RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

May 2024
Board Packet

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Agenda

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RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

Regular Board Meeting Agenda

Wednesday, May 1, 2024

6:30 PM

This month's meeting will be held at the District office (2665 Noel Drive, Little Canada, MN) but also via the video conferencing platform Zoom. Board members, staff, consultants, and general public will be able to join in person OR via video and/or phone. The public will be able to listen to meeting but not participate with the exception of the visitor comments portion of the agenda. Instructions for joining in on the Zoom meeting can be found after the agenda.

1. Call to Order – 6:30 PM
2. **Approval of Agenda *(pg. 3)***
3. **Consent Agenda: To all be approved with one motion unless removed from consent agenda for discussion.**
    A. Approval of Regular Meeting Minutes April 3, 2024 *(pg. 7)*
    B. Treasurer's Report and Bill List *(pg. 14)*
    C. Permit Program
        i. 24-18 The Heights- Habitat for Humanity Blocks 3 & 4, St. Paul *(pg. 25)*
        ii. 24-19 Companion Animal Control, Oakdale *(pg. 31)*
        iii. 24-20 Little Canada 2024 SIP- Country Drive, Little Canada *(pg. 36)*
        iv. 24-21 Roers Apartments, Maplewood *(pg. 44)*
        v. 24-22 Maplewood 2024 SIP- East Shore Drive, Maplewood *(pg. 49)*
        vi. 24-23 Oakdale Public Works Facility, Oakdale *(pg. 53)*
        vii. 24-24 Keller Lake Shoreline Restoration, Maplewood *(pg. 62)*
    D. Stewardship Grant Program
        i. 24-26 CS Denkinger *(pg. 66)*
        ii. 24-27 CS Huberty *(pg. 68)*
    E. CIP Maintenance and Repair 2024 – Change Order No. 1 *(pg. 70)*
    F. Woodbury Target Store Targeted Retrofit Project – Change Order No. 1 *(pg. 78)*
4. Visitor Comments (limited to 4 minutes each)
5. Permit Program
    A. Applications – see consent agenda
    B. Enforcement Action Report *(pg. 82)*
6. Stewardship Grant Program
    A. Applications – see consent agenda
    B. Budget Status Update *(pg. 87)*
7. Action Items
    A. **Cottage Place Wetland Restoration Approval of Plans and Authorize for Bid *(pg. 89)***
    B. **Budget Transfer Request (CIP Contingency Fund to Debt Service Fund) *(pg. 120)***
8. Attorney Report
9. Board Discussion Topics
10. New Reports and/or Presentations
    A. Phalen Creek Daylighting Project Update and Request to RWMWD, Gabby Menomin, Wakan Tipi Awanyankapi *(pg. 123)*

B. RWMWD Shorelands – Past, Present, and Future – Paul Erdmann, Natural Resources Program Manager and Pat Williamson, Natural Resources Specialist *(pg. 144)*
C. Maplewood Mall Assessment 2024 Scope Summary (informational item) *(pg. 161)*

11. Administrator's Report *(pg. 165)*
    A. Meetings Attended
    B. Upcoming Meetings and Dates
    C. Staff Anniversaries
    D. Board Action Log
    E. Minnesota Watersheds Updates
    F. West Vadnais Lake Discussion
12. Project and Program Status Reports *(pg. 172)*

Project Feasibility Studies

A. Kohlman Creek Flood Risk Feasibility Study
B. Ames Lake Area Flood Risk Reduction Planning Study
C. Phalen Village Flood Risk Reduction
D. Resiliency Study for non-Beltline Tributary Areas
E. Owasso Basin/North Star Estates Improvements
F. Street Sweeping
G. Watershed Approach to Retrofit Projects

Lake Studies/Total Maximum Daily Load (TMDL) Reports

H. 2024 Grant Applications

Research Projects

I. New Technology Mini Case Studies

Capital Improvements

J. Woodbury Target Store Stormwater Retrofit Project
K. Roosevelt Homes
L. Targeted Retrofit Projects 2024
M. Pioneer Park Stormwater Reuse
N. Fish Creek Tributary Improvements
O. Cottage Place Wetland Restoration
P. County Road C Culvert Project
Q. Kohlman Creed Flood Risk Reduction Projects: Final Design

CIP Project Repair and Maintenance

R. Routine CIP Inspection and Unplanned Maintenance Identification
S. 2024 CIP Maintenance and Repairs Projects
T. Beltline Mississippi Branch Outfall Replacement Project

Program Updates

U. Natural Resources Program
V. Public Involvement and Education Program
W. Communications and Outreach Program
X. Citizen Advisory Committee Program

13. Manager Comments and Next Month's Meeting
14. **Adjourn**

RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

NOTICE OF BOARD MEETING
Wednesday, May 1, 2024
6:30 PM
Hybrid Meeting: In-Person and Web Conference

This month's meeting will be held at the District office (2665 Noel Drive, Little Canada, MN) AND via the video conferencing platform Zoom. Board members, staff, consultants, and general public will be able to join in person or via Zoom. The public will be able to listen to meeting but not participate with the exception of the visitor comments portion of the agenda. Visitor comment may be given in person or via Zoom. Instructions for joining in on the Zoom meeting can be found below.

To access the meeting via webcast, please use this link: https://us02web.zoom.us/j/82472390629?pwd=dVB5UFFSMTRjNVFSd2VSaGlPZGVEUT09

The meeting room will open at 6:20 pm with the meeting starting at 6:30 pm. To connect to audio, you may choose to use your computer audio options or you may use your mobile device to call. The phone access number is **(312) 626-6799**. The Meeting ID is **824 7239 0629**. The meeting password is **018018**. If you have any questions, please contact Tina Carstens at tina.carstens@rwmwd.org.

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Consent Agenda

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Ramsey-Washington Metro Watershed District
Minutes of Regular Board Meeting
April 3, 2024

The Regular Meeting of April 3, 2024, was held at the District Office Board Room, 2665 Noel Drive, Little Canada, Minnesota, and via Zoom web conferencing at 6:30 p.m. A video recording of the meeting can be found at https://youtu.be/QE5TphctOIQ. Video time stamps included after each agenda item in minutes.

PRESENT:
Val Eisele, President
Ben Karp, Vice President
Mark Gernes, Secretary
Matt Kramer, Treasurer
Stephanie Wang, Manager

ABSENT:

ALSO PRESENT:
Tina Carstens, District Administrator
Nicole Maras, Permit Coordinator
Tracey Galowitz, Attorney for District
Ashley Petel, Former RWMWD Intern
Bryan Murphy, City of St. Paul
Bob Barth, WSB
Kristine Williams, SPPA
Kevin Lyons, FlashVote
Paige Ahlborg, Project Manager
Carrie Magnuson, GIS Technician
Brandon Barnes, Barr Engineering
Matt Williams, City of Oakdale
Eric Korte, Water Monitoring Coordinator
Blake Hansen, SEH
Jodie Cremers, Woodland Hills Church
Dan Cazanacli, University of Minnesota
Lauren Hazenson, Communications and Outreach Coordinator
Paul Erdmann, Natural Resources Program Manager
Pat Williamson, Natural Resources Specialist
Joe Tillotson, Natural Resources Technician

1. CALL TO ORDER
The meeting was called to order by President Eisele at 6:30 p.m.

2. APPROVAL OF AGENDA (0:36)
Motion: Manager Karp moved, Manager Kramer seconded, to approve the agenda as amended.

Motion carried unanimously.

3. CONSENT AGENDA (0:54)
A. Approval of Minutes from March 6, 2024
B. Treasurer's Report and Bill List
C. Permit Program
   i. 24-13 3M Fire Main Replacement, Maplewood
   ii. 24-14 MnDOT Hwy 36 Improvements, Roseville, Maplewood
   iii. 24-15 St. Paul Suburban-Burns Sidewalk, St. Paul
   iv. 24-16 Justice Alan Page Elementary Parking, Maplewood
   v. 24-17 The Heights II, St. Paul

D. Stewardship Grant Program

i. 24-15 CS Lake Grove Townhomes
ii. 24-17 CS Landfall 2024 Street Sweeping
iii. 24-18 CS Oakdale 2024 Street Sweeping
iv. 24-21 CS White Bear Lake 2024 Street Sweeping
v. 24-22 CS Ryan

Motion: Manager Karp moved, Manager Kramer seconded to approve the consent agenda as amended.

Motion carried unanimously.

4. VISITOR COMMENTS (2:23)

No comments.

5. PERMIT PROGRAM (3:05)

A. Applications

Permit #24-12 St. Paul Fish Hatchery Trail, St. Paul

Nicole Maras provided information on the proposed permit stating that the work would consist of reconstructing and realigning portions of an existing trail and an eventual trail connection along Warner Rd. and Highway 61. Nicole stated the plans include lined filtration basins and a payment to the stormwater impact fund due to site constraints and contaminated soils. Nicole explained that there is no net fill proposed in the floodplain based on the site grading. Nicole continued to explain there is a proposed quarter acre of permanent wetland impact to accommodate this project and provided information on memos included in the packet regarding wetland impact and wetland buffer variance requests.

Nicole stated that the applicant was asking to consider the Gerdau TMS area restoration as meeting the no net loss policy because the wetland created during the restoration was in excess of the proposed impact of the Fish Hatchery trail project and is located in the same subwatershed. Nicole explained it was recognized that this would not meet the state or federal Army Corps of Engineer requirements for wetland replacement so they would also be purchasing 2:1 credits to satisfy those agencies.

Motion: Manager Gernes moved, Manager Wang seconded to approve permit #24-12 St. Paul Fish Hatchery Trail.

Motion carried unanimously.

B. Monthly Enforcement Report

During the month of March, 16 notices were sent to address: general permit requirements (SWPP, inspection logs) (5), install/maintain perimeter control (4), install/maintain construction entrance (2), stabilize exposed soils (2), contain/dispose of liquid or solid waste (1), improper dewatering (1), install/maintain inlet protection (1).

Nicole Maras provided an overview of the monthly enforcement report highlighting the increase in violations related to record keeping and inspections. Nicole stated that this effort is an attempt to lessen violations throughout the season.

President Eisele stated that he appreciated the increased scrutiny. President Eisele questioned if contractors hire their own onsite inspectors.

Nicole Maras stated that some superintendents have trained foreman complete the inspections, if a company does not have a trained person or the resources to complete the inspections themselves they can hire an outside inspector.

Manager Karp questioned if there were any spills or leaks reported with the Norhart apartments violations or if was a lack of properly maintaining the materials.

Nicole Maras clarified that there were no spills documented and that the violation was due to the improper storage and potential for a spill.

6. STEWARDSHIP GRANT PROGRAM (14:49)

A. Applications

24-16 CS Woodland Hills Church

Paige Ahlborg provided a history of past projects at the site and gave an overview of the proposed project, noting that it is eligible for 100% coverage up to $100,000 given the location. Paige explained that this location is also in a medium priority area identified on the District's Social Vulnerability Index. Because of this staff would recommend providing additional funds from the stormwater impact fund for this project.

President Eisele asked for the levels associated with the social vulnerability index.

Paige Ahlborg explained that there are three levels, low medium and high. Paige reiterated that this project is in a medium level category. Paige stated that there is potential for an art project could be included in this project. Paige also noted that there is a request to pay the contractors directly for the costs incurred.

President Eisele stated that he would like to make sure that the criteria used to make the choice to prioritize this project for the social vulnerability index increase in funding would be clearly articulated. President Eisele stated that the beneficial removal of impervious area combined with the social vulnerability index aspects made him very comfortable with approving this project.

President Eisele stated that rain garden signage would be nice to include.

Paige Ahlborg stated that signage would be included.

Manager Gernes questioned if this is a one phase project or if there would be other components.

Jodi Cremers confirmed that it would be a one phase project.

Motion: Manager Karp moved, Manager Gernes seconded to application #24-16 CS.

Motion carried unanimously.

24-19 CS Oakdale Brine Maker

Paige Ahlborg provided information on the proposed project stating that in-house brine production would be used to reduce chloride use in the City of Oakdale. Paige stated that the area of Oakdale within the district drains into Battle Creek Lake which was classified by the PCA as impaired for chlorides. Paige stated that it is proposed to offer 50% funding due to 50% of the roads being within the district.

President Eisele questioned if the application for the grant was for the construction of the building.

Paige Ahlborg confirmed that it would be for the installation of the brine maker facility in their public works building.

Manager Karp stated that he believed this was a great project and that he liked to see cities pushing for alternatives to chloride when they can. Manager Karp stated that he saw this as a great use of money on chloride reduction.

Manager Gernes asked if there was a plan for storage or if storage would be addressed as needed.

Matt Williams explained that there will be two interior double walled tanks for storage with one storage tank used for brine and one used for additive.

Manager Wang asked if there were opportunities within the stewardship grant to go beyond the funding and include educational outreach.

Paige Ahlborg stated that she liked the idea and would work with Matt Williams and Lauren Hazenson to come up with an outreach plan.

President Eisele asked for more information on what stewardship grant criteria that are satisfied for this project.

Paige Ahlborg stated that it would fall under the water quality category.

Manager Gernes stated that he thinks this is a great direction to go.

Motion: Manger Kramer moved, Manager Gernes seconded to approve application #24-19 CS.

Motion carried unanimously.

B. Budget Status Update
Paige Ahlborg provided an update on the budget status.

7. ACTION ITEMS (35:12)

A. County Road C Flood Risk Reduction Project Advertise to Bid
Brandon Barnes provided the details of the project and its location stating that this is the first of several drainage improvements on Kohlman Creek. Brandon explained this improvement is occurring ahead of the others due to the county resurfacing the road later in the year. Brandon explained the county policy on disturbing a resurfaced roadway, stating that the county would not allow work to be done within 5 years of the resurfacing. Brandon detailed an agreement being worked on with the county stating the county will fund 100% of the construction cost associated with the culvert. Brandon explained the districts role will be designing the project due to it being identified as a flood risk improvement. Brandon explained that the action needed is to authorize staff to finalize design and cost estimates and write authorization to solicit bids to bring back to the board in a month or two, giving time to get the permits needed.

Motion: Manager Gernes moved, Manager Wang seconded to approve preliminary design, estimated costs, and proposed project schedule, and direct staff to finalize the design and bidding documents and solicit bid proposals.

Motion carried unanimously.

8. ATTORNEY REPORT (44:22)

Tracey Galowitz reviewed items being worked on including the County Road C culvert cooperative agreement, obtaining appraisals for the Fish Creek easements and reviewing certificates of insurance and documents for the Woodbury Target targeted retrofit project.

9. BOARD DISCUSION TOPICS (45:47)

Manager Wang brought up the topic of chloride use and the possibility of using education on calibration techniques when applying chloride to help those applying chloride, such as private contractors, be better aware of how much is actually needed during applications. Manager Wang provided ideas of a partnership with a municipality or contractor to demonstrate calibration in action.

Manager Karp stated that CAC is looking for ideas and had mentioned salt education in the past. Manager Karp thought that the board could give direction to the CAC to work on providing chloride reduction information at WaterFest.

Manager Kramer questioned if the land acquisition policy should be removed from board discussion topics if it is no longer applicable.

Tina Carstens stated that it could still be discussed and would be a good policy to have in place. Tina stated that the watershed management plan updates would be another good place to discuss the topic.

President Eisele stated that it would be beneficial policy to have but may not be a necessity.

Tina Carstens stated that purchasing land is not something the district does regularly and the district owns very little land. Tina explained that there was a unique situation when the golf course went up for sale.

10. NEW REPORTS AND/OR PRESENTATIONS (59:04)

A. Community Survey Results Presentation – Lauren Hazenson and Kevin Lyons

Lauren Hazenson provided background on how the idea of completing a community survey came to be. Lauren provided insights into the demographics of those most engaged with the district. Lauren explained that the goals of completing a community survey including gauging the overall visibility of the district, measuring water concerns and values, getting a sense of how water resources are used, getting respondents consistent with the demographic breakdown of the district and finding out what water quality means to the public vs. the water management sector. Lauren introduced Kevin Lyons the CEO of FlashVote, the company used to complete the survey. Lauren stated that Kevin will review the logistics of the survey.

Kevin Lyons provided background on FlashVote and provided and overview of how they complete their survey work. Kevin explained that short surveys were sent out through text messages to both priority and non-priority areas, focusing more on priority areas. Kevin explained the response rate and how it related to other surveys that were sent out through FlashVote. Kevin proceeded to provide the questions that were asked in the survey and explained responses received.

Lauren Hazenson provided more details on how the information received through the survey can be used to communicate clearly to different audiences. Lauren detailed how the survey helps in identifying needs and audiences, which allows for a communications strategy to be created to reach those audiences, once the content is delivered an evaluation can be done to then identify new needs continuing the outreach cycle and engaging people on a long-term basis. Lauren went on to explain how this would be put into action within the district and highlighted some of the plans she has to connect with more people within the district. Lauren explained how another survey would be conducted in a few years to find out how effective the communication strategy was.

B. Schletty Tamarack Wetland Presentation – Ashley Petel

Tina Carstens introduced Ashley Petel stating that she is a former natural resources intern who also did work within the district for her master's program.

Ashley Petel provided details on how her restoration plan for Schletty Tamarack Wetland came to be and provided background on her areas of study and how that played a role in creating the plan for this wetland. Ashley overviewed the steps taken in creating the plan starting with a site assessment then moving to creating a concept plan and a finally plan narrative. Ashley provided information on the location of the site and discussed historic aerial photos, noting that it was undisturbed until 1991 when development began around the wetland. Ashley explained the plant communities found on site as Tamarack Swamp, Mesic Hardwood and Cat Tail Marsh. Ashley proceeded to explain the key assets found when assessing the site, noting that there were a large number of native plants found. Ashley detailed some of the challenges of the site noting evidence of emerald ash borer and large amounts of buckthorn. Ashley provided details on how these pressures affect the wetland. Ashley explained Tamarack regeneration was not found and that this could

be due to the buckthorn. Ashley moved on to explain the concept plan and gave information on reference sites nearby. Ashley stated the goals of a restoration would be enhancing the Tamarack swamp plant community, improve wildlife habitat and other water quality actions. Ashley provided more information on the goals for each plant community. Ashley provided ideas for invasive species control, highlighting the Oregon kiln biochar. Ashley then went into the seeding and planting plans for the site. Ashley explained the detailed narrative she created including project benefits, funding ideas, research opportunities, and a plant community enhancement plan. Ashley stated that she believed that this project would meet with the districts mission statement.

Tina Carstens stated that from a practicality standpoint the site might be a good location to monitor, looking at the Tamaracks and invasive species while putting it on the list of restoration sites for future wetland restoration.

C. 2023 District Water Monitoring Report – Eric Korte

Eric Korte explained that he would be reviewing trends over the last year and also trends over the past ten years. Eric explained how the lakes are looked at over a period of time and that one year does not always show an accurate picture of how a lake is doing. Eric describe the sampling that is completed as well as the techniques and times lines used for sampling. Eric stated that some of the things that are looked for are in sampling are phosphorus, chlorophyll A, and nitrogen.

Eric Korte continued to explain the trends that are looked at and how that data is used to determine the health of the lakes. Eric proceeded to explain the details of a chart showing the trends of phosphorus, chlorophyll A and Secchi in all lakes within the district over the last 10 years, noting that Owasso Lake, Carver Lake, Snail Lake, Wabasso Lake and Wakefield lake all showing improvements while Kohlman Lake and Emily Lake show worsening trends. Eric noted that Emily Lake had not been monitored in over 10 years but it will be put back on the regular monitoring list starting this year. Eric provided more detailed information on the trends found in each lake.

Eric Korte continued on to review data collected from creeks and the Beltline interceptor, noting where creeks have improved or worsened and also how they compare to state standards.

Eric Korte continued on to discuss BMPs starting with the alum plant. Eric explained how the alum plant works and provided details on the results noting that there is a decrease in removal rates over the last four years. Eric described changes that may be causing this to occur, noting the dosing could be off after installing an upgraded system in 2019 or that shutting down the plant due to low Ph in the inlet caused untreated water to get through. Eric detailed what his next steps for trying to make sure things are working correctly.

Eric continued on to discuss chloride monitoring and detailed the sites looked at, the timing of the chloride sampling and explained the results. Eric noted the biggest factor seems to be percentage of impervious surface in a location. Eric explained how weather trends can also relate to the levels of chloride found.

D. Kohlman Creek Flood Risk Reduction Projects, Final Design Scope Summary

President Eisele questioned if there is an outreach plan to connect with residents in the area.

Brandon Barnes stated there is a plan to communicate with nearby residents throughout the design phase but will talk with the cities about that.

11. ADMINISTRATOR'S REPORT (2:24:34)

A. Meetings Attended

No comments.

B. Upcoming Meetings and Dates

Tina Carstens reviewed the upcoming meetings and dates.

C. Staff Anniversaries
No comments.

D. Board Action Log
No comments.

E. Minnesota Watersheds Updates
No comments.

F. Staffing Update
No comments.

12. PROJECT AND PROGRAM STATUS REPORTS (2:25:39)

Project Feasibility Studies

A. Kohlman Creek Flood Risk Feasibility Study
B. Ames Lake Area Flood Risk Reduction Planning Study
C. Phalen Village Flood Risk Reduction
D. Resiliency Study for Non-Beltline Tributary Areas
E. Owasso Basin/North Start Estates Improvements
F. Street Sweeping
G. Watershed Approach to Retrofit Projects (WARP)

Research Projects

H. Kohlman Lake Aquatic Plants Management Effects Study
I. Shallow Lake Aeration Study

Capital Improvements

J. Woodbury Target Store Stormwater Retrofit Project
K. Roosevelt Homes
L. Targeted Retrofit Projects 2024
M. Stewardship Grant Program
N. Pioneer Park Stormwater Reuse
O. Fish Creek Tributary Improvements
P. Cottage Place Wetland Restoration
Q. County Road C Culvert Project

CIP Project Repair and Maintenance

R. Routine CIP Inspection and Unplanned Maintenance Identification
S. 2024 CIP Maintenance and Repairs Project
T. Beltline Mississippi Branch Outfall Replacement Project

Program Updates

U. Natural Resources Program
V. Public Involvement and Education Program
W. Communications and Outreach Program

13. MANAGER COMMENTS AND NEXT MONTH'S MEETING (2:27:49)
No comments.

14. ADJOURN
Motion: Manager Karp moved, Manager Gernes seconded, to adjourn the meeting at 8:58 p.m. Motion carried unanimously.

RWMWD BUDGET STATUS REPORT
Administrative & Program Budget
Fiscal Year 2024
4/30/2024

Budget Category	Budget Item	Account Number	Original Budget	Budget Transfers	Current Month Expenses	Year-to-Date Expenses	Current Budget Balance	Percent of Budget
Manager	Per Diems	4355	$7,000.00	-	-	-	$7,000.00	0.00%
	Manager Expenses	4360	3,000.00	-	-	-	3,000.00	0.00%
Committees	Committee/Bd Mtg. Exp.	4365	4,000.00	-	-	451.99	3,548.01	11.30%
	Sub-Total: Managers/Committees:		**$14,000.00**	**$0.00**	**-**	**451.99**	**$13,548.01**	**3.23%**
Employees	Staff Salary/Taxes/Benefits	4010	2,000,000.00	-	167,541.94	591,890.35	1,408,109.65	29.59%
	Employee Expenses	4020	10,000.00	-	313.71	691.01	9,308.99	6.91%
	District Training & Education	4350	75,000.00	-	5,818.50	15,257.62	59,742.38	20.34%
	Sub-Total: Employees:		**$2,085,000.00**	**$0.00**	**173,674.15**	**607,838.98**	**$1,477,161.02**	**29.15%**
Administration/ Office	Data Base/GIS Maintenance	4170	20,000.00	-	-	1,972.90	18,027.10	9.86%
	Office Equipment Maintenance	4305	2,000.00	-	-	-	2,000.00	0.00%
	Telephone	4310	2,000.00	-	249.93	854.07	1,145.93	42.70%
	Office Supplies	4320	7,000.00	-	154.89	1,102.90	5,897.10	15.76%
	Postage/Delivery	4330	2,000.00	-	-	143.55	1,856.45	7.18%
	Printing/Copying	4335	5,000.00	-	452.51	2,076.81	2,923.19	41.54%
	Dues & Publications	4338	17,000.00	-	-	13,035.00	3,965.00	76.68%
	Janitorial/Trash Service	4341	15,000.00	-	2,686.50	7,605.31	7,394.69	50.70%
	Utilities	4342	20,000.00	-	897.94	7,507.61	12,492.39	37.54%
	Building Maintenance	4343	100,000.00	-	589.15	10,009.69	89,990.31	10.01%
	Miscellaneous	4390	5,000.00	-	-	-	5,000.00	0.00%
	Insurance	4480	65,000.00	-	-	46,002.00	18,998.00	70.77%
	Office Equipment	4703	80,000.00	-	-	16,227.62	63,772.38	20.28%
	District Vehicles/Maintenance	4810-40	60,000.00	-	-	1,677.00	58,323.00	2.80%
	Metro INET	4325	100,000.00	-	8,069.00	32,558.95	67,441.05	32.56%
	Sub-Total: Administration/Office:		**$540,000.00**	**-**	**13,099.92**	**140,773.41**	**$359,226.59**	**26.07%**
Consultants/ Outside Services	Auditor/Accounting	4110	80,000.00	-	4,634.60	11,451.45	68,548.55	14.31%
	Engineering-Administration	4121	122,000.00	-	6,372.34	33,371.34	88,628.66	27.35%
	Engineering-Permit I&E	4122	10,000.00	-	135.00	418.50	9,581.50	4.19%
	Engineering-Review	4123	75,000.00	-	4,442.00	15,746.00	59,254.00	20.99%
	Engineering-Permit Application Review	4124	65,000.00	-	7,020.00	23,921.50	41,078.50	36.80%
	Project Feasibility Studies	4129	260,000.00	-	5,365.50	32,697.22	227,302.78	12.58%
	Attorney-Permits	4130	5,000.00	-	-	-	5,000.00	0.00%
	Attorney-General	4131	40,000.00	-	1,697.50	10,192.20	29,807.80	25.48%
	Outside Consulting Services	4160	40,000.00	-	-	-	40,000.00	0.00%
	Sub-Total: Consultants/Outside Services:		**$697,000.00**	**$0.00**	**29,666.94**	**127,798.21**	**$569,201.79**	**18.34%**
Programs	WMP/Lakes/TMDLs/Grants	4661	154,500.00	-	11,880.50	14,353.50	140,146.50	9.29%
	Natural Resources Program	4670	120,000.00	-	2,201.24	9,647.85	110,352.15	8.04%
	Water Monitoring Program	4520-30	285,000.00	-	26,024.33	131,889.48	153,110.52	46.28%
	Outside Program Support	4683	57,000.00	-	1,500.00	11,500.00	45,500.00	20.18%
	Research Projects	4695	150,000.00	-	3,638.00	47,939.50	102,060.50	31.96%
	Project Operations	4650	150,000.00	-	6,102.44	27,146.41	122,853.59	18.10%
	Communication/Outreach/Events	4371	166,000.00	-	13,661.33	35,880.29	130,119.71	21.61%
	Health and Safety Program	4697	4,000.00	-	-	563.19	3,436.81	14.08%
	Sub-Total: Programs:		**$1,086,500.00**	**$0.00**	**65,007.84**	**278,920.22**	**$807,579.78**	**25.67%**
GENERAL FUND TOTAL			**$4,382,500.00**	**$0.00**	**281,448.85**	**1,155,782.81**	**3,226,717.19**	26.37%
CIP's	Project Repair & Maintenance	516	2,125,000.00	-	57,726.50	271,132.17	1,853,867.83	12.76%
	Targeted Retrofit Projects	518	1,950,000.00	-	31,808.59	107,599.59	1,842,400.41	5.52%
	Flood Risk Reduction Fund	520	5,400,000.00	-	37,001.34	145,612.85	5,254,387.15	2.70%
	Debt Services-Beltline/Maplewood Mall	526	394,963.00		-	279,481.40	115,481.60	70.76%
	Stewardship Grant Fund	529	1,250,000.00	-	130,270.82	144,749.59	1,105,250.41	11.58%
	Fish Creek Tributary Improvements	537	1,375,000.00	-	1,365.00	23,572.00	1,351,428.00	1.71%
	Wetland Restoration Projects	540	700,000.00	-	-	-	700,000.00	0.00%
CIP BUDGET TOTAL			**$13,194,963.00**	**-**	**258,172.25**	**972,147.60**	**$12,222,815.40**	7.37%
TOTAL BUDGET			**$17,577,463.00**	**$0.00**	**539,621.10**	**2,127,930.41**	**$15,449,532.59**	**12.11%**

Current Fund Balances:

Fund:	Unaudited Beginning Fund Balance @ 12/31/23	Fund Transfers	Year to date Revenue	Current Month Expenses	Year to Date Expense	Unaudited Fund Balance @4/30/24
101 - General Fund	$3,125,440.06	-	159,669.93	281,448.85	1,155,782.81	2,129,327.18
516 - Project Repair & Maintenance	872,232.70	-	782.52	57,726.50	271,132.17	601,883.05
518 - Targeted Retrofit Projects	476,410.31	-	71,824.32	31,808.59	107,599.59	440,635.04
520 - Flood Risk Reduction Fund	4,726,296.76	-	42,103.85	37,001.34	145,612.85	4,622,787.76
526 - Debt Services-Beltline/Maplewood Mall	157,575.04	-	-	-	279,481.40	(121,906.36)
529 - Stewardship Grant Fund	201,659.15	-	894.31	130,270.82	144,749.59	57,803.87
536 - Stormwater Impact Fund	1,336,819.50	-	-	-	-	1,336,819.50
537 - Fish Creek Tributary Improvements	121,092.62	-	223.58	1,365.00	23,572.00	97,744.20
540 - Wetland Restoration Projects	498,036.00	-	-	-	-	498,036.00
580 - Contingency Fund	1,465,487.00	-	-	-	-	1,465,487.00
Total District Fund Balance	**$12,981,049.14**	**$0.00**	**$ 275,498.51**	**$ 539,621.10**	**$2,127,930.41**	**$11,128,617.24**

Ramsey Washington Metro Watershed Dist.

Check Register

For the Period From April 1, 2024 to April 30, 2024

Check #	Date	Payee ID	Invoice #	Payee	Description	Amount
EFT	04/02/24	hea002	May-24	HealthPartners	Employee Benefits	$14,488.61
EFT	04/01/24	met008	Apr-24	MetLife-Group Benefits	Employee Benefits	1,664.26
74415V	04/11/24	min008	43032-24	Minnesota Native Landscapes, Inc,	Construction Imp.- Maint. & Repair	($1,184.00) **Void**
74535	04/11/24	aws001	S1335957-040124	AWS Service Center	Janitorial/Trash/Plowing/Sweeping	376.50
74536	04/11/24	cit006	LDP2024-01337	City of Woodbury	Telephone	750.00
74537	04/11/24	han008	2857	Hanna Enterprises, LLC	Janitorial/Trash/Plowing/Sweeping	780.00
74538	04/11/24	hom001	03/28/24	Home Depot Credit Services	Natural Resources Program	131.29
74539	04/11/24	int001	W2303045	Office of MN, IT Services	Telephone	59.34
74540	04/11/24	met005	1868	Metro Blooms	Outside Program Support	1,500.00
74541	04/11/24	nsp001	51-7512877-1	Xcel Energy	Water Monitoring Program	834.47
74542	04/11/24	pac001	24100444959; 24100445332	Pace Analytical Services, Inc.	Water Monitoring Program	2,523.00
74543	04/11/24	pre003	310010914	Premium Waters, Inc.	Utilities/Building Services Contracts	34.00
74544	04/11/24	rmb001	M2400044	RMB Environmental Laboratories	Water Monitoring Program	224.00
74545	04/11/24	sai001	4521	Saint Paul Media	Communications/Outreach/Events	100.00
74546	04/11/24	str005	1877	Strategic Diversity Initiatives	Training & Education	3,750.00
74547	04/11/24	usb005	525981312	US Bank Equipment Finance	Printing/Copier Lease	452.51
74548	04/24/24	atl001	21-33	Atlas Real Estate Management	Escrow Refund	16,000.00
74549	04/24/24	att002	287256653401X04252024	AT & T Mobility - ROC	Project Operations	166.34
74550	04/24/24	bar001	Mar16-Apr12, 2024	Barr Engineering	Various	149,709.87
74551	04/24/24	ben002	121664	Benefit Extras, Inc.	Employee Benefits	120.00
74552	04/24/24	ber009	Apr-24	Bjorn Bergerson	Employee Expenses	9.72
74553	04/24/24	bfg001	2595437-00	BFG Supply Co., LLC	Education Program	465.76
74554	04/24/24	cad001	20473867	Zayo Group, LLC	Water Monitoring Program	202.27
74555	04/24/24	cit021	24-23 CS	City of Shoreview	Stewardship Grant Program	322.57
74556	04/24/24	cit022	23-13 CS	City of Maplewood	Stewardship Grant Program	100,000.00
74557	04/24/24	com004	Apr 16, 2024	Comcast	Utilities/Building Services Contracts	109.93
74558	04/24/24	cor002	15471	Cornerstone Land Surveying, Inc.	Project Operations/Project Maintenance & Repair	2,200.00
74559	04/24/24	cos002	16-18 (16-02 WCA)	Costco Wholesale	Escrow Refunds	98,900.00
74560	04/24/24	dav003	9000040366	Davey Resource Group, Inc.	Construction Imp.- Maint. & Repair	4,794.25
74561	04/24/24	erd001	Apr-24	Paul Erdmann	Employee Benefits	80.00
74562	04/24/24	fit001	Prog Pmt #3	Fitzgerald Excavating & Trucking, Inc.	Construction Imp.- Maint. & Repair	14,155.00
74563	04/24/24	fit002	Apr-24	Mary Fitzgerald	Employee Benefits, Expenses	823.75
74564	04/24/24	fit003	Apr-24	Emily F. Kamin	Employee Benefits, Expenses	805.00
74565	04/24/24	gal001	April 18, 2024	Galowitz Olson, PLLC	Attorney-General	1,697.50
74566	04/24/24	gru001	01-33581	Gruber's Power Equipment	Natural Resources Program	2,054.95
74567	04/24/24	haw001	6738816	Hawkins, Inc.	Water Monitoring Program	10,914.40
74568	04/24/24	inn002	IN4504701;4517259	Innovative Office Solutions LLC	Utilities/Building Services Contracts	383.61
74569	04/24/24	inn003	18923	Innovational Water Solutions, Inc.	Utilities/Building Services Contracts	370.40
74570	04/24/24	int001	W24030505	Office of MN, IT Services	Telephone	48.59
74571	04/24/24	kub001	Apr-24	Kyle W. Kubitza	Employee Benefits	40.00
74572	04/24/24	lan009	2449;2444	Landbridge Ecological, Inc.	Construction Imp.- Maint. & Repair	3,536.25
74573	04/24/24	lea003	16-1005	L. Tracy Leavenworth	Education Program	7,296.75
74574	04/24/24	mbc001	1185	MBohn Consulting, LLC.	Communications/Outreach/Events	5,000.00
74575	04/24/24	mel001	April 2024	Michelle L. Melser	Employee Benefits, Expenses	403.41
74576	04/24/24	met013	1854	Metro - INET	Roseville IT Services/Web Site/Software/Licenses	8,211.00
74577	04/24/24	mey001	Apr-24	Sommer Meyer	Employee Expenses	16.62
74578	04/24/24	min012	Sommer Meyer	MN Department of Agriculture	Natural Resources Program	15.00
74579	04/24/24	min022	2024-0678	MN DNR Ecological and Water Resources	Project Operations/Project Maintenance & Repair	3,000.00
74580	04/24/24	min022	2024-1021	MN DNR Ecological and Water Resources	Project Operations/Flood Damage Reduction Fund	5,862.84
74581	04/24/24	ncp001	April 1, 2024	NCPERS Group Life Ins.	Employee Benefits	16.00
74582	04/24/24	pac001	46210;46664;46755	Pace Analytical Services, Inc.	Water Monitoring Program	2,691.00
74583	04/24/24	pas002	April 2024	Carol Passi	Employee Benefits, Expenses	300.28
74584	04/24/24	ram016	PRK-002342	Ramsey County	Stewardship Grant Program	21,143.75
74585	04/24/24	red002	150486181	Redpath & Company, LLC.	Accounting	4,470.50
74586	04/24/24	reg002	0340034049	Regents of the University of Minnesota	Stewardship Grant Program	6,205.00
74587	04/24/24	sod001	Apr-24	Nicole Maras	Employee Benefits, Expenses	71.49
74588	04/24/24	stu001	2019884	Studio Lola	Communications/Outreach/Events	912.89
74589	04/24/24	til002	Apr-24	Joseph S. Tillotson	Employee Benefits, Expenses	42.68
74590	04/24/24	uwm001	AR0195029	UW Madison Accounting Services	Research Projects	2,200.00
74591	04/24/24	wil007	Apr-2024	Patrick Williamson	Employee Benefits, Expenses	144.69
Total						**$502,398.04**
EFT	04/12/24	myp001	04/12/24	April 12th Payroll	4110-101-000	79.85
EFT	04/26/24	myp001	04/26/24	April 26th Payroll	4110-101-000	84.25
Dir.Dep.	04/12/24	---	Payroll Expense-Net	April 12th Payroll	4010-101-000	28,424.97
EFT	04/12/24	int002	Internal Rev.Serv.	April 12th Federal Withholding	2001-101-000	10,276.24
EFT	04/12/24	mnd001	MN Revenue	April 12th State Withholding	2003-101-000	1,688.35
EFT	04/12/24	per001	PERA	April 12th PERA	2011-101-000	6,358.68
EFT	04/12/24	emp002	Empower Retirement	Employee Def. Comp. Contributions	2016-101-000	1,948.00
EFT	04/12/24	emp002	Empower Retirement	Employee IRA Contributions	2018-101-000	1,879.00
Dir.Dep.	04/26/24	---	Payroll Expense-Net	April 26th Payroll	4010-101-000	53,920.82
EFT	04/26/24	int002	Internal Rev.Serv.	April 26th Federal Withholding	2001-101-000	24,119.38
EFT	04/26/24	mnd001	MN Revenue	April 26th State Withholding	2003-101-000	4,270.90
EFT	04/26/24	per001	PERA	April 26th PERA	2011-101-000	11,736.80
EFT	04/26/24	emp002	Empower Retirement	Employee Def. Comp. Contributions	2016-101-000	1,948.00
EFT	04/26/24	emp002	Empower Retirement	Employee IRA Contributions	2018-101-000	1,879.00
					Payroll/Benefits:	**$148,614.24**
Total					**Accounts Payable/Payroll/Benefits:**	**$651,012.28**

Ramsey Washington Metro Watershed Dist.

Cash Disbursements Journal

For the Period From April 1, 2024 to April 30, 2024

Date	Check #	Vendor ID	Name	Account ID	Description	Amount
04/02/24	EFT	hea002	HealthPartners	4040-101-000	Employee Benefits	$14,488.61
04/01/24	EFT	met008	MetLife-Group Benefits	4040-101-000	Employee Benefits	1,664.26
04/11/24	74415V	min008	Minnesota Native Landscapes, Inc,	4630-516-000	Construction Imp.- Maint. & Repair	($1,184.00)
04/11/24	74535	aws001	AWS Service Center	4341-101-000	Janitorial/Trash/Plowing/Sweeping	376.50
04/11/24	74536	cit006	City of Woodbury	4310-101-000	Telephone	750.00
04/11/24	74537	han008	Hanna Enterprises, LLC	4341-101-000	Janitorial/Trash/Plowing/Sweeping	780.00
04/11/24	74538	hom001	Home Depot Credit Services	4670-101-000	Natural Resources Program	131.29
04/11/24	74539	int001	Office of MN, IT Services	4310-101-000	Telephone	59.34
04/11/24	74540	met005	Metro Blooms	4683-101-000	Outside Program Support	1,500.00
04/11/24	74541	nsp001	Xcel Energy			834.47
				4530-101-000	Water Monitoring Program	
				4343-101-000	Building/Site Maintenance	
				4650-520-000	Project Operations/Flood Damage Reduction Fund	
04/11/24	74542	pac001	Pace Analytical Services, Inc.	4530-101-000	Water Monitoring Program	2,523.00
04/11/24	74543	pre003	Premium Waters, Inc.	4342-101-000	Utilities/Building Services Contracts	34.00
04/11/24	74544	rmb001	RMB Environmental Laboratories	4530-101-000	Water Monitoring Program	224.00
04/11/24	74545	sai001	Saint Paul Media	4371-101-000	Communications/Outreach/Events	100.00
04/11/24	74546	str005	Strategic Diversity Initiatives	4350-101-000	Training & Education	3,750.00
04/11/24	74547	usb005	US Bank Equipment Finance	4335-101-000	Printing/Copier Lease	452.51
04/24/24	74548	atl001	Atlas Real Estate Management	2024-101-000	Escrow Refunds	16,000.00
04/24/24	74549	att002	AT & T Mobility - ROC	4650-101-000	Project Operations	166.34
04/24/24	74550	bar001	Barr Engineering			149,709.87
				4121-101-000	Engineering Admin	6,372.34
				4350-101-000	Training & Education	2,068.50
				4123-101-000	Engineering Review	4,442.00
				4128-520-000	Engineering -Flood Damage	19,645.50
				4129-101-000	Project Feasability	1,417.00
				4129-101-000	Project Feasability	320.00
				4129-101-000	Project Feasability	3,628.50
				4520-101-000	WQM-Engineering	5,635.00
				4520-101-000	WQM-Engineering	1,677.00
				4520-101-000	WQM-Engineering	898.38
				4520-101-000	WQM-Engineering	834.50
				4122-101-000	Permit Application I & E	135.00
				4124-101-000	Eng. Permit Review	7,020.00
				4661-101-000	SLMP/TMDL Studies	255.00
				4661-101-000	SLMP/TMDL Studies	11,625.50
				4695-101-000	Research Projects	570.50
				4695-101-000	Research Projects	737.50
				4695-101-000	Research Projects	130.00
				4650-101-000	Project Operations	1,860.00
				4650-101-000	Project Operations	3,880.56
				4128-518-000	Engineering -Targeted Retrofit	7,619.92
				4128-518-000	Engineering -Targeted Retrofit	3,564.00

Date	Check #	Vendor ID	Name	Account ID	Description	Amount	
				4128-518-000	Engineering -Targeted Retrofit		1,475.00
				4682-529-000	Stewardship Grant Program		849.50
				4128-520-000	Engineering -Flood Damage		975.00
				4128-518-000	Engineering -Targeted Retrofit		1,570.67
				4129-537-000	Driveway Fish Creek Tributary		1,365.00
				4128-518-000	Engineering -Targeted Retrofit		17,424.00
				4128-520-000	Engineering -Flood Damage		9,611.50
				4128-518-000	Engineering -Targeted Retrofit		155.00
				4128-520-000	Engineering -Flood Damage		906.50
				4128-516-000	Eng. Projects-Maint & Repair		3,668.00
				4128-516-000	Eng. Projects-Maint & Repair		5,864.50
				4128-516-000	Eng. Projects-Maint & Repair		21,508.50
04/24/24	74551	ben002	Benefit Extras, Inc.	4040-101-000	Employee Benefits	120.00	
04/24/24	74552	ber009	Bjorn Bergerson	4020-101-000	Employee Expenses	9.72	
04/24/24	74553	bfg001	BFG Supply Co., LLC	4370-101-000	Education Program	465.76	
04/24/24	74554	cad001	Zayo Group, LLC	4530-101-000	Water Monitoring Program	202.27	
04/24/24	74555	cit021	City of Shoreview	4682-529-000	Stewardship Grant Program	322.57	
04/24/24	74556	cit022	City of Maplewood	4682-529-000	Stewardship Grant Program	100,000.00	
04/24/24	74557	com004	Comcast	4342-101-000	Utilities/Building Services Contracts	109.93	
04/24/24	74558	cor002	Cornerstone Land Surveying, Inc.	4650-516-000	Project Operations/Project Maintenance & Repair	2,200.00	
04/24/24	74559	cos002	Costco Wholesale	2024-101-000	Escrow Refunds	98,900.00	
04/24/24	74560	dav003	Davey Resource Group, Inc.			4,794.25	
				4630-516-000	Construction Improvements/Project Maintenance & Repair		3,794.25
				4682-529-000	Stewardship Grant Program		1,000.00
04/24/24	74561	erd001	Paul Erdmann	4040-101-000	Employee Benefits	80.00	
04/24/24	74562	fit001	Fitzgerald Excavating & Trucking, Inc.	4630-516-000	Construction Improvements/Project Maintenance & Repair	14,155.00	
04/24/24	74563	fit002	Mary Fitzgerald			823.75	
				4040-101-000	Employee Benefits		58.75
				4341-101-000	Janitorial/Trash/Plowing/Sweeping		765.00
04/24/24	74564	fit003	Emily F. Kamin			805.00	
				4040-101-000	Employee Benefits		40.00
				4341-101-000	Janitorial/Trash/Plowing/Sweeping		765.00
04/24/24	74565	gal001	Galowitz Olson, PLLC	4131-101-000	Attorney-General	1,697.50	
04/24/24	74566	gru001	Gruber's Power Equipment	4670-101-000	Natural Resources Program	2,054.95	
04/24/24	74567	haw001	Hawkins, Inc.	4530-101-000	Water Monitoring Program	10,914.40	
04/24/24	74568	inn002	Innovative Office Solutions LLC	4342-101-000	Utilities/Building Services Contracts	383.61	
04/24/24	74569	inn003	Innovational Water Solutions, Inc.	4342-101-000	Utilities/Building Services Contracts	370.40	
04/24/24	74570	int001	Office of MN, IT Services	4310-101-000	Telephone	48.59	
04/24/24	74571	kub001	Kyle W. Kubitza	4040-101-000	Employee Benefits	40.00	
04/24/24	74572	lan009	Landbridge Ecological, Inc.	4630-516-000	Construction Improvements/Project Maintenance & Repair	3,536.25	
04/24/24	74573	lea003	L. Tracy Leavenworth	4370-101-000	Education Program	7,296.75	
04/24/24	74574	mbc001	MBohn Consulting, LLC.	4371-101-000	Communications/Outreach/Events	5,000.00	
04/24/24	74575	mel001	Michelle L. Melser			403.41	
				4020-101-000	Employee Expenses		28.41
				4343-101-000	Building/Site Maintenance		375.00

Date	Check #	Vendor ID	Name	Account ID	Description	Amount	
04/24/24	74576	met013	Metro - INET			8,211.00	
				4310-101-000	Telephone		142.00
				4325-101-000	Roseville IT Services/Web Site/Software/Licenses		8,069.00
04/24/24	74577	mey001	Sommer Meyer	4020-101-000	Employee Expenses	16.62	
04/24/24	74578	min012	MN Department of Agriculture	4670-101-000	Natural Resources Program	15.00	
04/24/24	74579	min022	MN DNR Ecological and Water Resources	4650-516-000	Project Operations/Project Maintenance & Repair	3,000.00	
04/24/24	74580	min022	MN DNR Ecological and Water Resources	4650-520-000	Project Operations/Flood Damage Reduction Fund	5,862.84	
04/24/24	74581	ncp001	NCPERS Group Life Ins.	4040-101-000	Employee Benefits	16.00	
04/24/24	74582	pac001	Pace Analytical Services, Inc.	4530-101-000	Water Monitoring Program	2,691.00	
04/24/24	74583	pas002	Carol Passi			300.28	
				4040-101-000	Employee Benefits		39.36
				4020-101-000	Employee Expenses		220.10
				4370-101-000	Education Program		40.82
04/24/24	74584	ram016	Ramsey County	4682-529-000	Stewardship Grant Program	21,143.75	
04/24/24	74585	red002	Redpath & Company, LLC.	4110-101-000	Accounting	4,470.50	
04/24/24	74586	reg002	Regents of the University of Minnesota	4682-529-000	Stewardship Grant Program	6,205.00	
04/24/24	74587	sod001	Nicole Maras			71.49	
				4040-101-000	Employee Benefits		40.00
				4020-101-000	Employee Expenses		31.49
04/24/24	74588	stu001	Studio Lola			912.89	
				4320-101-000	Office Supplies		154.89
				4371-101-000	Communications/Outreach/Events		758.00
04/24/24	74589	til002	Joseph S. Tillotson			42.68	
				4040-101-000	Employee Benefits		40.00
				4020-101-000	Employee Expenses		2.68
04/24/24	74590	uwm001	UW Madison Accounting Services	4695-101-000	Research Projects	2,200.00	
04/24/24	74591	wil007	Patrick Williamson			144.69	
				4040-101-000	Employee Benefits		140.00
				4020-101-000	Employee Expenses		4.69
	Total					**$502,398.04**	

Ramsey Washington Metro Watershed Dist.

Cash Disbursements Journal

For the Period From April 1, 2024 to April 30, 2024

Date	Check #	Vendor ID	Name	Account ID	Description	Amount
04/12/24	EFT	myp001	April 12th Payroll	4110-101-000	April 12th Payroll	79.85
04/26/24	EFT	myp001	April 26th Payroll	4110-101-000	April 26th Payroll	84.25
04/12/24	Dir.Dep.	---	April 12th Payroll	4010-101-000	April 12th Payroll	28,424.97
04/12/24	EFT	int002	April 12th Federal Withholding	2001-101-000	April 12th Federal Withholding	10,276.24
04/12/24	EFT	mnd001	April 12th State Withholding	2003-101-000	April 12th State Withholding	1,688.35
04/12/24	EFT	per001	April 12th PERA	2011-101-000	April 12th PERA	6,358.68
04/12/24	EFT	emp002	Employee Def. Comp. Contributions	2016-101-000	Employee Def. Comp. Contributions	1,948.00
04/12/24	EFT	emp002	Employee IRA Contributions	2018-101-000	Employee IRA Contributions	1,879.00
04/26/24	Dir.Dep.	---	April 26th Payroll	4010-101-000	April 26th Payroll	53,920.82
04/26/24	EFT	int002	April 26th Federal Withholding	2001-101-000	April 26th Federal Withholding	24,119.38
04/26/24	EFT	mnd001	April 26th State Withholding	2003-101-000	April 26th State Withholding	4,270.90
04/26/24	EFT	per001	April 26th PERA	2011-101-000	April 26th PERA	11,736.80
04/26/24	EFT	emp002	Employee Def. Comp. Contributions	2016-101-000	Employee Def. Comp. Contributions	1,948.00
04/26/24	EFT	emp002	Employee IRA Contributions	2018-101-000	Employee IRA Contributions	1,879.00
					Payroll/Benefits:	**$148,614.24**
Total					**Accounts Payable/Payroll/Benefits:**	**$651,012.28**

2024 Capital Improvement Project (CIP) Progress Payment Number 3

1.0	Total Completed Through This Period:	$143,776.60		
2.0	Total Completed Previously Completed:		$128,876.60	
3.0	Total Completed This Period:			$14,900.00
4.0	Amount Previously Retained:		$6,443.83	
5.0	Amount Retained This Period:			$745.00
6.0	Total Amount Retained:		$7,188.83	
7.0	Retainage Released Through This Period:			$0.00
8.0	Total Retainage Remaining:		$7,188.83	
9.0	Amounts Previously Paid:	$122,432.77		
10.0	Amount Due This Estimate:			$14,155.00

Retainage shall be 5 percent of the value of the Work completed.

SUBMITTED BY:

Name: Jason Fitzgerald Date: 4-18-24

Title: President

Contractor: Fitzgerald Excavating Inc.

Signature:

RECOMMENDED BY:

Name: Brad Lindaman Date: 2024.04.17

Title: Project Engineer

Engineer: Barr Engineering Company

Signature:

APPROVED BY:

Name: Val Eisele Date:

Title: President

Owner: Ramsey-Washington Metro Watershed District

Signature:

2024 Capital Improvement Project (CIP)
Ramsey-Washington Metro Watershed District
Summary of Work Completed Through April 16th, 2024 for Progress Payment Number 3

						(1) Total Completed Through This Period		(2) Total Completed Previous Period		(3) Total Completed This Period	
Item	Description	Unit	Estimated Quantity	Unit Price	Extension	Quantity	Amount	Quantity	Amount	Quantity	Amount
General											
A	Mobilization/Demobilization	L.S.	1	$60,000.00	$60,000.00	0.60	$36,000.00	0.50	$30,000.00	0.10	$6,000.00
B	Control of Water	L.S.	1	$2,000.00	$2,000.00	0.60	$1,200.00	0.50	$1,000.00	0.10	$200.00
C	Traffic Control	L.S.	1	$2,000.00	$2,000.00	0.60	$1,200.00	0.50	$1,000.00	0.10	$200.00
Site 1 - Tamarack Swamp, Woodbury (PFS Basins Cleaning/Sweeping)											
D	Sediment/Muck Cleanout Excavation, Loading, Hauling and Disposal of Regulated Material (SRV Level 2 and 3)	Ton	92	$30.00	$2,760.00	0	$0.00	0	$0.00	0	$0.00
E	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	100	$2.00	$200.00	0	$0.00	0	$0.00	0	$0.00
F	Sediment Log (9-Inch Diameter)	L.F.	60	$2.00	$120.00	0	$0.00	0	$0.00	0	$0.00
G	Paver Sweeping	S.Y.	1,400	$5.00	$7,000.00	0	$0.00	0	$0.00	0	$0.00
Site 2 - Lower Afton Road, Maplewood (Drainageway Sediment Removal)											
D	Sediment/Muck Cleanout Excavation, Loading, Hauling and Disposal of Regulated Material (SRV Level 2 and 3)	Ton	127	$30.00	$3,810.00	85	$2,550.00	0	$0.00	85	$2,550.00
E	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	100	$2.00	$200.00	0	$0.00	0	$0.00	0	$0.00
Site 3 - West Vadnais Lake, Little Canada (Maintenance Ramp)											
E	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	50	$2.00	$100.00	0	$0.00	0	$0.00	0	$0.00
H	Boat Ramp (Precast Concrete Planks, Rock, Grading, Geotextile Filter Fabric)	L.S.	1	$35,000.00	$35,000.00	1	$35,000.00	1	$35,000.00	0	$0.00
I	Floating Silt Curtain	L.F.	100	$17.00	$1,700.00	50	$850.00	50	$850.00	0	$0.00
K	Clearing and Grubbing	L.S.	1	$1,000.00	$1,000.00	1	$1,000.00	1	$1,000.00	0	$0.00
L	Sediment/Muck Excavation, Loading Hauling, and Disposal of Unregulated Material)	Ton	20	$30.00	$600.00	0	$0.00	0	$0.00	0	$0.00
V	Bollard Access Gate and Sign (with Chain Loops and 20 feet of 3/8" Galvaniz	L.S.	1	$4,000.00	$4,000.00	1	$4,000.00	0	$0.00	1	$4,000.00
Site 4 - Grass Lake, Little Canada (Maintenance Ramp)											
E	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	380	$2.00	$760.00	630	$1,260.00	630	$1,260.00	0	$0.00
F	Sediment Log (9-Inch Diameter)	L.F.	200	$2.00	$400.00	205	$410.00	205	$410.00	0	$0.00
H	Boat Ramp (Precast Concrete Planks, Rock, Grading, Geotextile Filter Fabric	L.S.	1	$30,000.00	$30,000.00	1	$30,000.00	1	$30,000.00	0	$0.00
I	Floating Silt Curtain	L.F.	90	$17.00	$1,530.00	50	$850.00	50	$850.00	0	$0.00
N	Sediment/Muck/Vegetation Excavation with On-Site Disposal	L.S.	1	$3,000.00	$3,000.00	1	$3,000.00	1	$3,000.00	0	$0.00
W	Ramsey County Parks Entry Gate	L.S.	1	$9,000.00	$9,000.00	0	$0.00	0	$0.00	0	$0.00
Site 5 - Kohlman Basin, Maplewood (Weirs Upflow Treatment System)											
M	Place Existing Stockpiled CC17 Material (12 cuyd)	L.S.	1	$1,000.00	$1,000.00	1	$1,000.00	1	$1,000.00	0	$0.00
Q	Install PVC Boards on Weir - 12"x0.5"x11.5' (18)	L.F.	215	$15.00	$3,225.00	0	$0.00	0	$0.00	0	$0.00
R	Import and Place CC17 Limerock Material	Ton	30	$70.00	$2,100.00	25	$1,778.00	25	$1,778.00	0	$0.00

2024 Capital Improvement Project (CIP)
Ramsey-Washington Metro Watershed District
Summary of Work Completed Through April 16th, 2024 for Progress Payment Number 3

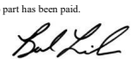
						(1) Total Completed Through This Period		(2) Total Completed Previous Period		(3) Total Completed This Period	
Item	Description	Unit	Estimated Quantity	Unit Price	Extension	Quantity	Amount	Quantity	Amount	Quantity	Amount
Site 6 - White Bear Ave, Maplewood (Splash Block Replacement)											
S	Remove Existing Splashblock Assembly	Each	3	$1,000.00	$3,000.00	0	$0.00	0	$0.00	0	$0.00
U	Repair Existing Splash BlocK Assembly	S.F	160	$35.00	$5,600.00	0	$0.00	0	$0.00	0	$0.00
T	Install Rain Guardian Turret	Each	3	$4,000.00	$12,000.00	0	$0.00	0	$0.00	0	$0.00
Site 7 - Rice Street, Little Canada (Rice Street Cattail Cleanout)											
L	Sediment/Muck and Vegetation Cleanout, West Vadnais Lake Channel (Unregulated Fill Disposal Off Site)	L.S.	1	$1,500.00	$1,500.00	1	$1,500.00	0	$0.00	1	$1,500.00
J	Floating Silt Curtain	L.F.	120	$17.00	$2,040.00	0	$0.00	0	$0.00	0	$0.00
E	Site restoration (Seeding and Erosion Control Blanket)	S.Y.	60	$2.00	$120.00	0	$0.00	0	$0.00	0	$0.00
Site 8 - Arlington Pond, Maplewood (Arlington Pond)											
D	Sediment/Muck Cleanout Excavation, Loading, Hauling and Disposal of Regulated Material (SRV Level 2 and 3)	Ton	1300	$30.00	$39,000.00	708	$21,228.60	708	$21,228.60	0	$0.00
E	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	350	$2.00	$700.00	0	$0.00	0	$0.00	0	$0.00
F	Sediment Log (9-Inch Diameter)	L.F.	20	$2.00	$40.00	0	$0.00	0	$0.00	0	$0.00
I	Floating Silt Curtain	L.F.	80	$17.00	$1,360.00	0	$0.00	0	$0.00	0	$0.00
J	Construction Entrance	Each	1	$500.00	$500.00	1	$500.00	1	$500.00	0	$0.00
P	Inlet Protection	Each	1	$150.00	$150.00	0	$0.00	0	$0.00	0	$0.00
O	MN/DOT Class III Riprap (Field Stone) with Geotextile Filter Fabric	Ton	30	$90.00	$2,700.00	0	$0.00	0	$0.00	0	$0.00
				Contract Base Extensions =	$240,215.00		$143,326.60	0	$128,876.60	0	$14,450.00

BARR

Summary of Professional Engineering Services During the Period
March 16 through April 12, 2024

	Total Engineering Budget (2024)	Total Fees to Date (2024)	Budget Balance (2024)	Fees During Period	District Accounting Code	Plan Implementation Task Number
Engineering Administration						
General Engineering Administration	$92,000.00	$33,371.34	$58,628.66	$6,372.34	**4121-101**	DW-13
RWMWD Health and Safety/ERTK Program (Training)	$2,000.00	$0.00	$2,000.00	$0.00	**4697-101**	DW-13
RWMWD Health and Safety Manual Update	$5,000.00	$4,603.50	$396.50	$2,068.50	**4697-101**	DW-13
Education Assistance	$30,000.00	$605.00	$29,395.00	$0.00	**4129-101**	DW-13
Engineering Review						
Engineering Review	$75,000.00	$15,746.00	$59,254.00	$4,442.00	**4123-101**	DW-13
Project Feasibility Studies						
Resiliency Study for non-Beltline tributary areas (pre-planning study and evaluation of existing data)	$45,000.00	$54,257.00	-$9,257.00	$19,645.50	**4128-520**	DW-9
Kohlman Creek Flood Damage Reduction Feasibility Study	$5,000.00	$3,520.00	$1,480.00	$0.00	**4129-101**	DW-9, KC-2
Owasso Basin/North Star Estates Improvements Feasibility Study	$10,000.00	$6,040.00	$3,960.00	$0.00	**4129-101**	GC-3
Phalen Village Improvements	$10,000.00	$6,296.50	$3,703.50	$1,417.00	**4129-101**	DW-9
Evaluate compliance with South Metro Mississippi River TSS TMDL	$20,000.00	$70.00	$19,930.00	$0.00	**4129-101**	MR-2
Street Sweeping	$20,000.00	$8,542.50	$11,457.50	$320.00	**4129-101**	DW-6, DW-15
Retrofit Inventory	$60,000.00	$12,831.22	$47,168.78	$3,628.50	**4129-101**	DW-17, DW-20
Tanners, Battle Creek Lake, McKnight Basin outlet operation plan	$35,000.00	$0.00	$35,000.00	$0.00	**4129-101**	DW-9
Ames Lake Feasibility Study	$5,000.00	$653.00	$4,347.00	$0.00	**4129-101**	DW-9, BELT-1
Interim Emergency Response Plans	$5,000.00	$585.00	$4,415.00	$0.00	**4129-101**	DW-9
Resiliency Study for non-Beltline tributary areas - feasibility studies placeholder	$50,000.00	$0.00	$50,000.00	$0.00	**4129-101**	DW-9
Contingency*	$20,000.00	$0.00	$20,000.00	$0.00	**4129-101**	
GIS Maintenance						
GIS Maintenance	$5,000.00	$0.00	$5,000.00	$0.00	**4170-101**	DW-13
Monitoring Water Quality/Project Monitoring						
Lake Water Quality Monitoring (Misc QA/QC)	$10,000.00	$0.00	$10,000.00	$0.00	**4520-101**	DW-2
Annual WQ Report Assistance	$20,000.00	$13,781.00	$6,219.00	$5,635.00	**4520-101**	DW-2
Special Project BMP Monitoring	$30,000.00	$2,382.00	$27,618.00	$1,677.00	**4520-101**	DW-12
Grass Lake Berm Wetland Monitoring	$15,000.00	$4,840.38	$10,159.62	$898.38	**4520-101**	DW-5, DW-8
Battle Creek Monitoring to address TMDL	$15,000.00	$2,403.00	$12,597.00	$834.50	**4520-101**	DW-1, DW-2
Battle Creek Monitoring to address TMDL (Barr Staff doing the monitoring)	$15,000.00	$0.00	$15,000.00	$0.00	**4520-101**	DW-1, DW-2
Permit Processing, Inspection and Enforcement						
Permit Application Inspection and Enforcement	$10,000.00	$418.50	$9,581.50	$135.00	**4122-101**	DW-7
Permit Application Review	$65,000.00	$23,921.50	$41,078.50	$7,020.00	**4124-101**	DW-7
Watershed Management Plan Update						
Stakeholder Engagement	$20,000.00	$0.00	$20,000.00	$0.00	**4661-101**	DW-21
Gaps Analysis/WMP Update Scoping	$10,000.00	$867.50	$9,132.50	$255.00	**4661-101**	DW-13, DW-20
Ecosystem Restoration Plan (or "Ecosystem Health Action Plan")	$50,000.00	$0.00	$50,000.00	$0.00	**4661-101**	DW-8, DW-14
Lake Studies/TMDL Reports						
West Vadnais Lake Incorporation	$15,000.00	$0.00	$15,000.00	$0.00	**4661-101**	DW-2
2024 Grant Applications	$20,000.00	$13,486.00	$6,514.00	$11,625.50	**4661-101**	DW-13
Prioritization of water quality projects from subwatershed feasibility studies	$5,000.00	$0.00	$5,000.00	$0.00	**4661-101**	DW-20
Carver Ponds Internal Load Reduction	$12,000.00	$0.00	$12,000.00	$0.00	**4661-101**	DW-12
Contingency for Lake Studies	$22,500.00	$0.00	$22,500.00	$0.00	**4661-101**	
Research Projects						
New Technology Mini Case Studies (average 6 per year)	$15,000.00	$10,045.00	$4,955.00	$570.50	**4695-101**	DW-12
Kohlman Lake Aquatic Plant Management Effects Study	$20,000.00	$32,448.00	-$12,448.00	$737.50	**4695-101**	DW-12
Shallow Lake Aeration Study Finalization	$5,000.00	$3,246.50	$1,753.50	$130.00	**4695-101**	DW-12
Project Operations						
2024 Tanners Alum Facility Monitoring	$17,000.00	$1,984.00	$15,016.00	$1,860.00	**4650-101**	TaL-3
Phalen/Keller and Twin Operations Support & Communications	$5,000.00	$0.00	$5,000.00	$0.00	**4650-101**	DW-5, DW-13, DW-18
Lake Level Station Operation and Maintenance	$50,000.00	$23,286.75	$26,713.25	$3,880.56	**4650-101**	DW-5, DW-18
Capital Improvements						
Woodbury Target	$193,200.00	$165,412.48	$27,787.52	$7,619.92	**4128-518**	DW-6
Roosevelt Homes	$33,600.00	$21,856.00	$11,744.00	$3,564.00	**4128-518**	DW-6, DW-9
Targeted Retrofit Projects 2024	$150,000.00	$7,873.50	$142,126.50	$1,475.00	**4128-518**	DW-6
Stewardship Grant Program	$75,000.00	$12,021.00	$62,979.00	$849.50	**4682-529**	DW-6
Owasso Basin Flood Risk Reduction	$200,000.00	$12,517.27	$187,482.73	$975.00	**4128-520**	GC-3
Pioneer Park Stormwater Reuse	$50,000.00	$7,870.67	$42,129.33	$1,570.67	**4128-518**	DW-6
Double Driveway and Fish Creek Tributary Improvements	$150,000.00	$99,481.95	$50,518.05	$1,365.00	**4129-537**	FC-2
Cottage Place Wetland	$113,800.00	$56,312.50	$57,487.50	$17,424.00	**4128-518**	DW-6, DW-8, DW-14, LE-2, LE-3
Ames Lake improvements	$250,000.00	$0.00	$250,000.00	$0.00	**4128-520**	DW-9, BELT-1
PCU Pond improvements	$150,000.00	$0.00	$150,000.00	$0.00	**4128-520**	DW-9, KC-2
County Road C culvert capacity	$50,000.00	$44,513.62	$5,486.38	$9,611.50	**4128-520**	DW-9, KC-2
Lake Emily Subwatershed BMP	$175,800.00	$195,225.55	-$19,425.55	$155.00	**4128-518**	LE-3
Kohlman Creek Storage and Detention	$150,000.00	$906.50	$149,093.50	$906.50	**4128-520**	DW-9, KC-2
CIP Project Repair & Maintenance						
Routine CIP Inspection and Unplanned Maintenance Identification	$125,000.00	$24,692.61	$100,307.39	$3,668.00	**4128-516**	DW-5
2024 CIP Maintenance and Repairs	$180,000.00	$58,820.93	$121,179.07	$5,864.50	**4128-516**	DW-5
Beltline long-term fix near river outfall	$250,000.00	$105,315.61	$144,684.39	$21,508.50	**4128-516**	BELT-2

Barr declares under the penalties of Law that this Account, Claim, or Demand is just and that no part has been paid. **$149,709.87**



Bradley J. Lindaman, Vice President

Galowitz Olson, PLLC
10390 39th Street North
Lake Elmo, Minnesota 55042
Office: (651) 777-6960
Fax: (651) 777-8937

Ramsey-Washington Metro Watershed District
C/O Tina Carstens
2665 Noel Drive
Little Canada MN 55117

April 18, 2024
File No: 9M

	Balance
General Account	$1,697.50

Permit Application Coversheet

Date May 01, 2024

Project Name The Heights- Habitat for Humanity Blocks 3 & 4 **Project Number** 24-18

Applicant Name Chad Dipman, Twin Cities Habitat for Humanity

Type of Development Residential

Property Description

This project is located at the southwest corner of The Heights redevelopment site off Larpenteur Avenue in the City of St. Paul. The applicant is proposing to construct residential housing, including quadplex, triplex, duplex, and single-family home units (74 units total). The total site area is approximately 6 acres. Stormwater treatment requirements are being met through a regional infiltration facility that will be constructed as part of the greater Heights redevelopment (Permit #24-17). This submittal and all subsequent submittals for this common plan of development are reviewed such that BMP storage volumes and impervious area are confirmed with adequate treatment capacity available that meets District rules during each phase of construction.

Watershed District Policies or Standards Involved:

- ☐ ***Wetlands***
- ☑ ***Erosion and Sediment Control***
- ☑ ***Stormwater Management***
- ☐ ***Floodplain***

Water Quantity Considerations

The proposed stormwater management plan is sufficient to handle the runoff from the site.

Water Quality Considerations

Short Term

The proposed erosion and sediment control plan is sufficient to protect downstream water resources during construction.

Long Term

The proposed stormwater management plan is sufficient to handle the long term quality of downstream water resources.

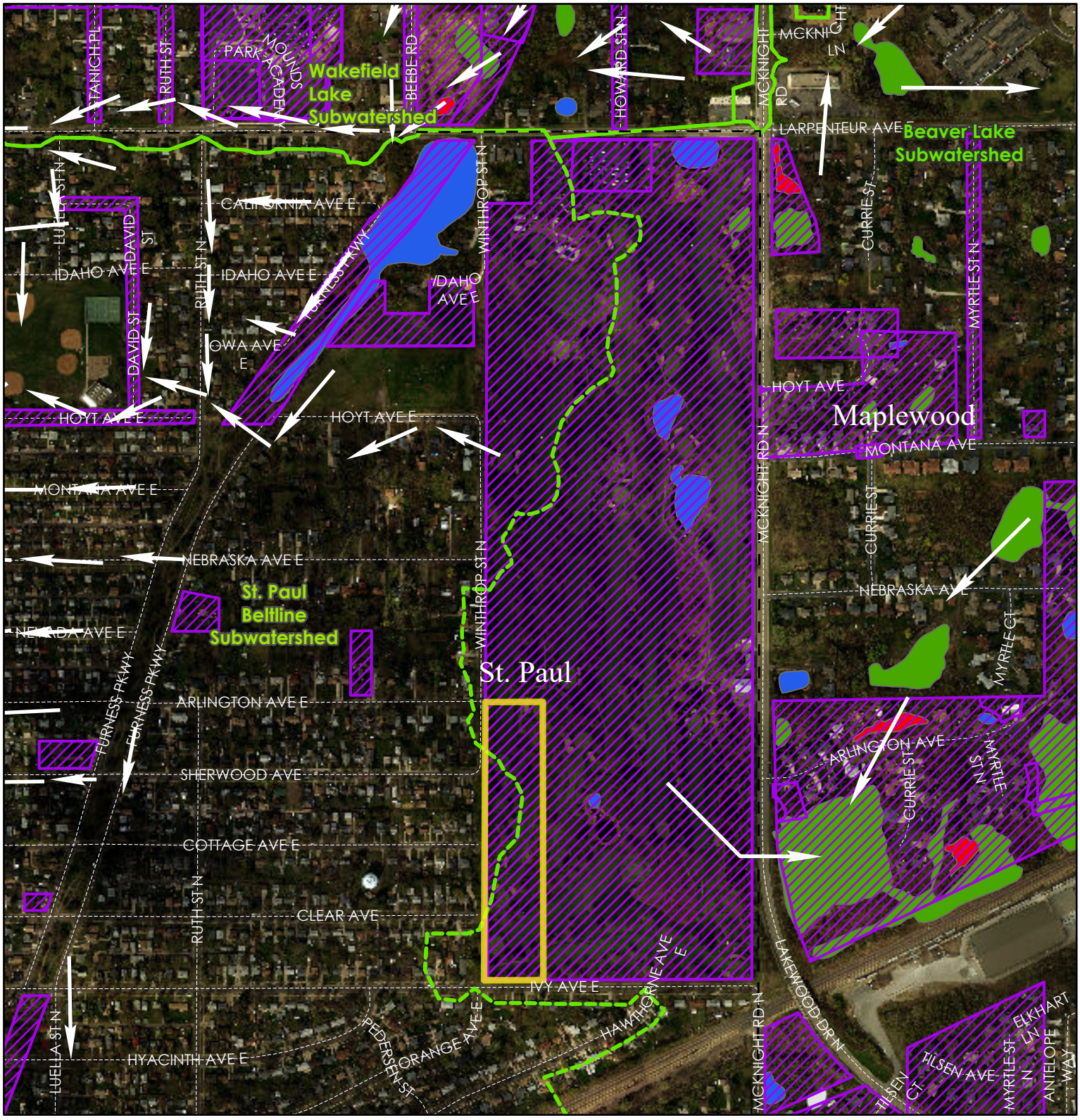
Staff Recommendation

Staff recommends approval of this permit with the special provisions.

Attachments:

- ☑ **Project Location Map**
- ☑ **Project Grading Plan**

#24-18 The Heights - Habitat for Humanity Blocks 3 & 4



Wetlands
- Manage A
- Manage B
- Manage C
- Lake
- Sediment Pond
- Not Assessed

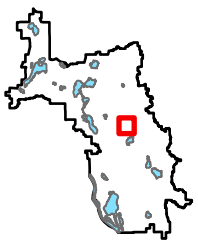
- Flow Arrows
- Roads
- Permits
- Cities
- Subwatersheds
- RWMWD Boundary

Highlighted Areas Represent Active Permit

0 0.1 0.2 Miles

0 500 1,000 US Feet

N



24-18

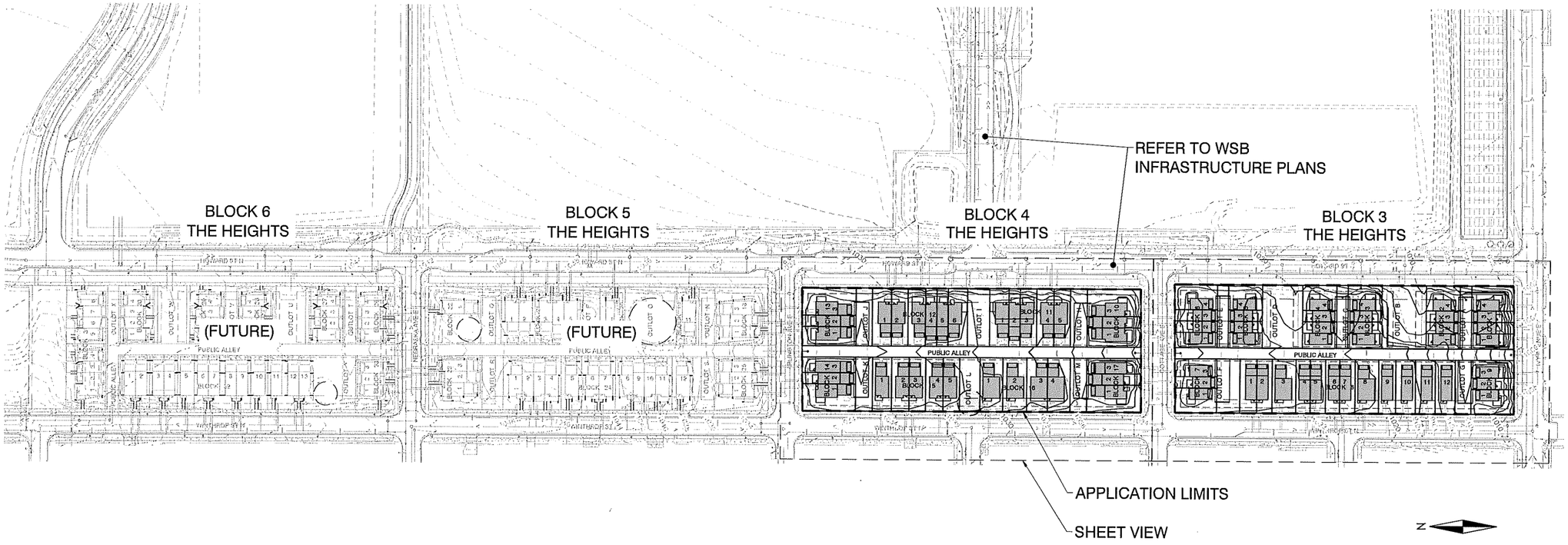
Special Provisions

1. The applicant shall add erosion control details to the plans for erosion blanket, silt fence, and rock construction entrance.

2. The applicant shall submit the final, signed plans.

3. The applicant shall submit contact information for the trained erosion control coordinator responsible for implementing the Stormwater Pollution Prevention Plan (SWPPP).

4. The applicant shall submit a copy of the approved Minnesota Pollution Control Agency's NPDES Construction Permit coverage for the project.



GRADING NOTES:

1. ALL FINISHED GRADES SHALL SLOPE AWAY FROM PROPOSED BUILDINGS AT MINIMUM GRADE OF 2.0%. ALL SWALES SHALL HAVE A MINIMUM SLOPE OF 2.0%.
2. THE CONTRACTOR MUST MONITOR CONDITIONS AND STREET SWEEP AS NEEDED OR WITHIN 24 HOURS OF NOTICE BY THE CITY. THE CONTRACTOR SHALL KEEP THE ADJACENT ROADWAYS FREE OF DEBRIS AND PREVENT THE OFF-SITE TRACKING OF SOIL IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY AND WATERSHED.
3. NOTIFY GOPHER STATE ONE CALL, AT (800)252-1166, 48 HOURS PRIOR TO START OF CONSTRUCTION.
4. ALL IMPROVEMENTS TO CONFORM WITH CITY OF ST. PAUL CONSTRUCTION STANDARDS SPECIFICATION, LATEST EDITION.
5. HAUL ROUTES AND DISPOSAL AREAS SHOULD BE DISCUSSED WITH CITY PRIOR TO EXPORTING MATERIAL OFFSITE.
6. ROCK CONSTRUCTION ENTRANCES SHALL BE PROVIDED AT ALL CONSTRUCTION ACCESS POINTS.
7. STRIP TOPSOIL PRIOR TO ANY CONSTRUCTION. REUSE STOCKPILE ON SITE. STOCKPILE PERIMETERS MUST BE PROTECTED WITH SILT FENCE.
8. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
9. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL EXCAVATION AND OBSTRUCTION PERMITS REQUIRED BY ANY GOVERNING AUTHORITY.
10. IMMEDIATELY FOLLOWING GRADING OF (3:1 OR GREATER) SIDE SLOPES AND DRAINAGE SWALES, EROSION CONTROL BLANKET MNDOT CATEGORY 3N SHALL BE APPLIED OVER APPROVED SEED MIXTURE AND A MINIMUM OF 4" TOPSOIL.
11. THE GENERAL CONTRACTOR MUST DISCUSS DEWATERING PLANS WITH ALL SUBCONTRACTORS TO VERIFY NPDES REQUIREMENTS. IF DEWATERING IS REQUIRED DURING CONSTRUCTION, CONTRACTOR SHOULD CONSULT WITH EROSION CONTROL INSPECTOR AND ENGINEER TO DETERMINE THE APPROPRIATE METHOD.
12. REFER TO EROSION CONTROL PLAN FOR ALL EROSION AND SEDIMENT CONTROL DEVICE LOCATIONS.
13. CONTRACTOR SHALL COORDINATE PRIVATE/PUBLIC UTILITIES RELOCATES.
14. NO GRADING SHALL OCCUR WITHIN THE TREE DRIP LINE OR TREE PROTECTION ZONE WITHOUT THE URBAN FORESTER. EXCAVATION WITHIN 10' OF THE FACE OF THE TRUNK WILL REQUIRE THE USE OF HAND TOOLS. THE URBAN FORESTER (651-632-2436) SHALL BE CONTACTED TO REVIEW THE TREE PRIOR TO WORK OCCURRING.
15. CONTACT MARY FITZGERALD, RAMSEY-WASHINGTON METRO WATERSHED DISTRICT, AT 651-792-7956 PRIOR TO BEGINNING CONSTRUCTION ACTIVITY TO SCHEDULE AN INITIAL EROSION CONTROL INSPECTION.
16. ALL STAIRS REFERENCED IN THE PLANS ARE 7" HT. WITH 12" TREAD. ANY STAIRCASE INCLUDING AT LEAST 4 STAIRS OR MORE REQUIRES A RAILING. REFER TO THE STAIR/RAILING DETAIL ON SHEET 3 WITHIN THIS PLAN SET.

Drawing name: X:\2023\230172 - The Heights\plan sheets\230172grad.dwg Apr 09, 2024 - 4:49pm

ALLIANT
733 Marquette Avenue
Suite 700
Minneapolis, MN 55402
612.758.3080
www.alliant-inc.com

Twin Cities Habitat for Humanity

DORAN ARCHITECTURE

THE HEIGHTS (PHASE 1) - BLOCKS 3 & 4
TWIN CITIES HABITAT FOR HUMANITY
SAINT PAUL, MINNESOTA
SITE PLAN REVIEW SUBMITTAL
OVERALL GRADING PLAN

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

CLARK WICKLUND, PE
4-9-24
Date License No.

QUALITY ASSURANCE/CONTROL

BY DATE

DATE	ISSUE
10-17-23	SCHEMATIC UTILITY DESIGN
10-26-23	CLIENT REVIEW
11-9-23	VARIANCE APPLICATION
12-15-23	SITE PLAN REVIEW APPL.
2-29-24	SPR CITY COMMENTS
3-25-24	PRELIM. PLAT
4-9-24	RWMWD PERMIT SET

PROJECT TEAM DATA
DESIGNED: ST
DRAWN: ST
PROJECT NO: 223-0172

Permit Application Coversheet

Date April 03, 2024

Project Name The Heights II **Project Number** 24-17

Applicant Name Kathryn Sarnecki, Saint Paul Port Authority

Type of Development Mixed Use

Property Description

This project is located at the former Hillcrest Golf Club off Larpenteur Avenue in the City of St. Paul. The applicant is proposing to continue redevelopment on the site which is described as a mixed use development including designated residential, commercial, light industrial, and green space/wetland areas. 'The Heights Phase I' RWMWD grading permit (#23-17) was approved in June 2023 and issued for construction activity to begin in July 2023. Permit #23-17 includes demolition, soil remediation, mass grading, wetland impacts, wetland mitigation areas, establishment of wetland buffers, and temporary sediment control ponds. Mass grading and wetland remediation/buffer establishment are currently ongoing.

The applicant is now seeking approval for the next phase of redevelopment which includes public and shared infrastructure, such as street construction and reconstruction, utilities, lighting, boulevards, landscaping, restoration, sidewalks, and permanent stormwater treatment BMPs. All individual parcels slated for future development will apply for separate permits to verify compliance with District rules.

The applicant introduced a mix of proposed public amenities on designated outlots at the December 2023 board meeting, including trails, wetland boardwalks, and nature play areas. The public amenity design plan is not yet finalized and will appear as a separate future permit application with the potential for a wetland buffer variance request at that time.

Of the 112-acre site, approximately 72 acres is proposed to be disturbed as part of this phase of development 'The Heights Phase II.' The applicant is proposing a combination of stormwater BMPs, including above- and below-ground treatment for impervious area proposed as part of this phase, in addition to future impervious area on private parcels that are not yet developed. The applicant is requesting to bank the additional volume until those individual lots are developed. 18 BMPs are proposed, including underground filtration systems, linear filtration and infiltration swales with weirs, iron-enhanced filtration basins, and infiltration basins. Pretreatment methods include hydrodynamic separators and sump structures. The City of St. Paul has agreed to own and maintain the proposed stormwater infrastructure/BMPs after the project is complete.

Each future permit application will be reviewed and presented for board approval such that the District can confirm permitting requirements are being met in relation to construction activity throughout all phases of this common plan of development.

Watershed District Policies or Standards Involved:

- ☐ ***Wetlands***
- ☑ ***Erosion and Sediment Control***
- ☑ ***Stormwater Management***
- ☐ ***Floodplain***

Water Quantity Considerations

The proposed stormwater management plan is sufficient to handle the runoff from the site.

Water Quality Considerations

Short Term

The proposed erosion and sediment control plan is sufficient to protect downstream water resources during construction.

Long Term

The proposed stormwater management plan is sufficient to protect the long term quality of downstream water resources.

Staff Recommendation

Staff recommends approval of this permit with the special provisions.

Attachments:

- ☑ **Project Location Map**
- ☑ **Project Grading Plan**

Permit Application Coversheet

Date May 01, 2024

Project Name Companion Animal Control **Project Number** 24-19

Applicant Name Brittany Harmon, Companion Holdings

Type of Development Institutional

Property Description

This project is located off Helmo Avenue, east of I-694 in the City of Oakdale. The applicant is proposing to construct an animal control center and associated parking. The total site area is 0.62 acre, however stormwater treatment requirements apply because it is part of a common plan of development previously approved by RWMWD (Permit #04-56). An existing stormwater pond will be partially utilized to meet rate control requirements. In addition, an infiltration basin is proposed onsite to provide treatment in order to meet current stormwater requirements. Stormwater pretreatment will include a Rain Guardian sumped inlet.

Watershed District Policies or Standards Involved:

- ☐ ***Wetlands***
- ☑ ***Erosion and Sediment Control***
- ☑ ***Stormwater Management***
- ☐ ***Floodplain***

Water Quantity Considerations

The proposed stormwater management plan is sufficient to handle the runoff from the site.

Water Quality Considerations

Short Term

The proposed erosion and sediment control plan is sufficient to protect downstream water resources during construction.

Long Term

The proposed stormwater management plan is sufficient to protect the long term quality of downstream water resources.

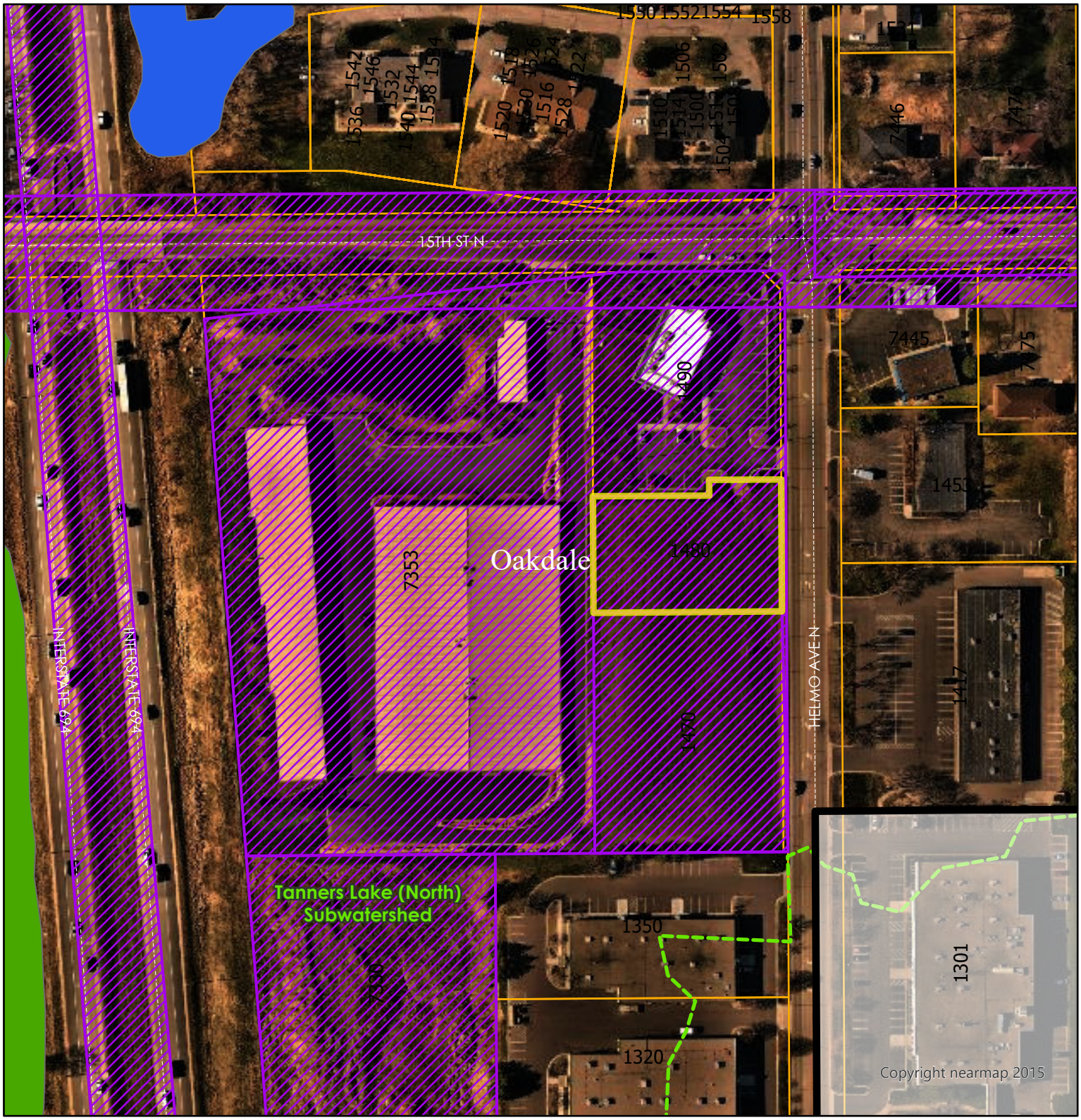
Staff Recommendation

Staff recommends approval of this permit with the special provisions.

Attachments:

- ☑ **Project Location Map**
- ☑ **Project Grading Plan**

#24-19 Companion Animal Control



Wetlands
- Manage A
- Manage B
- Manage C
- Lake
- Sediment Pond
- Not Assessed

- Roads
- Permits
- Cities
- Subwatersheds
- Washington Co Parcels
- RWMWD Boundary

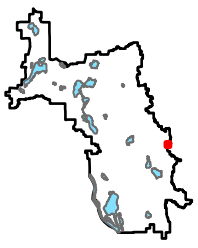
Shaded area is outside RWMWD

Highlighted Areas Represent Active Permit

Miles: 0 — 0.02 — 0.04

US Feet: 0 — 150 — 300

N



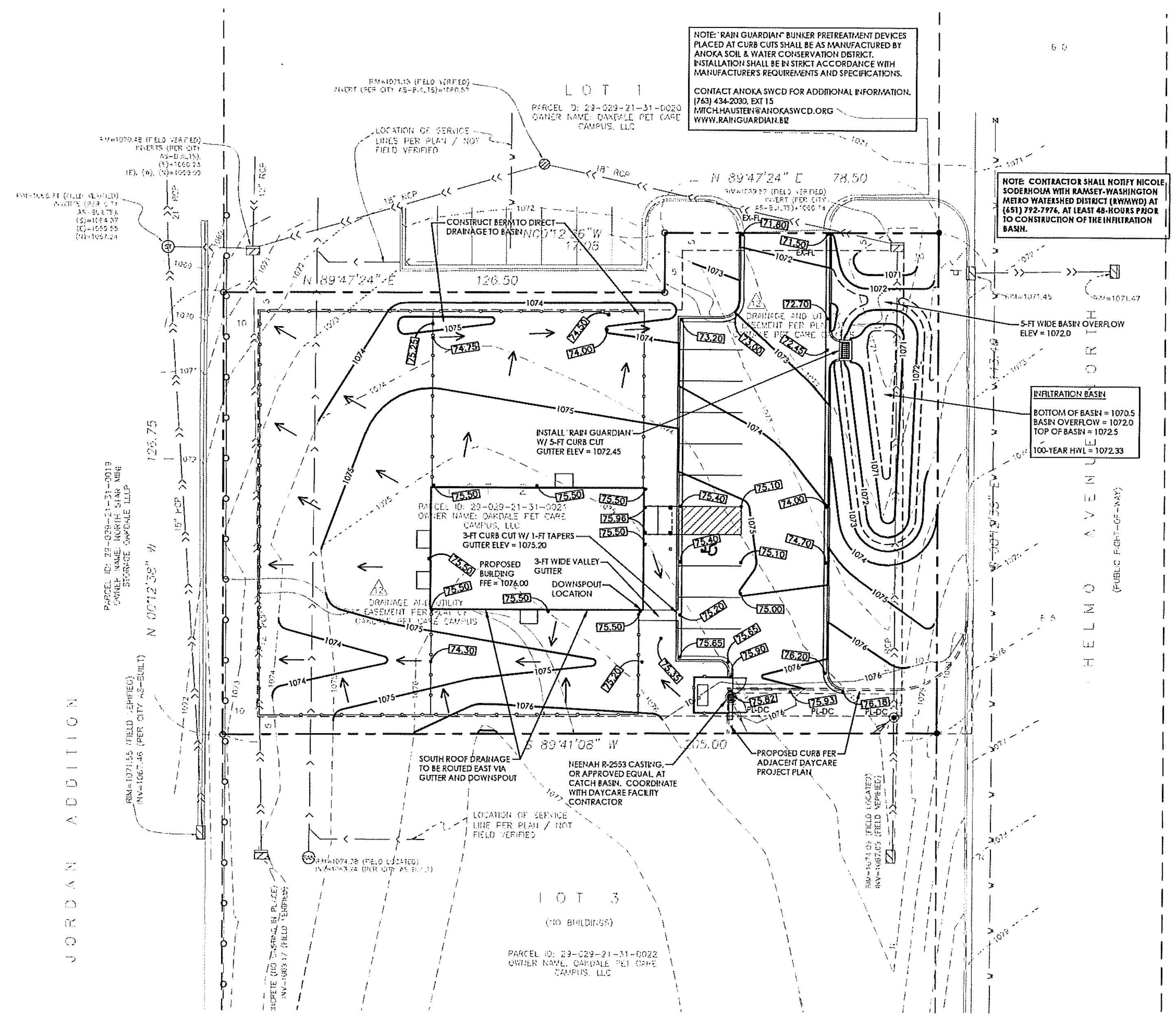
24-19

Special Provisions

1. The applicant shall revise the BMP Operations & Maintenance Plan to include a figure that shows the basin, planting plan, and any relevant maintenance locations like the Rain Guardian (with construction detail).

2. The applicant shall submit the executed stormwater maintenance agreement for the proposed infiltration BMP.

3. The applicant shall submit contact information for the person(s) responsible for implementing the erosion control plan during construction.



GRADING NOTES:

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:
   - LOCATIONS, DEPTHS, SIZES, AND MATERIAL TYPES OF EXISTING SANITARY, WATER, AND STORM SEWER UTILITIES, INCLUDING EXISTING STUBS
   - RIM AND INVERT ELEVATIONS OF EXISTING SANITARY AND STORM SEWER UTILITIES, INCLUDING EXISTING STUBS
   - LOCATIONS AND DEPTHS OF EXISTING NON-SEWER AND NON-WATER UTILITIES (IE: GAS, ELECTRIC, COMMUNICATIONS, ETC.)
   - EXISTING ABOVE-GROUND INFRASTRUCTURE AND SITE FEATURES
2. NOTIFY ENGINEER IMMEDIATELY IF ANY INCONSISTENCIES ARE DISCOVERED BETWEEN ACTUAL SITE CONDITIONS AND WHAT IS SHOWN ON THE PLANS, WHICH ARE SIGNIFICANT ENOUGH TO ALTER THE INTENT OF THE DRAWINGS.
3. EXISTING TOPOGRAPHICAL INFORMATION WAS OBTAINED FROM A TOPOGRAPHICAL SURVEY COMPLETED BY VAN NESTE SURVEYING, MINNEAPOLIS, MN. (952) 686-3055
4. BENCHMARK: CONTACT VAN NESTE SURVEYING
5. CONTRACTOR SHALL CONTACT GOPHER ONE CALL AT (800) 252-1166 FOR A UTILITY LOCATE PRIOR TO THE START OF CONSTRUCTION AND VERIFY LOCATIONS OF EXISTING UTILITIES BEFORE BEGINNING WORK.
6. SEE SHEET C2 FOR STANDARD DETAILS.
9. FINISHED ELEVATIONS OF LANDSCAPED AREAS IMMEDIATELY ADJACENT TO BUILDINGS SHALL BE A MINIMUM OF 6" BELOW FINISHED FLOOR OR TOP-OF-BLOCK ELEVATION, UNLESS NOTED OTHERWISE ON THE PLAN.
10. CONTRACTOR SHALL PERFORM ALL NECESSARY CALCULATIONS TO VERIFY EARTHWORK QUANTITIES. CONTRACTORS BID RELATED TO EARTHWORK, CUTTING, FILLING, GRADING, ETC. SHALL BE BASED ON EARTHWORK CALCULATIONS COMPLETED BY THE CONTRACTOR.
11. SPOT ELEVATIONS INDICATED ON THIS PLAN REPRESENT FINISHED SURFACE ELEVATIONS, UNLESS NOTED OTHERWISE.

SPOT ELEVATIONS LOCATED ALONG CURB & GUTTER OR THICKENED EDGE SIDEWALK REPRESENT FLOWLINE ELEVATIONS OF GUTTER SECTION OR ADJACENT PAVEMENT. TOP-OF-CURB OR TOP-OF-THICKENED EDGE SIDEWALK SURFACE ELEVATIONS ARE 6" ABOVE THE FLOW LINE SPOT ELEVATION SHOWN ON THE PLANS, UNLESS NOTED OTHERWISE.

12. SPOT ELEVATION DESIGNATIONS:
   - "EX" DENOTES EXISTING SPOT ELEVATION
   - "HP" DENOTES HIGH POINT
   - "FL" DENOTES FLOWLINE
   - "BC" DENOTES BACK OF CURB
   - "EC" DENOTES EDGE OF CONCRETE
   - "EP" DENOTES EDGE OF PAVEMENT
   - "PL" DENOTES PLAN ELEVATION SHOWN ON ANOTHER'S PLAN
   - "DC" DENOTES ADJACENT DAYCARE PROJECT
13. ALL SPOT ELEVATIONS AND CONTOURS INDICATED ON THIS PLAN ARE INTENDED TO PROVIDE ADEQUATE POSITIVE DRAINAGE TOWARDS CATCH BASINS, CURB CUTS, PONDS, BASINS AND/OR OTHER OUTLETS. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONSTRUCT SPECIFIED SURFACE INFRASTRUCTURE TO ELEVATIONS AND GRADES INDICATED ON THIS PLAN, AS WELL AS ENSURE THAT ADEQUATE POSITIVE DRAINAGE IS CONSTRUCTED AND MAINTAINED THROUGHOUT THE ENTIRE SITE AND/OR CONSTRUCTION AREA.

NOTE: CADD FILES FOR ESTIMATING EARTHWORK QUANTITIES ARE AVAILABLE TO CONTRACTORS FOR PREPARING BIDS. IN ORDER TO RECEIVE THE CADD FILES, THE CONTRACTOR WILL NEED TO SIGN A HOLD-HARMLESS AGREEMENT PROVIDED BY SCHULTZ ENGINEERING & SITE DESIGN, AND AGREE TO PAY A $50 PROCESSING FEE. THE CADD FILES WILL BE RELEASED UPON RECEIPT OF THE CHECK.

INFILTRATION BASIN NOTES:

1. TRAFFIC FROM CONSTRUCTION EQUIPMENT SHALL BE LIMITED AS MUCH AS POSSIBLE ACROSS INFILTRATION BASIN AREAS, AND BE ONLY LOW IMPACT TRACK EQUIPMENT. BASIN AREAS SHALL BE EXCAVATED WITH A BACKHOE STATIONED OUTSIDE OF THE AREA AS MUCH AS POSSIBLE.
2. DURING CONSTRUCTION OF THE ADJACENT PARKING LOT AND BUILDING, THE INFILTRATION BASIN AREA SHALL BE PROTECTED FROM TRAFFIC AND SEDIMENT WITH SILT FENCE. SEE SHEET C5.
3. ONCE THE INFILTRATION BASIN HAS BEEN EXCAVATED TO NATIVE SUBGRADE SOILS (BELOW ANY SOIL MEDIA, GRANULAR BACKFILL, ETC.) THE CONTRACTOR SHALL ARRANGE AND PAY FOR TESTING THE INFILTRATION RATES OF THE NATIVE SUBGRADE SOILS. THE TEST RESULTS SHALL BE SUBMITTED TO THE CITY, RWMWD, AND THE ENGINEER. INFILTRATION TESTING SHALL BE ON NATIVE SUB-SOILS, PRIOR TO RIPPING/SOIL MEDIA BACKFILLING.
4. IN ORDER TO PASS, INFILTRATION TESTING RESULTS SHALL BE IN A SATURATED STATE AND MUST BE NO LESS THAN DOUBLE THE DESIGN RATE. FOR THIS PROJECT, THE DESIGN INFILTRATION RATE FOR THE INFILTRATION BASIN IS 0.45-IN/HR, THUS INFILTRATION TEST RESULTS MUST BE NO LESS THAN 0.90-IN/HR.
5. UPON PASSING OF INFILTRATION TESTING, THE BOTTOM OF THE EXCAVATIONS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 24 INCHES WITH THE USE OF APPROPRIATE EQUIPMENT (TILLER, RIPPER, ETC.). AFTER SCARIFICATION, THE BASIN SIDEWALLS AND BOTTOM SHALL BE LINED WITH A MINIMUM OF 5-INCHES OF SAND/COMPOST MIX TO THE BASIN OUTLET ELEVATION. SAND/COMPOST MIX SHALL BE PLACED AS LOOSELY AS POSSIBLE.
6. ONCE EXCAVATED TO FINAL GRADE INFILTRATION AREAS SHALL BE INSPECTED TO ENSURE THAT NO SEDIMENT FROM ONGOING CONSTRUCTION ACTIVITY IS REACHING THE INFILTRATION AREA. ALL INFILTRATION AREAS SHALL BE INSPECTED TO ENSURE THAT UNAUTHORIZED EQUIPMENT IS NOT BEING DRIVEN ACROSS THE INFILTRATION AREAS.
7. FINAL STABILIZATION OF THE INFILTRATION BASINS SHALL NOT BE COMPLETED UNTIL THE UPSTREAM DRAINAGE AREAS HAVE BEEN STABILIZED.
8. INFILTRATION BASIN SHALL BE KEPT OFFLINE, AND PROTECTED FROM CONSTRUCTION ACTIVITY AND CLOGGING BY SEDIMENT, UNTIL ALL CONTRIBUTING DRAINAGE AREAS ARE PERMANENTLY RESTORED.

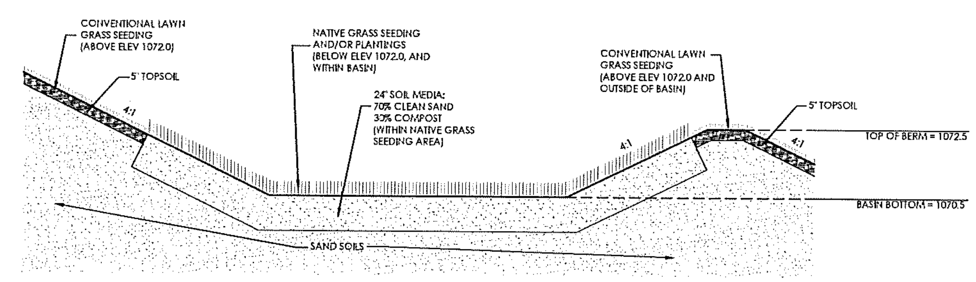
ACKNOWLEDGEMENT

BASED ON THE PROVIDED GEOTECHNICAL REPORT, IT IS POSSIBLE THAT OVER-EXCAVATION IN EXCESS OF 10 FT MAY BE REQUIRED TO REACH SOILS SUITABLE FOR INFILTRATION DUE TO VARIATION IN EXISTING UNDERLYING PREDOMINANTLY SILTY SAND FILL SOILS. THE OWNER HAS CONSIDERED THIS, AND HAS CHOSEN TO MOVE FORWARD WITH THE INFILTRATION BASIN SPECIFIED ON THIS PLAN.

ONCE THE INFILTRATION BASIN HAS BEEN ROUGH-EXCAVATED, DOUBLE-RING INFILTROMETER TESTING WILL BE COMPLETED TO CONFIRM ACTUAL INFILTRATION RATES OF UNDERLYING FILL SOILS.

IF ACTUAL INFILTRATION RATES ARE FOUND TO BE INSUFFICIENT, THE OWNER WILL ADJUST THE DESIGN OF THE WATER QUALITY BMP. THIS MAY CONSIST OF OVER-EXCAVATING THE INFILTRATION BASIN TO REACH UNDERLYING SOILS WITH ADEQUATE INFILTRATION RATE, OR CONVERTING THE BASIN TO A FILTRATION BASIN WITH IRON FILINGS INCLUDED IN THE PROVIDED SOIL MEDIA MIX.

THE OWNER UNDERSTANDS THE RISKS ASSOCIATED WITH ADDITIONAL CONSTRUCTION COSTS AND LOST CONSTRUCTION TIME.



NOTES:

1. BASIN SHALL BE EXCAVATED THROUGH ANY EXISTING CLAY/SILT SOILS UNSUITABLE FOR INFILTRATION, SUCH THAT SANDS ARE EXPOSED. THIS SHALL BE FIELD VERIFIED, AND CERTIFIED BY A QUALIFIED GEOTECHNICAL ENGINEER/TECHNICIAN, OR SOIL SCIENTIST.
2. SOIL MEDIA SHALL CONSIST OF MINNESOTA STORM WATER MANUAL SOIL MIX "B": 70% CLEAN, WASHED SAND, AND 30% MNDOT 3890 GRADE 2 COMPOST, BY VOLUME.
3. THE BASIN BOTTOM AND SIDEWALLS SHALL BE SEEDED WITH NATIVE GRASS SEED MIX TO AN ELEVATION OF 1072.0.
4. PRIOR TO CONSTRUCTION OF THE INFILTRATION BASIN, OWNER OR CONTRACTOR SHALL ARRANGE AND PAY FOR DOUBLE-RING INFILTROMETER (DRI) TESTING OF THE NATIVE SOILS AT THE SPECIFIED BASIN BOTTOM ELEVATION INDICATED IN THIS DETAIL. IF THE DRI TEST RESULTS INDICATE TESTED INFILTRATION RATE(S) OF THE NATIVE SAND SOILS LESS THAN 8.33 IN/HR, THE BASIN'S SOIL MEDIA THICKNESS MAY BE REDUCED TO A TOTAL THICKNESS OF 5-INCHES. IF THE DRI TEST RESULTS INDICATE TESTED INFILTRATION RATE(S) OF THE NATIVE SAND SOILS, WHICH EQUAL OR EXCEED 8.33 IN/HR, THE BASINS'S SOIL MEDIA THICKNESS SHALL REMAIN AS SHOWN IN THIS DETAIL.

1 INFILTRATION BASIN PROFILE (IB1)

NTS

PRELIMINARY - NOT FOR CONSTRUCTION RWMWD SUBMITTAL - 04/03/2024

SCHULTZ ENGINEERING & SITE DESIGN
18 SOUTH RIVERSIDE AVENUE, SUITE 230
SARTELL, MINNESOTA 56377
PH: (320) 339-0669
FX: (866) 633-1830
schultzeng@live.com
www.schultzengdesign.com

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 ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

BRIAN J. SCHULTZ, PE
LICENSE NO.: 43129
DATE: 04/03/2024

REVISIONS

NO.	DATE	DESCRIPTION
1	04/12/2024	PER 04/11/24 RWMWD COMMENT
2		
3		
4		

SCHULTZ ENG. PROJECT NO.: 24011
ISSUE DATE: 04/03/2024
DRAWN BY: BJS
REVIEWED BY: BJS

CIVIL SHEET INDEX

COMPANION ANIMAL CARE & CONTROL

1480 HELMO AVE NORTH
OAKDALE, MN

GRADING PLAN

SCALE: 1" = 20'

0 20 40

24011Grading.dwg

C3

Permit Application Coversheet

Project Name Jordan's Crossing **Project Number** 04-56

Applicant Name Kiehm Construction Inc.

Type of Development Commercial

Property Description

This project is located in the City of Oakdale at the intersection of Helmo Avenue and 15th Street. The applicant is proposing a mini-storage facility. Only areas marked as Phase 1 and Phase 2 will be completed under this permit. The applicant is aware that when they proceed with Phase 3 a separate permit will need to be acquired. It is also stated in the special provisions. The applicant is proposing a stormwater pond on the northwest corner of the site that then outlets into the 694 right-of-way and eventually goes under I-694 and into the large Manage 2 wetland on the west side of the highway.

Watershed District Policies or Standards Involved:

☐ *Wetlands*

☒ *Erosion and Sediment Control*

☒ *Stormwater Management*

Water Quantity Considerations

The proposed pond is adequate to handle the additional runoff from the site.

Water Quality Considerations

Short Term

The erosion and sediment control plan is adequate to protect the downstream water resources during construction.

Long Term

The proposed pond is adequate to protect the long term water quality of downstream water resources.

Staff Recommendation

Staff recommends approval of this permit with the special provision.

Attachments:

☒ Project Location Map

☒ Project Grading Plan

Permit Application Coversheet

Date May 01, 2024

Project Name Little Canada 2024 SIP- Country Drive **Project Number** 24-20

Applicant Name Bill Dircks, City of Little Canada

Type of Development Linear

Property Description

This project is located along Country Drive from approximately South Owasso Boulevard to Ryan Drive in the City of Little Canada. The applicant is proposing to complete roadway maintenance work, including a mill-and overlay and ditch cleaning to restore drainage capacity. The total disturbance area is just under 1 acre so no permanent treatment is proposed, however RWMWD Rule F for erosion and sediment control is triggered due to proximity to water resources. A wetland delineation was approved in 2023 (#23-24 WCA) followed by a no-loss decision in 2024 (#24-01 WCA) due to incidental designations for ditches along the corridor and temporary duration of impacts. No net fill is being proposed in the 100-year floodplain.

Watershed District Policies or Standards Involved:

- ☑ ***Wetlands***
- ☑ ***Erosion and Sediment Control***
- ☐ ***Stormwater Management***
- ☑ ***Floodplain***

Water Quantity Considerations

The proposed grading plan is sufficient to result in no adverse flood impacts.

Water Quality Considerations

Short Term

The proposed erosion and sediment control plan is sufficient to protect downstream water resources.

Long Term

There are no adverse long term water quality considerations.

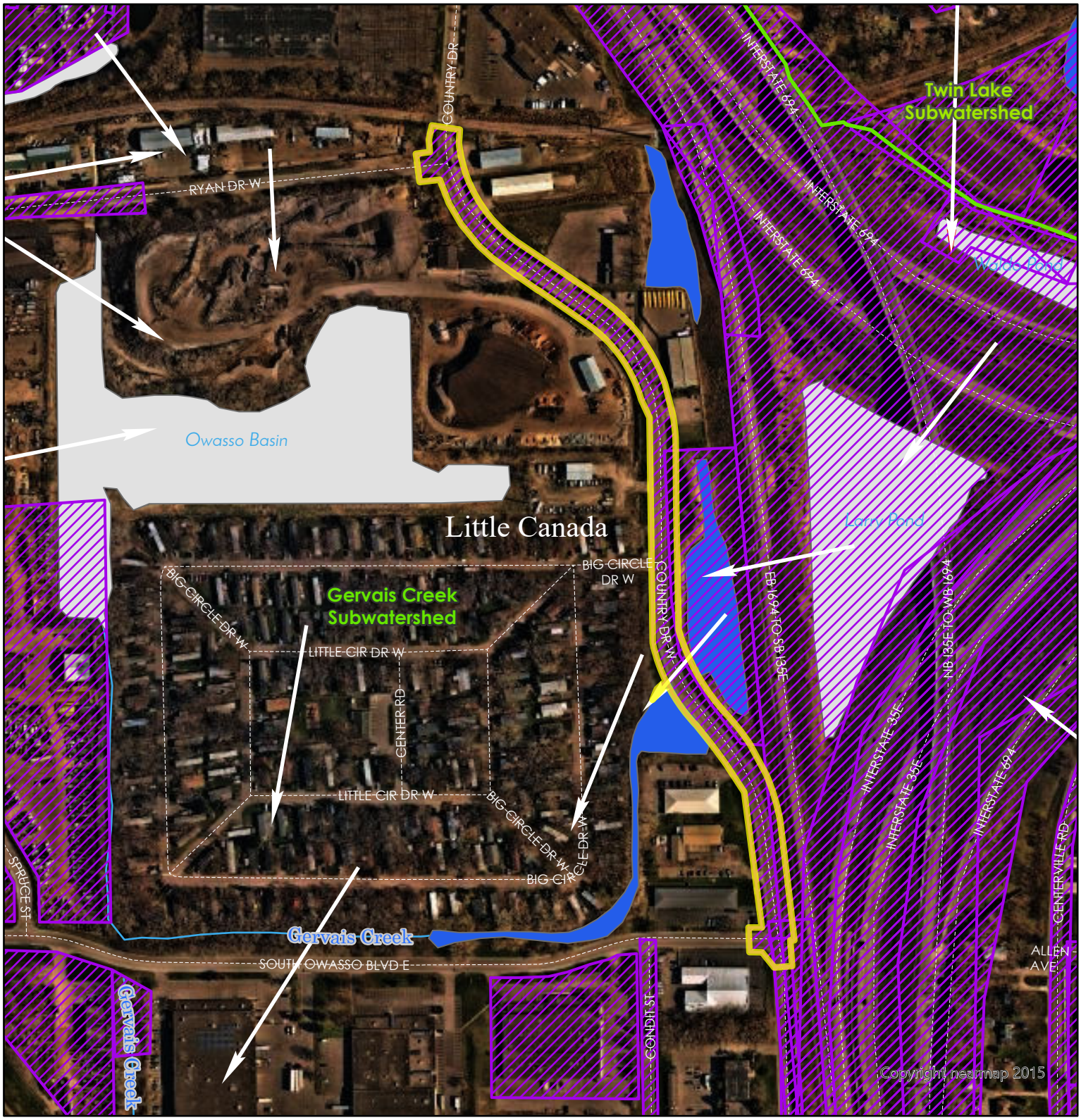
Staff Recommendation

Staff recommends approval of this permit with the special provisions.

Attachments:

- ☑ **Project Location Map**
- ☐ **Project Grading Plan**

#24-20 Little Canada 2024 SIP - Country Drive



Wetlands
- Manage A
- Manage B
- Manage C
- Lake
- Sediment Pond
- Not Assessed

- Flow Arrows
- Flow_Arrows (Major)
- Roads
- Permits
- Cities
- Subwatersheds
- RWMWD Boundary

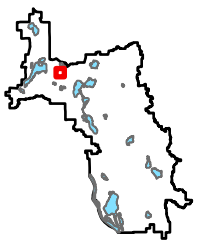
Shaded area is outside RWMWD

Highlighted Areas Represent Active Permit

Miles: 0 — 0.05 — 0.1

US Feet: 0 — 350 — 700

N



24-20

Special Provisions

1. The applicant shall add notes to the plans:
   A. Notify Mary Fitzgerald, Ramsey-Washington Metro Watershed District, at 651-792-7956 prior to beginning construction activity to schedule an initial erosion control inspection.
   B. The specified erosion and sediment control practices are the minimum. Additional practices may be required during the course of construction.

2. The applicant shall submit the final, signed plans set.

3. The applicant shall submit contact information for the person(s) responsible for implementing the erosion control plan.

BOARD OF WATER AND SOIL RESOURCES

Minnesota Wetland Conservation Act
Notice of Decision

Local Government Unit: Ramsey-Washington Metro Watershed District (RWMWD) **County:** Ramsey
Applicant Name: Bill Dircks (City of Little Canada) **Applicant Representative:** Madeline Maurer (Bolton & Menk, Inc.)
Project Name: Country Drive- South Owasso **LGU Project No. (if any):** 23-24 WCA
Date Complete Application Received by LGU: 10/17/2023
Date of LGU Decision: 11/17/2023
Date this Notice was Sent: 11/17/2023

WCA Decision Type - check all that apply

☒**Wetland Boundary/Type** ☐**Sequencing** ☐**Replacement Plan** ☐**Bank Plan (not credit purchase)**
☐**No-Loss (8420.0415)** ☐**Exemption (8420.0420)**
Part: ☐ **A** ☐ **B** ☐ **C** ☐ **D** ☐ **E** ☐ **F** ☐ **G** ☐ **H** **Subpart:** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9**

Replacement Plan Impacts (replacement plan decisions only)

Total WCA Wetland Impact Area:
Wetland Replacement Type: ☐ Project Specific Credits: ☐ Bank Credits:
Bank Account Number(s):

Technical Evaluation Panel Findings and Recommendations (attach if any)

☐ Approve ☒ Approve w/Conditions ☐ Deny ☐ No TEP Recommendation

Nicole Maras (RWMWD- LGU) and Ben Meyer (BWSR) completed a field review of the delineation with Madeline Maurer on 11/2/2023. After onsite discussion and subsequent desktop analysis, the following comments were submitted to the applicant on 11/13/2023:

- **No changes to wetland boundaries**
- **Wetlands 2A and 2B appear to be incidental/ditches as noted in the original submittal. Based on field and historical imagery review there's reason to designate the remaining features 1A, 1B, and 1C as similarly incidental and/or ditches if the applicant chooses to submit an amended report with that request.**

A revised delineation report addressing TEP comments was submitted to the LGU on 11/15/2023.

LGU Decision

☐ Approved with Conditions (specify below)[1] ☒ Approved[1] ☐ Denied
List Conditions:

Decision-Maker for this Application: ☒ Staff ☐ Governing Board/Council ☐ Other:

Decision is valid for: ☒ 5 years (default) ☐ Other (specify):

[1] *Wetland Replacement Plan approval is not valid until BWSR confirms the withdrawal of any required wetland bank credits. For project-specific replacement a financial assurance per MN Rule 8420.0522, Subp. 9 and evidence that all required forms have been recorded on the title of the property on which the replacement wetland is located must be provided to the LGU for the approval to be valid.*

LGU Findings – Attach document(s) and/or insert narrative providing the basis for the LGU decision[1].

☐ Attachment(s) (specify): ☒ Summary: **A revised delineation report addressing TEP comments was submitted to the LGU on 11/15/2023. See TEP Findings and Recommendations for additional information. The revised report is enclosed.**

[1] *Findings must consider any TEP recommendations.*

Attached Project Documents

☐ Site Location Map ☒ Project Plan(s)/Descriptions/Reports (specify): **Revised Report_submitted 11-15-2023**

Appeals of LGU Decisions

If you wish to appeal this decision, you must provide a written request within 30 calendar days of the date you received the notice. All appeals must be submitted to the Board of Water and Soil Resources Executive Director along with a check payable to BWSR for $500 *unless* the LGU has adopted a local appeal process as identified below. The check must be sent by mail and the written request to appeal can be submitted by mail or e-mail. The appeal should include a copy of this notice, name and contact information of appellant(s) and their representatives (if applicable), a statement clarifying the intent to appeal and supporting information as to why the decision is in error. Send to:

Appeals & Regulatory Compliance Coordinator
Minnesota Board of Water & Soils Resources
520 Lafayette Road North
St. Paul, MN 55155
travis.germundson@state.mn.us

Does the LGU have a local appeal process applicable to this decision?

☐ Yes[1] ☒ No

[1]*If yes, all appeals must first be considered via the local appeals process.*

Local Appeals Submittal Requirements (LGU must describe how to appeal, submittal requirements, fees, etc. as applicable)

Notice Distribution (include name)

Required on all notices:

☒ SWCD TEP Member: **Emily Deering/Alexis Lipstein (Ramsey County)**	☒ BWSR TEP Member: **Ben Meyer**
☐ LGU TEP Member (if different than LGU contact):	
☒ DNR Representative: **Jim Levitt**	
☒ Watershed District or Watershed Mgmt. Org.:	
☒ Applicant (notice only):	☒ Agent/Consultant (notice only):

Optional or As Applicable:

☒ Corps of Engineers: **Alex Meincke**	
☐ BWSR Wetland Mitigation Coordinator (required for bank plan applications only):	
☐ Members of the Public (notice only):	☒ Other: **Mary Fitzgerald (RWMWD)**

Signature:	**Date:**
Nicole Maras	11/17/2023

This notice and accompanying application materials may be sent electronically or by mail. The LGU may opt to send a summary of the application to members of the public upon request per 8420.0255, Subp. 3.

BOARD OF WATER AND SOIL RESOURCES

Minnesota Wetland Conservation Act
Notice of Decision

Local Government Unit: Ramsey-Washington Metro Watershed District (RWMWD) **County:** Ramsey
Applicant Name: Bill Dircks (City of Little Canada) **Applicant Representative:** Baylee Johnson (Bolton & Menk, Inc.)
Project Name: Little Canada 2024 SIP No Loss **LGU Project No. (if any):** 24-01 WCA
Date Complete Application Received by LGU: 2/23/2024
Date of LGU Decision: 3/7/2024
Date this Notice was Sent: 3/14/2024

WCA Decision Type - check all that apply

☐**Wetland Boundary/Type**	☐**Sequencing**	☐**Replacement Plan**	☐**Bank Plan (not credit purchase)**
☒**No-Loss (8420.0415)**			☐**Exemption (8420.0420)**
Part: ☒ **A** ☒ **B** ☐ **C** ☐ **D** ☐ **E** ☐ **F** ☐ **G** ☐ **H**			**Subpart:** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9**

Replacement Plan Impacts (replacement plan decisions only)

Total WCA Wetland Impact Area:
Wetland Replacement Type: ☐ Project Specific Credits: ☐ Bank Credits:
Bank Account Number(s):

Technical Evaluation Panel Findings and Recommendations (attach if any)

☐ Approve ☐ Approve w/Conditions ☐ Deny ☒ No TEP Recommendation

LGU Decision

☐ Approved with Conditions (specify below)[1] List Conditions:	☒ Approved[1]	☐ Denied

Decision-Maker for this Application: ☒ Staff ☐ Governing Board/Council ☐ Other:

Decision is valid for: ☒ 5 years (default) ☐ Other (specify):

[1] *Wetland Replacement Plan approval is not valid until BWSR confirms the withdrawal of any required wetland bank credits. For project-specific replacement a financial assurance per MN Rule 8420.0522, Subp. 9 and evidence that all required forms have been recorded on the title of the property on which the replacement wetland is located must be provided to the LGU for the approval to be valid.*

LGU Findings – Attach document(s) and/or insert narrative providing the basis for the LGU decision[1].

☐ Attachment(s) (specify):

☒ Summary: The enclosed 2023 NOD previously approved the incidental status of Wetlands 2A and 2B, and indicated the likelihood that Wetlands 1A, 1B, and 1C are also incidental --that designation is now approved as part of the current submittal in addition to incidental approvals for Wetlands 1D, 3, and 4. A no-loss approval for ditch cleaning is approved due to the non-jurisdictional status, and with excavation limited to restoration of the original ditch cross-section and debris removal.

Wetlands 1 and 2 were delineated based on a desktop analysis and are assumed jurisdictional. A no-loss approval for temporary impacts is approved, with excavation limited to removal of accumulated sediment and cattails to restore intended drainage capacity.

[1] *Findings must consider any TEP recommendations.*

Attached Project Documents

☒ Site Location Map ☐ Project Plan(s)/Descriptions/Reports (specify):

Appeals of LGU Decisions

If you wish to appeal this decision, you must provide a written request within 30 calendar days of the date you received the notice. All appeals must be submitted to the Board of Water and Soil Resources Executive Director along with a check payable to BWSR for $500 *unless* the LGU has adopted a local appeal process as identified below. The check must be sent by mail and the written request to appeal can be submitted by mail or e-mail. The appeal should include a copy of this notice, name and contact information of appellant(s) and their representatives (if applicable), a statement clarifying the intent to appeal and supporting information as to why the decision is in error. Send to:

Appeals & Regulatory Compliance Coordinator
Minnesota Board of Water & Soils Resources
520 Lafayette Road North
St. Paul, MN 55155
travis.germundson@state.mn.us

Does the LGU have a local appeal process applicable to this decision?

☐ Yes[1] ☒ No

[1]*If yes, all appeals must first be considered via the local appeals process.*

Local Appeals Submittal Requirements (LGU must describe how to appeal, submittal requirements, fees, etc. as applicable)

Notice Distribution (include name)

Required on all notices:

☒ SWCD TEP Member: **Alexis Lipstein (Ramsey County)** ☒ BWSR TEP Member: **Ben Meyer**
☐ LGU TEP Member (if different than LGU contact):
☒ DNR Representative: **Jim Levitt**
☒ Watershed District or Watershed Mgmt. Org.:
☒ Applicant (notice only): ☒ Agent/Consultant (notice only): **Brandon Bohks (Bolton & Menk, Inc.)**

Optional or As Applicable:

☒ Corps of Engineers:
☐ BWSR Wetland Mitigation Coordinator (required for bank plan applications only):
☐ Members of the Public (notice only): ☒ Other: **Mary Fitzgerald (RWMWD)**

Signature:	**Date:** 3/14/2024
Nicole Maras	

This notice and accompanying application materials may be sent electronically or by mail. The LGU may opt to send a summary of the application to members of the public upon request per 8420.0255, Subp. 3.

Permit Application Coversheet

Date May 01, 2024

Project Name Roers Apartments **Project Number** 24-21

Applicant Name Brett Whitehurst, Roers Companies

Type of Development Residential

Property Description

This project is located off Frost Avenue, west of the Gladstone Savanna in the City of Maplewood. The applicant is proposing to demolish existing buildings and construct a 5-story apartment building with associated underground and surface parking, sidewalks, utilities, and landscaping. The total site area is 4.9 acres. Two infiltration basins are proposed to meet stormwater treatment requirements. Stormwater pretreatment methods include sump structures. A temporary erosion control permit was issued on 4/18/24 to accommodate an earlier start date.

Watershed District Policies or Standards Involved:

- ☐ ***Wetlands***
- ☑ ***Erosion and Sediment Control***
- ☑ ***Stormwater Management***
- ☐ ***Floodplain***

Water Quantity Considerations

The proposed stormwater management plan is sufficient to handle the runoff from the site.

Water Quality Considerations

Short Term

The proposed erosion and sediment control plan is sufficient to protect downstream water resources during construction.

Long Term

The proposed stormwater management plan is sufficient to protect the long term quality of downstream water resources.

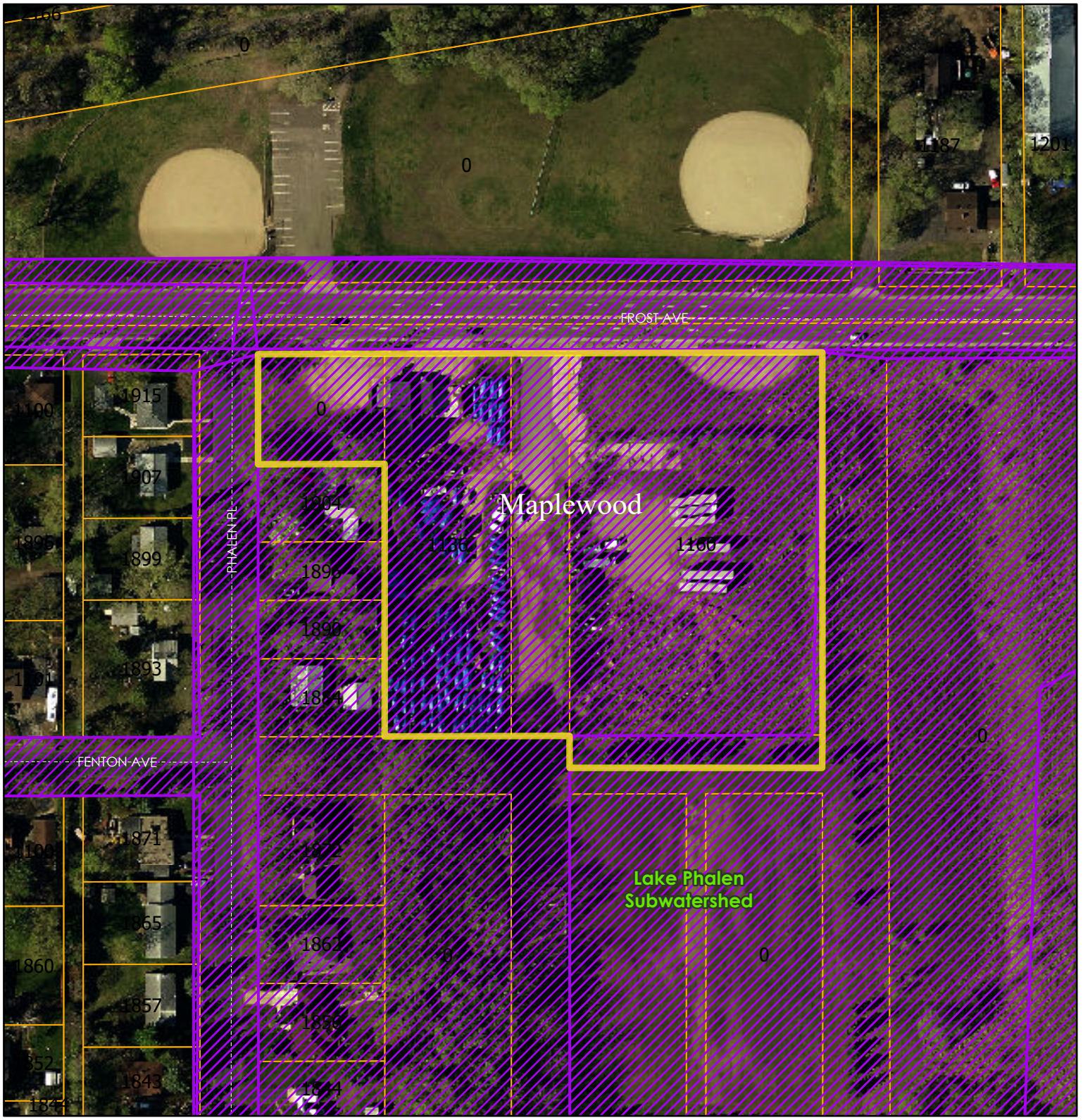
Staff Recommendation

Staff recommends approval of this permit with the special provisions.

Attachments:

- ☑ **Project Location Map**
- ☑ **Project Grading Plan**

#24-21 Roers Apartments



Wetlands
- Manage A
- Manage B
- Manage C
- Lake
- Sediment Pond
- Not Assessed

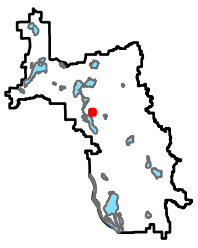
- Roads
- Permits
- Cities
- Subwatersheds
- Ramsey Co Parcels
- RWMWD Boundary

Highlighted Areas
Represent Active Permit

0 0.02 0.04 Miles

0 150 300 US Feet

N



24-21

Special Provisions

1. The applicant shall submit the executed stormwater joint maintenance agreement with the City of Maplewood.

AREA AND REQUIRED VOLUME SUMMARY

SEE SHEETS C100 - EXISTING CONDITIONS AND REMOVALS PLAN AND C300 - SITE, PAVING, AND SIGNAGE PLAN FOR AREA INFORMATION.

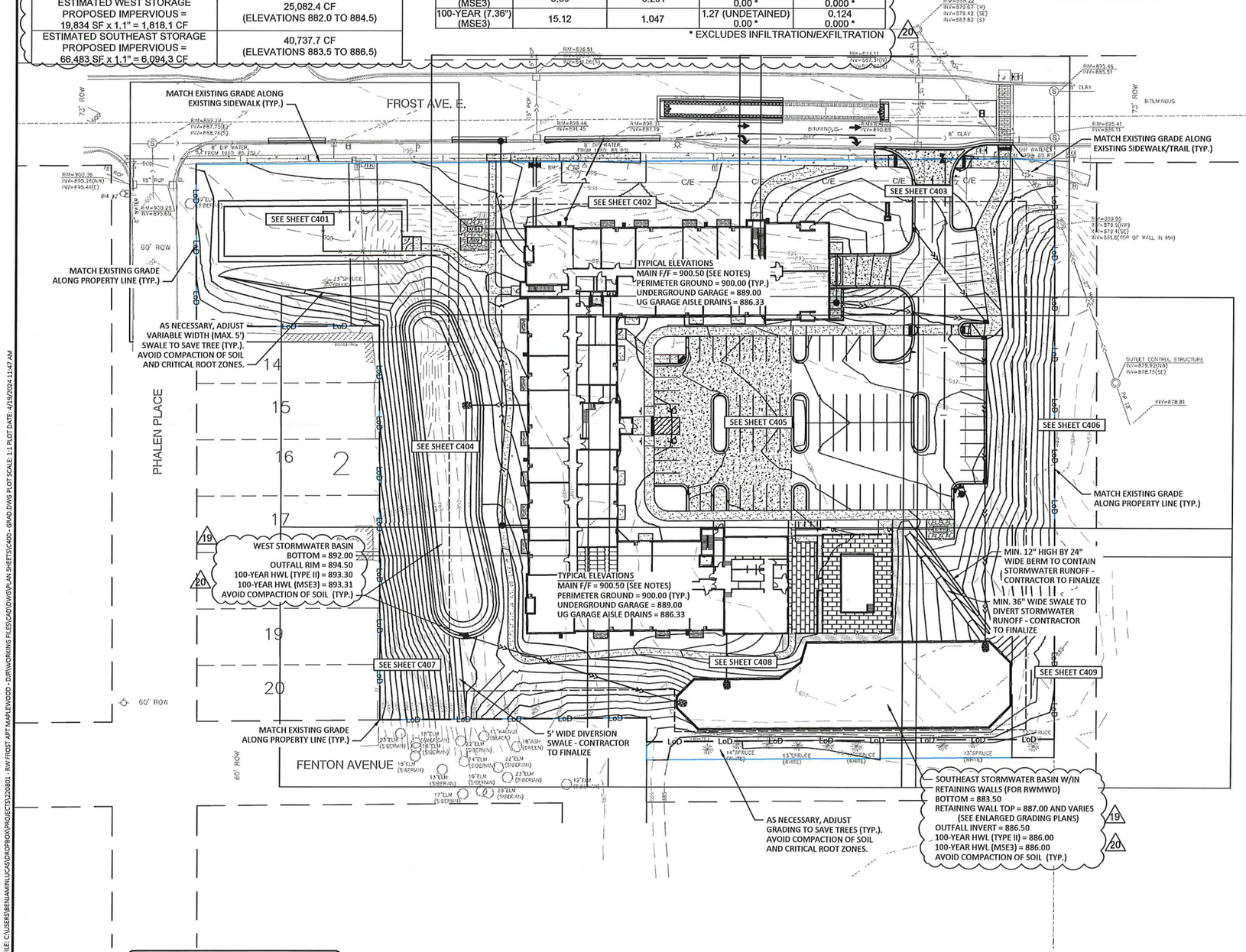
VOLUME RETENTION REQUIRED (CF)	VOLUME RETENTION PROVIDED (CF)
ESTIMATED OVERALL PROPOSED IMPERVIOUS = 88,510 SF x 1.1" = 8,113.4 CF	65,820.1 CF
ESTIMATED UNDETAINED/OFF-SITE PROPOSED IMPERVIOUS = 2,195 SF X 1.1" = 201.2 CF	NOT APPLICABLE
ESTIMATED WEST STORAGE PROPOSED IMPERVIOUS = 19,834 SF x 1.1" = 1,818.1 CF	25,082.4 CF (ELEVATIONS 882.0 TO 884.5)
ESTIMATED SOUTHEAST STORAGE PROPOSED IMPERVIOUS = 66,483 SF x 1.1" = 6,094.3 CF	40,737.7 CF (ELEVATIONS 883.5 TO 886.5)

STORMWATER MODELING RESULTS:

24-HR EVENT (RAINFALL)	EXISTING SITE DISCHARGE (CFS)	EXISTING SITE DISCHARGE (AF)	PROPOSED SITE DISCHARGE (CFS)	PROPOSED SITE DISCHARGE (AF)
2-YEAR (2.80") (TYPE II)	0.49	0.082	0.00 (UNDETAINED) 0.00 *	0.000 0.000 *
10-YEAR (4.18") (TYPE II)	3.26	0.291	0.05 (UNDETAINED) 0.00 *	0.014 0.000 *
100-YEAR (7.36") (TYPE II)	14.53	1.047	1.20 (UNDETAINED) 0.00 *	0.124 0.000 *
2-YEAR (2.80") (MSE3)	0.51	0.082	0.00 (UNDETAINED) 0.00 *	0.000 0.000 *
10-YEAR (4.18") (MSE3)	3.39	0.291	0.04 (UNDETAINED) 0.00 *	0.014 0.000 *
100-YEAR (7.36") (MSE3)	15.12	1.047	1.27 (UNDETAINED) 0.00 *	0.124 0.000 *

* EXCLUDES INFILTRATION/EXFILTRATION

	ANNUAL TSS REMOVAL (%)	ANNUAL TP REMOVAL (%)
UNDETAINED	92	74
WEST STORAGE	100	100
SOUTHEAST STORAGE	100	100
TOTAL = REQUIRED =	99 MIN. 90	97 MIN. 60



N

SBI

GRAPHIC SCALE
0 20 40 80
(IN FEET)

LEGEND

	PROPOSED	EXISTING
PROPERTY LINE		
LIMITS OF DISTURBANCE	LoD	
BUILDING		
TOPOGRAPHIC INDEX CONTOUR	800	800
TOPOGRAPHIC CONTOUR	802	802
CURB & GUTTER		
STORM SEWER		
DRAINTILE	DT	DT
SWALE		
SOIL BORINGS		
DRAINAGE SLOPE	1.0%	
EMERGENCY OVERFLOW	EOF 890.00	
FLARED END SECTION		
RIP RAP		
GUTTER OUT CURB		
SPOT ELEVATION	+800.00	+800.00
TOP OF CURB	TC 800.00	
GUTTER	G 800.00	
MATCH EXISTING	MA 800.00	
TOP OF WALL	TW 800.00	
BOTTOM OF WALL	BW 800.00	

CUT-FILL VOLUME SUMMARY

1. QUANTITIES SHOWN IS FROM TOP OF FINISHED GRADE TO TOP OF EXISTING GROUND. UNCORRECTED FOR COMPACTION SHRINK/SWELL, TOPSOIL STRIP, UTILITY TRENCHES, WALLS/FOUNDATIONS, PAVEMENT STRUCTURES, HOLD DOWNS, ETC.
2. QUANTITIES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE GRADING CONTRACTOR SHALL RESPONSIBLE FOR CONFIRMING THE VOLUMES.

TOP OF PROPOSED SURFACE TO TOP OF EXISTING SURFACE WITH BUILDING FINISHED FLOOR	CUT VOLUME = 3,600.5 CU. YDS. FILL VOLUME = 48,482.0 CU. YDS. DIFFERENCE = 44,881.5 CU. YDS.

ADJUSTMENTS FOR PROPOSED (ESTIMATED) FEATURES:

1.	UNDERGROUND PARKING =	25,900.5 CU. YDS.
2.	UNDERGROUND PARKING FLOOR STRUCTURE =	1,726.7 CU. YDS.
3.	PARKING LOT PAVEMENT STRUCTURE =	1,202.5 CU. YDS.
4.	PARKING LOT CURB AND GUTTER STRUCTURE =	91.7 CU. YDS.
5.	SHARED PATIO, POOL, PICKLEBALL COURT, ETC. =	172.7 CU. YDS.
6.	SWIMMING POOL (5' WATER) =	170.7 CU. YDS.
7.	PATIOS, SIDEWALKS, STOOPS, ETC. =	271.7 CU. YDS.
8.	6" THICK TOPSOIL =	2,301.6 CU. YDS.
	ESTIMATED TOTAL =	27,694.1 CU. YDS.

9. SEE ARCHITECTURAL, STRUCTURAL, MEP/T, AND LANDSCAPING PLANS FOR ADDITIONAL HOLD DOWNS, BACKFILLING, ETC. VOLUMES.
10. SEE CIVIL DETAILS AND CONTRACTOR'S MEANS AND METHODS FOR TRENCH BACKFILLING VOLUMES.
11. SEE MANUFACTURE'S RECOMMENDATIONS FOR RETAINING WALL VOLUMES.

NOTES

1. CONTRACTOR SHALL REFER TO CONSTRUCTION NOTES ON SHEETS C001 AND C002 PRIOR TO THE START OF CONSTRUCTION.
2. PROPOSED CONTOURS AND SPOT ELEVATIONS ARE TO FINISHED SURFACE GRADE.
3. SEE ARCHITECTURAL PLANS FOR ELEVATIONS WITHIN THE UNDERGROUND PARKING GARAGE AREA AND THE MAIN FLOOR AREA.

BENCHMARKS (BM)

BEARINGS SHOWN ARE ON RAMSEY COUNTY COORDINATES
BM #1: TOP NUT OF FIRE HYDRANT LOCATED IN THE SW QUADRANT OF FROST AVENUE AND (VACATED) EDWARD STREET. ELEVATION: 897.90 (NAVD 88 DATUM).
BM #2: TOP NUT OF FIRE HYDRANT LOCATED IN THE SW QUADRANT OF FROST AVENUE AND PHALAN PLACE. ELEVATION: 903.04 (NAVD 88 DATUM).

811 Know what's below. Call before you dig.

STATE LAW: 48 HOURS BEFORE EXCAVATING OR DEMOLISHING BUILDINGS, CALL 811 FOR FIELD LOCATION OF UNDERGROUND UTILITY LINES. THIS SERVICE LOCATES UTILITY OWNED LINES BUT NOT PRIVATE LINES.

THE LOCATIONS OF UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED. THE EXACT LOCATION OF ALL UTILITIES (PUBLIC AND PRIVATE) MUST BE DETERMINED BEFORE COMMENCING WORK.

Solution Blue water matters
6110 Blue Circle Dr, Suite 230 Minnetonka, MN 55343 651-294-0038 www.SolutionBlue.com

DJR ARCHITECTURE
MINNEAPOLIS, MN

OBERON - FROST AVENUE APARTMENTS

1136 FROST AVENUE, MAPLEWOOD, MINNESOTA 55109

STORMWATER REPORT PLANS

SUMMARY

DESIGNED: JRK DRAWN: JRK
REVIEWED: JRK
PHASE: PERMIT INITIAL ISSUE: 08/19/2022

REVISION HISTORY (SEE SHEET C000 FOR OTHERS)

#	DATE	DESCRIPTION
12	05/30/2023	SIGNED PERMIT SUBMITTAL
13	06/22/2023	POOL DECK AND GAZEBO SIDEWALK
14	10/05/2023	SIGNED BLDG. PERMIT SUBMITTAL - NFC
15	03/04/2024	ASI#1
16	03/25-29/24	XFMR RE-LOCATION, SPRWS COMMENTS
17	03/29/2024	ASI#3
18	04/04/2024	SPRWS COMMENTS
19	04/15/2024	RWMWD COMMENTS
20	04/19/2024	RWMWD COMMENTS

CERTIFICATION

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.

JAY RONALD KOESTER, P.E.

DATE: 04/19/2024 REG. NO. 44433

GRADING PLAN - OVERALL

SOLUTION BLUE PROJECT NO: 220801

C400

RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

Temporary Erosion & Sediment Control Agreement

The following is necessary because you have requested to begin land disturbance and have not yet received a Ramsey-Washington Metro Watershed District (RWMWD) Grading Permit. Each statement must be read and initialed, and the agreement must be signed at the bottom. Return to nicole.maras@rwmwd.org when complete.

Name (please print) Adam Hegglemann

Company/Organization Roers Companies

Project Name Maplewood Apartments - Oberon

AH I recognize that I have failed to apply for and/or receive an RWMWD Grading Permit prior to beginning land disturbance

AH I agree to follow all applicable erosion and sediment control measures as outlined in the MPCA's NPDES permit and as directed by RWMWD staff.

AH I agree to maintain all erosion and sediment control measures throughout the duration of construction operations and agree to make repairs and modifications as directed by RWMWD staff.

AH I agree to apply for a RWMWD Grading Permit and pay all necessary fees and deposits, if applicable.

AH I recognize that RWMWD may require changes to the project plan as a result of the permit review process.

AH I recognize that failure to apply for and receive a RWMWD Grading Permit will result in the RWMWD initiating legal action.

AH I recognize that this is a temporary permit and only applies to coverage relating to the RWMWD Grading Permit. All other permits must be obtained from the proper authorities as needed, including city building and stormwater permits, Wetland Conservation Act approvals, the MPCA's NPDES permit, and any other applicable permits required for the project.

Authorized Signatures

Responsible Party [signature] Date 4/17/24

District Administrator Tina Carstens Date 4/18/2024

(651) 792-7950
fax (651) 792-7951
office@rwmwd.org
rwmwd.org
2665 Noel Drive
Little Canada, MN 55117

Permit Application Coversheet

Date May 01, 2024

Project Name Maplewood 2024 SIP- East Shore Drive **Project Number** 24-22

Applicant Name Jon Jarosch, City of Maplewood

Type of Development Linear

Property Description

This project is located in a residential area northeast of Lake Phalen. The applicant is proposing to reconstruct roadways including East Shore Drive and replacement of outfalls to Lake Phalen. The DNR is involved in permitting requirements for work below the Ordinary High Water Level (OHWL) of the lake. Structures being replaced upstream of the outfalls will include sumps for stormwater pretreatment. Two underground infiltration systems will also be constructed to partially meet stormwater treatment requirements. Due to spatial and utility constraints, the applicant is requesting to deduct available credits from the city's volume reduction bank to make up for the remaining volume that is not being provided onsite. The project will result in a slight decrease in impervious area.

RWMWD/Barr previously completed a flood risk reduction feasibility study of the area and have been working with the city on potential storm sewer modifications north of the lake along East Shore Drive to reduce flood risk to homes. Wetland permitting, survey work, and access agreements are still needed to finalize design and approval of these modifications, therefore that work is not included in this month's permit request for approval. Due to the project schedule, the applicant wishes to move forward with the permit request for the roadway reconstruction this month. It's expected that the flood reduction portion of the project will appear as a future permit application and/or request.

Watershed District Policies or Standards Involved:

- ☐ ***Wetlands***
- ☑ ***Erosion and Sediment Control***
- ☑ ***Stormwater Management***
- ☑ ***Floodplain***

Water Quantity Considerations

The proposed stormwater management plan is sufficient to handle the runoff from the site and result in no adverse flood impacts.

Water Quality Considerations

Short Term

The proposed erosion and sediment control plan is sufficient to protect downstream water resources during construction.

Long Term

The proposed stormwater management plan is sufficient to protect the long term quality of downstream water resources.

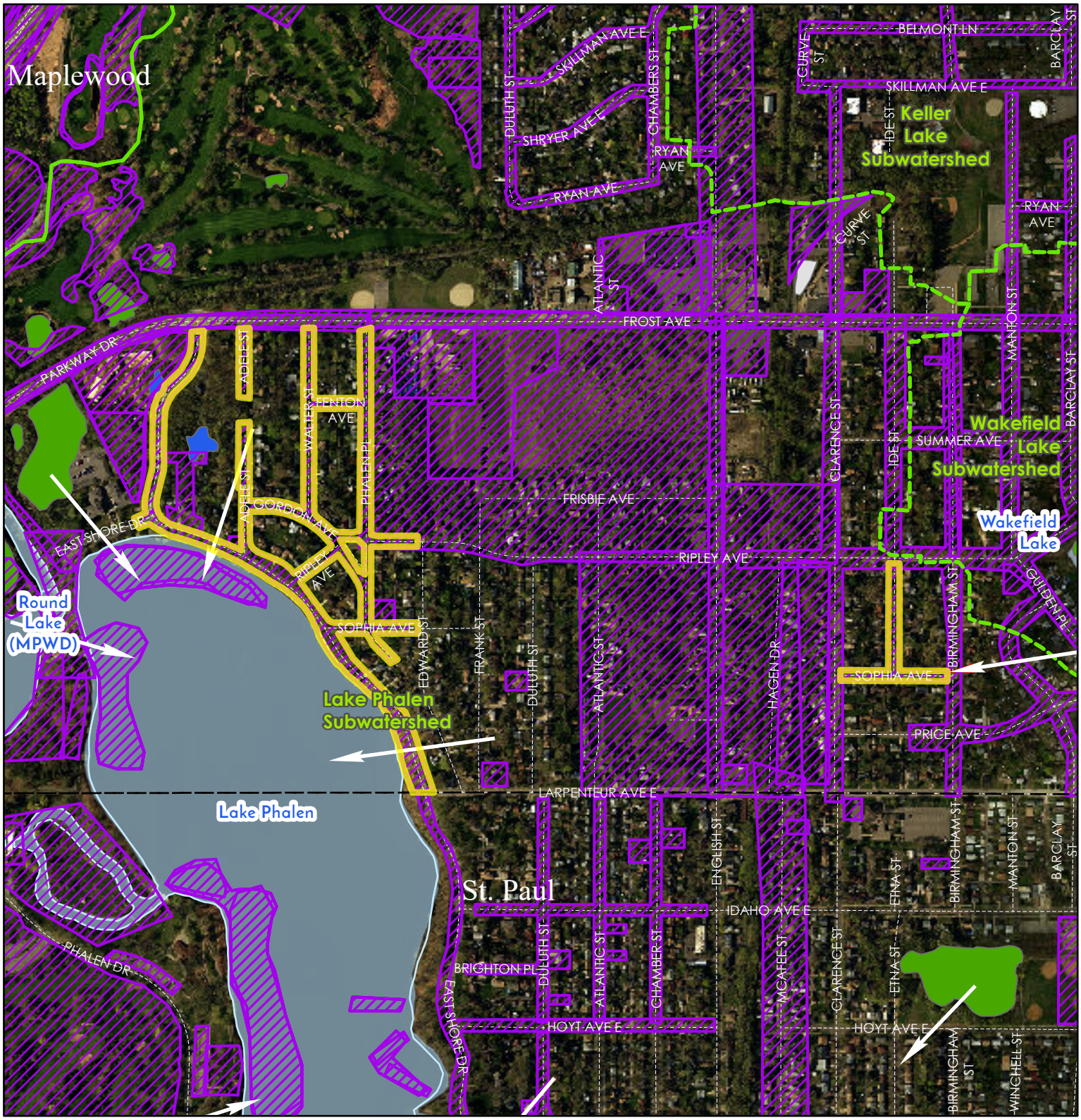
Staff Recommendation

Staff recommends approval of this permit with the special provisions.

Attachments:

- [x] **Project Location Map**
- [ ] **Project Grading Plan**

#24-22 Maplewood 2024 SIP - East Shore Drive



Wetlands
- Manage A
- Manage B
- Manage C
- Lake
- Sediment Pond
- Not Assessed

- Flow Arrows
- Flow_Arrows (Major)
- Roads
- Permits
- Cities
- Subwatersheds
- Lakes
- RWMWD Boundary

Highlighted Areas Represent Active Permit

Miles: 0 — 0.13 — 0.25

US Feet: 0 — 500 — 1,000

N

24-22

Special Provisions

1. The applicant shall revise the detail of the underground infiltration systems to include geomembrane instead of geotextile.

2. The applicant shall label the 100-year High Water Level (HWL) on Sheets 100 and 103 for the proposed underground infiltration systems.

3. The applicant shall add notes to the plans:
A. Contact Mary Fitzgerald, Ramsey-Washington Metro Watershed District, at 651-792-7956 prior to beginning construction activity to schedule an initial erosion control inspection.
B. Contact Mary Fitzgerald, Ramsey-Washington Metro Watershed District, at 651-792-7956 at least 48 hours prior to construction of the underground infiltration systems.
C. The specified erosion and sediment control practices are the minimum. Additional practices may be required during the course of construction.

4. The applicant shall submit the final, signed plans set.

5. The applicant shall submit contact information for the trained erosion control coordinator responsible for implementing the Stormwater Pollution Prevention Plan (SWPPP).

6. The applicant shall submit the approved Minnesota Pollution Control Agency's NPDES Construction Permit coverage for the project.

Permit Application Coversheet

Date May 01, 2024

Project Name Oakdale Public Works Facility **Project Number** 24-23

Applicant Name Jim Romanik, City of Oakdale

Type of Development Institutional

Property Description

This project is located off Granada Avenue North and 32nd Street North in the City of Oakdale. The applicant is proposing to construct a new public works facility with associated parking, office space, maintenance building, and fueling station. The total site area is 7.5 acres. An underground filtration system is proposed to meet stormwater treatment requirements, including a detention vault and proprietary filter cartridge manhole. Pretreatment methods will include hydrodynamic separators. The site is currently being remediated by 3M due to past land use (Permit #24-05). The site received a wetland delineation and no-loss approval in June 2023 (#23-07 WCA). In the final condition, this phase of the project will have no wetland or buffer impacts. Work is required in the 100-year floodplain, however no net fill is proposed to maintain existing flood storage.

Watershed District Policies or Standards Involved:

- ☑ ***Wetlands***
- ☑ ***Erosion and Sediment Control***
- ☑ ***Stormwater Management***
- ☑ ***Floodplain***

Water Quantity Considerations

The proposed grading and stormwater management plan is sufficient to handle the runoff from the site and maintain existing flood storage.

Water Quality Considerations

Short Term

The proposed erosion and sediment control plan is sufficient to protect downstream water resources during construction.

Long Term

The proposed stormwater management plan is sufficient to protect the long term quality of downstream water resources.

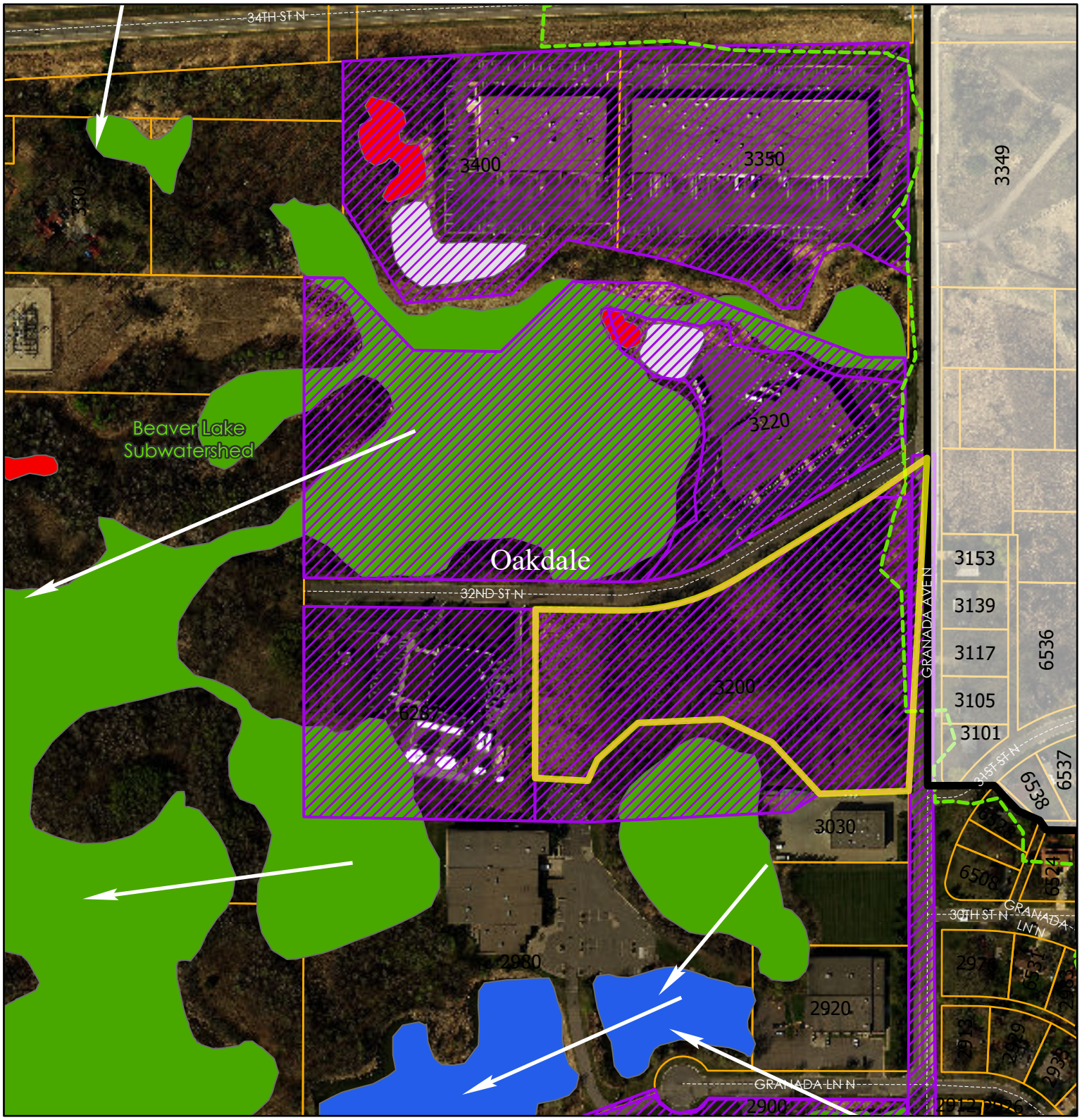
Staff Recommendation

Staff recommends approval of this permit with the special provisions.

Attachments:

- ☑ **Project Location Map**
- ☑ **Project Grading Plan**

#24-23 Oakdale Public Works Facility



Wetlands
- Manage A
- Manage B
- Manage C
- Lake
- Sediment Pond
- Not Assessed

- Flow Arrows
- Roads
- Permits
- Cities
- Subwatersheds
- Washington Co Parcels
- RWMWD Boundary

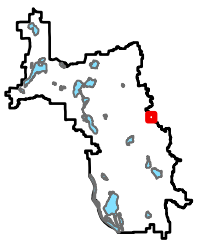
Shaded area is outside RWMWD

Highlighted Areas
Represent Active Permit

0 0.05 0.1 Miles

0 300 600 US Feet

N



24-23

Special Provisions

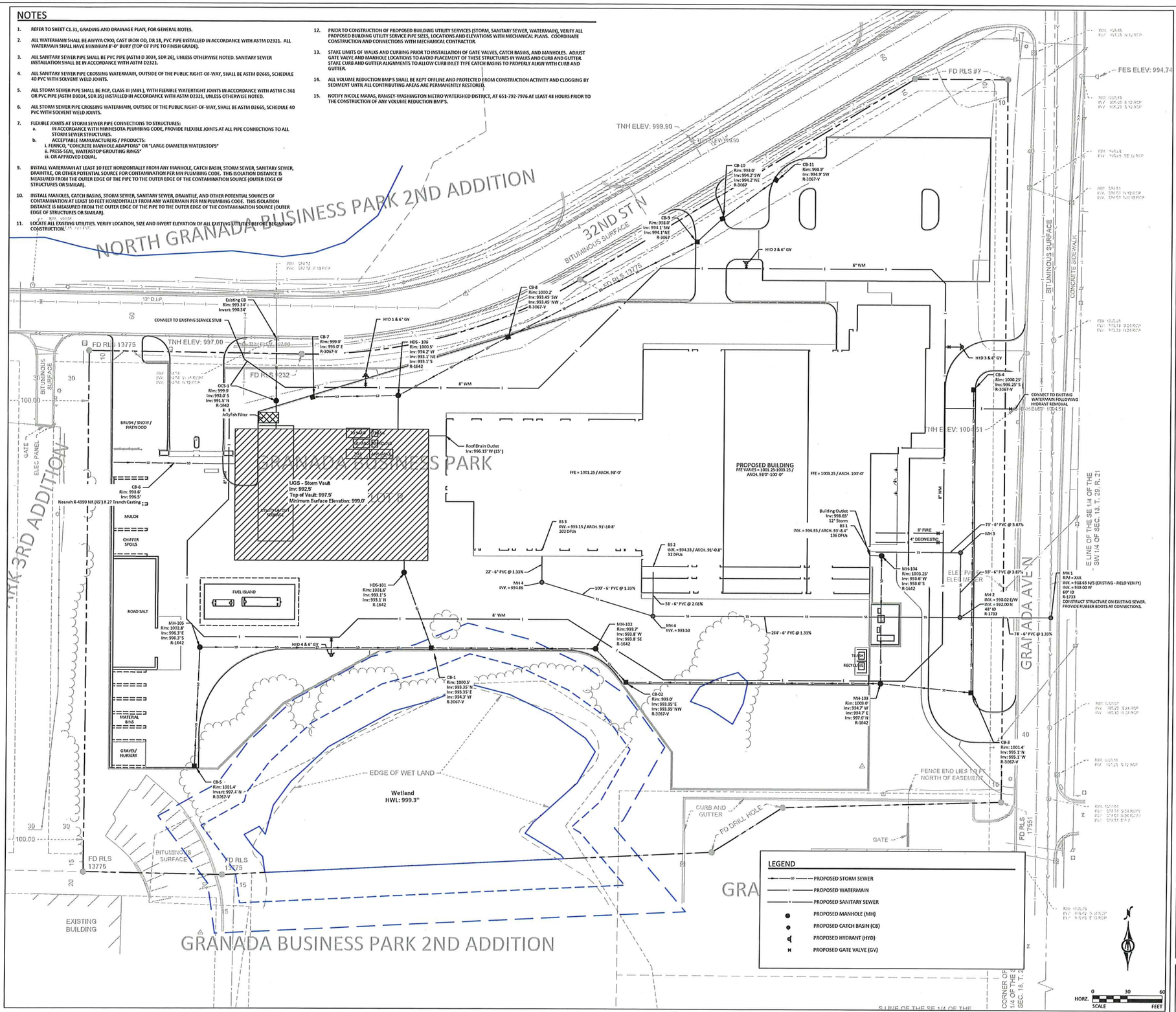
1. The applicant shall submit the final, signed plans set.

2. The applicant shall submit contact information for the trained erosion control coordinator responsible for implementing the Stormwater Pollution Prevention Plan (SWPPP).

3. The applicant shall submit a copy of the approved Minnesota Pollution Control Agency's NPDES Construction Permit coverage for the project.

NOTES

1. REFER TO SHEET C1.31, GRADING AND DRAINAGE PLAN, FOR GENERAL NOTES.
2. ALL WATERMAIN SHALL BE AWWA C900, CAST IRON OD, DR 18, PVC PIPE INSTALLED IN ACCORDANCE WITH ASTM D2321. ALL WATERMAIN SHALL HAVE MINIMUM 8'-0" BURY (TOP OF PIPE TO FINISH GRADE).
3. ALL SANITARY SEWER PIPE SHALL BE PVC PIPE (ASTM D 3034, SDR 26), UNLESS OTHERWISE NOTED. SANITARY SEWER INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D2321.
4. ALL SANITARY SEWER PIPE CROSSING WATERMAIN, OUTSIDE OF THE PUBLIC RIGHT-OF-WAY, SHALL BE ASTM D2665, SCHEDULE 40 PVC WITH SOLVENT WELD JOINTS.
5. ALL STORM SEWER PIPE SHALL BE RCP, CLASS III (MIN.), WITH FLEXIBLE WATERTIGHT JOINTS IN ACCORDANCE WITH ASTM C-361 OR PVC PIPE (ASTM D3034, SDR 35) INSTALLED IN ACCORDANCE WITH ASTM D2321, UNLESS OTHERWISE NOTED.
6. ALL STORM SEWER PIPE CROSSING WATERMAIN, OUTSIDE OF THE PUBLIC RIGHT-OF-WAY, SHALL BE ASTM D2665, SCHEDULE 40 PVC WITH SOLVENT WELD JOINTS.
7. FLEXIBLE JOINTS AT STORM SEWER PIPE CONNECTIONS TO STRUCTURES:
   a. IN ACCORDANCE WITH MINNESOTA PLUMBING CODE, PROVIDE FLEXIBLE JOINTS AT ALL PIPE CONNECTIONS TO ALL STORM SEWER STRUCTURES.
   b. ACCEPTABLE MANUFACTURERS / PRODUCTS:
      i. FERNCO, "CONCRETE MANHOLE ADAPTORS" OR "LARGE-DIAMETER WATERSTOPS"
      ii. PRESS-SEAL, WATERSTOP GROUTING RINGS"
      iii. OR APPROVED EQUAL.
9. INSTALL WATERMAIN AT LEAST 10 FEET HORIZONTALLY FROM ANY MANHOLE, CATCH BASIN, STORM SEWER, SANITARY SEWER, DRAINTILE, OR OTHER POTENTIAL SOURCE FOR CONTAMINATION PER MN PLUMBING CODE. THIS ISOLATION DISTANCE IS MEASURED FROM THE OUTER EDGE OF THE PIPE TO THE OUTER EDGE OF THE CONTAMINATION SOURCE (OUTER EDGE OF STRUCTURES OR SIMILAR).
10. INSTALL MANHOLES, CATCH BASINS, STORM SEWER, SANITARY SEWER, DRAINTILE, AND OTHER POTENTIAL SOURCES OF CONTAMINATION AT LEAST 10 FEET HORIZONTALLY FROM ANY WATERMAIN PER MN PLUMBING CODE. THIS ISOLATION DISTANCE IS MEASURED FROM THE OUTER EDGE OF THE PIPE TO THE OUTER EDGE OF THE CONTAMINATION SOURCE (OUTER EDGE OF STRUCTURES OR SIMILAR).
11. LOCATE ALL EXISTING UTILITIES. VERIFY LOCATION, SIZE AND INVERT ELEVATION OF ALL EXISTING UTILITIES BEFORE BEGINNING CONSTRUCTION.
12. PRIOR TO CONSTRUCTION OF PROPOSED BUILDING UTILITY SERVICES (STORM, SANITARY SEWER, WATERMAIN), VERIFY ALL PROPOSED BUILDING UTILITY SERVICE PIPE SIZES, LOCATIONS AND ELEVATIONS WITH MECHANICAL PLANS. COORDINATE CONSTRUCTION AND CONNECTIONS WITH MECHANICAL CONTRACTOR.
13. STAKE LIMITS OF WALKS AND CURBING PRIOR TO INSTALLATION OF GATE VALVES, CATCH BASINS, AND MANHOLES. ADJUST GATE VALVE AND MANHOLE LOCATIONS TO AVOID PLACEMENT OF THESE STRUCTURES IN WALKS AND CURB AND GUTTER. STAKE CURB AND GUTTER ALIGNMENTS TO ALLOW CURB INLET TYPE CATCH BASINS TO PROPERLY ALIGN WITH CURB AND GUTTER.
14. ALL VOLUME REDUCTION BMP'S SHALL BE KEPT OFFLINE AND PROTECTED FROM CONSTRUCTION ACTIVITY AND CLOGGING BY SEDIMENT UNTIL ALL CONTRIBUTING AREAS ARE PERMANENTLY RESTORED.
15. NOTIFY NICOLE MARAS, RAMSEY-WASHINGTON METRO WATERSHED DISTRICT, AT 651-792-7976 AT LEAST 48 HOURS PRIOR TO THE CONSTRUCTION OF ANY VOLUME REDUCTION BMP'S.



HAGEN, CHRISTENSEN & McILWAIN ARCHITECTS

CIVIL / STRUCTURAL CONSULTANT
BOLTON & MENK

MEP CONSULTANT
emanuelson-podas
consulting engineers

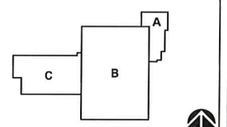
GENERAL CONTRACTOR

I hereby certify that this drawing 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.

DAVID [illegible]
Registration Number: 40180
Date: 06/27/2023

NOT FOR CONSTRUCTION

KEY PLAN



REVISION	DATE	DESCRIPTION	BY

CLIENT
CITY OF OAKDALE
GRANADA AVE N & 32ND ST N
OAKDALE PUBLIC WORKS

DRAWING TITLE
UTILITY PLAN

DRAWING NUMBER
C1.41

Permit Application Coversheet

Date January 03, 2024

Project Name 3M Granada Soil Remediation Project Number 24-05

Applicant Name Kevin Madson, 3M Chemical Operations, LLC

Type of Development Grading

Property Description

This project is located at the corner of Granada Avenue North and 32nd Street North in the City of Oakdale. The applicant is proposing to complete soil remediation on the site which has been designated a Superfund site due to contamination from past land use as a 3M disposal site. The project is being completed in accordance with an Interim Response Action Plan (IRAP) submitted to the Minnesota Pollution Control Agency (MPCA). Clean soils will be stripped and stockpiled for future use. Contaminated soils will be excavated and transported offsite for proper disposal. Groundwater and precipitation that accumulates in excavations will be assumed to be impacted and discharged to the sanitary sewer in accordance with Metropolitan Council Environmental Services. Two wetlands were delineated onsite, one of which was deemed incidental, 'Wetland B.' Excavation is required within a portion of DNR Public Water 'Wetland A' to remove contaminated soils, and a DNR Public Waters permit has been applied for. A variance request for temporary disturbance of the wetland and associated buffer is enclosed for consideration. Disturbed wetland and buffer areas will be restored with clean fill and topsoil to match existing contours and seeded with native wetland and mesic prairie mixes. Work is anticipated in the 100-year floodplain, however no net fill is proposed to preserve existing flood storage. Following completion of the project the landowner intends to donate the property to the City of Oakdale for a future public works facility, which will be permitted separately. The total site area is 7.8 acres.

Watershed District Policies or Standards Involved:

- [x] *Wetlands*
- [x] *Erosion and Sediment Control*
- [ ] *Stormwater Management*
- [x] *Floodplain*

Water Quantity Considerations

The proposed grading is sufficient to handle the runoff from the site and preserve existing flood storage on the landscape.

Water Quality Considerations

Short Term

The proposed erosion and sediment control plan is sufficient to protect downstream water resources during construction.

Long Term

There are no long term water quality considerations, and no impervious area is proposed.

Staff Recommendation

Staff recommends approval of this permit with the special provisions and variance request (Rule E).

Attachments:

- ☑ Project Location Map
- ☑ Project Grading Plan

BOARD OF WATER AND SOIL RESOURCES

Minnesota Wetland Conservation Act
Notice of Decision

Local Government Unit: Ramsey-Washington Metro Watershed District (RWMWD)	**County:** Washington
Applicant Name: Kevin Madson (3M)	**Applicant Representative:** Tony Kaster (Stantec)
Project Name: 3110 Granada Ave	**LGU Project No. (if any):** 23-07 WCA
Date Complete Application Received by LGU: 5/23/2023	
Date of LGU Decision: 6/20/2023	
Date this Notice was Sent: 6/21/2023	

WCA Decision Type - check all that apply

☒**Wetland Boundary/Type** ☐**Sequencing** ☐**Replacement Plan** ☐**Bank Plan (not credit purchase)**

☒**No-Loss (8420.0415)** ☐**Exemption (8420.0420)**

Part: ☐ **A** ☐ **B** ☐ **C** ☐ **D** ☒ **E** ☐ **F** ☐ **G** ☐ **H** **Subpart:** ☐ **2** ☐ **3** ☐ **4** ☐ **5** ☐ **6** ☐ **7** ☐ **8** ☐ **9**

Replacement Plan Impacts (replacement plan decisions only)

Total WCA Wetland Impact Area:
Wetland Replacement Type: ☐ Project Specific Credits: ☐ Bank Credits:
Bank Account Number(s):

Technical Evaluation Panel Findings and Recommendations (attach if any)

☒ Approve ☐ Approve w/Conditions ☐ Deny ☐ No TEP Recommendation

TEP member Ben Meyer (BWSR) commented on 5/31/23 that with the history of disturbance on the site, wetland boundaries appear to be accurately depicted and Wetland B is incidental.

TEP members Nicole Soderholm (RWMWD- LGU) and Jay Riggs (Washington Conservation District) completed a field review of the site on 6/12/23 with Tony Kaster (Stantec), Dan Scollan (DNR), Shane Waterman (3M), Matthew Summers (Stantec), Jim Romanik (City of Oakdale), and Dan Fetter (Barr Engineering). No comments or requested changes were made to the delineation report and no loss request via the determination that Wetland B is incidental.

An OHWL determination is pending from the DNR. Future construction activity (grading, excavation) may require a DNR Public Waters permit. This no loss decision applies to that which is under WCA jurisdiction only, including any possible deferment or waiving of jurisdiction by the DNR --which is currently undetermined.

LGU Decision

☐ Approved with Conditions (specify below)[1] ☒ Approved[1] ☐ Denied

List Conditions:

Decision-Maker for this Application: ☒ Staff ☐ Governing Board/Council ☐ Other:

Decision is valid for: ☒ 5 years (default) ☐ Other (specify):

[1] *Wetland Replacement Plan approval is not valid until BWSR confirms the withdrawal of any required wetland bank credits. For project-specific replacement a financial assurance per MN Rule 8420.0522, Subp. 9 and evidence that all required forms have been recorded on the title of the property on which the replacement wetland is located must be provided to the LGU for the approval to be valid.*

LGU Findings – Attach document(s) and/or insert narrative providing the basis for the LGU decision[1].

☐ Attachment(s) (specify):
☒ Summary: **The TEP field review completed 6/12/23 determined that site conditions related to wetland boundary/type were consistent with the submitted delineation report. A review of onsite conditions and historical imagery is consistent with an incidental determination for Wetland B. The joint application was submitted ahead of an anticipated remediation of contaminated soils in and adjacent to Wetlands A and B.**

[1] *Findings must consider any TEP recommendations.*

Attached Project Documents

☒ Site Location Map ☐ Project Plan(s)/Descriptions/Reports (specify):

Appeals of LGU Decisions

If you wish to appeal this decision, you must provide a written request within 30 calendar days of the date you received the notice. All appeals must be submitted to the Board of Water and Soil Resources Executive Director along with a check payable to BWSR for $500 *unless* the LGU has adopted a local appeal process as identified below. The check must be sent by mail and the written request to appeal can be submitted by mail or e-mail. The appeal should include a copy of this notice, name and contact information of appellant(s) and their representatives (if applicable), a statement clarifying the intent to appeal and supporting information as to why the decision is in error. Send to:

Appeals & Regulatory Compliance Coordinator
Minnesota Board of Water & Soils Resources
520 Lafayette Road North
St. Paul, MN 55155
travis.germundson@state.mn.us

Does the LGU have a local appeal process applicable to this decision?

☐ Yes[1] ☒ No

[1]*If yes, all appeals must first be considered via the local appeals process.*

Local Appeals Submittal Requirements (LGU must describe how to appeal, submittal requirements, fees, etc. as applicable)

Notice Distribution (include name)

Required on all notices:

☒ SWCD TEP Member: **Jay Riggs (Washington Conservation District)** ☒ BWSR TEP Member: **Ben Meyer**
☐ LGU TEP Member (if different than LGU contact):
☒ DNR Representative: **Kelly Pharis, Dan Scollan**
☐ Watershed District or Watershed Mgmt. Org.:
☒ Applicant (notice only): ☒ Agent/Consultant (notice only): **Matthew Summers/Jeannie Martin (Stantec)**

Optional or As Applicable:

☐ Corps of Engineers:
☐ BWSR Wetland Mitigation Coordinator (required for bank plan applications only):

☐ Members of the Public (notice only): ☒ Other: **Mary Fitzgerald (RWMWD), Shane Waterman (3M), Jim Romanik (City of Oakdale), Dan Fetter (Barr)**

Signature:	**Date:**
Nicole Maras	6/21/2023

This notice and accompanying application materials may be sent electronically or by mail. The LGU may opt to send a summary of the application to members of the public upon request per 8420.0255, Subp. 3.

Permit Application Coversheet

Date May 01, 2024

Project Name Keller Lake Shoreline Restoration **Project Number** 24-24

Applicant Name Paul Erdmann, RWMWD

Type of Development Water Quality

Property Description

This project is located along a section of the eastern shoreline of Keller Lake in the City of Maplewood. This is a RWMWD-led project in collaboration with Ramsey County Parks & Recreation to complete a native restoration on approximately 645 linear feet of shoreline. The existing shoreline contains rock gabions (wire cages filled with rocks) that were estimated to be installed in the 1980s to stabilize the banks and reduce erosion. The proposed restoration will include modifying the gabions with biodegradable coir biologs and filling void spaces in the rock with native plants to improve shoreline habitat and aesthetics. The project is less than 1 acre, however District floodplain and erosion/sediment control rules are triggered. The applicant has demonstrated no net fill in the 100-year floodplain based on material removals that were completed in preparation for the restoration work. The project is slated to begin 4/29/24 under temporary permit coverage in order to accommodate an earlier start date.

Watershed District Policies or Standards Involved:

- ☐ ***Wetlands***
- ☑ ***Erosion and Sediment Control***
- ☐ ***Stormwater Management***
- ☑ ***Floodplain***

Water Quantity Considerations

The proposed plan is sufficient to result in no net loss of flood storage.

Water Quality Considerations

Short Term

The proposed erosion and sediment control plan is sufficient to protect downstream water resources during construction.

Long Term

There are no adverse long term water quality considerations.

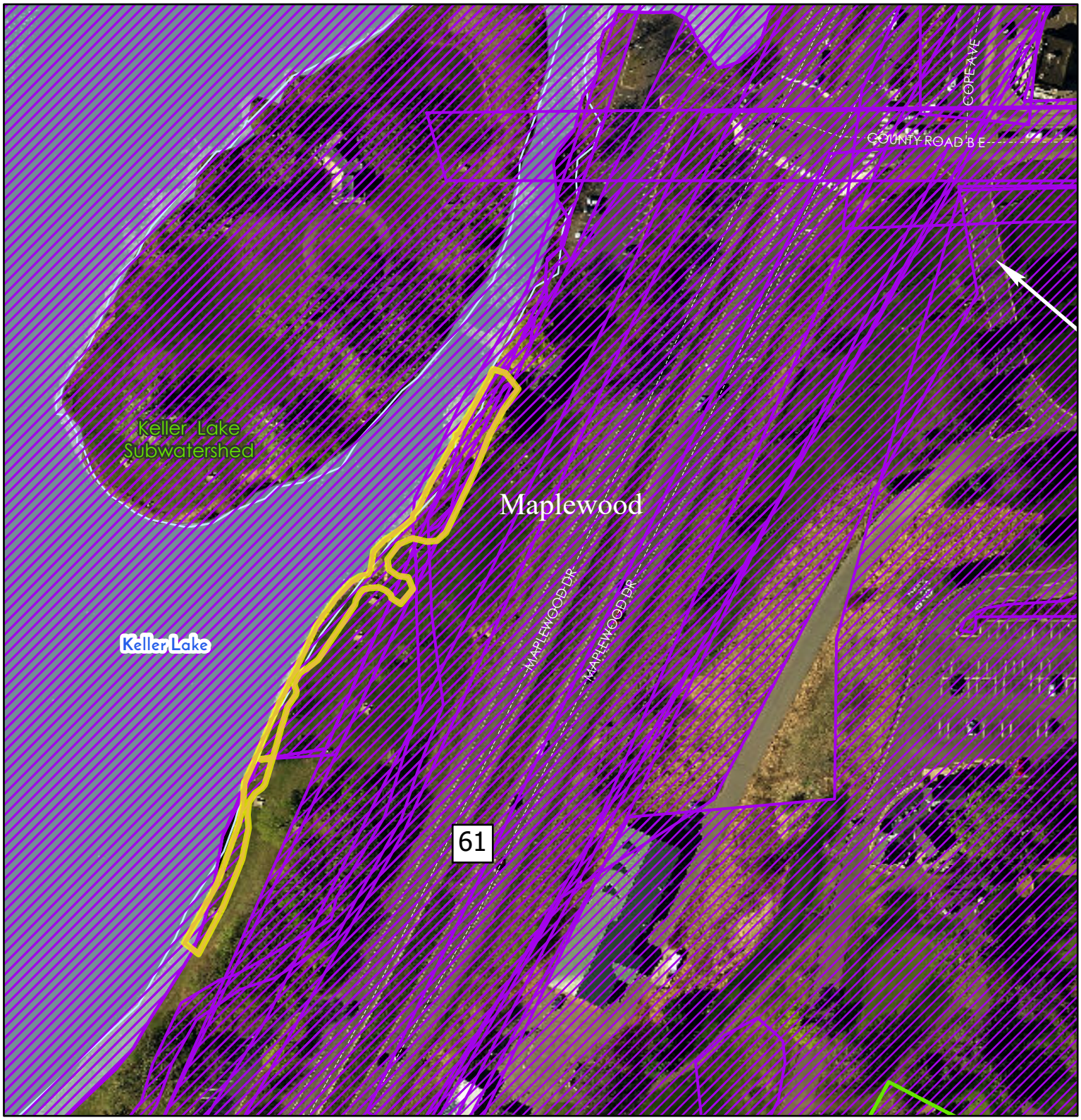
Staff Recommendation

Staff recommends approval of this permit.

Attachments:

- ☑ **Project Location Map**
- ☑ **Project Grading Plan**

#24-24 Keller Lake Shoreline Restoration



Wetlands
- Manage A
- Manage B
- Manage C
- Lake
- Sediment Pond
- Not Assessed

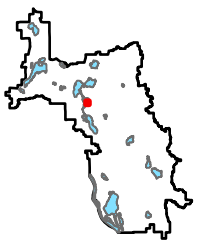
- Flow Arrows
- Roads
- Permits
- Cities
- Subwatersheds
- Lakes
- RWMWD Boundary

Highlighted Areas
Represent Active Permit

Miles
0 0.02 0.04

US Feet
0 150 300

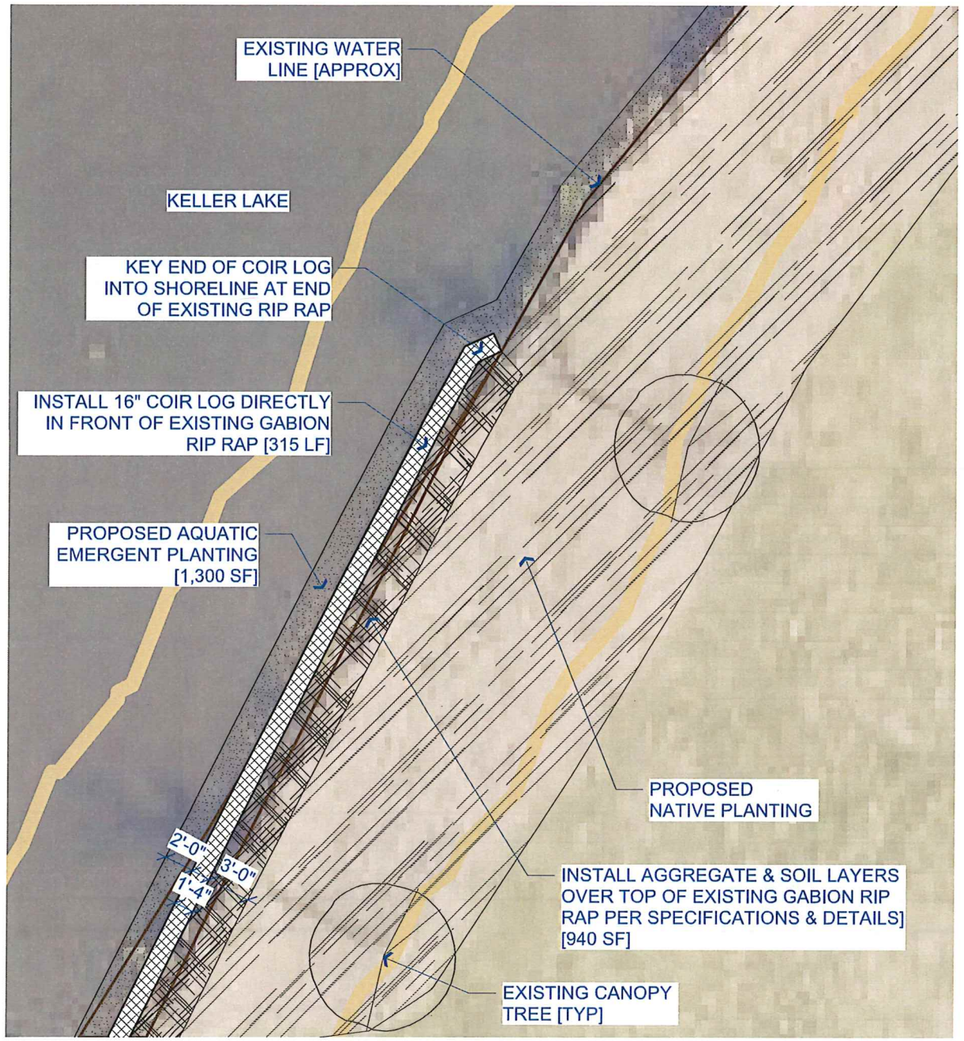
N



24-24

Special Provisions

None

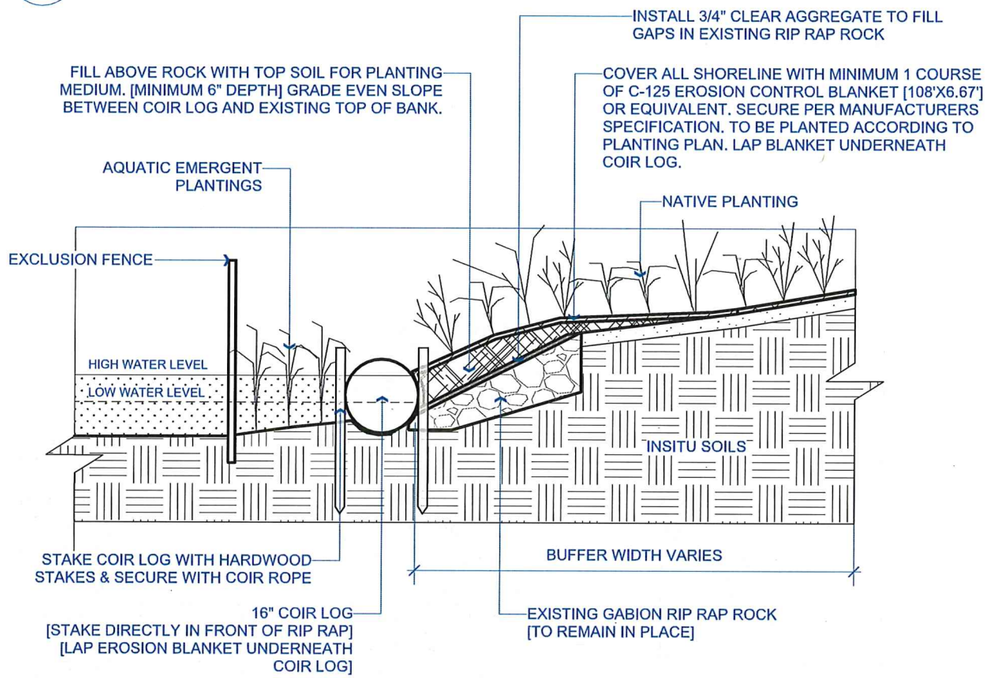


LEGEND

- PROPOSED NATIVE SEEDING/PLANTING
  ~12,820 SF (0.29 AC)
- PROPOSED AQUATIC EMERGENT PLANTING
  ~1,300 SF
- PROPOSED 16" COIR LOG
  315 LF
- PROPOSED AGGREGATE/SOIL FILL
  ~940 SF

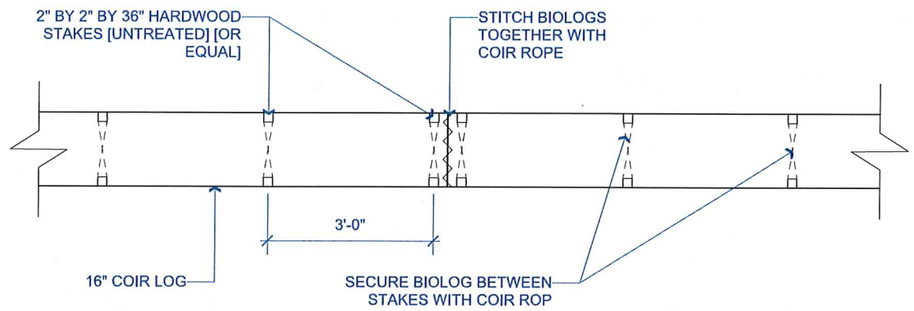
1 COIR LOG SHORELINE SECTION [TYP]

Scale: 3/8" = 1'-0"



3 COIR LOG INSTALL PLAN VIEW [TYP]

Scale: 3/8" = 1'-0"



RAMSEY COUNTY
RAMSEY COUNTY SWCD
2015 VAN DYKE STREET
MAPLEWOOD, MN 55109
651-266-7280
www.ramseycounty.us

PROJECT:
KELLER LAKE SHORELINE
LOCATION:
KELLER REGIONAL PARK
MAPLEWOOD, MN 55109
WATERSHED DISTRICT:
RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

DESIGNER: BRIAN T. OLSEN
DATE: 2/21/2024

PAST REVISION: 2/12/2024
PAST REVISION:
PAST REVISION:
PAST REVISION:
CHECKED BY:

No.	Date:	Description

NOTES:
-CONTACT GOPHER STATE ONE CALL TO CONFIRM UTILITY LOCATIONS
-ELEVATIONS ARE APPROXIMATE, SITE VERIFY
-VERIFY ANY BID ALTERNATES OR ONSITE CHANGES WITH SWCD STAFF PRIOR TO INSTALLATION
-ORIGINAL SHEET SIZE: 11"x17"

SCALE: 1"=10'-0"
N

LAYOUT PLAN & SHORELINE DETAILS

L102

Stewardship Grant Application Summary

Project Name: Denkinger **Application Number:** 24-26 CS

Board Meeting Date: 5/1/2024

Applicant Name: Sue Denkinger

Residential ☑ **Commercial/Government** ☐

Project Overview:

This project is located off Chatsworth St N in the City of Shoreview. The applicant is proposing to install a rain garden and two native planting areas. The rain garden will be installed in the front yard to capture runoff from the roof and driveway. The two native planting areas will be installed in the back yard in an effort to reduce turf grass, repair some areas experiencing erosion, and increase pollinator habitat.
The native planting areas are eligible for 50% coverage and the rain garden is eligible for 75% coverage up to a total of $15,000.

BMP type(s):

Native Habitat Restoration(2), Rain Garden(1)

Grant Request:
$14,000.00

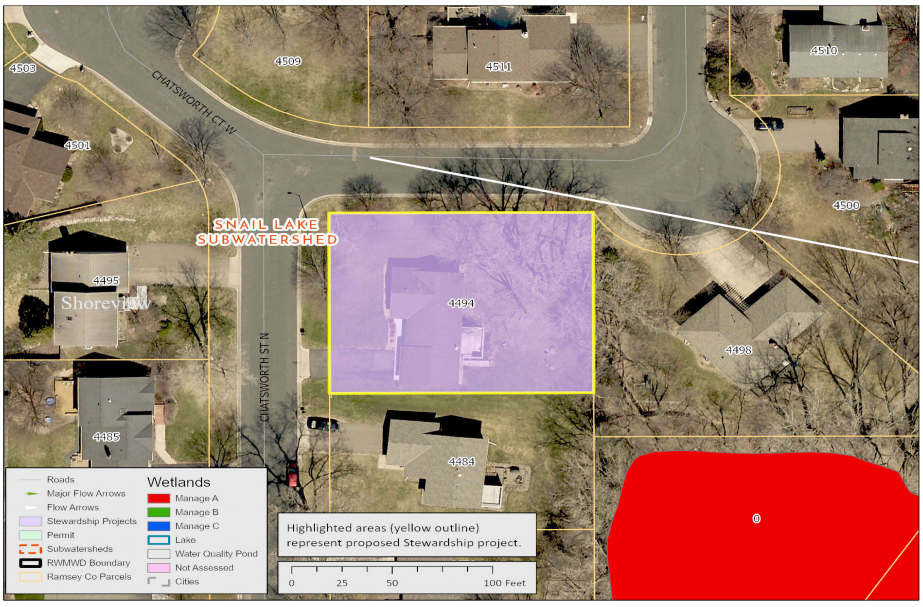
Recommendation:

Staff recommends approval of this application.

Subwatershed:

Snail Lake

Location Maps:



PROJECT NOTES:

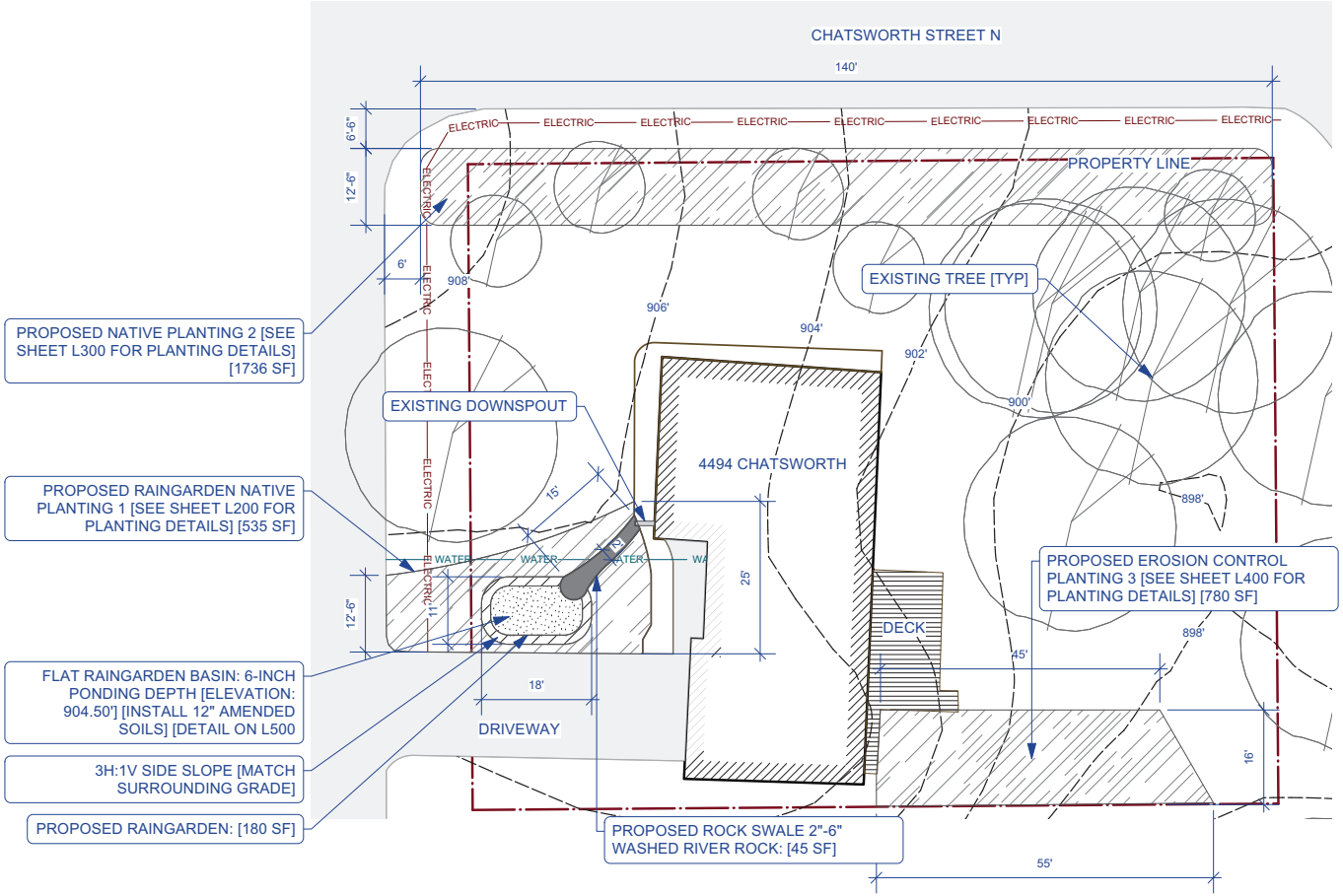
1. ELEVATIONS ARE APPROXIMATE. EXACT ELEVATION OF BASIN, ETC. MAY VARY DEPENDING ON FINAL GRADE OF RAINGARDEN.
2. EXCAVATE RAINGARDEN AREA, LOOSEN UNDERLYING SOILS 6-12" TO REMOVE COMPACTION & PROMOTE INFILTRATION, AND INSTALL 1' DEEP AMENDED SOILS IN RAINGARDEN BASIN AREA.
3. GRADE OUT BASIN & SIDE SLOPES PER PLANS. CONTRACTOR TO ENSURE RAINGARDEN BASIN IS FLAT IN ALL DIRECTIONS AND SIDE SLOPES ARE NO GREATER THAN 3H:1V BEFORE PLACEMENT OF MULCH, ROCK AND PLANT MATERIAL.
4. INSTALL MIXED SIZE ROCK [2-6" RIVER ROCK OR EQUAL] SWALE FROM DOWNSPOUT TO RAINGARDEN. INSTALL NON-WOVEN GEOTEXTILE BETWEEN ROCK AND SOIL.
5. INSTALL 2-3" HARDWOOD MULCH OVER ENTIRE RAINGARDEN & PLANTING AREAS.
6. FOR ALL AREAS WITH EXISTING LAWN/TURF/VEGETATION: AREAS SHOULD BE SPRAYED WITH HERBICIDE TO KILL EXISTING VEGETATION, MINIMUM 1-2 APPLICATIONS TO EFFECTIVELY KILL ALL COMPETING VEGETATION.
7. FOR ALL PLANTING AREAS, ADD SHOVEL EDGE.
8. PRESERVE ALL EXISTING TREES & SHRUBS UNLESS OTHERWISE DIRECTED BY LANDOWNER.
9. NO CONSTRUCTION MATERIALS TO BE STORED UNDER TREE CANOPIES OR DRIVEN IN THE RAINGARDEN BASIN.
10. CONTRACTOR TO SEED ALL AREAS OF DISTURBED SOIL WITH FESCUE SEED OR SIMILAR UPON COMPLETION OF PROJECT.
11. CONTRACTOR TO POTHOLE UTILITIES NEAR/WITHIN PROJECT AREA TO VERIFY DEPTH AND LOCATION PRIOR TO MACHINE EXCAVATION.

Pollutant Reductions: Denkinger Residence

	Before	After	Reduction	Red. %
Volume (cu-ft/yr)	3,398	719	2,679	79%
TSS (lbs/yr)	12.00	3.00	9.00	75%
TP (lbs/yr)	0.060	0.297	0.040	67%

Watershed Data	Raingarden	
Target Rainfall	1.1	in
Soil Type:	B	HSG:
Soil IR	0.45	in/hr

Surface	Sq-ft	Acre	CN
Roof	991	0.023	
Pavement	400	0.009	98
Landscape/Lawn	915	0.021	79
Total	2,306	0.053	
% Imp	60%		



RAMSEY COUNTY

RAMSEY COUNTY SWCD
2015 VAN DYKE STREET
MAPLEWOOD, MN 55109
651-266-7280
www.ramseycounty.us

PROJECT:
DENKINGER RESIDENCE
LOCATION:
4944 CHATSWORTH STREET NORTH
SHOREVIEW MN, 55126
WATERSHED DISTRICT:
RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

DESIGNER: NICK NEYLON
DATE: 3/5/2024
PAST REVISION:
PAST REVISION:
PAST REVISION:
PAST REVISION:
CHECKED BY: BTO
TAA:

NOTES:
-ELEVATIONS ARE APPROXIMATE
-UTILITY LOCATIONS ARE APPROXIMATE, CONFRIM LOCATIONS PRIOR TO WORK
-CONTRACTOR AQUIRE NECESSARY PERMITS PRIOR TO START
-EXCAVATE WITH TRACKED EQUIPMENT ONLY
-SIZE AND SHAPE OF PROJECT MAY VARY, VERIFY CHANGES WITH RCSWCD STAFF PRIOR TO INSTALL
-ORIGINAL SHEET SIZE: 11"x17"

SCALE: 1"=20'-0"

N

SITE PLAN

L100

Stewardship Grant Application Summary

Project Name: Huberty **Application Number:** 24-27 CS

Board Meeting Date: 5/1/2024

Applicant Name: Brent Huberty

Residential ☑ **Commercial/Government** ☐

Project Overview:

This project is located off Nancy Pl and Grandview Ave W in the City of Roseville. The applicant is proposing to install a curb cut rain garden which will capture street runoff from Nancy Place. They also plan to remove a large area of existing turf grass and replace with a pollinator lawn and native planting in an effort to reduce their turf grass and increase pollinator habitat.
The rain garden is eligible for 75% coverage, the curb cut is eligible for 100% coverage, and the pollinator lawn/native planting are eligible for 50% coverage up to a total of $15,000.

BMP type(s):

Native Habitat Restoration(1), Rain Garden(1)

Grant Request:
$11,754.00

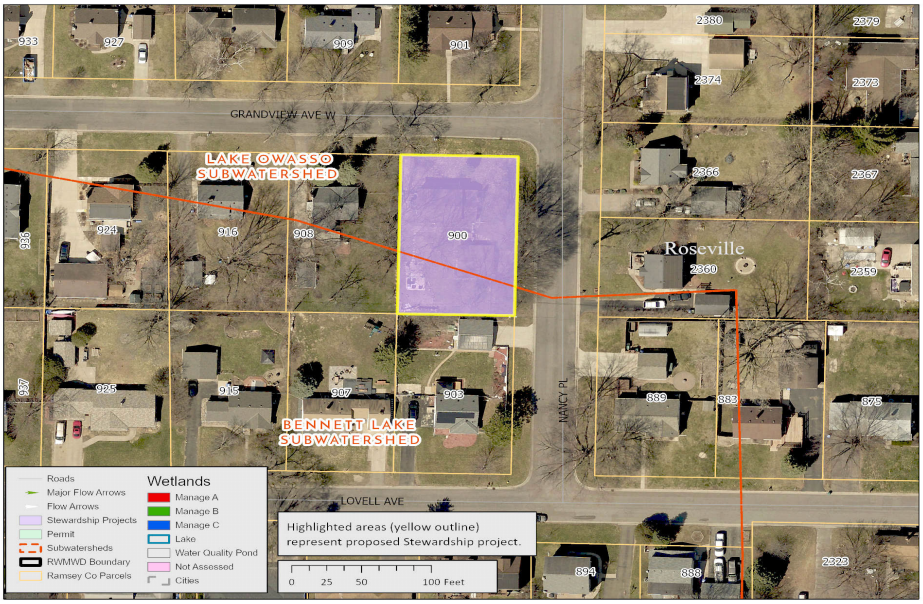
Recommendation:

Staff recommends approval of this application.

Subwatershed:

Lake Owasso

Location Maps:



PROJECT NOTES:

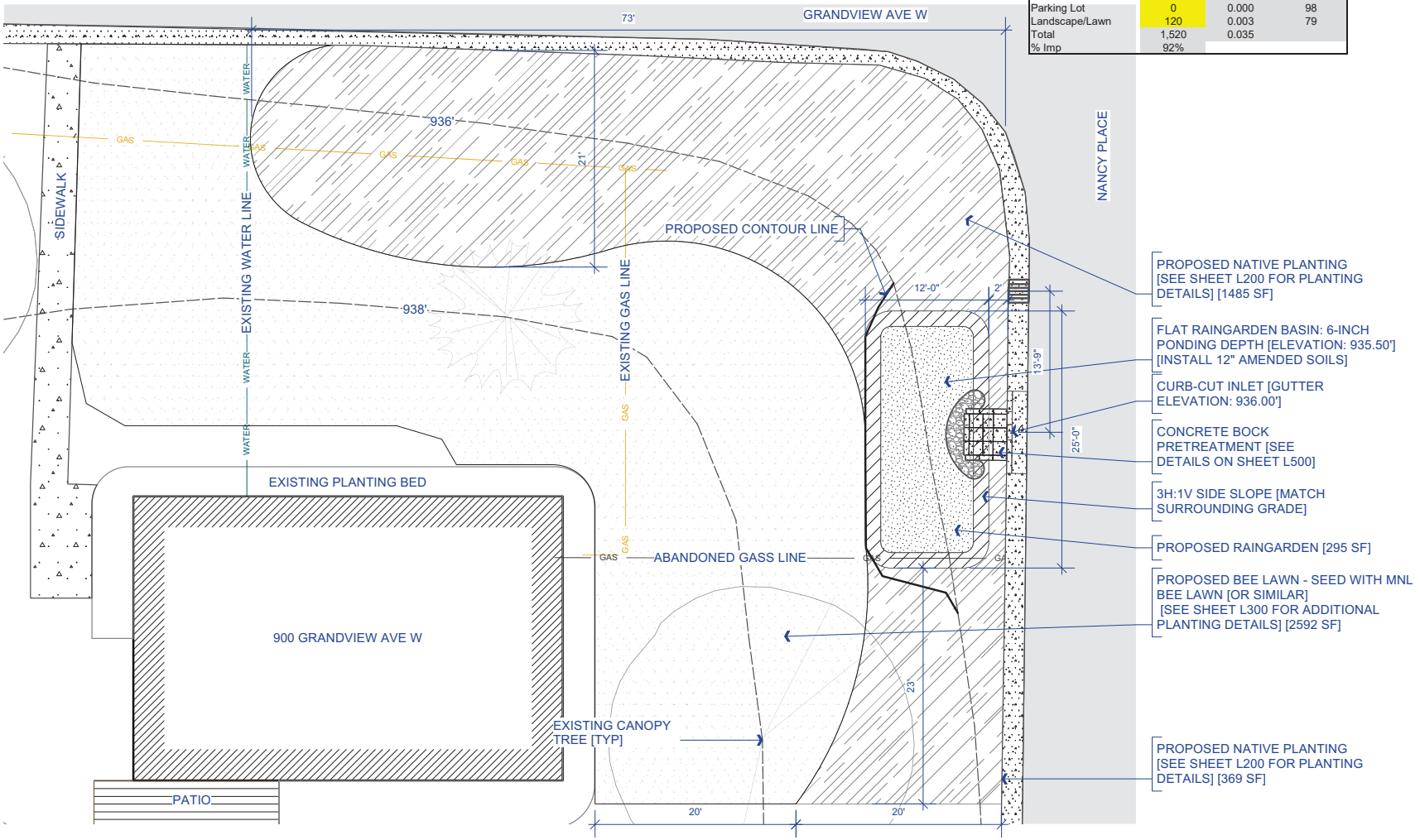
1. ELEVATIONS ARE APPROXIMATE. EXACT ELEVATION OF BASIN/OVERLOW, ETC. MAY VARY DEPENDING ON FINAL GRADE OF RAINGARDEN.
2. EXCAVATE RAINGARDEN AREA, LOOSEN UNDERLYING SOILS 6-12" TO REMOVE COMPACTION & PROMOTE INFILTRATION, AND INSTALL 1' DEEP AMENDED SOILS IN RAINGARDEN BASIN AREA.
3. GRADE OUT BASIN & SIDE SLOPES PER PLANS. CONTRACTOR TO ENSURE RAINGARDEN BASIN IS FLAT IN ALL DIRECTIONS AND SIDE SLOPES ARE NO GREATER THAN 3H:1V BEFORE PLACEMENT OF MULCH, ROCK AND PLANT MATERIAL.
4. PROVIDE 2' WIDE SETBACK FROM BACK OF CURB TO BEGINNING OF SIDE SLOPE - PITCH TOWARDS RAINGARDEN.
5. SAW-CUT AND INSTALL CONCRETE CURB OPENING AT LOCATION SHOWN ON PLAN. INSTALL PER SPECIFICATIONS PROVIDED IN PLAN/DETAIL SHEETS. EXACT LOCATION MAY VARY.
6. INSTALL CONCRETE PAVER STEP DOWN AND SUMP STRUCTURE PER PLANS AND DETAILS PROVIDED.
7. INSTALL MIXED SIZE ROCK [2-6" RIVER ROCK OR EQUAL] SPLASH AREA AROUND SUMP STRUCTURE. INSTALL NON-WOVEN GEOTEXTILE BETWEEN ROCK AND SOIL.
8. SEE LAYOUT PLAN FOR CURB-CUT OPENING, & RAINGARDEN BASIN ELEVATIONS AND DIMENTIONS.
9. INSTALL 2-3" HARDWOOD MULCH OVER ENTIRE RAINGARDEN & PLANTING AREA.
10. FOR ALL AREAS WITH EXISTING LAWN/TURF/VEGETATION: AREAS SHOULD BE SPRAYED WITH HERBICIDE TO KILL EXISTING VEGETATION, MINIMUM 1-2 APPLICATIONS TO EFFECTIVELY KILL ALL COMPETING VEGETATION.
11. PRESERVE ALL EXISTING TREES & SHRUBS UNLESS OTHERWISE DIRECTED BY LANDOWNER.
12. NO CONSTRUCTION MATERIALS TO BE STORED UNDER TREE CANOPIES OR DRIVEN IN THE RAINGARDEN BASIN.
13. CONTRACTOR TO SEED ALL AREAS OF DISTURBED SOIL WITH FESCUE SEED OR SIMILAR UPON COMPLETION OF PROJECT.
14. CONTRACTOR TO POTHOLE UTILITIES NEAR/WITHIN PROJECT AREA TO VERIFY DEPTH AND LOCATION PRIOR TO MACHINE EXCAVATION.

Pollutant Reductions: Huberty CC Raingarden

	Before	After	Reduction	Red. %
Volume (cu-ft/yr)	20051	12602	7449	37%
TSS (lbs/yr)	68.00	43.00	25.00	37%
TP (lbs/yr)	0.680	0.540	0.140	21%

Watershed Data	Huberty	
Target Rainfall	1.1	in
Soil Type:	B	HSG:
Soil IR	0.3	in/hr

Surface	Sq-ft	Acre	CN
Roof	1,400	0.032	98
Sidewalk	0	0.000	98
Parking Lot	0	0.000	98
Landscape/Lawn	120	0.003	79
Total	1,520	0.035	
% Imp	92%		



RAMSEY COUNTY

RAMSEY COUNTY SWCD
2015 VAN DYKE STREET
MAPLEWOOD, MN 55109
651-266-7280
www.ramseycounty.us

PROJECT:
HUBERTY RESIDENCE
LOCATION:
900 GRANDVIEW AVENUE W
ROSEVILLE, MN 55113
WATERSHED DISTRICT:
RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

DESIGNER: NICK NEYLON
DATE: 2/12/2024
PAST REVISION:
PAST REVISION:
PAST REVISION:
PAST REVISION:
CHECKED BY: BTO
TAA:

NOTES:
-ELEVATIONS ARE APPROXIMATE
-UTILITY LOCATIONS ARE APPROXIMATE, CONFRIM LOCATIONS PRIOR TO WORK
-CONTRACTOR AQUIRE NECESSARY PERMITS PRIOR TO START
-EXCAVATE WITH TRACKED EQUIPMENT ONLY
-SIZE AND SHAPE OF PROJECT MAY VARY, VERIFY CHANGES WITH RCSWCD STAFF PRIOR TO INSTALL
-ORIGINAL SHEET SIZE: 11"x17"

SCALE: 1"=10'-0"

N

SITE PLAN

L100

Consent Agenda Action Item

Board Meeting Date: May 1, 2024 **Agenda Item No:** 3E

Preparer: Tina Carstens, Administrator

Item Description: Change Order No. 1 for the 2024 CIP Maintenance & Repair Project

Background:

Change order 1 for the 2024 CIP Maintenance and Repair Project is attached. This change order will increase the contract price by $30,911.20, but of that, $30,461.20 will be reimbursed to us by Ramsey County for the fence replacement as part of their pond project. The remaining $450 is for additional black dirt needed for a district project site.

Applicable District Goal and Action Item:

Goal: Achieve quality surface water – The District will maintain or improve surface water quality to support healthy ecosystems and provide the public with a wide range of water-based benefits.

> **Action Item:** Maintain District projects and consider opportunities to support the maintenance activities of others.

Goal: Manage Risk of Flooding – The District will reduce the public's risk to life and property from flooding through programs and projects that protect public safety and economic well-being.

Action Item: Maintain District flood storage facilities and storm sewer systems.

Staff Recommendation:
Approve Change Order No. 1.

Financial Implications:
This change order increases this contract price by $30,911.20, which is available in the project budget. $30,461.20 will ultimately be reimbursed to the District from Ramsey County.

Board Action Requested:
Approve Change Order No. 1.

Change Order No. 1
Ramsey-Washington Metro Watershed District
2024 Capitol Improvement Project (CIP)

DATE OF ISSUANCE: April 17th, 2024

Owner: Ramsey-Washington Metro Watershed District
2665 Noel Drive
Little Canada, MN 55117
Attn: Val Eisele

Contractor: Fitzgerald Excavating Inc.
21432 350th Street
Goodhue, MN 55027
Attn: Jason Fitzgerald

Engineer: Barr Engineering Company
4300 MarketPointe Drive, Suite 200
Minneapolis, MN 55435
Attn: Brad Lindaman

C.O.1.A Additional Work Item: Fencing

Description of Change:

732 feet of existing fencing at CIP Site 8 (Arlington Pond in Maplewood) needed replacement since it was in poor condition and did not provide adequate safety protection for the pond due to its steep side slopes. This additional work will be reimbursed to RWMWD by the site owner, Ramsey County. Alan Rupnow (Ramsey County) approved the addition of this fence to the work after receiving a quote from Fitzgerald Excavating. Ramsey County will reimburse RWMWD in full for the construction of this fence along with all other construction work at this site.

Work will be measured on the basis of a single LS unit to install all fence, posts, gates, and appurtenances, as specified in attached quote, all complete as directed by the Engineer.

Change in Contract Price: $30,461.20

C.O.1.B Additional Work Item: Black Dirt

Description of Change:

Due to steep slopes and a tight construction limit encountered at Site 4 (Grass Lake Maintenance Ramp), a single truckload of imported soil was required in order reach acceptable and consistent slopes for maintenance access.

The contractor performed the work, in good faith, as directed by the owner's representative and in accordance with all other portions of the contract documents.

Work will be measured on the basis of a single LS unit to haul and place black dirt, as specified in the attached quote, all complete as directed by the Engineer.

Change in Contract Price: $450.00

Change in Contract Time:

None.

Total Impact on Contract Price for Change Order 1:

Additional cost of **$30,911.20** is anticipated, with $30,461.20 to be reimbursed by Ramsey County.

Attachments:

- Contractor's quote for C.O.1.A
- Ramsey County's Approval for C.O.1.A
- Contractor's quote and owner's representative approval for C.O.1.B

This Change Order No. 1 is:

Submitted By: (ENGINEER) — Brad Lindaman, Project Engineer, Barr Engineering Company — Date: April 17, 2024

Authorized By: (OWNER) — Val Eisele, President, Ramsey-Washington Metro Watershed District — Date: _____

Approved By: (CONTRACTOR) — Jason Fitzgerald, Owner, Fitzgerald Excavating Inc. — Date: 4-18-24

SACHS FENCE, LLC.

"SECURING THE PLANET FOR A SAFER TOMORROW"

3185 200th St. E. Farmington, MN. 55024

Tel - Jared S / 651-208-1271

sachsfence@gmail.com

To: Kyle at Fitz Excavating

Arlington Pond Fence

732 feet of removal		732.00
2 mobs	1 removal, 1 install new	2,000.00
732 6h blk c/l t&b rails		21,960.00
2 20w d/d gates		2,000.00
1 12 w d/d gate		1,000.00
1 10w gate		1,000.00

All permit fees and survey costs and coordination by owner

Thank you,

Jared Sachs

Gareth W. Becker

From: Rupnow, Alan <Alan.Rupnow@CO.RAMSEY.MN.US>
Sent: Thursday, March 21, 2024 3:22 PM
To: Gareth W. Becker
Cc: Churchich, Molly
Subject: RE: Arlington Pond Fence

Go ahead and prepare the change order and have Fitzgerald schedule the fence work.

Thanks!

Alan Rupnow
651-266-7162

ramseycounty.us

From: Gareth W. Becker <GBecker@barr.com>
Sent: Thursday, March 21, 2024 11:30 AM
To: Rupnow, Alan <Alan.Rupnow@CO.RAMSEY.MN.US>
Subject: RE: Arlington Pond Fence

There is some remaining to remove. Estimating <$10K worth.

Gareth W. Becker
He/him/his

Senior Civil Design Technician
Staffing Coordinator Associate
Minneapolis, MN office: 952.842.3580
GBecker@barr.com
www.barr.com

From: Rupnow, Alan <Alan.Rupnow@CO.RAMSEY.MN.US>
Sent: Thursday, March 21, 2024 11:26 AM
To: Gareth W. Becker <GBecker@barr.com>
Subject: RE: Arlington Pond Fence

So does this mean that the sediment removal is almost $17,000 below budget or is there some payment remaining?

From: Gareth W. Becker <GBecker@barr.com>
Sent: Thursday, March 21, 2024 11:10 AM
To: Rupnow, Alan <Alan.Rupnow@CO.RAMSEY.MN.US>
Subject: FW: Arlington Pond Fence

Hello Alan,

Please see the attached quote. Cost with markup ($30,461.20) is highlighted in chain below. If it is agreeable to the county, please confirm via email and I will direct Fitzgerald Excavating to begin work in good faith and I'll draw up a change order for inclusion in RWMWD's May meeting agenda.

Thanks,
Gareth

Screenshot of current payment application for reference:

2024 Capital Improvement Project (CIP)
Ramsey-Washington Metro Watershed District
Summary of Work Completed Through March 19th, 2024 for Progress Payment Nu

						(1) Total Completed Through This Period	
Item	Description	Unit	Estimated Quantity	Unit Price	Extension	Quantity	Am
Site 8 - Arlington Pond, Maplewood (Arlington Pond)							
D	Sediment/Muck Cleanout Excavation, Loading, Hauling and Disposal of Regulated Material (SRV Level 2 and 3)	Ton	1300	$30.00	$39,000.00	708	$
E	Site Restoration (Seeding and Erosion Control Blanket)	S.Y.	350	$2.00	$700.00	0	
F	Sediment Log (9-Inch Diameter)	L.F.	20	$2.00	$40.00	0	
I	Floating Silt Curtain	L.F.	80	$17.00	$1,360.00	0	
J	Construction Entrance	Each	1	$500.00	$500.00	1	
P	Inlet Protection	Each	1	$150.00	$150.00	0	
O	MN/DOT Class III Riprap (Field Stone) with Geotextile Filter Fabric	Ton	30	$90.00	$2,700.00	0	
					$44,450.00		**$**

Gareth W. Becker
He/him/his

Senior Civil Design Technician
Staffing Coordinator Associate
Minneapolis, MN office: 952.842.3580
GBecker@barr.com
www.barr.com

From: Nick Dahle <nick@fitzexcavating.com>
Sent: Tuesday, March 19, 2024 12:47 PM
To: Gareth W. Becker <GBecker@barr.com>; David Vlasin <david.vlasin@rwmwd.org>
Cc: Kyle Schneider <Fitzexc.kyle@gmail.com>
Subject: Arlington Pond Fence

Gareth & Dave,

See attached quote from Sachs Fence. After discussing removing the bottom rail, they will deduct $1,000 from their original quote. In terms of scheduling and working with Sach to have this fence installed, we would request an additional 10% markup. Total cost would be $30,461.20

Please review and let me know what you would like to do.

Thank you,

Nick Dahle
Fitzgerald Excavating & Trucking Inc.
P 651.923.4060 | C 507.676.6615

21432 350th St. | Goodhue, MN 55027

Gareth W. Becker

From: Gareth W. Becker
Sent: Thursday, March 14, 2024 1:51 PM
To: Nick; '10afarms@gmail.com'
Cc: Greg Nelson; Dave Vlasin; Brad Lindaman
Subject: FW: Ramsey Washington

Nick/Craig,

Please go ahead with hauling and placing black dirt for $450.00 per load (up to 2 loads) to the grass lake boat ramp site of the 2024 CIP Project. This fill material can **only be placed above the 100-year elevation**, which is where the silt fence/biolog is located. Please perform this work in good faith and a change order for your review and signature will be written up in the coming weeks.

Thanks for working through this.

Gareth

Gareth W. Becker
He/him/his

Senior Civil Design Technician
Staffing Coordinator Associate
Minneapolis, MN office: 952.842.3580
GBecker@barr.com
www.barr.com

From: Nick Dahle <nick@fitzexcavating.com>
Sent: Thursday, March 14, 2024 9:22 AM
To: Gareth W. Becker <GBecker@barr.com>
Subject: Ramsey Washington

Gareth,

We will haul and place black dirt for $450 per load.

Thanks,

Nick Dahle
Fitzgerald Excavating & Trucking Inc.
P 651.923.4060 | C 507.676.6615

Consent Agenda Action Item

Board Meeting Date: May 1, 2024 **Agenda Item No:** 3F

Preparer: Tina Carstens, Administrator

Item Description: Change Order No. 1 for the Woodbury Target Store Targeted Retrofit Project

Background:

Change order 1 for the Woodbury Target Store Targeted Retrofit Project is attached. This change order has two items related to changes in construction drawings and insurance requirements. The change order does not change the contract price.

Applicable District Goal and Action Item:

Goal: Achieve quality surface water – The District will maintain or improve surface water quality to support healthy ecosystems and provide the public with a wide range of water-based benefits.

Action Item: Implement retrofit water quality improvement projects.

Staff Recommendation:
Approve Change Order No. 1.

Financial Implications:
There is no change in contract price with this change order.

Board Action Requested:
Approve Change Order No. 1.

Change Order No. 1
Ramsey-Washington Metro Watershed District
Target – Woodbury Stormwater Retrofits

DATE OF ISSUANCE: April 23, 2024

Owner: Ramsey-Washington Metro Watershed District
2665 Noel Drive
Little Canada, MN 55117
Attn: Paige Ahlborg, Tina Carstens

Contractor: Kurilla Contracting
4450 Hwy 25 N
Buffalo, MN 55313
Attn: Austin Kurilla

Engineer: Barr Engineering Company
4300 MarketPointe Drive, Suite 200
Minneapolis, MN 55435
Attn: Katie Turpin-Nagel

C.O.1.A Issued for Construction Drawings

Description of Change:

The entire set of construction drawings were re-issued as "Issued for Construction". Revisions only include updating plan sheet SW-1.1 with the trained individuals responsible for the application of erosion prevention and sediment control for the project (update SWPPP).

C.O.1.B Property Insurance – Builder's Risk

Description of Change:

Changing the requirement for the Contractor to purchase and maintain builder's risk insurance. This insurance requirement modification has no impact on the estimated quantities and therefore no impact on contract price either.

Supplementary Conditions:

Add the following to the Supplementary Conditions, Section SC-6.05 Property Insurance:

SC-6.05.A.13 Add the following to the list of items in Paragraph 6.05.A, as numbered items:

17. the Builder's Risk Insurance required herein shall apply to projects involving construction of structures and buildings only. The requirements of this section shall be waived on projects involving only underground utilities, grading, street improvements and similar construction work, but any damage or loss to property shall be the sole responsibility of the Contractor until final acceptance of the Work.

Change in Contract Time:

None

Total Impact on Contract Price:

None

This Change Order No. 1 is:

Submitted By: _____ Date: 04/23/2024
(ENGINEER) Katie Turpin-Nagel, P.E., Project Engineer
Barr Engineering Company

Authorized By: _____ Date: _____
(OWNER) Val Eisele, President
Ramsey-Washington Metro Watershed District

Approved By: _____ Date: _____
(CONTRACTOR) Austin Kurilla, President
Kurilla Contracting

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Permit Program

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RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

MEMORANDUM

Date: May 1st, 2024

To: Board of Managers and Staff

From: Nicole Maras, Permit Coordinator
Mary Fitzgerald, District Inspector

Subject: April Enforcement Action Report

During April 2024:

Number of Violations:	**13**
Install/Maintain Inlet Protection	3
Install/Maintain Perimeter Control	2
Contain/Dispose of Liquid or Solid Waste	2
General Permit Requirements (SWPPP, Inspection Log)	1
Install/Maintain Construction Entrance	1
Stabilize Exposed Soils	1
Maintain/Protect Permanent BMPs	1
Protect Wetlands	1
Sweep Streets	1

Permit Staff- Activities, Trainings, and Coordination Meetings:

Active and inactive site monitoring, active site inspections and progress meetings, meetings with permit applicants, rule guidance assistance and misc. inquiries, Wetland Conservation Act (WCA) administration & procedures, permit submittal reviews with Barr Engineering, annual report tasks, BMP installation observations, Watershed Equity Alliance monthly check-in, DEIA workgroup monthly meeting, pre-construction meetings, underground BMP inspections with Barr Engineering, Washington County Groundwater Planning Meeting, Gold Line environmental training meeting, performance reviews, Gerdau wetland restoration site visit, illicit discharge detection and elimination (IDDE), Spring Metro Regulators meeting, Equitable Water Policy Workshop, intern onboarding, MS4 coordination meeting

A big welcome to Kendra, the RWMWD Inspector Intern for the 2024 field season! We're excited to have her on board. Kendra will be assisting the permitting team with active construction inspections and post-construction BMP maintenance inspections.

Single Lot Residential Permits Approved by Staff:

None

Permits Closed:

21-33 Owasso Warehouse (Little Canada)
22-14 Maplewood Cope Ave Improvements (Maplewood)

Project/Program Updates:

Permit #22-33 Ramsey County White Bear Avenue – Larpenteur Ave Improvements (St. Paul, Maplewood)

Road reconstruction work has commenced at the intersection of White Bear Avenue and Larpenteur Ave. When complete, this 12.9-acre project will result in new roadway/pavement, updated signals, ADA upgrades, utility replacements, and associated permanent stormwater BMPs. Staff attended an initial erosion control walk-through on April 12th with Ramsey County (project owner) and their hired contractor. Staff confirmed during this walk-through that all planned erosion and sediment control BMPs were properly installed, however a large trench drain was discovered in the field that was not accounted for in the plan. This large trench drain was retrofitted into the intersection due to localized flooding. Due to the size and sensitivity of the drain, the site will need to be creative with how they are going to protect the structure from sediment loading. These practices will include perimeter control, traffic redirection, rock vehicle crossings, and frequent pavement sweeping. Contractors, Ramsey County, and RWMWD staff will be routinely inspecting the site through the duration of the project.

Permit #22-13 American Cooperative on Lake Phalen (Maplewood)

Work has started at the future apartment building located off East Shore Drive, north of Lake Phalen. This site demonstrated in the permit submittal and approval process that there will be no net fill in the floodplain, as well as maintaining a 50' average

buffer for the wetland adjacent to the parcel. The site will be installing an underground infiltration system and an above-ground infiltration basin to meet stormwater treatment requirements. Staff conducted a routine inspection on April 10th and noted the following action items were needed to stay complaint with the permit:
1) Maintain rock entrance and remove tracked sediment from the roadway
2) Repair slouching silt fence 3) Stabilize disturbed soil beyond silt fence that occurred during installation, and 4) Move dewatering hose away from the silt fence perimeter to prevent turbid water from leaving the site. Staff communicated their findings with contractors onsite as well as through an e-mail inspection report.

The site has encountered high groundwater that is interfering with their base elevation for retaining wall installation. The site has applied for and received a DNR Water Appropriation Permit to allow them to temporarily pump groundwater through a wellpoint system and discharge the clean water to the storm sewer system.

Permit #21-33 Owasso Warehouse (Little Canada)

As part of the permit close-out process, District staff conduct post-construction inspections of permanent BMP facilities to ensure they are built to plan and fully functional. One method to ensure a permanent BMP is fully functional is to conduct a 48-hour drawdown test. This visual test is conducted 48 hours after a substantial rain event. Staff visit the BMP and check for any standing water or obstructed flow. Standing water would indicate that something is failing within the BMP and preventing it from drawing down within the required timeframe.

Staff conducted a drawdown test of the iron-enhanced filtration basin at the Owasso Warehouse project in June of 2023 and noted that the basin was failing. Staff communicated these findings to site contacts, and explained that repairs would be needed in order to close the permit and receive escrow refund. Site contacts made many repairs in the fall including draintile replacement, vegetation management, and replacement of filter media. Staff conducted a new 48-hour drawdown test in April 2024, and found the basin to be fully functional. This is great example of why 48-hour drawdown tests are an important step of the permit closeout checklist.

June 2023

April 2024

****

Stewardship Grant Program

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Stewardship Grant Program Budget Status Update

May 1, 2024

Homeowner	Coverage	Number of Projects: 15	Funds Allocated
Habitat Restoration and rain garden w/o hard surface drainage	50% Cost Share $15,000 Max	9	$19,958**
Rain garden w/hard surface drainage, pervious pavement, green roof	75% Cost Share $15,000 Max	4	$38,374*
MN Water Steward Project	100% Cost Share $15,000 Max	0	$0
Shoreland Restoration	100% Cost Share $15,000 Max	1	$5,000

Commercial, School, Government, Church, Associations, etc.	Coverage	Number of Projects: 12	Funds Allocated
Habitat Restoration	50% Cost Share $15,000 Max	1	$2,993.50
Shoreland Restoration (below 100-year flood elevation w/actively eroding banks)	100% Cost Share $100,000 Max	0	$0
Priority Area Projects	100% Cost Share $100,000 Max	4	$281,213.50
Non-Priority Area Projects	75% Cost Share $50,000 Max	0	$0
Public Art ($50,000 Reserved)	50% Cost Share $15,000 Max/Project	2	$5,323**
Aquatic Veg Harvest/LVMP Development	50% Cost Share $15,000 Max	0	$0
Enhanced Street Sweeping ($250,000 Reserved)	Varies	5	$142,375

Maintenance	50% Cost Share $7,500 Max for 5 Years	70	$53,175**
Consultant Fees			$26,170
Total Allocated			**$574,582**

**includes funds to be approved at current board meeting*
*** includes staff approvals since previous board meeting*

2024 Stewardship Grant Program Budget	
Budget	$1,250,000
Total Funds Allocated	$574,582
Total Available Funds	**$675,418**

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Action Items

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Request for Board Action

Board Meeting Date: May 1, 2024 **Agenda Item No:** 7A

Preparer: Tina Carstens, Administrator

Item Description: Cottage Place Wetland Restoration Accept Plans & Solicit Bids

Background:
See attached memo for more information on the Cottage Place Wetland Restoration project plans and memo.

This project was planned through our Wetland Restoration program and will be funded through this project fund. The engineer's opinion of probably project construction cost ranges from $520,000 - $602,000. After approval at this meeting, the bidding process will be followed with a selection of contractor coming to the board for approval in June.

Applicable District Goal and Action Item:

Goal: Achieve healthy ecosystems – The District will manage water and related natural resources to create and preserve healthy ecosystems.

Action Item: Lead ecological restoration projects to improve water resources and associated upland habitat.

Staff Recommendation:
Staff recommends approval of the preliminary design, estimated costs, and proposed project schedule, and direct staff to finalize the design and bidding documents and solicit bid proposals.

Financial Implications:
This project will be funded from the district's Wetland Restoration Fund where there are sufficient funds available.

Board Action Requested:
Approve the preliminary design, estimated costs, and proposed project schedule, and direct staff to finalize the design and bidding documents and solicit bid proposals.

resourceful. naturally.
engineering and environmental consultants

Technical Memorandum

To: RWMWD Board of Managers
From: Brendan Dougherty, Josh Phillips & Erin Anderson Wenz – Barr Engineering Co. (Barr)
Subject: 95% Design Summary for Cottage Place Wetland Restoration
Date: April 24, 2024
Project: 23/62-1493
c. Paige Ahlborg (RWMWD), Tina Carstens (RWMWD)

1 Introduction

This memorandum summarizes the wetland restoration and habitat improvement 95%-level design for a wetland located west of the Cottage Place cul-de-sac and Vivian Avenue in Shoreview, MN. Restoration concept designs initially developed in 2018 were presented to the RWMWD Board of Managers in September 2023. The presented concept was presented to the City of Shoreview and Shoreview Residents and was moved forward to final design based on the feedback received. The goal of this restoration project is to clean up construction debris, manage invasive species, and stabilize soils to improve habitat and water quality.

As a reminder, St. Odilia Catholic Church owns approximately 1.5 acres and the City of Shoreview owns 3.5 acres of the proposed 5 acre project area as shown by the yellow outline in Figure 1. The project area consists of approximately 1.4 acres of existing wetland and 3.6 acres of degraded woodland.

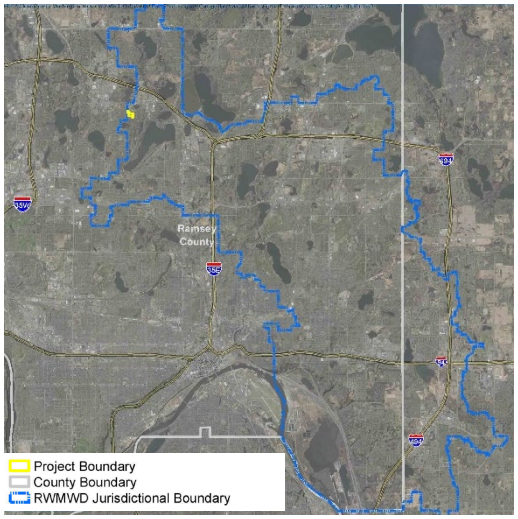


Figure 1 Project Location

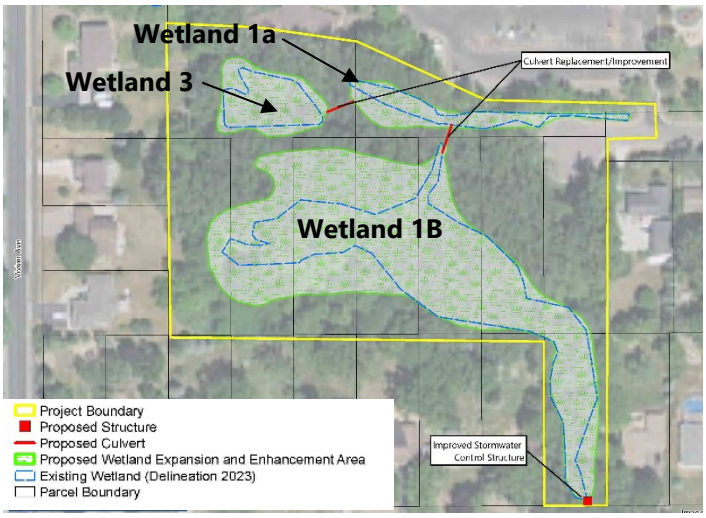


Figure 2 Cottage Place Wetland

The restoration of the degraded woodland and wetlands within the project area will be completed as a partnership between RWMWD, the City of Shoreview and St. Odilia Catholic Church.

Currently, the Cottage Place wetland is a degraded wetland that has lost much of its ecological value and stormwater treatment capacity due to changes within the watershed and direct alterations by people. A portion of the wetland has been filled with bituminous asphalt, concrete and possibly other unknown materials that are visible as distinct debris piles overgrown with cottonwood and boxelder trees. The tree canopy is nearly closed (70-100%) closed and is dominated by short-lived generalist native species such as cottonwood, box elder, American elm, and green ash (evidence of emerald ash borer (EAB) observed). The understory and herbaceous ground layer are dominated by non-native invasive species such as buckthorn, reed canary grass, burdock, and garlic mustard. Exposed soil is present over a large portion of the site (50-70%) with sparse pockets of invasive herbaceous ground cover species throughout.

The City of Shoreview and St. Odilia Catholic Church are eager to partner with RWMWD to remove the surface debris, invasive species, and to restore and stabilize the site with a diversity of native grasses and wildflowers that provide habitat for pollinators, songbirds, and other wildlife.

The final restoration plan, technical specifications, stormwater modeling results, and cost estimate are discussed in the following sections. The 95% design plan sheets are attached to this memo. RWMWD staff, City of Shoreview staff, and St. Odilia Catholic Church staff have been involved with the design progression from concept design through 95% design, providing feedback and comments that will be used to reach final design.

2 Wetland Restoration Design

The 95% Design plan sheets for the Cottage Place wetland restoration closely match the layout presented during Concept Design and 50% design, which includes the removal of invasive and weedy plant species, the expansion of previously filled wetland areas, the removal and consolidation of debris, improved stormwater culverts (to move water into the southern wetland expansion area), and the restoration of the site with native wetland, woodland, and savanna species (see attached Drawings).

The site layout and grading plan were developed to maximize the footprint of the existing wetland and to clean up surface debris that is present as a result of historic dumping and filling. The bottom contour of the existing wetland areas will be expanded as much as possible within the construction limits to reduce channelization and to allow stormwater to spread out and infiltrate over a larger area. Excavated soil and smaller inert debris material will be consolidated on the east side of the site (location of most extensive historic dumping) and will be covered with topsoil to support native savanna species. Any larger debris (greater than 3”), metal, and glass encountered will be disposed of offsite at a licensed landfill.

Stormwater generally flows from north to south on site. A culvert will be installed on an existing berm near the north-west corner of the site to allow stormwater from large events to equalize between the two northern wetlands (Wetland 3 and 1a) before flowing south through another improved culvert near the center of the site. These culvert improvements are designed to minimize erosion during large storm events and to reduce the likelihood of the structures clogging due to debris.

Invasive species on-site will be eradicated prior to final seeding. The site will then be restored using three different native plant mixes (depending on growing conditions). The mixes contain a diverse number of grass, sedge, and wildflower mixes to account for the various moisture and sunlight conditions expected. Containerized tree and shrub species were selected to provide habitat for native bird and pollinator species. The proposed tree and shrubs were placed near the edges of the site to help screen the church parking lot from the nearby residents and for long term maintenance considerations (easier to mow and spray invasive species if shrubs and trees are localized to the edges of the site rather than throughout).

The initial concept included a wetland loop-trail, a boardwalk, and a paved trail connection between Cottage Place and Vivian Avenue. However, all paths and trails have been removed from the design as directed by RWMWD staff. Trails were removed based on feedback received from Shoreview staff following feedback provided by residents and adjacent property owners.

3 Stormwater Quality and Volume Benefits

Barr modeled the proposed wetland improvements using XPSWMM to verify flood elevations (hydraulics) and P8 to analyze water quality benefits. The main goal of the project was to improve habitat and wetland functions, however models do demonstrate slight stormwater management benefits as a result of the design.

XPSWMM modeling results show that a 100-year storm event for proposed conditions do not increase flood risks to nearby habitable buildings when compared to existing conditions. The model shows that lawns for 6 properties and 1 house (located south of the large wetland on Cannon Avenue) are currently at risk of flood during a 100-year event. The proposed condition will reduce flood elevations during a 100-year storm event slightly for these properties but may not eliminate flood risk completely.

The P8 water quality model estimates that approximately 0.6 pounds of phosphorus (TP) and 222 pounds of total suspended solids (TSS) will be removed annually. Table 1 summarizes the estimated water quality benefits.

Table 1 - Water Quality Modeling Results (P8)

Benefit	**Existing Conditions** (lbs/yr)	**Proposed Conditions** (lbs/yr)	**Reduction** (additional lbs/yr removed as a result of proposed condition)
TP Removed	1.3 (load reduction of 14.1%)	1.9 (load reduction of 20.3%)	0.6
TSS Removed	1268.6	1490.3	221.7

4 Engineer's Opinion of Probable Cost

A 95% design-level engineer's opinion of probable cost was developed for the recommended concept. It's anticipated that construction cost of the stormwater retrofits will range between $520,000 - $602,000 (estimated accuracy range of -5% to +10%). The opinion of probable cost is intended to provide assistance in evaluating and comparing the project and should not be assumed as an absolute value. The Association for the Advancement of Cost Engineering (AACE) Class 1 opinion of cost was used based on the level of project definition.

5 Recommendations

Barr recommends bidding the project to select a contractor for construction. The site provides opportunities to:

- to restore ecological value to the wetland and surrounding neighborhood
- provide improved habitat for pollinators and other critical wildlife species
- to provide additional stormwater treatment through infiltration and reduction of erosion due to channelization
- to clean up historical dumping and filling of the wetland

Furthermore, the potential future development of a paved trail through the site could allow for additional passive recreation and educational opportunities associated with the restored wetland.

6 Schedule

Pending Board approval, the project documents (e.g., plan set, specifications) will be posted for bid on May 9th. Bid opening is scheduled for May 23rd. After bidding, if a responsible low bidder is identified, construction can start as early as November 15th. The winter start date is consistent with federally funded project tree removal criteria to reduce potential impacts to birds and the endangered northern long-eared bat that could potentially be nesting or roosting on-site. Substantial completion shall be no later than June 20, 2025. A three-year establishment and maintenance period will follow.

Attachments

- Specification Outline (Table of Contents)
- 95% Design Plan Sheets for the Cottage Place Wetland Restoration – For Review/Comment
- Technical Memo: Barr Engineering Company. *Results of Test Trench Investigation, Cottage Place Wetland Regeneration, Shoreview, Minnesota*.

Attachment: Specifications Outline (Table of Contents)

In addition to the attached plans, bid documents are complete and include the following specifications:

Front-End Specifications

Certification Page
Advertisement for Bids
Instructions to Bidders
Bid Form
Responsible Bidder Affidavit/Oath
Successful Bidder Subcontractor Verification
Notice of Award
Form of Agreement
Notice to Proceed
General Conditions
Supplementary Conditions

Technical Specifications

Division 1 - General Requirements

- 01 11 00 Summary of Work
- 01 22 00 Unit Price Measurement and Payment
- 01 29 00 Payment Procedures
- 01 31 13 Project Coordination
- 01 33 00 Submittal Procedures
- 01 35 23 Safety
- 01 52 00 Construction Facilities and Temporary Controls
- 01 55 26 Traffic Control
- 01 77 00 Closeout Procedures

Division 31 - Earthwork

- 31 00 00 Earthwork
- 31 10 00 Site Clearing, Preparation, and Demolition
- 31 25 00 Erosion and Sedimentation Control

Division 32 – Exterior Improvements

- 32 93 10 Site Restoration and Herbaceous Plant Installation
- 32 93 43 Tree and Shrub Installation
- 32 97 00 Vegetation Establishment

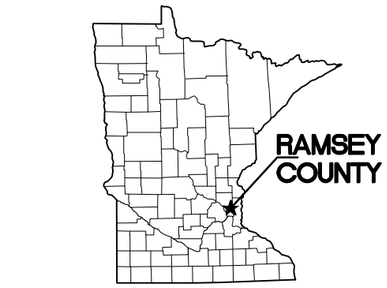
Division 33 – Utilities

- 33 40 00 Storm Utility Drainage Piping
- 33 49 00 Storm Drainage Structures

Attachment: 95% Design Plans

RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

COTTAGE PLACE WETLAND RESTORATION



LOCATION MAP

VICINITY MAP

0 100 200

SCALE IN FEET

DRAWING INDEX

GOPHER STATE ONE CALL

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

CONTRACTOR IS RESPONSIBLE FOR FIELD-LOCATING ALL SITE UTILITIES, PRIVATE AND PUBLIC, PRIOR TO STARTING THE WORK. ALL UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. ANY UTILITIES DAMAGED BY CONTRACTOR TO BE REPAIRED BY CONTRACTOR TO THE SATISFACTION OF THE UTILITY OWNER.

PROJECT COORDINATE SYSTEM

HORIZONTAL: MnDOT RAMSEY COUNTY, US FOOT, NAD 1983 DATUM
VERTICAL: NAVD 88 DATUM

CONTACTS

BARR ENGINEERING CO.
BRENDAN DOUGHERTY, PLA
PROJECT MANAGER
LANDSCAPE ARCHITECT
PHONE: 952-842-3694
EMAIL: BDOUGHERTY@BARR.COM

BARR ENGINEERING CO.
JOSH PHILLIPS, PE
CIVIL ENGINEER
PHONE: 952-832-2723
EMAIL: JPHILLIPS@BARR.COM

RAMSEY-WASHINGTON METRO WATERSHED DISTRICT
PAIGE AHLBORG
PROJECT MANAGER
PHONE: 651-792-7964
EMAIL: PAIGE.AHLBORG@RWMWD.ORG

CITY OF SHOREVIEW
TOM WESOLOWSKI
PUBLIC WORKS DIRECTOR
PHONE: 651-490-4652
EMAIL: TWESOLOWSKI@SHOREVIEWMN.GOV

CITY OF SHOREVIEW
KRISTA BILLERBECK
NATURAL RESOURCES MANAGER
PHONE: 651-490-4665
EMAIL: KBILLERBECK@SHOREVIEWMN.GOV

95% DESIGN DRAFT
NOT FOR CONSTRUCTION

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION
-	-	-	-	———	-

CLIENT 04/24/2024
BID
CONSTRUCTION

RELEASED TO/FOR: A B C 0 1 2 3
DATE RELEASED

BARR
Corporate Headquarters:
Minneapolis, Minnesota
Ph: 1-800-632-2277

Project Office:
BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
Suite 200
MINNEAPOLIS, MN 55435
Ph: 1-800-632-2277
Fax: (952) 832-2601
www.barr.com

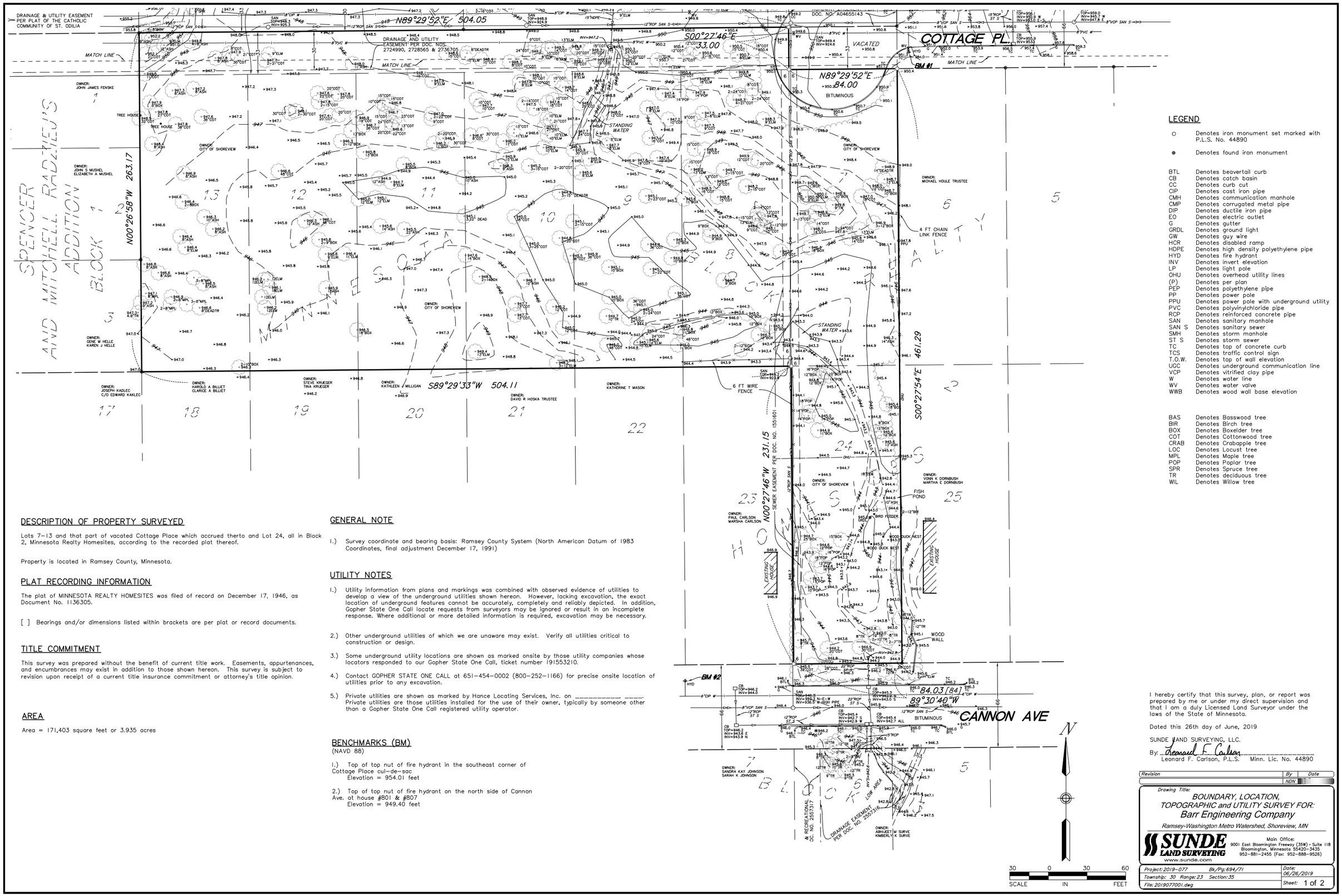
Scale	AS SHOWN
Date	04/24/2024
Drawn	OQR
Checked	BHD
Designed	BARR
Approved	BHD

RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

COTTAGE PLACE WETLAND RESTORATION
SHOREVIEW, MINNESOTA

PROJECT LOCATION AND SHEET INDEX

BARR PROJECT No.	23/62-1493.00
CLIENT PROJECT No.	-
DWG. No.	G-01
REV. No.	A



DESCRIPTION OF PROPERTY SURVEYED

Lots 7–13 and that part of vacated Cottage Place which accrued therto and Lot 24, all in Block 2, Minnesota Realty Homesites, according to the recorded plat thereof.

Property is located in Ramsey County, Minnesota.

PLAT RECORDING INFORMATION

The plat of MINNESOTA REALTY HOMESITES was filed of record on December 17, 1946, as Document No. 1136305.

[ ] Bearings and/or dimensions listed within brackets are per plat or record documents.

TITLE COMMITMENT

This survey was prepared without the benefit of current title work. Easements, appurtenances, and encumbrances may exist in addition to those shown hereon. This survey is subject to revision upon receipt of a current title insurance commitment or attorney's title opinion.

AREA

Area = 171,403 square feet or 3.935 acres

GENERAL NOTE

1.) Survey coordinate and bearing basis: Ramsey County System (North American Datum of 1983 Coordinates, final adjustment December 17, 1991)

UTILITY NOTES

1.) Utility information from plans and markings was combined with observed evidence of utilities to develop a view of the underground utilities shown hereon. However, lacking excavation, the exact location of underground features cannot be accurately, completely and reliably depicted. In addition, Gopher State One Call locate requests from surveyors may be ignored or result in an incomplete response. Where additional or more detailed information is required, excavation may be necessary.

2.) Other underground utilities of which we are unaware may exist. Verify all utilities critical to construction or design.

3.) Some underground utility locations are shown as marked onsite by those utility companies whose locators responded to our Gopher State One Call, ticket number 191553210.

4.) Contact GOPHER STATE ONE CALL at 651–454–0002 (800–252–1166) for precise onsite location of utilities prior to any excavation.

5.) Private utilities are shown as marked by Hance Locating Services, Inc. on _____, _____. Private utilities are those utilities installed for the use of their owner, typically by someone other than a Gopher State One Call registered utility operator.

BENCHMARKS (BM)

(NAVD 88)

1.) Top of top nut of fire hydrant in the southeast corner of Cottage Place cul–de–sac
Elevation = 954.01 feet

2.) Top of top nut of fire hydrant on the north side of Cannon Ave. at house #801 & #807
Elevation = 949.40 feet

LEGEND

o	Denotes iron monument set marked with P.L.S. No. 44890
●	Denotes found iron monument
BTL	Denotes beavertail curb
CB	Denotes catch basin
CC	Denotes curb cut
CIP	Denotes cast iron pipe
CMH	Denotes communication manhole
CMP	Denotes corrugated metal pipe
DIP	Denotes ductile iron pipe
EO	Denotes electric outlet
G	Denotes gutter
GRDL	Denotes ground light
GW	Denotes guy wire
HCR	Denotes disabled ramp
HDPE	Denotes high density polyethylene pipe
HYD	Denotes fire hydrant
INV	Denotes invert elevation
LP	Denotes light pole
OHU	Denotes overhead utility lines
(P)	Denotes per plan
PEP	Denotes polyethylene pipe
PP	Denotes power pole
PPU	Denotes power pole with underground utility
PVC	Denotes polyvinylchloride pipe
RCP	Denotes reinforced concrete pipe
SAN	Denotes sanitary manhole
SAN S	Denotes sanitary sewer
SMH	Denotes storm manhole
ST S	Denotes storm sewer
TC	Denotes top of concrete curb
TCS	Denotes traffic control sign
T.O.W.	Denotes top of wall elevation
UGC	Denotes underground communication line
VCP	Denotes vitrified clay pipe
W	Denotes water line
WV	Denotes water valve
WWB	Denotes wood wall base elevation
BAS	Denotes Basswood tree
BIR	Denotes Birch tree
BOX	Denotes Boxelder tree
COT	Denotes Cottonwood tree
CRAB	Denotes Crabapple tree
LOC	Denotes Locust tree
MPL	Denotes Maple tree
POP	Denotes Poplar tree
SPR	Denotes Spruce tree
TR	Denotes deciduous tree
WIL	Denotes Willow tree

I hereby certify that this survey, plan, or report was prepared by me or under my direct supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota.

Dated this 26th day of June, 2019

SUNDE LAND SURVEYING, LLC.

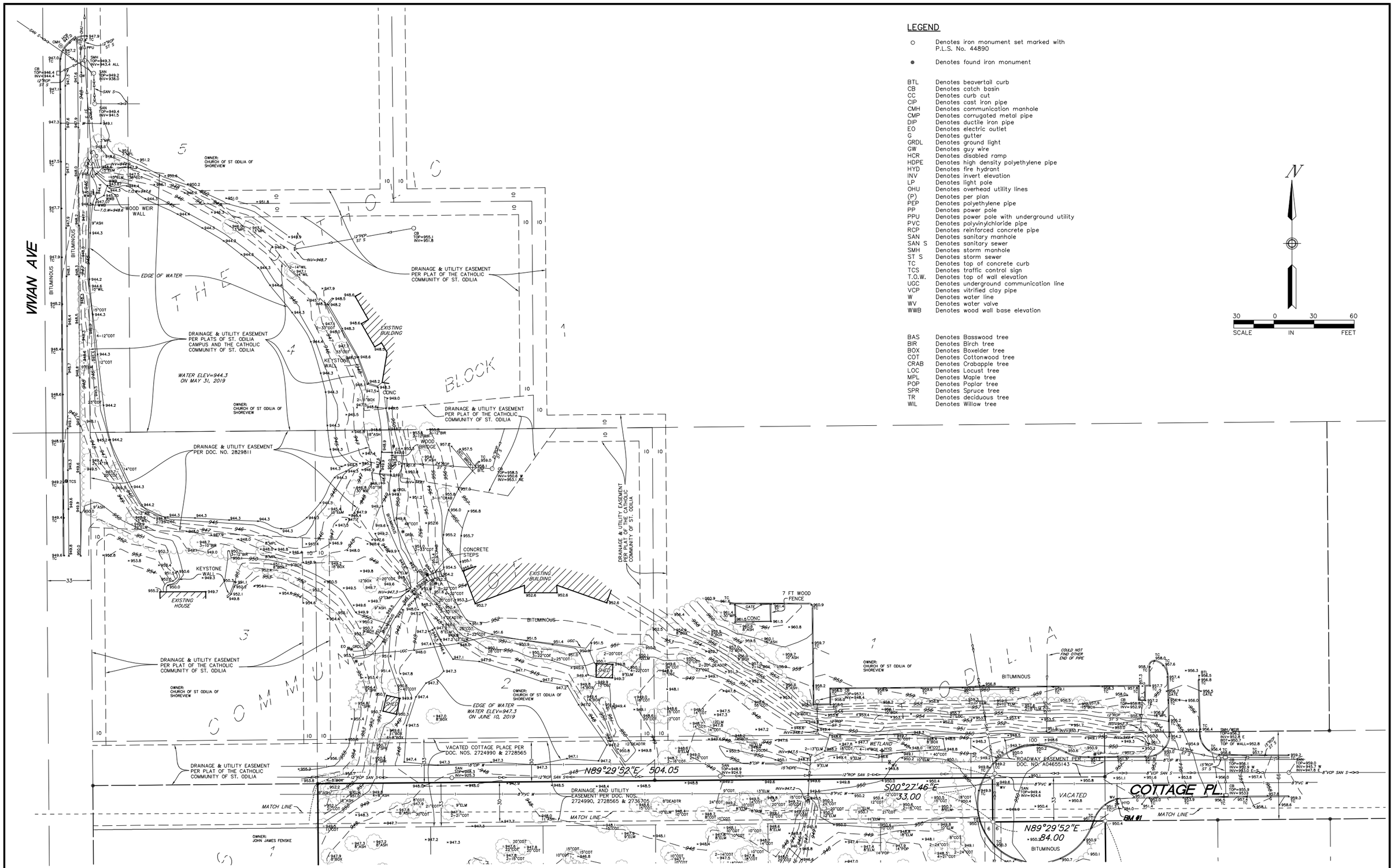
By: Leonard F. Carlson
Leonard F. Carlson, P.L.S. Minn. Lic. No. 44890

Revision	By	Date
	NDN	

Drawing Title:
BOUNDARY, LOCATION, TOPOGRAPHIC and UTILITY SURVEY FOR:
Barr Engineering Company
Ramsey-Washington Metro Watershed, Shoreview, MN

SUNDE LAND SURVEYING
Main Office:
9001 East Bloomington Freeway (35W) • Suite 118
Bloomington, Minnesota 55420–3435
952–881–2455 (Fax: 952–888–9526)
www.sunde.com

Project: 2019–077 Bk/Pg: 694/71	Date: 06/26/2019
Township: 30 Range: 23 Section: 35	Sheet: 1 of 2
File: 2019077001.dwg	



LEGEND

○	Denotes iron monument set marked with P.L.S. No. 44890
●	Denotes found iron monument

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TR	Denotes deciduous tree
WIL	Denotes Willow tree

N

30 0 30 60
SCALE IN FEET

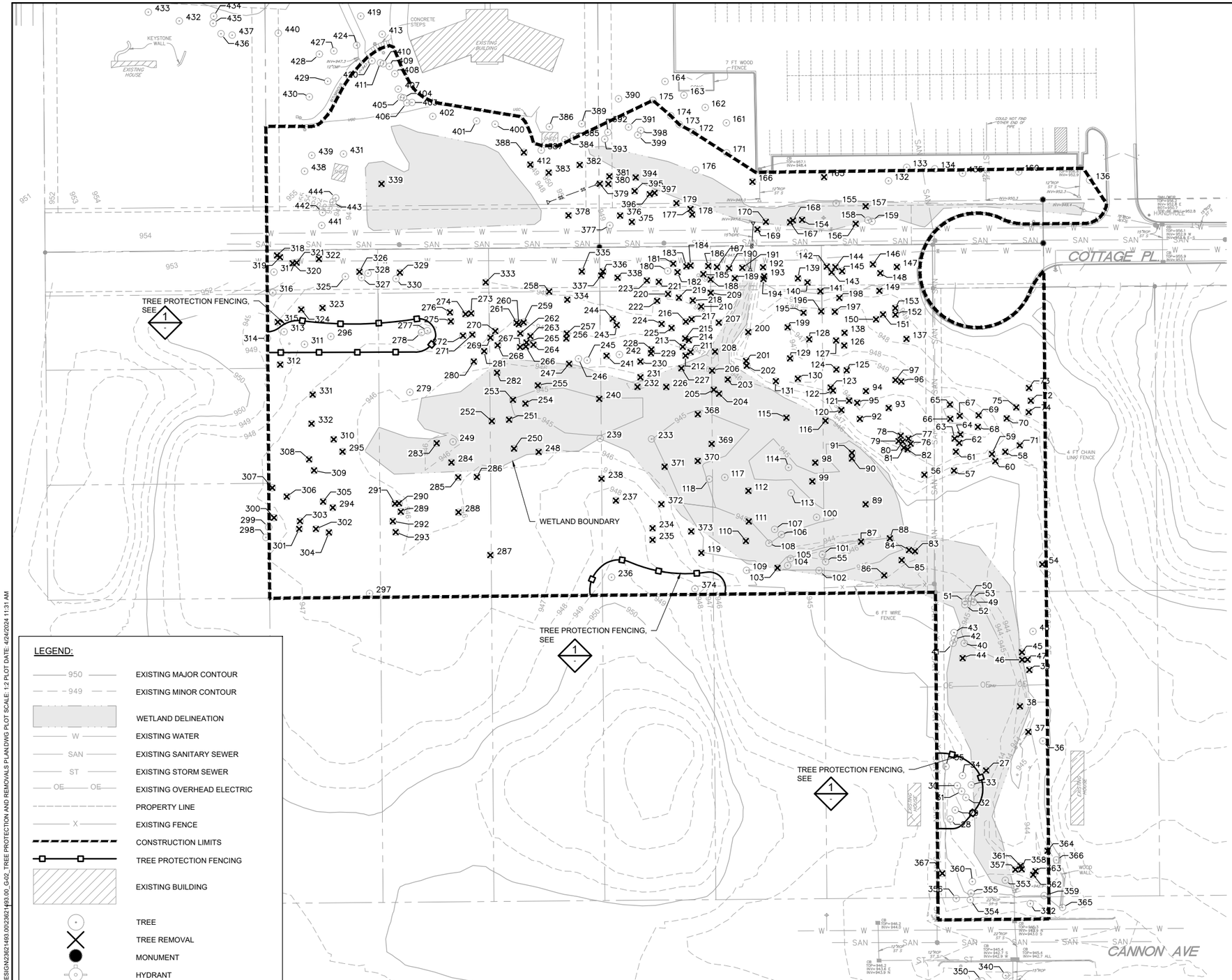
Dated this 26th day of June, 2019

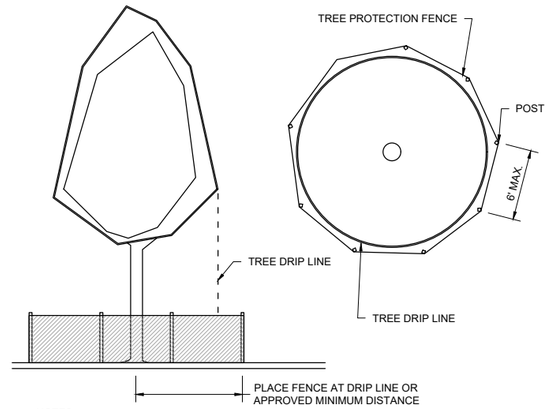
Certified by: Leonard F. Carlson
Leonard F. Carlson, P.L.S. Minn. Lic. No. 44890

SUNDE LAND SURVEYING
www.sunde.com
Main Office:
9001 East Bloomington Freeway (35W) • Suite 118
Bloomington, Minnesota 55420-3435
952-881-2455 (Fax: 952-888-9526)

File: 2019077001.dwg

Sheet: 2 of 2





NOTES:
1. TREE PROTECTION FENCING SHALL BE INSTALLED ACCORDING TO PLAN PRIOR TO DEMOLITION OR OTHER SITE WORK. ANY RELOCATION OF THE TREE PROTECTION FENCING TO BE APPROVED BY CITY FORESTER. TREE PROTECTION FENCING SHALL BE MAINTAINED FOR THE DURATION OF THE CONSTRUCTION PROCESS. FOLLOWING COMPLETION OF CONSTRUCTION PROCESS, THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE TREE PROTECTION FENCING.
2. CONSTRUCTION MATERIALS, STOCKPILES, EQUIPMENT, VEHICLES, AND TEMPORARY FACILITIES SHALL NOT BE STORED OR OPERATED WITHIN THE TREE PROTECTION ZONE.
3. ROOTS OUTSIDE OF THE TREE PROTECTION ZONE EXPOSED OR DAMAGED DURING EXCAVATION OR OTHER CONSTRUCTION ACTIVITY SHALL BE CLEANLY CUT AS DIRECTED BY THE CITY OR LANDSCAPE ARCHITECT.
4. ADDITIONAL TREE PROTECTION MEASURES MAY BE REQUIRED.

1 - DETAIL: TREE PROTECTION FENCING
NOT TO SCALE

LEGEND:

- 950 — EXISTING MAJOR CONTOUR
- 949 — EXISTING MINOR CONTOUR
- WETLAND DELINEATION
- W — EXISTING WATER
- SAN — EXISTING SANITARY SEWER
- ST — EXISTING STORM SEWER
- OE OE — EXISTING OVERHEAD ELECTRIC
- PROPERTY LINE
- X — EXISTING FENCE
- CONSTRUCTION LIMITS
- TREE PROTECTION FENCING
- EXISTING BUILDING
- TREE
- TREE REMOVAL
- MONUMENT
- HYDRANT

NOTES:
1. PROVIDE EROSION AND SEDIMENT CONTROLS PRIOR TO LAND DISTURBING ACTIVITIES.
2. SEE SHEET G-03 FOR TREE REMOVAL TABLE.
3. SUBMIT A TREE REMOVAL PLAN TO LIMIT DISTURBANCE WITHIN EXISTING WETLAND.
4. ASH TREES MUST BE REMOVED BETWEEN OCTOBER 1ST AND APRIL 30TH AND TAKEN TO AN APPROVED SITE FOR DISPOSAL. CONTRACTOR MUST PROVIDE ASSURANCE THAT ASH TREES DO NOT LEAVE QUARANTINED AREA.
5. FOLLOW ALL ROAD RESTRICTION REGULATIONS WHEN REMOVING TREES.
6. LANDSCAPE ARCHITECT SHALL MARK ALL TREES FOR REMOVAL PRIOR TO ANY CONSTRUCTION ACTIVITY. COORDINATE WITH LANDSCAPE ARCHITECT TWO (2) WEEKS PRIOR TO CONSTRUCTION.
7. REMOVE, GRIND STUMPS, AND DISPOSE OF ALL WOOD AND DEBRIS IN ACCORDANCE WITH ALL LOCAL RULES AND REGULATIONS.
8. CONTRACTOR TO VERIFY AND RECORD QUANTITY OF TREES REMOVED WITH DIAMETER GREATER THAN 8".
9. ALL TREES LARGER THAN 8" NOT MARKED FOR REMOVAL SHALL BE AVOIDED AND ANY GRADING OR COMPACTION WITHIN THE DRIPLINE SHALL BE MINIMIZED.
10. TREE SURVEY FOR PROJECT AREA WAS COMPLETED ON 6/24/2019. TREES NOT SPECIFICALLY SHOWN WERE NOT INCLUDED IN ORIGINAL SURVEY.
11. CLEAR AND GRUB ALL INVASIVE TREES AND SHRUBS LESS THAN 8" DIAMETER.

1 - PLAN: TREE PROTECTION AND REMOVAL
0 40 80
SCALE IN FEET

95% DESIGN DRAFT
NOT FOR CONSTRUCTION

NO.	BY	CHK	APP.	DATE	REVISION DESCRIPTION
-	-	-	-	-	-

RELEASED TO/FOR: CLIENT 04/24/2024; PERMIT; BID; CONSTRUCTION; RECORD

DATE RELEASED: A B C 0 1 2 3

BARR
Corporate Headquarters: Minneapolis, Minnesota
Ph: 1-800-632-2277
Project Office:
BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435
Ph: 1-800-632-2277
Fax: (952) 832-2601
www.barr.com

Scale	AS SHOWN
Date	04/24/2024
Drawn	OQR
Checked	BHD
Designed	BARR
Approved	BHD

RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

COTTAGE PLACE WETLAND RESTORATION
SHOREVIEW, MINNESOTA

TREE PROTECTION AND REMOVALS PLAN
-

BARR PROJECT No.	23/62-1493.00
CLIENT PROJECT No.	
DWG. No.	G-02
REV. No.	A

CADD USER: OWEN Q. RICHEY FILE: M:\DESIGN\23621493.00\23621493.00_G-02_TREE PROTECTION AND REMOVALS PLAN.DWG PLOT SCALE: 1:2 PLOT DATE: 4/24/2024 11:31 AM

TREE ID	SPECIES	DIAMETER (INCHES)	REMOVE	LANDMARK TREE	COMMENT
27	BOXELDER	15	YES		
28	ASPEN	10	NO		
29	ASPEN	17	NO	X	
30	ASPEN	18	NO	X	
31	ASPEN	12	NO		
32	ASPEN	16	NO	X	
33	ASPEN	16	NO	X	
34	ASPEN	12	NO		
35	BOXELDER	25	NO		
36	BIRCH	2-12	NO		MULTI-STEM
37	GREEN ASH	10	YES		
38	ELM	18	YES	X	
39	GREEN ASH	13	YES		
40	ASPEN	14	NO		
41	ASPEN	14	NO		
42	ASPEN	14	NO		
43	ASPEN	18	NO	X	
44	BOXELDER	11	YES		
45	BOXELDER	9	YES		
46	BOXELDER	12	YES		
47	BOXELDER	12	YES		
48	BOXELDER	18	NO		
49	ASPEN	14	NO		
50	ASPEN	16	NO	X	
51	BOXELDER	12	NO		
52	BOXELDER	12	NO		
53	BOXELDER	10	NO		
54	GREEN ASH	14	YES		
55	COTTONWOOD	48	NO	X	
56	COTTONWOOD	33	YES	X	
57	BOXELDER	18	YES		
58	ELM	13	YES		
59	COTTONWOOD	2-24	YES		MULTI-STEM
60	COTTONWOOD	14	YES		
61	COTTONWOOD	14	YES		
62	COTTONWOOD	14	YES		
63	COTTONWOOD	2-13	YES		MULTI-STEM
64	ELM	13	YES		
65	BOXELDER	11	YES		
66	ELM	9	YES		
67	ELM	9	YES		
68	DECIDUOUS (SP.)	9	YES		
69	BOXELDER	10	YES		
70	COTTONWOOD	18	YES		
71	BOXELDER	3-12	YES		MULTI-STEM
72	ELM	13	YES		
73	DEAD	14	YES		DEAD
74	BOXELDER	10	YES		
75	COTTONWOOD	12	YES		
76	COTTONWOOD	2-12	YES		MULTI-STEM
77	COTTONWOOD	12	YES		
78	COTTONWOOD	2-14	YES		MULTI-STEM
79	COTTONWOOD	4-15	YES		MULTI-STEM
80	ELM	13	YES		
81	COTTONWOOD	9	YES		
82	COTTONWOOD	15	YES		
83	BOXELDER	12	YES		
84	BOXELDER	12	YES		
85	BOXELDER	12	YES		
86	BOXELDER	2-12	YES		MULTI-STEM
87	BOXELDER	12	YES		
88	BOXELDER	19	YES		
89	BOXELDER	9	YES		
90	BOXELDER	9	YES		
91	BOXELDER	9	YES		
92	COTTONWOOD	15	YES		
93	COTTONWOOD	2-15	YES		MULTI-STEM
94	COTTONWOOD	2-15	YES		MULTI-STEM
95	COTTONWOOD	12	YES		
96	COTTONWOOD	20	YES		
97	COTTONWOOD	12	YES		
98	BOXELDER	10	YES		
99	BOXELDER	10	YES		
100	COTTONWOOD	36	NO	X	
101	BOXELDER	11	NO		
102	BOXELDER	11	NO		
103	ELM	10	YES		
104	ELM	14	NO		
105	COTTONWOOD	24	NO		
106	COTTONWOOD	2-24	NO		MULTI-STEM
107	COTTONWOOD	36	NO	X	
108	COTTONWOOD	24	NO		
109	COTTONWOOD	48	NO	X	
110	DECIDUOUS (SP.)	10	YES		
111	BOXELDER	10	YES		
112	BOXELDER	10	YES		
113	COTTONWOOD	2-22	NO		MULTI-STEM
114	COTTONWOOD	36	NO	X	
115	COTTONWOOD	2-23	YES		MULTI-STEM
116	BOXELDER	11	YES		
117	COTTONWOOD	36	NO	X	
118	COTTONWOOD	36	NO	X	
119	COTTONWOOD	12	YES		
120	COTTONWOOD	16	YES		
121	COTTONWOOD	13	YES		
122	ELM	13	YES		
123	COTTONWOOD	15	NO		
124	COTTONWOOD	15	NO		
125	COTTONWOOD	18	YES		
126	COTTONWOOD	9	YES		
127	COTTONWOOD	9	YES		
128	COTTONWOOD	10	YES		
129	COTTONWOOD	16	YES		
130	GREEN ASH	10	YES		
131	COTTONWOOD	19	YES		
132	HONEY LOCUST	21	NO		
133	ELM	2-10	NO		MULTI-STEM
134	ELM	2-10	NO		MULTI-STEM
135	ELM	2-8	NO		MULTI-STEM
136	SILVER MAPLE	18	NO		
137	ELM	9	YES		
138	ELM	2-8	YES		MULTI-STEM
139	ELM	11	YES		
140	ELM	11	YES		
141	COTTONWOOD	10	YES		
142	COTTONWOOD	12	YES		
143	COTTONWOOD	21	YES		
144	COTTONWOOD	12	YES		
145	COTTONWOOD	2-16	YES		MULTI-STEM
146	COTTONWOOD	15	YES		
147	COTTONWOOD	18	YES		
148	ELM	8	YES		
149	ELM	10	YES		
150	COTTONWOOD	4-21	YES		MULTI-STEM
151	COTTONWOOD	2-24	YES		MULTI-STEM
152	COTTONWOOD	2-24	YES		MULTI-STEM
153	COTTONWOOD	8	YES		
154	BOXELDER	4-14	YES		MULTI-STEM
155	COTTONWOOD	30	NO	X	
156	ELM	10	YES		
157	BOXELDER	8	YES		
158	COTTONWOOD	18	NO		
159	COTTONWOOD	40	NO	X	
160	BOXELDER	15	NO		
161	GREEN ASH	10	NO		
162	GREEN ASH	15	NO	X	
163	GREEN ASH	8	NO		
164	SILVER MAPLE	30	NO	X	
165	BOXELDER	10	YES		
166	BOXELDER	2-12	YES		MULTI-STEM
167	ELM	9	YES		
168	COTTONWOOD	18	YES		
169	ELM	9	YES		
170	ELM	2-13	YES		MULTI-STEM
171	GREEN ASH	8	NO		
172	BOXELDER	2-12	NO		MULTI-STEM
173	BOXELDER	9	NO		
174	BOXELDER	12	NO		
175	BOXELDER	8	NO		
176	COTTONWOOD	55	NO	X	
177	ELM	10	YES		
178	COTTONWOOD	4-20	YES		MULTI-STEM
179	BOXELDER	14	YES		
180	COTTONWOOD	24	NO		
181	COTTONWOOD	9	YES		
182	ELM	8	YES		
183	COTTONWOOD	10	YES		
184	COTTONWOOD	14	YES		
185	ELM	8	YES		
186	ELM	13	YES		
187	COTTONWOOD	20	YES		
188	COTTONWOOD	12	YES		
189	COTTONWOOD	10	YES		
190	COTTONWOOD	10	YES		
191	COTTONWOOD	15	YES		
192	COTTONWOOD	24	YES		
193	COTTONWOOD	3-20	YES		MULTI-STEM
194	ELM	12	YES		
195	ELM	8	YES		
196	ASPEN	14	YES		
197	ASPEN	14	YES		
198	ELM	18	YES	X	
199	ELM	8	YES		
200	COTTONWOOD	12	YES		
201	ELM	8	YES		
202	ELM	8	YES		
203	ELM	8	YES		
204	ELM	8	YES		
205	COTTONWOOD	2-20	YES		MULTI-STEM
206	COTTONWOOD	30	YES	X	
207	COTTONWOOD	20	YES		
208	COTTONWOOD	24	YES		
209	ELM	8	YES		
210	COTTONWOOD	14	YES		
211	ELM	10	YES		
212	ELM	10	YES		
213	COTTONWOOD	21	YES		
214	COTTONWOOD	21	YES		
215	ELM	10	YES		
216	COTTONWOOD	18	YES		
217	COTTONWOOD	10	YES		
218	COTTONWOOD	10	YES		
219	COTTONWOOD	10	YES		
220	COTTONWOOD	10	YES		
221	COTTONWOOD	10	YES		
222	ELM	8	YES		
223	COTTONWOOD	8	YES		
224	COTTONWOOD	2-14	YES		MULTI-STEM
225	COTTONWOOD	18	YES		
226	COTTONWOOD	3-15	YES		MULTI-STEM
227	ELM	10	YES		
228	COTTONWOOD	13	YES		
229	ELM	11	YES		
230	COTTONWOOD	17	YES		
231	ELM	15	YES	X	
232	GREEN ASH	9	YES		
233	COTTONWOOD	38	NO	X	
234	COTTONWOOD	13	YES		
235	COTTONWOOD	13	YES		
236	ELM	13	NO		
237	BOXELDER	2-14	YES		MULTI-STEM
238	BOXELDER	14	YES		
239	DEAD	32	NO	X	DEAD
240	GREEN ASH	10	YES		
241	COTTONWOOD	8	YES		
242	COTTONWOOD	30	NO	X	
243	COTTONWOOD	10	YES		
244	COTTONWOOD	10	YES		
245	COTTONWOOD	30	NO	X	
246	COTTONWOOD	2-20	NO		MULTI-STEM
247	BOXELDER	11	YES		
248	GREEN ASH	22	YES	X	
249	COTTONWOOD	46	NO	X	
250	GREEN ASH	14	YES		
251	ELM	12	YES		
252	ELM	12	YES		
253	GREEN ASH	12	YES		
254	ELM	8	YES		
255	BOXELDER	8	YES		
256	COTTONWOOD	9	YES		
257	COTTONWOOD	2-22	YES		MULTI-STEM
258	COTTONWOOD	15	YES		
259	COTTONWOOD	15	YES		
260	COTTONWOOD	15	YES		
261	COTTONWOOD	10	YES		
262	COTTONWOOD	15	YES		
263	COTTONWOOD	23	YES		
264	COTTONWOOD	13	YES		
265	COTTONWOOD	24	YES		
266	COTTONWOOD	22	YES		
267	COTTONWOOD	20	YES		
268	COTTONWOOD	26	YES		
269	COTTONWOOD	19	YES		
270	DEAD	12	YES		DEAD
271	COTTONWOOD	20	YES		
272	COTTONWOOD	20	YES		
273	COTTONWOOD	20	YES		
274	COTTONWOOD	20	YES		
275	COTTONWOOD	2-15	YES		MULTI-STEM
276	COTTONWOOD	22	YES		
277	COTTONWOOD	2-30	NO	X	MULTI-STEM
278	COTTONWOOD	30	NO	X	
279	COTTONWOOD	48	NO	X	
280	BOXELDER	2-12	YES		MULTI-STEM
281	BOXELDER	13	YES		
282	BOXELDER	13	YES		
283	GREEN ASH	12	YES		
284	BOXELDER	2-9	YES		MULTI-STEM
285	ELM	9	YES		
286	ELM	11	YES		
287	BOXELDER	18	YES		
288	GREEN ASH	13	YES		
289	ELM	18	YES	X	
290	ELM	12	YES		
291	ELM	12	YES		
292	ELM	12	YES		
293	ELM	12	YES		
294	GREEN ASH	6	YES		
295	GREEN ASH	8	YES		
296	COTTONWOOD	36	NO	X	
297	BOXELDER	2-10	NO		MULTI-STEM
298	ELM	5	NO		
299	GREEN ASH	9	NO		
300	SILVER MAPLE	8	YES		
301	SILVER MAPLE	2-8	YES		MULTI-STEM
302	SILVER MAPLE	3-8	YES		MULTI-STEM
303	SILVER MAPLE	2-8	YES		MULTI-STEM
304	DEAD	8	YES		DEAD
305	SILVER MAPLE	3-8	YES		MULTI-STEM
306	GREEN ASH	8	YES		
307	GREEN ASH	8	YES		
308	GREEN ASH	8	YES		
309	ELM	8	YES		
310	GREEN ASH	10	YES		
311	COTTONWOOD	38	NO	X	
312	GREEN ASH	8	YES		
313	COTTONWOOD	27	NO		
314	COTTONWOOD	32	NO	X	
315	BOXELDER	8	YES		
316	COTTONWOOD	11	NO		
317	COTTONWOOD	21	NO		
318	BOXELDER	4-8	YES		MULTI-STEM
319	GREEN ASH	9	YES		
320	GREEN ASH	12	YES		
321	ELM	9	YES		
322	GREEN ASH	4-8	YES		MULTI-STEM
323	GREEN ASH	8	YES		
324	GREEN ASH	8	YES		
325	GREEN ASH	8	NO		
326	COTTONWOOD	8	YES		
327	COTTONWOOD	30	NO	X	
328	COTTONWOOD	21	NO		
329	ELM	9	YES		
330	COTTONWOOD	2-21	NO		MULTI-STEM
331	GREEN ASH	8	YES		
332	BOXELDER	2-8	YES		MULTI-STEM
333	GREEN ASH	11	YES		
334	ELM	9	YES		
335	COTTONWOOD	15	YES		
336	DEAD	8	YES		DEAD
337	ELM	10	YES		
338	COTTONWOOD	10	YES		
339	BOXELDER	8	YES		
340	COTTONWOOD	22	NO		
341	DECIDUOUS (SP.)	2-9	NO		MULTI-STEM
342	DECIDUOUS (SP.)	9	NO		
343	DECIDUOUS (SP.)	12	NO		
344	DECIDUOUS (SP.)	9	NO		
345	DECIDUOUS (SP.)	9	NO		
346	DECIDUOUS (SP.)	9	NO		
347	DECIDUOUS (SP.)	8	NO		
348	DECIDUOUS (SP.)	10	NO		
349	DECIDUOUS (SP.)	12	NO		
350	DECIDUOUS (SP.)	12	NO		
351	DECIDUOUS (SP.)	16	NO	X	
352	DECIDUOUS (SP.)	12	NO		
353	COTTONWOOD	30	NO	X	
354	COTTONWOOD	28	NO		
355	COTTONWOOD	22	NO		
356	COTTONWOOD	32	NO	X	
357	DECIDUOUS (SP.)	8	YES		
358	DECIDUOUS (SP.)	2-10	YES		MULTI-STEM
359	COTTONWOOD	28	YES		
360	COTTONWOOD	20	YES		
361	DECIDUOUS (SP.)	10	YES		
362	DECIDUOUS (SP.)	2-7	YES		MULTI-STEM
363	DECIDUOUS (SP.)	8	YES		
364	DECIDUOUS (SP.)	8	YES		
365	ELM	2-11	NO		MULTI-STEM
366	DECIDUOUS (SP.)	12	NO		
367	DECIDUOUS (SP.)	9	YES		
368	DEAD	3-15	YES		DEAD, MULTI-STEM
369	COTTONWOOD	2-15	YES		MULTI-STEM
370	COTTONWOOD	2-20	YES		MULTI-STEM
371	COTTONWOOD	3-25	YES		MULTI-STEM
372	GREEN ASH	12	YES		
373	COTTONWOOD	12	YES		
374	ELM	3-12	NO		MULTI-STEM
375	COTTONWOOD	2-15	YES		MULTI-STEM
376	ELM	8	YES		
377	COTTONWOOD	2-16	NO		MULTI-STEM
378	DEAD	12	YES		DEAD
379	COTTONWOOD	20	YES		
380	COTTONWOOD	12	YES		
381	COTTONWOOD	15	YES		
382	COTTONWOOD	16	YES		
383	DECIDUOUS (SP.)	15	NO		
384	ELM	9	NO		
385	COTTONWOOD	4-22	NO		MULTI-STEM
386	COTTONWOOD	2-20	NO		MULTI-STEM
387	COTTONWOOD	13	NO		
388	BOXELDER	14	YES		
389	ELM	12	NO		
390	BOXELDER	8	NO		
391	COTTONWOOD	22	NO		
392	COTTONWOOD	24	NO		
393	COTTONWOOD	11	NO		
394	COTTONWOOD	14	YES		
395	COTTONWOOD	14	YES		
396	COTTONWOOD	14	YES		
397	ELM	12	YES		
398	DEAD	2-20	NO		DEAD, MULTI-STEM
399	COTTONWOOD	23	NO		
400	COTTONWOOD	2-25	NO		MULTI-STEM
401	COTTONWOOD	3-22	NO		MULTI-STEM
402	COTTONWOOD	28	NO		
403	COTTONWOOD	2-22	NO		MULTI-STEM
404	COTTONWOOD	20	NO		
405	ELM	8	NO		
406	ELM	12	NO		
407	DEAD	14	NO		DEAD
408	COTTONWOOD	2-25	NO		MULTI-STEM
409	COTTONWOOD	20	NO		
410	COTTONWOOD	4-22	NO		MULTI-STEM
411	COTTONWOOD	2-22	NO		MULTI-STEM
412	BOXELDER	14	YES		
413	CRAB APPLE	4-9	NO		MULTI-STEM
419	COTTONWOOD	2-23	NO		MULTI-STEM
420	ELM	9	NO		
424	ELM	9	NO		
427	COTTONWOOD	2-20	NO		MULTI-STEM
428	BOXELDER	12	NO		
429	GREEN ASH	9	NO		
430	BOXELDER	9	NO		
431	COTTONWOOD	2-40	NO	X	MULTI-STEM
432	BIRCH	3-12	NO		
433	BIRCH	3-10	NO		MULTI-STEM
434	SILVER MAPLE	8	NO		
435	SILVER MAPLE	8	NO		
436	BOXELDER	8	NO		
437	BOXELDER	2-9	NO		MULTI-STEM
438	SPRUCE	11	NO		
439	SPRUCE	9	NO		
440	BOXELDER	18	NO		
441	SPRUCE	9	NO		
442	SPRUCE	9	NO		
443	BOXELDER	6-8	NO		MULTI-STEM
444	BOXELDER	11	NO		

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NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION
-	-	-	-	——	-

CLIENT	04/24/2024	—	—	—	—	—	—	—
PERMIT	—	—	—	—	—	—	—	—
BID	—	—	—	—	—	—	—	—
CONSTRUCTION	—	—	—	—	—	—	—	—
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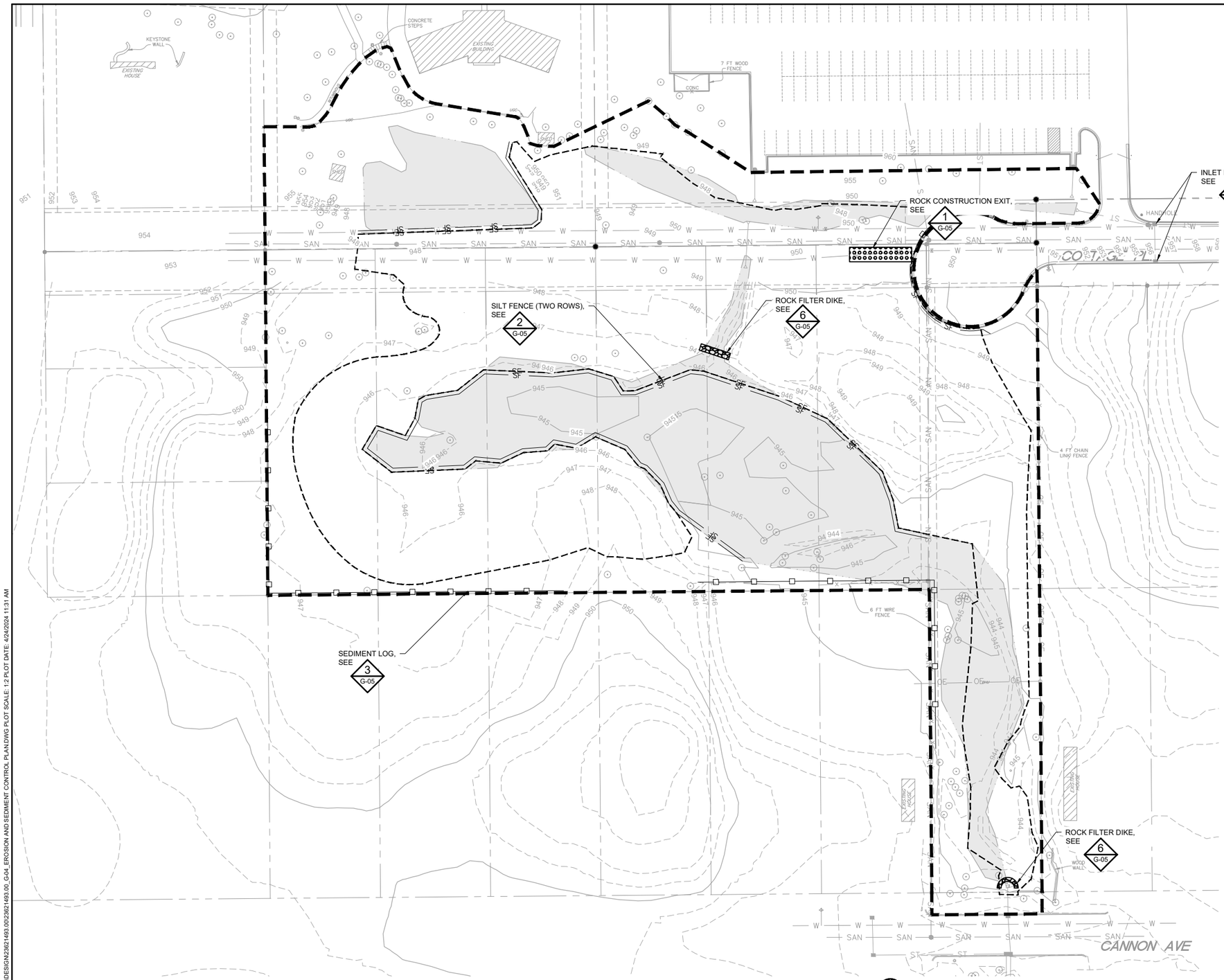
Drawn	OQR
Checked	BHD
Designed	BARR
Approved	BHD

RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

COTTAGE PLACE WETLAND RESTORATION
SHOREVIEW, MINNESOTA

TREE PROTECTION AND REMOVAL TABLE

BARR PROJECT No.	23/62-1493.00
CLIENT PROJECT No.	
DWG. No.	G-03
REV. No.	A



1 PLAN: EROSION AND SEDIMENT CONTROL
SCALE IN FEET 0 40 80

LEGEND:

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- WETLAND DELINEATION
- EXISTING WATER
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING OVERHEAD ELECTRIC
- PROPERTY LINE
- EXISTING FENCE
- CONSTRUCTION LIMITS
- GRADING LIMITS
- SILT FENCE
- SEDIMENT LOG
- EXISTING BUILDING
- TREE
- MONUMENT
- HYDRANT
- CONSTRUCTION EXIT
- ROCK FILTER DIKE

NOTES:
1. CONFIRM LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. NOTIFY CITY OF ANY DISCREPANCIES.
2. UTILITY LOCATIONS ARE APPROXIMATE. ALL UTILITIES IN THE PROJECT AREA SHOULD BE MARKED AND POTHOLED PRIOR TO EXCAVATION.
3. PROTECT ALL EXISTING UTILITIES DURING DEMOLITION AND CONSTRUCTION.

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Approved	JPP

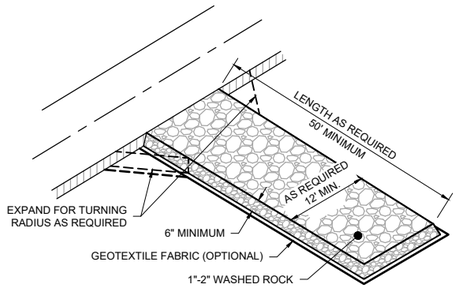
RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

COTTAGE PLACE WETLAND RESTORATION
SHOREVIEW, MINNESOTA

EROSION AND SEDIMENT CONTROL PLAN
-

BARR PROJECT No.	23/62-1493.00
CLIENT PROJECT No.	
DWG. No.	G-04
REV. No.	A

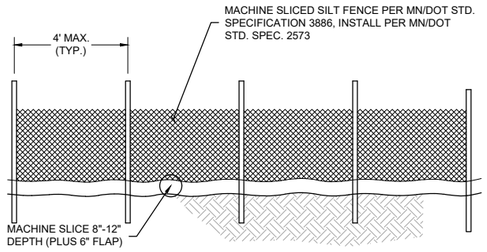
CADD USER: OWEN Q. RICHEY FILE: M:\DESIGN\23621493.00\23621493.00_G-04_EROSION AND SEDIMENT CONTROL PLAN.DWG PLOT SCALE: 1:2 PLOT DATE: 4/24/2024 11:31 AM



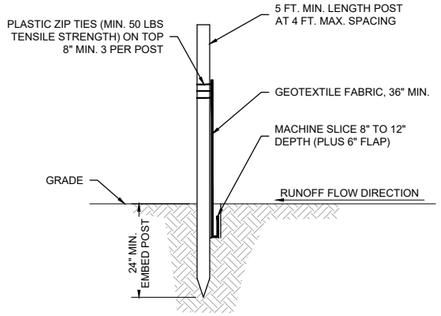
NOTES:

1. MAINTAIN CONSTRUCTION EXIT THROUGHOUT THE CONSTRUCTION PERIOD AND REPAIR OR REPLACE AS REQUIRED TO PREVENT TRACKING OFFSITE.
2. REMOVE CONSTRUCTION EXIT IN CONJUNCTION WITH FINAL GRADING AND SITE STABILIZATION.

1 - DETAIL: ROCK CONSTRUCTION EXIT
NOT TO SCALE



DOWNSTREAM VIEW

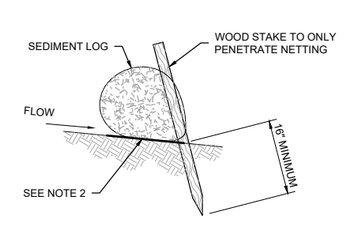


SECTION VIEW

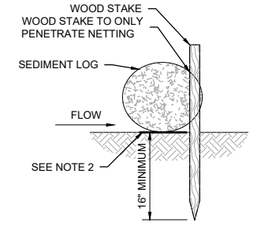
NOTES:

1. INSTALL SILT FENCE PRIOR TO ANY GRADING WORK IN THE AREA TO BE PROTECTED AND MAINTAIN THROUGHOUT THE CONSTRUCTION PERIOD. REMOVE SILT FENCE AND ANY ACCUMULATED SEDIMENT IN CONJUNCTION WITH THE FINAL GRADING AND SITE STABILIZATION.
2. SILT FENCE MATERIALS AND INSTALLATION SHALL MEET THE REQUIREMENTS OF MN/DOT SPECIFICATIONS 2573 AND 3886.
3. NO HOLES OR GAPS SHALL BE PRESENT IN/UNDER SILT FENCE. PREPARE AREA AS NEEDED TO SMOOTH SURFACE OR REMOVE DEBRIS.
4. REMOVE ACCUMULATED SEDIMENT WHEN BUILD UP REACHES 1/3 OF FENCE HEIGHT. OR INSTALL A SECOND SILT FENCE DOWNSTREAM OF THE ORIGINAL FENCE AT A SUITABLE DISTANCE.
5. WHEN SPLICES ARE NECESSARY MAKE SPLICE AT POST ACCORDING TO SPLICE DETAIL. PLACE THE END POST OF THE SECOND FENCE INSIDE THE END POST OF THE FIRST FENCE. ROTATE BOTH POSTS TOGETHER AT LEAST 180 DEGREES TO CREATE A TIGHT SEAL WITH THE FABRIC MATERIAL. CUT THE FABRIC NEAR THE BOTTOM OF THE POSTS TO ACCOMMODATE THE 6 INCH FLAP, THEN DRIVE BOTH POSTS AND BURY THE FLAP AND COMPACT BACKFILL.

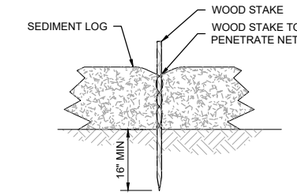
2 - DETAIL: SILT FENCE - MACHINE SLICED
NOT TO SCALE



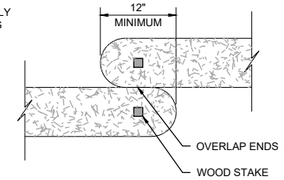
SIDE VIEW ON SLOPE



SIDE VIEW FLAT



FRONT VIEW

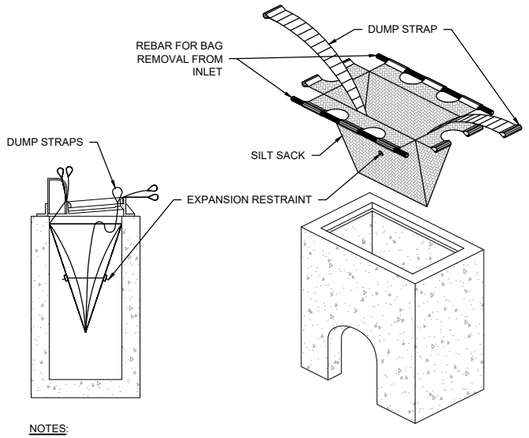


TOP VIEW

NOTES:

1. INSTALL SEDIMENT LOG ALONG CONTOURS (CONSTANT ELEVATION).
2. REMOVE ALL SNOW AND SOIL IRREGULARITIES SO EROSION LOG IS IN FULL CONTACT WITH THE GROUND (NO GAPS SHALL BE PRESENT UNDER SEDIMENT LOG).
3. REMOVE ACCUMULATED SEDIMENT WHEN REACHING 1/3 OF LOG HEIGHT.
4. MAINTAIN SEDIMENT LOG THROUGHOUT THE CONSTRUCTION PERIOD AND REPAIR OR REPLACED AS REQUIRED.

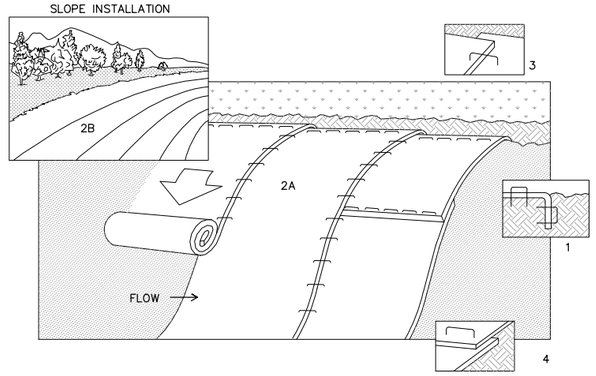
3 - DETAIL: SEDIMENT LOG
NOT TO SCALE



NOTES:

1. INSTALL INLET PROTECTION PRIOR TO ANY GRADING WORK IN THE AREA TO BE PROTECTED OR IMMEDIATELY FOLLOWING ANY CATCHBASIN INSTALLATION AND MAINTAIN THROUGHOUT THE CONSTRUCTION PERIOD.
2. MATERIALS SHALL BE SUFFICIENT TO ALLOW FLOW WHILE BLOCKING SEDIMENT. NO HOLES OR GAPS SHALL BE PRESENT IN/AROUND FILTER SACK.
3. CLEAN FILTER SACK AND REMOVE ACCUMULATED SEDIMENT AS REQUIRED TO ALLOW FLOW INTO THE CATCHBASIN AND PREVENT SEDIMENT FROM LEAVING THE DEVICE.
4. REMOVE DEVICE AND ANY ACCUMULATED SEDIMENT IN CONJUNCTION WITH THE FINAL GRADING AND SITE STABILIZATION.

4 - DETAIL: INLET PROTECTION, FILTER SACK TYPE
NOT TO SCALE



NOTE: REFER TO GENERAL STAPLE PATTERN GUIDE FOR CORRECT STAPLE PATTERN RECOMMENDATIONS FOR SLOPE INSTALLATIONS.

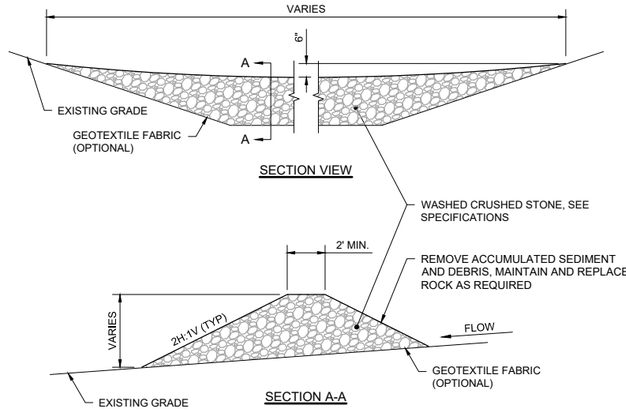
1. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

2. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE.

3. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 6" OVERLAP, WITH THE UPHILL BLANKET ON TOP.

4. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 6" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.

5 - DETAIL: TEMPORARY EROSION CONTROL BLANKET
NOT TO SCALE



NOTES:

1. AGGREGATE SIZE MAY VARY AND DEPENDING ON CHANNEL SIZE, FLOW, SEDIMENT LOAD OR OTHER SITE CONDITIONS. AGGREGATE USED SHOULD BE RELATIVELY FREE OF SEDIMENT PRIOR TO INSTALLATION.
2. ROCK FILTER DIKE SHALL BE CLEANED OR REPLACED WHEN SEDIMENT BUILD UP REACHES 1/2 OF THE DIKE HEIGHT. ALTERNATIVELY A SECOND ROCK FILTER DIKE MAY BE INSTALLED DOWNSTREAM OF THE EXISTING DIKE AT A SUITABLE DISTANCE.
3. ROCK FILTER DIKE SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. ROCK, GEOTEXTILE AND ANY ACCUMULATED SEDIMENT SHALL BE REMOVED IN CONJUNCTION WITH THE FINAL GRADING AND SITE STABILIZATION.

6 - DETAIL: ROCK FILTER DIKE
NOT TO SCALE

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Approved	JPP

RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

COTTAGE PLACE WETLAND RESTORATION
SHOREVIEW, MINNESOTA

EROSION CONTROL DETAILS
-

BARR PROJECT No.	
23/62-1493.00	
CLIENT PROJECT No.	
DWG. No.	REV. No.
G-05	A

1.0 GENERAL CONSTRUCTION ACTIVITY INFORMATION:

THIS STORMWATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN PREPARED IN COMPLIANCE WITH THE MINNESOTA GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY NO. MNR100001 (GENERAL PERMIT), AS REQUIRED BY THE MINNESOTA POLLUTION CONTROL AGENCY (MPCA) UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM/STATE DISPOSAL SYSTEM (NPDES/SDS) PROGRAM.

THE PROJECT IS LOCATED IN THE CITY OF SHOREVIEW, RAMSEY COUNTY, MINNESOTA. PROPOSED CONSTRUCTION ACTIVITIES WILL TAKE PLACE NEAR ST. ODILIA SCHOOL. THE APPROXIMATE CENTROID OF THE PROJECT HAS A LATITUDE OF 45.04570 AND A LONGITUDE OF -93.13550.

THIS PROJECT INVOLVES DEBRIS MANAGEMENT, WETLAND EXCAVATION AND EXPANSION, AND VEGETATION IMPROVEMENTS. THE PROJECT AS PROPOSED HAS A TOTAL DISTURBANCE AREA OF 4.41 ACRES. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES ARE REQUIRED TO MINIMIZE SEDIMENT FROM BEING TRANSPORTED INTO THE ONSITE WETLAND. REFER TO PROJECT DRAWINGS FOR FURTHER DETAILS. (CSW PERMIT PART III.A.1)

1.1 PROJECT SIZE AND CUMULATIVE IMPERVIOUS SURFACE:

- THE ANTICIPATED AREA OF DISTURBANCE IS APPROXIMATELY 4.41 ACRES.
- THE TOTAL AREA OF PRE-CONSTRUCTION IMPERVIOUS AREA IS APPROXIMATELY 0 ACRES.
- THE TOTAL AREA OF POST-CONSTRUCTION IMPERVIOUS AREA IS APPROXIMATELY 0.078 ACRES.
- THE TOTAL NEW IMPERVIOUS AREA IS APPROXIMATELY 0.078 ACRES.

1.2 DATES OF CONSTRUCTION:

- ANTICIPATED START DATE: NOVEMBER 2024
- ANTICIPATED END DATE: OCTOBER 2025

1.3 CONTACT INFORMATION:

OWNER: CITY OF SHOREVIEW
MAILING ADDRESS: 4600 VICTORIA ST N, SAINT PAUL, MN, 55126
CONTACT PERSON: TOM WESOLOWSKI — TITLE: PUBLIC WORKS DIRECTOR
PHONE NUMBER: 651-490-4652 — EMAIL ADDRESS: TWESOLOWSKI@SHOREVIEWMN.GOV
ALTERNATE CONTACT PERSON: — TITLE:
PHONE NUMBER: — EMAIL ADDRESS:

OPERATOR / GENERAL CONTRACTOR (WHO WILL OVERSEE IMPLEMENTATION OF THE SWPPP): _____
MAILING ADDRESS: _____
CONTACT PERSON: _____ — TITLE: _____
PHONE NUMBER: _____ — EMAIL ADDRESS: _____

PARTY RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PERMANENT STORMWATER MANAGEMENT SYSTEM:
CITY OF SHOREVIEW
MAILING ADDRESS: 4600 VICTORIA ST N, SAINT PAUL, MN, 55126
CONTACT PERSON: TOM WESOLOWSKI — TITLE: PUBLIC WORKS DIRECTOR
PHONE NUMBER: 651-490-4652 — EMAIL ADDRESS: TWESOLOWSKI@SHOREVIEWMN.GOV

2.0 RECEIVING WATERS:

THERE ARE NO WATERS WITHIN ONE MILE (NEAREST STRAIGHT LINE DISTANCE) THAT ARE LIKELY TO RECEIVE STORMWATER RUNOFF FROM THE PROJECT SITE. (CSW PERMIT ITEM 5.10)

2.1 SPECIAL AND IMPAIRED WATERS: ACCORDING TO THE MPCA'S SPECIAL AND IMPAIRED WATERS SEARCH TOOL, NO SPECIAL OR IMPAIRED WATERS ARE LOCATED WITHIN ONE MILE (AERIAL RADIUS MEASUREMENT) OF THE PROJECT SITE. (CSW PERMIT ITEM 2.7 AND SECTION 23)

THIS PROJECT DOES NOT REQUIRE ANY ADDITIONAL BMPS OR OTHER SPECIFIC CONSTRUCTION RELATED IMPLEMENTATION ACTIVITIES IDENTIFIED IN AN APPROVED TOTAL MAXIMUM DAILY LOAD (TMDL). (CSW PERMIT ITEM 5.19)

2.2 PUBLIC WATERS WITH WORK IN WATER RESTRICTIONS: THIS PROJECT DOES NOT INCLUDE WORK IN PUBLIC WATERS. (CSW PERMIT ITEM 5.11)

2.3 WETLAND IMPACTS: THIS IS A WETLAND RESTORATION PROJECT AND WILL NOT RESULT IN ADVERSE IMPACTS TO WETLANDS. (CSW PERMIT ITEMS 2.4 AND 2.10, AND SECTION 22)

2.4 ENVIRONMENTAL REVIEW AND OTHER REQUIRED REVIEWS: STORMWATER MITIGATION MEASURES ARE NOT REQUIRED AS A RESULT OF AN ENVIRONMENTAL REVIEW (E.G., EAW OR EIS), ENDANGERED OR THREATENED SPECIES REVIEW, ARCHEOLOGICAL SITE REVIEW, OR OTHER LOCAL, STATE, OR FEDERAL REVIEW CONDUCTED FOR THE PROJECT. (CSW PERMIT ITEMS 2.8, 2.9, AND 5.16)

2.5 KARST AREAS OR DRINKING WATER SUPPLY MANAGEMENT AREAS: THIS PROJECT DOES NOT INCLUDE ANY KARST OR DRINKING WATER SUPPLY MANAGEMENT AREAS. (CSW PERMIT ITEMS 16.19, 16.20, AND 18.10)

3.0 PROJECT PLANS AND SPECIFICATIONS:

REQUIRED FEATURE	SHEET NUMBER
• PROJECT LOCATION AND CONSTRUCTION LIMITS	G-01
• EXISTING AND FINAL GRADES, INCLUDING DRAINAGE AREA BOUNDARIES, DIRECTIONS OF FLOW AND ALL DISCHARGE POINTS WHERE STORMWATER IS LEAVING THE SITE OR ENTERING A SURFACE WATER	C-02
• SOIL TYPES AT THE SITE	G-07
• LOCATIONS OF IMPERVIOUS SURFACES	N/A
• LOCATIONS OF AREAS NOT TO BE DISTURBED (E.G., BUFFER ZONES, WETLANDS, ETC.)	G-04,C-02
• LOCATIONS OF AREAS OF STEEP SLOPES	N/A
• LOCATIONS OF AREAS WHERE CONSTRUCTION WILL BE PHASED TO MINIMIZE DURATION OF EXPOSED SOILS	N/A
• PORTIONS OF THE SITE THAT DRAIN TO A PUBLIC WATER WITH DNR WORK IN WATER RESTRICTIONS FOR FISH SPAWNING TIMEFRAMES	N/A
• LOCATIONS OF ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL BMPS AS REQUIRED IN PERMIT SECTIONS 8 THROUGH 10 AND 14 THROUGH 19	G-04
• BUFFER ZONES AS REQUIRED IN PERMIT ITEMS 9.17 AND 23.11	N/A
• LOCATIONS OF POTENTIAL POLLUTION-GENERATING ACTIVITIES IDENTIFIED IN PERMIT SECTION 12	N/A
• STANDARD DETAILS FOR EROSION AND SEDIMENT CONTROL BMPS TO BE INSTALLED AT THE SITE	G-05

4.0 BEST MANAGEMENT PRACTICES (BMPS):

4.1 EROSION PREVENTION PRACTICES:

1. BEFORE LAND DISTURBING ACTIVITIES BEGIN, THE LIMITS OF THE AREAS TO BE DISTURBED DURING CONSTRUCTION WILL BE DELINEATED WITH FLAGS, STAKES, SIGNS, SILT FENCE, ETC.
2. TEMPORARY STABILIZATION OF SOILS AND SOIL STOCKPILES: (CSW PERMIT ITEMS 8.4, 8.5, AND 23.9)
   a. AREAS OF EXPOSED SOIL WILL BE STABILIZED WITH EROSION CONTROL BLANKET, PRESERVATION OF MATURE VEGETATION, MULCH, VEGETATIVE SLASH OR EQUIVALENT MEASURES.
   b. IF PRESENT, SOIL STOCKPILES WILL BE STABILIZED WITH MULCH (SUCH AS STRAW MULCH, SLASH MULCH, WOOD CHIP, OR OTHER APPROPRIATE MULCH) (IF SLOPES ≤3H:1V), COVER MATERIAL SUCH AS TARPS, PLASTIC SHEETING OR EQUIVALENT MEASURES.
   c. TEMPORARY STOCKPILES WITHOUT SIGNIFICANT SILT, CLAY, OR ORGANIC COMPONENTS (E.G., CLEAN AGGREGATE STOCKPILES, DEMOLITION CONCRETE STOCKPILES, SAND STOCKPILES) AND THE CONSTRUCTED BASE COMPONENTS OF ROADS, PARKING LOTS, AND SIMILAR SURFACES ARE EXEMPT FROM THESE STABILIZATION REQUIREMENTS.
2. STABILIZATION OF DITCH AND SWALE WETTED PERIMETERS: (CSW PERMIT ITEMS 8.6 THROUGH 8.8)
   a. IF SOILS WITHIN EXISTING STORMWATER DITCHES OR SWALES ARE DISTURBED, THEY WILL BE STABILIZED WITH CHANNEL EROSION CONTROL BLANKET, RIPRAP, TURF REINFORCEMENT MAT OR EQUIVALENT MEASURES.
   b. MULCH, HYDROMULCH, TACKIFIER, POLYACRYLAMIDE, OR SIMILAR EROSION PREVENTION PRACTICES WILL NOT BE USED TO STABILIZE ANY PART OF AN EXISTING STORMWATER DITCH OR SWALE WITH A CONTINUOUS SLOPE OF GREATER THAN 2 PERCENT.
   c. THE LAST 200 LINEAL FEET OF LENGTH OF THE NORMAL WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DITCH OR SWALE THAT DRAINS WATER FROM ANY PORTION OF THE CONSTRUCTION SITE, OR DIVERTS WATER AROUND THE SITE, WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE, OR FROM THE POINT OF DISCHARGE INTO ANY SURFACE WATER WILL BE STABILIZED WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE.
   d. STABILIZATION OF THE REMAINING PORTIONS OF ANY TEMPORARY OR PERMANENT DITCHES OR SWALES WILL BE COMPLETED WITHIN 14 CALENDAR DAYS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE AND CONSTRUCTION IN THAT PORTION OF THE DITCH HAS TEMPORARILY OR PERMANENTLY CEASED.
3. ENERGY DISSIPATION AT PIPE OUTLETS: ENERGY DISSIPATION AT PIPE OUTLETS WILL BE PROVIDED WITH ONE OR MORE OF THE FOLLOW METHODS: RIP RAP, SPLASH PADS, GABIONS, OR EQUIVALENT MEASURES. (CSW PERMIT ITEM 8.9)
4. EROSION PREVENTION IMPLEMENTATION TIMELINES: (CSW PERMIT ITEMS 5.4, 8.4 THROUGH 8.6, AND 23.9)
   a. STABILIZATION OF EXPOSED SOIL AREAS (INCLUDING STOCKPILES) WILL BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION WHENEVER ANY CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS.
   b. IF THE EXPOSED SOIL AREAS DRAIN TO A DISCHARGE POINT THAT IS WITHIN ONE MILE (AERIAL RADIUS MEASUREMENT) OF A SPECIAL OR IMPAIRED WATER (SEE SECTION 2.0), STABILIZATION OF EXPOSED SOIL AREAS (INCLUDING STOCKPILES) WILL BE INITIATED IMMEDIATELY TO LIMIT SOIL EROSION WHENEVER ANY CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 7 CALENDAR DAYS.
   c. THE FOLLOWING ACTIVITIES CAN BE TAKEN TO INITIATE STABILIZATION: PREPPING THE SOIL FOR VEGETATIVE OR NON-VEGETATIVE STABILIZATION, APPLYING MULCH OR OTHER NON-VEGETATIVE PRODUCT TO THE EXPOSED SOIL AREA, OR SEEDING OR PLANTING THE EXPOSED AREA.
5. ADDITIONAL EROSION PREVENTION MEASURES: THE FOLLOWING ADDITIONAL EROSION PREVENTION METHODS WILL BE IMPLEMENTED AT THE SITE DURING CONSTRUCTION: (CSW PERMIT ITEMS 8.2, 8.3, AND 8.10)
   a. SOIL DISTURBANCE WILL BE MINIMIZED WHEREVER POSSIBLE TO AID IN EROSION PREVENTION.
   b. EXISTING VEGETATION WILL BE PRESERVED WHEREVER POSSIBLE TO LIMIT EXPOSED SOIL AND THUS WILL SERVE AS NATURAL VEGETATIVE BUFFERS.
   c. EXPOSED SOIL ON STEEP SLOPES (≤3H:1V) WILL BE STABILIZED USING EROSION CONTROL BLANKET.
   d. HORIZONTAL SLOPE GRADING WILL BE UTILIZED TO MINIMIZE EROSION POTENTIAL.

4.2 SEDIMENT CONTROL PRACTICES:

1. DOWNGRADIENT PERIMETER CONTROLS: (CSW PERMIT ITEMS 9.2 THROUGH 9.6)
   a. SEDIMENT CONTROL PRACTICES WILL BE ESTABLISHED ON ALL DOWNGRADIENT PERIMETERS AND LOCATED UPGRADIENT OF ANY BUFFER ZONES. PERIMETER SEDIMENT CONTROLS WILL INCLUDE: SILT FENCE, SEDIMENT CONTROL LOGS / BIOROLLS (FILLED WITH COMPOST, WOOD CHIPS, ROCK, ETC.), VEGETATIVE SLASH BARRIERS, OTHER NATIVE MATERIAL BARRIERS, VEGETATIVE BUFFERS (RETAIN EXISTING VEGETATION WHERE POSSIBLE), EARTHEN BERMS, ROCK CHECKS OR EQUIVALENT MEASURES.
   b. PERIMETER SEDIMENT CONTROL PRACTICES MUST BE INSTALLED BEFORE ANY UPGRADIENT LAND-DISTURBING ACTIVITIES BEGIN AND REMAIN IN PLACE UNTIL PERMANENT COVER HAS BEEN ESTABLISHED.
   c. IF SEDIMENT CONTROL PRACTICES HAVE BEEN ADJUSTED OR REMOVED TO ACCOMMODATE SHORT-TERM ACTIVITIES (SUCH AS CLEARING, GRUBBING, OR PASSAGE OF VEHICLES), THE CONTROLS MUST BE RE-INSTALLED IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY HAS BEEN COMPLETED. SEDIMENT CONTROL PRACTICES MUST BE RE-INSTALLED BEFORE THE NEXT PRECIPITATION EVENT, EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE.
   d. IF THE DOWNGRADIENT SEDIMENT CONTROLS ARE OVERLOADED (BASED ON FREQUENT FAILURE OR EXCESSIVE MAINTENANCE REQUIREMENT), INSTALL ADDITIONAL UPGRADIENT SEDIMENT CONTROL PRACTICES OR REDUNDANT BMPS TO ELIMINATE THE OVERLOADING AND AMEND THE SWPPP TO IDENTIFY THESE ADDITIONAL PRACTICES.
2. SOIL STOCKPILE PERIMETER CONTROLS: TEMPORARY SOIL STOCKPILES WILL BE SURROUNDED BY: SILT FENCE, SEDIMENT CONTROL LOGS / BIOROLLS (FILLED WITH COMPOST, WOOD CHIPS, ROCK, ETC.) OR EQUIVALENT MEASURES, AND SHALL NOT BE PLACED IN ANY NATURAL BUFFERS OR SURFACE WATERS.(CSW PERMIT ITEMS 9.9 AND 9.10)
3. STORM DRAIN INLET PROTECTION: (CSW PERMIT ITEMS 9.7 AND 9.8)
   a. INLET PROTECTION BMPS WILL BE INSTALLED AROUND ALL STORM DRAIN INLETS DOWNGRADIENT OF CONSTRUCTION ACTIVITIES.
   b. STORM DRAIN INLETS WILL BE PROTECTED UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED.
   c. INLET PROTECTION BMPS WILL BE: FILTER SACK, ROCK WITH FILTER FABRIC, FILTER FENCE BOX OR EQUIVALENT MEASURES.
4. VEHICLE TRACKING BMPS: (CSW PERMIT ITEMS 9.11 AND 9.12)
   a. VEHICLE TRACKING BMPS WILL BE INSTALLED TO MINIMIZE THE TRACKING OUT OF SEDIMENT FROM THE CONSTRUCTION AREA AND WILL INCLUDE: ROCK PADS, MUD MATS, SLASH MULCH OR AN EQUIVALENT SYSTEM.
   b. IF SUCH VEHICLE TRACKING BMPS ARE NOT ADEQUATE TO PREVENT SEDIMENT FROM BEING TRACKED ONTO THE PAVED ROAD, STREET SWEEPING WILL ALSO BE EMPLOYED. SEDIMENT WILL BE REMOVED BY SWEEPING WITHIN 24 HOURS.
5. PROTECTION OF INFILTRATION AREAS: IF NECESSARY, ADDITIONAL SEDIMENT CONTROLS (E.G., DIVERSION BERMS) WILL BE INSTALLED TO KEEP RUNOFF AWAY FROM PLANNED INFILTRATION AREAS WHEN EXCAVATED PRIOR TO ESTABLISHING PERMANENT COVER WITHIN THE CONTRIBUTING DRAINAGE AREA. (CSW PERMIT ITEMS 16.4 AND 16.5)
6. MINIMIZATION OF SOIL COMPACTION AND PRESERVATION OF TOPSOIL: SOIL COMPACTION WILL BE MINIMIZED AND TOPSOIL WILL BE PRESERVED WHERE POSSIBLE. (CSW PERMIT ITEMS 5.24, 9.14, AND 9.15)
7. PRIORITIZATION OF ONSITE INFILTRATION AND SEDIMENT REMOVAL: (CSW PERMIT ITEM 9.16)
   a. PRIOR TO OFFSITE DISCHARGE, INFILTRATION AND SEDIMENT REMOVAL WILL BE IMPLEMENTED ONSITE WHERE POSSIBLE.
   b. DISCHARGES FROM BMPS WILL BE DIRECTED TO VEGETATED AREAS OF THE SITE (INCLUDING ANY NATURAL BUFFERS) IN ORDER TO INCREASE SEDIMENT REMOVAL AND MAXIMIZE STORMWATER INFILTRATION. IF EROSION IS NOTED TO OCCUR AS THE RESULT OF SUCH A DISCHARGE, VELOCITY DISSIPATION BMPS WILL BE CONSIDERED AND INSTALLED AS NECESSARY TO PREVENT EROSION.
8. BUFFER ZONE OR REDUNDANT SEDIMENT CONTROLS TO PROTECT SURFACE WATERS: (CSW PERMIT ITEM 9.17)
   a. A 50-FOOT NATURAL BUFFER WILL BE PRESERVED IN CONSTRUCTION AREAS DISCHARGING TO A NON-SPECIAL/NON-IMPAIRED SURFACE WATER OR WETLAND. IF A NON-SPECIAL/NON-IMPAIRED SURFACE WATER OR WETLAND IS LOCATED WITHIN 50 FEET OF THE PROJECT'S EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE WATER, OR WHEN A BUFFER IS INFEASIBLE, REDUNDANT SEDIMENT CONTROLS WILL BE PROVIDED.
   b. A 100-FOOT NATURAL BUFFER WILL BE PRESERVED IN CONSTRUCTION AREAS DISCHARGING TO A SPECIAL OR IMPAIRED SURFACE WATER. IF A SPECIAL OR IMPAIRED SURFACE WATER IS LOCATED WITHIN 100 FEET OF THE PROJECT'S EARTH DISTURBANCES AND STORMWATER FLOWS TO THE SURFACE WATER, OR WHEN A BUFFER IS INFEASIBLE, REDUNDANT SEDIMENT CONTROLS WILL BE PROVIDED.
   c. REDUNDANT PERIMETER CONTROLS WILL BE INSTALLED AT LEAST 5 FEET APART UNLESS LIMITED BY LACK OF AVAILABLE SPACE.
9. SEDIMENTATION TREATMENT CHEMICALS: NOT APPLICABLE; USE OF SEDIMENTATION TREATMENT CHEMICALS (E.G., POLYMERS, FLOCCULANTS, ETC.) IS NOT ANTICIPATED AS PART OF THE PROJECT. (CSW PERMIT ITEMS 5.22 AND 9.18)
10. TEMPORARY SEDIMENT BASIN(S): THE PROJECT WILL NOT INCLUDE 10 OR MORE ACRES OF DISTURBED SOIL DRAINING TO A COMMON LOCATION OR 5 OR MORE ACRES DRAINING TO A COMMON LOCATION WITHIN 1 MILE OR A SPECIAL OR IMPAIRED WATER THEREFORE TEMPORARY SEDIMENT BASINS ARE NOT REQUIRED. (CSW PERMIT ITEMS 5.6, 9.13, AND 23.10 AND SECTION 14)

4.3 DEWATERING AND BASIN DRAINING: (CSW PERMIT SECTION 10 AND ITEM 10.5)

   a. THE FOLLOWING WILL BE USED TO TREAT/DISPOSE OF TURBID OR SEDIMENT-LADEN WATER DURING DEWATERING OR BASIN DRAINING: SEDIMENT FILTER BAGS, TEMPORARY SEDIMENTATION BASINS, OR EQUIVALENT MEASURES.
   b. THE EROSION OR SCOUR OF DISCHARGE POINTS DURING DEWATERING OR BASIN DRAINING WTE FOLLOWING WILL BE USED TO PREVENT: DISCHARGING ONTO VEGETATED AREAS, ARMORING, OR EQUIVALENT MEASURES.
   c. FILTERS FOR BACKWASH WATER WILL BE MANAGED ON THE SITE OR PROPERLY DISPOSED OF.

4.4 BMP DESIGN FACTORS:

THE FOLLOWING BMP DESIGN FACTORS HAVE BEEN CONSIDERED IN DESIGNING THE TEMPORARY EROSION PREVENTION AND SEDIMENT CONTROL BMPS:

1. EXPECTED AMOUNT, FREQUENCY, INTENSITY, AND DURATION OF PRECIPITATION.
2. NATURE OF STORMWATER RUNOFF AND RUN-ON AT THE SITE, INCLUDING FACTORS SUCH AS EXPECTED FLOW FROM IMPERVIOUS SURFACES, SLOPES, AND SITE DRAINAGE FEATURES.
3. STORMWATER VOLUME, VELOCITY, AND PEAK FLOW RATES TO MINIMIZE DISCHARGE OF POLLUTANTS IN STORMWATER AND TO MINIMIZE CHANNEL AND STREAMBANK EROSION AND SCOUR IN THE IMMEDIATE VICINITY OF DISCHARGE POINTS.
4. RANGE OF SOIL PARTICLE SIZES EXPECTED TO BE PRESENT.

4.5 BMP QUANTITIES:

ANTICIPATED EROSION PREVENTION AND SEDIMENT CONTROL BMP QUANTITIES NEEDED FOR THE LIFE OF THE PROJECT ARE LISTED IN THE CONTRACT DOCUMENTS.

95% DESIGN DRAFT
NOT FOR CONSTRUCTION

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION
-	-	-	-	———	-

CLIENT	04/24/2024	———	———	———	———	———	———	———
PERMIT	———	———	———	———	———	———	———	———
BID	———	———	———	———	———	———	———	———
CONSTRUCTION	———	———	———	———	———	———	———	———
RECORD	———	———	———	———	———	———	———	———
RELEASED TO/FOR	A	B	C	0	1	2	3	
DATE RELEASED								

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Scale	AS SHOWN
Date	04/24/2024
Drawn	OQR
Checked	JPP
Designed	BARR
Approved	JPP

RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

COTTAGE PLACE WETLAND RESTORATION
SHOREVIEW, MINNESOTA

SWPPP - 1 OF 2
-

BARR PROJECT No.	23/62-1493.00
CLIENT PROJECT No.	
DWG. No.	G-06
REV. No.	A

5.0 PERMANENT STORMWATER MANAGEMENT SYSTEM:

A PERMENANCT STORMWATER MANAGEMENT SYSTEM IS REQUIRED IF THE PROJECT RESULTS IN ONE ACRE OR MORE OF NEW IMPERVIOUS SURFACES OR RESULTS IN A NET INCREASE OF ONE OR MORE ACRES OF CUMMULATIVE NEW IMPERVIOUS SURFACES IN TOTAL OR IF THE PROJECT IS PART OF A LARGER PLAN OF DEVELOPMENT. (CSW PERMIT ITEM 15.3)

5.1 A PERMANENT STORMWATER TREATMENT SYSTEM IS NOT REQUIRED. (CSW PERMIT ITEMS 5.15, 15.4-15.9, AND 23.14)

5.4 THIS IS NOT A LINEAR PROJECT WITH LACK OF RIGHT OR WAY. (CSW PERMIT ITEM 15.9)

5.6 THIS PROJECT DOES NOT DISCHARGE TO A TROUT STREAM (OR A TRIBUTARY TO A TROUT STREAM). (CSW PERMIT ITEM 23.12)

6.0 INSPECTION AND MAINTENANCE ACTIVITIES:

6.1 PERSONS WITH REQUIRED TRAINING: TRAINED INDIVIDUALS INCLUDE THOSE PARTIES RESPONSIBLE FOR INSTALLING, SUPERVISING, REPAIRING, INSPECTING, AND MAINTAINING EROSION PREVENTION AND SEDIMENT CONTROL BMPS AT THE SITE. TRAINED INDIVIDUALS ARE ALSO RESPONSIBLE FOR IMPLEMENTATION OF THE SWPPP AND COMPLIANCE WITH THE GENERAL PERMIT UNTIL THE CONSTRUCTION ACTIVITIES ARE COMPLETE, PERMANENT COVER HAS BEEN ESTABLISHED, AND A NOTICE OF TERMINATION (NOT) HAS BEEN SUBMITTED. (CSW PERMIT ITEMS 5.20, 5.21, AND 11.9 AND SECTION 21)

THESE INDIVIDUALS WILL BE TRAINED IN ACCORDANCE WITH THE REQUIREMENTS OF THE GENERAL PERMIT, INCLUDING THE REQUIREMENT THAT THE CONTENT AND EXTENT OF TRAINING WILL BE COMMENSURATE WITH THE INDIVIDUAL'S JOB DUTIES AND RESPONSIBILITIES.

BELOW IS A LIST OF PEOPLE RESPONSIBLE FOR THIS PROJECT WHO ARE KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMPS.

TRAINED INDIVIDUAL	RESPONSIBILITY	TRAINING ENTITY*	TRAINING DATE
JOSH PHILLIPS	PREPARATION OF THE SWPPP	BARR ENGINEERING CO.	MAY 2023
_____	OVERSIGHT OF SWPPP IMPLEMENTATION, REVISION, AND AMMENDMENT	_____	_____
_____	PERFORMANCE OF SWPPP INSPECTIONS	_____	_____
_____	PERFORMANCE OR SUPERVISION OF INSTALLATION, MAINTENANCE, AND REPAIR OF BMPS	_____	_____

*TRAINING DOCUMENTATION AVAILABLE UPON REQUEST.

6.2 FREQUENCY OF INSPECTIONS: A TRAINED PERSON WILL ROUTINELY INSPECT THE ENTIRE CONSTRUCTION SITE. (CSW PERMIT ITEMS 11.2, 11.10, AND 23.13)

- AT LEAST ONCE EVERY 7 DAYS DURING ACTIVE CONSTRUCTION
- WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS

INSPECTION FREQUENCY MAY BE ADJUSTED UNDER THE FOLLOWING CIRCUMSTANCES:

- WHERE PARTS OF THE CONSTRUCTION AREAS HAVE PERMANENT COVER, BUT WORK REMAINS ON OTHER PARTS OF THE SITE, INSPECTIONS OF THE AREAS WITH PERMANENT COVER MAY BE REDUCED TO ONCE PER MONTH.
- WHERE CONSTRUCTION AREAS HAVE PERMANENT COVER AND NO CONSTRUCTION ACTIVITY IS OCCURRING ON THE SITE, INSPECTIONS CAN BE REDUCED TO ONCE PER MONTH AND, AFTER 12 MONTHS, MAY BE SUSPENDED COMPLETELY UNTIL CONSTRUCTION ACTIVITY RESUMES.
- WHERE CONSTRUCTION ACTIVITY HAS BEEN SUSPENDED DUE TO FROZEN GROUND CONDITIONS, THE INSPECTIONS MAY BE SUSPENDED. THE REQUIRED INSPECTIONS AND MAINTENANCE SCHEDULE MUST BEGIN WITHIN 24 HOURS AFTER RUNOFF OCCURS AT THE SITE OR UPON RESUMING CONSTRUCTION, WHICHEVER COMES FIRST.

6.3 INSPECTION REQUIREMENTS: EACH CONSTRUCTION STORMWATER SITE INSPECTION WILL INCLUDE INSPECTION OF THE FOLLOWING AREAS: (CSW PERMIT ITEMS 11.3 THROUGH 11.8)

- ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS AND POLLUTION PREVENTION MANAGEMENT MEASURES
- SURFACE WATERS FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION
- CONSTRUCTION SITE VEHICLE EXIT LOCATIONS FOR EVIDENCE OF OFFSITE SEDIMENT TRACKING
- STREETS AND OTHER AREAS ADJACENT TO THE PROJECT FOR EVIDENCE OF OFF SITE ACCUMULATIONS OF SEDIMENT

6.4 MAINTENANCE REQUIREMENTS: MAINTENANCE OF THE FOLLOWING AREAS AND BMPS WILL BE PERFORMED AS FOLLOWS: (CSW PERMIT ITEMS 11.3 THROUGH 11.8)

- NONFUNCTIONAL BMPS WILL 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.
- PERIMETER CONTROL DEVICES WILL BE REPAIRED, REPLACED, OR SUPPLEMENTED WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE HEIGHT OF THE DEVICE.
- TEMPORARY AND PERMANENT SEDIMENTATION BASINS WILL BE DRAINED AND THE SEDIMENT REMOVED WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME.
- DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS WILL BE REMOVED, AND THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL WILL BE RE-STABILIZED. THE REMOVAL AND STABILIZATION WILL BE COMPLETED WITHIN 7 CALENDAR DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. IF PRECLUDED DUE TO ACCESS CONSTRAINTS, REASONABLE EFFORTS TO OBTAIN ACCESS WILL BE USED. REMOVAL AND STABILIZATION WILL TAKE PLACE WITHIN 7 CALENDAR DAYS OF OBTAINING ACCESS.
- TRACKED SEDIMENT ON PAVED SURFACES WILL BE REMOVED WITHIN 1 CALENDAR DAY OF DISCOVERY.
- AREAS UNDERGOING STABILIZATION WILL BE RESTABILIZED AS NECESSARY TO ACHIEVE REQUIRED COVER.

6.5 RECORDKEEPING REQUIREMENTS: (CSW PERMIT ITEMS 11.11 AND 24.5 AND SECTIONS 6 AND 20)

1. ALL INSPECTIONS AND MAINTENANCE ACTIVITIES WILL BE RECORDED IN WRITING WITHIN 24 HOURS OF BEING CONDUCTED AND THESE RECORDS WILL BE RETAINED WITH THE SWPPP. RECORDS OF EACH INSPECTION AND MAINTENANCE ACTIVITY WILL INCLUDE THE DATE AND TIME; NAME OF INSPECTOR(S); FINDINGS OF INSPECTIONS; CORRECTIVE ACTIONS (INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES); AND DATE OF ALL RAINFALL EVENTS GREATER THAN 0.5 INCHES IN 24 HOURS AND THE AMOUNT OF RAINFALL FOR EACH EVENT.
   a. IF ANY DISCHARGE IS OBSERVED DURING THE INSPECTION, THE LOCATION AND APPEARANCE OF THE DISCHARGE (I.E., COLOR, ODOR, SETTLED OR SUSPENDED SOLIDS, OIL SHEEN, AND OTHER OBVIOUS INDICATORS OF POLLUTANTS) WILL BE DOCUMENTED AND A PHOTOGRAPH WILL BE TAKEN.
2. THE SWPPP WILL BE AMENDED TO INCLUDE ADDITIONAL OR MODIFIED BMPS TO CORRECT PROBLEMS OR ADDRESS SITUATIONS WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, MAINTENANCE, WEATHER, OR SEASONAL CONDITIONS THAT HAS A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER.
   a. THE SWPPP WILL BE AMENDED WHEN INSPECTIONS OR INVESTIGATIONS BY THE SITE OWNER, OPERATOR, OR CONTRACTORS OR BY USEPA/MPCA OFFICIALS INDICATE THAT THE SWPPP IS NOT EFFECTIVE IN ELIMINATING OR MINIMIZING THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS OR GROUNDWATER; THE DISCHARGES ARE CAUSING WATER QUALITY STANDARD EXCEEDANCES; OR THE SWPPP IS NOT CONSISTENT WITH A USEPA APPROVED TMDL.
   b. ANY AMENDMENTS TO THE SWPPP PROPOSED AS A RESULT OF THE INSPECTION WILL BE DOCUMENTED AS REQUIRED WITHIN 7 CALENDAR DAYS.
   c. AMENDMENTS WILL BE COMPLETED BY AN APPROPRIATELY TRAINED INDIVIDUAL. CHANGES INVOLVING THE USE OF A LESS STRINGENT BMP WILL INCLUDE A JUSTIFICATION DESCRIBING HOW THE REPLACEMENT BMP IS EFFECTIVE FOR THE SITE CHARACTERISTICS.
3. RECORDS RETENTION: THE SWPPP, INCLUDING ALL CHANGES TO IT, AND INSPECTION AND MAINTENANCE RECORDS WILL BE KEPT AT THE SITE DURING CONSTRUCTION BY THE PERMITTEE WHO HAS OPERATIONAL CONTROL OF THE SITE. THE SWPPP CAN BE KEPT IN EITHER A FIELD OFFICE OR IN AN ON SITE VEHICLE DURING NORMAL WORKING HOURS.
4. RECORD AVAILABILITY: THE PERMITTEES WILL MAKE THE SWPPP, INCLUDING INSPECTION REPORTS, MAINTENANCE RECORDS, AND TRAINING RECORDS, AVAILABLE TO FEDERAL, STATE, AND LOCAL OFFICIALS WITHIN THREE DAYS UPON REQUEST FOR THE DURATION OF THE PERMIT COVERAGE AND FOR THREE YEARS FOLLOWING THE NOTICE OF TERMINATION.

7.0 POLLUTION PREVENTION MEASURES:

1. ANY CONSTRUCTION PRODUCTS AND LANDSCAPE MATERIALS THAT HAVE THE POTENTIAL TO LEACH POLLUTANTS WILL BE STORED UNDER COVER (E.G., PLASTIC SHEETING OR TEMPORARY ROOFS) TO PREVENT DISCHARGE OF POLLUTANTS THROUGH MINIMIZATION OF CONTACT WITH STORMWATER. STORAGE OF SUCH MATERIALS WITHIN THE PROJECT AREA WILL BE MINIMIZED TO THE EXTENT POSSIBLE. (CSW PERMIT ITEM 12.2)
2. PESTICIDES, FERTILIZERS, AND TREATMENT CHEMICALS WILL BE STORED UNDER COVER (E.G., PLASTIC SHEETING, TEMPORARY ROOFS, WITHIN A BUILDING, OR IN WEATHER-PROOF CONTAINERS) TO PREVENT DISCHARGE OF POLLUTANTS THROUGH MINIMIZATION OF CONTACT WITH STORMWATER. STORAGE OF SUCH MATERIALS WITHIN THE PROJECT AREA WILL BE MINIMIZED TO THE EXTENT POSSIBLE. (CSW PERMIT ITEM 12.3)
3. HAZARDOUS MATERIALS AND TOXIC WASTE (E.G., OIL, DIESEL FUEL, GASOLINE, HYDRAULIC FLUIDS, PAINT SOLVENTS, PETROLEUM-BASED PRODUCTS, WOOD PRESERVATIVES, ADDITIVES, CURING COMPOUNDS, AND ACIDS) WILL BE STORED AND DISPOSED OF IN COMPLIANCE WITH MINNESOTA RULES CHAPTER 7045, INCLUDING SECONDARY CONTAINMENT (AS APPLICABLE). HAZARDOUS MATERIALS WILL BE PROPERLY STORED IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS, OR OTHER DISCHARGES AND PREVENT PRECIPITATION FROM FALLING ONTO THE CONTAINERS OR STORED HAZARDOUS MATERIALS. (CSW PERMIT ITEMS 2.3 AND 12.4)
4. SOLID WASTE WILL BE COLLECTED, STORED, AND DISPOSED OF PROPERLY IN COMPLIANCE WITH MINNESOTA RULES CHAPTER 7035. THIS INCLUDES STORAGE WITHIN COVERED TRASH CONTAINERS AND DAILY REMOVAL OF LITTER AND DEBRIS. STORAGE OF SOLID WASTE WITHIN THE PROJECT AREA WILL BE MINIMIZED TO THE EXTENT POSSIBLE. (CSW PERMIT ITEM 12.5)
5. PORTABLE TOILETS WILL BE LOCATED AWAY FROM SURFACE WATERS AND POSITIONED AND SECURED TO THE GROUND SO THEY WILL NOT BE TIPPED OR KNOCKED OVER. SANITARY WASTE WILL BE DISPOSED OF IN ACCORDANCE WITH MINNESOTA RULES, CHAPTER 7041. PORTABLE TOILETS WILL BE PERIODICALLY EMPTIED AND THE WASTE HAULED OFF-SITE BY A LICENSED HAULER. (CSW PERMIT ITEM 12.6)
6. VEHICLE FUELING WILL ONLY OCCUR IN DESIGNATED AREAS. SPILL KITS SIZED APPROPRIATELY FOR THE AMOUNT OF REFUELING TAKING PLACE WILL BE LOCATED. SPILL KITS WILL BE CLEARLY LABELED AND CONTAIN MATERIALS TO ASSIST IN SPILL CLEANUP INCLUDING ABSORBENT PADS, BOOMS FOR CONTAINING SPILLS, AND HEAVY-DUTY PROTECTIVE GLOVES. SPILLS WILL BE REPORTED TO THE MINNESOTA DUTY OFFICER AS REQUIRED BY MINNESOTA STATUTES, SECTION 115.061. (CSW PERMIT ITEMS 2.3 AND 12.7)
   a. ANY FUEL TANKS BROUGHT ON-SITE WILL HAVE PROPERLY SIZED CONTAINMENT AND WILL NOT BE TOPPED OFF TO AVOID SPILLS FROM OVERFILLING. FUEL TANKS WILL MEET INDUSTRY STANDARDS (DESIGNED TO HOLD FUEL TYPE, PROPERLY MAINTAINED, NOT ILLEGALLY MODIFIED, NOT MISSING LEAK INDICATOR FLOATS FOR DOUBLE WALLED TANKS, SIGHT GAUGES NOT USED, ETC.) OR BE REMOVED FROM THE WORK AREA.
   b. GUIDELINES FOR SPILL PREVENTION AND RESPONSE INCLUDE:
      - TAKE REASONABLE STEPS TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS, INCLUDING FUEL, FROM ANY AREA WHERE CHEMICALS OR FUEL WILL BE LOADED OR UNLOADED, INCLUDING THE USE OF DRIP PANS OR ABSORBENTS UNLESS INFEASIBLE;
      - PERFORM REGULAR PREVENTATIVE MAINTENANCE ON TANKS AND FUEL LINES;
      - INSPECT PUMPS, CYLINDERS, HOSES, VALVES, AND OTHER MECHANICAL EQUIPMENT ON-SITE FOR DAMAGE OR DETERIORATION;
      - DO NOT WASH OR RINSE FUELING AREAS WITH WATER;
      - MAINTAIN ADEQUATE SUPPLIES TO CLEAN UP DISCHARGED MATERIALS AND PROVIDE AN APPROPRIATE DISPOSAL METHOD FOR RECOVERED SPILLED MATERIALS;
      - REPORT AND CLEAN UP SPILLS IMMEDIATELY AS REQUIRED BY MINNESOTA STATUTES, SECTION 115.061, USING DRY CLEAN UP MEASURES WHERE POSSIBLE; AND
      - MAINTAIN COPIES OF SAFETY DATA SHEETS (SDSS) FOR HAZARDOUS MATERIALS ON-SITE IN LOCATIONS READILY AVAILABLE TO EMERGENCY RESPONDERS.
7. IF VEHICLE AND EQUIPMENT WASHING IS NECESSARY, A VEHICLE WASH STATION WILL BE LOCATED IN A DESIGNATED AREA. RUNOFF FROM THE WASHING AREA WILL BE CONTAINED IN A SEDIMENT BASIN AND WASTE FROM THE WASHING ACTIVITY WILL BE PROPERLY DISPOSED OF. ANY SOAPS, DETERGENTS, OR SOLVENTS WILL BE PROPERLY USED AND STORED. ANY DETERGENTS AND OTHER CLEANERS NOT PERMITTED FOR DISCHARGE WILL NOT BE USED. (CSW PERMIT ITEMS 2.3 AND 12.8)
8. THE PROJECT WILL NOT RESULT IN CONCRETE OR OTHER WASHOUT ACTIVITIES. IF NECESSARY, A DESCRIPTION OF THE STORAGE AND DISPOSAL OF CONCRETE AND OTHER WASHOUT WASTES SO THAT WASTES DO NOT CONTACT THE GROUND WILL BE ADDED. (CSW PERMIT ITEMS 2.3 AND 12.9)

8.0 PERMANENT COVER AND PERMIT TERMINATION CONDITIONS:

1. THE AREAS DISTURBED DURING CONSTRUCTION WILL BE STABILIZED WITH PERMANENT COVER UPON COMPLETION OF WORK. PERMANENT COVER MAY BE VEGETATIVE OR NON-VEGETATIVE, AS APPROPRIATE. ESTABLISHMENT OF PERMANENT COVER MAY INCLUDE THE FOLLOWING ACTIVITIES: ONE OR A COMBINATION OF: SEEDING, MULCHING, EROSION CONTROL BLANKETS, PLACEMENT OF IMPERVIOUS SURFACES, ETC. (CSW PERMIT ITEM 5.17)
2. FOR A CONSTRUCTION-SITE TO ACHIEVE "PERMANENT COVER", THE FOLLOWING REQUIREMENTS MUST BE COMPLETED PRIOR TO TERMINATION OF PERMIT COVERAGE: (CSW PERMIT SECTIONS 4 AND 13)
   a. ALL SOIL DISTURBING CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED AND PERMANENT COVER HAS BEEN INSTALLED OVER ALL AREAS. VEGETATIVE COVER CONSISTS OF A UNIFORM PERENNIAL VEGETATION WITH A DENSITY OF 70% OF ITS EXPECTED FINAL GROWTH. VEGETATION IS NOT REQUIRED WHERE THE FUNCTION OF A SPECIFIC AREA DICTATES NO VEGETATION (SUCH AS IMPERVIOUS SURFACES OR THE BASE OF A SAND FILTER).
   b. ALL SEDIMENT HAS BEEN REMOVED FROM CONVEYANCE SYSTEMS, INCLUDING CULVERTS.
   c. ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMPS HAVE BEEN REMOVED. BMPS DESIGNED TO DECOMPOSE ON-SITE MAY BE LEFT IN PLACE.

WITHIN 30 DAYS AFTER THE TERMINATION CONDITIONS ARE COMPLETE, A NOTICE OF TERMINATION (NOT) FORM WILL BE SUBMITTED TO THE MPCA.

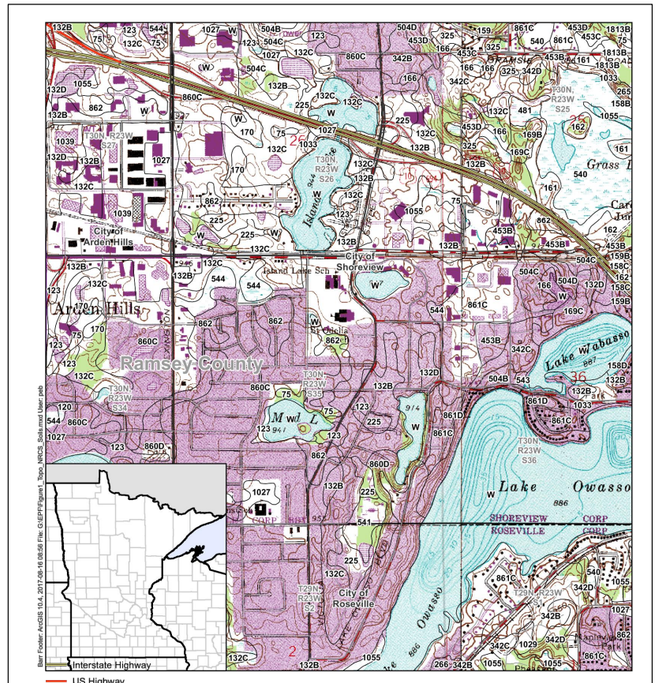

Figure 1

TOPOGRAPHIC MAP WITH
SURFACE WATERS AND SOIL TYPES
Stormwater Pollution Prevention Plan
Ramsey County, Minnesota

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CADD USER: OWEN Q. RICHEY FILE: M:\DESIGN\23621493.00\23621493.00_G-07_SWPPP - 2 OF 2.DWG PLOT SCALE: 1:2 PLOT DATE: 4/24/2024 11:32 AM

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	DATE RELEASED							

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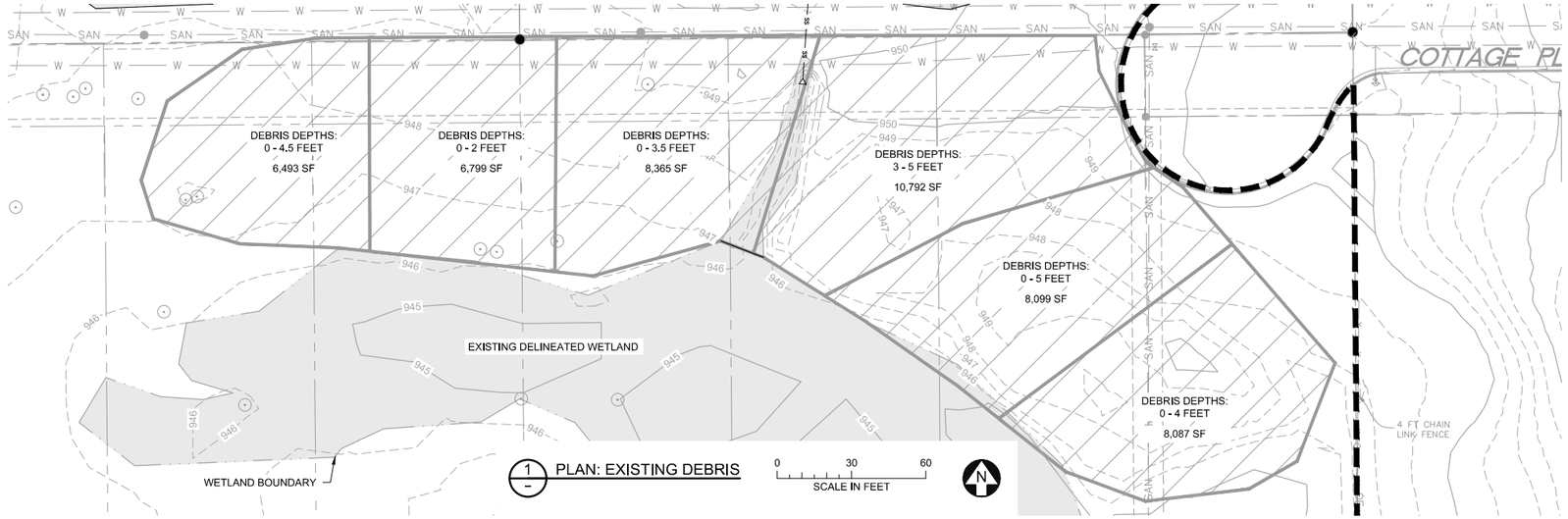
Designed	BARR
Approved	JPP

RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

COTTAGE PLACE WETLAND RESTORATION
SHOREVIEW, MINNESOTA

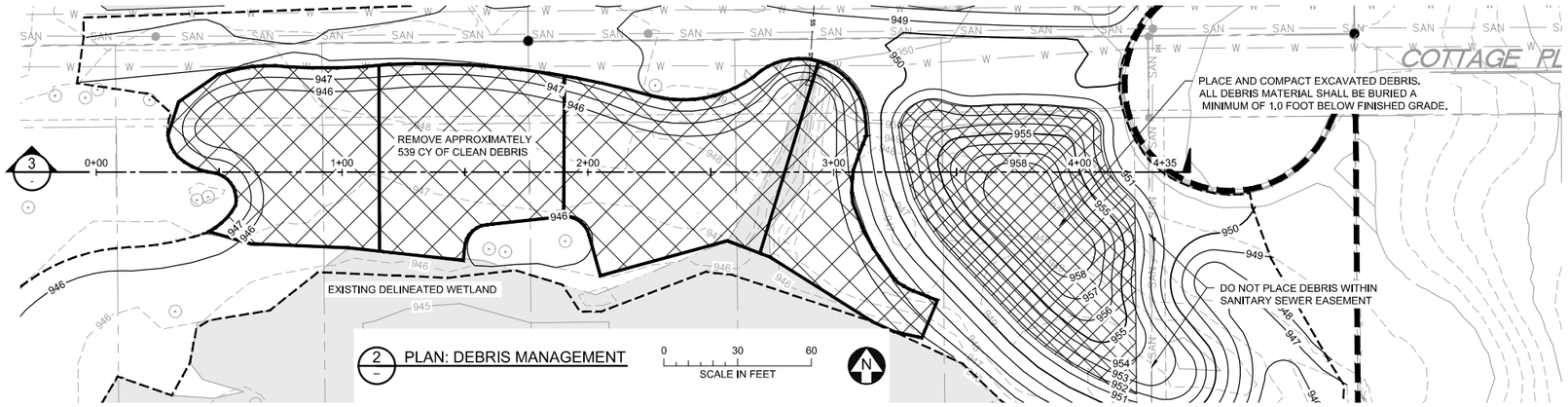
SWPPP - 2 OF 2
-

BARR PROJECT No.	23/62-1493.00
CLIENT PROJECT No.	
DWG. No.	G-07
REV. No.	A



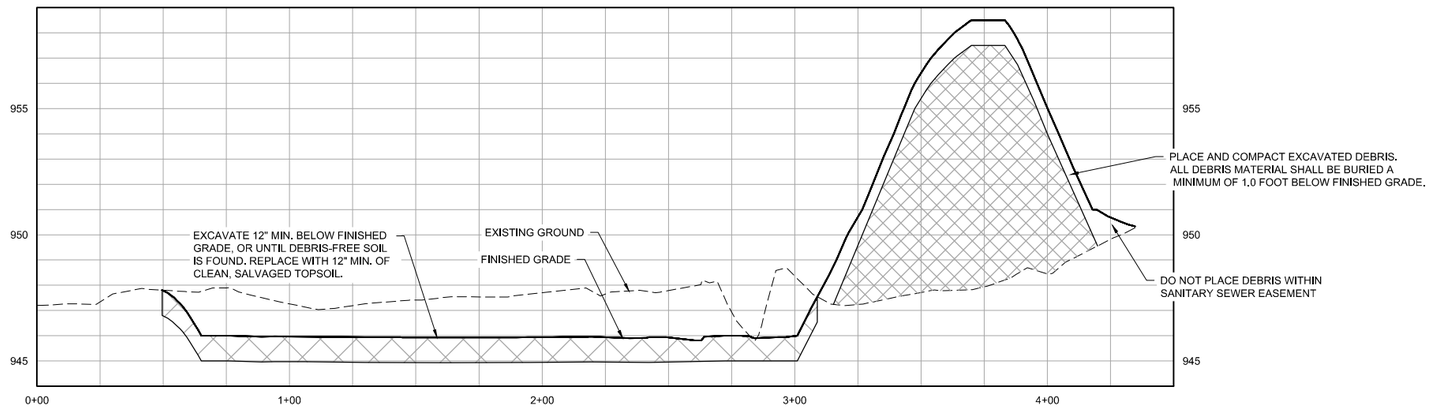
1 — PLAN: EXISTING DEBRIS

0 30 60
SCALE IN FEET



2 — PLAN: DEBRIS MANAGEMENT

0 30 60
SCALE IN FEET



3 — PROFILE: DEBRIS MANAGEMENT

0 30 60
HORIZONTAL SCALE IN FEET

0 3 6
VERTICAL SCALE IN FEET

LEGEND:

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- WETLAND DELINEATION
- EXISTING WATER
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING OVERHEAD ELECTRIC
- PROPERTY LINE
- EXISTING FENCE
- CONSTRUCTION LIMITS
- GRADING LIMITS
- TREE
- MONUMENT
- HYDRANT
- DEBRIS EXTENTS

NOTES:

1. NOTIFY ENGINEER A MINIMUM OF 2 DAYS PRIOR TO DEBRIS REMOVAL ACTIVITIES.
2. SALVAGE AND RETAIN ALL DEBRIS-FREE SOIL AND TOPSOIL FOR USE ON-SITE. BACKFILL SUBCUT FOR DEBRIS REMOVAL WITH DEBRIS-FREE SOIL. RESTORE ALL DEBRIS REMOVAL AREAS WITH A MINIMUM OF 6 INCHES OF CLEAN, SALVAGED TOPSOIL.
3. DO NOT PLACE OR STOCKPILE ANY SOIL OR CONSTRUCTION MATERIALS WITHIN DELINEATED WETLANDS.
4. DISPOSE OF CONCRETE, ASPHALT, AND OTHER CONSTRUCTION DEBRIS LARGER THAN 3" IN DIAMETER OFFSITE IN ACCORDANCE WITH THE SPECIFICATIONS.
5. DISPOSE OF ALL METAL, GLASS, AND WOOD DEBRIS AT AN APPROPRIATE, LICENSED LANDFILL.
6. SALVAGE AND REUSE CONCRETE, ASPHALT, AND OTHER CONSTRUCTION DEBRIS LESS THAN 3" AS FILL. PROVIDE A MINIMUM OF 1 FOOT OF CLEAN SOIL ABOVE ALL BACKFILLED DEBRIS MATERIALS.
7. CONTRACTOR TO SUBMIT DETAILED TRAFFIC PLAN FOR REVIEW AND APPROVAL.
8. CONTRACTOR RESPONSIBLE FOR PROTECTING ALL EXISTING PLANTINGS, TREES, SIDEWALKS, PATHS, CURBS, SITE AMENITIES, AND SIGNAGE UNLESS INDICATED FOR REMOVAL. ANY DAMAGE SHALL BE REPAIRED OR REPLACED AT CONTRACTOR'S EXPENSE.
9. CONTRACTOR TO VERIFY EXISTING STORM SEWER AND CULVERT INVERTS AND DIAMETERS PRIOR TO PERFORMING THE WORK.
10. DEWATERING AND CONTROL OF WATER, INCLUDING TEMPORARY BYPASS OF EXISTING STORMWATER FLOWS REQUIRED TO COMPLETE THE WORK IS CONSIDERED INCIDENTAL.
11. ALL DISTURBED GROUND SHALL BE RESTORED IN ACCORDANCE WITH SITE RESTORATION PLAN.
12. EXCAVATION OF WETLAND AREAS SHALL BE COMPLETED USING A BACKHOE WITH A TOOTHED BUCKET. SCRAPING OR PUSHING OF SOIL IN WETLAND AREAS IS NOT PERMITTED. WHERE POSSIBLE, EXCAVATION SHALL BE DONE FROM THE SIDES AND OUTSIDE THE FOOTPRINT OF THE WETLAND AREAS TO AVOID SOIL COMPACTION.
13. CONTRACTOR SHALL NOT COMPACT THE SUBGRADE BENEATH EXCAVATION AREAS.
14. NATIVE SOILS IN THE EXCAVATION AREAS SHALL BE DECOMPACTED TO A MINIMUM DEPTH OF 12 INCHES BELOW SUBGRADE PRIOR TO FINAL SEEDING.

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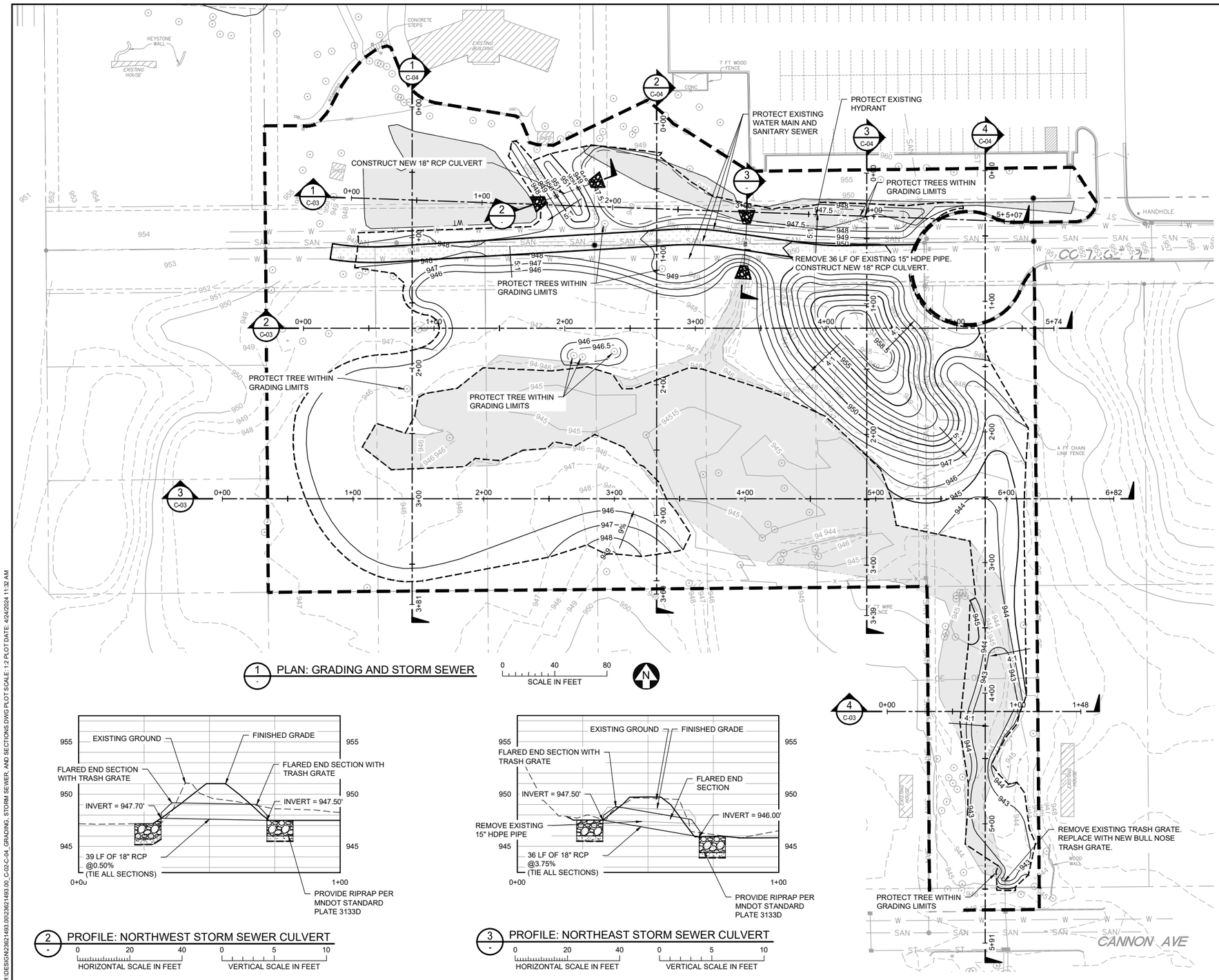
RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

COTTAGE PLACE WETLAND RESTORATION
SHOREVIEW, MINNESOTA

DEBRIS MANAGEMENT PLAN

BARR PROJECT No.	23/62-1493.00
CLIENT PROJECT No.	
DWG. No.	C-01
REV. No.	A



1 - PLAN: GRADING AND STORM SEWER

0 40 80
SCALE IN FEET

2 - PROFILE: NORTHWEST STORM SEWER CULVERT

0 20 40 0 5 10
HORIZONTAL SCALE IN FEET VERTICAL SCALE IN FEET

3 - PROFILE: NORTHEAST STORM SEWER CULVERT

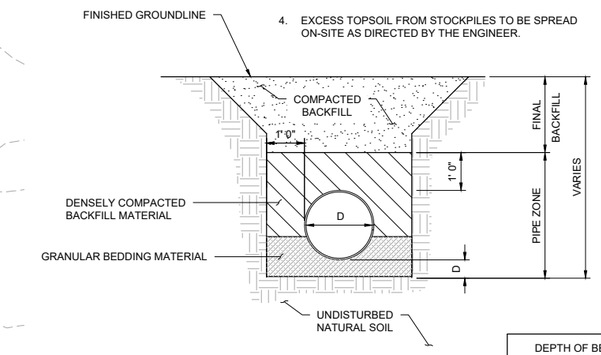
0 20 40 0 5 10
HORIZONTAL SCALE IN FEET VERTICAL SCALE IN FEET

LEGEND:

- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- WETLAND DELINEATION
- EXISTING WATER
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING OVERHEAD ELECTRIC
- PROPERTY LINE
- EXISTING FENCE
- CONSTRUCTION LIMITS
- GRADING LIMITS
- EXISTING BUILDING
- TREE
- MONUMENT
- HYDRANT
- DEBRIS EXTENTS

NOTES:

1. EXCAVATE SOILS TO THE LIMITS INDICATED, USING TECHNIQUES THAT WILL MINIMIZE DISTURBANCE.
2. PLACE LOOSE TOPSOIL WITH LOW GROUND PRESSURE EQUIPMENT, NO RUBBER TIRES ON TOPSOIL AFTER PLACEMENT.
3. ANY COMPACTION OF PREVIOUSLY LOOSENED SOILS MUST BE RE-LOOSENED AT CONTRACTORS EXPENSE.
4. EXCESS TOPSOIL FROM STOCKPILES TO BE SPREAD ON-SITE AS DIRECTED BY THE ENGINEER.



NOTE:
SHAPED SUBGRADE WITH GRANULAR FOUNDATION ALSO PERMITTED

DEPTH OF BEDDING BELOW PIPE	
D	d (MIN.)
27" & LESS	3"
30" to 60"	4"
66" & LARGER	6"

4 - DETAIL: RCP STORM SEWER TRENCH
NOT TO SCALE

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RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

COTTAGE PLACE WETLAND RESTORATION
SHOREVIEW, MINNESOTA

GRADING AND STORM SEWER PLAN
-

BARR PROJECT No.	23/62-1493.00
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DWG. No.	C-02
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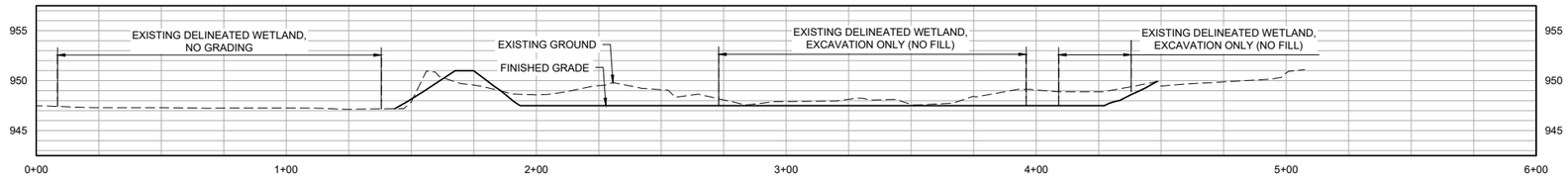
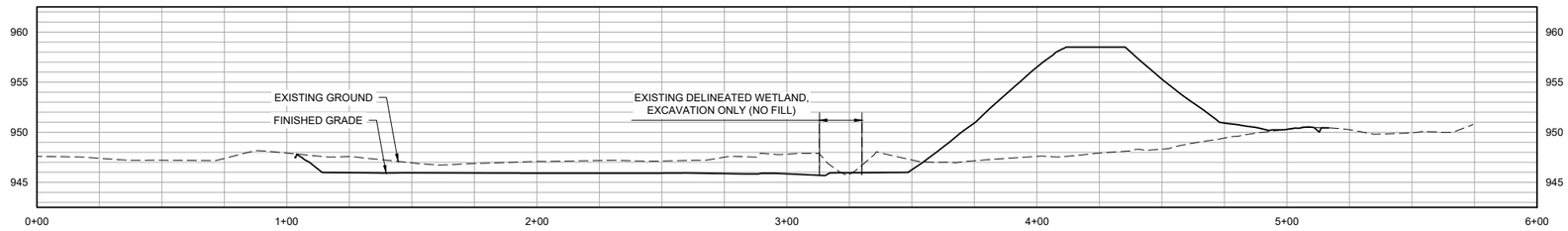


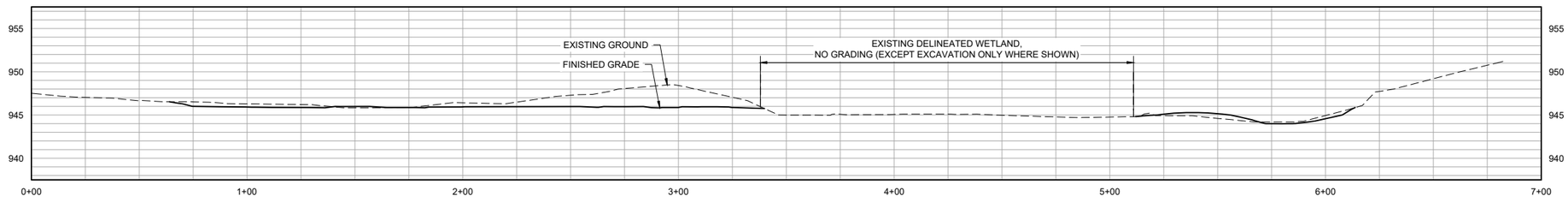
1 - PROFILE: WEST-EAST SECTION 1

0 30 60
SCALE IN FEET



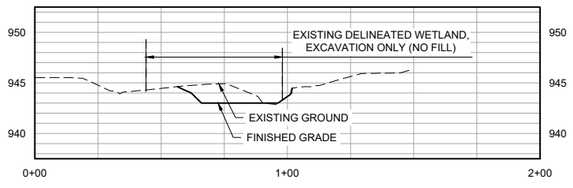
2 - PROFILE: WEST-EAST SECTION 2

0 30 60
SCALE IN FEET



3 - PROFILE: WEST-EAST SECTION 3

0 30 60
SCALE IN FEET



4 - PROFILE: WEST-EAST SECTION 4

0 30 60
SCALE IN FEET

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RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

COTTAGE PLACE WETLAND RESTORATION
SHOREVIEW, MINNESOTA

GRADING SECTIONS
WEST TO EAST

BARR PROJECT No.	
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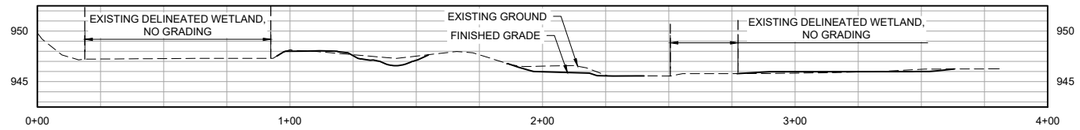
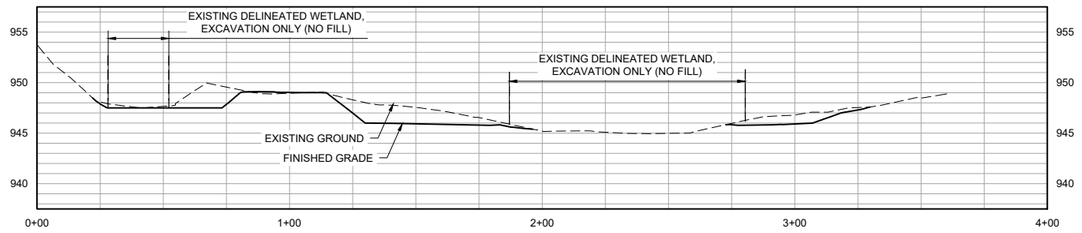
C-03	A



1 - PROFILE: NORTH-SOUTH SECTION 1

0 30 60
SCALE IN FEET



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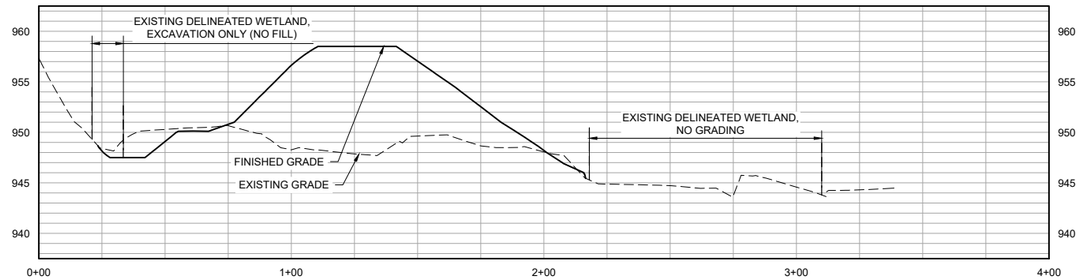

3 - PROFILE: NORTH-SOUTH SECTION 3

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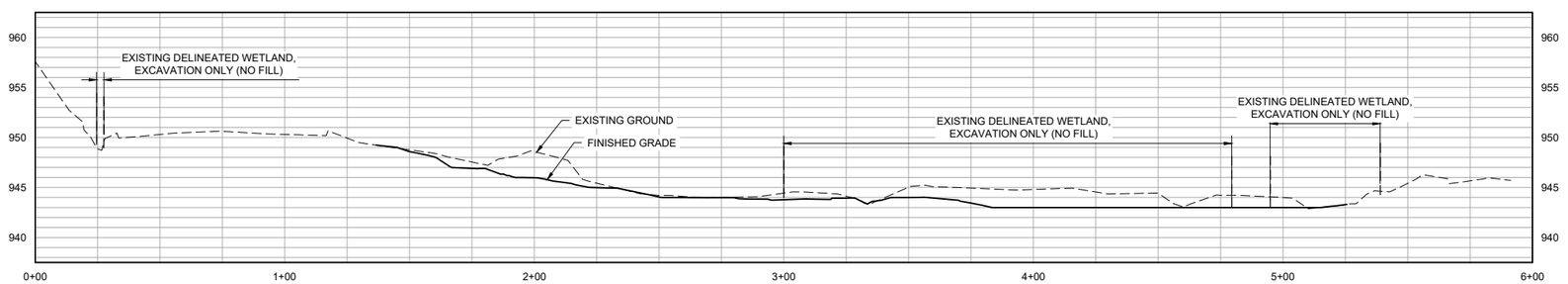
SCALE IN FEET



4 - PROFILE: NORTH-SOUTH SECTION 4

0 30 60
SCALE IN FEET

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RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

COTTAGE PLACE WETLAND RESTORATION
SHOREVIEW, MINNESOTA

GRADING SECTIONS
NORTH TO SOUTH

BARR PROJECT No.	23/62-1493.00
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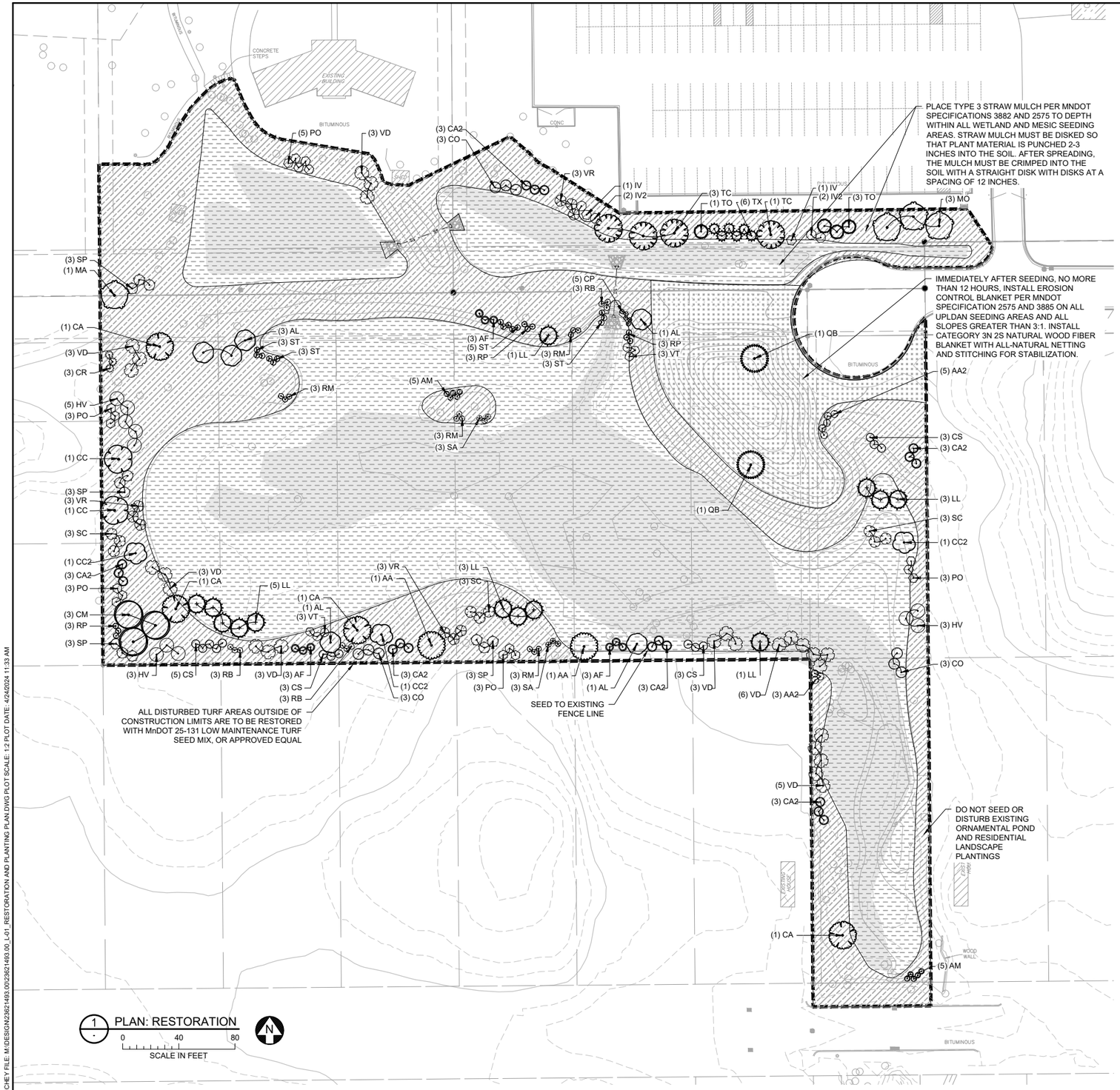

1 PLAN: RESTORATION

0 40 80

SCALE IN FEET

N

LEGEND:

- 950 — EXISTING MAJOR CONTOUR
- 949 — EXISTING MINOR CONTOUR
- WETLAND DELINEATION
- W — EXISTING WATER
- SAN — EXISTING SANITARY SEWER
- ST — EXISTING STORM SEWER
- OE — OE — EXISTING OVERHEAD ELECTRIC
- PROPERTY LINE
- x — x — x — EXISTING FENCE
- CONSTRUCTION LIMITS
- EXISTING BUILDING
- EXISTING PAVEMENT
- EXISTING TREE
- MONUMENT
- HYDRANT
- 950 — PROPOSED MAJOR CONTOUR
- 949 — PROPOSED MINOR CONTOUR
- GRADING LIMITS

NOTES:

1. SEE L-02 FOR SEED MIX, PLUGS, AND GENERAL SITE RESTORATION NOTES.
2. SEE SHEET L-03 FOR TREE AND SHRUB PLANTING DETAILS.

PLANT SCHEDULE

SYMBOL	CODE	COMMON NAME	BOTANICAL NAME	SIZE	CONTAINER	QTY
TREES						
	AL	ALLEGHENY SERVICEBERRY	AMELANCHIER LAEVIS	#10	CONT.	6
	CC2	AMERICAN HORNBEAM MULTI-TRUNK	CARPINUS CAROLINIANA	#10	CONT.	3
	CM	BIG-FRUIT HAWTHORN	CRATAEGUS MACROSPERMA	#10	CONT.	3
	AA	DOWNY SERVICEBERRY	AMELANCHIER ARBOREA	#10	CONT.	2
	TC	EASTERN HEMLOCK	TSUGA CANADENSIS	#10	CONT.	4
	CC	NORTHERN STRAIN EASTERN REDBUD	CERCIS CANADENSIS 'NORTHERN STRAIN'	#10	CONT.	2
	CA	PAGODA DOGWOOD	CORNUS ALTERNIFOLIA	#10	CONT.	4
	MA	SPRING SNOW CRABAPPLE	MALUS X 'SPRING SNOW'	#10	CONT.	4
	QB	SWAMP WHITE OAK	QUERCUS BICOLOR	#10	CONT.	2
	LL	TAMARACK	LARIX LARICINA	#10	CONT.	13
	TX	TAUNTON YEW	TAXUS X MEDIA 'TAUNTONII'	#10	CONT.	6
	TO	TECHNY ARBORVITAE	THUJA OCCIDENTALIS 'TECHNY'	#10	CONT.	4
SHRUBS						
	VT	AMERICAN CRANBERRYBUSH	VIBURNUM TRILOBUM	#5	CONT.	6
	SC	AMERICAN ELDERBERRY	SAMBUCUS CANADENSIS	#2	CONT.	9
	CA2	AMERICAN HAZELNUT	CORYLUS AMERICANA	#5	CONT.	18
	SP	AMERICAN RED ELDER	SAMBUCUS PUBENS	#2	CONT.	12
	AM	BLACK CHOKEBERRY	ARONIA MELANOCARPA	#5	CONT.	10
	CO	BUTTONBUSH	CEPHALANTHUS OCCIDENTALIS	#5	CONT.	9
	PO	COMMON NINEBARK	PHYSOCARPUS OPULIFOLIUS	#5	CONT.	17
	SA	COMMON WHITE SNOWBERRY	SYMPHORICARPOS ALBUS	#2	CONT.	6
	HV	COMMON WITCH HAZEL	HAMAMELIS VIRGINIANA	#5	CONT.	11
	VR	DOWNY ARROWWOOD	VIBURNUM RAFINESQUIANUM	#2	CONT.	9
	AF	FALSE INDIGO	AMORPHA FRUTICOSA	#2	CONT.	9
	IV	JIM DANDY WINTERBERRY	ILEX VERTICILLATA 'JIM DANDY'	#5	CONT.	2
	RB	MEADOW ROSE	ROSA BLANDA	#5	CONT.	9
	RM	MISSOURI GOOSEBERRY	RIBES MISSOURIENSE	#5	CONT.	12
	VD	NANNYBERRY	VIBURNUM DENTATUM	#5	CONT.	26
	IV2	RED SPRITE WINTERBERRY	ILEX VERTICILLATA 'NANA'	#5	CONT.	4
	CS	RED TWIG DOGWOOD	CORNUS SERICEA	#2	CONT.	14
	CR	ROUND-LEAVED DOGWOOD	CORNUS RUGOSA	#2	CONT.	3
	AA2	SERVICEBERRY	AMELANCHIER ALNIFOLIA	#5	CONT.	8
	ST	STEEPLEBUSH	SPIRAEA TOMENTOSA	#2	CONT.	14
	RP	SWAMP ROSE	ROSA PALUSTRIS	#2	CONT.	9
	CP	SWEET FERN	COMPTONIA PEREGRINA	#5	CONT.	5
SEED						
	WETLAND SEED MIX	119,839 SF				
	MESIC SEED MIX	83,950 SF				
	UPLAND SEED MIX	16,691 SF				

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RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

COTTAGE PLACE WETLAND RESTORATION
SHOREVIEW, MINNESOTA

RESTORATION AND PLANTING PLAN
-

BARR PROJECT No.	23/62-1493.00
CLIENT PROJECT No.	
DWG. No.	L-01
REV. No.	A

CADD USER: OWEN Q. RICHEY FILE: M:\DESIGN\23621493.00\23621493.00_L-01_RESTORATION AND PLANTING PLAN.DWG PLOT SCALE: 1:2 PLOT DATE: 4/24/2024 11:33 AM

Upland			
Common Name	**Scientific Name**	**PLS Rate (lb/ac)**	**% of Mix (by weight)**
Sideoats Grama	*Bouteloua curtipendula*	1.75	4.8%
Blue Grama	*Bouteloua gracilis*	2.00	5.5%
Purple Love Grass	*Eragrostis spectabilis*	0.03	0.1%
June Grass	*Koeleria macrantha*	0.40	1.1%
Little Bluestem	*Schizachyrium scoparium*	2.50	6.9%
Prairie Dropseed	*Sporobolus heterolepis*	0.40	1.1%
	Grasses Subtotal	**7.08**	**20%**
Prairie onion	*Allium stellatum*	0.09	0.2%
Lead Plant	*Amorpha canescens*	0.08	0.2%
Pearly Everlasting	*Anaphalis margaritacea*	0.02	0.1%
Pasque Flower	*Anemone patens wolfgangiana*	0.05	0.1%
Pussytoes	*Antennaria plantaginifolia*	0.05	0.1%
Columbine	*Aquilegia canadensis*	0.09	0.2%
Purple Milkwed	*Asclepias purpurascens*	0.10	0.3%
Butterfly weed	*Asclepias tuberosa*	0.50	1.4%
Partridge Pea	*Chamaecrista fasciculata*	1.00	2.8%
Purple Prairie Clover	*Dalea purpureum*	0.10	0.3%
Narrow-Leaved Coneflower	*Echinacea angustifolia*	0.30	0.8%
Prairie Smoke	*Geum triflorum*	0.03	0.1%
Alum Root	*Heuchera richardsonii*	0.02	0.1%
Button Blazing Star	*Liatris aspera*	0.06	0.2%
Wild Lupine	*Lupinus perennis*	0.80	2.2%
Spotted Bee Balm	*Monarda punctata*	0.05	0.1%
Large-flowered Beardtongue	*Penstemon grandiflorus*	0.10	0.3%
Black-Eyed Susan	*Rudbeckia hirta*	0.06	0.2%
Compass Plant	*Silphium laciniatum*	0.50	1.4%
Gray Goldenrod	*Solidago nemoralis*	0.01	0.0%
Aromatic aster	*Symphyotrichum oblongifolium*	0.04	0.1%
Prarie Spiderwort	*Tradescantia bracteata*	0.06	0.2%
	Forbs Subtotal	**4.11**	**11%**
Oats (April-August) Winter Wheat (Sept.-Nov)	*Avena sativa*	25.00	69.1%
	Total Cover Crop	**25.00**	**69%**
	Total	**36.19**	**100%**

Mesic				
Common Name	**Scientific Name**	**PLS Rate (lb/ac)**	**% of Mix (by weight)**	
Big Bluestem	*Andropogon gerardii*	1.00	2.3%	
Kalm's Brome	*Bromus kalmii*	0.50	1.1%	
Hairy Wood Chess	*Bromus pubescens*	1.00	2.3%	
Riverbank Wild Rye	*Elymus riparius*	1.00	2.3%	
Silky wild rye	*Elymus villosus*	0.75	1.7%	
Virginia Wild Rye	*Elymus virginicus*	0.50	1.1%	
Fowl Manna Grass	*Glyceria striata*	0.06	0.1%	
Switchgrass	*Panicum virgatum*	0.80	1.8%	
Little Bluestem	*Schizachyrium scoparium*	1.80	4.1%	
Indian Grass	*Sorghastrum nutans*	0.75	1.7%	
Prairie Cordgrass	*Spartina pectinata*	0.30	0.7%	
	Grasses Subtotal	**8.46**	**19%**	
Common Wood Sedge	*Carex blanda*	0.12	0.3%	
Plains Oval Sedge	*Carex brevior*	0.15	0.3%	
Ivory Sedge	*Carex eburnea*	0.13	0.3%	
Field Oval Sedge	*Carex molesta*	0.13	0.3%	
Palm Sedge	*Carex muskingumensis*	0.20	0.5%	
Wooly Sedge	*Carex pellita*	0.30	0.7%	
Long-beaked Sedge	*Carex sprengelii*	0.30	0.7%	
Fox Sedge	*Carex vulpinoidea*	0.08	0.2%	
Path Rush	*Juncus tenuis*	0.05	0.1%	
	Sedges & Rushes Subtotal	**1.45**	**3%**	
Fragrant Hyssop	*Agastache foeniculum*	0.05	0.1%	
Canada Anemone	*Anemone canadensis*	1.00	2.3%	
Tall Thimbleweed	*Anemone virginiana*	0.19	0.4%	
Columbine	*Aquilegia canadensis*	0.19	0.4%	
Jack-in-the-Pulpit	*Arisaema triphyllum*	3.00	6.9%	
Butterfly Milkweed	*Asclepias tuberosa*	0.10	0.2%	
Whorled Milkweed	*Asclepias verticillata*	0.03	0.1%	
Tall Bellflower	*Campanula americana*	0.15	0.3%	
Partridge Pea	*Chamaecrista fasciculata*	1.00	2.3%	
Big-leaved Aster	*Eurybia macrophylla*	0.08	0.2%	
Wild Geranium	*Geranium maculatum*	0.13	0.3%	
Ox-eye	*Heliopsis helianthoides*	0.04	0.1%	
Virginia Waterleaf	*Hydrophyllum virginianum*	0.06	0.1%	
Rough Blazing Star	*Liatris aspera*	0.05	0.1%	
Meadow Blazing Star	*Liatris ligulistylis*	0.05	0.1%	
Cardinal Flower	*Lobelia cardinalis*	0.06	0.1%	
Great Blue Lobelia	*Lobelia siphilitica*	0.06	0.1%	
Wild Lupine	*Lupinus perennis*	0.60	1.4%	
Solomon's Plume	*Maianthemum racemosum*	0.50	1.1%	
Wild Mint	*Mentha arvensis*	0.01	0.0%	
Wild Bergamot	*Monarda fistulosa*	0.03	0.1%	
Solomon's Seal	*Polygonatum biflorum*	0.31	0.7%	
Virginia mountain mint	*Pycnanthemum virginianum*	0.04	0.1%	
Black-eyed Susan	*Rudbeckia hirta*	0.31	0.7%	
Zig Zag Goldenrod	*Solidago flexicaulis*	0.05	0.1%	
Heart-leaved Aster	*Symphyotrichum cordifolium*	0.19	0.4%	
Smooth Aster	*Symphyotrichum laeve*	0.04	0.1%	
Tall Meadow Rue	*Thalctrum dasycarpum*	0.13	0.3%	
Early Meadow Rue	*Thalictrum dioicum*	0.20	0.5%	
Ohio Spiderwort	*Tradescantia ohiensis*	0.02	0.0%	
Heart-leaf Golden Alexanders	*Zizia aptera*	0.10	0.2%	
	Forbs Subtotal	**8.77**	**20%**	
Oats (April-August) Winter Wheat (Sept.-Nov)	*Avena sativa*	25.00	57.2%	
	Total Cover Crop	**25.00**	**57%**	
	Total	**43.68**	**100.0%**	

Wetland			
Common Name	**Scientific Name**	**PLS Rate (lb/ac)**	**% of Mix (by weight)**
Big Bluestem	*Andropogon gerardii*	0.75	5.2%
Canada Blue Joint Grass	*Calamagrostis canadensis*	0.10	0.7%
Canada Wild Rye	*Elymus canadensis*	0.50	3.4%
Riverbank Wild Rye	*Elymus riparius*	0.50	3.4%
American Manna Grass	*Glyceria grandis*	0.25	1.7%
Fowl Manna Grass	*Glyceria striata*	0.20	1.4%
Rice Cut Grass	*Leersia oryzoides*	0.25	1.7%
Fowl Bluegrass	*Poa palustris*	0.40	2.8%
Prairie Cordgrass	*Spartina pectinata*	0.75	5.2%
	Grasses Subtotal	**3.70**	**25.5%**
Common Wood Sedge	*Carex blanda*	0.10	0.7%
Plains Oval Sedge	*Carex brevior*	0.08	0.6%
Crested Oval Sedge	*Carex cristatella*	0.12	0.8%
Slender Wood Sedge	*Carex gracilescens*	0.08	0.6%
Wood Gray Sedge	*Carex grisea*	0.13	0.9%
Lake Sedge	*Carex lacustris*	0.13	0.9%
Field Oval Sedge	*Carex molesta*	0.10	0.7%
Wooly Sedge	*Carex pellita*	0.08	0.6%
Long-beaked Sedge	*Carex sprengelii*	0.13	0.9%
Tussock Sedge	*Carex stricta*	0.04	0.3%
Fox Sedge	*Carex vulpinoidea*	0.30	2.1%
Great Spike Rush	*Eleocharis palustris*	0.13	0.9%
Common Rush	*Juncus effusus*	0.08	0.6%
Green Bulrush	*Scirpus atrovirens*	0.40	2.8%
Wool Grass	*Scirpus cyperinus*	0.08	0.6%
	Sedges & Rushes Subtotal	**1.98**	**13.6%**
Red Baneberry	*Actaea rubra*	0.15	1.0%
Angelica	*Angelica atropurpurea*	0.09	0.6%
Swamp Milkweed	*Asclepias incarnata*	0.40	2.8%
Bur Marigold	*Bidens cernua*	0.13	0.9%
Beggarticks	*Bidens frondosa*	0.15	1.0%
False Aster	*Boltonia asteroides*	0.06	0.4%
Flat-Topped Aster	*Doellingeria umbellata*	0.03	0.2%
Rattlesnake Master	*Eryngium yuccifolium*	0.40	2.8%
Boneset	*Eupatorium perfoliatum*	0.15	1.0%
Grass-Leaved Goldenrod	*Euthamia graminifolia*	0.02	0.1%
Joe-Pye Weed	*Eutrochium maculatum*	0.08	0.6%
Sneezeweed	*Helenium autumnale*	0.08	0.6%
Sawtooth Sunflower	*Helianthus grosseserratus*	0.06	0.4%
Spotted Touch Me Not	*Impatiens capensis*	0.10	0.7%
Cardinal Flower	*Lobelia cardinalis*	0.06	0.4%
Great Blue Lobelia	*Lobelia siphilitica*	0.06	0.4%
Fringed Loosestrife	*Lysimachia ciliata*	0.04	0.3%
Swamp Candles	*Lysimachia terrestris*	0.04	0.3%
Monkey Flower	*Mimulus ringens*	0.05	0.3%
Virginia mountain mint	*Pycnanthemum virginianum*	0.04	0.3%
New England Aster	*Symphyotrichum novae-angliae*	0.08	0.6%
Ironweed	*Vernonia fasciculata*	0.10	0.7%
Culver's Root	*Veronicastrum virginicum*	0.06	0.4%
Golden Alexander	*Zizia aurea*	0.40	2.8%
	Forbs Subtotal	**2.83**	**19.5%**
Oats (April-August) Winter Wheat (Sept.-Nov)	*Avena sativa*	6.00	41.4%
	Total Cover Crop	**6.00**	**41.4%**
	Total	**14.51**	**100.0%**

Plugs			
Common Name	**Scientific Name**	**Size**	**Quantity**
Sweetflag	*Acorus calamus*	Plug	54
Red Baneberry	*Actaea rubra*	Plug	36
Lead Plant	*Amorpha canescens*	Plug	24
Columbine	*Aquilegia canadensis*	Plug	54
Spikenard	*Aralia racemosa*	Plug	36
Jack-in-the-Pulpit	*Arisaema triphyllum*	Plug	54
Wild Ginger	*Asarum canadense*	Plug	90
Purple Milkweed	*Asclepias purpurascens*	Plug	24
White Wild Indigo	*Baptisia alba*	Plug	18
Marsh marigold	*Caltha palustris*	Plug	24
Bebb's Sedge	*Carex bebbii*	Plug	54
Ivory Sedge	*Carex eburnea*	Plug	96
Common Bur Sedge	*Carex grayi*	Plug	54
Porcupine Sedge	*Carex hystericina*	Plug	54
Pennsylvania Sedge	*Carex pensylvanica*	Plug	54
Palm Sedge	*Carex muskingumensis*	Plug	54
Fox Sedge	*Carex vulpinoidea*	Plug	96
Blue Cohosh	*Caulophyllum thalictroides*	Plug	24
Purple Prairie Clover	*Dalea purpurea*	Plug	24
Elliptic Spikerush	*Eleocharis elliptica*	Plug	54
Rattlesnake Master	*Eryngium yuccifolium*	Plug	54
Dudley's rush	*Juncus dudleyi*	Plug	24
Torrey's Rush	*Juncus torreyi*	Plug	24
Wild Golden Glow	*Rudbeckia laciniata*	Plug	54
Bloodroot	*Sanguinaria canadensis*	Plug	54
Bellwort	*Uvularia grandiflora*	Plug	36
		Total	1224

SITE RESTORATION NOTES

1. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND FIELD-VERIFYING ALL EXISTING UTILITIES PRIOR TO INITIATING WORK ON THE SITE AND THROUGHOUT THE TERM OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING UTILITIES FROM DAMAGE DURING ALL SITE RESTORATION AND PLANTING OPERATIONS.
2. CONSTRUCTION LIMITS AS SHOWN ARE APPROXIMATE. FINAL CONSTRUCTION LIMITS TO BE COORDINATED WITH THE OWNER AND STAKED IN THE FIELD.
3. CONTRACTOR SHALL TAKE PRECAUTIONS TO MINIMIZE THE TRANSFER OF AQUATIC AND TERRESTRIAL INVASIVE SPECIES TO THE MAXIMUM EXTENT POSSIBLE.
4. ALL EXISTING TREES SHALL BE PROTECTED DURING CONSTRUCTION, UNLESS IDENTIFIED FOR REMOVAL PER PLAN OR AS DIRECTED IN THE FIELD BY THE ENGINEER.
5. ALL EXISTING TREES TO REMAIN, TREE ROOTS, PLANTING BEDS, CONCRETE, ASPHALT, EXISTING CURBS, PAVEMENT, SIDEWALKS, AND OTHER SITE ELEMENTS SHALL BE PROTECTED FROM IMPACTS FROM ALL SOIL PREPARATION AND LANDSCAPING OPERATIONS. AVOID COMPACTING SOIL WITH HEAVY EQUIPMENT. ANY DAMAGE TO EXISTING SITE FEATURES, STRUCTURES, OR NEWLY CONSTRUCTED ITEMS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE AND TO THE OWNER'S SATISFACTION.
6. PROTECT PLANTS ON THE SITE FROM STRESS PRIOR TO INSTALLATION BY PLACING IN SHADE, HEELING INTO MULCH, WATERING, AND USE OF OTHER APPROPRIATE MEASURES.
7. ANY COMPACTION OF PREVIOUSLY LOOSENED SOIL MUST BE RELOOSENED PRIOR TO TOPSOILING OR PLANT INSTALLATION. SEE LANDSCAPE SPECIFICATION FOR ADDITIONAL REQUIREMENTS.
8. STAKE OR OTHERWISE LAYOUT ALL INDIVIDUAL/SPECIMEN TREES AND SHRUBS AS SHOWN ON PLAN, DETAILS, AND PLANT SCHEDULE. SOME FIELD ADJUSTMENT MAY BE NECESSARY. LANDSCAPE ARCHITECT TO REVIEW PLANT LAYOUT PRIOR TO PLANTING. INFORM THE LANDSCAPE ARCHITECT OF PLANTING A MINIMUM OF THREE (3) DAYS PRIOR TO PLANT DELIVERY.
9. THOROUGHLY WATER ALL PLANTINGS WITHIN 2 HOURS AFTER INSTALLATION, SEE PROJECT SPECIFICATIONS.
10. CONTRACTOR IS RESPONSIBLE FOR WATERING PLANTS (REGARDLESS OF NOTIFICATION) THROUGHOUT THE ENTIRE WARRANTY PERIOD. WATERING WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
11. NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES BETWEEN PLANS, SPECIFICATIONS, AND/OR FIELD CONDITIONS ENCOUNTERED.
12. THE CONTRACTOR WILL TREAT THE ENTIRE SITE WITH APPROPRIATE SELECTIVE AND NON-SELECTIVE HERBICIDE USING MANUFACTURER RECOMMENDED RATES TO ELIMINATE ALL UNWANTED VEGETATION. CONTRACTOR WILL PROTECT SURROUNDING AND ALL DESIRED NATIVE VEGETATION IN THE SITE AREA DURING TREATMENT.
13. REFER TO WRITTEN SPECIFICATIONS FOR ADDITIONAL INFORMATION. IN THE CASE OF ANY DISCREPANCIES BETWEEN DETAILS, PLANS, AND/OR SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN.
14. PLUGS TO BE PLACED IN THE FIELD WITH DIRECTION FROM LANDSCAPE ARCHITECT.

95% DESIGN DRAFT
NOT FOR CONSTRUCTION

NO.	BY	CHK	APP.	DATE	REVISION DESCRIPTION
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CLIENT	04/24/2024	———	———	———	———	———	———	———
PERMIT	———	———	———	———	———	———	———	———
BID	———	———	———	———	———	———	———	———
CONSTRUCTION	———	———	———	———	———	———	———	———
RECORD	———	———	———	———	———	———	———	———
RELEASED TO/FOR	A	B	C	0	1	2	3	
DATE RELEASED								

BARR
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Scale	AS SHOWN
Date	04/24/2024
Drawn	EMB
Checked	BHD
Designed	BARR
Approved	BHD

RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

COTTAGE PLACE WETLAND RESTORATION
SHOREVIEW, MINNESOTA

RESTORATION AND PLANTING NOTES
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BARR PROJECT No.	23/62-1493.00
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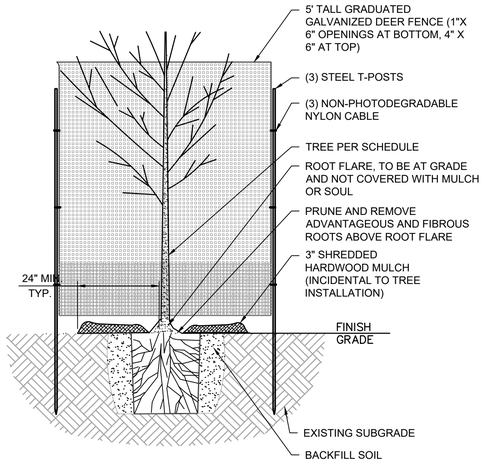


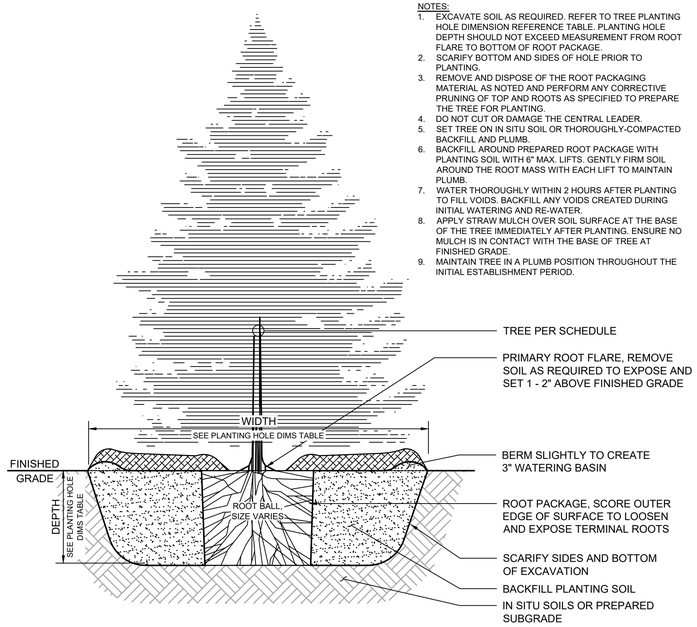
TREE PLANTING NOTES:

1. PROVIDE AND INSTALL PLANTS PER SCHEDULE.
2. ALL DECIDUOUS TREES SHALL BE ENCLOSED BY GALVANIZED DEER FENCING TO PROTECT FROM ANIMAL BROWSING. TREE PROTECTION SHALL BE CONSIDERED INCIDENTAL TO TREE PLANTING
3. REMOVE DEAD OR DAMAGED BRANCHES. RETAIN THE NATURAL FORM OF PLANT. DO NOT CUT THE LEADER
4. IF ROOT FLARE IS NOT EXPOSED WITHIN THE CONTAINER EXCAVATE SURFACE SOIL TO BASE OF ROOT FLARE.
5. DIG PLANT HOLES 6" MIN. LARGER THAN ROOT MASS, ALL SIDES.
6. SCARIFY BOTTOM AND SIDES OF HOLE PRIOR TO PLANTING
7. SET TREE ON LIGHTLY FIRMED BACKFILL SOIL SO ROOT FLARE IS EVEN WITH FINISH GRADE.
8. BACKFILL WITH PLANTING SOIL AND FIRM SOIL AROUND ROOT MASS TO MAINTAIN PLUMB AND ENSURE NO AIR GAPS AROUND ROOT MASS.
9. CONSTRUCT 3" WATERING BASIN. THOROUGHLY WATER WITHIN 3 HOURS OF INSTALLATION.
10. PLACE SHREDDED HARDWOOD MULCH (MN/DOT SPEC 3882.2 TYPE 6 - WEED SEED FREE SHREDDED HARDWOOD.) TO A RADIUS OF 24" AND TO A DEPTH OF 3" AROUND TREE (SOIL PREPARED AS PER PLAN).
11. NO MULCH TO BE IN CONTACT WITH BASE OF PLANT.
12. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TREES IN A PLUMB POSITION THROUGHOUT THE GUARANTEE PERIOD.
13. CONTRACTOR TO WATER AS NECESSARY THROUGHOUT GUARANTEE PERIOD TO MAINTAIN IN A HEALTHY CONDITION. AT THE END OF THE GUARANTEE PERIOD ALL TREES THAT ARE DEAD OR DETERMINED UNHEALTHY OR UNSIGHTLY SHALL BE REPLACED AT CONTRACTOR'S EXPENSE. SEE TREE ESTABLISHMENT SPECIFICATIONS FOR ADDITIONAL DETAIL.

1 - DETAIL: DECIDUOUS TREE PLANTING
NOT TO SCALE

NOTES:

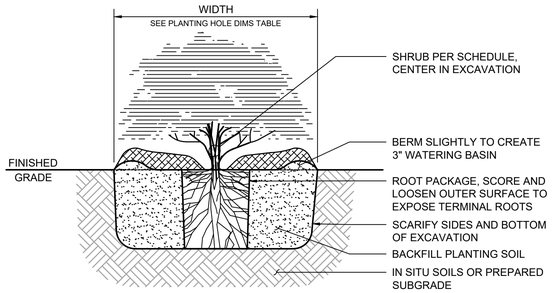
1. EXCAVATE SOIL AS REQUIRED. REFER TO TREE PLANTING HOLE DIMENSION REFERENCE TABLE. PLANTING HOLE DEPTH SHOULD NOT EXCEED MEASUREMENT FROM ROOT FLARE TO BOTTOM OF ROOT PACKAGE.
2. SCARIFY BOTTOM AND SIDES OF HOLE PRIOR TO PLANTING.
3. REMOVE AND DISPOSE OF THE ROOT PACKAGING MATERIAL AS NOTED AND PERFORM ANY CORRECTIVE PRUNING OF TOP AND ROOTS AS SPECIFIED TO PREPARE THE TREE FOR PLANTING.
4. DO NOT CUT OR DAMAGE THE CENTRAL LEADER.
5. SET TREE ON IN SITU SOIL OR THOROUGHLY-COMPACTED BACKFILL AND PLUMB.
6. BACKFILL AROUND PREPARED ROOT PACKAGE WITH PLANTING SOIL WITH 6" MAX. LIFTS. GENTLY FIRM SOIL AROUND THE ROOT MASS WITH EACH LIFT TO MAINTAIN PLUMB.
7. WATER THOROUGHLY WITHIN 2 HOURS AFTER PLANTING TO FILL VOIDS. BACKFILL ANY VOIDS CREATED DURING INITIAL WATERING AND RE-WATER.
8. APPLY STRAW MULCH OVER SOIL SURFACE AT THE BASE OF THE TREE IMMEDIATELY AFTER PLANTING. ENSURE NO MULCH IS IN CONTACT WITH THE BASE OF TREE AT FINISHED GRADE.
9. MAINTAIN TREE IN A PLUMB POSITION THROUGHOUT THE INITIAL ESTABLISHMENT PERIOD.



2 - DETAIL: EVERGREEN TREE PLANTING
NOT TO SCALE

NOTES:

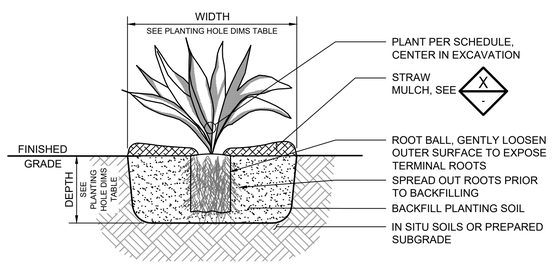
1. SCARIFY BOTTOM AND SIDES OF HOLE PRIOR TO PLANTING.
2. REMOVE AND DISPOSE OF THE ROOT PACKAGING MATERIAL AS NOTED AND PERFORM ANY CORRECTIVE PRUNING OF TOP AND ROOTS AS SPECIFIED TO PREPARE THE SHRUB FOR PLANTING.
3. SET SHRUB ON IN SITU SOIL OR THOROUGHLY-COMPACTED BACKFILL AND PLUMB.
4. BACKFILL AROUND PREPARED ROOT PACKAGE WITH PLANTING SOIL WITH 6" MAX. LIFTS. GENTLY FIRM SOIL AROUND THE ROOT MASS WITH EACH LIFT TO MAINTAIN PLUMB.
5. WATER THOROUGHLY WITHIN 2 HOURS AFTER PLANTING TO FILL VOIDS. BACKFILL ANY VOIDS CREATED DURING INITIAL WATERING AND RE-WATER.
6. APPLY STRAW MULCH OVER SOIL SURFACE AT THE BASE OF THE SHRUB IMMEDIATELY AFTER PLANTING. ENSURE NO MULCH IS IN CONTACT WITH THE BASE OF SHRUB AT FINISHED GRADE.
7. MAINTAIN SHRUB IN A PLUMB POSITION THROUGHOUT THE INITIAL ESTABLISHMENT PERIOD.



3 - DETAIL: SHRUB PLANTING
NOT TO SCALE

NOTES:

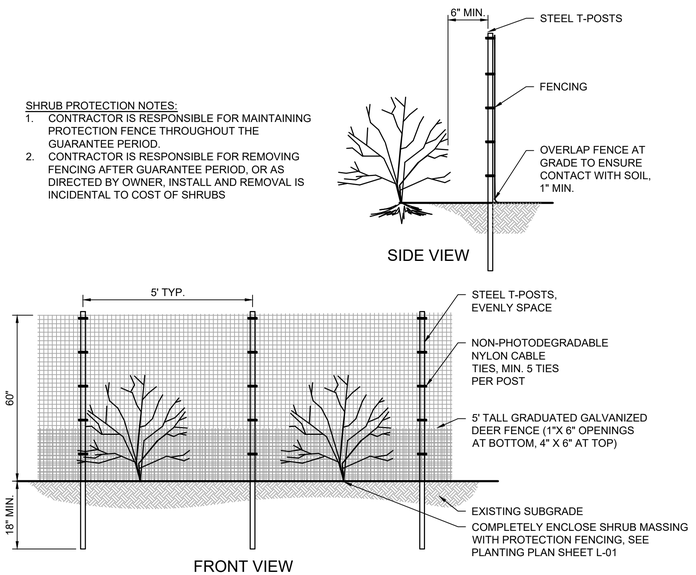
1. SCARIFY BOTTOM AND SIDES OF HOLE PRIOR TO PLANTING.
2. PREPARE PLANTING SOIL AS SPECIFIED.
3. REMOVE AND DISPOSE OF THE ROOT PACKAGING MATERIAL AS NOTED. SCARIFY BOTTOM AND OUTER PERIMETER OF ROOTBALL TO LOOSEN ROOTS AND PREPARE THE PLANT FOR PLANTING.
4. SET PLANT ON IN SITU SOIL IN EXCAVATION AND PLUMB.
5. BACKFILL AROUND PREPARED ROOT PACKAGE WITH PLANTING SOIL. GENTLY FIRM SOIL AROUND THE ROOT MASS TO MAINTAIN PLUMB.
6. WATER THOROUGHLY WITHIN 2 HOURS AFTER PLANTING TO FILL VOIDS. BACKFILL ANY VOIDS CREATED DURING INITIAL WATERING AND RE-WATER.
7. APPLY STRAW MULCH OVER SOIL SURFACE AT THE BASE OF THE PLANT IMMEDIATELY AFTER PLANTING. ENSURE NO MULCH IS IN CONTACT WITH THE BASE OF PLANT AT FINISHED GRADE.
8. MAINTAIN PLANT IN A PLUMB POSITION THROUGHOUT THE INITIAL ESTABLISHMENT PERIOD.



4 - DETAIL: PLUG PLANTING
NOT TO SCALE

SHRUB PROTECTION NOTES:

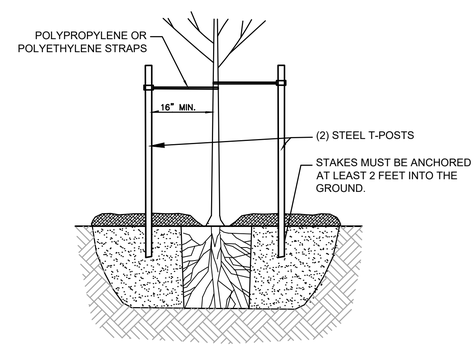
1. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PROTECTION FENCE THROUGHOUT THE GUARANTEE PERIOD.
2. CONTRACTOR IS RESPONSIBLE FOR REMOVING FENCING AFTER GUARANTEE PERIOD, OR AS DIRECTED BY OWNER, INSTALL AND REMOVAL IS INCIDENTAL TO COST OF SHRUBS



5 - DETAIL: SHRUB PROTECTION FENCE
NOT TO SCALE

TREE STAKING NOTES:

1. ALL TREES SHALL BE STAKED AND TIED TO MAINTAIN VERTICALITY FOLLOWING PLANTING. TREE STAKING SHALL BE CONSIDERED INCIDENTAL TO TREE PLANTING.
2. INSTALL TWO (2) 8' STEEL T-POSTS, ANCHORED 2' INTO THE GROUND ON EITHER SIDE OF THE TRUNK.
3. INSTALL 16" LONG 40 MIL POLYPROPYLENE OR POLYETHYLENE STRAPS AROUND TRUNK AND AFFIX TO TO HOLES IN T-POSTS WITH 10 GAUGE WIRE.
4. REMOVE THE TREE STAKING AFTER TWO (2) YEARS OF MAINTAINED PLUMB POSITION, OR AS DIRECTED BY OWNER, INSTALL AND REMOVAL IS INCIDENTAL TO COST OF TREES.



6 - DETAIL: TREE STAKING
NOT TO SCALE

95% DESIGN DRAFT
NOT FOR CONSTRUCTION

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION
-	-	-	-	———	-

RELEASED TO/FOR

CLIENT	04/24/2024						
PERMIT							
BID							
CONSTRUCTION							
RECORD							
DATE RELEASED	A	B	C	0	1	2	3

BARR
Corporate Headquarters:
Minneapolis, Minnesota
Ph: 1-800-632-2277

Project Office:
BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435
Ph: 1-800-632-2277
Fax: (952) 832-2601
www.barr.com

Scale	AS SHOWN
Date	04/24/2024
Drawn	EMB
Checked	BHD
Designed	BARR
Approved	BHD

RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

COTTAGE PLACE WETLAND RESTORATION
SHOREVIEW, MINNESOTA

RESTORATION AND PLANTING DETAILS
-

BARR PROJECT No.	
23/62-1493.00	
CLIENT PROJECT No.	
DWG. No.	REV. No.
L-03	A

Attachment:

Technical Memo: Barr Engineering Company. August 12, 2019. *Results of Test Trench Investigation, Cottage Place Wetland Regeneration, Shoreview, Minnesota.*

resourceful. naturally.
engineering and environmental consultants

BARR

August 12, 2019

Paige Ahlborg
Ramsey-Washington Metro Watershed District
2556 Noel Drive
Little Canada, MN 55117

Re: Results of Test Trench Investigation, Cottage Place Wetland Regeneration, Shoreview, Minnesota

Dear Ms. Ahlborg:

This letter describes the results of the Phase II environmental test trench investigation, which assessed the fill soils in the proposed Cottage Place Wetland Regeneration project area, shown on Figure 1. The investigation was completed to support design of the proposed wetland regeneration project.

SITE BACKGROUND AND INVESTIGATION OBJECTIVES

The project area is comprised of several parcels, owned by the City of Shoreview, and St. Odilia Catholic Church. The wetland regeneration project is anticipated to involve removal of fill to restore the wetland in the areas shown on Figure 1.

The Phase I Environmental Site Assessment, prepared by Barr for the Ramsey-Washington Metro Watershed District (District) identified historical filling of undocumented materials and evidence of dumping on the east side of the site as a recognized environmental condition, indicating a potential for chemical impacts or debris to be present in the subsurface fill soils at the site (Barr, 2019). The objective of the soil investigation was to assess whether potential environmental impacts are present in the soils in the proposed project area in order to identify appropriate soil management and disposal requirements.

SCOPE OF WORK AND INVESTIGATION METHODS

The investigation included excavation of ten test trenches and collection of surface soil samples at the locations shown on attached Figure 3. Trenches were completed using a small backhoe to depths ranging from 5 to 10 feet below ground surface (bgs).

Soil samples were collected and composited from the fill layers at trenches TT-1 through TT-8, and surface soil samples collected from the top six inches from three areas of observed debris piles on the east end of the site. Soil samples were analyzed for the following parameters:

- Polycyclic aromatic hydrocarbons (PAHs)
- Resource Conservation and Recovery Act (RCRA) metals
- Diesel Range Organics (DRO) with silica gel cleanup

In addition, two composite samples were collected from layers of peat from TT-3 and TT-4 (Peat 3&4) and from TT-7 and TT-8 (Peat 7&8) and were analyzed for arsenic, which has been found associated with peat in other wetland areas.

Samples were submitted to Legend Technical Services, Inc, in St. Paul, Minnesota for laboratory analysis.

Soil throughout the depth of the trenches was continuously logged and classified in general accordance with American Standard Testing Methods (ASTM) D2488. Soils were inspected for visual evidence of contamination (i.e. incidental odor, discoloration, and sheen) and headspace screening was completed for volatile organic vapors using a photoionization detector equipped with a 10.6 eV lamp, in accordance with Barr Engineering Co. standard operating procedures (SOPs). The location of the test trenches was surveyed with GPS equipment.

RESULTS

Field observations are included in the attached test trench logs. Fill with debris was observed at all locations except for trenches TT-1, TT-2 and TT-7. Debris included asphalt, concrete, brick and wood. A concrete slab was encountered at TT-3, at 3.5 feet bgs and asphalt slabs were encountered at TT-9 at the surface and at 2 feet bgs. Debris observed near the ground surface included weathered concrete and asphalt. The fill with debris and the debris in the surface piles on the east side of the site does not meet the MPCA's best management practices for the off-site reuse of Unregulated Fill (MPCA, 2012).

Laboratory analytical results were compared to Minnesota Pollution Control Agency (MPCA) Soil Reference Values (SRVs) for Recreational and Residential scenarios and to MPCA Soil Leaching Values (SLVs). SRVS and SLVs are conservative screening criteria for specified land uses and groundwater protection.

The analytical results were favorable. The only results above screening values were for arsenic, which was at or above the MPCA SLV, but below naturally occurring background concentrations. Therefore, the analytical results did not identify chemical exposure concerns for the fill soils and underlying peat.

RECOMMENDATIONS

The presence of the debris in the fill should be addressed as part of the project. If possible, the fill soils with debris could remain on-site and it is recommended that a debris-free, vegetated clean soil cover be established over the debris if the project's earthwork and grading plans can accommodate it. If the project requires soil export, any exported soils that are free of debris would meet MPCA's guidelines for soil reuse. If export of soils with debris from the site is required for the project, those soils will likely need to be taken to a landfill for disposal, as they do not meet MPCA's soil reuse guidelines.

Based on the favorable field screening and analytical results, enrollment of the project into MPCA's voluntary brownfields program is not recommended and no further investigations are believed to be needed. It may be helpful to prepare a Construction Contingency Plan to help guide the earthwork contractor and field staff in the event unexpected environmental conditions are encountered in the fill during excavation. If topsoil or fill is imported for the project, we also recommend testing the soil for contamination prior to importing to the site. Barr can assist you with those items and include them in the plans and specifications for the project.

Please contact me at 952-832-2700 or jbrekken@barr.com or Fred Rozumalski at 952-832-2733 or frozumalski@barr.com with any questions related to this report. We look forward to continued work with you on this project.

Sincerely,

Jennifer Brekken
Senior Environmental Engineer

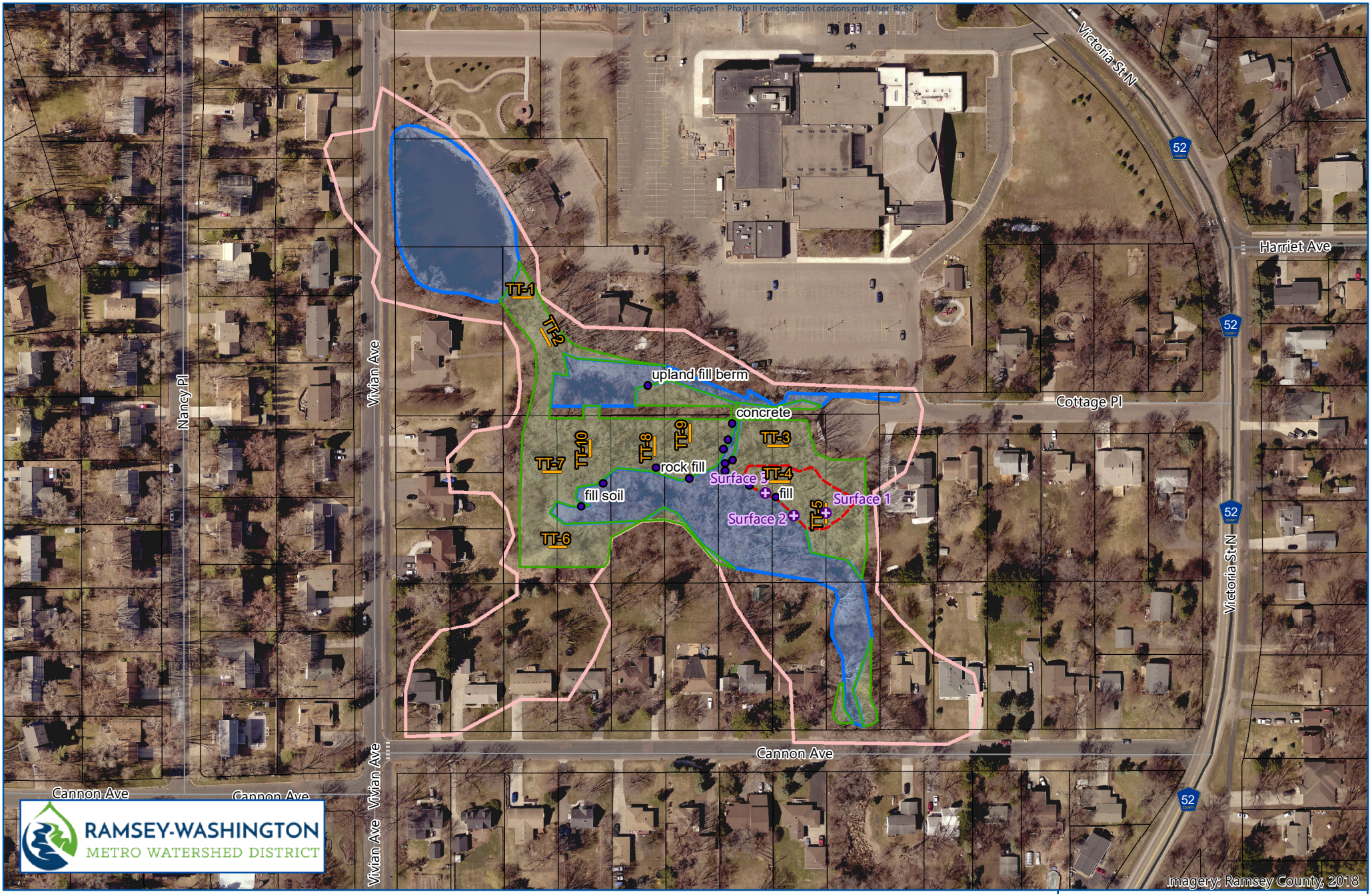
c:
Fred Rozmalski, Barr Engineering Co.
Erin Anderson Wenz, Barr Engineering Co.
Dan Fetter, Barr Engineering Co.

Attachments

Figure 1 –Phase II Sample Locations
Test Trench Logs
Table 1 – Analytical Data Summary

References:

Barr, 2019. Phase I Environmental Site Assessment, Cottage Place Wetland, Shoreview, Minnesota. April, 2019



- Test Trench Location
- Wetland Fill Areas
- Surface Sample Locations
- Debris Piles
- Potential Wetland Restoration = 2.19 acres
- Parcel Boundary
- Historical Wetland = 9.24 acres
- 2018 Wetland Delineation = 2.34 acres

BARR

0 200 400
Feet

PHASE II INVESTIGATION LOCATIONS
Cottage Place Wetland
Ramsey-Washington Metro Watershed District

FIGURE 1

Table 1
Analytical Data Summary
Cottage Place Wetland Regeneration
Ramsey-Washington Metro Watershed District

					Location	**Peat 3 & 4**	**Peat 7 & 8**	**Surface 1**	**Surface 2**	**Surface 3**	**TT-1**	**TT-2**	**TT-3**
					Date	**6/24/2019**	**6/24/2019**	**6/24/2019**	**6/24/2019**	**6/24/2019**	**6/24/2019**	**6/24/2019**	**6/24/2019**
					Depth	**5 - 7 ft**	**3.5 - 6 ft**	**0 - 0.5 ft**	**0 - 0.5 ft**	**0 - 0.5 ft**	**0 - 5 ft**	**0 - 1.5 ft**	**0 - 5 ft**
Parameter	Analysis Location	Units	MPCA Screening Soil Leaching Values	MPCA Residential Soil Reference Values	MPCA Recreational Soil Reference Values								
Effective Date			06/01/2013	06/22/2009	06/22/2009								
Exceedance Key			**Bold**	No Exceed	No Exceed								
General Parameters													
Moisture	Lab	%				32.6	28.5	13.8	21.8	17.4	9.5	13.9	12.1
Metals													
Arsenic	Lab	mg/kg	**5.8**	9	11	1.7	1.8	**5.8**	1.7	2.6	2.7	5.4	5.1
Barium	Lab	mg/kg	1700	1100	1100	--	--	65.3	31.6	47.9	43.4	66.9	60.2
Cadmium	Lab	mg/kg	8.8	25	35	--	--	< 0.17	0.38	0.19	< 0.15	< 0.17	< 0.17
Chromium	Lab	mg/kg	36 CR6	87 CR6	120 CR6	--	--	13.4	10.8	10.7	18.5	16.6	13.6
Lead	Lab	mg/kg	2700	300	300	--	--	6.5	10.4	9.6	3.6	7.5	10.9
Mercury	Lab	mg/kg	3.3 MC	0.5	1.2 MC	--	--	0.032	0.026	< 0.023	< 0.022	< 0.021	< 0.021
Selenium	Lab	mg/kg	2.6	160	200	--	--	< 1.1	< 1.3	< 1.2	< 1.0	< 1.1	< 1.1
Silver	Lab	mg/kg	7.9	160	200	--	--	< 0.57	< 0.63	< 0.59	< 0.52	< 0.56	< 0.56
Semivolatile Organic Compounds													
Benz(a)anthracene	Lab	ug/kg	T	T	T	--	--	< 11.5	< 63.6	< 12.0	< 11.0	< 11.5	15.3
Benzo(a)pyrene	Lab	ug/kg	T	T	T	--	--	< 11.5	< 63.6	< 12.0	< 11.0	< 11.5	21.1
Benzo(b)fluoranthene	Lab	ug/kg	T	T	T	--	--	< 11.5	85.2	17.7	< 11.0	< 11.5	33.5
Benzo(k)fluoranthene	Lab	ug/kg	T	T	T	--	--	< 11.5	< 63.6	< 12.0	< 11.0	< 11.5	13.9
Chrysene	Lab	ug/kg	T	T	T	--	--	< 11.5	77.9	< 12.0	< 11.0	< 11.5	20.6
Dibenz(a,h)anthracene	Lab	ug/kg	T	T	T	--	--	< 11.5	< 63.6	< 12.0	< 11.0	< 11.5	< 11.3
Indeno(1,2,3-cd)pyrene	Lab	ug/kg	T	T	T	--	--	< 11.5	< 63.6	< 12.0	< 11.0	< 11.5	15.5
B(a)P Equivalent, non-detects at 0, 2002 PEFs	Calc	ug/kg	1400 T	2000 T	2000 T	--	--	ND	9.3	1.8	ND	ND	29
B(a)P Equivalent, non-detects at 1/2, 2002 PEFs	Calc	ug/kg	1400 T	2000 T	2000 T	--	--	11	68	13	11	11	32
B(a)P Equivalent, non-detects at 1x, 2002 PEFs	Calc	ug/kg	1400 T	2000 T	2000 T	--	--	23	130	24	22	23	35
Acenaphthene	Lab	ug/kg	81000	1200000	1860000	--	--	< 11.5	< 63.6	< 12.0	< 11.0	< 11.5	< 11.3
Acenaphthylene	Lab	ug/kg	NA			--	--	< 11.5	< 63.6	< 12.0	< 11.0	< 11.5	12.3
Anthracene	Lab	ug/kg	1300000	7880000	10000000	--	--	< 11.5	< 63.6	< 12.0	< 11.0	< 11.5	< 11.3
Benzo(g,h,i)perylene	Lab	ug/kg	NA			--	--	< 11.5	76.2	14.9	< 11.0	< 11.5	51.6
Fluoranthene	Lab	ug/kg	670000	1080000	1290000	--	--	< 11.5	82.7	17.5	< 11.0	< 11.5	31.3
Fluorene	Lab	ug/kg	110000	850000	1200000	--	--	< 11.5	< 63.6	< 12.0	< 11.0	< 11.5	< 11.3
Naphthalene	Lab	ug/kg	4500	10000	24000	--	--	< 11.5	< 63.6	< 12.0	< 11.0	< 11.5	< 11.3
Phenanthrene	Lab	ug/kg	NA			--	--	< 11.5	< 63.6	< 12.0	< 11.0	< 11.5	< 11.3
Pyrene	Lab	ug/kg	440000	890000	1060000	--	--	< 11.5	70.1	16.0	< 11.0	< 11.5	28.4
Total Petroleum Hydrocarbons													
DRO-modified silica gel cleanup C10-C28	Lab	mg/kg				--	--	< 9.0	65.1	< 9.8	< 8.1	< 8.6	12.2

Table 1
Analytical Data Summary
Cottage Place Wetland Regeneration
Ramsey-Washington Metro Watershed District

					Location	**TT-4**	**TT-5**	**TT-6**	**TT-7**	**TT-8**
					Date	**6/24/2019**	**6/24/2019**	**6/24/2019**	**6/24/2019**	**6/24/2019**
					Depth	**0 - 6 ft**	**0 - 10 ft**	**0 - 8 ft**	**0 - 3.5 ft**	**0 - 4.5 ft**
Parameter	Analysis Location	Units	MPCA Screening Soil Leaching Values	MPCA Residential Soil Reference Values	MPCA Recreational Soil Reference Values					
Effective Date			06/01/2013	06/22/2009	06/22/2009					
Exceedance Key			**Bold**	No Exceed	No Exceed					
General Parameters										
Moisture	Lab	%				9.1	14.1	13.3	15.9	14.0
Metals										
Arsenic	Lab	mg/kg	**5.8**	9	11	3.2	5.3	**8.4**	3.2	4.2
Barium	Lab	mg/kg	1700	1100	1100	50.4	67.7	80.2	66.9	63.1
Cadmium	Lab	mg/kg	8.8	25	35	< 0.16	< 0.17	< 0.17	< 0.17	< 0.17
Chromium	Lab	mg/kg	36 CR6	87 CR6	120 CR6	13.4	13.6	18.6	10.2	13.2
Lead	Lab	mg/kg	2700	300	300	6.0	6.4	8.0	7.3	6.8
Mercury	Lab	mg/kg	3.3 MC	0.5	1.2 MC	< 0.019	< 0.023	0.029	< 0.023	0.028
Selenium	Lab	mg/kg	2.6	160	200	< 1.1	< 1.1	< 1.1	< 1.1	< 1.1
Silver	Lab	mg/kg	7.9	160	200	< 0.53	< 0.57	< 0.55	< 0.57	< 0.56
Semivolatile Organic Compounds										
Benz(a)anthracene	Lab	ug/kg	T	T	T	< 11.0	< 11.6	< 11.5	< 11.9	< 11.6
Benzo(a)pyrene	Lab	ug/kg	T	T	T	< 11.0	< 11.6	< 11.5	< 11.9	< 11.6
Benzo(b)fluoranthene	Lab	ug/kg	T	T	T	< 11.0	< 11.6	< 11.5	< 11.9	13.8
Benzo(k)fluoranthene	Lab	ug/kg	T	T	T	< 11.0	< 11.6	< 11.5	< 11.9	< 11.6
Chrysene	Lab	ug/kg	T	T	T	< 11.0	< 11.6	< 11.5	< 11.9	< 11.6
Dibenz(a,h)anthracene	Lab	ug/kg	T	T	T	< 11.0	< 11.6	< 11.5	< 11.9	< 11.6
Indeno(1,2,3-cd)pyrene	Lab	ug/kg	T	T	T	< 11.0	< 11.6	< 11.5	< 11.9	< 11.6
B(a)P Equivalent, non-detects at 0, 2002 PEFs	Calc	ug/kg	1400 T	2000 T	2000 T	ND	ND	ND	ND	1.4
B(a)P Equivalent, non-detects at 1/2, 2002 PEFs	Calc	ug/kg	1400 T	2000 T	2000 T	11	11	11	12	12
B(a)P Equivalent, non-detects at 1x, 2002 PEFs	Calc	ug/kg	1400 T	2000 T	2000 T	22	23	23	23	23
Acenaphthene	Lab	ug/kg	81000	1200000	1860000	< 11.0	< 11.6	< 11.5	< 11.9	< 11.6
Acenaphthylene	Lab	ug/kg	NA			< 11.0	< 11.6	< 11.5	< 11.9	< 11.6
Anthracene	Lab	ug/kg	1300000	7880000	10000000	< 11.0	< 11.6	< 11.5	< 11.9	< 11.6
Benzo(g,h,i)perylene	Lab	ug/kg	NA			< 11.0	< 11.6	< 11.5	< 11.9	< 11.6
Fluoranthene	Lab	ug/kg	670000	1080000	1290000	< 11.0	< 11.6	< 11.5	< 11.9	24.4
Fluorene	Lab	ug/kg	110000	850000	1200000	< 11.0	< 11.6	< 11.5	< 11.9	< 11.6
Naphthalene	Lab	ug/kg	4500	10000	24000	< 11.0	< 11.6	< 11.5	< 11.9	< 11.6
Phenanthrene	Lab	ug/kg	NA			< 11.0	< 11.6	< 11.5	< 11.9	15.1
Pyrene	Lab	ug/kg	440000	890000	1060000	< 11.0	< 11.6	< 11.5	< 11.9	20.1
Total Petroleum Hydrocarbons										
DRO-modified silica gel cleanup C10-C28	Lab	mg/kg				22.0	< 8.9	< 9.0	< 8.4	< 8.4

Data Footnotes and Qualifiers

Barr Standard Footnotes and Qualifiers

--	Not analyzed/Not available.
ND	Not detected.

MPCA Screening Soil Leaching Values

CR6	Value represents the criteria for Chromium, hexavalent.
MC	Mercury as Mercuric Chloride.
NA	Criterion value is not available for this analyte.
T	Value represents a criteria for the total carcinogenic PAHs as B(a)P.

MPCA Soil Reference Values

CR6	Value represents the criteria for Chromium, hexavalent.
MC	Mercury as Mercuric Chloride.
T	Value represents a criteria for the total carcinogenic PAHs as B(a)P.

Request for Board Action

Board Meeting Date: May 1, 2024 **Agenda Item No:** 7B

Preparer: Tina Carstens, Administrator

Item Description: Capital Improvement Budget Fund Transfer

Background:
In 2016, the District received general obligation bonds of $3,860,000 to complete a repair project on the Beltline and Battle Creek tunnel system. That project was complete in 2019, and there was $863,674 left in the project fund. Since 2017, the district levies funds to pay back the debt from those received bonds. When the project was complete, the board approved Resolution 19-03 which transferred the excess project funds to the Debt Service Fund (Fund 526).

Because there were funds available in the Debt Service Fund, there were multiple years that we didn't levy for our debt in order to spend down those excess funds. Those funds were spent in 2023. While we did levy for debt service in 2024, we didn't have the funds necessary to make our first payment of the year in February of this year, 2024. We don't receive our first levy payments from the county until July of this year, therefore we have a cash flow issue that was noticed during our audit preparation.

In consultation with our auditors, it was suggested that we transfer funds into our debt service fund in order to correct the cash flow issue.

Applicable District Goal and Action Item:

Goal: Manage effectively – The District will operate in a manner that achieves its mission while adhering to its core principles.

Action Item: Maintain financial solvency and accountability.

Staff Recommendation:
Staff recommends approval of Resolution 24-01.

Financial Implications:
Resolution 24-01 will decrease the contingency funds in our capital improvement program by $250,000 leaving a balance of $1,215,487 after the transfer is complete.

Board Action Requested:
Approval of Resolution 24-01.

RESOLUTION 24-01

RESOLUTION RELATING TO THE ADJUSTMENT
OF THE CAPITAL IMPROVEMENTS BUDGET

WHEREAS, the Ramsey-Washington Metro Watershed District (District) received general obligation bonds for the completion of the Beltline and Battle Creek Tunnel repair project; and

WHEREAS, the total revenue received was greater the total expenditures for that project; and

WHEREAS, the Board of Managers approved Resolution 19-03 which transferred the excess project funds to Fund 526 (Debt Service Fund); and

WHEREAS, those excess funds were used to pay the debt service for Drainage Bonds 2016A in lieu of a debt service levy; and

WHEREAS, those excess funds have been spent down and addition funds are needed in Fund 526 in order to have positive balance in the fund and pay the 2024 bond payments;

NOW, THEREFORE, BE IT RESOLVED by the Board of Managers of the Ramsey-Washington Metro Watershed District that the District authorize transferring $250,000 from Fund 580 (Capital Improvement Contingency Fund) to fund 526 (Debt Service for Beltline and Battle Creek Tunnel Repair);

NOW, THEREFORE, BE IT FURTHER RESOLVED by the Board of Managers of the Ramsey-Washington Metro Watershed District that this transfer be recorded as of December 31, 2023.

Adopted by the Board of Managers of the Ramsey-Washington Metro Watershed District this 1st day of May, 2024.

_____
Val Eisele, President

Attest:

_____
Benjamin Karp, Vice President

****

New Reports/ Presentations

****

RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

To: RWMWD Board of Managers

From: Tina Carstens, Paige Ahlborg

Subject: Lower Phalen Creek Daylighting Outlet Ownership Request

Date: May 1, 2024

Background:

Wakan Tipi Awanyankapi (WTA), formerly known as Lower Phalen Creek Project, has spent considerable time in recent years engaging St. Paul residents and community groups along the historic Phalen Creek corridor. The corridor stretches from Lake Phalen south to the Mississippi River, tracing through the Payne-Phalen and Dayton's Bluff neighborhoods. Phalen Creek is the historic outlet for Lake Phalen. In the 1800's, the creek was routed into a pipe system which we call the Beltline Interceptor. WTA is working to restore a natural creek system in a similar path as the historic Phalen Creek. WTA hired a consultant, Inter-Fluve, to identify a path for the daylighted creek and designate reaches to start from Lake Phalen to the Mississippi River. Reaches 7 and 8 are in RWMWD and are the first reaches for design and construction. The remaining reaches of the potential creek are in Capitol Region Watershed District.

In February 2021, the board of managers approved a $10,000 grant to WTA as a special request for planning the Reaches 7 and 8 daylighting efforts. RWMWD has also provided two letters of support for grant funding for the project's development, including a National Fish and Wildlife Foundation Five Star Urban Waters Restoration Grant and EPA's Environmental and Climate Justice Community Change Grants Program.

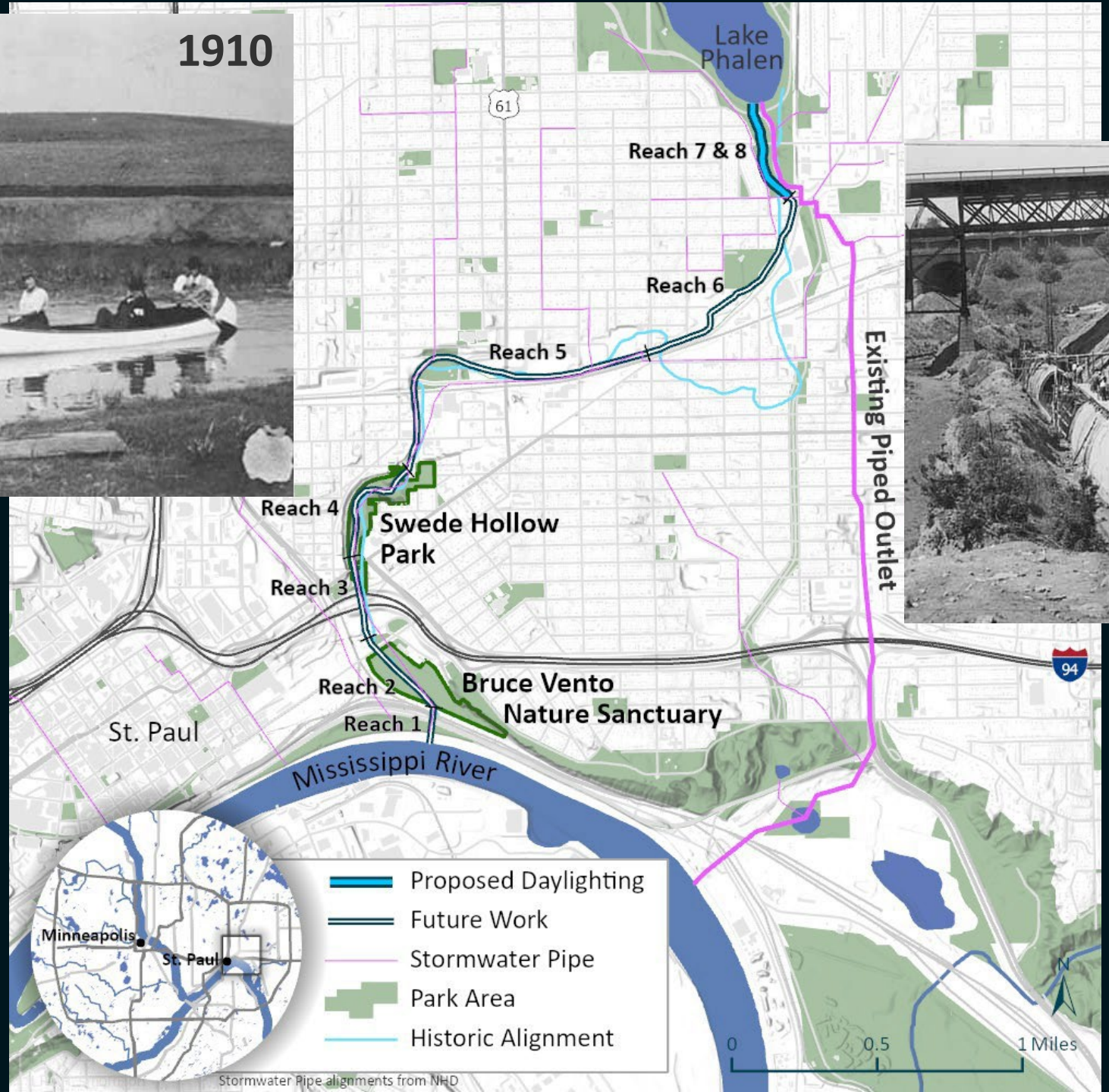
As design of the first two reaches began over the last several months, RWMWD has provided as-needed collaborative assistance to facilitate design development. Inter-Fluve has led those discussions. Staff and district engineers have attended meetings, shared model data and existing structure drawings, reviewed pre-application submittals, and provided feedback on these submittals. These discussion have been related to the engineering needs of another outlet from Lake Phalen, the flood risk concerns in the area, and a potential new connection to the Beltline Interceptor to put the water back into the storm sewer system after it is taken from the lake for this project.

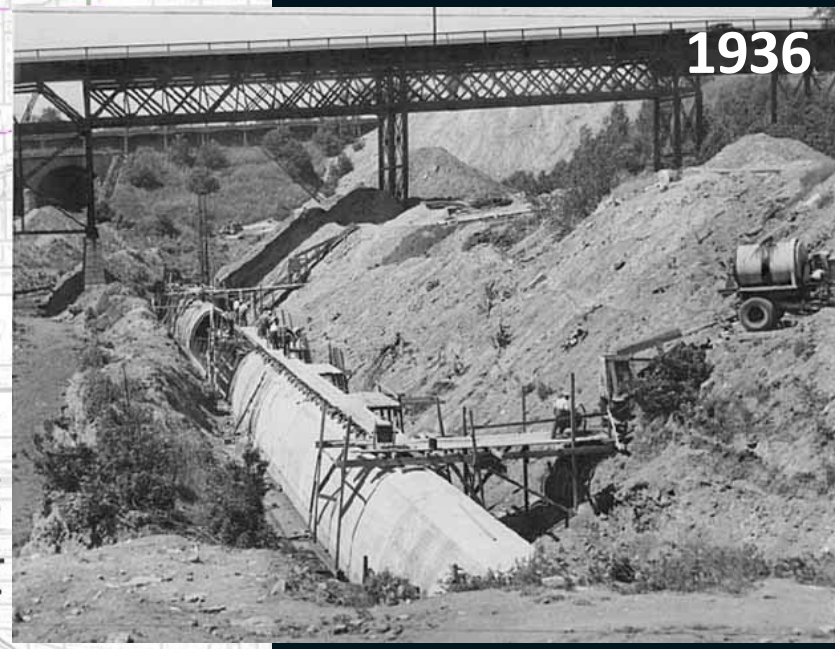
At this time, a new outlet from Lake Phalen is being proposed by WTA and Inter-Fluve. Staff have received an alternatives evaluation summary, as required by the MN DNR as part of their permit application process for the construction of the second outlet, outlining the design details that went into selecting this outlet design as the best alternative for the daylighting project. The summary states that adding a new outlet structure is the preferred alternative for sourcing water instead of modifying the existing outlets that we operate and maintain on Lake Phalen. Staff are awaiting the submittal of the 60% plans and model to address questions that arose in previous submittals as well as discussing that outlet design and more importantly the connection to the Beltline pipe system and potential impacts on this significant infrastructure. There is also discussion around the changes and impacts on the Beltline system with future reaches of the project.

Discussions with WTA and Inter-Fluve have also consisted of the operation and maintenance of the proposed outlet structure and subsequent infrastructure. Attached is a letter received from WTA to RWMWD requesting that we consider taking on the maintenance responsibility of the structures.

Gabby Menomin from Wakan Tipi Awanyankapi, will be at the board meeting to present on the project overview and request. This meeting is an opportunity for the board to get up to speed about the project and the district's involvement to date. The board should consider any questions they have for WTA about the project and our future role being aware that there will be more opportunities for board comment on the project through the permitting process as well as any agreements that would be developed for maintenance on this project.


1910


Lake Phalen
61
Reach 7 & 8
Reach 6
Reach 5
Existing Piped Outlet
Reach 4
Swede Hollow Park
Reach 3
Reach 2
Bruce Vento Nature Sanctuary
Reach 1
St. Paul
Mississippi River
94
Minneapolis
St. Paul
Proposed Daylighting
Future Work
Stormwater Pipe
Park Area
Historic Alignment
N
0
0.5
1 Miles
Stormwater Pipe alignments from NHD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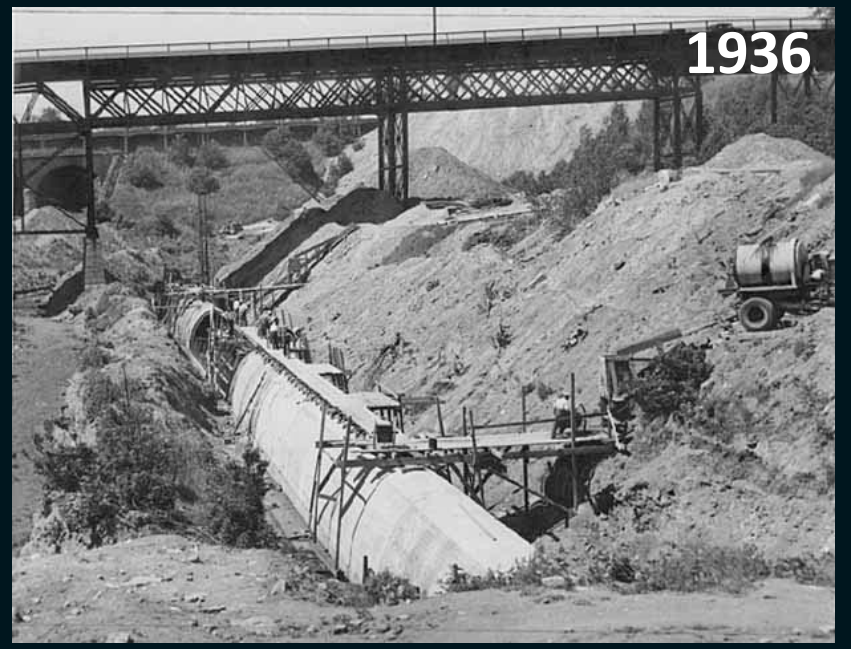


Why Daylight?

- To reconnect with water and nature
- To bring back natural ecosystem and habitat for aquatic and riparian wildlife, including, migratory birds, pollinators, and insects
- To reconnect with medicinal plants and traditional foods
- For environmental, cultural, and historical interpretation and education
- To promote community and environmental stewardship
- For localized stormwater and water quality management

Community Engagement

2017-2018 – Swede Hollow Master Plan Community Engagement

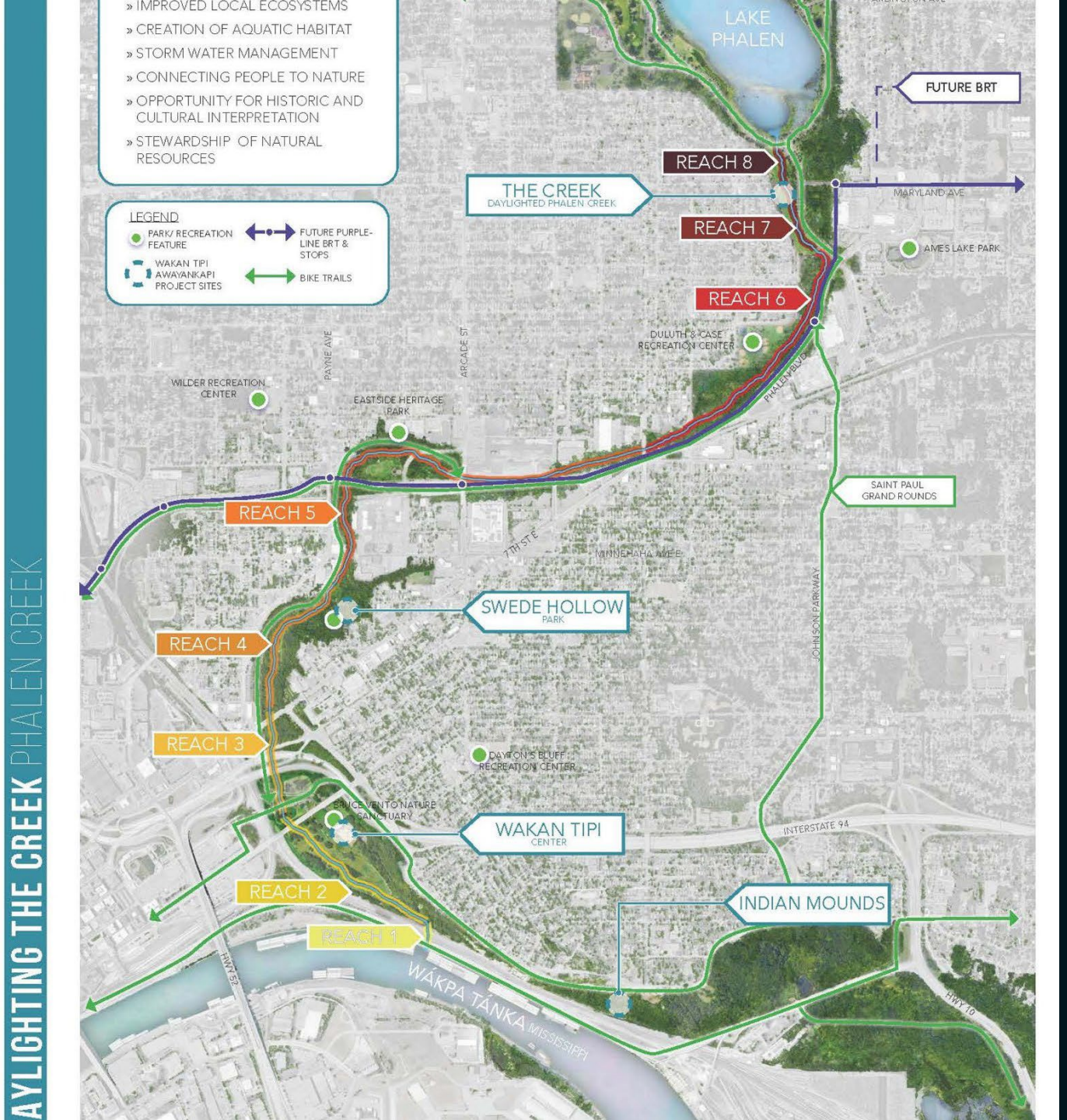
- **15 Community Events, over 1,344 people engaged**
- **570 survey responses**
- **Gage public interest on creek restoration and locations for potential restoration**

2020-2022 – Pre-Planning for Creek Restoration

- **15 community events, 1,976 people engaged**
- **87 survey responses**
- **Utilization of site once creek is restored, importance of daylighting to community**

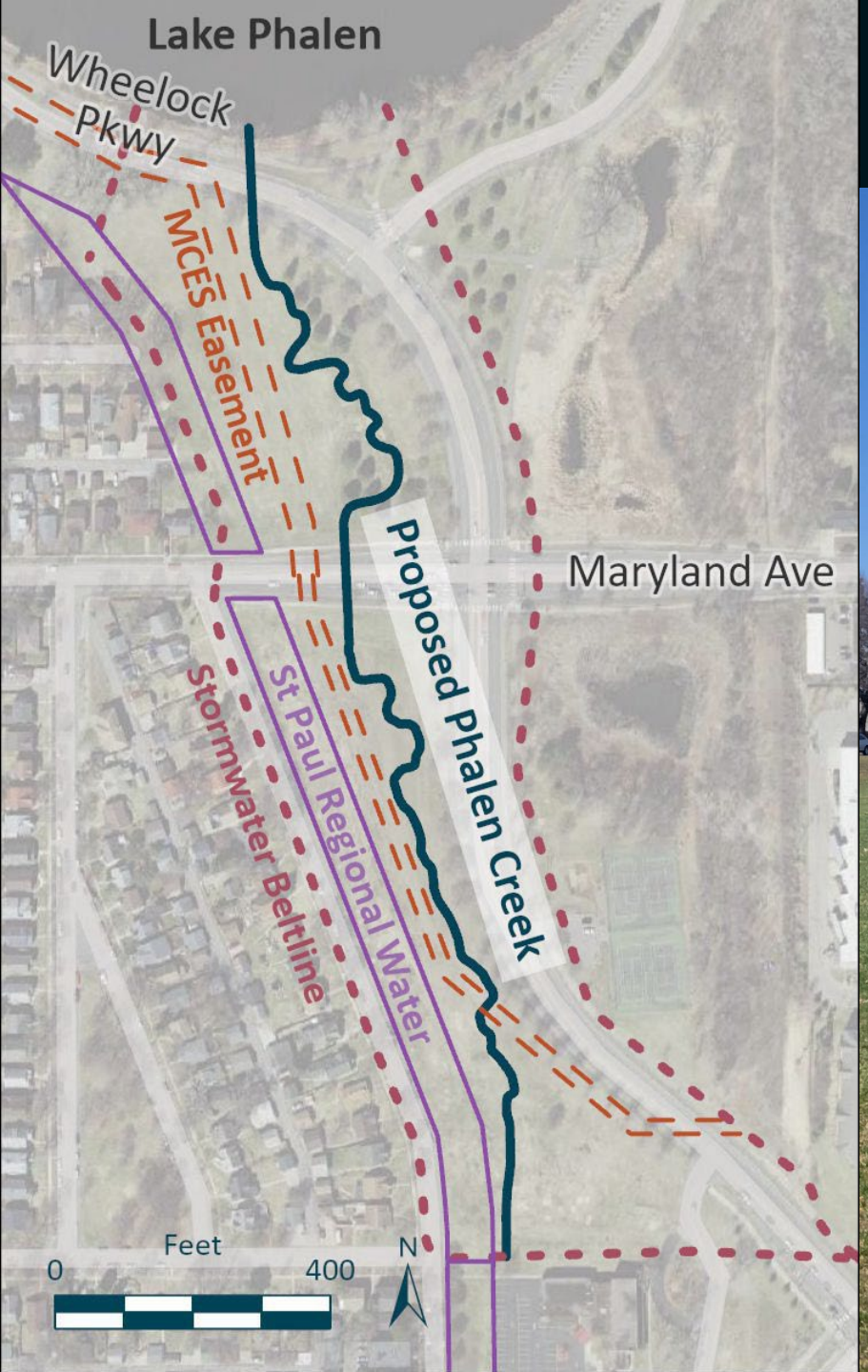
2023-Present - Reach 7 & 8 Community Engagement

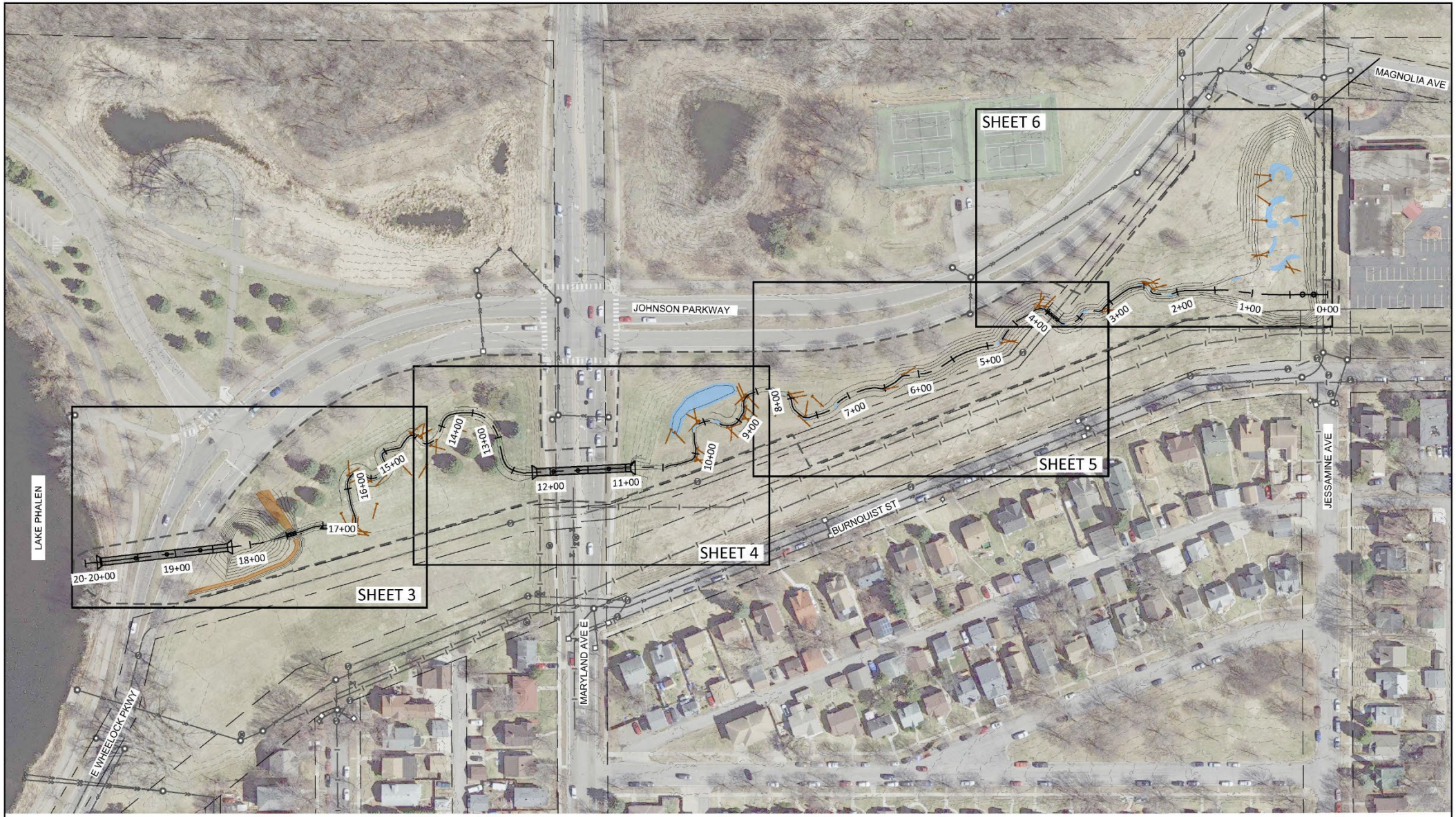
- **9 community engagements & 2 round of resident mailings**
- **133 survey responses**
- **Current site use, future site uses, habitat and on-habitat features**



DAYLIGHTING THE CREEK PHALEN CREEK

Existing Conditions





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DRAWN	DESIGNED	CHECKED
--	8/24/2023	22-04-20
APPROVED	DATE	PROJECT

0 120 240
SCALE IN FEET

LOWER PHALEN CREEK PROJECT
30% DESIGN - REACH 7 & 8
WAKAN TIPI AWANYANKAPI

inter·fluve
1539 Grand Avenue, 2nd Floor
Saint Paul, MN 55105
651.243.9700
www.interfluve.com
ALLIANT ENGINEERING
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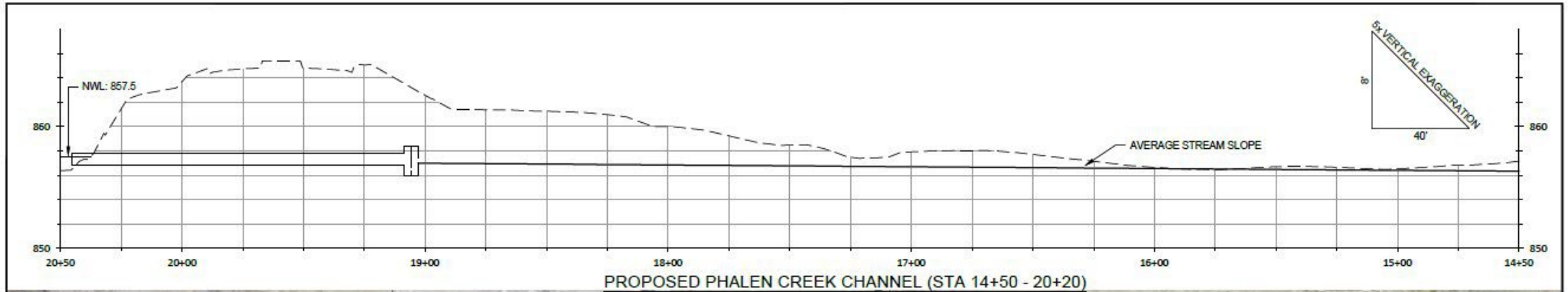
PROPOSED CONDITIONS OVERVIEW

SHEET 2 OF 7



PROPOSED PHALEN CREEK CHANNEL (STA 14+50 - 20+20)

LAKE PHALEN
- NWL: 857.5 FT
- 100YR HWL: 861.8 FT
- OHW: NONE/UNDETERMINED

Target flows relative to lake level

- > 857.5 – 5cfs
- <857.5 – 1 cfs
- <857.0 – 0 cfs

PROPOSED STREAM AND POTENTIAL HABITAT FEATURES (DESIGN DETAILS TBD)

FLOW

72" RCP

SCALE IN FEET

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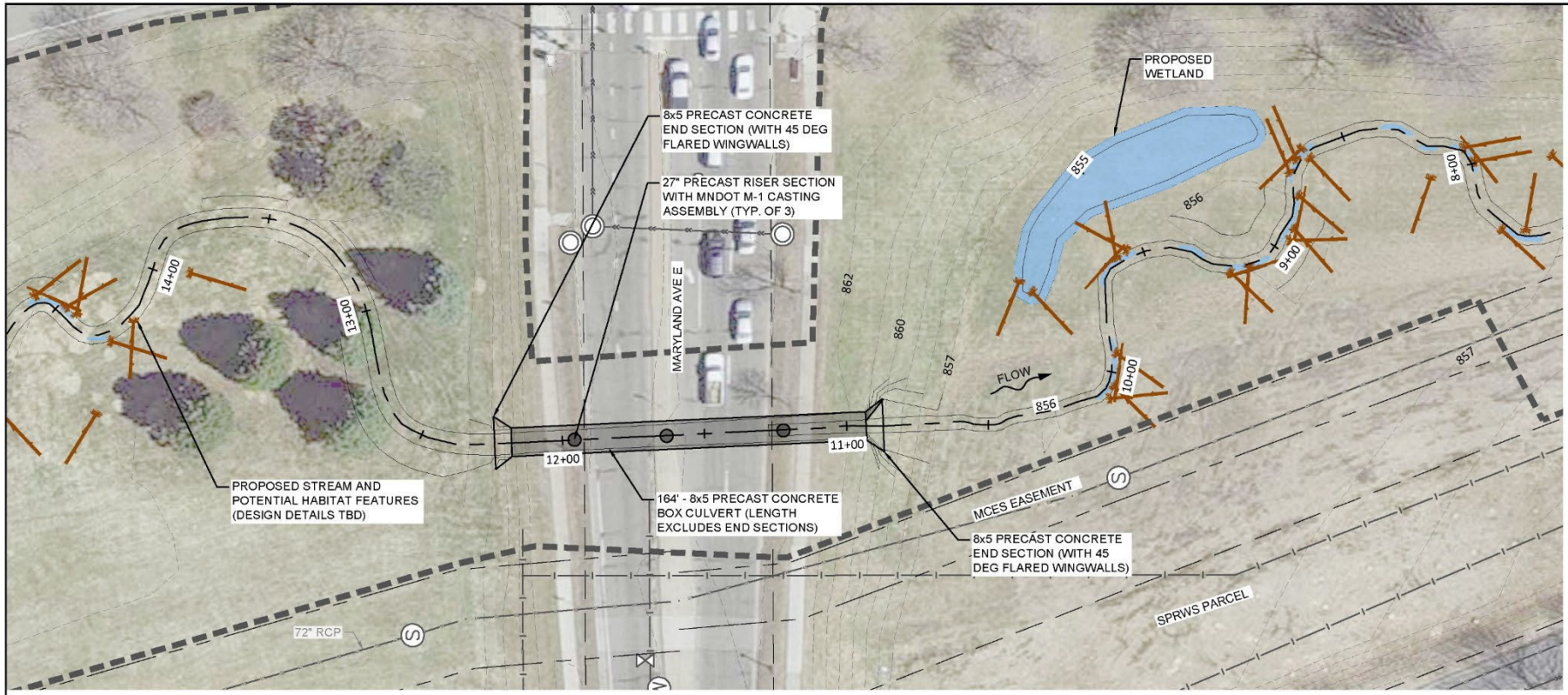
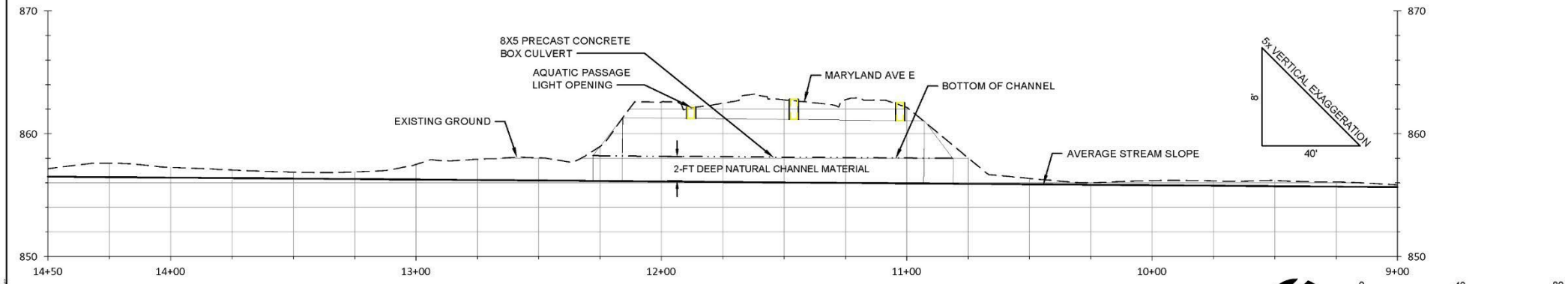
PROPOSED CONDITIONS
PLAN & PROFILE (1 OF 4)

SHEET
9 OF XX





PROPOSED PHALEN CREEK CHANNEL (STA 9+00 - 14+50)

0 40 80
SCALE IN FEET

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LOWER PHALEN CREEK PROJECT
30% DESIGN - REACH 7 & 8
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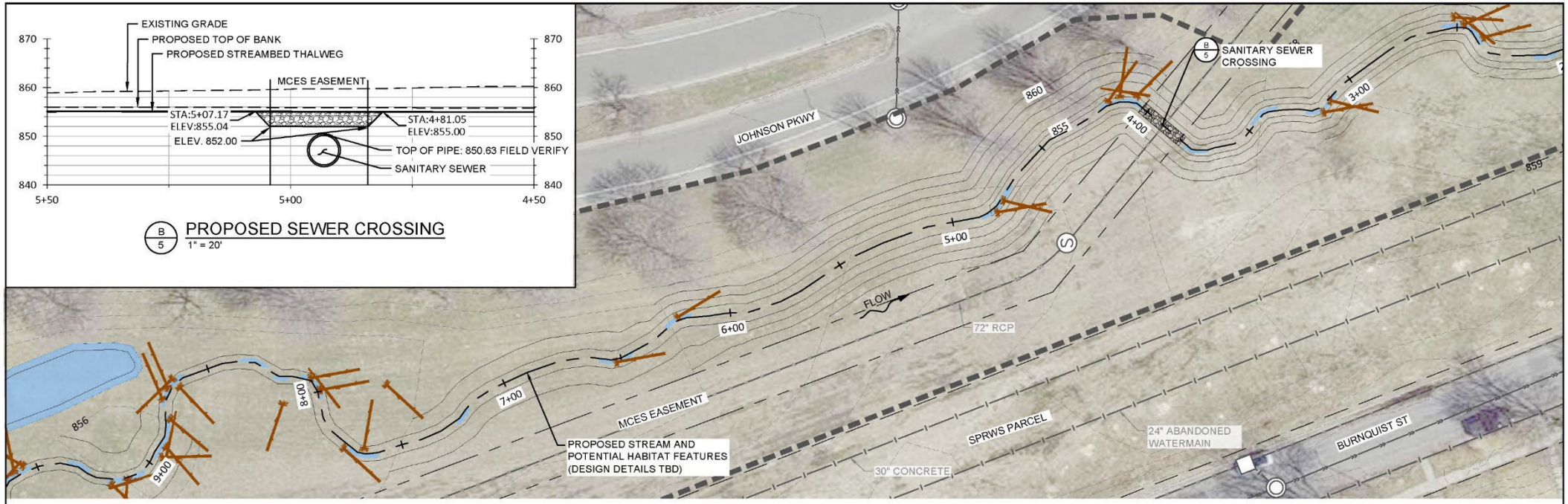
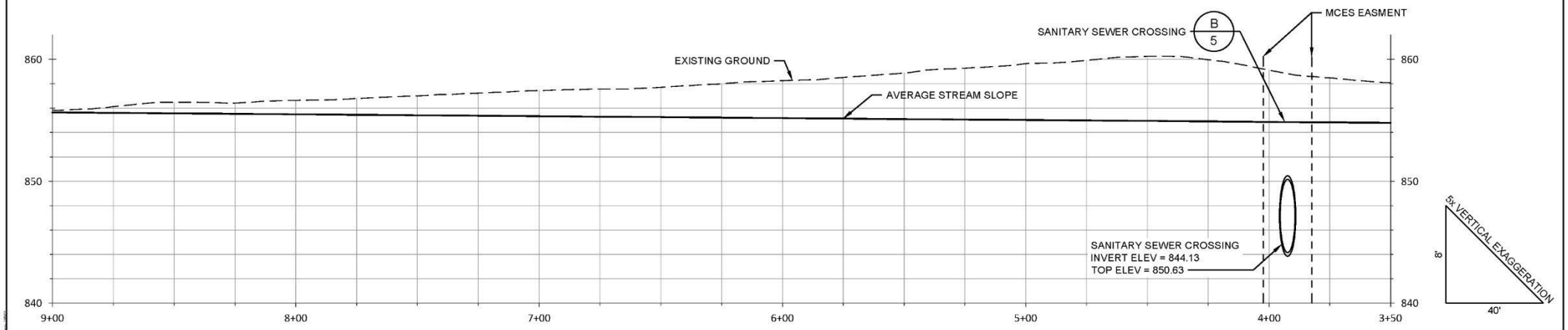
PROPOSED CONDITIONS
PLAN & PROFILE (2 OF 4)

SHEET
4 OF 7

B/5 PROPOSED SEWER CROSSING
1" = 20'



0 40 80
SCALE IN FEET



PROPOSED PHALEN CREEK CHANNEL (STA 3+50 - 9+50+00)

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APPROVED	DATE	PROJECT

LOWER PHALEN CREEK PROJECT
30% DESIGN - REACH 7 & 8
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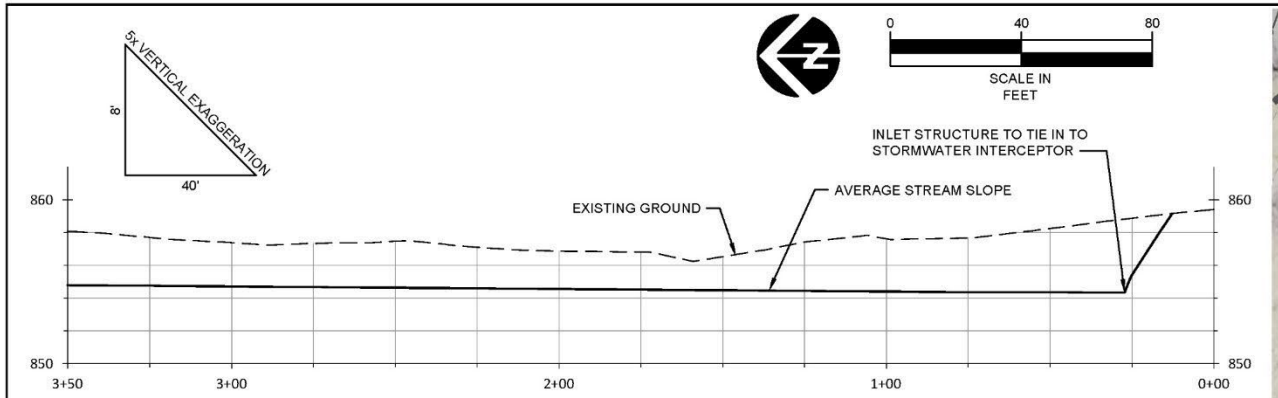
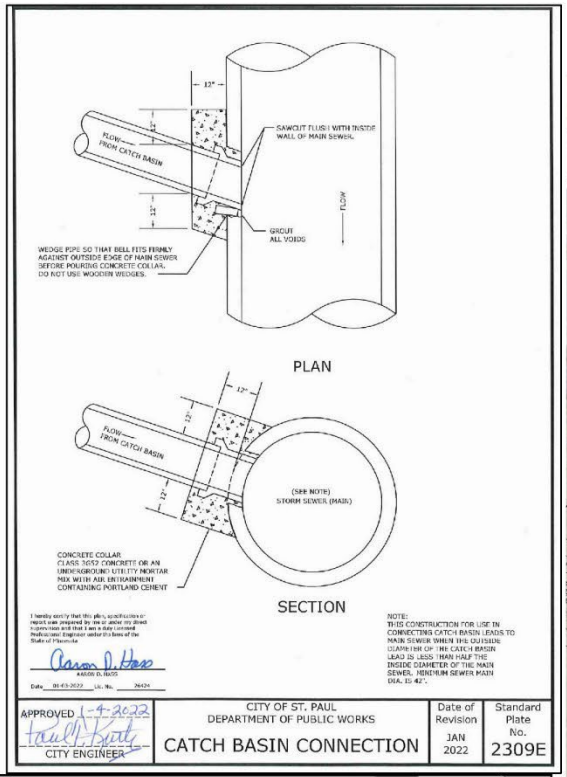
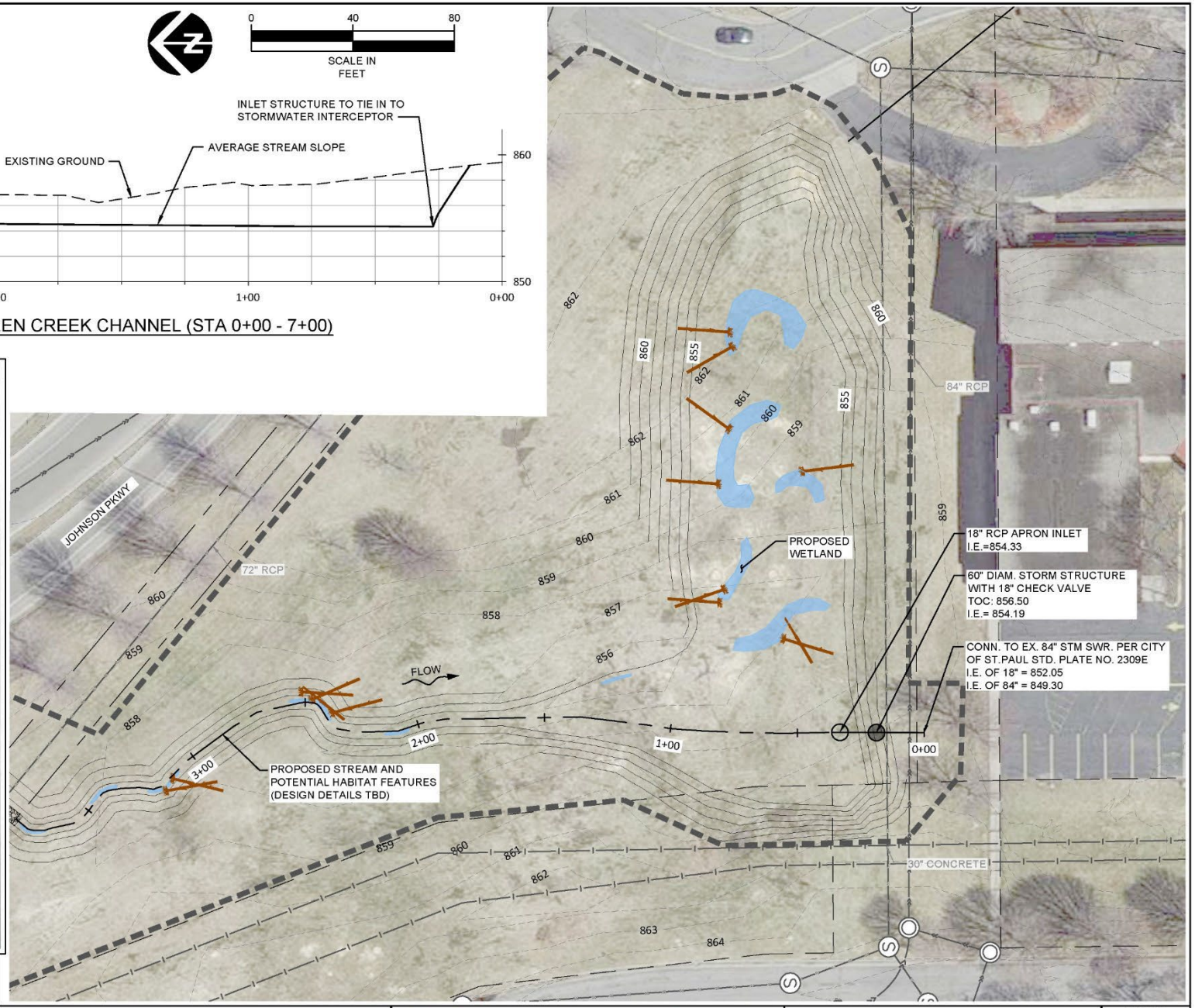
PROPOSED CONDITIONS
PLAN & PROFILE (3 OF 4)

SHEET
5 OF 7



PROPOSED PHALEN CREEK CHANNEL (STA 0+00 - 7+00)





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PROPOSED CONDITIONS
PLAN & PROFILE (4 OF 4)

SHEET
6 OF 7

DAYLIGHTING THE CREEK PHALEN CREEK

CREEK PROFILE ENLARGEMENT

WHO LIVES HERE?

UPLAND

WILDLIFE:

VEGETATION:
little bluestem (Schizachyrium scoparium)
purple coneflower (Echinacea pallida)
butterfly milkweed (Asclepias tuberosa)
prairie sage (Artemisa ludiviciana)
bur oak (Quercus macrocarpa)

FLOODPLAIN

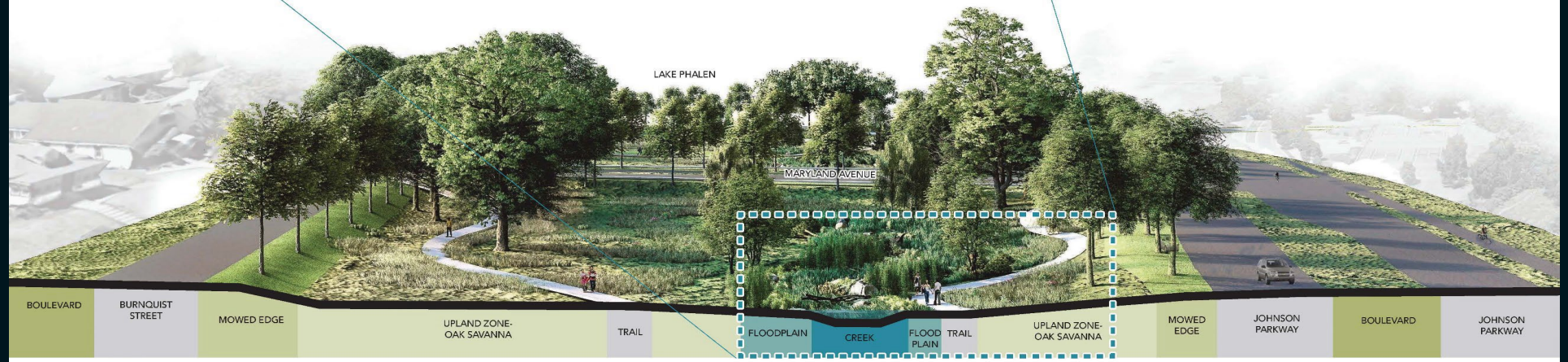
WILDLIFE:

VEGETATION:
spike rush (Eleocharis palustris)
blue-flag iris (Iris versicolor)
water plantain (Alisma triviale)
marsh milkweed (Asclepias incarnata)
black chokeberry (Aronia melanocarpa)
sweet grass (Anthoxanthum hirtum)
willow species (Salix spp.)

CREEK

WILDLIFE:

VEGETATION:
horsetail (Equisetum spp.)
white water lily (Nymphaea odorata)
broadleaf arrowhead (Sagittaria latifolia)
rushes (Juncus spp)
sedges (elocharis & carex spp.)

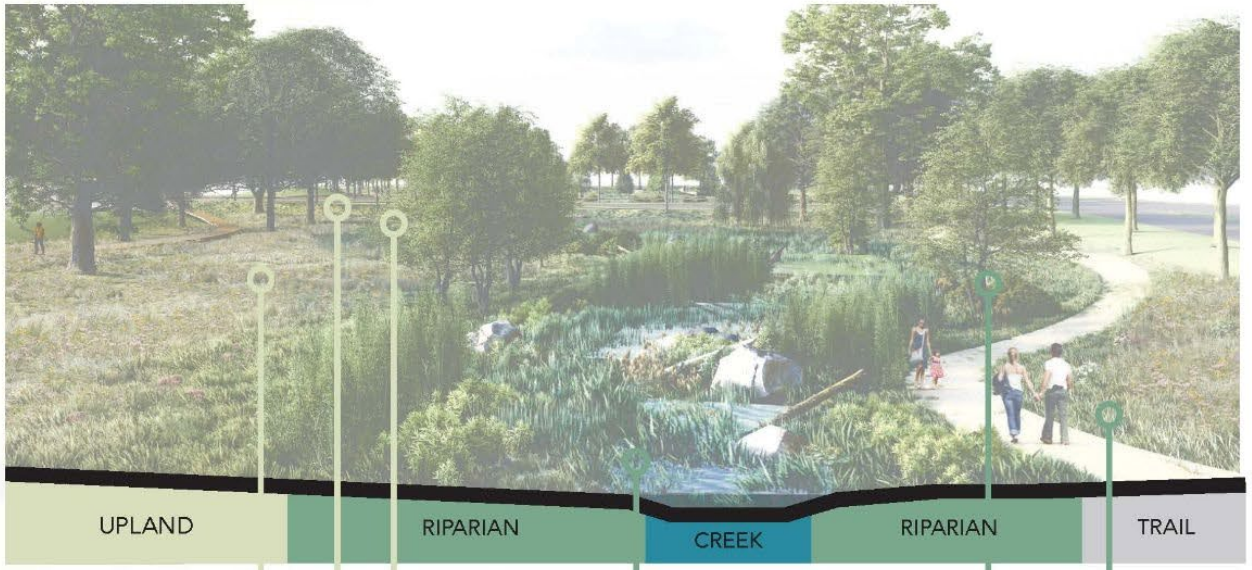


DAYLIGHTING THE CREEK PHALEN CREEK

Wakan Tipi Awanyanke

inter-fluve DF/ 05.18.2023

PLANTING COMMUNITIES



- SAVANNA
- NATIVE TURFGRASS
- ENHANCEMENT PLANTING ZONE
- STREAMBANK
- SHRUB ENHANCEMENT
- WETLAND/WET MEADOW

Phase 1 Timeline

- 60% Design: now-July 2024
  - Public Engagement Event: End of July 2024
    * Will include public engagement on creek renaming
- 90% Design: July-Sept 2024
  - Permitting phase
- Public comment period on creek renaming July-Aug 2024
- 100% Design finalization: Early 2025
- Bidding: Early 2025
- Preconstruction Community Event: Spring 2025
- Construction begins: Spring 2025

Renaming Timeline

- WTA research ecological/cultural/historical/other significant features of the area
- Create list of names that are feasible
  - Ex: rainbow darter creek, darter creek, rainbow creek
- Take name list to WTA staff for input
- Take list to WTA board for input
- Take list to Indigenous Review Committee for input
- Take list to 4 Dakota tribes for input (May)
- Stakeholder/Community Engagement (May 2024)
- Public comment period and final decision (July 20-30 Days)
- WTA Staff/board final decision (July/August)
- Parks Commission approval (Aug/Sept - Consider Public Hearing)
- City Council (not needed)
  - ***Note from Met Council:*** St Paul should describe the intent and process in a memo to rename the creek in the long-range plan amendment to update the Council. There may be a need to add a Council action to document the new creek name in the Council's filing system for future understanding
- DNR (Sept-Dec 2024)
- Construction (Jan 2025)


WETLAND
CHAN
» Changing wa
» Aquatic spec
» In-stream fea
» Toe wood
» Boulders
crossings
» Wildlife viewi
JOHNSON PARKWAY
UPLAND ZONES
» Native grasslands
» Wildlife viewing
» Nature play
» Trails & seating
» Gathering
CREEK CHANNEL
BURNQUIST STREET
EXISTING BIK
PHALEN CREEK

Thank you


DAYLIGHTING THE CREEK PHALEN CRE
» CREATION OF AQUATIC HABITAT
» STORM WATER MANAGEMENT
» CONNECTING PEOPLE TO NATURE
» OPPORTUNITY FOR HISTORIC AND CULTURAL INTERPRETATION
» STEWARDSHIP OF NATURAL RESOURCES
LEGEND
PARK/ RECREATION FEATURE
WAKAN TIPI AWAYANKAPI PROJECT SITES
FUTURE PURPLE-LINE BRT & STOPS
BIKE TRAILS
LAKE PHALEN
FUTUR
REACH 8
THE CREEK
DAYLIGHTED PHALEN CREEK
REACH 7
REACH 6
MARYLAND AV
AMES LA
DULUTH & CASE RECREATION CENTER
PHALEN BLVD
PAYNE AVE
ARCADE ST
WILDER RECREATION CENTER
EASTSIDE HERITAGE PARK
REACH 5
SAINT PAUL GRAND ROUNDS
SWEDE HOLLOW PARK
REACH 4
REACH 3
DAYTON'S BLUFF RECREATION CENTER
BRUCE VENTO NATURE SANCTUARY
WAKAN TIPI CENTER
INTERSTATE 94
REACH 2
INDIAN MOUNDS
REACH 1
WÁKPA TÁNKA MISSISSIPPI
JOHNSON PARKWAY

- Gabby Menomin

gmenomin@wakantipi.org

SAINT PAUL
MINNESOTA

Wakaŋ Tipi Awaŋyaŋkapi
332 Minnesota St
Suite W1520
Saint Paul, MN 55101
651.370.2106
wakantipi.org

Dear Ramsey-Washington Metro Watershed District (RWMWD) Board:

Phalen Creek is a long-buried waterway snaking through Saint Paul's East Side. Until the early twentieth century, Phalen Creek served as a thriving wildlife corridor and as a cultural resource for the Dakota people. Now, Wakan Tipi Awanyankapi, fka Lower Phalen Creek Project, with widespread support from local residents, community organizations, and a wide array of government entities and additional stakeholders, proposes to daylight Phalen Creek for a 1,500-foot stretch south of Lake Phalen. This daylit channel will restore and enhance critical habitat south of the vibrant Phalen Regional Park ecosystem and provide a range of recreational and educational opportunities for the community. Reaches 7 and 8 of the creek and the existing outlets are within City of Saint Paul Department of Parks and Recreation property (City) and the City supports the daylighting project.

The Daylighting project team has investigated alternatives to get surface water from the lake into the proposed creek. The project team anticipates that the proposed structure may consist of a new, third outlet structure, or tie in to one of the existing outlet structures. (See Inter-Fluve and Alliant memorandum entitled Lower Phalen Creek Water Source Alternative Evaluation Summary.) The preferred alternative, based on the discussion in the memorandum is to add a new outlet structure. The City and Wakan Tipi Awanyankapi anticipate working with RWMWD to agree upon a selected alternative for water sourcing based on each agency's goals and preferences.

Due to the watershed district's current maintenance and operations of the existing outlets from Lake Phalen and the district's role in regulating surface water within its jurisdictional boundaries, Wakan Tipi Awanyankapi and the City request that RWMWD consider taking on maintenance responsibility of the outlet structure to Lower Phalen Creek. The City is willing to have an additional structure on parks property and allow RWMWD to manage and operate the structure, pending a future maintenance agreement.

Thank you for your attention to this matter. We look forward to our conversation at the RWMWD Board meeting on May 1st to discuss this request further. Please let us know if you have any initial responses or requests ahead of the Board meeting.

Sincerely,

Andy Rodriguez, CPRP
Director, Department of Parks & Recreation

Maggie Lorenz (Apr 19, 2024 18:24 CDT)

Maggie Lorenz
Executive Director, Wakan Tipi Awanyankapi

RWMWD Shorelands
Past, Present & Future

By Paul Erdmann & Pat Williamson
Natural Resources Program

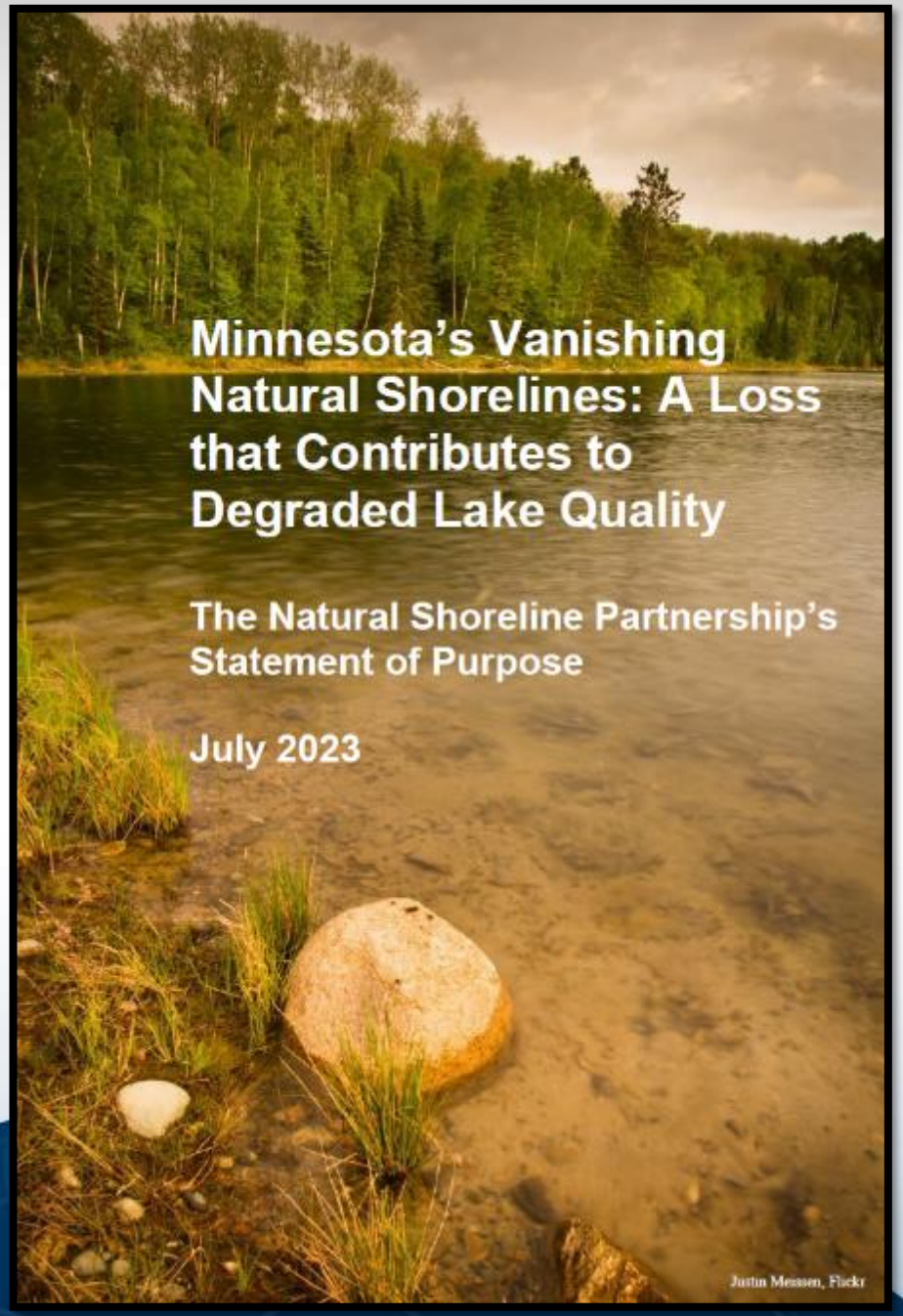
rwmwd.org

RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

RWMWD Shorelands- Past, Present & Future

1. Vanishing Natural Shorelines Paper/Background
2. RWMWDs Work on Shorelands
    a. Public Shorelines/Research
    b. Private Shorelines
3. Natural Resources Program Recommendations
4. Questions/Conversation

RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT



Natural Shoreline Partnership- UMN Extension, DNR, BWSR, SWCDs, Comfort Lake-Forest Lake WD, Non-Profits, others

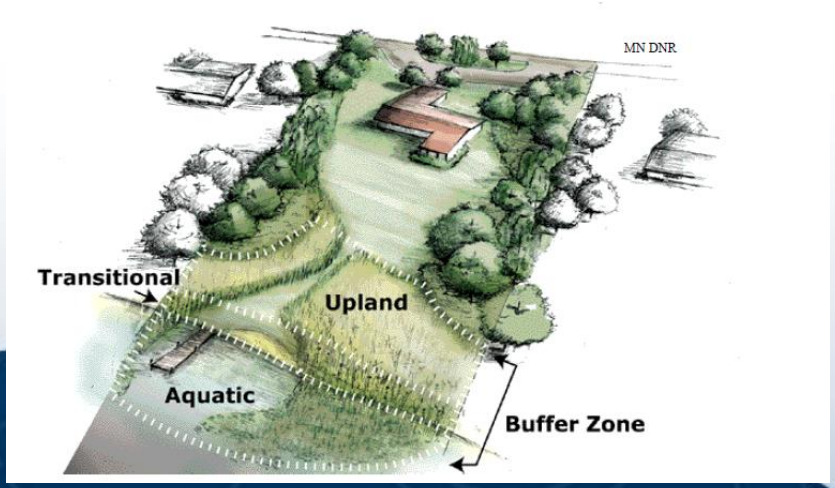
- About half of Minnesota's natural shorelines have already been lost, and natural shoreline continues to vanish at an alarming rate.
- Degrading lake water quality (e.g. Mowed shorelines allow 7 to 9 times more pollutants to enter the lake than a more naturally vegetated shoreline)
- Losing valuable habitat for aquatic and terrestrial wildlife

Despite 50 years of shoreline standards/regulation, failed to adequately protect shoreland

- Other efforts such as education have been marginally successful

(Link to report here)

RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT



Report Recommendations

1. Strengthen relationships between organizations with vested interest in shoreline restoration
2. Improve public outreach with a sustained, consistent message from all partner organizations
3. Training and outreach opportunities for key audiences
4. Increase one-on-one Landowner contacts by supporting grassroots/local efforts (lake stewards, water stewards, etc.)
5. Create incentives for shoreland protection and restoration
6. Enhance funding to support shoreland protection

RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

Our Work on Shorelands

RWMWD has led the way in Minnesota in protecting and restoring shorelands

This work started in 1998*

Built Natural Resource Program

Partners, students, education, outreach

Natural Resources Program -> Public Lands
Projects/Grants/Education/Communications -> Private lands

A commitment to long term maintenance

RWMWD Public Shoreland Restoration Timeline

2001-2010

Lake Phalen

2010-2012

Keller Island

2018-2022

Wetland A

2021-present

Lake Owasso

"Pre-History"
Gervais Mill Ponds
Tanners Lake Berm
Battle Creek Berm
Target/PCU Pond
Alum Plant

Gervais Beach 2001

Ames Lake 1999

Lakeside/Marketplace Ponds 2004-2005

Kohlman Basin

Casey Lake 2007-2008

Keller Creek 2015-2018

Grass Lake Berm 2019

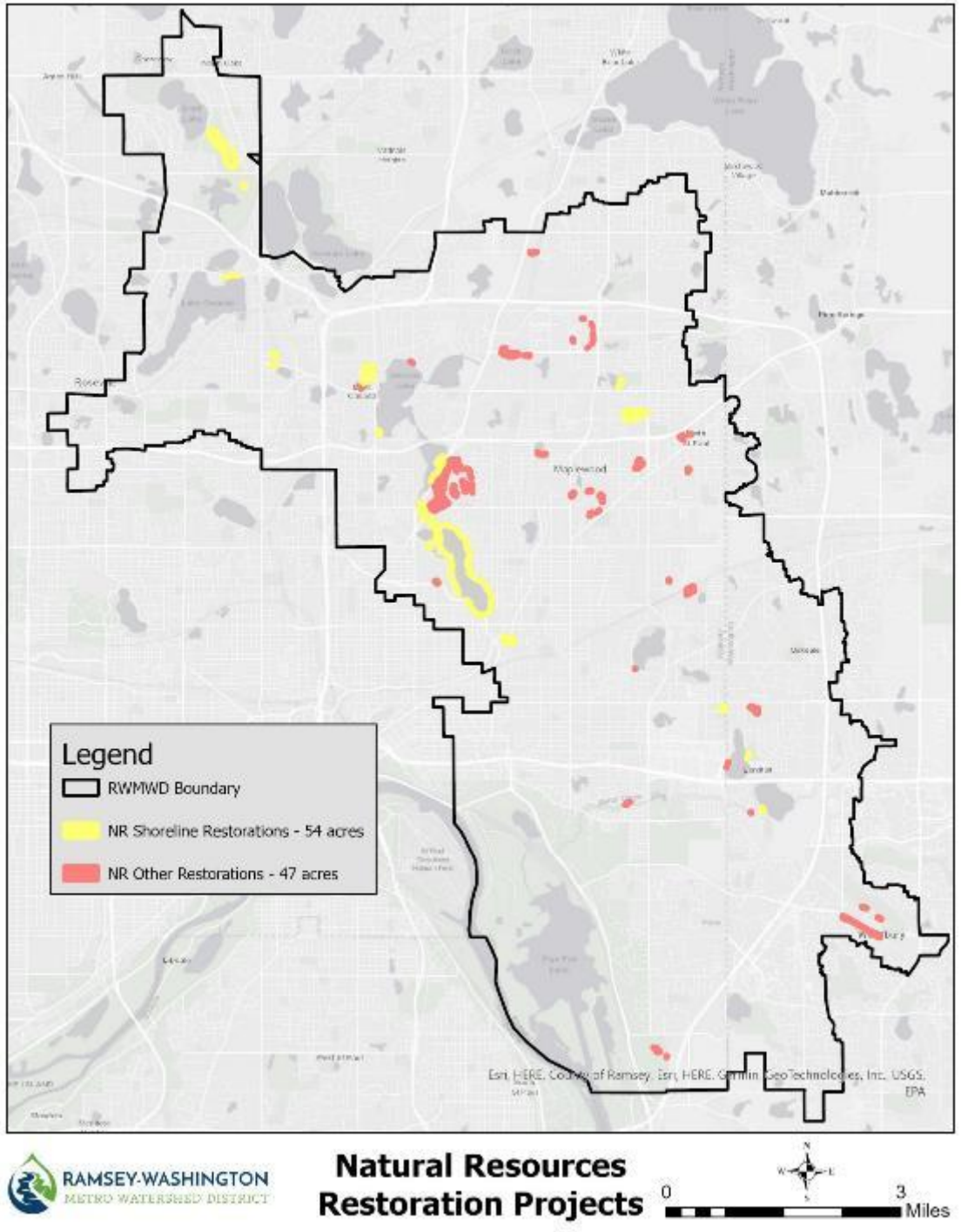
Keller Lake 2024

RWMWD Restoration Projects

Currently managing around 100 acres, including shorelands:

- Lake Phalen
- Lake Owasso
- Casey Lake
- Keller Lake
- Keller Creek
- Round Lake
- Wetland A

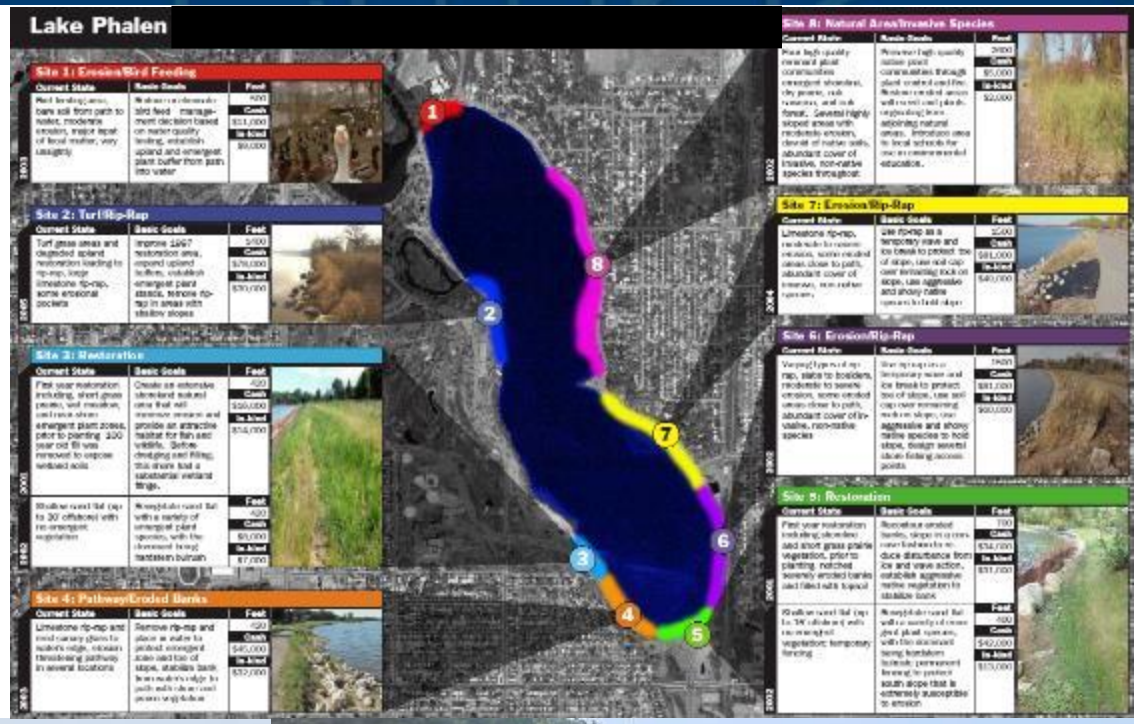
Maintenance is contracted on additional sites (some shorelands)



Shining Example- Lake Phalen Shoreland Restoration: 2001 - 2010

Shining Example- Lake Phalen Shoreland Restoration: 2001 - 2010

- Over a 10 year period, we restored 1.6 miles of shoreline
- This is one of the largest shore restoration projects in the state
- Routine monitoring and maintenance has taken place since 2001
- Site of many tours, classes, events



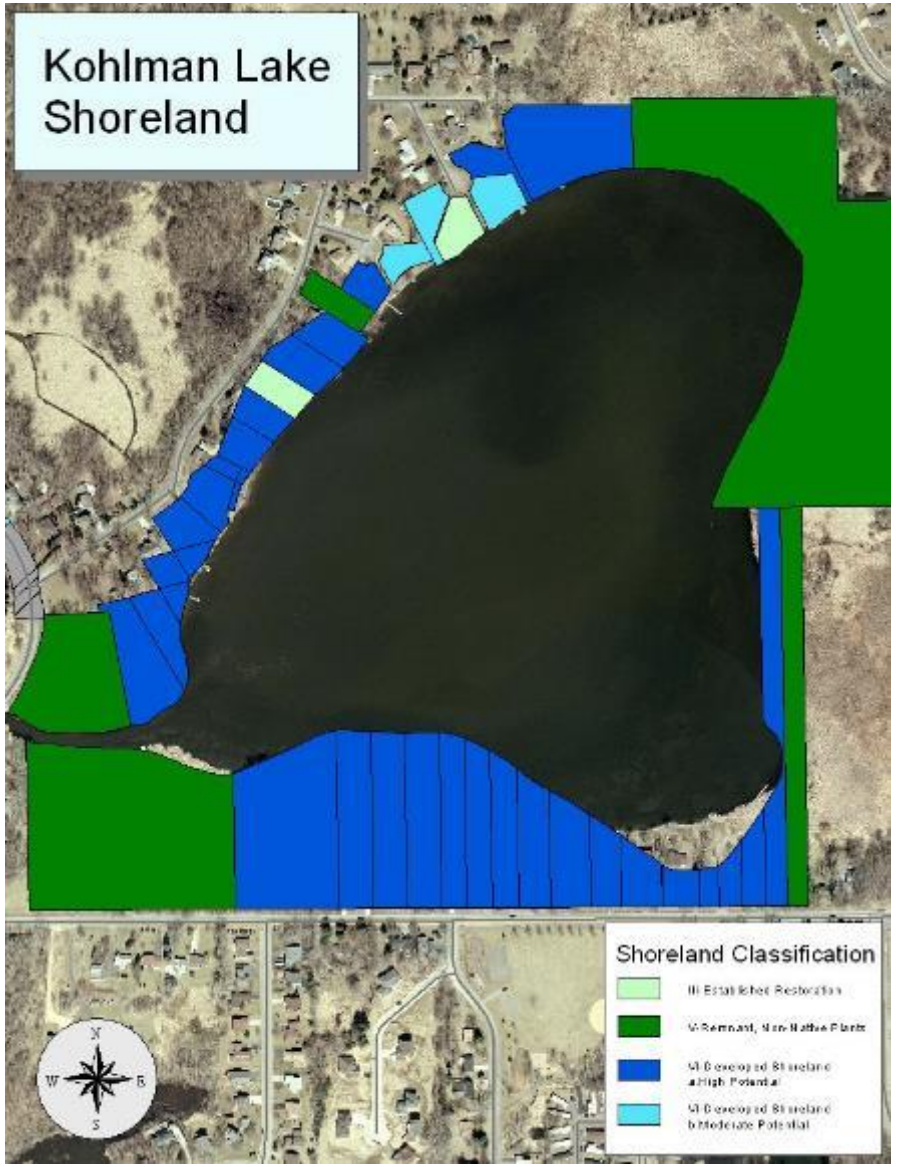
RWMWD's Work On Shorelands- Research

Lake Shoreland Classification System (Lake SCS) 2008-2009

- A shoreline assessment tool- a way to determine feasibility of restoration on a parcel basis
- The Lake-SCS was in agreement with assessments conducted by experts.
- Field surveys for a 150 ha (370 ac) lake could be conducted in 8 hrs.
- Lake-SCS output is valuable in prioritization.
- Models could be modified to suit other regions.
- Was not fully completed/didn't build a functional program

Shoreland Restoration Survey Project- 2009

- Survey to investigate motivation and barriers for lake and wetland owners to undertake shoreland ecological restoration
- To better understand lakeshore and wetland owners awareness, motivation, barriers, and needed incentives to increase participation in shoreland ecological restoration.



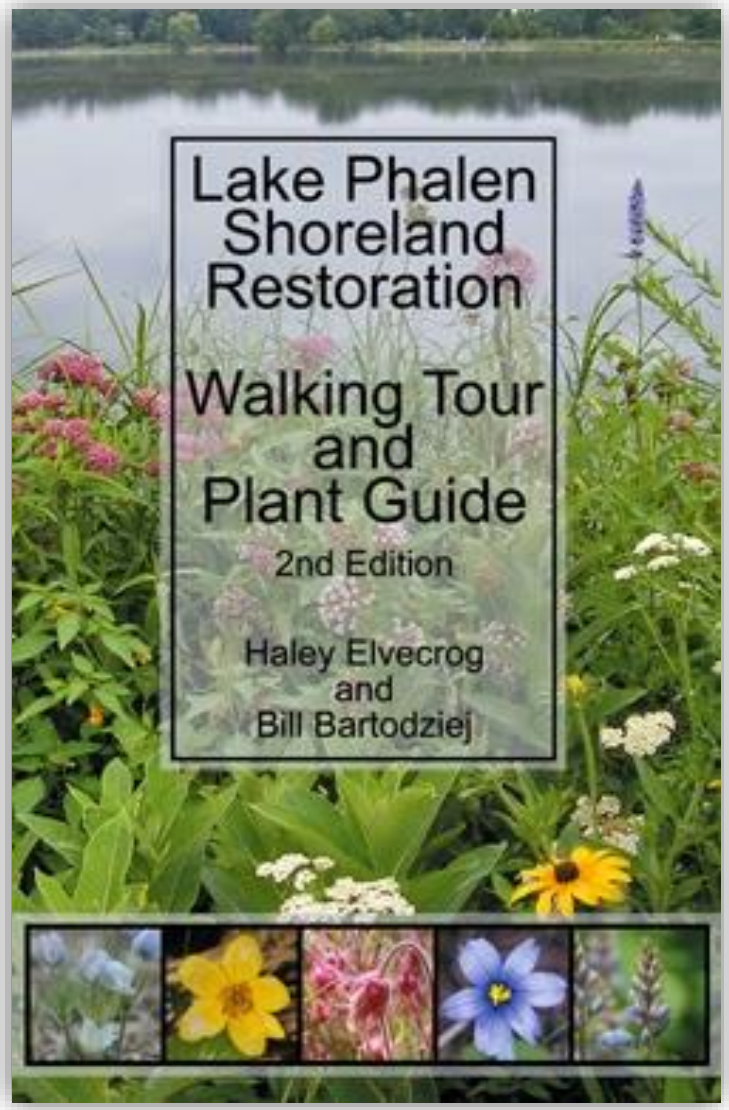
Research, Publications and Technical Guidance

An Evaluation of Fencing to Challenge Emergent Plant Herbivory (Minnesota)

William M. Bartodziej (Ramsey-Washington Metro Watershed District, 2665 Noel Dr, Little Canada, MN 55117, 651/792-7950, bill@rwmwd.org), Simba L. Blood, Paul W. Erdmann and Thomas F. Shevlin

Muskrats (*Ondatra zibethicus*), common carp (*Cyprinus carpio*), and waterfowl, particularly Canada geese (*Branta canadensis*), pose significant challenges for restoration ecologists working in aquatic habitats. These animals graze newly installed emergent plants, eat seeds, and sometimes uproot whole plants (Lodge 1991, Smart and Dick 1999). Plant damage in restoration areas can be exacerbated in urban settings where robust herbivore populations are common.

Extensive fencing projects have been carried out to



PERSPECTIVE

Urban Lake Shoreland Restoration: Landform, Vegetation, and Management Assessment 20 Years Later

William Bartodziej and Susan Galatowitsch

ABSTRACT

Residential development and recreation cause lake shoreland degradation, triggering vegetation loss and soil erosion. Shoreland restorations have been attempted for > 30 yrs but practices have received minimal evaluation and outcomes are unpredictable. Using comprehensive project records (13–20 yrs) and ecosystem response metrics (shoreline stability and vegetation), we assessed nine urban shoreland restoration sites, each making up part of a single large initiative on Lake Phalen, Minnesota, to ascertain guiding principles. Restoration scope included littoral wetlands, wet meadows, and upland prairie/savanna. All sites received attention to altered landforms, soil erosion, and active revegetation. In general, these restored shorelands are well-vegetated with native plant species, have low abundance of introduced and invasive species, and are, with some exceptions, very stable. Bank erosion was observed on four sites: high slope areas without full riprap berms. Informal footpath formation generated bare soil and required regular monitoring and response. Post-restoration management to control introduced species and encourage native vegetation establishment never exceeded 5% of individual project costs (per year). Although the number of introduced species/site ranged from 12–39 (in 2021), most sites (8) have 0–2 species with > 1% cover and none > 5%, suggesting that management was effective. Recovery lags of native vegetation were most evident at locations prone to stressors that favored introduced and invasive species over native species, particularly those with high recreational (pedestrian) traffic, high muskrat activity, and near large, unmanaged stands of invasive plants. Shoreland vegetation management overwhelmingly required fine-scale, inherently labor-intensive control approaches, which necessitated regular surveillance and rapid response.

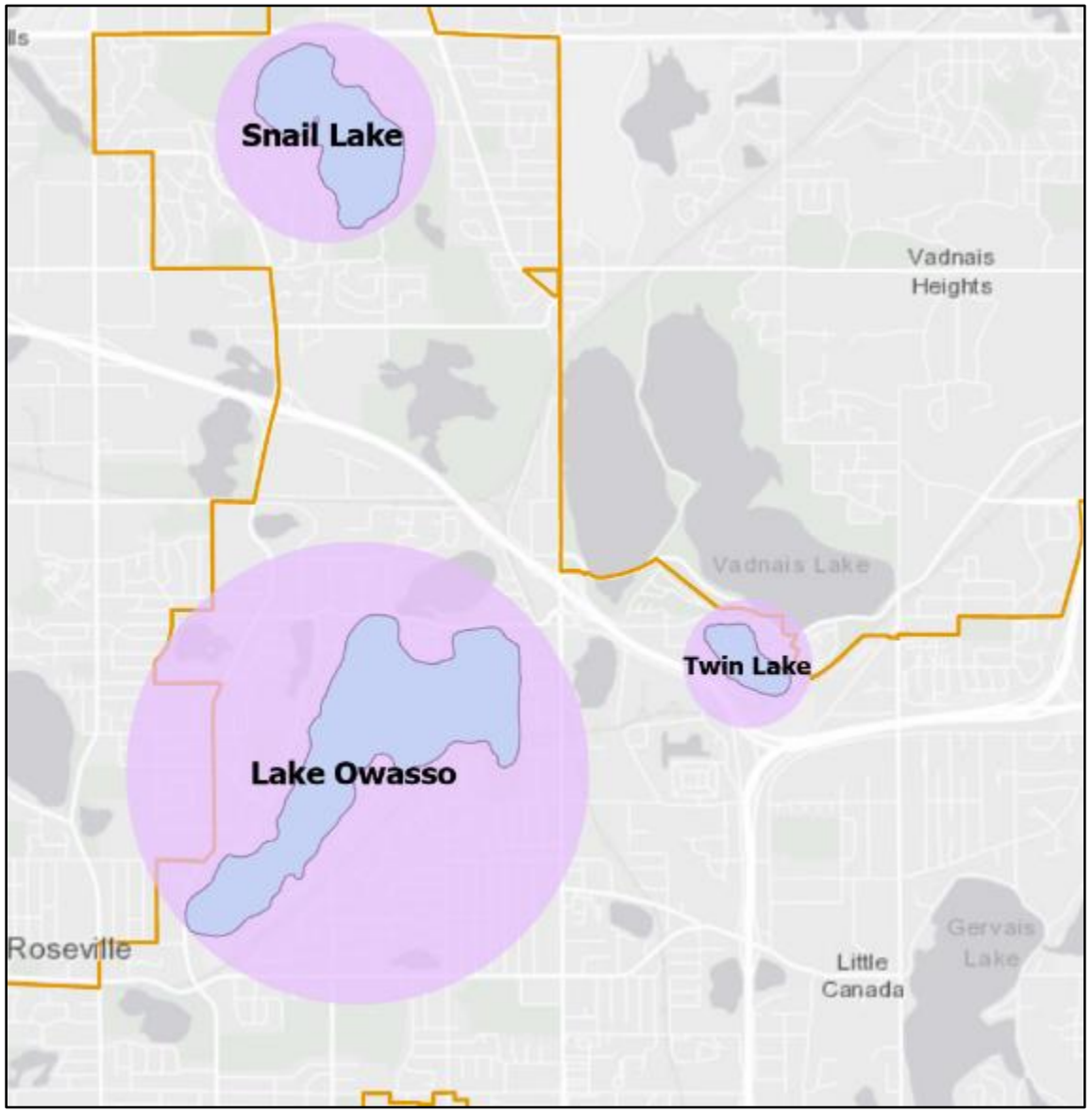
Keywords: cost estimation, invasive species management, soil erosion control, littoral wetlands, Minnesota

Residential development and recreation cause widespread lake shoreland degradation and littoral wetland loss, triggering wave-generated soil erosion and diminished ecosystem function (Crowder et al. 1996, Radomski 2006, Haskell et al. 2017). When intact, lakeshore ecosystems support carbon subsidies to deeper water zones, littoral macrophyte plant communities, and high secondary productivity (i.e., fish and aquatic invertebrates) (e.g., Hershey et al. 2006, Francis and Schindler 2009). In the United

Reversing lakeshore degradation is a priority in the north-central US, where lake abundance is high. For example, shoreland restoration has been pursued for over 30 years in Minnesota (Vanderbosch and Galatowitsch 2011), which has the highest lake area in the US (11,200 km², nearly 5% of its total land area, Winslow et al. 2014). However, compared to their adjacent aquatic and terrestrial ecosystems, restoration practices of lakeshores have received minimal assessment and outcomes are generally considered to be

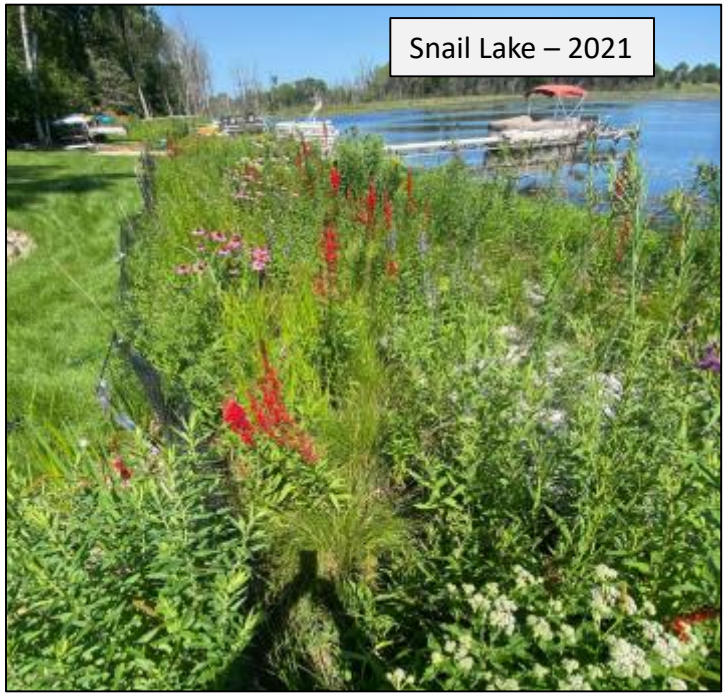
RWMWD Private Shorelands - History

- Started in 2006 to improve water quality in the District
- Started at $5,000 for residents
- Targeted areas
  - Snail Lake
  - Twin Lake
  - Lake Owasso



Private Shorelands – Current

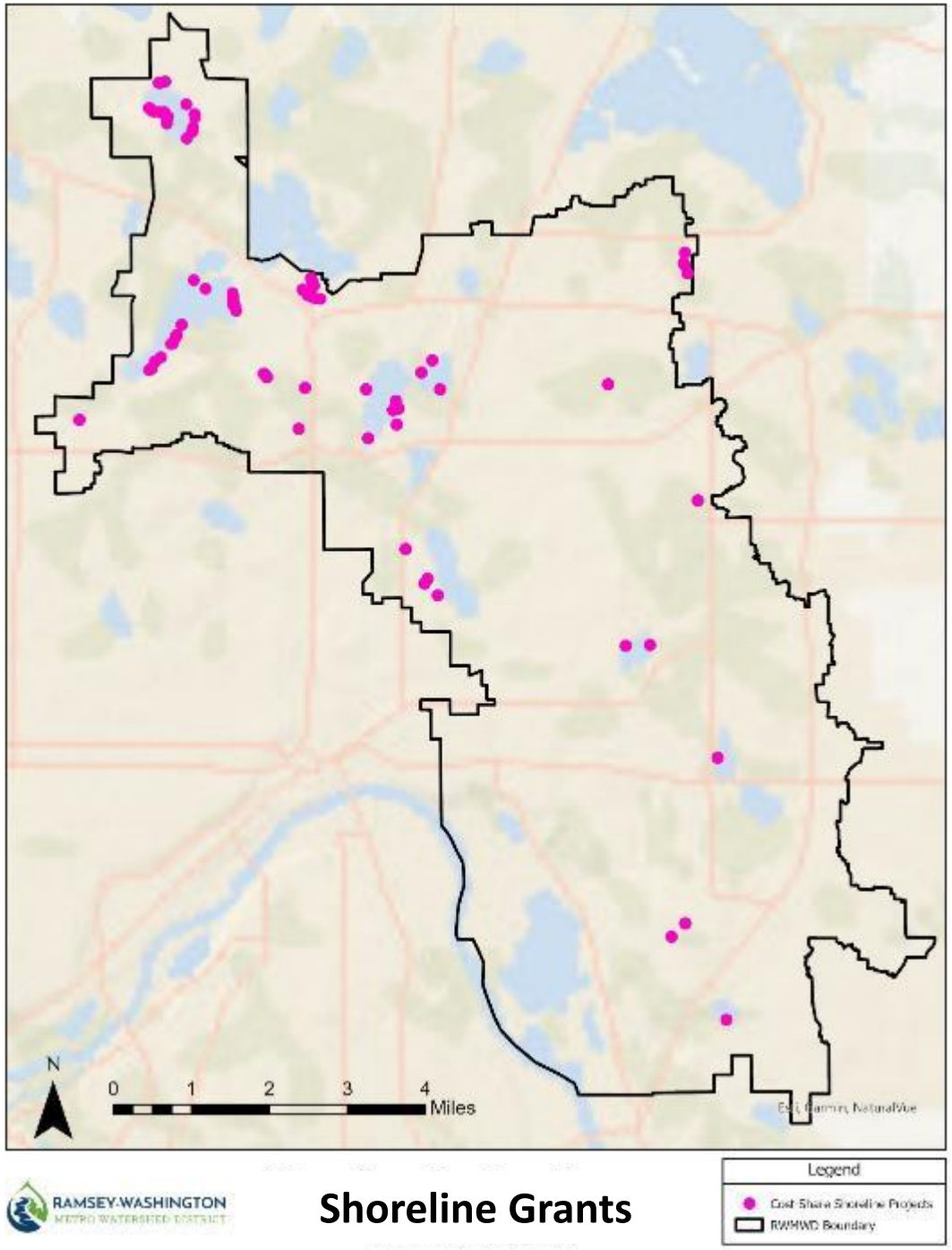
	Type of Projects	Cost Share %	Maximum $
Homeowner	Habitat restoration or rain garden without hard surface drainage	50%	$15,000
	Rain garden with hard surface drainage, pervious pavement	75%	$15,000
	Shoreline restoration (below 100-year flood elevation with actively eroding banks)	100%	$15,000
Commercial, Church, School, Government, Associations, etc.	Habitat restoration	50%	$15,000
	Shoreline restoration	100% below 100-year flood elev. with actively eroding banks	$100,000
	Water quality BMPs	75% in non-priority drainage areas	$50,000
		100% in priority drainage areas*	$100,000


Snail Lake – 2021


Tanners Lake – 2021

Awarded Funds in Stewardship Grants

- 2023 - $169,907.00
- Total - $1,037,538.96
- 90 shoreline specific projects completed over 16 years



Shoreline Grants

Stewardship Shorelands – Maintenance

Maintenance Grants

- Recipients of Stewardship Grants responsible for maintenance
  - Non-Profit/Government/Churches: 20-years
  - Resident: 5-years

Funding Details

- 50% cost-share up to $1,500
- Grant period: 5 years

RWMWD Support

- Annual inspections and guidance
- Plant species recommendation
- Non-desirable/invasive plant management methods

Importance

- First years of restoration are crucial
- Site sensitivity (soil disturbance)
- Many methods for management – educate landowner

RWMWD Shorelands and Vanishing Shorelands Paper

MN Vanishing Shorelands Recommendation	Current RWMWD Practice
Strengthen relationships between organizations with vested interest	Collaborates with cities, counties, and other landowners throughout the district Grant program offers cost-sharing (or full cost reimbursement) for shoreline habitat projects
Public outreach	Outreach to public via physical signs, social media posts, newsletter, tours, presentations Communications working to engage communities and target messaging for specific issues and interests throughout District
Training	Hosted shoreline workshops Stewardship workshop for Shoreview residents (June 2024)
Increase one-on-one landowner contacts by supporting local efforts	Keep relationships/partnership with lake associations, water stewards, master gardeners & others
Incentives for shoreland protection and restoration Enhance funding to support shoreland protection	Stewardship Grant Program District has several grant programs ranging from $50-$100,000

Natural Resources Program Recommendations

- Keep Up the Great Work!
- Prioritize public shorelands/wetlands
- Develop partnerships with other public landowners
- Don’t extend ourselves too far-
  Keep the good stuff good

Private Shorelands

- Annual review
- Collaborate with new staff

Education & Outreach

- Continue education & outreach efforts
- Collaborate on shoreland and aquatic engagement

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BARR

Memorandum

To: Ramsey-Washington Metro Watershed District (RWMWD) Board of Managers
From: Erin Anderson Wenz, Fred Rozumalski, Andrea Wedul, Brendan Dougherty and Marcy Bean
Subject: Maplewood Mall Assessment 2024
Date: April 24, 2024
Project: 23/62-1029 2024 (or could be conducted under "Special Project BMP Monitoring")

Project team

RWMWD staff:	Paige Ahlborg, Eric Korte, Lyndsey Flaten, and Dave Vlasin
Barr staff:	Erin Anderson Wenz, Fred Rozumalski, Andrea Wedul, Brendan Dougherty, Marcy Bean, Leslie Dellangelo and Greg Nelson

Barr team roles

Project management:	Fred Rozumalski
Field assessment:	Andrea Wedul and Fred Rozumalski
Engineering review:	Erin Anderson Wenz, Leslie DellAngelo, and Greg Nelson

RWMWD staff

Project management:	Paige Ahlborg
Sump sediment data collection:	Lyndsey Flaten
Cistern and pump inspection:	Eric Korte

Scope of work

The purpose of this project is to assess the integrity of the stormwater management system, tree trenches, and plantings implemented through the RWMWD between 2009-2012 at Maplewood Mall. Now that much of the system is at least eleven years old, the condition of materials, sediment capture, structures, and plant growth should be evaluated. Essentially, the scope of this effort is the same as the effort in 2018-2019, which produced the report: *Maplewood Mall Stormwater Retrofit Project: Five Year Anniversary Project Inspection, Inventory and Recommendations for Maintenance and Improvements (January, 2019).*

Task 1: inventory and assessment

The first step will be to conduct a field assessment of conditions, including:

- Tree inspection: size (DBH measurements), condition, structural integrity, and other notes
- Stormwater structures (trench drains, agri-drains, and sump catch basins)
    - Condition inspection with notes and photos
    - Asphalt and concrete associated with the structures
    - Sediment levels in sump catch basins

    - Video inspection of underdrains within selected tree trenches to inspect for root intrusion, sediment accumulation, or blockage
- Rain gardens and planting areas, including entrances
    - Condition assessment including erosion, sediment accumulation, weeds, and plant loss
    - Summary of maintenance records from past activities
- Signage, tree grates, and cistern
    - Condition inspection and documentation of damage
    - Summary of maintenance records from the RWMWD
- Pavement conditions
    - Decorative concrete at entrances and permeable pavers
    - Curbs associated with the original project
- Hydrology
    - Summary of past monitoring efforts (continuous event monitoring and 2016 synthetic storm)
    - Synthetic storm event, summer 2024

Task 2: findings and recommendations

- Create a summary memo (including photos of all notable findings)
- Present findings to the RWMWD
- Create a recommendations memo
    - Tree/plant replacements
    - Signage and cistern repair
    - Additional monitoring
    - Estimate of cost for recommended work
    - Proposed strategy for work completion with schedule (e.g., included with yearly capital projects maintenance or potentially create a separate bid; some of the plant work could be done under the existing maintenance contract)
- Presentation to the RWMWD board

Task 3: oversight of implementation of repairs

- Assemble bid package for structure repairs and plantings
- Oversee repairs and plantings

Budget

Barr will complete this work for an estimated amount not to exceed $25,000.

Schedule

Task 1: inventory and assessment

- Project to begin after leaf-out in mid to late May
- Complete site assessment by early-June
- Issue tree and planting replacement recommendations by early June
- Synthetic storm event late summer

Task 2: findings and recommendations

- Presentation to staff in early September
- Presentation to RWMWD Board at October 2 meeting

Task 3: oversight of implementation of repairs

- Coordinate creation of plans and specs for repair work with RWMWD's current landscaping maintenance subcontractor (and/or RWMWD's 2025 CIP Maintenance work, as applicable).

Project tracking

Project milestones

Milestone	Estimated completion date	Actual completion date
Inventory and assessment	June, 2024	
Findings and recommendations	June, 2024	
Presentation to RWMWD staff	September 2024	
Presentation to RWMWD Board	October 2, 2024	

Project budget tracking (engineering)

Project objectives	Estimated budget*	Spent to date
Task 1: inventory and assessment	$10,000	
Task 2: findings and recommendations	$10,000	
Task 3: oversight of implementation of repairs	$5,000	
Total	**$25,000**	

**Barr budget only; these totals do not include RWMWD project budgets*

Monthly updates

Month	Budget spent ($/%)
May 2024	

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Administrator's Report

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MEMO

TO: Board of Managers and Staff
FROM: Tina Carstens, Administrator
SUBJECT: April Administrator's Report
DATE: April 25, 2024

A. Meetings Attended

Tuesday, April 2	8:30 AM	MAWA Executive Committee
Wednesday, April 3	11:00 AM	Phalen Creek Outlet Structure Discussion
	6:30 PM	Board Meeting
Thursday, April 4	9:00 AM	Water Resources Conference Planning
Wednesday, April 10	9:00 AM	MW Events-Education Committee
	VARIOUS	Staff Organizational Discussions
Thursday, April 11	VARIOUS	Staff Organizational Discussions
Friday, April 12	VARIOUS	Staff Organizational Discussions
	3:00 PM	KGSK Meeting with DNR
Tuesday, April 16	2:00 PM	Stormwater Capture and Use Engagement Core
	7:00 PM	Metro Watersheds Meeting
Thursday, April 18	10:00 AM	SDI Equity Audit
Monday, April 22	11:00 AM	MW Summer Tour Planning
Tuesday, April 23	2:00 PM	Metro-INET Quarterly Board Meeting
Wednesday, April 24	12:00 PM	Purple Line BRT Project Update

B. Upcoming Meetings and Dates

WaterFest	**June 1, 2024**
June Board Meeting	June 5, 2024
CAC Meeting	June 11, 2024
Minnesota Watersheds Summer Tour	**June 25-26, 2024**
July Board Meeting	July 10, 2024
Metro Watersheds Meeting	July 16, 2024
August Board Meeting	August 7, 2024
September Board Meeting	September 4, 2024
CAC Meeting	September 24, 2024
October Board Meeting	October 2, 2024
Metro Watersheds Meeting	October 15, 2024
CAC Meeting	October 22, 2024
November Board Meeting	November 6, 2024
Watersheds Excellence Awards	**November TBD**
Minnesota Watersheds Annual Conference	**December 4-6, 2024**
CAC Meeting	December 3, 2024
December Board Meeting	December 11, 2024

C. **Staff Anniversaries**

The following staff have work anniversaries with the watershed in the month of May. I appreciate them and want to thank them for their commitment to the district and our mission!

May 11	Lauren Hazenson	4 years
May 21	Shelly Melser	23 years

D. **Board Action Log and Updates**

The board action log is attached. I review this list each month and add anything suggested in the previous meeting.

E. **Minnesota Watersheds Updates**

For the monthly newsletters go here: https://www.mnwatersheds.com/news-letters

On April 16, the Metro Watersheds meeting was held at Capitol Region Watershed District office. The main speaker was Jess Lindeen, Minnesota Watersheds lobbyist from Lockridge Grindal Nuaen Law Firm. Many of the state agency representatives were also present to give updates on the work that pertains to watershed organizations. The next Metro Watersheds meeting is July 16th and will be held on Zoom only.

Our staff and Capitol Region WD staff have continued to plan the bus tour stops for the MW Summer Tour in June. For our watershed, we are planning to have stops at Keller Golf Course, East Side Boys and Girls Club/Roosevelt Homes, Maplewood Mall, and Lake Owasso County Park.

F. **West Vadnais Lake Discussion**

Since we have a newer board that wasn't here when we first took up the issue of the West Vadnais Lake (WVL) boundary change, I thought it would be worthwhile to provide some background and points of discussion. The attached map shows the WVL area, the flow paths, and some of the work done there.

In 2013, the then Grass Lake Area Watershed Management Organization, consisting of Shoreview and Roseville cities, asked if RWMWD would consider adding their watershed area to our boundary. At that time, there was an assumed connection to RWMWD (through WVL), but only in high water conditions, and the connection was not well known. The Grass Lake Area WMO boundary change happened that year, and we incorporated those areas into our program and projects.

Shortly after that, we entered into the wet years of extremely high levels of rainfall each year. During this time, high water levels impacted the Snail Lake-Vadnais Lake Regional Park area, and we spent a lot of our time and energy studying the Grass Lake area for flood risk. The connection from Grass Lake to WVL was much more evident, and the level of West Vadnais Lake was consistently

above the outlet elevation. While WVL is not within our watershed boundary, the elevation control and outlet are in our district. In 2019, it was also discovered that under extremely high water levels, an overflow path from WVL impacted Twin Lake, which was landlocked at the time.

Because of all that we learned during those years, we have since adapted our management to alleviate the flood risk in the area. We installed an outlet for Twin Lake and have a sump system set up to help prevent the overflow from WVL from reaching Twin Lake in the first place. Another significant change was to lower the outlet from West Vadnais Lake. This has provided more flood storage in WVL to help reduce the water level peaks during those flood times. The last few years of drought conditions have helped us realize the benefit of that lowered outlet, which is, therefore, more available for the next period of wet weather.

In addition to our flood risk work, which the Vadnais Lake Area Watershed Management Organization (VLAWMO) partnered with us on, we also studied the carp population in WVL. This was part of our Owasso/Grass Lake/WVL lake study to manage carp populations for water quality in the system. WVL is on the impaired waters list and has poor water quality.

During this time, the board discussed the possibility of a boundary change to incorporate WVL into RWMWD. We discussed it with the Vadnais Lake Watershed Management Organization (VLAWMO) and the city of Vadnais Heights. The RWMWD board's concern was about the ability to manage water levels and water quality.

Vadnais Lake is split into two different lakes – West and East Vadnais. East Vadnais Lake is part of a chain of lakes that ultimately is used by St. Paul Regional Water for the drinking water supply in the east metro. Treatment systems are set up along the route that starts at the Mississippi River and goes to East Vadnais Lake before being pulled and brought to the drinking water treatment system.

WVL is separated from EVL by a narrow earthen berm with a bike path on top. A study by Barr Engineering to see how strong the underground connection is between the two sides of the lake showed that little water passes between the two. This was studied to see if more water could be forced from WVL to EVL underground to alleviate flooding in the Grass Lake and WVL areas.

When it comes to a boundary change and management of the WVL system, the options the board has are to (1) pursue a boundary change that incorporates only the WVL and its small subwatershed to our district or (2) continue to work collaboratively with VLAWMO to benefit from management of the lake system mutually.

As time has passed, I believe this is a good time to bring this conversation back to the board to determine the best way forward.

As shown on the map, the lake is in VLAWMO, but the major components of the flood control are in our district, and we own and operate them. The outlet, pipes, water level monitor, and emergency overflow infrastructure are all within the boundary of RWMWD. During the high-risk times, we were able to do all the work needed to adapt to the conditions and provide as much control as we could. Even when we wanted to work in the lake, there were no barriers to our ability to clean out the flow path. And that cleaning was minor compared to our other flood risk work. Since we have done the outlet lowering, we have more flood storage available and other outlets and systems in place to manage during high water times. Again, all of those components are in our watershed area.

Since these systems are all connected for carp control, WVL is an integral part of the water system. We have worked closely with VLAWMO and Carp Solutions to study this system, and over this last year, we have installed a boat ramp for use by both watersheds to manage carp and other needs to access the lake for study easily. This has been a good partnership that will continue.

VLAWMO is currently starting its watershed management plan update, and as you know, we are about a year behind them. 2024 is also the year that VLAWMO will complete a TMDL plan for WVL due to its impaired water status. As a lake in their watershed, they will study the lake and determine plans to improve the water quality and address the impairment. They will follow the same process we have for the three impaired lakes in our watershed. I anticipate being part of those conversations with VLAWMO as they do this study. I also expect that we will incorporate the data and information into our plan and include our collaborative work in our implementation plans. If WVL were in our watershed, we would do the same thing. In this case, VLAWMO would take the lead with the same results.

I recommend that RWMWD staff continue working with VLAWMO staff on the WVL TMDL and watershed management plan update. We could provide technical support and be part of the advisory committee in review. We would also continue to work together on carp management and other needs of the lake subwatershed. As we enter our watershed management plan update, we will more specifically include information about the WVL system, and I anticipate there will be some implementation items related to the lake and flow systems. If we find it would be more beneficial to pursue a boundary change again during that process, we can revisit it then. This approach is more valuable to RWMWD and VLAWMO while simultaneously providing the desired results.

I look forward to discussing this and will answer any questions you may have. I am always open to exploring other options or bringing more information to you to help make decisions. If you have further questions on the history after you read through this, please let me know ahead of the meeting, and I can get you up to speed.

West Vadnais Lake Management Discussion

NORTH

- Points of Interest
- Water Bodies
- Cities
- Major Flow Arrows
- RWMWD/VLAWMO Boundary
- West Vadnais Lake Drainage Area (DNR8)

0 500 1,000 2,000 Feet

Map ID	Location
1	In-Lake Vegetation Clean-Out
2	Vadnais Blvd Twin Pipes
3	West Vadnais Lake Overflow Bypass System
4	West Vadnais Lake Outlet
5	West Vadnais Lake Auto Lake Level Monitoring Station

RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

Board of Managers 2024 Action Log

Wednesday, May 1, 2024

Item	Anticipated Action Date	Means of Action	Completed
Governance Manual	March 2024	RBA – Approval	March 2024
West Vadnais Lake Boundary Change	May 2024	Board discussion	May 2024
Shoreline Condition Assessment and Planning	May 2024	Presentation and Discussion.	May 2024
Addressing Internal Load in Lakes (aeration and alum)	Spring 2024	Board discussion	
Impervious Surface Reduction Planning	Summer/Fall 2024	Presentation and Discussion.	
Chloride Use Reduction/Low Salt Design/Calibration Techniques	Summer/Fall 2024	Presentation and Board Discussion	
PFOS Update	Fall 2024	Presentation and Board Discussion	

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2665 Noel Drive
Little Canada, MN 55117

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Project and Program Status Reports

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RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

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Memorandum

To: Board of Managers and Staff
From: Tina Carstens, Brad Lindaman, and Erin Anderson Wenz
Subject: Project and Program Status Report – May 2024
Date: April 24, 2024

Note: The location, brief description, and current status of each project described below can be found on the 2024 RWMWD engineering services story map.

Project feasibility studies

A. Kohlman Creek flood risk reduction feasibility study (Barr project manager: Tyler Olsen; RWMWD project manager: Tina Carstens)

The purpose of this study is to complete a feasibility evaluation of modifications to reduce flood risk along Kohlman Creek and remove structures from the 100-year floodplain. Work includes coordinating with the cities of Maplewood and North Saint Paul, evaluating alternatives to reduce flood risk, preparing cost estimates for each alternative, and identifying permitting requirements. This project focused primarily on areas surrounding the Postal Credit Union (PCU) Pond and the wetland complex west of White Bear Avenue. This is a follow-up feasibility study of flood-prone areas identified in the Beltline resiliency study.

Last period, Barr finalized the report and shared it with the RWMWD and the cities of Maplewood and North Saint Paul. The report was the final deliverable for this specific effort. However, the design work associated with future capital improvements will begin later this year, and construction of high-priority items will likely start in 2025. This is the last update for this study.

B. Ames Lake area flood risk reduction planning study (Barr project manager, Matt Metzger; RWMWD project manager, Tina Carstens)

The purpose of this study is to complete a planning-level evaluation to identify potential modifications that reduce flood risk to homes and businesses near Ames Lake, supported by the City of Saint Paul. Work includes coordinating discussions with the city; reviewing potential pipe alignments, land acquisition costs, utility conflicts, and permitting issues; and completing the related design. This follow-up planning study was identified in the Beltline resiliency study.

This month, Barr followed up with the City of Saint Paul and the Housing and Redevelopment Authority (HRA). The HRA Board is reviewing its property portfolio and developing a long-range plan for several properties, including those near Ames Lake. In March, HRA leaders voiced support for moving forward with a grant application and are evaluating the plans for the parcel(s) and this potential project. The HRA

anticipates providing direction toward the end of May regarding whether it would support the proposed flood risk mitigation project on the parcel(s) it owns. Following receipt of feedback from the city and HRA, a feasibility report will be prepared documenting concepts considered, stakeholder feedback, cost estimates, permitting requirements, and recommendations for future system modifications. The draft report is anticipated to be available in May for the RWMWD and Barr to review. A Minnesota Pollution Control Agency (MPCA) Implementation Grant for Stormwater Resilience application was submitted for the project, which, if funded, would offset RWMWD funding. Final design and construction are dependent on input from the HRA but are anticipated to take place in at least 2025 or later.

C. Phalen Village flood risk reduction (Barr project manager, Brandon Barnes; RWMWD project manager, Paige Ahlborg)

The purpose of this study is to evaluate modifications to reduce flood risk near Phalen Village north of Lake Phalen by lowering flood levels to remove structures from the 100-year floodplain. The feasibility study was completed in 2022. In 2024, the RWMWD is working with the City of Maplewood to incorporate modifications to the storm sewer system into the city's 2024 street improvement project. This is a follow-up planning study identified in the Beltline resiliency study.

Barr reviewed preliminary storm sewer plans from the City of Maplewood. We verified that the city's plans were consistent with the RWMWD feasibility study and that the recommended flood risk reduction design elements were implemented as intended. Later this spring, when conditions allow, we will coordinate property access for wetland delineations needed to construct storm sewer modifications.

D. Resiliency study for non-Beltline tributary areas (pre-planning study and evaluation of existing data) (Barr project managers: Jay Hawley, Lulu Fang; RWMWD project manager: Tina Carstens)

The purpose of this project is to evaluate potential system-scale modifications to reduce flood risk within the portion of the RWMWD that was not evaluated as part of the Beltline resiliency study. This portion of the watershed includes the Tanners Lake, Battle Creek Lake, Battle Creek, Carver Lake, Fish Creek, and Snake Creek subwatersheds. The evaluation will identify modifications to the drainage system that could reduce flood risk to habitable structures within the 100-year floodplain of district-managed water bodies—including actively managing outlet control structures on Tanners Lake, Battle Creek Lake, and Carver Lake. This evaluation will allow the RWMWD to identify potential flood risk mitigation strategies that address the portion of the district that is not tributary to the Beltline.

This month, Barr finished drafting the project report and updating the district's web map with the study results. The draft report is anticipated to be available later this month for RMWMD staff to review. The report describes Barr's evaluation of potential system modifications needed to remove habitable structures and critical infrastructure from the floodplain in the Carver Lake, Fish Creek, Snake Creek, Tanners Lake, and Battle Creek Lake watersheds. The potential modifications include adjustable outlet control structures, new regional stormwater basins, and modifications to culverts, storm sewers, overland flow paths, and existing storage areas. The modeling effort evaluates ways to mitigate the

downstream impacts of these proposed modifications along Fish Creek and Battle Creek and considers whether these actions to mitigate flood risk may have a positive effect on water quality in these creeks.

E. Owasso Basin area/North Star Estates improvements (Barr project manager, Brandon Barnes; RWMWD project manager, Tina Carstens)

The purpose of this study is to evaluate the benefit-cost of flood risk reduction strategies in the Owasso Basin/North Star Estates area by removing habitable structures from the floodplain. Stakeholder outreach with the City of Little Canada is important to this effort. This study is a continuation of the Owasso Basin bypass study, which laid out several phases of implementation and areas of further study.

Previously, the RWMWD received feedback from Saint Paul Regional Water Services and North Star Estates property management that they are not interested in partnering on drainage modifications to their respective properties. In March, Barr met with the City of Little Canada to discuss this feedback and review the city's upcoming street improvement projects. Little Canada informed us of a fall 2024 project to construct a sidewalk along South Owasso Boulevard. Barr is reviewing the benefits of increasing the South Owasso Boulevard culvert capacity alone. The City of Little Canada is supportive of the proposed modifications; however, replacing just the culvert provides only an incremental reduction in flood risk.

Currently, North Star Estates has no emergency response plan. However, Barr and the RWMWD have informed the City of Little Canada and North Start Estates property management of the area's flood risk and specific flood-prone structures. The city provided feedback on proposed modifications in and around North Star Estates to make structures accessible to emergency vehicles. In the meantime, the city will provide materials to North Star Estates to install temporary flood risk mitigation measures, if necessary.

Barr and the district met last month to discuss next steps and plan for follow-up discussions with the City of Little Canada, Saint Paul Regional Water Services, and North Star Estates. For now, the project is on hold as we try to garner support from the two landowners.

F. Street sweeping (Barr project manager, Michael B. McKinney; RWMWD project manager, Paige Ahlborg)

The purpose of this study is to support the 2024 enhanced street-sweeping grant program.

This period, Barr coordinated with RWMWD staff on 2024 grant opportunities. Additionally, we developed and submitted an abstract for this project to the 2024 Minnesota Water Resources Conference.

G. Watershed approach to retrofit projects (WARP) (Barr project manager, Marcy Bean; RWMWD project manager, Paige Ahlborg)

In 2022 and 2023, Barr reviewed the history of the retrofit program to help inform considerations for future projects. This "retrofit inventory" resulted in an updated database of over 17,000 properties and

geographic information system (GIS) maps of built and considered projects. In 2024, Barr will work with district staff to consider the intersections between the database and other district-wide initiatives and information to guide retrofit project selection more systematically.

This period, Barr hosted a workshop with RWMWD program managers to review the initial steps of developing the WARP framework and heat mapping strategy. At the workshop, we developed a list of prioritized, publicly available GIS layers that will make up the heat mapping of non-residential parcels. After the workshop, Barr began creating quantitative metrics to assign a score to each layer. The layers will be intersected, and scores will be combined to calculate a composite overall priority score for each parcel.

Lake studies/total maximum daily load (TMDL) reports

H. 2024 grant applications (Barr project manager: Tyler Olsen; RWMWD project manager: Tina Carstens)

The purpose of this effort is to help the district in prepare and submit grant applications to help fund its projects and programs.

This period, Barr drafted and submitted (on April 14) the MPCA's new Climate Resiliency Grant fund application for two of the RWMWD's potential future flood risk reduction projects: Ames Lake improvements and Roosevelt Homes (phase 3). Both projects are well suited to the program's intent.

Research projects

I. New technology mini case studies (Barr project manager: Marcy Bean; RWMWD project manager: Tina Carstens)

The purpose of this project is to educate the board and RWMWD staff on new and interesting technologies and design strategies related to water quality improvements and other issues of concern within the district. The information provided is often based on the manufacturer's claims and has not been modeled or tested by the RWMWD or Barr unless explicitly stated.

While PFAS have often been in the news over the past few years, there have been some recent developments this month that warrant attention:

U.S. Environmental Protection Agency

On April 10, the U.S. Environmental Protection Agency (EPA) announced the much-anticipated **National Primary Drinking Water Regulation** (NPDWR) for six per- and polyfluoroalkyl substances (PFAS) under the **Safe Drinking Water Act**. The regulation, like NPDWR for other chemicals, includes enforceable maximum contaminant levels (MCLs). The new federal MCLs are considered the maximum allowable concentrations in parts per trillion of select PFAS in public drinking water systems.

The new federal regulations establish a common national threshold for allowable concentrations of PFAS in drinking water, moving away from a patchwork of state rules and regulations. Individual states are still allowed to establish their own drinking water rules and regulations for PFAS, provided they are lower than the federal MCLs. However, if current state-enforceable levels are higher than the federal MCLs, public water systems within that state must abide by the federal levels.

More information can be found at this link on barr.com.

On April 19, the EPA designated two PFAS compounds—perfluorooctanoic acid (PFOA) and PFOS and their salts and structural isomers—as **hazardous substances** under the Comprehensive Environmental Response, Compensation, and Liability Act, commonly known as "Superfund." The EPA bases this designation on finding that those substances, "when released into the environment, may present substantial danger to the public health or welfare or the environment." This designation has broad implications for primary manufacturers of PFAS. It will also have a substantial impact on various secondary users of these compounds, including manufacturers of semiconductors, medical devices, chrome plating, and the like, as well as facilities that have used aqueous film forming foam, including airports, oil refineries, and mines.

More information can be found on barr.com.

While the EPA's PFAS roadmap (2021-2024) outlines multiple priorities, the agency's intended focus is on PFAS sources, including PFAS prevention, lifecycle considerations, release accountability, and historic and ongoing release tracking.

Minnesota Pollution Control Agency

The State of Minnesota's PFAS blueprint (2021) outlines the state's priorities:

- Prevent PFAS pollution wherever possible.
- Manage PFAS pollution when prevention is not feasible or pollution has already occurred.
- Clean up PFAS-contaminated sites.

Ten priorities are outlined in Minnesota's PFAS blueprint:

- Measuring PFAS effectively and consistently
- Understanding risks from PFAS air emissions
- Quantifying PFAS risk to human health
- Preventing PFAS pollution
- Limiting PFAS exposure from drinking water
- Limiting PFAS exposure from food
- Reducing PFAS exposure from fish and game consumption
- Protecting ecosystem health
- Remediating PFAS-contaminated sites
- Managing PFAS in waste

An April 19 Star Tribune article outlined a potential regional cleanup strategy the state is considering. The state has also recently updated its information on PFAS in fish.

Information specific to the RWMWD

Ramsey County recently shared a summary of its water bodies that have been considered for *Waterbody Specific Safe-Eating Guideline* updates. Some RWMWD lakes are being considered for more stringent guidelines. Final determinations by the Minnesota Department of Health are expected in mid-2024. Ramsey County plans to partner with the Minnesota Department of Natural Resources (DNR) on new boat ramp signage that links to the DNR lake finder website (which contains fish consumption advisories).

Future PFAS issues for watershed districts may be related to 1) transporting PFAS-contaminated water (especially where new outlets are concerned) and 2) infiltrating water in PFAS plume areas. In the next few months, the RWMWD and Barr plan to create maps of the current information on PFAS plumes across the district to help guide surface water management decisions in those areas.

Capital improvements

J. Woodbury Target store stormwater retrofits (Barr project manager: Katie Turpin-Nagel; RWMWD project manager: Paige Ahlborg)

The purpose of this project is to create concept-level and final designs and construct stormwater BMPs for Woodbury's Valley Creek Target shopping complex.

On March 8, a notice of award was issued to Kurilla Contracting for the Woodbury Target stormwater retrofit project. An onsite pre-construction meeting was held on March 22 with the RWMWD, Barr, Kurilla Contracting, and Target Corporation. Because the City of Woodbury was not able to attend, a virtual pre-construction meeting was held on March 25 to discuss city requirements and questions. District staff, the project engineer, the manager/foreman from Kurilla Contracting, and a representative from the City of Woodbury attended. Notice to proceed was issued on April 4 following review and approval of the submitted performance and payment bonds and certificate of insurance. Over the past few weeks, Barr has been working with Kurilla to review product submittals in preparation for construction starting at the beginning of May.

Change order 1 is included this month for review. The changes outlined below have no impact on the estimated quantities and, therefore, no impact on the contract price. The change order addresses:

- Issuing the construction plan set to the contractor with updated stormwater pollution prevention plan information (e.g., updating plan sheet SW-1.1 with the trained Kurilla individuals responsible for the application of erosion prevention and sediment control for the project).

- Changing the specification requirement for the contractor to purchase and maintain builder's risk insurance based on the project type and review by the RWMWD legal team.

K. Roosevelt Homes (Barr project manager: Marcy Bean; RWMWD project manager: Paige Ahlborg)

The purpose of this project is to create construction documents for a multi-phase flood management and water quality improvement project at the Roosevelt Homes public housing area in Saint Paul.

Roosevelt Homes is a flood-prone multi-family housing area owned by the Saint Paul Public Housing Authority. For the first part of this one- to two-year phased retrofit, two stormwater basins were constructed in late 2023. In March, the board approved contracting for the vegetation components to be planted early in 2024.

Barr is working with the property owner and the City of Saint Paul to design the final phase that will help direct flow across the site into the two stormwater basins. This period, Barr met with the City of Saint Paul to better understand city approval processes. Based on that feedback, designs are being developed in 2024 for construction in late 2024 or early 2025. An MPCA Implementation Grant for Stormwater Resilience application was submitted for the project, which, if funded, would offset RWMWD funding.

L. Targeted retrofit projects 2024 (Barr project manager, Marcy Bean; RWMWD project manager, Paige Ahlborg)

The purpose of this project is to design BMP retrofits on previously identified commercial, school, and faith-based properties throughout the district, as well as to provide bid assistance and oversee construction.

In 2023, discussions began with Saint Paul Youth Services for a potential green roof. This period, Barr continued to develop a scope for structural investigation of the roof to determine its potential for accommodating the additional load of a green or blue roof system.

M. Pioneer Park stormwater reuse (Barr project manager, Jennifer Koehler; RWMWD project manager, Paige Ahlborg)

The purpose of this project is to complete the final design, plans, and specifications for a stormwater reuse system in Pioneer Park that will reduce the use of groundwater for irrigation and phosphorus loads to downstream water bodies.

Barr performed a survey of the bridge abutments in response to the temporary pedestrian bridge removal plan and direction from the district and City of Little Canada. We are also modifying the erosion control plan to reflect the revised access and dewatering plan and will submit to the RWMWD as part of the final district permitting requirements once the final bridge removal plan is received. Based on the schedule from Peterson Companies, much of the site construction is expected to begin in late April, with completion in mid-May. However, per a final timeline provided from WaterTronics, delivery of the pump

and treatment system is not expected until late August 2024, and Peterson Companies will return then to install, connect, and bring into operation the reuse system. Barr, the RWMWD, the city, and Peterson Companies are meeting in the field on April 25.

N. Fish Creek tributary improvements (Barr project manager, Tyler Olsen; RWMWD project manager, Tina Carstens)

The purpose of this project is to design and implement vegetation improvements around Double Driveway Pond, as well as stream stabilization improvements in the Fish Creek tributary upstream.

This period, Barr continued working with Galowitz-Olson to find an appraiser to value the drainage easement purchase. Finding one to perform the work now has proved challenging. No design work was completed this period, and the plans remain at a 60-percent level. Per direction from the RWMWD, Barr will develop the plans and specifications to 100-percent design so as not to delay construction once purchase agreements for the easements have been finalized. We will keep the board up to date on developments and schedule changes.

O. Cottage Place Wetland restoration (Barr project manager, Brendan Dougherty; RWMWD project manager, Paige Ahlborg)

The purpose of this project is to design and restore a degraded wetland on City of Shoreview property located near the Cottage Place cul-de-sac. The project will involve the creation of plans, bidding, and construction administration to provide additional stormwater treatment and restore wildlife habitat within the project area.

This period, Barr continued working toward final plan design, developing grading, site layout, and landscape plans and specifications. We have reached out to the U.S. Army Corps of Engineers about wetland jurisdiction rules and are waiting for a formal response on the proposed wetland work; we will proceed based on our current understanding that the site does not fall under jurisdiction. Barr continued to finalize construction documents for bidding in May and construction starting in November. A memorandum describing the project, its benefits, and its engineer's opinion of cost are included in this month's board packet, with a request to advertise the project out for public bidding in May.

P. County Road C culvert (Barr project manager, Tyler Olsen; RWMWD project manager, Paige Ahlborg)

The purpose of this project is to design and construct a box culvert where Kohlman Creek crosses under County Road C (owned by Ramsey County) in the City of Maplewood. The culvert was identified as a flood risk reduction improvement project in the Kohlman Creek flood risk reduction feasibility study.

This period, Barr continued preparing plans and specifications and coordinated with Ramsey County on a final cost-share agreement. Additionally, we submitted a general permit application to the DNR for work in a public watercourse. Barr also began drafting a RWMWD permit application letter. Pending approval of the DNR permit, we anticipate that bidding will occur in mid-May and that we will return

with a recommended contractor at the June board meeting. Construction is anticipated in summer 2024.

Q. Kohlman Creek flood risk reduction projects: final design (Barr project manager, Tyler Olsen; RWMWD project manager: Paige Ahlborg)

The purpose of this project is to design multiple flood risk reduction improvement projects that were previously identified in the Kohlman Creek flood risk reduction feasibility study. The improvement projects include PCU Pond berm grading, 13th Avenue storm sewer improvements, and berm grading and outlet installation in backyards of homes along County Road C.

This period, Barr held a project kickoff discussion with the team and began developing a schedule for site characterization and final design tasks. Design of modifications to reduce flood risk along Kohlman Creek will continue through 2024. The tentative schedule is to solicit bids during winter 2024-2025 and construction in summer 2025.

CIP project repair and maintenance

R. Routine CIP inspection and unplanned maintenance identification (Barr project manager, Gareth Becker; RWMWD project manager: Dave Vlasin)

The purpose of this effort is to maintain the RWMWD's existing capital improvement projects as they come up outside the normal annual maintenance project (below).

Most of the work completed during this period was associated with the Lake Wabasso outlet replacement geotechnical work and planning with Ramsey County. The district is collaborating with the county as it prepares to remove the existing outlet and replace it with a new outlet when funds are available. Recently, Barr led the geotechnical investigation and analysis and prepared a conceptual design for the county to consider. Cost estimates were also prepared for the county to use in its internal funding request process. Once funding is approved, the outlet will be replaced.

S. 2024 CIP maintenance and repairs projects (Barr project managers, Gareth Becker; RWMWD project manager, Dave Vlasin)

The purpose of this effort is to maintain the RWMWD's existing capital improvement projects through this annual maintenance project.

To date, work has been performed on most of the eight sites. Most recently, the boat ramps at West Vadnais Lake and Grass Lake were installed with temporary access controls while awaiting access gate installations. The contractor has submitted a partial payment application for consideration again this month. Also included is change order 1, which is for a small amount of topsoil (C.O.A.1.) and for the removal and replacement of 700-plus feet of fencing at Arlington Pond (site 8), which will be reimbursed to the district in accordance with the Municipal Cost Share Program after the project is complete. The unusually mild winter has delayed work on several sites. Despite this, we assume no change to the

overall schedule due to the small size of this year's construction project and the mid-summer substantial completion date.

T. Beltline Mississippi Branch outfall replacement project (Barr project managers, Joe Welna and Nathan Campeau; RWMWD project manager, Dave Vlasin)

The purpose of this project is to replace the final approximately 70 feet of the Beltline Storm Sewer Interceptor adjacent to the Mississippi River that failed in July 2023.

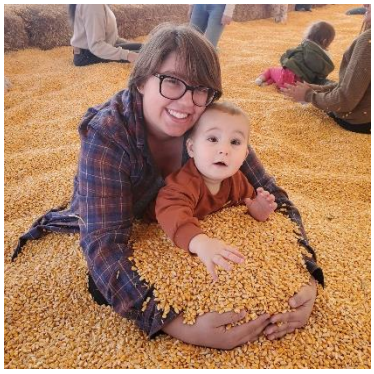
In April, we completed detailed 90-percent design of the tunnel replacement, incorporating comments from the RWMWD and the landowner (Saint Paul Port Authority (SPPA)). We have also completed permitting with the DNR. In May, we will finish design, incorporating feedback from the RWMWD and SPPA. We plan to present the bid package to the board at the June meeting. Construction and repair are planned for late fall and winter 2024-2025.

U. Natural Resources Update – Paul Erdmann

The NR Team has been busy with presentations, preparing for the Keller Lake project, seasonal staff starting, and beginning site maintenance.

On April 22nd, Earth Day, Paul gave a presentation to Shoreview residents, the Shoreview Environmental Quality Committee and the general public titled "Bring Nature Home by Losing Some Lawn." The talk focuses on the impact our love of lawns and turf grass has on our environment, especially biodiversity, and encourages people to convert some lawn to native plant landscaping and turf alternatives. The presentation was well attended and received well.

Bjorn and Sommer, two of our three 2024 Natural Resources interns started in April. Below are short introductions they provided for the Board. Our third intern, Emelia, will be joining us the end of May.



Hello board members! My name is Sommer Meyer, and I'm one of the NR interns this year. I graduated from the University of Rochester in Rochester, NY in 2020, and worked for Dakota County Parks for a little while before joining the Conservation Corps of Minnesota and Iowa, where I was a field crew lead in 2022 and a field specialist in 2023. In my free time I enjoy knitting, crocheting, reading, playing Nintendo Switch, and hanging out with my beautiful kitty cat, Katara (a 10 year old tortie). I'm excited to have some fun times in the field this year, and really hope to have some good carp-catching days! Here's a photo of me and my nephew in a corn pit 😊

Hi, my name is Bjorn Bergerson and I am one of the Natural Resource Interns this summer. I have been a huge nature enthusiast from a young age, getting a lot of outdoor exposure from weekend trips up to my family's cabin in northern Minnesota. I am an avid hiker/backpacker and enjoy bringing my digital camera along to capture images of whatever wildlife comes across my path. I have always been

interested in birds, but three years ago I watched the movie "The Big Year" and got drawn more into birding. Since then, birding has become one of my main passions.

I went to St. Olaf for undergrad, graduating in 2019 with a degree in Social Work and a minor in Environmental Science. Following graduation, I did 6-months of Conservation Corps in Utah. I partook in a lot of amazing experiences/projects out there, including working in both Zion and Bryce Canyon National Parks. After Conservation Corps concluded, I came back to Minnesota and got back into the social services realm. I worked with adults with disabilities, primarily autism, for almost three years before ultimately deciding I wanted to work outside again. I am most excited to start work on the restoration projects. It will be awesome to see the transformation of the shoreline with the installation coming up! Attached is a photo of me at the summit of Avalanche Peak in Yellowstone National Park!

V. Public Involvement and Education Program – Sage Passi

Above: Harmony ESL students (Left) mix soil for transplanting. Center and Right: L'Etoile du Nord third graders plant seedlings with help from Ramsey County Master Gardeners and Watershed education staff.

In April, as the clock ticks toward the end of this school year, we have been very busy preparing for upcoming field trips and plantings. With the help of Master Gardeners and multiple classes, we've been transplanting native seedlings that will be distributed at WaterFest 2024 and other locations over the next summer. Some of these seedlings will grace a rain garden in Maplewood and be planted by ESL adult learners from Harmony Learning Center in early June.

Throughout the summer these native plants grown by 7 elementary classes from L'Etoile du Nord, Weaver Elementary, American Indian Magnet and 2 Harmony adult ESL classes will also be shared at events and locations in our Watershed including National Night Out at the East Side Boys and Girls Club in St. Paul, the Pollinator Festival at Lake Phalen in August sponsored by Wakan Tipi and farmers markets where our Watershed District will have a presence throughout the summer. It's a big operation growing and tending these native plants from seed to seedling – Our backroom at the office is overflowing and we have light racks at Weaver Elementary, L'Etoile du Nord, St. John's School (a new recruit!) and at Lionsgate.

Shoreline Restoration Project at Keller Lake

We scheduled our pre-lessons for the 13 classes of students for the next couple week for the schools who will be involved in the upcoming Keller shoreline restoration project that begins in the middle of May. We are coordinating the planting schedule with the NR team and recruiting Ramsey County Master Gardeners to assist these classes. Schools included in the restoration project are two American Indian Magnet fifth grade classes, four fourth grade Farnsworth Aerospace classes, three Weaver fifth grade classes, two Mounds Park Academy high school science classes and two L'Etoile du Nord 5th grade classes. We are planning additional activities that we can do in conjunction with the Keller shoreline planting at adjacent natural areas by the lake including bird-watching and water quality monitoring.

The Keller Lake shoreline was restored quite a few years ago by RWMWD, but became flooded out, so in 2024 we are doing it again! This photo is taken during our previous restoration efforts.

Two American Indian Magnet fifth grade classes will participate in an additional project besides planting in the Natural Resource program's Keller Lake shoreline project on May 15. We've invited American Indian Magnet School's Cultural Leader, Thomas Drasovic (Mr. D) to lead an indigenous drumming ceremony to celebrate the completion of this Wilderness in the City planting project on the island next to our Keller Lake restoration.

Keller Lake was originally a channel/marshy area along the route that the Dakota would travel through on foot or by canoe from the Mississippi River, up Phalen Creek to Lake Phalen. They would follow the channel lakes upstream including Gervais Lake and onward to their wild ricing lakes to the north. For this special native planting project on the "island" we are partnering with Wilderness in the City, Ramsey County Parks, Metro Blooms/Blue Thumb, Wakan Tipi and Ramsey County Master Gardeners to implement the planting of this demonstration garden (see photo below). We are also supporting the educational sign project that is funded by a Wilderness in the City/Lawns to Legume grant, RWMWD's art grant and Ramsey County for the installation of three signs that feature information and images that acknowledge the Dakota's cultural significance of plants on Keller Island.

Water Stewards and Master Gardeners Team Together To Do Earth Day

Water Stewards Linda Neilson and Hallie Finucane and several Ramsey County Master Gardeners joined together to lead outreach activities and passed handouts for an Earth Day event at Harriet Alexander Nature Preserve in Roseville with the help of Ramsey County Gardeners. Participants at the event had the opportunity to transplant native seedlings grown by schools and take plants home with them. That was quite popular!

Woodbury Fifth Graders Investigate Their Rain Gardens

We've been working with fourth and fifth grade Woodbury Elementary students to assess the issues in their rain gardens and to plan for a replacement planting in the smaller of the two large scale rain gardens in late May. Below left they are assessing the sediment that has washed down the long driveway from their school into the inlet of the rain garden.

As a starting point, we offered an introductory lesson on watershed and water quality monitoring and then began priming these Woodbury Elementary 4th and 5th graders for our rain garden supplemental planting in May at their school by leading them in a series of 3 activities out on site in early April. Their activities on their campus included tracing the influx of sand and sediment down their long driveway and parking lots that impact their inlets and first section of their two basins, studying the plants in their rain garden and studying the soil in their gardens and learning about infiltration rates. We are planning to add additional plants to their rain garden in late May. Watch for more information about this project in the May newsletter!

W. Communications and Outreach Program – Lauren Hazenson

Current Projects

WaterFest Preparation

This month, we finalized signage, volunteer t-shirt designs, passport activity prizes, and flyers. We also purchased ads for the events section of the Pioneer Press and drafted the official press release for the event. I worked with event coordinator Maddy Bohn to secure a puppet performance, a kid's DJ, and artist-led activities.

Pop-up Activities and District Materials Updates

Lake Phone Interactive Activity

We are experimenting with various methods of expanding community engagement and collecting input at our tabling opportunities. By including input collection methods within an activity, we hope to offer an inviting setting for attendees to speak about watershed topics. Our first activity is the "lake phone," which is a wireless audio recording device that looks like a blue rotary phone. Visitors to our table can leave an audio message for their community waterbody and talk about what they appreciate about it. Eventually, the recorded question prompt will change to other topics, allowing us to survey the public on a wide range of issues informally.

Watershed Illustration and Handout Content

Illustrator Maggie Wiebe is working with the Communications team to create an educational, representative rendering of features within the watershed to be used as a community education tool on basic watershed concepts. This illustration is planned for an updated Watershed 101 page on the website and handouts on watershed education. A drawing of a wetland for district handouts and signs will also be completed in summer to early fall.

Additionally, Maggie is completing illustrations on additional BMP renderings for signs and handouts, including a tree trench, stormwater reuse facility, and an underground sand filter.

Oakdale Neighborhood Outreach in the Battle Creek Subwatershed

RWMWD is collaborating with Washington Conservation District to conduct targeted outreach to a neighborhood located east of Tanners Lake in the Battle Creek Subwatershed, which is in our equity priority area. Staff from both organizations will promote grant opportunities and other watershed resources via postcard mailing, a pop-up event, tabling at the nearby farmer's market, and coordinating communications with city staff. Most of the outreach campaign is planned for mid to late summer. RWMWD Education and Communications staff toured the neighborhood in early April to identify public spaces and intersections that would benefit from small-scale BMPs.

District Council Podcast Guest Spot

I was invited as a guest in the new Eastside Community Council podcast, D2& U, which focuses on interviewing area organizations and civic leaders about issues that affect neighborhood residents. This provides RWMWD an excellent opportunity to connect with a new audience through long form content.

The RWMWD episode of the podcast covered the Stewardship Grant program, WaterFest, and basic information about our watershed district. The episode will be available in early May on Spotify, Apple Music, and Amazon Music.

Ramsey County Green Expo and Career Fair

RWMWD will attend the green expo on May 1st as part of the community resource area of the fair, which will be held at the Wilder Center in St. Paul. The event focuses on drawing adults of diverse backgrounds that are interested in green-collar jobs or learning more about environmental sustainability.

E-newsletter

April
Opens: 44.7%
Clicks: 1.9%
Subscribers: 1,557

Social Media (Facebook, YouTube, Instagram)

Numbers as of 4/23:

Facebook

Reach: 5,135
Engagement (likes, shares, comments): 178
Followers: 1,704

Instagram

Reach: 448
Engagement: 30
Audience: 922

Youtube

Views: 1,226
Watch time (hours): 16.4
Subscribers: 338
Viewers: 919

Resident Communications/Professional Development/ Public Meetings, Misc.

- CAC meeting (4/23)
- Shoreview Earth Day activity communications support

X. Citizen Advisory Committee (CAC) Program – Carrie Magnuson

The Citizen Advisory Committee met on April 23rd at 6:30 pm at the RWMWD office and Zoom

In attendance were 11 CAC members, 3 staff members, 1 BOM member (Ben Karp), and 2 guests from Johnson High School and the Eastside Arts Council. The following initiatives were discussed and further developed

1. **East Side Stewardship & Youth Relationships –** Johnson High School is located on the boundary between RWMWD and Capitol Region Watershed District (CRWD). A collaboration between MnDOT, CRWD, RWMWD, Johnson High, Right Track, and the East Side Arts Council is working to engage students in art projects with the school, the watersheds and in conjunction with the Hwy 61 construction. Artist in Residence, Gita Ghei and staff member Sage Passi presented on progress to date, as well as proposed art installations and educational tours for student interns for the project. Gita and 1 of the interns attended to learn more about RWMWD and the CAC, so a brief introduction was provided.
2. **Outreach & Engagement Volunteer Program** –
    a. **Community Survey**: In order to better understand the breadth of current knowledge the public has about the watershed, Communications Specialist, Lauren Hazenson contracted a survey of community members within RWMWD who were not necessarily the same people or demographic that we commonly interact with. Knowing this baseline, volunteers including the CAC, can better target our messages and outreach locations.
    b. **Earth Day Cleanup**: The CAC will host an Earth Day Cleanup on Thursday 4/25/24 at Ames Lake and at Sackett Park in St. Paul. The Sackett Park effort will be in conjunction with the East Side Boys & Girls Club youth.
    c. **General volunteer opportunities:** CAC will have an opportunity to volunteer at Hanlo's Pond with a buckthorn cutting event (October), and a Keller Shore planting (May), both in conjunction with the RWMWD Natural Resources Team.
3. **WaterFest & Adopt-a-Drain (AAD) Expansion** –This initiative was brought to the CAC from the BOM as a priority project. The CAC would like to dedicate their table at WaterFest to a combination of AAD and Salt/Chloride education and best practices. A subcommittee will work on the display, and several CAC members have volunteered to help host it at WaterFest on June 1st.

Future meetings:

- June 11th
- September 24th
- October 22th
- December 3rd

2024 Board Approved CAC Priorities/Projects:

- Outreach & engagement volunteer program (table at 1 event per quarter)
- Adopt-a-drain expansion
- Salt-use outreach/education
- East Side stewardship & youth relationship
- Rain garden and/or buckthorn cleanup project
- Team planting
- WaterFest logistics
- LEAP Program nominations & subcommittee
- Watershed Excellence Awards & Volunteer Recognition Dinner planning