

M.L. 2016 Project Abstract

For the Period Ending June 30, 2019

PROJECT TITLE: Tower Historic Harbor Trail Connections

PROJECT MANAGER: Nancy Larson

AFFILIATION: City of Tower

MAILING ADDRESS: 602 Main Street, PO Box 576

CITY/STATE/ZIP: Tower, MN 55790

PHONE: 218-753-4070

E-MAIL: communitycoaching@yahoo.com; clerk.treasurer@cityoftower.com

WEBSITE: www.cityoftower.com

FUNDING SOURCE: Environment and Natural Resources Trust Fund

LEGAL CITATION: M.L. 2016, Chp. 186, Sec. 2, Subd. 09f

APPROPRIATION AMOUNT: \$679,000

AMOUNT SPENT: \$679,000

AMOUNT REMAINING: \$0

Sound bite of Project Outcomes and Results

A pedestrian/biking trail was created around Tower's redeveloped historic harbor to connect recreational and natural resource assets to an environmental main street waterway to Lake Vermilion. Boaters can explore the habitat and ecological route through the East Two River channel to Lake Vermilion.

Overall Project Outcome and Results

The Tower Historic Harbor Trail Connection in Tower, Minnesota, located in the East Two River and West Two River waterway to Lake Vermilion, is completed. A new pedestrian/biking trail was constructed around Tower's redeveloped harbor and routed under the highway bridge to enhance and connect to existing recreational and natural resource assets.

On the north side of the harbor trail 150 feet of trail length was identified to have wetland, waterway, and open water vegetation impacts. Helical piers were installed to support this area from future settlement and a floating walkway was installed at higher cost to avoid natural resource impacts. Soil conditions created challenges for the project. Less than ideal soils in the trail area on the harbor south side required helical piles in the trail areas where docks will be connected to the trail. Unsuitable subgrade material was removed and replaced to construct a suitable base for the trail. The trail under the bridge required a great deal of steel modification of the sheet piles and connections to get the proper grade and support of the trail.

Users will enjoy wetlands and unique environmental, historical and geological characteristics of the harbor, which early in Tower's history was a bustling commercial center. Interpretive historical signage was installed. Signage describes the harbor as a transportation hub and critical to the development of Lake Vermilion, and the role its waterway played in pioneering Minnesota's unique lake resort identity.

The connecting trail to the Mesabi Trail was rerouted in subsequent design updates to minimize wetland impacts along the shoreline. The revised trail connection will be more cost effective by constructing it with the LCCMR trailhead project, and better supports the goals in protecting and preserving Minnesota's natural resources while trail users enjoy the unique features of the area's geology, plants and wildlife.

Project Results Use and Dissemination

The public has been informed of this project through local news media coverage of each city council engineering update since 2016. The Lake Vermilion Chamber of Commerce has informed the public on their [Facebook page](#). The page has over 1,000 fans and averages 40,000 contacts per week. The local Timberjay newspaper has

informed the public of the project's completion and will provide information on the opportunities for recreational and educational aspects of the project.



Environment and Natural Resources Trust Fund (ENRTF) M.L. 2016 Work Plan Final Report

Date of Report: January 27, 2020

Final Report

Date of Work Plan Approval: June 7, 2016

Project Completion Date: June 30, 2019

PROJECT TITLE: Tower Historic Harbor Trail Connections

Project Manager: Nancy Larson

Organization: City of Tower

Mailing Address: 602 Main Street, PO Box 576

City/State/Zip Code: Tower Minnesota 55790

Telephone Number: (218)753-4070

Email Address: communitycoaching@yahoo.com

Web Address: www.cityoftower.com

Location: Saint Louis County

Total ENRTF Project Budget:

ENRTF Appropriation: \$679,000

Amount Spent: \$679,000

Balance: \$0

Legal Citation: M.L. 2016, Chp. 186, Sec. 2, Subd. 09f

Appropriation Language:

\$679,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the city of Tower to construct recreational trails along the harbor in Tower and to connect to the Mesabi Trail. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

I. **PROJECT TITLE:** Tower Historic Harbor Tower Trail Connections

II. PROJECT STATEMENT: This is a multi-faceted project that consists of the construction of a pedestrian (hiking/biking) trail and development of a kayaking route along the banks of the East Two River located in Tower Minnesota. The harbor trail will be constructed around the newly redeveloped Tower Historic Harbor, go under the new Trunk Highway 169 Bridge. The segment around the historic harbor will have interpretative signage that identifies the unique history of the harbor as it relates to the mining, logging, and tourism industries. The Kayak route will be mapped along the East Two River, West Two River and portions of Lake Vermilion.

III. OVERALL PROJECT STATUS UPDATES:

Project Status as of October 2016: The City entered into a contract with an engineering firm to design the trail around the harbor and connection to the Mesabi Trail. The City began working with the Tower Soudan Historical Society and the Vermilion Lake Association to design the kayak route.

Project Status as of April 2017: The City and engineer started the process to secure permits for construction of the trails. The City of Tower and engineer worked together to resolve issues with the trail location. The City and Vermilion Lake Association to further develop signage for the kayak route.

Project Status as of October 2017: The City and Engineer worked to complete final design and begin preparing for the 2018 Construction season. The City worked to secure initial approval from all regulatory partners for the trail location and design. The City, Engineer, and Consultants will continue to narrow down the list of significant points for the kayak route.

Project Status as of April 2018: The City and Engineer have completed final design. All construction permit applications have been submitted. Once all permits have been successfully secured project bidding will commence. Very little work was completed on the Kayak route due to ice in conditions.

Project Status as of October 2018: The City put the project out for bids and then subsequently awarded the bid to Nordic Group, Inc. Some initial construction mobilization and preparation was completed before snow cover conditions forced progress to stop. The project will then remain idle throughout the winter months. We will be resuming construction around April 2019 or as soon as the spring road weight restrictions are lifted.

Project Status as of September 10, 2019: The 1,640' long x 10' wide trail around the harbor was completed. Due to poor soil conditions on the south side of the trail additional costs were incurred. Helical pilings had to be constructed to support the concrete dock pads on the south side of the harbor trail where future docks noted in the 2007 Harbor Master Plan will connect. A floating walkway had to be constructed in an area of the trail on the north side adjacent to the retaining wall that was built in 2012 during bridge construction. The shoulder and shoreline eroded since then and created a wetland area. The permitting agencies approved construction of a floating bridge which added to the project cost for the harbor trail activity.

The design and engineering of the kayak route was completed by the project engineer. The City of Tower and the Tower Economic Development Authority (TEDA) created a committee to plan for the kayak route signs. A meeting is planned to engage the community and receive residents' historical input on the harbor, which early in Tower's history was a bustling commercial center. Plans include gathering information about the ecological, geological and environmental aspects of the route. The city's mayor, a botanist and an environmental publisher kayaked the entire route to scope out points of interest for planning purposes.

Interpretive historical signage was designed and installed along the harbor trail. The 2 signs describe the city's harbor as a transportation hub and critical to the development of Lake Vermilion, and the role its waterway played in pioneering Minnesota's unique lake resort identity.

Construction went as planned and the trail opened to the public on June 30, 2019. Boats moored to the city docks and tied on the harbor shoreline were at capacity on July 4. Biking, walking and boating activity in the harbor has significantly increased since its opening to the public.

AMENDMENT REQUEST SEPTEMBER 10, 2019

We are requesting the following changes to the budget and scope of the project:

- 1) Reduce funds to SEH for the Connecting Trail planning from \$69,900 to \$0
- 2) Funds for the Nordic Group Inc to construct the Connecting Trail removed - \$250,022 to \$0
- 3) Funds for the Nordic Group Inc to construct the Harbor Trail increased by \$324,236 – from \$265,228 to \$589,464
- 4) Funds for Kayak Route signage reduce by \$4,214 – from \$15,014 to \$10,800
- 5) Funds for printing reduced from \$100 to \$0

These changes are being requested because costs for the Activity 1 Outcome 1 Harbor Trail exceeded the project budget due to poor soil conditions discovered on the harbor trail south side, shoreline erosion conditions on the harbor trail north side, and grading and support of the trail under the bridge. These conditions were discovered during the preliminary design and substantially increased the harbor trail project. On the south side of the harbor trail soil conditions created challenges for the project. The trail area required helical piles in trail areas where docks will eventually be connected to the trail. On the north side of the harbor trail 150' of trail length was identified to have wetland, waterway, and open water vegetation impacts. Helical piers were installed to support this area from future settlement and a floating dock was installed at a higher cost to avoid natural resource impacts. The trail under the bridge required a great deal of steel modification of the sheet piles and connections to achieve the proper grade and support of the trail. The connecting trail to the Mesabi Trail had to be rerouted in order to minimize wetland impacts along the river channel shoreline.

As a result, we request to remove Activity 1 Outcome 2 (planning and construction of connecting trail) and signage placement of 8 signs in Activity 2 from this project. The City of Tower intends to submit an amendment request to the ML 2017 project to incorporate Activity 1 Outcome 2 (Connecting Trail) and Activity 2 signage placement to the current ML 2017 project.

The City of Tower acknowledges there is no guarantee that any amendment request would be approved by LCCMR.

Amendment Request pending action by LCCMR as of 10/10/2019
Amendment Approved by the LCCMR commission at its meeting 1/16/20

Sound bite of Project Outcomes and Results

A pedestrian/biking trail was created around Tower's redeveloped historic harbor to connect recreational and natural resource assets to an environmental main street waterway to Lake Vermilion. Boaters can explore the habitat and ecological route through the East Two River channel to Lake Vermilion.

Overall Project Outcome and Results

The Tower Historic Harbor Trail Connection in Tower, Minnesota, located in the East Two River and West Two River waterway to Lake Vermilion, is completed.

A new pedestrian/biking trail was constructed around Tower’s redeveloped harbor and routed under the highway bridge to enhance and connect to existing recreational and natural resource assets.

On the north side of the harbor trail 150 feet of trail length was identified to have wetland, waterway, and open water vegetation impacts. Helical piers were installed to support this area from future settlement and a floating walkway was installed at higher cost to avoid natural resource impacts.

Soil conditions created challenges for the project. Less than ideal soils in the trail area on the harbor south side required helical piles in the trail areas where docks will be connected to the trail. Unsuitable subgrade material was removed and replaced to construct a suitable base for the trail.

The trail under the bridge required a great deal of steel modification of the sheet piles and connections to get the proper grade and support of the trail.

Users will enjoy wetlands and unique environmental, historical and geological characteristics of the harbor, which early in Tower’s history was a bustling commercial center.

Interpretive historical signage was installed. Signage describes the harbor as a transportation hub and critical to the development of Lake Vermilion, and the role its waterway played in pioneering Minnesota’s unique lake resort identity.

The connecting trail to the Mesabi Trail was rerouted in subsequent design updates to minimize wetland impacts along the shoreline and will instead be funded with M.L. 2017 appropriation. The revised trail connection will be more cost effective by constructing it with the M.L. 2017 LCCMR trailhead project, and better supports the goals in protecting and preserving Minnesota’s natural resources while trail users enjoy the unique features of the area’s geology, plants and wildlife.

Project Results Use and Dissemination

The public has been informed of this project through local news media coverage of each city council engineering update since 2016. The Lake Vermilion Chamber of Commerce Facebook page has informed the public on their page at www.Facebook.com/TowerMn. The page has over 16,000 fans and averages 40,000 contacts per week. The local Timberjay newspaper has informed the public of the project’s completion and will provide information on the opportunities for recreational and educational aspects of the project.

IV. PROJECT ACTIVITIES AND OUTCOMES:

ACTIVITY 1:

Description: Project Management, Topographical Surveys, Geotechnical Exploration, Preliminary and Final Design, Construction Plans & Specifications, Construction Administration, and Legal and Administration. Project construction of the Tower Harbor Trail.

Summary Budget Information for Activity 1:

ENRTF Budget: \$663,664
Amount Spent: \$663,664
Balance: \$0

Outcome	Completion Date
1. Design, Engineer, Construct, and Complete 1,640 feet long by 10 foot wide trail around Harbor made of decorative concrete. The Harbor trail will be designed to be an	June 2019

<i>average of 5 feet from the water separated by a rip rap shoreline as approved by the DNR. All landscaping around the trail will be constructed using natural and environmental preserving aquatic vegetation.</i>	

Project Status as of October 2016: The City of Tower entered into a professional services agreement with Short Elliott & Hendrickson Engineering to facilitate the design and engineering of both the 1640 foot trail around the harbor and the 2450 foot trail connection to the Mesabi Trail. The City and SEH identified a project plan, timeline, and scope of work. The City and SEH began the process of working with our regulatory partners to secure the necessary permits and work towards final design and layout.

Project Status as of April 2017: The City of Tower and SEH continued to work regulatory agencies on exact trail location, design, and materials. There is a private development that is happening in close proximity to the location of where the trails are to be constructed. During the private developers process some unexpected soil boring results were obtained requiring them to make some shifts to the location and design of their development. The change in the location for the private development resulted in the City of Tower’s having to make some changes to the harbor trail location. The changes needed affected things like the plat, storm water management around the trail and it is important to note the final trail constructed will still be exactly as described in Activity 1 Outcome 1.

Project Status as of October 2017:

The City of Tower and SEH continued to work on final design and preparations for Spring 2018 construction. The City and SEH received feedback from BWSR regarding the location of wetlands in the area near where Mesabi Trail Connection will be. In response to BWSR’s feedback the City and engineer needed to make some changes to the final layout of the Mesabi Trail Connection. The trail length and general location are nearly identical and in some cases the modification of location was less than 1 foot. The City’s Engineer expects to be preparing competitive bidding packets around the time of the next project status due date.

Project Status as of April 2018: The City of Tower and SEH have completed final design and will be ready to put the project out for bidding by the end of June. All wetland and construction permit applications have been submitted. Verbal approval of all applications has been secured but we have not received actual permission to proceed with the project. We expect the US Army Corps permit to take the longest at approximately 90 days. We expect to be bidding before the end of June with construction starting after the 4th of July 2018.

Project Status as of October 2018: Due to permitting delays and a poor fall construction season we were not able to complete any construction before snow cover conditions. Construction will start mid April 2019. We are fully expecting that all construction will be completed by June 30, 2019.

Project Status as of September 10, 2019: Activity 1 Outcome 1 was completed. Preliminary design and estimated costs were underestimated in the concept plan as initially proposed. Significant wetland impacts of the original trail route along the shoreline required an alternative and shorter route of the connecting trail. After the grant was awarded several items found during the preliminary design that impacted costs for the trail around the harbor. Poor soil conditions were discovered in the trail area on the south side and required helical piles in the trail areas where future docks noted in the 2007 Harbor Master Plan will connect. In addition, unsuitable subgrade material that had to be removed and replaced to construct an acceptable base for the trail increased costs. On the north side of the trail there was about 150 feet of trail length identified that would have wetland impacts, and open water vegetation impacts and permits. Installation of helical piers to support the trail was done to protect from future settlement. The permitting agencies agreed to a floating walkway in this area to avoid any natural resource impacts. The floating walkway cost considerably more than standard trail construction. The trail under the bridge required a lot of steel modification of the sheet piles and connections to get the proper grade and support of the trail.

The project is required by the MPCA NPDES permit to provide permanent vegetation and protection of erosion. In order to meet MPCA permit requirements the design included placing Seed Mixture 25-131, Fertilizer Type 3, and Hydraulic Mulch on all disturbed areas. In addition, there were a few steep areas that had an erosion control blanket installed. The contractor placed the seed, fertilizer, and mulch per the plan requirements on the bare soils on June 28th and 29th. Germination of the seed has been checked throughout the summer and as of September 9 the grass has grown considerably. We have a 1-year warranty on the project which has not started yet so if next summer there is not grass growing, the contractor will be required to re-seed any bare areas.

Final Report Summary: January 27, 2020

A ten-foot wide walking and biking trail was constructed around the harbor and under the bridge. Poor soil conditions were discovered in the trail area on the south side, unsuitable subgrade material had to be removed and replaced to construct an acceptable base for the trail, and the trail under the bridge required steel modification of the sheet piles and connections for proper grading and support of the trail. These factors increased the costs of the overall project. In addition, a floating walkway was constructed on the north side of the trail that had wetlands and open water vegetation impacts. Increased costs caused a change in the initial project design. A connecting trail to the Mesabi Trail was rerouted in the final design due to significant wetland impacts of the original trail route along the shoreline. That connecting trail will be incorporated into the next project phase.

ACTIVITY 2:

Description: Project Management, Topographical Surveys, Preliminary and Final Design, Construction Plans & Specifications, and Construction Administration. Project includes construction of a Kayak route.

Summary Budget Information for Activity 2:

ENRTF Budget: \$15,336
Amount Spent: \$15,336
Balance: \$0

Outcome	Completion Date
13. Design, Engineer-14,200 feet of Kayak Routes Two signs in the harbor were completed.	June 2019

Project Status as of October 2016: The City and its Engineer collaborated with the Tower Soudan Historical society to identify locations of historical significance along the proposed route. We began the process of drafting and designing the historical interpretative signs.

Project Status as of April 2017: The City and its engineer engaged the Lake Vermilion Sportsmen’s Club to aide in the process of identifying geological and environmental locations. The process for the geological and environmental will need to be worked on further in 2017 as we will also need to partner with the MN/DNR, BWSR, Army Corps, as well as some local geologists. A compilation of the data received from all parties will need to be completed.

Project Status as of October 2017: The City and its Engineer are still working to compile all of the geological and environmental data and to determine which points of significance are the most important/unique as we only have 10 sign sites available for the whole route. The City expects to have final sign locations determined in the early boating season of 2018. At this point we have some work and research that cannot be completed during ice in conditions.

Project Status as of April 2018: Not much was completed on this task over the last 6 months due to ice in conditions.

Project Status as of October 2018: The City is finalizing the sign locations and design. We expect to complete the placement of the signs in late spring 2019.

Project Status as of September 10, 2019: The design and engineering of the kayak route was completed by SEH. Two interpretive signs were installed around the historic harbor. The Tower-Soudan Historical Society assisted in the research for the signs and provided the verbiage and photographs of the historic harbor that are incorporated into the signage.

Final Report Summary: January 27, 2020

A kayak route design was completed by the engineering firm. Two interpretative signs were installed at the historic harbor along the trail. Ten signs along the kayak route were not completed due to administrative and budget issues. The Tower Economic Development Authority will assist the city with design and installation of the signs in the next project phase.

V. DISSEMINATION:

Description: Upon completion of the Harbor and Mesabi Connection Trails, the location information will be communicated to local press and publishing groups for inclusion on local trail maps and guides. The City will advertise the trail completions in the local newspapers, the City's Facebook page and on the City website. The City will use the local tourism office and Chamber to communicate the completion of the trail to local business stakeholders. The City will utilize the local DNR office to communicate the availability of the trails and Kayak route through their Kiosks and information centers. The City will utilize local boat launches as sites to post information regarding the Kayak route.

Project Status as of October 2016: The project is not complete currently but the City during each City Council Meeting hears an update of the trail project and at times these updates are published in the City's official newspaper.

Project Status as of April 2017: The project is not complete currently but the City during each City Council Meeting hears an update of the trail project and at times these updates are published in the City's official newspaper. The City began partnering with the Lake Vermilion Trail group to not only connect the trails in the project to the Mesabi trail but also to the Lake Vermilion Trail when its completed. During trail planning meetings the City communicated what trails this grant would cover and how they would complement the LVT.

Project Status as of October 2017: The project is not complete currently but the City during each City Council Meeting hears an update of the trail project and at times these updates are published in the City's official newspaper.

Project Status as of April 2018: No new attempts to publicize the project have been made since the project status update.

Project Status as of October 2018: Monthly status reports are still read at the City Council meetings. We will make some additional publication attempts once the project is complete in the summer of 2019.

Project Status as of September 10, 2019: The city council receives an update each month on the status of the project. The kayak route has had considerable word-of-mouth recommendations. There has been increased

activity as evidenced by the number of kayakers spotted in the harbor. City staff has received feedback about the need for the kayak launch at the proposed trailhead.

Final Report Summary: January 27, 2020

Dissemination of information continues to be done at city council meetings, through local business establishments or chamber members, and in local newspaper articles.

Number of Full-time Equivalents (FTE) Estimated to Be Funded through Contracts with this ENRTF Appropriation:

B. Other Funds:

Source of Funds	\$ Amount Proposed	\$ Amount Spent	Use of Other Funds
Non-state			
In Kind Trail Administration by the City	\$10,000	\$10,000	For the administration of grant documents, payments, receipts, payroll reports, etc.
In Kind Trail Maintenance by the City	\$9,000	\$4,400	Maintenance, Grooming, Cleaning, and Construction assistance.
Tower Historical Society Interpretative Signage Research and Preparation	\$25,000	\$500	Research and Development of Signage
TOTAL OTHER FUNDS:	\$44,000.00	\$14,900	

VII. PROJECT STRATEGY:

A. Project Partners: City of Tower, Tower Soudan Historical Society, Funding Agencies / Contributors, and SEH, Inc. SEH was selected by the City to provide municipal engineering services. The City and SEH have entered into a professional services agreement for all City of Tower engineering including \$120,000 of ENRTF funds for the engineering of the Tower Harbor and connecting trails and the kayak project.

B. Project Impact and Long-term Strategy: The long term strategy for this project is to provide a high quality nature and recreation opportunity for people of all ages that does not impact the environment and offers environment educational opportunities. Thousands of people travel to Lake Vermilion on an annual basis and through this project the City of Tower intends to provide recreation and tourism opportunities that do not impact the environment and improve the shoreline, water quality, and aquatic habitats. The long term strategy is to provide an opportunity for visitors to learn and understand

C. Funding History:

Funding Source and Use of Funds	Funding Timeframe	\$ Amount
IRRRB – The 2 mile rerouting of Trunk Highway 135 and the relocation of all utility infrastructure	Complete	\$3,200,000
HPP Federal Highway Funding – The relocation and reconstruction of the bridge allowing for the restoration of the Tower Harbor back to its original size and use.	Complete	\$1,538,249
DEED HDPI – Relocation of all public utilities to environmentally safe distance from the Lake and River	Complete	\$249,980
DEED Redevelopment Grant – Construction of local streets and utility infrastructure to the developable area of the Tower Harbor	Complete	\$724,450

<p>IRRRB Grant – Dredging of the East Two River and Harbor to remove materials that had been continually dumped into the River and Harbor from a sawmill and factory. To remove garbage debris and materials dumped by individuals into the harbor after MN/DOT realigned the road in the 1950's which closed the harbor to boat traffic and public use.</p>	<p>Complete</p>	<p>\$1,120,000</p>
--	-----------------	--------------------

IX. VISUAL COMPONENT or MAP(S):

X. RESEARCH ADDENDUM:

XI. REPORTING REQUIREMENTS:

Periodic work plan status update reports will be submitted no later than Project Status as of **October 31, 2016, April 30, 2017, October 31, 2017, April 30, 2018 and October 31, 2018** and a final report **June 30, 2019**.

**Environment and Natural Resources Trust Fund
M.L. 2016 Project Budget**



Project Title: Tower Historic Harbor Trail Connections

Legal Citation: M.L. 2016, Chp. 186, Sec. 2, Subd. 09f

Project Manager: Nancy Larson

Organization: City of Tower

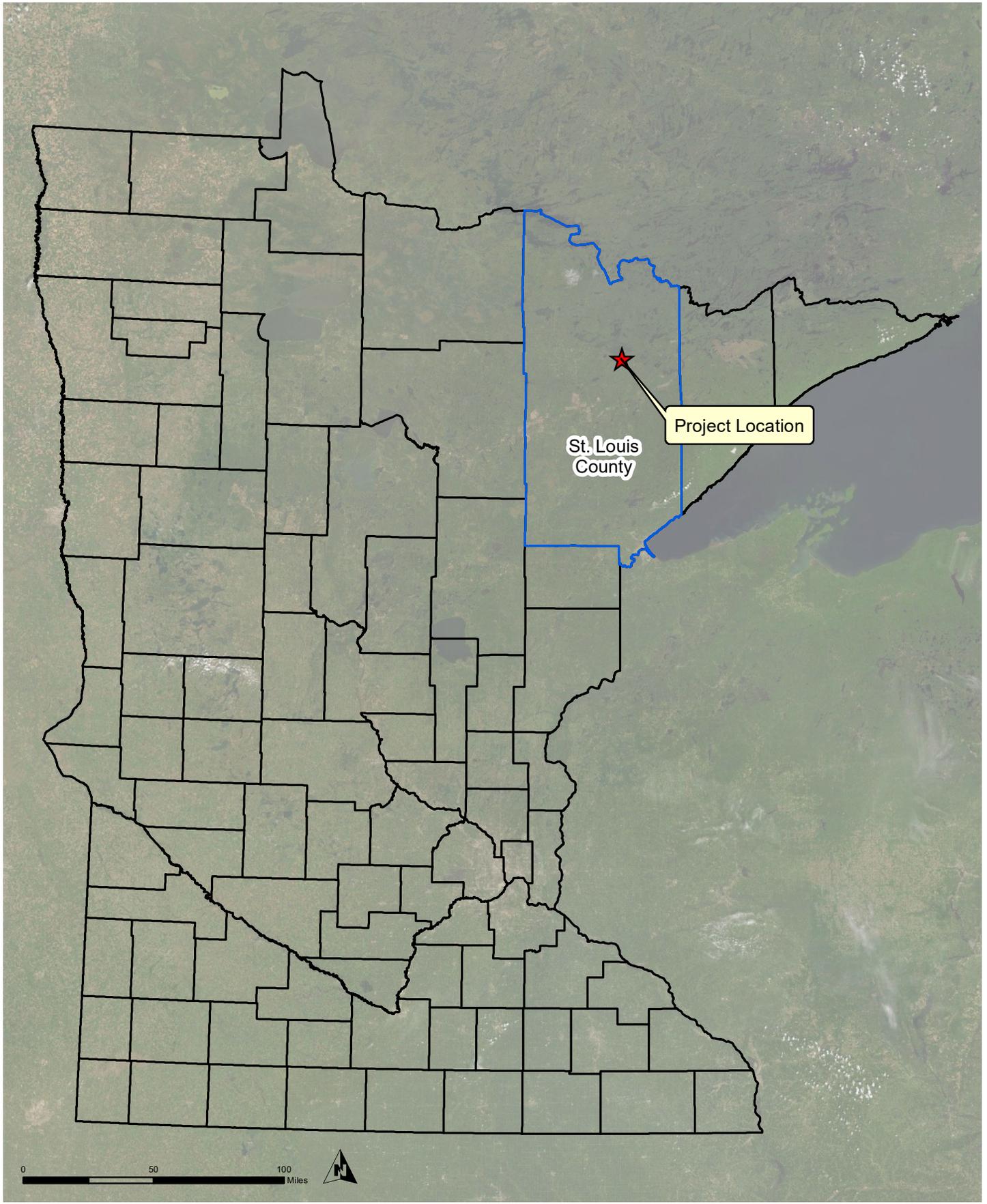
M.L. 2016 ENRTF Appropriation: \$679,000

Project Length and Completion Date: June 30, 2019

Date of Report: January 27, 2020

ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET	Activity 1 Budget	Amount Spent	Activity 1 Balance	Activity 2 Budget	Amount Spent	Activity 2 Balance	TOTAL BUDGET	TOTAL BALANCE
BUDGET ITEM								
Professional/Technical/Service Contracts								
<i>SEH, Inc. Project Management, Topographical Surveys, Preliminary and Final Design, Construction Plans, and Specifications, and Construction Administration</i>								
<i>activity 1 outcome 1 (harbor trail)</i>	\$74,200	\$74,200	\$0				\$74,200	\$0
<i>activity 1 outcome 2 (connecting trail)</i>	\$0	\$0	\$0				\$0	\$0
<i>activity 2 (kayak route)</i>				\$4,536	\$4,536	\$0	\$4,536	\$0
<i>Nordic Group, Inc. (Contractor)</i>								
<i>activity 1 outcome 1 (harbor trail)</i>	\$589,464	\$589,464	\$0				\$589,464	\$0
<i>activity 2 (kayak route construction of signage)</i>				\$10,800	\$10,800	\$0	\$10,800	\$0
COLUMN TOTAL	\$663,664	\$663,664	\$0	\$15,336	\$15,336	\$0	\$679,000	\$0

Path: S:\PT\TOWER 143822\5-final-dgn\51-drawings\00-GIS\MXDs\Maps\Location Map.mxd

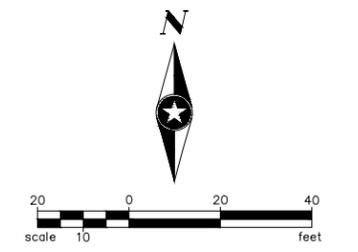


Project Number: TOWER 134920
 Print Date: 2/6/2020
 Map by: rkopecy
 Projection: St. Louis County Transverse Mercator System 96
 Source: State of Minnesota

Tower Harbor Trails
 Tower, Minnesota

FIGURE 1
 Location Map

This map is neither a legally recorded map nor a survey map and is not intended to be used as one. This map is a compilation of records and information gathered from various sources listed on this map and is to be used for reference purposes only. SEH does not warrant that the Geographic Information System (GIS) Data used to prepare this map are error free, and SEH does not represent that the GIS Data can be used for navigation, tracking, or any other purpose requiring exacting measurement of distance or direction or precision in the depiction of geographic features. The user of this map acknowledges that SEH shall not be liable for any damages which arise out of the user's access or use of data provided.



LEGEND

	APPROACH PANEL
	CONCRETE SIDEWALK TYPE SPECIAL
	FLOATING DOCK
	STABILIZED PATHWAY AGGREGATE
	FLOATING DOCK RAMP
	DOCK FOUNDATION
	6" CONCRETE WALK



S:\PTV\TOWER\143822\5-final-dsgn\51-drawings\10-Civil\cod\dwg\exhibit\T0113822CT1.dwg 2/16/2020 3:26 PM rkopecky

DRAWN BY: TWH_REH				
DESIGNER: MJB				
CHECKED BY: DRH				
DESIGN TEAM	NO.	BY	DATE	REVISIONS

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Matt Bolf, PE
 Date: 09/10/18 Lic. No. 43913

PHONE: 218.279.3000
 418 W SUPERIOR ST STE 200
 DULUTH, MN 55802-1512
 www.sehinc.com

**TOWER,
MINNESOTA**

HARBOR TRAIL SITE LAYOUT

FILE NO. **16**
TOWER 134920

27