

VLAWMO TECHNICAL COMMISSION MEETING

8:00 AM September 11, 2024

Vadnais Heights City Hall, Council Chambers, 800 County Road E East, Vadnais Heights, MN 55127

Action items: 🍃

- I. Call to Order – 8:00am – Chair Tessier
- II. Approval of Agenda 🍃
- III. Approval of Minutes (August 14, 2024) 🍃
- IV. Administration & Operations
 - A. Financial Report for September and Authorization for Payment– Brian 🍃 **Pg. 7**
- V. Programs- Lauren
 - A. Update on BWSR Watershed Based Implementation Funding Grant Process **Pg. 14**
 - B. Update on BWSR Accelerated Implementation Grant Application **Pg. 14**
 - C. Update on City of White Bear Lake Curb Cut Raingarden Project **Pg. 15**
- VI. Projects/Program Updates - Dawn
 - A. Tamarack Lake Alum Project Update **Pg. 15**
 - B. Wilkinson Deep-Water Wetland Project Update **Pg. 15**
 - C. Comprehensive Watershed Management Plan Update **Pg. 15-16**
- VII. Commissioner Reports
- VIII. NOHOA
- IX. Ramsey Soil & Water Conservation Division
- X. St. Paul Regional Water Services
- XI. Public Comment
- XII. Next meetings: TEC: October 9, 2024, Board Meeting: Oct. 23, 2024
- XIII. Adjourn 🍃

Upcoming Events: Visit vlawmo.org/events

Metro Children's Water Festival: September 25th

**Vadnais Lake Area Water Management Organization
Technical Commission (TEC) Minutes
August 14, 2024
Vadnais Heights City Hall, Council Chambers
800 County Road E East, Vadnais Heights, MN 55127**

Commission Members Present:

Gloria Tessier	Gem Lake (GL)
Nick Ousky	Vadnais Heights (VH)
Susan Miller	City of North Oaks (NO)
Terry Huntrods	City of White Bear Lake (WBL)

Absent: City of Lino Lakes (Vacant), Jami Philip (WBT)

Others in attendance: Phil Belfiori, Lauren Sampedro, Brian Corcoran, Nick Voss, Dawn Tanner (VLAWMO staff), Jeremy Erickson (SPRWS), Jennifer Morris & Craig Ordal (Villas of Wilkinson Lake HOA)

I. Call to Order

Chair Tessier called the meeting to order at 8:02 am.

II. Approval of Agenda

Administrator Belfiori presented an amended agenda with the following changes:

- Addition of V. C and D
- IV. A and B are updated to action items
- HR Personnel announcement: Nick resigning from VLAWMO

It was moved by Commissioner Huntrods and seconded by Commissioner Miller to approve the amended August 14, 2024 TEC agenda. Vote: all aye. Motion passed.

III. Approval of Minutes (June 12, 2024)

It was moved by Commissioner Miller and seconded by Commissioner Ousky to approve the July 10, 2024 meeting minutes as presented. Vote: all aye. Motion passed.

IV. Administration & Operations

A. August Financial Report and Authorization for Payment

Administrator Belfiori summarized the August financial statement as included in the Packet. One notable item is the Wilkinson Deep-Water Wetland Restoration grant funding came in from the MPCA.

It was moved by Commissioner Ousky and seconded by Commissioner Miller to approve the August Financial Report and authorize for payment. Vote: all aye. Motion passed.

B. August TEC Report to Board

Administrator Belfiori summarized the TEC Report to Board as included in the packet. Notable items include the Polar Lakes Park water re-use in White Bear Township as well as early feasibility design for a flood reduction project behind the Vadnais Heights City Hall. Watershed Management Plan chapters are currently in development and will be ready for TEC review soon. The 2025 stormwater utility (SSU) rates will be presented at the August Board meeting.

It was moved by Commissioner Huntrods and seconded by Chair Tessier to approve the August TEC Report to Board. Vote: All aye. Motion passed.

V. Programs

A. LL2 2024-05 Villas of Wilkinson Lake HOA Smart Irrigation Controllers

Sampedro presented the Landscape Level 2 grant application from the Villas of Wilkinson Lake HOA for TEC review. The HOA has completed an independent irrigation audit which recommended the use of smart irrigation controllers. This application proposes to install three smart irrigation controllers.

Commissioner Miller noted that data on water savings would be of interest to VLAWMO. Sampedro provided that the irrigation audit has provided a baseline and that the grant terms include required water usage monitoring.

It was moved by Commissioner Miller and seconded by Commissioner Huntrods to approve LL2 2024-05. Vote: All aye. Motion passed.

B. City of White Bear Lake Curb Cut Raingarden Project Update

Sampedro provided an update that the City of White Bear Lake is currently pursuing five curb cut raingardens to accompany a street renovation project in partnership with VLAWMO and Ramsey County Soil and Water Conservation Division. VLAWMO expects to receive a Landscape Level 2 grant application from the City to support the effort and staff propose to utilize the BWSR Watershed Based Implementation Funding program for the project. She said she expects the project will need to go to the Board meeting on August 28th due to construction timing, but will provide another update at the next TEC meeting.

Commissioner Ousky inquired about the cost savings of doing multiple raingardens at a time. Sampedro acknowledged that cost savings are likely due to bulk orders and less transportation needs from soil, mulch, and plant orders.

Commissioner Miller noted that multiple raingardens being completed at the same time creates a more uniform appearance in the neighborhood.

C. LL2 2024-06 City of Gem Lake Smart Irrigation Controller

Sampedro presented the Landscape Level 2 grant application for smart irrigation at the Heritage Hall in Gem Lake. White Bear Township is the applicant on behalf of the City of Gem Lake, as the property owner. The City is installing a new irrigation system and is requesting funding for a smart irrigation controller.

Chair Tessier asked where the irrigation will be directed on the property. Sampedro outlined the area on the map noting it would exclude the area of the existing raingarden.

It was moved by Commissioner Miller and seconded by Commissioner Ousky to approve LL2 2024-06. Vote: All aye. Motion passed.

D. LL2 2024-07 Pine Meadow HOA Smart Irrigation Controllers

Sampedro presented the Landscape Level 2 grant application from the Pine Meadow HOA in Vadnais Heights and noted an increased demand for smart irrigation controllers. The HOA's existing irrigation system is 26 years old and the HOA is concerned about increasing water usage and the inability to control the system. The application proposes upgrading the existing irrigation system with two smart irrigation controllers.

It was moved by Commissioner Ousky and seconded by Commissioner Huntrods to approve LL2 2024-07 . Vote: All aye. Motion passed.

VI. Projects

A. Spent Lime Demonstration Project

The spent lime applications at Oak Knoll Pond have been completed as of July 2024. Monitoring will be ongoing over the next few years to assess if and how long the applications provide water quality improvements. An initial memo regarding results of the application so far is in preparation by Barr Engineering and anticipated for the Oct. Board/Nov. TEC. A final request for payment has been received from Erosion Works and approved by Barr Engineering. Payment approval is requested, pending completion and receipt by VLAWMO of the IC 134 form.

Commissioner Miller asked about the need for long-term reapplication rates for the effort. Tanner explained that spent lime may turn out to be an appropriate strategy for smaller-scale applications. Commissioner Miller asked if the spent lime costs less than alum. Tanner explained that the costs of alum are comparable due to the cost of multiple trips for transport and application. Commissioner Miller and Tanner noted that residents around the pond have been curious and supportive of the effort.

It was moved by Commissioner Ousky and seconded by Commissioner Miller to approve the spent lime project payment pending receipt of the IC 134 form. Vote: All aye. Motion passed.

B. Wilkinson Deep-Water Wetland Project

Tanner provided an update that a request for payment is expected for the August Board meeting. Site enhancement plans have been prepared with Natural Shores Technologies, not to exceed a total of \$20,000. The plan includes buckthorn retreatment and seeding on channel slopes, reed canary grass treatment and addition of native plants in project wetland areas, temporary fencing to keep geese out while native plants establish, and a focus of forbs along the hiking trail for visibility and to support pollinators. The effort starts with a fall treatment on reed canary grass and buckthorn with planting to occur fall 2024 and spring 2025.

It was moved by Commissioner Huntrods and seconded by Commissioner Miller to approve the bid with NST for the Wilkinson Deep-Water Wetland enhancement. Vote: All aye. Motion passed.

C. Tamarack Lake Alum Project Update

Tanner explained a change in the protocol for the alum project because no bids were received from the first request for quotes that was sent out earlier this year. The new protocol specifies use of alum only with continuous monitoring instead of applying a combination of liquid alum and sodium aluminate buffer. Site prep with liquid chemicals and site maintenance/pumping were logical challenges in the earlier protocol. The new protocol will be simpler to apply but may extend the time it takes to complete the project. The protocol and site considerations have been addressed through a process of discussions and a site visit with a potential local contractor, Ramsey County Parks, Barr Engineering, and VLAWMO staff. A new request for quotes has gone out, anticipating submissions before the August Board meeting, which could allow the project to initiate this fall.

D. 4th and Otter Road Project Update

Tanner outlined the history of the project starting in 2018 with a photo slideshow beginning with a buckthorn thicket, progressing to a site with understory invasives, and now, in the current year, with a high diversity of native forbs and grasses. This summer the site includes successful establishment of American Bellflower, Jacob's Ladder, Coneflower, Bottlebrush Grass, and Canada Wild Rye. She noted that the results are an exciting vision and learning

experience for future sites such as the Vadnais Heights City Hall site that will be seeded this fall.

E. Amelia Lake Invasive Flowering Rush Treatment Update

Tanner outlined the effort for treating flowering rush with collaboration with Ramsey County in a wetland adjacent to Amelia Lake. Tanner showed photos of the project process including, a 2023 herbicide treatment and hand-pulling in 2024 (both by Ramsey County SWCD). The effort is currently ongoing. Flowering rush is an invasive plant that was introduced to the U.S. from infested areas in Canada.

VII. Commissioner Reports

None

VIII. NOHOA

None

IX. Ramsey Soil & Water Conservation Division

None

X. St. Paul Regional Water Services

None

XI. Public Comment:

None

XII. Next Meetings:

Next TEC meeting September 11, 2024. Next BOD meeting August 24, 2024.

XIII. Adjourn

It was moved by Commissioner Miller and seconded by Commissioner Huntrods to adjourn the meeting at 8:40 am. Vote: all aye. Motion passed.

Minutes compiled by Nick Voss.

VLAWMO Finance Summary: September 2024

Sep-24		Actual 9/1/24	Actual to Date	2024 Budget (June 2023 Board Approved)	Carry over from 2023 to 2024	Remaining in Budget	2024 Available (Dec. 2023 Board approved)	Act vs. Budget
BUDGET #	INCOME							
5.11	Storm Water Utility		\$673,987	\$1,145,431	\$0	\$471,444	\$1,145,431	59%
5.12	Service Fees			\$1,000	\$0	\$1,000	\$1,000	0%
5.13	Interest + mitigation acct	\$5,147	\$45,579	\$30,000	\$0	(\$15,579)	\$30,000	152%
5.14	Misc. income - WCA admin & other	\$42,550	\$90,840	\$3,000	\$0	(\$87,840)	\$3,000	3028%
5.15	Other Income Grants/ <u>loan</u>		\$56,456	\$365,000	\$0	\$308,544	\$365,000	15%
5.16	Transfer from reserves			\$791,380	\$193,062	\$984,442	\$984,442	0%
	TOTAL	\$47,697	\$866,862	\$2,335,811	\$193,062	\$1,662,011	\$2,528,873	37%
EXPENSES								
3.1	Operations & Administration							
3.110	Office - rent, copies, post tel supplies	\$2,312	\$18,513	\$32,239	\$0	\$13,726	\$32,239	57%
3.120	Information Systems	\$1,571	\$14,738	\$33,850	\$0	\$19,112	\$33,850	44%
3.130	Insurance		\$11,329	\$10,050	\$0	(\$1,279)	\$10,050	113%
3.141	Consulting - Audit		\$20,171	\$12,000	\$7,000	(\$1,171)	\$19,000	106%
3.142	Consulting - Bookkeeping	\$45	\$403	\$1,500	\$0	\$1,097	\$1,500	27%
3.143	Consulting - Legal	\$4,837	\$5,428	\$7,000	\$0	\$1,572	\$7,000	78%
3.144	Consulting - Eng. & Tech.	\$1,176	\$11,243	\$30,000	\$20,000	\$38,757	\$50,000	22%
3.150	Storm Sewer Utility	\$1,236	\$10,807	\$22,500	\$0	\$11,693	\$22,500	48%
3.160	Training (staff/board)		\$974	\$14,250	\$0	\$13,276	\$14,250	7%
3.170	Misc. & mileage	\$363	\$2,260	\$6,930	\$0	\$4,670	\$6,930	33%
3.191	Administration - staff	\$48,632	\$291,280	\$435,554	\$0	\$144,274	\$435,554	67%
3.192	Employer Liability	\$12,360	\$83,975	\$129,869	\$0	\$45,894	\$129,869	65%
3.2	Monitoring and Studies							
3.210	Lake and Creek lab analysis	\$4,144	\$13,975	\$18,000	\$0	\$4,025	\$18,000	78%
3.220	Equipment		\$120	\$3,000	\$0	\$2,880	\$3,000	4%
3.230	Wetland assessment & management			\$15,000	\$0	\$15,000	\$15,000	0%
3.240	Watershed planning /special study	\$3,935	\$36,126	\$100,000	\$15,000	\$78,874	\$115,000	31%
3.3	Education and Outreach							
3.310	Public Education		\$2,026	\$6,000	\$0	\$3,974	\$6,000	34%
3.320	Comm., Outreach & Marketing		\$5,699	\$20,000	\$2,000	\$16,301	\$22,000	26%
3.330	Community Blue Ed Grant	\$739	\$739	\$8,000	\$0	\$7,261	\$8,000	9%
<i>Total Core functions: Ops, Monitoring, Education</i>		<i>\$81,350</i>	<i>\$529,806</i>	<i>\$905,742</i>	<i>\$44,000</i>	<i>\$419,936</i>	<i>\$949,742</i>	<i>56%</i>
Capital Improvement Projects and Programs								
3.4	Subwatershed Activity							
3.410	Gem Lake			\$25,000	\$10,000	\$35,000	\$35,000	
3.420	Lambert Creek		\$11,895	\$90,000	\$0	\$78,105	\$90,000	13%
3.421	Lambert Lake Loan		\$19,284	\$38,569	\$0	\$19,285	\$38,569	50%
3.425	Goose Lake	\$15,750	\$62,606	\$85,000	\$0	\$22,394	\$85,000	74%
3.430	Birch Lake		\$1,150	\$48,000	\$0	\$46,850	\$48,000	2%

3.440	Gilf Black Tam Wilk Amelia	\$15,563	\$121,287	\$345,000	\$60,000	\$283,713	\$405,000	30%
3.450	Pleasant Charley Deep		\$62,721	\$145,000	\$0	\$82,279	\$145,000	43%
3.460	Sucker Vadnais		\$50,035	\$90,000	\$33,000	\$72,965	\$123,000	41%
3.48	Programs							
3.480	Soil Health Grant	\$1,250	\$7,128	\$10,500	\$4,500	\$7,872	\$15,000	48%
3.481	Landscape 1		\$5,000	\$40,000	\$16,263	\$51,263	\$56,263	9%
3.482	Landscape 2/BWSR WBF		\$9,238	\$60,000	\$25,299	\$76,061	\$85,299	11%
3.483	Project Research & feasibility			\$5,000	\$0	\$5,000	\$5,000	0%
3.485	Facilities Maintenanc/ Pub. Ditch Main.		\$5,849	\$78,000	\$0	\$72,151	\$78,000	7%
3.5	Regulatory							
3.510	Engineer Plan review			\$5,000	\$0	\$5,000	\$5,000	0%
	<i>Total CIP & Program</i>	\$32,563	\$356,193	\$1,065,069	\$149,062	\$857,938	\$1,214,131	29%
	Total of Core Operations & CIP	\$113,913	\$885,999	\$1,970,811	\$193,062	\$1,277,874	\$2,163,873	41%

Fund Balance	8/1/2024	9/1/2024
4M Account	\$928,830	\$894,152
4M Plus Savings	\$247,672	\$248,770
Total	\$1,176,502	\$1,142,922

Restricted funds	9/1/2024
Mitigation Savings	\$21,027
Term Series	\$300,000

Vadnais Lake Area Water Management Organization
Check Detail
 August 15 through September 11, 2024

12:39 PM
 09/04/2024

Type	Num	Date	Name	Item	Account	Paid Amount	Original Amount
Check	eft	08/15/2024	further		Checking - 1987		-6.00
				Insurance Benefit		-6.00	6.00
TOTAL						-6.00	6.00
Check	eft	09/11/2024	US Bank		Checking - 1987		-44.93
				3.142 · Bookkeeping help		-44.93	44.93
TOTAL						-44.93	44.93
Check	5845	09/11/2024	Dawn Tanner		Checking - 1987		-70.35
				3.170 · Misc. & mileage		-70.35	70.35
TOTAL						-70.35	70.35
Check	5846	09/11/2024	Brian Corcoran		Checking - 1987		-222.54
				3.170 · Misc. & mileage		-222.54	222.54
TOTAL						-222.54	222.54
Check	5847	09/11/2024	City of White Bear Lake		Checking - 1987		-60,985.93
				payroll		-48,631.80	48,631.80
				Administration FICA		-3,562.35	3,562.35
				Administration PERA		-3,647.37	3,647.37
				Insurance Benefit		-4,900.08	4,900.08
				Admin payroll processing		-244.33	244.33
TOTAL						-60,985.93	60,985.93
Check	5848	09/11/2024	Erosion Works		Checking - 1987		-15,750.00
				Oak Knoll		-15,750.00	15,750.00
TOTAL						-15,750.00	15,750.00
Check	5849	09/11/2024	Houston Engineering, Inc		Checking - 1987		-6,505.64
				Wilk 319 cash match \$182,137		-2,570.64	2,570.64
				3.240 · Watershed Plan Amendment		-3,935.00	3,935.00
TOTAL						-6,505.64	6,505.64
Check	5850	09/11/2024	SEH		Checking - 1987		-1,176.04
				3.144 · Eng. & Tech.		-1,176.04	1,176.04
TOTAL						-1,176.04	1,176.04
Check	5851	09/11/2024	RMB Environmental Laboratories, Inc.		Checking - 1987		-4,144.48
				3.210 · Lake & Creek lab analysis		-1,431.65	1,431.65

		3.210 · Lake & Creek lab analysis	-564.30	564.30
		3.210 · Lake & Creek lab analysis	-76.29	76.29
		3.210 · Lake & Creek lab analysis	-564.30	564.30
		3.210 · Lake & Creek lab analysis	-147.35	147.35
		3.210 · Lake & Creek lab analysis	-1,360.59	1,360.59
TOTAL			-4,144.48	4,144.48
	Check 5852	09/11/2024 City of Vadnais Heights	Checking - 1987	-2,312.01
		Rent	-1,765.00	1,765.00
		Phone/Internet/Machine Overhead	-315.00	315.00
		Postage	-23.90	23.90
		Copies	-208.11	208.11
TOTAL			-2,312.01	2,312.01
	Check 5853	09/11/2024 Metro - Inet	Checking - 1987	-1,571.00
		IT Support	-1,571.00	1,571.00
TOTAL			-1,571.00	1,571.00
	Check 5854	09/11/2024 Town Law Center, PLLP	Checking - 1987	-5,340.46
		3.143 · Legal	-416.10	416.10
		3.143 · Legal	-4,420.66	4,420.66
		3.440 · Giffilan Black Tamarack Wilkin	-503.70	503.70
TOTAL			-5,340.46	5,340.46
	Check 5855	09/11/2024 Kristen Redding	Checking - 1987	-1,250.00
		3.480 · Soil Health Grant	-1,250.00	1,250.00
TOTAL			-1,250.00	1,250.00
	Check 5856	09/11/2024 Wes Erwin	Checking - 1987	-739.06
		3.330 · Community Blue Education Grant	-739.06	739.06
TOTAL			-739.06	739.06
	Check 5857	09/11/2024 reliance resources LLC	Checking - 1987	-1,236.00
		3.150 · Storm Sewer Utility	-1,236.00	1,236.00
TOTAL			-1,236.00	1,236.00
	Check 5858	09/11/2024 Northern Escrow	Checking - 1987	-12,489.00
		Wilkinson 319 grant 320705.50	-12,489.00	12,489.00
TOTAL			-12,489.00	12,489.00

Vadnais Lake Area Water Management Organizatic
Profit & Loss
August 15 through September 11, 2024

12:42 PM

09/04/2024

Cash Basis

Aug 15 - Sep 11, 24

Ordinary Income/Expense	
Income	
Misc.	42,549.99
5.1 · Income	
5.13 · Interest	5,146.50
Total 5.1 · Income	<u>5,146.50</u>
Total Income	<u>47,696.49</u>
Gross Profit	47,696.49
Expense	
3.1 · Administrative/Operations	
3.110 · Office	
Copies	208.11
Phone/Internet/Machine Overhead	315.00
Postage	23.90
Rent	1,765.00
Total 3.110 · Office	<u>2,312.01</u>
3.120 · Information Systems	
IT Support	1,571.00
Total 3.120 · Information Systems	<u>1,571.00</u>
3.142 · Bookkeeping help	44.93
3.143 · Legal	4,836.76
3.144 · Eng. & Tech.	1,176.04
3.150 · Storm Sewer Utility	1,236.00
3.170 · Misc. & mileage	362.50
3.191 · Employee Payroll	
payroll	48,631.80
Total 3.191 · Employee Payroll	48,631.80
3.192 · Employer Liabilities	
Admin payroll processing	244.33
Administration FICA	3,562.35
Administration PERA	3,647.37
Insurance Benefit	4,906.08
Total 3.192 · Employer Liabilities	<u>12,360.13</u>
Total 3.1 · Administrative/Operations	<u>72,531.17</u>
3.2 · Monitoring and Studies	
3.210 · Lake & Creek lab analysis	4,144.48
3.240 · Watershed Plan Amendment	3,935.00
Total 3.2 · Monitoring and Studies	<u>8,079.48</u>
3.3 · Education and Outreach	
3.330 · Community Blue Education Grant	739.06
Total 3.3 · Education and Outreach	<u>739.06</u>
3.4 · Capital Imp. Projects/Programs	

3.425 · Goose Lake	
Oak Knoll	15,750.00
Total 3.425 · Goose Lake	15,750.00
3.440 · Gilfillan Black Tamarack Wilkin	
Wilk 319 cash match \$182,137	2,570.64
Wilkinson 319 grant 320705.50	12,489.00
3.440 · Gilfillan Black Tamarack Wilkin - Other	503.70
Total 3.440 · Gilfillan Black Tamarack Wilkin	15,563.34
Total 3.4 · Capital Imp. Projects/Programs	31,313.34
3.48 · Programs	
3.480 · Soil Health Grant	1,250.00
Total 3.48 · Programs	1,250.00
Total Expense	113,913.05
Net Ordinary Income	-66,216.56
Net Income	-66,216.56

Vadnais Lake Area Water Management Organization
Custom Transaction Detail Report
 July 1 through September 1, 2024

12:43 PM

09/04/2024

Accrual Basis

Type	Date	Num	Name	Memo	Account	Clr	Split	Amount	Balance
Jul 1 - Sep 1, 24									
Credit Card Charge	07/02/2024		ESRI	ArcGIS yearly fee	US Bank CC	√	IT Systems - Hardware	819.00	819.00
Credit Card Charge	07/02/2024		Google*SVCAPPS_VLAWM		US Bank CC	√	WEB	42.00	861.00
Credit Card Charge	07/08/2024		adobe *photography plan		US Bank CC	√	Software	9.99	870.99
Credit Card Charge	07/09/2024		US Post Office	aquatic veg testing	US Bank CC	√	3.210 · Lake & Creek lab analysis	16.44	887.43
Credit Card Charge	07/16/2024		MN Association of Gov. Communicators	nick webinar	US Bank CC	√	3.320 · Marketing	15.00	902.43
Credit Card Charge	07/18/2024		pdl ccapsconf3	Dawn 2024 WR Conf.	US Bank CC	√	3.160 · Training (staff/board)	400.00	1,302.43
Transfer	07/22/2024			Funds Transfer	US Bank CC	√	Checking - 1987	-954.23	348.20
Credit Card Charge	07/23/2024		Ace Hardware	roundup	US Bank CC	√	3.485 · Facilities & Maintenance	29.94	378.14
Credit Card Charge	07/23/2024		Ace Hardware	5 gal buckets	US Bank CC	√	3.485 · Facilities & Maintenance	25.96	404.10
Credit Card Charge	07/25/2024		hologram	account refill	US Bank CC	√	3.210 · Lake & Creek lab analysis	30.00	434.10
Credit Card Charge	07/25/2024		Adobe "Creative Cloud		US Bank CC	√	Software	32.50	466.60
Credit Card Charge	08/02/2024		Google*SVCAPPS_VLAWM		US Bank CC	√	WEB	42.00	508.60
Credit Card Charge	08/06/2024		Allycat	sandwiches for Water Dept.	US Bank CC		Oak Knoll	74.84	583.44
Credit Card Charge	08/19/2024		EDCO	nick award	US Bank CC		3.170 · Misc. & mileage	69.61	653.05
								653.05	653.05
Jul 1 - Sep 1, 24									

TEC Staff Memo – September 11, 2024

IV. Administration & Operations

A. September Financial Report and Consider Authorization for Payment

Please find the September financial report and authorization to pay bills in the ePacket for consideration and approval.

V. Programs

A. Update on BWSR Watershed Based Implementation Funding Grant Process

At the June 12, 2024 TEC Meeting, TEC members selected VLAWMO to serve as the role of convene meeting coordinator/facilitator for the BWSR Watershed Based Implementation Funding (WBIF) program for fiscal year 2024-2025. After the meeting, VLAWMO reached out to the six municipalities within VLAWMO for the next step of the selection of two municipalities to participate in the convene meeting process. The City of Lino Lakes, the City of White Bear Lake, and the City of Vadnais Heights expressed interest in participating in the convene meeting process and self-selected Connie Taillon with the City of White Bear Lake and Jim Hauth with the City of Vadnais Heights to serve as the two decision-making municipal representatives. The next step in the process is to schedule the first convene meeting, which will include staff from VLAWMO, BWSR, Soil and Water Conservation Divisions (SWCD), and the two municipal representatives. VLAWMO is looking to schedule the meeting in early November to move towards making a funding request to BWSR.

B. Update on BWSR Accelerated Implementation Grant Application

BWSR released a Request for Proposals (RFP) for the Fiscal Year 2025 Clean Water Fund competitive grants on June 28th, which included an Accelerated Implementation Grant opportunity. The purpose of this grant is to assist applicants with preparing to implement water quality projects, such as pre-project identification, planning, and design work. BWSR's goal is to expedite the implementation of projects that will improve water quality beyond state standards. The City of Vadnais Heights expressed interest in applying for this grant and came to VLAWMO staff with an opportunity to partner on the grant application. The City is interested in exploring the feasibility of pursuing green streets with their Greenhaven Drive street improvement project that's planned for 2027. A green street is a multi-beneficial street design that incorporates various stormwater bmps like raingardens, tree trenches, and permeable pavement with other features like narrower road widths, more trees and native plants, and new walking or biking trails. The City is requesting funding for the feasibility and design work for priority stormwater bmps to include in the overall street design. VLAWMO staff assisted with writing the grant application and provided supporting materials. The City submitted the application to BWSR last month and staff will know if the City was successful by the end of the year. An update on the application status will be provided at a future TEC meeting.

C. Update on City of White Bear Lake Curb Cut Raingarden Project

As discussed at the August 14th TEC meeting, the City of White Bear Lake submitted a Landscape Level 2 Grant application for installing five curb cut raingardens on 2nd Street, 3rd Street, Birch Lake Avenue, and Krech Avenue in White Bear Lake. This project would continue VLAWMO's partnership with the City on installing water quality projects during street reconstruction. The grant would cover the costs of installing the raingarden pretreatment structures, basins, and plantings. The project would result in 1,505 square feet of new raingarden area. The project area drains to Lambert Creek, which is impaired for *E.coli*. Ramsey County SWCD provided a design for the project, which would reduce volume by about 35,871 cubic feet/year, total suspended solids by about 122.1 pounds/year, and total phosphorus by about 0.67 pounds/year. Three bids were received for the project with the lowest bid at \$38,370. Staff proposed utilizing BWSR WBIF funds from the previous funding round for the project and recommended a 90% grant level up to \$34,533 to the Board of Directors at their August 28th meeting, and the Board approved the application.

VI. Projects

A. Tamarack Lake Alum Project Update

The Tamarack Lake Alum project was approved at the August Board meeting with Lake Restoration, Inc., at the recommendation of Barr Engineering. The project is anticipated to be an ongoing, likely multi-year process. Phase 1 is planned for completion by October 23, 2024. A Partner pre-project meeting is scheduled for September 16 at Tamarack Nature Center.

Additional phase costs will be negotiated with the contractor and engineer. Timing for additional phases will be dependent upon monitoring data and lake pH.

We are excited to be starting working on this important project toward improvement of this impaired lake and appreciate the involvement of our partners.

B. Wilkinson Deep-Water Wetland Project Update

The final request for payment from the contractor was approved at the August Board meeting. A project video is now complete. The video shows pre, during, and post conditions at the site and highlights the project stats. The video will be shown during the TEC meeting.

Enhancement work with NST is underway.

C. Comprehensive Watershed Management Plan Update

VLAWMO and HEI continue working on the Draft portion of the Plan development

process. A style guide has been finalized for the overall look of the Plan. The style guide is included in the packet. Initial drafted sections will be brought to the October TEC meeting. A discussion regarding the process to include the larger VLAWMO partner group at key review points in the Draft and Review process will be held at that time. VLAWMO staff are currently reviewing sections 1 and 2; HEI is focusing their efforts on drafting section 3 at the time of packet preparation.

LL2 Grant Application



Submit completed application to:

Lauren Sampedro

lauren.sampedro@vlawmo.org

Approved by VLAWMO Board 8/28/24

Applicant Information:

Organization Name:	City of White Bear Lake C/O Mary and Allen LaFosse, Karol an
Project Contact:	Connie Taillon, Environmental Specialist/Water Resources Eng
Address:	4701 Highway 61
City/Township, State, Zip:	White Bear Lake, MN 55110
Phone:	651-429-8587
Email:	ctailon@whitebearlake.org

Project Summary:

ESTIMATED TOTAL PROJECT COST (\$)	\$38,370
AMOUNT REQUESTED	\$34,533 (90%)
EXPECTED PROJECT COMPLETION (Month, Year)	Fall 2024

PROJECT TYPE:

- Water Quality Treatment
- Stormwater Rate and Volume Control
- Groundwater Conservation
- Other

If other, please describe the proposed project: _____

Project Background:

Describe the project location and water resources that will benefit from the project.	Five curb cut raingardens are proposed within the Lambert Creek subwatershed at the following addresses: - 4709 Krech Ave - 1847 Birch Lake Ave - 1883 2nd St - 1789 3rd St - 1867 3rd St	The raingardens are designed to provide volume control and reduce phosphorus and sediment from street runoff.
What issues will be addressed with this project?		

Project Background: Continued

Provide estimated water quality results, stormwater rate/volume reduction, or groundwater conservation benefits associated with the project.	<p>Estimated annual pollutant reductions:</p> <p>4709 Krech: volume 7,684 cf; TSS 26.14 lbs, TP 0.144 lbs 1847 Birch Lake Ave: volume 6,634 cf; TSS 22.58 lbs; TP 0.1242 lbs 1883 2nd St: volume 2,762 cf; TSS 9.40 lbs; TP 0.0517 lbs 1789 3rd St: volume 11,033 cf; TSS 37.56 lbs; TP 0.2067 lbs 1867 3rd St: volume 7,758 cf; TSS 26.41 lbs; TP 0.1453 lbs</p> <p>Total Annual Pollutant Reductions: Volume: 35,871 cf (31%reduction) TSS: 122.09 lbs (31% reduction) TP: 0.6719 lbs (31% reduction)</p>
--	---

Describe the public education and outreach efforts or signage planned for the project.	The City will collaborate with VLAWMO to educate the public about the project through social media, newsletters, and possible on-site tours.
--	--

List or describe any partnerships or other forms of support for the project, including external funding sources.	<p>This project is in collaboration with VLAWMO, City of WBL, and RCSWCD. The project coincides with the City's street renovation. The City installed the raingarden curb cuts, and the cost share requested will go towards installing the raingarden pretreatment structures, basins, and plantings. This project serves as an example of how organizations and landowners can work together to complete voluntary water quality projects as part of street renovation.</p>
--	---

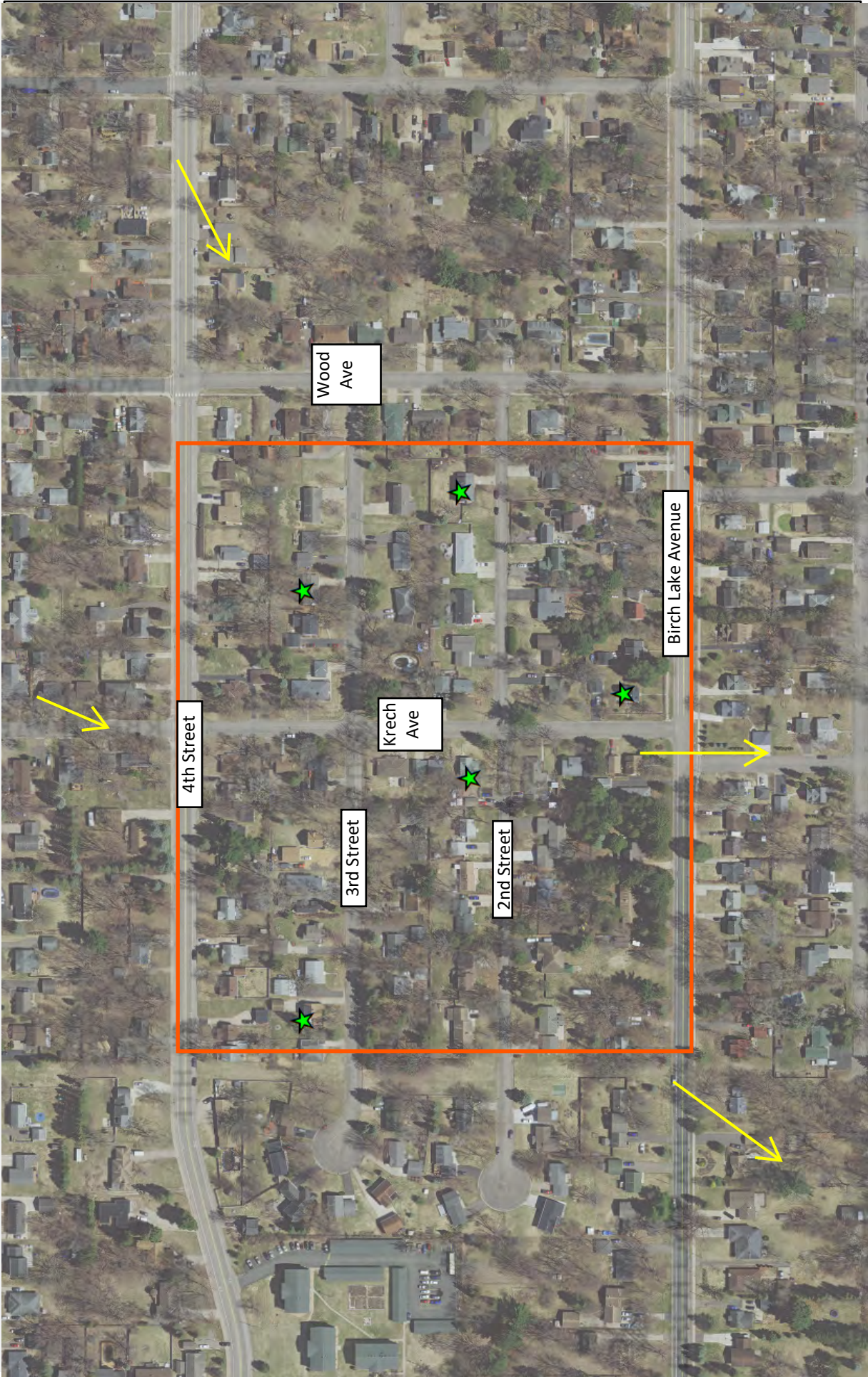
Project Specifications:





TOTAL PROPERTY AREA (Acres)	1.86 (total drainage area)	Total PROJECT SIZE (Sq Ft)	1,505 (total raingarden areas)
IMPERVIOUS AREA DRAINING TO PROJECT (Sq Ft):	42,562	PERVIOUS AREA DRAINING TO PROJECT (Sq Ft):	38,594

Required Attachments:

- ⇒ Detailed final plan set of the proposed project that includes the estimated, quantitative outcomes of the project.
- ⇒ At least 2 bids for construction of proposed project.
- ⇒ Detailed project budget estimate with itemized materials and costs that equal the total project cost.

LL2 2024-08 White Bear Lake Curb Cut Raingardens



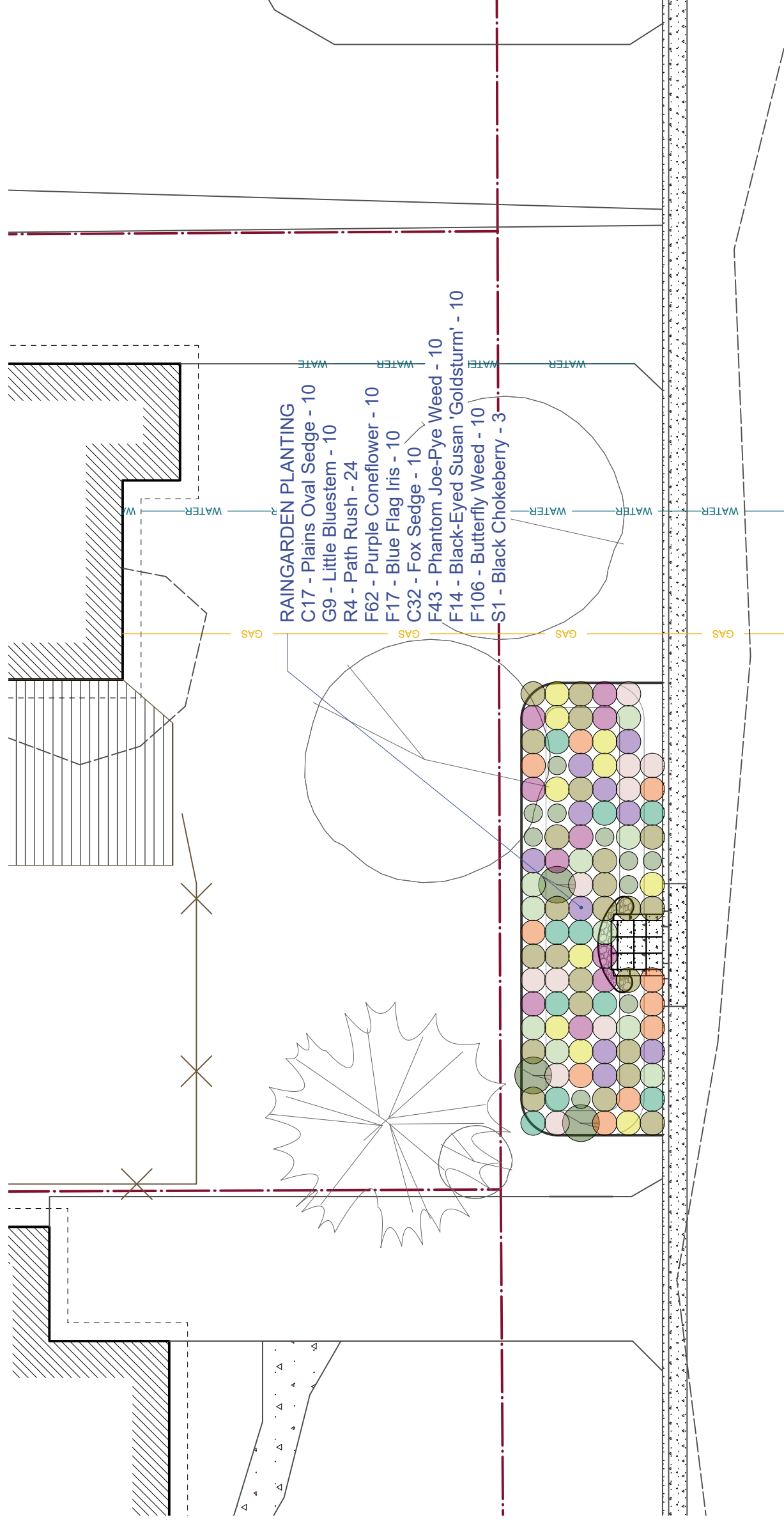
-  VLAWMO Boundary 2020
-  Project Location
-  Flow Arrows
-  Raingarden Locations

Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, County of Ramsey, Esri, HERE, Garmin, GeoTechnologies, Inc., County of Ramsey, Esri, HERE, Garmin, GeoTechnologies, Inc., USGS, EPA | ArcGIS Web AppBuilder

PLANT SCHEDULE				
ID	Qty	Latin Name	Common Name	Spacing (ft)
C17	10	Carex brevoir	Plains Oval Sedge	1.5
C32	10	Carex vulpinoidea	Fox Sedge	2
F14	10	Rudbeckia hirta 'Goldsturm'	Black-Eyed Susan 'Goldsturm'	2
F17	10	Iris versicolor	Blue Flag Iris	2
F43	10	Eupatorium 'Phantom'	Phantom Joe-Pye Weed	2
F62	10	Echinacea purpurea	Purple Coneflower	2
F106	10	Asclepias tuberosa	Butterfly Weed	2
G9	10	Schizachyrium scoparium	Little Bluestem	2
R4	24	Juncus tenuis	Path Rush	2
S1	3	Aronia melanocarpa	Black Chokeberry	2 Gallon
	107	TOTAL PLANTS		

NATIVE PLANTING NOTES:

1. SEE PLANT SCHEDULE FOR SPECIES, SIZE & SPACING RECOMMENDATIONS.
2. PLANTING PLAN LAYOUT IS FOR REPRESENTATION PURPOSES ONLY AND DOES NOT REFLECT ACTUAL SPECIES LAYOUT. PLANT FORBS & GRASSES IN GROUPS OF SAME SPECIES IN QUANTITIES OF 3-9 FOR EASIER IDENTIFICATION & MAINTENANCE.
3. PLANT SHRUBS IN GROUPS OF 1-3. KEEP SHRUB PLACEMENT TO MIDDLE/BACK OF RAINGARDEN AWAY FROM THE CURB-LINE OF ROAD.
4. FINAL SPECIES LIST AND QUANTITIES TO BE SUBMITTED TO RCSWCD STAFF FOR FINAL APPROVAL PRIOR TO INSTALLATION.
5. INSTALL PLUGS THROUGH MULCH LAYER.
6. ENSURE SPECIES ARE LOCATED IN AREAS OF RAINGARDEN THAT MATCH THEIR PREFERRED GROWING CONDITIONS. KEEP DRIER SPECIES IN SIDE SLOPE & DRIER AREAS. SPECIES THAT PREFER MORE MOISTURE TO BE LOCATED IN RAINGARDEN BASIN AREAS.
7. CONSIDER FULL-GROWTH PLANT HEIGHT WHEN LAYING OUT SPECIES. TALLER SPECIES TO BE LOCATED FURTHER AWAY FROM ROADWAY IN BACK OF GARDEN.
8. PROJECT LAYOUT, TOTAL AREA, AND MATERIALS MAY VARY WITH RCSWCD STAFF APPROVAL.



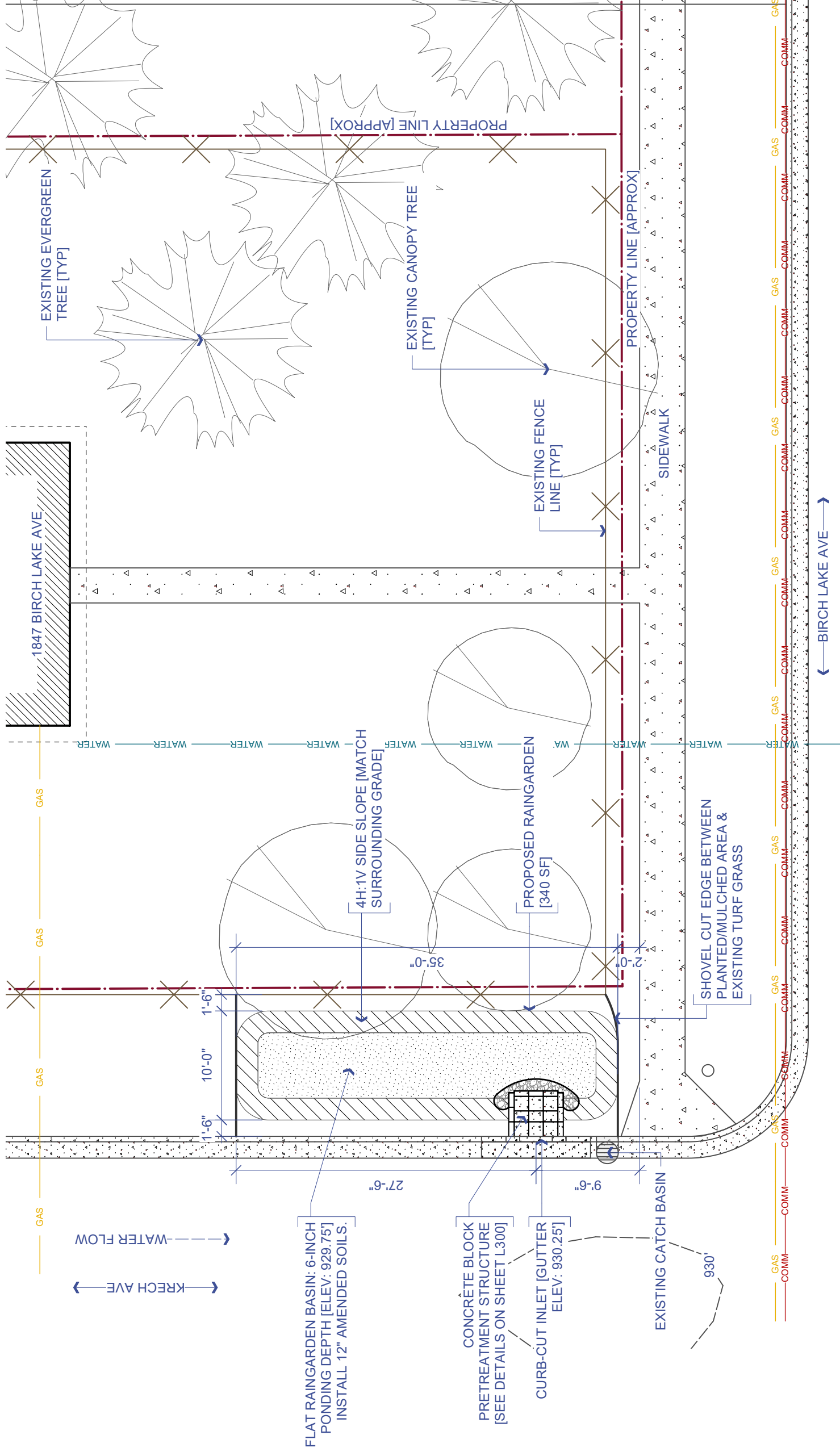
PROJECT NOTES:

1. ELEVATIONS ARE APPROXIMATE. EXACT ELEVATION OF BASIN/OVERFLOW, ETC. MAY VARY DEPENDING ON FINAL GRADE OF RAINGARDEN.
2. EXCAVATE RAINGARDEN AREA, LOOSEN UNDERLYING SOILS 6-12" TO REMOVE COMPACTION & PROMOTE INFILTRATION, AND INSTALL 1" DEEP AMENDED SOILS IN RAINGARDEN BASIN AREA.
3. GRADE OUT BASIN & SIDE SLOPES PER PLANS. CONTRACTOR TO ENSURE RAINGARDEN BASIN IS FLAT IN ALL DIRECTIONS AND SIDE SLOPES ARE NO GREATER THAN 4H:1V BEFORE PLACEMENT OF MULCH, ROCK AND PLANT MATERIAL.
4. PROVIDE 1.5' WIDE SETBACK FROM BACK OF CURB TO BEGINNING OF SIDE SLOPE - PITCH TOWARDS RAINGARDEN.
5. CONCRETE CURB OPENING HAS PREVIOUSLY BEEN INSTALLED BY THE CITY OF WHITE BEAR LAKE. EXACT LOCATION MAY VARY.
6. INSTALL CONCRETE PAVER STEP DOWN AND SUMP STRUCTURE PER PLANS AND DETAILS PROVIDED.
7. INSTALL MIXED SIZE ROCK [4-6" RIVER ROCK OR EQUAL] SPLASH AREA AROUND SUMP STRUCTURE. INSTALL NON-WOVEN GEOTEXTILE BETWEEN ROCK AND SOIL.

8. SEE LAYOUT PLAN FOR CURB-CUT OPENING, & RAINGARDEN BASIN ELEVATIONS AND DIMENSIONS.
9. INSTALL 2-3" HARDWOOD MULCH OVER ENTIRE RAINGARDEN & PLANTING AREA.
10. FOR ALL AREAS WITH EXISTING LAWN/TURF/VEGETATION: AREAS SHOULD BE SCRAPPED OF VEGETATION OR SPRAYED WITH HERBICIDE TO KILL EXISTING VEGETATION, MINIMUM 1-2 APPLICATIONS TO EFFECTIVELY KILL ALL COMPETING VEGETATION.
11. PRESERVE ALL EXISTING TREES & SHRUBS UNLESS OTHERWISE DIRECTED BY LANDOWNER.
12. NO CONSTRUCTION MATERIALS TO BE STORED UNDER TREE CANOPIES OR DRIVEN IN THE RAINGARDEN BASIN.
13. CONTRACTOR TO SEED ALL AREAS OF DISTURBED SOIL OUTSIDE PROJECT LIMITS WITH FESCUE SEED OR SIMILAR UPON COMPLETION OF PROJECT.
14. CONTRACTOR TO POTHOLE UTILITIES NEAR/WITHIN PROJECT AREA TO VERIFY DEPTH AND LOCATION PRIOR TO MACHINE EXCAVATION AS NEEDED.

PLAN LEGEND:

-  MIXED SIZE ROCK [4-6" OR EQUAL]
-  FLAT RAINGARDEN BASIN
-  RAINGARDEN 4H:1V SIDE SLOPES
-  PARCEL BOUNDARY (APPROX)
-  2' CONTOUR ELEVATION



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

PROJECT:
 WBL CURB-CUTS '24 - 1847 BIRCH LAKE AVE
LOCATION:
 1847 BIRCH LAKE AVE
 WHITE BEAR LAKE, MN 55110
WATERSHED DISTRICT:



DESIGNER: BRIAN T. OLSEN
DATE: 7/25/2024
PAST REVISION:
PAST REVISION:
PAST REVISION:
CHECKED BY:
TAA:

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

SCALE: 1"=10'-0"

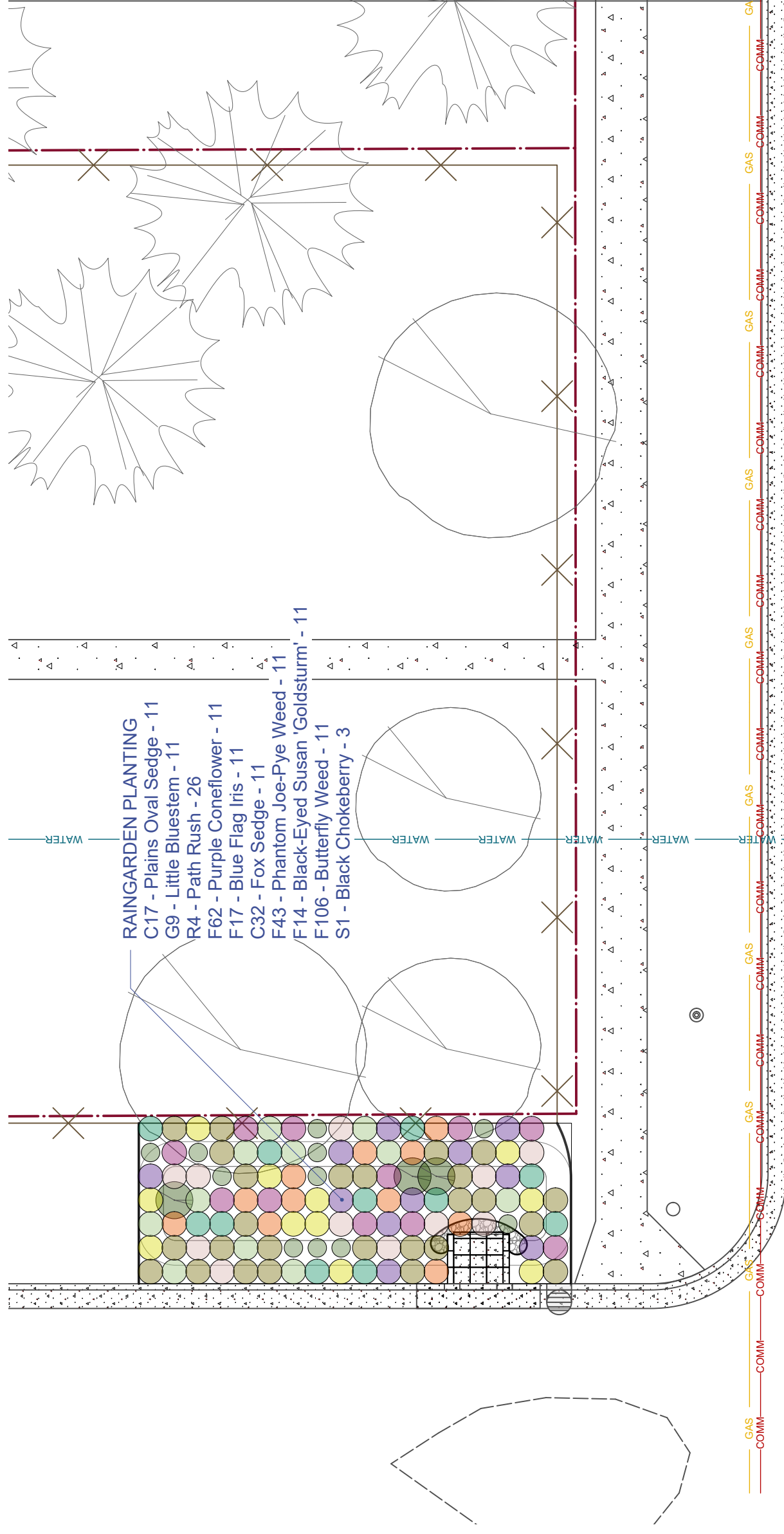

SITE PLAN

L100

PLANT SCHEDULE				
ID	Qty	Latin Name	Common Name	Spacing (ft)
C17	11	Carex brevoir	Plains Oval Sedge	1.5
C32	11	Carex vulpinoidea	Fox Sedge	2
F14	11	Rudbeckia hirta 'Goldsturm'	Black-Eyed Susan 'Goldsturm'	2
F17	11	Iris versicolor	Blue Flag Iris	2
F43	11	Eupatorium 'Phantom'	Phantom Joe-Pye Weed	2
F62	11	Echinacea purpurea	Purple Coneflower	2
F106	11	Asclepias tuberosa	Butterfly Weed	2
G9	11	Schizachyrium scoparium	Little Bluestem	2
R4	26	Juncus tenuis	Path Rush	2
S1	3	Aronia melanocarpa	Black Chokeberry	2 Gallon
	117	TOTAL PLANTS		

NATIVE PLANTING NOTES:

1. SEE PLANT SCHEDULE FOR SPECIES, SIZE & SPACING RECOMMENDATIONS.
2. PLANTING PLAN LAYOUT IS FOR REPRESENTATION PURPOSES ONLY AND DOES NOT REFLECT ACTUAL SPECIES LAYOUT. PLANT FORBS & GRASSES IN GROUPS OF SAME SPECIES IN QUANTITIES OF 3-9 FOR EASIER IDENTIFICATION & MAINTENANCE.
3. PLANT SHRUBS IN GROUPS OF 1-3. KEEP SHRUB PLACEMENT TO MIDDLE/BACK OF RAINGARDEN AWAY FROM THE CURB-LINE OF ROAD.
4. FINAL SPECIES LIST AND QUANTITIES TO BE SUBMITTED TO RCSWCD STAFF FOR FINAL APPROVAL PRIOR TO INSTALLATION.
5. INSTALL PLUGS THROUGH MULCH LAYER.
6. ENSURE SPECIES ARE LOCATED IN AREAS OF RAINGARDEN THAT MATCH THEIR PREFERRED GROWING CONDITIONS. KEEP DRIER SPECIES IN SIDE SLOPE & DRIER AREAS. SPECIES THAT PREFER MORE MOISTURE TO BE LOCATED IN RAINGARDEN BASIN AREAS.
7. CONSIDER FULL-GROWTH PLANT HEIGHT WHEN LAYING OUT SPECIES. TALLER SPECIES TO BE LOCATED FURTHER AWAY FROM ROADWAY IN BACK OF GARDEN.
8. PROJECT LAYOUT, TOTAL AREA, AND MATERIALS MAY VARY WITH RCSWCD STAFF APPROVAL.



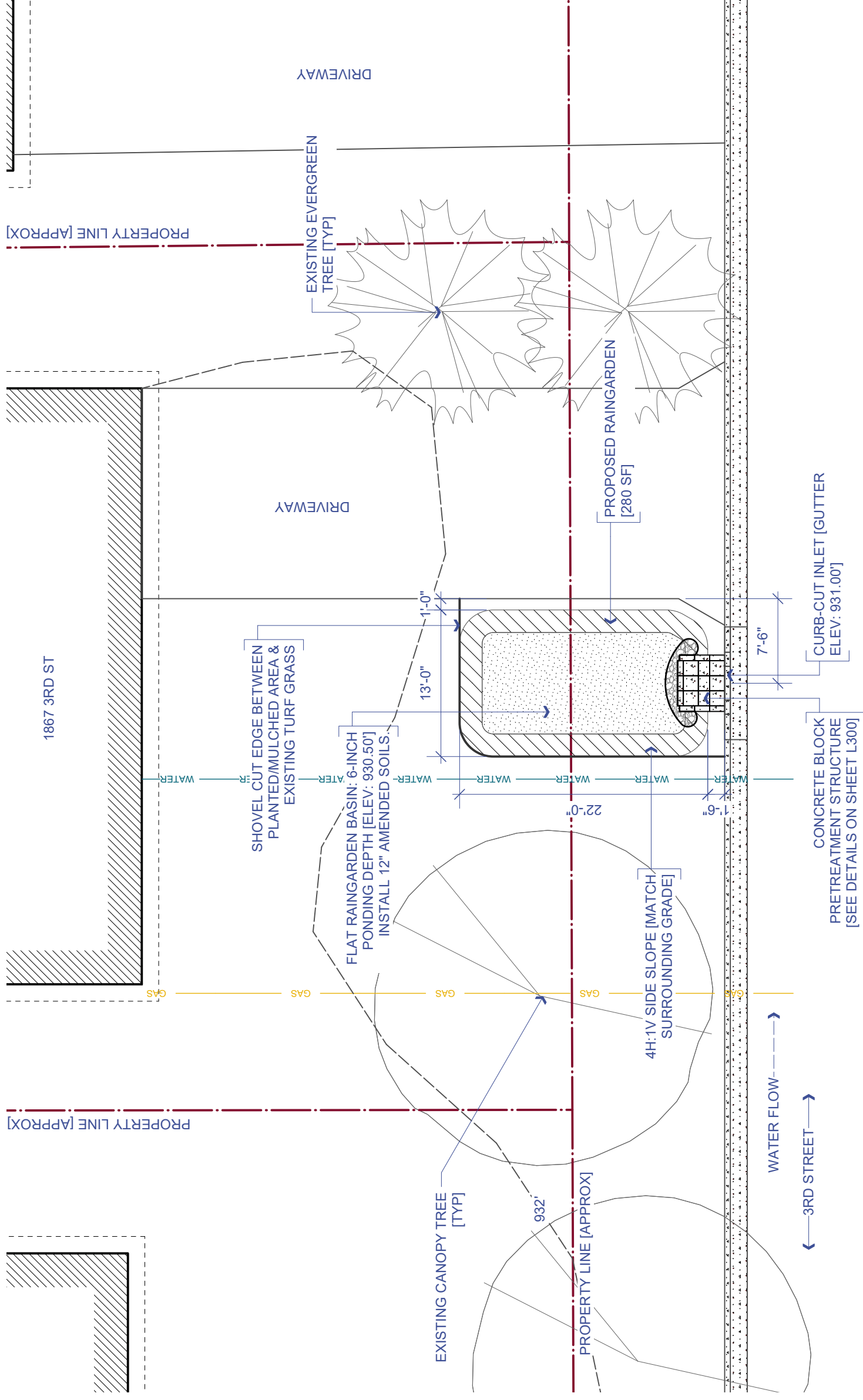
PROJECT NOTES:

1. ELEVATIONS ARE APPROXIMATE. EXACT ELEVATION OF BASIN/OVERFLOW, ETC. MAY VARY DEPENDING ON FINAL GRADE OF RAINGARDEN.
2. EXCAVATE RAINGARDEN AREA, LOOSEN UNDERLYING SOILS 6-12" TO REMOVE COMPACTION & PROMOTE INFILTRATION, AND INSTALL 1' DEEP AMENDED SOILS IN RAINGARDEN BASIN AREA.
3. GRADE OUT BASIN & SIDE SLOPES PER PLANS. CONTRACTOR TO ENSURE RAINGARDEN BASIN IS FLAT IN ALL DIRECTIONS AND SIDE SLOPES ARE NO GREATER THAN 4H:1V BEFORE PLACEMENT OF MULCH, ROCK AND PLANT MATERIAL.
4. PROVIDE 1.5' WIDE SETBACK FROM BACK OF CURB TO BEGINNING OF SIDE SLOPE - PITCH TOWARDS RAINGARDEN.
5. CONCRETE CURB OPENING HAS PREVIOUSLY BEEN INSTALLED BY THE CITY OF WHITE BEAR LAKE. EXACT LOCATION MAY VARY.
6. INSTALL CONCRETE PAVER STEP DOWN AND SUMP STRUCTURE PER PLANS AND DETAILS PROVIDED.
7. INSTALL MIXED SIZE ROCK [4-6" RIVER ROCK OR EQUAL] SPLASH AREA AROUND SUMP STRUCTURE. INSTALL NON-WOVEN GEOTEXTILE BETWEEN ROCK AND SOIL.

8. SEE LAYOUT PLAN FOR CURB-CUT OPENING, & RAINGARDEN BASIN ELEVATIONS AND DIMENSIONS.
9. INSTALL 2-3" HARDWOOD MULCH OVER ENTIRE RAINGARDEN & PLANTING AREA.
10. FOR ALL AREAS WITH EXISTING LAWN/TURF/VEGETATION: AREAS SHOULD BE SCRAPED OF VEGETATION OR SPRAYED WITH HERBICIDE TO KILL EXISTING VEGETATION, MINIMUM 1-2 APPLICATIONS TO EFFECTIVELY KILL ALL COMPETING VEGETATION.
11. PRESERVE ALL EXISTING TREES & SHRUBS UNLESS OTHERWISE DIRECTED BY LANDOWNER.
12. NO CONSTRUCTION MATERIALS TO BE STORED UNDER TREE CANOPIES OR DRIVEN IN THE RAINGARDEN BASIN.
13. CONTRACTOR TO SEED ALL AREAS OF DISTURBED SOIL OUTSIDE PROJECT LIMITS WITH FESCUE SEED OR SIMILAR UPON COMPLETION OF PROJECT.
14. CONTRACTOR TO POTHOLE UTILITIES NEAR/WITHIN PROJECT AREA TO VERIFY DEPTH AND LOCATION PRIOR TO MACHINE EXCAVATION AS NEEDED.

PLAN LEGEND:

-  MIXED SIZE ROCK [4-6" OR EQUAL]
-  FLAT RAINGARDEN BASIN
-  RAINGARDEN 4H:1V SIDE SLOPES
-  PARCEL BOUNDARY (APPROX)
-  2' CONTOUR ELEVATION



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

PROJECT:
 WBL CURB-CUTS '24 - 1867 3RD ST
LOCATION:
 1867 3RD ST
 WHITE BEAR LAKE, MN 55110
 WATERSHED DISTRICT:



DESIGNER: BRIAN T. OLSEN
DATE: 7/23/2024
PAST REVISION:
PAST REVISION:
PAST REVISION:
CHECKED BY:
TAA:

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

SCALE: 1"=10'-0"

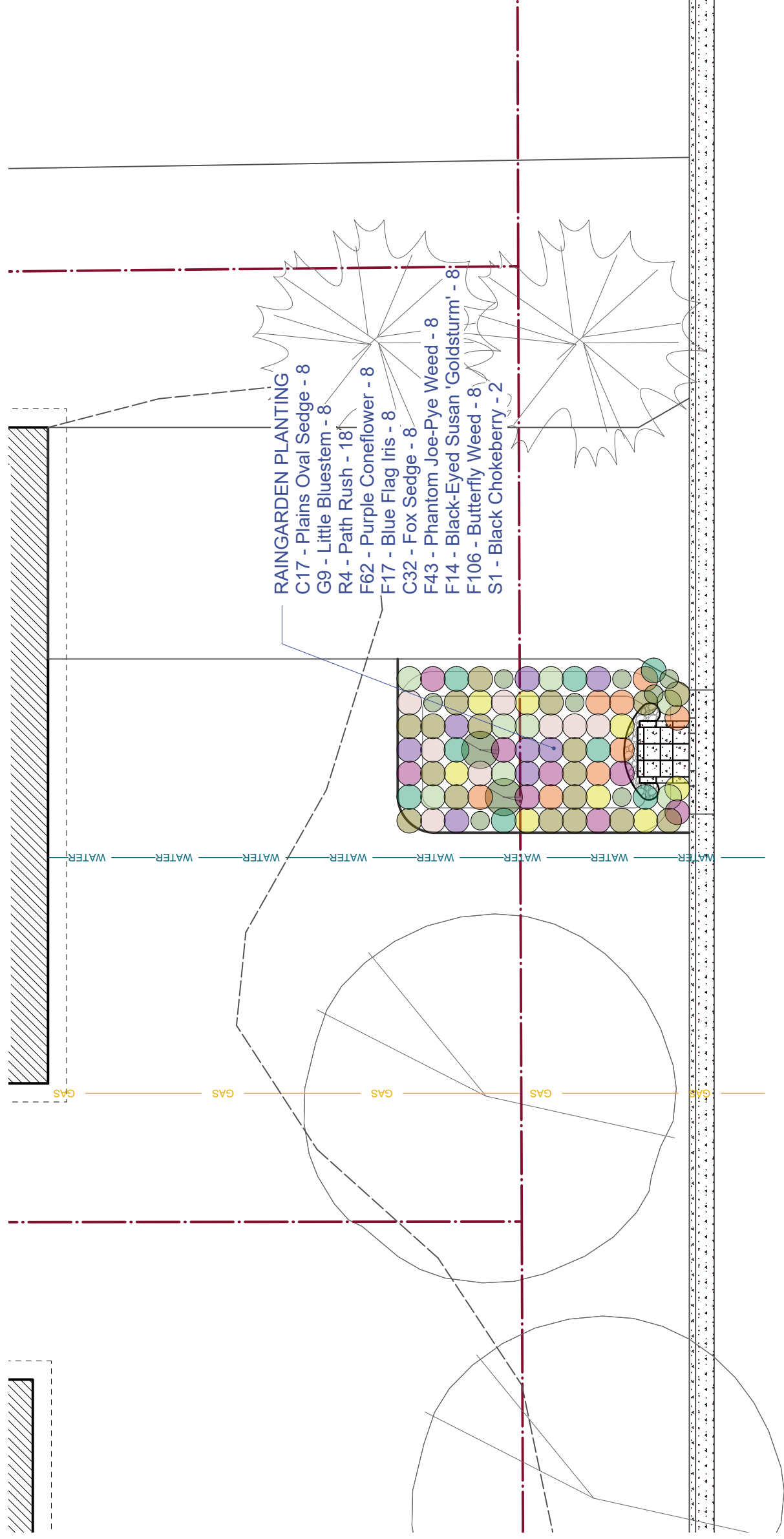

SITE PLAN

L100

PLANT SCHEDULE					
ID	Qty	Latin Name	Common Name	Size	Spacing (ft)
C17	8	Carex brevoir	Plains Oval Sedge	4" Pot	1.5
C32	8	Carex vulpinoidea	Fox Sedge	4" Pot	2
F14	8	Rudbeckia hirta 'Goldsturm'	Black-Eyed Susan 'Goldsturm'	4" Pot	2
F17	8	Iris versicolor	Blue Flag Iris	4" Pot	2
F43	8	Eupatorium 'Phantom'	Phantom Joe-Pye Weed	4" Pot	2
F62	8	Echinacea purpurea	Purple Coneflower	4" Pot	2
F106	8	Asclepias tuberosa	Butterfly Weed	4" Pot	2
G9	8	Schizachyrium scoparium	Little Bluestem	4" Pot	2
R4	18	Juncus tenuis	Path Rush	4" Pot	2
S1	2	Aronia melanocarpa	Black Chokeberry	2 Gallon	3
	84	TOTAL PLANTS			

NATIVE PLANTING NOTES:

1. SEE PLANT SCHEDULE FOR SPECIES, SIZE & SPACING RECOMMENDATIONS.
2. PLANTING PLAN LAYOUT IS FOR REPRESENTATION PURPOSES ONLY AND DOES NOT REFLECT ACTUAL SPECIES LAYOUT. PLANT FORBS & GRASSES IN GROUPS OF SAME SPECIES IN QUANTITIES OF 3-9 FOR EASIER IDENTIFICATION & MAINTENANCE.
3. PLANT SHRUBS IN GROUPS OF 1-3. KEEP SHRUB PLACEMENT TO MIDDLE/BACK OF RAINGARDEN AWAY FROM THE CURB-LINE OF ROAD.
4. FINAL SPECIES LIST AND QUANTITIES TO BE SUBMITTED TO RCSWCD STAFF FOR FINAL APPROVAL PRIOR TO INSTALLATION.
5. INSTALL PLUGS THROUGH MULCH LAYER.
6. ENSURE SPECIES ARE LOCATED IN AREAS OF RAINGARDEN THAT MATCH THEIR PREFERRED GROWING CONDITIONS. KEEP DRIER SPECIES IN SIDE SLOPE & DRIER AREAS. SPECIES THAT PREFER MORE MOISTURE TO BE LOCATED IN RAINGARDEN BASIN AREAS.
7. CONSIDER FULL-GROWTH PLANT HEIGHT WHEN LAYING OUT SPECIES. TALLER SPECIES TO BE LOCATED FURTHER AWAY FROM ROADWAY IN BACK OF GARDEN.
8. PROJECT LAYOUT, TOTAL AREA, AND MATERIALS MAY VARY WITH RCSWCD STAFF APPROVAL.








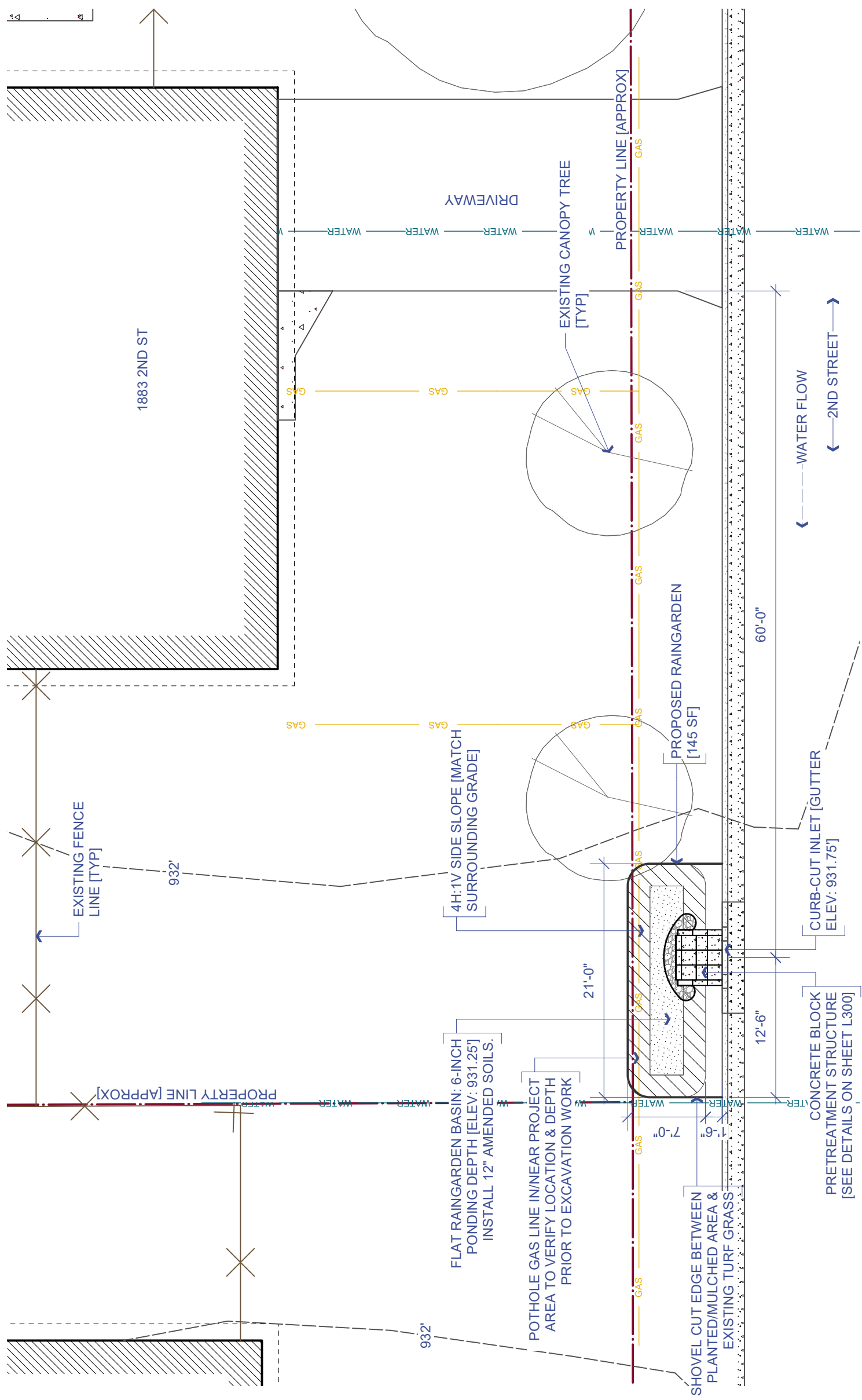
PROJECT NOTES:

1. ELEVATIONS ARE APPROXIMATE. EXACT ELEVATION OF BASIN/OVERFLOW, ETC. MAY VARY DEPENDING ON FINAL GRADE OF RAINGARDEN.
2. EXCAVATE RAINGARDEN AREA, LOOSEN UNDERLYING SOILS 6-12" TO REMOVE COMPACTION & PROMOTE INFILTRATION, AND INSTALL 1' DEEP AMENDED SOILS IN RAINGARDEN BASIN AREA.
3. GRADE OUT BASIN & SIDE SLOPES PER PLANS. CONTRACTOR TO ENSURE RAINGARDEN BASIN IS FLAT IN ALL DIRECTIONS AND SIDE SLOPES ARE NO GREATER THAN 4H:1V BEFORE PLACEMENT OF MULCH, ROCK AND PLANT MATERIAL.
4. PROVIDE 1.5' WIDE SETBACK FROM BACK OF CURB TO BEGINNING OF SIDE SLOPE - PITCH TOWARDS RAINGARDEN.
5. CONCRETE CURB OPENING HAS PREVIOUSLY BEEN INSTALLED BY THE CITY OF WHITE BEAR LAKE. EXACT LOCATION MAY VARY.
6. INSTALL CONCRETE PAVER STEP DOWN AND SUMP STRUCTURE PER PLANS AND DETAILS PROVIDED.
7. INSTALL MIXED SIZE ROCK [4-6" RIVER ROCK OR EQUAL] SPLASH AREA AROUND SUMP STRUCTURE. INSTALL NON-WOVEN GEOTEXTILE BETWEEN ROCK AND SOIL.

8. SEE LAYOUT PLAN FOR CURB-CUT OPENING, & RAINGARDEN BASIN ELEVATIONS AND DIMENSIONS.
9. INSTALL 2-3" HARDWOOD MULCH OVER ENTIRE RAINGARDEN & PLANTING AREA.
10. FOR ALL AREAS WITH EXISTING LAWN/TURF/VEGETATION: AREAS SHOULD BE SCRAPPED OF VEGETATION OR SPRAYED WITH HERBICIDE TO KILL EXISTING VEGETATION, MINIMUM 1-2 APPLICATIONS TO EFFECTIVELY KILL ALL COMPETING VEGETATION.
11. PRESERVE ALL EXISTING TREES & SHRUBS UNLESS OTHERWISE DIRECTED BY LANDOWNER.
12. NO CONSTRUCTION MATERIALS TO BE STORED UNDER TREE CANOPIES OR DRIVEN IN THE RAINGARDEN BASIN.
13. CONTRACTOR TO SEED ALL AREAS OF DISTURBED SOIL OUTSIDE PROJECT LIMITS WITH FESCUE SEED OR SIMILAR UPON COMPLETION OF PROJECT.
14. CONTRACTOR TO POTHOLE UTILITIES NEAR/WITHIN PROJECT AREA TO VERIFY DEPTH AND LOCATION PRIOR TO MACHINE EXCAVATION AS NEEDED.

PLAN LEGEND:

-  MIXED SIZE ROCK [4-6" OR EQUAL]
-  FLAT RAINGARDEN BASIN
-  RAINGARDEN 4H:1V SIDE SLOPES
-  PARCEL BOUNDARY (APPROX)
-  2' CONTOUR ELEVATION

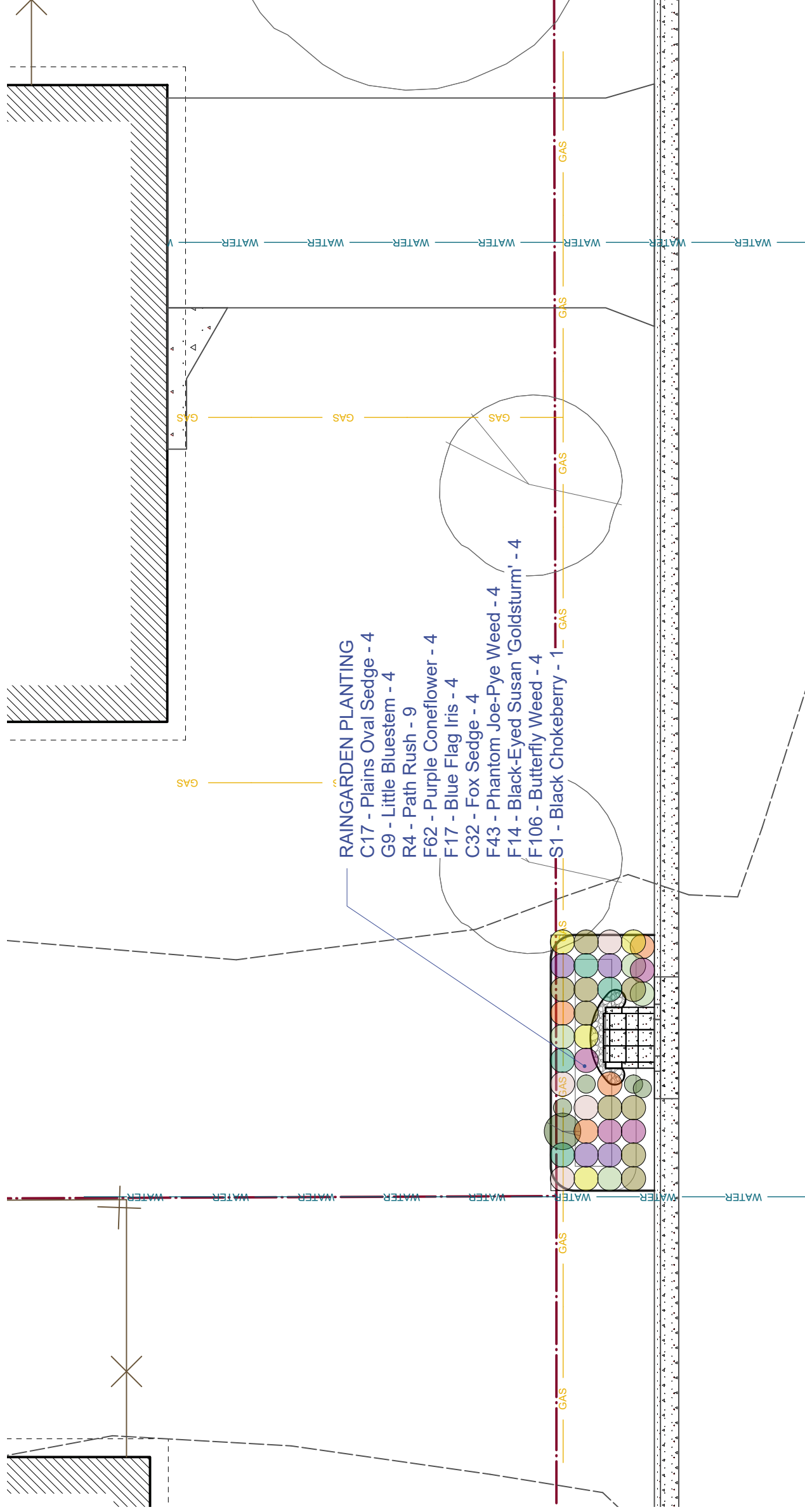


PLANT SCHEDULE

ID	Qty	Latin Name	Common Name	Size	Spacing (ft)
C17	4	Carex brevoir	Plains Oval Sedge	4" Pot	1.5
C32	4	Carex vulpinoidea	Fox Sedge	4" Pot	2
F14	4	Rudbeckia hirta 'Goldsturm'	Black-Eyed Susan 'Goldsturm'	4" Pot	2
F17	4	Iris versicolor	Blue Flag Iris	4" Pot	2
F43	4	Eupatorium 'Phantom'	Phantom Joe-Pye Weed	4" Pot	2
F62	4	Echinacea purpurea	Purple Coneflower	4" Pot	2
F106	4	Asclepias tuberosa	Butterfly Weed	4" Pot	2
G9	4	Schizachyrium scoparium	Little Bluestem	4" Pot	2
R4	9	Juncus tenuis	Path Rush	4" Pot	2
S1	1	Aronia melanocarpa	Black Chokeberry	2 Gallon	3
	42	TOTAL PLANTS			

NATIVE PLANTING NOTES:

1. SEE PLANT SCHEDULE FOR SPECIES, SIZE & SPACING RECOMMENDATIONS.
2. PLANTING PLAN LAYOUT IS FOR REPRESENTATION PURPOSES ONLY AND DOES NOT REFLECT ACTUAL SPECIES LAYOUT. PLANT FORBS & GRASSES IN GROUPS OF SAME SPECIES IN QUANTITIES OF 3-9 FOR EASIER IDENTIFICATION & MAINTENANCE.
3. PLANT SHRUBS IN GROUPS OF 1-3. KEEP SHRUB PLACEMENT TO MIDDLE/BACK OF RAINGARDEN AWAY FROM THE CURB-LINE OF ROAD.
4. FINAL SPECIES LIST AND QUANTITIES TO BE SUBMITTED TO RCSWCD STAFF FOR FINAL APPROVAL PRIOR TO INSTALLATION.
5. INSTALL PLUGS THROUGH MULCH LAYER.
6. ENSURE SPECIES ARE LOCATED IN AREAS OF RAINGARDEN THAT MATCH THEIR PREFERRED GROWING CONDITIONS. KEEP DRIER SPECIES IN SIDE SLOPE & DRIER AREAS. SPECIES THAT PREFER MORE MOISTURE TO BE LOCATED IN RAINGARDEN BASIN AREAS.
7. CONSIDER FULL-GROWTH PLANT HEIGHT WHEN LAYING OUT SPECIES. TALLER SPECIES TO BE LOCATED FURTHER AWAY FROM ROADWAY IN BACK OF GARDEN.
8. PROJECT LAYOUT, TOTAL AREA, AND MATERIALS MAY VARY WITH RCSWCD STAFF APPROVAL.



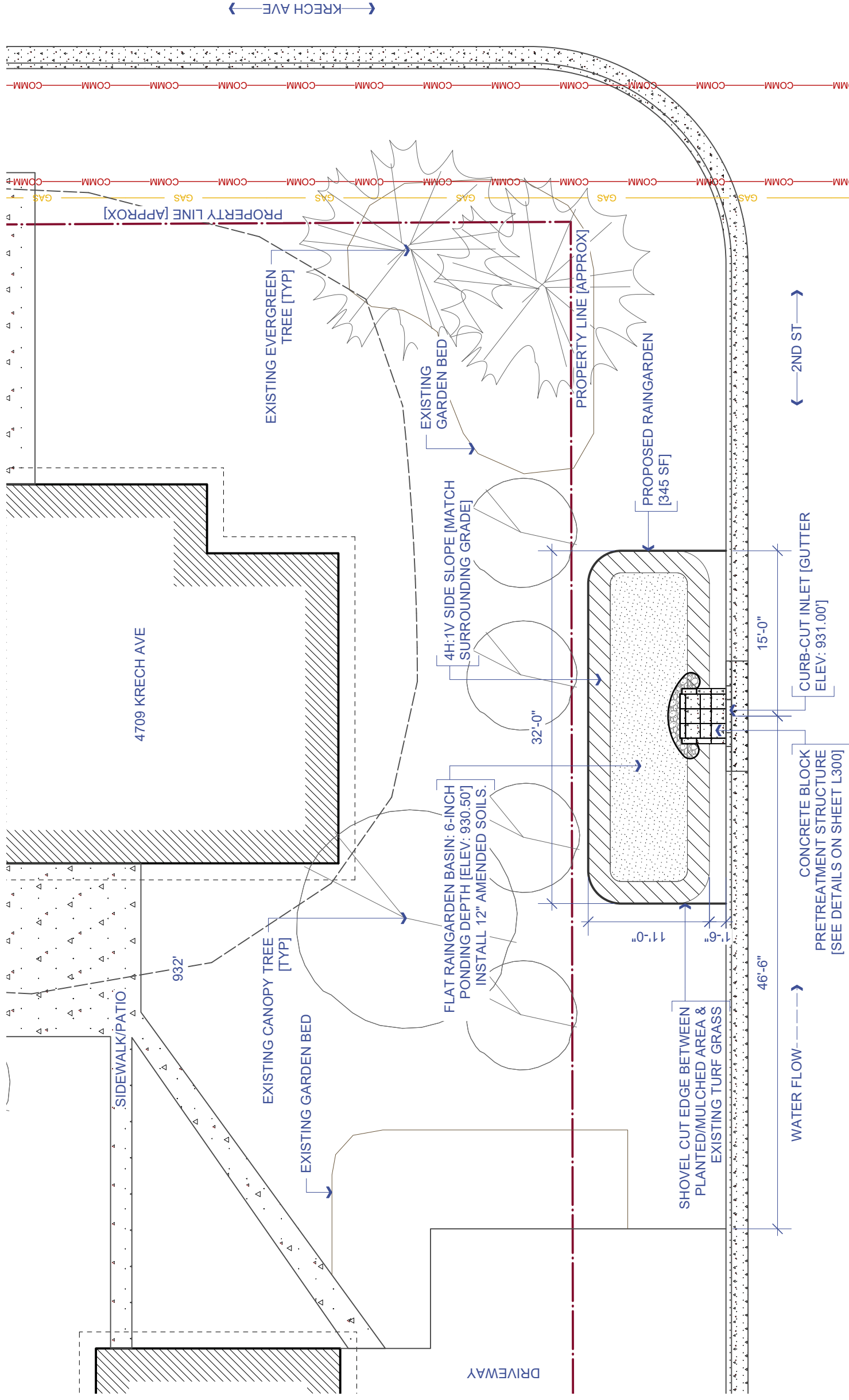
PROJECT NOTES:

1. ELEVATIONS ARE APPROXIMATE. EXACT ELEVATION OF BASIN/OVERFLOW, ETC. MAY VARY DEPENDING ON FINAL GRADE OF RAINGARDEN.
2. EXCAVATE RAINGARDEN AREA, LOOSEN UNDERLYING SOILS 6-12" TO REMOVE COMPACTION & PROMOTE INFILTRATION, AND INSTALL 1" DEEP AMENDED SOILS IN RAINGARDEN BASIN AREA.
3. GRADE OUT BASIN & SIDE SLOPES PER PLANS. CONTRACTOR TO ENSURE RAINGARDEN BASIN IS FLAT IN ALL DIRECTIONS AND SIDE SLOPES ARE NO GREATER THAN 4H:1V BEFORE PLACEMENT OF MULCH, ROCK AND PLANT MATERIAL.
4. PROVIDE 1.5' WIDE SETBACK FROM BACK OF CURB TO BEGINNING OF SIDE SLOPE - PITCH TOWARDS RAINGARDEN.
5. CONCRETE CURB OPENING HAS PREVIOUSLY BEEN INSTALLED BY THE CITY OF WHITE BEAR LAKE. EXACT LOCATION MAY VARY.
6. INSTALL CONCRETE PAVER STEP DOWN AND SUMP STRUCTURE PER PLANS AND DETAILS PROVIDED.
7. INSTALL MIXED SIZE ROCK [4-6" RIVER ROCK OR EQUAL] SPLASH AREA AROUND SUMP STRUCTURE. INSTALL NON-WOVEN GEOTEXTILE BETWEEN ROCK AND SOIL.

8. SEE LAYOUT PLAN FOR CURB-CUT OPENING, & RAINGARDEN BASIN ELEVATIONS AND DIMENSIONS.
9. INSTALL 2-3" HARDWOOD MULCH OVER ENTIRE RAINGARDEN & PLANTING AREA.
10. FOR ALL AREAS WITH EXISTING LAWN/TURF/VEGETATION: AREAS SHOULD BE SCRAPPED OF VEGETATION OR SPRAYED WITH HERBICIDE TO KILL EXISTING VEGETATION, MINIMUM 1-2 APPLICATIONS TO EFFECTIVELY KILL ALL COMPETING VEGETATION.
11. PRESERVE ALL EXISTING TREES & SHRUBS UNLESS OTHERWISE DIRECTED BY LANDOWNER.
12. NO CONSTRUCTION MATERIALS TO BE STORED UNDER TREE CANOPIES OR DRIVEN IN THE RAINGARDEN BASIN.
13. CONTRACTOR TO SEED ALL AREAS OF DISTURBED SOIL OUTSIDE PROJECT LIMITS WITH FESCUE SEED OR SIMILAR UPON COMPLETION OF PROJECT.
14. CONTRACTOR TO POTHOLE UTILITIES NEAR/WITHIN PROJECT AREA TO VERIFY DEPTH AND LOCATION PRIOR TO MACHINE EXCAVATION AS NEEDED.

PLAN LEGEND:

-  MIXED SIZE ROCK [4-6" OR EQUAL]
-  FLAT RAINGARDEN BASIN
-  RAINGARDEN 4H:1V SIDE SLOPES
-  PARCEL BOUNDARY (APPROX)
-  2' CONTOUR ELEVATION



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

PROJECT:
 WBL CURB-CUTS '24 - 4709 KRECH AVE
LOCATION:
 4709 KRECH AVE
 WHITE BEAR LAKE, MN 55110
WATERSHED DISTRICT:



DESIGNER: BRIAN T. OLSEN
DATE: 7/25/2024
PAST REVISION:
PAST REVISION:
PAST REVISION:
CHECKED BY:
TAA:

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

SCALE: 1"=10'-0"

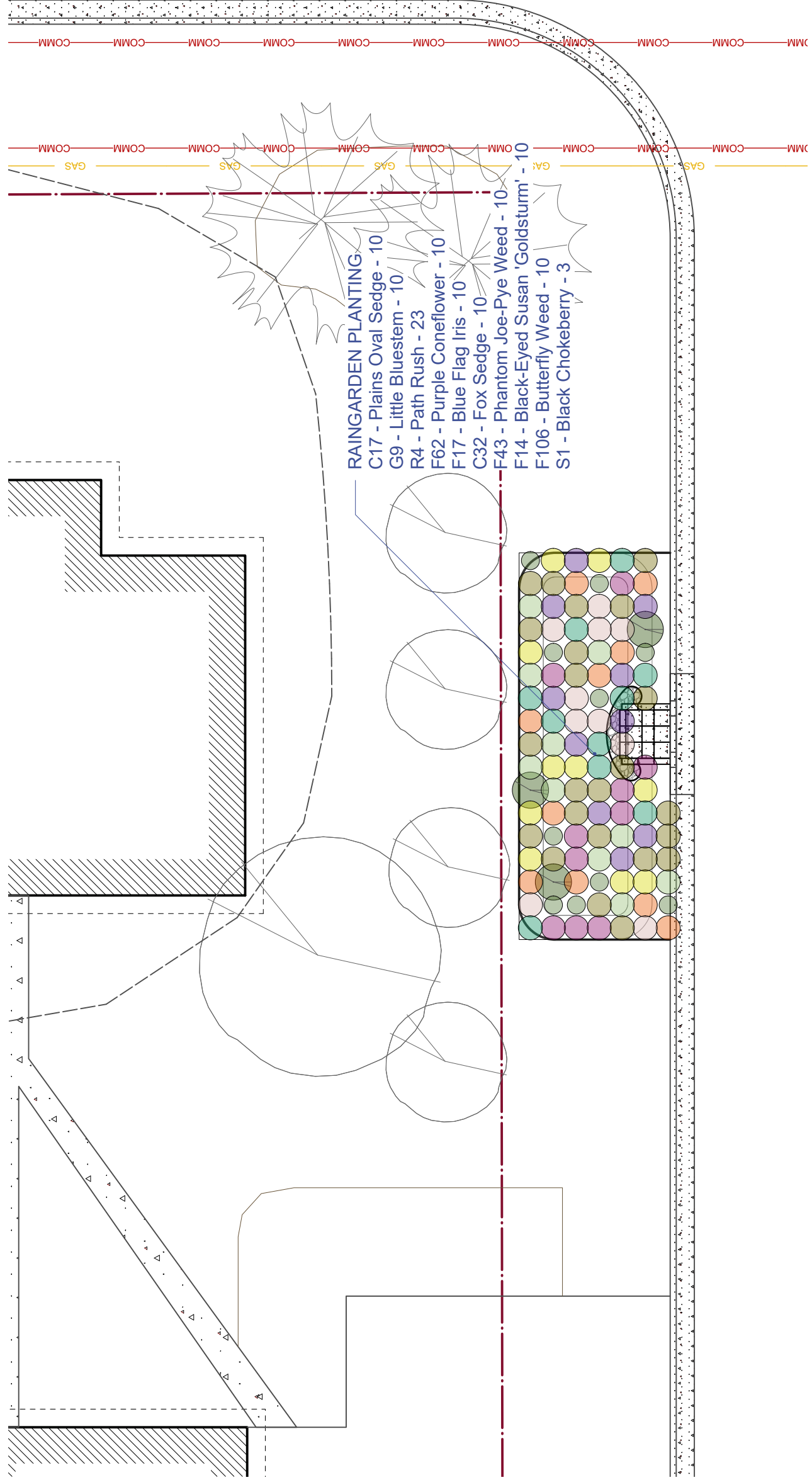

SITE PLAN

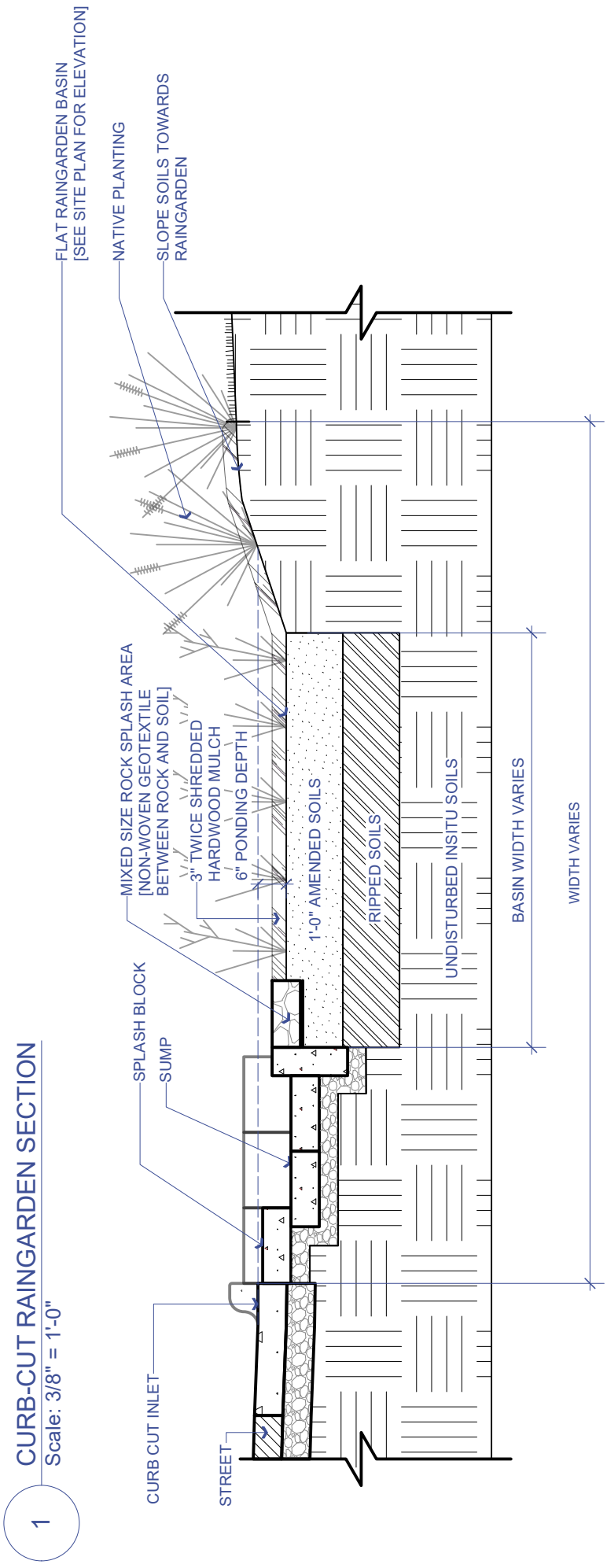
L100

PLANT SCHEDULE					
ID	Qty	Latin Name	Common Name	Size	Spacing (ft)
C17	10	Carex brevoir	Plains Oval Sedge	4" Pot	1.5
C32	10	Carex vulpinoidea	Fox Sedge	4" Pot	2
F14	10	Rudbeckia hirta 'Goldsturm'	Black-Eyed Susan 'Goldsturm'	4" Pot	2
F17	10	Iris versicolor	Blue Flag Iris	4" Pot	2
F43	10	Eupatorium 'Phantom'	Phantom Joe-Pye Weed	4" Pot	2
F62	10	Echinacea purpurea	Purple Coneflower	4" Pot	2
F106	10	Asclepias tuberosa	Butterfly Weed	4" Pot	2
G9	10	Schizachyrium scoparium	Little Bluestem	4" Pot	2
R4	23	Juncus tenuis	Path Rush	4" Pot	2
S1	3	Aronia melanocarpa	Black Chokeberry	2 Gallon	3
	106	TOTAL PLANTS			

NATIVE PLANTING NOTES:

1. SEE PLANT SCHEDULE FOR SPECIES, SIZE & SPACING RECOMMENDATIONS.
2. PLANTING PLAN LAYOUT IS FOR REPRESENTATION PURPOSES ONLY AND DOES NOT REFLECT ACTUAL SPECIES LAYOUT. PLANT FORBS & GRASSES IN GROUPS OF SAME SPECIES IN QUANTITIES OF 3-9 FOR EASIER IDENTIFICATION & MAINTENANCE.
3. PLANT SHRUBS IN GROUPS OF 1-3. KEEP SHRUB PLACEMENT TO MIDDLE/BACK OF RAINGARDEN AWAY FROM THE CURB-LINE OF ROAD.
4. FINAL SPECIES LIST AND QUANTITIES TO BE SUBMITTED TO RCSWCD STAFF FOR FINAL APPROVAL PRIOR TO INSTALLATION.
5. INSTALL PLUGS THROUGH MULCH LAYER.
6. ENSURE SPECIES ARE LOCATED IN AREAS OF RAINGARDEN THAT MATCH THEIR PREFERRED GROWING CONDITIONS. KEEP DRIER SPECIES IN SIDE SLOPE & DRIER AREAS. SPECIES THAT PREFER MORE MOISTURE TO BE LOCATED IN RAINGARDEN BASIN AREAS.
7. CONSIDER FULL-GROWTH PLANT HEIGHT WHEN LAYING OUT SPECIES. TALLER SPECIES TO BE LOCATED FURTHER AWAY FROM ROADWAY IN BACK OF GARDEN.
8. PROJECT LAYOUT, TOTAL AREA, AND MATERIALS MAY VARY WITH RCSWCD STAFF APPROVAL.

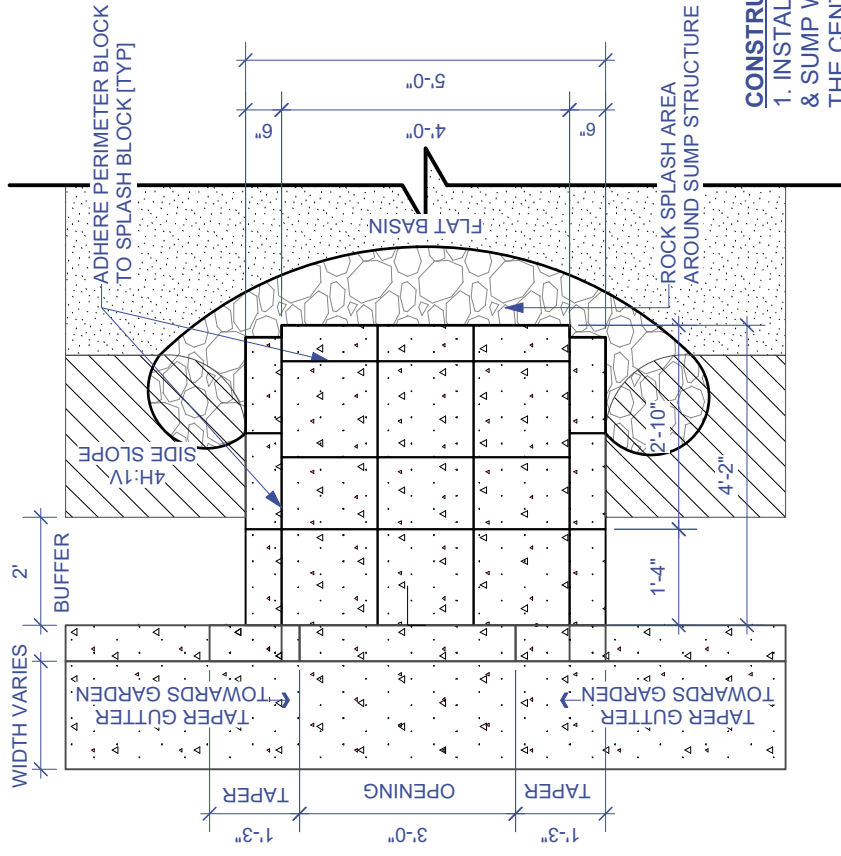




1 CURB-CUT RAINGARDEN SECTION
 Scale: 3/8" = 1'-0"

- CURB-CUT RAINGARDEN NOTES:**
1. EXCAVATE RAIN GARDEN TO 1'-9" BELOW GUTTER. SCARIFY AN ADDITIONAL 6" BEFORE BACKFILLING WITH AMENDED SOILS.
 2. THE PLANTING MEDIUM AND EROSION CONTROL BLANKET SHALL BE PLACED IN SUCH A WAY AS TO LIMIT THE AMOUNT OF COMPACTION OF THE SUB-SOILS.
 3. OFFSET SPLASH PAD FROM CURB CUT OPENING IN DIRECTION OF WATER FLOW ON STREET.
 4. NO GEOTEXTILE TO BE USED BETWEEN NATIVE AND ENGINEERED SOILS
 5. OWNER/CONTRACTOR TO PROVIDE ALL GSOC LOCATIONS PRIOR TO COMPLETING ANY EXCAVATION.

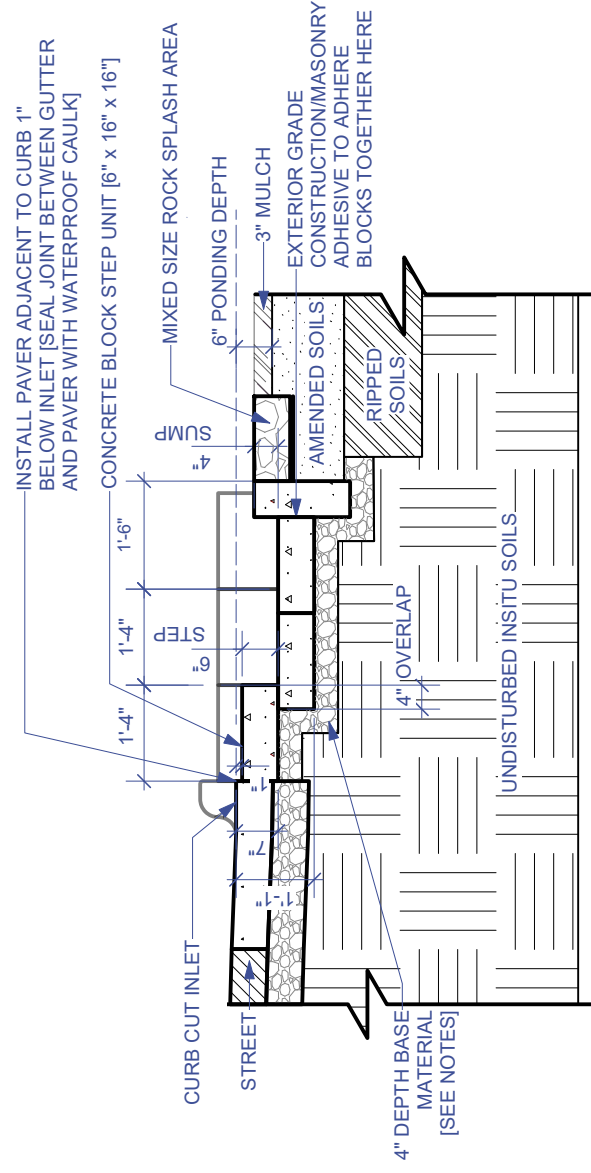
1 SPLASH BLOCK STEP DOWN & SUMP: PLAN VIEW
Scale: 3/8" = 1'-0"



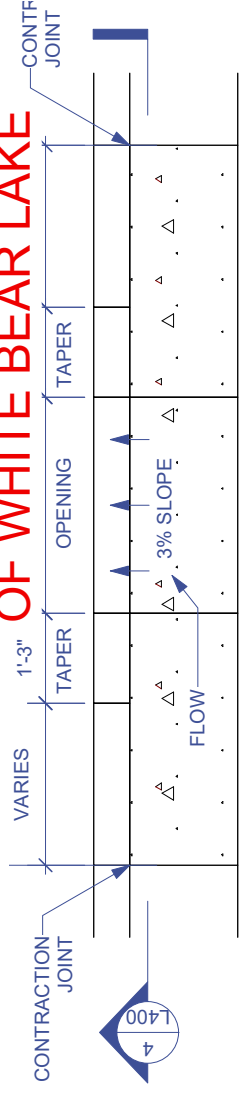
CONSTRUCTION NOTE:

1. INSTALL SPLASH BLOCK STEP DOWN & SUMP WITH A 3" OFFSET FROM THE CENTER OF CURB CUT OPENING. OFFSET 3" FROM CENTER TOWARDS DOWNSLOPE SIDE, CONSISTENT WITH DIRECTIONAL WATER FLOW

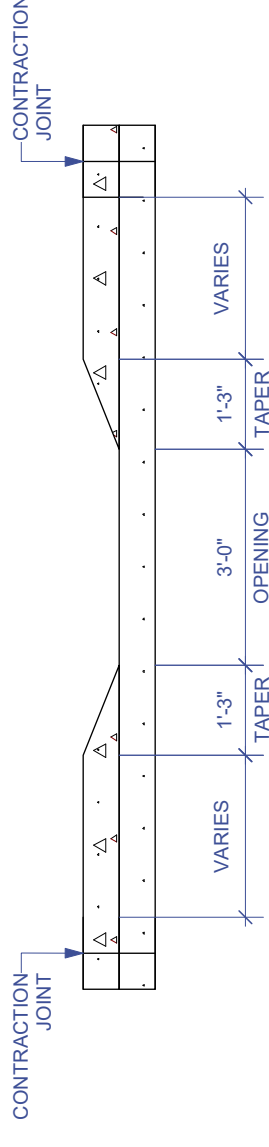
2 SPLASH BLOCK STEP DOWN & SUMP: SECTION-ELEVATION/ISOMETRIC VIEW
Scale: 3/8" = 1'-0"



3 CURB CUT DETAIL [PLAN]
Scale: 3/8" = 1'-0"



4 CURB CUT DETAIL [SECTION]
Scale: 3/8" = 1'-0"



- NOTES:**
1. CONCRETE CURB OPENING WORK HAS PREVIOUSLY BEEN COMPLETED BY THE CITY OF WHITE BEAR LAKE. EXACT DIMENSIONS & LOCATION ON SITE MAY VARY. SITE VERIFY.

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

PROJECT:
WBL CURB-CUTS 24
LOCATION:
WHITE BEAR LAKE, MN 55110

WATERSHED DISTRICT:
VLAWMO
White Bear Lake Area
Water Management Organization

DESIGNER: BRIAN T. OLSEN
DATE: 7/23/2024
PAST REVISION:
PAST REVISION:
PAST REVISION:
CHECKED BY:
TAA:

NOTES:
-CONTACT GOPHER STATE ONE CALL TO CONFIRM UTILITY LOCATIONS PRIOR TO WORK
-EXCAVATE WITH TRACKED EQUIPMENT ONLY
-MAINTAIN SQUARE FEET AND DEPTH
-SUBSTITUTIONS TO CONSTRUCTION DESIGN AND MATERIALS MUST BE APPROVED PRIOR TO INSTALLATION
-ORIGINAL SHEET SIZE: 11"x17"

SCALE:

SITE DETAILS: CURB-CUT & PRE-TREATMENT

L400

- NOTES:**
1. EXCAVATE RAIN GARDEN TO 1'-9" BELOW GUTTER.
 2. INSTALL AND COMPACT BASE MATERIAL [WASHED SAND, WASHED AGGREGATE OR APPROVED ALTERNATE]
 3. INSTALL PAVESUMP AND SPLASH BLOCK TO A FINISHED HEIGHT OF 1" BELOW THE CURB-CUT INLET
 4. SEAL JOINT BETWEEN GUTTER AND PAVER WITH WATERPROOF CAULK

Pollutant Reductions: 4709 Krech Ave

	Before	After	Reduction	Red. %
Volume (cu-ft/yr)	17981	10297	7684	43%
TSS (lbs/yr)	61.19	35.05	26.14	43%
TP (lbs/yr)	0.3369	0.1929	0.1440	43%

Watershed Data		4709 Krech	
Target Rainfall	0.25	in	
Soil Type:	C	HSG:	
Soil IR	0.3	in/hr	
Surface	Sq-ft	Acre	CN
Road	2,303	0.053	98
Roof	1,799	0.041	98
Sidewalk/Patio/Deck	300	0.007	98
Driveway	2,100	0.048	98
Lawn/Landscape	6,070	0.139	79
Total	12,572	0.289	
% Imp	52%		

Pollutant Reductions: 1847 Birch Lake Ave

	Before	After	Reduction	Red. %
Volume (cu-ft/yr)	12231	5597	6634	54%
TSS (lbs/yr)	41.62	19.04	22.58	54%
TP (lbs/yr)	0.2291	0.1049	0.1242	54%

Watershed Data		1847 Birch Lake	
Target Rainfall	0.36	in	
Soil Type:	C	HSG:	
Soil IR	0.3	in/hr	
Surface	Sq-ft	Acre	CN
Road	2,596	0.060	98
Roof	489	0.011	98
Sidewalk/Patio/Deck	282	0.006	98
Driveway	1,017	0.023	98
Lawn/Landscape	4,330	0.099	79
Total	8,714	0.200	
% Imp	50%		

Pollutant Reductions: 1883 2nd St

	Before	After	Reduction	Red. %
Volume (cu-ft/yr)	5693	2931	2762	49%
TSS (lbs/yr)	19.37	9.97	9.40	49%
TP (lbs/yr)	0.1066	0.0549	0.0517	48%

Watershed Data		1883 2nd St	
Target Rainfall	0.31	in	
Soil Type:	C	HSG:	
Soil IR	0.3	in/hr	
Surface	Sq-ft	Acre	CN
Road	1,018	0.023	98
Roof	450	0.010	98
Sidewalk/Patio/Deck	10	0.000	98
Driveway	445	0.010	98
Lawn/Landscape	2,567	0.059	79
Total	4,490	0.103	
% Imp	43%		

Pollutant Reductions: 1789 3rd St

	Before	After	Reduction	Red. %
Volume (cu-ft/yr)	55377	44344	11033	20%
TSS (lbs/yr)	188.46	150.90	37.56	20%
TP (lbs/yr)	1.0374	0.8307	0.2067	20%

Watershed Data		1789 3rd St	
Target Rainfall	0.1	in	
Soil Type:	C	HSG:	
Soil IR	0.3	in/hr	
Surface	Sq-ft	Acre	CN
Road	9,958	0.229	98
Roof	3,685	0.085	98
Sidewalk/Patio/Deck	876	0.020	98
Driveway	5,830	0.134	98
Lawn/Landscape	17,528	0.402	79
Total	37,877	0.870	
% Imp	54%		

Pollutant Reductions: 1867 3rd St

	Before	After	Reduction	Red. %
Volume (cu-ft/yr)	25569	17811	7758	30%
TSS (lbs/yr)	87.02	60.61	26.41	30%
TP (lbs/yr)	0.4789	0.3336	0.1453	30%

Watershed Data		1867 3rd St	
Target Rainfall	0.15	in	
Soil Type:	C	HSG:	
Soil IR	0.3	in/hr	
Surface	Sq-ft	Acre	CN
Road	4,663	0.107	98
Roof	2,435	0.056	98
Sidewalk/Patio/Deck	374	0.009	98
Driveway	1,932	0.044	98
Lawn/Landscape	8,099	0.186	79
Total	17,503	0.402	
% Imp	54%		

2024 White Bear Lake Curb Cut Raingardens Bids Summary

<u>Contractor</u>	<u>Total Bid</u>
Minnesota Native Landscapes	\$50,349
Sandstrom Land Management	\$38,370
Shoreline Landscaping	\$55,509

V. C. White Bear Lake Curb Cut Raingardens

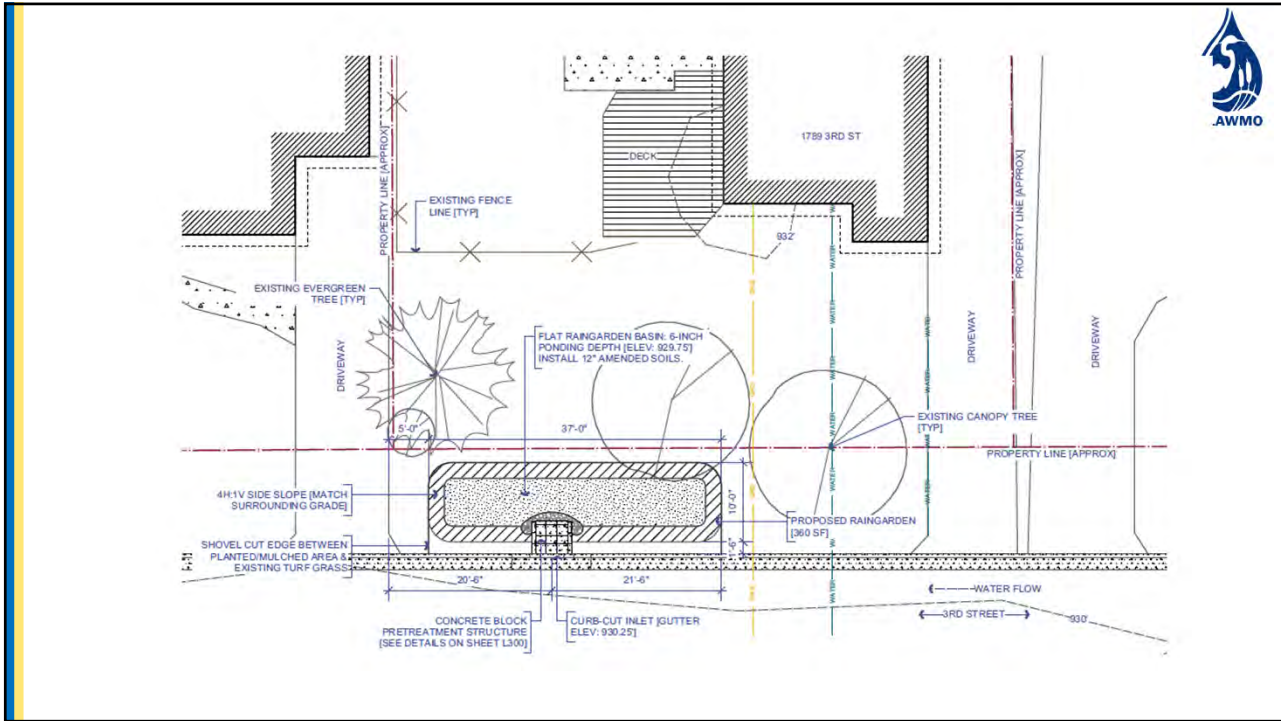
LL2 2024-08 Grant Application

Lauren Sampedro
TEC Meeting
9/11/2024



LL2 2024-08 Location Aerial





PLANT SCHEDULE				
ID	Qty	Latin Name	Common Name	Size Spacing (ft)
C17	10	Carex brevoir	Plains Oval Sedge	4" Pot 1.5
C32	10	Carex vulpinoidea	Fox Sedge	4" Pot 2
F14	10	Rudbeckia hirta 'Goldsturm'	Black-Eyed Susan 'Goldsturm'	4" Pot 2
F17	10	Iris versicolor	Blue Flag Iris	4" Pot 2
F43	10	Eupatorium 'Phantom'	Phantom Joe-Pye Weed	4" Pot 2
F62	10	Echinacea purpurea	Purple Coneflower	4" Pot 2
F106	10	Asclepias tuberosa	Butterfly Weed	4" Pot 2
G9	10	Schizachyrium scoparium	Little Bluestem	4" Pot 2
R4	24	Juncus tenuis	Path Rush	4" Pot 2
S1	3	Aronia melanocarpa	Black Chokeberry	2 Gallon 3
107		TOTAL PLANTS		

RAINGARDEN PLANTING
 C17 - Plains Oval Sedge - 10
 G9 - Little Bluestem - 10
 R4 - Path Rush - 24
 F62 - Purple Coneflower - 10
 F17 - Blue Flag Iris - 10
 C32 - Fox Sedge - 10
 F43 - Phantom Joe-Pye Weed - 10
 F14 - Black-Eyed Susan 'Goldsturm' - 10
 F106 - Butterfly Weed - 10
 S1 - Black Chokeberry - 3



Bid Summary



- Shoreline Landscaping: \$55,509.00
- Minnesota Native Landscapes: \$50,349.00
- Sandstrom Land Management: \$38,370.00

Heading 1

Peri ipsandam, sequidebitis volore dolorer ferfernam voloris modit, consequ astrunt moditat umquunt ea imilicab ium et imenimende rat. Lore nus. Berecer aeptur? Ibusapel ipsam fugia verro excese este lantusa ndicte m porestota preium nobis cum nonestia dolecatquam sequi cum fugiat hariae opta qui aces dusda et amustrum cum rerem alicaer fereiur, alibusdam eni oditi imi, sedicatem. Ita seque vero veris nim quo blatum raeribus ne qui omnis im sin ne venist, voluptae rerum

aut et maximet enemporryum aut arum fugit ratiu s earumquo ium fugiamu sandis eum doluptaquis el ipsanim enihicaerore laudita tquatin remo quia inis nihit a volorerferum illabor sum fugitatur repellent.

Heading 2

Erciis ereped miliquiam deliquistium simolorro mi, optatum sum viducimi, simodis quiamen dicimus dandis re si tecum impore odipsamus doluptas quossuntPeri ipsandam, sequidebitis volore dolorer ferfernam voloris modit, consequ astrunt moditat umquunt ea imilicab ium et imenimende rat. Lore nus. Berecer aeptur? Ibusapel ipsam fugia verro excese este lantusa ndicte m

Heading 3

porestota preium nobis cum nonestia dolecatquam sequi cum fugiat hariae opta qui aces dusda et amustrum cum rerem alicaer fereiur, alibusdam eni oditi imi, sedicatem. Ita seque vero veris nim quo blatum raeribus ne qui omnis im sin ne venist, voluptae rerum

aut et maximet enemporryum aut arum fugit ratiu s earumquo ium fugiamu sandis eum doluptaquis el ipsanim enihicaerore laudita tquatin remo quia inis nihit a volorerferum illabor sum fugitatur repellent.

Erciis ereped miliquiam deliquistium simolorro mi, optatum sum viducimi,

simodis quiamen dicimus dandis re si tecum impore odipsamus doluptas quossuntaut et maximet enemporryum aut arum fugit ratiu s earumquo ium fugiamu sandis eum doluptaquis el ipsanim enihicaerore laudita tquatin remo quia inis nihit a volorerferum illabor sum fugitatur repellent.

Erciis **ereped miliquiam deliquistium simolorro mi, optatum sum viducimi, simodis quiamen dicimus dandis re si tecum impore odipsamus doluptas quossunt.** Peri ipsandam, sequidebitis volore dolorer ferfernam voloris modit, consequ astrunt moditat umquunt ea imilicab ium et imenimende rat. Lore nus. Berecer aeptur?



Ibusapel ipsam fugia verro excese este lantusa ndicte m pores-tota preium nobis cum nonestia dolecatquam sequi cum fugiat



Hariae Ibusapel ipsam fugia verro excese este lantusa ndicte m porestota preium nobis cum nonestia dolecatquam sequi cum



Fugiat hariae Ibusapel ipsam fugia verro excese este lantusa ndicte m porestota preium nobis cum nonestia dolecatquam

Heading 4

OUR MISSION IS TO PROTECT AND ENHANCE THE WATER RESOURCES WITHIN THE WATERSHED.

Ibusapel ipsam fugia verro excese este lantusa ndicte m porestota preium nobis cum nonestia dolecatquam sequi cum fugiat hariae opta qui aces dusda et amustrum cum rerem alicaer fereiur, alibusdam eni oditi imi, sedicatem. Ita seque vero veris nim quo blatum raeribus ne qui omnis im sin ne venist, voluptae rerum aut et maximet enemporryum aut arum fugit ratiu s earumquo ium fugiamu

Heading 1

Peri ipsandam, sequidebitis volore dolorer ferfernam valoris modit, consequ astrunt moditat umquunt ea imilicab ium et imenimende rat. Lore nus. Berecer aeptur? Ibusapel ipsam fugia verro excese este lantusa ndictem porestota preium nobis cum nonestia dolecatquam sequi cum fugiat hariae opta qui aces dusda et amustrum cum rerem alicaer fereiur, alibusdam eni oditi imi, sedicatem. Ita seque vero veris nim quo blatum raeribus ne qui omnis im sin ne venist, voluptae rerum

aut et maximet enemporum aut arum fugit ratius earumquo ium fugiamu sandis eum doluptaquis el ipsanim enihicaerore laudita tquatin remo quia inis nihit a volorerferum illabor sum fugitatur repellent.

Erciis ereped miliquam deliquistium simolorro mi, optatum sum viducimi, simodis quiamen dicimus dandis re si tecum impore odipsamus doluptas quossuntPeri ipsandam, sequidebitis volore dolorer ferfernam valoris modit, consequ astrunt moditat umquunt ea imilicab ium et imenimende rat. Lore nus. Berecer aeptur? Ibusapel ipsam fugia verro excese este lantusa ndictem



Figure 1.1: Ibusapel ipsam fugia verro excese este lantusa ndictem porestota preium nobis cum nonestia dolecatquam sequi cum



Figure 1.2: Ibusapel ipsam fugia verro excese este lantusa ndictem porestota preium nobis cum nonestia dolecatquam sequi cum

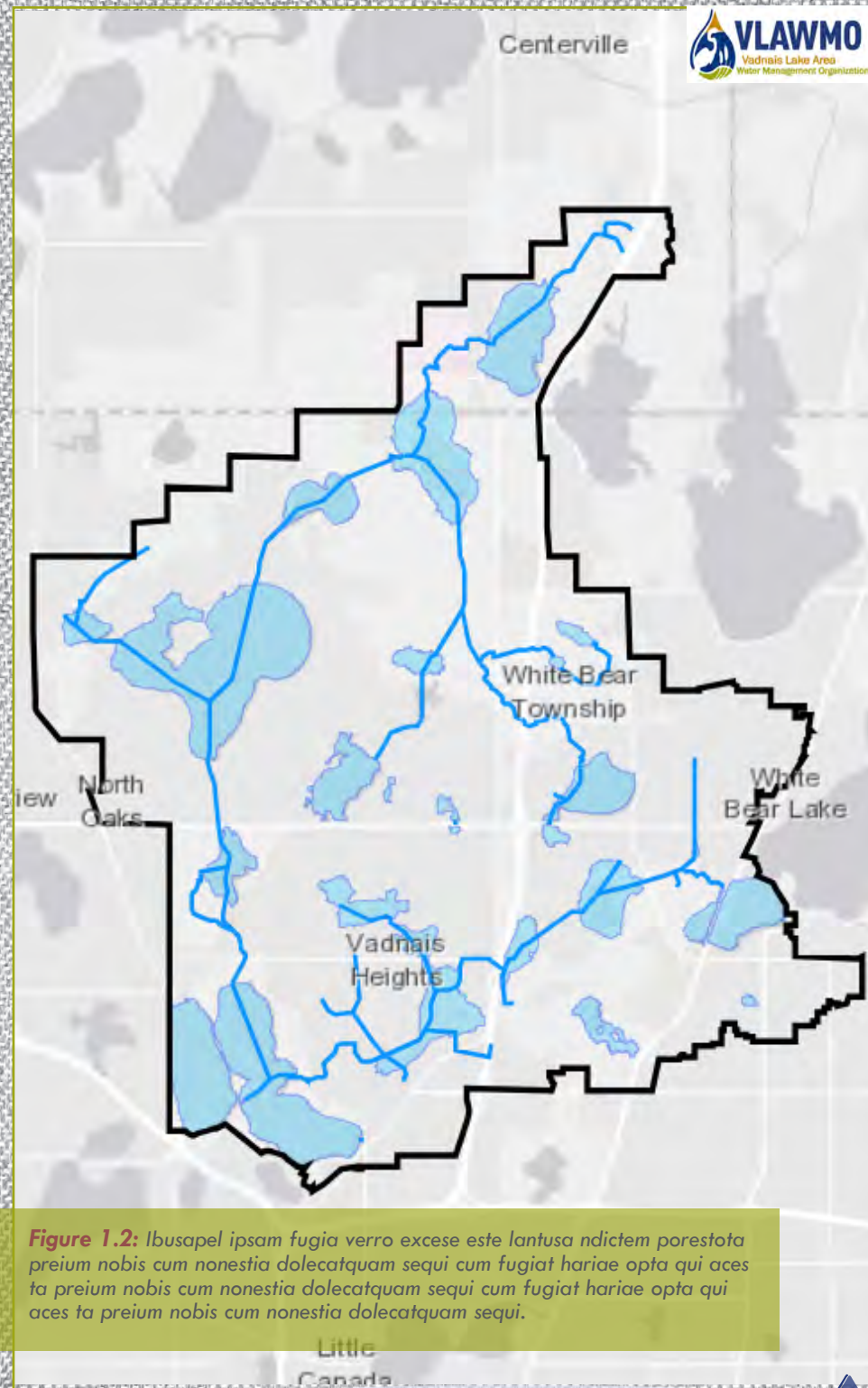


Figure 1.2: Ibusapel ipsam fugia verro excese este lantusa ndictem porestota preium nobis cum nonestia dolecatquam sequi cum fugiat hariae opta qui aces ta preium nobis cum nonestia dolecatquam sequi cum fugiat hariae opta qui aces ta preium nobis cum nonestia dolecatquam sequi.

Heading 1: TW Cen MT, R:35, G: 55, B: 124

Heading 2: TW Cen MT, R:35, G: 55, B: 124

Heading 3: TW Cen MT, R:157, G: 166, B: 21

Heading 4: TW Cen MT, R:149, G: 78, B: 76

Body Text: Gesta 11, Black

Figure 1.2: Twin Cen MT

Caption Text: Twin Cen MT Italic

QUOTE: PERMANENT MARKER, R:157, G: 166, B:21



Figure 1.1: Ibusapel ipsam fugia verro
excese este lantusa ndictem porestota preium
nobis cum nonestia dolecatquam sequi cum



Figure 1.2: Ibusapel ipsam fugia verro
excese este lantusa ndictem porestota preium
nobis cum nonestia dolecatquam sequi cum