

Real People. Real Solutions.

### **Kellogg-Wabasha Trail Connection Feasibility Study**

Cities of Kellogg and Wabasha, Wabasha County, Minnesota July 2023



### Table of Contents

١.	Introduction	.1
II.	Study Partners	.2
III.	Purpose and Existing Conditions	.2
IV.	Study Process	.3
	Phase 1 – Alternatives Development and Analysis	.3
	Phase 2 – Refinement of Preferred Alignment and Construction Phasing	.4
V.	Public Involvement	.8
VI.	Funding Plan	.8
VII.	Next Steps	.9
	Other Next Steps	10

### Figures/Tables

Figure 1 – Kellogg-Wabasha Trail Connection Study Area	1
Figure 2 – Trail Typical Section	3

### Appendix

Appendix A: Mississippi River Trail (MRT) Maps
Appendix B: Kellogg-Wabasha Trail Alignment Options
Appendix C: Stonebrooke Substructure (old Bridge N. 3618) Inspection Memorandum
Appendix D: Preferred Alignment and Segment/Phasing Map
Appendix E: Preliminary Cost Estimates
Appendix F: October 2022 Pop-Up – Public Meeting Display Board
Appendix G: Funding Plan

### Study Sponsors

Southern Minnesota Initiative Foundation (SMIF) Statewide Health Improvement Partnership (SHIP) Laura Jane Musser Fund





WABASHA COUNTY

### I. Introduction

The Cities of Kellogg and Wabasha, in partnership with other local organizations, has commissioned this study to determine the feasibility of constructing a multimodal trail to better connect the two communities. The trail study area is depicted in *Figure 1*. This study was made possible by the financial sponsorship received from the Southern Minnesota Initiative Foundation (SMIF), the Statewide Health Improvement Partnership (SHIP), and the Laura Jane Musser Fund. SHIP is a state-based program that works at the local level to support healthier communities by expanding opportunities for active living, healthy eating, well-being and tobacco-free living, thereby helping to reduce the leading causes of chronic disease and death."

The results of this feasibility study will be used to inform the stakeholders on the following:

- identify a preferred route for a future trail corridor
- trail design requirements and challenges/opportunities
- gain a better understanding of anticipated social and environmental impacts
- assess potential right of way needs
- develop an implementation plan (phased construction)
- preliminary construction costs
- potential funding opportunities through local, state, and federal grant programs.

### Figure 1 – Kellogg-Wabasha Trail Connection Study Area



Prepared by: Bolton & Menk, Inc. Kellogg-Wabasha Trail Connection Feasibility Study |

By providing a dedicated facility for bicyclists and pedestrians (and snowmobiles in the winter), the trail corridor will improve connectivity and safety between Kellogg and Wabasha. The trail will create a critical link for students from the south to walk/bike to the Wabasha Kellogg Public Schools Complex located along County Road 30/Hiawatha Drive. Furthermore, a future trail connection will enhance the Mississippi River Trail (MRT) corridor through this segment of southeastern Minnesota.

### II. Study Partners

The Kellogg-Wabasha Trail Connection Feasibility Study was a joint effort between:

- City of Kellogg
- City of Wabasha
- Greenfield Township
- Wabasha County

These agencies served as a Study Team and met periodically throughout the feasibility study process to review and discuss study progress and technical deliverables.

### III. Purpose and Existing Conditions

The purpose of this feasibility study is to identify a multimodal trail corridor that will improve the



current conditions of the bicycle and pedestrian system between the communities and along this stretch of the MRT. The MRT, located adjacent to the scenic Mississippi River, is a designated bike and pedestrian trail that runs the length of the Mississippi River, beginning near the headwaters at Lake Itasca, Minnesota and ending near the mouth of the river in Venice, Louisiana. The trail runs for 3,000 miles and passes through ten states. Within Minnesota, the MRT runs for six hundred miles, part of which connects Wabasha and Kellogg. *Appendix A* includes figures depicting the existing MRT route through the Cities of Wabasha and Kellogg.

An existing off-road trail corridor, which is designated as part of the MRT route, extends south from downtown Wabasha along the east side of County Road 30 to Binner Way where the trail ends. This stretch of County Road 30 is a rural two-lane roadway with a posted speed of 55 mph. South of Binner Way, the MRT route transitions to an on-road facility (paved shoulders) to the 645th Street intersection. The trail route then jogs west to Highway 61 where users utilize the highway alignment and shoulders for approximately one mile to continue south and across the Zumbro River. The MRT route enters the City of Kellogg via Belvidere Avenue and Dodge Avenue before traversing east out of town on County Road 84.

At the onset of the trail feasibility study, the agency partners identified three goals associated with a multimodal trail facility:

- 1. Improve safety and provide an alternate trail connection that does not require users to access or cross Highway 61.
- 2. Support recreation for various users such as pedestrians, bicyclists, ATVs, snowmobiles, etc.
- Support economic development in attracting businesses and tourism to the area.
   Prepared by: Bolton & Menk, Inc.



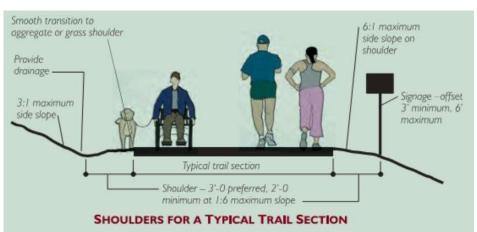
Other important study area characteristics that were considered in the feasibility analysis, and will be discuss later in this study report, include the existing County Road 30 cross section and right-of-way, the Canadian Pacific (CP) Railway corridor, the Zumbro River, a public canoe landing, an old roadway alignment that includes two sets of bridge piers across the Zumbro River and CP rail corridor, and surrounding private properties in the study area.

### **IV. Study Process**

The feasibility study was split into two phases. Phase 1 included the exploration of trail alignment options, which included collecting study area data such as reviewing past plans, community walk and bike survey results, consideration of topographic constraints, environmental features (wetlands, rivers, vegetation, etc.), existing traffic volumes, and public roadways and right-of-way conditions.

### Phase 1 – Alternatives Development and Analysis

This phase started with a discussion on the type of users the trail corridor would serve. It was decided that the corridor should provide year-round use including pedestrians, bicyclists, snowmobiles and ATV/UTV users. As a result, the width of the trail corridor would need to be larger than typical to accommodate a paved path (approximately 10- to 12-feet) and enough open space for other recreational users (approximately 10- to 15-feet) to travel parallel to the path. It was suggested that due to design requirements (e.g., fill embankment, cross and side slopes, drainage needs, etc.) a 50-foot footprint and/or easement could be needed for portions of the trail corridor, while it was acknowledged that most areas would not require such a large width.



### Figure 2 – Trail Typical Section

Three high-level alignment options were developed and assessed as part of Phase 1. A primary objective of these options was to connect the existing trail at Binner Way to the City of Kellogg. The Phase 1 alignment options considered are described below and presented in *Appendix B*.

• <u>Trail Alignment Option A</u> – the trail corridor begins at Binner Way and continues south along the east side of County Road 30 to 645th Street. The trail would continue south on the east side of 645th Street to the location where 645th Street turns east. The trail corridor would access a property owned by Greenfield Township and would continue south to the Zumbro River. A new trail bridge would be needed to cross over the Zumbro River channel. An existing series of old roadway bridge piers (from former Bridge No. 3618) are present in this location. An inspection of the south abutment and southernmost five piers was conducted in July 2023 (see *Appendix C*). The substructure inspection indicated that the "substructure concrete is overall sound and appears to be of satisfactory quality, with areas of localized deterioration and a few noteworthy cracks." The engineering report stated that repair and reuse of the bridge substructures appears feasible with some repairs and modifications.

South of the river, Trail Option A would utilize an existing roadway embankment and bridge piers to create a grade separated (bridge) crossing. No additional inspection of these bridge piers have been conducted to date. In order to connect to Dodge Street, this option would require the partial use of a City of Kellogg owned parcel along with property acquisition from a private residence located on the west side of the CP rail corridor.

- <u>Trail Alignment Option B</u> the trail corridor begins at Binner Way and continues south along the east side of County Road 30 to 645th Street. The trail would turn west and cross the CP rail corridor at an existing signal/gated crossing. Prior to reaching Highway 61, Option B turns south and parallels the west side of the CP rail corridor to the Zumbro River. A new trail bridge would be added to cross the river. Continuing south the trail corridor would connect to Shepard Street in the City of Kellogg. This alignment option would require the partial use of at least three private properties.
- <u>Trail Alignment Option C</u> the trail corridor begins at Binner Way and continues south along the east side of County Road 30 to 645th Street. The trail would turn west and cross the CP rail corridor at an existing signal/gated crossing at CSAH 30 and would continue to Highway 61. Utilizing the public right of way on the eastern side of Highway 61, the trail would continue south and cross the Zumbro River using the northbound highway bridge structure. The trail would enter the City of Kellogg at County Road 18/Belvidere Avenue.

### **Dismissed Alignment Options**

The agency partners meet on December 13, 2023, to review the alignment options. A series of alignment benefits and concerns (pros/cons) were discussed. Trail Alignment Option B was dismissed from further consideration due to right of way needs west of the railroad corridor, private property impacts near Sheppard Street, potential environmental (wetlands and vegetation) impacts, and anticipated higher construction costs. Trail Alignment Option C was also dismissed from further consideration because this option continues to require users to utilize the Highway 61 corridor. While the trail corridor could be built within the highway right of way (not located on the highway shoulder), it was assumed the existing highway bridge over the Zumbro River would be utilized to carry trail users over the river.

### **Preferred Alignment Option**

Trail Alignment Option A was identified as the preferred trail corridor. As part of the discussion, several design sub-options were discussed for connecting into the City of Kellogg as well as construction Trail Alignment C in a series of phases.

A "full build" scenario was discussed that would consider a larger trail network that would provide multimodal facilities east towards the more developed portions of Greenfield Township. It was determined that Phase 2 of the Feasibility Study would further investigate Trail Alignment Option A, including the design sub-option connections, funding opportunities, and phasing of the multimodal trail improvements.

### Phase 2 – Refinement of Preferred Alignment and Construction Phasing

As a part of Phase 2, the project team divided the Preferred Trail Alignment into three Segments, A, B, and C., as shown in *Appendix D*. These segments correspond with the order of priority and preference for construction knowing potential funding challenges and likelihood that construction of the trail corridor may need to occur in phases.

As part of Phase 2, the project partners took a closer look as Segment A and identified two options for how the trail could be designed and provide access into Kellogg. Segments B and C are both single routes. Segment C is not part of the MRT or part of making a safe and efficient connection between Kellogg and Wabasha, but rather involves a future route that could better connect MRT users to the Mississippi River and users in the more developed portions of Greenfield Township with the MRT and Wabasha-Kellogg School Complex.

### **Preferred Alignment – Segment A**

Trail Segment A of the Preferred Alignment is the highest priority segment because it would complete a critical connection into the City of Kellogg where trail users would not have to travel along Highway 61. Segment A involves extending the trail from the City of Kellogg north across the Zumbro River. The trail would utilize a Greenfield Township owned parcel on both the south and north sides of the river to a point where it would cross 645th Street. At 645th Street, the trail would then run parallel to the local roadway and connect to the northbound paved shoulder along County Road 30. The total length of Segment A is approximately one mile.

This segment included two design options for connecting the trail into the City of Kellogg. These design options are described below and illustrated in *Appendix D*.

• <u>Segment A – Design Option A1</u>

The trail alignment for Design Option A1 begins at the intersection of Winona Avenue and Dodge Avenue in the City of Kellogg. From west of the CP rail corridor, the trail would follow an old roadway alignment that is currently owned by a private residence and a city owned parcel. The trail would cross over the existing CP rail line using existing roadway embankments and bridge piers that were left intact following the removal of the roadway bridge. The condition and structural integrity of the piers was not assessed as part of this feasibility study.

East of the rail corridor the trail would loop around the City's compost site and then parallel the railroad corridor to a new trail bridge crossing over the Zumbro River. An inspection of the existing piers that carried the old roadway across the Zumbro River was conducted (see *Appendix C*) and determined that re-use/repair of the piers is feasible but further consideration would be required during more detailed design.

Once on the north side of the river the trail would run adjacent to a public access road (serving the canoe landing area) before crossing over 645th Street and continuing north to County Road 30.

The planning level construction cost estimate for Segment A1 is approximately \$4.9 million (2022 dollars). This preliminary cost assumed new 10-foot-wide trail bridges (to allow

snowmobile trail grooming) over the CP railroad corridor and the Zumbro River. Reuse of the old roadway bridge piers was not considered as the condition and structural integrity of using this existing infrastructure was not assessed. The preliminary cost estimates does not include property acquisition, wetland mitigation, or other potential grant/funding related costs. A breakdown of



the cost estimate is included in Appendix E.

### • <u>Segment A – Design Option A2</u>

Design Option A2 for Segment A begins in the City of Kellogg at the intersection of Winona Avenue and Dodge Avenue. Traversing east the trail would be located on the north side of Winona Avenue and cross the CP railroad corridor at-grade. This crossing would occur at the existing signal/gated railroad crossing. However, for purposes of planning and developing



Winona Avenue Signalized/Gated Crossing of the CP Corridor (City of

cost estimates, it was assumed that additional improvements to the crossing and safety gates/signal would be required and need further coordination with the CP railroad. East of the crossing, the trail corridor would extend north along the edge of a private agricultural field. The trail would loop around the City's compost site and then parallel the railroad corridor to a new trail bridge crossing over the Zumbro River. An inspection of the existing piers that carried the old roadway across the Zumbro River was conducted (see *Appendix C*) and determined that re-use/repair of the piers is feasible but further consideration would be required during more detailed design.

Once on the north side of the river the trail would run adjacent to a public access road (serving the canoe landing area) before crossing over 645th Street and continuing north to County Road 30.

The planning level construction cost estimate for Segment A2 is approximately \$3.1 million (2022 dollars). Option A2 construction costs assumed a new trail bridge over the Zumbro River. This preliminary cost (see *Appendix E*) does not include property acquisition, wetland mitigation, or other potential grant/funding related costs.

### Segment A – Preferred Design Option

At the March 28, 2023, Study Stakeholder Meeting, Design Option A2 was favored due to lower construction costs, fewer concerns with crossing the CP railroad corridor, impacts to undeveloped agricultural land as opposed to a residential lot (as required under Design Option A1). Also, Design Option A2 does not preclude a future grade separation if this level of improvement is needed and/or desired in the future. However, the stakeholders still consider Design Option A1 a viable option and therefore did not dismiss this option from future consideration.



The preferred design option of Segment A crosses the CP rail corridor at-grade using Winona Avenue and continues north/south along the eastern edge of the rail corridor.

### **Preferred Alignment – Segment B**

Segment B of the Preferred Alignment runs along the eastern edge of County Road 30 for approximately 2.3 miles between County Road 30/81 in the south to Binner Way. The northern terminus of Segment B connects to the existing off-road trail the ends a Binner Way. To the extent possible the trail would utilize existing county road right of way, but due to challenging topography and natural features (e.g., wetlands, drainage swales, etc.) there will like be areas that will require additional right of way or temporary easements from several private properties to construct and maintain the multimodal trail.

The planning level construction cost estimate for Segment B is approximately \$1.41 million (2022 dollars). This preliminary cost does not include property acquisition, wetland mitigation, or other potential grant/funding related costs. A breakdown of the cost estimate is included in *Appendix E*.



Segment B is proposed to be located along the eastern right of way of Wabasha County Road 30 from 645<sup>th</sup> Street to Binner Way where it will connect to an existing trail.

### **Preferred Alignment – Segment C**

Segment C is not a part of the existing MRT system or associated with the primary objective of creating a multimodal trail that would safely and efficiently connect the communities of Kellogg and Wabasha. Rather, Segment C was identified in the feasibility study process as a long-range pedestrian/bike route that could serve as part of an expanded network to connect trail users to the Mississippi River area and the more developed areas of Greenfield Township with the MRT route and the Wabasha-Kellogg Public School Complex.

Segment C starts at the intersection of County Road 30 and County Road 24, and heads east towards the Mississippi River. It turns south along the river to follow County Road 24 and continues south along Greenfield Township Road T-86. At the T-intersection with 645th Street,

Segment C continues west until meeting up with Trail Segment A, near the Zumbro River crossing. In total, Segment C is approximately seven miles in length.

The planning level construction cost estimate for Segment C is approximately \$6.65 million (2022 dollars). This preliminary cost does not include property acquisition, wetland mitigation, or other potential grant/funding related costs. A breakdown of the cost estimate is included in *Appendix E*.

### V. Public Involvement

Community feedback about a prospective trail connecting Kellogg and Wabasha was collected in multiple ways in 2021 and 2022.

The first round of community feedback was solicited by the City of Wabasha through a caregiver walk/bike survey for parents and caregivers of school students. This survey was conducted in the spring of 2021 and was completed by fifty people. In the results, some safety concerns and requested safety enhancements emerged. The safety of intersections and crossings, the amount of traffic along the route, and the speed of traffic were all very commonly cited concerns as reasons children did not bike or walk to school. Those surveyed felt that increasing the safety of intersections and crossings, improvements to and construction of more sidewalks, and the installation of traffic calming measures would facilitate more biking and walking to school. While nobody reported their children biking or walking to school in the survey, almost 90 percent of those who responded reported walking or biking recreationally throughout communities. This shows strong demand for additional bicycle and pedestrian facilities for recreation as well as the potential for commuting routes.

Public feedback focused directly on the Kellogg-Wabasha Trail was collected in October 2022 at a community pop-up event that highlighted several projects around the Wabasha area, including the Downtown Streetscape Plan, the Wabasha Parks and Trails Master Plan, the Wabasha Athletic Park Relocation, and the Kellogg-Wabasha Trail Connection Project. At the pop-up event, a display board was presented that included general information about the trail alignment study, information on the Minnesota River Trail (MRT), study timeline, and the following question: "Which activities would you like to participate in along the trail?." Six options were provided: Walking/jogging, biking, rollerblading/skateboarding, ATV, and Snowmobiling, and a write-in option. Pictures of each were located on the display board and attendees were encouraged to place a sticker on the activities they would like to participate in along the trail. Ten individuals provided responses (as indicated in the number of stickers at the top of the display board (see *Appendix F*). The display board also shows the response for preferred activities with walking/jogging and biking receiving the majority of responses, but rollerblading, skateboarding, ATV, and snowmobiling were also represented with responses. Additionally, one "write-in" indicated a desire for horseback riding along the trail corridor. A copy of the display board from the October 2022 pop-up event is located in Appendix F. In general, positive feedback on a future trail connection was received in conversations with the public.

### VI. Funding Plan

Planning level cost estimates for the preferred Alignment Option and each of the phasing segments (Segments A, B, and C) were developed as part of this Feasibility Study. The segment breakdown and associated costs per project element were used by the study team to understand cost components of the trail. The project partners will further use project cost estimates to make recommendations for the pursuit of viable competitive funding opportunities (non-profit, state, and federal) to help pay for the planning, design, and construction costs associated with the trail improvements. In addition, the cost estimates will inform the project partners of the potential local match requirements they may be responsible for providing, whereby allowing the local governmental agencies to consider future budgeting and investment prioritization.

The draft Funding Plan can be found in Appendix G. This is a working document that will need to be routinely updated as funding is secured, and any new competitive programs become available.

All federally funded competitive programs require a minimum twenty percent match. The funding match requirements for state funded programs vary, and often only include construction costs as eligible components of the grant funding. Most competitive grants are reimbursement programs. The one exception to these common eligibility and match requirements is non-profit grants. Many non-profit grants do not have local match requirements and can cover any element and percentage of a desired project type. Based on the planning level estimated project cost, *local partners, including the City of Wabasha, City of Kellogg, Greenfield Township, Wabasha County, and other local organizations, should plan for a minimum \$910,000 local match* for construction, coupled with the estimated professional services costs needed to plan, design, and implement the multimodal trail improvements. It is recommended that project partners have, at minimum, the local match budgeted before pursuing competitive funding as all programs have a sunset date in which a funding agreement (full funds committed) needs to be reached and all grant funds need to be spent to complete the project. It is important to note that the first secured funding award starts the clock towards its associated sunset date.

Study partners will need to continue working together to further plan, establish a funding campaign, prepare design documents, and implement the preferred trail improvements. All partners have an active role in implementing these improvements. A multi-agency partnership also strengthens the competitiveness of future funding requests as it demonstrates community need and commitment to delivering a project and long-term maintenance of the public facility. Agencies should also update their comprehensive and transportation plans to include the findings from this feasibility study to better leverage funding sources.

### VII. Next Steps

The Kellogg-Wabasha Trail Connection Feasibility Study sought to identify the preferred alignment for a multipurpose trail connecting the communities of Kellogg and Wabasha, outline a preferred connection from the Zumbro River into the City of Kellogg, research potential challenges/constraints (property acquisition, wetlands, CP rail corridor implications, develop a funding plan and generate partnering agency support to advance the Kellogg-Wabasha Trail Connection to the next phase of project development.

Although this feasibility study explored many aspects to advance the progress of the Kellogg-Wabasha Trail Connection, there are many remaining next steps for subsequent phases of work. These next steps include engineered designs and environmental compliance for the trail and Zumbro River bridge crossing, permitting, land acquisition, and long-term ownership/maintenance agreements. The commitment of a lead entity for the trail and partnering agencies and organizations will be essential for the next phases of the Kellogg-Wabasha Trail Connection.

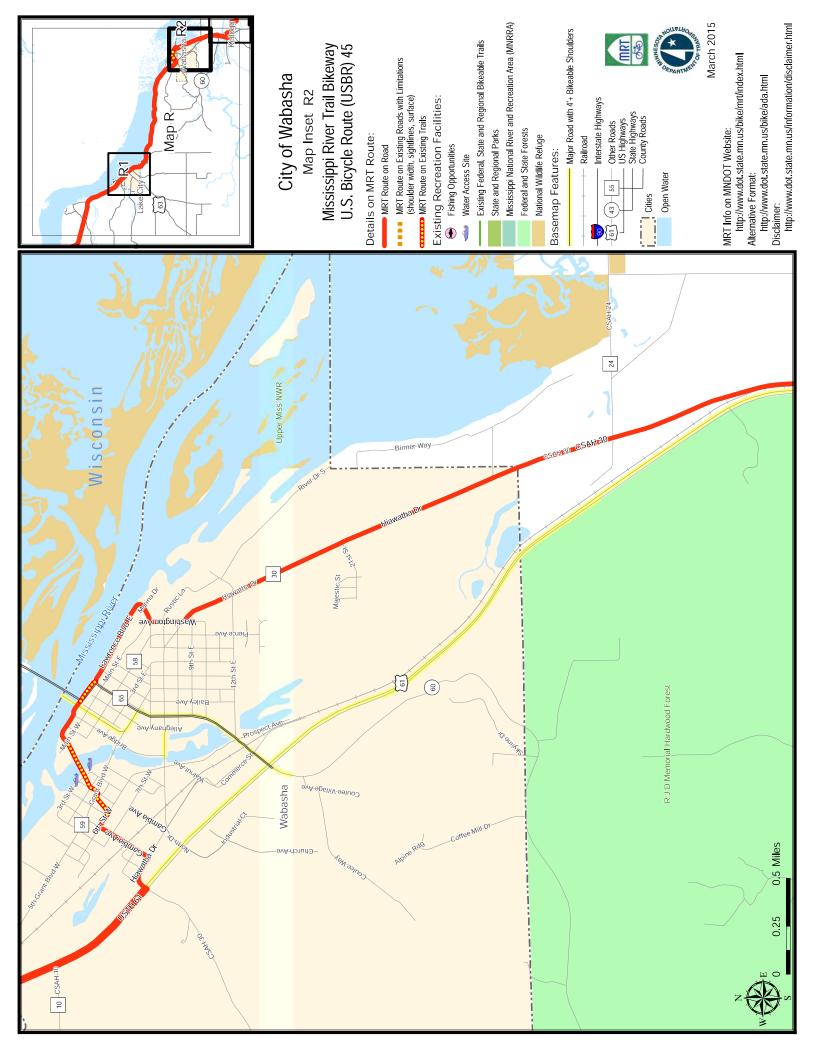
During the development of future planning, design, and construction phases, it is recommended that the study partners conduct additional community outreach. Public feedback will be especially important where specific design options consider the trade-offs between safety, cost, and timeliness of construction. During the more detailed design phase, other elements of the trail design such as stormwater management, land acquisition, and types of trail amenities (trailheads or parking, wayfinding signage, lighting, etc.) will also need to be identified. The detailed design, environmental compliance and permitting phase can be a large expense and this phase of project development is typically not eligible for reimbursement under most competitive funding programs. It is also important to note that the design phase can be expected to take at least a year but may require more time if right of way negotiations are required. Therefore, aligning construction funds with the completion of the design phase is recommended as many funding programs have strict sunset dates that may not allow enough time to start and finalize the design phase before the construction funding is programmed to be complete.

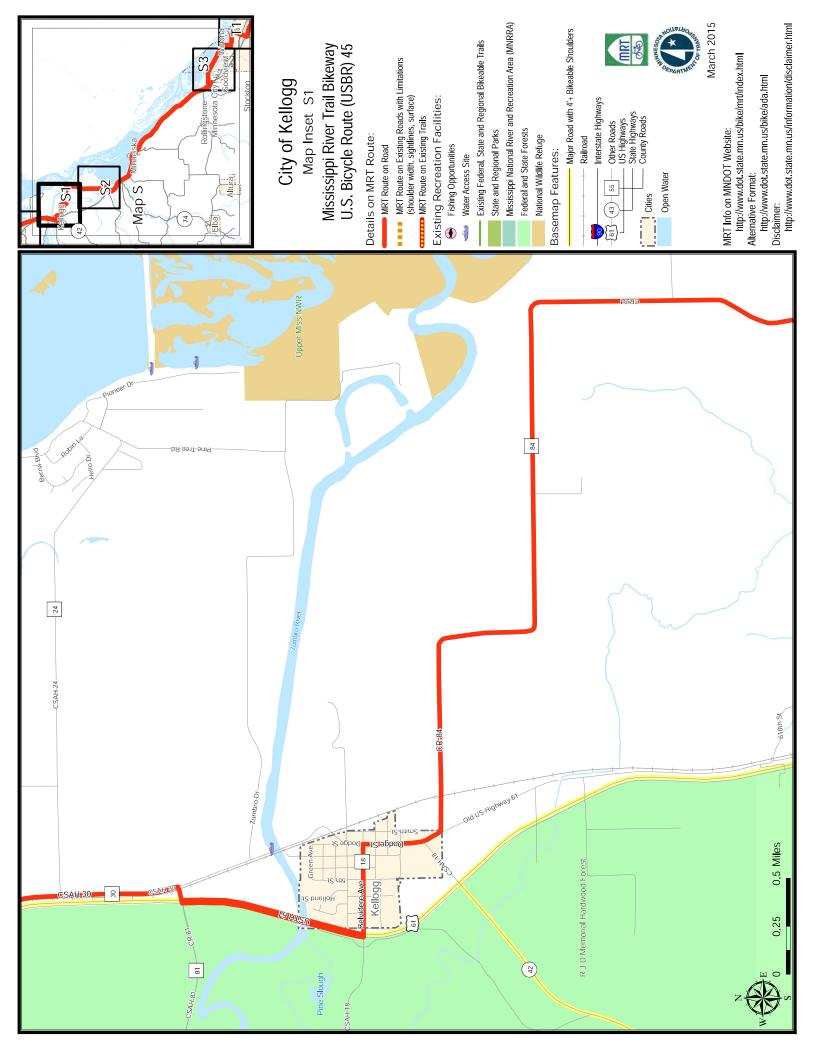
### **Other Next Steps**

There are several areas that will require further coordination, research, and planning as the trail project advances towards implementation. Below is a list of action items that the partnering agencies can pursue to keep project momentum moving forward:

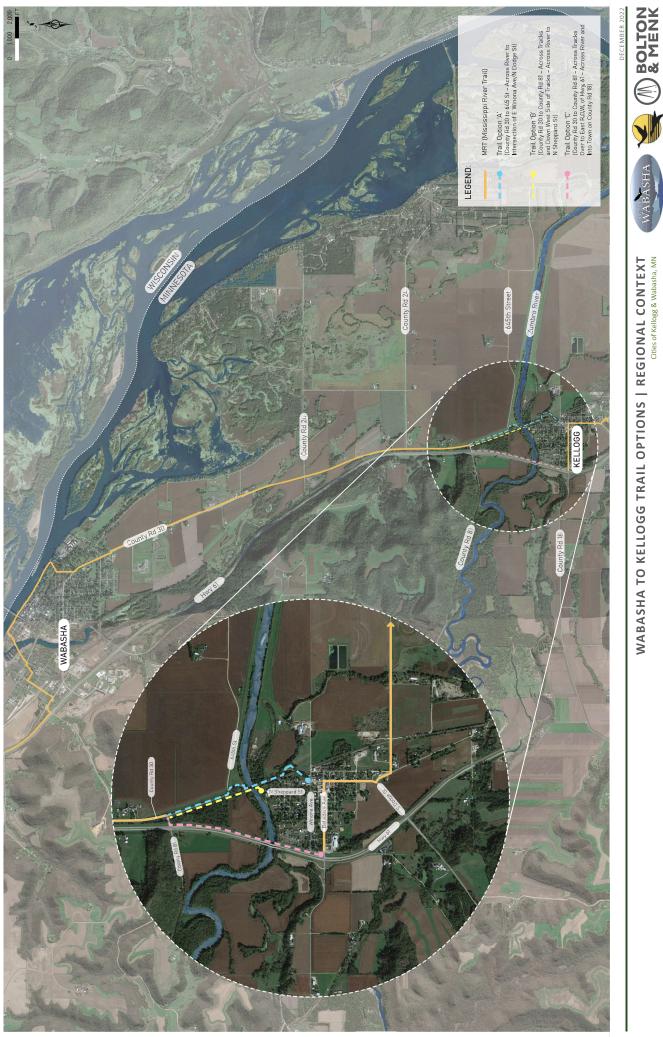
- Formation of a formal Kellogg-Wabasha Trail Connection Project joint powers Board consisting of representatives from the partner agencies (City of Kellogg, City of Wabasha, Wabasha County, Greenfield Township).
- Continue to engage other non-profits, associations, community organizations such as the Southern Minnesota Initiative Foundation (SMIF), Lions Club, snowmobile clubs, etc. as these groups can not only play an important role in future stakeholder outreach but may be able to assist with funding and/or fundraising for the implementation and maintenance of the trail.
- The inspection report for the series of old roadway bridge piers (from former Bridge No. 3618) recommended that if preliminary bridge design is commenced, any requirements related to re-use of the substructures across the Zumbro River will need to be coordinated with approving entities for the funding source, so that specific design criteria can be defined.
- A structural integrity study of the concrete piers could be conducted to assess the condition (both above and below water-level) and compatibility of utilizing this existing infrastructure.
- Continue to advance the Kellogg-Wabasha Trail Connection Project by initiating the more detailed design, environmental review, and permitting phases of the project development process. These efforts will most likely need to be funded with local dollars as these tasks are typically not eligible under many of the competitive funding programs.
- Where right of way (ROW) is needed, evaluate whether to adjust the trail design to accommodate the facility within existing public ROW or to begin land acquisition/easement negotiations. An example of adjusting the trail design would be to utilize part of an existing roadway shoulder, drainage backslope, or to compromise on buffer width for a segment where ROW is constrained along a given parcel.
- Continue to track and seek competitive grant funds through a variety of non-profit, state, and federal funding programs. Once the partnering agencies have identified local sources of funds to cover the "local match" requirements, there should be an aggressive approach to pursue funds through the preparation and submittal of funding program applications.

Appendix A: Mississippi River Trail (MRT) Maps

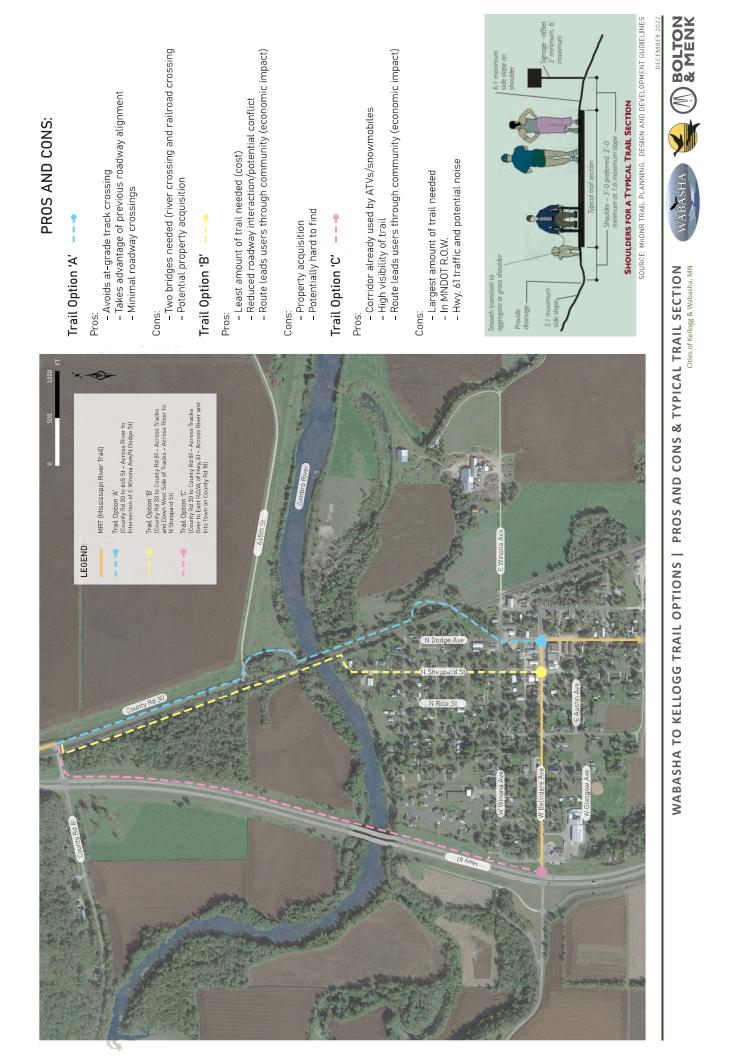




### Appendix B: Kellogg-Wabasha Trail Alignment Options



BASHA WABASHA TO KELLOGG TRAIL OPTIONS | REGIONAL CONTEXT Cities of Kellogg & Wabasha, MN



Appendix C: Stonebrooke Substructure (old Bridge N. 3618) Inspection Memorandum



a 12279 Nicollet Avenue Burnsville, MN 55337 o 952.402.9202 f 952.403.6803 w stonebrookeengineering.com

Dietrich Flesch, PE Wabasha County Engineer 821 Hiawatha Drive West Wabasha, MN 55981

Reference: Old Bridge No. 3618 - Substructure Review

Dear Mr. Flesch,

We inspected the above referenced bridge substructures on July 7, 2023, for the purpose of evaluating the current condition, and feasibility of possible re-use to support a trail bridge. South Abutment and Piers 1-5 (1 furthest south) were inspected, and currently do not support a superstructure (superstructure removed in the past). A boat was used to access Pier 1.

### Summary of Inspection and Substructures Condition

The bridge substructures concrete is overall sound and appears to be of satisfactory quality, with areas of localized deterioration and a few noteworthy cracks. Inspection access was good, and an underwater inspection of Pier 1 is not needed. The bridge seats are currently above the low member of the RR bridge just to the west. If the substructures were to be used to support a new superstructure, the top approximate 2' or so (depending on condition and new geometry) should likely be cutoff and rebuilt to accommodate the new superstructure. Here is a brief summary per substructure, and the inspection pictures can be referred to for additional detail.

South Abutment:

- Appears overall stable and concrete sound.
- Front face needs concrete surface repair, as well as top of wingwalls.
- Southwest wingwall has a structural crack with past movement, that likely can be repaired.
- Southeast wingwall has similar but much less profound crack, no movement.

### Pier 1:

- Concrete deterioration in the area of the waterline consisting of scour, spalls, and delaminations that should be repaired. Pushing in sheet piling for dewatering and leaving in place for protection going forward is a possible repair option.
- A few other surface repairs above the area of waterline are also needed.
- Probing indicated that current channel bottom varies approximately 2' 3' in elevation, and lowest areas upstream and downstream ends seem to be at least 1' above top of footing.

Pier 2:

• Located on north channel bank (dry during low water) very little deterioration but exposed rebar from lack of concrete cover, minor surface repairs needed.

Pier 3:

• Has concrete surface deterioration, but would likely be removed due to short pier spacings.

Pier 4:

• Has concrete surface deterioration but not extensive, could be repaired. Has horizontal crack near top, proposed cutline for replacing top could be located at crack to eliminate it.

Pier 5:

- Has concrete surface deterioration ends, and delaminations south face, so surface repair would be needed.
- Possible location of future abutment, so more in depth analysis would be needed to determine if Pier 5 is repaired and modified, partially removed (such as to top of footing), or completely replaced.
- It should be noted that having been originally designed as a pier, structurally was not intended to support unequal earth loads. So, if re-using as an abutment in part or total, embankment would need to be constructed to similar elevation on both faces (north and south).

### **Engineering Preliminary Overview**

Based on the field inspection, in our opinion repair and re-use of the bridge substructures appears feasible with some repair and modifications as summarized above. No structural analysis was completed as part of this abbreviated evaluation, but based on overview of the original plans, the substructures have good potential for adequate structural capacity. Pier 1 and Pier 2 are a robust design originally supporting long bridge spans. All of the substructure footings are supported by piling, and because the substructures appear to have been stable since constructed, future instability appears unlikely unless loading different than the original design is introduced with new construction. If preliminary bridge design is commenced, any requirements related to re-use of the substructures to satisfy approving entities for the funding source used, should be defined.

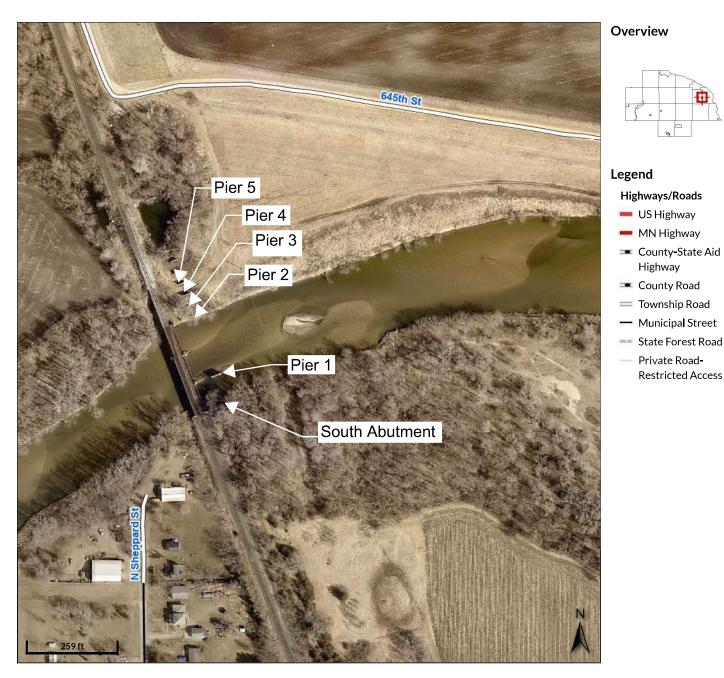
If there are any questions on our summary or observations of the bridge, please do not hesitate to contact us.

Sincerely,

Kon Bonion

Ron Benson, PE Bridge Engineering Manager (952) 540-4851

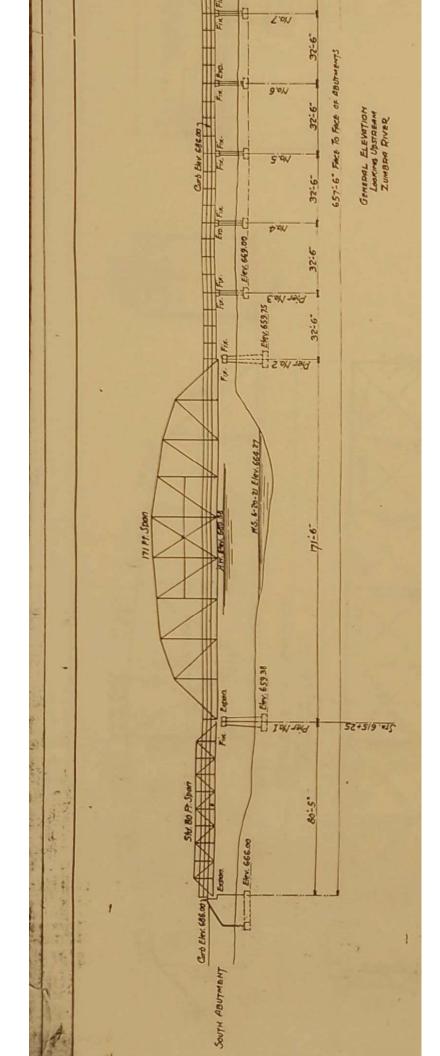
### Beacon<sup>™</sup> Wabasha County, MN



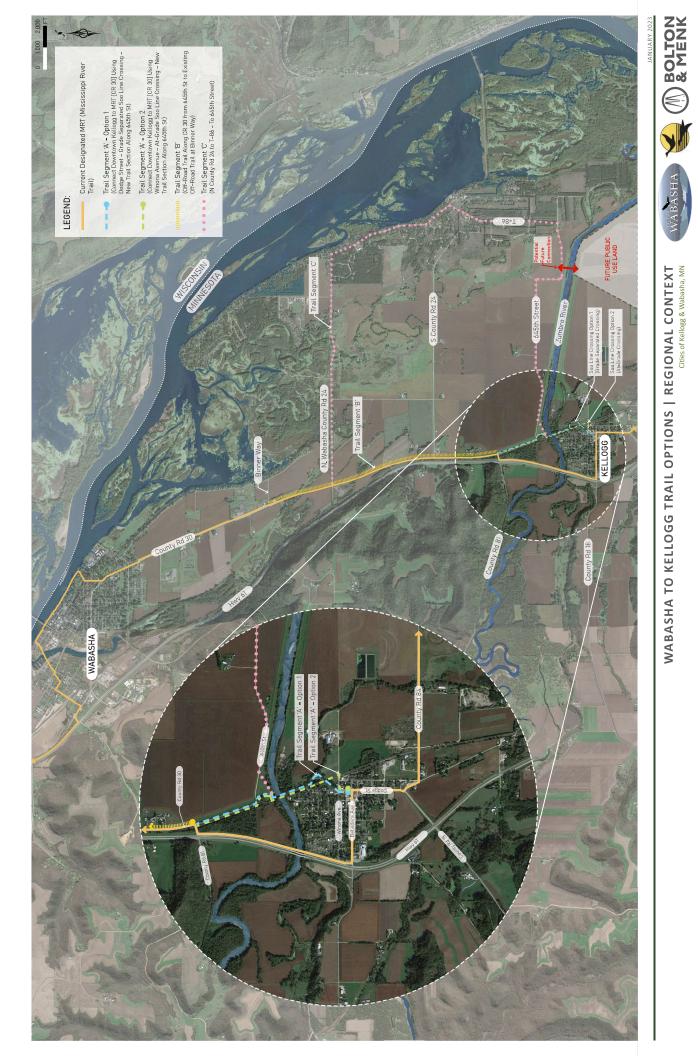
Aerial Photos were collected in Spring 2022 by Eagleview and are  $6^{\prime\prime}\!/2^{\prime\prime}$  resolution.

Date created: 7/21/2023 Last Data Uploaded: 7/21/2023 1:35:56 AM





Appendix D: Preferred Alignment and Segment/Phasing Map





# WABASHA TO KELLOGG TRAIL OPTIONS | ENLARGED PLAN & TYPICAL TRAIL SECTION Cities of Kellogg & Wabasha, MN

SOURCE: MADNR TRAIL PLANNING, DESIGN AND DEVELOPMENT GUDIELINES

### Smooth transition to agregate ar gress shoulder frondie 3:1 movimum 4:1 movimum 3:1 movimum 4:1 movimum 3:1 movimum 4:1 movimu



Appendix E: Preliminary Cost Estimates



### PRELIMINARY PROJECT COST ESTIMATE WABASHA TO KELLOGG TRAIL STUDY CITY OF WABASHA, MN

### BMI PROJECT NO.: 0H1.128621

Updated: 02/01/2023

### SEGMENT 'A' (Dodge St. to 645th St.)

tem	Item Description	Unit	Est. Qty	Notes	Unit Cost	٦	Total Cost
1	Mobilization	LS	1		\$180,000		\$180,00
2	3" Bituminous Trail (8' wide)	LF	5,280	(includes all elements necessary to install trail)	\$70		\$369,60
3	Prefabricated Bridge @ Soo Line RR crossing	LS	1		\$1,500,000		\$1,500,00
4	Prefabricated Bridge @ Zumbro River crossing	LS	1		\$1,200,000		\$1,200,00
5	Traffic Control	LS	1		\$5,000		\$5,00
6	Turf Establishment (approx. 10' width- both trail edges)	AC	2.5		\$6,500		\$16,25
ΓΟΤΑ	L PROJECT COST SUMMARY			CONSTRUCTION SUBTOTAL:		\$	3,270,850
				CONSTRUCTION CONTINGENCIES:	20%	\$	650,000
				CONSTRUCTION COST:		\$	3,920,850
			ESTIM/	ATED LEAF (LEGAL, ENGR., ADMIN., FINANCE):	25%	\$	980,000
			E			•	
				STIMATED PROJECT TOTAL (SEE NOTES):		\$	4,901,000
Optio	n 2 (at-grade RR crossing)		Ex	STIMATED PROJECT TOTAL (SEE NOTES):		\$	4,901,000
Optio Item	n 2 (at-grade RR crossing) Item Description	Unit		Notes	Unit Cost		4,901,000 Total Cost
•		Unit LS	_				Total Cost
tem	Item Description		_		Unit Cost		<b>Fotal Cost</b> \$180,00
tem 1	Item Description Mobilization	LS	Est. Qty	Notes	Unit Cost \$180,000		Total Cost \$180,00 \$369,60
tem 1 2	Item Description Mobilization 3" Bituminous Trail (8' wide)	LS LF	Est. Qty 1 5,280	Notes	Unit Cost \$180,000 \$70		
tem 1 2 3	Item Description Mobilization 3" Bituminous Trail (8' wide) At Grade @ Soo Line RR crossing	LS LF LS	Est. Qty 1 5,280 1	Notes	Unit Cost \$180,000 \$70 \$300,000		<b>Fotal Cost</b> \$180,00 \$369,60 \$300,00
tem 1 2 3 4	Item Description           Mobilization           3" Bituminous Trail (8' wide)           At Grade @ Soo Line RR crossing           Prefabricated Bridge @ Zumbro River crossing	LS LF LS LS	Est. Qty 1 5,280 1 1	Notes	Unit Cost \$180,000 \$70 \$300,000 \$1,200,000		<b>Fotal Cost</b> \$180,00 \$369,60 \$300,00 \$1,200,00
tem 1 2 3 4 5 6	Item Description           Mobilization           3" Bituminous Trail (8' wide)           At Grade @ Soo Line RR crossing           Prefabricated Bridge @ Zumbro River crossing           Traffic Control	LS LF LS LS LS	Est. Qty 1 5,280 1 1 1 1	Notes	Unit Cost \$180,000 \$300,000 \$1,200,000 \$10,000 \$6,500		<b>Fotal Cost</b> \$180,00 \$369,60 \$300,00 \$1,200,00 \$10,00
em 1 2 3 4 5 6	Item Description Mobilization 3" Bituminous Trail (8' wide) At Grade @ Soo Line RR crossing Prefabricated Bridge @ Zumbro River crossing Traffic Control Turf Establishment	LS LF LS LS LS	Est. Qty 1 5,280 1 1 1 1	Notes (includes all elements necessary to install trail)	Unit Cost \$180,000 \$70 \$300,000 \$1,200,000 \$10,000 \$6,500	\$	Fotal Cost           \$180,00           \$369,60           \$300,00           \$1,200,00           \$10,00           \$16,25           2,075,850
tem 1 2 3 4 5 6	Item Description Mobilization 3" Bituminous Trail (8' wide) At Grade @ Soo Line RR crossing Prefabricated Bridge @ Zumbro River crossing Traffic Control Turf Establishment	LS LF LS LS LS	Est. Qty 1 5,280 1 1 1 1	Notes (includes all elements necessary to install trail) CONSTRUCTION SUBTOTAL:	Unit Cost \$180,000 \$300,000 \$1,200,000 \$10,000 \$6,500 20%	\$	Total Cost \$180,00 \$369,60 \$300,00 \$1,200,00 \$10,00 \$16,25
tem 1 2 3 4 5 6	Item Description Mobilization 3" Bituminous Trail (8' wide) At Grade @ Soo Line RR crossing Prefabricated Bridge @ Zumbro River crossing Traffic Control Turf Establishment	LS LF LS LS LS	Est. Qty 1 5,280 1 1 1 2.5	Notes (includes all elements necessary to install trail) CONSTRUCTION SUBTOTAL: CONSTRUCTION CONTINGENCIES:	Unit Cost \$180,000 \$300,000 \$1,200,000 \$10,000 \$6,500 20%	\$ \$ \$	Total Cost \$180,00 \$369,60 \$300,00 \$1,200,00 \$10,00 \$16,25 2,075,850 420,000

SEGM	ENT 'B' (645th St. to Binner Way along CR30)						
ltem	Item Description	Unit	Est. Qty	Notes	Unit Cost	Тс	otal Cost
1	Mobilization	LS	1		\$45,000		\$45,000
2	3" Bituminous Trail (8' wide)	LF	12,150	(includes all elements necessary to install trail)	\$70		\$850,500
3	Traffic Control	LS	1		\$5,000		\$5,000
4	Turf Establishment	AC	6		\$6,500		\$39,000
TOTAL PROJECT COST SUMMARY				CONSTRUCTION SUBTOTAL:		\$	939,500
CONSTRUCTION CONTINGENCIES:						\$	190,000
				CONSTRUCTION COST:		\$	1,129,500
			ESTIMA	ATED LEAF (LEGAL, ENGR., ADMIN., FINANCE):	25%	\$	280,000
			ES	STIMATED PROJECT TOTAL (SEE NOTES):		\$	1,410,000

SEGMENT 'C' (N. CR24 to T-86 to 645th St))									
ltem	Item Description	Unit	Est. Qty	Notes	Unit Cost	Т	Fotal Cost		
1	Mobilization	LS	1		\$210,000.00		\$210,000		
2	3" Bituminous Trail (8' wide)	LF	36,960	(includes all elements necessary to install trail)	\$70		\$2,587,200		
3	Prefabricated Bridge Alolng CR24 @ River crossing	LS	1		\$1,500,000		\$1,500,000		
4	Traffic Control	LS	1		\$20,000		\$20,000		
5	Turf Establishment	AC	17		\$6,500		\$110,500		
TOTAL	TOTAL PROJECT COST SUMMARY CONSTRUCTION SUBTOTAL:						4,427,700		
				CONSTRUCTION CONTINGENCIES:	20%	\$	890,000		
				CONSTRUCTION COST:		\$	5,317,700		
			ESTIMA	ATED LEAF (LEGAL, ENGR., ADMIN., FINANCE):	25%	\$	1,330,000		
	ESTIMATED PROJECT TOTAL (SEE NOTES): \$ 6,648,00								

NOTES:

1 All cost estimates utilized 2022 project pricing. Project costs should be adjusted for inflation to the year of construction for any funding pursuits.

2 The above project costs do not include property acquisition, wetland mitigation and other potential grant related costs.

3 LEAF costs include legal, engineering, admistration, finance and other costs to complete project development.

### Appendix F: October 2022 Pop-Up – Public Meeting Display Board





## INTRODUCTION

What does a trail look like?

partnership to develop a shared use trail to cross the Zumbro River and connect Wabasha and Kellogg, along with other local organizations, are working in the communities. The goals for development of this trail are to:

 Improve safety and provide an alternate trail connection from the U.S. 61 highway route

paved surface

intended for

8- to 12-foot generally an

A trail is

- Support recreation for various users such as bicycles, ATVs, snowmobiles, etc.
- Support economic development in attracting businesses and tourism

The City of Kellogg has received a planning assistance grant to complete phase 1 of the trail study. Additional grant funds have been sought to complete phase 2.

depending on desired use and maintenance budgets. Trail design will be determined as

not be plowed

in winter

It may or may multiple uses

part of this study.

## TIMELINE

September through December 2022 Phase 1

Evaluate trail alignment alternatives and January through April 2023 Phase 2\*

What happens

acquisition needs, refine cost estimate, and identify preferred alignmnet. Identify outline funding opportunities. Stakeholder engagement will occur throughout study process to solicit feedback on desired trail use and issues and opportunities in the search area

\*Phase two to occur with procurement of additional grant funding.

information needed to the Cities will have the after the study? projects and apply for identify construction Following the study, trail connections. A study provides the first step to implementing funding.

## WHICH ACTIVITIES WOULD YOU LIKE TO PARTICIPATE IN ALONG THE

**FRAIL?** Share your opinion by adding a sticker to the activities you would like to participate in.





BOLTON & MENK

WABASHA

Cities of Kellogg & Wabasha, MN

WABASHA TO KELLOG TRAIL ALIGNMENT STUDY

OCTOBER 2022

8 sides of the river, totals more than 800 miles. (Source: Minnesota Department of Transportation)

Appendix G: Funding Plan



### Wabasha Kellogg Trail Connection

Draft Funding Plan City of Wabasha, Minnesota City of Kellogg, Minnesota May 2023



Investment Needed								
ltem	Segment A (Option 2) - Dodge St to 645th St	Segment B - 645th St to Binner Way along CR30		Total	Notes			
Construction Cost	\$ 2,495,850	\$ 1,129,500		\$ 3,625,350	All cost estimates utilized 2022 project pricing. Project costs should be adjusted for inflation to the year of construction for any funding pursuits.			
Professional Services	\$ 620,000			Professional Services costs include legal, engineering, admistration, finance and other				
Total Cost	\$ 3,115,850	\$ 1,409,500		\$ 4,525,000	The above project costs do not include property acquisition, wetland mitigation and other potential grant related costs.			

Funding Sources									
		Fund	ling Eligibility						
Sources	Status	Construction	ROW	Professional Services	Comments				
Competitive Federal Funding Opportunities									
Transportation Alternatives \$800,00	0 Future Request	х			20% match required. Next solicitation anticipated in Fall 2023				
Congressionally Directed Spending Request (Earmark) \$1,000,00	0 Future Request	x	х	х	20% match required. Likely not the top priority ask for the City of Wabasha				
MnDNR Federal Recreational Trail Program \$250,00	0 Future Request	х	х		25% match required. Next solicitation anticipated in January 2024. These funds are typically spoken for 5 fiscal years out.				
subtotal \$2,050,00	0		1						
Competitive State Funding Opportunities									
MnDOT Active Transportation Program \$500,00	0 Future Request	x		x	Can request project development or implementation dollars. This program prioritizes projects that already have federal funds and need match dollars. Next solicitation anticipated in Summer 2023.				
State Bonding Bill \$1,000,00	0 Future Request	x	х	х	Funding from the State Bonding Bill is eligible for both ROW and professional services costs. Expected Spring 2024.				
MnDOT Safe Routes to School Program \$500,00	0 Future Request	x			This program is dependent on a state bonding bill. Next solicitation anticipated in Summer 2023.				
Local Partnership Program (LPP) \$710,00	0 Future Request	x		x	Greater MN trail connections do get funded through this program if you can demonstrate that there is a benefit to the trunk highway in which this is rerouting a planned state trail				
MnDNR Regional Trails or Local Trail Connection Program \$300,00	0 Future Request	x	x		25% Match required. Next solicitation anticipated in January 2024.				
subtotal \$3,010,00	0								
Competitive Nonprofit Funding Opportunities									
Southern Minnesota Initiative Foundations Small Towns Grants \$10,00	0 Future Request	x			Study funded by the Southern Minnesota Initiative Foundation. Next solicitation closes June 26, 2023.				
People for Bikes Community Grants \$10,00	0 Future Request	x			100% match required. Next solicitation closes October 31, 2023.				
Laura Jane Musser Fund Environmental Initiative Grants \$35,0	0 Future Request	x			Next solicitation anticipated in March 2024.				
subtotal \$55,00	0								
City of Wabasha									
Project Development \$442,50	0 Firm			x	Project development costs account for anticipated professional services associated with the project.				
General Project Contribution	0 Future Request	x	x	x	P9				
Construction Administration / Inspection	0 Future Request	x		х					
subtotal \$442,50	0								
City of Kellogg									
Project Development \$457,50	0 Firm			x	Project development costs account for anticipated professional services associated with the project. \$15,000 added to account for Small Town Grant.				
General Project Contribution	0 Future Request	x	х	х					

х

х

\$0 subtotal \$457,500 Future Request

Other Ideas: Continued requests from area non profits, fundraising from the snowmobile club

Construction Administration / Inspection

Funding	g Status	
i unung	Jotatus	
Firm	\$	900,000
Requested	\$	-
Future Request	\$	5,115,000
Total of Identified Opportunities	\$	6,015,000
Total Need (Cost of Project)	\$	4,525,000
Funding Gap (Firm - Total Need)	\$	(3,625,000)

### **Services Provided:**

- Civil & Municipal Engineering Water & Wastewater Engineering Transportation Planning & Engineering Structural Engineering Aviation Services Water Resources Engineering Landscape Architecture
- Land Surveying
- Geographic Information System
- Project Funding & Financing

### **Bolton-Menk.com**