

RCWD BOARD OF MANAGERS REGULAR MEETING AGENDA

Wednesday, April 11, 2018, 9:00 a.m.

Shoreview City Hall Council Chambers
4600 North Victoria Street, Shoreview, Minnesota

Agenda

CALL TO ORDER

ROLL CALL

SETTING OF THE AGENDA

PRESENTATION: EXEMPLARY PERMITTEE APPLICANT RECOGNITION

APPROVAL OF MARCH 20, 2018 SPECIAL MEETING MINUTES, MARCH 20, 2018 STRATEGIC DIRECTION PROCESS WORKSHOP, AND MARCH 28, 2018 REGULAR MEETING MINUTES.

CONSENT AGENDA

The following items will be acted upon without discussion in accordance with the staff recommendation and associated documentation unless a Manager or another interested person requests opportunity for discussion:

Table of Contents

Permit Applications Requiring Board Action

No.	Applicant	Location	Plan Type	Recommendation
17-068	TEGL/AREP Oakwood LP Elmer C. Birney Family Trust Gregory Biskey	Blaine	Final Site Drainage Plan Wetland Alteration Plan Land Development Public/Private Drainage System	CAPROC 17 items
18-013	City of Forest Lake	Forest Lake	Street & Utility Plan	CAPROC 4 items

No.	Applicant	Location	Plan Type	Recommendation
18-033	City of White Bear Lake	White Bear Lake	Street & Utility Plan	CAPROC 4 items
18-034	R/R Funk LLC Investors LLC	Blaine	Final Site Drainage Plan	CAPROC 5 items
18-035	Mounds View Public Schools	Mounds View	Final Site Drainage Plan Street & Utility Plan	CAPROC 6 items

It was moved by Manager _____ and seconded by Manager _____, to approve the consent agenda as outlined in the above Table of Contents in accordance with RCWD District Engineer’s Findings and Recommendations, dated April 2, 3 & 4, 2018.

CAPROC= Conditional Approval Pending Receipt of Changes

OPEN MIKE

Any RCWD resident may address the Board in his or her individual capacity, for up to three minutes, on any matter not on the agenda. Speakers are requested to come to the podium, state their name and address for the record. Additional comments may be solicited and accepted in writing. Generally, the Board of Managers will not take official action on items discussed at this time, but may refer the matter to staff for a future report or direct that the matter be scheduled on an upcoming agenda.

ITEMS REQUIRING BOARD ACTION

1. Consider Water Quality Grant Program Grant Applications. (Samantha Berger)
 - a. W18-01, Birchwood Village Swale
 - b. R18-06, Hansohn Shoreline Stabilization
2. Consider 2017 District Financial Report and Audit. (Phil Belfiori)
3. Consider HEI Taskorder for Washington Judicial Ditch 2 Branches 1 and 2 Construction Services. (Phil Belfiori)
4. Consider HEI Taskorder for Anoka-Washington Judicial Ditch 3 Repair Report. (Phil Belfiori)
5. Consider Check Register dated April 11, 2018, in the amount of \$99,451.34 prepared by Redpath and Company.

ITEMS FOR DISCUSSION AND INFORMATION

1. District Engineer Update and Timeline.
2. Manager’s Update.

APPROVAL OF MARCH 20, 2018 SPECIAL MEETING MINUTES, MARCH 20, 2018 STRATEGIC DIRECTION PROCESS WORKSHOP, AND MARCH 28, 2018 REGULAR MEETING MINUTES.

Draft

RCWD BOARD OF MANAGERS SPECIAL MEETING

Tuesday, March 20, 2018, 1:00 p.m.

Rice Creek Watershed District Conference Room
4325 Pheasant Ridge Drive NE, Suite 611, Blaine, Minnesota

1

2 The Board convened the workshop at 1:00 p.m.

3 Board Members in Attendance: Patricia Preiner, John Waller, Steve Wagamon, and Mike Bradley.

4 Board Members Absent: Barbara Haake.

5 Others: Administrator Phil Belfiori; Communications & Outreach Coordinator Beth Carreño; Water
6 Resource Specialist Kyle Axtell; Rachel Olm, Houston Engineering (HEI); John Kolb, Rinke Noonan;
7 Barbara Haake (via telephone – listening only).

8 **Consider correspondence to the District’s Legislative Delegation and Local Government Units on**
9 **proposed legislation.**

10 Administrator Belfiori distributed to the Board a District memo re: Strategies for Legislative
11 Communications re: HF 2687 and SF 2419 dated 3/20/18, Rinke Noonan memo re: DNR Public
12 Waters/Drainage System Guidance, and two draft letters (one for legislators and other for LGUs)
13 requesting their support on proposed bills HF 2687 and SF 2419 clarifying public waters and public
14 drainage system laws. The Rinke Noonan memo and draft letters were emailed to the Board yesterday
15 3/19/20.

16 Drainage Attorney Kolb informed the Board that this item is fast moving and recently, the DNR released
17 their guidance memorandum related to public waters authority over work done in public drainage
18 systems. Mr. Kolb reviewed his memo dated March 18, 2018 and summarized his findings from his review
19 of the guidance memo. He also presented the following 5 bullets and explained that these items
20 represent his fundamental position on how the law should be implemented through the guidance memo.
21 Public Drainage Repairs (103E) and Public Waters Law (103G):

- 22 • Repairs of existing systems where rights existing at the time of the PWI and that the PWI did not
23 change those rights.
- 24 • Repairs, conducted IAW 103E/103D, and taking into consideration the factors found in rule
25 6115.0200, subp. 3, do not require a DNR permit.
- 26 • DNR cannot dictate a repair depth –rather, it can only concur or non-concur that the work
27 constitutes repair after compliance with 103E.701, subd. 2.
- 28 • DNR permission, under 103E.011, subd. 3, only applies to new drainage systems or drainage
29 system improvements that remove, construct, or alter a dam affecting public waters; establish,
30 raise, or lower the level of public waters; or drain any portion of a public water.

- 31 • The “substantially affect public waters” language found in 103G.245, subd. 2(2) does not apply to
32 drainage system repairs.

33 Attorney Kolb further outlined his concerns in the guidance document. He believed that nothing will
34 happen this year with the legislation but recommended keeping the Districts stakeholders aware/updated
35 on this item and see what happens with the implementation of the guidance document. He noted that
36 the two proposed letters to the LGU’s and legislators follow this recommendation.

37 Manager Waller informed the Board of a piece of legislation “Enforcement of Groundwater Appropriation
38 Permit; White Bear Lake” that the City of Hugo gave support to at their council meeting last night. He
39 asked the Board if they should also support this legislation. The Board agreed by majority consensus to
40 revisit this item at a future meeting to gain more knowledge on the subject. They also believed it was
41 important to keep the District priorities/message clear.

42 Board and staff discussed the 3 potential options for the legislative communication:

- 43 1. ***The letter may be sent “as is”***
44 2. ***The letter may be sent as a “Legislative Update”***
45 o What legislative initiatives the RCWD supported this year and status
46 o This would include both HF2687 / SF2419 *and* information on the amendment to the
47 Watershed Law and/or MS 13D.02
48 3. ***The letter can be replaced or supplemented with an (e)newsletter option that includes a ditch***
49 ***maintenance piece (a ditch maintenance piece is already being developed for the newsletter) and***
50 ***supported by a post on the website***
51 o The Board may also wish to have this topic covered in a future City-County Partner Meeting
52

53 Staff recommended combining the second and third options.

54

55 Motion by Manager Bradley, seconded by Manager Preiner, to support staff’s recommendation of
56 combining the second and third options for LGU Communications. Motion carried 4-0.

57 The special meeting was adjourned at 1:45 p.m.

Draft

RCWD BOARD OF MANAGERS WORKSHOP STRATEGIC DIRECTION PROCESS #2

Monday, March 20, 2018, 1:45 p.m.

Rice Creek Watershed District Conference Room
4325 Pheasant Ridge Drive NE, Suite 611, Blaine, Minnesota

1

2 The Board convened the workshop at 1:45 p.m.

3 Board Members in Attendance: Patricia Preiner, John Waller, Steve Wagamon, and Mike Bradley.

4 Board Members Absent: Barbara Haake.

5 Others: Administrator Phil Belfiori; Water Resource Specialist Kyle Axtell; Rachel Olm, Houston
6 Engineering; Chris Otterness, Houston Engineering; John Kolb, Rinke Noonan; Barbara Haake (via
7 telephone – listening only).

8 **1:45 Review and Prioritize Issue Groups**

9 Water Resource Specialist Axtell presented a review of activities undertaken to-date as well as a
10 review of the overall framework for the Strategic Direction process. Facilitator Kolb then
11 presented guidance for participation in each of the strategic direction Board workshops and the
12 Board provided concurrence. Staff reviewed briefly the nine (9) “Management Categories”
13 (previously known as “Issue Categories”) that the Board discussed at its January 22, 2018
14 workshop.

15 Staff explained that nearly 200 individual distinct issues and/or ideas were presented for
16 consideration through the initial input phase of the strategic direction process (Board, Staff,
17 CAC, TAC & Engineer) and that those issues have been consolidated into twenty-two (22) “Issue
18 Groups” that the Board of Managers will need to review and prioritize during this workshop.
19 Staff then guided the Board of Managers through a review of the “Issue Groups” and their draft
20 descriptions.

21 The Board of Managers then completed an activity where high, medium or low rankings were
22 given to each “Issue Group”, results were tallied and compared to a pre-workshop survey that
23 staff had requested each Manager to complete. The Board provided consensus on the use of
24 the final “Issue Group” prioritization list by the strategic direction process team in developing
25 materials for future workshops.

26 **3:50 Next Steps**

27 Administrator Belfiori discussed the overall proposed schedule including possible future
28 workshop dates for the “Strategic Direction” process. Upon further discussion the Board
29 reached consensus that the next strategic direction workshop will be on Monday, April 23 at
30 1:00pm at District Offices.

- 31 The workshop was adjourned at 3:55 p.m.

DRAFT

For Consideration of Approval at the April 11, 2018 Board Meeting.
Use these minutes only for reference until that time.

REGULAR MEETING OF THE RCWD BOARD OF MANAGERS

Wednesday, March 28, 2018

Shoreview City Hall Council Chambers
4600 North Victoria Street, Shoreview, Minnesota

Minutes

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CALL TO ORDER

President Patricia Preiner called the meeting to order, a quorum being present, at 9:00 a.m.

ROLL CALL

Present: President Patricia Preiner, 2nd Vice-Pres. John Waller, Treasurer Steven Wagamon and Secretary Michael Bradley

Absent: 1st Vice-Pres. Barbara Haake with prior notice.

Staff Present: Administrator Phil Belfiori, Permit Coordinator/Wetland Specialist Nick Tomczik, Technician Samantha Berger, Water Resource Specialist Kyle Axtell, Office Manager Theresa Stasica.

Consultants: District Engineers Chris Otterness and Greg Bowles from Houston Engineering, Inc. (HEI); and District Attorney Louis Smith from Smith Partners.

Visitors: Dan Miller.

SETTING OF THE AGENDA

President Preiner instructed the Board to correct the location of permit 18-022 under the Consent Agenda to the City of Lino Lakes.

***Motion by Manager Wagamon, seconded by Manager Bradley to approve the agenda amended.
Motion carried 4-0.***

PRESENTATION: WHITE BEAR LAKE COURT ORDER: DNR UPDATE-DAN MILLER, MN DNR

Dan Miller, DNR Water Use Specialist, gave a presentation on the Ramsey County District court order related to White Bear Lake. He provided a history of issues with the lake and summarized the court order process and changes that have taken place.

33 District Administrator Belfiori stated they have a golf course reuse project in the five-mile radius and a
34 general interest in stormwater reuse. He inquired how this court order will affect related past and
35 future projects.

36
37 Mr. Miller responded the golf course is using both a ground water and surface water source. The ground
38 water source is impacted by the court order and the surface water source is a good alternative for
39 irrigation purposes. The challenge is in determining how these topics pertain to golf course irrigation.
40 They have a number of different use types in this area and that is why they are appealing the broad
41 stipulations place on them.

42
43 District Administrator Belfiori inquired where the communities currently are at with the 75 gallons per day
44 requirement and if they can use stormwater reuse tools to achieve this with the current court order.

45
46 Mr. Miller responded most communities are close or below the 75-gallon residential gallons per capita per
47 day. However, the 90-gallon requirement is a challenge because there are a variety of industries within
48 communities. They have been working with communities on ways to get below this requirement, and
49 for some, this will be a challenge. Mr. Miller stated they support and encourage reuse and recognize it
50 as a water conservation strategy. The water conservation reporting tool will provide them with volumes
51 being conserved with stormwater reuse projects in some communities.

52
53 Manager Bradley inquired if they are addressing the five-mile radius as being too broad in their appeal.

54
55 Mr. Miller responded their initial evaluation considered a two-mile radius, which they felt better
56 represented the issues. In the appeal, they have requested a stay on the order, but he is unsure if the
57 five-mile radius is specifically addressed.

58
59 Manager Bradley inquired if people are allowed to pump water out of the lakes for irrigation.

60
61 Mr. Miller responded if a resident wants to pump from a lake, there may be local laws. If it is over
62 10,000 gallons per day, the DNR requires a permit. They have looked at residential irrigation in this five-
63 mile radius, which is 20 to 30 percent of the municipal water supply. If that was removed, it was
64 concluded there would not be that great of an impact on the water levels.

65
66 Manager Bradley inquired if the appeal will include the residential irrigation watering ban.

67
68 Mr. Miller responded they are appealing the entire order, which also includes the residential irrigation
69 ban.

70
71 Manager Bradley inquired if the municipalities' appeal of the DNR permit decisions would perhaps also
72 address merits of the underlying court order.

73 Mr. Miller explained when a municipality appeals the DNR's permitting decision, the permit is not in effect
74 until the hearing actually happens. He suggested they contact the DNR's attorney for more information.

75
76 Manager Waller thanked Mr. Miller for his presentation and provided a history of how he has been
77 involved with this project over the past ten years. He inquired how the District can work with its cities
78 stormwater management plans to develop a reservoir system that can capture water and be used as a
79 potable water source. They are in the process of developing their 10-year plan and the staff has a
80 background in planning habitat for people.

81
82 Mr. Miller commented it is important to plan how water is used over time and how it goes along with the
83 work the District is doing. Per the court order, communities need to provide a plan on how they are
84 going to shift from ground water to surface water by the end of August 2018. Any coordination and
85 communication from the District moving forward would be welcomed.

86
87 Manager Waller noted the District has communities in the north half of the five-mile radius and he
88 strongly encouraged Board members to take an active interest in working with those communities on this
89 topic. He inquired about the elevation requirement of White Bear Lake.

90
91 Mr. Miller explained the court order states if the lake drops below 923.5 feet, the residential irrigation
92 ban must be in place until it reaches 924 feet. It is currently at 923.5 feet and has been there for over 10
93 years.

94
95 Manager Waller inquired how the DNR feels about augmentation if it met water quality standards.

96
97 Mr. Miller responded they focus more on water quantity than water quality. They are generally not
98 supportive of augmentation of a basin, but people can apply for a permit to do so. However, there are
99 beneficial dynamics when augmenting a surface basin.

100
101 Manager Waller provided three examples of when the DNR had been supportive of augmenting basins:
102 the dams on Peltier Lake, Bald Eagle Lake and Rice Lake.

103
104 Mr. Miller noted dams are all over the State to hold back water on various basins to provide recreational
105 value or other function.

106
107 District Attorney Smith inquired if the DNR has completed its updated model of the ground water and
108 surface water dynamics.

109
110 Mr. Miller explained DNR staff continues to evaluate results more specific to this area. When
111 considering a model, there are a lot of inputs that go into it and it is highly technical. They have had
112 requests from people with permits wondering what their impact was based on the model. Their staff
113 continues to evaluate how the model fits and what the permitted pumping is. They hope to provide an

114 update at the North and East Metro Meeting on Friday, May 4. He confirmed that S.S. Papadopoulos is
115 the firm developing the model.

116
117 District Administrator Belfiori noted Manager Haake is a member of the North & East Metro GWMA
118 Advisory Team Meeting.

119
120 The Board thanked Mr. Miller for his presentation.
121

122 **READING OF THE MINUTES AND THEIR APPROVAL**

123 **Minutes of the March 12, 2018 Board Workshop. Motion by Manager Wagamon, seconded by**
124 **Manager Bradley to approve the minutes as presented. Motion carried 4-0.**

125
126 **Minutes of the March 14, 2018 Board of Managers Meeting. Motion by Manager Wagamon, seconded**
127 **by Manager Waller to approve the minutes as presented. Motion carried 4-0.**

128
129 **CONSENT AGENDA**

130 The following items will be acted upon without discussion in accordance with the staff recommendation and
131 associated documentation unless a Manager or another interested person requests opportunity for discussion:

132 **Table of Contents**

133 **Permit Applications Requiring Board Action**

No.	Applicant	Location	Plan Type	Recommendation
134 135 136	Rubicon Capital, LLC	Spring Lake Park Wetland Alteration Plan	Final Site Drainage Plan	CAPROC 9 items
137 138	Bergens Greenhouses, Inc.	Columbus	After-the-Fact Final Site Drainage Plan	CAPROC 6 items
139 140	6451 Ojibway Path, LLC Love to Grow On	Lino Lakes	Final Site Drainage Plan	CAPROC 6 items
141 142	National Land Investors LLC	Blaine	Final Site Drainage Plan	CAPROC 7 items
143 144	Forest Lake School District	Forest Lake	Final Site Drainage Plan	CAPROC 6 items
145 146	M & M Financial Co. Patrick Bland	Lino Lakes	Final Site Drainage Plan	CAPROC 6 items

147 Manger Bradley referred to page 27, item 9 and requested the sentence “Address the follow items are
148 addressed” be corrected.

149
150 District Technician Berger confirmed the sentence should state, “Address the following items.”

151
152 Manager Bradley referred to page 60 and inquired what “EOF” means.

153
154 District Technician Berger responded it stands for Emergency Over Flow.

155
156 ***It was moved by Manager Waller, seconded by Manager Bradley to approve the consent agenda as***
157 ***outlined in the above Table of Contents in accordance with RCWD District Engineer’s Findings and***
158 ***Recommendations for permit 17-072, 17-117, 18-002, 18-004, 18-012, and 18-022 dated March 20 & 21,***
159 ***2018. Motion carried 4-0.***

160
161 **OPEN MIKE – LIMIT 12 MINUTES.** *Any RCWD resident may address the Board in his or her individual*
162 *capacity, for up to three minutes, on any matter not on the agenda. Speakers are requested to come to*
163 *the podium, state their name and address for the record. Additional comments may be solicited and*
164 *accepted in writing. Generally, the Board of Managers will not take official action on items discussed at*
165 *this time, but may refer the matter to staff for a future report or direct that the matter be scheduled on an*
166 *upcoming agenda.*

167 No comments.

168

169 **ADDITIONAL ITEMS REQUIRING BOARD ACTION**

170 **1. Consider Wellington Management Inc. and United Hospital Foundation Petition for Realignment**
171 **of Anoka County Ditch 53-62.**

172 Permit Coordinator/Wetland Specialist Nick Tomczik reported on February 28, 2018, the Board
173 accepted the petition and bond from Wellington Management/United Hospital Foundation and
174 appointed Houston Engineering (HEI) to review it. He continued that the item today is the Board
175 to consider the engineer’s report for filing and set the public hearing date.

176

177 District Engineer Otterness reported on the petition for realignment of ACD 53-62 which includes
178 partial abandonment of the Main Trunk and Branches 4 and 5. He highlighted the basis for the
179 review and statutes pertaining to it. The proposed modifications are as follows:

- 180 • Main trunk: Realign Main Trunk to along west side of development; abandon remnants on
181 parcel
- 182 • Branch 4: Realign 12 feet to the south; abandon remnant
- 183 • Branch 5: Abandon downstream 470 feet; realign 90 feet of alignment 12 feet to the south

184

185 District Engineer Otterness provided a map of the current system and of the proposed
186 modifications. He noted the alignment is going into a manmade lake that will be 30 feet deep.
187 There is a wetland area to the left of the alignment and they made sure the maintenance corridor
188 to the drainage system would not interfere with it.

189

190 He reported on the following design requirements for the system:

- 191 • The open channel will be reconstructed at the As-Constructed or Subsequently Improved
192 (ACSIC) grade; the bottom width will be ACSIC or where it currently is, whichever is greater;
193 and, provide 2:1 sideslopes
- 194 • Provide an access corridor with 20 feet on one side of the open channel/lake; maximum of
195 20 percent longitudinal grade; maximum five percent cross slope; and, an easement over
196 the access corridor and channel from bank to bank.

197
198 District Engineer Otterness reported there will be no change in capacity or drainage function
199 upstream or downstream to the drainage system. The petitioners are responsible for the cost of
200 the realignment and RCWD will maintain the responsibility of the drainage system. The
201 landowner will maintain the responsibility of the lake and culvert. There are no impacts to the
202 wetlands, floodplains or runoff rates and the benefit of the project is to accommodate
203 development on the petitioner’s property.

204
205 District Engineer Otterness concluded the proposed modifications have a private benefit, do not
206 impair the utility of the public drainage system and do not deprive the affected landowners of
207 benefit. They recommend the Drainage Authority schedule a public hearing to consider the
208 petitions.

209
210 Manager Waller inquired if the DNR approved the 30-foot depth of the lake. He recalled a gravel
211 pit in Ramsey that filled in with water and had issues with the depth.

212
213 District Engineer Otterness responded he was unaware of DNR requirements associated with this
214 project and that associated regulatory considerations may be noted as the permit process moves
215 forward.

216
217 Permit Coordinator/Wetland Specialist Tomczik noted this is not a DNR regulated area and he does
218 not know of any pertinent DNR regulations. The use of the term “lake” comes from the applicant
219 and is an excavation in an upland area; the depth of the excavation would be acceptable under the
220 District’s regulations.

221
222 Manager Waller noted in the future they should not be restrictive on depth relating to detention
223 areas such as this and he hopes it passes with no issues.

224
225 President Preiner noted the depth will be considered when the permit goes through.

226
227 District Engineer Otterness pointed out this is an excavated feature of the property, the term
228 “lake” was used by the applicant and that use of that term does not represent a classification of
229 the water feature within any regulatory context.

230

231 Permit Coordinator/Wetland Specialist Tomczik commented a similar feature was done at The
232 Lakes project in Coon Creek. People in that area recognized it as a lake and there were issues
233 with the City of Blaine regarding regulation.
234

235 **Motion by Manager Waller, seconded by Manager Bradley, to adopt Resolution 2018-10:**
236 **Accepting Engineer’s Report for Filing and Setting Date for Hearing on Petition of Wellington**
237 **Management, Inc., and United Hospital Foundation for Realignment and Partial Abandonment**
238 **of a Portion of ACD 53-62.**
239

240 THEREFORE, BE IT RESOLVED that the Board of Managers directs the following actions:
241

- 242 1. The Board accepts the engineer’s report for filing.
243
- 244 2. The Board sets a public hearing on the petition and engineer’s report for its regular meeting
245 at Shoreview City Hall, on April 25, 2018 at 9:00 a.m., or thereafter on the agenda as
246 determined by the Board.
247
- 248 3. The Board directs staff to provide notice of the hearing as required by statute and local
249 policy.
250

251 **ROLL CALL:**
252 **Manager Waller – Aye**
253 **Manager Haake – Absent**
254 **Manager Bradley – Aye**
255 **Manager Wagamon – Aye**
256 **President Preiner – Aye**
257

258 **Motion carried 4-0.**
259

260 Manager Bradley referred to page 49 of the agenda packet, No. 6, and requested additional information
261 on Permit No. 18-004. He suggested staff contact Coon Creek Watershed District (CCWD) to notify them
262 of this project to protect their interests.
263

264 Permit Coordinator/Wetland Specialist Tomczik responded with all projects adjacent to District
265 boundaries and draining to the neighboring jurisdictions, staff look to what is happening downstream.
266 Coon Creek Watershed District (CCWD) is aware of this project; practice is for staff to communicate with
267 that jurisdiction and this paragraph indicates direction to the applicant to approach CCWD on accepting of
268 the impacts of this project on their waters.
269
270

271 **2. Consider Pay Request #7 from City of Saint Anthony for Mirror Park Project.**
 272 Water Resource Specialist Axtell reported this project is very near completion. All dredging and
 273 mass grading are complete, and the new outlet structure has been installed. The remaining work
 274 to be done this spring includes a final grade on the flood protection berm and vegetative
 275 restoration. Staff recommends that a \$56,006.96 reimbursement payment be made to the City
 276 of St. Anthony, which will put the District at a 50/50 cost split with the City moving forward. The
 277 RCWD has contributed \$935,698.95. \$640,000 of that came from a BWSR grant and \$295,698.95
 278 came from RCWD ad valorem funds. The City has paid \$43,698.94. He referred to page 85 of
 279 the agenda packet and note a small error correction of six cents in the City’s favor.

280
 281 ***Motion by Manager Waller seconded by Manager Bradley, to approve the City of Saint***
 282 ***Anthony’s reimbursement request of \$56,006.96 pursuant to the August 25, 2015 Cooperative***
 283 ***Agreement. Motion carried 4-0.***

284
 285 **3. Consider Check Register dated March 28, 2018, in the amount of \$369,775.50 prepared by**
 286 **Redpath and Company.**
 287 ***Motion by Manager Wagamon, seconded by Manager Bradley, to approve check register dated***
 288 ***March 28, 2018, in the amount of \$369,775.50, prepared by Redpath and Company. Motion***
 289 ***carried 4-0.***

290
 291 **ITEMS FOR DISCUSSION AND INFORMATION**

292 **1. Staff Reports.**
 293 District Administrator Belfiori reported the Minnesota Association of Watershed Districts
 294 Legislative Update and 2018 Legislative Tracking was handed out to the Board prior to the
 295 meeting. He referred to MAWD’s position that was modified on the top of page 2 related to the
 296 Open Meeting Law item, and MAWD’s decision on that. He also noted that the MAWD’s
 297 legislative update document did reference and take a MAWD position on the recently discussed
 298 bills related to DNR’s public waters authority over work done in public drainage repairs.

299
 300 District Attorney Smith referred to the proposed bill for the Open Meeting Law and commented he
 301 heard the sponsors decided to pull the bill.

302
 303 District Administrator Belfiori noted the Board had been informed of this.

304
 305 Manager Bradley stated it is being pulled because certain LGUs do not agree there is an issue
 306 applying it. There continues to be disagreement on the application of the law and the Supreme
 307 Court decision throughout the State of Minnesota.

308
 309 President Preiner inquired if the letters have been sent out.

310
 311 District Administrator Belfiori confirmed the letters were sent on Friday.

312
313 Permit Coordinator/Wetland Specialist Nick Tomczik provided an update to the Board on permit
314 16-035 Seven Vines Winery and noted the applicant provided all the necessary items.
315

316 **2. April Calendar.**

317 Manager Waller noted that he will be at the Advisory Committee Meeting and he plans to be at
318 the May 4 meeting referenced earlier in the meeting.
319

320 **3. Managers Update.**

321 Manager Bradley reported he attended the Bald Eagle Lake Association meeting last week.
322 District staff presented on water quality and improvement projects, and ways people could
323 participate in future projects.
324

325 Manager Waller reported he attended the Hugo City Council meeting to talk about the reuse of
326 water in the Rosemont area. The District should be proactive and begin conversations with its
327 cities in the five-mile radius to work out a solution.
328

329 President Preiner suggested they discuss how to come up with a unified way to address these
330 issues at a future Board workshop.
331

332 District Administrator Belfiori noted some of these issues are already being looked at during the
333 strategic direction process. Regarding the White Bear Lake court order, he requested direction
334 from the Board if they should further discuss this issue at the April or May workshop or stay on
335 track with their regular schedule.
336

337 President Preiner stated she does not think there is an urgency to it; however, she would like to
338 hear Manager Waller's views on it.
339

340 Manager Bradley stated the cities are going to make their decisions based on their politics and
341 interests. The RCWD does not affect that and their role is to help.
342

343 Manager Waller noted this is why the conversation needs to begin. The RCWD is the regional
344 manager of the surface water and has an important role to play in this process.
345

346 The Board agreed to begin discussion on this at the April workshop.
347

348 **ADJOURNMENT**

349 ***Motion by Manager Bradley, seconded by Manager Wagamon, to adjourn the meeting at 10:25 a.m.***
350 ***Motion carried 4-0.***
351

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18-035	Mounds View Public Schools	Mounds View	Final Site Drainage Plan Street & Utility Plan	CAPROC 6 items

It was moved by Manager _____ and seconded by Manager _____, to approve the consent agenda as outlined in the above Table of Contents in accordance with RCWD District Engineer's Findings and Recommendations, dated April 2, 3 & 4, 2018.

CAPROC= Conditional Approval Pending Receipt of Changes

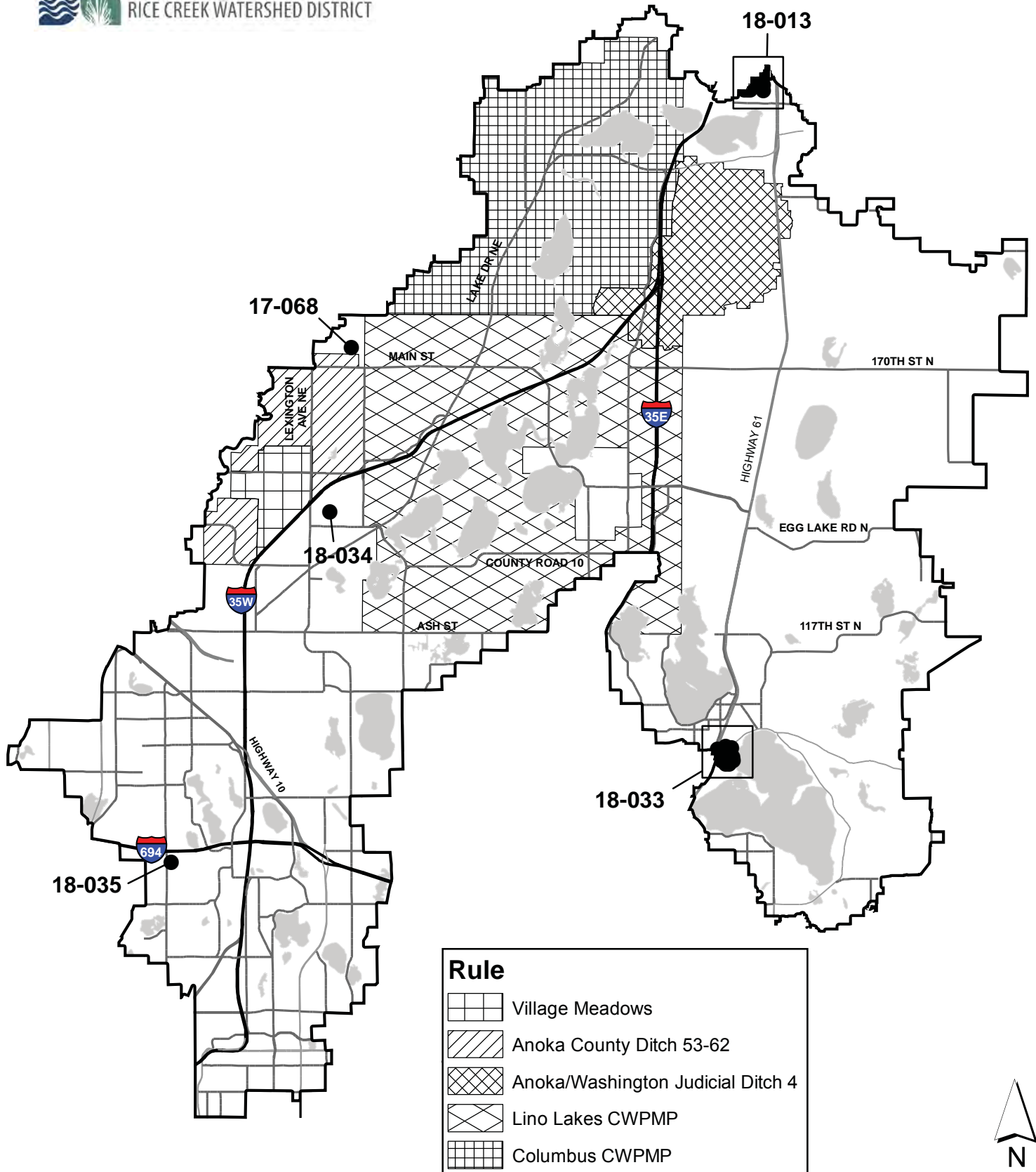
**RICE CREEK WATERSHED DISTRICT
CONSENT AGENDA**

April 11, 2018

It was moved by _____ and seconded by _____ to Approve, Conditionally Approve Pending Receipt Of Changes, or Deny, the Permit Application noted in the following Table of Contents, in accordance with the District Engineer’s Findings and Recommendations, as contained in the Engineer’s Findings and Recommendations, as contained in the Engineer’s Reports dated April 2, 3, and 4, 2018.

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WORKING DOCUMENT: This Engineer's report is a draft or working document of RCWD staff and does not necessarily reflect action by the RCWD Board of Managers

Permit Application Number:
Permit Applicant Name:

17-068
Oakwood Ponds

Applicant/Landowners:

Elmer C. Birney Family Trust
Marcia Birney
13045 Lever St. NE
Blaine, MN 55449

Applicant/Landowners:

Gregory Biskey
4919 125th Ave NE
Blaine, MN 55449

Applicant/Landowners:

TEGL/AREP Oakwood, LP
Ben Schmidt, Senior VP
1660 Highway 100 S
Suite 400 St. Louis Park, MN 55416
Ph: (952) 525-3208
Paul.thomas@excelsiorllc.com

Consultants:

Carlson McCain Inc.
Brian Kallio
248 Apollo Drive, Suite 100
Lino Lakes, MN 55014
Ph: (763) 489-7910
bkallio@carlsonmccain.com

Kjolhaug Environmental Services
Melissa Barrett
2500 Shadywood Road Suite 130
Shorewood, MN 55331
Ph: (952) 401-8757
melissa@kjolhaugenv.com

Other

Excelsior Group
Paul Thomas
1660 Highway 100 S Suite 40
St. Louis Park, MN 55416
Ph: (952) 525-3239
paul.thomas@excelsiorllc.com

Project Name: Oakwood Ponds

Purpose: FSD – Final Site Drainage, WA – Wetland Alteration; LD- Land Development; PDS – Public/Private Drainage System, Residential Development

Site Size: Five parcels totaling 102 ± acre site / 82 ± acres of disturbed area; existing and proposed impervious area is 1.51 ± acres and 29.30 ± acres, respectively

Location: North of Main Street, 0.5 miles east of Lexington Avenue, Blaine

T-R-S: SE ¼, Section 1, T31N, R23W

District Rule: C, D, E, F

Recommendations: CAPROC

It is recommended that this Permit Application be given Conditional Approval Pending Receipt of Changes (CAPROC) and outstanding items related to the following items.

Rule C – Stormwater

1. Submit the following information on the irrigation system per rule C.9(b)
 - a. Applicant must provide drainage diagrams showing the location of the 5.6 acres of pervious irrigation area.

- b. Applicant must provide final details of the irrigation system, including the delivery system and an operations plan.
2. The high water levels for Pond 400, Pond 500, Lake 1000 and Wetland 9 on the plans dated 3-9-18 do match the HydroCAD model dated 3-15-18. Applicant must revise final plans to match.
3. The emergency overflow (EOF) for Lake 1000 must include an identified EOF spillway sufficiently stabilized to convey flows for greater than the 100-year critical storm event.
4. Applicant must provide a topographic survey exhibit showing the adjusted boundary between the drainage area routed to drainage system ACD 53-62 and ACD 10-22-32 including acreage and any other changes.

Rule D – Erosion and Sediment Control

5. Submit the following information per Rule D.4:
 - (b) Tabulation of the construction implementation schedule.
 - (c) Name, address and phone number of party responsible for maintenance of all erosion and sediment control measures.
 - (e) and (f) Temporary and permanent erosion control. See Finding 5 for details.
 - (h) Provide documentation that an NPDES Permit has been applied for and submitted to the Minnesota Pollution Control Agency (MPCA).
 - (i) A Storm Water Pollution Prevention Plan for projects that require an NPDES Permit.

Rule F – Wetland

6. Applicant must supply the District with a copy of the receipt for the MnDNR Takes Permit (*Viola lanceolata*).
7. Per Rule F.6(e)(9), as a condition of permit issuance under this Rule, a property owner must file on the deed a declaration in a form approved by the District establishing a vegetated buffer area adjacent to the delineated wetland edge for the final WMC and other wetland buffers with vegetation management plan and approved as part of a permit under this Rule.
8. Per Rule F.6(d)(f), the property owner must convey to the District and record or register, in a form acceptable to the District, a perpetual, assignable easement over the final WMC.
9. Per Rule F.6(b)(4), the applicant must provide a final map of Wetland Management Corridor (WMC) and a GIS shapefile or CADD file of the final WMC boundary acceptable to the District reflecting any changes.
10. The applicant must submit a draft Declaration of Restrictions and Covenants for proposed onsite wetland replacement area for District approval.
11. The applicant must provide a buffer signage plan including proposed signage and placement location for District consideration.

Administrative

12. Send one final, signed 11x17 sized plan set to the District, and e-mail a full sized pdf copy to both the District and the District Engineer. Include a list of changes that have been made since approval by the RCWD Board including:

- a. A detail needs to be added to sheet 10 including the revised outlet structure between Lake 1000 and Pond 400.
 - b. Sheets 6 and 7 of the plans must be updated with the revised outlet structure between Lake 1000 and Pond 400.
 - c. The most up to date 100-year high water levels.
13. The applicant must pay \$1,401.85 for the following WMD charges:
- a. Parcel 003-01-31-23-42-0002 (TEGL/AREP Oakwood LP parcel) owes a remaining current charge of \$487.47 for ACD 53-62.
 - b. Parcel 003-01-31-23-42-000 (TEGL/AREP Oakwood LP parcel) owes a remaining current charge of \$490.67 for ACD 53-62.
 - c. Parcel 003-01-31-23-41-0001 (Birney Parcel) owes a future charge of \$21.74 for ACD 53-62 and a future charge of \$179.84 for ACD 10-22-32.
 - d. Parcel 003-01-31-23-44-0001 (Birney Parcel) owes a remaining current charge of \$222.13 for ACD 53-62.
14. Submit a copy of the plat or easements establishing drainage or flowage over stormwater management facilities, stormwater conveyances, ponds, wetlands, on-site floodplain up to the 100-year flood elevation, or any other hydrologic feature (if required by the City of Blaine).
15. The applicant must submit a Draft Declaration for Maintenance of Stormwater Management Facilities listed in the table within Finding 2 including the 36-in emergency overflow for Pond 600 and all other facilities acceptable to the District for proposed onsite stormwater management and pretreatment features. As to those facilities for which the City of Blaine will assume maintenance responsibility, the applicant will provide a written statement from the City Manager specifying such facilities and committing the City to maintain them in accordance with the terms of the programmatic maintenance agreement between the City and the District (May 14, 2014). In addition, the applicant will supply an approved plat or other documentation for District confirmation that the applicant has dedicated all easement rights necessary for the City to access the facilities in perpetuity for inspection and maintenance.
16. The applicant must provide an attested copy of the signed and notarized legal document(s) from the County Recorder. Applicant may wish to contact the County Recorder to determine recordation requirements prior to recordation.
17. The applicant must submit a surety of \$233,000 along with an original executed escrow agreement acceptable to the District. If the applicant desires an original copy for their records, then two original signed escrow agreements should be submitted. The applicant must provide the first \$5000 in the form of a check and has the option of providing the remainder of the surety amount in the form of a check or a Performance Bond or Letter of Credit. The surety is based on \$23,500 for 82 acres of disturbance, \$63,500 for 127,064 CF of storm water ponds, \$76,500 for 76,500 CY of floodplain mitigation, \$58,000 for 2.323 acres of wetland mitigation and \$11,500 for 23,086 CF of volume reduction for Rule I compliance.

Stipulations: The permit will be issued with the following stipulations as conditions of the permit. By accepting the permit, applicant agrees to these stipulations:

1. Remove portable structure from SW portion of WMC.
2. An as-built survey of all stormwater BMPs (ponds, rain gardens, trenches, swales, etc.) is to be submitted to the District for verification of compliance with the approved plans before return of the surety.

3. Applicant must provide an as-built survey of the flood plain mitigation area to the District for verification of compliance with the approved plans.
4. An as-built survey of wetland boundaries, including quantification of wetland impact, is to be submitted for verification that wetland impact does not exceed amount proposed.
5. The applicant must submit annual monitoring of the wetland replacement site in accordance with 8420.0800 through 8420.0820.

Exhibits:

1. Revised Grading, Development and Erosion Control sheets: cover sheet (Sheet 1), grading plan (Sheet 6), and details (Sheet 10), revision date 03-13-2018 and received 3-13-2018.
2. Revised Grading, Development and Erosion Control set (10 sheets), located in Revision 3 stormwater calculations, revision date 03-9-2018.
3. Sanitary Sewer, Watermain, Storm Sewer and Street Construction plans containing 10 sheets, dated 3-9-2018 and received 3-12-2018.
4. Plan set containing 19 sheets (existing conditions, preliminary plat, preliminary site and utility plan, and grading plan), dated 6-23-2017 and received 8-17-2017.
5. Permit application with co-signature of the property owner dated 12-28-2017, received 12-29-2017.
6. Revision 1 Stormwater Calculations, revision date 8-10-2017 and received 1-05-2018, containing narrative, drainage maps, geotechnical report (dated 11-30-2016), HydroCAD report for the 2-year, 10-year, and 100-year rainfall events for proposed and existing conditions, NURP calculations, and the RCWD Reuse design worksheet.
7. Revision 2 Stormwater Calculations, revision date 2-9-2017 and received 2-9-2018, containing narrative, drainage maps, geotechnical report (dated 11-30-2016), HydroCAD report for the 2-year, 10-year, and 100-year rainfall events for proposed and existing conditions, NURP calculations, and the RCWD Reuse design worksheet.
8. Revision 3 Stormwater Calculations, revision date 3-9-2017 and received 3-12-2018, containing narrative, drainage maps, geotechnical report (dated 11-30-2016), HydroCAD report for the 2-year, 10-year, and 100-year rainfall events for proposed and existing conditions, NURP calculations, and the RCWD Reuse design worksheet.
9. Revision 4 Stormwater Calculations, revision date 3-15-2018 and received 3-15-2018, containing narrative, drainage maps, geotechnical report (dated 11-30-2016), HydroCAD report for the 2-year, 10-year, and 100-year rainfall events for proposed and existing conditions, NURP calculations, and the RCWD Reuse design worksheet.
10. Revision 5, Stormwater Calculations, revision date 3-27-2018 and received 3-27-2018, containing HydroCAD report for the 2 year, 10-year and 100-year rainfall events for proposed and existing conditions.
11. Revision 6, Stormwater Calculations, revision date 3-28-2018 and received 3-28-2018, containing HydroCAD report for the 2 year, 10-year and 100-year rainfall events for proposed and existing conditions.
12. Revised wetland permit application, dated 1-02-2018, and received 1-03-2018.
13. Revised wetland permit application, dated 3-9-2018, and received 3-9-2018.
14. WCA notice of application, dated 1-04-18.
15. MnDNR listed species email dated 1-31-2018.

16. MnDNR email on taking permit, dated 3-9-2018.
17. Floodplain mitigation plan dated and received 8-09-2017.
18. Wetland Revised Appendix G Oakwood Ponds dated and received 4-3-2018
19. Review files 16-159R and 17-147R.

Findings:

1. Description – The project proposes to develop five parcels totaling 103 acres into 207 new single-family homes and associated infrastructure in Blaine. The project site is irregularly shaped but abuts on the south by 125th Ave NE (CSAH 14), Lever Street to the west, and Anoka County Ditch (ACD) 10-22-32 Branch 3 at the northeast corner. ACD 53-62 Branch 1 crosses the project area in two locations. The existing site is primarily undeveloped, consisting of woods, wetlands and sod fields, with two existing houses and various outlot buildings totaling 1.51 acres of existing impervious surface. Under existing conditions, approximately 56 ± acres of the site sheet flows into wetlands and then discharges into ACD 53-62, while the remaining 46 ± acres discharge to the northeast to ACD 10-22-32.

The total post-developed impervious area is 29.3 ± acres with 82 ± acres of overall disturbance. The majority of the stormwater runoff from the proposed site will be collected in storm sewer and discharged into the newly constructed on-site stormwater ponds. Approximately 67 ± acres will drain to ACD 53-62, which ultimately reaches Golden Lake, a resource area of concern. The remaining 35 acres will discharge into ACD 10-22-32 which drains to Marshan Lake, a resource area of concern.

The applicant has submitted a \$12,350 application fee, which corresponds to 29.3 acres of new/redeveloped impervious surface, greater than 10 acres of land disturbance, 1 to 5 acres of wetland mitigation and floodplain mitigation.

2. Stormwater – The applicant is proposing the BMPs as described below for the project:

Proposed BMP Description	Location	NURP requirement (ac-ft)	Volume provided (ac-ft)
Pond 100 (NURP Pond)	Southeast Corner	0.083	0.762
Pond 200 (NURP Pond)	Southeast side of site	0.282	2.336
Pond 300 (NURP Pond)	Middle of site	0.656	2.389
Pond 400 (NURP Pond)	East property line	1.044	9.436
Pond 500 (NURP Pond)	West property line	0.390	3.142
Pond 600 (NURP Pond)	Northwest corner	0.462	6.274
Infiltration Basin 1	Southwest corner	Rule C.5(d) compliance – See Finding 6	
Infiltration Basin 2	Southwest corner	Rule C.5(d) compliance – See Finding 6	
Irrigation System	North of Lake 1000	Rule C.5(d) compliance – See Finding 6	
Lake 1000	Southeast of pond 400	Not used to meet RCWD Rules	

Soil borings have been completed and indicate 1-1.5 feet of topsoil overlying HSG A and B soils consisting of poorly graded sand with silt (SP-SM) and poorly grade sands (SP) to the bottom of the borings 20 feet below ground. Static groundwater was detected between elevations 893 to

896 and the normal water level of ACD-53-62 estimated at 896, which does not provide adequate separation for the site. Thus, infiltration is not considered feasible and the NURP ponds are acceptable to meet the water quality requirement. A total of six NURP ponds have been proposed as part of this project. All six ponds meet the design standards of C(9)d.

All structures have a minimum of 2-feet of freeboard above the 100-year high water elevations and except for Pond 600 have at least 1-foot of freeboard above an overland emergency overflow. The emergency overflow for pond 600 has a secondary 36-inch pipe and all low floor entries around pond 600 have at least 2-feet of freeboard above the invert. The District considers this compliant with the freeboard requirements of Rule C.9(g). This 36-inch emergency overflow is not a typical overland overflow as it has potential to plug. Therefore, RCWD reviewed the back to back 100-yr 24-hour rainfall event with the 36-inch pipe plugged to ensure that the surrounding structures were not inundated. The resulting high water level elevation for Pond 600 was 901.2 and the lowest floor elevation for the surrounding structures is 901.5. The City of Blaine will provide maintenance on this 36-inch EOF pipe.

Drainage Area	2-year (cfs)		10-year (cfs)		100-year (cfs)	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
Leaving via ACD 10-22-32	0.14	0.31	3.54	1.57	27.77	9.0
Leaving via ACD 53-62	7.28	7.11	14.62	14.31	32.32	31.0
Totals	7.42	7.42	18.16	15.88	60.09	40.0

The project is not located within the Flood Management Zone. The increase in the 2-year event is within the tolerance of the model. The applicant has complied with the rate control requirements of Rule C.7

3. Wetlands – Wetlands were delineated under review files 16-159R and 17-147R with boundary decisions, which remain valid, issued on 12-21-2016 and 9-12-2017, respectively. Portions of the project area are located within the ACD 53-62 CWPMP boundary.

A replacement plan application was submitted to the District for proposed wetland impacts. The application included the required MnRAM analysis of the wetland basins; delineation of the site level wetland management corridor and alternative analysis. The application was noticed to the TEP on 1-04-2018 and the comment period closed 1-29-2018. The applicant has addressed all comments.

The project is development of a 207-single-family home neighborhood with internal roadway and offsite connections as well as stormwater facilities. The applicant has provided an alternatives analysis, including discussion of impact avoidance, minimization and mitigation. Applicant has provided a no-impact alternative and several alternatives of street and lot layout. The applicant has reasonably avoided and minimized wetland impacts to the extent possible.

Anoka County Ditch (ACD 53/62) 53/62 Branch 1 runs through the project area. The District as the Drainage Authority, completes periodic repair and maintenance of ACD 53/62 and the entire drainage system. Since the public drainage system has recently been repaired to the as-constructed and subsequently improved condition future maintenance activity will not further influence adjacent surface and subsurface hydrology.

Wetland impacts, both requiring replacement and qualifying for no loss, result from the development of the site as defined in the table below. District issued a no-loss on 3-16-2017.

Wetland ID	CWPMP	WMC	Degradation Status	Replacement Ratio	Fill (ac)	No Loss (sf)	Required Replacement (ac)
3	No	--	--	2:1	0.4156		0.8312
5	No	--	--	2:1	0.1618		0.3236
10	No	--	--	2:1	0.0237		0.0474
11	No	--	--	2:1	0.0501		0.1002
12	No	--	--	2:1	0.0772		0.1543
17	No	--	--	2:1	0.0869		0.1738
18-1	Yes	Yes	Severely Degraded	2:1	0.0129		0.0323
18-2	Yes	Yes	Severely Degraded	2:1		2,136	
18-3	Yes	Yes	Severely Degraded	2:1		2,496	
19	No	--	--	2:1	0.1943		0.3886
20	No	--	--	2:1	0.0204		0.0408
21	No	--	--	2:1	0.0331		0.0662
22	No	--	--	2:1	0.0782		0.1564
23	No	--	--	2:1	0.0042		0.0084
Total Impact & Total Replacement					1.1584		2.3233

Wetland replacement will occur onsite through vegetative restoration of farmed wetlands (wetlands 1, 1A, 7, 9A, 9B, 9C, 9D, and 20) generating up to 50% credit, and establishment/preservation of upland buffer, adjacent to restored wetlands, generating 25% credit. The wetland replacement standards will be as documented in the Revised Appendix G dated 4-3-2018. The replacement plan consisting of farmed wetlands restoration and buffer credit will result in 2.3639 acres and 1.7611 acres respectively.

The field road fill dividing wetland 1 appears to be comprised, in part, of old construction materials. As part of the replacement plan, this field road and associated fill debris will be removed to restore the area, resulting in one large contiguous wetland mitigation area. This activity (i.e., removal of historic fill) will not generate replacement credit.

Under Special Considerations of the Wetland Conservation Act (Mn Rule 8420.0515), the MN Department of Natural Resources (MnDNR) concluded threatened or endangered species (*Viola lanceolata* var. *lanceolata*) on site, and further will require an Endangered and Threatened Species Taking Permit from the MnDNR. MnDNR and the applicant are currently in discussion regarding the conditions of the permit, including required compensatory mitigation. The MnDNR has communicated by letter dated 3-9-2018 that they are confident that a Takings Permit will be issued by the MnDNR. District permit is conditional on receiving proof of MnDNR Takings Permit prior to permit issuance.

4. Floodplain – There are two regulatory floodplain elevations (in NAVD 88) along Anoka County Ditch 53-62 within the project boundary. The elevation from north of CSAH 14 to the first culvert crossing 230± L.F. feet upstream is elevations 898.4. North of the crossing is 899.0. The applicant has verified that the correct floodplain elevation was used throughout.

The applicant is proposing to fill 10,197 CY and create 12,574 CY of mitigation within the Anoka County Ditch 53-62 floodplain. Therefore, the applicant is compliant with Rule F.

A regulatory floodplain of 896.9 extending along a private ditch from ACD 10-22-32 Branch 3 abuts the property at the northeast corner, but does not extend onto the property.

5. Erosion Control – Proposed erosion control methods include silt fence, and rock construction entrances, inlet protection and rip rap. An NPDES permit is required for the project. Applicant must provide location of the inlet protection, as well as permanent erosion control measures such as rip-rap. The information listed under the Erosion and Sedimentation Control Recommendations must to be submitted. Otherwise the project complies with Rule D.

6. Drainage Systems – The project area currently drains to both the ACD 53-62 and ACD 10-22-32 public drainage systems. ACD 53-62 crosses the project area at two separate locations while ACD 10-22-32 abuts the project at the northeast corner. The project area contains parcels that are within the ACD 53-62 and 10-22-32 Water Management Districts (WMDs). The applicant is current proposing to redirect runoff from a portion of the lands within the ACD 10-22-32 drainage area and WMD to drain to ACD 53-62 (Parcel 003-01-31-23-41-001). Per Rule C(5)d., the District cannot permit drainage of new lands into the ACD 53-62 system unless there is no adverse impact to offsite water levels.

Recent analysis and repair reports have shown that the ACD 53-62 public drainage system has no additional capacity for a 10-year rainfall event. Thus, the applicant must mitigate the effects of runoff from additional lands being routed to the ACD 53-62 public drainage system. The current project is routing approximately 11.4 additional acres to the ACD 53-62 public drainage system. To mitigate for this volume increase, the applicant is proposing to provide infiltration practices with a volume equivalent to the 10-year event over the additional area draining to ACD 53-62. The required 10-yr volume was determined to be 1.39 ac ft based on 11.4 acres. The applicant has provided 0.424 ac-ft of volume mitigation with infiltration basin 1 and 2, 0.364 ac-ft with irrigation and 0.716 ac-ft through the addition of a low flow outlet between Lake 1000 and Pond 400 as indicated in the table below.

Proposed BMP for Rule I compliance	Location	Pretreatment:	Volume provided (CF)
Infiltration Basin 1	Southwest corner	Grass strip	0.380
Infiltration Basin 2	Southwest corner	Grass strip	0.044
Irrigation System	North of Lake 1000	N/A	0.364
Secondary Outlet Between Lake 1000 and Pond 400	Northeast of Lake 1000	N/A	0.716

The proposed irrigation system provides an event-based retention volume of 0.36 acre-feet, based on the RCWD irrigation system worksheet. This is based on irrigating 5.6 acres of green space at 0.5 inches per week, from April 15 through October 15. The irrigation system final design, including layout, spray patterns, water use and pond drawdown will be completed with final construction plans. These infiltration volume reduction practices list above do not meet the 3 feet of separation from the seasonal high water table, therefore are not intended to be used to

meet the water quality treatment requirement, only volume reduction to ACD 53-62. The applicant has independently met the water quality and rate control requirements with the NURP ponds, the irrigation system and infiltration practices listed above are not being used to comply with Rule C.6.

The two infiltration basins are not compliant with District Rule C.9(a)(3), as the bottom of basins have only 1.5 feet of separation from the seasonal high water table. However, since the basins are not being used for water quality, Rule C.9(a)(3) does not apply. The District engineer concurs that the provided volumes from infiltration basins 1 and 2 are acceptable to reduce runoff volume to ACD 53-62, thus in compliance with the adverse impact portion of Rule C.5(d).

A secondary outlet has been added between Lake 1000 and Pond 400. This outlet directs discharge less than a 10-yr storm north to Pond 400 and ultimately to ACD 10-22-32. The secondary outlet structure contains a 6-in vertical orifice at the NWL of the Lake, El. 895.5. The primary outlet for Lake 1000 contains a Sharp-Crested Vee Weir at El. 895.8 and discharges the water to the southwest, ultimately to ACD 53-62.

While the project includes tracts (quarter-quarter sections, i.e. "40's") which are identified as benefitting property to ACD 53-62, the portion of the site where runoff is being redirected from ACD 10-22-32 to ACD 53-62 is not one of the benefitting properties. MN Statute 103E.401 Subd. 2 states,

"After the construction of a drainage project, a public or private drainage system that drains property not assessed for benefits for the established drainage system may not be constructed to use the established drainage system as an outlet without obtaining express authority from the drainage authority having jurisdiction over the drainage system proposed to be used as the outlet."

Approval of this permit by the District for compliance with Rule C, with consideration of the mitigation of excess runoff volumes as designated above, additionally signifies the District's authorization as drainage authority for utilizing the public drainage system as an outlet.

A 50-foot easement centered on the ditch has been provided for ACD 53-32. No work, including wetland restoration measures, have been proposed in this area.

The WMD charges listed in the administrative section above must be paid in full. The additional area directed to ACD 53-62 will be subject to future WMD charges.

7. Documenting Easements and Maintenance Obligations – Applicant must provide a draft maintenance declaration for approval, and a receipt showing recordation of the approved maintenance declaration and the drainage and flowage easements.
8. Previous Permit Information – Wetlands were delineated under review files 16-159R and 17-147R.

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota.











 4-4-18

Greg Bowles
MN Reg. No 41929

 4-4-18

Katherine MacDonald
MN Reg. No 44590



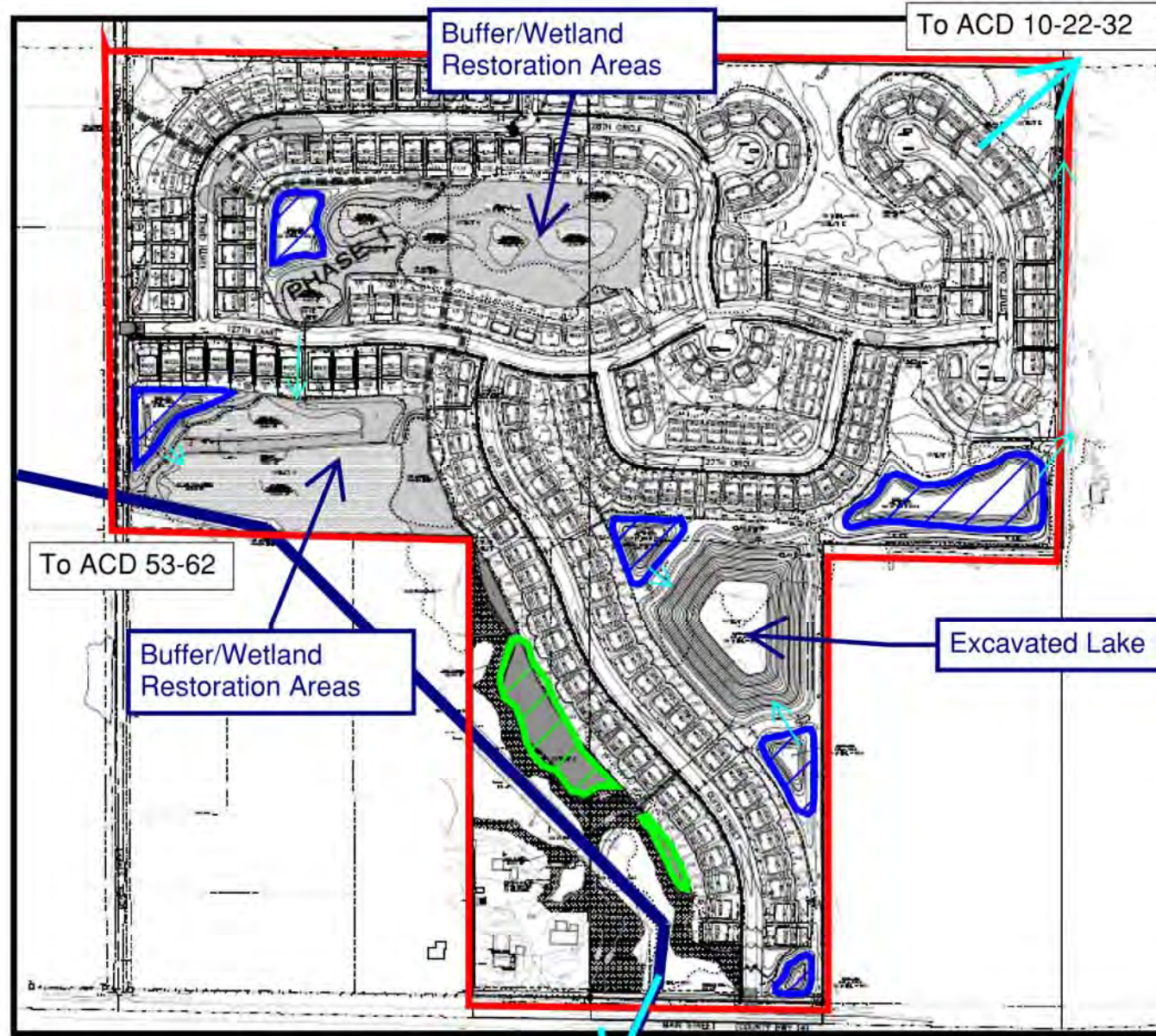
- | | | | |
|--|---|---|--|
|  District Boundary |  Public Waterway |  Public Ditch - Municipal |  Private Ditch |
|  Project Location |  Public Ditch - Open Channel |  Public Ditch - Tile |  Private Natural Waterway |
|  City Boundary |  Public Ditch - Stormsewer | | |

Legend



OAKWOOD PONDS GRADING, DEVELOPMENT & EROSION CONTROL PLANS BLAINE, MINNESOTA

This project includes developing 5 parcels totaling 109 acres. Flows onsite will be directed into storm sewer and into 6 stormwater ponds, then discharging into ACD 53-62 (which traverses the property) and ultimately reaching Golden Lake, the ROC. Portions of the NE corner drain to an existing wetland, ACD 10-22-32, then Marshan Lake, the ROC. Infiltration basins will be constructed along ACD 53-62 to mitigate for the lack of storage in the system, and an irrigation system North of the constructed lake will be used to reduce volume in the system as well.



Legend

- Project Location
- Proposed Stormwater Pond
- Proposed Infiltration Basin
- Water Flow
- ACD 53-62

↑
N

30



WORKING DOCUMENT: This Engineer's report is a draft or working document of RCWD staff and does not necessarily reflect action by the RCWD Board of Managers

Permit Application Number: 18-013
Permit Applicant Name: Safe Routes to School Pedestrian Connection Improvements

Applicant:

City of Forest Lake
Attn: Dan Udem
1408 Lake Street South
Forest Lake, MN 55025
Ph: 651-209-9727
dan.udem@ci.forest-lake.mn.us

Consultant:

Tim Olson
Bolton & Menk, Inc.
2035 County Rd D East
Maplewood, MN 55109
Ph: 651-704-9970
timol@bolton-menk.com

Project Name: Safe Routes to School Pedestrian Connection Improvements

Purpose: S&UP – Street and Utility Plan

Site Size: 17,500± SF of sidewalk / 1.37 ± acres of disturbed area; existing and proposed impervious area is 0.74 ± acres and 0.89 ± acres, respectively

Location: Near the HR High School, Forest Lake

T-R-S: SW ¼, Section 8, T32N, R21W

District Rule: C, D

Recommendations: CAPROC

It is recommended that this Permit Application be given Conditional Approval Pending Receipt of Changes (CAPROC) and outstanding items related to the following items.

Rule D – Erosion and Sediment Control

1. Submit the following information per Rule D.4:
 - (c) Name, address and phone number of party responsible for maintenance of all erosion and sediment control measures.
 - (f) Clear identification of all permanent erosion control measures such as outfall spillways and riprap shoreline protection, and their locations.
 - (h) Provide documentation that an NPDES Permit has been applied for and submitted to the Minnesota Pollution Control Agency (MPCA).

Administrative

2. Submit the permit application with an original signature of the successful bidder to the District.
3. Send one final, signed 11x17 sized plan set to the District, and e-mail a full-sized pdf copy to both the District and the District Engineer. Include a list of changes that have been made since approval by the RCWD Board.

4. The applicant must memorialize the responsibility for maintenance of stormwater facilities in a document executed by the property owner in a form acceptable to the District and recorded on the deed. Alternatively, a public permittee may meet the perpetual maintenance obligation by executing a programmatic or project-specific maintenance agreement with the District. A draft document should be submitted to the District for consideration prior to execution. (The agreement process requires submittal of the final original signed agreement to the District. If the applicant needs an original of the signed agreement, then two endorsed final agreements should be submitted.)

Stipulations: The permit will be issued with the following stipulations as conditions of the permit. By accepting the permit, applicant agrees to these stipulations:

1. An as-built survey of all stormwater BMPs (ponds, rain gardens, trenches, swales, etc.) is to be submitted to the District for verification of compliance with the approved plans.

Exhibits:

1. Plan set containing 70 sheets dated 3-9-2018 and received 3-9-2018.
2. Permit application, dated and received 2-2-2018.
3. Project narrative, dated 2-1-2018 and received 2-2-2018,
4. Figures containing drainage maps and BMP location, dated January 2018 and received 2-2-2018.
5. AutodeskSSA SWMM report for the 2-year, 10-year, and 100-year rainfall events for proposed and existing conditions, dated and received 2-12-2018.
6. Revised project narrative, dated 3-3-2018 and received 3-9-2018.
7. Revised figures containing drainage maps and BMP location, dated March 2018 and received 3-9-2018.
8. Revised AutodeskSSA SWMM report for the 2-year, 10-year, and 100-year rainfall events for proposed and existing conditions, dated and received 3-12-2018.
9. Revised project narrative, dated and received 3-20-2018.

Findings:

1. Description – The applicant is proposing to construct a multi-use trail entirely within the existing right of way of multiple City streets. The trail will provide improved safe routes to school for the Forest Lake public schools in the area. The project will disturb 1.37± acres and create approximately 0.15± acres of new impervious surface in the District. Stormwater from the trail will drain to the City streets for most of the project. Where feasible, the trail is sloped to open spaces to maximize disconnection of impervious surface and make those portions of the trail exempt from Rule C.6. Stormwater that does reach the streets is discharged through City stormsewer to raingardens, and then a series of wetlands that ultimately drain to Clear Lake, the resource of concern.

The project extends into the Comfort Lake Forest Lake Watershed District (CLFLWD). The findings refer only to the portion of the project within the RCWD legal boundary; the applicant must comply with the RCWD Rules within the legal boundary of the District, and we refer the applicant to the CLFLWD for work within that jurisdiction.

2. Stormwater – The applicant is proposing the BMP as described below for the project:

Proposed BMP Description	Location	Pretreatment:	Volume provided
Surface bio-filtration basin with vertical sand filter	West of corner of 7 th Ave SW and 8 th St SW	Forebay	1,914± cubic feet below the outlet

Soils on site are a mix of HSG B, C, and D soils. In the areas where the applicant has opportunity to provide treatment, the surrounding water elevations make infiltration infeasible and bio-filtration is acceptable to meet the water quality requirement. Per Rule C.6(c)(1), the Water Quality requirement is 0.75-inches over the non-exempt new/reconstructed area within RCWD (0.4± acres) for a total requirement of 1,088± cubic feet. The project treats more than the required impervious area in lieu. The applicant has met all the Water Quality requirements of Rule C.6 and the design criteria of Rule C.9(c).

Drainage Area	2-year (cfs)		10-year (cfs)		100-year (cfs)	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
Outlet 1	16.18	16.22	17.89	17.87	18.42	18.42
Outlet 1A	0	0	0.54	0.21	40.62	40.72
7 th Ave	2.7	2.75	5.05	5.11	11.38	11.45
4 th St. SW	3.7	3.8	6.19	6.24	6.98	7.01
Totals	22.58	22.77	29.67	29.43	77.4	77.6

The project is not located within the Flood Management Zone. The submitted information indicates that the project does not increase peak runoff rates within model tolerance and is in compliance with District Rule C.7.

District staff has determined the downstream wetlands to be considered slightly susceptible for bounce and inundation criteria. The applicant has submitted modeling that indicates a negligible change in both bounce and inundation in compliance with Rule C.8. There are no structures located adjacent to the bio-filtration basin, therefore the freeboard requirements of Rule C.9(g) are not applicable.

3. Wetlands – The project area includes wetlands. The wetlands of the project are located in two jurisdictions RCWD and City of Forest Lake, the majority of wetlands being in Forest Lake. The project wetlands were delineated and approved by the City of Forest Lake after proper noticing of comment period as well as a site visit. BWSR coordinated the cooperative coordination of LGU to be Forest Lake; staff find the wetland boundaries to be accurately delineated for District administration. No wetland impacts are proposed for the project.
4. Floodplain – The site is not in a regulatory floodplain.
5. Erosion Control – Proposed erosion control methods include silt fence, hydro mulch, inlet protection, and rip rap. An NPDES permit is required for the project. The information listed under the Erosion and Sedimentation Control Recommendations needs to be submitted. Otherwise, the project complies with RCWD Rule D requirements.
6. Drainage Systems – There are no drainage systems on or adjacent to the property.
7. Documenting Easements and Maintenance Obligations – Applicant must meet the maintenance obligations per Recommendation 4. Applicant must execute an agreement with the RCWD for the maintenance of the stormwater facilities to ensure proper functioning.

8. Previous Permit Information – Previous permit 99-047 relates to the wetland mitigation areas created near the BMP for this project.

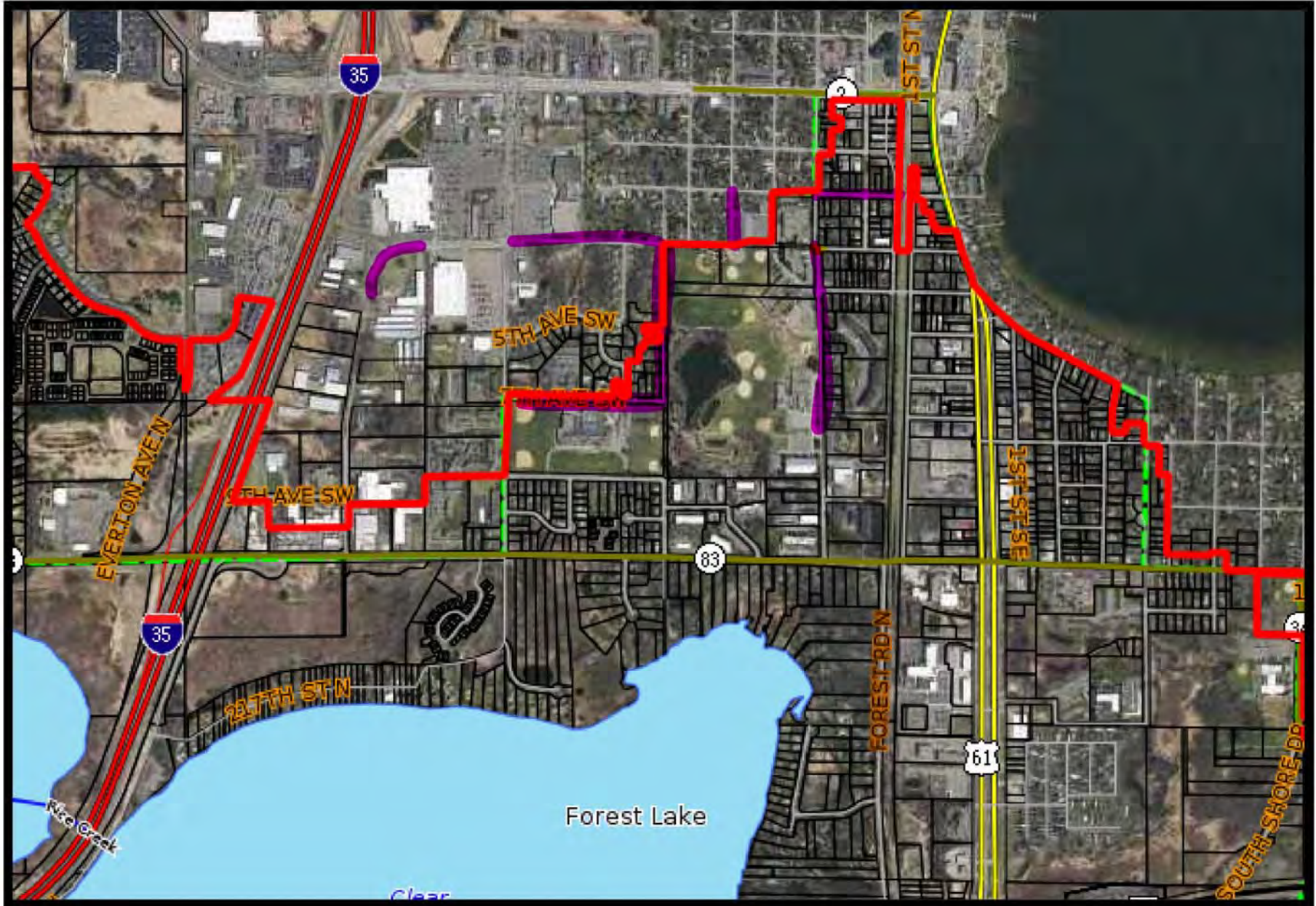
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota.


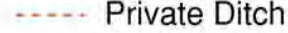

Greg Bowles 4-3-18

Greg Bowles
MN Reg. No 41929

F. Mac Donald for 4-3-18




Garrett Monson
MN Reg. No 54326









- Legend**
-  District Boundary
 -  Project Location
 -  Public Waterway
 -  Public Ditch - Open Channel
 -  Public Ditch - Municipal
 -  Private Ditch
 -  Public Ditch - Stormsewer
 -  Public Ditch - Tile
 -  Private Natural Waterway

RCWD Permit #18-013 Safe Routes to School Pedestrian Connection Improvements



-  District Boundary
-  Stormwater Feature
-  Public Waterway

Legend

-  Public Ditch - Open Channel
-  Public Ditch - Stormsewer
-  Public Ditch - Municipal
-  Public Ditch - Tile
-  Private Ditch
-  Private Natural Waterway



WORKING DOCUMENT: This Engineer's report is a draft or working document of RCWD staff and does not necessarily reflect action by the RCWD Board of Managers

Permit Application Number: 18-033
Permit Applicant Name: 2018 Street Reconstruction and Utility Rehabilitation Project

Applicant:

City of White Bear Lake
Mark Burch
4701 Highway 61
White Bear Lake, MN 55110
Ph: 651-429-8566
Fx: 651-429-8500
mburch@whitebearlake.org

Consultant:

Dan Holzemer
City of White Bear Lake
4701 Highway 61
White Bear Lake, MN 55110
Ph: 651-762-4810
Fx: 651-429-8500
dholzemer@whitebearlake.org

Nathan Christensen
City of White Bear Lake
4701 Highway 61
White Bear Lake, MN 55110
Ph: 651-762-4812
Fx: 651-429-8500
nchristensen@whitebearlake.org

Project Name: 2018 Street Reconstruction and Utility Rehabilitation Project

Purpose: S&UC – Street & Utility Plan; street reconstruction & utility rehabilitation

Site Size: 1.79 ± miles of street rehabilitation / 12.48 ± acres of disturbed area; existing and proposed impervious area is 10.58 ± acres and 11.00 ± acres, respectively

Location: 8th, 9th, 10th & 11th St., Morehead Ave and Johnson Ave, White Bear Lake, MN 55110

T-R-S: NW ¼, Section 13, T330N, R22W

District Rule: C, D

Recommendations: CAPROC

It is recommended that this Permit Application be given Conditional Approval Pending Receipt of Changes (CAPROC) and outstanding items related to the following items.

Rule D – Erosion and Sediment Control

1. Submit the following information per Rule D.4:
 - (a) Name, address and phone number of party responsible for maintenance of all erosion and sediment control measures.
 - (c) Provide documentation that an NPDES Permit has been applied for and submitted to the Minnesota Pollution Control Agency (MPCA).

Administrative

2. Submit the permit application with an original signature of the successful bidder to the District.

3. Send one final, signed 11x17 sized plan set to the District, and e-mail a full sized pdf copy to both the District and the District Engineer. Include a list of changes that have been made since approval by the RCWD Board including:
 - a. Plan set updated with the most up to date stormwater BMP pipe lengths.
4. The applicant must memorialize the responsibility for maintenance of stormwater facilities in a document executed by the property owner in a form acceptable to the District and recorded on the deed. Alternatively, a public permittee may meet the perpetual maintenance obligation by executing a programmatic or project-specific maintenance agreement with the District. A draft document should be submitted to the District for consideration prior to execution. (The agreement process requires submittal of the final original signed agreement to the District. If the applicant needs an original of the signed agreement, then two endorsed final agreements should be submitted.)

Stipulations: The permit will be issued with the following stipulations as conditions of the permit. By accepting the permit, applicant agrees to these stipulations:

1. An as-built survey of all stormwater BMPs (underground systems, ponds, rain gardens, trenches, swales, etc.) is to be submitted to the District for verification of compliance with the approved plans.

Exhibits:

1. Plan set containing 33 sheets dated 3-14-2018 and received 3-13-2018.
2. Infiltration basin detail containing 2 sheets, dated April 2007 and received 3-13-2018.
3. Permit application, dated 3-13-2018 and received 3-13-2018.
4. Stormwater Calculations, dated 3-6-2018 and received 3-13-2018, containing narrative, drainage maps, geotechnical report, HydroCAD report for the 2-year, 10-year, and 100-year and 10 day snowmelt rainfall events for proposed and existing conditions.
5. Revised stormwater Calculations, dated 3-29-2018 and received 3-29-2018, containing HydroCAD report for the 2-year, 10-year, and 100-year and 10 day snowmelt rainfall events for proposed and existing conditions.
6. Existing and proposed drainage maps dated 3-6-18 and received 3-13-18.
7. Revised proposed drainage map dated 3-29-18 and received 3-29-18.
8. Infiltration worksheet dated 3-13-18 and received 3-13-18.
9. Revised infiltration worksheet dated 3-29-18 and received 3-29-18.

Findings:

1. Description – The public linear project involves street reconstruction and utility rehabilitation of 1.79 miles of roadway in RCWD. This project is part of a larger project with portions outside of RCWD that will cover a total of 2.59 miles of street reconstruction. This permit only covers the portion of the project within the RCWD boundary. The majority of the pavement improvements will consist of street reconstruction and utility rehabilitation. The project proposes to reconstruct all roads and alleys to a constant width, which will create 0.42 acres of additional impervious surface. The existing site is fully developed City Street within a residential neighborhood that includes portions of 11th St., 10th St., 9th St., 8th St., Morehead Ave and Johnson Ave.

The total post-developed impervious area is 5.32 ± acres with 12.48 ± acres of overall disturbance within RCWD. The majority of the stormwater runoff drains into the City stormsewer along Stewart Avenue and eventually drains into White Bear Lake which is one of the resources of concern. The entire 0.42 acres of new impervious is within White Bear Lake ROC. Stormwater runoff from 10th Street and 11th Street, west of Stewart Avenue, discharges to Highway 61 and eventually Ramsey County Ditch 11 ultimately reaching Bald Eagle Lake, the other resource of concern.

The applicant, City of White Bear Lake, is a government entity. Therefore, the application fee is waived.

2. Stormwater – The applicant is proposing the BMPs as described below for the project:

Proposed BMP Description	Location	Pretreatment:	Volume provided
Underground Infiltration System 1	8 th Street	Sump Manhole	1,697± cubic feet below the outlet
Underground Infiltration System 2	8 th Street	Sump Manhole	1,506 ± cubic feet below the outlet
Underground Infiltration System 3	9 th Street	Sump Manhole	1,124 ± cubic feet below the outlet
Underground Infiltration System 4	10 th Street	Sump Manhole	1,349 ± cubic feet below the outlet
Underground Infiltration System 5	10 th Street	Sump Manhole	971 ± cubic feet below the outlet
Underground Infiltration System 6	11 th Street	Sump Manhole	3541 ± cubic feet below the outlet

Soil borings have been completed and indicate fill overlying HSG A soils consisting of sand (SP) and sand with silt (SP-SM). Soil borings indicate water up to 927.7 ± which ensures adequate groundwater separation for infiltration. Per Rule C.6(c)(1), the Water Quality requirement is 1.1-inches over the new/reconstructed area (0.42 ± acres) for a total requirement of 1,666 ± cubic feet. Six underground infiltration systems that consist of 2 and 3-foot diameter perforated pipe surrounded by fabric and rock are being proposed. A total of 9,176 ± cubic feet of water quality treatment volume is being provided with the proposed BMPs. Adequate pretreatment has been provided with sump manholes. According to the submitted calculations, the proposed underground infiltration systems will drawdown within 48-hours of the end of the storm event using an infiltration rate of 0.8-inches per hour, which is acceptable to the District Engineer. All new impervious surface drains to a proposed BMPs. The infiltration basins are adequately sized. The project is located in a moderate vulnerability DWSM area, but outside of the emergency response zone.


Drainage Area	2-year (cfs)		10-year (cfs)		100-year (cfs)	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
CD-11	7.25	2.70	20.42	7.88	64.67	29.45
HW 61	1.92	2.06	4.75	4.88	13.36	13.36
Stewart Ave	1.38	4.64	3.56	15.78	10.27	44.91
7 th Street	2.61	2.77	6.83	7.12	20.19	16.96

White Bear Lake	0.93	0.84	1.95	1.85	4.88	4.75
Totals	14.09	13.01	37.51	37.51	113.37	109.43

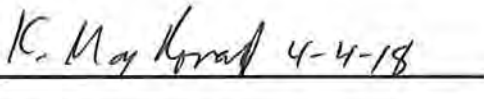
The project is not located within the Flood Management Zone. The submitted information indicates that the project does not increase peak runoff rates, in aggregate, thus in compliance with District Rule C.7. The discharge point, Stewart Ave has a rate increase for the 2, -10- and 100-year 24-hour events. The City of White Bear Lake is aware of the rate increase and does not consider it to create a downstream adverse impact due to the stormsewer under Stewart Ave was originally constructed to convey additional flows from these street improvement projects. The slight increase in rate for HW 61 is within modeling tolerance. The freeboard requirements of Rule C.9(g) do not apply to this project, because all proposed BMPs are underground infiltration systems that have limited potential for above ground ponding.

3. Wetlands – There are no wetlands located within the project area.
4. Floodplain – The site is not in a regulatory floodplain.
5. Erosion Control – Proposed erosion control methods include silt fence, rock construction entrances, inlet protection and biorolls. An NPDES permit is required for the project. The information listed under the Erosion and Sedimentation Control Recommendations needs to be submitted. Otherwise, the project complies with RCWD Rule D requirements.
6. Drainage Systems – There are no drainage systems on or adjacent to the property.
7. Documenting Easements and Maintenance Obligations – Applicant must meet the maintenance obligations per Recommendation 4.
8. Previous Permit Information – No previous permit information was found for this site.

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota.

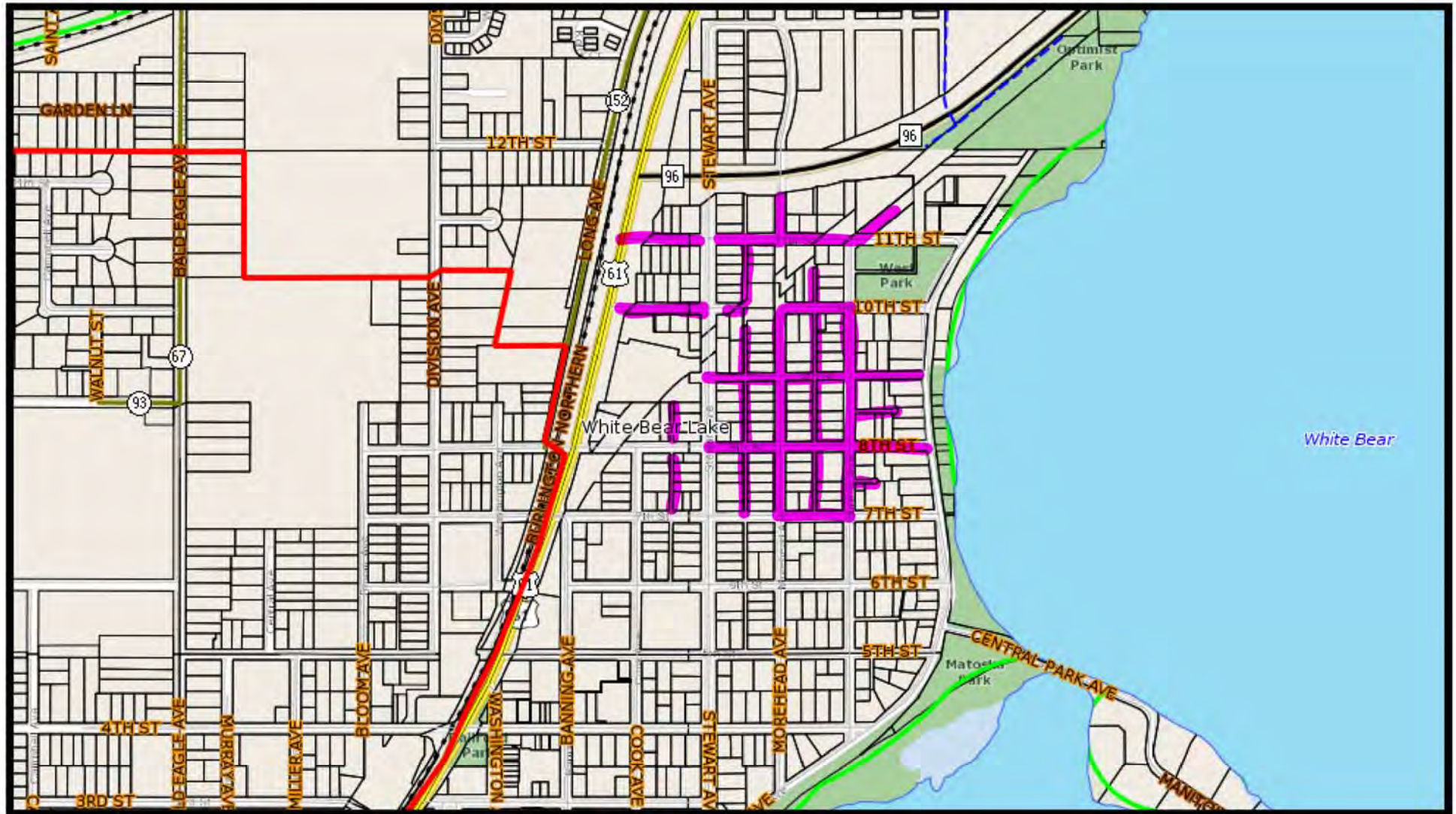


 Greg Bowles
 MN Reg. No 41929



 Katherine MacDonald
 MN Reg. No 44590

RCWD Permit File #18-033 2018 Street Reconstruction and Utility Rehab



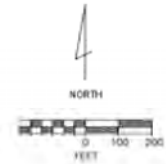
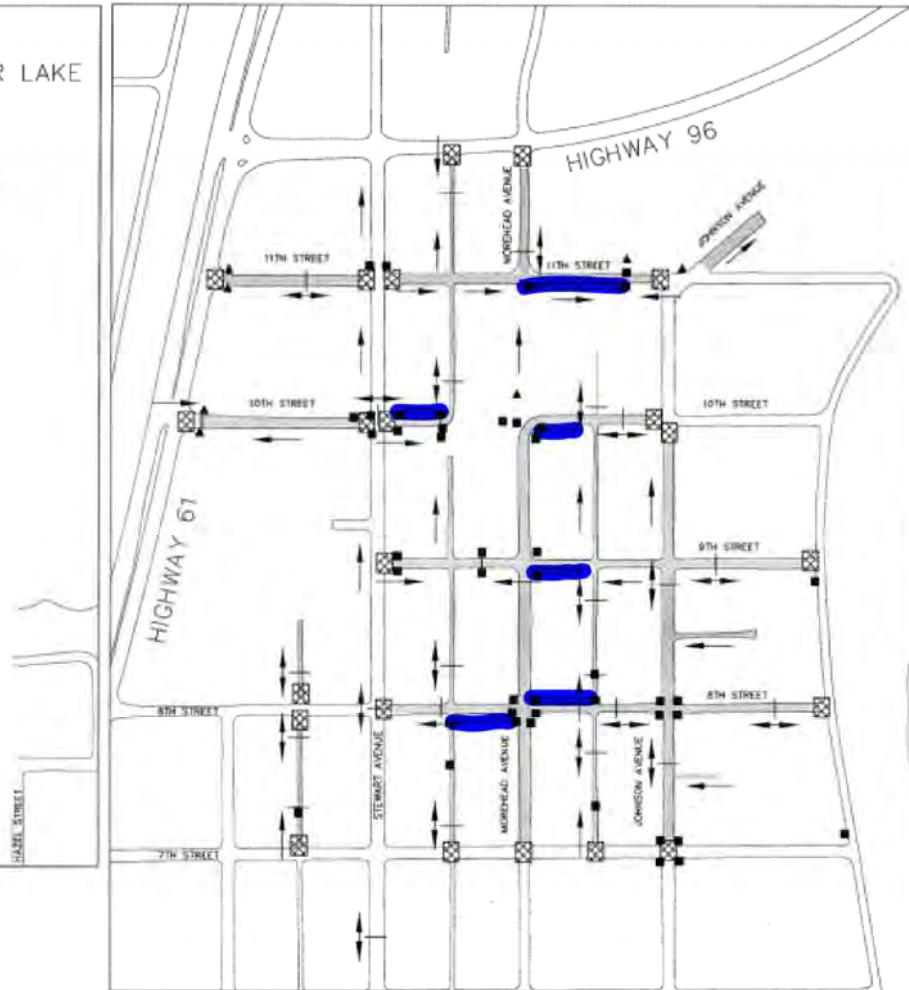
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|--|---|---|--|
|  District Boundary |  Public Ditch - Open Channel |  Public Ditch - Municipal |  Private Ditch |
|  Project Location |  Public Ditch - Stormsewer |  Public Ditch - Tile |  Private Natural Waterway |
|  Public Waterway | | | |



RCWD Permit File #18-033 2018 Street Reconstruction and Utility Rehab

WHITE BEAR LAKE

This project traverses between RCWD and the VLAWMO (City does permitting). Flows within RCWD will flow into a sub-surface infiltration features before discharging to White Bear Lake, the ROC.



CITY PROJECT 18-06

CITY PROJECT 17-06

CITY PROJECT 18-01

NOTES:

- 1.) ALL DISTURBED AREAS BACK OF CURB SHALL BE RESTORED WITH SOG.
- 2.) SEE SNIPPP FOR ADDITIONAL NOTES AND INFORMATION REGARDING EROSION AND SEDIMENT CONTROL.
- 3.) WADNAIS LAKE AREA WATER MANAGEMENT ORGANIZATION STAFF SHALL BE NOTIFIED 48 HOURS PRIOR TO CONSTRUCTION OF VOLUME REDUCTION BMPs.
- 4.) ADDITIONAL BIO-ROLL OR SILT FENCE SHALL BE PLACED AS DIRECTED BY THE CITY'S ENGINEERING DEPARTMENT. THIS WORK SHALL BE PAID FOR ON A UNIT PRICE LF BASIS AND NO ADDITIONAL PAYMENT SHALL BE MADE THEREFORE.

EROSION CONTROL LEGEND

	DESCRIPTION	QUANTITY
	STABILIZED CONSTRUCTION EXIT (26 EACH PAID AS 1 LUMP SUM)	1.0 LS
	STORM DRAIN INLET PROTECTION (EXISTING & PROPOSED STRUCTURES)	64 EA
	STORM FES INLET/OUTLET CURB CUT INLET PROTECTION (14 EA PAID AS 20 LF BIO-ROLL)	280 LF
	FLOATING SILT FENCE	800 LF
	PERMANENT VOLUME REDUCTION BMP	
	FLOW DIRECTION	
	ROAD TO BE RECONSTRUCTED (OTHER PAV OR MSA)	

Legend

- District Boundary
- Underground Stormwater Feature





Permit Application Number: 18-034
Permit Applicant Name: Technifoam Building & Parking

Applicant:

R/R Funk LLC
Robert Funk
4400 Ball Road NE
Circle Pines, MN 55014
Ph: 763-537-7000
rfunk1@technifoam.com

Consultant:

Plowe Engineering, Inc.
Chuck Plowe
6776 Lake Drive NE
Lino Lakes, MN 55014
Ph: 651-361-8210
chuck@plowe.com

Project Name: Technifoam Building & Parking

Purpose: FSD – Final Site Drainage; Construction of warehouse building near existing facility

Site Size: 1.71± acre parcel / 1.66 ± acres of disturbed area; existing and proposed impervious area is 0.00± acres and 1.06 ± acres, respectively

Location: 4400 Ball Road, Blaine

T-R-S: SW ¼, Section 24, T31N, R23W

District Rule: C, D

Recommendations: CAPROC

It is recommended that this Permit Application be given Conditional Approval Pending Receipt of Changes (CAPROC) and outstanding items related to the following items.

Rule D – Erosion and Sediment Control

1. Submit the following information per Rule D.4:
 - (c) Name, address and phone number of party responsible for maintenance of all erosion and sediment control measures.
 - (h) Provide documentation that an NPDES Permit has been applied for and submitted to the Minnesota Pollution Control Agency (MPCA).

Administrative

2. Send one final, signed 11x17 sized plan set to the District, and e-mail a full sized pdf copy to both the District and the District Engineer. Include a list of changes that have been made since approval by the RCWD Board.
3. The applicant must submit a Draft Declaration for Maintenance of Stormwater Management Facilities acceptable to the District for proposed onsite stormwater management and pretreatment features. The applicant must submit copies of all drainage and flowage easements required by and conveyed to the City.

4. The applicant must provide an attested copy of the signed and notarized legal document(s) from the County Recorder. Applicant may wish to contact the County Recorder to determine recordation requirements prior to recordation.
5. The applicant must submit a surety of \$3,600 in the form of a check along with an original executed escrow agreement acceptable to the District. If the applicant desires an original copy for their records, then two original signed escrow agreements should be submitted. The surety is based on \$1,500 for 1.66 acres of disturbance and \$2,100 for 4,232 CF of storm water treatment.

Stipulations: The permit will be issued with the following stipulations as conditions of the permit. By accepting the permit, applicant agrees to these stipulations:

1. An as-built survey of all stormwater BMPs (ponds, rain gardens, trenches, swales, etc.) is to be submitted to the District for verification of compliance with the approved plans before return of the surety.

Exhibits:

1. Plan Set containing 7 sheets dated 3-15-2018 and received 3-16-2018.
2. Permit Application, dated 3-15-2018 and received 3-16-2018.
3. Updated Stormwater Calculations, dated 3-26-2018 and received 3-27-2018, containing narrative, drainage maps, HydroCAD report for the 2-year, 10-year, and 100-year rainfall events for proposed and existing conditions.
4. Stormwater Calculations, dated 3-16-2018 and received 3-16-2018, containing narrative, drainage maps, HydroCAD report for the 2-year, 10-year, and 100-year rainfall events for proposed and existing conditions.
5. Geotechnical Report, dated 7-13-2004 and received 3-16-2018.

Findings:

1. Description – The project proposed the construction of a new warehouse building and parking lot. The project is located on a 1.71 acre parcel, east of Lexington Ave NE and south of 35W in Blaine. The parcel is currently undeveloped and consists of grassland with a wooded area to the south. The project will add 1.06± acres of impervious surface, and disturb 1.66± acres overall. The site drains to the existing storm sewer which conveys flow to a stormwater pond located on an adjacent parcel to the northwest. The adjacent pond outlets into the ditch adjacent to Ball Road through a series of culverts that eventually connect into a public water which overflows to ACD 53-62 Branch 1 Lateral 1 and ultimately into Golden Lake, which is the resource of concern. The applicant has submitted a \$2,100 application fee, which corresponds to 1 to 2.5 acres of new/redeveloped impervious surface and less than 2.5 acres of land disturbance.
2. Stormwater – The applicant is proposing the BMPs as described below for the project:

Proposed BMP Description	Location	Pretreatment:	Volume provided
North Infiltration Basin (P1)	Northern Property Line	Grass strip	3,262± cubic feet below the outlet
East Infiltration Basin (P2)	Eastern Property Line	Pre-treatment Bay	1,059± cubic feet below the outlet

Soils on site are primarily silty sands (HSG B) soils. Thus, infiltration is considered feasible and is acceptable to meet the water quality requirement. Per Rule C.6(c)(1), the Water Quality requirement is 1.1-inches over the new/reconstructed area (1.06± acres) for a total requirement of 4,232± cubic feet. The project treats approximately 99% of the impervious area. Soil borings indicate a static water level 8 to 9 feet below the existing surface. The soil borings do not show any traces of water above the measured static water (7-13-04) level thus providing 3 feet of separation from the bottom of the infiltration basin to the seasonal high. Both infiltration basins are expected to drawdown within 48 hours of a storm event. The applicant has met all the Water Quality requirements of Rule C.6 and the design criteria of Rule C.9(a).

Drainage Area	2-year (cfs)		10-year (cfs)		100-year (cfs)	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
Existing Storm Sewer	0.33	0.51*	1.48	1.28	5.00	4.76

*The difference is within the model tolerance.

The project is not located within the Flood Management Zone. The submitted information indicates that the project does not increase peak runoff rates within model tolerance and is in compliance with District Rule C.7. The project satisfies the freeboard requirements of Rule C Table C6.

3. Wetlands – There are no wetlands located within the project area.
4. Floodplain – The site is not within the regulatory floodplain.
5. Erosion Control – Proposed erosion control methods include silt fence, rock construction entrances, and inlet protection. An NPDES permit is required for the project. The information listed under the Erosion and Sedimentation Control Recommendations needs to be submitted. Otherwise, the project complies with RCWD Rule D requirements.
6. Drainage Systems – There are no drainage systems on or adjacent to the property.
7. Documenting Easements and Maintenance Obligations – Applicant must provide a draft perpetual maintenance declaration for approval; an attested copy of the signed, notarized and filed document from the County Recorder, and copies of all drainage and flowage easements required by and conveyed to the City
8. Previous Permit Information – Previous related permits include 97-070, 05-64, 05-066, 05-101, 06-066, and 12-011.

I assisted in the preparation of this report under the supervision of the District Engineer.

Ben Jore 4-2-18

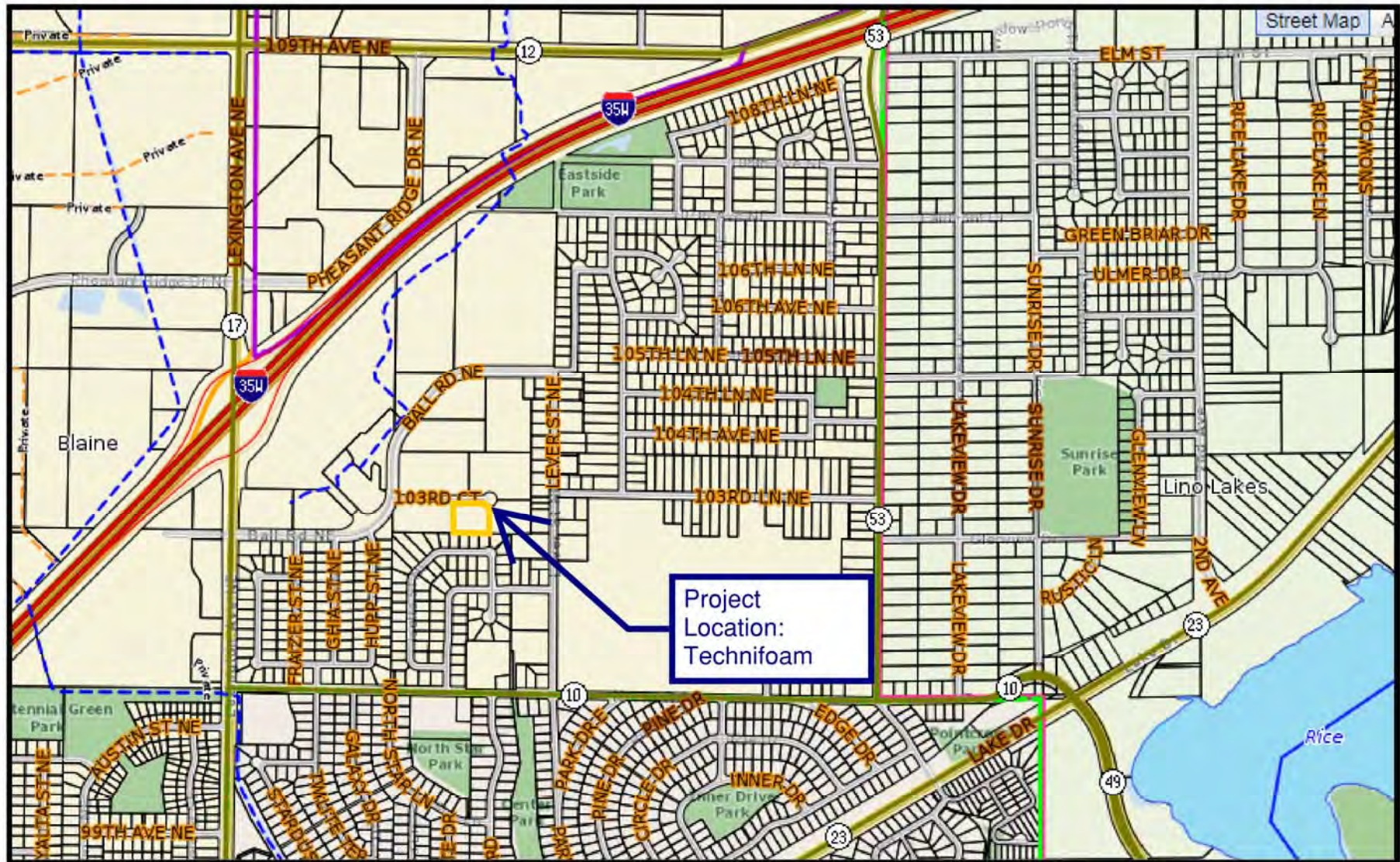
Ben Jore, EIT
EIT Reg. No 13431

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota.

Greg Bowles 4-2-18

Greg Bowles
MN Reg. No 41929

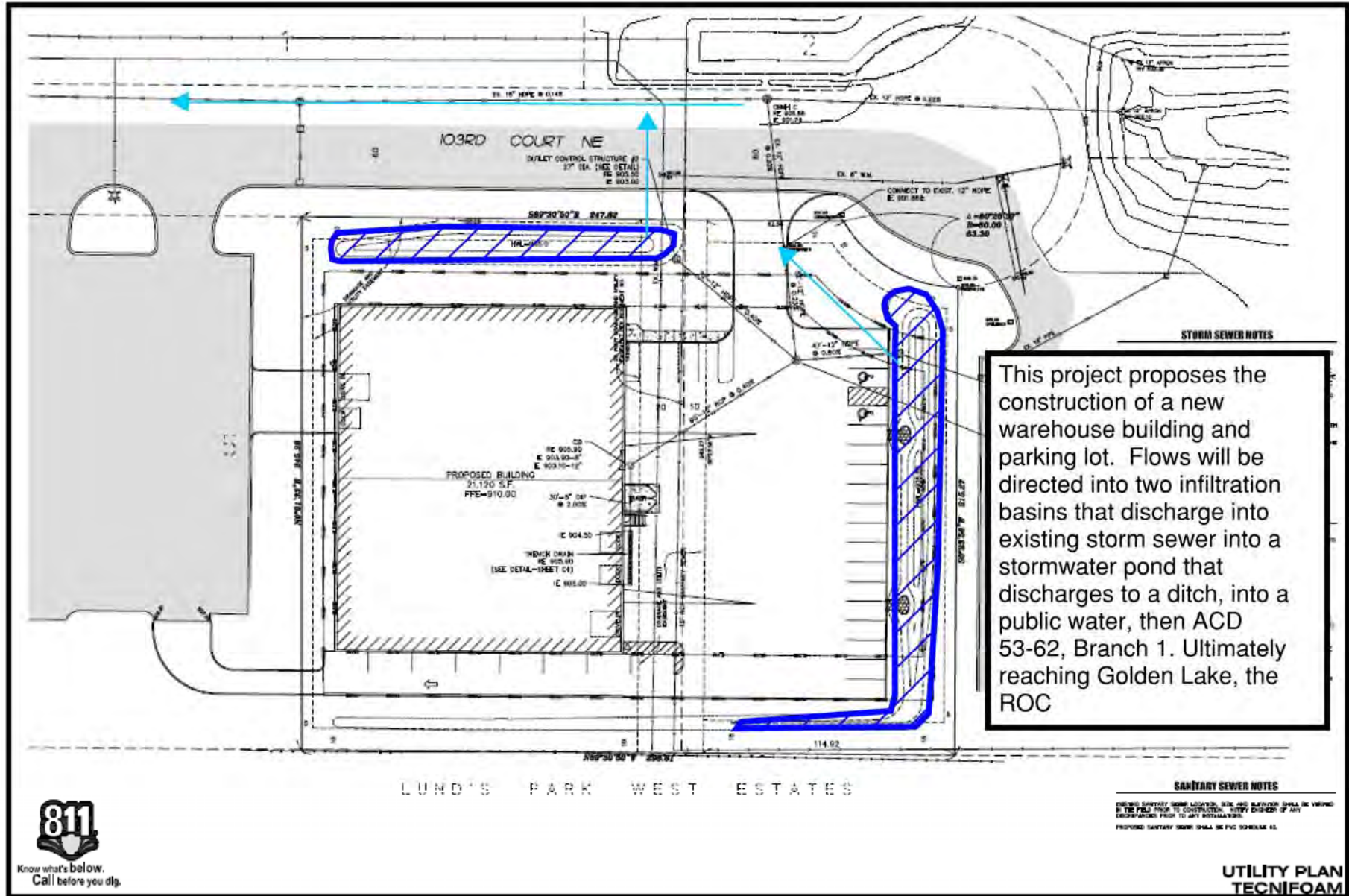
RCWD Permit File #18-034 Technifoam Building and Parking



- Legend**
-  District Boundary
 -  Public Ditch - Open Channel
 -  Public Ditch - Municipal
 -  Private Ditch
 -  Project Location
 -  Public Ditch - Stormsewer
 -  Public Ditch - Tile
 -  Public Waterway
 -  Private Natural Waterway



RCWD Permit File #18-034 Technifoam Building and Parking



Legend

- Project Location
- Proposed Stormwater Pond
- Water Flow





WORKING DOCUMENT: This Engineer's report is a draft or working document of RCWD staff and does not necessarily reflect action by the RCWD Board of Managers

Permit Application Number: 18-035
Permit Applicant Name: Highview Middle School 2018 Site Improvements

Applicant:

Mounds View Public Schools
Chris Paquette
1425 Paul Kirkwold Drive
Arden Hills, MN 55112
Ph: 651-621-6090
Fx:
Chris.paquette@moundsviewschools.org

Consultant:

Justin Nielson
Larson Engineering
3524 Labore Road
White Bear Lake, MN 55110
Ph: 651-255-0327
Fx:
jnielsen@larsonengr.com

Project Name: Highview Middle School 2018 Site Improvements

Purpose: FSD – Final Site Drainage, S&UC – Street & Utility Plan; Parking lot rehabilitation and modification to separate parent drop-off and buss drop-off.

Site Size: 13.7± acre parcel / 2.78 ± acres of disturbed area; existing and proposed impervious area is 5.2 ± acres and 5.6 ± acres, respectively

Location: 2300 7th Street NW, New Brighton

T-R-S: NE ¼, Section 30, T30N, R23W

District Rule: C, D

Recommendations: CAPROC

It is recommended that this Permit Application be given Conditional Approval Pending Receipt of Changes (CAPROC) and outstanding items related to the following items.

Rule C - Stormwater

1. The emergency overflow (EOF) for the East and West Infiltration Basins must include an identified EOF spillway sufficiently stabilized to convey flows for greater than the 100-year critical storm event.

Rule D – Erosion and Sediment Control

2. Submit the following information per Rule D.4:
 - (a) Tabulation of the construction implementation schedule.
 - (b) Name, address and phone number of party responsible for maintenance of all erosion and sediment control measures.
 - (h) Provide documentation that an NPDES Permit has been applied for and submitted to the Minnesota Pollution Control Agency (MPCA).
 - (i) A Storm Water Pollution Prevention Plan for projects that require an NPDES Permit.

Administrative

3. Submit the permit application with an original signature of the successful bidder to the District.
4. Send one final, signed 11x17 sized plan set to the District, and e-mail a full sized pdf copy to both the District and the District Engineer. Include a list of changes that have been made since approval by the RCWD Board including:
 - a. Final details for all proposed outlet structures.
 - b. The bottom of pond elevation called out in the plans for the east and west infiltration basin must match the proposed storage in the HydroCAD model.
 - c. All existing building low floor elevations must be called out in the plans.
 - d. They 100-year high water level on all applicable proposed BMPs, including the existing north filtration basin, must be called out in the plans.
5. The applicant must memorialize the responsibility for maintenance of stormwater facilities in a document executed by the property owner in a form acceptable to the District and recorded on the deed. Alternatively, a public permittee may meet the perpetual maintenance obligation by executing a programmatic or project-specific maintenance agreement with the District. A draft document should be submitted to the District for consideration prior to execution. (The agreement process requires submittal of the final original signed agreement to the District. If the applicant needs an original of the signed agreement, then two endorsed final agreements should be submitted.)
6. Submit a copy of the recorded plat or easements establishing drainage or flowage over stormwater management facilities, stormwater conveyances, ponds, wetlands, on-site floodplain up to the 100-year flood elevation, or any other hydrologic feature (if easements are required by the City of New Brighton).

Stipulations: The permit will be issued with the following stipulations as conditions of the permit. By accepting the permit, applicant agrees to these stipulations:

1. An as-built survey of all stormwater BMPs (ponds, rain gardens, trenches, swales, etc.), including the existing north filtration basin and existing storm tank, is to be submitted to the District for verification of compliance with the approved plans.

Exhibits:

1. Plan set containing 6 sheets dated 3-16-2018 and received 3-16-2018.
2. Permit application, dated 3-22-2018 and received 3-16-2018.
3. Stormwater Calculations, dated 3-16-2018 and received 3-16-2018, containing narrative, drainage maps, HydroCAD report for the 2-year, 10-year, and 100-year rainfall events for proposed and existing conditions.
4. Geotechnical report containing soil borings, dated 3-2-18 and received 3-16-18.
5. Review file, 18-020R.

Findings:

1. Description – The project proposes to redevelop an existing parking lot for the Highview Middle School in New Brighton. The redevelopment will include the re-configuration of the parent and

staff parking, as well as separating the bus drop-off area from the parent drop-off area and the addition of an egress lane to improve traffic flow. The project is increasing the total impervious area on site by 0.4 acres and proposes 1.9 acres of parking lot reconstruction area for a total of 2.3 acres of new/reconstructed impervious area. The stormwater runoff from the northern portion of the proposed site will be collected in storm sewer and discharged into the existing rate control basin. The stormwater runoff from the south portion of the site will be collected in stormsewer which discharges to the two surface infiltration basins and a Stormtech underground filtration system which provide the water quality treatment. The roof runoff from the south portion of the existing middle school building drains to the existing storm tank. Both the existing storm tank and Stormtech system are routed to the existing 7th Ave City stormsewer system which ultimately drains to Pike Lake, the resource of concern.

The application fee for the permit is waived because the applicant is a public entity.

2. Stormwater – The applicant is proposing the BMPs as described below for the project:

BMP Description	Location	Pretreatment:	Water Quality Volume provided
Reconfigured East Surface infiltration Basin	East of south entrance	Sump Manhole	481 ± cubic feet below the outlet
Reconfigured West Surface Infiltration Basin	West of south entrance	Sump Manhole	4,532 ± cubic feet below the outlet
New Stormtech Underground Filtration System	South of school	Isolator Row	*6,925 ± cubic feet
Existing Storm Tank	North of Stormtech system	N/A	Used for Rate Control Only
Existing North Basin	Northeast corner of site	NA	Used for Rate Control Only

*Includes TP factor of 0.5 for filtration (the system has a total volume of 13,850 cubic feet)

Soil borings have been completed. Soil boring under the surface infiltration basins indicate fill overlying HSG B soils consisting of poorly graded sand with silt (SP-SM) and sand (SP) and infiltration is considered feasible. Static groundwater was not detected within the depths of the boring, 11.5 feet below the existing ground. The remaining areas are not conducive to infiltration due to the presence of HSG C/D clayey sands soils.

Per Rule C.6(c)(1), the Water Quality requirement is 1.1-inches over the new/reconstructed area (2.31 ± acres) for a total requirement of 9,228 ± cubic feet. The applicant has provided a total treatment of 11,938± cubic feet which is compliant with District Rule C.6. The applicant is reconfiguring two existing BMPs previously constructed under permit application 00-153. Since the area flowing to the BMPs is being reconstructed under the current permit requirement, which is more stringent for water quality treatment than the previous standard, both permit requirements will be met. Adequate pretreatment has been provided. According to the submitted calculations, the proposed infiltration basins will drawdown within 48-hours of the end of the storm event using an infiltration rate of 0.45-inches per hour, which is acceptable to the District Engineer. The proposed Stormtech Underground filtration system will drawdown within 72-hours of the end of the storm event using a drawdown rate of 0.45-inches per hour. Approximately 93% of the required impervious area has been treated. TSS removal for the remainder is being removed by the existing north basin, which cannot be modified to meet current standards. The applicant has

met the requirements of Rule C.6(e). The infiltration basins are adequately sized. The project is not located within a DWSM area.

Drainage Area	2-year (cfs)		10-year (cfs)		100-year (cfs)	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
Off Site to North	3.37	3.38	7.43	7.43	17.75	17.76
7 th Ave	4.42	0.53	10.05	3.63	18.99	18.02
Total	6.89		17.42		36.37	
80% of Total*	5.51	3.77	13.94	8.50	29.10	28.92

*Total runoff rates do not reflect the sum of the drainage areas because they represent the sum of the hydrographs

The project is located within a Flood Management Zone. The submitted information indicates that the project does not increase peak runoff rates beyond 80% of the existing condition, which complies with District Rule C.7(c). The project complies with the freeboard requirements of Rule C.9(g).

3. Wetlands – There are no wetlands located within the project area.
4. Floodplain – The site is not in a regulatory floodplain.
5. Erosion Control – Proposed erosion control methods include silt fence, rock construction entrances, inlet protection and rip rap. An NPDES permit is required for the project. The information listed under the Erosion and Sedimentation Control Recommendations needs to be submitted. Otherwise, the project complies with RCWD Rule D requirements.
6. Drainage Systems – There are no drainage systems on or adjacent to the property.
7. Documenting Maintenance Obligations – Applicant must execute an agreement with the RCWD for the maintenance of the stormwater facilities to ensure proper functioning and submit a copy of the drainage and flowage easements (if required).
8. Previous Permit Information – A previous permit was applied for but not issued for this site under file 00-153. The previous permit information is contained within review file 18-020R.

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Minnesota.

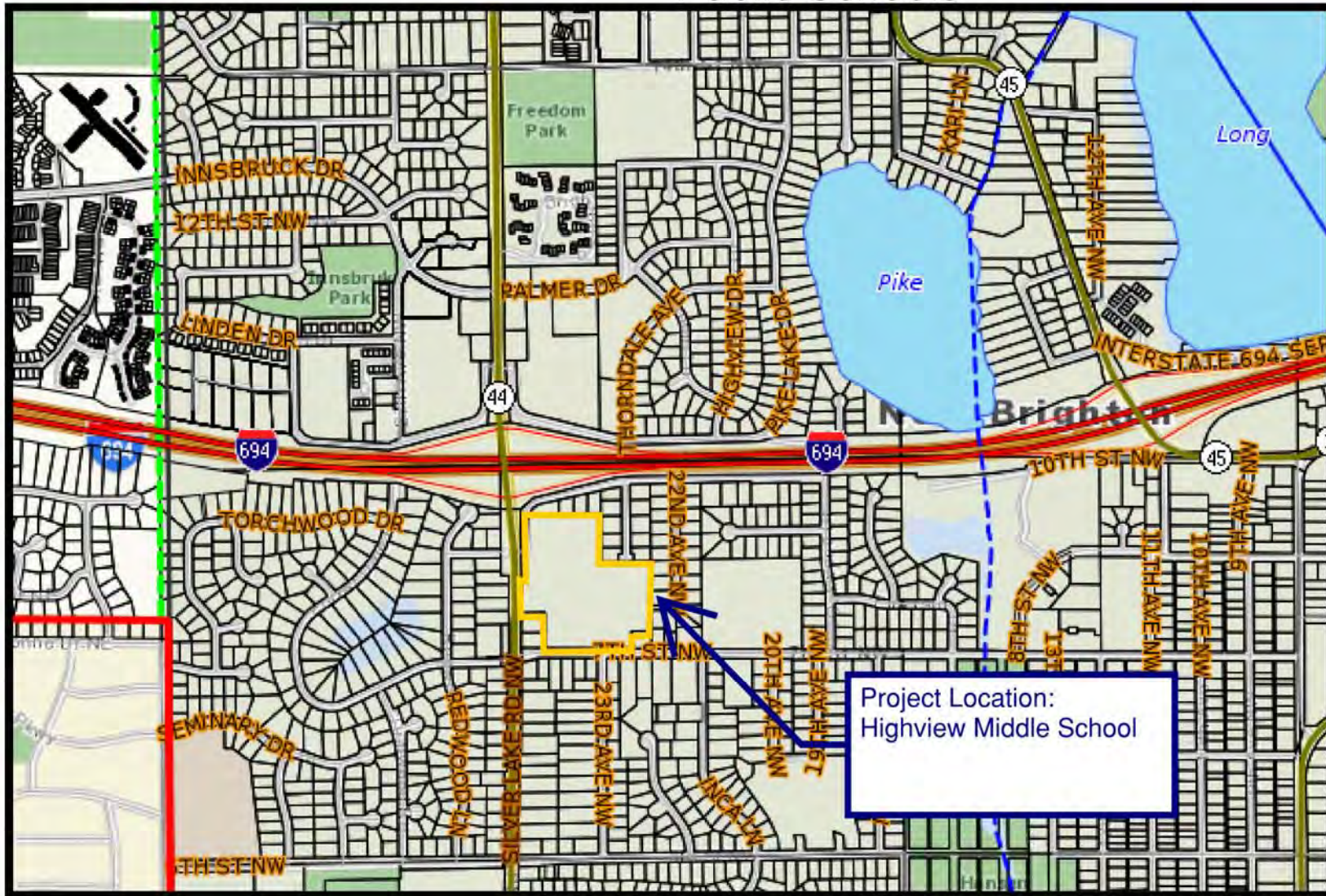
 4-4-18

Greg Bowles
MN Reg. No 41929



 4-4-18

Katherine MacDonald
MN Reg. No 44590

RCWD Permit File #18-035 Highview Middle School 2018 Site Improvements - Mounds View Public Schools

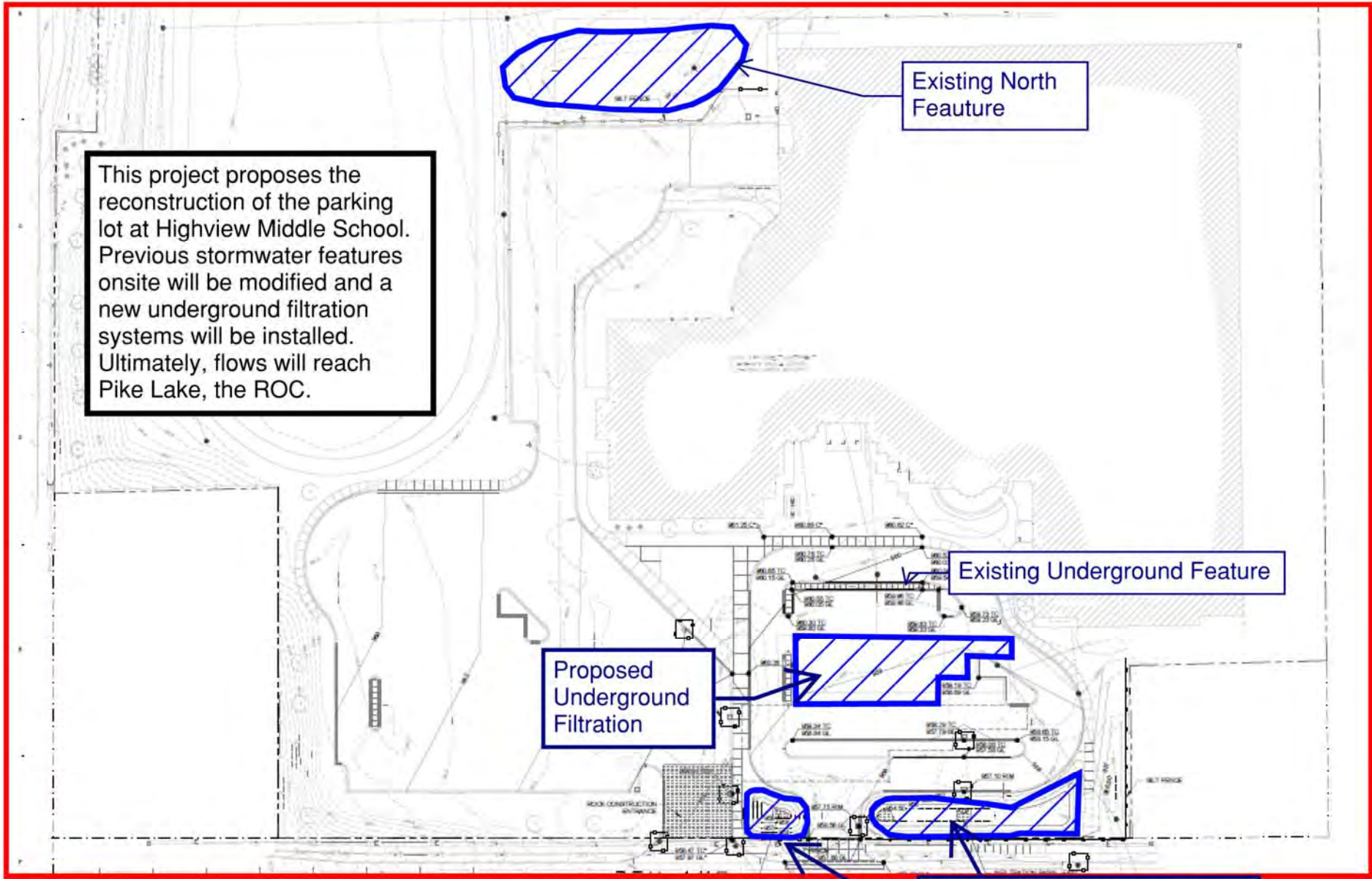


Project Location:
Highview Middle School

- Legend**
-  District Boundary
 -  Public Ditch - Open Channel
 -  Public Ditch - Municipal
 -  Private Ditch
 -  Project Location
 -  Public Ditch - Stormsewer
 -  Public Ditch - Tile
 -  Public Waterway
 -  Private Natural Waterway



This project proposes the reconstruction of the parking lot at Highview Middle School. Previous stormwater features onsite will be modified and a new underground filtration systems will be installed. Ultimately, flows will reach Pike Lake, the ROC.



Legend

- Project Location
- Proposed Stormwater Pond
- Water Flow



ITEMS REQUIRING BOARD ACTION

1. Consider Water Quality Grant Program Grant Applications. (Samantha Berger)
 - a. W18-01, Birchwood Village Swale
 - b. R18-06, Hansohn Shoreline Stabilization

MEMORANDUM

Rice Creek Watershed District

Date: April 5, 2018
To: RCWD Board of Managers
From: Samantha Berger, District Technician
Subject: W18-01 Birchwood Village Swale Restoration
RCWD Water Quality Grant Program Application

W18-01 Birchwood Village Swale Restoration

- Location: 201 Wildwood Ave, Birchwood Village, MN
- Project Type: Swale Restoration
- Total Eligible Project Cost: \$7,667.00
- RCWD Cost-Share Recommendation: \$5,750.25 (75%)

BACKGROUND

This project proposes the rehabilitation of a swale on a village owned parcel which conveys water into White Bear Lake. White Bear Lake is a Tier 1 waterbody in the RCWD Watershed Management Plan.

The Washington Conservation District provided a design for the project which will include the widening the swale, expanding the existing sump area, and rehabbing the vegetation. The project was identified in the Southeast White Bear Lake Sub-Watershed Assessment (SWA) which was completed by the Washington Conservation District (see attached sheet, which includes projects rankings from the SWA). The swale receives runoff from an 8.8-acre catchment that is largely impervious. Staff is supportive of the project as it is a direct conveyance to White Bear Lake and is in a visible recreational area utilized by residents.

The applicant obtained one bid for the project from Outdoor Lab totaling \$7,667.00. The Washington Conservation District estimated the total cost at \$5,323. The Outdoor Lab bid added some alternates including 1 year of maintenance (establishment) and an additional ditch check. These changes are considered a reasonable change; therefore, the cost-share amount will be based on the alternate bid.

The estimated pollutant reductions, based on the SWA for the swale restoration are as follows: 0.3-acre feet reduction in volume (13,068 cubic feet); a 169 lbs. of reduction in TSS; and .4 lbs. reduction in TP.

This project was considered by the CAC at their April 4th meeting. The CAC questioned the installation of the ditch check as the SWA notes that a ditch check isn't feasible. Bryan Pynn from the Washington Conservation District explained that the contractor recommended ditch check will be appropriately located and act as a choke point to slow the water before discharging into White Bear Lake. In addition, the CAC questioned why a swale is an improvement. Pynn noted that widening the swale and introducing appropriate vegetation will help eliminate the existing channelization and provide added filtration. The CAC was supportive project, motion carried 6-0.

RECOMMENDATION

RCWD's Citizen Advisory Committee and Staff recommend that the RCWD Board of Managers approve Water Quality grant funds for W18-01 for the Birchwood Village Swale Restoration

MEMORANDUM

Rice Creek Watershed District

Proposed motion: Manager _____ moves to approve RCWD Water Quality Grant Program Contract W18-01 for the Birchwood Village Swale Restoration project, up to \$5,750.25 and not to exceed 75% of eligible project expenses, in accordance with established program guidelines.



Bryan Pynn
Washington Conservation District
455 Hayward Ave. N
Oakdale, MN 55128

RE: Cost share application – Birchwood Village Swale
March 28, 2018

RCWD Board of Managers:

Attached are application materials for cost-share consideration at approx. 201 Wildwood Ave, Birchwood Village (city parcel between 199 and 201 Wildwood Ave).

Project Summary

The site is located adjacent to 201 Wildwood Ave, Birchwood Village. The site receives an 8.8 acre drainage area from the surrounding area and discharges directly to White Bear Lake with minimal treatment (see attached). At the end of this system is a 100' long swale that was constructed about 10 years ago and is in need of an overhaul (see site plan). The overhaul will include increasing the riprap sump area by cleaning it out and expanding the edge. It will also include re-grading the swale to a wider flow path to promote settling, and revegetating it with shade and runoff tolerant species.

The City of Birchwood Village is requesting 75% cost-share of the total installed cost of \$7,667.00 (\$5,750.25 = 75%). The city will provide a cash match of the remaining 25% (\$1,916.75). The contractor chosen (Outdoor Lab) submitted two quotes and the WCD and City chose to go with the Alternate Quote (page two of quote, attached). This Alternate Quote will provide an additional checkdam to promote settling. It will also include the first season of maintenance, which will guarantee successful establishment.

Board Action Requested

The City of Birchwood Village is seeking approval from the RCWD Board of Managers for 75% cost share of their installation project, totaling \$5,750.00 from the RCWD BMP Cost Share Program.

Thank you for your consideration,
Bryan Pynn

WBL-04: BMP 3 Swale with RipRap Sump

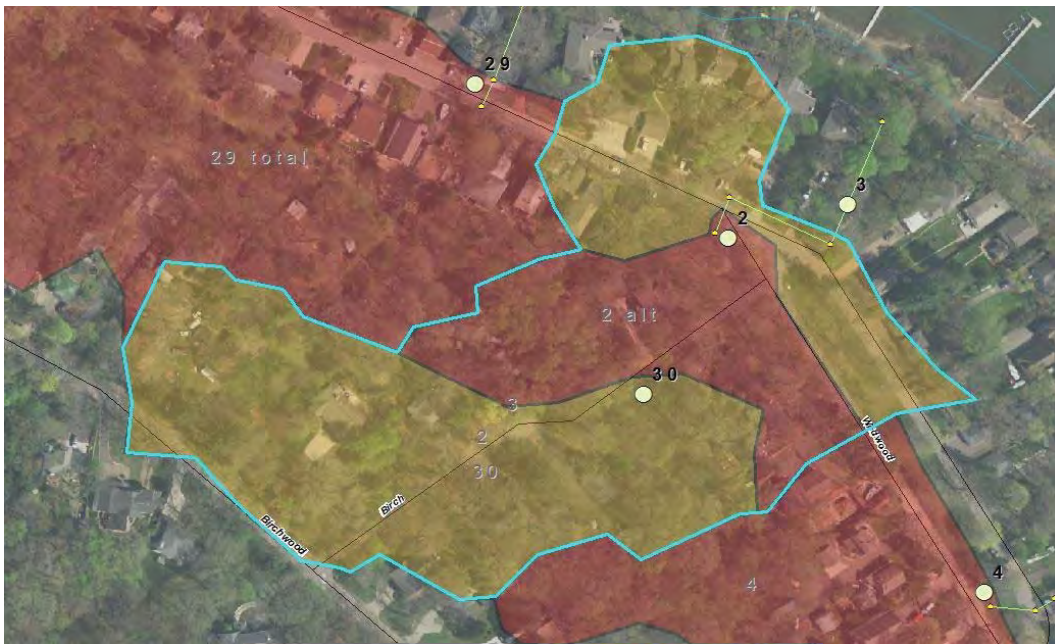
Drainage Area – 8.8 acres

Location – Between 199 and 201 Wildwood Road on Public ROW

Property Ownership –Public ROW

Rank
35/46

Description – Large drainage swale with shallow riprap sump currently exists here. Riprap sump is full of sediment and should be shoveled out and expanded to 300 sf to increase capture opportunity. Swale is channelizing as flow path is constricted at several points. Widen swale bottom from 1’ to 4’ to decrease erosion. Not recommended to place checkdams in swale as ponded areas may never infiltrate (shallow water table). Tall native vegetation and shrubs should be used for replanting to help armor the bottom of the swale and trap sediment. Incised area at end of swale should potentially be widened and armored for higher flows.



Cost/Removal Analysis		RETROFIT OPTIONS	
		Catchment WBL-04	
		BMP 3: Expand Swale and Sump	
		New trtmt	Net %
Treatment	TP (lb/yr)	0.4	3%
	TSS (lb/yr)	169.0	3%
	Volume (acre-feet/yr)	0.3	3%
	Number of BMP's	1	
	BMP Size/Description	400	sf
	BMP Type	Swale Improvements	
Cost	Materials/Labor/Design	\$4,500.00	
	Promotion & Admin Costs	\$500	
	Probable Project Cost	\$5,000	
	Annual O&M	\$100	
	10-yr Cost/lb-TP/yr	\$1,508	
	10-yr Cost/2,000lb-TSS/yr	\$7,101	



Washington Conservation District

455 Hayward Ave
Oakdale, MN 55128
Phone: 651-330-8220
Fax: 651-330-7747
WWW.MNWC.D.ORG

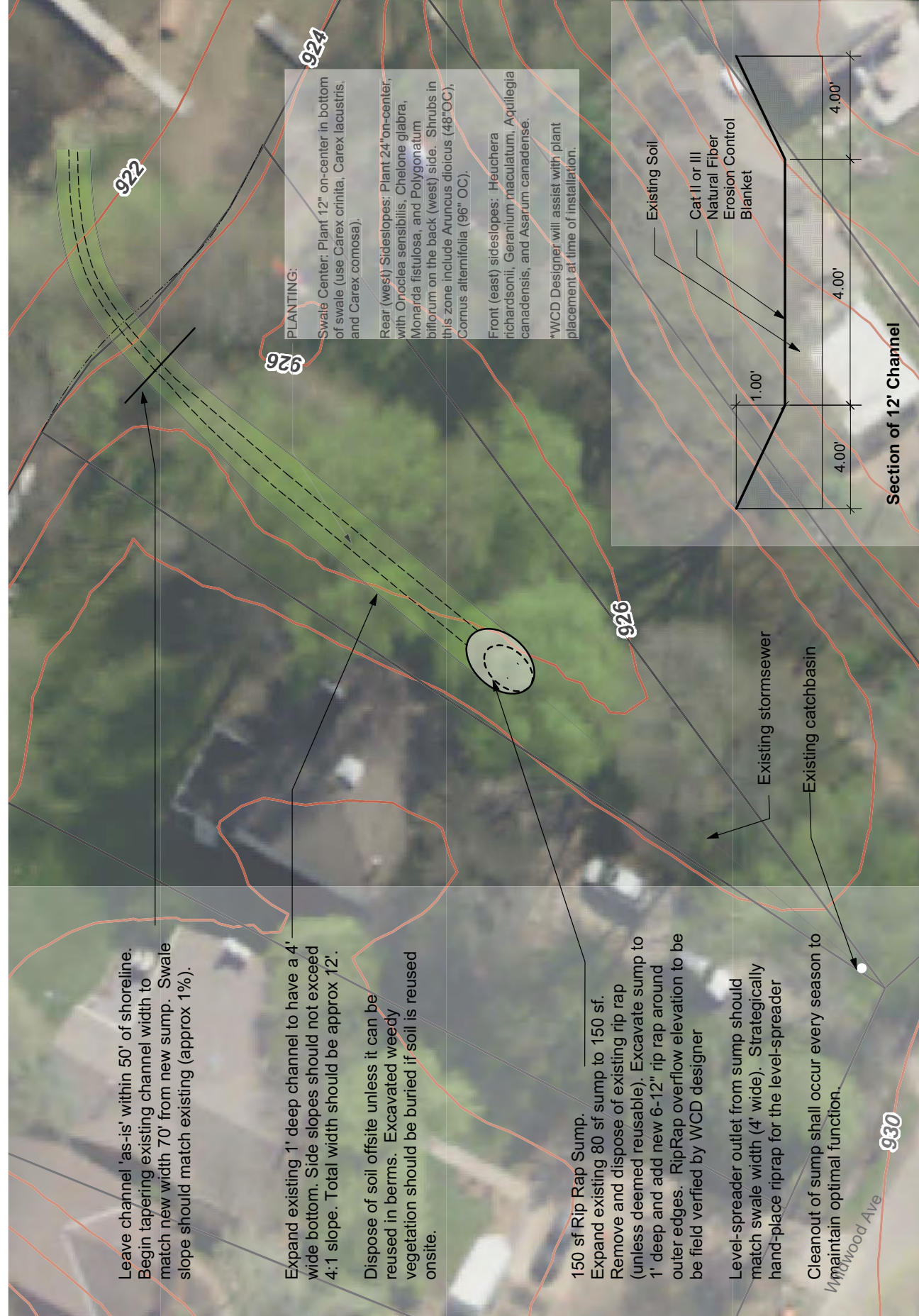
Project Manager
Bryan Pynn
Date
7/06/17

Sheet Title: **General Layout**

Project Title: **Birchwood Swale Concept**
Project Address: **White Bear Lake**
Watershed District: **RCWD**

Sheet

L-01



Cost Estimate

RICE CREEK WATERSHED DISTRICT

RCWD Cost-Share



Landowner: Birchwood Village
 Project Address: 201 Wildwood Ave
 Mailing Address: Same

2/27/2018

Job Description	Cost Summary
Swale Retrofit: 85LF channel, entire width (12' wide) graded and planted. Bottom 4' wide planted 1' OC with Carex. Sideslopes planted 2' OC, back edge shrubs. Cleanout and replace rip rap sump.	

Job Estimate				
	Qty	Unit	Unit Cost	Amount
Erosion Control Materials				
Erosion Control Blanket Cat-2 NAG S-75	200.0	sy	\$ 2.00	\$ 400.00-
			Erosion Control Subtotal	\$ 400.00-
Compost, Mulch, and Rock				
RipRap Trap Rock (5-12")	6.0	ton	\$130.00	\$ 780.00-
			Compost, Mulch, and Rock Subtotal	\$ 780.00-
Plants, Shrubs, and Trees				
Plugs - 2' OC sideslopes (300 plugs), 1' OC bottom (300 plugs)	600	each	\$2.00	\$ 1,200.00
Seedmix to fill gaps (for 2000 sf)	1	lb	\$100.00	\$ 100.00-
Shrubs	10	each	\$45.00	\$ 450.00-
			Plants Subtotal	\$1,750.00
Excavation and Grading				
Grading and Sump Cleanout	1	job	\$1,600.00	\$ 1,600.00
			Excavation and Grading Subtotal	\$1,600.00
Misc				
Rock Delivery	1	job	\$175.00-	\$ 175.00-
Plant Delivery	1	job	\$125.00-	\$ 125.00-
			Misc Subtotal	\$ 300.00-
ADDITIONAL NOTES			PROJECT SUBTOTAL	
			Subtotal	\$ 4,830.00
			Contingency 10%	\$ 483.00-
			Project Estimate	\$ 5,323.00

Alternate

RICE CREEK WATERSHED DISTRICT

RCWD Cost-Share

Landowner: Birchwood Village
 Project Address: 201 Wildwood Ave
 Mailing Address: Same



2/27/2018

Job Description	Cost Summary
Swale Retrofit: 85LF channel, entire width (12' wide) graded and planted. Bottom 4' wide planted 1' OC with Carex. Sideslopes planted 2' OC, back edge shrubs. Cleanout and replace rip rap sump. ALTERNATE: Add checkdam at pinchpoint (3'Wx14'Lx1.5'H), plant front edge with Diervilla lonicera massing. Add 1 season Maintenance	

Job Estimate				
Erosion Control Materials				
Erosion Control Blanket Cat-2 NAG S-75	200.0	sy	\$2.00	\$400.00-
			Erosion Control Subtotal \$400.00-	
Compost, Mulch, and Rock				
RipRap Trap Rock (5-12") - Sump + 1 Checkdam	9.0	ton	\$130.00	\$1,170.00
			Compost, Mulch, and Rock Subtotal \$1,170.00	
Plants, Shrubs, and Trees				
Plugs - 2' OC sideslopes (300 plugs), 1' OC bottom (300 plugs)	450	each	\$2.00	\$900.00-
Seedmix to fill gaps (for 2000 sf)	1	lb	\$100.00	\$100.00-
Shrubs (back edge per plan, front edge 30 Diervilla lonicera)	40	each	\$45.00	\$1,800.00
			Plants Subtotal \$2,800.00	
Excavation and Grading				
Grading Swale and Sump Cleanout	1	job	\$1,600.00	\$1,600.00
			Excavation and Grading Subtotal \$1,600.00	
Misc				
1st Season Maintenance	4	visits	\$175.00-	\$700.00-
Rock Delivery	1	job	\$175.00-	\$175.00-
Plant Delivery	1	job	\$125.00-	\$125.00-
			Misc Subtotal \$1,000.00	
ADDITIONAL NOTES			PROJECT SUBTOTAL	
			Subtotal \$6,970.00	
			Contingency 10% \$697.00-	
			Project Estimate \$7,667.00	



Water Quality Grant Program Project Screening Form

Project / Landowner Name: Birchwood Village	Affected Water Body: WBL
Project Address: adjacent to 201 Wildwood Ave (city parcel)	City: Birchwood Village
County: <input type="checkbox"/> ANOKA <input type="checkbox"/> RAMSEY <input type="checkbox"/> HENNEPIN <input checked="" type="checkbox"/> WASHINGTON	Project Type(s): BioSwale
Application Date: 3/23/2018	Project Effective Life: 10yrs
Violation or Permit Requirement: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Reviewer: BJP

Projects are screened for potential grant eligibility based on the following criteria. (0 = Low, 5 = High)

1. Connectivity to Water Body

a. Is the project tributary to a PCA-listed impaired water (not mercury) or a RCWD Tier I or Tier II waterbody?

(NO) (YES, within Subwatershed) (YES, Direct Connection)

0 1 2 3 4 5

b. If NO, is the project tributary to a lake, stream, ditch, or DNR-Protected Water Wetland (PWW)?

(NO) (YES, within Subwatershed) (YES, Direct Connection)

0 1 2 3 4 5

2. Contributing Watershed Characteristics: Surface type draining to the project.

0% Impervious 50% Impervious 100% Impervious

0 1 2 3 4 5

Comments: 8.8 acres dense urban drainage; steep slopes common; gravel drives common; little pretreatment before the swale inlet. Practice prioritized in SEWBL SWA (BMP-03, Catchment WBL-04)

3. Volume Reduction: Implements controls to reduce and/or minimize the rate and volume of water that drains off the property.

No Infiltration/Filtration Filtration Infiltration

0 1 2 3 4 5

Comments: Swale with some infiltration and large pretreatment, higher water table since it is near shore. Wider swale will create more sed. storage. Better rate control as proposed.

4. Erosion and Sediment Control: Implements controls that minimize erosion and/or sedimentation and pollutants to downstream waters.

No Erosion Visible Erosion

No Sediment Capture Sediment Capture

0 1 2 3 4 5

Comments: erosion currently occurring because swale has filled in and is now incising through old sediment. wider swale will help solve this issue.

5. Wildlife Habitat Improvement: Creates or improves wildlife and or pollinator habitat through native plantings or other restoration efforts.

Not Connected to Wildlife Corridor Connected to Wildlife Corridor

0 1 2 3 4 5

Comments: If shoreline is considered corridor. Neighborhood heavily wooded, high bird diversity common, pollinator species will help out

6. Public Outreach: Willingness of applicant to allow signage, tours and site visits. Publically visible site. Diversity of practices.

Low Public Visibility Moderate Public Visibility High Public Visibility

0 1 2 3 4 5

Comments: Owned by city, high foot traffic. Everyone knows the site. Signage possible.

Total Score: 23
Minimum Eligibility = 15

MEMORANDUM

Rice Creek Watershed District

Date: April 5, 2018, 2018
To: RCWD Board of Managers
From: Samantha Berger, District Technician
Subject: R18-06 Hansohn Shoreline Stabilization
RCWD Water Quality Grant Program Application

R18-06 Hansohn Shoreline Stabilization

- Location: 1124 Amble Drive, Arden Hills, MN
- Project Type: Shoreline Stabilization and Buffer
- Total Eligible Project Cost: \$18,254
- RCWD Cost-Share Recommendation: \$7,500 (50%)

BACKGROUND

This project proposes the restoration of approximately 92 linear feet of shoreline located off Karth Lake in Arden Hills. Karth Lake is a Tier 2 waterbody in the RCWD Watershed Management Plan and is known for having very steep slide slopes. An existing retaining wall is present on the property that will be removed as part of the work.

The Ramsey Conservation District provided a design for the project which will include the following: removal of the existing retaining wall, installation of 92 linear feet of rock at the toe of slope, 2,350 square feet of buffer with erosion control blanket to help protect the shoreline from future erosion. The project will help filter runoff coming from the home (catchment of 5,810 square feet) while providing habitat along the lakeshore and erosion protection.

The applicant obtained one bid for the project from Coldstone Shorelines totaling \$18,254. The Ramsey Conservation District estimated the total cost at \$17,529. Only one bid was obtained since the landowner had already been working on a project concept with Coldstone. The grant will not cover the cost of the steps leading to the lake.

The estimated pollutant reductions for the shoreline restoration are as follows: a 98% reduction in volume (4,852.50 cubic feet); a 303.80 lbs. of reduction in TSS, a 98% reduction; and .18 lbs. reduction in TP, a 98% reduction. The TP and TSS estimates are utilizing two different methods for calculating the reductions – a contributing watershed calculator as well as a sediment loss calculator.

This project was considered at the April 4th CAC meeting. Staff explained that Karth Lake is a very “bouncy” lake. The CAC questioned what “bounce” on a lake was. Staff noted that it’s when a water body has significant changes in elevation based on rainfall. Lakes with bounce often do not support vegetation at the water’s edge, which is why riprap is proposed. The CAC also questioned how the funding percentage is determined. Staff noted that typically projects receive 50%, unless they are treating a large amount of hard surface, in which case they would receive 75%. Staff noted that this project was similar to a project with a retaining wall on Peltier Lake, in which we provided \$7,500 or 50%. The CAC supported the project, making a motion to approve. Motion carried 6-0.

RECOMMENDATION

RCWD’s Citizen Advisory Committee and Staff recommend that the RCWD Board of Managers approve Water Quality grant funds for R18-06 for the Hansohn Shoreline Stabilization

MEMORANDUM
Rice Creek Watershed District

Proposed motion: Manager _____ moves to approve RCWD Water Quality Grant Program Contract R18-06 for the Hansohn Shoreline Stabilization, up to \$7,500 and not to exceed 50% of eligible project expenses, in accordance with established program guidelines.

Ramsey Conservation District



To: RCWD Advisory Committee
From: Brian Olsen: Conservation Technician
Date: 15-March-2018
Re: Linda Hansohn Cost Share Application

Project:

1124 Amble Dr
Arden Hills, MN 55112
Shoreline Stabilization and Buffer Planting

Material & Labor Estimate: \$18,254.00

Cost Share Request: \$7,500.00

Background:

The proposed shoreline stabilization and buffer planting is located on a residential property on Karth Lake in Arden Hills. Current conditions are an existing wood timber retaining wall that is beginning to deteriorate, and in the areas without the retaining wall, the slope is being eroded by the large amount of lake level change seen in Karth Lake. The slope of the shoreline is steep and due to the large lake level changes that happen, the vegetation near the water line has been killed and the soils are actively eroding. As a result of these conditions large amounts of sediment are being washed into Karth Lake, and there is no vegetation at the water edge.

The proposed project is to remove the timber retaining wall, install rip rap to stabilize the shoreline, and to plant a large buffer planting above the rip rap. Rip rap is necessary to install on this shoreline due to the steep slope, the large amount of erosion, and because the level of the lake changes greatly throughout the season, which would destroy any bio-engineering practices. This project looks stabilize the shoreline, and create a shoreline buffer to slow and filter the water that flows off of the property into the lake to help remove pollutants and filter sediment. The planting will also serve to create a healthier natural habitat along the lake edge.

Total catchment area treated by proposed project is 5,810 square feet. Once established, this shoreline will stabilize the eroding shoreline bank and be an effective measure to filter runoff, reduce sediment movement, and reduce the rate and volume of stormwater that would otherwise runoff into Karth Lake.

Recommendation:

It is my recommendation that this project be awarded cost share in the amount of \$7,500.00 or 50% of the eligible project costs, whichever is less.

Pollution Reductions:

	<i>Before</i>	<i>After</i>	<i>Reduction</i>	<i>Red. %</i>
Volume (cu-ft/yr)	4,959	106.50	4,852.50	98%
TSS (lbs/yr)	310	6.20	303.80	98%
TP (lbs/yr)	0.1822	0.0022	0.1800	98%






EXHIBIT A: Site Drainage



PROPOSED PROJECTS

ID	PROJECT TYPE	SIZE [SQ-FT]	COST ESTIMATE	ESTIMATED GRANT AWARD	AFFECTED WATER BODY	CLEAN WATER BENEFIT
A	SHORELINE STABILIZATION & BUFFER	2,350	\$18,254.00	\$7,500 [50%]	KARTH LAKE	SEDIMENT/PHOSPHOROUS

LEGEND

 SHORELINE BUFFER
  LANDSCAPE RUNOFF
 HARDSCAPE RUNOFF
  WATER FLOW
  CONTOUR LINE (2')

NOTES

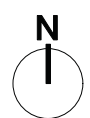
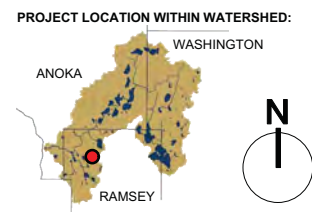
CONCEPTUAL DRAWING FOR REFERENCE USE ONLY
 * DISCLAIMERS:
 1. COST SHARE FUNDING UP TO 75%, CAPPED AT \$7,500 PER PROJECT
 2. COSTS AND PERCENTAGES ARE ESTIMATES. FUNDING IS DEPENDENT ON APPROVAL BY THE RCWD BOARD OF SUPERVISORS

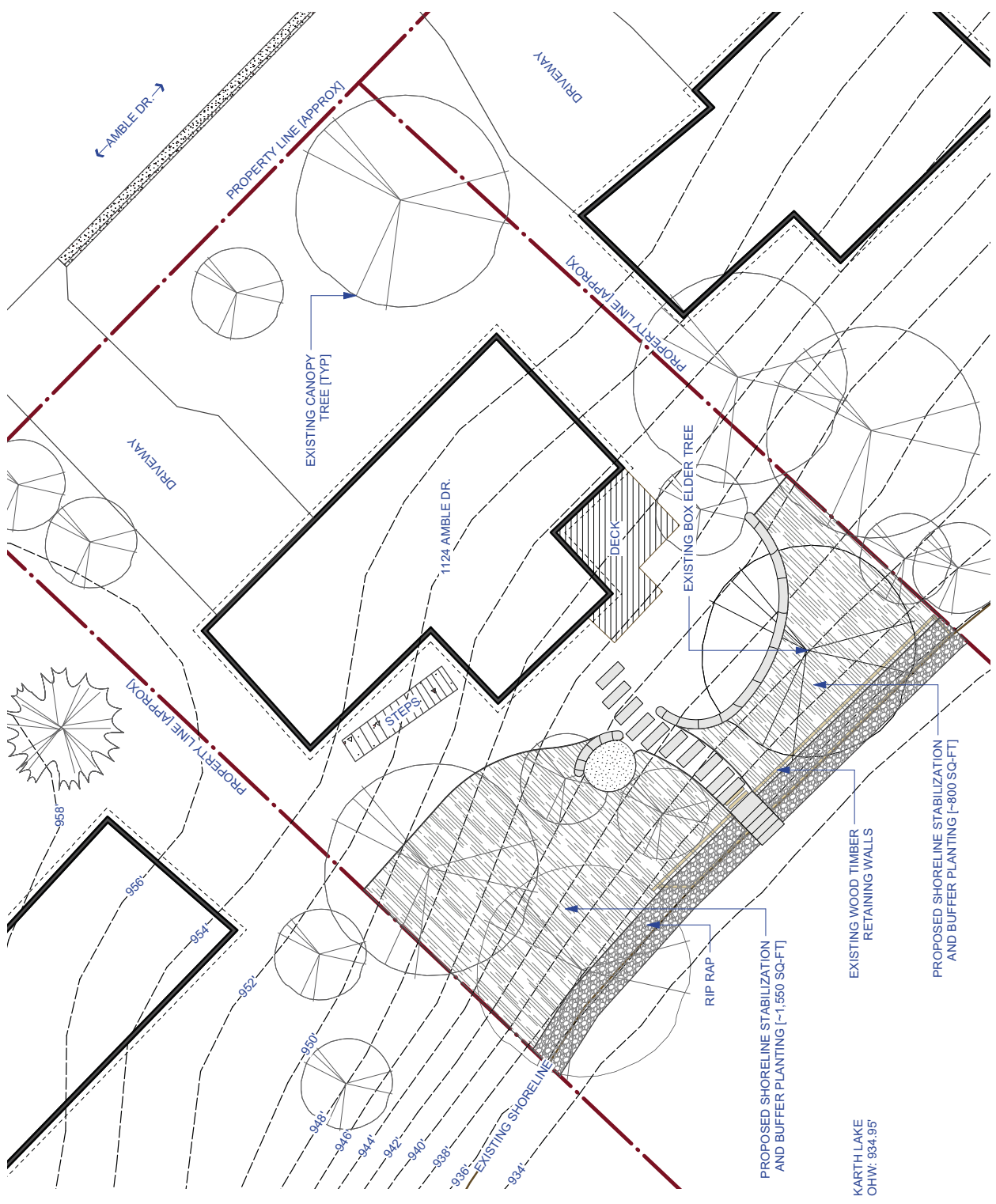


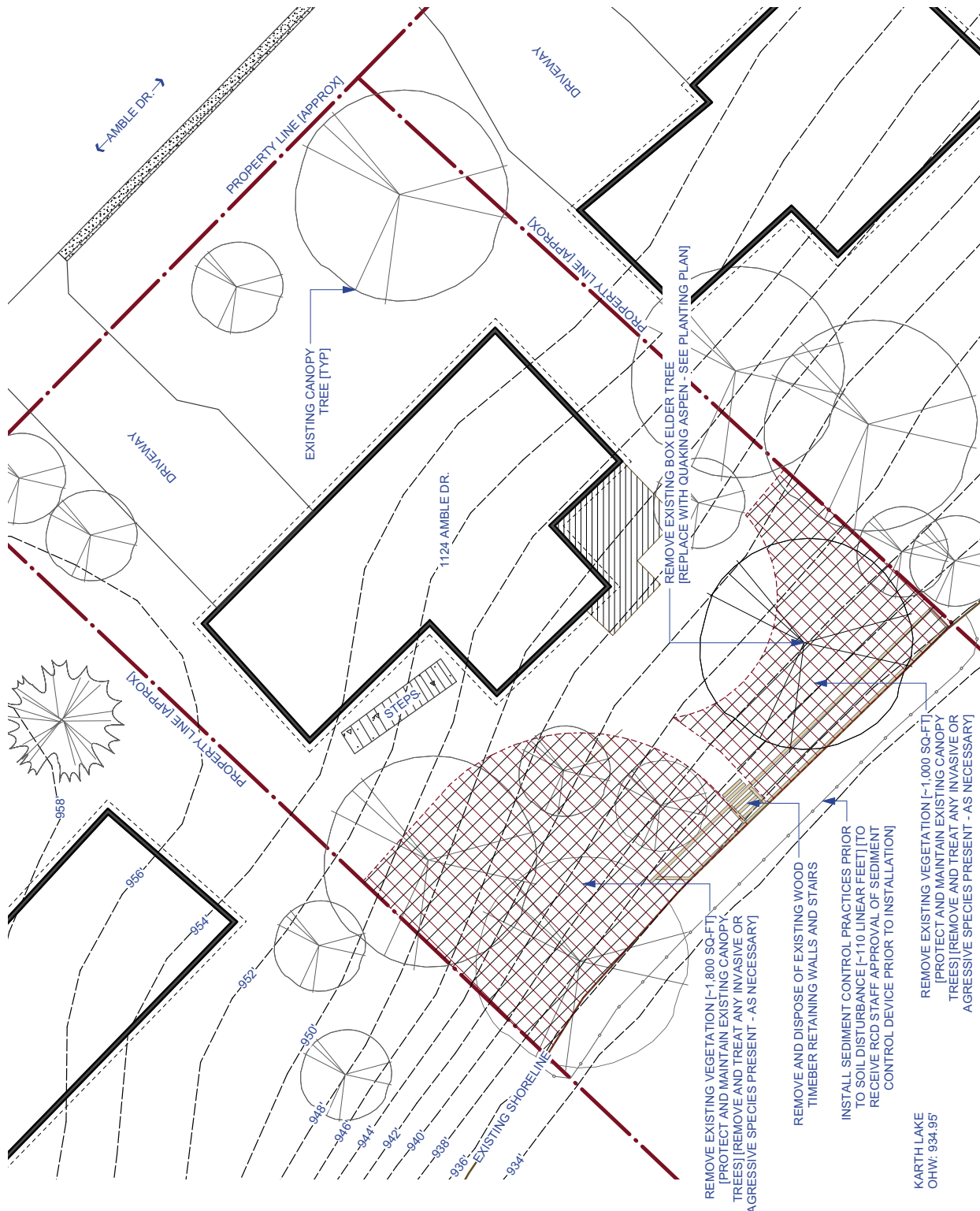
CLEAN WATER PLAN

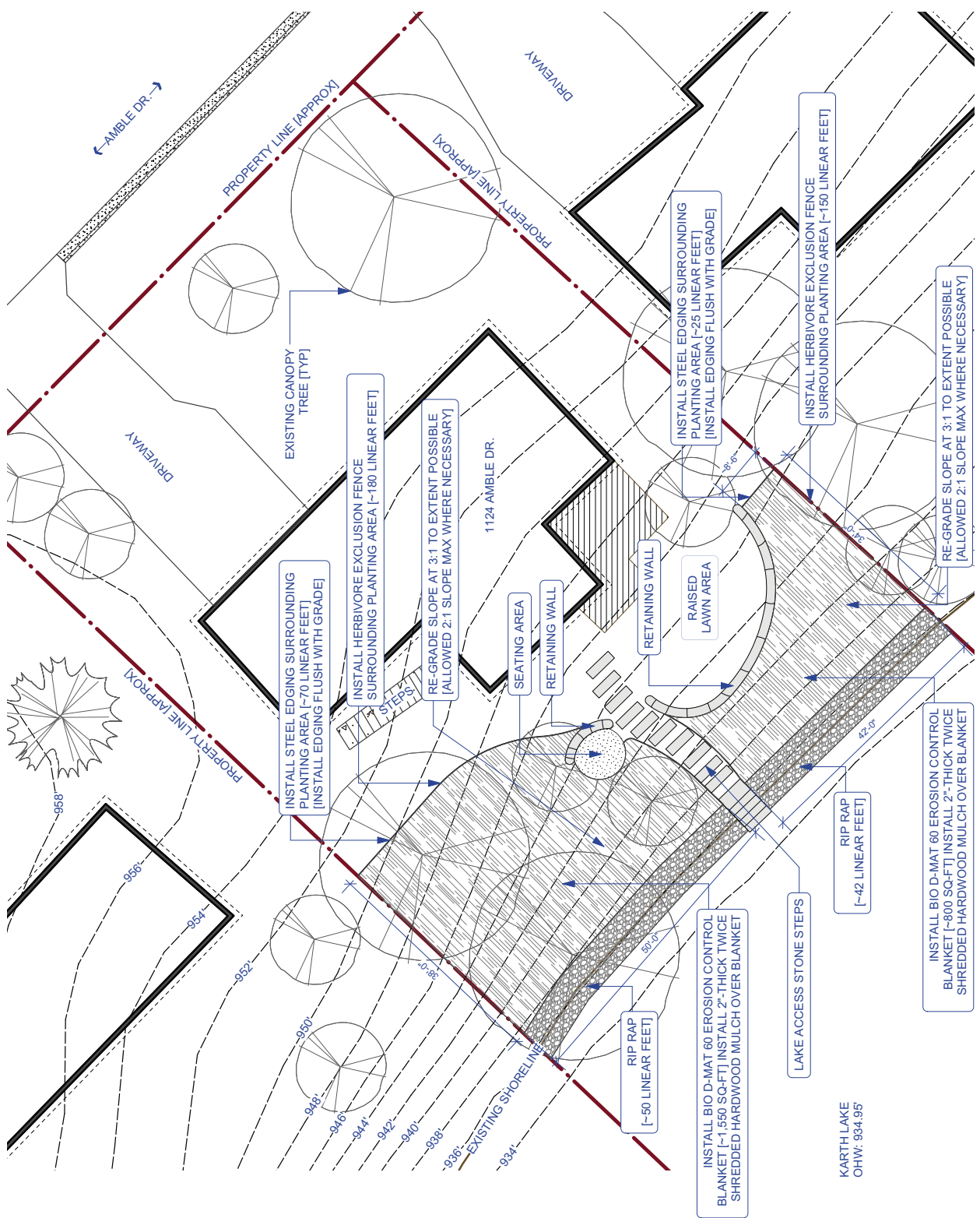
PROPERTY OWNER:
 LINDA HANSOHN
ADDRESS:
 1124 AMBLE DR
 ARDEN HILLS, MN 55112

DATE: 03/14/2018
CLEAN WATER PLAN PROVIDED BY:
 RICE CREEK WATERSHED DISTRICT [RCWD] &
 RAMSEY CONSERVATION DISTRICT [RCD]



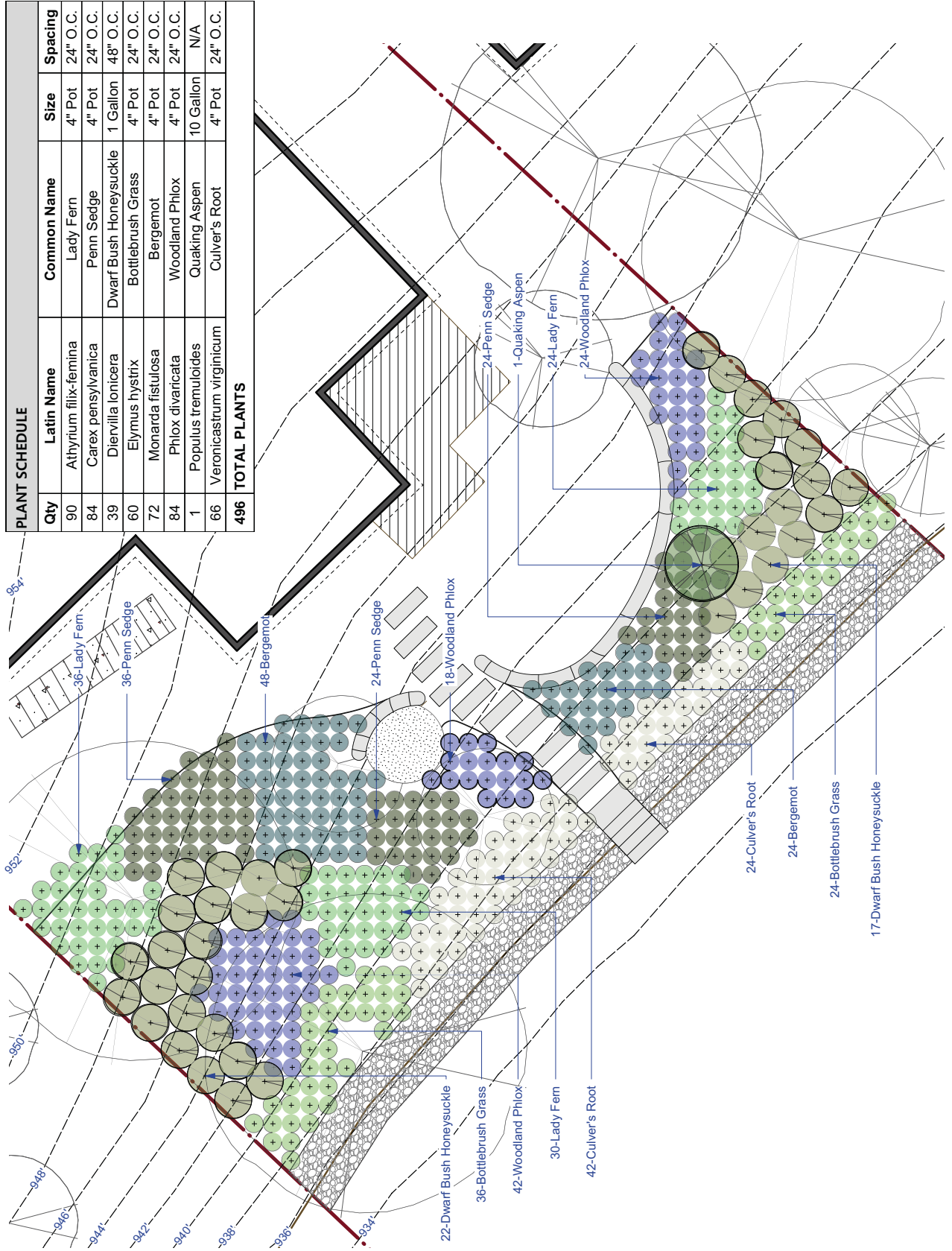






PLANT SCHEDULE

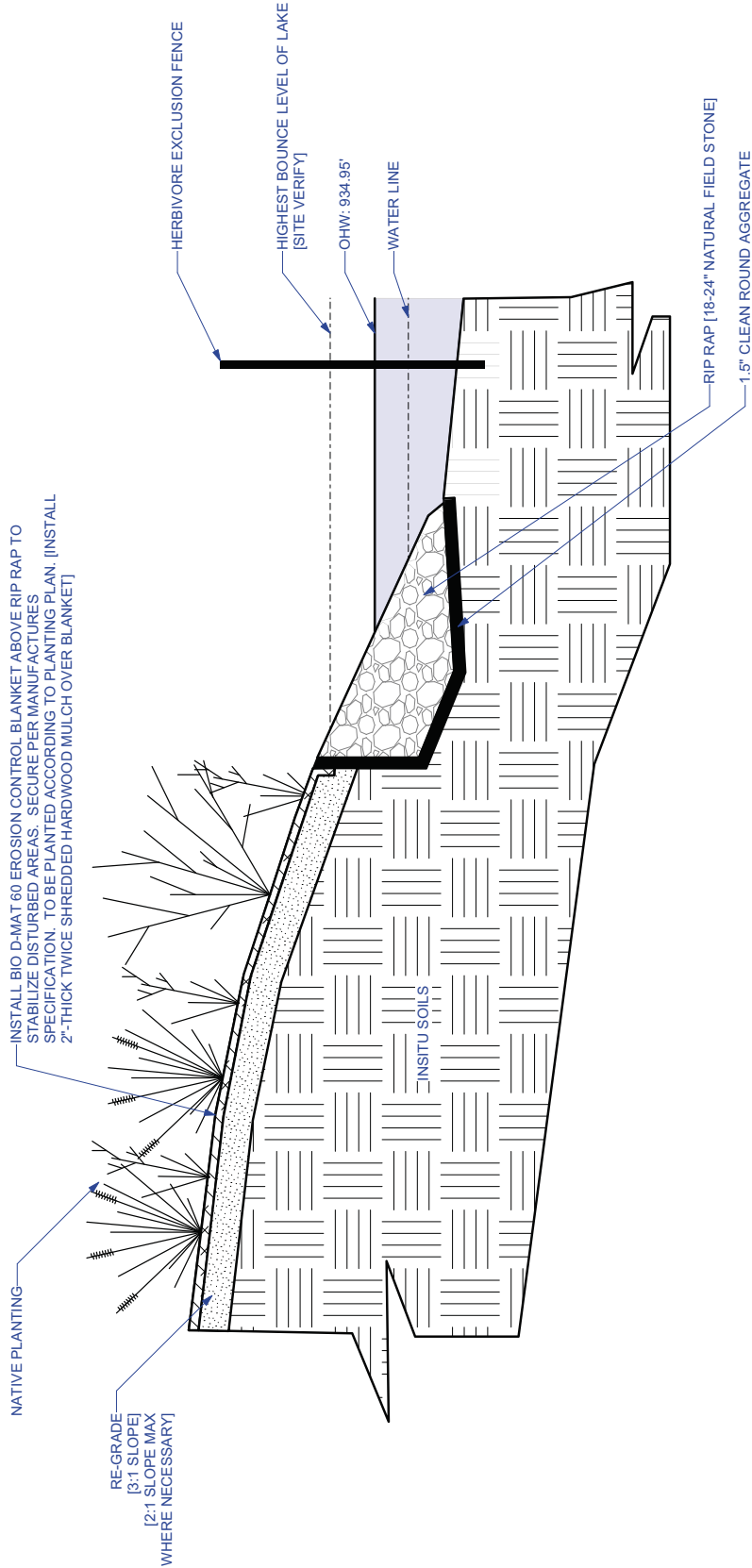
Qty	Latin Name	Common Name	Size	Spacing
90	Athyrium filix-femina	Lady Fern	4" Pot	24" O.C.
84	Carex pennsylvanica	Penn Sedge	4" Pot	24" O.C.
39	Diervilla lonicera	Dwarf Bush Honeysuckle	1 Gallon	48" O.C.
60	Elymus hystrix	Bottlebrush Grass	4" Pot	24" O.C.
72	Monarda fistulosa	Bergemot	4" Pot	24" O.C.
84	Phlox divaricata	Woodland Phlox	4" Pot	24" O.C.
1	Populus tremuloides	Quaking Aspen	10 Gallon	N/A
66	Veronicastrum virginicum	Culver's Root	4" Pot	24" O.C.
496	TOTAL PLANTS			



NOTES:

1. RIP RAP TO BE NATURAL FIELDSTONE ROCK. SIZE MAY VARY, VERIFY SIZING OPTIONS WITH RCD STAFF.
2. THE LARGEST ROCK OF THE RIP RAP SHOULD BE PLACED OVER THE TOE AND END TO ANCHOR THE INSTALLATION. DUMPED ROCK WILL BEST ADJUST ITSELF TO AN UNEVEN AREA. HAND PLACED ROCK IS EASILY DISRUPTED.
3. RIP RAP SLOPE NOT TO EXCEED 3:1 WATERWARD OF THE OHW. [FOLLOW NATURAL SHORE ALIGNMENT]
4. INSTALL FILTER/SETTING BED OF 1.5" CLEAN WASHED AGGREGATE
5. RE-GRADE AREA ABOVE RIP RAP [2:1 SLOPE MAX] INSTALL C-125 EROSION CONTROL BLANKET OR EQUIVALENT. PLANT WITH NATIVE SPECIES.
6. THE RIP RAP MUST BE NO MORE THAN 6 FEET WATERWARD OF THE ORDINARY HIGH WATER LEVEL. SITE VERIFY HIGH WATER LINE; INSTALL RIP RAP TO LEVEL OF WATER BOUNCE.

1 SHORELINE SECTION [TYP]
Scale: 3/8" = 1'-0"



Ramsey
Conservation District
RAMSEY CONSERVATION DISTRICT
1425 PAUL KIRKWOOD DR
ARDEN HILLS, MN 55112
651-266-7274
www.ramseyconservation.org

PROJECT: HANSOHN, LINDA
LOCATION:
1124 AMBLE DR.
ARDEN HILLS, MN 55112
WATERSHED DISTRICT:
RICE CREEK WATERSHED DISTRICT

RCWD
RICE CREEK WATERSHED DISTRICT

DESIGNER: BTO
DATE: 03/12/18
REVISION: 03/07/18
REVISION:
REVISION:
REVISION:
CHECKED BY:
TAA:

NOTES:
-CONTACT GOPHER STATE ONE CALL TO CONFIRM UTILITY LOCATIONS PRIOR TO WORK

-CONTRACTOR TO STAKE OUT OHW LINE PRIOR TO CONSTRUCTION, TO REMAIN THROUGHOUT CONSTRUCTION

-ALL ELIGIBLE WORK TO FALL UNDER RCD GENERAL PUBLIC WATERS PERMIT

SCALE:

SITE DETAILS

L1.5

Ramsey Conservation District

MATERIAL & COST ESTIMATE

[FOR REFERENCE USE ONLY - NOT FOR THE PURPOSE OF BIDDING]

Linda Hansohn
 1124 Amble Dr.
 Arden Hills, MN 55112
 BMP Type: Shoreline Stabilization and Buffer Planting
 Number of BMPs: 1

County: Ramsey
 Date: 12-Mar-18

Materials: Project A

Item	Qty	Unit	Unit Cost	Amount
Sediment and Erosion Control Practices (silt curtain or approved equivalent)	110.00	LIN-FT	\$ 2.50	\$ 275.00
Aggregate: Fieldstone Boulder (18"-24") (site verify quantity/need for additional rock)	30.00	TON	\$ 68.76	\$ 2,062.80
Aggregate: Clear Rock- 1-1/2" (angular rock not allowed)	12.00	TON	\$ 27.00	\$ 324.00
EC Blanket: CM4000, Bio D Mat 60, Cocomat 600, or equal (6.5' x 165')	2,350.00	SQ-FT	\$ 0.23	\$ 540.50
Soils: Twice-Shredded Hardwood Mulch (2" depth)	14.50	CU-YD	\$ 40.00	\$ 580.00
Edging (Metal: 1/8" x 6" x 8')	12.00	EACH	\$ 30.00	\$ 360.00
Native Plant: 4" Pot	456.00	EACH	\$ 4.50	\$ 2,052.00
Native Shrub: 1 Gallon	39.00	EACH	\$ 20.00	\$ 780.00
Native Tree: 10 Gallon	1	EACH	\$ 200.00	\$ 200.00
Herbivore-Exclusion Fence (4' green vinyl-coated wire, 5.5' steel t-post 10' on center)	330.00	LIN-FT	\$ 1.53	\$ 504.90
Turf Restoration	1.00	JOB	\$ 150.00	\$ 150.00
			Subtotal	\$ 7,829.20

Labor: Project A

Site Preparation	1.00	LS	\$ 1,200.00	\$ 1,200.00
Retaining wall removal, vegetation removal, clearing and grubbing understory, box elder tree removal, seed bed prep, chemical app as needed)				
Mobilization	1.00	JOB	\$ 500.00	\$ 500.00
Deliveries	4.00	EACH	\$ 150.00	\$ 600.00
Disposal	1.00	JOB	\$ 200.00	\$ 200.00
Grading (Tracked Equipment Only - no wheeled vehicles in excavation area)	6.00	HRS	\$ 200.00	\$ 1,200.00
Material Installation (4 person crew/ 10hr day)	2.50	JOB	\$ 2,400.00	\$ 6,000.00
			Subtotal	\$ 9,700.00

Additional Bid Items [as necessary]

1]	\$ -	\$ -
2]	\$ -	\$ -
3]	\$ -	\$ -
4]	\$ -	\$ -
5]	\$ -	\$ -
6]	\$ -	\$ -
	Subtotal	\$ -

Project Total: Project A

Materials Estimate	\$ 7,829.20
Labor Estimate	\$ 9,700.00
Project Estimate	\$ 17,529.20
:-10%	\$ 15,776.28
:+10%	\$ 19,282.12
Estimated WD/WMO Grant Award:	\$7,500.00
Estimated RCD Grant Award:	\$0.00
Potential Grant Award Total:	\$7,500.00
Estimated Landowner Cost:	\$10,029.20



Water Quality Grant Program Project Screening Form

Project / Landowner Name: Linda Hansohn	Affected Water Body: Karth Lake
Project Address: 1124 Amble Dr	City: Arden Hills
County: <input type="checkbox"/> ANOKA <input checked="" type="checkbox"/> RAMSEY <input type="checkbox"/> HENNEPIN <input type="checkbox"/> WASHINGTON	Project Type(s): Shoreline Stabilization
Application Date: 03/15/18	Project Effective Life: 10 years
Violation or Permit Requirement: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Reviewer: Brian T. Olsen

Projects are screened for potential grant eligibility based on the following criteria. (0 = Low, 5 = High)

1. Connectivity to Water Body

a. Is the project tributary to a PCA-listed impaired water (not mercury) or a RCWD Tier I or Tier II waterbody?

(NO) (YES, within Subwatershed) (YES, Direct Connection)

b. If NO, is the project tributary to a lake, stream, ditch, or DNR-Protected Water Wetland (PWW)?

(NO) (YES, within Subwatershed) (YES, Direct Connection)

2. Contributing Watershed Characteristics: Surface type draining to the project.

0% Impervious 50% Impervious 100% Impervious

Comments: _____

3. Volume Reduction: Implements controls to reduce and/or minimize the rate and volume of water that drains off the property.

No Infiltration/Filtration Filtration Infiltration

Comments: _____

4. Erosion and Sediment Control: Implements controls that minimize erosion and/or sedimentation and pollutants to downstream waters.

No Erosion Visible Erosion
 No Sediment Capture Sediment Capture

Comments: _____

5. Wildlife Habitat Improvement: Creates or improves wildlife and or pollinator habitat through native plantings or other restoration efforts.

Not Connected to Wildlife Corridor Connected to Wildlife Corridor

Comments: _____

6. Public Outreach: Willingness of applicant to allow signage, tours and site visits. Publically visible site. Diversity of practices.

Low Public Visibility Moderate Public Visibility High Public Visibility

Comments: _____

Total Score: 17
Minimum Eligibility = 15

ITEMS REQUIRING BOARD ACTION

2. Consider 2017 District Financial Report and Audit.
(Phil Belfiori)

MEMORANDUM
Rice Creek Watershed District

To: Board of Managers **Date:** April 4, 2018
From: Phil Belfiori, Administrator
Subject: 2017 District Financial Report and Audit

Background / Discussion

On March 27, 2018 the District received the 2017 Annual Financial Report and Audit prepared by Redpath and Company, Ltd., dated December 31, 2017. The report and compliance audit are required annually pursuant to M.S. 103B and 103D. Copies of the report will be sent to the State Auditor's Office, the Board of Water and Soil Resources, and the Director of the Division of Waters at the Department of Natural Resources to fulfill the legal reporting requirements found in statute.

The Financial Report & Audit concludes with two letters to the District one titled "Independent Auditor's Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with Government Auditing Standards" found on page 65 and one titled "Minnesota Legal Compliance Report" found on page 67.

The Report on Internal Control identified that the auditors did not identify any deficiencies in internal control that they considered to be a material weakness. This letter also identifies that the results of test disclosed no instances of noncompliance or other matters that are required to be reported under Government Auditing Standards.

The Report on Minnesota Legal Compliance states that nothing came to the attention of the auditors that caused them to believe that the RCWD failed to comply with the provision of the Minnesota Legal Compliance Audit Guide for Political Subdivisions.

Proposed Motion: Manager _____ moves to accept and authorize the filing of the Rice Creek Watershed District 2017 Annual Financial Report and Audit.

ITEMS REQUIRING BOARD ACTION

3. Consider HEI Taskorder for Washington Judicial Ditch 2 Branches 1 and 2 Construction Services. (Phil Belfiori)

MEMORANDUM
Rice Creek Watershed District

To: Board of Managers **Date:** April 4, 2018
From: Phil Belfiori
Subject: HEI Task Order 2018-09- Washington County Judicial Ditch 2 (WJD 2) Branches 1 & 2 Repair Design, Staking, and Construction Management

Please find attached for Board consideration Houston Engineering's (HEI) task order 2018-09. On February 28, 2018, the Board approved resolution 2018-07 (continuing implementation of the WJD 2 Branches 1 and 2 Repair Report). This task order is for completion of that work.

The professional services to be provided are identified in the attached HEI document and include:

- Design of the channel repairs, based on recommendations of the WJD 2 Br. 1 and 2 Repair Report and develop an Engineer's Opinion of Probable Construction Cost;
- Preparing the quote /bid documents, review of the received quotes and prepare a memorandum recommending the preferred contractor;
- Providing construction observation services. A HEI inspector will be on-site during the construction of Branch 2 repair activities and will be on-site part-time during construction observation on Branch 1;
- Perform a detailed field review to assist final design of the upland portion of the WJD 2 Branch 2 public drainage system; and
- Provide construction staking for the open channel excavation and tree clearing.

HEI has estimated the total cost of services at **\$43,700**. The estimated total cost for these services was included in the approved RCWD 2018 budget.

Recommendation

Staff recommends Board approval of the Houston Engineering request for services with a total cost of **\$43,700** as defined in attached HEI task order 2018-09 dated March 16, 2018.

Proposed Motion: Manager _____ moves to approve Houston Engineering task order 2018-09- WJD 2 Branch 1 & 2 Repair Design, Staking, and Construction Management for a total cost of \$43,700 as defined in the attached HEI task order dated March 16, 2018 and authorizes the Board President to execute the document.

Attachments:

- HEI Task Order 2018-09- JD 2 Branch 1 & 2 Repair Design, Staking, and Construction Management dated March 16, 2018

SCOPE OF SERVICES



Task Order 2018-009
Rice Creek Watershed District



JD 2 Branch 1 & 2 Repair Design, Staking, and Construction Management

RCWD Administrative Information:

Account Number: 80-20

Account Name: Public Drainage System Repair

Houston Engineering Project No.: R155555-258 Phase 006

Task Order Purpose:

The project purpose is to complete final design, prepare construction plans, prepare bid documents, complete bidding, provide construction observation services, and manage the repairs of behalf of the RCWD for the repair of Washington County Judicial Ditch 2 (JD 2) Branches 1 & 2 public drainage systems and provide regulatory coordination in conjunction with the proposed repairs.

Professional Services Rendered:

HEI intends to provide the following professional services during the completion of this Task Order:

- Perform a detailed field review to assist final design of the upland portion of the JD 2 Branch 2 public drainage system (approx. 0.5 miles). The field review consists of a walk-through of the portion of the drainage system to be repaired, documenting the location and type of visible structures and fences within the construction limits, and identifying probable construction access locations and equipment staging and work areas. The proposed scope assumes that a District staff member will accompany one representative from HEI to provide assistance in locating potential obstructions.
- Attend meetings with RCWD staff, landowners, RCWD Board, bidders, and the contractor. This will include weekly project coordination meetings with the contractor during construction.
- Complete final design of the channel repairs, tree removal, and culvert cleaning, based on recommendations of the JD 2 Branch 1 & 2 Repair Memos prepared by HEI.
- Prepare one set of construction plans and three quote specifications and quote solicitation documents (includes one draft for review).
- Develop an Engineer's Opinion of Probable Construction Cost.
- Assist the Rice Creek Watershed District with the quote process by preparing the quote documents, quote solicitation, review of the quotes received and prepare a memorandum recommending the preferred Contractor for each phase of work.
- Provide construction staking for the open channel excavation and tree clearing. We anticipate setting the stakes once. Any additional re-staking is considered outside of the

SCOPE OF SERVICES



Task Order 2018-009
Rice Creek Watershed District



JD 2 Branch 1 & 2 Repair Design, Staking, and Construction Management

scope of this task order. Stakes will be set to define the limits for the reasonably necessary area for construction and the channel depth of cut.

- Conduct a post-construction survey and use the survey information to create record drawings based upon an as-built survey. Provide the District with engineering drawings showing the as-built condition.
- Provide full-time construction observation on Branch 2 repair activities and part-time construction observation on Branch 1 at the District's discretion.

Deliverables:

The deliverables for the Task Order consist of:

- Draft construction plans and quote packages.
- Quantities and Preliminary Probable Opinion of Construction Cost.
- Final Project Manual.
- Seven pre- and post-construction meetings: two staff meetings with RCWD, one half day of meetings with landowners, two RCWD Board meetings and workshops, a Pre-Construction meeting, and a Post-Construction meeting.
- Various contract documents including Change Orders.
- Record Drawings.

Schedule and Compensation:

HEI will perform the professional services identified above on a time and materials basis for an estimated amount of **\$43,700**. This cost may vary greatly based on the level of coordination the District directs HEI to be involved with and may be dependent on the Contractor(s) selected and progress of work. The draft quote packages will be delivered by **June 1, 2018**. **Attachment A** provides a summary of the probable cost per task. HEI reserves the right to move dollars across tasks, while remaining within / below the total amount identified by this Agreement.

Assumptions:

The estimated compensation for the execution of the tasks identified within the "Professional Services Rendered" section of this Task Order is based upon the following assumptions:

SCOPE OF SERVICES



**Task Order 2018-009
Rice Creek Watershed District**



JD 2 Branch 1 & 2 Repair Design, Staking, and Construction Management

1. The project scope will be consistent with the recommendations specified in the Washington Judicial Ditch 2 Branch 1 and Branch 2 Repair Memos dated April 24th, 2017 and December 4th, 2017, respectively.
2. The contractor is responsible for replacement of any disturbance of staking they cause.
3. Regulatory coordination will be completed under a separate task order.
4. No unforeseen site conditions.

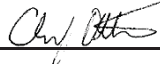
SIGNATURES:

The services described in this Task Order are being provided in accordance with the Professional Services Agreement between the Rice Creek Watershed District and Houston Engineering dated May 14, 2008, as amended and extended. This **Task Order** shall be effective **March 21, 2018** as authorized by the signatures of representatives of the Rice Creek Watershed District and Houston Engineering, Inc.

Rice Creek Watershed District

By: _____
Name: Patricia Preiner
Title: President
Date: _____

Houston Engineering, Inc.

By: 
Name: Christopher C. Otterness
Title: District Engineer
Date: _____

Attachment A
ESTIMATED BUDGET
JD 2 Branch 1&2 ENGINEERING DESIGN, STAKING, AND PROJECT MANAGEMENT



Rates ==> \$159 \$130 \$131 \$152 \$104 \$126 \$104 \$66

Date Prepared: March 7, 2017
 Date Revised:
 Prepared by: G. Monson
 Checked by: C. Ottensness

Total Estimated Labor \$41,728
 Total Estimated Expenses \$1,941
 Total Estimated Budget \$43,669

TASK DESCRIPTION	Project Manager	Professionals I Engineer	Environmental Scientist	2-person Field Crew	GIS Specialist	Senior Designer	Graduate Engineer	Admin Assist	Total	
									Hours	Dollars
	CO	GM	EB	JM/77	XX	JN	XX	JM		
	16	100	2	24	1	55	144	4	346	
	\$2,544	\$13,000	\$262	\$3,648	\$104	\$6,930	\$14,976	\$264	\$41,728	
	Total Labor Hours ==>									
	Total Labor Dollars ==>									
JD 2 Branch 1&2 ENGINEERING DESIGN, STAKING, AND PROJECT MANAGEMENT	16	100	2	24	1	55	144	4	346	\$41,728
Task 1 - Complete Design, Project Manual and Bidding	4	8	2	0	1	35	28	0	131	\$16,802
Project Management / Internal Meetings	1	1	1	1	1	1	2	0	18	\$2,376
Perform Detailed Site Review	1	1	0	0	0	0	0	0	8	\$913
Walk-through 2 miles of ditch, incl. documentation of existing conditions, structures, and etc.	1	1	0	0	0	0	0	0	8	\$913
Access field data and show on drawings	1	1	0	0	0	0	0	0	8	\$913
Project Construction Plans	4	10	0	0	0	36	0	0	40	\$5,212
Cover and sheet setup	1	2	0	0	0	2	0	0	2	\$264
Plan and Profiles (2 sheets)	1	2	0	0	0	2	0	0	2	\$264
SWPPP and Erosion Control (Design and Plan)	1	1	0	0	0	4	0	0	4	\$528
Details	2	2	0	0	0	4	0	0	4	\$528
Design meeting with District Staff (1)	2	2	0	0	0	4	0	0	4	\$528
Revisions per District	2	2	0	0	0	4	0	0	4	\$528
Project Quote Documents	3	6	0	0	0	4	16	0	29	\$1,761
Obtain Quotes	1	2	0	0	0	4	0	0	4	\$528
Opinion of Probable Construction Cost	2	2	0	0	0	4	0	0	4	\$528
Quote Specifications	2	2	0	0	0	4	0	0	4	\$528
Project Meetings and coordination	3	12	0	0	0	4	4	0	23	\$2,857
Project Meeting with ROWD Staff	2	6	0	0	0	4	4	0	12	\$1,536
Additional Landowner/neighbor meeting	1	4	0	0	0	4	4	0	8	\$1,040
Revisions per Landowner meeting	1	2	0	0	0	4	4	0	4	\$528
Bidding/Quote Solicitation	1	12	0	0	0	0	0	0	13	\$1,719
Send out quotes	1	4	0	0	0	0	0	0	4	\$528
Address Quote Questions	1	4	0	0	0	0	0	0	4	\$528
Bid evaluation and contractor selection preparation	1	4	0	0	0	0	0	0	4	\$528
Task 2 - Construction Management and Staking	0	51	0	24	0	20	116	4	215	\$25,128
Construction Management	0	36	0	0	0	0	16	0	52	\$6,344
Contract Documents (includes up to 2 change orders)	0	8	0	0	0	0	8	0	8	\$1,040
Pre-construction meetings (Engineer and Inspector)	0	8	0	0	0	0	8	0	8	\$1,040
Processing Pay Requests (2 requests, include progress report)	0	8	0	0	0	0	8	0	8	\$1,040
Coordination with ROWD during construction	0	8	0	0	0	0	8	0	8	\$1,040
Post-Construction meeting	0	4	0	0	0	0	4	0	4	\$528
Staking & Inspection	0	15	0	24	0	30	100	4	153	\$18,762
Staking	0	4	0	16	0	3	100	4	127	\$15,840
Construction Observation	0	8	0	8	0	12	100	4	122	\$15,040
As-built Survey	0	1	0	8	0	0	0	0	9	\$1,116
Record Drawings	0	2	0	0	0	0	0	0	2	\$264

Total Estimated Labor \$41,728
 Total Estimated Expenses \$1,941
 Total Estimated Budget \$43,669

Assumptions:

1. HEI will set construction stakes once. The contractor is responsible for replacement of any disturbance of staking.
2. HEI is the lead on inspection activities.

ITEMS REQUIRING BOARD ACTION

4. Consider HEI Taskorder for Anoka-Washington Judicial Ditch 3 Repair Report. (Phil Belfiori)

MEMORANDUM
Rice Creek Watershed District

To: Board of Managers **Date:** April 4, 2018
From: Phil Belfiori
Subject: HEI Task Order 2018-10 for development of repair report for Anoka Washington Judicial Ditch 3 (JD 3)

In 2015, the Board approved a historical review memo for Anoka-Washington Judicial Ditch 3 (JD 3). Based on input from the Board of Managers that has prioritized repairs to JD 3 upstream of I-35E for completion in 2019/2020, please find attached for consideration Houston Engineering's (HEI) task order 2018-10.

The professional services to be provided are identified in the attached document and includes completion of a repair report for portions of the Anoka-Washington Judicial Ditch 3 (JD 3) public drainage system upstream of Interstate 35E, including the Main Trunk and Branches 1, 3, and 4. The attached HEI task order also includes completion of a drone survey, determination of potential public waters and WCA wetland impacts, of and preparation of a report summarizing benefits and costs for a full repair of JD 3 upstream of I-35E to the ACSIC profile. HEI has estimated the total cost of services at **\$57,800**.

Recommendation

Staff recommends Board approval of the Houston Engineering request for services with a total cost of **\$57,800** as defined in attached HEI task order 2018-10 dated April 4, 2018

Proposed Motion: Manager _____ moves to approve the Houston Engineering request for services with a total cost of \$57,800 as defined in attached HEI memo dated April 4, 2018 and authorize the Board President to execute the document.

Attachments:

- HEI Task Order 2018-10 AWJD3 Repair Report dated April 4, 2018.

SCOPE OF SERVICES



Task Order 2018-010
Rice Creek Watershed District



JD 3 Repair Report

RCWD Administrative Information:

Account Number: 80-21
Account Name: Repair Reports

Houston Engineering Project No.: R005555-0280 Phase 001

Task Order Purpose:

The purpose of this project is to complete a repair report for portions of the Anoka-Washington Judicial Ditch 3 (JD 3) public drainage system upstream of Interstate 35E, including the Main Trunk and Branches 1, 3, and 4. In 2015, the Rice Creek Watershed District (RCWD) completed a historical review of JD 3 which included the determination of the As-Constructed and Subsequently Improved Condition (ACSIC) and culminated with a reestablishment of the public drainage system record per Minnesota Statute 103E. The historic review noted that much of the public drainage system is in need of repair and recommended the completion of a repair report. Based on input from District and HEI staff, Rice Creek Watershed District Board of Managers has prioritized repairs to JD 3 upstream of I-35E for completion in 2019/2020. The purpose of the repair report will to detail the repair methods, outline regulatory requirements, and provide an opinion of probable construction costs for a repair to the ACSIC grade and cross-section.

Professional Services Rendered:

HEI intends to provide the following professional services during the completion of this Task Order:

- Complete a drone survey of JD 3 upstream of I-35E. The video from this flight will be utilized for multiple purposes including identifying construction considerations, supporting regulatory correspondence, and engaging the public;
- Complete a determination of potential impacts to public waters and wetlands resulting from a repair of JD upstream of I-35E; and
- Prepare a report summarizing the benefits, costs, and regulatory requirements for a full repair of JD 3 upstream of I-35E to the ACSIC profile.

Deliverables:

The deliverables for the Task Order consist of:

- Drone Survey Video and Stills

SCOPE OF SERVICES



Task Order 2018-010
Rice Creek Watershed District



JD 3 Repair Report

- Wetland Delineation Report;
- Draft and Final Repair Report; and
- Presentation at a Board Workshop, Public Information Meeting, and Public Hearing.

Schedule and Compensation:

The repair report will be completed no later than September 30, 2018. We anticipate that public meetings and public hearings will be completed by December 31, 2018. HEI recommends that the RCWD budget the amount of **\$57,800** for engineering services described within this task order (see **Attachment A**). HEI shall not exceed this amount for the completion of this work without prior authorization from the Rice Creek Watershed District.

Assumptions:

The estimated compensation for the execution of the tasks identified within the “Professional Services Rendered” section of this Task Order is based upon the following assumptions:

1. There will be no need for additional survey data.
2. Only one major alternative (repair to the ACSIC) will be reviewed. The repair report may also include evaluate cost and relative function for subsets of that alternative.
3. Four meetings will be required: one with the Technical Evaluation Panel; one Board Workshop; one public informational meeting; and one public hearing on the repair
4. Regulatory coordination to obtain necessary approvals for the repair is outside the scope of this task order and will be completed under a separate task order or authorization. However, the repair report will describe and evaluate considerations related to regulatory requirements for proposed repairs, including WCA, public waters, and potential TMDL requirements.

SCOPE OF SERVICES



**Task Order 2018-010
Rice Creek Watershed District**



JD 3 Repair Report

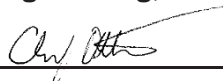
SIGNATURES:

The services described in this Task Order are being provided in accordance with the Professional Services Agreement between the Rice Creek Watershed District and Houston Engineering dated May 14, 2008, as amended and extended. This **Task Order** shall be effective **April 1, 2018** as authorized by the signatures of representatives of the Rice Creek Watershed District and Houston Engineering, Inc.

Rice Creek Watershed District

By: _____
Name: Patricia Preiner
Title: President
Date: _____

Houston Engineering, Inc.

By: 
Name: Christopher C. Otterness
Title: District Engineer
Date: April 4, 2018

**Attachment A
ESTIMATED BUDGET
Judicial Ditch 3 Repair Report**

Date Prepared: March 30, 2018
 Prepared by: G. Monson, C. Otterness
 Check by: C. Otterness, J. Lewis

Total Estimated Labor **\$57,277**
 Total Estimated Expenses **\$495**
 Total Estimated Budget **\$57,772**

TASK DESCRIPTION	District Engineer	Professional Engineer	Graduate Engineer	Environmental Scientist	GIS Technician	CAD Designer	Computer Technician	Two-Man Crew	Total	
									Hours	Dollars
Project Totals	34	82	167	141	12	0	16	16	468	\$57,277
Task 1 - Document Existing Conditions	0	1	0	0	0	0	16	16	33	\$4,578
Aerial Flight of Ditch	0	1	0	0	0	0	16	16	33	\$4,578
Aerial Flight		0.5						16		
Process UAS data		0.5						16		
Task 2 - Regulatory Considerations	9	25	42	140	4	0	0	0	220	\$27,697
Wetland Delineation	1	6	0	116	0	0	0	0	123	\$16,135
Wetland delineation field time		1		56						
Delineation report	1	4	1	52	4					
TEP meeting / review		1		8						
Description of regulatory considerations	8	19	42	24	4	0	0	0	97	\$11,562
Prepare text regarding recommended process for regulatory approval	1	1	1	22						
Request and consider OHW determinations for two (2) PWS	2	4	4							
Modify existing conditions continuous sim model to reflect full repair option	1	1	24							
Evaluate impacts using Van Schilfgaard method	2	10	8		4					
Evaluate and describe lateral inflows at potential lateral drainage locations	3	6	8							
Strategies for permitting / Consultation with District legal counsel	3	5	2							
Task 3 - Complete Technical Analysis and Prepare Draft of the Repair Memorandum	6	24	117	0	8	0	0	0	155	\$16,858
Repair plans	1	7	89	0	0	0	0	0	97	\$10,325
Draft plans of the proposed repair in CAD	1	1	84							
QA/QC plans	1	1	5							
Prepare Preliminary Opinions of Probable Cost / Benefits Analysis	0	1.5	10	0	0	0	0	0	11.5	\$1,235
Determine construction quantities from functional design	1	1	6							
Obtain unit cost and complete POPCC	0.5	4	4							
Prepare draft memorandum	5	15.5	18	0	8	0	0	0	46.5	\$5,298
Existing Conditions	0.5	3	3							
Costs/Benefits	2	6	6							
Conclusions and Recommendations	5	2	2							
Figures	1	2	2		8					
QA/QC memo	3	6	1							
Revise repair memo based on District staff/legal counsel comments	2	6	4							
Task 4 - Meetings, Hearings, and Project Coordination	19	32	8	1	0	0	0	0	60	\$8,144
Project Coordination	9	13	1	1	0	0	0	0	24	\$3,356
Meetings/correspondence with District staff	6	6	1	1						
Internal meetings/coordination	3	7	1	1						
Presentation to Board of Managers	1	7	5	0	0	0	0	0	13	\$1,589
Prepare powerpoint presentation	1	3	5							
Present to Board	4	4	1							
Public Information Meeting	5	6	1	0	0	0	0	0	12	\$1,679
Prepare powerpoint presentation	1	2	1							
Present at Public Info Meeting	4	4	4							
Public Hearing	4	6	1	0	0	0	0	0	11	\$1,520
Prepare powerpoint presentation	1	2	1							
Present at Public Hearing	4	4	4							

ITEMS REQUIRING BOARD ACTION

5. Consider Check Register dated April 11, 2018, in the amount of \$99,451.34 prepared by Redpath and Company.

Rice Creek Watershed District
Check Register
March 29, 2018 - April 11, 2018
To Be Approved at the April 11, 2018 Board Meeting

Check #	Date	Payee	Description	Amount
22160V	03/28/18	Rinkee Noonan	VOID	(\$8,792.00)
22176V	03/28/18	VOID	VOID	-
22177	03/28/18	Susan & Ronald Moore	Construction Expense	3,000.00 Issued 3/28/18
22178	03/28/18	Press Publications	Legal Notices	220.37 Issued 3/28/18
22179	03/28/18	Rinkee Noonan	February Legal Expense	9,419.50 Issued 3/28/18
22180V	03/28/18	VOID	VOID	-
22181	03/29/18	City of St. Anthony	Construction Expense	56,006.96 Issued 3/29/18
22182	04/11/18	Comcast	Telecommunications	139.85
22183	04/11/18	U.S. Bank Equipment Finance	Equipment Lease	249.98
2284	04/11/18	Metro Sales, Inc.	Equipment Lease	977.51
Dir.Dep.	04/13/18	April 13th Direct Deposits	April 13th Direct Deposits	23,383.22
EFT	04/02/18	Xcel Energy	Telecommunications	11.31
EFT	04/13/18	Internal Revenue Service	04/13 Federal Withholding	7,828.64
EFT	04/13/18	Minnesota Revenue	04/13 State Withholding	1,422.05
EFT	04/13/18	Empowerment Retirement	04/13 Deferred Compensation	783.00
EFT	04/13/18	PERA	04/13 PERA	4,800.95
Total				<u><u>\$99,451.34</u></u>

FOR INFORMATIONAL PURPOSES ONLY:

---	04/11/18	Pulte Group, Inc.	Surety Release - #15-019 Bond Reduction	455,000.00
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ITEMS FOR DISCUSSION AND INFORMATION

1. District Engineer Update and Timeline.



**District Engineer - Monthly Project Report March 2018
Rice Creek Watershed District**



Date Prepared: 4-Apr-18
Prepared by: G. Monson & C. Otterness

Project Name	Estimated Budget	Cost to Date	Remaining Budget	Project Complete / Transfer Funds?	Estimated Progress Based on Work Completed	Percentage of Budget Utilized	Within Budget? (Y/N)	District Billed for Change in Services? (Y/N)	Initial Target Completion Date	Revised Target Completion Date	Items of Interest / Concern
Hansen Park Project - Phase 5 Construction Management	\$253,300	\$220,283	\$33,017	N	88%	87%	Y	N/A	30-Nov-18	N/A	Excavation and sediment disposal operations are complete. Remaining items include vegetation establishment and trail pavement.
ACD 10-22-32, Branch 1 Repair Report	\$19,200	\$19,083	\$117	N	99%	99%	Y	N/A	30-Jun-17	N/A	We are continuing to coordinate with the landowner who requested the repair, and his consultant.
GIS Viewer and Permit Database Maintenance and Web Hosting	\$21,500	\$2,925	\$18,575	N	25%	14%	Y	N/A	31-Dec-18	N/A	We continue to update GIS layers as they are available.
District Facility Access Review	\$15,550	\$10,521	\$5,029	N	65%	68%	Y	N/A	28-Feb-18	N/A	We have completed a draft identification and categorization of District Facilities.
Brown's Preserve Monitoring, Credit Maximization and Bank Management 2017	\$65,540	\$65,910	(\$370)	Y	100%	101%	Y	N	31-Dec-19	N/A	The 2017 Monitoring report is completed.
Anoka County Ditch 53-62 Branch 2 Repairs Design and Construction	\$94,800	\$73,495	\$21,305	N	80%	78%	Y	N/A	1-Jun-18	N/A	Open channel excavation is complete. Setting of culverts under public roadways and the outlet control structure near Home Depot will be completed in spring.
Potential Wetland Bank Site Feasibility	\$36,800	\$38,875	(\$2,075)	Y	100%	106%	N	N	30-Sep-17	N/A	The technical memo evaluating the proposed banking sites has been finalized.
2017 Review of LSWMP for the Cities	\$16,000	\$9,028	\$6,972	N	55%	56%	Y	N/A	31-Dec-18	N/A	We are providing assistance to RCWD staff with review of portions of City Local Stormwater Managing Plans on an as-requested basis.
JD 2 Branch 1&2 Public Hearing & Regulatory Coordination	\$15,000	\$9,207	\$5,793	N	60%	61%	Y	N/A	1-May-18	N/A	We are continuing to coordinate with the DNR on delisting a public water.
Watershed Management Plan Strategic Direction	\$72,500	\$31,374	\$41,126	N	45%	43%	Y	N/A	31-Jul-18	N/A	The second Board workshop for prioritizing issues was held in March.
Oasis Pond IESF - Construction Management Support	\$45,340	\$4,901	\$40,439	N	10%	11%	Y	N/A	30-Sep-18	N/A	Contract submittals are continuing to be reviewed. Construction is anticipated to begin in April
2017 CWPMP Annual Report	\$13,500	\$8,020	\$5,480	N	80%	59%	Y	N/A	1-Jun-18	N/A	We have completed a draft annual report for internal review.

Values in red are either potential budget concerns or changes in schedule.

The "overage" for those projects shown as "over budget" is not billed to the District. The cost to date column reflects HEI's actual internal cost. Projects are considered within budget if ± 10%.

**District Engineer
Monthly Progress Report (Actual & Estimated Progress)
Through March 2018**

