

PROJECT INFORMATION	
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PPMS:	22F298
Project Manager:	Ross Gouin
Program:	Municipal Assistance
Phase:	Scoping Report
District:	District 4
If Multiple Districts Specify	
Traffic Signal:	No
Precast Elements:	No

DOCUMENTS FOR REVIEW AND FILES LOCATION	
PLANS	FILE LOCATION : Z:\Highways\MUN\LCL\LTF Projects\Tunbridge STP BP22(23) - 22F298\8. Scoping Report
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	FILE LOCATION :
	FILE LOCATION :
	FILE LOCATION :

TIME LINES
SUBMITTED: 12-20-2024
DEADLINE: 01-22-2025
COMPLETED:

INVITEES FOR REVIEW

<input checked="" type="checkbox"/> MOB Districts	<input type="checkbox"/> PDB Right-of-Way	<input checked="" type="checkbox"/> PDB Environmental Section	<input type="checkbox"/> CMB Geotechnical Engineering Section	<input type="checkbox"/> FHWA	<input checked="" type="checkbox"/> PPAID Permitting Services
District 4		<small>REVIEWED</small> <small>REVIEWED</small> <small>REVIEWED</small>		Include on all PoDI and WCRS Projects	<small>REVIEWED</small> <small>By Theresa Gilman (theresa.gilman@vermont.gov) at 4:07 pm, Dec 31, 2024</small>
Operations and Safety Bureau	<input type="checkbox"/> PDB Structural Section	<input type="checkbox"/> PDB Hydraulics Section	<input type="checkbox"/> AMP Budget and Programming	<input type="checkbox"/> Rail Bureau	<input type="checkbox"/> Regional Planners
<small>REVIEWED</small> <small>Reviewed in all projects</small> <small>By Sarah A. Miller (sarah.a.miller@vermont.gov) at 11:03 am, Dec 28, 2024</small>	<input type="checkbox"/> PDB Survey Section	<input type="checkbox"/> CMB Construction Section	Include on all reviews that include bridges within the Project Limits	<input type="checkbox"/> VRS	<input type="checkbox"/> Aviation
<input type="checkbox"/> Support Services Bureau	<input type="checkbox"/> PDB Utility Section	<input type="checkbox"/> CMB Materials Testing and Certification Section	Include on all reviews that include bridges within the Project Limits	<input type="checkbox"/> Civil Rights	Others:
<input checked="" type="checkbox"/> MAB Bicycle and Pedestrian Program Unit	<input type="checkbox"/> PDB Highway Safety & Design		<input type="checkbox"/> AMP Rumble Stripes	<input type="checkbox"/> Policy and Planning Bureau	Elise Grout Dan Judkins Scott Robertson Derek Kenison <small>REVIEWED</small> <small>By Scott Robertson (scott.robertson@vermont.gov) at 2:16 pm, Jan 17, 2025</small>
			See Notes at the bottom of this sheet.		

Review Focus Notes:

Scoping report.



Tunbridge Village Sidewalk Scoping Study; STP BP22(23)

Tunbridge, VT

PREPARED FOR



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- A.** Study Area Mapping – Utilities
- B.** Study Area Mapping – Environmental Conditions
- C.** Archaeological Resources Assessment
- D.** Historic Resources Identification
- E.** Public Meeting Materials
- F.** Alternatives Concepts
- G.** Alternatives Matrices
- H.** Alternatives Concepts Cost Estimates

1

Introduction

The Tunbridge Village Sidewalk Scoping Study identifies and evaluates conceptual alternatives aimed to improve the safety and mobility for pedestrians in the designated Tunbridge Village area. Improvements focus on VT 110 from Potash Hill Road to the Tunbridge General Store. The recommendations identified in this study were evaluated based on compliance with regional planning efforts, resource impacts, meeting the developed Purpose and Need Statement, and conceptual cost estimates for the next phases of the project, including construction. After thorough review, and receiving feedback from the public, Tunbridge Village representatives, and local stakeholders, a preferred alternative was determined.

Please consider including a Location Map as part of this first section to help orient the reader to where the project is located and where the destinations are.

1.1 Project Overview

The Town of Tunbridge, with support from the Vermont Agency of Transportation (VTrans) Municipal Assistance Section (MAS), and Two Rivers-Ottawaquechee Regional Commission (TRORC), sought to identify and evaluate alternatives to improve pedestrian connectivity between destinations along VT 110 such as the Town Office, Public Library, and the Tunbridge General Store. In addition, the Town of Tunbridge aims to improve safety and mobility for pedestrians, while improving the Village aesthetic and slowing driver speeds through the Village. Improvements focus on VT 110 from Potash Hill Road to the Tunbridge General Store. The project Study Area falls within the designated Village Center Boundary. Tunbridge is well known for its annual Tunbridge World's Fair that attracts many visitors every September.

The Fairgrounds are used for many other events throughout the years in addition to the World's Fair event.

edgeline

The existing roadway cross-section of VT 110 is comprised of two 11-foot travel lanes. Additionally, there are paved shoulders separated from the travel lanes by a white stripe. The paved surface outside the white stripe is variable in width between a 2-foot and 7-foot-width. There are no other bicycle and pedestrian facilities, except for a disconnected sidewalk that is in disrepair and is separated from the east side of VT 110.

It should be noted that at the beginning of the project development process, the Study Area continued northeast to connect to Stafford Road to provide a safe pedestrian connection to the recreation fields on Recreation Road. It was determined that this connection is not currently desired by the community given existing feasibility concerns and slope stabilization considerations. If desired, an extension of the preferred alternative provided in this study could be evaluated in the future.

Stafford

was it the Town's steering committee that determined this or did it come from the local concerns meeting?

This doesn't seem like it's not desired, just that the community decided it's not worth the cost at this time?

Figure 1 VT 110 in Tunbridge Village



Source: VHB

1.2 Purpose and Need

As part of the Scoping Study process, a Purpose and Need Statement is developed for the project. The Purpose and Need Statement is the backbone for the project development process and functions to clearly define the needs and goals of the effort. The Purpose and Need Statement was developed with substantial input from the project team, and further expanded upon via input from the general public throughout the public engagement process.

Agreed with Marcos, this should be more concise. there's no need to identify each destination individually. strongly suggest rewording

1.2.1 Purpose of the Project

The Tunbridge Village Sidewalk Scoping Study seeks to identify and prioritize improvements for pedestrian safety, accessibility, and connectivity within Tunbridge Village and among its many destinations such as the Tunbridge General Store, United States Post Office, Tunbridge Public Library, Tunbridge Church, and the Tunbridge Town Hall.

This is not a traditional Purpose and Need statement, from what I've seen in the past. Is this a new way of doing these?

1.2.2 Needs for the Project

The Tunbridge Town Plan identified several transportation-specific goals for the Town. Two in particular stood out and drove the Town to apply for a grant to initiate this study. These goals were:

- › *"To maintain a transportation system that is **safe, efficient, meets the needs of residents,** and complements the other goals and policies of this Plan."*
- › *"To **provide pedestrians with safe areas to travel within the Villages of Tunbridge and North Tunbridge, such as sidewalks, crosswalks, and bike paths.**"*

In line with these goals set forth in the Town Plan, this study has identified the following needs:

- Improve corridor **safety and accessibility** for pedestrians in the Village.
- Enhance **mobility opportunities** for pedestrians.
- Seek out solutions to **reduce traffic speeds** and establish "gateways" to the Village.

of Tunbridge (to distinguish from the Village of North Tunbridge)

these are wants. a need statement should identify the underlying issues that need to be addressed to obtain the wants. is it a lack of pedestrian infrastructure? have there been accidents? close calls? is there documented pedestrian usage?

are there any other elements being considered to create gateways? simply reducing the speed limit is unlikely to change much driver behavior.

1.3 Project Schedule

seems unnecessary to include in the report

The Tunbridge Village Sidewalk Scoping Study Report kicked off in September 2023. ~~The project incurred slight delays due to the programming of grant funding, but ultimately proceeded in line with the schedule below.~~ The work completed herein will set the project up for future phases, namely funding acquisition, design and permitting, and construction.

- › Project Kick-Off September 2023
- › Local Concerns Meeting October 17, 2023
- › Existing Conditions Assessment September – October 2023
- › Resource Constraints & Permitting Assessment October 2023 – January 2024
- › Conceptual Alternatives Assessment February – April 2024
- › Alternatives Presentation Meeting August 18, 2024
- › Draft Scoping Report August – November 2024
- › Draft Report Submission December 2024
- › Presentation to Town Selectboard January 2025
- › Final Scoping Report Submission January 2025

2

Existing Conditions

The first step of this Scoping Study was to assess the existing physical, environmental, cultural, and historic conditions along the project corridor to identify issues and opportunities to be addressed through the study. This chapter includes an evaluation of the corridor’s transportation system characteristics, a review of the resources present, known utility information, historic safety data, and a review of relevant planning or design efforts, past or present.

Make this label more obvious on the Figure

2.1 Study Corridor Description and Context

The study focuses on the VT 110 corridor through Tunbridge Village from Potash Hill Road in the south to the Tunbridge General Store in the north. VT 110 is a state-owned roadway running approximately 27 miles across Vermont from Royalton to US 302 in Barre. The segment of VT 110 being considered in this Study is approximately 0.2 miles long and is classified as a Major Collector. The entire Study Area exists within the Designated Village Boundary and includes a variety of land-uses / parcel designations along its length. There are private residences, municipal buildings, amenities, and businesses all present.

The Project Study Area is shown in **Figure 2** below.

Figure 2 Project Study Area



Is this a North arrow?
Please make more obvious. (Or add a north arrow, if this isn't one.)

2.2 Transportation System Characteristics

Functional Classification: Major Collector

State Right-of-Way (ROW): 4 Rod (66 Feet)

2018 Annual Average Daily Traffic (AADT): 2,000 vehicles per day

Roadway Intersections within the Study Area

VT 110 & Potash Hill Road

Geometry and Operations:

Three-legged unsignalized intersection where there is one travel lane in each direction. Potash Hill Road is stop-controlled, while both north and southbound VT 110 are free flowing. An entrance to the Tunbridge Cemetery exists on the west side of Potash Hill Road at its terminus with VT 110. There are no other existing pedestrian or bicycle facilities at this intersection.

VT 110 & Fairgrounds Road

Three-legged unsignalized intersection where there is one travel lane for each direction. Fairgrounds Road has an assumed stop with no existing stop sign, while both northbound and southbound VT 110 are free flowing. A 4' sidewalk runs on the eastern side of VT 110. No crosswalks or bicycle facilities are existing at this intersection.

these seem to conflict.

The town road should be control with a Stop sign where it intersects with the State Highway VT 110.

Fairgrounds Road is a private road, and treated like a driveway at this location. The existing street sign should be replaced with a new sign designating "PVT" at the end of the sign. There is no center or edgeline break at this location, which is appropriate. The town can certainly install a stop sign here if they want to, but the state will not maintain it since this is private.

Parking:

On-Street Parking: Informal on-street parking is provided along VT 110 on both sides through the Study Area.

Off-Street Parking: Off-street parking is provided at the following public amenities:

- Tunbridge Town Hall
- The Tunbridge Church
- United States Post Office

Is there a map of existing sidewalks that could be added here?

Not clear on the plans where a person requiring a mobility device (walker/wheelchair) would park in order to access the improved sidewalks.

Do all these locations offer parking off-street (e.g., located outside of the State ROW)? Wider parking areas, that allow for pull-in/back-out exist here, but are largely (if not all) in the highway ROW.

Pedestrian Facilities:

- **Sidewalk:** 4' sidewalk on east side of VT 110 from Potash Hill Road to 280 VT 110 (in a state of disrepair).
- **Sidewalk:** 4' sidewalk on east side of VT 110 from 284 VT 110 to 300 VT 110 (in a state of disrepair).
- **Fairgrounds:** Fairgrounds are used as informal walking trails when there are no events occurring.

does it meet crosswalk warrants when the fair is not in session.

- **Crossings:** No formal crossings exist in the Study Area.

Bicycle Facilities:

- **Bicycle Facilities:** No bicycle facilities exist in the Study Area. The Tunbridge Library has a bike rental program.

Did you review the Bicycle Corridor Priority Map?

Figure 3 Existing Sidewalk



Source: VHB

Figure 4 Existing Sidewalk



Source: VHB

2.3 Safety Assessment

A review of reported crashes throughout the Study Area was conducted for the most recent five-year period available (2019-2023). During this period, only one crash was reported. This crash occurred in 2020 and involved two vehicles. This crash is shown below in **Figure 5**.

some unnecessary details here.

Vehicle one was traveling northbound on VT 110 when the driver reached over to retrieve an item from the passenger side, causing the vehicle to veer across the roadway. This maneuver resulted in a collision with the rear end of a parked vehicle (vehicle two), which was parked on the shoulder of the southbound lane.

Figure 5 5-Year Crash History (2019-2023)



Legend

■ Building Footprints (VCGI)

□ Parcel Boundary (VCGI)

● Crash Data 2019-2023

Source: VHB

There are other utility companies that occupy the ROW and are co-located on the utility poles. There is also a cellular hub/platform adjacent to the Town Office (this may be outside the project area).

2.4 Utilities and Stormwater

2.4.1 Utilities

VT 110 features a significant number of overhead utility lines and poles on both sides of the roadway, with a higher concentration on the eastern side. These utilities are owned by Green Mountain Power (GMP) and are primarily situated within the roadway ROW. Shown below in **Figure 6**.

2.4.2 Stormwater

A basic statement about the presence of a closed drainage system (and curbing, if present??) would be helpful before diving into details. Does this system capture all of the roadway runoff? Or is there also overland flow? Existing ditching?

VT Culverts was used to review asset condition of stormwater infrastructure in the study area. VT Culverts is a database and map interface for all town-maintained bridges and culverts in Vermont. The database includes information on a structures type, material, dimensions and condition. Culverts and drop inlets condition ratings range on a nine class scale from Urgent (replacement is required to restore service) to Excellent condition (isolated inherent defects).

2.4.2.1 Drop Inlets

There are 16 drop inlets in the Study Area. According to VTrans' inventory, the drop inlet in front of the United States Post Office is in critical condition. Additionally, three are in poor condition, five are in fair condition, and seven are in good condition. Shown below in **Figure 6**.

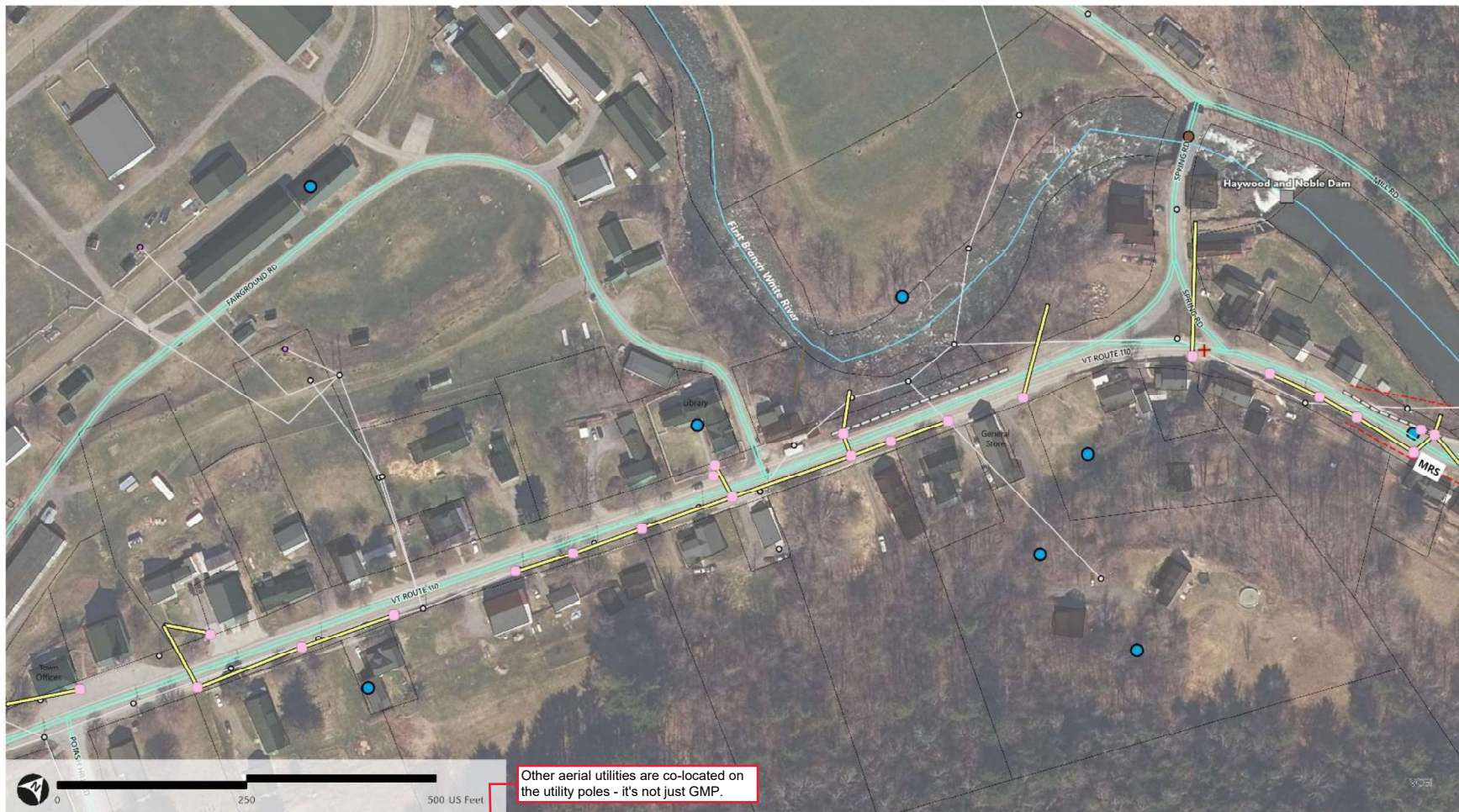
2.4.2.2 Culverts

There are 15 state owned culverts in the Study Area. According to VTrans' data, ten are Closed System and 4 are Single Pipe. They are all in good condition. Shown below in **Figure 6**.

2.4.3 Bridges

There are no bridges within the Study Area. The two nearest bridge structures are immediately north and immediately west of the project limits; the VT 110 bridge over the White River, and the Mill Covered Bridge along Spring Road. Both of these structures currently see pedestrian use given the presence of sidewalk along the VT 110 bridge, and the connection to a lower volume / lower stress road for walking that the Mill Covered Bridge provides.

Figure 6 Study Area - Utilities



- Legend
- Long Structures (>20 ft; VTrans)(1)
 - Drop Inlet (VTrans)(24)
 - ⊕ Retaining Walls (VTrans)(1)
 - Abandoned Wastewater Infrastructure (Linear features: ANR)(1)
 - Guardrail (VTrans)(2)
 - Culverts (VTrans)(23)
 - State ROW (VTrans)
 - GMP Pole (VCGI)(28)
 - GMP Underground Structure (VCGI)(2)
 - GMP Line (VCGI)(3)
 - Fiber Routes 2022 (PSD) (14)
 - Cable Routes 2022 (PSD)(14)
 - Building Footprints (VCGI)(76)
 - Private Well (ANR)(8)
 - Parcel Boundary (VCGI) (38)

↑
 This figure is a little blurry and hard to read when zooming in (which is necessary, given the small detail).



2.5 Natural, Cultural, and Historic Resources

To understand the natural and cultural dynamics of the Study Area, an assessment was conducted across various resource types, including above-ground historic resources, agricultural lands, archaeological sites, fish and wildlife habitats, hazardous sites, rare, threatened, and endangered species, floodplains and river corridors, wetlands, and surface waters. This evaluation aimed to identify the presence and significance of these resources, assess potential impacts, and ensure responsible management practices. The findings, summarized in relevant sections and **Table 1**, highlight aspects such as the presence of prime agricultural soils, the identification of 36 properties potentially eligible for listing in the National Register of Historic Places, and the absence of significant wetlands or hazardous sites. A desktop review utilizing natural resource mapping from the Agency of Natural Resources Atlas, along with an Archaeological Resources Assessment by Crown Consulting Archaeology, LLC and an Above Ground Historic Resources Identification report by VHB, provided essential details. These insights offer a foundational understanding for planning and protecting the Study Area's natural and cultural resources, laying the groundwork for informed decision-making, sustainable development, and determining the anticipated permit requirements for the study alternatives.

2.5.1 Natural and Cultural Resources

A desktop review and assembly of natural resource mapping based on the Agency of Natural Resources Atlas was conducted and is included below in **Figure 7**.

The natural and cultural assessment resource types evaluated include:

- Above ground historic;
- Agricultural lands;
- Archaeological;
- Fish and Wildlife;
- Hazardous Sites
- Rare, Threatened, & Endangered Species;
- Floodplains and River Corridors;
- Wetlands and;
- Surface Waters.

How about existing street trees and landscaping? What exists now? This will help to determine how the proposed alternatives will impact this.

The assessment findings are summarized below by resource type on the following page.

The review should also include 6f properties and Act 250 permits

Table 1: Natural and Cultural Assessment Desktop Review

<u>Agricultural Soils</u>	Prime agricultural soils are present in the Study Area.
<u>Archaeological:</u>	There are no known archaeological sites within or immediately adjacent to the Study Area. However, archaeologically sensitive areas were identified (see Section 2.5.2 for more detail).
<u>Historic Resources:</u>	36 properties recommended for consideration as eligible for listing in the National Register of Historic Places (see Section 2.5.3 for more detail).
<u>Public Lands:</u>	Tunbridge Fairgrounds and the Tunbridge Town Forest are in proximity to the Study Area.
<u>Rare, Threatened & Endangered Species and Necessary Wildlife Habitat:</u>	<ul style="list-style-type: none"> • There are no RTE species identified by the Vermont Fish and Wildlife Department present in the Study Area. • The Study Area is not within any state/federal Necessary Wildlife Habitat • There are large coverages of Deer Wintering Areas east and west of the Study Area. These areas extend significantly into surrounding land and as such disruption to these wintering habitats will be minimal.

Any existing stormwater permits within the project limits? Helpful to state that there are none.

Wetlands: There are no wetlands in the Study Area.

Surface Waters: The First Branch of the White River runs parallel to VT 110 west of the project area →

Significant Natural Communities: There are no Significant Natural Communities identified in the Study Area.

Floodplains and River Corridors: The First Branch of the White River is not identified as a flood hazard area. ←

Hazardous Sites There are no Hazardous Sites in the Study Area



really?? is this accurate? the fairgrounds flooded in

A portion of the project is located in the river corridor (should provide map)

Mapping on ANR Atlas and FEMA would verify if the project is located within the flood hazard area or river corridor and if so, if the scope of work would require permitting.

what is this green? it's not in the legend

Figure 7 Study Area - Environmental Conditions



Legend

- Building Footprints (VCGI)(76)
- Deer Wintering Areas (ANR)(2)
- River Corridor (ANR)(3)
- Approx FEMA 100 year Flood Zone (VHB)*
- VHD Stream (VCGI)(1)
- VHD Waterbody (VCGI)
- Soil Map Unit (VCGI)
- VT Agriculturally Important Soil Units (VCGI)(3)
- Parcel Boundary (VCGI) (38)

Adding an outline of the project limits would be helpful.

It would be helpful for the reviewers to have more than one map showing different environmental aspects. For example, a map of just the river corridor and flood hazard areas. Overlapping information is confusing.



2.5.2 Archaeological Resources

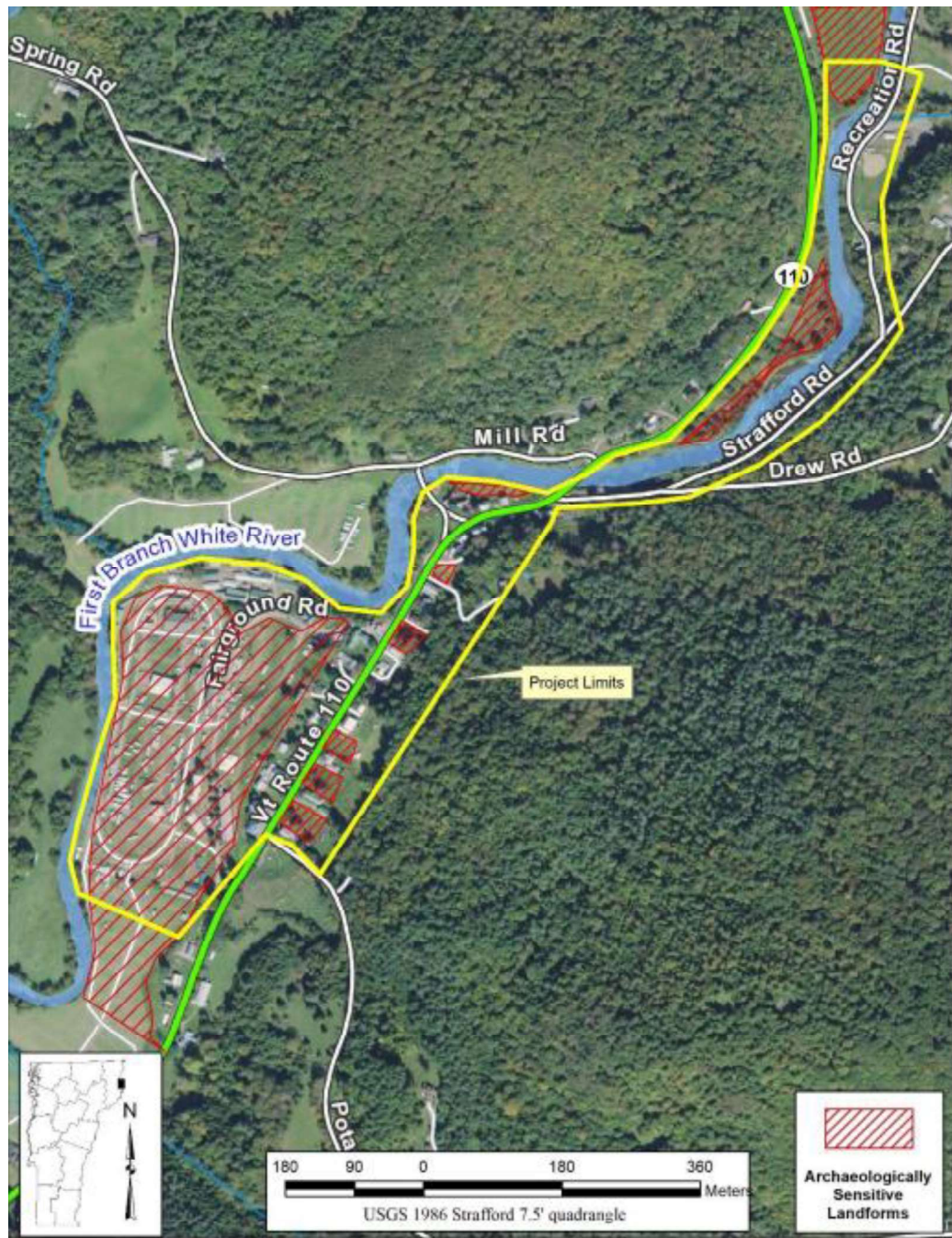
An Archaeological Resources Assessment (ARA) was completed by Crown Consulting Archaeology, LLC which included a Desktop Review and a Site Visit (conducted on October 3rd, 2023). An ARA involves researching background information and performing a field inspection to identify the potential for archaeologically significant sites. For this study, reference materials were reviewed following established guidelines. Resources examined included the National Register of Historic Places (NRHP) files; the Historic Sites and Structures Survey; and the USGS master archaeological maps that accompany the Vermont Archaeological Inventory (VAI). Relevant town histories and nineteenth-century maps also were consulted. Based on the background research, general contexts were derived for pre-Contact and historic resources in the Study Area.

Crown Consulting Archaeology, LLC found several archaeologically sensitive areas, particularly along the lower floodplain of the First Branch of the White River and VT 110 within Tunbridge Village. Sensitivity includes both pre-Contact Native American and historic Euromerican sites. A map of the archaeologically sensitive landforms can be seen below in **Figure 8**.

Further archaeological resource evaluation may be required depending on the alignment of the preferred alternative and its inherent ground disturbances along VT 110. Future assessments should coordinate with the Vermont Division for Historic Preservation.

The full ARA can be found in **Appendix C**.

Figure 8 Study Area - Archaeologically Sensitive Landforms



Source: Crown Consulting, LLC

2.5.3 Historic Resource Identification

To support project planning and future Section 106 review requirements, VHB assessed the above-ground historic resources in the project area. The majority of the properties within the Study Area are listed in the National Register of Historic Places as part of the Tunbridge Village Historic District (TVHD). VHB focused efforts on confirming the current appearances of properties within the TVHD compared to the National Register descriptions from 1992. VHB also identified other historic features such as sidewalks and stone walls that might be of concern for future planning efforts. For properties outside of the TVHD, VHB acquired new photographs and provided initial eligibility recommendations for the National Register. Historic resources and maps were reviewed to update inventory and identify changes within the project area.

Of the 48 surveyed properties, 36 are either listed or recommended for listing in the National Register. The TVHD retains many original structures and is noted for its agricultural and historic significance, including the Union Agricultural Society Fair Grounds.

These historic properties are considered historic resources under Section 106 and Section 4(f). There is one Section 4(f) recreation resources within the Study Area. With this information and understanding of project purpose, the following considerations and recommendations were provided:

- › Construction of a sidewalk has the potential to impact features of the historic properties including fences, stone or concrete retaining walls, granite posts, granite curbing, walkways leading to the building facades, and existing vegetation. Consideration should be given to how a new sidewalk will interface with these features. In some instances, posts could be relocated, vegetation replaced, and retaining walls repaired.
- › These considerations for historic resources, potential impacts, and design need to be reviewed with the VTrans Historic Preservation staff and/or a 36 CFR 61 qualified consultant during the design and engineering process.
- › This project will require review under Section 106 of the National Historic Preservation Act and will likely require an evaluation/determination under Section 4(f) of the Department of Transportation Act.
- › Sidewalk construction that does not require the removal of historic features and does not cause direct impacts to a historic building often results in a Section 106 No Adverse Effect determination.
- › Sidewalk construction that requires easements or acquisition of property outside of the ROW typically results in a Section 4(f) historic de minimis finding.

The comprehensive details of these evaluations, including maps, photographs, and survey data, are detailed in the Historic Resources Assessment, included as **Appendix D**.

2.6 Destinations

Tunbridge Village is rich in historical significance and community-focused amenities, attracting both residents and visitors to its key landmarks and annual events. The Tunbridge Public Library provides a variety of informational resources and hosts numerous community events. The Town Hall is a central hub for municipal services and civic meetings, facilitating local governance.

A notable local business is the Tunbridge General Store, located at 304 VT 110. This store is known for its diverse selection of groceries and specialty foods, fostering a communal gathering space. The annual Tunbridge World's Fair, established in 1885, occurs every September and is a major event that celebrates the region's agricultural heritage through exhibitions, demonstrations, and a variety of family-oriented activities, underscoring the cultural significance and drawing significant visitor engagement.

These landmarks and events are integral to Tunbridge's communal identity and economic activity. The historic and community structures along VT 110, coupled with vibrant public events, exemplify the Town's blend of historical preservation and contemporary utility.

2.6.1 Tunbridge Fairgrounds

The Tunbridge Fairgrounds, renowned for hosting the annual Tunbridge World's Fair since 1885, is a prominent destination that attracts significant attendance due to its celebration of agricultural heritage through exhibits, demonstrations, and a variety of family-friendly activities. This event plays a vital role in preserving and promoting the area's cultural traditions.

Figure 9 Tunbridge Fairgrounds



The fairground also hosts several annual events throughout the spring/summer/fall months making this asset a significant economic resource to the community.

Source: VHB

2.6.2 Tunbridge Town Hall

The Town Hall functions as the central site for municipal services and local governance, hosting town meetings and managing civic operations.

Figure 10 Tunbridge Town Hall



Source: VHB

2.6.3 Parish House

The Parish House (built in 1830), initially the residence of Congregational ministers, now supports various church activities. This historic building continues to contribute to the church's mission and community engagement efforts. The Parish House also serves as Tunbridge Community Food Shelf.

Figure 11 Parish House



Source: VHB

2.6.4 The Tunbridge Church

The Tunbridge Church, an important historical and cultural landmark located at 273 VT 110. It was formed through the merger of three local churches in 1978.

Figure 12 The Tunbridge Church



Source: VHB

2.6.5 Tunbridge Community Building

The Community Building provides a flexible space for social gatherings and community activities, enhancing the town's social fabric by accommodating a wide range of events and meetings.

Figure 13 Tunbridge Community Building



Source: VHB

2.6.6 Tunbridge Public Library

The Tunbridge Public Library offers an extensive collection of resources and organizes various educational and community events. It plays a significant role in promoting literacy and providing a space for community interaction.

Figure 14 Tunbridge Public Library



Source: VHB

2.6.7 United States Post Office

Located at 292 VT 110, the Tunbridge United States Post Office provides essential mail services to the community.

Figure 15 United States Post Office



Source: VHB

2.6.8 Tunbridge General Store

The Tunbridge General Store at 304 VT 110 is a community staple, offering a range of groceries, specialty foods, and local products. It serves as a crucial gathering place where both residents and visitors can shop for daily needs.

Figure 16 Tunbridge General Store



Source: VHB

2.7 Review of Relevant Planning & Design Projects

2.7.1 2021 Town Plan

In 2021, the Town of Tunbridge adopted their Town Plan to be a guide for future development for the Tunbridge community, and to support grant applications and planning studies. The Plan supports pedestrian enhancements that will promote walkability and safety. The following goals were identified in the report which are relevant to the Tunbridge Village Sidewalk Scoping Study:

- To ensure necessary public facilities and services within an expressed plan at a reasonable cost.
- To provide recreational opportunities for townspeople.
- Roads should be designed with multi-modal transportation safety (pedestrian, bicycle, etc.) in mind.
- To provide pedestrians with safe areas to travel within the Villages of Tunbridge and North Tunbridge, such as sidewalks, crosswalks, and bike paths.

2.7.2 2020 TRORC Regional Plan Recommendations:

In 2020, the Two Rivers-Ottawaquechee Regional Plan was adopted to give guidance to municipalities and other political subdivisions in the region and State on appropriate development, improvement, and conservation of the region's physical and human resources. The plan supports the implementation of policies that encourage active transportation to reduce the number of collisions and promote healthy lifestyles by providing safe conditions for pedestrians and cyclists. It states that land use planning efforts should concentrate on growth areas of existing development, particularly village centers, and support the utility of pedestrian and bicycle infrastructure. The following goals were identified in the plan which are relevant to the Tunbridge Village Sidewalk Scoping Study:

- TRORC should work with local jurisdictions to adopt bike and pedestrian master plans.
- Highway investments within Village Settlements must include pedestrian circulation, traffic calming, and streetscaping.
- TRORC will work with groups such as the Vermont Bicycle and Pedestrian Coalition (VBPC), Local Motion, Green Mountain Bicycle Club, and towns to encourage safe bicycling as a transportation alternative in the Region.

3

Public Outreach

The public outreach process was conducted in line with the public meeting requirements stated in the MAS Guidebook. Three public meetings were held; a Local Concerns Meeting, an Alternatives Presentation, and a final meeting to present the Project Team’s recommended preferred alternative to the Tunbridge Selectboard. Additionally, materials were provided and staged in public areas such as the Public Library and General Store throughout the project for community members to review and comment on.

3.1 Project Team

The Project Team included representatives from the Two Rivers-Ottawaquechee Regional Commission (TRORC), the Town, and VTrans. This team served as an advisory body throughout the project and was responsible for reviewing meeting materials and conceptual alternatives before they were presented to the public for review and comment. The Project Team provided input and ultimately finalized the Purpose and Need statement which was used as the guiding principle(s) for all alternative concepts and evaluation.

3.2 Local Concerns Meeting

Add how many people attended.

A Local Concerns meeting was held on October 17th, 2023, to solicit public input at the onset of the project. Attendees were provided with an overview of the project and asked to identify opportunities and concerns within the Study Area.

The community expressed a strong desire to enhance pedestrian safety and accessibility while balancing property impact and maintenance responsibilities. The discussions centered around the necessity for crosswalks and continuous sidewalks, particularly near key Village locations like the church, library, and general store. Attendees emphasized the importance of maintaining sidewalks on the existing side of the road to avoid encroaching on private properties along the west side of VT 110, maintaining on-street parking, and consideration traffic calming measures such as signage and lighting improvements. Concerns about pedestrian safety, especially for children and individuals with mobility devices, ADA compliance, and historical infrastructure contexts were also discussed. While there was some interest in improving infrastructure to the Fairgrounds and recreational fields, the overall sentiment indicated cost concerns and perceived necessity were limiting factors. Following this meeting, the Study Area was reduced to no longer include a connection to the recreation fields.

The meeting concluded with the Project Team providing the next steps, including cost considerations for the proposed alternatives, and ensuring ongoing community engagement and feedback. These concerns and opportunities were evaluated by the Project Team and served as the foundation for the draft alternative creation and project focus areas that were evaluated as the study progressed.

Public outreach material, including the meeting presentation, and minutes can be found in **Appendix E**.

3.3 Draft Alternatives Presentation

The Draft Alternatives Presentation was held on August 14th, 2024. The Project Team presented the revised Purpose and Need Statement, a summary of the existing conditions, the three alternatives, and the evaluation matrices sharing how each alternative would impact bicycle access, pedestrian safety, vehicular safety, aesthetics, community character, and other factors.

The Draft Alternatives included:

- › **No Build:** No action taken
- › **Alternative 1:** 6-foot-wide concrete sidewalk (East Side)
- › **Alternative 2:** 8-10-foot-wide paved shared use path (East Side)
- › **Alternative 3:** 6-foot-concrete sidewalk extension to VT 110 bridge over the White River (East/West Side)

if impacts to properties was a concern, 5' sidewalks could've been considered.

Change to: people who use mobility devices.

Significant concerns were raised about safety and accessibility, particularly for those with mobility devices, alongside maintenance responsibilities and the budget for snow removal. The community stressed the need for better traffic and speed management, suggesting radar feedback signs and a lower village speed limit of 25 mph. There were also extensive discussions on the impacts on parking due to new crosswalks and pedestrian infrastructure, the adherence to ADA standards for sidewalk widths, and pedestrian safety. The community feedback was gauged through an informal straw poll, indicating mixed preferences for the proposed alternatives, with a notable split between No Build and Alternative 1, no support for Alternative 2, and lesser support for Alternative 3. The project team emphasized the importance of balancing safety, community needs, and regulatory requirements while addressing these issues.

Public outreach material, including the meeting presentation, and minutes can be found in **Appendix E**.

3.3.1 Follow-Up Project Team Meeting & Selectboard Presentation

Following the Alternatives Presentation Meeting with Town residents, the Project Team met to discuss the feedback received and mixed feelings about a preferred option. The Project Team noted the lack of selectboard members at the public meeting and suggested a follow-up presentation to them given the lack of consensus among residents for a preferred alternative. Lastly, the project team agreed that they were in support of Alternative 1 given it did have the most support of the general public and best met the Purpose and Need statement for the project.

The Project Team presented the alternatives presentation to the selectboard members for their consideration. Following the presentation, selectboard members asked questions of the project team to get clarity on several considerations. These questions were in line with what was received from the public. At the meeting's conclusion, the selectboard voted unanimously for Alternative 1 as their preferred alternative.

3.4 Presentation to Town Selectboard

This section will be updated with content when the Presentation to the Selectboard is held.

4

Consider reordering report so that this section comes before the Public Outreach section, as it is odd to read about a Draft Alternatives presentation before describing the alternatives.

Alternatives Analysis

Based on a comprehensive review of the existing Study Area conditions and input from the public engagement process, three conceptual alternatives and one "No Build" scenario were developed to address the project's Purpose and Need. The "No Build" scenario serves as a baseline, representing existing conditions and highlighting current deficiencies in the corridor. The alternatives were developed with public feedback and accounted for design constraints, including topography, utilities, and natural, cultural, and historic resources. Each alternative in the Tunbridge Village Sidewalk Scoping Study emphasizes improving pedestrian safety, accessibility, and connectivity, while attempting to reduce traffic speeds through the implementation of new pedestrian infrastructure.

4.1 Alternatives Development

The development for the study alternatives considered potential impacts, anticipated permitting requirements, and the associated costs for implementation, with the goal of identifying a preferred alternative that fulfills the project’s objectives, and enhances the overall community character of the Tunbridge Village. Evaluation matrices, conceptual layouts, and detailed descriptions of each alternative are provided within this section.

4.2 Alternatives Overview

The study alternatives are as follows and are illustrated on the following page:

- › **No Build:** No action taken
- › **Alternative 1:** 6-foot-wide concrete sidewalk (East Side)
- › **Alternative 2:** 8-10-foot-wide paved shared use path (East Side)
- › **Alternative 3:** Alternative 1 - extended north. (East/West Side)

Shared Design Components: From south to north, all alternatives begin on the east side of VT 110 at Rotash Hill Road and extend north past the Parish House to a marked crossing location with a curbed bump-out. This crossing connects the Town Offices and Town Hall on the west to the Parish Building on the east. The curbed bump-out narrows the travel lane, providing an opportunity for Village signage and includes advanced pedestrian crossing warnings. These features are designed to establish a gateway to the village, calm traffic, reduce vehicle speeds, and enhance the sense of place and awareness of the Village community.

On the east side, the curbed bump-out transitions back, allowing the roadway to maintain on-street parking. Public input emphasized the importance of preserving parking due to its limited availability and its role in supporting community assemblies, where many residents travel from longer distances by vehicle to attend events in the Village. Additionally, in these alternatives, the roadway is better delineated with clear boundaries to define travel lanes and reinforce traffic-calming measures, replacing the existing rough gravel shoulder that visually widens the roadway.

All of the build alternatives extend north to the Tunbridge Public Library and General Store, where another curbed bump-out and marked crossing provides connectivity between the two, across VT 100, reinforcing traffic calming and community awareness at the northern gateway to the Village.

Alternatives 1 and 2 end at the Tunbridge General Store, while Alternative 3 extends further north, crossing VT 110 at a curbed bump-out near Spring Road, continuing north, and connecting to the existing sidewalk, south of the VT 110 bridge near the Stafford Road intersection.

When installing any curbing, the drainage impacts should be considered.

What is meant by this? Is the village considering wayfinding signage? VTrans has all signage along this route.

I can understand adding a single marked crosswalk, but three? Have there been proper marked crosswalk engineering studies to warrant the addition of so many marked crosswalks. The Town doesn't want over use of these devices. Overuse often leads to a false sense of security for pedestrians and potentially increasing the risk of collisions, particularly on high-traffic roads without traffic signals or stop signs where drivers might not always yield to pedestrians in a marked crosswalk.

Agreed. Please be aware that State Traffic Engineer Ian Degutis, PE, is the ultimate authority to approve any new crosswalks on state-maintained highways. With an AADT of 2000 vehicles per day, this does not meet current AADT thresholds for a marked crossing. One or two crossings in the village might seem appropriate, but Mr. Degutis will need to review these proposals and will likely comment on this as well.

Discussed for snow maintenance?

Crosswalks should NOT be considered traffic calming devices.

District Maintenance typically does NOT endorse the use of bulb-outs (ie "bump-outs") due to winter snow plowing concerns. Plow vehicles are forced to cross centerline into oncoming traffic when maneuvering around these features, and the shoulder areas are difficult to clear and maintain. District personnel will likely comment on this as well.

Snow removal in areas of bump-outs and parking would likely be the responsibility of the town, along with any sidewalks constructed.

is this referring to parking on private property or the state highway? if state highway, it doesn't seem appropriate to preserve informal parking

Existing pedestrian warning signage in advance of this location would need to be removed. I realize this is all conceptual, but wanted to point this out (TYP).

Figure 17 Alternatives Overview

This doesn't look like it's helping to access the church or town offices at all?

Alternative 1; 6-Foot Concrete Sidewalk



Alternative 2; 8-10-Foot Paved Shared Use Path



Alternative 3; 6-Foot Concrete Sidewalk Extension



I think this is missing some nuance. There are State Design standards (which are more than a preference), guidance around shoulder widths for bicycles where applicable, and minimum paved width requirements to accommodate snow removal.

4.3 No Build

The No Build scenario represents a business-as-usual case where no infrastructure changes are implemented. Although the No Build scenario comes at no cost/impacts and was supported by 14 members of community at the Alternatives Presentation, the No Build scenario does not satisfy the Purpose and Need of the project, improve community character or the address the identified multimodal and traffic deficiencies in the Study Area.

4.4 Alternative 1: 6-Foot Concrete Sidewalk

Alternative 1 includes a 6-foot-wide concrete sidewalk along the east side of the project corridor, beginning at the VT 110 intersection with Potash Hill Road and ending at the Tunbridge General Store. In addition to the sidewalk, there was an expressed interest in providing marked crosswalks for pedestrians to access key destinations such as the Town Hall / Offices and Public Library. In line with the desire to evaluate options for traffic calming, the project team is proposed that these marked crosswalks include curb extensions to narrow the paved width of VT 110 in the interest of shortening the pedestrian crossing and slowing driver speeds. It is the team's understanding that VTrans prefers to maintain a minimum 4-foot shoulder along State Routes such like this. Coordination with the State will be paramount if the project advances to design.

Overall, Alternative 1 strikes a balance between maintaining the existing character of the Village while addressing known pedestrian connectivity issues within the Study Area. It prioritizes limiting impacts while meeting the project Purpose and Need statement which is consistent with the modest needs and preferences voiced by community members during the Local Concerns and Draft Alternatives meetings.

Even if it doesn't change drainage flow, some drainage in the study area was identified as being in poor condition - it would be a shame to install new sidewalk and curb over failing drainage...was this considered?

Figure 18 Existing Sidewalk Condition



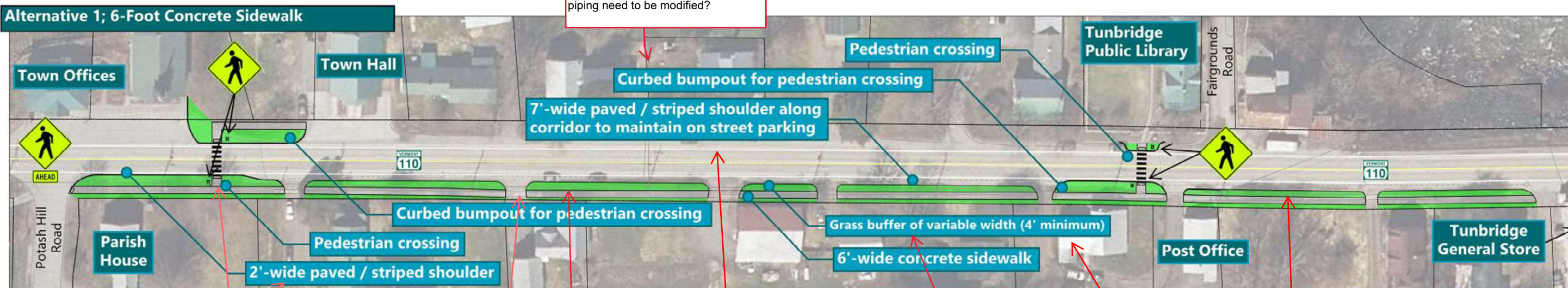
Source: VHB

Figure 19 Sidewalks along VT 110 in neighboring Chelsea



Source: VHB

Figure 20 Alternative 1 Conceptual Layout



Will curbing create drainage concerns, will DI and stormwater piping need to be modified?

11' lane plus 2' paved shoulder does not leave the minimum 14' required for a plow and wing.,

For future plans make sure to call out detectable warnings and ramp types

Is the town on board with maintaining a sidewalk during winter months? Do they have the necessary equipment and the willingness to do so?
Will you be leaving the existing sidewalk through the driveways? Removing? Run the sidewalk through driveways. Should be a paved driveway apron on both sides of the sidewalk to minimize gravel on the path

Is there any concerns with vehicles parking on grassed strip and causing damage? Who would be responsible for repair and maintenance?

Is there enough existing pavement width on this side (and/or the other side) to accommodate on-street parking in these non-bump out areas?

Could the grass buffer be 5' wide to allow for future street trees if the Town desired them?

What does "variable" really mean? I would think you'd want something consistent when not at the proposed bump-out locations?

There are a lot of existing telephone poles on this side.

Recommend providing cross section(s) to better illustrate what is being proposed here (TYP).

4.5 Alternative 2: 8-10-Foot Shared Use Path

Alternative 2 builds onto Alternative 1 while following the same extents – VT 110 from Potash Hill Road to the Tunbridge Store – by proposed a variable width paved shared use path. At its narrowest, the shared-use path would be 8-feet wide, reaching a maximum width of 10-feet where it’s feasible to avoid impacts to utilities and/or outside the State ROW.

Similar to Alternative 1, a minimum 4-foot buffer separator is proposed. Where that buffer is widened in Alternative 1, it maintains a 4-foot width given the constraints of the corridor and in the interest of minimizing impacts outside State ROW. Alternative 2 was evaluated given its ability to more comfortably accommodate bicyclists who wished to bike along VT 110.

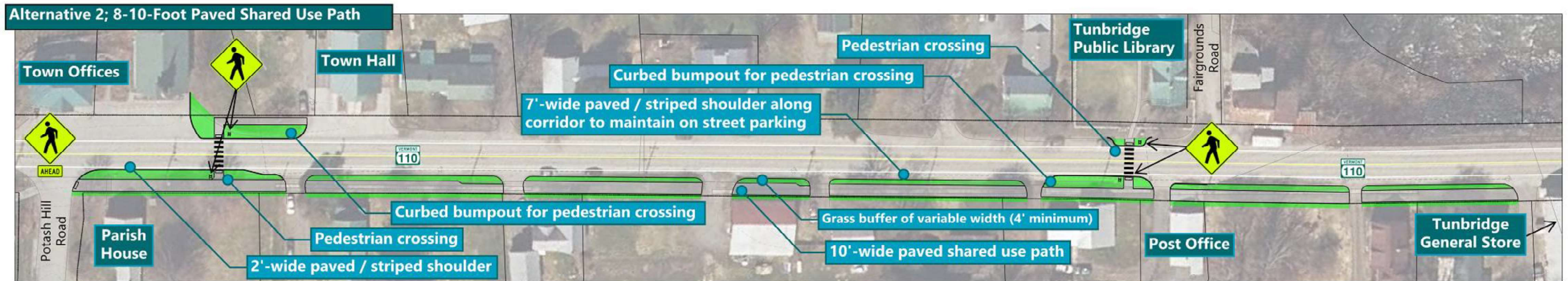
The project team did not voice strong support for this alternative, and that sentiment was matched by residents at the Alternatives Presentation. During the straw poll taken at the meeting, Alternative 2 did not receive a single vote of support.

Figure 21 Facility Example: Side Path; Webster Rd in Shelburne



Source: VHB

Figure 22 Alternative 2 Conceptual Layout



Typical Note:
 Marked crosswalk sign assemblies should be accompanied by downward pointing arrows(W16-7P)

11th edition MUTCD Section 2C.55 Paragraph 04
 If a post-mounted W11-2, W11-6, W11-7, or W11-9 sign is placed at the location of the crossing point where pedestrians, snowmobilers, or equestrians might be crossing the roadway, a diagonal downward- pointing arrow (W16-7P) plaque (see Figure 2C-16 and Section 2C.63) shall be mounted below the sign. If the W11-2, W11-6, W11-7, or W11-9 sign is mounted overhead, the W16-7P plaque shall not be used.

Is it really alternative 3 or more like 1A? Seems like the southern part is exactly the same?

4.6 Alternative 3: 6-Foot Concrete Sidewalk Extension

Alternative 3 builds on Alternative 1 by extending north past the Tunbridge General Store. There was expressed interest in evaluating an alternative that provided a better pedestrian connection to Spring Road, as well as the existing concrete sidewalk that begins approximately 200-feet south of the VT 110 bridge over the White River. At the location where Alternative 1 and 2 end, Alternative 3 would include a marked crosswalk to cross VT 110 and continue north.

There is an informal, but privately utilized parking area on the west side of the corridor. The project team stressed that it was paramount to keep this area free of obstruction given the lack of parking at the private residences along the east side of the roadway. The project team laid out Alternative 3 accordingly, but it's important to note that there are slope stabilization concerns along the back of the proposed sidewalk as shown.

Continuing north, the extended sidewalk would then require two marked crossings of Spring Road prior to tying into the existing sidewalk.

While Alternative 3 represents a more expansive sidewalk network, concerns about loss of parking in front of the Tunbridge General Store, sensitivity to the informal parking area just south of Spring Road, and proximity to private residences were all raised.

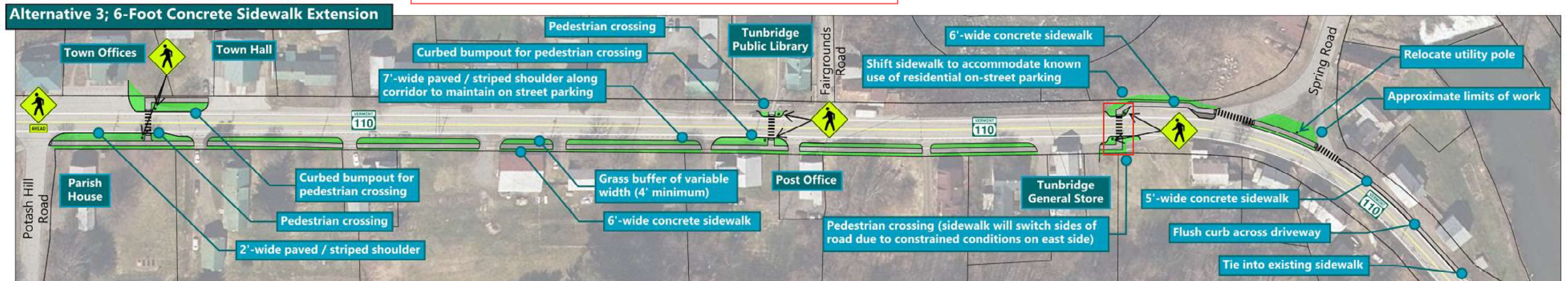
Figure 23 Existing Lack of Pedestrian Facilities North of Village (Looking southbound from VT 110/Spring Road Approach)



Source: VHB

Is there any reason the northerly part could not be built in the future if Alt 1 is selected now? Should this study speak to the feasibility of a phased implementation to meet their goals?

Figure 24 Alternative 3 Conceptual Layout



4.7 Alternatives Evaluation Matrices

To aid in evaluating the study alternatives, the following evaluation matrices were developed to compare key components among the alternatives. These include community character, multimodal and traffic considerations, anticipated resource and utility impacts, and permitting requirements. These matrices, shown on the following pages, help support the identification of the Preferred Alternative.

4.7.1 Community Character

The evaluation matrix shown below compares the community character for the alternatives.

Table 2: Evaluation Matrix –Community Character

		No Build	Alternative 1 6' Concrete Sidewalk	Alternative 2 8-10' Shared Use Path	Alternative 3 6' Conc. SW (with Northern Extension)
Community Character	Aesthetics	No Change	Improved	Improved	Improved
	Community Character	No Change	Improved	Improved	Improved
	Economic Impacts	No Change	Minimal (Maintenance)	Minimal (Maintenance)	Minimal (Maintenance)
	Conformance to Reg. Transp. Plan	No	Yes	Yes	Yes
	Satisfies Purpose & Need	No	Yes	Yes	Yes

This table doesn't seem very helpful, if it's goal is to compare the alternatives?

4.7.2 Multimodal and Traffic Considerations

The evaluation matrix below compares the multimodal and traffic considerations for the alternatives.

Table 3: Multimodal and Traffic Considerations

		No Build	Alternative 1 6' Concrete Sidewalk	Alternative 2 8-10' Shared Use Path	Alternative 3 6' Conc. SW (with Northern Extension)
Multimodal and Traffic Considerations	Typical Section	No Change	6' Concrete Sidewalk	10' Paved Shared Use Path	6' Concrete Sidewalk
	Bicycle Access	No Change	4' Paved Shoulder*	10' Paved Shared Use Path	4' Paved Shoulder*
	Pedestrian Safety	No Change	Improved Continuous ped facility, 2 new marked crossings, Traffic calming,	Improved Continuous ped facility, 2 new marked crossings, Traffic calming,	Improved+ More continuous ped facility, 3 new marked crossings, More traffic calming,
	Vehicle Safety	No Change	Improved Traffic calming, (2 bump-outs and delineated road edges)	Improved Traffic calming, (2 bump-outs and delineated road edges)	Improved+ Most Traffic calming, (3 bump-outs and delineated road edges)

* The existing shoulders are regularly used by drivers for informal on-street parking. When not being utilized, they present an opportunity for biking.

If the goal is to get rid of the extra gravel shoulder due to informal parking because it makes the road seem wider then encouraging informal parking on the shoulder seems counterproductive. Most of the alternatives show 7' on one side for parking? Is this enough room for parking? Is this going to be formal or informal? Is the other side 4'? Should people even be parking on this side?
I dont know what the current shoulders are but I dont really see this as a bicyclist improvement even if it is wider because navigating in and out of traffic around cars regularly parked in the shoulder sounds more hazardous than just using the travel lane

4.7.3 Anticipated Impacts and Permitting

The evaluation matrices below expand upon the anticipated impacts and permitting for each of the alternatives. The alternatives were evaluated for impacts described in the Municipal Assistance Local Projects Guidebook for Locally Managed Projects.

Table 4: Anticipated Impacts

Add street trees/existing landscaping

		No Build	Alternative 1 6' Concrete Sidewalk	Alternative 2 8-10' Shared Use Path	Alternative 3 6' Conc. SW (with Northern Extension)
Impacts	Agricultural Lands	-	No	No	No
	Archaeological	-	Present / Further Inv. Required	Present / Further Inv. Required	Present / Further Inv. Required
	ROW Impacts	-	Minor (Temp)	Minor (Temp)	Minor (Temp)
	Historic	-	No Adverse Effect	No Adverse Effect	No Adverse Effect
	Hazardous Materials	-	No*	No*	No*
	Floodplains	-	No	No	Yes
	Fish & Wildlife	-	No	No	No
	Rare, Threatened & Endangered Species	-	No	No	No
	Public Parks, Recreation Areas, Wildlife/Waterfowl Refuges - Section 4(f)	-	No 4(f) Use - Temporary Easements Only	No 4(f) Use - Temporary Easements Only	No 4(f) Use - Temporary Easements Only
	LWCP - Sect. 6(f)	-	No	No	No
	Managed Lands	-	No	No	No
	Wetlands	-	No	No	No
	Streams	-	No	No	No
	New Impervious Surfaces	-	7,073 SF	11,224 SF	9,133 SF

* Dependent on results of field delineation if project goes to design, but there are not currently any mapped resources.

Table 5: Anticipated Permitting

		No Build	Alternative 1 6' Concrete Sidewalk	Alternative 2 8-10' Shared Use Path	Alternative 3 6' Conc. SW (with Northern Extension)
Permitting	Act 250	-	No	No	No
	Section 404 - Wetlands/ other Waters (streams) (USACOE)	-	No*	No*	No*
	Section 401 Water Quality Certification	-	No*	No*	No*
	State Wetlands Permit	-	No*	No*	No*
	Stream Alteration Permit	-	No*	No*	No*
	Construction Phase Storm Water Discharge Permit (General Permit 3-9020)	-	Yes	Yes	Yes
	Operational Phase Storm Water Discharge Permit (General Permit 3-9015)	-	No	No	No
	Lakes & Ponds	-	No	No	No
	Rare, Threatened, and Endangered Species	-	No	No	No

* Dependent on results of field delineation if project goes to design, but there are not currently any mapped resources.

State Highway Access and Work Permit (S.1111 Permit)

This would need to be an acre or more of full-depth/reconstruction. I don't believe this SOW would rise to that level of impacts. Can you show these calculations?

4.7.4 Conceptual Cost Estimates

Conceptual cost estimates were developed for each alternative using bid history unit pricing, and quantity takeoffs from the conceptual layouts. The provided cost estimates are inclusive of engineering and design, project management, permitting, construction and inspection. The complete conceptual cost estimate calculations are attached in **Appendix H**.

Table 6: Conceptual Costs

		No Build	Alternative 1 6' Concrete Sidewalk	Alternative 2 8-10' Shared Use Path	Alternative 3 6' Conc. SW (with Northern Extension)
Cost	Rounded Cost	\$0	\$420,000	\$490,000	\$620,000

4.7.5 Community Character - Summary

All the alternatives enhance the community character and aesthetics of the Village and align with goals identified in the Tunbridge Town Plan and Two Rivers-Ottawaquechee Regional Plan, along with the identified Project Purpose and Need statement.

Alternative 1: Improves aesthetics with a 6-foot concrete sidewalk and marked crossings creating a sense of place by connecting key community centers.

Alternative 2: Differentiates by providing a wider, 8–10-foot shared use path, and provides shared use active transportation infrastructure. Some community members expressed during the Draft Alternatives Presentation that a Village-specific bicycle facility may see limited use due to the rural setting.

Alternative 3: Builds on the enhancements of Alternative 1 by extending the upgraded pedestrian facility north, adding a third crossing near the Tunbridge General Store and a sidewalk on the west side of VT 110 extending toward Strafford Road. This connection, which was identified by the public as valuable with respect to community growth, has the potential to connect to the recreation fields.

4.7.6 Multimodal and Traffic Considerations - Summary

What striping is planned?
Some types of striping may be the responsibility of the Town to maintain.

Is this wide enough for parking?

Alternative 1: Introduces a 7-foot-wide paved and striped road shoulder/parking area, significantly improving the existing gravel shoulders (which currently lack formal delineation). Delineating the travel way creates the perception of a narrower corridor without reducing lane width. This has the potential to slow driver speed and improve user comfort. Like Alternatives 2 and 3, this design separates pedestrians from the roadway with dedicated facilities and a grass buffer. Alternative 1 includes two marked crossings and two bump-outs, improving pedestrian safety and reducing crossing distances.


Alternative 2: Differentiates by providing a wider, 8–10-foot shared use path along the project extent, offering a separated mobility corridor for pedestrian and cyclists. Compared to Alternative 1 and 2 this alternative offers the best enhancements to multimodal mobility, connectivity. Impacts to traffic are similar to Alternative 1 and 3, with the same roadway delineation, crossing locations and bump-outs recommended. In Alternative 2, separating all walking and rolling traffic from the road provides the greatest reduction in potential conflicts, aligning with roadway design guidance for safety and multimodal accommodations.

Alternative 3: Alternative 3 extends Alternative 1 by connecting to the existing sidewalk further north. This alternative includes the greatest number of marked crossings and bump-outs, significantly enhancing pedestrian connectivity and safety. From a regional connectivity perspective, Alternative 3 is the most comprehensive, connecting users from the recommended sidewalk facilities within Tunbridge Village to the existing sidewalk north near the VT 110 bridge and Strafford Road.

4.7.7 Anticipated Impacts and Permitting- Summary

All alternatives are designed with minimizing impacts to the best degree possible while focusing on improvements within the VT 110 ROW and avoiding significant disruptions to utilities, natural, cultural and historic resources.

No impacts to stormwater?



Alternative 1: Typically, a 5-foot buffer is used as a guideline to delineate the edge of construction and construction activity. The conceptual layouts for Alternative 1 show the farthest sidewalk edge positioned 2 feet from the edge of the public right-of-way, indicating no permanent impacts to private property. However, minimal impacts, such as temporary construction easements, may be necessary, with no expected effects on existing utilities or historic resources. Through the Village, the terrain is relatively flat, so slope easements are not anticipated, further minimizing impacts to adjacent properties.

Alternative 2: Similar to Alternative 1 but the temporary impacts to private properties may be greater due to the width of the shared use path extending closer to abutting parcels. Like Alternative 1, it avoids utility and historic resource impacts.

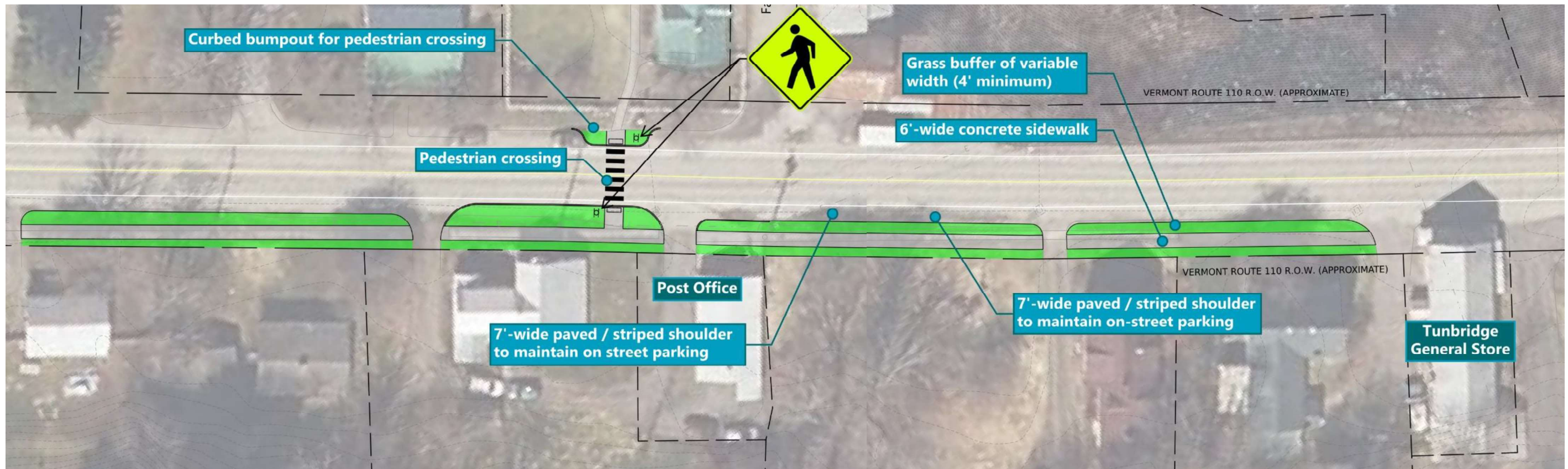
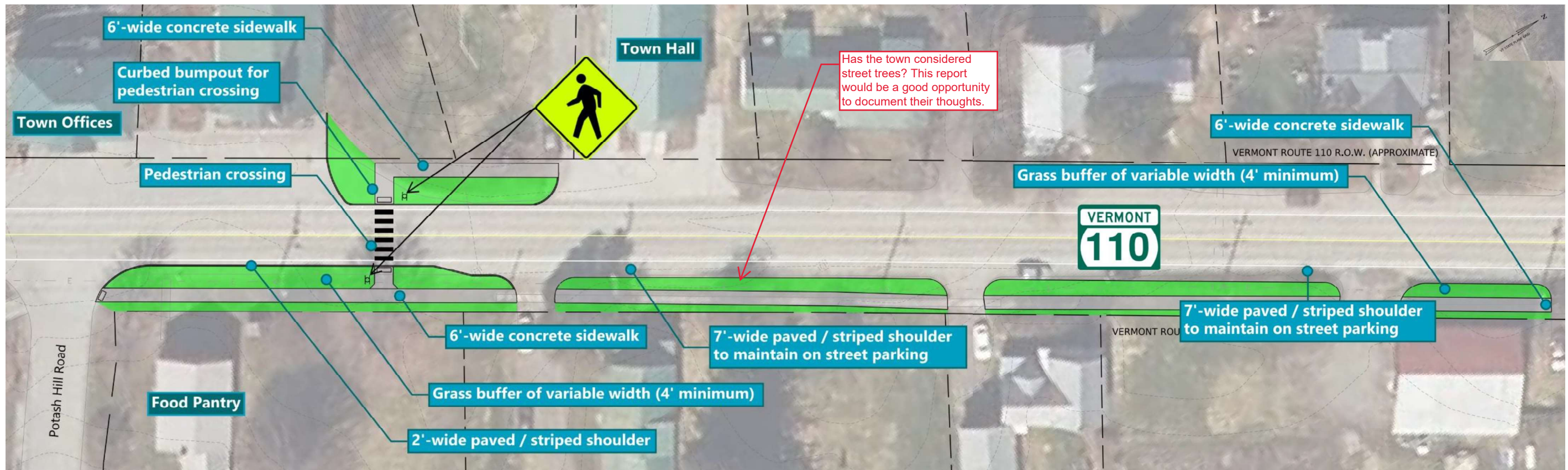
Alternative 3: Shares the same low impacts as Alternative 1 in its southern extent. In the northern extension near Spring Road, the relocation of one utility pole is required and along with additional earthwork to support the sidewalk along the western side slope. On the west side of VT 110, behind the on-street parking pull-off across from the General Store, a temporary slope easement may be needed to accommodate the earthwork required for sidewalk implementation.

5

Preferred Alternative

Based on input from the public, representatives from the Tunbridge Village, local stakeholders, and findings from the technical analysis, a Preferred Alternative was selected. The Preferred Alternative, Alternative 1, includes a 6-foot sidewalk along the east side of VT 110 through the Village featuring marked crossing locations with curbed bump-outs. This Preferred Alternative aligns with the Project's Purpose and Need by prioritizing pedestrian improvements to enhance safety and accessibility, and address traffic calming through the Village's "gateways." Additional consideration was given to preserve on-street parking to accommodate the modest needs of the community members as discussed during the Local Concerns and Draft Alternatives meeting. The complete conceptual layout for the Preferred Alternative is included below and can be found in **Appendix F**.

Figure 25 Preferred Alternative Conceptual Layout (Alternative 1)



VTrans policy requires towns to maintain sidewalk infrastructure

5.1 Selection of Preferred Alternative

To be ADA compliant this facility will need to be serviceable in the winter months. Who will be responsible for winter snow removal once this facility is installed? The Agency does not maintain sidewalks.

Alternative 1 was chosen as the Preferred Alternative for its alignment with community needs, project goals, and the Purpose and Need statement. The selected alternative improves corridor safety and accessibility for pedestrians, enhances mobility opportunities, and is designed to reduce traffic speeds while establishing “gateways” to the Village. These improvements are recommended with minimal impacts to adjacent properties and preservation of the Village’s character. Alternative 1 received the strongest support from the public, the project team, and VHB, providing a practical solution for current needs with flexibility for future expansion.

What will happen to parking during construction? Is there an alternative parking area?

5.2 Opportunities for Future Expansion

What type of pedestrian and bicycle accommodations will be provided during construction when this side of the roadway is under construction?

The following are opportunities to build on this study and incorporate elements that were heard in the public process but were not included in the Preferred Concept Plan.

Northern Extension: Alternative 3, which extends north of Alternative 1, received notable community support. Sentiments shared, expressed the importance of planning for population growth and ensuring safe connections to the recreation fields off Strafford Road. Since Alternative 3 directly ties into Alternative 1, it could be implemented as a phased approach, with Phase 1 focusing on Alternative 1 and Phase 2 addressing the northward extension outlined in Alternative 3.

When no sidewalk exists within the construction area, pedestrians, and bicyclists use the shoulder. A temporary circulation path shall be made available when the shoulder is closed due to construction activities. The temporary circulation path shall match the level of accessibility that exists prior to the shoulder closure.

Also, as the new pathway is constructed, the contractor shall be responsible for closing off the full width of the pathway during non-working hours and until the project is completed to prevent access by pedestrians and bicyclists from entering the work area.

Southern Extension: Community members also emphasized interest in a southern extension of the pedestrian network to improve connectivity to the Tunbridge Fairgrounds via Fairgrounds Road. While Alternative 1 connects to the northern access of Fairgrounds Road near the Tunbridge Public Library and Post Office, it presents challenges for mobility-impaired users due to its relatively steep slope and lack of sidewalk. Extending the Alternative 1 sidewalk south to the Fairgrounds Road access would improve overall connectivity and accessibility to this key community destination.

5.3 Funding Opportunities

The next steps for overall project development include seeking funding opportunities that enable municipalities to undertake larger-scale projects that enhance community access to bicycle and pedestrian facilities through competitive grants. One recommended grant is the Better Places Grant Program, which provides up to \$40,000 for improving the vitality of designated downtowns and Village Centers, which can be applied to streetscape enhancements and beautification.

The Transportation Alternatives Program offers grants for projects that improve pedestrian and cyclist infrastructure and other non-driving transportation options. Additionally, AARP Vermont's Placemaking Grant Program and similar initiatives support the creation of more livable communities.

or Transportation Alternatives grant opportunity



Competitive VTrans grants could significantly fund the selected alternative's design and construction from this study. For instance, the VTrans Bicycle and Pedestrian Federal Grant Program, which covers up to 80% of project costs with a 20% local match, provides substantial funding for pedestrian and bicycle infrastructure improvements.

Another potential funding source is the Vermont Community Development Grants. Furthermore, the VTrans/ACCD Better Connections Program offers 90/10 matching grants—up to \$67,500 with a 10% local match—for planning projects that integrate land use planning with community revitalization and transportation investments, available every two years.

Appendices

- A. Study Area Mapping – Utilities
- B. Study Area Mapping – Environmental Conditions
- C. Archaeological Resources Assessment
- D. Historic Resources Identification
- E. Public Meeting Materials
- F. Alternatives Concepts
- G. Alternatives Matrices
- H. Alternatives Concepts Cost Estimates

Appendix A

Study Area Mapping – Utilities



Legend

- | | | | | |
|--|---|---------------------------------------|----------------------------------|----------------------------------|
| ● Long Structures (>20 ft.; VTrans)(1) | Abandoned Wastewater Infrastructure (Linear features; ANR)(1) | --- State ROW (VTrans) | --- Fiber Routes 2022 (PSD) (14) | ■ Building Footprints (VCGI)(76) |
| ● Drop Inlet (VTrans)(24) | ○ Guardrail (VTrans)(2) | ○ GMP Pole (VCGI)(28) | --- Cable Routes 2022 (PSD)(14) | ● Private Well (ANR)(8) |
| ⊕ Retaining Walls (VTrans) (1) | — Culverts (VTrans)(23) | ○ GMP Underground Structure (VCGI)(2) | | □ Parcel Boundary (VCGI) (38) |
| | | — GMP Line (VCGI)(3) | | |

Appendix B

Study Area Mapping – Environmental Conditions




- Legend**
- Building Footprints (VCGI)(76)
 - Deer Wintering Areas (ANR)(2)
 - River Corridor (ANR)(3)
 - Approx. FEMA 100 year Flood Zone (VHB)*
 - VHD Stream (VCGI)(1)
 - VHD Waterbody (VCGI) (1)
 - Soil Map Unit (VCGI)
 - VT Agriculturally Important Soil Units (VCGI)(3)
 - Parcel Boundary (VCGI) (38)



Appendix C

Archaeological Resources Assessment



**Archaeological Resources Assessment Report for the proposed
Tunbridge Village Sidewalk Scoping - Tunbridge STP BP22(23), Tunbridge,
Orange County, Vermont**

Submitted to:

**Drew Gingras, PE
Project Engineer
VHB
40 IDX Drive
Building 100, Suite 200
South Burlington, VT 05403-7771**

Submitted by:

**Charles Knight, Ph.D.
Crown Consulting Archaeology, LLC
PO Box 358
50 Main Street
Winooski, VT 05404-0358**

January 29, 2024

**CCA Report
No. 2024-004**

Archaeological Resources Assessment Report for the proposed Tunbridge Village Sidewalk Scoping - Tunbridge STP BP22(23), Tunbridge, Orange County, Vermont

Project Description

The Town of Tunbridge, with assistance from VHB proposes the Tunbridge Village Sidewalk Scoping - Tunbridge STP BP22(23), Tunbridge, Orange County, Vermont (Figure 1). The proposed project is to identify cultural concerns and resources within the Area of Potential Effects (APE) of a proposed sidewalk in Tunbridge, Vermont, where they would like to develop walking and biking connections to and from the Town Center (Figure 2). This ARA is being conducted as part of the Section 106 permitting process.

The Archaeological Resources Assessment (ARA)

The goal of an ARA (or “review”) is to identify portions of a specific project’s Area of Potential Effects (APE) that have the potential for containing pre-Contact and/or historic sites. An ARA is to be accomplished through a “background search” and a “field inspection” of the project area. For this study, reference materials were reviewed following established guidelines. Resources examined included the National Register of Historic Places (NRHP) files; the Historic Sites and Structures Survey; and the USGS master archaeological maps that accompany the Vermont Archaeological Inventory (VAI). Relevant town histories and nineteenth-century maps also were consulted. Based on the background research, general contexts were derived for pre-Contact and historic resources in the study area.

Archaeological Site Potential

There are no known archaeological sites within or adjacent to the limits of the proposed project’s APE. In fact, there are no known archaeological sites within 3 km of the proposed project area. This lack of known archaeological sites does not necessarily mean that the Tunbridge project area was not occupied by pre-Contact Native Americans, rather it likely reflects the fact that little to no development has occurred in the area that would stimulate archaeological study. Tunbridge is situated on the First Branch of the White River, which is a major, navigable tributary of the White River to the south, and thus a travel corridor to the Connecticut River valley. At least one archaeological study has occurred in the general vicinity of Tunbridge, but no archaeological materials were recovered.

In 1992, the University of Vermont Consulting Archaeology Program (UVMCAP), conducted a field inspection of a bridge replacement in the center of the Town of Tunbridge (Thomas 1992). They concluded that due to the historic disturbances on all side of the existing bridge abutments, that the replacement project will have no effect on significant cultural resources.

In regard to historic period resources, both the historic 1858 Wallings map (Figure 3) and the historic 1877 Beers Atlas (Figure 4) depict numerous structures within the limits of the proposed project. The Tunbridge Village Historic District was placed on the VT State Register of Historic Places in 1989 (Figure 5). In 1994, the Tunbridge Village Historic District was listed on the National Register of Historic Places (Figure 6). Most of the properties within the Village of Tunbridge contribute to both the State and National Historic Districts, and are still in use today. The proposed project will not directly impact any of the properties listed on either registry.

Desk Review

As part of the desk review, the Vermont Division of Historic Preservation's (VDHP) 2015 predictive model matrix for identifying pre-Contact Native American archaeological sites is employed for the project area. As stated in the VDHP Guidelines: "The predictive model is intended to identify areas with a high potential for containing significant precontact Native American sites." A completed matrix for the proposed project is presented in Figure 7. As can be seen, the Tunbridge Village Sidewalk Scoping - Tunbridge STP BP22(23) area scores 76 on the Predictive Model, due to it being located within 90 m of the First Branch of the White River (12), within 90 m of a tributary of the First Branch of the White River (8), within 90 m of a confluence of the tributaries and the river (12), along a major alluvial terrace (32), and along a Natural Travel corridor (12).

Site Visit

A field inspection of the project area was carried out on October 3, 2023 by Charles Knight, Principal Investigator of Crown Consulting Archaeology, LLC. Knight walked the entire APE, taking soil cores where possible. The topography of the project area is demonstrated via a LiDAR map of the region (Figure 8). The northern limit of the project area is demarcated by the Town's ball fields. There the ball fields are bordered by a small tributary of the First Branch of the White River and its confluence with the river (Figure 9). The ball field area itself has been heavily disturbed for the construction of the fields and the access road, which borders the river's edge (Figure 10). However, across the river from the ball fields, a large intact field exists (Figure 11), while downriver on the west side of the river is a brood, an intact floodplain also exists (Figure 12). These two landforms are archaeologically sensitive (Figure 12). Leaving the recreational ball fields area and going south, the road climbs up from the floodplain onto Strafford Road, where it heads southwest before it eventually intersects with VT Rte. 110 (Figure 13). The length of Strafford Road is cut into the toe-of-slope and as a result, is not archaeologically sensitive, but across the river for most of this length is an active floodplain that is archaeologically sensitive (Figure 14).

Within the Village proper, the intersection of VT Rte. 110 and Spring Road is almost entirely on slope (Figures 15 & 16). The lower half of Spring Road, at the bridge crossing, has been heavily disturbed by historic development (Figure 17). Therefore, all of Spring Road, its intersection with VT Rte. 110, and the approach to that intersection is not considered to be archaeologically sensitive. However, a small floodplain just north

of the intersection is considered to be archaeologically sensitive, sitting below the houses along the west side of VT Rte. 110 (see Figure 12). The west side of VT Rte. 110 in the village center is along the edge of the terrace (Figure 18), while the east side borders the front lawns of a series of historic residences (Figure 19). These front lawns have the potential for containing archaeological remains of both pre-Contact Native American and younger Euroamerican archaeological sites.

Below VT Rte. 110, within the Village, the landform drops westward to a series of alluvial terraces (Figure 20). These broad terraces are the location of fairgrounds for the annual Tunbridge Work Fair, which has taken place in the same location since 1875. Most of the buildings in the fairgrounds date to 1910 – 1940, although several of the original 19th Century buildings do remain (Figure 21). While the surface of the fairgrounds has likely been heavily compacted and somewhat disturbed over the decades of use, there is the potential for buried archaeological remains to exist, since this landform is flooded occasionally and thus, alluvial deposits can occur covering ancient Native American occupations. However, the surface within the fairgrounds is considered disturbed.

Conclusions

The Town of Tunbridge, with assistance from VHB proposes the Tunbridge Village Sidewalk Scoping - Tunbridge STP BP22(23), Tunbridge, Orange County, Vermont. Crown Consulting Archaeology, LLC conducted an Archaeological Resources Assessment of the proposed project area and identified several landforms as archaeologically sensitive. The majority of the archaeological sensitivity occurs on the lower floodplain of the First Branch of the White River, which also is the home of the Tunbridge Fairgrounds. However, several smaller floodplains upriver from the fairgrounds also were identified as archaeologically sensitive. In addition, ancient alluvial terraces of the river, including the landform upon which VT Rte. 110 follows within the core of Tunbridge Village is sensitive. This section of VT Rte. 110, within the Village core, is sensitive for both pre-Contact Native American sites, and younger historic, Euroamerican sites. The exact alignment, of the proposed sidewalk and the nature of the ground disturbances, when determined, will determine whether additional archaeological study is required. Within the limits of the fairgrounds, it is assumed that the top +/- 10 inches are disturbed from over 100 years of World Fair activities. However, deeper buried archaeological resources could exist intact, and therefore if sidewalk construction in this area requires sub-surface excavation, additional archaeological study will be required. Along VT Rte. 110 within the Village, being an elevated terrace, potential archaeological remains are closer to the surface and may exist along the edge of the roadway. The margins along the entire length of Vt Rte. 110 within the Village center, from just south of the Tunbridge Village Store, south to the end of the project limits, are considered archaeologically sensitive.

As a result, numerous areas of archaeological sensitivity have identified within the proposed project area. Depending on the nature and extent of the proposed sidewalk construction, additional Phase I archaeological study may be required within

these sensitive areas as part of the Section 106 permitting process. Any future archaeological study should also include consultation with the Vermont Division for Historic Preservation, to determine the best archaeological approach.

Thank you for working with us on this project. Please let me know if you have any questions or comments.

Charles Knight, Ph.D.
Principal Investigator

Citations

Thomas, Peter A.
1992 Site Inspection for Tunbridge BHS 0169(6)S. Letter on file with the VDHP.
UVMCAP

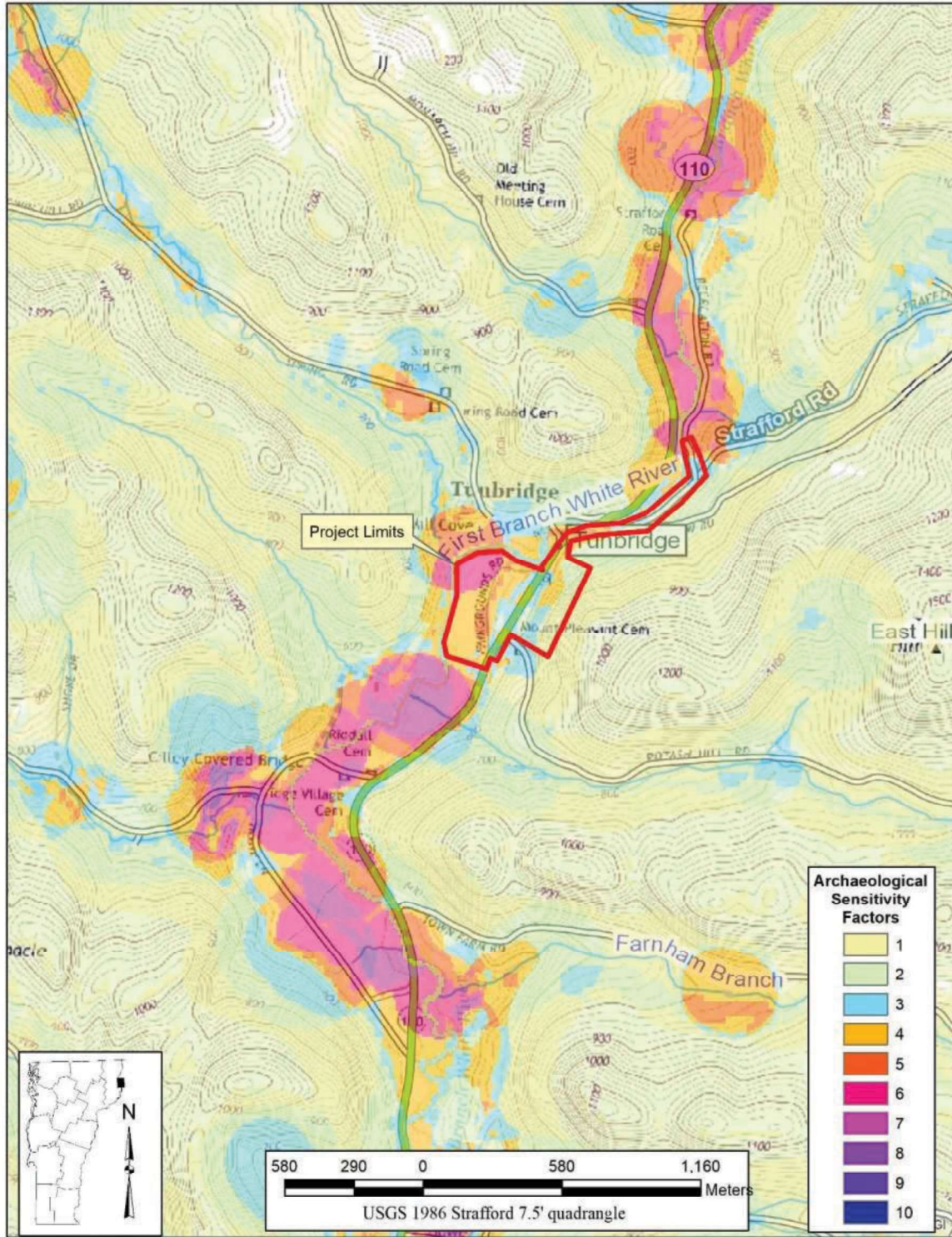


Figure 1. Map showing the location of the proposed Tunbridge Village Sidewalk Scoping - Tunbridge STP BP22(23), in relation to known archaeological sites and archaeological sensitivity factors, Tunbridge, Orange County, Vermont.



Figure 2. Area of Potential Effects for the proposed Tunbridge Village Sidewalk Scoping - Tunbridge STP BP22(23), Tunbridge, Orange County, Vermont.

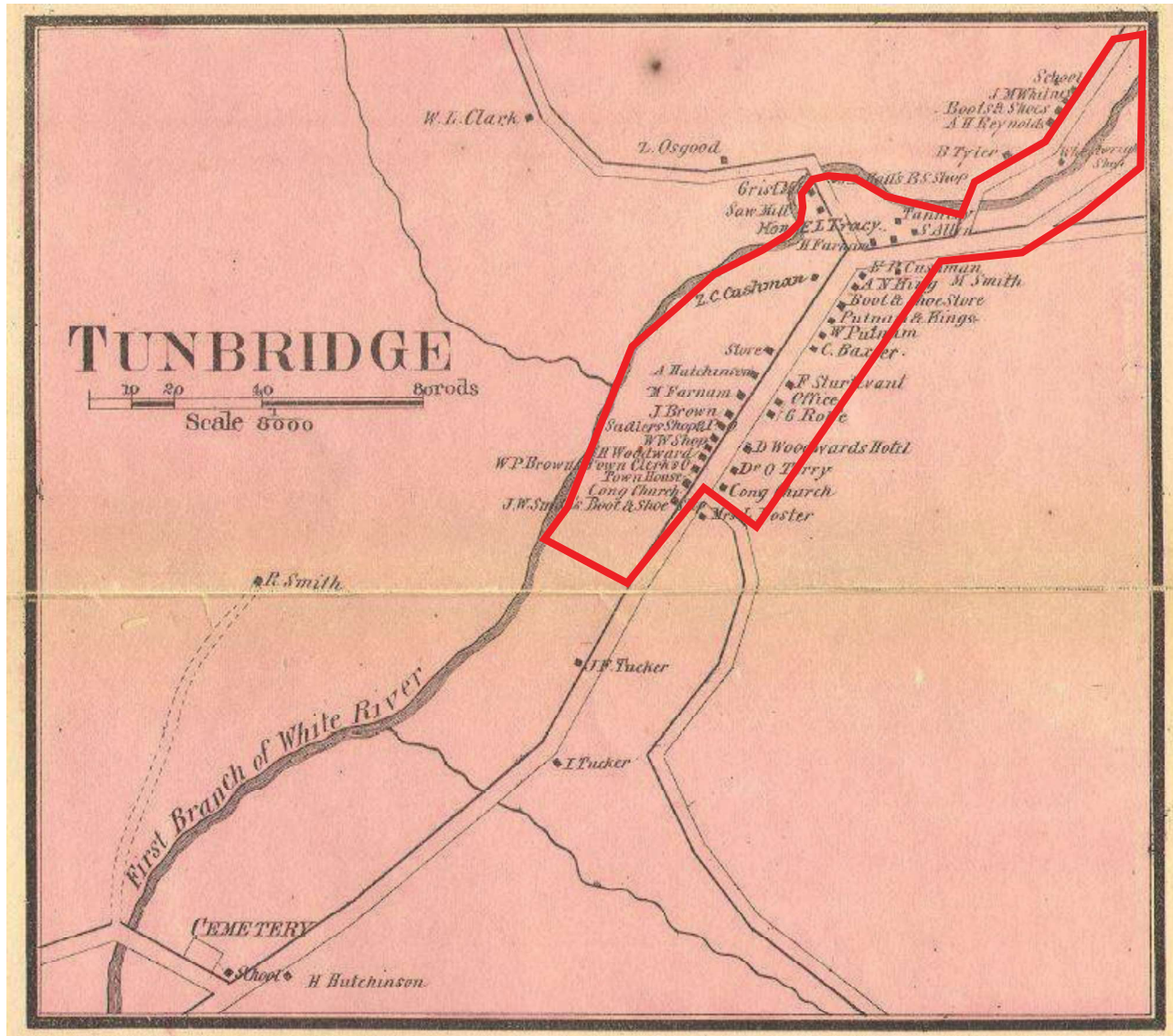


Figure 3. Historic 1858 Wallings map showing the approximate location of the proposed Tunbridge Village Sidewalk Scoping - Tunbridge STP BP22(23), Tunbridge, Orange County, Vermont.

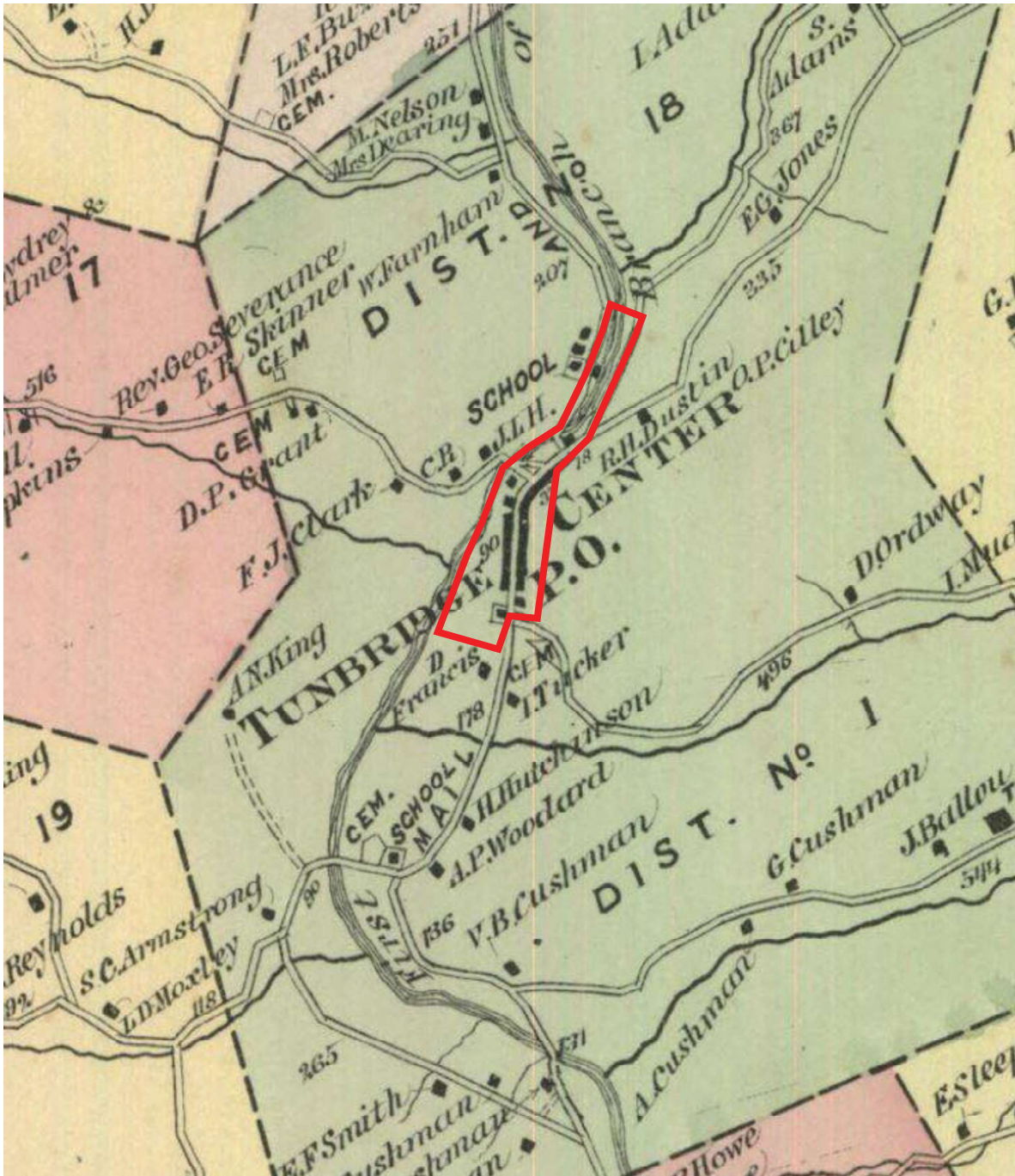


Figure 4. Historic 1877 Beer's atlas showing the approximate location of the proposed Tunbridge Village Sidewalk Scoping - Tunbridge STP BP22(23), Tunbridge, Orange County, Vermont.

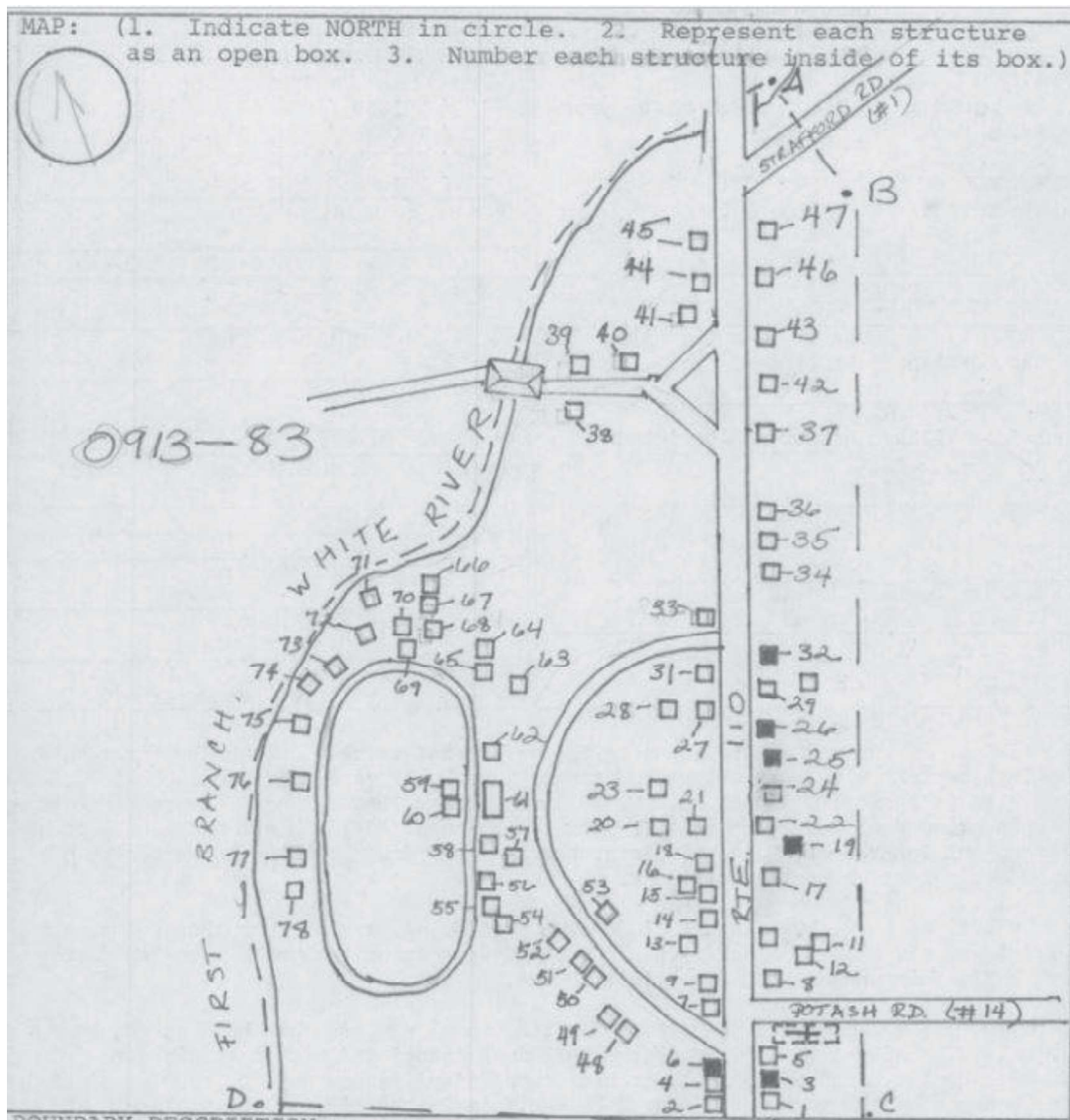


Figure 5. Map showing the contributing and non-contributing properties that make up the Tunbridge Village Historic District listed on the VT State Register of Historic Properties.

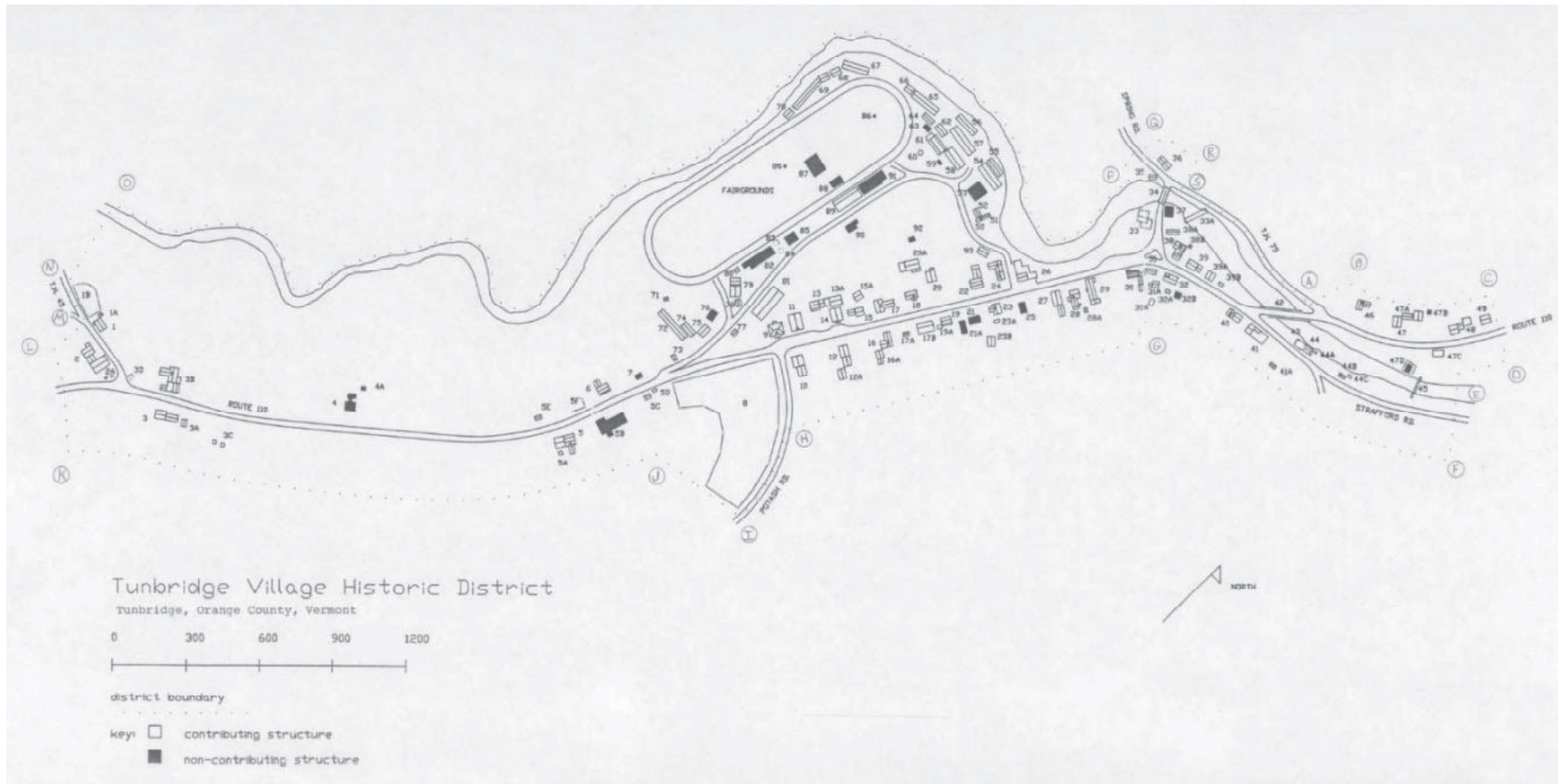


Figure 6. Map showing the contributing and non-contributing properties to the Tunbridge Village Historic District, and its limits, as listed on the National Register of Historic Places.

VERMONT DIVISION FOR HISTORIC PRESERVATION
Environmental Predictive Model for Locating Pre-contact Archaeological Sites

Project Name **Tunbridge STP BP22(23)** County **Orange** Town **Tunbridge**
 DHP No. _____ Map No. _____ Staff Init. _____ Date **1/25/24**

Additional Information

Environmental Variable	Proximity	Value	Assigned Score
A. RIVERS and STREAMS (EXISTING or RELICT):			
1) Distance to River or Permanent Stream (measured from top of bank)	0- 90 m	12	12
	90- 180 m	6	
2) Distance to Intermittent Stream	0- 90 m	8	8
	90-180 m	4	
3) Confluence of River/River or River/Stream	0-90 m	12	12
	90-180 m	6	
4) Confluence of Intermittent Streams	0 - 90 m	8	
	90 - 180 m	4	
5) Falls or Rapids	0 - 90 m	8	
	90 - 180 m	4	
6) Head of Draw	0 - 90 m	8	
	90 - 180 m	4	
7) Major Floodplain/Alluvial Terrace		32	32
8) Knoll or swamp island		32	
9) Stable Riverine Island		32	
B. LAKES and PONDS (EXISTING or RELICT):			
10) Distance to Pond or Lake	0- 90 m	12	
	90 -180 m	6	
11) Confluence of River or Stream	0-90 m	12	
	90-180 m	6	
12) Lake Cove/Peninsula/Head of Bay		12	
C. WETLANDS:			
13) Distance to Wetland (wetland > one acre in size)	0- 90 m	12	
	90 -180 m	6	
14) Knoll or swamp island		32	
D. VALLEY EDGE and GLACIAL LAND FORMS:			
15) High elevated landform such as Knoll Top/Ridge Crest/ Promontory		12	
16) Valley edge features such as Kame/Outwash Terrace**		12	

17) Marine/Lake Delta Complex**		12	
18) Champlain Sea or Glacial Lake Shore Line**		32	
E. OTHER ENVIRONMENTAL FACTORS:			
19) Caves /Rockshelters		32	
20) <input checked="" type="checkbox"/> Natural Travel Corridor <input type="checkbox"/> Sole or important access to another drainage <input type="checkbox"/> Drainage divide		12	
21) Existing or Relict Spring	0 – 90 m 90 – 180 m	8 4	
22) Potential or Apparent Prehistoric Quarry for stone procurement	0 – 180 m	32	
23)) Special Environmental or Natural Area, such as Milton acquifer, mountain top, etc. (these may be historic or prehistoric sacred or traditional site locations and prehistoric site types as well)		32	
F. OTHER HIGH SENSITIVITY FACTORS:			
24) High Likelihood of Burials		32	
25) High Recorded Site Density		32	
26) High likelihood of containing significant site based on recorded or archival data or oral tradition		32	
G. NEGATIVE FACTORS:			
27) Excessive Slope (>15%) or Steep Erosional Slope (>20)		- 32	
28) Previously disturbed land as evaluated by a qualified archeological professional or engineer based on coring, earlier as-built plans, or obvious surface evidence (such as a gravel pit)		- 32	
** refer to 1970 Surficial Geological Map of Vermont			Total Score: 76
Other Comments :			
0- 31 = Archeologically Non- Sensitive 32+ = Archeologically Sensitive			

April 8, 2015

Figure 7. Completed VDHP predictive model matrix of the APE for the proposed Tunbridge Village Sidewalk Scoping - Tunbridge STP BP22(23), Tunbridge, Orange County, Vermont.

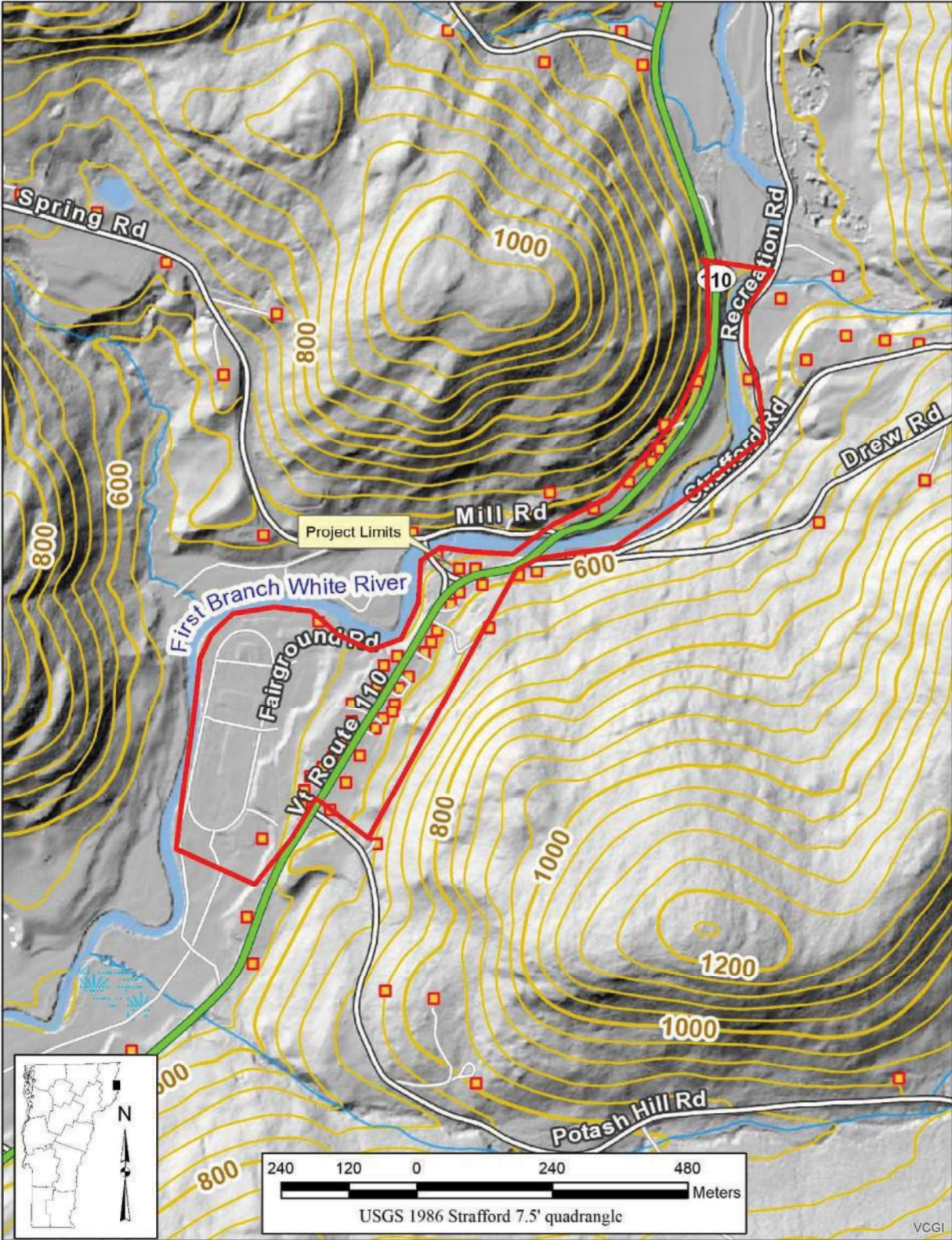


Figure 8. Lidar map showing the topographic details of the proposed Tunbridge Village Sidewalk Scoping - Tunbridge STP BP22(23), Tunbridge, Orange County, Vermont.



a



b

Figure 9. Photos looking south along the eastern side of the ball field access road and the small tributary (a), and south across the access road at where the tributary enters the First Branch of the White River (b), for the Tunbridge Village Sidewalk Scoping - Tunbridge STP BP22(23), Tunbridge, Orange County, Vermont.



a



b

Figure 10. Photos looking north at the western side of the ball field access road near the tributary confluence (a), south at the western side of the access road (b), for the Tunbridge Village Sidewalk Scoping - Tunbridge STP BP22(23), Tunbridge, Orange County, Vermont.



a



b

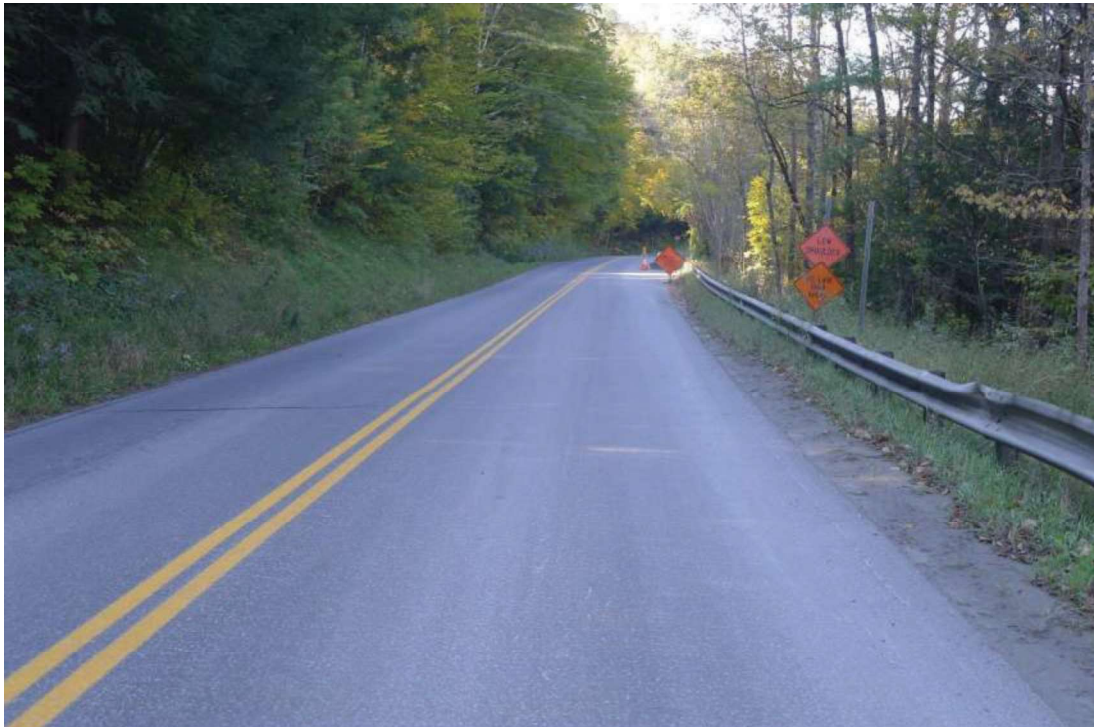
Figure 11. Photos looking across the river at the point of its confluence at the ball fields (a), and looking downriver at the sensitive landform on the west side of the river (b), for the Tunbridge Village Sidewalk Scoping - Tunbridge STP BP22(23), Tunbridge, Orange County, Vermont.



Figure 12. Aerial map showing the areas identified as archaeologically sensitive within the limits of the proposed Tunbridge Village Sidewalk Scoping - Tunbridge STP BP22(23), Tunbridge, Orange County, Vermont.



a

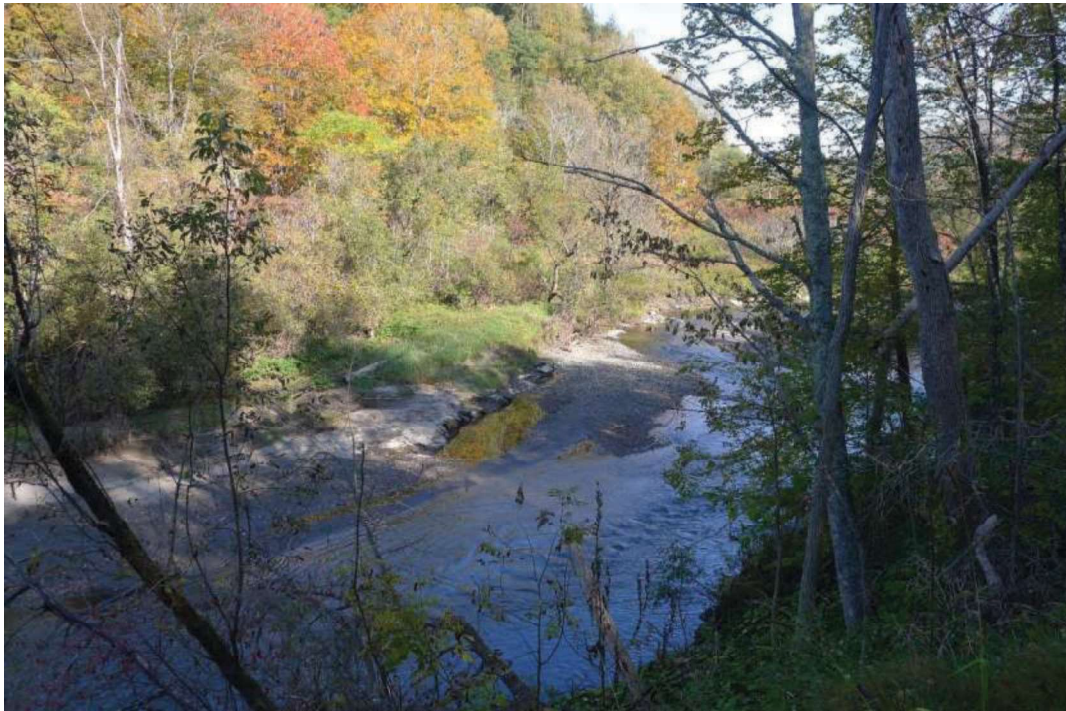


b

Figure 13. Photos looking north along the entrance to the ball fields area (a), and south along Strafford Road (b), for the Tunbridge Village Sidewalk Scoping - Tunbridge STP BP22(23), Tunbridge, Orange County, Vermont.



a

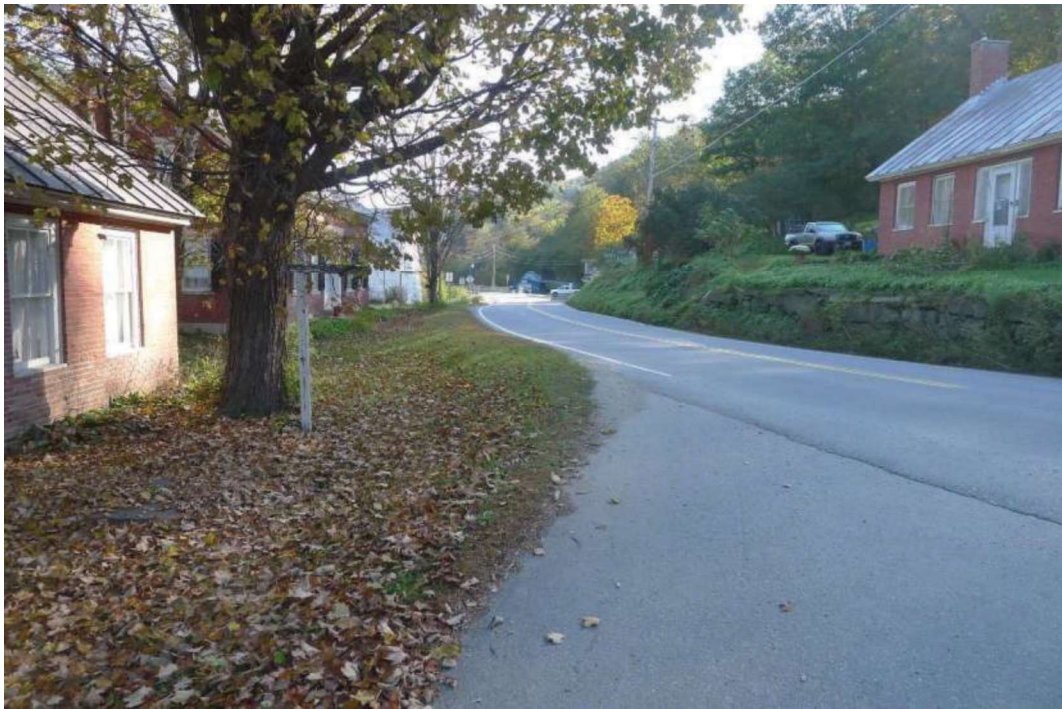


B

Figure 14. Photos looking south along Strafford Road (a), and across the river at its western banks at the sensitive floodplain there (b), for the Tunbridge Village Sidewalk Scoping - Tunbridge STP BP22(23), Tunbridge, Orange County, Vermont.



a



b

Figure 15. Photos looking southwest at the intersection of Strafford Road and VT Rte. 110 (a), and northwest along the western side of the intersection of VT Rte. 110 and Spring Road (b), for the proposed Tunbridge Village Sidewalk Scoping - Tunbridge STP BP22(23), Tunbridge, Orange County, Vermont.



a

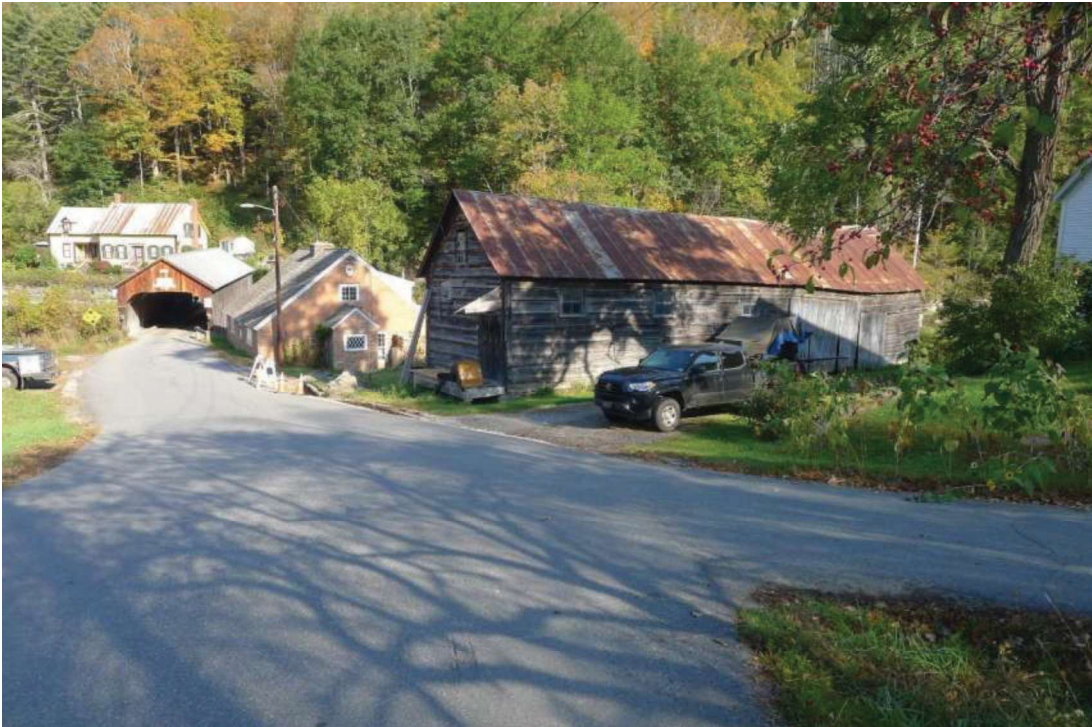


b

Figure 16. Photos looking northeast across the intersection of VT Rte. 110 and Spring Road (a), and west along Spring Road (b) for the Tunbridge Village Sidewalk Scoping - Tunbridge STP BP22(23), Tunbridge, Orange County, Vermont.



a



B

Figure 17. Photos looking along the south side of Spring Road (a), and northwest at the north side of Spring Road (b), for the proposed Tunbridge Village Sidewalk Scoping - Tunbridge STP BP22(23), Tunbridge, Orange County, Vermont.



a



B

Figure 18. Photos looking along the west side of VT Rte.100 in the center of Tunbridge Village, from north to south (a), and from south to north (b), for the proposed Tunbridge Village Sidewalk Scoping - Tunbridge STP BP22(23), Tunbridge, Orange County, Vermont.



a



b

Figure 19. Photos looking along the east side of VT RTE.100 in the center of Tunbridge Village, from north to south (a), and from south to north (b), for the proposed Tunbridge Village Sidewalk Scoping - Tunbridge STP BP22(23), Tunbridge, Orange County, Vermont.



a



b

Figure 20. Photos looking west/southwest (a), and southwest (b) at the Turnbridge Fairgrounds from VT Rte. 110, for the proposed Tunbridge Village Sidewalk Scoping - Tunbridge STP BP22(23), Tunbridge, Orange County, Vermont.

Appendix D

Historic Resources Identification

Please note that the Historic Resources Identification Report is in Draft Form and will be included in the submission of the Final Scoping Report. The recommendations in Section 2.5.3 of the Draft Scoping Report are reflective of the HRA findings.

Appendix E

Public Meeting Materials

Tunbridge Village Scoping Study

Local Concerns Meeting
October 17, 2023



Agenda



Introductions



Project Purpose



Review of Scope & Schedule



Past Projects



Existing Conditions Overview



Discussion of Issues & Opportunities



General Questions and/or Comments



Next Steps

Project Team Introductions



- Rita Seto | Senior Planner
- Sarah Wraight | Senior Planner



- Mariah Cilley | Town Clerk
- Janet Wells | Town Resident / Grant Applicant
- Kevin Rose | Town Resident / Regional Commission Alternate



- Drew Gingras | Project Manager
- Jenn Conley | Project Advisor (and pinch hitter tonight!)
- Elisabeth Sundberg | Project Planner

Project Purpose & Need Statement (Draft)

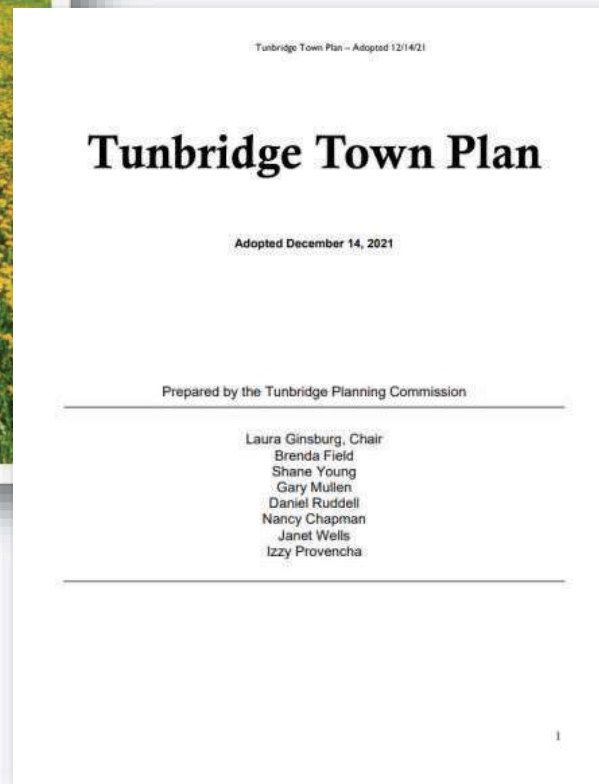
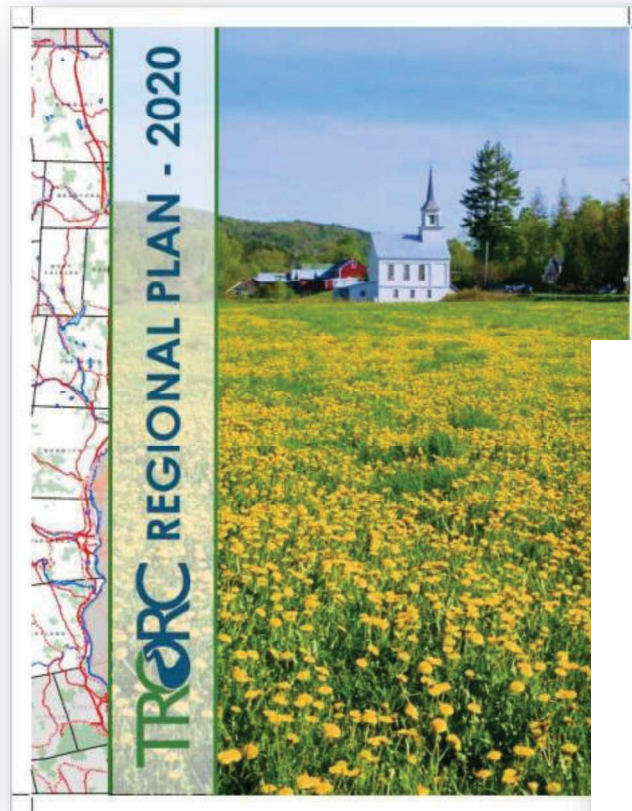
The Tunbridge Village Scoping Study seeks to **identify and prioritize improvements for pedestrian safety and accessibility** within Tunbridge Village and along Strafford Road up to the recreation fields.



Project Scope & Schedule

- **Local Concerns Meeting** *Today*
- **Existing Conditions Assessment** In Progress
- **Resource Constraints & Permitting Assessment** Nov 2023 – Jan 2024
- **Conceptual Alternatives Assessment** Nov 2023 – Feb 2024
- **Alternatives Presentation Meeting** March 2024
- **Draft Scoping Report** April – May 2024
- **Final Public Meeting** June 2024
- **Final Scoping Report** July 2024

Past Planning Studies & Projects

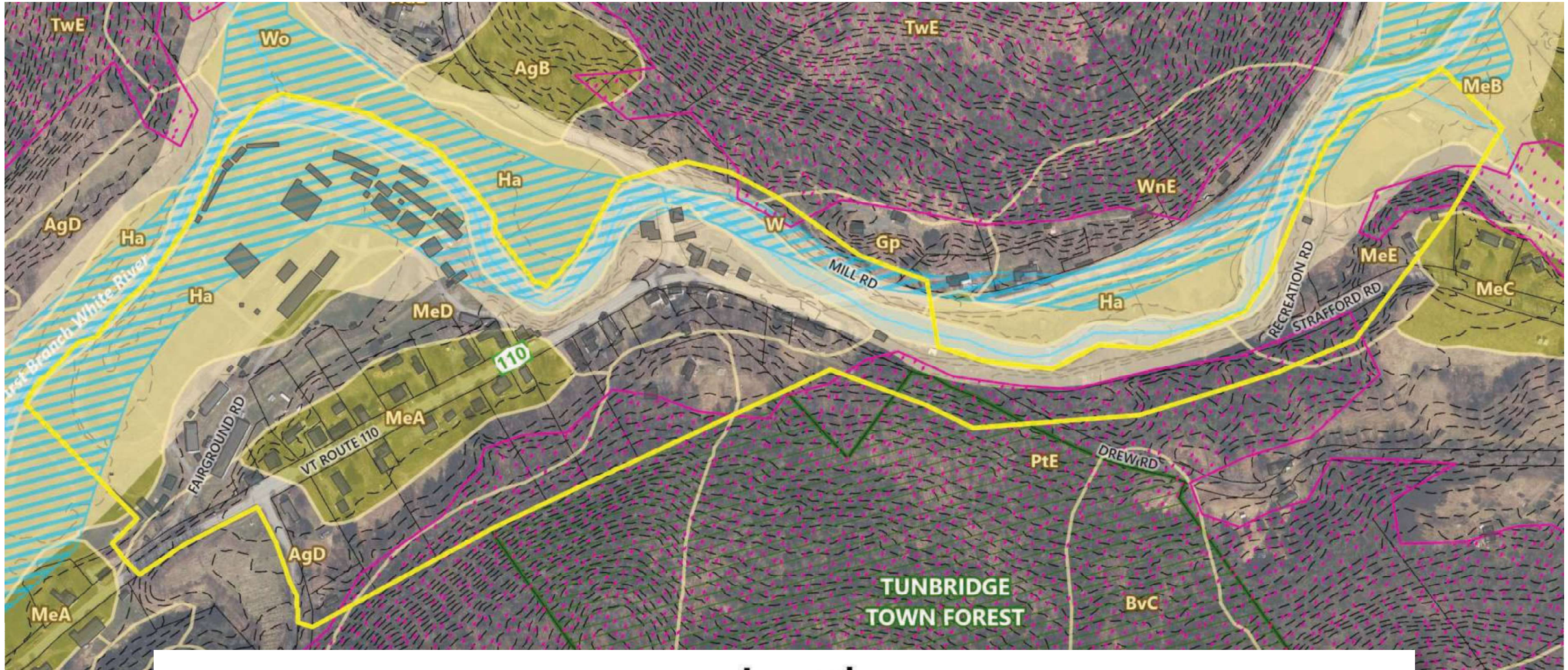


- 2021 Town Plan Goals
 - To provide pedestrians with safe areas to travel within the Villages of Tunbridge and North Tunbridge, such as sidewalks, crosswalks, and bike paths
 - The Plan supports pedestrian enhancements that will promote walkability and safety
- 2020 TRORC Regional Plan Recommendations:
 - The State and/or TRORC should map neighborhoods and advocate for connectivity to essential services, walkable routes, recreation opportunities, and transportation options.
 - TRORC and municipalities should plan for bike-friendly state highways to connect village centers.
- 2022 Traffic Speed Study
 - NB 85th Percentile Speed: 37mph
 - SB 85th Percentile Speed: 39mph

Existing Conditions – Project Area



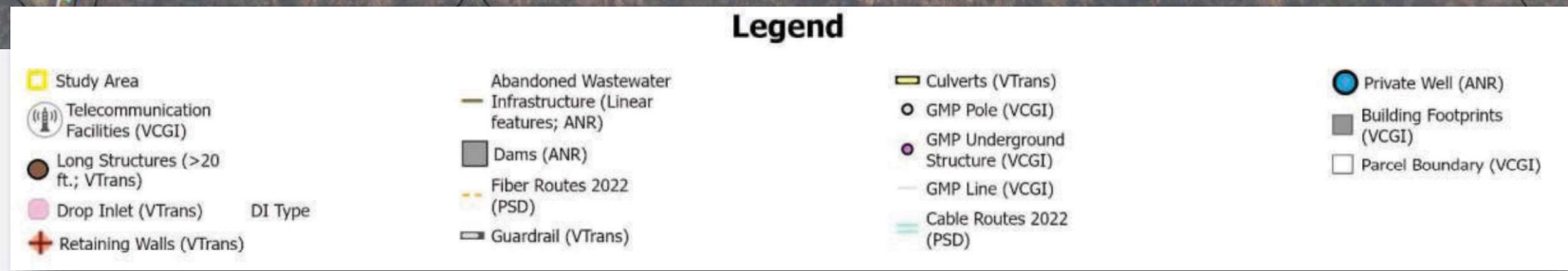
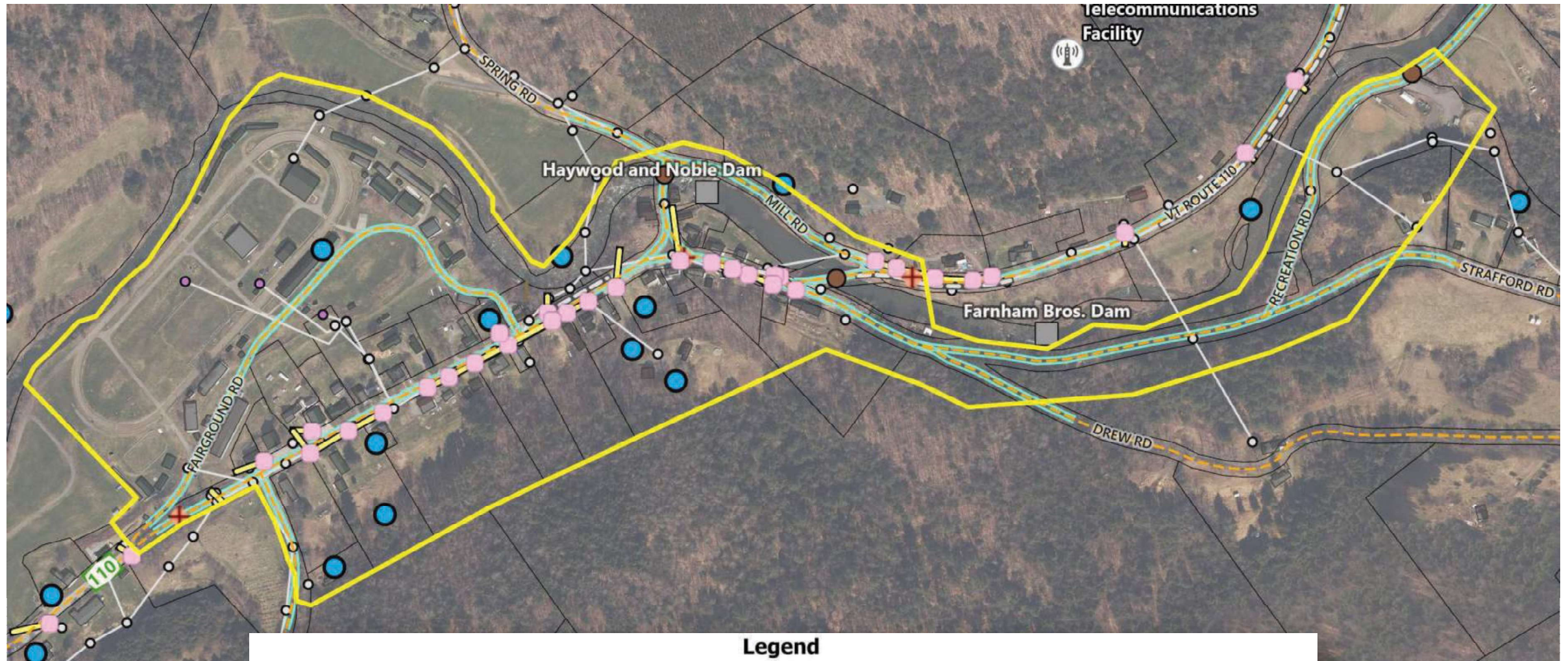
Existing Conditions – Natural Resources



Legend

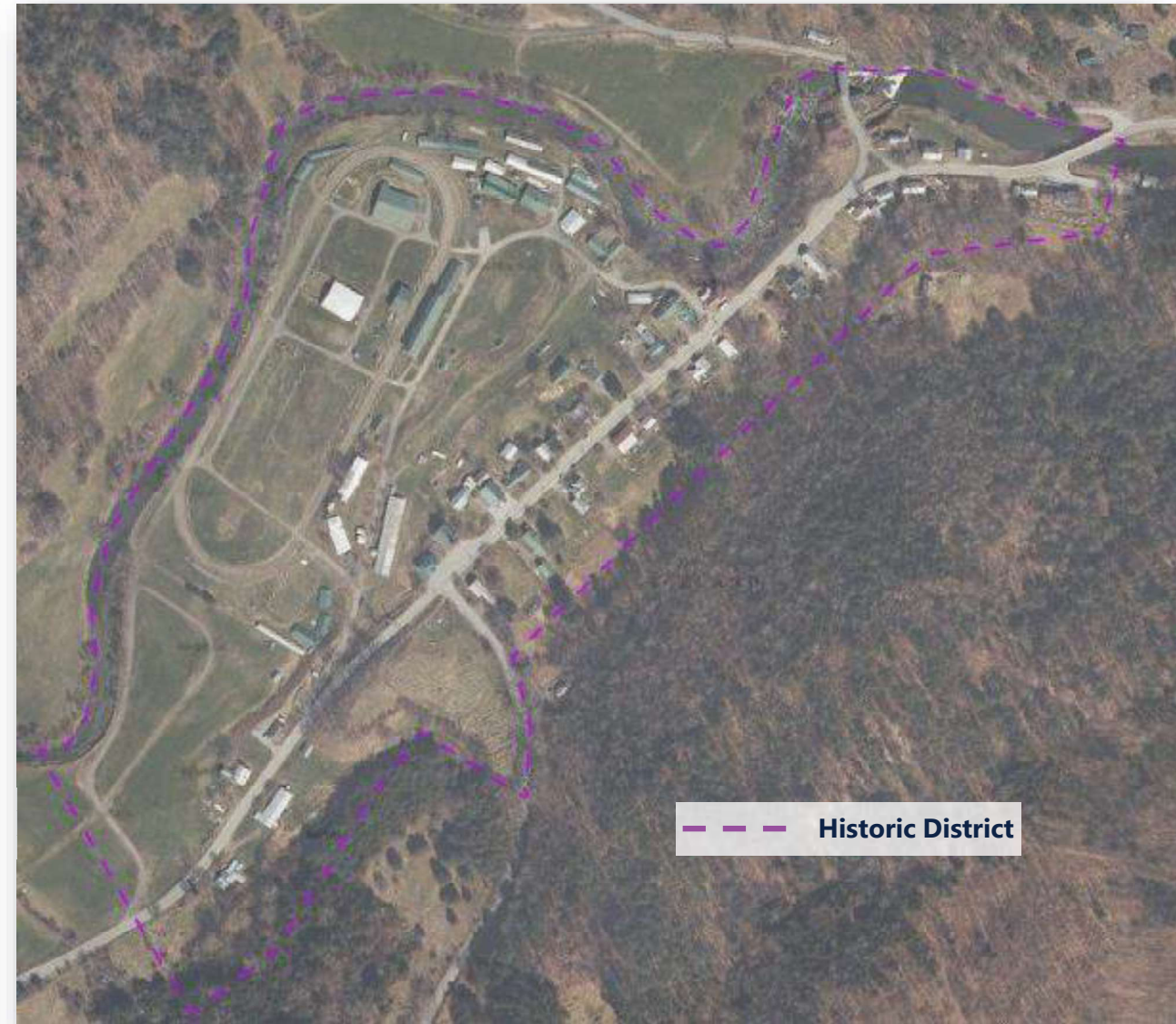
- | | | | | |
|----------------------------|----------------------------|---|------------------------|---|
| Study Area | Deer Wintering Areas (ANR) | Approx. FEMA 100 year Flood Zone (VHB)* | VHD Waterbody (VCGI) | Contour 10 (VCGI) |
| Building Footprints (VCGI) | Soil Map Unit (VCGI) | VHD Stream (VCGI) | Parcel Boundary (VCGI) | VT Agriculturally Important Soil Units (VCGI) |
| | | River Corridor (ANR) | Protected Lands (VCGI) | |

Existing Conditions – Utilities



Existing Conditions – Historic Resources

- Project located in Tunbridge Village Historic District (listed in the National Register of Historic Places)
- Identify concerns: existing sidewalks, features such as fences, granite posts, mature trees, retaining walls, location of pedestrian crossing signals or signage
- Concerns will inform alternatives analysis
- Project will require Section 106 Review & Section 4(f) evaluation



Existing Conditions – Crash Data

- Study Area Crash Data (2013- 2022)
 - 12 Total Crashes
 - 2 Injury Crashes
 - 1 Fatal Crash



Existing Conditions – Pedestrian Infrastructure

- Sidewalks
 - Potash to 280 VT 110
 - 284 to 300 VT 110
 - Along bridge over White River
- Crosswalks
 - No formal crosswalks through the Village
- Fairgrounds are used as walking trails when there are no events occurring



Existing Conditions – Parking

- On street parking along VT 110 on both sides through the Village
- Off-Street Parking at:
 - Town Offices
 - Church
 - Community Center
 - USPS

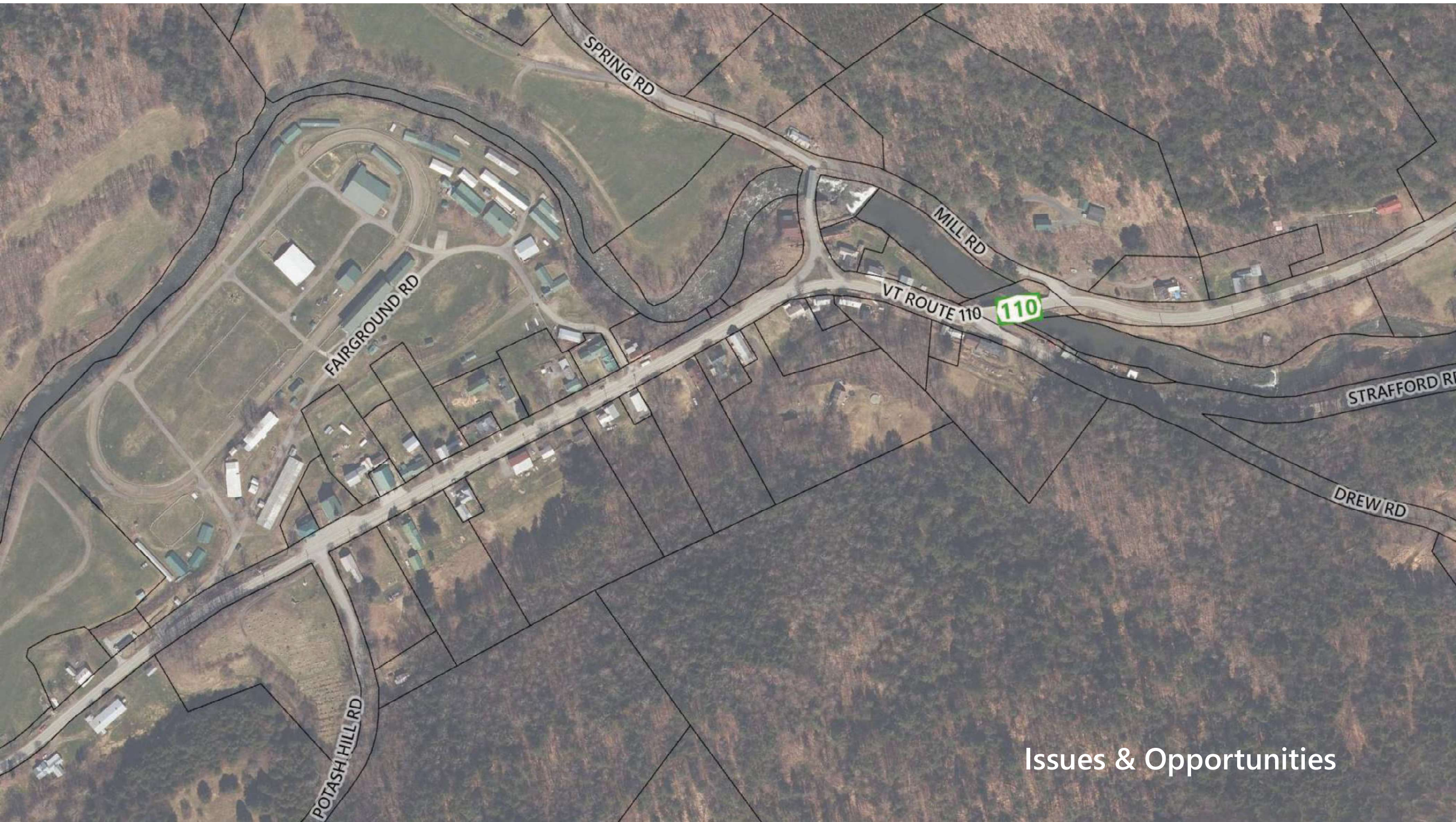


Existing Conditions – Bicycle Infrastructure

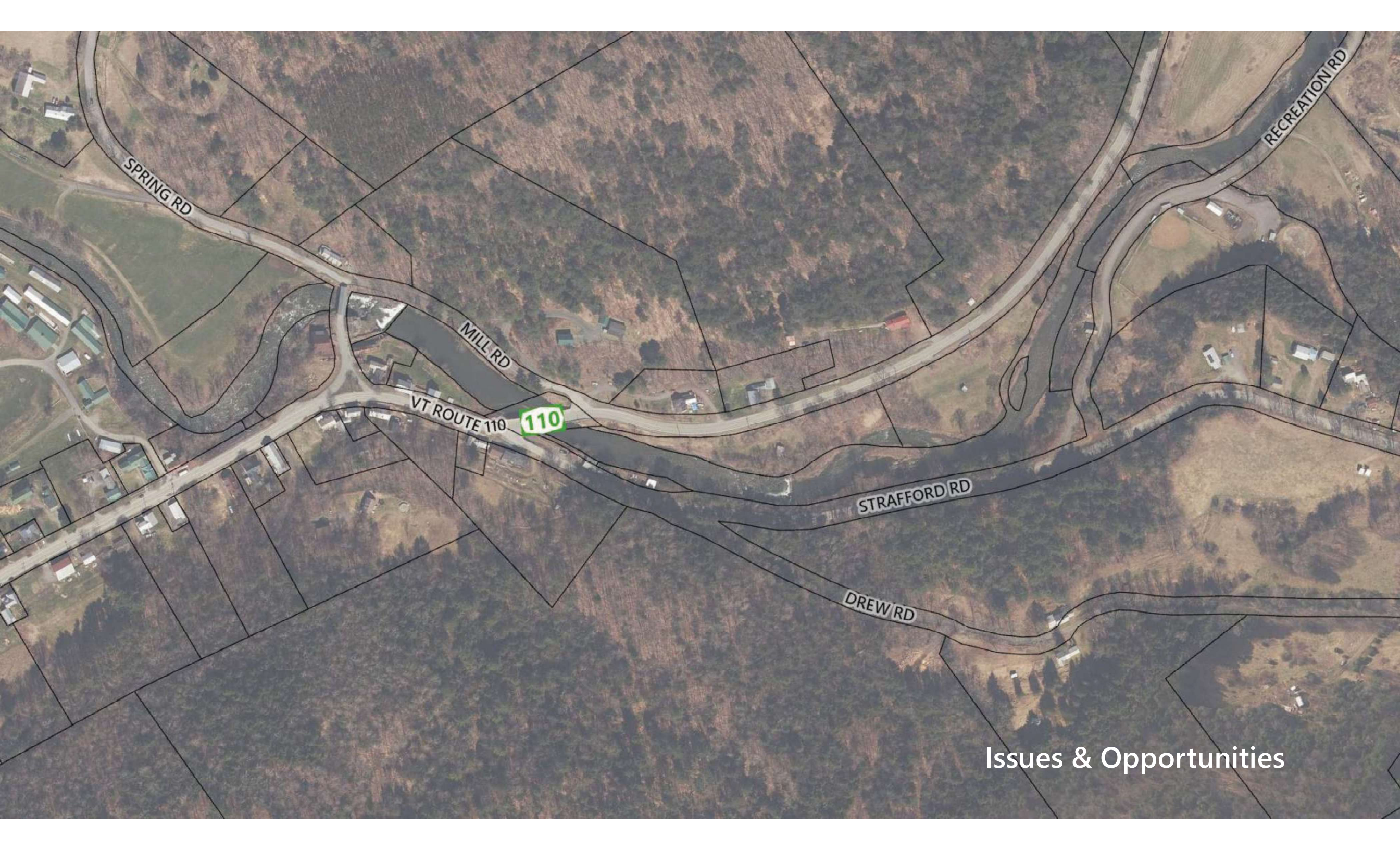
- No formal bicycle infrastructure
 - Tunbridge Library does have a bike rental program
- VT 110 is identified as a VTrans Bike Priority Route



Project Area Walkthrough



Issues & Opportunities



Issues & Opportunities

Next Steps

- Existing Conditions Assessment
- Identify and Evaluate Improvements
- Alternatives Presentation
- Selection of Preferred Improvements





Questions?
Comments?



Please Share Your Thoughts With Us



Drew Gingras, PE
Consultant Project Manager
dgingras@vhb.com



Rita Seto
Municipal Project Manager
rseto@trorc.gov





Meeting Notes

Date: October 17, 2023 Notes Taken By: Elisabeth Sundberg
Place: Tunbridge Community Center Re: Tunbridge Village Scoping Study
Project No.: 59012.00 Local Concerns Meeting

Project Team Attendees:

Jenn Conley, VHB
Elisabeth Sundberg, VHB
Mariah Cilley, Town of Tunbridge
Rita Seto, TRORC
Sarah Wraight, TRORC
Janet Wells, Resident

Public Attendees:

Kay Jorgensen
Fred Pond
Diane Glick
Lew Glick
Rodney Hoyt
Kathi Terami
Amy Frost
Erica Houston
Brenda Field
Dan 'Rudi' Ruddell

Meeting Notes:

Jenn (VHB) started off the meeting by introducing the project and reviewing the meeting agenda.

VHB reviewed the purpose of the meeting which is to solicit local concerns about pedestrian connections throughout Tunbridge Village and connecting north to the recreation fields.

Rita Seto (TRORC) introduced herself and shared that she was contracted by the town to assist with managing the grant and subsequent scoping study.

Sarah Wraight (TRORC) introduced herself and notified the group that the TRORC has an opportunity to provide stipends (\$50) to attending members of the public to provide input who identify as low income, BIPOC, LGBTQ, and other underserved groups. She told the group to follow up with her if they would like to take advantage of that resource.

VHB added that there are several rural communities that have carless individuals, and it is important to hear from these people.

Project Purpose and Need Statement

VHB went over the draft project purpose and need.

VHB shared the project area including the core downtown village area and the segment of Strafford Road connecting to the recreation fields.

Place: Tunbridge Community Center
Date: October 17, 2023
Ref: 59012.00
Page 2

A member of the public brought up the condition of Strafford Road and how that could be improved.

Additionally, someone shared that they would like the sidewalk to remain where it currently is (within the Village).

A member of the public inquired about who would maintain the sidewalk if a new one is constructed.

VHB shared that would need to be an agreement between the State and Town as to who is responsible for the plowing of the sidewalk.

A member of the public asked if they would be liable if someone fell on the sidewalk in front of their home and expressed concern about the sidewalk being too close to their yard.

Another public attendee expressed that they would not like the sidewalk on their side of the road and want it to remain on the existing side.

VHB assured them they will have time to talk about their concerns and continued with the scope and schedule slides.

VHB shared that the draft alternatives presentation will include how they will impact the area and the costs associated with the project. Additionally, they will need selectboard endorsement to help with getting funding in the future.

VHB shared the existing planning and studies and projects that exist, including the 2020 TRORC Regional Plan, 2021 Town Plan, and the 2022 Traffic Speed Study.

VHB reviewed the existing conditions of the project area, including the natural resources map and the potential constraints. The biggest concerns are the floodplain, deering areas, and utilities that would need to be considered during the evaluation of alternatives. There are a few utility poles that could be potentially in the way if the sidewalk was recommended on the other side of the roadway.

VHB reviewed the historic resources and highlighted the historic zones and shared that there are permits required in those areas if there were impacts to historic resources.

VHB went over the crash data and shared that there are no areas where there are significant crashes occurring.

VHB went over the pedestrian infrastructure and the issues with the sidewalk conditions. She shared that there may be revitalization where sidewalk previously existed. She shared that there are no formal crosswalks and that may be something the Town may want to consider.

VHB went over the existing parking which includes informal on-street parking along VT 110. Jenn shared that having cars parked on the roadway potentially acts as a traffic calming tool and slows drivers down. She added that it does add risk for pedestrians if they must go into road when walking around cars.

VHB shared that there is no formal bicycle infrastructure, but VT 110 is a VTrans priority bike route.

Public Input and Q&A Period

Tunbridge Village:

VHB opened the discussion up to hear where the community members feel there should be crosswalks or sidewalks.

A member of the public asked if crosswalks have been studied before.

It was noted that the State did preliminary investigations to determine where crosswalks should go along the corridor and determined that a scoping study would be required.

It was said that near the church and library would be desirable locations to cross.

A member of the public shared that there are a lot of activities at the library, community building, and parish.

It was shared that there is no formal parking on either side of the general store.

A person who works at the general store shared that they are in favor of crosswalks and sidewalks in the village.

A member of the public said that they would like to keep the sidewalk on the side it currently exists on and to create more defined parking spaces.

An attendee shared that they do not feel that landowners are gaining anything by having the sidewalk on the other side.

Another person shared that a crosswalk near the library would be great.

There were concerns shared around having the sidewalk on both sides of the road.

Someone was curious of how this study came to be.

It was shared that someone from the selectboard applied for a grant for the scoping study.

Another person shared they would like the sidewalk to stay where it is, so it does not encroach on people's properties.

Someone else shared they are supportive of the sidewalk but don't want it to move near anyone's home.

Someone expressed that they do not think that a sidewalk is necessary and that they do not mind when their neighbors walk on their front property.

Someone expressed that it is not necessary. Doesn't mind when someone walks on their front property.

Mariah (Town of Tunbridge) shared that she has young children, and she does not feel comfortable having them walk on the road without sidewalks. She also shared that is also not comfortable to do with a stroller or if you were in a wheelchair.

Janet added that there are students walking on the street to get to after school programs. She suggested a safe crossing location for students and implementing signage to slow people down. She suggested that sidewalks could be a long-term project.

VHB shared that they could identify phases and do more later down the line as the town felt they were needed.

A member of the public shared that accessibility is a problem, and it was difficult when their kids were younger. They added that so many people that require walkers and wheelchairs are not visible because they can't get around with the existing infrastructure in the village.

It was added that the general store is currently not ADA compliant, and they are working on applying for grants to update the store.

It was added that in towns with good sidewalks you see people with walkers, strollers, wheelchairs, etc.

It was suggested that those are in commercial areas.

Mariah shared that she and her friends go to other towns like Royalton to push her kids in a stroller.

Someone shared that years ago on the library board they investigated crosswalks between the library and the post office. They added that the library has changed so much over the years and now provides a lot more programs. They added that they see young mothers picking up and dropping off their kids and the difficulty they experience getting their kids out safely.

Janet added that there are a lot of events that happen in the town hall and people rent it out to host events. She shared that there are typically cars parked on both sides of the road. She added this is unsafe when kids are stepping out in between parked cars because drivers can't see them. She feels that line of sight needs to be improved.

Someone mentioned the bump outs in Bethel and shared that they are uncomfortable for drivability and walkability.

VHB shared that bump outs are designed so the driver sees the person crossing and it makes the distance shorter for pedestrians. Jenn added that they have a curved edge, so they make it more difficult for plowing. She also noted that they have a traffic calming effect by visually narrowing the travelway for drivers.

There was agreement that if there is new sidewalk infrastructure it should remain on the existing side.

Someone asked who is responsible for the clearing of the sidewalks and is worried that there is not proper staffing to support that need.

It was shared that the original sidewalk was implemented in 1930.

Rita asked if there is desire for connections to the fairgrounds and if people are interested in a sidewalk down to that area.

Someone shared that they do not feel there is an access issue there.

An attendee shared that sometimes people enter from the southern end and walk down the hill and the visibility makes it very unsafe.

It was shared, maybe there could be a connection from town hall down to the fairgrounds.

There was general consensus that the fair is very busy, and people park on people's front lawns.

Strafford Road / Connection to Recreation Fields:

It was asked if a connection to the recreation fields was desired.

Someone shared they would never let their kids walk up there and it is too far from the center of town.

Someone shared that the ball games are not just Tunbridge resident games, and no one comes into the town after the games.

It was shared that the roadway infrastructure issue is going to be costly.

Someone shared that it is not a big desire to connect to the recreation fields.

It was added that more people would recreate and walk around the fairgrounds. And there could be more opportunities there, but it is privately owned.

Someone asked how the costs would be covered for the projects that come out of this report and what they would cost.

Jenn shared that in the draft alternative presentation there will be costs provided with each of the alternatives.

Someone asked why the recreation area was included in the project area.

Jenn shared that it was question in the grant application and someone from the planning commission likely added it.

Someone added they could put a walking bridge to connect to the recreation fields.

It was shared that that would be very costly, and the maintenance would fall upon the Town.

Janet shared that there was supposed to be a conversation with the recreation committee but someone from the committee shared they were interested in perpendicular parking, and a crosswalk from the library to the post office.

It was added that delivery trucks are stopping in unsafe locations on the road.

People are interested in RRFBs at crosswalks.

The bus stop was mentioned as well as looking into school pick up and drop offs.

The Tri Valley Transit bus currently stops in front of the parish house.

An attendee asked about streetlights. VHB shared that is not usually desired in rural areas.

There was some interest in providing lighting near crosswalks and replacing the existing lighting.

VHB shared that lighting at crosswalks improves safety for pedestrians.

VHB went over the next steps and provided contact information for providing additional feedback.

Tunbridge Village Scoping Study

Alternatives Presentation
August 14, 2024



Agenda

- Introductions
- Project Schedule
- Purpose and Need
- Alternatives
- Evaluation Matrices
- Public Input
- Next Steps



Project Team Introductions



- Rita Seto | Senior Planner
- Sarah Wraight | Senior Planner



- Mariah Cilley | Town Clerk
- Janet Wells | Town Resident / Grant Applicant
- Kevin Rose | Town Resident / Regional Commission Alternate



- Drew Gingras | Project Manager
- Jenn Conley | Project Advisor
- Elisabeth Sundberg | Project Planner

Project Scope & Schedule

- *Existing Conditions Assessment* September – November 2023
- *Local Concerns Meeting* October 2023
- *Conceptual Alternatives Development* February – April 2024
- *Resource Constraints & Permitting Assessment* February – April 2024
- **Alternatives Presentation Meeting** **Today**
- Draft Scoping Report August – September 2024
- Selectboard Presentation / Final Public Meeting October 2024
- Final Scoping Report November 2024

Project Purpose

The Tunbridge Village Scoping Study seeks to **identify and prioritize improvements for pedestrian safety, accessibility, and connectivity** within Tunbridge Village and among its many destinations.

Project Needs

- Improve corridor **safety and accessibility** for pedestrians in the Village.
- Enhance **mobility opportunities** for pedestrians.
- Seek out solutions to **reduce traffic speeds** and establish "gateways" to the Village.

Project Area



Existing Conditions – Pedestrian Infrastructure

- Sidewalks
 - Potash to 280 VT 110
 - 284 to 300 VT 110
- Crosswalks
 - No formal crosswalks through the Village
- Fairgrounds are used as walking trails when there are no events occurring



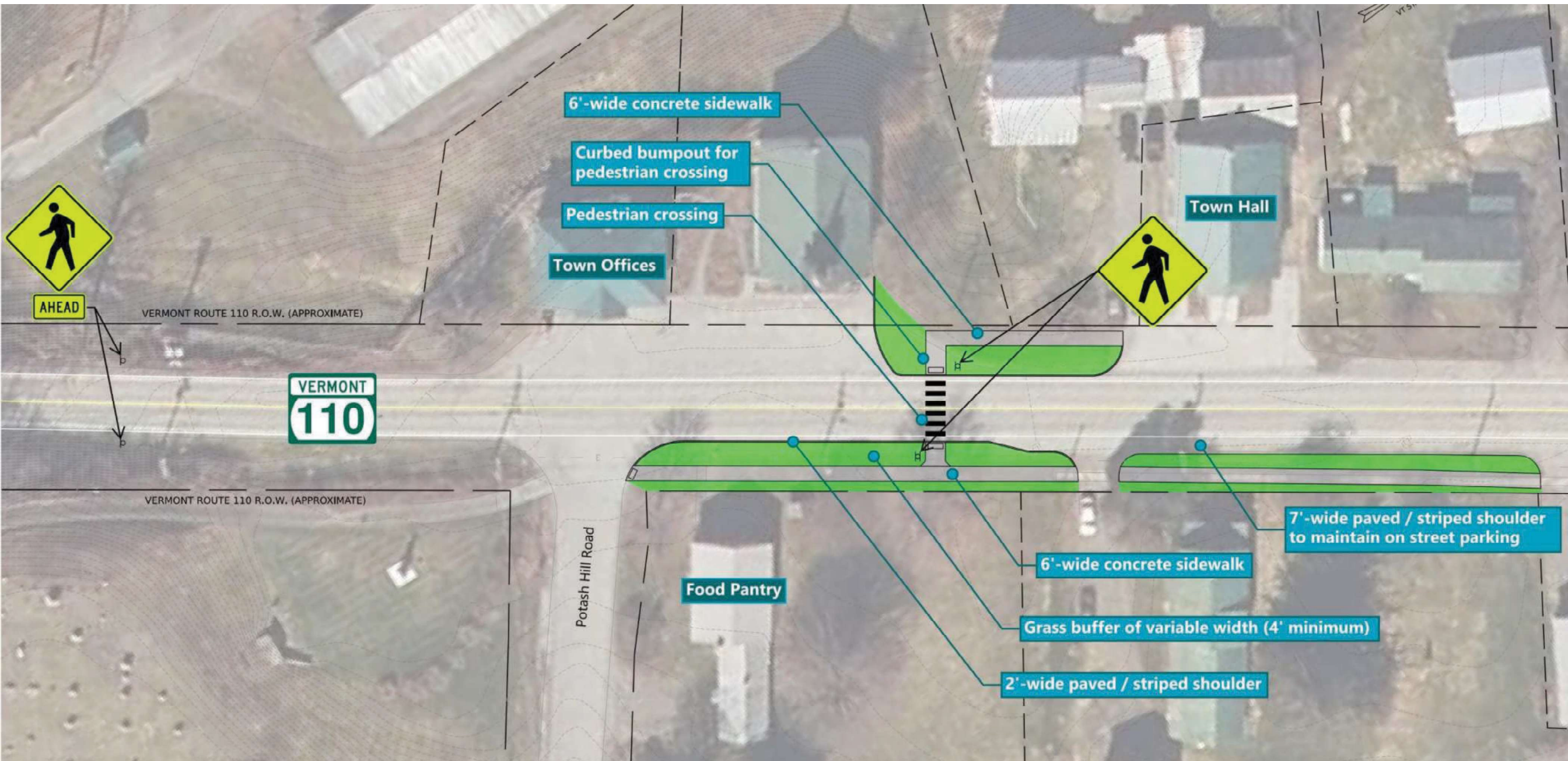
Existing Conditions – Parking

- Informal on-street parking along VT 110 on both sides through the Village
- Off-Street Parking at:
 - Town Offices
 - Church
 - Community Center
 - USPS

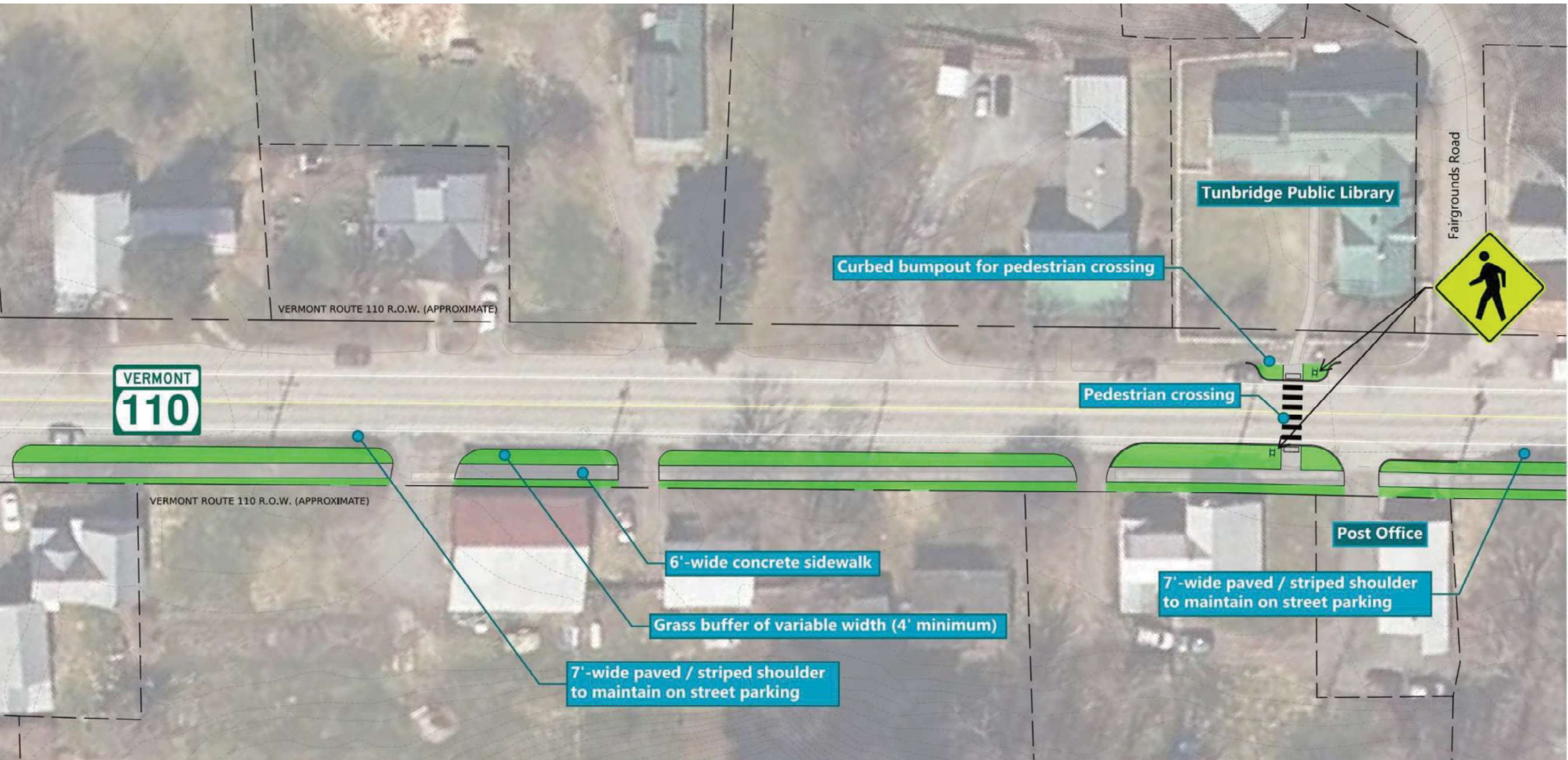


Alternatives

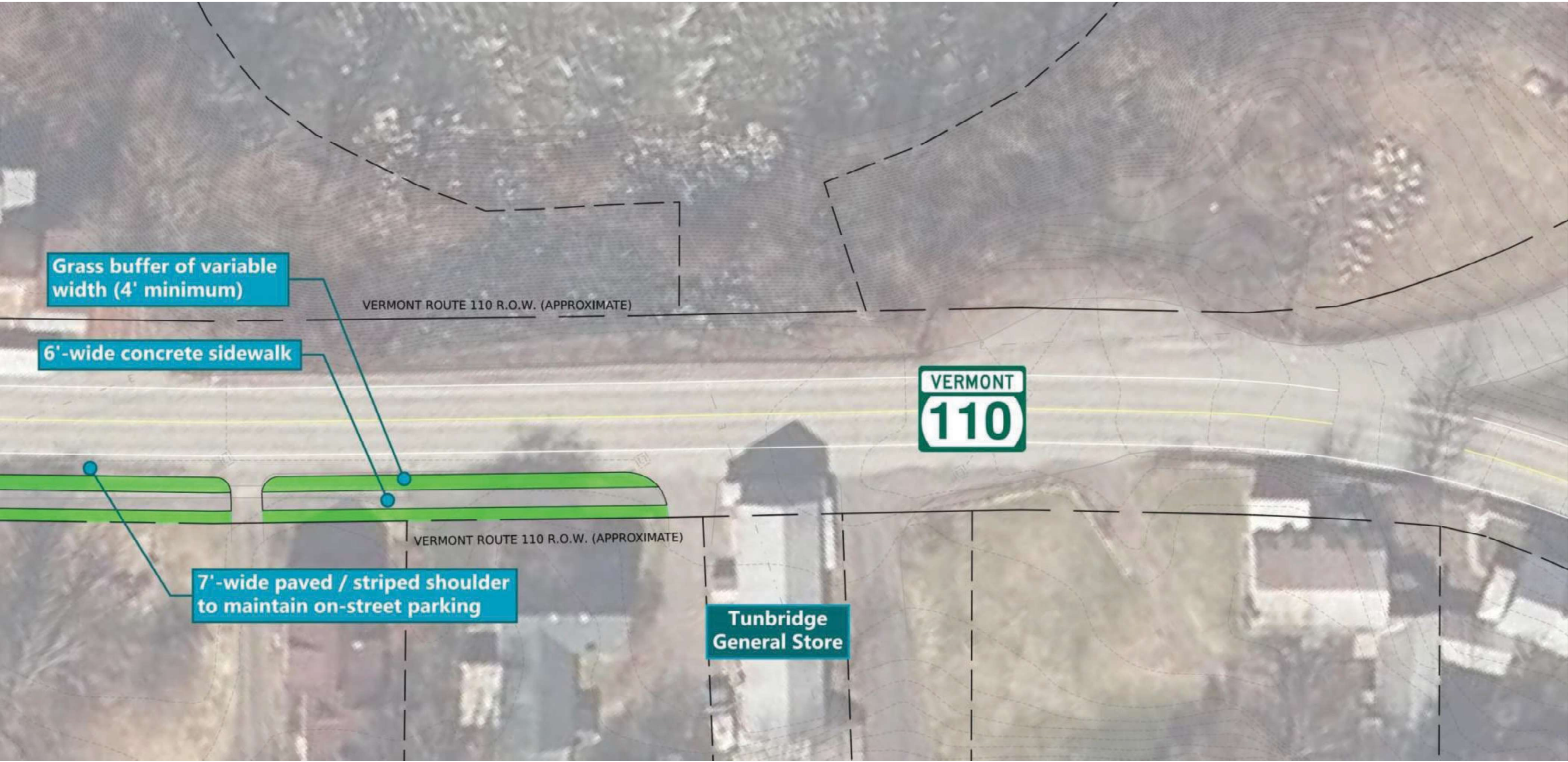
Alternative 1: 6-Foot Concrete Sidewalk



Alternative 1: 6-Foot Concrete Sidewalk



Alternative 1: 6-Foot Concrete Sidewalk



Grass buffer of variable width (4' minimum)

VERMONT ROUTE 110 R.O.W. (APPROXIMATE)

6'-wide concrete sidewalk

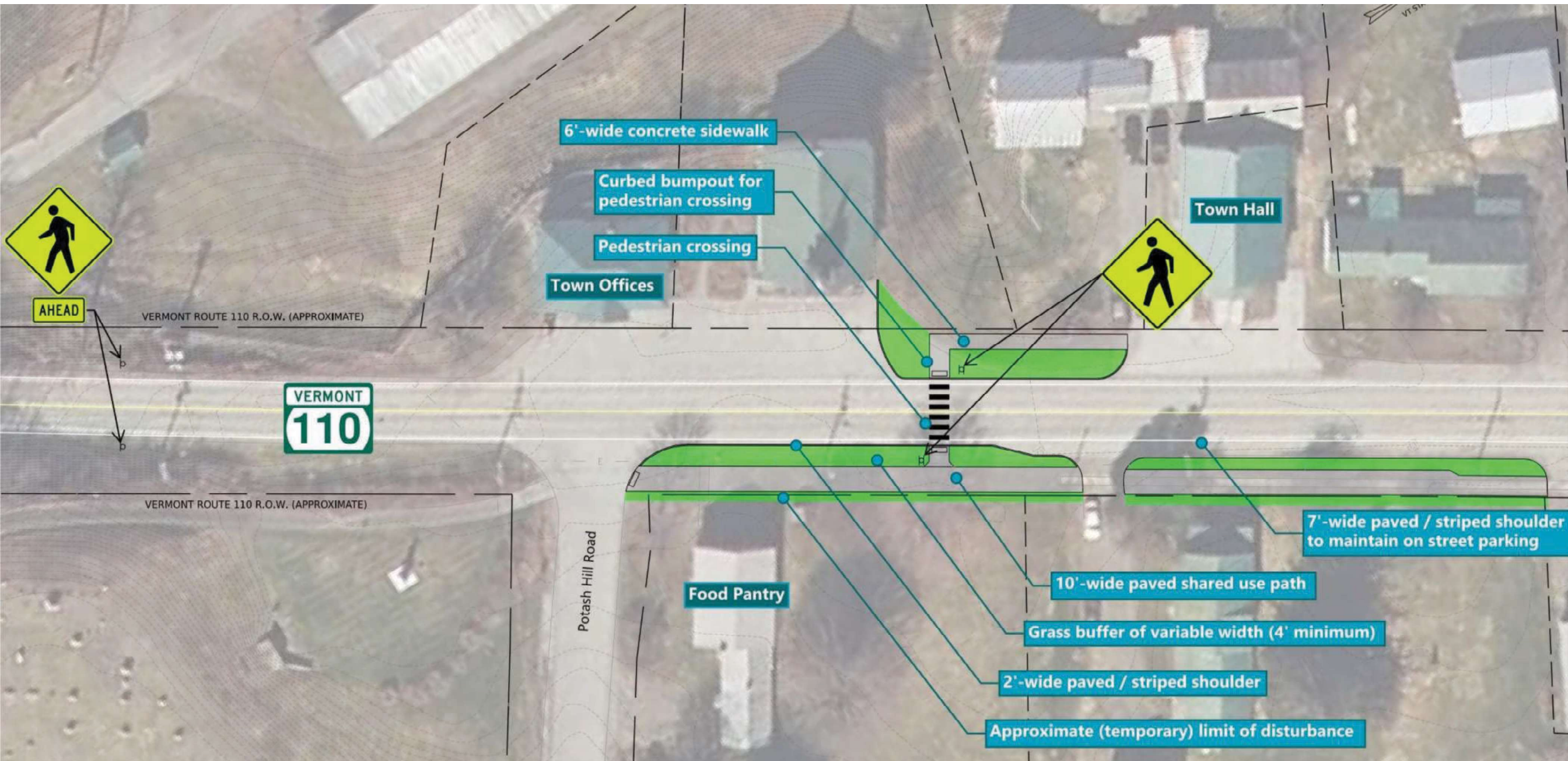


VERMONT ROUTE 110 R.O.W. (APPROXIMATE)

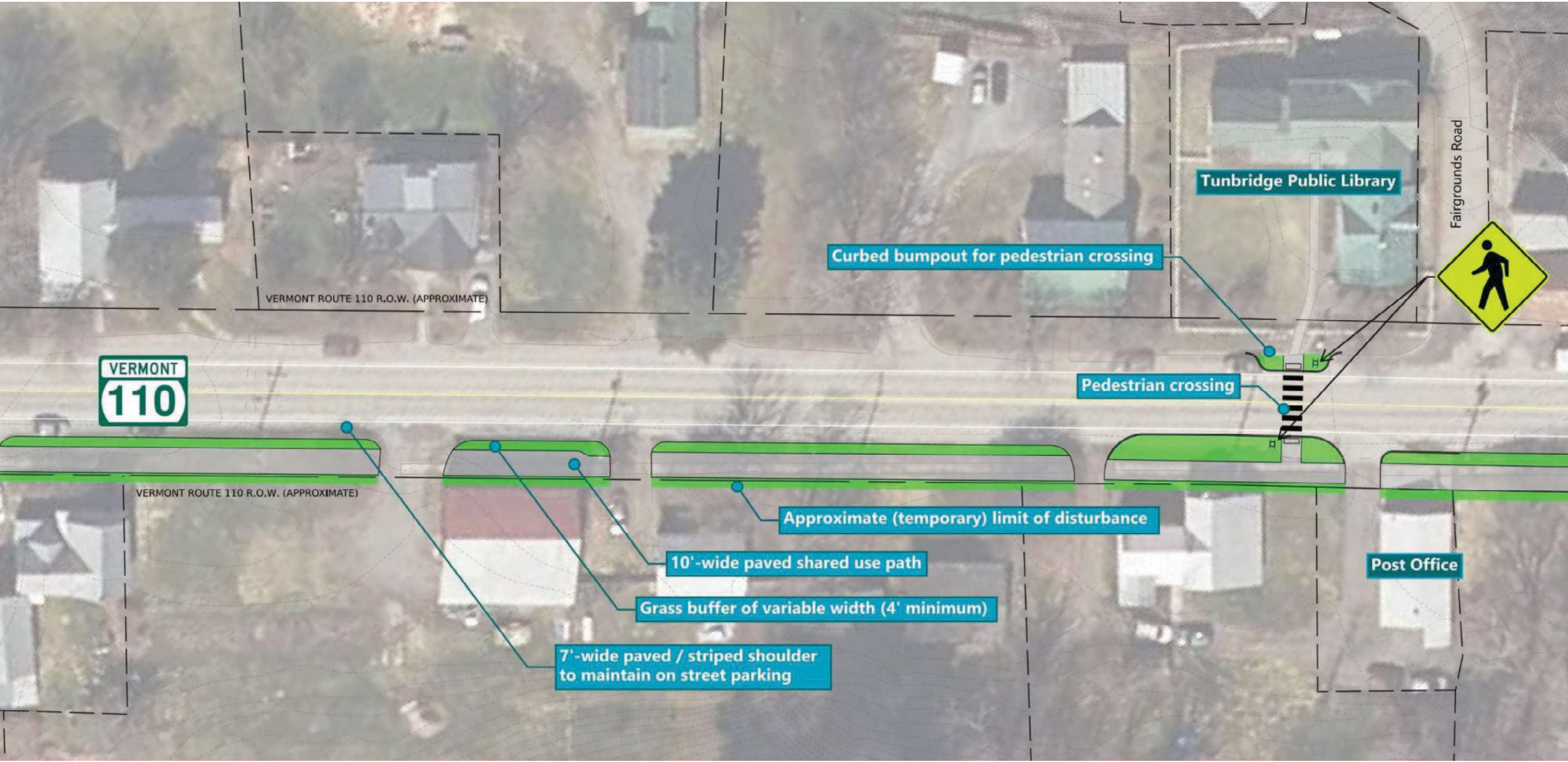
7'-wide paved / striped shoulder to maintain on-street parking

Tunbridge General Store

Alternative 2: 8-10-Foot Paved Shared Use Path



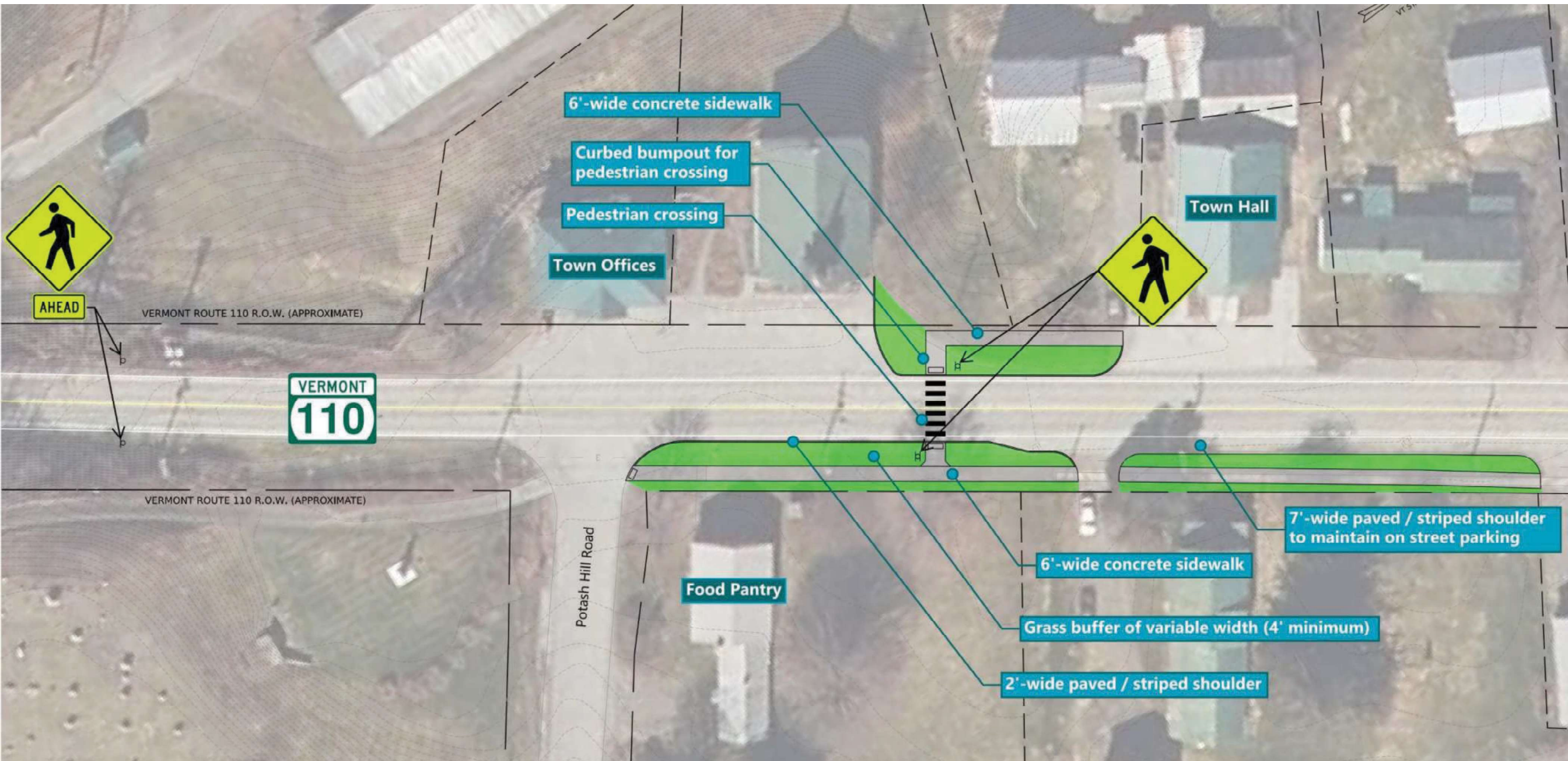
Alternative 2: 8-10-Foot Paved Shared Use Path



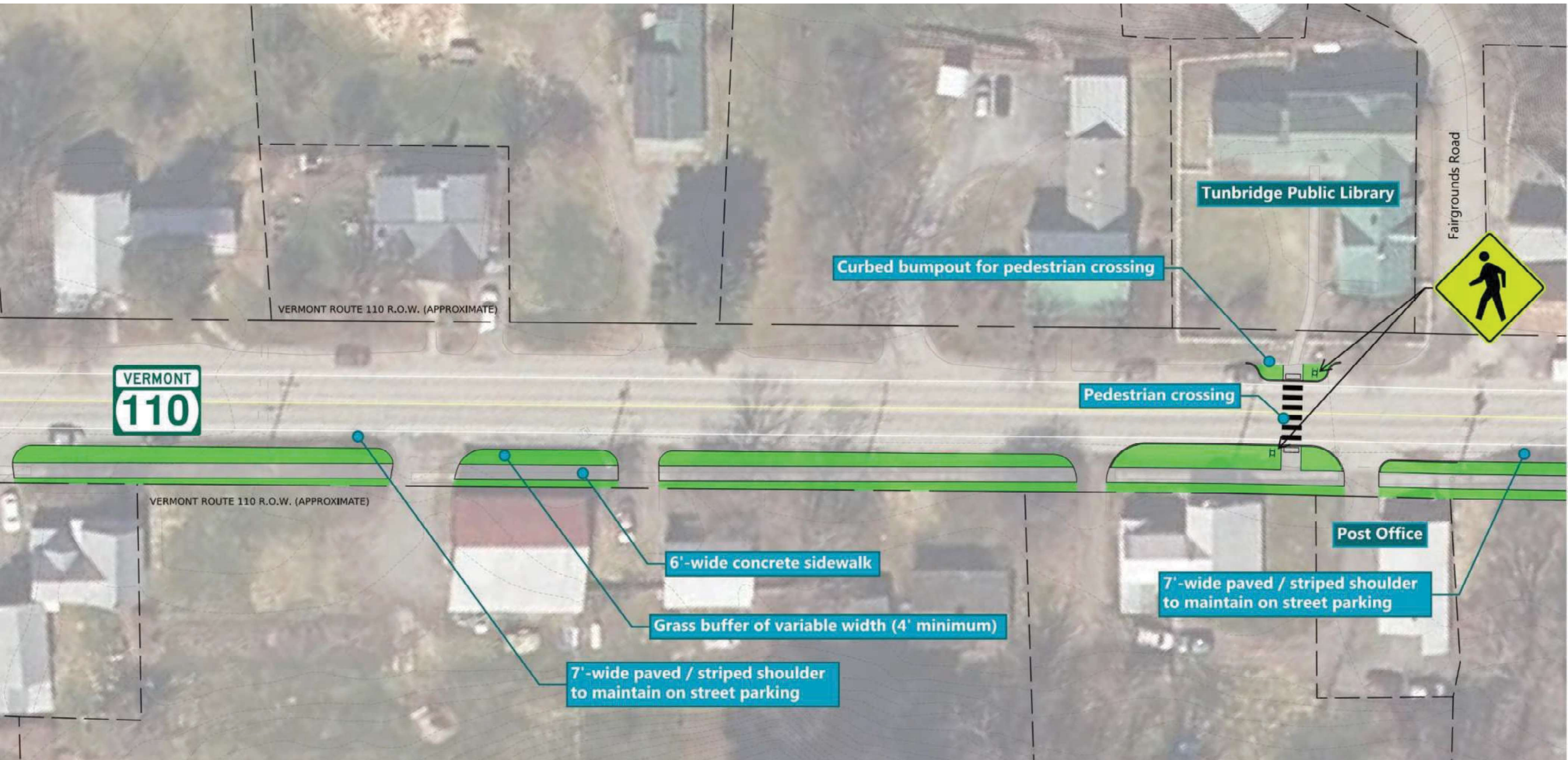
Alternative 2: 8-10-Foot Paved Shared Use Path



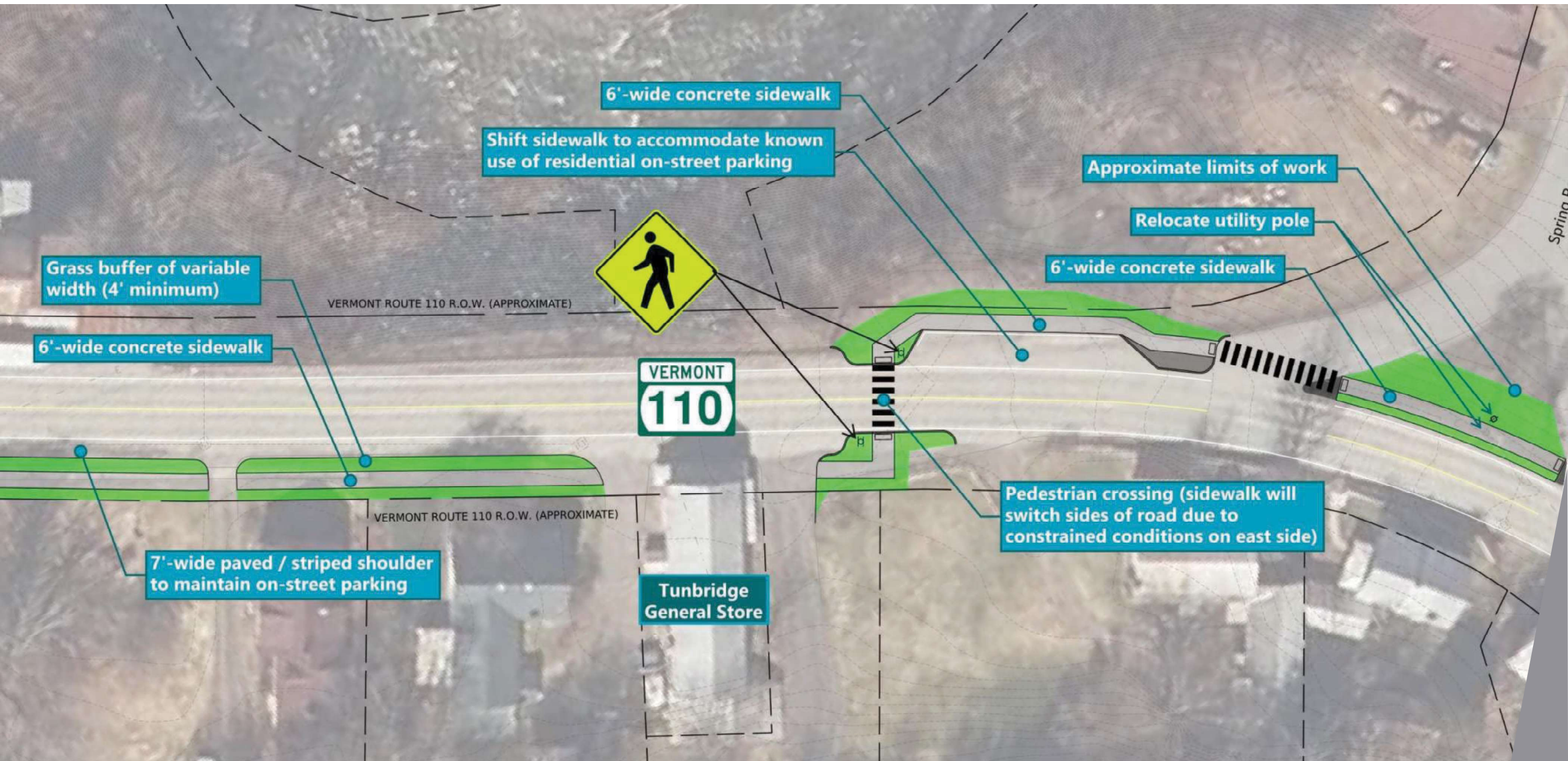
Alternative 3: 6-Foot Concrete Sidewalk + Extension



Alternative 3: 6-Foot Concrete Sidewalk + Extension



Alternative 3: 6-Foot Concrete Sidewalk + Extension



Alternative 3: 6-Foot Concrete Sidewalk + Extension



5'-wide concrete sidewalk

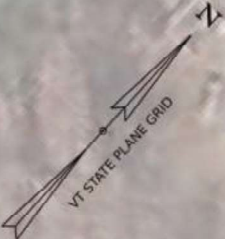
Flush curb across driveway

Tie into existing sidewalk

VERMONT ROUTE 110 R.O.W. (APPROXIMATE)

VERMONT
110

VERMONT ROUTE 110 R.O.W. (APPROXIMATE)



Evaluation Matrices

Evaluation Matrices – Multimodal and Traffic Considerations

		No Build	Alternative 1 6' Concrete Sidewalk	Alternative 2 8-10' Shared Use Path	Alternative 3 6' Concrete Sidewalk (with Northern Extension)
Multimodal and Traffic Considerations	Typical Section	No Change	6' Concrete Sidewalk	10' Paved Shared Use Path	6' Concrete Sidewalk
	Bicycle Access	No Change	4' Paved Shoulder	10' Paved Shared Use Path	4' Paved Shoulder
	Pedestrian Safety	No Change	Improved Continuous ped facility, 2 new safe crossings, Traffic calming,	Improved Continuous ped facility, 2 new safe crossings, Traffic calming,	Improved More continuous ped facility, 3 new safe crossings, More traffic calming,
	Vehicle Safety	No Change	Slight Improvement Traffic calming, (2 bumpouts and delineated road edges)	Slight Improvement Traffic calming, (2 bumpouts and delineated road edges)	Improved Most Traffic calming, (3 bumpouts and delineated road edges)

Evaluation Matrices – Impacts

		No Build	Alternative 1 6' Concrete Sidewalk	Alternative 2 8-10' Shared Use Path	Alternative 3 6' Conc. SW (with Northern Extension)
Impacts	ROW Impacts	-	None Expected / Minor (Temp)	Minor (Temp)	Minor (Temp)
	Agricultural Lands	-	No	No	No
	Archaeological	-	Present / Further Inv. Req'd	Present / Further Inv. Req'd	Present / Further Inv. Req'd
	Historic	-	No Adverse Effect	No Adverse Effect	No Adverse Effect
	Hazardous Materials	-	No	No	No
	Floodplains	-	No	No	Yes
	Fish & Wildlife	-	No	No	No
	Rare, Threatened & Endangered Species	-	No	No	No
	Public Parks, Recreation Areas, Wildlife/Waterfowl Refuges - Section 4(f)	-	No 4(f) Use - Temporary Easements Only	No 4(f) Use - Temporary Easements Only	No 4(f) Use - Temporary Easements Only
	LWCP - Sect. 6(f)	-	No	No	No
	Managed Lands	-	No	No	No
	Wetlands	-	No	No	No
	Streams	-	No	No	No
	New Impervious Surfaces	-	7,100 SF	11,300 SF	9,200 SF

Evaluation Matrices – Community Character

		No Build	Alternative 1 6' Concrete Sidewalk	Alternative 2 8-10' Shared Use Path	Alternative 3 6' Conc. SW (with Northern Extension)
Community Character	Aesthetics	No Change	Improved	Improved	Improved
	Community Character	No Change	Improved	Improved	Improved
	Economic Impacts	No Change	Minimal (Maintenance)	Minimal (Maintenance)	Minimal (Maintenance)
	Conformance to Reg. Transp. Plan	No	Yes	Yes	Yes
	Satisfies Purpose & Need	No	Yes	Yes	Yes



Questions?
Comments?



Next Steps

- Draft Report Preparation
- Final Public Meeting
- Final Report Preparation



Please Share Your Thoughts With Us



Drew Gingras, PE
Consultant Project Manager
dgingras@vhb.com



Rita Seto
Municipal Project Manager
rseto@trorc.gov



W15

Tunbridge Village Scoping - Alternatives mtg 8/14/24 6pm

NAME

CONTACT INFO

- 1. Rita Seto TRARC
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- Pam Steiner steiner.pam@gmail.com
- Nancy B. Howe nanslee@yahoo.com
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- Amy Frost asfrost@gmail.com
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- Ange Harbin aharbin@downstreet.org
- Karen Rose THREEMEADOWSVT@GMAIL.COM

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Tunbridge Village Scoping - Alternatives mtg 8/14/24 6pm

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**Tunbridge Village Sidewalk Scoping Study – Tunbridge STP BP22(23)
Project Alternatives Meeting**

Wednesday August 14, 2024 - 6:00pm Tunbridge Town Hall

Attendees:

Rita Seto, Drew Gingras, Janet Wells, Pamela Steiner, Nancy Howe, Gordon Bandy, Jim Sherlock, Lew Glick, Bafter Doty, Lawrence Wight, Allen Wight, Michael Sacca, Kelly Holmes, Mike Barnaby, Pat Ladd, Kathi Terami, Nan Frost, Matt Frost, Amy Frost, Dennis Cilley, Rodney Hoyt, Matt Powell, Angie Harbin, Kevin Rose, Ken Ashley, Ann Leeds, Thorton Hayslett, Deadra Ashton, Chuck Ashton, Elaine Howe, Arissa Morrison, Kay Jorgensen, Nathan Coste, Elizabeth Brown, Ellen Hosford, Brenda Field, Lori Berger, Dan Ruddell, Henry Joseph, David Smith, Taylor Sturbird, Todd Tyson, Betsey Gaiser, Carol Polter, Alex Torgey, Alice Smoker, Bartholdi Holbrook

Comments:

Project team introduced themselves, Janet summarized the project initiation, Drew recapped project goal and vision, project schedule, reviewed existing conditions and presented alternatives 1, 2 and 3.

- Has there been any study done south of VT110 at the hill past the town office? There's only 2 access to the village from the Fairgrounds, the one by the library is too steep for folks with mobility devices or strollers and resort to the hill along VT110 which is very unsafe.
- Who owns the section of road in the town right of way – what is the responsibility/liability for the sidewalk (town? Property owners of the section of sidewalks?), what's the budget for snow removal equipment and staff?
- Resident north of village by curve sat with the Sheriff (they're supposed to train to accurately predict traffic speed), large vehicles appear to go faster than they are, Bethel has radar speed feedback signs at either end of village, town should consider those to help manage speeds in village, Sheriff also recommended a convex mirror for around curve. Janet noted that the Town is working on securing radar speed feedback signs for the village.
- Store owner is concerned about patron safety as they enter/exit the store right off VT110.
- Regardless of any of the 3 alternatives, 30mph is not appropriate through the village, we want 25mph
- Regarding Alt. 3 – the chokepoints / bulbouts to slow traffic down, there is existing erosion problems by the parking lot – during Irene, the waters undercut the bank – concerned with bank failure
- What are the overall parking impacts across all alternatives? How many spots are we losing per alternative? The project team prioritized minimizing parking loss as possible.
- The crosswalk locations at the store, library and in front of Parish house is taking up parking spots. At the library crosswalk, the librarian makes kids walk within the

shoulder strip, don't want to cross VT110 4 times, I don't want any alternative (no build).

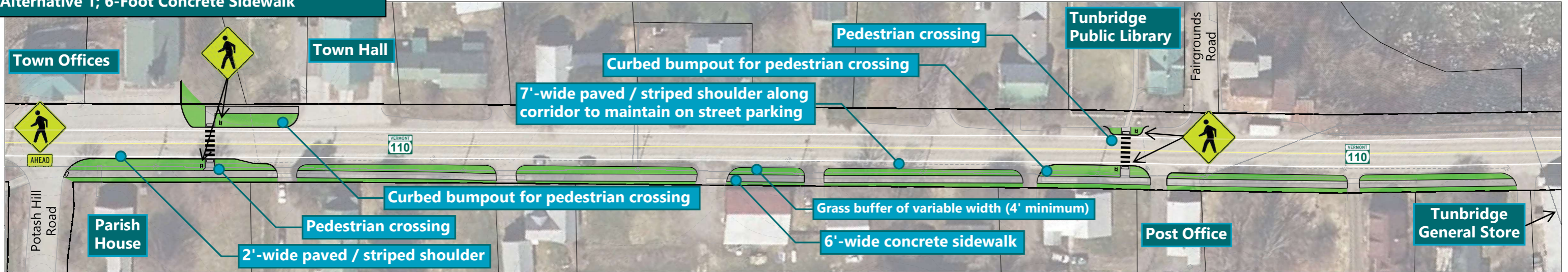
- There is curbing only at the crosswalks.
- Concern with VTrans plow trucks winging back snow, currently winging back snow that will cover any existing sidewalk, concerned with damage
- Without curbing the rest of the VT110 stretch, what will prevent folks from driving onto the grass like they already do? Damage to lawns
- John Sherlock asked about Alt. 3 and the bridge – what is the pedestrian count from the bridge to the store? He lives at the curve where the edge of his house is 14ft from the edge of roadway. He needs access to parking and sidewalk, concerned with proximity of sidewalk to his house.
- How wide is existing sidewalk? 3-4ft, 6ft is new ADA standard
- Library crosswalk bulbout – store owners: it will eliminate 90% of our parking (3-4 spots)
- An attendee who attended the local concerns meeting noted someone brought up point where people who currently don't walk in village because it's not safe, some may use it more if it becomes safer.
- I think it's great the alternatives will make the village more charming with sidewalks
- Current parking at the store, are they backing in? haphazardly pulling in versus parallel?
- VT110 curve, there is not much room in the travel lane when a tractor trailer is coming around corner, not to mention space for a sidewalk
- Alt. 1 – tractor trailers coming up VT110 will loop around from Strafford Rd and then come back down Potash Hill Rd
- In favor of Alt. 3 – we need to look forward to the future with increased population (especially during Covid and new families settling in town), need safe access to rec fields.
- Expanding north on Spring Rd is impossible, the bank is too steep and there's no room
- We should focus on the southern section of VT110 from Fairgrounds to village over the northern extension to rec fields, also need safe speeds
- Support southern extension to fairground access
- What about taking fill from bank on cemetery side along VT110? If we cut bank, we'll undermine the cemetery and existing burials that are close to VT110.
- Food shelf parking is needed
- What are physical impediments to slow traffic in village? Drew reported the study is looking at walking improvements with some effects to potentially slow traffic down, this is not a speed study.
- Painted bike lanes in village? State jurisdiction
- Crosswalk by food shelf – could we shift crosswalk to corner of Potash to maintain parking in front?
- Consider adding signage of pedestrian crossing with lights south of VT110 to warn drivers of pedestrians crossing?

- Alt. 2 – don't think a wider shared use path will be impactful, bicyclists going through the village will continue to use the road/shoulder
 - The 6ft sidewalk – where is the edge, where does it begin impact from the existing 3-4ft sidewalk to private property owners? Discussed building sidewalk within state right of way and to minimize private property owner impacts (other than temporary construction easements)
 - Still brought up what are the town/land owner liability/maintenance requirements if the Town builds a new sidewalk? Who does snow removal?
 - It was noted, this project/plans need to be sent to land abutters for more information
 - The liability/lack of maintenance exists now with the current sidewalk
 - Can you still put crosswalk in without a bulbout? Yes but it will still restrict parking due to sight distance
 - Can we get away with a narrower sidewalk (less than 6ft?) for cost and property impact? Rita noted depends on funding – if town uses town funds, possibly but if the Town applies for a VTrans bike ped grant, using federal funds, need to abide by ADA standards.
 - Is there a difference in width standards between paved vs. concrete sidewalk? (no)
 - Does the study include the number of trees impacted/to be removed for each alternative? (not currently)
 - We took informal straw poll to gauge community's thoughts on the alternatives presented:
 - No Build – 14
 - Alt. 1 – 14
 - Alt. 2 – 0
 - Alt. 3 – 7
- Opportunities for additional feedback – email Drew, Rita or send to Mariah.
- Adjourned 7:30pm

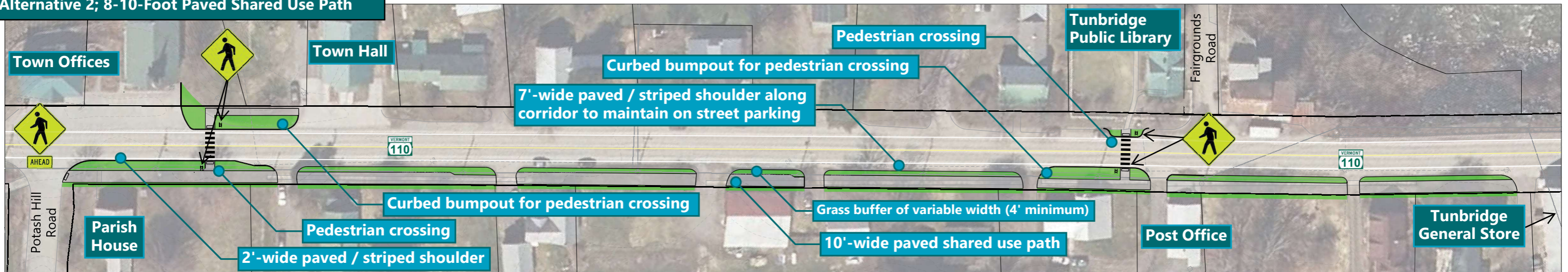
Tunbridge Village Sidewalk Scoping Study

Alternatives Under Consideration

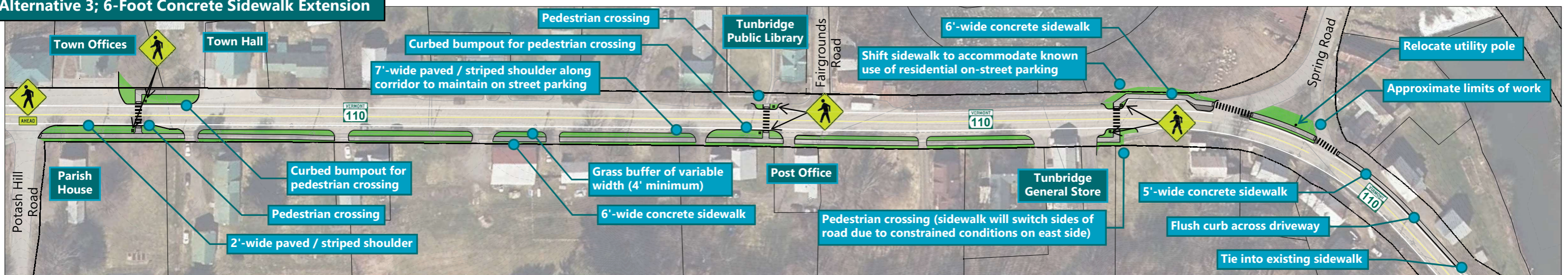
Alternative 1; 6-Foot Concrete Sidewalk



Alternative 2; 8-10-Foot Paved Shared Use Path

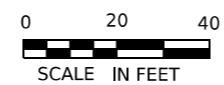
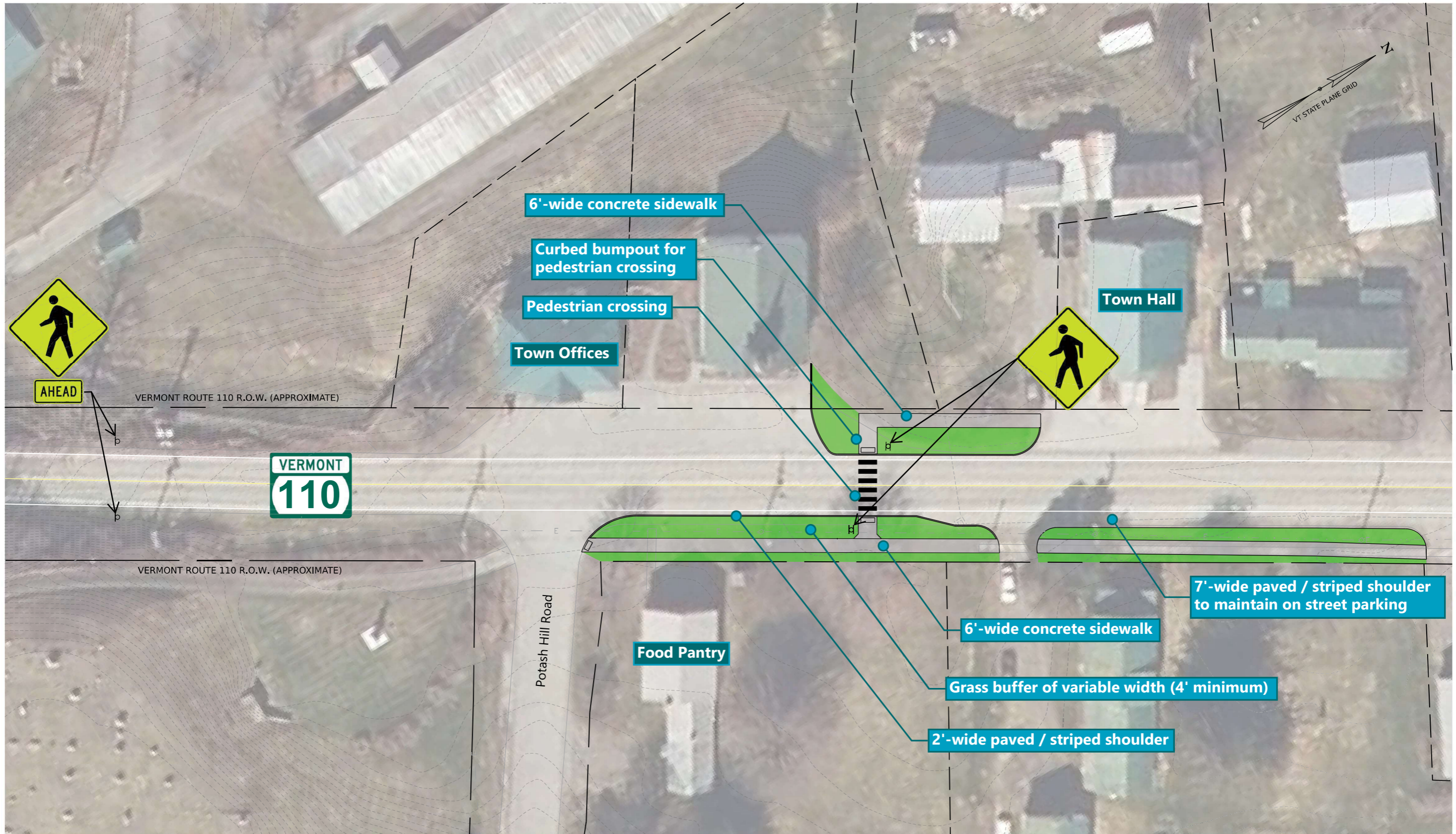


Alternative 3; 6-Foot Concrete Sidewalk Extension

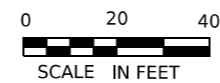
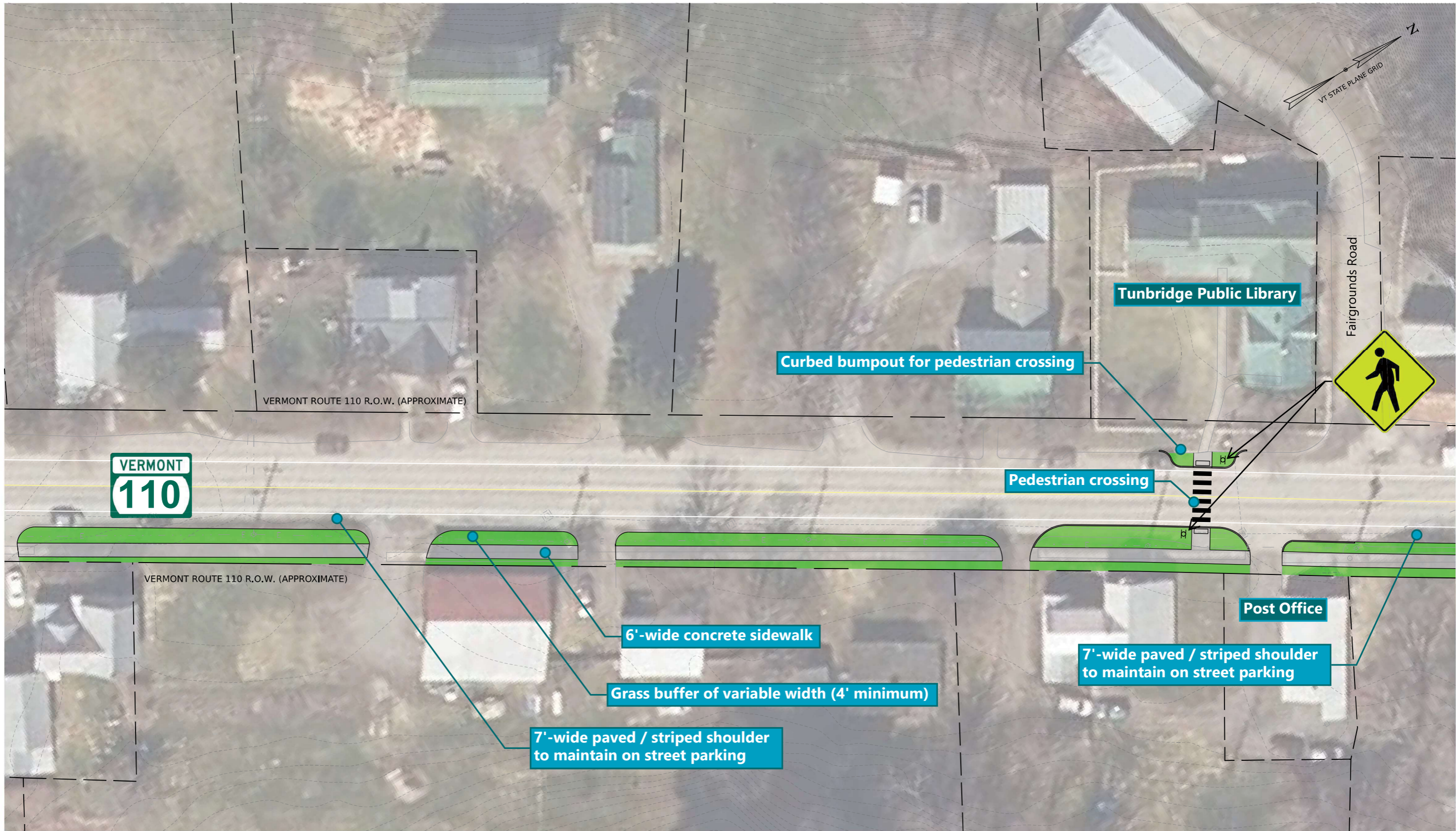


Appendix F

Alternatives Concepts



PROJECT NAME:	TUNBRIDGE SCOPING STUDY	FILE NAME:	z59012_bdr_nu1_alt1.dgn	PLOT DATE:	5/2/2024
PROJECT NUMBER:	59012.00	PROJECT LEADER:	D.A. GINGRAS	DRAWN BY:	R.M. O'BRIEN
		DESIGNED BY:	R.M. O'BRIEN	CHECKED BY:	D.A. GINGRAS
		ALTERNATIVE 1 LAYOUT SHEET (1 OF 3)		SHEET	1 OF 3



PROJECT NAME:	TUNBRIDGE SCOPING STUDY
PROJECT NUMBER:	59012.00
FILE NAME:	z59012_bdr_nu1_alt1.dgn
PROJECT LEADER:	D.A. GINGRAS
DESIGNED BY:	R.M. O'BRIEN
ALTERNATIVE 1 LAYOUT SHEET (2 OF 3)	
PLOT DATE:	5/2/2024
DRAWN BY:	R.M. O'BRIEN
CHECKED BY:	D.A. GINGRAS
SHEET	2 OF 3



Grass buffer of variable width (4' minimum)

6'-wide concrete sidewalk

7'-wide paved / striped shoulder to maintain on-street parking

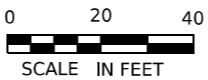
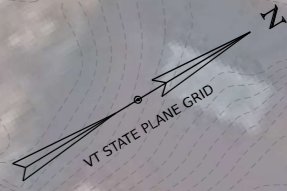
VERMONT ROUTE 110 R.O.W. (APPROXIMATE)

VERMONT ROUTE 110 R.O.W. (APPROXIMATE)

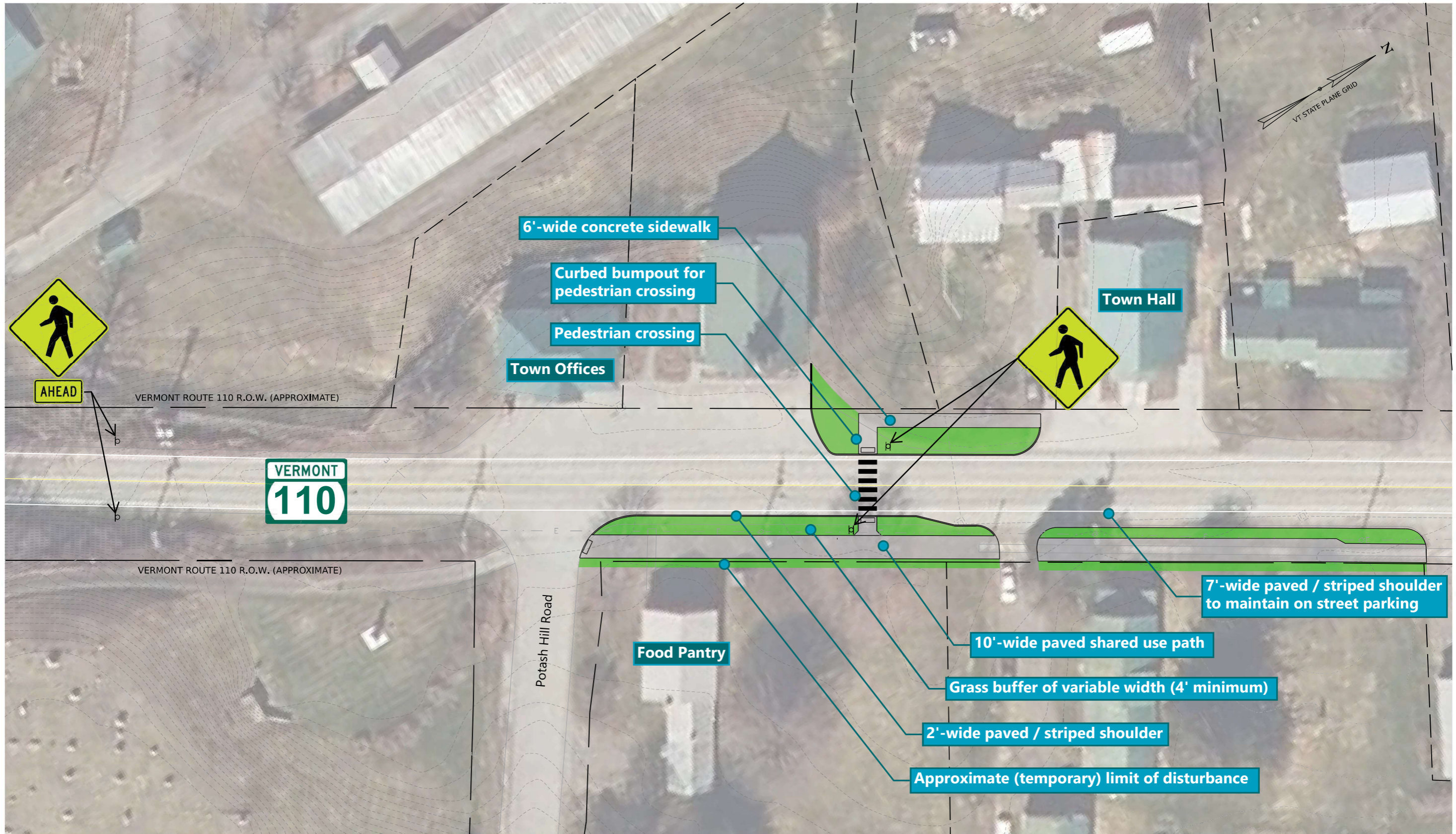


Tunbridge General Store

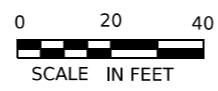
Spring Road

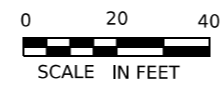
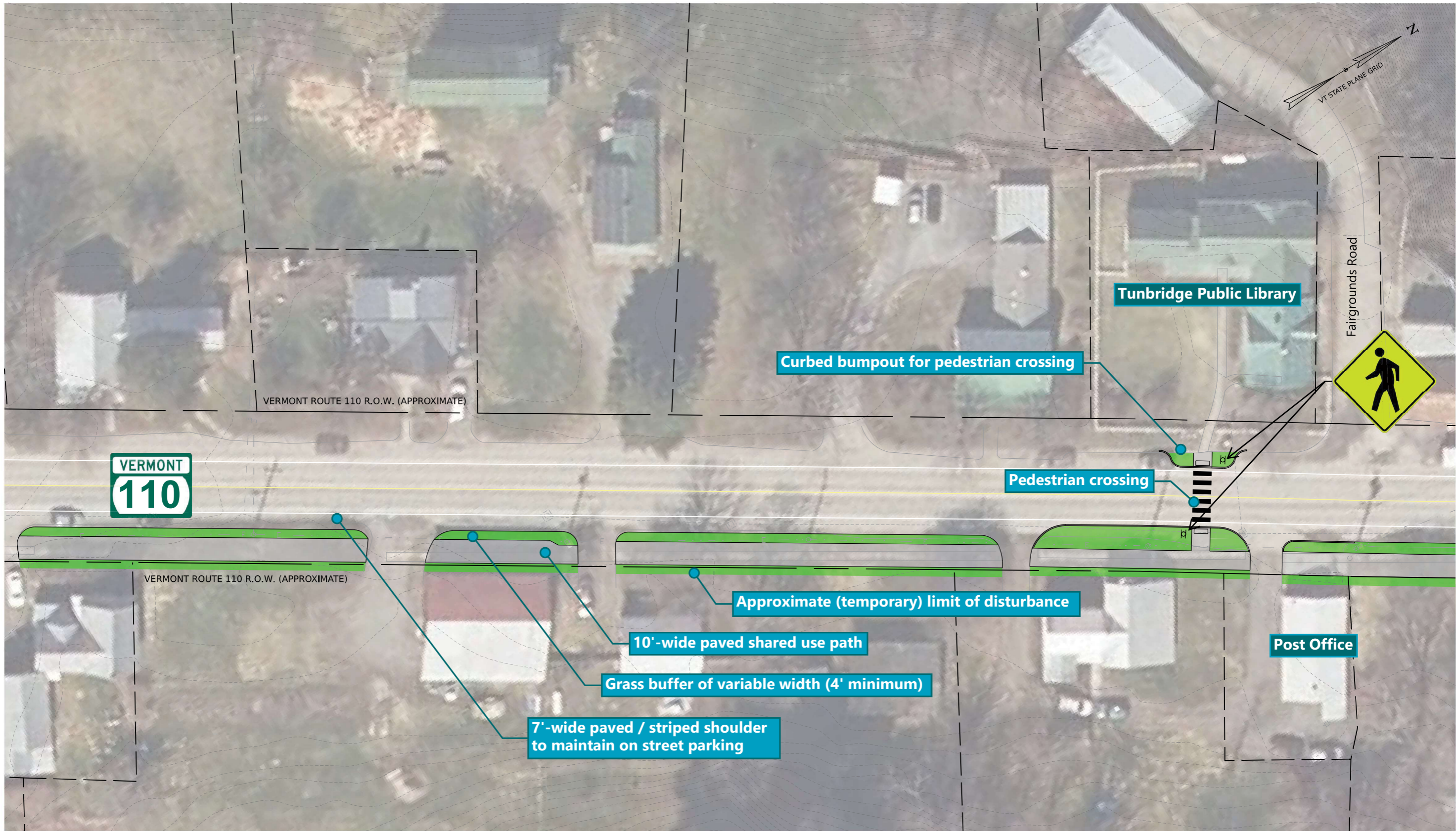


PROJECT NAME:	TUNBRIDGE SCOPING STUDY
PROJECT NUMBER:	59012.00
FILE NAME:	z59012_bdr_nu1_alt1.dgn
PROJECT LEADER:	D.A. GINGRAS
DESIGNED BY:	R.M. O'BRIEN
ALTERNATIVE 1 LAYOUT SHEET (3 OF 3)	
PLOT DATE:	5/2/2024
DRAWN BY:	R.M. O'BRIEN
CHECKED BY:	D.A. GINGRAS
SHEET	3 OF 3

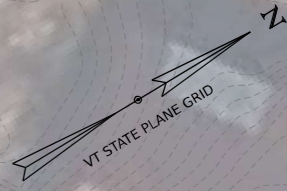


PROJECT NAME:	TUNBRIDGE SCOPING STUDY	FILE NAME:	z59012_bdr_nu1_alt2.dgn	PLOT DATE:	5/2/2024
PROJECT NUMBER:	59012.00	PROJECT LEADER:	D.A. GINGRAS	DRAWN BY:	R.M. O'BRIEN
		DESIGNED BY:	R.M. O'BRIEN	CHECKED BY:	D.A. GINGRAS
		ALTERNATIVE 2 LAYOUT SHEET (1 OF 3)		SHEET	1 OF 3





PROJECT NAME:	TUNBRIDGE SCOPING STUDY
PROJECT NUMBER:	59012.00
FILE NAME:	z59012_bdr_nu1_alt2.dgn
PROJECT LEADER:	D.A. GINGRAS
DESIGNED BY:	R.M. O'BRIEN
ALTERNATIVE 2 LAYOUT SHEET (2 OF 3)	
PLOT DATE:	5/2/2024
DRAWN BY:	R.M. O'BRIEN
CHECKED BY:	D.A. GINGRAS
SHEET	2 OF 3



Grass buffer of variable width (4' minimum)

VERMONT ROUTE 110 R.O.W. (APPROXIMATE)

10'-wide paved shared use path



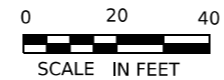
Spring Road

VERMONT ROUTE 110 R.O.W. (APPROXIMATE)

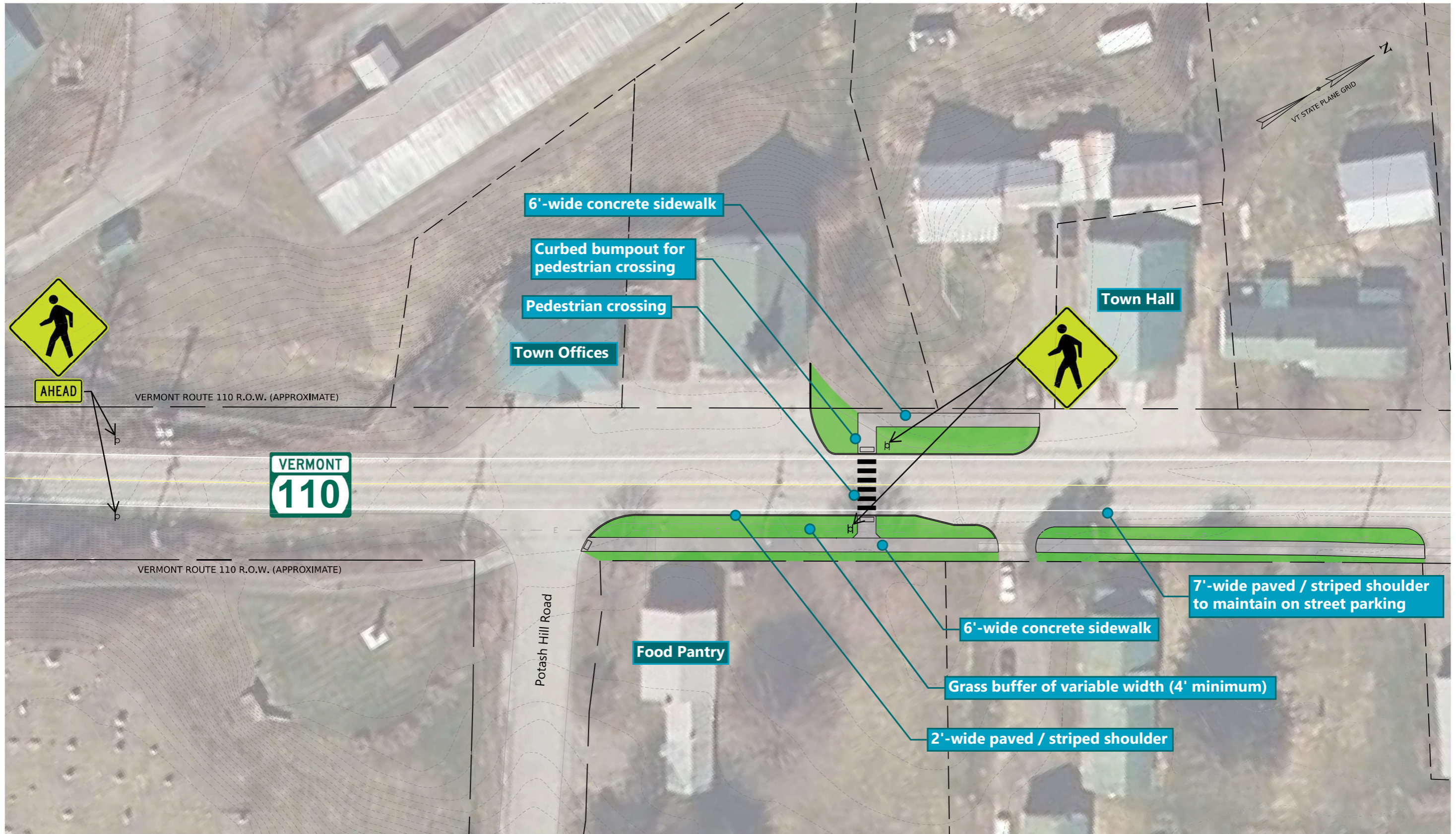
7'-wide paved / striped shoulder to maintain on-street parking

Tunbridge General Store

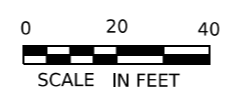
Approximate (temporary) limit of disturbance

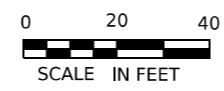
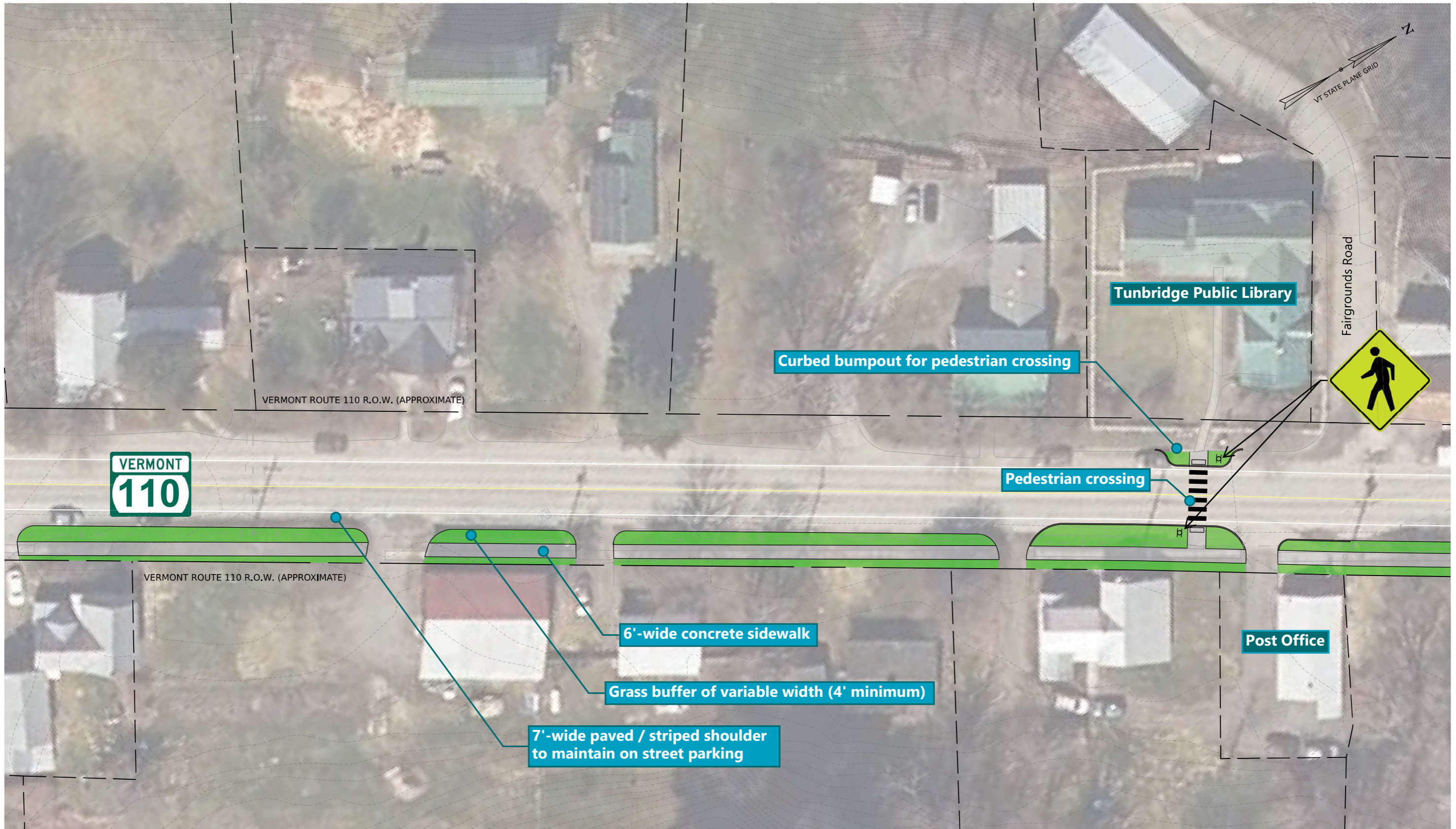


PROJECT NAME:	TUNBRIDGE SCOPING STUDY	PLOT DATE:	5/2/2024
PROJECT NUMBER:	59012.00	DRAWN BY:	R.M. O'BRIEN
FILE NAME:	z59012_bdr_nu1_alt2.dgn	CHECKED BY:	D.A. GINGRAS
PROJECT LEADER:	D.A. GINGRAS	ALTERNATIVE 2 LAYOUT SHEET (3 OF 3)	SHEET 3 OF 3
DESIGNED BY:	R.M. O'BRIEN		

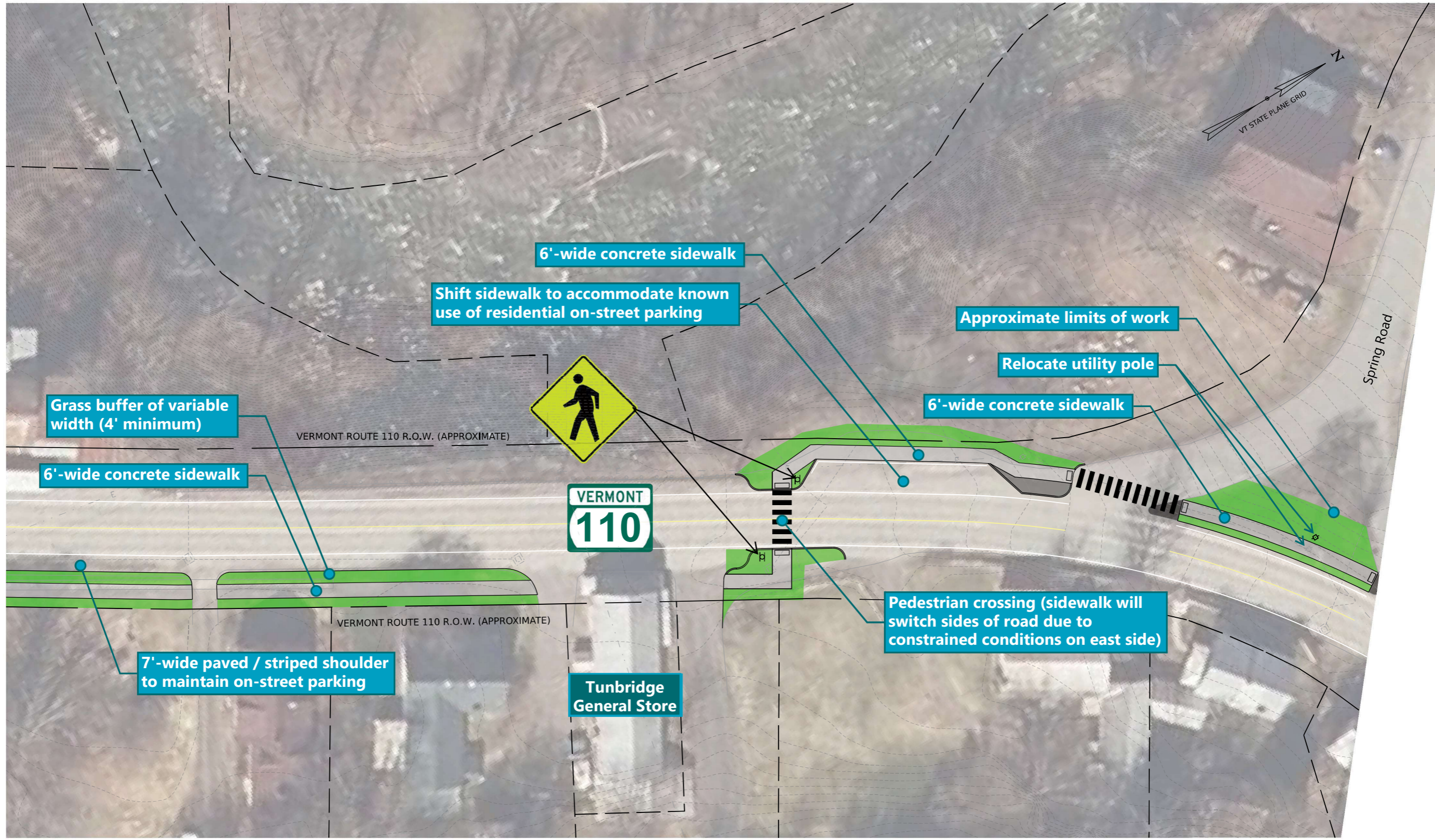


PROJECT NAME:	TUNBRIDGE SCOPING STUDY
PROJECT NUMBER:	59012.00
FILE NAME:	z59012_bdr_nu1_alt3.dgn
PROJECT LEADER:	D.A. GINGRAS
DESIGNED BY:	R.M. O'BRIEN
ALTERNATIVE 3 LAYOUT SHEET (1 OF 4)	
PLOT DATE:	5/2/2024
DRAWN BY:	R.M. O'BRIEN
CHECKED BY:	D.A. GINGRAS
SHEET	1 OF 4





PROJECT NAME:	TUNBRIDGE SCOPING STUDY
PROJECT NUMBER:	59012.00
FILE NAME:	z59012_bdr_nu1_alt3.dgn
PROJECT LEADER:	D.A. GINGRAS
DESIGNED BY:	R.M. O'BRIEN
ALTERNATIVE 3 LAYOUT SHEET (2 OF 4)	
PLOT DATE:	5/2/2024
DRAWN BY:	R.M. O'BRIEN
CHECKED BY:	D.A. GINGRAS
SHEET	2 OF 4



PROJECT NAME:	TUNBRIDGE SCOPING STUDY	PLOT DATE:	5/2/2024
PROJECT NUMBER:	59012.00	DRAWN BY:	R.M. O'BRIEN
FILE NAME:	z59012_bdr_nu1_alt3.dgn	CHECKED BY:	D.A. GINGRAS
PROJECT LEADER:	D.A. GINGRAS	ALTERNATIVE 3 LAYOUT SHEET (3 OF 4)	SHEET 3 OF 4
DESIGNED BY:	R.M. O'BRIEN		



PROJECT NAME:	TUNBRIDGE SCOPING STUDY		
PROJECT NUMBER:	59012.00		
FILE NAME:	z59012_bdr_nu1_alt3.dgn	PLOT DATE:	5/2/2024
PROJECT LEADER:	D.A. GINGRAS	DRAWN BY:	R.M. O'BRIEN
DESIGNED BY:	R.M. O'BRIEN	CHECKED BY:	D.A. GINGRAS
ALTERNATIVE 3 LAYOUT SHEET (4 OF 4)		SHEET	4 OF 4

Appendix G

Alternatives Matrices

Tunbridge Scoping Study Preliminary Evaluation Matrix

		No Build	Alternative 1 6' Concrete Sidewalk	Alternative 2 8-10' Shared Use Path	Alternative 3 6' Conc. SW (with Northern Extension)
Community Character	Aesthetics	No Change	Improved	Improved	Improved
	Community Character	No Change	Improved	Improved	Improved
	Economic Impacts	No Change	Minimal (Maintenance)	Minimal (Maintenance)	Minimal (Maintenance)
	Conformance to Reg. Transp. Plan	No	Yes	Yes	Yes
	Satisfies Purpose & Need	No	Yes	Yes	Yes
		No Build	Alternative 1 6' Concrete Sidewalk	Alternative 2 8-10' Shared Use Path	Alternative 3 6' Conc. SW (with Northern Extension)
Multimodal and Traffic Considerations	Typical Section	No Change	6' Concrete Sidewalk	10' Paved Shared Use Path	6' Concrete Sidewalk
	Bicycle Access	No Change	4' Paved Shoulder	10' Paved Shared Use Path	4' Paved Shoulder
	Pedestrian Safety	No Change	Improved Continuous ped facility, 2 new safe crossings, Traffic calming.	Improved Continuous ped facility, 2 new safe crossings, Traffic calming.	Improved+ More continuous ped facility, 3 new safe crossings, More traffic calming.
	Vehicle Safety	No Change	Improved Traffic calming, (2 bumpouts and delineated road edges)	Improved Traffic calming, (2 bumpouts and delineated road edges)	Improved+ Most Traffic calming, (3 bumpouts and delineated road edges)
			No Build	Alternative 1 6' Concrete Sidewalk	Alternative 2 8-10' Shared Use Path
Impacts	Agricultural Lands	-	No	No	No
	Archaeological	-	Present / Further Inv. Req'd	Present / Further Inv. Req'd	Present / Further Inv. Req'd
	ROW Impacts	-	Minor (Temporary)	Minor (Temporary)	Minor (Temporary)
	Historic	-	No Adverse Effect	No Adverse Effect	No Adverse Effect
	Hazardous Materials	-	No*	No*	No*
	Floodplains	-	No	No	Yes
	Fish & Wildlife	-	No	No	No
	Rare, Threatened & Endangered Species	-	No	No	No
	Public Parks, Recreation Areas, Wildlife/Waterfowl Refuges - Section 4(f)	-	No 4(f) Use - Temporary Easements Only	No 4(f) Use - Temporary Easements Only	No 4(f) Use - Temporary Easements Only
	LWCP - Sect. 6(f)	-	No	No	No
	Managed Lands	-	No	No	No
	Wetlands	-	No	No	No
Streams	-	No	No	No	
New Impervious Surfaces	-	7,073 SF	11,224 SF	9,133 SF	
		No Build	Alternative 1 6' Concrete Sidewalk	Alternative 2 8-10' Shared Use Path	Alternative 3 6' Conc. SW (with Northern Extension)
Permits	Act 250	-	No	No	No
	Section 404 - Wetlands/ other Waters (streams) (USACOE)	-	No*	No*	No*
	Section 401 Water Quality Certification	-	No*	No*	No*
	State Wetlands Permit	-	No*	No*	No*
	Stream Alteration Permit	-	No*	No*	No*
	Construction Phase Storm Water Discharge Permit (General Permit 3-9020)	-	Yes	Yes	Yes
	Operational Phase Storm Water Discharge Permit (General Permit 3-9015)	-	No	No	No
	Lakes & Ponds	-	No	No	No
	Rare, Threatened, and Endangered Species	-	No	No	No
		No Build	Alternative 1 6' Concrete Sidewalk	Alternative 2 8-10' Shared Use Path	Alternative 3 6' Conc. SW (with Northern Extension)
Costs	Construction	\$0	\$265,000	\$317,000	\$398,000
	Engineering Design+	\$0	\$53,000	\$63,400	\$79,600
	Resident (Construction) Engineering	\$0	\$39,750	\$47,550	\$59,700
	Local Project Manager	\$0	\$21,200	\$25,360	\$31,840
	Total (Not including ROW)	\$0	\$380,000	\$455,000	\$570,000

Needs to be verified.

+ - Engineering Design costs include those costs associated with engineering and design for bike/ped, water line and stormwater (Meets Standards) improvements

* Dependent on results of field delineation if project goes to design, but there are not currently any mapped resources.

Appendix H

Alternatives Concepts Cost Estimates



Computations

Project: Tunbridge Scoping Study
 Location: Tunbridge, VT
 Calculated by: JV
 Checked by: RMO
 Title: Alternative 1 Conceptual Cost Estimate Calculations

Project #: 59012.00
 Sheet: _____
 Date: 3/27/24
 Date: 3/28/24

Alternative 1					
	Quantity	Unit	Cost/Unit	Total Cost	
Sidewalk Construction					
Common Excavation	371.11	CY	\$40.00	\$14,845	
Concrete Sidewalk, 5"	785.89	SY	\$130.00	\$102,166	
Subbase	261.96	CY	\$65.00	\$17,028	12" depth
Granite Curb	194.00	LF	\$120.00	\$23,280	
Detectable Warning Surface	56.00	SF	\$60.00	\$3,360	assume 12SF or 8SF per DWS
Top Soil	151.79	CY	\$75.00	\$11,384	4" depth
Turf Establishment	1366.11	SY	\$20.00	\$27,322	
Pavement Markings					
Crosswalk Marking	52.00	LF	\$40.00	\$2,080	
4" Yellow Line	2500.00	LF	\$4.00	\$10,000	
4" White Line	2500.00	LF	\$4.00	\$10,000	
Signing					
Traffic Sign, Type A	75.00	SF	\$25.00	\$1,875	assume 7.5 SF per sign
Square Tube Sign Post and Anchor	90.00	LF	\$15.00	\$1,350	assume 15 LF per post
				Subtotal	\$224,689
15% Contingency					\$33,703
15% Mobilization & Traffic Control					\$33,703
				Subtotal	\$292,096
8% Local Project Manager					\$23,368
20% Design Engineering & Permitting					\$58,419
15% Construction Inspection					\$43,814
				Total	\$417,697
				Round	\$2,303
				Rounded Total	\$420,000



Computations

Project: Tunbridge Scoping Study
 Location: Tunbridge, VT
 Calculated by: JV
 Checked by: RMO
 Title: Alternative 2 Conceptual Cost Estimate Calculations

Project #: 59012.00
 Sheet: _____
 Date: 3/27/24
 Date: 3/28/24

Alternative 2					
	Quantity	Unit	Cost/Unit	Total Cost	
Sidewalk Construction					
Common Excavation	623.56	CY	\$35.00	\$21,824	
Paved Shared Use Path, 6"	406.87	TON	\$300.00	\$122,061	6" depth
Subbase	415.70	CY	\$60.00	\$24,942	12" depth
Granite Curb	194.00	LF	\$120.00	\$23,280	
Detectable Warning Surface	60.00	SF	\$60.00	\$3,600	assume 12 SF per DWS
Top Soil	146.02	CY	\$75.00	\$10,952	4" depth
Turf Establishment	1314.22	SY	\$20.00	\$26,284	
Pavement Markings					
Crosswalk Marking	52.00	LF	\$40.00	\$2,080	
4" Yellow Line	2500.00	LF	\$4.00	\$10,000	
4" White Line	2500.00	LF	\$4.00	\$10,000	
Signing					
Traffic Sign, Type A	75.00	SF	\$25.00	\$1,875	assume 7.5 SF per sign
Square Tube Sign Post and Anchor	90.00	LF	\$15.00	\$1,350	assume 15 LF per post
				Subtotal	\$258,249
15% Contingency					\$38,737
15% Mobilization & Traffic Control					\$38,737
				Subtotal	\$335,724
Right-of-Way Assistance					\$1,000
8% Local Project Manager					\$26,858
20% Design Engineering & Permitting					\$67,145
15% Construction Inspection					\$50,359
				Total	\$481,085
				Round	\$8,915
				Rounded Total	\$490,000



Computations

Project: Tunbridge Scoping Study
 Location: Tunbridge, VT
 Calculated by: JV
 Checked by: RMO
 Title: Alternative 3 Conceptual Cost Estimate Calculations

Project #: 59012.00
 Sheet: _____
 Date: 3/27/24
 Date: 3/28/24

Alternative 3					
	Quantity	Unit	Cost/Unit	Total Cost	
Sidewalk Construction					
Common Excavation	138.53	CY	\$30.00	\$4,156	
Earth Borrow	25.00	CY	\$25.00	\$625	estimated
Concrete Sidewalk, 5"	228.89	SY	\$125.00	\$28,611	
Paved Shared Use Path, 6"	19.87	TON	\$300.00	\$5,960	6" depth
Subbase	96.59	CY	\$60.00	\$5,796	12" depth
Granite Curb	340.00	LF	\$110.00	\$37,400	
Detectable Warning Surface	56.00	SF	\$60.00	\$3,360	assume 12SF or 8SF per DWS
Top Soil	23.31	CY	\$70.00	\$1,632	4" depth
Turf Establishment	209.78	SY	\$15.00	\$3,147	
Pavement Markings					
Crosswalk Marking	90.00	LF	\$30.00	\$2,700	
4" Yellow Line	1150.00	LF	\$4.00	\$4,600	
4" White Line	1300.00	LF	\$4.00	\$5,200	
Signing					
Traffic Sign, Type A	45.00	SF	\$25.00	\$1,125	assume 7.5 SF per sign
Square Tube Sign Post and Anchor	60.00	LF	\$15.00	\$900	assume 15 LF per post
				Subtotal	\$105,210
Alt 1 Total				\$224,689	
15% Contingency				\$49,485	
15% Mobilization & Traffic Control				\$49,485	
				Subtotal	\$428,869
8% Local Project Manager				\$34,310	
20% Design Engineering & Permitting				\$85,774	
15% Construction Inspection				\$64,330	
				Total	\$613,283
				Round	\$6,717
				Rounded Total	\$620,000