



CONNECTION PLAN

After gathering a significant amount of public feedback on the route options during both phases of community engagement in the spring and summer of 2022, a final connection plan for the future High Cliff Connection was created. The goal of engaging the public was to identify a route that was both feasible and desirable, and comments from the public were taken into consideration in developing the final connection plan.

From this input, a series of recommendations were formulated regarding trail alignment, facility types, trailhead locations, trail amenities, and future intersection improvements. More information about the initial route options can be found in Chapter 4.

Representatives from each municipality along the proposed routes, in addition to representatives from Calumet County, WisDOT, and Wisconsin DNR, were met with individually to discuss the preferred options and fine tune ideas. The preferred routes were then presented to the Core Team and Stakeholder Group for further refinement.

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GUIDING PRINCIPLES

The following are meant to serve as a framework for ECWRPC, local municipalities, and advocates for the future High Cliff Connection, as more detailed decisions are made in the implementation of the route:

- **Provide a great trail experience that encourages people to walk, bike, and get outdoors** for exercise, transportation, recreation, and to enjoy nature.
- **Provide a direct route between destinations.** Wherever possible, create a route experience that does not require users to cross streets multiple times in a short span or travel far off of the general east-west pathway.
- **Provide the most separation between trail users and vehicles that the site context will allow.** Almost universally, community members expressed interest in facilities that are physically separated from vehicle traffic. Some areas along the corridor do not currently provide a means for this trail experience, however, future roadway construction or reconstruction should consider how to incorporate separated trail facilities along the identified corridor to make trails safer and more comfortable for all users.
- **Find ways to provide great views or showcase local history or culture.** Where possible, provide places to sit, rest, and view natural or scenic areas such as Lake Winnebago or wetland areas.
- **Where possible, construct the trail or facilities within existing right-of-way.** Minimize disturbance to adjacent landowners where possible.
- **Future trail construction techniques and design should incorporate the most up-to-date guidance on sustainable trail construction** as provided by the Wisconsin DNR or other national standards. Unnecessary filling of wetlands, removal of tree canopy, destruction of wildlife habitat, or excessive installation of impermeable surfaces are not recommended actions as part of this plan.

ROUTE FRAMEWORK

For each of the areas within the High Cliff Corridor, a series of recommendations are provided on the following pages:

Route Alignment: The general path that the High Cliff Connection is planned. In some cases, a near-term route is identified, alongside a longer-term recommendation for further exploration.

Facility Type: For each segment, a facility type is recommended, such as a two-way cycle track, bike lane, separated trail, or paved shoulder.

Improvements for Existing Trail Segments: Where the High Cliff Connection route aligns with an existing, constructed trail facility, further recommendations are listed for improving comfort, safety, navigation, or providing special features for trail users.

Major and Minor Intersections: Major intersections have the greatest amount of exposure to moving vehicles by trail users. Specific recommendations for potential safety upgrades are listed on page 80. Minor intersections are where the trail crosses a lower volume local roadways (primarily in residential areas). With reference to local standards, marked crosswalks and/or trail crossing signage (per MUTCD standards) may be warranted at minor intersections.

Jurisdiction: The local municipality with jurisdiction over the area with the proposed trail route is identified. Some segments may have multiple jurisdictions that will require coordinating efforts in future phases of design and construction.

Proposed Trailhead Locations: Specific locations have been identified for trailheads within the High Cliff Connection corridor. Further description of locations and recommendations for trailhead amenities are listed on page 78.

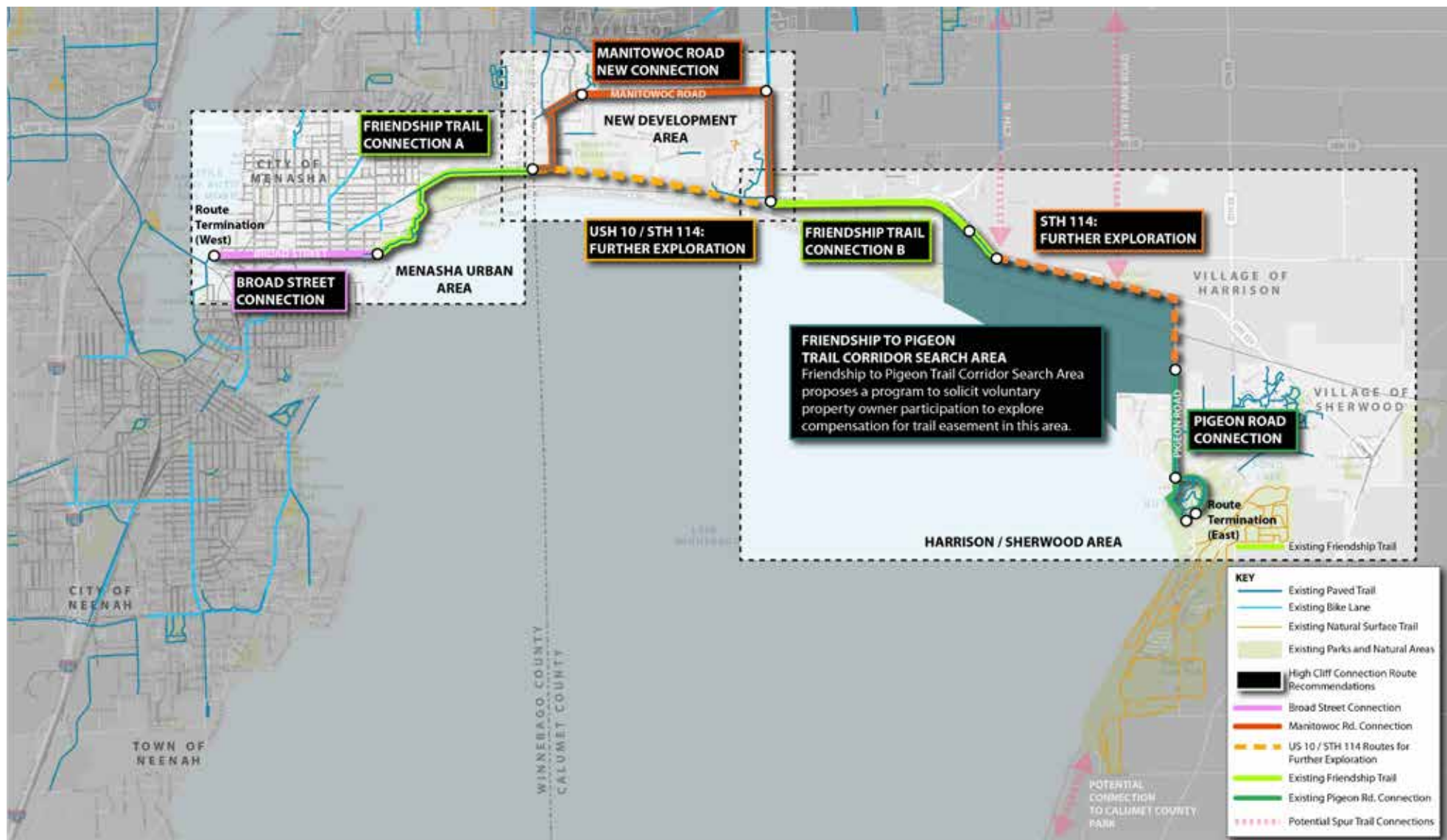


Figure 5.1 Key Map for High Cliff Connection Route Recommendations





URBAN AREA RECOMMENDATIONS

The western termination point of the High Cliff Connection will be at the Miron / Trestle Bridge trailhead at Broad Street. This western point will connect High Cliff Connection trail users to the Loop the Little Lake Trail. From here, traveling east, bicyclists today will utilize the on-street shared lane markings, while pedestrians will use the existing sidewalk network along Broad Street. Future recommendations for Broad Street include the creation of a two-way cycle track (see Figure 5.2), which will provide a more separated path for bicyclists to travel along the roadway, while still allowing for the existing roadway width and parking along one side to remain. Additional buffer markings and separation through flexible bollards or a raised curb will provide further safety measures for trail users.

Alternatively, a longer term recommendation is to upgrade one side (likely the north side) of the Broad Street sidewalk to a shared use trail (see Figure 5.3). This will involve coordination with utilities, existing driveways, and adjacent property owners.

At Jefferson Park, the recommendation is to utilize the existing bituminous trail throughout the park. Further improvements to create a trailhead facility include installation of a fix-it station, wayfinding, and a kiosk near the parking area. A mid-block crossing of Third Street is planned for future improvements to the park. Along with this, further consideration for a curb extension at the crossing could be warranted if traffic volumes increase along Third Street.

Wayfinding as directional signage is recommended along the existing paved segment of the Friendship Trail from Jefferson Park, along Plank Road to Oneida Street.

A future trailhead is recommended at the parking lot of Heckrodt Wetland Reserve. Wayfinding, and further bike parking or a fix-it station/charging station are recommended here.



RECOMMENDATIONS:

- Upgrade Broad Street to a 2-way cycle track or paved trail
- Update trailhead at Broad Street with revised trail map, along with recommendations from the Water Street Plan to create a more usable green space, rest stop and destination.
- Install trailhead amenities at Jefferson Park, Heckrodt Wetland Reserve
- Install Wayfinding throughout
- Improve mid-block crossing at Jefferson Park
- Utilize Existing Friendship Trail segment from Jefferson Park, along Plank Road

PROPOSED BROAD STREET FACILITIES

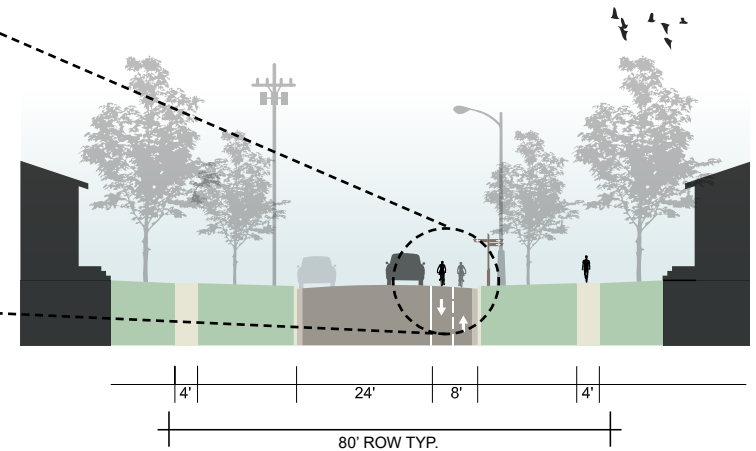


Figure 5.2 Proposed Two-Way Cycle Track on south side of Broad Street (revised 8/22/2022)

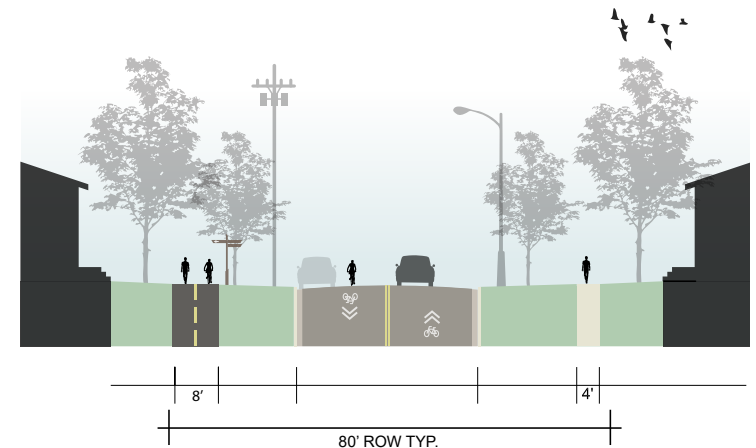


Figure 5.3 Proposed Separated Trail on Broad Street (revised 8/22/2022)



Figure 5.4 Menasha Urban Area Route Recommendations





NEW DEVELOPMENT AREA RECOMMENDATIONS

Within the New Development Area of the High Cliff Corridor, there are two parallel recommendations for the future trail route. Beginning at the intersection of Oneida St. and US 10/STH 114, the near-term recommendation is to follow the existing trail along the north side of the roadway, which then turns north on to the existing Province Terrace boardwalk and continues along the existing separated trail, crossing at Manitowoc Road and continuing along Manitowoc Road where it splits with Plank Road. A separated trail is proposed along Manitowoc Road to Lake Park Road, with room to construct within the existing 80' ROW. Likely, the project will coincide with an update of the roadway section from a rural to urbanized style with curb/gutter. Stormwater management, coordination with utilities and existing driveways will all need to be addressed in future stages of design. The final leg of this proposed segment will utilize the existing separated trail along Lake Park Road. This recommended trail route will provide a significant connection for residents both north and south of Manitowoc Road, as well as provide a separated trail option for those who are already utilizing Manitowoc Road for biking and walking.

Concurrently, there is a recommendation to further explore the long-term design for a trail along US10/STH 114. With a significant amount of wetlands along this corridor, an elevated boardwalk facility is recommended, which will have a lower impact on sensitive landscapes, while potentially providing a unique trail experience integrated into natural areas that remain in-tact. Preliminary study for this option point to the north side of US10/STH 114 as a more cost effective option with shorter length of trail and the opportunity to connect to the existing paved trail to Lake Park Road. This potential trail segment will provide a high-quality complement to the near-term segment along Manitowoc Road and significantly contribute to the regional draw for the High Cliff Connection.

RECOMMENDATIONS:

- Near-term: separated paved trail and urbanized roadway along Manitowoc Road
- Long-term: Explore boardwalk trail along US10/STH114
- Intersection improvements at Oneida and US10/STH114, Lake Park Road
- Trailhead at Province Terrace boardwalk
- Wayfinding throughout

PROPOSED MANITOWOC ROAD CONNECTION

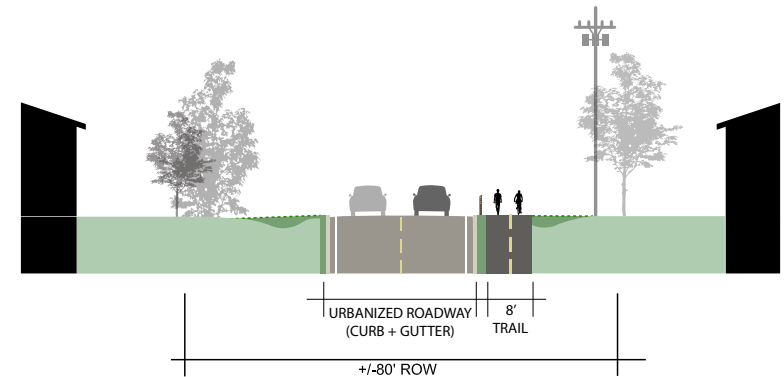


Figure 5.5 Proposed Trail on Manitowoc Road (south side shown; to be determined which side of roadway in final design)

US 10/STH 114: FURTHER EXPLORATION

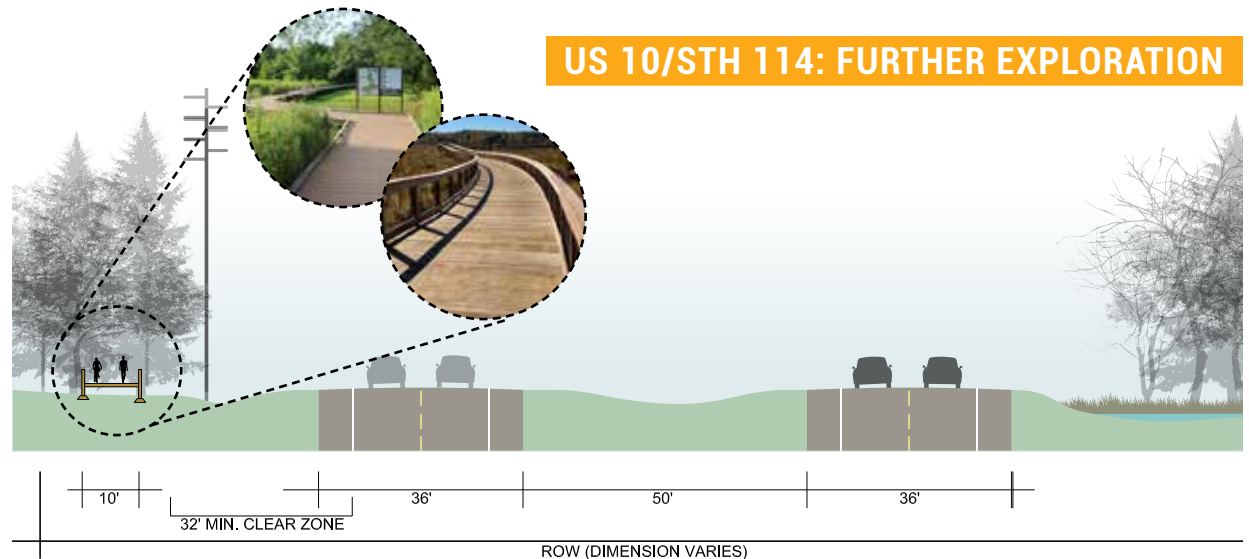


Figure 5.6 Exploration of future elevated boardwalk along US 10/STH 114 (north side shown; to be determined which side of roadway in final design)

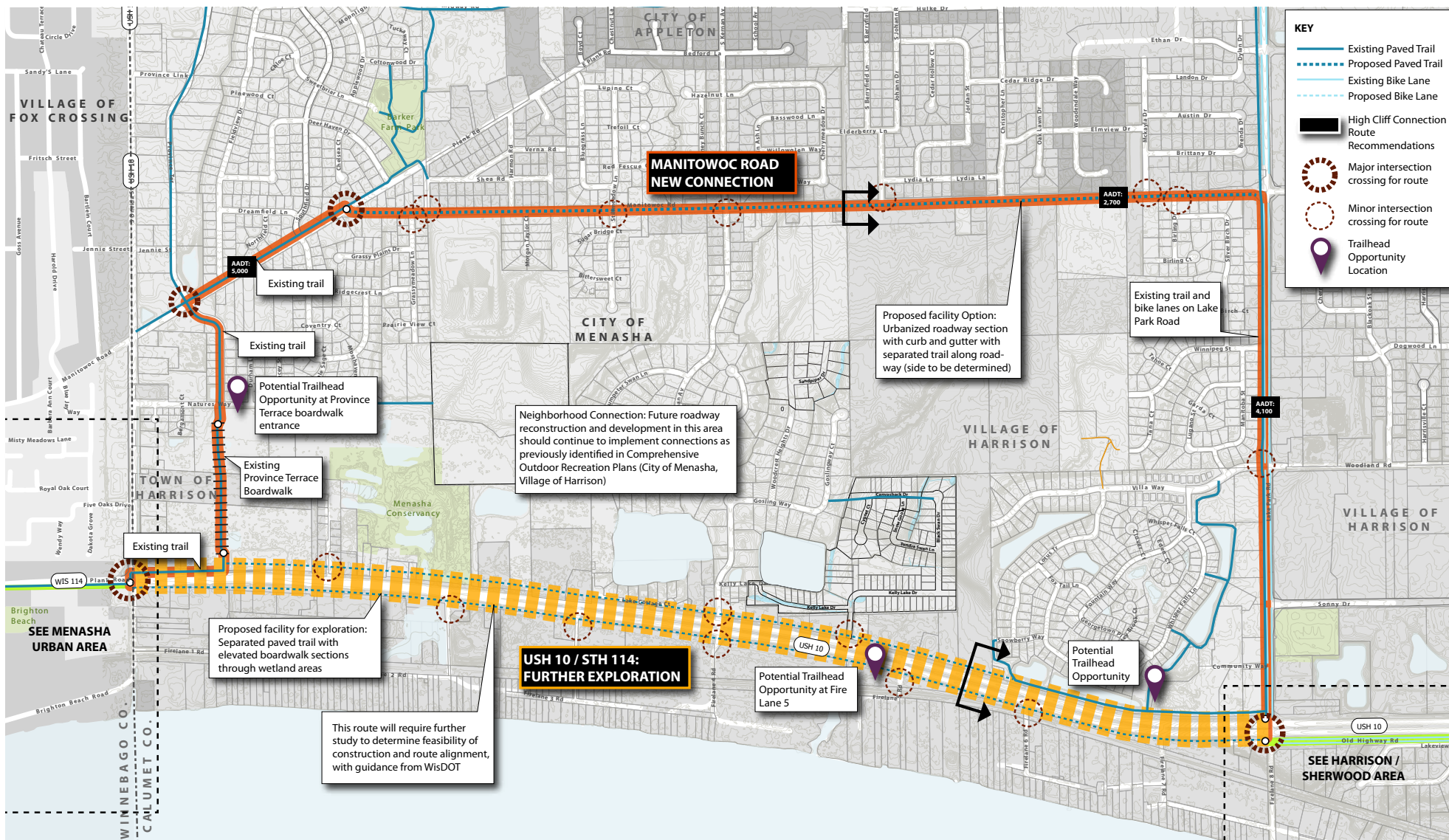


Figure 5.7 New Development Area Route Recommendations



HARRISON + SHERWOOD AREA RECOMMENDATIONS

Beginning at Lake Park Road and heading east, the recommended route for the High Cliff Connection is to utilize the existing Friendship Trail (on-road bike lanes and a short segment with a separated trail) along Old Highway 10 to Fire Lane 12. This segment serves pedestrians and bicyclists well today with low-volume adjacent traffic. However, improved markings, wayfinding, and seating along the segment would improve the trail experience for users.

Within the timeline of this planning study, consensus was not found to determine a preferred route connecting from the intersection of Fire Lane 12 / STH 114 to High Cliff State Park. As a result, two parallel recommendations are presented here as incremental steps towards finding a route for this gap in the connection:

STH 114 Further Exploration: Survey-level engineering study of the STH 114 corridor to determine a potential alignment of a separated trail (likely along the south side of the roadway) to Pigeon Road is recommended. The potential trail would then turn south to connect to the existing trail along the west side of Pigeon Road. With the current roadway alignment, a future separated trail (as shown in Figure 5.10) will require a trail easement or additional land acquisition to build, as there does not appear to be enough ROW width today. The trail alignment could be wrapped into future commercial or residential development.

Trail Corridor Search Area: At the onset of this planning study, there was significant community support for identification of a trail route in this area independent of STH 114. Property owners in the area voiced concern and opposition to a variety of route options. However, a few individual property owners in the area have contacted ECWRPC with interest in future conversations about future trail easements or acquisitions to potentially support a future connection to High Cliff. The long-term recommendation is to create a program to advocate, share information and to track property owners who are interested in voluntarily pledging easement or land sale. The intention of the program will be to piece together willing property owners to create a continuous trail through the search area to complete the corridor.

RECOMMENDATIONS:

- Explore extension of paved trail along STH 114 to Pigeon Road
- Improve wayfinding, trail experience along existing Friendship Trail
- Connect to existing trail on Pigeon Rd
- Develop a program or initiative to collect voluntary pledges for trail easement throughout search area to complete future trail gap
- Wayfinding throughout, potential trailhead locations along STH 114, improved trailhead facilities at High Cliff State Park entry

STH 114: FURTHER EXPLORATION

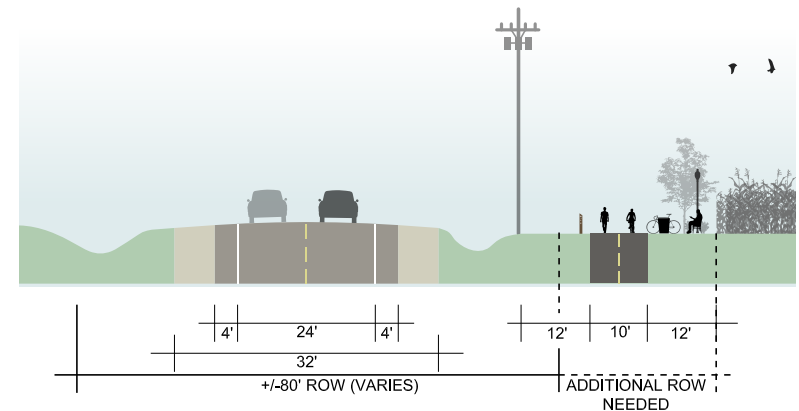


Figure 5.8 Exploration of future trail along STH 114

TRAIL CORRIDOR SEARCH AREA

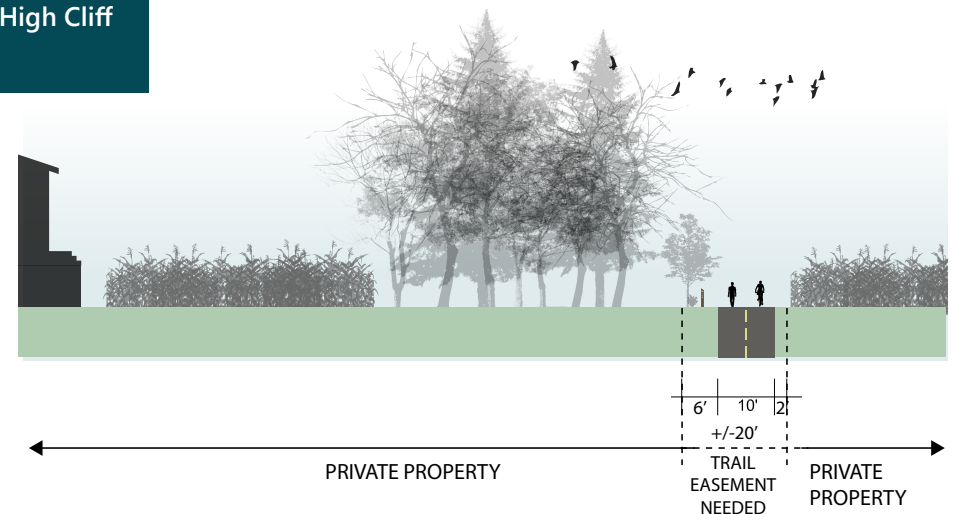


Figure 5.9 Exploration of future trail within Search Area

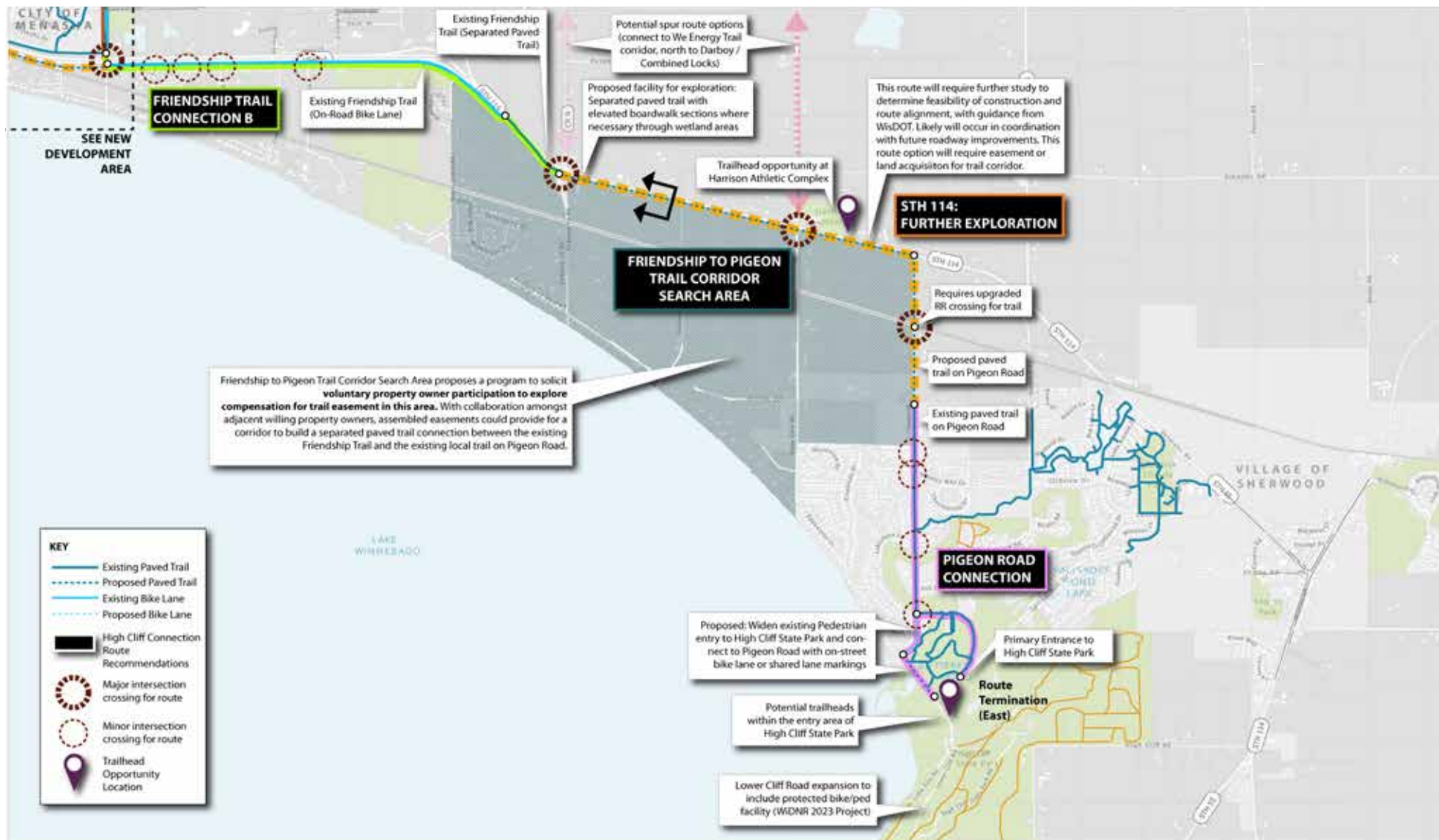


Figure 5.10 Harrison + Sherwood Area Route Recommendations

Note: The Village Board of Sherwood provided a letter dated July 22, 2022 stating a preference for future trail routes to avoid State Park Road in the Village of Sherwood.



TRAILHEAD AMENITIES

Trailheads are designated public access points to a trail, located often at the beginning and end points of a trail, as well as at key locations along the way. Oftentimes a trailhead will be designated in combination with another public destination or located in a place that is recognizable as a landmark.

The following amenities are recommended for trailheads along the High Cliff Connection, as well as at key locations along a trail route. Note that not every amenity listed below is required at every trailhead. With further design at each location, a combination of these amenities should be considered that fit the existing context, available space, and need.

- 1 Bike Racks and Bike Repair Stations:** Bike racks are useful to allow bicyclists a means to dismount and walk to a nearby destination or use trailhead facilities. Bike Repair Stations (sometimes called Fix-It Stations) can be really handy if one needs to pump up tires or make minor repairs or adjustments to their bicycle along the way.
- 2 Wayfinding and Interpretation:** Directional signage and maps are all commonly found at trailheads, to orient trail users. Additionally, a trailhead may have other signage or displays to share information on the history, culture, flora/fauna or natural systems found in the area. Distance markers along a trail can help users pace themselves or understand how long it will take to reach a destination. Wayfinding can also be placed in the vicinity of a trail or route as a means to direct people to the trail corridor, and also to signal to drivers the increased presence of pedestrians and bicyclists. Another consideration with wayfinding is to provide signage in multiple languages spoken by residents in the area.
- 3 Seating and Shade:** Placing benches and other seating at key locations along longer trail corridors is a great way to ensure that people of more ages and abilities can comfortably use a trail. Seating that is durable and protected from the sun and adjacent traffic is generally preferred. Picnic tables and places to gather and rest are also sometimes found at trailheads. Shade trees near trails are vital to providing a cool and comfortable trail experience, as well as a host of other benefits to our comfort and to the environment. Where there is available room, plant shade trees along the south side of trails and at rest locations.
- 4 Trash/Recycling Receptacles:** Since trailheads are potentially a gathering spot, there could be a need for trash and recycling receptacles. Making sure that there is a schedule for regular pick up of receptacles will need to be coordinated with local jurisdictions.
- 5 Restrooms:** At heavily-used trailheads, or in combination with other recreational facilities, restrooms can be a great amenity along a trail, and provide individuals and families an option for making a day out of biking, hiking, or rolling along a trail. Again, long-term and regular maintenance and security are big considerations with any restroom facilities.
- 6 Lighting:** Lighting, either along a the route or at key locations or trailheads, can provide a way for people to utilize a trail in the evenings or early morning throughout the year. Pedestrian-scaled lighting or bollard-style lighting are preferred for trail corridors but oftentimes are not needed if there is already light provided along a roadway. Lighting can also provide a sense of security for trail users, and provide another means of access to more people throughout the day or the year.
- 7 Drinking Fountains:** Staying hydrated is an important part of a healthy and comfortable trail user experience, and drinking fountains should be considered at trailhead locations with utility access.
- 8 Landscaping and Public Art:** Beyond serving a primary function of providing access to a trail, a trailhead can also serve as a means of placemaking or celebrating local character and identity of a place. Small planted areas, often with hardy, native plants or integrated public art showcasing local artists, can activate these small, public spaces.
- 9 Charging stations:** Electrical receptacles, either as part of a lighting fixture, or as a stand-alone solar-powered station, can provide a place for people to charge cell phones, as well as charge batteries for power-assisted mobility devices. This amenity can make it possible for people who use mobility devices to take longer trips via the trail. Charging stations for electric vehicles at trailhead parking is also a consideration.
- 10 Parking:** Accessible parking stalls can provide a means for people traveling from longer distances (regional or state visitors). Additionally, people who rely on mobility devices or who have disabilities may wish to have parking available to make it easier to access portions of the trail.



Figure 5.11 Precedent imagery of proposed trailhead amenities



TRAILHEAD LOCATIONS

The following potential trailhead locations have been identified for the High Cliff Connection, primarily building from existing facilities along the route options, and were reviewed by the public during the second phase of community engagement:

- 1 Trestle / Miron Bridge Trailhead:** Eastern terminus of the route, this is already a well-used trailhead to connect to the Loop the Little Lake Trail.
- 2 Jefferson Park:** With existing parking and park facilities, this is an excellent location for a trailhead. Recommended improvements include a kiosk with trail map, bike parking, a fix-it station, and seating.
- 3 Heckrodt Wetland Reserve:** With a large parking lot and access to the trails and existing features of the Reserve, this is a potential trailhead location and would require further coordination with Heckrodt Wetland Reserve. Recommended improvements include a kiosk with trail map, additional trail wayfinding, and bike parking.
- 4 Province Terrace Boardwalk at Nature's Way:** With potential for on-street parking and additional trailhead amenities, this location could serve as a means for local residents to access the route.
- 5 Lake Park Rd / Hwy 114:** With the further exploration of a connection along US 10/STH 114, there is opportunity for a new trailhead location potentially at the existing trail entry on the north side of the roadway, or within the ROW along the south side near Fire Lane 5.
- 6 Harrison Village Hall / Athletic Complex:** This location has existing parking and recreational facilities, and could serve as a great option for a trailhead if this route is determined to be the preferred in the Harrison/Sherwood Area.
- 7 High Cliff State Park Main Entry / Lower Cliff Road:** With access to multiple parking areas, existing restrooms, and potential upgrades with future renovations at the General Store, there is potential for trailhead access just within the State Park.

Note: Other trailhead locations can be considered along the route as future land or opportunities arise.



Jefferson Park



Province Terrace Boardwalk at Nature's Way



High Cliff State Park entry at the Butterfly Pond

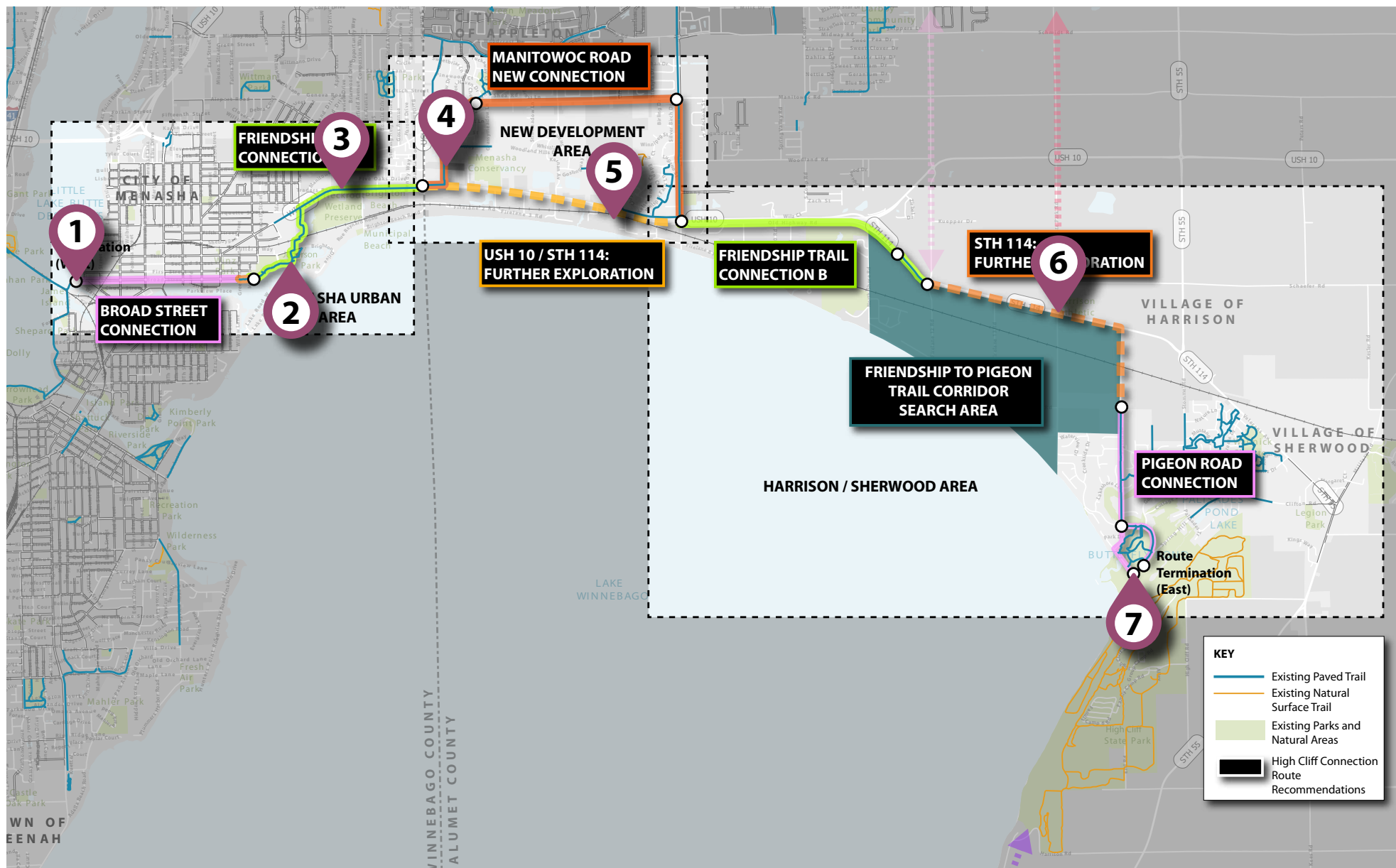


Figure 5.12 Proposed Trailhead Locations



INTERSECTION IMPROVEMENTS

Where possible, the route options avoid crossing major roadways. However, there are a handful of intersections that will be necessary to cross in order to complete the route corridor. At these locations, future enhancements or safety features could aid in the safety and comfort of trail users.

The following are some ideas and considerations:

1 Broad Street and Racine Street: The upcoming completion of the roadway improvements at Broad Street and Racine Street in Menasha will provide a protected median for pedestrians and bicyclists to cross. No additional improvements are recommended here as part of the plan.

2 Jefferson Park / 3rd Street: Today, there is an un-marked mid-block crossing connecting to the existing Friendship Trail segment. Future enhancements could include crosswalk markings, curb extensions, and/or trail crossing signage.

3 Oneida Street/ Plank Road/ STH 114: Today, this intersection poses a barrier to some trail users, as there are many lanes of traffic, wide crossing distances, and small landing areas adjacent to vehicle traffic. Through community feedback, it has been noted that the pedestrian island located in the northwest quadrant of the intersection is too small for a bicyclist with a pull-behind trailer to fit, posing a barrier for crossing by families. Free right-hand turns with wide turning radii are also concerning for pedestrians and bicyclists. Some ideas for enhancements at this intersection include:

- Tighten the curb radii at key crossing legs of the intersection, causing turning vehicles to slow down
- Consider signal timing for pedestrians that allow pedestrians to cross the roadway with no turning or forward movement of vehicles (this could be accomplished with user-activated signals)
- Extend curbs at medians and refuge islands to provide more protection for pedestrians crossing
- High visibility crosswalk markings (zebra or continental striping) to make crosswalks more visible
- Explore pedestrian crossing on east and south legs of the intersection

4 STH 114 at Lake Park Road: With both the near-term route via Manitowoc Road and the long-term exploration of a trail along STH 114, trail users will need to cross this high-volume intersection. Today, there is a pedestrian refuge island on the west side of the intersection, with a curb extension and marked crosswalk. Further enhancements here could include signal timing to allow longer time for pedestrians to cross, or all-way signal timing, which allows pedestrians to cross while no vehicles are moving through the intersection. Longer term, this intersection could be a good candidate for further study to determine if a grade separated crossing (bridge or tunnel) is warranted.

5 Railroad Crossing at Pigeon Road: Whether at Pigeon Road or at another location in the Trail Corridor Search Area, trail users will need to cross the active rail line. At this time, there are approximately 2 trains per day that use the line, and travel at approximately 35 miles per hour. Site specific design for separated trail crossing at the railroad is recommended.

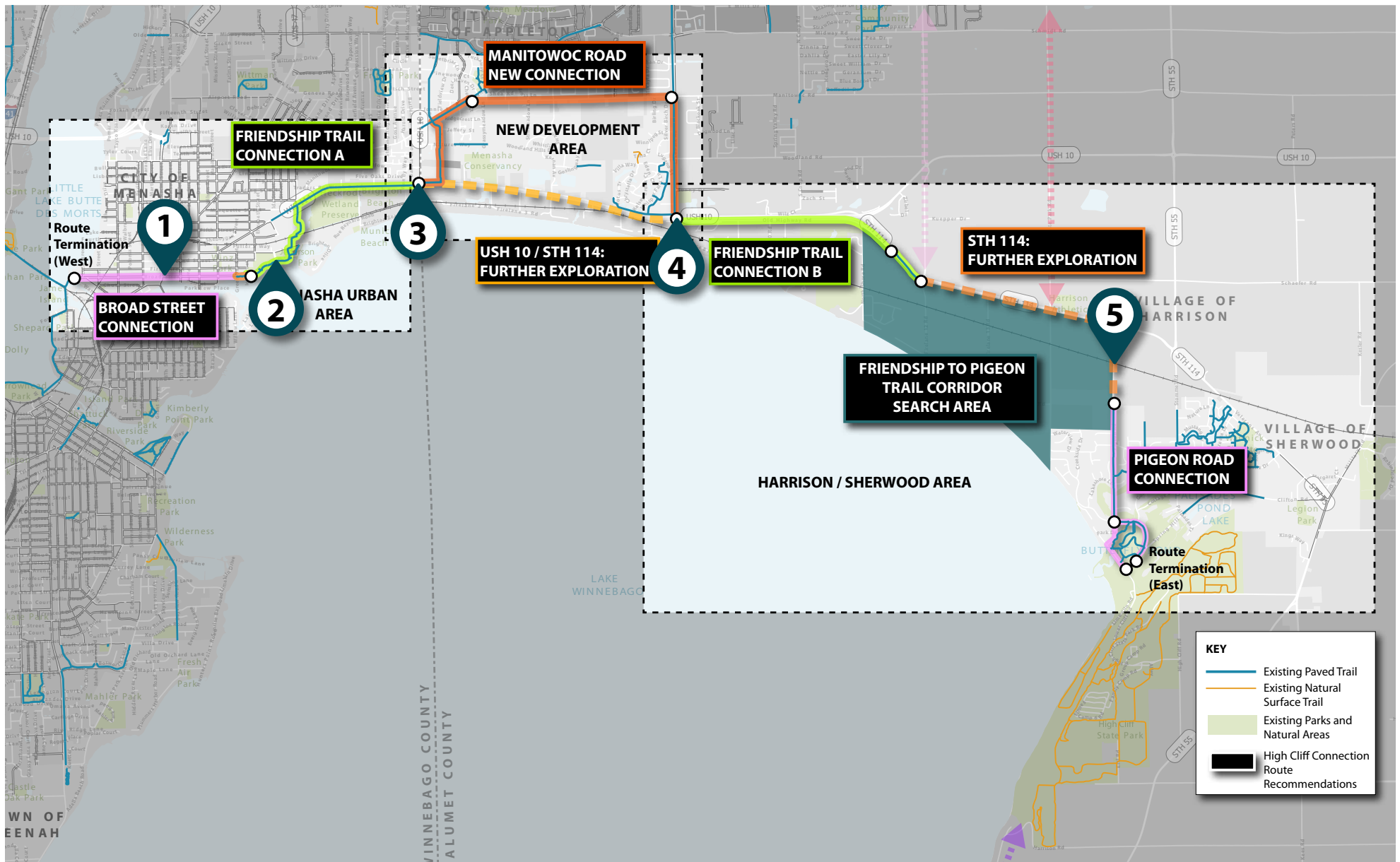


Figure 5.13 Proposed Intersection Improvement Areas



ADDITIONAL CONSIDERATIONS

Over the course of this planning study, a number of other opportunities and on-going related trail projects, potential trail spurs and initiatives were woven into conversations with community members, municipalities, and with the Core Team and Stakeholder Groups. The following are additional considerations to support a connected and safe network for biking and walking within the High Cliff Connection study area and beyond.

NEIGHBORHOOD CONNECTIONS

Feedback collected primarily through the first phase of community engagement demonstrated an interest in connecting nearby residential areas to create opportunity for people of all ages and abilities to access the High Cliff Connection. However, the preferred routes identified primarily connect users along higher volume roadways, such as Manitowoc Road or STH 114. Previous planning efforts (i.e. local trail plans, Comprehensive Outdoor Recreation Plans, State Park master plans) focused at the municipal level have identified plans for future trail, sidewalk, and on-street routes that will support connection from existing neighborhoods to the proposed High Cliff Connection. The High Cliff Connection is intended to provide a regional-scale trail to connect from downtown Menasha to High Cliff State Park. It should be noted that this plan does not take the place of other ongoing efforts to plan and build a safe and connected network at the neighborhood or city scale, for use by local residents.

Additionally, through this planning process, a handful of residential corridors throughout the study area were identified as uncomfortable, unsafe, or dangerous for pedestrians and bicyclists to travel along today. Below are suggestions for additional improvements that could support better bike and pedestrian infrastructure throughout the area:

- Consider shared lane markings, paved shoulder markings, or "Share the Road" signage for roadways with heavier bicycle use.
- Consider traffic calming measures, such as traffic circles, landscaping/tree canopy, and roadway markings as a means to communicate to drivers to slow down.
- Consider a road diet--narrowing of roadway width to provide additional space within the ROW for future sidewalk or trails.
- Where roadways have tight curves, such as Fire Lane 12 and Fire Lane 13, consider mirrors and clearing of brush or vertical obstructions to maintain sight lines.
- Advocate for increased enforcement of speed limits.
- Consider higher-visibility crosswalk markings (zebra or continental style), forward stop bar markings, and improved pedestrian ramps at stop-controlled intersections within neighborhoods.
- Consider user-activated crosswalk signals and curb extensions for mid-block crossings at critical locations for pedestrians (ie--in front of a school, church, or community center).

EXTENDED TRAIL NETWORK

The following trail corridors are either planned or in-progress and contribute to the High Cliff Connection by overlapping the proposed route or extending beyond the study area.

FRIENDSHIP TRAIL

Beginning at CTH M and US 10 in Winchester, the state recreational Friendship Trail will eventually connect from Stevens Point to Forest Junction. The High Cliff Connection proposes to overlap with segments of this constructed route.

WATER STREET CORRIDOR TRAIL

This planned trail proposes a multi-use trail along Water Street from Tayco Street to the Menasha Lock. This trail will intersect with the west end of the High Cliff Connection at the proposed Trestle/Miron Bridge trailhead and can serve as another link into Menasha.

NATURE'S WAY TRAIL/CONSERVATION NORTH TRAIL

As a planned trail connection between the Province Terrace Boardwalk on Nature's Way to Woodland Hills Drive, this trail segment will terminate at the proposed trailhead for the High Cliff Connection at the Province Terrace Boardwalk. It could provide a direct link to the Woodland Hills subdivision and future residential neighborhoods in that area.

TRAIL SPURS TO FOX CITIES

CTH N and State Park Road are both identified in the Village of Harrison CORPs as recommended future multi-modal corridors for biking, and would serve to provide excellent north-south connections from the High Cliff Connection to the Fox Cities (Appleton/Kimberly, Combined Locks area). CTH N has moderate use today by bicyclists with a wide shoulder between Highway 114 and Highway 10. There are current plans for development with recreational features along this corridor, and sidewalk/crosswalk updates near Sunrise Elementary School. State Park Road is a popular route today for experienced bicyclists, and could connect to the Village of Harrison Athletic Complex at STH 114, as well as to a facility north of KK (Calumet Street) in the Town of Buchanan.

LOWER CLIFF ROAD AT HIGH CLIFF STATE PARK

While High Cliff State Park is a destination for bicyclists and pedestrians, there are significant challenges today for travel within the park due to steep grade change between the main entry to the trails and camping areas above the escarpment. Lower Cliff Road is used today by vehicles, pedestrians and bicyclists and is extremely steep with a few sharp curves that lower

visibility for roadway users. Over the next two years, this roadway will be improved from the existing 2-lane road with no shoulder to a new design that is planned to include a shared bike and vehicle lane for downhill travel, separately marked bike and vehicle lanes for uphill travel, and a protected pedestrian path with guardrail separation from vehicle traffic. This proposed improvement addresses roadway construction within the sensitive landscape feature of the escarpment while designing for multi-modal use. The steep slope will remain a challenge for bicyclists and pedestrians to navigate from the entry of the park to trails and through to future trails to the south and east of the State Park.

CONNECTION TO CALUMET COUNTY PARK

Local biking advocates have long been seeking a connection between High Cliff State Park and Calumet County Park. Calumet County has invested in mountain biking trails in the County Park in recent years, and this use will complement the nearby High Cliff State Park bike use well. Negotiations and plans are underway to connect these two parks along Harrison Road.

