



ST. LOUIS COUNTY BOARD OF ADJUSTMENT STAFF REPORT

Case: 6275

INSPECTION DATE: 8-13-21

REPORT DATE: 8-23-21

MEETING DATE: 9-9-21

APPLICANT INFORMATION

APPLICANT NAME: City of Aurora, MN/Stephanie Dickinson, contact

APPLICANT ADDRESS: PO Box 160, Aurora, MN 55705

OWNER NAME: ST OF MN C278 L35

SITE ADDRESS: No Site Address

(The parcel has a site address of 5864 Voyageurs Trl. This site address is for the public water access.)

LEGAL DESCRIPTION: LOT 5 EX LAKE PORTION EMBARRASS MINE, S5 T58N, R15W (White)

PARCEL IDENTIFICATION NUMBER (PIN): 570-0021-00100

VARIANCE REQUEST: The applicant is requesting relief from St. Louis County Zoning Ordinance 62, Article III, Section 3.4, to allow a structure to be located at a reduced shoreline setback of a mine pit lake where 150 feet is required and Article VI, section 6.5 to allow an access road to be located at a reduced shoreline setback of a mine pit lake where 150 feet is required.

PROPOSAL DETAILS: The applicant requesting approval for a 400 square foot structure to be located at a shoreline setback of 75 feet from the shoreline of Lake Mine where 150 feet is required. This structure is associated with the raw water intake pump station for the new East Range Water Treatment Plant project.

The proposal also includes an access road to the building that is located approximately 30 feet from the shoreline. An access road is required to meet the principal structure setback if the lake classification on which it is located. Based on the lake classification of Lake Mine, the access road would need to be located 150 feet from the shoreline.

The purpose of the project is to provide drinking water for east range communities.

PARCEL AND SITE INFORMATION

ROAD ACCESS NAME/NUMBER: Lake Mine Rd. **ROAD FUNCTIONAL CLASS:** Private

LAKE NAME: Embarrass Pit (Lake Mine)

LAKE CLASSIFICATION: Mine Pit

RIVER NAME: N/A

RIVER CLASSIFICATION: N/A

DESCRIPTION OF DEVELOPMENT ON PARCEL: The property contains a public water access. The city of Biwabik also has water intake infrastructure on the parcel. The city of Biwabik's water intake project is separate from this proposal.

ZONE DISTRICT: IND 4

PARCEL ACREAGE: 21 ACRES

LOT WIDTH: 1,294 FEET

FEET OF ROAD FRONTAGE: 1,400 FEET

FEET OF SHORELINE FRONTAGE: 1,645 FEET

PARCEL AND SITE INFORMATION

VEGETATIVE COVER/SCREENING: The property is well vegetated with good screening from the shoreline.

TOPOGRAPHY: The property contains steep slopes in two terraces. The overall slope of the parcel is approximately 19 percent with the steepest slope being approximately 28 percent.

FLOODPLAIN ISSUES: The proposed structure would likely be located a minimum of 8 feet above the floodplain.

WETLAND ISSUES: It does not appear there are wetland issues on the parcel.

ADDITIONAL COMMENTS ON PARCEL: The public water access to Lake Mine is also located on this parcel.

FACTS AND FINDINGS

A. Official Controls:

1. Zoning Ordinance 62 states that the required shoreline setback for a mine pit lake is 150 feet; the applicant is requesting approval for a structure to be located 75 feet from the shoreline.
2. Zoning Ordinance 62 states that roads, driveways, and parking areas shall meet the principal structure shoreline setback of the lake classification they are located in; the applicant is requesting approval for an access road to be located 30 feet from the shoreline where 150 feet is required.
3. Goal LU-12.3 of the St. Louis County Comprehensive Land Use Plan is to work with county townships and cities to promote the use of tax forfeit lands.
 - a. This parcel is a tax forfeit parcel that is currently being used for a public water access.
 - b. The parcel is large and much if it is unused.
4. Mine pit lakes generally have a more restrictive shoreline setback because of the steep slopes that typically surround them.
 - a. This property does have some steep slopes, but the slopes tend to be more terraced than sheer drops like other mine pits.
 - b. There is a flatter area between 20 and 70 feet from the shoreline and then another flatter area from approximately 130 feet from the shoreline to the road.

B. Practical Difficulty:

1. There is a flat area at the required 150 foot shoreline setback that would be a suitable site for a structure.
 - a. The applicant indicated that the structure could be located here, but it would require additional excavation for the intake piping with proper vehicle access for construction and maintenance.
 - b. The applicant also indicated that there would be a significant construction cost and operational cost increase as associated with meeting the required 150 foot setback.
2. Although the slope on the property is considered steep, it is not a bluff.
 - a. The average slope in the area of the proposed structure is approximately 19.5 percent.
 - b. This is much less steep than most mine pits.

3. The location of the proposed access is in a flatter area between the steep slope near the shoreline and the steel slope located approximately 70 feet from the shoreline.

C. Essential Character of the Locality:

1. Much of the surrounding area is public land. The few private parcels in this area appear to be undeveloped.
2. Much of the area is well vegetated.
 - a. Lake mine is used for recreation and keeping as much screening as possible would be important to limit the visual effects of the structure from Lake Mine.
3. The city of Biwabik has similar infrastructure on the same parcel a few hundred feet to the east.
 - a. This project is also new, but no structure has been proposed at this point for the Biwabik project.

D. Other Factor(s):

1. The parcel that this project is located on is tax forfeit. The St. Louis County Lands and Minerals Department is requiring the project to go through the Planning and Community Development Department permitting process.
 - a. The Lands and Minerals Department has provided written authorization for the proposal on this site.
2. The applicant indicated that the proposed project would provide significant public benefit to the residents of the of the city of Aurora and the Town of White.
3. The applicant indicated that the proposed project would provide drinking water for these communities for decades.

See attachments: 1. Zoning/location map 2. Air photo 3. Site sketch 4. Project picture (if applicable) 5. Other pertinent pictures or maps

BOARD OF ADJUSTMENT CRITERIA FOR APPROVAL OF A VARIANCE

1. **Is the variance request in harmony with the general purpose and intent of official controls?**
2. **Has a practical difficulty been demonstrated in complying with the official controls?**
3. **Will the variance alter the essential character of the locality?**
4. **What, if any, other factors should be taken into consideration on this case?**

CONDITIONS

Conditions that may mitigate the variance for a structure and an access road to be located at a reduced shoreline setback of a mine pit lake where 150 feet is required as proposed, include but are not limited to:

1. Existing vegetative screening shall be maintained.
2. Stormwater and erosion control measures shall be implemented during the course of construction.
3. The color of the structure shall be unobtrusive earth toned colors, including siding, trim and roof.
4. The applicant shall obtain a land use permit for the proposed structure.

**ST. LOUIS COUNTY, MN
PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT**

Duluth

Government Services Center

320 West 2nd Street, Suite 301
Duluth, MN 55802
(218) 725-5000

VirginiaGovernment Services
Center

201 South 3rd Avenue West
Virginia, MN 55792
(218) 749-7103

VARIANCE REQUEST PERMIT APPLICATION

General - This application is used to apply for a Land Use Permit. Applicants will need to attach the appropriate worksheet(s) in order to process. Incomplete applications will be returned. Note that the 'clock' does not begin until after payment has been processed for the application. For more information, see our website at:

www.stlouiscountymn.gov/BuildingStructures

Enter the Primary PIN and Associated PIN (if applicable) of the property to be reviewed.

PIN is found on your Property Tax Statement. For example, 123-1234-12345. Primary PIN: Parcel where Structure/SSTS are located. Associated PIN: Additional and/or adjacent property that you own or that is related to the project.

County Land Explorer: <https://www.stlouiscountymn.gov/explorer>

Property Lookup: <http://apps.stlouiscountymn.gov/auditor/parcelInfo2005Iframe>

Primary PIN **570-0021-00100**

Associated PINs

Is this application being submitted for a Rehearing?

If this application is being submitted because a previous Variance Permit application was denied or disapproved, please select Yes.

No

Enter Applicant Information

I am a: **Other**
Applicant Name: **City of Aurora - Stefanie Dickinson**
Address Line 1: **PO Box 160**
Address Line 2: **--**
City: **Aurora**
State: **MN**
Zip: **55705**
Primary Phone: **(218)229-2614**
Cell Phone: **--**
Fax: **--**
Email: **stefanie@ci.aurora.mn.us**
Contact Person Name: **--**
Contact Person Phone: **--**

Mailing Address Information.

This address can default from the address you selected. If the values defaulted are not correct, please enter the correct information.

Same as Applicant address? **No**

Name: **Miles B Jensen, PE**
Address: **3535 Vadnais Center Dr**

City: **St. Paul**
State/Province: **MN**
Zip: **55110**
Primary Phone: **(651)775-5031**
Cell Phone: **--**
Fax: **--**
Email: **mjensen@sehinc.com**

Site Information

If there is no site address, the application will be forwarded to 911/Communications to assign one.

Is there a site address for this property? **No**

Site Address: **--**

Is this leased property? **Yes**

Leased From? **St. Louis County**

US Forest Service

US Forest Service
Superior National Forest
8901 Grand Avenue Place
Duluth, MN 55808

MN Power

MN Power
Shore Land Traditions
30 West Superior Street
Duluth, MN 55802

MN DNR, Area Hydrologist

MN DNR, Area Hydrologist
7979 Highway 37
Eveleth, MN 55734

MN DNR Land and Minerals

MN DNR Land and Minerals
1201 East Highway 2
Grand Rapids, MN 55744

St. Louis County - Duluth

St. Louis County - Duluth
Government Services Center
320 West 2nd Street, Suite 301
Duluth, MN 55802
(218) 725-5000

St. Louis County - Virginia

St. Louis County - Virginia
Land and Minerals
7820 Highway 135
Virginia, MN 55792
(218) 749-7103

Do you have written authorization from the leased property owner?

If Yes, you must attach written authorization form.

Yes

How is the property accessed?

Public Road

No

No

No

No

Enter Project Information.

If you answered 'Yes' to any of the questions below, it is required that you submit a copy of a septic permit to construct or certificate of compliance approval or municipal/sanitary district approval when applying for a land use permit.

Is this project on a parcel less than 2.5 acres?

No

Is this project within 300 feet of a stream/river or 1,000 feet of a lake?

Yes

Is this project adding a bedroom?

Include home, garage, and accessory dwelling.

No

Total # of bedrooms on property after project completion.

0

Does this project include plumbing or pressurized water in proposed structure?

Yes

If Yes, please explain:

Pump station for Water Treatment Plant

Is this project connected to a municipal or sanitary district system?

Yes

VARIANCE REQUEST WORKSHEET

A variance allows the use of property in a manner otherwise forbidden by a zoning ordinance by varying one or more of the performance standards such as lot size, setbacks, etc. Variances from official zoning controls are defined under Minnesota Statutes 394.27 and require the landowner to prove that the property could not otherwise be used or enjoyed in the proposed way by complying with ordinance requirements and that there will be no negative impact on surrounding properties.

It is advisable that you discuss your request with Planning and Community Development staff prior to submitting the application. Approval or denial of your request is dependent on the justification you provide in answering the questions on this application. For more information, please check our website at: www.stlouiscountymn.gov/VarianceRequired

VARIANCE REQUEST INFORMATION

Complete this form along with the Land Use Permit Application

What kind of variance request is this?

If this is a Variance After the Fact, you must answer additional questions below.

Variance Request

Describe what you are varying from and the situation that makes it difficult to comply with county ordinances.

If your proposal includes a structure, please also list the length, width and height of the structure.

St. Louis County Code requires structures to be built 150 ft away from the shoreline of mine pits. The City of Aurora is proposing to construct a raw water intake facility on Embarrass Lake (Lake Mine) for their proposed new municipal water treatment plant. The City of Aurora is requesting that they be allowed to site the facility 75 ft away from the shore. Placement of the building in this location will allow large

construction/maintenance/extraction vehicles to access it. Constructing this building 150 ft away from the shoreline will add approximately \$427,000 to project construction costs.

Describe the intended/planned use of the property.

Raw water intake pump station for the new East Range (Aurora and Town of White) Water Treatment Plant.

Describe the current use of your property.

The property is currently State tax forfeit land that is currently not being used. The City of Aurora is planning to lease from the County on a long-term basis. The Minnesota State Legislature just recently approved the City's plan for this long term lease as part of their East Range Water project.

Describe other alternatives, if any.

The alternative location for this building is 150 ft away from the shoreline, but will be much more costly to construct as additional excavation and intake piping is required with poorer construction vehicle access.

If approved, how will the proposed use, with the variance, fit into the character of the neighborhood/area?

The visible portion of the pump station structure will be a small, single-story pump house that sits back off the water with adequate distance so as not to be obtrusive or out of place. The lake side of the pump station site can be bermed so as to reduce the apparent profile of the building.

Describe how neighboring properties and the use of those properties will be impacted by the proposed use with the variance.

There will be limited effect on neighboring properties, as most properties near this location are either undeveloped or state land. There are no residents on the lake and very little lake traffic. Golfers on the 81th hole of the IRRRB Quarry golf course will not be able to see the structure as it is hidden from site by the general configuration of the lake shore between sites.

Describe how negative impact to the local environment and landscape will be avoided.

Less excavation and less intake pipe is required at this location than at the alternate.

Describe the expected benefits of a variance to use of this property.

Accessibility to the pump station will be increased, and required construction work decreased by siting the building at the proposed location. Raw water intake is shorter requiring less pumping power. Ultimately, a considerable saving in cost to the whole proposed East Range Water project.

Include additional comments that will clarify your request for the Planning and Community Development staff members and the Board of Adjustment.

The construction of the pump station does not negatively affect any nearby residents or landowners, as the surrounding areas are owned by the City. Locating the pump station closer to the shoreline will save the City of Aurora and Town of White residents significant costs by minimizing construction disturbances and reducing the overall scope and expense of the project.

IF YOU ARE RESPONDING TO A PERMIT VIOLATION, PLEASE ANSWER THESE ADDITIONAL QUESTIONS

Describe your reasons county zoning ordinance requirements were not followed.

--

Describe your effort to comply with the ordinance and to obtain a land use permit and/or other required permits.

--

Describe any substantial investments, construction and/or repairs made to the property before you discovered you needed a variance.

--

If there was construction or repair, on what date did it begin? What date did it end?

Start Date --

End Date --

Who performed the construction or repair work?

--

Was a survey of your property boundaries obtained?

--

Prior to the construction or repair work, did you speak with anyone from the Planning and Community Development Department?

--

By submitting this application, I certify and agree that I am the owner or the authorized agent of the owner of the above property, and that all uses will conform to the provisions of St. Louis County. I further certify and agree that I will comply with all conditions imposed in connection with the approval of the application. Applicants may be required to submit additional property descriptions, property surveys, site plans, building plans, and other information before the application is accepted or approved. **Intentional or unintentional falsification of this application or any attachments thereto will make the application, any approval of the application and any result invalid.** I authorize St. Louis County staff to inspect the property to review the application and for compliance inspections. Furthermore, by submitting this application, I release St. Louis County and its employees from any and all liability and claims for damages to person or property in any manner or form that may arise from the approval of the application or any related plans, the issuance of any resulting permit or the subsequent location, construction, alteration, repair, extension, operation or maintenance of the subject matter of the application.

If your name, contact information or email address have changed, you should update your contact information in the portal by selecting 'Maintain Contact Information' at the top of this page.

Submitted By: --

Address: --

City: --

State: --

Postal Code: --

Email Address: --

I have read and agree to the statement above.

No



Variance

Worksheet St. Louis County, Minnesota

About A variance allows the use of property in a manner otherwise forbidden by a zoning ordinance by varying one or more of the performance standards such as lot size, setbacks, etc.

Variances from official zoning controls are defined under Minnesota Statutes 394.27 and require the landowner to prove that the property could not otherwise be used or enjoyed in the proposed way by complying with ordinance requirements and that there will be no negative impact on surrounding properties.

It is advisable that you discuss your request with Planning and Community Development staff prior to submitting the application. Approval or denial of your request is dependent on the justification you provide in answering the questions on this application. For more information, check out our website at: www.stlouiscountymn.gov/VarianceRequired

APPLICANT

Applicant Name (Last, First)

City of Aurora, MN

VARIANCE REQUEST *Complete this form along with the Land Use Permit Application*

1. Describe what you are varying from and the situation that makes it difficult to comply with county ordinances?

St. Louis County Code requires structures to be built 150 ft away from the shoreline of mine pits. The City of Aurora is proposing to construct a raw water intake facility on Embarrass Lake (Lake Mine) for their proposed new municipal water treatment plant. The City of Aurora is requesting that they be allowed to site the facility 75 ft away from the shore. Placement of the building in this location will allow large construction/maintenance/extraction vehicles to access it. Constructing this building 150 ft away from the shoreline will add approximately \$427,000 to project construction costs.

2. Describe the intended/planned use of the property.

Raw water intake pump station for the new East Range (Aurora and Town of White) Water Treatment Plant. The planned facility is critical to the construction of the East Range Water project, which the Legislature on several occasions has taken funding and approval actions to encourage. The completed Project is anticipated to address the drinking water needs of the East Range communities for decades to come and thus serve an incredibly useful public purpose.

3. Describe the current use of your property.

The property is currently State tax forfeit land that is currently not being used. The City of Aurora is planning to lease from the County on a long-term basis. The Minnesota State Legislature just recently approved the City's plan for this long term lease as part of their East Range Water project.

4. Describe other alternatives, if any.

The alternative location for this building is 150 ft away from the shoreline, but will be much more costly to construct as additional excavation and intake piping is required with poorer construction vehicle access.

5. If approved, how will the proposed use, with the variance, fit into the character of the neighborhood/area?

The visible portion of the pump station structure will be a small, single-story pump house that sits back off the water with adequate distance so as not to be obtrusive or out of place. The land on the lake side of the pump station site can be bermed so as to reduce the apparent profile of the building.

6. Describe how neighboring properties and the use of those properties will be impacted by the proposed use with the variance.

There will be limited effect on neighboring properties, as most properties near this location are either undeveloped or state land. There are no residents on the lake and very little lake traffic. Golfers on the 18th hole of the IRRRB Quarry golf course will not be able to see the structure as it is hidden from site by the general configuration of the lake shore between sites.

7. Describe how negative impact to the local environment and landscape will be avoided.

Less excavation and less intake pipe is required at this location than at the alternate.

8. Describe the expected benefits of a variance to use of this property.

Accessibility to the pump station will be increased, and required construction work decreased by siting the building at the proposed location. Raw water intake is shorter requiring less pumping power. Ultimately, a considerable saving in cost to the whole proposed East Range Water project.

9. Include additional comments that will clarify your request for the Planning and Community Development staff members and the Board of Adjustment.

The construction of the pump station does not negatively affect any nearby residents or landowners, as the surrounding areas are owned by the City. Locating the pump station closer to the shoreline will save the City of Aurora and Town of White residents significant costs by minimizing construction disturbances and reducing the overall scope and expense of the project.

OFFICE USE ONLY

Principal Structures	Principal Structure Additions	Accessory Structures	Accessory Structures Additions	Other
<input type="checkbox"/> Shoreline Setback <input type="checkbox"/> Property Line Setback <input type="checkbox"/> Lot Width <input type="checkbox"/> Height Limit <input type="checkbox"/> 40% of Lot Width <input type="checkbox"/> 55% of Lot Width <input type="checkbox"/> Bluff <input type="checkbox"/> 2nd Principal Structure <input type="checkbox"/> % Lot Coverage <input type="checkbox"/> Road Centerline Setback <input type="checkbox"/> Road Right-of-Way Setback <input type="checkbox"/> Lot width and/or Area	<input type="checkbox"/> Shoreline Setback <input type="checkbox"/> Road Centerline Setback <input type="checkbox"/> Road Right-of-Way Setback <input type="checkbox"/> Property Line Setback <input type="checkbox"/> One Addition Allowed <input type="checkbox"/> Allowable Size Exceeded <input type="checkbox"/> 40% of Lot Width <input type="checkbox"/> 55% of Lot Width <input type="checkbox"/> Height Limit <input type="checkbox"/> Foundation from Lake <input type="checkbox"/> Lot width and/or Area	<input type="checkbox"/> Shoreline Setback <input type="checkbox"/> Road Centerline Setback <input type="checkbox"/> Road Right-of-Way Setback <input type="checkbox"/> Property Line Setback <input type="checkbox"/> Lot Width and/or Area <input type="checkbox"/> Height Limit <input type="checkbox"/> Allowable Size Exceeded <input type="checkbox"/> Bluff	<input type="checkbox"/> Shoreline Setback <input type="checkbox"/> Road Centerline Setback <input type="checkbox"/> Road Right-of-Way Setback <input type="checkbox"/> Property Line Setback <input type="checkbox"/> Allowable Size Exceeded <input type="checkbox"/> Height Limit <input type="checkbox"/> Lot width and/or Area	<input type="checkbox"/> Subdivision Plat <input type="checkbox"/> Exceeding Lot Coverage <input type="checkbox"/> Exceeding Maximum Buildable Area <input type="checkbox"/> Other Standard Not Listed (Explain below)

CONTACT: Planning and Community Development Department

Technical Assistance

Toll Free: 1-800-450-9777

Land Use Information

www.stlouiscountymn.gov/land-use

Duluth

Government Services Center
320 West 2nd Street,
Suite 301
Duluth, MN 55802
(218) 725-5000

Virginia

Government Services Center
201 South 3rd Avenue West
Virginia, MN 55792
(218) 749-7103

Office Use Only

Receipt # _____

Receipt Date _____

Payment Amount _____

Paid By _____



Land Use Permit

APPLICATION St. Louis County, Minnesota

Permit #

Permit #

About: This application is used to apply for a Land Use Permit. Applicants will need to attach the appropriate worksheet(s) in order to process. For more information, see our website at: www.stlouiscountymn.gov/land-use

PROPERTY IDENTIFICATION NUMBER (PIN) PIN is found on your Property Tax Statement

*Primary PIN	5	7	0	-	0	0	2	1	-	0	0	1	0	0	Associated PIN				-											
Associated PIN				-					-						Associated PIN				-											

E.g. 123-1234-12345. Primary PIN: Parcel where Structure/SSTS are located. Associated PIN: Additional and/or adjacent property that you own or that is related to the project.
County Land Explorer: <https://gis.stlouiscountymn.gov/landexplorer/> Property Lookup: <http://apps.stlouiscountymn.gov/auditor/parcelInfo2005Iframe/>

APPLICANT

*Applicant Name	City of Aurora - Stefanie Dickinson		I am a...	<input type="checkbox"/> Contractor	<input type="checkbox"/> Homeowner	<input checked="" type="checkbox"/> Other	*Daytime #	218-229-2614		Date	7/16/21			
*Applicant Address <small>Where to send permit.</small>	PO Box 160					*City	Aurora		*State	MN		*ZIP	55705	
Applicant Email	stefanie@ci.aurora.mn.us													
Contact Person <small>If applicable.</small>	Miles B. Jensen, PE					Contact Person #	651.775.5031							
Mailing Address <small>If different than above.</small>	3535 Vadnais Center Drive					City	St. Paul		State	MN		ZIP	55110	
Email Address <small>Where to email permit. Providing an email address will expedite the time in which a permit is received by an applicant.</small>	mjensen@sehinc.com													

SITE INFORMATION

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	*Is there a site address for this property? (If no, the application will be forwarded to 911/Communications to assign one.)
If yes above, please list site address:		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	*Is this leased property? If yes, leased from: <input type="checkbox"/> MN Power <input type="checkbox"/> MN DNR <input type="checkbox"/> US Forest Service <input checked="" type="checkbox"/> St. Louis County <input type="checkbox"/> Other
<input type="checkbox"/> Yes	<input type="checkbox"/> No	*Do you have written authorization from the leased property owner? If yes, you must attach written authorization form.
*How is the property accessed? <input checked="" type="checkbox"/> Public Road <input type="checkbox"/> Private Road <input type="checkbox"/> Easement <input type="checkbox"/> Water <input type="checkbox"/> Other		

PROJECT INFORMATION

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	*Is this project on a parcel less than 2.5 acres?
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	*Is this project within 300 feet of a stream/river or 1,000 feet of a lake?
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	*Is this project adding a bedroom? Include home, garage, & accessory dwelling.
#	0	*Total # of bedrooms on property after project completion. Include home, garage, & accessory dwelling.
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	*Does this project include plumbing or pressurized water in proposed structure? If yes, please explain: Pump station for Water Treatment Plant
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	*Is the property connected to a municipal or sanitary district system?

If you answered "Yes" to any of the project information questions above, it is required that you submit a copy of a septic permit to construct or certificate of compliance approval or municipal/sanitary district approval when applying for a land use permit.

AGREEMENT

By submitting this application, I certify and agree that I am the owner or the authorized agent of the owner of the above property, and that all uses will conform to the provisions of St. Louis County. I further certify and agree that I will comply with all conditions imposed in connection with the approval of the application. Applicants may be required to submit additional property descriptions, property surveys, site plans, building plans and other information before the application is accepted or approved. **Intentional or unintentional falsification of this application or any attachments thereto will make the application, any approval of the application and any resulting permit invalid.** I authorize St. Louis County staff to inspect the property to review the application and for compliance inspections. Furthermore, by submitting this application, I release St. Louis County and its employees from any and all liability and claims for damages to person or property in any manner or form that may arise from the approval of the application or any related plans, the issuance of any resulting permit or the subsequent location, construction, alteration, repair, extension, operation or maintenance of the subject matter of the application.

***Indicates required field. Incomplete applications will be returned.**



Land Use Permit

WORKSHEET St. Louis County, Minnesota

About: Land Use Permits are required for most building construction activities. They are also required for a variety of other uses. For more information, check out our website at: www.stlouiscountymn.gov/land-use

WHAT ARE YOU APPLYING FOR *Check all that apply to the project.* **PLEASE MAKE CHECKS TO: ST. LOUIS COUNTY AUDITOR**

#1 New Buildings Less than/equal to 1,200 square feet-\$160 Greater than 1,200 square feet-\$315

☐ Dwelling-Home, Mobile Home, Hunting Shack, or Cabin. (Includes attached deck, if applicable.)

☐ Replacement of Existing Dwelling-Home, Mobile Home, Hunting Shack, or Cabin.
Will the old dwelling be removed from the property? ☐ Yes ☐ No

If yes, an affidavit must be filled out stating when the old dwelling will be removed.

If this dwelling is a mobile home, there is a special mobile home affidavit to be filled out.

☐ Accessory Dwelling-Guest cottage or bunkhouse. Must follow administrative standards.

☐ Accessory Structure- Garage, Pole Building, shed, sauna, screenhouse or gazebo that either meets lake or river setback or not located in a shoreland area.

☐ Water-oriented Accessory Structure- Boathouse, Sauna, Screenhouse/gazebo on a lake or river located at reduced shoreline setback. Must follow administrative standards.

☐ Commercial Structure

☒ Other Principal Structure

#2 Other Construction/Change in Use-\$80

☐ Addition(s) to Dwelling
Is the dwelling location on a lake or river? ☐ Yes ☐ No
If Yes above, does the structure meet the required shoreline setback? ☐ Yes ☐ No If No, structure does not meet the shoreline setback, a performance standard permit or variance may be required. See box #4 or #7.

☐ Addition(s) to Accessory Structure
☐ New Deck Only or Deck Replacement
☐ Combination Addition(s) & Deck on the same structure
☐ Moving a Structure
☐ Sign
☐ Structure Alteration or Component Replacement
☐ Change in Use (i.e. converting an old cabin to storage)

What will the new use of the structure be?
Explain the current and proposed use.
Current: _____ Proposed: _____

Other-\$55

☐ Permit extension beyond 2 years

#3 Subdivisions/Parcel Reviews Additional Worksheets Required

☐ Plat-Minor Subdivision-\$630
☐ Conventional Plat-Less than or equal to 3 lots-\$630
☐ Conventional Plat-Greater than 3 Lots-\$1,260
☐ Conservation Plat-\$1,260
☐ Lot Line Adjustment-\$80
☐ Parcel Review-\$80
☐ Performance Standard Subdivision-\$370

#4 Performance Standard-\$370

Additional Worksheets Required

☐ Borrow/Gravel Pit
☐ Home Business
☐ Land Alteration
☐ Nonconforming Structure Replacement
☐ Addition to a structure that does not meet shoreline setback
☐ Other

#5 Site Evaluation

☐ Site Visit/Evaluation-\$160

#6 Wetland Reviews

Additional Worksheets Required

☐ No Loss/Exemption/Replacement Plan-\$160
☐ Wetland Delineation Review-\$370
☐ Wetland Banking Plan Review-\$1,100

#7 Public Hearings

Additional Worksheets Required

☐ Administrative Appeal-\$1,100
☐ Environmental Assessment-\$1,100
☐ Conditional Use Permit-\$630
☐ Conditional Use Permit Rehearing-\$200
☐ Interim Use Permit-\$630
☐ Interim Use Permit Rehearing-\$200
☐ General Purpose Borrow Pit-\$630
☒ Variance-\$630
☐ Variance Rehearing-\$200
☐ Multiple Hearing (Variance/conditional use)-\$950

TYPE OF PROPOSED STRUCTURES

Check all that apply to the project.

<input checked="" type="checkbox"/> New Structure(s)	*Structure Type (Same as box #1 or 2 above)	*Foundation Type (Basement, Slab, Pier, etc)	*Maximum Length (Exterior Footprint Only)	*Maximum Width (Exterior Footprint Only)	*Maximum Sq. ft (Exterior footprint only)	*Maximum Height (Ground Level to Roof Peak)
	Other		20 Feet	20 Feet	400 Sq. ft.	15 Feet
			Feet	Feet	Sq. ft.	Feet
			Feet	Feet	Sq. ft.	Feet
<input type="checkbox"/> Structure Additions	*Structure Type (Same as box #2 above)	*Foundation Type (Basement, Slab, Pier, etc)	*Maximum Length (Exterior Footprint Only)	*Maximum Width (Exterior Footprint Only)	*Maximum Sq. ft (Exterior footprint only)	*Maximum Height (Ground Level to Roof Peak)
			Feet	Feet	Sq. ft.	Feet
			Feet	Feet	Sq. ft.	Feet
			Feet	Feet	Sq. ft.	Feet

*Indicates required field. Incomplete applications will be returned.

CONTACT: Planning and Community Development Department

Technical Assistance

Toll Free: 1-800-450-9777

Land Use Information

www.stlouiscountymn.gov/land-use

Duluth

Government Services Center

320 West 2nd Street, Suite 301

Duluth, MN 55802

(218) 725-5000

Virginia

Government Services Center

201 South 3rd Avenue West

Virginia, MN 55792

(218) 749-7103

Office Use Only

Receipt # _____

Receipt Date _____

Payment Amount _____

Paid By _____

Site Sketch Form

The sketch is to graphically illustrate your proposed project(s)

Draw and Label on Sketch (in feet)

- ☐ *All Structures on the Property and Dimensions
- ☐ *All Driveways, Access Roads, and Wetlands
- ☐ *All Proposed Structures and Dimensions

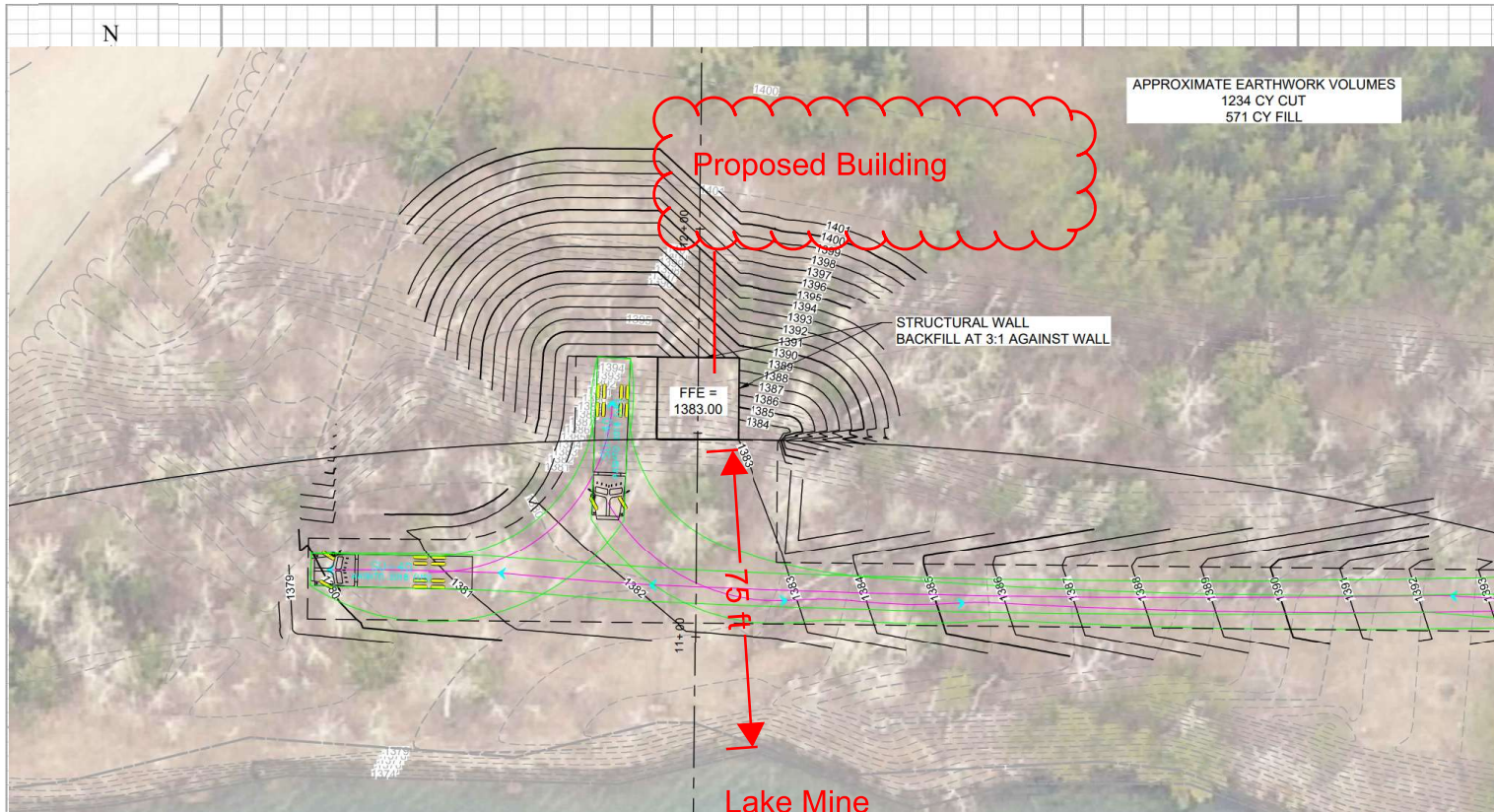
- ☐ *Distance of Proposed Structures to Shoreline (Closest Point)
- ☐ *Distance of Proposed Structures to Septic System and Tank
- ☐ *Distance of Proposed Structures to Property Lines
- ☐ *Distance of Proposed Structures to Road Centerline and Right-of Ways

You may submit your own site sketch **IF it has the required information indicated above.**

*Applicant Name: East Range Water Board

*Site Address: N/A

*PIN: 570-0021-00100



Sanitary Authority Use Only

Sanitary Review: (To be determined by appropriate sanitary authority.)

Will the proposal, as shown above, negatively impact the SSTS/sanitary line or replacement area? ☐ Yes ☐ No

Sign off:

Signature _____

Title _____



Building a Better World
for All of Us®

SITE EVALUATION MEMORANDUM

TO: City of Aurora/Town of White Joint Water Committee

FROM: Miles Jensen (Lic AZ, CO, IA, IL, IN, MD, MI, MN, ND, NE, NM, OH, SD, VA, WI)

DATE: June 25, 2021

RE: East Range Joint Water Treatment Plant
SEH No. 159723 14.00

This memorandum provides a brief summary of our analysis of an alternate raw water intake site located on Lake Mine (Embarrass Lake), east of the existing boat landing. Based upon the findings of our analysis, SEH recommends that the City of Aurora/Town of White Joint Water Committee select this easterly site as their preferred site for the proposed raw water intake. From perspectives of both project cost and apparent constructability, it appears that this easterly site location is superior to Site 4A. To reach this conclusion, our analysis included a site visit with City of Aurora/Town of White (COA/TOW) operations staff, preliminary layout of the proposed site, incorporation of plan sheet information from the Biwabik intake project, and communications with St. Louis County (County) on setback opportunities.

SITE LOCATION

The raw water intake site is located on Lake Mine (Embarrass Lake) in Aurora, MN. The specific location is St. Louis County parcel ID No. 570-0021-001000. It is located just east of the boat landing off of Mine Lake Rd and is the most easterly intake option. Attached is a water system map showing the proposed raw water main and the proposed intake alternate site (Appendix A).

SITE DESIGN

This site was designed with construction and vehicle access in mind as well as overall fit for the project. An access driveway was constructed to the Biwabik raw water intake in 2020. A portion of this driveway could be used for the proposed COA/TOW intake site access. Preliminary site design of the proposed intake are attached to this memo along with plan information from the Biwabik raw water intake project.

Current County code requires structures be placed 150 feet back from the shoreline. From a conversation with the County, SEH was told that the County would likely grant a variance to locate the raw water intake pump station (RWPS) a distance 75 feet from the current water's edge. This information was used in development of the preliminary site layout. By placing the RWPS in this location, adequate access large pump extraction vehicles is supported. The site at this location requires only moderate excavation to reduce the ultimate caisson depth to approximately 63 feet. This compares similar with Site 4A. Along with the site plan, two sections, or profiles have been prepared to illustrate the proposed access road and the estimated earth work. The pump house would sit at elevation 1383 feet, while the bottom of the caisson would be set at 1324 feet. The intake pipe at this site location is significantly shorter than that considered for Site 4A.

Engineers | Architects | Planners | Scientists

Short Elliott Hendrickson Inc., 615 9th Street North, Virginia, MN 55792-3761

218.741.4284 | 888.908.8166 fax | sehinc.com

SEH is 100% employee-owned | Affirmative Action–Equal Opportunity Employer

RAW WATER INTAKE

A 20' x 20' pump house will be constructed with a 12-foot diameter caisson shaft with estimated depth of 63 feet. At the bottom of the caisson shaft will be an 18" horizontal intake pipe extending into Lake Mine. The intake pipe will be set at elevation 1324 feet. The current water level is 1374 feet, with an estimated low water level of 1339 feet. The intake pipe is to be set low enough to avoid interference with typical boat activities. A water system map is attached showing the proposed raw water transmission from the pump house to the proposed new WTP.

COST ESTIMATE

An updated cost estimate is attached that compares Site 4A with the proposed easterly site. As is apparent, the proposed easterly site offers an estimated \$427,000 lower cost of development than does Site 4A.

JB/MJ

Enclosures

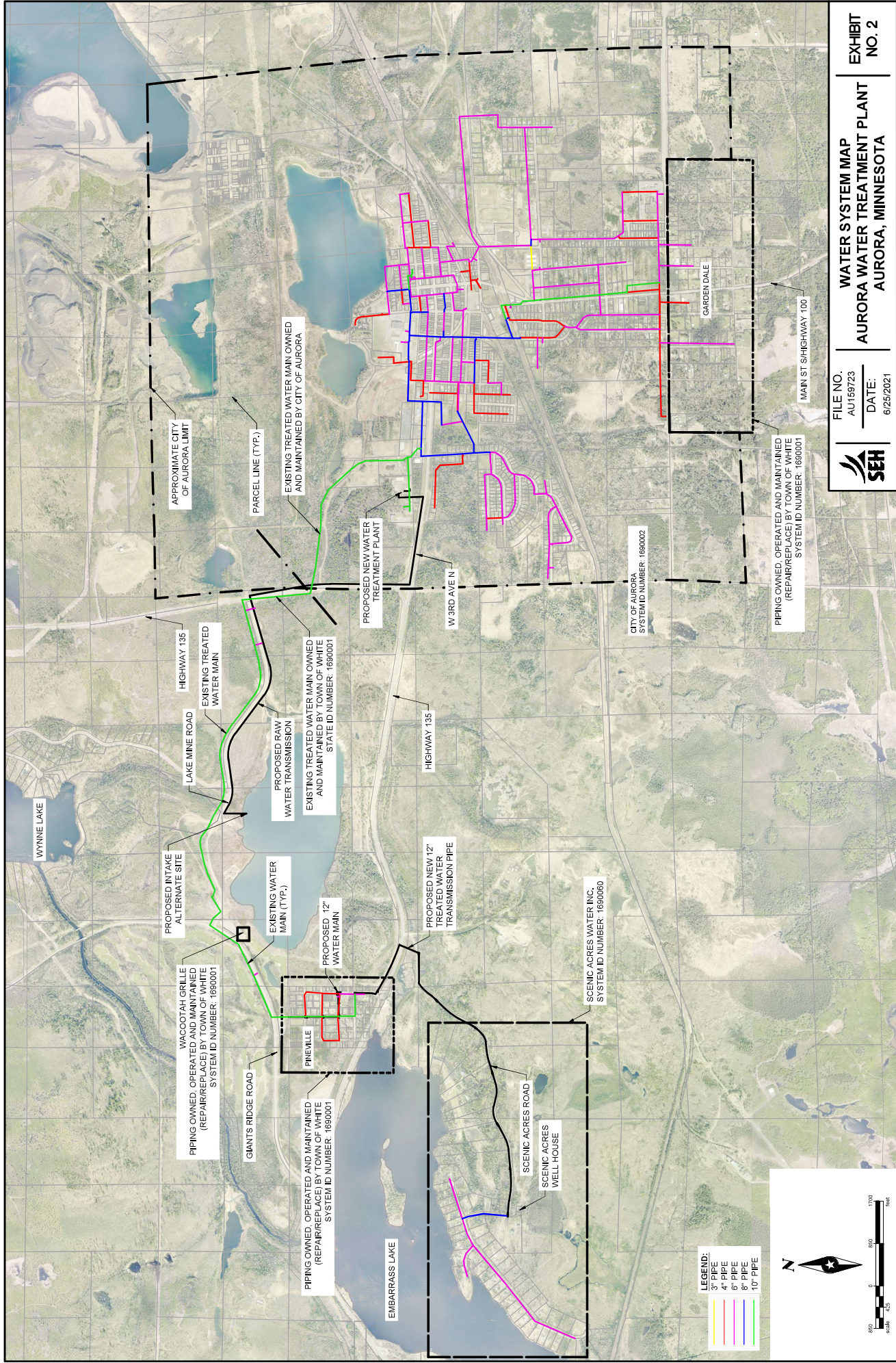
c: Todd Koneczny
Kevin Young
Jon Boggio
Celina Tragesser
Ellie Lemke
Dan Hinzmann
Alex Popp

Memorandum

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APPENDIX A – WATER SYSTEM MAP

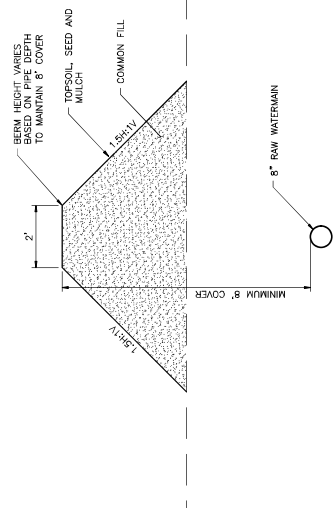
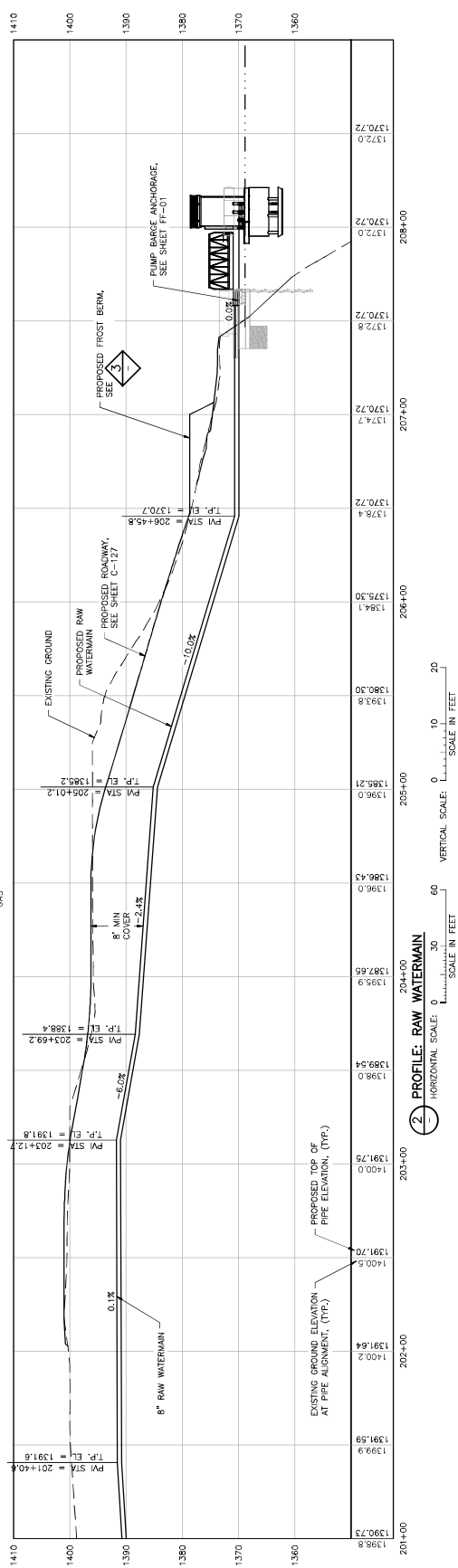
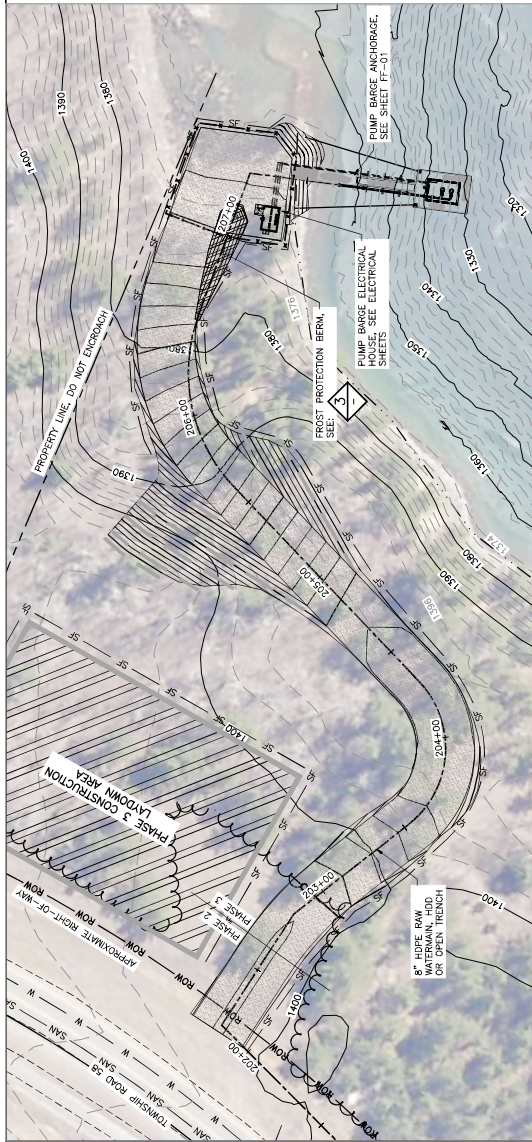


Memorandum

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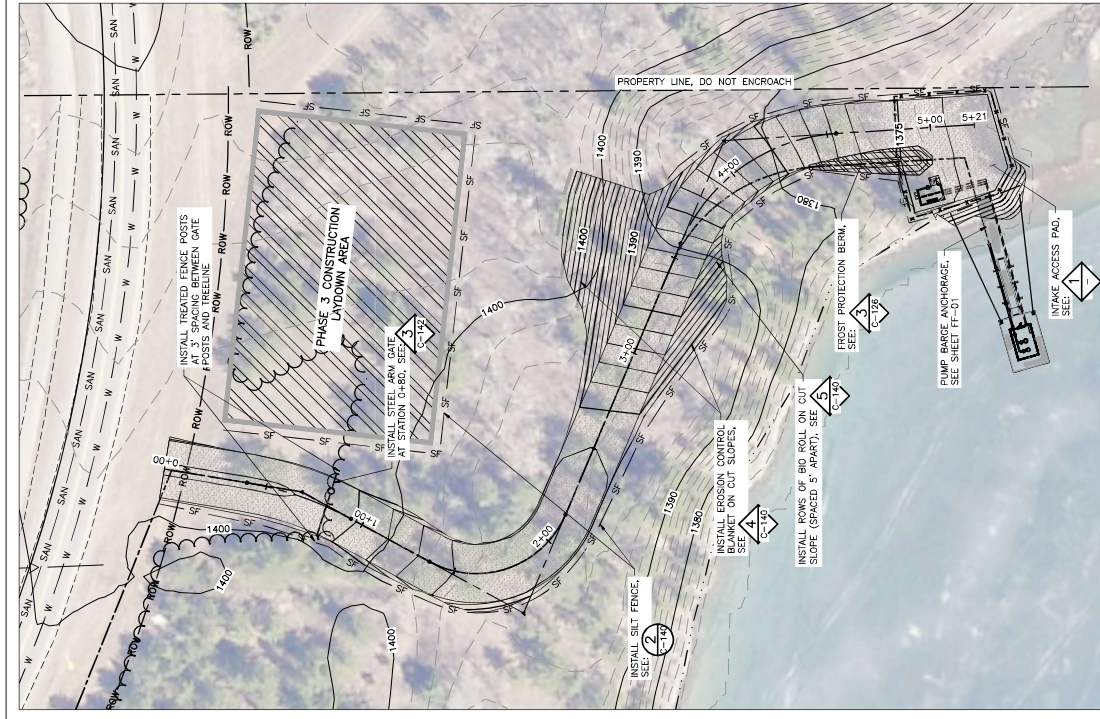
APPENDIX B – BIWABIK RAW WATER INTAKE PLANS



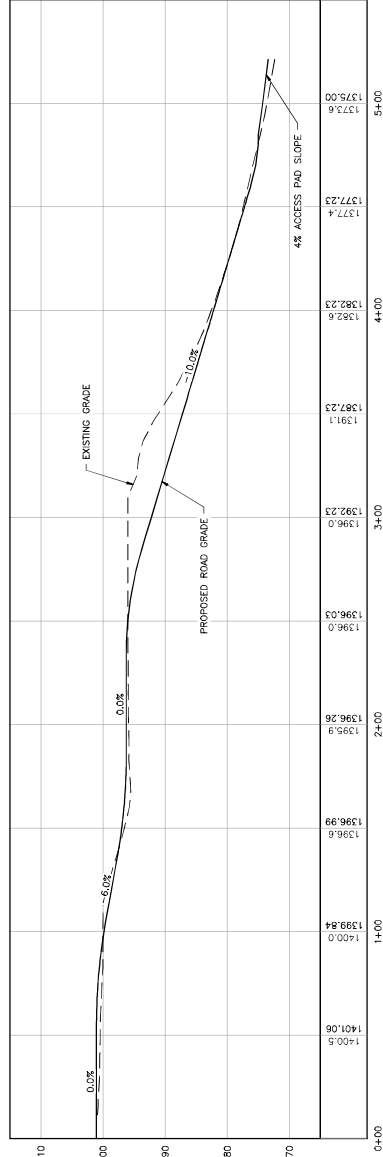
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**ISSUED FOR
REVIEW**

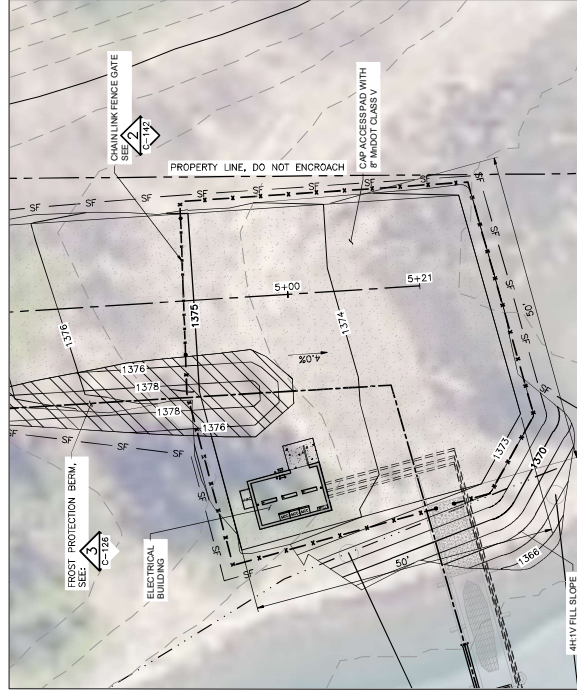
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1 PLAN: ACCESS ROAD



1 PROFILE: ACCESS ROAD



1 DETAIL: INTAKE ACCESS PAD

- LEGEND
- PROPOSED RAW WATERMAN
 - EXISTING SANITARY MANHOLE
 - PROPOSED FLUSHING HYDRANT
 - EXISTING STORM CATCHBASIN
 - PROPOSED AIR RELIEF MANHOLE
 - EXISTING POWER POLE
 - PROPOSED SILT FENCE
 - EXISTING SILT FENCE
 - EXISTING WATERLINE
 - EXISTING STORM
 - EXISTING GAS
 - EXISTING UNDERGROUND TELEPHONE
 - EXISTING SANITARY SEWER FOREMAN
 - EXISTING SANITARY SEWER
 - EXISTING FENCELINE

ISSUED FOR REVIEW

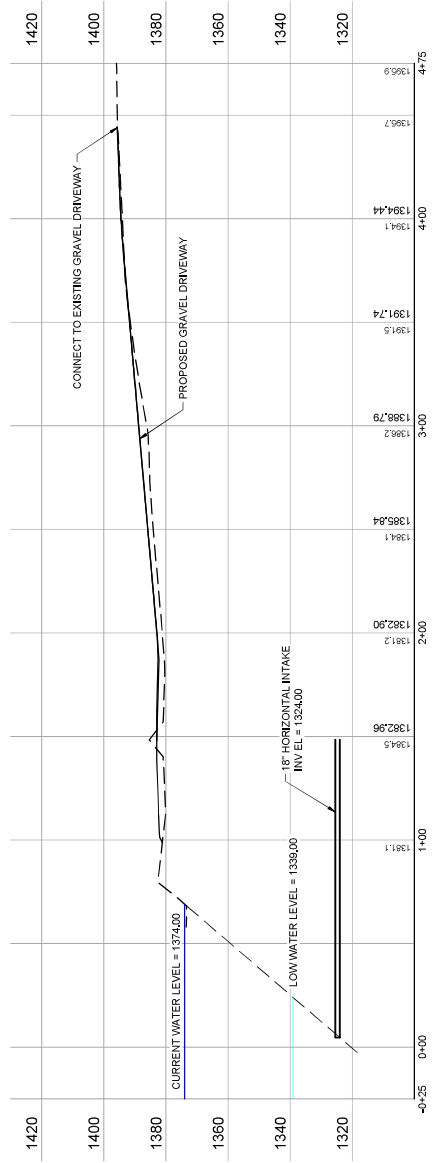
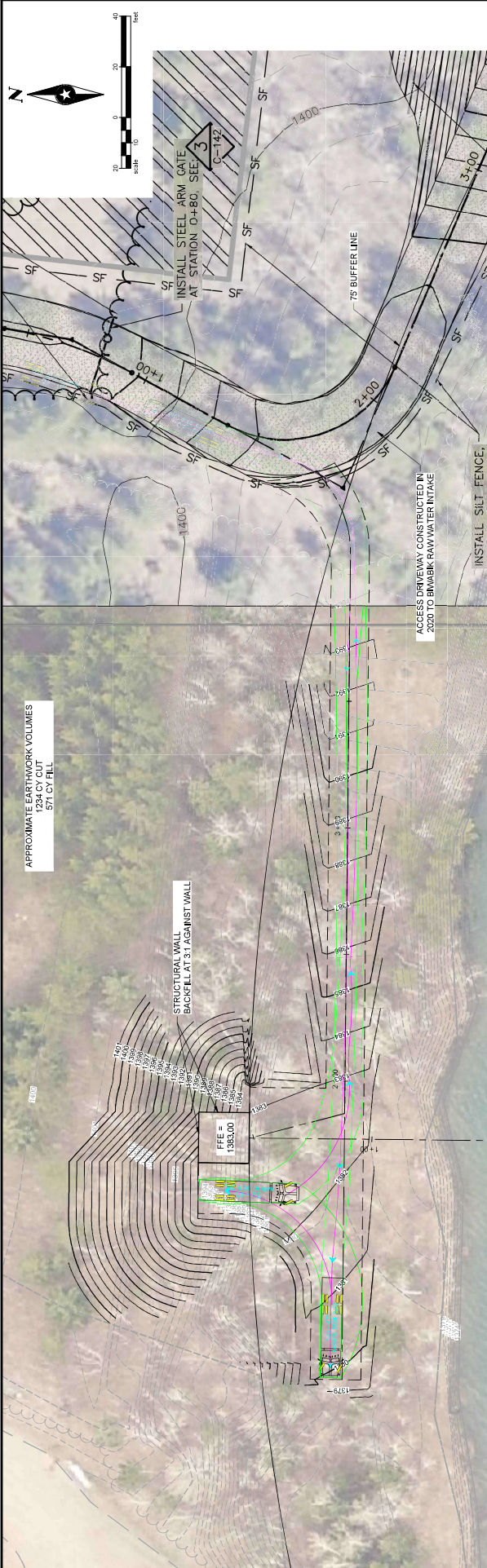
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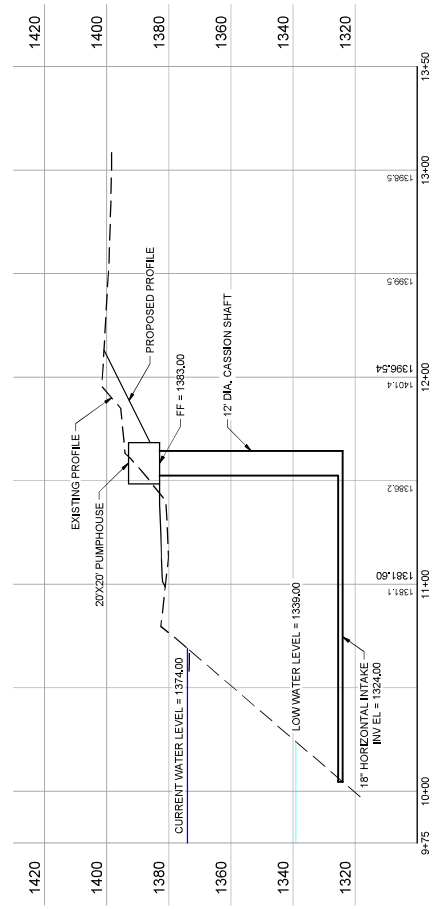
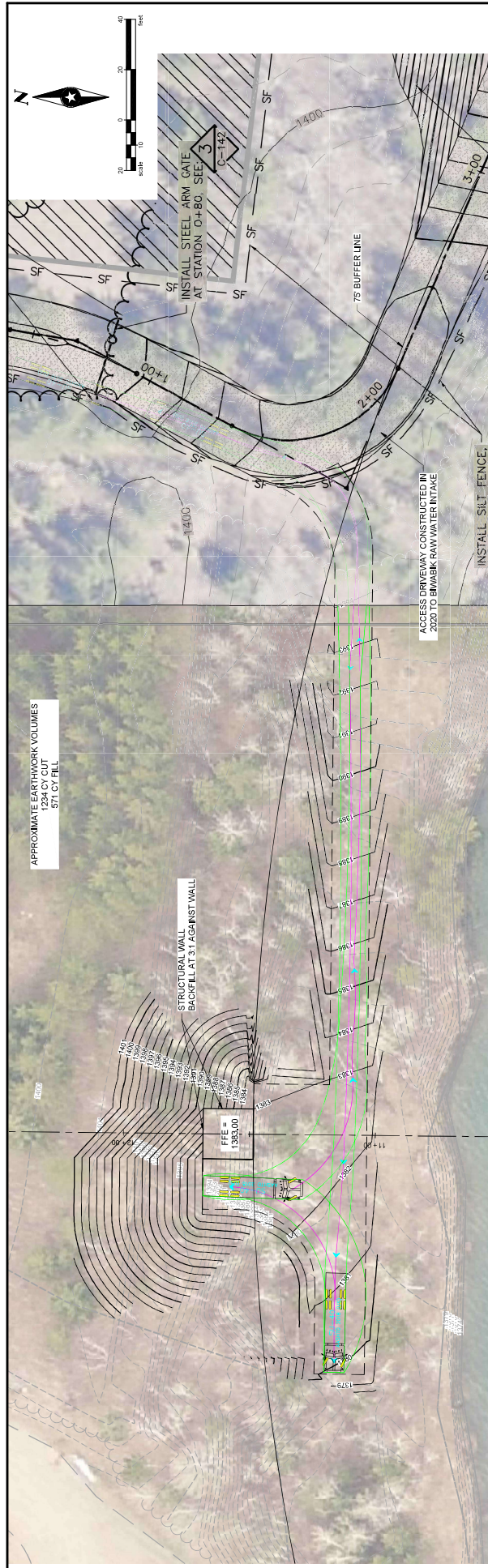
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APPENDIX C – RAW WATER INTAKE PROFILE



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Memorandum

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APPENDIX D – COST ESTIMATE

Aurora Raw Water Intake Sites

Aurora, MN

SEH NO. AUROR 159723



PRELIMINARY OPINION OF PROBABLE COST SITE 4

ITEM NO.	ITEM DESCRIPTION	UNIT OF MEASUREMENT	APPROXIMATE QUANTITY	UNIT PRICE	COST
1	DEWATERING	LUMP SUM	1	\$10,000.00	\$10,000.00
2	MOBILIZATION, DEMOBILIZATION AND CONTRACTOR O,H & P	LUMP SUM	1	\$417,166.33	\$417,166.33
3	TRAFFIC CONTROL	LUMP SUM	1	\$5,000.00	\$5,000.00
4	ROCK DITCH CHECK	EACH	14.00	\$250.00	\$3,500.00
5	SILT FENCE, TYPE HEAVY DUTY	LIN FT	2,000.00	\$4.00	\$8,000.00
6	ROCK CONSTRUCTION ENTRANCE	EACH	1.00	\$1,500.00	\$1,500.00
7	BIOROLL	LIN FT	300.00	\$5.00	\$1,500.00
8	CLEARING	ACRE	6.00	\$5,000.00	\$30,000.00
9	GRUBBING	ACRE	6.00	\$5,000.00	\$30,000.00
10	COMMON EXCAVATION (P)	CU YD	320.00	\$20.00	\$6,400.00
11	ROCK EXCAVATION (P)	CU YD	50.00	\$80.00	\$4,000.00
12	COMMON BORROW	CU YD	350.00	\$20.00	\$7,000.00
13	AGGREGATE BASE (CV) CLASS 5	CU YD	592.59	\$45.00	\$26,666.67
14	GEOTEXTILE FABRIC V	SQ YD	1,800.00	\$6.00	\$10,800.00
15	TYPE SP 9.5 WEARING COURSE MIXTURE (3,B)	TON	50	\$85.00	\$4,250.00
16	TYPE SP 12.5 WEARING COURSE MIXTURE (3,B)	TON	50	\$80.00	\$4,000.00
17	BITUMINOUS MATERIAL FOR TACK COAT	GAL	33	\$5.00	\$166.67
18	GUARD RAIL	LIN FT		\$150.00	\$0.00
19	CONCRETE RETAINING WALL	SQ FT		\$100.00	\$0.00
20	12" HDPE DUAL WALL CULVERT PIPE	LIN FT	30.00	\$35.00	\$1,050.00
21	12" PIPE APRON	EACH	2.00	\$350.00	\$700.00
22	8" PVC PIPE SEWER SDR 26	LIN FT		\$60.00	\$0.00
23	6" PVC PIPE SEWER SDR 26	LIN FT		\$55.00	\$0.00
24	SANITARY MANHOLE	EACH		\$5,000.00	\$0.00
25	CONNECT INTO EXISTING MANHOLE (8" CORE DRILL)	EACH		\$3,000.00	\$0.00
26	8" X 6" PVC WYE	EACH		\$500.00	\$0.00
27	TELEWISE SANITARY SEWER	LIN FT		\$2.00	\$0.00
28	12" WATER MAIN - RAW WATER	LIN FT	10,771.20	\$150.00	\$1,615,680.00
29	8" WATER MAIN - DUCT IRON CL 52	LIN FT		\$75.00	\$0.00
30	6" WATER MAIN - DUCT IRON CL 52	LIN FT	110.00	\$55.00	\$6,050.00
31	HYDRANT	EACH	11.00	\$5,000.00	\$55,000.00
32	8" GATE VALVE AND BOX	EACH		\$3,000.00	\$0.00
33	6" GATE VALVE AND BOX	EACH	13.00	\$2,000.00	\$26,000.00
34	CONNECT TO EXISTING WATER MAIN	EACH		\$2,500.00	\$0.00
35	1" CORPORATION STOP	EACH		\$500.00	\$0.00
36	1" CURB STOP AND BOX	EACH		\$500.00	\$0.00

Aurora Raw Water Intake Sites

Aurora, MN

SEH NO. AUROR 159723



PRELIMINARY OPINION OF PROBABLE COST SITE 4

ITEM NO.	ITEM DESCRIPTION	UNIT OF MEASUREMENT	APPROXIMATE QUANTITY	UNIT PRICE	COST
37	1" TYPE K COPPER PIPE	LIN FT		\$50.00	\$0.00
38	4" INSULATION	SQ YD		\$40.00	\$0.00
39	WATER MAIN FITTINGS	POUND	1,400.00	\$25.00	\$35,000.00
40	TRACER WIRE LOCATE BOXES	EACH	13.00	\$250.00	\$3,250.00
41	TOPSOIL BORROW (LV)	CU YD	350.00	\$45.00	\$15,750.00
42	HYDROSEEDING	ACRE	6.00	\$5,000.00	\$30,000.00
43	EROSION CONTROL BLANKET	SQ YD	900	\$6.00	\$5,400.00
44	PUMPING STATION	LUMP SUM	1	\$550,000.00	\$550,000.00
45	POWER TO SITE AND GENERATOR	LUMP SUM	1	\$100,000.00	\$100,000.00
46	HORIZONTAL INTAKE (BASE)	LUMP SUM	1	\$300,000.00	\$300,000.00
47	HORIZONTAL INTAKE	LIN FT	500	\$1,000.00	\$500,000.00
48	CASSION DEPTH	LIN FT	60	\$12,500.00	\$750,000.00
49	CASSION OVER DEPTH	LIN FT	1	\$25,000.00	\$25,000.00
SUBTOTAL - CONSTRUCTION					\$4,588,829.67

Aurora Raw Water Intake Sites

Aurora, MN

SEH NO. AUROR 159723



PRELIMINARY OPINION OF PROBABLE COST SITE EAST OF THE BOAT LANDING

ITEM NO.	ITEM DESCRIPTION	UNIT OF MEASUREMENT	APPROXIMATE QUANTITY	UNIT PRICE	COST
1	DEWATERING	LUMP SUM	1.0	\$10,000.00	\$10,000.00
2	MOBILIZATION, DEMOBILIZATION AND CONTRACTOR O,H & P	LUMP SUM	1.0	\$378,308.88	\$378,308.88
3	TRAFFIC CONTROL	LUMP SUM	1.0	\$5,000.00	\$5,000.00
4	ROCK DITCH CHECK	EACH	0.0	\$250.00	\$0.00
5	SILT FENCE, TYPE HEAVY DUTY	LIN FT	2500.0	\$4.00	\$10,000.00
6	ROCK CONSTRUCTION ENTRANCE	EACH	1.0	\$1,500.00	\$1,500.00
7	BIOROLL	LIN FT	300.0	\$5.00	\$1,500.00
8	CLEARING	ACRE	3.5	\$5,000.00	\$17,500.00
9	GRUBBING	ACRE	3.5	\$5,000.00	\$17,500.00
10	COMMON EXCAVATION (P)	CU YD	1234.0	\$20.00	\$24,680.00
11	ROCK EXCAVATION (P)	CU YD	50.0	\$80.00	\$4,000.00
12	COMMON BORROW	CU YD	571.0	\$20.00	\$11,420.00
13	AGGREGATE BASE (CV) CLASS 5	CU YD	703.7	\$45.00	\$31,666.67
14	GEOTEXTILE FABRIC V	SQ YD	2200.0	\$6.00	\$13,200.00
15	TYPE SP 9.5 WEARING COURSE MIXTURE (3,B)	TON	50.0	\$85.00	\$4,250.00
16	TYPE SP 12.5 WEARING COURSE MIXTURE (3,B)	TON	50.0	\$80.00	\$4,000.00
17	BITUMINOUS MATERIAL FOR TACK COAT	GAL	33.3	\$5.00	\$166.67
18	GUARD RAIL	LIN FT		\$150.00	\$0.00
19	CONCRETE RETAINING WALL	SQ FT		\$100.00	\$0.00
20	12" HDPE DUAL WALL CULVERT PIPE	LIN FT		\$35.00	\$0.00
21	12" PIPE APRON	EACH		\$350.00	\$0.00
22	8" PVC PIPE SEWER SDR 26	LIN FT		\$60.00	\$0.00
23	6" PVC PIPE SEWER SDR 26	LIN FT		\$55.00	\$0.00
24	SANITARY MANHOLE	EACH		\$5,000.00	\$0.00
25	CONNECT INTO EXISTING MANHOLE (8" CORE DRILL)	EACH		\$3,000.00	\$0.00
26	8" X 6" PVC WYE	EACH		\$500.00	\$0.00
27	TELEWISE SANITARY SEWER	LIN FT		\$2.00	\$0.00
28	16" WATER MAIN - RAW WATER	LIN FT	9820.8	\$150.00	\$1,473,120.00
29	8" WATER MAIN - DUCT IRON CL 52	LIN FT		\$75.00	\$0.00
30	6" WATER MAIN - DUCT IRON CL 52	LIN FT	100.0	\$55.00	\$5,500.00
31	HYDRANT	EACH	10.0	\$5,000.00	\$50,000.00
32	8" GATE VALVE AND BOX	EACH		\$3,000.00	\$0.00
33	6" GATE VALVE AND BOX	EACH	12.0	\$2,000.00	\$24,000.00
34	CONNECT TO EXISTING WATER MAIN	EACH		\$2,500.00	\$0.00
35	1" CORPORATION STOP	EACH		\$500.00	\$0.00
36	1" CURB STOP AND BOX	EACH		\$500.00	\$0.00
37	1" TYPE K COPPER PIPE	LIN FT		\$50.00	\$0.00

Aurora Raw Water Intake Sites

Aurora, MN

SEH NO. AUROR 159723



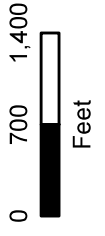
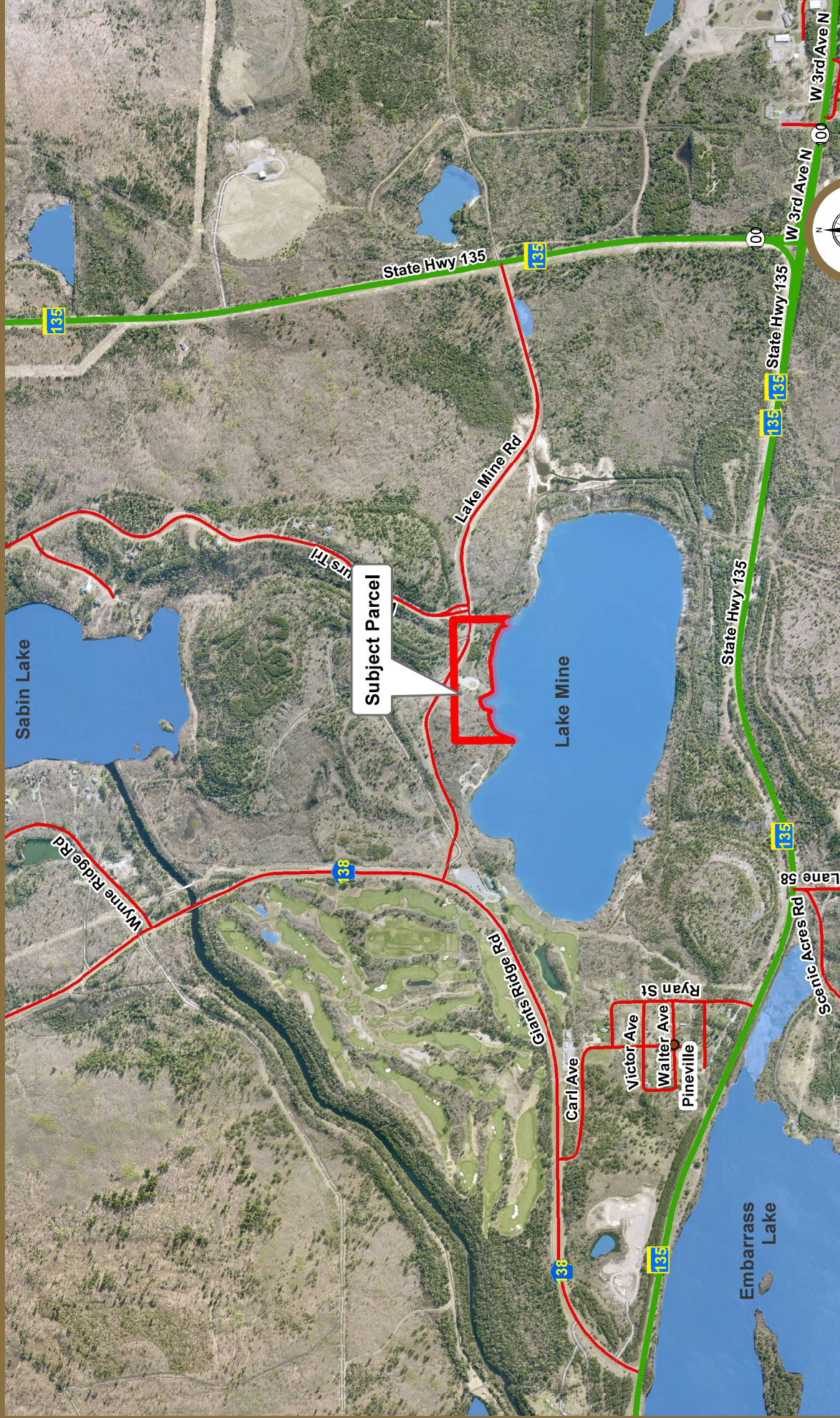
PRELIMINARY OPINION OF PROBABLE COST SITE EAST OF THE BOAT LANDING

ITEM NO.	ITEM DESCRIPTION	UNIT OF MEASUREMENT	APPROXIMATE QUANTITY	UNIT PRICE	COST
38	4" INSULATION	SQ YD		\$40.00	\$0.00
39	WATER MAIN FITTINGS	POUND	765.0	\$25.00	\$19,125.00
40	TRACER WIRE LOCATE BOXES	EACH	12.0	\$250.00	\$3,000.00
41	TOPSOIL BORROW (LV)	CU YD	987.7	\$45.00	\$44,444.44
42	HYDROSEEDING	ACRE	1.8	\$5,000.00	\$9,182.74
43	EROSION CONTROL BLANKET	SQ YD	555.6	\$6.00	\$3,333.33
44	PUMPING STATION	LUMP SUM	1	\$640,000.00	\$640,000.00
45	POWER TO SITE AND GENERATOR	LUMP SUM	1	\$90,000.00	\$90,000.00
46	HORIZONTAL INTAKE (BASE)	LUMP SUM	1	\$300,000.00	\$300,000.00
47	HORIZONTAL INTAKE	LIN FT	140	\$1,000.00	\$140,000.00
48	CASSION DEPTH	LIN FT	60	\$12,500.00	\$750,000.00
49	CASSION OVER DEPTH	LIN FT	3	\$25,000.00	\$75,000.00
SUBTOTAL - CONSTRUCTION					\$4,161,397.73



St. Louis County

September BOA Meeting



City of Aurora

Location Map

PIN:570-0021-00100



Prepared By: **Planning & Community Development**
(218) 725-5000
www.stlouiscountymn.gov
Source: St. Louis County

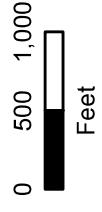
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St. Louis County

September BOA Meeting



City of Aurora
Zoning Map
PIN:570-0021-00100



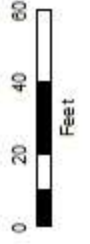
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St. Louis County



Site Map



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