGI) |  | Bridges and Culverts - Long (VCGI) * |  |  | Wateribody (VCGI \& Massols) |
| - Major Roads (VCG1 \& MassGIS) | - | Wastewater Facility (VCG1)* |  | Bridges and Cuverts - Short (VCGI)* |  |  | Stream (VCGI \& MassGis) |
| Town Roads (VCGI \& MassGIS) | (c) | Private Wells (VCGI) |  |  | $\nabla \backslash$ VT State Historic District (VCGI) |  |  |

## SECIION5B



| :\%: Study Area - 50ft Butier | \% | Substations (VCGI)* | VT Roadside Historic Marker (VCGI) * | * Active Underground Storage Tank (VCGI)* | - Cultural and Historic Stes (MassG15) * |
| :---: | :---: | :---: | :---: | :---: | :---: |
| :.:2 1/4 Mile Buffer | $\dagger$ | Stormmater Permits - Issued (VCGI) * | 友 Waste Facilites (VCGI) * | $\bigoplus$ Act 250 Permits (VCGI) | Cultural and Historic Area (MassGIS) * |
| NOT PRESENT INTHIS VIEW: | 0 | Stormwater Permits - Pending (VCG1) * | $\star$ Hazardous Waste Generators (VCGI \& MassGIS) * |  | Groundwater SPA (VCG) |
| - Existing and Planned Pathways (BCRC)* | . | Power Pole (VCGI) | $\star$ Hazardous Sites (VCGI) | Stormwater Lines (VC | 2017 Parcel Data (VCGI \& Whilliamstown Plannning) |
| $\rightleftharpoons$ Railroad (VCGI \& MassG15) | - | Public Water Source (VCGI) * | - Bridges and Culverts - Long (VCG1) * | -.. | [1- Waterbody (VCG1 \& Massis) |
| - Major Roads (VCGI \& MassGIS) | - | Wastewater Facility (VCGI) * | Bridges and Culverts-Short (VCGI)* | Was | - Stream (VCGI \& MassGIS) |
| - Town Roads (VCGI \& MassGIS) | (0) | Private Wells (VCGI) |  | $\bar{\square}$ - Transmission Lines (VCGI) Historic District (VCGI)* |  |

SECTION SA

## SECIIONSC



| \%.". Study Area - 50ft Butier | \% | Substations (VCG1) * | VT Roadside Historic Marker (VCGI) * |
| :---: | :---: | :---: | :---: |
| :.,: ${ }^{1 / 4}$ Mie Buffer | 1 | Stormwater Permits - Issued (VCGI) | the Waste Facillies (VCGI) |
| NOT PRESENTINTHIS VIEW: | - | Stormwater Permits - Pending (VCGI) * |  |
| -- Existing and Planned Pathways (BCRC)* |  | Power Pole (VCGI) | \# Hazardous Sites (VCGI) |
| Railroad (VCGI \& MassGIS) |  | Pubbic Water Source (VCGI) | - Bridges and Culverts - Long (VCGI) |
| Major Roads (VCG1 \& Mass | $\bigcirc$ | Wastewater Facility (VCGI) * | - Bridges and Culverts - Short (VCGI) |
|  |  | Private Wells (VCG) |  |

[^2]- Cutural and Historic Sites (MassGIS) *

Cultural and Historic Area (MassG15) *
Groundwater SPA (VCGI)
Stuctures (MassGIS)
2017 Parcel Data (VCGI \& Williamstown Plannning)
Waterbody (VCGI \& MassGIS

- Stream (VCGI \& MassGIS)


## 5:CHON6



| \%.". Study Area - 50 ft Buffer | $\xi$ | Substations (VCG1) * |  | VT Roadside Historic Marker (VCGI) | * Active Underground Storage Tank (VCGI) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| :.:.: $1 / 4$ Mile Buffer | 1 | Stormwater Permits - Issued (VCGI) | ¢ | Waste Facilities (VCGI) * | $\bigoplus$ Act 250 Permits (VCGI) |
| * | $\bigcirc$ | Stormwater Permits - Pending (VCGI) | $\star$ | Hazardous Waste Generators (VCGI \& MassGIS)* | Stormwater Lines (VCGI) |
| Existing and Planned Pattyways (BCRC) |  | Power Pole (VCGI) |  | Hazardous Sites (VCGI) | - 3Phase Distribution Lines (BCRC) |
| Rairoad (VCGI \& MassGIS) | - | Public Water Source (VCGI) |  | Bridges and Culverts - Long (VCGI) * | Wastewater Lines (VCG) |
| ajor Roads (VCGI \& MassCI | $\bigcirc$ | Wastewater Facility (VCGI)* |  | Bridges and Culverts - Short (VCGI) |  |
|  | (0) | Private Wells (VCGI) |  |  | $\square \backslash T$ State Historic District (VCGI) * |

< SECTIONSC

[^3]- Cultural and Historic Sites (MassGIS) *

Cultural and Historic Area (MassGIS) *
Groundwater SPA (VCGI)
2017 Parcel Data (VCGI \& Williamstown Plannning)
Waterbody (VCGI \& MassGIS

- Stream (VCGI \& MassGIS)


## SECHON 7


< SECTION 6

| :\%. Study Area -50t Buter | \% | Subsations (CG6)* | VT Roasside Historic Marker (VCGI) * |
| :---: | :---: | :---: | :---: |
| :.: $1 / 4 \mathrm{mile} \mathrm{Eufier}$ | - | Stormmater Perrms - Issued ( CCGI$)$ * | 楥 Waste Facilites (CCG)* |
| NOT PRESENTINTHIS VIEW: | O | Stormwater Permiss - Pending (VCS1) * | $\star$ Hzarcous Waste Senerators (vCGI 8 Ma |
| -- Exsting and Pameed Pathwas (BCRC)2 |  | Power Pole (VCG1) | $\star$ Hazardous Stes (VCG1)* |
| $\ddagger$ Ratroad (VCGI 8 Masscis) |  | Pubic Water Sarree (VCG) | - Bidges and Cuverts-Long (VCG1) ${ }^{*}$ |
| Majot Roads (VCG1 \& Masclis) |  | Wastewater Facility (VCG) * | - Bridges and Cuverts-Short (VCGI) * |
|  |  |  |  |


Active Underground Storage Tank (VCG)
$\bigoplus$ Act 250 Permits (VCGI)

- Stormwater Lines (VCGI)
- 3 Phase Distribution Lines (BCRC)
... Wastewater Lines (VCGI) *
- Transmission Lines (VCGI)*

Z $\triangle$ VT state Historic District (VCGI) *

- Cultural and Historic Sites (MassGIS)

Cultural and Historic Area (MassGIS) *
Groundwater SPA (VCG1)

- Stuctures (MassG|S)

2017 Parcel Data (VCGI \& Wlliamstown Plannning)
Waterbody (VCGI \& MassCIIS)

- Steam (VCE1 \& MassGIS)


## SECHOM:



| \%.'.t Study Area - 50ft Buffer | $\xi$ | Substations (VCGI)* | VT Roadside Histoic Marker (VCGI) * |
| :---: | :---: | :---: | :---: |
| :.:.: 1/4 Mile Buffer | $\dagger$ | Stormwater Permits - Issued (VCGI) * | \% Waste Facilities (VCG1)* |
| NOT PRESENTINTHIS VIEW: | $\bigcirc$ | Stormwater Permits - Pending (VCGI) * | $\star$ Hazardous Waste Generators (VCGI \& Ma |
| Existing and Planned Pattyways (BCRC) |  | Power Pole (VCGI) * | * Hazardous Stes (VCGI) * |
| Railroad (VCGI \& MassGIS) |  | Public Water Source (VCGI) * | - Bridges and Culverts - Long (VCGI) * |
| - Major Roads (VCGI \& Masscis) | - | Wastewater Facility (VCGI) * | [-Bridges and Culverts - Short (VCGI) * |
| Town Roads (VCGI \& MassGls) |  | Private Wells (VCG |  |

< SECTION 7

| Active Underground Storage Tank (VCGI)* | - Cutural and Historic Sites (MassGIS) |
| :---: | :---: |
| $\bigoplus$ Act 250 Permits (VCGI) * | Cuitural and Historic Area (MassG15) * |
|  | Groundwater SPA (VCGI) * |
| Stormwater Lines (VCGI)* | Structures (MassG1s) |
| 3 Phase Distribution Lines (BCRC) * | 2017 Parcel Data (VCG1 \& Williamstown Plannning) |
| Wastewater Lines (VCGI) * | [- Waterbody (VCG1 \& Masscis) |
| Transmission Lines (VCGI) * | - Stream (VCGI \& MassGis) |
| Z VT State Historic District (VCGI) * | - |

## SECHONO



## Mrllllll

:\%: Study Area- 50 H Buter
:.: 114 mie Butfer

* NOT PRESENTINTHISVIEW:
-- Existing and Planned Pathways (BCRC)
$\models$ Rairoad (VCGI \& MassGIS)
- Major Roads (VCGI \& MassGIS)
- Town Roads (VCGI \& MassGIS)

F Substations (VCGI)*
4) Stormwater Permits - Issued (VCGI) *

Q Stormurtar Pernt Pe

- Power Pole (VCGI) *
- Public Water Source (VCGI) *
- Wastewater Facility (VCGI) *
(O) Private Wells (VCGI) *

VT Roadside Historic Marker (VCGI)
Waste Facilities (VCGI)*
$\star$ Hazardous Sites (VCGI) *
Bridges and Culverts-Long (VCGI) *
Bridges and Culverts - Short (VCGI) *

* Active Underground Storage Tank (VCGI)*
$\bigoplus$ Act 250 Permits (VCGI) *
- Stormwater Lines (VCGI)*
- 3 Phase Distribution Lines (BCRC) *
..- Wastewater Lines (VCGI) *
- Transmission Lines (VCGI)
$\square \backslash$ vT State Historic District (VCGI) *

Cutural and Historic Sites (MassGIS)
Cultural and Historic Area (MassGIS)
Groundwater SPA (VCGI) *
Stuctures (MassGIS)
2017 Parcel Data (VCGI \& Williamstown Plannning)

- Waterbody (VCGI \& MassGIS
- Stream (VCGI \& MassGIS)
< SECTION 8


[^0]:    Main Street, Bennington, VT

[^1]:    Positive Impact
    No Impact
    A little negative impact
    Negative Impact
    Number scale: max and min is shown under Weight Multiplier

[^2]:    *) Active Underground Storage Tank (VCG)
    $\bigoplus$ Act 250 Permits (VCGI)

    - Stormwater Lines (VCGI)
    - 3 Phase Distribution Lines (BCRC)
    ..- Wastewater Lines (VCGI) *
    - Transmission Lines (VCGI) *
    $\square \backslash T$ State Historic District (VCGI) *

[^3]:    Active Underground Storage Tank (VCGI)
    (VCGI)
    Stormwater Lines (VCGI)
    ..- Wastewater Lines (VCGI)
    Z $\$ vT State Historic District (VCGI)*

