

# Environmental Assessment Worksheet

This most recent Environmental Assessment Worksheet (EAW) form and guidance documents are available at the Environmental Quality Board’s website at: <https://www.eqb.state.mn.us/> The EAW form provides information about a project that may have the potential for significant environmental effects. Guidance documents provide additional detail and links to resources for completing the EAW form.

**Cumulative potential effects** can either be addressed under each applicable EAW Item or can be addressed collectively under EAW Item 21.

**Note to reviewers:** Comments must be submitted to the RGU during the 30-day comment period following notice of the EAW in the *EQB Monitor*. Comments should address the accuracy and completeness of information, potential impacts that warrant further investigation and the need for an EIS.

## Table of Contents

1. Project Title: .....	1
2. Proposer: .....	1
3. Responsible Governmental Unit (RGU) .....	1
4. Reason for EAW Preparation .....	1
5. Project Location .....	1
6. Project Description .....	2
7. Climate Adaptation and Resilience .....	4
8. Cover Types .....	7
9. Permits and Approvals Required .....	8
10. Land use .....	9
11. Geology, Soils and Topography/Landforms .....	10
12. Water Resources .....	11
13. Contamination/Hazardous Materials/Wastes .....	16
14. Fish, Wildlife, Plant Communities, and Sensitive Ecological Resources (Rare Features) .....	18
15. Historic Properties .....	19
16. Visual .....	20
17. Air .....	20
18. Greenhouse Gas (GHG) Emissions/Carbon Footprint .....	21
19. Noise .....	23
20. Transportation .....	24
21. Cumulative Potential Effects .....	25
22. Other Potential Environmental Effects .....	26

## Tables

Table 1. Project Magnitude .....	3
Table 2. Climate Considerations and Adaptations.....	6
Table 3. Cover Types.....	7
Table 4. Green Infrastructure .....	7
Table 5. Permits and Approvals .....	8
Table 6. Soils Unit Characteristics.....	11
Table 7. Construction Emissions .....	21
Table 8. Operational Emissions .....	22
Table 9. Noise Area Classifications .....	23

## Exhibits

Exhibit 1. Vetter Stone Plant Sketch .....	2
Exhibit 2. Average Temperature for Le Sueur County (1895 – 2023) .....	4
Exhibit 3. Average Precipitation for Le Sueur County (1895 – 2023).....	5
Exhibit 4. Recent and Projected Future Temperature for Le Sueur County .....	5
Exhibit 5. Recent and Projected Future Precipitation for Le Sueur County.....	5

## Appendices

Appendix A. Figures
Appendix B. Site Plan
Appendix C. Ecological Resources
Appendix D. SHPO Correspondence
Appendix E. GHG Calculations

## Figures

Figure 1. Project Location Map
Figure 2. USGS Topographic Map
Figure 3. Existing Land Use Map
Figure 4. Interim Land Use Map
Figure 5. Proposed Land Use Map
Figure 6. Le Sueur County Soil Survey Map
Figure 7. Elevation Map
Figure 8. Surface Water Resources Map
Figure 9. Ground Water Resources Map
Figure 10. What's In My Neighborhood Map

1. **Project title:** *Vetter Stone Company*

2. **Proposer:** *Vetter Stone Company*

3. **RGU:** *Le Sueur County*

Contact person: *Donn Vetter*  
Title: *Quarry Manager*  
Address: *23894 3rd Avenue*  
City, State, ZIP: *Mankato, MN 56001*  
Phone: *507.345.4568*  
Fax: *N/A*  
Email: *donn@vetterstone.com*

Contact person: *Aaron Stubbs*  
Title: *Planning and Zoning Administrator*  
Address: *88 South Park Avenue*  
City, State, ZIP: *Le Center, MN 56057*  
Phone: *507.357.8538*  
Fax: *N/A*  
Email: *Astubbs@co.le-sueur.mn.us*

4. **Reason for EAW Preparation:** (check one)

Required:

- EIS Scoping  
 Mandatory EAW

Discretionary:

- Citizen petition  
 RGU discretion  
 Proposer initiated

If EAW or EIS is mandatory give EQB rule category subpart number(s) and name(s):

***MN Rules 4410.4300, Subp. 12 B***

***“For development of a facility for the extraction or mining of sand, gravel, stone, or other nonmetallic minerals, other than peat, which will excavate 40 or more acres of land to a mean depth of ten feet or more during its existence, the local governmental unit is the RGU.”***

5. **Project Location:**

- County: *Le Sueur*
- City/Township: *Kasota Township*
- PLS Location (¼, ¼, Section, Township, Range): *Sec 8 & 17, T109N, R26W*
- Watershed (81 major watershed scale): *Minnesota River – Mankato (28)*
- GPS Coordinates: *44.239680, -93.981662*
- Tax Parcel Number: *05.105.6110, 05.108.2710, 05.108.3310, 05.108.7700, 05.108.7800, 05.108.8010, 05.117.0700, 05.117.7600, 05.117.8000, 05.117.8100, & 05.117.8400*

**At a minimum attach each of the following to the EAW:**

- County map showing the general location of the project; (*See Appendix A – Figure 1*)
- U.S. Geological Survey 7.5 minute, 1:24,000 scale map indicating project boundaries (photocopy acceptable); (*See Appendix A – Figure 2*)
- Site plans showing all significant project and natural features. Pre-construction site plan and post-construction site plan. (*See Appendix B*)
- List of data sources, models, and other resources (from the Item-by-Item Guidance: *Climate Adaptation and Resilience* or other) used for information about current Minnesota climate trends and how climate change is anticipated to affect the general location of the project during the life of the project (as detailed below in item 7. Climate Adaptation and Resilience).

**6. Project Description:**

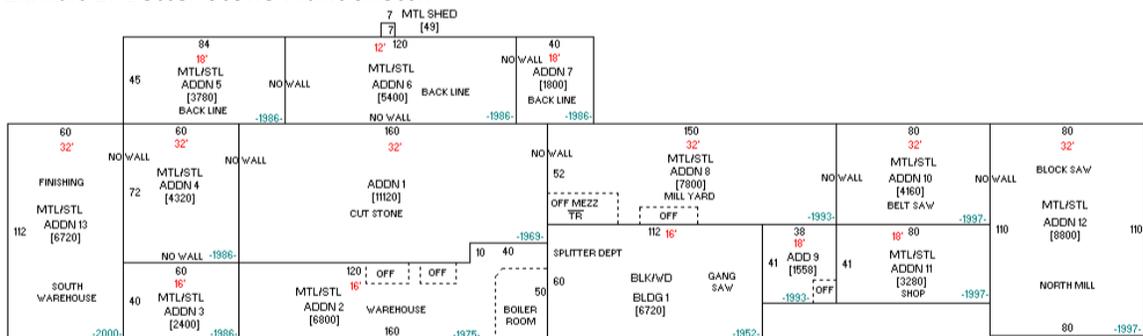
- a. Provide the brief project summary to be published in the *EQB Monitor*, (approximately 50 words).

*Vetter Stone Company is proposing to expand its existing permitted mine area located in Kasota Township, Le Sueur County, Minnesota. The project will include expanding the dimensional limestone and aggregate extraction area of the existing mine operation by approximately 152 acres across 11 parcels of land.*

- b. Give a complete description of the proposed project and related new construction, including infrastructure needs. If the project is an expansion include a description of the existing facility. Emphasize: 1) construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes, 2) modifications to existing equipment or industrial processes, 3) significant demolition, removal or remodeling of existing structures, and 4) timing and duration of construction activities

- 1) *No "Construction" will take place as part of the Project. Operational activities that will manipulate the environment will include mining activities. This will consist of the removal of overburden via excavation and blasting, and the extraction of dimensional limestone and aggregate. The mining area will consist predominantly of land that is currently pastureland.*
- 2) *No modifications will be made to the existing Vetter Stone Company equipment or industrial processes. These occur offsite and will not be relocated or need to be modified as part of the project. The Vetter Stone plant is located approximately 0.75 miles south of the Project site and is accessible from it via a private haul road. The plant consists of a single building which includes equipment for the milling, cutting, and finishing of stone. A sketch of the plant is included in Exhibit 1 below.*

**Exhibit 1: Vetter Stone Plant Sketch**



- 3) *No structures are currently located on the project site. As such, no significant demolition, removal, or remodeling of existing structures will occur as part of the project.*

- 4) *The hours of operation of the Project will be conducted in accordance with Le Sueur County Ordinance, which states: “The general hours of operation for all mining and processing operations shall be between of 6:00 AM and 7:00 PM, Monday through Saturday, unless otherwise specified in the plan.” and “The excavation, drilling, hauling, sawing, crushing, and other physical activities of mining cannot proceed until one hour after the initial start time.”*

*The life expectancy is inevitably dependent on mining practices, site characteristics, and many unknown variables such as the volume and quality of materials available and is a function of market demand and conditions. Under these circumstances, a life expectancy estimate can be highly undependable, however using maximum production rates and a most conservative estimate, the life expectancy of this expansion is anticipated at approximately one hundred (100) years. However, a completion date has not been set since the life expectancy of the mining site is a function of market conditions. If there is demand and material is needed, then, mining will take place, but may not be continuous. Upon conclusion of mining activities at the site, the reclamation plan will be implemented.*

- c. Project magnitude:

**Table 1: Project Magnitude**

Description	Number
Total Project Acreage	177.93 AC
Linear project length	N/A
Number and type of residential units	0
Residential building area (in square feet)	0
Commercial building area (in square feet)	0
Industrial building area (in square feet)	0
Institutional building area (in square feet)	0
Other uses – Mineral Extraction (in square feet)	6,627,756 SF (152.15 AC)
Structure height(s)	N/A

- d. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.

*The purpose of this project is to expand the approved mineral extraction area of the existing Vetter Stone Company quarry. This project is not being carried out by a governmental unit. The need for this project is demonstrated by Vetter Stone nearing the exhaustion of its existing permitted mining area as well as by the demand for dimensional limestone and aggregate in the construction and architecture industry. Beneficiaries of the project include Vetter Stone Company and their clients, both locally and worldwide, who purchase the stone for building materials.*

- e. Are future stages of this development including development on any other property planned or likely to happen?  Yes  No

If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.

N/A

- f. Is this project a subsequent stage of an earlier project?  Yes  No

If yes, briefly describe the past development, timeline and any past environmental review.

*Vetter Stone Company has been mining dimensional limestone in this area since 1954, with mining activities occurring in this area for over a century. No past environmental review has occurred for this project site or other Vetter Stone Company properties. Much of the existing Vetter Stone mining area consists of land that had been in mining land use since prior to state regulations and were therefore granted "grandfathered" permits without the need for an environmental review. 271 acres of land owned by the Vetter Stone Company received regulatory approval this way.*

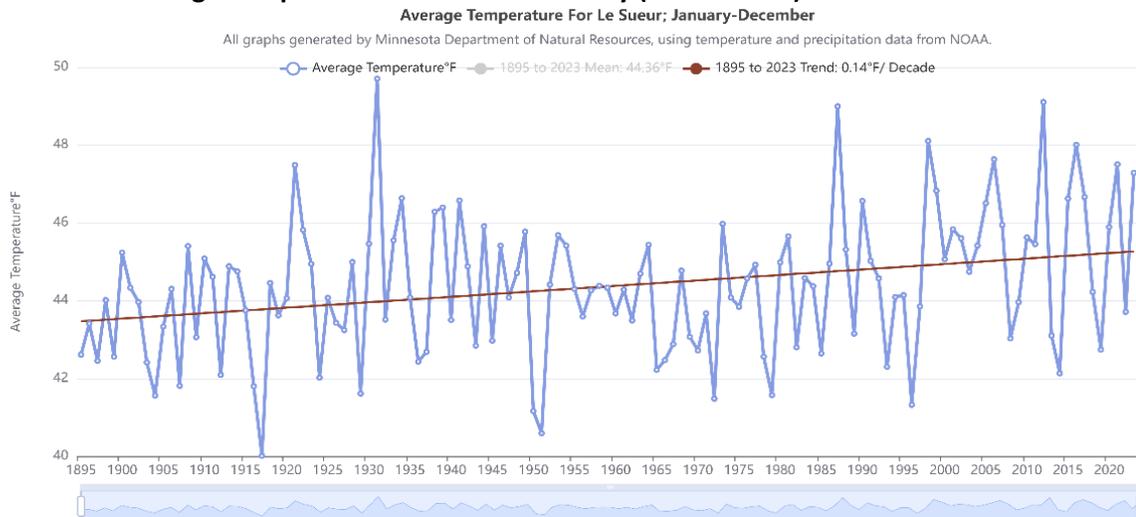
*A previous mine expansion was permitted in 2010. This expansion consisted of receiving a Conditional Use Permit with Le Sueur County to expand the approved mineral extraction area of Vetter Stone by 30 acres. This expansion did not meet the threshold for an EAW.*

## 7. Climate Adaptation and Resilience:

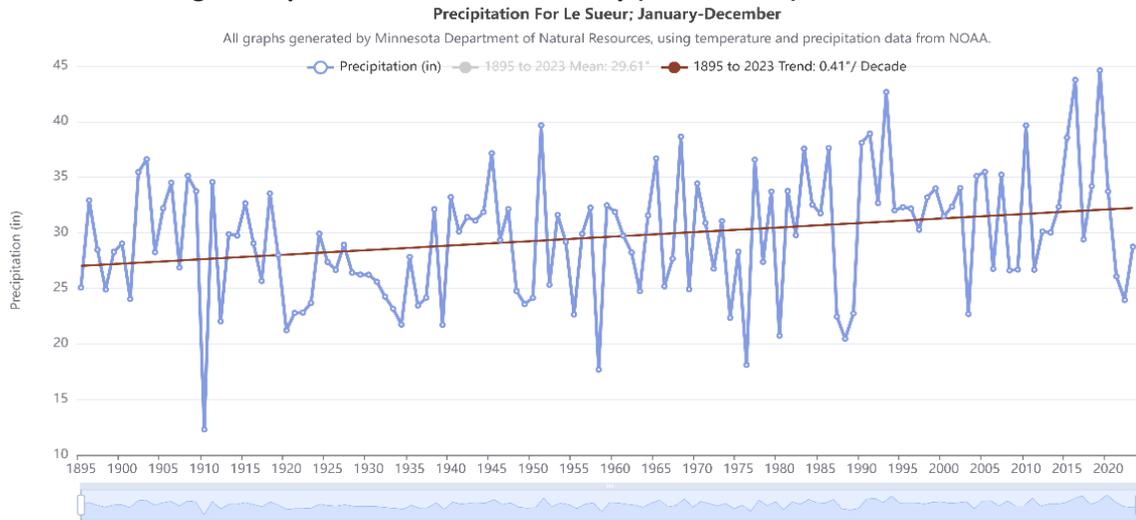
- a. Describe the climate trends in the general location of the project (see guidance: *Climate Adaptation and Resilience*) and how climate change is anticipated to affect that location during the life of the project.

*Climate trends in Minnesota have included warmer temperatures and increased rainfall. According to the Minnesota Department of Natural Resources (MnDNR) climate trends webpage between 1895 and 2020 average temperatures have warmed by 3.0 degrees Fahrenheit and annual precipitation has increased by an average of 3.4 inches. The local trends within Le Sueur County have been consistent with the statewide trends as evidenced from the graphs below. These trends are expected to continue at the project site over the life of the Project. Projected climate graphs are included in Exhibits 2-5 below.*

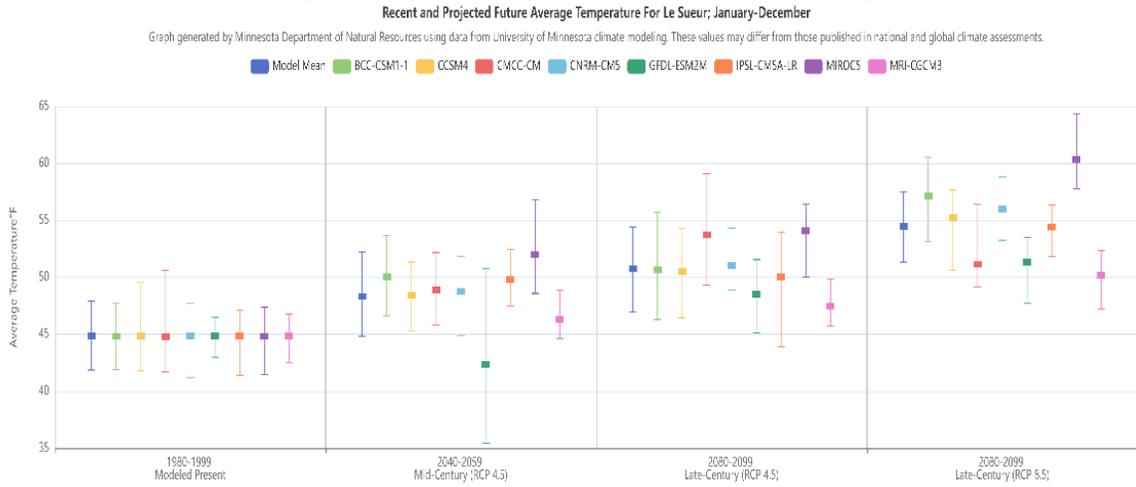
### Exhibit 2: Average Temperature for Le Sueur County (1895 – 2023)



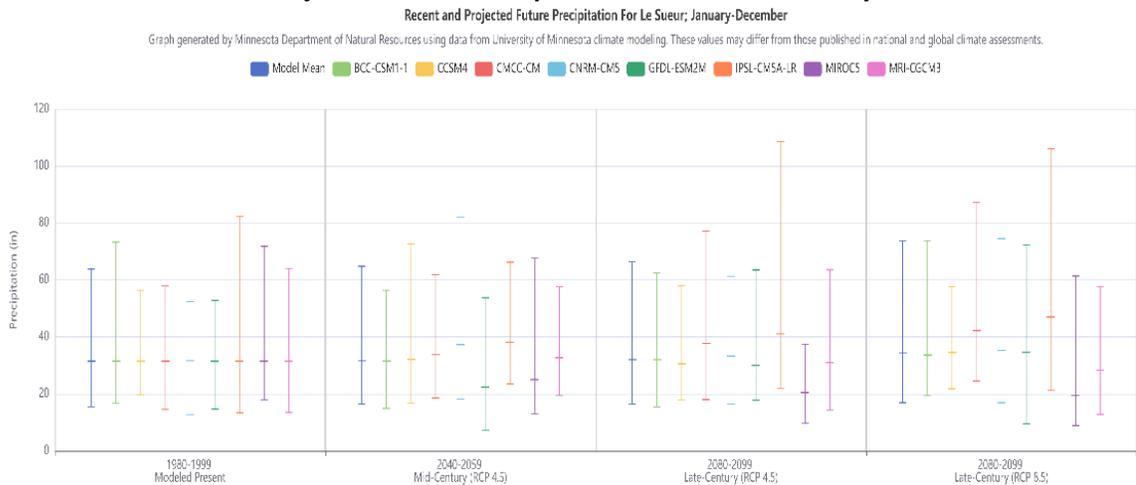
### Exhibit 3: Average Precipitation for Le Sueur County (1895 – 2023)



### Exhibit 4: Recent and Projected Future Temperature for Le Sueur County



### Exhibit 5: Recent and Projected Future Precipitation for Le Sueur County



- b. For each Resource Category in the table below: Describe how the project’s proposed activities and how the project’s design will interact with those climate trends. Describe proposed adaptations to address the project effects identified.

**Table 2: Climate Considerations and Adaptations**

<b>Resource Category</b>	<b>Climate Considerations</b>	<b>Project Information</b>	<b>Adaptations</b>
Project Design	<i>Increased heavy rainfall and flooding.</i>	<i>Expansion of the pit creates a larger water catchment basin which may be susceptible to unregulated discharge into adjacent waterbodies during flooding events.</i>	<i>The Project would include construction of stormwater Best Management Practices (BMPs), that provide resiliency to flooding events and prevent unplanned discharge of water into sensitive areas. The BMPs would assist in mitigating stormwater runoff rates, volumes, and pollutant loading.</i>
Land Use	<i>Heavier rainfall expected to increase risk of localized flooding.</i>	<i>The Project is not located within a FEMA defined floodplain or floodway.</i>	<i>The Project would include construction of stormwater BMPs, designed to meet or exceed local and Minnesota Pollution Control Agency requirements. Additionally, the Project would not result in the addition of impervious surface area, that can contribute to increased stormwater flow rates during heavy rains.</i>
Water Resources	<i>Address in item 12</i>	<i>Address in item 12</i>	<i>Address in item 12</i>
Contamination/ Hazardous Materials/Wastes	<i>Protection of water resources and soil from contamination.</i>	<i>Mobile aggregate washing units would be moved around the Project and there would also be vehicle circulation from time to time.</i>	<i>Fueling will occur away from the Project Area. There will be no above or below ground fuel storage tanks located on site. Fuel is stored offsite. Hazardous materials would not be stored within the mine operation, nor would wastes be created within the mine operation.</i>

Resource Category	Climate Considerations	Project Information	Adaptations
Fish, wildlife, plant communities, and sensitive ecological resources (rare features)	<i>Address in item 14.</i>	<i>Address in item 14.</i>	<i>Address in item 14.</i>

8. **Cover types:** Estimate the acreage of the site with each of the following cover types before and after development:

**Table 3: Cover Types**

Cover Types	Before (acres)	Interim (acres)	After (acres)
Wetlands and shallow lakes (<2 meters deep)	7.25	6.34	6.34
Deep lakes (>2 meters deep)	0.00	0.00	0.00
Wooded/forest	3.23	0.53	0.53
Rivers/streams	0.00	0.00	0.00
Brush/Grassland	0.00	0.00	0.00
Cropland	0.00	0.00	0.00
Livestock rangeland/pastureland	158.58	10.06	162.21
Lawn/landscaping	0.00	0.00	0.00
Green infrastructure TOTAL (from table below*)	0.00	0.00	0.00
Impervious surface	8.87	8.85	8.85
Stormwater Pond (wet sedimentation basin)	0.00	0.00	0.00
Other (Mineral Extraction)	0.00	152.15	0.00
<b>TOTAL</b>	<b>177.93</b>	<b>177.93</b>	<b>177.93</b>

*\*Existing land cover can be seen in Appendix A – Figure 3. Interim land cover while the site is actively being mined can be seen in Appendix A – Figure 4. Proposed land cover after mine reclamation can be seen in Appendix A – Figure 5.*

**Table 4: Green Infrastructure**

Green Infrastructure*	Before (acreage)	After (acreage)
Constructed infiltration systems (infiltration basins/infiltration trenches/rainwater gardens/bioretention areas without underdrains/swales with impermeable check dams)	0	0
Constructed tree trenches and tree boxes	0	0

<b>Green Infrastructure*</b>	<b>Before (acreage)</b>	<b>After (acreage)</b>
Constructed wetlands	0	0
Constructed green roofs	0	0
Constructed permeable pavements	0	0
Other (describe)	0	0
<b>TOTAL*</b>	0	0
<b><u>Trees</u></b>	<b><u>Percent</u></b>	<b><u>Number</u></b>
Percent tree canopy removed or number of mature trees removed during development	84	N/A
Number of new trees planted	0	N/A

**9. Permits and approvals required:** List all known local, state and federal permits, approvals, certifications and financial assistance for the project. Include modifications of any existing permits, governmental review of plans and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure. *All of these final decisions are prohibited until all appropriate environmental review has been completed. See Minnesota Rules, Chapter 4410.3100.*

**Table 5: Permits and Approvals**

<b>Unit of Government</b>	<b>Type of Application</b>	<b>Status</b>
<i>Le Sueur County</i>	<i>Conditional Use Permit</i>	<i>To be Submitted</i>
	<i>Wetland Conservation Act - Wetland Delineation</i>	<i>Approved (LGU #18-21)</i>
	<i>Wetland Conservation Act - Wetland Replacement Plan</i>	<i>Plan(s) To be Submitted as Needed and Prior to any Wetland Impacts</i>
<i>Minnesota Pollution Control Agency (MPCA)</i>	<i>NPDES Industrial Stormwater Permit</i>	<i>Active (#MNG 490173)</i>
<i>Minnesota Department of Natural Resources (MnDNR)</i>	<i>Water Appropriations Permit</i>	<i>Active (#1986-4092, #1986-4110, #1986-4094, &amp; #1986-4093)</i>
	<i>DNR Project Review</i>	<i>To be Completed</i>
	<i>Permit for the Take of Endangered or Threatened Species</i>	<i>To be Submitted if Deemed Necessary</i>

Cumulative potential effects may be considered and addressed in response to individual EAW Item Nos. 10-20, or the RGU can address all cumulative potential effects in response to EAW Item No.22. If addressing cumulative effect under individual items, make sure to include information requested in EAW Item No. 21.

## 10. Land use:

### a. Describe:

- i. Existing land use of the site as well as areas adjacent to and near the site, including parks and open space, cemeteries, trails, prime or unique farmlands.

*Existing land use of the site consists primarily of pastured grassland with multiple small depressional wetlands and a wooded area present. Existing land use on site can be seen in Appendix A – Figure 3. Adjacent land consists primarily of pastured grasslands, existing mine quarries, and railroad. There are no parks, public open space, cemeteries, trails, prime or unique farmlands located within or adjacent to the Project site.*

- ii. Plans. Describe planned land use as identified in comprehensive plan (if available) and any other applicable plan for land use, water, or resources management by a local, regional, state, or federal agency.

*The Le Sueur County Land Use Plan (July 24, 2007), hereinafter referred to as The Plan, has the entire project site mapped as “High Value Aggregate” within The Plan’s Aggregate Resource Areas Map. Goal #6 of The Plan states “Aggregate resources are a finite resource that is directly impacted by scattered site development. The County should protect its aggregate resources from premature development”. The Project will help the County meet this goal by allowing the high value aggregate located within the project site be extracted.*

- iii. Zoning, including special districts or overlays such as shoreland, floodplain, wild and scenic rivers, critical area, agricultural preserves, etc.

*The Le Sueur County Official Zoning Map (February 1, 2013) shows the site mapped within Conservancy and General Industry zones as well as within a Mineral Resources overlay district. The Le Sueur County Zoning Ordinance defines the purpose of Mineral Resource Overlay Districts as follows: “The Mineral Resources Overlay District is intended to protect areas with existing significant mineral resources including sand, gravel, limestone and sandstone deposits”. The Project will help fulfill the intended purpose of the overlay district. Mine operations will not occur within 200’ of a residential dwelling as required by the Le Sueur County zoning ordinance.*

*There are no areas of FEMA floodplain, wild and scenic river segments, critical areas, agricultural preserves, or airport safety zones located within or adjacent to the project site.*

- iv. If any critical facilities (i.e. facilities necessary for public health and safety, those storing hazardous materials, or those with housing occupants who may be insufficiently mobile) are proposed in floodplain areas and other areas identified as at risk for localized flooding, describe the risk potential considering changing precipitation and event intensity.

*No work involving any critical facilities is proposed to take place as part of the project.*

- b. Discuss the project's compatibility with nearby land uses, zoning, and plans listed in Item 9a above, concentrating on implications for environmental effects.

*There were no identified compatibility conflicts between the proposed Project and nearby land uses, local plans, or zoning. The Project's the projects operational mining activities and post project reclaimed state are in line with goals laid out within both the County Plan and zoning ordinances and are compatible with adjacent land uses.*

- c. Identify measures incorporated into the proposed project to mitigate any potential incompatibility as discussed in Item 10b above and any risk potential.

*There are no incompatibility measures to mitigate.*

## **11. Geology, soils and topography/land forms:**

- a. Geology - Describe the geology underlying the project area and identify and map any susceptible geologic features such as sinkholes, shallow limestone formations, unconfined/shallow aquifers, or karst conditions. Discuss any limitations of these features for the project and any effects the project could have on these features. Identify any project designs or mitigation measures to address effects to geologic features.

*Minnesota County Geologic Atlas data was not available for Le Sueur County. A Le Sueur County Geologic Atlas published by the Mankato State University Water Resources Center in July 1991, has the bedrock geology mapped as Prairie Du Chien Group which is described as follows: "Dolomite and sandy dolomite with beds of quartzose sandstone; may contain thin beds of soft shale or sediment filled crevices. The top of the Prairie Du Chien marks a major erosional unconformity; may vary greatly in thickness."*

*Due to adjacent mining operations the site is known to contain a limestone formation that ranges from approximately 35' to 50' deep from the ground surface. This typically consists of 12' to 24' of overburden, 6' to 8' of dimensional stone, and 12' to 15' of overburden. Underneath the limestone formation is a Jordan sandstone formation which ranges from approximately 60' to 80' deep. No mining below the limestone formation is proposed to occur as part of the project.*

*There are no known or mapped sinkholes or karst features identified within or near the project site.*

- b. Soils and topography - Describe the soils on the site, giving NRCS (SCS) classifications and descriptions, including limitations of soils. Describe topography, any special site conditions relating to erosion potential, soil stability or other soils limitations, such as steep slopes, highly permeable soils. Provide estimated volume and acreage of soil excavation and/or grading. Discuss impacts from project activities (distinguish between construction and operational activities) related to soils and topography. Identify measures during and after project construction to address soil limitations including stabilization, soil corrections or other measures. Erosion/sedimentation control related to stormwater runoff should be addressed in response to Item 12.b.ii.

*NRCS soil classifications with the Project Site and are illustrated on Appendix A – Figure 6, soils unit characteristics are provided in Table 6 below.*

**Table 6: Soils Unit Characteristics**

Map Symbol	Soil Unit Name	Slopes (%)	HEL*	Hydrologic Group**	Hydric Rating***	Farmland Classification
100B	Copaston loam	1-6	NHEL	D	Predominately Non-Hydric	Not Prime Farmland
1013	Pits, quarry	N/A	NHEL	N/A	Non-Hydric	Not Prime Farmland
W	Water	N/A	N/A	N/A	N/A	Not Prime Farmland

*\*Highly Erodible Land*

HEL: Highly Erodible Land

PHEL: Potentially Highly Erodible Land

NHEL: Not Highly Erodible Land

*\*\*Infiltration Rate*

A: >0.30 in/hr

B: 0.15-0.30 in/hr

C: 0.05-0.15 ins/hr

D: <0.05 in/hr

*\*\*\*Percent Hydric Rating*

Hydric: 100%

Predominately Hydric: ≥ 67% & <100%

Partially Hydric: ≥ 33% & <67%

Predominately Non-Hydric: ≤ 1% & <33%

Not Hydric: 0%

*There is no land within the project with a soil farmland classification rating of either “Farmland of Statewide Importance” or “All Areas are Prime Farmland”. Additionally, there is currently no land within the Project site that is cultivated for agricultural production. As a result, no farmland will be taken out of production because of the project.*

*The erosion capabilities of the soils are susceptible as described by the NRCS Soil Erodibility (Kw) Factor rating which was 0.28 across the site. All the soils on site are “Non-Highly Erodible” soils. A Storm Water Pollution Prevention Plan (SWPPP) has been developed for Project site to manage potential erosion and meet the requirements of the Vetter Stone’s existing National Pollutant Elimination System (NPDES) permit (#MNG 490173).*

*Topography of the Project site, collected via LiDAR, is illustrated on Appendix A – Figure 7. Existing site elevations were shown ranging from 820’ to 846’ msl. No areas of steep slopes (12% or greater) are present within the site.*

- NOTE: For silica sand projects, the EAW must include a hydrogeologic investigation assessing the potential groundwater and surface water effects and geologic conditions that could create an increased risk of potentially significant effects on groundwater and surface water. Descriptions of water resources and potential effects from the project in EAW Item 12 must be consistent with the geology, soils and topography/land forms and potential effects described in EAW Item 11.

**12. Water resources:**

- a. Describe surface water and groundwater features on or near the site in a.i. and a.ii. below.
  - i. Surface water - lakes, streams, wetlands, intermittent channels, and county/judicial ditches. Include any special designations such as public waters, shoreland classification and floodway/floodplain, trout stream/lake, wildlife lakes, migratory waterfowl feeding/resting lake, and outstanding resource value water. Include the presence of aquatic invasive species and the water quality impairments or special designations listed on the current MPCA 303d Impaired Waters List that are within 1 mile of the project. Include DNR Public Waters Inventory number(s), if any.

*There are no DNR Public Waters, designated wildlife lakes, migratory waterfowl feeding/resting areas, trout streams/lakes, outstanding resource value waters, or county or jurisdictional ditches within the project area.*

*Eight wetland areas, totaling approximately 7.25 acres, were delineated within the Project site and approved by the Local Government Unit (Le Sueur SWCD) of the Minnesota Wetland Conservation Act (Minnesota Rules 8420). A Notice of Decision was issued on November 9, 2021 (LGU Project No. 18-21).*

*Prominent water features located within 1 mile of the project site include an unnamed tributary (M-055-072) of the Minnesota River as well as the DNR Public Waters wetland Long Lake (40012200). Long Lake is located approximately 400' to the northwest of the Project site. The unnamed tributary is located to the south of the Project area, the closest it comes to the site is approximately 700' from its southeast corner. A stretch of this watercourse was a MPCA Section 303d listed impaired water. It was listed for fish bioassessments and benthic macroinvertebrates bioassessments.*

*Surface water resources located within and adjacent to the Project site are illustrated on Appendix A – Figure 8.*

- ii. Groundwater – aquifers, springs, seeps. Include: 1) depth to groundwater; 2) if project is within a MDH wellhead protection area; 3) identification of any onsite and/or nearby wells, including unique numbers and well logs if available. If there are no wells known on site or nearby, explain the methodology used to determine this.
  - 1) *Depth to groundwater was taken from four monitoring wells which are present within the Project site (MDH #783166, #783167, #783173, & #783174). Water levels in the most recent data record (September 27, 2022) were measured at 796.28', 785.20', 791.77', & 796.26' MSL respectively.*
  - 2) *The Project site is not located within a MDH wellhead protection area.*
  - 3) *According to the Minnesota Department of Health – Minnesota Well Index, there are four monitoring wells (MDH #783166, #783167, #783173, & #783174) located within the Project site. These wells were installed by previous owners of the property and have not been used by Vetter Stone Company. These wells will be sealed prior to mining activity reaching them. Multiple other monitoring wells were mapped adjacent to the Project site.*

*Groundwater resources located within and adjacent to the Project site are illustrated on Appendix A – Figure 9.*

- b. Describe effects from project activities on water resources and measures to minimize or mitigate the effects in Item b.i. through Item b.iv. below.

i. Wastewater - For each of the following, describe the sources, quantities and composition of all sanitary, municipal/domestic and industrial wastewater produced or treated at the site.

- 1) If the wastewater discharge is to a publicly owned treatment facility, identify any pretreatment measures and the ability of the facility to handle the added water and waste loadings, including any effects on, or required expansion of, municipal wastewater infrastructure.

*N/A, no wastewater is expected to be produced by the mine operations.*

- 2) If the wastewater discharge is to a subsurface sewage treatment systems (SSTS), describe the system used, the design flow, and suitability of site conditions for such a system. If septic systems are part of the project, describe the availability of septage disposal options within the region to handle the ongoing amounts generated as a result of the project. Consider the effects of current Minnesota climate trends and anticipated changes in rainfall frequency, intensity and amount with this discussion.

*N/A, no wastewater is expected to be produced by the mine operations.*

- 3) If the wastewater discharge is to surface water, identify the wastewater treatment methods and identify discharge points and proposed effluent limitations to mitigate impacts. Discuss any effects to surface or groundwater from wastewater discharges, taking into consideration how current Minnesota climate trends and anticipated climate change in the general location of the project may influence the effects.

*N/A, no wastewater is expected to be produced by the mine operations.*

ii. Stormwater - Describe changes in surface hydrology resulting from change of land cover. Describe the routes and receiving water bodies for runoff from the project site (major downstream water bodies as well as the immediate receiving waters). Discuss environmental effects from stormwater discharges on receiving waters post construction including how the project will affect runoff volume, discharge rate and change in pollutants. Consider the effects of current Minnesota climate trends and anticipated changes in rainfall frequency, intensity and amount with this discussion. For projects requiring NPDES/SDS Construction Stormwater permit coverage, state the total number of acres that will be disturbed by the project and describe the stormwater pollution prevention plan (SWPPP), including specific best management practices to address soil erosion and sedimentation during and after project construction. Discuss permanent stormwater management plans, including methods of achieving volume reduction to restore or maintain the natural hydrology of the site using green infrastructure practices or other stormwater management practices. Identify any receiving waters that have construction-related water impairments or are classified as special as defined in the Construction Stormwater permit. Describe additional requirements for special and/or impaired waters.

*The quality of existing stormwater runoff from the project is typical of pastured lands. Stormwater runoff naturally flows from upland areas to lower elevations on site as sheet flow where it generally gets conveyed into the low-lying depressions or wetland basins within or adjacent to the Project site.*

*During mining operation, as well as following reclamation, the overland stormwater flow on site will generally not leave the Project site due to the highwalls that exist currently and those that will be created. This includes both stormwater that is generated on site as well as any stormwater generated off site that flows in the site. Therefore, the quantity of stormwater runoff exiting the site is anticipated to decrease as a result of runoff being captured and allowed to infiltrate onsite within mined areas. Likewise, the quality of stormwater runoff following reclamation is anticipated to be similar to or better than that of the existing conditions as a result of runoff being captured and allowed to infiltrate onsite within mined areas.*

*Vetter Stone Company has obtained a National Pollutant Elimination System (NPDES) permit (#MNG 490173) for its existing mining operations. This permit can be amended to include the new mine area as necessary, and the Project will conform with the requirements of the permit. The permit is intended to eliminate or minimize stormwater contact with significant materials that may result in pollution of runoff and to identify and manage non-stormwater discharges. A Storm Water Pollution Prevention Plan (SWPPP) has been developed for Project site to ensure that the Project complies with the permit.*

- iii. Water appropriation - Describe if the project proposes to appropriate surface or groundwater (including dewatering). Describe the source, quantity, duration, use and purpose of the water use and if a DNR water appropriation permit is required. Describe any well abandonment. If connecting to an existing municipal water supply, identify the wells to be used as a water source and any effects on, or required expansion of, municipal water infrastructure. Discuss environmental effects from water appropriation, including an assessment of the water resources available for appropriation. Discuss how the proposed water use is resilient in the event of changes in total precipitation, large precipitation events, drought, increased temperatures, variable surface water flows and elevations, and longer growing seasons. Identify any measures to avoid, minimize, or mitigate environmental effects from the water appropriation. Describe contingency plans should the appropriation volume increase beyond infrastructure capacity or water supply for the project diminish in quantity or quality, such as reuse of water, connections with another water source, or emergency connections.

*Vetter Stone Company has been granted four water appropriation permits (#1986-4092, #1986-4093, #1986-4094, & #1986-4110) for dewatering its existing mine operations. Permit 4092 is for quarry dewatering via a portable pump and allows water appropriation at a rate up to 1,100 gallons per minute (GPM) and up to 135 million gallons per year. Permit 4093 is for cooling water for an air compressor used to operate quarry equipment and allows water appropriation at a rate up to 20 GPM and up to 5 million gallons per year. Permit 4094 is for quarry dewatering via two portable pumps and allows water appropriation at a rate up to 1,950 GPM and up to 240 million gallons per year. Permit 4110 is for quarry dewatering via a portable pump and allows water appropriation at a rate up to 1,100 GPM and up to 135 million gallons per year. These permits will remain in effect for operations and will be amended if needed. It is anticipated that the current water appropriation for the operation would be sufficient for the expansion area.*

iv. Surface Waters

- a) Wetlands - Describe any anticipated physical effects or alterations to wetland features such as draining, filling, permanent inundation, dredging and vegetative removal. Discuss direct and indirect environmental effects from physical modification of wetlands, including the anticipated effects that any proposed wetland alterations may have to the host watershed, taking into consideration how current Minnesota climate trends and anticipated climate change in the general location of the project may influence the effects. Identify measures to avoid (e.g., available alternatives that were considered), minimize, or mitigate environmental effects to wetlands. Discuss whether any required compensatory wetland mitigation for unavoidable wetland impacts will occur in the same minor or major watershed and identify those probable locations.

*Eight wetland areas, totaling approximately 7.25 acres, were delineated within the Project site and approved by the Local Government Unit (Le Sueur County) of the Minnesota Wetland Conservation Act (Minnesota Rules 8420). A Notice of Decision was issued on November 9, 2021 (LGU Project No. 18-21).*

*It is estimated that the Project will result in up to approximately 1 acre of permanent wetland impacts. The wetlands to be impacted are all small, isolated basins which would introduce multiple challenges to avoid. This would include complicated blasting procedures and other safety concerns such as irregular and instable sheer walls.*

*The small size and hydrologic type of the wetlands to be impacted are more vulnerable to minor changes within the surrounding landscape than larger wetland complexes. If the wetlands were avoided, the proposed change in land use within the drainage area would likely result in secondary or indirect impacts to the functions and values of the wetlands, as they are reliant on surface water runoff to provide hydrology.*

*Following the mine expansion, hydrology inputs from the existing wetland watersheds would be routed into the mine pit, which would reduce watershed to wetland area ratios. It would also be problematic trying to redirect stormwater from the mine pit into the remaining wetland areas to try to supplement hydrology post construction. Although these impacts may not be immediate, the long-term effects would likely not sustain the wetlands' current or historic functions or services.*

*Any impacted wetland areas will be mitigated through the purchase of offsite wetland bank credits from an approved wetland bank. A wetland replacement plan application will be submitted to the WCA LGU prior to any wetland impacts.*

- b) Other surface waters- Describe any anticipated physical effects or alterations to surface water features (lakes, streams, ponds, intermittent channels, county/judicial ditches) such as draining, filling, permanent inundation, dredging, diking, stream diversion, impoundment, aquatic plant removal and riparian alteration. Discuss direct and indirect environmental effects from physical modification of water features, taking into consideration how current Minnesota climate trends and anticipated climate change in the general location of the project may influence the effects. Identify measures to avoid, minimize, or mitigate environmental effects to surface water features, including in-water Best Management Practices that are proposed to avoid or minimize turbidity/sedimentation while physically altering the water features. Discuss how the project will change the number or type of watercraft on any water body, including current and projected watercraft usage.

*No other surface water features (lakes, streams, intermittent channels, or county/jurisdictional ditches) will be directly or indirectly altered during the operation of the Project.*

### **13. Contamination/Hazardous Materials/Wastes:**

- a. Pre-project site conditions - Describe existing contamination or potential environmental hazards on or in close proximity to the project site such as soil or ground water contamination, abandoned dumps, closed landfills, existing or abandoned storage tanks, and hazardous liquid or gas pipelines. Discuss any potential environmental effects from pre-project site conditions that would be caused or exacerbated by project construction and operation. Identify measures to avoid, minimize or mitigate adverse effects from existing contamination or potential environmental hazards. Include development of a Contingency Plan or Response Action Plan.

*Minnesota Pollution Control Agency (MPCA) records do not indicate any current or former contamination sites within or immediately adjacent to the project area. The MPCA's What's In My Neighborhood database of known sites within proximity of the project area is illustrated on Appendix A – Figure 10.*

*There were two documented petroleum leaks within one mile radius of the project site. The leaks occurred at the Perendy Residence site located approximately 1,700' to the east of the Project site and Covia Holdings Corp – Kasota Plant, located approximately 1,900' to the north. Both sites have been issued regulatory site closures.*

*The Project proposer anticipates a minimal risk of encountering contaminated materials or groundwater during mining operations based on the lack of past land uses and due to geographic location of the listed leak sites in relation to the project area. Project operation is not expected to cause or exacerbate a pre-project contaminated condition(s); therefore, no measures are planned to avoid, minimize, or mitigate adverse effects from existing contamination or potential environmental hazards.*

*If potentially contaminated materials (or other environmental hazards) are discovered during operations, the Project proposer will immediately cease activities in the area, then take appropriate and reasonable actions to contain and reduce the human health/environmental risk prior to contacting the State of Minnesota Duty Officer. The development of a Contingency Plan or Response Action Plan will be initiated if analytical results characterize the discovered materials as a regulated contaminated waste.*

- b. Project related generation/storage of solid wastes - Describe solid wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from solid waste handling, storage and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of solid waste including source reduction and recycling.

*Solid waste is not anticipated to be generated from Project operations.*

- c. Project related use/storage of hazardous materials - Describe chemicals/hazardous materials used/stored during construction and/or operation of the project including method of storage. Indicate the number, location and size of any new above or below ground tanks to store petroleum or other materials. Indicate the number, location, size and age of existing tanks on the property that the project will use. Discuss potential environmental effects from accidental spill or release of hazardous materials. Identify measures to avoid, minimize or mitigate adverse effects from the use/storage of chemicals/hazardous materials including source reduction and recycling. Include development of a spill prevention plan.

*Hazardous materials (portable fuel tanks and lubricants) may be used for equipment maintenance during Project operations. These materials will only be used on an as needed basis. To ensure that spills do not contaminate surface and ground waters, maintenance activities will occur at reasonable distances from surface waters and steep sloped areas. Currently, when possible, all vehicle, machine, and equipment maintenance activities take place off-site in the garage of the Vetter Stone Company plant to minimize hazardous waste at the mine site. This will continue to be the case for the operation of the Project. The operator will be required to abide by the pollution prevention management measures within the NPDES Permit.*

*There are no existing below ground storage tanks for petroleum or other hazardous materials on the site. No above or below ground tanks for fuel storage are anticipated to be used on the site.*

- d. Project related generation/storage of hazardous wastes - Describe hazardous wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from hazardous waste handling, storage, and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of hazardous waste including source reduction and recycling.

*Small amounts of toxic or hazardous materials such as wastes associated with servicing vehicles and maintaining equipment may be generated during Project operations. These could potentially include used fuel oil, lubricants, filters, and petroleum-based products. Currently, when possible, all vehicle, machine, and equipment maintenance activities take place off-site in the garage of the Vetter Stone Company plant to minimize hazardous waste at the mine site. This will continue to be the case for the operation of the Project.*

*The Environmental Protection Agency (EPA) and MPCA have specific regulations in place regarding the handling, transport, and disposal of various hazardous waste products. Should a spill occur, notification of the MN Duty Officer is required. The site operators are responsible for proper management and disposal of any wastes generated.*

**14. Fish, wildlife, plant communities, and sensitive ecological resources (rare features):**

- a. Describe fish and wildlife resources as well as habitats and vegetation on or in near the site.

*Ecological land units for the project area have been mapped and defined in the Ecological Classification System (ECS), which has been adopted by the Minnesota DNR. The project location occurs in the Big Woods subsection (222Mb). The Big Woods historically consisted of oak and maple forests but now consists primarily of agricultural land.*

*The Project site itself largely consists of pastured grasslands with small areas of wetland and wooded land. Grassland comprises of approximately 158 acres of the site while wetlands comprise approximately 7 acres and wooded land 3 acres. The lands adjacent to the Project site consist of additional pastured grassland as well as mined quarries.*

- b. Describe rare features such as state-listed (endangered, threatened or special concern) species, native plant communities, Minnesota Biological Survey Sites of Biodiversity Significance, and other sensitive ecological resources on or within close proximity to the site. Provide the license agreement number (LA-\_\_\_\_\_) and/or correspondence number (MCE\_\_\_\_\_) from which the data were obtained and attach the Natural Heritage Review letter from the DNR. Indicate if any additional habitat or species survey work has been conducted within the site and describe the results.

*Natural Heritage Information System (NHIS) data for Le Sueur County has been obtained by ISG via a license agreement with the Minnesota DNR (LA 2023-018). A review of the database identified three rare features within the Project site that could have the potential to be adversely affected by the proposed project. These rare features included one vascular plant species, the Small White Lady's-slipper, and two vertebrate animal species, the North American Racer and Loggerhead Shrike.*

*An official DNR NHIS review request was submitted and received (MCE-2024-00266). The review identified the following species plant species Tuberous Indian-plantain, Sullivant's milkweed, rattlesnake master, and black disc lichen and the following bird species: Henslow's sparrow, loggerhead shrike, lark sparrow, and Bell's vireo. A copy of the Review Letter is included in Appendix C.*

*There were two areas of Minnesota County Biological Survey Sites of Biodiversity Significance located within the project area. These areas were the MBS sites "Kasota Prairie SNA" and "Kasota South 18". The biodiversity significance ranks of the sites were listed as "Outstanding" and "High" respectively.*

*A U.S. Fish & Wildlife Service Official Species List for the Project site listed one federally listed Endangered species, the Northern Long-Eared Bat (NLEB), two Proposed Endangered species, the Tricolored Bat and Salamander Mussel, and one Candidate species, the Monarch Butterfly. There were no critical habitats mapped within the project site. The U.S. Fish & Wildlife Service Official Species List can be seen in Appendix C.*

- c. Discuss how the identified fish, wildlife, plant communities, rare features and ecosystems may be affected by the project including how current Minnesota climate trends and anticipated climate change in the general location of the project may influence the effects. Include a discussion on introduction and spread of invasive species from the project construction and operation. Separately discuss effects to known threatened and endangered species.

*Plant communities will be affected by the change in land use. Approximately 148 acres of grassland, 3 acres of wooded land, and 1 acre of wetland will be impacted for mineral extraction. This includes impacts to portions of MBS sites and potential habitat for state listed species.*

*The Project site is not located within a half-mile radius of a known hibernaculum. A hibernaculum is an over winter habitat for NLEB and Tricolored Bat and includes caves and underground mines. Other habitats for these bats include underneath the bark, cavities, or in crevices of both live and dead trees as well as crevices in rock faces. Tree clearing will be limited to the NLEB inactive season of November 15 through March 31. Mining activities will create new rock faces which may be used as habitat for NLEB. Due to a combination of these factors, it was determined that the project will result in a “May Effect – Not Likely to Adversely Affect” determination both the NLEB and Tricolored Bat.*

*Salamander Mussels inhabits rivers, streams, and in some cases lakes with natural flow regimes. None of these habitats will be impacted by the Project. As a result, it was determined that the project will result in a “No Effect” determination to the Salamander Mussel.*

*Monarch butterfly’s live in a variety of habitats but need nectar sources for food and can only lay eggs on milkweed plants. There is potential for Monarch Butterfly to be located at the Project site. The reclamation plan, which will be approved as part of the CUP, will include planting impacted areas with a native prairie seeding. As such, it was determined that at the end of the Project, there will be “No Effect” to the monarch butterfly.*

*The project is not likely to introduce or spread invasive species during operation. There are no measures planned to mitigate the spread of invasive species.*

- d. Identify measures that will be taken to avoid, minimize, or mitigate the adverse effects to fish, wildlife, plant communities, ecosystems, and sensitive ecological resources.

*Plant communities and habitats that are lost during Project operations will be restored following reclamation of the site. The reclamation plan, which will be approved as part of the CUP, will include planting impacted areas with a native prairie seeding, which will provide an ecological value comparable to existing conditions.*

*Two large wetland complexes are present partially within the Project site. These wetlands are proposed to be avoided with mineral extraction not to occur within 50’ of their delineated boundaries. The smaller, isolated wetlands which are proposed to be impacted as part of the Project will be mitigated through the purchase of offsite wetland bank credits from an approved wetland bank.*

*Avoidance measures outlined within the DNR NHIS Letter will be implemented. A copy of the Review Letter is included in Appendix C. Vetter Stone will engage with MNDNR on project review as suggested in the NHIS letter and will obtain the necessary permits and approvals for impacts to state-listed species, rare plant communities, or calcareous fens prior to project activities.*

## **15. Historic properties:**

Describe any historic structures, archeological sites, and/or traditional cultural properties on or in close proximity to the site. Include: 1) historic designations, 2) known artifact areas, and 3) architectural features. Attach letter received from the State Historic Preservation Office (SHPO). Discuss any anticipated effects to historic properties during project construction and operation. Identify measures that will be taken to avoid, minimize, or mitigate adverse effects to historic properties.

*Information was requested and received from the Minnesota Historical Society State Historic Preservation Office (SHPO). Upon conducting a search of the Minnesota Archaeological Inventory and Historic Structures Inventory, no previously known archaeological sites or historic properties/structures were identified within the proposed project. Reviews of the Minnesota Statewide Historic Inventory Portal (MnSHIP) and National Register of Historic Places (NRHP) were conducted with no historic features were mapped within the Project site. As a result, the proposed project is not anticipated to have no direct or indirect adverse impacts to any historic structures, archeological sites, and/or traditional cultural properties. A copy of the SHPO correspondence can be seen in Appendix D.*

**16. Visual:**

Describe any scenic views or vistas on or near the project site. Describe any project related visual effects such as vapor plumes or glare from intense lights. Discuss the potential visual effects from the project. Identify any measures to avoid, minimize, or mitigate visual effects.

*There are no scenic views or vistas located on or near the project site. This Project is located in an area that is already dominated by mining land use. The project is not anticipated to create any significant visual nuisances such as intense light pollution or vapor plumes.*

**17. Air:**

- a. Stationary source emissions - Describe the type, sources, quantities and compositions of any emissions from stationary sources such as boilers or exhaust stacks. Include any hazardous air pollutants, criteria pollutants. Discuss effects to air quality including any sensitive receptors, human health or applicable regulatory criteria. Include a discussion of any methods used assess the project's effect on air quality and the results of that assessment. Identify pollution control equipment and other measures that will be taken to avoid, minimize, or mitigate adverse effects from stationary source emissions.

*There are no stationary sources of air emissions proposed as part of the project. No sensitive receptors are located on or nearby the project site.*

- b. Vehicle emissions - Describe the effect of the project's traffic generation on air emissions. Discuss the project's vehicle-related emissions effect on air quality. Identify measures (e.g. traffic operational improvements, diesel idling minimization plan) that will be taken to minimize or mitigate vehicle-related emissions.

*There will be an expected moderate increase in traffic as a result of the project, primarily due to third party aggregate producers operating at the site. The Project proposes to expand Vetter Stone Company's existing mineral extraction area while utilizing its existing equipment. Vehicles utilized onsite include dump trucks, front end loaders, and other related excavation equipment. Vehicles accessing the site will include site employees, third party employees, visitors, and haulers. Approximately 40 trucks per day will access the site during normal hours of operation. All quarry vehicles currently, and will continue to, utilize internal haul roads, not public roadways.*

- c. Dust and odors - Describe sources, characteristics, duration, quantities, and intensity of dust and odors generated during project construction and operation. (Fugitive dust may be discussed under item 17a). Discuss the effect of dust and odors in the vicinity of the project including nearby sensitive receptors and quality of life. Identify measures that will be taken to minimize or mitigate the effects of dust and odors.

*Dust will likely be generated during mining operations. Mining can be a source of particulate matter and fugitive dust due to the process of opening up new areas to access the targeted aggregate resource and vehicle/equipment circulation on unpaved surfaces. Project activities that may generate dust include the drilling, blasting, sawing, crushing, hauling, and stockpiling of materials. Vetter Stone Company will comply with the requirements of Minn. R. 7011.0150 requiring that all reasonable measures are taken to prevent avoidable amounts of particulate matter from becoming airborne.*

*Fugitive dust will be controlled at the site by implementing best management practices such as such as water application with limited use of chemical binders if needed. Specific dust control best management practices will be determined based on severity, weather conditions (i.e. wind speed), and current site conditions. Every effort possible will be made to minimize the dust generated.*

*Significant odors are not expected to be generated from Project operation.*

**18. Greenhouse Gas (GHG) Emissions/Carbon Footprint**

- a. GHG Quantification: For all proposed projects, provide quantification and discussion of project GHG emissions. Include additional rows in the tables as necessary to provide project-specific emission sources. Describe the methods used to quantify emissions. If calculation methods are not readily available to quantify GHG emissions for a source, describe the process used to come to that conclusion and any GHG emission sources not included in the total calculation.

*GHG emissions from the project will consist of mobile source emissions and energy consumption at the offsite Vetter Stone plant. No stationary sources of emissions will be implemented as part of the project. Due to the nature of mining projects all project emissions were considered as operational emissions. The project will consist of expanding Vetter Stone Company’s existing mineral extraction area while utilizing its existing equipment. As a result, no increase in overall mobile GHG emissions is anticipated.*

*Mobile sources of emissions will include a mixture of trucks and heavy-duty vehicles. Mobile equipment emissions were calculated assuming 40 vehicles (30 trucks and 10 heavy duty vehicles) operating on the site 6 days per week. Offsite electricity was calculated using average daily energy usage from the Vetter Stone plant derived from energy bills. Interim land use of the project site will include the conversion of existing pastureland to mineral extraction. Following the life of the project, this land will ultimately be reclaimed and restored to its existing land use.*

*GHG calculations were conducted using the ISG Greenhouse Gas Emissions Calculator (ISGGHG). The ISGGHG is similar to the EPA’s Simplified GHG Emissions Calculator (SGEC) and is based on the Revised Environmental Assessment Worksheet Guidance (EQB, 2022).*

**Table 7: Construction Emissions**

Scope	Type of Emission	Emission Sub-type	Project-related CO <sub>2</sub> e Emissions (tons/year)	Calculation method(s)
Scope 1	Combustion	Mobile Equipment	<i>N/A</i>	<i>N/A</i>
Scope 1	Land Use	Conversion	<i>N/A</i>	<i>N/A</i>
Scope 1	Land Use	Carbon Sink	<i>N/A</i>	<i>N/A</i>
<b>TOTAL</b>			<i>N/A</i>	<i>N/A</i>

**Table 8: Operational Emissions**

Scope	Type of Emission	Emission Sub-type	Existing facility CO <sub>2</sub> e Emissions (tons/year)	Project-related CO <sub>2</sub> e Emissions (tons/year)	Total CO <sub>2</sub> e Emissions (tons/year)	Calculation method(s)
Scope 1	Combustion	Mobile Equipment	117	117	117	ISGHG
Scope 1	Combustion	Stationary Equipment	0	0	0	N/A
Scope 1	Combustion	Area	0	0	0	N/A
Scope 1	Non-Combustion	Stationary Equipment	0	0	0	N/A
Scope 1	Land Use	Carbon Sink	0	0	0	N/A
Scope 2	Off-site Electricity	Grid-based	34	34	34	ISGHG
Scope 2	Off-site Steam Production	Not applicable	0	0	0	N/A
Scope 3	Off-site Waste Management	Area	0	0	0	N/A
<b>TOTAL</b>			<b>151</b>	<b>151</b>	<b>151</b>	<b>ISGHG</b>

b. GHG Assessment

- i. Describe any mitigation considered to reduce the project’s GHG emissions.

*Project mitigation will consist of the reclamation of the project site to a native plant community following the life of the project. Approximately 152 acres of land that will be used for mineral extraction will be reclaimed to a native prairie after the life of the project. Many areas may be able to be reclaimed as mining progresses across the site and those areas are no longer part of the active mine plan.*

- ii. Describe and quantify reductions from selected mitigation, if proposed to reduce the project’s GHG emissions. Explain why the selected mitigation was preferred.

*Utilizing ISGHG, the restoration of 152 acres of prairie is projected to sequester 424 tons/per year of CO<sub>2</sub>e. This was the preferred form of mitigation due to reclamation of the site being a planned part of the project.*

- iii. Quantify the proposed projects predicted net lifetime GHG emissions (total tons/#of years) and how those predicted emissions may affect achievement of the Minnesota Next Generation Energy Act goals and/or other more stringent state or local GHG reduction goals.

*Utilizing ISGHG the projected annual CO<sub>2</sub>e emissions from the operation of the project was 151 tons/year. With a projected project life of 100 years the net CO<sub>2</sub>e emissions are 15,100 tons. This represents a very small amount when compared to state-wide GHG emissions and would have minimal effect on the State of Minnesota’s or the local area’s GHG reduction goals.*

*Due to the nature of mining operations being a function of market conditions, the estimation of yearly mineral exhaustion and subsequent reclamation cannot accurately be estimated. Due to this, mitigation of emissions was calculated based on finished reclamation following the life of the project, however, areas reclaimed prior to that point will be performing sequestration. With the projected CO<sub>2</sub>e sequestration of 424 tons/per year the impacts for the project will be self-mitigated within 36 years following complete reclamation.*

**19. Noise**

Describe sources, characteristics, duration, quantities, and intensity of noise generated during project construction and operation. Discuss the effect of noise in the vicinity of the project including 1) existing noise levels/sources in the area, 2) nearby sensitive receptors, 3) conformance to state noise standards, and 4) quality of life. Identify measures that will be taken to minimize or mitigate the effects of noise.

- 1) *Existing noise in the Project area includes noise generated from the mining operations from the existing Vetter Stone Company quarry and other mining operations located adjacent to the site.*
- 2) *Sensitive receptors located within proximity to the project site include nearby residential homes. Only one residence is located immediate adjacent to the Project site. Mining activities will not occur within 200’ of this residence as required by Le Sueur County ordinance.*
- 3) *The Project will fall under Noise Area Classification 3 under Minnesota Rules 7030.0050. All exterior noise generated by the Project is expected to meet the standards of this classification.*

*Minnesota’s noise pollution rules are based on statistical calculations that quantify noise levels over a one-hour monitoring period. The L10 calculation is the noise level that is exceeded for 10 percent, or 6 minutes, of the hour, and the L50 calculation is the noise level exceeded for 50 percent, or 30 minutes, of the hour. There is no limit on maximum noise.*

*The statutory limits for a residential location are L10 = 65 dBA and L50 = 60 dBA during the daytime (7:00 a.m. – 10:00 p.m.) and L10 = 55 dBA and L50 = 50 dBA during the nighttime (10:00 p.m. – 7:00 a.m.). This means that during the one-hour period of monitoring, daytime noise levels cannot exceed 65 dBA for more than 10 percent of the time or 60 dBA more than 50 percent of the time.*

**Table 9: Noise Area Classifications**

Noise Area Classification	Common land use associated with the Noise Area Classification	Daytime (dBA)		Nighttime (dBA)	
		L <sub>10</sub>	L <sub>50</sub>	L <sub>10</sub>	L <sub>50</sub>
1	Residential housing, religious activities, camping and picnicking areas, health services, hotels, educational services	65	60	55	50
2	Retail, business and government services, recreational activities, transit passenger terminals	70	65	70	65
3	Manufacturing, fairgrounds and amusement parks, agricultural and forestry activities	80	75	80	75

Noise area classifications (NAC) are based on the land use at the location of the person who hears the noise, which does not always correspond with the zoning for an area. Therefore, noise from an industrial facility near a residential area is held to the NAC 1 standards if it can be heard on a residential property. Therefore, in the vicinity of the identified sensitive receptor, Noise Area Classification 1 noise standards will be met.

- 4) *Noise duration and frequency will be consistent with what is generated by the current Vetter Stone Company quarry operations. The hours of operation of the Project will be conducted in accordance with Le Sueur County Ordinance, which states: "The general hours of operation for all mining and processing operations shall be between of 6:00 AM and 7:00 PM, Monday through Saturday, unless otherwise specified in the plan." and "The excavation, drilling, hauling, sawing, crushing, and other physical activities of mining cannot proceed until one hour after the initial start time." AQs required by the Le Sueur County zoning ordinance, mine operations will not occur within 200' of a residential dwelling and noise producing processing or loading shall not be conducted closer than 300'. Noise levels are not anticipated to exceed the State of Minnesota statutory limits for residential receptors (NAC 1), Minnesota Rules 7030.0040, at that distance. Therefore, noise generated from standard operations is not anticipated to result in a decreased quality of life to nearby receptors.*

## **20. Transportation**

- a. Describe traffic-related aspects of project construction and operation. Include: 1) existing and proposed additional parking spaces, 2) estimated total average daily traffic generated, 3) estimated maximum peak hour traffic generated and time of occurrence, 4) indicate source of trip generation rates used in the estimates, and 5) availability of transit and/or other alternative transportation modes.
  - 1) *Currently the site has no parking stalls. No designated parking stalls will be created as a result of the Project though site vehicles will be stored intermittently on site.*
  - 2) *Approximately 40 trucks per day will access the site during normal hours of operation. The Project is not anticipated to generate a significant increase in daily traffic on public roadways. All quarry vehicles currently, and will continue to, utilize private internal haul roads.*
  - 3) *The Project is not anticipated to generate a significant increase in peak hour traffic volumes on public roadways. Hours of operation, per the Le Sueur County Ordinance, are 6:00 AM and 7:00 PM. Employees will therefore arrive in the morning before the peak traffic hours of 7:00 AM to 9:00 AM and leave after the afternoon peak traffic hours of 4:00 PM to 6:00 PM. Additionally, all quarry vehicles currently, and will continue to, utilize private internal haul roads.*
  - 4) *N/A*
  - 5) *N/A*

- b. Discuss the effect on traffic congestion on affected roads and describe any traffic improvements necessary. The analysis must discuss the project's impact on the regional transportation system. *If the peak hour traffic generated exceeds 250 vehicles or the total daily trips exceeds 2,500, a traffic impact study must be prepared as part of the EAW.* Use the format and procedures described in the Minnesota Department of Transportation's Access Management Manual, Chapter 5 (available at: <http://www.dot.state.mn.us/accessmanagement/resources.html>) or a similar local guidance,

*The Project is not anticipated to generate a significant increase in traffic congestion or result in any needed traffic improvements on public roadways. As this is an expansion of the mine area of an existing mine operation truck traffic that currently utilize the public roadways will continue to utilize the same roadways. All quarry vehicles currently, and will continue to, utilize private internal haul roads.*

- c. Identify measures that will be taken to minimize or mitigate project related transportation effects.

*The Project is not anticipated to generate any adverse transportation effects on public roadways. All quarry vehicles currently, and will continue to, utilize private internal haul roads.*

**21. Cumulative potential effects:** (Preparers can leave this item blank if cumulative potential effects are addressed under the applicable EAW Items)

- a. Describe the geographic scales and timeframes of the project related environmental effects that could combine with other environmental effects resulting in cumulative potential effects.

*It is anticipated that mineral extraction will commence within the Project site as soon as Summer or Fall of 2024, depending on final approval of the CUP and EAW. The life expectancy is inevitably dependent on mining practices, site characteristics, and many unknown variables such as the volume and quality of materials available and is a function of market demand and conditions.*

*Under these circumstances, a life expectancy estimate can be highly undependable, however using maximum production rates and a most conservative estimate, the life expectancy is anticipated at approximately one hundred (100) years. However, a completion date has not been set since the life expectancy of the mining site is a function of market conditions. If there is demand and material is needed, then, mining will take place, but may not be continuous.*

*Plant communities will be affected by the change in land use. Approximately 148 acres of grassland, 3 acres of wooded land, and 1 acre of wetland will be impacted for mineral extraction. The impacted wetland areas will be mitigated through the purchase of offsite wetland bank credits from an approved wetland bank. Following the life of the mine the land will be reclaimed. This will include planting impacted areas with a native prairie seeding, which will be of equal or greater ecological value compared to existing conditions.*

- b. Describe any reasonably foreseeable future projects (for which a basis of expectation has been laid) that may interact with environmental effects of the proposed project within the geographic scales and timeframes identified above.

*There are no known reasonably foreseeable future projects that may interact with the Project in such a way as to cause cumulative potential effects. No further expansions to the Vetter Stone mining area are anticipated to be required until nearing the end of the life expectancy of this expansion which is anticipated to be approximately 100 years.*

- c. Discuss the nature of the cumulative potential effects and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to these cumulative effects.

*Following operation and reclamation of the site, the Project is not anticipated to contribute to any additional adverse environmental effects. Additionally, there are no known reasonably foreseeable future projects that may interact with the Project in such a way as to cause cumulative potential effects. Therefore, the Project is not anticipated to contribute to any significant environmental effects due to cumulative effects.*

- 22. Other potential environmental effects:** If the project may cause any additional environmental effects not addressed by items 1 to 21, describe the effects here, discuss the how the environment will be affected, and identify measures that will be taken to minimize and mitigate these effects.

*The Project is not anticipated to cause any potential environmental effects that were not addressed by EAW items 1 to 21.*

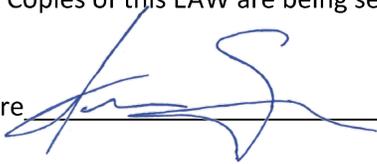
*Blasting will take place as part of the project. Blasting will occur in accordance with Le Sueur County ordinances and within other applicable regulations such as the Minnesota noise regulations described in Section 19. Blasting is conducted for Vetter Stone Company by a third-party blasting company and typically occurs from the months of March thru December. Approximately 30 blasts may occur onsite during a given year between Vetter Stone and third-party aggregate producers. The blasting procedure is as follows: an area is defined to be blasted, a third-party driller drills the holes, and a third-party contractor blasts with explosives. The debris radius for blasts is set up to be less than 100'. The blasting is managed by the supervisor at Vetter Stone along-side the lead from the blasting company. Blasting is normally done mid to late mornings, and never occurs before 9:00 am or later than 3:00 pm. Seismographs are set up in three locations and recorded decibel rates have always been under the 130 decibels allowed under Minnesota state limits.*

**RGU CERTIFICATION.** *(The Environmental Quality Board will only accept **SIGNED** Environmental Assessment Worksheets for public notice in the EQB Monitor.)*

**I hereby certify that:**

- The information contained in this document is accurate and complete to the best of my knowledge.
- The EAW describes the complete project; there are no other projects, stages or components other than those described in this document, which are related to the project as connected actions or phased actions, as defined at Minnesota Rules, parts 4410.0200, subparts 9c and 60, respectively.
- Copies of this EAW are being sent to the entire EQB distribution list.

Signature

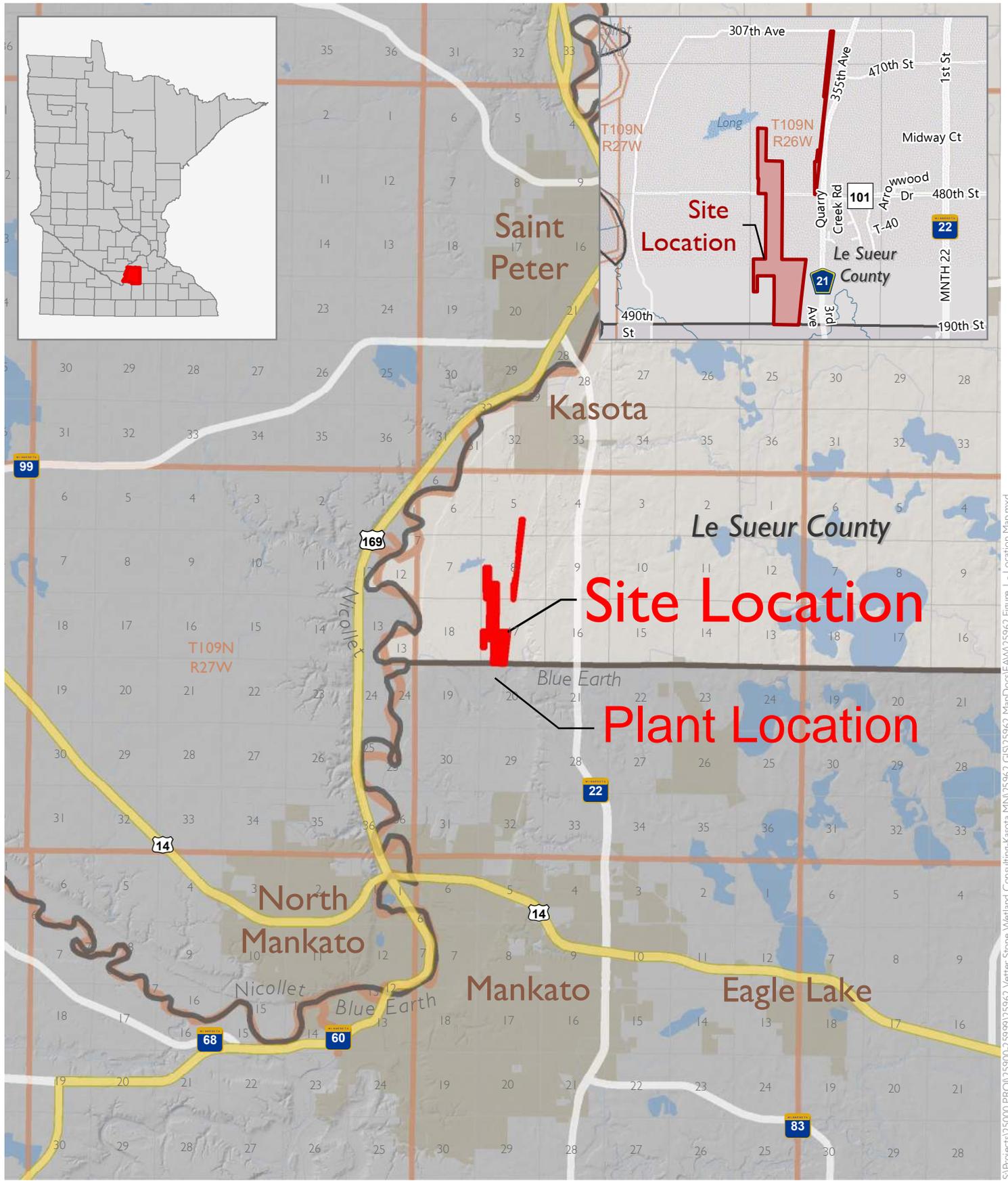


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Date December 2, 2024

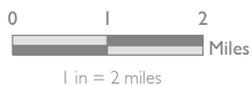
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# Appendix A – GIS Figures



Friday, October 28, 2022

Project Number: 21-25962

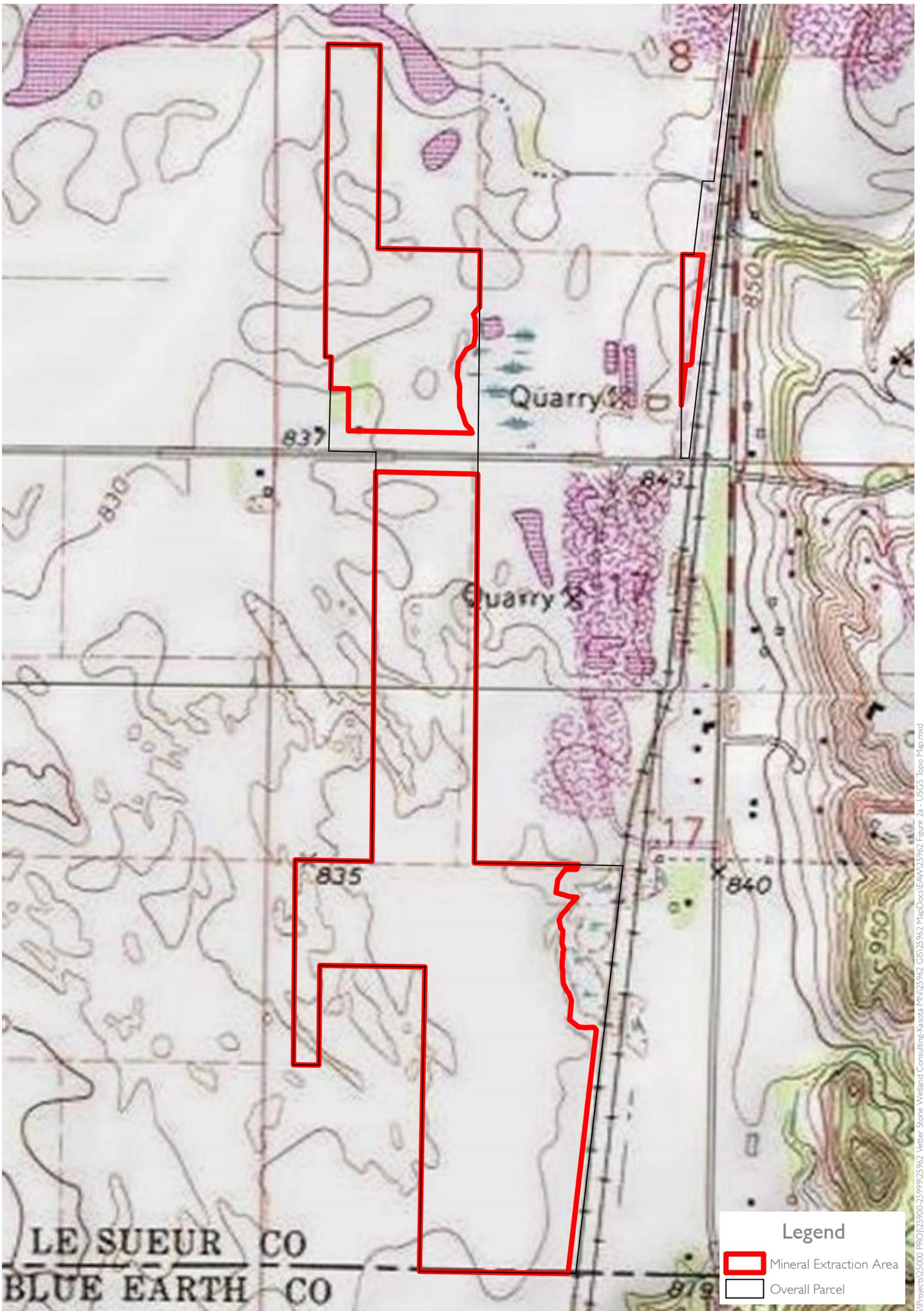


**Figure 1**  
**Project Location Map**  
**Vetter Stone Company**  
 Kasota Twp, Le Sueur County, Minnesota

Source(s):  
 Municipalities (MnDOT, 2016)  
 Roads (MnDOT, 2020)  
 Lakes (MN DNR, 2020)  
 Counties (MN DNR, 2013)  
 PLSS (USGS)



S:\Projects\25000 PROJ\25900-25999\25962\_Vetter Stone Wetland Consulting-Kasota MNN\25962\_GIS\25962\_MapDocs\EAW\25962\_Figure 1 - Location Map.mxd



Monday, March 11, 2024

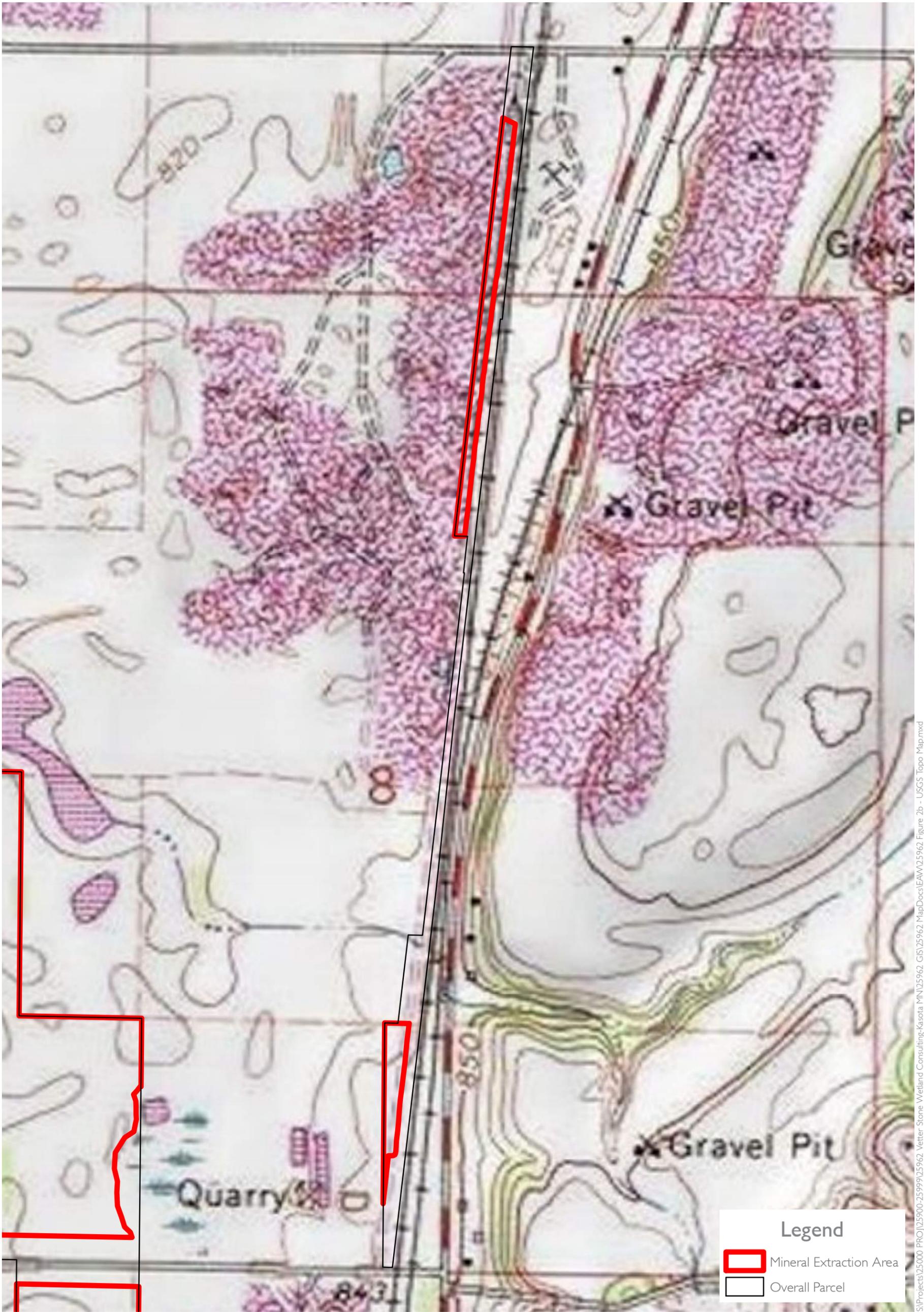
Project Number: 21-25962

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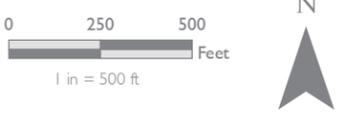
Figure 2a  
**USGS Topographic Map**  
 Vetter Stone Company  
 Kasota Twp, Le Sueur County, Minnesota





Monday, March 11, 2024

Project Number: 21-25962

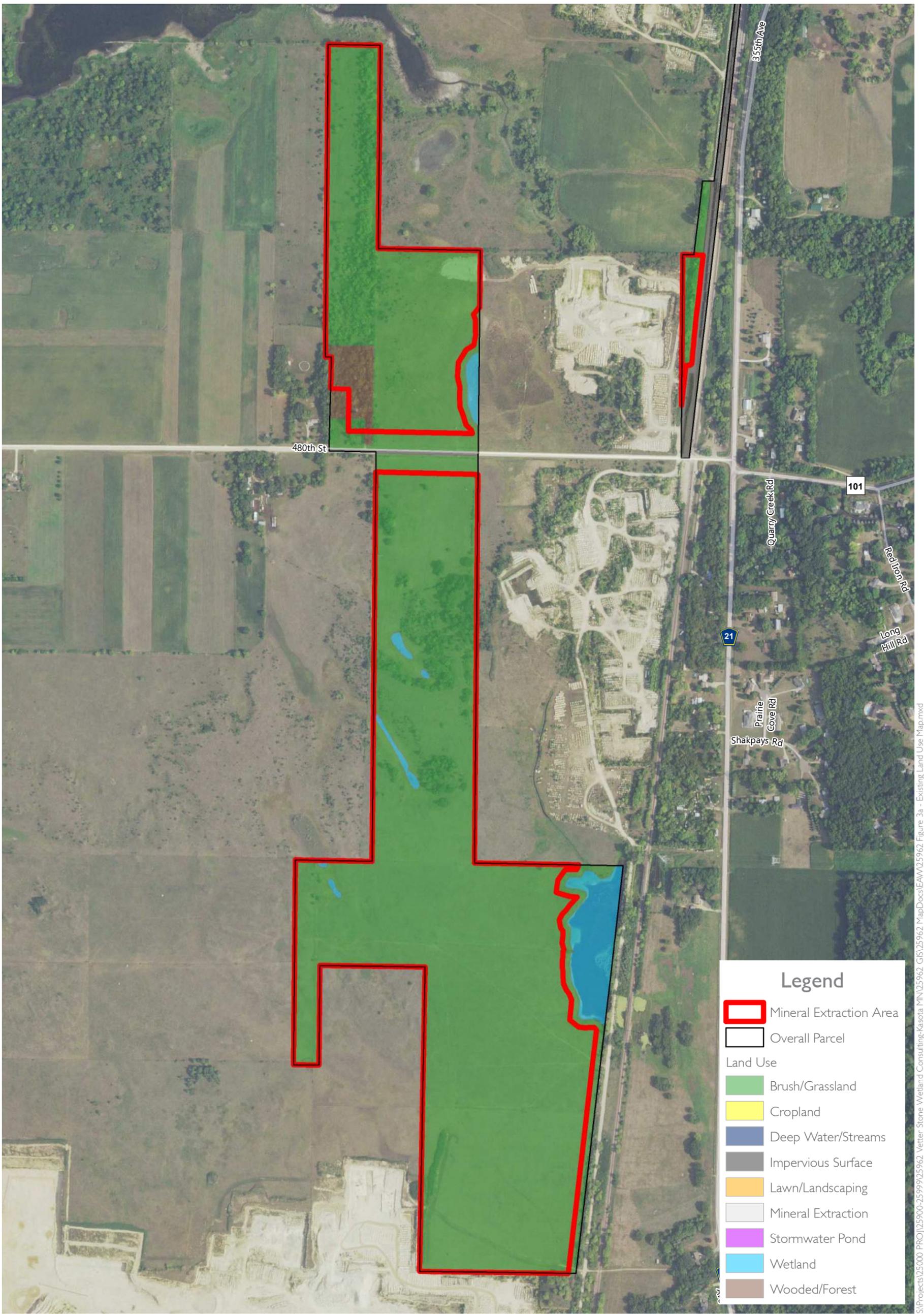


**Figure 2b**  
**USGS Topographic Map**  
 Vetter Stone Company  
 Kasota Twp, Le Sueur County, Minnesota

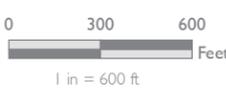
Source(s):  
 24k USGS Quads (USA Topo Maps)



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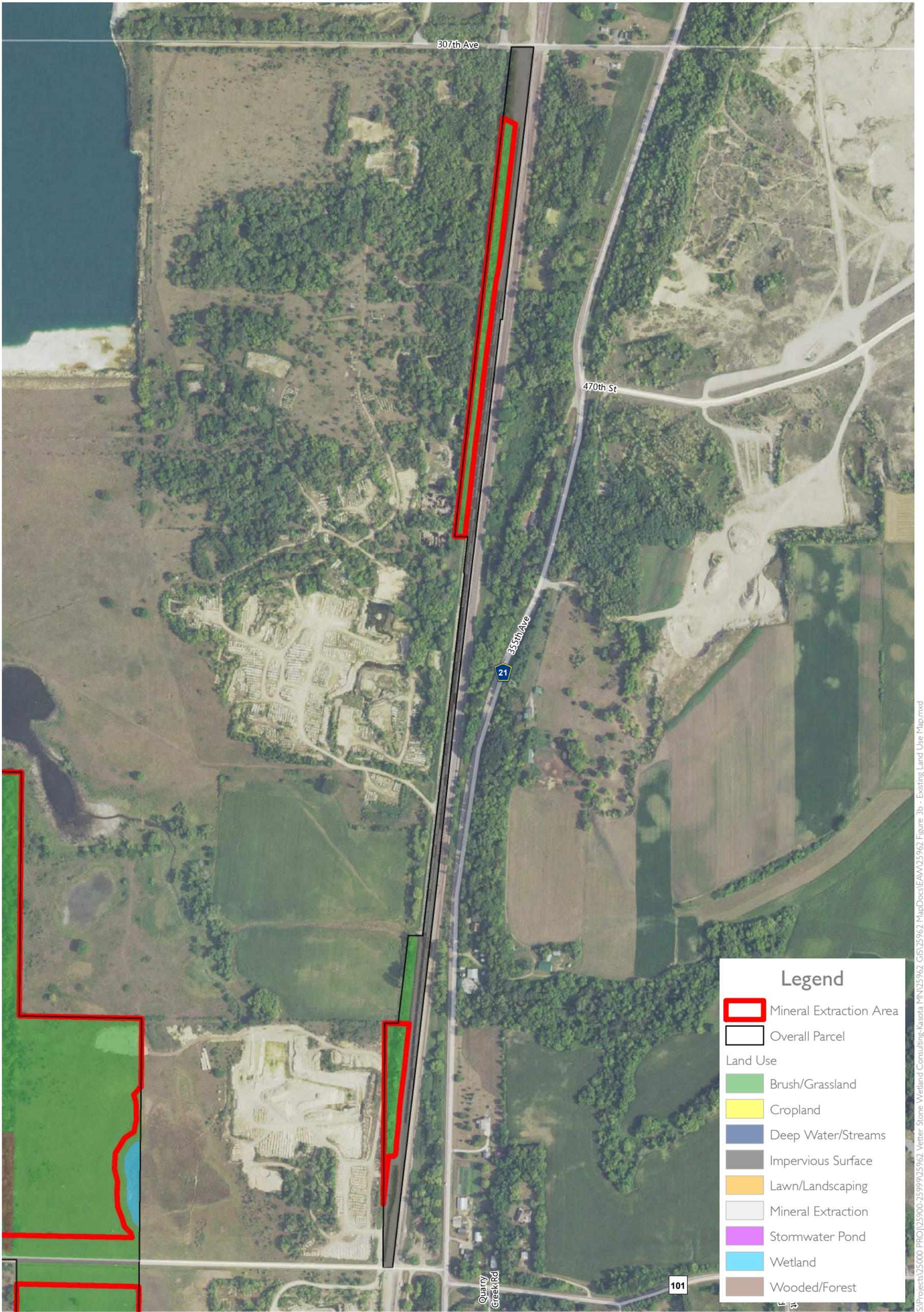
S:\Projects\25000 - PROJ\25900-25999\25962 - Vetter - Stone Wetland Consulting-Kasota MN\25962 - GIS\25962 - MapDocs\EA\25962 - Figure 3a - Existing Land Use Map.mxd



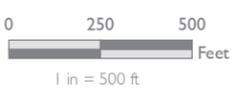
**Figure 3a**  
**Existing Land Use Map**  
 Vetter Stone Company  
 Kasota Twp, Le Sueur County, Minnesota

Source(s):  
 Orthophoto (FSA, 2021)





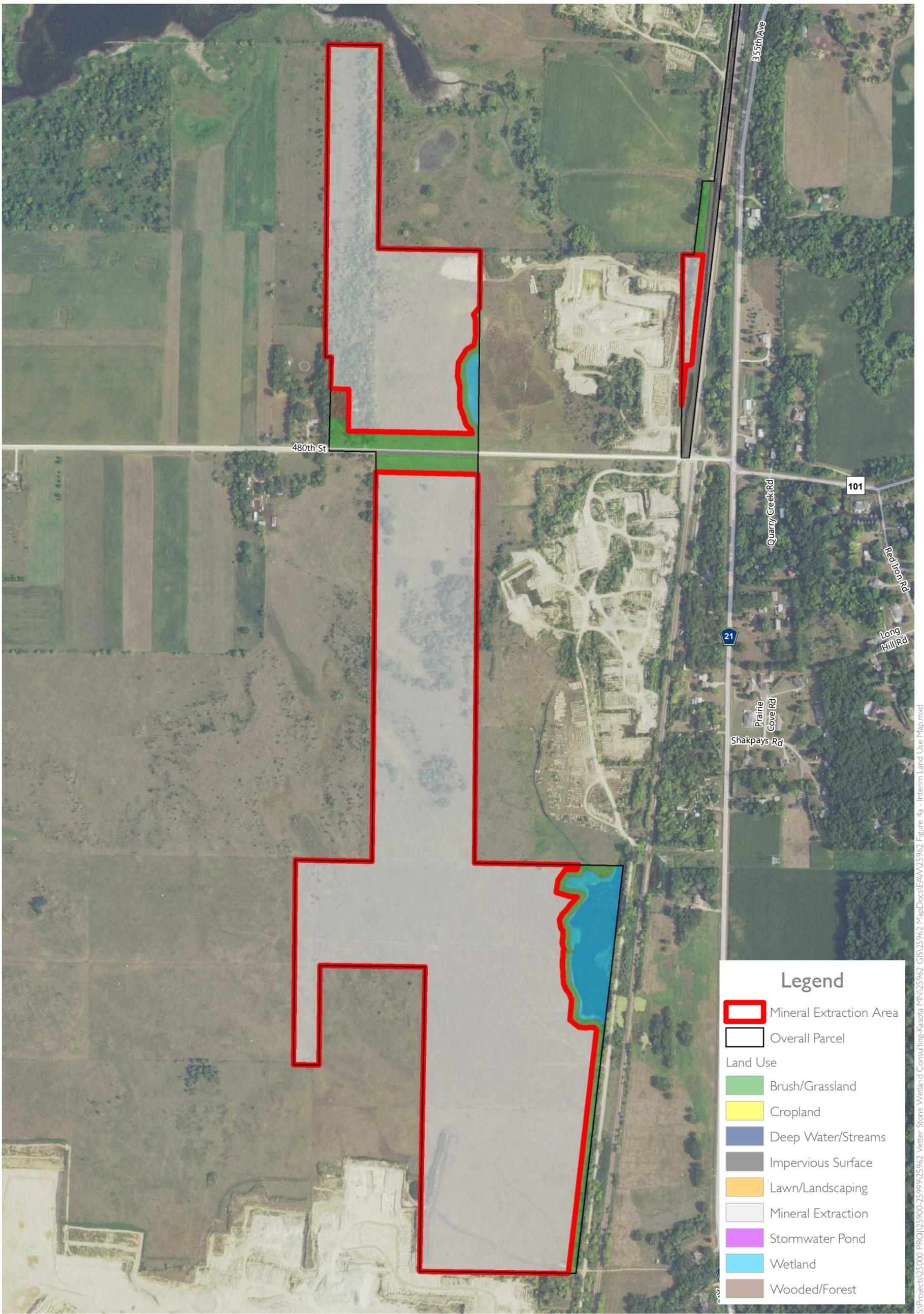
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**Figure 3b**  
**Existing Land Use Map**  
 Vetter Stone Company  
 Kasota Twp, Le Sueur County, Minnesota

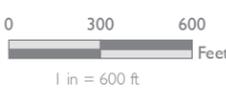
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Monday, March 11, 2024

Project Number: 21-25962

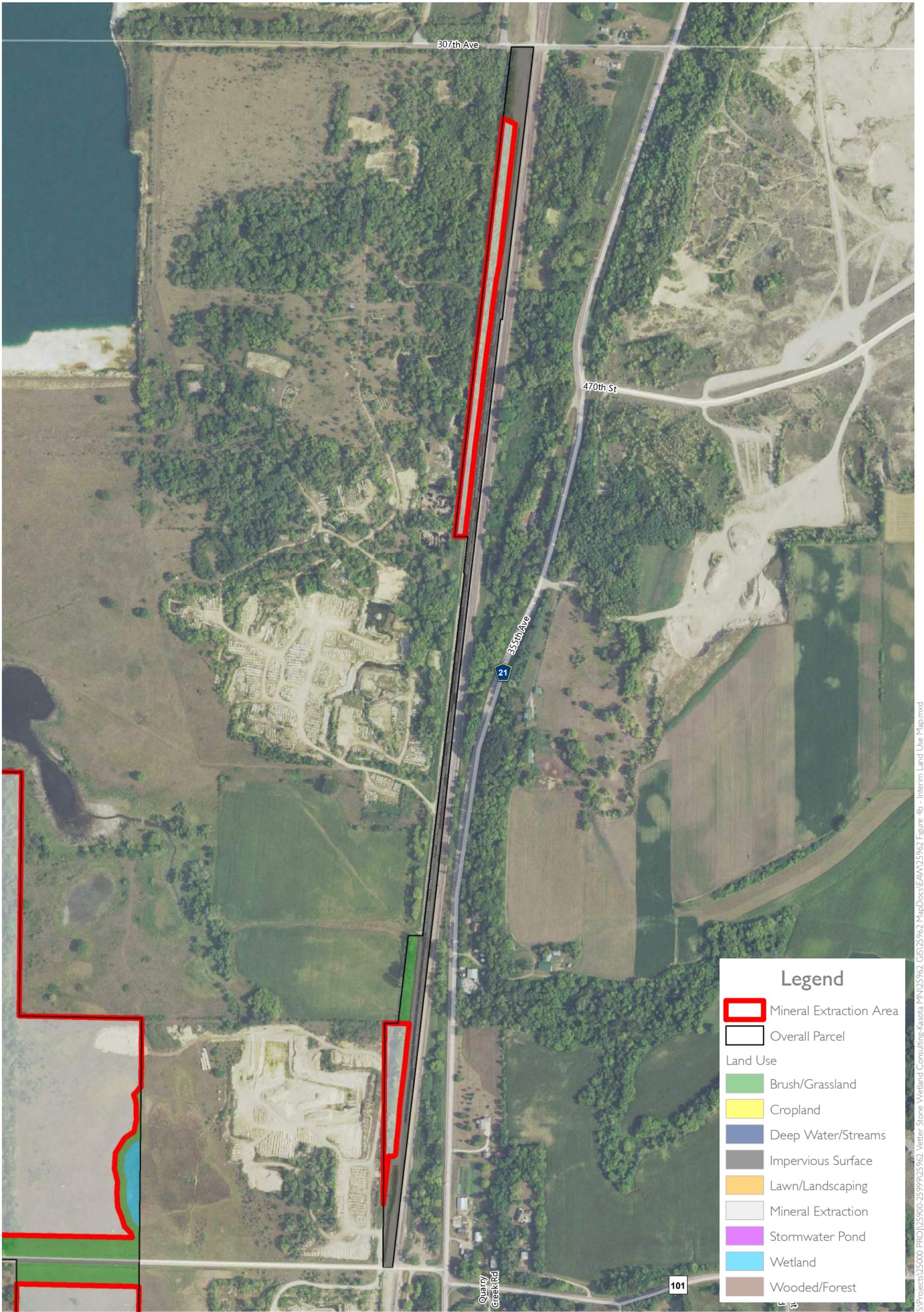


**Figure 4a**  
**Interim Land Use Map**  
 Vetter Stone Company  
 Kasota Twp, Le Sueur County, Minnesota

Source(s):  
 Orthophoto (FSA, 2021)



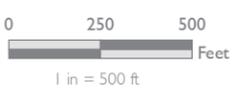
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Monday, March 11, 2024

Project Number: 21-25962

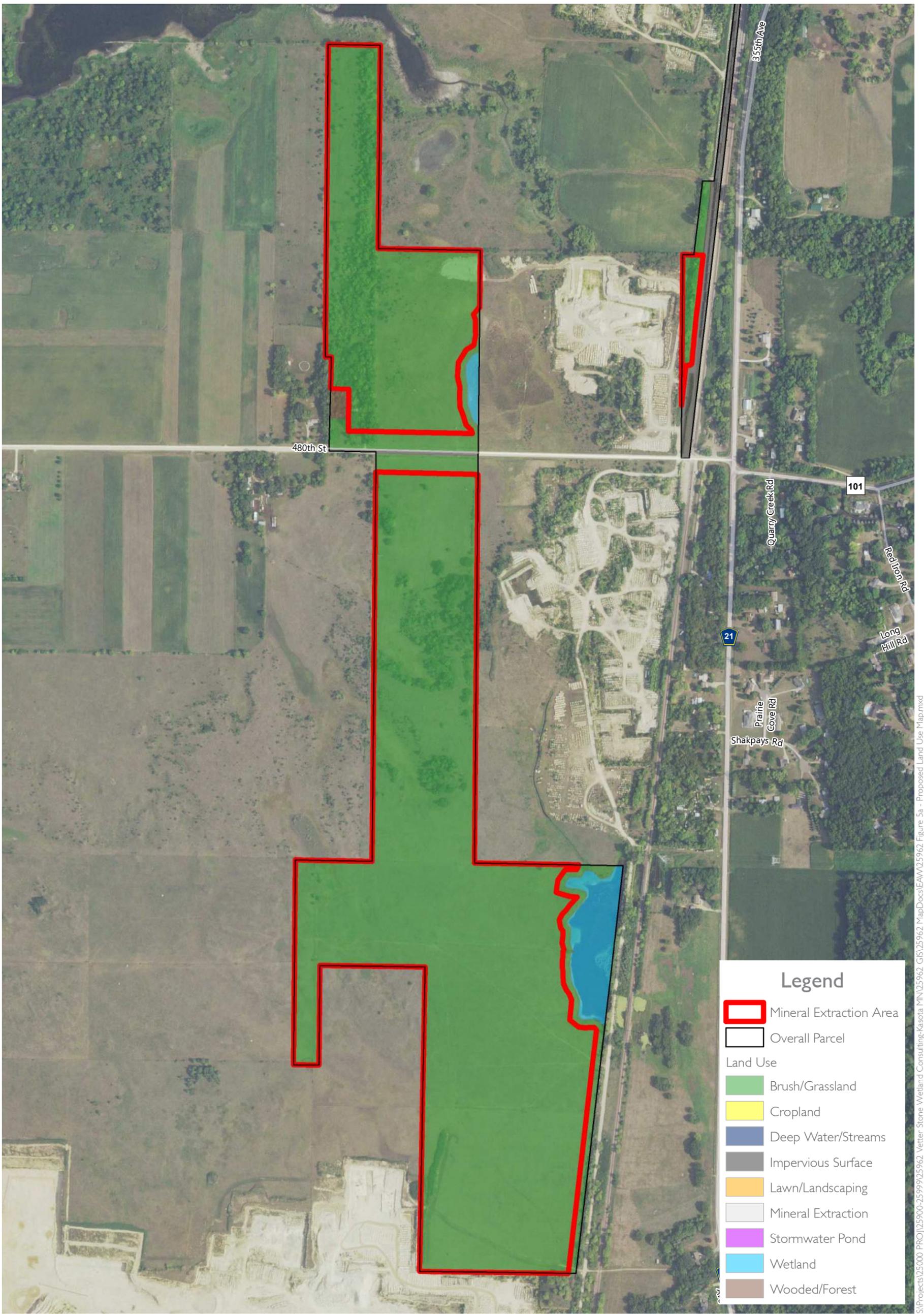
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**Figure 4b**  
**Interim Land Use Map**  
 Vetter Stone Company  
 Kasota Twp, Le Sueur County, Minnesota

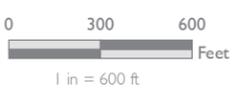
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Monday, March 11, 2024

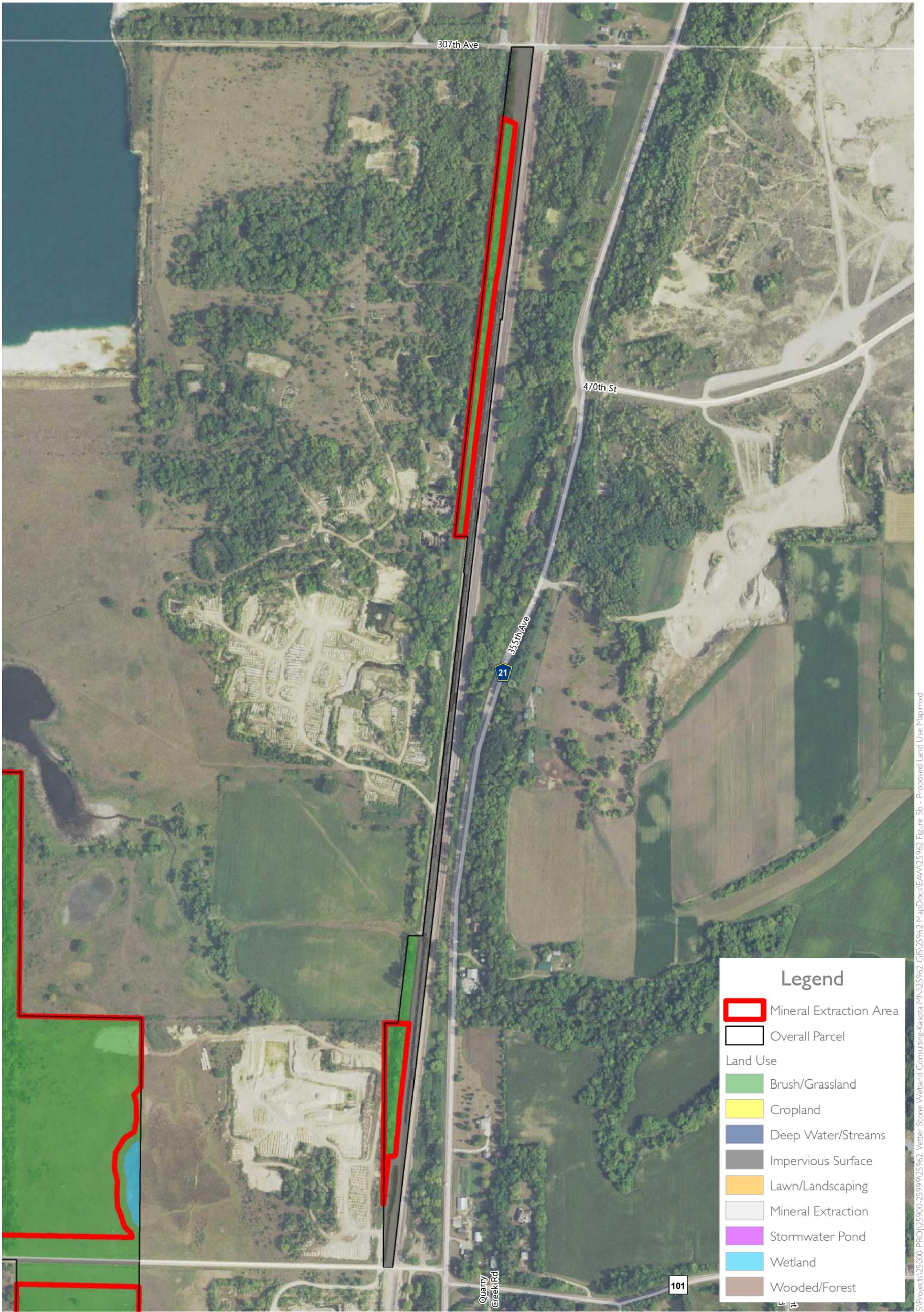
Project Number: 21-25962



**Figure 5a**  
**Proposed Land Use Map**  
 Vetter Stone Company  
 Kasota Twp, Le Sueur County, Minnesota

Source(s):  
 Orthophoto (FSA, 2021)





S:\Projects\25000 PROJ\25900-25999\25962 Vetter Stone Wetland Consulting-Kasota MN\25962 GIS\25962 MapDocs\EAW\25962 Figure 5b - Proposed Land Use Map.mxd

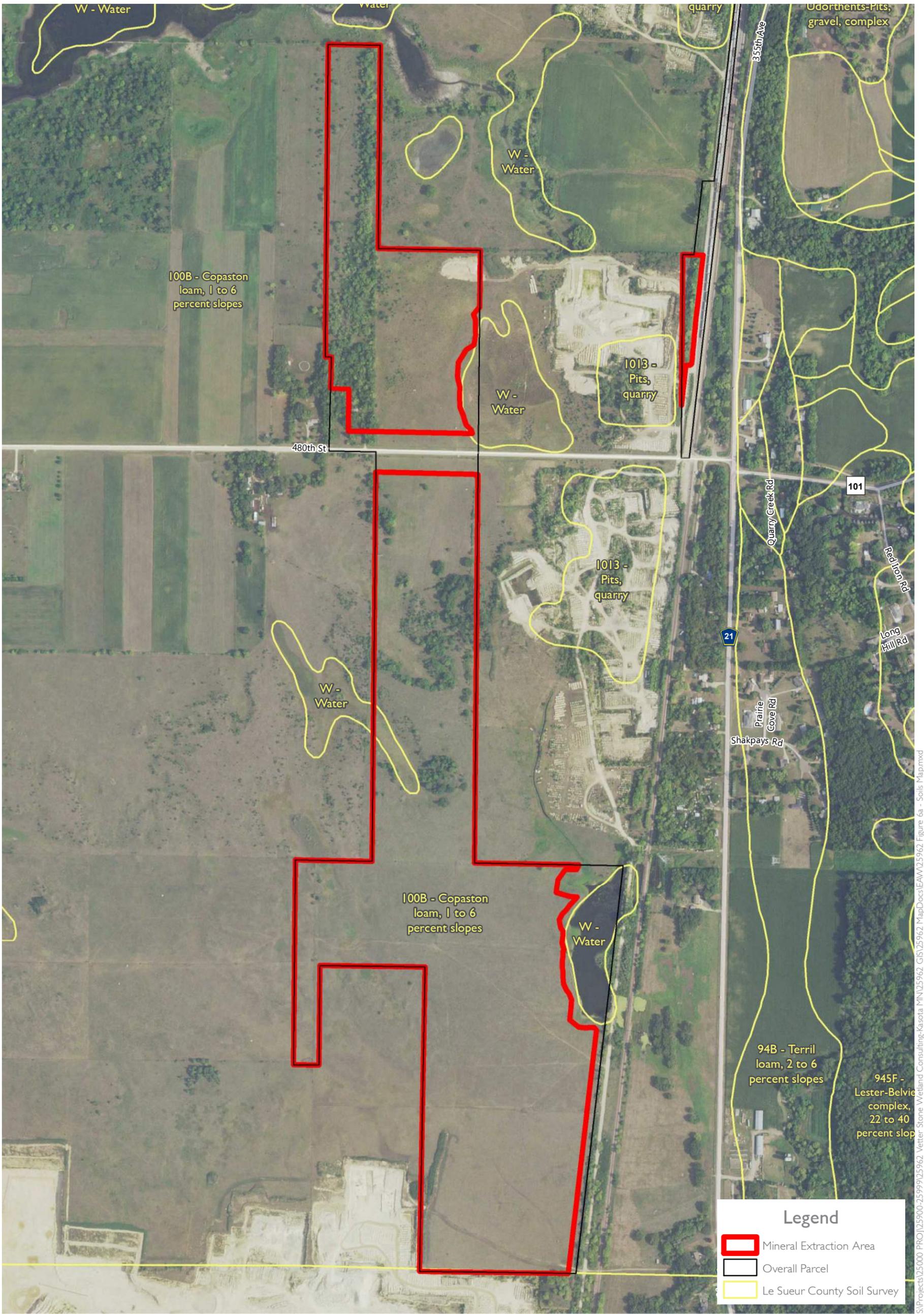
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1 in = 500 ft



**Figure 5b**  
**Proposed Land Use Map**  
 Vetter Stone Company  
 Kasota Twp, Le Sueur County, Minnesota

Source(s):  
 Orthophoto (FSA, 2021)



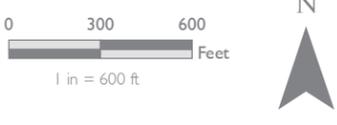


Monday, March 11, 2024

Project Number: 21-25962

S:\Projects\25000 PROJ\25900-25999\25962 Vetter Stone Wetland Consulting-Kasota MN\25962 GIS\25962 MapDocs\EA\25962 Figure 6a - Soils Map.mxd

**Figure 6a**  
**Le Sueur County**  
**Soil Survey Map**  
 Vetter Stone Company  
 Kasota Twp, Le Sueur County, Minnesota



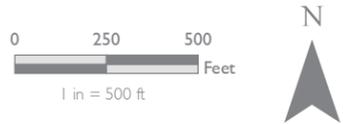
Source(s):  
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 Soil Survey (USDA NRCS, 2017)

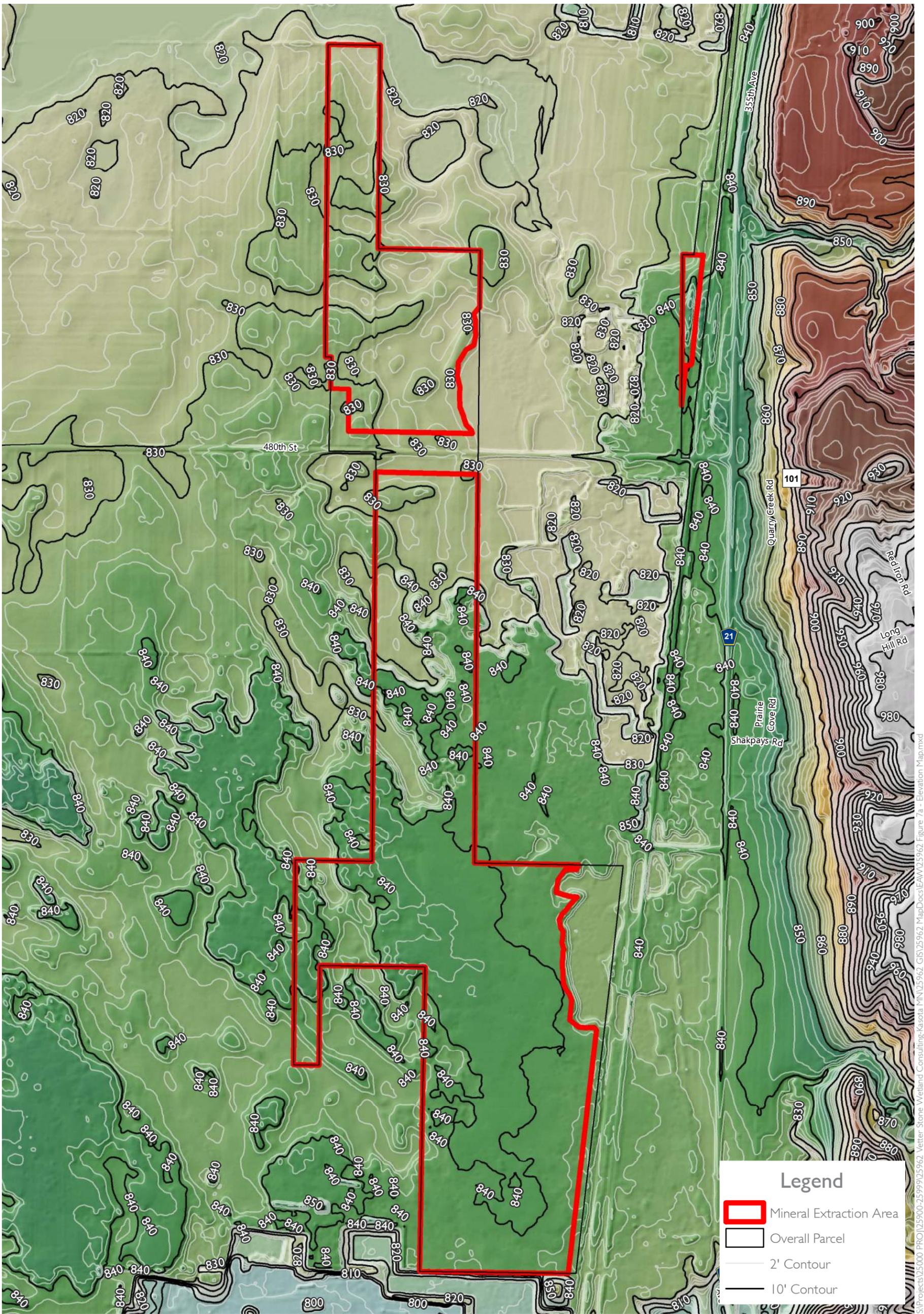




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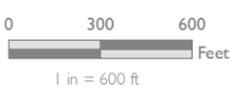
**Figure 6b**  
**Le Sueur County**  
**Soil Survey Map**  
 Vetter Stone Company  
 Kasota Twp, Le Sueur County, Minnesota





Monday, March 11, 2024

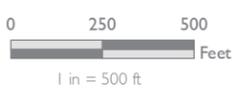
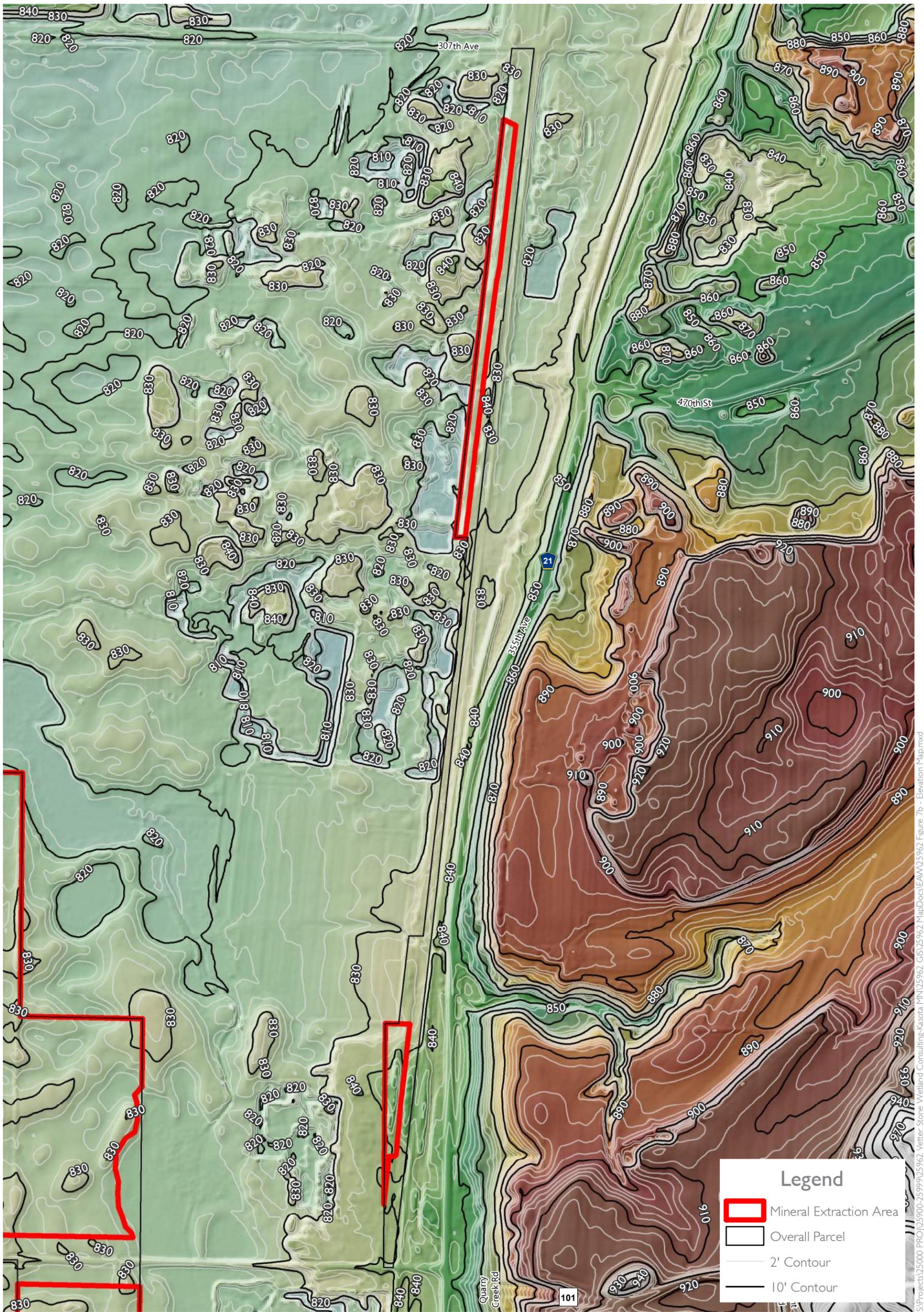
Project Number: 21-25962



**Figure 7a**  
**Elevation Map**  
 Vetter Stone Company  
 Kasota Twp, Le Sueur County, Minnesota

Source(s):  
 Contours (MnTopo, 2010)  
 Hillshade (MnTopo, 2010)

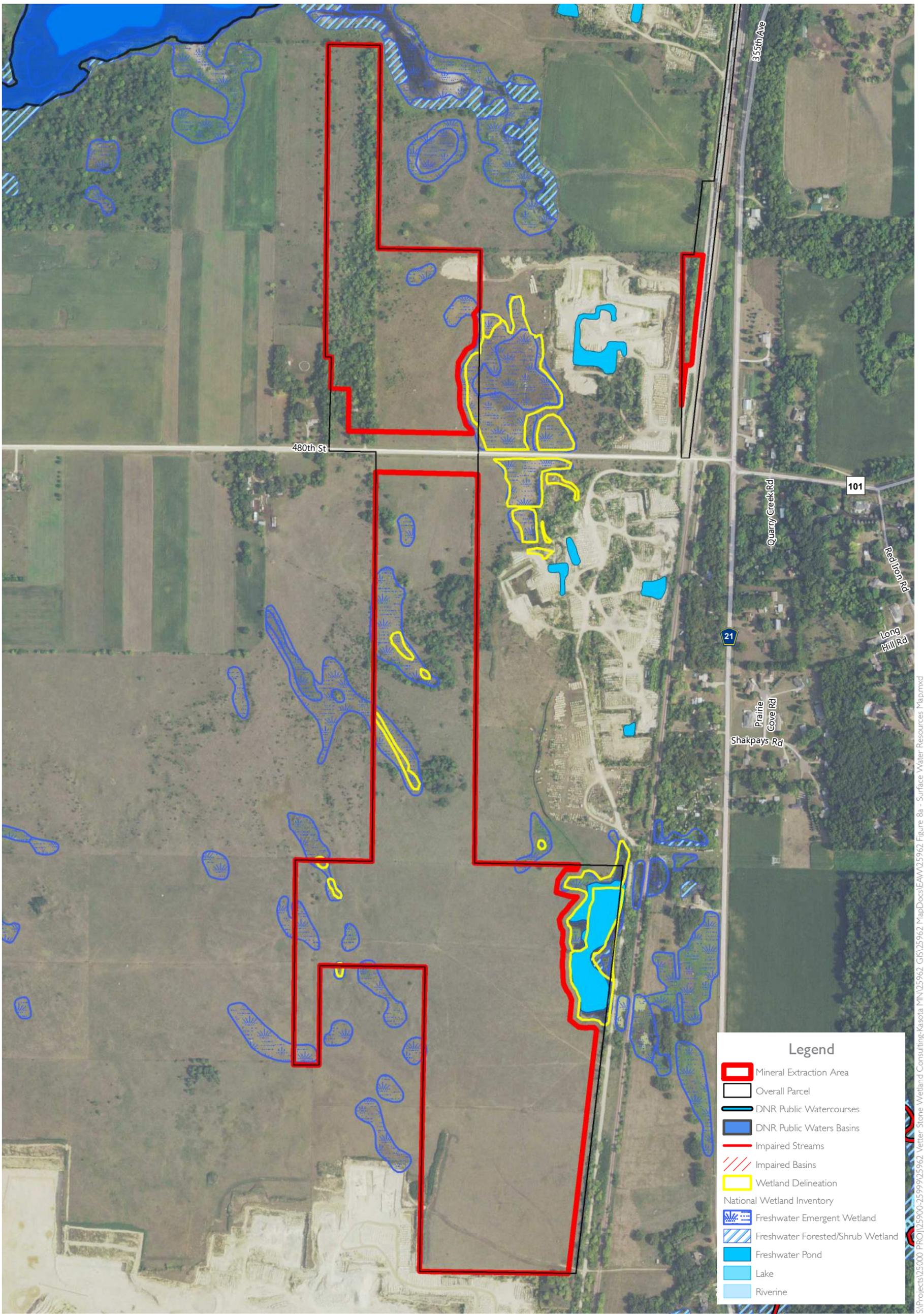




**Figure 7b**  
**Elevation Map**  
 Vetter Stone Company  
 Kasota Twp, Le Sueur County, Minnesota

Source(s):  
 Contours (MnTopo, 2010)  
 Hillshade (MnTopo, 2010)





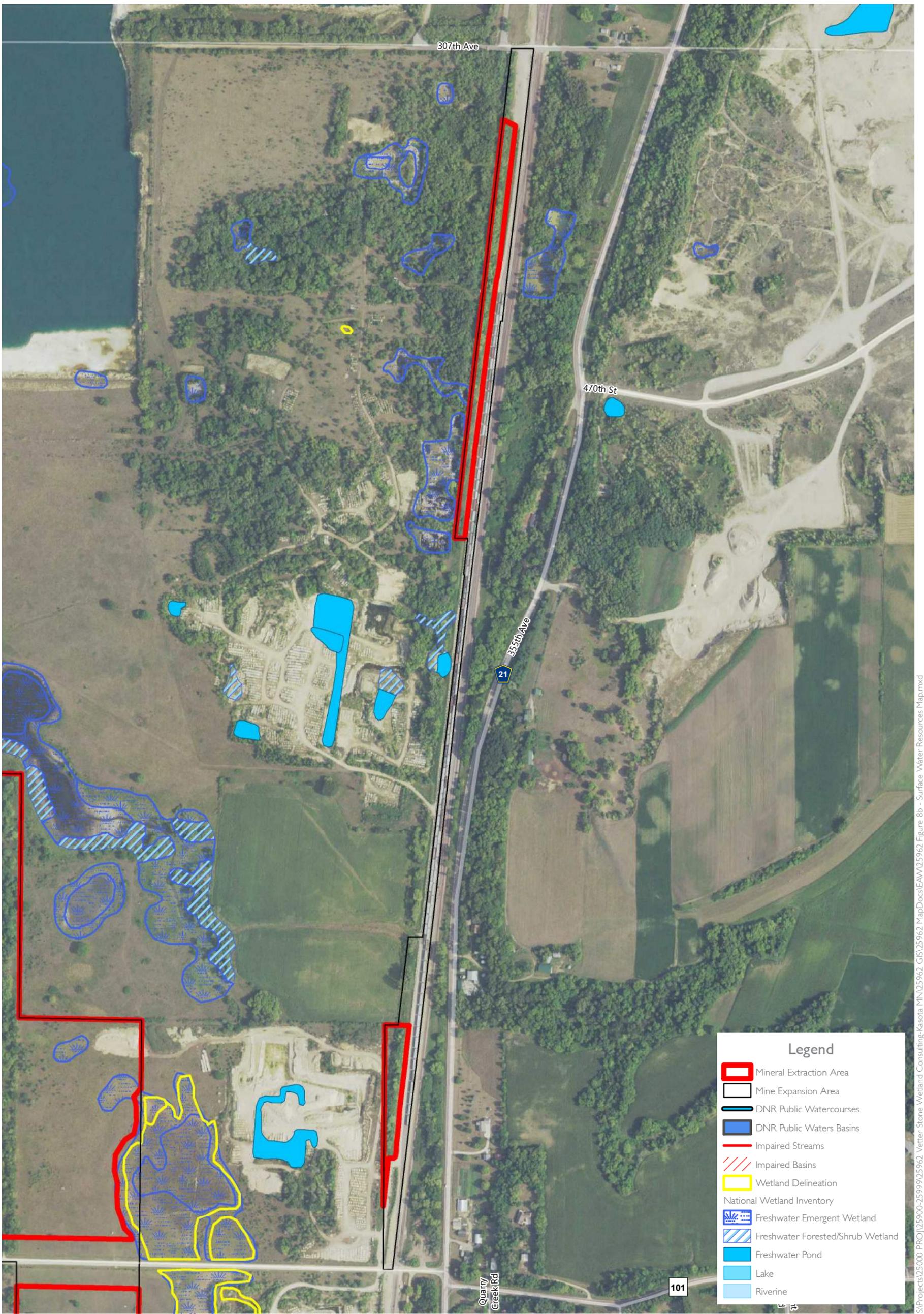
**Figure 8a**  
**Surface Water Resources Map**  
 Vetter Stone Company  
 Kasota Twp, Le Sueur County, Minnesota

0 300 600  
 Feet  
 1 in = 600 ft



Source(s):  
 Orthophoto (FSA, 2021)  
 Wetland Delineation (ISG, Recertified 2022)  
 NWI (MnDNR, 2019)  
 PWI (MnDNR, 2020)  
 Impaired Waters (MPCA, 2020)

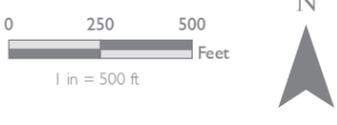




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Project Number: 21-25962

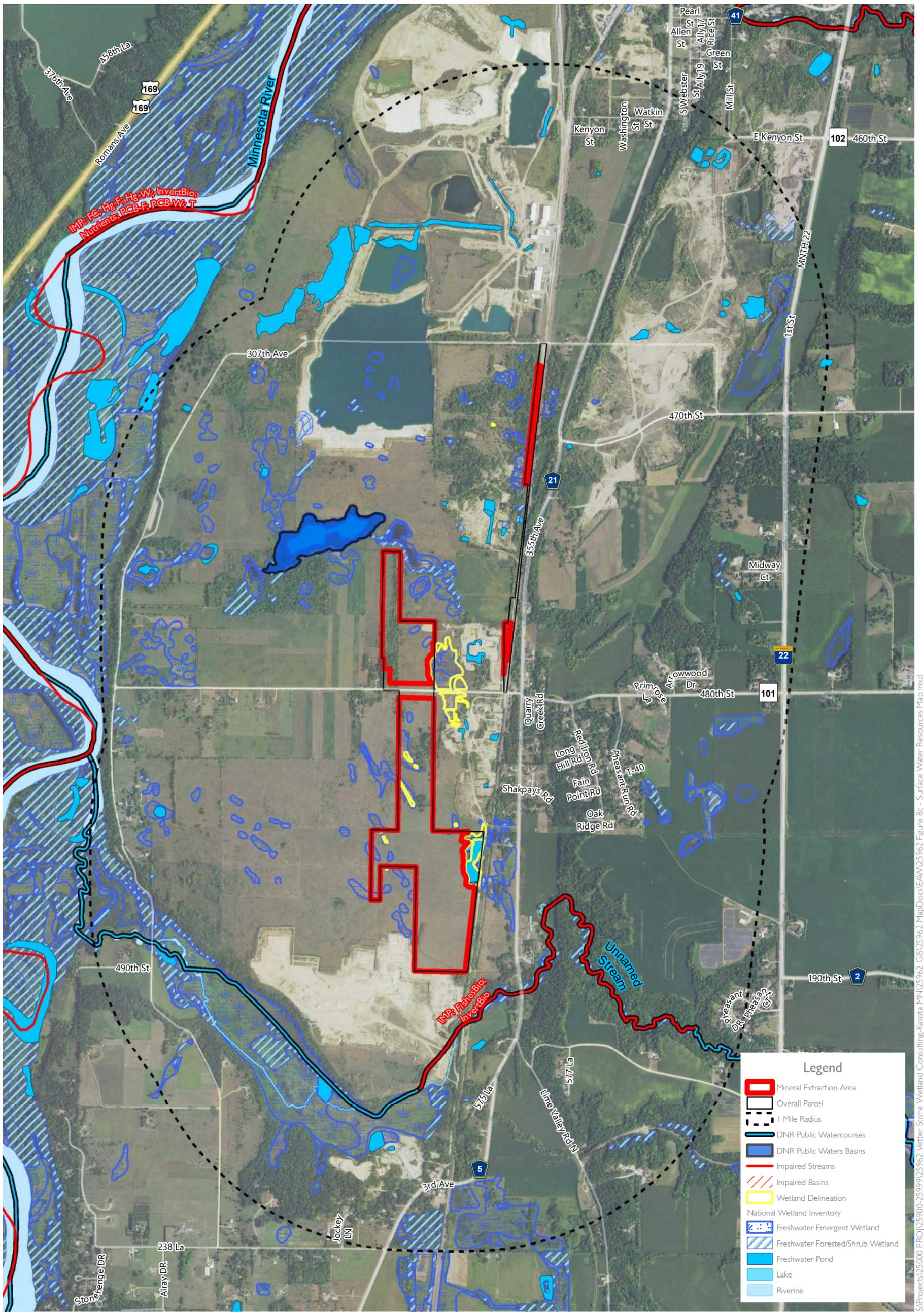
S:\Projects\25000 PROJ\25900-25999\25962 Vetter Stone Wetland Consulting-Kasota MN\25962 GIS\25962 MapDocs\EAW\25962 Figure 8b - Surface Water Resources Map.mxd



**Figure 8b**  
**Surface Water Resources Map**  
 Vetter Stone Company  
 Kasota Twp, Le Sueur County, Minnesota

Source(s):  
 Orthophoto (FSA, 2021)  
 Wetland Delineation (ISG, Recertified 2022)  
 NWI (MnDNR, 2019)  
 PWI (MnDNR, 2020)  
 Impaired Waters (MPCA, 2020)





Monday, March 11, 2024

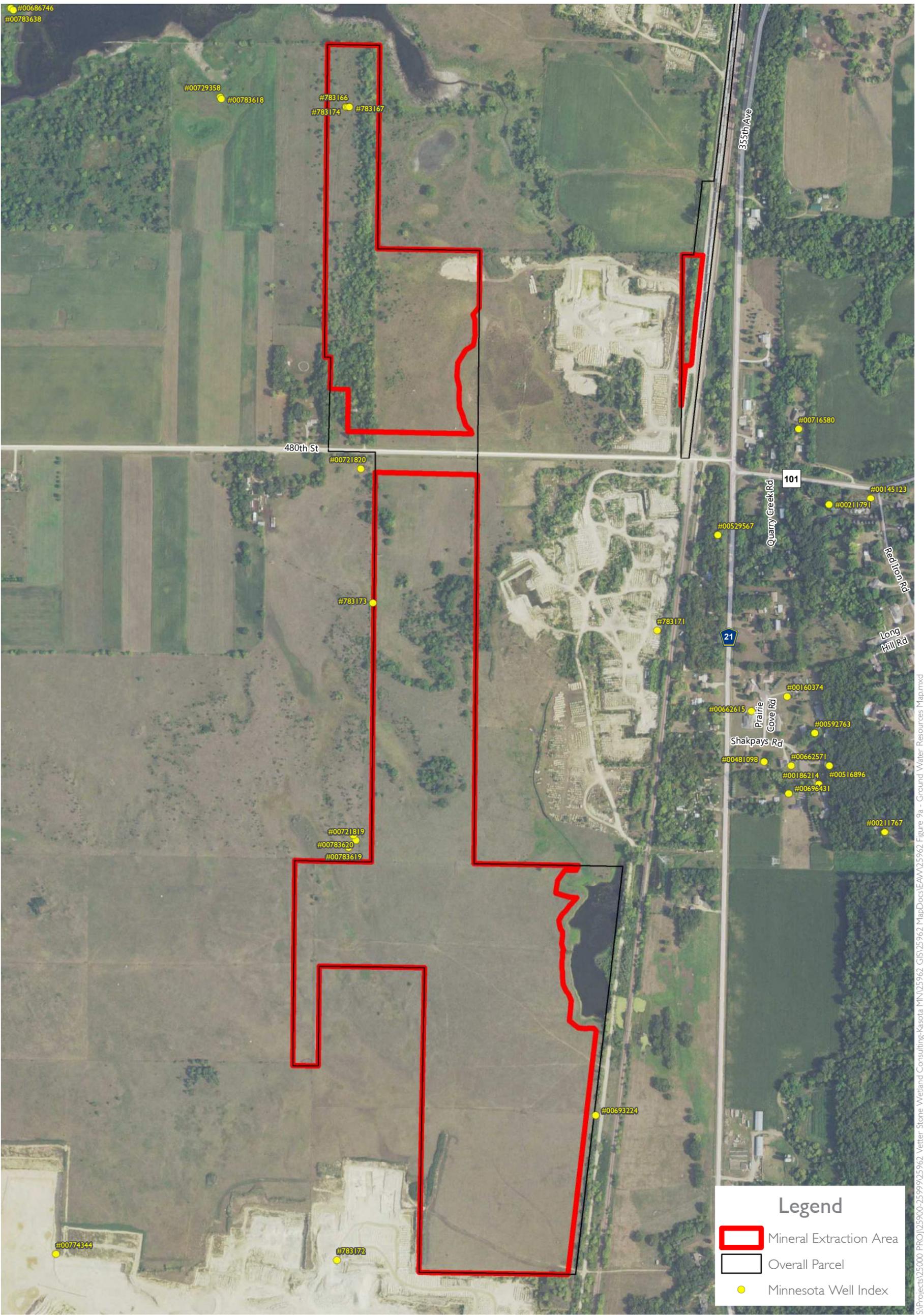
Project Number: 21-25962



**Figure 8c**  
**Surface Water Resources Map**  
 Vetter Stone Company  
 Kasota Twp, Le Sueur County, Minnesota

Source(s):  
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 Wetland Delineation (ISG, Recertified 2022)  
 NWI (MnDNR, 2019)  
 PWI (MnDNR, 2020)  
 Impaired Waters (MPCA, 2020)





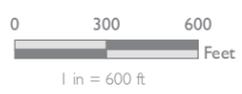
Tuesday, March 12, 2024

Project Number: 21-25962

S:\Projects\25000 PROJ\25900-25999\25962 Vetter Stone Wetland Consulting-Kasota MN\25962 GIS\25962 MapDocs\EA\25962 Figure 9a - Ground Water Resources Map.mxd

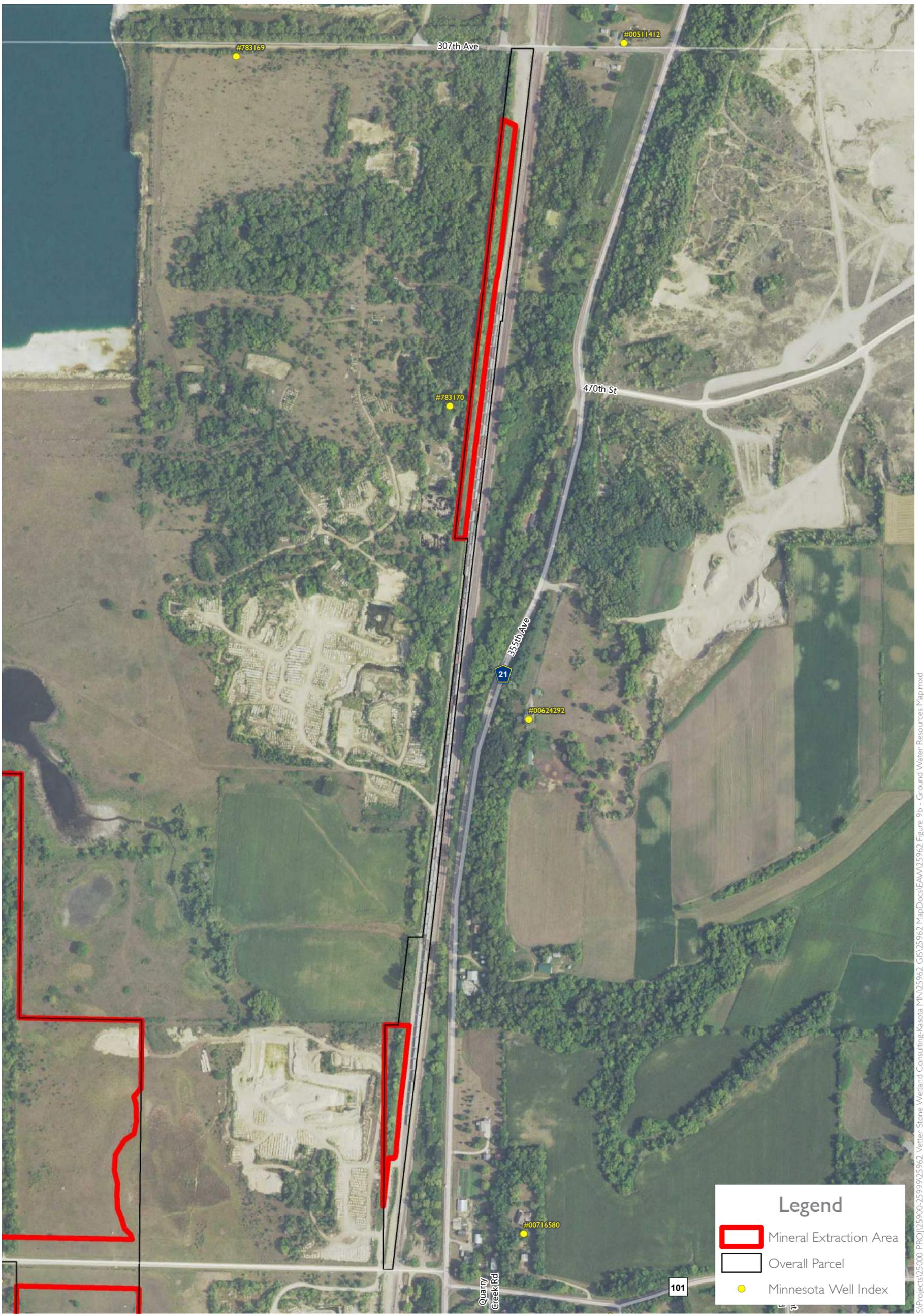
# Figure 9a Ground Water Resources Map

Vetter Stone Company  
Kasota Twp, Le Sueur County, Minnesota



Source(s):  
Orthophoto (FSA, 2021)  
MWI (MDA, 2020)

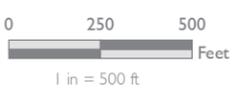




Tuesday, March 12, 2024

Project Number: 21-25962

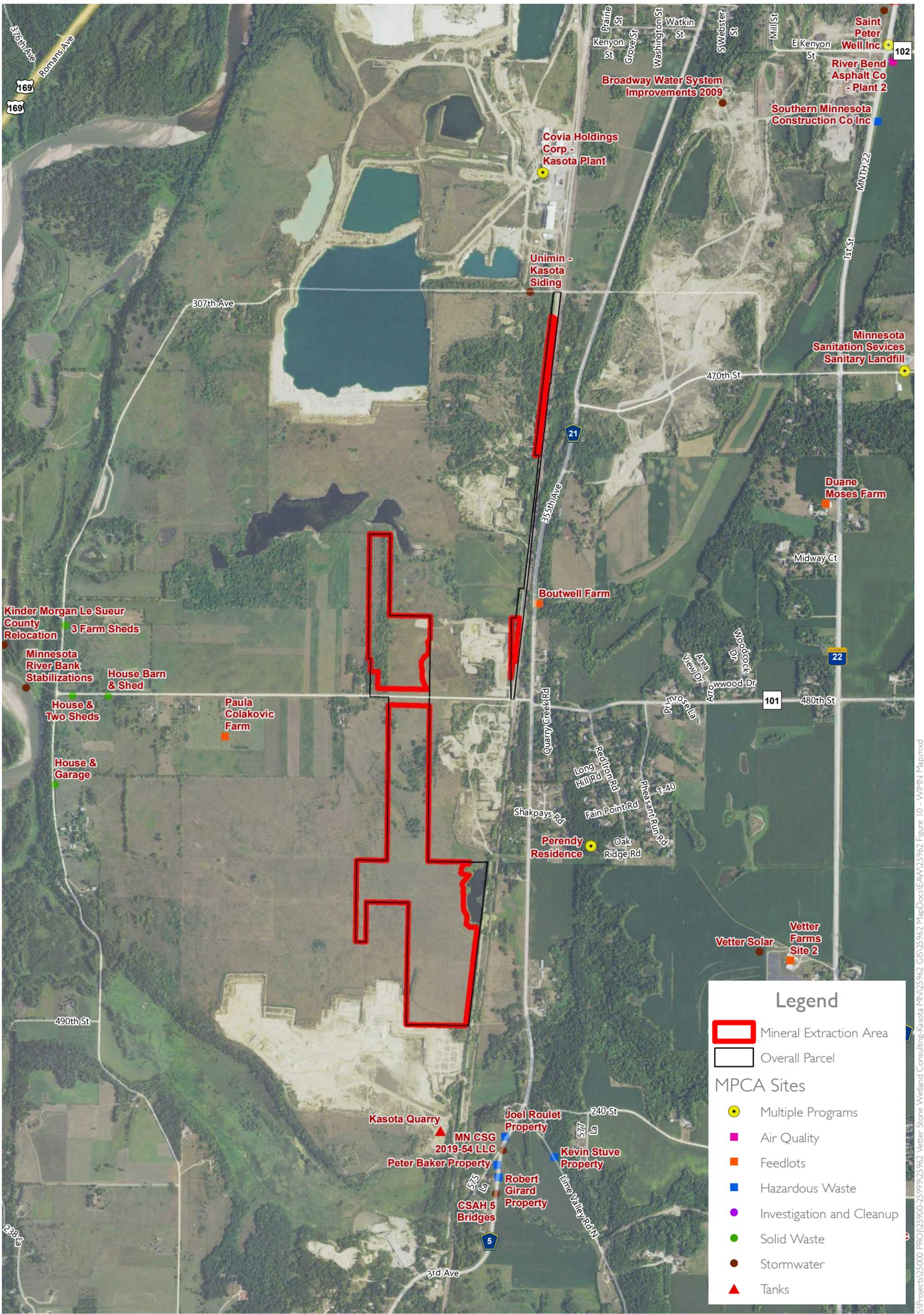
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**Figure 9b**  
**Ground Water**  
**Resources Map**  
 Vetter Stone Company  
 Kasota Twp, Le Sueur County, Minnesota

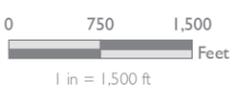
Source(s):  
 Orthophoto (FSA, 2021)  
 MWI (MDA, 2020)





Tuesday, March 12, 2024

Project Number: 21-25962



**Figure 10**  
**What's In My Neighborhood Map**  
 Vetter Stone Company  
 Kasota Twp, Le Sueur County, Minnesota

Source(s):  
 Orthophoto (FSA, 2021)  
 WIMN (MPCA, 2020)



# Appendix B – Site Plan

# VETTER STONE MINE EXPANSION CONSTRUCTION PLANS

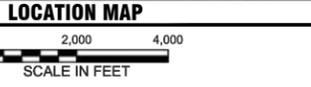
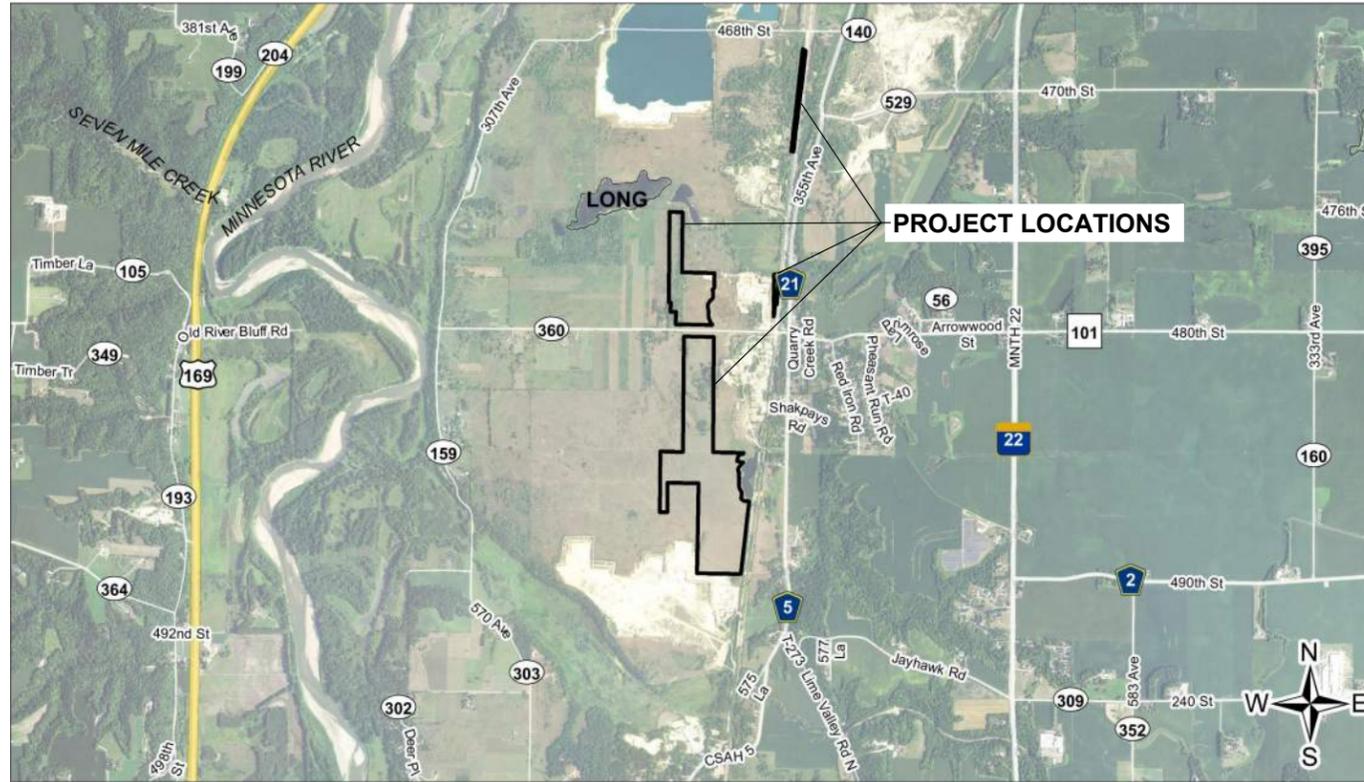
LE SUEUR COUNTY, MINNESOTA

ISG PROJECT # 21-25962



## LEGEND

EXISTING	
---	CITY LIMITS
---	SECTION LINE
---	QUARTER SECTION LINE
---	RIGHT OF WAY LINE
---	PROPERTY / LOTLINE
---	EASEMENT LINE
---	ACCESS CONTROL
---	WATER EDGE
---	WETLAND BOUNDARY
---	WETLAND / MARSH
---	FENCE LINE
---	CULVERT
---	STORM SEWER
---	SANITARY SEWER
---	SANITARY SEWER FORCEMAIN
---	WATER
---	GAS
---	OVERHEAD ELECTRIC
---	UNDERGROUND ELECTRIC
---	UNDERGROUND TELEPHONE
---	UNDERGROUND TV
---	OVERHEAD UTILITY
---	UNDERGROUND UTILITY
---	UNDERGROUND FIBER OPTIC
---	CONTOUR (MAJOR)
---	CONTOUR (MINOR)
---	DECIDUOUS TREE
---	CONIFEROUS TREE
---	TREE LINE
---	MANHOLE/STRUCTURE
---	CATCH BASIN
---	HYDRANT
---	VALVE
---	CURB STOP
---	POWER POLE
---	UTILITY PEDESTAL / CABINET
PROPOSED	
---	LOT LINE
---	RIGHT OF WAY
---	EASEMENT
---	CULVERT
---	STORM SEWER
---	STORM SEWER (PIPE WIDTH)
---	SANITARY SEWER
---	SANITARY SEWER (PIPE WIDTH)
---	WATER
---	GAS
---	OVERHEAD ELECTRIC
---	UNDERGROUND ELECTRIC
---	UNDERGROUND TV
---	CONTOUR
---	MANHOLE (STORM, SANITARY)
---	CATCH BASIN
---	HYDRANT
---	VALVE



## PROJECT LOCATIONS

## SHEET INDEX

G1-10	TITLE
C0-10	TYPICAL SECTIONS
C1-10	SWPPP NARRATIVE
C1-11	SWPPP DETAILS
C1-20	SWPPP (AREA 1)
C1-21	SWPPP (AREA 2)
C1-22	SWPPP (AREA 3)
C1-23	SWPPP (AREA 4)
C1-24	SWPPP (AREA 5)
C2-10	SHEET LOCATOR
C2-20	EXISTING SITE AND REMOVAL PLAN (AREA 1)
C2-21	EXISTING SITE AND REMOVAL PLAN (AREA 2)
C2-22	EXISTING SITE AND REMOVAL PLAN (AREA 3)
C2-23	EXISTING SITE AND REMOVAL PLAN (AREA 4)
C2-24	EXISTING SITE AND REMOVAL PLAN (AREA 5)
C3-10	MINE SITE & GRADING PLAN (AREA 1)
C3-11	MINE SITE & GRADING PLAN (AREA 2)
C3-12	MINE SITE & GRADING PLAN (AREA 3)
C3-13	MINE SITE & GRADING PLAN (AREA 4)
C3-14	MINE SITE & GRADING PLAN (AREA 5)
C4-10	RECLAMATION SITE & GRADING PLAN (AREA 1)
C4-11	RECLAMATION SITE & GRADING PLAN (AREA 2)
C4-12	RECLAMATION SITE & GRADING PLAN (AREA 3)
C4-13	RECLAMATION SITE & GRADING PLAN (AREA 4)
C4-14	RECLAMATION SITE & GRADING PLAN (AREA 5)
C5-10	RESTORATION PLAN (AREA 1)
C5-11	RESTORATION PLAN (AREA 2)
C5-12	RESTORATION PLAN (AREA 3)
C5-13	RESTORATION PLAN (AREA 4)
C5-14	RESTORATION PLAN (AREA 5)

**GIS PARCEL DISCLAIMER:**  
INFORMATION FOR THE BOUNDARY / LOT LINES SHOWN WAS DERIVED FROM DIGITAL DATABASES AND IS FOR INFORMATIONAL PURPOSES ONLY. DATA MAY NOT HAVE BEEN PREPARED FOR, OR BE SUITABLE FOR: LEGAL, ENGINEERING, OR SURVEYING PURPOSES.

## PROJECT GENERAL NOTES

- ALL WORK SHALL CONFORM TO THE CONTRACT DOCUMENTS, WHICH INCLUDE, BUT ARE NOT LIMITED TO, THE OWNER - CONTRACTOR AGREEMENT, THE PROJECT MANUAL, (WHICH INCLUDES GENERAL SUPPLEMENTARY CONDITIONS AND SPECIFICATIONS), DRAWINGS OF ALL DISCIPLINES AND ALL ADDENDA, MODIFICATIONS AND CLARIFICATIONS ISSUED BY THE ARCHITECT/ENGINEER.
- CONTRACT DOCUMENTS SHALL BE ISSUED TO ALL SUBCONTRACTORS BY THE GENERAL CONTRACTOR IN COMPLETE SETS IN ORDER TO ACHIEVE THE FULL EXTENT AND COMPLETE COORDINATION OF ALL WORK.
- WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES OR CONDITIONS REQUIRING INFORMATION OR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
- FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES OR CONDITIONS REQUIRING INFORMATION OR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
- DETAILS SHOWN ARE INTENDED TO BE INDICATIVE OF THE PROFILES AND TYPE OF DETAILING REQUIRED THROUGHOUT THE WORK. DETAILS NOT SHOWN ARE SIMILAR IN CHARACTER TO DETAILS SHOWN, WHERE SPECIFIC DIMENSIONS, DETAILS OR DESIGN INTENT CANNOT BE DETERMINED, NOTIFY ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE WORK.
- ALL MANUFACTURED ARTICLES, MATERIALS AND EQUIPMENT SHALL BE APPLIED, INSTALLED, CONNECTED, ERECTED, CLEANED AND CONDITIONED ACCORDING TO MANUFACTURERS' INSTRUCTIONS. IN CASE OF DISCREPANCIES BETWEEN MANUFACTURERS' INSTRUCTIONS AND THE CONTRACT DOCUMENTS, NOTIFY ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE WORK.
- ALL DISSIMILAR METALS SHALL BE EFFECTIVELY ISOLATED FROM EACH OTHER TO AVOID GALVANIC CORROSION.
- THE LOCATION AND TYPE OF ALL INPLACE UTILITIES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY AND ARE ACCURATE AND COMPLETE TO THE BEST OF THE KNOWLEDGE OF I & S GROUP, INC. (ISG). NO WARRANTY OR GUARANTEE IS IMPLIED. THE CONTRACTOR SHALL VERIFY THE SIZES, LOCATIONS AND ELEVATIONS OF ALL INPLACE UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES OR VARIATIONS FROM PLAN.
- THE CONTRACTOR IS TO CONTACT "GOPHER STATE ONE CALL" FOR UTILITY LOCATIONS, MINIMUM 2 BUSINESS DAYS PRIOR TO ANY EXCAVATION / CONSTRUCTION (1-800-252-1166).

## ABBREVIATIONS:

AC	ACRE	CMP	CORRUGATED METAL PIPE	FDN	FOUNDATION	HORIZ	HORIZONTAL	MAX	MAXIMUM	PSI	POUNDS PER SQUARE INCH	SY	SQUARE YARD
ADA	AMERICANS WITH DISABILITIES ACT	CO	CLEANOUT	FES	FLARED END SECTION	HR	HOUR	MB	MAIL BOX	PVC	POLYVINYL CHLORIDE	T/C	TOP OF CURB
ADD	ADDENDUM	CONC	CONCRETE	FFE	FINISHED FLOOR ELEVATION	HWL	HIGH WATER LEVEL	MECH	MECHANICAL	PVMT	PAVEMENT	TEL	TELEPHONE
AFF	ABOVE FINISHED FLOOR	CONST	CONSTRUCTION	FPM	FEET PER MINUTE	HWY	HIGHWAY	MH	MANHOLE	QTY	QUANTITY	TEMP	TEMPORARY
AGG	AGGREGATE	CONT	CONTINUOUS	FPS	FEET PER SECOND	HYD	HYDRANT	MIN	MINIMUM	R	RIM	THRU	THROUGH
APPROX	APPROXIMATE	CY	CUBIC YARD	FT	FOOT, FEET	I	INVERT	MISC	MISCELLANEOUS	RD	RADIUS	TNTH	TOP NUT OF FIRE HYDRANT
ARCH	ARCHITECT, ARCHITECTURAL	C&G	CURB AND GUTTER	FTG	FOOTING	ID	INSIDE DIAMETER	NO	NUMBER	RCP	REINFORCED CONCRETE PIPE	TRANS	TRANSFORMER
BFE	BASEMENT FLOOR ELEVATION	DEMO	DEMOLITION	GA	GALLON	IN	INCH	NTS	NOT TO SCALE	RD	ROOF DRAIN	TV	TELEVISION
BIT	BITUMINOUS	DIA	DIAMETER	GAL	GALLON	INV	INVERT	NWL	NORMAL WATER LEVEL	REBAR	REINFORCING BAR	T/W	TOP OF WALL
CAD	COMPUTER-AIDED DESIGN	DIM	DIMENSION	GALV	GALVANIZED	IP	IRON PIPE	OC	ON CENTER	REM	REMOVE	TYP	TYPICAL
CB	CATCH BASIN	DS	DOWNSPOUT	GC	GENERAL CONTRACTOR	IPS	IRON PIPE SIZE	OCW	ON CENTER EACH WAY	ROW	RIGHT OF WAY	UT	UTILITY, UNDERGROUND
CFS	CUBIC FEET PER SECOND	EA	EACH	GFE	GARAGE FLOOR ELEVATION	J-BOX	JUNCTION BOX	OH	OVERHEAD	R/W	RIGHT OF WAY	UT	UTILITY, UNDERGROUND
CF	CUBIC FOOT	ELEC	ELECTRICAL	GL	GUTTER LINE	LF	LINEAR FEET	OHD	OVERHEAD DOOR	SAN	SANITARY	VCP	VITRIFIED CLAY PIPE
CI	CAST IRON	ELEV	ELEVATION	GPM	GALLONS PER MINUTE	LT	LINEAR FEET	OZ	OUNCE	SCH	SCHEDULE	W/O	WITHOUT
CIP	CAST IRON PIPE	EQ	EMERGENCY OVERFLOW	GV	GATE VALVE	LN	LINEAR	PED	PEDESTAL, PEDESTRIAN	SF	SQUARE FOOT	W/	WITH
CIPC	CAST IN PLACE CONCRETE	EQU	EQUAL	HDPE	HIGH DENSITY POLYETHYLENE	LPS	LOW PRESSURE STEAM	PERF	PERFORATED	SPEC	SPECIFICATION	YD	YARD
CL	CONTROL JOINT	EX	EXISTING	HD	HEAVY DUTY	LS	LUMP SUM	PL	PROPERTY LINE	SQ	SQUARE	YR	YEAR
CL	CENTERLINE	FDC	FIRE DEPARTMENT CONNECTION	HH	HANDHOLE	LSO	LOWEST STRUCTURAL OPENING	PP	POLYPROPYLENE	STA	STATION		

## PROJECT INDEX:

**OWNER:**  
**DONN VETTER**  
**VETTER STONE COMPANY**  
**23894 3RD AVENUE**  
**MANKATO, MN 56001**  
**PH: 507-345-4568**

**PROJECT ADDRESS / LOCATION:**  
**SECTIONS 5, 8, AND 17**  
**KASOTA TOWNSHIP**  
**(T109N, R26W)**

**MANAGING OFFICE:**  
  
**MANKATO OFFICE**  
**115 EAST HICKORY STREET**  
**SUITE 300**  
**MANKATO, MN 56001**  
**PHONE: 507.387.6651**  
  
**PROJECT MANAGER: NICK MCCABE**  
**EMAIL: NICK.MCCABE@ISG.COM**

**SPECIFICATIONS REFERENCE**  
ALL CONSTRUCTION SHALL COMPLY WITH THE CITY OF KASOTA REQUIREMENTS AND MINN DOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2020 EDITION, AND THE STANDARD SPECIFICATIONS FOR SANITARY SEWER, STORM DRAIN AND WATERMAIN AS PROPOSED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA 2018, UNLESS DIRECTED OTHERWISE.  
  
**PROJECT DATUM**  
HORIZONTAL COORDINATES HAVE BEEN REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83), 1996 ADJUSTMENT (NAD83(1996)) ON THE LE SUEUR COUNTY COORDINATE SYSTEM, IN U.S. SURVEY FEET.  
ELEVATIONS HAVE BEEN REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).  
RTK GPS METHODS WERE USED TO ESTABLISH HORIZONTAL AND VERTICAL COORDINATES FOR THIS PROJECT.

**NOTE:**  
THE CLARITY OF THESE PLANS DEPEND UPON COLOR COPIES. IF THIS TEXT DOES NOT APPEAR IN COLOR, THIS IS NOT AN ORIGINAL PLAN SET AND MAY RESULT IN MISINTERPRETATION.

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT 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.  
**BRYAN M. PETZEL**  
  
DATE: 02/20/23 LIC. NO. 53191

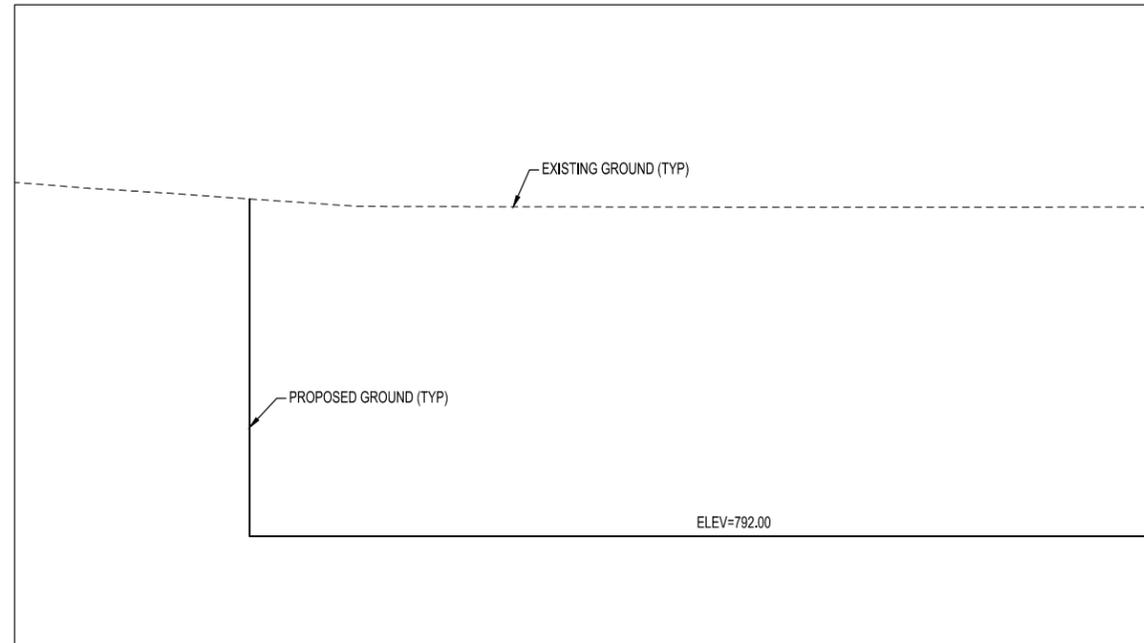
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PROJECT  
**VETTER STONE**  
**MINE EXPANSION**  
LE SUEUR COUNTY MINNESOTA

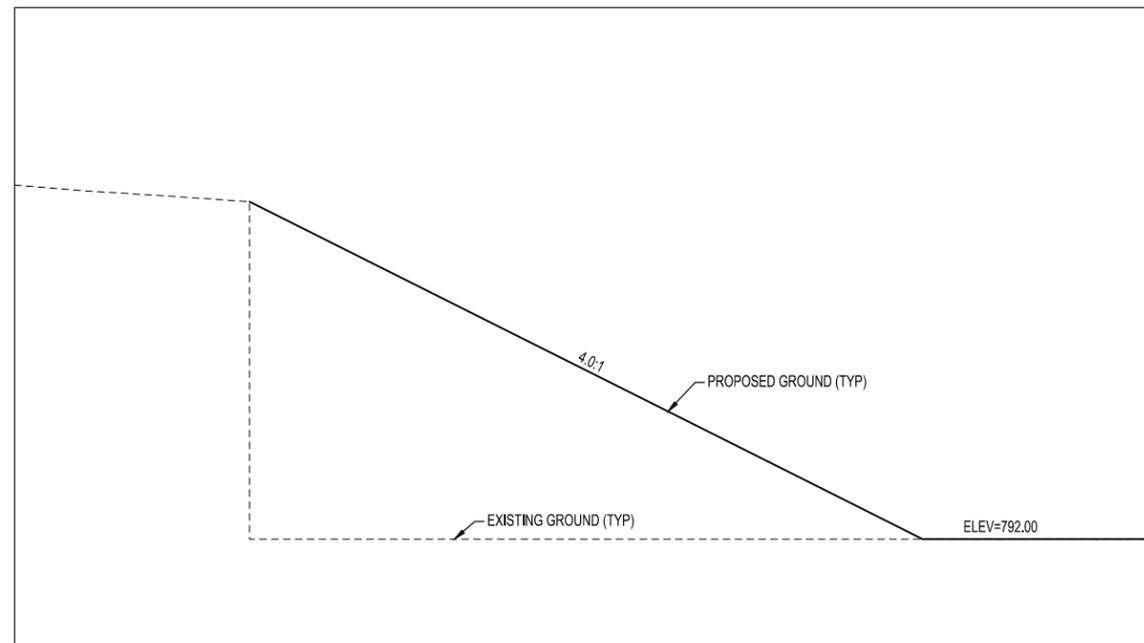
REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO.	21-25962
FILE NAME	25962 G1-GENERAL
DRAWN BY	SMW, EJV
DESIGNED BY	SMW, EJV
REVIEWED BY	BMP
ORIGINAL ISSUE DATE	09/16/22
CLIENT PROJECT NO.	-

TITLE  
**TITLE**  
SHEET  
**G1-10**



**MINE TYPICAL SECTION**



**RECLAMATION TYPICAL SECTION**

**NOTE:**  
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BRYAN M. PETZEL

DATE 02/20/23 LIC. NO. 53191

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PROJECT

**VETTER STONE  
MINE EXPANSION**

LE SUEUR COUNTY MINNESOTA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

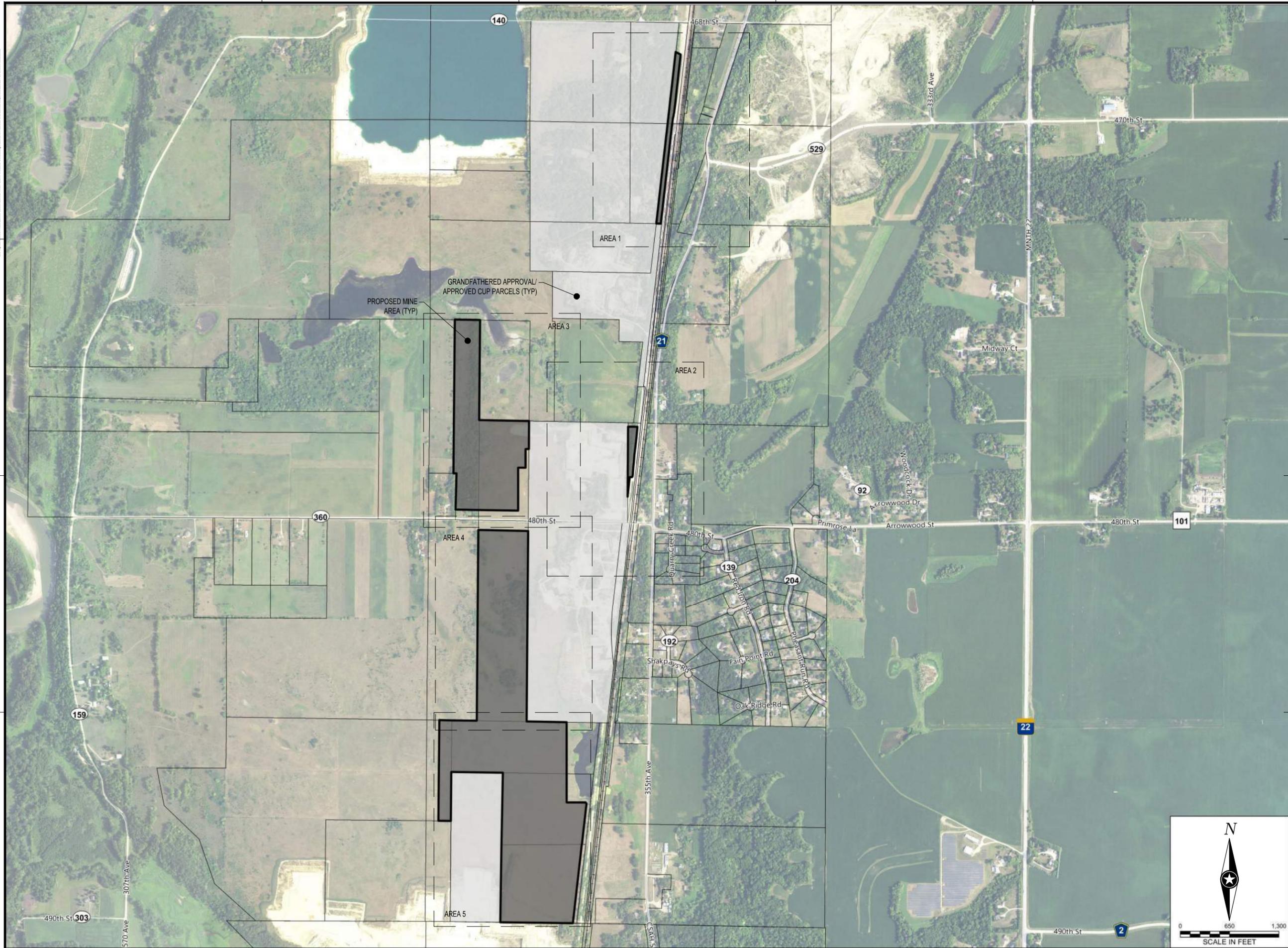
PROJECT NO.	21-25962
FILE NAME	25962 CO- TYPICAL SECTIONS
DRAWN BY	SMW, EJW
DESIGNED BY	SMW, EJW
REVIEWED BY	BMP
ORIGINAL ISSUE DATE	09/16/22
CLIENT PROJECT NO.	-

TITLE

**TYPICAL  
SECTIONS**

SHEET

**C0-10**



**NOTE:**  
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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT 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.

BRYAN M. PETZEL  
*Bryan M. Petzel*

DATE 02/20/23 LIC. NO. 53191

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PROJECT

## VETTER STONE MINE EXPANSION

LE SUEUR COUNTY MINNESOTA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO.	21-25962
FILE NAME	25962 CO-SHEET LOCATOR
DRAWN BY	SMW, EJW
DESIGNED BY	SMW, EJW
REVIEWED BY	BMP
ORIGINAL ISSUE DATE	09/16/22
CLIENT PROJECT NO.	-

TITLE

## SHEET LOCATOR

SHEET

# CO-20

# STORMWATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE

**PROJECT LOCATION**  
 PROJECT/SITE NAME: VETTER STONE MINE EXPANSION  
 PROJECT LOCATION: SECTIONS 5, 8, AND 17  
 TOWNSHIP: KASOTA  
 COUNTY: LE SUEUR  
 STATE: MINNESOTA

**PROJECT DESCRIPTION**  
 THE PROJECT CONSISTS OF THE CONSTRUCTION OF A DIMENSIONAL STONE AND AGGREGATE MINE.

**PRE-CONSTRUCTION IMPERVIOUS SURFACE AND DISTURBED AREA CALCULATIONS**  
 TOTAL AREA TO BE DISTURBED = 151.1 ACRES  
 MINIMUM AREA REQUIRING MPCA PERMIT = 1.00 ACRES  
**"AN MPCA NPDES PERMIT IS REQUIRED FOR THIS PROJECT"**

PRE-CONSTRUCTION IMPERVIOUS AREA = 0.00 ACRES  
 POST-CONSTRUCTION IMPERVIOUS AREA = 0.00 ACRES  
 NET INCREASE OF IMPERVIOUS AREA = 0.00 ACRES

MINIMUM NET INCREASE OF NEW IMPERVIOUS SURFACE AREA CREATED REQUIRING PERMANENT STORMWATER MANAGEMENT = 1.00 ACRES (BASED ON MPCA PERMIT REQUIREMENTS)

**CONTACT INFORMATION/RESPONSIBLE PARTIES**  
 THE OWNER OWNS THE LAND, ADJACENT ROADS, AND EASEMENT AREAS ASSOCIATED WITH THE PROJECT. THE OWNER IS THE OWNER CO-PERMITTEE APPLYING FOR PERMIT COVERAGE AND WILL BE RESPONSIBLE FOR COMPLIANCE WITH ALL TERMS AND CONDITIONS OF THE PERMIT INCLUDING DEVELOPING THE SWPPP AND THE LONG-TERM MAINTENANCE PLAN OF THE PERMANENT STORMWATER MANAGEMENT SYSTEM FOR THIS PROJECT (IF APPLICABLE). THE OWNER WILL ENSURE THAT THE DESCRIBED WORK IN THE SWPPP IS BEING COMPLETED BY THE OPERATOR PERMITEE.

OWNER/PERMITEE: VETTER STONE COMPANY (DON VETTER, VICE PRESIDENT, QUARRY OPERATIONS)  
 23894 3<sup>RD</sup> AVENUE  
 MANKATO, MN 56001  
 507.345.4568

THE PRIMARY CONTRACTOR WILL ENTER INTO A CONTRACT WITH THE OWNER TO COMPLETE THE REQUIRED WORK FOR THIS PROJECT. THE PRIMARY CONTRACTOR WILL BECOME UNDER CONTRACT WITH THE OPERATOR UNDER PERMIT ON THE NPDES PERMIT, AND THEREBY AGREE TO IMPLEMENT THIS SWPPP IN COOPERATION WITH THE OWNER. THE OPERATOR IS RESPONSIBLE FOR IDENTIFYING AN EROSION CONTROL SUPERVISOR PRIOR TO STARTING CONSTRUCTION.

THE OPERATOR WILL ENSURE THAT INDIVIDUALS OVERSEEING OR IMPLEMENTING THE SWPPP HAVE BEEN PROPERLY TRAINED AND THAT CERTIFICATIONS WILL BE MADE AVAILABLE UPON REQUEST. THIS INCLUDES ANY SUB-CONTRACTORS WHOSE WORK IS PART OF THE PERMIT INCLUDING DEVELOPING THE SWPPP AND THE LONG-TERM MAINTENANCE PLAN. INFORMATION FOR THE EROSION CONTROL SUPERVISOR, SITE SUPERINTENDENT/FOREMAN, AND BMP INSTALLERS, THE EROSION CONTROL SUPERVISOR SHALL BE A RESPONSIBLE EMPLOYEE OF THE PRIME CONTRACTOR AND/OR DULY AUTHORIZED BY THE PRIME CONTRACTOR TO REPRESENT THE PRIME CONTRACTOR ON ALL MATTERS PERTAINING TO THE NPDES CONSTRUCTION PERMIT COMPLIANCE. THE EROSION CONTROL SUPERVISOR SHALL HAVE AUTHORITY OVER ALL OPERATOR ACTIVITIES WHICH INFLUENCE NPDES PERMIT COMPLIANCE, INCLUDING GRADING, EXCAVATION, BRIDGE CONSTRUCTION, CULVERT INSTALLATION, UTILITY WORK, CLEARING/GRUBBING, DEWATERING, AND ANY OTHER OPERATION THAT INCREASES THE EROSION POTENTIAL ON THE PROJECT.

THE OPERATOR WILL PERFORM A PRECONSTRUCTION SITE VISIT TO ADDRESS ANY AREAS OF CONCERN PERTAINING TO THIS PROJECT. THE OPERATOR WILL IMPLEMENT AND MAINTAIN BMPs FOR THE DURATION OF THE CONSTRUCTION PROJECT. THE OPERATOR WILL COMPLETE THE REQUIRED SITE INSPECTIONS, AND IS RESPONSIBLE FOR SECTION 3-4, 6-22, 24, AND APPLICABLE PARTS OF 23, TO REMAIN IN COMPLIANCE WITH NPDES PERMIT.

OPERATOR/PERMITEE: (TO BE DETERMINED)

ISG INC. HAS BEEN CONTRACTED BY THE OWNER TO DEVELOP THE SWPPP PLAN FOR THIS PROJECT. THIS SWPPP WAS PREPARED BY AN INDIVIDUAL THAT HAS BEEN PROPERLY TRAINED IN ACCORDANCE TO SECTION 21 OF THE NPDES PERMIT (CERTIFICATION CARDS ARE AVAILABLE UPON REQUEST). ISG INC. WILL OFFER GUIDANCE FOR COMPLIANCE WITH THE NPDES PERMIT BEFORE, DURING, AND AFTER CONSTRUCTION OF THE PROJECT.

SWPPP DESIGNER:  
 ISG INC. (BRYAN PETZEL, PE)  
 115 EAST HICKORY STREET, SUITE 300  
 MANKATO, MN 56001  
 507.387.6651 / BRYAN.PETZEL@ISGINC.COM

AGENCY CONTACTS	PERMIT	NAME	PHONE NUMBER/EMAIL
MPCA (EMERGENCY)	N/A	STATE DUTY OFFICER	800.422.0798
MPCA	NPDES-CSW #MNR10001	JOSH NORMAN	651.757.2389 / JOSH.NORMAN@STATE.MN.US

**SPILLED OR LEAKED CHEMICALS:** REASONABLE STEPS TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS, INCLUDING FUEL FROM ANY AREA WHERE CHEMICAL OR FUEL WILL BE LOADED OR UNLOADED. PROCEDURES FOR SPILL RESPONSE AND CONTAINMENT, CLEANUP (DRIP PANS, ABSORBENTS, AND SPILL KITS) AND APPROPRIATE DISPOSAL, SHALL BE AVAILABLE AT ALL TIMES ON-SITE. PERMITEES MUST REPORT AND CLEAN UP SPILLS IMMEDIATELY AS REQUIRED BY MINNESOTA STATUTE 115.001.

**EQUIPMENT/VEHICLE WASHING:** WHEN VEHICLE/EQUIPMENT WASHING MUST OCCUR ON-SITE, THE ACTIVITY IS LIMITED TO A CONTAINED PORTION OF THE STAGING AREA, UNLESS INFEASIBLE THROUGH A SWPPP AMENDMENT. SOAPS, DETERGENTS, AND SOLVENTS ARE TO BE USED AND STORED PROPERLY. RUNOFF MUST BE CONTAINED FROM THE WASHING AREAS AND DISPOSED OF PROPERLY.

**CONCRETE, STUCCO, PAINT, CURING COMPOUNDS, SOLVENTS, AND OTHER WASHOUT WASTES:** TEMPORARY OR LONG-TERM STORAGE OF WASHOUT WASTE IS PROHIBITED ON-SITE (SLURRY MUST BE HAULED IMMEDIATELY OFF-SITE). OPERATOR MUST SUBMIT A CONCRETE WASHOUT PLAN TO THE PROJECT ENGINEER FOR APPROVAL OF ALL ON-SITE WASHOUT LOCATIONS. ON-SITE WASHOUT LOCATIONS MUST BE LOCATED 200 FEET FROM AN ENVIRONMENTALLY SENSITIVE AREA AND SURFACE WATERS. HAVE "CONCRETE WASHOUT AREA" SIGNAGE, AND BE CONTAINED IN A LEAK-PROOF CONTAINER OR IMPERMEABLE LINER. LIQUID AND SOLID WASTES SHOULD NOT CONTACT THE GROUND (UNLESS PERMITTED IN THE CONCRETE WASHOUT PLAN), BE CONTAINED TO PREVENT RUNOFF FROM THE WASHOUT LOCATION, AND MUST BE DISPOSED OF PROPERLY AND IN COMPLIANCE WITH MPCA REGULATIONS.

**BURNING:** BURNING OF GARBAGE, CONSTRUCTION DEBRIS, TREES, BRUSH, OR OTHER VEGETATIVE MATERIAL IS NOT ALLOWED ON SITE, UNLESS PRIOR APPROVAL IS GRANTED BY THE OWNER.

**CONSTRUCTION ACTIVITY REQUIREMENTS: EROSION PREVENTION PRACTICES, PROCEDURES, & MAINTENANCE STANDARDS**

THE OPERATOR IS RESPONSIBLE FOR THE INSTALLATION, OPERATION, AND CONTINUED MAINTENANCE OF ALL TEMPORARY AND PERMANENT WATER QUALITY MANAGEMENT BMPs, AS WELL AS ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPs, FOR THE DURATION OF THE CONSTRUCTION WORK AT THE SITE, UNTIL FINAL STABILIZATION IS ACHIEVED. ALL BMPs MUST BE ADEQUATELY LOCATED, DESIGNED, INSTALLED, AND MAINTAINED TO PREVENT EROSION FROM A MINIMUM 0.5 INCH TOTAL RAINFALL EVENT WITHIN 14 DAYS.

ALL NONFUNCTIONAL BMPs MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WITH FUNCTIONAL BMPs BY THE END OF THE NEXT BUSINESS DAY AFTER DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS UNLESS ANOTHER TIME FRAME IS SPECIFIED IN THE SWPPP. ALL ERODED MATERIAL THAT LEAVES THE SITE SHALL BE COLLECTED BY THE OPERATOR AND RETURNED TO THE SITE AT THE OPERATOR'S EXPENSE AND INCIDENTAL TO THE PROJECT COST.

TEMPORARY OR PERMANENT STABILIZATION SHALL BE INITIATED AS SOON AS POSSIBLE, BUT NO LATER THAN THE END OF THE NEXT WORKDAY FOLLOWING THE DAY EARTH-DISTURBING ACTIVITIES IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. ALL EXPOSED SOIL AREAS SHALL BE STABILIZED WITHIN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. INITIATED STABILIZATION IS DEFINED AS COMPLETING ONE (OR MORE) OF THE FOLLOWING: SOIL PREPARATION FOR VEGETATION, MULCHING (OR OTHER TEMPORARY NON-VEGETATIVE BMP), SEEDING/PLANTING, OR SCHEDULING STABILIZATION MEASURES TO BE FULLY INSTALLED AND COMPLETED WITHIN THE 14 DAY TIMEFRAME.

ALL EXPOSED SOILS WITHIN 200 FEET AND DRAINING TO A DNR PUBLIC WATERS MUST BE STABILIZED WITHIN 24 HOURS OF TEMPORARILY OR PERMANENTLY CEASING WORK, DURING THE FISH SPAWNING PERIOD.

TEMPORARY STABILIZATION BMPs SHALL ONLY BE IMPLEMENTED WHEN PERMANENT STABILIZATION BMPs CANNOT BE IMPLEMENTED WITHIN THE 14 DAY TIMEFRAME FOR EXPOSED SOILS.

**TEMPORARY/PERMANENT DRAINAGE DITCHES & SWALES:** THE NORMAL WETTED PERIMETER (2-YEAR, 24-HOUR PRECIPITATION EVENT) OF ANY TEMPORARY OR PERMANENT DRAINAGE DITCH, CHANNEL, OR SWALE THAT DRAINS WATER FROM ANY PORTION OF THE CONSTRUCTION SITE, OR DIVERTS WATER AROUND THE SITE, MUST BE STABILIZED WITHIN THE LAST 200 LINEAL FEET FROM THE PROPERTY EDGE, OR FROM THE POINT OF DISCHARGE INTO ANY SURFACE WATER WITHIN 24 HOURS OF CONNECTION. STABILIZATION REMAINING OF THE REMAINING PORTIONS OF THE CHANNEL, MUST BE STABILIZED WITHIN 14 DAYS. ALL STORMWATER CONVEYANCE CHANNELS MUST USE EROSION CONTROL AND VELOCITY DISSIPATION DEVICES WITHIN AND ALONG THE LENGTH OF THE CHANNEL AND AT ANY OUTLETS. TEMPORARY OR PERMANENT DITCHES OR SWALES THAT ARE BEING USED AS A TEMPORARY SEDIMENT CONTAINMENT SYSTEM (WITH PROPERLY DESIGNED ROCK DITCH CHECKS, BIO ROLLS, SILT DICES ETC.) DO NOT NEED TO BE STABILIZED. THESE AREAS HOWEVER MUST BE STABILIZED WITHIN 24 HOURS AFTER NO LONGER BEING USED AS A SEDIMENT CONTAINMENT SYSTEM. MULCH, HYDROMULCH, TACKIFIER, OR POLYACRYLAMIDE BELOW THE WETTED PERIMETER OF A DITCH, SWALE, OR OTHER SURFACE WATER CONVEYANCE IS NOT ACCEPTABLE STABILIZATION.

**EROSION CONTROL BLANKETS/MATS:** OPERATOR SHALL VERIFY DURING REGULAR INSPECTIONS THAT NO GULLIES, RILLS, OR SCOUR HOLES HAVE FORMED UNDER EROSION CONTROL BLANKETS AND MATS. ALL REPAIRS MUST BE COMPLETED WITHIN 24 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.

**MULCH:** OPERATOR MUST APPLY MULCH IN A UNIFORM PATTERN OVER THE DISTURBED SOILS, TO ACHIEVE A MINIMUM OF 90% GROUND COVER.

**DUST CONTROL:** DUST FROM THE SITE WILL BE CONTROLLED BY INCREASED STREET SWEEPING AND/OR USING A MOBILE PRESSURE-TYPE DISTRIBUTOR TRUCK TO APPLY POTABLE WATER TO DISTURBED AREAS. THE MOBILE UNIT WILL APPLY WATER AT A RATE NECESSARY TO PREVENT RUNOFF AND PONDING.

**STORM SEWER OUTLETS:** PIPE OUTLETS MUST HAVE TEMPORARY OR PERMANENT ENERGY DISSIPATION WITHIN 24 HOURS AFTER HYDRAULIC CONNECTION TO A RECEIVING SURFACE WATER.

**TEMPORARY & PERMANENT EROSION PREVENTION BMPs**

## PERMANENT STORMWATER TREATMENT SYSTEMS

THE PROJECT WILL RESULT IN LESS THAN ONE (1) ACRE INCREASE IN IMPERVIOUS AREA AND, THEREFORE, A PERMANENT STORMWATER TREATMENT SYSTEM IS NOT REQUIRED.

LOCATION OF SWPPP COMPONENTS	TITLE	LOCATION (SHEET NAME)
SWPPP NARRATIVE	SWPPP NARRATIVE	SWPPP NARRATIVE
SITE CONDITIONS	SWPPP NARRATIVE	SWPPP NARRATIVE
SITE MAPS (SOILS, WATER RESOURCES, POTENTIAL POLLUTANT GENERATING ACTIVITIES)	SWPPP MAP, SWPPP NARRATIVE	SWPPP NARRATIVE, SWPPP NARRATIVE
CONSTRUCTION PHASING/STAGING, BUFFERS, & AREAS NOT TO BE DISTURBED	SWPPP NARRATIVE	SWPPP NARRATIVE
DIRECTION OF SURFACE WATER FLOW (PRE- & POST- CONSTRUCTION)	DRAINAGE PLAN	SWPPP
IMPERVIOUS SURFACES	CONSTRUCTION PLAN & PROFILE	SWPPP
TEMPORARY EROSION & SEDIMENT CONTROL BMPs FOR STEEP SLOPES (3:1), DNR FISH EXCLUSION "WORK IN WATER RESTRICTIONS"	TEMPORARY EROSION AND SEDIMENT CONTROL PLAN, SWPPP NARRATIVE	SWPPP NARRATIVE, SWPPP DETAILS
PERMANENT EROSION PREVENTION BMPs	TURF ESTABLISHMENT PLAN, SWPPP NARRATIVE	SWPPP NARRATIVE, SWPPP DETAILS, SWPPP
STORM SEWER	DRAINAGE PLAN	SWPPP
GRADING	SWPPP GRADING PLAN	SWPPP GRADING PLAN
ESTIMATED BMP QUANTITIES	ESTIMATED QUANTITIES	SWPPP NARRATIVE
BMP DETAILS/SPECIFICATIONS	MISC. DETAILS, SWPPP NARRATIVE	SWPPP NARRATIVE, SWPPP DETAILS

**EXISTING SITE CONDITIONS, SOILS, & WATER RESOURCES**  
 SOILS AND NATIVE TOPSOIL, NATIVE TOPSOIL WILL BE STRIPPED AND STOCKPILED FOR FINAL GRADING OPERATIONS, WHERE INDICATED IN THE CONSTRUCTION PLANS AND SPECIFICATIONS. METHODS AND EQUIPMENT TO MINIMIZE SOIL COMPACTION IN PROPOSED CONSTRUCTION AREAS, DRIP LINES OF TREES TO BE PRESERVED, ETC.) SHALL BE DETERMINED BY THE OPERATOR'S SWPPP AMENDMENT. TRACKED VEHICLES ARE REFERRED AND WHEELED VEHICLES ARE DISCOURAGED IN THESE AREAS. SOIL EXPLORATIONS PERFORMED ON SITE INDICATE THE PRESENCE OF PRIMARILY LOAM (L) SOILS WITHIN THE PROJECT AREA.

DESCRIPTION OF MATERIALS	APPROXIMATE PARTICLE SIZE RANGE (MM)		
	SAND (0.05- 2.00)	SILT (0.002- 0.05)	CLAY (<0.002)
LOAM (L)	23-52%	28-50%	7-27%

**DESCRIPTION OF RECEIVING WATERS (LOCATED WITHIN 1-MILE):** STORMWATER FROM THE SITE WILL BE INTERNALLY DRAINED INTO THE MINE AREA.

**DESCRIPTION OF IMPAIRED WATERS OR WATER SUBJECT TO TMDLS:** A SPECIAL AND IMPAIRED WATERS SEARCH WAS COMPLETED USING THE ONLINE MPCA CONSTRUCTION SPECIAL WATERS SEARCH TOOL ON 08/30/2022. THE RESULTS INDICATED THERE IS NO DISCHARGE POINT ON THE PROJECT THAT IS WITHIN ONE MILE OF, AND FLOWS TO, A SPECIAL OR IMPAIRED WATER.

**POTENTIAL FOR SEDIMENT AND/OR OTHER POLLUTANTS DISCHARGING FROM THE PROJECT SITE**  
 THE TEMPORARY EROSION AND SEDIMENT CONTROL BMPs IN THIS SWPPP HAVE BEEN DESIGNED TO MINIMIZE THE POTENTIAL OF SEDIMENTS DISCHARGING OFF-SITE FROM A 0.5 INCH RAINFALL WITHIN A 24 HOUR PERIOD. THE NOAA ATLAS 14 POINT PRECIPITATION FREQUENCY ESTIMATE FOR THE PROJECT LOCATION WAS REVIEWED AND USED FOR ANTICIPATED INSPECTION FREQUENCY, BMP DESIGN, AND ESTIMATING CONSTRUCTION ACTIVITIES IN THIS SWPPP. ATLAS 14 RESULTS DO NOT NECESSARILY REFLECT ANY DESIGN CRITERIA IN THE PERMANENT STORMWATER MANAGEMENT SYSTEM.

ROUTINE INSPECTION AND BMP MAINTENANCE BY THE OPERATOR IS CRUCIAL IN ENSURING THE FUNCTIONALITY OF EACH BMP. STEEP SLOPES AND OTHER ENVIRONMENTALLY SENSITIVE AREAS THAT ARE AT A HIGHER RISK OF SEDIMENTATION ARE DEFINED IN THIS SWPPP (IF APPLICABLE).

**CONSTRUCTION PHASING/STAGING, BUFFERS, & AREAS NOT TO BE DISTURBED**  
 AREAS NOT TO BE DISTURBED ARE TO BE DELINEATED BEFORE WORK BEGINS. PERMITEES ARE RESPONSIBLE FOR PRESERVING A 50 FOOT NATURAL BUFFER OR (IF INFEASIBLE AND DOCUMENTED) PROVIDE REDUNDANT SEDIMENT CONTROL BMPs, WHEN A SURFACE WATER IS LOCATED WITHIN 50 FEET AND RECEIVES DRAINAGE FROM THE PROJECT'S GRADING LIMITS. THIS REQUIREMENT DOES NOT APPLY TO ADJACENT ROADSIDE DITCHES, JUDICIAL/COUNTY DITCHES, STORMWATER CONVEYANCES, STORM DRAIN INLETS, AND SEDIMENT BASINS.

**TYPE 1 MULCH:** APPLY TO DISTURBED SLOPES LESS THAN 1:3 WITH BLOWER EQUIPMENT OR CONCURRENTLY WITH HYDROMULCH AT 2 TONS/ACRE, IMMEDIATELY OVERSPRAY (IF NOT HYDROMULCHED) WITH TACKIFIER (PER MANUFACTURER'S RECOMMENDED RATES) OR DISC-INCHING.

**RAPID STABILIZATION METHOD #3:** THIS WORK SHALL CONSIST OF OPERATIONS NECESSARY TO RAPIDLY STABILIZE SMALL CRITICAL AREAS WITHIN 200 FT OF SURFACE WATERS, TO PREVENT OFF-SITE SEDIMENTATION AND/OR TO COMPLY WITH PERMIT REQUIREMENTS. INSTALL PER MNDOT SPECIFICATIONS 257.3N.

**RAPID STABILIZATION METHOD #4 (WOOD FIBER, NATURAL NET ONLY):** IS AN ACCEPTABLE BMP FOR DISTURBED AREAS ADJACENT TO ENVIRONMENTALLY SENSITIVE AREAS, SURFACE WATERS, AND WITHIN THE LAST 200 FEET OF DITCH BOTTOMS.

**TEMPORARY WINTER COVER:** AREAS OF EXPOSED SOILS THAT ARE NOT COMPLETED BEFORE THE WINTER WILL BE STABILIZED WITH TYPE #3 (CERTIFIED AS WEED FREE) ADJACENT TO WETLAND OR STORMWATER PONDS. ALL OTHER DISTURBED AREAS SHALL BE STABILIZED WITH TYPE #1 MULCH, UNLESS ALTERNATIVE MORE PROTECTIVE BMPs ARE SPECIFIC WITHIN THE SWPPP. ALL EXPOSED SOILS SHALL BE STABILIZED BEFORE CONSTRUCTION IS COMPLETED FOR THE SEASON.

**HYDRO-MULCH TYPE #5:** HYDRAULIC SOIL STABILIZER IN COMBINATION WITH A TACKIFIER WILL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS TO EXPOSED SOILS AREAS TO PROVIDE TEMPORARY LONG-TERM OR PERMANENT COVER FOR VEGETATION ESTABLISHMENT.

**CONSTRUCTION ACTIVITY REQUIREMENTS: SEDIMENT CONTROL PRACTICES, PROCEDURES, & MAINTENANCE STANDARDS**

**DOWNGRADIENT SYSTEMS:** IF THE DOWNGRADIENT TREATMENT SYSTEM IS OVERLOADED, ADDITIONAL UP GRADIENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMPs MUST BE INSTALLED TO ELIMINATE THE OVERLOADING, AND THE SWPPP MUST BE AMENDED TO IDENTIFY THESE ADDITIONAL PRACTICES.

**PERIMETER CONTROL BMPs (SILT FENCES, CHIP/SLASH MULCH SACKS, BIOROLLS, FLOATING SILT CURTAIN, ETC.):** PERIMETER CONTROL BMPs SHALL BE INSTALLED ON ALL DOWNGRADIENT PERIMETERS AND UPGRADEMENT OF ANY BUFFER AREAS, PRIOR TO INITIATING UPGRADEMENT LAND DISTURBANCE ACTIVITIES. UPLAND PERIMETER CONTROLS SHALL BE PLACED AS CLOSE AS POSSIBLE TO THE SOURCE OF EROSION AND THE DISCHARGE OF FLOTTING DEBRIS. DEVICES MUST BE REPAIRED, REPLACED, OR MAINTAINED WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE HEIGHT OF THE DEVICE. FLOATING SILT CURTAIN SHALL BE INSTALLED AS CLOSE TO THE SHORELINE AS POSSIBLE FOR SHORT-TERM CONSTRUCTION ACTIVITIES. IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY IN THAT AREA IS COMPLETE, AN UPLAND PERIMETER CONTROL MUST BE INSTALLED IF EXPOSED SOILS CONTINUE TO DRAIN TO THE SURFACE WATER.

**50 FOOT NATURAL BUFFERS:** REFER TO "CONSTRUCTION PHASING/STAGING, BUFFERS, & AREAS NOT TO BE DISTURBED" SECTION OF THIS SWPPP.

**TEMPORARY SEDIMENTATION BASINS:** WHERE TEN (10) OR MORE ACRES OF DISTURBED SOIL DRAIN TO A COMMON LOCATION, A TEMPORARY SEDIMENT BASIN MUST BE PROVIDED PRIOR TO RUNOFF LEAVING THE CONSTRUCTION SITE OR ENTERING SURFACE WATERS. ALL TEMPORARY BASINS SHALL BE CONSTRUCTED AND OPERATIONAL PRIOR TO GRADING TEN (10) OR MORE ACRES. BASINS MUST PROVIDE A LIVE STORAGE VOLUME FROM A TWO YEAR 24-HOUR STORM EVENT FROM EACH ACRE (DISTURBED AND UNDISTURBED) DRAINING TO THE BASIN OR 1,800 CUBIC FEET OF LIVE STORAGE PER ACRE DRAINED, WHICHEVER IS GREATER. AT A MINIMUM, IF CALCULATIONS ARE NOT PERFORMED THE BASIN SHALL PROVIDE 3,600 CUBIC FEET OF LIVE STORAGE FROM EACH ACRE. THE BASIN INTAKE MUST BE DESIGNED TO WITHDRAW WATER FROM THE SURFACE, PREVENT SHORT GRUBBLING AND THE DISCHARGE OF FLOTTING DEBRIS. INCLUDE AN EMERGENCY OVERFLOW ABOVE THE LIVE STORAGE ELEVATION, AND PROVIDE ENERGY DISSIPATION AT THE BASIN OUTLET. BASINS MUST BE DRAINED AND SEDIMENT REMOVED WHEN THE DEPTH OF COLLECTED SEDIMENT IN THE BASIN REACHES 1/2 THE LIVE STORAGE VOLUME. IF A BASIN IS INFEASIBLE WITHIN THE PROJECT LIMITS, EQUIVALENT SEDIMENT CONTROL BMPs MUST BE IMPLEMENTED AND DOCUMENTED IN THE SWPPP OR SWPPP AMENDMENT.

**TEMPORARY STOCKPILES:** ALL STOCKPILES MUST HAVE SILT FENCE OR EQUIVALENT PERIMETER SEDIMENT CONTROLS IMPLEMENTED AND MAINTAINED AT ALL TIMES. PILES CANNOT BE PLACED IN BUFFER AREAS OR SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB AND GUTTER SYSTEMS, OR CONDUITS AND DITCHES UNLESS THERE IS A PASS IN PLACE TO PREVENT STORMWATER RUN-ON INTO THE STOCKPILE. STABILIZATION ON TEMPORARY STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY OR ORGANIC COMPONENTS IS NOT REQUIRED.

**CONSTRUCTION SITE ENTRANCE/VEHICLE TRACKING:** OPERATOR MUST MINIMIZE SEDIMENT FROM LEAVING THE CONSTRUCTION SITE (OR ONTO STREETS WITHIN THE SITE) BY IMPLEMENTING BMPs SUCH AS ROCK PADS, SLASH MULCH, CONCRETE OR STEEL WASH RACKS, OR EQUIVALENT SYSTEMS. STREET SWEEPING MUST BE USED DAILY DURING CONSTRUCTION OPERATIONS IF SUCH BMPs ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM BEING TRACKED ONTO THE STREET. TRACKED SEDIMENT MUST BE REMOVED FROM ALL PAVED SURFACES (ON AND OFF-SITE) WITHIN 24 HOURS OF DISCOVERY, OR SOONER AS DIRECTED BY THE PROJECT OWNER. MULTIPLE STREET SWEEPINGS AT THE OPERATOR'S EXPENSE MAY BE REQUIRED ON ALL ENTRY/EXIT POINTS TO THE SITE AT THE DISCRETION OF THE PROJECT OWNER.

**SURFACE WATERS:** INCLUDING OFF-SITE AND DOWNSTREAM DRAINAGE DITCHES, CATCH BASINS, AND CONVEYANCE SYSTEMS, MUST BE INSPECTED FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION, THE REMOVAL, AND STABILIZATION OF EXPOSED SOILS MUST TAKE PLACE WITHIN SEVEN (7) DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. IF PRECLUDED, REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) CALENDAR DAYS OF OBTAINING ACCESS. THE PERMITEES ARE RESPONSIBLE FOR NOTIFYING ALL LOCAL, REGIONAL, STATE AND FEDERAL AGENCIES AND RECEIVING ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK.

**INLET PROTECTION:** ALL STORM DRAIN INLETS (INCLUDING DOWNGRADIENT, OFF-SITE) MUST BE PROTECTED BY APPROPRIATE BMPs DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET

THERE IS NO CONSTRUCTION PHASING OR STAGING DEFINED BY THE OWNER FOR THIS PROJECT. THE SCHEDULE FOR INSTALLING TEMPORARY BMPs SHALL BE INCORPORATED INTO THE OPERATOR'S WEEKLY SCHEDULE FOR EACH CONSTRUCTION STAGE AND PRESENTED TO THE OWNER'S REPRESENTATIVE (PER MNDOT SPEC 1717.0).

## ENVIRONMENTALLY SENSITIVE AREAS

**STEEP SLOPES:** EXISTING AND PROPOSED SLOPES 1 IN 3 (33.33%) AND STEEPER THAT ARE PROPOSED TO BE DISTURBED ARE ILLUSTRATED ON THE PLAN SHEETS. STEEP SLOPES MAY BE TEMPORARILY CREATED DURING GRADING OPERATIONS IF NECESSARY, AT WHICH TIME TEMPORARY BMPs MUST BE IMPLEMENTED BY THE OPERATOR THROUGH AN APPROVED SWPPP AMENDMENT WITHIN 14 DAYS OF NO LONGER WORKING THE STEEP SLOPE.

**CONTAMINATED PROPERTIES:** THE MPCA'S "WHAT'S IN MY NEIGHBORHOOD" DATABASE WAS REVIEWED ON 08/30/2022. THE RESULTS OF THIS REVIEW SHOW NO KNOWN CONTAMINATED PROPERTIES OR LEAK SOURCES LOCATED WITHIN AND ADJACENT TO THE PROJECT LIMITS.

**STORMWATER POLLUTION MITIGATION MEASURES (AS IDENTIFIED FROM ENVIRONMENTAL REVIEW):** PREPARATION OF AN EAW WAS UNDERWAY, BUT NOT YET COMPLETED, AT THE TIME THIS SWPPP NARRATIVE WAS PREPARED. CO-PERMITTEES SHALL ADHERE TO ANY STORMWATER POLLUTION MITIGATION MEASURES IDENTIFIED WITHIN THE COMPLETED EAW.

**KARST AREAS:** THERE ARE NO KNOWN ACTIVE KARST AREAS WITHIN OR ADJACENT TO THE PROJECT LIMITS.

**SITE PLAN REQUIRED AREAS:** NO AREAS OF "HIGH ENVIRONMENTAL RISKS" ARE KNOWN TO BE LOCATED WITHIN OR IMMEDIATELY ADJACENT TO THE PROJECT LIMITS.

**FLOOD CONTINGENCY PLAN:** PROJECT ACTIVITIES MAY OCCUR WITHIN THE 100-YEAR FLOODPLAIN OR FLOODWAY; THEREFORE, THE PROJECT ENGINEER (AT HIS DISCRETION) MAY REQUIRE A PREVENTATIVE FLOOD CONTINGENCY PLAN FOR SPECIFIC PROJECT ACTIVITIES AND AREAS IF SEASONAL PRECIPITATION POSSES A POTENTIAL RISK OF FLOODING WORK AREAS WITHIN THE PROJECT LIMITS. THIS PLAN SHALL BE SUBMITTED BY THE OPERATOR TO THE OWNER'S REPRESENTATIVE FOR APPROVAL A MINIMUM OF 72 HOURS PRIOR TO THE SCHEDULED WORK AND/OR DURING ACTIVE WORK WITHIN THE FLOODPLAIN. NO WORK WITHIN THE FLOODPLAIN CAN COMMENCE UNTIL WRITTEN APPROVAL/NOTICE TO PROCEED FROM THE OWNER'S REPRESENTATIVE IS RECEIVED.

**FISH EXCLUSION DATES:** FISH EXCLUSION DATES ARE NOT APPLICABLE TO THIS PROJECT LOCATION.

**AQUATIC INVASIVE SPECIES:** ALL IN-STREAM AND DEWATERING EQUIPMENT SHALL BE DECONTAMINATED OF ALL AQUATIC PLANTS AND PROHIBITED INVASIVE SPECIES PRIOR TO USING WITHIN SURFACE WATERS ON-SITE AND TRANSPORTING OFF-SITE. ALL DECONTAMINATION ACTIVITIES SHALL MEET THE CHAPTER 1 STANDARDS OF THE MINNESOTA DNR'S BEST PRACTICES MANUAL FOR MEETING DNR GENERAL PUBLIC WATERS WORK PERMIT PG 2004-0001.

**WETLANDS:** DNR'S WETLANDS, TOTALING APPROXIMATELY 7.25 ACRES, WERE DELINEATED WITHIN THE PROJECT SITE. IT IS ESTIMATED THE PROJECT WILL RESULT IN UP TO APPROXIMATELY 1 ACRE OF PERMANENT WETLAND IMPACTS. THE IMPACTED WETLAND AREAS WILL BE MITIGATED THROUGH THE PURCHASE OF OFF-SITE WETLAND BANK CREDITS FROM AN APPROVED WETLAND BANK.

**APPLICABLE FEDERAL, TRIBAL, STATE OR LOCAL PROGRAMS:** THE PROJECT FALLS UNDER THE JURISDICTION OF SEVERAL ENTITIES, AS IDENTIFIED IN THE AGENCY CONTACTS' TABLE ON PAGE 1 OF THE SWPPP. THE MORE STRINGENT OF LOCAL VS. STATE VS. FEDERAL RULES SHALL APPLY WHERE THEY CONFLICT. INFORMATION PERTAINING TO THE STATE NPDES PERMIT CAN BE FOUND AT: (HTTP://WWW.PCA.STATE.MN.US/INDEX.PHP?WATER/WATER-TYPES-AND-PROGRAMS/STORMWATER/CONSTRUCTION-STORMWATER). THE OPERATOR IS RESPONSIBLE TO COMPLY WITH ALL APPLICABLE PERMITS, MNDOT SPECIAL PROVISION, MNDOT SPEC BOK (2018 EDITION), MNDOT SPECIFICATIONS 1717.

## SEQUENCE OF CONSTRUCTION/TIMING OF BMP INSTALLATION

NO CONSTRUCTION OPERATIONS, INCLUDING REMOVALS, THAT REQUIRE EROSION & SEDIMENT CONTROL PER THE SWPPP CAN COMMENCE UNTIL THE OPERATOR'S EROSION CONTROL SUPERVISOR CERTIFIES THE PROPER INSTALLATION OF BMPs AND A CHAIN OF RESPONSIBILITY FOR SWPPP IMPLEMENTATION IS CREATED FOR ALL OPERATORS ON THE SITE. PERIMETER SEDIMENT CONTROLS (SILT FENCE, INLET PROTECTION, CONSTRUCTION ENTRANCES, ETC.) SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION. THESE PRACTICES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION IS ACHIEVED. OPERATOR SHALL IMPLEMENT THE NECESSARY ON-SITE BMPs IN ACCORDANCE WITH THE NPDES PERMIT REQUIREMENTS TO PREVENT NUISANCE CONDITIONS (MIN RULES 7050.2010) FROM ANY DISCHARGES UNDER COVERAGE OF THE NPDES PERMIT. IN SOME CASES, MULTIPLE OR REDUNDANT APPLICATIONS OF SOME BMPs MAY BE NEEDED TO MEET THESE REQUIREMENTS.

## INSPECTION PROCEDURES, SWPPP AMENDMENTS, RECORD KEEPING, & TRAINING

- THE SWPPP MUST BE AMENDED BY THE OPERATOR WHEN THE IDENTITY OF THE RESPONSIBLE SITE OPERATORS (EROSION CONTROL SUPERVISOR, SUB-CONTRACTORS, ETC.) ARE KNOWN.
- THE OPERATOR MUST INSPECT THE ENTIRE CONSTRUCTION SITE AT LEAST ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. THE OPERATOR SHALL PROVIDE A RAINFALL GAUGE ON-SITE WITHIN ONE MILE OF THE SITE OR SOURCE OF THE WEATHER REPORTING SYSTEM THAT USES SITE SPECIFIC RAINFALL DATA FROM RADAR SUMMARIES. THE LOCATION AND SOURCE OF THE RAINFALL GAUGE OR REPORTING SYSTEM MUST BE DOCUMENTED IN THE FIRST SWPPP INSPECTION REPORT. THE INSPECTION FREQUENCY MAY BE REDUCED TO ONCE PER MONTH OR SUSPENDED, IF SITE CONDITIONS MEET ITEM 11.10 OF THE NPDES PERMIT. ALL INSPECTIONS AND MAINTENANCE CONDUCTED MUST BE RECORDED IN WRITING BY THE OPERATOR AND RETAINED WITH THE SWPPP. THE MPCA SITE INSPECTION FORM IS AVAILABLE FOR OPERATORS TO USE TO COMPLETE THE REQUIRED INSPECTIONS. THE FORM CAN BE FOUND ON THE MPCA WEBSITE OR AVAILABLE UPON REQUEST FOR THE PROJECT OWNER. RECORDS OF EACH INSPECTION AND MAINTENANCE ACTIVITY SHALL INCLUDE:
  - A. DATE, TIME, AND NAME OF PERSON(S) CONDUCTING INSPECTIONS
  - B. FINDINGS OF INSPECTIONS, INCLUDING RECOMMENDATIONS FOR CORRECTIVE ACTIONS
  - C. CORRECTIVE ACTIONS TAKEN (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES); INCLUDING DOCUMENTATION/PHOTOS OF IMPLEMENTED BMPs INTENDED TO CORRECT A PROBLEM BUT FAILED.

HAVE BEEN STABILIZED. SILT FENCE IS NOT AN ACCEPTABLE CATCH BASIN INLET PROTECTION BMP. CONTACTOR SHALL CLEAN, REMOVE AND DISPOSE OF SEDIMENT, AND/OR REPLACE STORM DRAIN INLET PROTECTION ON A ROUTINE BASIS TO ENSURE THE FUNCTIONALITY OF THE PERMITTEE'S INLET PROTECTION. IF THE SILT FENCE IS DAMAGED (30% OR GREATER), INLET PROTECTION MAY BE REMOVED FOR A PARTICULAR INLET IF A SPECIFIC SAFETY CONCERN (STREET FLOODING/REEZING) HAS BEEN IDENTIFIED BY THE PERMITEE(S) OR THE JURISDICTIONAL AUTHORITY (E.G. CITY/COUNTY/TOWNSHIP/MNDOT ENGINEER). WRITTEN CORRESPONDENCE REGARDING THE NEED FOR REMOVAL MUST BE DOCUMENTED IN THE SWPPP.

**CHEMICAL TREATMENTS:** OPERATOR MUST AMEND THE SWPPP TO INCLUDE THE INTENDED USES AND LOCATIONS OF FLOCCULANTS, POLYMERS, AND OTHER SEDIMENTATION TREATMENT CHEMICALS. CHEMICAL TREATMENTS MAY ONLY BE APPLIED IN AREAS WHERE TREATED STORMWATER IS DIRECTED TO A RECEIVING SEDIMENT CONTROL SYSTEM (NOT DIRECTLY DISCHARGED TO NATURAL WATER BODIES). THIS INCLUDES DOCUMENTING THE EXPECTED SOIL TYPES, MANUFACTURER'S RECOMMENDED DOSING, APPLICATION RATES/QUANTITIES, AND MONITORING RESULTS (TURBIDITY, PH).

## TEMPORARY & PERMANENT SEDIMENT CONTROL BMPs

A TEMPORARY SEDIMENT BASIN IS NOT REQUIRED BECAUSE THE SITE IS INTERNALLY DRAINING.

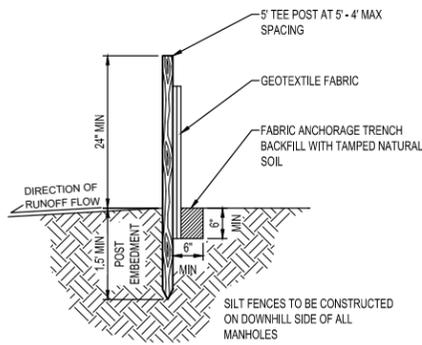
## DEWATERING, STREAM DIVERSION, AND BASIN DRAINING

DEWATERING, STREAM DIVERSION, OR BASIN DRAINING IS NOT ANTICIPATED DURING CONSTRUCTION OF THIS PROJECT. WHEN DEWATERING IS REQUIRED, THE CONTRACTOR SHALL SUBMIT A DEWATERING PLAN AND NARRATIVE TO THE PROJECT ENGINEER FOR APPROVAL PRIOR TO UNDERTAKING THESE ACTIVITIES. DEWATERING PLAN MUST INCLUDE BMPs TO PREVENT SEDIMENT TRANSPORT, EROSION, AND ADVERSE IMPACTS TO DOWNSTREAM RECEIVING WATERS. THE DEWATERING PLAN MUST ALSO INCLUDE ANY SPECIFIC CHEMICAL TREATMENTS (FLOC, POLYMERS, ETC.) THAT WILL BE USED. IF AN APPROVED TMDL WASTE LOAD ALLOCATION IS ESTABLISHED FOR CONSTRUCTION ACTIVITIES ON A RECEIVING WATERBODY, THE OPERATOR MUST IMPLEMENT ALL NECESSARY BMPs TO MEET THE ASSIGNED WLA. THE DEWATERING PLAN AND DNR APPROPRIATIONS PERMIT WILL BECOME PART OF THE SWPPP. WATER THAT IS TURBID OR HAS SEDIMENT MUST BE DISCHARGED TO A TEMPORARY OR PERMANENT SEDIMENTATION BASIN (AND/OR OTHER APPROPRIATE BMPs) ON THE PROJECT SITE WHENEVER POSSIBLE. DISCHARGE FROM THE TEMPORARY OR PERMANENT SEDIMENTATION BASIN MUST BE VISUALLY CHECKED TO ENSURE ADEQUATE TREATMENT IS OBTAINED IN THE BASIN AND THAT NUISANCE CONDITIONS (SEE MINN. R. 7050.0210, SUBP. 2), IMPACTS TO WETLANDS, AND EROSION IN RECEIVING CHANNELS OR ON DOWNSLOPE PROPERTIES WILL NOT RESULT FROM THE DISCHARGE. THE DISCHARGE MUST BE DISPERSED OVER NATURAL ROCK RIPRAP, SANDBAGS, PLASTIC SHEETING, OR OTHER ACCEPTED ENERGY DISSIPATION MEASURES. ADEQUATE SEDIMENTATION CONTROL MEASURES AND ADDITIONAL FILTRATION BMPs ARE REQUIRED FOR DISCHARGE WATER THAT CONTAINS SUSPENDED SOLIDS, OIL, OR GREASE.

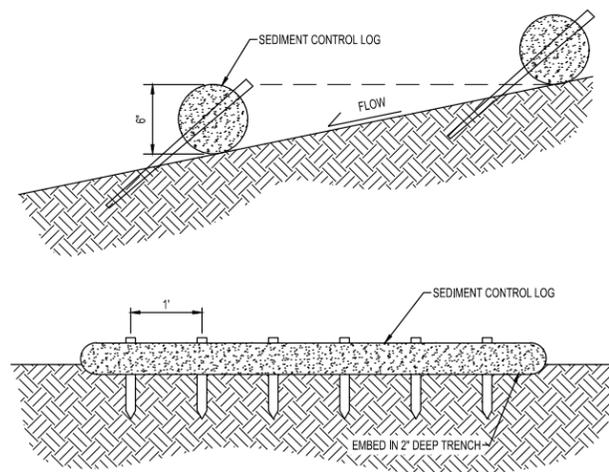
## PERMIT TERMINATION CONDITIONS

PERMIT TERMINATION CONDITIONS ARE ACHIEVED WHEN THE FOLLOWING FOUR PARAMETERS ARE COMPLETED, PRIOR TO SUBMISSION OF THE NOTICE OF TERMINATION TO MPCA.

- 70% VEGETATIVE COVER: ALL SOIL DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND ALL EXPOSED SOILS ARE STABILIZED BY A UNIFORM, LIVE PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70% OVER THE ENTIRE PERVIOUS SURFACE AREA, OR OTHER EQUIVALENT MEANS NECESSARY TO PREVENT SOIL FAILURE UNDER EROSION CONDITIONS. REFER TO THE PROJECT IS ON AGRICULTURAL LAND. FOR RESIDENTIAL CONSTRUCTION ONLY, PLEASE REFER TO PART 13.6 OF THE NPDES PERMIT.
- FINAL CLEAN-UP OF PERMANENT STORMWATER MANAGEMENT SYSTEMS & CONVEYANCE SYSTEMS: ALL ACCUMULATED SEDIMENT MUST BE REMOVED FROM ALL PERMANENT EROSION CONTROL SYSTEMS, CONVEYANCE SYSTEMS, AND DITCHES MUST BE STABILIZED WITH PERMANENT COVER. ALL SYSTEMS MUST OPERATE AS DESIGNED.
- REMOVAL OF ALL TEMPORARY SYNTHETIC BMPs: ALL TEMPORARY SYNTHETIC AND STRUCTURAL EROSION PREVENTION AND SEDIMENT CONTROL BMPs (SUCH AS SILT FENCE) MUST BE REMOVED ON THE PORTIONS OF THE SITE FOR WHICH THE PERMITEE IS RESPONSIBLE. BMPs DESIGNED TO DECOMPOSE ON SITE (SUCH AS SOME COMPOST LOGS) MAY BE LEFT IN PLACE.
- OPER



**SILT FENCE**  
NTS



**NOTES:**

- SEDIMENT CONTROL LOGS TO BE 6\"/>

**SEDIMENT CONTROL LOG STAKING**  
NTS

**EROSION CONTROL QUANTITIES**

DESCRIPTION	UNITS	QUANTITY
PERIMETER CONTROL	LF	19040

QUANTITIES ARE FOR INFORMATIONAL PURPOSES TO MEET THE REQUIREMENTS OF THE CONSTRUCTION STORMWATER PERMIT. NO GUARANTEE IS MADE TO THE ACTUAL QUANTITIES REQUIRED.

**NOTE:**  
THE CLARITY OF THESE PLANS DEPEND UPON COLOR COPIES. IF THIS TEXT DOES NOT APPEAR IN COLOR, THIS IS NOT AN ORIGINAL PLAN SET AND MAY RESULT IN MISINTERPRETATION.

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT 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.

BRYAN M. PETZEL

DATE 02/20/23 LIC. NO. 53191

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PROJECT

**VETTER STONE  
MINE EXPANSION**

LE SUEUR COUNTY MINNESOTA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

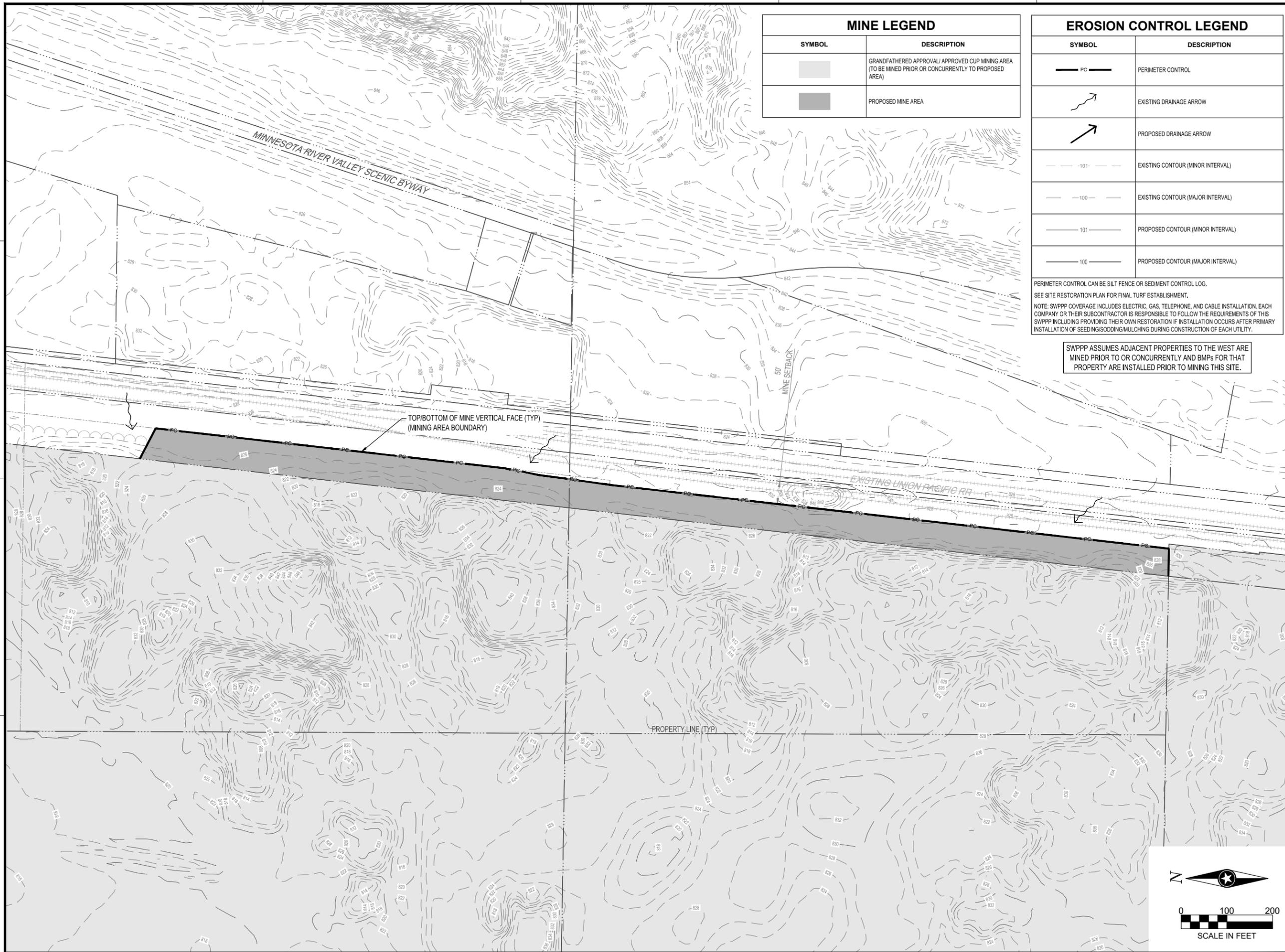
PROJECT NO.	21-25962
FILE NAME	25962 C1-SWPPP
DRAWN BY	SMW, EJW
DESIGNED BY	SMW, EJW
REVIEWED BY	BMP
ORIGINAL ISSUE DATE	09/16/22
CLIENT PROJECT NO.	-

TITLE

**SWPPP DETAILS**

SHEET

**C1-11**



MINE LEGEND	
SYMBOL	DESCRIPTION
	GRANDFATHERED APPROVAL/ APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)
	PROPOSED MINE AREA

EROSION CONTROL LEGEND	
SYMBOL	DESCRIPTION
	PERIMETER CONTROL
	EXISTING DRAINAGE ARROW
	PROPOSED DRAINAGE ARROW
	EXISTING CONTOUR (MINOR INTERVAL)
	EXISTING CONTOUR (MAJOR INTERVAL)
	PROPOSED CONTOUR (MINOR INTERVAL)
	PROPOSED CONTOUR (MAJOR INTERVAL)

PERIMETER CONTROL CAN BE SILT FENCE OR SEDIMENT CONTROL LOG.  
 SEE SITE RESTORATION PLAN FOR FINAL TURF ESTABLISHMENT.  
 NOTE: SWPPP COVERAGE INCLUDES ELECTRIC, GAS, TELEPHONE, AND CABLE INSTALLATION. EACH COMPANY OR THEIR SUBCONTRACTOR IS RESPONSIBLE TO FOLLOW THE REQUIREMENTS OF THIS SWPPP INCLUDING PROVIDING THEIR OWN RESTORATION IF INSTALLATION OCCURS AFTER PRIMARY INSTALLATION OF SEEDING/SODDING/MULCHING DURING CONSTRUCTION OF EACH UTILITY.

SWPPP ASSUMES ADJACENT PROPERTIES TO THE WEST ARE MINED PRIOR TO OR CONCURRENTLY AND BMPs FOR THAT PROPERTY ARE INSTALLED PRIOR TO MINING THIS SITE.



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BRYAN M. PETZEL

*Bryan M. Petzel*

DATE: 02/20/23 LIC. NO. 53191

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PROJECT  
**VETTER STONE  
 MINE EXPANSION**

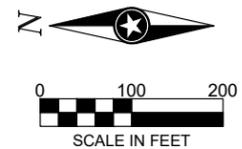
LE SUEUR COUNTY MINNESOTA

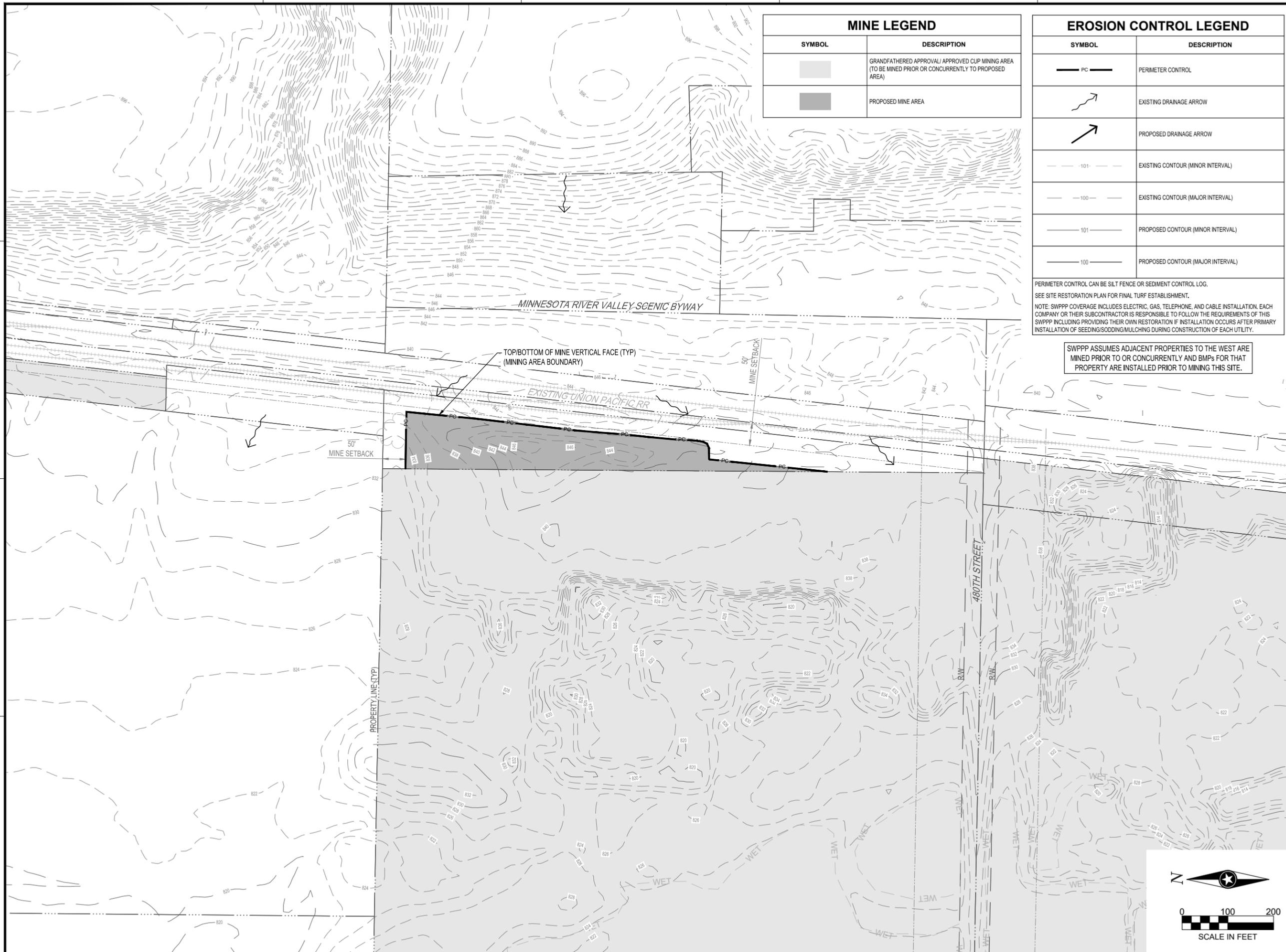
REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO.	21-25962
FILE NAME	25962 C1-SWPPP
DRAWN BY	SMW, EJW
DESIGNED BY	SMW, EJW
REVIEWED BY	BMP
ORIGINAL ISSUE DATE	09/16/22
CLIENT PROJECT NO.	-

TITLE  
**SWPPP (AREA 1)**

SHEET  
**C1-20**





MINE LEGEND	
SYMBOL	DESCRIPTION
	GRANDFATHERED APPROVAL/ APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)
	PROPOSED MINE AREA

EROSION CONTROL LEGEND	
SYMBOL	DESCRIPTION
	PERIMETER CONTROL
	EXISTING DRAINAGE ARROW
	PROPOSED DRAINAGE ARROW
	EXISTING CONTOUR (MINOR INTERVAL)
	EXISTING CONTOUR (MAJOR INTERVAL)
	PROPOSED CONTOUR (MINOR INTERVAL)
	PROPOSED CONTOUR (MAJOR INTERVAL)

PERIMETER CONTROL CAN BE SILT FENCE OR SEDIMENT CONTROL LOG.  
 SEE SITE RESTORATION PLAN FOR FINAL TURF ESTABLISHMENT.  
 NOTE: SWPPP COVERAGE INCLUDES ELECTRIC, GAS, TELEPHONE, AND CABLE INSTALLATION. EACH COMPANY OR THEIR SUBCONTRACTOR IS RESPONSIBLE TO FOLLOW THE REQUIREMENTS OF THIS SWPPP INCLUDING PROVIDING THEIR OWN RESTORATION IF INSTALLATION OCCURS AFTER PRIMARY INSTALLATION OF SEEDING/SODDING/MULCHING DURING CONSTRUCTION OF EACH UTILITY.

SWPPP ASSUMES ADJACENT PROPERTIES TO THE WEST ARE MINED PRIOR TO OR CONCURRENTLY AND BMPs FOR THAT PROPERTY ARE INSTALLED PRIOR TO MINING THIS SITE.



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BRYAN M. PETZEL

DATE 02/20/23 LIC. NO. 53191

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PROJECT  
**VETTER STONE  
 MINE EXPANSION**

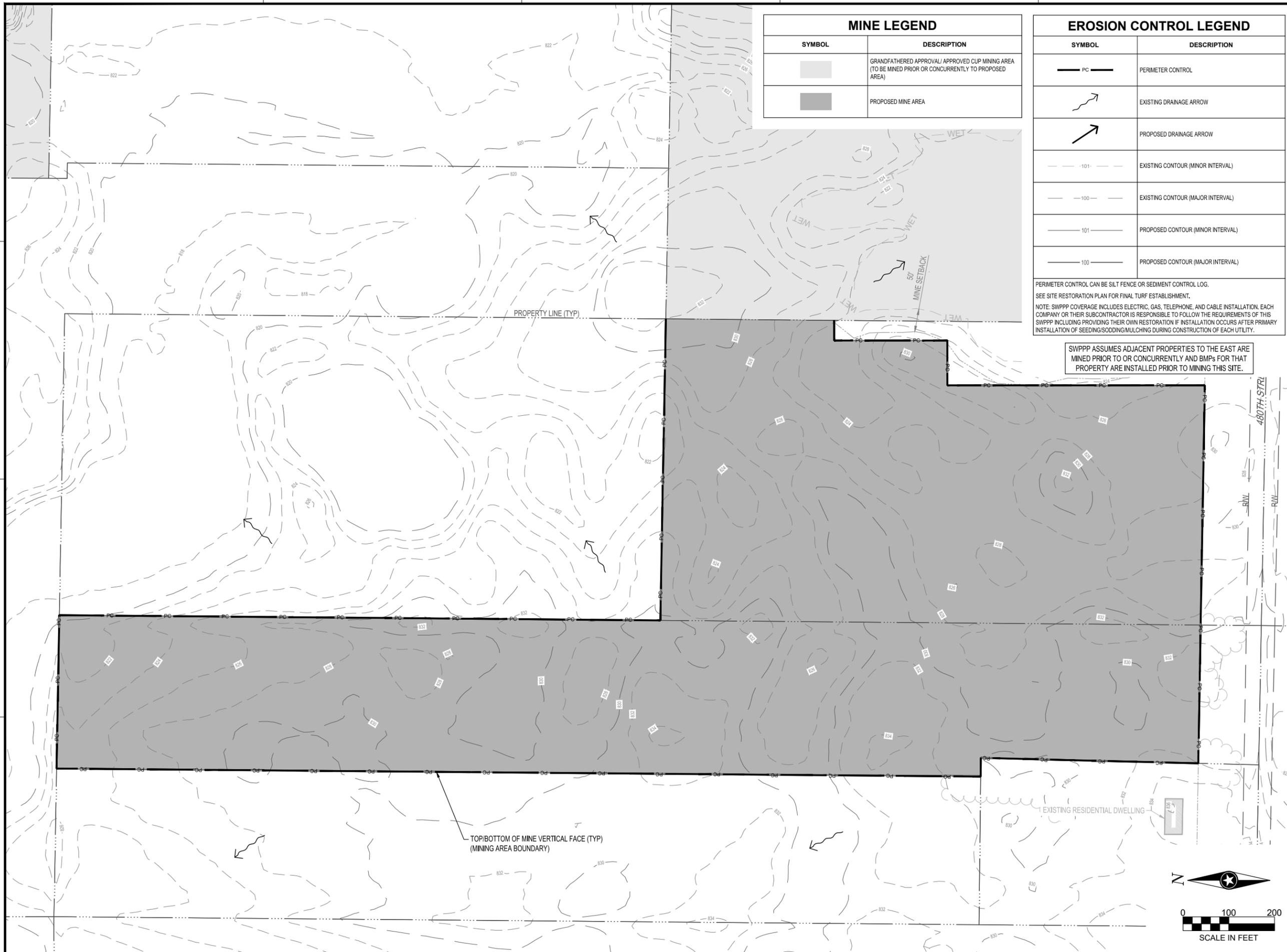
LE SUEUR COUNTY MINNESOTA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO. 21-25962  
 FILE NAME 25962 C1-SWPPP  
 DRAWN BY SMW, EJW  
 DESIGNED BY SMW, EJW  
 REVIEWED BY BMP  
 ORIGINAL ISSUE DATE 09/16/22  
 CLIENT PROJECT NO. -

TITLE  
**SWPPP (AREA 2)**

SHEET  
**C1-21**



MINE LEGEND	
SYMBOL	DESCRIPTION
	GRANDFATHERED APPROVAL/ APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)
	PROPOSED MINE AREA

EROSION CONTROL LEGEND	
SYMBOL	DESCRIPTION
	PERIMETER CONTROL
	EXISTING DRAINAGE ARROW
	PROPOSED DRAINAGE ARROW
	EXISTING CONTOUR (MINOR INTERVAL)
	EXISTING CONTOUR (MAJOR INTERVAL)
	PROPOSED CONTOUR (MINOR INTERVAL)
	PROPOSED CONTOUR (MAJOR INTERVAL)

PERIMETER CONTROL CAN BE SILT FENCE OR SEDIMENT CONTROL LOG.  
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PROJECT  
**VETTER STONE  
 MINE EXPANSION**

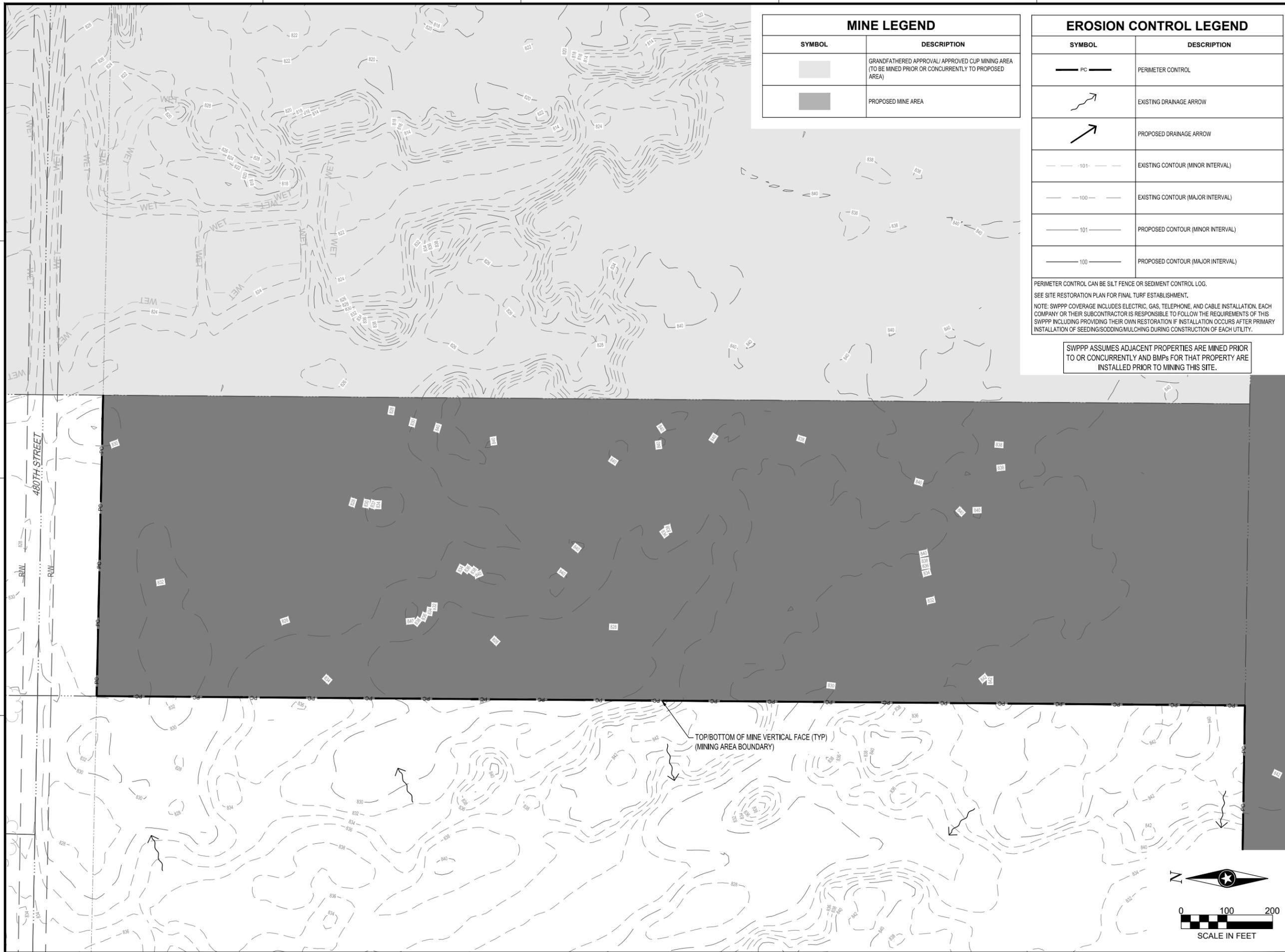
LE SUEUR COUNTY MINNESOTA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO.	21-25962
FILE NAME	25962 C1-SWPPP
DRAWN BY	SMW, EJW
DESIGNED BY	SMW, EJW
REVIEWED BY	BMP
ORIGINAL ISSUE DATE	09/16/22
CLIENT PROJECT NO.	-

TITLE  
**SWPPP (AREA 3)**

SHEET  
**C1-22**



MINE LEGEND	
SYMBOL	DESCRIPTION
	GRANDFATHERED APPROVAL/ APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)
	PROPOSED MINE AREA

EROSION CONTROL LEGEND	
SYMBOL	DESCRIPTION
	PERIMETER CONTROL
	EXISTING DRAINAGE ARROW
	PROPOSED DRAINAGE ARROW
	EXISTING CONTOUR (MINOR INTERVAL)
	EXISTING CONTOUR (MAJOR INTERVAL)
	PROPOSED CONTOUR (MINOR INTERVAL)
	PROPOSED CONTOUR (MAJOR INTERVAL)

PERIMETER CONTROL CAN BE SILT FENCE OR SEDIMENT CONTROL LOG.  
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PROJECT

## VETTER STONE MINE EXPANSION

LE SUEUR COUNTY MINNESOTA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

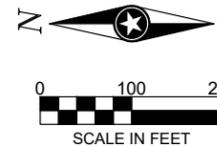
PROJECT NO.	21-25962
FILE NAME	25962 C1-SWPPP
DRAWN BY	SMW, EJW
DESIGNED BY	SMW, EJW
REVIEWED BY	BMP
ORIGINAL ISSUE DATE	09/16/22
CLIENT PROJECT NO.	-

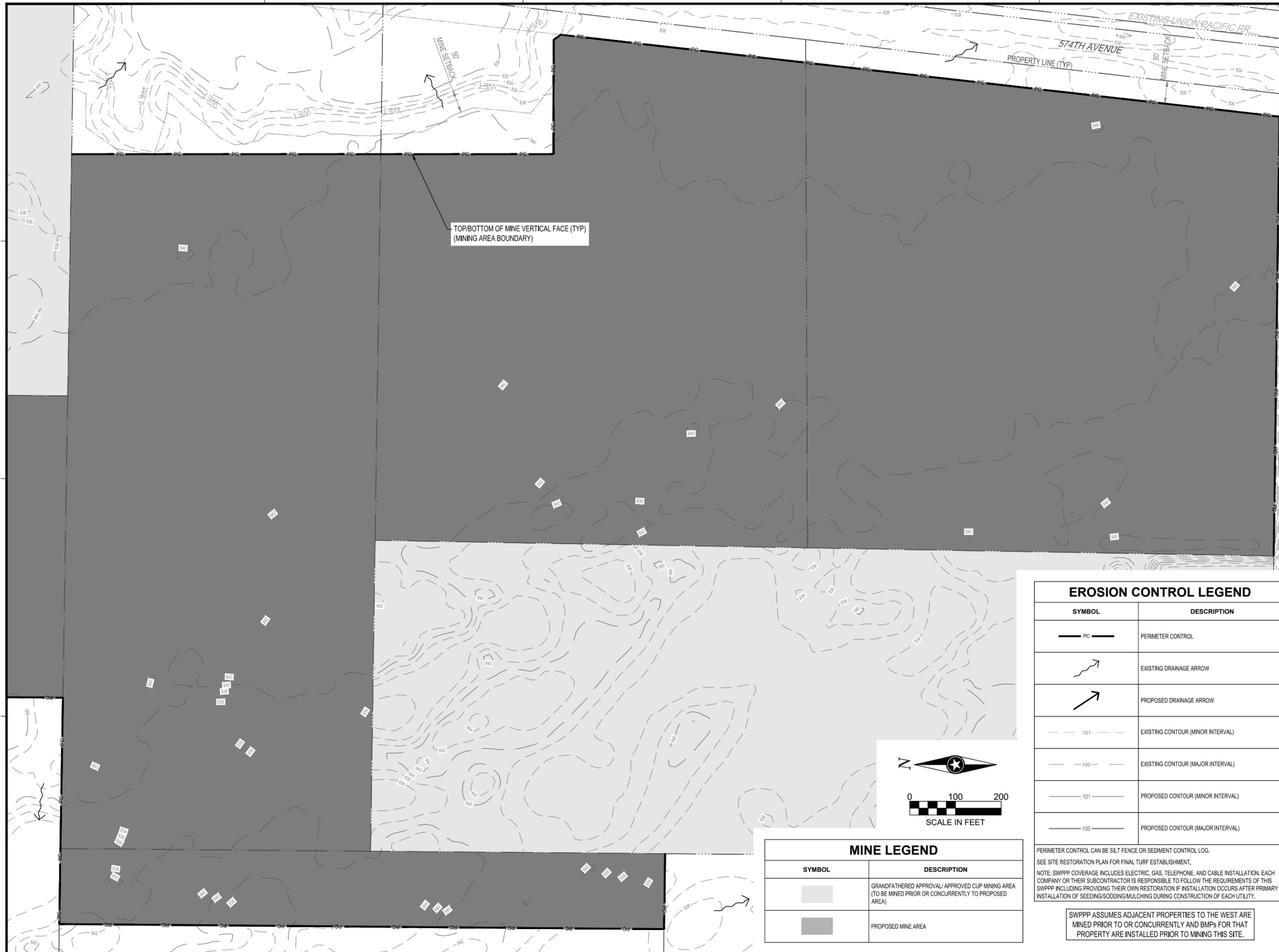
TITLE

## SWPPP (AREA 4)

SHEET

# C1-23





TOP/BOTTOM OF MINE VERTICAL FACE (TYP)  
(MINING AREA BOUNDARY)

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PROJECT

## VETTER STONE MINE EXPANSION

LE SUEUR COUNTY MINNESOTA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO.	21-25962
FILE NAME	25962 C1-SWPPP
DRAWN BY	SMW, EJW
DESIGNED BY	SMW, EJW
REVIEWED BY	BMP
ORIGINAL ISSUE DATE	09/16/22
CLIENT PROJECT NO.	-

TITLE  
**SWPPP (AREA 5)**

SHEET  
**C1-24**

### EROSION CONTROL LEGEND

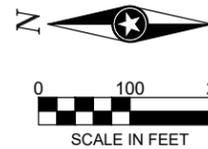
SYMBOL	DESCRIPTION
— PC —	PERIMETER CONTROL
	EXISTING DRAINAGE ARROW
	PROPOSED DRAINAGE ARROW
- - - 101 - - -	EXISTING CONTOUR (MINOR INTERVAL)
- - - 100 - - -	EXISTING CONTOUR (MAJOR INTERVAL)
— 101 —	PROPOSED CONTOUR (MINOR INTERVAL)
— 100 —	PROPOSED CONTOUR (MAJOR INTERVAL)

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### MINE LEGEND

SYMBOL	DESCRIPTION
	GRANDFATHERED APPROVAL/ APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)
	PROPOSED MINE AREA





MINE LEGEND	
SYMBOL	DESCRIPTION
	GRANDFATHERED APPROVAL APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)
	PROPOSED MINE AREA

REMOVAL LEGEND	
SYMBOL	DESCRIPTION
	CLEAR AND GRUB TREES AND UNDERBRUSH



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PROJECT

**VETTER STONE  
MINE EXPANSION**

LE SUEUR COUNTY MINNESOTA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO. 21-25962

FILE NAME 25962 C2-EXIST

DRAWN BY SMW, EJW

DESIGNED BY SMW, EJW

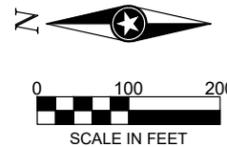
REVIEWED BY BMP

ORIGINAL ISSUE DATE 09/16/22

CLIENT PROJECT NO. -

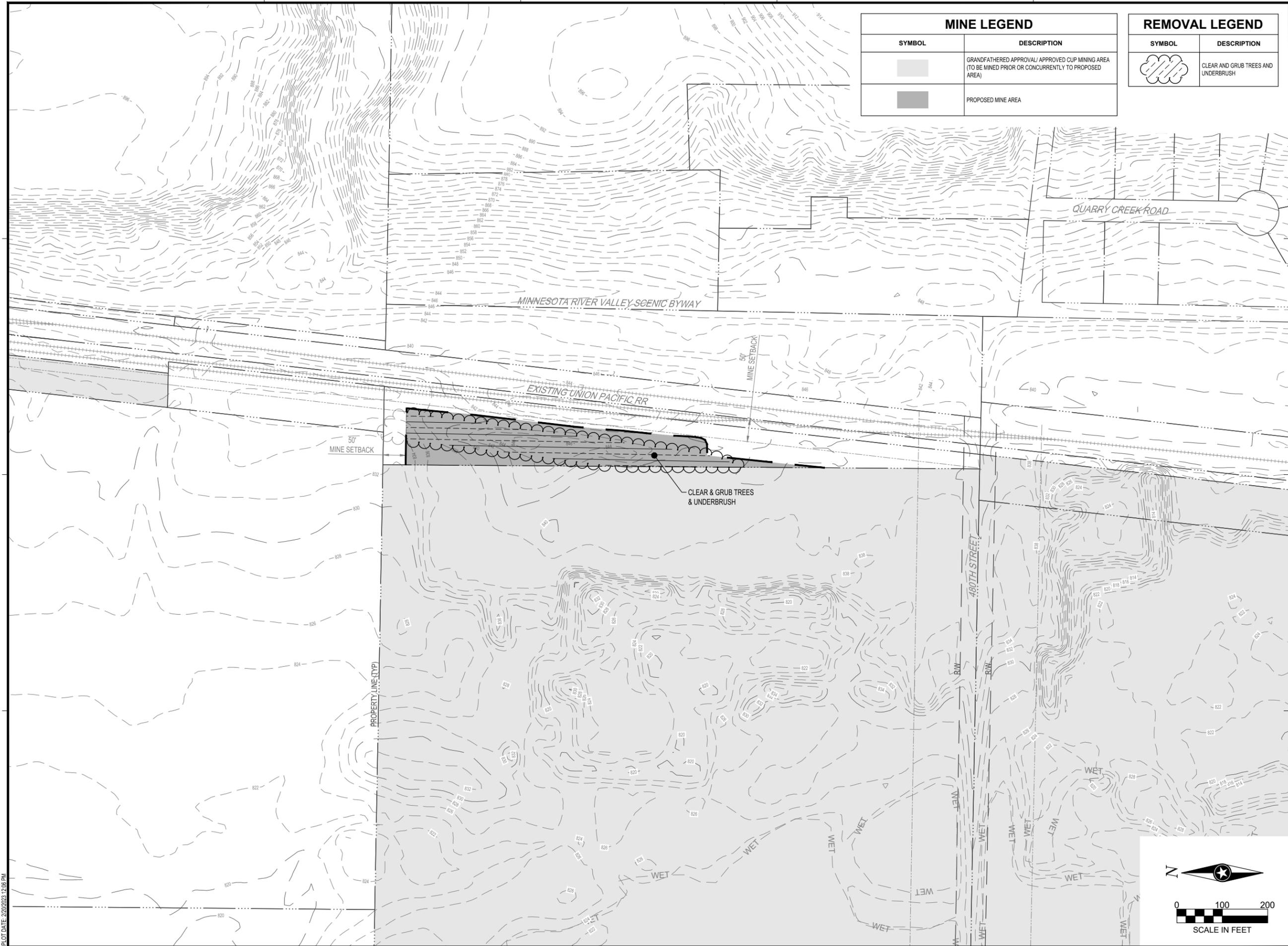
TITLE  
**EXISTING SITE  
AND REMOVAL  
PLAN (AREA 1)**

SHEET  
**C2-10**



PLOT DATE: 2/20/2023 12:06 PM

PRELIMINARY NOT FOR CONSTRUCTION



MINE LEGEND	
SYMBOL	DESCRIPTION
	GRANDFATHERED APPROVAL APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)
	PROPOSED MINE AREA

REMOVAL LEGEND	
SYMBOL	DESCRIPTION
	CLEAR AND GRUB TREES AND UNDERBRUSH



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PROJECT

**VETTER STONE  
MINE EXPANSION**

LE SUEUR COUNTY MINNESOTA

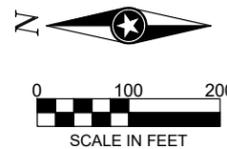
REVISION SCHEDULE		
DATE	DESCRIPTION	BY

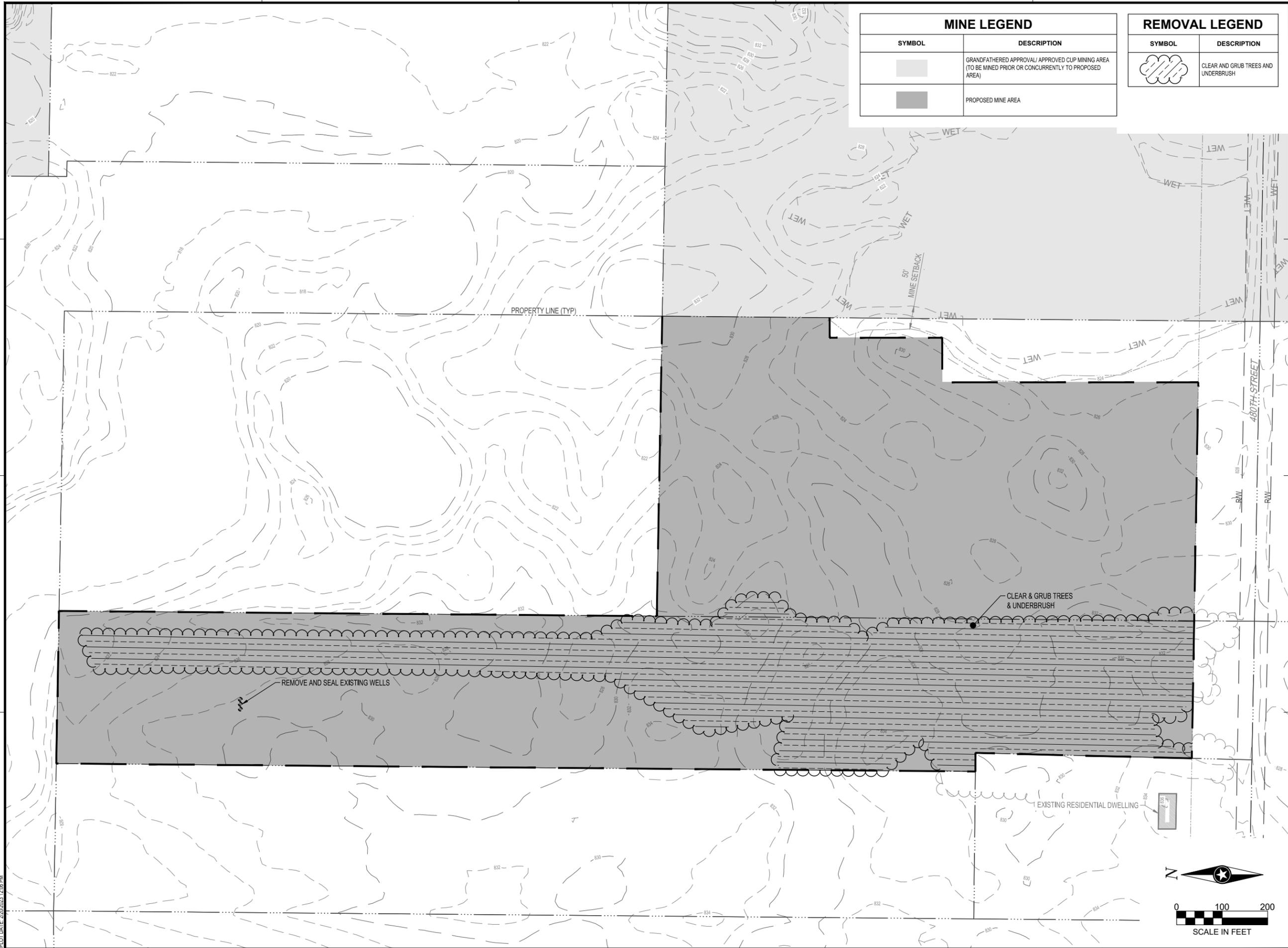
PROJECT NO. 21-25962  
FILE NAME 25962 C2-EXIST  
DRAWN BY SMW, EJW  
DESIGNED BY SMW, EJW  
REVIEWED BY BMP  
ORIGINAL ISSUE DATE 09/16/22  
CLIENT PROJECT NO. -

TITLE  
**EXISTING SITE  
AND REMOVAL  
PLAN (AREA 2)**

SHEET

**C2-11**





MINE LEGEND	
SYMBOL	DESCRIPTION
	GRANDFATHERED APPROVAL/ APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)
	PROPOSED MINE AREA

REMOVAL LEGEND	
SYMBOL	DESCRIPTION
	CLEAR AND GRUB TREES AND UNDERBRUSH



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PROJECT  
**VETTER STONE  
MINE EXPANSION**

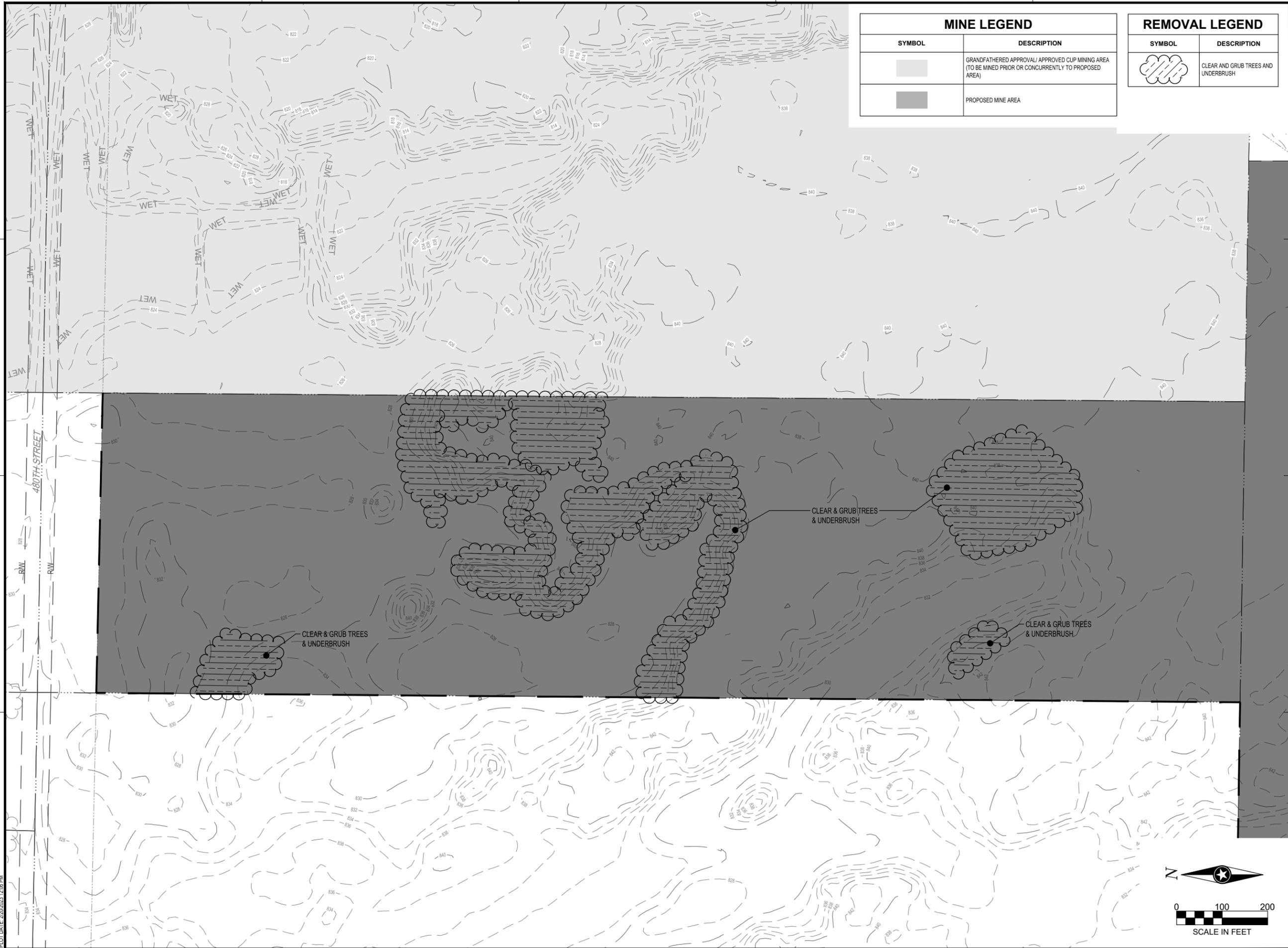
LE SUEUR COUNTY MINNESOTA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO.	21-25962
FILE NAME	25962 C2-EXIST
DRAWN BY	SMW, EJW
DESIGNED BY	SMW, EJW
REVIEWED BY	BMP
ORIGINAL ISSUE DATE	09/16/22
CLIENT PROJECT NO.	-

TITLE  
**EXISTING SITE  
AND REMOVAL  
PLAN (AREA 3)**

SHEET  
**C2-12**



MINE LEGEND	
SYMBOL	DESCRIPTION
	GRANDFATHERED APPROVAL/ APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)
	PROPOSED MINE AREA

REMOVAL LEGEND	
SYMBOL	DESCRIPTION
	CLEAR AND GRUB TREES AND UNDERBRUSH



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PROJECT  
**VETTER STONE  
MINE EXPANSION**

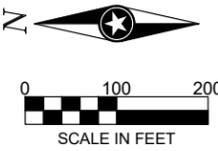
LE SUEUR COUNTY MINNESOTA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO.	21-25962
FILE NAME	25962 C2-EXIST
DRAWN BY	SMW, EJW
DESIGNED BY	SMW, EJW
REVIEWED BY	BMP
ORIGINAL ISSUE DATE	09/16/22
CLIENT PROJECT NO.	-

TITLE  
**EXISTING SITE  
AND REMOVAL  
PLAN (AREA 4)**

SHEET  
**C2-13**



PLOT DATE: 2/20/2023 12:05 PM

PRELIMINARY NOT FOR CONSTRUCTION



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PROJECT

**VETTER STONE  
MINE EXPANSION**

LE SUEUR COUNTY MINNESOTA

REVISION SCHEDULE

DATE	DESCRIPTION	BY

PROJECT NO. 21-25962

FILE NAME 25962 C2-EXIST

DRAWN BY SMW, EJW

DESIGNED BY SMW, EJW

REVIEWED BY BMP

ORIGINAL ISSUE DATE 09/16/22

CLIENT PROJECT NO. -

TITLE

**EXISTING SITE  
AND REMOVAL  
PLAN (AREA 5)**

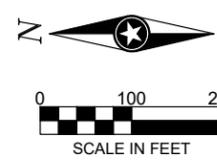
SHEET

**C2-14**



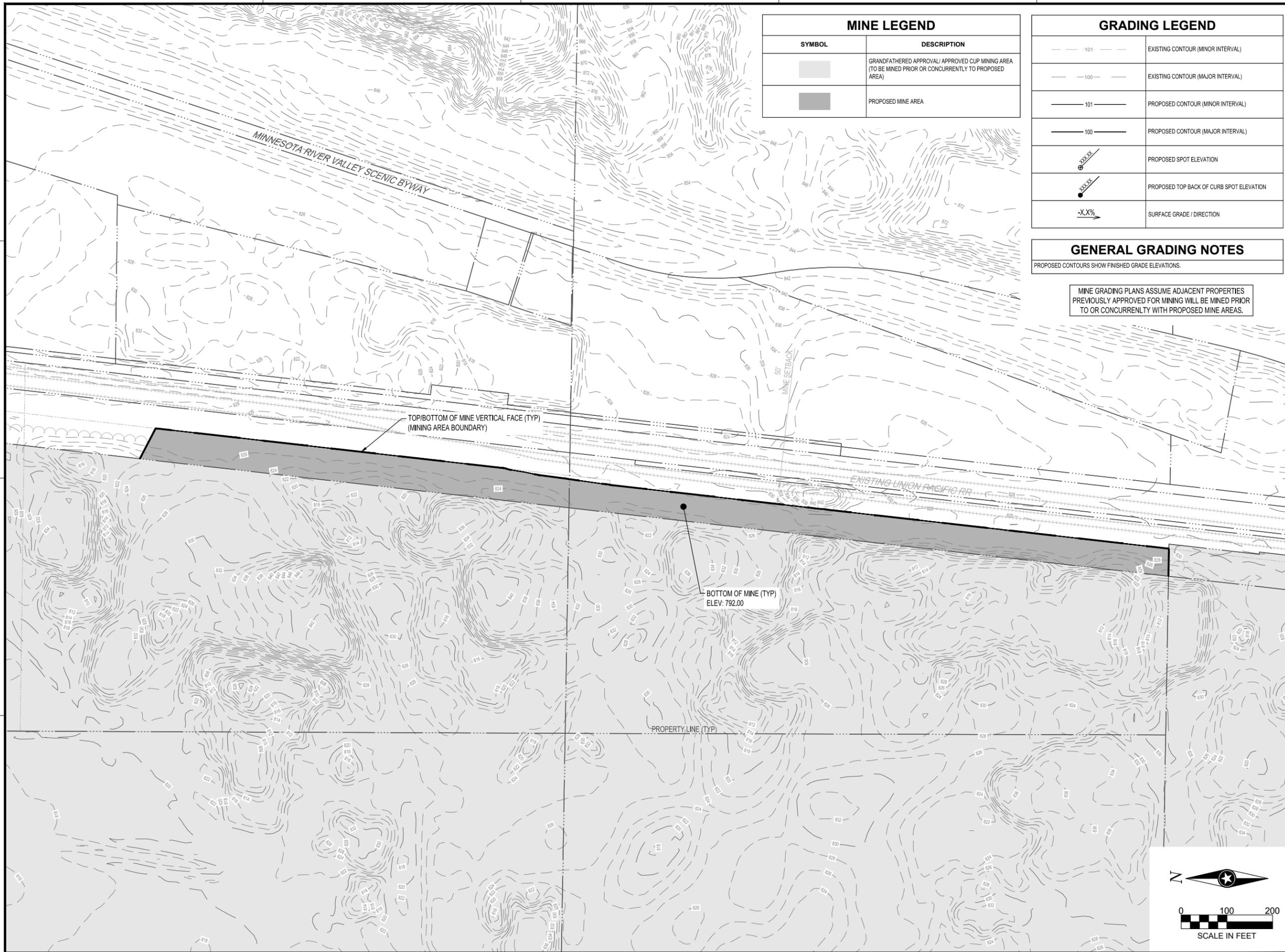
MINE LEGEND	
SYMBOL	DESCRIPTION
	GRANDFATHERED APPROVAL/ APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)
	PROPOSED MINE AREA

REMOVAL LEGEND	
SYMBOL	DESCRIPTION
	CLEAR AND GRUB TREES AND UNDERBRUSH



PLOT DATE: 2/20/2023 12:06 PM

PRELIMINARY NOT FOR CONSTRUCTION



MINE LEGEND	
SYMBOL	DESCRIPTION
	GRANDFATHERED APPROVAL/ APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)
	PROPOSED MINE AREA

GRADING LEGEND	
	EXISTING CONTOUR (MINOR INTERVAL)
	EXISTING CONTOUR (MAJOR INTERVAL)
	PROPOSED CONTOUR (MINOR INTERVAL)
	PROPOSED CONTOUR (MAJOR INTERVAL)
	PROPOSED SPOT ELEVATION
	PROPOSED TOP BACK OF CURB SPOT ELEVATION
	SURFACE GRADE / DIRECTION

**GENERAL GRADING NOTES**  
 PROPOSED CONTOURS SHOW FINISHED GRADE ELEVATIONS.

MINE GRADING PLANS ASSUME ADJACENT PROPERTIES PREVIOUSLY APPROVED FOR MINING WILL BE MINED PRIOR TO OR CONCURRENTLY WITH PROPOSED MINE AREAS.



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PROJECT  
**VETTER STONE  
 MINE EXPANSION**

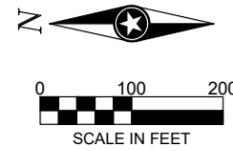
LE SUEUR COUNTY MINNESOTA

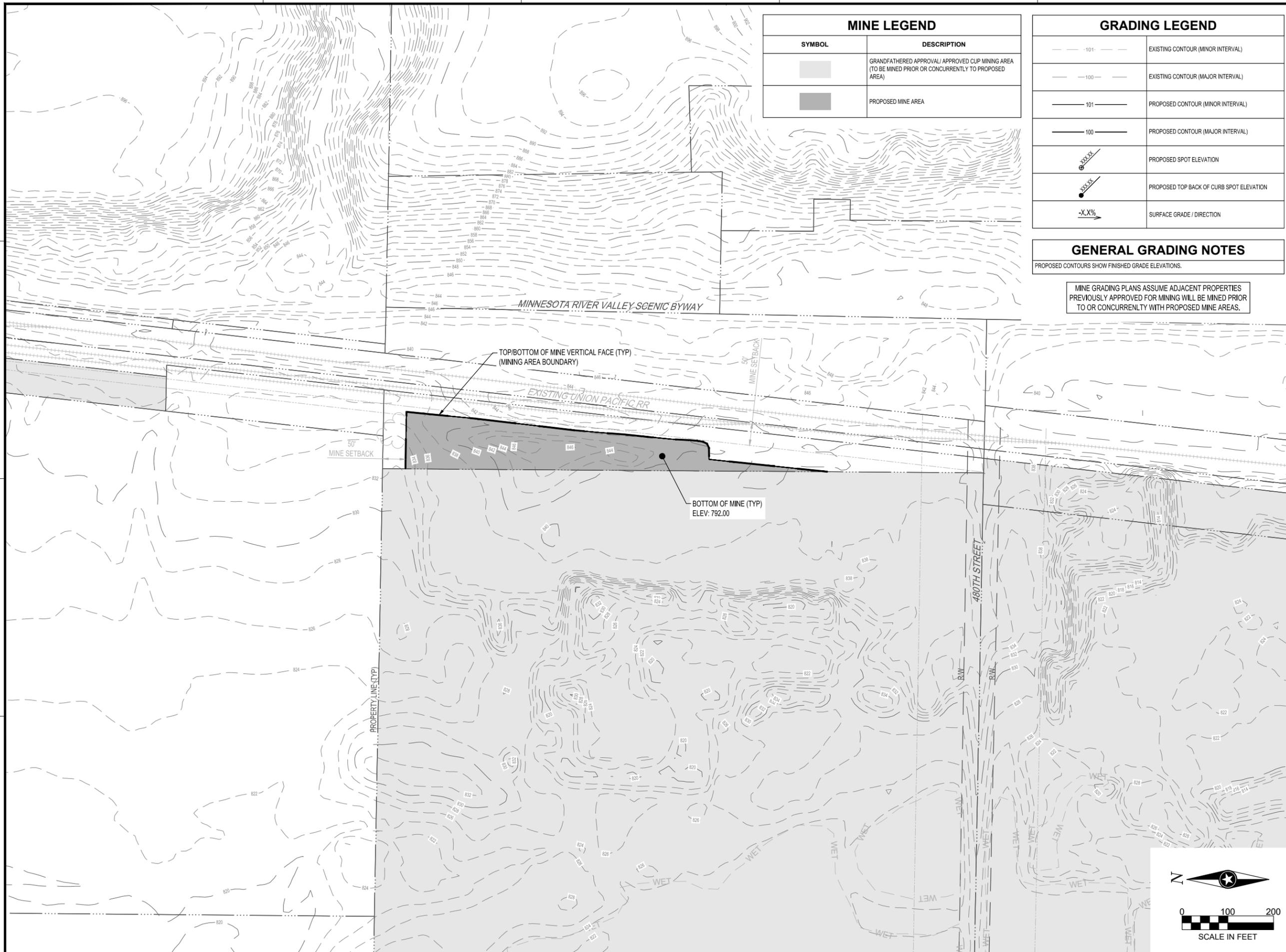
REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO.	21-25962
FILE NAME	25962 C3-GRADE
DRAWN BY	SMW, EJW
DESIGNED BY	SMW, EJW
REVIEWED BY	BMP
ORIGINAL ISSUE DATE	09/16/22
CLIENT PROJECT NO.	-

TITLE  
**MINE SITE AND  
 GRADING PLAN  
 (AREA 1)**

SHEET  
**C3-10**





MINE LEGEND	
SYMBOL	DESCRIPTION
	GRANDFATHERED APPROVAL/ APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)
	PROPOSED MINE AREA

GRADING LEGEND	
	EXISTING CONTOUR (MINOR INTERVAL)
	EXISTING CONTOUR (MAJOR INTERVAL)
	PROPOSED CONTOUR (MINOR INTERVAL)
	PROPOSED CONTOUR (MAJOR INTERVAL)
	PROPOSED SPOT ELEVATION
	PROPOSED TOP BACK OF CURB SPOT ELEVATION
	SURFACE GRADE / DIRECTION

**GENERAL GRADING NOTES**  
 PROPOSED CONTOURS SHOW FINISHED GRADE ELEVATIONS.

MINE GRADING PLANS ASSUME ADJACENT PROPERTIES PREVIOUSLY APPROVED FOR MINING WILL BE MINED PRIOR TO OR CONCURRENTLY WITH PROPOSED MINE AREAS.



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 MINE EXPANSION**

LE SUEUR COUNTY MINNESOTA

REVISION SCHEDULE		
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PROJECT NO. 21-25962

FILE NAME 25962 C3-GRADE

DRAWN BY SMW, EJW

DESIGNED BY SMW, EJW

REVIEWED BY BMP

ORIGINAL ISSUE DATE 09/16/22

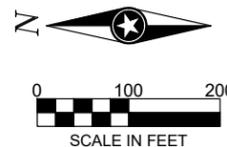
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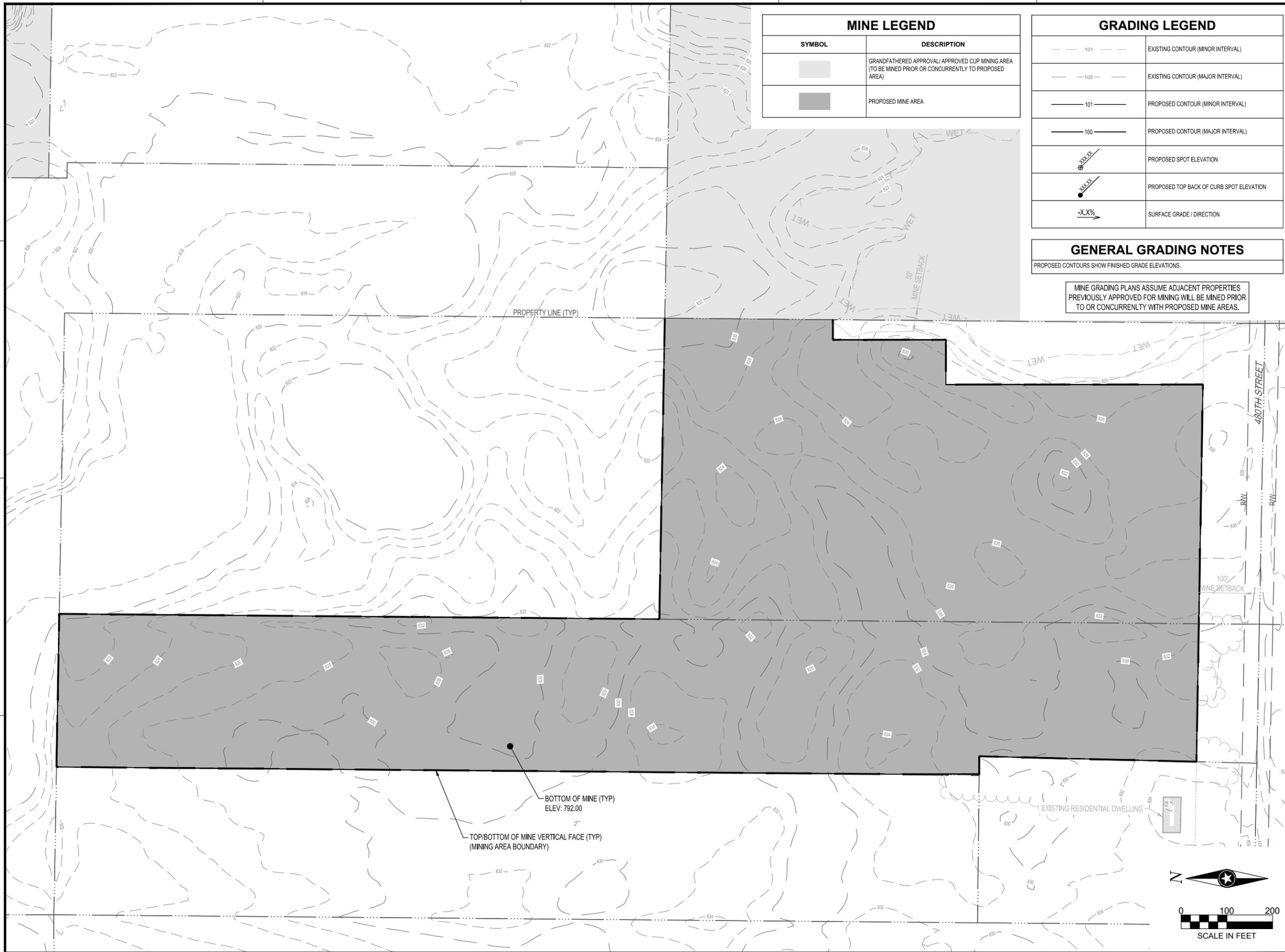
TITLE

**MINE SITE AND  
 GRADING PLAN  
 (AREA 2)**

SHEET

**C3-11**





MINE LEGEND	
SYMBOL	DESCRIPTION
	GRANDFATHERED APPROVAL/ APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)
	PROPOSED MINE AREA

GRADING LEGEND	
	EXISTING CONTOUR (MINOR INTERVAL)
	EXISTING CONTOUR (MAJOR INTERVAL)
	PROPOSED CONTOUR (MINOR INTERVAL)
	PROPOSED CONTOUR (MAJOR INTERVAL)
	PROPOSED SPOT ELEVATION
	PROPOSED TOP BACK OF CURB SPOT ELEVATION
	SURFACE GRADE / DIRECTION

**GENERAL GRADING NOTES**  
 PROPOSED CONTOURS SHOW FINISHED GRADE ELEVATIONS.

MINE GRADING PLANS ASSUME ADJACENT PROPERTIES PREVIOUSLY APPROVED FOR MINING WILL BE MINED PRIOR TO OR CONCURRENTLY WITH PROPOSED MINE AREAS.



**NOTE:**  
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BRYAN M. PETZEL

*Bryan M. Petzel*

DATE: 02/20/23 LIC. NO. 53191

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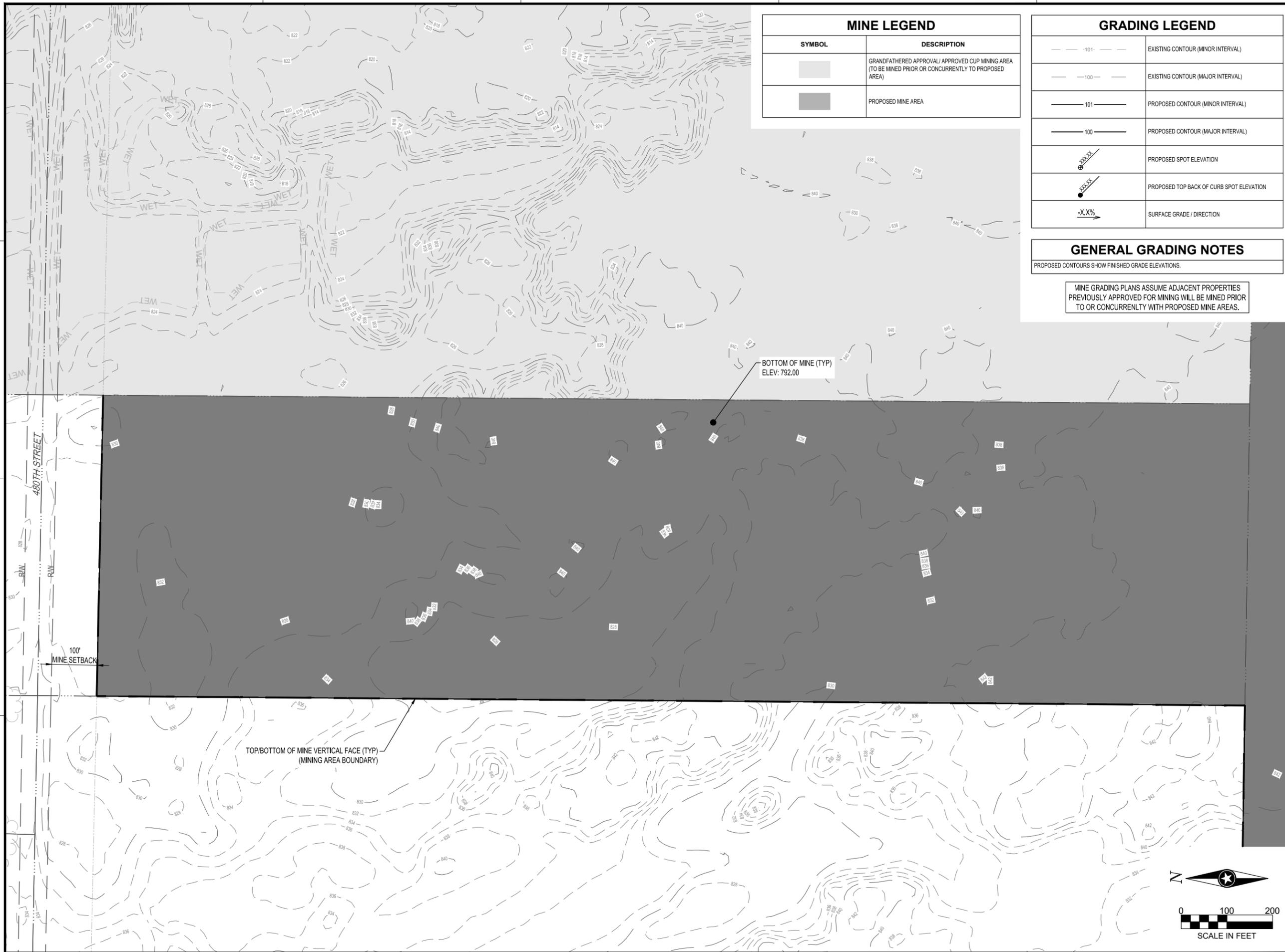
PROJECT  
**VETTER STONE  
 MINE EXPANSION**  
 LE SUEUR COUNTY MINNESOTA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO. 21-25962  
 FILE NAME 25962 C3-GRADE  
 DRAWN BY SMW, EJW  
 DESIGNED BY SMW, EJW  
 REVIEWED BY BMP  
 ORIGINAL ISSUE DATE 09/16/22  
 CLIENT PROJECT NO. -

TITLE  
**MINE SITE AND  
 GRADING PLAN  
 (AREA 3)**

SHEET  
**C3-12**



MINE LEGEND	
SYMBOL	DESCRIPTION
	GRANDFATHERED APPROVAL/ APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)
	PROPOSED MINE AREA

GRADING LEGEND	
	EXISTING CONTOUR (MINOR INTERVAL)
	EXISTING CONTOUR (MAJOR INTERVAL)
	PROPOSED CONTOUR (MINOR INTERVAL)
	PROPOSED CONTOUR (MAJOR INTERVAL)
	PROPOSED SPOT ELEVATION
	PROPOSED TOP BACK OF CURB SPOT ELEVATION
	SURFACE GRADE / DIRECTION

**GENERAL GRADING NOTES**  
 PROPOSED CONTOURS SHOW FINISHED GRADE ELEVATIONS.

MINE GRADING PLANS ASSUME ADJACENT PROPERTIES PREVIOUSLY APPROVED FOR MINING WILL BE MINED PRIOR TO OR CONCURRENTLY WITH PROPOSED MINE AREAS.



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PROJECT

**VETTER STONE  
 MINE EXPANSION**

LE SUEUR COUNTY MINNESOTA

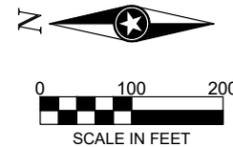
REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO.	21-25962
FILE NAME	25962 C3-GRADE
DRAWN BY	SMW, EJW
DESIGNED BY	SMW, EJW
REVIEWED BY	BMP
ORIGINAL ISSUE DATE	09/16/22
CLIENT PROJECT NO.	-

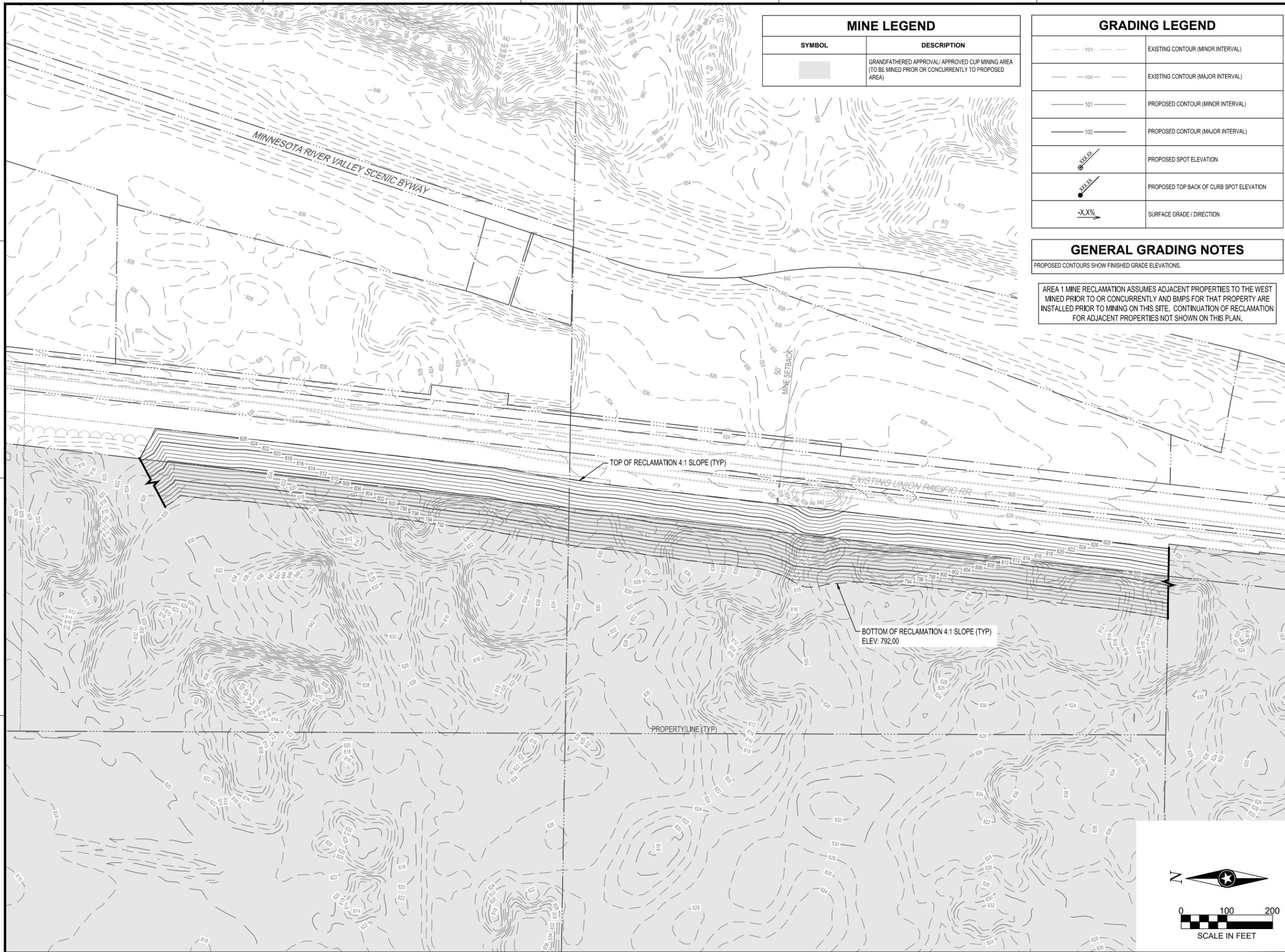
TITLE  
**MINE SITE AND  
 GRADING PLAN  
 (AREA 4)**

SHEET

**C3-13**







MINE LEGEND	
SYMBOL	DESCRIPTION
	GRANDFATHERED APPROVAL APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)

GRADING LEGEND	
	EXISTING CONTOUR (MINOR INTERVAL)
	EXISTING CONTOUR (MAJOR INTERVAL)
	PROPOSED CONTOUR (MINOR INTERVAL)
	PROPOSED CONTOUR (MAJOR INTERVAL)
	PROPOSED SPOT ELEVATION
	PROPOSED TOP BACK OF CURB SPOT ELEVATION
	SURFACE GRADE / DIRECTION

**GENERAL GRADING NOTES**  
 PROPOSED CONTOURS SHOW FINISHED GRADE ELEVATIONS.

AREA 1 MINE RECLAMATION ASSUMES ADJACENT PROPERTIES TO THE WEST MINED PRIOR TO OR CONCURRENTLY AND BMPS FOR THAT PROPERTY ARE INSTALLED PRIOR TO MINING ON THIS SITE. CONTINUATION OF RECLAMATION FOR ADJACENT PROPERTIES NOT SHOWN ON THIS PLAN.



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PROJECT

## VETTER STONE MINE EXPANSION

LE SUEUR COUNTY MINNESOTA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

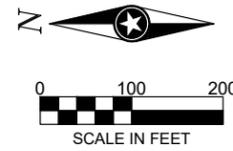
PROJECT NO.	21-25962
FILE NAME	25962 C4-RECLAMATION
DRAWN BY	SMW, EJW
DESIGNED BY	SMW, EJW
REVIEWED BY	BMP
ORIGINAL ISSUE DATE	09/16/22
CLIENT PROJECT NO.	-

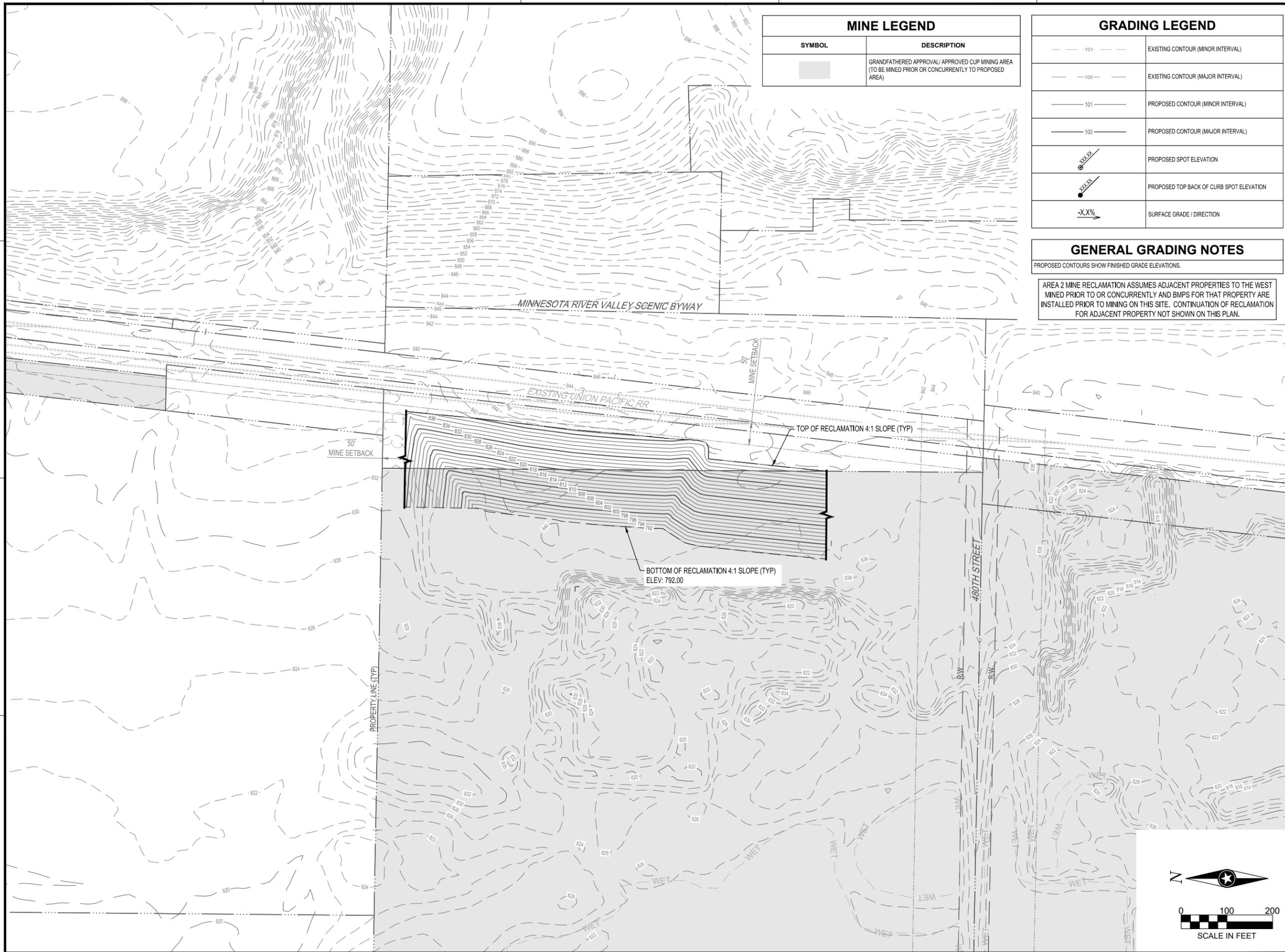
TITLE

## RECLAMATION SITE AND GRADING PLAN (AREA 1)

SHEET

# C4-10





MINE LEGEND	
SYMBOL	DESCRIPTION
	GRANDFATHERED APPROVAL/ APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)

GRADING LEGEND	
	EXISTING CONTOUR (MINOR INTERVAL)
	EXISTING CONTOUR (MAJOR INTERVAL)
	PROPOSED CONTOUR (MINOR INTERVAL)
	PROPOSED CONTOUR (MAJOR INTERVAL)
	PROPOSED SPOT ELEVATION
	PROPOSED TOP BACK OF CURB SPOT ELEVATION
	SURFACE GRADE / DIRECTION

**GENERAL GRADING NOTES**  
 PROPOSED CONTOURS SHOW FINISHED GRADE ELEVATIONS.

AREA 2 MINE RECLAMATION ASSUMES ADJACENT PROPERTIES TO THE WEST MINED PRIOR TO OR CONCURRENTLY AND BMPS FOR THAT PROPERTY ARE INSTALLED PRIOR TO MINING ON THIS SITE. CONTINUATION OF RECLAMATION FOR ADJACENT PROPERTY NOT SHOWN ON THIS PLAN.



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PROJECT  
**VETTER STONE  
 MINE EXPANSION**

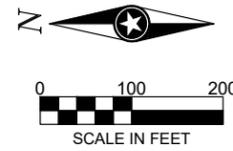
LE SUEUR COUNTY MINNESOTA

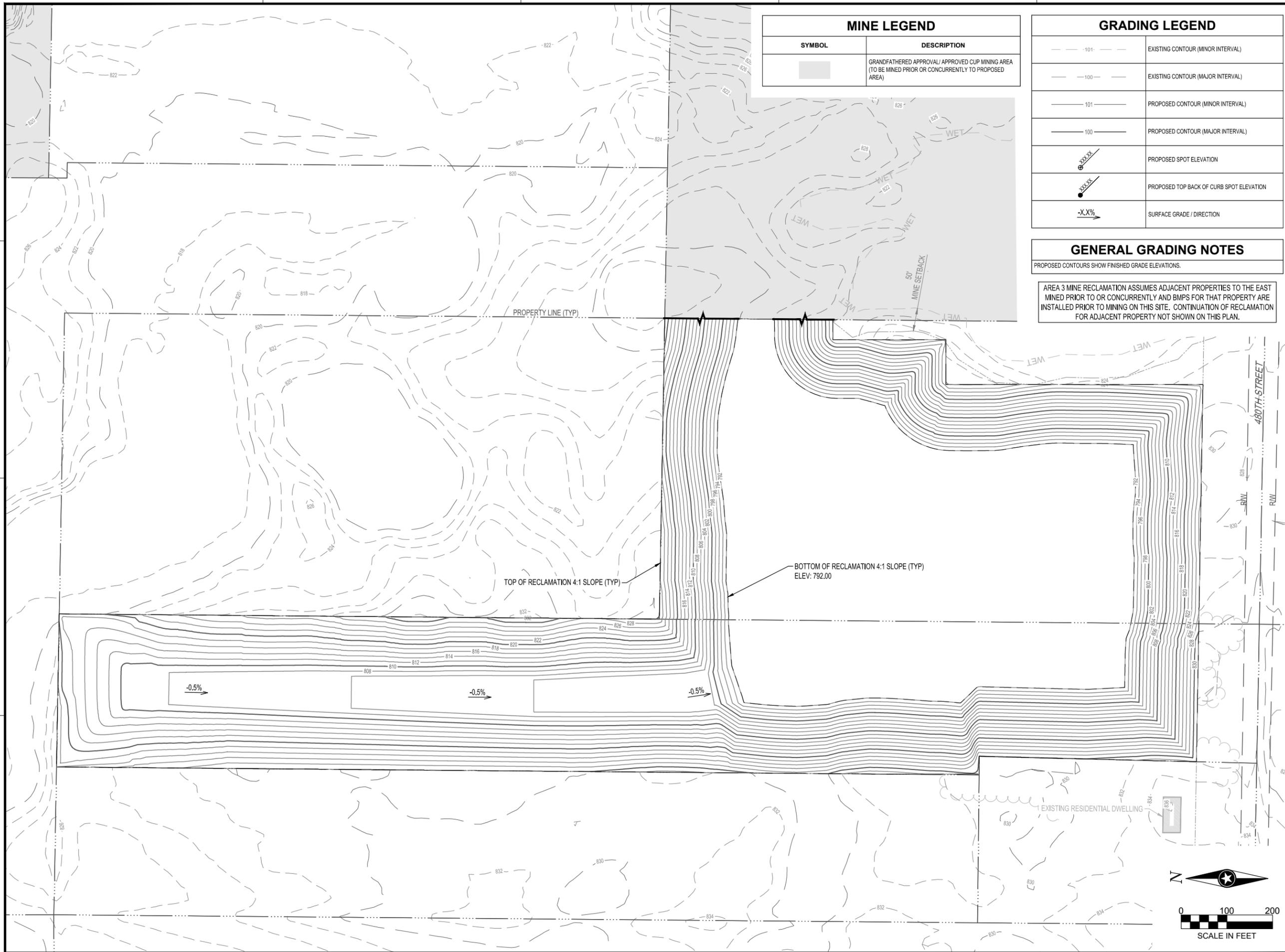
REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO.	21-25962
FILE NAME	25962 C4-RECLAMATION
DRAWN BY	SMW, EJW
DESIGNED BY	SMW, EJW
REVIEWED BY	BMP
ORIGINAL ISSUE DATE	09/16/22
CLIENT PROJECT NO.	-

TITLE  
**RECLAMATION  
 SITE AND  
 GRADING PLAN  
 (AREA 2)**

SHEET  
**C4-11**





MINE LEGEND	
SYMBOL	DESCRIPTION
	GRANDFATHERED APPROVAL/ APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)

GRADING LEGEND	
	EXISTING CONTOUR (MINOR INTERVAL)
	EXISTING CONTOUR (MAJOR INTERVAL)
	PROPOSED CONTOUR (MINOR INTERVAL)
	PROPOSED CONTOUR (MAJOR INTERVAL)
	PROPOSED SPOT ELEVATION
	PROPOSED TOP BACK OF CURB SPOT ELEVATION
	SURFACE GRADE / DIRECTION

**GENERAL GRADING NOTES**  
 PROPOSED CONTOURS SHOW FINISHED GRADE ELEVATIONS.

AREA 3 MINE RECLAMATION ASSUMES ADJACENT PROPERTIES TO THE EAST MINED PRIOR TO OR CONCURRENTLY AND BMPs FOR THAT PROPERTY ARE INSTALLED PRIOR TO MINING ON THIS SITE. CONTINUATION OF RECLAMATION FOR ADJACENT PROPERTY NOT SHOWN ON THIS PLAN.



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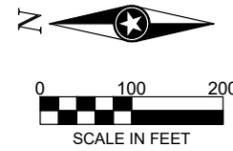
PROJECT  
**VETTER STONE MINE EXPANSION**  
 LE SUEUR COUNTY MINNESOTA

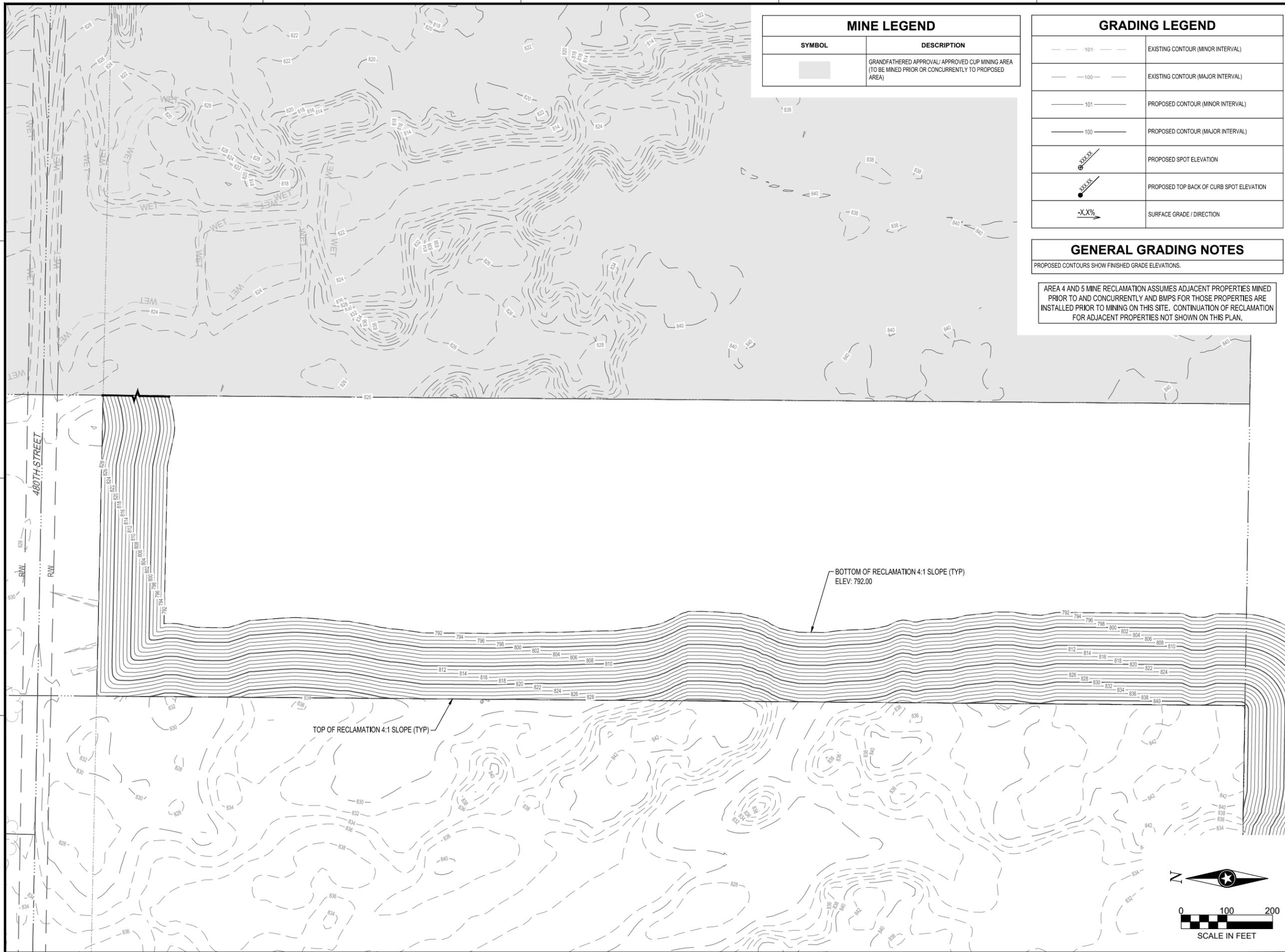
REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO. 21-25962  
 FILE NAME 25962 C4-RECLAMATION  
 DRAWN BY SMW, EJW  
 DESIGNED BY SMW, EJW  
 REVIEWED BY BMP  
 ORIGINAL ISSUE DATE 09/16/22  
 CLIENT PROJECT NO. -

TITLE  
**RECLAMATION SITE AND GRADING PLAN (AREA 3)**

SHEET  
**C4-12**





MINE LEGEND	
SYMBOL	DESCRIPTION
	GRANDFATHERED APPROVAL/ APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)

GRADING LEGEND	
	EXISTING CONTOUR (MINOR INTERVAL)
	EXISTING CONTOUR (MAJOR INTERVAL)
	PROPOSED CONTOUR (MINOR INTERVAL)
	PROPOSED CONTOUR (MAJOR INTERVAL)
	PROPOSED SPOT ELEVATION
	PROPOSED TOP BACK OF CURB SPOT ELEVATION
	SURFACE GRADE / DIRECTION

**GENERAL GRADING NOTES**  
 PROPOSED CONTOURS SHOW FINISHED GRADE ELEVATIONS.

AREA 4 AND 5 MINE RECLAMATION ASSUMES ADJACENT PROPERTIES MINED PRIOR TO AND CONCURRENTLY AND BMPs FOR THOSE PROPERTIES ARE INSTALLED PRIOR TO MINING ON THIS SITE. CONTINUATION OF RECLAMATION FOR ADJACENT PROPERTIES NOT SHOWN ON THIS PLAN.



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PROJECT  
**VETTER STONE  
 MINE EXPANSION**

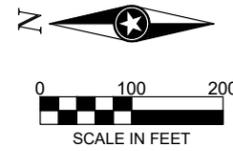
LE SUEUR COUNTY MINNESOTA

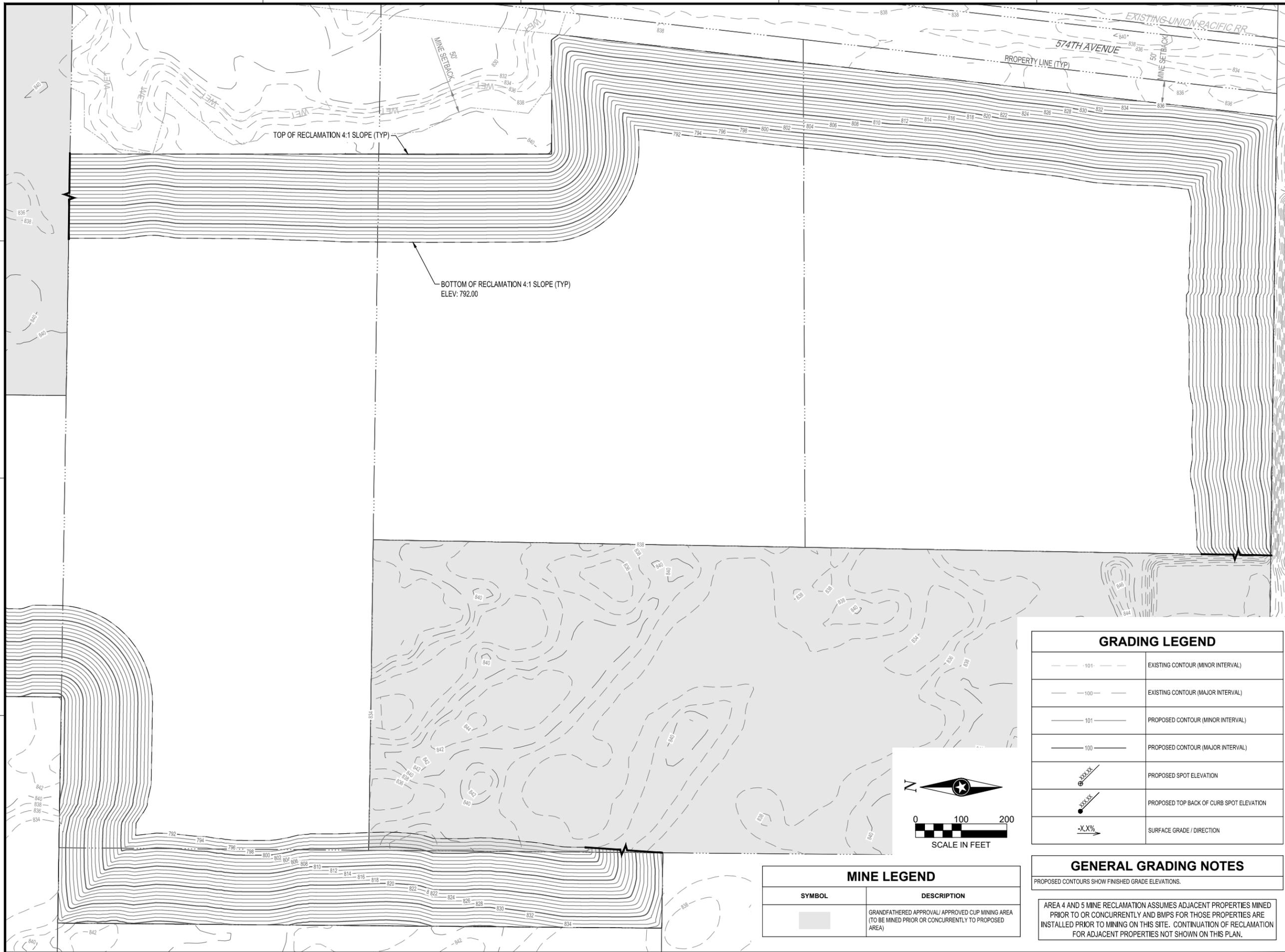
REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO.	21-25962
FILE NAME	25962 C4-RECLAMATION
DRAWN BY	SMW, EJW
DESIGNED BY	SMW, EJW
REVIEWED BY	BMP
ORIGINAL ISSUE DATE	09/16/22
CLIENT PROJECT NO.	

TITLE  
**RECLAMATION  
 SITE AND  
 GRADING PLAN  
 (AREA 4)**

SHEET  
**C4-13**





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PROJECT

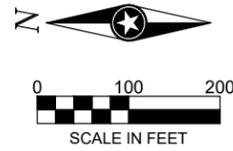
# VETTER STONE MINE EXPANSION

LE SUEUR COUNTY MINNESOTA

REVISION SCHEDULE	
DATE	DESCRIPTION

GRADING LEGEND	
--- 101 ---	EXISTING CONTOUR (MINOR INTERVAL)
--- 100 ---	EXISTING CONTOUR (MAJOR INTERVAL)
— 101 —	PROPOSED CONTOUR (MINOR INTERVAL)
— 100 —	PROPOSED CONTOUR (MAJOR INTERVAL)
● 833.33	PROPOSED SPOT ELEVATION
● 833.33	PROPOSED TOP BACK OF CURB SPOT ELEVATION
-X.X%	SURFACE GRADE / DIRECTION



MINE LEGEND	
SYMBOL	DESCRIPTION
■	GRANDFATHERED APPROVAL/ APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)

**GENERAL GRADING NOTES**

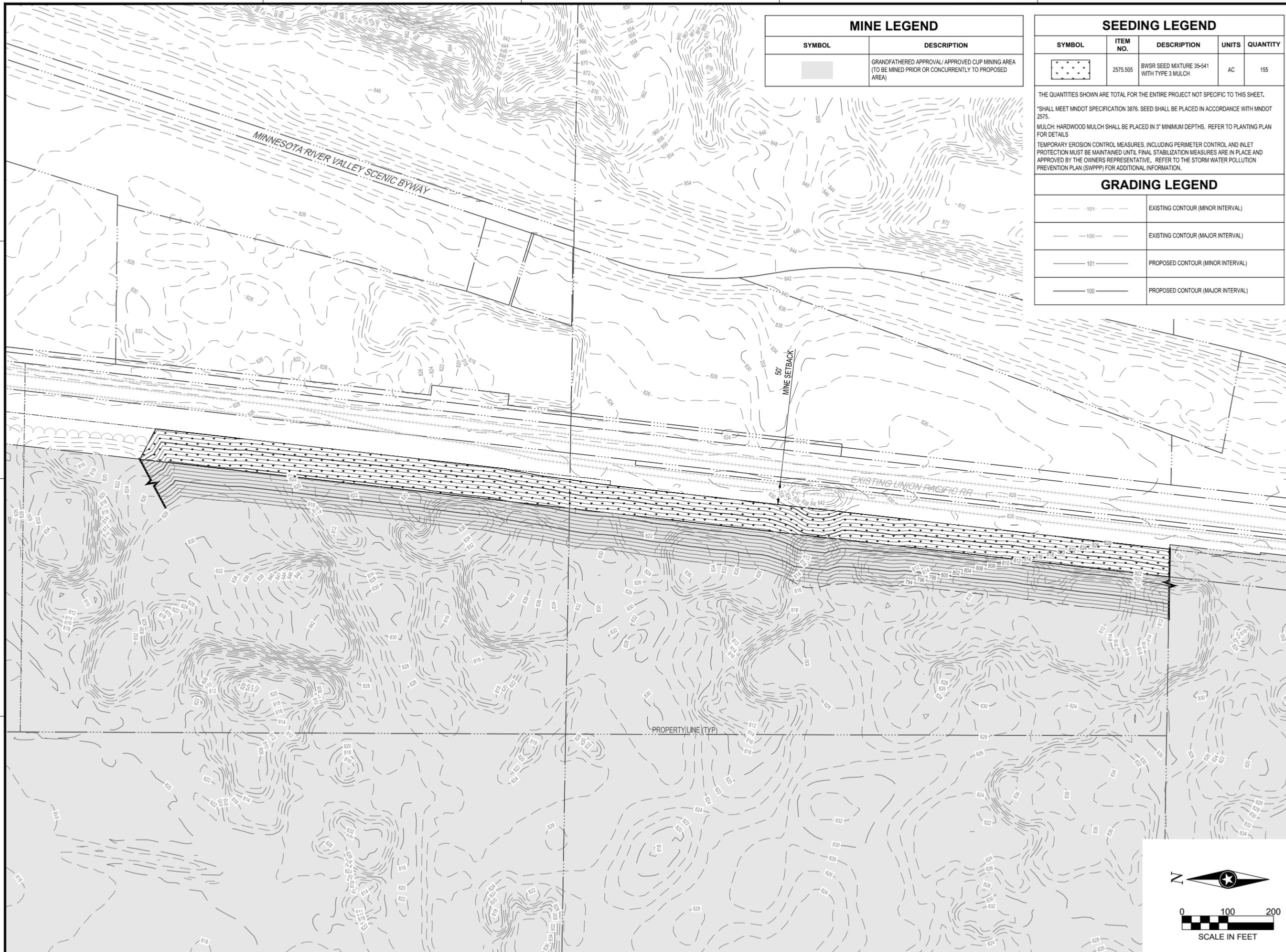
PROPOSED CONTOURS SHOW FINISHED GRADE ELEVATIONS.

AREA 4 AND 5 MINE RECLAMATION ASSUMES ADJACENT PROPERTIES MINED PRIOR TO OR CONCURRENTLY AND BMPS FOR THOSE PROPERTIES ARE INSTALLED PRIOR TO MINING ON THIS SITE. CONTINUATION OF RECLAMATION FOR ADJACENT PROPERTIES NOT SHOWN ON THIS PLAN.

PROJECT NO.	21-25962
FILE NAME	25962 C4-RECLAMATION
DRAWN BY	SMW, EJW
DESIGNED BY	SMW, EJW
REVIEWED BY	BMP
ORIGINAL ISSUE DATE	09/16/22
CLIENT PROJECT NO.	-

## TITLE RECLAMATION SITE AND GRADING PLAN (AREA 5)

SHEET  
**C4-14**



MINE LEGEND	
SYMBOL	DESCRIPTION
[Grey Box]	GRANDFATHERED APPROVAL/ APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)

SEEDING LEGEND				
SYMBOL	ITEM NO.	DESCRIPTION	UNITS	QUANTITY
[Star Pattern]	2575.505	BWSR SEED MIXTURE 35-541 WITH TYPE 3 MULCH	AC	155

THE QUANTITIES SHOWN ARE TOTAL FOR THE ENTIRE PROJECT NOT SPECIFIC TO THIS SHEET.  
 \*SHALL MEET MNDOT SPECIFICATION 3876. SEED SHALL BE PLACED IN ACCORDANCE WITH MNDOT 2575.  
 MULCH: HARDWOOD MULCH SHALL BE PLACED IN 3" MINIMUM DEPTHS. REFER TO PLANTING PLAN FOR DETAILS  
 TEMPORARY EROSION CONTROL MEASURES, INCLUDING PERIMETER CONTROL AND INLET PROTECTION MUST BE MAINTAINED UNTIL FINAL STABILIZATION MEASURES ARE IN PLACE AND APPROVED BY THE OWNERS REPRESENTATIVE. REFER TO THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR ADDITIONAL INFORMATION.

GRADING LEGEND	
---101---	EXISTING CONTOUR (MINOR INTERVAL)
---100---	EXISTING CONTOUR (MAJOR INTERVAL)
—101—	PROPOSED CONTOUR (MINOR INTERVAL)
—100—	PROPOSED CONTOUR (MAJOR INTERVAL)



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*[Signature]*

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PROJECT

## VETTER STONE MINE EXPANSION

LE SUEUR COUNTY MINNESOTA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

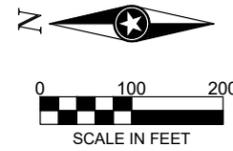
PROJECT NO.	21-25962
FILE NAME	25962 C5-RESTORATION
DRAWN BY	SMW, EJW
DESIGNED BY	SMW, EJW
REVIEWED BY	BMP
ORIGINAL ISSUE DATE	09/16/22
CLIENT PROJECT NO.	-

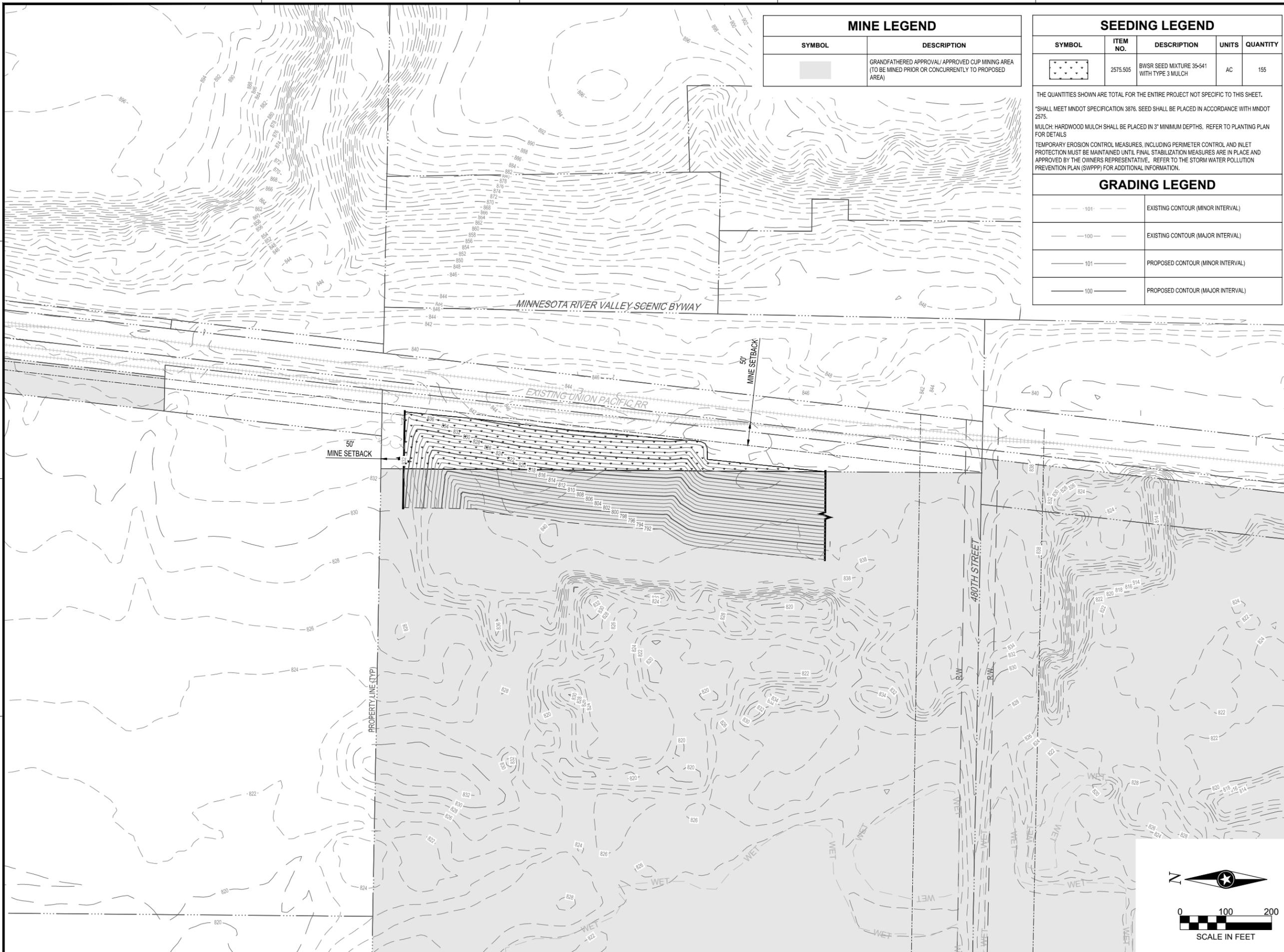
TITLE

## RESTORATION PLAN (AREA 1)

SHEET

# C5-10





MINE LEGEND	
SYMBOL	DESCRIPTION
[Grey Box]	GRANDFATHERED APPROVAL/ APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)

SEEDING LEGEND				
SYMBOL	ITEM NO.	DESCRIPTION	UNITS	QUANTITY
[Star Pattern]	2575.505	BWSR SEED MIXTURE 35-541 WITH TYPE 3 MULCH	AC	155

THE QUANTITIES SHOWN ARE TOTAL FOR THE ENTIRE PROJECT NOT SPECIFIC TO THIS SHEET.  
 \*SHALL MEET MNDOT SPECIFICATION 3876. SEED SHALL BE PLACED IN ACCORDANCE WITH MNDOT 2575.  
 MULCH: HARDWOOD MULCH SHALL BE PLACED IN 3" MINIMUM DEPTHS. REFER TO PLANTING PLAN FOR DETAILS  
 TEMPORARY EROSION CONTROL MEASURES, INCLUDING PERIMETER CONTROL AND INLET PROTECTION MUST BE MAINTAINED UNTIL FINAL STABILIZATION MEASURES ARE IN PLACE AND APPROVED BY THE OWNERS REPRESENTATIVE. REFER TO THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR ADDITIONAL INFORMATION.

GRADING LEGEND	
--- -101 ---	EXISTING CONTOUR (MINOR INTERVAL)
--- -100 ---	EXISTING CONTOUR (MAJOR INTERVAL)
--- 101 ---	PROPOSED CONTOUR (MINOR INTERVAL)
--- 100 ---	PROPOSED CONTOUR (MAJOR INTERVAL)



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**BRYAN M. PETZEL**

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PROJECT

## VETTER STONE MINE EXPANSION

LE SUEUR COUNTY MINNESOTA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

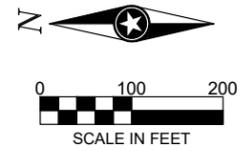
PROJECT NO.	21-25962
FILE NAME	25962 C5-RESTORATION
DRAWN BY	SMW, EJW
DESIGNED BY	SMW, EJW
REVIEWED BY	BMP
ORIGINAL ISSUE DATE	09/16/22
CLIENT PROJECT NO.	-

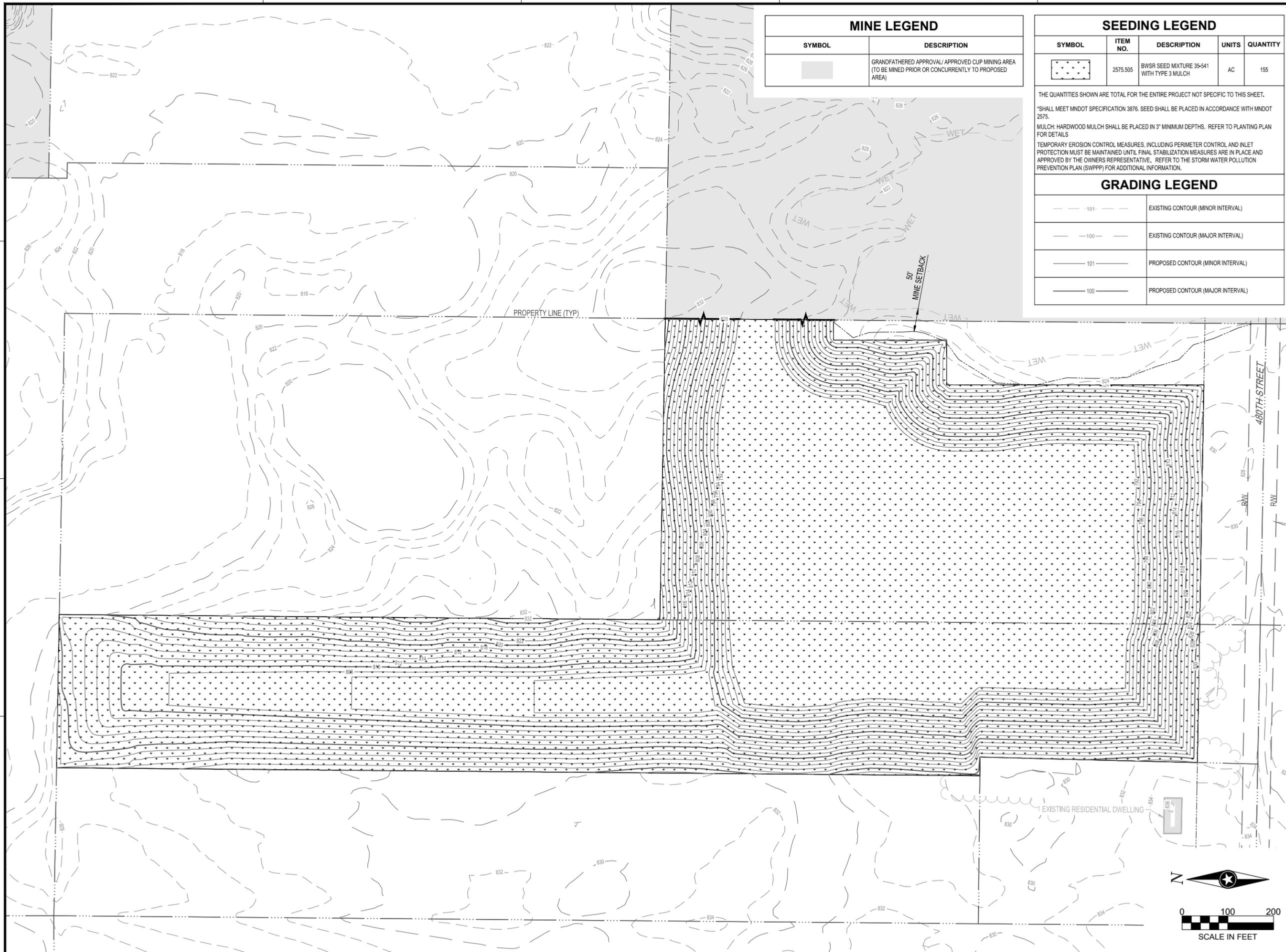
TITLE

## RESTORATION PLAN (AREA 2)

SHEET

# C5-11





MINE LEGEND	
SYMBOL	DESCRIPTION
	GRANDFATHERED APPROVAL/ APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)

SEEDING LEGEND				
SYMBOL	ITEM NO.	DESCRIPTION	UNITS	QUANTITY
	2575.505	BWSR SEED MIXTURE 35-541 WITH TYPE 3 MULCH	AC	155

THE QUANTITIES SHOWN ARE TOTAL FOR THE ENTIRE PROJECT NOT SPECIFIC TO THIS SHEET.  
 \*SHALL MEET MNDOT SPECIFICATION 3876. SEED SHALL BE PLACED IN ACCORDANCE WITH MNDOT 2575.  
 MULCH: HARDWOOD MULCH SHALL BE PLACED IN 3" MINIMUM DEPTHS. REFER TO PLANTING PLAN FOR DETAILS  
 TEMPORARY EROSION CONTROL MEASURES, INCLUDING PERIMETER CONTROL AND INLET PROTECTION MUST BE MAINTAINED UNTIL FINAL STABILIZATION MEASURES ARE IN PLACE AND APPROVED BY THE OWNERS REPRESENTATIVE. REFER TO THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR ADDITIONAL INFORMATION.

GRADING LEGEND	
	EXISTING CONTOUR (MINOR INTERVAL)
	EXISTING CONTOUR (MAJOR INTERVAL)
	PROPOSED CONTOUR (MINOR INTERVAL)
	PROPOSED CONTOUR (MAJOR INTERVAL)



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*Bryan M. Petzel*

DATE: 02/20/23 LIC. NO. 53191

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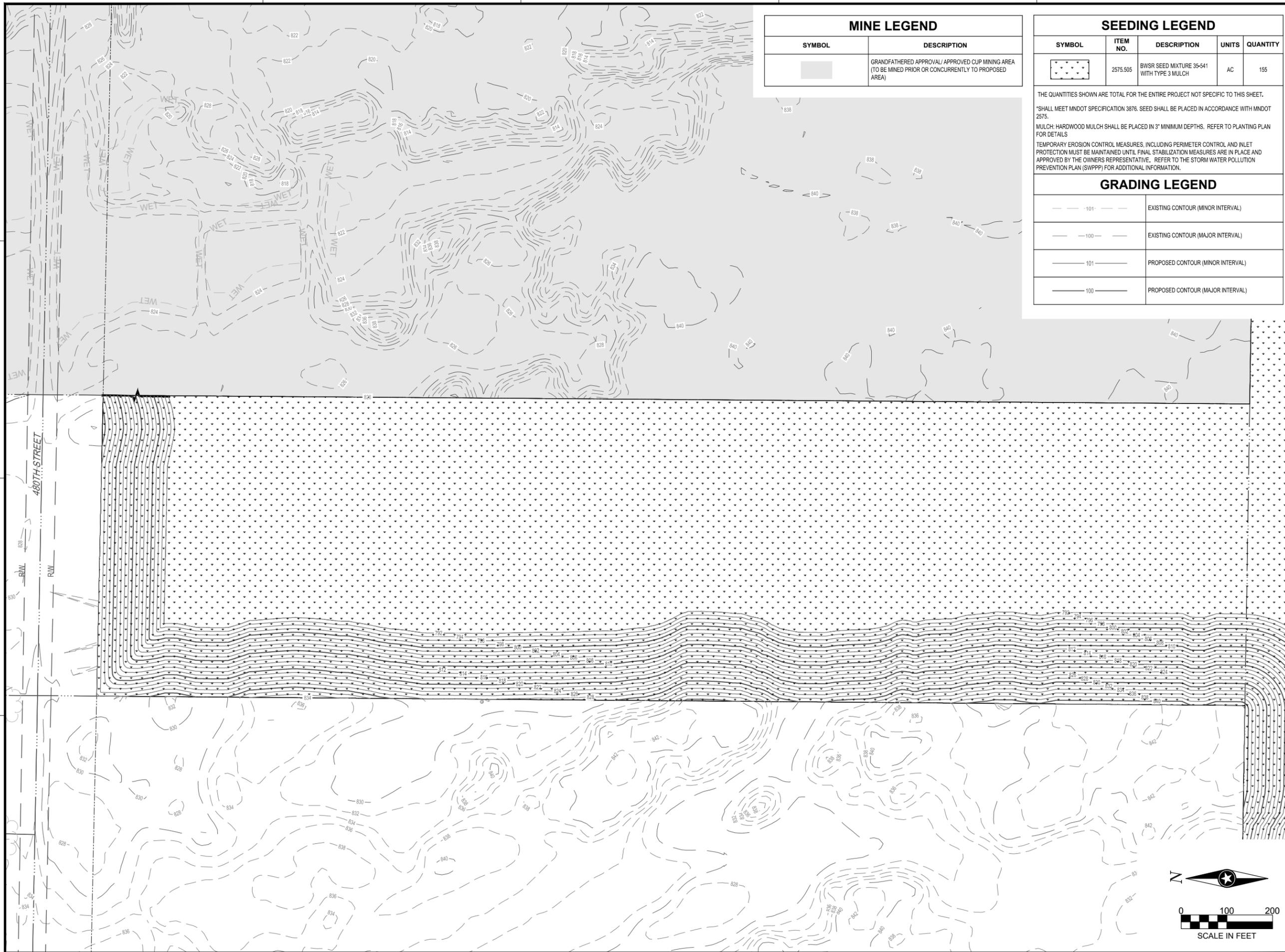
PROJECT  
**VETTER STONE  
 MINE EXPANSION**  
 LE SUEUR COUNTY MINNESOTA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO. 21-25962  
 FILE NAME 25962 C5-RESTORATION  
 DRAWN BY SMW, EJW  
 DESIGNED BY SMW, EJW  
 REVIEWED BY BMP  
 ORIGINAL ISSUE DATE 09/16/22  
 CLIENT PROJECT NO. -

TITLE  
**RESTORATION  
 PLAN (AREA 3)**

SHEET  
**C5-12**



MINE LEGEND	
SYMBOL	DESCRIPTION
	GRANDFATHERED APPROVAL/ APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)

SEEDING LEGEND				
SYMBOL	ITEM NO.	DESCRIPTION	UNITS	QUANTITY
	2575.505	BWSR SEED MIXTURE 35-541 WITH TYPE 3 MULCH	AC	155

THE QUANTITIES SHOWN ARE TOTAL FOR THE ENTIRE PROJECT NOT SPECIFIC TO THIS SHEET.  
 \*SHALL MEET MNDOT SPECIFICATION 3876. SEED SHALL BE PLACED IN ACCORDANCE WITH MNDOT 2575.  
 MULCH: HARDWOOD MULCH SHALL BE PLACED IN 3" MINIMUM DEPTHS. REFER TO PLANTING PLAN FOR DETAILS  
 TEMPORARY EROSION CONTROL MEASURES, INCLUDING PERIMETER CONTROL AND INLET PROTECTION MUST BE MAINTAINED UNTIL FINAL STABILIZATION MEASURES ARE IN PLACE AND APPROVED BY THE OWNERS REPRESENTATIVE. REFER TO THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR ADDITIONAL INFORMATION.

GRADING LEGEND	
	EXISTING CONTOUR (MINOR INTERVAL)
	EXISTING CONTOUR (MAJOR INTERVAL)
	PROPOSED CONTOUR (MINOR INTERVAL)
	PROPOSED CONTOUR (MAJOR INTERVAL)



**NOTE:**  
 THE CLARITY OF THESE PLANS DEPEND UPON COLOR COPIES. IF THIS TEXT DOES NOT APPEAR IN COLOR, THIS IS NOT AN ORIGINAL PLAN SET AND MAY RESULT IN MISINTERPRETATION.

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT 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.

BRYAN M. PETZEL

DATE: 02/20/23 LIC. NO. 53191

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PROJECT  
**VETTER STONE  
 MINE EXPANSION**

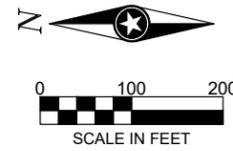
LE SUEUR COUNTY MINNESOTA

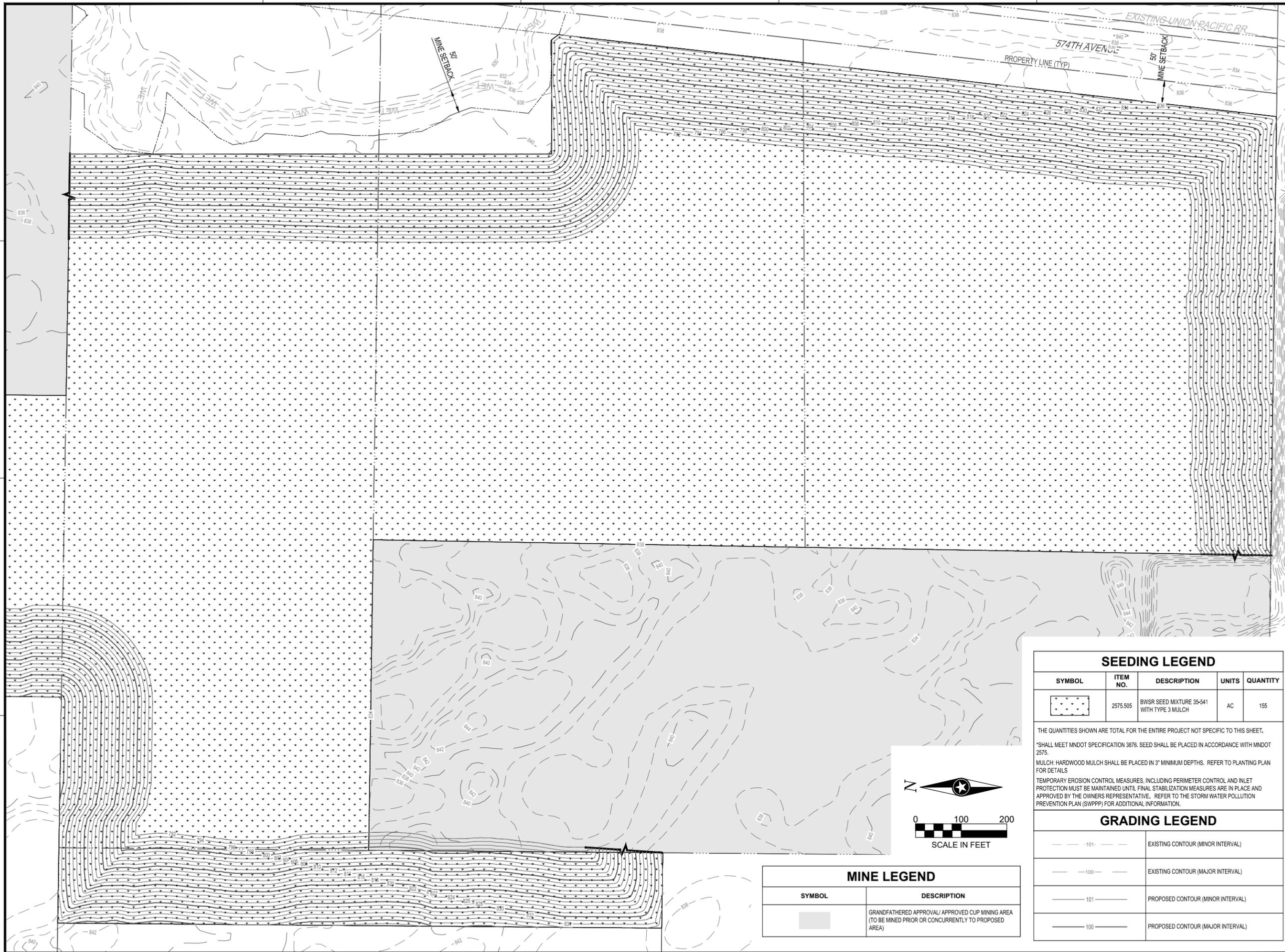
REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO.	21-25962
FILE NAME	25962 C5-RESTORATION
DRAWN BY	SMW, EJW
DESIGNED BY	SMW, EJW
REVIEWED BY	BMP
ORIGINAL ISSUE DATE	09/16/22
CLIENT PROJECT NO.	

TITLE  
**RESTORATION  
 PLAN (AREA 4)**

SHEET  
**C5-13**





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BRYAN M. PETZEL

DATE: 02/20/23 LIC. NO. 53191

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PROJECT

**VETTER STONE  
 MINE EXPANSION**

LE SUEUR COUNTY MINNESOTA

REVISION SCHEDULE		
DATE	DESCRIPTION	BY

PROJECT NO.	21-25962
FILE NAME	25962 C5-RESTORATION
DRAWN BY	SMW, EJW
DESIGNED BY	SMW, EJW
REVIEWED BY	BMP
ORIGINAL ISSUE DATE	09/16/22
CLIENT PROJECT NO.	-

TITLE

**RESTORATION  
 PLAN (AREA 5)**

SHEET

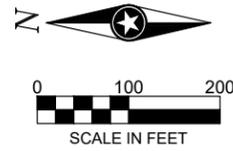
**C5-14**

SEEDING LEGEND				
SYMBOL	ITEM NO.	DESCRIPTION	UNITS	QUANTITY
	2575.505	BWSR SEED MIXTURE 35-541 WITH TYPE 3 MULCH	AC	155

THE QUANTITIES SHOWN ARE TOTAL FOR THE ENTIRE PROJECT NOT SPECIFIC TO THIS SHEET.  
 \*SHALL MEET MNDOT SPECIFICATION 3876. SEED SHALL BE PLACED IN ACCORDANCE WITH MNDOT 2575.  
 MULCH: HARDWOOD MULCH SHALL BE PLACED IN 3" MINIMUM DEPTHS. REFER TO PLANTING PLAN FOR DETAILS  
 TEMPORARY EROSION CONTROL MEASURES, INCLUDING PERIMETER CONTROL AND INLET PROTECTION MUST BE MAINTAINED UNTIL FINAL STABILIZATION MEASURES ARE IN PLACE AND APPROVED BY THE OWNERS REPRESENTATIVE. REFER TO THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR ADDITIONAL INFORMATION.

GRADING LEGEND	
	EXISTING CONTOUR (MINOR INTERVAL)
	EXISTING CONTOUR (MAJOR INTERVAL)
	PROPOSED CONTOUR (MINOR INTERVAL)
	PROPOSED CONTOUR (MAJOR INTERVAL)

MINE LEGEND	
SYMBOL	DESCRIPTION
	GRANDFATHERED APPROVAL/ APPROVED CUP MINING AREA (TO BE MINED PRIOR OR CONCURRENTLY TO PROPOSED AREA)



# Appendix C - Ecological Resources



Minnesota Department of Natural Resources  
Division of Ecological & Water Resources  
500 Lafayette Road, Box 25  
St. Paul, MN 55155-4025

May 28, 2024

Jeremy Groskreutz  
ISG

RE: Natural Heritage Review of the proposed Vetter Stone Company,  
T109N R26W Sections 5, 8, 17, 20; Blue Earth and Le Sueur Counties

Dear Jeremy Groskreutz,

For all correspondence regarding the Natural Heritage Review of this project please include the project ID **MCE-2024-00266** in the email subject line.

As requested, the [Minnesota Natural Heritage Information System](#) has been reviewed to determine if the proposed project has the potential to impact any rare species or other significant natural features. Based on the project details provided with the request, the following rare features may be impacted by the proposed project:

#### *Ecologically Significant Areas*

The proposed project is entirely within or adjacent to areas identified by the Minnesota Biological Survey (MBS) as a Site of *Outstanding* or of *High* Biodiversity Significance. Sites of Biodiversity Significance have varying levels of native biodiversity and are ranked based on the relative significance of this biodiversity at a statewide level. Sites ranked as *Outstanding* contain the best occurrences of the rarest species, the most outstanding examples of the rarest native plant communities, and/or the largest, most intact functional landscapes present in the state. Sites ranked as *High* contain very good quality occurrences of the rarest species, high quality examples of the rare native plant communities, and/or important functional landscapes. These Sites have areas mapped as Native Plant Communities. These are Mesic Prairie (Southern) (UPs23a) and Southern Dry Prairie (UPs13). These have state conservation ranks of Imperiled (S2) and Critically Imperiled through Vulnerable to Extirpation (S1-S3), respectively. More than 99% of the prairie that was present in the state before settlement has been destroyed, and more than one-third of Minnesota's endangered, threatened, and special concern species are now dependent on the

remaining small fragments of Minnesota's prairie ecosystem. This includes several state-listed insect species of special concern that have been recorded near the proposed project.

The current project design will impact these areas. We encourage you to consider project alternatives that would avoid or minimize disturbance to these ecologically significant areas outside of the portion that will be directly impacted by mining. Actions to avoid or minimize disturbance include, but are not limited to, the following recommendations.

- Minimize vehicular disturbance in the MBS Site (allow only vehicles/equipment necessary for construction activities).
- Do not park equipment or stockpile supplies in the MBS Site.
- Do not place spoil in the MBS Site or other sensitive areas.
- Use effective erosion prevention and sediment control measures.
- Inspect and clean equipment prior to operating within the MBS Site and follow recommendations to [prevent the spread of invasive species](#).
- Revegetate disturbed soil with [native species suitable to the local habitat](#) as soon after construction as possible.
- Use only weed-free mulches, topsoils, and seed mixes. Of particular concern are birdsfoot trefoil (*Lotus corniculatus*) and crown vetch (*Coronilla varia*), two invasive species that are sold commercially and are problematic in prairies and disturbed open areas.

MBS Sites of Biodiversity Significance and DNR Native Plant Communities can be viewed using the Explore page in [Minnesota Conservation Explorer](#) or their GIS shapefiles can be downloaded from the [MN Geospatial Commons](#). Please contact the [NH Review Team](#) if you need assistance accessing the data. Reference the [MBS Site Biodiversity Significance](#) and [Native Plant Community](#) websites for information on interpreting the data. To receive a list of MBS Sites of Biodiversity Significance and DNR Native Plant Communities in the vicinity of your project, create a [Conservation Planning Report](#) using the Explore Tab in [Minnesota Conservation Explorer](#).

- Two calcareous fens, Kasota 7 (ID #34551) and Lime 30 (ID# 38219) have been documented within the vicinity of the proposed project area. Sterile sedge (*Carex sterilis*) and stream parsnip (*Berula erecta*), both state-listed threatened plants, and small white lady's-slipper (*Cypripedium candidum*), state-listed as a species of special concern, have been documented within the fen. A calcareous fen is a rare and distinctive peat-accumulating wetland that is legally protected in Minnesota. The Wetlands Conservation Act, authorized by Minnesota Statutes, section 103G.223, states that calcareous fens may not be filled, drained, or otherwise degraded, wholly or partially, by any activity, except as provided for in a management plan approved by the commissioner of the Department of Natural Resources. Many of the unique characteristics of calcareous fens result from the upwelling of groundwater through calcareous substrates. Because of this dependence on groundwater hydrology, calcareous fens can be affected by nearby activities or even those several miles away. For more information regarding calcareous

fens, please see the [Calcareous Fen Fact Sheet](#). To minimize stormwater impacts, please refer to the Minnesota Pollution Control Agency's [General Principles for Erosion Prevention and Sediment Control](#) in the Minnesota Stormwater Manual. Please note that calcareous fens are "Special Waters" and a [buffer zone](#) may be required.

Calcareous fens may be impacted by activities within the fen, activities that affect surface water flows (e.g., stormwater flow, erosion), or activities that affect groundwater hydrology (e.g., groundwater pumping, contamination, or discharge). To ensure compliance with WCA, please contact the Calcareous Fen Program Coordinator, Keylor Andrews ([Keylor.Andrews@state.mn.us](mailto:Keylor.Andrews@state.mn.us)). **If it is determined the project will impact the fen in any way, including indirect impacts through the alteration of hydrological conditions, a botanical survey is required.** Surveys must be conducted by a qualified surveyor and follow the standards contained in the [Rare Species Survey Process](#) and [Rare Plant Guidance](#). Visit the [Natural Heritage Review](#) page for a list of certified surveyors and more information on this process. Project planning should take into account that any botanical survey needs to be conducted during the appropriate time of the year, which may be limited. Please consult with the NH Review Team at [Review.NHIS@state.mn.us](mailto:Review.NHIS@state.mn.us) if you have any questions regarding this process.

- If the Wetland Conservation Act (WCA) is applicable to this project, please note that wetlands within *High* or *Outstanding* MBS Sites of Biodiversity Significance may qualify as “rare natural communities” under this Act. Minnesota Rules, part 8420.0515, subpart 3 states that a wetland replacement plan for activities that modify a rare natural community must be denied if the local government unit determines the proposed activities will permanently adversely affect the natural community. If the proposed project includes a wetland replacement plan under WCA, please contact your [DNR Regional Ecologist](#) for further evaluation. Please visit [WCA Program Guidance and Information](#) for additional information, including the [Rare Natural Communities Technical Guidance](#).

#### *State-listed Species*

- Tuberos Indian-plantain (*Arnoglossum plantagineum*) and Sullivant’s milkweed (*Asclepias sullivantii*), both state-listed threatened plant species, and rattlesnake master (*Eryngium yuccifolium*) and black disc lichen (*Buellia nigra*), both species of special concern, have been documented near the proposed project. These species are found in native upland prairie remnants. Minnesota’s Endangered Species Statute (Minnesota Statutes, section 84.0895) and associated Rules (Minnesota Rules, part 6212.1800 to 6212.2300 and 6134) prohibit the take of threatened or endangered species without a permit. **As currently defined, the proposed project will impact mapped examples of native prairie. If these areas cannot be avoided then, to demonstrate avoidance, a qualified surveyor will need to conduct a survey prior to any project activities.** DNR Native Plant Communities can be viewed using the Explore page in [Minnesota Conservation Explorer](#) or their GIS shapefiles can be downloaded from the [MN Geospatial](#)

[Commons](#). Please contact the [NH Review Team](#) if you need assistance accessing the data. Reference the [Native Plant Community](#) website for information on interpreting the data.

Surveys must be conducted by a qualified surveyor and follow the standards contained in the [Rare Species Survey Process](#) and [Rare Plant Guidance](#). Visit the [Natural Heritage Review](#) page for a list of certified surveyors and more information on this process. Project planning should take into account that any botanical survey needs to be conducted during the appropriate time of the year, which may be limited. Please consult with the NH Review Team at [Review.NHIS@state.mn.us](mailto:Review.NHIS@state.mn.us) if you have any questions regarding this process.

- Henslow's sparrow (*Centronyx henslowii*) and loggerhead shrike (*Lanius ludovicianus*), both state-listed endangered bird species, and lark sparrow (*Chondestes grammacus*) and Bell's vireo (*Vireo bellii*), both state-listed as species of special concern, have been documented in the vicinity of the proposed project. Henslow's sparrows and lark sparrows nest in uncultivated and unmowed grasslands and old fields with standing, dead vegetation. Loggerhead shrikes and Bell's vireo use shrubs and small trees for nesting. Initial disturbance to grassy, unmowed areas should not occur during their breeding season, between May 15<sup>th</sup> and July 15<sup>th</sup> and tree and shrub removal must not occur between April 1 and July 31. **If these avoidance measures are not feasible, areas that will be disturbed that contain suitable nesting habitat for Henslow's sparrows or loggerhead shrikes will need to be surveyed for active nests prior to any project disturbance.**

Please contact [Review.NHIS@state.mn.us](mailto:Review.NHIS@state.mn.us) to confirm that the above avoidance measure will be implemented or to inform us that avoidance is not feasible. If avoidance is not feasible, the project area will need to be surveyed for active nests prior to any project disturbance. Requirements for surveys and lists of DNR certified lists of surveyors can be found at the [Natural Heritage Review website](#).

- The Natural Heritage Information System (NHIS) tracks bat roost trees and hibernacula plus some acoustic data, but this information is not exhaustive. Even if there are no bat records listed nearby, all of Minnesota's bats, including the federally endangered northern long-eared bat ([Myotis septentrionalis](#)), can be found throughout Minnesota. During the active season (approximately April-November) bats roost underneath bark, in cavities, or in crevices of both live and dead trees. Tree removal can negatively impact bats by destroying roosting habitat, especially during the pup rearing season when females are forming maternity roosting colonies and the pups cannot yet fly. To minimize these impacts, **the DNR recommends that tree removal be avoided from June 1 through August 15.**
- Please visit the [DNR Rare Species Guide](#) for more information on the habitat use of these species and recommended measures to avoid or minimize impacts.

### *Federally Protected Species*

- To ensure compliance with federal law, conduct a federal regulatory review using the U.S. Fish and Wildlife Service's (USFWS) online [Information for Planning and Consultation \(IPaC\) tool](#).

### *Environmental Review and Permitting*

- The Environmental Assessment Worksheet should address whether the proposed project has the potential to adversely affect the above rare features and, if so, it should identify specific measures that will be taken to avoid or minimize disturbance. Sufficient information should be provided so the DNR can determine whether a takings permit will be needed for any of the above protected species.
- Please include a copy of this letter and the MCE-generated Final Project Report in any state or local license or permit application. Please note that measures to avoid or minimize disturbance to the above rare features may be included as restrictions or conditions in any required permits or licenses.

The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. However, the NHIS is not an exhaustive inventory and thus does not represent all of the occurrences of rare features within the state. Therefore, ecologically significant features for which we have no records may exist within the project area. If additional information becomes available regarding rare features in the vicinity of the project, further review may be necessary.

For environmental review purposes, the results of this Natural Heritage Review are valid for one year; the results are only valid for the project location and project description provided with the request. If project details change or the project has not occurred within one year, please resubmit the project for review within one year of initiating project activities.

The Natural Heritage Review does not constitute project approval by the Department of Natural Resources. Instead, it identifies issues regarding known occurrences of rare features and potential impacts to these rare features. Visit the [Natural Heritage Review website](#) for additional information regarding this process, survey guidance, and other related information. For information on the environmental review process or other natural resource concerns, you may contact your [DNR Regional Environmental Assessment Ecologist](#).

Thank you for consulting us on this matter and for your interest in preserving Minnesota's rare natural resources.

Sincerely,

**James Drake** Digitally signed by James  
Drake  
Date: 2024.05.28 11:39:40  
-05'00'

James Drake

Natural Heritage Review Specialist

[James.F.Drake@state.mn.us](mailto:James.F.Drake@state.mn.us)

Cc: Haley Byron, Jennie Skancke, Megan Benage, Keylor Andrews



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Minnesota-Wisconsin Ecological Services Field Office  
3815 American Blvd East  
Bloomington, MN 55425-1659  
Phone: (952) 858-0793

In Reply Refer To:  
Project Code: 2022-0035111  
Project Name: Vetter Stone Company

March 08, 2024

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

## To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through IPaC by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: <https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

**Migratory Birds:** In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see [Migratory Bird Permit | What We Do | U.S. Fish & Wildlife Service \(fws.gov\)](#).

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

## **OFFICIAL SPECIES LIST**

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Minnesota-Wisconsin Ecological Services Field Office**

3815 American Blvd East

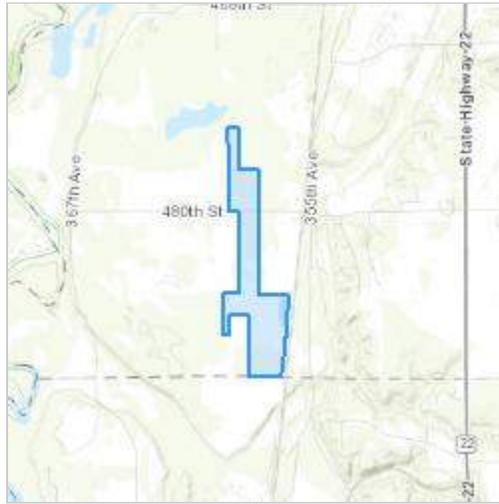
Bloomington, MN 55425-1659

(952) 858-0793

## PROJECT SUMMARY

Project Code: 2022-0035111  
Project Name: Vetter Stone Company  
Project Type: Surface Extraction - Non Energy Materials  
Project Description: Expansion of an existing mine site.  
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@44.250449399999994,-93.98553674086557,14z>



Counties: Blue Earth and Le Sueur counties, Minnesota

## ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

### MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered

### CLAMS

NAME	STATUS
Salamander Mussel <i>Simpsonaias ambigua</i> There is <b>proposed</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/6208">https://ecos.fws.gov/ecp/species/6208</a>	Proposed Endangered

### INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

## **CRITICAL HABITATS**

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

## **IPAC USER CONTACT INFORMATION**

Agency: ISG

Name: Jeremy Groskreutz

Address: 115 East Hickory Street, Suite 300

City: Mankato

State: MN

Zip: 56001

Email: [jeremy.groskreutz@isginc.com](mailto:jeremy.groskreutz@isginc.com)

Phone: 5073876651

# Appendix D - SHPO Correspondence

**From:** MN\_MNIT\_Data Request SHPO <DataRequestSHPO@state.mn.us>  
**Sent:** Thursday, April 28, 2022 7:09 PM  
**To:** Jeremy Groskreutz  
**Subject:** RE: Search Request  
**Attachments:** [History.xls](#)

Hello Jeremy,

Please see attached. Our database has no archaeological records for the given project area.

Jim



SHPO Data Requests  
Minnesota State Historic Preservation Office  
50 Sherburne Avenue, Suite 203  
Saint Paul, MN 55155  
(651) 201-3299  
[datarequestshpo@state.mn.us](mailto:datarequestshpo@state.mn.us)

**Notice:** This email message simply reports the results of the cultural resources database search you requested. The database search is only for previously known archaeological sites and historic properties. **IN NO CASE DOES THIS DATABASE SEARCH OR EMAIL MESSAGE CONSTITUTE A PROJECT REVIEW UNDER STATE OR FEDERAL PRESERVATION LAWS** – please see our website at <https://mn.gov/admin/shpo/protection/> for further information regarding our Environmental Review Process.

Because the majority of archaeological sites in the state and many historic/architectural properties have not been recorded, important sites or properties may exist within the search area and may be affected by development projects within that area. Additional research, including field surveys, may be necessary to adequately assess the area's potential to contain historic properties or archaeological sites.

Properties that are listed in the National Register of Historic Places (NRHP) or have been determined eligible for listing in the NRHP are indicated on the reports you have received, if any. The following codes may be on those reports:

**NR** – National Register listed. The properties may be individually listed or may be within the boundaries of a National Register District.

**CEF** – Considered Eligible Findings are made when a federal agency has recommended that a property is eligible for listing in the National Register and MN SHPO has accepted the recommendation for the purposes of the Environmental Review Process. These properties need to be further assessed before they are officially listed in the National Register.

**SEF** – Staff eligible Findings are those properties the MN SHPO staff considers eligible for listing in the National Register, in circumstances other than the Environmental Review Process.

**DOE** – Determination of Eligibility is made by the National Park Service and are those properties that are eligible for listing in the National Register, but have not been officially listed.

**CNEF** – Considered Not Eligible Findings are made during the course of the Environmental Review Process. For the purposes of the review a property is considered not eligible for listing in the National Register. These properties may need to be reassessed for eligibility under additional or alternate contexts.

Properties without NR, CEF, SEF, DOE, or CNEF designations in the reports may not have been evaluated and therefore no assumption to their eligibility can be made. Integrity and contexts change over time, therefore any eligibility determination made ten (10) or more years from the date of the current survey are considered out of date and the property will need to be reassessed.

If you require a comprehensive assessment of a project's potential to impact archaeological sites or historic/architectural properties, you may need to hire a qualified archaeologist and/or historian. If you need assistance with a project review, please contact Kelly Gragg-Johnson, Environmental Review Specialist @ 651-201-3285 or by email at [kelly.graggjohnson@state.mn.us](mailto:kelly.graggjohnson@state.mn.us).

The Minnesota SHPO Archaeology and Historic/Architectural Survey Manuals can be found at <https://mn.gov/admin/shpo/identification-evaluation/>.

Given the Governor's implementation of [Stay Safe MN](#), SHPO staff will continue to work remotely and be available via [phone and email](#), and the SHPO office will be closed to visitors and unable to accommodate in-person research and deliveries. Mail is being delivered to the office via USPS, FedEx and UPS, however, staff have limited weekly access to sort and process mail. Our office will continue to take file search requests via [DataRequestSHPO@state.mn.us](mailto:DataRequestSHPO@state.mn.us). Check [SHPO's webpage](#) for the latest updates and we thank you for your continued patience.



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**From:** Jeremy Groskreutz <[Jeremy.Groskreutz@ISGInc.com](mailto:Jeremy.Groskreutz@ISGInc.com)>  
**Sent:** Friday, April 22, 2022 3:59 PM  
**To:** MN\_MNIT\_Data Request SHPO <[DataRequestSHPO@state.mn.us](mailto:DataRequestSHPO@state.mn.us)>  
**Subject:** Search Request

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SHPO,

I am in need of a database search of any archaeological, historical or architectural resources in the site of a proposed mine expansion. The site is located within Sections 8 & 17 of Kasota Township (T109N, R26W) in Le Sueur County, MN. I have attached a shapefile for your reference. Thank you for your assistance with this matter.



**Jeremy Groskreutz**  
Environmental Scientist  
*Employee Owner*

P 507.387.6651

E [Jeremy.Groskreutz@ISGInc.com](mailto:Jeremy.Groskreutz@ISGInc.com)

A 115 East Hickory Street + Suite 300 + Mankato, MN 56001

W [ISGInc.com](http://ISGInc.com)



# Appendix E – GHG Calculations



ISGHC Calculator

Version 0.1

Last Updated: 8/3/22

Project Name	Vetter Stone Company
Reviewer	Jeremy Groskreutz
Date	7/18/2024
State	MN
County	Le Sueur
Project Lifespan	100 Years

Emission Sources	Greenhouse Gases Emitted	CO2e TPY Emitted
Stationary Sources	-/-	-/-
Mobile Sources	CO2, CH4, and N2O	117.07
Off-Site Purchased Energy	CO2, CH4, and N2O	34.38
Purchased Steam/Heat	-/-	-/-
Waste Management	-/-	-/-
Purchased Gases	-/-	-/-

Mitigation Sources	Greenhouse Gases Mitigated	CO2e TPY Mitigated
Land-Use Mitigation	CO2	(423.90)
Renewable Energy Credits	-/-	-/-

Emissions - Mitigations =	Total CO2e TPY Emitted
	(272.45)

>25,000 TPY CO2e Emitted?	No
>100,000 TPY CO2e Emitted?	No

Emission Source	Project Phase	Emissions Scope
Stationary Sources	-/-	-/-
Mobile Sources	Operations	Scope-1
Off-Site Purchased Energy	Operations	Scope-2
Purchased Steam/Heat	-/-	-/-
Waste Management	-/-	-/-
Purchased Gases	-/-	-/-
Mitigation Source	Project Phase	Emissions Scope
Land-Use Mitigation	Operations	Scope-1-Sinks
Renewable Energy Credits	-/-	-/-

Known Gases Emitted	kg Emitted Yearly	Short Tons Emitted Yearly
CO2	136,118.52	150.05
CH4	5.67	0.01
N2O	3.79	0.00

Stationary Source Emissions

ID	Phase	Fuel Type	Generator Type	Hours Operated	Fuel Spent Daily	mmBtu Output
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

ID	Phase	kg CO2 Produced	kg CH4 Emitted	kg N2O Emitted	kg CO2e Daily	CO2e TPY
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

Federal Register EPA; 40 CFR Part 98; e-CFR, Table C-1, Table C-2 (as amended at 81 FR 89252, Dec. 9, 2016), Table AA-1 (78 FR 71965, Nov. 29, 2013).

<b>Total Stationary Source Emissions</b>	
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Mobile Source Emissions

ID	Phase	Vehicle Type	Fuel Type	Year	Yearly mi	MPG	Ga Used (Off-Road)
1	Op.	Heavy-Duty Vehicles	Diesel	2012	6,260.00	15	
2	Op.	Light-Duty Trucks	Gasoline	2012	6,260.00	25	
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

ID	# Veh.	kg CO2 Emitted	kg CH4 Emitted	kg N2O Emitted	kg CO2e Yearly	CO2e TPY
1	10	42,609.73	0.59	2.70	43,428.62	47.87
2	30	62,541.16	1.78	0.62	62,770.44	69.19
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

Total Mobile Source Emissions	117.07
-------------------------------	--------

Offsite Purchased Energy Emissions

eGRID Subregion	Yrly. Energy Usage	kg CO2e Emitted	kg CH4 Emitted	kg N2O Emitted
MROW (MRO West)	69.72	30,967.63	3.29	0.47

kg CO2e Emitted	CO2e TPY
31,191.15	34.38

Offsite Steam and Heat Emissions

mmBtu Purchased Yrly.	kg CO2 Emitted	kg CH4 Emitted	kg N2O Emitted	kg CO2e Emitted

CO2e TPY

Waste Management Emissions

ID	Waste Type	Disposal Method	Tons Disposed Yrly	CO2e TPY
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Total CO2e TPY

General/Refrigerative Gases

ID	Gas	Gas (lb)	GWP	CO2e (lb)	CO2e (Tons)
1					
2					
3					
4					
5					

100yr GWPs from IPCC 4th Assessment Report (AR4), 2007.

Blended Refrigerative Gases

ID	Gas	Gas (lb)	GWP	CO2e (lb)	CO2e (Tons)
1					
2					
3					
4					
5					

100yr GWPs from IPCC 4th Assessment Report (AR4), 2007.

Tot. CO2e TPY

Land-based Mitigation

ID	Restoration	Acreage	Sequest. Rate (Mton/Acre/Yr)	Total Seques. (Mton/Yr)	CO2e TPY
1	Grassland	152.00	2.53	384.56	423.90
2					
3					
4					
5					

Tot. CO2e TPY
423.90

Renewable Energy Credits

Credits Bought	eGrid Subregion	kg CO2 Mitigated	kg CH4 Mitigated	kg N2O Mitigated
	MROW (MRO West)			

kg CO2e Mitigated	CO2e TPY Mitig.