



Environment and Natural Resources Trust Fund

2022 Request for Proposal

General Information

Proposal ID: 2022-074

Proposal Title: Pioneer Mine Site Restoration/Trezona Trail Preservation

Project Manager Information

Name: Harold Langowski

Organization: City of Ely

Office Telephone: (218) 235-3083

Email: elyod@ely.mn.us

Project Basic Information

Project Summary: This project seeks funding to repair the Pioneer Mine Retaining Wall to protect the popular Trezona Trail, Miners Lake access and structures at the Pioneer Mine site.

Funds Requested: \$178,000

Proposed Project Completion: November 30 2023

LCCMR Funding Category: Small Projects (H)

Secondary Category: Land Acquisition, Habitat, and Recreation (G)

Project Location

What is the best scale for describing where your work will take place?

Region(s): NE

What is the best scale to describe the area impacted by your work?

Region(s): NE

When will the work impact occur?

During the Project and In the Future

Narrative

Describe the opportunity or problem your proposal seeks to address. Include any relevant background information.

Background: The Pioneer Mine operated on the north side of Ely from 1889 until 1967. When the mine closed and the water was no longer pumped from the mine, the earth collapsed forming what is known as Miners Lake. The Trezona Trail which circles the lake is a key component of the site, creating a four- mile walking and ski trail that connects to the larger Mesabi Trail system. The City has owned the site since 1977 and with the support of a local non-profit, maintains it as an art, history, and outdoor recreation center.

The Problem: The Pioneer Mine Retaining Wall was built during the national emergency (WWII), when quality materials were scarce, but the need for iron ore was high. The use of substandard materials at that time led to the current deterioration, putting other components of the site at risk. The wall supports the headframe, shaft house and water tower above it. It stands next to and beside the popular Trezona Trail and Miners Dry Community Building. Adjacent to the trail, is a road leading to the boat access and fishing dock. Should the wall fail, these components would sustain significant damage. The project urgently needs funding.

What is your proposed solution to the problem or opportunity discussed above? i.e. What are you seeking funding to do? You will be asked to expand on this in Activities and Milestones.

The retaining wall consists of precast concrete elements that are stacked and interlocked forming a wall that contains approximately 22 feet of unbalanced fill. The majority of the concrete elements are severely deteriorated as a result of the original inferior materials, water penetration and the rusting of the reinforcement components.

The Solution: A high quality precast concrete wall will be reconstructed to support the hillside. Similar to the existing system, the retaining wall will be constructed with stacked horizontal members anchored to vertical members in alignment with the existing verticals and following the roughly 60-degree slope inward of the existing wall. Due to limited clearance from the Miner's Dry building, the six southern bays will be partially removed, the hillside shored in place prior to the removal and excavation process, and the new retaining wall built in their place. The twenty-one bays north of the Miner's Dry will have the new wall constructed approximately two feet in front of the existing face. Helical tie back rods will be used to anchor the wall into the hillside. High quality concrete has been specified.

The construction design documents are complete for the project.

What are the specific project outcomes as they relate to the public purpose of protection, conservation, preservation, and enhancement of the state's natural resources?

This project will secure the structure that protects the vegetated areas around it and maintains the site's plant and soil conditions. It will prevent the deterioration on the north side of Miners Lake, thereby reducing erosion and maintaining water quality. And it will preserve the Trezona Walking and Ski Trail. Importantly, it will protect access to the popular recreational area including the boat landing and fishing pier. This project aligns well with the mission of the ENRTF to support the development of public access sites and recreational easements to lakes and streams.

Activities and Milestones

Activity 1: Retaining Wall Repair - Construction Preparation

Activity Budget: \$1

Activity Description:

The objective of this activity is to find the right construction firm to complete the retaining wall repair with high quality and cost effectiveness. The tasks include developing a request for proposal, advertising for firms to respond, and providing these firms with all available material especially including the construction design documents. The construction design documents have been completed by the architectural firm, MacDonald and Mack and the engineering firm, Mattson, MacDonald, and Young Inc. The winning proposal must include a detailed and realistic work plan. Proposals will be compared, and the winning bid will be selected, approved by the Council and contracts will be signed. The administrative tasks will be accomplished by the City Project team in conjunction with City Commission Members. The end result will be a construction ready project. All this work will be completed by city staff and city commission members.

Activity Milestones:

Description	Completion Date
Develop the Request for Proposal	July 31 2022
Advertise for bids	August 31 2022
Provide all available information including the design documents to bidders	August 31 2022
Review and compare responses including the proposed workplan; select the winning bid	September 30 2022
Get approvals, sign contracts, complete administrative tasks	September 30 2022

Activity 2: Retaining Wall Repair - Construction

Activity Budget: \$176,000

Activity Description:

The construction firm with the winning proposal and the detail worked plan will meet all requirements listed in the construction design documents including but not limited to the safety, quality, and documentation requirements. The construction firm will provide a competent project manager and schedule the materials, labor and equipment as needed. Construction of the wall will be completed including excavation, structural steel framing, and the concrete and concrete reinforcing work. The firm will also remove waste materials and be responsible for site preparation and cleanup.

These tasks will be accomplished with minimum impact to the site and trail.

The result of the activity will be the protection of the land, water and habitat in the area near the mine site, thereby maintaining access and use of the recreational features of the site, including the fishing pier, the boat landing, the walking trail and the mine structures.

Activity Milestones:

Description	Completion Date
Start Construction	April 30 2023
Complete construction according to the design, project manual and workplan	August 31 2023
Construction follow-up and cleanup	September 30 2023

Activity 3: Landscaping Improvements

Activity Budget: \$1,999

Activity Description:

This activity will include the work to develop and protect land with high recreational value. This work will include planting and implementation of natural landscaping around the retaining wall and extending along the Trezona Trail. The restoration of native plants enhances the outdoor experience for people on the trail while connecting them with the outdoors. Additionally, it will prevent erosion on the site providing long-term stability to the area. Due to the proximity of the mine site assets, it will also enhance the experience of those using the community building and art center as well as those accessing the boat landing and fishing pier.

Activity Milestones:

Description	Completion Date
Develop the Request for Proposal	October 31 2022
Advertise and provide available information	November 30 2022
Review and compare responses; select the winning bid	December 31 2022
Schedule the work	January 31 2023
Begin landscaping effort	September 30 2023
Complete landscaping	October 31 2023
Follow-up/cleanup/miscellaneous	November 30 2023

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Celia Domich	Ely Historic Preservation Commission	Celia's role is project coordinator and liaison with the Ely Arts and Heritage Center Organization, a non-profit which manages use of the site. The site is important to the community and a critical component of the Trezona Trail outdoor experience. Celia ensures the continued preservation of this nationally registered site.	No

Long-Term Implementation and Funding

Describe how the results will be implemented and how any ongoing effort will be funded. If not already addressed as part of the project, how will findings, results, and products developed be implemented after project completion? If additional work is needed, how will this be funded?

Since 1977 when the City took possession of the property, the site has received enthusiastic support from the City and the Ely Community. Because of this commitment funding has been found over the years via private fund raising events as well as from government entities including the IRRR, the Minnesota DNR and the Minnesota DoT. The community will continue to work to maintain this very special asset of the City. Additionally, in 2019, with funding from the Minnesota Historical Society, a condition assessment was completed for the Pioneer Mine Site providing a roadmap for ongoing care and maintenance.

Project Manager and Organization Qualifications

Project Manager Name: Harold Langowski

Job Title: Clerk-Treasurer/ Operations Director

Provide description of the project manager's qualifications to manage the proposed project.

Harold Langowski is a licensed Civil Engineer with over twenty years of experience administering projects using federal, state and local funding sources. He is responsible for the day-to-day operation of most city departments as well as managing the multiple capital improvement projects undertaken on an annual basis. Recent successful projects that Harold has overseen include the renovation of Ely's Historic 1930's City Hall, the construction of a new City Library building, the construction of the Semer's Open Air Pavilion, the paving of Central Avenue, 7th Avenue and 17th Avenues, to name a few. Harold is assisted by a staff with vast experience managing multi-million dollar projects as well as meeting permitting and funding agency requirements. Casey Velcheff, deputy clerk, can be reached at 218-226-5449. Celia Domich, a commission member, can be reached at 218-235-8851.

Organization: City of Ely

Organization Description:

The City of Ely is a home rule charter city of approximately 3,500 people, but serves an additional 2,300 people in the area, for a total of approximately 5800 people. All powers, not otherwise established by the state or by the charter rest with the mayor and council.

The City has long been a tourism destination causing its population to grow significantly during the summer months when seasonal residents and visitors come to experience it's small-town charm. Ely is a walking city and its downtown is lined with outfitters, restaurants, art shops and other small businesses and attractions. A short list of attractions includes the International Wolf Center, the North American Bear Center and several small museums including the Pioneer Mine Site Museum. The City also offers a lakeside park and a popular walking and ski trail - the Trezona Trail - which is located within the city limits but offers a convenient woodland experience to residents and visitors.

The City maintains the Trezona Trail and the historic Pioneer Mine Site. This grant request is seeking funds to upgrade/maintain the Pioneer Mine site and the Trezona Trail to allow continued access to these popular amenities.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
Personnel								
							Sub Total	-
Contracts and Services								
Construction Firm (tbd)	Professional or Technical Service Contract	The construction firm will work with the architects and engineers who developed the construction design and implement the design as prescribed. They will provide management, equipment, and manpower to complete the work. They will also remove and dispose of any excess material resulting from demolition and/or construction.				0		\$162,000
Architectural and Engineering Firm MacDonald and Mack	Professional or Technical Service Contract	This is the firm that developed the construction design documents for the project. The cost is to provide payment for the work in transitioning and overseeing the project during the construction phase.				0		\$14,000
Landscaping Firm (tbd)	Professional or Technical Service Contract	This project will provide the plan and execution for the landscaping work for the project, focusing on native plants that will prevent erosion and flourish with minimal stewardship.				0		\$2,000
							Sub Total	\$178,000
Equipment, Tools, and Supplies								
							Sub Total	-
Capital Expenditures								
							Sub Total	-
Acquisitions and Stewardship								

							Sub Total	-
Travel In Minnesota								
							Sub Total	-
Travel Outside Minnesota								
							Sub Total	-
Printing and Publication								
							Sub Total	-
Other Expenses								
							Sub Total	-
							Grand Total	\$178,000

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
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Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
State				
Cash	We are planning to get half of the project funding through the Iron Range Resource and Rehabilitation organization, Mineland Reclamation Fund.	The IRRR will provide a 50% match for the project.	Potential	\$177,000
			State Sub Total	\$177,000
Non-State				
			Non State Sub Total	-
			Funds Total	\$177,000

Acquisition and Restoration

Parcel List

Name	County	Site Significance	Activity	Acres	Miles	Estimated Cost	Type of Landowner	Easement or Title Holder	Status of Work
030-0500-00215	St. Louis	The site is important as a recreational area, a historic site, and a tourist attraction.	Restoration	9	-	-	Public	n/a	In progress
				-	-	-			
Totals				9	0	-			

Restoration

1. Provide a statement confirming that all restoration activities completed with these funds will occur on land permanently protected by a conservation easement or public ownership.

The City of Ely owns the property that will be affected by this project.

2. Summarize the components and expected outcomes of restoration and management plans for the parcels to be restored by your organization, how these plans are kept on file by your organization, and overall strategies for long-term plan implementation.

The main component that will undergo restoration is the retaining wall. However, other components near and around the wall are affected by the long-term management plan. In 2018, a condition assessment study was completed for the area. This study provided the plan for maintaining the mine site, which is a critical component of the Trezona Walking and Ski Trail and the other recreational amenities - the boat landing, fishing pier and site structures. The Assessment provides a road map to address the on-going needs and management of the physical location. The City maintains this document (available on the City website), as well as related records and documentation as required by state law. The City Council is ultimately responsible for property.

The outcome we are expecting is the ongoing recreational use of the site which is threatened by the impending wall failure.

3. Describe how restoration efforts will utilize and follow the Board of Soil and Water Resources "Native Vegetation Establishment and Enhancement Guidelines" in order to ensure ecological integrity and pollinator enhancement.

The wall construction team will protect and maintain erosion and sedimentation controls during the build process. They will restore appearance, quality, and condition of finished surfacing to match adjacent work and eliminate evidence of the restoration work.

The landscape team will use the 'Native Vegetation Establishment and Enhancement Guidelines' focusing on forest/woodlands information for site preparation, planting, and maintenance guidance during the landscaping portion of the project. Additionally, the Minnesota Native Plant Community Classification document will be consulted during the planning portion of this work.

4. Describe how the long-term maintenance and management needs of the parcel being restored with these funds will be met and financed into the future.

As described above in the Long-Term Implementation and Funding section, the community and city will work together to maintain the Pioneer Mine site and Trezona Trail. They have done this successfully since 1977 when the city originally acquired the property, raising hundreds of thousands of dollars over the forty plus years of city ownership. Additionally, the southern section of the Trezona Trail connects with the Mesabi Trail which has broader reach and provides additional support from the County and the State. The community and the city will continue to support the site via joint public and private efforts relying heavily on state and local contributions.

5. Describe how consideration will be given to contracting with Conservation Corps of Minnesota for any restoration activities.

The City will reach out to the Conservation Corps of Minnesota for the landscaping portion of the project to determine opportunities for participation. In the past the City has worked with Northern Bedrock Conservation Corp on several projects including a park restoration and a cemetery restoration.

6. Provide a statement indicating that evaluations will be completed on parcels where activities were implemented both 1) initially after activity completion and 2) three years later as a follow-up. Evaluations should analyze improvements to the parcel and whether goals have been met, identify any problems with the implementation, and identify any findings that can be used to improve implementation of future restoration efforts at the site or

elsewhere.

This step is very important for us, since so much of the work is tied to the construction effort. Consequently, the durability of the solution and safety of implementation are critical features for the project.

During the construction and immediately at its completion, we will engage the two organizations that developed the detailed plan for the wall (MacDonald and Mac Architects and Mattson Macdonald Young Structural Engineers). They have done the design work, identifying the material quality and design requirements to make the end result highly functional, aesthetically pleasing, and long-lasting. After initial success, the city will complete an annual review of the site with the city engineer to identify issues or problems. The landscaping portion of the project will be reviewed by the company that wins the bid. Their work will be reviewed by local naturalist specialists.

Attachments

Required Attachments

Map

File: [b46b4fab-7b0.pdf](#)

Alternate Text for Map

The first map shows the Pioneer Mine site, including the position of the failing retaining wall, with the Trezona Trail running near it. The second map is a location map and shows where the Pioneer Mine site is located in relation to Miners Lake and the City of Ely....

Board Resolution or Letter

Title	File
PIONEER MINE - CITY OF ELY RESOLUTION	dd3a196a-f26.pdf

Optional Attachments

Support Letter or Other

Title	File
PIONEER MINE - WALL DESIGN AND MATERIAL SPECIFICATIONS	626d2678-bbe.pdf
PIONEER MINE - PROJECT ALIGNMENT WITH ENRTF GOALS	6702ff94-fe1.pdf
PIONEER MINE - FOUR SUPPORT LETTERS	c2088870-28c.pdf
PIONEER MINE PIX - 2021 VIEW FROM THE RETAINING WALL	a1a49a49-e01.pdf
PIONEER MINE PIX - 2021 RETAINING WALL - 3 PICTURES	d4351927-663.pdf
PIONEER MINE PIX - 2021 MINE COVER PHOTO	e5c1aa82-ed1.pdf

Administrative Use

Does your project include restoration or acquisition of land rights?

Yes: Restoration,

Does your project have potential for royalties, copyrights, patents, or sale of products and assets?

No

Do you understand and acknowledge IP and revenue-return and sharing requirements in 116P.10?

N/A

Do you wish to request reinvestment of any revenues into your project instead of returning revenue to the ENRTF?

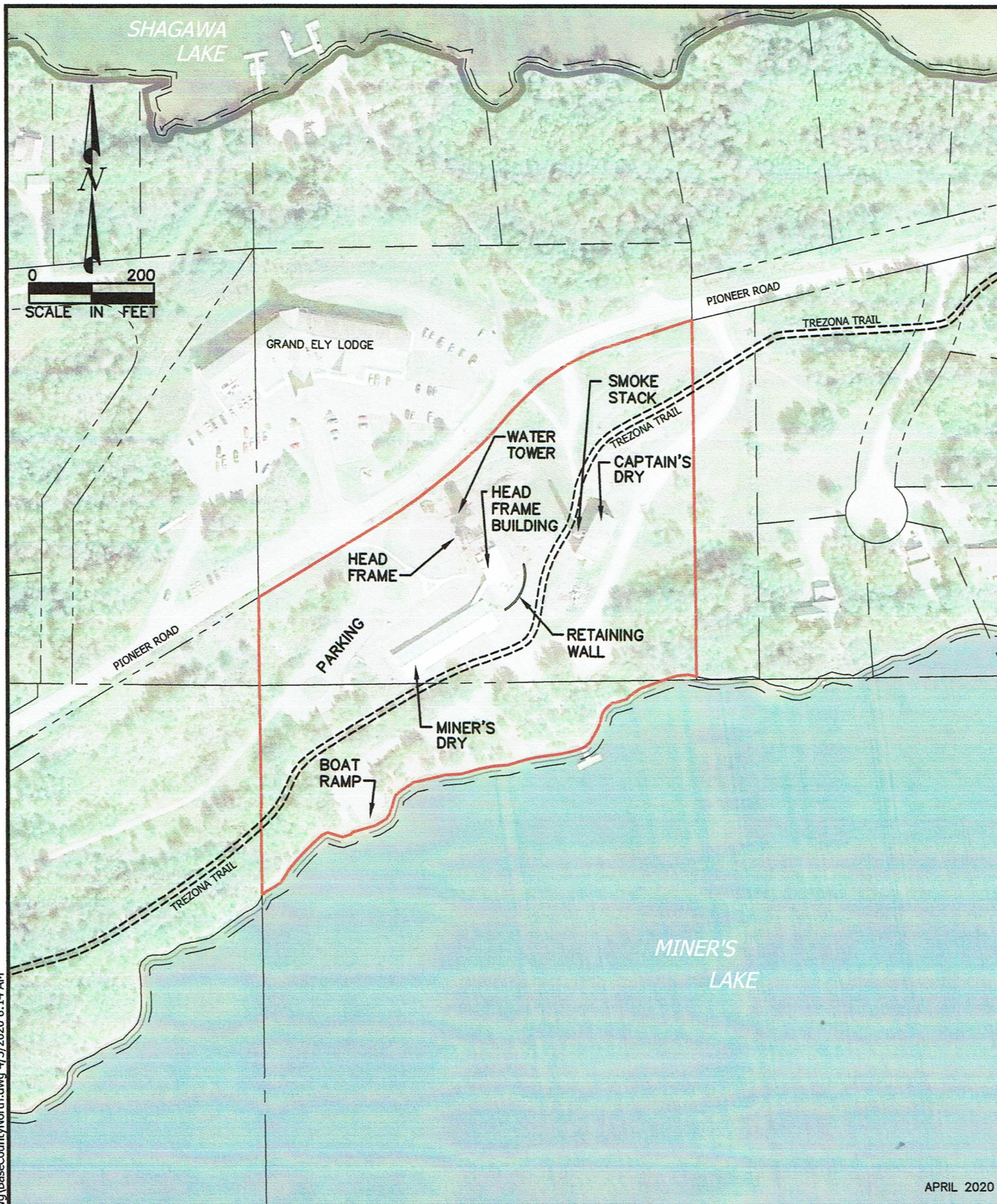
N/A

Does your project include original, hypothesis-driven research?

No

Does the organization have a fiscal agent for this project?

No



APRIL 2020



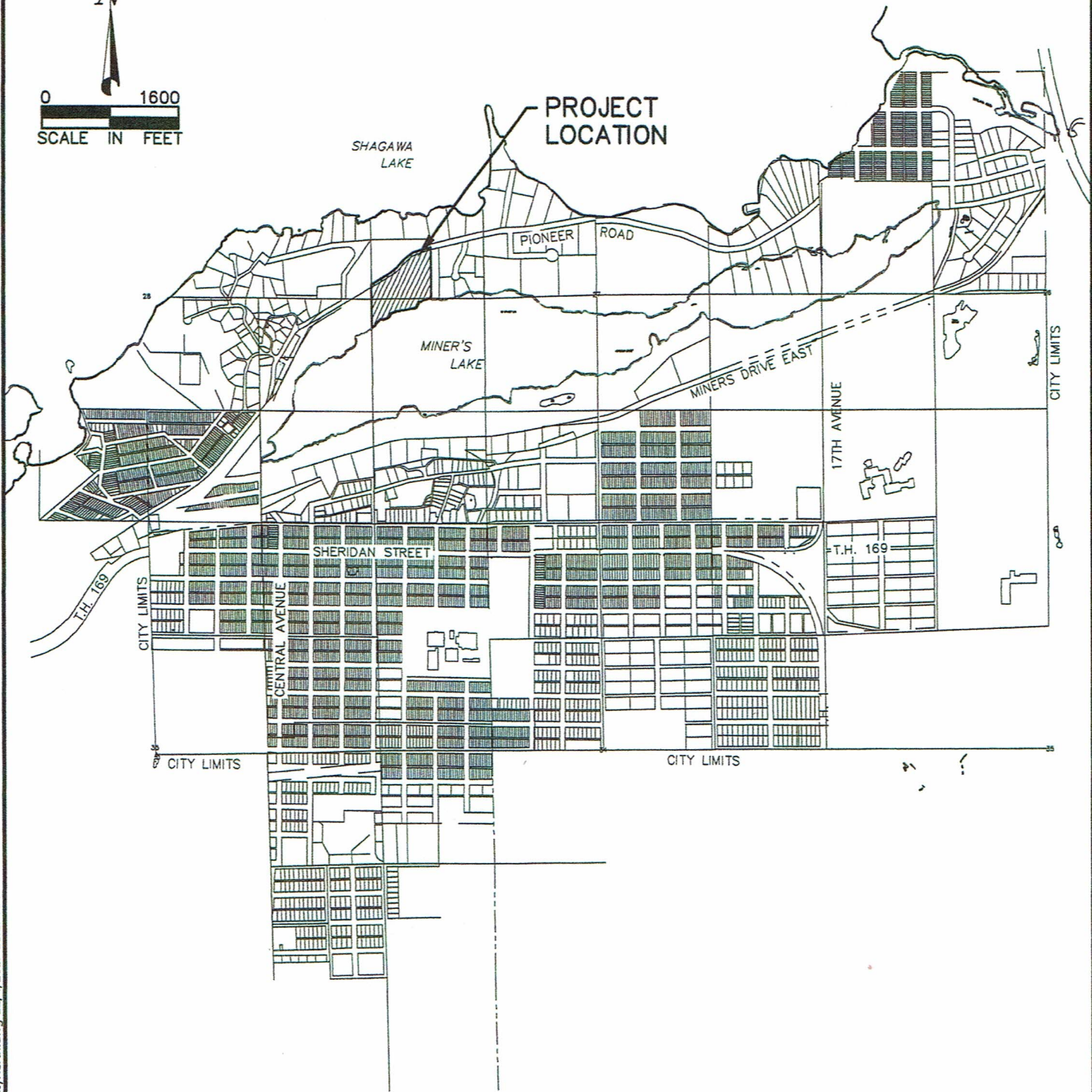
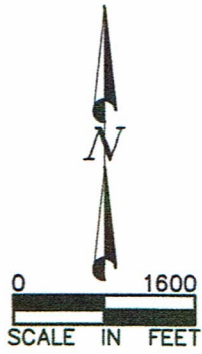
425 Grant Street
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PIONEER MINE SITE PLAN

ELY, MINNESOTA

PROJECT NUMBER

SHEET NUMBER



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DECEMBER 2017



425 Grant Street
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PIONEER MINE LOCATION MAP

ELY, MINNESOTA

PROJECT NUMBER

SHEET NUMBER