

Wallkill Valley Rail Trail Community Opportunity Plan, New Paltz, NY
TECHNICAL MEMO ON EXISTING CONDITIONS



June 16, 2020

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THANK YOU

The WDLA Design Team would like to extend our thanks to the Ulster County Planning Department, including Dennis Doyle, Chris White, and Brian Slack, for funding this study and providing an opportunity to develop a meaningful plan for the future of the Wallkill Valley Rail Trail that represents the collective input and desires of the community that use this resource. The attention and dedication of the Technical Advisory Committee has been invaluable in supporting this effort. We would like to express our gratitude to the following TAC members:

Mayor Tim Rogers, Village of New Paltz

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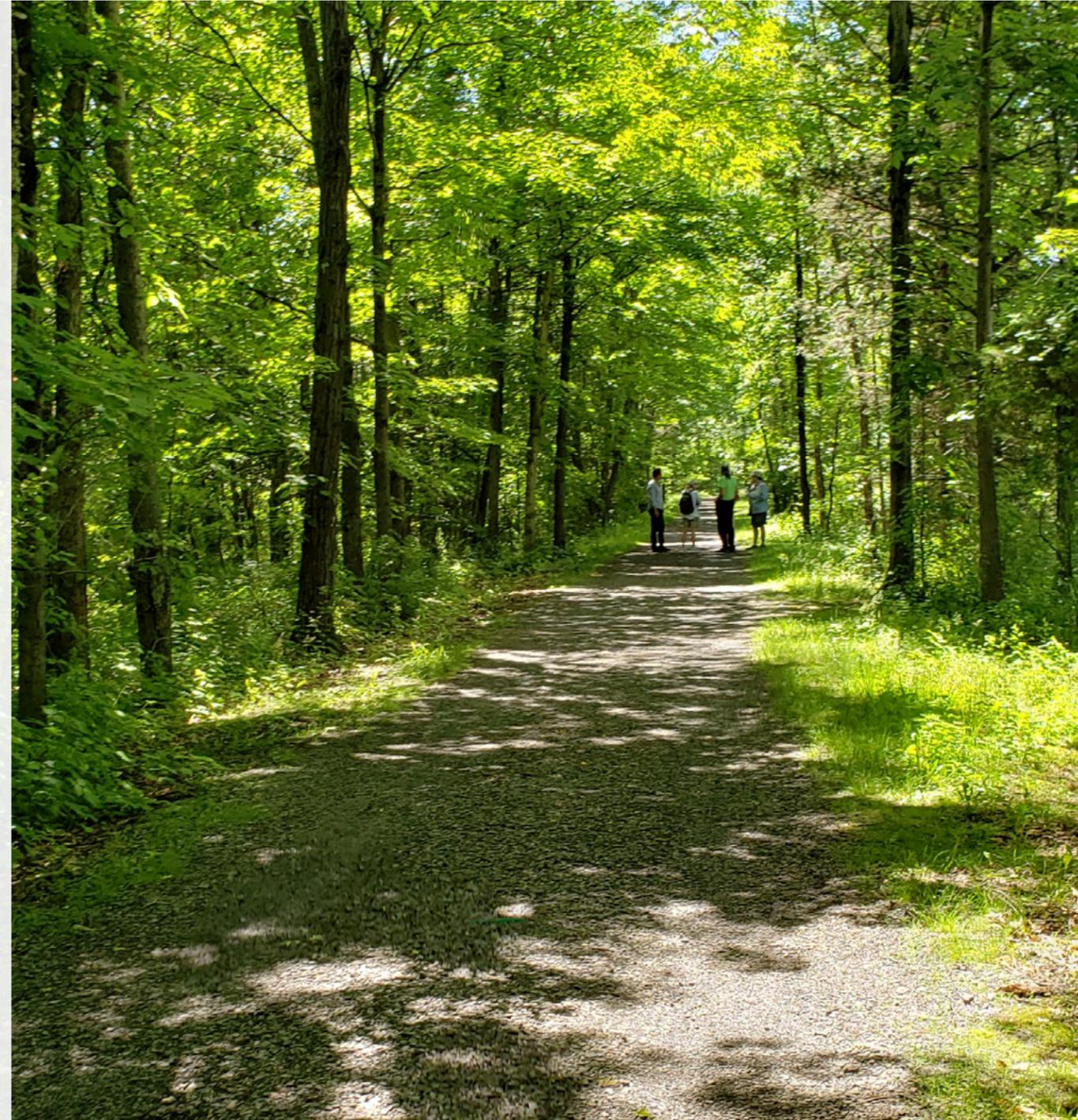


Photo Credit: Weintraub Diaz Landscape Architecture, PLLC

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PROJECT SCOPE

The Ulster County Transportation Council (UCTC) has contracted with Weintraub Diaz Landscape Architecture, PLLC (WDLA) to assist the UCTC in developing a Plan that transforms what is today an active rail trail through the New Paltz community into a vibrant, accessible transportation/recreation corridor. The Plan will address needed improvements to the Wallkill Valley Rail Trail (WVRT) within the study area necessary to make this space a more functional transportation resource, well connected to other components of the transportation system and respectful of adjoining land uses. The Plan will define options to optimize multi-modal active transport, open space and recreation on the heavily used part of the trail within the heart of the Village of New Paltz.

PROJECT GOALS

The New Paltz community has identified this Study Area segment of the Wallkill Valley Rail Trail that it owns as an area that offers considerable opportunities for reimagining how it could better serve the area through which it passes, in addition to the broader regional trail hub that it is becoming. This segment of WVRT is widely used and the number of users is expected to increase with completion of other trail segments as well as recreation and tourism trends in the area. The Plan will include consideration of the complementary and supportive adjacent land use, such as connections to National Landmark Historic Huguenot Street District, access to services sought by trail users, and major destinations. The Plan will also address parking issues and wayfinding and the suitability and location for viewing and rest areas. Importantly, the Plan will present, test and refine alternative linear park and active transportation design options for the existing trail and its gateways. The Plan is expected to generate needed design schemes, wayfinding graphics, and critical interconnections all of which are complete with planning-level cost estimates that can be used to advance next-stage programming and readiness for seeking funding including future grant applications.

As part of this phase of the overall planning effort, WDLA has conducted an inventory and analysis of the entire Study Area setting, context, contents and components as needed to accurately describe the existing conditions within and adjacent to the project. WDLA has prepared this Technical Memo that will serve as a basis for incorporating the existing conditions, issues and recommendations in the Corridor Vision and Concept and Final Plan Development. The Final Plan will focus on how to define and set apart this important regional trail hub within the context of a burgeoning regional and state-wide trail system.



Photo Credit: Weintraub Diaz Landscape Architecture, PLLC

OVERVIEW

Weintraub Diaz Landscape Architecture has researched and reviewed existing literature on plans, guidelines and projects that are relevant to the Wallkill Valley Rail Trail (WVRT), including the Mohonk Foothills Project, the River to Ridge Trail, and the Empire State Trail, among others. Recent activity by local organizations such as the Wallkill Valley Land Trust and the Open Space Institute, including successful fund raising efforts, were considered as well and will be used to inform the Vision Plan.

MOHONK FOOTHILLS PROJECT

Ongoing work in the Mohonk Foothills includes a new trailhead at the Testimonial Gateway, located at the intersection of Rte 299 and Gateway Road. New facilities include off-road parking, entry booths, restrooms, landscaping and signage. This site is approximately 1.5 miles west of the Carmine-Liberta Bridge, where Main Street/299 crosses the Wallkill River, at the heart of the WVRT Community Opportunity Plan Study Area.

RIVER TO RIDGE TRAIL

Beginning immediately west of the Carmine-Liberta Bridge, the River to Ridge trail is a six-mile loop that connects the Wallkill Valley Rail Trail/Empire State Trail to the Shawangunk Ridge path system. A trailhead with parking is located at 41 Springtown Rd, New Paltz, NY 12561. The River to Ridge trail is an off-road, multi-use path for walkers, runners, hikers, cyclists and equestrians that passes through 360+ acres of agricultural land protected through the efforts of the Open Space Institute and the Butler Conservation Fund, among others.

WALLKILL VALLEY RAIL TRAIL PLANS

Recent work on the WVRT includes improvements on a 12-mile section in preparation for the introduction of the Empire State Trail in 2019-2020. The work includes clearing of hazard vegetation, regrading and infrastructure upgrades to improve drainage, bridge repairs, additional railings and fencing, and a new ADA accessible path from the Binnewater Parking Lot to the Rosendale Trestle. This builds on earlier restoration work on the Rosendale Trestle, a three-year, \$1.5M effort that opened the trestle to non-motorized traffic in 2013. These projects were organized through the collective efforts of the Wallkill Valley Land Trust and the Open Space Institute, among others, and funded through the New York Office of Parks, Recreation and Historic Preservation, the Samuel Freeman Charitable Trust, Dyson Foundation, the Roundout-Esopus Land Conservancy, the Friends of the Shawangunks, the Mohonk Preserve and private donations.

Recent work to upgrade water and sewer infrastructure has also occurred in close proximity to the WVRT. The work includes culvert replacement at the intersection of Water Street and the WVRT, as well as sewer main replacement along Route 32/S Chestnut Street, Huguenot Street between Main Street and North Front Street. 200 LF of the WVRT at North Chestnut Street was excavated to allow for a replacement sanitary sewer main to be installed.

EMPIRE STATE TRAIL

The Empire State Trail will intersect with the existing Wallkill Valley Rail Trail in two locations - a pedestrian connection along Main Street/299 and a bicycle connection at the intersection of Mulberry Street and the WVRT. Sojourner Truth Park will serve as the trailhead for this section of the Empire State Trail where it overlaps with the WVRT. The Empire State Trail Design Guidelines provide a basis for trail design elements, including ADA compliance, surface materials, signage, lighting, seating, waste management, bicycle amenities and planting.



SECTION 2.2 LOCAL LAND USE REGULATORY FRAMEWORK



Wallkill Valley Rail Trail Community Opportunity Plan Study Area

Laws and land use policies can have a significant influence on how pedestrian friendly or bike friendly a community is. Not only do zoning codes create rules about the size, location, and use of buildings within a zoning district, but they also govern the surrounding public spaces (ChangeLab, A Guide to Building Healthy Streets). A review of the Village of New Paltz's laws, zoning code, plans and policies found that they do in general provide the framework for a pedestrian scale, walkable community, and in particular support the Wallkill Valley Rail Trail (WVRT).

VILLAGE CODE

The village code provides a variety of provisions that supports bicycling and walking in the community and also supports the WVRT. A few examples are provided below.

In order to facilitate pedestrian access from streets to schools, parks, or other nearby streets, the village may require perpetual unobstructed easements at least 20 feet in width (Chapter 178 Subdivision, 19 Reservation of Easements, D).

Bicycle parking facilities shall be provided for any new building, addition or enlargement of an existing building, or for any change in the occupancy of any new building that results in the need for additional auto parking facilities (Chapter 198. Vehicles and Traffic, Article VIII, Bicycle Parking, Applicability).

Accessory off-street parking for bicycles shall include provision for secure storage of bicycles. Such facilities shall provide bicycle lockers or racks or equivalent structures in or upon which the user may lock a bicycle (Chapter 198. Vehicles and Traffic, Article VIII, Bicycle Parking, Design criteria for bicycle parking facilities).

New commercial buildings shall be sited in clusters with screened parking. Parking shall be located at side and/or rear of the building. Chapter 212 Zoning, 13.E, B-1 Zoning and Development Standards, (b)[1],

Accommodations shall be made for pedestrians (Chapter 212-13, Zoning, 13.E, B-1 Zoning and Development Standards, (b)[11]).

For alignment with the community's complete streets policy, site plans should include a broad sidewalk, street trees and a bicycle lane. (Chapter 212-13, Zoning, 13.G, Neighborhood Business Residential Mixed-Use District along Route 32, Streetscape standards).

Where feasible, new open spaces should connect to existing open spaces, including the Wallkill Valley Rail Trail to provide access to the trail by the members of the public and occupants of the property (Chapter 212-13, Zoning, 13.G, Neighborhood Business Residential Mixed-Use District along Route 32 corridor, Open space)

Required public amenities shall include bicycle parking facilities, as provided in Article 8 of Chapter 198 relating to bicycle parking (Chapter 212-13, Zoning, 13.G, Neighborhood Business Residential Mixed-Use District, Street furniture and public waste receptacles).

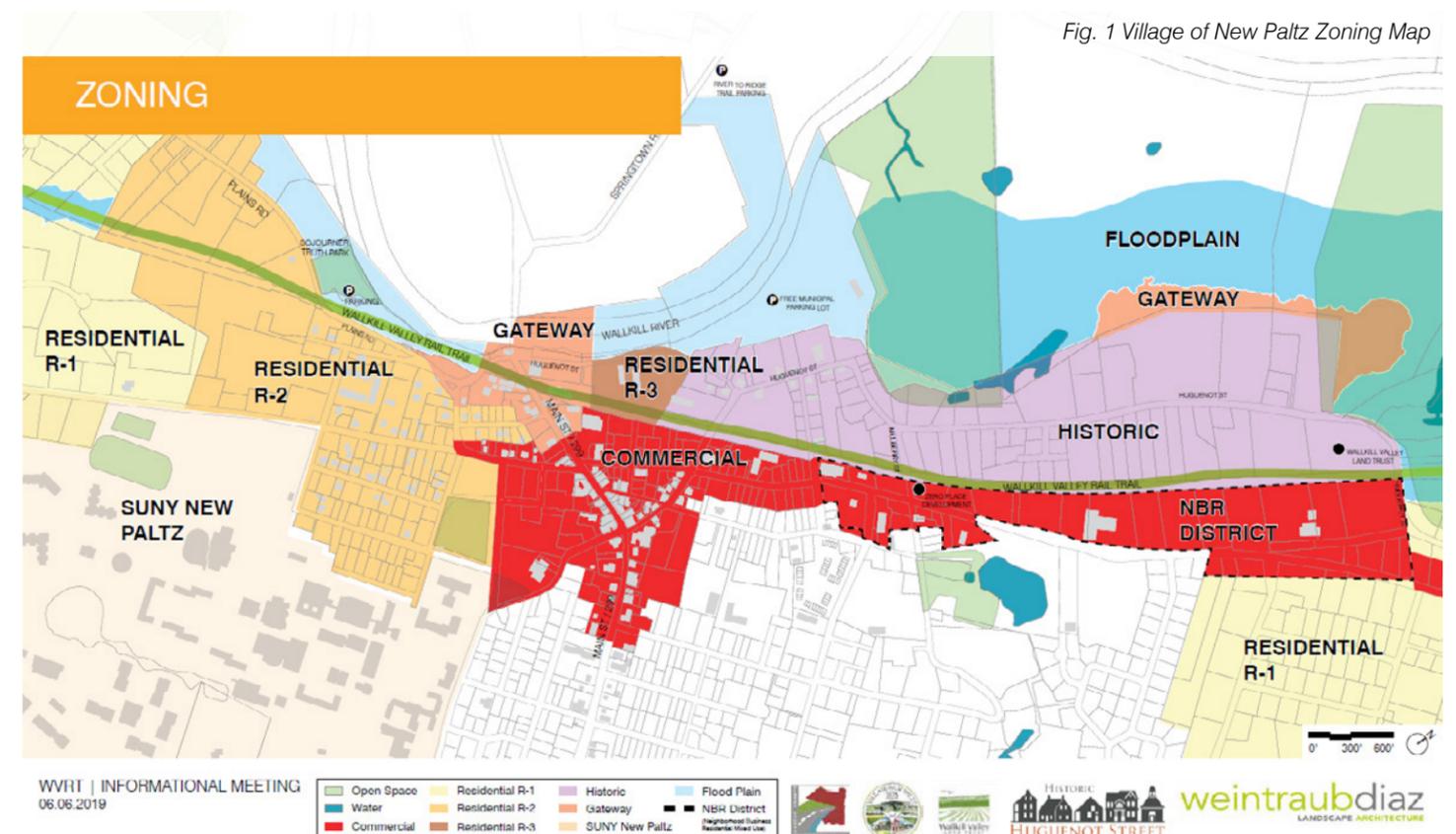
In addition, the Village Code encourages mixed-use building and transit use that promotes a pedestrian scale environment. Bike shops are allowed in the B1, B2, G districts and by exception in the NBR District. Bicycle rentals are allowed only in the G district.

COMPREHENSIVE MASTER PLAN

The Village of New Paltz comprehensive plan was adopted in 1994. The document contains recommendations for bicyclists and pedestrians, including but limited to, the need for sidewalks where they don't exist, designation of bike routes, preparation of bicycling maps, establishment of a bicycling and pedestrian program and preparation of a pedestrian and bicycle capital plan.

The Comprehensive Plan also proposes the following pedestrian and bicycle friendly recommendations:

- A pedestrians first policy stating that pedestrians should receive priority over vehicles.
- All highway improvement projects whether resurfacing, widening, or rebuilding should incorporate 3' to 5' wide shoulders to accommodate bikeways and/or sidewalks where possible and practical.
- A Pedestrian Master Plan.
- Promote bicycle and walking commuting by identifying routes and making spot hazard improvements on Village streets and walkways/bikeways.
- Improve pedestrian safety by striping and signing appropriate intersections such as crosswalks, installing sidewalks where none exist, establish design standards for bicycle routes and provide bicycle racks at all municipal buildings and public facilities in the Village.



SECTION 2.2 LOCAL LAND USE REGULATORY FRAMEWORK (CONT.)

COMPLETE STREETS POLICY

The village adopted a Complete Streets policy through resolution in 2017. The policy resolution established performance standards, including items such as widening sidewalks, creating safe bicycling routes, narrowing the span of crosswalks, reducing the village speed limit to 25 miles per hour and extending non-motor vehicle space along streets to provide for outdoor street activity, including outdoor seating for restaurants.

Recommendations:

- Update the Village Comprehensive Master Plan. While the 1994 Comprehensive Master Plan provided recommendations that moved the village toward becoming a pedestrian and bicycle friendly community that may have been progressive at the time, the recommendations are now 25 years old. The 1994 plan was completed when the movement toward creating more pedestrian and bicycle friendly communities was in its early stages. An update of the Comprehensive Master Plan could incorporate and expand upon the village's Complete Streets Policy, articulate smart growth principles and considers programs such as bike share that did not exist in 1994.
- Prepare a Village Bicycle and Pedestrian Plan that builds on the Complete Streets policy, inventorying the existing conditions and provides design guidelines and a detailed implementation strategy for improving the bicycle and pedestrian network and infrastructure in the community.
- Consider a change in the local code to allow bicycle rentals in all of the zoning districts in the village, which could facilitate implementation of a bike share program.



Typical "Complete Streets" design elements

SECTION 2.3 NEIGHBORHOOD CHARACTERISTICS

PROPOSED PROJECTS, PLANS AND POTENTIAL GATEWAYS

Zero Place

The Zero Place project on the corner of Mulberry Street and North Chestnut Street (NYS Rte 32) is directly adjacent to the Wallkill Valley Rail Trail. Public access to the plaza on the south side of the building and restrooms within the building are provided to the public through easement agreements.

Potential Gateways

In addition to Sojourner Truth Park, which will be used as the trailhead for the Empire State Trail portion of the Wallkill Valley Rail Trail, there are a number of existing parking lots in close proximity to the trail that could potentially be used by visitors to the WVRT, subject to discussion and coordination with land owners. Further detail on existing parking facilities in the area is provided in section 2.4.1.

There are also a number of informal access paths to the trail from both public and private properties adjacent to the WVRT. Based on input from the community collected through in person meetings and written survey responses, a number of these access points could be formalized or upgraded to be compliant with accessibility standards.

Constraints

There are a series of places along the WVRT within the Study Area where erosion or steep topography create a condition that is unsafe and out of compliance with design standards for multi-use paths, such as the section of the trail that extends south from Water Street. In addition, existing drainage patterns create areas where there is standing water, which also creates an unsafe and undesirable condition. More detail is provided in Section 2.5.

Existing Land Ownership and Easements

Land ownership adjacent to the rail trail includes both public and privately owned parcels of commercial, residential and historical character. See Figure 1, Village of New Paltz Zoning Map in Section 2.2.

There are a number of easements located within the WVRT study area, primarily associated with the Zero Place development. See Figure 2. Public use of the plaza, restrooms within the building, and path connection to the Rail Trail are guaranteed through access easements. A conservation easement has also been established for the public recreation areas on the south side of the building. Finally, a drainage easement has been established for the entire length of the shared property line between the WVRT and Zero Place.

LOCAL HISTORIC AND CULTURAL RESOURCES

The WVRT Study Area includes a rich variety of cultural, recreational and historic resources in close proximity to one another. This section of the Rail Trail, approximately 1.5 miles in length, runs through the center of Downtown New Paltz, passing through residential, business, historic and mixed use areas.

Cultural resources include recreational facilities such as Sojourner Truth Park, which provides direct access to the Wallkill River as well as passive recreation and parking facilities, and local businesses directly abutting the WVRT such as the Water Street Market. Buildings such as The Station restaurant celebrate the historical and architectural significance of the railroad while adapting the structure to another use in the present day. Physical vestiges of the rail line include mile markers, stone retaining walls, and railroad track that could be highlighted and celebrated in a similar way.

The Downtown New Paltz Historic District encompasses an area from Mohonk Ave to Huguenot Street at Broadhead Avenue, and Main Street from the River to approximately Grove Street; this district contains dozens of structures listed on the State Register. In addition, National Landmark Historic Huguenot Street District lies immediately West of the WVRT, providing trail users with another opportunity to learn about the rich history of the area.



Fig. 2 Zero Place development easements.

SECTION 2.4 TRANSPORTATION AND CIRCULATION

2.4.1 VEHICULAR, PEDESTRIAN AND BICYCLE PATTERNS



Trail counts taken at intersection of North Front Street and WVRT

2.4.1 a. LOCAL INTERSECTING STREET AND SIDEWALK NETWORK CHARACTERISTICS

Intersecting Street Network

The Wallkill Valley Rail Trail (WVRT) runs in a north/south direction through the western edge of the Village of New Paltz. The Project Area extends from Plains Road to Huguenot Street, approximately 1.5 miles, essentially paralleling Routes 32 and 208. The Wallkill River more or less parallels the trail in the Project Area to the west. The primary roadway in the Project Area is Main Street.

Much of the vehicular traffic in the Project Area passes along Main Street, Route 32 and Route 208. Main Street has the highest traffic volume, with an Average Annual Daily Traffic (AADT) of 12,305 (NYS DOT Traffic Data Viewer) in the segment intersecting the WVRT. Main Street is congested at times due to the traffic volume, roadway configuration and commercial activity along the street. Route 32 north of Main Street has an AADT of 7,414 and Route 208 south of Main Street has an AADT of 5,956. By contrast, Huguenot Street where it crosses the trail has an AADT volume of 197. There are no AADT statistics provided for the other intersecting roadways with the WVRT, which include Plains Road, Water Street, North Front Street, Broadhead Avenue, and Mulberry Street. These secondary intersecting roadways generally serve as low volume neighborhood connectors, although the Team observed that motorists may use North Front Street via Huguenot Street as a route to bypass Main Street traffic when approaching the Village from the West. The speed

limit for all of the intersecting roadways in the Project Area is 30-mph, except for Huguenot Street, which has a speed limit of 25-mph.



NYS Traffic Data Viewer Map



Path to Wallkill River



Informal path to residence



Informal path to adjacent parking area

Sidewalk Network

There are sidewalks on both sides of Main Street east of the intersection with the WVRT. Main Street to the east of the WVRT intersection is a busy pedestrian oriented commercial corridor. West of the WVRT intersection there is a sidewalk only on the north side Main Street. In this direction there is an adjacent brew pub restaurant. Main Street then crosses the Wallkill River and the environment becomes more rural.

Along Water Street there is approximately 100 feet of sidewalk on the east side of the roadway leading from a private parking lot to the Water Street Market parking lot entrance.

At North Front Street, there are sidewalks in varying condition on both sides of the street for most of the portion between North Chestnut Street/Route 32 and the WVRT. However, the sidewalks do not extend all the way to the WVRT intersection. On the westbound side of the street there is about a 25-foot gap from the sidewalk to the trail and on the eastbound side of the street the sidewalk ends at the entrance to the chocolate business, approximately 75 feet from the trail. The sidewalk on the eastbound side of the street resumes from the WVRT intersection toward Huguenot Street.

There are no sidewalks between Route 32 and the WVRT along Broadhead Avenue, Mulberry Street or Huguenot St.



Intersection of WVRT and Main Street at Water Street Market

SECTION 2.4 TRANSPORTATION AND CIRCULATION (CONT.)



North Front Street looking from trail intersection toward Rte 32 - gap in sidewalks

2.4.1 b. TRAIL ACCESS TO AND FROM THE SURROUNDING NEIGHBORHOODS, INSTITUTIONS, PARKLANDS AND RIGHTS OF WAY

Safe, easy access to a trail from potential nearby use generators can be important components of a popular, well utilized trail. The Team found that the village setting and proximity of the WVRT in the Project Area to the Central Business District along Main Street, nearby residential areas including single family units and apartment buildings and the Route 32 commercial corridor all appear to play an important role in activating the trail. There are seven formal at-grade crossings in the project area where the trail can be accessed. In addition, we found numerous informal paths to individual residences or businesses along the trail.

The WVRT crosses Water Street and Main Street in the southern half of the Focus Area. At the Water Street crossing there is an entrance to the parking lot for the Water Street Market which hosts a variety of shops and services as well as events such as outdoor movies. The trail runs adjacent to the Market for over 200 feet and can be accessed at several points. The Main Street Central Business District primarily extends immediately east of the WVRT crossing. The trail offers visitors of Main Street and the Water Street Market the opportunity for additional recreational activities. For trail users, essentially any service that they might want, including eateries, cafes and shops, and a bike shop are available.

Route 32 Commercial Corridor

From Main Street to the northern end of the Project Area, Route 32 essentially parallels WVRT about one to less than a block away. At the northern end of the Project Area the corridor has a more suburban characteristic. However, the rear of several of these businesses abut to the WVRT, which may attract customers/visitors to use the trail. Trail users may also be interested in taking advantage of the amenities and services provided by these businesses.



Old wooden bridge to baseball field

Neighborhoods

Between Plains Road and Water Street there are several residences immediately adjacent to the trail. Some have informal paths connecting to the trail. On nearby Southside Avenue there are multi-unit apartment complexes. There are no sidewalks leading toward Plains Road/Water Street and the trail. Several blocks further east is the SUNY New Paltz campus, which is a potential major generator to the WVRT.

Between Main Street and North Front Street, the Town and Country Condominiums are immediately adjacent to the west side of the WVRT. Several informal paths connect the condominium parking area to the trail. Near the North Front Street crossing of the WVRT, there are both commercial businesses and residences. Between Front Street and Broadhead Avenue there are a few informal paths connecting from adjacent properties to the trail. East of the trail along Route 32 and beyond into the village, the area is residential with some businesses and institutions. There are sidewalks along portions of North Front Street and Route 32, as well as along most of the streets in the residential area east of Route 32.

Between North Front Street and the northern end of the Project Area at Huguenot Street, the Historic Huguenot District extends along the west side of the WVRT. Visitors to the Historic District may also combine a walk or bike ride along the trail. There are no sidewalks along the adjacent and intersecting streets in this portion of the trail and the residences become less dense.

Institutions

The BOCES and other facilities on Old Kingston Road near the WVRT at Huguenot Street is a potential use generator. Access to the trail crossing at Huguenot Street requires travelling about 500 feet along these roads. A more direct access to the trail could facilitate greater use.

Parks

The Sojourner Truth Park is a small park off Plains Road with picnic tables and non-motorized boat launch for the Walkkill River. The parking lot is the only dedicated trail parking in the project area. A path with a bridge provides a connection to the WVRT. Visitors can combine a visit to the park with an outing on the trail.



Sojourner Truth Park



Historic Huguenot Street

SECTION 2.4 TRANSPORTATION AND CIRCULATION (CONT.)

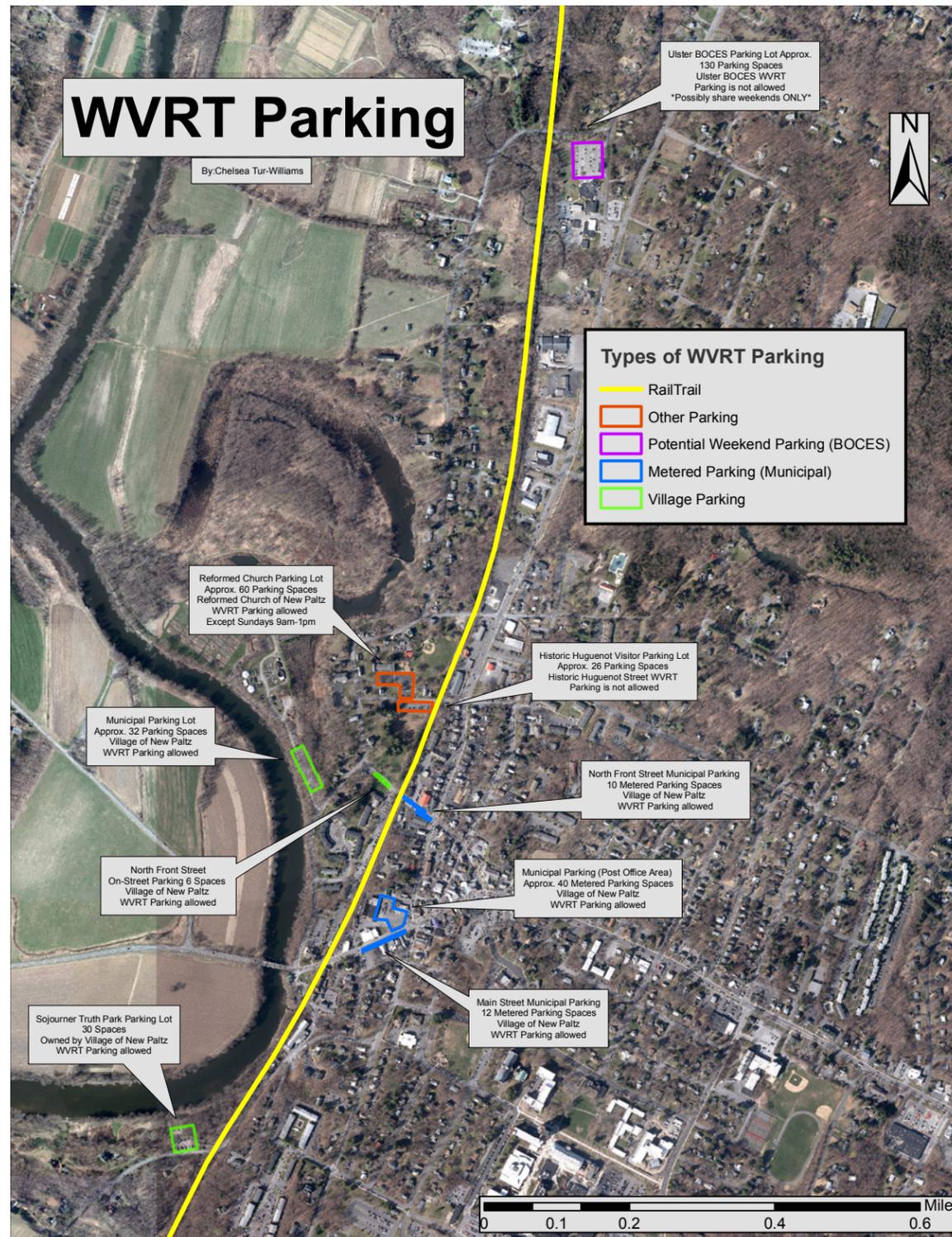
2.4.1 c. PARKING INFRASTRUCTURE

While direct bicycle and pedestrian access to the WVRT from nearby neighborhoods and other local use generators is extremely important, some visitors to the trail will arrive by motor vehicle. See the assessment of the on and off-street parking in the project area.

Metered parking in the Village of New Paltz is from 9am to 6pm Monday-Saturday and Sunday 1pm-6pm. Metered parking costs 50 cents an hour. Post Office spots are 25 cents an hour and handicapped spaces are free. Use of the parking spaces range between two and four hours max depending on the area.

Free Municipal Parking is available at Sojourner Truth Park, the Waste Water Treatment Plant and along North Front Street.

Partnerships with private businesses and institutions offer potential parking opportunities.



Main Street metered parking



Wells Fargo & Water Street Market Customer Parking Only



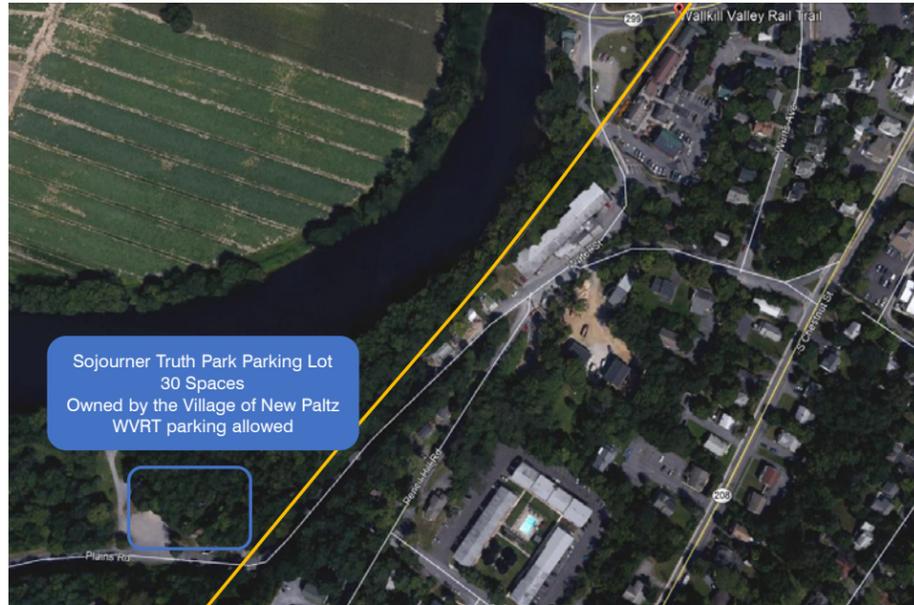
Clemson Bros. Brewery & The Station customer parking only



Groovy Blueberry Private Parking

Parking Assessment for Study Area

SECTION 2.4 TRANSPORTATION AND CIRCULATION (CONT.)



Parking areas for free municipal parking (Blue), metered municipal parking (Red), and potential community partnerships (Purple).

SECTION 2.4 TRANSPORTATION AND CIRCULATION (CONT.)

Parking Locations

Sojourner Truth Park: There are approximately 20 parking spaces in a gravel lot near the roadway, plus an additional 10 spaces near picnic tables and boat launch. There is a direct connection from the parking lot to the trail. It is the only free WVRT off-street public parking directly accessible to the trail in the Village of New Paltz. Along adjacent Plains Road there is a sign for “No Parking Anytime” on the grass area.

Water Street: Private and business parking only. There is one small bike rack that holds 4-5 bikes near Water Street.

Main Street: There are 12 metered on- street parking spaces on Main Street eastbound towards Chestnut Street (Route 32). In the municipal parking lot at the corner of Main Street and Chestnut Street (Route 32) and (location of the Post Office and businesses), there are approximately 40 metered parking spaces. The Clemson Bros. Brewery (Gilded Otter) has a private parking lot and a bike rack that holds 4-5 bikes. As per the New Paltz Planning Board Agenda 7/16/19, the Gilded Otter is looking to expand the parking lot. Other private business parking lots include the following businesses: The Station, Karma Road, Bicycle Depot, and Wells Fargo. There is no parking along Huguenot Street.

North Front Street: Six free on-street parking spots/spaces are available on the eastbound side of the street towards Huguenot Street. There are 10 metered on-street parking

spaces on the westbound side of the street between the WVRT and North Chestnut Street (Route 32). Business and private apartment complex parking lots include Town and Country Condos, Lagusta’s Chocolate, a Daycare Center, CareMount Medical, New Paltz Karate, and Pegasus Footwear. Approximately two blocks to the west, next to the Wallkill River, there is a free municipal parking lot that has approximately 32 parking spaces with very minimal signage.

Broadhead Avenue: Towards Huguenot Street there is a Historic Huguenot visitor parking lot with roughly 26 spots where WVRT parking is not allowed. There is also a large lot with approximately 60 parking spaces for the Reformed Church and thrift shop.

Going towards North Chestnut Street (Route 32) there is the Salvation Army parking lot.

Mulberry Street: Business parking lot for Androgyny. Going towards North Chestnut Street/Route 32 are business parking lots only and new construction – currently no public parking.

Huguenot Street: large parking lot for Ulster BOCES, CCW and Mid-Hudson Regional Info Center. There are approximately 130 spaces in the parking lot closest to Huguenot Street – CCW.

Free municipal parking is available near the WWTP off of Huguenot St.

Conclusion

Aside from the Sojourner Truth Park parking lot, there are no other clearly identified free off-street parking lots directly accessible to the WVRT who travel to the trail by motor vehicle. The BOCES lot at Huguenot Street appears to have parking that can be used by trail users during weeknights and weekends, but it is not clearly marked that it is allowed. There are a number of metered on-street parking spaces near the trail, however, trail users would need to compete with other visitors to the village for these spaces. There are several private business parking lots in the project area. It may be possible to make arrangements

with the Reformed Church or the Historic Huguenot District to utilize portions of their parking lots for trail users. These spaces would need to be clearly marked. Use of private business or institutional parking has been allowed and signed on other trail systems. While we do not know how many WVRT users travel to the trail by motor vehicle, it does appear that these users could be increased with the greater availability of clearly marked, dedicated, off-street parking for WVRT users.

More specific parking information could be provided on the WVRT website/map. The current map shows several parking locations in the village, however, other than Sojourner Park, it is not clear exactly what the other locations are or whether parking is actually allowed.



Reform Church parking lot



North Front Street free on street parking



North Front Street metered parking

SECTION 2.4 TRANSPORTATION AND CIRCULATION (CONT.)

2.4.1 d. TRAIL USER STATISTICS

Overview

The Project Team conducted in-person observational trail counts along the Wallkill Valley Rail Trail in July and October 2019. The Project Team followed the data collection protocols and methodology guidelines provided by the National Bicycle & Pedestrian Documentation Project (NBPDP) <http://bikepeddocumentation.org/> for trail traffic counts and data gathering. The NBPDP is a nationwide effort designed to provide consistent data collection and adjustment factors to estimate annual bicycle and pedestrian usage on multi-use paths or city streets. The NBPDP is sponsored by the Institute of Transportation Engineers Pedestrian and Bicycle Council. In addition to the trail counts, a table was set up with trail user surveys that trail users could complete in person or submit electronically. The survey questions were previously developed by WDLA to obtain public input on existing trail conditions and desired improvements.

Trail Counts

The counts were taken where the Wallkill Valley Rail Trail intersects Front Street. This location along the trail was selected based on observations made during previous site visits made by the Team. It was determined that the Front Street intersection could provide a good indication of normal trail usage in the Village of New Paltz. Counts were taken between 5:00 p.m. and 7:00 p.m. on Tuesday July 16, from 9:00 a.m. to 11:00 a.m. on Saturday, July 20, from 10:00 a.m. to 12:00 p.m. on Saturday October 5 and from 4:00 p.m. to 6:00 p.m. on Tuesday October 15. The day of the week selections were consistent with the NBPDP recommendation that at least one weekday and one weekend day be selected to obtain a sampling of weekday and weekend activity levels. The trail count forms for each day are shown in Figures 1 and 2. The number of cyclists and pedestrians were counted separately to provide information on the types of use taking place on the Wallkill Valley Rail Trail.

Once the manual counts were completed, the data obtained was used to calculate daily, weekly, monthly, and annual volumes using the NBPDP methodologies and adjustment factors. The results are tabulated in Figure 3. The total estimated annual traffic at the Front Street intersection is 139,799. When compared to counts conducted on trails in other parts of the state utilizing the same NBPDP methodology (See for example, <https://www.ptny.org/our-work/support/community-trails-assistance/trail-counts/trail-counts>) this figure is in the higher range and comparable to locations in more urban and suburban settings.

It was observed that the majority of the trail users at that location, an annual average of sixty-nine percent, are pedestrians. Thirty-one percent of the users are cyclists. This breakdown reflects the village setting of this location.

National Bicycle & Pedestrian Documentation Project Form

STANDARD SCREENLINE COUNT FORM

Name: Wallkill Valley Rail Trail Location: N. Front St. Crossing, Village of New Paltz, NY
 Date: July 20, 2019 Start Time: 9:00 AM
 Weather: 90° - Sunny End Time: 11:00 AM

Please fill in your name, count location, date, time period, and weather conditions (fair, rainy, very cold).
 Count all bicyclists and pedestrians crossing your screen line under the appropriate category.

Count for 2 hours in 15 minute increments.
 Count bicyclist who ride on the sidewalk.
 Count the number of people on the bicycle, not number of bicycles.
 Pedestrians include people in wheelchairs or others using assistive devices, children in strollers, etc.
 People using equipment such as skateboards or rollerblades should be included in the "Other" category.

Other
d: dog/pet
w: wheelchair
r: rollerblades
s: skateboards/scooters
e: equestrian

	Bicycles		Pedestrians		Strollers		Other		Comments
	M	F	M	F	M	F	M	F	
00-:15							I-d	I-d	
15-:30		I-d					I-d		56 1st hour 11 Bicycles
30-:45								I-d, I-d, I-d	45 Pedestrians
45-1:00							I-d, I-d	I-d	
1:00-1:15		I, I-d, I					I-d	I-d, I-d	using these counts
1:15-1:30							I-d, I-d	I-d, I-d, I-d	63 2nd hour 23 Bicyclists
1:30-1:45								I-d, I-d	40 Pedestrians
1:45-2:00									
TOTAL	20	14	25	38		3	7	12	119

National Bicycle & Pedestrian Documentation Project Form

STANDARD SCREENLINE COUNT FORM

Name: Wallkill Valley Rail Trail Location: N. Front St. Crossing, Village of New Paltz, NY
 Date: July 16, 2019 Start Time: 5:00 PM
 Weather: 90° - Sunny End Time: 7:00 PM

Please fill in name, count location, date, time period, and weather conditions (fair, rainy, very cold).
 Count all bicyclists and pedestrians crossing your screen line under the appropriate category.

Count for 2 hours in 15 minute increments.
 Count bicyclist who ride on the sidewalk.
 Count the number of people on the bicycle, not number of bicycles.
 Pedestrians include people in wheelchairs or others using assistive devices, children in strollers, etc.
 People using equipment such as skateboards or rollerblades should be included in the "Other" category.

Other
d: dog/pet
w: wheelchair
r: rollerblades
s: skateboards/scooters
e: equestrian

	Bicycles		Pedestrians		Strollers		Other		Comments
	M	F	M	F	M	F	M	F	
00-:15								I-d, I-d	
15-:30							I-d	I-d	41 1st hour 11 Bicycles
30-:45									30 Pedestrians
45-1:00									
1:00-1:15							I-d	I-d	37 2nd hour
1:15-1:30									9 Bicyclists
1:30-1:45							I-d		28 Pedestrians
1:45-2:00									
TOTAL	18	2	20	27	0	4	3	4	78

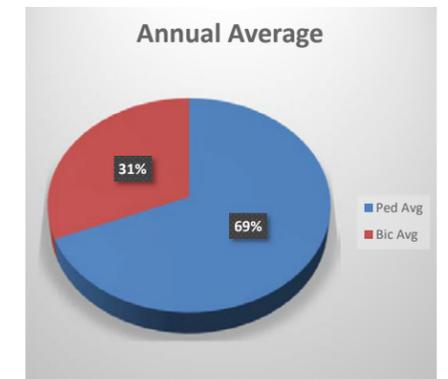


Figure 3 Annual average of pedestrian and cyclists

Figure 1

SECTION 2.4 TRANSPORTATION AND CIRCULATION (CONT.)

2.4.2 TRAILS

Survey and Trail User Engagement

While the counts were being conducted, the survey developed by the Team was posted to obtain input from the trail users. The survey also helped the team engage with trail users and solicit feedback about issues concerning the trail and ways the trail could be improved.

Following is a sampling of the comments that we received from trail users:

- Better clearance to road from trail path, so that pedestrians/bicyclists and vehicles can see each other more coming up to the crossing.
- Clear out underbrush of trees and clear some trees.
- Trail signage stop signs need to be more prominent and at all trail/road crossings on both sides of trail crossing.
- Better overall signage for vehicles to slow down.
- Some users would prefer to have the trail paved. Other trails nearby are paved and are used more, especially with in-line skaters.
- On occasion, equestrians have been seen on the trail in the study area.
- Widen trail towards Huguenot St. Not enough space for people passing each other.
- Most agree that dirt trail section gets too muddy.
- A disabled bicyclist using an electric assisted recumbent tricycle said he would like to see the trail better paved, especially going towards Market Street (from Huguenot St.). He doesn't mind the very small gravel or packed earth, but it gets too muddy at times in some sections (toward Huguenot street and beyond study area. His recumbent fenders get filled up with the mud as result.

National Bicycle & Pedestrian Documentation Project Form

STANDARD SCREENLINE COUNT FORM

Name: Wallkill Valley Rail Trail Location: N. Front St. Crossing, Village of New Paltz, NY
 Date: October 15, 2019 Start Time: 4:00 PM
 Weather: 60° - Sunny End Time: 6:00 PM

Please fill in name, count location, date, time period, and weather conditions (fair, rainy, very cold).
 Count all bicyclists and pedestrians crossing your screen line under the appropriate category.

Count for 2 hours in 15 minute increments.
 Count bicyclist who ride on the sidewalk.
 Count the number of people on the bicycle, not number of bicycles.
 Pedestrians include people in wheelchairs or others using assistive devices, children in strollers, etc.
 People using equipment such as skateboards or rollerblades should be included in the "Other" category.

Other
 d: dog/pet
 w: wheelchair
 r: rollerblades
 s: skateboards/scooters
 e: equestrian

	Bicycles		Pedestrians		Strollers		Other		Comments
	M	F	M	F	M	F	M	F	
00-:15	2		3	5					
15-:30					2			2-d	
30-:45	3	2	5	3	2				
45-1:00	1		9	4					
1:00-1:15	1		4	4				2-d	
1:15-1:30	1		3	1			1-d	1-d	
1:30-1:45			2	4			1-d	1-d	
1:45-2:00				3			1-d	1-d	
TOTAL	8	2	26	24	4		3	7	74

1st hour
 Bicycles
 0 Pedestrians

 2nd hour
 Bicyclists
 0 Pedestrians

National Bicycle & Pedestrian Documentation Project Form

STANDARD SCREENLINE COUNT FORM

Name: Wallkill Valley Rail Trail Location: N. Front St. Crossing, Village of New Paltz, NY
 Date: October 5, 2019 Start Time: 10:00 AM
 Weather: 50° - Sunny End Time: 12:00 PM

Please fill in name, count location, date, time period, and weather conditions (fair, rainy, very cold).
 Count all bicyclists and pedestrians crossing your screen line under the appropriate category.

Count for 2 hours in 15 minute increments.
 Count bicyclist who ride on the sidewalk.
 Count the number of people on the bicycle, not number of bicycles.
 Pedestrians include people in wheelchairs or others using assistive devices, children in strollers, etc.
 People using equipment such as skateboards or rollerblades should be included in the "Other" category.

Other
 d: dog/pet
 w: wheelchair
 r: rollerblades
 s: skateboards/scooters
 e: equestrian

	Bicycles		Pedestrians		Strollers		Other		Comments
	M	F	M	F	M	F	M	F	
00-:15	1	1	11	7			1-d		
15-:30	4	3	3	8			1-d		
30-:45	4	4	3	4					
45-1:00			4	8		1			
1:00-1:15	3	3	2	8	1	1	1-d		
1:15-1:30	3		9	7		2			
1:30-1:45	2	5	8	9			2-d		
1:45-2:00	4	3	11	10			1-d		
TOTAL	21	19	51	61	1	4	6		163

1st hour
 Bicycles
 0 Pedestrians

 2nd hour
 Bicyclists
 0 Pedestrians

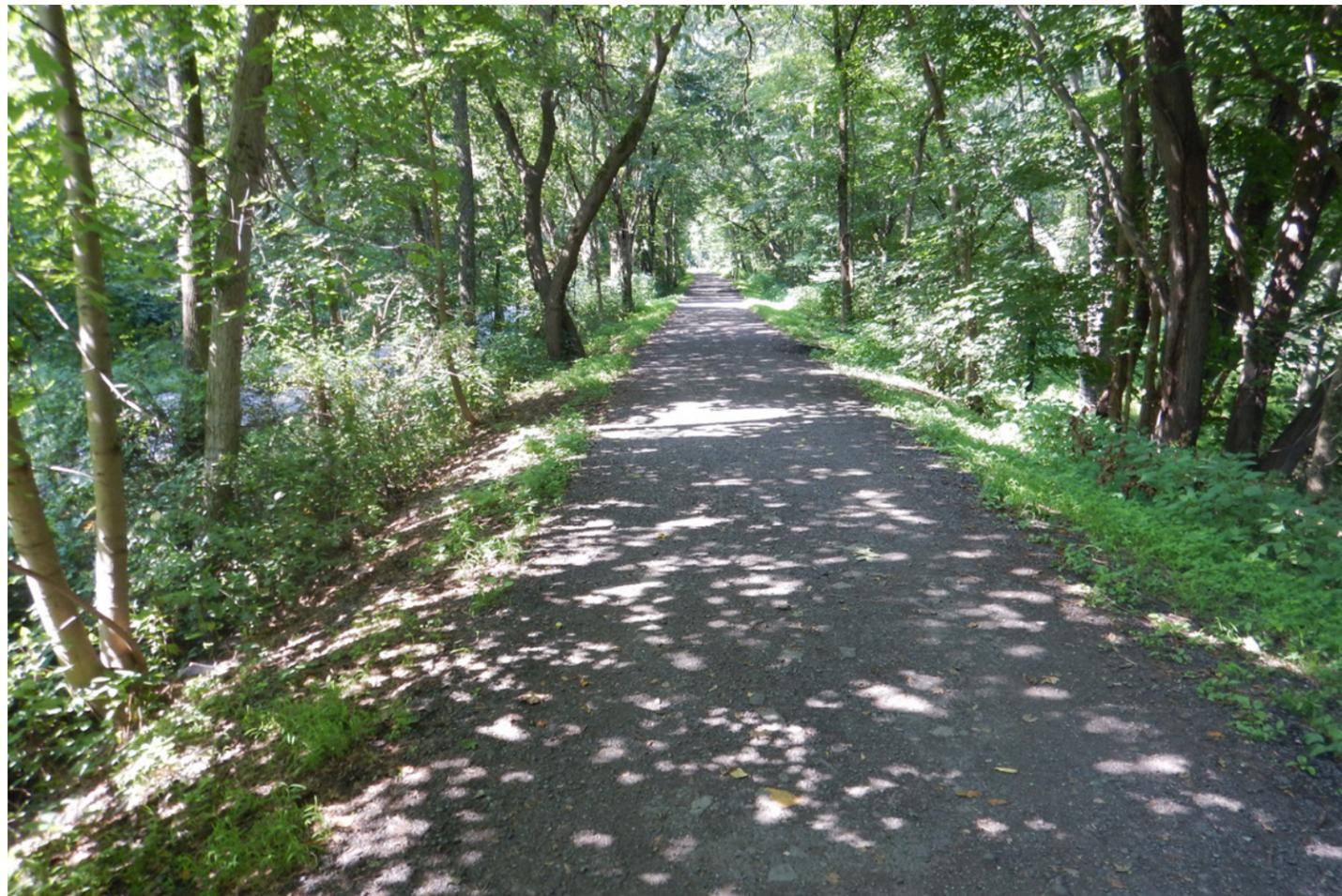
Figure 2

SECTION 2.4 TRANSPORTATION AND CIRCULATION (CONT.)

- Keep the treetop canopy! It was a hot day and the Wallkill Valley Rail Trail is used more often than other local trails just because of the shade.
- “We ride on the trail frequently from Rosendale to New Paltz. My wife rides a regular bike while I use a recumbent trike because I am an amputee. Our feedback (in order of priority) is:
 - Re-pave the trail. The current surface is not in good shape and causes an uncomfortable ride. A smooth paved surface would particularly benefit the disabled that use tricycles or wheelchairs.
 - Require cars to yield to trail users at all crossings. This is in effect at the crossing on Main Street in New Paltz but not at other road crossings.
 - Have level gradings on all road crossings. At several crossings the road is at a higher level than the trail making a “curb”. The curb makes it more difficult for cyclists to cross the road after stopping.
 - “How is the Wallkill Valley trail going to connect with the Hudson Valley Trail as a part of the Empire State Trail System?”
- “Keep it a discovery and a refuge. Trail focus area could be kept lush on both sides...with trees, indigenous shrubs, grasses and wild flowers. Owners of buildings or structures on the trail right-of-way should create a better aesthetic to trail users. Either keeping the trail surface entirely natural (a hard-packed soil type, like what may be is the actual rail trail bedding material) or black topped. Color and surface changes at intersections should be noticed by walkway users and vehicles. Not necessary to have benches installed along the trail – some people tend to sit and then leave garbage. Perhaps the signage could be consolidated to one sign per intersection and on the one sign could be information, directions, safety/rules. If the trail could be fixed in certain areas so that the trail surface doesn’t puddle, this would make the experience of using it nicer. Anything historic along the trail should be saved.”
- “I walk several times daily back and forth from Main Street to Huguenot Street and much of the surface of this part of the trail is bumpy and difficult to walk on for someone like me who has balance problems. I would love to have a trail that is like the new one running next to 299 toward Highland: an asphalt surface. Another safety concern is the roots that cross the trail in several places. Some have been marked between Broadway and Mulberry streets to warn runners who are in a marathon.

The Project Team’s observations while conducting trail counts:

- Some vehicles seem to slow down for the most part, however others would fly by, not use precaution of trail crossing. One bicyclist fell off of bike to a sudden onset of vehicle passing through.
- Road bikes stayed on the road and not on the trail. Mostly cycles on the trail were mountain bikes and hybrids.
- A jogger almost struck by a vehicle while crossing Front Street. The jogger was wearing headphones, didn’t stop or look both ways before crossing. The vehicle did not slow up.
- Postal trucks beep horns a couple times when crossing the trail.



Trail viewed north from southern end of screening area Trail User Surveys



Trail User Surveys

Conclusion

The Project Team conducted trail counts on July 16th and 20th, 2019 along the Wallkill Valley Rail Trail at the intersection with Front Street in New Paltz. Following the methodologies and protocols provided the National Bicycle and Pedestrian Documentation Project, McLaren calculated a total estimated trail traffic of 140,000 users a year. It was observed that a majority of the trail users at the Front Street location, an annual average of sixty-nine percent, are pedestrians. Thirty-one percent of the trail users are cyclists. This breakdown reflects the village setting of this location. Through the survey and interaction with the trail users, we learned that many would prefer an asphalt paved trail and that the canopy treetop coverage should be maintained. Trail users also suggested that the traffic signs and line of site at all road and trail crossings should be improved.

The information obtained through conducting trail counts demonstrate the level of use on the trail and can help inform decisions regarding design, funding, operation, maintenance, and promotion of the trail. Trail counts also help establish performance metrics for baseline trail usage over time and prioritize projects for implementation.

SECTION 2.4 TRANSPORTATION AND CIRCULATION (CONT.)

2.4.3 TRAFFIC SAFETY AND ADA COMPLIANCE

2.4.3 a. BRIEF OVERVIEW

There are seven existing at-grade road crossings of the WVRT in the project area. Vehicular traffic is heaviest at the Main Street crossing, which has an Average Annual Daily Traffic (AADT) of 12,305 (NYSDOT 2016 Traffic Data Viewer) in the segment intersecting the WVRT. Huguenot Street where it crosses the WVRT, has an AADT volume of 197. There are no AADT statistics provided for the other intersecting roadways, which are lower volume local roadways. The speed limit for all of the intersecting roadways in the Project Area is 30-mph, except for Huguenot Street, which has a speed limit of 25-mph.

PLAINS ROAD

As it leaves the village to the south, Plains Road quickly has a more rural character. There is a 30-mph speed limit and no shoulders. There is a small bridge over a stream that directly links the Sojourner Park parking lot to the main Wallkill Valley Rail Trail on the north side of Plains Road. The WVRT also crosses Plains Road at this location. In the southbound direction, there is a right curve prior to the trail crossing. In both the northbound and southbound directions the visibility of the trail crossing is not good due to the road geometry and vegetation.



Plains Rd looking South at WVRT crossing



Bridge connection at Soujourner Truth Park and Plains Rd



WVRT at Plains Rd crossing looking North

WATER STREET

The WVRT crosses Water Street at a skew. The entrance to the parking lot for the Water Street Market also occurs at the trail crossing, essentially creating a Y-intersection at this location. The skew of the crossing combined with the need to cross a portion of the market entrance results in an at-grade trail crossing that is approximately 15 feet longer than the two-lane road. This geometry may cause some confusion to southbound motorists. The crosswalk is also currently slightly faded. From the northbound and southbound directions there are left curves at the approaches to the trail crossing. There are no shoulders on Water Street. The speed limit is 30-mph.



Water Street looking East



WVRT at Water Street looking North



Water Street looking West



Water Street looking East

SECTION 2.4 TRANSPORTATION AND CIRCULATION (CONT.)

MAIN STREET

The Main Street at-grade crossing has the highest vehicular traffic volume in the Project Area, with an AADT of 12,305. The crossing is at a skew, which lengthens the distance to cross the street. Because of the traffic volume and two-lane roadway configuration, there sometimes is a steady flow of traffic and the roadway can be challenging for trail users to cross. Apparently, for this reason, there are small buckets attached to sign posts on both sides of the crossing with several high visibility flags for trail users to carry as they cross the street. There is also a “Stop for Pedestrians in Crosswalk” panel in the middle of the street. There are no shoulders on the street, but there are sidewalks in both directions except for eastbound direction west of the trail crossing. Speed limit is 30-mph, eastbound Rte 299 is posted 30-pmh at the village line, west of the bridge.



Main Street looking Northeast



Signage at Main Street crossing



Main Street looking East towards WVRT



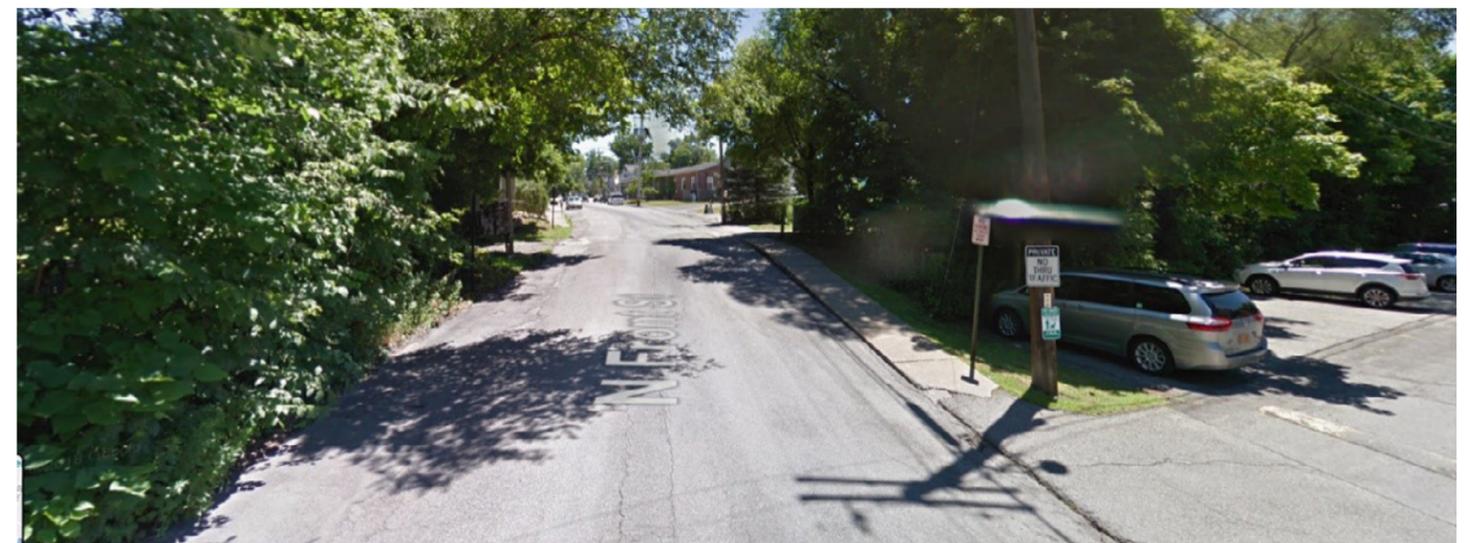
Looking south across North Front Street



North Front Street looking North

NORTH FRONT STREET

North Front Street is a popular access point for WVRT users arriving by foot or bicycle from the nearby New Paltz neighborhoods. This is a secondary village street with no shoulders. Traffic volume figures are not available for North Front Street. There are sidewalks on the eastbound and westbound side of the street between the trail crossing and North Chestnut Street/Route 32 but they do not extend all the way to the trail. There is also a sidewalk on the eastbound side in the direction of Huguenot Street that extends to the trail. The speed limit is 30-mph. Although North Front Street appears to simply connect neighborhoods on either side of North Chestnut Street/Route 32, the Team observed that motorists may use North Front Street via Huguenot Street as a route to bypass Main Street traffic when approaching the Village from the West. Some motorists slow down or stop at the trail crossing while others speed through. Some trail users were also observed to cross the intersection without stopping or looking at traffic. The trail is not very visible due to vegetation growth when approaching the crossing in the eastbound direction.



North Front Street looking East towards intersection with WVRT

SECTION 2.4 TRANSPORTATION AND CIRCULATION (CONT.)

BROADHEAD AVENUE

This is a village roadway with a 30-mph speed limit. The street is slightly over 1500 feet long extending from Huguenot Street, across North Chestnut/Route 32 and Church Street, and ending at Broadhead Court and the Briarwood Town Homes. Traffic volume data is not available for Broadhead Avenue and the road appears to function as neighborhood street. The trail is not highly visible from the westbound direction.



WRT at Broadhead Ave looking North



Broadhead Avenue looking West from WRT



Broadhead Ave at WRT looking East

MULBERRY STREET

This is a village roadway with a 30-mph speed limit and no shoulders. The street extends from Huguenot Street, across North Chestnut/Route 32 and Church Street, and ends at Prospect Street which then eventually continues on to Main Street. Traffic volume data is not available for Mulberry Street and the road appears to function more as a neighborhood street. The trail is not highly visible from the eastbound direction due to vegetation growth.



Rail Trail Crossing Sign at Mulberry Street at WRT looking West



Mulberry Street at WRT looking East



Mulberry Street at WRT looking West

SECTION 2.4 TRANSPORTATION AND CIRCULATION (CONT.)

HUGUENOT STREET

The roadway has a 25-mph speed limit and no shoulders. This part of the road is more rural in character. This portion of Huguenot Street has an AADT of 197 as per the 2016 NYS Traffic Data Viewer. The at-grade crossing is approximately 500 feet from the end of Huguenot Street at Old Kingston Road. The trail is not highly visible from the eastbound and westbound directions due to vegetation growth.



Huguenot Street at WVRT looking West



WVRT at Huguenot Street looking North



Huguenot Street at WVRT looking East

2.4.3 b. INVENTORY OF EXISTING TRAFFIC CONTROL DEVICES IN THE PROJECT AREA

The Team inspected and evaluated the existing traffic control devices at each of the seven at-grade crossings in the project area. There are no traffic signals or flashing beacons at any of the crossings. Aside from the enhanced pedestrian crosswalk signage and panel at the Main Street crossing, only signage and pavement striping have been used at the crossings. We found that the signage at every crossing is either outdated or contains a combination of current, incorrect and outdated signs. The sign layouts and pavement markings are substandard with regard to current Manual of Uniform Traffic Control (MUTCD) and American Association of State Highway Transportation Officials (AASHTO) Guidelines for the development of Bicycle Facilities. It is recommended that the signage and pavement markings be replaced on the roadways and trail as per the typical at-grade trail crossing layout in Figure 1. The crosswalk pavement markings should be improved and maintained periodically.

CONCLUSION

Due to the traffic volumes, geometry and roadway configuration at the Main Street at-grade crossing it is recommended that this intersection be the subject of further study to assess the crossing geometry and explore if there are additional treatments such as flashing beacons, a pedestrian refuge island or traffic light could be used to improve the safety of the crossing.

Similarly, it is recommended that the WVRT crossing at North Front Street be studied further to determine if additional treatments are warranted to improve the safety of trail users at this intersection.

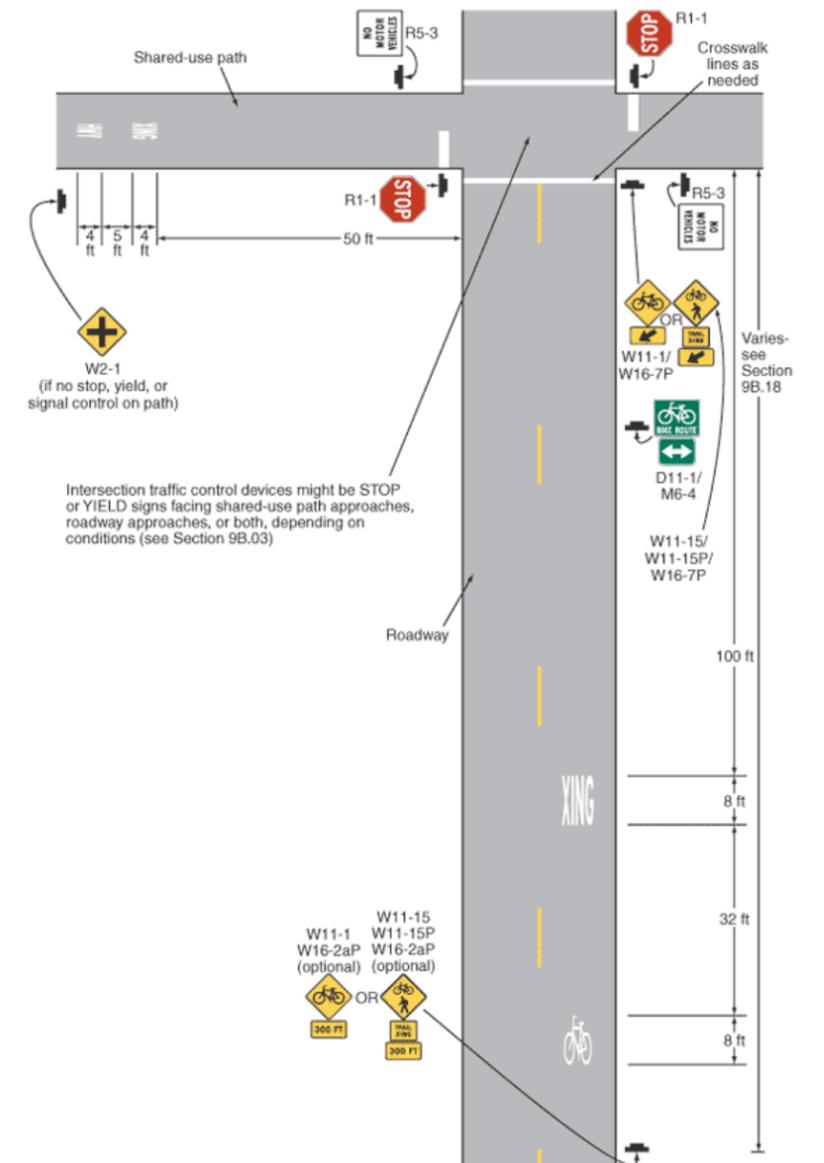


Figure 1: Examples of Signing & Markings for a Shared-Use Path Crossing

SECTION 2.4 TRANSPORTATION AND CIRCULATION (CONT.)

2.4.3.c. ASSESSMENT OF EXISTING TRAIL SURFACE TYPE AND CONDITION WITH RESPECT TO ADA GUIDELINES AND TRAIL LIFE EXPECTANCY

Trail surface material and quality can have a significant impact on the amount and type of use that takes place on a trail. It can also limit the accessibility of the trail. In general, the Team found that the surface WVRT in the project area to be deteriorated and in need of rehabilitation.

The surface is comprised of either deteriorated asphalt, such as in the segment between Water Street and Main Street, or gravel in the northern end of the Project Area. There are also areas where there appears to be a combination of deteriorated asphalt and gravel, such as near Plains Road. Between Mulberry Street and Huguenot Street that gravel surface has grown over with grass resulting in more of a double track type trail. There are also portions of the trail in the northern half of the Project Area that have a dirt surface.

Tree roots protrude through the trail surface in several locations along the trail. The roadway asphalt at several road crossings is higher than the trail surface, creating an edge that trail users must traverse to cross the road. These obstacles, in addition to the variable trail surface condition make it difficult for disabled users of the trail as expressed in a trail survey response.

“Re-pave the trail. The current surface is not in good shape and causes an uncomfortable ride. A smooth paved surface would particularly benefit the disabled that use tricycles or wheelchairs.”

“Have level gradings on all road crossings. On some crossings now the road is at a higher level than the trail making a ‘curb’. The curb makes it more difficult for bikers to start across the road after stopping.”



Old asphalt near Main Street



Dirt surface near Mulberry Street



Deteriorated surface adjacent to Main Street crossing



Partially grown over trail near Huguenot Street



Vertical discontinuity at road crossing



Tree roots protruding through trail

CONCLUSION

The following United States Access Board guidelines

(<https://www.access-board.gov/guidelines-and-standards/streets-sidewalks/shared-use-paths/background/advancenotice>) pertain to the WVRT in the Project Area:

- Surface: The surface of the shared use path shall be firm, stable, and slip resistant.

Most of the WVRT in the Study Area does not meet the requirement for a firm and stable surface in terms of ADA compliance. Areas of the trail that have a dirt surface and overgrown with weeds or grass become muddy and slippery in wet weather and are not compliant. Areas of the trail with a loose gravel surface are not stable or slip resistant. Areas of the trail with deteriorated asphalt pavement are uneven and rough rendering those areas non-compliant with ADA standards.

- Changes in Level: Vertical alignment shall be planar within curb ramp runs, blended transitions, landings, and gutter areas within the shared use path. Grade breaks shall be flush. Surface discontinuities shall not exceed 0.50-inch maximum. Vertical discontinuities between 0.25- inch and 0.5-inch maximum shall be beveled at 1:2 maximum. The bevel shall be applied across the entire level change.

The tree roots and vertical discontinuities at roadway crossings exceed the 0.5-inch maximum discontinuity threshold making these crossings non-ADA accessible.

The trail surface condition in the Project Area has already exceeded its useful life expectancy. Rehabilitation of the trail with a consistent surface such as stone dust, compacted crushed aggregate, asphalt or other ADA accessible material should be considered through the entire Study Area. Consideration should be given to accommodate equestrian use in the surface material selection process.

SUMMARY OF DRAINAGE IMPACTS

It is expected that detailed hydrologic & hydraulic analyses will show the stormwater runoff generated by the proposed design will be adequately handled by the existing drainage infrastructure and will not negatively impact downstream properties and/or the Wallkill River. Stormwater management practices will be limited to water quality treatment practices. Water quantity control is expected to either be managed within the proposed water quality treatment systems or not required for the trail improvement project.

FLOODPLAIN

The existing trail lies at approximately elevation 200' (NAVD88 datum) as shown on the USGS Quadrangle map for Clintondale and Rosendale, NY. The trail is depicted on the FEMA Flood Insurance Rate Map (FIRM) for Ulster County, New York, Map Number 3611C0755E and 3611C0615E, dated September 25, 2009. The Base Flood Elevation (BFE) within the trail limits as shown on the FIRMs ranges from 189-190 feet, placing the existing trail well above the 100-year flood hazard area boundary.

PROJECT SOILS

The primary soil series in the project area are mapped as Bath-Nassau-Rock outcrop complex and Churchville silt loam, Figure 2 Soils. The Hydrologic Soil Group (HSG) for these soils are 'C' and 'D', respectively.

The Bath series consists of very deep, well drained soils formed in till. They are nearly level to steep soils on glaciated uplands. A fragipan is at a depth of 66 to 97 cm below the soil surface. The Nassau series consists of shallow, somewhat excessively drained soils formed in channery till derived from acid shale and slate. They are nearly level to very steep soils that overlie shale bedrock at depths of 25 to 50 cm. They are found on summits, shoulders, and backslopes of ridges and hills on glaciated uplands.

The Churchville series consist of very deep, somewhat poorly drained soils that formed in clayey lacustrine sediments overlying loamy till. Slope ranges from 0 to 15

percent. Saturated hydraulic conductivity is moderately high to high in the mineral surface layer and moderately high to low in the subsoil and substratum.

HSG 'C' and 'D' soils have a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission. Depth to seasonal groundwater is 28 inches. These soils are not highly erodible.

HSG 'C' and 'D' soils are generally not favorable for meeting the standard for stormwater infiltration practice design.

FIELD OBSERVATIONS

Several data points were collected during the trail visit at locations where culverts crossed the existing trail. The size, material, and general observations are noted in the Culvert Inventory Table below:

CULVERT INVENTORY		
GPS Location	Pipe Size and Material	Observations
PT 2	48" Corrugated Iron Pipe (CIP)	Major storm drainage crossing; does not collect trail drainage
PT 4	Culvert size and material could not be identified	Standing Water observed. Potential wetland area. Rain Garden opportunity
PT 5	Drainage pipe ties into N Front St storm sewer system	SMP opportunity
No Point	36" High Density Polyethylene Pipe (HDPE)	North of the trail and east of N Front Street. SMP opportunity
PT 7	24" HDPE	SMP opportunity
PT 8	15" Corrugated Metal Pipe (CMP)	Narrow, deep, drainage swale with standing water
PT 9	24" HDPE	Drainage from offsite into trailside drainage swale
PT 10	8' wide x 6' high Concrete Box Culvert	Moriello Park outlet creek crossing

*SMP = Stormwater Management Practice

Standing water was noted at several locations along the trail, with several of the culverts 25%-50% clogged.

Fig. 1 - Culvert Inventory



Photo Credit: Shumaker Consulting Engineering and Land Surveying D.P.C.

HYDROLOGY

Flow patterns within the trail corridor are generally northwest to the Wallkill River. Stormwater runoff from the contributing drainage areas is generally conveyed under the trail via a combination of drainage channels, culverts, and closed drainage systems to the Wallkill River. Slopes are flat to moderate with land use varying from residential neighborhoods to commercial zones. Due to the size of the contributing drainage areas, the NRCSs TR-55 will be used to develop peak discharge conditions to new stormwater management practices and existing culverts.

HYDROLOGIC SOIL GROUP - ULSTER COUNTY, NY (WVRT)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BOD	Bath-Nassau-Rock outcrop complex, hilly	C	45.1	33.6%
CvA	Churchville silt loam, 0 to 3 percent slopes	C/D	23.8	17.7%
CvB	Churchville silt loam, 3 to 8 percent slopes	C/D	36.8	27.5%
Ma	Madalin silty clay loam	C/D	4.0	3.0%
MgB	Mardin-Nassau complex, 3 to 8 percent slopes	D	5.3	4.0%
NBF	Nassau-Bath-Rock outcrop complex, very steep		2.4	1.8%
OdA	Odessa silt loam, 0 to 3 percent slopes	D	1.6	1.2%
PIB	Plainfield loamy sand, 0 to 8 percent slopes	A	11.4	8.5%
W	Water		0.3	0.3%
Wc	Wayland mucky silt loam	C/D	3.4	2.6%
Totals for Area of Interest			134.2	100.0%

MAP LEGEND

Area of Interest (AOI)
 □ Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D

Water Features
 ~ Streams and Canals

Transportation

- +++ Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
 Aerial Photography

Soils

- C
- C/D
- D
- Not rated or not available

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Ulster County, New York
 Survey Area Data: Version 18, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 7, 2013—Feb 26, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

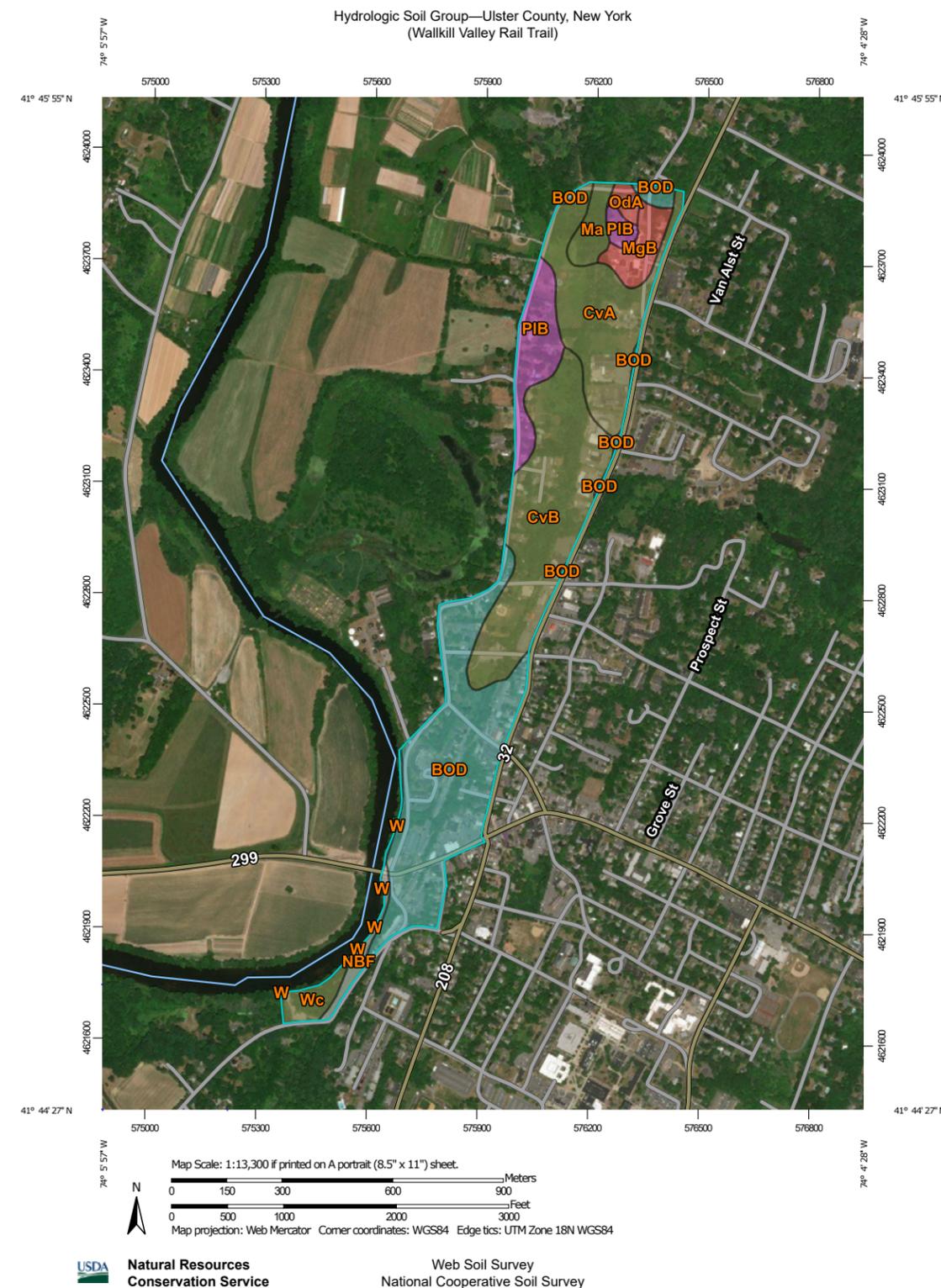


Fig. 2 - Soils

SECTION 2.6 NATURAL RESOURCES AND CULTURALLY SIGNIFICANT AREAS

NATURAL RESOURCES

Shumaker Consulting, Engineering, and Land Surveying (D.P.C.) performed a preliminary ecological screening on Friday, July 26, 2019 to assess the potential presence of wetlands and endangered species habitat along the Wallkill Valley Rail Trail from the parking lot at Plains Road to Huguenot Street. The results and implications of the screening are discussed below.

Wetlands and Streams

Two areas with wetland characteristics and five identified streams were noted during the ecological screening and will need to be confirmed with future study (Figure 2 Preliminary Wetland and Ecology Screening).

SPECIES

An IPaC report generated on July 19, 2019 listed the following species as potentially impacted by activity at the project location:

- o Northern Long Eared Bat (*Myotis septentrionalis*)
- o Indiana Bat (*Myotis sodalis*)
- o Bog Turtle (*Clemmys muhlenbergii*)

Suitable bat habitat was observed occurring along the trail. Suitable bat habitat includes both living and dead trees, greater than 3" DBH, with cracks, crevices, holes, broken limbs, and peeling bark. One area of suitable bat roost habitat in close proximity to the trail was identified and is depicted on Figure 1, Preliminary Ecology and Wetland Screening.

Suitable bog turtle habitat was not observed directly adjacent to the trail, but may be present in more distant portions of the identified wetlands. Suitable bog turtle habitat includes wetlands with soft, deep, mucky soils, hummocks and tussocks, and shallow, slow-flowing surface water.

- The New York Natural Heritage Program (NYNHP) will need to be consulted for further insight into the presence of state-listed species in the project area.
- Project alternatives should be assessed for potential impacts to federal and state-listed species.

CULTURAL RESOURCES

Photographs were collected in and around the Huguenot Street Historic District to support later coordination with the NYS Office of Parks Recreation and Historic Preservation (NYSOPRHP).

The NYSOPRHP Cultural Resources Information System (CRIS) website was reviewed, and the following Listed sites were identified immediately along the rail trail, within the New Paltz Downtown Historic District, Figure 2.

Twelve (12) structures within or adjacent to the Huguenot Street Historic District are also Listed on the Nation Register of Historic Places.

Direct impacts to these structures are not anticipated. Coordination with NYSOPRHP will need to be initiated once a preliminary design is developed, to determine the project's potential effects on these historic districts.

The WDLA Project Team will work with the New York State Office of Parks Recreation and Historic Preservation to review the project's effects on cultural resources, especially the Huguenot Historic Area, as various alternatives are proposed.

Site Name	Address
Cohen Building, New Paltz Manufacturing Co.	11-15 Main St.
RR Depot, Lastazione Rest	5 Main St.
Residence	2 Academy St.
Residence	3 Academy St.
NP Electric Light Co. Building	25 North Front St.

Fig. 1 - Historic Sites immediately along the Rail Trail.



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend

- - - Rail Trail
- Identified Streams
- Areas with Wetland Characteristics
- Bridge Crossing Stream
- Potential Bat Roost Habitat
- NYSDEC Wetlands

Fig. 2 - Preliminary Wetland and Ecology Screening

Wallkill Valley Rail Trail
Town of New Paltz, New York
Ulster County

1 inch = 500 feet
1:6,000

SECTION 2.7 UTILITIES

EXISTING UTILITIES INVENTORY

An investigation into existing utilities, including electric, gas, fiber/CATV, storm sewer, highway culverts, sanitary sewers, water mains, and fiber/telephone infrastructure, was conducted by Shumaker. The status of existing utilities, along with owner information, is summarized in Table 1.

DIG SAFELY NY INQUIRIES/"DESIGN TICKET" SUBMITTALS Shumaker submitted DigSafe 'Design Ticket' inquiries in August 2019. Additional information on water and sewer utilities is available from the Village of New Paltz Department of Public Works in GIS format. The degree of detail for existing infrastructure needed for the Vision Plan will be determined during further discussion and coordination with local officials and the Technical Advisory Committee.

18395 - WALLKILL VALLEY RAIL TRAIL UTILITY INFORMATION CHART

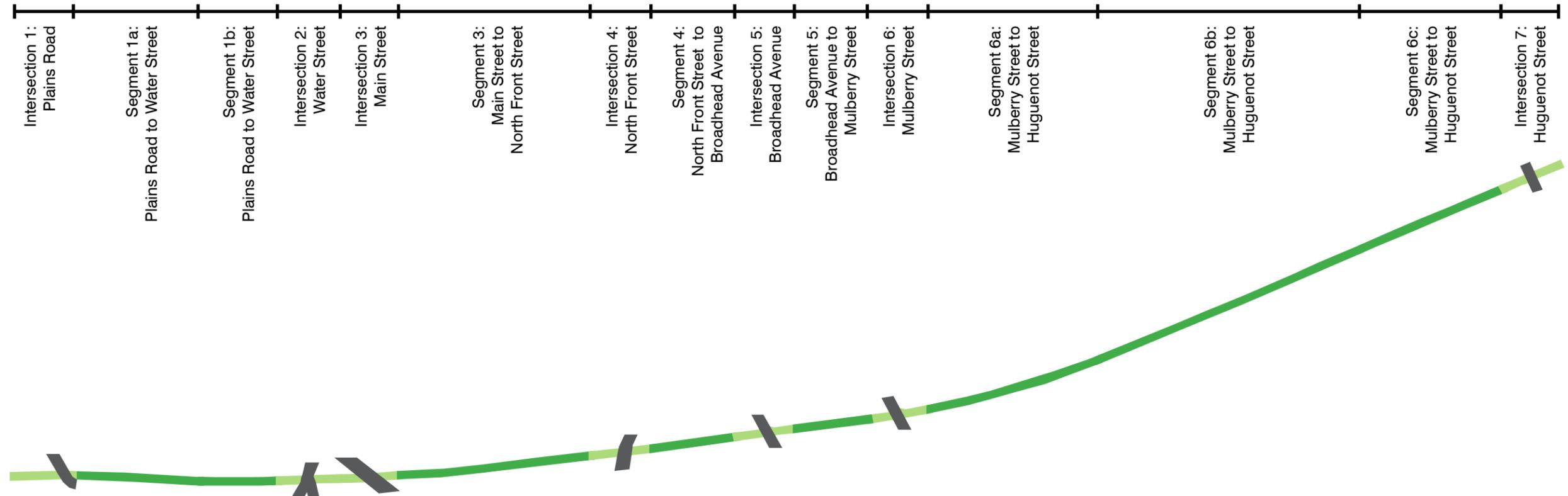
TICKET #: 07309-544-008, 07309-544-009, 07309-544-010, 07309-544-011

TYPE	OWNER	CONTACT	E-MAIL	PHONE NUMBER	STATUS REPORT FOR 07309-544-008	STATUS REPORT FOR 07309-544-009	STATUS REPORT FOR 07309-544-010	STATUS REPORT FOR 07309-544-011
ELECTRIC	CENTRAL HUDSON GAS AND ELECTRIC SOUTH ELECTRIC	TOM EICHE		1-845-563-4517	Sent e-mail to Brandon Mariner asking if limits were clear 8/1/2019			
GAS	CENTRAL HUDSON GAS AND ELECTRIC SOUTH GAS	TOM EICHE	BRANDON MARINER Bmariner@cenhud.com 845-563-4555	1-845-563-4517	CLEAR	CLEAR	CLEAR	CLEAR
FIBER, CATV	TIME WARNER CABLE HUDSON VALLEY	TIME WARNER DESIGN CONTACT		1-317-575-7800 x 2	Called 8/1/19 Could not reach anyone			
STORM SEWER, HIGHWAY CULVERTS, SANITARY SEWER, WATER	TOWN OF NEW PALTZ	CHRIS MARX		1-845-255-5050 1-845-399-5354	CLEAR	CLEAR	CLEAR	CLEAR
STORM SEWER, SANITARY SEWER, WATER	VILLAGE OF NEW PALTZ	HEATHER NIELSON		1-845-255-1980	Called 8/1/19 Did not reach anyone			
FIBER, TELEPHONE	VERIZON / HUDSON VALLEY	JAMES EVANGELISTI		1-845-451-6450	N/A	RECEIVED CALL FROM DOUG 7/31/19 UTILITIES CROSS IN TWO AREAS	UTILITIES CROSS IN TWO AREAS	UTILITIES CROSS IN TWO AREAS

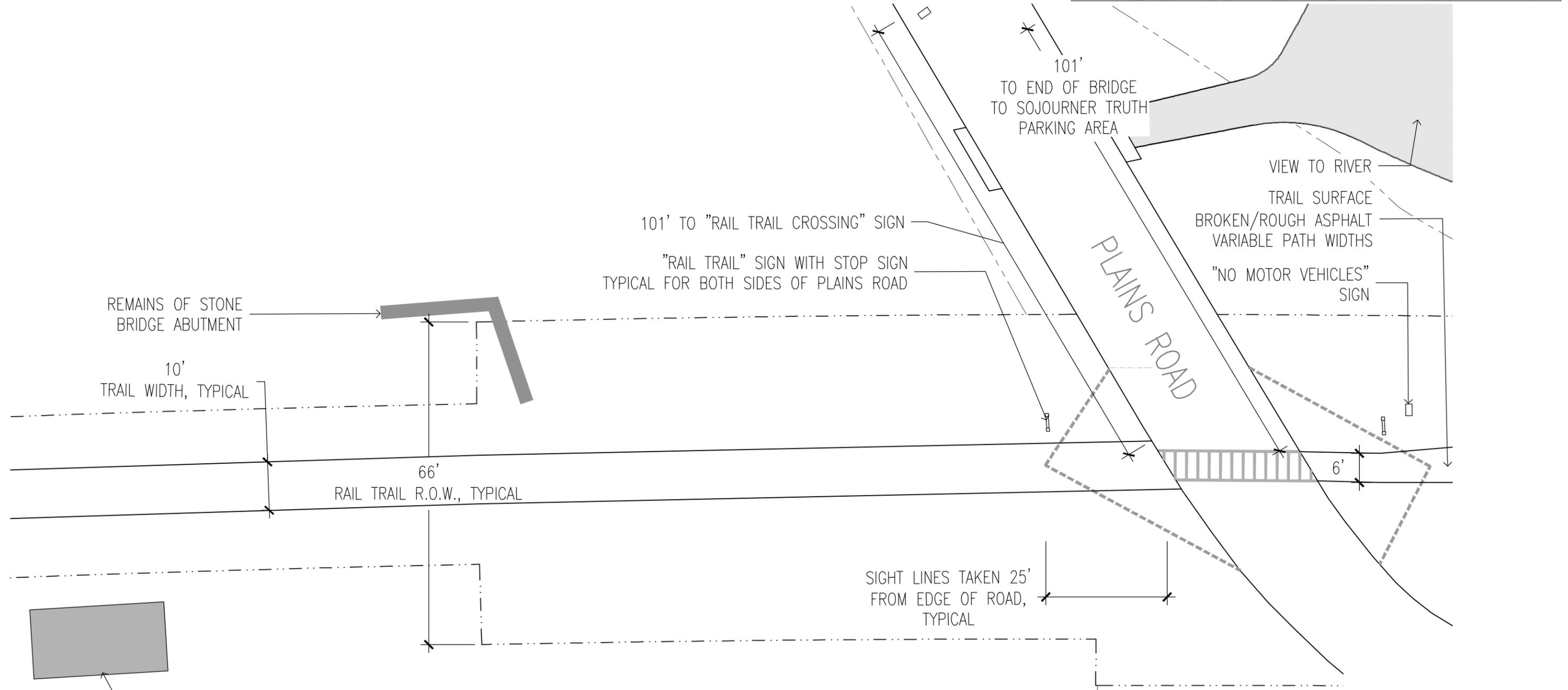
Table 1 - Utility Information Chart

SECTION 3.1 DETAILED EXISTING CONDITIONS INVENTORY AND ANALYSIS

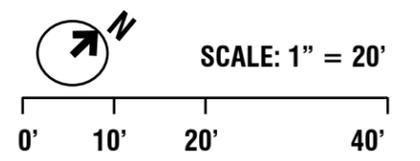
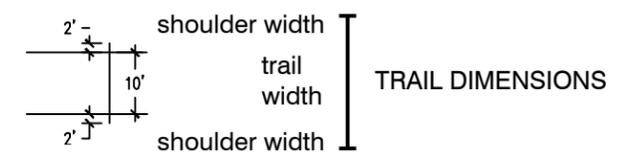
STUDY AREA: WALLKILL VALLEY RAIL TRAIL COMMUNITY OPPORTUNITY KEY MAP



INTERSECTION 1: PLAINS ROAD & WALLKILL VALLEY RAIL TRAIL PLAN



- TRAIL EDGE
- - - RAIL TRAIL RIGHT OF WAY (R.O.W.)
- - - APPROXIMATE PROPERTY LINE



INTERSECTION 1: PLAINS ROAD & WALLKILL VALLEY RAIL TRAIL PHOTOS



SIGHT LINES - LOOKING NORTH

- Clear sight lines to the north.

SIGHT LINES - LOOKING SOUTH

- Clear sight lines to the south.

TRAIL ACCESS

- At Plains Road is an Empire State Trailhead with parking. This bridge connects the WVRT with the newly constructed Trailhead.

ADJACENT AMENITIES

- Bridge to Sojourner Truth Parking Area



VERTICAL DISCONTINUITY

- Slight Vertical Discontinuity at Plains Road

TRAIL SURFACE

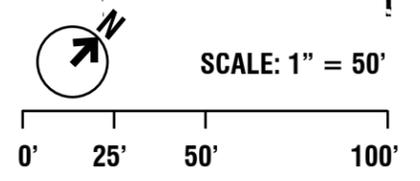
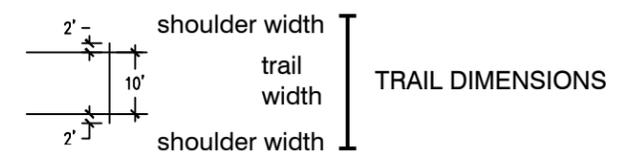
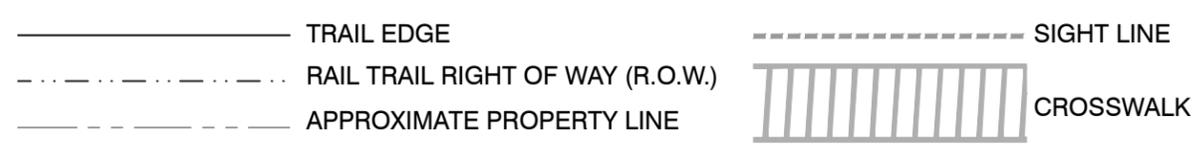
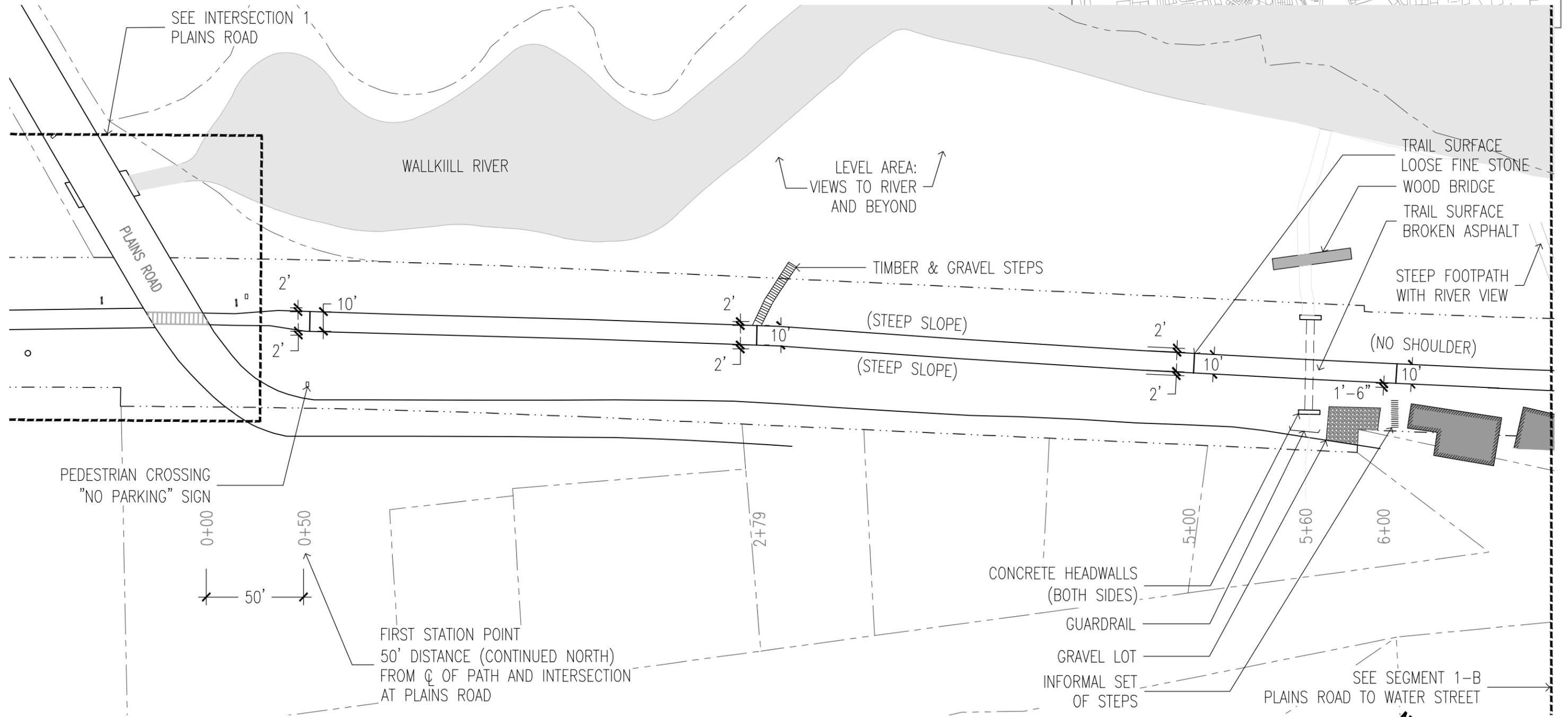
- Trail surface is a fine, loose stone.

EXISTING SIGNAGE

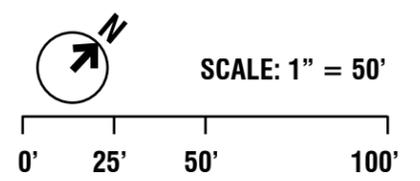
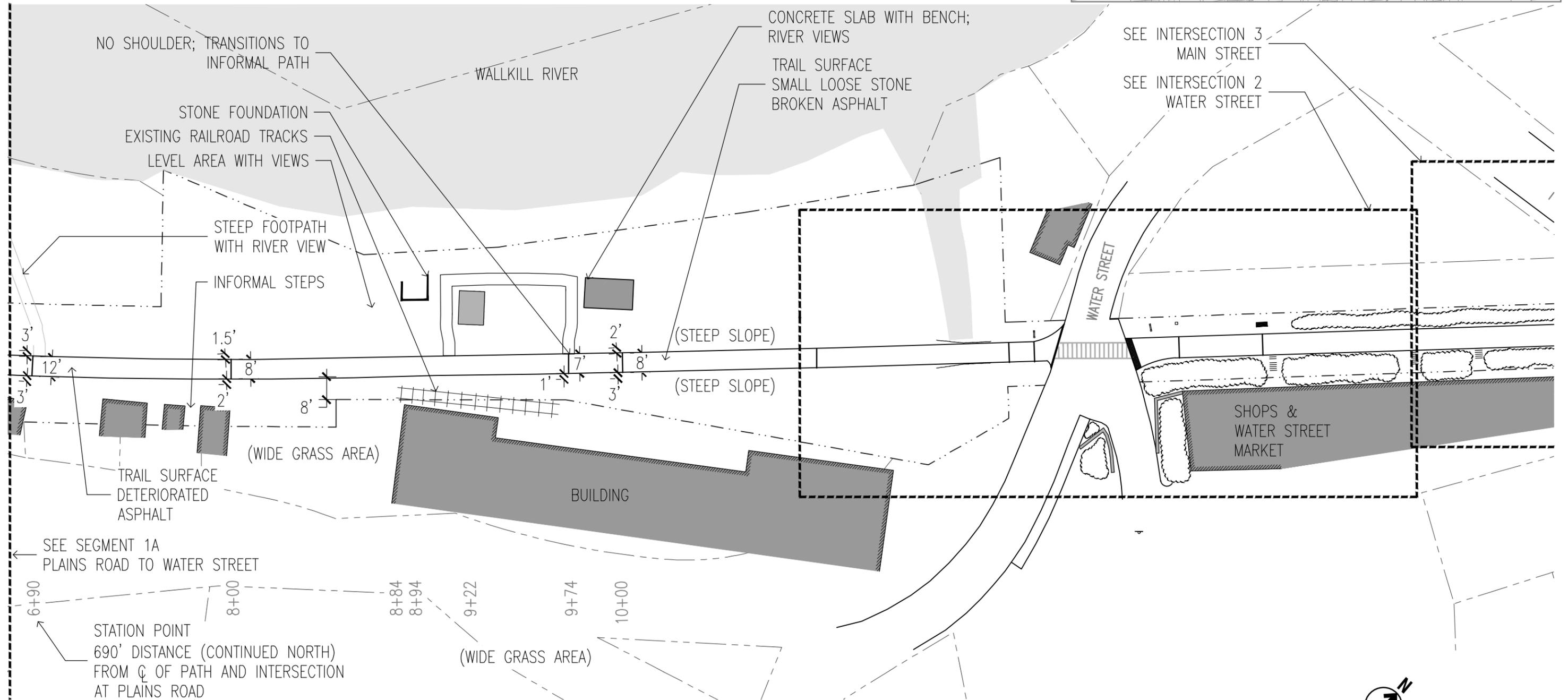
- Incorrect signage approaching WVRT crossing from the south.
- Incorrect signage approaching WVRT crossing from the north.
- Although minimum sight lines are adequate, approaching from the north, the WVRT crossing is just past a curve in Plains Road and correct signage to alert drivers to the trail crossing is important.



SEGMENT 1A: PLAINS ROAD TO WATER STREET PLAN



SEGMENT 1B: PLAINS ROAD TO WATER STREET PLAN



SEGMENT 1: PLAINS ROAD TO WATER STREET PHOTOS



TRAIL WIDTH

- Path width in this segment is generally between 8-10 feet with adequate space for a two foot shoulder on each side. Some areas widen to open areas to the west allowing sun to stream onto the trail.



HISTORIC ATTRIBUTE

- One of the only rails from the rail line still existing. We understand this to be a siding to service what was once a lumber mill. This would be a good opportunity for interpretative signage.

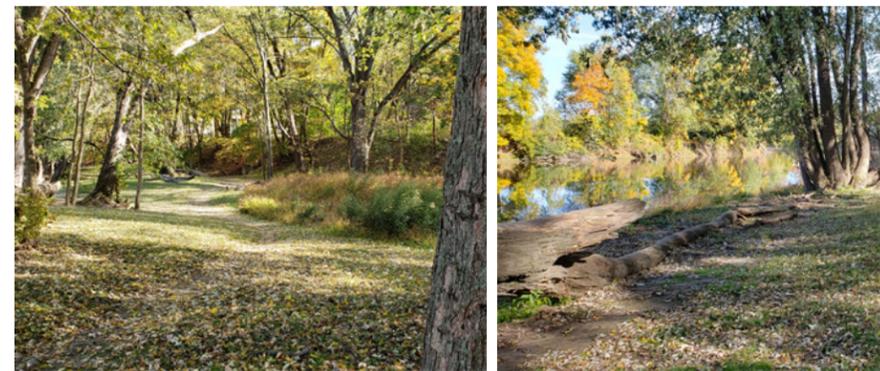


TRAIL ACCESS

- There are informal connections to the WVRT from the adjacent properties.



- This wide lower level path follows the Wallkill Valley River to the north.



- There is a steep dirt path that leads back up to the WVRT. There is indication of erosion especially at the point of intersection with the WVRT. Formalizing this connection in a similar approach to the log steps south of this point could be considered.



TRAIL SURFACE

- The path is deteriorated asphalt pavement resulting in a very rough surface.
- As the trail approaches Water Street, the surface is composed of broken chunks of deteriorated asphalt pavement, fine gravel and dirt.



SEGMENT 1: PLAINS ROAD TO WATER STREET PHOTOS



ADJACENT AMENITIES

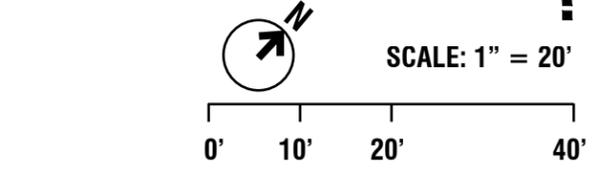
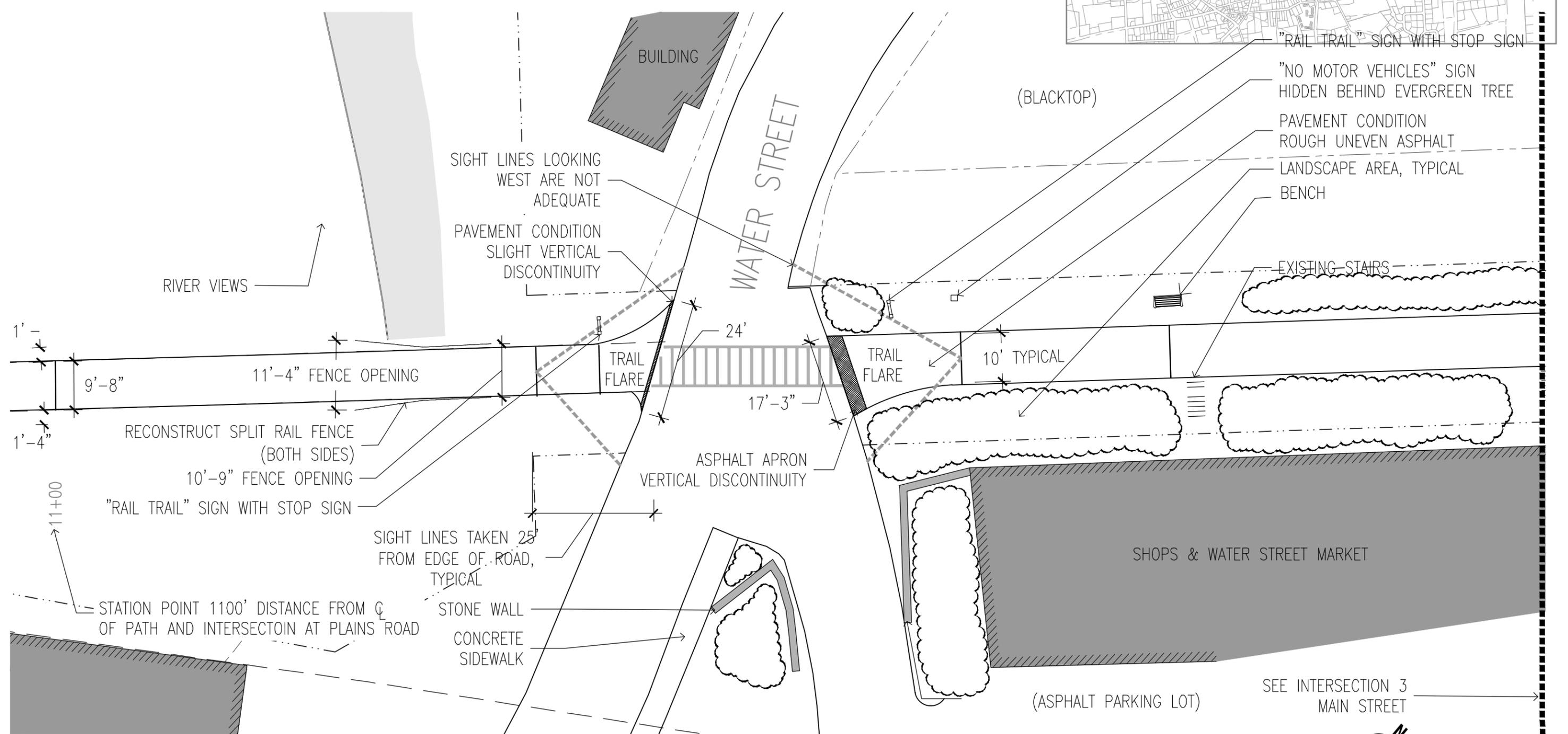
- There is a side path that leads to an old foundation (should be cleaned of graffiti) and bench with great views of the Wallkill River. This is an area with opportunity for passive seating overlooks and interpretative signage.
- There is a level area below the WVRT connected by a set of informal log stairs. This area can provide connection to the lower parking area and boat launch at Sojourner Truth Park (potential ADA access). It has good views to the Wallkill River and is an opportunity for a trail side path and passive recreation area.



- Steps require some repair and a handrail could be considered.
- A wooden bridge over a stormwater outfall connects to another large, open area with nice views to the Wallkill River.



INTERSECTION 2: WATER STREET & WALLKILL VALLEY RAIL TRAIL PLAN

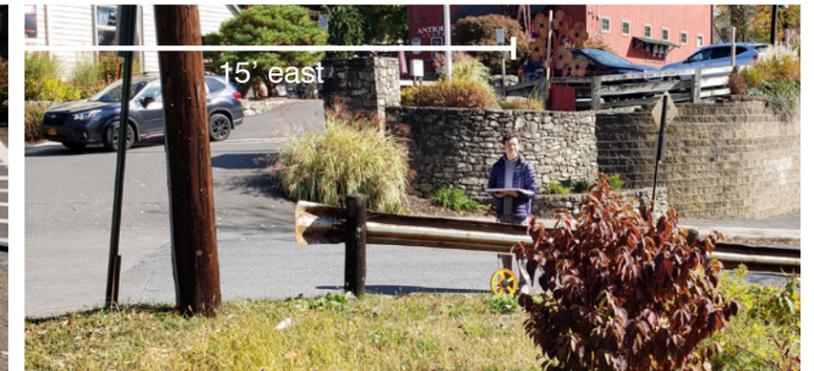


INTERSECTION 2: WATER STREET & WALLKILL VALLEY RAIL TRAIL PHOTOS



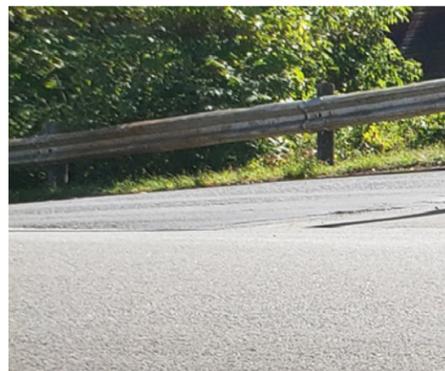
SIGHT LINES

- Approaching Water Street from the north, the sight line distance to the east is obscured by vegetation. This is also where cars coming down from the parking area will be merging with Water Street traffic.
- Approaching Water Street from the south, the sight line to the west barely meets the minimum distance required. Given the limited visibility of the vehicles approaching the WVRT from this direction, increased visibility by re-locating the sign and pruning vegetation should be considered.
- Approaching Water Street from the south, the sight line to the east exceeds the minimum distance required. However, given the limited visibility of the vehicles approaching the WVRT up a hill from this direction, improved signage should be considered.



VERTICAL DISCONTINUITY / TRAIL SURFACE

- Approaching Water Street from the north, there is a short asphalt pavement apron that transitions the trail surface to the higher road surface of Water Street. The asphalt pavement of the trail is severely deteriorated and the exposed large aggregate and broken pavement create a very rough surface.
- Approaching Water Street from the south, there is a slight lip at the transition from the trail surface to the road surface.



VIEWS

- There are very nice views to the Wallkill River from this fenced area of the trail.



INTERSECTION 2: WATER STREET & WALLKILL VALLEY RAIL TRAIL PHOTOS

SAFETY CONSIDERATIONS

- To the south of the WVRT intersection with Water Street there is a post and rail fence protecting trail users from the steep slopes and change of grade to the east and west of the trail. The fence is in poor condition and leaning out away from the trail. The clear width between the fences varies from 11'-4" at the south opening to 10'-9" at the north opening towards Water Street. The change of grade at this location is significant and a sturdier fence with less open area should be considered.



- The Water Street and WVRT intersection is the busiest of all the road trail crossings. The road slopes up from both the east and west making the trail crossing difficult to see. On the north side of Water Street a third vehicular access point connects from the Water Street Market shops parking with a steeply sloping driveway.
- Vehicles approaching the trail crossing from the east are coming around a curve going uphill and the road striping is not very visible. A stone retaining wall and vegetation further obscures trail users crossing from the north. The signage is incorrect and outdated. The driveway from the Water Street Market shop parking is blindly entering from the right.
- The driveway from the Water Street Market shops parking connects to Water Street at the trail crossing. Vehicles trying to merge onto Water Street may not see pedestrians in the crosswalk. An informal sign cautions vehicles that the rail trail crosses here.

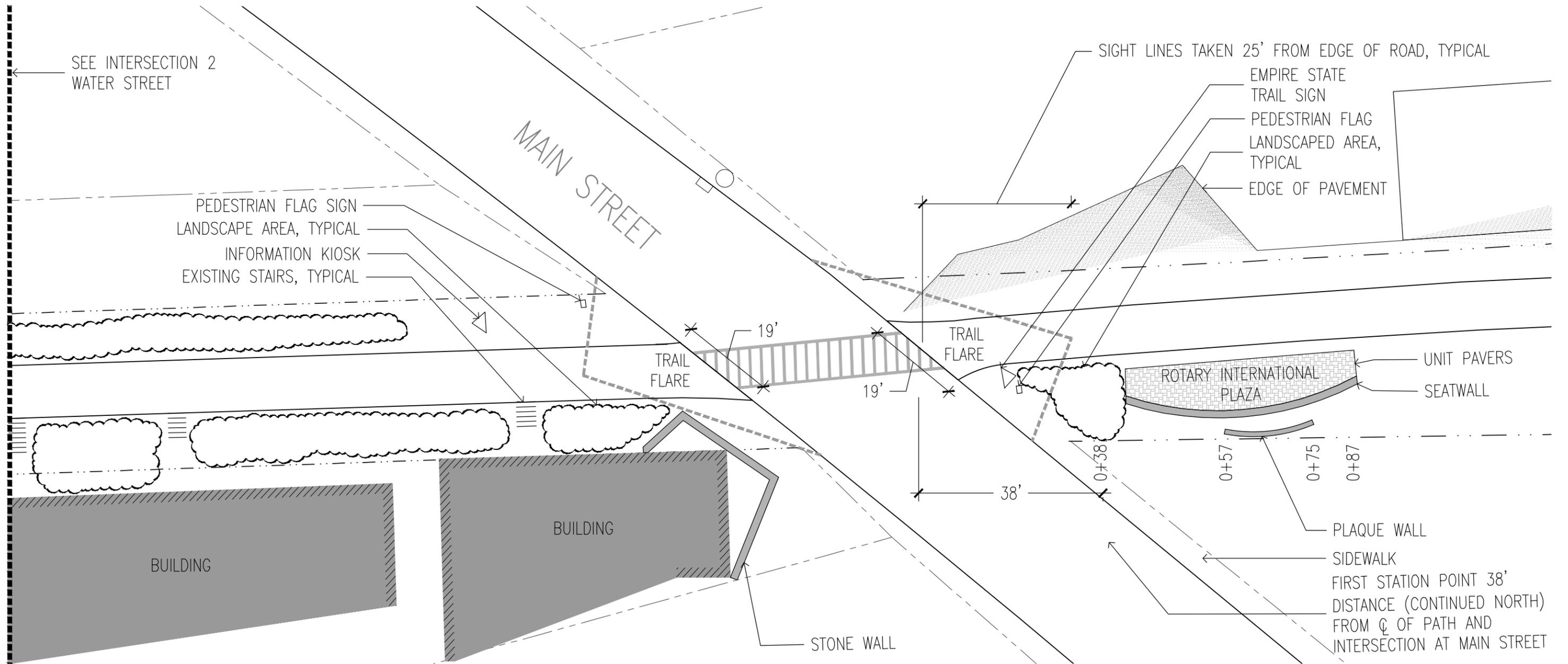


EXISTING SIGNAGE

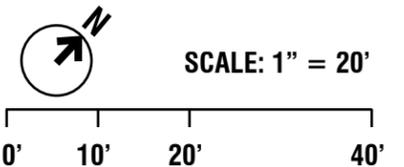
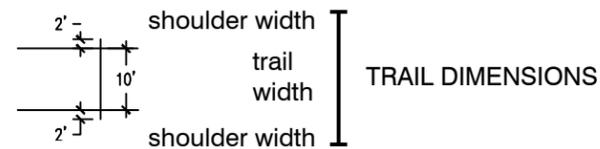
- Vehicles approaching the trail crossing from the east are coming around a curve going uphill and the road striping is not very visible. The signage is incorrect and outdated.
- The No Motor Vehicle sign on the north side of Water Street is obscured by the tree. There have been reports of vehicles turning onto to the trail from Water Street. The sign must be re-located to be more visible.
- Approaching Water Street from the north, there is a trail sign with stop sign attached on the west side of the path. The vegetation completely obscures the trail sign from trail users crossing from the south. The vegetation completely obscures the sight line to see approaching vehicles coming from the west.
- Approaching Water Street from the south, there is a trail sign with a "Caution Road Crossing" sign attached. Given the converging of three vehicular roads with limited sight distance intersecting with a busy pedestrian/cyclist crossing, a stop sign for the trail and vehicular control signs should be considered to prevent conflicts between vehicles and trail users.



INTERSECTION 3: MAIN STREET & WALLKILL VALLEY RAIL TRAIL PLAN



- TRAIL EDGE
- - - - RAIL TRAIL RIGHT OF WAY (R.O.W.)
- - - - APPROXIMATE PROPERTY LINE



INTERSECTION 3: MAIN STREET & WALLKILL VALLEY RAIL TRAIL PHOTOS



SIGHT LINES - LOOKING NORTH

- There are clear sightlines to both the east and west for trail users to see approaching vehicles traveling down Main Street.



SIGHT LINES - LOOKING SOUTH

- Approaching Main Street from the north, the overgrown vegetation blocks visibility preventing trail users to see vehicles approaching from the east. The pedestrian connection sign for the Empire Trail System directs pedestrians to the east, although the WVRT continues straight across Main Street. This will need to be clarified.
- There are clear sight lines approaching from the north and looking down Main Street to the east.



SAFETY CONSIDERATIONS

- The WVRT and Main Street intersection is extremely busy with pedestrians, cyclists and vehicles. This intersection may require additional traffic control measures than the red flags pedestrians can hold when they would like to cross.
- To the south of Main Street, there is a trail sign and a partially obscured No Motor Vehicle sign. There have been reports of vehicles turning on to the WVRT and the No Vehicle Sign may need to be re-located to be more effective.



INTERSECTION 3: MAIN STREET & WALLKILL VALLEY RAIL TRAIL PHOTOS



ADJACENT AMENITIES

- There is an information kiosk further to the south that provides information on the Greater New Paltz area.

TRAIL WIDTH

- The trail width is approximately 10' but with very little shoulder to each side. The steps from the shops enter right onto the trail creating a potential conflict between those entering the trail from the shops and cyclists riding along the trail.

SITE FURNISHINGS

- There is a bench looking out over a large lawn clearing that may provide an opportunity for additional seating and events on the lawn.



TRAIL SURFACE

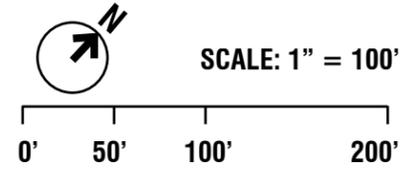
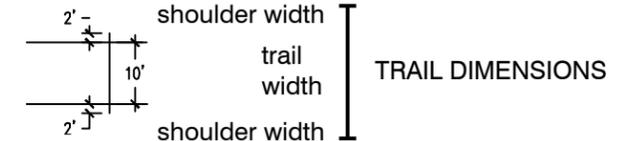
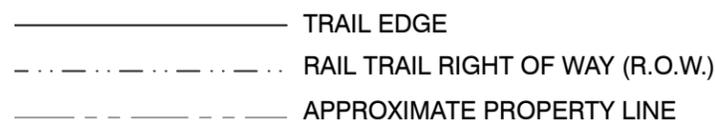
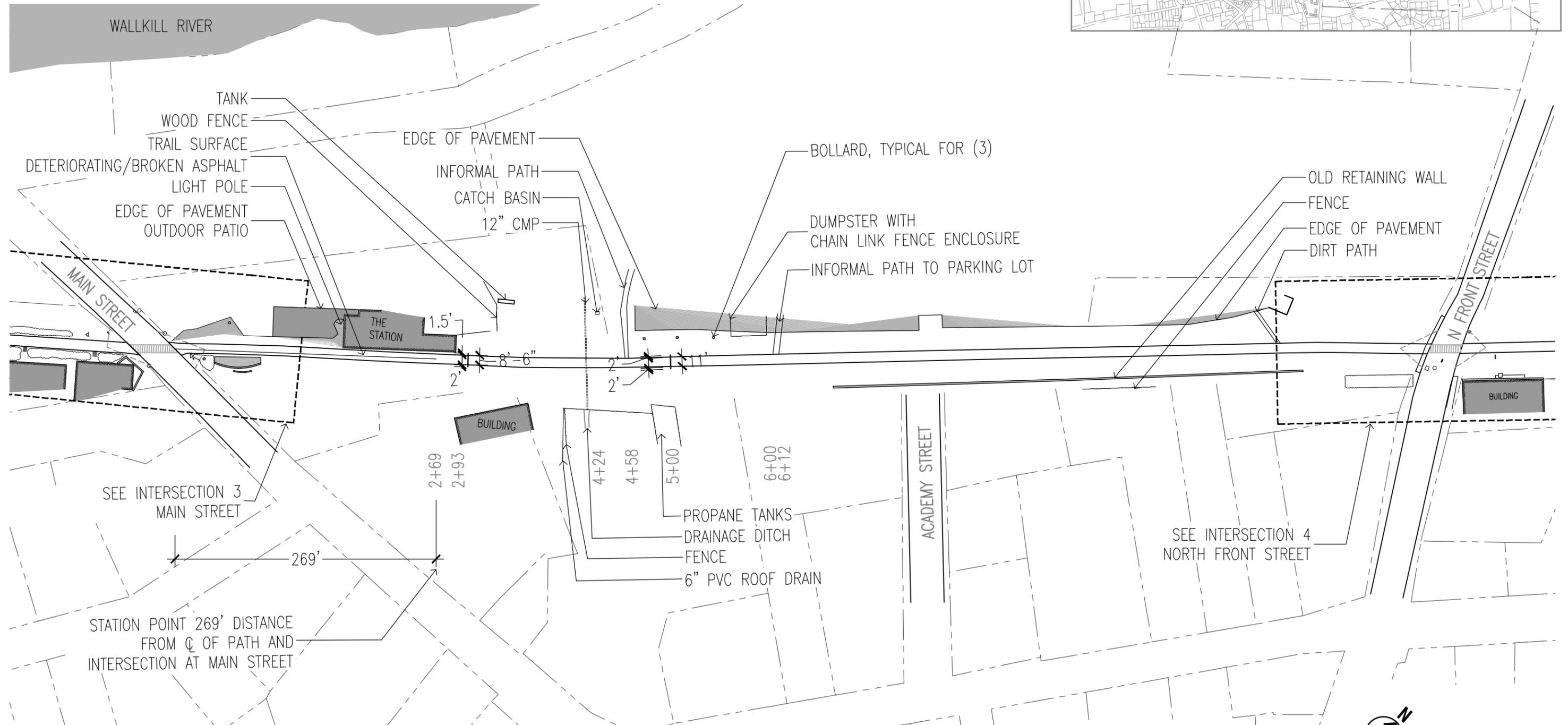
- The trail surface along the Water Street Market Shops is severely deteriorated asphalt pavement with sections missing that create an extremely uneven and rough surface.

EXISTING SIGNAGE

- There is a No Motor Vehicle sign posted fairly distant from the intersection but there is no WVRT sign or stop sign for trail users approaching Main Street from the north.
- All the vehicle signs signaling the intersection with the WVRT are either outdated or incorrect and need to be replaced with correct signs that meet the current standards.



SEGMENT 3: MAIN STREET TO NORTH FRONT STREET PLAN



SEGMENT 3: MAIN STREET TO NORTH FRONT STREET PHOTOS



HISTORIC ATTRIBUTE

- One of the highlights of this segment is the historic stone retaining wall that runs along the eastern side of the trail. Some sections are in better condition than others but overall the wall is a very attractive site feature. This is a great interpretative opportunity to put the WVRT into historical context.



ADJACENT AMENITIES

- There is an opportunity for a better relationship between the outside area behind The Station and the trail.
- Rotary International Plaza located just north of Main Street has the potential to become a central gathering place along the WVRT for celebrations and informal socialization. The planting needs to be restored and some unique site features and amenities can make this a very special space along the WVRT.



SITE FURNISHINGS TRAIL ACCESS

- The bike station is in good condition.
- There are several informal dirt paths connecting adjacent properties to the trail. Consideration should be given to whether these should be formalized to prevent erosion and create a stable path.

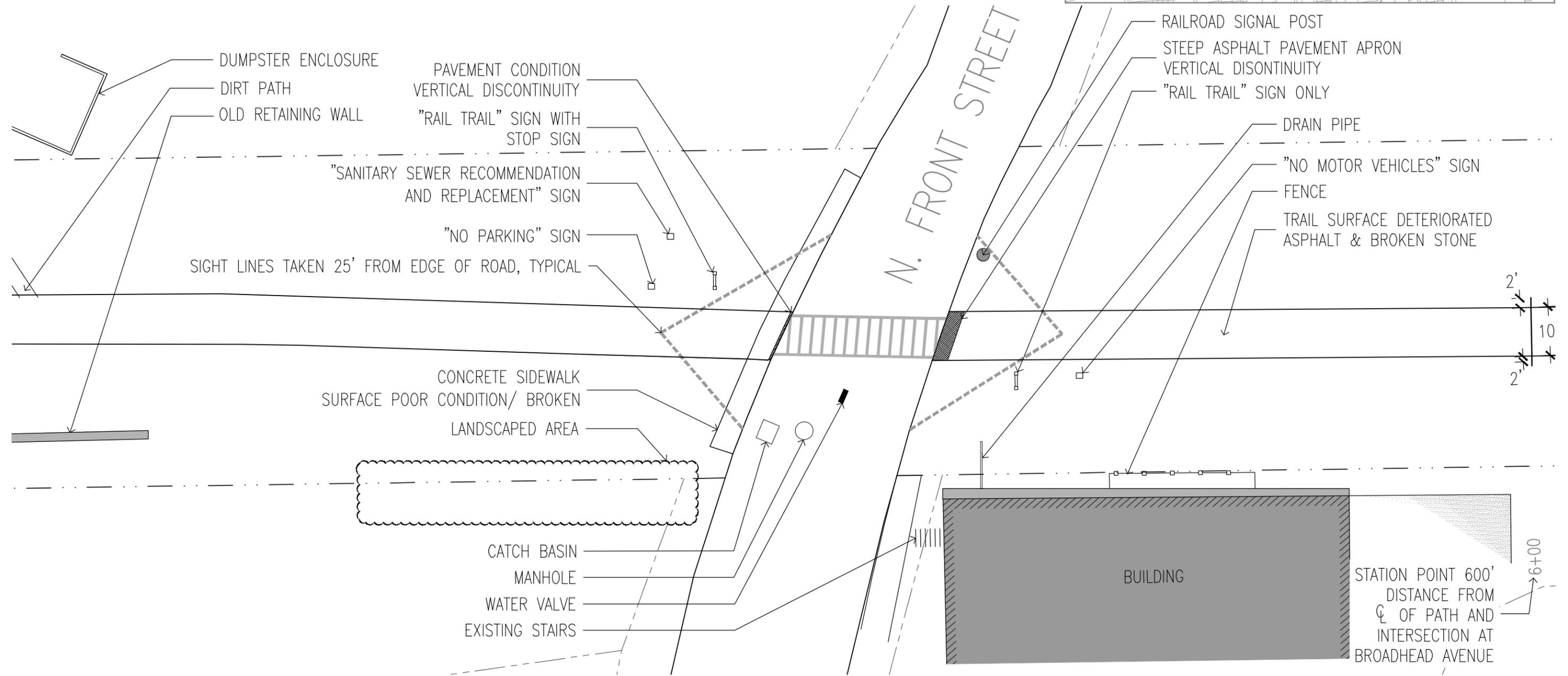


TRAIL SURFACE

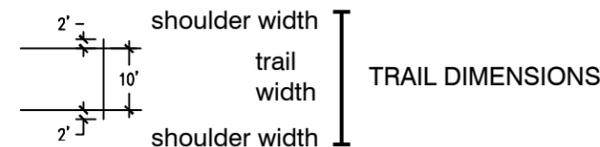
- The trail surface approaching Main Street is seriously deteriorated asphalt pavement with extremely rough aggregate and unevenness.



INTERSECTION 4: NORTH FRONT STREET & WALLKILL VALLEY RAIL TRAIL PLAN



- TRAIL EDGE
- - - - RAIL TRAIL RIGHT OF WAY (R.O.W.)
- - - - APPROXIMATE PROPERTY LINE



INTERSECTION 4: NORTH FRONT STREET & WALLKILL VALLEY RAIL TRAIL PHOTOS



SIGHT LINES - LOOKING NORTH

- Approaching North Front Street from the south there is a clear sight line to the east, but required sight line to the west is obscured by signage and vegetation. Temporary construction sign should be removed after construction is complete and vegetation needs to be pruned and/or removed to increase visibility to see approaching cars. Trail sign has a stop sign attached.



SIGHT LINES - LOOKING SOUTH

- There are clear sight lines approaching North Front Street from the north, although the visibility could be increased by removing the undergrowth to the west.



TRAIL CONDITION

- Existing drain pipe is raised and may need to be cut back to maintain 2' shoulder.



HISTORIC ATTRIBUTE

- There is a railroad signal post and cabinet that could possibly be converted to an interpretative stop relaying railroad history.



VERTICAL DISCONTINUITY

- Approaching from the south, there is a distinct lip between the trail and North Front Street pavement. The paving leading up to North Front Street is rough and severely deteriorated.
- Approaching from the north, there is a short, steep asphalt pavement apron connecting the surface of the trail with the pavement of North Front Street.



- The sidewalk along the south side of North Front Street is in poor condition and does not have a smooth transition where it meets the trail. Sidewalk ends here and does not extend further towards the east.

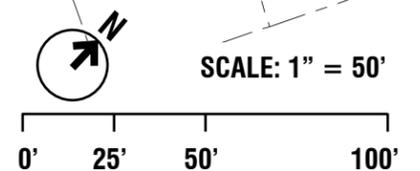
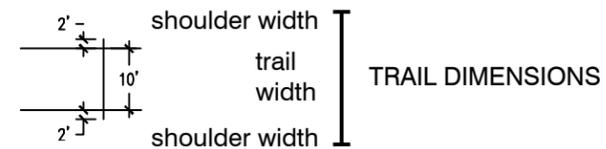
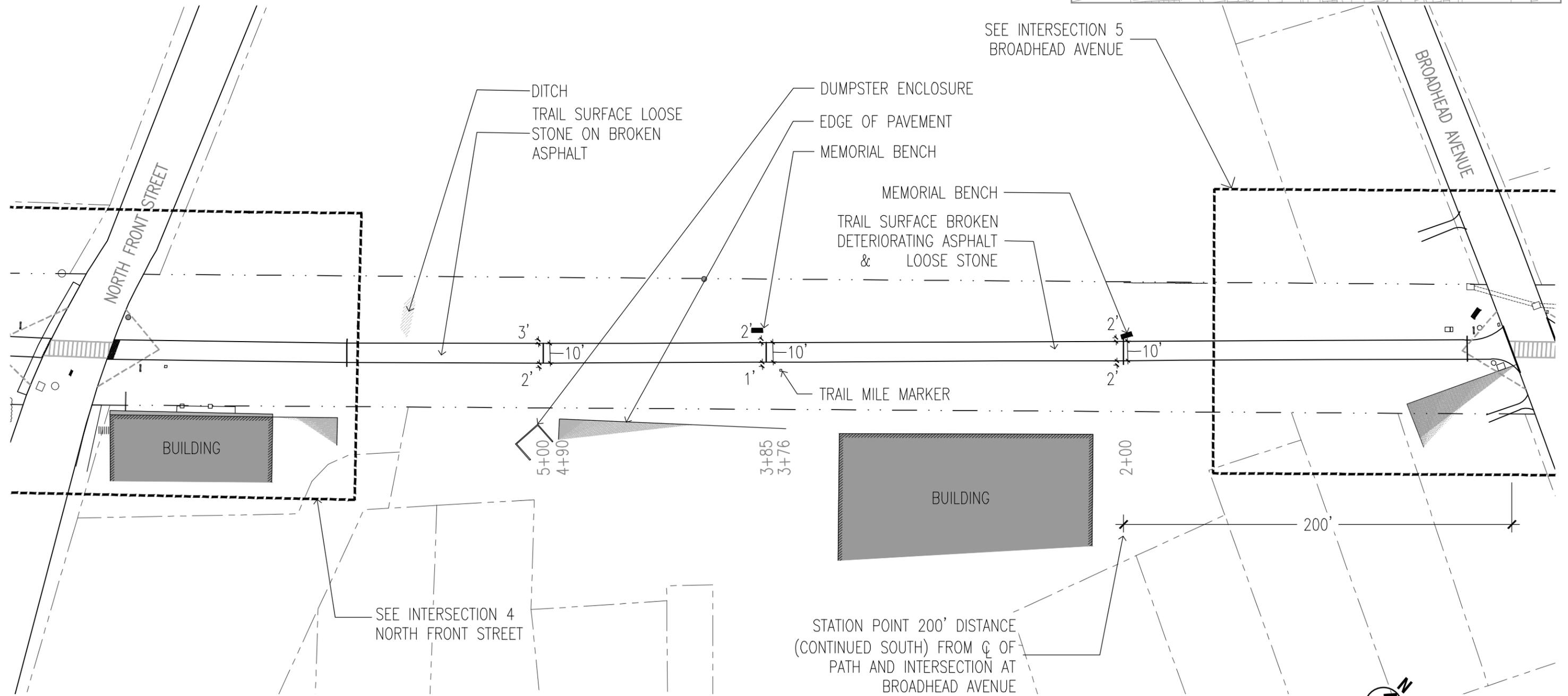


EXISTING SIGNAGE

- The trail sign on the north side of North Front Street does not have a stop sign attached. Both the trail sign and No Motor Vehicle sign are located within the 2' shoulder and will need to be re-located.
- All Rail Trail Crossing signs are incorrect and need to be replaced with signs that meet the current standards.



SEGMENT 4: NORTH FRONT STREET TO BROADHEAD AVENUE PLAN



SEGMENT 4: NORTH FRONT STREET TO BROADHEAD AVENUE PHOTOS



TRAIL WIDTH

- Trail width is generally 10' with a minimum 2' shoulder to each side (except at Station 3+85 where the path would have to be reduced slightly to accommodate widening the shoulder to 2').



OPEN SPACE

- The area to the east of the path widens out to an open lawn area, one of the brightest sections of the trail. This creates a number of amenity opportunities within the WVRT Right of Way. There is an existing drainage swale that would need to be considered in any proposed design.



HISTORIC ATTRIBUTE

- Mile marker signs like this one can be integrated into an organized trail distance marker system to provide mileage information for trail users.



TRAIL CONDITION

- There is a significant ditch caused by erosion off to the east of the trail shoulder just past the Station 5+00. The ditch should be restored and the erosion issue addressed to prevent further deterioration adjacent to the trail shoulder.



EXISTING SITE FURNISHINGS

- There are two memorial benches along the western side of the trail. The wood slats are rough and should be replaced with the plaques removed and re-installed on the new bench slats.

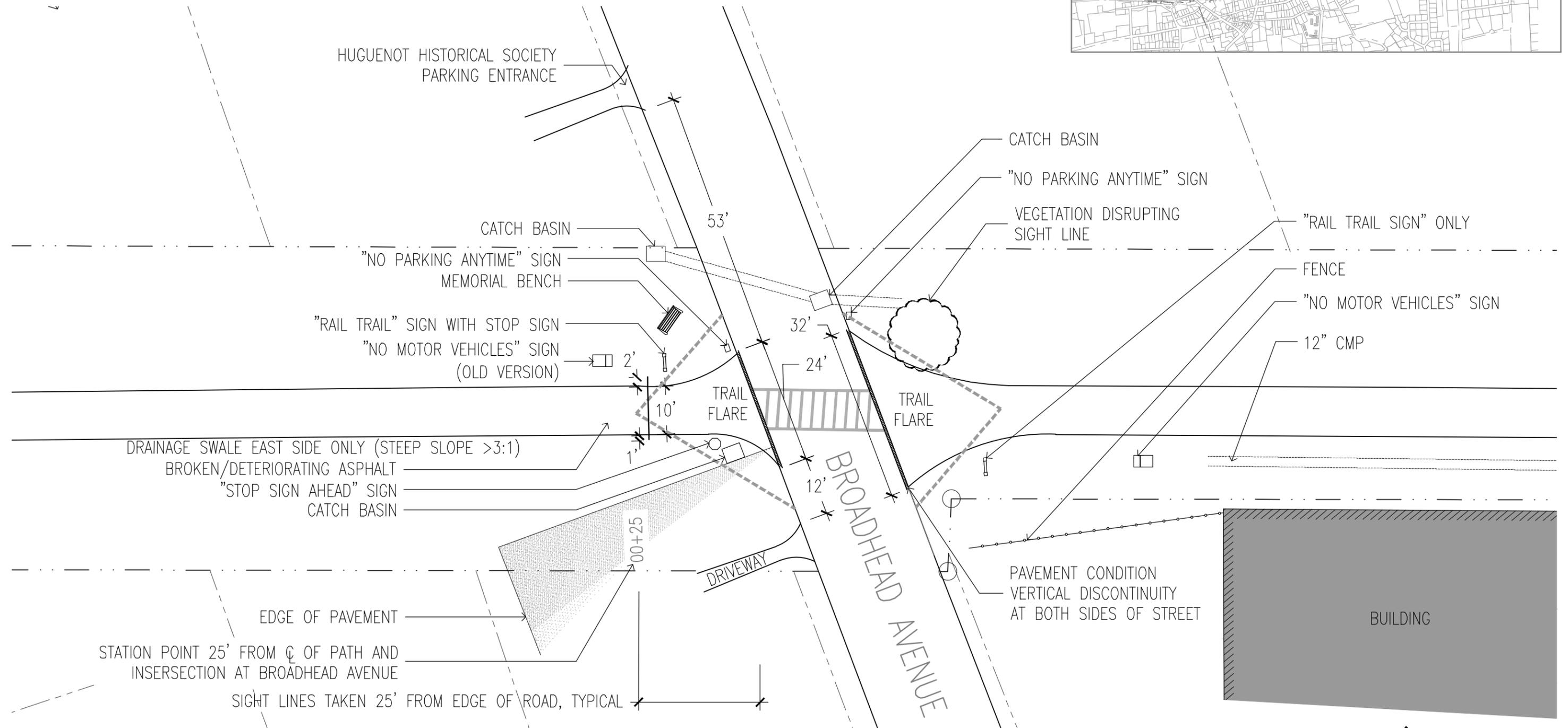


TRAIL SURFACE

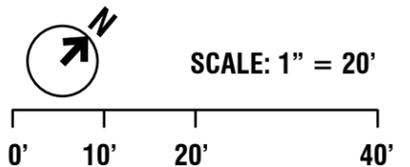
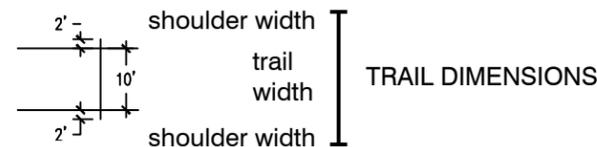
- Trail surface is rough, deteriorated asphalt pavement.



INTERSECTION 5: BROADHEAD AVENUE & WALLKILL VALLEY RAIL TRAIL PLAN



- TRAIL EDGE
- - - - RAIL TRAIL RIGHT OF WAY (R.O.W.)
- - - - APPROXIMATE PROPERTY LINE



INTERSECTION 5: BROADHEAD AVENUE & WALLKILL VALLEY RAIL TRAIL PHOTOS



SIGHT LINES - LOOKING SOUTH

- Clear sight triangle to the west approaching the south side of Broadhead Avenue.
- Limit of sight triangle to the east approaching the south side of Broadhead Avenue is somewhat obscured by trail sign but visibility extends further to the east to see approaching vehicles.



SIGHT LINES - LOOKING NORTH

- Sight line to the east approaching Broadhead Avenue from the north is partially obstructed and would require pruning of the existing trees to provide the minimum clear sight line distance to see approaching vehicles.



VERTICAL DISCONTINUITY

- There is vertical discontinuity at both the north and south approaches of the WVRT and Broadhead Avenue.



TRAIL SURFACE

- Trail surface south of Broadhead Avenue is rough, deteriorated asphalt pavement.



HISTORIC ATTRIBUTE

- Historic Huguenot Street and parking area is located to the west of WVRT and Broadhead Avenue intersection. There is an opportunity to enhance the trail user's experience by raising awareness of this National Historic Landmark District.



TRAIL SHOULDER

- Shoulder slopes steeply to the drainage swale and catch basin located off the east side of the trail just south of Broadhead Avenue.



EXISTING SIGNAGE

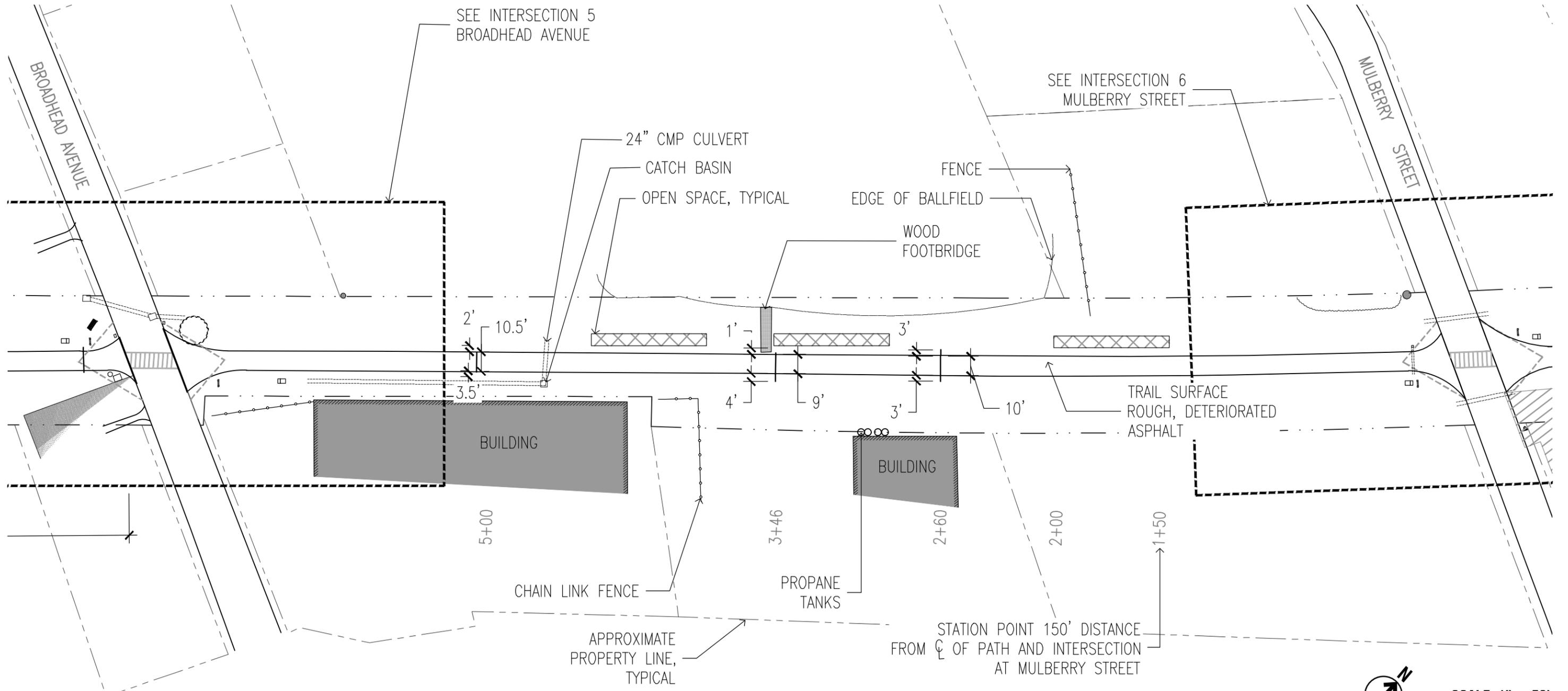
- Trail sign on the north side of Broadhead Avenue is parallel to the trail and does not have a stop sign attached. There is a No Motor Vehicles sign located just beyond.
- There is a trail sign and No Motor Vehicle sign on the south side of Broadhead Avenue. The trail sign does have a stop sign attached visible to trail users approaching Broadhead Avenue from the south. There is an adjacent bench that is at an extreme angle making it uncomfortable to sit on.



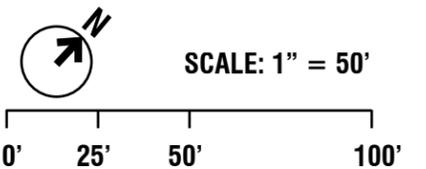
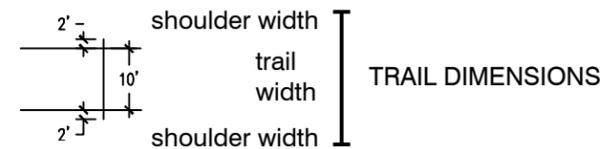
- All Rail Trail Crossing Signs are incorrect and need to be replaced with signs that meet the current standards.



SEGMENT 5: BROADHEAD AVENUE TO MULBERRY STREET PLAN



- TRAIL EDGE
- - - RAIL TRAIL RIGHT OF WAY (R.O.W.)
- - - APPROXIMATE PROPERTY LINE



SEGMENT 5: BROADHEAD AVENUE TO MULBERRY STREET PHOTOS



TRAIL WIDTH

- Trail width varies from 9' to 10.5' width shoulders that can meet the 2' standard with a minimum path width likely at Station 3+46.

OPEN SPACE

- There's seating opportunity along the west side of the trail beyond the shoulder starting at Station 1+50 that is bright and gets a fair amount of sun.
- The area to the east of the path widens out to an open lawn area, one of the brightest sections of the trail. This creates a number of amenity opportunities within the WVRT Right of Way. The area to the west also has a narrow area beyond the shoulder where benches could be installed.



TRAIL ACCESS

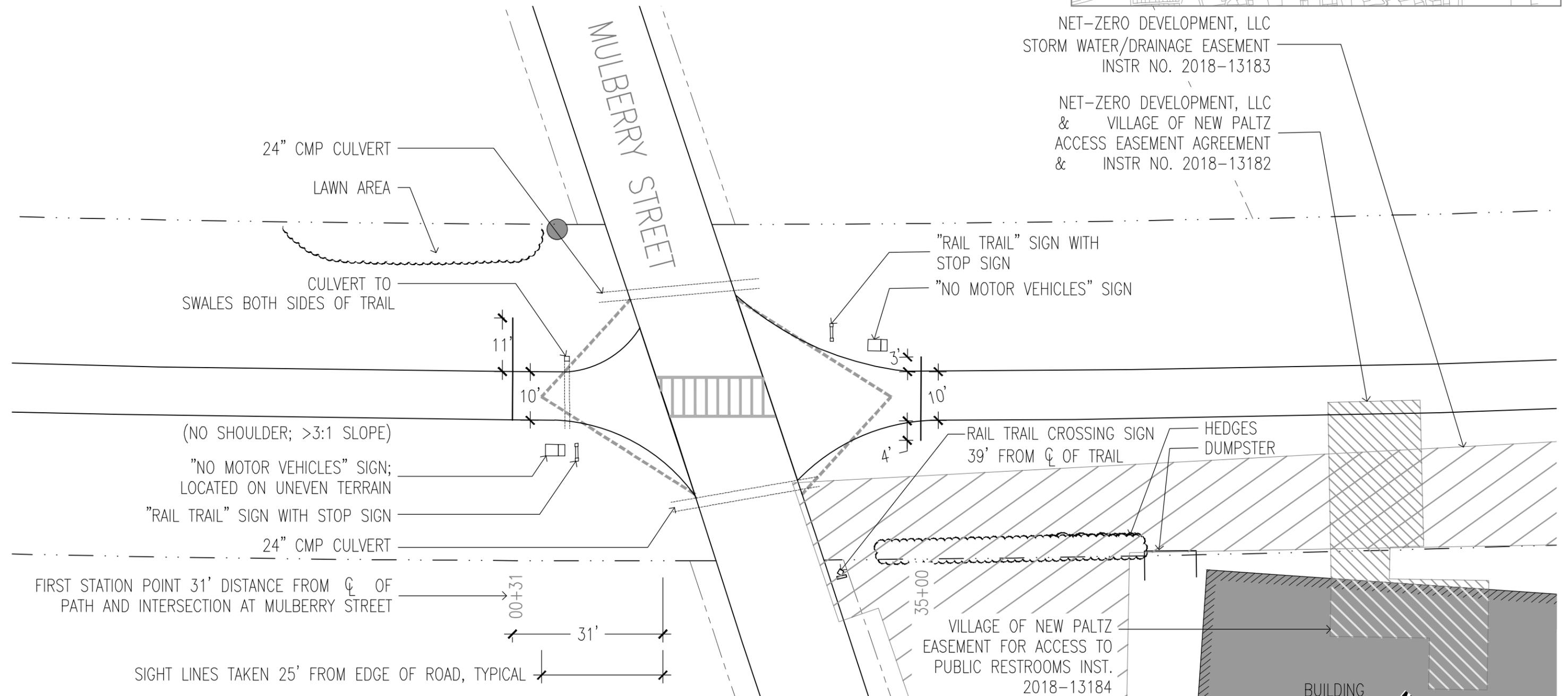
- There is a wooden bridge connecting the WVRT to the adjacent ballfield. Improvement to this connection could be considered.

TRAIL SURFACE

- Path surface is very rough, deteriorated asphalt pavement with several areas where the surface has been pushed up.



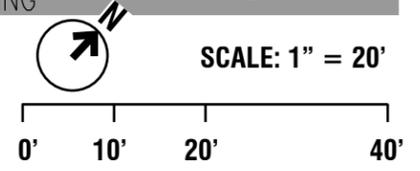
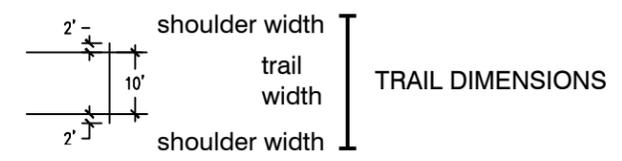
INTERSECTION 6: MULBERRY STREET & WALLKILL VALLEY RAIL TRAIL PLAN



NET-ZERO DEVELOPMENT, LLC
 STORM WATER/DRAINAGE EASEMENT
 INSTR NO. 2018-13183

NET-ZERO DEVELOPMENT, LLC
 & VILLAGE OF NEW PALTZ
 ACCESS EASEMENT AGREEMENT
 & INSTR NO. 2018-13182

- TRAIL EDGE
- - - - RAIL TRAIL RIGHT OF WAY (R.O.W.)
- APPROXIMATE PROPERTY LINE



INTERSECTION 6: MULBERRY STREET & WALLKILL VALLEY RAIL TRAIL PHOTOS



SIGHT LINES - LOOKING SOUTH

- Sight line clear zone to the east exceeds 15’.
- Sight line clear zone to the west exceeds 15’.



SIGHT LINES - LOOKING NORTH

- Limit of sight triangle to the east approaching the south side of Mulberry Street is somewhat obscured by trail sign but visibility extends further to the east to see approaching vehicles.
- Clear sight triangle to the west approaching Mulberry Street.



TRAIL WIDTH

- Trail narrows to approximately 10’ with 2’ grass shoulders on each side looking south from trail flare at Mulberry Street. Signs within the 2’ shoulder would need to be relocated.



EXISTING SIGNAGE

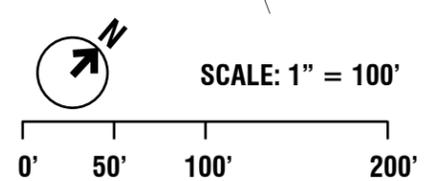
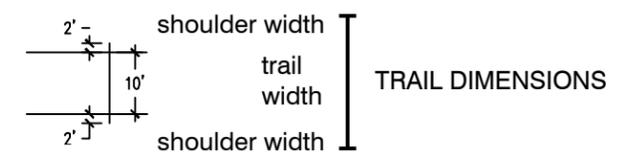
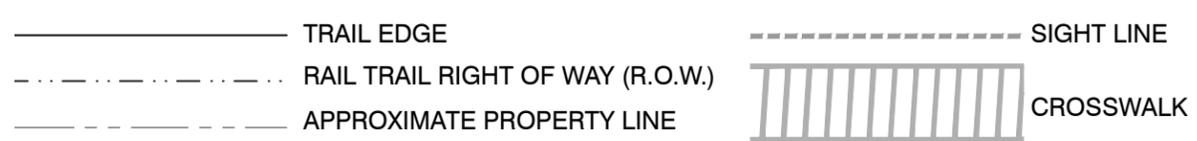
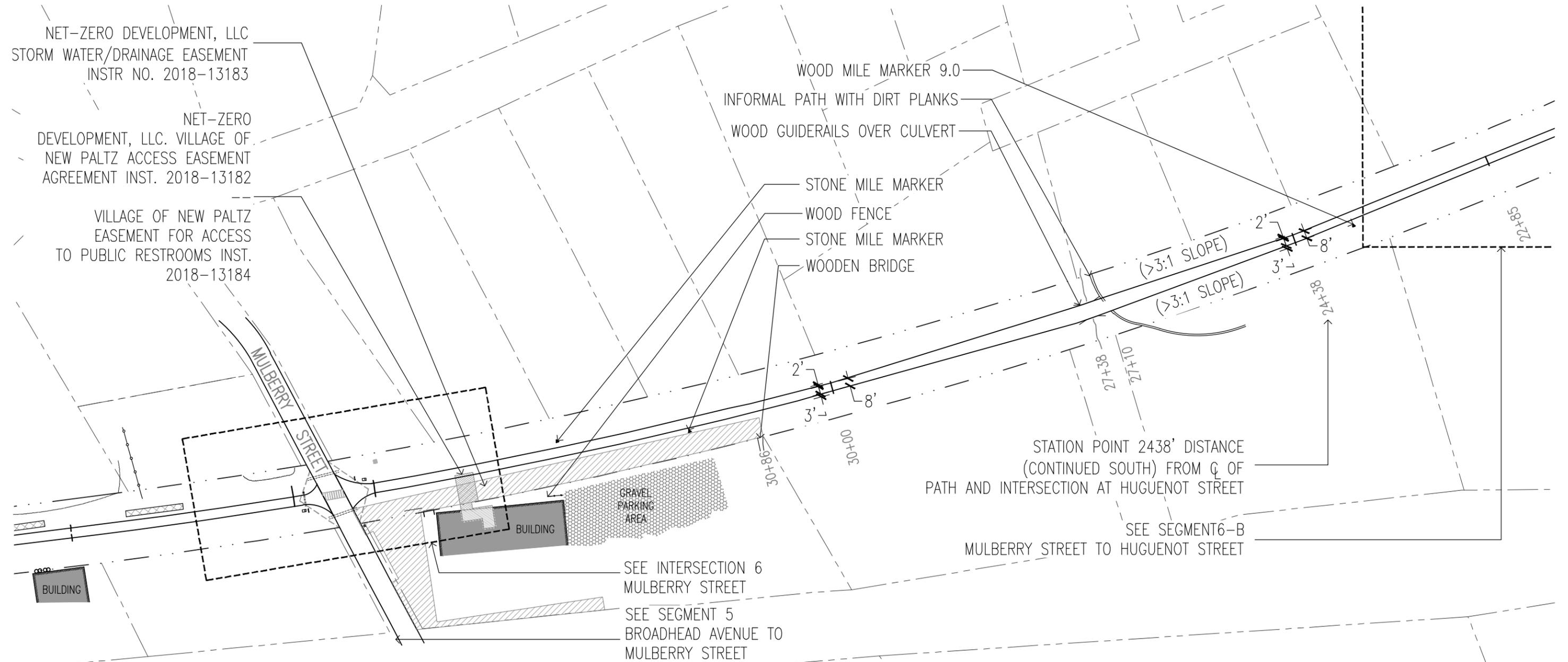
- Rail Trail Sign with Stop Sign - North side of Mulberry Street.
- No Motor Vehicles Sign - North Side of Mulberry Street.
- No Motor Vehicles Sign - South side of Mulberry Street.
- Incorrect Rail Trail Crossing Sign approaching WVRT intersection from the east.
- Incorrect Rail Trail Crossing Sign approaching WVRT intersection from the west.
- Trail sign with Stop Sign approaching intersection with Mulberry Street from the south.

EXISTING CULVERTS

- Culverts on both sides of road are flowing freely.



SEGMENT 6A: MULBERRY STREET TO HUGUENOT STREET PLAN



SEGMENT 6A: MULBERRY STREET TO HUGUENOT STREET PHOTOS

TRAIL WIDTH

- Path width in this segment remains relatively consistent with an 8' wide path and 2' wide shoulders to each side. Areas adjacent to the shoulders sometimes slope downward from the trail.



MILE MARKERS

- Mile marker signs like this one can be integrated into an organized trail distance marker system to provide mileage information for trail users.



REPAIRS

- The board fence protection over the culvert at Station 27+38 is in fair condition but replacement should be considered as part of an overall trail improvement.



TRAIL ACCESS

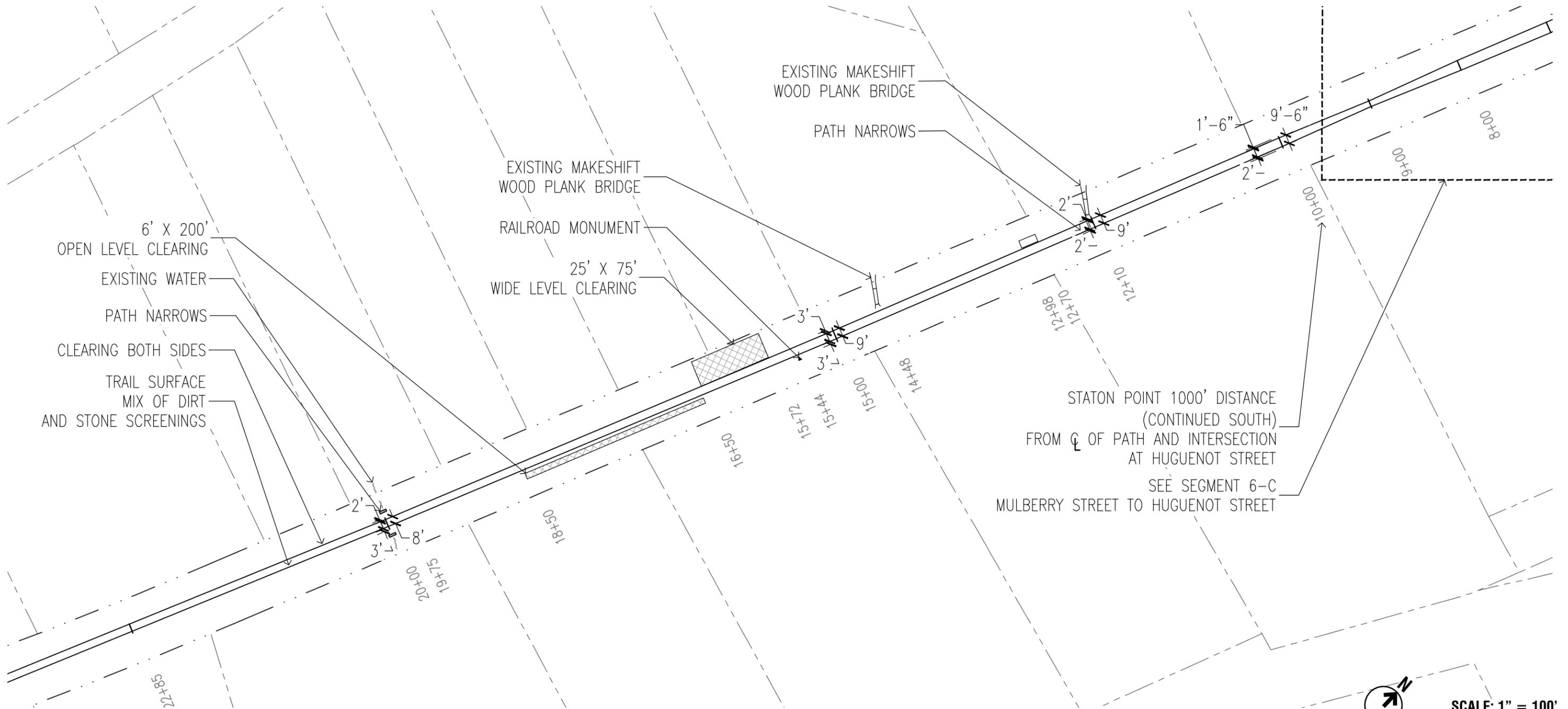
- Formal bridge connection from the WVRT to the retail area along Route 32 at Station 30+86.



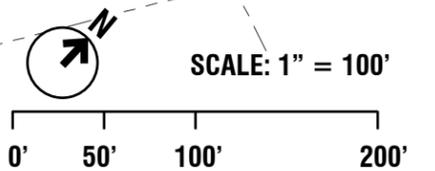
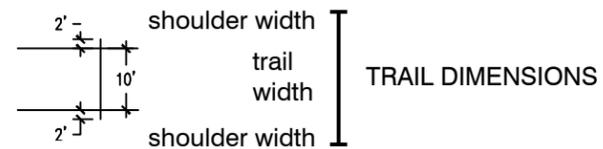
TRAIL SURFACE

- Trail surface is a mix of stone and dirt.

SEGMENT 6B: MULBERRY STREET TO HUGUENOT STREET PLAN



- TRAIL EDGE
- - - - RAIL TRAIL RIGHT OF WAY (R.O.W.)
- - - - APPROXIMATE PROPERTY LINE



SEGMENT 6B: MULBERRY STREET TO HUGUENOT STREET PHOTOS



OPEN SPACE

- A level area off the west side of the trail at Station 15+72 provides potential for a side path to a quiet area with benches that can provide a resting place along the long segment from Huguenot Street to Mulberry Street.

TRAIL SHOULDERS

- Areas of the trail with wide shoulders provide opportunities to locate benches.

TRAIL SURFACE

- Trail surface is a mix of stone and dirt.



TRAIL ACCESS

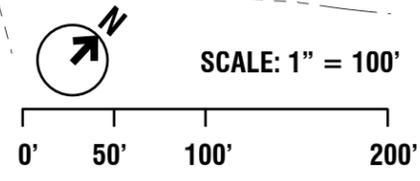
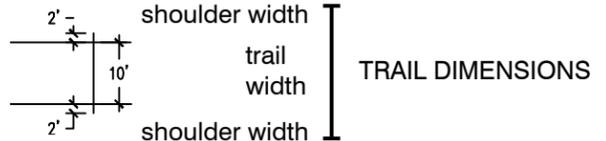
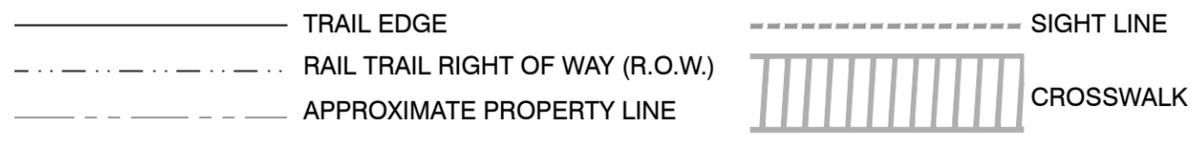
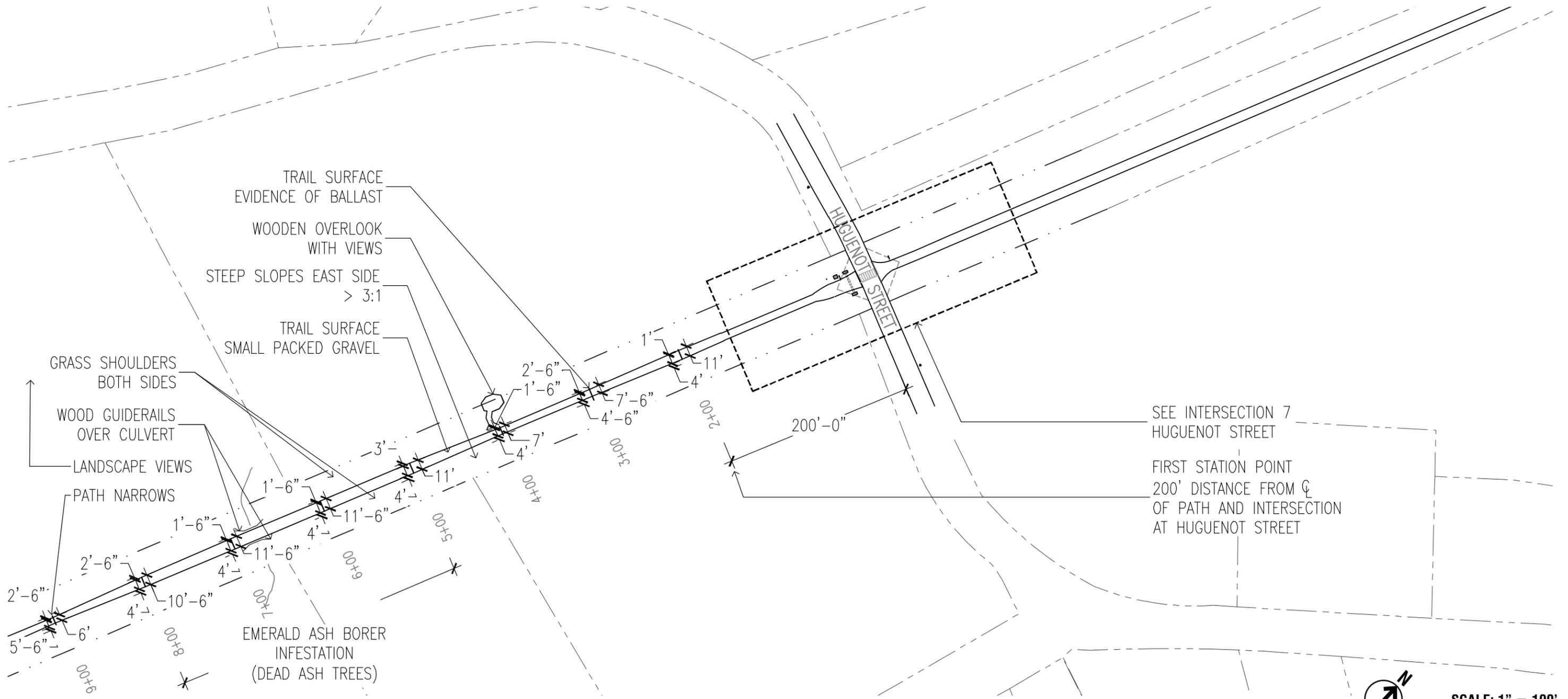
- Makeshift wood plank bridges are used by adjacent property owners to access the path. Guidelines for safe construction and use should be considered, if they are allowed to remain.

HISTORIC ATTRIBUTE

- Old railroad monuments exist along the trail and provide an opportunity for an interpretive experience that can provide historical context for the trail's railroad past.



SEGMENT 6C: MULBERRY STREET TO HUGUENOT STREET PLAN



SEGMENT 6C: MULBERRY STREET TO HUGUENOT STREET PHOTOS



TRAIL SHOULDERS

- Some areas of the grass shoulder slope steeper than 3:1 from the trail.

EXISTING BOARD FENCE

- The board fence protection over the culvert at Station 7+00 is in fair condition but replacement should be considered as part of an overall trail improvement. There is a nice view from the trail at the culvert.

EMERALD ASH BORER INFESTATION

- Area of dead ash impacted by the Emerald Ash Borer disrupts trail canopy. Planting of large shade tree replacements should be worthy of consideration.



TRAIL SURFACE NARROWS

- Trail surface narrows in some sections to less than 8' wide.

TRAIL SURFACE

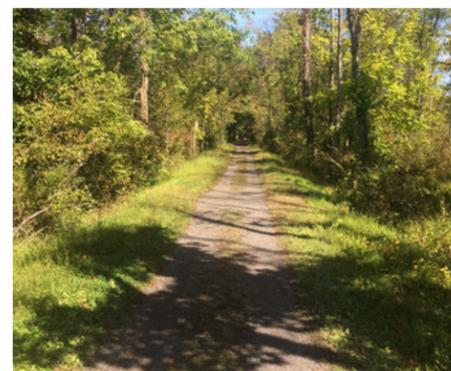
- Trail surface is composed of small, packed gravel with grass shoulder on both sides.

WOOD OVERLOOK

- Wooden overlook is in good condition and provides scenic views.



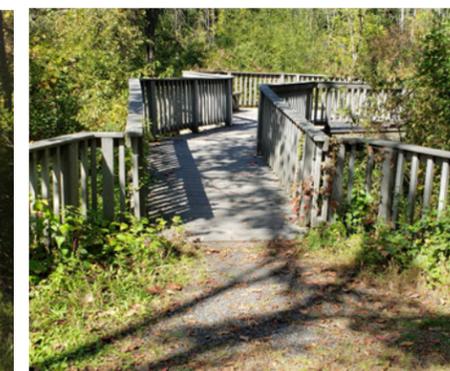
Huguenot Street - looking south towards Mulberry Street



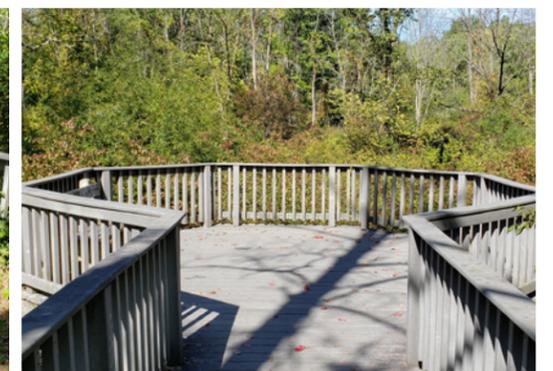
500' south of Huguenot Street- looking south towards Mulberry Street



500' south of Huguenot Street - looking north towards Huguenot Street

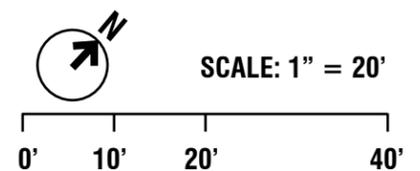
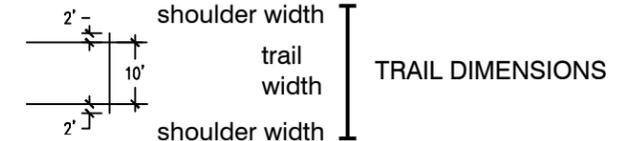
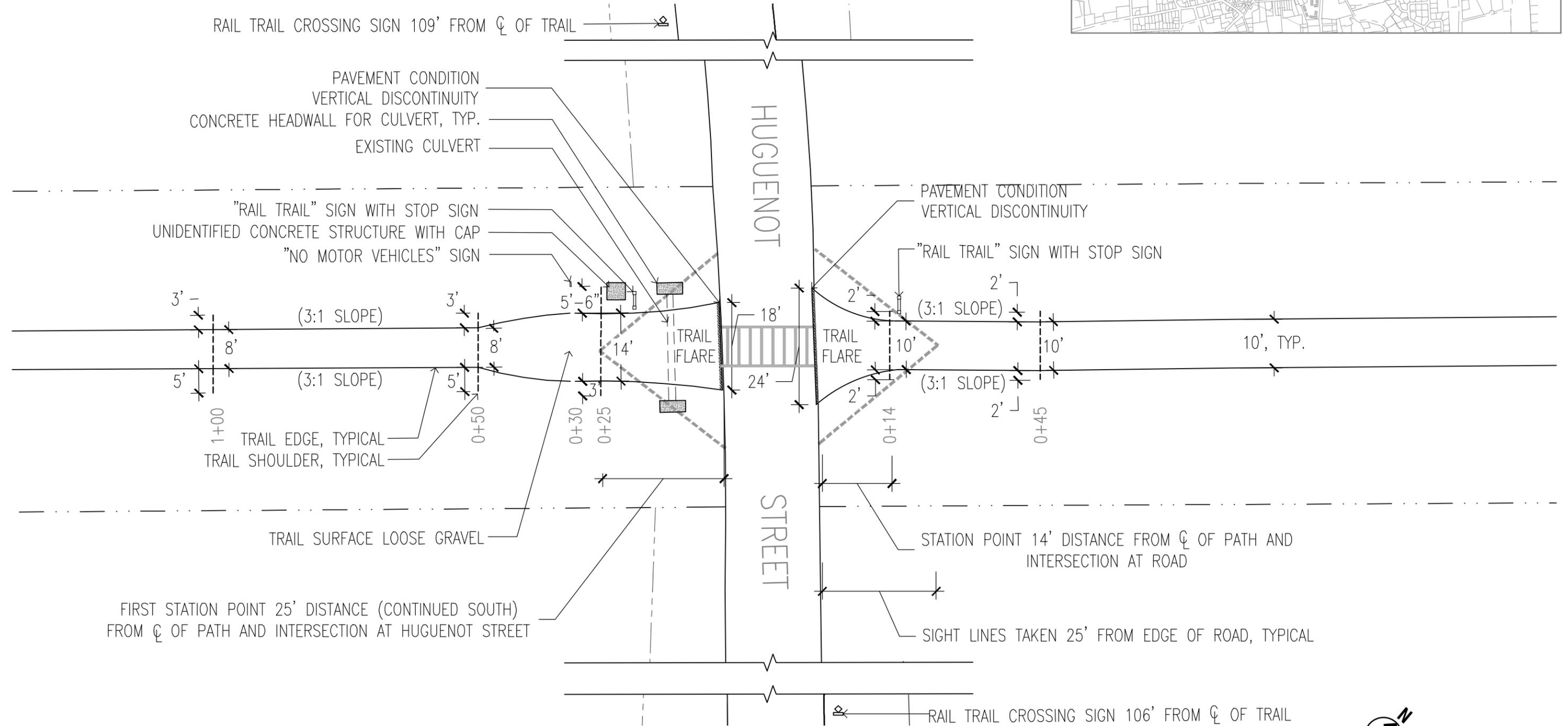


overlook entry



viewing area

INTERSECTION 7: HUGUENOT STREET & WALLKILL VALLEY RAIL TRAIL EXISTING CONDITIONS



INTERSECTION 7: HUGUENOT STREET EXISTING CONDITIONS



HUGUENOT STREET - LOOKING EAST TOWARDS WVRT

- Existing "Rail Trail" crossing sign needs to be updated in accordance with current standards.

HUGUENOT STREET - LOOKING WEST TOWARDS WVRT

- Existing "Rail Trail" crossing sign needs to be updated in accordance with current standards.

TRAIL - LOOKING NORTH

- Trail flares at Huguenot Street but surface is in poor condition and signage needs to be updated.

TRAIL - LOOKING SOUTH

- Trail narrows significantly from flare at Huguenot Street.



SIGHT LINES - LOOKING SOUTH

- Sight line clear zone to the east exceeds 15'.
- Sight line clear zone to the west exceeds 15'.



VERTICAL DISCONTINUITY

- There is a significant change in elevation between trail and roadway.



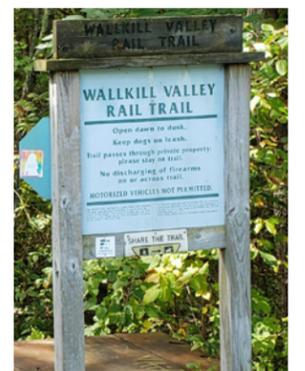
TRAIL SURFACE

- The trail surface is in poor condition consisting of loose aggregate and broken asphalt.



EXISTING SIGNAGE

- Existing signage needs to be updated to meet current standards. A stop sign attached to a trail sign is not effective.



RECOMMENDATIONS FOR IMPROVEMENTS TO THE WALLKILL VALLEY RAIL TRAIL (WVRT) TO MEET THE EMPIRE STATE TRAIL AND NATIONAL STANDARDS

EXISTING - VERTICAL DISCONTINUITY

- There is a significant difference in elevation between the trail surface and roadway surface at several intersections.



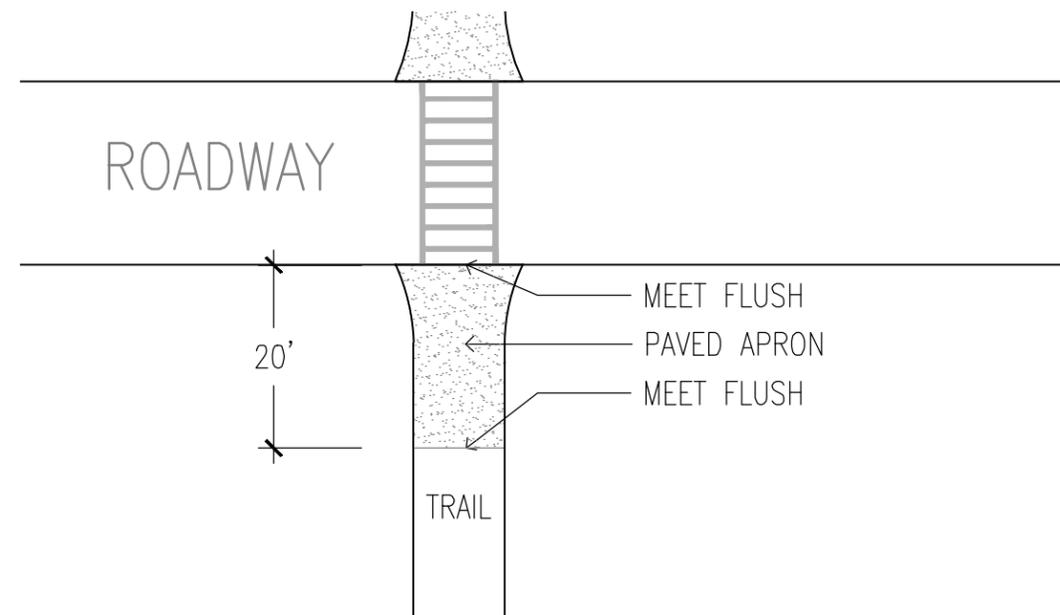
Significant change at path and roadway intersection at Huguenot Street

ISSUE

- Changes in vertical elevation at trail intersections can make access for people with disabilities, mobility devices, or strollers difficult. It can create control difficulties for bicyclists.

RECOMMENDATION

- Where unpaved shared use paths intersect with roadways, a paved apron extending a minimum of 20' from the paved road surface should be provided. (AASHTO-GBF-4-2012)



RECOMMENDATIONS FOR IMPROVEMENTS TO THE WALLKILL VALLEY RAIL TRAIL (WVRT) TO MEET THE EMPIRE STATE TRAIL AND NATIONAL STANDARDS

EXISTING - APPROACH SITE TRIANGLES

- There are existing conditions at some trail / roadway intersections that prevent trail users to see vehicles as they approach the intersection.



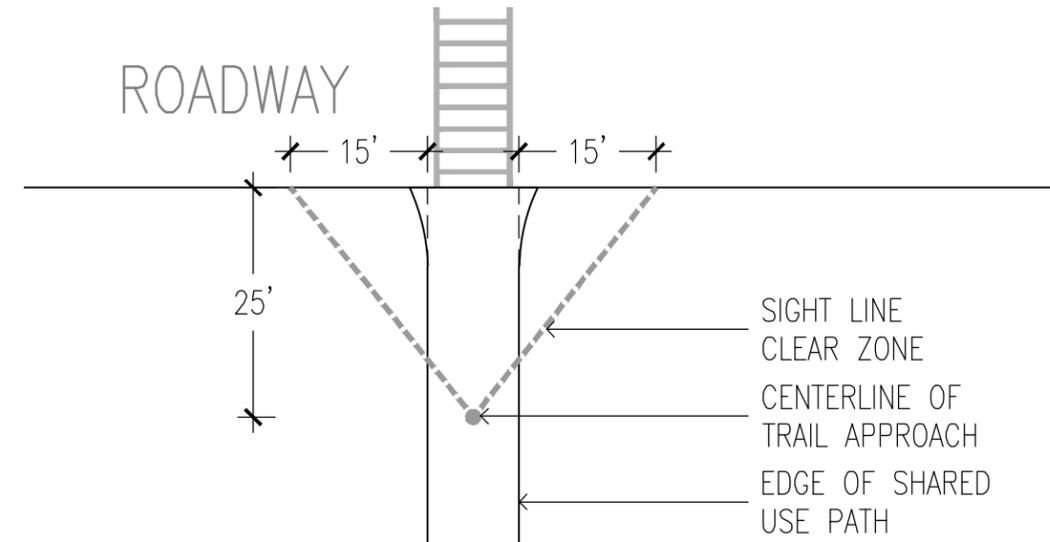
Existing evergreen tree prevents trail users heading south to see approaching vehicles traversing west at Water Street.

ISSUE

- Intersection site distance is a fundamental component for mid-block path roadway intersection WVRT has intersections where a path user does not have adequate site lines to see approaching vehicles at intersections.

RECOMMENDATION

- It is critical that clear site lines enable trail users to see oncoming vehicles and vehicle drivers to see crossing trail users in time to react and avoid potential conflicts. Extending a minimum of 15' in each direction along the roadway measured 25' from the edge of the trail should be reestablished (AASHTO-GRF-4-2012). This can be accomplished by pruning / removing existing vegetation.



RECOMMENDATIONS FOR IMPROVEMENTS TO THE WALLKILL VALLEY RAIL TRAIL (WVRT) TO MEET THE EMPIRE STATE TRAIL AND NATIONAL STANDARDS

EXISTING - TRAIL SURFACE

- There are a variety of surfaces along the WVRT that range in condition from poor to fair.



Broken and deteriorated asphalt results in rough and uneven pavement.



Broken and deteriorated asphalt are compounded by areas of trail surface pushed up the tree roots that occur unexpectedly along the trail.

ISSUE

- It is important to maintain a smooth trail surface for all users. Portions of the WVRT are comprised of broken and deteriorated asphalt with large exposed aggregate, loose coarse or fine gravel, and sections of soil grown over with vegetation. The inconsistencies and unevenness make travel along the trail difficult for all users.

RECOMMENDATION

- The WVRT should have a firm, stable and slip resistant surface. In areas of greater density and heavier use, like the WVRT between Water Street and The Station, a hard surface material, like asphalt pavement, should be considered. Most of the WVRT is rural and natural in character and a less formal compacted crushed aggregate path would be appropriate. All path surfaces should meet accessibility guidelines with running slopes less than 5% and cross slopes that do not exceed 2%. Where feasible rest areas, or widened areas, should be provided every 300' (Empire State Trail Design Guide).



Compacted crushed aggregate for trail use.

RECOMMENDATIONS FOR IMPROVEMENTS TO THE WALLKILL VALLEY RAIL TRAIL (WVRT) TO MEET THE EMPIRE STATE TRAIL AND NATIONAL STANDARDS

EXISTING - TRAIL WIDTH VARIES

- The existing trail width varies and there are sections that are less than the minimum width of 10’.



Some existing paved portions of the WVRT are less than the 8’ minimum.



There is exposed ballast stone along the edges of the WVRT. It is likely the ballast stone extends under the existing trail surface.



Removing the trail surface down to the ballast will allow the trail to be widened and the ballast to serve as a subbase for the new trail surface.



Along some sections of the trail adjacent trees will need to be pruned to provide the required trail width up to a required vertical clearance of 9’. (Empire State Trail Design Guide).



Most sections of the trail are wide enough to accommodate a 10’ minimum width with 2’ shoulders on each side.

RECOMMENDATION

- There are a few sections of the existing trail that are less than 8’ wide. There is evidence that a layer of railroad ballast exists beneath the various surfaces of the WVRT. It is recommended that as part of an improvement to the WVRT, the existing surface materials be removed to expose the ballast stone. With the ballast stone exposed it should be possible to meet or to exceed an 8’ minimum width when a new wearing course of stone or asphalt pavement is installed over the ballast. Where the path narrows to 8’, a warning sign should be considered (W5-4a PER MUTCD)

ISSUE

- The recommended shared use path is 12’ with a 2’ shoulder on each side. A minimum shared use path is 10’. A shared use path of 8’ is acceptable for short distances where physical constraints prevent the construction of a wider path (Empire State Trail Design Guide and AASHTO-GBF-4-2012).



W5-4a PER MUTCD “warning sign”

RECOMMENDATIONS FOR IMPROVEMENTS TO THE WALLKILL VALLEY RAIL TRAIL (WVRT) TO MEET THE EMPIRE STATE TRAIL AND NATIONAL STANDARDS

EXISTING - AREAS THAT ARE WIDE ENOUGH OR UNDERUTILIZED TO CONSIDER IMPROVEMENTS WITH TRAIL AMENITIES



Some sections of the trail are wide enough to consider trail amenities in three locations.



The connection between the WVRT and National Landmark Historic Huguenot Street District is an untapped opportunity that offers tremendous benefits to both.



The connection between the newly constructed Empire State Trail head and Sojourner Truth Park can be strengthened.



Steps down to a lower area off the trail can provide trail users an opportunity to get down closer to the Walkill River and a lower level connection to Sojourner Truth Park.



The trail section adjacent to the Water Street Market can be an important activity node.



The Rotary International Plaza just off Main Street can be a wonderful space for events.

ISSUE

- Based on community input from the public engagement process with the technical advisory committee and Ulster county officials, there was a desire expressed to look at the WVRT as more than just a trail and to think of its potential to be more of a linear park. The inventory and analysis information contained in this technical memo on existing conditions supports the idea that this potential exists.

RECOMMENDATION

- There are several areas along the trail where there are opportunities to consider including passive and active recreation amenities that would fulfill the desire to transform the WVRT into a linear park while still retaining all the characteristics of the WVRT that make it such a wonderful trail experience. These opportunities will be explored in the corridor vision and concept document that will be prepared based on the community and stakeholder engagement process, this memo on existing conditions, and input from the technical advisory committee and Ulster county officials.



There are several viewing opportunities along the trail that can be formalized similar to this overlook.