

Lake Wobegon Trail Extension

Stearns County



Feasibility Study

December 2010

LAKE WOBEGON TRAIL EXTENSION FEASIBILITY STUDY

Stearns County Parks

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Prepared by:

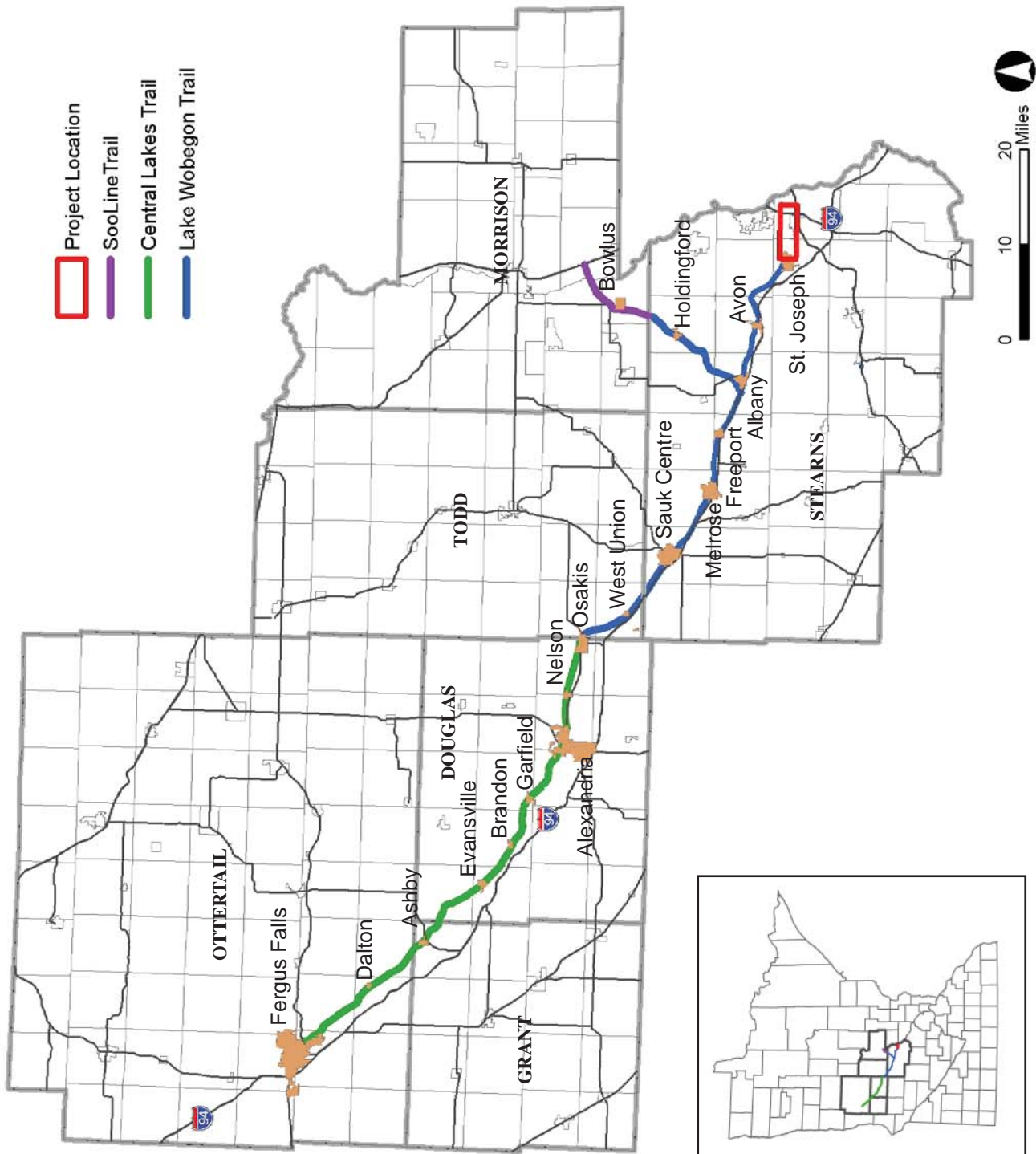


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CENTRAL MINNESOTA REGIONAL TRAILS



PROJECT LOCATION



TRAIL SECTIONS-	
1- Station 00+00 to Station 35+00	4- Station 167+00 to Station 179+00
2- Station 35+00 to Station 130+00	5- Station 179+00 to Station 202+00
3- Station 130+00 to Station 167+00	6- Station 300+00 to Station 330+50



INTRODUCTION

Stearns County Parks is in the planning phase of a project that will include design and construction of an extension to the Lake Wobegon Trail east from its current terminus at County Road 133 in St. Joseph. The trail will extend through the City of Waite Park to 33rd Avenue N. in St. Cloud and will add an additional 5.27 miles of paved, multi-use trail which will connect rural communities with the largest metropolitan area of the County. The trail will complement the existing Stearns County 2010 Bikeway Plan and the Area Planning Organization Bicycle and Pedestrian Plan.

The Lake Wobegon Trail is a 62-mile, paved multi-use trail that currently extends through central Minnesota from the city of Osakis to the city of St. Joseph. Fifty-four miles of the trail are in Stearns County. The trail is a very popular regional amenity that is frequently used by residents of the adjacent communities and by many others who travel to the area specifically to use the regional trail. The Lake Wobegon Trail extension project will lengthen the trail from St. Joseph to St. Cloud with future connections planned by the city of St. Cloud that will bring the trail to the Mississippi River and connect with the Beaver Island Trail. The trail will provide a viable commuting route for people living and working along the corridor who prefer an active means of transportation to and from work or shopping.

The Lake Wobegon Trail Extension will be a four-season trail. Typical uses in the spring, summer and fall months may include walking, bicycling, in-line skating and running. Winter use may include snowmobiling from River's Edge Park to the west. No snowmobile use will be allowed east of River's Edge Park.

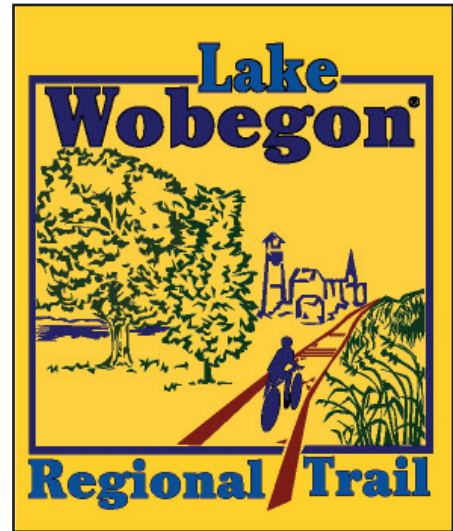
PROJECT INFORMATION

Adjacent Land Use

The proposed trail will pass through light industrial and residential land uses. The western section of the trail corridor is primarily rural with light industry along the northern edge of the railroad corridor. The eastern end of the corridor runs through the City of Waite Park and St. Cloud where the adjacent uses are primarily commercial, residential and public, in the form of a city park.

Right-Of-Way

The proposed trail will be a multi-use recreational trail similar to the existing trail segment west of County Road 133. The trail will be within and adjacent to the BNSF Railway corridor and will utilize railroad right-of-way, county road right-of-way and public land, where possible. The trail will utilize railroad right-of-way for approximately 3.5 miles, public land for approximately 1.5 miles and private land for approximately .3 miles



Winter use on the Lake Wobegon Trail.



Light industrial land use adjacent to the corridor.



Horizontal/Vertical Alignment

The topography of the corridor is generally level terrain. The trail route is adjacent to an active railroad, thus the alignment is generally straight with gradual curves to the Sauk River. On the east side of the Sauk River the trail veers south through River's Edge Park and along city streets until the trail re-enters railroad property at Waite Avenue North.

Bridge Crossings

The proposed trail will cross over the Sauk River west of River's Edge Park. A new trail bridge, approximately 200 LF in length, will be required for the river crossing.

Railroad Crossings

The trail will cross one active railroad line at proposed trail station 313+75, just west of the State Highway 15 overpass.

Trailhead Facilities

No trailhead facilities are planned for this segment of trail.

No-Build Alternatives

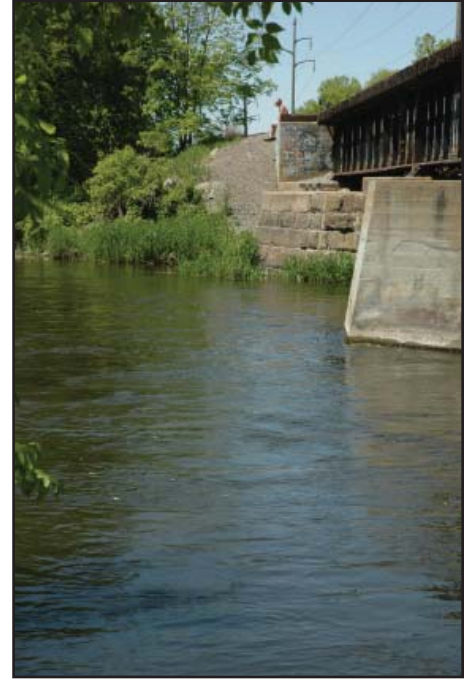
The No-Build Alternative would not allow the Lake Wobegon Regional Trail to connect to the urban core of Waite Park and St. Cloud. Without the trail, plans developed by the County, with input from citizens and elected officials, to develop a multi-use recreational trail between the City of Osakis and St. Cloud would not be implemented. Related economic development opportunities associated with recreation and tourism would be lost. Furthermore, recreational and active transportation opportunities as well as a safe biking and walking trail for County residents would be lost.

Design/Construction Alternatives

Other material options for the trail surface were not considered for this trail plan for the following reasons. A bituminous surface requires less frequent maintenance thus making it more cost effective than other treatments; it provides a stable surface for a wide variety of trail uses thus attracting more users, and it can be used in a wider range of weather conditions such as spring thaw. A bituminous trail surface is also consistent with the adjoining Lake Wobegon Regional Trail.

Alternative Trail Alignments

There are few, if any, options for trail locations between the current terminus of the Lake Wobegon Trail and the Sauk River that are as beneficial as the proposed trail route. Other alignments off the rail corridor would have a very high likelihood of greater impacts on social, economic, and environmental resources. East of the Sauk River, the proposed trail utilizes public property and connects with existing trails to provide good public access through Waite Park. An alternative east of the Sauk River that was considered was to extend the trail along the railroad corridor instead of placing the trail through River's Edge Park. This alignment would require two additional rail crossings, one in an area with challenging sight lines and multiple



Existing Sauk River Railroad Bridge.



The Lake Wobegon Trail in Avon.



track spurs converging in close proximity to where the trail would need to cross. It would also require crossing 10th Avenue at mid-block, rather than at a signalized crossing.

Public Informational Meetings

The public was invited to attend an open house in May 2007 to provide input on trail connections to downtown St. Cloud from the Lake Wobegon Trail and from Rockville along the proposed Rocori Trail as part of the Rails to Trails Feasibility Study.

Additional public meetings will be scheduled prior to project letting.

Other Public Involvement

Stearns County Parks staff members have discussed trail connections with staff in St. Cloud and in Waite Park. The 2010 Stearns County Bikeway Plan summarizes additional research and public involvement including surveys and open houses that the Stearns County Parks staff has undertaken over the last several years. Parks staff conducted a survey in 2007 of all cities and townships in Stearns County to find out what bikeway facilities they currently have and what facilities they envision in the future. The predominant public interest at the St. Joseph public meeting was the extension of the Lake Wobegon Trail into St. Cloud.

TRAIL DESCRIPTION

The proposed Lake Wobegon Trail extension starts in a rural/light industrial setting and extends through or near business parks, residential neighborhoods, city parks and urban settings. The proposed trail can be divided into distinct sections, as described below.

Section 1: Station 00+00 to Station 35+00 (CR 133 to Borgert Products)

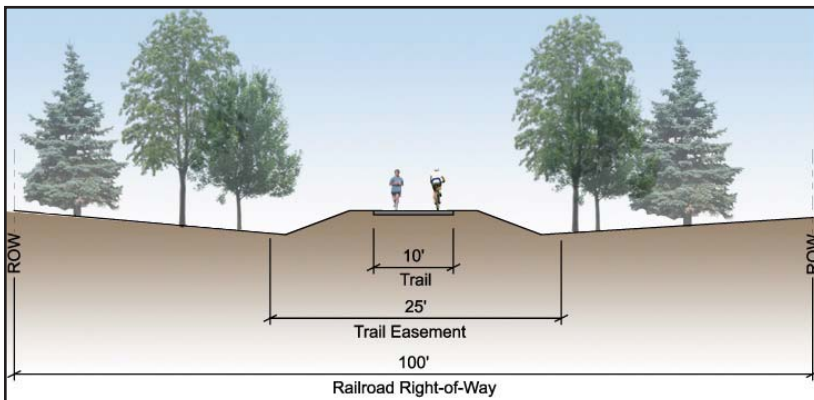
The proposed trail will utilize BNSF Railroad right-of-way for significant portions of the route. The BNSF right-of-way is 100 feet wide throughout the proposed trail route. The first ½ mile of the trail will be constructed on the unused rail bed, until the point just west of where the tracks are used for loading at the Borgert Products facility.



The proposed trail will utilize the existing rail bed just east of CR 133 in St. Joseph.

Section 1 Road Crossings:

- CR 133



Section 1: Typical Section



**Section 2: Station 35+00 to Station 130+00
(Borgert Products to Ridgewood Road)**

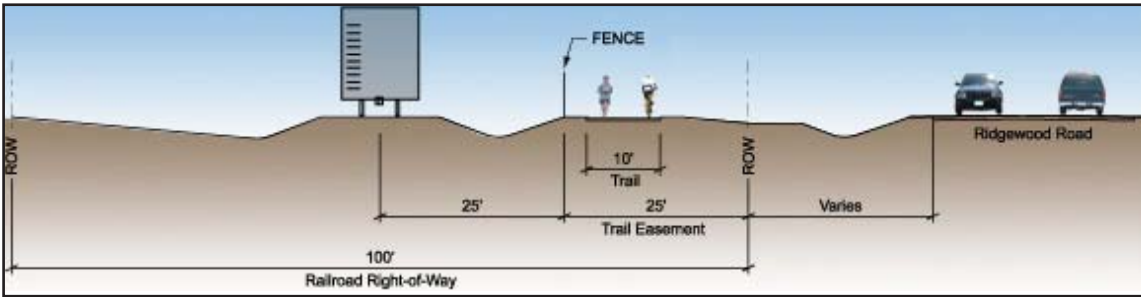
Just west of Borgert Products, the trail will divert to the south edge of the BNSF right-of-way. When in the railroad right-of-way, the trail will be a minimum 28 feet from the centerline of the tracks to the closest edge of the trail. A chain link fence will be constructed three feet from the edge of the trail to separate it from the tracks.



Open right-of-way along CR 133.

Section 2 Road Crossings:

- Borgert Products and AMCON business entrance
- Ridgerview Court
- Pearl Drive
- Manions business entrance
- CR 134/Ridgewood Road



Section 2: Typical Section

**Section 3: Station 130+00 to Station 167+00
(Ridgewood Road to Saukview Drive)**

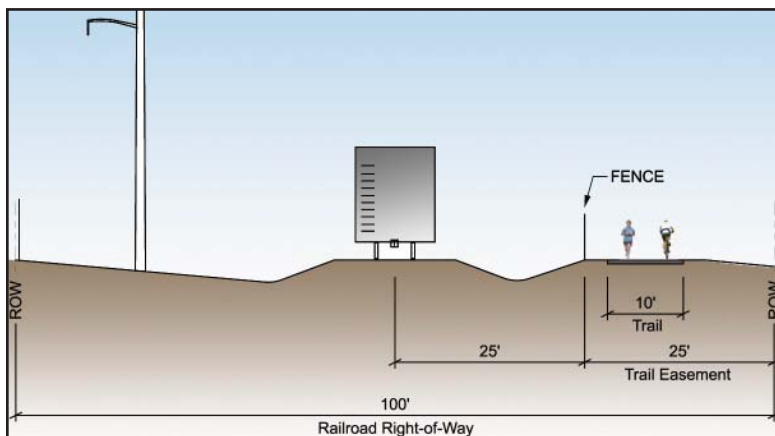
East of Ridgewood Road (CR 134) the trail will divert to the south from the railroad right-of-way to avoid steep slopes that are covered with mature oak trees. The trail will cross three private properties in this area: Nash Finch Co., Bankers Systems, Inc. and HRA of St. Cloud. The trail will pass on the north edge of the Bankers Systems, Inc./Wolters Kluwer Financial Systems parking lot which will provide an opportunity for a local trail connection to the trail. Once past the steep slopes, the trail will again utilize the railroad right-of-way to and across Saukview Drive.



The trail will utilize the outside of the railroad right-of-way between the road and the tracks.

Section 3 Road Crossings:

- Saukview Drive



Section 3: Typical Section



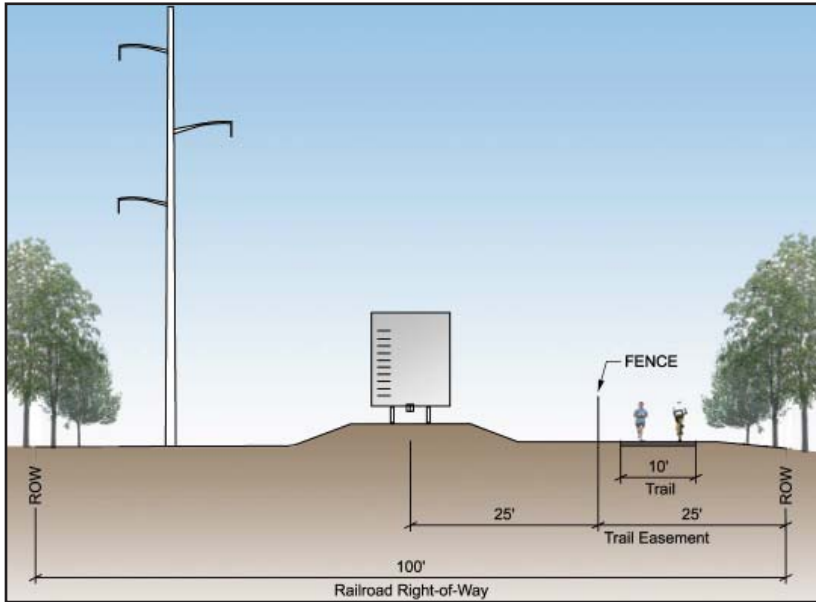
Road crossing at Saukview Drive.



**Section 4: Station 167+00 to Station 179+00
(Saukview Drive to River's Edge Park)**

The trail will maintain its location on the outside edge of the south railroad right-of-way from Saukview Drive to the Sauk River. A new trail bridge will be constructed to cross the Sauk River south of the existing BNSF Railroad Bridge.

There are no road crossings in Section 4.



Section 4: Typical Section



Railroad corridor as it approaches the Sauk River from the east.

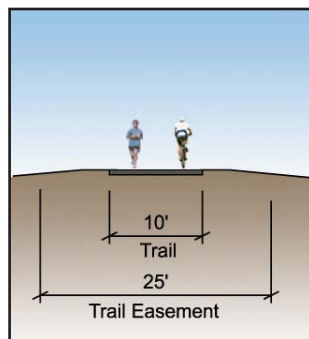


The existing Sauk River railroad bridge.

**Section 5: Station 179+00 to Station 202+00
(River's Edge Park)**

The east abutment of the proposed trail bridge will be in River's Edge Park and the trail will wind south and east through the park, around west and south sides of the baseball complex to the northwest corner of the 3rd St. N. and 10th Ave. N. intersection, which is regulated with a traffic signal. The trail will utilize the City of Waite Park's newly constructed Harold P. Nelson Trail which runs along the north side of 3rd Ave. N. and along the west side of Waite Avenue N.

There are no road crossings in River's Edge Park.



Section 5: Typical Section



River's Edge Park.



River's Edge Park.



**Section 6: Station 300+00 to Station 330+50
(Waite Ave N to 33rd Ave N)**

The trail will cross Waite Avenue N. at 5th Street N. and will proceed east in the BNSF right-of-way, south of an unused set of tracks and north of a holding pond. Just west of the State Highway 15 overpass the trail will cross one set of BNSF tracks and will proceed on the south side of the gravel access road from the overpass east to the trail terminus at 33rd Avenue N. in St. Cloud.

Section 6 Road Crossings:

- Waite Avenue N.



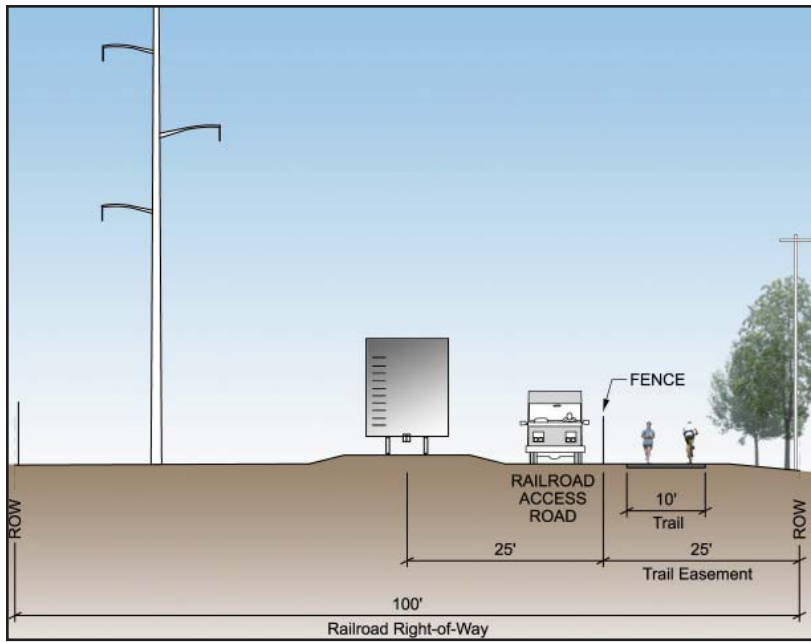
The view looking west from State Highway 15.



The railroad corridor under the State Highway 15 Bridge.



Looking east from 33rd Avenue in St. Cloud toward the State Highway 15 Bridge.



Section 6: Typical Section

The trail will be 10 feet wide with a minimum two-foot wide grass clear-zone on each side. The trail will have a bituminous surface. A bituminous trail surface was selected because it is more cost effective than other treatments, offers a wide variety of trail uses attracting more users, and is consistent with the existing Lake Wobegon Trail to which this trail will connect.

The current condition of the proposed trail corridor varies from being a packed and relatively flat rail bed covered in ballast material to a grass-covered right-of-way. There are several locations where the proposed corridor will pass near drainage swales which may require additional grading to maintain drainage patterns. Site preparation along the corridor will require standard construction preparation, tree trimming, minor excavation, sub-grade preparation and miscellaneous removals. Minimal grading will be necessary when the trail utilizes the existing rail bed in order to accommodate the typical trail section and when the trail passes through River's Edge Park.



The trail will cross the Sauk River and the existing railroad bridge that carries a single track across the river is not wide enough to accommodate a multi-use trail. A new pedestrian bridge will be needed to carry trail users across the Sauk River. The new bridge will be approximately 200 feet long. The west abutment will be located in the BNSF right-of-way and the east abutment will be located in River's Edge Park.

Enhancements at various intervals along the trail will include access points, traffic control and wayfinding signs, vegetative screening, protective fencing as needed and rest areas, including benches, bike racks, and trash receptacles.

The proposed trail will include the eight roadway crossings.

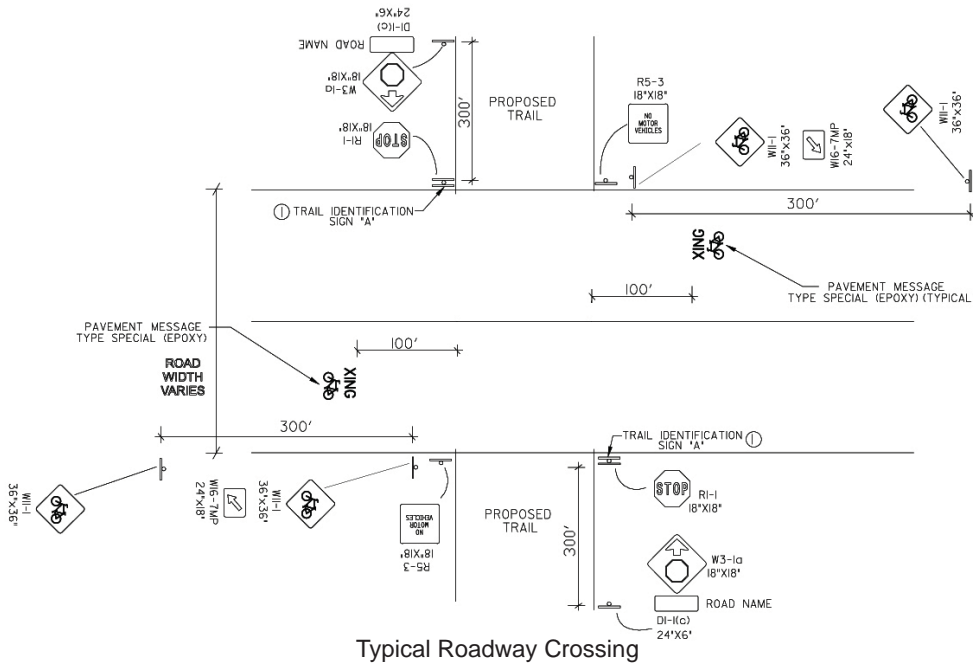
Roadway Crossings

CR 133
Borgert Block and AMCON Block business entrance
Pearl Drive
Manions business entrance
CR 134
CR 134/Ridgewood Road
Saukview Drive
Waite Avenue N.



Saukview Road crossing.

In addition to safety signing on both the trail and the road, roadway crossings will have surface paint marking the trail location.



AGENCY COORDINATION

Minnesota Department of Transportation (Mn/DOT)

Mn/DOT Cultural Resources Unit (CRU) - Section 106 Review



Mn/DOT Office of Environmental Services (OES) - Contaminated Site Review; Federal Threatened and Endangered Species Review

Watershed District

Sauk River Watershed District – Watershed District Coordination

Minnesota Department of Natural Resources (MnDNR)

MnDNR - State Threatened and Endangered Species Review

MnDNR - Environmental Review

US Fish and Wildlife Service (USFWS)

USFWS - Threatened and Endangered Species Review

SOCIAL, ECONOMIC & ENVIRONMENTAL STUDY

Right of Way

The project will require the use of BNSF right-of-way for approximately 3.5 miles of the trail. A minimum 25-foot permanent right-of-way would be required for the placement of the trail and trail appurtenances. Additional temporary easements would be required for trail construction. There are some segments of the trail that will utilize public right-of-way in County road corridors and in River’s Edge Park in Waite Park. Primary private right of way will be needed from BNSF Railroad. Other private right of way will be needed from Nash Finch Co., Bankers Systems, Inc./Wolters Kluwer Financial Services and HRA of St. Cloud. The project is likely to require minor changes to access, no relocations, and a low risk of hazardous materials involvement.



Typical right-of-way between the BNSF tracks and CR 133.

Farmland Protection Policy Act

The project will not impact farmland. The project will not acquire any farmland for right of way.

Section 404 (Army Corps of Engineers)

The project will not involve placement of fill into waters of the U.S. (defined in 33 CFR 328).

Water Quality

The project will disturb one or more acres of land (including clearing, grading and excavation). A Minnesota Pollution Control Agency (MPCA) National Pollution discharge Elimination System (NPDES) permit will be submitted prior to project authorization.

Floodplain

The project may encroach into a floodplain.

Wetlands

The project may impact or encroach into a wetland.



Noise

The project is not a Type I project. Procedures for abatement of highway traffic noise do not apply, in accordance with 23 CFR 772. Construction Noise has been considered and no substantial impact is anticipated.

Air Quality

The project will not significantly impact air quality.

Controversial Issues

The project is not anticipated to be controversial.

State Environmental Review (MEQB)

The project has been determined to be an exemption category project in accordance with current Minnesota Rules, Part 4410.4600, Subp. 14. The project will likely not meet the mandatory (Environmental Assessment Worksheet (EAW) threshold and does not have potential for significant environmental effects.

DESIGN STANDARDS AND SPECIFICATIONS

The project will be designed in accordance with the FHWA-Mn/DOT Stewardship Plan. For this project, the following design standards are applicable:

State Aid Minimum Geometric Design Standards

- Mn/DOT LRFD Bridge Design Manual
- MMUTCD Minnesota Manual on Uniform Traffic Control Devices
- AASHTO Standard Specifications for Highway Bridges
- 8820.9995 State Aid Minimum Bicycle Path Standards
- AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities, July 2004
- ADA: Americans with Disabilities Act

Other

- Mn/DOT Bikeway Facility Design Manual
- AASHTO Guide Manual for Condition Evaluation and Load and Resistance Factor Rating of Highway Bridges
- AREMA Manual for Railway Engineering

The project will be constructed in accordance with the current edition of the Mn/DOT's "Standard Specifications for Construction", including all Supplemental Specifications.



The Lake Wobegon Trail.



DESIGN ELEMENTS

Trail Design Elements

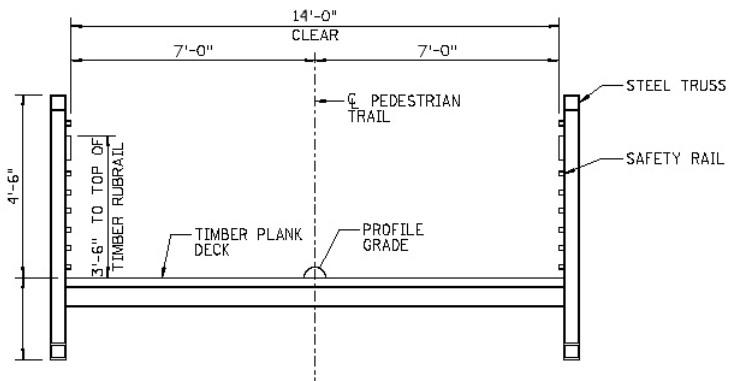
Element	Existing	Proposed
Type of Trail/Path	N/A	Multi-Use
Trail/Path Width	N/A	10 feet
Trail/Path Surfacing	N/A	Bituminous
Design Speed	N/A	20 miles per hour
Posted (Regulatory)		
Speed	N/A	N/A
Shoulder Width	N/A	2 feet
Shoulder Surfacing	N/A	Turf
Lead-in Guardrail/ Fencing	N/A	10 feet at trestle approaches
Maximum Grade	5%	5%
Vertical Clearance	Varies	10 feet minimum to vegetation
Clear Zone	N/A	2 feet
In-slope	N/A	2:1 Max; 3:1 Preferred



The Lake Wobegon Trail.

Bridge Design

It is expected that the bridge crossing over the Sauk River will be a pre-fabricated truss-style pedestrian bridge that is a minimum 14 feet wide and capable of carrying light vehicular traffic, such as trail maintenance and security vehicles including winter grooming equipment. The bridge will be similar to bridges on the existing Lake Wobegon Trail.



Typical Prefabricated Bridge Section



Typical prefabricated trail bridge.

Design Exceptions

Design exceptions to bicycle facility guidelines established by the Minnesota Department of Transportation (*Mn/DOT Bikeway Facility Design Manual*) will be necessary where the trail crosses the railroad at Station 313+75, just west of the State Highway 15 overpass. Design exceptions to the minimum horizontal curvature requirements will be necessary to achieve acceptable 90 degree railroad crossing geometry within the rail right of way. This will be mitigated by requiring a stop condition for the trail on both sides of the rail crossing.



Safety Improvements

At-grade roadway crossings of the trail will occur at the following locations:

Major Road Crossings

- CR 133
- CR 134/ Ridgewood Road

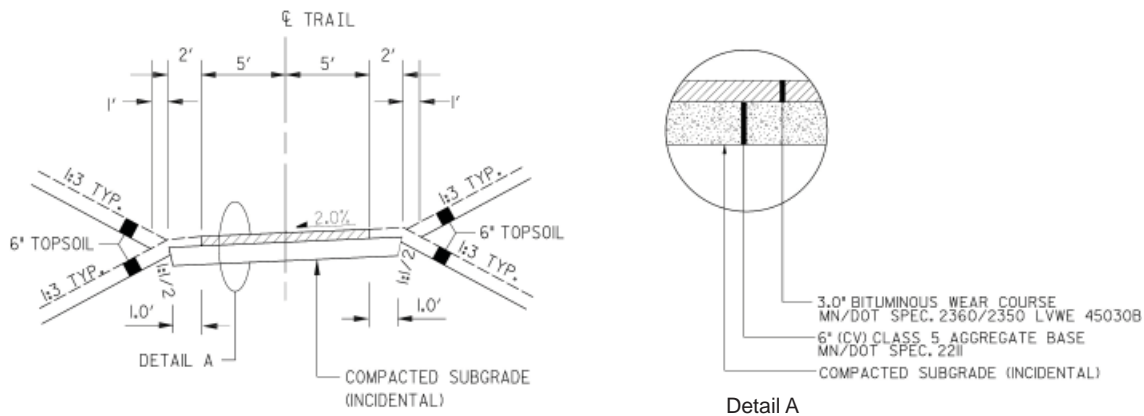
Minor Road Crossings

- 304th St/Pearl Drive
- Saukview Drive
- Waite Avenue N.



Typical multi-use trail.

All locations where the trail crosses a roadway, trail signage will alert users to an upcoming crossing and will include stop signs and stop bars. All intersections will have trail crossing and advance warning roadway signage. At the major roadway crossings trail crossing warning messages will be painted on the pavement.



Typical Trail Section

Roadway Enhancements

Surface Type: The trail will typically be constructed of three inches of bituminous over six inches of Class 5 material over 12 inches of compacted sub-grade. Business entrance crossings may require thickened pavement sections depending on vehicle type and average daily traffic (ADT).

Curb Ramps

Truncated domes will be included where needed at existing street crossings using standard Mn/DOT curb ramp design.

Minimum Design Radius

Horizontal curves will be a minimum of 100 feet per the Mn/DOT Bicycle Facility Design Manual.



The Lake Wobegon Trail.



CONCLUSION

The Lake Wobegon Trail extension will connect a well-used community asset, the 62-mile Lake Wobegon Trail that links rural communities from Osakis to St. Joseph with St. Cloud, the largest metropolitan area in Stearns County. This vital link will provide opportunities for commuters, families, recreational users and countless others to experience the Lake Wobegon Trail, the Central Lakes Trail and the Soo Line Trail. The Lake Wobegon Trail extension will expand the four-season trail connections between St. Cloud and the growing communities along these trails. The enthusiasm of the neighboring communities and businesses are an indication that this trail will become a vital link in the ever-growing network of parks and trails in Stearns County.



The Lake Wobegon Trail.

