RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

June 2026
Board Packet

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Agenda

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RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

Regular Board Meeting Agenda

Wednesday, June 3, 2026

6:30 PM

This month's meeting will be held at the district office (2665 Noel Drive, Little Canada, MN) and via Zoom. Board members, staff, consultants, and the public can join in person OR via video and/or phone. The public can listen to the meeting but not participate, except during the visitor comments portion of the agenda. Instructions for joining the Zoom meeting are available after the agenda.

1. Call to Order – 6:30 PM
2. **Approval of Agenda *(pg. 3)***
3. **Consent Agenda: All items to be approved with one motion unless removed from the consent agenda for discussion.**
    A. Approval of Regular Meeting Minutes May 6, 2026 *(pg. 7)*
    B. Treasurer's Report and Bill List *(pg. 13)*
    C. Regulatory Program
        i. 26-16 Bailey West – Outlots B, C, D3, Woodbury *(pg. 30)*
        ii. 26-17 The Heights Apartments A1, St. Paul *(pg. 38)*
    D. Stewardship Grant Program
        i. 26-22 CS Shoreview Snail Lake Median Plantings *(pg. 43)*
        ii. 26-23 CS Westbrock Phase 2 *(pg. 45)*
        iii. 26-25 CS Rasmussen *(pg. 47)*
    E. Kohlman Lake Alum Treatment Project – Change Order No. 1 *(pg. 49)*
4. Visitor Comments (limited to 4 minutes each)
5. Regulatory Program
    A. Applications – see consent agenda
    B. Regulatory Monthly Memorandum *(pg. 53)*
6. Stewardship Grant Program
    A. Applications – see consent agenda
    B. Budget Status Update *(pg. 57)*
7. Action Items
    A. **RWMWD MS4 Stormwater Pollution Prevention Plan (SWPPP) Notice and Public Comment *(pg. 59)***
    B. **District Office Exterior Improvements Approval of Plans and Authorization to Advertise for Bid *(pg. 94)***
8. Attorney Report
9. Board Discussion Topics
10. New Reports and/or Presentations
    A. History of Wetland and Buffer Management in RWMWD Memo *(pg. 128)*
    B. Creek Walk Data and Prioritization Framework Presentation – Jessica Olson, Barr Engineering *(pg. 143)*
    C. 2026 Battle Creek Dam Outlet Inspection Memo and Scope Summary *(pg. 152)*
11. Administrator's Report *(pg. 208)*

A. Meetings Attended
B. Upcoming Meetings and Dates
C. Staff Anniversaries
D. Board Action Log
E. Minnesota Watersheds Updates

12. Project and Program Status Reports *(pg. 211)*

Project Feasibility Study

A. Landfall Best Management Practice
B. Five Star Estates Feasibility Study
C. Chloride Reduction Strategy
D. Tanners Lake, Battle Creek Lake, and Battle Creek Resiliency Feasibility Study
E. RWMWD Stormwater Model Updates
F. Studies Stemming from Creek Walks
G. Wetland Restoration Planning
H. Battle Creek Subwatershed Feasibility Study (Phase 2)

Monitoring Water Quality/Project Monitoring

I. Special-Project BMP Monitoring
J. Water Quality Data Management

Watershed Management Plan Update

K. Watershed Management Plan Update, Phase 3: Draft Plan Development

Lake Studies and TMDL Reports

L. 2026 Grant Applications

Project Operations

M. 2026 Tanners Alum Facility Monitoring
N. Lake-Level Station Operation and Maintenance and Rain Gauge Installation
O. Phalen and Keller Lakes Level Station Forecast Integration
P. Beltline and Battle Creek Gopher State One Call Utility Locates

Capital Improvements

Q. 2026 Targeted Retrofit Projects
R. Double Driveway and Fish Creek Tributary Improvements
S. Cottage Place Wetland Regeneration
T. Ames Lake Improvements
U. Kohlman Creek Flood Risk Reduction Projects
V. Kohlman Lake Alum Treatment
W. Wakefield Lake Aeration

CIP Project Repair and Maintenance

X. Routine CIP Inspection and Unplanned Maintenance Identification
Y. 2026 CIP Maintenance and Repairs
Z. RWMWD Office Exterior Improvements

Program Updates

AA. Natural Resources Program
BB. Communications and Engagement Program

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

RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

NOTICE OF REGULAR BOARD MEETING
Wednesday, June 3, 2026
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 the meeting but not participate with the exception of the visitor comments portion of the agenda. Visitor comments 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/81086876638

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 **810 8687 6638**. The meeting password is **884618**. 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
May 6th, 2026

The Regular Meeting of May 6th, 2026, 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 is available at https://youtu.be/uD6lIrNp04Q. Video timestamps are included after each agenda item, in minutes.

PRESENT:
Val Eisele, President
Ben Karp, Vice President
Mark Gernes, Secretary
Gabi Grogan, Manager
Stephanie Wang, Treasurer (virtual)

ABSENT:

ALSO PRESENT:

Staff:
Paige Ahlborg, Assistant Administrator
Nicole Maras, Regulatory Program Manager
Mary Fitzgerald, Regulatory Specialist
Patrick Williamson, Natural Resources Specialist
Lauren Hazenson, Communications and Engagement Program Manager
Kendra Kloth, Regulatory Technician
Dave Vlasin, Project Coordinator
Ashlee Ricci, Grant Program Specialist
Eric Korte, Monitoring and Research Program Manager
Cooper Klotzbach, Inspector Intern

Consultants:
Laurann Kirschner, Galowitz-Olson PLLC
Brandon Barnes, Barr Engineering
Michael McKinney, Barr Engineering

Visitors:
Unnamed Zoom Attendee, Visitor
Kristine Williams, St. Paul Port Authority
Ellen Stewart, City of St. Paul
Brandon Bohks, Bolton & Menk
Ashleigh Harless, Bolton & Menk

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

2. APPROVAL OF AGENDA (0:12)

President Eisele proposed moving item 3Ei from the consent agenda to 6Ai Stewardship Grants.

Motion: Manager Grogan moved, Manager Karp seconded to approve the agenda as amended. A roll call was performed.

Manager Wang - Aye
Manager Karp - Aye
Manager Gernes - Aye
Manager Grogan - Aye
President Eisel - Aye

Motion approved.

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3. CONSENT AGENDA (0:57)

A. Approval of Special Board Workship Minuets April 1, 2026
B. Approval of Regular Meeting Minutes April 1, 2026
C. Treasurer's Report and Bill List
D. Regulatory Program
   i. 26-12 The Heights Park, St. Paul
   ii. 26-13 Kath Oil Filling Station, Little Canada
   iii. 26-14 St. Paul Point Douglas Trail, St. Paul
E. Stewardship Grant Program
   i. ~~26-14 CS Urban Bird Collective East Side Nature Walk, Bike, & Kayak Program~~
   ii. 26-15 CS Metro Blooms Sustainable Landcare Training
   iii. 26-16 CS Urban Roots Youth Internship Program
   iv. 26-17 CS District 1 Community Council East Side Water Steward Series

Motion: Manager Karp moved, Manager Grogan seconded to approve the consent agenda. A roll call was performed.

Manager Wang - Aye
Manager Karp - Aye
Manager Gernes - Aye
Manager Grogan - Aye
President Eisel - Aye

Motion approved.

4. VISITOR COMMENTS (04:56)

No comments.

5. REGULATORY PROGRAM (05:52)

A. Applications
   i. 24-17 The Heights II, St. Paul (retroactive variance request)

Nicole reviewed details of the The Heights project, noting that permit application 24-17 had been approved in April 2024 and construction was ongoing. Nicole provided additional context and explained that the site had been evaluated for the presence of wetlands in 2020 with an approved delineation. Nicole explained that there were some offsite locations that contained wetlands that hadn't been included in the original evaluation for the purposes of buffer. Nicole noted that these wetlands weren't discovered until recently. Nicole stated that there were a number of retroactive buffer variance locations that were being requested as an amendment to the 24-17 permit.

Manager Gerenes asked if the wetland areas had been identified at all in the 2020 delineation.

Nicole Maras stated that a small corner that extended off site that had been identified, which would equate to wetland 4 but that was the only piece that had been identified.

Brandon Bohks provided more information on the previous delineation and provided context to how these wetlands were identified. Brandon provided information on the MNRAM classifications for the wetlands.

Nicole Maras provided information on the wetland buffers and noted where the buffer requirements were not met. Nicole noted that the buffer requirements were not met under the solution or existing conditions.

Nicole Maras provided more site and buffer requirement details. Nicole explained that if the variance request does not get approved the site would not be meeting the stormwater treatment rules for the development.

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Ashleigh Harless provided more information on the building designs and site. Ashleigh confirmed that the variance is for the original design.

Nicole provided more details of the site and O&M responsibilities.

Motion: Manager Karp moved, Manager Grogan seconded to approve permit application 24-17 The Heights II, St. Paul retroactive variance request.

Manager Wang - Aye
Manager Karp - Aye
Manager Gernes - Aye
Manager Grogan - Aye
President Eisel - Aye

Motion approved.

B. Regulatory Monthly Memorandum

Nicole Maras reviewed the monthly regulatory memorandum. Nicole provided updates on long term projects such as drafting rule revision language, Lower Phalen Creek daylighting and the Creek to Croix project in Washington County. Nicole reviewed updates to the regulatory web page and stated that the wetland delineation season was starting and noted application will be coming in. Nicole discussed the possibility of increasing inspection enforcement fees that haven't been increased since March 2018.

The board discussed different ideas around increased inspection fees.

Laurann Kirschner provided information on what statute allows for fees.

Nicole Maras stated that she would bring more information on inspection fees to the Board once more information is gathered.

6. STEWARDSHIP GRANT PROGRAM (1:17:28)

A. Applications

i. 26-14 CS Urban Bird Collective East Side Nature Walk, Bike, & Kayak Program

Stewardship Grant application 26-14 CS Urban Bird Collective East Side Nature Walk, Bike, & Kayak Program was pulled from the consent agenda due to Manager Wang recusing herself from discussion and voting due to her position on the Board of Urban Bird Collective.

Motion: Manager Karp moved, Manager Grogan seconded to approve Stewardship Grant application 26-14 CS Urban Bird Collective East Side Nature Walk, Bike, & Kayak Program. A roll call was performed.

Manager Wang - Abstained
Manager Karp - Aye
Manager Gernes - Aye
Manager Grogan - Aye
President Eisel - Aye

Motion approved.32

B. Budget Status Update

Ashlee Ricci reviewed the budget status report.

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7. ACTION ITEMS

A. District Office Improvements Project Approval of Plans and Authorization to Advertise for Bid (1:20:32)

Paige Ahlborg provided an overview of the District office improvement plans and expected cost. Paige noted that there was an increase in cost due to some additional work being added to the project. The additional work included items such as boat storage, re-grading of sidewalks to comply with ADA standards and updates to the trash enclosure and additional mechanical storage area.

Manager Karp requested more information on the cost-benefit analysis for the project.

Erin Anderson Wenz provided more information on the current parking lot conditions and some details cost benefit of the heated parking lot.

Paige Ahlborg stated that this project would also be used as a demonstration to show alternatives to using chloride.

President Eisele stated that he would also like to see more information on the return on investment for the heated element of the parking lot. President Eisele asked for more information on the demonstration aspect of the project and how it would be utilized as a demonstration site.

Ashlee Ricci provided more details of other heated systems that had been installed through Stewardship Grant funding. Ashlee noted that all the projects seen so far were for small areas, such as sidewalks. Ashlee stated that having a larger scale demonstration would be helpful to see if makes sense to continue to support heated systems through the grants program and what a large-scale heated surface would mean for chloride reduction. Ashlee said finding out how much snow could be melted and how quickly would be very useful to be able to show landowners how useful the heated pavement systems can be.

Manager Gernes stated that the District office site has been utilized as a demonstration site for other projects such as the solar system and green roof. Manager Gernes stated that he would ask that benchmark documentation and monitoring efforts were put in to writing so that it can be used by others to show what the heated systems have to offer.

Manager Wang stated that with the significant increase and unknowns of the project she was not comfortable with putting the project out to bid yet. Manager Wang stated that she would like to see the breakout of the costs before putting the project out to bid.

The board requested to see more information on the cost breakdown of the project and how it will be used as a demonstration before voting to advertise for bid.

Motion: No motion was made. Voting was postponed until June pending more information.

B. Thirty Twenty Project Bid Award (1:48:11)

Paige Ahlborg provided information on the Thirty Twenty Project, noting that the bids came in under the engineers' estimate. Paige stated that Sandstrom was the low bid and noted the District had worked with them in the past.

Motion: Manager Gernes moved, Manager Karp seconded to accept the bids and award the Thirty Twenty Estates Targeted Retrofit project to Sandstrom Land Management. Direct staff to prepare and mail the notice of award, prepare the agreements, and review the required submittals. A roll call was performed.

Manager Wang - Aye
Manager Karp - Aye
Manager Gernes - Aye

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Manager Grogan - Aye
President Eisel - Aye

Motion approved.

C. 2025 District Annual Financial Audit (1:49:27)
Paige Ahlborg provided an overview of the 2025 District Annual Financial Audit.

Motion: Manager Karp moved, Manager Grogan seconded to accept the 2025 Annual Audit Report. A roll call was performed.

Manager Wang - Aye
Manager Karp - Aye
Manager Gernes - Aye
Manager Grogan - Aye
President Eisel - Aye

Motion approved.

8. ATTORNEY REPORT (1:51:49)
Laurann Kircshner discussed the work the attorney's office completed throughout the month of April. Laurann noted that the work included contract document review. Laurann provided an overview for the rules of abstention when voting.

9. BOARD DISCUSSION TOPICS (1:54:45)

10. NEW REPORTS AND/OR PRESENTATIONS
A. 2025 RWMWD Water Monitoring Report and Presentation (1:55:34)
Eric Korte provided a review of the 2025 RWMWD Water Monitoring Report. Eric began the presentation by discussing the lake and pond water quality monitoring process. Eric reviewed information on the 2025 state standards for lakes and the 10 year lake trend analysis for lakes within the District. Eric provided information on Creek water quality monitoring and details for the 2025 state standards and 10 year creek trend analysis. Eric continued the presentation by providing information on the Alum plant and the drawdown that had been completed in 2025. Eric went on to review BMPs such as the iron enhanced sand filter, Frost Kennard spentlime chamber as well as other BMPs throughout the District. Eric moved on to discuss chloride hot spot and PFAS monitoring. Eric provided information on the switch to a new lab for sample testing and noted the savings the District saw by switching while also noticing better testing abilities.

The managers discussed ways to best utilize and share the data collected to help people better understand what is happening with bodies of water within the District.

B. Water Quality Management Scope Summary (2:45:09)

11. ADMINISTRATOR'S REPORT (2:46:02)
A. Meetings Attended
B. Upcoming Meetings and Dates
C. Staff Anniversaries
D. Board Action Log
E. Minnesota Watershed Updates

12. PROJECT AND PROGRAM STATUS REPORTS (2:47:06)
Project Feasibility Studies

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A. Five-Star Estates Feasibility Study
B. Chloride Reduction Strategy
C. Tanners Lake, Battle Creek Lake, and Battle Creek Resiliency Feasibility Study
D. RWMWD Stormwater Model Updates
E. Studies Stemming from Creek Walks
F. Battle Creek Subwatershed Feasibility Study
G. Street Sweeping

Monitoring Water Quality/Project Monitoring

H. Annual Water Quality Report Assistance
I. Special-Project BMP Monitoring
J. Water Quality Dara Management

Watershed Management Plan Update

K. Watershed Management Plan Update, Phase 3: Draft Plan Development

Lake Studies and TMDL Reports

L. 2026 Grant Applications

Project Operations

M. 2026 Tanners Alum Facility Monitoring
N. Lake-Level Station Operation Maintenance and Rain Gauge Installation
O. Phalen and Keller Lakes Level Station Forecast Integration

Capital Improvements

P. 2026 Targeted Retrofit Projects
Q. Double Driveway and Fish Creek Tributary Improvements
R. Ames Lake Improvements
S. Kohlman Creek Flood Risk Reduction Projects
T. Kohlman Lake Alum Treatment
U. Wakefield Lake Aeration

CIP Project Repair and Maintenance

V. Routine CIP Inspection and Unplanned Maintenance Identification
W. 2026 CIP Maintenance and Repairs
X. RWMWD Office Exterior Improvements

Program Updates

Y. Natural Resources Program
Z. Communications and Engagement Program
AA. Community Advisory Committee

13. COMMENTS AND NEXT MONTH'S MEETING (2:50:33)

14. ADJOURN

Motion: Manager Karp moved, Manager Gernes seconded, to adjourn the meeting at 9:21 p.m.

Motion carried unanimously.

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RWMWD BUDGET STATUS REPORT
Administrative & Program Budget
Fiscal Year 2026
5/31/2026

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	-	219.37	1,043.25	2,956.75	26.08%
	Sub-Total: Managers/Committees:		**$14,000.00**	**$0.00**	**219.37**	**1,043.25**	**$12,956.75**	**7.45%**
Employees	Staff Salary/Taxes/Benefits	4010	2,200,000.00	-	171,998.92	815,545.18	1,384,454.82	37.07%
	Employee Expenses	4020	10,000.00	-	448.06	1,686.09	8,313.91	16.86%
	District Training & Education	4350	75,000.00	-	100.00	14,422.47	60,577.53	19.23%
	Sub-Total: Employees:		**$2,285,000.00**	**$0.00**	**172,546.98**	**831,653.74**	**$1,453,346.26**	**36.40%**
Administration/	Data Base/GIS Maintenance	4170	85,000.00	-	100.00	1,775.33	83,224.67	2.09%
Office	Telephone	4310	13,000.00	-	1,533.69	5,820.81	7,179.19	44.78%
	Office Supplies	4320	7,000.00	-	437.44	1,530.96	5,469.04	21.87%
	Postage/Delivery	4330	2,000.00	-	-	1,302.16	697.84	65.11%
	Printing/Copying	4335	5,000.00	-	444.44	1,830.74	3,169.26	36.61%
	Dues & Publications	4338	20,000.00	-	-	15,017.00	4,983.00	75.09%
	Janitorial/Trash Service	4341	30,000.00	-	1,772.72	9,695.18	20,304.82	32.32%
	Utilities	4342	20,000.00	-	377.00	1,897.11	18,102.89	9.49%
	Building Maintenance	4343	80,000.00	-	5,292.31	25,049.71	54,950.29	31.31%
	Miscellaneous	4390	5,000.00	-	-	-	5,000.00	0.00%
	Insurance	4480	75,000.00	-	40,873.00	64,507.09	10,492.91	86.01%
	Office Equipment	4703	50,000.00	-	97.17	3,046.04	46,953.96	6.09%
	District Vehicles/Maintenance	4810-40	75,000.00	-	1,126.91	2,481.38	72,518.62	3.31%
	Metro INET	4325	120,000.00	-	10,351.61	49,339.68	70,660.32	41.12%
	Sub-Total: Administration/Office:		**$587,000.00**	**-**	**62,406.29**	**183,293.19**	**$403,706.81**	**31.23%**
Consultants/	Auditor/Accounting	4110	85,000.00	-	14,385.58	53,530.86	31,469.14	62.98%
Outside Services	Engineering-Administration	4121	145,000.00	-	6,016.50	43,384.00	101,616.00	29.92%
	Engineering-Permit I&E	4122	10,000.00	-	1,488.00	2,743.50	7,256.50	27.44%
	Engineering-Review	4123	83,000.00	-	3,980.00	20,742.50	62,257.50	24.99%
	Engineering-Permit Application Review	4124	85,000.00	-	7,898.00	39,644.50	45,355.50	46.64%
	Project Feasibility Studies	4129	430,000.00	-	14,159.50	85,091.02	344,908.98	19.79%
	Attorney-Permits	4130	5,000.00	-	-	275.00	4,725.00	5.50%
	Attorney-General	4131	40,000.00	-	1,237.50	5,019.92	34,980.08	12.55%
	Outside Consulting Services	4160	25,000.00	-	-	-	25,000.00	0.00%
	Sub-Total: Consultants/Outside Services:		**$908,000.00**	**$0.00**	**49,165.08**	**250,431.30**	**$657,568.70**	**27.58%**
Programs	WMP/Lakes/TMDLs/Grants	4661	195,000.00	-	8,012.00	32,107.00	162,893.00	16.47%
	Natural Resources Program	4670	176,000.00	-	2,065.04	10,631.78	165,368.22	6.04%
	Water Monitoring Program	4520-30	371,500.00	-	17,569.52	80,257.92	291,242.08	21.60%
	Outside Program Support	4683	44,000.00	-	-	16,908.50	27,091.50	38.43%
	Research Projects	4695	107,000.00	-	107.50	52,572.00	54,428.00	49.13%
	Project Operations	4650	200,000.00	-	24,943.79	71,799.20	128,200.80	35.90%
	Communication/Outreach/Events	4371	161,000.00	-	16,512.90	59,636.79	101,363.21	37.04%
	Health and Safety Program	4697	7,000.00	-	410.85	1,666.61	5,333.39	23.81%
	Sub-Total: Programs:		**$1,261,500.00**	**$0.00**	**69,621.60**	**325,579.80**	**$935,920.20**	**25.81%**
GENERAL FUND TOTAL			**$5,055,500.00**	**$0.00**	**353,959.32**	**1,592,001.28**	**3,463,498.72**	31.49%
CIP's	Project Repair & Maintenance	516	2,285,000.00	-	123,407.06	1,066,158.74	1,218,841.26	46.66%
	Targeted Retrofit Projects	518	581,000.00	-	21,693.45	137,689.80	443,310.20	23.70%
	Flood Risk Reduction Fund	520	655,000.00	-	25,454.68	57,252.98	597,747.02	8.74%
	Debt Services-Beltline/Maplewood Mall	526	419,701.00		-	283,506.75	136,194.25	67.55%
	Stewardship Grant Fund	529	1,500,000.00	-	810.00	24,490.28	1,475,509.72	1.63%
	Fish Creek Tributary Improvements	537	1,300,000.00	-	35.00	609.50	1,299,390.50	0.05%
	Wetland Restoration Projects	540	10,000.00	-	-	-	10,000.00	0.00%
	Wakefield Lake	553	565,000.00	-	1,302.50	2,555.00	562,445.00	0.45%
	Kohlman In-Lake Alum Treatment	555	385,000.00	-	4,770.00	8,786.50	376,213.50	2.28%
CIP BUDGET TOTAL			**$7,700,701.00**	**-**	**177,472.69**	**1,581,049.55**	**$6,119,651.45**	20.53%
TOTAL BUDGET			**$12,756,201.00**	**$0.00**	**531,432.01**	**3,173,050.83**	**$9,583,150.17**	**24.87%**

Current Fund Balances:

Fund:	Unaudited Beginning Fund Balance @ 12/31/25	Fund Transfers	Year to date Revenue	Current Month Expenses	Year to Date Expense	Unaudited Fund Balance @ 5/31/26
101 - General Fund	$1,562,306.48	-	132,021.85	353,959.32	1,592,001.28	102,327.05
516 - Project Repair & Maintenance	916,979.74	-	8,403.55	123,407.06	1,066,158.74	(140,775.45)
518 - Targeted Retrofit Projects	321,105.31	-	-	21,693.45	137,689.80	183,415.51
520 - Flood Risk Reduction Fund	5,173,012.22	-	34,354.77	25,454.68	57,252.98	5,150,114.01
526 - Debt Services-Beltline/Maplewood Mall	318,348.48	-	-	-	283,506.75	34,841.73
529 - Stewardship Grant Fund	273,660.50	-	0.40	810.00	24,490.28	249,170.62
536 - Stormwater Impact Fund	834,317.87	-	-	248,995.00	248,995.00	585,322.87
537 - Fish Creek Tributary Improvements	941,386.63	-	-	35.00	609.50	940,777.13
540 - Wetland Restoration Projects	310,010.11	-	-	-	-	310,010.11
553 - Wakefield Lake	-	-	-	1,302.50	2,555.00	(2,555.00)
555 - Kohlman In-Lake Alum Treatment	-	-	-	4,770.00	8,786.50	(8,786.50)
580 - Contingency Fund	1,215,487.00	-	-	-	-	1,215,487.00
Total District Fund Balance	**$11,866,614.34**	**$0.00**	**$ 174,780.57**	**$ 780,427.01**	**$3,422,045.83**	**$8,619,349.08**

No Assurance Is Provided On These Financial Statements

Ramsey Washington Metro Watershed Dist.

Check Register

For the Period From May 1, 2026 to May 31, 2026

Date	Check #	Payee ID	Payee	Invoice #	Description	Amount
05/04/26	EFT	hea002	HealthPartners	Jun-26	Employee Benefits	17,961.63
05/01/26	EFT	met008	MetLife-Group Benefits	May-26	Employee Benefits	1,281.28
05/15/26	EFT	usb002	U.S. Bank	May 2026 Statement	Various	5,627.28
05/04/26	EFT	tmo001	T-Mobile	May-26	Janitorial/Trash/Plowing/Sweeping	822.49
05/01/26	EFT	adp001	ADP, Inc.	May-26	Vehicle Fuel	87.79
05/15/26	EFT	adp001	ADP, Inc.	May-26	Telephone	87.79
05/15/26	EFT	spr002	Sustainablu, LLC.	May-26	Accounting	1,000.00
05/13/26	76222V	sha002	Qaiser Shahan	WF26	Communications/Outreach/Events	(500.00)
05/13/26	76199	aws001	AWS Service Center	S1335957-050126	Janitorial/Trash/Plowing/Sweeping	421.84
05/13/26	76200	bfg001	BFG Supply Co., LLC	3192617-00	Communications/Outreach/Events	392.21
05/13/26	76201	fle001	Flemings Auto Service	1901	Vehicle Maintenance	90.12
05/13/26	76202	gil001	Gilbert Mechanical Contractors	275403	Building/Site Maintenance	2,550.13
05/13/26	76203	gra001	Rick Gravrok	WF26	Communications/Outreach/Events	300.00
05/13/26	76204	hac002	Hach Company	14985382	Water Monitoring Program	282.05
05/13/26	76205	hen001	Jessi Henningson	WF26	Communications/Outreach/Events	300.00
05/13/26	76206	hij001	Hijinks Stilts	WF26	Communications/Outreach/Events	250.00
05/13/26	76207	hom001	Home Depot Credit Services	7012828; 7013610; 7092166	Communications/Outreach/Events	1,092.25
05/13/26	76208	inn002	Innovative Office Solutions, LLC	IN5116929	Janitorial/Trash/Plowing/Sweeping	175.88
05/13/26	76209	met004	Metro Sales, Inc.	INV3078306	Communications/Outreach/Events	90.45
05/13/26	76210	met012	Metro-INET	3482; 3505; 3506; 3507	Telephone	10,373.00
05/13/26	76211	mil004	Jessica Miller	WF26	Communications/Outreach/Events	200.00
05/13/26	76212	mpc001	MPCA	10000233094	Health & Safety Program	410.85
05/13/26	76213	ncp001	NCPERS Group Life Ins.	May 1, 2026	Employee Benefits	16.00
05/13/26	76214	nsp001	Xcel Energy	975223297	Water Monitoring Program	1,680.49
05/13/26	76215	ons001	Onset Computer Corporation	327469	Water Monitoring Program	261.00
05/13/26	76216	pre003	Premium Waters, Inc.	311457848	Utilities/Building Services Contracts	37.00
05/13/26	76217	pro004	PromoAdvantage Mktg Group	Aug-52	Communications/Outreach/Events	2,070.00
05/13/26	76218	red002	Redpath and Company LLC	150506865	Accounting	14,210.00
05/13/26	76219	rmb001	RMB Environmental Laboratories	Apr-26	Water Monitoring Program	1,890.40
05/13/26	76220	roc001	Rock Leaf Water Environmental LLC	3876	Construction Improvements/Project Maintenance & I	12,430.15
05/13/26	76221	mid003	Roseville Midway Ford	115086	Vehicle Maintenance	245.80
05/13/26	76222	sha002	Qaiser Shahan	WF26	Communications/Outreach/Events	500.00
05/13/26	76223	stu001	Studio Lola	2020207	Communications/Outreach/Events	1,968.88
05/13/26	76224	tla001	Kalpulli Tlaloctecuhtli	WF26	Communications/Outreach/Events	700.00
05/13/26	76225	urb001	Urban Bird Collective	5/11/26-Bird Watching Event	Communications/Outreach/Events	300.00
05/13/26	76226	usb005	US Bank Equipment Finance	581201118	Printing/Copier Lease	444.44
05/13/26	76227	ysi001	YSI Inc., A Xylem Brand	1205157	Water Monitoring Program	78.00
05/27/26	76228	ada002	Adam's Pest Control, Inc.	4418303	Utilities/Building Services Contracts	340.00
05/27/26	76229	att002	AT&T Mobility	287256653401X05252026	Project Operations	214.19
05/27/26	76230	bar001	Barr Engineering	April 18 to May 15, 2026	various	135,264.75
05/27/26	76231	bld001	BL Dalsin Roofing	2025242	Construction Improvements/Stormwater Impact Func	248,995.00
05/27/26	76232	cad001	Zayo Group, LLC	22431200	Water Monitoring Program	296.87
05/27/26	76233	dav003	Davey Resource Group, Inc.	9000230493	Construction Improvements/Project Maintenance & I	7,101.35
05/27/26	76234	fit001	Fitzgerald Excavating & Trucking, Inc.	Progress Payment #5	Construction Improvements/Project Maintenance & I	54,340.95
05/27/26	76235	fit002	Mary Fitzgerald	May-26	Employee Benefits	810.19
05/27/26	76236	fit004	Emily Kamin	305	Janitorial/Trash/Plowing/Sweeping	450.00
05/27/26	76237	fle001	Flemings Auto Service	125081	Vehicle Fuel	77.15
05/27/26	76238	gal001	Galowitz Olson, PLLC	May 21, 2026	Attorney-General	1,237.50
05/27/26	76239	hac002	Hach Company	14995286	Water Monitoring Program	879.63
05/27/26	76240	haw001	Hawkins, Inc.	7422789	Project Operations	12,473.70
05/27/26	76241	int001	Office of MNIT Services	W26040531	Telephone	59.38
05/27/26	76242	klo001	Kendra Kloth	April-May 2026	Employee Expenses	50.05
05/27/26	76243	kop001	Seth Kopf	May-26	Employee Expenses	79.75
05/27/26	76244	kub001	Kyle Kubitza	May-26	Water Monitoring Program	31.14
05/27/26	76245	lea004	League of MN Cities Ins.Trust P & C	5/14/26	Insurance	40,873.00
05/27/26	76246	mag004	Carrie Magnuson	1/1-5/21/26	Communications/Outreach/Events	92.65
05/27/26	76247	mel001	Michelle L. Melser	May 2026	Employee Expenses	113.60
05/27/26	76248	nat008	Natural Shore Technologies Inc	7100	Construction Improvements/Project Maintenance & I	5,951.11
05/27/26	76249	new004	New Look Contracting, Inc.	Progress Payment #4-FINAL	Constuction Improvements/Flood Damage Reduction	18,713.99
05/27/26	76250	nsp001	Xcel Energy	979103953	Project Operations/Flood Damage Reduction Fund	1,660.55
05/27/26	76251	ols004	Nicholas Olson	April/May 2026	Employee Expenses	76.85
05/27/26	76252	pat001	Caitlin Patrick	May-26	Employee Expenses	52.28
05/27/26	76253	pra001	Prairie Moon Nursery, Inc.	2612719600	Communications/Outreach/Events	408.57
05/27/26	76254	roc001	Rock Leaf Water Environmental LLC	3898	Construction Improvements/Project Maintenance & I	3,439.50
05/27/26	76255	sel001	Tim Melser	1535	Building/Site Maintenance	487.50
05/27/26	76256	sho004	Shoreline Landscaping	24-29	Escrow Refunds	2,600.00
05/27/26	76257	slp001	SL Production Photography	WF26	Communications/Outreach/Events	500.00
05/27/26	76258	sod001	Nicole Maras	May-26	Employee Expenses	56.55
05/27/26	76259	stu001	Studio Lola	2020214	Communications/Outreach/Events	1,454.38
05/27/26	76260	tec001	Tech Sales Co.	329747	Water Monitoring Program	3,365.00
05/27/26	76261	uli001	Uline	207809876	Communications/Outreach/Events	47.74
05/27/26	76262	voy001	US Bank Voyager Fleet Sys.	8692934232622	Vehicle Fuel	713.84
05/27/26	76263	was002	Washington Conservation District	7482	Stewardship Grant Program	810.00
05/27/26	76264	mbc001	MBohn Consulting, LLC	May-26	Communications/Outreach/Events	5,625.00
	Total					**$629,872.91**

Ramsey Washington Metro Watershed Dist.

Check Register

For the Period From May 1, 2026 to May 31, 2026

Date	Check #	Payee ID	Payee	Invoice #	Description	Amount
05/08/26	Dir.Dep.	---	May 8th Payroll	Payroll Expense-Net	4010-101-000	40,605.31
05/08/26	EFT	int002	May 8th Federal Withholding	Internal Rev.Serv.	2001-101-000	13,967.08
05/08/26	EFT	mnd001	May 8th State Withholding	MN Revenue	2003-101-000	2,294.45
05/08/26	EFT	per001	May 8th PERA	PERA	2011-101-000	8,515.47
05/08/26	EFT	emp002	Employee Def. Comp. Contributions	Empower Retirement	2016-101-000	1,923.00
05/08/26	EFT	emp002	Employee IRA Contributions	Empower Retirement	2018-101-000	2,614.00
05/22/26	Dir.Dep.	---	May 22nd Payroll	Payroll Expense-Net	4010-101-000	43,802.06
05/22/26	EFT	int002	May 22nd Federal Withholding	Internal Rev.Serv.	2001-101-000	14,763.94
05/22/26	EFT	mnd001	May 22nd State Withholding	MN Revenue	2003-101-000	2,404.41
05/22/26	EFT	per001	May 22nd PERA	PERA	2011-101-000	8,727.45
05/22/26	EFT	emp002	Employee Def. Comp. Contributions	Empower Retirement	2016-101-000	1,923.00
05/22/26	EFT	emp002	Employee IRA Contributions	Empower Retirement	2018-101-000	2,614.00
					Payroll/Benefits:	**$144,154.17**
	Total				**Accounts Payable/Payroll/Benefits:**	**$774,027.08**

Ramsey Washington Metro Watershed Dist.

Cash Disbursements Journal

For the Period From May 1, 2026 to May 31, 2026

Date	Check #	Vendor ID	Name	Account ID	Description	Amount		
05/04/26	EFT	hea002	HealthPartners	4040-101-000	Employee Benefits	17,961.63		
05/01/26	EFT	met008	MetLife-Group Benefits	4040-101-000	Employee Benefits	1,281.28		
05/15/26	EFT	usb002	U.S. Bank			5,627.28		
				4325-101-000	Roseville IT Services/Web Site/Software/Licenses		78.62	
				4371-101-000	Communications/Outreach/Events		(24.99)	
				4350-101-000	Training and Education		50.00	
				4371-101-000	Communications/Outreach/Events		700.00	
				4350-101-000	Training and Education		50.00	
				4325-101-000	Roseville IT Services/Web Site/Software/Licenses		99.99	
				4371-101-000	Communications/Outreach/Events		269.89	
				4320-101-000	Office Supplies		9.99	
				4371-101-000	Communications/Outreach/Events		57.43	
				4371-101-000	Communications/Outreach/Events		57.43	
				4530-101-000	Water Quality Monitoring - Staff		39.99	
				4365-101-000	Committee/Board Meeting Expenses		205.38	
				4320-101-000	Office Supplies		227.77	
				4371-101-000	Communications/Outreach/Events		400.00	
				4320-101-000	Office Supplies		108.96	
				4670-101-000	Natural Resources Program		240.00	
				4530-101-000	Water Quality Monitoring - Staff		296.87	
				4320-101-000	Office Supplies		36.24	
				4320-101-000	Office Supplies		39.69	
				4371-101-000	Communications/Outreach/Events		24.99	
				4530-101-000	Water Quality Monitoring - Staff		282.05	
				4530-101-000	Water Quality Monitoring - Staff		1,145.00	
				4371-101-000	Communications/Outreach/Events		60.00	
				4320-101-000	Office Supplies		9.99	
				4371-101-000	Communications/Outreach/Events		45.00	
				4670-101-000	Natural Resources Program		86.76	
				4670-101-000	Natural Resources Program		291.85	
				4670-101-000	Natural Resources Program		29.96	
				4670-101-000	Natural Resources Program		445.00	
				4703-101-000	Equipment		73.35	
				4371-101-000	Communications/Outreach/Events		20.49	
				4371-101-000	Communications/Outreach/Events		26.97	
				4371-101-000	Communications/Outreach/Events		100.00	
				4320-101-000	Office Supplies		4.80	
				4365-101-000	Committee/Board Meeting Expenses		13.99	
				4703-101-000	Equipment		23.82	
05/04/26	EFT	tmo001	T-Mobile	4310-101-000	Telephone	822.49		
05/01/26	EFT	adp001	ADP, Inc.	4110-101-000	Accounting	87.79		
05/15/26	EFT	adp001	ADP, Inc.	4110-101-000	Accounting	87.79		
05/15/26	EFT	spr002	Sustainablu, LLC.	4630-518-000	Construction Improvements/Targeted Retrofit Projects	1,000.00		
05/13/26	76222V	sha002	Qaiser Shahan	4371-101-000	Communications/Outreach/Events	(500.00)		***Void**
05/13/26	76199	aws001	AWS Service Center	4341-101-000	Janitorial/Trash/Plowing/Sweeping	421.84		
05/13/26	76200	bfg001	BFG Supply Co., LLC	4371-101-000	Communications/Outreach/Events	392.21		
05/13/26	76201	fle001	Flemings Auto Service	4820-101-000	Vehicle Maintenance	90.12		

Ramsey Washington Metro Watershed Dist.

Cash Disbursements Journal

For the Period From May 1, 2026 to May 31, 2026

Date	Check #	Vendor ID	Name	Account ID	Description	Amount	
05/13/26	76202	gil001	Gilbert Mechanical Contractors	4343-101-000	Building/Site Maintenance	2,550.13	
05/13/26	76203	gra001	Rick Gravrok	4371-101-000	Communications/Outreach/Events	300.00	
05/13/26	76204	hac002	Hach Company	4530-101-000	Water Monitoring Program	282.05	
05/13/26	76205	hen001	Jessi Henningson	4371-101-000	Communications/Outreach/Events	300.00	
05/13/26	76206	hij001	Hijinks Stilts	4371-101-000	Communications/Outreach/Events	250.00	
05/13/26	76207	hom001	Home Depot Credit Services			1,092.25	
				4371-101-000	Communications/Outreach/Events		75.81
				4670-101-000	Natural Resources Program		971.47
				4530-101-000	Water Monitoring Program		44.97
05/13/26	76208	inn002	Innovative Office Solutions, LLC	4341-101-000	Janitorial/Trash/Plowing/Sweeping	175.88	
05/13/26	76209	met004	Metro Sales, Inc.	4371-101-000	Communications/Outreach/Events	90.45	
05/13/26	76210	met012	Metro-INET			10,373.00	
				4310-101-000	Telephone		200.00
				4325-101-000	Roseville IT Services/Web Site/Software/Licenses		10,173.00
05/13/26	76211	mil004	Jessica Miller	4371-101-000	Communications/Outreach/Events	200.00	
05/13/26	76212	mpc001	MPCA	4697-101-000	Health & Safety Program	410.85	
05/13/26	76213	ncp001	NCPERS Group Life Ins.	4040-101-000	Employee Benefits	16.00	
05/13/26	76214	nsp001	Xcel Energy			1,680.49	
				4530-101-000	Water Monitoring Program		325.53
				4630-520-000	Construction-Fllod Damage Reduction Fund		208.09
				4343-101-000	Building/Site Maintenance		1,146.87
05/13/26	76215	ons001	Onset Computer Corporation	4530-101-000	Water Monitoring Program	261.00	
05/13/26	76216	pre003	Premium Waters, Inc.	4342-101-000	Utilities/Building Services Contracts	37.00	
05/13/26	76217	pro004	PromoAdvantage Mktg Group	4371-101-000	Communications/Outreach/Events	2,070.00	
05/13/26	76218	red002	Redpath and Company LLC	4110-101-000	Accounting	14,210.00	
05/13/26	76219	rmb001	RMB Environmental Laboratories	4530-101-000	Water Monitoring Program	1,890.40	
05/13/26	76220	roc001	Rock Leaf Water Environmental LLC	4630-516-000	Construction Improvements/Project Maintenance & Repair	12,430.15	
05/13/26	76221	mid003	Roseville Midway Ford	4820-101-000	Vehicle Maintenance	245.80	
05/13/26	76222	sha002	Qaiser Shahan	4371-101-000	Communications/Outreach/Events	500.00	
05/13/26	76223	stu001	Studio Lola	4371-101-000	Communications/Outreach/Events	1,968.88	
05/13/26	76224	tla001	Kalpulli Tlaloctecuhtli	4371-101-000	Communications/Outreach/Events	700.00	
05/13/26	76225	urb001	Urban Bird Collective	4371-101-000	Communications/Outreach/Events	300.00	
05/13/26	76226	usb005	US Bank Equipment Finance	4335-101-000	Printing/Copier Lease	444.44	
05/13/26	76227	ysi001	YSI Inc., A Xylem Brand	4530-101-000	Water Monitoring Program	78.00	
05/27/26	76228	ada002	Adam's Pest Control, Inc.	4342-101-000	Utilities/Building Services Contracts	340.00	
05/27/26	76229	att002	AT&T Mobility	4650-101-000	Project Operations	214.19	
05/27/26	76230	bar001	Barr Engineering			135,264.75	
				4121-101-000	Engineering Admin		6,016.50
				4129-101-000	Project Feasability		2,951.00
				4123-101-000	Engineering Review		3,980.00
				4129-101-000	Project Feasability		262.50
				4129-101-000	Project Feasability		2,602.00
				4129-101-000	Project Feasability		1,339.50
				4129-101-000	Project Feasability		4,716.00
				4129-101-000	Project Feasability		66.00
				4129-101-000	Project Feasability		1,754.50
				4129-101-000	Project Feasability		103.00

Date	Check #	Vendor ID	Name	Account ID	Description	Amount	
				4129-101-000	Project Feasability		365.00
				4170-101-000	GIS Maintenance		100.00
				4520-101-000	WQM-Engineering		1,593.50
				4520-101-000	WQM-Engineering		3,656.90
				4520-101-000	WQM-Engineering		2,895.00
				4122-101-000	Eng. Permit Application Inspection		1,488.00
				4124-101-000	Eng. Permit Review		7,898.00
				4661-101-000	SLMP/TMDL Studies		625.00
				4661-101-000	SLMP/TMDL Studies		7,187.00
				4661-101-000	SLMP/TMDL Studies		50.00
				4661-101-000	SLMP/TMDL Studies		150.00
				4695-101-000	Research Projects		107.50
				4650-101-000	Project Operations		3,077.50
				4650-101-000	Project Operations		4,482.15
				4650-101-000	Project Operations		286.00
				4650-101-000	Project Operations		4,410.25
				4128-518-000	Engineering -Targeted Retrofit		3,165.00
				4128-518-000	Engineering -Targeted Retrofit		1,483.00
				4128-518-000	Engineering -Targeted Retrofit		4,394.00
				4128-518-000	Engineering -Targeted Retrofit		5,057.50
				4128-518-000	Engineering -Targeted Retrofit		3,808.40
				4128-518-000	Engineering -Targeted Retrofit		2,139.55
				4129-537-000	Project Feasability		35.00
				4128-518-000	Engineering -Targeted Retrofit		646.00
				4128-520-000	Engineering -Flood Damage		4,392.10
				4128-520-000	Engineering -Flood Damage		1,764.90
				4128-555-000	Engineering -Kohlman Alum		4,770.00
				4128-553-000	Engineering -Wakefield		1,302.50
				4128-516-000	Eng. Projects-Maint & Repair		6,620.50
				4128-516-000	Eng. Projects-Maint & Repair		4,976.00
				4128-516-000	Eng. Projects-Maint & Repair		1,364.00
				4128-516-000	Eng. Projects-Maint & Repair		27,183.50
05/27/26	76231	bld001	BL Dalsin Roofing	4630-536-000	Construction Improvements/Stormwater Impact Fund	248,995.00	
05/27/26	76232	cad001	Zayo Group, LLC	4530-101-000	Water Monitoring Program	296.87	
05/27/26	76233	dav003	Davey Resource Group, Inc.	4630-516-000	Construction Improvements/Project Maintenance & Repair	7,101.35	
05/27/26	76234	fit001	Fitzgerald Excavating & Trucking, Inc.	4630-516-000	Construction Improvements/Project Maintenance & Repair	54,340.95	
05/27/26	76235	fit002	Mary Fitzgerald			810.19	
				4341-101-000	Janitorial/Trash/Plowing/Sweeping		725.00
				4020-101-000	Employee Expenses		58.36
				4040-101-000	Employee Benefits		26.83
05/27/26	76236	fit004	Emily Kamin	4341-101-000	Janitorial/Trash/Plowing/Sweeping	450.00	
05/27/26	76237	fle001	Flemings Auto Service	4830-101-000	Vehicle Fuel	77.15	
05/27/26	76238	gal001	Galowitz Olson, PLLC	4131-101-000	Attorney-General	1,237.50	
05/27/26	76239	hac002	Hach Company	4530-101-000	Water Monitoring Program	879.63	
05/27/26	76240	haw001	Hawkins, Inc.	4650-101-000	Project Operations	12,473.70	
05/27/26	76241	int001	Office of MNIT Services	4310-101-000	Telephone	59.38	
05/27/26	76242	klo001	Kendra Kloth			50.05	

Ramsey Washington Metro Watershed Dist.

Cash Disbursements Journal

For the Period From May 1, 2026 to May 31, 2026

Date	Check #	Vendor ID	Name	Account ID	Description	Amount	
				4040-101-000	Employee Benefits		10.90
				4020-101-000	Employee Expenses		39.15
05/27/26	76243	kop001	Seth Kopf	4020-101-000	Employee Expenses	79.75	
05/27/26	76244	kub001	Kyle Kubitza	4530-101-000	Water Monitoring Program	31.14	
05/27/26	76245	lea004	League of MN Cities Ins.Trust P & C	4480-101-000	Insurance	40,873.00	
05/27/26	76246	mag004	Carrie Magnuson	4371-101-000	Communications/Outreach/Events	92.65	
05/27/26	76247	mel001	Michelle L. Melser			113.60	
				4343-101-000	Building/Site Maintenance		28.48
				4020-101-000	Employee Expenses		85.12
05/27/26	76248	nat008	Natural Shore Technologies Inc	4630-516-000	Construction Improvements/Project Maintenance & Repair	5,951.11	
05/27/26	76249	new004	New Look Contracting, Inc.	4630-520-000	Constuction Improvements/Flood Damage Reduction Fund	18,713.99	
05/27/26	76250	nsp001	Xcel Energy			1,660.55	
				4530-101-000	Water Monitoring Program		205.62
				4343-101-000	Building/Site Maintenance		1,079.33
				4650-520-000	Project Operations/Flood Damage Reduction Fund		375.60
05/27/26	76251	ols004	Nicholas Olson	4020-101-000	Employee Expenses	76.85	
05/27/26	76252	pat001	Caitlin Patrick	4020-101-000	Employee Expenses	52.28	
05/27/26	76253	pra001	Prairie Moon Nursery, Inc.	4371-101-000	Communications/Outreach/Events	408.57	
05/27/26	76254	roc001	Rock Leaf Water Environmental LLC	4630-516-000	Construction Improvements/Project Maintenance & Repair	3,439.50	
05/27/26	76255	sel001	Tim Melser	4343-101-000	Building/Site Maintenance	487.50	
05/27/26	76256	sho004	Shoreline Landscaping	2024-101-000	Escrow Refunds	2,600.00	
05/27/26	76257	slp001	SL Production Photography	4371-101-000	Communications/Outreach/Events	500.00	***Reissue**
05/27/26	76258	sod001	Nicole Maras	4020-101-000	Employee Expenses	56.55	
05/27/26	76259	stu001	Studio Lola	4371-101-000	Communications/Outreach/Events	1,454.38	
05/27/26	76260	tec001	Tech Sales Co.	4530-101-000	Water Monitoring Program	3,365.00	
05/27/26	76261	uli001	Uline	4371-101-000	Communications/Outreach/Events	47.74	
05/27/26	76262	voy001	US Bank Voyager Fleet Sys.	4830-101-000	Vehicle Fuel	713.84	
05/27/26	76263	was002	Washington Conservation District	4682-529-000	Stewardship Grant Program	810.00	
05/27/26	76264	mbc001	MBohn Consulting, LLC	4371-101-000	Communications/Outreach/Events	5,625.00	
	Total					**$629,872.91**	

Ramsey Washington Metro Watershed Dist.

Cash Disbursements Journal

For the Period From May 1, 2026 to May 31, 2026

Date	Check #	Vendor ID	Name	Account ID	Description	Amount
05/08/26	Dir.Dep.	---	May 8th Payroll	4110-101-000	May 8th Payroll	40,605.31
05/08/26	EFT	int002	May 8th Federal Withholding	2001-101-000	May 8th Federal Withholding	13,967.08
05/08/26	EFT	mnd001	May 8th State Withholding	2003-101-000	May 8th State Withholding	2,294.45
05/08/26	EFT	per001	May 8th PERA	2011-101-000	May 8th PERA	8,515.47
05/08/26	EFT	emp002	Employee Def. Comp. Contributions	2016-101-000	Employee Def. Comp. Contributions	1,923.00
05/08/26	EFT	emp002	Employee IRA Contributions	2018-101-000	Employee IRA Contributions	2,614.00
05/22/26	Dir.Dep.	---	May 22nd Payroll	4110-101-000	May 22nd Payroll	43,802.06
05/22/26	EFT	int002	May 22nd Federal Withholding	2001-101-000	May 22nd Federal Withholding	14,763.94
05/22/26	EFT	mnd001	May 22nd State Withholding	2003-101-000	May 22nd State Withholding	2,404.41
05/22/26	EFT	per001	May 22nd PERA	2011-101-000	May 22nd PERA	8,727.45
05/22/26	EFT	emp002	Employee Def. Comp. Contributions	2016-101-000	Employee Def. Comp. Contributions	1,923.00
05/22/26	EFT	emp002	Employee IRA Contributions	2018-101-000	Employee IRA Contributions	2,614.00
					Payroll/Benefits:	**$144,154.17**
	Total				**Accounts Payable/Payroll/Benefits:**	**$774,027.08**

*76222-Void and reissued, different name

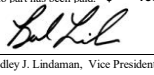
BARR

Summary of Professional Engineering Services During the Period
April 18 to May 15, 2026

Engineering Administration	Total Engineering Budget (2026)	Total Fees to Date (2026)	Budget Balance (2026)	Fees During Period	District Accounting Code	Plan Implementation Task Number
General Engineering Administration	$ 110,000.00	$ 43,134.00	$ 66,866.00	$ 6,016.50	**4121-101**	DW-13
RWMWD Health and Safety/ERTK Program (Training)	$ 2,000.00	$ -	$ 2,000.00	$ -	**4697-101**	DW-13
Education Assistance	$ 15,000.00	$ 3,227.00	$ 11,773.00	$ 2,951.00	**4129-101**	DW-11, DW-13
Targeted Retrofit Outreach, Assessment and Planning	$ 20,000.00	$ 250.00	$ 19,750.00	$ -	**4121-101**	DW-6, DW-13, DW-20
Engineering Review						
Engineering Review	$ 82,700.00	$ 20,742.50	$ 61,957.50	$ 3,980.00	**4123-101**	DW-13
Project Feasibility Studies						
Landfall BMP study (Manufactured Homes Res Study Project 1)	$ 25,000.00	$ 315.00	$ 24,685.00	$ 262.50	**4129-101**	DW-9
Five Star Estates Feasibility Study	$ 35,000.00	$ 11,310.50	$ 23,689.50	$ 2,602.00	**4129-101**	GC-3
Chloride Reduction Strategy	$ 30,000.00	$ 17,305.02	$ 12,694.98	$ 1,339.50	**4129-101**	DW-7
Tanners, Battle Creek Lake, Battle Creek Resiliency Feasibility Study	$ 85,000.00	$ 7,275.50	$ 77,724.50	$ 4,716.00	**4129-101**	DW-9, DW-10, DW-11, DW-12, DW-15
Roseville Central Park Flood Risk Reduction Feasibility Study	$ 75,000.00	$ 52.50	$ 74,947.50	$ -	**4129-101**	DW-9
RWMWD Stormwater Model Updates	$ 18,000.00	$ 15,388.50	$ 2,611.50	$ 66.00	**4129-101**	DW-9
Studies Stemming From Creek Walks	$ 30,000.00	$ 16,796.00	$ 13,204.00	$ 1,754.50	**4129-101**	DW-1
Shoreline Assessment Assistance	$ 20,000.00	$ -	$ 20,000.00	$ -	**4129-101**	DW-8
Wetland Restoration Planning	$ 30,000.00	$ 2,169.50	$ 27,830.50	$ 103.00	**4129-101**	DW-8
Final design for highest priority creek segment	$ 40,000.00	$ -	$ 40,000.00	$ -	**4129-101**	DW-1
Battle Creek Subwatershed Feasiblity Study (Phase 2)	$ 40,000.00	$ 6,899.00	$ 33,101.00	$ 365.00	**4129-101**	BC-2
Street Sweeping Program Support	$ 20,000.00	$ 4,352.50	$ 15,647.50	$ -	**4129-101**	DW-6, DW-15
Contingency*	$ 20,000.00	$ -	$ 20,000.00	$ -	**4129-101**	
GIS Maintenance						
GIS Maintenance	$ 5,000.00	$ 100.00	$ 4,900.00	$ 100.00	**4170-101**	DW-13
Monitoring Water Quality/Project Monitoring						
Lake Water Quality Monitoring (Misc QA/QC)	$ 10,000.00	$ 375.00	$ 9,625.00	$ -	**4520-101**	DW-2
Annual WQ Report Assistance	$ 25,000.00	$ 30,455.50	$ (5,455.50)	$ 1,593.50	**4520-101**	DW-2
Special Project BMP Monitoring	$ 30,000.00	$ 8,424.90	$ 21,575.10	$ 3,656.90	**4520-101**	DW-12
Grass Lake Berm Wetland Monitoring	$ 6,500.00	$ 105.00	$ 6,395.00	$ -	**4520-101**	DW-5, DW-8
Management of WQ Data	$ 75,000.00	$ 8,838.50	$ 66,161.50	$ 2,895.00	**4520-101**	DW-20
Permit Processing, Inspection and Enforcement						
Permit Application Inspection and Enforcement	$ 10,000.00	$ 2,743.50	$ 7,256.50	$ 1,488.00	**4122-101**	DW-7
Permit Application Review	$ 85,000.00	$ 39,644.50	$ 45,355.50	$ 7,898.00	**4124-101**	DW-7
Watershed Management Plan Update						
Ecosystem Restoration Plan (or "Ecosystem Health Action Plan") Placeholder	$ -	$ -	$ -	$ -	**4661-101**	DW-8, DW-14
RWMWD 2027-2036 Watershed Management Plan Update: Phase 1- Stakeholder Involvement*	$ 5,893.00	$ 1,655.00	$ 4,238.00	$ 625.00	**4661-101**	DW-13
Phase 3- Draft Plan Development*	$ 100,000.00	$ 16,787.50	$ 83,212.50	$ 7,187.00	**4661-101**	DW-13
Phase 4- Formal Review, Approval and Adoption*	$ 10,000.00	$ 6,526.50	$ 3,473.50	$ -	**4661-101**	DW-13
Lake Studies/TMDL Reports						
2026 Grant Applications	$ 20,000.00	$ 585.00	$ 19,415.00	$ 50.00	**4661-101**	DW-13
TMDL Reporting Assistance	$ 20,000.00	$ 4,138.00	$ 15,862.00	$ 150.00	**4661-101**	DW-15, DW-20
Contingency for Lake Studies	$ 22,500.00	$ -	$ 22,500.00	$ -	**4661-101**	
Research Projects						
New Technology + Trending Topics Mini Case Studies (average 6 per year)	$ 17,000.00	$ 1,954.50	$ 15,045.50	$ -	**4695-101**	DW-12
Wakefield Pond Spent Lime Study	$ 20,000.00	$ 617.50	$ 19,382.50	$ 107.50	**4695-101**	DW-12
Project Operations						
2026 Tanners Alum Facility Monitoring	$ 18,800.00	$ 12,687.50	$ 6,112.50	$ 3,077.50	**4650-101**	TaL-3
Phalen/Keller and Twin Operations Support & Communications	$ 20,000.00	$ 63.00	$ 19,937.00	$ -	**4650-101**	DW-5, DW-13, DW-18
Lake Level Station Operation and Maintenance	$ 50,000.00	$ 12,950.68	$ 37,049.32	$ 4,482.15	**4650-101**	DW-5, DW-18
Phalen and Keller Lake Level Station Forecast Integration	$ 40,000.00	$ 4,154.00	$ 35,846.00	$ 286.00	**4650-101**	DW-5, DW-18
Beltline and Battle Creek Gopher State One Call Utility Locates	$ 30,000.00	$ 26,497.00	$ 3,503.00	$ 4,410.25	**4650-101**	DW-5, BELT-1
Capital Improvements						
Roosevelt Homes Phase III	$ 5,000.00	$ 350.00	$ 4,650.00	$ -	**4128-518**	DW-6, DW-9
Placeholder for 1 small flood risk reduction project (Five Star, Landfall, other)?	$ 50,000.00	$ -	$ 50,000.00	$ -	**4128-518**	DW-9
Targeted Retrofit Projects 2026					**4128-518**	DW-6
Development of Future Retrofit Projects	$ 125,000.00	$ 5,218.00	$ 119,782.00	$ 3,165.00	**4128-518**	DW-6
Thirty Twenty Estates	$ 26,000.00	$ 17,362.50	$ 8,637.50	$ 1,483.00	**4128-518**	DW-6
Redeemer Lutheran	$ 25,000.00	$ 14,489.00	$ 10,511.00	$ 4,394.00	**4128-518**	DW-6
1670 Beam Avenue	$ 49,000.00	$ 22,359.00	$ 26,641.00	$ 5,057.50	**4128-518**	DW-6
Gustavus Adolphus Church, St Paul	$ 75,000.00	$ 69,132.90	$ 5,867.10	$ 3,808.40	**4128-518**	DW-6
Placeholder for new project TBD	$ 35,000.00	$ -	$ 35,000.00	$ -	**4128-518**	DW-6
Maplewood Toyota, Cochran Recovery Services and SPYS Green Roof Support *	$ 11,000.00	$ 2,139.55	$ 8,860.45	$ 2,139.55	**4128-518**	DW-6
Stewardship Grant Program	$ 75,000.00	$ 50.00	$ 74,950.00	$ -	**4682-529**	DW-6
Double Driveway Pond and Fish Creek Tributary Improvements*	$ 90,000.00	$ 609.50	$ 89,390.50	$ 35.00	**4129-537**	FC-2
Cottage Place Wetland Restoration*	$ 10,000.00	$ 1,372.00	$ 8,628.00	$ 646.00	**4128-518**	DW-8, DW-14, LE-3
Ames Lake Area Flood Risk Reduction	$ 300,000.00	$ 15,278.85	$ 284,721.15	$ 4,392.10	**4128-520**	DW-9, BELT-1
Kohlman Creek Flood Risk Reduction Projects	$ 5,000.00	$ 1,957.40	$ 3,042.60	$ 1,764.90	**4128-520**	DW-9, KC-2
Lake Wabasso Outlet Replacement*	$ 5,000.00	$ 660.00	$ 4,340.00	$ -	**4128-520**	DW-5
Kohlman Lake Alum Treatment*	$ 40,000.00	$ 8,786.50	$ 31,213.50	$ 4,770.00	**4128-555**	KL-2
Wakefield Lake Aeration	$ 60,000.00	$ 2,555.00	$ 57,445.00	$ 1,302.50	**4128-553**	WL-3
CIP Project Repair & Maintenance						
Routine CIP Inspection and Unplanned Maintenance Identification	$ 131,250.00	$ 23,483.00	$ 107,767.00	$ 6,620.50	**4128-516**	DW-5
2026 CIP Maintenance and Repairs	$ 184,965.00	$ 88,812.50	$ 96,152.50	$ 4,976.00	**4128-516**	DW-5
2026 Vegetation Maintenance Program	$ 10,000.00	$ 9,897.00	$ 103.00	$ 1,364.00	**4128-516**	DW-8
Beltline and Battle Creek 5-year Inspection and Detailed Survey*	$ 15,000.00	$ 2,075.00	$ 12,925.00	$ -	**4128-516**	BELT-2
Placeholder for repairs coming out of 5-year inspection	$ 75,000.00	$ -	$ 75,000.00	$ -	**4128-516**	BELT-2
RWMWD Office Exterior Improvements*	$ 81,425.00	$ 69,618.25	$ 11,806.75	$ 27,183.50	**4128-516**	DW-5

***For these CIP projects, only the 2026 portion of the total budget is shown.**

Barr declares under the penalties of Law that this Account,
Claim, or Demand is just and that no part has been paid. **$ 135,264.75**



Bradley J. Lindaman, Vice President

2026 Capital Improvement Project (CIP) Progress Payment Number 5

1.0	Total Completed Through This Period:	$908,215.92		
2.0	Total Completed Previously Completed:		$851,014.92	
3.0	Total Completed This Period:			$57,201.00
4.0	Amount Previously Retained:		$42,550.75	
5.0	Amount Retained This Period:			$2,860.05
6.0	Total Amount Retained:		$45,410.80	
7.0	Retainage Released Through This Period:			$0.00
8.0	Total Retainage Remaining:		$45,410.80	
9.0	Amounts Previously Paid:	$808,464.17		
10.0	Amount Due This Estimate:			$54,340.95

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

SUBMITTED BY:

Name: Jason Fitzgerald Date: _____

Title: President

Contractor: Fitzgerald Excavating Inc.

Signature: _____

RECOMMENDED BY:

Name: Brad Lindaman Date: 2026.05.21

Title: Project Engineer

Engineer: Barr Engineering Company

Signature: 

APPROVED BY:

Name: Val Eisele Date: _____

Title: President

Owner: Ramsey-Washington Metro Watershed District

Signature: _____

2026 Capital Improvement Project (CIP)
Ramsey-Washington Metro Watershed District
Summary of Work Completed Through May 19th, 2026 for Progress Payment Number 5

						(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	$110,000.00	$110,000.00	0.95	$104,500.00	0.80	$88,000.00	0.15	$16,500.00
B	Control of Water	L.S.	1	$15,000.00	$15,000.00	0.95	$14,250.00	0.80	$12,000.00	0.15	$2,250.00
C	Traffic Control	L.S.	1	$5,000.00	$5,000.00	0.95	$4,750.00	0.80	$4,000.00	0.15	$750.00
Site 1 - Tamarack Swamp, Woodbury (PFS Basins Cleaning/Sweeping)											
E	Sediment/Muck Cleanout Excavation, Loading, Hauling and Offsite Disposal of Regulated Material (SRV Level 2 and 3)	TON	92	$34.00	$3,128.00	92	$3,128.00	0	$0.00	92	$3,128.00
F	Site Restoration (Seeding and Erosion Control Blanket)	SY	100	$3.00	$300.00	191	$573.00	0	$0.00	191	$573.00
G	Sediment Log (9-Inch Diameter)	LF	60	$4.00	$240.00	0	$0.00	0	$0.00	0	$0.00
H	Paver Sweeping	SY	1400	$10.00	$14,000.00	1,400	$14,000.00	0	$0.00	1,400	$14,000.00
I	Composite Mud Mats	SY	45	$15.00	$675.00	0	$0.00	0	$0.00	0	$0.00
K	Remove and Dispose of Existing 1 ½" to 2" Filter Rock	LS	1	$2,000.00	$2,000.00	1	$2,000.00	0	$0.00	1	$2,000.00
L	Clear Washed Filter Rock	TON	10	$50.00	$500.00	10	$500.00	0	$0.00	10	$500.00
Q	Remove Select Tree	EACH	4	$100.00	$400.00	4	$400.00	0	$0.00	4	$400.00
U	Clearing and Grubbing	LS	1	$2,500.00	$2,500.00	1	$2,500.00	0	$0.00	1	$2,500.00
Site 2 - Lower Afton Road, Maplewood (Drainageway Sediment Removal)											
E	Sediment/Muck Cleanout Excavation, Loading, Hauling and Offsite Disposal of Regulated Material (SRV Level 2 and 3)	TON	127	$34.00	$4,318.00	62	$2,120.58	62	$2,120.58	0	$0.00
F	Site Restoration (Seeding and Erosion Control Blanket)	SY	200	$3.00	$600.00	0	$0.00	0	$0.00	0	$0.00
I	Composite Mud Mats	SY	45	$15.00	$675.00	45	$675.00	45	$675.00	0	$0.00
Site 3 - Woodbury Elementary School Splash Block Repair											
J	Remove and Replace Existing Splashblock Assembly	SF	40	$200.00	$8,000.00	40	$8,000.00	0	$0.00	40	$8,000.00
F	Site Restoration (Seeding and Erosion Control Blanket)	SY	20	$3.00	$60.00	0	$0.00	0	$0.00	0	$0.00
Site 4 - Gervais Creek Filter Strip Maintenance											
F	Site Restoration (Seeding and Erosion Control Blanket)	SY	100	$3.00	$300.00	0	$0.00	0	$0.00	0	$0.00
K	Remove and Dispose of Existing 1 ½" to 2" Filter Rock	LS	1	$2,000.00	$2,000.00	1	$2,000.00	1	$2,000.00	0	$0.00
L	Clear Washed Filter Rock	TON	50	$50.00	$2,500.00	54	$2,700.00	54	$2,700.00	0	$0.00
M	Flotation Silt Curtain	LF	45	$17.00	$765.00	45	$765.00	45	$765.00	0	$0.00
I	Composite Mud Mats	SY	100	$15.00	$1,500.00	0	$0.00	0	$0.00	0	$0.00
G	Sediment Log (9-Inch Diameter)	LF	40	$4.00	$160.00	0	$0.00	0	$0.00	0	$0.00
P	Inlet Protection	EACH	1	$75.00	$75.00	0	$0.00	0	$0.00	0	$0.00
V	Igneous Boulders (30 inch nominal diameter)	TON	10	$150.00	$1,500.00	11	$1,687.50	11	$1,687.50	0	$0.00
Site 5 - Wakefield Lake Filter Maintenance											
N	Construction Entrance	EACH	1	$1,000.00	$1,000.00	0	$0.00	0	$0.00	0	$0.00
E	Sediment/Muck Cleanout Excavation, Loading, Hauling and Offsite Disposal of Regulated Material (SRV Level 2 and 3)	TON	15	$34.00	$510.00	15	$510.00	15	$510.00	0	$0.00
F	Site Restoration (Seeding and Erosion Control Blanket)	SY	200	$3.00	$600.00	54	$162.00	54	$162.00	0	$0.00
G	Sediment Log (9-Inch Diameter)	LF	30	$4.00	$120.00	0	$0.00	0	$0.00	0	$0.00
Site 6 - Bailey's Fish Creek Headwaters Structure Maintenance											
E	Sediment/Muck Cleanout Excavation, Loading, Hauling and Offsite Disposal of Regulated Material (SRV Level 2 and 3)	TON	30	$34.00	$1,020.00	30	$1,020.00	30	$1,020.00	0	$0.00
F	Site Restoration (Seeding and Erosion Control Blanket)	SY	100	$3.00	$300.00	151	$453.00	151	$453.00	0	$0.00
U	Clearing and Grubbing	LS	1	$2,500.00	$2,500.00	1	$2,500.00	1	$2,500.00	0	$0.00
W	Pressure Wash, Brush, and Reassemble Trash Rack Filter	LS	1	$3,000.00	$3,000.00	1	$3,000.00	1	$3,000.00	0	$0.00
G	Sediment Log (9-Inch Diameter)	LF	40	$4.00	$160.00	0	$0.00	0	$0.00	0	$0.00
O	MnDOT Class III Riprap (Field Stone) with Type IV Geotextile Filter Fabric	TON	20	$120.00	$2,400.00	19	$2,280.00	0	$0.00	19	$2,280.00
Site 7 - C STREET BASIN MAINTENANCE											
N	Construction Entrance	EACH	1	$1,000.00	$1,000.00	1	$1,000.00	1	$1,000.00	0	$0.00
E	Sediment/Muck Cleanout Excavation, Loading, Hauling and Offsite Disposal of Regulated Material (SRV Level 2 and 3)	TON	527	$34.00	$17,918.00	446	$15,170.80	446	$15,170.80	0	$0.00
F	Site Restoration (Seeding and Erosion Control Blanket)	SY	80	$3.00	$240.00	113	$339.00	113	$339.00	0	$0.00
G	Sediment Log (9-Inch Diameter)	LF	20	$4.00	$80.00	0	$0.00	0	$0.00	0	$0.00
O	MnDOT Class III Riprap (Field Stone) with Type IV Geotextile Filter Fabric	TON	35	$120.00	$4,200.00	36	$4,320.00	0	$0.00	36	$4,320.00
P	Inlet Protection	EACH	1	$75.00	$75.00	1	$75.00	1	$75.00	0	$0.00
Site 8 - ABI POND MAINTENANCE											
E	Sediment/Muck Cleanout Excavation, Loading, Hauling and Offsite Disposal of Regulated Material (SRV Level 2 and 3)	TON	1182	$34.00	$40,188.00	1,198	$40,738.80	1,198	$40,738.80	0	$0.00
F	Site Restoration (Seeding and Erosion Control Blanket)	SY	100	$3.00	$300.00	477	$1,431.00	477	$1,431.00	0	$0.00
G	Sediment Log (9-Inch Diameter)	LF	16	$4.00	$64.00	0	$0.00	0	$0.00	0	$0.00
I	Composite Mud Mats	SY	50	$15.00	$750.00	50	$750.00	50	$750.00	0	$0.00
O	MnDOT Class III Riprap (Field Stone) with Type IV Geotextile Filter Fabric	TON	10	$120.00	$1,200.00	19	$2,292.00	19	$2,292.00	0	$0.00
M	Flotation Silt Curtain	LF	25	$17.00	$425.00	0	$0.00	0	$0.00	0	$0.00
T	Silt Fence	LF	50	$2.00	$100.00	0	$0.00	0	$0.00	0	$0.00
P	Inlet Protection	EACH	1	$75.00	$75.00	1	$75.00	1	$75.00	0	$0.00

2026 Capital Improvement Project (CIP)
Ramsey-Washington Metro Watershed District
Summary of Work Completed Through May 19th, 2026 for Progress Payment Number 5

						(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 9 - MAJESTIC POND MAINTENANCE											
N	Construction Entrance	EACH	1	$1,000.00	$1,000.00	1	$1,000.00	1	$1,000.00	0	$0.00
E	Sediment/Muck Cleanout Excavation, Loading, Hauling and Offsite Disposal of Regulated Material (SRV Level 2 and 3)	TON	113	$34.00	$3,842.00	167	$5,664.40	167	$5,664.40	0	$0.00
F	Site Restoration (Seeding and Erosion Control Blanket)	SY	80	$3.00	$240.00	451	$1,353.00	451	$1,353.00	0	$0.00
G	Sediment Log (9-Inch Diameter)	LF	20	$4.00	$80.00	0	$0.00	0	$0.00	0	$0.00
Q	Remove Select Tree	EACH	2	$100.00	$200.00	1	$100.00	1	$100.00	0	$0.00
I	Composite Mud Mats	SY	30	$15.00	$450.00	30	$450.00	30	$450.00	0	$0.00
O	MnDOT Class III Riprap (Field Stone) with Type IV Geotextile Filter Fabric	TON	35	$120.00	$4,200.00	60	$7,200.00	60	$7,200.00	0	$0.00
P	Inlet Protection	EACH	1	$75.00	$75.00	0	$0.00	0	$0.00	0	$0.00
M	Flotation Silt Curtain	LF	25	$17.00	$425.00	0	$0.00	0	$0.00	0	$0.00
T	Silt Fence	LF	97	$2.00	$194.00	0	$0.00	0	$0.00	0	$0.00
Site 10 - EVANS POND MAINTENANCE											
N	Construction Entrance	EACH	1	$1,000.00	$1,000.00	1	$1,000.00	1	$1,000.00	0	$0.00
D	Sediment/Muck Cleanout Excavation, Loading, Hauling and Offsite Delivery of Unregulated Material (SRV Level 1)	TON	2188	$34.00	$74,392.00	2,131	$72,447.20	2,131	$72,447.20	0	$0.00
F	Site Restoration (Seeding and Erosion Control Blanket)	SY	500	$3.00	$1,500.00	1,281	$3,843.00	1,281	$3,843.00	0	$0.00
G	Sediment Log (9-Inch Diameter)	LF	40	$4.00	$160.00	0	$0.00	0	$0.00	0	$0.00
Q	Remove Select Tree	EACH	2	$100.00	$200.00	2	$200.00	2	$200.00	0	$0.00
O	MnDOT Class III Riprap (Field Stone) with Type IV Geotextile Filter Fabric	TON	20	$120.00	$2,400.00	17	$1,980.00	17	$1,980.00	0	$0.00
P	Inlet Protection	EACH	1	$75.00	$75.00	0	$0.00	0	$0.00	0	$0.00
M	Flotation Silt Curtain	LF	25	$17.00	$425.00	0	$0.00	0	$0.00	0	$0.00
T	Silt Fence	LF	51	$2.00	$102.00	0	$0.00	0	$0.00	0	$0.00
Site 11 - REILAND POND MAINTENANCE											
N	Construction Entrance	EACH	1	$1,000.00	$1,000.00	1	$1,000.00	1	$1,000.00	0	$0.00
E	Sediment/Muck Cleanout Excavation, Loading, Hauling and Offsite Disposal of Regulated Material (SRV Level 2 and 3)	TON	713	$34.00	$24,242.00	648	$22,038.80	648	$22,038.80	0	$0.00
F	Sediment Log (9-Inch Diameter)	SY	154	$4.00	$616.00	0	$0.00	0	$0.00	0	$0.00
Q	Remove Select Tree	EACH	2	$100.00	$200.00	1	$100.00	1	$100.00	0	$0.00
O	MnDOT Class III Riprap (Field Stone) with Type IV Geotextile Filter Fabric	TON	20	$120.00	$2,400.00	36	$4,356.00	36	$4,356.00	0	$0.00
P	Inlet Protection	EACH	1	$75.00	$75.00	1	$75.00	1	$75.00	0	$0.00
M	Flotation Silt Curtain	LF	25	$17.00	$425.00	0	$0.00	0	$0.00	0	$0.00
T	Silt Fence	LF	80	$2.00	$160.00	0	$0.00	0	$0.00	0	$0.00
Site 12 - POND 310 MAINTENANCE (removed from project, see CO1)											
N	Construction Entrance	EACH	1	$1,000.00	$1,000.00	0	$0.00	0	$0.00	0	$0.00
D	Sediment/Muck Cleanout Excavation, Loading, Hauling and Offsite Delivery of Unregulated Material (SRV Level 1)	TON	0	$34.00	$0.00	0	$0.00	0	$0.00	0	$0.00
F	Site Restoration (Seeding and Erosion Control Blanket)	SY	100	$3.00	$300.00	0	$0.00	0	$0.00	0	$0.00
G	Sediment Log (9-Inch Diameter)	LF	30	$4.00	$120.00	0	$0.00	0	$0.00	0	$0.00
I	Composite Mud Mats	SY	20	$15.00	$300.00	0	$0.00	0	$0.00	0	$0.00
P	Inlet Protection	EACH	1	$75.00	$75.00	0	$0.00	0	$0.00	0	$0.00
O	MnDOT Class III Riprap (Field Stone) with Type IV Geotextile Filter Fabric	TON	10	$120.00	$1,200.00	0	$0.00	0	$0.00	0	$0.00
R	Remove and Dispose of Existing Structure	EACH	1	$2,000.00	$2,000.00	0	$0.00	0	$0.00	0	$0.00
S	Overflow Structure with Trash Guard, Complete	EACH	1	$10,500.00	$10,500.00	0	$0.00	0	$0.00	0	$0.00
M	Flotation Silt Curtain	LF	45	$17.00	$765.00	0	$0.00	0	$0.00	0	$0.00
T	Silt Fence	LF	109	$2.00	$218.00	0	$0.00	0	$0.00	0	$0.00
Site 13 - POND 244 AND POND 249 MAINTENANCE											
N	Construction Entrance	EACH	1	$1,000.00	$1,000.00	1	$1,000.00	1	$1,000.00	0	$0.00
D	Sediment/Muck Cleanout Excavation, Loading, Hauling and Offsite Delivery of Unregulated Material (SRV Level 1)	TON	614	$34.00	$20,876.00	1,638	$55,688.60	1,638	$55,688.60	0	$0.00
E	Sediment/Muck Cleanout Excavation, Loading, Hauling and Offsite Disposal of Regulated Material (SRV Level 2 and 3)	TON	3827	$34.00	$130,118.00	3,944	$134,085.80	3,944	$134,085.80	0	$0.00
F	Site Restoration (Seeding and Erosion Control Blanket)	SY	475	$3.00	$1,425.00	790	$2,370.00	790	$2,370.00	0	$0.00
G	Sediment Log (9-Inch Diameter)	LF	32	$4.00	$128.00	0	$0.00	0	$0.00	0	$0.00
Q	Remove Select Tree	EACH	3	$100.00	$300.00	16	$1,600.00	16	$1,600.00	0	$0.00
M	Flotation Silt Curtain	LF	45	$17.00	$765.00	0	$0.00	0	$0.00	0	$0.00
T	Silt Fence	LF	565	$2.00	$1,130.00	0	$0.00	0	$0.00	0	$0.00
P	Inlet Protection	EACH	2	$75.00	$150.00	0	$0.00	0	$0.00	0	$0.00
I	Composite Mud Mats	SY	100	$15.00	$1,500.00	100	$1,500.00	100	$1,500.00	0	$0.00
O	MnDOT Class III Riprap (Field Stone) with Type IV Geotextile Filter Fabric	TON	50	$120.00	$6,000.00	111	$13,368.00	111	$13,368.00	0	$0.00

2026 Capital Improvement Project (CIP)
Ramsey-Washington Metro Watershed District
Summary of Work Completed Through May 19th, 2026 for Progress Payment Number 5

						(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 14 - WHEELOCK POND MAINTENANCE											
N	Construction Entrance	EACH	1	$1,000.00	$1,000.00	1	$1,000.00	1	$1,000.00	0	$0.00
E	Sediment/Muck Cleanout Excavation, Loading, Hauling and Offsite Disposal of Regulated Material (SRV Level 2 and 3)	TON	1488	$34.00	$50,592.00	1,219	$41,440.56	1,219	$41,440.56	0	$0.00
F	Site Restoration (Seeding and Erosion Control Blanket)	SY	200	$3.00	$600.00	1,681	$5,043.00	1,681	$5,043.00	0	$0.00
G	Sediment Log (9-Inch Diameter)	LF	35	$4.00	$140.00	0	$0.00	0	$0.00	0	$0.00
M	Flotation Silt Curtain	LF	45	$17.00	$765.00	0	$0.00	0	$0.00	0	$0.00
P	Inlet Protection	EACH	1	$75.00	$75.00	1	$75.00	1	$75.00	0	$0.00
O	MnDOT Class III Riprap (Field Stone) with Type IV Geotextile Filter Fabric	TON	15	$120.00	$1,800.00	13	$1,610.40	13	$1,610.40	0	$0.00
T	Silt Fence	LF	565	$2.00	$1,130.00	0	$0.00	0	$0.00	0	$0.00
I	Composite Mud Mats	SY	100	$15.00	$1,500.00	100	$1,500.00	100	$1,500.00	0	$0.00
X	12" Bulkhead in Existing Outlet Structure	EACH	2	$1,000.00	$2,000.00	2	$2,000.00	2	$2,000.00	0	$0.00
Y	Remove and Dispose of Filter Piping and Appertenances	LS	1	$1,000.00	$1,000.00	1	$1,000.00	1	$1,000.00	0	$0.00
Site 15 - RONDEAU POND MAINTENANCE											
N	Construction Entrance	EACH	1	$1,000.00	$1,000.00	0	$0.00	0	$0.00	0	$0.00
D	Sediment/Muck Cleanout Excavation, Loading, Hauling and Offsite Delivery of Unregulated Material (SRV Level 1)	TON	507	$34.00	$17,238.00	593	$20,155.20	593	$20,155.20	0	$0.00
F	Site Restoration (Seeding and Erosion Control Blanket)	SY	240	$3.00	$720.00	171	$513.00	171	$513.00	0	$0.00
G	Sediment Log (9-Inch Diameter)	LF	16	$4.00	$64.00	0	$0.00	0	$0.00	0	$0.00
Q	Remove Select Tree	EACH	1	$100.00	$100.00	1	$100.00	1	$100.00	0	$0.00
O	MnDOT Class III Riprap (Field Stone) with Type IV Geotextile Filter Fabric	TON	10	$120.00	$1,200.00	19	$2,304.00	19	$2,304.00	0	$0.00
P	Inlet Protection	EACH	1	$75.00	$75.00	0	$0.00	0	$0.00	0	$0.00
M	Flotation Silt Curtain	LF	45	$17.00	$765.00	0	$0.00	0	$0.00	0	$0.00
Site 16 - HAZEL-ROSS POND MAINTENANCE											
N	Construction Entrance	EACH	1	$1,000.00	$1,000.00	1	$1,000.00	1	$1,000.00	0	$0.00
E	Sediment/Muck Cleanout Excavation, Loading, Hauling and Offsite Disposal of Regulated Material (SRV Level 2 and 3)	TON	4139	$34.00	$140,726.00	3,353	$114,002.00	3,353	$114,002.00	0	$0.00
F	Site Restoration (Seeding and Erosion Control Blanket)	SY	500	$3.00	$1,500.00	438	$1,314.00	438	$1,314.00	0	$0.00
G	Sediment Log (9-Inch Diameter)	LF	35	$4.00	$140.00	0	$0.00	0	$0.00	0	$0.00
O	MnDOT Class III Riprap (Field Stone) with Type IV Geotextile Filter Fabric	TON	25	$120.00	$3,000.00	38	$4,587.60	38	$4,587.60	0	$0.00
T	Silt Fence	LF	120	$2.00	$240.00	0	$0.00	0	$0.00	0	$0.00
P	Inlet Protection	EACH	2	$75.00	$150.00	0	$0.00	0	$0.00	0	$0.00
Site 17 - HAZEL - NAKOMIS POND MAINTENANCE											
N	Construction Entrance	EACH	1	$1,000.00	$1,000.00	1	$1,000.00	1	$1,000.00	0	$0.00
E	Sediment/Muck Cleanout Excavation, Loading, Hauling and Offsite Disposal of Regulated Material (SRV Level 2 and 3)	TON	1498	$34.00	$50,932.00	1,453	$49,410.50	1,453	$49,410.50	0	$0.00
F	Site Restoration (Seeding and Erosion Control Blanket)	SY	200	$3.00	$600.00	276	$828.00	276	$828.00	0	$0.00
G	Sediment Log (9-Inch Diameter)	LF	35	$4.00	$140.00	0	$0.00	0	$0.00	0	$0.00
O	MnDOT Class III Riprap (Field Stone) with Type IV Geotextile Filter Fabric	TON	15	$120.00	$1,800.00	19	$2,246.40	19	$2,246.40	0	$0.00
T	Silt Fence	LF	140	$2.00	$280.00	0	$0.00	0	$0.00	0	$0.00
P	Inlet Protection	EACH	2	$75.00	$150.00	0	$0.00	0	$0.00	0	$0.00
Site 18 - POND 7 MAINTENANCE											
N	Construction Entrance	EACH	1	$1,000.00	$1,000.00	1	$1,000.00	1	$1,000.00	0	$0.00
E	Sediment/Muck Cleanout Excavation, Loading, Hauling and Offsite Disposal of Regulated Material (SRV Level 2 and 3)	TON	955	$34.00	$32,470.00	884	$30,042.40	884	$30,042.40	0	$0.00
F	Site Restoration (Seeding and Erosion Control Blanket)	SY	860	$3.00	$2,580.00	704	$2,112.00	704	$2,112.00	0	$0.00
G	Sediment Log (9-Inch Diameter)	LF	31	$4.00	$124.00	0	$0.00	0	$0.00	0	$0.00
Q	Remove Select Tree	EACH	1	$100.00	$100.00	0	$0.00	0	$0.00	0	$0.00
O	MnDOT Class III Riprap (Field Stone) with Type IV Geotextile Filter Fabric	TON	10	$120.00	$1,200.00	0	$0.00	0	$0.00	0	$0.00
I	Composite Mud Mats	SY	40	$15.00	$600.00	40	$600.00	40	$600.00	0	$0.00
T	Silt Fence	LF	120	$3.00	$360.00	0	$0.00	0	$0.00	0	$0.00
P	Inlet Protection	EACH	2	$75.00	$150.00	0	$0.00	0	$0.00	0	$0.00
M	Flotation Silt Curtain	LF	45	$17.00	$765.00	0	$0.00	0	$0.00	0	$0.00

2026 Capital Improvement Project (CIP)
Ramsey-Washington Metro Watershed District
Summary of Work Completed Through May 19th, 2026 for Progress Payment Number 5

						(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
ALTERNATE BID "A" Site 19 - POND 4 MAINTENANCE NORTH ST. PAUL											
N	Construction Entrance	EACH	2	$1,000.00	$2,000.00	1	$1,000.00	1	$1,000.00	0	$0.00
D	Sediment/Muck Cleanout Excavation, Loading, Hauling and Offsite Delivery of Unregulated Material (SRV Level 1)	TON	1400	$34.00	$47,600.00	1,143	$38,874.58	1,143	$38,874.58	0	$0.00
F	Site Restoration (Seeding and Erosion Control Blanket)	SY	1500	$3.00	$4,500.00	587	$1,761.00	587	$1,761.00	0	$0.00
G	Sediment Log (9-Inch Diameter)	LF	1	$4.00	$4.00	0	$0.00	0	$0.00	0	$0.00
Q	Remove Select Tree	EACH	1	$100.00	$100.00	2	$200.00	2	$200.00	0	$0.00
O	MnDOT Class III Riprap (Field Stone) with Type IV Geotextile Filter Fabric	TON	10	$120.00	$1,200.00	18	$2,110.80	18	$2,110.80	0	$0.00
T	Silt Fence	LF	300	$2.00	$600.00	0	$0.00	0	$0.00	0	$0.00
P	Inlet Protection	EACH	2	$75.00	$150.00	0	$0.00	0	$0.00	0	$0.00
M	Flotation Silt Curtain	LF	45	$17.00	$765.00	0	$0.00	0	$0.00	0	$0.00
I	Composite Mud Mats	SY	100	$15.00	$1,500.00	100	$1,500.00	100	$1,500.00	0	$0.00
					Contract Base Bid Extensions =	$877,140.00					
					Contract Alternate A Bid Extensions =	$58,419.00					
Change Order 1											
C.O.1.A	Site 14 Wheelock Pond – Additional Work: Timber Weir Replacement	L.S.	1	$4,800.00	$4,800.00	1	$4,800.00	1	$4,800.00	0	$0.00
						0	$0.00	0	$0.00	0	$0.00
					Change Order Extensions =	$4,800.00	$4,800.00		$4,800.00		$0.00
					Contract Grand Total =	**$940,359.00**	**$908,215.92**		**$851,014.92**		**$57,201.00**

Kohlman Creek Flood Risk Reduction Progress Payment #4 - FINAL

1.0	Total Completed Through This Period:	$326,893.28		
2.0	Total Completed Previously Completed:		$324,399.25	
3.0	Total Completed This Period:			$2,494.03
4.0	Amount Previously Retained:		$16,219.96	
5.0	Amount Retained This Period (See Note 1):			$0.00
6.0	Total Amount Retained (See Note 1):		$16,219.96	
7.0	Retainage Released Through This Period:			$16,219.96
8.0	Total Retainage Remaining:		$0.00	
9.0	Amounts Previously Paid:	$324,399.25		
10.0	Amount Due This Estimate (See Note 2):			$18,713.99

Note 1: Retainage shall be 5 percent of the value of the Work completed.

Note 2:	Original Contract Price:	$298,865.00
	Change Order 1:	$3,000.00
	Change Order 2:	$7,462.50
	Change Order 3:	$0.00
	Change Order 4:	$17,278.25
	Current Contract Price:	$326,605.75

SUBMITTED BY:

Name: Collin Kopitzke Date: 5.19.26

Title: Project Manager

Contractor: New Look Contracting, Inc.

Signature:

RECOMMENDED BY:

Name: Tyler Olsen Date: 5/19/2026

Title: Project Engineer

Engineer: Barr Engineering Company

Signature: Tyler A Olsen

APPROVED BY:

Name: Val Eisele Date:

Title: President

Owner: Ramsey-Washington Metro Watershed District

Signature:

Kohlman Creek Flood Risk Reduction Progress Payment #4 - FINAL
Ramsey-Washington Metro Watershed District
Summary of Work Completed Through May 18, 2026 for Progress Payment Number 4

						(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	LS	1	$30,000.00	$30,000.00	1	$30,000.00	1	$30,000.00	0	$0.00
B	Traffic Control	LS	1	$5,000.00	$5,000.00	1	$5,000.00	1	$5,000.00	0	$0.00
C	Control of Water	LS	1	$30,000.00	$30,000.00	1	$30,000.00	1	$30,000.00	0	$0.00
Site 1: County Road C											
D	Rock Construction Entrance	EA	1	$2,500.00	$2,500.00	0	$0.00	0	$0.00	0	$0.00
E	Silt Fence or Sediment Log	LF	2000	$5.50	$11,000.00	2,100	$11,550.00	2,100	$11,550.00	0	$0.00
F	Rock Filter Dike	EA	1	$1,500.00	$1,500.00	1	$1,500.00	1	$1,500.00	0	$0.00
G	Inlet Protection Filter Sack	EA	2	$250.00	$500.00	2	$500.00	2	$500.00	0	$0.00
H	Remove Trees, Brush, and Debris (P)	AC	0.16	$50,000.00	$8,000.00	0.16	$8,000.00	0.16	$8,000.00	0	$0.00
I	Remove Temporary Culvert Inlet Restrictor Plate	LS	1	$3,000.00	$3,000.00	1.0	$3,000.00	1	$3,000.00	0	$0.00
J	Strip, Salvage and Reinstall Topsoil (P)	CY	121	$25.00	$3,025.00	121	$3,025.00	121	$3,025.00	0	$0.00
K	Import Topsoil Borrow	CY	60	$75.00	$4,500.00	60	$4,500.00	60	$4,500.00	0	$0.00
L	Common Embankment CV (P)	ECY	65	$75.00	$4,875.00	65	$4,875.00	65	$4,875.00	0	$0.00
M	Aggregate Base (Mn/DOT Class 5) (P)	ECY	170	$75.00	$12,750.00	170	$12,750.00	170	$12,750.00	0	$0.00
N	Riprap (Mn/DOT CL III Fieldstone)	TON	10	$250.00	$2,500.00	10	$2,500.00	10	$2,500.00	0	$0.00
O	Geotextile Fabric (Type V) (P)	SY	640	$3.00	$1,920.00	640	$1,920.00	640	$1,920.00	0	$0.00
P	Seeding and Erosion Control Blanket	SY	2910	$2.50	$7,275.00	2,780	$6,950.00	2,780	$6,950.00	0	$0.00
Q	18" CPEP	LF	32	$100.00	$3,200.00	32	$3,200.00	32	$3,200.00	0	$0.00
R	18" Metal FES	EA	2	$1,250.00	$2,500.00	2	$2,500.00	2	$2,500.00	0	$0.00
T	Backflow Prevention Valve (18", Inline)	EA	1	$5,500.00	$5,500.00	1	$5,500.00	1	$5,500.00	0	$0.00
Site 2: 13th Avenue/PCU Pond											
D	Rock Construction Entrance	EA	1	$2,500.00	$2,500.00	0	$0.00	0	$0.00	0	$0.00
E	Silt Fence or Sediment Log	LF	2760	$5.50	$15,180.00	3,087	$16,978.50	3,087	$16,978.50	0	$0.00
F	Rock Filter Dike	EA	1	$1,500.00	$1,500.00	1	$1,500.00	1	$1,500.00	0	$0.00
G	Inlet Protection	EA	5	$250.00	$1,250.00	5	$1,250.00	5	$1,250.00	0	$0.00
H	Remove Trees, Brush, and Debris (P)	AC	0.07	$50,000.00	$3,500.00	0.07	$3,500.00	0.07	$3,500.00	0	$0.00
J	Strip, Salvage and Reinstall Topsoil (P)	CY	184	$25.00	$4,600.00	184	$4,600.00	184	$4,600.00	0	$0.00
K	Import Topsoil Borrow	CY	90	$75.00	$6,750.00	140	$10,519.03	107	$8,025.00	33.3	$2,494.03
L	Common Embankment (P)	ECY	294	$45.00	$13,230.00	294	$13,230.00	294	$13,230.00	0	$0.00
N	Riprap (Mn/DOT CL III Fieldstone)	TON	17	$250.00	$4,250.00	17	$4,250.00	17	$4,250.00	0	$0.00
P	Seeding and Erosion Control Blanket	SY	3304	$2.50	$8,260.00	3,102	$7,755.00	3,102	$7,755.00	0	$0.00
Q	24" Corrugated PE Pipe	LF	272	$75.00	$20,400.00	272	$20,400.00	272	$20,400.00	0	$0.00
Q	24" RC Pipe	LF	40	$125.00	$5,000.00	40	$5,000.00	40	$5,000.00	0	$0.00
Q	30" RC Pipe	LF	130	$125.00	$16,250.00	130	$16,250.00	130	$16,250.00	0	$0.00
R	30" RC Pipe Apron	EA	1	$4,000.00	$4,000.00	1	$4,000.00	1	$4,000.00	0	$0.00
S	Bulkhead and Fill Storm Sewer Pipe (w/ CLSM)	LF	82	$75.00	$6,150.00	82	$6,150.00	82	$6,150.00	0	$0.00
T	Backflow Prevention Valve (18, Inline)	EA	1	$6,000.00	$6,000.00	1	$6,000.00	1	$6,000.00	0	$0.00
U	Connect to Existing Pipe or Structure	EA	3	$2,500.00	$7,500.00	3	$7,500.00	3	$7,500.00	0	$0.00
V	Storm Sewer Drainage Structure, STMH-1	EA	1	$15,000.00	$15,000.00	1	$15,000.00	1	$15,000.00	0	$0.00
V	Storm Sewer Drainage Structure, STMH-2	EA	1	$9,500.00	$9,500.00	1	$9,500.00	1	$9,500.00	0	$0.00
V	Storm Sewer Drainage Structure, STMH-3	EA	1	$8,500.00	$8,500.00	1	$8,500.00	1	$8,500.00	0	$0.00
				Contract Base Extensions =	$298,865.00		$299,152.53		$296,658.50		$2,494.03
Change Orders											
C.O.1.A	Tree removal	Each	3	$1,000.00	$3,000.00	3	$3,000.00	3	$3,000.00	0	$0.00
C.O.2.A	Testing and poly sheeting for soil storage	LS	1	$4,200.00	$4,200.00	1	$4,200.00	1	$4,200.00	0	$0.00
C.O.2.B	Import clean sand	Ton	145.00	$22.50	$3,262.50	145	$3,262.50	145	$3,262.50	0	$0.00
C.O.4	Export Contaminated Soil	Ton	335.50	$51.50	$17,278.25	335.50	$17,278.25	336	$17,278.25	0	$0.00
				Change Order Extensions =	$27,740.75		$27,740.75		$27,740.75		$0.00
				Contract Grand Total =	**$326,605.75**		**$326,893.28**		**$324,399.25**		**$2,494.03**

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

May 21, 2026
File No: 9M

	Balance
General Account	$1,237.50

Payment can be made over the phone, by check, or online at
www.galowitzolson.com

Permit Application Coversheet

Date June 03, 2026

Project Name Bailey West- Outlots B, C, D3 Project Number 26-16

Applicant Name John Bailey, Bailey Nurseries

Type of Development Mixed Use

Property Description

This project is located north of Bailey Road at the former Bailey Nurseries plant storage fields and is part of a common plan of development in the cities of Woodbury, Newport, and Maplewood. The applicant is proposing to redevelop a portion of the site in Woodbury and Newport, named "Bailey West." This phase of work will include mass grading activities for a future multi-use development, stormwater treatment facilities, and a north-south extension to Century Avenue. A portion of the "Bailey West" development is located in South Washington Watershed District.

This permit request is only for areas within the jurisdictional boundary of RWMWD, including Outlots B, C, and D3. Work within these outlots includes mass grading and construction of a regional infiltration basin to meet stormwater treatment requirements. A wet pond will provide pretreatment. Remaining areas of the larger common plan of development will be permitted by other entities and/or via future permit requests, depending on jurisdiction. The stormwater management plan for the overall "Bailey West" phase of development was designed to meet current RWMWD permit requirements for volume reduction and rate control. The provided volume reduction will be utilized by future parcels as they develop. The City of Woodbury has agreed to own and maintain the proposed stormwater facilities long-term.

Within RWMWD, three wetlands were delineated (one of which is located within the construction limits of this permit request). Wetland boundaries were approved in November 2021, along with confirming some jurisdictional designations for existing constructed ponds within the jurisdictional boundary of RWMWD (#21-16 WCA). No impacts to wetlands are proposed as part of this permit request, and buffer requirements are proposed to be met.

The total disturbance area within RWMWD as part of this phase of development is approximately 41 acres. Due to the acreage of grading, temporary sediment basins will be constructed to capture runoff during the interim conditions.

The City of Woodbury was the responsible government unit (RGU) for evaluation and approval of the Environmental Assessment Worksheet (EAW) prepared for this portion of the development and provided opportunity for public comment Feb-March 2026. The final EAW Record of Decision was released in April 2026 which did not substantially change the proposed project plans, and an Enviornmental Impact Statement (EIS) is not required.

Watershed District Policies or Standards Involved:

- [x] *Wetlands*
- [x] *Erosion and Sediment Control*
- [x] *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.

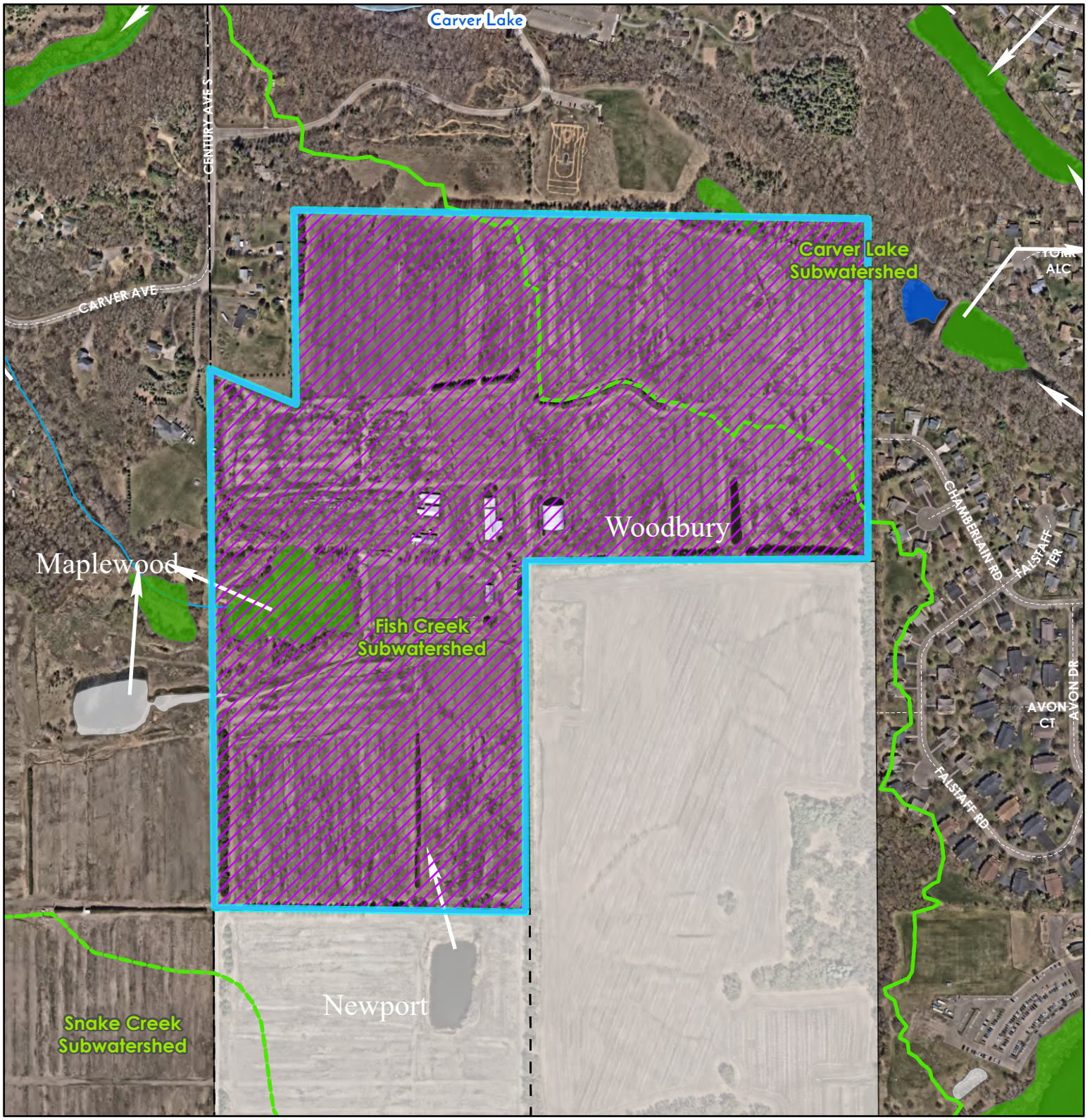
Staff Recommendation

Staff recommends approval of the permit with the special provisions.

Attachments:

- ☑ Project Location Map
- ☑ Project Grading Plan

#26-16 - Bailey West - Outlots B, C, D3



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

- Permit in Review
- Flow Arrows
- Roads
- Cities
- Subwatersheds
- Lakes

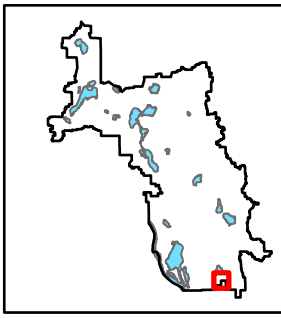
Shaded area is outside RWMWD

Highlighted Areas Represent Active Permit

Miles
0 0.07 0.15

US Feet
0 300 600

N



26-16

Special Provisions

1. The applicant shall submit a revised narrative:
   A. Include a comparison of the required and provided stormwater treatment volumes for Bailey West within the jurisdictional boundary of RWMWD.
   B. Provide a table of assumed impervious area by parcel (and for Bailey Rd extension) that is to be treated by Outlot C and the assumed volume credit required (and/or available to) each area. Add 'Regional Stormwater Basin Areas' table information from 'Stormwater Guidance' figure to the narrative. Parse out impervious area within Century Ave ROW if extension will be constructed in multiple phases. Label 'Exemption Parcel' on 'Stormwater Guidance' figure.

2. The applicant shall provide a dewatering plan acknowledging all requirements of Section 10.1 in the NPDES permit.

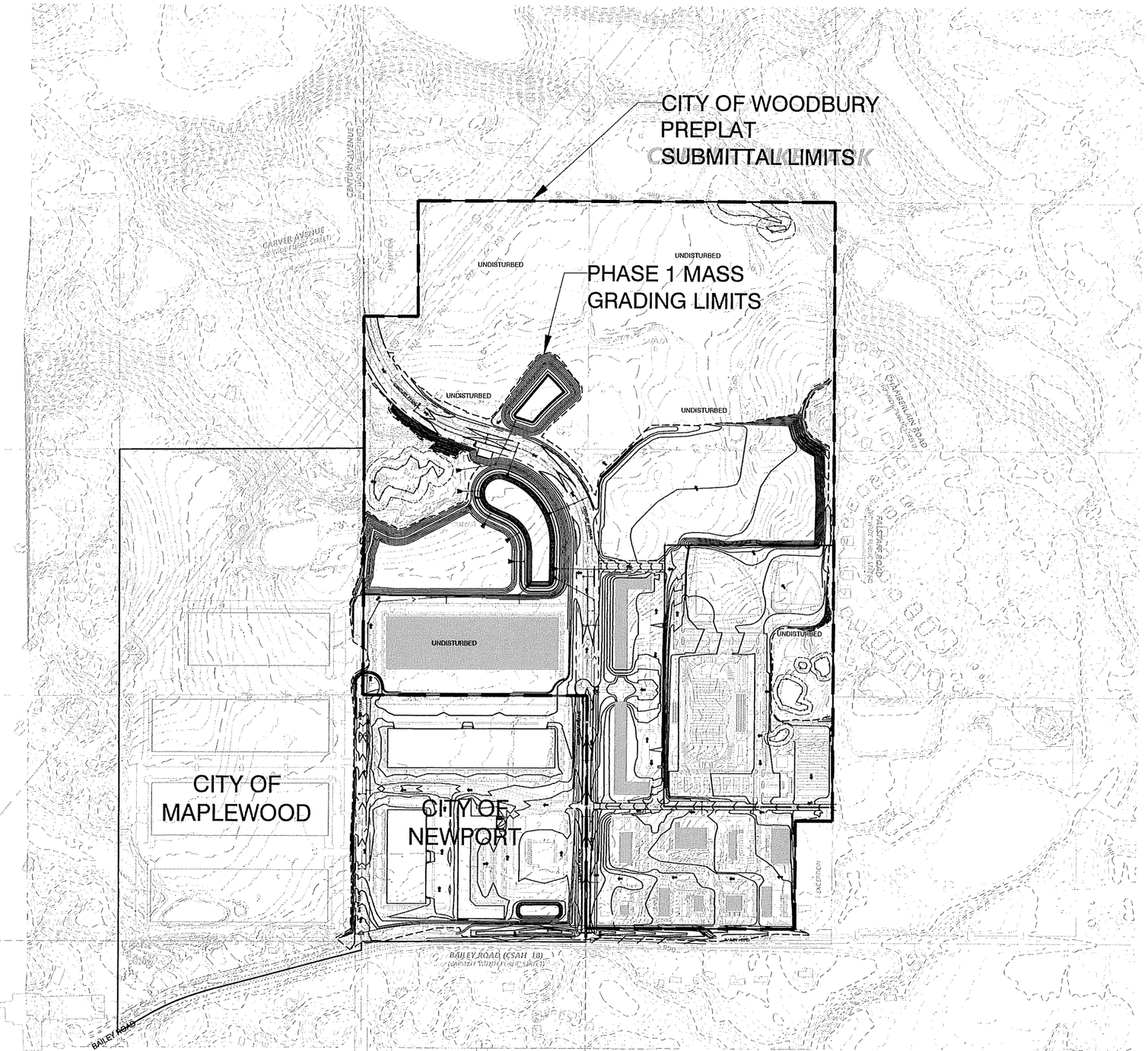
3. The applicant shall submit the escrow payment of $206,600.

4. The applicant shall submit the final, complete and signed plans set that include the following revisions:
   A. Provide details for stabilization methods 1 & 3 listed on sheet 48.
   B. Provide details for rock construction entrances.

5. The applicant shall submit the final, signed geotechnical report.

6. The applicant shall submit a copy of the approved NPDES construction permit coverage for the project.

7. The applicant shall submit contact information for the trained/certified erosion control supervisor responsible for implementing the SWPPP.



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 2.00%.
2. 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 WOODBURY CONSTRUCTION STANDARDS SPECIFICATION, LATEST EDITION.
5. ROCK CONSTRUCTION ENTRANCES SHALL BE PROVIDED AT ALL CONSTRUCTION ACCESS POINTS.
6. REFER TO GEOTECHNICAL REPORT AND PROJECT MANUAL, FOR SOIL CORRECTION REQUIREMENTS AND TESTING REQUIREMENTS.
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. IMMEDIATELY FOLLOWING GRADING OF (3:1 OR GREATER) SIDE SLOPES AND DRAINAGE SWALES, WOOD FIBER BLANKET OR OTHER APPROVED SOIL STABILIZING METHOD (APPROVED BY ENGINEER) SHALL BE APPLIED OVER APPROVED SEED MIXTURE AND A MINIMUM OF 4" TOPSOIL.
10. 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 APPROPRIATE METHOD.
11. REFER TO GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR ALL EROSION AND SEDIMENT CONTROL DEVICE LOCATIONS.
12. BUILDING PERMITS ARE REQUIRED FOR ALL RETAINING WALLS 4 FEET IN HEIGHT OR GREATER AND THE WALLS SHALL BE DESIGNED BY A STRUCTURAL ENGINEER WITH DESIGN REVIEWED AND APPROVED BY THE CITY PRIOR TO INSTALLATION. ALL WALLS EXCEEDING 30" IN HEIGHT REQUIRE THE INSTALLATION OF A 42" SAFETY RAILING.
13. PROPOSED DRIVEWAY GRADES ARE 3% MINIMUM AND 10% MAXIMUM.
14. ANY MODIFICATION TO HOMES AT TIME OF BUILDING PERMIT APPLICATION THAT DEVIATES FROM THIS GRADING PLAN MUST BE SUBMITTED AND APPROVED BY THE CITY OF WOODBURY.
15. CONTRACTOR TO PROVIDE A MINIMUM OF 2' OF IMPERMEABLE MATERIAL UNDER WET POND. MATERIAL TO BE APPROVED BY GEOTECHNICAL ENGINEER.
16. ALL SLOPES MUST NOT BE GREATER THAN A 3:1.
17. NO BUILDING PERMIT WILL BE ISSUED WITHIN NEW CURB CONSTRUCTION AREAS UNTIL THE PLANNING DIVISION HAS APPROVED AN ALTERNATIVE ACCESS OR VERIFIED WITH THE ENGINEERING DIVISION THAT THE CURB HAS REACHED ITS DESIGN STRENGTH.
18. ANY HOUSE TYPE MODIFICATION AT TIME OF BUILDING PERMIT APPLICATION OTHER THAN WHAT WAS IDENTIFIED ON THE APPROVED GRADING PLAN SHALL REQUIRE A REVISED GRADING PLAN SUBMITTAL FOR REVIEW AND APPROVAL.
19. CONTRACTOR TO NOT USE HEAVY WHEELED EQUIPMENT USE LOW IMPACT EARTH MOVING EQUIPMENT FOR CONSTRUCTION AND SEEDING OF INFILTRATION BASINS.
20. CITY SHALL NOT BE RESPONSIBLE FOR THE MAINTENANCE OR ANY COSTS (NOW AND FUTURE) ASSOCIATED WITH PROPOSED RETAINING WALLS.
21. ALL PUBLIC PEDESTRIAN WAYS SHALL MEET DESIGN REQUIREMENTS OUTLINED ON DETAIL PLATES STR-17 AND STR-26 FOR SUB GRADE CORRECTION.
22. IF THE DEVELOPER'S BUILDERS PROPOSE SIGNIFICANT GRADE CHANGES TO HOME AT TIME OF BUILDING PERMIT APPLICATION, THE CITY MAY REQUIRE THE GRADING PLAN BE REVISED TO REFLECT THE PROPOSED CHANGES. SIGNIFICANT CHANGE EXAMPLES ARE DROPPING THE GARAGE FLOOR ELEVATION OR MODIFYING HOME TYPE FROM A LOOKOUT TO A WALKOUT.
23. 4" OF TOPSOIL TO BE SPREAD AT THE COMPLETION OF MASS GRADING ACROSS DISTURBED AREA EXCLUDING ROADWAY ROW.

NOTES:

1. UPON COMPLETION OF ALL MASS GRADING ACTIVITIES A GRADING AS-BUILT SURVEY MUST BE SUBMITTED TO CITY STAFF AS OUTLINED IN THE LAND DISTURBANCE REQUIREMENTS. THIS MUST BE COMPLETED PRIOR TO ANY UTILITY AND STREET IMPROVEMENT CONSTRUCTION.
2. PER CITY OF WOODBURY CODE, 4 INCHES OF TOPSOIL WILL BE ADDED TO ALL DEVELOPED AREAS TO HELP REDUCE LONG TERM WATER USE FOR IRRIGATION AND IMPROVE STORMWATER RUNOFF QUALITY.

RETAINING WALL NOTES:

1. ALL RETAINING WALLS SHALL BE ROUGH GRADED AT A 2:1 SLOPE WITH BASE OF SLOPE AT PROPOSED WALL FACE.
2. THE RETAINING WALL SLOPE AREAS ARE TO BE MAINTAINED UNTIL RETAINING WALL CONSTRUCTION OCCURS. ANY EROSION SHALL BE REMEDIED AND RESTORED.
3. BUILDING PERMITS ARE REQUIRED FOR ALL RETAINING WALLS 4 FEET IN HEIGHT OR GREATER AND THE WALLS SHALL BE DESIGNED BY A STRUCTURAL ENGINEER WITH DESIGN REVIEWED AND APPROVED BY THE CITY PRIOR TO INSTALLATION. ANY QUESTIONS REGARDING THE BUILDING PERMITS SHALL BE DIRECTED TO THE CITY BUILDING INSPECTOR.
4. INSTALL SAFETY RAILING ATOP ALL WALLS WHERE REQUIRED BY CODE.
5. RETAINING WALL CONTRACTOR AND/OR RETAINING WALL STRUCTURAL ENGINEER ARE RESPONSIBLE TO REVIEW CIVIL SITE ENGINEERING DRAWINGS. ANY OBSERVED CONCERNS WITH CIVIL SITE ENGINEERING DESIGN ELEMENTS RELATED TO RETAINING WALLS THAT REQUIRE MODIFICATION TO THE CIVIL SITE DESIGN IS THEIR RESPONSIBILITY TO COORDINATE WITH PROJECT OWNER AND CIVIL SITE ENGINEER. IF NO COORDINATION IS REQUESTED IT SHALL BE UNDERSTOOD THAT ALL CONDITIONS WITHIN THE CIVIL SITE DESIGN AND PLANS ARE ACCEPTABLE AND ABLE TO BE PROVIDED FOR IN THE RETAINING WALL DESIGN AND CONSTRUCTION.
6. RETAINING WALLS ARE TO BE FINAL DESIGNED AND PERMITTED BT OTHERS.

GRADING LEGEND:

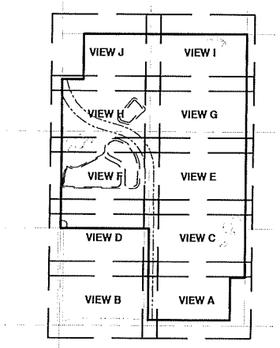
- EXISTING CONTOUR
- 789 — PROPOSED CONTOUR
- PROPOSED CR19 AND DALE CONTOUR
- x62.44 x962.44 PROPOSED SPOT ELEVATION
- 1.0% DIRECTION OF DRAINAGE
- EMERGENCY OVERFLOW ROUTING
- PRE CONSTRUCTION SILT FENCE
- EOF ROUTE
- RETAINING WALL
- SOIL BORING

N

0 150 300 600
SCALE IN FEET

SHEET VIEW KEY MAP:

NOT TO SCALE



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

BAILEY WEST
WOODBURY, MINNESOTA
PRELIMINARY PLAT SUBMITTAL
GRADING AND DRAINAGE PLAN - OVERVIEW

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
Date License No.

PRELIMINARY NOT FOR CONSTRUCTION

QUALITY ASSURANCE/CONTROL

BY	DATE

DATE	ISSUE
12/23/25	CITY/CLIENT REVIEW
01/20/26	BID SET

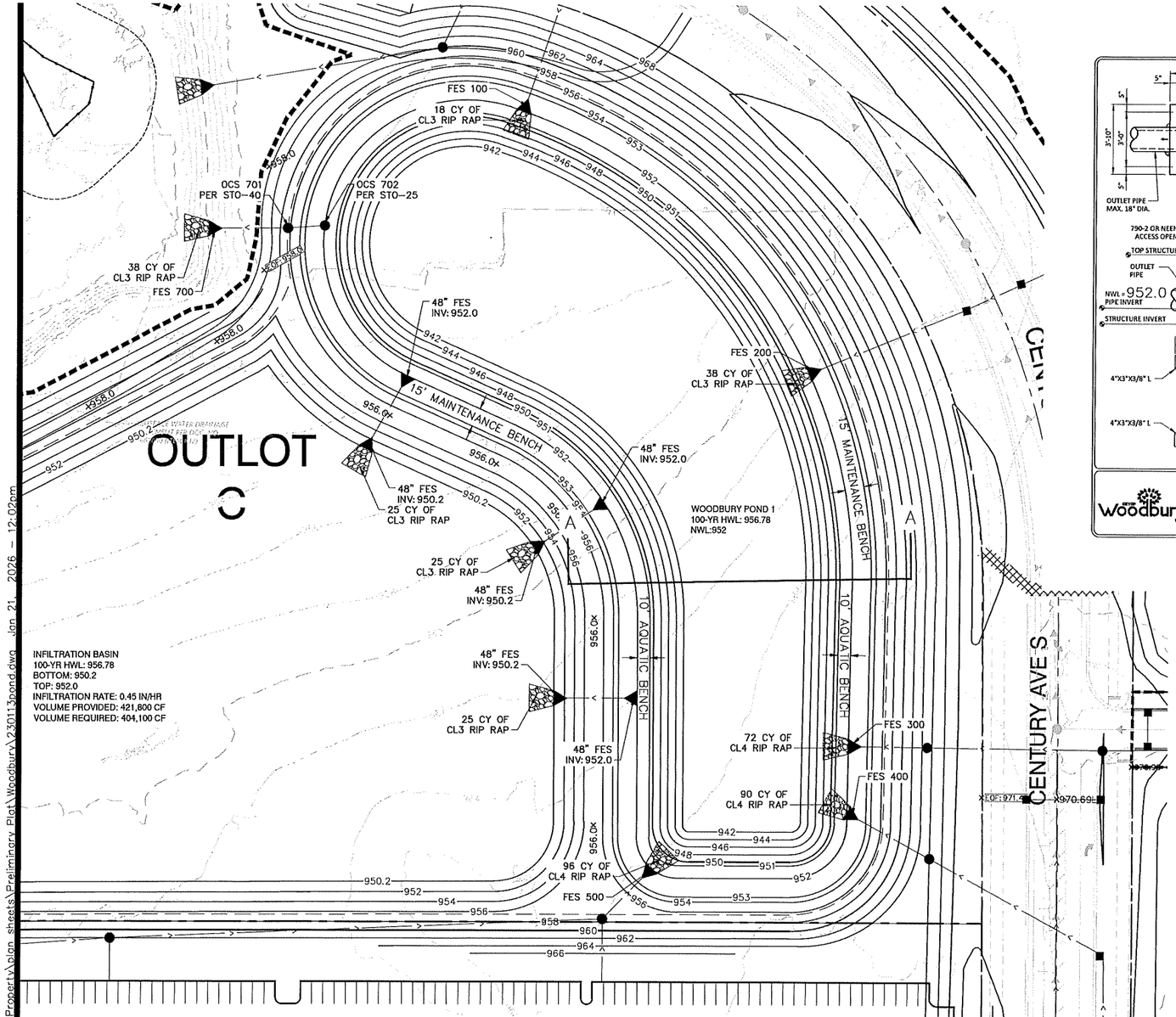
PROJECT TEAM DATA

DESIGNED:	CJW
DRAWN:	LRJ
PROJECT NO:	223-0113

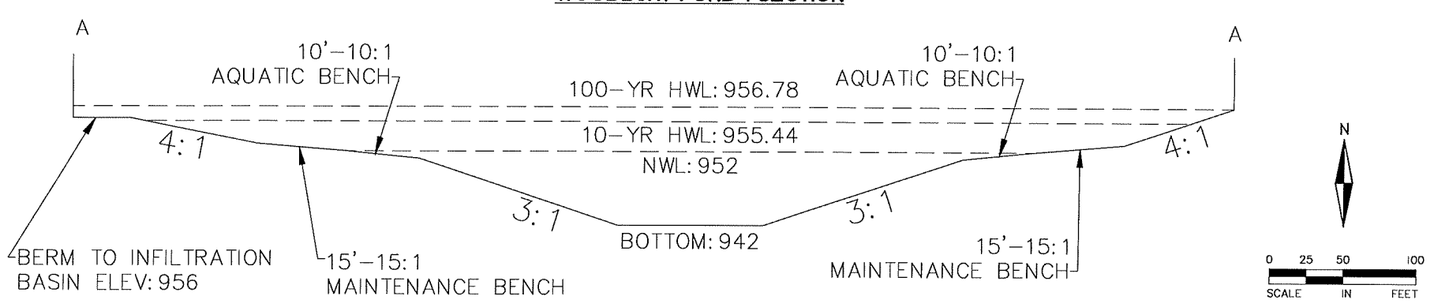
33

SHEET 33 of 97

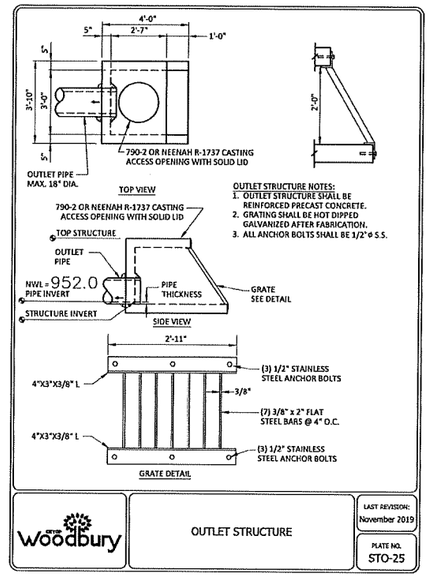
Drawing name: X:\2023\230113 - Bailey Nursery Property\plan sheets\Preliminary Plat\Woodbury\230113grad.dwg Jan 21, 2026 - 12:00pm



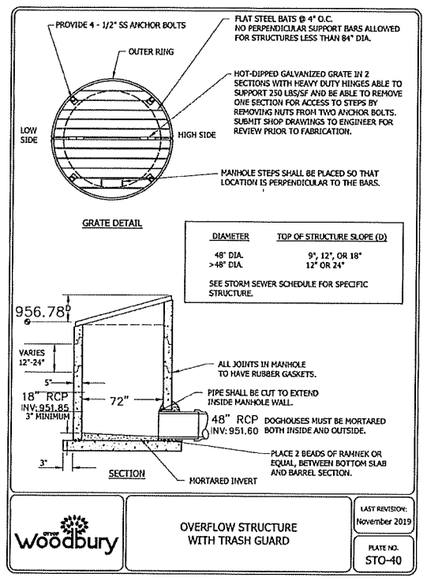
WOODBURY POND 1 SECTION



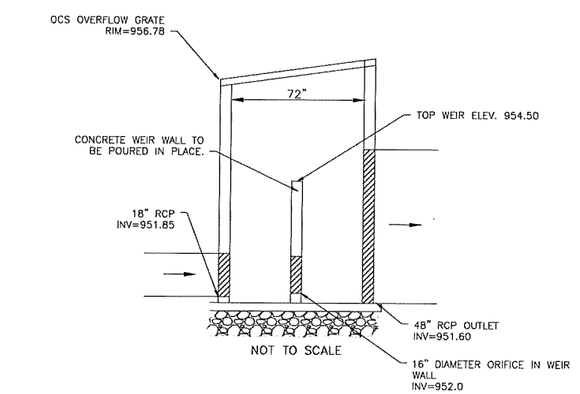
WOODBURY POND 1 SECONDARY OUTLET STRUCTURES

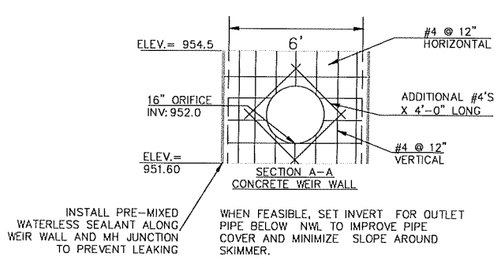


woodbury	OUTLET STRUCTURE	LAST REVISION: November 2019 PLATE NO. STO-25



woodbury	OVERFLOW STRUCTURE WITH TRASH GUARD	LAST REVISION: November 2019 PLATE NO. STO-40





OUTLET CONTROL STRUCTURE 701

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

BAILEY WEST
WOODBURY, MINNESOTA

PRELIMINARY PLAT SUBMITTAL

WOODBURY POND 1 DETAIL

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
Date License No.

PRELIMINARY NOT FOR CONSTRUCTION

QUALITY ASSURANCE/CONTROL

BY	DATE

DATE	ISSUE
12/23/25	CITY/CLIENT REVIEW
01/20/26	BID SET

PROJECT TEAM DATA

DESIGNED:	CJW
DRAWN:	LRJ
PROJECT NO:	223-0113

45

SHEET 45 of 97

Drawing name: X:\2023\230113 - Bailey Nursery Property\plan sheets\Preliminary Plat\Woodbury\230113pond.dwg Jan 21, 2026 - 12:02pm

BOARD OF WATER AND SOIL RESOURCES

Minnesota Wetland Conservation Act
Notice of Decision

Local Government Unit: Ramsey-Washington Metro Watershed District **County:** Ramsey, Washington
Applicant Name: John Bailey (Bailey Nurseries, Inc.) **Applicant Representative:** Kyle Uhler (Kjolhaug Environmental Services)
Project Name: Bailey Nursery **LGU Project No. (if any):** 21-16 WCA
Date Complete Application Received by LGU: 10/13/2021
Date of LGU Decision: 11/10/2021
Date this Notice was Sent: 11/18/2021

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: **Nicole Soderholm (RWMWD- LGU) completed a field review with Kyle Uhler, Ben Meyer (BWSR), and Matt Moore (SWWD- LGU) on 11/9/21. No changes were requested to the delineation report. This NOD pertains to water resources that fall within the jurisdiction of RWMWD (various ponds, Wetlands 8, 9, and 11).**

[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: **Emily Deering (Ramsey County), Jay Riggs (Washington Conservation District)** ☒ BWSR TEP Member: **Ben Meyer**
☐ LGU TEP Member (if different than LGU contact):
☒ DNR Representative: **Leslie Parris**
☐ Watershed District or Watershed Mgmt. Org.:
☒ Applicant (notice only): ☒ Agent/Consultant (notice only):

Optional or As Applicable:

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

Signature:	**Date:**
Nicole Soderholm	11/18/2021

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 June 03, 2026

Project Name The Heights Apartments A1 Project Number 26-17

Applicant Name Meredyth Skemp, Sherman Associates

Type of Development Residential

Property Description

The proposed project is located within the "The Heights" common plan of development, generally southeast of Winthrop Street and Larpenteur Avenue in the City of St. Paul. The applicant is proposing to construct an apartment building with associated utilities, parking lot, and landscaping. An underground filtration system will be constructed to meet stormwater treatment requirements. Pretreatment will include sumped inlets. The total disturbed area is approximately 3.5 acres.

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 the permit with the special provisions.

Attachments:

- ☑ Project Location Map
- ☑ Project Grading Plan

#26-17 - The Heights Apartment: A1



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

- Permit in Review
- Flow Arrows
- Roads
- Cities
- Subwatersheds

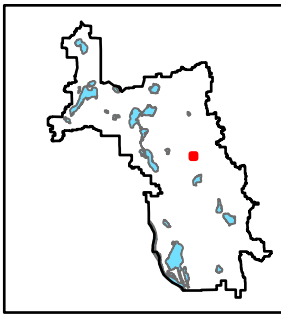
Shaded area is outside RWMWD

Highlighted Areas
Represent Active Permit

Miles
0 0.02 0.04

US Feet
0 90 180

N



26-17

Special Provisions

1. The applicant shall submit onsite soil borings and supporting documentation indicating soil type for areas of proposed underground stormwater filtration.

2. The applicant shall correct the freeboard typo on page 4, where it states "The proposed underground StormTrap Vault will have a HWL of 924.74."

3. The applicant shall utilize a maximum rate through the filtration media is 0.8 inches/hour for calculations.

4. The applicant shall include the following items in the construction details for the underground stormwater system:
   A. Show inspection manhole locations on plan view and label them.
   B. Add detail/section for outlet control structure and bypass/overflow.
   C. Show access manholes for inspection and maintenance access on plan view and label.
   D. Label the 100-Year HWL elevation.
   E. Minimum filter media depth for underground chambers (18-inches).

5. The applicant shall make the following revisions to the erosion control plan sheets:
   A. Sheet C3-3 should estimate temporary stabilization material type and quantities in the Estimated BMP Quantities table.
   B. Depict back of curb perimeter control where exposed soil slopes towards a paved surface.
   C. Include parcel 2 stabilization measures on landscaping or SWPPP plan in case it gets disturbed during construction.
   D. Add a construction exit detail.
   E. Add a biolog detail.
   F. Add temporary and permanent stabilization details.

6. The applicant shall submit the complete, final signed plans set.

7. The applicant shall submit an executed stormwater maintenance agreement for the proposed underground treatment system.

8. The applicant shall submit a site-specific Operations & Maintenance Plan for the proposed underground treatment system.

9. The applicant shall submit contact information for the trained/certified

erosion control coordinator responsible for implementing the SWPPP.

10. The applicant shall submit a copy of the approved NPDES permit coverage for the project.

EXISTING CONTOUR INFORMATION

EXISTING CONTOURS BEING DISPLAYED FROM WSB STREET CONSTRUCTION DOCUMENTS

LARPENTEUR AVENUE

(Publicly Traveled Roadway)

BACCHUS LARPENTEUR WOODS

1 2 3 4

BLOCK 1

FURNESS' GARDEN LOTS

LOT 6 BLOCK 1

Owner: Kenneth A Barrett

LOTS

WINTHROP STREET

(Publicly Traveled Roadway)

FURNESS' GARDEN LOTS

LOT 2 Block 2

HEIGHTS

IDAHO AVENUE

(Publicly Traveled Roadway) (Under Construction)

THE HEIGHTS

CITY PARK

HOWARD STREET

(Publicly Traveled Roadway) (Under Construction)

Most N'ly NW Corner of Lot 1
Point of Commencement
W Line of Lot 1
Owner: Marshall Vang Tr
Point of Beginning

PROPOSED APARTMENT BUILDING
FFE = 1032.00
GFE = 1020.00

PROPOSED APARTMENT BUILDING
FFE = 1032.00
GFE = 1020.00

BIO-ROLL (SEE DETAIL)

SILT FENCE-TYP (SEE DETAIL)

INLET PROTECTION-TYP (SEE DETAIL)

ROCK CONSTRUCTION ENTRANCE (SEE DETAIL)

Corner in Water

Edge of Water

LEGEND

EXISTING		PROPOSED
	CATCH BASIN	
	STORM MANHOLE	
	FLARED END SECTION	
	SANITARY MANHOLE	
	HYDRANT	
	GATE VALVE	
	POST INDICATOR VALVE	
	WATER MANHOLE / WELL	
	LIGHT POLE	
	POWER POLE	
	ELECTRIC METER	
	GAS METER	
	TELEPHONE PEDESTAL	
	SIGN	
	BENCHMARK	
	SOIL BORING	
	PARKING STALL COUNT	
	ACCESSIBLE PARKING STALL	
	STORM SEWER	
	DRAINTILE	
	SANITARY SEWER	
	FORCEMAIN	
	WATERMAIN	
	SANITARY SEWER SERVICE	
	WATER SERVICE	
	UNDERGROUND ELECTRIC	
	UNDERGROUND FIBER OPTIC	
	UNDERGROUND GAS	
	UNDERGROUND TELEPHONE	
	OVERHEAD UTILITY	
	FENCE	
	CHAIN LINK FENCE	
	CONCRETE CURB	
	RETAINING WALL	
	CONCRETE	
	NO PARKING	
	BUILDING	
	CONTOUR	
	SPOT ELEVATION	
	DIRECTION OF FLOW	
	TREE LINE	
	PARKING SETBACK LINE	
	BUILDING SETBACK LINE	

GENERAL NOTES

SEE SHEET C3-3 FOR SWPPP NOTES AND SWPPP DETAILS.

SWPPP LEGEND

- SF SILT FENCE
- BIO ROLLS
- INLET PROTECTION
- ROCK CONSTRUCTION ENTRANCE

CALL BEFORE YOU DIG!

Gopher State One Call
TWIN CITY AREA: 651-454-0002
TOLL FREE: 1-800-252-1166

WARNING:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING FOR LOCATIONS OF ALL EXISTING UTILITIES. THEY SHALL COOPERATE WITH ALL UTILITY COMPANIES IN MAINTAINING THEIR SERVICE AND / OR RELOCATION OF LINES.

THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL AT 651-454-0002 AT LEAST 48 HOURS IN ADVANCE FOR THE LOCATIONS OF ALL UNDERGROUND WIRES, CABLES, CONDUITS, PIPES, MANHOLES, VALVES OR OTHER BURIED STRUCTURES BEFORE DIGGING. THE CONTRACTOR SHALL REPAIR OR REPLACE THE ABOVE WHEN DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.

0 30 60
SCALE IN FEET

THE HEIGHTS

2200 LARPENTEUR AVENUE E.
ST. PAUL, MN 55109

SHERMAN ASSOCIATES DEVELOPMENT LLC

233 PARK AVENUE S.
SUITE 201
MINNEAPOLIS, MN 55415

LOUCKS

PLANNING
CIVIL ENGINEERING
LAND SURVEYING
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL

12755 Highway 55, Suite R100
Plymouth 55441
763.424.5505
www.loucksinc.com

CADD QUALIFICATION

CADD files prepared by the Consultant for this project are a tool internal to the Consultant's professional services for use solely by employees of the Consultant and its professional consultants working for the benefit of the Consultant on behalf of the project by these written terms. Electronic files are not to be transferred to any other party. Files may be permitted to obtain copies of the CADD drawing files for information and reference only. All information or warranty is made as the full risk of the party making such use only, and any reliance or use of the party shall hold harmless and indemnify the Consultant from any & all responsibilities, claims and liabilities.

SUBMITTAL/REVISIONS

05/04/26	CITY SUBMITTAL

PROFESSIONAL SIGNATURE

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.

License No. 49933
PJ Druck - PE
Date

QUALITY CONTROL

Loucks Project No.	98206F
Project Lead	PJD
Drawn By	DDL
Checked By	PJD
Review Date	05/04/26

SHEET INDEX

C1-1	CITY NOTES
C1-1	DEMOLITION PLAN
C2-1	SITE PLAN
C3-1	GRADING PLAN
C3-2	SWPPP
C3-3	SWPPP NOTES
C4-1	SANITARY AND WATERMAIN
C4-2	STORM SEWER PLAN
C8-1	CIVIL DETAILS
C8-2	CIVIL DETAILS
L0-1	TREE PRESERVATION
L1-1	LANDSCAPE NOTES & DETAILS
L2-1	LANDSCAPE PLAN

SWPPP PLAN

C3-2

Plotted: 05 / 05 / 2026 10:1 AM W:\1998\98206F\CADD DATA\CIVIL\Dwg Sheet Files\C3-2 SWPPP PLAN

Stewardship Grant Application Summary

Project Name: Shoreview Snail Lake Median Plantings **Application Number:** 26-22 CS

Board Meeting Date: 6/3/2026

Applicant Name: Krista Billerbeck

Residential ☐ **Commercial/Government** ☑

Project Overview:

This project is located along Snail Lake Blvd, Mackubin St, and Gramsie Rd in the City of Shoreview. The applicant is proposing to install native plants within 7 boulevards. The current boulevard plantings have died off or are in poor and sparse condition.

The native habitat restorations are eligible for 50% coverage up to a total of $15,000.

BMP type(s):

Native Habitat Restoration(7)

Grant Request:

$15,000.00

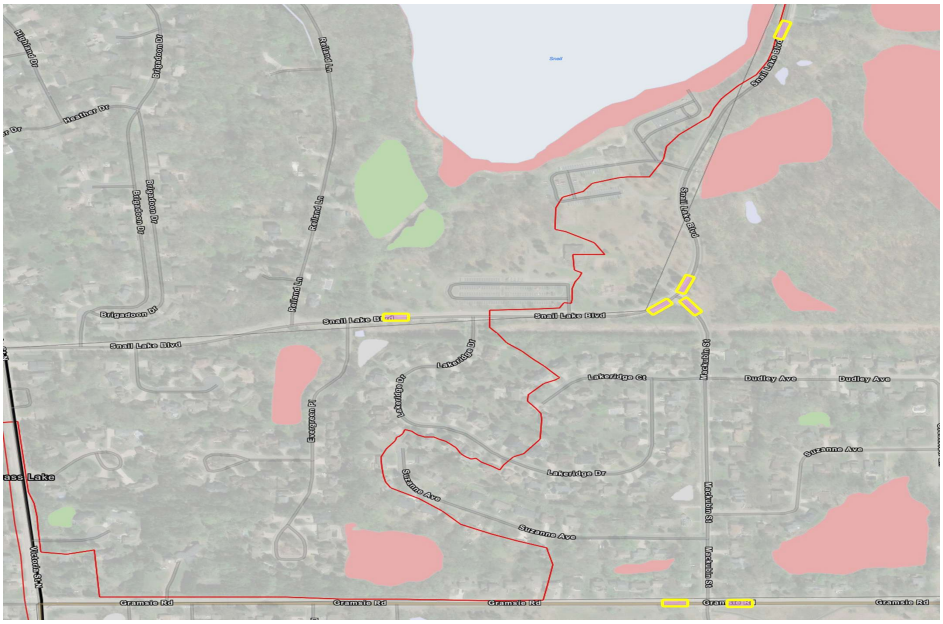
Recommendation:

Staff recommends approval of this application.

Subwatershed:

Grass Lake, Snail Lake

Location Maps:



SHOREVIEW BOULEVARDS NATIVE PLANTING PROJECT



GENERAL PROJECT NOTES:

1. CONTRACTOR/LANDOWNER TO LOCATE UTILITIES PRIOR TO BEGINNING WORK AND SECURE ANY NECESSARY PERMITS. CONFRIM WITH RCSWCD STAFF IF ANY UNDERGROUND UTILITIES CONFLICT WITH PROPOSED PROJECT LOCATIONS.
2. CONTRACTOR/LANDOWNER TO PROTECT ALL TREES IN/NEAR PROJECT AREA DURING INSTALLATION UNLESS OTHERWISE NOTED ON PLANS OR BY LANDOWNER REQUEST.
3. PROPOSED PLANTINGS MAY VARY IN SIZE/LAYOUT AS NEEDED DUE TO EXISITNG ONSITE CONDITIONS. ALL LAYOUT ADJUSTMENTS REQUIRED TO BE APPROVED BY RCSWCD STAFF PRIOR TO INSTALLATION.

NOTES:

1. REMOVE EXISTING PERENNIAL VEGETATION IN PROJECT AREA. HERBICIDE APPLICATION [1-2 MINIMUM] AS NEEDED ON WEED SPECIES AND/OR EQUIVALENT MECHANICAL METHOD OF REMOVAL.
2. INSTALL 2"-THICK TWICE SHREDDED HARDWOOD MULCH OVER ENTIRE PLANTING AREAS.
3. INSTALL NATIVE PLANTS THROUGHOUT BOULEVARD PLANTING AREAS. SEE PLANTING PLANS ON SHEETS L200-L203.
4. OPTIONAL REPLACEMENT TREE SPECIES PROVIDED ON THIS SHEET. CONFIRM WITH CITY OF SHOREVIEW STAFF ON REPLACEMENT OF TREES IN BOULEVARD AREAS DURING BID PROCESS.
5. LANDOWNER/CONTRACTOR MAY ADD/SUBSTITUTE FINAL SPECIES FOR PROJECT. IF ALTERNATE SPECIES ARE USED, CONTRACTOR/LANDOWNER MUST PROVIDE A LIST INCLUDING SPECIES, SIZING, AND QUANTITY TO RCSWCD STAFF PRIOR TO PURCHASE AND INSTALLATION FOR APPROVAL.
6. EXACT SIZE/SHAPE OF PLANTING AREA MAY VARY. MAINTAIN APPROXIMATE SQUARE FEET SIZE. VERIFY FINAL LAYOUT WITH LANDOWNER PRIOR TO VEGETATION REMOVAL AND PROJECT INSTALLATION.

OPTIONAL TREE REPLACEMENT NOTES:

1. OPTIONAL REPLACEMENT TREE SPECIES PROVIDED ON THIS SHEET. CONFIRM WITH CITY OF SHOREVIEW STAFF ON REPLACEMENT OF TREES IN BOULEVARD AREAS DURING BID PROCESS.
2. WHEN PREPARING BID FOR WORK, CONFIRM WITH CITY STAFF SPECIES, SIZING, QUANTITY & PLANTING LOCATION FOR ANY TREE SPECIES.
3. OPTIONAL TREE SPECIES PLANTING INFORMATION:
   - SPECIES LIST:
     - SERVICEBERRY - AMELANCHIER LAEVIS
     - SWAMP WHITE OAK - QUERCUS BICOLOR
   - QUANTITIY & SIZING: 6-10 QTY - 20 GALLON CONTAINER OR EQUIVALENT [QUANTITY DEPENDANT ON NUMBER OF EXISTING CRAB APPLE TREES REMOVED. SITE VERIFY.

RAMSEY COUNTY

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

PROJECT:
SHOREVIEW BOULEVARDS
LOCATION:
SHOREVIEW, MN

WATERSHED DISTRICT:
RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

DESIGNER: BRIAN T. OLSEN
DATE: 3/23/2026
PAST REVISION: 3/5/2026
PAST REVISION:
PAST REVISION:
PAST REVISION:
CHECKED BY:
TAA:

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: N/A - SEE SCALE BAR

N

PROJECT LOCATIONS

L100

Stewardship Grant Application Summary

Project Name: Westbrock Ph 2 **Application Number:** 26-23 CS

Board Meeting Date: 6/3/2026

Applicant Name: Kristin & Mike Westbrock

Residential ☑ **Commercial/Government** ☐

Project Overview:

This project is located off Schall Dr S and Highwood Ave E in the City of Maplewood. The applicant is proposing to install multiple native planting areas. The applicant installed a rain garden in 2024. The past project was approved as grant #23-47 CS for $9,916.33.

The native plantings are eligible for 50% coverage up to a total of $15,000.

BMP type(s):

Native Habitat Restoration(3)

Grant Request:

$11,500.00

Recommendation:

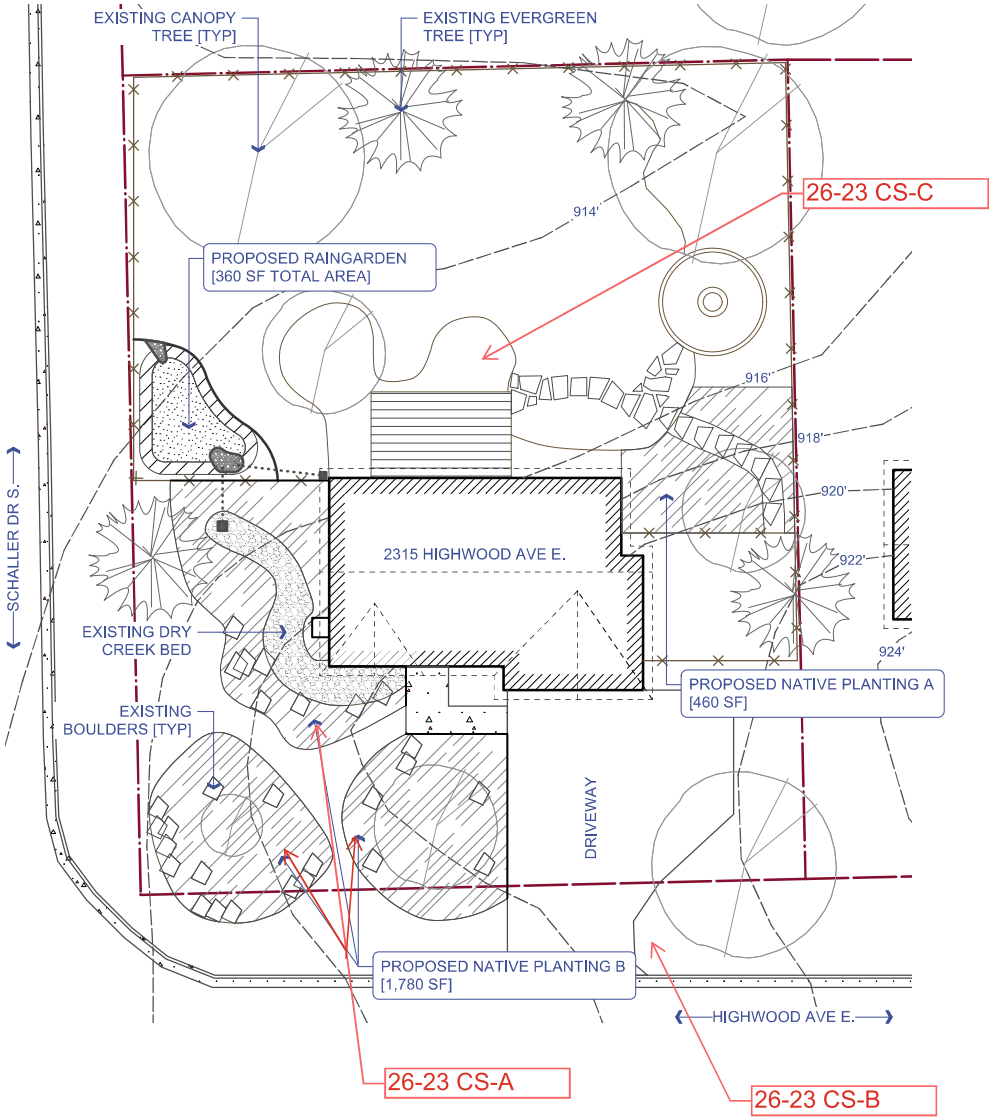
Staff recommends approval of this application.

Subwatershed:

Blufflands

Location Maps:





Watershed Data	BMP 1 -Raingarden	
Target Rainfall	1.1	in
Soil Type:	B	HSG:
Soil IR	0.3	in/hr

Surface	Sq-ft	Acre	CN
Roof	1,160	0.027	98
Sidewalk	45	0.001	98
Turf Grass/Lawn	1,345	0.031	79
Total	2,550	0.059	
% Imp	47%		

Pollutant Reductions: Yearly - Raingarden A

	Before	After	Reduction	Red. %
Volume (cu-ft/yr)	3,441	414	3,027	88%
TSS (lbs/yr)	11.71	1.40	10.31	88%
TP (lbs/yr)	0.064	0.008	0.057	88%

LEGEND:

- RAINGARDEN SIDE SLOPE [4H:1V SLOPE MAX]
- RAINGARDEN FLAT BASIN [12" AMENDED SOILS]
- MIXED SIZE ROCK SPLASH AREA [2-8" RIVER ROCK]
- NATIVE PLANTING AREAS
- EXISTING FENCE
- PROPERTY LINE [APPROXIMATE]
- EXISTING 2' CONTOUR LINE

RAMSEY COUNTY

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

PROJECT:
WESTBROCK RESIDENCE
LOCATION:
2315 HIGHWOOD AVE E.
MAPLEWOOD, MN 55119
WATERSHED DISTRICT:
RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

DESIGNER: BRIAN T. OLSEN
DATE: 1/17/2023
PAST REVISION:
PAST REVISION:
PAST REVISION:
PAST REVISION:
CHECKED BY:
TAA:

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"=20'-0"

N

SITE PLAN

L100

Stewardship Grant Application Summary

Project Name: Rasmussen **Application Number:** 26-25 CS

Board Meeting Date: 6/3/2026

Applicant Name: Jay Rasmussen

Residential ☑ **Commercial/Government** ☐

Project Overview:

This project is located off Larpenteur Ave E in the City of Maplewood. The applicant is proposing to install an approximately 14,000 square feet native buffer.

The native buffer is eligible for 50% coverage up to a total of $15,000.

BMP type(s):

Native Buffer(1)

Grant Request:

$10,900.00

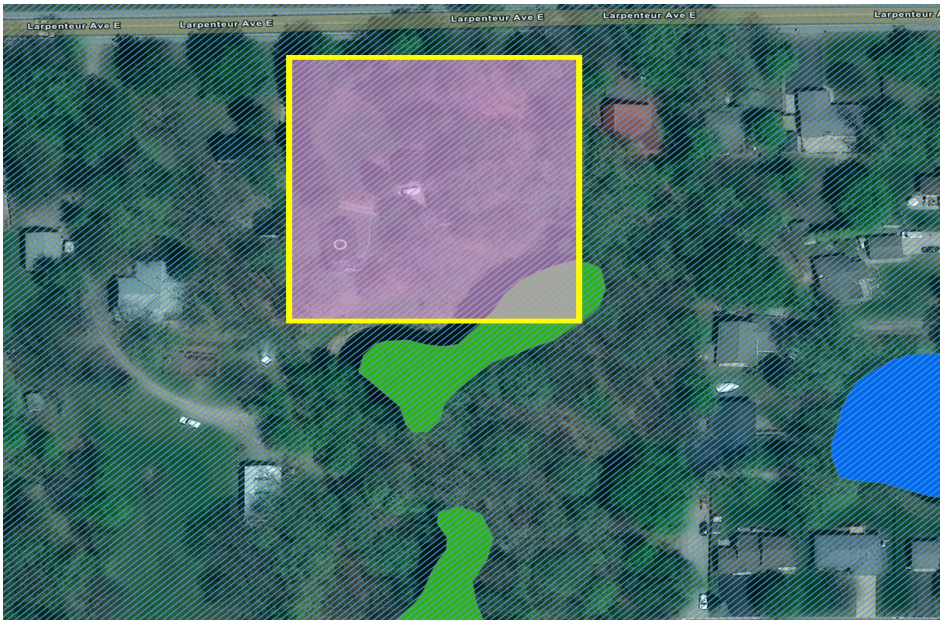
Recommendation:

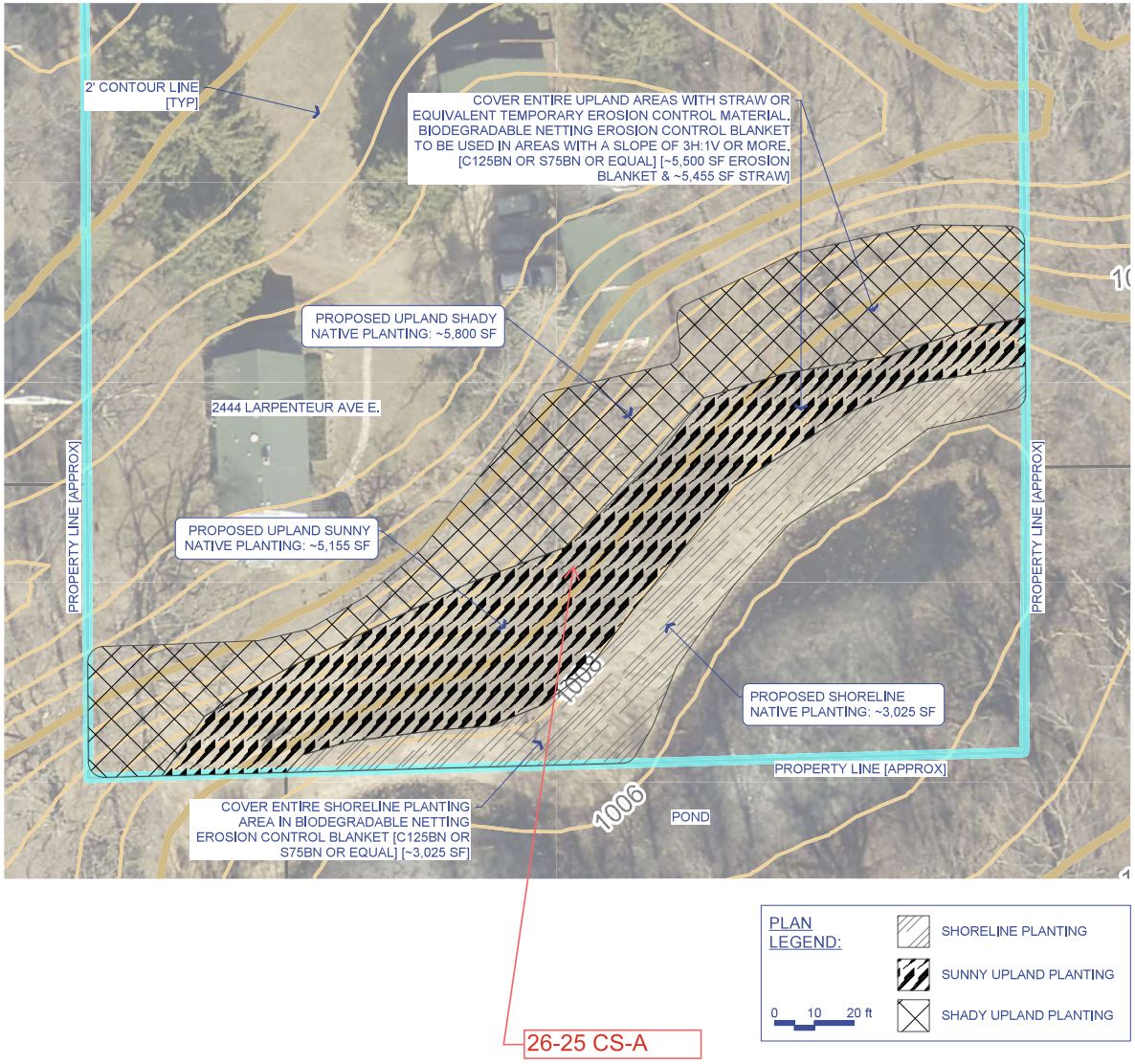
Staff recommends approval of this application.

Subwatershed:

Beaver Lake

Location Maps:





GENERAL PROJECT NOTES:

1. CONTRACTOR/LANDOWNER TO LOCATE UTILITIES PRIOR TO BEGINNING WORK AND SECURE ANY NECESSARY PERMITS. CONFRIM WITH RCSWCD STAFF IF ANY UNDERGROUND UTILITIES CONFLICT WITH PROPOSED PROJECT LOCATIONS.
2. CONTRACTOR TO PROVIDE ADEQUATE TEMPORARY PERIMETER & EROSION CONTROL MEASURES DURING ANY SOIL DISTURBANCE PERIODS.
3. EXISTING TREES & SHRUBS TO BE PROTECTED UNLESS OTHERWISE NOTED BY PLANS OR LANDOWNER. NO MATERIALS TO BE STORED UNDER TREES.
4. CONTRACTOR/LANDOWNER TO NOTIFY RCSWCD STAFF MEMBER ANTICIPATED START DATE OF PROJECT INSTALLATION PRIOR TO BEGNNING WORK.

NATIVE PLANTING NOTES:

1. REMOVE ANY UNDESIREABLE VEGETATION IN PROJECT AREA. HERBICIDE APPLICATION AS NEEDED [1-2 MIINIMUM] OR EQUIVALENT MECHANICAL METHOD OF REMOVAL. [FLUSH CUT WOODY SPECIES AND TREAT WHERE NECESSARY]
2. REMOVE ALL EXCESS VEGETATION/LEAF LITTER WHERE APPLICABLE. RAKE AREA TO PREP SITE FOR NATIVE PLANTING AND SEEDING.
3. EXISTING NATIVE OR DESIRED SPECIES CAN REMAIN IN PLACE THROUGHOUT PROPOSED AREA PER LANDOWNER DIRECTION. ENSURE TO PROTECT EXISTING NATIVE VEGETATION DURING INSTALLATION..
4. INSTALL TEMPORARY STRAW COVER AND/OR BIODEGRADABLE NETTING EROSION CONTROL BLANKET PER NOTES ON PLAN. C125BN OR S75BN OR EQUIVALENT BIODEGRADABLE BLANKET. [PHOTODEGRADABLE NETTING IS NOT ALLOWED.] SECURE WITH BIODEGRADABLE STAKES.
5. INSTALL NATIVE SEED MIX THROUGHOUT PLANTING AREA PER NOTED PLANTING ZONES AND SPECIES LISTS ON SHEET L200.
6. HAND-BROADCASE NATIVE SEED MIX TWICE OVER WITH SECOND PASS PERPENDICULAR TO THE FIRST. LIGHTLY RAKE SEED INTO SOIL.
7. INSTALL LIVE NATIVE PLANTS THROUGHOUT PLANTING AREA. SEE SUGGESTED PLANTING LIST & QUANTITIES PROVIDED ON SHEET L200.
8. INSTALL PERENNIALS AT 24-30" SPACING IN GROUPS OF LIKE SPECIES FOR EASY IDENTIFICATION AND WEEDING. INSTALL IN GROUPS OF 12-48 OF SAME SPECIES.
9. INSTALL SHRUBS AT 48" SPACING. INSTALL IN GROUPS OF SAME SPECIES OR AS INDIVIDUAL PLACEMENTS.
10. LANDOWNER/CONTRACTOR MAY ADD/SUBSTITUTE FINAL SPECIES FOR PROJECT. IF ALTERNATE SPECIES ARE USED, CONTRACTOR/LANDOWNER MUST PROVIDE A LIST INCLUDING SPECIES, SIZING, AND QUANTITY TO RCSWCD STAFF PRIOR TO PURCHASE AND INSTALLATION FOR APPROVAL.
11. EXACT SIZE/SHAPE OF PLANTING AREA MAY VARY. MAINTAIN APPROXIMATE SQUARE FEET SIZE. VERIFY FINAL LAYOUT WITH LANDOWNER PRIOR TO VEGETATION REMOVAL AND PROJECT INSTALLATION.
12. VEGETATION REMOVAL & SITE PREPARATION ACTIVITIES MAY VARY. CONTRACTOR TO VERIFY PROPSOED MEASURES WITHIN COMPLETED BID FOR PROJECT.
13. LANDOWNER/CONTRACTOR TO DEVELOP LANGUAGE FOR PROPER IRRIGATION OF SEEDED AND PLANTING AREAS DURING ESTABLISHMENT PERIOD.
14. PROJECT MAY BE COMPLETED WITH ONLY NATIVE SEED AND NO LIVE PLANT MATERIAL. VERIFY FINAL PROPOSED PROJECT INSTALLATION MATERIALS & METHODS WITH RCSWCD STAFF PRIOR TO INSTALLATION.
15. RECOMMENDED TO HIRE CONTRACTOR/PROFESSIONAL MAINTENANCE FOR FIRST 3 YEARS IF INSTALLING PROJECT WITH ONLY NATIVE SEED MIX.

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

PROJECT:
RASMUSSEN RESIDENCE
LOCATION:
2444 LARPENTEUR AVE E.
ST. PAUL, MN 55109
WATERSHED DISTRICT:
RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

DESIGNER: BRIAN T. OLSEN
DATE: 2/24/2026
PAST REVISION:
PAST REVISION:
PAST REVISION:
PAST REVISION:
CHECKED BY:
TAA:

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"=30'-0"
N

SITE LAYOUT

L100

Consent Agenda Action Item

Board Meeting Date: June 3, 2026 **Agenda Item No:** 3E

Preparer: Tina Carstens, Administrator

Item Description: Change Order No. 1 for the Kohlman Lake Alum Treatment Project

Background:

Change order 1 for the Kohlman Lake Alum Treatment Project is attached. This change order does not alter the contract price but extends the substantial completion date from June 1, 2026, to October 31, 2026. This is due to the lake's pH not being within the range required for alum treatment. Staff anticipates better conditions in the fall.

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 or assist in implementing projects and/or programs recommended in total maximum daily load studies, watershed restoration and protection strategy studies, or other District studies.

Staff Recommendation:
Approve Change Order No. 1.

Financial Implications:
This change order does not change the contract price.

Board Action Requested:
Approve Change Order No. 1.

Change Order No. 1
Ramsey-Washington Metro Watershed District
Kohlman Lake Alum Treatment Project

DATE OF ISSUANCE: May 26, 2026

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

Contractor: SOLitude Lake Management
14450 Northdale Blvd
Rogers, MN 55374
Attn: Tadd Barrow, John Holz

Engineer: Barr Engineering Company
4300 MarketPointe Drive, Suite 200
Minneapolis, MN 55435
Attn: Tyler Olsen, Erin Anderson Wenz

C.O.1.A Contract Completion Extensions

Description of Change:

Field measurements collected on May 21, 2026 indicate that pH at multiple locations in the lake ranged from approximately 8.4 to 9.0 standard units (S.U.), with a majority of readings exceeding the upper threshold of 8.5 S.U. identified in the project specifications. Per the contract requirements, treatment must be halted if the arithmetically averaged ambient pH exceeds this threshold to ensure proper alum performance and to avoid unintended water quality impacts.

In addition, forecasted warm air temperatures the week of May 25, 2026 may further increase lake pH in the near term, increasing the likelihood that acceptable treatment conditions will not be met during the originally planned treatment window (May 27-June 1, 2026). Proceeding under these conditions would create a risk of treatment delays, interruptions, unintended water quality impacts, or suboptimal results.

Based on these considerations, Barr and RWMWD staff determined that postponing the treatment to the fall is the most prudent course of action. Fall conditions in Minnesota (typically mid-September through October) are more likely to provide stable and appropriate pH ranges for alum application, allowing the treatment to be completed efficiently and in accordance with project specifications.

The Owner is extending the substantial completion date in the contract from June 1, 2026 to **October 31, 2026**. This work will not result in a change in contract price.

Change in Contract Time:

The substantial completion date is revised to be October 31, 2026.

Total Impact on Contract Price:

This results in a **cost increase** of **$0.00.**

Attachments:

- None

This Change Order No. 1
is:

Submitted By: Tyler A Olsen Date: 5/26/2026
(ENGINEER) Tyler Olsen, Project Engineer
Barr Engineering Company

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

Approved By: Keith Gazaille Date: May 26, 2026
(CONTRACTOR) Keith Gazaille, Director of Technical Services
SOLitude Lake Management

****

Permit Program

****

RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

REGULATORY PROGRAM MONTHLY MEMORANDUM

Date: June 3rd, 2026

To: Board of Managers and Staff

From: Nicole Maras, Regulatory Program Manager
Mary Fitzgerald, Regulatory Specialist
Kendra Kloth, Regulatory Technician
Cooper Klotzbach, BMP Inspector Intern

During May 2026:

Number of Inspections	**36**
Number of Violations:	**3**

Inspections in past months

April	37
March	31
February	25

Permit Program- Trainings and Coordination Meetings:

5/1: Bruce Vento Trail onsite meeting
5/6: Enforcement process overhaul discussion
5/7: Middle St. Croix to Phalen-Keller Regional Trail kick-off TAC meeting
5/7: Woodcrest Creek iron-enhanced sand filter (IESF) site visit
5/8: Underground facilities inspections w/ Barr
5/11: Program manager team meeting
5/11: Rule change discussion w/ Capitol Region Watershed District (CRWD)
5/11-5/12: ISD 622 facilities inspections w/ school district staff
5/13: Permit review w/ Barr
5/18: 'We Are Water' tour at CRWD
5/20: Webinar- "Protecting Our Wetlands: From Federal Cuts to Minnesota's Moment"
5/22: St. John's Hospital Expansion: initial walk-through
5/27: Oakdale 2026 SIP: initial walk-through
5/27: Woodlane 4-3 Lane Conversion: initial walk-through
5/28: BWSR Local Implementers presentation: DEIA initiatives

Single Lot Residential Permits Approved by Staff:

#26-15 360 N Owasso Blvd sand beach (Shoreview)

Permits Closed:

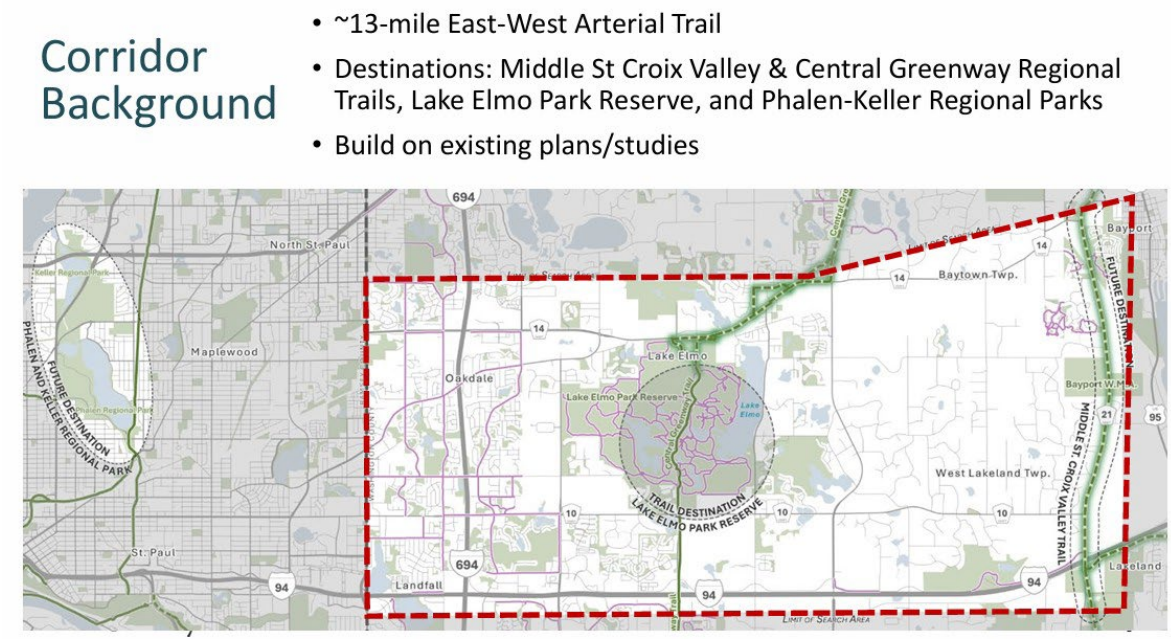
#24-15 St. Paul Suburban-Burns Sidewalk
#24-29 Woodland Hills Church Pavement Reduction (Maplewood)
#22-33 Ramsey County WBA-Larpenteur Improvements (Maplewood/St. Paul)

Project Updates:

Middle St. Croix Valley to Phalen-Keller Regional Trail

On May 7th, Washington County hosted a kick-off planning meeting for the Middle St. Croix to Phalen-Keller Regional Trail project. The future trail would run east-west through West Lakeland Township, Lake Elmo, Woodbury, and Oakdale with a future connection eventually planned to Phalen-Keller Regional Park. The purpose would be to connect trail users to existing regional trails and parks.

Nicole and Pat have agreed to participate on the Technical Advisory Committee (TAC) for the long-range planning for this initial trail corridor and will continue to attend upcoming meetings. The purpose of the TAC is to provide guidance on future trail route/alignment as well as potential opportunities to protect and enhance natural and cultural resources within the corridor. If the board has any thoughts (now or in the future) for ways in which the county can best engage with RWMWD and our partners/stakeholders during this planning process, please let me know so we can pass along that feedback.



Anticipated Planning Timeline

Winter-Spring 2026	Visioning and Site Analysis
Spring-Summer 2026	Engagement and Data Collection
Summer-Fall 2026	Route Development and Long Range Plan Drafting
Winter-Summer 2027	Final Draft Long Range Plan and Approval Process

School District 622 Stormwater Facility Inspections

Cooper, Kendra and Mary met with ISD 622 school district staff on May 11th and 12th to visit and inspect every stormwater facility that has been installed through RWMWD's permitting program. This included Richardson Elementary, Beaver Lake Elementary, Tartan High School, Justice Alan Page Elementary, Carver Elementary, John Glenn Middle School, North High School, and their school bus transportation facility located in North St. Paul. This initiative is a pilot program collaboration between RWMWD's permit program and stewardship grant program to assist schools with long-term operations and maintenance of their stormwater facilities. District staff have found that schools want to do the right thing but lack the manpower, funding, and technical expertise to stay on top of their underground systems, rain gardens, filtration basins, and ponds. These site visits allowed District staff to educate the school staff, get a baseline assessment of each BMP for prioritization, and determine which BMPs were eligible for maintenance grant funding. We look forward to seeing how this pilot program functions and if it's something we can duplicate for other school districts!





#25-26 Cowern Elementary Addition

Cooper conducted his regular erosion and sediment control inspection at Cowern Elementary on May 19th and was glad to see that, despite nearly 2 inches of rain that fell in the days prior, the site was in excellent condition! This site benefited from the contractor anticipating the large rain event and taking the time to shore up perimeter control BMPs, inlet protection BMPs, and ensuring that the site exit BMP was robust enough to prevent vehicle track-out. These precautions, in turn, were beneficial for the contractor as they were able to quickly resume work on the site.

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Stewardship Grant Program

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Stewardship Grant Program Budget Status Update

June 3, 2026

		Last Month	This Month	Last Month	This Month
Homeowner	**Coverage**	**Number of Projects: 5**	**Number of Projects: 11**	**Funds Allocated**	**Funds Allocated**
Habitat Restoration and rain garden w/o hard surface drainage	50% Cost Share $15,000 Max	4	9	$15,000	$42,850***
Rain garden w/hard surface drainage	75% Cost Share $15,000 Max	1	2	$4,500	$8,775**
Shoreland Restoration	100% Cost Share $15,000 Max	0	0	$0	$0

		Last Month	This Month	Last Month	This Month
Commercial, School, Government, Church, Associations, etc.	**Coverage**	**Number of Projects: 13**	**Number of Projects: 14**	**Funds Allocated**	**Funds Allocated**
Habitat Restoration	50% Cost Share $15,000 Max	1	2	$45,000	$60,000*
Shoreland Restoration (below 100-year flood elevation w/actively eroding banks)	100% Cost Share $100,000 Max	0	0	$0	$0
Priority Area Projects (Water Quality)	100% Cost Share $100,000 Max	2	2	$121,100	$121,100
Non-Priority Area Projects (Water Quality)	75% Cost Share $50,000 Max	0	0	$0	$0
Priority Chloride Projects (Impaired, at-risk) ($150,000 reserved – all chloride)	100% Cost Share $100,000 Max	0	0	$0	$0
Non-Priority Chloride Projects (Not impaired or at-risk)	75% Cost Share $50,000 Max	0	0	$0	$0
Community Partner ($100,000 reserved)	50-100% Cost Share $25,000 Max	4	4	$76,050	$76,050
Public Art	50% Cost Share $15,000 Max	2	2	$19,800	$19,800
Aquatic Veg Harvest/LVMP Development	50% Cost Share $15,000 Max	0	0	$0	$0
Enhanced Street Sweeping ($350,000 Reserved)	Varies Cost Share $100,000 Max	4	4	$227,000	$227,000

Maintenance	50% Cost Share $7,500 Max for 5 Years	85	87	$82,505	$82,505
Consultant Fees				$14,294	$15,104
Total Allocated				**$605,249**	**$653,184**

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

2026 Stewardship Grant Program Budget		
	Last Month	This Month
Budget	$1,500,000	$1,500,000
Total Funds Allocated	$605,249	$653,184
Total Available Funds	**$894,751**	**$846,816**

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Action Items

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Request for Board Action

Board Meeting Date: June 3, 2026 **Agenda Item No:** 7A

Preparer: Tina Carstens, Administrator
Nicole Maras, Regulatory Program Manager

Item Description: Notice of RWMWD MS4 Storm Water Pollution Prevention Program (SWPPP) and Opportunity for Public Comment

Background:
As a regulated party under the Minnesota Pollution Control Agency's (MPCA) MS4 Program, the District must offer at least one public opportunity per year to collect input on its SWPPP and Minimum Control Measure (MCM) activities.

Historically, staff completed an annual report form detailing the previous year's MS4 activities for review by the Board and the public. Following the public comment period, this report was submitted to the MPCA by the annual June 30th deadline. The MPCA has been developing a new reporting form for several years, which remains unfinished. Per the MPCA's explicit direction, no annual report submission is required this year.

Despite the suspension of formal report submission, District staff have continued to collect all necessary data to maintain full program compliance. In place of the traditional annual report form, staff created a new memo summarizing the work completed under each MCM. Both this new summary document and the standard SWPPP form are attached to this memo.

To ensure transparency and meet public notice requirements, both documents have been published on the District website for public review. At the upcoming June 3rd Board meeting, this item will be opened to allow any members of the public in attendance to speak and provide comments on our MS4 program.

Applicable District Goal and Action Item:
Goal: Manage organization effectively – Operate in a manner that achieves the District's mission while adhering to its core principles.
Action Items: Follow all legal requirements applicable to watershed districts.

Staff Recommendation:
Receive public comments on the District's SWPPP.

Financial Implications:
None.

Board Action Requested:
Receive public comments on the District's SWPPP.

RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

MEMORANDUM

Date: June 3, 2026
To: RWMWD Board of Managers
From: Nicole Maras, Regulatory Program Manager
Subject: RWMWD MS4 Summary 2025

MCM 1: Public Education and Outreach

2025 By The Numbers:

RWMWD In-School Education Program
13 schools
1750 students
159 classroom sessions



Social Media and Newsletter (Facebook, Instagram, YouTube, LinkedIn)
Facebook: 1,809 followers
Instagram:: 1,047 followers
YouTube: 398 subscribers
LinkedIn: 593 followers
Newsletter: 1747 recipients

Topic based posts and articles:
Pet waste: August 12 social media post
Adopt a Drain: October 3, October 21, November 7 social media posts
Chloride: December and January newsletters; November 25, December 22 social media posts
AIS: September 12

MCM 2: Public Participation and Involvement

SWPPP and public notice were displayed on the RWMWD website starting on 5/19/25. Annual public meeting was held on 6/4/25. No residents or members of the public were present to submit a comment, and no written comments were received.

MCM 3: Illicit Discharge Detection and Elimination (IDDE)

Annual training of all staff on identifying illicit discharges was completed on 5/28/25.

Example of IDDE incident and collaboration with another MS4:
District staff discovered a paint spill and/or improper disposal near PCU Pond in May 2025. They spoke with the property owner onsite to communicate that paint must not enter the storm sewer and the reasons why. Staff then notified the MS4 owner (City of North St. Paul) and offered to send an

educational letter and proper disposal requirements (since the action was not witnessed by anyone). The city opted to notify their public works department for further investigation and enforcement.

No known illicit discharges were reported or discovered within the RWMWD's MS4 in 2025.

MCM 4: Construction Site Stormwater Runoff Control



2025 By the Numbers:

Grading permit applications	35
SWPPP site inspections	484
Violations issued	129
Verbal Warnings issued	15
Deductions from Sureties	$3,410
Active construction sites	62

MCM 5: Post-Construction Stormwater Management

2025 By the Numbers:

Permanent stormwater practices approved	48
Cubic feet of stormwater infiltrated or filtered	Over 300,000
Acres of impervious treated	143
Underground BMPs inspected	43
Aboveground BMPs inspected	94

MCM 6: Pollution Prevention and Good Housekeeping

2025 By the Numbers:

District-owned/maintained infrastructure inspected	81 sites
Disrict-owned/maintained infrastructure maintained	5 sites
City pond clean-outs	9
Sediment/muck removed	13,733 cubic yards

General MS4 Activities

MS4 program assessment meetings: 3



Certification trainings completed by staff in 2025:
Stormwater Operations & Maintenance (University of Minnesota)
Construction Site Management (University of Minnesota)
Regulatory Enforcement (University of Minnesota)
Confined Space Entry

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

MS4 Part 2 Permit Application

Authorization to discharge stormwater associated with small Municipal Separate Storm Sewer System (MS4)

Stormwater Pollution Prevention Program (SWPPP) Document

Doc Type: Permit Application

Instructions: Submitting this application confirms your intent to receive authorization to discharge stormwater under the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) MS4 General Permit (MNR040000). This application is due within 150 days from the issuance date of the MS4 General Permit (MNR040000). Throughout this application there are text fields with a typical maximum limit of four lines. If you need to provide information in a text field that exceeds the maximum limit, please submit an attachment(s) with supplemental information that is labeled with the corresponding field number (e.g., *9.J.*).

Submittal: This application form and any associated documents (i.e., total maximum daily load (TMDL) application, any supplemental information) must be submitted electronically. To submit this form electronically, open the form using Internet Explorer Web browser or Adobe Acrobat Reader in order for the submit button to work properly. (If you do not have Acrobat Reader, you can download a free version at https://get.adobe.com/reader/.) Send the form to the Minnesota Pollution Control Agency (MPCA) by clicking the submit button at the end of the form (a "send email" window should open with the form attached), you can click on "Send" and then close the form. If you do not see a "send email", save the form to your computer and attach the form to an email message, using "MS4 Part 2 Permit Application" as the subject line to ms4permitprogram.pca@state.mn.us.

Review/Public Notice process: The MPCA will review the application for completeness. Incomplete applications will be returned. If the MPCA determines the application is complete, the MPCA will make a preliminary determination to issue permit coverage and place the application on public notice for 30 days. Once the applicant addresses any applicable comments or hearing requests, the MPCA will make a final determination to issue permit coverage to the applicant.

Please note, this application is intended to provide information about an applicant's existing SWPPP. An applicant that receives permit coverage is responsible for complying with all new applicable requirements set forth in the MS4 General Permit (MNR040000) by deadlines specified in Appendix B of the reissued permit.

Questions: If you have any questions, need additional information, contact MPCA staff. To find the staff assigned to your MS4, refer to the https://stormwater.pca.state.mn.us/index.php?title=MS4_staff_contact_information_and_staff_assignments; or see the staff contact information on the MPCA's MS4 webpage at https://www.pca.state.mn.us/water/municipal-stormwater-ms4.

Note: All questions with an asterisk(*) are **required** fields, and the form will not submit without the fields completed.

General contact information

1. **MS4 Owner** (with ownership or operational responsibility, or control of the MS4)

*MS4 permittee name: 1.A. Ramsey-Washington Metro Watershed District *County: 1.B. Ramsey, Washington
(City, county, municipality, government agency or other entity)

*Mailing address: 1.C. 2665 Noel Drive

*City: 1.D. Little Canada *State: 1.E. MN *Zip code: 1.F. 55117

2. **MS4 General contact** (with SWPPP implementation responsibility)

*Last name: 2.A. Carstens *First name: 2.B. Tina
(Department head, MS4 coordinator, consultant, etc.)

*Title: 2.C. Administrator

*Mailing address: 2.D. 2665 Noel Drive

*City: 2.E. Little Canada *State: 2.F. MN *Zip code: 2.G. 55117

*Phone (including area code): 2.H. (651) 792-7960 *Email: 2.I. tina.carstens@rwmwd.org

3. **Preparer information** (complete if SWPPP application is prepared by a party other than MS4 General contact)

Last name: 3.A. Soderholm First name: 3.B. Nicole
(Department head, MS4 coordinator, consultant, etc.)

Title: 3.C. Permit Coordinator Organization: 3.D. RWMWD

Mailing address: 3.E. 2665 Noel Drive

City: 3.F. Little Canada State: 3.G. MN Zip code: 3.H. 55117

Phone (including area code): 3.I. (651) 792-7976 Email: 3.J. nicole.soderholm@rwmwd.org

4. **Certification** (All fields are required)

☒ *Yes - *I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information submitted.*

I certify that based on my inquiry of the person, or persons, who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of civil and criminal penalties.

I have read, understood, and accepted all terms and conditions of the NPDES/SDS MS4 General Permit.

This certification is required by Minn. Stat. §§ 7001.0070 and 7001.0540. The authorized person with overall, MS4 legal responsibility must certify the application (principal executive officer or a ranking elected official).

By typing/signing my name below, I certify the above statements to be true and correct, to the best of my knowledge, and that this information can be used for the purpose of processing my application.

*Signature: 4.A. Tina Carstens
(This document has been electronically signed)

*Title: 4.B. Administrator *Date: 4.C. 06/13/2021

*Mailing address: 4.D. 2665 Noel Drive

*City: 4.E. Little Canada *State: 4.F. MN *Zip code: 4.G. 55117

*Phone (including area code): 4.H. (651) 792-7960 *Email: 4.I. tina.carstens@rwmwd.org

***Note:** The application will not be processed without certification.*

*5. **Which type of MS4 do you represent?** (Check one)

5.A. ☐ City
5.B. ☐ County
5.C. ☐ Corrections
5.D. ☐ Education
5.E. ☐ Healthcare
5.F. ☐ Township
5.G. ☐ Transportation (i.e., Minnesota Department of Transportation [MnDOT])
5.H. ☒ Watershed District

*6. **Permit item 12.3:** Do you have any partnerships with another regulated small MS4(s) to satisfy one or more requirements of the General Permit?

☐ Yes
☒ No (skip to Q8)

7. **If yes in Q6, provide a description of the partnership(s): (Maximum 10 lines of text)**

MCM 1: Public education and outreach

*8. **Permit item 16.3:** Do you distribute educational materials or equivalent outreach focused on at least two (2) specifically selected stormwater-related issues of high priority? ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

☒ Yes
☐ No (skip to Q11)

9. **If yes in Q8, what are your high-priority topics?** (Check all that apply)

9.A. ☒ Specific TMDL reduction targets
9.B. ☐ Changing local business practices
9.C. ☒ Promoting adoption of residential best management practices (BMPs)
9.D. ☐ Lake improvements through lake associations
9.E. ☐ Household chemicals
9.F. ☐ Yard waste
9.G. ☒ Construction activities
9.H. ☒ Post-construction activities
9.I. ☒ Other (describe below):
9.J. Pet waste, deicing materials, IDDE

Additional information for checked items (optional):
9.K.

10. **If yes in Q8, how do you educate the public about stormwater-related issues?** (Check all that apply)

10.A. ☒ Brochure
10.B. ☒ Newsletter
10.C. ☐ Utility bill insert
10.D. ☐ Newspaper ad
10.E. ☐ Radio ad
10.F. ☐ Television ad
10.G. ☐ Cable access channel
10.H. ☒ Website
10.I. ☒ Stormwater-related event
10.J. ☒ Other (describe below):
10.K. School presentations, social media, community engagement activities (ex: Adopt-a-Drain)

Additional information for checked items (optional):
10.L.

*11. **Permit item 16.4:** At least once each calendar year, do you distribute educational outreach focused on illicit discharge recognition and reporting illicit discharges? ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

☒ Yes
☐ No (skip to Q13)

12. **If yes in Q11, how do you educate the public about illicit discharge recognition and reporting?** (Check all that apply)

12.A. ☐ Brochure
12.B. ☐ Newsletter
12.C. ☐ Utility bill insert

12.D. ☐ Newspaper ad
12.E. ☐ Radio ad
12.F. ☐ Television ad
12.G. ☐ Cable access channel
12.H. ☒ Website
12.I. ☐ Stormwater-related event
12.J. ☒ Other (describe below):
12.K. Social media

Additional information for checked items (optional):
12.L.

If you represent a city or township, please answer questions 13-16; ***if you do not*** *represent a city or township, skip to question 17.*

13. **Permit item 16.5:** At least once each calendar year, do you distribute educational materials or equivalent outreach to residents, businesses, commercial facilities, and institutions, focused on deicing salt use? ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***
☐ Yes
☐ No (skip to Q15)

14. **If yes in Q13, what does your education or outreach cover?** (Check all that apply)
14.A. ☐ The impacts of salt use on receiving waters
14.B. ☐ Methods to reduce salt use
14.C. ☐ Proper storage of salt or other deicing materials
14.D. ☐ Other (describe below):
14.E.

Additional information for checked items (optional):
14.F.

15. **Permit item 16.6:** At least once each calendar year, do you distribute educational materials or equivalent outreach focused on pet waste? ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***
☐ Yes
☐ No (skip to Q17)

16. **If yes in Q15, what do your educational materials or equivalent outreach on pet waste include?** (Check all that apply)
16.A. ☐ Impacts of pet waste on receiving waters
16.B. ☐ Proper management of pet waste
16.C. ☐ Any existing regulatory mechanism(s) for pet waste
16.D. ☐ Other (describe below):
16.E.

Additional information for checked items (optional):

16.F.

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*17. **Permit item 16.7:** Do you have an education and outreach plan?

☒ Yes

☐ No (skip to Q19)

18. **If yes in Q17, which components does your education and outreach plan include?** (Check all that apply)

18.A. ☒ Target audience(s) ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)*** If checked, specify your target audiences:

18.A.1. ☒ Residents

18.A.2. ☒ Businesses

18.A.3. ☐ Commercial facilities

18.A.4. ☒ Institutions

18.A.5. ☒ Local organizations

18.A.6. ☒ Low income residents

18.A.7. ☒ People of color

18.A.8. ☒ Non-native English speaking residents

18.A.9. ☐ Other (describe below):

18.A.10.

18.B. ☒ Name or position title of responsible person(s) for overall plan implementation.

18.B.1. If checked, specify the name(s) or position title(s):

Sage Passi (Watershed Education Specialist), Lauren Hazenson (Communications and Outreach Coordinator)

18.C. ☒ Specific activities and schedules to reach each target audience.

18.C.1. If checked, provide any additional information (optional):

18.D. ☒ A description of any coordination with and/or use of stormwater education and outreach programs implemented by other entities, if applicable.

18.D.1. If checked, provide any additional information (optional):

*19. **Permit item 16.8:** Do you document information relating to MCM 1?

☒ Yes

☐ No (skip to Q21)

20. **If yes in Q19,** what do you document? (Check all that apply)

20.A. ☒ A description of all specific stormwater-related issues you identified in item 16.3

20.B. ☒ All information required under your education and outreach plan in item 16.7

20.C. ☒ Activities held, including dates, to reach each target audience

20.D. ☒ Quantities and descriptions of educational materials distributed, including dates distributed

20.E. ☒ Estimated audience (e.g., number of participants, viewers, readers, listeners, etc.) for each completed education and outreach activity ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

*21. **Permit item 12.4:** Who is responsible for implementation of this MCM? List name(s) or position title(s):

Sage Passi (Watershed Education Specialist), Lauren Hazenson (Communications and Outreach Coordinator)

22. **Provide any additional information about your current education and outreach program that you would like to share (optional): (Maximum 10 lines of text)**

MCM 2: Public participation/involvement

*23. **Permit item 17.3:** Do you provide a minimum of one (1) annual opportunity for the public to provide input on the adequacy of the SWPPP?

☒ Yes
☐ No (skip to Q25)

24. **If yes in Q23, describe the opportunity(ies):**

A memo and draft annual report appear in the board packet and on the website with an opportunity for comment in the agenda at the RWMWD Board of Managers meeting each year. The opportunity for comment is 30 days and provided prior to finalizing and submitting the MS4 annual report each year.

*25. **Permit item 17.4:** Do you provide access to the SWPPP Document, annual reports, and other documentation that supports or describes the SWPPP (e.g., regulatory mechanism(s), etc.) for public review, upon request?

☒ Yes
☐ No (skip to Q27)

26. **If yes in Q25, how can the public access this information?** (Check all that apply)

26.A. ☐ Hardcopy upon request
26.B. ☒ Our website
26.C. ☒ Available at public event
26.D. ☒ Other (describe below):
26.E. Electronic copy upon request

*27. **Permit item 17.5:** Do you consider oral and written input regarding the SWPPP submitted by the public?

☒ Yes
☐ No

*28. **Permit item 17.6:** Each calendar year, do you provide a minimum of one (1) public involvement activity that includes a pollution prevention or water quality theme? ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

☒ Yes
☐ No (skip to Q30)

29. **If yes in Q28, what are the themes of your public involvement activity/activities?** (Check all that apply)

29.A. ☐ Rain barrel distribution event
29.B. ☒ Rain garden workshop
29.C. ☐ Cleanup event
29.D. ☐ Storm drain stenciling

29.E. ☐ Volunteer water quality monitoring
29.F. ☒ Adopt a storm drain program
29.G. ☐ Household hazardous waste collection day
29.H. ☒ Other (describe below):
29.I. WaterFest at Lake Phalen

Additional information for checked items (optional):
29.J.

*30. **Permit item 17.7:** Do you document information relating to MCM 2?
☒ Yes
☐ No (skip to Q32)

31. **If yes in Q30, what do you document?** (Check all that apply)
31.A. ☒ All relevant written input submitted by persons regarding the SWPPP
31.B. ☒ All of your responses to written input received regarding the SWPPP, including any modifications made to the SWPPP as a result of the written input received
31.C. ☒ Date(s), location(s), and estimated number of participants at events held for purposes of compliance with permit item 17.3
31.D. ☒ Notices provided to the public of any events scheduled to meet permit item 17.3, including any electronic correspondence (e.g., website, email distribution lists, notices, etc.)
31.E. ☒ Date(s), location(s), description of activities, and estimated number of participants at events held for the purpose of compliance with permit item 17.6 ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

*32. **Permit item 12.4:** Who is responsible for implementation of this MCM? List name(s) or position title(s):

Tina Carstens (Administrator), Sage Passi (Watershed Education Specialist), Carrie Magnuson (GIS Technician), Nicole Soderholm (Permit Coordinator)

33. **Provide any additional information about your current public participation/involvement program that you would like to share (optional): (Maximum 10 lines of text)**

Questions 31.A&B: We did not receive input on our SWPPP during the last permit cycle, however we would document that if/when we get input in the future.

MCM 3: Illicit Discharge Detection and Elimination (IDDE)

*34. **Permit item 18.3:** Do you maintain a storm sewer system map?
☒ Yes
☐ No (skip to Q36)

35. **If yes in Q34, which of the following does your storm sewer map include?** (Check all that apply)
35.A. ☒ All pipes 12 inches or greater in diameter, including stormwater flow direction in those pipes
35.B. ☒ Outfalls, including a unique identification (ID) number, and an associated geographic coordinate
35.C. ☒ Structural stormwater BMPs that are part of your small MS4
35.D. ☒ All receiving waters

*36. **Permit item 18.4:** Do you have a regulatory mechanism(s) that prohibits non-stormwater discharges into your MS4?
☒ Yes
☐ No (skip to Q39)

37. **If yes in Q36, what does your regulatory mechanism(s) consist of?** (Check all that apply)
37.A. ☐ Contract language
37.B. ☐ Ordinance
37.C. ☒ Permits
37.D. ☒ Standards
37.E. ☒ Written policies
37.F. ☐ Operational plans
37.G. ☐ Legal agreements
37.H. ☐ Other mechanism(s) (describe below):
37.I.

38. **If yes in Q36,** provide a website address to the regulatory mechanism(s). If the regulatory mechanism is not available online, briefly describe how a copy of the regulatory mechanism can be obtained**:**

District Rules at rwmwd.org/permits, 'Report a Problem' function at rwmwd.org/contact

If you represent a **city, township, or county** please answer question 39. ***If you do not*** *represent a city, township, or county skip to question 42.*

39. **Permit item 18.5:** Do you have a regulatory mechanism(s) that requires owners or custodians of pets to remove and properly dispose of feces from permittee owned land areas? ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***
☐ Yes
☐ No

If you represent a **city or township**, please answer questions 40-41. ***If you do not*** *represent a city or township, skip to question 42.*

40. **Permit item 18.6:** Do you have a regulatory mechanism(s) that requires proper salt storage at commercial, institutional, and non-NPDES permitted industrial facilities? ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***
☐ Yes
☐ No (Skip to Q42)

41. **If yes in Q40,** what does your regulatory mechanism(s) require? (Check all that apply)
41.A. ☐ Designated salt storage areas must be covered or indoors
41.B. ☐ Designated salt storage areas must be located on an impervious surface
41.C. ☐ Implementation of practices to reduce exposure when transferring material in designated salt storage areas (e.g., sweeping, diversions, and containment)
41.D. ☐ Other (describe below):
41.E.

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*42. **Permit item 18.7:** Do you incorporate illicit discharge detection into all inspection and maintenance activities conducted in permit items 21.9, 21.10, and 21.11?
☒ Yes
☐ No (Skip to Q44)

43. **If yes in Q42**: where feasible, do you conduct illicit discharge inspections during dry-weather conditions (e.g., periods of 72 or more hours of no precipitation)?
☒ Yes
☐ No

*44. **Permit item 18.8:** At least once each calendar year, do you train all field staff in illicit discharge recognition (including conditions which could cause illicit discharges), and reporting illicit discharges for further investigation? ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

☒ Yes

☐ No (Skip to Q47)

45. **If yes in Q44, which field staff do you train?** (Check all that apply)

45.A. ☐ Police

45.B. ☐ Fire department

45.C. ☐ Public works

45.D. ☐ Parks staff

45.E. ☒ Other (describe below):

45.F. All staff, including field staff in the following departments: Water Quality, Natural Resources, Permit/Inspection, Project Management/CIP, GIS, Education/Outreach, Communication

46. **If yes in Q44, how do you train staff?** (Check all that apply)

46.A. ☒ Videos

46.B. ☒ In-person presentations

46.C. ☐ Webinars

46.D. ☐ Training documents

46.E. ☒ Emails

46.F. ☒ Other (describe below):

46.G. In-field training for seasonal interns under supervision of Water Quality staff

*47. **Permit item 18.9:** Do you ensure that individuals receive training commensurate with their responsibilities as they relate to your IDDE program? Individuals includes, but is not limited to, individuals responsible for investigating, locating, eliminating illicit discharges, and/or enforcement. ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

☒ Yes

☐ No (Skip to Q50)

48. **If yes in Q47, how are these individuals trained?** (Check all that apply)

48.A. ☒ Videos

48.B. ☒ In-person presentations

48.C. ☐ Webinars

48.D. ☐ Training documents

48.E. ☒ Emails

48.F. ☒ Other (describe below):

48.G. In-field training for seasonal interns under supervision of Water Quality staff

49. **If yes in Q47, do previously trained individuals attend a refresher-training every three (3) calendar years following the initial training?**

☒ Yes

☐ No

*50. **Permit item 18.10:** Do you maintain a written or mapped inventory of priority areas you identify as having a higher likelihood for illicit discharges? ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

☐ Yes

☒ No

*51. **Permit item 18.11:** To the extent allowable under state or local law, do you conduct additional illicit discharge inspections in priority areas?

☐ Yes

☒ No (Skip to Q53)

52. **If yes in Q51,** how often do you conduct illicit discharge inspections in priority areas**:**

*53. **Permit item 18.12:** Do you have written procedures for investigating, locating, and eliminating the source of illicit discharges? ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

☒ Yes

☐ No (Skip to Q55)

54. **If yes in Q53, what do your procedures include? Check all that apply:** ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

54.A. ☐ A timeframe in which you will investigate a reported illicit discharge

54.A.1. If checked, describe:

54.B. ☒ Use of visual inspections to detect and track the source of an illicit discharge

54.C. ☒ Tools to investigate and locate an illicit discharge

If checked, what tools do you use? (Check all that apply)

54.C.1. ☒ Mobile cameras

54.C.2. ☒ Collecting and analyzing water samples

54.C.3. ☐ Smoke testing

54.C.4. ☐ Dye testing

54.C.5. ☒ Other (describe below):

54.C.6 Tracking receiving waters and sewer pipes through the watershed's GIS database

54.D ☒ Cleanup methods to remove an illicit discharge or spill:

54.D.1. If checked, describe:

Cleanup to be coordinated with appropriate MS4 public works staff (ex: cities, counties in the watershed), cleanup crew can access spill kits from District operations facility, catch basin inlet protection to be installed downstream immediately if necessary, utilize GIS database to track downstream outfall and place appropriate containment BMPs at outlet, efforts to contain and recover spilled material

54.E ☒ Name or position title of responsible person(s) for investigating, locating, and eliminating an illicit discharge

54.E.1. If checked, specify the name(s) or position title(s):

Dave Vlasin (Watershed Project Coordinator), Nicole Soderholm (Permit Coordinator), Carrie Magnuson (GIS Technician), Lyndsey Provos (Water Monitoring Technician)

*55. **Permit item 18.13:** Do you have written procedures for responding to spills, including emergency response procedures to prevent spills from entering the MS4?

☒ Yes

☐ No (Skip to Q57)

56. **If yes in Q55, do your written procedures include the immediate notification of the Minnesota Department of Public Safety Duty Officer at 1-800-422-0798 (toll free) or 651-649-5451 (Metro area), if the source of the illicit discharge is a spill or leak as defined in Minn. Stat. § 115.061?**

☒ Yes

☐ No

*57. **Permit item 18.14:** Do you maintain written enforcement response procedures (ERPs) to compel compliance with your regulatory mechanism(s) in Section 18? ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

☒ Yes
☐ No (Skip to Q60)

58. **If yes in Q57, which of the following enforcement tools are available to you?** (Check all that apply)

58.A. ☒ Verbal warning
58.B. ☒ Notice of violation
58.C. ☒ Fine
58.D. ☐ Criminal action
58.E. ☐ Civil penalty
58.F. ☐ Other (describe below):
58.G.

59. **If yes in Q57, do your ERPs include the following?** (Check all that apply)

59.A. ☐ Timeframes to complete corrective actions
59.B. ☐ Name or position title of responsible person(s) for conducting enforcement

*60. **Permit item 18.15:** Do you document information relating to MCM 3?

☒ Yes
☐ No (Skip to Q62)

61. **If yes in Q60, what do you document?** (Check all that apply)

61.A. ☒ Date(s) and location(s) of IDDE inspections conducted in accordance with permit items 18.7 and 18.11
61.B. ☒ Reports of alleged illicit discharges received, including date(s) of the report(s), and any follow-up action(s) you take
61.C. ☒ Date(s) of discovery of all illicit discharges
61.D. ☒ Identification of outfalls, or other areas, where illicit discharges have been discovered
61.E. ☒ Sources (including a description and the responsible party) of illicit discharges (if known)
61.F. ☒ Action(s) you take, including date(s), to address discovered illicit discharges

*62. **Permit item 18.16:** Do you document training relating to permit item 18.8 and 18.9?

☒ Yes
☐ No (Skip to Q64)

63. **If yes in Q62, what training information do you document?** (Check all that apply)

63.A. ☒ General subject matter covered
63.B. ☒ Names and departments of individuals in attendance
(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)
63.C. ☒ Date of each event

*64. **Permit item 18.17:** Do you document enforcement conducted pursuant to the ERPs in item 18.14, including verbal warnings?

☒ Yes
☐ No (Skip to Q66)

65. **If yes in Q64, what do you document relating to ERPs for MCM 3?** (Check all that apply)

65.A. ☒ Name of the person responsible for violating the terms and conditions of your regulatory mechanism(s)
65.B. ☒ Date(s) and location(s) of the observed violation(s)
65.C. ☒ Description of the violation(s)
65.D. ☒ Corrective action(s) (including completion schedule) that you issued
65.E. ☒ Referrals to other regulatory organizations (if any)
65.F. ☒ Date(s) violation(s) resolved

*66. **Permit item 12.4:** Who is responsible for implementation of this MCM? List name(s) or position title(s):

Nicole Soderholm (Permit Coordinator), Lyndsey Provos (Water Monitoring Technician), Carrie Magnuson (GIS Technician)

67. **Provide any additional information about your current illicit discharge detection and elimination program that you would like to share (optional): (Maximum 10 lines of text)**

Watershed District rules are limited in scope.

Staff cannot access private property unless there is an associated construction or wetland permit, easement, access agreement, etc. Inspection and enforcement are completed only when/where our authority allows it.

As a watershed, we do not own/operate roadways and therefore do not do large-scale deicing or salt storage.

Our rules do not regulate pet waste, although we provide education/outreach on this topic.

MCM 4: Construction site stormwater runoff control

*68. **Permit item 19.3:** Do you have a regulatory mechanism(s) that establishes requirements for erosion, sediment, and waste controls?

☒ Yes
☐ No (skip to Q73)

69. **If yes in Q68, what does your regulatory mechanism(s) consist of?** (Check all that apply)

69.A. ☐ Contract language
69.B. ☐ Ordinance
69.C. ☒ Permits
69.D. ☒ Standards
69.E. ☒ Written policies
69.F. ☒ Operational plans
69.G. ☒ Legal agreements
69.H. ☒ Other mechanism(s) (describe below):

69.I. Site plan review for SWPPPs, inspection of active construction projects, enforcement action including stop-work orders if necessary

70. **If yes in Q68, provide a website address to the regulatory mechanism(s). If the regulatory mechanism is not available online, briefly describe how a copy of the regulatory mechanism can be obtained:**

rwmwd.org/permits

71. **If yes in Q68, is your regulatory mechanism(s) at least as stringent as the MPCA's most current Construction Stormwater General Permit (MNR100001) for erosion, sediment, and waste controls by incorporating the Construction Stormwater General Permit by reference, or by incorporating all items in Q72?**

☒ Yes (skip to Q73)
☐ No

72. **If no in Q71, which of the following requirements are incorporated into your regulatory mechanism(s)?** (Check all that apply)

72.A. Erosion prevention practices:

72.A.1. ☐ Before work begins, owner(s)/operator(s) must delineate the location of areas not to be disturbed.

72.A.2. ☐ Owner(s)/operator(s) must minimize the need for disturbance of portions of the project with steep slopes. When steep slopes must be disturbed, owner(s)/operator(s) must use techniques such as phasing and stabilization practices designed for steep slopes (e.g., slope draining and terracing).

72.A.3. ☐ Owner(s)/operator(s) must stabilize all exposed soil areas, including stockpiles. Stabilization must be initiated immediately to limit soil erosion when construction activity has permanently or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. Stabilization must be completed no later than 14 calendar days after the construction activity has ceased. Stabilization is not required on constructed base components of roads, parking lots and similar surfaces. Stabilization is not required on temporary stockpiles without significant silt, clay or organic components (e.g., clean aggregate stockpiles, demolition concrete stockpiles, sand stockpiles) but owner(s)/operator(s) must provide sediment controls at the base of the stockpile.

72.A.4. ☐ For Public Waters that the Minnesota Department of Natural Resources (DNR) has promulgated "work in water restrictions" during specified fish spawning time frames, owner(s)/operator(s) must complete stabilization of all exposed soil areas within 200 feet of the water's edge, and that drain to these waters, within 24 hours during the restriction period.

72.A.5. ☐ Owner(s)/operator(s) must stabilize the normal wetted perimeter of the last 200 linear feet of temporary or permanent drainage ditches or swales that drain water from the site within 24 hours after connecting to a surface water or property edge. Owner(s)/operator(s) must complete stabilization of the remaining portions of temporary or permanent ditches or swales within 14 calendar days after connecting to a surface water or property edge and construction in that portion of the ditch temporarily or permanently ceases.

72.A.6. ☐ Temporary or permanent ditches or swales that are being used as a sediment containment system during construction (with properly designed rock-ditch checks, bio rolls, silt dikes, etc.) do not need to be stabilized. Owner(s)/operator(s) must stabilize these areas within 24 hours after their use as a sediment containment system ceases.

72.A.7. ☐ Owner(s)/operator(s) must not use mulch, hydromulch, tackifier, polyacrylamide or similar erosion prevention practices within any portion of the normal wetted perimeter of a temporary or permanent drainage ditch or swale section with a continuous slope of greater than two percent.

72.A.8. ☐ Owner(s)/operator(s) must provide temporary or permanent energy dissipation at all pipe outlets within 24 hours after connection to a surface water or permanent stormwater treatment system.

72.A.9. ☐ Owner(s)/operator(s) must not disturb more land (i.e., phasing) than can be effectively inspected and maintained.

72.B. Sediment control practices:

72.B.1. ☐ Owner(s)/operator(s) must establish sediment control BMPs on all down gradient perimeters of the site and downgradient areas of the site that drain to any surface water, including curb and gutter systems. Owner(s)/operator(s) must locate sediment control practices upgradient of any buffer zones. Owner(s)/operator(s) must install sediment control practices before any upgradient land-disturbing activities begin and must keep the sediment control practices in place until they establish permanent cover.

72.B.2. ☐ If the downgradient sediment controls are overloaded, based on frequent failure or excessive maintenance requirements, owner(s)/operator(s) must install additional upgradient sediment control practices or redundant BMPs to eliminate the overloading and amend the site plans to identify these additional practices.

72.B.3. ☐ Temporary or permanent drainage ditches and sediment basins designed as part of a sediment containment system (e.g., ditches with rock-check dams) require sediment control practices only as appropriate for site conditions.

72.B.4. ☐ A floating silt curtain placed in the water is not a sediment control BMP to satisfy perimeter control requirements in this part except when working on a shoreline or below the waterline. Immediately after the short term construction activity (e.g. installation of rip rap along the shoreline) in that area is complete, owner(s)/operator(s) must install an upland perimeter control practice if exposed soils still drain to a surface water.

72.B.5. ☐ Owner(s)/operator(s) must re-install all sediment control practices adjusted or removed to accommodate short-term activities such as clearing or grubbing, or passage of vehicles, immediately after the short-term activity is completed. Owner(s)/operator(s) must re-install sediment control practices before the next precipitation event even if the short-term activity is not complete.

72.B.6. ☐ Owner(s)/operator(s) must protect all storm drain inlets using appropriate BMPs during construction until they establish permanent cover on all areas with potential for discharging to the inlet.

72.B.7. ☐ Owner(s)/operator(s) may remove inlet protection for a particular inlet if a specific safety concern (e.g., street flooding/freezing) is identified by owner(s)/operator(s) or the jurisdictional authority (e.g., city/county/township/MnDOT engineer). Owner(s)/operator(s) must document the need for removal in the site plans.

72.B.8. ☐ Owner(s)/operator(s) must provide silt fence or other effective sediment controls at the base of stockpiles on the downgradient perimeter.

72.B.9. ☐ Owner(s)/operator(s) must locate stockpiles outside of natural buffers or surface waters, including stormwater conveyances such as curb and gutter systems unless there is a bypass in place for the stormwater.

72.B.10. ☐ Owner(s)/operator(s) must install a vehicle tracking BMP to minimize the track out of sediment from the construction site or onto paved roads within the site.

72.B.11. ☐ Owner(s)/operator(s) must use street sweeping if vehicle tracking BMPs are not adequate to prevent sediment tracking onto the street.

72.B.12. ☐ In any areas of the site where final vegetative stabilization will occur, owner(s)/operator(s) must restrict vehicle and equipment use to minimize soil compaction.

72.B.13. ☐ Owner(s)/operator(s) must preserve topsoil on the site, unless infeasible.

72.B.14. ☐ Owner(s)/operator(s) must direct discharges from BMPs to vegetated areas unless infeasible.

72.B.15. ☐ Owner(s)/operator(s) must preserve a 50 foot natural buffer or, if a buffer is infeasible on the site, provide redundant (double) perimeter sediment controls when a surface water is located within 50 feet of the project's earth disturbances and stormwater flows to the surface water. Owner(s)/operator(s) must install

perimeter sediment controls at least 5 feet apart unless limited by lack of available space. Natural buffers are not required adjacent to road ditches, judicial ditches, county ditches, stormwater conveyance channels, storm drain inlets, and sediment basins. If preserving the buffer is infeasible, owner(s)/operator(s) must document the reasons in the site plans. Sheet piling is a redundant perimeter control if installed in a manner that retains all stormwater.

72.B.16. ☐ Owner(s)/operator(s) must use polymers, flocculants, or other sedimentation treatment chemicals in accordance with accepted engineering practices, dosing specifications and sediment removal design specifications provided by the manufacturer or supplier. Owner(s)/operator(s) must use conventional erosion and sediment controls prior to chemical addition and must direct treated stormwater to a sediment control system for filtration or settlement of the floc prior to discharge.

72.C. Dewatering and basin draining:

72.C.1. ☐ Owner(s)/operator(s) must discharge turbid or sediment-laden waters related to dewatering or basin draining (e.g., pumped discharges, trench/ditch cuts for drainage) to a temporary or permanent sediment basin on the project site unless infeasible. Owner(s)/operator(s) may dewater to surface waters if they visually check to ensure adequate treatment has been obtained and nuisance conditions (see Minn. R. 7050.0210, subp. 2) will not result from the discharge. If owner(s)/operator(s) cannot discharge the water to a sedimentation basin prior to entering a surface water, owner(s)/operator(s) must treat it with appropriate BMPs such that the discharge does not adversely affect the surface water or downstream properties.

72.C.2. ☐ If owner(s)/operator(s) must discharge water that contains oil or grease, owner(s)/operator(s) must use an oil-water separator or suitable filtration device (e.g. cartridge filters, absorbents pads) prior to discharge.

72.C.3. ☐ Owner(s)/operator(s) must discharge all water from dewatering or basin-draining activities in a manner that does not cause erosion or scour in the immediate vicinity of discharge points or inundation of wetlands in the immediate vicinity of discharge points that causes significant adverse impact to the wetland.

72.C.4. ☐ If owner(s)/operator(s) use filters with backwash water, they must haul the backwash water away for disposal, return the backwash water to the beginning of the treatment process, or incorporate the backwash water into the site in a manner that does not cause erosion.

72.D. Inspection and maintenance:

72.D.1. ☐ Owner(s)/operator(s) must ensure that a trained person will inspect the entire construction site at least once every seven (7) days during active construction and within 24 hours after a rainfall event greater than one-half inch in 24 hours.

72.D.2. ☐ Owner(s)/operator(s) must inspect and maintain all permanent stormwater treatment BMPs.

72.D.3. ☐ Owner(s)/operator(s) must inspect all erosion prevention and sediment control BMPs and Pollution Prevention Management Measures to ensure integrity and effectiveness. Owner(s)/operator(s) must repair, replace, or supplement all nonfunctional BMPs with functional BMPs by the end of the next business day after discovery unless another time frame is specified below. Owner(s)/operator(s) may take additional time if field conditions prevent access to the area.

72.D.4. ☐ During each inspection, owner(s)/operator(s) must inspect surface waters, including drainage ditches and conveyance systems but not curb and gutter systems, for evidence of erosion and sediment deposition. Owner(s)/operator(s) must remove all deltas and sediment deposited in surface waters, including drainage ways, catch basins, and other drainage systems and restabilize the areas where sediment removal results in exposed soil. Owner(s)/operator(s) must complete removal and stabilization within seven (7) calendar days of discovery unless precluded by legal, regulatory, or physical access constraints. Owner(s)/operator(s) must use all reasonable efforts to obtain access. If precluded, removal and stabilization must take place within seven (7) calendar days of obtaining access. Owner(s)/operator(s) are responsible for contacting all local, regional, state and federal authorities and receiving any applicable permits, prior to conducting any work in surface waters.

72.D.5. ☐ Owner(s)/operator(s) must inspect construction site vehicle exit locations, streets and curb and gutter systems within and adjacent to the project for sedimentation from erosion or tracked sediment from vehicles. Owner(s)/operator(s) must remove sediment from all paved surfaces within one (1) calendar day of discovery or, if applicable, within a shorter time to avoid a safety hazard to users of public streets.

72.D.6. ☐ Owner(s)/operator(s) must repair, replace, or supplement all perimeter control devices when they become nonfunctional or the sediment reaches one-half of the height of the device.

72.D.7. ☐ Owner(s)/operator(s) must drain temporary and permanent sedimentation basins and remove the sediment when the depth of sediment collected in the basin reaches one-half of the storage volume.

72.D.8. ☐ Owner(s)/operator(s) must ensure that at least one individual present on the site (or available to the project site in three (3) calendar days) is trained in the job duties of overseeing the implementation of, revising and/or amending the site plans and performing inspections for the project.

72.D.9. ☐ Owner(s)/operator(s) may adjust the inspection schedule as follows:

a. inspections of areas with permanent cover can be reduced to once per month, even if construction activity continues on other portions of the site; or
b. where construction sites have permanent cover on all exposed soil areas and no construction activity is occurring anywhere on the site, inspections can be reduced to once per month and, after 12 months, may be suspended completely until construction activity resumes. The MPCA may require inspections to resume if conditions warrant; or

c. where construction activity has been suspended due to frozen ground conditions, inspections may be suspended. Inspections must resume within 24 hours of runoff occurring, or upon resuming construction, whichever comes first.

72.D.10 ☐ Owner(s)/operator(s) must record all inspections and maintenance activities within 24 hours of being conducted and these records must be retained with the site plans. These records must include:

a. date and time of inspections; and

b. name of person(s) conducting inspections; and

c. accurate findings of inspections, including the specific location where corrective actions are needed; and

d. corrective actions taken (including dates, times, and party completing maintenance activities); and

e. date of all rainfall events greater than one-half inch in 24 hours, and the amount of rainfall for each event. Owner(s)/operator(s) must obtain rainfall amounts by either a properly maintained rain gauge installed onsite, a weather station that is within one (1) mile of owner(s)/operator(s)r location, or a weather reporting system that provides site specific rainfall data from radar summaries; and

f. if owner(s)/operator(s) observe a discharge during the inspection, they must record and should photograph and describe the location of the discharge (i.e., color, odor, settled or suspended solids, oil sheen, and other obvious indicators of pollutants); and

g. any amendments to the site plans proposed as a result of the inspection must be documented within seven (7) calendar days.

72.E. Inspection and maintenance:

72.E.1. ☐ Owner(s)/operator(s) must place building products and landscape materials under cover (e.g., plastic sheeting or temporary roofs) or protect them by similarly effective means designed to minimize contact with stormwater. Owner(s)/operator(s) are not required to cover or protect products which are either not a source of contamination to stormwater or are designed to be exposed to stormwater.

72.E.2. ☐ Owner(s)/operator(s) must place pesticides, fertilizers and treatment chemicals under cover (e.g., plastic sheeting or temporary roofs) or protect them by similarly effective means designed to minimize contact with stormwater.

72.E.3. ☐ Owner(s)/operator(s) must store hazardous materials and toxic waste, (including oil, diesel fuel, gasoline, hydraulic fluids, paint solvents, petroleum-based products, wood preservatives, additives, curing compounds, and acids) in sealed containers to prevent spills, leaks or other discharge. Storage and disposal of hazardous waste materials must be in compliance with Minn. R. ch. 7045 including secondary containment as applicable.

72.E.4. ☐ Owner(s)/operator(s) must properly store, collect, and dispose of solid waste in compliance with Minn. R. ch. 7035.

72.E.5. ☐ Owner(s)/operator(s) must position portable toilets so they are secure and will not tip or be knocked over. Owner(s)/operator(s) must dispose of sanitary waste in accordance with Minn. R. ch. 7041.

72.E.6. ☐ Owner(s)/operator(s) must 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. Owner(s)/operator(s) must ensure adequate supplies are available at all times to clean up discharged materials and that an appropriate disposal method is available for recovered spilled materials. Owner(s)/operator(s) must report and clean up spills immediately as required by Minn. Stat. § 115.061, using dry clean up measures where possible.

72.E.7. ☐ Owner(s)/operator(s) must limit vehicle exterior washing and equipment to a defined area of the site. Owner(s)/operator(s) must contain runoff from the washing area in a sediment basin or other similarly effective controls and must dispose of waste from the washing activity properly. Owner(s)/operator(s) must properly use and store soaps, detergents, or solvents.

72.E.8. ☐ Owner(s)/operator(s) must provide effective containment for all liquid and solid wastes generated by washout operations (e.g., concrete, stucco, paint, form release oils, curing compounds and other construction materials) related to the construction activity. Owner(s)/operator(s) must prevent liquid and solid washout wastes from contacting the ground and must design the containment so it does not result in runoff from the washout operations or areas. Owner(s)/operator(s) must properly dispose of liquid and solid wastes in compliance with Minn. R. ch. 7035. Owner(s)/operator(s) must install a sign indicating the location of the washout facility.

72.F. Temporary sediment basins:

72.F.1. ☐ Where ten (10) or more acres of disturbed soil drain to a common location, owner(s)/operator(s) must provide a temporary sediment basin to provide treatment of the runoff before it leaves the construction site or enters surface waters. Owner(s)/operator(s) may convert a temporary sediment basin to a permanent basin after construction is complete. The temporary basin is no longer required when permanent cover has reduced the acreage of disturbed soil to less than ten (10) acres draining to a common location.

72.F.2. ☐ The temporary basin must provide live storage for a calculated volume of runoff from a two (2)-year, 24-hour storm from each acre drained to the basin or 1,800 cubic feet of live storage per acre drained, whichever is greater.

72.F.3. ☐ Where owner(s)/operator(s) have not calculated the two (2)-year, 24-hour storm runoff amount, the temporary sediment basin must provide 3,600 cubic feet of live storage per acre of the basin's drainage area.

72.F.4. ☐ Owner(s)/operator(s) must design basin outlets to prevent short-circuiting and the discharge of floating debris.

72.F.5. ☐ Owner(s)/operator(s) must design the outlet structure to withdraw water from the surface to minimize the discharge of pollutants. Owner(s)/operator(s) may temporarily suspend the use of a surface withdrawal mechanism during frozen conditions. The basin must include a stabilized emergency overflow to prevent failure of pond integrity.

72.F.6. ☐ Owner(s)/operator(s) must provide energy dissipation for the basin outlet within 24 hours after connection to a surface water.

72.F.7. ☐ Owner(s)/operator(s) must locate temporary basins outside of surface waters and any required buffer zones.

72.F.8. ☐ Owner(s)/operator(s) must construct temporary basins prior to disturbing (10) or more acres of soil draining to a common location.

72.F.9. ☐ Where a temporary sediment basin meeting the requirements of this part is infeasible, owner(s)/operator(s) must install effective sediment controls such as smaller sediment basins and/or sediment traps, silt fences, vegetative buffer strips or any appropriate combination of measures as dictated by individual site conditions. In determining whether installing a sediment basin is infeasible, owner(s)/operator(s) must consider public safety and may consider factors such as site soils, slope, and available area on-site. Owner(s)/operator(s) must document this determination of infeasibility in the site plans.

72.G. Termination conditions:

72.G.1. ☐ Owner(s)/operator(s) must complete all construction activity and must install permanent cover over all areas. Vegetative cover must consist of a uniform perennial vegetation with a density of 70 percent 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.

72.G.2. ☐ Owner(s)/operator(s) must clean the permanent stormwater treatment system of any accumulated sediment and must ensure the system meets all applicable requirements and is operating as designed.

72.F.3. ☐ Owner(s)/operator(s) must remove all sediment from conveyance systems.

72.G.4. ☐ Owner(s)/operator(s) must remove all temporary synthetic erosion prevention and sediment control BMPs. Owner(s)/operator(s) may leave BMPs designed to decompose on-site in place.

72.G.5. ☐ For residential construction only, permit coverage terminates on individual lots if the structure(s) are finished and temporary erosion prevention and downgradient perimeter control is complete and the residence sells to the homeowner.

72.G.6. ☐ For construction projects on agricultural land (e.g., pipelines across cropland), owner(s)/operator(s) must return the disturbed land to its preconstruction agricultural use.

72.H. If applicable, additional requirements for discharges to special and impaired waters:

72.H.1. ☐ Owner(s)/operator(s) must immediately initiate stabilization of exposed soil areas, and complete the stabilization within seven (7) calendar days after the construction activity in that portion of the site temporarily or permanently ceases.

72.H.2. ☐ Owner(s)/operator(s) must provide a temporary sediment basin for common drainage locations that serve an area with five (5) or more acres disturbed at one time.

72.H.3. ☐ Owner(s)/operator(s) must include an undisturbed buffer zone of not less than 100 linear feet from a special water (not including tributaries) and must maintain this buffer zone at all times, both during construction and as a permanent feature post construction, except where a water crossing or other encroachment is necessary to complete the project. Owner(s)/operator(s) must fully document the circumstance and reasons the buffer encroachment is necessary in the site plans and include restoration activities. Owner(s)/operator(s) must minimize all potential water quality, scenic and other environmental impacts of these exceptions by the use of additional or redundant (double) BMPs and must document this in the site plans for the project.

72.H.4. ☐ Owner(s)/operator(s) must conduct routine site inspections once every three (3) days for projects that discharge to prohibited waters.

*73. **Permit item 19.5:** Does your regulatory mechanism(s) require that owners and operators of construction activity develop site plans that must be submitted to you for review and confirmation that regulatory mechanism(s) requirements have been met, prior to the start of construction activity?

☒ Yes
☐ No

*74. **Permit item 19.6:** Do you have written procedures for site plan reviews to ensure compliance with requirements of the regulatory mechanism(s)? ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

☒ Yes
☐ No (Skip to Q76)

75. **If yes in Q74, do your procedures include the following?** (Check all that apply)

75.A. ☒ Written notification to owners and operators of the need to apply for and obtain coverage under the CSW Permit.

75.B. ☒ Use of a written checklist, consistent with the requirements of the regulatory mechanism(s), to document the adequacy of each site plan required.

*76. **Permit item 19.7:** Do you have written procedures for conducting site inspections to determine compliance with your regulatory mechanism(s)?

☒ Yes

☐ No

*77. **Permit item 19.8:** Do you maintain written procedures for identifying high-priority and low-priority sites for inspection? ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

☐ Yes

☒ No (Skip to Q79)

78. **If yes in Q77, do your procedures include the following?** (Check all that apply)

78.A. ☐ A detailed explanation describing how sites will be categorized as either high-priority or low-priority.

If checked, how do you prioritize sites for inspection? (Check all that apply)

78.A.1. ☐ Site topography

78.A.2. ☐ Soil characteristics

78.A.3. ☐ Types of receiving water(s)

78.A.4. ☐ Stage of construction

78.A.5. ☐ Compliance history

78.A.6. ☐ Weather conditions

78.A.7. ☐ Citizen complaints

78.A.8. ☐ Project size

78.A.9. ☐ Other (describe below):

78.A.10.

78.B. ☐ A frequency at which you will conduct inspections for high-priority sites.

If checked, how often will you inspect high-priority sites? (Check only one)

78.B.1. ☐ More than once every seven (7) days

78.B.2. ☐ Once every seven (7) days

78.B.3. ☐ Once every 14 days

78.B.4. ☐ Once every 21 days

78.B.5. ☐ Once every 30 days

78.B.6. ☐ Other (describe below):

78.B.7.

78.C. ☐ A frequency at which you will conduct inspections for low-priority sites.

If checked, how often will you inspect low-priority sites? (Check only one)

78.C.1. ☐ More than once every seven (7) days

78.C.2. ☐ Once every seven (7) days

78.C.3. ☐ Once every 14 days

78.C.4. ☐ Once every 21 days

78.C.5. ☐ Once every 30 days

78.C.6. ☐ Other (describe below):

78.C.7.

78.D. ☐ The name(s) of individual(s) or position title(s) responsible for conducting site inspections:

*79. **Permit item 19.9:** Do you use a written checklist to document each site inspection when determining compliance with your regulatory mechanism(s)? ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

☒ Yes

☐ No (Skip to Q82)

80. **If yes in Q79, are the following items incorporated in your written checklist?** (Check all that apply)

80.A. ☒ Stabilization of exposed soils (including stockpiles)

80.B. ☐ Stabilization of ditch and swale bottoms

80.C. ☒ Sediment control BMPs on all downgradient perimeters of the project and upgradient of buffer zones

80.D. ☒ Storm drain inlet protection

80.E. ☒ Energy dissipation at pipe outlets

80.F. ☒ Vehicle tracking BMPs

80.G. ☐ Preservation of a 50 foot natural buffer or redundant sediment controls where stormwater flows to a surface water within 50 feet of disturbed soils

80.H. ☒ Owner/operator of construction activity self-inspection records

80.I. ☒ Containment for all liquid and solid wastes generated by washout operations (e.g., concrete, stucco, paint, form release oils, curing compounds, and other construction materials)

80.J. ☒ BMPs maintained and functional

81. **Provide any additional information on your process to document site inspections (optional):**

While not called out individually, Items 80.B and 80.G are inspected for and enforced under the categories of soil stabilization and perimeter control. RWMWD's inspection report offers room for inspector comments and customization including photos with captions to communicate site-specific issues for correction.

*82. **Permit item 19.10:** Do you have written procedures for receipt and consideration of reports of noncompliance or other stormwater related information on construction activity submitted to you by the public?

☒ Yes

☐ No (Skip to Q84)

83. **If yes in Q82, please provide your procedures or a description of your procedures (e.g., how the public may submit concerns, typical timeframe for you to investigate reports):**

We have a 'Report a Problem' link on our website that gets e-mailed to the District office and forwarded to appropriate staff within 24 hours. Timeframe for investigating will vary depending on workload, but it is considered high priority.

*84. **Permit item 19.11:** Do individuals receive training commensurate with their responsibilities as they relate to your Construction Site Stormwater Runoff Control program? Individuals includes, but is not limited to, individuals responsible for conducting site plan reviews, site inspections, and/or enforcement.

☒ Yes

☐ No (Skip to Q87)

85. **If yes in Q84, do previously trained individuals attend a refresher-training every three (3) calendar years following the initial training?** ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

☒ Yes
☐ No

86. **If yes in Q84, what training do your staff who perform site inspections receive?** (Check all that apply)

86.A. ☒ University of Minnesota Erosion and Stormwater Management Certification Program
86.B. ☐ Qualified Compliance Inspector of Stormwater
86.C. ☐ Minnesota Laborers Training Center Stormwater Pollution Prevention Plan Installer or Supervisor
86.D. ☐ Minnesota Utility Contractors Association Erosion Control Training
86.E. ☐ Certified Professional in Erosion and Sediment Control
86.F. ☐ Certified Professional in Stormwater Quality
86.G. ☐ Certified Erosion Sediment and Storm Water Inspector
86.H. ☐ Other (describe below):
86.I.

*87. **Permit item 19.12:** Do you maintain written ERPs to compel compliance with your regulatory mechanism(s) in Section 19? ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

☒ Yes
☐ No (Skip to Q89)

88. **If yes in Q87, which enforcement tools are included in your ERPs?** (Check all that apply)

88.A. ☒ Verbal warning
88.B. ☒ Notice of violation
88.C. ☐ Administrative order
88.D. ☒ Stop work order
88.E. ☐ Fine
88.F. ☒ Forfeit of security bond money
88.G. ☐ Withholding of certificate of occupancy
88.H. ☐ Criminal action
88.I. ☒ Civil penalty
88.J. ☐ Other (describe below):
88.K.

*89. **Please specify name or position title of responsible person(s) for conducting enforcement:**

Nicole Soderholm (Permit Coordinator), Mary Fitzgerald (District Inspector)

*90. **Permit item 19.13:** Do you document each site plan review you conduct?

☒ Yes
☐ No (Skip to Q92)

91. **If yes in Q90, what do you document in your site plan review process?** (Check all that apply)

91.A. ☒ Project name
91.B. ☒ Location
91.C. ☒ Total acreage to be disturbed
91.D. ☒ Owner and operator of the proposed construction activity
91.E. ☒ Proof of notification to obtain coverage under the CSW Permit or proof of coverage under the CSW Permit ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***
91.F. ☒ Any stormwater related comments and supporting completed checklist, to determine project approval or denial ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

*92. **Permit item 19.14:** Do you document training related to permit item 19.11?

☐ Yes

☒ No (Skip to Q94)

93. **If yes in Q92, what do you document?** (Check all that apply)

93.A. ☐ General subject matter covered

93.B. ☐ Name(s) and departments of individuals in attendance

(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)

93.C. ☐ Date of each event

*94. **Permit item 19.15:** Do you document enforcement conducted pursuant to your ERPs in item 19.12, including verbal warnings?

☒ Yes

☐ No (Skip to Q96)

95. **If yes in Q94, what do you document relating to ERPs for MCM 4?** (Check all that apply)

95.A. ☒ Name of the person responsible for violating the terms and conditions of your regulatory mechanism(s)

95.B. ☒ Date(s) and location(s) of the observed violation(s)

95.C. ☒ Description of the violation(s)

95.D. ☒ Corrective action(s) (including completion schedule) that you issued

95.E. ☒ Referrals to other regulatory organizations (if any)

95.F. ☒ Date(s) violation(s) resolved

*96. **Permit item 12.4: Who is responsible for implementation of this MCM? List name(s) or position title(s):**

Nicole Soderholm (Permit Coordinator), Mary Fitzgerald (District Inspector), engineering consultant (Barr Engineering)

97. **Provide any additional information about your current construction site stormwater runoff control program that you would like to share (optional): (Maximum 10 lines of text)**

Question 92: We do keep current on our certifications and can produce the U of M certification cards with expiration dates, although we don't currently document otherwise in the SWPPP itself.

MCM 5: Post-construction stormwater management

*98. **Permit item 20.3:** Do you have a post-construction stormwater management regulatory mechanism(s)?

☒ Yes

☐ No (skip to Q102)

99. **If yes in Q98, what does your regulatory mechanism(s) consist of?** (Check all that apply)

99.A. ☐ Contract language

99.B. ☐ Ordinance

99.C. ☒ Permits

99.D. ☒ Standards

99.E. ☒ Written policies

99.F. ☒ Operational plans

99.G. ☒ Legal agreements

99.H. ☒ Other mechanism(s) (describe below):

99.I. Site plan review including design criteria/specifications, construction observation when possible, final inspections of BMPs prior to permit closure, post-construction maintenance inspections

100. **If yes in Q98, provide a website address to the regulatory mechanism(s). If the regulatory mechanism is not available online, briefly describe how a copy of the regulatory mechanism can be obtained:**

rwmwd.org/permits

101. **If yes in Q98, which of the following requirements are incorporated into your regulatory mechanism?** (Check all that apply)

101.A. ☒ **Permit item 20.4:** You must require owners of construction activity to submit site plans with post-construction stormwater management BMPs designed with accepted engineering practices to you for review and confirmation that regulatory mechanism(s) requirements have been met, prior to start of construction activity.

101.B. ☒ **Permit item 20.5:** You must require owners of construction activity to treat the water quality volume on any project where the sum of the new impervious surface and the fully reconstructed impervious surface equals one or more acres. ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

101.C. ☒ **Permit item 20.6:** For construction activity (excluding linear projects), the water quality volume must be calculated as one (1) inch times the sum of the new and the fully reconstructed impervious surface. ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

101.D. ☒ **Permit item 20.7:** For linear projects, the water quality volume must be calculated as the larger of one (1) inch times the new impervious surface or one-half (0.5) inch times the sum of the new and the fully reconstructed impervious surface. Where the entire water quality volume cannot be treated within the existing right-of-way, a reasonable attempt to obtain additional right-of-way, easement, or other permission to treat the stormwater during the project planning process must be made. Volume reduction practices must be considered first, as described in item 20.8. Volume reduction practices are not required if the practices cannot be provided cost effectively. If additional right-of-way, easements, or other permission cannot be obtained, owners of construction activity must maximize the treatment of the water quality volume prior to discharge from the MS4. ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

101.E. ☒ **Permit item 20.8:** Volume reduction practices (e.g., infiltration or other) to retain the water quality volume on-site must be considered first when designing the permanent stormwater treatment system. This permit does not consider wet sedimentation basins and filtration systems to be volume reduction practices. If this permit prohibits infiltration as described in item 20.9, other volume reduction practices, a wet sedimentation basin, or filtration basin may be considered.

101.F. ☒ **Permit item 20.9:** Infiltration systems must be prohibited when the system would be constructed in areas:

a. That receive discharges from vehicle fueling and maintenance areas, regardless of the amount of new and fully reconstructed impervious surface. ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

b. Where high levels of contaminants in soil or groundwater may be mobilized by the infiltrating stormwater. To make this determination, the owners and/or operators of construction activity must complete the MPCA's site screening assessment checklist, which is available in the Minnesota Stormwater Manual, or conduct their own assessment. The assessment must be retained with the site plans. ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

c. Where soil infiltration rates are more than 8.3 inches per hour unless soils are amended to slow the infiltration rate below 8.3 inches per hour. ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

d. With less than three (3) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally saturated soils or the top of bedrock.

e. Of predominately Hydrologic Soil Group D (clay) soils. ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

f. In an Emergency Response Area (ERA) within a Drinking Water Supply Management Area (DWSMA) as defined in Minn. R. 4720.5100, Subp. 13, classified as high or very high vulnerability as defined by the Minnesota Department of Health. ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

g. In an ERA within a DWSMA classified as moderate vulnerability unless you perform or approve a higher level of engineering review sufficient to provide a functioning treatment system and to prevent adverse impacts to groundwater. ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

h. Outside of an ERA within a DWSMA classified as high or very high vulnerability unless you perform or approve a higher level of engineering review sufficient to provide a functioning treatment system and to prevent adverse impacts to groundwater. ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

i. Within 1,000 feet up-gradient or 100 feet down gradient of active karst features. ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

j. That receive stormwater runoff from these types of entities regulated under NPDES for industrial stormwater: automobile salvage yards; scrap recycling and waste recycling facilities; hazardous waste treatment, storage, or disposal facilities; or air transportation facilities that conduct deicing activities.

101.G. ☒ **Permit item 20.10:** For non-linear projects, where the water quality volume cannot cost effectively be treated on the site of the original construction activity, you must identify, or may require owners of the construction activity to identify, locations where off-site treatment projects can be completed. If the entire water quality volume is not addressed on the site of the original construction activity, the remaining water quality volume must be addressed through off-site treatment and, at a minimum, ensure the requirements of permit items 20.11 through 20.14 are met.

101.H. ☐ **Permit item 20.11:** You must ensure off-site treatment project areas are selected in the following order of preference:

a. Locations that yield benefits to the same receiving water that receives runoff from the original construction activity
b. Locations within the same DNR catchment area as the original construction activity
c. Locations in the next adjacent DNR catchment area up-stream
d. Locations anywhere within your jurisdiction

101.I. ☒ **Permit item 20.12:** Off-site treatment projects must involve the creation of new structural stormwater BMPs or the retrofit of existing structural stormwater BMPs, or the use of a properly designed regional structural stormwater BMP. Routine maintenance of structural stormwater BMPs already required by this permit cannot be used to meet this requirement.

101.J. ☒ **Permit item 20.13:** Off-site treatment projects must be completed no later than 24 months after the start of the original construction activity. If you determine that more time is needed to complete the treatment project, you must provide the reason(s) and schedule(s) for completing the project in the annual report.

101.K. ☐ **Permit item 20.14:** If you receive payment from the owner of a construction activity for off-site treatment, you must apply any such payment received to a public stormwater project, and all projects must comply with permit items 20.11 through 20.13.

101.L. ☒ **Permit item 20.15:** You must include the establishment of legal mechanism(s) between you and owners of structural stormwater BMPs not owned or operated by you, that have been constructed to meet the requirements in Section 20. The legal mechanism(s) must include provisions that, at a minimum:

a. Allow you to conduct inspections of structural stormwater BMPs not owned or operated by you, perform necessary maintenance, and assess costs for those structural stormwater BMPs when you determine the owner of that structural stormwater BMP has not ensured proper function.
b. Are designed to preserve your right to ensure maintenance responsibility, for structural stormwater BMPs not owned or operated by you, when those responsibilities are legally transferred to another party.
c. Are designed to protect/preserve structural stormwater BMPs. If structural stormwater BMPs change, causing decreased effectiveness, new, repaired, or improved structural stormwater BMPs must be implemented to provide equivalent treatment to the original BMP.

*102. **Permit item 20.16:** Do you maintain a written or mapped inventory of structural stormwater BMPs that you do not own or operate that meet all of the following criteria? ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

a. The structural stormwater BMP includes an executed legal mechanism(s) between you and owners responsible for the long-term maintenance, as required in item 20.15; and
b. The structural stormwater BMP was implemented on or after August 1, 2013.

☒ Yes
☐ No

*103. **Permit item 20.17:** Do you to have written procedures for site plan reviews to ensure compliance with requirements of your regulatory mechanism(s)?

☒ Yes
☐ No

*104. **Permit item 20.18:** Do individuals receive training commensurate with their responsibilities as they relate to your Post-Construction Stormwater Management program? Individuals include, but is not limited to, individuals responsible for conducting site plan reviews and/or enforcement.

☒ Yes
☐ No (Skip to Q106)

105. **If yes in Q104,** do previously trained individuals attend a refresher training every three (3) calendar years following the initial training? ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

☒ Yes
☐ No

*106. **Permit item 20.19:** Do you maintain written ERPs to compel compliance with your regulatory mechanism(s) required in Section 20? ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

☒ Yes
☐ No (Skip to Q108)

107. **If yes in Q106, what enforcement tools are included in your ERPs?** (Check all that apply)

107.A. ☒ Verbal warning

107.B. ☒ Notice of violation

107.C. ☐ Administrative order

107.D. ☐ Fine

107.E. ☐ Criminal action

107.F. ☒ Civil penalty

107.G. ☒ Other (describe below):

107.H. Forfeiture of security money (provided permit is still open). Deductions may result from increased staff time utilized for inspection and enforcement, or for completing necessary repairs to BMPs constructed incorrectly.

*108. **Please specify name or position title of responsible person(s) for conducting enforcement:**

Nicole Soderholm (Permit Coordinator), Mary Fitzgerald (District Inspector)

*109. **Permit item 20.20:** Do you document each site plan review you conduct?

☒ Yes

☐ No (Skip to Q111)

110. **If yes in Q109, what do you document in your site plan review process?** (Check all that apply)

110.A. ☒ Supporting documentation used to determine compliance, including any calculations for the permanent stormwater treatment system.

110.B. ☒ The water quality volume that will be treated through volume reduction practices compared to the total water quality volume required to be treated. ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

110.C. ☒ Documentation associated with off-site treatment projects you authorize, including rationale to support the location of permanent stormwater treatment projects in accordance with items 20.10 and 20.11. ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

110.D. ☒ Payments received and used in accordance with permit item 20.14.

110.E. ☒ All legal mechanisms drafted in accordance with permit item 20.15, including date(s) of the agreement(s) and name(s) of all responsible parties involved.

*111. **Permit item 20.21:** Do you document training related to your Post-Construction Stormwater Management program?

☐ Yes

☒ No (Skip to Q113)

112. **If yes in Q111, what are you documenting?** (Check all that apply)

112.A. ☐ General subject matter covered

112.B. ☐ Names and departments of individuals in attendance ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

112.C. ☐ The date of each event

*113. **Permit item 20.22:** Do you document enforcement conducted pursuant to your ERPs in item 20.19, including verbal warnings?

☒ Yes

☐ No (Skip to Q115)

114. If yes in Q113, what do you document relating to ERPs for MCM 5? (Check all that apply)

114.A. ☒ The name of the person responsible for violating the terms and conditions of your regulatory mechanism(s)

114.B. ☒ The date(s) and location(s) of the observed violation(s)

114.C. ☒ A description of the violation(s)

114.D. ☒ Corrective action(s) issued

114.E. ☐ Referrals to other regulatory organizations

114.F. ☐ The date(s) violation(s) are resolved

*115. **Permit item 12.4:** Who is responsible for implementation of this MCM? List name(s) or position title(s):

Mary Fitzgerald (District Inspector), Nicole Soderholm (Permit Coordinator), Paige Ahlborg (Watershed Project Manager)

116. **Provide any additional information about your current post-construction stormwater management program that you would like to share (optional): (Maximum 10 lines of text)**

Question 101.H: Regarding offsite treatment, our order of preference are BMPs that achieve the same volume reduction benefit, then in the same drainage area, then the same regional subwatershed as outlined in the District's hydrologic model.

Question 101.K: In-lieu payments received by applicants where onsite treatment has been deemed infeasible are tracked by major subwatershed. Opportunities for District-led projects that arise in the same subwatershed will utilize these funds as available but may not always occur within 2 years depending on the location and overall project costs/available budget.

Question 111: We do keep current on our certifications and can produce the U of M certification cards with expiration dates, although we don't document otherwise in the SWPPP itself.

MCM 6: Pollution prevention/Good housekeeping for municipal operations

*117. **Permit item 21.3:** Do you maintain a written or mapped inventory of your owned/operated facilities that contribute pollutants to stormwater discharges?

☒ Yes
☐ No (skip to Q119)

118. **If yes in Q117, which of the following facilities do you own and/or operate?** (Check all that apply)

118.A. ☒ Composting
118.B. ☒ Equipment storage and maintenance
118.C. ☐ Hazardous waste disposal
118.D. ☐ Hazardous waste handling and transfer
118.E. ☐ Landfill(s)
118.F. ☒ Solid waste handling and transfer
118.G. ☐ Park(s)
118.H. ☒ Pesticide storage
118.I. ☒ Public parking lot(s)
118.J. ☐ Public golf course(s)
118.K. ☐ Public swimming pool(s)
118.L. ☐ Public works yard(s)
118.M. ☒ Recycling
118.N. ☐ Salt storage
118.O. ☐ Snow storage
118.P. ☐ Vehicle storage and maintenance (e.g., fueling and washing) yard(s)
118.Q. ☐ Materials storage yard(s)
118.R. ☐ Other (describe below):
118.S.

*119. **Permit item 21.4:** Do you implement BMPs to prevent or reduce pollutants in stormwater discharges from municipal operations?

☐ Yes
☒ No (Skip to Q121)

120. **If yes in Q119, provide additional information on the BMPs you implement to address stormwater discharges from municipal operations (e.g., waste disposal, management of stockpiles, road maintenance):**

*121. **Permit item 21.5:** Do you implement BMPs at your owned/operated salt storage areas? ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

☐ Yes
☒ No (Skip to Q123)

122. **If yes in Q121, what BMPs do you have in place at salt storage areas?** (Check all that apply)

122.A. ☐ Salt is covered or stored indoors
122.B. ☐ Salt stored on an impervious surface
122.C. ☐ Implementation of practices to reduce exposure when transferring material from salt storage areas
122.D. ☐ Other (describe below):
122.E.

*123. **Permit item 21.6:** Do you implement a written snow and ice management policy for individuals that perform winter maintenance activities for you? ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

☐ Yes
☒ No (Skip to Q125)

124. **If yes in Q123, what practices and procedures for snow and ice control operations are included?** (Check all that apply)

124.A. ☐ Plowing or other snow removal practices
124.B. ☐ Sand use
124.C. ☐ Application of deicing compounds
124.D. ☐ Other (describe below):
124.E.

*125. **Permit item 21.7:** Each calendar year, do all individuals that perform winter maintenance activities for you receive training? ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

☐ Yes
☒ No (Skip to Q127)

126. **If yes in Q125, what does the winter maintenance training include?** (Check all that apply)

126.A. ☐ The importance of protecting water quality
126.B. ☐ BMPs to minimize the use of deicers
126.C. ☐ Tools and resources to assist in winter maintenance (e.g., deicing application rate guidelines, calibration charts, Smart Salting Assessment Tool)
126.D. ☐ Other (describe below):
126.E.

*127. **Permit item 21.8:** Do you maintain written procedures for determining TSS and total phosphorus (TP) treatment effectiveness of all owned/operated ponds constructed and used for the collection and treatment of stormwater?

☒ Yes
☐ No

*128. **Permit item 21.9:** Do you inspect structural stormwater BMPs (excluding stormwater ponds, which are under a separate schedule) each calendar year to determine structural integrity, proper function, and maintenance needs (excluding structural stormwater BMPs where the inspection frequency has been adjusted)?

☒ Yes
☐ No

*129. **Do you have a different inspection frequency (i.e., more or less than each calendar year) for any of your structural stormwater BMPs?**

☐ Yes
☒ No (Skip to Q131)

130. **If yes in Q129, what led to your adjusted inspection frequency?** (Check all that apply)

130.A. ☐ Complaints received or patterns of maintenance indicated a greater frequency was necessary.
130.B. ☐ Determined maintenance or sediment removal was not required after completion of the first two calendar year inspections.
130.C. ☐ Other (describe below):
130.D.

*131. **Permit item 21.10:** Do you inspect all ponds and outfalls (excluding underground outfalls) each permit term in order to determine structural integrity, proper function, and maintenance needs?

☒ Yes
☐ No (Skip to Q133)

132. **If yes in Q131,** describe the frequency of inspections:

Minimum once per year

*133. **Permit item 21.12:** Do you implement a stormwater management training program commensurate with individual's responsibilities as they relate to your SWPPP, including reporting and assessment activities? Training materials can be from the U.S. Environmental Protection Agency (EPA), state and regional agencies, or other organizations as appropriate to meet this requirement.

☒ Yes
☐ No (Skip to Q135)

134. **If yes in Q133, what does your stormwater management training program include?** (Check all that apply)

134.A. ☒ The importance of protecting water quality.
134.B. ☒ Cover the requirements of the permit relevant to the responsibilities of the individual.
134.C. ☒ A schedule that establishes initial training for individuals, including new and/or seasonal employees, and recurring training intervals to address changes in procedures, practices, techniques, or requirements.
134.D. ☐ Other (describe below):
134.E.

134.F. Additional information for checked items (optional):

Training and staff development are ongoing. As a watershed district, our focus is on surface and stormwater management. We are encouraged to attend one-off trainings and conferences, we hold monthly staff trainings on various topics related to our work, and we maintain training certifications commensurate with staff responsibilities.

*135. **Permit item 21.13:** Do you document information associated with the operations and maintenance program?

☒ Yes
☐ No (Skip to Q137)

136. **If yes in Q135, what are you documenting?** (Check all that apply)

136.A. ☒ Date(s) and description of findings, including whether or not an illicit discharge is detected, for all inspections conducted in accordance with items 21.9 and 21.10.
136.B. ☐ Any adjustments to inspection frequency as authorized in item 21.9.
136.C. ☒ Date(s) and a description of maintenance conducted as a result of inspection findings, including whether or not an illicit discharge is detected.

136.D. ☐ Schedule(s) for maintenance of structural stormwater BMPs and outfalls when necessary maintenance cannot be completed within one year of discovery ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

136.E. ☐ Stormwater management training events, including general subject matter covered, names and departments of individuals in attendance, and date of each event.

*137. **Permit item 21.14:** Do you document pond sediment excavation and removal activities?

☒ Yes

☐ No (Skip to Q139)

138. **If yes in Q137, what pond sediment excavation and removal activity information is documented?** (Check all that apply)

138.A. ☒ A unique ID number and geographic coordinate of each stormwater pond from which sediment is removed.

138.B. ☒ The volume (e.g., cubic yards) of sediment removed from each stormwater pond.

138.C. ☐ Results from any testing of sediment from each removal activity.

138.D. ☐ Location(s) of final disposal of sediment from each stormwater pond.

138.E. Additional information for checked items (optional):

*139. **Permit item 12.4:** Who is responsible for implementation of this MCM? List name(s) or position title(s).

Dave Vlasin (Watershed Project Coordinator)

140. **Provide any additional information about your current pollution prevention/good housekeeping for municipal operations program that you would like to share (optional): (Maximum 10 lines of text)**

Question 119: The watershed district does not conduct municipal operations but has a long history of partnership with member cities/counties in designing and construction of volume reduction BMPs and native habitat/shoreline restoration on publicly owned land.
Questions 121/123/125: The District does not own/operate roadways are not involved in large-scale deicing operations. The District does help put on annual smart salting trainings for public works staff in our area in collaboration with Fortin Consulting.
Question 136: Staff do document findings in a spreadsheet but do not specifically document when no illicit discharge is detected. If an illicit discharge is detected, it would be documented. We do not document inspection frequencies as we inspect all sites annually at this time. Typically all maintenance issues are resolved annually through the District's CIP Maintenance and Repair project.

Discharges to Impaired Waters with an EPA-Approved TMDL that Includes an Applicable Waste Load Allocation (WLA)

To determine if you have an applicable WLA(s), please reference the MPCA's MS4 Permit TMDL Application Form webpage at https://stormwater.pca.state.mn.us/index.php?title=Guidance_for_completing_the_MS4_Permit_TMDL_Application_Form.

*141. **Permit item 22.3:** Do you have an applicable WLA where a reduction in pollutant loading is required for bacteria?

☐ Yes

☒ No (Skip to Q146)

142. **If yes in Q141, do you maintain a written or mapped inventory of potential areas and sources of bacteria (e.g., dense populations of waterfowl or other bird, dog parks)? *(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

☐ Yes

☐ No (Skip to Q145)

143. **If yes in Q142, do you maintain a written plan to prioritize reduction activities to address the areas and sources identified in the inventory? The written plan must include BMPs you will implement over the permit term.** ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

☐ Yes

☐ No (Skip to Q145)

144. **If yes in Q143, which of the following are included in your written plan?** (Check all that apply)

144.A. ☐ Water quality monitoring to determine areas of high bacteria loading.

144.B. ☐ Installation of pet waste pick-up bags in parks and open spaces.

144.C. ☐ Elimination of over-spray irrigation at permittee land owned areas.

144.D. ☐ Removal of organic matter via street sweeping.
144.E. ☐ Implementation of infiltration structural stormwater BMPs.
144.F. ☐ Management of areas that attract dense populations of waterfowl (e.g., riparian plantings).
144.G. ☐ Other (describe below):
144.H.

145. **Permit item 12.9:** If yes in Q141, who is or will be responsible for implementation of this required component (i.e., inventory, plan, and BMP implementation)? List name(s) or position title(s):

*146. **Permit item 22.5:** Do you have an applicable WLA where a reduction in pollutant loading is required for chloride?
☒ Yes
☐ No (Skip to Q151)

147. **If yes in Q146, do you document the amount of deicer applied each winter maintenance season to all your owned/operated surfaces? *(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***
☐ Yes
☒ No

148. **If yes in Q146, each calendar year do you conduct an assessment of your winter maintenance operations to reduce the amount of deicing salt applied to your owned/operated surfaces and determine current and future opportunities to improve BMPs? You may use the MPCA's Smart Salting Assessment Tool or other available resources and methods to complete this assessment. The assessment must be documented. *(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***
☐ Yes
☒ No (Skip to Q150)

149. **If yes in Q148, what does your winter maintenance operations assessment include?** (Check all that apply)
149.A. ☐ Operational changes such as pre-wetting, pre-treating the salt stockpile, increasing plowing prior to deicing, monitoring of road surface temperature, etc.
149.B. ☐ Implementation of new or modified equipment providing pre-wetting, or other capability for minimizing salt use.
149.C. ☐ Regular calibration of equipment.
149.D. ☐ Optimizing mechanical removal to reduce use of deicers.
149.E. ☐ Designation of no salt and/or low salt zones.
149.F. ☐ Other (describe below):
149.G.

149.H. Additional information for checked items (optional):

150. **Permit item 12.9: If yes in Q146, who is or will be responsible for implementation of this required component (i.e., documenting deicer applied and winter maintenance operations assessment)? List name(s) or position title(s):**

N/A- The required implementation is not applicable to the watershed district as we do not conduct large-scale deicing operations or own/operate any roadways.

*151. **Permit item 22.7:** Do you have an applicable WLA where a reduction in pollutant loading is required for temperature?
☐ Yes
☒ No (Skip to Q155)

152. If yes in Q151, do you maintain a written plan that identifies specific activities you will implement to reduce thermal loading during the permit term? ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

☐ Yes

☐ No (Skip to Q154)

153. **If yes in Q152, what activities does the plan include?** (Check all that apply)

153.A. ☐ Implementation of infiltration BMPs such as bioinfiltration practices

153.B. ☐ Disconnection and/or reduction of impervious surfaces

153.C. ☐ Retrofitting existing structural stormwater BMPs

153.D. ☐ Improvement of riparian vegetation

153.E. ☐ Other (describe below):

153.F.

153.G. Provide any additional information about your written plan (optional):

154. **Permit item 12.9: If yes in Q151, who is or will be responsible for implementation of this required component? List name(s) or position title(s):**

*155. **Permit item 12.8:** Do you have an applicable WLA(s) for oxygen demand, nitrate, TSS, or TP?

☒ Yes - If yes, you **must complete** the corresponding tabs in the *MS4 Permit TMDL Application* (available on the MPCA's website at https://stormwater.pca.state.mn.us/index.php?title=Guidance_for_completing_the_MS4_Permit_TMDL_Application_Form) and submit it with this application.

☐ No

Alum or Ferric Chloride Phosphorus Treatment Systems

*156. **Permit Section 23:** Do you own and/or operate an Alum or Ferric Chloride Phosphorus Treatment System within your MS4?

☒ Yes - If yes, complete questions 157-173 as directed.

☐ No (Skip to Q174)

157. Provide the geographic coordinates of the alum or ferric chloride phosphorus treatment system, in decimal degrees. (Approximate centroid of treatment system within five-foot accuracy):

157.A. Latitude: 44.962136

157.B. Longitude: -92.985080

158. **Who is responsible for the operation of the treatment system? List name(s) or position title(s):**

Eric Korte (Water Monitoring Coordinator), Lyndsey Provos (Water Quality Technician), Kyle Kubitza (Water Quality Technician)

159.A. **Provide the date the system first became operational (mm/dd/yyyy):** 04/17/1998

For question 159.B-G, provide information for calendar year 2020.

159.B. **For each month, provide the number of days the system was operational:**

159.B.1.	January:	0
159.B.2.	February:	0
159.B.3.	March:	0
159.B.4.	April:	3
159.B.5.	May:	31
159.B.6.	June:	30
159.B.7.	July:	31
159.B.8.	August:	17
159.B.9.	September:	30
159.B.10.	October:	12
159.B.11.	November:	0
159.B.12.	December:	0

159.C. **What chemical(s) was used for treatment:**

159.C.1. ☒ Alum

159.C.2. ☐ Ferric Chloride

159.D. **Provide the number of gallons of water treated:** 91,319,944

159.E. **Provide the number of gallons of alum or ferric chloride treatment used:** 8,350

159.F. **Provide the calculated pounds of phosphorous removed:** 141* (estimated)

159.G. **Describe any performance issue(s) and the corrective action(s), including the date(s) when corrective action(s) were taken:**

5/18/20-7/18/20: Alum was not pumping effectively due to air in the pumps. Fittings were then tightened and glued to resolve the issue. 8/14/20: Alum was not pumping consistently. Pump was taken offline and then replaced, resolving the issue. 10/6/20: New pH probe was installed but would not calibrate. Alum plant was shut down. Probe was cleaned with HCl and recalibrated, resolving the issue.

160. **Permit item 23.3: Which of the following requirements are you meeting?** (Check all that apply)

160.A. ☒ Your treatment system is for the treatment of phosphorus in stormwater. Non-stormwater discharges must not be treated by this system.

160.B. ☒ Your treatment system is contained within the conveyances and structural stormwater BMPs of the MS4. The utilized conveyances and structural stormwater BMPs do not include any receiving waters.

160.C. ☒ Phosphorus treatment systems utilizing chemicals other than alum or ferric chloride receive written approval from the MPCA.

160.D. ☒ In-lake phosphorus treatment activities are not authorized.

161. **Permit item 23.3: Which of the following design parameters does your treatment system include?** (Check all that apply)

161.A. ☒ The treatment system is constructed in a manner that diverts the stormwater flow to be treated from the main conveyance system.

161.B. ☒ A high flow bypass is part of the inlet design.

161.C. ☒ A flocculent storage/settling area is incorporated into the design, and adequate maintenance access is provided (minimum of eight feet wide) for the removal of accumulated sediment.

162. **Permit item 23.5:** Do you have a designated person perform visual monitoring of the treatment system for proper performance at least once every seven (7) days, and within 24 hours after a rainfall event greater than 2.5 inches in 24 hours?

☒ Yes

☐ No (Skip to Q164)

163. **If yes in Q162, please list the name(s) of the individual(s) or position title(s):**

Eric Korte (Water Quality Monitoring Coordinator), Lyndsey Provos (Water Quality Technician), Kyle Kubitza (Water Quality Technician)

164. **Permit item 23.5:** Following visual monitoring which occurs within 24 hours after a rainfall event, do you conduct the next visual monitoring of your system seven (7) days after that rainfall event?

☒ Yes
☐ No

165. **Permit item 23.6:** Does your treatment system utilize three (3) benchmark monitoring stations? Table 1 in Appendix A in the permit must be used for the parameters, units of measure, and frequency of measurement for each station.

☒ Yes
☐ No

166. **Permit item 23.7:** Do you collect grab samples or flow-weighted 24-hour composite samples at your treatment system?

☒ Yes
☐ No

167. **Permit item 23.8:** Are your treatment system samples, excluding potential of hydrogen (pH) samples, analyzed by a laboratory certified by the Minnesota Department of Health and/or the MPCA?

☒ Yes
☐ No

168. **Which of the following do your sample tests include?** (Check all that apply)

168.A. ☒ Sample preservation and test procedures for the analysis of pollutants that conform to 40 CFR Part 136 and Minn. R. 7041.3200.

168.B. ☒ Detection limits for dissolved phosphorus, dissolved aluminum, and dissolved iron that are a minimum of 6 micrograms per liter (µg/L), 10 µg/L, and 20 µg/L, respectively.

168.C ☒ pH that is measured within 15 minutes of sample collection using calibrated and maintained equipment.

169. **Permit item 23.9:** In the following situation(s) do you perform corrective action(s) and immediately notify the Minnesota Department of Public Safety Duty Officer? (Check all that apply)

169.A. ☒ The pH of the discharged water is not within the range of 6.0 and 9.0.

169.B. ☒ Indications of toxicity or measurements exceeding water quality standards which could endanger human health, public drinking water supplies, or the environment.

169.C. ☒ A spill or discharge or alteration resulting in water pollution, as defined in Minn. Stat. § 115.01, subd. 13, of alum or ferric chloride.

170. **Permit item 23.13:** Do you conduct site-specific jar testing using typical and representative water samples in accordance with the most current approved version of ASTM D2035? ***(Note: All or some of this item is a new permit requirement. Compliance with new requirements is required within 12 months after receiving permit coverage.)***

☒ Yes
☐ No

171. **Permit item 23.14:** Do you have baseline concentrations of the following parameters in the influent and receiving waters at your treatment system location? (Check all that apply)

171.A. ☒ Aluminum or iron

171.B. ☒ Phosphorus

172. **Permit item 23.15:** Do you have the following system parameters and how each was determined at your treatment system location? (Check all that apply)

172.A. ☒ Flocculant settling velocity

172.B. ☒ Minimum required retention time

172.C. ☒ Rate of diversion of stormwater into the system

172.D. ☒ The flow rate from the discharge of the outlet structure

172.E. ☒ Range of expected dosing rates

173. **Permit item 23.16:** Have you developed the following site-specific procedures? (Check all that apply)

173.A. ☒ Procedures for the installation, operation and maintenance of all pumps, generators, control systems, and other equipment.

173.B. ☒ Specific parameters for determining when the solids must be removed from the system and how the solids will be handled and disposed of.

173.C. ☒ Procedures for cleaning up and/or containing a spill of each chemical stored on site.

Complete last page and submit using Adobe Acrobat Reader.

(If you do not have Acrobat Reader, you can download a free version at https://get.adobe.com/reader/.)

Additional information

174. **Provide any additional information about your current Stormwater Pollution Prevention Program (SWPPP) that you would like to share (optional): (Maximum 30 lines of text)**

*Additional information for Alum Treatment section:

Question 159.F: This is an estimate. We are currently compiling calculated pounds of phosphorus removed using Flux32, which will be completed in June and available for annual MS4 reporting.

Q166: Staff take grab samples and flow weighted composite samples but not necessarily flow-weighted 24-hr composite samples. Our samples may be composited over a longer period of time.

Q169.A: The pH did dip below 6 due to a false reading. The probe has since been replaced, however staff did notify the state duty officer anyway. The system also shuts down automatically in that circumstance.

Q169.B/C: Neither of these issues have occurred to date, but we would notify the state duty officer if they do.

Q170: In 1997, RWMWD spent approximately $60,000 on jar testing and participated in meetings with the MPCA about the results. No additional jar testing has been performed due to the treatment facility's performance history.

Q171: RWMWD keeps inflow data for the current year and past years. We also have concentration data from before the plant was operational.

Q173.A/C: Manuals are used that are provided with site-specific equipment, but RWMWD does not have a formally written procedure. Staff will design and complete in the next year for permit compliance.

Complete last page and submit using Adobe Acrobat Reader.

(If you do not have Acrobat Reader, you can download a free version at https://get.adobe.com/reader/.)

Submit Reset

Request for Board Action

Board Meeting Date: June 3, 2026 **Agenda Item No:** 7B

Preparer: Tina Carstens, Administrator

Item Description: District Office Exterior Improvements Project Approval of Plans and Authorization to Advertise for Bid.

Background:
The current main part of the District office parking lot is over 20 years old and in need of significant rehabilitation. To continue reusing the permeable layers below the parking lot, staff propose replacing the pervious asphalt with PaveDrain pervious pavers. In addition, to provide a more winter-safe surface for our staff and visitors, and to demonstrate best practices that can reduce winter salt use, staff have asked that the PaveDrain system and the two sidewalks leading to the building doors be heated.

Following the board discussion at the May meeting regarding this project, staff have revised the project memo and attached it here. Staff is seeking board authorization at the June meeting to proceed with bidding.

The revised memo includes a breakdown of costs and a more detailed discussion of the proposed monitoring plan, including the factors to be monitored and how they will be used to assess effectiveness.

If the board deems it appropriate, they should consider a motion that "approves the preliminary design, estimate of probable costs, and expected schedule, and directs the staff to prepare the bidding documents and advertise the project for bid". Staff will present bids for the work at a meeting in the near future, with a fall start to construction anticipated.

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 Items: Maintain District projects and consider opportunities to support the maintenance activities of others.

Staff Recommendation:
Staff recommends that the Board approve the preliminary design, estimated costs, and proposed project schedule, and direct staff to finalize the design and bidding documents and advertise the project for bid.

Financial Implications:
This project is included in the CIP Maintenance and Repair budget.

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

Memorandum

To: RWMWD Board of Managers
From: Marcy Bean, Gareth Becker, and Erin Anderson Wenz
Subject: RWMWD Office Exterior Improvements – Request for Bidding Authorization
Date: May 28, 2026
Project: 23621567
c: Paige Ahlborg (RWMWD), Tina Carstens (RWMWD)

Overview

The Ramsey-Washington Metro Watershed District office was constructed in 2005, including a porous bituminous pavement parking lot. In 2014, the parking lot was expanded to its current footprint, which included a small area of permeable concrete unit pavers. In the twenty years since construction, the porous bituminous pavement has aged and become less effective for stormwater management despite routine maintenance and several rehabilitation projects. Some surface material has eroded, and in winter, the material has become slow to infiltrate, resulting in areas of ice buildup. When it was decided that parking lot replacement was needed, RWMWD staff expressed interest in replacing the parking lot with an alternative material to serve as a demonstration on alternative hard surfaces that can also serve as a water quality BMP.

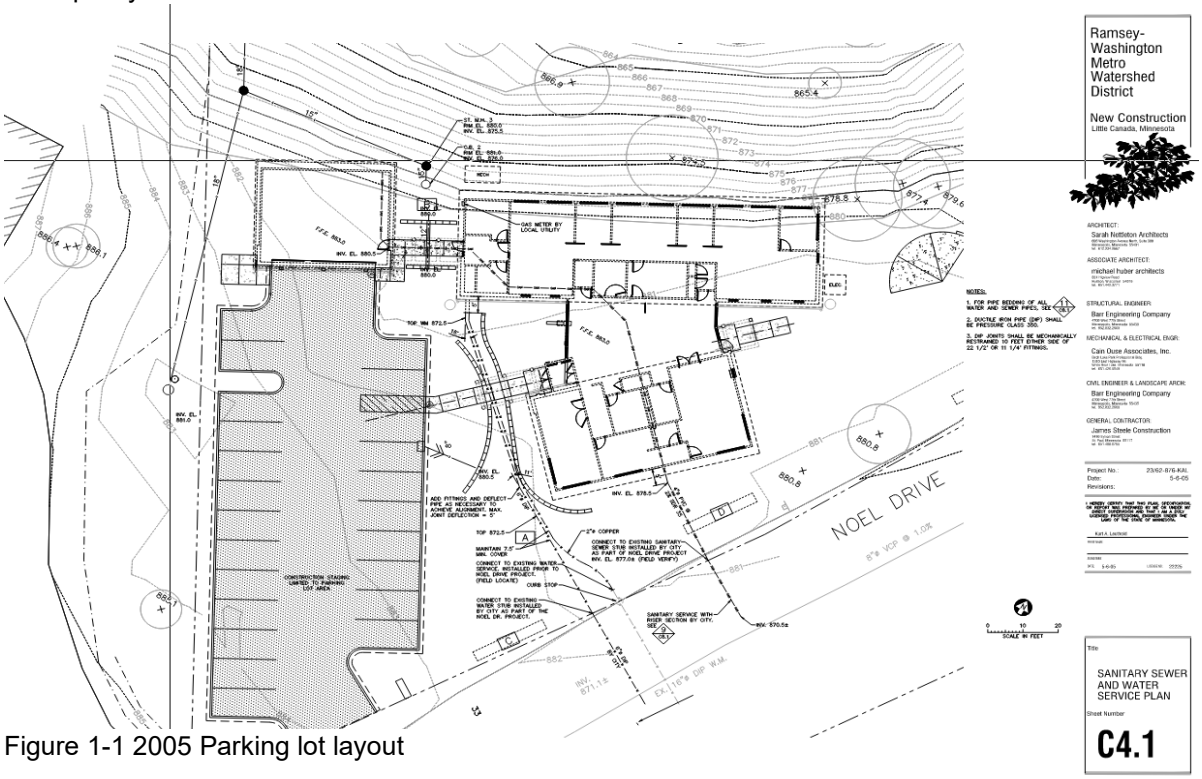


Figure 1-1 2005 Parking lot layout

The permeable unit paver system used in the 2014 expansion, PaveDrain, has held up well and the manufacturer has since developed improvements for the system to include the potential to heat the surface. Heated pavement projects have been brought to the District for consideration of grant funding, as heated pavements help reduce salt application. District staff are interested in using the parking lot as a

pilot project to inform heated pavement system costs, operations, and reduction of chloride application. The design of the project is intended to improve safety for staff and guests, reduce shoveling of sidewalks and improve winter access to the building for the more frequent, smaller winter events.

Since the completion of the project's 30% design in September 2025, Barr has developed concept iterations to incorporate additional site improvements at the request of RWMWD staff in response to a site accessibility audit. Staff also requested a solution for parking storage for the District's monitoring boat. Construction of these improvements will allow additional site modifications to align with accessibility goals, improve storage options for staff, and continue the demonstration aspect of the site design. The 90% project includes:

- Replacement of existing permeable pavement with PaveDrain system.
- New mechanical system to provide heat distribution through the new permeable pavers as well as two sidewalks between the parking lot and office building. This system requires boiler installation that requires its own utility closet/mechanical shed.
- Accessibility improvements for parking lot, sidewalk to front entrance, and sidewalk between office space and garage.
- Electric system service upgrade and EV charging station for staff and public (with fee) use.
- New boat storage pad and enclosure.
- Trash enclosure improvements to house the heating mechanical elements and to decrease enclosure maintenance needs.

Engineer's Opinion of Cost

Prior to design in June 2025, Barr developed high level costs for the addition of the heated paver system, assuming the existing curb and gutter could be reused. These numbers were shared with the Board of Managers in July 2025 where the board suggested that it made sense to continue to design for the heated permeable pavers.

Table 1: July 2025 Assessment of heated paver system costs

	Low estimate	**High estimate**
Replace permeable asphalt with standard asphalt	$ 83,000	$117,000
Alternative 1 – Entire lower parking lot converted to unheated permeable pavers	$ 144,000	$ 203,000
Alternative 2 – Entire lower parking lot reconstructed with permeable pavers, 18 parking stalls are heated	$ 166,000	$ 234,000
Alternative 3 – Entire lower parking lot converted to heated permeable pavers (did not include mechanical system needs)	$ 188,000	$ 265,000

A summary of the updated (90%) engineer's opinion of probable cost is included in the table below. As of late August 2025, the project was estimated to cost in the range of $285,000 - $402,000. Costs for the project have increased due to the expansion of the heated pavement footprint and reconstruction of the trash enclosure to accommodate the heated pavement mechanical system installation and protection. We plan to bid the project publicly and would be funded through the CIP Maintenance and Repair fund. Additional cost breakdown has been provided to clarify cost of the heated pavement system relative to other components of the site.

Table 2: Summary of 90% opinion of probable costs

	Engineer opinion of cost for construction	**Engineer opinion of cost range (-5% to +10%)**
RWMWD Office Exterior Improvements	$ 488,000	$464,000 - $537,000

The current engineer's opinion of probable cost for the project ranges from -5% to +10%. These opinions of cost include a 10% contingency and reflect a 90% design level of accuracy. The opinion of cost is intended to provide assistance in evaluating and comparing the project bids and should not be assumed as an absolute rule. The Association for the Advancement of Cost Engineering (AACE) Class 1 opinion of cost was used to define the estimated accuracy range based on the level of project definition.

Table 3: 2026 Project Components

Project Components	**Low estimate**	**High estimate**
Mobilization	$ 56,000	$ 64,000
Permeable Parking Lot	$ 158,000	$ 183,000
Sidewalks + Accessibility Improvements	$ 31,000	$ 36,000
Mechanical System for Heated Pavements	$ 116,000	$ 135,000
EV Charging	$ 39,000	$ 45,000
Boat + Trash Enclosures	$ 64,000	$ 75,000

Heated Pavement Data Tracking

The mechanical system for the heated pavement is being specified to provide data to RWMWD for tracking performance over time. The system will provide information that can be compared directly to winter weather conditions and maintenance activities to evaluate long-term performance, reliability, benefits, and costs.

A heated pavement monitoring plan is being developed to determine the effectiveness of the system relative to snow/ice depths and intensity. The monitoring plan will include using installed equipment (e.g., temperature and snow/ice sensors for both heated and non-heated sections, time lapse cameras, etc.) to quantify the system's performance. Results from the monitoring plan will be used to calculate a cost-benefit (or return-on-investment) for these types of systems that could be applied at other locations throughout the District. Monitoring results will also be used to estimate chloride reduction benefits and

evaluate where heated pavement systems may provide the greatest water quality benefit at other locations throughout the watershed – with the District's parking lot serving as a demonstration-type project. This monitoring effort is intended to support implementation of the District's broader Chloride Reduction Strategy (CRS) by providing data for a chloride reduction technology (heated pavement).

The following parameters are intended to be monitored after installation of the project:

- Air temperature
- Pavement Temperature (heated and control)
- Snowfall Intensity
- Snowfall Total
- Snowfall Duration
- % "Dry" Pavement using photos (heated and control)
- Natural Gas / Electrical Usage
- Number and frequency of snow events less than 1.5 inches (the threshold for plowing initiation)
- Maintenance costs for boiler system
- Freeze/thaw conditions and ice occurrences on heated and control surfaces
- Visual documentation of pavement conditions during and after storm events using time lapse imagery

The following benefits will be calculated after installation of the project, over time: reduction in salt usage and cost-benefit.

Reduction in salt usage can be quantified by:

- Estimating annual chloride application avoided on heated pavement areas (using modeling assumptions from the CRS or MPCA Smart Salting guidance)
- Comparing estimated salt reductions to typical application rates for similar commercial, institutional, or municipal sites within the District
- Using CRS modeling results and watershed chloride loading estimates to quantify the potential water quality benefit if similar systems were implemented at other high-priority locations

Cost-benefit can be quantified by:

- Estimating avoided salt purchasing, application, and plowing costs based on reduced chloride use within the project area (assuming that under existing conditions the area would be managed similar to a typical commercial site, understanding that the District already manages snow and salt to a higher degree than other property owners)
- Applying pricing to past and future storm events to estimate average annual winter maintenance costs for conventional maintenance practices
- Tracking natural gas and electrical usage associated with heated pavement operations to estimate annual operating costs
- Comparing avoided plowing, shoveling, and salt application costs against annual system O&M costs to estimate annual savings and cost-benefit of the project.
- Quantifying additional project benefits where feasible, including reduced slip/fall risk, reduced corrosion and pavement deterioration, and improved pedestrian accessibility

- Calculating a “cost per pound of salt avoided” metric that can be used to compare this type of heated pavement system to other types of chloride reduction strategies that may be seeking grant funding from RWMWD in the future.

We intend to communicate results to the Board annually, or upon request. Annual reporting may include winter performance summaries, estimated chloride reductions, operating costs, and lessons learned that could inform future chloride reduction projects within the District.

Chloride Reduction Outreach Opportunities

Outreach strategies for the heated pavement demonstration site include presentations at Public Works forums, residential and business events, and other marketing efforts to engage stakeholders and promote chloride reduction initiatives. Time-lapse cameras would be beneficial to provide visual data for marketing and outreach, ensuring that all pavement sections are visible for comprehensive demonstration. The project provides an opportunity to showcase innovative winter maintenance approaches that reduce chloride dependency while maintaining public safety and accessibility. Monitoring results can be incorporated into future smart salting trainings, chloride reduction outreach materials, and CRS implementation efforts. It will be important for outreach and demonstration efforts to align with the CRS, tying the project to broader community engagement goals.

Specifications Outline

In addition to the drawings attached, bid documents are being completed that include the following specifications:

Front-End Specifications:

Advertisement for Bid

Instruction to Bidders

Form of Agreement

General Conditions

Supplementary Conditions

General Requirements:

Summary of Work

Measurement and Payment

Payment Procedures

Safety

Closeout Procedures

Technical Specifications:

Site Preparation

Concrete Forming, Cast-in-Place Concrete, and Concrete Reinforcement

Hydronic Piping and Pumps

Excavation and Fill

Erosion and Sedimentation Control

Curbs, Gutters, and Sidewalk

Permeable Unit Pavers

Electrical General Provisions

Electrical Service and Distribution

Fences and Gates

Painted Pavement Markings

Block Retaining Wall

Storm Drainage Utility Piping

Special Bidding Considerations

Given the specific expertise of the mechanical system and installation of heat coils, we plan to ask bidders to provide three examples of prior work on similar types of parking lot projects, along with references, to be deemed eligible to submit a bid.

Schedule

Pending Board approval to put these projects out to bid after the June Board meeting, we anticipate bringing bids back in July or August. Construction at the site is likely to start in fall 2026.

Attachments

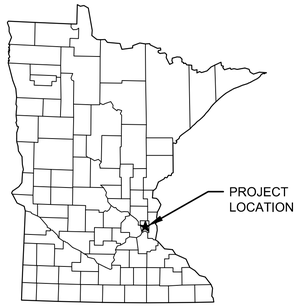
90% Draft Plan set for RWMWD's Office Parking Lot

PROJECT DATUM:
HORIZONTAL: RAMSEY COUNTY COORDINATES, NAD83, US FOOT
VERTICAL: NAVD88

RWMWD OFFICE PARKING LOT RETROFIT PROJECT

RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

LITTLE CANADA, MINNESOTA



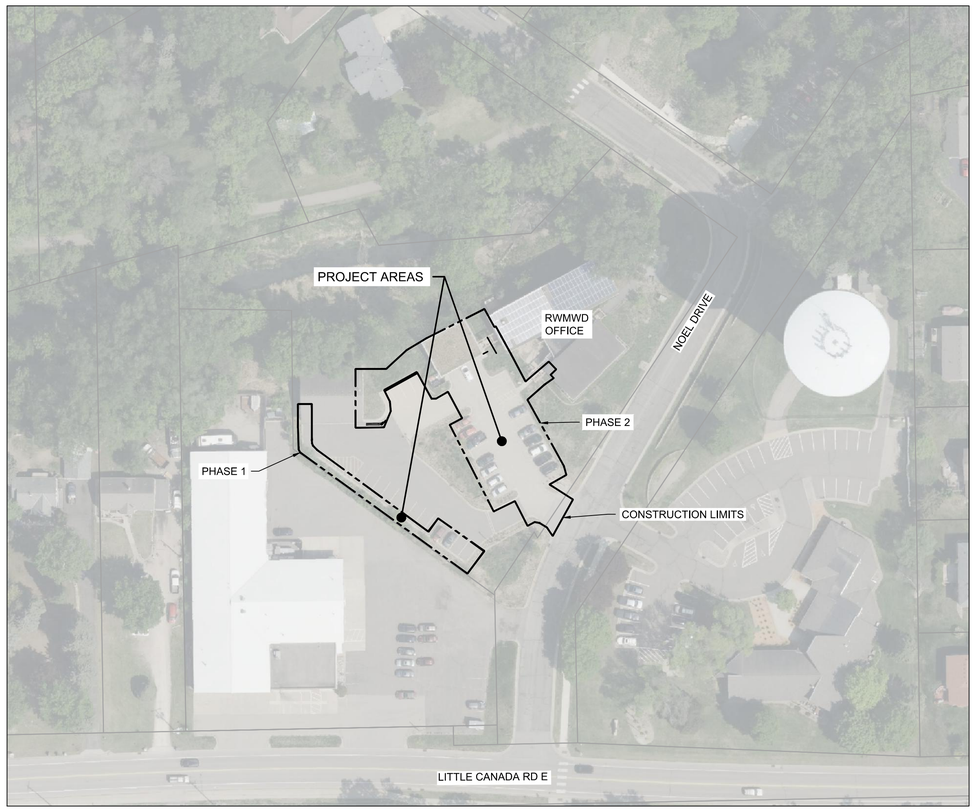
LOCATION MAP
NOT TO SCALE

RWMWD Office
2665 Noel Drive,
Little Canada, MN

PROJECT ENGINEER:

RWMWD CONTACT:

CITY CONTACT:



VICINITY MAP
NOT TO SCALE

INDEX OF SHEETS

G1.0 ... SHEET INDEX AND PROJECT LOCATION
G1.1 ... EXISTING CONDITIONS, EROSION CONTROL AND REMOVALS PLAN
G1.2 ... OVERALL SITE PLAN
G1.3 ... EROSION CONTROL DETAILS

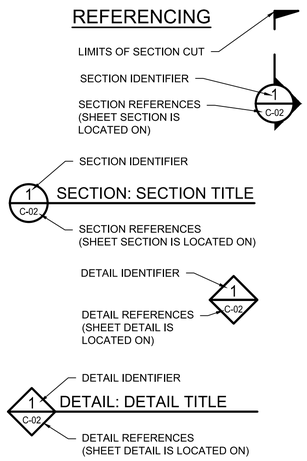
C1.0 ... CIVIL SITE PLAN
C1.1 ... BOAT ENCLOSURE AND MECHANICAL CABINET ENLARGEMENT PLAN
C1.2 ... WALK AND 10" DIP ENLARGEMENT PLAN
C1.3 ... OFFICE MAIN ENTRY ENLARGEMENT PLAN
C1.4 ... CIVIL DETAILS AND SECTIONS
C1.5 ... CIVIL DETAILS AND SECTIONS
C1.6 ... CIVIL DETAILS AND SECTIONS
C1.7 ... CIVIL DETAILS AND SECTIONS
C1.8 ... CIVIL DETAILS AND SECTIONS
C1.9 ... CIVIL DETAILS AND SECTIONS
C1.10 ... CIVIL DETAILS AND SECTIONS
C1.11 ... CIVIL DETAILS AND SECTIONS
C1.12 ... CIVIL DETAILS AND SECTIONS
C1.13 ... STRUCTURAL DETAILS AND SECTIONS
C1.14 ... STRUCTURAL DETAILS AND SECTIONS

E1.0 ... OVERALL ELECTRICAL SITE PLAN
E1.1 ... ENLARGED ELECTRICAL SITE 1 OF 2
E1.2 ... ENLARGED ELECTRICAL SITE 2 OF 2
E1.3 ... ELECTRICAL DETAILS AND SECTIONS

M1.0 ... MECHANICAL SITE PLAN

L1.0 ... LANDSCAPE AND RESTORATION PLAN AND DETAILS

REFERENCING



811 Know what's **below.**

NOTES:

1. COMPLY WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES, PERMITS, AND REGULATIONS.
2. VERIFY ALL QUANTITIES, GRADES, AND DIMENSIONS.
3. TOPOGRAPHIC INFORMATION BASED ON SITE SURVEY CONDUCTED BY BARR ENGINEERING, 2025. SURVEY PERFORMED WITH VERTICAL DATUM OF NAVD88.
4. FIELD-LOCATE ALL SITE UTILITIES (PRIVATE AND PUBLIC) PRIOR TO STARTING THE WORK. ALL UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. ANY UTILITIES DAMAGED BY CONTRACTOR SHALL BE REPAIRED TO THE SATISFACTION OF UTILITY OWNER AT CONTRACTOR'S COST.

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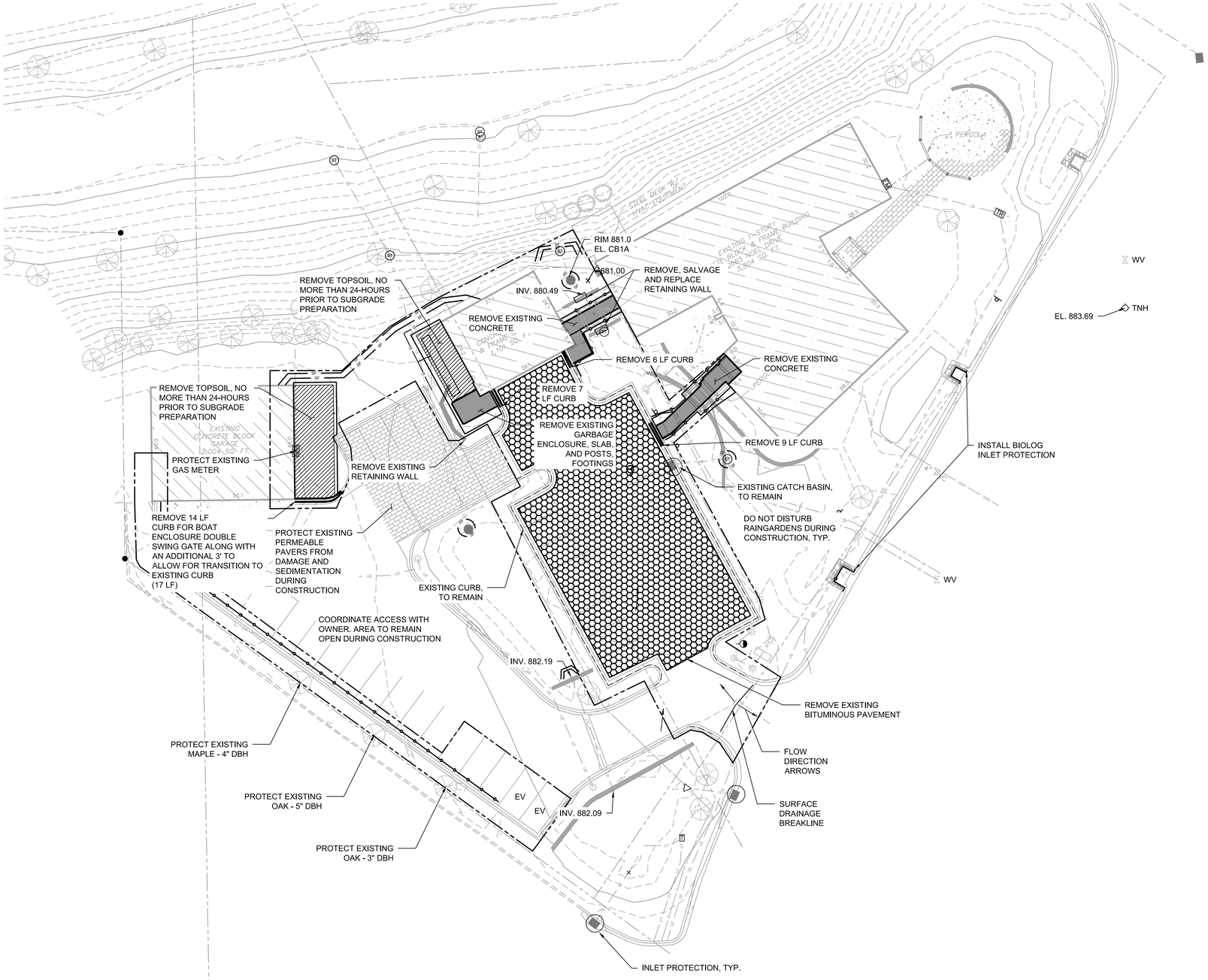
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RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

RWMWD OFFICE PARKING LOT RETROFIT
LITTLE CANADA, MN
SHEET INDEX
AND PROJECT LOCATION

BARR PROJECT # 23/62-1567.00
DWG # G1.0
REV # A

ORIGINAL DRAWING SIZE: ANSI FULL BLEED D (34.00 X 22.00 INCHES) PLOT SCALE: 1:1 PLOT DATE: 4/23/2026 2:52 PM
CADD USER: ELLERY M. OVERMYER FILE: M:\DESIGN\23\62-1567.00\23621567_G01_COVER.DWG



1 - PLAN: SITE PLAN

0 20 40

SCALE IN FEET

PROJECT DATUM:

HORIZONTAL: -
VERTICAL: -

LEGEND:

EXISTING CONDITIONS LEGEND

- EXISTING STORMWATER UTILITY
- EXISTING UNDERGROUND ELECTRIC
- EXISTING GAS UTILITY
- EXISTING WATER LINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING CONCRETE
- EXISTING TREE TO PROTECT IN PLACE
- PARCEL BOUNDARY
- STORM MANHOLE
- SIGN
- WATER MANHOLE
- LIGHT POST
- GAS METER
- ELECTRICAL METER
- CATCH BASIN
- POWER POLE

PROPOSED CONDITIONS LEGEND

- SITE CALLOUT AREA
- CONSTRUCTION LIMITS
- TREE PROTECTION FENCING
- SEDIMENT CONTROL LOG, 3 / G1.3
- SILT FENCE, 2 / G1.3
- ROCK CONSTRUCTION ENTRANCE, 4 / G1.3
- INLET PROTECTION, 1 / G1.3
- CONCRETE REMOVAL
- BITUMINOUS REMOVAL
- TOPSOIL REMOVAL
- CURB REMOVAL

NOTES:

1. ALL VEGETATION NOT MARKED FOR REMOVAL MUST BE PROTECTED.
2. SPECIFIED EROSION CONTROL MEASURES ARE THE MINIMUM. ADDITIONAL MEASURES MAY BE INSTALLED AT REQUEST FOR OWNER/ENGINEER.
3. EROSION CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF WORK/REMOVALS.
4. PAVEMENT SWEEPING OR PAVER VACUUMING TO BE PERFORMED AT THE END OF EACH WORK DAY AND AS NEEDED OR REQUESTED BY ENGINEER/OWNER THROUGHOUT THE WORKDAY TO MANAGE DUST AND/OR TRACKED MATERIAL.

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A	XXX	XXX	XXX	XX/XX/20XX	ISSUED FOR XXXX

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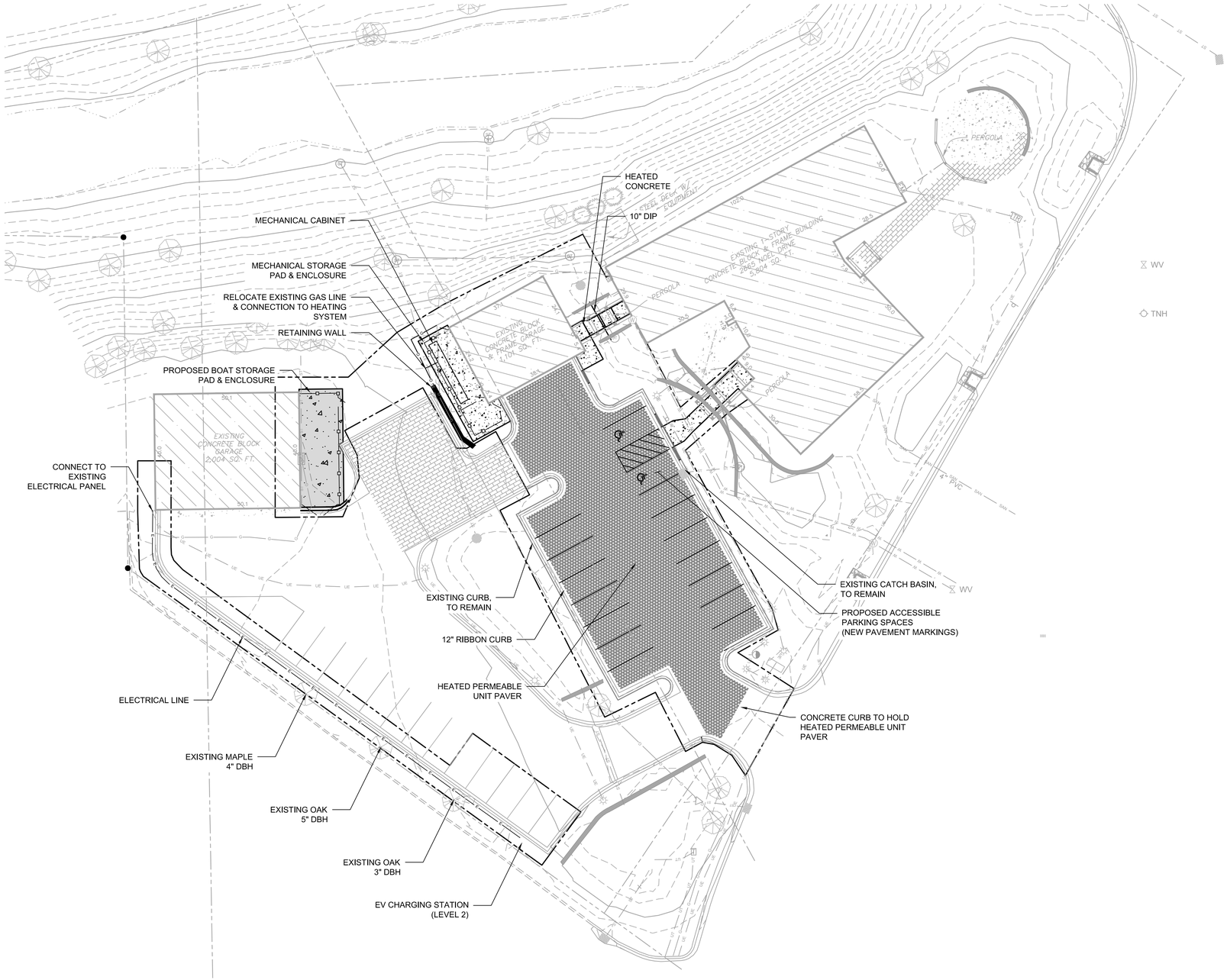
RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

RWMWD OFFICE PARKING LOT RETROFIT
LITTLE CANADA, MN

EXISTING CONDITIONS, REMOVALS AND EROSION CONTROL PLAN

BARR PROJECT # 23/62-1567.00
DWG # G1.1
REV # A

ORIGINAL DRAWING SIZE: ANSI FULL BLEED D (34.00 X 22.00 INCHES) PLOT SCALE: 1:1 PLOT DATE: 4/23/2026 2:43 PM
CADD USER: ELLERY.MA, OVERMYER FILE: M:\DESIGN\2362-1567.00\2362-1567_G1.1 EXISTING CONDITIONS, EROSION CONTROL, REMOVALS.DWG



1 PLAN: SITE PLAN

0 20 40
SCALE IN FEET

N

PROJECT DATUM:

HORIZONTAL: -
VERTICAL: -

LEGEND:

EXISTING CONDITIONS LEGEND

- EXISTING STORMWATER UTILITY
- EXISTING UNDERGROUND ELECTRIC
- EXISTING GAS UTILITY
- EXISTING WATER LINE
- EXISTING CONCRETE
- EXISTING TREE TO PROTECT IN PLACE
- PARCEL BOUNDARY
- STORM MANHOLE
- SIGN
- WATER MANHOLE
- LIGHT POST
- GAS METER
- ELECTRICAL METER
- CATCH BASIN
- POWER POLE

PROPOSED CONDITIONS LEGEND

- CONSTRUCTION LIMITS
- ENCLOSURE FENCING
- CONCRETE SLAB
- HEATED CONCRETE
- HEATED PERMEABLE UNIT PAVER
- RETAINING WALL
- CURB

NOTES:

1. XXXX.
2. XXXX.
3.

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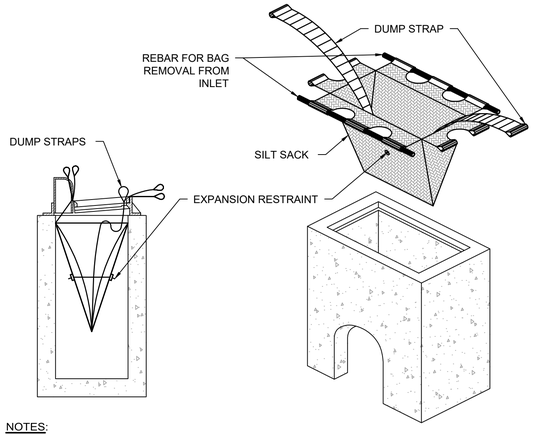
RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

RWMWD OFFICE PARKING LOT RETROFIT
LITTLE CANADA, MN

OVERALL SITE PLAN

BARR PROJECT # 23/62-1567.00
DWG # G1.2
REV # A

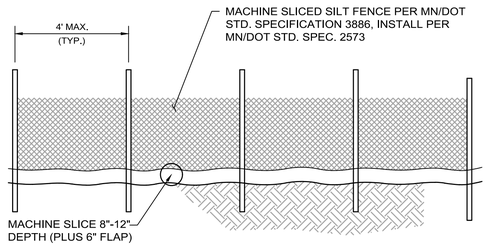
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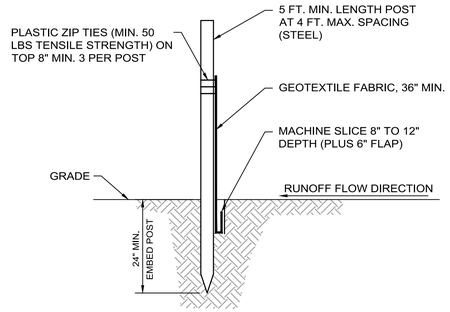
NOTES:

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.

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



DOWNSTREAM VIEW

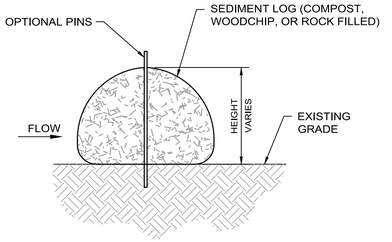


SECTION VIEW

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



NOTES:

1. STAKE FREE SEDIMENT LOG TO BE USED IN AREAS THAT ARE RELATIVELY FLAT AND SHOULD BE INSTALLED ALONG CONTOURS (CONSTANT ELEVATION).
2. NO GAPS SHALL BE PRESENT UNDER SEDIMENT LOG. PREPARE AREA AS NEEDED TO SMOOTH SURFACE OR REMOVE DEBRIS.
3. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN REACHING 1/2 OF LOG HEIGHT.
4. SEDIMENT LOG SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD AND REPAIRED OR REPLACED AS REQUIRED.

3 - DETAIL: SEDIMENT LOG - STAKE FREE
NOT TO SCALE

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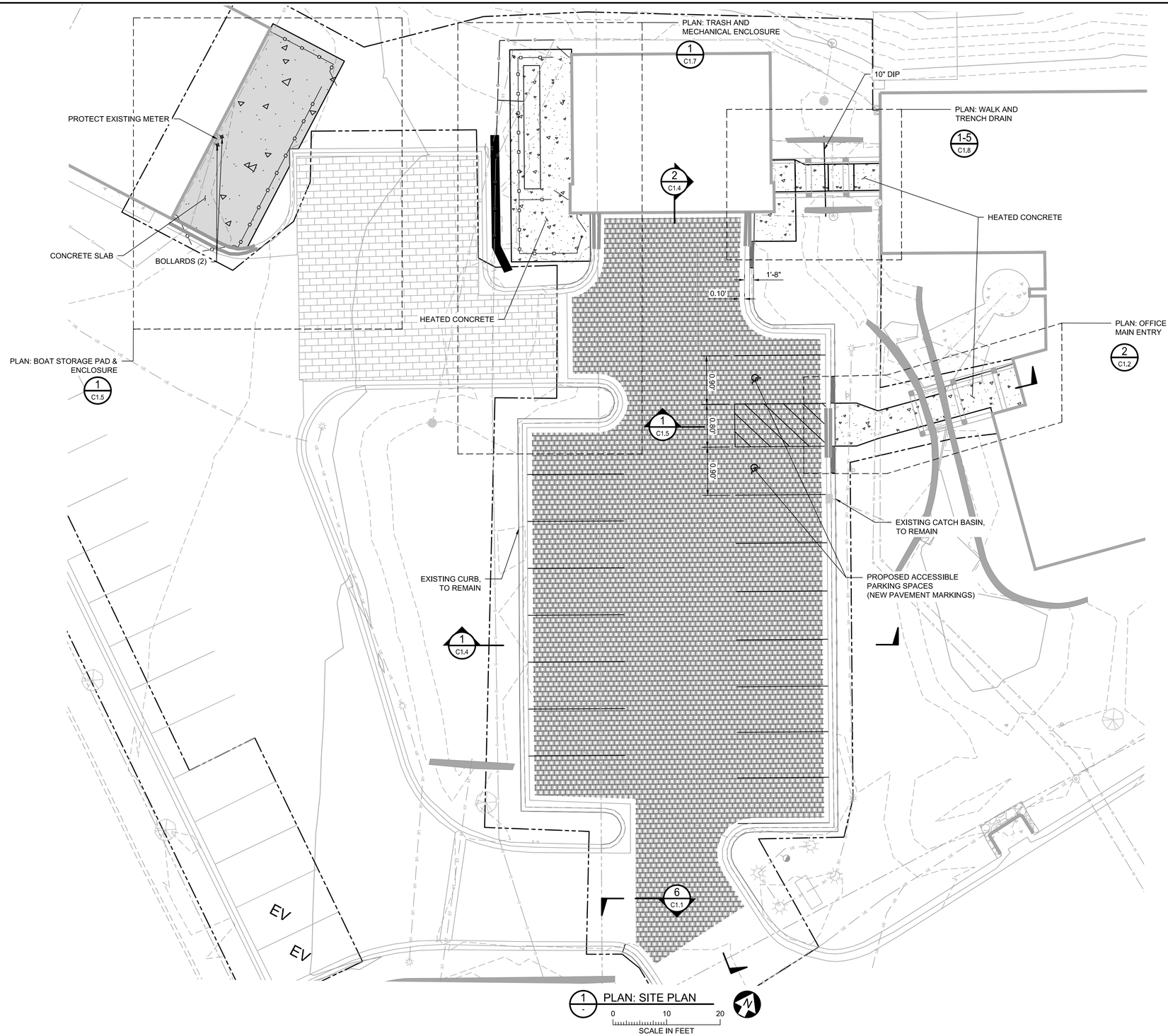
RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

RWMWD OFFICE PARKING LOT RETROFIT
LITTLE CANADA, MN

EROSION CONTROL DETAILS

BARR PROJECT # 23/62-1567.00
DWG # G1.3
REV # A

ORIGINAL DRAWING SIZE: ANSI FULL BLEED D (34.00 X 22.00 INCHES) PLOT SCALE: 1:1 PLOT DATE: 4/23/2026 2:50 PM
CADD USER: ELLERY M. OVERMYER FILE: M:\DESIGN\23621567.00\23621567_G1.3 EROSION CONTROL DETAILS.DWG



PROJECT DATUM:

HORIZONTAL: -
VERTICAL: -

LEGEND:

EXISTING CONDITIONS LEGEND

- ST — EXISTING STORMWATER UTILITY
- UE — EXISTING UNDERGROUND ELECTRIC
- GAS — EXISTING GAS UTILITY
- W — EXISTING WATER LINE
- EXISTING CONCRETE
- EXISTING TREE TO PROTECT IN PLACE
- PARCEL BOUNDARY
- ST — STORM MANHOLE
- SIGN
- W — WATER MANHOLE
- LIGHT POST
- GM — GAS METER
- EM — ELECTRICAL METER
- CATCH BASIN
- POWER POLE

PROPOSED CONDITIONS LEGEND

- CONSTRUCTION LIMITS
- ENCLOSURE FENCING
- CONCRETE SLAB
- HEATED CONCRETE
- HEATED PERMEABLE UNIT PAVER
- RETAINING WALL
- CURB

NOTES:

1. XXXX.
2. XXXX.
3.

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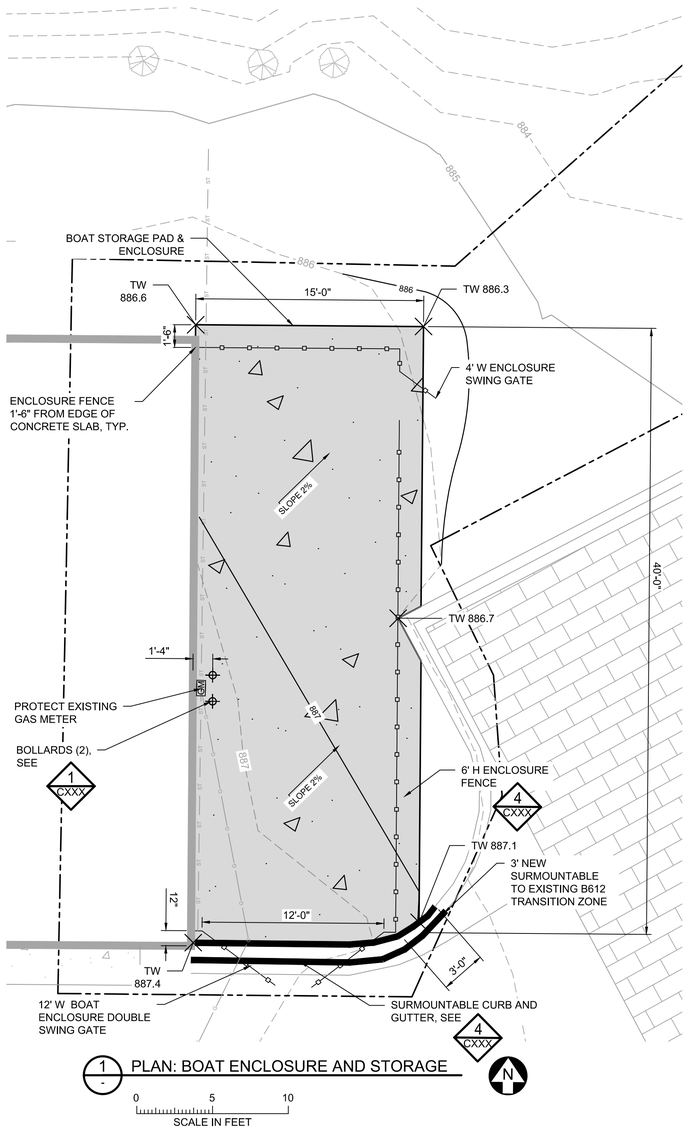
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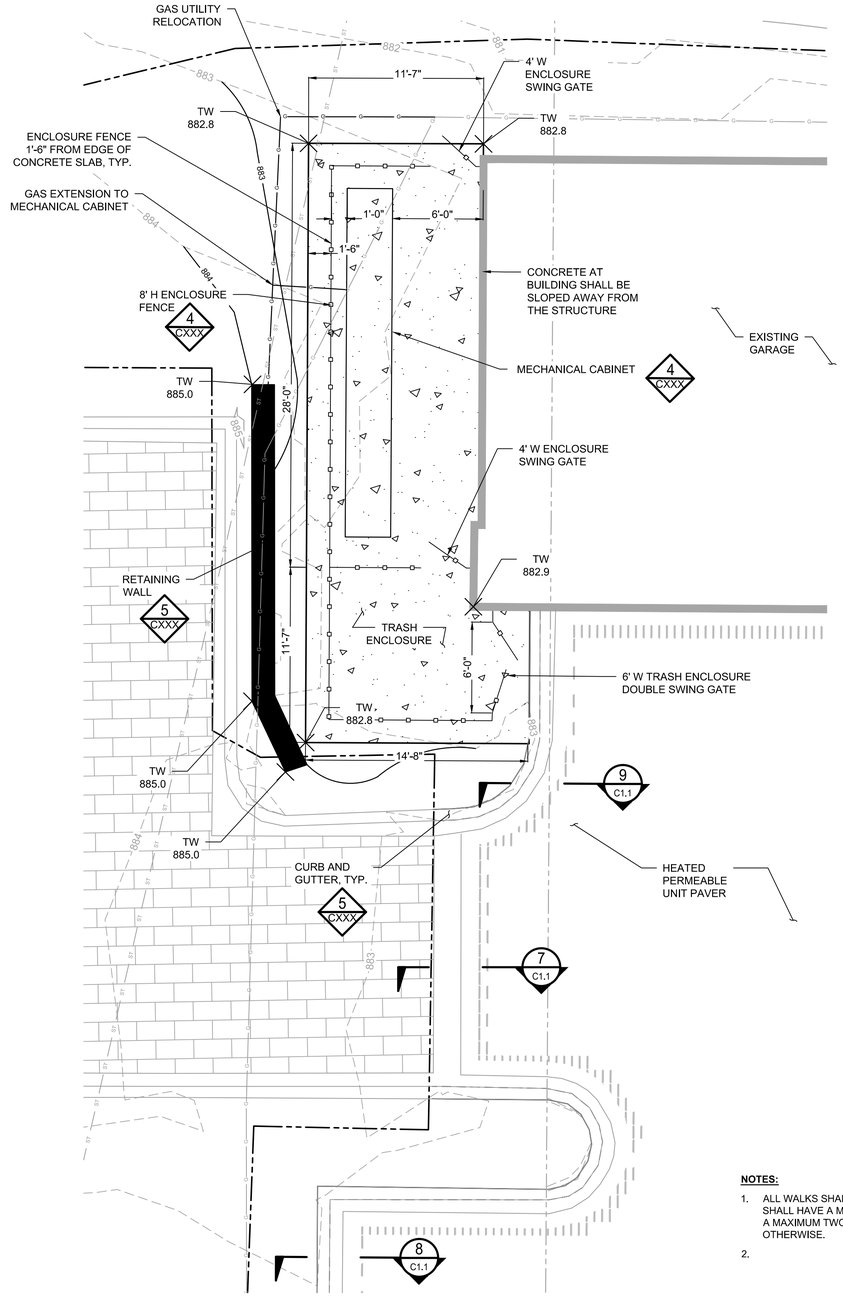
RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

RWMWD OFFICE PARKING LOT RETROFIT
LITTLE CANADA, MN

CIVIL SITE PLAN

BARR PROJECT # 23/62-1567.00
DWG # C1.0
REV # A





NOTES:

1. ALL WALKS SHALL COMPLY WITH ADA REQUIREMENTS AND SHALL HAVE A MAXIMUM FIVE PERCENT RUNNING SLOPE AND A MAXIMUM TWO PERCENT CROSS SLOPE UNLESS NOTED OTHERWISE.
2.

PROJECT DATUM:

HORIZONTAL: -
VERTICAL: -

LEGEND:

EXISTING CONDITIONS LEGEND

- ST — EXISTING STORMWATER UTILITY
- UE — EXISTING UNDERGROUND ELECTRIC
- GAS — EXISTING GAS UTILITY
- W — EXISTING WATER LINE
- EXISTING CONCRETE
- EXISTING TREE TO PROTECT IN PLACE
- PARCEL BOUNDARY
- GM — GAS METER

PROPOSED CONDITIONS LEGEND

- CONSTRUCTION LIMITS
- ENCLOSURE FENCING
- CONCRETE SLAB
- HEATED CONCRETE
- RETAINING WALL
- CURB AND GUTTER
- BOLLARD
- FFE — FINISHED FLOOR ELEVATION
- TW — TOP OF WALK
- FG — FINISHED GRADE
- 880 — EXISTING GRADE

NOTES:

1. XXXX.
2. XXXX.
3.

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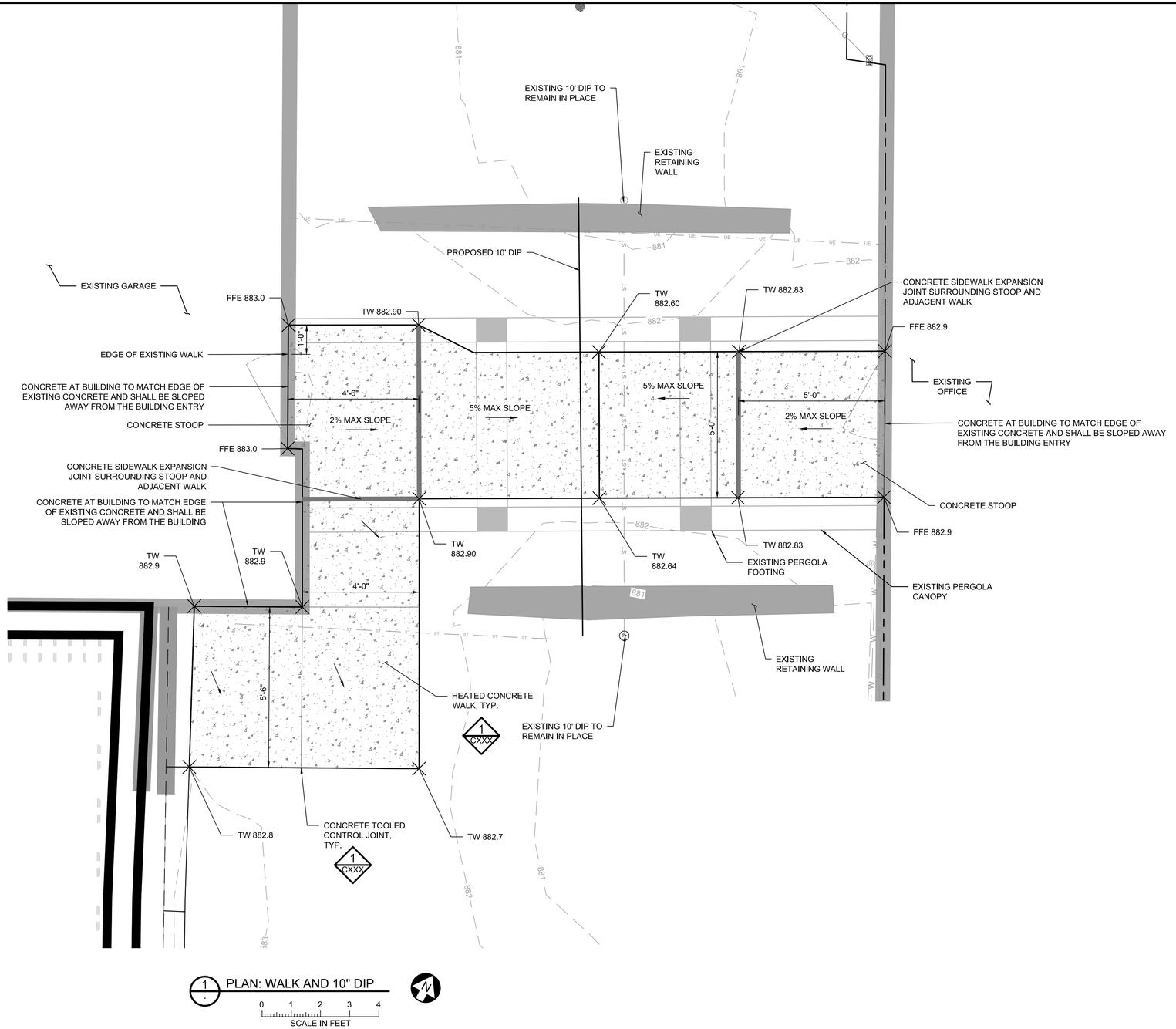
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NUMBER 10104111545

RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

RWMWD OFFICE PARKING LOT RETROFIT
LITTLE CANADA, MN
MECHANICAL CABINET AND BOAT ENCLOSURE ENLARGEMENT PLAN

BARR PROJECT # 23/62-1567.00
DWG # C1.1
REV # A

ORIGINAL DRAWING SIZE: ANSI FULL BLEED D (34.00" X 22.00 INCHES) PLOT SCALE: 1:1 PLOT DATE: 4/22/2026 3:26 PM
CADD USER: ELLERY M. OVERMYER FILE M:\DESIGN\2362\1567.00\23621567_C1.1 BOAT ENCLOSURE AND MECHANICAL CABINET ENLARGEMENT.DWG



1 - PLAN: WALK AND 10" DIP

0 1 2 3 4
SCALE IN FEET

PROJECT DATUM:

HORIZONTAL: -
VERTICAL: -

LEGEND:

- EXISTING STORMWATER UTILITY
- EXISTING UNDERGROUND ELECTRIC
- EXISTING GAS UTILITY
- W — EXISTING WATER LINE
- EXISTING CONCRETE
- EXISTING TREE TO PROTECT IN PLACE
- PARCEL BOUNDARY
- GM — GAS METER

PROPOSED CONDITIONS LEGEND

- CONSTRUCTION LIMITS
- ENCLOSURE FENCING
- HEATED CONCRETE
- CURB AND GUTTER
- FFE — FINISHED FLOOR ELEVATION
- TW — TOP OF WALK
- FG — FINISHED GRADE
- 880 — EXISTING GRADE

NOTES:

1. ALL WALKS SHALL COMPLY WITH ADA REQUIREMENTS AND SHALL HAVE A MAXIMUM FIVE PERCENT RUNNING SLOPE AND A MAXIMUM TWO PERCENT CROSS SLOPE UNLESS NOTED OTHERWISE.
2. ALL DOOR ENTRY LANDINGS AND REQUIRED DOOR MANEUVERING CLEARANCES SHALL HAVE A MAXIMUM TWO PERCENT SLOPE IN ALL DIRECTIONS.
3. ALL ENTRY ELEVATIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO CONFIRM FINAL ELEVATIONS AND GRADES TO ENSURE ADA COMPLIANCE.

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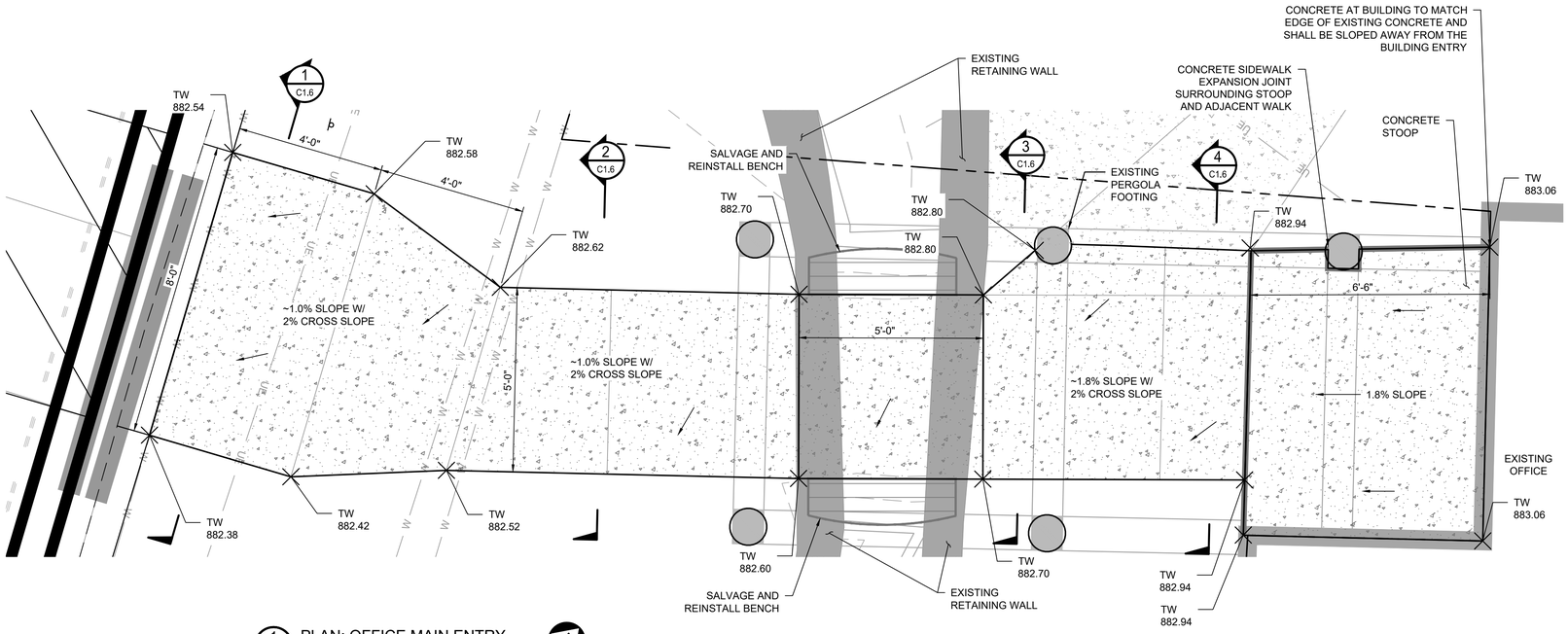
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RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

RWMWD OFFICE PARKING LOT RETROFIT
LITTLE CANADA, MN
WALK AND 10" DIP
ENLARGEMENT PLAN

BARR PROJECT # 23/62-1567.00
DWG # C1.2
REV # A

ORIGINAL DRAWING SIZE: ANSI FULL BLEED D (34.00 X 22.00 INCHES) PLOT SCALE: 1:1 PLOT DATE: 4/20/2026 3:06 PM
CADD USER: ELLERY MLO:\PERM\YER FILE: M:\DES\GIN\23621567.00\23621567_C1-2 WALK AND 10 INCH DIP ENLARGEMENT.DWG



1 PLAN: OFFICE MAIN ENTRY

0 1 2 3 4

SCALE IN FEET

PROJECT DATUM:

HORIZONTAL: -
VERTICAL: -

LEGEND:

- EXISTING STORMWATER UTILITY
- EXISTING UNDERGROUND ELECTRIC
- EXISTING GAS UTILITY
- W — EXISTING WATER LINE
- EXISTING CONCRETE
- EXISTING TREE TO PROTECT IN PLACE
- PARCEL BOUNDARY
- GM — GAS METER

PROPOSED CONDITIONS LEGEND

- CONSTRUCTION LIMITS
- ENCLOSURE FENCING
- HEATED CONCRETE
- CURB AND GUTTER
- FFE — FINISHED FLOOR ELEVATION
- TW — TOP OF WALK
- FG — FINISHED GRADE
- 880 — EXISTING GRADE

NOTES:

1. ALL WALKS SHALL COMPLY WITH ADA REQUIREMENTS AND SHALL HAVE A MAXIMUM FIVE PERCENT RUNNING SLOPE AND A MAXIMUM TWO PERCENT CROSS SLOPE UNLESS NOTED OTHERWISE.
2. ALL DOOR ENTRY LANDINGS AND REQUIRED DOOR MANEUVERING CLEARANCES SHALL HAVE A MAXIMUM TWO PERCENT SLOPE IN ALL DIRECTIONS.
3. ALL ENTRY ELEVATIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO CONFIRM FINAL ELEVATIONS AND GRADES TO ENSURE ADA COMPLIANCE.

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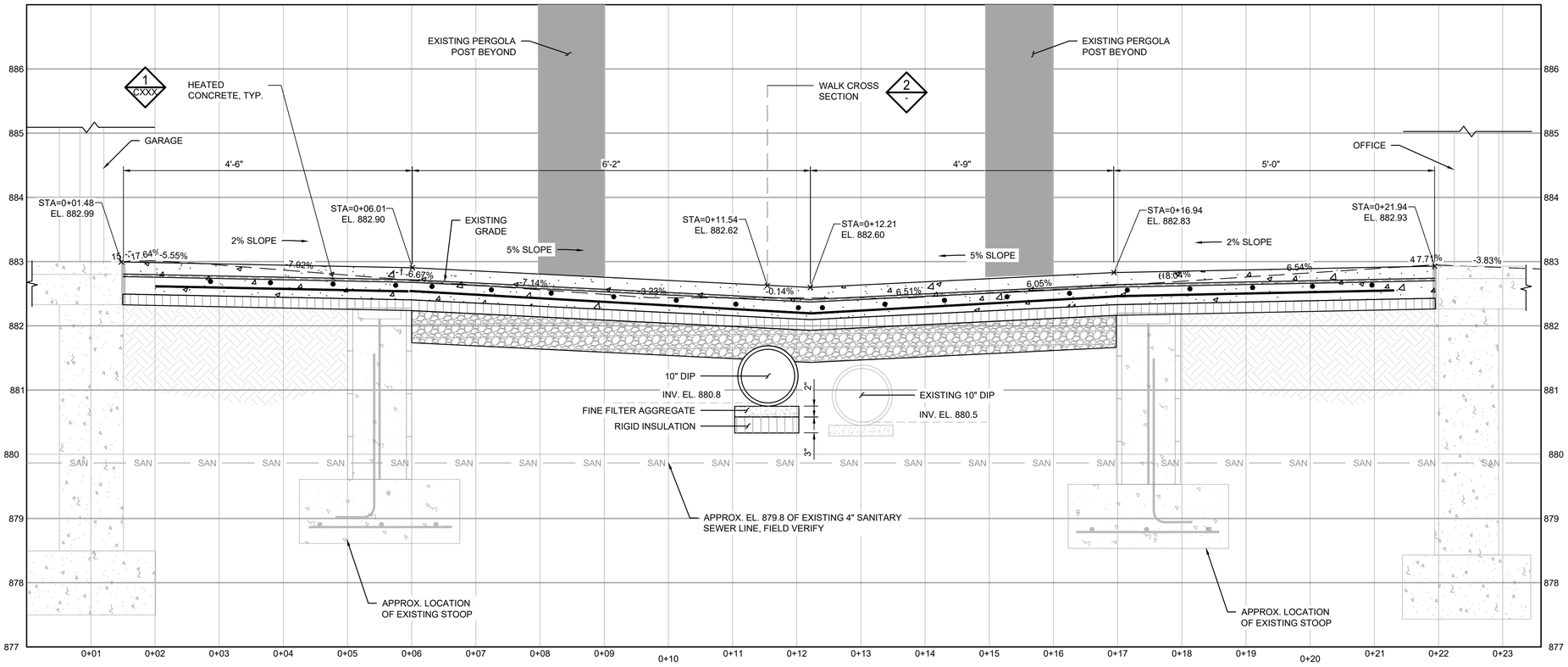
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RWMWD OFFICE PARKING LOT RETROFIT
LITTLE CANADA, MN

OFFICE MAIN ENTRY
ENLARGEMENT PLAN

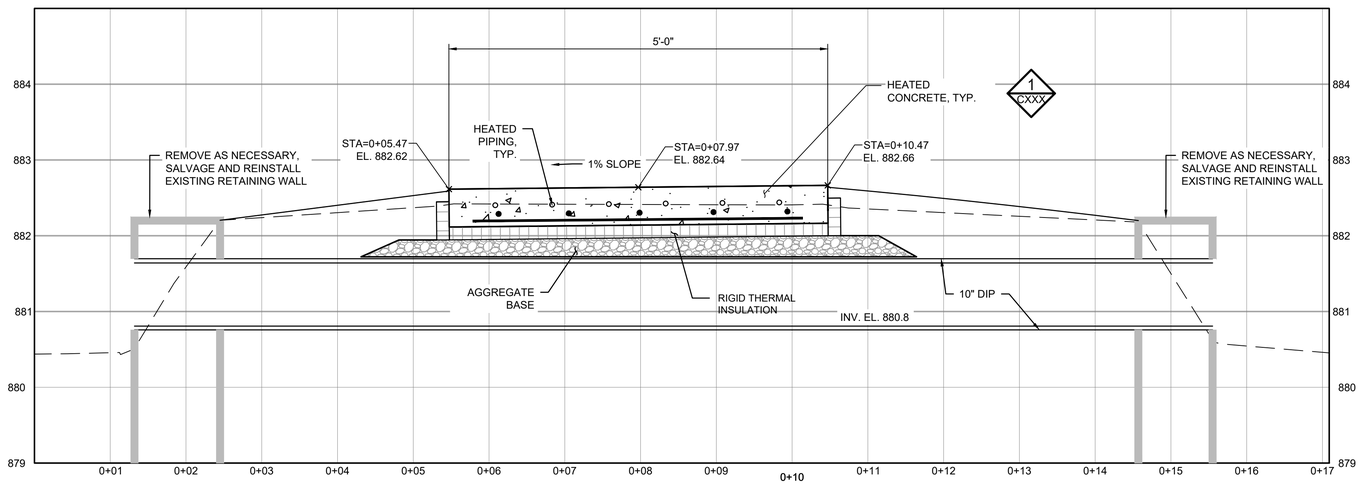
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DWG # C1.3
REV # A

ORIGINAL DRAWING SIZE: ANSI FULL BLEED D (34.00 X 22.00 INCHES) PLOT SCALE: 1:1 PLOT DATE: 4/23/2026 2:45 PM
CADD USER: ELLERY M. OVERMYER FILE: M:\DESIGN\23621567.00\23621567_C1.3 GARAGE-BUILDING ENLARGEMENT.DWG



4 - DETAIL: WALK - GARAGE TO OFFICE

0 1 2
SCALE IN FEET



4 - DETAIL: WALK CROSS SECTION

0 1 2
SCALE IN FEET

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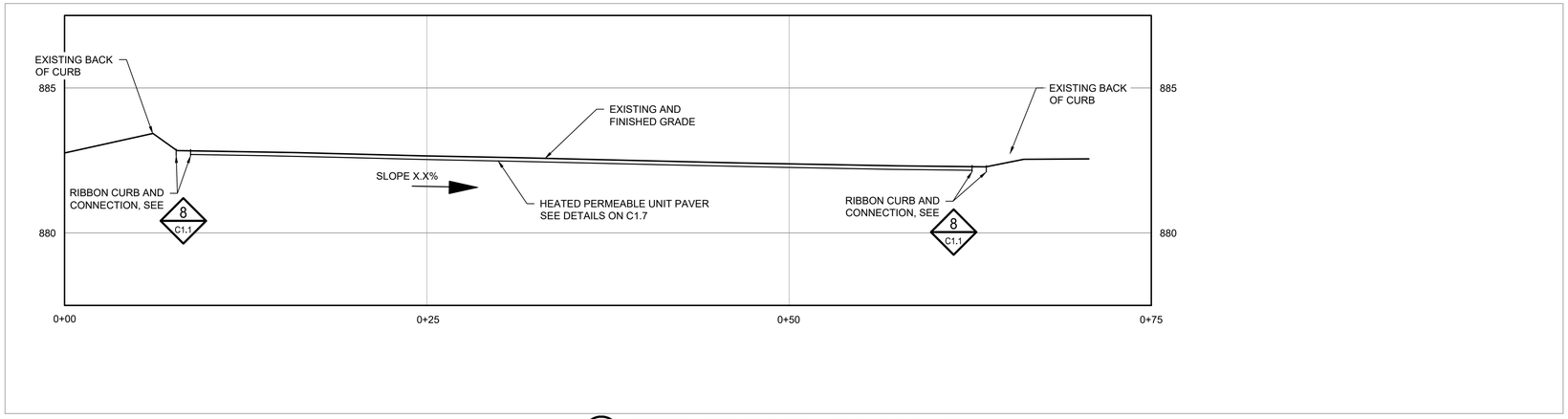
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RWMWD OFFICE PARKING LOT RETROFIT
LITTLE CANADA, MN
CIVIL DETAILS
AND SECTIONS

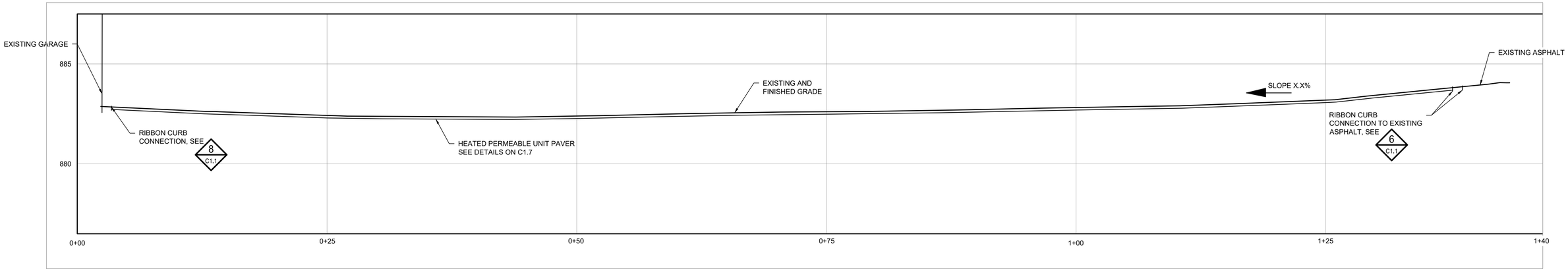
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DWG # C1.4
REV # A



1 - SECTION: PERMEABLE PAVER PARKING LOT

0 5 10 HORIZONTAL SCALE IN FEET

0 2 4 VERTICAL SCALE IN FEET



2 - SECTION: PERMEABLE PAVER PARKING LOT

0 5 10 HORIZONTAL SCALE IN FEET

0 2 4 VERTICAL SCALE IN FEET

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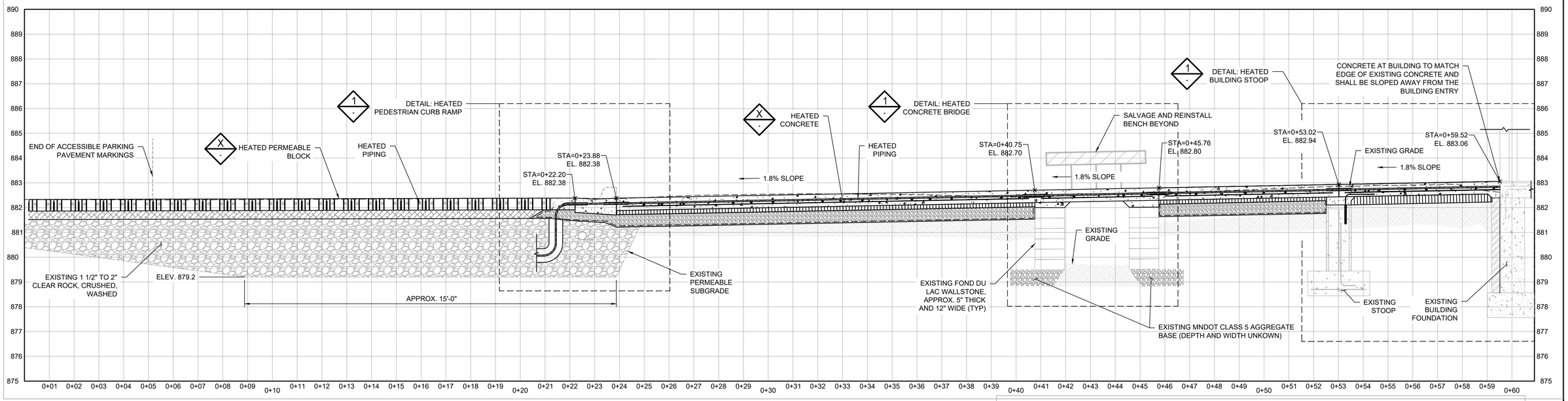
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LITTLE CANADA, MN
CIVIL DETAILS
AND SECTIONS

BARR PROJECT # 23/62-1567.00
DWG # C1.5
REV # A

ORIGINAL DRAWING SIZE: ANSI FULL BLEED D (34.00 X 22.00 INCHES) PLOT SCALE: 1:1 PLOT DATE: 4/20/2026 2:46 PM
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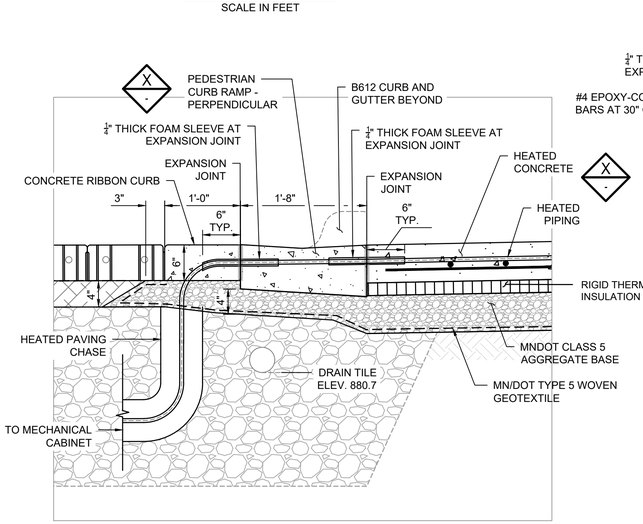


1 DETAIL: PERMEABLE PAVER PARKING LOT TO ENTRY DOOR

1"=2'-0"

0 1 2 3 4

SCALE IN FEET

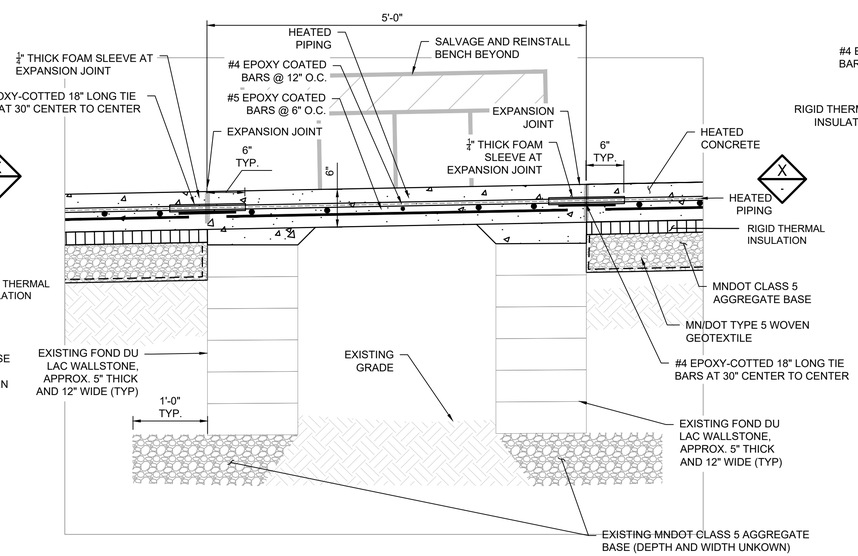


2 DETAIL: HEATED PEDESTRIAN CURB RAMP

1"=2'-0"

0 1 2 3 4

SCALE IN FEET

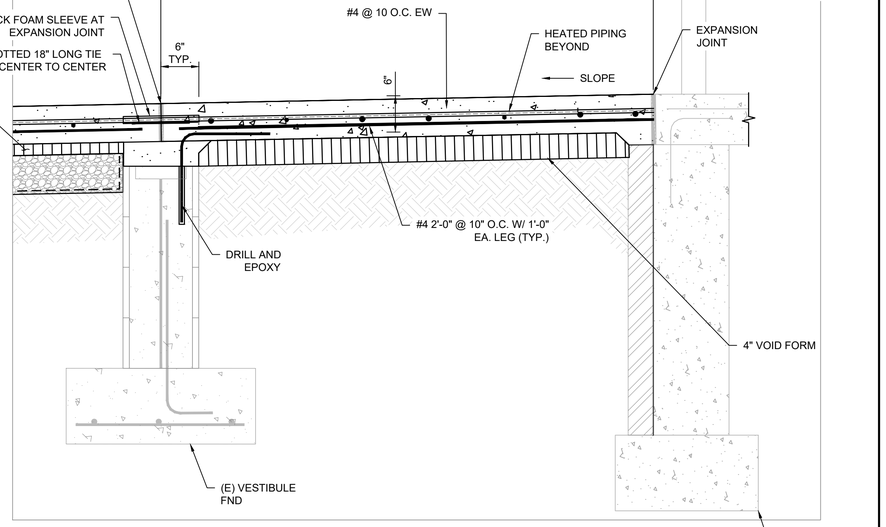


3 DETAIL: HEATED PEDESTRIAN BRIDGE

1"=2'-0"

0 1 2 3 4

SCALE IN FEET



4 DETAIL: HEATED PEDESTRIAN STOOP

1"=2'-0"

0 1 2 3 4

SCALE IN FEET

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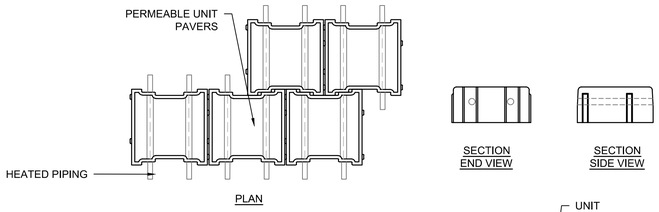
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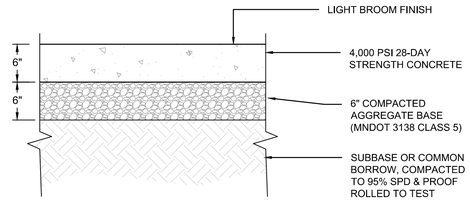
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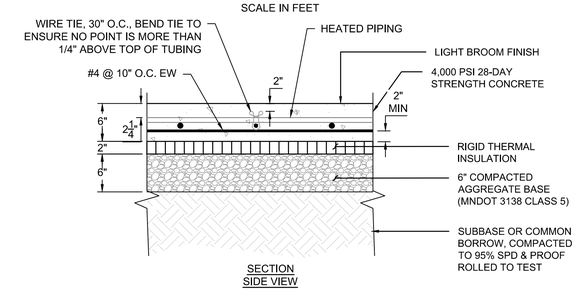


NOTES:
1. COMPLY WITH ALL MnDOT STANDARDS IN INSTALLATION.
2. ENSURE BASE IS PROPERLY COMPACTED AND TO CORRECT MOISTURE CONTENT PER PROJECT STANDARDS BEFORE INSTALLING CONCRETE.
3. INSTALL EXPANSION JOINTS EVERY 6 FT ALONG ALL SIDEWALKS UNLESS NOTED ON PLAN.
4. INSTALL EXPANSION AND CONTROL JOINTS PER PROJECT DETAILS, TYP.
5. SHALL BE IN ACCORDANCE WITH CITY OF SAINT PAUL STANDARD PLATE 1300D.

1 - DETAIL: HEATED PERMEABLE UNIT PAVER

1"=1'-0"

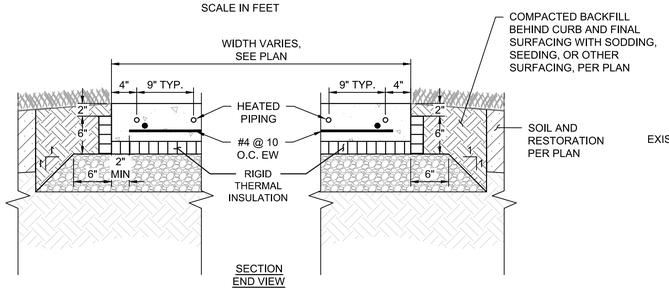
SCALE IN FEET: 0 1 2



3 - DETAIL: CONCRETE SLAB

1"=1'-0"

SCALE IN FEET: 0 1 2

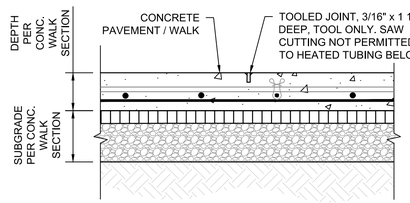


NOTES:
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2. ENSURE BASE IS PROPERLY COMPACTED AND TO CORRECT MOISTURE CONTENT PER PROJECT STANDARDS BEFORE INSTALLING CONCRETE.
3. INSTALL EXPANSION JOINTS EVERY 6 FT ALONG ALL SIDEWALKS UNLESS NOTED ON PLAN.
4. INSTALL EXPANSION AND CONTROL JOINTS PER PROJECT DETAILS, TYP.
5. INSTALL HEATED TUBING SUPPORTED ON REINFORCING STEEL.
6. TYPICAL TUBING PLACEMENT APPROXIMATELY THREE INCHES BELOW FINISHED CONCRETE SURFACE.
7. TUBING SPACING NINE INCHES ON CENTER TYPICAL UNLESS NOTED OTHERWISE. REDUCE SPACING TO SIX INCHES ON CENTER AT ENTRIES, RAMPS, AND OTHER CRITICAL LOCATIONS.
8. LOCATE FIRST TUBING LOOP THREE TO SIX INCHES FROM FINISHED EDGE OF CONCRETE WALK. DO NOT EXCEED SIX INCHES FROM EDGE.
9. SECURE TUBING TO REINFORCING STEEL AT DISTANCE NOTED IN DETAILS ALONG STRAIGHT RUNS. PROVIDE ADDITIONAL TIES AT BENDS AND NEAR JOINTS TO PREVENT FLOTATION DURING CONCRETE PLACEMENT.

2 - DETAIL: HEATED CONCRETE

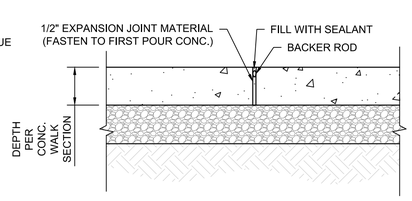
1"=1'-0"

SCALE IN FEET: 0 1 2



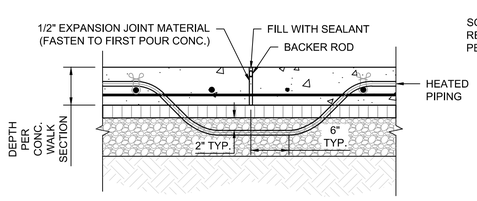
4 - DETAIL: TOOLED CONTROL JOINT

NOT TO SCALE



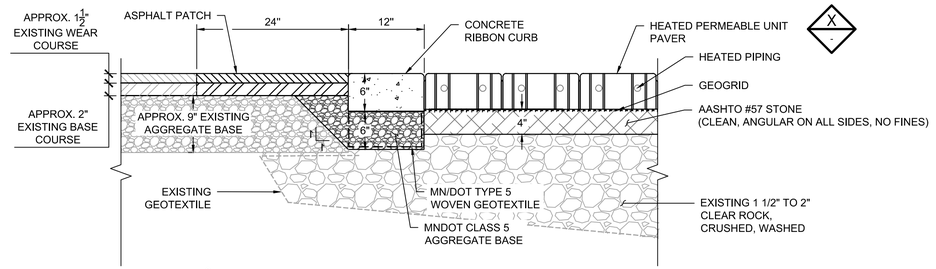
5 - DETAIL: EXPANSION JOINT

NOT TO SCALE



10 - DETAIL: HEATED EXPANSION JOINT

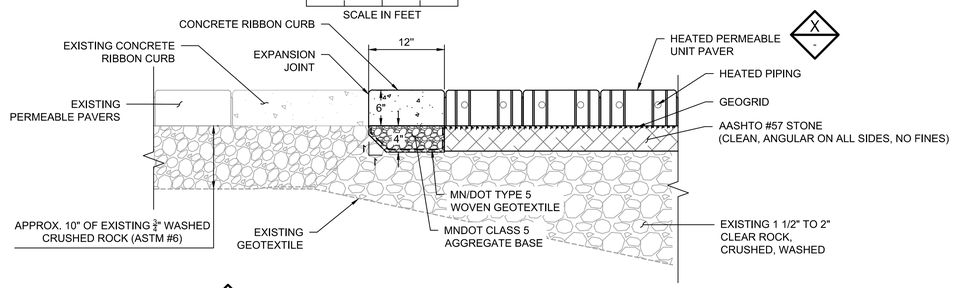
NOT TO SCALE



6 - DETAIL: HEATED PERMEABLE UNIT PAVER AND EXISTING ASPHALT PAVING

1"=1'-0"

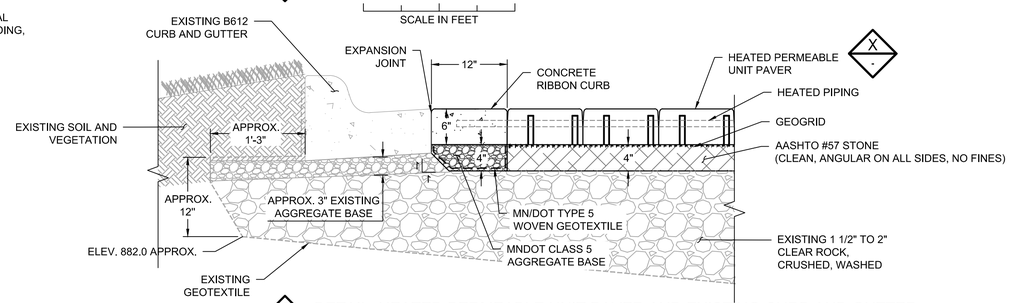
SCALE IN FEET: 0 1 2



7 - DETAIL: HEATED PERMEABLE UNIT PAVER AND EXISTING RIBBON CURB

1"=1'-0"

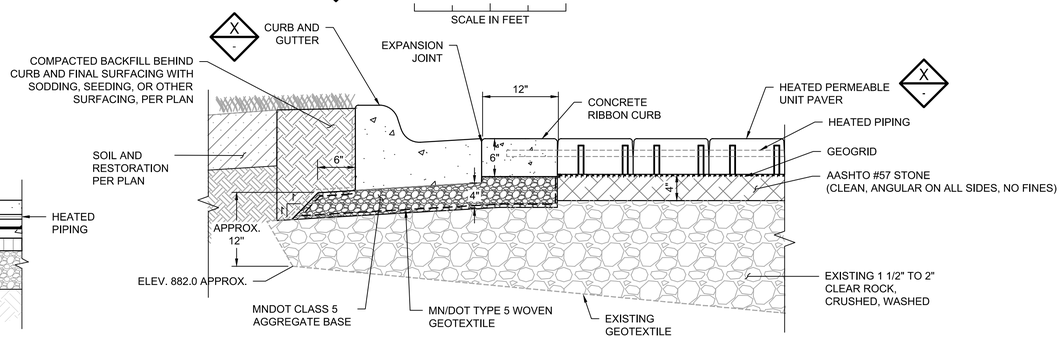
SCALE IN FEET: 0 1 2



8 - DETAIL: HEATED PERMEABLE UNIT PAVER AND EXISTING CURB AND GUTTER

1"=1'-0"

SCALE IN FEET: 0 1 2



9 - DETAIL: HEATED PERMEABLE UNIT PAVER WITH CURB AND GUTTER

1"=1'-0"

SCALE IN FEET: 0 1 2

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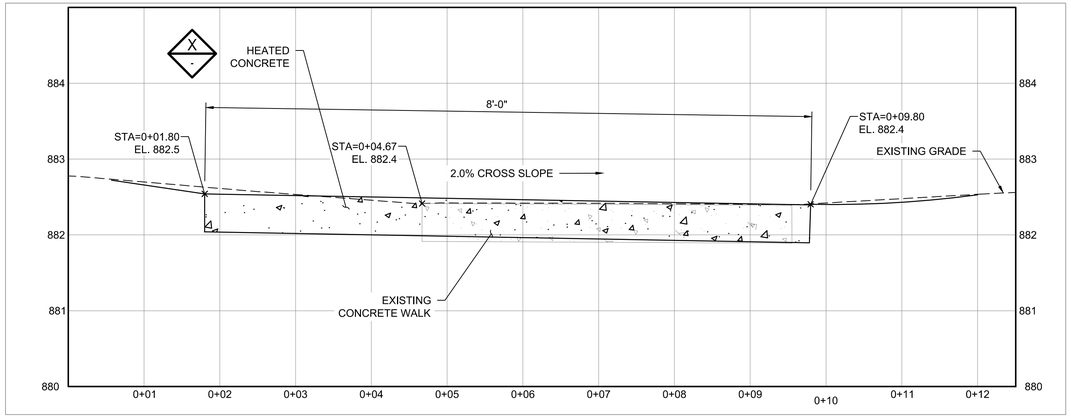
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LITTLE CANADA, MN
CIVIL DETAILS
AND SECTIONS

BARR PROJECT # 23/62-1567.00
DWG # C1.7
REV # A

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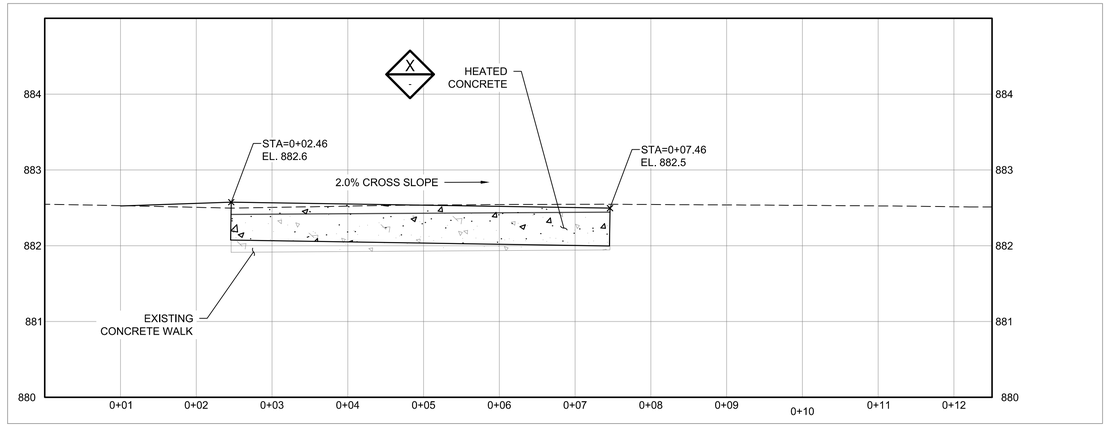


1 - DETAIL: ENTRY WALK CROSS SECTION 1

1"=1'-0"

0 1 2

SCALE IN FEET

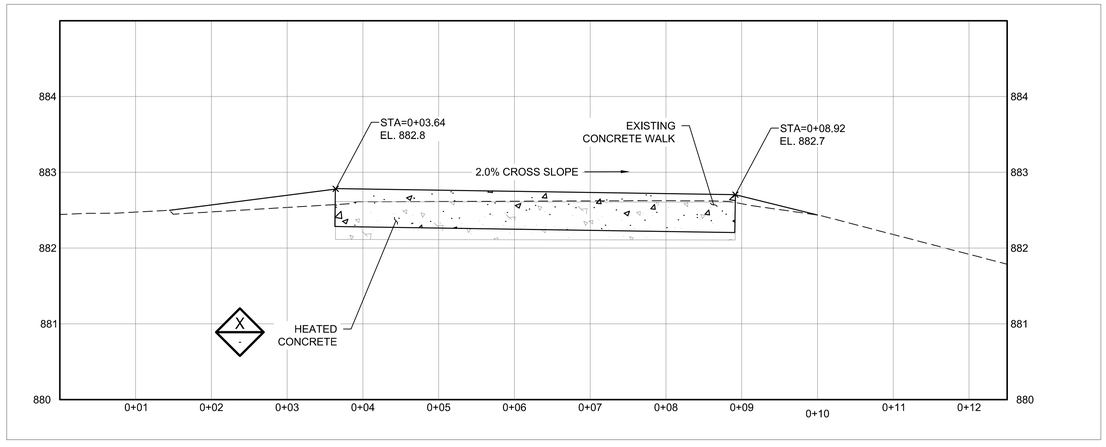


2 - DETAIL: ENTRY WALK CROSS SECTION 2

1"=1'-0"

0 1 2

SCALE IN FEET

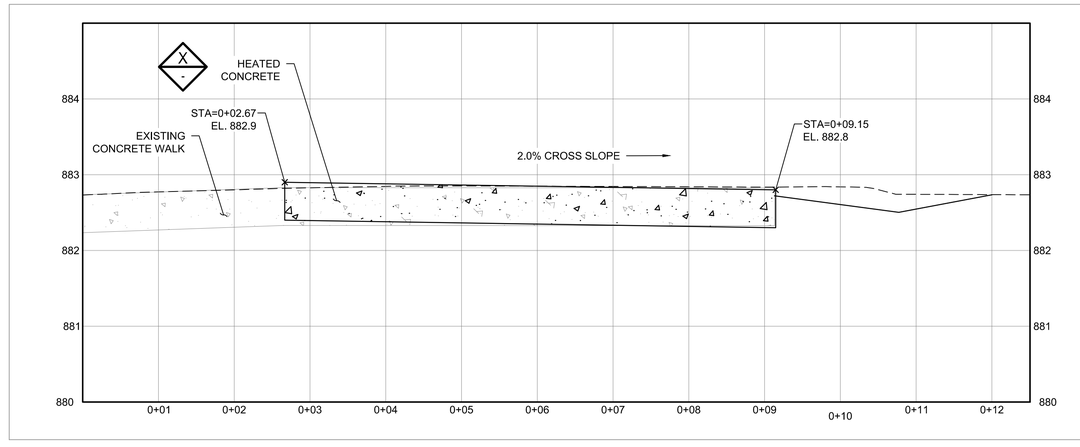


3 - DETAIL: ENTRY WALK CROSS SECTION 3

1"=1'-0"

0 1 2

SCALE IN FEET



3 - DETAIL: ENTRY WALK CROSS SECTION 3

1"=1'-0"

0 1 2

SCALE IN FEET

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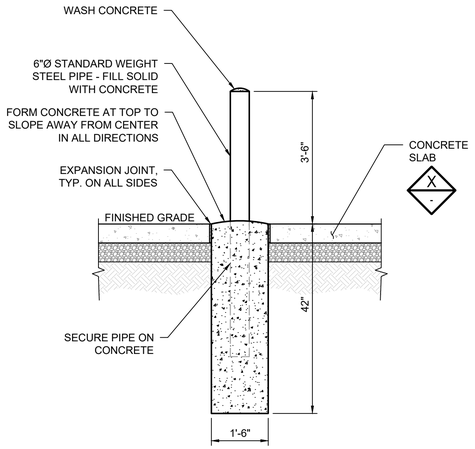
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WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 10104111545

RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

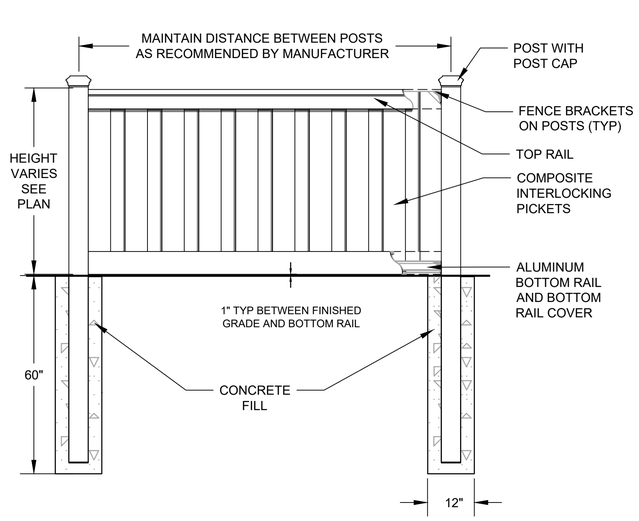
RWMWD OFFICE PARKING LOT RETROFIT
LITTLE CANADA, MN
CIVIL DETAILS
AND SECTIONS

BARR PROJECT # 23/62-1567.00
DWG # C1.8
REV # A

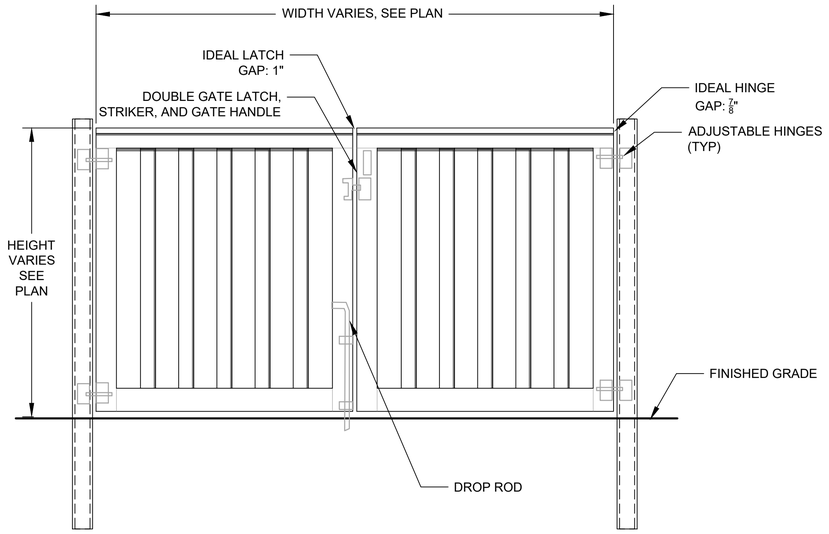
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CADD USER: ANDREW M. PAPPEL-LARSON FILE: M:\DESIGN\23621567.000\23621567_C1.8 CIVIL DETAILS AND SECTIONS.DWG



1 - DETAIL: BOLLARD
NOT TO SCALE



2 - DETAIL: ENCLOSURE FENCE
NOT TO SCALE



3 - DETAIL: DOUBLE HINGED SWING GATE
NOT TO SCALE

FENCE NOTES:
1. FENCE , POST, AND GATE SYSTEM SHALL BE A VERTICAL COMPOSITE PRIVACY FENCE SYSTEM, BROWN IN COLOR, COMPARABLE TO TREX SECLUSIONS OR APPROVED EQUAL, MEETING THE PERFORMANCE AND DIMENSIONAL REQUIREMENTS SHOWN ON THE PLANS.
2. REFER TO MANUFACTURE'S SPECIFICATIONS FOR INSTALLATION AND PRODUCT INFORMATION
3. PROVIDE COMPOSITE FENCE POSTS FOR 6 FOOT HIGH FENCE SECTIONS AND STEEL FENCE POSTS FOR 8 FOOT HIGH FENCE SECTIONS. INSTALL POSTS IN ACCORDANCE WITH MANUFACTURER REQUIREMENTS.
4. GATES SHALL BE PROVIDED WITH A LATCH MECHANISM CAPABLE OF ACCEPTING A PADLOCK. LOCKING DEVICE TO BE PROVIDED BY OWNER UNLESS NOTED OTHERWISE.

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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINTED NAME -

SIGNATURE

DATE - LICENSE # -

#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	XXX	XXX	XXX	XX/XX/20XX	ISSUED FOR XXXX

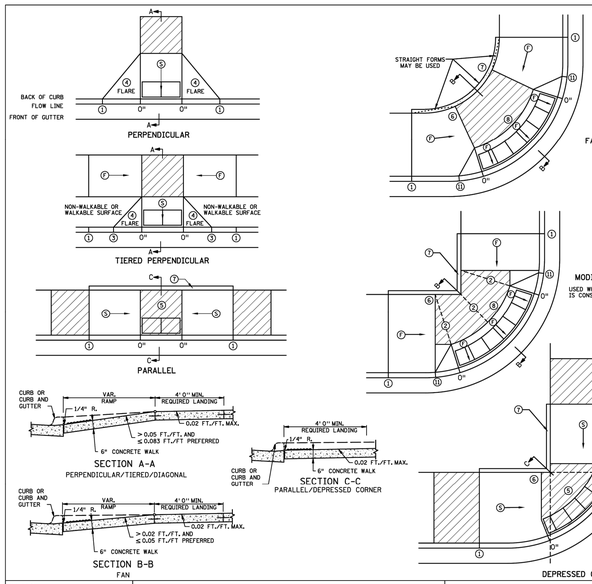
BARR®
4300 MARKETPOINTE DRIVE
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MINNESOTA ENGINEERING FIRM
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RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

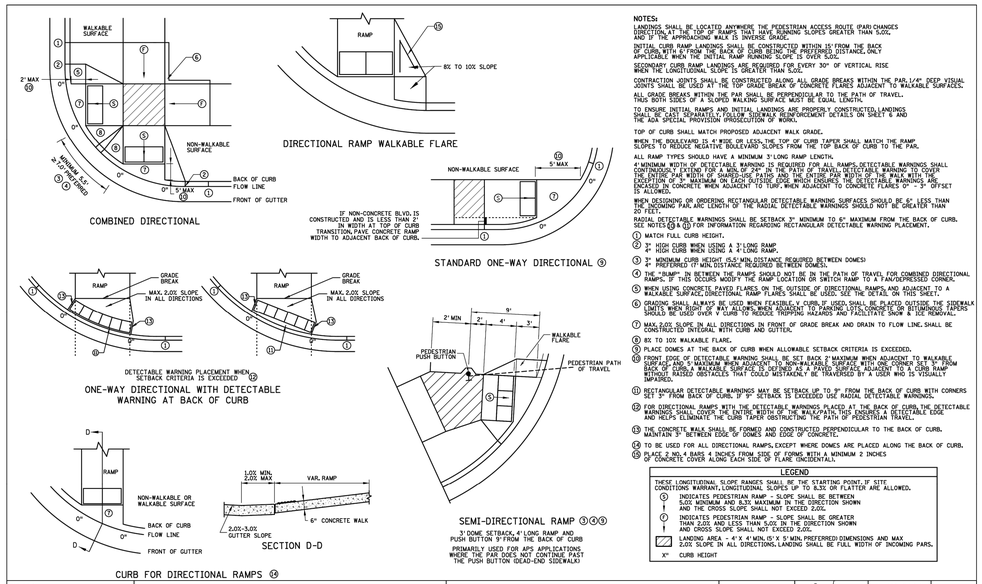
RWMWD OFFICE PARKING LOT RETROFIT
LITTLE CANADA, MN
CIVIL DETAILS
AND SECTIONS

BARR PROJECT # 23/62-1567.00
DWG # C1.9
REV # A

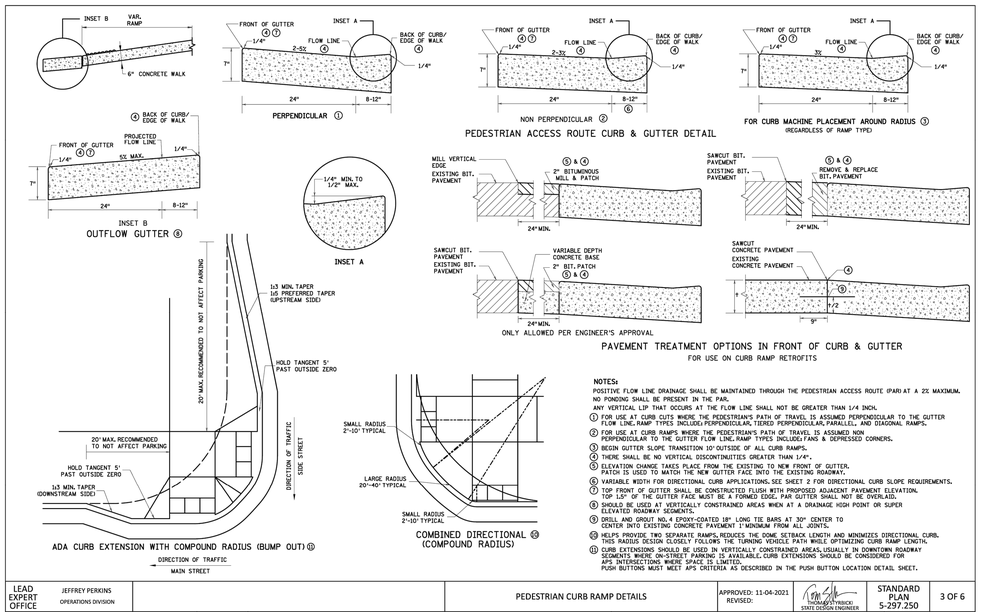
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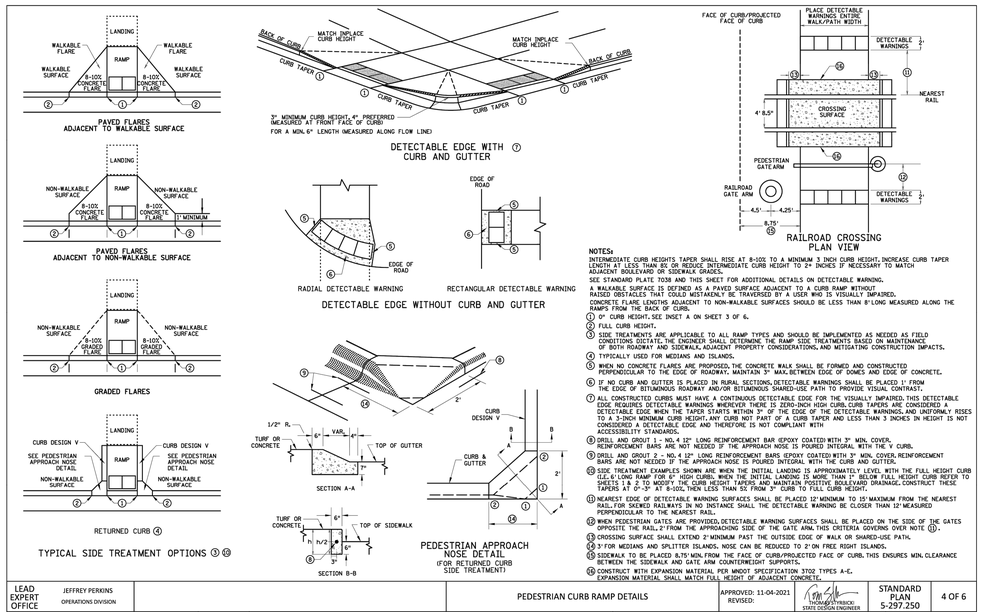
LEAD EXPERT OFFICE	JEFFREY PERKINS, OPERATIONS DIVISION	PEDESTRIAN CURB RAMP DETAILS	APPROVED: 11-04-2021 REVISED:	STANDARD PLAN 5-297.250	1 OF 6
DEPARTMENT OF TRANSPORTATION	STANDARD PLAN		STATE PROJ. NO.	SHEET NO.	
			TRUNK HWY.	TOTAL SHEETS	



LEAD EXPERT OFFICE	JEFFREY PERKINS, OPERATIONS DIVISION	PEDESTRIAN CURB RAMP DETAILS	APPROVED: 11-04-2021 REVISED:	STANDARD PLAN 5-297.250	2 OF 6
DEPARTMENT OF TRANSPORTATION	STANDARD PLAN		STATE PROJ. NO.	SHEET NO.	
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LEAD EXPERT OFFICE	JEFFREY PERKINS, OPERATIONS DIVISION	PEDESTRIAN CURB RAMP DETAILS	APPROVED: 11-04-2021 REVISED:	STANDARD PLAN 5-297.250	3 OF 6
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DEPARTMENT OF TRANSPORTATION	STANDARD PLAN		STATE PROJ. NO.	SHEET NO.	
			TRUNK HWY.	TOTAL SHEETS	

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CAD USER: ELLERY M. OVERMYER FILE: M:\DESIGN\23621567_00\23621567_C1 10 CIVIL DETAILS AND SECTIONS.DWG

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PRINTED NAME _____

SIGNATURE _____

DATE ___-___-_____ LICENSE # _____-_____

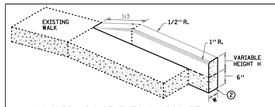
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-	-	-	-	-	-
A	XXX	XXX	XXX	XX/XX/20XX	ISSUED FOR XXXX

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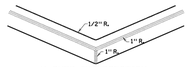
RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

RWMWD OFFICE PARKING LOT RETROFIT
LITTLE CANADA, MN
CIVIL DETAILS
AND SECTIONS

BARR PROJECT # 23/62-1567.00
DWG # C1.10
REV # A

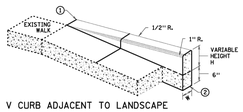


V CURB ADJACENT TO LANDSCAPE
CURB WITHIN SIDEWALK LIMITS

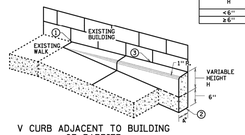


V CURB INTERSECTION

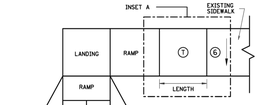
CONCRETE CURB DESIGN V	
CURB HEIGHT H	CURB WIDTH W
<6"	4"
≥6"	6"

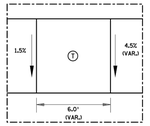


V CURB ADJACENT TO LANDSCAPE
CURB OUTSIDE SIDEWALK LIMITS



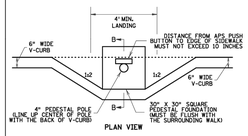
V CURB ADJACENT TO BUILDING OR BARRIER



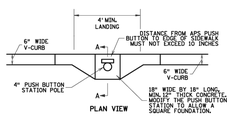


TRANSITION PANEL 4 5

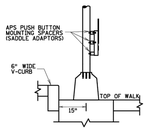
INSET A



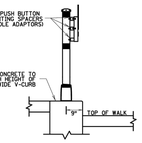
PLAN VIEW



PLAN VIEW



SECTION B-B
SIGNAL PEDESTAL & PUSH BUTTON (V-CURB)



SECTION A-A
PUSH BUTTON STATION (V-CURB)

NOTES:

A WALKABLE FLARE IS AN 8-10% CONCRETE FLARE THAT IS REQUIRED WHEN THE FLARE IS ADJACENT TO A WALKABLE SURFACE, OR WHEN THE PEDESTRIAN PATH OF TRAVEL OF A PUSH BUTTON TRAVERSES THE FLARE.

ALL V CURB CONTRACTION JOINTS SHALL MATCH CONCRETE WALK JOINTS.

WHERE RIGHT-OF-WAY ALLOWS, USE OF V CURB SHOULD BE MINIMIZED. GRADING ADJACENT TURF OR SLOPING ADJACENT PAVEMENT IS PREFERRED.

V CURB SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS.

V CURB NEXT TO BUILDING SHALL BE A 4" WIDTH AND SHALL MATCH PREVIOUS TOP OF SIDEWALK ELEVATIONS.

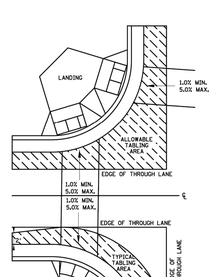
1. END TAPERS AT TRANSITION SECTION SHALL MATCH INPLACE SIDEWALK GRADES.
2. ALL V CURB SHALL MATCH BOTTOM OF ADJACENT WALK.
3. CONSTRUCT USING APPROVED EXPANSION MATERIAL PER MNDOT TYPE A-E EXPANSION. LEAVE MINIMUM 1/2" TOP CAP AND SEAL WITH MNDOT APPROVED SILICONE PER MNDOT SPEC 3722.
4. THE MAX. RATE OF CROSS SLOPE TRANSITIONING IS 1' LINEAR FOOT OF SIDEWALK PER HALF PERCENT CROSS SLOPE. WHEN PAR WIDTH IS GREATER THAN 6' OR THE RUNNING SLOPE IS GREATER THAN 5%, DOUBLE THE CALCULATED TRANSITION LENGTH.
5. TRANSITION PANELS ARE TO ONLY BE USED AFTER THE RAMP, OR IF NEEDED, LANDING ARE AT THE FULL CURB HEIGHT (TYPICAL SECTION).
6. EXISTING CROSS SLOPE GREATER THAN 2.0%.

LEGEND

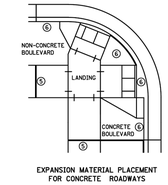
THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

- (S) INDICATES PEDESTRIAN RAMP – SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.
- LANDING AREA – 4' X 4' MIN. OR 5' X 5' MIN. PREFERRED DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.
- (T) TRANSITION PANELS – TO BE USED FOR TRANSITIONING THE CROSS-SLOPE OF A RAMP TO THE EXISTING WALK CROSS-SLOPE. RATE OF TRANSITION SHOULD BE 0.5% PER 1 LINEAR FOOT OF WALK. SEE THIS SHEET FOR ADDITIONAL INFORMATION.

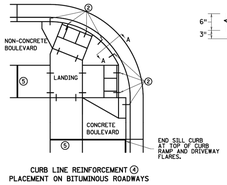
LEAD EXPERT OFFICE	JEFFREY PERKINS OPERATIONS DIVISION		PEDESTRIAN CURB RAMP DETAILS	APPROVED: 11-04-2021 REVISED:	THOMAS STYRBICKI STATE DESIGN ENGINEER	STANDARD PLAN 5-297.250	5 OF 6
	DEPARTMENT OF TRANSPORTATION		STANDARD PLAN		STATE PROJ. NO.	SHEET NO.	
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CURB LINE AND ROAD CROSSING ADJUSTMENTS



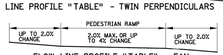
EXPANSION MATERIAL PLACEMENT FOR CONCRETE ROADWAYS



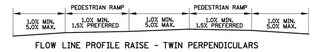
CURB LINE REINFORCEMENT 4
PLACEMENT ON BITUMINOUS ROADWAYS



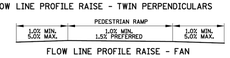
FLOW LINE PROFILE "TABLE" - TWIN PERPENDICULARS



FLOW LINE PROFILE "TABLE" - FAN



FLOW LINE PROFILE RAISE - TWIN PERPENDICULARS



FLOW LINE PROFILE RAISE - FAN

GENERAL NOTES:

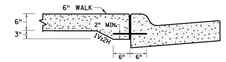
"TABLING" OF CROSSWALKS MEANS MAINTAINING LESS THAN 2% CROSS SLOPE WITHIN A CROSSWALK. IS REQUIRED WHEN A ROADWAY IS IN A STOP OR YIELD CONDITION AND THE PROJECT SCOPE ALLOWS.

RECONSTRUCTION PROJECTS: ON FULL PAVEMENT REPLACEMENT PROJECTS "TABLING" OF ENTIRE CROSSWALK SHALL OCCUR WHEN FEASIBLE.

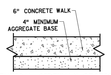
MILL & OVERLAY PROJECTS: "TABLING" OF FLOW LINES, IN FRONT OF THE PEDESTRIAN RAMP, IS REQUIRED WHEN THE EXISTING FLOW LINE IS GREATER THAN 2%. WARPING OF THE BITUMINOUS PAVEMENT CAN NOT EXTEND INTO THE THROUGH LANE. TABLE THE FLOW LINE TO 2% OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA:
1) 1.0% MIN. CROSS-SLOPE OF THE ROAD
2) 5.0% RECOMMENDED MAX. FLOW LINE
3) 7.5% MAX. FLOW LINE UP TO 40' CHANGE FROM EXISTING SLOPE IN FRONT OF PEDESTRIAN RAMP
4) UP TO 2% CHANGE IN FLOW LINE FROM EXISTING SLOPE BEYOND THE PEDESTRIAN CURB RAMP

STAND-ALONE ADA RETROFITS: FOLLOW MILL & OVERLAY CRITERIA ABOVE, HOWEVER ALL PAVEMENT WARPING IS DONE WITH BITUMINOUS PATCHING ON BITUMINOUS ROADWAYS AND FULL-DEPTH APRON REPLACEMENT ON CONCRETE ROADWAYS.

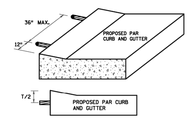
RAISING OF CURB LINES SHOULD OCCUR IN VERTICALLY CONSTRAINED AREAS. RAISE THE CURB LINES ENOUGH TO ALLOW COMPLIANT RAMPS OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA:
1) 1.0% MIN. AND 5.0% MAXIMUM CROSS-SLOPE OF THE ROAD
2) 1.5% MIN. AND 5.0% MAX. CROSS-SLOPE OF PEDESTRIAN RAMP TO MAINTAIN POSITIVE DRAINAGE
3) 5.0% RECOMMENDED MAX. FLOW LINE
4) LONGITUDINAL THROUGH LANE ROADWAY TAPERS SHOULD BE 1" VERTICAL PER 15' HORIZONTAL



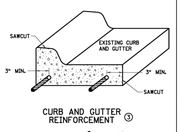
SECTION VIEW A-A
THICKENED SECTION
THROUGH CURB RAMP FLARES



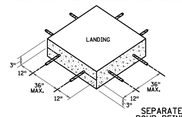
TYPICAL SIDEWALK SECTION
WITHIN INTERSECTION CORNER

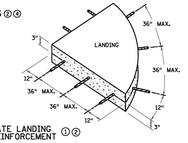


CURB RAMP REINFORCEMENT DETAILS 2 4



CURB AND GUTTER REINFORCEMENT 3





SEPARATE LANDING 1 2
POUR REINFORCEMENT

NOTES:

1. TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS 4' X TOP OF A RAMPED SURFACE OR RUNNING SLOPE GREATER THAN 5% SHALL BE CONSTRUCTED AS AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON THIS SHEET FOR ALL SEPARATELY POURED INITIAL LANDINGS.
2. DRILL AND GROUT NO. 4 12" LONG REINFORCEMENT BARS EPOXY COATED AT 36" MAXIMUM CENTER TO CENTER MINIMUM 12" SPACING FROM CONSTRUCTION JOINTS. BARS TO BE ADJUSTED TO MATCH RAMP GRADE. BARS TO BE PAID BY EACH.
3. DRILL AND GROUT 2 - NO. 4 X 12" LONG 16" EMBEDDED REINFORCEMENT BARS EPOXY COATED. REINFORCEMENT REQUIRED FOR ALL CONSTRUCTION JOINTS. BARS TO BE PAID BY EACH.
4. THIS CURB LINE REINFORCEMENT DETAIL SHALL BE USED ON BITUMINOUS ROADWAYS. FOR CONCRETE ROADWAYS, SEE NOTE 6.
5. CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.
6. USE AN APPROVED TYPE F (2/4 INCH THICK) SEPARATION MATERIAL. SEPARATION MATERIAL SHALL MATCH FULL HEIGHT DIMENSION OF ADJACENT CONCRETE.

LEAD EXPERT OFFICE	JEFFREY PERKINS OPERATIONS DIVISION		PEDESTRIAN CURB RAMP DETAILS	APPROVED: 11-04-2021 REVISED:	THOMAS STYRBICKI STATE DESIGN ENGINEER	STANDARD PLAN 5-297.250	6 OF 6
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PRINTED NAME _____

SIGNATURE _____

DATE ___-_____ LICENSE # _____-_____

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A	XXX	XXX	XXX	XX/XX/20XX	ISSUED FOR XXXX

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NUMBER 10104111545

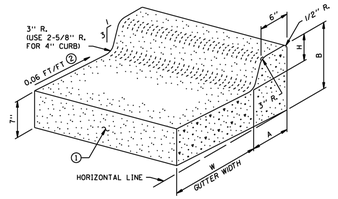
RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

RWMWD OFFICE PARKING LOT RETROFIT
LITTLE CANADA, MN

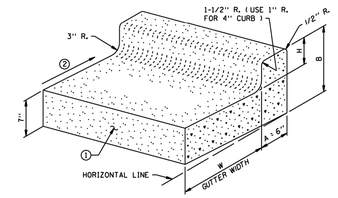
CIVIL DETAILS AND SECTIONS

BARR PROJECT # 23/62-1567.00
DWG # C1.11
REV # A

ORIGINAL DRAWING SIZE: ANSI FULL BLEED D (34.00 X 22.00 INCHES) PLOT SCALE: 1:1 PLOT DATE: 4/23/2026 2:48 PM
CADD USER: ELLERY M. OVERMYER FILE: M:\DESIGN\23621567.00\23621567_C1.11 CIVIL DETAILS AND SECTIONS.DWG



DESIGN B



DESIGN V



REVERSE SLOPE GUTTER SECTION
(FORMS MAY BE TILTED)

NOTES:
1. LONGITUDINAL JOINT WHEN ADJACENT TO RIGID PAVEMENT OR BASE. SEE STANDARD PLANS MANUAL FOR JOINT INFORMATION.
2. SLOPE 0.06 FT/FT NORMAL, UNLESS OTHERWISE SPECIFIED. IF A DIFFERENT GUTTER SLOPE IS PERMITTED, THE FORM MAY BE TILTED.

DESIGN B			W = 12"			W = 18"			W = 24"			W = 30"			W = 36"		
			CONCRETE			CONCRETE			CONCRETE			CONCRETE			CONCRETE		
DIMENSIONS			DESIGN NO.	CU. YDS. PER LIN. FT.	LIN. FT. PER CU. YD.	DESIGN NO.	CU. YDS. PER LIN. FT.	LIN. FT. PER CU. YD.	DESIGN NO.	CU. YDS. PER LIN. FT.	LIN. FT. PER CU. YD.	DESIGN NO.	CU. YDS. PER LIN. FT.	LIN. FT. PER CU. YD.	DESIGN NO.	CU. YDS. PER LIN. FT.	LIN. FT. PER CU. YD.
H	A	B															
4	7-3/8"	11-1/2"	B412	0.0421	23.8	B418	0.0529	18.9	B424	0.0637	15.7	B430	0.0745	13.4	B436	0.0853	11.7
6	8"	13-1/2"	B612	0.0474	21.1	B618	0.0582	17.2	B624	0.0690	14.5	B630	0.0798	12.5	B636	0.0906	11.0
8	8-5/8"	15-1/2"	B812	0.0529	18.9	B818	0.0637	15.7	B824	0.0745	13.4	B830	0.0853	11.7	B836	0.0962	10.4
9	9"	16-5/8"	B912	0.0559	17.9	B918	0.0667	15.0	B924	0.0775	12.9	B930	0.0883	11.3	B936	0.0991	10.1
10	9-3/8"	17-5/8"	B1012	0.0589	17.0	B1018	0.0697	14.4	B1024	0.0805	12.4	B1030	0.0913	11.0	B1036	0.1021	9.8

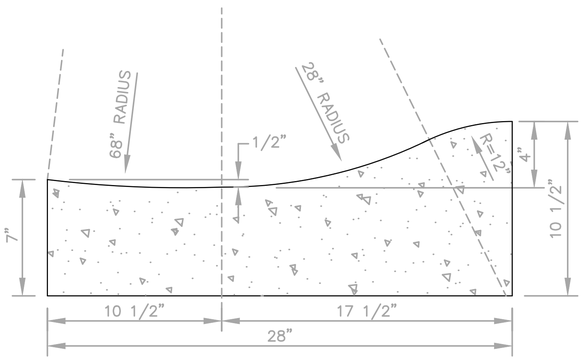
DESIGN V			W = 12"			W = 18"			W = 24"			W = 30"			W = 36"		
			CONCRETE			CONCRETE			CONCRETE			CONCRETE			CONCRETE		
DIMENSIONS			DESIGN NO.	CU. YDS. PER LIN. FT.	LIN. FT. PER CU. YD.	DESIGN NO.	CU. YDS. PER LIN. FT.	LIN. FT. PER CU. YD.	DESIGN NO.	CU. YDS. PER LIN. FT.	LIN. FT. PER CU. YD.	DESIGN NO.	CU. YDS. PER LIN. FT.	LIN. FT. PER CU. YD.	DESIGN NO.	CU. YDS. PER LIN. FT.	LIN. FT. PER CU. YD.
H	A	B															
4	6"	11-3/8"	V412	0.0396	25.3	V418	0.0504	19.9	V424	0.0612	16.4	V430	0.0720	13.9	V436	0.0828	12.1
6	6"	13-3/8"	V612	0.0426	23.5	V618	0.0534	18.7	V624	0.0642	15.6	V630	0.0750	13.4	V636	0.0858	11.7
8	6"	15-3/8"	V812	0.0457	21.9	V818	0.0565	17.7	V824	0.0673	14.9	V830	0.0781	12.8	V836	0.0889	11.3
9	6"	16-3/8"	V912	0.0472	21.2	V918	0.0580	17.2	V924	0.0688	14.5	V930	0.0796	12.6	V936	0.0904	11.1
10	6"	17-3/8"	V1012	0.0487	20.5	V1018	0.0595	16.8	V1024	0.0703	14.2	V1030	0.0811	12.4	V1036	0.0919	10.9

APPROVED MARCH 11, 1994
R.H. Campbell
ACTING STATE DESIGN ENGINEER

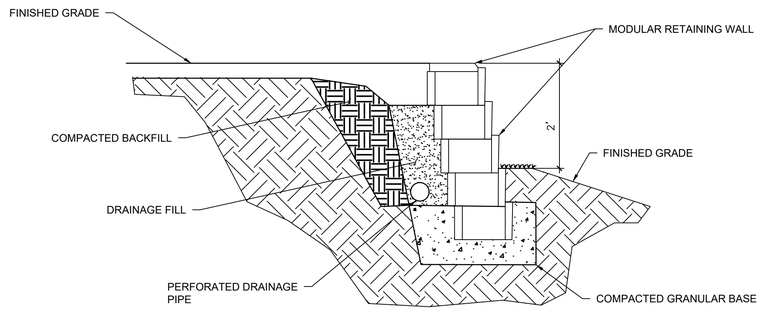
STATE OF MINNESOTA
DEPARTMENT OF TRANSPORTATION
CONCRETE CURB AND GUTTER
DESIGN B AND DESIGN V

SPECIFICATION REFERENCE 2531
REVISION DATE 2-28-05
STANDARD PLATE NO. 7100H

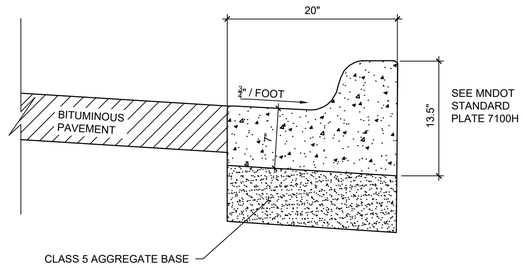
1 DETAIL: CURB AND GUTTER
NOT TO SCALE



4 DETAIL: SURMOUNTABLE CURB AND GUTTER
NOT TO SCALE

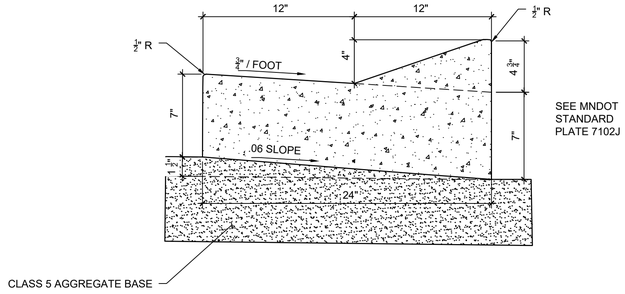


2 DETAIL: RETAINING WALL
NOT TO SCALE



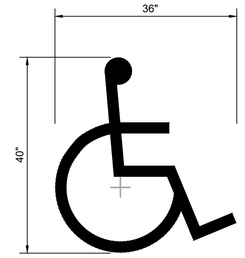
NOTES:
1. BROOM FINISH ALL EXPOSED SURFACES.
2. DIMENSIONS MATCH MnDOT DETAIL, UNLESS SHOWN OTHERWISE.
3. COMPACT UPPER 3' OF EXISTING SUBGRADE TO MIN. 100% STANDARD PROCTOR DENSITY (ASTM D698).

5 DETAIL: B612 CURB AND GUTTER
NOT TO SCALE



NOTES:
1. BROOM FINISH ALL EXPOSED SURFACES.
2. DIMENSIONS MATCH MnDOT DETAIL, UNLESS SHOWN OTHERWISE.
3. COMPACT UPPER 3' OF EXISTING SUBGRADE TO MIN. 100% STANDARD PROCTOR DENSITY (ASTM D698).

6 DETAIL: D412 CURB AND GUTTER
NOT TO SCALE



NOTES:
1. ALL LINES 4" WIDE WHITE, AS SPECIFIED.
2. PAINTED INTERNATIONAL SYMBOL OF ACCESSIBILITY MUST BE CENTERED IN EACH DESIGNATED ACCESSIBLE PARKING STALL PER 2020 MN ACCESSIBILITY CODE AND AS SPECIFIED.

3 DETAIL: PAINTED PAVEMENT MARKINGS, ACCESSIBLE PARKING
NOT TO SCALE

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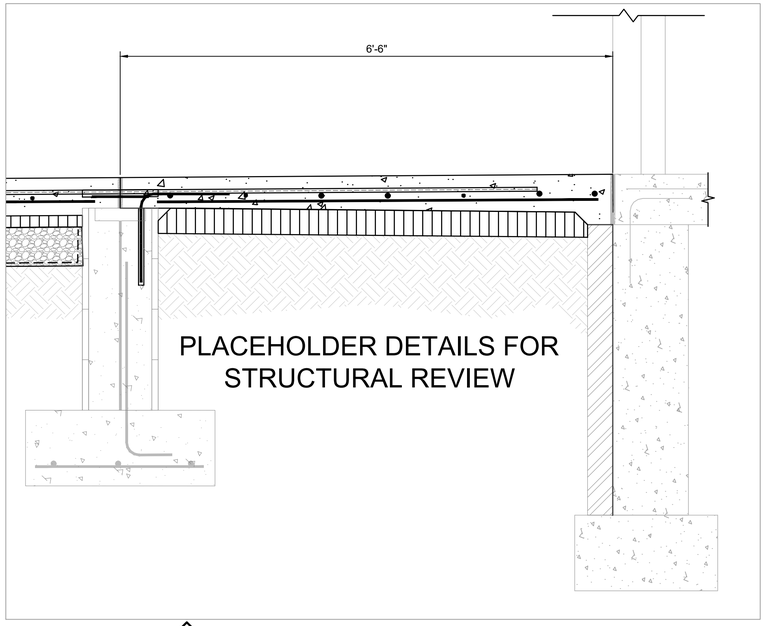
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NUMBER 10104111545

RAMSEY-WASHINGTON
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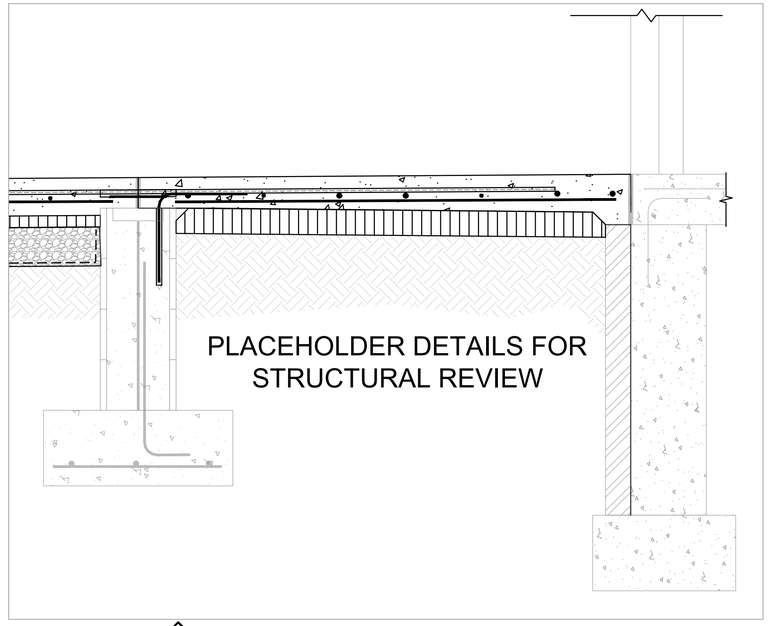
RWMWD OFFICE PARKING LOT RETROFIT
LITTLE CANADA, MN
CIVIL DETAILS
AND SECTIONS

BARR PROJECT # 23/62-1567.00
DWG # C1.12
REV # A

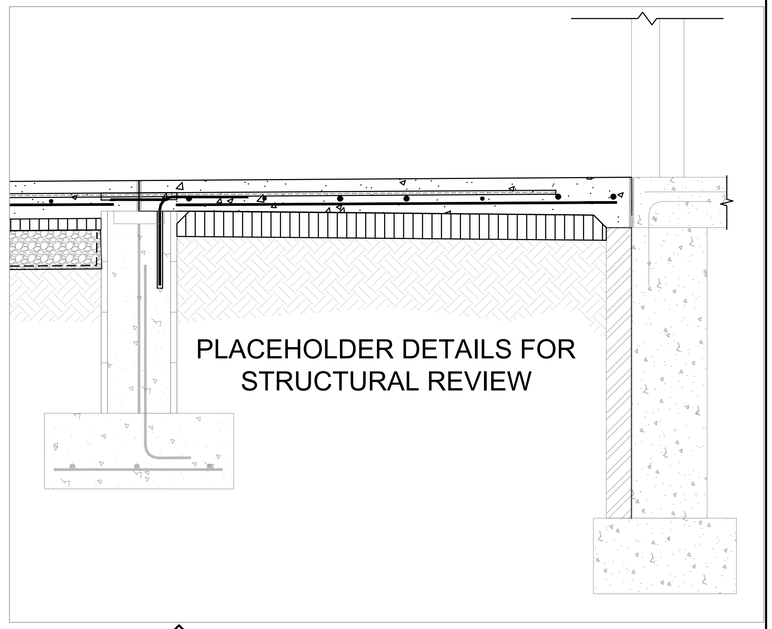
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CADD USER: ELLERY.M. OVERMYER FILE: M:\DESIGN\2362-1567.00\2362-1567_C1.12 CIVIL DETAILS AND SECTIONS.DWG



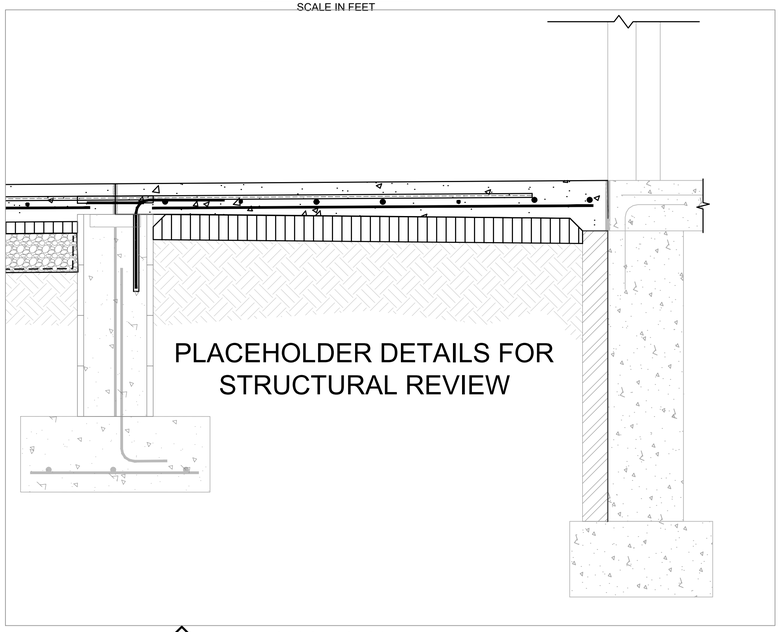
3 DETAIL: STOOP - MAIN ENTRY
1"=2'-0"
0 1 2 3 4
SCALE IN FEET



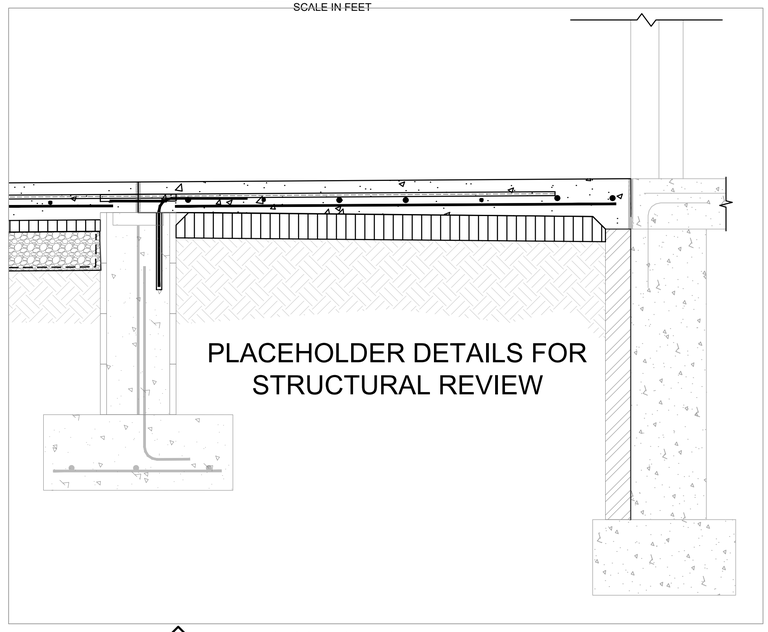
3 DETAIL: STOOP - MAIN ENTRY
1"=2'-0"
0 1 2 3 4
SCALE IN FEET



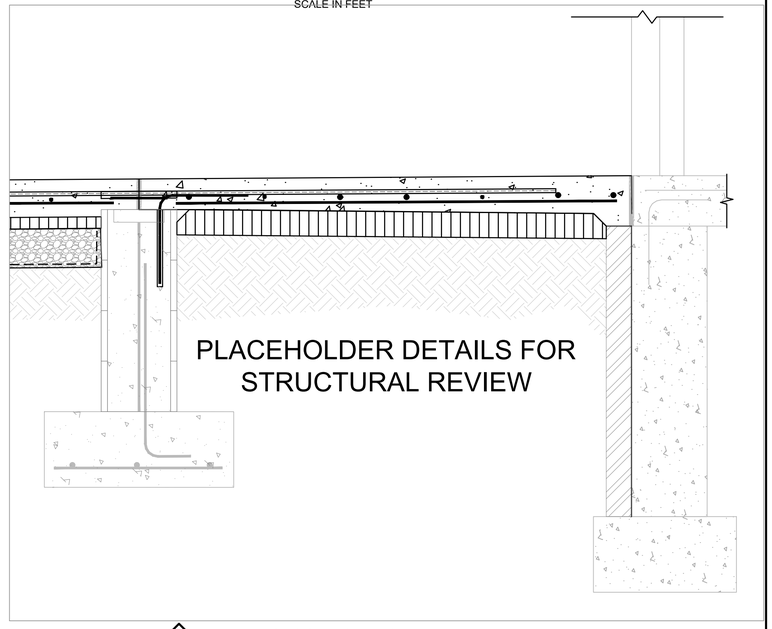
3 DETAIL: STOOP - SECONDARY ENTRY
1"=2'-0"
0 1 2 3 4
SCALE IN FEET



3 DETAIL: STOOP - SECONDARY ENTRY
1"=2'-0"
0 1 2 3 4
SCALE IN FEET



3 DETAIL: STOOP - GARAGE ENTRY
1"=2'-0"
0 1 2 3 4
SCALE IN FEET



3 DETAIL: STOOP - GARAGE ENTRY
1"=2'-0"
0 1 2 3 4
SCALE IN FEET

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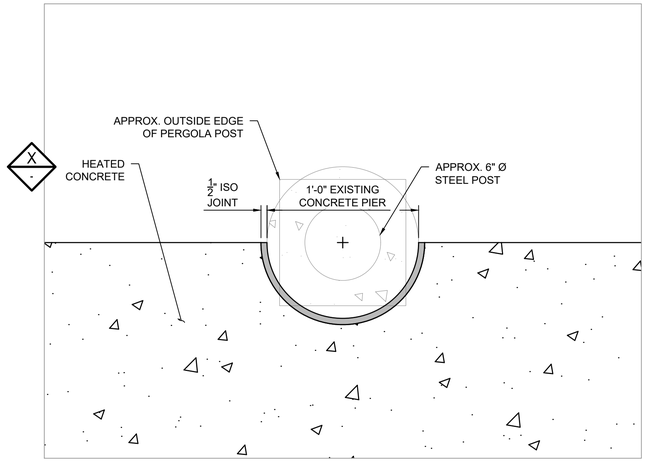
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RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

RWMWD OFFICE PARKING LOT RETROFIT
LITTLE CANADA, MN
STRUCTURAL DETAILS
AND SECTIONS

BARR PROJECT # 23/62-1567.00
DWG # C1.13
REV # A

ORIGINAL DRAWING SIZE: ANSI FULL BLEED D (34.00 X 22.00 INCHES) PLOT SCALE: 1:1 PLOT DATE: 4/22/2029 2:49 PM
CAD/ USER: ELLERY M. OVERMYER FILE: M:\DESIGN\23\62\1567.00\23621567_C1.13 STRUCTURAL DETAILS.DWG



3 DETAIL: PERGOLA FOOTING JOINT

1"=0'-6"

0 .5 1 1.5 2

SCALE

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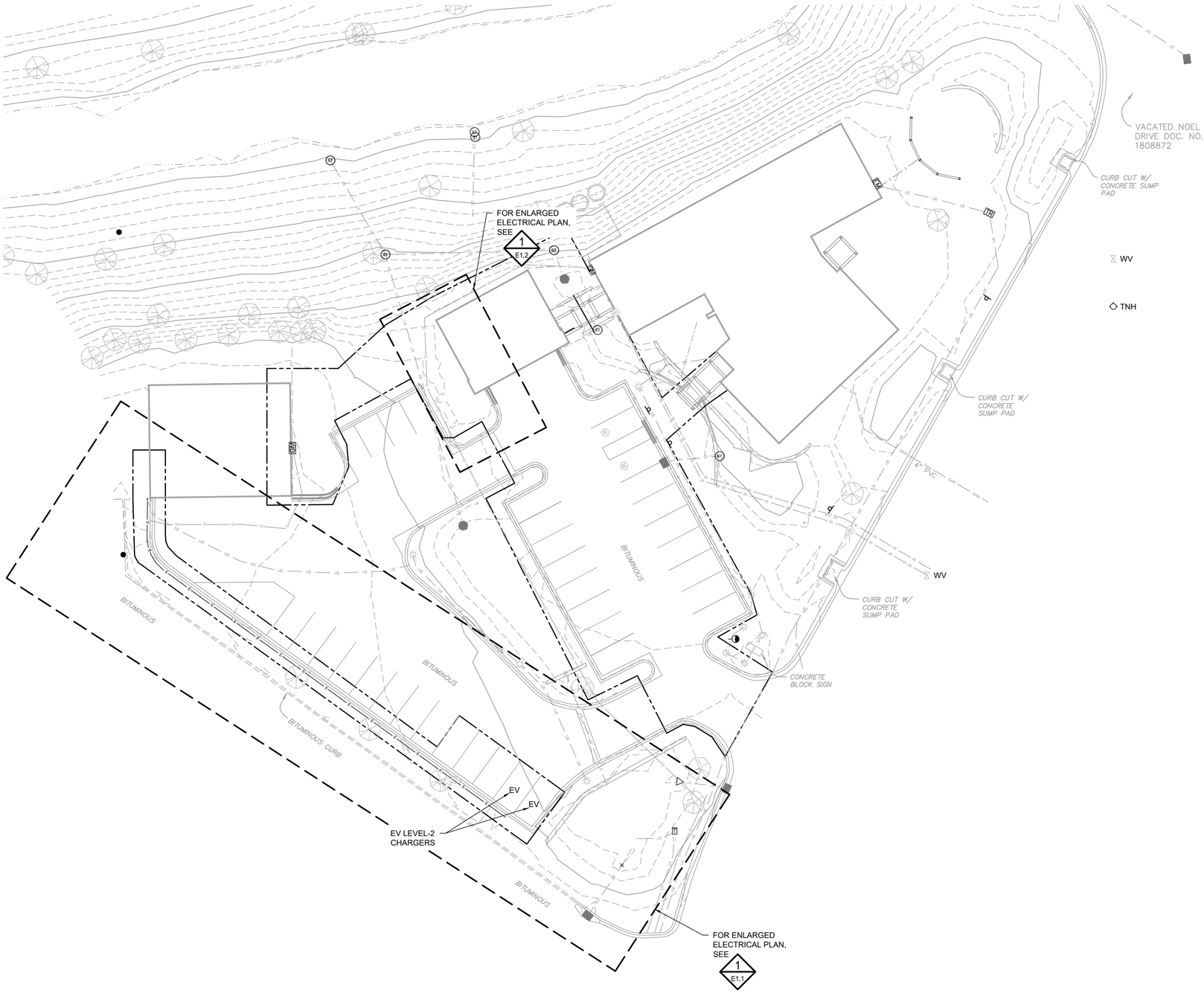
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RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

RWMWD OFFICE PARKING LOT RETROFIT
LITTLE CANADA, MN
STRUCTURAL DETAILS
AND SECTIONS

BARR PROJECT # 23/62-1567.00
DWG # C1.14
REV # A

ORIGINAL DRAWING SIZE: ANSI FULL BLEED D (34.00 X 22.00 INCHES) PLOT SCALE: 1:1 PLOT DATE: 4/23/2026 2:49 PM
CADD USER: ELLERY M. OVERMYER FILE: M:\DESIGN\2362-1567.000\2362-1567_C1.14 STRUCTURAL DETAILS.DWG



1 - PLAN: SITE PLAN

0 20 40

SCALE IN FEET

N

PROJECT DATUM:

HORIZONTAL: -
VERTICAL: -

LEGEND:

EXISTING CONDITIONS LEGEND

- SS — SS — EXISTING STORMWATER UTILITY
- E — E — EXISTING ELECTRIC UTILITY
- GAS — EXISTING GAS UTILITY
- EXISTING CONCRETE WALKS
- EXISTING TREE TO PROTECT IN PLACE

PROPOSED CONDITIONS LEGEND

- SITE CALLOUT AREA
- CONSTRUCTION LIMITS
- E — E — ELECTRICAL

NOTES:

1. CONDUCT ALL WORK SO THAT EXISTING FACILITIES REMAIN IN OPERATION DURING CONSTRUCTION. COORDINATE ALL OUTAGES AND CUTOVERS IN ADVANCE, AND ONLY TO OCCUR AT TIME AND IN DURATION AS APPROVED BY OWNER.
2. FIELD CONFIRM LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES, CABLES, CONDUITS, ETC. PRIOR TO CONSTRUCTION. PROTECT ALL EXISTING UNDERGROUND FACILITIES.
3. EXISTING UNDERGROUND CIRCUITRY THAT IS TO REMAIN, IS NOT ALL SHOWN.
4. FIELD CONFIRM ALL CONDUIT ROUTING WITH ENGINEER AND OWNER AFTER LOCATES ARE PERFORMED.
5. CORE DRILL EXISTING STRUCTURES AS REQUIRED FOR NEW CONDUIT INSTALLATION. PATCH ALL SURFACES TO MATCH EXISTING. ALL CORE DRILL LOCATIONS SHALL BE VERIFIED WITH ENGINEER AND OWNER.
6. SEAL ALL CONDUITS TO EXTERIOR USING DUCTSEAL OR 1/2" THICKNESS SILICONE CAULK.

90% DRAFT FOR REVIEW
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ORIGINAL DRAWING SIZE: ANSI FULL BLEED D (34.00 X 22.00 INCHES) PLOT SCALE: 1:1 PLOT DATE: 4/23/2026 2:49 PM
CADD USER: ELLERY.M. OVERMYER FILE: M:\DESIGN\2362-1567.00\2362-1567_E1.0 OVERALL ELECTRICAL PLAN.DWG

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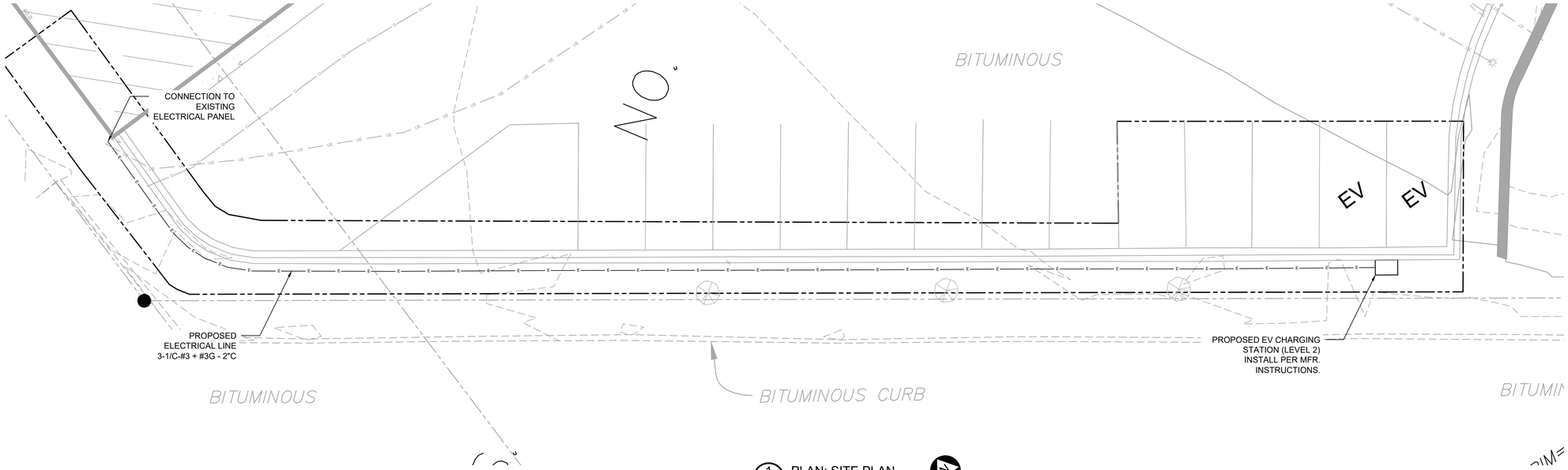
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RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

RWMWD OFFICE PARKING LOT RETROFIT
LITTLE CANADA, MN

OVERALL SITE PLAN

BARR PROJECT # 23/62-1567.00
DWG # E1.0
REV # A



1 PLAN: SITE PLAN

0 8 16

SCALE IN FEET

PROJECT DATUM:

HORIZONTAL: -
VERTICAL: -

LEGEND:

EXISTING CONDITIONS LEGEND

- SS SS EXISTING STORMWATER UTILITY
- E E EXISTING ELECTRIC UTILITY
- GAS EXISTING GAS UTILITY
- EXISTING CONCRETE WALKS
- EXISTING TREE TO PROTECT IN PLACE

PROPOSED CONDITIONS LEGEND

- SITE CALLOUT AREA
- CONSTRUCTION LIMITS
- E E ELECTRICAL

NOTES:

1. CONDUCT ALL WORK SO THAT EXISTING FACILITIES REMAIN IN OPERATION DURING CONSTRUCTION. COORDINATE ALL OUTAGES AND CUTOVERS IN ADVANCE, AND ONLY TO OCCUR AT TIME AND IN DURATION AS APPROVED BY OWNER.
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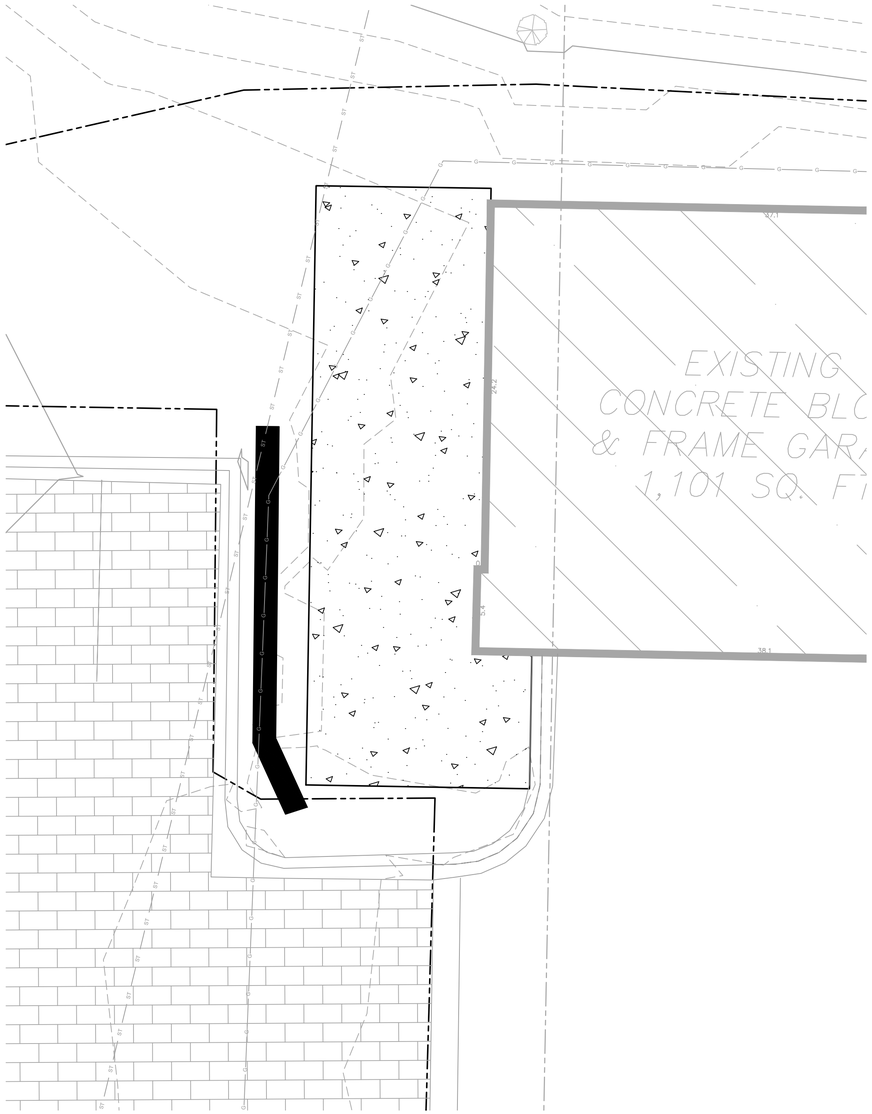
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RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

RWMWD OFFICE PARKING LOT RETROFIT
LITTLE CANADA, MN
ENLARGED ELECTRICAL SITE
1 OF 2

BARR PROJECT # 23/62-1567.00
DWG # E1.1
REV # A

ORIGINAL DRAWING SIZE: ANSI FULL BLEED D (34.00 X 22.00 INCHES) PLOT SCALE: 1:1 PLOT DATE: 4/23/2026 2:49 PM
CADD USER: ELLERY.M. OVERMYER FILE: M:\DESIGN\2362\1567.00\2362-1567_E1.1 ENLARGED ELECTRICAL PLAN 1 OF 2.DWG



1 PLAN: SITE PLAN
-

0 5 10
SCALE IN FEET

PROJECT DATUM:

HORIZONTAL: -
VERTICAL: -

LEGEND:

EXISTING CONDITIONS LEGEND

- SS SS — EXISTING STORMWATER UTILITY
- E E — EXISTING ELECTRIC UTILITY
- GAS — EXISTING GAS UTILITY
- EXISTING CONCRETE WALKS
- EXISTING TREE TO PROTECT IN PLACE

PROPOSED CONDITIONS LEGEND

- SITE CALLOUT AREA
- CONSTRUCTION LIMITS
- E E — ELECTRICAL

NOTES:

1. CONDUCT ALL WORK SO THAT EXISTING FACILITIES REMAIN IN OPERATION DURING CONSTRUCTION. COORDINATE ALL OUTAGES AND CUTOVERS IN ADVANCE, AND ONLY TO OCCUR AT TIME AND IN DURATION AS APPROVED BY OWNER.
2. FIELD CONFIRM LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES, CABLES, CONDUITS, ETC. PRIOR TO CONSTRUCTION. PROTECT ALL EXISTING UNDERGROUND FACILITIES.
3. EXISTING UNDERGROUND CIRCUITRY THAT IS TO REMAIN, IS NOT ALL SHOWN.
4. FIELD CONFIRM ALL CONDUIT ROUTING WITH ENGINEER AND OWNER AFTER LOCATES ARE PERFORMED.
5. CORE DRILL EXISTING STRUCTURES AS REQUIRED FOR NEW CONDUIT INSTALLATION. PATCH ALL SURFACES TO MATCH EXISTING. ALL CORE DRILL LOCATIONS SHALL BE VERIFIED WITH ENGINEER AND OWNER.
6. SEAL ALL CONDUITS TO EXTERIOR USING DUCTSEAL OR 1/2" THICKNESS SILICONE CAULK.

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RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

RWMWD OFFICE PARKING LOT RETROFIT
LITTLE CANADA, MN
ENLARGED ELECTRICAL SITE
2 OF 2

BARR PROJECT # 23/62-1567.00
DWG # E1.2
REV # A

ORIGINAL DRAWING SIZE: ANSI FULL BLEED D (34.00 X 22.00 INCHES) PLOT SCALE: 1:1 PLOT DATE: 4/23/2026 2:49 PM
CADD USER: ELLERY M. OVERMYER FILE: M:\DESIGN\2362-1567_00\2362-1567_E1.2 ENLARGED ELECTRICAL PLAN 2 OF 2.DWG

PROJECT DATUM:

HORIZONTAL: -
VERTICAL: -

LEGEND:

NOTES:

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2. XXXX.
3.

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RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

RWMWD OFFICE PARKING LOT RETROFIT
LITTLE CANADA, MN

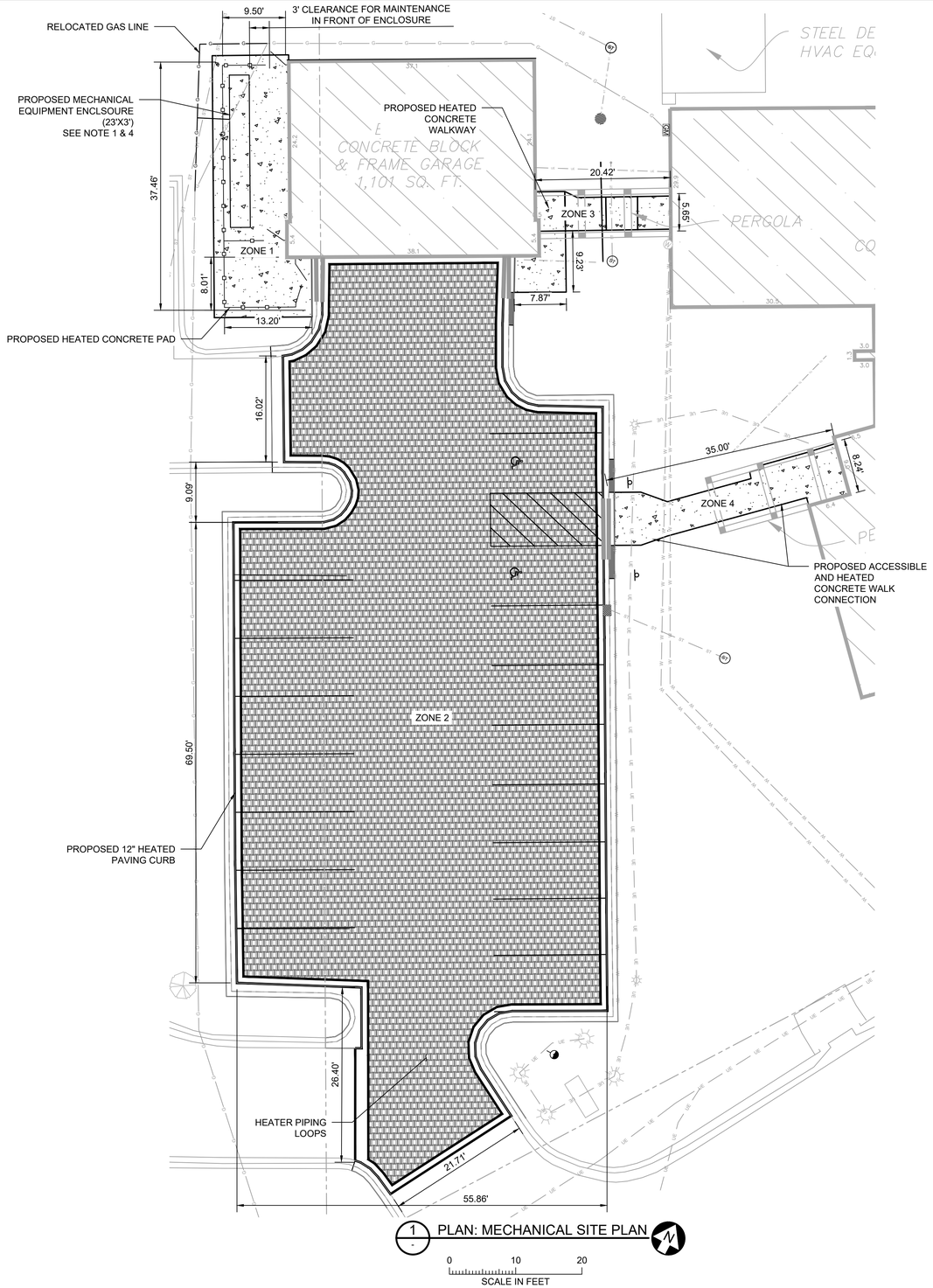
ELECTRICAL DETAILS
AND SECTIONS

BARR PROJECT #
23/62-1567.00

DWG #
E1.3

REV #
A

ORIGINAL DRAWING SIZE: ANSI FULL BLEED D (34.00 X 22.00 INCHES) PLOT SCALE: 1:1 PLOT DATE: 4/23/2026 2:50 PM
CADD USER: ELLERY M. OVERMYER FILE: M:\DESIGN\2362-1567.000\2362-1567_E1.3 ELECTRICAL DETAILS AND SECTIONS.DWG



HEATED PARKING LOT AND WALKWAY AREAS	
ZONE 1	400 SQ. FT.
ZONE 2	5540 SQ. FT.
ZONE 3	165 SQ. FT.
ZONE 4	225 SQ. FT.

PROJECT DATUM:

HORIZONTAL: -
VERTICAL: -

LEGEND:

EXISTING CONDITIONS LEGEND

- EXISTING STORMWATER UTILITY
- EXISTING ELECTRIC UTILITY
- EXISTING GAS UTILITY
- EXISTING CONCRETE WALKS

HATCH KEY

- HEATED CONCRETE ZONE
- HEATED PARKING LOT ZONE

PROPOSED CONDITIONS LEGEND

- SITE CALLOUT AREA
- CONSTRUCTION LIMITS

NOTES:

1. MECHANICAL EQUIPMENT ENCLOSURE TO BE SIZED AND CONFIGURED TO FIT CONTRACTOR-PROVIDED/QUOTED EQUIPMENT. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ENCLOSURE SIZE, EQUIPMENT FIT, AND MAINTENANCE CLEARANCES.
2. HEATING SYSTEM CONTRACTOR IS RESPONSIBLE FOR SUPPLY AND INSTALLATION OF ALL EQUIPMENT AND PIPING INSIDE THE ENCLOSURE.
3. CONTRACTOR SHALL COORDINATE ELECTRICAL POWER, CONTROLS, SENSORS, AND INTERLOCKS REQUIRED FOR PROPER SYSTEM OPERATION.
4. EQUIPMENT ENCLOSURE SHALL BE INSULATED ACCORDING TO ASHRAE 90.1-2019 FOR CLIMATE ZONE 6A, SUITABLE FOR OUTDOOR INSTALLATION IN LITTLE CANADA, MN.
5. ENCLOSURE SHALL BE DESIGNED TO SELF HEAT VIA RADIATION FROM PIPING WHEN HEATING SYSTEM IS ON. IN THE EVENT OF LOW INTERNAL AMBIENT TEMPERATURE DUE TO SYSTEM BEING OFF OR SYSTEM BEING UNABLE TO PROVIDE ENOUGH HEAT DUE TO EXTREME TEMPERATURE OUTSIDE ENCLOSURE, A THERMOSTATICALLY CONTROLLED AUXILIARY HEATER SHOULD BE PROVIDED FOR EQUIPMENT PROTECTION. THERMOSTAT TO TURN THE HEATER ON AT +50°F.

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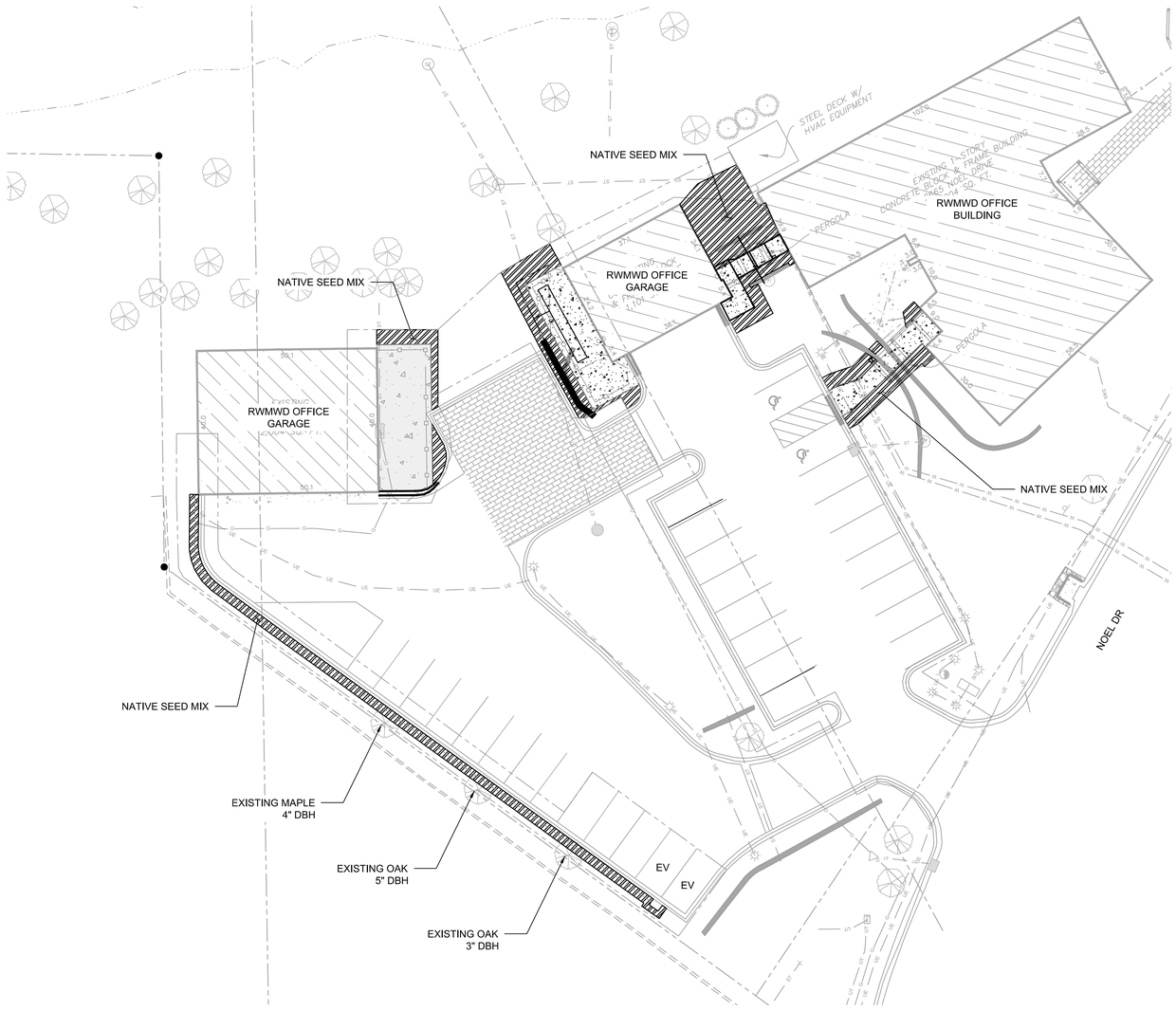
RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

RWMWD OFFICE PARKING LOT RETROFIT
LITTLE CANADA, MN

MECHANICAL SITE PLAN

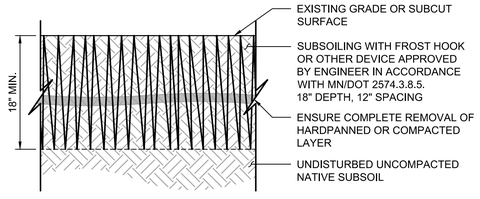
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ORIGINAL DRAWING SIZE: ANSI FULL BLEED D (34.00 X 22.00 INCHES) PLOT SCALE: 1:1 PLOT DATE: 4/23/2026 2:45 PM
CADD USER: ELLERY.M. OVERMYER FILE: M:\DESIGN\2362\1567.00\2362-1567_M1.0 MECHANICAL SITE PLAN.DWG

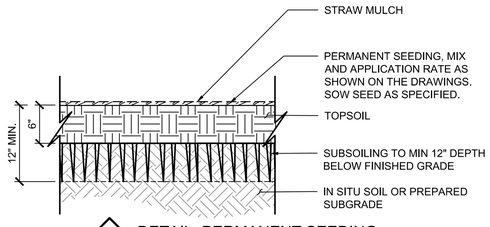


1 PLAN: RESTORATION PLAN

0 20 40
SCALE IN FEET



2 DETAIL: SUBSOILING



3 DETAIL: PERMANENT SEEDING

NOTES:
1. PREPARE SOIL PER PLAN AND AS SPECIFIED.
2. PROVIDE SEEDING FOR ALL AREAS NOTED ON THE DRAWINGS.
3. PROVIDE SEEDING FOR ALL ADDITIONAL DISTURBED AREAS ON- AND OFF-SITE AS NOTED ON THE DRAWINGS.

GENERAL LANDSCAPE NOTES:

1. PLANTING SHALL CONFORM TO MNDOT SPEC 2571, PLANT INSTALLATION AND ESTABLISHMENT, EXCEPT AS INDICATED OTHERWISE IN THE PLANTING SHEETS.
2. INFORM THE LANDSCAPE ARCHITECT OF PLANTING TWO DAYS PRIOR TO PLANT DELIVERY.
3. CONTRACTOR SHALL COORDINATE LAYOUT OF ALL PLANTS WITH DIRECTION OF LANDSCAPE ARCHITECT IN THE FIELD.
4. CONFIRM ALL QUANTITIES, SHAPES AND LOCATIONS OF ALL SEEDING AND PLANTING AREAS; ADJUST QUANTITIES AS REQUIRED TO CONFORM TO THE SITE CONDITIONS. CONFIRM ANY ADJUSTMENTS WITH THE LANDSCAPE ARCHITECT.
5. LOCATE ALL UTILITIES. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS WITH PLANT INSTALLATION.
6. LONG-TERM STORAGE OF MATERIALS OR SUPPLIES ON-SITE WILL NOT BE ALLOWED. ANY PLANT STOCK NOT PLANTED ON DAY OF DELIVERY SHALL BE HEELED IN AND WATERED UNTIL INSTALLATION. PLANTS NOT MAINTAINED IN THIS MANNER WILL BE REJECTED.
7. THE PLAN TAKES PRECEDENCE OVER THE PLANT SCHEDULE IF DISCREPANCIES EXIST. ADVISE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES.

PROTECTIONS:

8. THE CONTRACTOR SHALL AVOID DAMAGING EXISTING TREES. DO NOT STORE OR DRIVE HEAVY MATERIALS OVER TREE ROOTS. DO NOT DAMAGE TREE BARK OR BRANCHES.
9. THE CONTRACTOR SHALL KEEP PAVEMENTS, FIXTURES AND BUILDINGS CLEAN AND UNSTAINED. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THE PROJECT SITE SHALL BE KEPT CLEAR OF CONSTRUCTION WASTES AND DEBRIS.

SOIL LOOSENING & AMENDMENT REQUIREMENTS:

10. SOIL LOOSENING APPLIES TO ALL DISTURBED SOILS TO BE RE-VEGETATED, INCLUDING SEEDING/SODDING/LANDSCAPE AREAS (NOT INCLUDING AREAS UNDER EXISTING TREE DRIP-LINES OR WITHIN 5-FEET OF BUILDING/PAVEMENT FOUNDATIONS), TO RESTORE SOIL PERMEABILITY.
11. SOIL REMEDIATION MUST BE IMPLEMENTED PRIOR TO ANY INSTALLATION OF IRRIGATION SYSTEM COMPONENTS, TREES, SHRUBS, SOD AND/OR SEED. NO WHEELED EQUIPMENT SHALL BE USED ON LOOSENED SOIL - WIDE TRACK EQUIPMENT ONLY.
12. SOIL LOOSENING MUST PRESERVE EXISTING TREES. NO LOOSENING SHALL OCCUR WITHIN DRIP LINE OF ANY EXISTING TREE.
13. ALL DISTURBED AREAS TO BE RE-VEGETATED SHALL HAVE 12-INCH MINIMUM DEPTH OF SOIL LOOSENING (E.G. SOIL RIPPING,6-INCH MAX. TOOTH SPACING).
14. LOOSENED SOILS SHALL HAVE A MAXIMUM OF 200 PSI IN TOP 12 INCHES.
15. CONTRACTOR TO TEST EXISTING TOPSOIL PRIOR TO PLANTING (MINIMUM 3 TESTS AT LEAST 500 FEET APART). IF EXISTING TOP 6" OF SOIL DOES NOT HAVE AT LEAST 5% SOIL ORGANIC CONTENT CONTRACTOR IS TO AMEND WITH MNDOT 3890 GRADE 2 COMPOST TO MEET REQUIREMENT. IMPLEMENTATION DOCUMENTATION SHALL BE PROVIDED TO ENGINEER TO VERIFY EXISTING ORGANIC CONTENT IN SOIL AND PROPOSED AMENDMENTS.

SEEDING:

16. ANY EXOTIC INVASIVE PLANTS AND WEEDS WITHIN THE SEEDING AREAS SHALL BE SPRAYED WITH HERBICIDE 14 DAYS PRIOR TO SEEDING OR AS PER MANUFACTURE'S RECOMMENDATION. SIGNAGE INDICATING THE USE OF HERBICIDES MUST BE POSTED ON SITE
17. ALL HERBICIDE APPLICATION SHALL BE APPLIED BY A LICENSED APPLICATOR WITHIN THE STATE OF MINNESOTA.
18. SEED IN ACCORDANCE WITH THE SPECIFICATIONS. SEEDING IS TO TAKE PLACE IMMEDIATELY FOLLOWING FINAL GRADING AND SOIL PLACEMENT TO PREVENT EROSION AND COMPACTION.
19. COVER CROP IS TO BE SEEDED WITHIN ALL AREAS.
20. AFTER SEEDING, TYPE 8 MULCH MATERIAL SHALL BE DISC-ANCHORED OVER ENTIRE SEEDING AREA IN ACCORDANCE WITH MN/DOT STANDARD SPECIFICATION 3882 EXCEPT WHERE EROSION CONTROL BLANKET IS SHOWN ON PLANS.
21. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION. IN THE CASE OF ANY DISCREPANCIES BETWEEN THIS DETAIL, PLANS, OR SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN.

MAINTENANCE AND CARE:

22. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH PORTION OF THE WORK IS IN PLACE. PLANT MATERIAL SHALL BE PROTECTED AND MAINTAINED UNTIL THE INSTALLATION OF PLANTINGS IS COMPLETE, INSPECTION HAS BEEN MADE AND PLANTING IS ACCEPTED EXCLUSIVE OF THE GUARANTEE.
23. MAINTENANCE SHALL INCLUDE WATERING, WEEDING, MULCHING, REMOVAL OF DEAD MATERIAL PRIOR TO GROWING SEASON, RE-SETTING PLANTS AND PROPER GRADE, AND KEEPING PLANTS IN A PLUMB POSITION.
24. WATERING: MAINTAIN A WATERING SCHEDULE WHICH WILL THOROUGHLY WATER ALL PLANTS ONCE A WEEK. IN EXTREMELY HOT, DRY WEATHER, WATER MORE OFTEN AS REQUIRED BY INDICATIONS OF HEAT STRESS SUCH AS WILTING LEAVES. CHECK MOISTURE UNDER MULCH PRIOR TO WATERING TO DETERMINE NEED. CONTRACTOR SHALL MAKE THE NECESSARY ARRANGEMENTS FOR WATER.
25. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION. IN THE CASE OF ANY DISCREPANCIES BETWEEN THIS DETAIL, PLANS, OR SPECIFICATIONS, THE SPECIFICATIONS SHALL GOVERN.

REFERENCE NOTES SCHEDULE

SYMBOL	DESCRIPTION	QTY	DETAIL
	NATIVE SEED	1,363 SF	

PROJECT DATUM:

HORIZONTAL: -
VERTICAL: -

LEGEND:

EXISTING CONDITIONS LEGEND

- SS — SS — EXISTING STORMWATER UTILITY
- E — E — EXISTING ELECTRIC UTILITY
- GAS — GAS — EXISTING GAS UTILITY
- EXISTING CONCRETE WALKS
- EXISTING TREE TO PROTECT IN PLACE

PROPOSED CONDITIONS LEGEND

- SITE CALLOUT AREA
- CONSTRUCTION LIMITS
- TREE PROTECTION FENCING

NOTES:

NOTES:
1. SEE SHEET L1.1 FOR PLANTING NOTES
2. SEE SHEET L1.1 FOR SEEDING NOTES
3. SEE SHEET L1.1 FOR GENERAL LANDSCAPE NOTES
4. ALL AREAS DISTURBED BY THE PROJECT TO BE SEEDED WITH NATIVE SEED MIX UNLESS OTHERWISE NOTED

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CLIENT NAME
CLIENT HEADQUARTERS LOCATION

RWMWD OFFICE PARKING LOT RETROFIT
LITTLE CANADA, MN
LANDSCAPE AND RESTORATION
PLAN AND DETAILS

BARR PROJECT # 23/62-1567.00
DWG # L1.0
REV # A

ORIGINAL DRAWING SIZE: ANSI FULL BLEED D (34.00 X 22.00 INCHES) PLOT SCALE: 1:1 PLOT DATE: 4/23/2026 3:54 PM
CADD USER: ANDREW M. PAPKE-LARSON FILE: M:\DESIGN\23621567.00\23621567_L1.0 LANDSCAPE AND RESTORATION PLAN.DWG

****

New Reports/ Presentations

****

Memorandum

To: Ramsey-Washington Metro Watershed District (RWMWD) Board of Managers
From: RWMWD and Barr Engineering staff
Subject: History of Wetland and Buffer Management in RWMWD
Date: May 28, 2026
Project: 23620031.26 009 001

1 Purpose of this memorandum

This memorandum summarizes the history of RWMWD's wetland and buffer policy and how the District's approach to managing wetland buffers has evolved into its current practice, with some previews of the District's next chapter as it approaches its 5th-generation Watershed Management Plan (2027-2036).

2 Introduction

Wetland buffers have long been recognized as an important component of watershed management because they:

- protect water quality,
- reduce sediment and nutrient transport,
- preserve wildlife habitat,
- stabilize shorelines,
- reduce erosion,
- and maintain overall wetland ecological function.

Wetland management is not an explicit responsibility of WMOs under Minnesota Statutes 103B.201. The purposes of watershed districts, as defined in Minnesota Statutes 103B.201, mention wetlands only in relation to regulating land use:

> *(11) to regulate improvements by riparian property owners of the beds, banks, and shores of lakes, streams, and **wetlands** for preservation and beneficial public use*

However, RWMWD has always taken a more comprehensive approach towards wetlands. From RWMWD's 2017-2026 Watershed Management Plan:

The wetlands in the RWMWD are an important community and ecological asset. These resources provide significant wildlife habitat and refuge, while also supplying aesthetic, recreational, and water quality treatment benefits. It is the goal of the RWMWD to manage wetlands and the associated natural resources to create and preserve healthy ecosystems. To protect these valuable resources, the RWMWD

continues to manage wetlands to achieve no net loss of acreage, functions and value. The RWMWD serves as the Local Government Unit (LGU) responsible for administration of the Wetland Conservation Act (WCA) rules for all cities in the District, except the City of St. Paul, and except for on Minnesota Department of Transportation projects.

The wetlands section from RWMWD's 2017-2026 Watershed Management Plan is attached as an appendix to this memorandum for further background information and consideration for future management.

Wetland management rules often address two issues:

1. Wetland Conservation Act (WCA) – Compliance with WCA generally requires no loss of wetland area or function without mitigation and/or replacement.
2. Buffers – areas of perennial vegetation extending from wetlands to a defined width (with greater buffer widths often required for higher quality wetlands).

It is important to note that existing buffers with "perennial vegetation" are the exception rather than the rule in urban/already developed environments, where buffers are often degraded or nonexistent. Section 3 describes this in greater detail.

3 Wetland Management in the Urban Environment

"Urban wetland buffers are frequently regulated after decades of hydrologic alteration, land-use encroachment, and ecological degradation, which limits both their existing functional capacity and the effectiveness of conventional buffer-based regulatory frameworks in built-out environments."

(Source: Direct and Indirect Impacts of Urbanization on Wetland Quality, Office of Wetlands, Oceans and Watersheds, U.S. EPA.)

It is important to note that under WCA, regulation is triggered by proposed impacts rather than by baseline ecological conditions. The statute and rules explicitly focus on avoiding, minimizing and replacing impacts to existing wetlands, regardless of their current condition. In other words, WCA does not require wetlands to be high quality to be jurisdictional. As such, urban wetlands and their adjacent uplands are frequently degraded prior to regulatory review, complicating the application of traditional protection tools such as preservation of fixed buffer widths.

The Association of State Wetland Managers' Urban Wetlands Protection and Restoration Guide—developed with EPA support and used by LGUs nationwide—explicitly recognizes that:

- Urban wetland buffers often function as **impact attenuation zones**, not intact ecological transition areas.

- Fixed no-disturb buffer requirements may "**protect already compromised conditions rather than restore lost functions**;" and

- Urban wetland regulation must account for **historic degradation and altered landscape context**. [nawm.org]

Minnesota-specific research in the Twin Cities further demonstrates that:

- Buffer **width alone** is a poor predictor of ecological condition in urban wetlands.
- Vegetation composition, surrounding land use, and hydrologic alteration are often more determinative of function than buffer width.

This is why some watershed districts explicitly pair buffer requirements with active restoration, mitigation sequencing, and watershed-scale prioritization rather than relying on buffers alone.

The photo collage below shows several buffers in various conditions currently located within RWMWD. These examples illustrate the wide range of wetland buffer conditions that exist throughout the District. In highly urbanized watersheds, buffers do not always appear natural or pristine. The District's approach recognizes that buffer management in an urban environment often focuses on preserving remaining function, preventing further degradation, and improving conditions incrementally over time where opportunities exist.







A: Good buffer | B: Mowed turf close up | C: Concrete debris and bare soil in buffer
D: No proper wetland vegetation in wetland or buffer | E: Buckthorn in buffer | F: Road in buffer
G: Burdock and buckthorn in buffer | H: The Heights Outlot E - turf | I: Sparse vegetation

4 Wetland Buffer Rules in RWMWD

The Wetland Conservation Act does not establish what wetland buffers should be. Buffer protections around wetlands are primarily implemented through watershed district rules and/or local shoreland ordinances. For RWMWD, buffer widths have historically been defined in relation to wetland classification systems based on functions and values assessments (such as MnRAM, described in greater detail below).

4.1 Early Wetland Management Approach (1987 to 1996)

The RWMWD began developing its own wetland inventory in 1987 and expanded its understanding in 1996 by conducting function and value assessments of the wetlands within the District. During this time, the District utilized a simple wetland management framework that included wetland classifications such as:

- Protect,
- Manage 1,
- Manage 2,
- and Utilize.

Consistent with common Minnesota watershed and drainage management practices during the 1980s and 1990s, wetland protection approaches were generally based on broader setbacks or buffer expectations, often using rod-based measurements such as a one-rod (16.5-foot) setback, prior to the transition to function-based wetland buffer standards in the mid-2000s. These protections were labeled setbacks to prevent development right up to the wetland edge, rather than buffer standards that aim to provide other environmental benefits.

4.2 1997 Watershed Management Plan (1997-2006)

The 1997 RWMWD Watershed Management Plan represented an important philosophical shift toward integrated ecological resource management.

The plan emphasized:

- no net loss of wetland acreage, function, and value,
- habitat preservation,
- ecological corridors,
- shoreline vegetation,
- and natural resource protection.

The 1997 plan discussed buffers extensively as ecological transition areas, habitat corridors, and water-quality protection features. The plan stated that "*Open spaces, corridors and buffers are key land and water resource features*" and referenced future implementation of "*stream and wetland buffer controls*."

However, the 1997 plan did not establish district-wide numeric wetland buffer standards. During this time, buffers were primarily framed as conceptual ecological protection tools, rather than formalized regulatory standards. The same 16.5-foot buffer setback was in place to ensure a distance from the wetlands and new developments.

4.3 MnRAM and Wetland Functional Assessment (2003-2005)

MnRAM is a wetland functional assessment methodology developed in Minnesota to evaluate:

- ecological function,
- habitat quality,
- stormwater sensitivity,
- hydrologic function,
- and adjacent land-use impacts.

From RWMWD's current Watershed Management Plan:

The RWMWD completed a review and revision of the 1996 assessments from 2003 to 2005 to identify possible changes in the wetland functions and/or values over time and to apply an updated assessment methodology (i.e., MnRAM 3.0).

The objective of the RWMWD wetland inventory was to identify wetlands by type (U.S. Fish and Wildlife Service Circular 39 or Cowardin classification (Cowardin, 1979)), size, location and landscape setting, and wetland functions. This information was collected and/or updated through field visits to each wetland. The wetland assessment process involves evaluating the existing and potential functional capacity of each wetland based on inventory data and other information such as vegetative community, soils, hydrology, ecologic characteristics, and cultural uses. Over 750 wetlands were assessed by RWMWD staff in the 2003 and 2004 field seasons. The District-managed lakes and streams were not assessed as part of the wetland assessment. Some water quality ponds were included in the inventory, but not assessed for function and value. The District completed an assessment of the Grass Lake subwatersheds in 2014 using the MnRAM. In addition to District wetland assessments, the RWMWD requires project proposers submitting plans to the District to perform an inventory of wetlands located within the proposed project site…

The Minnesota Routine Assessment Method for Evaluating Wetland Functions, Version 3.0 (MnRAM 3.0) was used for the 2003-2005 wetland assessments. Whereas the 1996 inventory was focused primarily on qualitative data, the 2003-2005 assessment followed national and local trends toward a more quantitative approach. MnRAM 3.0 was developed to convert qualitative observations and conclusions about wetlands into a numeric rating system, to better assist local governments in making wetland management decisions.

4.4 2006 Rule Revision with Scientific and Regulatory Basis for Wetland Buffer Widths

The District's wetland buffer standards adopted during the 2006 rule revision process were consistent with scientific understanding, regulatory guidance, and watershed management practices commonly

used throughout Minnesota during that period. The development of the current classification-based wetland buffer framework was strongly influenced by both MnRAM functional assessment methodology and statewide wetland management guidance promoted by the BWSR.

One of the most influential technical references during the early 2000s was the report prepared for Minnehaha Creek Watershed District by Emmons & Olivier Resources (EOR): *Benefits of Wetland Buffers: A Study of Functions, Values and Size (2001).* The study reviewed hundreds of scientific and regulatory sources on wetland buffers nationwide and concluded that vegetated buffers are widely supported as an important tool for protecting wetland function and water quality.

The report emphasized that wetland buffers provide multiple functions simultaneously, including:

- sediment and phosphorus removal,
- runoff filtration,
- erosion reduction,
- habitat protection,
- flood attenuation,
- shoreline stabilization,
- and preservation of ecological integrity.

Importantly, the study concluded that no single universal buffer width protects all wetland functions equally. Instead, the report supported varying buffer widths based on the functions and sensitivity of the wetland system.

As the District's eventual classification-based standards align, the report generally found:

- narrower buffers (~15–25 feet) may provide limited sediment trapping and runoff filtration,
- moderate buffers (~25–50 feet) provide stronger nutrient reduction and water-quality protection,
- and wider buffers (~50–100+ feet) are important for habitat preservation and ecological integrity.

At the same time, BWSR guidance documents promoted a statewide shift toward function-based wetland management using MnRAM assessments and wetland management classifications.

The BWSR framework emphasized that:

- wetland protection should be based on ecological function and sensitivity,
- different wetlands require different levels of protection,
- and vegetated buffers are important for preserving wetland quality and function.

The framework encouraged local governments and watershed districts to classify wetlands based on function, apply varying protection standards, and tailor buffer requirements to local conditions.

RWMWD's updated wetland and buffer management rules, adopted in 2006, reflected this broader statewide approach by using the MnRAM-based wetland classifications, differentiated buffer widths, and function-based management standards. This was thoroughly reviewed by the rules technical advisory committee (TAC) and continues to be evaluated at each TAC rule revision process.

The District's adopted wetland buffer standards were chosen to fit closely within the scientific and regulatory framework supported by both the EOR study and BWSR guidance, as shown in Section 4.5, below.

4.5 2007 Watershed Management Plan (2007-2016)

The 2007 Watershed Management Plan states that MnRAM procedures were used, wetlands were reassessed, and updated classifications were established in 2005.

This work marked a significant evolution in the District's wetland management approach by shifting from generalized protection concepts toward function-based management, ecological sensitivity analysis, and differentiated regulatory standards.

As part of the MnRAM reassessment process, the District transitioned to the current wetland classification framework:

Earlier Classification	Updated Classification
Protect	Manage A
Manage 1	Manage B
Manage 2	Manage C
Utilize	Water Quality Pond

The classifications were designed to reflect ecological quality, functional value, habitat significance, and sensitivity to degradation. The updated framework allowed the District to apply different protection standards based on wetland function and management goals.

The District's revised rules, adopted in 2006, formalized wetland buffer requirements into the regulatory framework. The 2007 Watershed Management Plan documented the resulting standards as follows:

Wetland Classification	Minimum Buffer	Average Buffer
Manage A	37.5 ft	75 ft
Manage B	25 ft	50 ft
Manage C	12.5 ft	25 ft
Water Quality Pond	10 ft vegetated	—

The revised standards also incorporated stormwater pretreatment requirements, phosphorus and sediment reduction standards, and restrictions on runoff discharge into wetland buffers. This

represented a significant advancement from earlier generalized setbacks toward a science-based, function-oriented wetland management system.

4.6 2017 Watershed Management Plan (2017-2026)

The 2017 Watershed Management Plan continued and reinforced the District's wetland classification and buffer framework. By this time, wetland buffers had become fully integrated into the District regulatory program, approach to stormwater management, ecological restoration, and resilience planning.

The 2017 framework continued to utilize MnRAM-based classifications, classification-based buffers, and native vegetation requirements. The 2017 Watershed Management Plan documented wetland buffer and water quality requirements as follows:

Wetland Classification	Minimum "No Disturb" Buffer[1]	Average "No Disturb" Buffer[1]	Water Quality Pretreatment Requirements Total Suspended Sediment (TSS)
Manage A	37.5 ft	75 ft	90% removal
Manage B	25 ft	50 ft	90% removal
Manage C	12.5 ft	25 ft	90% removal
Water Quality Pond	10 ft	—	NA

[1] Cities may have more stringent wetland buffer requirements than those required by the District
[2] Pretreatment must achieve 90% TSS removal from the runoff generated by a NURP water quality storm (2.5" rainfall). Runoff volume reduction BMPs may be considered and included in this requirement.

The 2017 Watershed Management Plan and RWMWD Rules further emphasized long-term ecological integrity, restoration quality, and permanent buffer protection.

4.7 Conversion to the WI/MN Wetland Rapid Assessment Method

Going forward, BWSR no longer provides support for the MnRAM assessment. As of 10/22/2025, a new method (WI/MN Wetland Rapid Assessment Method) has been released for general use. BWSR accepted feedback on the method until 5/15/2026, after which time any necessary final revisions will be made before going to the BWSR board for consideration of approval for use in Minnesota. It is anticipated that if/when this new method is approved for use, MnRAM will be removed as an approved method). To address the change, staff would propose an implementation item to reclassify District wetlands using this new assessment method sometime over the next few years.

From BWSR's WI/MN Wetland Rapid Assessment Method User Guide (Version 1.0, September, 2025):

This RAM assesses 17 specific wetland functions within five broad categories. Function groups and specific functions are defined in relation to functional references in state statutes and administrative rules. Some closely related functions were consolidated under a broader function category. When this

occurs, the RAM output can be used to distinguish between these related functions. Wetland functions interact and overlap. This RAM necessarily limits the scope of each function as follows:

- ***Hydrologic*** *focuses on three specific functions: Surface Water Attenuation, Surface Water Supply, and Ground Water Recharge. Wetlands play an important role in the hydrologic cycle – influencing and controlling surface water flows in watersheds in ways that often are an interface between surface and groundwater.*
- ***Water Quality*** *focuses on the ability of a wetland to improve water quality of downstream resources and is comprised of five specific functions: Nitrate Removal, Phosphorus Retention, Sediment and General Pollutant Retention, Shoreline Stabilization, and Thermoregulation. The water quality of a wetland is accounted for in other functions, specifically the ecological function related to fish and wildlife habitat. Wetland water quality influences wetland condition which drives ecological functioning.*
- ***Ecologica****l focuses on fish and wildlife habitat of endemic species. Specific functions include Native Plant Habitat, Wildlife Habitat, and Fish Habitat. This group also emphasizes the natural, ecological functioning of a wetland in its landscape.*
- ***Climate*** *relates to the physical attributes and biochemical processes of wetlands that mitigate the effects of excess atmospheric carbon and methane gas. The specific function evaluated is Carbon Sequestration. Wetlands accumulate carbon through internal (e.g., vegetation growth) and external (e.g., runoff) processes, and store much of that accumulated carbon in anoxic sediment over decadal and longer timescales, thereby decreasing atmospheric CO2 concentrations as well as avoiding loss of terrestrial carbon as CO2.*
- ***Anthropogenic*** *function represents the attributes of wetlands that affect direct human uses, including commercial production of goods, recreation, education and research. Specific anthropogenic functions are Historic or Cultural Uses, Scientific or Educational Importance, Commercial Uses, Recreational Uses, and Scenic Beauty.*

4.8 Conclusion and Next Steps

The District's wetland buffer policies have evolved significantly over the past several decades from relatively generalized setback concepts into a more function-based regulatory framework tied to wetland classifications and ecological assessments.

Over time, the District has increasingly emphasized:

- ecological function,
- habitat preservation,
- stormwater treatment,
- restoration,
- and science-based watershed management.

Although many of the foundational studies supporting wetland buffer standards were developed in the early 2000s, current wetland science continues to support the core principles underlying our buffer

framework. More recent research generally reinforces rather than contradicts the scientific basis for our buffer widths.

The District's wetland policies will continue to evolve with the assessment changes coming with the BWSR's WI/MN Wetland Rapid Assessment Method, which will applied to District wetlands during the 2027-2036 Watershed Management Plan cycle. During that process, staff will need to work with the new assessment system to clearly define how to categorize our wetlands.

Even before this new classification system is used for RWMWD wetlands, District staff, in partnership with CRWD, are considering changes to RWMWD's wetland rules, particularly regarding two subjects: buffer widths and temporary impacts to our buffers. RWMWD and CRWD will meet this summer, with resulting rule changes planned for the end of the year. A Technical Advisory Committee (TAC) will convene later this year to provide input on possible rule revisions. These rule revisions could include consideration of District priorities involving specific wetland categories and update requirements for when a variance is necessary for temporary impacts within urban wetland buffers.

1.11 Wetlands

The wetlands in the RWMWD are an important community and ecological asset. These resources provide significant wildlife habitat and refuge, while also supplying aesthetic, recreational, and water quality treatment benefits. It is the goal of the RWMWD to manage wetlands and the associated natural resources to create and preserve healthy ecosystems. To protect these valuable resources, the RWMWD continues to manage wetlands to achieve no net loss of acreage, functions, and value. The RWMWD serves as the Local Government Unit (LGU) responsible for administration of the Wetland Conservation Act (WCA) rules for all cities in the District, except the City of St. Paul, and except for on Minnesota Department of Transportation projects (see Section 4.1.2 for more information).

1.11.1 Wetland Conservation Act (WCA)

The purpose of the WCA (Minnesota Rules 8420) is to maintain and protect Minnesota's wetlands and the benefits they provide. To retain the benefits of wetlands and reach the legislation's goal of no-net-loss of wetlands, WCA requires anyone proposing to drain, fill, or excavate a wetland to first try to avoid disturbing the wetland; second, to try to minimize any impact on the wetland; and, finally, to replace any lost wetland acres, functions, and values. Certain wetland activities are exempt from the act, allowing projects with minimal impact or projects located on land where certain pre-established land uses are present to proceed without regulation.

The WCA rules require that drained and filled wetlands be replaced at replacement ratios of between 1:1 and 2.5:1 (depending upon the location of impact, location of replacement, and timing of replacement). LGUs, including the RWMWD, may have more restrictive wetland regulations. The MDNR is included in enforcement of the WCA and is responsible for identification, protection, and management of calcareous fens.

The Minnesota Legislature has amended the WCA several times since its inception, mostly to accommodate varying needs of different geographic areas in Minnesota. The current WCA rule was effective August 2009 with subsequent WCA statute changes effective in August 2011 and June 2012. More information about WCA guidance is provided at the BWSR website: http://www.bwsr.state.mn.us/wetlands/wca/index.html

As part of administering the WCA rules, the RWMWD is responsible for making determinations on the accuracy of wetland delineations, wetland functions and values assessments, and wetland replacement plans, often with review and input by a Technical Evaluation Panel (TEP). For all projects proposing to impact more than 10,000 square feet of wetland, the District must send a copy of the application to the TEP, MDNR and any persons who have requested notification. The parties notified are invited to submit comments during a review period that must be at least 15 days long (per Minnesota Statute 103G).

1.11.2 Wetland Inventory & Assessment

It is important to understand the extent, function and value of existing wetlands to provide a basis for wetland protection, management, and restoration efforts. Nationally, the U.S. Fish and Wildlife Service (USFWS) is responsible for mapping wetlands across the country, including those in Minnesota. Using the National Aerial Photography Program (NAPP) in conjunction with limited field verification, the USFWS identifies and delineates wetlands, produces detailed maps on the characteristics and extent of wetlands, and maintains a national wetlands database as part of the National Wetland Inventory (NWI). The NWI is periodically updated based on available imagery.

The RWMWD began the development of its own wetland inventory in 1987 and expanded its understanding in 1996 by performing function and value assessments of the wetlands within the District. The RWMWD completed a review and revision of the 1996 assessments from 2003 to 2005 to identify possible changes in the wetland functions and/or values over time and to apply an updated assessment methodology (i.e., MnRAM 3.0).

The objective of the RWMWD wetland inventory was to identify wetlands by type (U.S. Fish and Wildlife Service Circular 39 or Cowardin classification (Cowardin, 1979)), size, location and landscape setting, and wetland functions. This information was collected and/or updated through field visits to each wetland. The wetland assessment process involves evaluating the existing and potential functional capacity of each wetland based on inventory data and other information such as vegetative community, soils, hydrology, ecologic characteristics, and cultural uses. Over 750 wetlands were assessed by RWMWD staff in the 2003 and 2004 field seasons. The District-managed lakes and streams were not assessed as part of the wetland assessment. Some water quality ponds were included in the inventory, but not assessed for function and value. The District completed an assessment of the Grass Lake subwatersheds in 2014 using the MnRAM. In addition to District wetland assessments, the RWMWD requires project proposers submitting plans to the District to perform an inventory of wetlands located within the proposed project site. The RMWWD wetland inventory is presented in Figure 1-12.

The Minnesota Routine Assessment Method for Evaluating Wetland Functions, Version 3.0 (MnRAM 3.0) was used for the 2003-2005 wetland assessments. Whereas the 1996 inventory was focused primarily on qualitative data, the 2003-2005 assessment followed national and local trends toward a more quantitative approach. MnRAM 3.0 was developed to convert qualitative observations and conclusions about wetlands into a numeric rating system, to better assist local governments in making wetland management decisions.

The MnRAM 3.0 methodology is designed to provide an organized, consistent procedure to document observations and conclusions about wetland processes. MnRAM 3.0 consists of a worksheet to be used during wetland site visits, and a database within which all the data is entered and stored. The database calculates functional indices for the wetlands and provides an efficient and flexible means of storing and analyzing wetland data. For additional information about MnRAM, see the Minnesota Board of Water and Soil Resources (BWSR) website at: www.bwsr.state.mn.us.

1.11.3 Wetland Management Classification

The wetlands within the District have are classified for management purposes, based on the observations and conclusions of the 2003-2005 wetland inventory and assessment. The MnRAM 3.0 documentation includes recommendations for wetland management categories. Documentation available from the BWSR website (www.bwsr.state.mn.us) illustrates the MnRAM 3.0 process for deriving a wetland management classification by using the functional indices for each wetland. The RWMWD used the MnRAM 3.0 "Basic Protection" standard flowchart for classification, which places wetlands into one of four categories. The four RWMWD wetland categories (and corresponding MnRAM categories) are defined as follows (based on the MnRAM 3.0 guidance available from the BWSR website: http://www.bwsr.state.mn.us/wetlands/mnram/index.html):

- **Manage A** (MnRAM 3.0 Preserve) – This category is for exceptional and highest-functioning wetlands or those sensitive wetlands receiving conveyed stormwater runoff that have yet retained a medium level of vegetative diversity/integrity. These wetlands are those that should be preserved in (or improved to) their most pristine or highest functional capacity with wide, natural buffers, in perpetuity.

- **Manage B** (MnRAM 3.0 Manage 1) – In this category are high-quality wetlands that should be protected from development and other pressures of increased use, including indirect effects. Maintaining natural buffers will help to retain the significant function these wetlands provide.

- **Manage C** (MnRAM 3.0 Manage 2) – Manage C wetlands provide medium functional levels and the wetland extent should be maintained. Maintaining natural buffers will help to retain the significant function these wetlands provide. These wetlands often provide optimal restoration opportunity.

The MnRAM 3.0 wetland management classification includes a fourth class (MnRAM 3.0 Manage 3 or RWMWD Utilize in the 1996 inventory) which includes wetlands that have been substantially disturbed and do not fit into any of the other management classifications. This classification is not currently used by the District. Four wetlands were classified as MnRAM 3.0 Manage 3 following the MnRAM methodology in the 2005 inventory. The four wetlands that fell into the MnRAM 3.0 Manage 3 category were then rolled up into the MnRAM 3.0 Manage 2/RWMWD Manage C (third) category.

The 2005 inventory resulted in a good distribution of wetlands within the top three categories. In the 2005 inventory, the RWMWD made a concerted effort to distinguish between constructed water quality ponds, wetlands created for mitigation purposes, and natural wetlands, as many constructed water quality ponds were classified as wetlands in the 1996 inventory. The RWMWD evaluated each of the Utilize wetlands inventoried in 1996 and identified if they were historical wetlands or were created in upland areas for stormwater treatment. This effort resulted in most of the wetlands classified in 1996 as the lowest classification (MnRAM 3.0 Manage 3 or RWMWD "Utilize") being recognized (and classified) as water quality ponds, and not classified as wetlands. Those areas found to be wetlands prior to their use for stormwater treatment were assessed as wetlands using MnRAM 3.0. The RWMWD treats these as jurisdictional wetlands under WCA, even if they currently function as stormwater treatment ponds. Mitigation wetlands received the highest wetland management classification (Manage A).

Figure 1-12 shows the RWMWD wetland management classifications for all of the wetlands assessed by the RWMWD. The RWMWD uses the wetland management classifications in the District permitting and regulatory programs (see Section 4.1.2). The RWMWD established wetland management standards for each classification. The wetland management standards are incorporated into the RWMWD rules and regulations and are summarized in Table 1-8. These standards define the minimum and average no disturb buffer required for each wetland class and the necessary pretreatment of stormwater prior to discharge into a wetland. The standards also do not allow stormwater BMPs within the wetland buffer.

Table 1-8 RWMWD Wetland Buffer and Water Quality Requirements

RWMWD Wetland Classification	Buffer Requirements[1]		Water Quality Pretreatment Requirements
	Minimum "No Disturb" Buffer (ft)	Average "No Disturb" Buffer (ft)	Total Suspended Sediment (TSS)
Manage A	37.5	75	90% removal[2]
Manage B	25	50	90% removal[2]
Manage C	12.5	25	90% removal[2]
Water Quality Pond	10	10	NA

[1] Cities may have more stringent wetland buffer requirements than those required by the District.

[2] Pretreatment must achieve 90% TSS removal from the runoff generated by a NURP water quality storm (2.5" rainfall). Runoff volume reduction BMPs may be considered and included in this requirement.

RWMWD Creek Walk Prioritization Update

June 3, 2026

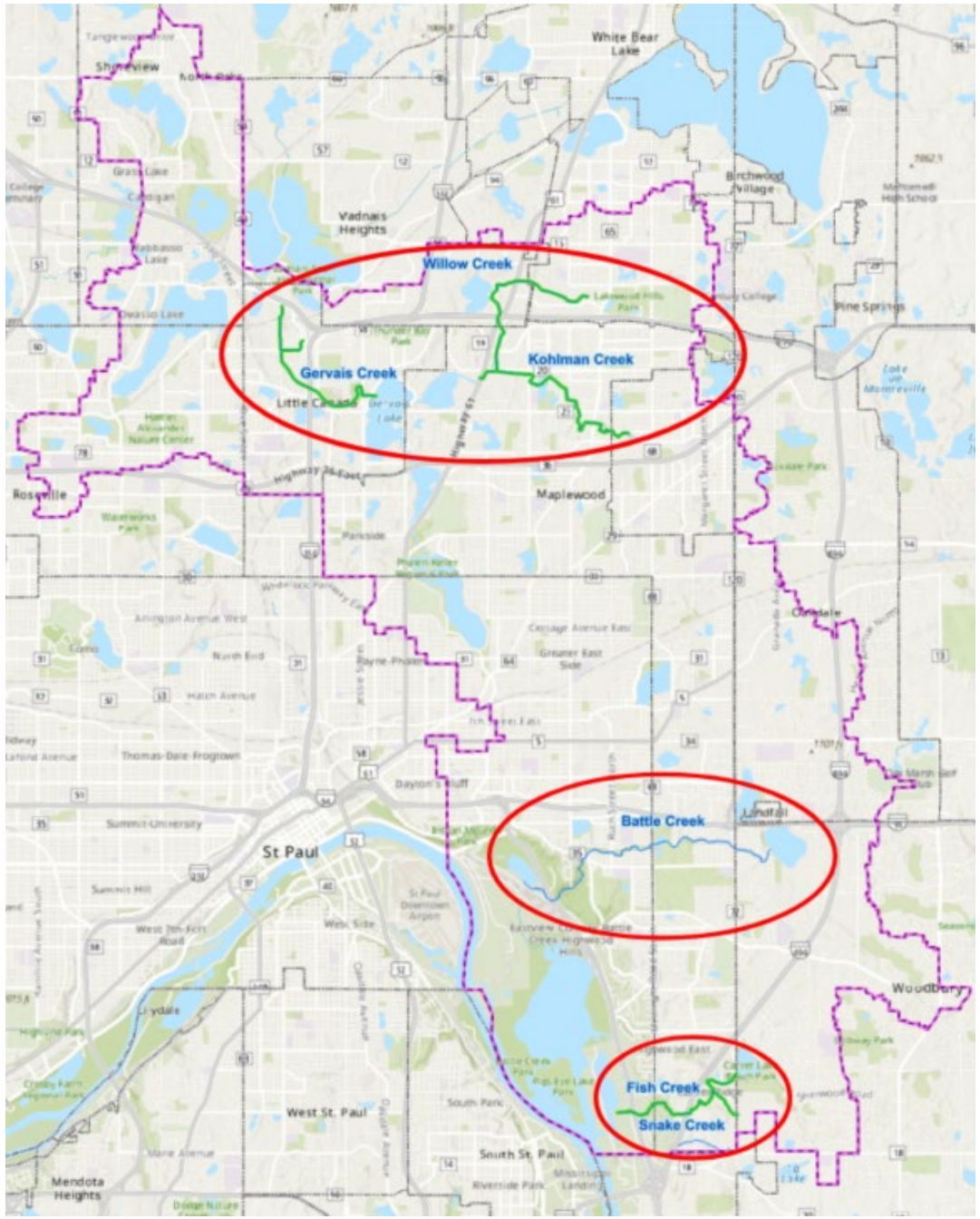
BARR

RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

Quality Water for Quality Life.

Creek Overview

- Battle Creek
- Fish Creek
- Gervais Creek
- Kohlman Creek
- Snake Creek
- Willow Creek



Annual creek walks – standardizing evaluations





Prioritization Worksheet

Purpose: Provide field staff a standard way to assess stream stability and prioritize restoration projects

Result: Scored sites based on geomorphic criteria where a lower score correlates with a higher priority/worse condition.

Item / criteria	Score	Description	Barr or RWMWD
Bank height (from notes)	1	More than 4'	RWMWD
	2	2' - 4'	
	3	0 – 2'	
Root depth (from photo)	1	Less than 25% of bank height	RWMWD
	2	25% - 50% of bank height	
	3	More than 50% of bank height	
Root density (from photo)	1	Less than 25% coverage	RWMWD
	2	25% - 50% coverage	
	3	More than 50% coverage	
Bank angle (from photo + notes)	1	80 degrees or steeper or undercut more than 1 ft	RWMWD
	2	60 to 80 degrees, undercut less than 1 ft	
	3	Flatter than 60 degrees, not undercut	
Bank surface protection	1	Less than 25% coverage	RWMWD
	2	25% - 50% coverage	
	3	More than 50% coverage	
Soil type	1	Sand, small cobble or gravel	RWMWD
	2	Silt	
	3	Clay or riprap/large cobble or bedrock	
In-channel depositions or debris	1	Yes, routing flow toward bank	RWMWD
	2	Yes, doesn't appear to impact bank	
	3	No depositions	
Proximity to structures / infrastructure	1	Edge of eroding bank is less than 5 feet from infrastructure (i.e. pipes, trails, roads, buildings, etc.)	RWMWD / Barr (if utility layer is available in GIS)
	2	Edge is 5' - 15' from structure / infrastructure	
	3	Edge is more than 15' from infrastructure	
Eroding bank length	1	More than 30'	RWMWD
	2	10' - 30'	
	3	Less than 10 '	
Existing gully	1	Existing severe gully (4' or greater depth)	RWMWD
	2	Existing moderate gully (less than 4')	
	3	No gully	
Existing seeps in bank	1	Visible seeps	RWMWD
	2	Possible seepage	

Data Collection

Field Survey

- Bank height, angle, erosion length
- Root depth and density
- Soil type
- Vegetation type and density
- Groundwater influence
- Existing geomorphic process
- Existing stabilization
- Gut check

Desktop Review

- Access
- Land ownership
- Proximity to other projects



Grid point method indicates more than 50% root density coverage

High Priority

Criteria	Score	Description
Bank height	1	More than 4’
Bank angle	1	90 degree bank
Eroding bank length	1	More than 30’
Soil type	3	Clay and silt
Root depth	2	25% - 50% of bank height
Vegetation density	1	Less than 25% cover
In-channel depositions or debris	1	Yes, routing flow toward bank
Woody material adjacent to and in creek	2	At least partly secured; 4-inch to 8-inch diameter; more than half located below the bank





Medium Priority

Criteria	Score	Description
Bank height	1	More than 4’
Bank angle	3	60 degree or flatter bank
Root depth	3	Roots to toe of bank
Root density	2	25% - 50% coverage
Soil type	2	Sand and gravel with riprap toe
Proximity to structures	1	Edge of eroding bank is less than 5 feet from infrastructure
Existing stabilization	2	Existing riprap has some areas of failure
Access	1	Adjacent to roads and/or trails



Low Priority

Criteria	Score	Description
Bank height	1	More than 4’
Bank angle	1	60-80 degree bank
Existing gully	2	Yes, less than 4’ in depth
Soil type	2	Mixed sand, silt, gravel, cobble
Root depth	3	More than 50% of bank height
Root density	3	More than 50% coverage
Vegetation type	3	Majority native species
Vegetation density	3	More than 75% ground coverage and less than 25% invasive species



Next Steps

1. Final prioritization / mapping
2. Identify stream reaches for stabilization projects
3. Develop feasibility-level designs for highest-priority reaches



Technical Memorandum

To: Dave Vlasin, RWMWD
From: Alec Bateman, Barr Engineering
Subject: 2026 Battle Creek Dam Outlet Inspection Memo
Date: May 28, 2026
Project: 2026 Battle Creek Dam Outlet Inspection
c: Brandon Barnes, Joe Welna

Certification
I hereby certify that this 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.

Alec Bateman
PE #: 61795

05/28/2026
Date

1 Executive Summary

On August 14, 2025, engineers from MNDNR Dam Safety completed an inspection for the Battle Creek Dam (MN01014). Dam Safety found the dam to be well maintained and in good condition. However, three minor issues were noted that could evolve into more serious issues if not addressed. These issues included a minor accumulation of debris around the outlet structure, minor subsidence on the north side of the riser, and a subsidence along the conduit on the west side of McKnight Road where the west catch basin connects with the underlying Battle Creek Dam outlet pipe referred to as “outlet pipe” herein. MNDNR recommended an inspection be conducted of the outlet pipe to identify the cause of this settlement. The MNDNR report is included in Attachment A. Ramsey-Washington Metro Watershed District (RWMWD) retained Barr Engineering Co. (Barr) to conduct an inspection of the outlet pipe to investigate the potential source of settlement, as well as identify all other defects present in the outlet pipe.

The Battle Creek Dam is located on Battle Creek east of McKnight Road. The dam was constructed as part of the Battle Creek Erosion and Flood Control project, which was constructed in the early 1980’s. The Battle Creek erosion and Flood Control project was the first RWMWD project and solved flooding and erosion issues along Battle Creek. The project included work on approximately three miles of creek through the cities of Maplewood and St. Paul. Work on the upper two miles included installation of sheet pile drop structures and creation of a major flood detention basin known as McKnight Basin. McKnight Basin is on park land, and during normal flow periods includes three ponds with trails and a picnic pavilion. The downstream mile of the project (through a steep ravine) involved the installation of a flood flow pipe that routes damaging flows underground to avoid surface erosion. Battle Creek Dam is the downstream embankment of McKnight Basin.

Large rainfall events may result in McKnight Basin discharge via the turfed emergency spillway. Excess overflows through the emergency spillway may cause erosion and potential failure of the embankment. Failure of the embankment may result in life-threatening flash flooding downstream. As such the Battle Creek Dam (McKnight Basin embankment) is classified by the Sate of Minnesota as a Class I (High Hazard) dam. RWMWD is responsible for operation and maintenance of the embankment and facilities which create McKnight Basin. The location of McKnight Basin, Battle Creek Dam, and the outlet pipe are shown on Figure 1.

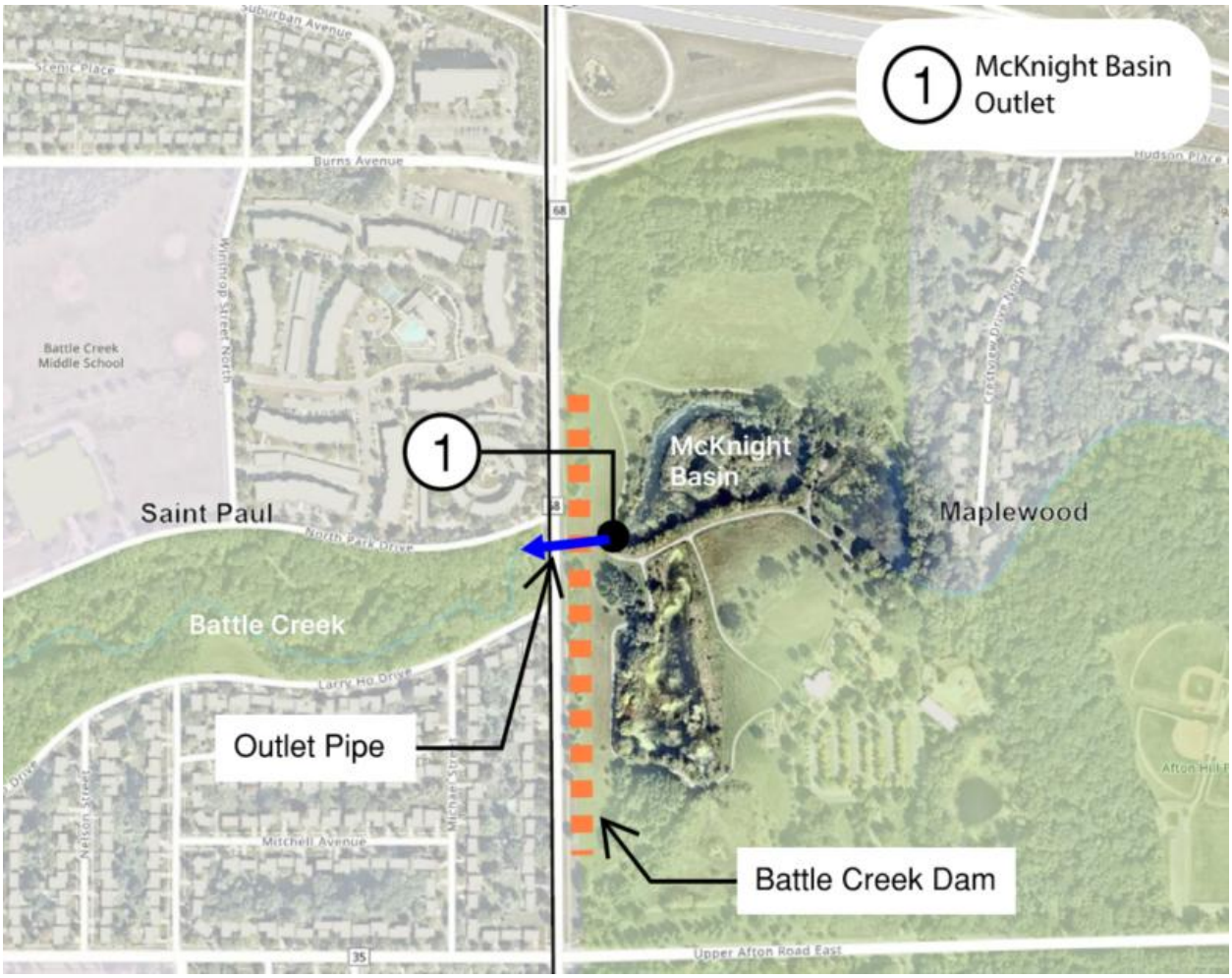


Figure 1 Location Map

The outlet pipe is approximately 300 ft-long. The original outlet pipe was removed and reconstructed in 1981. Additional improvements to the dam included a berm, a downsized primary basin outlet and an overflow structure built into the berm. The reconstructed outlet pipe consists of 260 ft of 87” x 138” Reinforced Concrete Arch Pipe (RCPA) and 40 ft of 45” x 73” RCPA. The record drawings are included in Attachment B.

Outlet pipe conditions were documented using the Pipeline Assessment and Certification Program (PACP) developed by the National Association of Sewer Service Companies (NASSCO). The NASSCO coding allows for quantification of storm sewer conditions and comparison of conditions over time.

Overall, the outlet pipe was found to be in “fair” condition. The majority of defects encountered consisted of infiltration of groundwater and ingress of soil through loose pre-cast pipe joints, and connections with taps, manholes and catch basins. Some of these defects align with the areas of observed settlement at ground surface. It’s Barr’s opinion that these defects, if not addressed, may continue to allow infiltration and soil ingress which can lead to subsidence of surface features above the outlet pipe over time.

2 Inspection Summary

The outlet was inspected on April 9th, 2026. The inspection was conducted with a 2-person Barr team, accompanied by one RWMWD staff member in the outlet pipe and an additional RWMWD staff member performing surface-attendant duties. Water control was installed by Peterson Companies utilizing sandbags at the upstream flared end section where the McKnight Basin outlets, and 2 pumps installed at the downstream end to lower the water levels within the outlet pipe. A measuring wheel was used to establish stationing in the tunnel. Defects were recorded per NASSCO PACP guidelines in field notes and later input into an Excel spreadsheet for processing and analysis. Photos were also taken along the entirety of the tunnel, as well as a video of the full tunnel starting at the downstream end (station 3+01) and ending at the upstream end (station 0+00).

Access to the tunnel was achieved by entering through the upstream flared end section, and emergency egress was established at an existing manhole in the McKnight Park path adjacent to the overflow structure. Additional egress was available at the downstream end of the outlet pipe on the west side of McKnight Road.

2.1 Defect Categories

There are 4 primary categories of codes used in the NASSCO pipeline assessment program. These are structural (Struct.), operation and maintenance (O&M), construction (Const.) and Miscellaneous (Misc.). The structural category includes codes for defects that can compromise the structural integrity of the pipe. The operation and maintenance category includes codes for defects that can compromise the functionality, capacity, and operation of the pipe. The construction category includes codes that are used to note the location of construction features, such as manholes, catch basins, tap pipes, line direction changes, etc. The miscellaneous category includes codes that are used to note general observations that are not captured in the other categories. An index of these codes can be found in Attachment C.

In order to assign condition grades to the defects, Barr followed the NASSCO condition grading system. This system has two primary categories of defect grades. These include structural (Struct.) and operation and maintenance (O&M). The structural condition grades include the structural category of codes, and the operation and maintenance grades include the operation and maintenance, construction, and miscellaneous categories of codes. Below is a list of the primary codes used in this inspection.

Structural Codes:

- CC – Crack circumferential
- CM – Cracks multiple
- SAV – Surface damage aggregate visible
- SAP – Surface damage aggregate projecting
- SRV – Surface damage reinforcement visible
- SRP – Surface damage reinforcement projecting
- SRC – Surface damage reinforcement corroded
- SSS – Surface damage surface spalling
- RPP – Point repair patch
- RPPD – Point repair patch defective

Operation and Maintenance Codes:

- DSF – Deposits settled fine
- DSGV – Deposits settled gravel
- DNF – Deposits ingress fine
- IWJ – Infiltration weeper through joint
- IWB – Infiltration weeper through barrel
- IRJ – Infiltration runner through joint

Construction Codes:

- TBA – Tap break-in active
- TBB – Tap break-in abandoned
- TBD – Tap break-in defective
- ISSRB – Intruding sealing material, sealing ring broken
- ACB – Access point catch basin
- AMH – Access point manhole
- AOC – Access point other

Miscellaneous Codes:

- MGP – Miscellaneous general observation
- MWL – Miscellaneous water level
- MSC – Miscellaneous shape change
- MJL – Miscellaneous joint length

2.2 PACP Defect Grades

Defects were assigned grades per NASSCO PACP guidelines within both the structural (Struct.) and operation and maintenance (O&M) categories:

5 – Most Significant Defect

4 – Significant Defect

3 – Moderate Defect

2 – Minor-to-Moderate Defect

1 – Minor Defect

3 Inspection Findings

Several methods of tunnel condition quantification are provided within this memo, including the following:

1. Summary of Overall Pipe Rating (OPR) and Pipe Rating Index (PRI) which are described in Section 3.1 and summarized in Table 3-2.

2. Defects and photograph references listed along tunnel alignment (Attachment D & E)

3. Inspection data in tabular format (Attachment F).

3.1 Presentation of Observations

The PACP condition grading system is based on the number and severity of defects observed during the inspection. There is no single condition grading system that fully describes all of the important aspects of a pipe; therefore, the PACP condition grading system uses more than one method of tunnel segment rating. The overall pipe rating (OPR) and the pipe-rating index (PRI) were used for this inspection. These two grading methods were chosen because they provide a qualitative (PRI) and quantitative (OPR) assessment of the tunnel.

The OPR is a number used to benchmark pipes. Higher OPRs indicate more defects in the pipe. To determine the OPR, a grade score must be calculated for each NASSCO condition by multiplying the number of defect occurrences by the respective condition grade (1, 2, 3, 4, and 5) and calculating the sum of each value.

The PRI is a weighted average of the grade scores over the length of pipe. It is calculated by dividing the OPR by the total number of defects. The PRI value has a range of 0 to 5, and the grade definition corresponds to the NASSCO feature grade, where 5 is the most severe. This value is used to give a rating of the tunnel, as shown in Table 3-2 below. A PRI of 0 indicates the pipe has no defects. The OPR and PRI are calculated separately for both structural and O&M defects.

PRI values are calculated for both structural and O&M defects and used to assign a condition descriptor (Table 3-1) to the storm sewer.

Table 3-1 Pipe Rating Index (PRI) Summary

PRI Value	Tunnel Condition
0–1	Good[1]
2–3	Fair[2]
4	Poor[3]
5	Urgent[4]

[1] **Good:** The pipe is structurally adequate and defects are not causing deterioration. The pipe requires monitoring but no maintenance or rehabilitation is currently necessary.
[2] **Fair:** The pipe is structurally adequate but defects are causing deterioration. The pipe requires monitoring but no maintenance or rehabilitation is currently necessary.
[3] **Poor:** The pipe is structurally inadequate but defects have caused advanced deterioration. The pipe requires rehabilitation.
[4] **Urgent:** The pipe is structurally inadequate or has a service-impending defect. The pipe requires immediate rehabilitation.

The OPR is another method of evaluating the condition of a pipe. The OPR is most beneficial when used for ongoing comparison of conditions. A summary of the OPR and PRI value for the Battle Creek Dam outlet pipe is included in Table 3-2. The PRI and OPR ratings consider only observed defects within the structural or O&M categories.

Table 3-2 Summary of Overall Pipe Rating (OPR) and Pipe Rating Index (PRI)

Structural OPR	O&M OPR	Overall OPR	Structural PRI	O&M PRI	Overall PRI	Total Defects
105	308	413	3	2	3	162

3.2 Grade 3 Defects

In total, 19 grade 3 (moderate) defects were observed in the Battle Creek Dam outlet pipe. A summary of these defects, including defect type, is provided in Table 3-3. Grade 3 represents the midpoint of a minor defect transitioning to a more severe defect.

Table 3-3 Summary of Grade 3 Defects

Defect Code	Defect Quantity	Defect Type	Defect Description
SSS	14	Structural	Surface damage surface spalling
RPP	1	Structural	Point repair patch
CM	2	Structural	Cracks multiple
DNF	1	Operation & Maintenance	Deposits ingress fine (obstructing between 10% and 20% of the pipe cross sectional area)
DSF	1	Operation & Maintenance	Deposits settled fine (obstructing between 10% and 20% of the pipe cross sectional area)

3.3 Grade 4 Defects

In total, 22 grade 4 (significant) defects were observed in the Battle Creek Dam outlet pipe. A summary of these defects, including defect type, is included in Table 3-4. Grade 4 represents conditions that have degraded to the point that rehabilitation options should be considered.

Table 3-4 Summary of Grade 4 Defects

Defect Code	Defect Quantity	Defect Type	Defect Description
SRV	5	Structural	Surface damage reinforcement visible
SRP	2	Structural	Surface damage reinforcement projecting
IRJ	7	Operation & Maintenance	Infiltration runner at joint
TBD	5	Construction	Tap break-in defective
DSF	2	Operation & Maintenance	Deposits settled fine (obstructing between 20% and 30% of the pipe cross sectional area)
RPPD	1	Structural	Point repair patch defective

3.4 Grade 5 Defects

In total, 4 grade 5 (most significant) defects were observed in the Battle Creek Dam outlet pipe. A summary of these defects, including defect type, is included in Table 3-5. Rehabilitation of grade 5 defects is essential to maintain the storm sewer integrity.

Table 3-5 Summary of Grade 5 Defects

Defect	Defect Quantity	Defect Type	Notes
SRC	4	Structural	Surface damage reinforcement corroded

4 Recommendations

Section 4.0 provides recommendations for maintenance and repair of the Battle Creek Dam outlet pipe based on the inspection findings summarized in Section 3.0.

4.1 2026 Recommendations

Overall, the Battle Creek Dam outlet storm sewer weas found to be in “fair” condition. The majority of defects encountered consisted of infiltration of groundwater and ingress of fine sediment through loose joints and defective tap pipe connections. These defects line up with conditions at the surface where settlement is being observed. These defects are not in need of emergency repairs. However, if these defects are not addressed, they may continue to allow infiltration and soil ingress which can lead to subsidence of surface features above the outlet pipe over time. Based on the current condition of the Battle Creek Dam outlet storm sewers, Barr recommends the following actions be incorporated in upcoming maintenance:

1. Dewater outlet pipe and remove sediment. Inspect invert of outlet pipe during this activity.
2. Remove broken and/or hanging pipe gaskets.

3. Clean and repair outlet pipe pre-cast joints.

4. Verify taps (activity and function) that connect to outlet pipe. Repair all active tap connections and abandon all inactive tap connections.

5. Repair miscellaneous concrete defects in the outlet pipe including exposed and projecting aggregate and exposed and corroded reinforcement.

5 References

1. NASSCO. “Pipeline Assessment Certification Program—Reference Manual, Imperial Edition, v8.1” March 2025

Attachments

Attachment A

MNDNR Dam Report

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ECOLOGICAL AND WATER RESOURCES
500 Lafayette Road
St. Paul, MN 55155-4025

November 3, 2025

Tina Carstens, Administrator
Ramsey-Washington Metro WD
2665 Noel Drive
Little Canada, MN 55117

RE: Battle Creek Dam, NID MN01014, Class I, Ramsey County
Battle Creek Middle Dam, NID MN01444, Class III, Ramsey County

Dear Ms. Carstens;

Engineers from MNDNR Dam Safety inspected the Battle Creek Dam (MN01014) and the upstream Middle Dam (MN01444) on August 14, 2025. Such inspections are conducted on a regular basis as required by Minnesota Rules. Class I (High Hazard) Dams, such as the Battle Creek Dam, are normally inspected annually while class III (Low Hazard) Dams, such as the middle dam, are normally inspected every eight years.

Dam Safety found both dams to be well maintained and in good condition. No major dam safety issues were noted with either dam. A couple of minor issues were noted with the Battle Creek (MN01014) Dam that may evolve into more serious issues are listed as follows.

- A minor accumulation of debris was noted around the outlet structure. Dam Safety recommends the removal of all debris accumulation from around dams outlets as a high-water event will refloat that debris and draw it back into the into the outlet. This blockage can reduce outflows from the impoundment and artificially increase the height of the reservoir waters.
- Minor subsidence as noted on the north side of the riser in 2024. This subsidence appears unchanged.
- Dam Safety did not inspect the outlet conduit. However, we did note that there appears to be a fair amount of subsidence along the conduit on the downstream side of McKnight Road where the storm water drains enters the conduit. We recommend an internal inspection of the conduit in this area as the settlement may be due to possible pipe separation or piping flows along the exterior of the conduit.

If you have any questions or concerns, please feel free to contact me at dana.dostert@state.mn.us or Jason Boyle at 651-259-5715 or Jason.boyle@state.mn.us.

Sincerely,
DIVISION OF ECOLOGICAL AND WATER RESOURCES

Dana Dostert, PE, PG

Senior Engineer – Dam Safety

CC: Jason Boyle, Minnesota State Dam Safety Engineer
Daniel Scollan, MNDNR Area Hydrologist
John Gleason, MNDNR District Manager

Equal Opportunity Employer



Photo 1 – Looking west at storm drains near the main Battle Creek outlet conduit. Note the settlement on either side of the road drains. Note the cracked sidewalk to the left (south) of the storm drain. Aerial photographs show this piece of sidewalk had been replaced in the past. Dam Safety recommends that the interior of the outlet conduit be inspected for pipe separation and possible piping flows along the exterior of the conduit

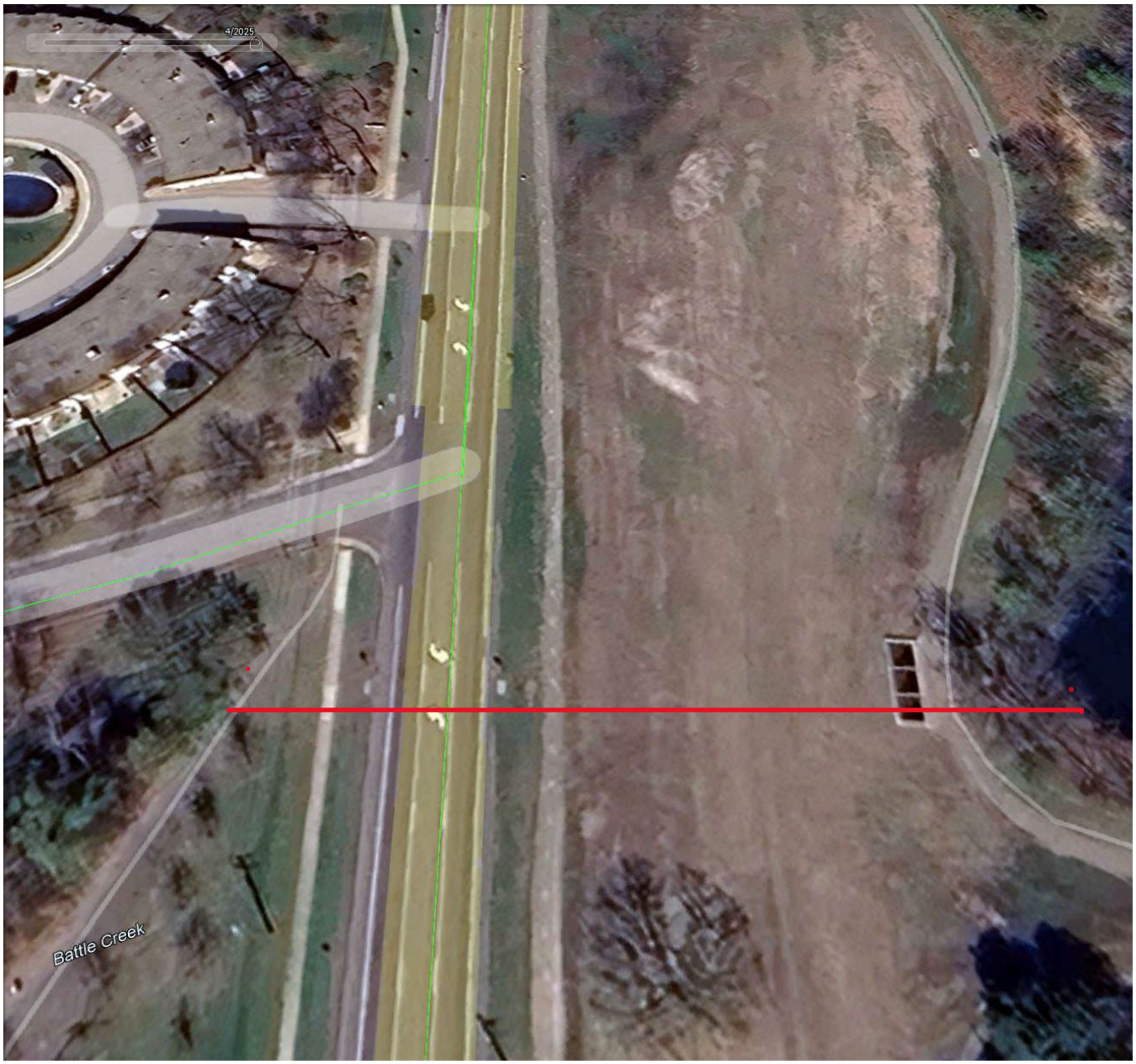


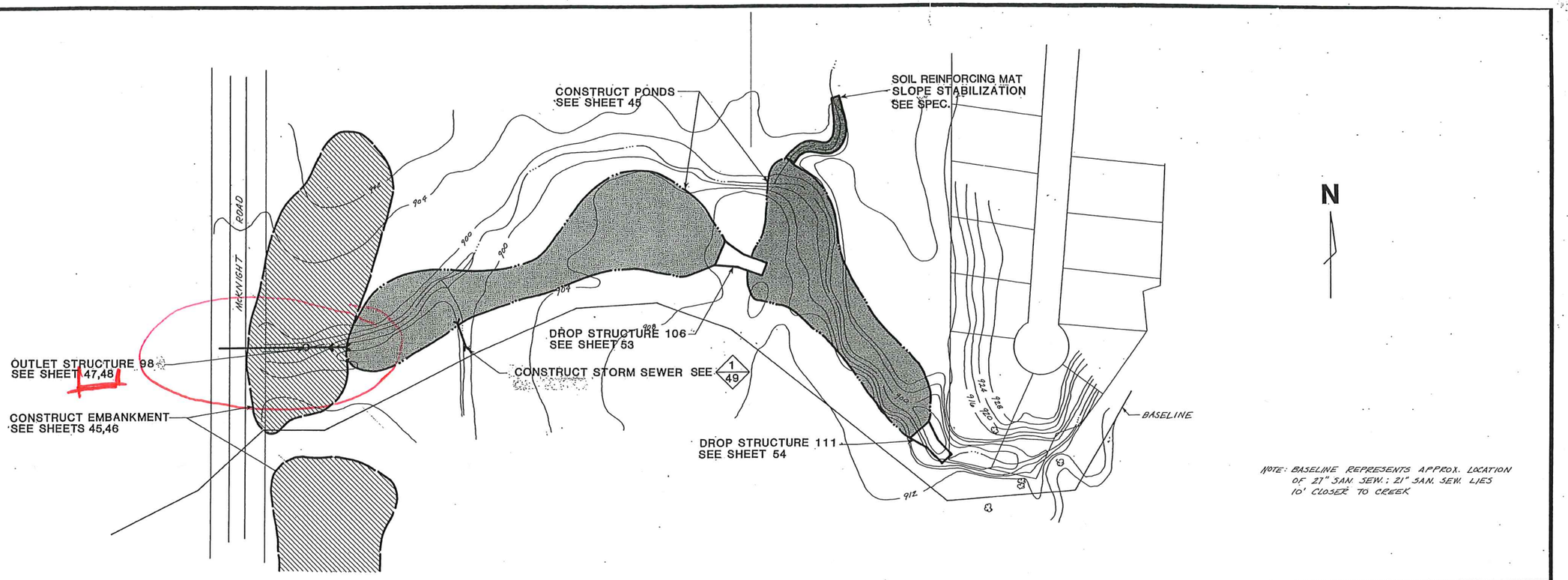
Photo 2 - Aerial view showing approximate outlet conduit from the impoundment outlet (right end of red line) through riser, over storm drains in roadway and final conduit outlet (left end of red line)

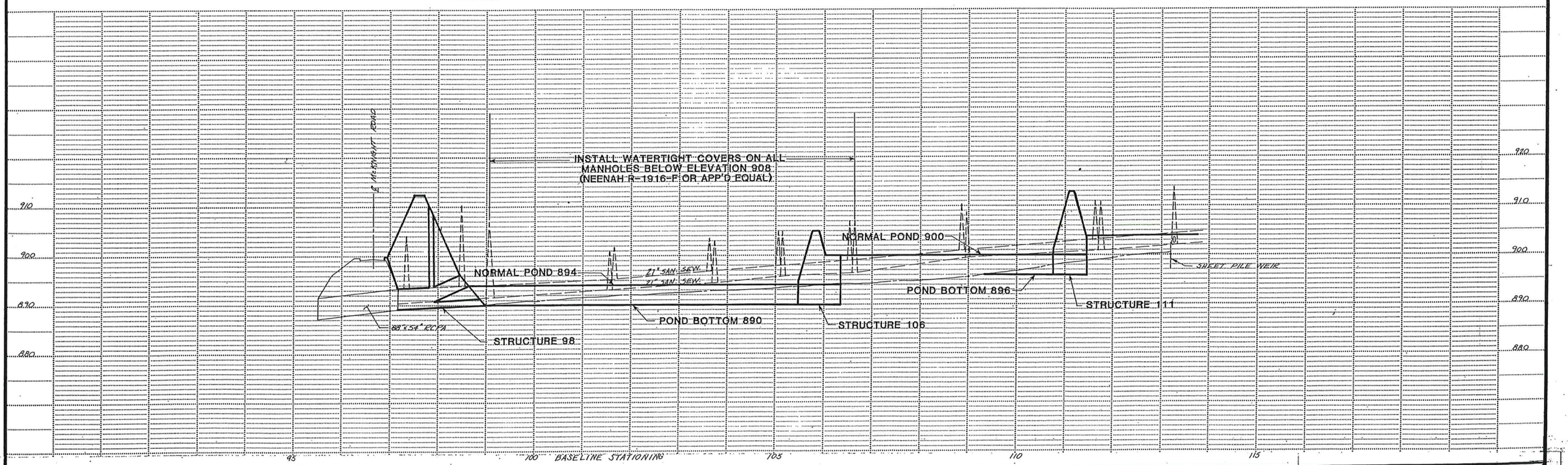


Photo 3 – debris accumulation just above the outlet conduit. A highwater event will refloat this debris where it can easily be drawn back into the conduit inlet.

Attachment B

McKnight Basin Outlet Structure 98 Record Drawings





NO.	DATE	BY	DESCRIPTION
1	5/4		REVISE STR. III EMBANKMENT ELEVATION

REVISIONS

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered ENGINEER under the laws of the State of Minnesota
Dennis D. Palmer
Date Dec. 15, 1981 Reg. No. 9432

BARR ENGINEERING CO.
CONSULTING ENGINEERS
Mpls., Mn.

Date
Drawn By
Dwg No. 23/62049009

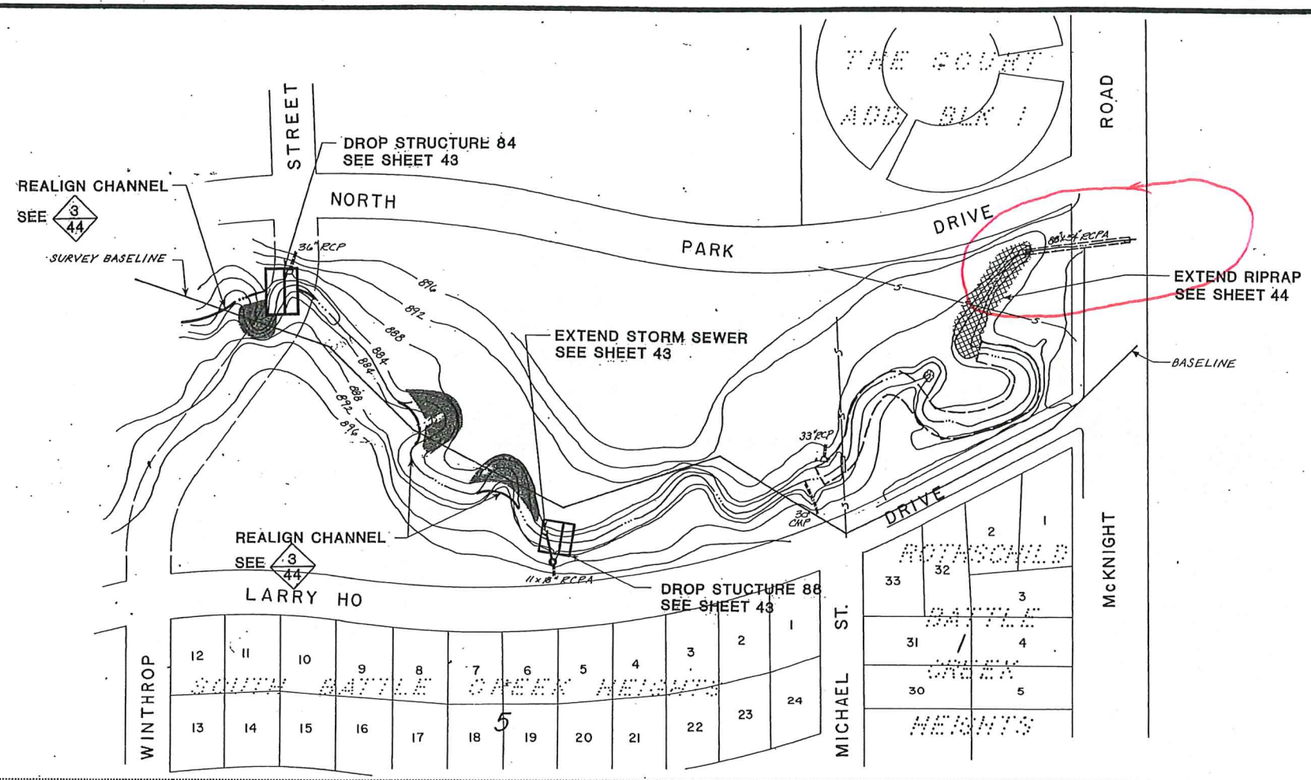
Ramsey-Washington Metro Watershed District
BATTLE CREEK PROJECT NO. 1

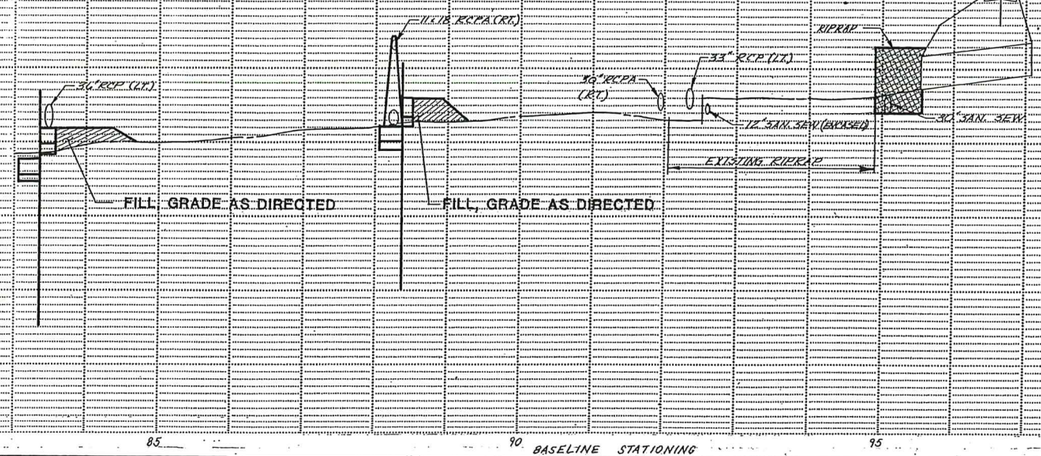
INDEX
MCKNIGHT RD. TO CRESTVIEW DR.

SHEET NO. 9 OF 60 SHEETS

4-02 (27)

ST. PAUL





NO.	DATE	BY	DESCRIPTION
			REVISIONS

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Mpls., Mn.

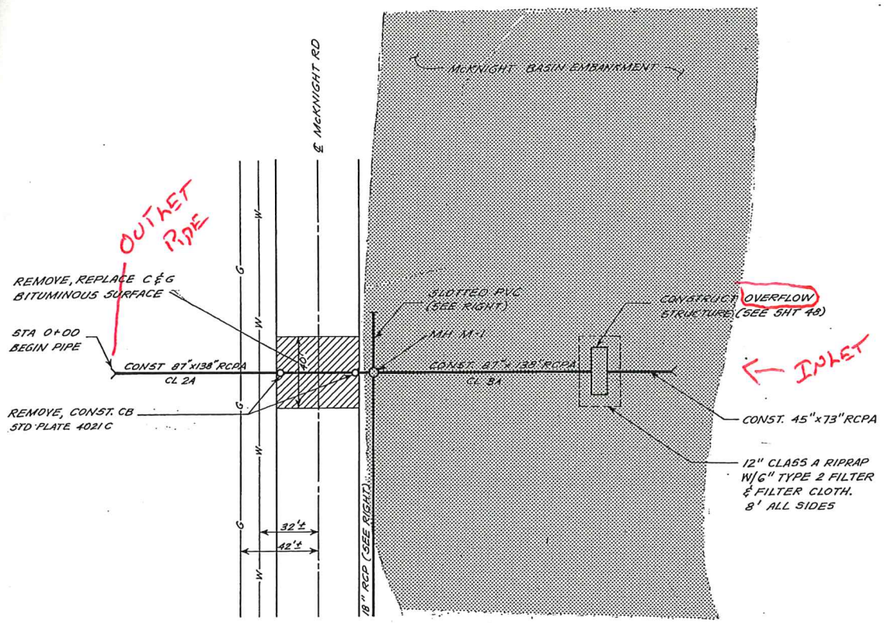
Date
Drawn By
Dwg. No. 23/6204908

Ramsey-Washington Metro Watershed District
BATTLE CREEK PROJECT NO. 1

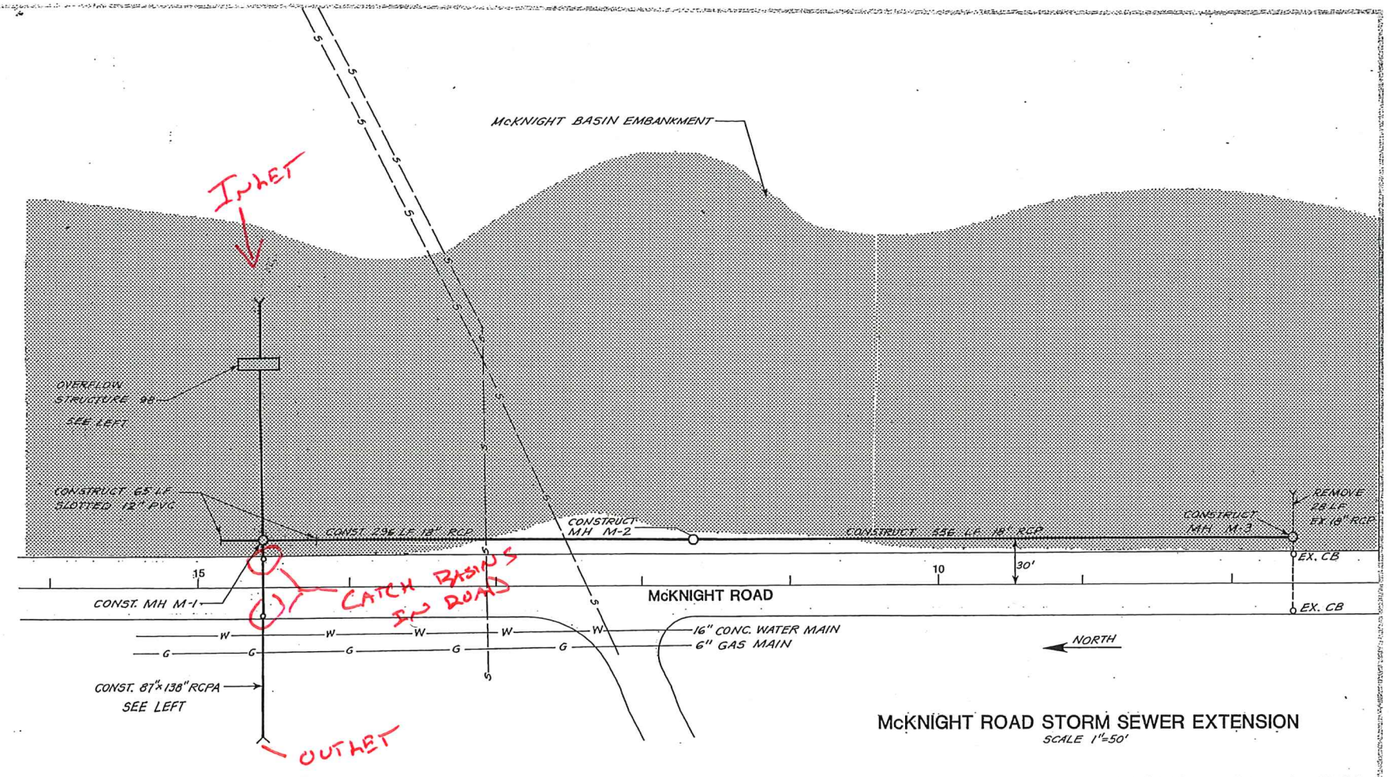
INDEX
RUTH ST. ST. TO MCKNIGHT RD.

SHEET NO. 8 OF 60 SHEETS

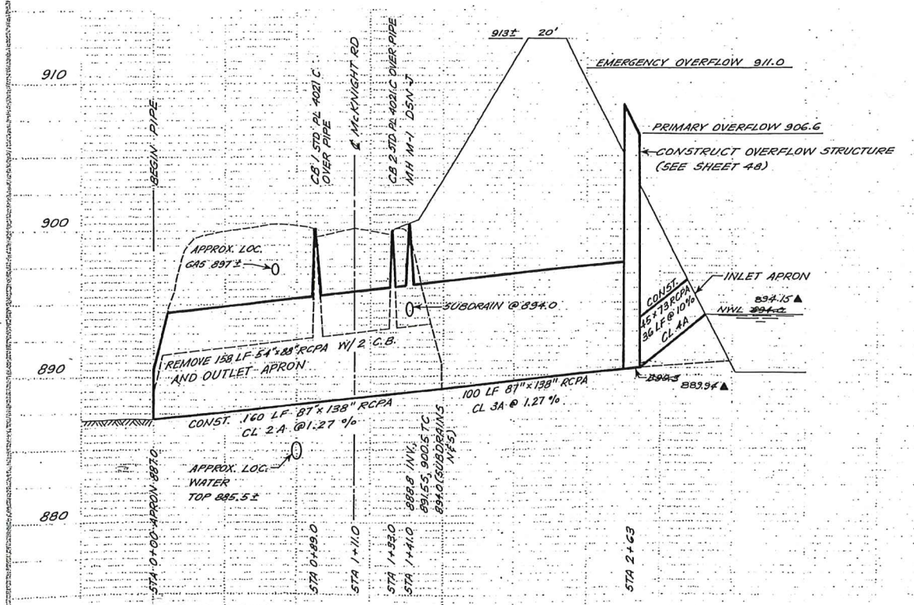
4-01

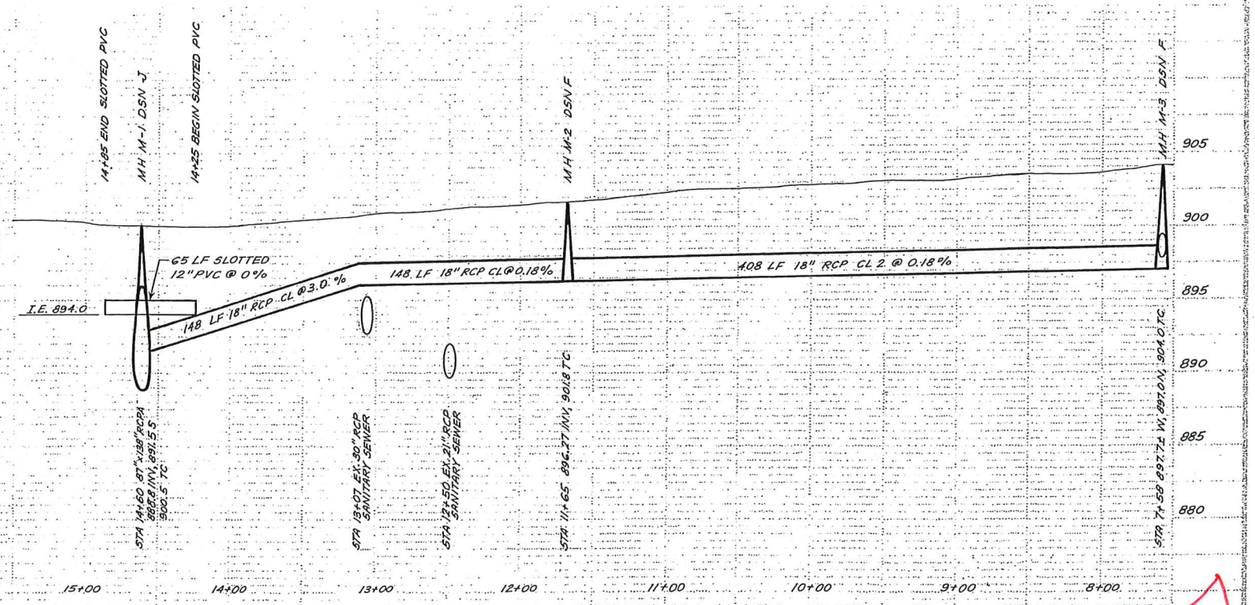


STRUCTURE 98
SCALE 1"=40'



McKNIGHT ROAD STORM SEWER EXTENSION
SCALE 1"=50'





NO.	DATE	BY	DESCRIPTION
▲	Feb		AS BUILT
2	5/18	84	ENLARGE OUTLET, CHANGE OVERFLOW
1	4/20	82	STORM SEWER EXTENSION

REVISIONS

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Mpls., Mn.

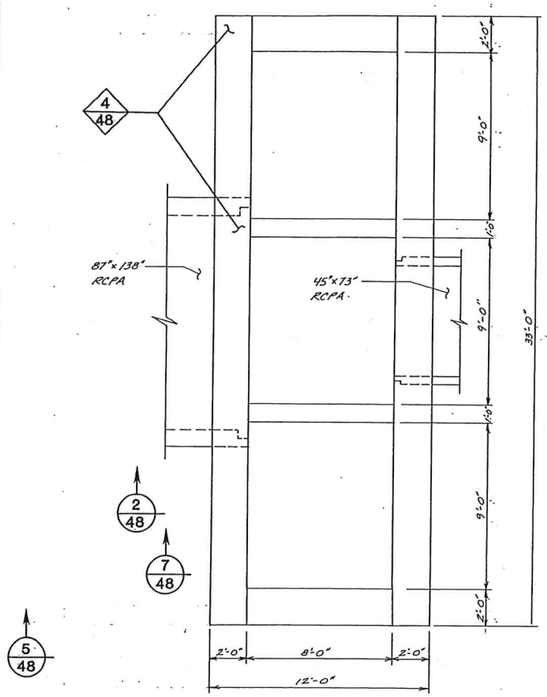
Date
Drawn By:
Dwgl No. 317/6004D4D47

Ramsey-Washington Metro Watershed District
BATTLE CREEK PROJECT NO. 1

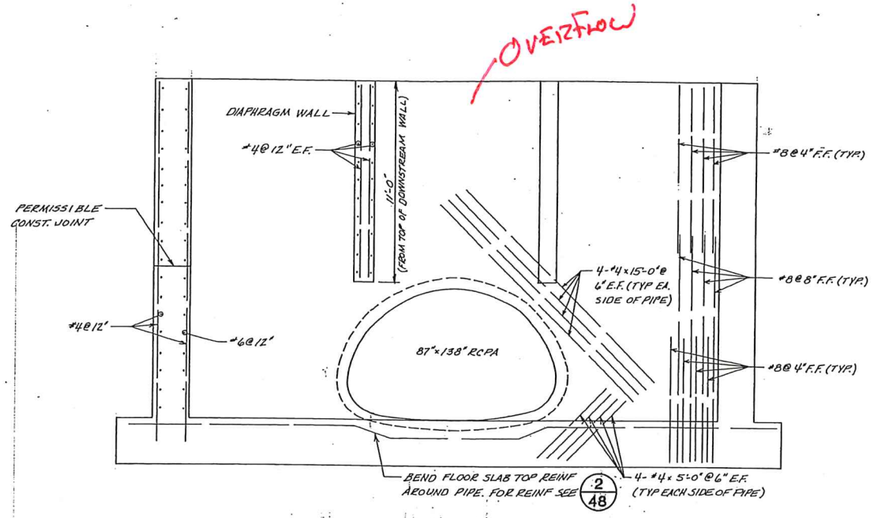
McKNIGHT BASIN OUTLET STRUCTURE 98
McKNIGHT ROAD STORM SEWER EXTENSION

SHEET NO. 47 OF 68 SHEETS

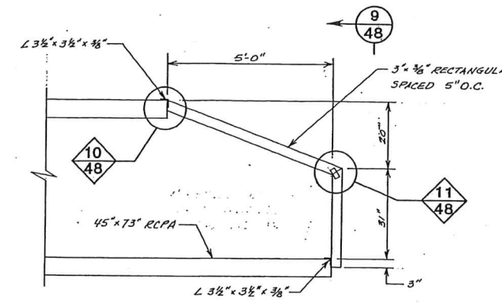
4-40



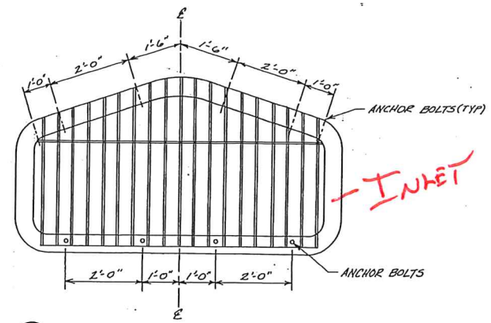
1/48 PLAN: OVERFLOW STRUCTURE
SCALE 1/4"=1'-0"



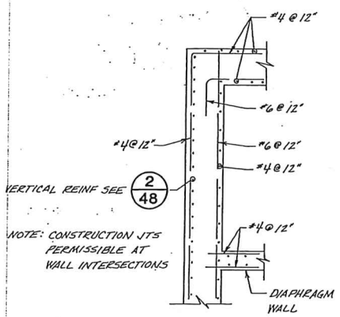
3/48 SECTION: OVERFLOW STRUCTURE
SCALE 1/4"=1'-0"



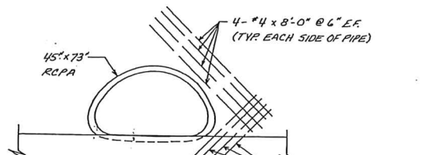
8/48 SECTION: ARCH PIPE TRASH RACK
SCALE ½"=1'-0"



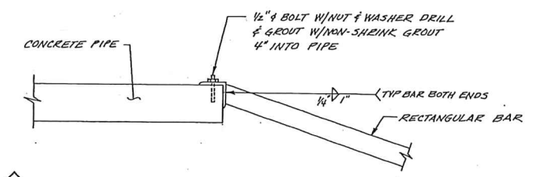
9/48 ELEVATION: ARCH PIPE TRASH RACK
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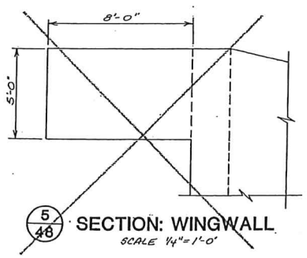
4/48 DETAIL: WALL CONNECTIONS (TYP)
SCALE 1/4"=1'-0"



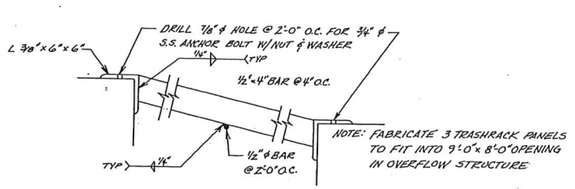
6/48 SECTION: PIPE CONNECTION
SCALE 1/4"=1'-0"



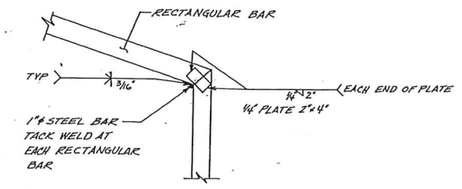
10/48 DETAIL: ARCH PIPE TRASH RACK CONNECTION
SCALE 1"=1'-0"



5/48 SECTION: WINGWALL
SCALE 1/4"=1'-0"



7/48 SECTION: TRASH RACK
SCALE 1"=1'-0"



11/48 DETAIL: ARCH PIPE TRASH RACK
SCALE 1"=1'-0"

NO.	DATE	BY	DESCRIPTION
1	8/82	DR	REVISED OVERFLOW STRUCTURE

REVISIONS

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Engineer under the laws of the State of Minnesota. Date: 11-1981 Reg. No. 9432

BARR ENGINEERING CO.
CONSULTING ENGINEERS
Mpls., Mn

Date:
Drawn By:
Drwg. No. 4176.209-048

Ramsey-Washington Metro Watershed District
BATTLE CREEK PROJECT NO. 1

MCKNIGHT BASIN STRUCTURE 98 DETAILS

SHEET NO. 48 OF 60 SHEETS

48

4-41

Attachment C

PACP Code Summary Tables

Color-Coded Charts

Section 4 – Structural

C – Crack 4-2

CC	Circumferential
CH	Hinge (2, 3, 4)
CL	Longitudinal
CM	Multiple
CS	Spiral

F – Fracture 4-8

FC	Circumferential
FH	Hinge (2, 3, 4)
FL	Longitudinal
FM	Multiple
FS	Spiral

B – Broken 4-15

B	Broken
BSV	Soil Visible
BVV	Void Visible

H – Hole 4-18

H	Hole
HSV	Soil Visible
HVV	Void Visible

D – Deformed (Rigid) 4-21

DR	Deformed Rigid

No modifiers used.

D – Deformed (Flexible) 4-21

DFBI	Bulging Inverse Curvature
DFBR	Bulging Round
DFC	Creasing
DFE	Elliptical

D – Deformed (Brick) 4-21

DTBI	Bulging Inverse Curvature
DTBR	Bulging Round

X – Collapse 4-32

X	Collapse

No descriptors or modifiers used.

J – Joint 4-36

J	Joint

Used to record the existence of a joint without descriptors or modifiers.

J – Joint (Offset) 4-36

JOL	Offset Large
JOM	Offset Medium
JOS	Offset Small

J – Joint (Offset Defective) 4-36

JOLD	Offset Large Defective
JOMD	Offset Medium Defective
JOSD	Offset Small Defective

J – Joint (Separated) 4-36

JSL	Separation Large
JSM	Separation Medium
JSS	Separation Small

J – Joint (Angular) 4-36

JAL	Angular Large
JAM	Angular Medium
JAS	Angular Small

S – Surface Damage 4-44

SAM	Aggregate Missing
SAP	Aggregate Projecting
SAV	Aggregate Visible
SCP	Surface Damage Corrosion
SMW	Missing Wall

S – Surface Damage 4-44

SPP	Pitting/Corrosion
SRC	Reinforcement Corroded
SRI	Roughness Increased
SRP	Reinforcement Projecting
SRV	Reinforcement Visible

S – Surface Damage 4-44

SSC	Surface Spalling of Coating
SSS	Surface Spalling
SZ	Other
SZD	Other Defective

LF – Lining Features 4-60

LFAC	Abandoned Connection
LFAS	Annular Space
LFB	Blistered
LFCS	Service Cut Shifted

LF – Lining Features 4-60

LFD	Detached
LFDC	Discoloration
LFDE	Defective End
LFDL	Delamination

LF – Lining Features 4-60

LFOC	Overcut Service
LFRS	Resin Slug
LFUC	Undercut Service
LFW	Wrinkled
LFZ	Other

WF – Weld Failure 4-77

WFC	Circumferential
WFL	Longitudinal
WFM	Multiple
WFS	Spiral
WFZ	Other

RP – Point Repair 4-80

RPL	Liner
RPLD	Liner Defective
RPM	Mechanical Sleeve
RPMD	Mechanical Sleeve Defective
RPP	Patch

RP – Point Repair 4-80

RPPD	Patch Defective
RPR	Replacement
RPRD	Replacement Defective
RPZ	Other
RPZD	Other Defective

BT – Bolts – Metal Pipe 4-88

BTL	Loose
BTM	Missing

Brickwork 4-92

DB	Displaced
DI	Dropped Invert
MB	Missing

Brickwork 4-92

MML	Mortar Missing Large
MMM	Mortar Missing Medium
MMS	Mortar Missing Small

Section 5 – Operation and Maintenance

D – Deposits (Attached) 5-2

DAE	Encrustation
DAGS	Grease
DAR	Ragging
DAZ	Other

D – Deposits (Settled) 5-2

DSC	Hard/Compact
DSF	Fine
DSGV	Gravel
DSS	Sanitary
DSZ	Other

D – Deposits (Ingress) 5-2

DNF	Fine (silt/sand)
DNGV	Gravel
DNZ	Other

R – Roots (Fine) 5-10

RFB	Barrel
RFC	Connection
RFJ	Joint
RFL	Lateral

R – Roots (Medium) 5-10

RMB	Barrel
RMC	Connection
RMJ	Joint
RML	Lateral

R – Roots (Ball) 5-10

RBB	Barrel
RBC	Connection
RBJ	Joint
RBL	Lateral

R – Roots (Tap) 5-10

RTB	Barrel
RTC	Connection
RTJ	Joint
RTL	Lateral

I – Infiltration (Stain) 5-19

ISB	Barrel
ISC	Connection
ISJ	Joint
ISL	Lateral

I – Infiltration (Weeper) 5-19

IWB	Barrel
IWC	Connection
IWJ	Joint
IWL	Lateral

I – Infiltration (Dripper) 5-19

IDB	Barrel
IDC	Connection
IDJ	Joint
IDL	Lateral

I – Infiltration (Runner) 5-19

IRB	Barrel
IRC	Connection
IRJ	Joint
IRL	Lateral

I – Infiltration (Gusher) 5-19

IGB	Barrel
IGC	Connection
IGJ	Joint
IGL	Lateral

OB – Obstacles/ Obstructions 5-29

OBB	Brick or Masonry
OBC	Obstruction Through Connection

OB – Obstacles/ Obstructions 5-29

OBI	Obstruction Intruding Through Wall
OBJ	Wedged in Joint
OBM	Pipe Material in Invert

OB – Obstacles/ Obstructions 5-29

OBN	Construction Debris
OBP	External Pipe or Cable
OBR	Rocks
OBS	Built into Structure
OBZ	Other

V – Vermin 5-42

VC	Cockroach
VR	Rat
VZ	Other

G – Grout Test and Seal 5-46

GRT	Grout at a Location
GTFJ	Test Fail Joint
GTFL	Test Fail Lateral

G – Grout Test and Seal 5-46

GTPJ	Test Pass Joint
GTPL	Test Pass Lateral
GTUJ	Unable to Test Joint
GTUL	Unable to Test Lateral

For Pressure Pipe Codes see Appendix F.

Section 6 – Construction

T – Tap (Break-In) 6-2		T – Tap (Drop) 6-2		T – Tap (Factory Made) 6-2		T – Tap (Rehabilitated) 6-2		T – Tap (Saddle) 6-2		IS – Intruding Sealing Material 6-17		IS – Intruding Sealing Material 6-17	
TBA	Active	TDA	Active	TFA	Active	TRA	Active	TSA	Active	ISGT	Grout	ISSRH	Sealing Ring Hanging
TBB	Abandoned	TDB	Abandoned	TFB	Abandoned	TRB	Abandoned	TSB	Abandoned	ISSR	Sealing Ring	ISSRL	Sealing Ring Loose
TBC	Capped	TDC	Capped	TFC	Capped	TRC	Capped	TSC	Capped	ISSRB	Sealing Ring Broken	ISZ	Other
TBD	Defective	TDD	Defective	TFD	Defective	TRD	Defective	TSD	Defective				
TBI	Intruding	TDI	Intruding	TFI	Intruding	TRI	Intruding	TSI	Intruding				

L – Line 6-22		L – Line 6-22		A – Access Points 6-26		A – Access Points 6-26		A – Access Points 6-26		
LD	Down	LR	Right	ACB	Catch Basin	AEP	End of Pipe	ASC	Siphon Chamber	For Pressure Pipe Codes see Appendix F.
LL	Left	LRD	Right Down	ACBS	Catch Basin with Sump	AIN	Inlet	ATC	Tee Connection	
LLD	Left Down	LRU	Right Up	ACOH	Cleanout House	AJB	Junction Box	AWA	Wastewater Access	
LLU	Left Up	LU	Up	ACOM	Cleanout Mainline	AM	Meter	AWW	Wet Well	
				ACOP	Cleanout Property	AMH	Manhole	AZ	Other	
				ADP	Discharge Point	AOC	Other Structure			

Section 7 – Miscellaneous

M – Miscellaneous 7-1		M – Miscellaneous 7-1		M – Miscellaneous 7-1		
MCU	Camera Underwater	MLC	Lining Change	MWLS	Water Level Sag	For Pressure Pipe Codes see Appendix F.
MDC	Discoloration	MMC	Material Change	MWM	Water Mark	
MGO	General Observation	MSA	Survey Abandoned	MYN	Dye Not Visible	
MGP	General Photograph	MSC	Shape/Size Change	MYV	Dye Visible	
MJL	Joint Length	MWL	Water Level			

Section 8 – LACP

A – Access Points 8-31		A – Access Points 8-31		F – Fittings 8-43		F – Fittings 8-43		F – Fittings 8-43		F – Fittings 8-43		F – Fittings 8-43	
ABP	Backflow Preventer	ARV	Roof Vent	FBEMD	Mitered Bend Down	FBEMRD	Mitered Bend Right Down	FBESD	Sweep Bend Down	FBESRD	Sweep Bend Right Down	FCA	Cap
ACOS	Cleanout Saddle	AW	Wye	FBEML	Mitered Bend Left	FBEMRU	Mitered Bend Right Up	FBESL	Sweep Bend Left	FBESRU	Sweep Bend Right Up	FCAF	Cap Fitting
ALT	Lateral Trap	AWD	Double Wye	FBEMLD	Mitered Bend Left Down	FBEMU	Mitered Bend Up	FBESLD	Sweep Bend Left Down	FBESU	Sweep Bend Up	FCAS	Cap Seal
AML	Mainline			FBEMLU	Mitered Bend Left Up			FBESLU	Sweep Bend Left Up			FRV	Vertical Riser
				FBEMR	Mitered Bend Right			FBESR	Sweep Bend Right			FTDS	Double Sweep Tee
												FTS	Sweep Tee

Appendix F – Pressure Pipe

LK – Leak F-5		A – Access Points F-6		V – Valve F-8		V – Valve F-8		M – Miscellaneous F-12	
LK	Leak	AVB	Ball Valve	VAAR	Air Release	VAP	Plug	MAD	Adapter
LKB	Barrel	AVBF	Butterfly Valve	VAB	Butterfly	VAPG	Pressure Regulating	MAP	Air Pocket
LKJ	Joint	AVG	Gate Valve	VABO	Blowoff	VAPR	Pressure Relief	MT	Turbidity
		AVH	Hydrant Valve	VABP	Bypass	VAVB	Vacuum Breaker	MTA	Turbidity Transient Air
		AVP	Plug Valve	VAC	Check	VAZ	Other		
				VAG	Gate				

Section 2 – PACP Header Section Fields

14 – Weather 2-8

1	Dry
2	Heavy Rain
3	Light Rain
4	Snow
5	Dry Weather/Wet Ground

15 – Pre-Cleaning 2-8

H	Heavy Cleaning
L	Light Cleaning (Jetting)
N	No Pre-Cleaning
X	Not Known
Z	Other

17 – Flow Control 2-9

B	Bypassed
D	Dewatered Using Jetter
L	Lift Station
N	Not Controlled
P	Plugged
T	Timing

18 – Purpose of Survey 2-10

A	Maintenance
B	Infiltration/Inflow Investigation
C	Post-Rehabilitation Survey
D	Pre-Rehabilitation Survey
E	Pre-Acceptance
F	Routine Assessment

18 – Purpose of Survey 2-10

G	Capital Improvement Program Assessment
H	Resurvey
I	SSES
R	Pre-Existing Video
X	Not Known

19 – Direction of Survey 2-10

D	Downstream
U	Upstream

20 – Inspection Technology Used 2-11

CC	CCTV
LA	Laser
SO	Sonar
SS	Sidewall Scanning
ZM	Zoom
ZZ	Other

21 – Inspection Status 2-11

BM	Buried and Marked
CI	Complete Inspection
NA	No Access
NE	Does Not Exist
NF	Not Found

21 – Inspection Status 2-11

NI	Traffic
NO	Not Opened
SD	Surcharged/Debris
SL	Structure Limitation

28 – Location Code 2-14

A	Primary Major Arterial Road
B	Secondary Road
C	Local/Rural Street
D	Easement/Right-of-Way
E	Woods
F	Sidewalk

28 – Location Code 2-14

G	Parking Lot
H	Alley
I	Ditch
J	Building
K	Creek (or any waterway)
L	Railway

28 – Location Code 2-14

M	Airport
N	Levee/Floodwall
O	Dam
P	Levee Pump Station
Y	Yard
Z	Other

30 – Pipe Use 2-15

CB	Combined Pipe
DP	Dam Pipe
FM	Force Main
LG	Levee Gravity Pipe
LP	Levee Pressure Pipe
PN	Perforated Pipe Non-Sanitary
PP	Pressure Pipe

30 – Pipe Use 2-15

PR	Process Pipe
PS	Perforated Pipe Sanitary
SS	Sanitary Sewage Pipe
SW	Stormwater Pipe
XX	Not Known
ZZ	Other

33 – Shape 2-16

A	Arched
B	Barrel
C	Circular
E	Egg-Shaped
H	Horseshoe
O	Oval (elliptical)

33 – Shape 2-16

R	Rectangular
S	Square
T	Trapezoidal
U	U-Shaped with Flat Top
Z	Other

34 – Material 2-17

ABS	Acrylonitrile Butadiene Styrene
AC	Asbestos Cement
BR	Brick
CAS	Cast Iron
CLC	Clay-Lined Concrete Pipe

34 – Material 2-17

CMP	Corrugated Metal Pipe
CP	Concrete Pipe
CSB	Concrete Segments Bolted
CSU	Concrete Segments Unbolted
CT	Clay Tile

34 – Material 2-17

DIP	Ductile Iron Pipe
FRP	Fiberglass Reinforced Pipe
OB	Orangeburg/Pitch Fiber
PCCP	Pre-Stressed Concrete Cylinder Pipe
PCP	Polymer Concrete Pipe

34 – Material 2-17

PE	Polyethylene
PP	Polypropylene
PSC	Plastic/Steel Composite
PVC	Polyvinyl Chloride
RCP	Reinforced Concrete Pipe
RPM	Reinforced Plastic Pipe

34 – Material 2-17

SB	Segmented Block
SP	Steel Pipe
VCP	Vitrified Clay Pipe
WD	Wood
XXX	Not Known
ZZZ	Other

35 – Lining Method 2-18

CIP	Cured-In-Place Pipe
FF	Fold and Form
FP	Formed-In-Place Liner
GP	Grout-In-Place Liner
GRC	Glass Reinforced Cement
N	None
SC	Continuous Slip Liner

35 – Lining Method 2-18

SE	Sectional Slip Liner
SL	Spray Liner
SN	Segmented Panel
SP	Segmented Pipe
SW	Spiral Wound
XX	Not Known
ZZ	Other

36 – Coating Method 2-19

CT	Coal Tar
CM	Cement Mortar
EP	Epoxy
PE	Polyethylene

36 – Coating Method 2-19

PO	Polyurethane
PU	Polyurea
PVC	Polyvinyl Chloride
XX	Not Known
ZZ	Other

58 – GPS Accuracy 2-28

L	Survey Level
M	Sub-Meter
N	Nearest Meter

Section 8 – LACP Header Section Fields

14 – Weather 8-13

1	Dry
2	Heavy Rain
3	Light Rain
4	Snow
5	Dry Weather/Wet Ground

15 – Pre-Cleaning 8-13

H	Heavy Cleaning
L	Light Cleaning (Jetting)
N	No Pre-Cleaning
R	Rodding
X	Not Known
Z	Other

17 – Purpose of Survey 8-14

A	Maintenance
B	Infiltration/Inflow Investigation
C	Post-Rehabilitation Survey
D	Pre-Rehabilitation Survey
E	Pre-Acceptance
F	Routine Assessment

17 – Purpose of Survey 8-14

G	Capital Improvement Program Assessment
H	Resurvey
I	SSES
R	Pre-Existing Video
X	Not Known

18 – Direction of Survey 8-14

D	Downstream
U	Upstream

19 – Inspection Technology Used 8-15

CC	CCTV
LA	Laser
SO	Sonar
SS	Sidewall Scanning
ZM	Zoom
ZZ	Other

20 – Inspection Status 8-15

BM	Buried and Marked
CI	Complete Inspection
NA	No Access
NE	Does Not Exist
NF	Not Found

20 – Inspection Status 8-15

NI	Traffic
NO	Not Opened
SD	Surcharged/Debris
SL	Structure Limitation

28 – Location Code 8-19

A	Primary Major Arterial Road
B	Secondary Road
C	Local/Rural Street
D	Easement/Right-of-Way
E	Woods
F	Sidewalk

28 – Location Code 8-19

G	Parking Lot
H	Alley
I	Ditch
J	Building
K	Creek (or any waterway)
L	Railway

28 – Location Code 8-19

M	Airport
N	Levee/Floodwall
O	Dam
P	Levee Pump Station
Y	Yard
Z	Other

30 – Pipe Use 8-20

CB	Combined Pipe
DP	Dam Pipe
FM	Force Main
LG	Levee Gravity Pipe
LP	Levee Pressure Pipe
PN	Perforated Pipe Non-Sanitary
PP	Pressure Pipe

30 – Pipe Use 8-20

PR	Process Pipe
PS	Perforated Pipe Sanitary
SS	Sanitary Sewage Pipe
SW	Stormwater Pipe
XX	Not Known
ZZ	Other

32 – Material 8-21

ABS	Acrylonitrile Butadiene Styrene
AC	Asbestos Cement
CAS	Cast Iron
CMP	Corrugated Metal Pipe
CP	Concrete Pipe (non-reinforced)

32 – Material 8-21

CT	Clay Tile (not vitrified clay)
DIP	Ductile Iron Pipe
OB	Pitch Fiber (Orangeburg, tar-impregnated cardboard)
PE	Polyethylene
PVC	Polyvinyl Chloride

32 – Material 8-21

RCP	Reinforced Concrete Pipe
VCP	Vitrified Clay Pipe
WD	Wood
XXX	Not Known
ZZZ	Other

33 – Lining Method 8-22

CIP	Cured-In-Place Pipe
FF	Fold and Form or Deform/Reform
FP	Formed-In-Place Liner
GP	Grout-In-Place Liner

33 – Lining Method 8-22

SC	Continuous Slip Liner
SE	Sectional Slip Liner
SL	Spray Liner
SW	Spiral Wound
ZZ	Other

47 – GPS Accuracy 8-26

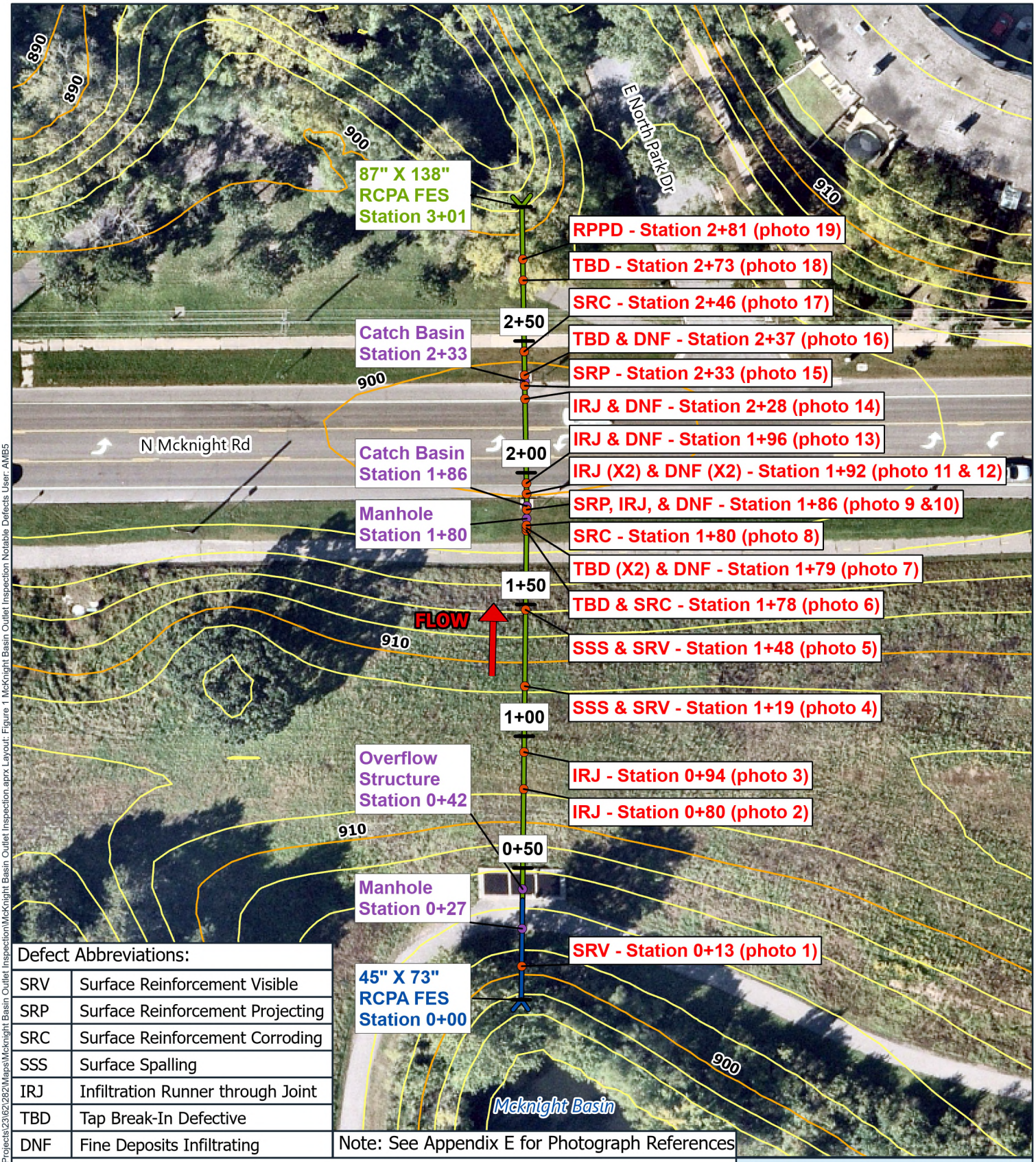
L	Survey Level
M	Sub-Meter
N	Nearest Meter

50 – Start Manhole 8-27

U	Upstream Manhole
D	Downstream Manhole

Attachment D

Notable Defect Locations



Defect Abbreviations:	
SRV	Surface Reinforcement Visible
SRP	Surface Reinforcement Projecting
SRC	Surface Reinforcement Corroding
SSS	Surface Spalling
IRJ	Infiltration Runner through Joint
TBD	Tap Break-In Defective
DNF	Fine Deposits Infiltrating

Note: See Appendix E for Photograph References

87" x 138" RCPA
45" x 73" RCPA
10-Foot Contour
2-Foot Contour
Notable Defects
Sewer Features
Stationing

Imagery: NearMap September 2025

0 50 100
Feet

McKnight Basin Outlet
Notable Defect Locations
Ramsey Washington Metro Watershed District
Maplewood, MN

FIGURE 1

BARR

Barr Footer: ArcGISPro 3.6.1, 2026-04-28 12:16 File: I:\Projects\23\62\282\Maps\Mcknight Basin Outlet Inspection\McKnight Basin Outlet Inspection aprx Layout: Figure 1 McKnight Basin Outlet Inspection Notable Defects User: AMB5

Attachment E

Defect Photograph References



1 – SRV – Station 0+13



2 – IRJ – Station 0+80



3 – IRJ – Station 0+94



4 – SSS & SRV – Station 1+19



5 – SSS & SRV – Station 1+48



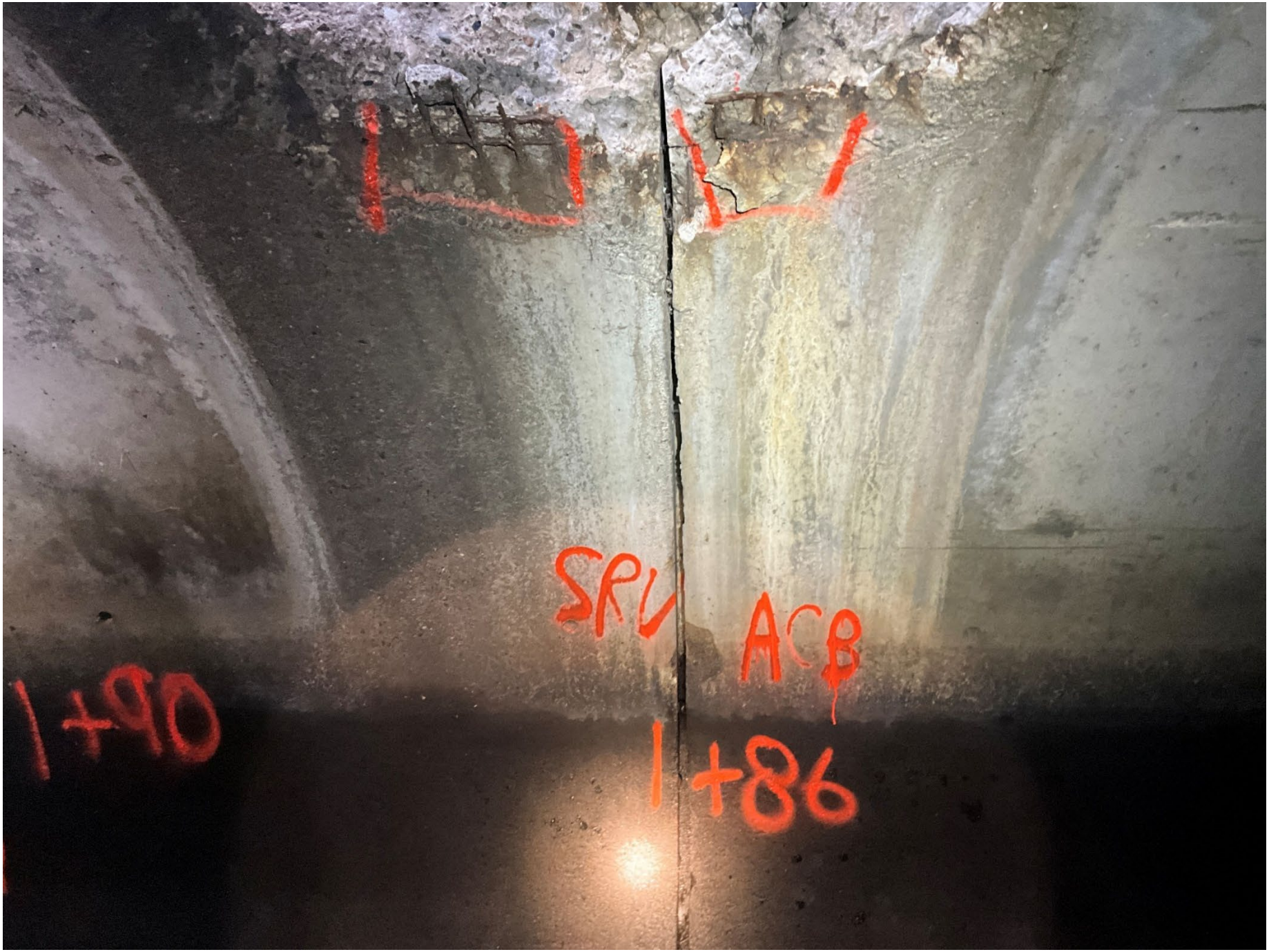
6 – TBD & SRC – Station 1+78



7 – TBD (x2) & DNF – Station 1+79



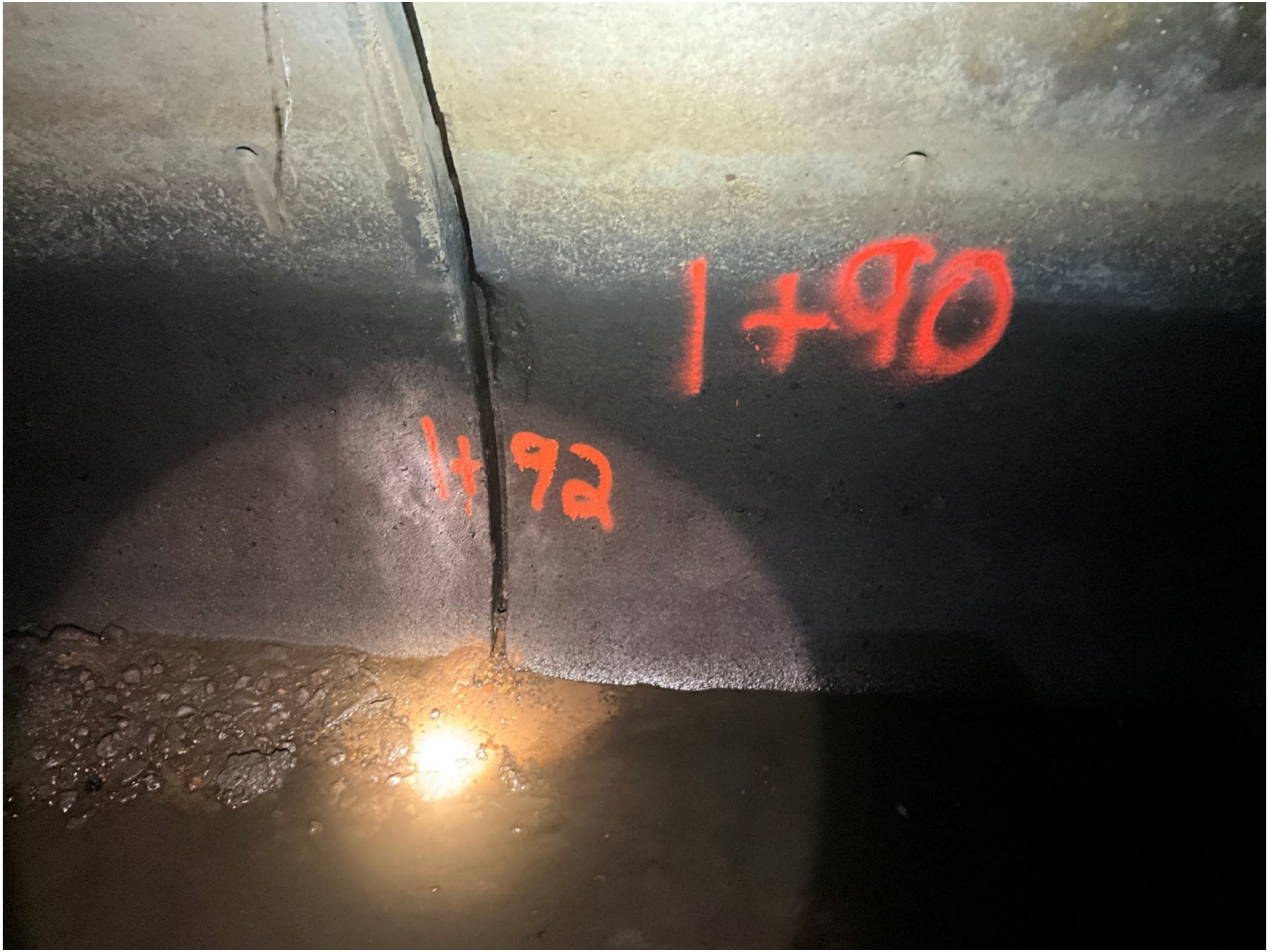
8 – SRC – Station 1+80



9 – SRP – Station 1+86



10 – IRJ & DNF – Station 1+86



11 – IRJ & DNF – Station 1+92



12 – IRJ & DNF – Station 1+92



13 – IRJ & DNF – Station 1+96



14 - IRJ & DNF – Station 2+28



15 – SRP – Station 2+33



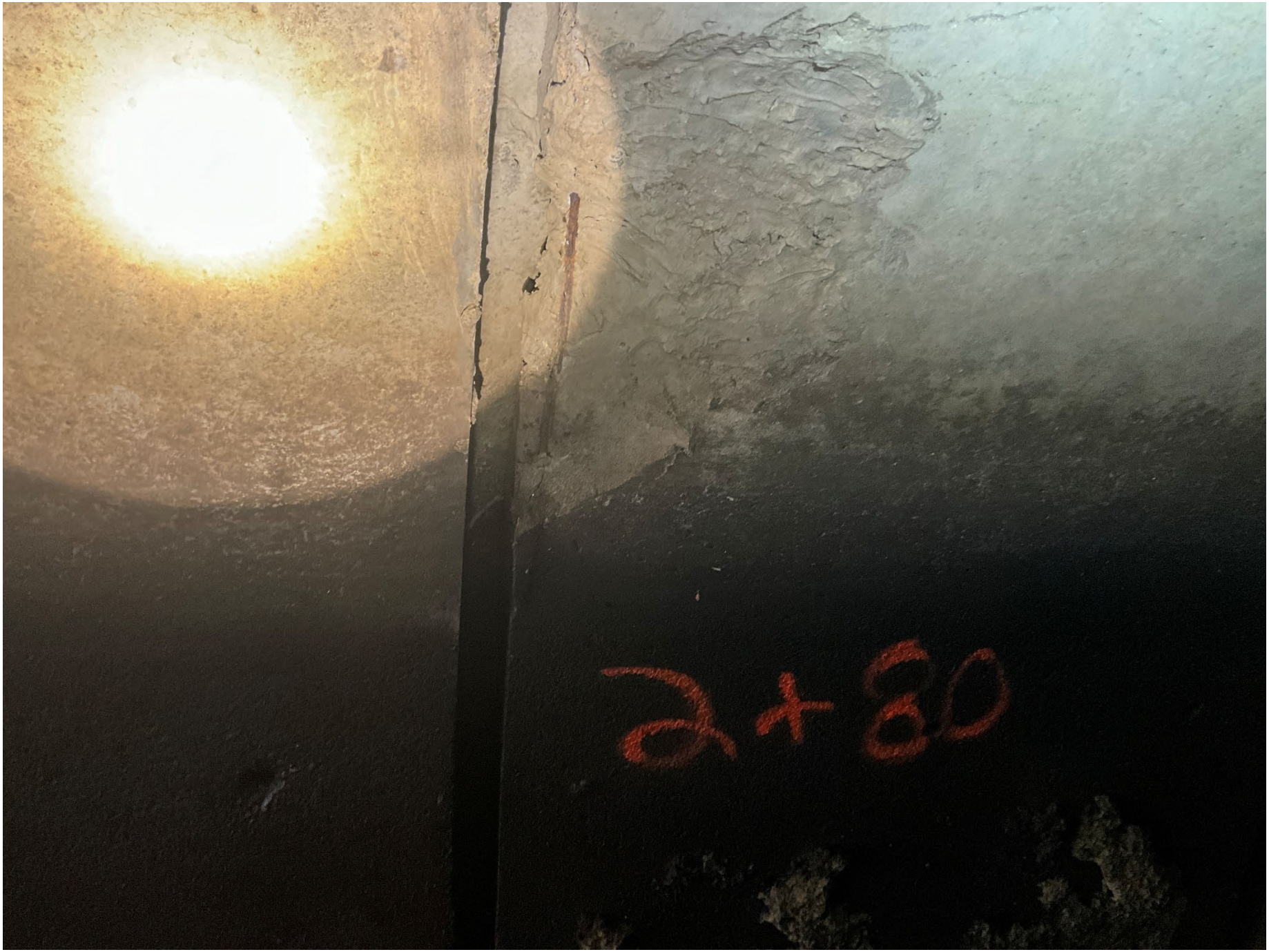
16 – TBD & DNF – Station 2+37



17 – SRC – Station 2+46



18 – TBD – Station 2+73



19 – RPPD – Station 2+81

Attachment F

Inspection Data Table

Battle Creek Dam Outlet Inspection

Begin Station	End Station	Code	Family	Rating	Clock At/From	Clock To	Dim. 1 (in.)	Dim. 2 (in.)	Length (ft.)	Percent (%)	Joint	Comment
0+00		MGO	*Misc.*	*0*								Beginning of Inspection. Upstream End. McKnight Basin Outlet
0+00		MWL	*Misc.*	*0*								With water control in place, water level = 0"
0+00		MSC	*Misc.*	*0*								45" x 73" RCPA
0+00		MJL	*Misc.*	*0*								Joint Length = 8 ft
0+00		AEP	*Const.*	*0*								End of Pipe - Upstream end
0+00		MGO	*Misc.*	*0*								1.5" joint separation, no mortar in joint
0+04		MGO	*Misc.*	*0*	12							Lift Hole in every section of 45" x 73" RCPA
0+04		SSS	*Struct.*	*3*	12							Surface Spall in lift hole
0+09		MGO	*Misc.*	*0*								0.5" joint separation, no mortar in joint
0+13		SRV	*Struct.*	*4*	12							in lift hole
0+13		SSS	*Struct.*	*3*	12							in lift hole
0+18		MGO	*Misc.*	*0*								small joint separation, no mortar from 7 oclock to 3 oclock
0+23		SSS	*Struct.*	*3*	12							Surface Spall in lift hole
0+27		AMH	*Const.*	*0*								small vault, 6 steps in good condition
0+30		MGO	*Misc.*	*0*								Pipe tie holes not patched
0+38		AOC	*Const.*	*0*								Overflow Structure, 8 ft internal width, 29 ft internal length
0+38		CC	*Struct.*	*1*	4							in overflow structure
0+38		CC	*Struct.*	*1*	10							in overflow structure
0+46		MGO	*Misc.*	*0*	10							Multiple scraps in every section of 87" x 138" RCP
0+46		MSC	*Misc.*	*0*			87	138				87" x 138" RCPA
0+46		MJL	*Misc.*	*0*			6					6 ft joint length
0+50		RPP	*Struct.*	*3*	12	12					J	joint repaired by minger in 2021 with chemical grout
0+50		MWL	*Misc.*	*0*								2" water level
0+56		MGO	*Misc.*	*0*								small joint separation, no mortar
0+50		MGO	*Misc.*	*0*	3	9						Pipe tie hole, 4 per barrel, 2 per side, do not appear to be filled
0+62		MGO	*Misc.*	*0*								1.5" joint separation, no mortar
0+69		MGO	*Misc.*	*0*								0.5" joint separation, no mortar
0+75		MGO	*Misc.*	*0*								1.0" joint separation, no mortar
0+80		MGO	*Misc.*	*0*								2.25" joint separation, no mortar
0+80		IRJ	*O&M*	*4*	5						J	infiltration running through loosely separated joint (no gap visible)
0+86		MGO	*Misc.*	*0*								2.5" joint separation, no mortar
0+87		IWJ	*O&M*	*2*	5						J	infiltration weeping through loosely separated joint (no gap visible)
0+93	1+00	DSGV	*O&M*	*2*	6		3		*7*			3" - 4" of deposits, less than 10% cross sectional area loss
0+94		ISSRB	*O&M*	*2*	3							Pipe gasket broken and hanging inside the pipe
0+94		IRJ	*O&M*	*4*	5						J	infiltration running through loosely separated joint (no gap visible)
0+99		MGO	*Misc.*	*0*								1.5" joint separation, no mortar
1+00	1+30	DSGV	*O&M*	*2*	6		12		*30*			~12" settled gravel in invert

*All 'Structural' and 'Operation and Maintenance' defect ratings of 5 are shaded red, and defect ratings of 4 are shaded orange.

Battle Creek Dam Outlet Inspection

Begin Station	End Station	Code	Family	Rating	Clock At/From	Clock To	Dim. 1 (in.)	Dim. 2 (in.)	Length (ft.)	Percent (%)	Joint	Comment
1+06		MGO	*Misc.*	*0*								1.5" joint separation, no mortar
1+13		MGO	*Misc.*	*0*								2" joint separation, no mortar
1+19		MGO	*Misc.*	*0*								3" joint separation, no mortar
1+19		SSS	*Struct.*	*3*	10		7	12			J	surface spall in joint, ~7" x 12"
1+19		SRV	*Struct.*	*4*	10		4				J	reinforcement visible in joint, ~4" long
1+26		MGO	*Misc.*	*0*								3" joint separation, no mortar
1+30	1+35	DSF	*O&M*	*2*	6		12		*5*			Deposits settled transitioned from gravel to more fine/mucky
1+31		MGO	*Misc.*	*0*								2" joint separation, no mortar
1+35	1+79	DSF	*O&M*	*2*	6		4		*44*			settled fine deposits, ~4" depth
1+36		MGO	*Misc.*	*0*								2" joint separation, no mortar
1+44		MGO	*Misc.*	*0*								2.5" joint separation, no mortar
1+48		SSS	*Struct.*	*3*	11		20	6			J	surface spall in joint, ~20" x 6"
1+48		SRV	*Struct.*	*4*	11		11				J	reinforcement visible in joint, ~11" long
1+48		MGO	*Misc.*	*0*								web "cracking" on pipe wall, likely occuring during pipe forming
1+55		MGO	*Misc.*	*0*								0.5" joint separation, no mortar
1+61		MGO	*Misc.*	*0*								1" joint separation, no mortar
1+61		SSS	*Struct.*	*3*								surface spall in joint
1+61	3+00	IWB	*O&M*	*2*	3				*139*			infiltration weeping through pipe tie holes
1+61	3+00	IWB	*O&M*	*2*	9				*139*			infiltration weeping through pipe tie holes
1+64		CM	*Struct.*	*3*	2	3						
1+64		CM	*Struct.*	*3*	9	10						
1+67		MGO	*Misc.*	*0*								1.5" joint separation, no mortar
1+74		MGO	*Misc.*	*0*								
1+78		TBD	*Const.*	*4*	2		12					12" PVC, defective, reinforcement corroded around breakin
1+78		SRC	*Struct.*	*5*	2							at bottom of tap
1+79		MGO	*Misc.*	*0*								2" joint separation, no mortar
1+79		TBD	*Const.*	*4*	8		18					18" RCP, defective, poor connection
1+79		TBD	*Const.*	*4*	9		12					12" slotted PVC, appears abandoned 30 feet back inside of pipe
1+79		DNF10	*O&M*	*3*	7					15		under 18" RCP tap, ~15% cross sectional area obstruction
1+79		MGO	*Misc.*	*0*								Wall thickness of RCPA = 10"-11"
1+79		TBA	*Const.*	*0*	12							4" HDPE tap through manhole above pipe at 12 o'clock position
1+79	1+86	DSF	*O&M*	*2*	6		8		*7*			8" fine deposits in invert
1+80		AMH	*Const.*	*0*	12							MH in sidewalk, 1 step, cut into top of pipe, bad shape, SRC at 12
1+80		SRC	*Struct.*	*5*	11	1						SRC around MH connection
1+86		ACB	*Const.*	*0*	12							catch basin on east side of mcknight
1+86		SRP	*Struct.*	*4*	10	1						all around CB cutout
1+86		MGO	*Misc.*	*0*								3/4" joint separation, no mortar

*All 'Structural' and 'Operation and Maintenance' defect ratings of 5 are shaded red, and defect ratings of 4 are shaded orange.

Battle Creek Dam Outlet Inspection

Begin Station	End Station	Code	Family	Rating	Clock At/From	Clock To	Dim. 1 (in.)	Dim. 2 (in.)	Length (ft.)	Percent (%)	Joint	Comment
1+86	2+37	DSF	*O&M*	*2*	6		12		*51*			12" fine deposits in invert
1+86		IRJ	*O&M*	*4*	7						J	infiltration running through joint
1+86		DNF	*O&M*	*2*	7						J	deposits coming in at infiltration location
1+92		MGO	*Misc.*	*0*								1.5" joint separation, no mortar
1+92		IRJ	*O&M*	*4*	5						J	infiltration and sand coming in through joint
1+92		DNF	*O&M*	*2*	5						J	infiltration and sand coming in through joint
1+92		IRJ	*O&M*	*4*	7						J	infiltration and sand coming in through joint
1+92		DNF	*O&M*	*2*	7						J	infiltration and sand coming in through joint
1+92		SSS	*Struct.*	*3*	1		5	12			J	spall at joint
1+92		SSS	*Struct.*	*3*	11		5	24			J	spall at joint
1+96		MGO	*Misc.*	*0*								1/2" joint separation, no mortar
1+96		IRJ	*O&M*	*4*	5						J	infiltration and sand coming in through joint
1+96		DNF	*O&M*	*2*	5						J	infiltration and sand coming in through joint
2+04		SSS	*Struct.*	*3*	9		2	5			J	spall at joint
2+09		MGO	*Misc.*	*0*								1" joint separation, no mortar
2+16		MGO	*Misc.*	*0*								2" joint separation, no mortar
2+16		IWJ	*O&M*	*2*	5						J	infiltration and sand coming in through joint
2+16		DNF	*O&M*	*2*	5						J	infiltration and sand coming in through joint
2+16		IWJ	*O&M*	*2*	7						J	infiltration and sand coming in through joint
2+16		DNF	*O&M*	*2*	7						J	infiltration and sand coming in through joint
2+16		SSS	*Struct.*	*3*	9		6	24			J	spall at joint
2+16		SRV	*Struct.*	*4*	9		9				J	reinforcement visible in joint, ~9" long
2+21		MGO	*Misc.*	*0*								1.5" joint separation, no mortar
2+21		IWJ	*O&M*	*2*	5						J	infiltration and sand coming in through joint
2+21		DNF	*O&M*	*2*	5						J	infiltration and sand coming in through joint
2+28		MGO	*Misc.*	*0*								2" joint separation, no mortar
2+28		IRJ	*O&M*	*4*	5						J	infiltration and sand coming in through joint
2+28		DNF	*O&M*	*2*	5						J	infiltration and sand coming in through joint
2+33		ACB	*Const.*	*0*	12							west side of mcknight, drops into pipe
2+33		SRP	*Struct.*	*4*	10	1						around CB connection
2+34		DNF	*O&M*	*2*	5							sand coming in through joint
2+36		ISSRB	*O&M*	*2*	11							gasket broken and hanging in pipe
2+36		MGO	*Misc.*	*0*								3.5" joint separation, no mortar
2+37		TBD	*Const.*	*4*	5							30" RCP, active, defective, sections separating up inside tap pipe
2+37		DNF	*O&M*	*2*	5							fine deposits ingressing underneath tap pipe
2+37		SRV	*Struct.*	*4*	5							around 30" RCP tap
2+37	2+70	DSF10	*O&M*	*3*	5		18		*33*	15		18" depth

*All 'Structural' and 'Operation and Maintenance' defect ratings of 5 are shaded red, and defect ratings of 4 are shaded orange.

Battle Creek Dam Outlet Inspection

Begin Station	End Station	Code	Family	Rating	Clock At/From	Clock To	Dim. 1 (in.)	Dim. 2 (in.)	Length (ft.)	Percent (%)	Joint	Comment
2+40		MGO	*Misc.*	*0*								2" joint separation, no mortar
2+46		MGO	*Misc.*	*0*								2.5" joint separation, no mortar
2+46		SSS	*Struct.*	*3*	1		3	22			J	
2+46		SSS	*Struct.*	*3*	12		6	24			J	
2+46		SRC	*Struct.*	*5*	12						J	
2+53		MGO	*Misc.*	*0*								2.5" joint separation, no mortar
2+59		MGO	*Misc.*	*0*								2.5" joint separation, no mortar
2+60		MWL	*Misc.*	*0*			24					24" water level caused by depris and deposits, no visible sag
2+64		MGO	*Misc.*	*0*								2" joint separation, no mortar
2+64		IWJ	*O&M*	*2*	5							infiltration and sand coming in through joint
2+64		DNF	*O&M*	*2*	5							infiltration and sand coming in through joint
2+70	3+01	DSF20	*O&M*	*4*			24		*31*	25		24" fine sediment deposits in inv, over 20% cross sectional area loss
2+71		MGO	*Misc.*	*0*								2" joint separation, no mortar
2+73		AMH	*Const.*	*0*								3 steps
2+73		TBD	*Const.*	*4*	3		15					15" CMP, terrible shape, broken, abandoned, lots of sediment at inv
2+73		DNF	*O&M*	*2*	5							ingress of sediment under broken tap pipe
2+73		IWB	*O&M*	*2*	5							infiltration under broken tap pipe
2+73		TBB	*Const.*	*0*	9							bulkheaded tap
2+81		MGO	*Misc.*	*0*								2" joint separation, no mortar
2+81		RPPD	*Struct.*	*4*	1		18	12				repair, rebar visible through repair
2+88		MGO	*Misc.*	*0*								3" joint separation, no mortar
2+88		SRC	*Struct.*	*5*	1						J	
2+88		SSS	*Struct.*	*3*	1		4	18			J	
2+94		MGO	*Misc.*	*0*								2.5" joint separation, no mortar
3+01		MGO	*Misc.*	*0*								1" joint separation, no mortar
3+01		DSF20	*O&M*	*4*						25		54" from top of pipe to sediment
3+01		AEP	*Const.*	*0*								Downstream FES
3+01		SSS	*Struct.*	*3*	12	12						spalling around circumference of FES
3+01		MGO	*Misc.*	*0*								riprap and river rock starts, over 30" at end of FES
3+01		MSA	*Misc.*	*0*								11 AM survey finshed

*All 'Structural' and 'Operation and Maintenance' defect ratings of 5 are shaded red, and defect ratings of 4 are shaded orange.

Scope Summary

Date: May 26, 2026

Project: McKnight Basin Outlet Repairs

Project Team:

District Staff: Dave Vlasin, Paige Ahlborg, Tina Carstens

Barr Staff: Brandon Barnes (Principal)
Alec Bateman (Project Manager)
Joe Welna (Civil Reviewer)

Scope of Work

McKnight Basin is located on Battle Creek east of McKnight Road. The outlet from McKnight Basin is an approximately 300-ft long pipe that conveys flow in Battle Creek. During large rainfall events, the water level in McKnight Basin may utilize the turfed emergency spillway. The embankment is classified as a high hazard dam because excess overflows through the emergency spillway may cause erosion and potential failure of the embankment. Failure of the embankment may result in life-threatening flash flooding downstream. RWMWD staff complete routine inspections of the embankment and update the Emergency Response plan for the basin on a regular basis.

On August 14, 2025, engineers from MNDNR Dam Safety completed an inspection for the Battle Creek Dam (MN01014, or McKnight Basin embankment). MnDNR Dam Safety found the dam to be well maintained and in good condition. However, three minor issues were observed that could evolve into more serious issues if not addressed. These issues included a minor accumulation of debris around the outlet structure, minor subsidence on the north side of the riser, and a subsidence along the conduit on the west side of McKnight Road where the west catch basin connects with the underlying Battle Creek Dam outlet pipe. MnDNR recommended an inspection be conducted of the outlet pipe to identify the cause of this settlement.

Barr and RWMD staff completed the inspection of the McKnight Basin Outlet pipe on April 9th, 2026. Overall, the McKnight Basin outlet storm sewer was found to be in “fair” condition. The majority of defects encountered consisted of infiltration of groundwater and ingress of fine sediment through loose joints and defective tap pipe connections. These defects line up with conditions at the surface where settlement is being observed. Figure 1 shows representative defects found during the inspection.



Pipe gasket missing. Sediment entering through pipe joint



Exposed rebar, concrete material missing near pipe connection.

Figure 1 **Example defects found in the McKnight Basin Outlet Pipe**

These defects are not in need of emergency repairs. However, if these defects are not addressed, they may continue to allow infiltration and soil ingress which can lead to subsidence of surface features above the outlet pipe over time. Based on the current condition of the Battle Creek Dam outlet storm sewers, the following actions and repairs should be conducted:

1. Pipe is dewatered and sediment is removed. The invert of the pipe should be inspected at this time.
2. Broken and/or hanging pipe gaskets are removed.
3. Pipe joints are cleaned and filled with repair mortar or chemical grout.
4. Defective pipe tap connections are repaired if active and abandoned if inactive.

In addition to the pipe repairs, RWMWD staff have noted frequent blockage of the McKnight Basin outlet and an inadequate trash rack at the primary outlet flared end section. RWMWD staff have requested that this be redesigned to reduce clogging.

The tasks below outline the scope of work required to repair the McKnight Basin outlet pipe.

Task 1 – Utility Locate and Supplemental Survey Information

Barr will submit a Gopher State One Call ticket to locate existing utilities near the McKnight Basin outlet. After utilities are located, Barr will survey the locations of existing utilities, infrastructure, and surface elevations. Barr staff will review the survey information provided by Ramsey County, collect supplemental information, and may perform site investigations to help determine which tap pipe connections to the McKnight Basin outlet can be abandoned.

Task 2 – Final Design Drawings, OPC, and Specifications

This task includes performing engineering analysis and design of the McKnight Basin outlet repairs including:

- Criteria for dewatering and sediment removal
- Design of pipe and pipe joint repair
- Design of pipe tap connection repairs/bulkheads
- Design of basin outlet trash rack modifications
- Design of sidewalk repairs and surface restoration

This task includes development of final project specifications to be included in the bidding documents with the final construction documents.

Barr will work with coordinate with Ramsey County Parks for site access and staging layouts. Barr assumes the Contractor will obtain all necessary permits not referenced in Task 3 required for construction.

Task 3 – Permitting

A dam safety permit is required for maintenance of existing dame facilities. Barr assumes that maintenance of the outlet will trigger a Dam Safety Permit from the MnDNR. Dam safety permits are required to ensure the safe design, construction, operation, and maintenance of dams to protect the health, safety, and welfare of the public. Dams remain in place for many decades and must be designed and built properly to remain safe and functional. Barr assumes that the permit will be limited to repairs of the outlet pipe and not trigger further modifications to the dam or outlet structure.

Task 4 – County Coordination, Bidding, and Construction Administration

This task involves coordinating with Ramsey County Parks and Ramsey Washington Metro Watershed District. Barr will coordinate with the County regarding overall project schedule and milestone dates for deliverables. Barr assumes construction will take place during the summer of 2027 and construction will take no more than 4 weeks to complete.

Barr will assist RWMWD in bidding the project through a public bidding process and selecting a contractor. Barr will lead construction observation and administration. The estimated project costs assume that Barr staff will perform part-time observation (20 hours/week) for a period of four (4) weeks. Barr will also coordinate with the contractor on submittals, change orders, clarifications, respond to RFIs, and pay requests, and attend weekly on-site meetings. At the conclusion of the project Barr will prepare record drawings and a construction report.

Budget

The cost to conduct the proposed scope of work is summarized in the table below.

Task	Cost
Task 1: Utility Locate and supplemental survey information	$6,000
Task 2: Final Design Drawings, OPC, and Specifications	$67,000
Task 3: Permitting	$10,000
Task 4: County coordination, bidding, and construction administration	$37,000
Total	$120,000

Schedule

The proposed project schedule is outlined below. The design of the repairs will be completed in the fall of 2026; construction is anticipated in 2027.

Task	Estimated Completion Month
Task 1: Utility Locate and supplemental survey information	July 2026 [1]
Task 2: Final Design	December 2026
Task 3: Permitting	December 2026
Task 4: County coordination, bidding, and construction administration	September 2027

[1]Weather dependent

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Administrator's Report

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MEMO

TO: Board of Managers and Staff
FROM: Tina Carstens, Administrator
SUBJECT: May Administrator's Report
DATE: May 28, 2026

A. Meetings Attended

Tuesday, May 5	8:30 AM	MAWA Executive Committee
Wednesday, May 6	11:00 AM	Wakefield Lake Project Discussion
Monday, May 11	12:00 PM	Program Manager Team Meeting
Wednesday, May 13	1:00 PM	BWSR Local Implementers Discussion
Thursday, May 14	9:00 AM	Water Resources Conference Planning
Monday, May 18	9:30 AM	We are Water Exhibit Staff Tour
Tuesday, May 19	11:00 AM	New Oakdale City Engineer Meet and Greet
	12:30 PM	Meet with SDI re: DEIA Strategic Plan
Wednesday, May 27	9:00 AM	Chloride Modeling Results Discussion

B. Upcoming Meetings and Dates

CAC Meeting	June 9, 2026
July Board Meeting	July 1, 2026
Metro Watersheds Meeting	July 21, 2026
August Board Meeting	August 5, 2026
MW Summer Tour	August 25-26, 2026
September Board Meeting	September 2, 2026

C. Staff Anniversaries in June

Pat Williamson	June 12	3 years*
Paul Erdmann	June 26	3 years*

*These anniversaries are for their full-time employment with RWMWD, but if starred, they also worked as an intern before their hiring as full-time.

D. Board Action Log and Updates

The board action log is attached. I review this list monthly and incorporate any suggestions from the previous meeting.

E. Minnesota Watersheds Updates

The board always has access to the monthly newsletters by going here: https://www.mnwatersheds.com/news-letters. If you proceed to the members-only section of the website, you can also find the legislative platform and update information.

RAMSEY-WASHINGTON
METRO WATERSHED DISTRICT

Board of Managers 2026 Action Log

June 3, 2026

Item	Anticipated Action Date	Means of Action
Shoreland Assessment	2026	Presentation and Board Discussion
Impervious Surface Reduction Planning	2026	Presentation and Board Discussion
Wetland Topics for WMP and Rule Updates	2026	June Presentation and Board Discussion
Chloride Reduction Strategies for Regulatory Program	2026	Rules Technical Advisory Committee
Watershed Data Strategies	2026	Presentation and Board Discussion

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Little Canada, MN 55117

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Project and Program Status Reports

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RAMSEY-WASHINGTON METRO WATERSHED DISTRICT

BARR

Memorandum

To: Board of managers and staff
From: Tina Carstens, Brad Lindaman, Erin Anderson Wenz, and Brandon Barnes
Subject: Project and program status report: June 2026
Date: May 26, 2026

Note: The location, brief description, and current status of each project described below can be found on the *2026 Ramsey-Washington Metro Watershed District (RWMWD) engineering services story map*.

Project feasibility studies

A. Landfall best management practice (BMP) study (manufactured-homes resilience study project 1) (Barr project manager: Tyler Olsen; RWMWD project manager: Paige Ahlborg)

This project aims to complete an inventory of manufactured home developments within the RWMWD, identify potential project opportunities to increase resilience to regional flooding, reduce localized flood risk, improve water quality, and connect with developments to provide information on opportunities to improve stormwater conveyance and/or water quality within each development.

Barr began outlining next steps for the Landfall BMP study and reviewing recommendations from the manufactured-homes development study. In the next period, we will evaluate the concepts further.

B. Five Star Estates feasibility study (Barr project manager: Tyler Olsen; RWMWD project manager: Paige Ahlborg)

The purpose of this project is to evaluate the feasibility of the flood risk reduction and water quality project concepts from the manufactured homes resiliency study at Five Star Estates in Vadnais Heights.

During this period, we continued to evaluate flood risk to habitable structures and assessed proposed solutions to reduce it. Barr environmental specialists continued the Phase I environmental site assessment and drafted a final report summarizing contamination risks for future projects. The report is currently undergoing internal review. Over the next month, we will finalize the feasibility of the flood risk reduction concepts and begin assessing improvements to water quality and natural resources identified in the manufactured-homes development study.

C. Chloride reduction strategy (Barr project manager: Tyler Olsen; RWMWD project manager: Paige Ahlborg and Ashlee Ricci)

The purpose of this project is to develop a chloride reduction strategy that will inform and guide the implementation of a multifaceted approach combining prevention, mitigation, and behavioral

change, and leverage all of the district's regulatory and operational programs to reduce chloride pollution to aquatic ecosystems.

During this period, Barr continued summarizing modeling results by areas of highest loading potential for each of the district's chloride-impaired or at-risk water bodies. The next task is to brainstorm implementation strategies with the RWMWD in conjunction with the district's water management plan update. A meeting is scheduled for May 27 to begin brainstorming.

D. Tanners Lake, Battle Creek Lake, and Battle Creek resiliency feasibility study (Barr project manager: Jay Hawley; RWMWD project manager: Paige Ahlborg)

The purpose of this project is to develop concept designs and operation plans for outlet modifications on Tanners Lake, Battle Creek Lake, and McKnight Basin that can remove up to 19 habitable structures from the 100-year floodplain in the areas near these water bodies and significantly reduce flood risk for vulnerable communities, such as the Landfall.

During this period, Barr continued reviewing rainfall forecasting data, historic water surface elevation measurements, and downstream water quality information, which will inform the development of an operation plan for modified outlet control structures. We also began updating the RWMWD stormwater model to simulate continuous rainfall. Simulating measured rainfall allows evaluation of the impacts that different operation plans would have on downstream flow and water levels in Battle Creek. We anticipate that the feasibility study will progress throughout the year, with tentative completion in the fall.

E. RWMWD stormwater model updates (Barr project manager: Michael McKinney; RWMWD project manager: Paige Ahlborg)

This project maintains and updates the RWMWD hydrologic and hydraulic (stormwater) model in response to updates to best-available information, including recently completed and ongoing stormwater modeling projects.

Minimal activity occurred during this period while we await the completion of ongoing Saint Paul modeling projects (Lake Phalen and Beltline watersheds) and elements of the Battle Creek Lake tunnel.

Barr recently finished detailed modeling of the Phalen Lake and Beltline subwatersheds for the City of Saint Paul. We also completed the GIS files for the Battle Creek and Beltline tunnels, which will be delivered to RWMWD and Gopher State One Call. We anticipate that model updates will extend into summer 2026 to incorporate tunnel survey information and updated models from the city.

F. Studies stemming from creek walks (Barr project manager: Jessica Olson; RWMWD project manager: Eric Korte)

The purpose of this project is to review information collected during creek walks and identify and prioritize locations for future creek improvement and stabilization projects.

Barr and the RWMWD finished processing (in GIS) the data collected during the 2025 creek walks and developing a framework for prioritizing creek stabilization and restoration projects. This framework builds on previous RWMWD prioritization tools and incorporates new information collected along the creeks. Barr is preparing GIS maps, reviewing preliminary scoring, and comparing results to site observations. Barr and the RWMWD will present the prioritization framework at the June board meeting. Selection of initial creek segments for stabilization or restoration projects will occur later this year, following the RWMWD's annual capital improvement plan (CIP) inspections of infrastructure along the creeks. We will document the prioritization framework this summer.

G. Wetland restoration planning (Barr project manager: Brendan Dougherty; RWMWD project managers: Paige Ahlborg and Paul Erdmann)

This project aims to lay the groundwork for what will hopefully be the district's next two wetland restoration projects: the Plateau wetland in Saint Paul and the Schletty wetland in Little Canada.

During this period, Barr reviewed existing site data and coordinated a spring vegetation assessment.

H. Battle Creek subwatershed feasibility study (phase 2) (Barr project manager: Jay Hawley; RWMWD project managers: Paige Ahlborg and Eric Korte)

The purpose of this project is to compile and analyze the 2025 sample data and identify BMPs that could reduce pollutant loading to Battle Creek.

During this period, Barr continued analyzing the 2025 sampling data. We will pair the samples with creek flow rates to understand which flow rates have the greatest impact on water quality. Our analysis of the system will continue over the next few months with the goal of sizing and locating potential BMPs by August, in time for 2027 budget planning discussions.

Monitoring water quality/project monitoring

I. Special-project BMP monitoring (Barr project manager: Erin Anderson Wenz; RWMWD project manager: Eric Korte)

This project aims to collect data from and monitor the performance of BMPs in the district.

Recently, Barr calculated and reviewed the results of the three performance tests on the Willow Pond continuous monitoring and adaptive control (CMAC) project from the past year. This information is included in the RWMWD annual water quality report.

The Willow CMAC began operating in May. Barr is currently working on the datalogger program to fully automate the CMAC.

J. Water quality data management (Barr project manager: Tyler Olsen, RWMWD project manager: Eric Korte)

The purpose of this project is to help the RWMWD manage monitoring and laboratory data and develop water quality dashboards.

During this period, Barr began coordinating our approach to integrating multiple data types into the RWMWD water quality database, including historic monitoring and laboratory data, field monitoring data, and continuous data. Charges for this period also include finalizing the scope summary that was included in last month's board packet.

Watershed management plan update

K. Water management plan update, phase 3: Draft plan development (Barr project manager: Greg Williams; RWMWD project manager: Tina Carstens)

This project involves developing and revising content for the watershed management plan in coordination with RWMWD staff members and the board of managers before the formal plan review process.

Barr coordinated with the RWMWD to develop an agenda, prepare a brief memorandum, and facilitate a virtual plan technical advisory committee meeting on April 30 to gather additional feedback on the draft goals. We also continued drafting issues narratives for the plan document and began drafting the land and water resources inventory. We started updating the implementation program based on recent district work and current project identification tools. Next, we will coordinate with the RWMWD to obtain feedback on draft plan content and have scheduled the next technical advisory committee meeting (June 17) to gather input on draft implementation items.

Lake studies and total maximum daily load (TMDL) reports

L. 2026 grant applications (Barr project manager: Erin Anderson Wenz; RWMWD project manager: Tina Carstens)

This effort aims to help the RWMWD locate and secure funding opportunities that align with its goals and objectives.

This month, Barr participated in an interview for 3M PFAS Priority 2 funding related to the Fish Creek tributary stream restoration project. Barr and the RWMWD provided additional project context to the Minnesota Department of Natural Resources (DNR) and answered minor questions. The DNR indicated that recipients of the funding will be announced in June 2026.

Project operations

M. 2026 Tanners alum facility monitoring (Barr project manager: Meg Rattei; RWMWD project manager: Eric Korte)

This project aims to complete the monitoring and reporting required by the general National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) permit for municipal separate storm sewer systems (MS4s).

Barr analyzed the 2025 water quality data and conducted FLUX modeling to determine the phosphorus load removed in 2025. We are preparing the annual monitoring report in accordance

with MPCA permit requirements. Barr will submit the 2025 data to the MPCA's database later this year. The plant was restarted in mid-May for another season.

N. Lake-level station operation and maintenance and rain gauge installation (Barr project manager: Chris Bonick; RWMWD project manager: Dave Vlasin)

This project aims to continuously measure and record lake levels and display real-time and historical data in graphs on the RWMWD website for the following lakes: Phalen, Snail, Owasso, Wabasso, West Vadnais, Battle Creek, Tanners, Spoon, and Twin. Operation and maintenance tasks for the lake-level stations and associated webpages continue. Station-specific updates are included below.

Lake Owasso lake level station

The RWMWD and Barr have begun replacing the damaged ultrasonic water-level sensor with a bubbler sensor. The project is expected to be complete in June.

Past and ongoing monitoring equipment updates and improvements

Since installation, some lake-level monitoring stations have had problems. Barr and the RWMWD have made an ongoing effort to update the equipment to address these issues. The equipment deployed at stations on Phalen, Battle Creek, Spoon, Snail, and Wabasso lakes has performed well, with few periods of downtime. However, the stations on Owasso, Tanners, West Vadnais, and Twin lakes have experienced temporary outages. The Wabasso Lake level station is currently offline due to the construction of a new outlet structure. The monitoring equipment has been temporarily removed and will be reinstalled when the outlet structure is complete.

At the Owasso Lake level station, spring ice movement has torn off the stilling wells and, subsequently, the mounting post from the city dock, on three separate occasions, despite strengthening the fastening method—causing the ultrasonic water level sensors to fall into the water and become damaged. In this case, the equipment was not faulty; rather, the mounting method required for a non-contact sensor (i.e., ultrasonic or radar) was not suitable for site conditions. Barr and the RWMWD are switching to a submersible sensor (i.e., a bubbler) that will likely be installed beneath the dock.

At the Tanners Lake level station, the originally installed bubbler system struggled to provide adequate readings due to the long airline run required by the site's large weed bed. For the reasons noted above, this bubbler system is being moved to the Owasso Lake station. Barr and the RWMWD installed a new radar sensor, which has been working well. During the summer, emergent vegetation causes noise in the readings; to eliminate this issue, we will build a stilling well on the lakeshore to house the radar.

At the West Vadnais Lake level station, wave action moves sand toward the southeast lakeshore where the bubbler orifice is installed. Sand sometimes buries the bubbler orifice, adversely affecting level readings. Barr and the RWMWD have unsuccessfully attempted to use physical barriers to prevent sedimentation. As a short-term solution, we have dug out and raised the orifice on several occasions, and we are considering alternative long-term solutions.

At the Twin Lake level station, a poor cell signal caused communication issues. Barr and the RWMWD replaced the original antenna with a more powerful directional antenna, resulting in significant improvement. In addition, heavy vegetation at this station interferes with accurate bubbler readings to a degree similar to but not as extreme as at the Tanners station. Periodic purging of the airline can help address this issue.

New rain gauges (Phalen, Tanners, Owasso, West Vadnais, Spoon, Snail, and Twin lakes)
The RWMWD decided to display data from the rain gauges installed last year on its website. Barr met with the RWMWD in March to discuss data visualization. There are new updates to the Power BI data visualization tool, which can be used to improve the current lake-level station graphs on the district's webpage. The effort to display rain data will be combined with improvements to the existing lake-level graphs.

O. Phalen and Keller lakes level station forecast integration (Barr project manager: Brandon Barnes; RWMWD project manager: Eric Korte)

The purpose of this project is to integrate tools developed in 2025 to automate operation of the Keller and Phalen outlet control structures. Updates will notify the RWMWD when adjustments are needed so the district does not have to monitor rainfall forecasts and water levels manually.

This month, Barr and the RWMWD continued coordinating with InControl to update the control system for the Phalen and Keller outlet control structures. We requested a proposal from InControl to modify the current system to integrate the tools developed last year to automate the operation of the outlet control structures. Coordination with InControl will continue next month, and system updates to adjust the Keller and Phalen outlet control structures will continue through the end of the year.

P. Beltline and Battle Creek Gopher State One Call utility locates (Barr project manager: Nathan Campeau; RWMWD project manager: Dave Vlasin)

The purpose of this project is to protect the Beltline and Battle Creek tunnel systems from damage by assisting the district with utility-locating services through Gopher State One Call. As necessary, Barr will monitor utility locate requests and mark tunnel locations in the field.

During this period, Barr conducted additional surveying for the RWMWD-owned storm sewer that discharges to the Battle Creek tunnel. We are combining that survey with the processed Beltline and Battle Creek tunnels survey and will provide it to the RWMWD to use for the Gopher State One Call in May.

Capital improvements

Q. 2026 targeted retrofit projects (Barr project manager: Marcy Bean; RWMWD project manager: Paige Ahlborg)

This project aims to design BMP retrofits on previously identified commercial, school, and faith-based properties in the district, and to provide bid assistance and oversee construction.

Development of future retrofit projects

During this period, Barr reviewed the Watershed Approach to Retrofit Projects (WARP) tool and previously visited sites to select priority site visits in 2026 scouting.

Thirty Twenty Estates in Little Canada (2026)

Barr completed drawings and an opinion of cost for discussion with property owners. This pilot project for the Miyawaki Mini Forest method includes turf conversion and vegetative buffers for this manufactured home site. Renderings are in progress to support understanding of the project.

This project was awarded to Sandstrom Land Management at the May board meeting, and contracting is in progress.

Redeemer Lutheran in White Bear Lake

Barr developed a project summary memo for RWMWD review to determine whether the project should proceed as a stewardship grant or as a targeted retrofit. During this period, we developed high-level cost-benefit analyses to provide decision-making tools for the property owner. The RWMWD is currently reviewing the analyses.

1670 Beam Avenue in Maplewood

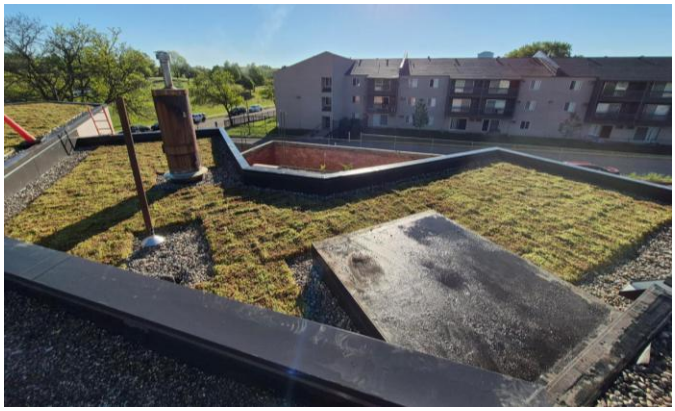
This commercial property houses several dental services, including Community Dental, a nonprofit organization. The owner is interested in exploring opportunities for additional tree plantings, with tree trenches as a potential BMP for the site. Design is underway and will be presented to the board as it nears 90-percent completion—likely in late summer.

Gustavus Adolphus Lutheran Church of Saint Paul

City of Saint Paul approvals were finalized on May 13, and the contractor, McLafferty Contracting Group, has requested the permits. Construction is likely to start in late May, with substantial completion prior to the Minnesota State Fair.

Maplewood Toyota, Cochran Recovery Services, and SPYS Green Roof

These projects were contracted in 2025, with continued observation and support provided to the property owner. The SPYS Green Roof (pictured below) was installed in May.



R. Double Driveway and Fish Creek tributary improvements (Barr project manager: Tyler Olsen; RWMWD project manager: Tina Carstens)

This project aims to design and implement vegetation improvements around Double Driveway Pond, as well as stream stabilization improvements in the Fish Creek tributary upstream.

Barr began preparing this project for bidding. We anticipate receiving an update on the DNR 3M grant funding in June.

S. Cottage Place wetland regeneration (Barr project manager: Brendan Dougherty; RWMWD project manager: Paige Ahlborg)

This project aims to design and restore a degraded wetland on the City of Shoreview property near the Cottage Place cul-de-sac. The project will involve plan development, bidding, and construction administration to provide additional stormwater treatment and restore wildlife habitat in the area.

Barr and the restoration contractor conducted a spring site review. The site appeared stable, with minor weed encroachment. Barr directed the contractor to complete spring vegetation maintenance to promote the establishment of native plants.

T. Ames Lake improvements (Barr project manager: Matt Metzger; RWMWD project manager: Paige Ahlborg

The purpose of this project, supported by the City of Saint Paul, is to complete the final design of modifications to reduce flood risk to homes and businesses near Ames Lake. Work includes characterizing the sites, coordinating discussions with the city, and preparing final plans and specifications. Bidding and construction management will be part of a separate task. This follow-up planning study was identified in the Beltline resiliency study.

This month, Barr completed a drone survey to collect topographic information, as well as a tree survey. Both tasks were scheduled before the grant agreement was finalized to collect information prior to trees leafing out. We are compiling the updated survey information into our design files and are planning geotechnical investigations. Landscape and ecological planning for the green space is resuming, as well as grading, storm sewer, and infrastructure design.

U. Kohlman Creek flood risk reduction projects (Barr project manager: Tyler Olsen; RWMWD project manager: Paige Ahlborg)

This project aims to design multiple flood risk reduction improvement projects previously identified in the Kohlman Creek flood risk reduction feasibility study. The improvement projects include PCU Pond T grading, 13th Avenue storm sewer improvements, and berm grading and outlet installation in the backyards of homes along County Road C.

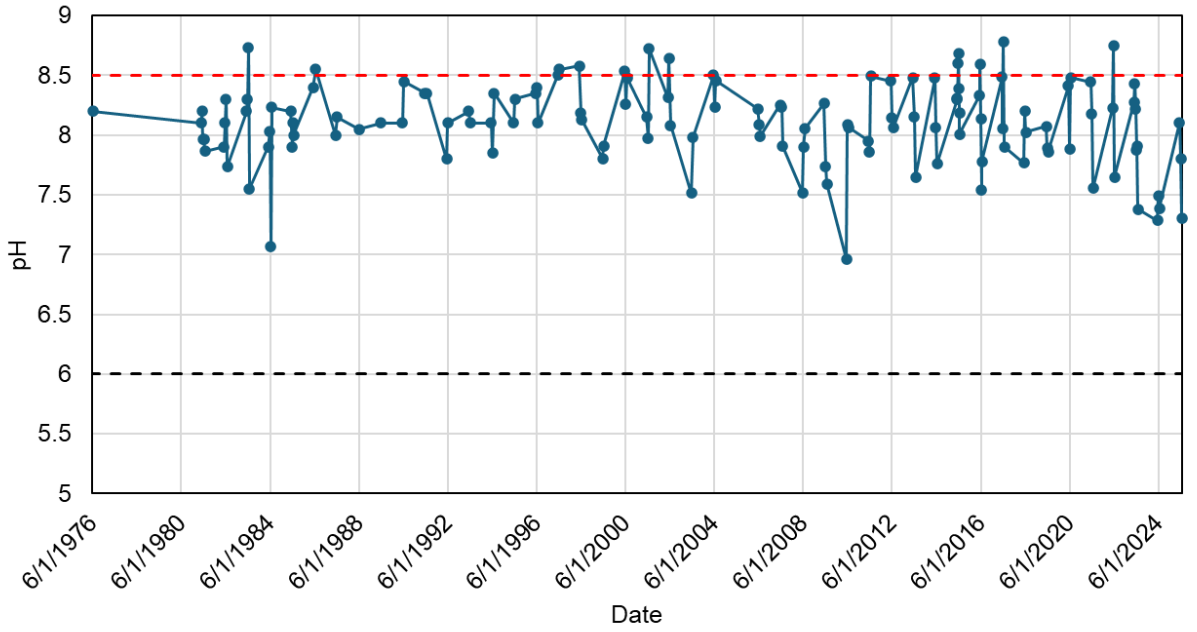
During this period, Barr and the RWMWD coordinated with New Look Construction to raise the 2025 berm to the as-designed grade. Barr provided construction staking for the final berm elevation, and New Look completed the work in May. The final payment application, including release of retainage, is included in this month's board packet.

V. Kohlman Lake alum treatment (Barr project manager: Tyler Olsen; RWMWD project manager: Paul Erdmann/Eric Korte)

This project aims to collect the required information and design an alum treatment for Kohlman Lake in Maplewood.

During this period, Barr continued coordinating with SOLitude to finalize the contract and plan for this spring's alum treatment. This work involved a pre-treatment coordination call with representatives from Barr, the RWMWD, Ramsey County, the City of Maplewood, and SOLitude. Additionally, Barr and the RWMWD coordinated with Ramsey County Parks and Recreation to secure an access permit for the Spoon Lake public boat launch, which SOLitude will use to access Kohlman Lake and stage equipment.

However, on May 22, Barr and the RWMWD decided to postpone the alum treatment until fall 2026. Field measurements collected on May 19 and May 21 indicated that pH at multiple lake locations ranged from approximately 8.4 to 9.0 standard units, with a majority of readings exceeding the upper threshold of 8.5 standard units identified in the project specifications. Per the contract requirements, treatment must be halted if the arithmetically averaged ambient pH exceeds this threshold to confirm proper alum performance and avoid unintended water quality impacts. The high pH in Kohlman Lake is most likely due to productivity (algae and plant growth). Historically, pH has been within a similar range (between 7 and 8.5) at this point in spring, but warm temperatures in 2026 likely accelerated the timing of productivity in the lake. Historic pH measurements in Kohlman Lake during May and June are shown in the figure below.



In addition, forecasted warm air temperatures during the week of May 25 may further increase lake pH in the near term, increasing the likelihood that acceptable treatment conditions will not be met during the originally planned treatment window (May 27 to June 1, 2026). Proceeding

under these conditions would introduce a risk of treatment delays, operational interruptions, unintended water quality impacts, and suboptimal performance results.

Based on these considerations, Barr and the RWMWD determined that postponing the treatment to the fall is the most prudent course of action. Fall conditions in Minnesota (typically mid-September through October) are more likely to provide stable, appropriate pH ranges for alum application, allowing the treatment to be completed efficiently and in accordance with project specifications.

A change order extending SOLitude's contract to October 31, 2026 to allow for a fall treatment is included in the June Board packet.

W. Wakefield Lake aeration (Barr project manager: Tyler Olsen; RWMWD project managers: Paige Ahlborg and Eric Korte)

The purpose of this project is to finalize the design and implementation of an oxygen saturation technology system in Wakefield Lake to reduce internal phosphorus loading and improve water quality.

During this period, Barr, the RWMWD, and the City of Maplewood met on May 6 to discuss potential locations for the onshore components of the oxygenation system. Simultaneously, Barr electrical engineers began evaluating power supply sources from existing services to help inform the final location of the onshore components. In June, Barr, the RWMWD, and Maplewood will meet on site to decide on a final location.

CIP project repair and maintenance

X. Routine CIP inspection and unplanned maintenance identification (Barr project manager: Gareth Becker; RWMWD project manager: Dave Vlasin)

This study aims to address unplanned and routine maintenance of the RWMWD's existing capital improvement projects that are not included in the annual CIP maintenance and repairs project.

This project involves the ongoing evaluation of current CIP maintenance and repair sites that may need attention. Work advances at a slower pace as the 2026 CIP project (below) continues. During this period, most of the work under this item involved Barr's evaluation of the McKnight Basin outlet, including coordination with the wider team, review of inspection reports and GIS figures, and memo development. Additionally, planning for the 2027 CIP project is underway and will accelerate in the coming weeks.

Y. 2026 CIP maintenance and repairs (Barr project manager: Gareth Becker; RWMWD project manager: Dave Vlasin)

This effort aims to maintain the RWMWD's existing capital improvement projects and includes the Public Entity Cost Share (PECS) program.

Construction is substantially complete, with only minor restoration items remaining on a few sites. We anticipate that all project work will be finished prior to the June board meeting, with

the final payment application and retainage released at the July board meeting. A partial payment application is included in this packet for consideration at the June board meeting.

Z. RWMWD office exterior improvements (Barr project manager: Marcy Bean; RWMWD project manager: Paige Ahlborg)

This project aims to develop plans and specifications and engage a contractor to improve the RWMWD office parking lot, including a heated porous paver system, ADA-related accessibility improvements, and electric-vehicle (EV) charging stations.

In fall 2025, Barr presented the preliminary design and associated costs to the board. We have prepared updated 90-percent designs and have attached them for the board's consideration. The project now includes replacement of permeable pavement with a heated permeable paver system, heated sidewalks to the office building, ADA-related accessibility improvements, an EV charging station, a new slab and enclosure for boat storage, and replacement of the enclosure for garbage containers.

The board should consider a motion to accept the designs, scope of work, and estimate of probable construction costs and approve the advertisement for bid. Assuming board support, and pending final detailing, we intend to bid out the project in June or July, with an award recommendation at the July or August meeting and construction beginning in fall 2026. Project drawings depicting the 90-percent design, as well as a memo describing the scope of work and an opinion of probable construction costs, are included in this board packet, along with additional information requested at the May board meeting.

AA. Natural resources update: Paul Erdmann

Spring Has Sprung in the District

Spring is a critical time for the management of native plant restorations and landscapes. Cool season weeds are easier to locate and remove before the warm season prairie plants grow. We were able to burn many of our sites this spring or last fall, leaving a "clean slate" for us to assess sites and target weeds by hand pulling, digging or herbicide application. After an odd, slow year for garlic mustard last year, it is proliferating this year and we have removed lots of it from many of our sites. Other weeds we target this time of year include spotted knapweed, Dame's rocket, reed canary grass, leafy and cypress spurge and more. Putting in the effort early in the growing season will pay off in the months ahead, and the NR team has done a stellar job getting familiar with our sites and managing invasive plants so native ones can thrive.



We also took advantage of our recent burns by overseeding native seed mixes in sites that we burned in an effort to increase plant density and diversity and to create more competition for weeds. We also seeded a new area of Goodrich Golf Course that we started prepping last year. The mix for this site was mostly grasses and sedges which will allow for easier management of perennial weeds, which are often a struggle at Goodrich. We also seeded a Cover It Up seed mix (UMN/MNL researched mix to compete with buckthorn) and covered it with a thin layer of hydromulch in order to get better germination of the seed on a slope above Keller Creek in Keller Regional Park. This was a team effort with Ramsey County Parks and Rec/SWCD. We rescued lupine and other native plants at Marketplace Pond from the area that will soon be dug up to increase flood storage as part of the nearby road project. Rescued plants were transplanted at the Lake Owasso shoreline and other areas of Marketplace.





Photos Top to Bottom: Phlox and wild ginger thrive in a woodland burned last fall at Keller Golf Course. Plant rescue at Marketplace Pond. Shooting star blooms at Keller Golf Course.

BB. Communications and engagement program: Lauren Hazenson

<u>Youth Education Program</u>

Classroom Sessions:

<u>Lesson: Watershed Introduction</u>

- Mounds Park Academy (St. Paul)
  - 4/28/26
  - Two 10th grade classrooms, Biology & Honors Biology (~35 students)
  - Teacher: Mitch Thomsen / Seth Lindenfelser
  - Lesson: Watershed 101
    - Goals: Answer the following questions:
      - What is a watershed?
      - How has land use changed over time?
      - What are some common water pollutants and how can we help?
      - How do native plants help keep surface waters clean?

        - With the older audience, we did not use the Enviroscape, and instead used maps and projected images to look at more in depth ideas of watersheds, subwatershed, drainage area, water pollution, as well as the history of restoration on the MPA campus

- Little Canada Elementary School (Little Canada)
    - 4/30/26
    - Three small English Language Learner support classes of 1st graders (18 students)
    - Teacher: Kerry Gamble
    - Lesson: Biological Connections
    - Concepts taught:
        - Biological connections (showing ecosystem connections with biotic and abiotic factors)
        - Food webs, symbiotic relationships, energy flow, habitat reliance
    - Process:
        - Using simplified language, Carrie Magnuson and Communications Intern Carina Trevino led small groups of students through a game they developed called "We Need Each Other".
        - Each student picked a laminated card with an image of a specific plant, animal, or a clean lake on it. Staff asked habitat-related questions (food, shelter, life-cycle, etc) that resulted in students connecting their 'characters' based on what their plant, animal, or lake was dependent on.
        - For example, frogs have their offspring in lakes or wetlands (yellow yarn between frog and lake), frogs eat mosquitoes (red yarn between the two) mosquitoes eat blood from beavers (red yarn between the two), beavers eat trees, etc.
        - As the questions continued, the students could see how their character was connected in a web of ways to those around them.
        - When time allowed, we asked one final question about what would happen if one plant/animal/water was gone. We did this by cutting all the yarn leading to that student's spot. The students excitedly noticed their web of yarn go limp and stretch oddly when different aspects were removed.

<u>Field Trips</u>

- Central Park Elementary School (Roseville)
    - 5/5/26
    - Two 5th grade classes (~60 students)
    - Teachers: Rachael Johnson, Carly Heras

- Location: Snail Lake Wetland A



Students were bussed to Snail Lake Boat Launch, then they hiked across the street to the wetland, where there were three rotating stations:

- Birding with Binoculars – Birding specialist, Steve Johnson, led the students along the wetland edge, identifying birds and learning strategies for finding them.

- Macroinvertebrate Exploration – Tracy Leavenworth and Carina Trevino led students through an exploration of live aquatic macroinvertebrates netted on site. A newly developed data form indicated each species' pollutant tolerance, so students could use the species found to make a hypothesis about the wetland's health.

- Spring Shoreline Scavenger Hunt – Carrie Magnuson led students along one of the trails that has undergone a shoreline restoration in recent years. Students used a scavenger hunt game to foster curiosity and encourage them to ask questions when they didn't know what an item was.

- Central Park Elementary School (Roseville)
  - 5/6/26
  - Two 6th grade classrooms (~60 students)



  - Teachers: Anders Johnson, Jason Sirovy
  - Location: On-site at their school and in the neighboring Harriet Alexander Nature Center.
  - Students in each class were led by Carrie Magnuson, Tracy Leavenworth, and Carina Travino through two stations:
    - Campus Raingarden Cleanup – Unfortunately, maintenance staff had already removed last year's growth, which had been the original plan. Pivoting in the moment, the first class did a litter cleanup in and around the garden, and the second class had a quick lesson in dandelion removal and inlet cleaning.
    - Birding with Binoculars - Birding specialist, Steve Johnson, led the students into the Harriet Alexander Nature Center, identifying birds and learning strategies for finding them.

- Little Canada Elementary School (Little Canada)
  - 5/12/26
  - Three small English Language Learner support classes of 1st graders (18 students)
  - Teacher: Kerry Gamble

- Students were led by Carrie Magnuson, their teacher, and a couple of guardian chaperones on a walking field trip from their school to Gervais Mill Ponds (GMP). Once there, students were given a laminated scavenger hunt with pictures and corresponding words for natural and human-made things that could be found at GMP at this time of year.

- Harmony Learning Center (North St. Paul)
  - 5/13/26
  - Four Adult English Language Learner Classes (~60 students)
  - Teachers: Chriss Mester, Eileen Reuss, Rita Bulger, and the beginning language learner teacher (I'll have to see if I can get this teacher's name)
  - Staff: Carrie Magnuson, Kyle Kubitza. Ed Consultant: Tracy Leavenworth.
  - Volunteers: Randee Edmundson (CAC), Naturalists: Steve Johnson, John Zakelj, Kathy Sidles, Bev Blomgren.

Students were bussed to Maplewood Nature Center and divided into groups to the following two stations:

- Birding and guided naturalist tour. Volunteer naturalists led groups of about 6-8 students through the woods at MNC to observe birds and spring phenology.
- Water Quality. Students observed abiotic parameters (dissolved oxygen, pH, temperature, conductivity, chlorides) and a biotic parameter (macroinvertebrates) to give an overall assessment of the pond at MNC. Water Quality Technician, Kyle Kubitza, used the Sond to take measurement for students to compare their classroom methods to this more sophisticated instrument method.

- Weaver Elementary School (Maplewood)
  - 5/14/26
  - Three 1st grade classrooms (63 students)
  - Teachers: Kathryn McCarrick-Talley, Torrie Lukin-Johnson, Bethany Damiano
  - Location: On-site garden
  - Students were guided to their campus gardens where they learned about some common weeds and how to remove them. This process not only allowed students to do great work at their school garden, but it also helped prepare the beds for the 5th grade planting happening the following week. While students were not weeding, they were encouraged to use sidewalk chalk to bring attention and cheer to the gardens.

- L'Etoile du Nord (St. Paul) – Science Fair Project Assistance
  - 5/15/26
  - One 3rd grade student, Beckett, reached out with the help of his parents for additional information about Ames Lake. Beckett's class had acted out the story of Ames Lake in the fall, and taken a walking field trip to Ames Lake in the spring. Beckett was inspired to wonder more about Ames Lake's water quality and what was polluting it.

  - Carrie Magnuson met Beckett and his mother out at the lake to do abiotic and biotic testing of the water there (dissolved oxygen, pH, chloride, temp, and macroinvertebrate assessment)
  - Beckett later used information learned here, along with a home experiment, to determine possible chloride reduction strategies using various media for infiltration.

- Weaver Elementary School (Maplewood)
  - 5/19/26
  - Three 5th grade classrooms (74 students)
  - Teachers: Emily Eichstad, Kylie Bell, Karli Gilbertson
  - Location: Campus gardens
  - Students worked in small groups to plant the seedlings they had been growing in their classroom all winter (see Seed Curriculum, stratifying, planting, transplanting). Two separate garden beds were planted with over 200 native plants.
  - Garden Education Volunteer support: Mary Whalen

- Lionsgate Academy (Shoreview)
  - 5/20/26 & 5/21/26
  - Four high-school aged classrooms (38 students plus several adult aids)
  - Teacher: Jacqueline Wilkie
  - Location: Campus gardens
  - Students worked in small groups to plant the seedlings they had been growing in their classroom all winter (see Seed Curriculum, stratifying, planting, transplanting). Two separate garden beds were planted with over 100 native plants.
  - Garden Education Volunteer support: Susie DeShon, Julie Boldt

Planting for Clean Water Workshop and Phalen/Round Lake Birding Tour

We hosted two community education opportunities this month aimed at welcoming more community members into water stewardship and providing opportunities to learn more about best practices. First, we co-hosted a Blue Thumb Planting for Clean Water workshop with VLAWMO on May 7th. Ten attendees learned about raingarden and native plant garden planning and installation, followed by a personal consultation with a Blue Thumb landscape designer. The following week, eleven participants took part in our first co-hosted birding tour with Urban Bird Collective. The tour emphasized the interrelationship between birds found in the Phalen Lake Chain and the water, and provided information on RWMWD and our grant program. Urban Bird Collective was recently awarded a Partner Grant from RWMWD and plans to conduct seven more tours in a similar format to promote water stewardship within the birding community.

Watershed Week Planning

Watershed Week is back with new locations and two brand new activities! The goal of this event is to grow our visibility in the watershed district, familiarize a new audience with our resources and work, and hopefully create new watershed champions. Watershed Week will be July 19 – July 25.

July 19: Bike Tour

The bike tour staff workgroup has designed another exciting and informational tour of restored areas and BMPs, this time focusing on sites in Maplewood and the east side of Lake Phalen. A mix of private public property BMPs showcased on the stops will provide riders with a primer on watersheds and our work, and then have an opportunity to speak with a small property owner who can show them what applying those concepts to their own properties may look like. Two morning rides for twenty people each will be offered to accommodate different biking paces. Many thanks to Pat Williamson, Nick Olson, Eric Korte, and Cooper Klotzbach for doing the majority of the planning for this opportunity.

July 21: Exceptional LEAP Tour (to be renamed)

The Exceptional LEAP Tour offered in 2024 was exceptionally popular, with over 40 participants. This tour is formatted for a range of mobility needs and exclusively highlights the best of past LEAP properties awarded in recent years. We have seen a slight uptick in Stewardship Grant and LEAP award applications after this tour takes place.

July 23: Native Plant Bingo

We are partnering with the City of Woodbury and jumping on the plant bingo trend to promote gardening for clean water and watershed resources. We will host four to five rounds of bingo with short informational presentations of 2 minutes or less between each round. Winners will receive large, 1- gallon native plants or the grand prize planting pack. Both an outdoor venue and the indoor Central Park in Woodbury are bring considered as venues.

All week long: Watershed Scavenger Hunt

This activity, borrowed from a similar offering from another watershed, will encourage residents to check out unexplored features in the watershed. Participants can then show their completed cards and their photos of a few locations at the RWMWD office to collect a custom mug. If possible, we will share photos collected from the scavenger hunt throughout the week on social media.

Wabasso/Owasso Community Event

We are hosting an open-house style community event at the Lake Owasso Park picnic shelter on Tuesday, June 30, from 5:00 – 6:30 pm. The event offerings will include a guided tour of the Owasso shoreline restoration, educational kids activities, and a soda bar. Staff from the Natural Resources and Water Quality departments will be on hand to speak with the public and answer questions. This is one of two community events scheduled in response to the shoreline property owner survey, and part of a greater effort to engage communities that live on or our near the water. Our goal with these events is to build relationships and trust with communities in a low-pressure environment.

ADA and WCAG 2.1 Website and Document Remediation

Work began this month to bring PDFs hosted on the website in compliance with WCAG 2.2 standards. Carina, our Engagement Intern, has been entering alt text for all 400 plus photographs found in the Phalen Guide and tagging each page to be easily read by a screen reader. She will continue to manually fix documents by priority throughout her time with us as part of her regular tasks until the rest of the team can join in the work this winter after the events and tabling season quiet down. We also decided to rehire WeCo to conduct an updated accessibility audit of our website to bring it back into compliance with WCAG 2.2, following three years of page updates and creations.

Shoreline Property Owner Water Quality Perspectives Survey

Over 809 postcards will be delivered to lakeshore property residents, which contain a QR code and a link to a survey that gauges perspectives on water quality and aquatic plants. The survey recipients are located at Battle Creek Lake, Carver, Gervais, Kohlman, Owasso, Phalen, Snail, Tanners, Twin, and Wabasso. We will look at potential areas where there is a higher likelihood of changing opinions on aquatic plants or of recruiting champions for water stewardship among shoreline property owners. The results of this survey are included in an appendix of this report.

Additionally, we sent over 250 postcards to residents on or near Casey Lake, which has been an area of additional outreach after residents expressed concern about the amount of aquatic plants on the water.

Background

Misinformation or a lack of information about shallow-lake ecology has led the general public to perceive aquatic plants as “weeds.” Occasionally, this perception also leads residents to advocate for the removal of aquatic plants, despite their overall value to wildlife and lake health. Multiple RWMWD departments are coordinating to plan a strategic communications and education campaign to help change this perception and encourage acceptance of aquatic plants.

Waterfest Report

May 30, 2026 11- 4 pm Lake Phalen Park

- 54 exhibitors and 20 sponsors are registered
- Distribute postcards and promote the event to local businesses (email flyer, drop off postcards)
- Installed large banner signage at intersections
- Finalized passport and map material
- WaterFest and RWMWD social media account posts and marketing
- Volunteer coordination and assignments

- Seed packet design and printing
- Event emergency plan document and staff training

Newsletter and Social Media (Facebook, Instagram, YouTube, LinkedIn)

Facebook

Reach: 4,676
Engagement (likes, shares): 150
Followers: 1,834

Instagram

Reach: 2.379
Engagement: 126

Audience: 1,065

YouTube

Views: 3,590
Watch time (hours): 36.5
Subscribers: 411

LinkedIn

Reach: 577

Engagement: 24
Audience: 643

Newsletter

Opens: 69.7%

Link clicks: 4.8%

Note: We started using a new MailChimp feature this month that sends a follow-up email to engaged newsletter subscribers who did not open the first May newsletter. This second email added a little over 100 more newsletter opens. We will continue to use this feature and monitor the results to determine long-term effectiveness.

Other education/outreach initiatives:

- 5/4/26: Youth Programming Coordination – virtual meeting with Carrie Magnuson, Lauren Hazenson, Lori Maxfield (MNWCD) and Jacob Timmons (ISD622 Youth Programs Coordinator to discuss potential opportunities for high-school aged community programming in 2027
- 5/7/2026: Blue Thumb Turf Alternatives Workshop, hosted with VLAWMO
- 5/11/2026: Urban Roots birding tour at Phalen and Round Lakes
- WaterWise Garden Mentors training support