



Real People. Real Solutions.

**Two Harbors
WWTF Improvements
Public Utilities Committee**

January 8, 2021
2:30 pm
Zoom Online Meeting



Real People. Real Solutions.

AGENDA

1. Attendees

2. Review of Last Meeting (July 10, 2019)

- a. Review Meeting Minutes (See enclosed Meeting Minutes from July 10, 2019 meeting)
- b. Review Previous_Handouts/Concept Drawings (See attachments from email dated 5/30/2019)

3. Review Updated Conceptual Drawings

- a. Updated site rendering (Page 1 of 9)
- b. Plantings have been provided in front of the fence along lighthouse point road (Page 2 of 9)
- c. Fencing layout includes areas of concrete wall, decorative fence, and salvaged chain link fence (Page 2 of 9)
- d. Concrete wall and fencing alternative have been updated (Pages 4/5 of 9) to align with Two Harbors and Scandinavian inspiration (Shown on Page 3 of 9)
- e. Decorative gate concepts provided Page 6 of 9
- f. Screening and vegetation view from Lighthouse Point Road provided on sheet 7 of 9
- g. Metal fence/ structural steel concepts (Pages 8/9 of 9)

4. Miscellaneous Topics to Cover

- a. Staging Area/Construction Easement
- b. Construction Access: Park Road to South Avenue Only?
- c. Are there existing easements on Cave property?

Tara Wittlief

From: Brian Guldán <Brian.Guldán@bolton-menk.com>
Sent: Thursday, May 30, 2019 3:20 PM
To: Jackie Rennwald; Craig Jussila; Mayor Chris Swanson
Cc: Dan Walker; Luke Heikkilä; Joseph Rhein; Joseph Pelawa
Subject: Two Harbors WWTF
Attachments: 2019.05.30_WWTF Landscape Concepts.pdf; TWO HARBORS - 2019-05-29 FINISHES.PDF; Kaiser-Oakland-raingarden.jpg; Issaquah.jpg; Goat-Hill.jpg; SLS_Hotel_BeverlyHills_CA_2932_1200px.jpg; Comcast-Headquarters-Philadelphia-PA.JPG; Field-Blvd.jpg

Members of the Public Utilities Committee,

Since we have postponed the meeting that was originally scheduled for June 5th to discuss site aesthetics for the WWTF, I wanted to provide you all with some preliminary information so I can gather some feedback.

The first attachment provides a site landscape plan along with photo displays of various types of plantings and fencing that can be used. I want to call your attention to the following items:

- Tree placements are preliminary and may need to be adjusted based on the final underground utility design.
- Except for the west side of the site along Lighthouse Point Road, the remainder of the site has limited space along the property line for trees. To best address screening on the north, east, and south property lines two options are 1) to use fencing/walls as the primary screen or 2) work with adjacent land owners to see if plantings can occur outside the City property lines.
- Currently the berm and plantings along the west property line are within the fence. Please consider the following options
 - Leave as shown
 - Place fence on top of berm
 - Place berm in front of the fence (this option is likely the most difficult and may create conflicts with drainage and utilities in the exiting road ROW)

The second attachment provides some additional fence types (page 1) as well as some possible concrete options for tank finished and screen walls (page 2).

Lastly I have attached a number of photos showing metal trellis screen that could be used on some of the tank walls. These are quite common now and the screens are affordable. This would not be intended as a primary screen, but could be used to break up the large poured concrete walls on the NE side of the site.

Another option to consider is having an architectural finish on the circular biosolids tanks. The following link provides some examples of how these tanks can be dressed up architecturally. There is several pages of tanks you can flip through to view different options. If you are interested I can also reach out to the tank supplier to see if this is something that could be done to the existing EQ tank. <https://preload.com/projects/>

I know there is a lot of information here, but I wanted to provide you with a number of options to think about so you can let us know what you like and don't like. This will help us to provide more detailed renderings that we can share with you at the next meeting. Please let me know your thoughts and I will have our team prepare some appropriate site renderings for further visual aids.

Please do not hesitate to contact me if you have any questions.

Thanks,

Brian J Guldán P.E.

Principal Environmental Engineer

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Ramsey, MN 55303-5119

Phone: 763-433-2851 ext. 2658

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METAL



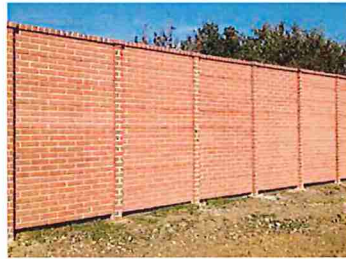
WOOD



CONCRETE



MISCELLANEOUS



WASTEWATER TREATMENT FACILITY | SCREENING OPTIONS





Techny Arborvitae



Skyrocket Juniper



White Pine



White Spruce



Tamarack



Northwood Red Maple



Red Oak



Ivory Silk Lilac



Dwarf-winged Burning Bush



Nannyberry Viburnum



**Compact Cranberrybush
Viburnum**



Black Chokeberry



Amber Jubilee Ninebark



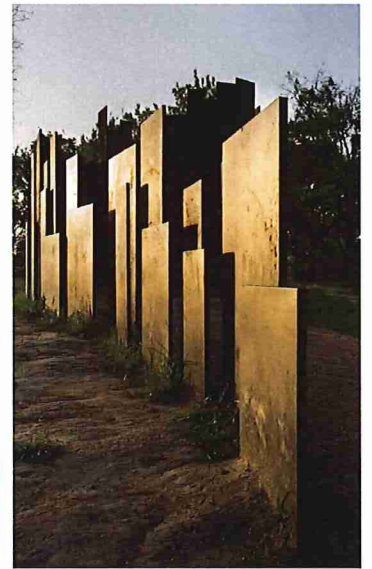
Dwarf Bush Honeysuckle



Switchgrass



Little Bluestem

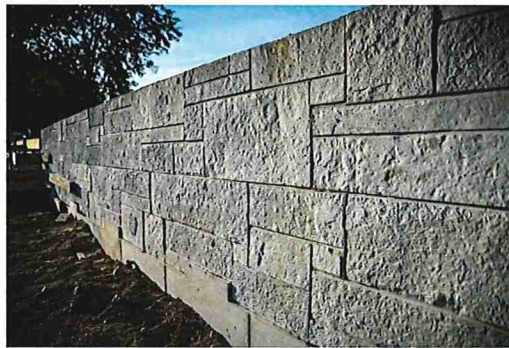


FENCE MATERIALS:
 - PLAIN STEEL PANELS AND DECORATED
 PANELS AND SHAPES
 - CORRUGATED METAL PANELS
 - METAL MESH OR RODS PAINTED OR
 GALVANIZED



WILKUS ARCHITECTS

WATER TREATMENT FACILITY - TWO HARBORS, MN
 FENCE MATERIALS



CAST CONCRETE TEXTURES ON TANKS:
 - MATCH MASONRY OF BUILDINGS AND PAINT TO MATCH
 - NATURAL STONE LOOK AND PAINT A COORDINATED COLOR TO COMPLEMENT BUILDINGS
 - ABSTRACT AND NATURAL TEXTURES AND IMAGES



WILKUS ARCHITECTS

WATER TREATMENT FACILITY - TWO HARBORS, MN
 CAST CONCRETE TEXTURES









CITY OF TWO HARBORS, MN
522 1ST AVE.
TWO HARBORS, MN 55616-1504
PHONE (218) 834-5631

INVOICE

DANIELLE DETLEFSEN
225 8TH ST
TWO HARBORS MN 55616

CUSTOMER#: 02-2228
INVOICE#: 202010166673
INVOICE DATE: 1/07/2021
DUE DATE : 10/30/2020

Amount Paid _____

Please return top portion with payment.

===== CHARGE DETAIL =====

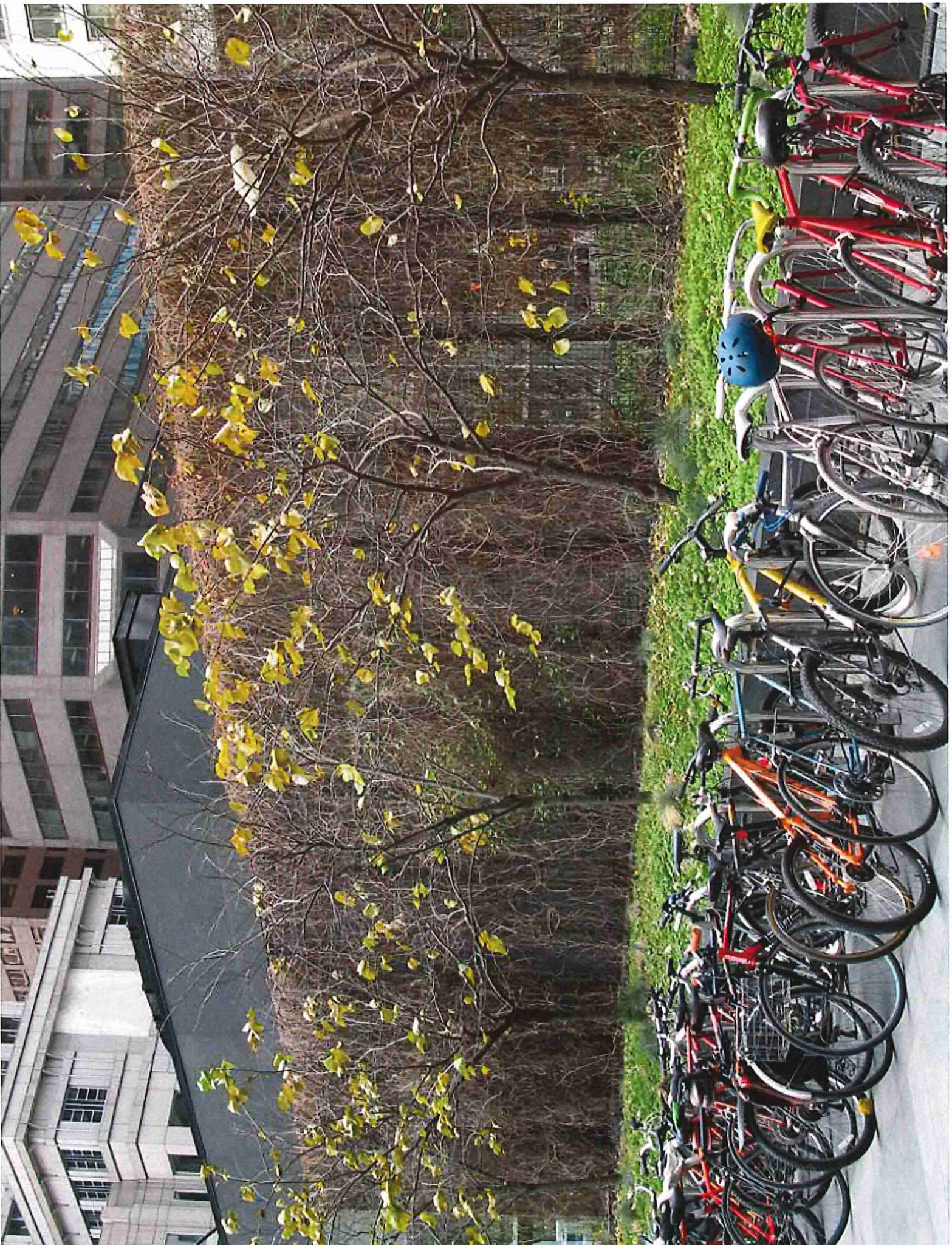
ITEM DESCRIPTION	UNITS	TYPE	PRICE	AMOUNT
7 SIDEWALK SQUARES				262.50

PLEASE INCLUDE INVOICE # AND CUSTOMER # ON REMITTANCE

*****THANK YOU *****

TOTAL DUE : 262.50

MAKE CHECK PAYABLE TO: CITY OF TWO HARBORS
522 1ST AVE.
TWO HARBORS, MN 55616-1504







Real People. Real Solutions.

Two Harbors
WWTF Improvements
Public Utilities Committee

July 10, 2019
1:00 pm
City Hall



Real People. Real Solutions.

AGENDA

1. Attendees

Mayor Swanson, Ben Redden, Miranda Pietila, Luke Heikkila, Paul Johnson, Curt Cavallin, Joel Odens, Jeff Rapp, Brian Guldán

2. Overview of Project

- a. Review aerial photos and aerial renderings of site
- b. Review street view renderings
- c. Discuss building materials/finishes
 - i. **City Comments – Whiskey Row Concept, Scandinavian Theme**

3. Discuss Screening Options

- a. Natural Screening
 - i. Brian to discuss bullet items from May 30th email regarding the landscape plan.
 - *Tree placements are preliminary and may need to be adjusted based on the final underground utility design.*
 - *Except for the west side of the site along Lighthouse Point Road, the remainder of the site has limited space along the property line for trees. To best address screening on the north, east, and south property lines two options are 1) to use fencing/walls as the primary screen or 2) work with adjacent land owners to see if plantings can occur outside the City property lines.*
 - *Currently the berm and plantings along the west property line are within the fence. Please consider the following options*
 - *Leave as shown*
 - *Place fence on top of berm*
 - *Place berm in front of the fence (this option is likely the most difficult and may create conflicts with drainage and utilities in the exiting road ROW) **This is the preferred City option***
- b. Fencing
 - i. Review types/determine City preferences
 - 1. **6 foot – No Barb Wire!**
 - 2. **Relocate the south fence to the north side**
 - 3. **Fence 6' tall on top of berm**
 - 4. **Provide arches at entrance? – Need to be high as large trucks will need to enter**

- ii. Review location. Entire site perimeter?

4. Miscellaneous Topics to Cover

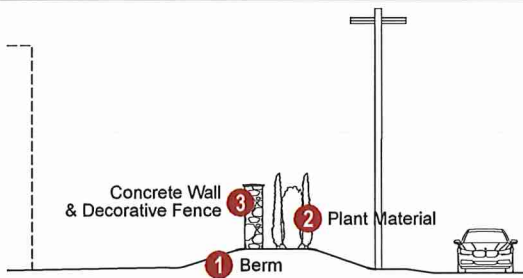
- a. Tank architectural finish for cast-in-place concrete tanks?
 - i. City is not a fan of waves/arches. Likes stamped concrete Brian to follow up with stamped concrete costs
 - 1. Craig Habighorst (Rice Lake Construction) - \$30-\$40/sq ft for form liners. \$3-\$5/sq ft for stain. Can be done on circular tanks, but more expensive.
- b. Look at adding beams to aeration basins/clarifiers for aesthetics.
 - i. Steel beam (bridge beam)
 - ii. Match ore docks
- c. Tank metal trellis options – City was not a fan of this concept
- d. Tank architectural finish for wire round tanks?
- e. Check with City Trees and Trails committee. Possibly transplant trees from other properties.
- f. Mayor to contact Sam Cave
 - i. Plant trees on his property?
 - ii. Construction Easement?
- g. Gates
 - i. Want swing gates with contrasting design



Two Harbors WWTF Improvements



SCREENING TECHNIQUES



1 2 Berm and Plant Material

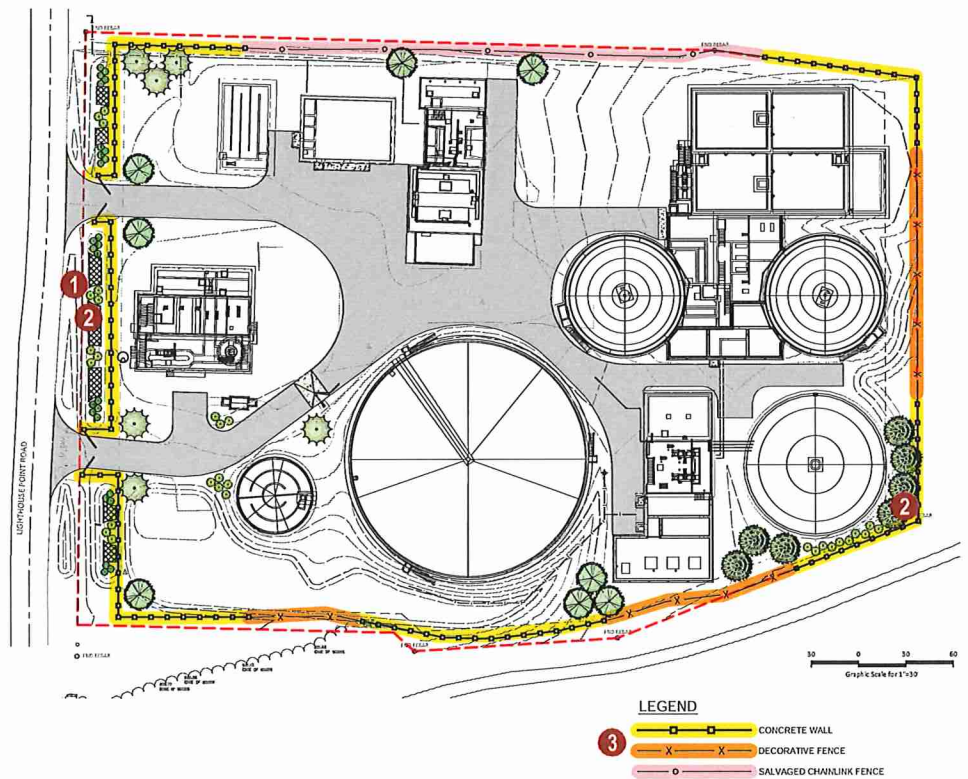


Evergreen plantings, shrubs, and grasses will be planted on a berm along 3rd Street and strategically located to screen portions of the water treatment plant and soften the overall facade.

3 Concrete Wall and Decorative Fence

A mix of a concrete wall with columns and panels with a decorative fence will surround the perimeter of the water treatment plan. The following pages explore the materiality of these elements. The layout plan to the right illustrates where each element is located.

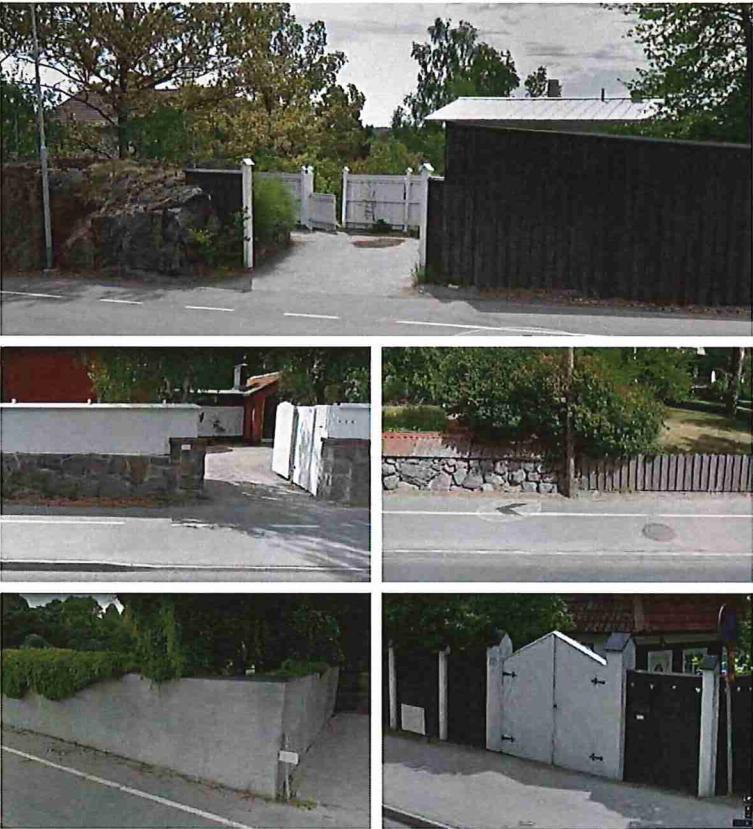
SITE LAYOUT



INSPIRATION FROM TWO HARBORS



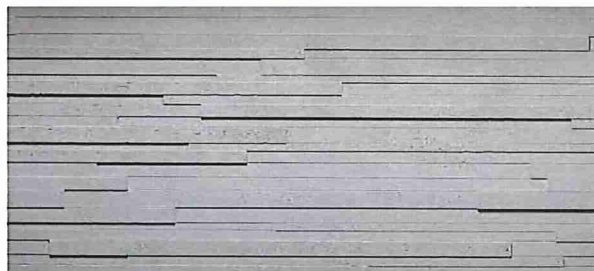
SCANDINAVIAN INSPIRATION



ALTERNATIVE 1



ALTERNATIVE 2



ALTERNATIVE 3



COLUMNS & WALL PANELS

DECORATIVE FENCING

SCREENING CONCEPT VISUALIZATIONS

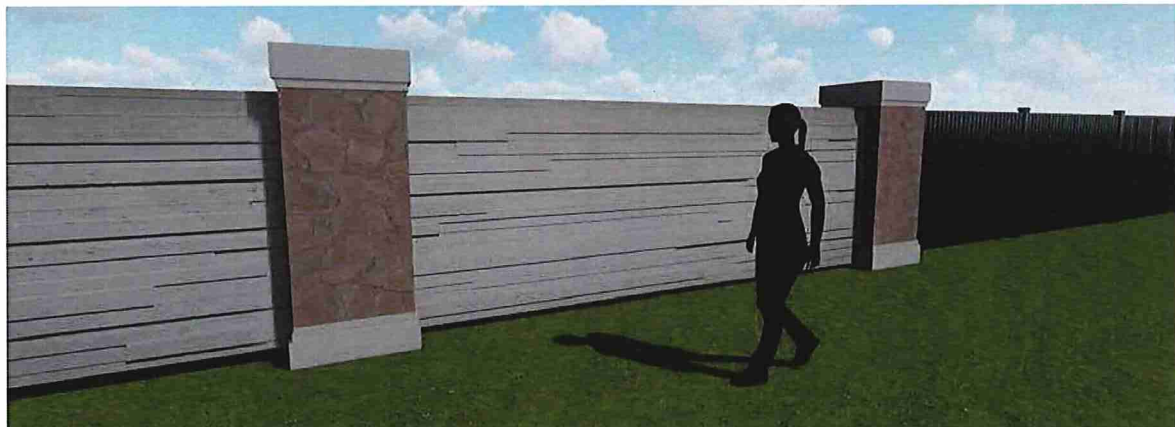
ALTERNATIVE 1



Concrete Wall Columns & Panels - Stone pattern with cap and base. Stone color and pattern to match existing bridge structure in Two Harbors

Decorative Fence - Horizontal metal rail, black or red to match existing bridge structure in Two Harbors

ALTERNATIVE 2



Concrete Wall Columns - Stone pattern with cap and base. Stone color and pattern to match existing bridge structure in Two Harbors

Concrete Wall Panels - Horizontal wood "board form" pattern

Decorative Fence - Vertical metal rail, black

ALTERNATIVE 3



Concrete Wall Columns - Gray concrete column with relief.

Concrete Wall Panels - Vertical wood "fence" pattern

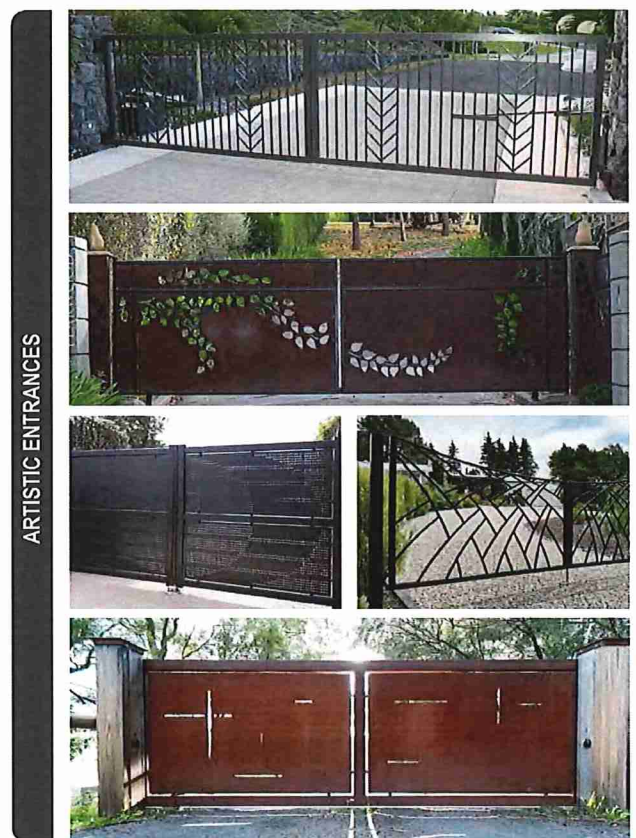
Decorative Fence - Vertical metal rail, black

The gates to the Wastewater Treatment Facility could mimic the decorative rail alternatives to blend in with the rest of the screening fence creating a streamlined appearance or could be made to stand out with additional customizations, creating an artistic feature.

The five artistic gates shown represent the wide range of customization and materials that could be used on a decorative gate. Costs vary.



MIMIC DECORATIVE FENCE



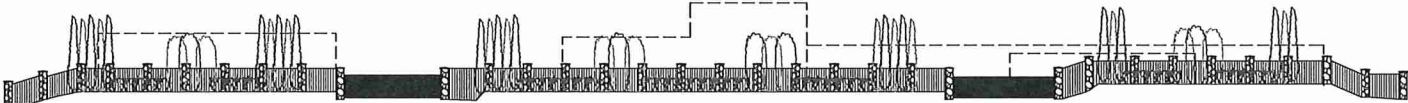
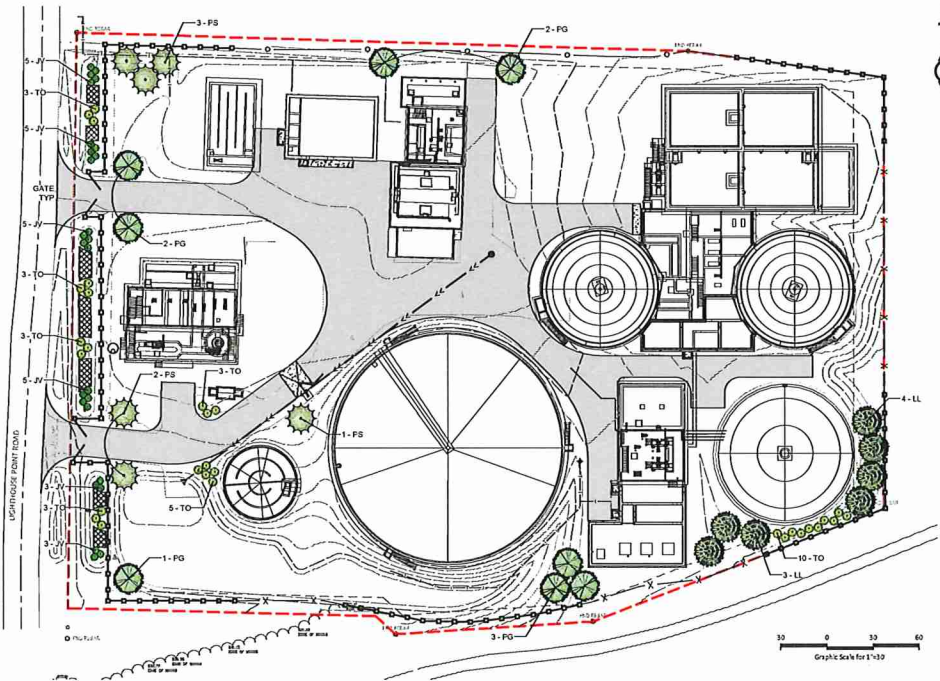
ARTISTIC ENTRANCES

Berm and Plant Material



Evergreen plantings, shrubs, and grasses will be planted on a berm along 3rd Street and strategically located to screen portions of the water treatment plant and soften the overall facade.

PLANT SCHEDULE					
TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
JV	26	JUNIPERUS VIRGINIANA "SKYROCKET"	SKYROCKET JUNIPER	6' HT.	B&B
LL	7	LARIX LARICINA	TAMARACK	6' HT.	B&B
PG	8	PICEA GLAUCA (TRANSPLANTED FROM NEARBY DNR SITE)	WHITE SPRUCE	---	---
PS	6	PINUS STROBUS	WHITE PINE	6' HT.	B&B
TO	30	THUJA OCCIDENTALIS "TECHNY"	TECHNY ARBORVITAE	6' HT.	B&B
GRASSES & SHRUBS					
		BOTANICAL NAME	COMMON NAME	SIZE	SPACING
		BOUTELOUA GRACILIS 'BLONDE AMBITIOUS'	BLUE GRAMA	#1 CONT.	24" O.C.
		CORNIUS STOLONIFERA 'ARCTIC FIRE'	ARCTIC FIRE DOGWOOD	#5 CONT.	36" O.C.
		PHYSCARPUS OPULIFOLIUS 'PODRAZ 1'	BURGUNDY CANDY NINEBARK	#5 CONT.	24" O.C.
		SPOROBOLUS HETEROLEPIS 'TARA'	PRAIRIE DROPSEED	#1 CONT.	24" O.C.
		VIBURNUM OPULUS 'COMPACTUM'	COMPACT EUROPEAN CRANBERRY BUSH	#5 CONT.	60" O.C.
		650 SF TOTAL			



ELEVATION OF WEST SCREENING FENCE AND VEGETATION



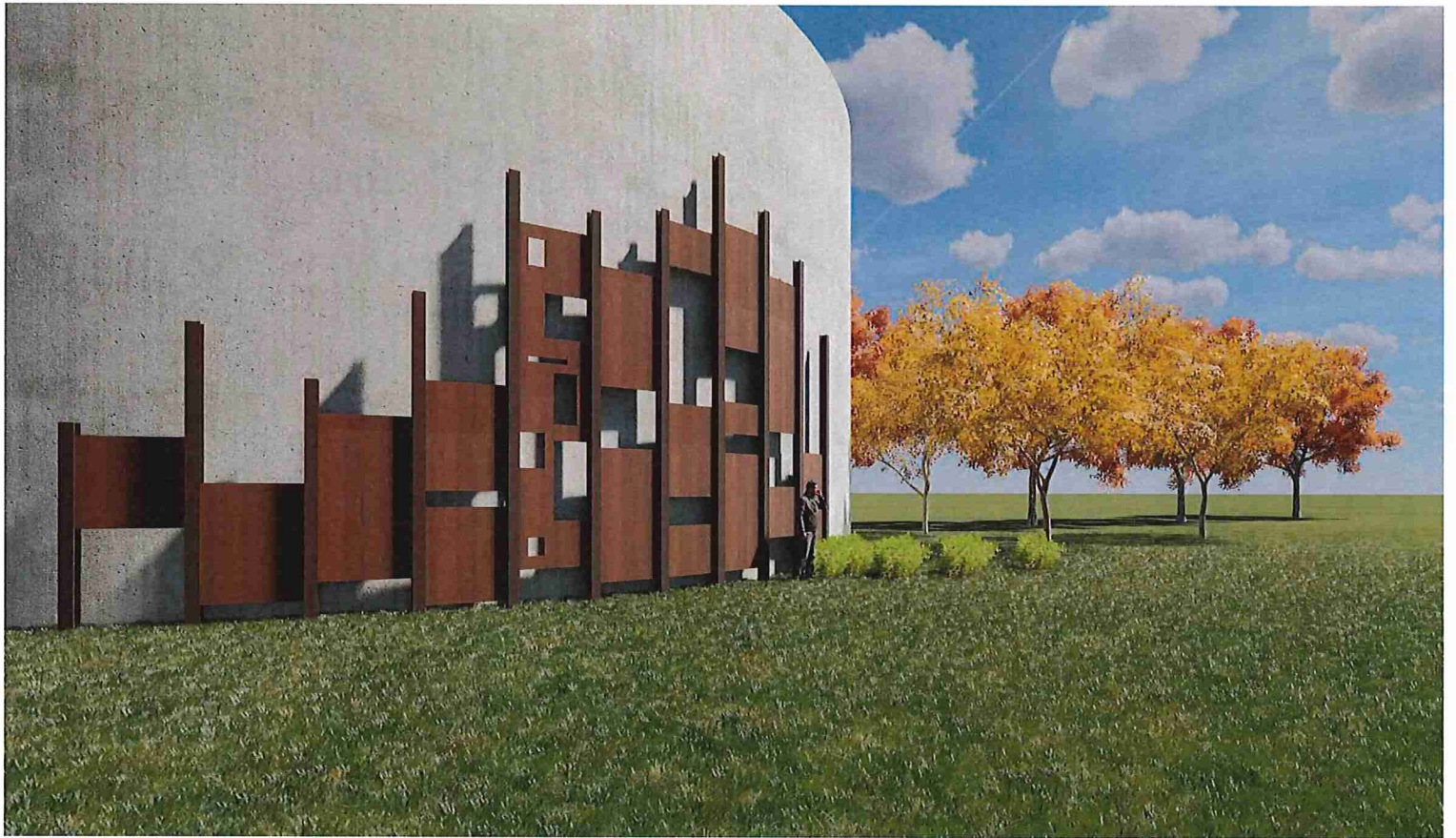
WASTEWATER TREATMENT FACILITY | PRELIMINARY PLANTING PLAN





WILKUS ARCHITECTS

Waste Water Treatment Facility - Two Harbors, MN
Metal Fence At Entry Study



WILKUS ARCHITECTS

Waste Water Treatment Facility - Two Harbors, MN
Metal Fence At Tank Study