

Final Report, East Hardwick Better Connections Process

Appendix 4. Scoping Study for the Lamoille Valley Rail Trail Trailhead



Date: 6 October 2022
To: East Hardwick Neighborhood Organization
From: Corey Mack, PE
Subject: East Hardwick LVRT Trailhead Scoping - DRAFT

The Village of East Hardwick, through the Northeast Vermont Development Association (NVDA), contracted with WCG and Dufresne Group (DG) to evaluate potential trailhead locations along the Lamoille Valley Rail Trail (LVRT) in East Hardwick. WCG and DG conducted this Trailhead Scoping Study following an abridged process based on the Vermont Agency of Transportation (VTrans) Project Definition Process Guidebook. This memorandum with attachments serves as the Project Definition Report outlining the project approach and identifying a preferred alternative.

This Trailhead Scoping Memo includes the following sections:

[Stakeholder Involvement](#)

[Project Context and Existing Conditions](#)

[Purpose and Need](#)

[Design Criteria](#)

[Alternatives](#)

[Evaluation](#)

[Preferred Alternative](#)

STAKEHOLDER INVOLVEMENT

The East Hardwick Neighborhood Organization (EHNO) has served as the primary stakeholder during project development. Additional stakeholders have included the Town of Hardwick, NVDA, and VTrans.

The stakeholders have been engaged throughout project initiation and development. The primary stakeholder engagements have included:

- **Kickoff Meeting**, to discuss scope, project definition process, purpose and need, and local concerns.
- **Consultant Site Meeting**, to review existing conditions, project context, identify ideal trailhead features, and discuss potential siting opportunities and constraints.
- **Agency Site Meeting**, for local stakeholders to meet with the LVRT managing agency and understand the LVRT system opportunities and constraints.

- **Alternatives Presentation Meeting**, to review the features and impacts of various potential trailhead and parking alternatives, and to select a preferred alternative for design.

Meeting notes from these events are included in Attachment A.

PROJECT CONTEXT AND EXISTING CONDITIONS

The Lamoille Valley Rail Trail is a 93-mile four-season multi-use trail across the northern tier of Vermont from Swanton in the northwest to St Johnsbury in the northeast. The rail trail is a conversion of a historic rail bed; the history of the rail line is documented in previous LVRT studies, including the LVRT Management Plan¹.

In East Hardwick, a freight and passenger railroad depot and siding was constructed off Church Street with a spur roadway connection named Railroad Street. Over time, Stevens Lane connected with Railroad Street to form a loop between Brickhouse Road and Church Street. In addition to the depot, at least two warehouses were located to the east of the railroad and north of Stevens Lane. Following the decline of freight and passenger rail service with the advent of automobile travel the railroad depot burned down, and the former warehouses were removed. Historic maps and images of the former railroad site and surrounding area are included in Attachment B.

The former station is located approximately 200 feet west of Church Street. Along Church Street is the East Hardwick Grange Hall and Congregational Church, along with numerous residential properties. The East Hardwick Village continues to the south and east across the Lamoille River along Main Street and School Street.

The existing site is illustrated in Figure 1. The former railbed has been transformed into a 10-foot wide, accessible aggregate shared use path surface. The former site of the railroad depot and warehouses are largely overgrown, with some rubble visible that may be associated with the former structures. At Brickhouse Road, a large concrete wall is visible northeast of and adjacent to the railbed, reported to be the foundation of a former barn.

The site generally slopes from the hillside on the northwest to the Lamoille River in the southeast. Ditches along the western side of the path have been restored and midway between Brickhouse Road and Stevens Lane a 24" culvert crosses below the LVRT. Generally, the terrain is level for 16 – 20 feet east of the path along the former railroad siding.

Wet areas that may be classified as wetlands were identified on all quadrants of the LVRT and Stevens Lane intersection near the former railroad depot. While there are no mapped wetlands on the site, the district wetland biologist performed a site visit and indicated there is "some chance that a wetland may be [near the site]. Wetlands and buffers should be clearly identified before any work starts on this property, as work within these areas requires a permit."

¹ <https://vtrans.vermont.gov/highway/local-projects/lvrt/management>

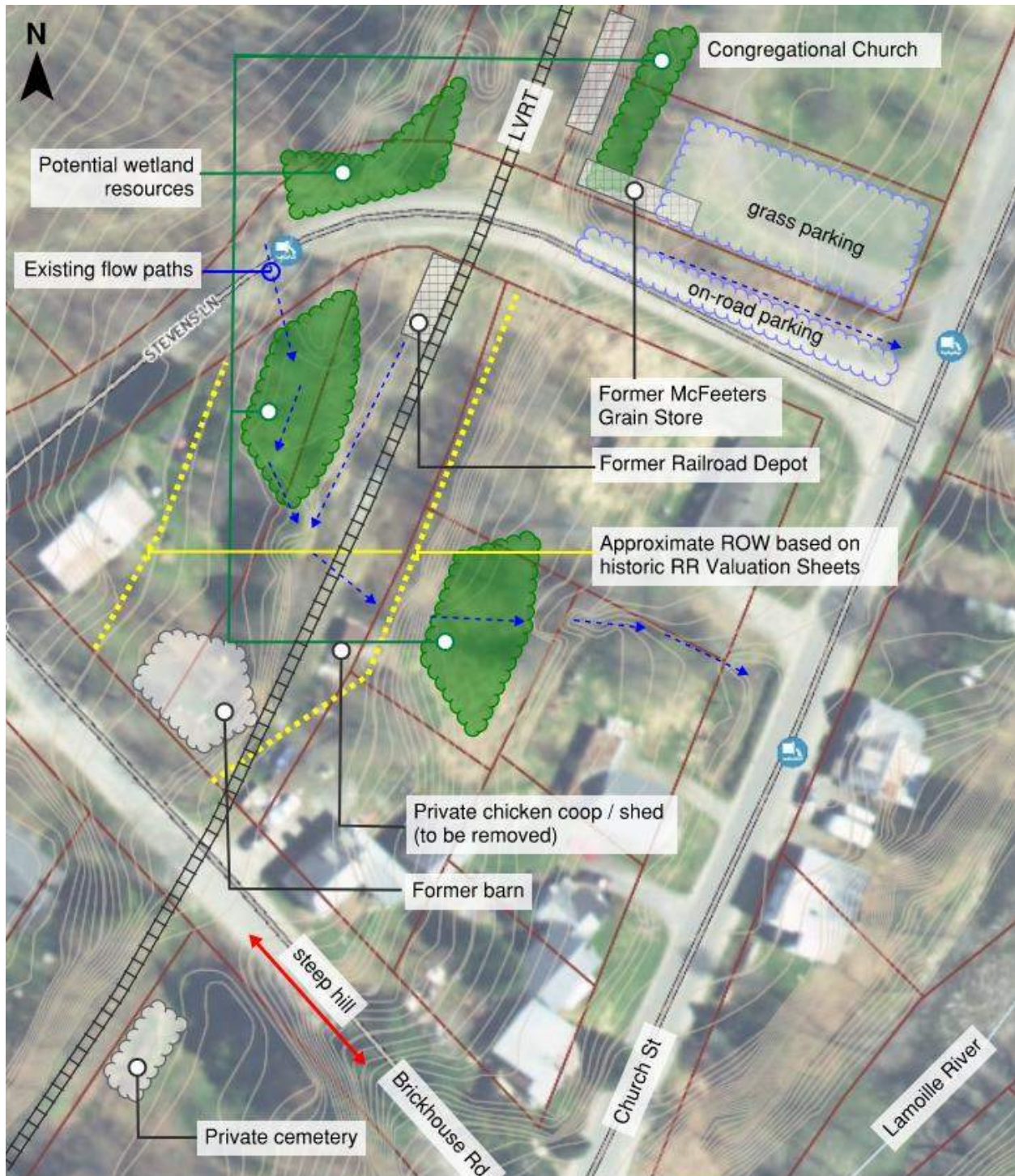


FIGURE 1: EXISTING PROJECT AREA NEAR THE SITE OF THE FORMER EAST HARDWICK RAILROAD DEPOT

An existing 4" water line serves structures along the Church Street. Utility poles are present on the south side of Stevens Lane east of the LVRT, and to the northwest of Stevens Lane west of the LVRT. Stormwater generally flows in open ditches to culvert crossings with no specific treatment.

Brickhouse Road is a low-volume class 3 town highway (TH-28), with a bituminous concrete surface approximately 20-feet wide and no posted speed limit. East of the LVRT, Brickhouse Road descends towards Church Street / Main Street at a grade exceeding 16%. There is a narrow sidewalk on the northeast side of Brickhouse Road east from the LVRT crossing to Church Street. The stopping and intersection sight distances at the crossing are acceptable for path users to safely cross along the LVRT.

Stevens Lane is a low-volume class 3 town highway (TH-61), with a gravel surface approximately 18-feet wide and no posted speed limit. East of the LVRT, Stevens Lane descends towards Church Street at a grade around 10%. West of the LVRT, Stevens Lane enters into a 130-foot radius, 60-degree curve. There is no pedestrian or bike infrastructure along Stevens Lane. The stopping and intersection sight distances at the crossing are limited for path users to cross along the LVRT.



FIGURE 2: VIEW OF THE LVRT, LOOKING SOUTH FROM STEVENS LANE; THE FORMER EAST HARDWICK RAILROAD DEPOT WAS LOCATED ON THE RIGHT SIDE OF THE PHOTO NEAR THE ROAD

Summary of Resources

DG compiled Geographic Information System (GIS) data available from the Agency of Natural Resources, VT Center for Geographic Information, in the project area to review potential natural and cultural resource impacts.

Natural Resources Summary

- A. Wetlands.** There are some potentially Class 2 wetlands to the southeast of the rail trail. The District Wetlands Ecologist recommends a wetland delineation for the area.
- B. Lakes/Ponds/Streams/Rivers (stormwater discharge and erosion/sediment control implications).** No Lakes/Ponds/Streams/Rivers will be directly impacted by this project.
- C. Floodplains.** There are no floodplains in the project area.
- D. Endangered Species.** No endangered species were identified in the project area.
- E. Flora/Fauna.** No endangered flora/fauna was identified in the project area.
- F. Hazardous Wastes.** No hazardous waste sites were identified in the project area.
- G. Forest Land.** There is no Forest Land identified in the project area.

Cultural Resources Summary

- A. Historic & Archaeological.** An Archaeological Resource and Historical Preservation Assessment has not been completed for the project. It is recommended that this assessment is completed during the design stage to identify and mitigate any potential impacts.
- B. Architectural.** No architectural impacts are anticipated.
- C. Public Lands.** No impacts to public lands are anticipated.
- D. Agricultural Lands.** No impacts to agricultural lands are anticipated.

PURPOSE AND NEED

Purpose: To provide a safe, welcoming, and inviting community access for all abilities between the Lamoille Valley Rail Trail and East Hardwick, encouraging visitation from the Trail into town, access for residents from the town to the Trail, and providing educational opportunities to learn about the historic East Hardwick Village and former rail operations.

Need: The LVRT will be opened in 2023 and the trail passes by the East Hardwick village with no clear information on the area or formal access between the trail and Town. With limited cell service in the area, a physical, permanent installation is needed to let people know where they are, what services are available nearby, and where to park if accessing the trail at this location. Specifically lacking:

- There is limited cell phone service in the area, access to information is critical.
- There is no accessible parking nearby for residents to access the trail.

- There is no historical interpretation of the adjacent area, with no recognition of the former railroad operations.
- The sight distance at to the northwest along Stevens Lane from the LVRT is restricted.

DESIGN CRITERIA

As noted in the LVRT Management Plan:

“...the LVRT offers recreational opportunities for hikers, bikers, equestrians, snowmobilers, snowshoers, dog mushers, and cross-country skiers. The crushed stone trail surface is compliant with the Americans with Disabilities Act (ADA) with the intent of making the trail available to users of all abilities.”

The East Hardwick Trailhead is intended to serve as an intermediate access point to the trail with minor amenities. As defined in the Management Plan, the East Hardwick Trailhead seeks to have features associated with a Level 2 trailhead, including:

- Pavilion with informational kiosk, 15-20 feet from center of trail per VTrans
- Benches and trash / recycling receptacles
- Bike racks / repair station
- Historic / interpretive elements
- Entry / arrival signage
- Water fountain / bottle filling station
- Picnic areas / table

In addition, the stakeholder group identified a demand for equestrian facilities, with desired features including:

- Stepping features for mounting / dismounting
- Hitching rail
- Water trough

In addition to physical information, the EHNO stakeholder group identified a desire for a public wireless network at the trailhead. This may be provided through a dedicated data connection, or via wireless radio from a neighboring site.

Designed features should align with the trail identity defined by the LVRT Management Plan.

ALTERNATIVES

In consultation with the EHNO stakeholder group, WCG developed four conceptual layouts of a trailhead with the identified features, and six conceptual layouts of parking. These locations are illustrated in Figure 3.

Trailhead Layouts

Each proposed trailhead consists of 20-foot x 40-foot level aggregate pad with a 10-foot x 20-foot pavilion; three bicycle racks with repair station; space for benches and trash / recycling receptacles; two information boards for interpretive, wayfinding, and local information; an 8-foot accessible picnic table; a water fountain with trough and hitching rail concept; clearing the site of the former railroad depot to improve sight lines and with boulders marking the nearest corners of the former station; and other boulders for delineation and equestrian mounting / dismounting. All trailheads are located within the LVRT right of way.

The general layout and advantages and disadvantages for each layout include:

Trailhead 1: East of LVRT, south of Stevens Lane, opposite former railroad depot. Sited on former siding with little grading and site work necessary and no impact to former railroad structures. Located on relatively flat former siding, but may impact wetland buffer. Site avoids steep grade along Brickhouse Road but is further from the most direct route between village and LVRT.

Trailhead 2: West of LVRT, south of Stevens Lane, within footprint of former railroad depot. Potential impacts to former railroad structures and wetland buffers. Site avoids steep grade along Brickhouse Road but is further from the most direct route between village and LVRT.

Trailhead 3: East of LVRT, south of Brickhouse Road. Sited on former siding with little grading and site work necessary and no impact to former railroad structures; site is located near a private cemetery. Site is along most direct route to village, but route requires travel on steepest portion of Brickhouse Road. On- or off-street parking for more than one or two vehicles is not feasible. Located outside estimated wetland and wetland buffer.

Trailhead 4: East of LVRT, north of Stevens Lane, kitty-corner from former railroad depot. Sited on former siding with little grading and site work necessary, however layout may impact former McFeeter warehouse structures. Located within estimated wetland buffer. Site avoids steep grade along Brickhouse Road but is further from the most direct route between village and LVRT.

Parking Layouts

The conceptual design for parking areas were developed to be nearest to the trailheads with vehicular and pedestrian loading access. All parking spaces are located within the LVRT or Town right-of-way, however grading impacts may extend into private property as noted below. All parking layouts recommend site clearing to improve sight lines around the Stevens Lane corner.

Parking 1a: Accessible parking for up to two vehicles, head-in from Stevens Lane. Within LVRT and Town right of way, however potential impacts to wetland buffer and overhead utility pole.



FIGURE 3: CONCEPTUAL LAYOUTS OF ALTERNATIVE TRAILHEAD (ORANGE) AND PARKING (BLUE) LOCATIONS

Parking 1b: Widened Stevens Lane for six formalized on-street general purpose parallel parking spaces, maintaining two-way traffic along Stevens Lane. Likely impacts to existing ditch may require grading and impacts to private property and wetland buffer; however, the Town is planning to replace the culvert at north of Stevens Lane on Church Street, and the two projects may be undertaken simultaneously.

Parking 1c: Implementation of one-way traffic pattern and parking restrictions to allow up to twelve formalized on-street general purpose parking spaces along Stevens Lane. No significant road widening, or wetland / utility / right of way impacts expected.

Parking 2: Accessible and general purpose head-in parking spaces for up to eight vehicles from Stevens Lane. Expected to be within Town and LVRT right of way, however will require culvert extension and potential impacts to wetland and wetland buffer, with potential impacts to former railroad structure footprints.

Parking 3: Accessible parking for up to two vehicles, head-in from Brickhouse Road. Mostly within LVRT and Town right of way, with potential right-of-way impacts resulting from second parking space and associated grading.

Parking 4: Up to 14 accessible and general purpose parking spaces off-street on a private parcel owned by the adjacent church. The site is currently used as a grass overflow parking areas by the Church and Grange. Redevelopment as a formalized shared parking facility with accessible path to the LVRT may benefit all organizations. However, the site is located entirely on private land and development of the lot and path may impact wetlands and wetland buffers.

The trailhead and parking conceptual layouts were combined to form 4 alternatives for evaluation, with one alternative having two variations. These alternatives are illustrated in Attachment C.

Impact Review and Permitting Requirements

A preliminary Act 250 project review sheet was completed for the proposed improvements. The project review sheet identified that stormwater, wetlands, and regional water/wastewater permits may be required. The project review sheet is included as [Attachment D](#).

At this time, we anticipate that the following permits may be required for the project:

- Wetlands General Permit
- NEPA Categorical Exclusion
- Water and Wastewater Supply Permit for water service

A wetland delineation is needed to determine the extent of wetland impacts. Preliminary review by the District Wetlands Ecologist indicates the likely presence of Class 2 wetlands. This project would be considered separate from the overall Lamoille Valley Rail Trail project and can therefore likely be permitted under the general permit.

If Federal funding is utilized, an environmental analysis will be required in accordance with the National Environmental Policy Act (NEPA). It is likely that the project would qualify for a Categorical Exclusion as it is not anticipated to have a significant effect upon natural and cultural resources, nor a significant environmental impact.

A water and wastewater supply permit from the regional office is required for the addition of the water service to serve the water fountain. However, a wastewater system for this property is not required. The water fountain can drain into a stone sump or similar facility to avoid ponding and muddy conditions and a separate wastewater system to dispose of the excess water from the fountain is not required.

The anticipated disturbed area resulting from construction is unlikely to exceed the 1 acre threshold which requires a permit for stormwater discharge. If the area of disturbance will equal or exceed one acre, a construction general permit for low-risk sites must be obtained. In addition, treatment of stormwater is not required due to the small amount of additional impervious area for all alternatives except for Alternative 4 which may meet the 5,000 square foot threshold and trigger treatment if the existing driveway is not considered existing impervious. Should this alternative be selected, treatment in the form of bioretention swales along the impervious area is recommended.

A summary of the overall permitting and environmental impacts for each alternative is presented in Table 1.

TABLE 1: SUMMARY OF IDENTIFIED RESOURCE IMPACTS AND PERMITTING REQUIREMENTS

ALTERNATIVE	RESOURCE IMPACTS	PERMITTING
ALTERNATIVE 1A, ALTERNATIVE 1B, & ALTERNATIVE 3	Potential Class 2 wetlands impacted- delineation required	Wetlands General Permit Water and Wastewater Permit from Regional Office NEPA Categorical Exclusion SHPO Review
ALTERNATIVE 2	Potential Class 2 wetlands impacted- delineation required Potential impacts to historic structure	Wetlands General Permit Water and Wastewater Permit from Regional Office NEPA Categorical Exclusion SHPO Review
ALTERNATIVE 4	Potential Class 2 wetland buffer impacts – delineation required Stormwater treatment may be required Potential impacts to historic structure	Wetlands General Permit Water and Wastewater Permit from Regional Office NEPA Categorical Exclusion Potential Stormwater operational permit SHPO Review

EVALUATION MATRIX

The expected estimated costs, impacts, and permits associated with each alternative is summarized in the following table.

	Alternative 0	Alternative 1a	Alternative 1b	Alternative 2	Alternative 3	Alternative 4
Description	Do Nothing	Trailhead opposite former rail station, general parking along widened road	Trailhead opposite former rail station; general parking along existing road, one-way	Trailhead within footprint of former station; head in parking west of TH	Trailhead south of Brickhouse Rd; no general parking	Trailhead north of Stevens Ln; shared general parking on private lot
Trailhead and Parking Layout		T1, P1a, P1b	T1, P1a, P1c	T2, P2	T3, P3	T4, P4
Estimated Probable Costs (does not include costs associated with right of way)						
Trailhead	\$0	\$162,975	\$162,975	\$184,085	\$192,960	\$183,120
Parking	\$0	\$66,005	\$31,301	\$111,300	\$33,060	\$198,864
20% Engineering	\$0	\$45,796	\$38,855	\$59,077	\$45,204	\$76,397
5% Muni. Project Mgmt.	\$0	\$11,449	\$9,714	\$14,769	\$11,301	\$19,099
15% Construction Eng.	\$0	\$34,347	\$29,141	\$44,308	\$33,903	\$57,298
10% Contingency	\$0	\$22,898	\$19,428	\$29,539	\$22,602	\$38,198
Total Cost	\$0	\$343,469	\$291,413	\$443,078	\$339,030	\$572,976
Abridged Impact Summary						
Bicycle and Pedestrian Access	No change	Improved	Improved	Improved	Improved	Improved
Formal Parking Spaces	0	8	14	8	2	14
Drainage Impacts	No change	Improved	Improved	Improved	Improved	Improved
Utility Impacts	None	Potential	Potential	None	None	None
Historic Site Impacts	None	None	None	Yes	Potential	Yes
Probability of Wetlands Impacts	0	Low	Low	High	Low	High
Prob. of Wetland Buffer Impacts	0	Med	Low	High	Low	High
Right of Way Impacts	None	Unlikely	Unlikely	Potential	Potential	Yes
Satisfies Purpose and Need	No	Yes	Yes	Yes	Partially	Yes
Abridged Permit Summary						
Act 250 Permit	-	-	-	-	-	-
Conditional Use Determination	-	Yes	Yes	Yes	Yes	Yes
Stormwater Operational	-	-	-	-	-	Potential
State Historic Preservation Office	-	Yes	Yes	Yes	Yes	Yes

PREFERRED ALTERNATIVE

The need for a trailhead along the LVRT is clear. Without a trailhead, there will be no formal access to the trail for the community, and no way for travelers on the path to learn about the East Hardwick community. Without a trailhead, recreational opportunities for residents and the associated economic benefits from the regional trail will be diminished. Formal access to the trail will ensure safe and efficient parking behavior, and the trailhead provides physical representation of the community's investment in and support of the trail. *Alternative 0: Do Nothing is not preferred.*

Upon discussion with the Vermont Rail Trails Program Manager, impacts to the historic foundations of the former railroad station and warehouses would not be supported within the LVRT right of way managed by the State of Vermont. *Alternative 2: Former Depot Site and Alternative 4: North of Stevens Lane are not preferred.*

The proposed site south of Brickhouse Road would encourage access to East Hardwick along the steep portion of Brickhouse Road, which was discussed as undesirable. The steep slope of Brickhouse Road limits parking opportunities near the proposed site are limited along Brickhouse Road. Furthermore, the site may impact the existing private cemetery adjacent to the railroad. *Alternative 3: South of Brickhouse Road is not preferred.*

Alternative 1: Opposite Former Depot provides a trailhead location near the former railroad station, providing a location for interpretive history. The site has nearby parking opportunities, either formalized along a widened portion of Stevens Lane, one-way traffic management, or by maintaining the informal current on-street parking practices. Alternative 1 has a lower probability of wetland impacts and lower estimated cost when compared to Alternatives 2 and 4. Alternative 1 is expected to be entirely within the Town and LVRT rights of way and impacts to the nearby utility pole should be able to be avoided during design.

Following discussion with the Stakeholder group **Alternative 1: Opposite Former Depot is the preferred trailhead alternative.** The trailhead should include the accessible, head in parking pad, and with on-street Stevens Lane parking. The decision to widen Stevens Lane (P1b), restrict Stevens Lane to one-way (P1c), or continue to allow informal parking (Do Nothing) will be addressed as the parking demand is observed.

The preferred alternative is illustrated in detail in Attachment C.

Modifications During Design Phase

During the design phase, several modifications to the preferred alternative may be pursued to reduce costs and impacts without changing the project's ability to meet the purpose and need, including:

- **Reduce the size of the pavilion.** The size of the pavilion was developed to fit 2 information panels and a full-size picnic table. The pavilion size may be reduced if the panels or picnic table are removed or relocated.

- **Simplify the water fountain.** The water fountain was estimated as a semi-custom bottle filling station with accessible fountain and self-draining trough for horses and dogs. The water fountain could be simplified as a standard fountain with a less fancy, yet just as functional, frost free standpipe with bucket.
- **Remove data and electrical service.** Two conduits for data and power, plus associated meter and hardware are included in the cost estimate.
- **Eliminate one of the accessible parking spaces.** The parking area directly adjacent to the trailhead was designed to accommodate two accessible parking spaces; only one is required per accessibility guidelines. Removing one space will reduce the grading and pad size for the parking area.

Maintenance Requirements

The Town of Hardwick will be responsible for maintenance of the trailhead. The total annual maintenance cost of the trailhead is estimated at \$9,800. This cost may be reduced by using volunteer labor and materials.

Regular maintenance activities are estimated to require 6 hours of labor per month, or about \$5,000 per year. Activities may include:

- Mowing and landscape maintenance
- Trash / recycling collection
- Site tidying

Less frequent (seasonal) activities will are estimated to cost \$3,000 per year, and include:

- Seasonal water service (draining / connecting fountain)
- Graffiti and vandalism repair
- Painting
- Aggregate surface repair gravel

Other regular costs associated with the trailhead may include electrical and network data services, estimated to cost \$1,800 per year. This may be reduced if the site pursues solar electrical service, wireless data connections, and / or a wireless radio network from adjacent properties.

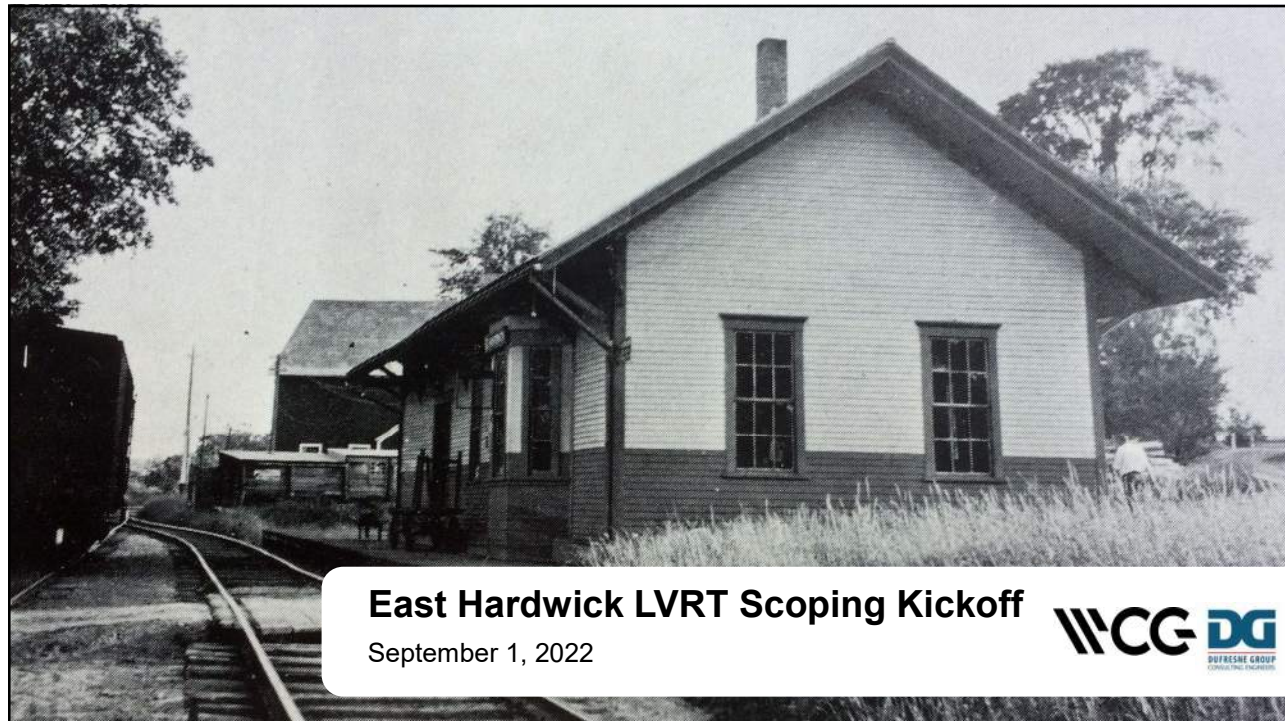
ATTACHMENTS

- A. Stakeholder Committee Meeting Notes
- B. Historic Maps and Images of Proposed Site
- C. Trailhead and Parking Alternative Concept Details
- D. Act 250 Project Review Sheet



ATTACHMENT A

Stakeholder Committee Meeting Notes



1

Agenda

1. Introductions
2. Project Goals, Purpose and Need, Schedule
3. Other Studies
4. Project Area
5. Amenities
6. Concerns
7. Data Requests
8. Next Steps



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Introductions

- Irene Nagle inagle@nvda.net
- Cheryl Michaels c.michaels@gmail.com
- EHNO East Hardwick ehneighborhood@gmail.com
- Brendan Buckley bbnavigator@gmail.com
- Tracy Martin cdc@hardwickvt.gov
- Helen Beattie hbeattie@gmail.com
- Gail O'Brien gob7878@gmail.com
- David Upson david.upson@hardwickvt.gov
- Corey Mack corey.mack@wgc.us
- Mike Lance Mike@thelances.info
- Janice Leonard janice@vtlink.net
- Kristine Burke kristine.burke@masterfulu.com
- Tracy & Dave Gross tracydave@comcast.net
- Andrea Day aday@dufresnegroup.com, Dufresne Group
- Jackie Cossino jackie.cossino@vermont.gov, Vermont Rail Trails Program Manager



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Goals, Purpose and Need, Schedule

Project Goals:

To evaluate appropriate location(s) for a trailhead to the LVRT in East Hardwick, preparing a scoping document identifying a preferred alternative with amenities, conceptual layout, permitting requirements, and cost estimate, to be used for grant funding applications (due mid-October)

Purpose and Need: (To be refined)

- **Purpose:** To provide a welcoming and inviting community access between the LVRT and East Hardwick, encouraging visitation from the Trail into town and access from the Town to the Trail.
- **Need:** The LVRT will be opened in 202_, no formal access from trail to Town, need to let people know where they are, what services are available nearby, and where to park if accessing trail at this location.

Schedule: Draft Scoping Document by end of month, Final by mid-October for application



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Other Studies

1. LVRT Management Plan



2. East Hardwick Walk Bike Safety Improvement Concepts



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Project Area



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Amenities

Figure 20 Typical Level 1 Trailhead



Consider users: Bike-Ped-Snow Machine-Ski-Equestrian-ATV-other?

What needs will the site provide?

- a. Parking - what type of vehicles?
Trailers for snow machines / horses?
- b. Water: people and dog?
- c. Shade
- d. Table
- e. Toilets
- f. Trash / Recycling / Compost
- g. Map:
- h. Information / Community Board / Services in Town, Trail Supporters / Sponsors
- i. Wifi
- j. Lighting
- k. Other?



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Amenities

Figure 21 Typical Level 2 Trailhead



Consider users: Bike-Ped-Snow Machine-Ski-Equestrian-ATV-other?

What needs will the site provide?

- a. Parking - what type of vehicles?
Trailers for snow machines / horses?
- b. Water: people and dog?
- c. Shade
- d. Table
- e. Toilets
- f. Trash / Recycling / Compost
- g. Map:
- h. Information / Community Board / Services in Town, Trail Supporters / Sponsors
- i. Wifi
- j. Lighting
- k. Other?



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Amenities

Figure 22 Typical Level 3 Trailhead



Consider users: Bike-Ped-Snow Machine-Ski-Equestrian-ATV-other?

What needs will the site provide?

- a. Parking - what type of vehicles?
Trailers for snow machines / horses?
- b. Water: people and dog?
- c. Shade
- d. Table
- e. Toilets
- f. Trash / Recycling / Compost
- g. Map:
- h. Information / Community Board / Services in Town, Trail Supporters / Sponsors
- i. Wifi
- j. Lighting
- k. Other?



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Concerns

1. Maintenance
2. Barriers from trailhead to the village
3. Undesirable behavior
4. Right-of-way agreements



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Information Requests

1. Water system details, GIS layers
2. Planned trail networks / connections



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Next Steps

1. Site visit: Saturday 9/3 at noon
2. Amenity List: 9/7 - Must Have, Nice to Have, Not Needed; Design Vehicle
3. Conceptual Layouts: 9/16
4. Resource Impact Review, Cost Estimating: 9/23
5. Draft Scoping Memo: 9/30
6. Review and Discussions, Revisions, and Final Scoping Memo: 10/7



12



East Hardwick LVRT Trailhead Scoping

Local Concerns Meeting Notes

September 3, 2022

12:00 – 1:30 p.m.

Former Train Depot Site, Stevens Lane, East Hardwick

Attendees

Cheryl Michaels, EHNO

Brendan Buckley, EHNO

Helen Beattie, EHNO

Kris Burke, EHNO

Mike Lance, EHNO

Gary Michaels, EHNO

Tracy Martin, Hardwick Town Staff / East Hardwick Resident

Corey Mack, WCG

Notes

1. Introductions and Site Walk

The Trailhead Scoping development team met at the First Congregational Church parking lot. The group walked the site and discussed the existing site, historical elements, and current conditions; notes follow.

2. Site

The former East Hardwick railroad station site is along the northwestern corner of the linear railroad parcel between Brickhouse Road and Stevens Lane. The railroad was active until the 1960s, with a creamery and grain siding warehouse near the tracks.

There are numerous reports of using the rail line for daily activity, like school, church, and access to Hardwick and St Johnsbury along the route. When passenger and freight service declined, the rail line became a tourist attraction through the 1980s. The railroad station burned down (date unknown) and the site is currently overgrown with brush and

small trees. Evidence of foundations for the former station, a barn, and the grain siding warehouse is visible.

The site is generally sloping west to east. The new trail bed has developed a stone lined ditch along the western edge of the trail, with a new 24" culvert crossing about midway through the railroad property. West of the trail, the property receives a culvert outflow from under Stevens Lane and a low, wet area may contain wetland resources.

A private chicken coop / shed structure is present south of the culvert adjacent to the trail. This structure will be removed. South of Brickhouse Lane, a private cemetery is located just beyond the railroad ROW on the east side of the trail.

Parking is limited: there is informal parking at the Church and along Stevens Lane. The Grange Hall, which hosts community events opposite Stevens Lane along Church Street, has no parking. The vacant lot between the Church and Stevens Lane has recently been gifted to the church. This parcel serves as an undeveloped overflow parking to the Church and Grange, with parking on a grass surface.

3. Desired Features

The group discussed the intention of the trailhead: to bring people from the trail to the village, provide access from the community to the trail, to integrate within the region's trail systems, and to provide educational opportunities on the region's past and support for the economic and recreational future.

The group discussed the following desired features and amenities:

- Covered shade structure, representative of former rail station with wall / board space for area information and historical markers / interpretive signs
- Picnic table / rest area
- Water fountain / water bottle filling station
- Dedicated parking
- Equestrian amenities: hitching rail, water trough, mounting aids
- Wi-Fi
- Playground

4. Opportunities and Constraints

The group discussed the following opportunities, constraints, and concerns:

- Hill along Brickhouse Lane is steep and a barrier to access
- The property on Brickhouse east of the trail is in foreclosure and would provide an excellent community space or trail related business.
- If trailhead is sited north of Brickhouse near Stevens, wayfinding may be needed at Brickhouse to encourage people to go to the trailhead.
- Not enough parking for the Church and Grange
- Wetland concerns at northeast side of the site
- Highlight connections to trails, swimming and fishing holes, other recreation opportunities from the trail (or nearby)
- The railroad property appears to be larger than what is shown in tax mapping: should be offset 100-feet to west, 33 feet to east.

5. Next Steps

- Historic society to investigate date of station burning.
- Corey / WCG to develop amenities list (see below)

Amenities List

Must-haves:

- Shade structure with table, seating, information kiosk / boards
- Representation of the former train station
- Drinking water
- Parking for 3 vehicles

Nice-to-haves:

- Solar lighting
- Parking for 4+ vehicles
- Equestrian amenities: hitching rail, water trough, mounting aids

- Wi-Fi
- Playground

Not necessary:

- Bathrooms (to be provided at Greensboro / Hardwick Trailhead)
- Hardwired electrical service
- Off street parking for snow machine / horse trailers



Corey Mack <corey.mack@wcg.us>

East Hardwick LVRT

1 message

Irene Nagle <inagle@nvda.net>

Thu, Sep 15, 2022 at 5:05 PM

To: Corey Mack <corey.mack@wcg.us>

Cc: Brendan Buckley <bbnavigator@gmail.com>, Tracy Martin <cdc@hardwickvt.gov>, EHNO East Hardwick <ehneighborhood@gmail.com>, Helen Beattie <hnbeattie@gmail.com>

Hi Corey,

The steering committee offered the following comments on the "Local Concerns Meeting Notes " and draft concept plan:

- wifi access should be moved to the "nice to have" list.
- the foundation structure was actually from a barn, not a creamery.

Regarding the Steering Committee's meeting with Jackie Cassino and Bill Gray of VTrans on Monday, September 12, here are the takeaways:

- The alternative location of the shelter structure ("T2" on your Figure 2) which is on the southeast side of the LVRT, is the preferred alternative since the site of the former train station may be archaeologically sensitive. However, Interpretive signage on the site of the old train station could be possible.
- In order to locate the water fountain/bottle filler on the same side of the LVRT as the shelter, the water service will need to be brought in from Steven's Lane since it will not be permitted to trench under the LVRT path. Hopefully there IS a water service line in Stevens Lane and this will be possible. Alternatively, the water fountain might be able to be located on the northwest side of the LVRT, as long as it avoids the foundation of the old train station and involves minimal disturbance.
- There should be a sign for trail travelers riding northeast on the LVRT to not turn right on Brickhouse Road (this can be placed by town within town R.O.W). In addition, wayfinding signage within LVRT R.O.W. directing riders to the shelter location, and to Steven's Lane as the way to access East Hardwick Village should be discussed with VTrans.
- Bill Gray said no structures should be located 15 to 20 feet from the centerline of the trail.
- The best parking sites for the trailhead would be P3 and P2 on your Figure 2.
- The Hardwick Electric poles in Stevens Lane may be a way to provide wifi to the trailhead site -- this should be investigated.

Bill Gray sent me a TIF of the valuation sheet (attached), which makes it much clearer to me where the State property is. I believe this may be available as a shape file from VTrans. The contact person there is David Tillberg, GIS & Database Technician, Phone: 802-917-8878, david.tillberg@vermont.gov. (maybe you have this already)

Although one of the EHNO members mentioned the possibility of a playground, the group felt this was not desirable.

Regarding the application for the LVRT community grant, Tracy Martin will be preparing that and in addition to the plan and cost estimate you will prepare for East Hardwick, she will be including a proposal for improvements at locations along the LVRT in downtown Hardwick.

Feel free to call if you want to chat further about these notes.

Thank you!

Irene

--

Irene M. Nagle
Senior Planner

NVDA

Northeastern Vermont Development Association

[36 Eastern Avenue, Suite 1](#)

[St. Johnsbury, VT 05819](#)

(802) 424-1423

Attachment A

www.nvda.net

NVDA employees have returned to their offices on a limited basis. Our building is closed to the general public, but our employees are accepting meetings by appointment upon request. Please call or email and we will respond as soon as possible. Thank you.



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487K

**East Hardwick LVRT Trailhead Scoping
Alternatives Selection and Presentation Meeting Notes**

October 5, 2022

1:00 – 2:00 p.m.

Remote Meeting via Zoom

Attendees

Brendan Buckley, EHNO

Helen Beattie, EHNO

Tracy Martin, Hardwick Town Staff / East Hardwick Resident

Irene Nagle, NVDA

Corey Mack, WCG

Andrea Day, Dufresne Group

Notes

1. Presentation of Scoping Memo

Corey walked through the draft scoping report dated 29 September 2022. The layout and outline is based on the VTrans Project Definition Report Guidelines, with sections on Stakeholder Involvement, Project Context and Existing Conditions, Purpose and Need, Design Criteria, Alternatives, Evaluation, and Preferred Alternative.

The stakeholder involvement section documents the community participation. This is admittedly limited given the tight timeline to develop the memo, but we did try to include as many opportunities to review and discuss as possible.

The project context section documents the existing site relative to the project. The context includes a discussion on the historic, cultural, and natural resources. No actual site surveys were conducted, only observations from the project team. Both historic and wetland resources should be further defined during the design stages.

The purpose and need helps identify criteria for alternative development and to evaluate the alternatives upon. The purpose and need was first developed at the kickoff meeting, and further refined as the project developed.

The design criteria helps identify specific features and design requirements based on the anticipated users of the project.

Four alternatives for the trailhead and parking were each developed.

The impacts and permitting requirements of each alternative were reviewed. Andrea noted that a Wetlands General Permit will likely be required during design. This will require a wetlands biologist to delineate the area and for a field survey to map the wetlands so the wetland boundary and buffer can be determined. As long as impacts are minimized and the function of the wetlands remain intact, wetland permit should be possible.

In addition, a water service permit will be required for the fountain, and historic documentation will be required for the Categorical Exclusion / NEPA permit.

2. Discussion of Alternatives and Impacts

The group discussed the alternatives and impacts. Alternative may impact wetland buffer. Alternative 2 on the former railroad depot, and Alternative 4, on the former warehouse, likely impact historic resources; VTrans noted that this was unacceptable. Alternative 3 does not provide opportunity for parking.

3. Selection of Preferred Alternative

Alternative 1 is the preferred trailhead location with parking along Stevens Lane.

Alternative 1 should be pursued with head-in accessible parking (P1a). Tracy noted that the Town is looking to replace the culvert under Church Street north of Stevens Lane, and that the replacement might proceed with widened parking along Stevens (P1b). The Town may consider allowing informal parking for now to gauge the parking demand before considering significant changes and investment.

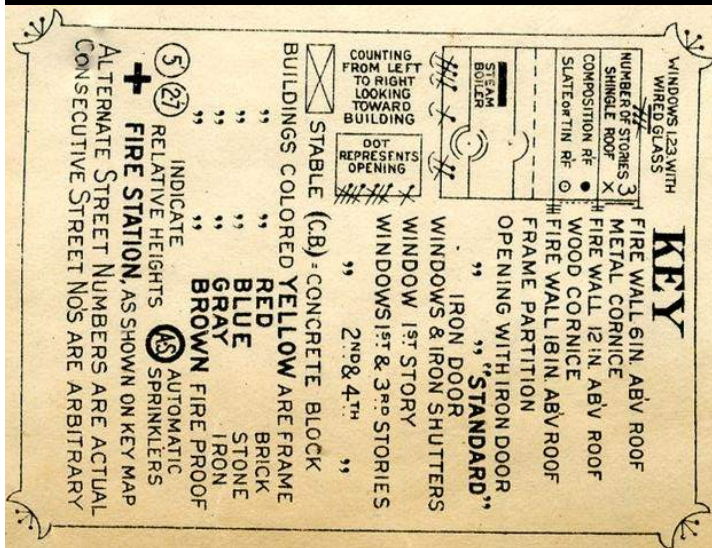
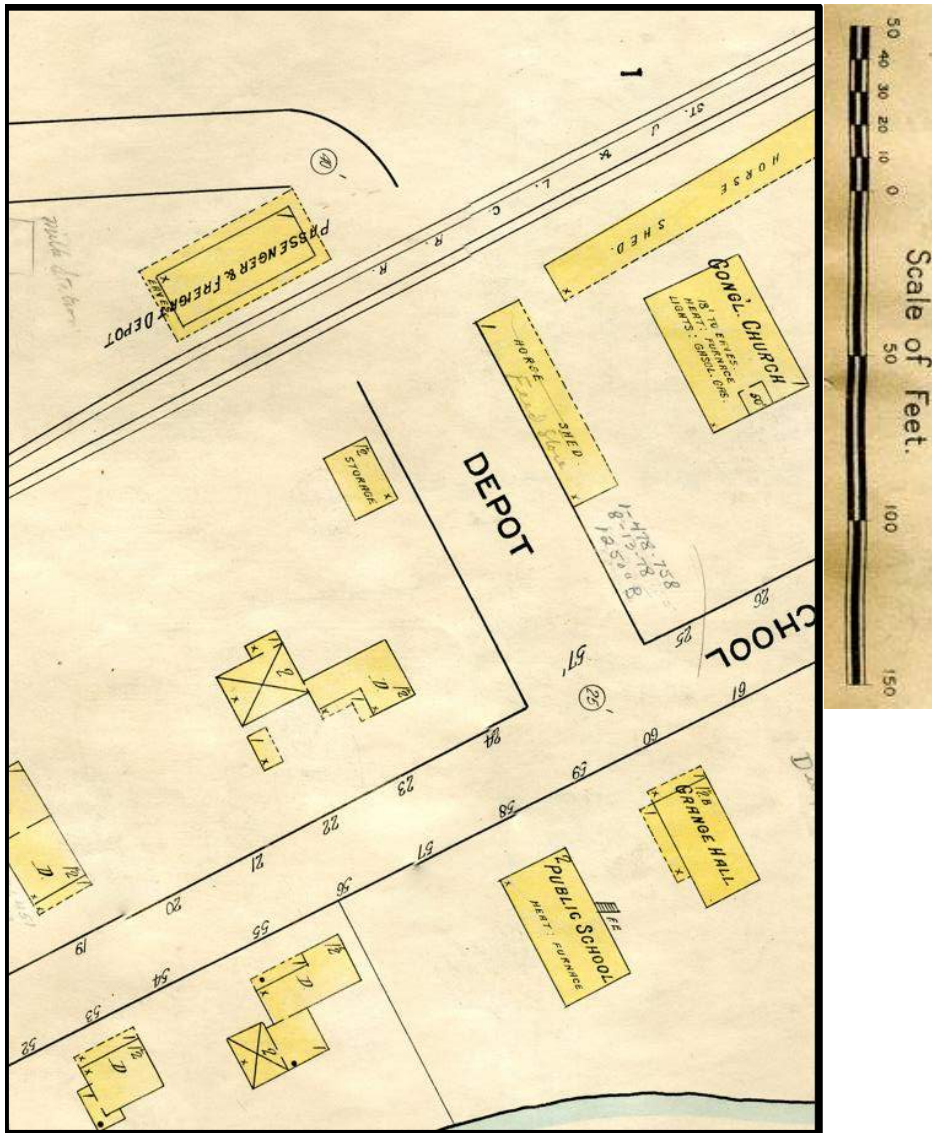
4. Next Steps

Tracy noted that the grant program does not allow for force account (Town labor) contributions. The Town will need to provide a 20% cash match for any trailhead improvements. Tracy asked Corey to send along the unit cost estimates for consistency with the Hardwick trailhead components; Corey to send and include in the memo.



ATTACHMENT B

Historic Maps and Images of Proposed Site

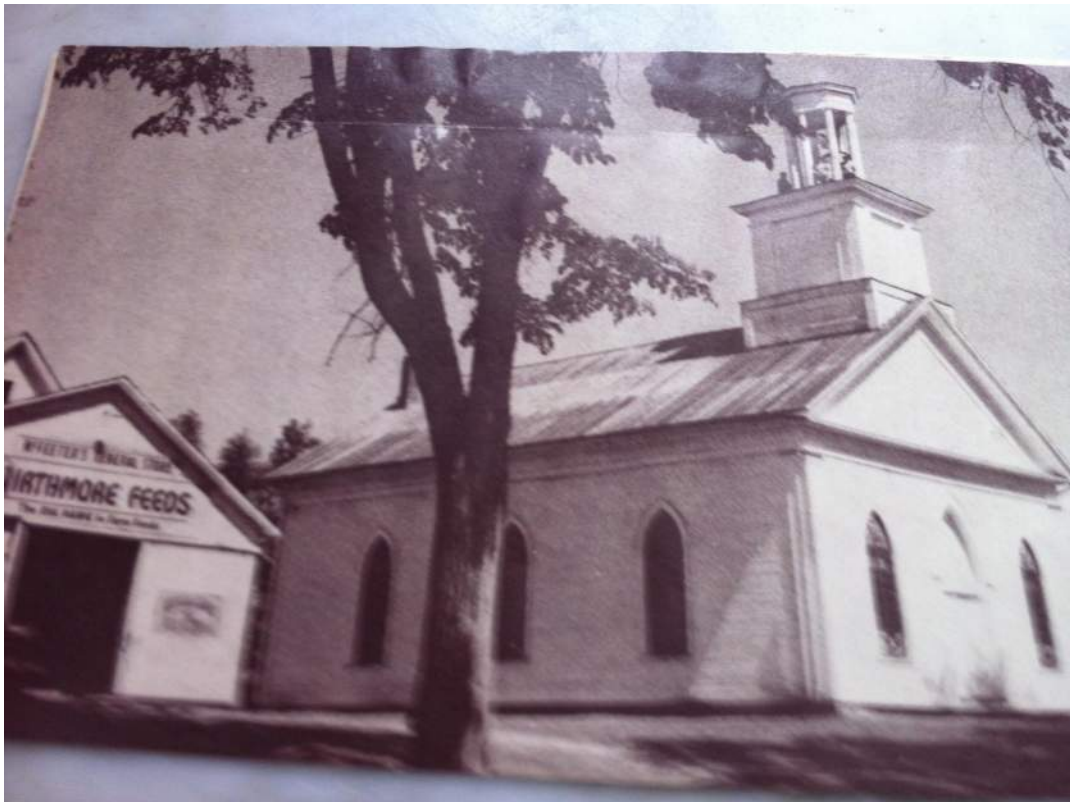




East Hardwick Station (unknown date and source)



East Hardwick Station (unknown date and source)



McFeeters Grain Store and former church (unknown date and source)

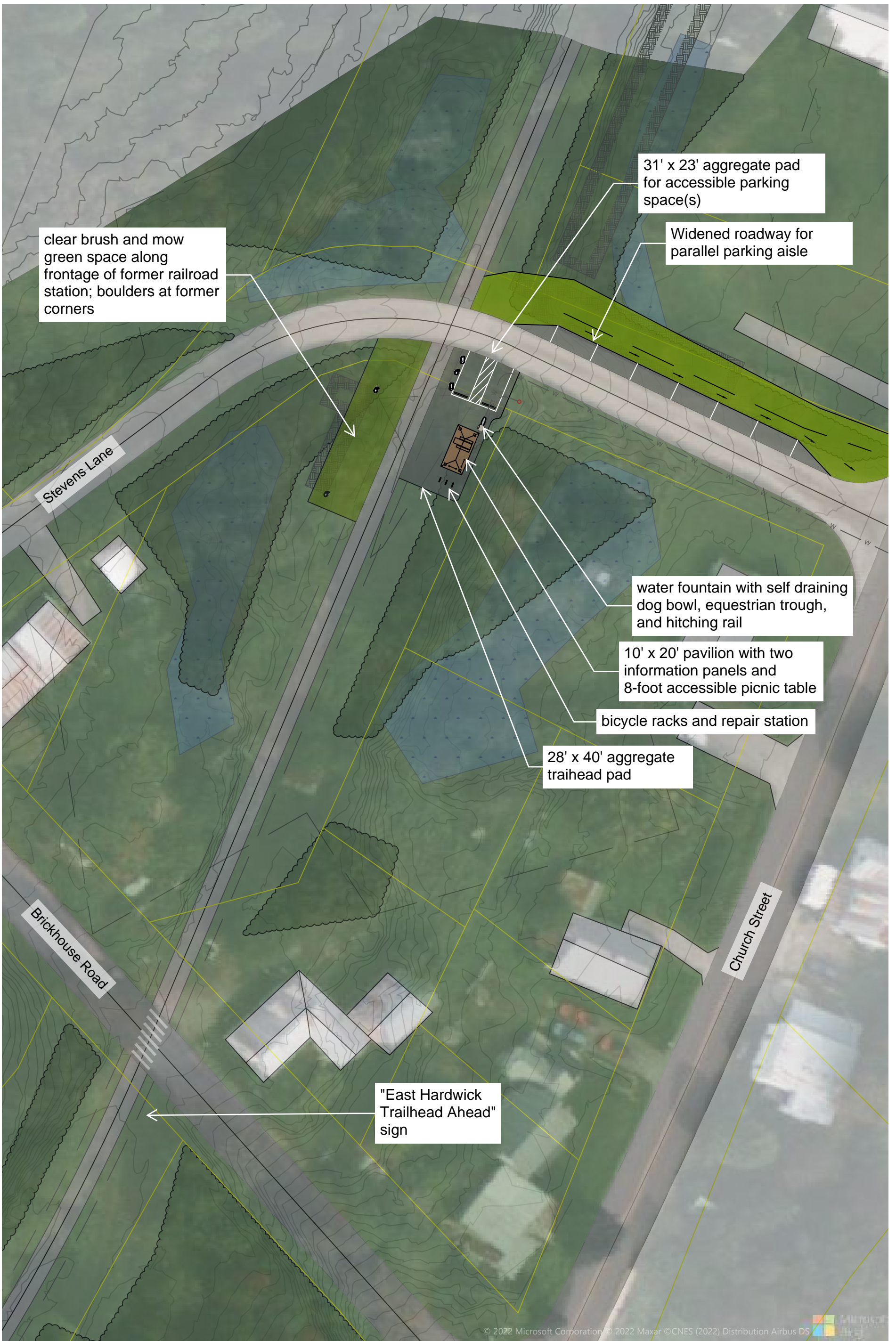


St Johnsbury- bound train approaching station near site (unknown date and source)



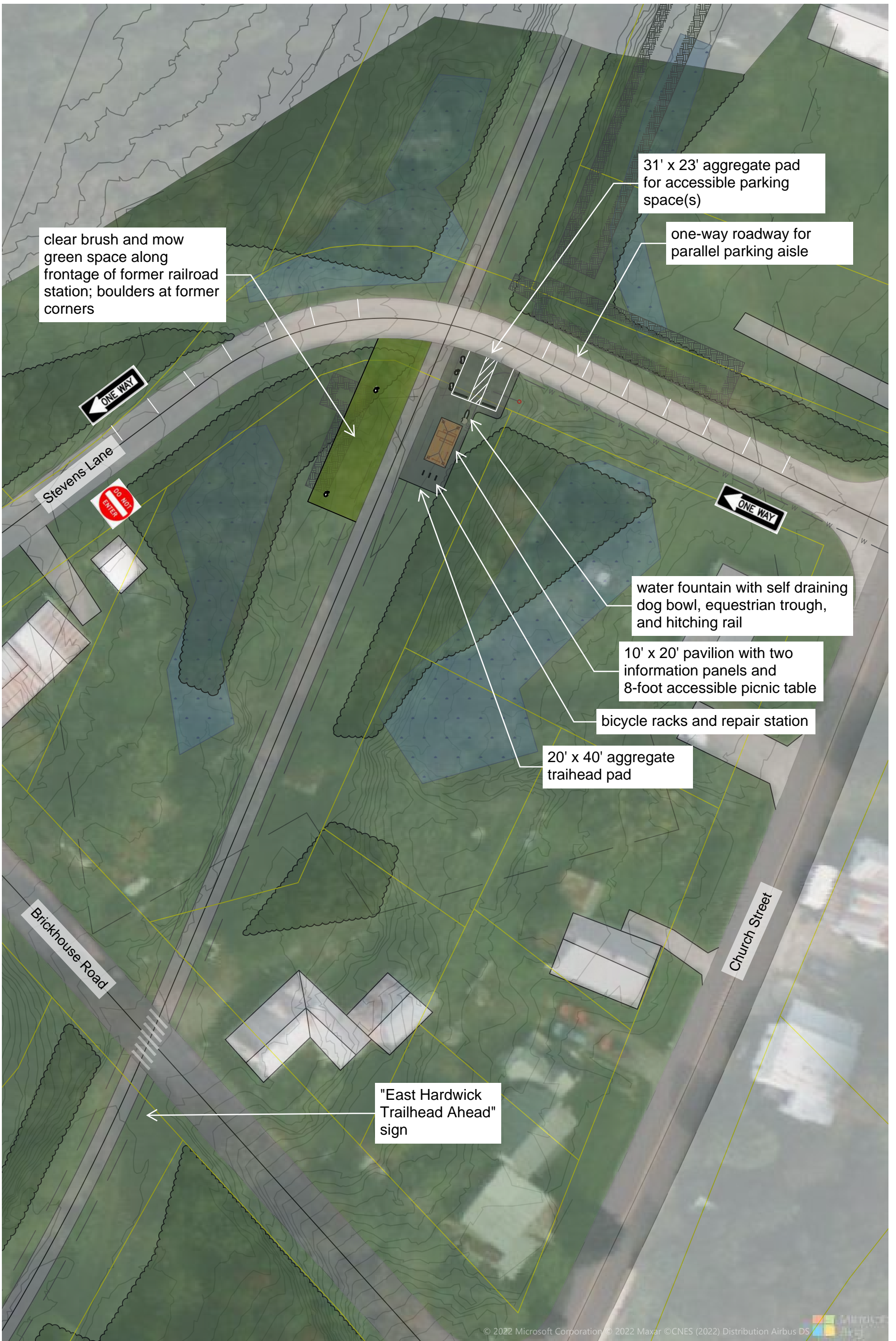
ATTACHMENT C

Trailhead and Parking Alternative Concept Details



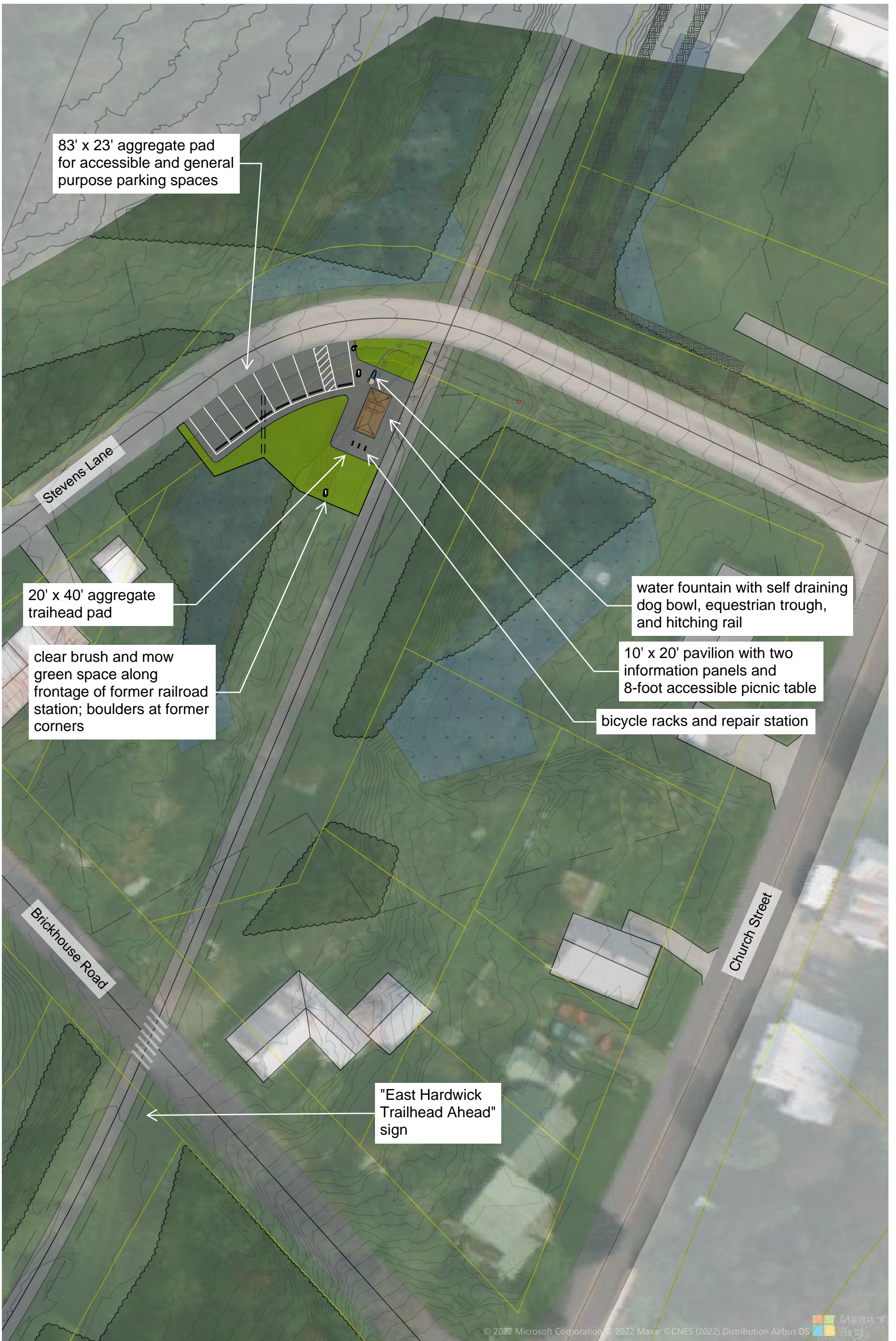
1 in = 40 ft

40 ft



1 in = 40 ft

40 ft



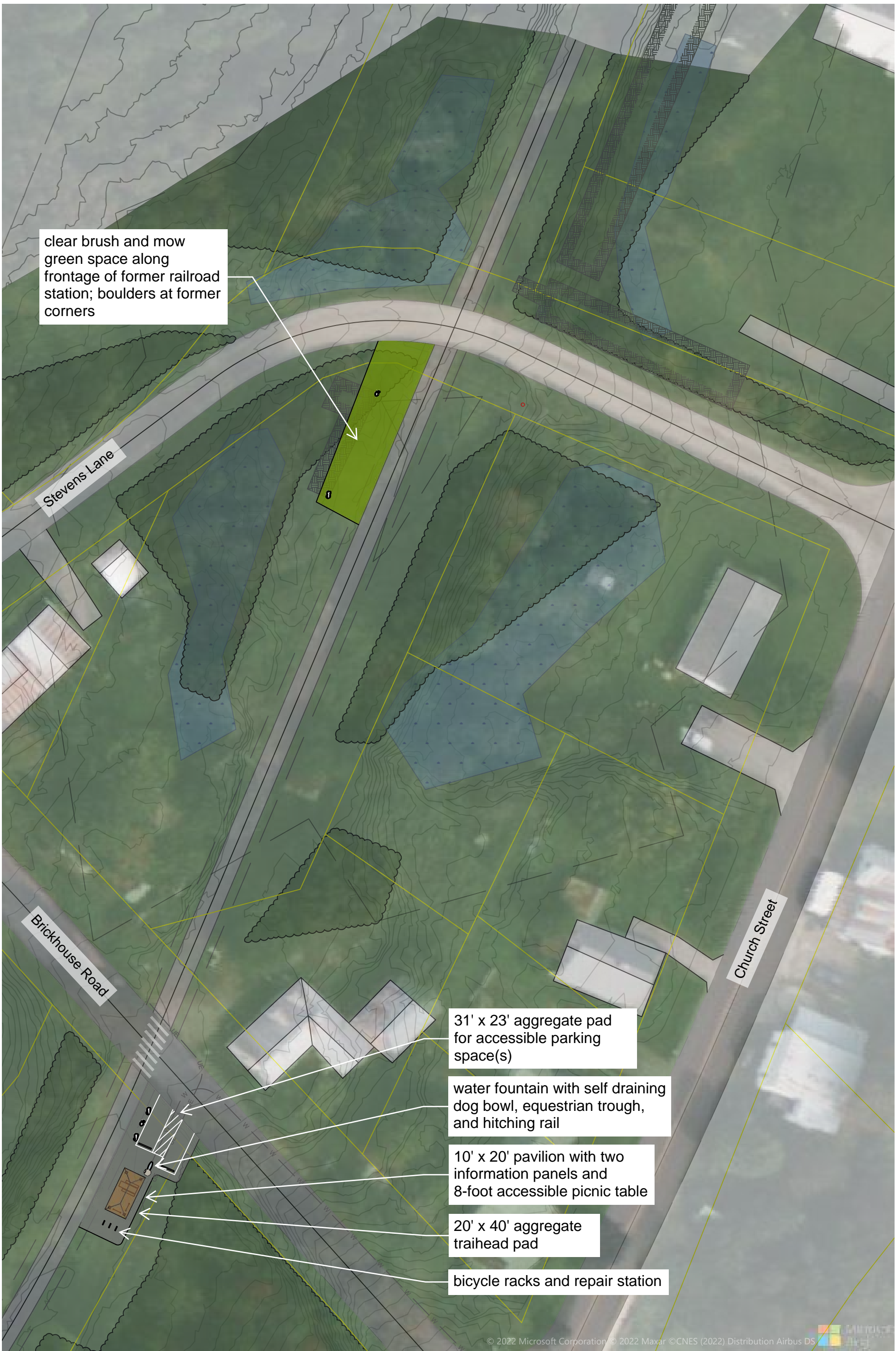
1 in = 40 ft



Alternative 2
East Hardwick LVRT Trailhead



DATE:	09/30/2022
PROJECT:	22-202
	Figure C2



1 in = 40 ft

40 ft



1 in = 40 ft

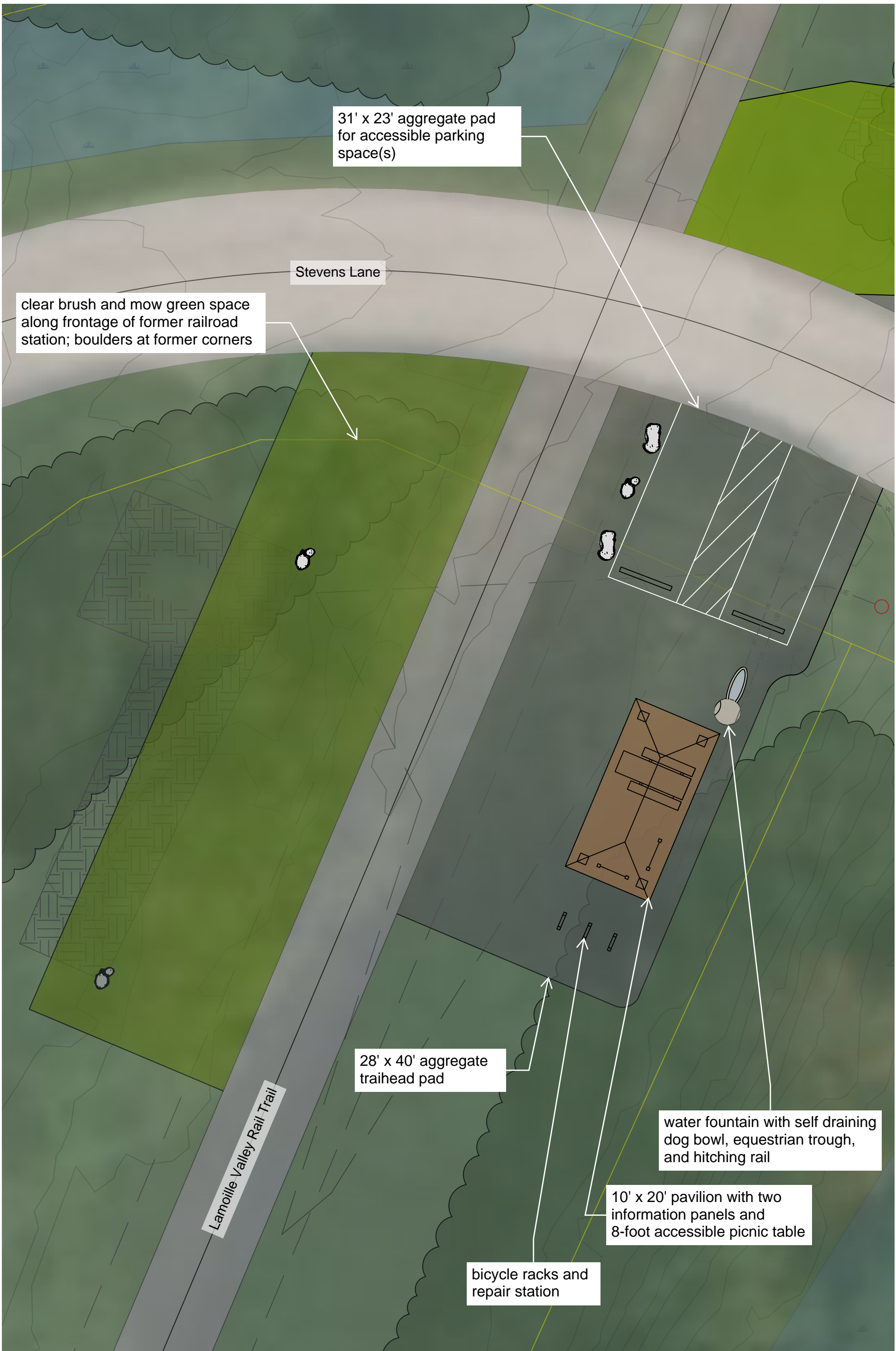
40 ft



Alternative 4
East Hardwick LVRT Trailhead



DATE:	09/30/2022
PROJECT:	22-202
	Figure C4



1 in = 10 ft 10 ft

Alternative 1: Preferred Alternative Detail
East Hardwick LVRT Trailhead



DATE:	09/30/2022
PROJECT:	22-202
Figure C5	

East Hardwick LVRT Trailhead and Parking Layout Probable Estimate of Construction Costs per Unit

Trailhead		Alternative 1			Alternative 2		Alternative 3		Alternative 4		Source:
Sitework	Unit	Unit Price	Size	Cost	Size	Cost	Size	Cost	Size	Cost	
Clear Grub	SF	\$5	2800	\$14,000	2000	\$10,000	2800	\$14,000	2800	\$14,000	2 Year
Pad	SF	\$15	800	\$12,000	800	\$12,000	800	\$12,000	800	\$12,000	VTrans Unit Cost Report
Ditching / Stormwater	EA	\$10,000	1	\$10,000	1	\$10,000	1	\$10,000	1	\$10,000	Estimate
Site Complexity Factor	VAR	%	10%	\$3,600	30%	\$9,600	20%	\$7,200	20%	\$7,200	Factor

Features											
Pavilion	SF	\$250	200	\$50,000	200	\$50,000	200	\$50,000	200	\$50,000	https://neoutdoor.com/grand-teton-timber-frame-pavilion/
Water Fountain	EA	\$15,000	1	\$15,000	1	\$15,000	1	\$15,000	1	\$15,000	Management Plan
Water Line	LF	\$100	215	\$21,500	255	\$25,500	240	\$24,000	280	\$28,000	includes excavation and pipe, 2 valves
Elec / Data Conduits	LF	\$80	50	\$4,000	80	\$6,400	110	\$8,800	90	\$7,200	2 Year
Elec / Data Hardware	EA	\$5,000	1	\$5,000	1	\$5,000	1	\$5,000	1	\$5,000	Estimate
Bike Racks	EA	\$500	2	\$1,000	2	\$1,000	2	\$1,000	2	\$1,000	Management Plan + install
Bike Repair Station	EA	\$3,500	1	\$3,500	1	\$3,500	1	\$3,500	1	\$3,500	Management Plan + install
Bench	EA	\$2,500	1	\$2,500	1	\$2,500	1	\$2,500	1	\$2,500	Management Plan + install
Picnic Table	EA	\$5,000	1	\$5,000	1	\$5,000	1	\$5,000	1	\$5,000	Management Plan + install
Information Board	EA	\$3,000	2	\$6,000	2	\$6,000	2	\$6,000	2	\$6,000	Management Plan + install
Entry / Arrival Signage	EA	\$4,000	1	\$4,000	1	\$4,000	1	\$4,000	1	\$4,000	Management Plan + install
Site Complexity Factor	VAR	%	5%	\$5,875	15%	\$18,585	20%	\$24,960	10%	\$12,720	Factor

Subtotal				\$162,975		\$184,085		\$192,960		\$183,120	
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Parking Layouts		Alternative 1a			Alternative 1b		Alternative 1c		Alternative 2		Alternative 3		Alternative 4		Source:
Sitework	Unit	Unit Price	Size	Cost	Size	Cost	Size	Cost	Size	Cost	Size	Cost	Size	Cost	
Clear Grub	SF	\$5	1035	\$5,175	1920	\$9,600	0	\$0	4500	\$22,500	1350	\$6,750	10440	\$52,200	2 Year
Pad	SF	\$12	690	\$8,280	1280	\$15,360	0	\$0	2250	\$27,000	900	\$10,800	6960	\$83,520	VTrans Unit Cost Report
Ditching / Stormwater	EA	VAR \$	1	\$10,000	1	\$10,000	1	\$5,000	1	\$30,000	1	\$10,000	1	\$30,000	Estimate
Site Complexity Factor	VAR	VAR %	10%	\$2,346	15%	\$5,244	10%	\$500	40%	\$31,800	20%	\$5,510	20%	\$33,144	Factor

Subtotal				\$25,801		\$40,204		\$5,500		\$111,300		\$33,060		\$198,864	
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ATTACHMENT D

Act 250 Project Review Sheet