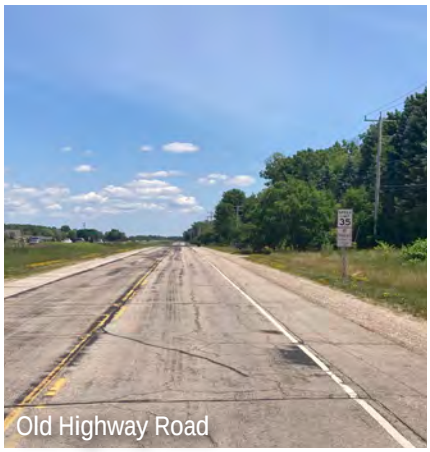
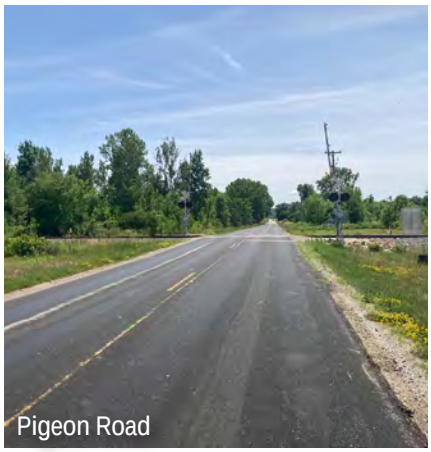
THE HIGH CLIFF STATE TRAIL CORRIDOR FEASIBILITY STUDY: LOCAL ROADS

WISDOT ID #4479-04-00

Old Highway Road, Pigeon Road & Manitowoc Road


Old Highway Road


Pigeon Road


Manitowoc Road


Old Highway Road

Village of HARRISON
WHERE OPPORTUNITY LIVES

VILLAGE OF SHERWOOD

Menasha

December 20, 2024

KL Engineering
[A] Better Experience

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ACKNOWLEDGMENTS

The development of the Feasibility Report is a joint effort and would not be possible without data sharing, input, and general cooperation from a multitude of stakeholders. We thank the following organizations for their assistance with this project.

- Village of Harrison Staff
- Village of Sherwood Staff
- City of Menasha Staff
- WisDOT Staff
- East Central Wisconsin Regional Planning Commission (ECWRPC) Staff
- Community Foundation for the Fox Valley Region
- Trail Strategies, LLC

Thank you,
KL Engineering, Inc.

Pigeon Road

EXECUTIVE SUMMARY

SEGMENT NAME	SEGMENT LENGTH (MILES)	**EST. DESIGN, CONST. & REAL ESTATE COSTS**	REAL ESTATE (ACRES)
Old Highway Road (Lake Park Road to STH 114)	1.8	$1,455,000 (2025-27)	NONE
Pigeon Road (STH 114 to Blue Heron Court)	0.86	$1,750,000 (2028-30)	0.52
Manitowoc Road (Plank Road to Lake Park Road)	1.64	Not to be included in High Cliff Connection project - future with road redevelopment.	NA

Exhibit 1: High Cliff Connection Overview

STUDY BACKGROUND

The Village of Harrison led this feasibility study to add bicycle and pedestrian facilities along local roads in the Village of Harrison, Village of Sherwood, and City of Menasha with assistance from a WisDOT planning grant (see Exhibit 1).

Past community planning efforts identified the importance of establishing a new pedestrian/bicycle route along the northern edge of Lake Winnebago that would link the surrounding communities to the High Cliff State Park. A planning study led by the East Central Wisconsin Planning Commission (ECWRPC) produced the High Cliff Connection Master Plan, which was completed in 2022. Several possible routes were identified for further study. The routes included within this study effort are:

- **Old Highway Road from Lake Park Road to STH 114.**
- **Pigeon Road from STH 114 to Blue Heron Court.**
- **Manitowoc Road from Plank Road to Lake Park Road.**

PROJECT TIMELINE

The feasibility study began in early 2024 with data collection and public engagement and has progressed as planned. A list of milestones are provided below:

- **January 23, 2024** - Project Kickoff
- **February 29, 2024** - Existing Conditions Review Meeting
- **March 21, 2024** - Public Involvement Meeting 1 - Old Highway Road and Pigeon Road
- **May 14, 2024** - Public Involvement Meeting 2 - Manitowoc Road with STH 114 segments studied under other ongoing feasibility study.
- **June 1, 2024** - Preliminary Alternatives Submitted for Review
- **July 26, 2024** - Draft Feasibility Report Submitted for Review
- **August 2, 2024** - Updated Design Alternative Displays Per Core Team Review Comments
- **October 2024** - Final Feasibility Report Submitted

PUBLIC OUTREACH

Public outreach for the feasibility study was completed at two meetings. The meeting for the Old Highway Road and Pigeon Road segments was held on March 21, 2024. The meeting for the Manitowoc Road segment was included in the public meeting for the USH 10/STH 114 study on May 14, 2024. Displays showing existing conditions (topography, utilities, right-of-way, drainage patterns, etc.) along the study corridors were provided without design alternatives to encourage discussion and gather ideas for potential trail locations. Feedback from the meetings assisted in the development of preliminary alternatives.

ALTERNATIVE DEVELOPMENT

Each of the routes was studied at varied levels of detail based on preliminary data gathering and public feedback.

The alternatives themselves were developed with the following goals for the routes:

- Minimize the impact on the natural environment.
- Connect to already-established trails and destinations along the corridor.
- Minimize private property purchases.
- Minimize construction costs to the greatest extent possible.

A concurrent feasibility study for routes along USH 10 and STH 114 is ongoing. The same core team is working on both feasibility projects.

STUDY RECOMMENDATIONS

The recommendations for each route vary.

- **For Old Highway Road,** an off-road bicycle and pedestrian trail is recommended on the south side of the roadway. This alternative assumes that the roadway would be shifted to the north when reconstructed in 2026 as previously approved by the Village Board in 2023.
- **For Pigeon Road,** an off-road bicycle and pedestrian trail is recommended on the west side of the roadway, within and outside of the existing right-of-way.
- **For Manitowoc Road,** a stand alone trail project is not recommended to be further pursued as part of the larger High Cliff Connection Corridor due to challenges that come from the three municipalities having jurisdiction over different segments of the corridor and existing topographic constraints. Further discussion and coordination between the three municipalities to determine the future vehicle, bicycle, and pedestrian facilities for the corridor is recommended.

The next steps to move the Old Highway Road and Pigeon Road project forward include design and construction grant requests, discussions with potential project partners, inclusion in long-range planning documents, inclusion of design and construction funding in future budgets, and property acquisition following the federal funding process.

SEGMENT OF STUDY	SEGMENT LENGTH	MUNICIPALITIES ALONG SEGMENT	PROPOSED TIMELINE	EST. DESIGN COSTS*	EST. CONSTRUCTION COSTS**	EST. REAL ESTATE COSTS***	TOTAL
Old Highway Road	1.8 mi	Village of Harrison	Design: '25-'26 Construction: '27	$207,000 (2025-2026)	$1,248,000 (2027)	$0.00	$1,455,000
Pigeon Road	0.86 mi	Village of Harrison 0.71 mi Village of Sherwood 0.15 mi	Design: '28-'29 Construction: '30	$252,000 (2028-2029)	$1,208,000 (2030)	$290,000 5-acres (2029)	$1,750,000
Manitowoc Road	1.64 mi	City of Appleton 0.18 mi City of Menasha 0.33 mi Village of Harrison 1.13 mi	Further coordination between municipalities is required to determine appropriate roadway updates and bike/pedestrian accommodations along this corridor.				

* Estimated Design Costs include WisDOT oversight cost.
** Estimated Construction Costs include Construction Administration cost.
*** Estimated Real Estate Costs provided in 2029 Dollars.

Estimated timeline is based on assumptions of availability of government funding. Actual timeline will be dependent on funding and real estate acquisition.

PROJECT NEED

Connecting the Fox Valley communities to High Cliff State Park with a bicycle and pedestrian trail (trail)has been on planners' and local residents' wish lists for some time. This idea was at the forefront of the Fox Cities Trail Summit, hosted by the Community Foundation for the Fox Valley Region in 2020.

Building off the direction and momentum from that summit, the East Central Wisconsin Regional Planning Commission (ECWRPC) completed the High Cliff Connection Master Plan through a study effort from August 2021 to October 2022. The purpose of this study was to gather regional demographic and bike/pedestrian use data and engage the public to assist in route planning.

The public outreach included interactive websites, social media, online surveys, in-person meetings, and pop-up tables at community events to garner as much feedback from as many local stakeholders as possible.

The result of the High Cliff Connection Master Plan was a specific potential route to connect area communities to the High Cliff State Park and a sequence of action plans for project implementation. A primary step of the action plan was to complete a preliminary engineering study of the identified routes.

This feasibility study completes this primary step for the following routes:

- **Old Highway Road from Lake Park Road to STH 114.**
- **Pigeon Road from STH 114 to Blue Heron Court.**
- **Manitowoc Road from Plank Road to Lake Park Road.**

PROJECT GOALS

The goal of the study was to develop multiple alternatives for the trail that would provide a safe off-road transportation option for bicyclists and pedestrians along the study segments. The alternatives were developed with the following goals:

- Provide a direct route along the corridor for bicyclists and pedestrians to encourage multi-modal transportation.
- Minimize the impact on the natural environment.
- Connect to already-established trails and destinations along the corridor.
- Incorporate a sustainable and maintenance friendly design.
- Provide a facility that is accessible to all. Minimize private real estate purchases and partner with other government entities using their land, if necessary.
- Plan, design, and construct with adjacent roadway projects where possible.
- Minimize construction costs to the greatest extent possible.
- Respect adjacent land uses.

Old Highway Road

STUDY BACKGROUND

THE PROCESS

Using a WisDOT Transportation Alternatives Program (TAP) planning grant, the Village of Harrison, in cooperation with the City of Menasha and the Village of Sherwood, was able to complete this feasibility study to explore adding bicycle and pedestrian facilities to connect surrounding communities to High Cliff State Park. This feasibility study reviews the previously mentioned routes to determine the challenges and opportunities associated with building bicycle and pedestrian facilities along these corridor segments. The study reviewed the potential trail impacts relative to the following:

- Topography & Soils
- Water Resources & Endangered Resources
- Utilities
- Adjacent Land Use & Right-of-Way
- Traffic Data
- Bike/Pedestrian Counts
- Public Outreach

Following the initial data gathering, site visits were conducted to validate the data and provide a more complete understanding of the trail corridors.

Displays showing existing conditions (topography, utilities, right-of-way, drainage patterns, etc.) along the study corridors, without design alternatives, were presented at public meetings. This was done to:

- Encourage discussion and gather ideas for potential trail locations.
- Learn more about the day-to-day conditions in the trail corridors (traffic conditions, stormwater trouble areas, existing multi-modal use, area needs, etc.).
- Garner feedback in support of or in opposition to potential trail projects and locations.

After the public input process, preliminary design alternatives for the corridors were developed and presented to the core team, made up of representatives from the Village of Harrison, City of Menasha, Village of Sherwood, ECWRPC, and the Community Foundation for the Fox Valley Region. Based on feedback, refinements were made to the designs, and construction costs were prepared for the final recommended alternatives.

These recommended alternatives can help secure design and construction funding through budget planning and grant writing.

ENGINEERING STANDARDS

The following standards were used to develop the alternatives for the bicycle and pedestrian facilities:

- Wisconsin Bicycle Facility Design Handbook 2004
- AASHTO Guide for the Development of Bicycle Facilities 2012
- Wisconsin Facilities Design Manual 2024
- Public Right-of-Way Accessibility Guidelines July 3, 2024

Trail Design

Typical Trail Pavement Section

- Top: 10-foot-wide asphalt at 4-inch depth
- Base: 12-foot-wide crushed aggregate at 8-inch depth
  *Assumed pavement structure based on other similar trails. Geotechnical investigation in final design would be needed to confirm pavement structure.

Key standards:

- 10-foot-wide trail
- 2-foot shoulders at 6:1 maximum slope
- Curve radii (minimum of 60 feet, 100 feet preferred)
- Side slopes flatter than 3:1 and requirements for buffer or railing in areas steeper than 3:1 (See figure on following page from Wisconsin Bicycle Facility Design Handbook.)

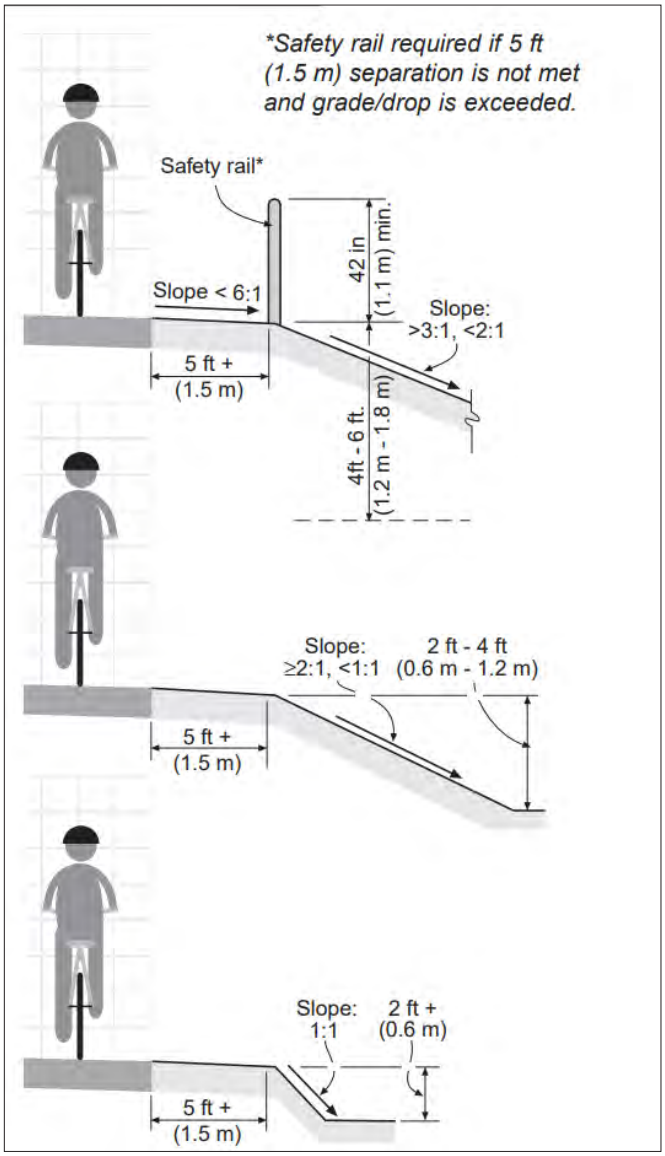

Pigeon Road

ENGINEERING STANDARDS

(CONTINUED)

Trail Design (Continued)

- Clear zone from edge of trail (3 feet typical, 1 foot allowed with continuous obstacle - railing).
- Boardwalk railing required when greater than 12 inches from ground level.
- Structure clear width a minimum of 12 feet.
- Curb ramps with detectable warning fields at all roadway crossings.
- 1.5% cross slope on trail.
- Running grades less than 5% running grade without landings.



ASSUMPTIONS

This is a feasibility study and, therefore, utilized publicly available planning level data. More detailed data is required for final design. Description of the planning level data used, limitations and assumptions, and the detailed data needed for final design are described below:

- **Right-of-way:** Existing right-of-way linework was obtained through GIS sources that are not perfectly accurate and may not include all easements. Further investigation of right-of-way through title work and field survey would be required. Formal plat work would be necessary for the final design process should real estate be needed to construct the project. Possible trail alternatives were designed to minimize or completely avoid the need for property acquisition. Condemnation for trail construction is not allowed per state law statute 32.015. Where preferred alternatives involve the acquisition of property, the federal acquisition processes would need to be followed.

- **Wetlands:** Limits of wetlands were based on data from the DNR water surface viewer. A complete wetland delineation would be required for the project, which may necessitate preferred alternative changes, require the use of boardwalk instead of asphalt, or require special treatments for erosion control and landscaping, etc.

- **Topography:** Alignment and grading calculations were based on LIDAR data provided by a variety of sources. Field surveys would be required in order to complete a more detailed design which may modify various elements.

- **Soils:** The USDA Natural Resources Conservation Service (NCRS) soils data was utilized for design assumptions for this report. Soil borings would be required for the project, which can impact pavement design, required excavation, and structure design.

ASSUMPTIONS (CONTINUED)

- **Waterways:** Per the mapping, no floodplain impacts are anticipated, but a more detailed analysis would be required. Additional field surveys would be required to pick up more local drainage patterns and geotechnical reports would include groundwater investigation. These investigations could require modification of earthwork, drainage structures, and pavement structures currently planned.
- **Endangered Resources:** As part of the evaluation of endangered resources in each of the study corridors, a preliminary assessment was completed through the Natural Heritage Inventory (NHI) public portal on the DNR website. Additionally, an Information for Planning and Consultation (IPaC) was completed through the U.S. Fish and Wildlife Service (USFWS). Due to the sensitive nature of endangered resources, specific details are not included in this report and were provided separately to the core team.
- **Utilities:** Typically, when utilities are located within the road right-of-way and need to be relocated as part of a public roadway redesign, the cost for the relocation is the responsibility of the utility company. However, at times, there are separate agreements within large corridors that may preempt this. 23 CFR 645 subpart B and Wis. Stat. ss 84.01(31) and 182.017 reference such considerations. When trails are involved, sometimes this protocol is not honored.

  System maps were requested as part of this study, but limited responses were received. As part of the final design process, the utilities would be coordinated with during the design and, if necessary, would develop work plans to address any necessary relocations. The intent would be to avoid relocations.
- **Related Roadway Projects:** A reconstruction of Old Highway Road is scheduled in 2026. It is proposed that the alignment and typical section of the roadway would change in order to provide more room for the shared-use pathway construction, as shown in the conceptual design.

DATA SOURCES

This study included gathering data from a number of sources, including, but not limited to, the following:

- **Calumet & Winnebago Counties**: GIS Data, Lidar, Aerial Photography
- **WisDOT:** Traffic Counts, LIDAR, Aerial Photography
- **East Central Wisconsin Regional Planning Commission (Ecwrpc):** GIS Data, Crash Data, Bike/Pedestrian Counts, High Cliff Connection Master Plan
- **DNR:** Water Surface Viewer
- **USDA Natural Resources Conservation Service** (NRCS)
- **DNR National Heritage Inventory (Nhi):** Endangered Species
- **USFWS IPaC:** Endangered Species
- **Utilities**: System Maps From Utility Owners
- **Public Comment:** Existing Conditions

This initial data was supplemented with field visits, additional meetings with the core team, and various other online resources. This study did not include the following:

- Topographic Field Survey
- Geotechnical Investigations
- Wetland & Waterway Field Analysis
- Cultural & Historical Resources Reviews

Assumptions based on the level of data available are noted within the report.


Manitowoc Road

OLD HIGHWAY ROAD

Exhibit 2: Old Highway Road Study Overview Map

DATA ANALYSIS

The area of study for a path along Old Highway Road spans from Lake Park Road on the west to STH 114 on the east for a total length of 1.79 miles.

The Village of Harrison is the sole municipality with jurisdiction over the roadway.

Road Geometry

- Rural cross section with two 11-foot driving lanes, 5-foot bike lanes, 7-foot stone shoulders and ditches.
- Fairly flat with a longitudinal running grade of 0.5% to 1% increasing from west to east with some flatter areas.
- Six side road intersections along the corridor, not including Lake Park Road and STH 114.
  - All intersections are T-intersections.
- Fifteen driveways, all on the south side of the roadway.
- The posted speed is 35 mph.
- Traffic volumes for this roadway are not available.

Soils

The majority of the soils are silty loams with a hydrologic soil group rating of C/D, (see Appendix A-1 & A-2). These soils generally have slow to very slow infiltration rates, which can lead to high runoff rates. Additionally, these soils are mostly classified as “somewhat poorly drained,” which would indicate that wet soil conditions are likely to be encountered throughout the construction season.

Waterways

Two unnamed streams cross Old Highway Road along the corridor through culverts, one between Lakeview Court and Fire Lane #9 and the other just west of North Shore Road. No FEMA-mapped floodplains are shown within the study area.

Roadside Ditches

The corridor has deep and shallow roadway ditches throughout, which are covered with lawn turf or other vegetation.

The north side of the roadway has a 5-foot-deep ditch with 41 feet total ditching between Old Highway Road and STH 114. The side slopes in this ditch are 4:1 maximum. This means there is 1-foot in vertical change over 4-feet in horizontal change. The ditch along the south side of the roadway is generally 20-feet-wide (where present) with 3:1 side slopes in spots. Generally, a side slope of 3:1 or steeper would require some sort of buffer or safety barrier if located adjacent to a trail.

Given the soil conditions we would expect to need larger ditches and/or storm sewer for water conveyance and subgrade improvements for pavement stability.

DATA ANALYSIS (CONTINUED)

Roadside Ditches (Continued)

Existing ditch capacity is calculated to be 35 CFS on average throughout the corridor. CFS is short for cubic feet per second, which is a measurement of the rate of water flow through the ditch.

Wetlands

There are no mapped wetlands within the study area but wetland indicator soils are present (see Appendix A-1 & A-2). However, common wetland vegetation, such as cattails, was observed on-site near the North Shore Road intersection, indicating that wetlands are likely present in some areas of the study corridor.

Endangered Resources

Several possible species may be present in the corridor, but there are no required actions to confirm their presence, avoid impacts, or mitigate impacts.

Utilities

The corridor has underground gas, electric, water, sanitary, and communications lines, as well as overhead utility lines and poles on the south side of the roadway. Laterals connecting utilities to individual properties along the corridor are also present.

Adjacent Land Use

The project corridor outside the roadway right-of-way is largely residential consisting mostly of single-family use structures with some sections of multi-family use structures. There is agricultural land on the south side of Old Highway Road and one parcel zoned for recreational use is the North Shore Country Club.

Right-of-Way/Real Estate Needs

The width of the right of way varies throughout the corridor, between 50 feet and 80 feet from the new centerline of Old Highway Road. Several areas appear to show private property extending to the centerline of the roadway. Since the road itself is constructed within this area, it is assumed that a highway easement or similar property interest is in force and can be applied. More detailed research would be required during detailed design.

The closest a trail can be to an existing roadway's paved edge is 5 feet. Under the existing conditions of Old Highway Road, there are 24 to 52 feet of width to fit a 10-foot-wide trail, a 2-foot shoulder, and any grading required to tie into the existing ground.

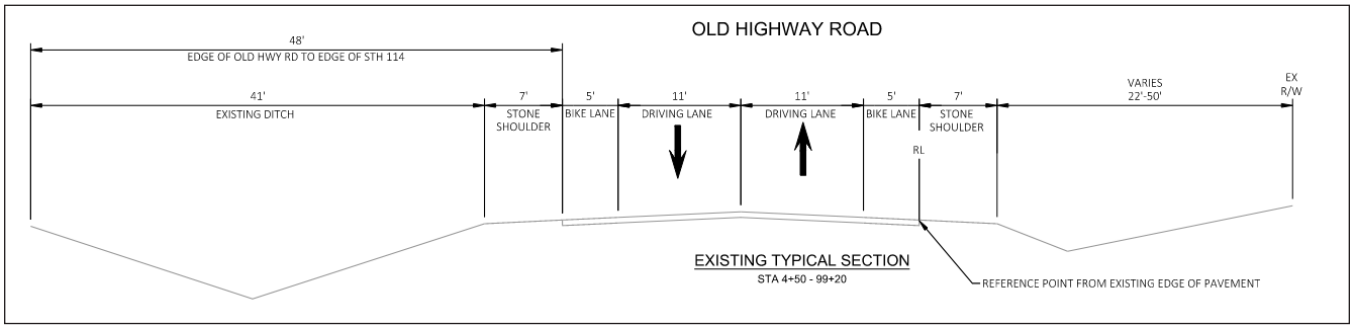


Exhibit 3: Old Highway Road Existing Typical Section

Bike & Pedestrian Counts

Bike and pedestrian counts were conducted along the Old Highway Road study segment in July 2023. The Average Daily Traffic (ADT) from those counts is calculated to be 29 users per day (users utilized bike lane as sidewalk which is unsafe). Although demand modeling was not included in the scope of the feasibility study, it is reasonable to expect this number to increase if an off-road (safe) facility were available and, if further trail connections were made, this would promote further use by bikes and pedestrians.

According to ScienceDirect, Transportation Research Part D: Transport and Environment, April 2019, “Presence of bicycle facilities (e.g., bicycle lanes, off-street trails) was positively associated with higher levels of bicycle traffic.”

Roadway Crash Analysis

The ECWRPC data mapping provided information regarding crashes along the corridor between 2019 and 2023, which is summarized below.

2019 – 1 Total Crash
- 1 leaving roadway crash

2020 – 1 Total Crash
- 1 leaving roadway crash

2021 – 2 Total Crashes
- 2 deer crashes

2022 – 1 Total Crashes
- 1 deer crash
- 1 fatal vehicle/bike crash*

2023 – 0 Total Crashes

2019-2023 Crashes - 5 total crashes
- 3 deer crashes (60%)
- 2 leaving roadway crashes (40%)**

* The fatal crash in 2022 between a vehicle and bike occurred during bright sundown conditions in which the driver of the motor vehicle failed to see the bike rider and a collision occurred. An off-road facility for bikes and pedestrians would help to prevent similar crashes in the future.

** Nearly half of the reported crashes on this study segment were leaving roadway crashes. This enhances the need for an off-road pathway for user safety.

Planned Roadway Project

The Village of Harrison has proposed the reconstruction of Old Highway Road in 2026. Based on this planned reconstruction, the core team has been able to weigh in on possible roadway design choices that would help set the stage for future trail construction. The design team’s recommendation involves removing current bike lanes/widened shoulders along Old Highway Road, which would allow for shifting the roadway alignment north. This shift would provide space for an off-road, shared-use trail along the south side of the roadway. This concept was presented at the Public Involvement Meeting (PIM) (see Exhibit 4 on the following page).

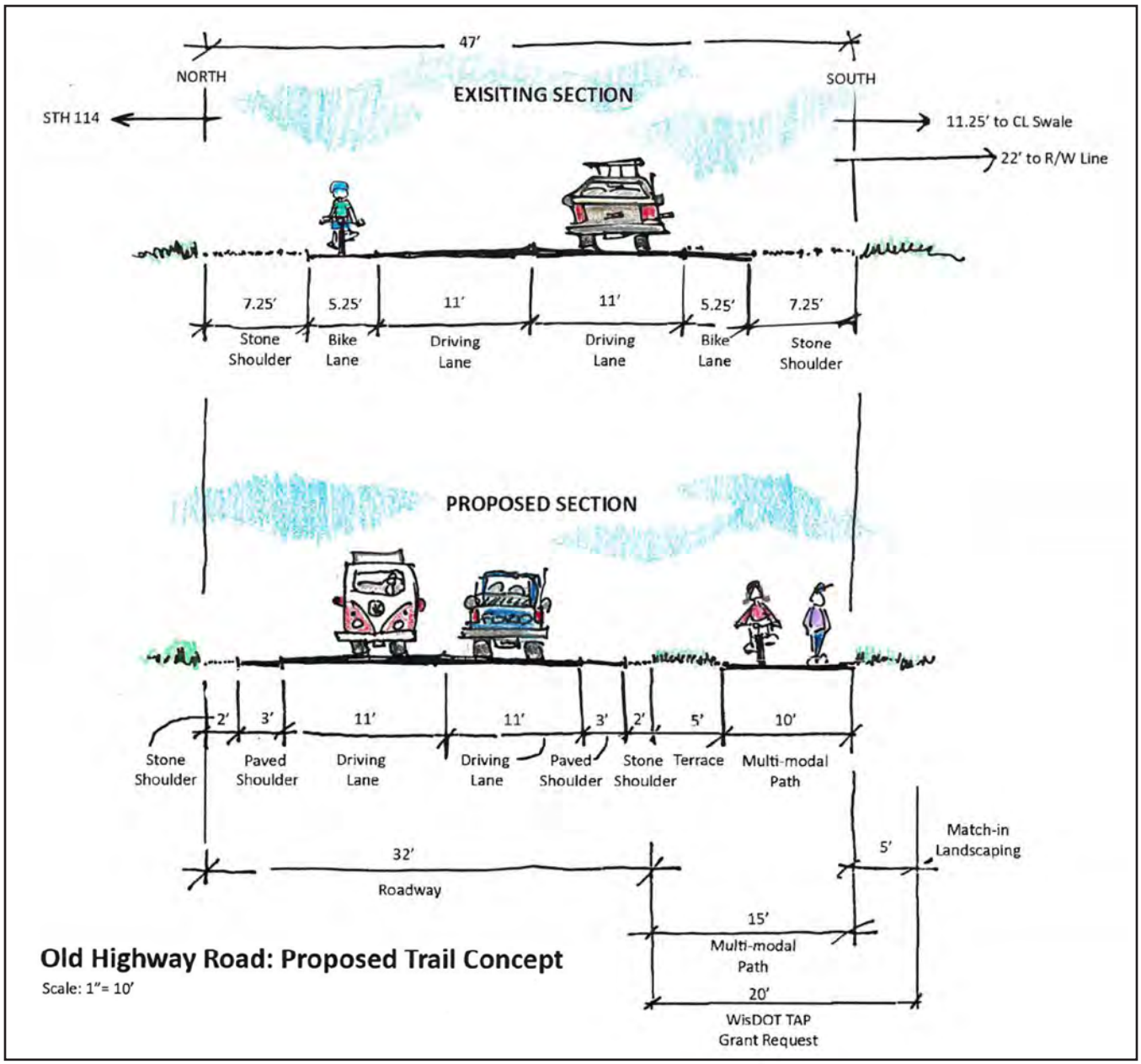


Exhibit 4: Old Highway Road - Proposed Trail Concept
Source: Trail Strategies, LLC

PUBLIC OUTREACH

A PIM for the Old Highway Road study segment was held on March 21, 2024, at the Harrison Municipal Building. This meeting was held in conjunction with the Pigeon Road segment and displays for the Old Highway Road and Pigeon Road segments were presented to the public.

The public was informed about the public involvement meeting using:

- Mailings to property owners along the study corridor
- High Cliff Connection website
- Posting on municipality websites
- Social media posts

Following the conclusion of the meeting, materials were available for public viewing on municipality websites and project websites.

The PIM was an open house format with no formal presentation. Staff from KL Engineering, the Village of Harrison, the Village of Sherwood, the City of Menasha, the High Cliff Connection Core team, and the ECWRPC were available to answer questions from attendees and receive corridor and project feedback. Displays presented included an overview of the study areas to provide context to the project as a whole, with large roll plots showing the existing conditions of the study area and a sketch of Old Highway Road sections showing the existing conditions and the concept to be explored as the project moved into the preliminary design phase (see Exhibit 4). Attendees were asked to provide additional information regarding the existing conditions along the corridor by marking up the provided roll plots and discussing with the project team members, asking questions about the project, and providing any general comments and concerns.

The recorded attendance of the meeting was 43, not including project staff. Four written comments were received in addition to verbal comments from meeting attendees.

The feedback from attendees and how it would be considered are as follows:

- Safety concerns about the intersection that provides access to Old Highway Road from US 10 / STH 114 near the North Shore Country Club.
  - Village of Harrison or future roadway designer would look at intersection geometrics during the upcoming design of Old Highway Road reconstruction project.
- Desire to avoid tree/shrub removal to the greatest extent possible.
  - The Old Highway Road reconstruction is anticipated to shift the current road north and allow for the trail to largely be located within the previous roadway area. This minimizes the grading required, and the amount of clearing and grubbing is expected to be low.
- Emphasis on keeping the proposed trail as far from the property line as possible.
  - As discussed above, the anticipated roadway shift allows the trail alternative to remain largely within the existing roadway footprint to maximize distance from an adjacent property.
- Keep the corridor's rural feel (no lighting, no curb and gutter, etc.).
  - The intent of the roadway reconstruction project is to keep the roadway rural in nature, and no trail lighting is proposed.

Overall, the public's response to the potential trail was encouraging. They expressed their support, provided that the trail respects private property, minimizes tree impacts, and aligns with the proposed section as presented in Exhibit 4.

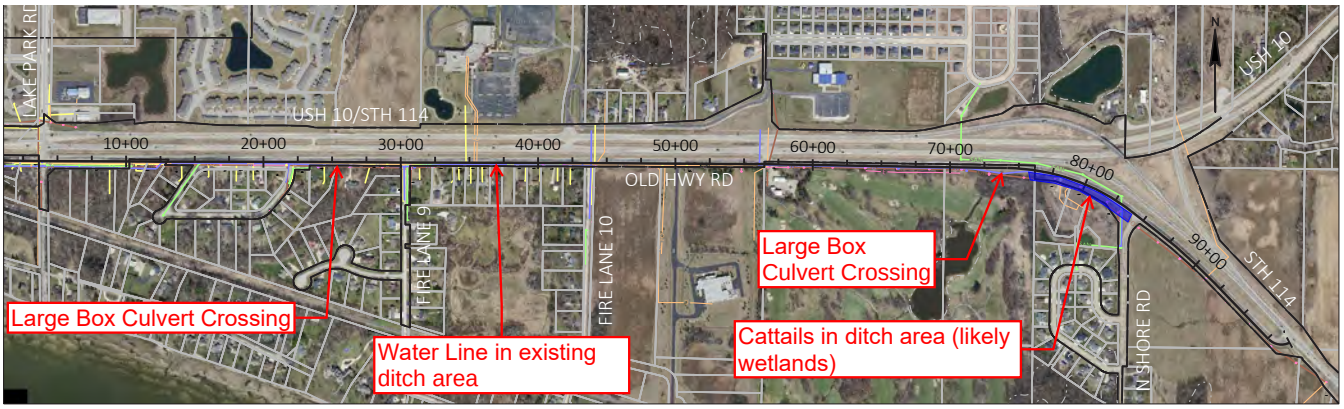


Exhibit 5: Old Highway Road Existing Conditions Map

CONCEPT DEVELOPMENT

Concept Discussion

The alternative developed for the Old Highway Road study segment would construct 1.81 miles of shared-use trail beginning at the intersection of Old Highway Road and Lake Park Road/Fire Lane #8 and running to the east along the south side of Old Highway Road to the intersection of Old Highway Road and STH 114.

At the western edge of the project, the trail would connect to an existing trail crossing of US 10/STH 114, and at the eastern end, it would connect to the Friendship Trail that continues east on the south side of STH 114.

Preliminary alternative plans are provided in on the pages 18-26.

Design Elements

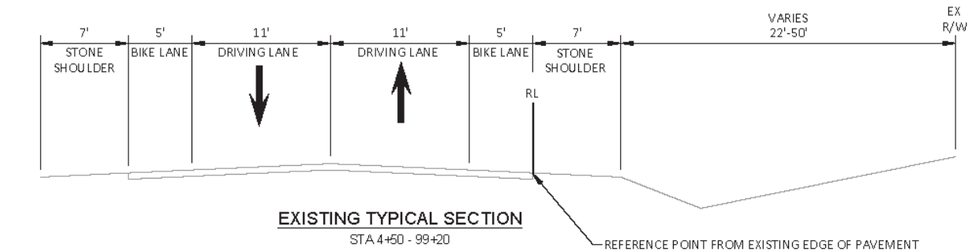
Typical Cross Section for the Trail

- 4 inches of asphalt at a 10-foot width over 8 inches of 1.25-inch crushed aggregate at a 12-foot width.
- 2-foot turf shoulder.
- Account for possible poor soil conditions with an assumed 20% of the trail length requiring additional subgrade improvements, including 12 inches of select crushed and geotextile fabric.
- The trail would be 10 feet from the edge of the proposed Old Highway Road pavement.
- The right-of-way location would need to be confirmed with topographic survey and title searches in the design phase.

Railing

- Required at specific locations along the trail to protect users from proposed steeper than 3:1 side slopes and at the crossing of an existing box culvert.
- These steep side slopes are necessary to avoid environmental impacts, property acquisition, and maintain existing drainage along the corridor.
- Would save the potential box culvert extension cost and protect trail users from the vertical drop at the culvert opening.

Preferred Alternative - Old Highway Road Sections



EXISTING TYPICAL SECTION
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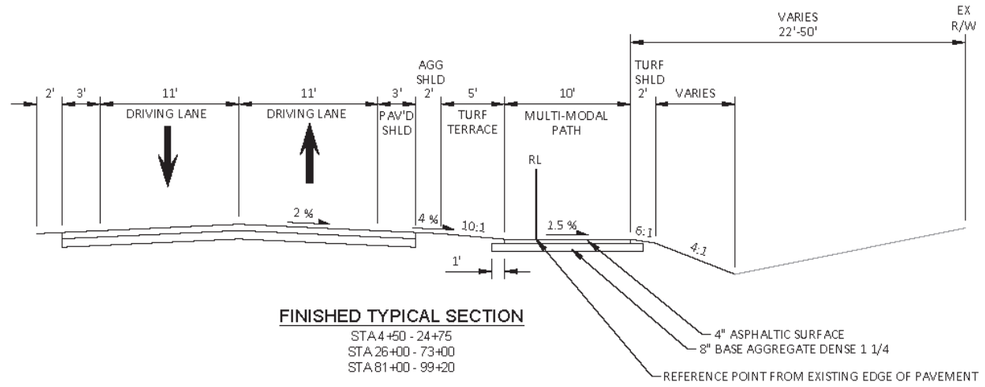

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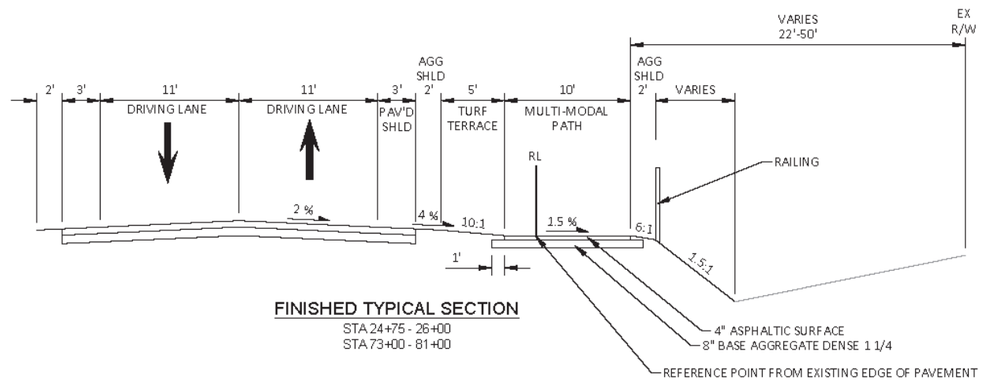

FINISHED TYPICAL SECTION
STA 24+75 - 26+00
STA 73+00 - 81+00

PROJECT NO: 4479-04-00	HWY: NON-HWY	COUNTY: CALUMET	TYPICAL SECTIONS - OLD HIGHWAY RD	SHEET PRE 1 of 43	E

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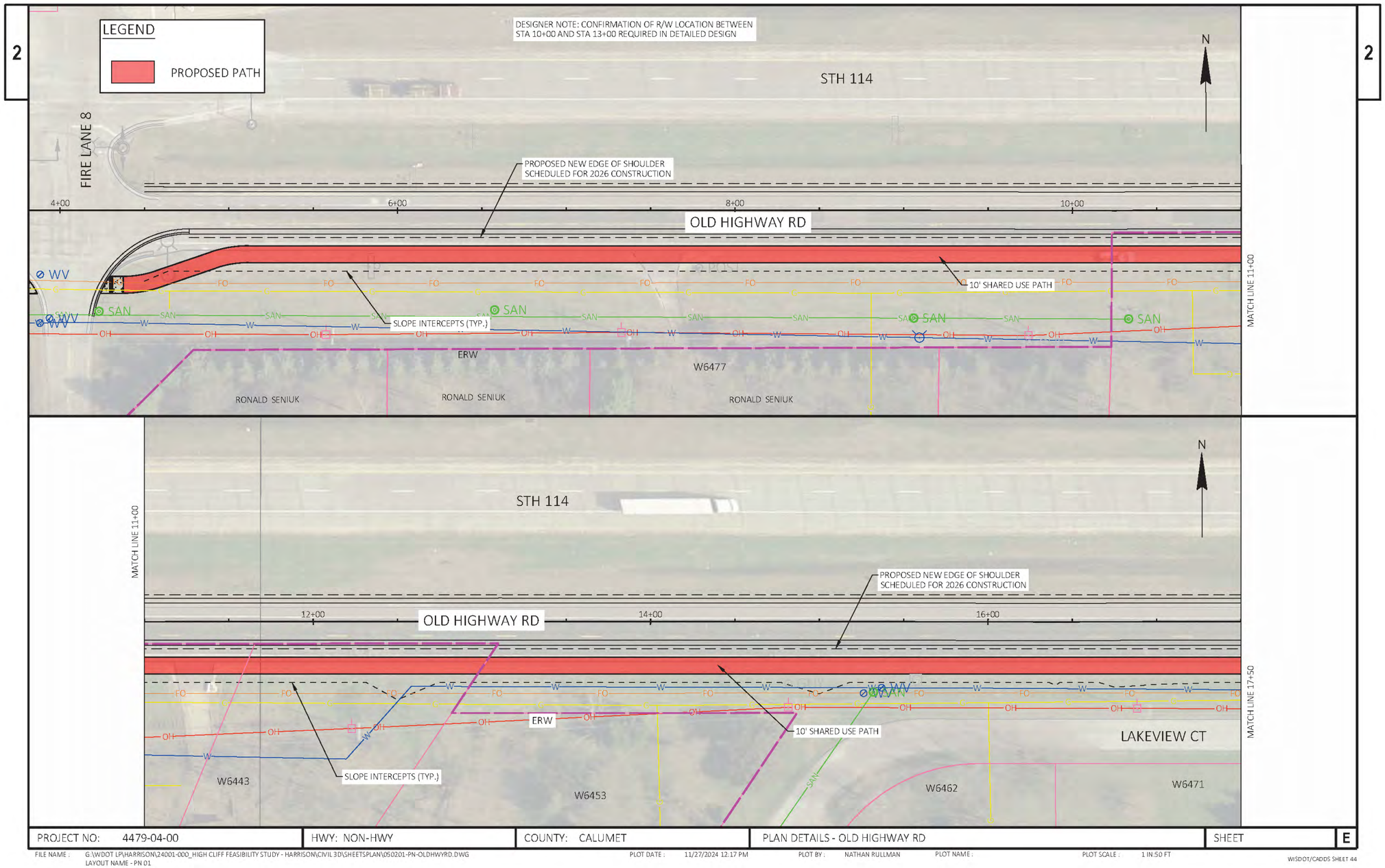
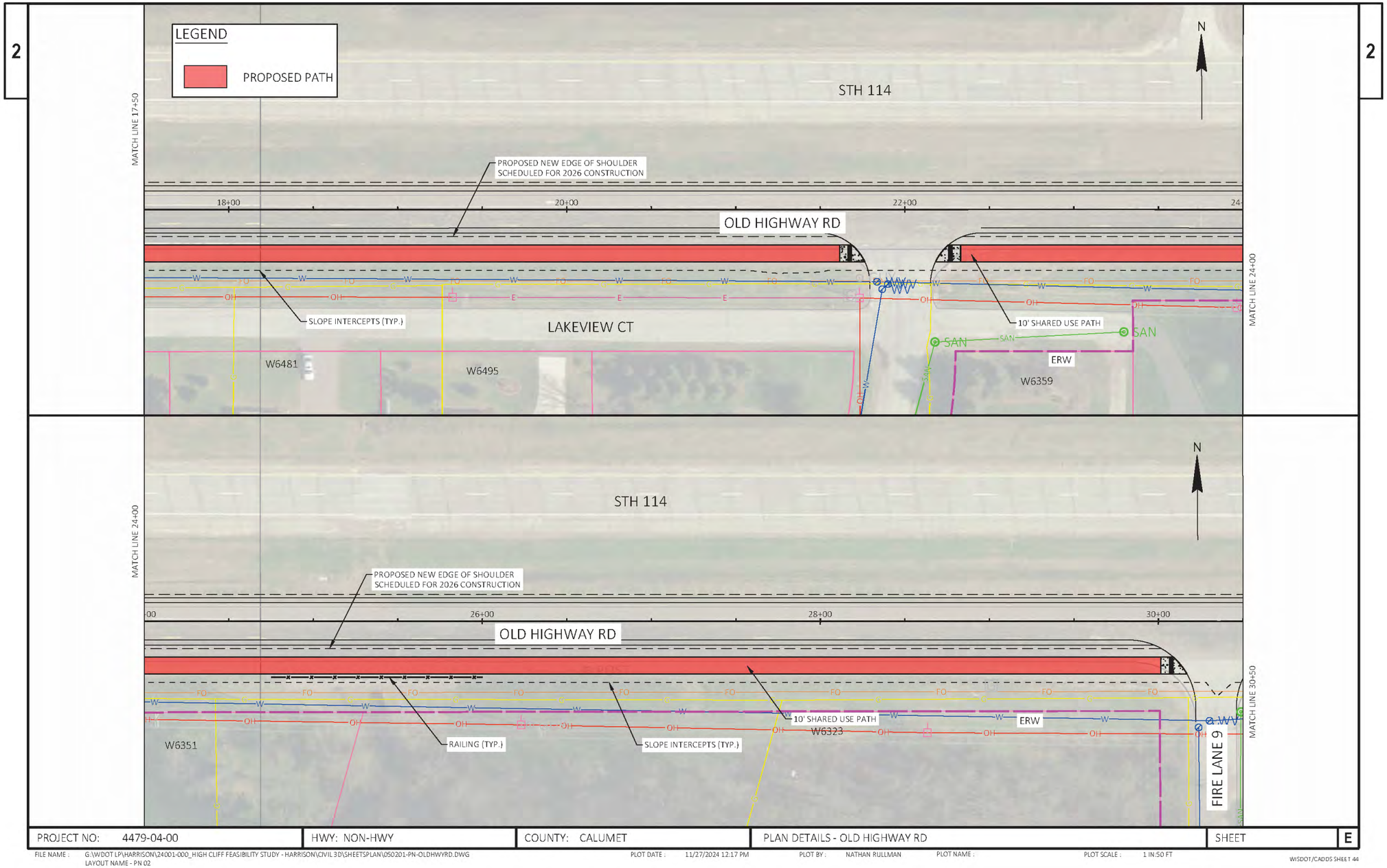
LAYOUT NAME - TS 01
PLOT DATE: 8/1/2024 10:26 PM PLOT BY: JOSH MERCIER PLOT NAME: PLOT SCALE: 1 IN:10 FT
WISDOT/CADDS SHEET 42

Preferred Alternative - Old Highway Road Plans

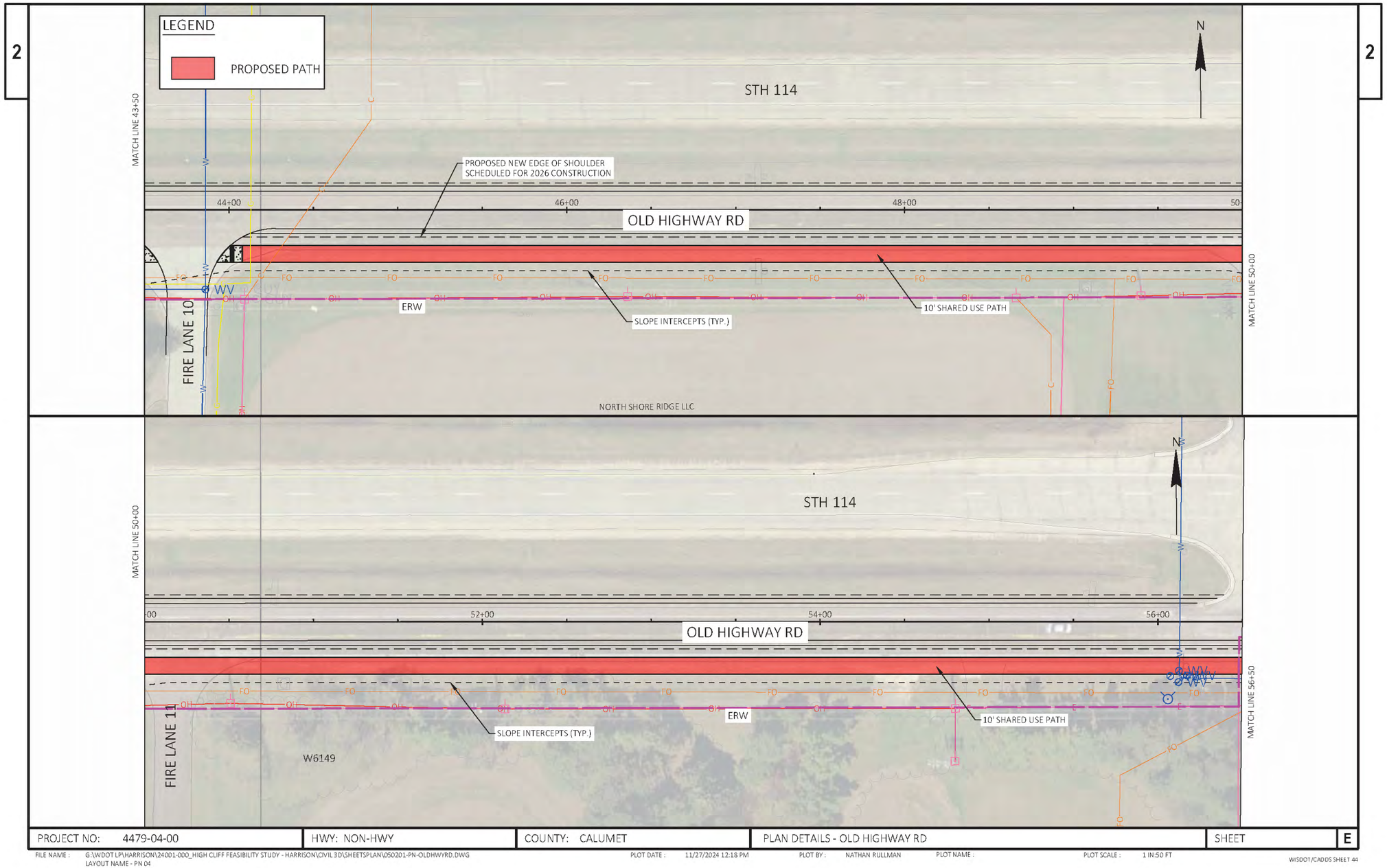


Preferred Alternative - Old Highway Road Plans



Preferred Alternative - Old Highway Road Plans

Preferred Alternative - Old Highway Road Plans



Preferred Alternative - Old Highway Road Plans

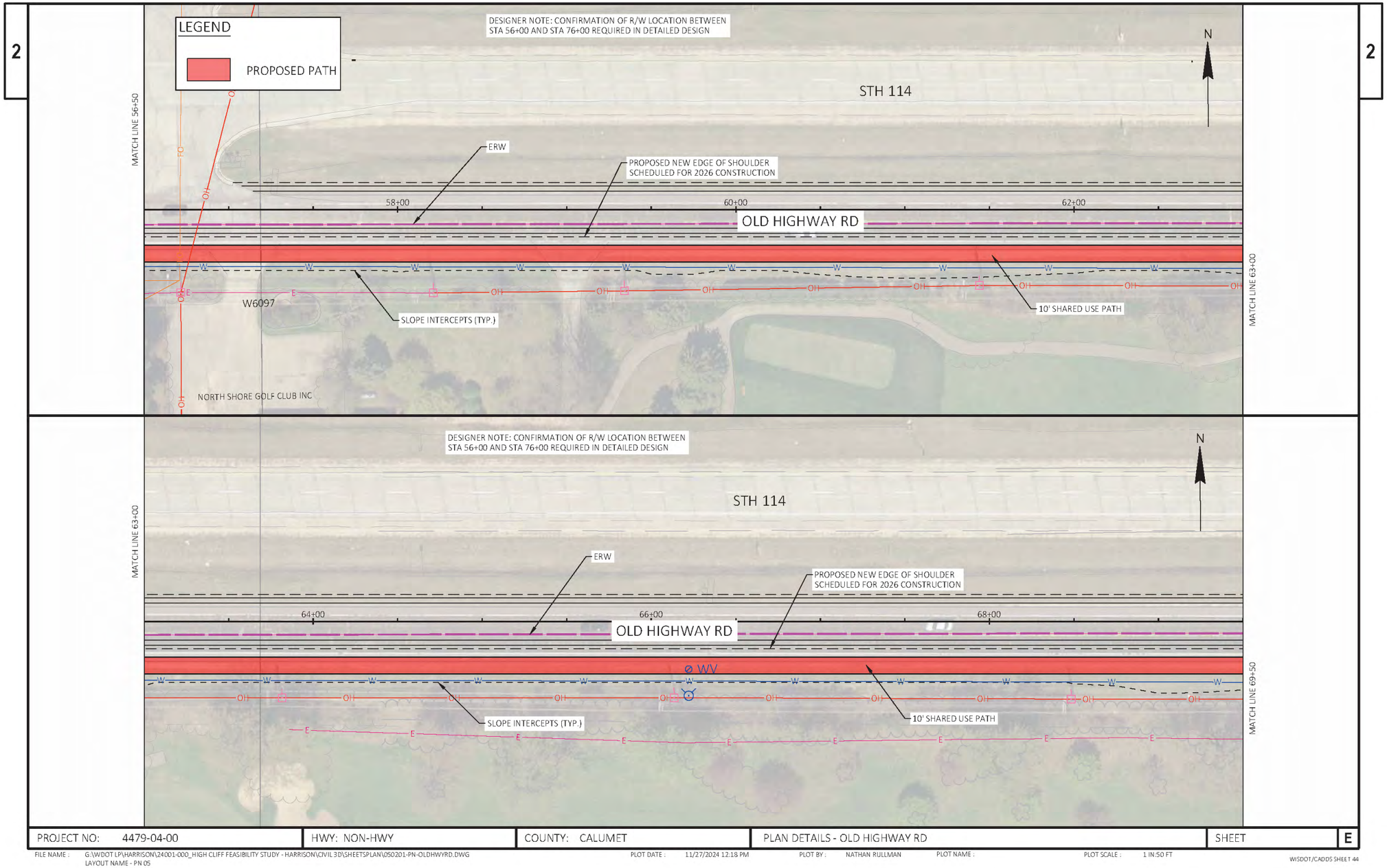


EXHIBIT 12

Preferred Alternative - Old Highway Road Plans

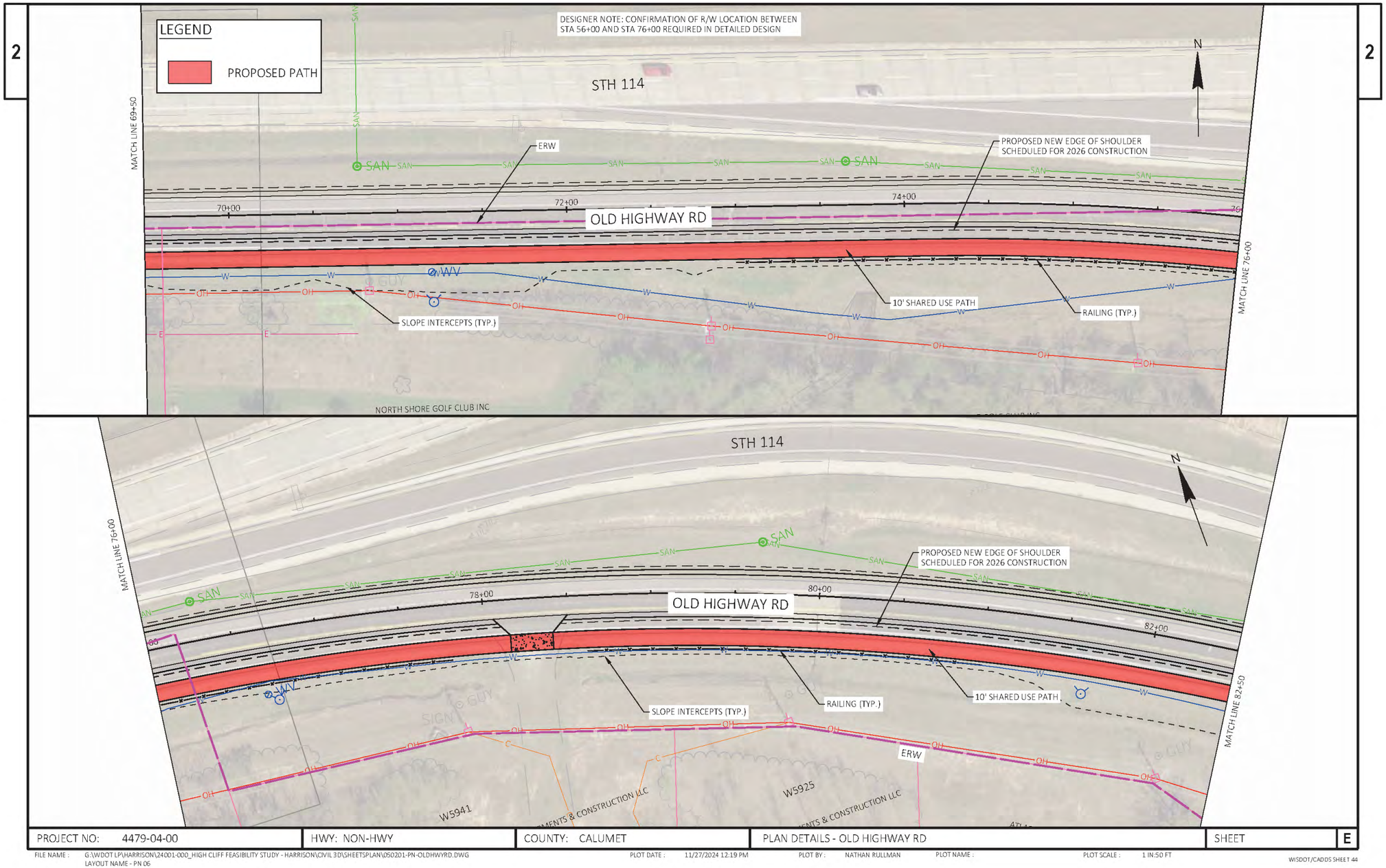
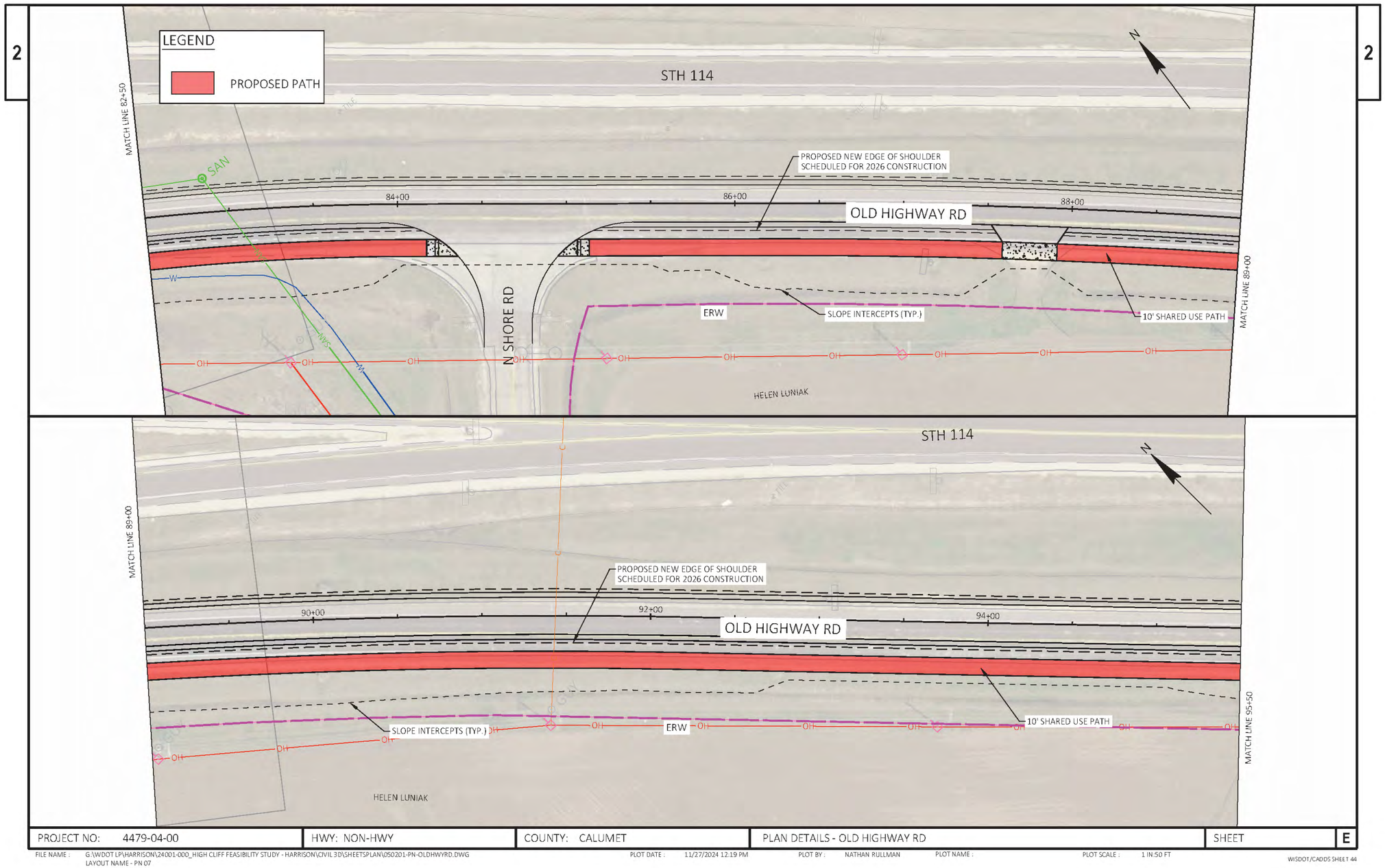


EXHIBIT 13

Preferred Alternative - Old Highway Road Plans



Preferred Alternative - Old Highway Road Plans

Design Elements (Continued)

Utilities

- Based on system mapping provided by utilities, the only expected conflict currently shown is between an existing water line and fire hydrants.
- There are a couple of instances of communication line and gas line crossings of the proposed trail, but conflicts requiring a utility relocation for these utilities would not be expected.
- Further coordination in the design phase of the project would be required.

Wetlands & Endangered Resources

- A wetland delineation would be required.
  - Some changes in side slopes and railing limits may be required to avoid extensive wetland impacts.
- Some clearing and grubbing would likely be required.
  - Based on preliminary USFWS coordination, it is possible that there would be restrictions on when this work can occur.
- Based on possible species in the corridor, it is likely that construction time restrictions and native/pollinator seeding would be required.

Intersections

- Curb ramps with detectable warning fields would be required.
- Signing along the trail and along the roadway would be required.
- Crosswalk markings would be required.

Existing Drainage Patterns

- Intent is to maintain existing ditch capacity and drainage patterns.
- Minor grading in the ditch is necessary. No impact on ditch capacity, existing drainage patterns, or adjacent property is expected.
- No storm sewer or culvert work is anticipated to be necessary with the trail project.

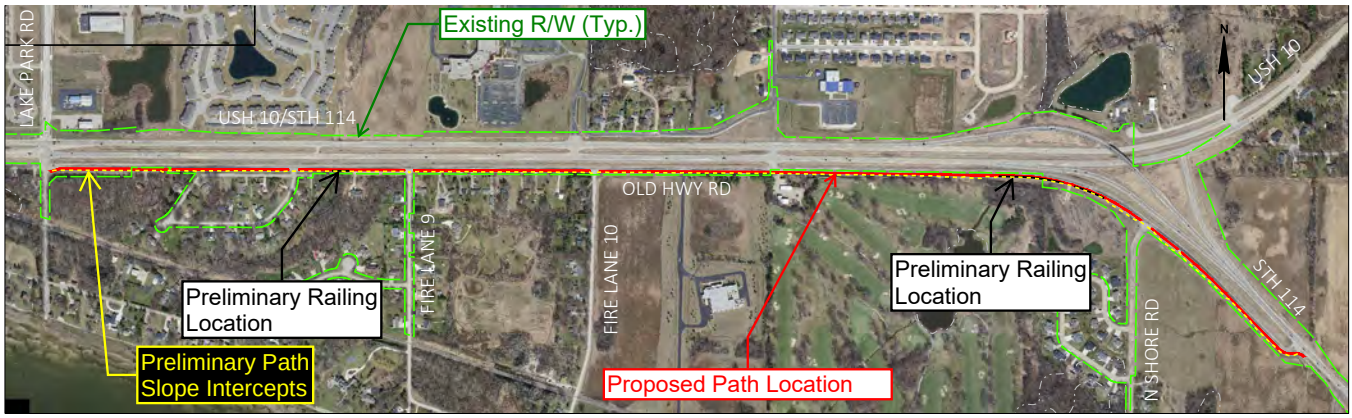


Exhibit 15: Old Highway Road Alternative Design Map

PROJECT COSTS

Potential Costs

The construction costs assume that the project is being constructed as a standalone project following the completion of the Old Highway Road reconstruction project. The construction year is assumed to be 2027, with 3% annual inflation accounted for from 2024 bid prices. Given these assumptions costs are as follows:

- **Construction Cost**: $1,248,000*
- **Design Cost**: $207,000**
- **Total Project Delivery Cost**: $1,455,000

* Construction Cost includes 20% contingency and construction administration costs.

** Design Cost is assumed in 2025 and 2026 and includes WisDOT design oversight.

The detailed cost estimate is included in the Appendix B-1.

Combining the proposed trail work with the roadway reconstruction project to the greatest extent feasible would likely save costs on this project. Cost savings are possible based on more favorable unit costs due to increased item quantities. Trail items that may be included within the roadway work include removals, grading, and storm water conveyance items, such as culverts and storm sewer.

Potential Project Timeline

- **Grant Funding Request** - Already Completed 10/2023
- **Grant Award** - Already Completed 10/2024
- **Design** - Summer 2025 to Winter 2026
- **Construction** - Spring to Fall 2027

Based on the project length, estimated cost, and the fact that there are existing connections on each end of the project, it is recommended that this project not be phased but rather be constructed as one complete project.

Based on the need to provide a safe trail along Old Highway Road, advantages presented by the roadway project proposed for construction in 2026, and the initial favorable design in the alternative development, this project should continue to move forward toward 2027 construction. Challenges that would need to be addressed include the following:

- Confirmation of existing right-of-way location (can be confirmed by requesting title reports).
- Possible wetland areas along the corridor may require more railing installation to minimize wetland impacts.
- In the unforeseen circumstance that the roadway design is unable to shift the roadway to north in 2026, then the ditch grading or storm sewer installation would be needed with the installation of the trail.

PIGEON ROAD

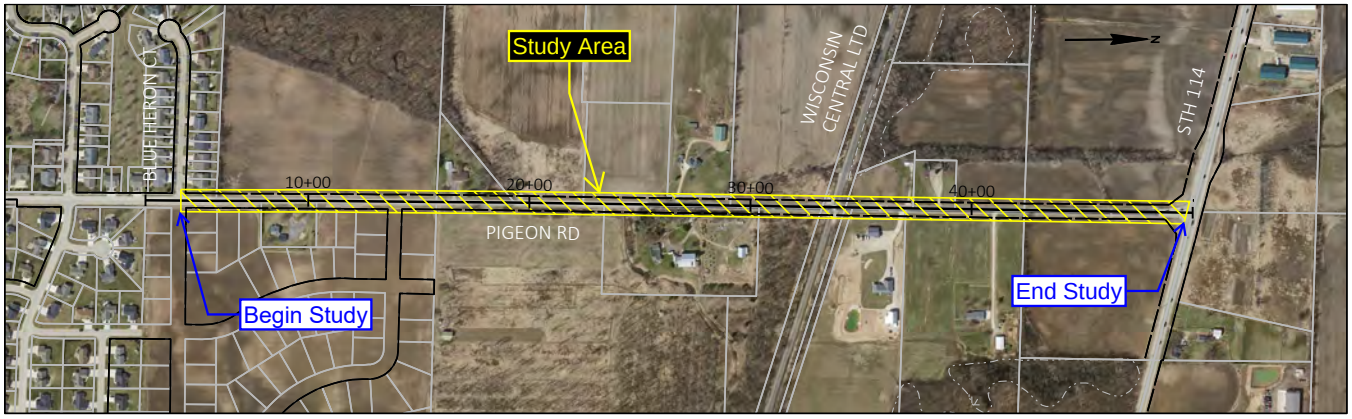


Exhibit 16: Pigeon Road Study Overview Map

DATA ANALYSIS

The area of study for a path along Pigeon Road spans from Blue Heron Court on the south end to STH 114 on the north end for a total length of 0.86 miles.

Over this length, there are two separate municipalities with jurisdiction over the roadway, including the Village of Harrison (0.71 mi) and the Village of Sherwood (0.15).

Road Geometry

- Rural cross-section consisting of two 11-foot lanes with 3-foot gravel shoulders.
- Fairly flat with a longitudinal running grade of 0.5% to 1% increasing from south to north with some flatter areas.
- 1 side road intersection along the corridor not including Blue Heron Court and STH 114.
  - The intersection is a T-intersection for a new residential subdivision on the east side of the road.
- Fourteen driveways, with seven being on the west side and seven on the east side of the roadway.
- The posted speed is 45 mph.
- Traffic volumes for this roadway are not available.

Soils

The majority of the soils are silty loams with a hydrologic soil group rating of C and D (see Appendix A-3 & A-4). These soils generally have slow to very slow infiltration rates, which can lead to high runoff rates. Additionally, these soils are classified as “somewhat poorly drained,” which would indicate that wet soil conditions are likely to be encountered throughout the construction season.

Waterways

1 unnamed stream crosses Pigeon Road twice along the corridor through culverts. No FEMA-mapped floodplains are shown within the study area.

Roadside Ditches

The corridor has deep roadway ditches throughout. The ditches are mainly covered with lawn turf or wild vegetation. Standing water was observed in some ditch areas during the site visit and aerial photography.

The ditch on the west side of the study area is a deep-cut trench 1-foot in depth with 4:1 slopes surrounding the channel. This follows the majority of the study area until it comes to a creek that flows westbound.

Existing ditch capacity along this study segment is calculated to be 43 cubic feet per second (CFS) on average throughout the corridor.

DATA ANALYSIS (CONTINUED)

Wetlands
No mapped wetlands are within the study area but wetland indicator soils are present (see Appendix A-5).

Endangered Resources
Several possible species may be present in the corridor, but there are no required actions to confirm their presence, avoid impacts, or mitigate impacts.

Utilities
The corridor has underground gas, electric, water, and communications lines, as well as overhead utility lines and power poles on the west side of the roadway. Laterals connecting utilities to individual properties along the corridor are also present.

Railroad
There is an existing railroad crossing of Pigeon Road located near the middle of the project corridor. This railroad is owned and operated by Wisconsin Central Ltd. (WC). According to the U.S. DOT Crossing Inventory (see Appendix C-8) a train crosses Pigeon Road twice per day with a maximum speed of 35 mph.

Adjacent Land Use
The project corridor outside the roadway right-of-way is largely agricultural consisting mainly of farm fields. Additionally, there is residential land with single-family homes. There is one parcel zoned for industrial use that is a storage facility on the west side of Pigeon Road.

Right-of-Way
The width of the right-of-way is consistent throughout the corridor at 66 feet. The roadway is located within the center of the right-of-way throughout the corridor.

The closest a trail can be to an existing roadway is 5 feet. Under the existing conditions of Pigeon Road, there is 28 feet of width to fit a 10-foot-wide trail, 2-foot shoulder, and any grading required to tie to existing ground or grade a new ditch to maintain drainage.

Bike & Pedestrian Counts
Bike and pedestrian counts were conducted along the existing Pigeon Road trail south of this study segment in June 2023. The Average Daily Traffic (ADT) from those counts is calculated to be 111 users per day. We would expect similar user counts in this segment if bike/pedestrian facilities were available. Additionally, increased users would be expected if regional trail connections are made.

Existing Pigeon Road Trail Rehab
The existing Pigeon Road Trail, which reaches from State Park Road to Blue Heron Circle, is in need of rehabilitation. Trail upgrades are included within the Village's plans to update, however additional funding is needed. The Village is currently exploring potential partnerships with both state and local agencies to assist in funding.

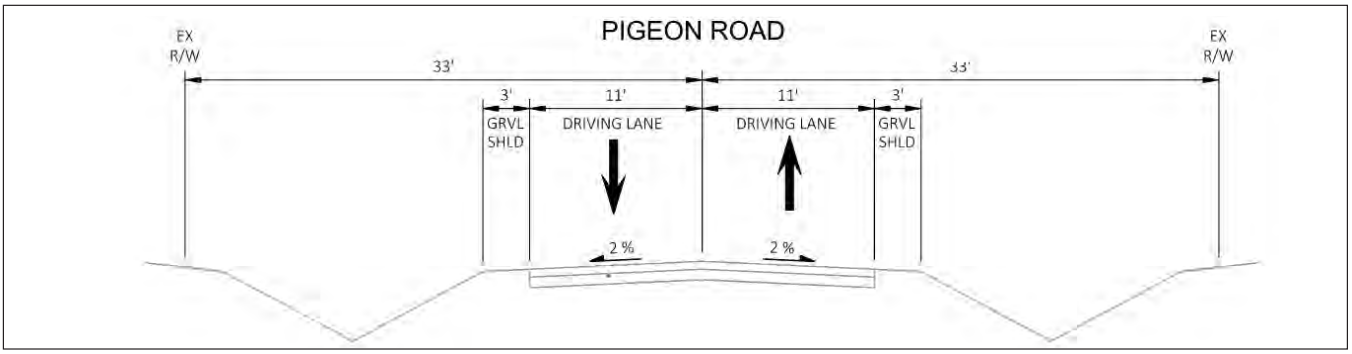


Exhibit 17: Pigeon Road Existing Typical Section

DATA ANALYSIS (CONTINUED)

Roadway Crash Analysis

Information regarding crashes along the corridor between 2019 and 2023 was obtained from the ECWRPC data mapping and is summarized below.

2019 – 1 Total Crash
- 1 Motor vehicle in transport crash

2020 – 2 Total Crashes
- 2 Motor vehicle in transport crash

2021 – 4 Total Crashes
- 2 Leaving roadway crash
- 2 Motor vehicle in transport crash

2022 – 1 Total Crash
- 1 Other with 1 injury

2023 – 0 Total Crashes

2019-2023 Crashes - 8 total crashes
- 2 Leaving roadway crashes (25%)
- 5 Motor vehicle in transport crashes (62.5%)
- 1 Other crash (12.5%)

Most of these crashes occurred at the intersection of Pigeon Road and STH 114. No bike/pedestrian crashes were reported along the study segment. Providing safe, off-road facilities for bikes and pedestrians would minimize the likelihood of bike/pedestrian and vehicle crashes.

PUBLIC OUTREACH

A PIM for the Pigeon Road study segment was held on March 21, 2024 at the Harrison Municipal Building. This meeting was held in conjunction with the Old Highway Road segment and displays for the Old Highway Road and Pigeon Road segments were presented to the public.

The public was informed about the public involvement meeting using mailings to property owners along the study corridor, the High Cliff Connection website, postings on municipality websites, and social media posts.

Following the conclusion of the meeting, materials were available for public viewing on municipality websites and project websites.

The PIM was an open house format with no formal presentation. Staff from KL Engineering, Village of Harrison, Village of Sherwood, City of Menasha, The High Cliff Connection Core team, and ECWRPC were available to answer questions from attendees and receive corridor and project feedback. Displays presented included an overview of the study areas to provide context to the project as a whole, as well as large roll plots showing the existing conditions of the study area.

Attendees were asked to provide additional information regarding the existing conditions along the corridor by marking up the provided roll plots and discussing with the project team members, asking questions regarding the project, and providing any general comments and concerns.

The recorded attendance of the meeting was 43, not including project staff. Four written comments were received, but none were relevant to the Pigeon Road segment.

Feedback about the project and how it would be considered is as follows:
- Drainage concerns along the corridor.
  - The Village has done work to address some of the known drainage problems in the area, but there is still periodic flooding along the corridor.
  - The trail alternatives were developed to maintain existing drainage patterns and flows. Further analysis of drainage treatments would be required in the final design.
- Adjacent property owners concerned about potential tree removals along their property.
  - The trail alternatives minimized the number of tree impacts along the corridor while accounting for other design challenges.

Overall feedback regarding a potential trail along Pigeon Road was positive.

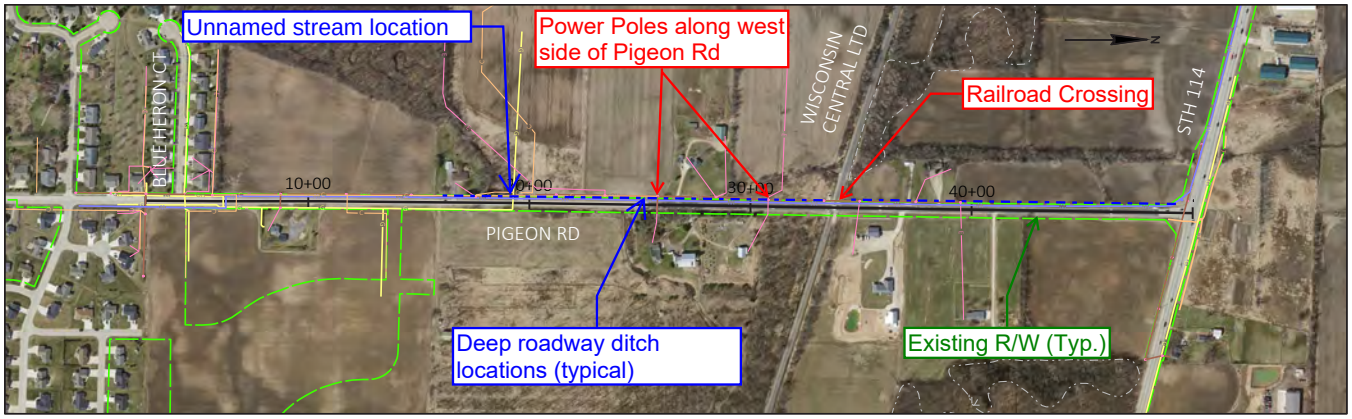


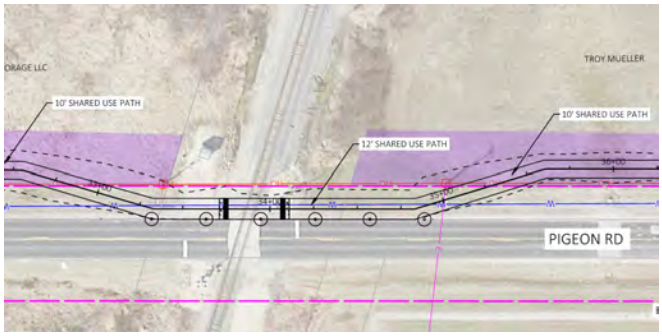
Exhibit 18: Pigeon Road Existing Conditions Map

ALTERNATIVE DEVELOPMENT

From the outset of the feasibility study, the design team intended to develop two alternatives for the Pigeon Road study segment. Based on the overall vision of the High Cliff Connection Core team, the west side of Pigeon Road is the only side being evaluated. This includes a segment along the south side of STH 114, that would tie into Pigeon Road from the west. This trail would turn into an existing trail on the west side of Pigeon Road at Blue Heron Court.

A key similarity between Alternatives 1 (within R/W and with storm sewer) and 2 (maintaining ditches and requiring property purchases) is the required crossing of the railroad on Pigeon Road within the study area. Due to the challenges of obtaining approval for new bike and pedestrian crossings, any proposed trail would need to cross the railroad within the Pigeon Road right-of-way. A hearing with the Office of the Commissioner of Railroads (OCR) is anticipated with either alternative.

Any proposed trail would need to cross the railroad within the Pigeon Road right-of-way like shown in the image below.



Alternative Discussion

Alternative 1

This alternative is on the west side of Pigeon Road, beginning at the existing trail at the intersection of Blue Heron Court and Pigeon Road. The trail would run parallel to Pigeon Road **within the existing right-of-way** for 0.83 miles north to the intersection of Pigeon Road and STH 114.

The northern terminus would connect to a planned trail on the south side of STH 114, heading west.

Design Elements

- **Typical cross section for the trail.**
  - Four inches of asphalt at a 10-foot width over eight inches of 1.25-inch crushed aggregate at a 12-foot width.
  - Accounted for possible poor soil conditions with an assumed 20% of the trail length requiring additional subgrade improvements, including 12 inches of select crushed aggregate and geotextile fabric.
  - The trail would be 5 feet from the edge of the existing pavement.
  - At the railroad crossing, the trail would widen to a 12-foot width and be against the western pavement edge of Pigeon Road.
    - Flexible delineators would be installed where the trail pavement abuts the roadway pavement to create buffer and deter vehicles from crossing into the trail area.
    - The right-of-way location would need to be confirmed with topographic survey and title searches in the design phase.

Alternative 1 (Continued)

Design Elements (Continued)

Railing

- Required at specific locations along the trail to protect users from side slopes steeper than 3:1
- These side slopes are recommended to avoid environmental impacts and property acquisition and minimize impacts to existing drainage ditches along the corridor.

Utilities

Possible utility conflicts include the following:

- Existing water line may conflict with possible storm sewer construction.
- Existing utility pole near Blue Heron Court would conflict with proposed trail construction.
  - Power pole is within existing right of way and relocation is not anticipated to be compensable.
  - Further coordination in the design phase of the project would be required.

Wetlands & Endangered Resources

- A wetland delineation would be required.
  - Some changes to side slopes and railing limits may be required to avoid wetland impacts.
- Some clearing and grubbing would likely be required.
  - Based on preliminary USFWS coordination, there may be restrictions on the season when this work can occur.
  - Native/pollinator seeding may be required to mitigate impacts to species that may be present in the corridor.

Intersections

- The only roadway intersection impacted is at Pigeon Road and Blue Heron Court.
- Curb ramps with detectable warning fields would be required on the north end of Blue Heron Court.
- Standard crossing signing along the trail and roadway would be required.
- Crosswalk marking would be required.

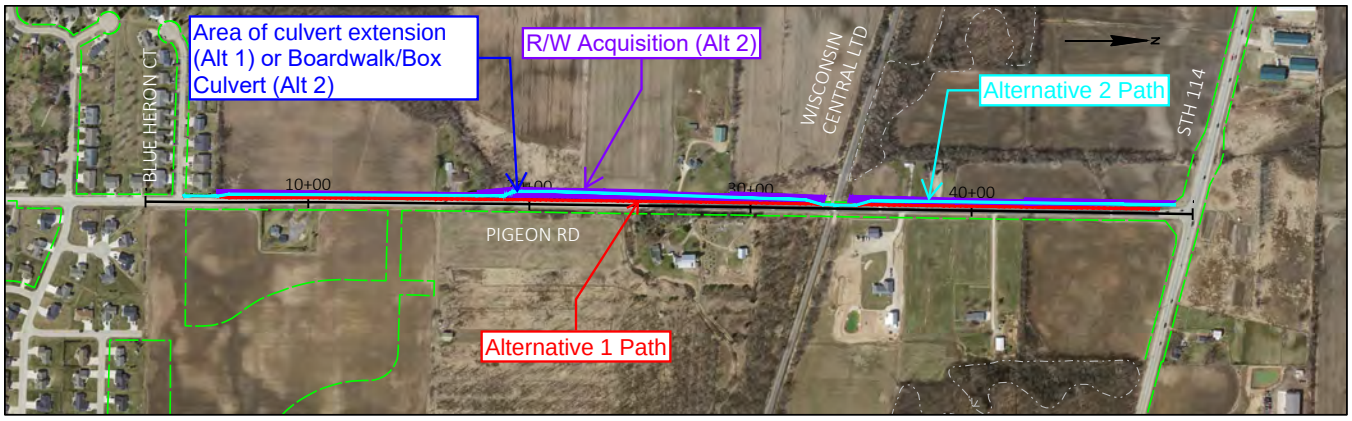


Exhibit 19: Pigeon Road Alternative Design Map

Alternative 1 (Continued)

Drainage Impacts

Based on the goal of Alternative 1 to construct the trail without the need for real estate acquisition, the location of the trail and proposed side slopes would significantly impact the capacity of the existing roadway ditch. Due to the tight right-of-way along the corridor, it is not feasible to grade a ditch of similar size to the existing ditch to the west without requiring real estate acquisition for grading purposes. Therefore, a storm sewer system would need to be installed to maintain drainage along the corridor.

In this preliminary alternative analysis, the storm sewer was sized based on the existing ditch capacity along the corridor. It was assumed that the new ditch would be able to accommodate 25% of its previous capacity, and the storm sewer would need to accommodate the other 75%. The main trunk line location would be under the center of the trail. It was also assumed that the new ditch would need to be drained into the storm sewer trunk line at a spacing of 200 feet. These connections would be made using either Inlets Median 1 Grate or an Apron Endwall connecting to the trunk line via a storm lateral that would tie to a manhole at the trunk. Overall, 4,410 linear feet of storm sewer pipe of sizes varying from 15-inches to 48-inches are assumed to be needed with this alternative.

Further drainage analysis would be required in a final design project to confirm sizing and inlet spacing.

In addition to the installation of storm sewer, it is likely that pipe extensions at an unnamed stream crossing and culvert pipes for driveway access and field access crossings (six total) would need to be extended and/or relocated to accommodate the proposed trail while also maintaining drainage patterns.

Railroad Crossing

The trail would cross the railroad and coordination would be necessary to determine appropriate crossing treatments.

- Coordination with the railroad would be necessary to determine what treatment, if any, would be needed at the railroad crossing.
  - We anticipate that the current gate on the west side of the roadway would need to be relocated to fit the trail in this area.
  - The gate can serve as a barrier to prevent trail users from crossing the tracks when a train is approaching.
  - An additional gate specifically for the trail **may** be needed on the southern approach based on railroad coordination. Another alternative would be to determine whether the gate on the east side of Pigeon Road can be replaced with a longer gate, which would prevent trail crossings while a train is present.

Alternative 1 (Continued)

Potential Costs

The construction costs assume that the project is constructed as a standalone project. The construction year is assumed to be 2030, with 3% inflation per year accounted for from 2024 bid prices. Given these assumptions costs are as follows:

- **Construction Cost**: $2,815,000*
- **Design Cost**: $214,000**
- **Total Project Delivery Cost**: $3,029,000

* Construction Cost includes 20% contingency and construction administration costs in 2030 dollars.
** Design Cost are assumed in 2028 and 2029 and include WisDOT design oversight costs.

The detailed cost estimate is included in the Appendix B-2.

Potential Project Timeline

An approximate timeline for grant applications through construction is provided below.

- **Grant Applications** - 2025 and 2026
- **Design** - 2027 to 2029
  - **Railroad Coordination** 2027 to 2029
- **Construction** - Spring to Fall 2030

Alternative 2

Like Alternative 1, Alternative 2 is aligned along the west side of Pigeon Road, beginning at the intersection of Blue Heron Court and Pigeon Road. This design alternative is not beholden to construction within the existing right-of-way. **The main factor influencing the trail alignment is the desire to maintain the existing roadway ditch capacity, while minimizing the amount of real estate acquisition required for trail construction.**

The southern terminus would be a new curb ramp and crosswalk connecting to the existing trail south of Blue Heron Court. The northern terminus would be tied to another planned trail that is proposed to be located on the south side of STH 114 and would lead west. The total length of the trail for Alternative 2 is proposed to be 0.85 miles.

Design Elements

Typical Cross Section for the Trail

- Four inches of asphalt at a 10 feet width over eight inches of 1.25-inch crushed aggregate at a 12-foot width.
- Accounted for possible poor soil conditions with an assumed 20% of the trail length requiring additional subgrade improvements, including 12 inches of select crushed aggregate and geotextile fabric.
- At the railroad crossing, the trail would widen to a 12-foot width and be directly against the western pavement edge of Pigeon Road.
  - Flexible delineators would be installed where the trail pavement abuts the roadway pavement to create some buffer and deter vehicles from crossing into the trail area.
- Railing is not planned with this alternative.

Utilities

Possible utility conflicts include the following:

- Existing utility poles may conflict with proposed trail construction all along the corridor.
  - Possible to align trail further west to avoid pole conflict but this would require additional real estate acquisition and place the trail much closer to residences.
  - Power poles appear to be within existing right-of-way so would not anticipate relocation of the poles to be compensable.
- Crossings of underground gas, communications, and electric lines are required with this alternative, but are unlikely to require a relocation.
- Further utility coordination during final design would be required to determine possible conflicts and relocations.

Alternative 2 (Continued)

Design Elements (Continued)

Wetlands & Endangered Resources

- A wetland delineation would be required.
  - Some changes to side slopes, trail alignment, and the use of boardwalk may be required to avoid extensive wetland impacts if identified.
- Some clearing and grubbing would be required.
  - Based on preliminary USFWS coordination, there may be restrictions on the season when this work can occur.
  - Native/pollinator seeding may be required to mitigate impacts to species that may be present in the corridor.

Intersections

- Alternative 2 would have the same intersection design elements as previously discussed in Alternative 1.

Drainage Impacts

Alternative 2 was designed such that the trail would not impact the existing roadway ditch and a storm sewer system would not be needed. Existing drainage patterns would be maintained. It is likely that culverts for driveway and field access at trail crossings (six total) would need to be replaced as part of this project due to potential new ditches at crossings.

While storm sewer is not anticipated to be needed, larger structures may be necessary at the crossings of two unnamed streams along the corridor. Boardwalk is recommended at the stream crossing closest to Blue Heron Court, and a twin 48-inch culvert installation at the stream crossing closes to the railroad crossing. Additional alternatives to accommodate the trail crossing of this stream include box culverts (prefabricated, cast-in-place) or large circular pipe(s) to facilitate drainage along the corridor. Further analysis in the final design phase to confirm the selected stream crossing treatments is required.

Real Estate Impacts

Alternative 2 would require property acquisition. The trail alignment was developed to avoid existing stormwater drainage features while minimizing the impact to adjacent property owners. Through this alternative development it has been determined that five acres would be needed to construct Alternative 2. During the future final design this number may change based on more detailed data gathering and design.

Potential Costs

The construction costs assume that the project is constructed as a standalone project. The construction year is assumed to be 2030, with 3% annual inflation accounted for from 2024 bid prices.

- **Construction Cost**: $1,208,000*
- **Design Cost**: $252,000**
- **Real Estate Cost:** $290,000***
- **Total Project Delivery Cost**: $1,750,000

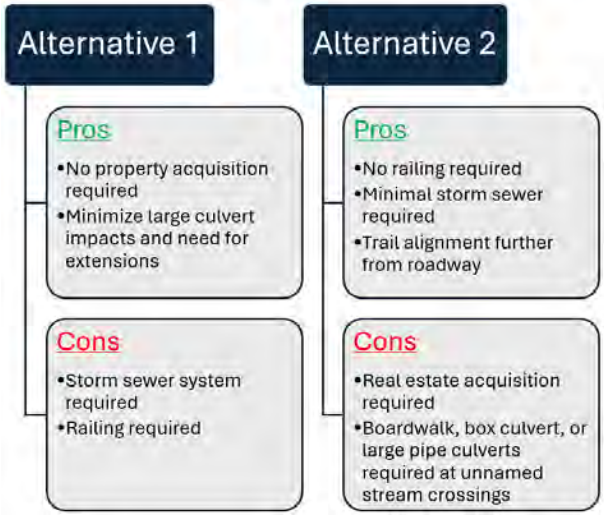
* Construction Cost includes 20% contingency and construction administration costs in 2030 dollars.
** Design Cost are assumed in 2028 and 2029 and include WisDOT design oversight costs.
*** Cost based on 2029 dollars/acquisitions.

The detailed cost estimate is included in the Appendix B-3.

Potential Project Timeline

- **Grant Applications** - 2025 and 2026
- **Design** - 2027 to 2029
  - **Railroad Coordination** 2027 to 2029
  - **Real Estate Acquisition** 2029
- **Construction** - Spring to Fall 2030

PROS & CONS



Things to consider when viewing the Pros & Cons list:

Property Acquisition
- Expected to be expensive - estimated $50,000/acre for this area.
- Based on Wisconsin State Law, condemnation for trail projects is not allowed. If one property owner is not a willing seller it can put the project in jeopardy.

Railing
- Expensive to initially install and maintain.
- Can decrease impacts to environmentally sensitive areas and utilities.
- Can decrease amount of fill required for trail installation.

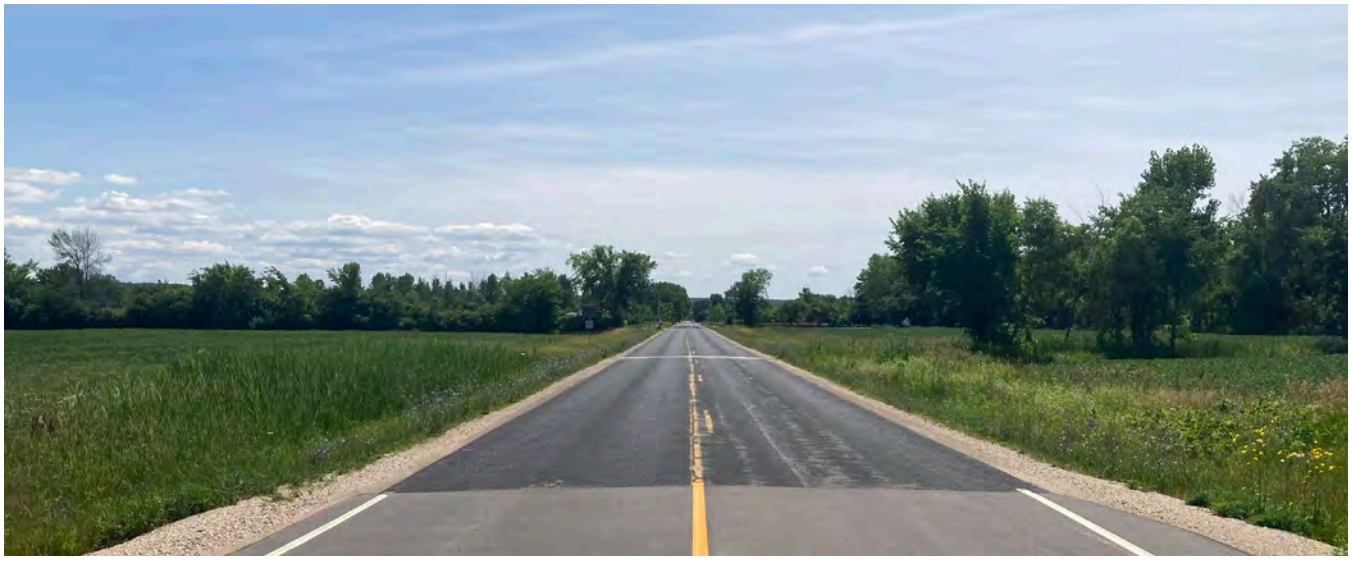
Drainage Structures
- Installation of storm sewer system can decrease necessary ditch size.
- Storm sewer is expensive to install.
- Large pipe culverts are expensive to install and railing is often necessary to protect users from drop off and steep slopes near installation areas.
- Boardwalk is expensive to install and maintain.
- Boardwalk can be used to avoid wetland impact, decrease need for fill, and also be used in poor soil areas instead of more extensive excavation, thicker gravel subgrade and geosynthetic subgrade improvement.

Preferred Alternative

Based on minimizing impacts to the current ditch and drainage patterns and the associated costs, as well as minimizing use of railing and maintenance costs, it is recommended that Alternative 2 be the preferred alternative.

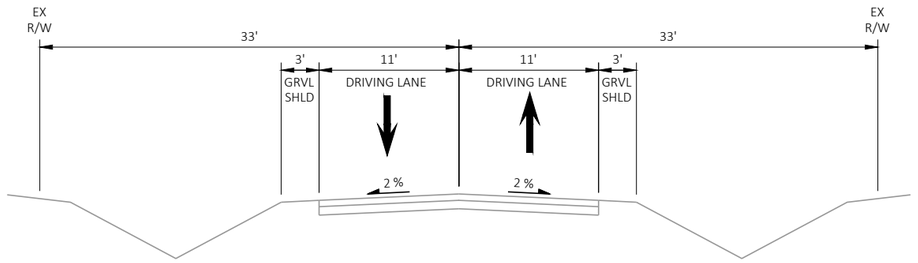
Challenges that would need to be addressed moving forward include:
- Real estate acquisition
- Railroad coordination
- Confirmation of stream crossing treatment
- Potential unforeseen wetland areas

Preliminary Preferred Alternative Plans for the Pigeon Road segment can be found on pages 38-43.

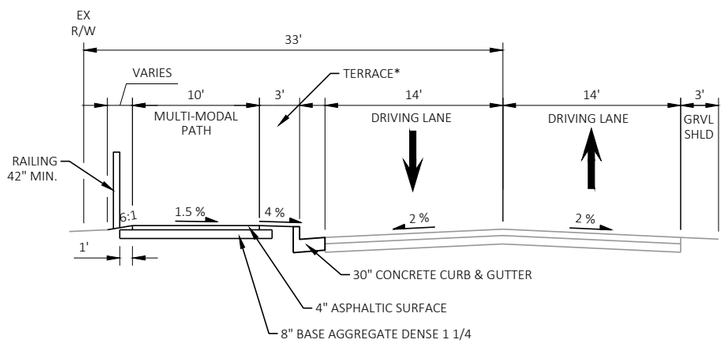


Preferred Alternative 2 - Pigeon Road Sections

2



EXISTING TYPICAL SECTION
4+00 - 49+50



FINISHED TYPICAL SECTION
STA 4+30 - 5+86

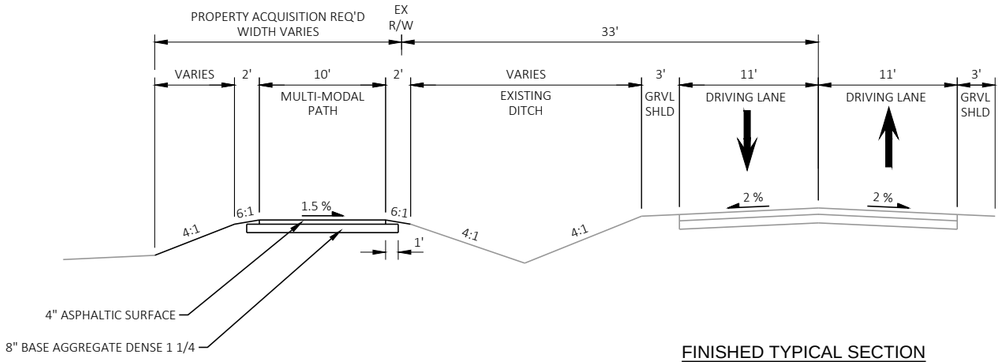
*PREFERENCE FOR TERRACE WIDTH IS 5' FROM FACE OF CURB PER FDM 11-46 AND THE WISCONSIN BICYCLE FACILITY DESIGN HANDBOOK. THE DESIGN GUIDANCE DOES ALLOW FOR DECREASING THAT WIDTH TO 3' BASED ON RIGHT OF WAY CONSTRAINTS IN THIS AREA AND THE ADJACENT INTERSECTION. AT THIS LEVEL OF PRELIMINARY DESIGN WE ARE PROPOSING TO USE A 3' WIDTH BETWEEN FACE OF CURB AND EDGE OF PATHWAY. FURTHER CONSIDERATION DURING FINAL DESIGN WILL BE NECESSARY.

2

PROJECT NO: 4479-04-00	HWY: NON-HWY	COUNTY: CALUMET	TYPICAL SECTIONS - PIGEON ROAD ALTERNATIVE 2	SHEET	E

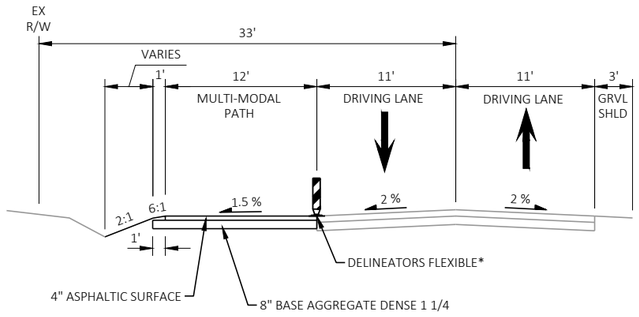
FILE NAME : G:\WDOT LP\HARRISON\24001-000_HIGH CLIFF FEASIBILITY STUDY - HARRISON\CIVIL 3D\SHEETSPLAN\020301-TS-PROP.DWG
LAYOUT NAME - TS 03
PLOT DATE : 12/20/2024 9:52 AM PLOT BY : JOSH MERCIER PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

Preferred Alternative 2 - Pigeon Road Sections



FINISHED TYPICAL SECTION

STA 5+86 - 33+30
STA 34+80 - 49+32



FINISHED TYPICAL SECTION - AT RAILROAD CROSSING

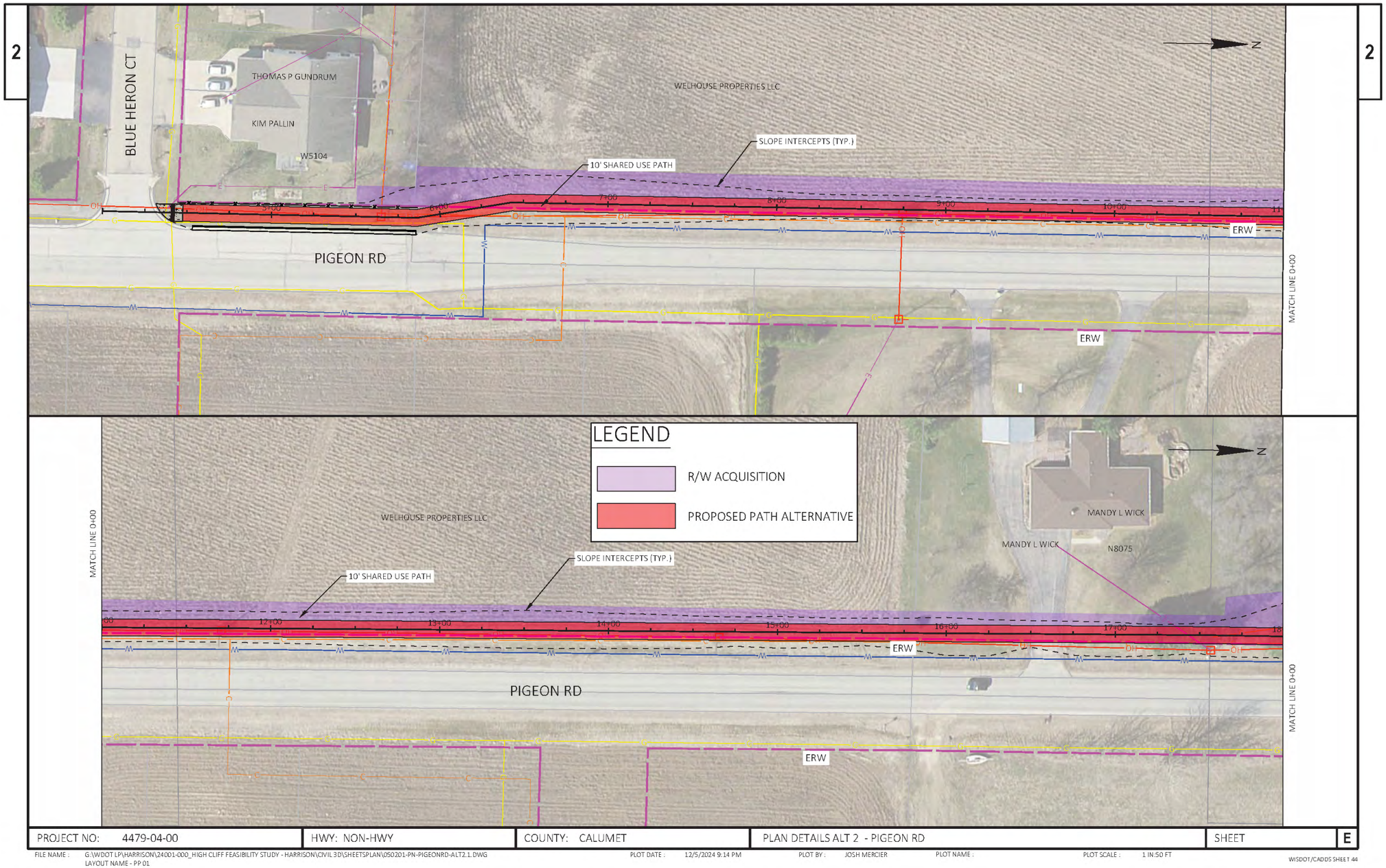
STA 33+30 - 34+80

*NOTE:
DELINEATORS DO NOT PROVIDE PROTECTION OF TRAIL USERS FROM VEHICULAR TRAFFIC. BASED ON REQUIREMENTS OF RAILROAD CLEAR ZONE NOT ALLOWING FOR PHYSICAL BARRIERS WE PRELIMINARILY SUGGEST THAT DELINEATORS BE USED IN THIS AREA TO CREATE AWARENESS OF TRAIL USERS IN THE AREA AND ENCOURAGE SLOWER VEHICLE SPEED AND FURTHER HORIZONTAL DISTANCE FROM THE TRAIL AT THE RAILROAD CROSSING. FURTHER RAILROAD COORDINATION AND DESIGN CONSIDERATIONS TO BE NEEDED IN THE FINAL DESIGN PROCESS.

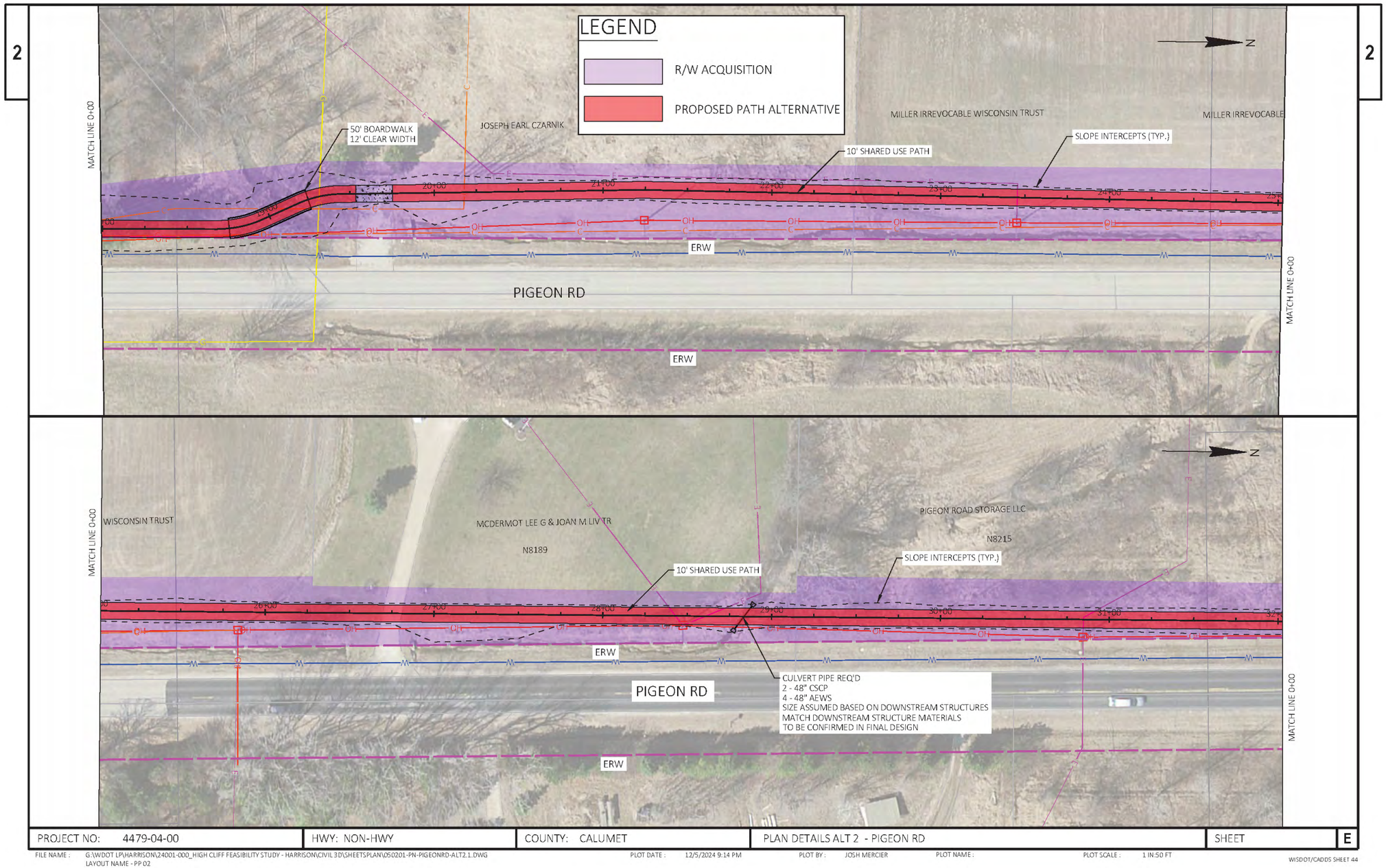
PROJECT NO: 4479-04-00	HWY: NON-HWY	COUNTY: CALUMET	TYPICAL SECTIONS - PIGEON ROAD ALTERNATIVE 2	SHEET	E

FILE NAME : G:\WDOT LP\HARRISON\24001-000_HIGH CLIFF FEASIBILITY STUDY - HARRISON\CIVIL 3D\SHEETSPLAN\020301-TS-PROP.DWG
LAYOUT NAME - TS 03 (2)
PLOT DATE : 12/20/2024 9:58 AM PLOT BY : JOSH MERCIER PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

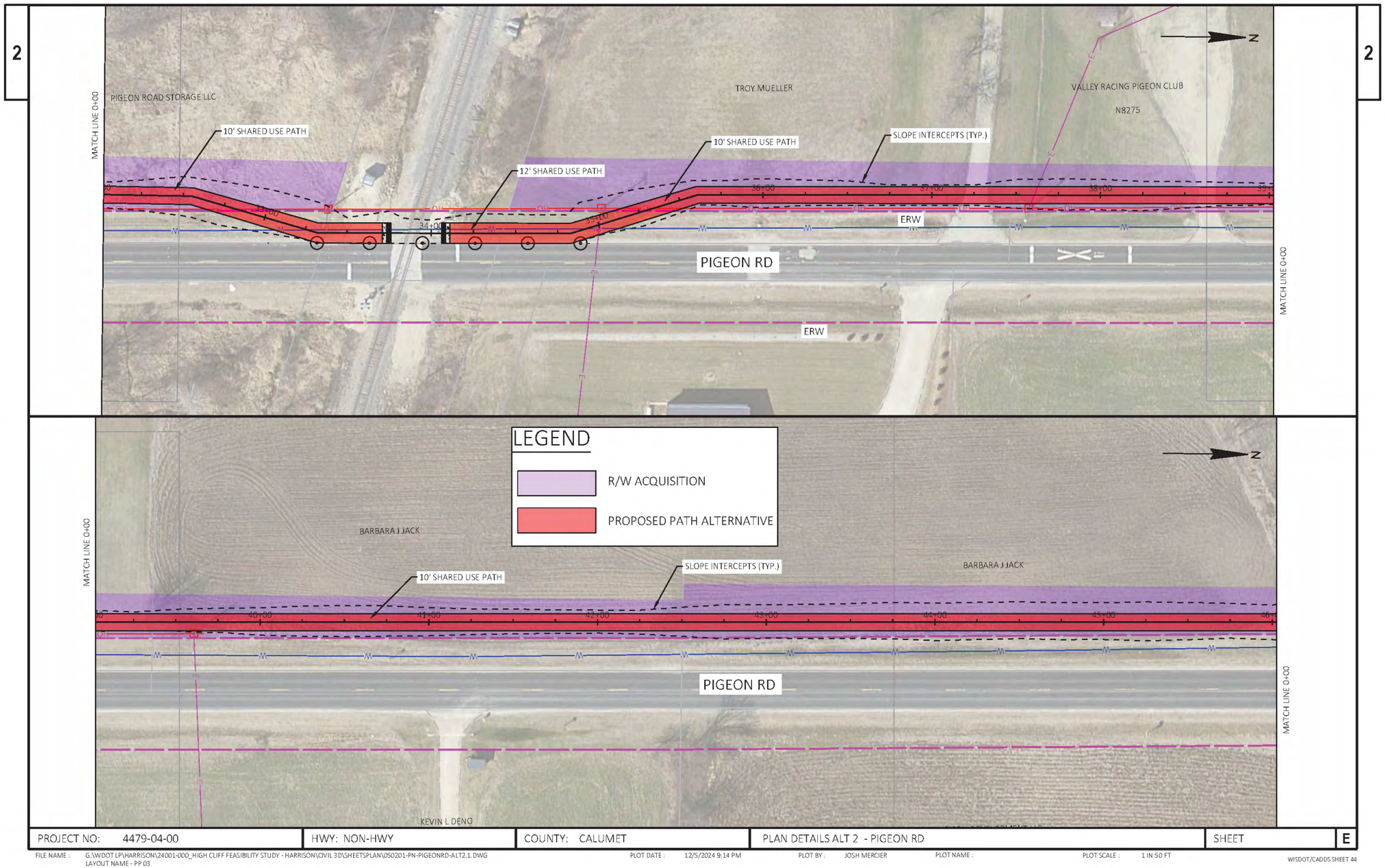
Preferred Alternative 2 - Pigeon Road Plans



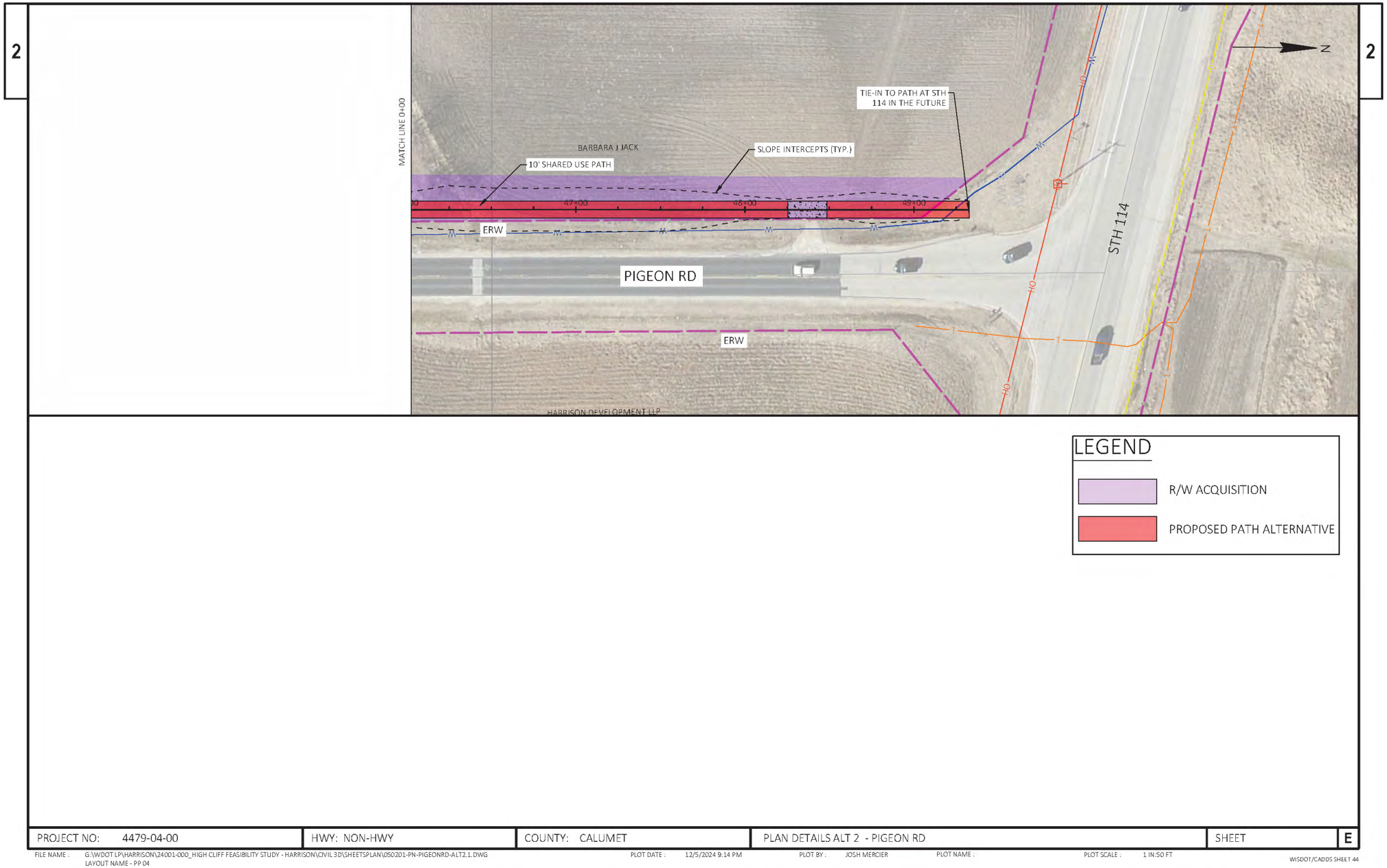
Preferred Alternative 2 - Pigeon Road Plans



Preferred Alternative 2 - Pigeon Road Plans



Preferred Alternative 2 - Pigeon Road Plans



PROJECT NO: 4479-04-00	HWY: NON-HWY	COUNTY: CALUMET	PLAN DETAILS ALT 2 - PIGEON RD	SHEET	E

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LAYOUT NAME - PP 04
PLOT DATE : 12/5/2024 9:14 PM PLOT BY : JOSH MERCIER PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

MANITOWOC ROAD

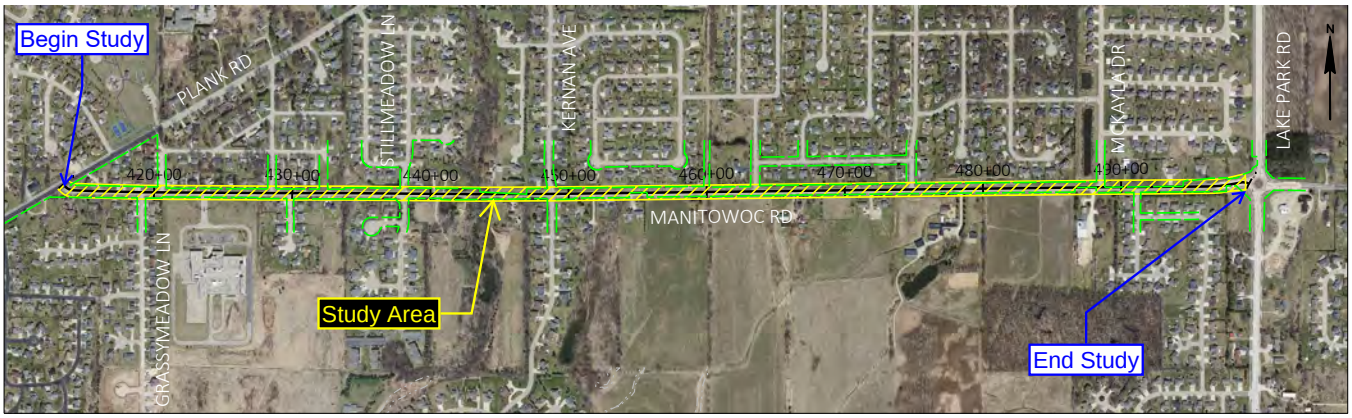


Exhibit 26: Manitowoc Road Study Overview Map

DATA ANALYSIS

The area of study for a path along Manitowoc Road spans from Plank Road on the west to Lake Park Road on the east for a total length of 1.62 miles.

Over this length, there are three separate municipalities with jurisdiction over the roadway, including the Village of Harrison (1.13 mi), the City of Menasha (0.33 mi), and the City of Appleton (0.18 mi).

Road Geometry

- Rural cross-section consisting of two 12-foot lanes with 3-foot gravel shoulders.
- Fairly flat with a longitudinal running grade of 0.5% to 1% increasing from west to east with some flatter areas.
- Nine side road intersections along the corridor, not including Plank Road or Lake Park Road.
  - Two of the intersections are through roadways, with the rest being T-intersections. In all, there are seven side roads on the north side of Manitowoc Road and four side roads on the south side.
- Thirty-eight driveways, 19 on the north side, and 19 on the south side of the roadway.
- The posted speed is 35 mph between Plank Road and Kernan Avenue, and increases to 45 mph between Kernan Avenue and Lake Park Road.
- The Average Annual Daily Traffic (AADT) from 2019 is 2,700.
- As a comparison, Lake Park Road on the east of the project has an AADT of 6,000. and STH 114 in this area has an AADT of 12,200.

Soils

The majority of the soils are silty clay loams. These soils generally have slow to very slow infiltration rates, which can lead to high runoff rates. Additionally, these soils are mostly classified as “somewhat poorly drained,” which would indicate that wet soil conditions are likely to be encountered throughout the construction season.

Waterways

Tow unnamed streams cross Manitowoc Road along the corridor through culverts just west and just east of Kernan Avenue. No FEMA-mapped floodplains are shown within the study area.

Roadside Ditches

The corridor has deep roadway ditches throughout. Some of these ditches are treated completely with riprap. In other locations, the bottom of the ditch is concrete paved, and elsewhere, the ditches are covered with lawn turf or other vegetation. Evidence of frequent standing water is apparent in some areas of the ditches based on on-site visits, as well as aerial photography.

The slopes are typically 3:1 away from the roadway to the bottom of the ditch and then 4:1 from the bottom of the ditch to tie in. The bottom of the ditch is typically 5 feet in the sections with rock on the bottom and varies from 0 to 5 feet in grassy sections Existing ditch capacity along this study segment varies from 22 CFS to 68 CFS.

Given the soil conditions we would expect to need larger ditches and/or storm sewer for water conveyance and subgrade improvements for pavement stability.

Wetlands

No mapped wetlands are within the study area but wetland indicator soils are present (see Appendix A-7). Additionally, common wetland vegetation such as cattails indicate that wetlands are likely present throughout the corridor.

Endangered Resources

Several possible species may be present in the corridor, but there are no required actions to confirm their presence, avoid impacts, or mitigate impacts.

Utilities

The corridor has underground gas, water, and communications lines, overhead utility lines, and power poles on the south side of the roadway. Additionally, an underground sanitary line is located on the north side of the roadway. Laterals connecting utilities to individual properties along the corridor are also present.

Adjacent Land Use

The project corridor outside the roadway right-of-way is largely residential and consists mostly of single-family use structures with some sections of multi-family use structures. There is agricultural land on the south side of Manitowoc Road, and one parcel zoned for heavy industrial use that is a City of Appleton Water Treatment Facility.

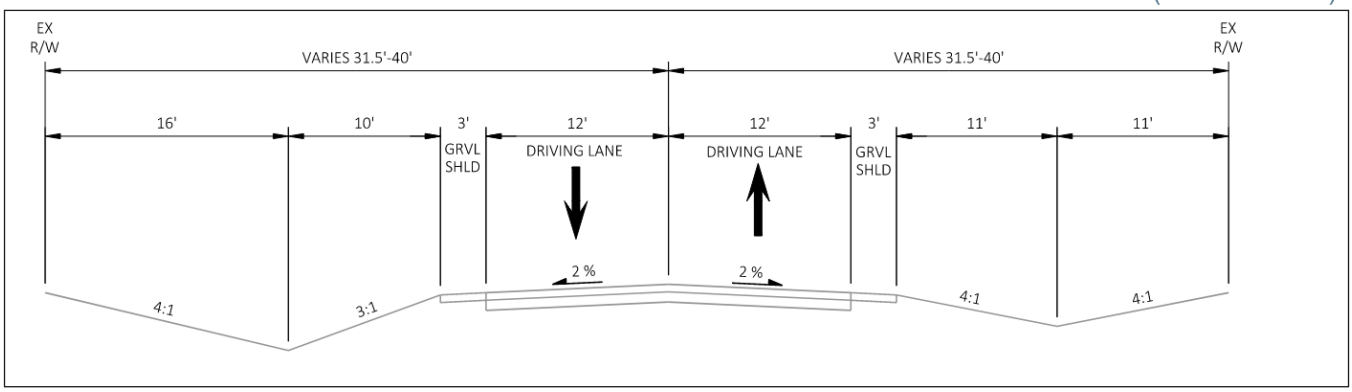


Exhibit 27: Manitowoc Road Existing Typical Section

Right-of-Way/Real Estate Needs

The width of the right-of-way varies throughout the corridor, from 63 feet to 80 feet. Generally, the roadway is located within the center of the right-of-way. There are a number of areas that appear to show private property extends to the centerline of the roadway. Efforts were made by the design team to find more data regarding these locations but ultimately nothing was able to be found and more detailed research was not included in the scope of the feasibility study.

Bike & Pedestrian Counts

Bike and pedestrian counts were conducted along the Manitowoc Road study segment in June 2023. The Average Daily Traffic (ADT) from those counts is calculated to be 40 users per day.

We would expect that this number would increase if an off-road facility were available and, if further trail connections were made, this would promote further use by bikes and pedestrians.

Roadway Crash Analysis

Information regarding crashes along the corridor between 2019 and 2023 was obtained from ECWRPC data mapping and is summarized below.

2019 – 1 Total Crash
- 1 Motor vehicle in transport crash

2020 – 1 Total Crash
- 1 Leaving roadway crash

2021 – 3 Total Crashes
- 1 Motor vehicle in transport crash
- 2 Leaving roadway crashes

2022 – 2 Total Crashes
- 2 Leaving roadway crash

2023 – 2 Total Crashes
- 2 Leaving roadway crash

2019-2023 Crashes – 9 Total Crashes
- Leaving roadway crashes (77.8%)
- Motor vehicle in transport crashes (22.2%)

The majority of the reported crashes along this segment occurred in intersection areas. Appropriate bike/pedestrian accommodation at intersections would be important.

PUBLIC OUTREACH

A public involvement meeting (PIM) for the Manitowoc Road study segment was held on May 14, 2024, at the City of Menasha City Hall. This meeting was held in conjunction with the concurrent USH 10/STH 114 corridor study and displays for the related, study of the USH 10/STH 114 corridor were also available for public viewing.

The public was informed about the public involvement meeting using mailings to property owners along the study corridor, posting on municipality websites and social media posts. Following the conclusion of the meeting, materials were available for public viewing on the High Cliff Connection website and municipality websites.

The PIM was opened with a brief presentation by staff from KL Engineering, the High Cliff Connection Core team, and ECWRPC to explain the history of the project, the current project goals, and the next steps. Following the presentation, there was an open house-style meeting with displays of the existing conditions of the study areas in large roll plot formats. Attendees were encouraged to interact with the project staff and had the opportunity to mark up the displays to outline any known design challenges or opportunities and any concerns they had. Additionally, a display was provided requesting attendees' input on what sort of bike and pedestrian facilities they most wanted to be constructed along Manitowoc Road. Finally, those in attendance were asked to complete and submit a public comment form (see Exhibit 28 on the following page).

The recorded attendance of the meeting was 42, not including any design team staff. Nine comment forms were received, with six discussing Manitowoc Road. Three comments supported a trail along Manitowoc Road, two opposed the trail, and the other asked a question. Comments opposed to the trail expressed concern about the project's effect on wildlife, heavy traffic, high speeds, and the existing presence of alternative multi-modal routes to residents in this area nearby. Comments supporting the trail mentioned the large number of residences in the area and the need for those who occupy those homes to walk or bike in their neighborhood safely.

MANITOWOC ROAD

35 - 45 MPH, 2,700 ADT (2019)
ALTERNATIVE TREATMENTS FOR
BIKE AND PEDESTRIAN ACCOMMODATIONS

*Add sticker next to bike/pedestrian accommodation you prefer for this road.

Shared-Use Path

- Preferred solution for accommodations under most roadway conditions
- 10' Wide (Typical) Path
- Completely separated from traffic
- Good for users of all confidence levels
- Permitted for use by bikes and pedestrians
- Americans with Disabilities Act Compliant Required

Bike Lanes

- <6,000 ADT
- 25MPH - 35 MPH
- 5' Wide (Typical)
- Immediately adjacent to vehicular traffic on-road
- Uncomfortable for inexperienced and younger users
- Good for more confident users
- Only accommodates bikes, NOT pedestrians

Paved Shoulder

- <7, 000 ADT (Preferred)
- <45 MPH (Preferred)
- 4' Wide (Minimum), 5' (Wide Preferred)
- Immediately adjacent to vehicular traffic on-road
- Uncomfortable for many users
- Okay for more confident users
- Uncomfortable for pedestrians

Shared-Lanes and Bike Route Signing

- <1,000 ADT
- <35 MPH (<25 MPH preferred)
- Combination of Shared-Lane Markings (Sharrows) and Bike Route Signing
- No additional pavement width for bike accommodations
- Bikes use driving lanes
- Uncomfortable for most users
- Okay for only the most confident users
- Only accommodates bikes, NOT pedestrians
- Not typically eligible for federal funding

Sidewalks

- 5' Wide (Typical)
- American's With Disabilities Act (ADA) requirements
- Designed for pedestrian & ADA accommodation
- Can be point of conflict for bike and pedestrian users
- Not a safe solution for bike accommodations
- Could be included with any of the above treatments

Exhibit 28: Bike & Pedestrian Accommodation Survey

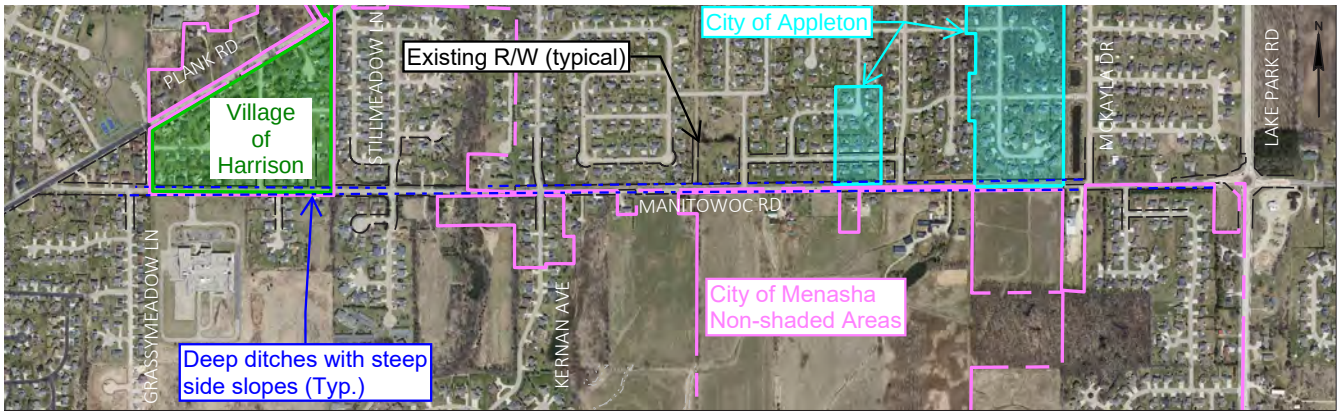


Exhibit 29: Manitowoc Road Existing Conditions Map

PUBLIC OUTREACH (Continued)

Fifteen responses were received regarding the preferred bike and pedestrian treatment along the Manitowoc Road corridor. Eleven preferred a shared-use path alternative, while four preferred a paved shoulder alternative.

Feedback regarding the existing conditions along the corridor was minimal and generally referred to drainage challenges near their property or along the roadway.

- Future roadway and trail design projects would address drainage conditions as part of the design process.

A conclusion from the feedback is that there is support for multi-modal accommodations along the roadway. The preference would be a separate shared-use path rather than on-road bicycle accommodations.

ALTERNATIVE DEVELOPMENT

Following the data-gathering phase, the design team began developing preliminary alternatives for paths along Manitowoc Road. Early in that process, it was discovered that constructing a path along either side of the roadway would not be feasible without also completing roadway reconstruction to an urban section, which would include curb and gutter and storm sewer installation.

The primary challenge with installing a path in this corridor is coordinating with the three different municipalities along the corridor to agree on a proposed roadway cross section, as well as project timing and how it affects the budget of the municipalities. Additionally, Manitowoc Road's flat profile nature, combined with tighter right-of-way constrictions in areas along the corridor with large existing ditches, would necessitate the installation of a new storm sewer system along the roadway.

Recommendations

Based on the feedback received from the public in support of future multi-modal development along the corridor, the design team recommends that this remains as a *future trail* in this and other planning documents.

In order to construct the trail, it is anticipated that a roadway conversion to an urban section with curb and gutter would be needed prior to or with the trail project. This would require the three communities with jurisdiction along the road to agree to a consistent roadway section along the corridor. These communities should work together to study the roadway further and come to an agreement on the vision for the future of Manitowoc Road.

PROJECT COSTS

Project costs for alternative bike and pedestrian accommodations along Manitowoc Road are provided in the table below. Costs provided are given in 2034 dollars assuming 3% inflation year over year.

ALTERNATIVE	ASSUMPTIONS	COST*
Asphalt Trail	Includes cost for: 10-foot asphalt trail, base aggregate, curb ramps, subgrade improvement (select crushed, geotextile fabric), earthwork, 15-feet-wide restoration items (soil, seed, fertilizer, erosion control). Stand-alone or with roadway project. 20% cost contingency included.	$911,000
Storm Sewer	For asphalt trail alternative - assumes Manitowoc Road remains a rural roadway. Estimate assumes storm sewer only accounts for water in ditch to be filled and that no additional storm sewer system to be installed for roadway. 20% cost contingency included. Includes cost for concrete pipe, inlets, and manholes.	$3,458,000
Concrete Sidewalk	Costs for a 5-foot concrete sidewalk on both sides of roadway, curb ramps, base aggregate, 10-foot-wide impact area for restoration items. Assumes sidewalk to be installed as part of a future roadway project converting to an urban section. 20% cost contingency included.	$1,716,000
On-road Bike Lanes	Add 5-foot bike lanes on each side of Manitowoc Road as part of a larger roadway project. Includes costs for 6 inches HMA pavement (3 MT 58-28 S/5 MT 58-28 S that will have to be confirmed in future roadway design project), base aggregate, earthwork for 10-foot-wide pavement, signing and marking.	$950,000
*Cost does not include design, design oversight, or construction oversight costs.		

PLAN COMMITMENT

For this study to be successful, it would need to be adopted by the Village of Harrison, Village of Sherwood, and City of Menasha and incorporated by reference into the following:

- Comprehensive Bike/Ped Plans
- Future five-year Prioritized Capital Project Plan
- Annual Budgets
- Future Land Use Plan
- Future Comprehensive Outdoor Recreation Plan
- Long Range Transportation Plan

In addition to the local municipalities, inclusion/adoption of the recommendations from this report in County and regional open space and transportation-related reports would all be helpful.

FUNDING POSSIBILITIES

WisDOT Grants

When receiving a WisDOT grant, the design would need to go through the WisDOT Local Program process. The time from grant application to award can vary greatly. Once a grant is awarded and typically around six months from grant award, a State Municipal Agreement would need to be signed by WisDOT and the project applicant (sponsor). The design process, beginning from selecting a design consultant through awarding the contract for construction, typically takes two years, and most trail construction projects can be constructed in one construction season.

Grant Name: Transportation Alternatives Program (TAP)

Supporting Agency: WisDOT

Description: The main WisDOT Grant that provides trail funding to local communities is the Transportation Alternatives Program (TAP) grant. TAP Grants are commonly provided as 80% federal funds with a 20% match from the local municipality (sponsor) required. Design and construction costs are eligible.

High Scoring Criteria: In addition to project cost, there are several items that would give a project an advantage in the TAP grant application process, including:

- Logical termini
  - Begin and end of the trail, make connections to existing trails, points of interest, schools, parks, neighborhoods, commercial areas, etc.
- The project named in the planning documents mentioned in the Plan Commitment section above.
- Partnerships
  - Work with adjacent municipalities, county, advocacy groups, businesses, and private foundations to build support for the project and use support letters as attachments to the application.
- Completion of the feasibility study
  - Providing proof that the proposed project corridor has been studied to a level that provides some confidence that there are not any glaring barriers to project completion is helpful with an application submittal.

Typical Grant Awards: Grant award amounts can vary greatly in the TAP program. A good rule of thumb to use when strategizing for a TAP Grant application is a construction cost of $1.2 million or less.

Timing of the Grant Applications & Awards: TAP projects are typically solicited every two years on even years, but that schedule is highly dependent on the federal budget and can vary.

Typical Time From Award to Construction: Typically two years between award and construction with design completed during this timeframe.

Overview of Pros

- 80% of funding is higher than many available grants.
- Total project cost is higher than many available grants.

Overview of Cons

- Adherence to more rigorous documentation and approval process.

All segments of project are applicable.

FUNDING POSSIBILITIES
(CONTINUED)

Grant Name: DNR Trail Grants

Supporting Agency: DNR

Description: DNR grants are also available that could assist in the funding for this project. There are a number of state and federal grants that fall under the DNR Stewardship umbrella.

Recreational Trails Program (RTP) federal funds can only be used on trails that have been identified in or which further a specific goal of a local, county, or state trail plan included or referenced in a statewide comprehensive outdoor recreation plan required by the Federal LWCF Program.

Stewardship funds may be used on projects including land acquisition for parks and trails and construction of hiking trails and bike paths as well as parks and water recreation facilities.

High Scoring Criteria:
- Provide public access to outdoor recreation
- Relationship to the Statewide Comprehensive Outdoor Recreation Plan
- Regional (Stewardship) or statewide (RTP) in nature
- Serves the greatest populations
- Involves intergovernmental cooperation or donations
- Supports multiple uses
- Nature-based
- Related or near water facilities
- Improvements to allow for universal accessibility

Typical Grant Awards:
- Stewardship: Up to $250,000 typical (range from $50,000 to $1,000,000)
- RTP: $250,000 every three years, $100,000 other years within cycle
- Design and construction costs are eligible.

Timing of the Grant Applications & Awards:
- Applications are due in spring of each year, with notification of award occurring in early fall.
- Typical time from award to construction: One year from authorization is typical.

Overview of Pros
- 50% federal/state match / 50% local (Stewardship)
- 80% federal/state match / 20% local (RTP)
- Design must meet ADA and DNR standards, but no additional reporting other than standard local permits, etc.

Overview of Cons
- Intensive grant application process
- Slower reimbursement timeframe (3 months to 1 year)
- Strong statewide competition for grants (typically get three times the amount of applicants than awards)

All segments of the project are applicable.

To be eligible, the applicant must have a current Comprehensive Outdoor Recreation Plan (CORP) in place.

Further information on DNR grants is available here: 2024_Grant_Program_Guidance_Booklet.pdf.

Pigeon Road

Note: The existing Pigeon Road Trail, which reaches from State Park Road to Blue Heron Circle, is in need of rehabilitation. Trail upgrades are included within the Village's plans to update, however additional funding is needed. The Village is currently exploring potential partnerships with both state and local agencies to assist in funding.

PARTNERSHIPS & LOCAL ORGANIZATIONS

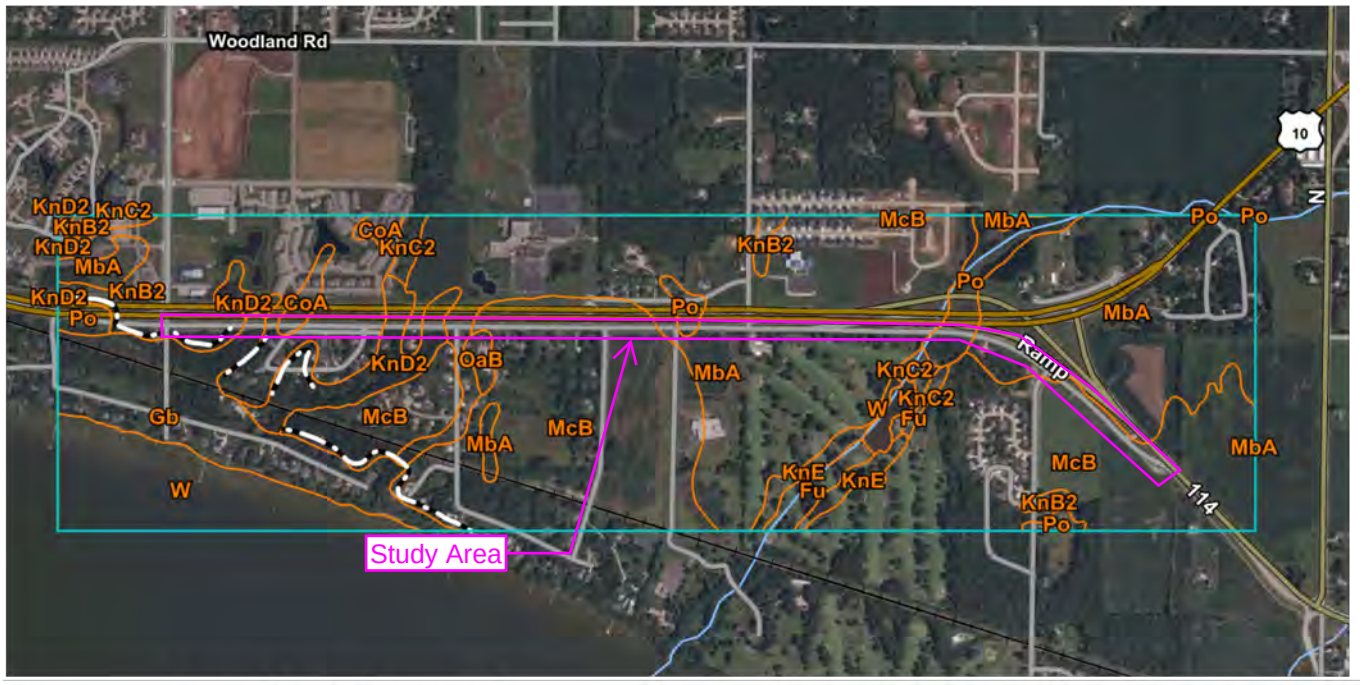
The local municipalities have done a great job building partnerships with each other, as well as with other organizations. It would be important to continue fostering these relationships and coordinate efforts to schedule and fund the proposed projects. Example partnerships include:

- Community Foundation for the Fox Valley Region (CFFVR) has already financially supported the efforts in the High Cliff Connection project by committing to a 3:1 match with a local match of $2,000,000 in 2022.
- Chamber of Commerce/Convention Visitors Bureau grants can be applied for tourist attractions
- Community Development Business Grants (CDBG)
- ECWRPC
- Fox Cities Greenways
- Local service groups (Rotary, Kiwanis), etc.

Old Highway Road

APPENDIX A-1

Old Highway Road Soils

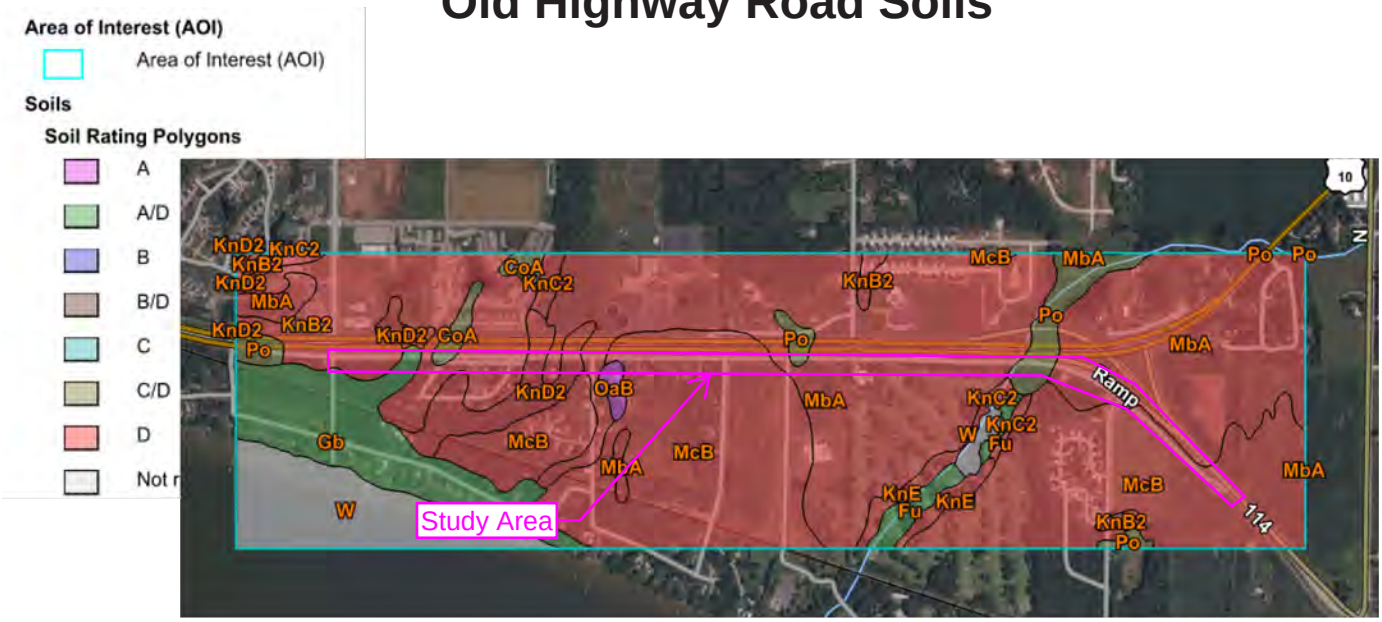


Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CoA	Cosad loamy fine sand, 0 to 3 percent slopes	5.6	0.8%
Fu	Fluvaquents	7.4	1.0%
Gb	Granby fine sandy loam	51.9	7.1%
KnB2	Kewaunee loam, 2 to 6 percent slopes, eroded	71.9	9.9%
KnC2	Kewaunee loam, 6 to12 percent slopes, eroded	7.6	1.0%
KnD2	Kewaunee loam, 12 to 20 percent slopes, eroded	22.7	3.1%
KnE	Kewaunee loam, 20 to 30 percent slopes, eroded	8.4	1.2%
MbA	Manawa silt loam, 0 to 3 percent slopes	264.5	36.4%
McB	Manawa-Kewaunee-Poygan complex, 0 to 4 percent slopes	218.8	30.1%
OaB	Oakville loamy fine sand, 2 to 6 percent slopes	2.5	0.3%
Po	Poygan silty clay loam, 0 to 2 percent slopes, occasionally ponded, drained	19.2	2.6%
W	Water	46.3	6.4%
Totals for Area of Interest		**726.8**	**100.0%**

APPENDIX A-2

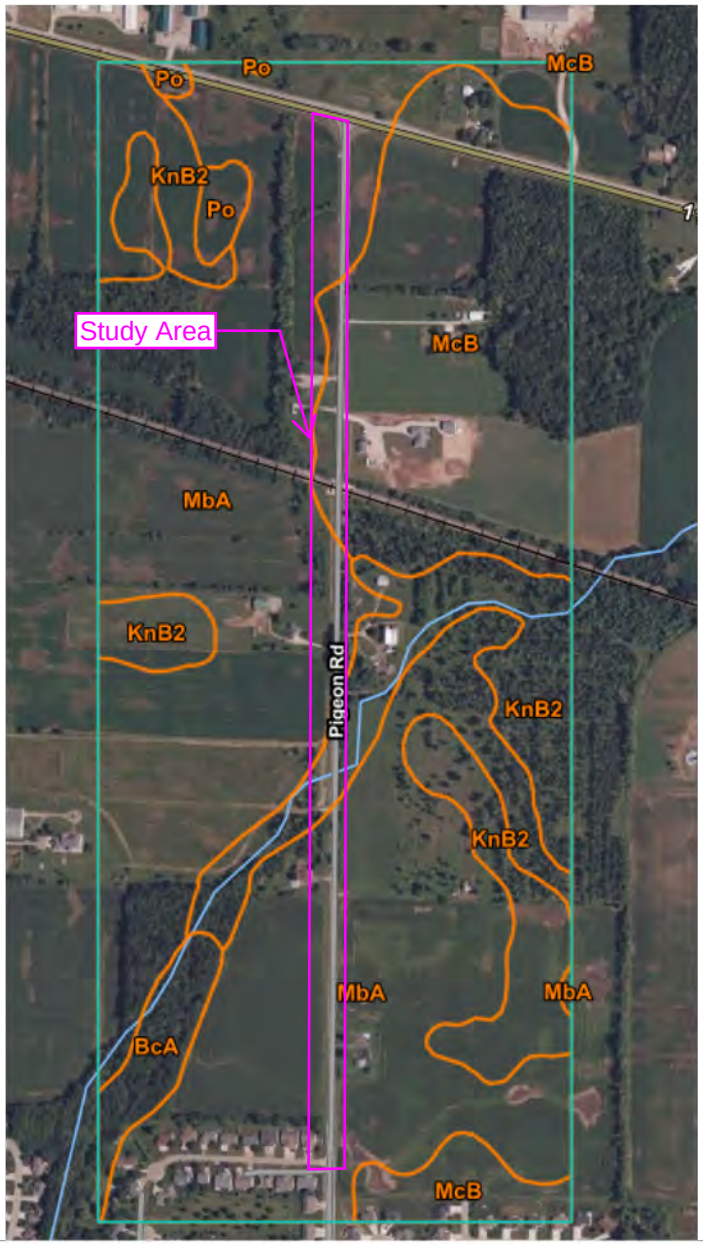
Old Highway Road Soils



Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CoA	Cosad loamy fine sand, 0 to 3 percent slopes	C/D	5.6	0.8%
Fu	Fluvaquents	A/D	7.4	1.0%
Gb	Granby fine sandy loam	A/D	51.9	7.1%
KnB2	Kewaunee loam, 2 to 6 percent slopes, eroded	D	71.9	9.9%
KnC2	Kewaunee loam, 6 to12 percent slopes, eroded	D	7.6	1.0%
KnD2	Kewaunee loam, 12 to 20 percent slopes, eroded	D	22.7	3.1%
KnE	Kewaunee loam, 20 to 30 percent slopes, eroded	D	8.4	1.2%
MbA	Manawa silt loam, 0 to 3 percent slopes	D	264.5	36.4%
McB	Manawa-Kewaunee-Poygan complex, 0 to 4 percent slopes	D	218.8	30.1%
OaB	Oakville loamy fine sand, 2 to 6 percent slopes	A	2.5	0.3%
Po	Poygan silty clay loam, 0 to 2 percent slopes, occasionally ponded, drained	C/D	19.2	2.6%
W	Water		46.3	6.4%
Totals for Area of Interest			**726.8**	**100.0%**

APPENDIX A-3

Pigeon Road Soils

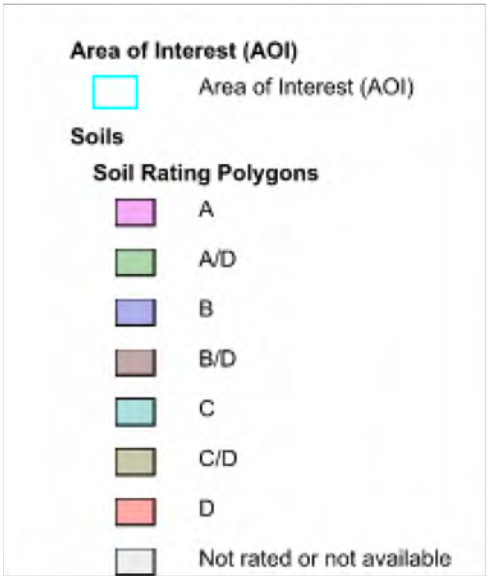


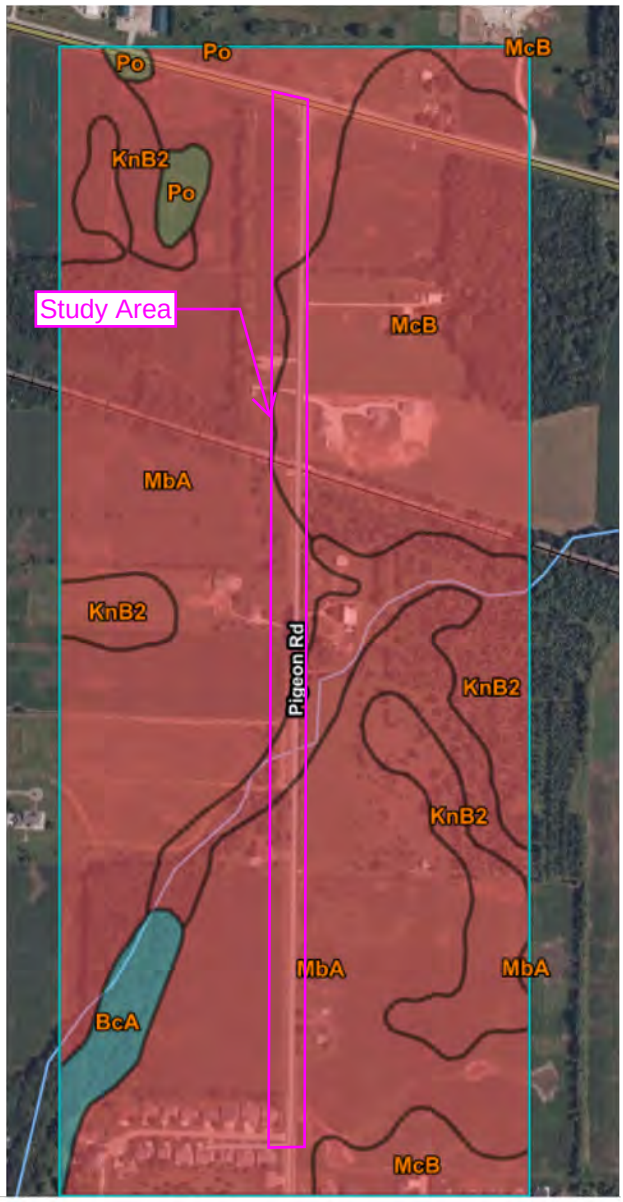
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BcA	Bellevue silt loam, 0 to 2 percent slopes, frequently flooded	5.5	2.2%
KnB2	Kewaunee loam, 2 to 6 percent slopes, eroded	39.0	15.9%
MbA	Manawa silt loam, 0 to 3 percent slopes	144.0	58.9%
McB	Manawa-Kewaunee-Poygan complex, 0 to 4 percent slopes	53.7	21.9%
Po	Poygan silty clay loam, 0 to 2 percent slopes, occasionally ponded, drained	2.5	1.0%
Totals for Area of Interest		**244.6**	**100.0%**

APPENDIX A-4

Pigeon Road Soils

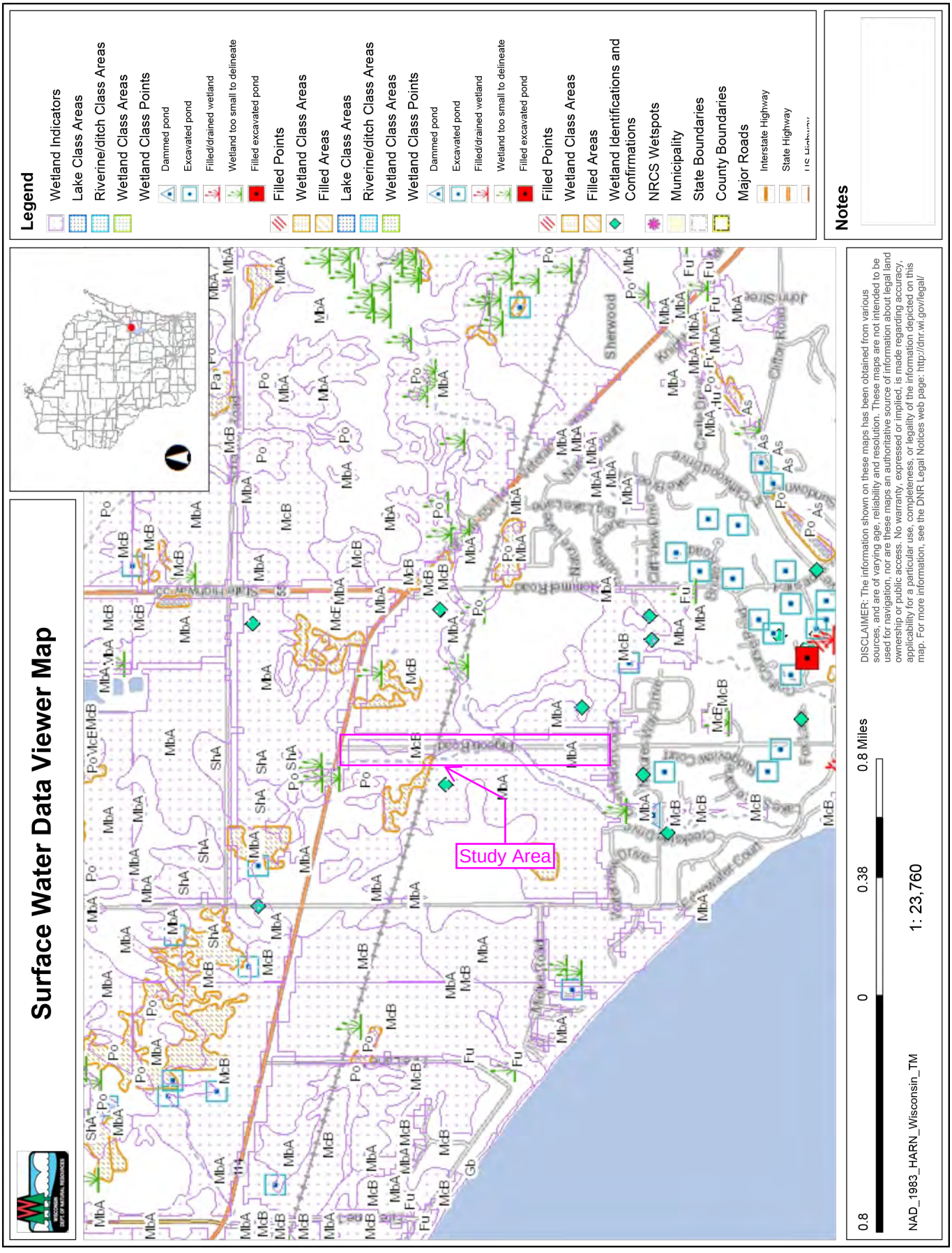




Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BcA	Bellevue silt loam, 0 to 2 percent slopes, frequently flooded	C	5.5	2.2%
KnB2	Kewaunee loam, 2 to 6 percent slopes, eroded	D	39.0	15.9%
MbA	Manawa silt loam, 0 to 3 percent slopes	D	144.0	58.9%
McB	Manawa-Kewaunee-Poygan complex, 0 to 4 percent slopes	D	53.7	21.9%
Po	Poygan silty clay loam, 0 to 2 percent slopes, occasionally ponded, drained	C/D	2.5	1.0%
Totals for Area of Interest			**244.6**	**100.0%**

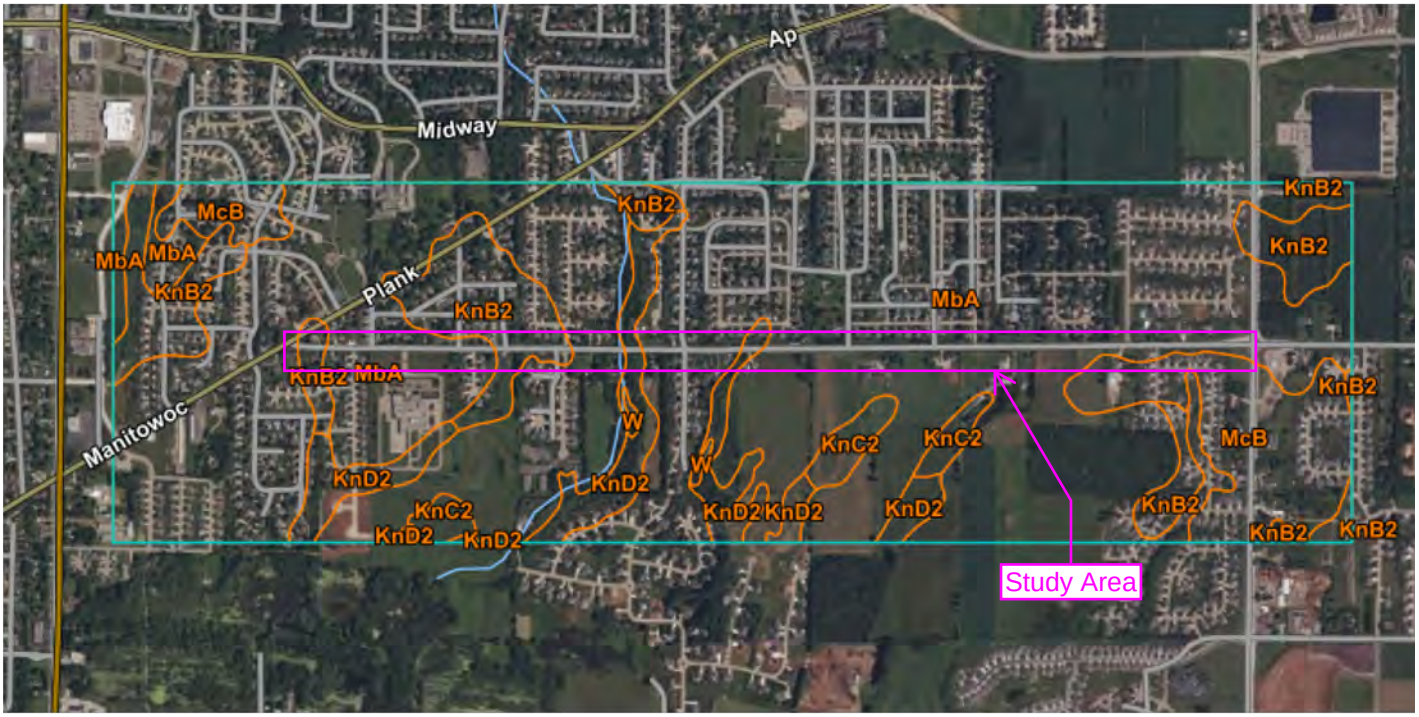
APPENDIX A-5

Pigeon Road Wetlands



APPENDIX A-6

Manitowoc Road Soils

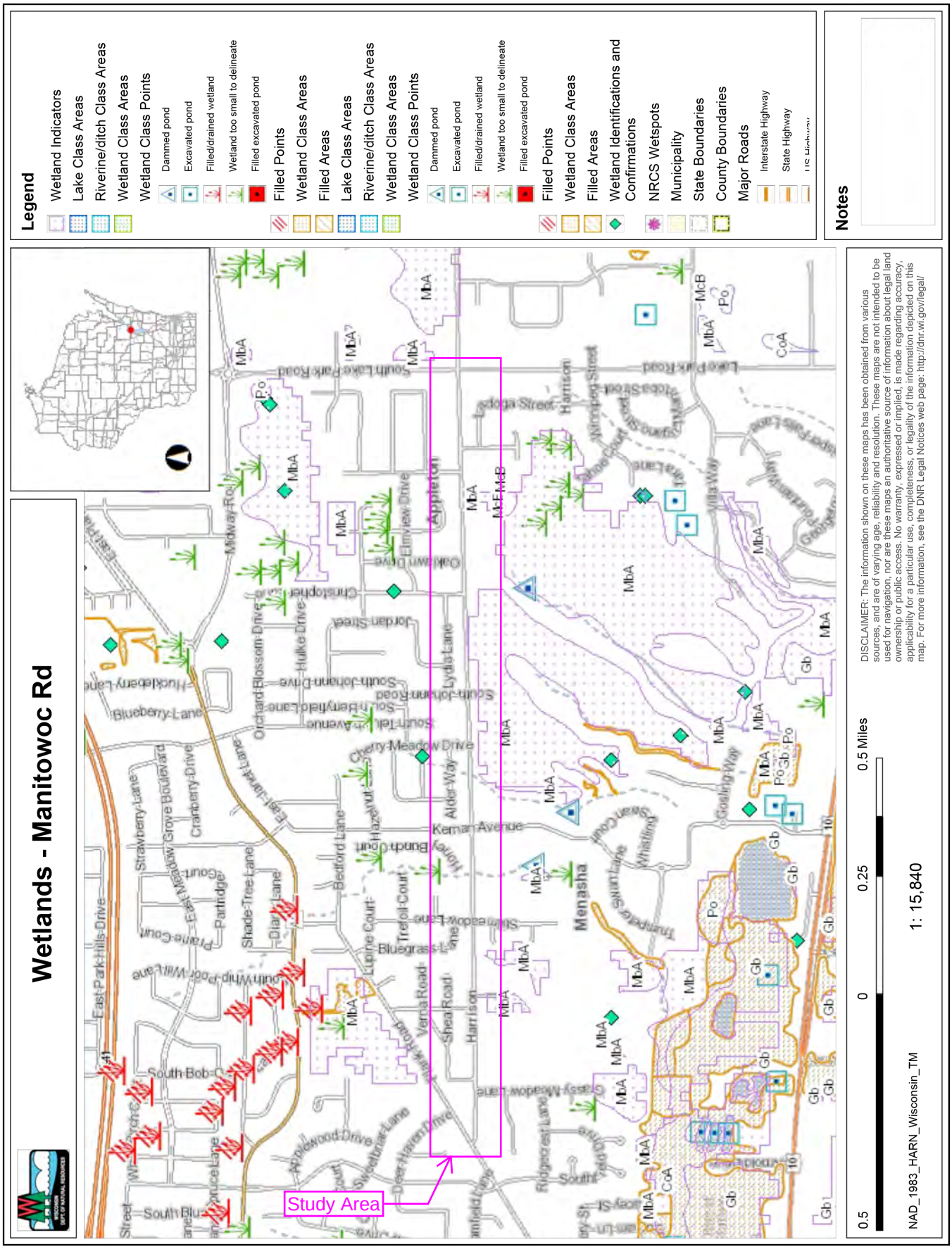


Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KnB2	Kewaunee loam, 2 to 6 percent slopes, eroded	83.9	10.2%
KnC2	Kewaunee loam, 6 to12 percent slopes, eroded	15.4	1.9%
KnD2	Kewaunee loam, 12 to 20 percent slopes, eroded	49.0	5.9%
MbA	Manawa silt loam, 0 to 3 percent slopes	608.3	73.8%
McB	Manawa-Kewaunee-Poygan complex, 0 to 4 percent slopes	66.7	8.1%
W	Water	1.4	0.2%
Totals for Area of Interest		**824.7**	**100.0%**

APPENDIX A-7

Manitowoc Road Wetlands



Old Highway Road
Conceptual Design

Old Highway Road - Preferred Alternative - Feasibility Study						
10/10/2024						
Item Number	Bid Item	Unit	# of Units	Unit Price	Total Price	Comments
	MISCELLANEOUS					
619.1000	Mobilization	EACH	1	$ 50,000.00	$ 50,000.00	
642.5001	Field Office Type B	EACH	1	$ 10,000.00	$ 10,000.00	
	Signing and Marking	LS	1	$ 20,000.00	$ 20,000.00	
SPV.0060.02	Construction Staking	EACH	1	$ 10,000.00	$ 10,000.00	
SPV.0090.01	Railing	LF	840	$ 40.00	$ 33,600.00	
	TRAIL					
201.0105	Clearing	STA	4	$ 350.00	$ 1,400.00	
201.0205	Grubbing	STA	4	$ 350.00	$ 1,400.00	
205.0100	Excavation Common	CY	5,088	$ 25.00	$ 127,200.00	
208.1100	Select Borrow	CY	685	$ 30.00	$ 20,550.00	Probably Unnecessary
305.0110	Base Aggregate Dense 3/4-inch	TON	65	$ 30.00	$ 1,950.00	4" Depth Between Trail and Railing
305.0120	Base Aggregate Dense 1 1/4-inch	TON	5655	$ 24.00	$ 135,720.00	8" Depth
312.0110	Select Crushed Material	TON	1684	$ 23.00	$ 38,732.00	12" Depth, Assume 20% of Project
465.0105	Asphaltic Surface	TON	2375	$ 120.00	$ 285,000.00	Assume 4" Asphalt
602.0410	Concrete Sidewalk 5-Inch	SF	1400	$ 10.00	$ 14,000.00	Assume 14 Curb Ramps
602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	280	$ 49.00	$ 13,720.00	Assume 14 Curb Ramps
645.0135	Geotextile Type SR	SY	2526	$ 3.00	$ 7,578.00	Assume 20% of Project
	EROSION CONTROL					
628.2008	Erosion Mat Urban Class 1, Type B	SY	2,500	$ 2.00	$ 5,000.00	Assume 20% of SI Area
628.7560	Tracking Pads	EACH	12	$ 1,000.00	$ 12,000.00	
SPV	Wattles	LF	1,000	$ 8.00	$ 8,000.00	Assume 10% of Project Area
	LANDSCAPING					
SPV.0035.001	Screened Topsoil	CY	210	$ 45.00	$ 9,450.00	Assume 10% of SI Area
625.0500	Salvaged Topsoil	SY	11,250	$ 2.00	$ 22,500.00	Assume 90% of SI Area
627.0200	Mulching	SY	10,000	$ 1.50	$ 15,000.00	Assume 80% of SI Area
629.0210	Fertilizer Type B	CWT	8	$ 115.00	$ 920.00	
630.0120	Seeding Mixture No 20	LB	680	$ 8.00	$ 5,440.00	
630.0200	Seeding Temporary	LB	170	$ 4.00	$ 680.00	
	TRAFFIC CONTROL					
SPV.0060.01	Special (01. Traffic Control)	EACH	1	$ 15,000.00	$ 15,000.00	

Construction Year	2024	2025	2026	2027
Subtotal Total	$864,840.00	$890,785.20	$917,508.76	$945,034.02
Design Contingency - 20%	$172,968.00	$178,157.04	$183,501.75	$189,006.80
Construction Total	**$1,037,808.00**	**$1,068,942.24**	**$1,101,010.51**	**$1,134,040.82**
Construction Oversight - 10%	$103,780.80	$106,894.22	$110,101.05	$113,404.08
Consultant Design Cost	$180,000.00	$185,400.00	$190,962.00	$196,690.86
WisDOT Design Oversight	$18,000.00	$18,540.00	$19,096.20	$19,669.09
Total Project Delivery	**$1,339,588.80**	**$1,379,776.46**	**$1,421,169.76**	**$1,463,804.85**

*3% Inflation Year over Year

Pigeon Road
Alternative 1

Pigeon Road Alternative 1 - Feasibility Study						
10/10/2024						
Item Number	Bid Item	Unit	# of Units	Unit Price	Total Price	Comments
	MISCELLANEOUS					
619.1	Mobilization	EACH	1	$ 30,000.00	$ 30,000.00	
642.5001	Field Office Type B	EACH	1	$ 5,000.00	$ 5,000.00	
SPV.0060.02	Construction Staking	EACH	1	$ 10,000.00	$ 10,000.00	
SPV.0090.01	Railing	LF	1,760	$ 40.00	$ 70,400.00	
	Signing and Marking	LS	1	$ 10,000.00	$ 10,000.00	
	Railroad Crossing Updates	LS	1	$ 300,000.00	$ 300,000.00	
	TRAIL					
205.0100	Excavation Common	CY	1,004	$ 25.00	$ 25,100.00	
201.0105	Clearing	STA	10	$ 350.00	$ 3,500.00	
201.0205	Grubbing	STA	10	$ 200.00	$ 2,000.00	
208.1100	Select Borrow	CY	806	$ 30.00	$ 24,180.00	
305.0110	Base Aggregate Dense 3/4-inch	TON	137	$ 30.00	$ 4,110.00	4" Depth Between Trail and Railing
305.0120	Base Aggregate Dense 1 1/4-inch	TON	2,623	$ 22.00	$ 57,706.00	8" Depth
312.0110	Select Crushed Material	TON	787	$ 23.00	$ 18,101.00	Assume 20% of Project
465.0105	Asphaltic Surface	TON	1,103	$ 120.00	$ 132,360.00	Assume 4" Asphalt
601.xxxx	Concrete Curb & Gutter Type _	LF	133	$ 30.00	$ 3,990.00	
602.0410	Concrete Sidewalk 5-Inch	SF	350	$ 10.00	$ 3,500.00	Curb Ramp & RR Approaches
602.0515	Detectable Warning Field Natural Patina	SF	20	$ 49.00	$ 980.00	Curb Ramp - Blue Heron Ct
645.0135	Geotextile Type SR	SY	1180	$ 3.00	$ 3,540.00	Assume 20% of Project
	EROSION CONTROL					
628.2008	Erosion Mat Urban Class 1, Type B	SY	1,030	$ 1.60	$ 1,648.00	Assume 40% of SI Area
628.7560	Tracking Pads	EACH	2	$ 1,000.00	$ 2,000.00	
	LANDSCAPING					
SPV.0035.001	Screened Topsoil	CY	50	$ 45.00	$ 2,250.00	Assume 10% of SI Area
625.0500	Salvaged Topsoil	SY	2,300	$ 2.00	$ 4,600.00	Assume 90% of SI Area
627.0200	Mulching	SY	1,540	$ 1.50	$ 2,310.00	Assume 60% of SI Area
629.0210	Fertilizer Type B	CWT	2	$ 115.00	$ 230.00	
630.0120	Seeding Mixture No 20	LB	70	$ 8.00	$ 560.00	
630.0200	Seeding Temporary	LB	70	$ 4.00	$ 280.00	
	STORM SEWER					
608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	210	$ 105.00	$ 22,050.00	Assume 10' of Pipe per Inlet
608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	1050	$ 140.00	$ 147,000.00	Assume 25% Project Length
608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	1050	$ 150.00	$ 157,500.00	Assume 25% Project Length
608.0336	Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	LF	1050	$ 211.00	$ 221,550.00	Assume 25% Project Length
608.0348	Storm Sewer Pipe Reinforced Concrete Class III 48-Inch	LF	1050	$ 320.00	$ 336,000.00	Assume 25% Project Length
611.0530	Manhole Covers Type J	EACH	21	$ 783.00	$ 16,443.00	
611.0642	Inlet Covers Type MS	EACH	21	$ 716.00	$ 15,036.00	
611.2004	Manholes 4-FT Diameter	EACH	7	$ 4,000.00	$ 28,000.00	Assume 200' Spacing
611.2005	Manholes 5-FT Diameter	EACH	7	$ 5,400.00	$ 37,800.00	Assume 200' Spacing
611.2007	Manholes 7-FT Diameter	EACH	7	$ 11,400.00	$ 79,800.00	Assume 200' Spacing
611.3901	Inlets Median 1 Grate	EACH	21	$ 3,400.00	$ 71,400.00	Assume 200' Spacing
	TRAFFIC CONTROL					
SPV.0060.01	Special (01. Traffic Control)	EACH	1	$ 5,000.00	$ 15,000.00	
				CONSTRUCTION ITEM SUBTOTAL	**$ 1,865,924.00**	2024 Dollars

Construction Year	2024	2025	2026	2027	2028	2029	2030
Subtotal Total	$1,835,924.00	$1,891,001.72	$1,947,731.77	$2,006,163.72	$2,066,348.64	$2,128,339.10	$2,192,189.27
Design Contingency - 20%	$367,184.80	$378,200.34	$389,546.35	$401,232.74	$413,269.73	$425,667.82	$438,437.85
Construction Total	**$2,203,108.80**	**$2,269,202.06**	**$2,337,278.13**	**$2,407,396.47**	**$2,479,618.36**	**$2,554,006.91**	**$2,630,627.12**
Construction Oversight - 7%	$154,217.62	$158,844.14	$163,609.47	$168,517.75	$173,573.29	$178,780.48	$184,143.90
Consultant Design Cost	$170,000.00	$175,100.00	$180,353.00	$185,763.59	$191,336.50	$197,076.59	$202,988.89
WisDOT Design Oversight	$17,000.00	$17,510.00	$18,035.30	$18,576.36	$19,133.65	$19,707.66	$20,298.89
Total Project Delivery	**$2,544,326.42**	**$2,620,656.21**	**$2,699,275.89**	**$2,780,254.17**	**$2,863,661.80**	**$2,949,571.65**	**$3,038,058.80**

*3% Inflation Year over Year

Pigeon Road
Alternative 2

Pigeon Road Alternative 2 - Preferred Alternative - Feasibility Study						
10/10/2024						
Item Number	Bid Item	Unit	# of Units	Unit Price	Total Price	Comments
	MISCELLANEOUS					
619.1000	Mobilizations	EACH	1	$ 40,000.00	$ 40,000.00	
642.5001	Field Office Type B	EACH	1	$ 10,000.00	$ 10,000.00	
SPV.0060.02	Construction Staking	EACH	1	$ 10,000.00	$ 10,000.00	
	Signing & Marking	LS	1	$ 10,000.00	$ 10,000.00	
	Railroad Updates	LS	1	$ 300,000.00	$ 300,000.00	Based on FHWA Cost Guidance
	TRAIL					
205.0100	Excavation Common	CY	915	$ 25.00	$ 22,875.00	"Cut"
201.0105	Clearing	STA	7	$ 1,000.00	$ 7,000.00	
201.0205	Grubbing	STA	7	$ 750.00	$ 5,250.00	
208.1100	Select Borrow	CY	1,240	$ 30.00	$ 37,200.00	Assumes no usable cut - accounts for all fill
305.0120	Base Aggregate Dense 1 1/4-inch	TON	2,667	$ 22.00	$ 58,674.00	8" Depth
312.0110	Select Crushed Material	TON	798	$ 23.00	$ 18,354.00	Assume 20% of Project
465.0105	Asphaltic Surface	TON	1,120	$ 120.00	$ 134,400.00	Assume 4" Asphalt
521.1048	Apron Endwalls For Culvert Pipe Steel	EACH	4	$ 2,000.00	$ 8,000.00	
521.3148	Culvert Pipe Corrugated Steel 48-Inch	LF	32	$ 250.00	$ 8,000.00	
601.xxxx	Concrete Curb & Gutter Type _	LF	133	$ 30.00	$ 3,990.00	
602.0410	Concrete Sidewalk 5-Inch	SF	350	$ 10.00	$ 3,500.00	1 Curb Ramp & RR Approaches
602.0515	Detectable Warning Field Natural Patina	SF	60	$ 49.00	$ 2,940.00	Curb Ramp - Blue Heron Ct & RR
602.0815	Concrete Driveway 7-Inch	SY	100	$ 75.00	$ 7,500.00	At Field Entrances
633.0200	Delineators Flexbile	EACH	15	$ 75.00	$ 1,125.00	10' Spacing at RR Crossing
645.0135	Geotextile Type SR	SY	1196	$ 3.00	$ 3,588.00	Assume 20% of Project
SPV.0090.01	Boardwalk	LF	50	$ 700.00	$ 35,000.00	Helical Piles, Substructure, Rail, Decking
	EROSION CONTROL					
628.2008	Erosion Mat Urban Class 1, Type B	SY	790	$ 2.50	$ 1,975.00	Assume 20% of SI Area
628.7560	Tracking Pads	EACH	2	$ 1,000.00	$ 2,000.00	
SPV	Wattles	LF	400	$ 8.00	$ 3,200.00	Potential Wetland Areas
	LANDSCAPING					
SPV.0035.001	Screened Topsoil	CY	70	$ 45.00	$ 3,150.00	Assume 10% of SI Area
625.0500	Salvaged Topsoil	SY	3,520	$ 2.00	$ 7,040.00	Assume 90% of SI Area
627.0200	Mulching	SY	3,130	$ 1.50	$ 4,695.00	Assume 80% of SI Area
629.0210	Fertilizer Type B	CWT	3	$ 115.00	$ 345.00	
630.0120	Seeding Mixture No 20	LB	110	$ 8.00	$ 880.00	
630.0200	Seeding Temporary	LB	110	$ 4.00	$ 440.00	
	TRAFFIC CONTROL					
SPV.0060.01	Special (01. Traffic Control)	EACH	1	$ 15,000.00	$ 15,000.00	
				CONSTRUCTION ITEM SUBTOTAL	**$ 766,121.00**	2024 Dollars

Construction Year	2024	2025	2026	2027	2028	2029	2030
Subtotal Total	$766,121.00	$789,104.63	$812,777.77	$837,161.10	$862,275.94	$888,144.21	$914,788.54
Design Contingency - 20%	$153,224.20	$157,820.93	$162,555.55	$167,432.22	$172,455.19	$177,628.84	$182,957.71
Construction Total	**$919,345.20**	**$946,925.56**	**$975,333.32**	**$1,004,593.32**	**$1,034,731.12**	**$1,065,773.06**	**$1,097,746.25**
Construction Oversight - 10%	$91,934.52	$94,692.56	$97,533.33	$100,459.33	$103,473.11	$106,577.31	$109,774.62
Property Acquisition Cost**	$250,000.00	$257,500.00	$265,225.00	$273,181.75	$281,377.20	$289,818.52	$298,513.07
Consultant Design Cost***	$200,000.00	$206,000.00	$212,180.00	$218,545.40	$225,101.76	$231,854.81	$238,810.46
WisDOT Design Oversight	$20,000.00	$20,600.00	$21,218.00	$21,854.54	$22,510.18	$23,185.48	$23,881.05
Total Project Delivery	**$1,481,279.72**	**$1,525,718.11**	**$1,571,489.65**	**$1,618,634.34**	**$1,667,193.37**	**$1,717,209.18**	**$1,768,725.45**

*3% Inflation Year over Year
** 5 Acres at Avg $50k/Acre
***Design Cost includes Plat and Real Estate Acquisition

APPENDIX C-1

Public Information Meeting Invitation: Old Highway Road & Pigeon Road

5400 King James Way
Suite 200
Madison, WI 53719
608.663.1218
www.klengineering.com

March 6, 2024

RE: **Trail Feasibility Study: Project Introduction & Public Involvement Meeting**
WisDOT ID 4479-04-00
High Cliff State Trail Corridor Feasibility Study
Old Highway Rd and Pigeon Rd Study Areas
Calumet County

Dear Property Owner,

The Village of Harrison is working with KL Engineering, the Village of Sherwood, and the Wisconsin Department of Transportation to study the feasibility of constructing a multi-use bike/pedestrian trail along Old Highway Rd and, separately, Pigeon Rd (from State Trunk Hwy 114 to Blue Heron Ct). This is being evaluated as part of an effort to expand trail access and connect to existing trails in the Harrison – Menasha area and ultimately provide an off-road connection to the High Cliff State Park.

This feasibility study will develop several alternatives that are evaluated based on safety, environmental impacts, utility, longevity, maintenance, property impacts, as well as cost. Feedback from the public and partner agencies will be integral to this process.

You are invited to attend the Public Involvement Meeting (PIM) at which the above referenced project will be discussed. The meeting will be held on **at the Harrison Municipal Building on Thursday, March 21, 2024, from 5-7pm located at W5298 State Road 114, Harrison, WI 54952.**

The meeting will be open-house format and project representatives from the Village of Harrison, Village of Sherwood, and KL Engineering will be available to discuss the proposed project and address any questions or concerns you may have. There will not be a formal presentation, rather, interested parties can come any time during the meeting to review project displays and discuss the project with the Village and KL Engineering representatives.

Please submit any comments or questions by Friday, April 5, 2024. These can be emailed or mailed direction to the following project personnel:

Josh Mercier, Project Manager
(mail) KL Engineering
5400 King James Way
Suite 200
Madison, WI 53719
(e-mail) josh.mercier@klengineering.com
(phone) 608.663.1218

APPENDIX C-2

Public Information Meeting Invitation: Manitowoc Road

5400 King James Way
Suite 200
Madison, WI 53719
608.663.1218
www.klengineering.com

April 30, 2024

RE: Trail Feasibility Study: Project Introduction & Public Involvement Meeting
WisDOT ID 4479-04-00 & 4479-05-00
High Cliff State Trail Corridor Feasibility Study
Manitowoc Rd and STH 114 Study Areas
Calumet County

Dear Property Owner,

The City of Menasha (4479-05-00) and the Village of Harrison (4479-04-00) are working with KL Engineering, the Village of Sherwood, and the Wisconsin Department of Transportation to study the feasibility of constructing a multi-use bike/pedestrian trail along STH 114 from Oneida Street to Lake Park Road and, separately, from CTH N to Pigeon Road. An additional area of study includes Manitowoc Road from Plank Road to Lake Park Road. These areas are being evaluated as part of an effort to expand trail access within the local neighborhoods and communities while additionally providing an off-road connection to the High Cliff State Park.

This feasibility study will develop several alternatives that are evaluated based on safety, environmental impacts, utility, longevity, maintenance, property impacts, as well as cost. Feedback from the public and partner agencies will be integral to this process.

You are invited to attend the Public Involvement Meeting (PIM) at which the above referenced projects will be discussed. The meeting will be held in the first-floor conference rooms **at Menasha City Hall on Tuesday, May 14, 2024, from 5:00-6:30pm located at 100 Main Street, Menasha, WI 54952.**

The meeting will include a brief presentation at 5:15 pm followed by open-house format to review project displays and discuss the project with the project team. Project representatives from the City of Menasha, Village of Harrison, Village of Sherwood, and KL Engineering will be available to discuss the proposed project and address any questions or concerns you may have.

Please submit any comment forms by Friday, May 31, 2024. These can be emailed or mailed direct to the following project personnel:

Josh Mercier, Project Manager
(mail) KL Engineering
5400 King James Way
Suite 200
Madison, WI 53719
(e-mail) josh.mercier@klengineering.com
(phone) 608.663.1218

APPENDIX C-3

Public Information Meeting FAQs
Old Highway Road & Pigeon Road

Frequently Asked Questions

Project ID 4479-04-00
High Cliff State Trail Corridor Feasibility Study
Old Highway Rd and Pigeon Rd Study Areas

1. **What is the scope of this project?**
   The Village of Harrison, Village of Sherwood, and the Wisconsin Department of Transportation (WisDOT) are studying the feasibility of constructing a multi-use bike/pedestrian trail along Old Highway Road and Pigeon Road as part of an effort to expand trail access and ultimately provide an off-road connection to the High Cliff State Park.

2. **What is the difference between a Feasibility Study in comparison to design of a project?**
   A feasibility study evaluates potential routes based on a number of factors (see question 3) to determine if a concept works to move forward with detailed design by identifying pros and cons of different routes and the extent of challenges with each. A feasibility study also identifies funding options, potential project timelines, etc If a project is determined feasible and the public support and funding is in place, then detailed design and engineering would occur next.

3. **What are the criteria for evaluating the feasibility of the trails?**
   Trail and roadway user safety, trail utility and connectivity, project cost, environmental impacts, utility impacts, adjacent property impacts, drainage patterns, and existing and planned surrounding land use will all be factors evaluated in determining the feasibility of the segments of study.

4. **What are the study areas?**
   - Old Highway Road (1.8 miles):
     - Area of Study begins on the west at the Lake Park Rd/Fire Lane 8 intersection.
     - Area of Study ends on the east at the State Highway 114 intersection.
   - Pigeon Road (0.64 miles):
     - Area of Study begins on the south at the Blue Heron Court intersection.
     - Area of Study ends on the north at the State Highway 114 intersection.
   - Manitowoc Road (1.64 miles - **to be displayed at future Public Involvement Meeting**)
     - Area of Study begins on the west at the Plank Road intersection.
     - Area of Study ends on the east at the Lake Park Road intersection.

5. **Why were these study areas chosen?**
   These study areas were chosen as a result of the High Cliff Connection Plan recently completed by East Central Wisconsin Planning Commission (ECWRPC). The study focused on identifying routes for further study. The published plan can be found here: https://www.ecwrpc.org/2023/03/02/high-cliff-connection-plan/.

6. **Are there any related on-going projects?**
   The City of Menasha is leading a concurrent feasibility study for other possible High Cliff State Trail Connection Corridors. These areas are along US 10/STH 114 from Oneida Street to Lake Park Road and along STH 114 from CTH N to Pigeon Road. The two study teams are working in tandem with each other. There will be an additional Public Involvement Meeting to discuss these corridors along with the Manitowoc Road study corridor in May 2024.

7. **What is the timeline for the project?**
   The feasibility study is currently in the data gathering phase. Preliminary route exploration will begin in April based on data gathered and feedback from the Public Involvement Meeting (PIM). An additional PIM will be held for the Manitowoc Road portion of this study and the City of Menasha feasibility study in May 2024. The final feasibility report for this section will be submitted in July of 2024.

APPENDIX C-4

Public Information Meeting FAQs
Manitowoc Road

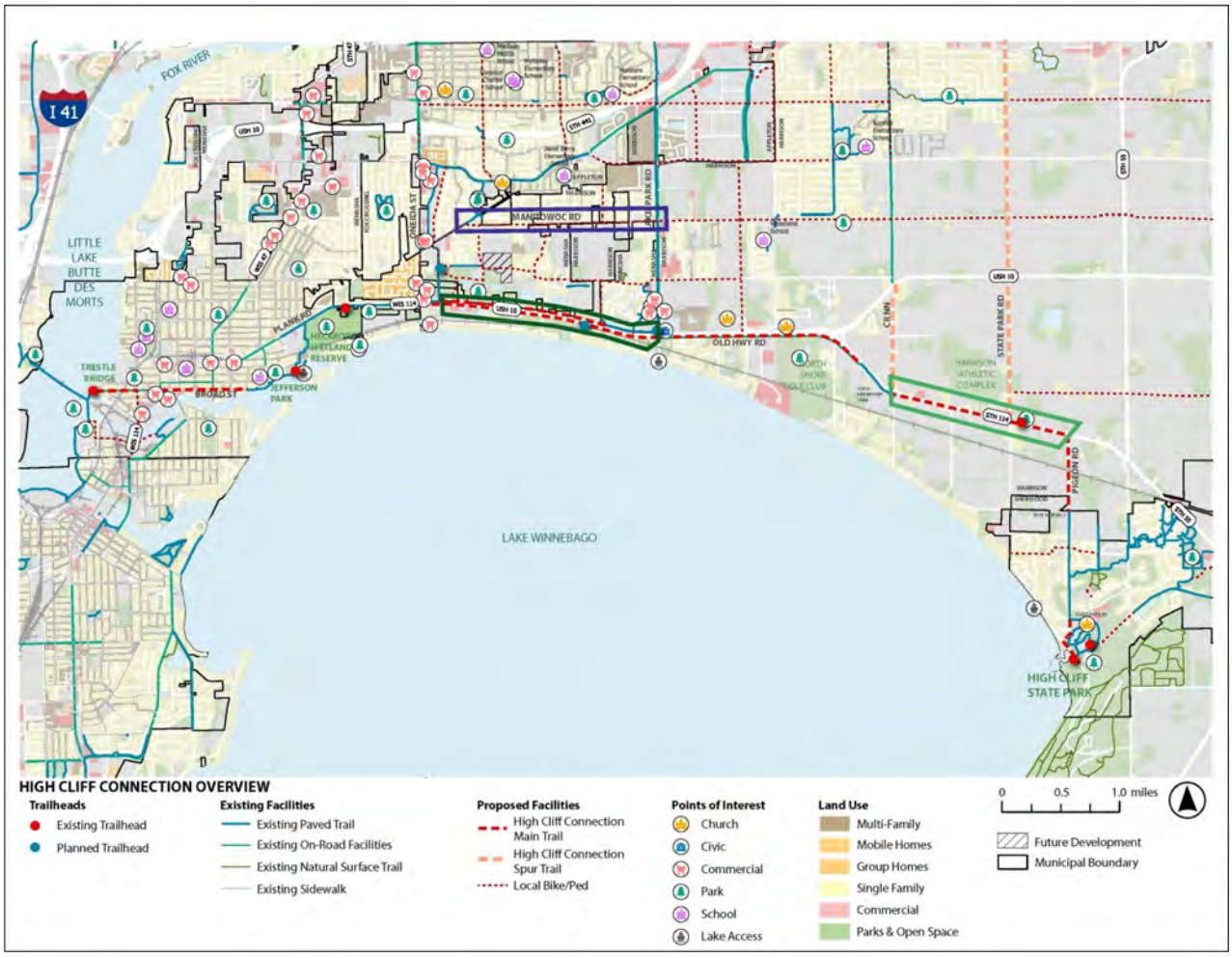
Frequently Asked Questions

High Cliff Connection Corridor Feasibility Study

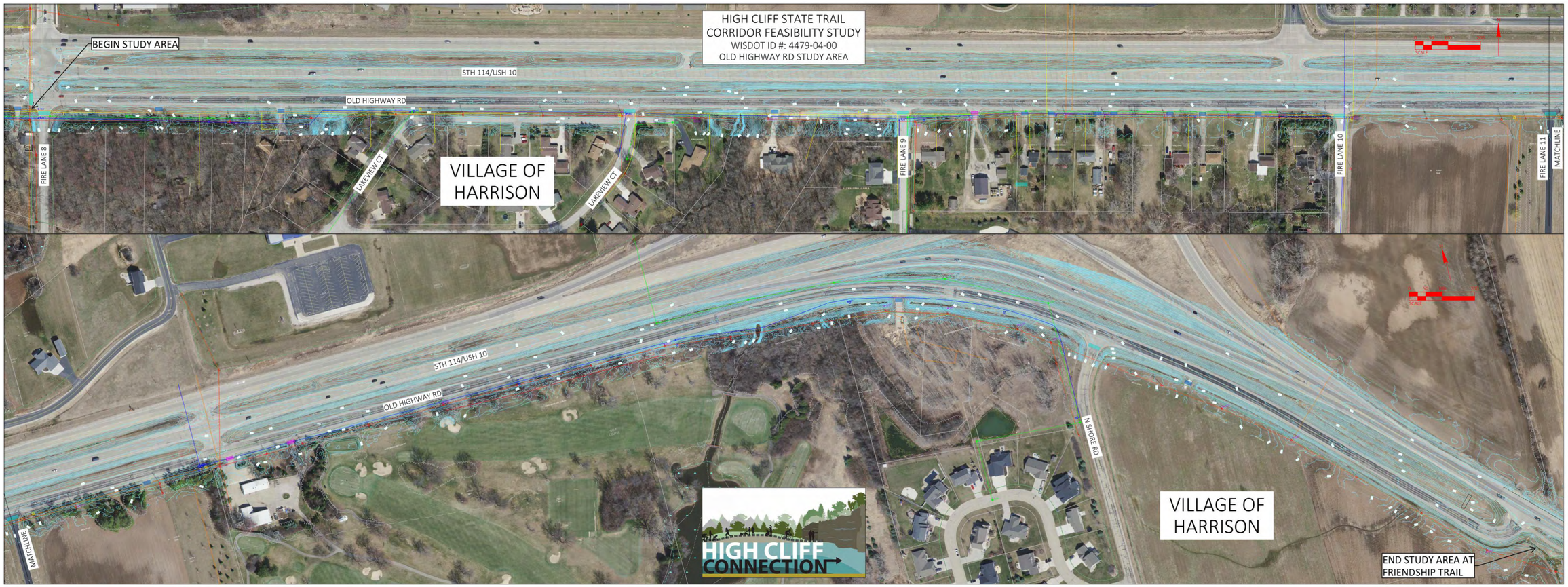
Public Information Meeting: STH 114 and Manitowoc Road Areas

1. **What is the scope of the project?**
   The City of Menasha, Village of Harrison, Village of Sherwood, and the Wisconsin Department of Transportation (WisDOT) are studying the feasibility of constructing a multi-use bike/pedestrian trail along STH 114 as part of an effort to expand trail access and ultimately provide an off-road connection to the High Cliff State Park. An additional area of study includes Manitowoc Road from Plank Road to Lake Park Road. The Manitowoc Road area is being evaluated as part of an effort to expand bike and pedestrian access within the local neighborhoods and communities while additionally providing an off-road connection to the High Cliff State Park.

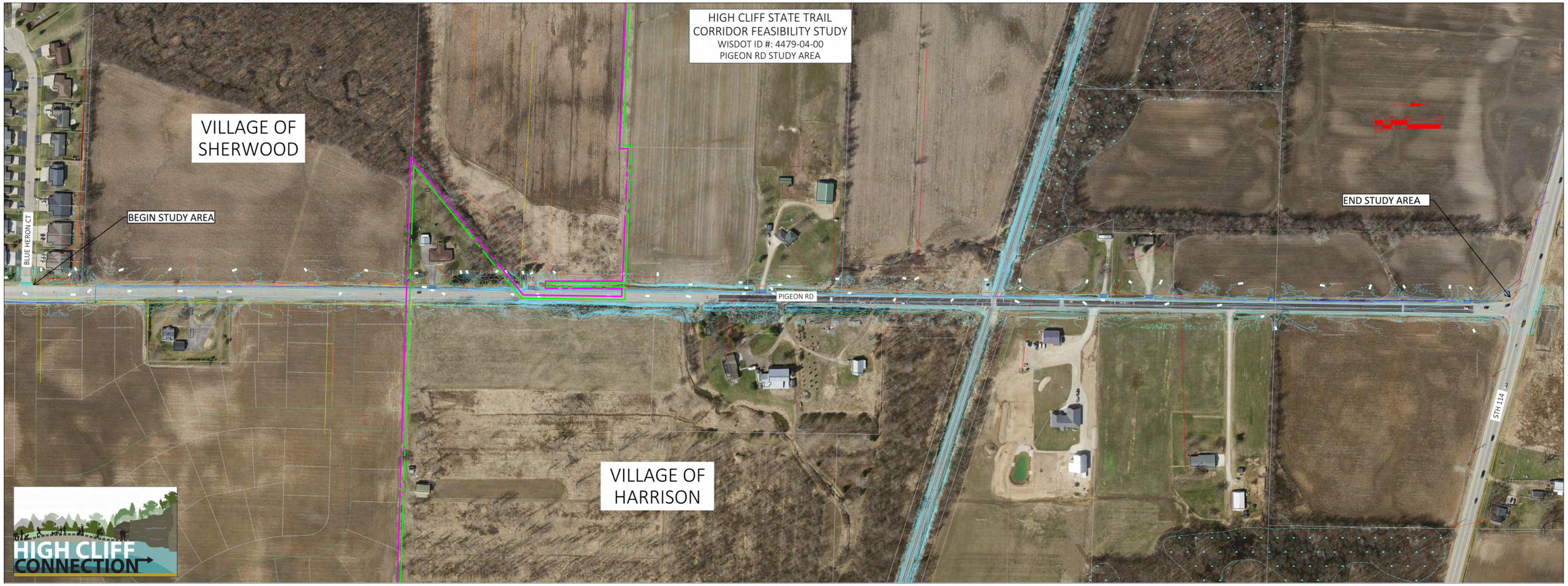
2. **What are the study areas?** *(purple and green outlined areas in map below)*
   - STH 114 (2 separate areas)
     - from Oneida Street to Lake Park Road
     - from CTH N to Pigeon Road
   - Manitowoc Road (from Plank Road to Lake Park Road)



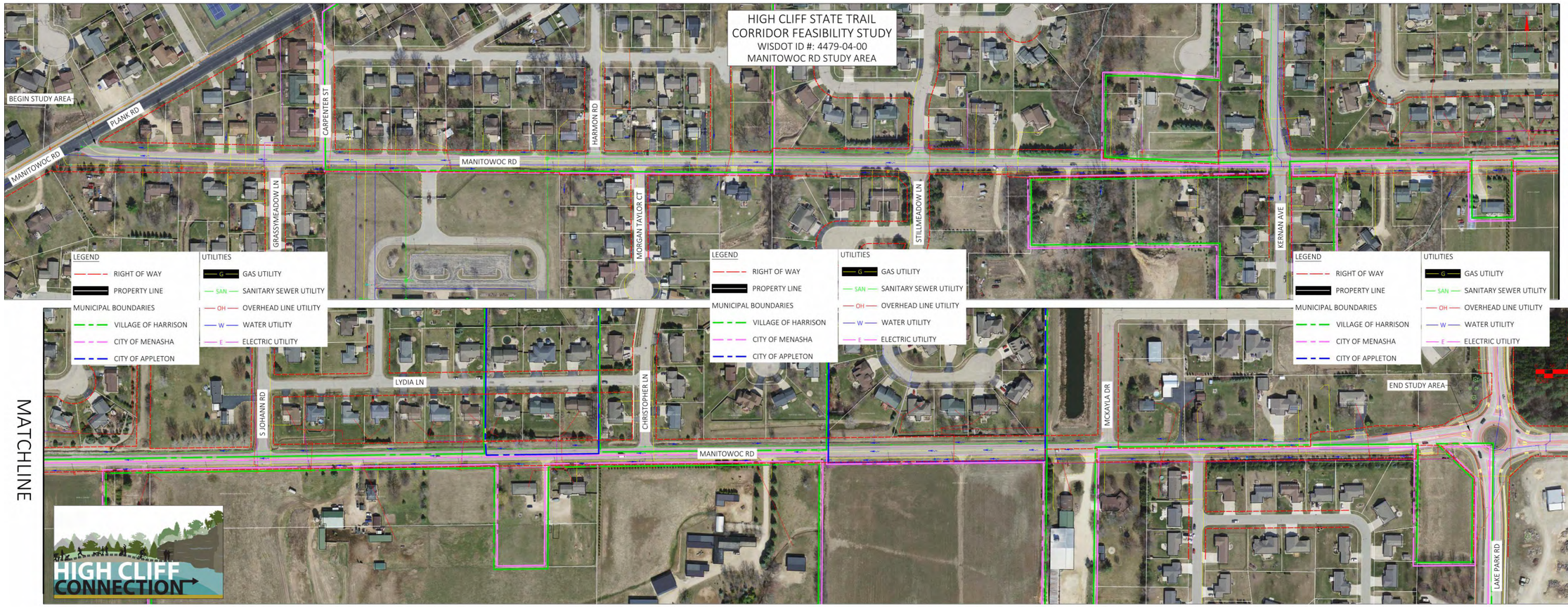
Public Information Meeting Map
Old Highway Road Segment



Public Information Meeting Map
Pigeon Road Segment



Public Information Meeting Map
Manitowoc Road Segment



Department of Transportation
Crossing Inventory Form

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date (MM/DD/YYYY)	B. Reporting Agency	C. Reason for Update (Select only one)	D. DOT Crossing Inventory Number
04 / 16 / 2024	☐ Railroad ☐ Transit ☒ State ☐ Other	☒ Change in Data ☐ New Crossing ☐ Closed ☐ No Train Traffic ☐ Quiet Zone Update ☐ Re-Open ☐ Date Change Only ☐ Change in Primary Operating RR ☐ Admin. Correction	386691C

Part I: Location and Classification Information

1. Primary Operating Railroad	2. State	3. County
WISCONSIN CENTRAL LTD. [WC]	WISCONSIN	CALUMET

4. City / Municipality	5. Street/Road Name & Block Number	6. Highway Type & No.
☐ In ☒ Near SHERWOOD	PIGEON RD (Street/Road Name) | * (Block Number)	RD

7. Do Other Railroads Operate a Separate Track at Crossing? ☐ Yes ☒ No — If Yes, Specify RR

8. Do Other Railroads Operate Over Your Track at Crossing? ☐ Yes ☒ No — If Yes, Specify RR

9. Railroad Division or Region	10. Railroad Subdivision or District	11. Branch or Line Name	12. RR Milepost
☐ None VALLEY	☐ None MANITOWOC	☐ None MAIN	(prefix) | 0009.860 | (suffix)

13. Line Segment *	14. Nearest RR Timetable Station *	15. Parent RR (if applicable)	16. Crossing Owner (if applicable)
SC00053034	SHERWOOD	☐ N/A CN	☐ N/A WC

17. Crossing Type	18. Crossing Purpose	19. Crossing Position	20. Public Access (if Private Crossing)	21. Type of Train	22. Average Passenger Train Count Per Day
☒ Public ☐ Private	☒ Highway ☐ Pathway, Ped. ☐ Station, Ped.	☒ At Grade ☐ RR Under ☐ RR Over	☐ Yes ☐ No	☒ Freight ☐ Intercity Passenger ☐ Commuter ☐ Transit ☐ Shared Use Transit ☐ Tourist/Other	☐ Less Than One Per Day ☐ Number Per Day 0

23. Type of Land Use
☒ Open Space ☐ Farm ☐ Residential ☐ Commercial ☐ Industrial ☐ Institutional ☐ Recreational ☐ RR Yard

24. Is there an Adjacent Crossing with a Separate Number?	25. Quiet Zone (FRA provided)
☐ Yes ☒ No If Yes, Provide Crossing Number	☒ No ☐ 24 Hr ☐ Partial ☐ Chicago Excused Date Established

26. HSR Corridor ID	27. Latitude in decimal degrees	28. Longitude in decimal degrees	29. Lat/Long Source
☒ N/A	(WGS84 std: nn.nnnnnn) 44.189857	(WGS84 std: -nnn.nnnnnn) -88.293674	☒ Actual ☐ Estimated

30.A. Railroad Use *	31.A. State Use *
30.B. Railroad Use *	31.B. State Use *
30.C. Railroad Use *	31.C. State Use *
30.D. Railroad Use *	31.D. State Use *
32.A. Narrative (Railroad Use) *	32.B. Narrative (State Use) *

33. Emergency Notification Telephone No. (posted)	34. Railroad Contact (Telephone No.)	35. State Contact (Telephone No.)
800-465-9239	888-888-5909	608-266-2236

Part II: Railroad Information

1. Estimated Number of Daily Train Movements

1.A. Total Day Thru Trains (6 AM to 6 PM)	1.B. Total Night Thru Trains (6 PM to 6 AM)	1.C. Total Switching Trains	1.D. Total Transit Trains	1.E. Check if Less Than One Movement Per Day ☐ How many trains per week?
2	0	0	0	0

2. Year of Train Count Data (YYYY)	3. Speed of Train at Crossing
2017	3.A. Maximum Timetable Speed (mph) 35 3.B. Typical Speed Range Over Crossing (mph) From 1 to 25

4. Type and Count of Tracks
Main 1 Siding 0 Yard 0 Transit 0 Industry 0

5. Train Detection (Main Track only)
☐ Constant Warning Time ☐ Motion Detection ☐ AFO ☐ PTC ☐ DC ☐ Other ☒ None

6. Is Track Signaled?	7.A. Event Recorder	7.B. Remote Health Monitoring
☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No

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