

Memorandum

To: Riley-Purgatory-Bluff Creek Watershed District

From: Jessica Olson, PE and Scott Sobiech, PE, Barr Engineering Co.

Subject: Upper Riley Creek Ecological Enhancement Project

Date: December 9, 2024 **Project:** 23/27-0053.14 029B

c: Terry Jeffery – RPBCWD Administrator

Requested Board Action

It is requested that the RPBCWD Board of Managers authorize Barr Engineering Co. to solicit bids from contractors to construct the Upper Riley Creek Ecological Enhancement Project as designed and shown on the construction documents. It is recommended that bid solicitation occur after the RPBCWD Administrator, in consultation with RPBCWD legal counsel and engineer, determines adequate property rights are obtained and the cooperative agreement with the city of Chanhassen is executed.

The portion of Riley Creek between Highway 5 and Lake Susan (aka upper Riley Creek) for the RPBCWD was identified for restoration in the Creek Restoration Action Strategy (CRAS) and the capital improvement program portion of RPBCWD's 10-year Watershed Management Plan. In May 2021, Barr Engineering completed an ecological enhancement plan for Upper Riley Creek. The plan identified stream ecology enhancement options for a proposed effort to improve the upper reaches of Riley Creek, identifying approximately 8,600 feet of the creek and associated uplands that could be restored and stabilized to improve ecological function, provide diverse habitat layers, reduce streambank erosion, improve soil health and enhance public access and understanding of the creek.

At the January 2022 board meeting, the RPBCWD Board of Managers authorized final design, permitting, and agreement support services for the Upper Riley Creek Ecological Enhancement Project, based on the recommendations included in the enhancement plan. As the coordination with the city of Chanhassen (City) progressed during design, the project team identified an opportunity to enhance the riparian areas adjacent to the creek that is presently bare soil and used by the city of Chanhassen for storage of materials, debris, and other miscellaneous items. (aka boneyard area). In addition, the city identified a need for facility to enhance the treatment and management of materials generated by regular street sweeping, removal of sediment from catch basins and storm sewers, and the removal of sediment deltas at storm drain outfalls. The RPBCWD and city collaborated on the development of plans for a decant facility that will dry materials extracted from city stormwater-management practices and other facilities, which support Chanhassen's compliance with state stormwater-management requirements and will reduce migration of pollutants to Riley Creek and downstream waterbodies. The proposed decant facility is located on two city-owned parcels One of the parcels contains the Public Works building, and the other parcel includes a portion of upper Riley Creek, an existing wetland, and a boneyard area used by Public Works staff for material storage and stockpiling. At the December 2022 board meeting, the Board of Managers authorized incorporating the final design, permitting and agreement support services for a decant facility. The city of Chanhassen is the primary landowner and a financial partner on this project. The City would be responsible for 100% of the construction cost of the decant facility.

To: Riley-Purgatory-Bluff Creek Watershed District

From: Jessica Olson, PE and Scott Sobiech, PE, Barr Engineering Co.

Subject: Upper Riley Creek Ecological Enhancement Project Date: December 9, 2024

Page: 2

Because the project is on property owned by multiple landowners, including private owners, Economic Development Authority (EDA), and the City, RPBCWD's Administrator has had numerous discussions and close coordination with the property owners to secure the necessary agreements to allow access, construction, and maintenance of the project. The following table summarize the status of the various property agreements.

Table 1. Property Agreement Status

Parcel ID	Property Owner	Status
25 193 0080 25 191 0040 25 191 0030 25 190 0360 25 190 0340 25 190 0030 25 190 0030 25 406 0870	City of Chanhassen	Pending City Council Action at the December 9, 2024 meeting
25 193 0051	EDA Parcel	Pending City Council Action at December 9, 2024 meeting
NA	MN DOT ROW	Permitting process underway
25 751 0020	Private	Administrator coordinating final agreement execution
25 751 0030	Private	Agreement Secured
25 190 0330	Private	Administrator coordinating final agreement execution
25 190 0200	Private	Administrator coordinating final agreement execution
25 566 0010	Private	Administrator coordinating final agreement execution
25 566 0070	Private	Administrator coordinating final agreement execution

Construction documents have been prepared for the project, and include bidding documents, construction drawings, and technical specifications. The design of the proposed ecological restoration includes, but is not limited to, in-channel debris removal (i.e. trash, trees obstructing flow, etc.), rock riffles, log and boulder vanes, beaver dam analogs, root wads, minor channel re-meandering and bank grading along approximately 8,600 feet of Riley Creek and a tributary ravine, dredging of a connected pond, installation of a concrete slab, metal awning, and associated earthwork/surfacing. The construction drawings also include erosion control, site restoration with native plantings, and establishment of a buffer for the creek.

Construction will include grading the channel and immediate banks. Because the construction area will be concentrated in the existing channel, timing the construction during anticipated low flows will minimize the need to control water and reduce the risk of erosion during construction. The best window for completing this work is during anticipated lower-precipitation months in fall and early winter. In late fall and early winter precipitation may also be more snow than rain and frost is minimal, which allows grading to be completed without significant adverse impacts.

RPBCWD and Barr have been working with the city of Chanhassen and agencies to complete necessary permitting and agreements. Both Mn DNR and US Army Corps of Engineers permits have been received for the project. City staff have reviewed the plans and a cooperative agreement is under consideration by City Council. The following table summarizes necessary permits and the approval status:

To: Riley-Purgatory-Bluff Creek Watershed District

From: Jessica Olson, PE and Scott Sobiech, PE, Barr Engineering Co.

Subject: Upper Riley Creek Ecological Enhancement Project Date: December 9, 2024

Page: 3

Table 2. Permitting Status

Permitting Agency	Status
City of Chanhassen	Pending
MN DNR	Approved
US Army Corps of Engineers	Approved
Metropolitan Council	Pending
Encroachment Agreement	
RPBCWD	Pending

The Engineer's opinion of probable construction cost for the project based on the 100% designed s is summarized in Table 3. The overall opinion of probable construction costs for the 100% design configuration are higher than the feasibility study opinion of cost, but within the estimated accuracy range.

Table 3. Engineer's Opinion of Probable Construction Cost

ltem	100% Design Configuration (November 2024) ¹						
	RPBCWD Share	City Share of Base	Additional City Items	Total ^{1,2,3,4}			
	of Base Design ²	Design ²	(Decant Facility) ³				
OPINION OF PROBABLE	\$2,549,140 \$142,560 \$758,000		\$3,449,700				
CONSTRUCTION COST							
Estimated Accuracy Range	\$2,421,683	\$135,432	\$645,000	\$3,202,100			
(-5% and +10%)	\$2,804,054	\$156,816	\$986,000	\$3,946,900			

¹Estimate exclude cost of long-term coordination with city of Chanhassen for ongoing monitoring and maintenance

The opinion of probable cost provided is made based on Barr Engineering's experience and qualifications and represents our best judgment as experienced and qualified professionals familiar with the project. Because we have no control over the cost of labor, materials, equipment or services furnished by others, or over the contractor's methods of determining prices, or over competitive bidding or market conditions, Barr Engineering cannot and does not guarantee that proposals, bids, or actual costs will not vary from the opinion of probable cost presented.

It is requested that the RPBCWD Board of Managers authorize Barr Engineering Co. to solicit bids from contractors to construct the Upper Riley Creek Ecological Enhancement Project as designed and shown on the construction documents. If the Board of Managers authorizes solicitation of bids to construct the stabilization measures, the following tasks would be completed. It is also recommended that bid solicitation occur after adequate property rights are obtained and the cooperative agreement with the city of Chanhassen is executed; therefore, the tentative schedule below is subject to revision.

- December 11, 2024 Board of Managers authorizes Barr Engineering Co. to solicit bids
- December 5, 2024 through January 15, 205 Finalize necessary property agreements

²Estimated accuracy range for 100% design configuration was -5% and +10% of the estimated total project cost. RPBCWD share of project is approximately 95%, city's share of project is approximately 5%.

³1Estimated accuracy range for Decant Facility was -15% and +30%

⁴100% design configuration opinion of probable cost includes approximately \$900,560 of estimated costs to be borne by the city of Chanhassen for a decant facility (alternate bid item), removal of sediment from stormwater pond, replacement of an existing pond outlet structure with an enhanced structure, and 50% split for the replacement of concrete pipe and flared end sections.

To: Riley-Purgatory-Bluff Creek Watershed District

From: Jessica Olson, PE and Scott Sobiech, PE, Barr Engineering Co. Subject: Upper Riley Creek Ecological Enhancement Project

Date: December 9, 2024

Page: 4

- January 15, 2024 Advertise for bids
- January 29, 2025 Mandatory pre-bid meeting
- February 19, 2025 Open bids
- April 2, 2025 Board approval of bid
- April 16, 2025 (or after) Construction begins

Attachments

• Selected sheets from the drawings for the Upper Riley Creek Ecological Enhancement Project



Contract Documents

Upper Riley Creek Ecological Enhancement Project Chanhassen, Minnesota

Prepared for Riley Purgatory Bluff Creek Watershed District

November, 2024

TECHNICAL SPECIFICATIONS

UPPER RILEY CREEK ECOLOGICAL ENHANCEMENT PROJECT RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT CHANHASSEN, MINNESOTA

These specifications were prepared by Barr Engineering Co.



Barr Engineering Co. 4300 MarketPointe Drive Suite 200 Minneapolis, MN 55435

CERTIFICATIONS

I hereby certify that these specifications were 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.

Jessica Olson, P. E.

License Number: 43102 Date: November 19, 2024 Responsible for Division 00, Division 01, Division 31 (except Section 31 23 19), Section 33 40 00, and Division 35 of the Specifications.

Responsible for Section 31 23 19, Section 32 16 00, and Division 33

Bryan Pitterle, P.E.

License Number: 55568

Date: November 19, 2024

Responsible for Division 26 of the Specifications.

(except Section 33 40 00) of the Specifications.

Neil Oftelie, P.E.

License Number: 61655 Date: November 19, 2024 I hereby certify that these specifications were prepared by me or under my direct supervision and that I am a duly Licensed Landscape Architect under the laws of the State of Minnesota.

Brench Dougherty

Responsible for Division 32 (except Section 32 16 00) of the Specifications.

Brendan Dougherty, L.A. License Number: 54710 Date: November 19, 2024

CONTRACT DOCUMENTS

UPPER RILEY CREEK ECOLOGICAL ENHANCEMENT PROJECT RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT **CHANHASSEN, MINNESOTA**

TABLE OF CONTENTS

	TABLE OF CONTENTS	
		<u>Page</u>
Certifications		00 01 05-1
Table of Contents		00 01 10-1
Advertisement for	Bids	00 11 13-1
Instructions to Bid	lders	00 21 13-1
Bid Form		00 41 00A-1
List of Proposed S	ubcontractors	00 41 00B-1
List of Proposed S	Suppliers	00 41 00C-1
Noncollusion Affic	davit	00 41 00D-1
Bid Bond		00 41 00E-1
Affidavit of Respo	nsible Contractor Compliance	00 41 00F-1
Sworn Statement	of Responsible Bidder	00 45 13-1
Notice of Award		00 51 00-1
Form of Agreeme	nt	00 52 00-1
Notice to Proceed		00 55 00-1
Construction Perfo	ormance Bond Forms	00 61 13A-1
Construction Payn	ment Bond Forms	00 61 13B-1
General Condition	ns .	00 72 00-1
Supplementary Co	onditions	00 73 00-1
Technical Specific	cations	
Division 01 -	- General Requirements	
	Summary of Work	01 11 00-1
01 14 00	Work Restrictions	01 14 00-1
01 22 00	Unit Price Measurement and Payment	01 22 00-1
01 29 00	Payment Procedures	01 29 00-1
01 31 19	Project Meetings	01 31 19-1
01 33 00	Submittal Procedures	01 33 00-1
01 35 23	Safety	01 35 23-1
01 50 00	Temporary Facilities and Controls	01 50 00-1
01 55 00	Access Roads and Parking	01 55 00-1
01 55 26	Traffic Control	01 55 26-1
01 57 10	Control of Water	01 57 10-1
01 77 00	Closeout Procedures	01 77 00-1
Division 26 -	- Flectrical	
	Electrical General Provisions	26 00 00-1
	Common Work Results for Electrical	26 05 00-1
26 50 00		26 50 00-1
	99	20 30 00 1

Division 31 -	- Earthwork	
31 00 00	Earthwork	31 00 00-1
31 11 00	Clearing, Grubbing, and Site Preparation	31 11 00-1
31 23 19	Dewatering	31 23 19-1
31 25 00	Erosion and Sedimentation Control	31 25 00-1
Division 32 –	Exterior Improvements	
32 16 00	Roadway and Sidewalk Pavements	32 16 00-1
32 93 10	Site Restoration and Herbaceous Plant Installation	32 93 10-1
32 93 43	Trees and Shrub Installation	32 93 43-1
32 97 00	Vegetation Establishment	32 97 00-1
Division 33 –	Utilities	
33 05 28	Trenching and Backfilling for Utilities	33 05 28-1
33 10 00	Water Utilities	33 10 00-1
33 30 00	Sanitary Sewer Utilities	33 30 00-1
33 40 00	Storm Drainage Utilities	33 40 00-1
Division 35 –	Waterway and Marine Construction	
35 42 34	Soil Reinforcement Bank Protection	35 42 34-1
35 42 37	Riprap Bank Protection	35 42 37-1

Drawings

Drawings

UPPER RILEY CREEK CORRIDOR ENHANCEMENT AND DECANT FACILITY

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT CHANHASSEN, MN





CONTACTS:

ENGINEER CONTACT: Jessica Olson Barr Engineering Co. 325 South Lake Avenue Duluth, MN 55802 218-259-7118

OWNER'S REPRESENTATIVE CONTACT:

Terry Jeffery Interim District Administrator Riley Purgatory Watershed District 18681 Lake Drive East Chanhassen, MN 55317 952-807-6885 tjeffery@rpbcwd.org

PROPERTY OWNER'S REPRESENTATIVE: Joe Seidl

Water Resources Engine City of Chanhassen jseidl@chanhassenmn.gov PH 952-227-1168 FX. 952-227-1170

GENERAL NOTES:

- CONTOUR DATA SHOWN IN THIS PLAN SET IS BASED ON 2021 LIDAR TOPOGRAPHY AND SURVEY PERFORMED BY BARR ENGINEERING IN MARCH 2021
- IMAGERY: COPYRIGHT PICTOMETRY INTERNATIONAL CORP AND CARVER COUNTY, MINNESOTA, 2021. HORIZONTAL DATUM AND COORDINATE SYSTEM: CARVER
- COUNTY COORDINATES, NAD83, US SURVEY FEET VERTICAL DATUM: NAVD88







GOPHER STATE ONE CALL: CALL BEFORE YOU DIG. 1-800-252-1166

PROJECT DATUM:

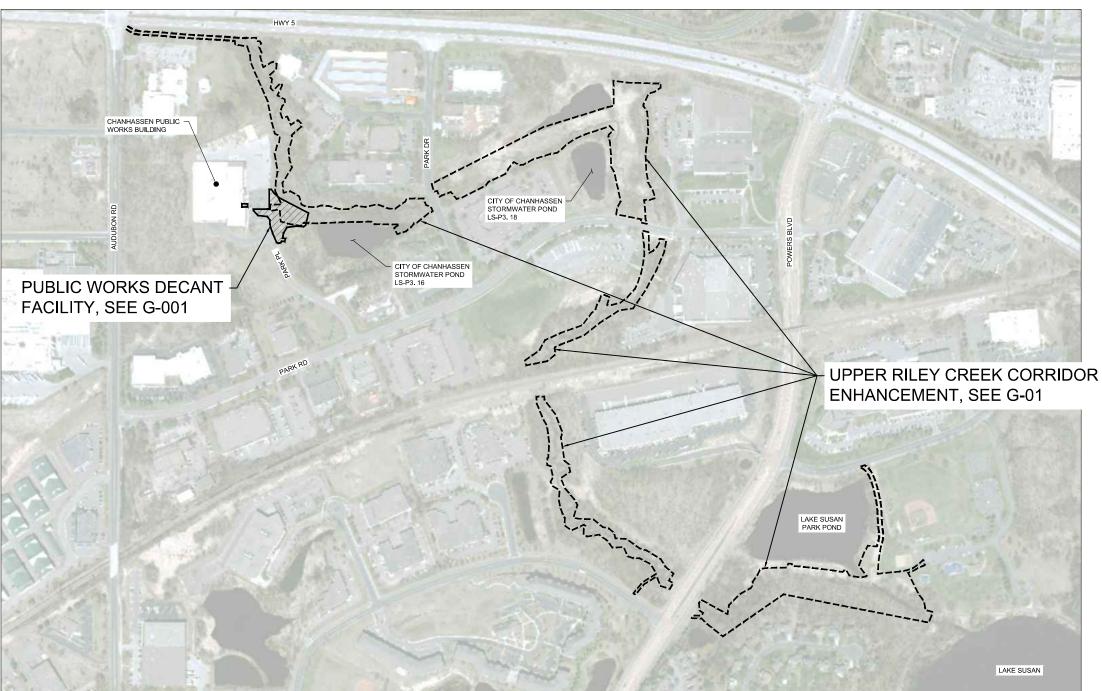
HORIZONTAL: MNDOT COUNTY COORDINATES (NAD83), CARVER COUNTY, US VERTICAL: NAVD 88 REVISION DESCRIPTION





INTED NAME JESSICA OLSON

DATE 11/19/2024 LICENSE # _





BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE MINNEAPOLIS, MN 55435

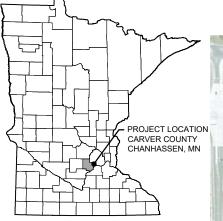
AS SHOWN 04/26/2024 AWT BDP

RILEY PURGATORY BLUFF CREEK WD CHANHASSEN, MN

UPPER RILEY CREEK ENHANCEMENT AND DECANT FACILIT CHANHASSEN, MN

23270053.14

UPPER RILEY CREEK CORRIDOR ENHANCEMENT PLAN RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT



MINNESOTA COUNTY MAP

CONTACTS:

ENGINEER CONTACT: Jessica Olson Barr Engineering Co. 325 South Lake Avenue Duluth MN 55802 jolson@barr.com

OWNER'S REPRESENTATIVE CONTACT:

Terry Jeffery Interim District Administrato Riley Purgatory Watershed Distric 18681 Lake Drive East 952-807-6885 tjeffery@rpbcwd.org

PROPERTY OWNER'S REPRESENTATIVE

Water Resources Enginee City of Chanhassen PH 952-227-1168

FX. 952-227-1170 ww.chanhassen

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- VERTICAL DATUM: NAVD88







GOPHER STATE ONE CALL CALL BEFORE YOU DIG.



INDEX OF SHEETS

TITLE SHEET, PROJECT LOCATION, AND SHEET INDEX G-02 STORMWATER POLLUTION PREVENTION PLAN (SWPPP) G-03 . STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

REMOVALS, EROSION CONTROL AND TREE PROTECTION PLAN, R4-A

REMOVALS, EROSION CONTROL AND TREE PROTECTION PLAN, R4A REMOVALS, EROSION CONTROL AND TREE PROTECTION PLAN, POND LS-P3.16

G-07 REMOVALS, EROSION CONTROL AND TREE PROTECTION PLAN, R4-B G-08 REMOVALS, EROSION CONTROL AND TREE PROTECTION PLAN, R4-B G-09 REMOVALS, EROSION CONTROL AND TREE PROTECTION PLAN, R4-C

REMOVALS, EROSION CONTROL AND TREE PROTECTION PLAN, R4-C REMOVALS, EROSION CONTROL AND TREE PROTECTION PLAN, R4-C & R4-D

REMOVALS, EROSION CONTROL AND TREE PROTECTION PLAN, R4-D REMOVALS, EROSION CONTROL AND TREE PROTECTION PLAN, R4-D & R4-E REMOVALS, EROSION CONTROL AND TREE PROTECTION PLAN, R4-E

REMOVALS, EROSION CONTROL AND TREE PROTECTION PLAN, R4-E G-16 EROSION CONTROL DETAILS

FLOODPLAIN AND WETLAND BOUNDARIES - HWY 5 TO PARK DR. G-17

FLOODPLAIN AND WETLAND BOUNDARIES - PARK DR. TO PARK RD. FLOODPLAIN AND WETLAND BOUNDARIES - PARK RD. TO RAILROAD CROSSING FLOODPLAIN AND WETLAND BOUNDARIES - RAILROAD CROSSING TO POWERS BLVD. G-20

FLOODPLAIN AND WETLAND BOUNDARIES - POWERS BLVD. TO LAKE SUSAN

C-01 SITE LAYOUT

. TYPICAL STREAM SECTIONS C-02

STREAM STABILIZATION PLAN, R4-A (STA. 0+00 - 9+00) C-03

STREAM STABILIZATION PROFILE & SECTIONS, R4-A (STA. 0+00 - 9+00) C-04 STREAM STABILIZATION PLAN, R4-A (STA. 9+00 - 18+00)

STREAM STABILIZATION PROFILE & SECTIONS, R4-A (STA. 9+00 - 18+00)

C-07 STREAM STABILIZATION PLAN, R4-B (STA. 18+00 - 27+00)

C-08 STREAM STABILIZATION PROFILE & SECTIONS, R4-B (STA, 18+00 - 27+00)

STREAM STABILIZATION PLAN, R4-B (STA. 27+00 - 36+00) C-09

STREAM STABILIZATION PROFILE & SECTIONS, R4-B (STA. 27+00 - 36+00)

C-10 TRIBUTARY STABILIZATION PLAN, R4-B

TRIBUTARY STABILIZATION PROFILE & SECTIONS, R4-B

STREAM STABILIZATION PLAN, R4-C (STA. 36+00 - 45+00)

STREAM STABILIZATION PROFILE & SECTIONS, R4-C (STA. 36+00 - 45+00)

STREAM STABILIZATION PLAN, R4-C & R4-D (STA. 45+00 - 54+00) C-16

STREAM STABILIZATION PROFILE & SECTIONS, R4-C & R4-D (STA. 45+00 - 54+00) C-17

. STREAM STABILIZATION PLAN, R4-D (STA. 54+00 - 63+00) . STREAM STABILIZATION PROFILE & SECTIONS, R4-D (STA. 54+00 - 63+00) C-18

. STREAM STABILIZATION PLAN, R4-D & R4-E (STA, 63+00 - 72+00) C-19

STREAM STABILIZATION PROFILE & SECTIONS, R4-D & R4-E (STA. 63+00 - 72+00) C-20

C-21 STREAM STABILIZATION PLAN, R4-E (STA. 72+00 - 81+00)

STREAM STABILIZATION PROFILE & SECTIONS, R4-E (STA. 72+00 - 81+00)

STREAM STABILIZATION PLAN, R4-E (STA. 81+00 - 86+56)

. STREAM STABILIZATION PROFILE & SECTIONS, R4-E (STA. 81+00 - 87+00)

C-25 POND MAINTENANCE PLAN, POND LS-P3.16

STREAM STABILIZATION DETAILS D-01

. STREAM STABILIZATION DETAILS D-02

STREAM STABILIZATION DETAILS D-03

STREAM STABILIZATION DETAILS

D-05 STREAM STABILIZATION DETAILS

D-06 STREAM STABILIZATION DETAILS

D-07 STREAM STABILIZATION DETAILS

D-08 STREAM STABILIZATION DETAILS

D-09 CITY OF CHANHASSEN STANDARD PLATES

R-01 RESTORATION PLAN (SEE NOTE 1)

R-02 RESTORATION PLAN (SEE NOTE 1) R-03 RESTORATION PLAN

. RESTORATION PLAN R-04

R-05 . RESTORATION PLAN

. RESTORATION PLAN R-06

. RESTORATION PLAN R-07

RESTORATION PLAN R-08 RESTORATION PLAN R-09

R-10 RESTORATION PLAN

R-11 . RESTORATION PLAN

. RESTORATION PLAN R-12

RESTORATION PLAN R-13

R-14 PLANTING DETAILS

. PLANTING DETAILS

100% DESIGN ISSUED FOR BID

IF DECANT FACILITY ALTERNATIVE IS SELECTED SEE SHEET C-008 OF DECANT PLANS FOR

ADDITIONAL RESTORATION PLAN

						II.
						R
					ADDITION OF DECANT FACILITY OPTION	PF
0	EPF	JCO	SAS	08/23/2023	ISSUED FOR BID	۵.
NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION	SI D/

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STATE OF MINNESOTA.	RECORD]			I			_	II	
PROFESSIONAL ENGINEER UNDER THE LAWS OF THE	CONSTRUCTION	ĺ				_			li	
REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT LAM A DULY LICENSED	BID		_	_	08/23/23	10/11/24		_	I	
HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR	CLIENT	08/31/22	03/17/23		-			_	ī	

BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE MINNEAPOLIS, MN 55435

PLAN: PROJECT LOCATION

AS SHOWN 10/11/2024 EPF JCO

SCALE IN FEET

RILEY PURGATORY BLUFF CREEK WD CHANHASSEN, MN.

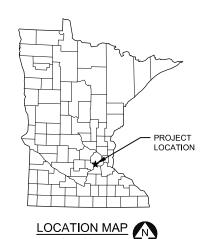
UPPER RILEY CREEK CORRIDOR ENHANCEMENT PLAN

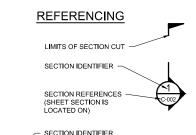
TITLE SHEET, PROJECT LOCATION & SHEET INDEX

23/27-0053.14

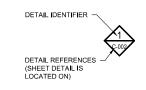
UPPER RILEY CREEK PUBLIC WORKS DECANT FACILITY

RILEY PURGATORY BLUFF CREEK WD CHANHASSEN, MN

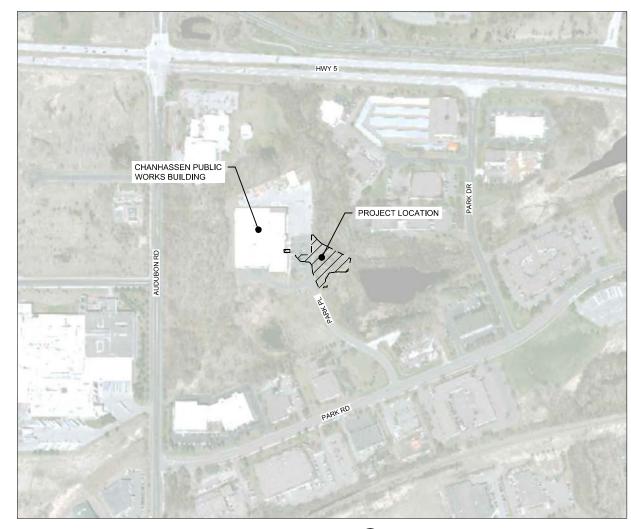














1. COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES, PERMITS, AND REGULATIONS.

2. VERIFY ALL QUANTITIES, GRADES, AND DIMENSIONS.

3. TOPOGRAPHIC INFORMATION BASED ON SITE SURVEYS CONDUCTED BY HANSEN THORP PELLINEN OLSON, INC, IN JANUARY OF 2023 AND BY BARR ENGINEERING CO. IN FEBRUARY OF 2024

4. FIELD-LOCATE ALL SITE UTILITIES (PRIVATE AND PUBLIC) PRIOR TO STARTING THE WORK. ALL UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. ANY UTILITIES DAMAGED BY CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTION OF UTILITY OWNER AT CONTRACTOR'S COST.

AS SHOWN

TITLE G-001 COVER SHEET, INDEX AND VICINITY MAP

C-001 EXISTING CONDITIONS

C-002 EROSION CONTROL AND REMOVALS PLAN

C-003 PROPOSED SITE LAYOUT

C-004 PROPOSED GRADING PLAN C-005 SITE LAYOUT SECTIONS AND DETAILS

C-006 STORMWATER FILTRATION BASIN PLAN, SECTIONS,

AND DETAILS

C-007 POND OVERFLOW SECTION AND DETAILS

C-008 SITE RESTORATION PLAN

C-009 DETAILS AND CITY PLATES

C-010 CITY PLATES C-011 CITY PLATES

S-001 SPECIFICATIONS S-002 SPECIFICATIONS

S-003 SPECIAL INSPECTIONS

S-004 FOUNDATION AND WALL PLAN

S-005 PEMB ROOF FRAMING PLAN

S-006 FOUNDATION SECTIONS

S-007 FOUNDATION SECTIONS

S-008 TYPICAL DETAILS

S-009 TYPICAL DETAILS

E-001 ELECTRICAL PLAN

E-002 ELECTRICAL DETAILS AND SCHEMATIC

1. DRAWINGS LISTED BUT FADED ARE NOT INCLUDED IN THIS SUBMITTAL, BUT ARE ANTICIPATED IN FUTURE SUBMITTALS.

ABBREVIATIONS AND SYMBOLS

AMERICAN SOCIETY OF CIVIL ENGINEERS

AMERICAN SOCIETY FOR TESTING AND MATERIALS

DUCTILE IRON PIP

ELEVATION

EDGE OF BITUMINOUS

EDGE OF CONCRETE

FINISHED FLOOR ELEVATION GRADE BREAK

NORTH AMERICAN VERTICAL DATUM

NATIONAL GEODETIC VERTICAL DATUM

ON CENTER

PRE-ENGINEERED METAL BUILDING

POLYVINYL CHLORIDE

RIGHT-OF-WAY

TO BE DETERMINED

TYPICAL

UPPER RILEY CREEK PUBLIC WORKS DECANT FACILITY

23270053 1/

CHANHASSEN, MN COVER SHEET, INDEX, AND

20270000.11					
CLIENT PROJECT No.					
DWG. No.	REV. No.				
G-001	0				



HORIZONTAL: MNDOT COUNTY COORDINATES (NAD83), CARVER COUNTY, US I VERTICAL: NAVD 88 REVISION DESCRIPTION

Call 811 before you dig.

HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR	CLIENT	05/10/24	06/18/24	10/01/24				I
REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT LAM A DULY LICENSED	PERMIT		_	_	_		_	Ľ
PROFESSIONAL ENGINEER UNDER THE LAWS OF THE	BID		_	_	11/19/24		_	Ľ
STATE OF MINNESOTA.	CONSTRUCTION		_		11/19/24		_	Ŀ
RINTED NAME BRYAN D. PITTERLE	RECORD				_		_	I
IGNATURE Bym Pitterle	RELEASED	Α	В	С	0	1	2	I
MATE 11/19/2024 LICENSE# 55568	TO/FOR			DATE I	RELEA	SED		

BARR ENGINEERING CO. 4300 MARKETPOINTE DRIVE MINNEAPOLIS, MN 55435

04/26/2024 AWT BDP BARR

RILEY PURGATORY BLUFF CREEK WD CHANHASSEN, MN

VICINITY MAP

