

**Riley-Purgatory-Bluff Creek Watershed District**  
Board of Managers Regular Meeting  
**Wednesday, September 5, 2018**  
**5:30 pm Governance Workshop and Regular Board Meeting**  
DISTRICT OFFICE  
18681 Lake Drive East  
Chanhasen

**Agenda**

1. **Call to Order**
2. **5:30pm Governance Workshop**
3. **7:00 pm Approval of the Agenda (Additions/Corrections/Deletion)**      **Action**
4. **Matters of general public interest**      **Information**

Welcome to the Board Meeting. Anyone may address the Board on any matter of interest in the watershed. Speakers will be acknowledged by the President; please come to the podium, state your name and address for the record. Please limit your comments to no more than three minutes. Additional comments may be submitted 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 a future agenda.

5. **Reading and approval of minutes**      **Action**  
Board of Manager Meeting, August 8, 2018
6. **Consent Agenda**  
(The consent agenda is considered as one item of business. It consists of routine administrative items or items not requiring discussion. Any manager may remove an item from the consent agenda for action.)
  - a. Accept August Staff Report
  - b. Accept August Engineer's Report (with attached Inspection Report)
7. Citizen Advisory Committee      **Information**
8. Action Items      **Action**
  - a. Accept July Treasurer's Report
  - b. Approve Paying of the Bills

- c. Accept the bid and award contract for Rice Marsh Lake Alum Bid (bid opening on September 4th)
- d. Accept the bid and award contract for Lotus Lake Alum Ordering (bid opening September 4th)
- e. Authorize a request for bids for Bluff Creek Tributary
- f. Authorize a request for bids for Lower Riley Creek
- g. Deny one-year extension request for conditionally approved permit 2015-036 - Saville West in Minnetonka.
- h. Approve assignment of Pemtom Land Company conditionally approved permit 2017-007 Cedarcrest Stables to HP Holding, LLC. with staff recommendations.
- i. Consider permit 2018-016 Avienda variance request and conditional approval with staff recommendations
- j. Consider permit 2018-028 Oak Point Elementary Parking Lot conditional approval with staff recommendations
- k. Approve change order for Lake Susan Park Pond - no fund transfers are needed at this time
- l. Approve change order for Chanhassen High School
- m. Approve fund transfers for Chanhassen High School
- n. Approve Resolution 2018-08 affirming acceptance of responsibility for MN Wetland Conservation Act in Shorewood.
- o. Authorize Administrator to enter agreement with 4M Fund
- p. Consider permit 2018-052 HCRRA Culvert Replacements variance request and conditional approval with staff recommendations

## 9. Discussion Items

### **Information**

- a. Upcoming October Board Meeting:
  - i. Duck Lake Subwatershed Analysis
  - ii. Cooperative Agreements with City of Chanhassen and Eden Prairie (Bluff Creek Tributary, Lower Riley Creek)

## 10. Upcoming Events

### **Information**

- Citizen Advisory Committee monthly meeting, August 20, 6:00 pm, 18681 Lake Drive East, Chanhassen.
- Budget Workshop, August 27, 5:30pm, 18681 Lake Drive East, Chanhassen.
- Governance Board Workshop, Public Hearing and Regular Board Meeting, September 5, 5:30 pm, 18681 Lake Drive East, Chanhassen
- Budget Public Hearing, September 17, 7:00pm, 18681 Lake Drive East, Chanhassen
- Citizen Advisory Committee monthly meeting, September 17, 6:00 pm, 18681 Lake Drive East, Chanhassen.

## MEETING MINUTES

### Riley-Purgatory-Bluff Creek Watershed District

August 8, 2018, Board of Managers Monthly Meeting and Public Hearing

PRESENT:

Managers: Jill Crafton, Treasurer

Larry Koch

Dorothy Pedersen, Vice President

Dick Ward, President

David Ziegler, Secretary

Staff: Claire Bleser, District Administrator

Terry Jeffery, Project and Permit Manager

Joshua Maxwell, Water Resources Coordinator

Emma Nyquist, RPBCWD Intern

Louis Smith, Attorney (Smith Partners)

Scott Sobiech, Engineer (Barr Engineering Company)

Maya Swope, RPBCWD Staff

Other attendees: Richard J. Chadwick, former manager                      JoAnn Syverson, LLCA

Greg Hawks, Chanhassen Environmental Commission                      Marilyn Torkelson, CAC

Sam Kinzel, Volunteer

#### 1. Call to Order

President Ward called to order the Wednesday, August 8, 2018, Board of Managers Meeting at 7:00 p.m. at the District Office, 18681 Lake Drive East, Chanhassen, MN 55317.

#### 2. Oath of Office, Appointment of Board Secretary, Approval of the Agenda

President Ward noted that the Oath of Office is added to tonight's meeting agenda.

Attorney Smith led the Oath of Office for Jill Crafton, Larry Koch, and David Ziegler for their positions as managers for the RPBCWD. After the conclusion of the Oath of Office, Attorney Smith pointed out that the paper copies of the Oath needed to be signed by managers Crafton, Koch, and Ziegler. The managers sign the oaths.

Manager Koch thanked the Carver County Board of Commissioners for appointing him and thanked Richard Chadwick for his time and contribution to the Board and the District. Mr. Koch shared several prepared comments.

President Ward noted that the Board needed to appoint a Board secretary. Manager Crafton nominated Manager Ziegler as Board Secretary. Manager Pedersen seconded the motion. Upon a vote, the motion carried 5-0.

Manager Ziegler moved to approve the agenda as amended. Manager Crafton seconded the motion. Upon a vote, the motion carried 5-0.

### 3. Public Hearing: Lotus Lake and Rice Marsh Lake Alum Treatments

President Ward opened the public hearing on the Lotus Lake and Rice Marsh Lake Alum Treatments.

Administrator Bleser pointed out that these proposed alum treatment projects will protect water quality of district lakes and so the projects are within the parameters of the goals set in the District's 2018 Watershed Management Plan.

Administrator Bleser, using PowerPoint slides, went through the District's lake management decision tree. She touched on the topics of fisheries, vegetation, and water quality. She provided background on the Lotus Lake Alum Treatment project. Administrator Bleser noted the 2017 completion of the Purgatory Creek Use Attainability Analysis (UAA) and the recommended load reductions identified in the UAA.

Administer Bleser shared the information about the 2018 revised Lotus Lake Alum dosing. She talked about the benefits and costs of the project.

Administrator Bleser provided background on the Rice Marsh Lake Alum project. She described the unique features about the lake, importantly its labile soils. She explained that the lake's soil is different than the soils of Lake Riley and Lotus Lake and affects the dosing. Administrator Bleser discussed the benefits and costs of the project.

Administrator Bleser stated that the two projects together would reduce phosphorous loading by 3,200 pounds per year. She said that the timelines for the projects are for the District to go out for project bids in August and for the alum application to occur in the fall if the Board accepts project bids.

Administrator Bleser responded to Board questions.

President Ward opened the floor for public comments.

Ms. Joanne Syverson of 489 Pleasantview Road in Chanhassen said that she a Board member on the Lotus Lake Conservation Alliance (LLCA). She congratulated the new managers and said she is looking forward to working with them. Ms. Syverson stated that the LLCA is very appreciative that the Board has moved the Lotus Lake Alum Treatment project from 2025 to 2018. She said the LLCA believes project will be money well-spent. Ms. Syverson said that Manager Koch talked to a Lake Riley lakeshore resident about the alum treatment on Lake Riley and that resident said the water quality of Lake Riley has improved and the resident believes the improvement is due to the lake's alum treatment. Ms. Syverson said she collects monthly water samples from Lotus Lake and she has seen that lake's water quality go down. Ms. Syverson commented that the Lotus Lake Alum Treatment project is the first water quality project that the watershed district has done for Lotus Lake. She asked the District to provide project updates to the LLCA and suggested the updates be sent to Laurie Susla. Administrator Bleser responded that all the Lotus Lake residents will receive project information and that the District has Ms. Syverson listed as the LLCA secretary and so staff has been sending the project information directly to her attention but can also send information to Ms. Susla. Ms. Syverson mentioned that a resident around Lotus Lake signed up for the home site visit by the District to discuss buffers and other such water quality practices but there wasn't follow-up by the District. Administrator Bleser asked for the contact information so that staff could follow up.

President Ward called for any further comments. Upon hearing no additional comments, President Ward closed the public hearing.

#### 4. Matters of General Public Interest

There were no matters raised.

#### 5. Reading and Approval of Minutes

##### a. July 11, 2018, RPBCWD Board of Managers Monthly Meeting and Public Hearing

Manager Crafton noted a correction to be made on page 2, item 3, paragraph 6 so the sentence reads, "...the Board will have more opportunity to discuss this item in more detail at the next meeting." Manager Crafton moved to accept the minutes as amended. Manager Ziegler seconded the motion. Upon a vote, the motion carried 5-0.

#### 6. Consent Agenda

President Ward read aloud the Consent Agenda items: 6a – Accept June Staff Report; 6b – Accept June Engineer's Report (with Attached Inspection Report); 6c – Approve 2<sup>nd</sup> Permit Review Timeline Extension for 2018-028: Oak Point Elementary Parking Lot; 6d – Approve Liability Coverage Waiver Form with the League of Minnesota Cities; 6e – Approve staff/CAC Recommendations for Residential Cost-Share Application "Ross"; 6f – Approve Staff Recommendation for Residential Cost-Share Application "Jay."

Attorney Smith pointed out that for item d – Approve Liability Coverage Waiver Form with the League of Minnesota Cities – the Board needs to specify its choice either to waive or not to waive the monetary limits. He explained the choices and said that many watersheds elect not to waive the limits, which is the action this Board has taken in previous years. Manager Ward noted that the managers were handed out tonight the liability coverage waiver form with the box "not to waive limits" selected. The Board agreed that its action is to not waive limits.

Manager Koch had questions about insurance coverage for Board members. Attorney Smith responded.

Manager Koch had questions about the June Inspection Report prepared by the Engineer. Mr. Jeffery responded.

Manager Pedersen moved to approve Consent Agenda. Manager Ziegler seconded the motion. Upon a vote, the motion carried 5-0.

#### 7. Citizen Advisory Committee (CAC)

Ms. Marilyn Torkelson, CAC member, noted that the CAC's recommendations about the cost-share grants are in the CAC's meeting minutes. Manager Pedersen asked her for information about the CAC's discussion of the cost-share grant application regarding the smart irrigation system. Ms. Torkleson responded that the CAC thought the current irrigation system should be inspected to see if it could be fixed and if not, then to find an alternative that is lower cost than the proposed smart irrigation system.

#### 8. Action Items

##### a. Accept June Treasurer's Report

Treasurer Crafton communicated that the report was reviewed in accordance with the District's internal controls and procedures. She moved to accept the Treasurer's Report. Manager Pedersen seconded the

motion. Upon a vote, the motion carried 5-0.

**b. Approve Paying of Bills**

Manager Crafton moved to pay the bills. Manager Ziegler seconded the motion. Upon a vote, the motion carried 5-0.

**c. Resolution 2018-005 Rice Marsh Lake Alum Treatment Project**

President Ward read aloud the resolving statements of Resolution 2018-005.

Manager Koch moved to adopt Resolution 2018-005 Rice Marsh Lake Alum Treatment Project. Manager Ziegler seconded the motion. Upon a roll call vote, the motion carried 5-0

Manager	Aye	Nay	Absent	Abstain
Crafton	X			
Pedersen	X			
Ziegler	X			
Koch	X			
Ward	X			

**d. Resolution 2018-006 Lotus Lake Alum Treatment Project**

Manager Ward read aloud the resolving statements of the resolution. Manager Ziegler moved to adopt Resolution 2018-006 Lotus Lake Alum Treatment Project. Manager Koch seconded the motion. By call of roll, the motion carried 5-0.

Manager	Aye	Nay	Absent	Abstain
Crafton	X			
Pedersen	X			
Ziegler	X			
Koch	X			
Ward	X			

**e. Resolution 2018-007 to Adopt the Amendments to the RPBCWD Rules**

President Ward read aloud the resolving statements of Resolution 2018-007. Manager Pedersen noted that her name is misspelled in the resolution. Manager Crafton noted that the appendix should be labelled Appendix I. Manager Ziegler asked about the status and timeframe of the District's efforts to update its

rule for flow rate to reduce the flow rate on new construction and major remodeling to within 10% of pre-settlement values up to 2 inches of rain. Mr. Jeffery responded that there isn't a schedule set for moving forward with it and as it stands the staff is planning to review and come back to the Board with more information in the future. He noted that the Board could set a deadline for receiving the information but cautioned against doing two rule amendments right on top of each other. Mr. Jeffery said that there is a TAC meeting scheduled for October and this topic can be added as a discussion item for the meeting. He said that staff will continue to move forward with discussing the issue and will bring information back to the Board after the October TAC meeting. Mr. Jeffery responded to questions from Manager Koch about rules triggers.

Manager Crafton moved to adopt Resolution 2018-007. Manager Pedersen seconded the motion. By call of roll, the motion carried 5-0.

Manager	Aye	Nay	Absent	Abstain
Crafton	X			
Pedersen	X			
Ziegler	X			
Koch	X			
Ward	X			

**f. Approve Permit 2018-039 Emerson Park Improvements and Garage Replacement with Staff Recommendations**

Mr. Jeffery explained the proposed project, which includes relocating a storage facility and two walking paths plus adding two patios to an existing gazebo. He talked about features that the site is losing due to the corridor of the Southwest Light Rail. Mr. Jeffery went through the permit application review.

Manager Crafton moved to approve Permit 2018-039 Emerson Site Improvements with Staff Recommendations. Manager Pedersen seconded the motion. Upon a vote, the motion carried 5-0.

**g. Approve Permit 2018-043 Control Concepts with Engineer's Recommendation**

Engineer Sobiech explained that the proposed project includes construction of office and warehouse space plus parking, a drive aisle, a trail, and an underground detention and infiltration system with pre-treatment that will provide storm water runoff rate control, volume abstraction, and water quality treatment.

Engineer Sobiech went through the Engineer's review of the permit application and displayed PowerPoint slides of the proposed project.

Attorney Smith responded to a question from Manager Koch about financial assurances. Attorney Smith explained that the financial assurances are a critical and cost-effective way to ensure compliance with the District's permit requirements.

Manager Ziegler moved to approve Permit 2018-043 with the Engineer's recommendations. Manager Crafton seconded the motion. Upon a vote, the motion carried 5-0.

**h. Cost-Share Application: Prairie East 5<sup>th</sup> Association – Water Conservation**

Administrator Bleser reported that staff reached out to the City of Woodbury about its water conservation program and cost-share incentives to residents. She said that the City reimburses residents up to 50% of the cost not to exceed \$8,000 for approved installation of smart irrigation. She noted that the meeting packet includes the grant application, information about the City of Woodbury’s water conservation incentive program for residents, and the email communication from District staff to the applicant to request further information.

The Board and staff had a lengthy discussion about smart irrigation including its costs, benefits, and different models, how action on this cost-share would set precedent, and alternatives that the Association could implement. Manager Koch commented that once the Board decides how to take action on this Cost Share grant application the Board needs to reflect its decision by making a cost share grant policy about it.

The Board directed Administrator Bleser to go back to the grant applicant to share information about Woodbury’s program and to ask the applicant to bring forward to the District two more smart irrigation project cost bids and then bring the application back to the Board. She mentioned that there will be a lunch and learn for staff, the CAC, the TAC and other interested parties at the District office on September 4 with a Woodbury City staff person presenting on its water conservation program. President Ward asked Administrator Bleser to make sure the cost share grant application receives an invitation.

**i. Cost-Share Application: Eden Prairie Schools – Eden Lake School – Porous Asphalt for Outdoor Patio Areas**

Administrator Bleser remarked that this is a non-typical cost-share application. In this case the project is removing turf to add outdoor patio areas and the applicant is proposing to use porous asphalt for the patios. She said that this project could either be seen as ineligible for cost-share funds or could be seen as eligible as a best management practice. Administrator Bleser stated that staff doesn’t see this project as meeting the purpose of the cost-share program.

There was discussion. Manager Koch remarked the need to reflect the Board’s decision in its cost-share grant policies.

Administrator Bleser said that she is hearing that as it this application is written this project does not qualify for the cost-share grant program and staff will review the District’s cost-share grant program application to make sure it is clear what projects are eligible.

**9. Discussion Items**

**a. Agenda Items for September Board Meeting**

President Ward noted that items for the Board’s September monthly meeting include the Governance workshop, 4M Fund Membership, and cooperative agreements with the City of Chanhassen and the City of Eden Prairie regarding the Bluff Creek Tributary. Administrator Bleser announced that the 2019 Budget Workshop will be held on August 27<sup>th</sup>.

**10. Upcoming Events**

- Citizen Advisory Committee Meeting, Monday, August 20, 6:00 p.m., District Office, 18681 Lake Drive East, Chanhassen

- Budget Workshop, Monday, August 27, 5:30 p.m., District Office, 18681 Lake Drive East, Chanhassen
- Governance Board Workshop, Public Hearing, and Regular Board Meeting, Wednesday, September 5, 5:30 p.m., District Office, 18681 Lake Drive East, Chanhassen
- Citizen Advisory Committee Meeting, September 17, 6:00 p.m., District Office, 18681 Lake Drive East, Chanhassen

## 11. Adjourn

Manager Crafton moved to adjourn the meeting. Manager Ziegler seconded the motion. Upon a vote, the motion carried 5-0. The meeting adjourned at 8:57 p.m.

Respectfully submitted,

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David Ziegler, Secretary

# RPBCWD Staff Report

August 8, 2018

## Administrative

### 50th Anniversary Celebration: Come explore with us!

Winter: Lake Ann Winter Festival, Snow shoeing family event

Spring: Get out and explore, walking challenge

Summer: Celebrating our community, Lake Riley Jacques Barn

Fall: Half Century Bike Ride

December: Discover our community through your lens (Annual communication will include photos from photo contest engaging our community to capture the beauty of our natural resources). This will wrap up our 50th anniversary.



### Aquatic Invasive Species

The District went out and pulled eurasian water milfoil from Staring Lake this month. About 110 plants were pulled. Only part of the lake was completed and at least one additional pulling event will need to occur.

The District hosted a DNR AIS training session on August 14th, 2018. About 21 people attended from cities, counties, watershed districts, and soil and water conservation districts. The main topics included working with businesses (garden stores, aquarium stores, and marinas) on preventing AIS, AIS laws, supporting watercraft inspections (discussion of what has and hasn't been working and how to improve our inspectors), an update on the Wright County regional inspection program, and identifying AIS and common sampling techniques.

### Annual Report

No Updates

### Budget

Administrator Bleser develop a Budget for 2019. Administrator Bleser presented the a draft Budget at a board workshop on August 27th. Public Hearing for the budget will September 17th at 7:00pm. Budget and Levy amount will need to be sent on September 17th to both counties.

### Data Requests and Research Extension

A resident requested methods to control phragmites around a stormwater pond in Chanhassen ad was given info on phragmites, Chanhassen contacts, and District cost share opportunities.

## **Grants**

Fire Station 2 is almost complete and we will soon be submitting grant for reimbursement. Administrator Bleser is working with the City of Eden Prairie.

## **Citizens Advisory Committee**

### **July meeting**

Staff Jeffery attended the July CAC meeting. CAC members were invited to a lunch and learn in regards to the City of Woodbury Water Conservation Program. See in TAC section for further details.

## **Technical Advisory Committee**

A lunch and learn on September 14th on the City of Woodbury Water Conservation Program. City staff from the TAC have forwarded the invitation to other staff within their cities to the lunch and learn.

## **Programs and Projects**

### **District-Wide**

#### **Cost-share program**

##### Residential

No new updates

##### HOA

No new updates

##### Government

No new updates

#### **MPCA Community Resiliency Grant**

The grant is officially closed.

#### **Regulatory Program (T. Jeffery)**

##### **Permitting**

Seven (7) applications were submitted to the District's online permitting system since the August 3, 2018 Board Meeting. One is the transfer request for conditionally approved permit 2017-007 on tonight's agenda. One applicant is reviewing their project scope in an effort to avoid certain triggers. Two are in various stages of review by staff. Three of the applications have been approved administratively and are listed in the table below with other permits approved administratively that were received prior to the August 3rd meeting but approved afterwards.

PERMIT #	ADDRESS	PROJECT DESCRIPTION
2018-047	15900 Flying Cloud Road	An after the fact permit for the quarrying of granular material to be used on the CSAH 61 reconstruction project in Eden Prairie. The quarry was outside of the project limits and, therefore, not accounted for in the original permit.
2018-048	19067 Magenta Bay Rd, Eden Prairie	An after-the-fact permit to do landscaping work on a single family residential lot: pervious pavers, plants, and a fish pond.
2018-049	18702 Heathcote Dr., Deephaven	The construction of a single family residential home on an existing lot of record. It will include a wetland buffer to address stormwater management.
2018-050	8810 Eden Prairie Rd, Eden Prairie	Grading of a portion of Eden Prairie Cemetery to improve drainage. They elected to operate under newly revised rules so only Rule C would be triggered.
2018-055	Sunrise Park, Bloomington	The rehabilitation of 8-foot wide bituminous trails. All trails had impervious area downstream at least equal to the width of the trail.
2018-057	Existing Utility Easement Minnetonka, Shorewood, Chanhassen, and Chaska	The Project is located within existing road and utility rights-of-way, along the Lake Minnetonka LRT Regional Trail, Vine Hill Road, Highway 7, and Highway 41 in Hennepin and Carver Counties. They do not anticipate any earth disturbing activities as the pipe will be inspected with a tool that uses non-invasive methods. They still requested a permit in case they needed to “pothole” to inspect the pipe. An erosion prevention and sediment control plan, consistent with Rule C was provided.

Staff has been in discussions with SEH, and Three Rivers Park District regarding Three River Parks planned parking and drive aisle improvements in Hyland Park. The project is in both Nine Mile Creek Watershed District and Riley Purgatory Bluff Creek Watershed District. The two Districts will need to enter into a Joint Powers Agreement. RPBCWD will handle the permitting.

Staff has met with Westwood Engineering on August 30th to discuss a potential mixed use Planned Unit Development (PUD) in Eden Prairie at Prairie Center Drive and Flying Cloud Drive. This meeting was a pre-application meeting primarily focused on an on-site wetland.

Staff will be meeting with the City of Eden Prairie and their consulting engineer on September 5th to discuss future road reconstruction of Preserve Boulevard from Prairie Center Drive to Anderson Lakes Parkway.

Staff will be meeting with a contractor and Eden Prairie staff on September 6th to discuss a potential project on Masons Pointe on Red Rock Lake.

### **Rules Update**

The rules were approved at the August 8, 2018 meeting and are being provided to the appropriate agencies. Two applicants have opted to have their permit application reviewed under the new rule revisions.

### **Wetland Conservation Act Administration**

The City of Shorewood City Council passed a resolution on August 27, 2018 delegating responsibility for administration of the Wetland Conservation Act (WCA) to RPBCWD. Minnehaha Creek Watershed District has been administering WCA for that portion of Shorewood within RPBCWD since 2007. This transfer of responsibility will make it easier for applicants by minimizing the number of agencies involved in regulatory review of a project.

Since assuming WCA responsibility for Deephaven in March, RPBCWD has not had any WCA application. There has been three instances of consulting with land owners about various aspects of WCA.

Minnesota Rules allow for RPBCWD to collect a reasonable fee. Staff will discuss likely costs incurred as a result of these responsibilities and bring suggestions to the managers for consideration at a future meeting.

### **Stormwater Research (Gulliver)**

Administrator Bleser and Council Smith are working with the University of Minnesota.

### **Data Collection (J. Maxwell)**

#### **Rice Marsh Aeration**

No new updates. Staff will pulse the unit once a month and remove the aeration stones for cleaning this fall to ensure the lines are clear.

#### **Summer Field Season**

Staff conducted three lake and stream sampling events this past month. All lake level sensors were checked and were working well including the two EnviroDIY lake level units on Lake Riley and Rice Marsh Lake. Staff will be conducting additional tests this month on the spent lime unit. Macroinvertebrates were collected at all major reach water quality sites on Riley Creek this past month. Staff will sample macroinvertebrates on a rotating basis moving forward (creek/year). Collecting macroinvertebrates can measure the health of water creatures, help diagnose the type of stressors damaging a water body, define management approaches to protect and restore the water's biological communities, and evaluate how effective protection and

restoration activities are. Macroinvertebrate scoring could be potentially added to the Creek Restoration Action Strategy (CRAS) in the future.

On August 8, 2018 staff conducted regular creek sampling on Purgatory Creek just downstream of Anderson Lakes Parkway in Eden Prairie. While out staff noticed discoloration in water which was at baseflow (should've been relatively clear) and walked upstream before noticing a sewer odor. Staff then discovered a sewer pipe that was blocked a discharging untreated sewage directly into Purgatory Creek (picture right). Staff immediately notified the city who responded within 30 minutes and had cleared in about an hour. Based on the evidence it appeared the blockage had occurred recently (perhaps that day sometime). Staff have been collecting water quality samples to assess stream conditions after the spill.



### **Common Carp Management**

#### **Carp Removed: 1,883 - Lower Purgatory Creek Recreational Area**

Staff installed the barrier trap net on May 7th and Eden Prairie staff installed the barrier on May 4th. Staff checked the net and barrier daily and have been coordinating cleaning the barrier with city of Eden Prairie staff. The barrier has been working well this year; we have not received many large rain events and have experienced limited clogging. The trap net was removed in July. The majority of the fish captured this year were removed via backpack electrofishing at the breached berm between Upper Purgatory Creek Recreational Area and Lower Purgatory Creek Recreational Area. Numbers of carp captured and removed dwindled as the main spawning run ended.

Staff received 14 tags for tracking common carp this winter. Staff have been sampling for carp in District lakes. One young of the year (YOY) carp has been captured in Lake Ann so far which is of limited concern. Carp capture numbers in the upper purgatory creek recreational area appear to be lower this year which may be in part to removal efforts this spring. This is based on only a partial sampling regime and could change.

District staff also assisted Ninemile Creek Watershed District with fish sampling on Normandale Lake and Lake Cornelia.

### **Creek Restoration Action Strategy**

Staff collected bank pin measurements this month for 2018 and replaced “lost” bank pins at our regular stream monitoring sites. Staff also installed pins on the southwest side of Silver Lake. Joshua Maxwell submitted the third revised CRAS to the Center for Watershed Protection for publication. It has been passed to the editor in chief to give the final approval to send it out for editing before publishing.

## **WOMP Station - Metropolitan Council**

Staff visited the WOMP stations twice this month for baseline sample collection. A new monitoring unit was installed by METC on Purgatory Creek off of Pioneer Trail in July.

## **Education and Outreach (M. Swope)** **Volunteer program**

### Service Learners

No updates.

### Adopt a Dock Program

Adopt a Dock volunteers continue to log observations on a monthly basis.

### Master Water Stewards Program

We received two applications and have had 4 more interested in the program. We also advertised with the school districts to recruit a junior master water steward.

### Citizen Advisory Committee

See CAC section  
above.

### Minnetonka High School Capstone Mentorship

Aimi has completed her summer internship with the district, working on a variety of projects including artwork for the district's forthcoming Jr. Explorer booklet.



## **Communication Program**

### Speakers Bureau

No new updates.

### Water Resources Report

Lake Susan and Bluff Creek fact sheets were modified to incorporate project information for our Chanhassen High School project and Lake Susan Park Pond.

### Website & Newsletter

Final content for the website is being generated, and finishing details are being completed to prepare for the website's launch. The August newsletter was released.

### **Youth Outreach**

#### Earth Day Mini-Grants

No new updates. Applications for 2019 will open late winter of next year.

#### Deephaven Explorers Club

Staff Swope and Staff Maxwell visited the explorers club summer camp on August 16th to engage campers ages 4- 10 around fish and AIS. The 130 children were able to learn about the fish and complete the AIS Junior Inspector activity.

#### Scenic Heights School Forest Restoration

The nurse stump sign has been finalized, printed, and delivered to the district office. Staff are working to install the sign. The bare-root trees and shrubs that have grown in the gravel bed nursery over the summer months will be planted this fall in the vegetated swale area around the pond buffer. Staff are working to finalize a date and other details for an upcoming volunteer event to plant these trees. Additionally, Administrator Bleser is working to connect with local Eagle Scouts to implement projects that will increase restoration and education at the site.

### **Continuing Education Program**

#### Winter & Turf Maintenance Training

The district hosted a Winter Parking Lots & Sidewalks Maintenance workshop August 30th, led by staff from Fortin Consulting. Attendees included city and state employees, private contractors, church maintenance staff, and others.

### **Businesses and Professionals Program**

#### Professional luncheon series

The District will be hosting a lunch and learn for both CAC and TAC members on water conservation on September 14th.

### **Wetland Management**

#### **Wetland Inventory**

Staff Jeffery has trained Staff Nyquist and Staff Dickhausen to perform wetland assessments using the MN Routine Assessment Methodology (MNRAM). Wetland assessments have begun within the Chanhassen area. Staff Jeffery has elected to perform the assessments beginning with the less developed areas and those likely to experience development pressures.

Currently 31 wetlands have been assessed or are in the process of being assessed.

#### **Wetland Conservation Act Administration**

Staff Jeffery has met with representatives of the Minnehaha Creek Watershed District and the City of Shorewood to discuss the steps necessary for RPBCWD to resume the Administration of

the Wetland Conservation Act (WCA) within that portion of Shorewood also within RPBCWD boundaries. Base upon this meeting, Staff Jeffery will be bringing a resolution to the Board, assuming responsibility for WCA in Shorewood at the September meeting.

The contractor for the CSAH 61 project recently informed the City of Eden Prairie (the Local Government Unit (LGU) responsible for the administration of WCA in most of the corridor) about a potential release of soils into several wetlands. The extent of the release is unknown at this time. Eden Prairie has requested the the Technical Evaluation Panel (TEP) be convened to discuss the wetland impact and necessary corrective actions. As of this drafting, no date had been set.

RPBCWD has already assumed LGU status for the WCA in Deephaven. No WCA activities have occurred within this jurisdiction.

### **Bluff Creek One Water**

#### **Chanhassen High School**

Please see packet for additional information.

### **Bluff Creek Tributary Restoration**

Cooperative agreement for Bluff Creek Tributary Project was shared with the City of Chanhassen. We have received feedbacks and making a few tweaks. The agreement will be moved forward to the board at the October meeting. Please see packet for addition information.

### **Riley Creek One Water**

#### **Lake Susan Park Pond**

Please see packet for additional information.

### **Riley Creek**

Cooperative agreement was shared with the City of Eden Prairie. Cooperative agreement will be moved to be executed at the October board meeting.

### **Purgatory Creek One Water**

#### **Fire Station 2**

City is close to finishing the project. Administrator Bleser will start processing close out of grant in August.

### **Purgatory Creek at 101**

Final planting will be first week of September.

### **Scenic Heights School Forest**

Staff is working with the school district on a potential volunteer planting day on Oct 6th. The plantings will take bare roots.

## **Professional Workgroups and Continuing Education**



# 2018 BWSR Academy

October 29-31, 2018  
Breezy Point Conference Center, Breezy Point, MN  
[www.bwsr.state.mn.us/academy](http://www.bwsr.state.mn.us/academy)



**BWSR Academy** is a three-day, cost effective annual training event for conservation-based local government staff.

**Our goal:** To provide high quality training for local government staff that maintains and improves the delivery of conservation work and meets the shared expectations of BWSR and local resource management boards.

**Academy Registration:** Academy registration will begin in mid-August on the BWSR website. To ensure that session sizes do not exceed room capacity, BWSR will be closing registration to individual sessions as they fill up and registration for the entire day when we reach our daily maximum. Please keep this in mind and remember to register early for BWSR Academy!

**Contact:** Barbara Radke, Training Coordinator  
507-884-0442, [barbara.radke@state.mn.us](mailto:barbara.radke@state.mn.us)

The 2018 BWSR Academy includes seven tracks with concurrent sessions designed to build conservation skills and increase your organization's effectiveness.

Track 1: Organizational Capacity	Track 2: Technical	Track 3: Outreach
Focus on building internal LGU capacity. Participants will enhance their skills in working with others and managing their organizations.	Focus on technical skills to help prioritize projects, use data sets, and install conservation practices.	Focus on developing skills for interacting with and engaging the public in your work.
Track 4: Program Administration	Track 5: Basics	Track 6: Workshops
Focus on administrative requirements of BWSR programs.	Focus on fundamental conservation and program information for new staff.	Features half or full-day workshops for topics requiring more in-depth practice and review.
Track 7: Repeat Sessions	Features repeats of the sessions we anticipate will be high in demand. We'll have a list of the repeat sessions ready when you register.	

Staff Swope and Dickhausen will be attending BWSR academy this Fall.

Staff Maxwell will be attending the Upper Midwest Invasive Species Conference in Rochester this fall. The goal of UMISC is to strengthen management of invasive species, especially prevention, control, and containment. Invasive species research, prevention, and management has seen great strides but much work still must be done. <https://www.umisc.net/>

Administrator Bleser will attend a water conflict management and transformation pre-conference workshop at the AWRA conference. Administrator Bleser will also be attending the 2018 Regional LMC meeting on November 29. The meeting will:

- Explore how cities in your area can partner on challenging

issues, and ways the League might support this work

- Hear from LMC's Intergovernmental Relations staff about the 2019 city legislative policies, the upcoming session, and what you can do to advocate for city priorities
- Find out new ways the League is engaging with member cities, and how we're helping connect members to share ideas and resources
- Identify strategies for diffusing conflict and collaborating more effectively with others, both in and out of city hall.

Administrator Bleser has accepted to be on a Technical Advisory Panel for a stormwater research grant for Professor Gulliver and Finlay.

## Memorandum

**To:** Riley-Purgatory-Bluff Creek Watershed District Board of Managers and District Administrator  
**From:** Barr Engineering Co.  
**Subject:** Engineer's Report Summarizing August 2018 Activities for September 5, 2018, Board Meeting  
**Date:** August 30, 2018

The purpose of this memorandum is to provide the Riley-Purgatory-Bluff Creek Watershed District (RPBCWD) Board of Managers and the District Administrator with a summary of the activities performed by Barr Engineering Co., serving in the role of District Engineer, during August 2018.

### General Services

- a. Participated in an August 14<sup>th</sup> meeting with Administrator Bleser and Counsel Smith to discuss governance training, potential upcoming Board meeting agenda items, status of district's 2018 capital projects, and the potential for large development on the formerly Prince property west of Lakes Ann and Lucy.
- b. Met with Administrator Bleser and Permit Coordinator Jeffery on August 14<sup>th</sup> to discuss an enhanced regulatory database and observe the Capital Region database demo.
- c. Met with Project Manager Jeffery and Peterson Construction on August 7<sup>th</sup> to discuss Lake Susan Park Pond pump house layout and other contractor questions.
- d. Visited a slope erosion site on the west side of Silver Lake with Permit Coordinator Jeffery on August 14<sup>th</sup>
- e. Met with Peterson Construction on August 15<sup>th</sup> to discuss noncompliance with August 17<sup>th</sup> completion date for Chanhassen High School Reuse project. Had several follow-up conversations with District counsel and Administrator Bleser to assist in developing a written letter.
- f. Met with Administrator Bleser on August 28<sup>th</sup> to discuss potential Eagle Scout project at the Scenic Heights Forest Restoration Site.
- g. Attend the August 8<sup>th</sup> regular Board of Managers meeting.
- h. Prepared Engineer's Report for engineering services performed during August 2018.
- i. Participated in August 27<sup>th</sup> RPBCWD budget workshop
- j. Miscellaneous discussions and coordination with Administrator Bleser about 2019 budgeting, task order status, 2019 CIPs, and upcoming Board meeting agenda.
- k. Miscellaneous correspondence with Permit Coordinator Jeffery about revised District boundary and District –wide hydrologic/hydraulic models.

## Permitting Program

- a. *Permit 2018-016: Avienda:* This project involves a mixed-use regional development in the southwest quadrant of the intersection of Lyman Boulevard and Powers Boulevard in Chanhassen Minnesota. The project will trigger the RPBCWD Floodplain, Erosion Control, Wetland and Creek Buffer and Stormwater Management Rules. The applicant is proposing an initial construction phase to include mass grading and construction of all public infrastructure. The applicant will seek future permit approvals, as development occurs to account for site-specific impervious coverage. Conducted three more rounds of review of revised submittal materials received on August 3<sup>rd</sup>, August 16<sup>th</sup>, and August 23<sup>rd</sup>. Met with permit applicant on August 8<sup>th</sup> to discuss project revisions, revised water quality modeling and floodplain variance request. Responded to several calls from applicants engineer with questions about stormwater modeling and wetland buffer requirements. Drafted permit review report for Board consideration at the September 5<sup>th</sup> meeting.
- b. *Permit 2017-007: Cedarcrest Stables:* This project involves construction of a 17-lot single family home subdivision in Eden Prairie. The project was conditionally approved at June 7, 2017 Board meeting. Worked with Permit Coordinator Jeffery on transferring the project to a new owner.
- c. *Permit 2018-028 Oak Point Elementary Parking Lot:* This project involves construction of a new parking lot and walkway in the southwest portion of the Oak Point Elementary School parcel on Staring Lake Parkway in Eden Prairie. The project will trigger the RPBCWD Erosion Control, Wetland and Creek Buffers, and Stormwater Management Rules. Completed a review of the revised information received on August 16<sup>th</sup> and drafted permit review report for Board consideration at the September 5<sup>th</sup> meeting.
- d. *2018-052 HCRRA Culvert Replacement:* The project proposes to replace two failing culverts that convey flow from drainage swales (watercourse) under the Minnetonka LRT Regional Trail between Vine Hill road and County Road 101 in Deephaven to a wetlands. There are two downgradient wetlands onsite. A 24-inch steel and 36-inch reinforced concrete pipe (RCP) are being replaced with 24 & 36-inch RCPs. The application was considered complete on August 23, 2018. The proposed project triggers the Floodplain and Drainage Alteration; Erosion and Sediment Control; Wetland and Creek Buffer; and Waterbody Crossing and Structures Rules. Reviewed the original August 2<sup>nd</sup> submittal and provided comments. Reviewed the revised August 23<sup>rd</sup> submittal and provided comments on August 29<sup>th</sup>, including the need for a variance request. Began drafting permit review report;
- e. Performed erosion control inspections of active sites during the week of August 17<sup>th</sup> (see attached inspection report).
- f. Developed permit location maps based on Permit Coordinator Jeffery's requests.
- g. Miscellaneous conversations with Permit Coordinator Jeffery about technical questions on permit requirements for potential development and redevelopment projects.

### **Data Management/Sampling/Equipment Assistance**

- a. Continued developing auto-alert notification system for when new field data has been collected by RPBCWD staff and is ready to be uploaded into database.
- b. Adjusted field collection app field based on RPBCWD field staff feedback.
- c. Uploaded and verified 11 laboratory reports from RMB into database.

### **Task Order 6: WOMP Station Monitoring**

#### **Purgatory Creek Monitoring Station at Pioneer Trail**

- a. MCES is in the process of changing to new equipment at this site. Training on new equipment for cooperators will be conducted soon.

#### **Purgatory Creek Monitoring Station at Valley View Rd**

- a. Download and review data.
- b. Low level flow measurement for rating curve.
- c. Maintenance - troubleshoot auto-sampler power issue.

### **Task Order 7b: Purgatory Creek Stabilization near Hwy 101—Construction**

- a. Staked the locations for seven cedar trees to be planted at the construction entrance. The cedar trees will provide additional screening between residents and Highway 101, and they will also discourage pedestrian access from the paved trail along Highway 101. The trees will be installed during the first week of September.

### **Task Order 13b: Lake Susan Watershed Treatment and Stormwater Reuse Enhancements Design and Construction Administration**

- a. Review submittals from Peterson Companies and compare against construction plans and specifications. Nineteen (19) submittals were reviewed in August to ensure compliance with the contract documents, 12 original submittals (first-time review) and 7 resubmittals, including:
  1. Building Subgrade (original and 1 resubmittal)
  2. Cam and Groove Fittings (original)
  3. Concrete Reinforcement (original and 1 resubmittal)
  4. Directional Drilling Plan (original and 1 resubmittal)
  5. Electrical Schematic (original and 1 resubmittal)
  6. Irrigation Connection (original)
  7. Precast Concrete Manhole (original)
  8. PVC and HDPE Pipe (original)
  9. Rubber Check Valve (original)
  10. Electrical Spare Parts List (original)
  11. Stilling Well (original and 1 resubmittal)
  12. Tracer Wire (1 resubmittal)

13. Tracer Wire Accessories (original)

14. Water Level Control Structure (1 resubmittal)

- b. Construction oversight based on when work is being conducted at the project site and numerous coordination calls with Peterson Companies (Peterson) and the City of Chanhausen.
- c. Construction administration tasks including submittal management, coordination with engineers for approval of submittals, and construction observation notes and photo review.
- d. Coordination and attendance at an unplanned progress meeting with Peterson and Permit Coordinator Jeffery on August 7, 2018 after Barr discovery of work onsite ahead of schedule receipt.
- e. Coordination and attendance at an unplanned onsite meeting at Lake Susan Park with Peterson on August 13, 2018 to discuss construction entrance placement, options, and trail protection.



**Photo of the iron enhanced sand filter installation**

**Task Order 14b: Lower Riley Creek Final Design**

- a. Submitted permit applications to be submitted to the US Army Corps of Engineers, and MnDNR.
- b. Finished contract documents and 100% plans in preparation for bidding..

**Task Order 19: Chanhausen High School Stormwater Reuse Design**

- a. Continued review of submittals include submittals for treatment shelter and pump pad foundation reinforcement and pipe penetration submittals (including original submittals and numerous revisions).

- b. Coordination with the contractor (Peterson) to understand anticipated construction schedule for key tasks to help coordinate construction observation and if they anticipated meeting the August 17, 2018 completion deadline.
- c. Construction oversight based on when work is being conducted at the project site and numerous coordination calls with Peterson and ISD112 staff.
- d. Review August 9, 2018 letter from Peterson regarding completion date and compilation of schedule and submittal reviews since notice of aware to present.
- e. Coordination and attendance of the August 15, 2018 meeting with RPBCWD, ISD112, Peterson, and Barr staff to discuss project delays and schedule.
- f. Phone call with RPBCWD administrator and legal counsel regarding letter to Peterson in relation to project delays and schedule and review of draft letter.
- g. Follow-up with Magellan Pipeline Company, Peterson, and ISD112 regarding the encroachment agreement in relation to the placement of the low voltage communication line in the gas pipeline easement that was not constructed to plan. The electric subcontractor placed the line as was directed by Magellan field staff but this change was not communicated to Barr until we were at the site reviewing work that was completed that day. This has required numerous communications to understand how this happened and the implications to the existing encroachment agreement between the ISD112 and Magellan Pipeline Company.
- h. Coordination with Arteka (the Chanhassen High School Irrigation system maintenance contractor) regarding revisions to the irrigation zones and the connections to the existing irrigation control system.
- i. Follow-up with Arteka on questions from Peterson regarding the connections to the existing irrigation control system, the pumping controls, and system pressure.



**Photo of the water treatment shelter foundation, after forms removed**

**To:** Riley-Purgatory-Bluff Creek Watershed District Board of Managers and District Administrator  
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**Photo of electrical trench within the Magellan Pipeline easement.**

#### **Task Order 21B: Bluff Creek Stabilization Project**

- a. Addressed comments received from the City on the plan set, including additional modifications to the revegetation plan.
- b. Finished contract documents and 100% plans to prepare the project for bidding.

#### **Task Order 23: Scenic Heights School Forest Restoration**

- a. Monthly management visits consisting of herbicide treatments with a handheld brush saw continued on re-sprouts of honeysuckle and buckthorn as well as herbaceous invasive species such as garlic mustard and motherwort.
- b. The contractor has been directed to mow down the herbicide treated buckthorn and honeysuckle re-sprouts and to begin preparing portions of the site for fall native seeding. The area surrounding the existing prairie knoll will be seeded, as well as the north facing slope along the trail between the school and Purgatory Park. Areas that have the worst herbaceous invasive infestation will be treated once more in spring 2019 prior to seeding in those areas.
- c. A volunteer plantings event is being planned to install the bare root plants that have been growing in the gravel bed tree nursery this summer. Overall, growth of these small bare root plants has been strong following several fertilizer applications throughout the summer. The gravel bed nursery will be planted again next year by another Eagle Scout candidate.

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**Photo of prepared native seedbed surrounding the pond at Scenic Heights School Forest**



**Photo of existing native prairie knoll with seedbed expansion and herbicide treated buckthorn re-sprouts in the foreground.**

**Task Order 24: Preliminary Engineering Study for Silver Lake Water Quality Treatment Project**

- a. Permit Coordinator Jeffery met with City of Chanhassen staff on August 1<sup>st</sup>. In the upcoming weeks, Barr staff will update the draft feasibility study to incorporate comments provided by District and City staff.

To: RPBCWD Board of Managers  
From: Dave Melmer  
Subject: August 17, 2018—Erosion Inspection  
Date: August 30, 2018  
Project: 23/27-0053.14 PRMT 9016

Barr staff has inspected construction sites in the Riley Purgatory Bluff Creek Watershed District for conformance to erosion and sediment control policies. Listed below are construction projects and the improvement needed for effective erosion control. The sites were inspected from August 16-17, 2018.

## Site Inspections

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2015-010	<b>Children's Learning Adventure - Private - Commercial/Industrial</b> <b>Northwest Coerner of Highway 5 and Galpin Avenue</b> <b>Chanhassen, Minnesota 55317 United States</b> Area near SW overflow (riprap) still has minimal bare areas on east side slope-however site is stable. All temporary BMP's have been removed with exception of-inlet protection observed at catch basin on Galpin-- SE corner on site side(photo). Wetland and Do Not Mow signage has been installed near NW ponds. (August,2018)	2018-08-17
2015-016	<b>Blossom Hill - Private - Residential</b> <b>10841 Blossom Rd Eden Prairie, Minnesota 55347 United States</b> House construction at several site continues. BMP's look good. Minor tracking to street observed. Additional catch basin protection installed.	2018-08-16
2015-035	<b>LaMettry's Chanhassen - Private - Commercial/Industrial</b> <b>Audubon RD and Motorplex CT Chanhassen, Minnesota 55317 United States</b> Construction complete. Site is stable. Three inlet protections still in place. Site is stable. (August-2018)	2018-08-17
2015-036	<b>Saville West Subdivision - Private - Residential</b> <b>5325 County Road 101 Minnetonka, Minnesota 55345 United States</b> Construction complete at 5320 Spring Ln. House site. Silt fence perimeter control in place. BMP's look good. Landscaping not complete -lot has been graded for sod or seeding. Silt fence installed on southwest and west side of development. Additional lot has silt fence perimeter control installed- no activity at this lot. Lots to south have been brushed/cleared. (August-2018)	2018-08-17

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**2015-050**                      **Arbor Glen Chanhassen - Private - Residential**                      **2018-08-17**  
**9170 GREAT PLAINS BLVD Chanhassen, Minnesota 55317**  
**United States**  
Perimeter control (silt fence) installed. Heavy equipment onsite and earthwork/grading complete. Roadway and detention pond installed. All slopes have been stabilized and covered. BMP's look good. Construction at first site underway. BMP's for this location are good. (August-2018)

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**2015-056**                      **Oster Property - Private - Residential**                      **2018-08-17**  
**9008 & 9010 Riley Lake Road Eden Prairie, Minnesota 55347**  
**United States**  
Construction complete. Silt fences /bio-logs have been removed. Vegetation mats and wood chips have been installed on all bare soils. All other BMP's look good. Landscaping completed. Small area needs to sprout and establish -- areas where bare have been seeded. Site should be stable next inspection.

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**2015-058**                      **Prairie Center Clinic Addition - Private -**                      **2018-08-16**  
**Commercial/Industrial**  
**8455 Flying Cloud Drive Eden Prairie, Minnesota 55344**  
**United States**  
Construction complete on building. Some BMP's have been removed for landscaping. Vegetation is established. Parking lot top coat complete. Site is stable. BMP's are still in place--silt fence. Silt fences can be removed. Will contact site representative about BMP removal.

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**2016-004**                      **Round Lake Park Improvements - Government - Other**                      **2018-08-17**  
**16700 Valley Road Eden Prairie, Minnesota 55344 United**  
**States**  
BMP's look good. Site construction complete. Vegetation is established. All temporary BMP's have been removed with exception of BMP's at infiltration areas-silt fences. Infiltration basins vegetation is established. Basin silt fences can be removed. Site is stable. (August-2018)

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**2016-015**                      **18321 Heathcote Lane - Existing Single-Family**                      **2018-08-17**  
**18321 Heathcote LN Deephaven , Minnesota 55391 United**  
**States**  
Construction complete. Landscaping is complete/site has been graded and prepped --seeding occurred--quite a bit of weed growth --vegetation is establishing.

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<b>2016-026</b>	<b>Foxwood Development - Private - Residential</b> <b>9150 and 9250 Great Plains Blvd Chanhassen, Minnesota</b> <b>55317 United States</b> Multiple house construction continues-BMP's look good- silt fences and rock entrances installed/ good perimeter control. Silt fences have been installed on unsold lots. Catch basin protection has been reinstalled. Additional silt fences have been installed across site. Some tracking to streets. Site is swept regularly. Sediment built up in some locations and some sites need rock entrances refreshed. Site conditions are good. (August-2018)	<b>2018-08-17</b>
<b>2016-030</b>	<b>IDI Distribution Building Expansion - Private - Commercial/Industrial</b> <b>8303 Audubon Road Chanhassen, Minnesota 55317 United States</b> Parking on north side installed/curb and gutter installed and paved. Building addition complete. Landscaping complete. Site is stable. All temporary BMP's have been removed except catch basin protection.	<b>2018-08-17</b>
<b>2016-032</b>	<b>CSAH 61 Improvements - Government - Linear</b> <b>N/A Eden Prairie, Minnesota 55347 United States</b> Construction continues. Slopes are being cover with matting. Area near creek crossing is under construction continues. BMP's to date look very good. BMP's are being installed on date of site visit. MPCA Corrective action list on RPBC side are addressed. Photos taken of site are loaded on I-Pad. Bare soils are currently being worked and will be covered. Spoke with site representative and erosion control personnel onsite.	<b>2018-08-16</b>
<b>2016-033</b>	<b>Anderson Lakes-Purgatory Trail - Government - Other</b> <b>Anderson Lakes PKWY and Purgatory Creek Eden Prairie, Minnesota 55344 United States</b> No construction observed to date.	<b>2018-08-16</b>
<b>2016-040</b>	<b>18995 Minnetonka Blvd - Existing Single-Family</b> <b>18995 Minnetonka Blvd Deephaven, Minnesota 55391 United States</b> Construction complete. Slopes with vegetation mats have growth established. Entire site has been covered with matting and vegetation has established. Driveway installed- some class five near south end of driveway has been graded.	<b>2018-08-17</b>
<b>2016-041</b>	<b>Chanhassen West Water Treatment Plant - Government - Other</b> <b>2070 Lake Harrison Road Chanhassen, Minnesota 55317 United States</b> Silt fences installed on site. Construction complete. Landscaping and seeding underway--all soil covered with matting. BMP's look good. Entrance installed and paved--roadway complete.	<b>2018-08-17</b>

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**2016-042**                      **18663 St. Mellion Place--Eden Prairie (Bear Path)**                      **2018-08-17**

Construction continues. BMP's are good silt fence replaced with bio-logs--bio-logs are overtopping in locations. Site grading and sod installation has occurred on a large portion of site- however a large area is not stable and bare-- susceptible to erosion. Sediment deposits observed at curb side near site. CA is on 7/21/18 inspection with photos. Terry Jeffrey's was notified. No contact information for owner available.

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**2016-043**                      **Bongards Redevelopment - Private - Commercial/Industrial  
8330 Commerce Drive Chanhassen, Minnesota 55317 United States**                      **2018-08-17**

Parking lot complete. Landscaping complete. Vegetation is established. All temporary BMP's have been removed. Site is stable. This will be last field inspection for this permit.

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**2016-044**                      **Dell Rd & Riley Creek Repair Project - Government - Other  
9980 Dell Road Eden Prairie, Minnesota 55347 United States**                      **2018-08-16**

Vegetation was growing appears to have died off. Rip-rap was installed at dirt road edge to control erosion from road. Additional erosion prevention from road needs to be addressed. More rock installed along flow path and silt deposit at beehive catch basin remains. Representative was contacted in September (2017) and is aware of site condition. August-2018. Same conditions exist-- additional sediment build up at beehive catch basin. Photo taken.

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**2016-045**                      **MCES Blue Lake Interceptor Rehab - Government - Linear  
See attached multiple , Minnesota 55354 United States**                      **2018-08-17**

Construction complete. Silt fences installed/bio-logs in place. Bare soils covered with spray-tac. Some vegetation growing--observed areas of minimal growth. Majority of site is stable. (August-2018)

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**2016-047**                      **9507 Sky Lane Eden Prairie - Existing Single-Family  
9507 Sky Lane Eden Prairie, Minnesota 55347 United States**                      **2018-08-17**

Final landscaping is complete. Wetland signage install. Site is stable. This will be last field inspection for this permit.

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**2017-001**                      **Kopesky 2nd Addition - Private - Residential  
18340 82nd St Eden Prairie, Minnesota 55347 United States**                      **2018-08-17**

Site has been cleared and perimeter control--silt fence has been installed. Rock entrance installed. Heavy equipment onsite. Road and storm sewer installation underway- site grading work still underway. BMP's are good--with exception of no catch basin protection at SW of site at Dell and West 82nd St./ no protection at toe of spoils piles on west side of site near sidewalk.

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2017-003	<b>18761 Heathcote Dr Building Addition - Existing Single-Family</b> <b>18761 Heathcote Dr Wayzata, Minnesota 55391 United States</b> House construction complete. Pool installation complete. Landscaping complete--sod and shrubs installed. Temporary BMP's have not been removed (silt fence/ bio-logs). Debris pile onsite. August-2018.	2018-08-17
2017-009	<b>Emerson Chanhassen East Renovation - Private - Commercial/Industrial</b> <b>8200 Market Boulevard Chanhassen, Minnesota 55317 United States</b> Construction complete. Temporary BMP's removed. Landscaping complete. West infiltration basin installed and complete-temporary BMP's removed. Site is stable. This will be last field inspection for this permit.	2018-08-17
2017-011	<b>Galpin Blvd Watermain Improvements - Government - Linear</b> <b>Galpin Blvd &amp; Lake Harrison Road Chanhassen, Minnesota 55317 United States</b> Construction complete. Soils were covered with erosion control mats-growth observed to date and stable. Silt fence still installed in one area. (Across from Galpin Blvd. and Harrison Bay Rd.Site is stable. August-2018.	2018-08-17
2017-022	<b>Chanhassen High School Stormwater Reuse - Government - Other</b> <b>220 Lyman Blvd Chanhassen, Minnesota 55317 United States</b> Construction continues. Perimeter silt fence installed and catch basin protection in place. BMP's look good.	2018-08-17
2017-024	<b>Prairie Bluffs Senior Living - Private - Residential</b> <b>10280 Hennepin Town Rd Eden Prairie, Minnesota 55347 United States</b> Construction continues. Perimeter silt fence installed and catch basin protection in place. BMP's look good. Catch basin at Hennepin Town Road and Normandy Crest (SW corner) catch basin installed. Site entrance is adequate. Street tracking has been addressed.	2018-08-16
2017-026	<b>6135 Ridge Road Existing Single-Family</b> <b>6135 Ridge Road, Shorewood, Minnesota</b> <b>Open CA(s): Bare soils not stabilized- weed covered. Deadline: 9/17/2018</b>  Rock entrance is good. Silt fence maintenance has been completed--however -- root cause of erosion ---bare soils covered by sparse weed growth has not been addressed. Bare soils on site and slopes still need to be covered and stabilized--without coverage soils will continue to erode downslope. CA will stay open for the bare soils/slope is weed coverage but not stable. August-2018. Site representative/homeowner onsite and is aware of issues. Southwest corner has been cut back and bare soils	2018-08-17

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exposed/tree roots exposed along roadside-- potential for erosion and undercutting of road-this area is slated for retaining wall. Photos taken --July inspection.

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**2017-027**                      **7500 Chanhassen Road - Existing Single-Family**                      **2018-08-17**  
**7500 CHANHASSEN RD Chanhassen, Minnesota 55317-8576**  
**United States**  
Construction complete. Site has been graded for landscaping. Some silt fences removed and bio-logs installed. Landscaping underway on inspection date.

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**2017-029**                      **Tweet Pediatric Dentistry - Private - Commercial/Industrial**                      **2018-08-17**  
**7845 Century Blvd. Chanhassen, Minnesota 55317 United**  
**States**  
Construction complete . BMP's are installed and good. Catch basin protection installed in this area. Infiltration areas installed. Parking lot grading and curb/gutter installation complete. Site has been recently graded and prepped for seeding or sod.

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**2017-030**                      **Elevate - Private - Commercial/Industrial**                      **2018-08-16**  
**12900 Technology Drive Eden Prairie, Minnesota 55344**  
**United States**  
Construction continues. Perimeter control installed. Catch basin protection installed. Some catch basins have bladders installed and drainage will be directed to other basins. BMP's look good.

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**2017-032**                      **11193 Bluestem Lane - Government - Other**                      **2018-08-16**  
**11193 Bluestem Lane Eden Prairie, Minnesota 55347 United**  
**States**  
Construction complete. All exposed soils on slope are covered and stabilized--vegetation growing--areas where seed did not sprout are observed-- matting is keeping soils stable. Bio-logs installed at toe of slope. Areas observed where vegetation has died off. Site is in good condition. Will monitor thru fall.  
August/2018

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**2017-034**                      **Park Road Overlay Chanhassen - Government - Linear**                      **2018-08-17**  
**Park Road Chanhassen, Minnesota 554317 United States**  
Overlay complete. Landscaping complete. Bridge at stream crossing complete. All exposed soils covered. Vegetation growth established. Bio-logs still in place at bridge area. (August-2018)

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**2017-036**                      **Minnetonka HS Upper Field Access Road - Government -**                      **2018-08-17**  
**Other**  
**18301 State Hwy No 7 Minnetonka, Minnesota 55345 United**  
**States**  
Bare soils have been hydro-seeded. No growth observed to date.(8-17-18). 8-23-18: seed has sprouted and growing-- see photos. Bio-logs onsite. Sediment at curb line needs clean-up.

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2017-037	<b>The Venue - Private - Commercial/Industrial</b> <b>525 W 78th St Chanhassen, Minnesota 55317 United States</b> Security fence installed. BMP's installed. Demolition of existing buildings complete. Construction underway. BMP's installed. Minor tracking offsite.	2018-08-17
2017-038	<b>West Park - Private - Residential</b> <b>760&amp; 781 Lake Susan Drive 8601 Great Plains Blvd</b> <b>Chanhassen, Minnesota 55317 United States</b> Construction continues. Street installation on north and south side completed. Rock entrance installed on south side and to individual house sites. Perimeter control installed. Catch basin protection reinstalled. BMP's look good. Minor tracking observed on --onsite streets. Landscaping at some sites underway. BMP's look good.	2018-08-17
2017-039	<b>Mission Hill Senior Living - Private - Residential</b> <b>8600 Grate Plains Boulevard Chanhasen, Minnesota 55317</b> <b>United States</b> Construction underway. Earthwork and roadway construction. BMP's installed look good. Site perimeter control installed. Catch basin protection installed. Site is in good shape. South swale has been stabilized. Onsite dewatering ponds are adequate. Minor tracking to street.	2018-08-17
2017-040	<b>Basin 05-12-C Cleanout - Government - Other</b> <b>14180 W 78th St Suite 118 Eden Prairie, Minnesota 55344</b> <b>United States</b> No site activity observed to date.	2018-08-17
2017-047	<b>Fawn Hill - Private - Residential</b> <b>7240 Galpin Road Chanhassen, Minnesota 55331 United</b> <b>States</b> Earthwork completed/roadway installed. Perimeter silt fence installed and additional silt fences installed where needed. Exposed soils blown with straw and currently being hydroseeded. BMP's to date look good- (August-2018) West pond overflow installed.	2018-08-17
2017-052	<b>Old Excelsior Senior Living - Private - Residential</b> <b>17705 Hutchins Drive Minnetonka , Minnesota 55345 United</b> <b>States</b> Construction continues. Perimeter control installed. BMP's in place. Street is swept regularly. (August-2018)	2018-08-17
2017-053	<b>Mastercraft - Private - Commercial/Industrial</b> <b>17717 State Hwy 7 Minnetonka, Minnesota 55345 United</b> <b>States</b> Construction complete. Inlet protection installed at two catch basins on north side. Landscaping complete. Site is stable. (August-2018)	2018-08-17

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<b>2017-055</b>	<b>Scenic Heights Elementary 2018 Addns - Government - Other</b> <b>5650 Scenic Heights Drive Minnetonka, Minnesota 55345</b> <b>United States</b> Construction continues. BMP's installed. (August-2018)	<b>2018-08-17</b>
<b>2017-056</b>	<b>Covington Rd Culvert Replacement - Government - Linear</b> <b>Covington Road Minnetonka, Minnesota 55345 United States</b> Construction complete. Vegetation matting installed. Wetland buffer signage installed on downstream side of Covington. Installed BMP's look good. Vegetation sprouted and growing thru matting--July- vegetation appears to be dying out-exposing matting. (August-2018)	<b>2018-08-17</b>
<b>2017-063</b>	<b>Clear Springs Elementary 2018 Gymnasium Addition -</b> <b>Government - Other</b> <b>5621 County Road #101 Minnetonka, Minnesota 55345 United</b> <b>States</b> Construction continues . BMP's installed. (August-2018)	<b>2018-08-17</b>
<b>2017-064</b>	<b>Scenic Heights Elementary School Forest Restoration -</b> <b>Government - Other</b> <b>5650 Scenic Heights Drive Minnetonka, Minnesota 55345</b> <b>United States</b> Site has been selectively cleared. Inflow area modified and BMP's installed. Site has been sprayed with a "Round-up" type of vegetation spray. Restoration continues. August-2018	<b>2018-08-17</b>
<b>2017-069</b>	<b>Scheels Redevelopment - Private - Commercial/Industrial</b> <b>8301 Flying Cloud Dr. Eden Prairie, Minnesota 55344 United</b> <b>States</b> Security fence installed. Construction trailer onsite. Minimal activity observed. No BMP's installed to date. Activity appears to have stalled.	<b>2018-08-16</b>
<b>2017-072</b>	<b>O'Reilly Auto Parts Eden Prairie - Private -</b> <b>Commercial/Industrial</b> <b>8868 AZTEC DRIVE Eden Prairie, Minnesota 55347 United</b> <b>States</b> Site utilities have been located and marked. No construction activity observed to date.	<b>2018-08-16</b>
<b>2017-073</b>	<b>Preserve Village - Private - Residential</b> <b>9625 Anderson Lakes Pkwy Eden Prairie, Minnesota 55344</b> <b>United States</b> Construction continues. Security fence installed. BMP's installed. Catch basin protection will need attention soon. Minor tracking to street. Street and parking lot clean up observed while onsite. Spoils pile onsite will be back filled today.	<b>2018-08-16</b>

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2018-001	<b>Panera - Private - Commercial/Industrial</b> <b>531 W. 79th Street Chanhassen, Minnesota 55317 United States</b> Security fence installed. Construction trailer onsite. Demolition complete. BMP's installed. Construction underway.	2018-08-17
2018-004	<b>903 Lake Drive Chanhassen - Government - Other</b> <b>903 Lake Drive Chanhassen, Minnesota 55317 United States</b> Construction has begun. BMP's installed.	2018-08-17
2018-007	<b>Lake Lucy Lane Drainage Government - Other</b> <b>1720 Lake Lucy Lane Excelsior, Minnesota 55331 United States</b> Construction complete. All exposed soils covered. Temporary BMP's removed. Vegetation is established. Site is stable. This will be last field inspection for this permit.	2018-08-17
2018-008	<b>Staring Lake Park Play Court - Government - Other</b> <b>14800 Pioneer Trail Eden Prairie, Minnesota 55344 United States</b> Construction complete. Security fence removed. Temporary BMP's removed. Seeding complete in areas and growing--site is stable. This will be last field inspection for this permit.	2018-08-16
2018-011	<b>Maloney Shoreline Stabilization - Existing Single-Family</b> <b>108 Pioneer Trail Chanhassen, Minnesota 55327 United States</b> No construction observed to date.	2018-08-17
2018-013	<b>Soccer Field 11 at Miller Park - Government - Other</b> <b>8250 Shoreline Drive Eden Prairie, Minnesota 55344 United States</b> Construction complete. BMP's still in place. Landscaping complete. Soccer field grass growing.	2018-08-17
2018-014	<b>Eden Prairie Road Reconstruction Government - Linear</b> <b>Eden Prairie, Minnesota 55344 United States</b> Construction activity observed at south end. BMP's installed. No additional work observed since last inspection.	2018-08-16
2018-015	<b>Starbucks Coffee House - Private - Commercial/Industrial</b> <b>19285 Highway 7 19245 Highway 7 Shorewood, Minnesota 55401 United States</b> Construction trailer and heavy equipment onsite. Demolition complete. BMP's installed. Underground work in progress.	2018-08-17

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<b>2018-017</b>	<b>Eden Prairie Schools ASC Parking Lot Expansion Government - Other 8100 School Road Eden Prairie , Minnesota 55344 United States</b> Construction continues . Perimeter control installed. BMP's are installed.	<b>2018-08-16</b>
<b>2018-020</b>	<b>9770 Sky Lane Existing Single-Family 9770 Sky Lane Eden Prairie, Minnesota 55347 United States</b> Construction continues. BMP's onsite are installed. Downstream catch basin protection installed- 2 basins downstream. Some minor sediment at catch basin. Spoke with site representative and he indicated they would address street tracking.	<b>2018-08-17</b>
<b>2018-021</b>	<b>9810 Sky Lane Existing Single-Family 9810 Sky Lane Eden Prairie,, Minnesota 55347 United States</b> <b>Open CA(s): Catch basins at both sites in rear of site need to be cleaned up. Southwest catch basin needs better protection. Toe of slope west of site has sediment over topping bio-logs. Spoke with site representative and he indicated that these issues will be addressed. Deadline: 9/17/2018</b>  Construction continues. BMP's onsite are installed. Catch basin at both sites in rear of site need to be cleaned up. Southwest catch basin needs better protection. Toe of slope west of site has sediment over topping bio-logs. Spoke with site representative and he indicated that these issues will be addressed. Rock entrance has been improved.	<b>2018-08-17</b>
<b>2018-022</b>	<b>Sunrise Park Court Improvement Government - Other 9401 Bloomington Ferry Road Bloomington, Minnesota 55438 United States</b> Construction continues. Perimeter control installed and temporary BMP's look good. Construction 90% complete.	<b>2018-08-16</b>
<b>2018-024</b>	<b>Kittelson Pool - Existing Single-Family 2165 Wynsong Lane Chanhassen, Minnesota 55317 United States</b> Construction has begun. Silt fence installed. BMP's look good. Minor tracking to street.	<b>2018-08-17</b>
<b>2018-029</b>	<b>Bloomington 98th St Reconstruction Government - Linear W 98th Street Bloomington, Minnesota 55438 United States</b> Construction complete except for top coat of asphalt. All BMP's have been removed. Site is stable. This will be last field inspection for this permit.	<b>2018-08-16</b>

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<b>2018-030</b>	<b>Bloomington Dakota Rd Reconstruction Government - Linear Dakota Road Bloomington, Minnesota 55438 United States</b> Construction complete except for top coat of asphalt. All BMP's have been removed. Site is stable. This will be last field inspection for this permit.	<b>2018-08-16</b>
<b>2018-031</b>	<b>Ridgeview Elementary School Mechanical Improvements Government - Other 9400 Nesbitt Avenue Bloomington, Minnesota 55438 United States</b> Construction continues. Work to date still appears to be roof top and indoors. BMP's observed near construction trailer.	<b>2018-08-16</b>
<b>2018-032</b>	<b>Valley View Road Trail Rehabilitation Government - Other</b> Construction has begun. Catch basin protection installed.	<b>2018-08-17</b>
<b>2018-033</b>	<b>Eden Prairie High School Trail and Railroad Crossing Government - Other Eden Prairie, Minnesota</b> Construction underway. BMP's installed.	<b>2018-08-17</b>
<b>2018-034</b>	<b>Basin 05-11-A Cleanout Government - Other Corner of Sequoia and Ginger Eden Prairie, Minnesota 55346 United States</b> No activity observed to date at pond. Outlet and flow line downstream has been cleaned out. BMP's installed in this area. Vegetation sprouting/growing in matted areas. (August-2018)	<b>2018-08-17</b>
<b>2018-038</b>	<b>Eden Prairie Senior Living - Private - Residential 8460 Franlo Rd Eden Prairie, Minnesota 55344 United States</b> Construction continues. Perimeter control installed. BMP's look good. Minor street tracking observed.	<b>2018-08-16</b>

Please contact me at 952.832-2687 or [dmelmer@barr.com](mailto:dmelmer@barr.com) if you have questions on the projects listed above or any additional items that need to be addressed for the erosion control inspections.

**Minutes: Monday, August 20, 2018**  
**RPBCWD Citizen's Advisory Committee Monthly Meeting**  
**Location: RPBCWD offices: 18681 Lake Street, Chanhassen**

**CAC Members**

Jim Boettcher	P	Curt Kobilarcsik	P	Marilynn Torkelson	P
Paul Bulger	P	Matt Lindon	P	Lori Tritz	E
Anne Deuring	P	Sharon McCotter	P		
Peter Iverson	P	Joan Palmquist	P		

**Others**

Terry Jeffery	RPBCWD staff	P
Larry Koch	RPBCWD Board Member	P
Dorothy Pedersen	RPBCWD Board Member	P

**Summary of key actions/motions for the Board of Managers:**

1. **Motion:** The CAC recommends the Pat Pauls' Cost Share project with conditions that the best methods will be used for matching grade, planting in rip rap, no plastic in erosion control blanket, and maintenance be included for 5 years and be a contingency if the property was sold.
2. **Motion:** Paul Bulger was elected CAC President.

**I. Opening**

- A. **Call CAC meeting to Order:** Vice President Sharon McCotter called the meeting to order at 6:00 p.m.
- B. **Guest: Larry Koch, new manager of RPBCWD, stated he appreciates having been appointed and is very interested in our ideas and opinions on the activities of District.** Email [lakpa471@gmail.com](mailto:lakpa471@gmail.com) or 612-210-5001
- B. **Attendance:** As noted above
- C. **Matters of general public interest:** None
- D. **Approval of Agenda:** The budget and a cost share were added to new business. Anne reminded that we were going to have staff reports as an ongoing agenda item. Joan moved and Pete seconded to approve the agenda as amended. Motion carried.
- E. **Approval of July 16, 2018 CAC Meeting Minutes:** Motion to approve minutes by Paul and second by Matt. Motion carried.

**II. Staff Reports:** Terry stated he had nothing specific to report.

**III. Old Business**

- A. **Updates from subcommittees as available.** Sharon reported on the storm drain subcommittee. The Silver Lake Association completed the first phase (30 drains) of a storm drain stenciling project. Sharon shared pictures. Their goal is to do the Adopt-A-Drain program and get residents to adopt all 210 and encourage them to paint their own drain. Adopt-A-Drain will be officially rolled out at the State Fair with a booth, interactive table and a sign up. Dorothy thanked Sharon for getting it organized. Sharon reported that the Chanhassen leaf raking event on Oct 27 could be an opportunity to promote the Adopt-A-Drain program with a printed card or something.
- B. **New 2018 Cost Share review:** Terry described the project on Lotus Lake proposed by Pat Paul: originally developed in the 1950s with a concrete boat launch, patio and sea wall. Working with Natural Environments (who also did a native restoration on Mitchell Lake), the design incorporates shoreland plantings and riprap where necessary. The staff feels, while not perfect, it is the best approach and is much better than the original condition. They still hope to tweak some things. The project will require a permit for the hardscape. There was no plant list for us to review. The expected completion date is June of next year. Staff will look at the score sheet to make sure the appropriate erosion control method (riprap or coir logs) will be used. Joan moved and Pete seconded to recommend the project

with conditions that the best methods will be used for matching grade, planting in rip rap, and no plastic in erosion control blanket. Matt asked about the responsibility for maintenance if the property changes hands within 5 years. Terry responded that the permit specifies that maintenance continues with property owner. Joan amended her motion to include the condition that maintenance be included for a 5-year period and be a contingency if the property was sold. Pete seconded the amended motion. Motion carried.

- C. **Board Meeting:** Marilyn attended. One typo was noted: the water conservation lunch and learn is Sept 14 instead of 4. Marilyn reported that the Eden Lake School project to remove turf to create permeable asphalt patio areas was rejected as ineligible for the cost share program. Marilyn wondered if this site were to come back in a few years to replace impermeable asphalt with permeable paving, it might be then considered eligible. Wouldn't it make sense to do it right in the first place? The cost of permeable paving is about 35% more than impermeable.

#### IV. New Business

- A. **Wetlands Walk review:** Terry reported there has been interest in classes on delineating wetlands and he would be happy to teach small classes. Matt suggested having a water-focused month: classes, walks, inventory info. Another walk would ideally be at the end of May. Dorothy thought it would be helpful to be able to see the differences in damaged wetlands as opposed to pristine wetlands.
- B. **Adopt a Water/Creek/Lake/Shoreline:** Tabled until Sharon can introduce it energetically. 😊
- C. **Water Conservation Incentive Program:** Lunch and Learn with a representative from Woodbury at noon on September 14 for Board, CAC and TAC. Terry reported that the City of Woodbury has done cutting edge work on water conservation incentives and have never seen a grant as expensive as the Prairie East 5th Association proposal. There are less expensive but good options for smart water controllers. Sharon will ask Maya to do a sign up for the lunch and learn.
- D. **Education requirements for cost share grant program:** Marilyn stated it is important for cost share applicants to understand the myriad reasons native plants are a better option than non-natives, even though non-natives are not prohibited by cost share rules. She cited Douglas Tallamy's book "Bringing Nature Home" as a great source. Discussion on the best way to get this information to cost share applicants included webinars, pamphlets, websites, class(es) slide show. The lists are a starting point but do not fully explain the "why." Joan and Marilyn will look to see what info is already available and report back.
- E. **Election of new CAC President:** Sharon is happy to remain as vice president. Joan nominated Paul as next CAC president with Anne seconding. Paul stated he is happy to do it but wanted us to know that he is moving out of the district next year so won't be renewing on the CAC. There were no other nominations. Motion carried.
- F. **Budget:** Terry reported this budget is very preliminary, but wanted to go over the increases with us. Increases include:
- a. Office cost: due to a full year in the office space and staff increase
  - b. New Staff: Maya
  - c. Staff benefits
  - d. Staff Salaries: The Board retained an outside HR firm to do metro wide salary comparison and found one employee especially to be undercompensated
  - e. 101 Project: 3 contiguous property owners with homes built in 1960s in a wetland are ready to move creating an opportunity to restore the wetland. We were excited about the outreach opportunities this might provide.
  - f. Lower Riley Creek: slight increase engineering costs
  - g. Permitting Software: Currently the two databases are difficult to use. We are looking for the best option at the best price and for partners to share the cost.
  - h. Chloride Reduction: our district is spearheading the chloride impairment initiative for several counties.
  - i. Ground Water

**IV. Looking Forward**

- A. CAC 2018 agenda items for our September meeting
  - a. Marilyn and Joan will update on education on natives for cost share applicants.
  - b. Budget
  - c. Adopt a Water/Creek/Lake/Shoreline
  - d. Permitting database update
  - e. Cost share for water conservation
  - f. Update on Adopt-A-Drain – Sharon
  - g. Website?
- B. **Upcoming events**
  - 1. State Fair, Adopt a Drain
  - 2. RPBCWD Board of Managers budget workshop August 27 at 5:30 to 7:00
  - 3. RPBCWD Board of Managers meeting and workshop, September 5 at 5:30 pm, 18681 Lake Drive East
  - 4. Water Conservation Lunch and Learn Friday, September 14, at 12:00 noon at RPBCWD offices
  - 5. RPBCWD CAC meeting September 17 at 6:00 pm, 18681 Lake Drive East
  - 6. Cycle the Creek, September 29

- V. Adjourn CAC meeting:** Motion to adjourn by Paul with Pete seconding. Motion carried. Meeting adjourned at 8:05 pm.



August 29, 2018

Claire Bleser  
District Administrator  
Riley Purgatory Bluff Creek Watershed District  
18681 Lake Drive E.  
Chanhassen, Minnesota 55317

Dear Claire:

Enclosed please find the checks and Treasurer's Report for Riley Purgatory Bluff Creek Watershed District for the one month and seven months ending July 31, 2018.

Please examine these statements and if you have any questions or need additional copies, please call me.

Sincerely,

REDPATH AND COMPANY, LTD.

A handwritten signature in black ink that reads "Mark Gibbs". The signature is written in a cursive style.

Mark C. Gibbs, CPA  
Enclosure



To The Board of Managers  
Riley Purgatory Bluff Creek Watershed District  
18681 Lake Drive E.  
Chanhassen, Minnesota 55317

### **Accountant's Opinion**

The Riley Purgatory Bluff Creek Watershed District is responsible for the accompanying July 31, 2018 Treasurer's Report in the prescribed form. We have performed a compilation engagement in accordance with the Statements on Standards for Accounting and Review promulgated by the Accounting and Review Services Committee of AICPA. We did not audit or review the Treasurer's Report nor were we required to perform any procedures to verify the accuracy or completeness of the information provided by the Riley Purgatory Bluff Creek Watershed District. Accordingly, we do not express an opinion, a conclusion, nor provide any form of assurance on the Treasurer's Report.

### **Reporting Process**

The Treasurer's Report is presented in a prescribed form mandated by the Board of Managers and is not intended to be a presentation in accordance with accounting principles generally accepted in the United States of America. The reason the Board of Managers mandates a prescribed form instead of GAAP (Generally Accepted Accounting Principles) is this format gives the Board of Managers the financial information they need to make informed decisions as to the finances of the watershed.

GAAP basis reports would require certain reporting formats, adjustments to accrual basis and supplementary schedules to give the Board of Managers information they need, making GAAP reporting on a monthly basis extremely cost prohibitive. An independent auditing firm is retained each year to perform a full audit and issue an audited GAAP basis report. This annual report is submitted to the Minnesota State Auditor, as required by Statute, and to the Board of Water and Soil Resources.

The Treasurer's Report is presented on a modified accrual basis of accounting. Expenditures are accounted for when incurred. For example, payments listed on the Cash Disbursements report are included as expenses in the Treasurer's Report even though the actual payment is made subsequently. Revenues are accounted for on a cash basis and only reflected in the month received.

A handwritten signature in black ink that reads "Redpath and Company, Ltd." in a cursive script.

REDPATH AND COMPANY, LTD.

St. Paul, Minnesota

August 29, 2018

# **RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT**

## **Treasurers Report**

**July 31, 2018**

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1	Cash Disbursements
2	Fund Performance Analysis – Table 1
3	Multi-Year Project Performance Analysis – Table 2
4	Balance Sheet
5	Klein Bank VISA Activity

**RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT**  
**Cash Disbursements**  
**July 31, 2018**

**Accounts Payable:**

<u>Check #</u>	<u>Payee</u>	<u>Amount</u>
4545	Barr Engineering	\$55,368.40
4546	BWSR	25.00
4547	CenterPoint Energy	24.77
4548	CenturyLink	282.33
4549	Coveral of the Twin Cities	879.41
4550	CSM Financial, LLC	7,353.70
4551	ECM Publishers, Inc.	678.30
4552	HDR Engineering, Inc.	7,446.55
4553	HealthPartners	5,411.77
4554	Amy Herbert, LLC	1,131.00
4555	Iron Mountain	39.95
4556	League of MN Cities Trust WC	1,702.00
4557	Limnotech	850.00
4558	Lincoln National Life Insurance	448.21
4559	Metro Sales, Inc.	420.33
4560	Purchase Power	12.26
4561	Redpath & Company	1,225.19
4562	Regents of the University of MN	5,170.68
4563	RMB Environmental Laboratories	4,055.00
4564	RMB Environmental Laboratories	2,399.00
4565	Smith Partners	15,480.81
4566	Southwest News Media	608.58
4567	Wenck, Inc.	8,410.20
4568	Xcel Energy	890.96
<b>Total Accounts Payable:</b>		<b><u><u>\$120,314.40</u></u></b>

**Payroll Disbursements:**

Payroll Processing Fee	190.26
Employee Salaries	34,861.00
Employer Payroll Taxes	2,670.41
Employer Benefits (H.S.A. Match)	525.00
Employee Benefit Deductions	(396.26)
Staff Expense Reimbursements	329.06
PERA Match	2,020.34
<b>Total Payroll Disbursements:</b>	<b><u><u>\$40,199.81</u></u></b>
EFT	Klien Bank - VISA
	6,840.23
<b>TOTAL DISBURSEMENTS:</b>	<b><u><u>\$167,354.44</u></u></b>

**Memos**

The 2018 mileage rate is 54.5 per mile. The 2017 rate was .53.5.  
Klein Bank VISA will be paid on-line.

**RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT**  
**Fund Performance Analysis - Table 1**  
**July 31, 2018**

	2018 Budget	Fund Transfers	Revised 2018 Budget	Current Month	Year-to-Date	Year-to Date Percent of Budget
<b>REVENUES</b>						
Plan Implementation Levy	\$3,420,000.00		\$3,420,000.00	-	1,900,928.80	55.58%
Permit	20,000.00		20,000.00	53,398.50	75,851.50	379.26%
Grant Income	373,175.00		373,175.00	4,500.00	10,488.27	2.81%
Data Collection Income	-		-	-	171.78	---
Other Income	-		-	1,081.50	16,098.26	---
Investment Income	-		-	904.00	17,589.86	---
Past Levies	1,736,968.00		1,736,968.00	-	-	0.00%
Partner Funds	445,000.00		445,000.00	-	-	0.00%
<b>TOTAL REVENUE</b>	<b>\$5,995,143.00</b>	<b>\$0.00</b>	<b>\$5,995,143.00</b>	<b>\$59,884.00</b>	<b>\$2,021,128.47</b>	<b>33.71%</b>
<b>EXPENDITURES</b>						
<b>Administration</b>						
Accounting and Audit	40,000.00		40,000.00	1,415.45	28,031.35	70.08%
Advisory Committees	4,000.00		4,000.00	-	1,311.46	32.79%
Insurance and bonds	12,000.00		12,000.00	1,702.00	1,702.00	14.18%
Engineering Services	103,000.00		103,000.00	7,909.50	53,739.42	52.17%
Legal Services	75,000.00		75,000.00	8,333.10	24,456.26	32.61%
Manager Per Diem/Expense	19,000.00		19,000.00	-	1,884.39	9.92%
Dues and Publications	8,000.00		8,000.00	-	8,439.00	105.49%
Office Cost	100,000.00		100,000.00	10,224.16	77,117.80	77.12%
Permit Review and Inspection	90,000.00		90,000.00	14,628.64	105,058.72	116.73%
Recording Services	15,000.00		15,000.00	1,131.00	4,484.00	29.89%
Staff Cost	434,000.00		434,000.00	45,757.92	262,159.41	60.41%
<b>Subtotal</b>	<b>\$900,000.00</b>	<b>\$0.00</b>	<b>\$900,000.00</b>	<b>\$91,101.77</b>	<b>\$568,383.81</b>	<b>63.15%</b>
<b>Programs and Projects</b>						
<b>District Wide</b>						
10-year Management Plan	9,662.00		9,662.00	4,125.93	34,154.83	353.50%
AIS Inspection and early response	75,000.00		75,000.00	585.00	27,265.64	36.35%
Cost-share	200,000.00		200,000.00	489.17	8,623.21	4.31%
Creek Restoration Action Strategies Phase	20,000.00		20,000.00	-	-	0.00%
Data Collection and Monitoring	180,000.00		180,000.00	13,214.45	81,776.70	45.43%
District Wide Floodplain Evaluation - Atlas 14/SMM model	30,000.00		30,000.00	-	-	0.00%
Education and Outreach	115,000.00		115,000.00	10,311.07	69,763.90	60.66%
Plant Restoration - U of M	40,000.00		40,000.00	5,170.68	15,457.77	38.64%
Repair and Maintenance Fund *	177,005.00		177,005.00	-	-	0.00%
Survey and Analysis Fund *	13,464.00	(13,464.00)	-	-	-	---
Wetland Management*	150,000.00		150,000.00	545.95	25,253.20	16.84%
District Groundwater Assessment	-		-	-	166.38	---
Groundwater Conservation*	130,000.00		130,000.00	-	-	0.00%
Lake Vegetation Implementation	75,000.00		75,000.00	-	17,368.26	23.16%
Opportunity Project*	100,000.00		100,000.00	-	-	0.00%
TMDL - MPCA	10,000.00		10,000.00	-	-	0.00%
Stormwater Ponds - U of M	-	22,092.00	22,092.00	-	-	0.00%
<b>Subtotal</b>	<b>\$1,325,131.00</b>	<b>\$8,628.00</b>	<b>\$1,333,759.00</b>	<b>\$34,442.25</b>	<b>\$279,829.89</b>	<b>20.98%</b>
<b>Bluff Creek</b>						
Bluff Creek Tributary*	236,741.00		236,741.00	4,301.58	26,160.38	11.05%
Chanhassen High School *	282,478.00		282,478.00	5,952.35	35,370.97	12.52%
<b>Subtotal</b>	<b>\$519,219.00</b>	<b>\$0.00</b>	<b>\$519,219.00</b>	<b>\$10,253.93</b>	<b>\$61,531.35</b>	<b>11.85%</b>
<b>Riley Creek</b>						
Lake Riley - Alum Treatment*	22,424.00		22,424.00	-	17,423.96	77.70%
Lake Susan Improvement Phase 1 *	7,106.00		7,106.00	-	-	0.00%
Lake Susan Water Quality Improvement Phase 2 *	353,365.00	100,000.00	453,365.00	4,681.00	57,025.25	12.58%
Rice Marsh Lake in-lake phosphorus load	150,000.00		150,000.00	5,240.94	8,013.49	5.34%
Riley Creek Restoration (Reach E and D3) *	1,427,987.00		1,427,987.00	14,933.71	99,412.07	6.96%
<b>Subtotal</b>	<b>\$1,960,882.00</b>	<b>\$100,000.00</b>	<b>\$2,060,882.00</b>	<b>\$24,855.65</b>	<b>\$181,874.77</b>	<b>8.83%</b>
<b>Purgatory Creek</b>						
Fire Station 2 (Eden Prairie)	100,262.00		100,262.00	-	-	0.00%
Purgatory Creek Rec Area- Berm/retention area - feasibility/design	50,000.00		50,000.00	-	-	0.00%
Lotus Lake in-lake phosphorus load control	345,000.00		345,000.00	5,633.34	35,475.29	10.28%
Lotus Lake - Feasibility Phase 1	18,802.00		18,802.00	-	-	0.00%
Purgatory Creek at 101*	246,259.00	(100,000.00)	146,259.00	910.00	960.00	0.66%
Silver Lake Restoration - Feasibility Phase 1	11,003.00		11,003.00	-	7,857.50	71.41%
Scenic Heights	208,957.00		208,957.00	157.50	82,712.82	39.58%
Hyland Lake in-lake phosphorus load control	20,000.00		20,000.00	-	-	0.00%
Duck Lake watershed load	220,000.00		220,000.00	-	-	0.00%
<b>Subtotal</b>	<b>\$1,220,283.00</b>	<b>(\$100,000.00)</b>	<b>\$1,120,283.00</b>	<b>\$6,700.84</b>	<b>\$127,005.61</b>	<b>11.34%</b>
Reserve	\$99,628.00	(\$8,628.00)	91,000.00	-	-	0.00%
<b>TOTAL EXPENDITURE</b>	<b>\$6,025,143.00</b>	<b>\$0.00</b>	<b>\$6,025,143.00</b>	<b>\$167,354.44</b>	<b>\$1,218,625.43</b>	<b>20.23%</b>
<b>EXCESS REVENUES OVER (UNDER) EXPENDITURES</b>	<b>(\$30,000.00)</b>	<b>\$0.00</b>	<b>(\$30,000.00)</b>	<b>(\$107,470.44)</b>	<b>\$802,503.04</b>	

\*Denotes Multi-Year Project - See Table 2 for details

**RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT**  
**Multi-Year Project Performance Analysis - Table 2**  
**July 31, 2018**

Programs and Projects	Total Project	FUNDING SOURCE			Month Ended 07/31/18	Year To-Date	Lifetime Costs	Remaining
		District funds	Partner Fund	Grants				
<b>District Wide</b>								
10-year Management Plan	\$187,000.00	\$187,000.00	\$0.00	\$0.00	\$4,125.93	\$34,154.83	\$211,492.92	(\$24,492.92)
District Wide Floodplain Evaluation - Atlas 14/SMM model	30,000.00	30,000.00	-	-	-	-	-	30,000.00
Repair and Maintenance Fund	202,005.00	177,005.00	-	-	-	-	25,000.00	177,005.00
Survey and Analysis Fund	23,792.00	23,792.00	-	-	-	-	23,792.00	-
Wetland Management	150,000.00	150,000.00	-	-	545.95	25,253.20	25,253.20	124,746.80
Groundwater Conservation	130,000.00	130,000.00	-	-	-	-	-	130,000.00
Opportunity Project*	100,000.00	100,000.00	-	-	-	-	-	100,000.00
Stormwater Ponds - U of M	64,092.00	22,092.00	42,000.00	-	-	-	-	64,092.00
<b>Subtotal</b>	<b>\$886,889.00</b>	<b>\$819,889.00</b>	<b>\$42,000.00</b>	<b>\$0.00</b>	<b>\$4,671.88</b>	<b>\$59,408.03</b>	<b>\$285,538.12</b>	<b>601,350.88</b>
<b>Bluff Creek</b>								
Bluff Creek Tributary*	292,362.00	242,362.00	50,000.00	-	4,301.58	26,160.38	80,781.84	211,580.16
Chanhassen High School *	368,000.00	118,000.00	50,000.00	200,000.00	5,952.35	35,370.97	145,892.84	222,107.16
<b>Subtotal</b>	<b>\$660,362.00</b>	<b>\$360,362.00</b>	<b>\$100,000.00</b>	<b>\$200,000.00</b>	<b>\$10,253.93</b>	<b>\$61,531.35</b>	<b>\$226,674.68</b>	<b>\$433,687.32</b>
<b>Riley Creek</b>								
Lake Riley - Alum Treatment 1st dose *	260,000.00	260,000.00	-	-	-	17,423.95	254,999.82	5,000.18
Lake Susan Improvement Phase 1 *	275,000.00	275,000.00	-	-	-	0.00	267,894.28	7,105.72
Lake Susan Water Quality Improvement Phase 2 *	662,491.00	330,000.00	99,091.00	233,400.00	4,681.00	57,025.25	167,059.67	495,431.33
Rice Marsh Lake in-lake phosphorus load	150,000.00	150,000.00	-	-	5,240.94	8,013.49	8,013.49	141,986.51
Riley Creek Restoration (Reach E and D3) *	1,565,000.00	1,265,000.00	300,000.00	-	14,933.71	99,412.07	160,637.67	1,404,362.33
<b>Subtotal</b>	<b>\$2,912,491.00</b>	<b>\$2,280,000.00</b>	<b>\$399,091.00</b>	<b>\$233,400.00</b>	<b>\$24,855.65</b>	<b>\$181,874.76</b>	<b>\$858,604.93</b>	<b>\$2,053,886.07</b>
<b>Purgatory Creek</b>								
Fire Station 2 (Eden Prairie)	139,287.00	20,000.00	20,000.00	99,287.00	-	-	19,025.36	120,261.64
Purgatory Creek Rec Area- Berm/retention area - feasibility/design	50,000.00	50,000.00	-	-	-	-	-	50,000.00
Lotus Lake in-lake phosphorus load control	345,000.00	345,000.00	-	-	5,633.34	35,475.29	35,475.29	309,524.71
Purgatory Creek at 101*	561,094.00	561,094.00	-	-	910.00	960.00	415,795.60	145,298.40
Scenic Heights	260,000.00	165,000.00	45,000.00	50,000.00	157.50	82,712.82	133,755.76	126,244.24
Duck Lake watershed load	220,000.00	220,000.00	-	-	-	-	-	220,000.00
<b>Subtotal</b>	<b>\$1,575,381.00</b>	<b>\$1,361,094.00</b>	<b>\$65,000.00</b>	<b>\$149,287.00</b>	<b>\$6,700.84</b>	<b>\$119,148.11</b>	<b>\$604,052.01</b>	<b>\$971,328.99</b>
<b>Total Multi-Year Project Costs</b>	<b>\$6,035,123.00</b>	<b>\$4,821,345.00</b>	<b>\$606,091.00</b>	<b>\$582,687.00</b>	<b>\$46,482.30</b>	<b>\$421,962.25</b>	<b>\$1,974,869.74</b>	<b>\$4,060,253.26</b>

**Riley Purgatory Bluff Creek Watershed District**  
**Balance Sheet**  
**As of July 31, 2018**

**ASSETS**

**Current Assets**

General Checking-Klein	\$1,181,294.18
Checking-Klein/BMW	2,289,018.59
Investments-FMV	(348.08)
Investments-Standing Cash	42,013.13
Investments-Wells Fargo	2,451,476.98
Accrued Investment Interest	8,670.64
Due From Other Governments	154,436.00
Taxes Receivable-Delinquent	20,556.16
Pre-Paid Expense	17,508.63
Security Deposits	7,244.00

**Total Current Assets:** \$6,171,870.23

**LIABILITIES AND CAPITAL**

**Current Liabilities**

Accounts Payable	\$167,754.64
Retainage Payable	13,469.38
Salaries Payable	17,564.00
Due to Other Governments	32,650.00
Permits & Sureties Payable	927,282.00
Deferred Revenue	20,556.16
Unavailable Revenue	6,666.00

**Total Current Liabilities:** \$1,185,942.18

**Capital**

Fund Balance-General	\$4,183,187.00
Net Income	802,741.05

**Total Capital** \$4,985,928.05

**Total Liabilities & Capital** \$6,171,870.23

**RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT**  
**Klein Bank VISA Activity**  
**July 31, 2018**

DATE	PURCHASED FROM	AMOUNT	DESCRIPTION	ACCOUNT #	RECEIPT
06/11/18	Amazon	8.46	Office Supplies	10-00-4200	Y
07/10/18	Microsoft	126.17	Technology	10-00-4203	Y
07/20/18	Minnesota Judicial Branch	46.50	Parking Fee	10-00-4320	Y
07/23/18	Verizon	135.76	Telephone Charges	10-00-4240	Y
07/26/18	Klein Bank	15.00	Rush Card Fee	10-00-4280	N
08/07/18	Detello's	77.53	Team Meeting	10-00-4265	Y
08/08/18	Target	6.32	Office Supplies	10-00-4200	Y
08/10/18	Microsoft	107.53	Office Software	10-00-4203	Y
08/13/18	Delta	250.40	Transport to Conference	10-00-4265	Y
08/17/18	Randy's Environmental Services	62.41	Trash Service	10-00-4215	Y
08/17/18	Dunn & Semington	578.00	Office Supplies	10-00-4200	Y
08/23/18	Verizon	356.03	Telephone Charges	10-00-4240	Y
08/23/18	McAfee	42.94	Antivirus Software	10-00-4203	Y
		<b>\$1,813.05</b>	<b>General Administration Total</b>		
06/11/18	Amazon	328.92	Summer Tour Supplies	20-08-4275	Y
06/11/18	Amazon	22.99	Summer Tour Supplies	20-08-4275	Y
07/10/18	Mennards	63.43	Data Collection Supplies	20-05-4201	Y
07/11/18	Hoops & Threads	90.85	Apparel for Office	20-08-4260	Y
07/11/18	Holiday	32.61	Gas for Vehicle	20-13-4322	Y
07/11/18	Mennards	97.98	Data Collection Supplies	20-05-4201	Y
07/19/18	SuperAmerica	89.60	Gas for Vehicle	20-05-4322	Y
07/19/18	SuperAmerica	5.15	Data Collection Supplies	20-05-4201	Y
07/20/18	Vacker Sign	727.00	Scenic Heights Sign	20-08-4275	Y
07/20/18	Trailerparts.com	29.33	Data Collection Supplies	20-05-4201	Y
07/23/18	SuperAmerica	15.63	Data Collection Supplies	20-05-4201	N
07/23/18	Home Depot	72.04	Data Collection Supplies	20-05-4201	Y
07/23/18	SuperAmerica	63.97	Gas for Vehicle	20-05-4322	Y
07/24/18	Home Depot	41.72	Data Collection Supplies	20-05-4201	Y
07/25/18	NCI	26.58	Data Collection Supplies	20-05-4280	Y
07/25/18	FastSigns	50.45	Decals for vehicle & supplies	20-08-4260	Y
07/25/18	Hologram	50.00	Data Collection Supplies	20-05-4201	Y
07/25/18	Northern Tool Equipment	8.59	Data Collection Supplies	20-05-4201	Y
07/26/18	Target	34.60	Meeting Supplies	20-08-4260	Y
07/26/18	SuperAmerica	14.54	Data Collection Supplies	20-05-4201	N
08/01/18	Forestry Suppliers	283.89	Data Collection Supplies	20-05-4201	Y
08/02/18	Mennards	18.87	Data Collection Supplies	20-05-4201	Y
08/02/18	SuperAmerica	61.05	Gas for Vehicle	20-05-4322	Y
08/02/18	SuperAmerica	100.00	Gas for Vehicle	20-05-4322	Y
08/03/18	USPS	353.00	Mailing Supplies	20-08-4280	Y
08/06/18	Amazon	34.45	Education Supplies	20-08-4260	Y
08/07/18	Smith Eden Prairie	20.70	Meeting Supplies	20-08-4265	Y
08/08/18	Holiday	31.74	Gas for Vehicle	20-13-4322	Y
08/08/18	Vineland Parking	5.00	Parking Fee	20-08-4265	Y
08/14/18	Bruegger's Bagel	28.98	Meeting Supplies	20-02-4265	Y
08/14/18	Amazon	29.40	Education Supplies	20-08-4205	Y
08/14/18	Amazon	10.41	Education Supplies	20-08-4205	Y
08/15/18	Michael's	8.04	AIS Education	20-08-4265	Y
08/15/18	Fleet Farm	78.37	Education Supplies	20-08-4265	Y
08/16/18	SuperAmerica	100.00	Gas for Vehicle	20-05-4322	Y
08/17/18	Axtec BP	61.72	Gas for Vehicle	20-05-4322	Y
08/17/18	SW Metro Chamber of Commerce	287.50	Dues & Memberships	20-08-4245	Y
08/17/18	SW Metro Chamber of Commerce	50.00	Publications	20-08-4250	Y
08/23/18	UMISC-NAISMA	302.00	AIS Education	20-02-4265	Y
		<b>\$3,731.10</b>	<b>District-Wide Total</b>		
		<b>\$5,544.15</b>	<b>GRAND TOTAL</b>		

Information on action items “c” (Rice Marsh Lake Alum Bid) and “d” (Lotus Lake Alum Ordering) will be distributed to the board as it becomes available.

## Memorandum

**To:** Riley-Purgatory-Bluff Creek Watershed District  
**From:** Barr Engineering Co.  
**Subject:** Bluff Creek Restoration Project – Request Board Authorization to Solicit Bids for Construction  
**Date:** August 29, 2018  
**Project:** 23/27-0053.14 021  
**c:** Claire Bleser – RPBCWD Administrator

RPBCWD has documented erosion along a tributary of Bluff Creek between Audubon Road and Pioneer Trail. The Creek Restoration Action Strategy (CRAS) was a tool developed by RPBCWD to compare erosion and potential benefits of doing a project along a given reach. The CRAS score for reach BT3A was tied for the second highest overall score of all reaches within the District. In January 2017, the RPBCWD completed a feasibility study to identify cost effective stabilization options and recommendations. The feasibility study recommended two alternatives for stabilization of the entire reach. At the May 2017, Board meeting the RPBCWD Board of Managers authorized final design and preparation of construction documents for the reach based on findings in the feasibility study, which included stabilization of the upper half of the reach, and the stabilization of a headcut in a tributary ravine.

Construction documents including bidding documents, construction drawings, and technical specifications, have been prepared for the stabilization reach. The design of the proposed system includes, but is not limited to, grading of the channel and stream banks, installation of root wads, cross vanes, riprap, turf reinforcement mats, constructed riffles, vegetated reinforced soil slopes, new manhole structure, and a flared end section along approximately 1,500 feet of the Bluff Creek tributary and the tributary ravine. The construction drawings also include erosion control, site restoration with native plantings, and establishment of a buffer for the creek.

The timing for construction of this project is critical. Construction will include grading the channel and immediate banks to create a floodplain. As such, the construction area will be concentrated in the existing channel, so timing the construction during anticipated low flows will minimize the need to control water and reduce the risk of erosion during construction. The best window for completing this work is anticipated to be in late fall and early winter when precipitation may be more snow than rain yet frost is still shallow enough to complete grading without significant adverse impacts. RPBCWD and Barr have been working with the city of Chanhassen and agencies to complete necessary permitting, and it is anticipated that all permits will be approved prior to the anticipated start of the project in November. The following table summarizes necessary permits and the approval status:

Table 1 Permitting status

Permitting Agency	Status
City of Chanhassen	Regular communications with City to discuss requirements
MN DNR	Not required because the reach is not listed as a public water
US Army Corps of Engineers	Submitted
RPBCWD	Under review by District

The Engineer’s opinion of probable cost presented in the January 2017 feasibility study as well as the opinion of cost based on the construction documents prepared for the designed stabilization measures is summarized in Table 2. The overall costs (Row D) are higher than the original estimate from the feasibility study, but within the estimated accuracy range. The higher final costs are attributed to the following items:

- Multiple items have been added to the overall construction project that will be paid for by the city of Chanhassen. These items include installation of a new manhole structure and replacement of a flared end section where storm sewers discharge into the creek.
- The design was modified from the feasibility study for to provide additional grading of the banks and floodplain to more properly manage peak flows and velocities. The additional grading creates a continuous floodplain connection along the entire reach and reduces the number of trees to be removed because the access route will be within the grading areas in the channel. This added some cost, but will result in a more resilient project with fewer trees removed.
- The 100% cost estimate was developed using most recent bid prices from similar projects that have been bid in 2018.

Table 2. Engineer’s Opinion of Probable Cost

Item	Feasibility Study (January 2017)	100% Submittal (August 2018)
<b>ESTIMATED CONSTRUCTION COST</b>	<b>\$198,700</b>	<b>\$259,000</b>
ESTIMATED ACCURACY RANGE	\$149,000	\$246,100
	\$278,200	\$284,900

\*Estimated accuracy range for feasibility study was -25% and +40% of the estimated total project cost

\*Estimate does not include cost long-term coordination with city of Chanhassen for ongoing monitoring

\*100% submittal cost includes costs to be borne by the city of Chanhassen for the installation of a new manhole and replacement of a flared end section

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

**To:** Riley-Purgatory-Bluff Creek Watershed District  
**From:** Barr Engineering Co.  
**Subject:** Bluff Creek Restoration Project – Request Board Authorization to Solicit Bids for Construction  
**Date:** August 29, 2018  
**Page:** 3

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It is requested that the RPBCWD Board of Managers authorize Barr Engineering Co. to solicit bids from contractors to construct Bluff Creek Restoration Project as designed and shown on the construction documents. If the Board of Managers authorizes solicitation of bids to construct the stabilization measures, the following tasks would be completed. It is recommended that bids not be solicited until the cooperative agreement with the city of Chanhassen is executed; therefore the tentative schedule below is subject to revision.

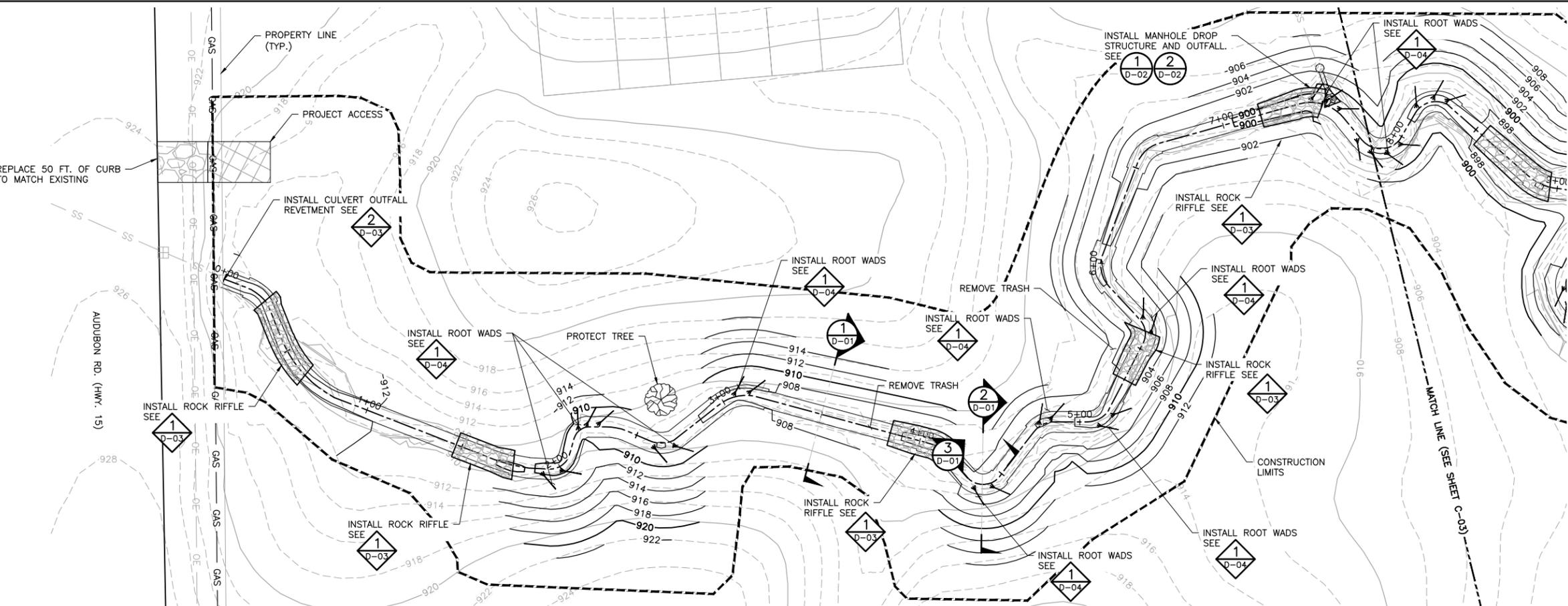
- September 5, 2018 – Board of Managers authorizes Barr Engineering Co. to solicit bids
- September 6, 2018 – Advertise in construction bulletin
- September 17, 2018 – Advertise in local papers
- September 18, 2018 – Mandatory pre-bid meeting
- September 27, 2018 – Open bids
- October 3, 2018 – Board approval of bid
- November 8, 2018 (or after) – Construction begins.

#### Attachments

- Selected sheets from the drawings for the Bluff Creek Restoration Project.



CADD USER: Christie M. Hinds FILE: M:\DESIGN\23270053.14\BLUFF CREEK\23270053.14\_C-02\_PLAN AND PROFILE.DWG PLOT SCALE: 1:2 PLOT DATE: 8/16/2018 12:05 PM  
 Job: M:\Design\23270053.14\Bluff Creek\23270053.14\_C-02\_Plan and Profile.dwg Plot at: 0 09/15/2017 11:36:26

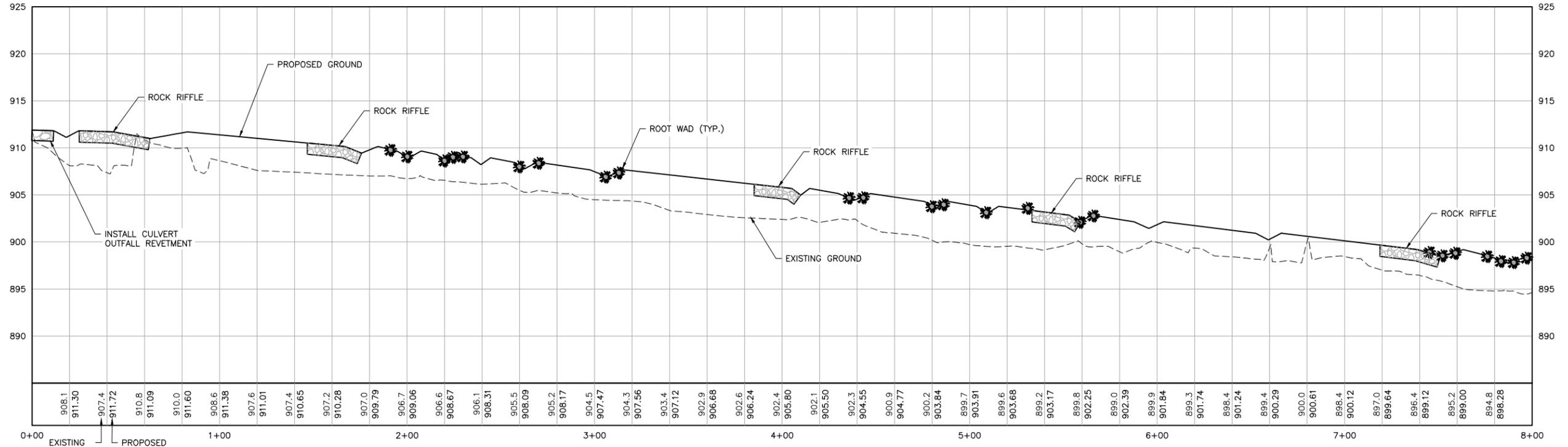


**SYMBOL AND PATTERN LEGEND**

- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- CONSTRUCTION LIMITS
- CITY STORM SEWER
- OVERHEAD ELECTRIC
- ROOT WAD
- ROCK RIFFLE

- NOTES**
1. CONTRACTOR IS RESPONSIBLE TO LOCATE AND FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO WORK.
  2. ALL EXISTING ROADS, PARKING LOTS, TRAILS, FENCES, AND SIGNS SHALL BE PROTECTED DURING CONSTRUCTION.
  3. CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL BMPs PRIOR TO COMMENCEMENT OF WORK.
  4. ALL GROUND DISTURBANCE SHALL BE STABILIZED AND RESTORED WITH A MINIMUM OF 6-INCHES OF TOPSOIL, SEED, AND EROSION CONTROL BLANKET. THE TOPSOIL USED FOR RESTORATION MAY BE STOCKPILED FROM GRADING AREAS.
  5. ALL PROPOSED CHANNEL AND OVBANK SIDE SLOPES TO BE 3:1.
  6. TREES TO BE CLEARED OR PROTECTED WILL BE MARKED IN THE FIELD BY ENGINEER.
  7. TREES IDENTIFIED BY ENGINEER FOR PROTECTION SHALL BE PROTECTED AGAINST ROOT COMPACTION, DAMAGE, AND DISFIGUREMENT. CONTRACTOR SHALL PROTECT THESE TREES IN ACCORDANCE WITH MnDOT SPEC. 2572. PROTECTION OF TREES NOT IDENTIFIED TO BE REMOVED SHALL BE INCIDENTAL.
  8. TRASH, PRIMARILY CONSISTING OF METAL DEBRIS, TO BE REMOVED AS DISCOVERED IN PROJECT REACH.
  9. REMOVE AND DISPOSE OF ALL WOODY DEBRIS IN CHANNEL.
  10. COMPACTED SOIL MUST BE DECOMPACTED TO A SOIL COMPACTION TESTING PRESSURE OF LESS THAN 1,400 KILOPASCALS OR 200 POUNDS PER SQUARE INCH IN THE UPPER 12 INCHES OF SOIL.

**1 PLAN: BLUFF CREEK (STA. 0+00 TO 8+00)**



**2 PROFILE: BLUFF CREEK (STA. 0+00 TO 8+00)**

**90% DESIGN  
 ISSUED FOR PERMITTING**

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION
C	EPF	AKH	JDW	07/23/2018	ISSUED FOR PERMITTING
B	EPF	AKH	JDW	02/09/2018	90% DESIGN
A	EPF	AKH	JDW	09/27/2017	ISSUED FOR REVIEW

CLIENT	08/27/17	02/09/18							
BID									
CONSTRUCTION									
PERMITTING				07/23/18					
RELEASED TO/FOR	A	B	C	0	1	2	3		
DATE RELEASED									

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

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

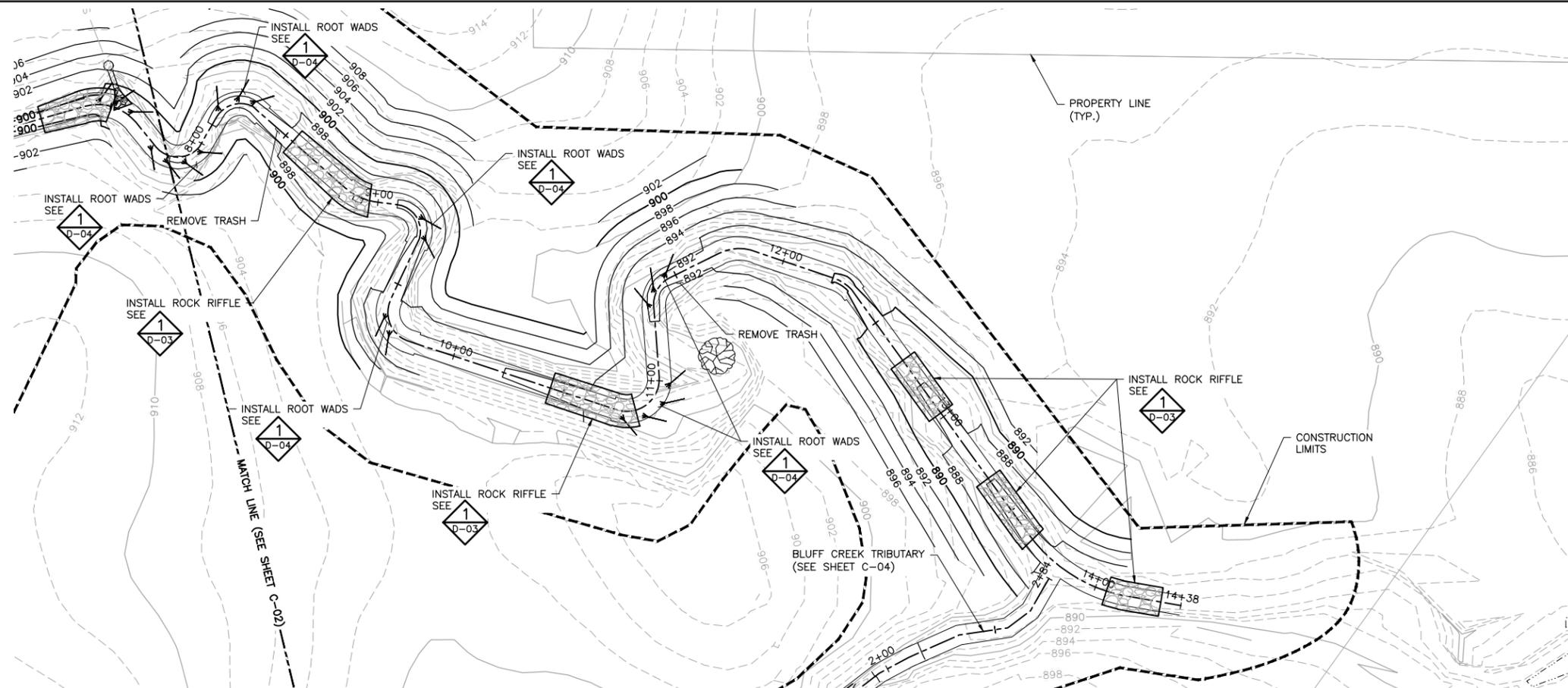
Scale: AS SHOWN  
 Date: 07/23/2018  
 Drawn: EPF  
 Checked: AKH  
 Designed: BARR  
 Approved: JDW

**RILEY PURGATORY BLUFF CREEK WD**  
 CHANHASSEN, MINNESOTA

**BLUFF CREEK RESTORATION**  
 CARVER COUNTY, MN.  
**BLUFF CREEK RESTORATION PLAN & PROFILE**  
 (STA. 0+00 TO 8+00)

BARR PROJECT No.	23/27-0053.14
CLIENT PROJECT No.	
DWG. No.	C-02
REV. No.	C

CADD USER: Christie M. Hinds FILE: M:\DESIGN\23270053.14\BLUFF CREEK\23270053.14\_C-02\_PLAN AND PROFILE.DWG PLOT SCALE: 1:2 PLOT DATE: 8/16/2018 12:08 PM  
 \ref M:\Design\23270053.14\Bluff Creek\23270053.14\_C-02\_Plan and Profile.dwg Plot at 0 09/15/2017 11:36:26

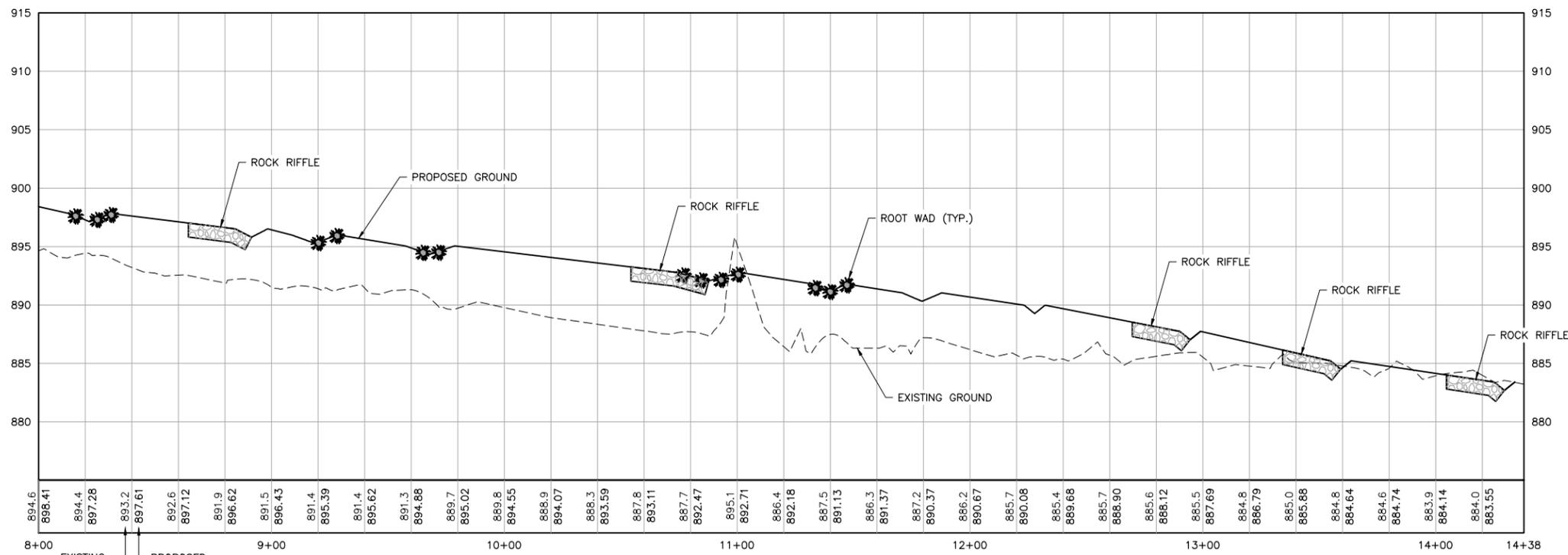


**SYMBOL AND PATTERN LEGEND**

- EXISTING 10' CONTOUR
- - - EXISTING 2' CONTOUR
- PROPOSED 10' CONTOUR
- - - PROPOSED 2' CONTOUR
- - - CONSTRUCTION LIMITS
- SS CITY STORM SEWER
- OE CITY SANITARY SEWER
- ROOT WAD
- ROCK RIFFLE

- NOTES**
- CONTRACTOR IS RESPONSIBLE TO LOCATE AND FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO WORK.
  - ALL EXISTING ROADS, PARKING LOTS, TRAILS, FENCES, AND SIGNS SHALL BE PROTECTED DURING CONSTRUCTION.
  - CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL BMPs PRIOR TO COMMENCEMENT OF WORK.
  - ALL GROUND DISTURBANCE SHALL BE STABILIZED AND RESTORED WITH A MINIMUM OF 6-INCHES OF TOPSOIL, SEED, AND EROSION CONTROL BLANKET. THE TOPSOIL USED FOR RESTORATION MAY BE STOCKPILED FROM GRADING AREAS.
  - ALL PROPOSED CHANNEL AND OVERBANK SIDE SLOPES TO BE 3:1.
  - TREES TO BE CLEARED OR PROTECTED WILL BE MARKED IN THE FIELD BY ENGINEER AND IN CONSULTATION WITH CITY OF CHANHASSEN.
  - TREES IDENTIFIED BY ENGINEER FOR PROTECTION SHALL BE PROTECTED AGAINST ROOT COMPACTION, DAMAGE, AND DISFIGUREMENT. CONTRACTOR SHALL PROTECT THESE TREES IN ACCORDANCE WITH MnDOT SPEC. 2572. PROTECTION OF TREES NOT IDENTIFIED TO BE REMOVED SHALL BE INCIDENTAL TRASH, PRIMARILY CONSISTING OF METAL DEBRIS, TO BE REMOVED AS DISCOVERED IN PROJECT REACH.
  - REMOVE AND DISPOSE OF ALL WOODY DEBRIS IN CHANNEL.
  - COMPACTED SOIL MUST BE DECOMPACTED TO A SOIL COMPACTION TESTING PRESSURE OF LESS THAN 1,400 KILOPASCALS OR 200 POUNDS PER SQUARE INCH IN THE UPPER 12 INCHES OF SOIL.

1 PLAN: BLUFF CREEK (STA. 8+00 TO 16+50) 0 30 60 SCALE IN FEET



2 PROFILE: BLUFF CREEK (STA. 8+00 TO 16+50) 0 30 60 HORIZONTAL SCALE IN FEET 0 6 12 VERTICAL SCALE IN FEET

90% DESIGN  
 ISSUED FOR PERMITTING

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION
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B	EPF	AKH	JDW	02/09/2018	90% DESIGN
A	EPF	AKH	JDW	09/27/2017	ISSUED FOR REVIEW

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BID									
CONSTRUCTION									
PERMITTING				07/23/18					
RELEASED TO/FOR	A	B	C	0	1	2	3		
DATE RELEASED									

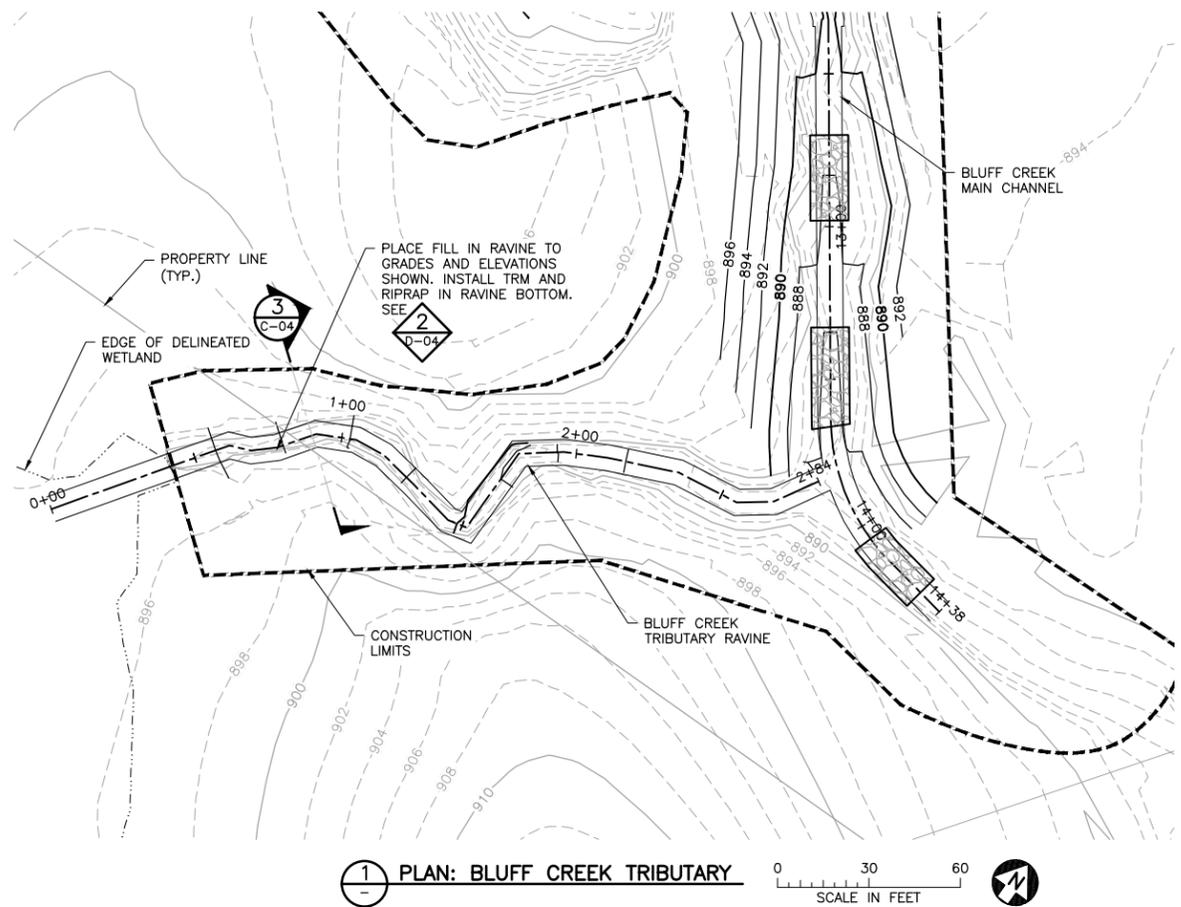
**BARR ENGINEERING CO.**  
 4300 MARKETPOINTE DRIVE  
 Suite 200  
 MINNEAPOLIS, MN 55435  
 Corporate Headquarters:  
 Minneapolis, Minnesota  
 Ph: 1-800-632-2277  
 Fax: (952) 832-2601  
 www.barr.com

Scale	AS SHOWN
Date	07/23/2018
Drawn	EPF
Checked	AKH
Designed	BARR
Approved	JDW

**BLUFF CREEK RESTORATION**  
 CARVER COUNTY, MN.  
**BLUFF CREEK RESTORATION PLAN & PROFILE**  
 (STA. 8+00 TO 16+25)

BARR PROJECT No.	23/27-0053.14
CLIENT PROJECT No.	
DWG. No.	C-03
REV. No.	C

CADD USER: Charitie M. Hinds FILE: M:\DESIGN\23270053.14\BLUFF CREEK\23270053.14\_C-02\_PLAN AND PROFILE.DWG PLOT SCALE: 1:2 PLOT DATE: 8/16/2018 12:10 PM  
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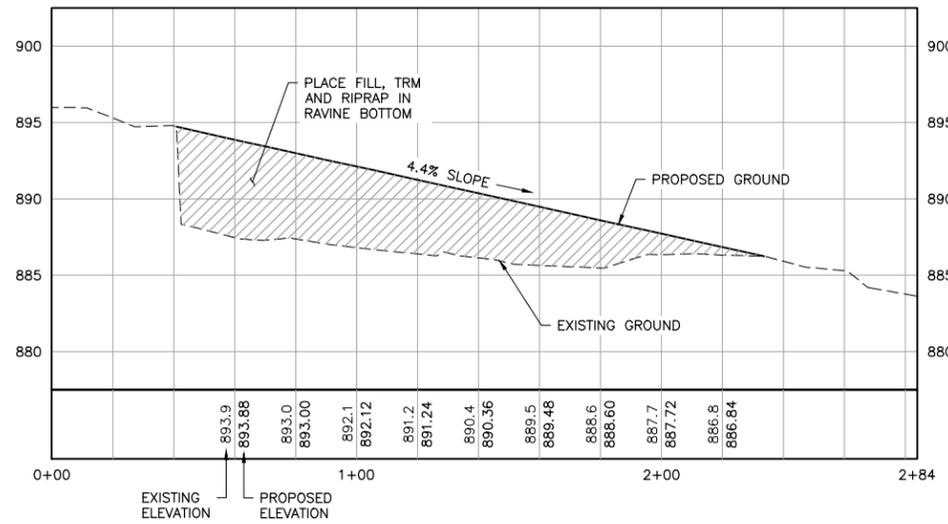


1 PLAN: BLUFF CREEK TRIBUTARY

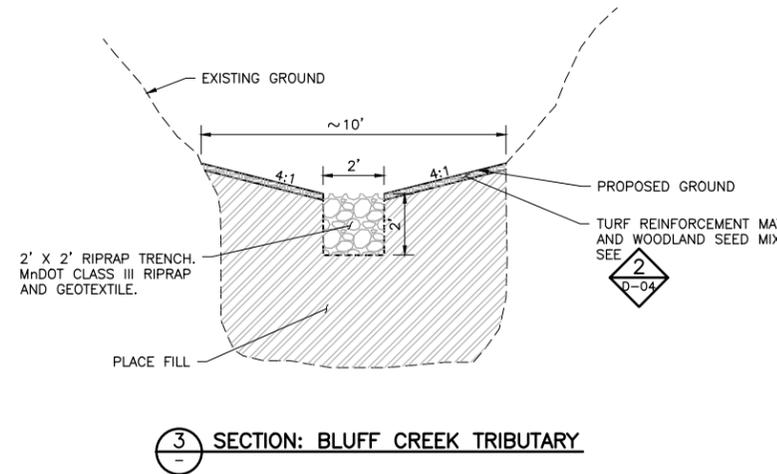
**SYMBOL AND PATTERN LEGEND**

	EXISTING 10' CONTOUR
	EXISTING 2' CONTOUR
	PROPOSED 10' CONTOUR
	PROPOSED 2' CONTOUR
	CONSTRUCTION LIMITS
	CITY STORM SEWER
	CITY SANITARY SEWER
	ROOT WAD
	ROCK RIPRAP

- NOTES**
- CONTRACTOR IS RESPONSIBLE TO LOCATE AND FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO WORK.
  - ALL EXISTING ROADS, PARKING LOTS, TRAILS, FENCES, AND SIGNS SHALL BE PROTECTED DURING CONSTRUCTION.
  - CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL BMPs PRIOR TO COMMENCEMENT OF WORK.
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  - ALL PROPOSED CHANNEL AND OVBANK SIDE SLOPES TO BE 3:1.
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  - TREES IDENTIFIED BY ENGINEER FOR PROTECTION SHALL BE PROTECTED AGAINST ROOT COMPACTION, DAMAGE, AND DISFIGUREMENT. CONTRACTOR SHALL PROTECT THESE TREES IN ACCORDANCE WITH MnDOT SPEC. 2572. PROTECTION OF TREES NOT IDENTIFIED TO BE REMOVED SHALL BE INCIDENTAL. TRASH, PRIMARILY CONSISTING OF METAL DEBRIS, TO BE REMOVED AS DISCOVERED IN PROJECT REACH.
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  - COMPACTED SOIL MUST BE DECOMPACTED TO A SOIL COMPACTION TESTING PRESSURE OF LESS THAN 1,400 KILOPASCALS OR 200 POUNDS PER SQUARE INCH IN THE UPPER 12 INCHES OF SOIL.



2 PROFILE: BLUFF CREEK TRIBUTARY



3 SECTION: BLUFF CREEK TRIBUTARY

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION
C	EPF	AKH	JDW	07/23/2018	ISSUED FOR PERMITTING
B	EPF	AKH	JDW	02/09/2018	90% DESIGN
A	EPF	AKH	JDW	09/27/2017	ISSUED FOR REVIEW

CLIENT	07/27/17	02/09/18							
BID									
CONSTRUCTION									
PERMITTING				07/23/18					
RELEASED TO/FOR	A	B	C	0	1	2	3		
DATE RELEASED									

Project Office:  
**BARR ENGINEERING CO.**  
 4300 MARKETPOINTE DRIVE  
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 www.barr.com

Scale	AS SHOWN
Date	07/23/2018
Drawn	EPF
Checked	AKH
Designed	BARR
Approved	JDW

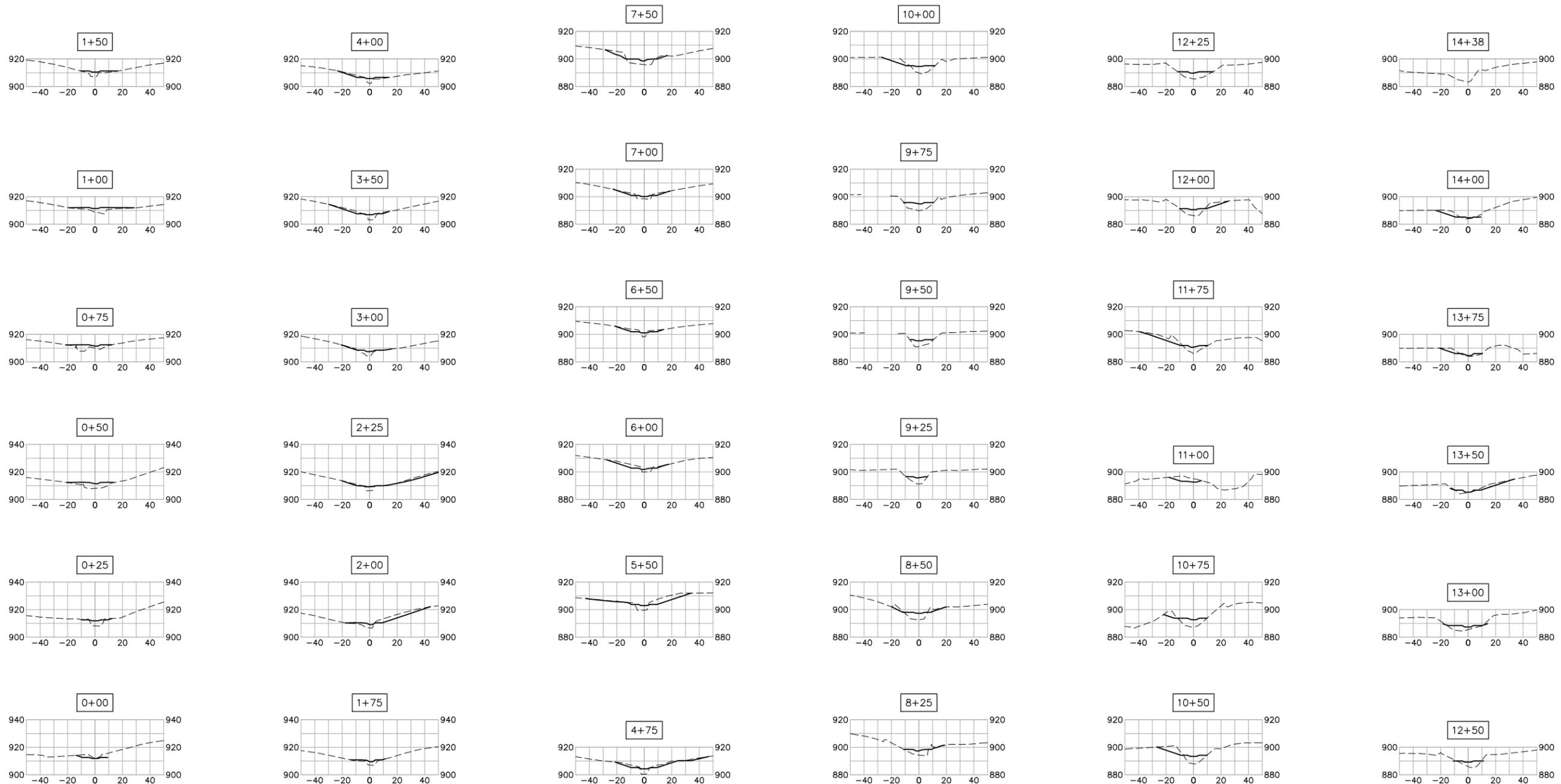
**RILEY PURGATORY BLUFF CREEK WD**  
 CHANHASSEN, MINNESOTA

**BLUFF CREEK RESTORATION**  
 CARVER COUNTY, MN.  
**BLUFF CREEK TRIBUTARY RESTORATION**  
 PLAN & PROFILE

BARR PROJECT No.	23/27-0053.14
CLIENT PROJECT No.	
DWG. No.	C-04
REV. No.	C

**90% DESIGN**  
**ISSUED FOR PERMITTING**

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1 SECTIONS: BLUFF CREEK (STA. 0+00 TO 14+38) 0 40 80 SCALE IN FEET

LEGEND  
 - - - - - EXISTING GROUND  
 \_\_\_\_\_ PROPOSED GROUND

90% DESIGN  
 ISSUED FOR PERMITTING

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. PRINTED NAME: JEFFREY D. WEISS SIGNATURE: _____ DATE: 07/23/2018 LICENSE # 48031				CLIENT: 08/27/17 02/09/18 BID: _____ CONSTRUCTION: _____ PERMITTING: _____ 07/23/18 RELEASED TO/FOR: A B C 0 1 2 3 DATE RELEASED: _____				Project Office: <b>BARR ENGINEERING CO.</b> 4300 MARKETPOINTE DRIVE Suite 200 MINNEAPOLIS, MN 55435 Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com		Scale: AS SHOWN Date: 07/23/2018 Drawn: EPF Checked: AKH Designed: BARR Approved: JDW		<b>RILEY PURGATORY BLUFF CREEK WD</b> CHANHASSEN, MINNESOTA		<b>BLUFF CREEK RESTORATION</b> CARVER COUNTY, MN. <b>BLUFF CREEK RESTORATION SECTIONS</b> (STA. 0+00 TO 14+38)		BARR PROJECT No. <b>23/27-0053.14</b> CLIENT PROJECT No. DWG. No. <b>C-05</b> REV. No. <b>C</b>					
NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION																
C	EPF	AKH	JDW	07/23/2018	ISSUED FOR PERMITTING																
B	EPF	AKH	JDW	02/09/2018	90% DESIGN																
A	EPF	AKH	JDW	09/27/2017	ISSUED FOR REVIEW																

## Memorandum

**To:** Riley-Purgatory-Bluff Creek Watershed District  
**From:** Barr Engineering Co.  
**Subject:** Lower Riley Creek Stabilization Project – Request Board Authorization to Solicit Bids for Construction  
**Date:** August 29, 2018  
**Project:** 23/27-0053.14 014B  
**c:** Claire Bleser – RPBCWD Administrator

RPBCWD has documented erosion along Lower Riley Creek within the Riley Creek Conservation Area in Eden Prairie. Severe erosion was first identified in the Lake Riley Outlet Improvements and Riley Creek Lower Valley Stabilization Feasibility Study in 2007 in which the entire Lower Valley of Riley Creek was assessed. The Creek Restoration Action Strategy (CRAS) was a tool developed by RPBCWD to compare erosion and potential benefits of doing a project along a given reach. The CRAS score for this reach of Riley Creek was tied for the second highest overall score of all reaches within the District. In October 2016, the RPBCWD completed a feasibility study to identify cost effective stabilization options and recommendations. The feasibility study recommended a set of alternatives to raise the channel bed and create a reconnection to the floodplain. At the January 2017, Board meeting the RPBCWD Board of Managers authorized final design and preparation of construction documents for the reach based on findings in the feasibility study, which included installing check dams to raise the channel bed and to install cross vanes to stabilize a tributary ravine to this reach.

Construction documents including bidding documents, construction drawings, and technical specifications, have been prepared for the stabilization reach. The design of the proposed system includes, but is not limited to, grading of the channel and stream banks, installation of root wads, cross vanes, riprap, toe wood, constructed riffles, vegetated reinforced soil slopes, log/rock step pools, new manhole structures, and flared end sections along approximately 5,000 feet of Riley Creek and the tributary ravine. The construction drawings also include erosion control, site restoration with native plantings, and establishment of a buffer for the creek.

The timing for construction of this project is critical. Construction will include grading the channel and immediate banks to create a floodplain. As such, the construction area will be concentrated in the existing channel, so timing the construction during anticipated low flows will minimize the need to control water and reduce the risk of erosion during construction. The best window for completing this work is anticipated to be in late fall and early winter when precipitation may be more snow than rain yet frost is still shallow enough to complete grading without significant adverse impacts. RPBCWD and Barr have been working with the city of Eden Prairie and agencies to complete necessary permitting, and it is anticipated that all permits will be approved prior to the anticipated start of the project in November. The following table summarizes necessary permits and the approval status:

To: Riley-Purgatory-Bluff Creek Watershed District  
 From: Barr Engineering Co.  
 Subject: Lower Riley Creek Stabilization Project – Request Board Authorization to Solicit Bids for Construction  
 Date: August 29, 2018  
 Page: 2

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**Table 1 Permitting status**

Permitting Agency	Status
<b>City of Eden Prairie</b>	Regular communications with City to discuss requirements and receive submittals from the City
<b>MN DNR</b>	To be submitted by September 7, 2018
<b>US Army Corps of Engineers</b>	To be submitted by September 7, 2018
<b>RPBCWD</b>	To be submitted by September 7, 2018

The Engineer’s opinion of probable cost presented in the October 2016 feasibility study and the opinion of cost based on the designed stabilization measures is summarized in Table 2. The overall costs are higher than the original estimate from the feasibility study, but within the estimated accuracy range. The higher final costs are attributed to the following items:

- Multiple items have been added to the overall construction project that will be paid for by the city of Eden Prairie. These items include a new walking bridge and installation of new manhole structures and replacement of flared end sections where storm sewers discharge into the creek. The total amount of these items is approximately \$80,000.
- The design was modified from the feasibility study for two reasons:
  - The city of Eden Prairie had a requirement to limit the amount of tree clearing along the project reach because the adjacent forest is part of the “Big Woods” with large, old growth, heritage trees.
  - Additional grading of the banks and floodplain was added to more properly manage peak flows and velocities. The design modifications included additional grading to create a floodplain connection along the entire reach.
  - These two items complimented each other because the staging plan was able to accommodate both items; however the result was an increase in the overall cost due to an increase in the grading quantity
- Access routes had to be modified due to restrictions on access through the Big Woods and because an access license for a private road could not be obtained. As such, the access route will utilize an existing paved trail that will likely need to be repaired after construction is complete.
- The 100% cost estimate was developed using most recent bid prices from similar projects that have been bid in 2018.

**Table 2. Engineer’s Opinion of Probable Cost**

Item	Feasibility Study (Oct 2016)	100% Submittal (Aug 2018)
<b>ESTIMATED CONSTRUCTION COST</b>	<b>\$1,193,000</b>	<b>\$1,477,800</b>
ESTIMATED ACCURACY RANGE	\$1,014,100	\$1,404,000
	\$1,491,300	\$1,626,000

\*Estimated accuracy range for feasibility study was -15% and +25% of the estimated total project cost

\*Estimate does not include cost long-term coordination with city of Eden Prairie for ongoing monitoring

**To:** Riley-Purgatory-Bluff Creek Watershed District  
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**Subject:** Lower Riley Creek Stabilization Project – Request Board Authorization to Solicit Bids for Construction  
**Date:** August 29, 2018  
**Page:** 3

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\*100% submittal cost includes approximately \$80,000 of estimated costs to be borne by the city of Eden Prairie for a new walking bridge, installation of new manhole structures and replacement of flared end sections.

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

It is requested that the RPBCWD Board of Managers authorize Barr Engineering Co. to solicit bids from contractors to construct Riley Creek Stabilization Project as designed and shown on the construction documents. If the Board of Managers authorizes solicitation of bids to construct the stabilization measures, the following tasks would be completed. It is recommended that bids not be solicited until the cooperative agreement with the city of Eden Prairie is executed; therefore the tentative schedule below is subject to revision.

- September 5, 2018 – Board of Managers authorizes Barr Engineering Co. to solicit bids
- September 6, 2018 – Advertise in construction bulletin
- September 17, 2018 – Advertise in local papers
- September 18, 2018 – Mandatory pre-bid meeting
- September 27, 2018 – Open bids
- October 3, 2018 – Board approval of bid
- November 8, 2018 (or after) – Construction begins.

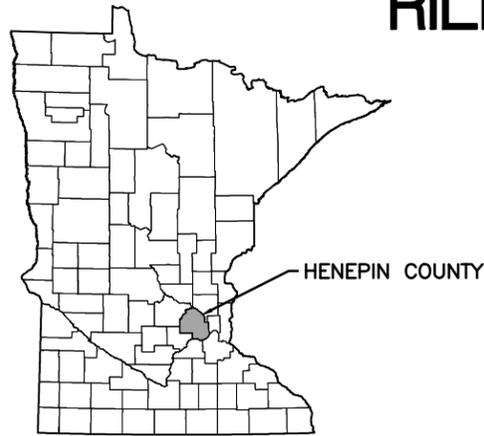
#### Attachments

- Selected sheets from the drawings for the Riley Creek Stabilization Project.

# RILEY CREEK STABILIZATION

## RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

### EDEN PRAIRIE, MN



MINNESOTA COUNTY MAP

**SYMBOLS AND ABBREVIATIONS:**

**LIMITS OF SECTION CUT**

**SECTION IDENTIFIER**

**SECTION REFERENCES**  
SHEET SECTION IS LOCATED ON

**SECTION VIEW CALL OUT**

---

**SECTION IDENTIFIER (TYP.)**

**SECTION: GRAPHICS STANDARDS**  
SCALE: 1=1

**SECTION REFERENCES (TYP.)**  
SHEET SECTION IS CALLED-OUT ON

**SECTION VIEW TITLE**

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**DETAIL IDENTIFIER**

**DETAIL REFERENCES**  
SHEET DETAIL IS LOCATED ON

**DETAIL VIEW CALL OUT**

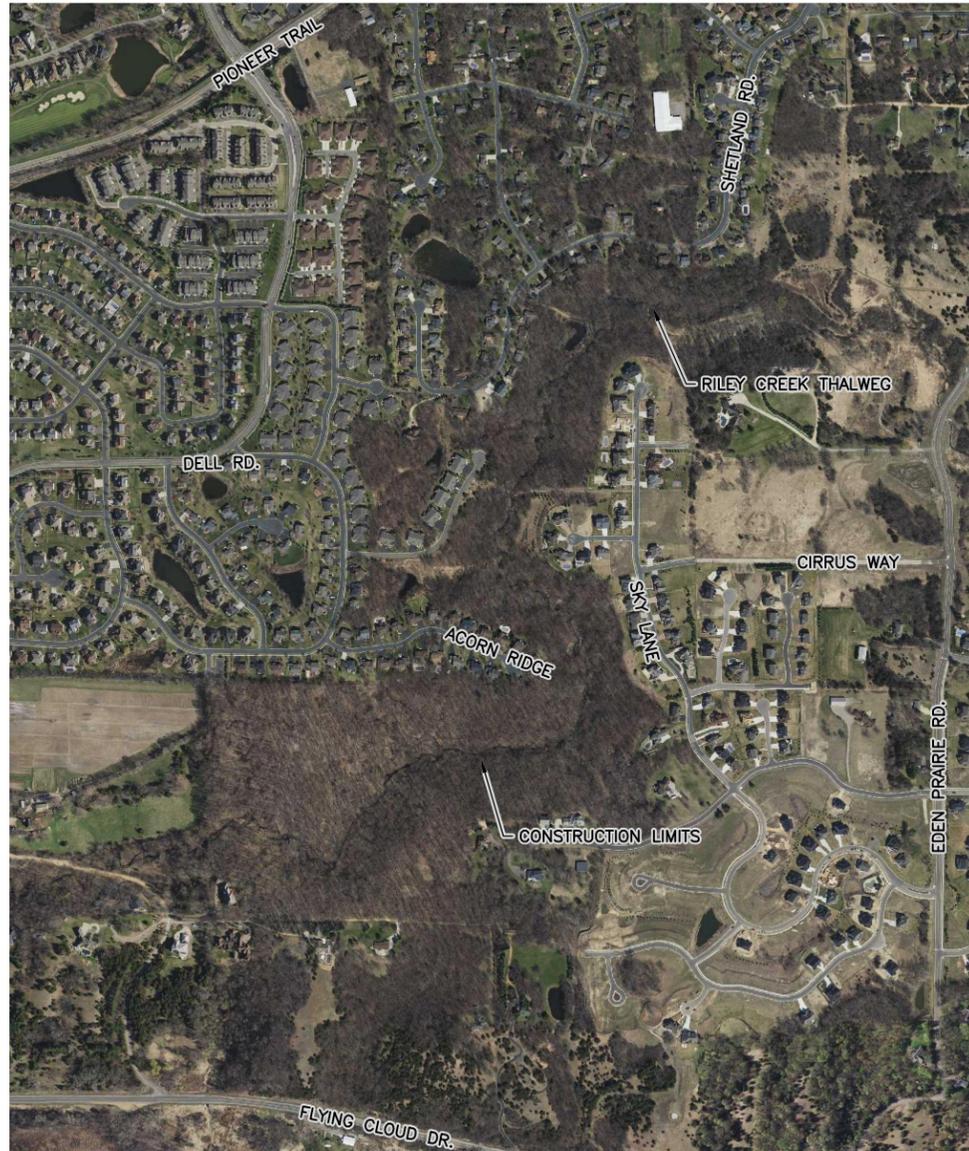
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**DETAIL IDENTIFIER (TYP.)**

**DETAIL: GRAPHICS STANDARDS**  
SCALE: 1=1

**DETAIL REFERENCES (TYP.)**  
SHEET DETAIL IS CALLED-OUT ON

**DETAIL VIEW TITLE**



**PROJECT LOCATION MAP**  
SCALE: 1" = 500'

**INDEX OF SHEETS**

- G-01 . . . . TITLE SHEET AND SITE LOCATION MAP
- G-02 . . . . STORM WATER POLLUTION PREVENTION PLAN (SWPPP)
- G-03 . . . . EROSION CONTROL AND RESTORATION PLAN
- G-04 . . . . TREE PROTECTION PLAN
- G-05 . . . . TREE PROTECTION PLAN
- G-06 . . . . TREE PROTECTION PLAN
  
- C-01 . . . . SITE LAYOUT
- C-02 . . . . TYPICAL STREAM CROSS SECTIONS
- C-03 . . . . STABILIZATION PLAN (STA. 0+00 TO 9+00)
- C-04 . . . . PROFILE & CHANNEL CROSS SECTIONS (STA. 0+00 TO 9+00)
- C-05 . . . . STABILIZATION PLAN (STA. 9+00 TO 17+00)
- C-06 . . . . PROFILE & CHANNEL CROSS SECTIONS (STA. 9+00 TO 17+00)
- C-07 . . . . STABILIZATION PLAN (STA. 17+00 TO 27+00)
- C-08 . . . . PROFILE & CHANNEL CROSS SECTIONS (STA. 17+00 TO 27+00)
- C-09 . . . . STABILIZATION PLAN (STA. 27+00 TO 36+00)
- C-10 . . . . PROFILE & CHANNEL CROSS SECTIONS (STA. 27+00 TO 36+00)
- C-11 . . . . STABILIZATION PLAN (STA. 36+00 TO 45+80)
- C-12 . . . . PROFILE & CHANNEL CROSS SECTIONS (STA. 36+00 TO 45+80)
- C-13 . . . . STABILIZATION PLAN - TRIBUTARY RAVINE
- C-14 . . . . PROFILE & CHANNEL CROSS SECTIONS - TRIBUTARY RAVINE
  
- D-01 . . . . STREAM RESTORATION DETAILS
- D-02 . . . . STREAM RESTORATION DETAILS
- D-03 . . . . STREAM RESTORATION DETAILS
- D-04 . . . . STREAM RESTORATION DETAILS
- D-05 . . . . STREAM RESTORATION DETAILS
- D-06 . . . . OUTLET IMPROVEMENT DETAILS
- D-07 . . . . OUTLET IMPROVEMENT DETAILS
- D-08 . . . . OUTLET IMPROVEMENT DETAILS
- D-09 . . . . EROSION CONTROL DETAILS
- D-10 . . . . EDEN PRAIRIE STANDARD PLATES
  
- B-01 . . . . BRIDGE DETAILS - COVER SHEET
- B-02 . . . . BRIDGE DETAILS - ELEVATION & SECTION
- B-03 . . . . BRIDGE DETAILS - MISCELLANEOUS
- B-04 . . . . BRIDGE DETAILS - ABUTMENTS
  
- R-01 . . . . RESTORATION PLAN
- R-02 . . . . RESTORATION PLAN
- R-03 . . . . RESTORATION PLAN
- R-04 . . . . RESTORATION PLAN
- R-05 . . . . PLANTING DETAIL

**CONTACTS:**

**ENGINEER CONTACT:**  
 Jeff Weiss  
 Barr Engineering Co.  
 4300 MarketPointe Dr.  
 Minneapolis, MN 55435  
 952-832-2706  
 jweiss@barr.com

**OWNER'S REPRESENTATIVE CONTACT:**  
 Claire Blesser  
 14500 Martin Drive Suite 1500  
 Eden Prairie, MN 55344  
 952-687-1348  
 cblesser@rpbcwd.org

**GENERAL NOTES:**

1. TOPO AND CONTROL GROUND SURVEY CONDUCTED BY BARR ENGINEERING CO. IN FEBRUARY 2017 IN HENNEPIN COUNTY FEET PROJECTION.
2. IMAGERY; COPYRIGHT PICTOMETRY INTERNATIONAL CORP AND HENNEPIN COUNTY, MINNESOTA, 2015.
3. OVERBANK TOPOGRAPHY FROM MnDNR 2011 LIDAR FOR HENNEPIN COUNTY, MN.
4. ALL HORIZONTAL COORDINATES ARE HENNEPIN COUNTY NAD83. VERTICAL DATUM IS NAVD88.

**90% DESIGN**  
**NOT FOR CONSTRUCTION**



NO.	BY	CHK	APP.	DATE	REVISION DESCRIPTION
C	EPF	PJH2	JDW	07/24/2018	90% DESIGN
B	EPF	PJH2	JDW	05/03/2018	60% DESIGN
A	EPF	PJH2	JDW	01/31/2018	ISSUED FOR REVIEW

CLIENT	01/31/18	05/03/18	07/24/18						
BID									
CONSTRUCTION									
RELEASED TO/FOR	A	B	C	0	1	2	3		
DATE RELEASED									

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Scale	AS SHOWN
Date	07/24/2018
Drawn	EPF
Checked	PJH2
Designed	BARR
Approved	JDW

**RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT**

**RILEY CREEK STABILIZATION EDEN PRAIRIE, MN.**  
**TITLE SHEET & INDEX**

BARR PROJECT No.	23/27-0053.14
CLIENT PROJECT No.	
DWG. No.	G-01
REV. No.	C

CADD USER: Eric P. Fitzgerald FILE: M:\DESIGN\23270053.14\LOWER RILEY CREEK\2327005314\_G-01\_TITLE SHEET.DWG PLOT SCALE: 1:2 PLOT DATE: 8/28/2018 1:02 PM  
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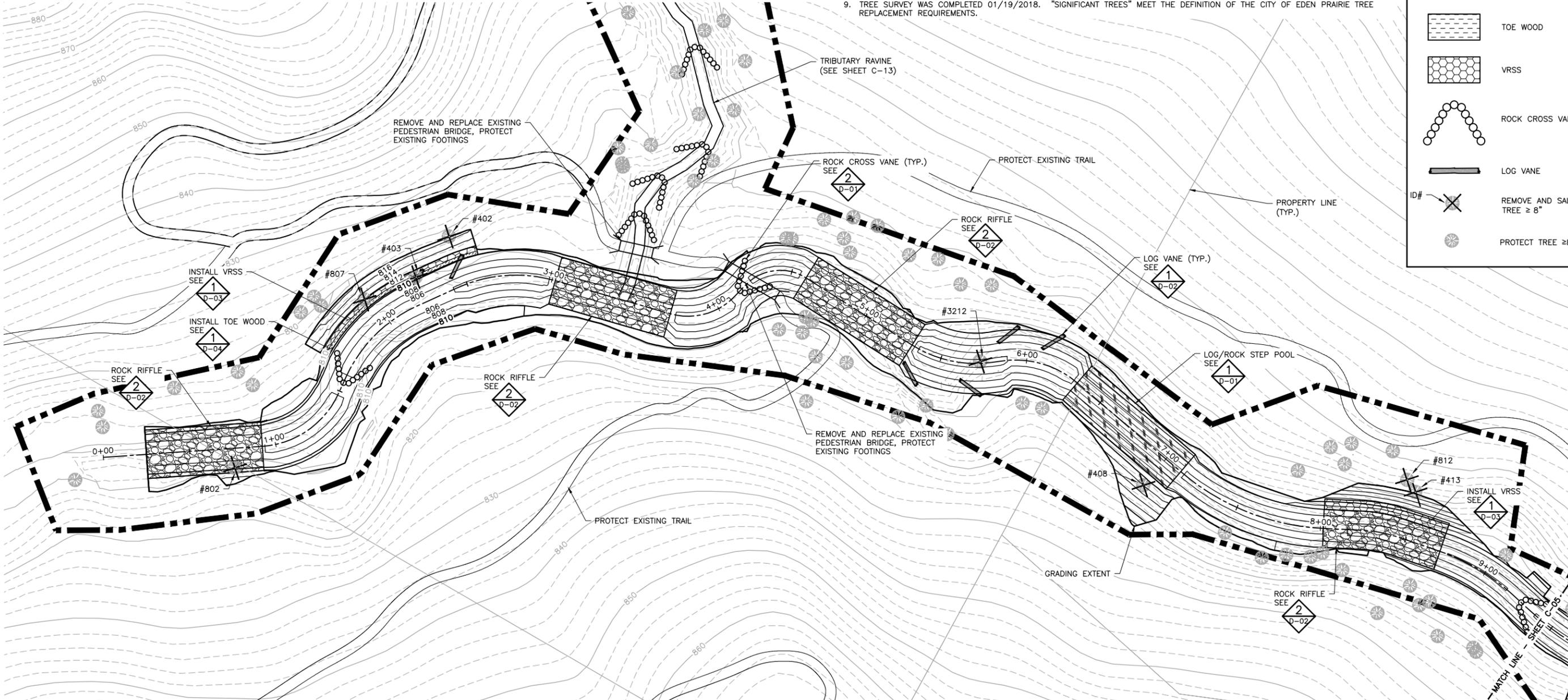
Trees ≥ 8" to be Removed				
Tree ID Number	Genus	DBH (Inches)	Significant Tree	Tree Health
402	Maple	11		Healthy
403	Ash	20		Dead
408	Maple	23		Dead
413	Maple	25	YES	Healthy
802	Maple	10		Healthy
807	Maple	10		Healthy
812	Basswood	14	YES	Healthy
3212	Maple	12	YES	Healthy
Total Significant		51	3	

**NOTES:**

- CONTRACTOR IS RESPONSIBLE TO LOCATE AND FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO WORK.
- ALL EXISTING ROADS, PARKING LOTS, TRAILS, FENCES, SIGNS, OR SIMILAR SHALL BE PROTECTED DURING CONSTRUCTION. CONTRACTOR RESPONSIBLE TO COORDINATE SURVEYS WITH THE CITY AND/OR OWNER TO DOCUMENT PRE-CONSTRUCTION EXISTING CONDITION ISSUES.
- CONTRACTOR SHALL INSTALL AND MAINTAIN ALL EROSION CONTROL BMPs PRIOR TO COMMENCEMENT OF GRADING FOR EACH LOCATION DURING CONSTRUCTION. EROSION CONTROL PLANS ARE PROVIDED INSIDE THE PROJECT STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
- ALL GROUND DISTURBANCE GENERATED FROM GRADING ACTIVITIES SHALL BE STABILIZED AND RESTORED WITH TOPSOIL, SEED W/COVER CROP AND EROSION CONTROL BLANKET OR STRAW MULCH.
- CONSTRUCTION LIMITS AS SHOWN ARE APPROXIMATE FINAL CONSTRUCTION LIMITS TO BE COORDINATED WITH THE CITY OF EDEN PRAIRIE AND STAKED IN THE FIELD.
- CLEARING AND GRUBBING TO BE PERFORMED ONLY WITHIN GRADING LIMITS AND ACCESS ROUTES UNLESS DIRECTED BY ENGINEER. TREES TO BE CLEARED WILL BE MARKED IN THE FIELD BY ENGINEER. ALL TREES ≥ 8" IN DIAMETER NOT MARKED FOR REMOVAL SHALL BE PROTECTED.
- TREES IDENTIFIED BY ENGINEER FOR ADDITIONAL PROTECTION SHALL BE PROTECTED AGAINST ROOT COMPACTION, DAMAGE AND DISFIGUREMENT IN ACCORDANCE WITH MnDOT SPEC. 2572. PROTECTION OF TREES NOT IDENTIFIED TO BE REMOVED SHALL BE INCIDENTAL.
- TREE SURVEY WAS COMPLETED 01/19/2018. "SIGNIFICANT TREES" MEET THE DEFINITION OF THE CITY OF EDEN PRAIRIE TREE REPLACEMENT REQUIREMENTS.

**SYMBOL AND PATTERN LEGEND**

	EXISTING 10' CONTOUR
	EXISTING 2' CONTOUR
	CONSTRUCTION LIMITS
	CITY STORM SEWER
	LOG/ROCK STEP POOL
	ROCK RIFFLE
	TOE WOOD
	VRSS
	ROCK CROSS VANE
	LOG VANE
	REMOVE AND SALVAGE TREE ≥ 8"
	PROTECT TREE ≥ 8"



1 STABILIZATION PLAN: RILEY CREEK (STA. 0+00 TO 9+00)

0 30 60  
HORIZONTAL SCALE IN FEET

90% DESIGN  
NOT FOR CONSTRUCTION

CADD USER: Eric P. Fitzgerald FILE: M:\DESIGN\23270053.14\LOWER RILEY CREEK\2327005314\_C-03\_PLAN & PROFILE.DWG PLOT SCALE: 1:2 PLOT DATE: 7/24/2018 11:53 AM

NO.	BY	CHK	APP.	DATE	REVISION DESCRIPTION
C	EPF	PJH2	JDW	07/20/2018	90% DESIGN
B	EPF	PJH2	JDW	05/03/2018	60% DESIGN
A	EPF	PJH2	JDW	01/31/2018	ISSUED FOR REVIEW

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINTED NAME: JEFFERY D. WEISS  
SIGNATURE: \_\_\_\_\_  
DATE: 07/20/2018 LICENSE #: 48031

CLIENT	01/31/18	05/03/18	07/20/18
BID			
CONSTRUCTION			
RELEASED TO/FOR	A	B	C
DATE RELEASED	0	1	2

**BARR** ENGINEERING CO.  
4300 MARKETPOINTE DRIVE  
Suite 200  
MINNEAPOLIS, MN 55435

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

Scale	AS SHOWN
Date	07/20/2018
Drawn	EPF
Checked	PJH2
Designed	BARR
Approved	JDW

RILEY PURGATORY BLUFF CREEK  
WATERSHED DISTRICT

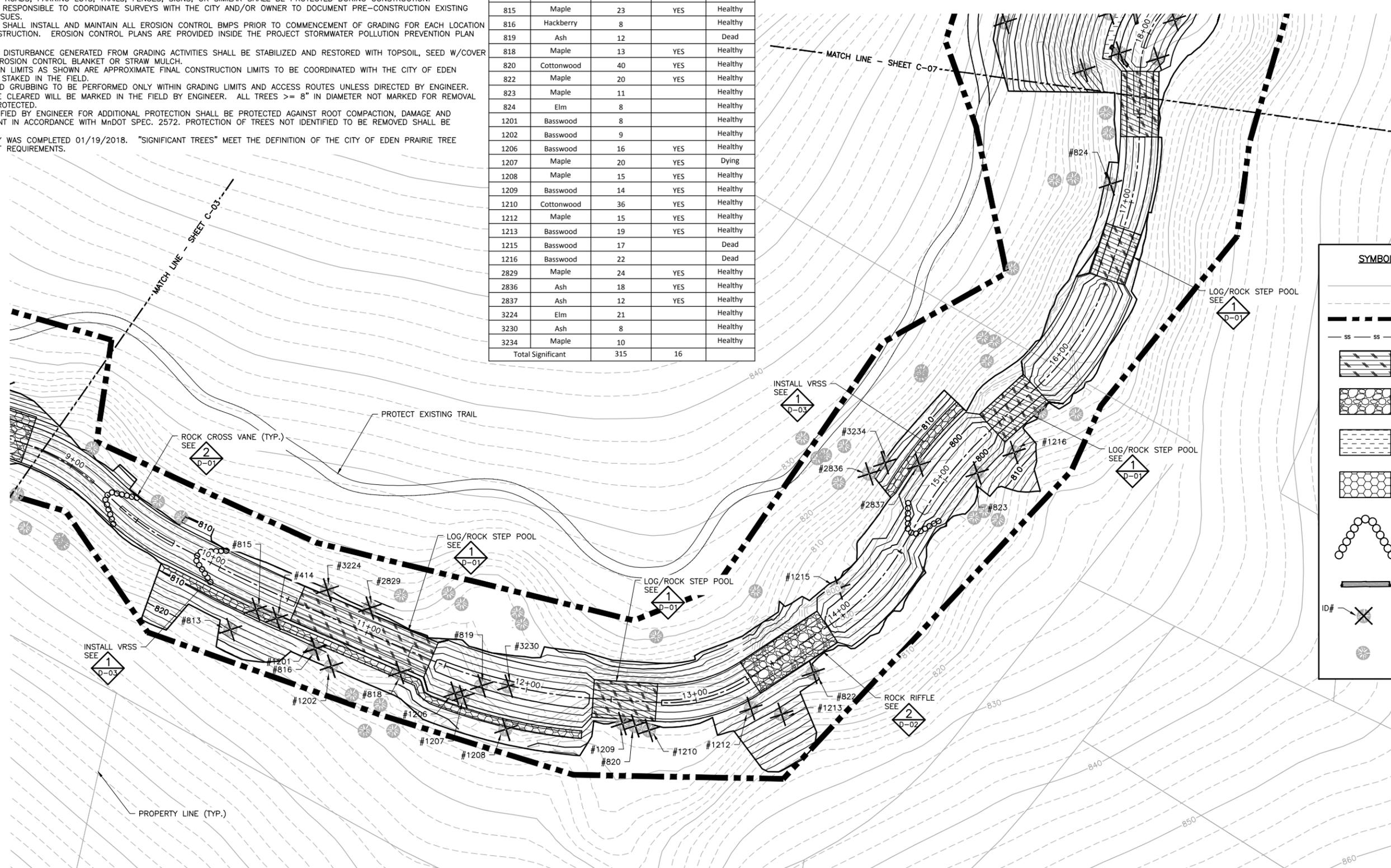
RILEY CREEK STABILIZATION  
EDEN PRAIRIE, MN.  
STABILIZATION PLAN  
(STA. 0+00 TO 9+00)

BARR PROJECT No. <b>23/27-0053.14</b>	
CLIENT PROJECT No.	
DWG. No. <b>C-03</b>	REV. No. <b>C</b>

**NOTES:**

- CONTRACTOR IS RESPONSIBLE TO LOCATE AND FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO WORK.
- ALL EXISTING ROADS, PARKING LOTS, TRAILS, FENCES, SIGNS, OR SIMILAR SHALL BE PROTECTED DURING CONSTRUCTION. CONTRACTOR RESPONSIBLE TO COORDINATE SURVEYS WITH THE CITY AND/OR OWNER TO DOCUMENT PRE-CONSTRUCTION EXISTING CONDITION ISSUES.
- CONTRACTOR SHALL INSTALL AND MAINTAIN ALL EROSION CONTROL BMPs PRIOR TO COMMENCEMENT OF GRADING FOR EACH LOCATION DURING CONSTRUCTION. EROSION CONTROL PLANS ARE PROVIDED INSIDE THE PROJECT STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
- ALL GROUND DISTURBANCE GENERATED FROM GRADING ACTIVITIES SHALL BE STABILIZED AND RESTORED WITH TOPSOIL, SEED W/COVER CROP AND EROSION CONTROL BLANKET OR STRAW MULCH.
- CONSTRUCTION LIMITS AS SHOWN ARE APPROXIMATE FINAL CONSTRUCTION LIMITS TO BE COORDINATED WITH THE CITY OF EDEN PRAIRIE AND STAKED IN THE FIELD.
- CLEARING AND GRUBBING TO BE PERFORMED ONLY WITHIN GRADING LIMITS AND ACCESS ROUTES UNLESS DIRECTED BY ENGINEER.
- TREES TO BE CLEARED WILL BE MARKED IN THE FIELD BY ENGINEER. ALL TREES >= 8" IN DIAMETER NOT MARKED FOR REMOVAL SHALL BE PROTECTED.
- TREES IDENTIFIED BY ENGINEER FOR ADDITIONAL PROTECTION SHALL BE PROTECTED AGAINST ROOT COMPACTION, DAMAGE AND DISFIGUREMENT IN ACCORDANCE WITH MnDOT SPEC. 2572. PROTECTION OF TREES NOT IDENTIFIED TO BE REMOVED SHALL BE INCIDENTAL.
- TREE SURVEY WAS COMPLETED 01/19/2018. "SIGNIFICANT TREES" MEET THE DEFINITION OF THE CITY OF EDEN PRAIRIE TREE REPLACEMENT REQUIREMENTS.

Trees ≥ 8" to be Removed				
Tree ID Number	Genus	DBH (Inches)	Significant Tree	Tree Health
414	Maple	12	YES	Healthy
813	Oak	18	YES	Healthy
815	Maple	23	YES	Healthy
816	Hackberry	8		Healthy
819	Ash	12		Dead
818	Maple	13	YES	Healthy
820	Cottonwood	40	YES	Healthy
822	Maple	20	YES	Healthy
823	Maple	11		Healthy
824	Elm	8		Healthy
1201	Basswood	8		Healthy
1202	Basswood	9		Healthy
1206	Basswood	16	YES	Healthy
1207	Maple	20	YES	Dying
1208	Maple	15	YES	Healthy
1209	Basswood	14	YES	Healthy
1210	Cottonwood	36	YES	Healthy
1212	Maple	15	YES	Healthy
1213	Basswood	19	YES	Healthy
1215	Basswood	17		Dead
1216	Basswood	22		Dead
2829	Maple	24	YES	Healthy
2836	Ash	18	YES	Healthy
2837	Ash	12	YES	Healthy
3224	Elm	21		Healthy
3230	Ash	8		Healthy
3234	Maple	10		Healthy
<b>Total Significant</b>			<b>16</b>	



SYMBOL AND PATTERN LEGEND	
	EXISTING 10' CONTOUR
	EXISTING 2' CONTOUR
	CONSTRUCTION LIMITS
	CITY STORM SEWER
	LOG/ROCK STEP POOL
	ROCK RIFFLE
	TOE WOOD
	VRSS
	ROCK CROSS VANE
	LOG VANE
	REMOVE AND SALVAGE TREE ≥ 8"
	PROTECT TREE ≥ 8"

1 STABILIZATION PLAN: RILEY CREEK (STA. 9+00 TO 17+00)

0 30 60  
HORIZONTAL SCALE IN FEET

90% DESIGN  
NOT FOR CONSTRUCTION

CADD USER: Eric P. Fitzgerald FILE: M:\DESIGN\23270053.14\LOWER RILEY CREEK\2327005314\_C-05\_PLAN & PROFILE.dwg PLOT SCALE: 1:2 PLOT DATE: 7/24/2018 11:50 AM  
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NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION
C	EPF	PJH2	JDW	07/24/2018	90% DESIGN
B	EPF	PJH2	JDW	05/03/2018	60% DESIGN
A	EPF	PJH2	JDW	01/31/2018	ISSUED FOR REVIEW

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 PRINTED NAME: JEFFERY D. WEISS  
 SIGNATURE: \_\_\_\_\_  
 DATE: 07/24/2018 LICENSE #: 48031

CLIENT	BID	CONSTRUCTION
01/31/18	05/03/18	07/24/18

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

Project Office:  
**BARR ENGINEERING CO.**  
 4300 MARKETPOINTE DRIVE  
 Suite 200  
 MINNEAPOLIS, MN 55435

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

Scale	AS SHOWN
Date	07/24/2018
Drawn	EPF
Checked	PJH2
Designed	BARR
Approved	JDW

**RILEY PURGATORY BLUFF CREEK**  
 WATERSHED DISTRICT

**RILEY CREEK STABILIZATION**  
 EDEN PRAIRIE, MN.  
 STABILIZATION PLAN  
 (STA. 9+00 TO 17+00)

BARR PROJECT No.	23/27-0053.14
CLIENT PROJECT No.	
DWG. No.	C-05
REV. No.	B

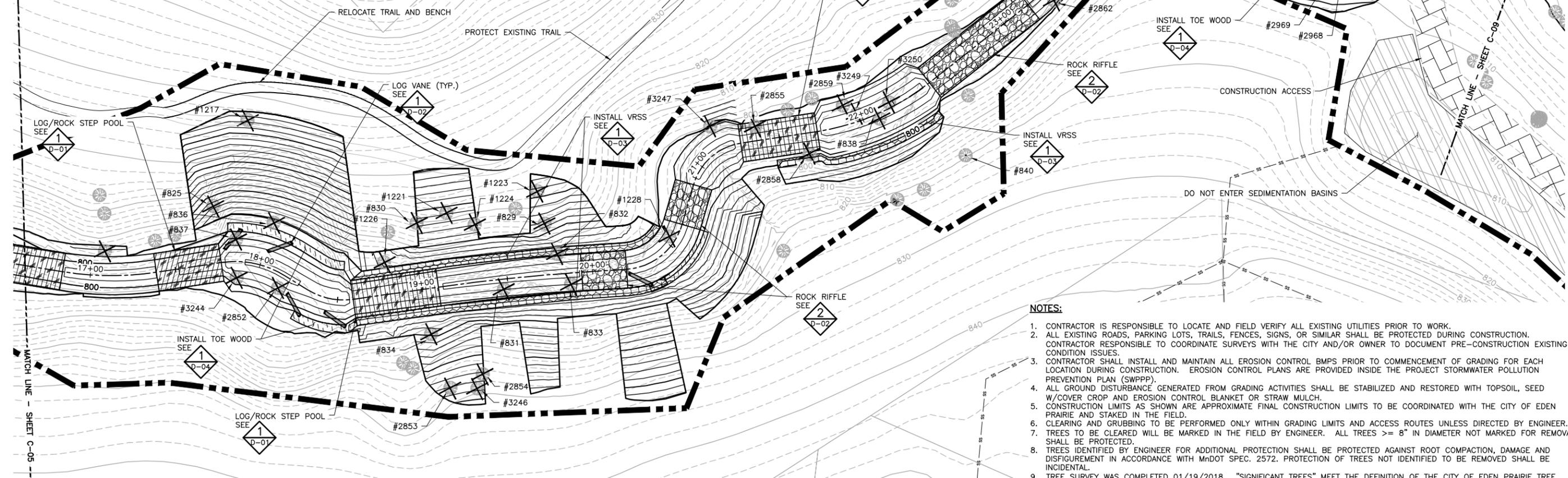
CADD USER: Eric P. Fitzgerald FILE: M:\DESIGN\23270053.14\LOWER RILEY CREEK\2327005314\_C-07\_PLAN & PROFILE.DWG PLOT SCALE: 1:2 PLOT DATE: 7/24/2018 12:51 PM  
 .xref M:\Design\23270053.14\Lower Riley Creek\2327005314\_C-01\_Title Sheet.dwg Plot at 0 02/22/2017 09:29:57

**SYMBOL AND PATTERN LEGEND**

- EXISTING 10' CONTOUR
- - - EXISTING 2' CONTOUR
- CONSTRUCTION LIMITS
- SS SS CITY STORM SEWER
- [Pattern] LOG/ROCK STEP POOL
- [Pattern] ROCK RIFFLE
- [Pattern] TOE WOOD
- [Pattern] VRSS
- [Symbol] ROCK CROSS VANE
- [Symbol] LOG VANE
- ID# [Symbol] REMOVE AND SALVAGE TREE ≥ 8"
- [Symbol] PROTECT TREE ≥ 8"

Trees ≥ 8" to be Removed					
Tree ID Number	Genus	DBH (Inches)	Significant Tree	Tree Health	
825	Maple	19	YES	Healthy	
829	Maple	15	YES	Healthy	
830	Oak	12	YES	Healthy	
831	Maple	16	YES	Healthy	
832	Maple	15	YES	Healthy	
833	Ash	13		Healthy	
834	Basswood	21	YES	Healthy	
836	Maple	19	YES	Healthy	
837	Oak	15	YES	Healthy	
838	Maple	15	YES	Dying	
840	Oak	27	YES	Healthy	
841	Maple	21	YES	Healthy	
842	Maple	18	YES	Healthy	
1217	Oak	18	YES	Healthy	
1221	Maple	26	YES	Healthy	
1223	Maple	8		Healthy	
1224	Maple	14	YES	Healthy	
1226	Maple	15	YES	Healthy	
1228	Maple	15	YES	Healthy	
1231	Maple	21	YES	Healthy	
1601	Maple	13	YES	Dying	
1602	Ash	22		Healthy	
2001	Basswood	15	YES	Healthy	
2002	Maple	16	YES	Healthy	
2003	Basswood	17	YES	Healthy	
2004	Maple	12	YES	Healthy	
2852	Elm	10		Healthy	
2853	Elm	18		Healthy	
2854	Ash	9		Healthy	
Total Significant			558	33	

2855	Maple	15	YES	Healthy
2858	Ash	22	YES	Healthy
2859	Elm	20		Healthy
2862	Walnut	10		Healthy
2967	Oak	16	YES	Healthy
2968	Ironwood	8		Healthy
2969	Maple	10		Healthy
2973	Ash	18	YES	Healthy
3244	Maple	12	YES	Healthy
3246	Ash	13	YES	Healthy
3247	Maple	12	YES	Healthy
3249	Maple	15	YES	Healthy
3250	Ash	22	YES	Healthy
3258	Elm	11		Healthy
3343	Ash	18	YES	Healthy
Total Significant			558	33



- NOTES:**
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  - TREE SURVEY WAS COMPLETED 01/19/2018. "SIGNIFICANT TREES" MEET THE DEFINITION OF THE CITY OF EDEN PRAIRIE TREE REPLACEMENT REQUIREMENTS.

1 STABILIZATION PLAN: RILEY CREEK (STA. 17+00 TO 27+00)

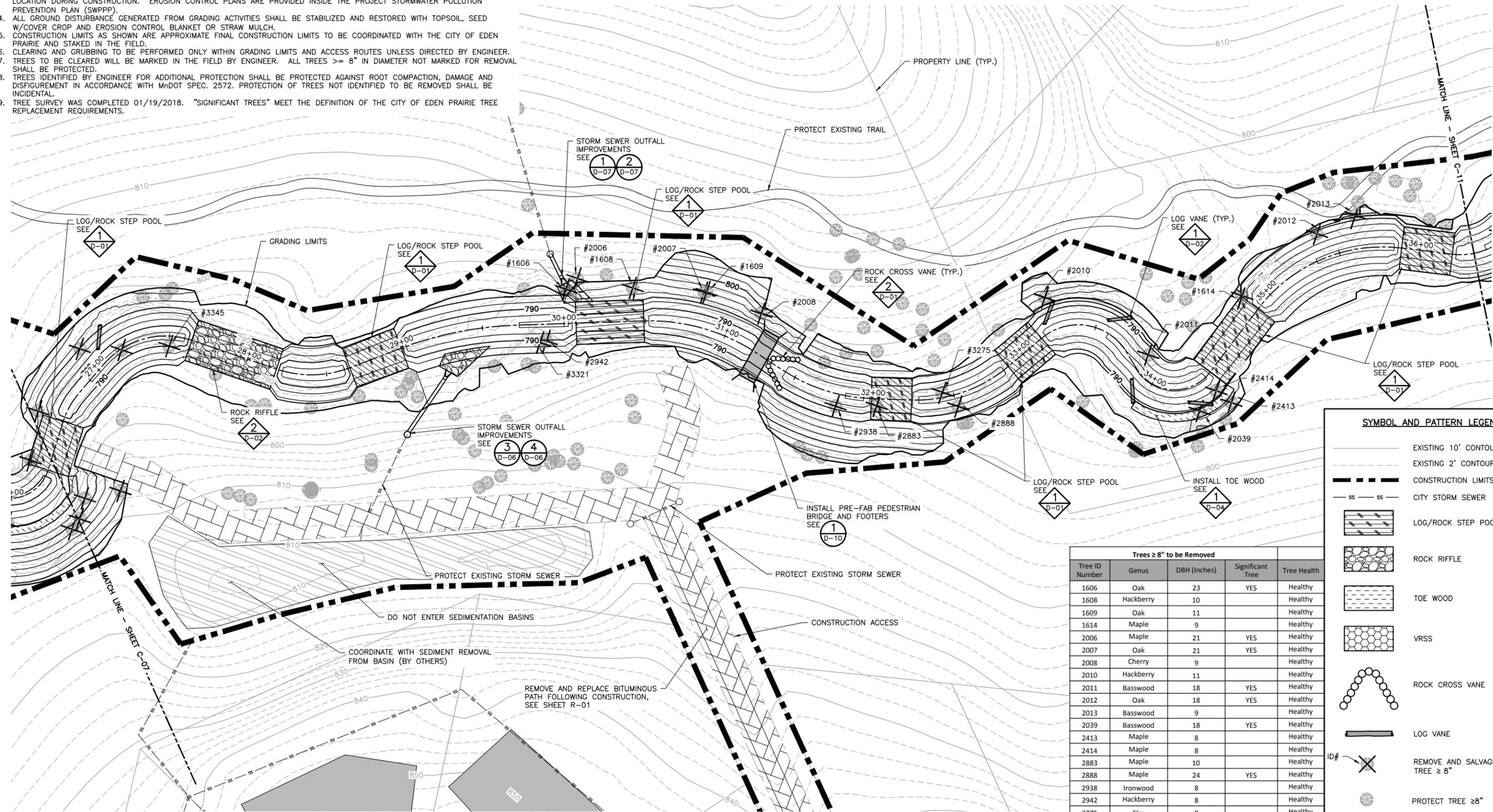
0 30 60  
HORIZONTAL SCALE IN FEET

90% DESIGN  
NOT FOR CONSTRUCTION

		I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. PRINTED NAME: JEFFERY D. WEISS SIGNATURE: _____ DATE: 07/24/2018 LICENSE # 48031		CLIENT: 01/31/18 05/03/18 07/24/18 CONSTRUCTION: _____ RELEASED TO/FOR: A B C 0 1 2 3 DATE RELEASED: _____		Project Office: <b>BARR ENGINEERING CO.</b> 4300 MARKETPOINTE DRIVE Suite 200 MINNEAPOLIS, MN 55435 Corporate Headquarters: Minneapolis, Minnesota Ph: 1-800-632-2277 Fax: (952) 832-2601 www.barr.com		Scale: AS SHOWN Date: 07/24/2018 Drawn: EPF Checked: PUH2 Designed: BARR Approved: JDW		<b>RILEY CREEK STABILIZATION EDEN PRAIRIE, MN.</b> <b>STABILIZATION PLAN (STA. 17+00 TO 27+00)</b>		BARR PROJECT No. <b>23/27-0053.14</b> CLIENT PROJECT No. DWG. No. <b>C-07</b> REV. No. <b>B</b>	
NO. BY CHK. APP. DATE REVISION DESCRIPTION		C EPF PUH2 JDW 07/24/2018 90% DESIGN B EPF PUH2 JDW 05/03/2018 60% DESIGN A EPF PUH2 JDW 01/31/2018 ISSUED FOR REVIEW											

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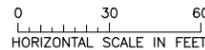
**SYMBOL AND PATTERN LEGEND**

- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- CONSTRUCTION LIMITS
- CITY STORM SEWER
- LOG/ROCK STEP POOL
- ROCK RIFFLE
- TOE WOOD
- VRSS
- ROCK CROSS VANE
- LOG VANE
- REMOVE AND SALVAGE TREE  $\geq 8"$
- PROTECT TREE  $\geq 8"$

**Trees  $\geq 8"$  to be Removed**

Tree ID Number	Genus	DBH (Inches)	Significant Tree	Tree Health
1606	Oak	23	YES	Healthy
1608	Hackberry	10		Healthy
1609	Oak	11		Healthy
1614	Maple	9		Healthy
2006	Maple	21	YES	Healthy
2007	Oak	21	YES	Healthy
2008	Cherry	9		Healthy
2010	Hackberry	11		Healthy
2011	Basswood	18	YES	Healthy
2012	Oak	18	YES	Healthy
2013	Basswood	9		Healthy
2039	Basswood	18	YES	Healthy
2413	Maple	8		Healthy
2414	Maple	8		Healthy
2883	Maple	10		Healthy
2888	Maple	24	YES	Healthy
2938	Ironwood	8		Healthy
2942	Hackberry	8		Healthy
3275	Elm	8		Healthy
3321	Hackberry	13	YES	Healthy
3345	Ash	14	YES	Healthy
Total Significant		170	9	

1 STABILIZATION PLAN: RILEY CREEK (STA. 27+00 TO 36+00)



CADD USER: Eric P. Fitzgerald FILE: M:\DESIGN\23270053.14\LOWER RILEY CREEK\2327005314\_C-09\_PLAN & PROFILE.DWG PLOT SCALE: 1:2 PLOT DATE: 7/24/2018 1:18 PM  
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NO.	BY	CHK	APP.	DATE	REVISION DESCRIPTION
C	EPF	PJH2	JDW	07/24/2018	90% DESIGN
B	EPF	PJH2	JDW	05/03/2018	60% DESIGN
A	EPF	PJH2	JDW	01/31/2018	ISSUED FOR REVIEW

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PRINTED NAME: JEFFERY D. WEISS  
 SIGNATURE: [Signature]  
 DATE: 07/24/2018 LICENSE # 48031

CLIENT	01/31/18	05/03/18	07/24/18
BID			
CONSTRUCTION			
RELEASED TO/FOR	A	B	C
DATE RELEASED	0	1	2

**BARR** Engineering Co.  
 4300 MARKETPOINTE DRIVE  
 Suite 200  
 MINNEAPOLIS, MN 55435  
 Corporate Headquarters: Minneapolis, Minnesota  
 Ph: 1-800-632-2277

Scale	AS SHOWN
Date	07/24/2018
Drawn	EPF
Checked	PJH2
Designed	BARR
Approved	JDW

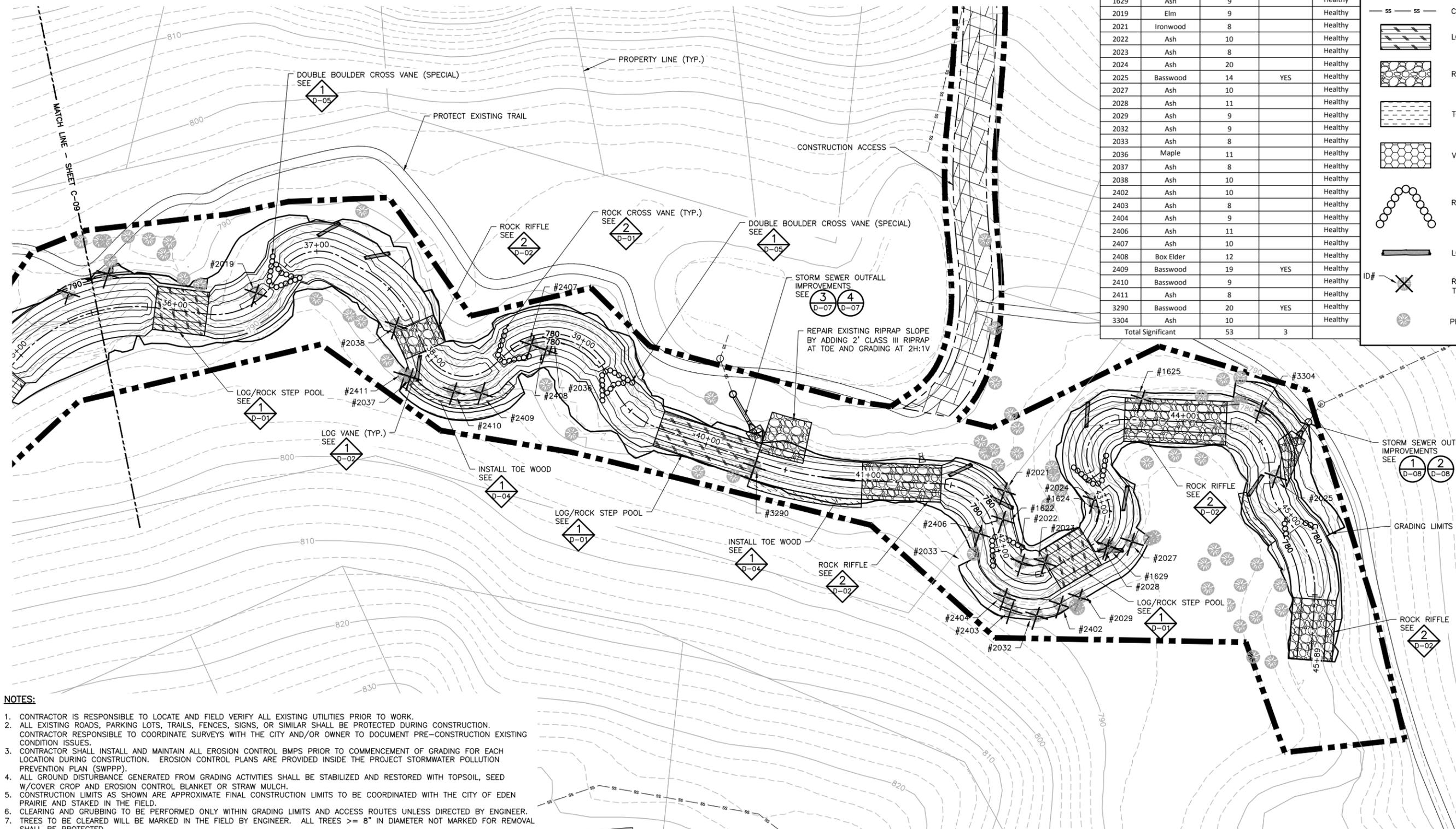
**RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT**

**RILEY CREEK STABILIZATION EDEN PRAIRIE, MN.**  
**STABILIZATION PLAN (STA. 27+00 TO 36+00)**

BARR PROJECT No. 23/27-0053.14	
CLIENT PROJECT No.	
DWG. No. C-09	REV. No. C

**90% DESIGN NOT FOR CONSTRUCTION**

CADD USER: Eric P. Fitzgerald FILE: M:\DESIGN\23270053.14\LOWER RILEY CREEK\2327005314\_C-11\_PLAN & PROFILE.DWG PLOT SCALE: 1:2 PLOT DATE: 7/24/2018 1:48 PM  
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Trees ≥ 8" to be Removed				
Tree ID Number	Genus	DBH (Inches)	Significant Tree	Tree Health
1622	Ash	8		Healthy
1624	Box Elder	8		Healthy
1625	Basswood	11		Healthy
1629	Ash	9		Healthy
2019	Elm	9		Healthy
2021	Ironwood	8		Healthy
2022	Ash	10		Healthy
2023	Ash	8		Healthy
2024	Ash	20		Healthy
2025	Basswood	14	YES	Healthy
2027	Ash	10		Healthy
2028	Ash	11		Healthy
2029	Ash	9		Healthy
2032	Ash	9		Healthy
2033	Ash	8		Healthy
2036	Maple	11		Healthy
2037	Ash	8		Healthy
2038	Ash	10		Healthy
2402	Ash	10		Healthy
2403	Ash	8		Healthy
2404	Ash	9		Healthy
2406	Ash	11		Healthy
2407	Ash	10		Healthy
2408	Box Elder	12		Healthy
2409	Basswood	19	YES	Healthy
2410	Basswood	9		Healthy
2411	Ash	8		Healthy
3290	Basswood	20	YES	Healthy
3304	Ash	10		Healthy
Total Significant		53	3	

SYMBOL AND PATTERN LEGEND	
	EXISTING 10' CONTOUR
	EXISTING 2' CONTOUR
	CONSTRUCTION LIMITS
	CITY STORM SEWER
	LOG/ROCK STEP POOL
	ROCK RIFFLE
	TOE WOOD
	VRSS
	ROCK CROSS VANE
	LOG VANE
	REMOVE AND SALVAGE TREE ≥ 8"
	PROTECT TREE ≥ 8"

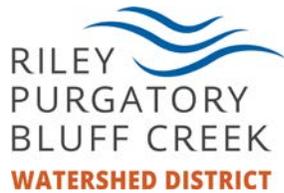
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**1 STABILIZATION PLAN: RILEY CREEK (STA. 36+00 TO 45+89)**

0 30 60  
HORIZONTAL SCALE IN FEET

**90% DESIGN  
NOT FOR CONSTRUCTION**

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. PRINTED NAME: JEFFERY D. WEISS SIGNATURE: _____ DATE: 07/24/2018 LICENSE # 48031		CLIENT: BARR ENGINEERING CO. PROJECT: RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT STABILIZATION PLAN (STA. 36+00 TO 45+89)		PROJECT OFFICE: BARR ENGINEERING CO., 4300 MARKETPOINTE DRIVE, SUITE 200, MINNEAPOLIS, MN 55435 CORPORATE HEADQUARTERS: MINNEAPOLIS, MINNESOTA PH: 1-800-632-2277, FAX: (952) 832-2601, WWW.BARR.COM		SCALE: AS SHOWN DATE: 07/24/2018 DRAWN: EPF CHECKED: PJH2 DESIGNED: BARR APPROVED: JDW		RILEY CREEK STABILIZATION EDEN PRAIRIE, MN. STABILIZATION PLAN (STA. 36+00 TO 45+89)		BARR PROJECT No. 23/27-0053.14 CLIENT PROJECT No. _____ DWG. No. C-11 REV. No. C	
NO. BY CHK. APP. DATE REVISION DESCRIPTION		RELEASED TO/FOR: A B C O 1 2 3 DATE RELEASED:		<b>BARR</b>		RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT		STABILIZATION PLAN (STA. 36+00 TO 45+89)		BARR PROJECT No. 23/27-0053.14 CLIENT PROJECT No. _____ DWG. No. C-11 REV. No. C	



18681 Lake Drive East  
 Chanhassen, MN 55317  
 952-607-6512  
 www.rpbcwd.org

## Riley Purgatory Bluff Creek Watershed District Permit Application Review

**Permit No:** 2015-036

**Received complete:** June 04, 2018

**Applicant:** Lake West Development, LLC / Curt Fretham and Perry Ryan

**Board Meeting:** September 5, 2018

**Project:** Saville West – The applicant, Lake West Development, LLC is requesting a one-year extension for permit application 2015-036, which was conditionally approved at the September 2, 2016 meeting. A permit-modification application was received complete on April 20, 2017. The permit as modified was conditionally approved for one year at the June 7, 2017 board meeting. (The renewal application was received June 4, 2018.)

**Location:** 5325 County Road 101, Minnetonka

**Reviewer:** Terry Jeffery, Permit Coordinator

### Rules: Applicable rules checked

	Rule B: Floodplain Management		Rule H: Appropriation of Public Waters
X	Rule C: Erosion and Sediment Control		Rule I: Appropriation of Groundwater
X	Rule D: Wetland and Creek Buffers	X	Rule J: Stormwater Management
	Rule E: Dredging and Sediment Removal		Rule K: Variances and Exceptions
	Rule F: Shoreline/Streambank Stabilization	X	Rule L: Permit Fees
	Rule G: Waterbody Crossings	X	Rule M: Financial Assurances

### Exhibits:

1. RPBCWD permit report 2015-036 – September 7, 2016
2. RPBCWD permit-modification report 2015-036 – June 7, 2017
3. Notice of Probable Violation – May 9, 2018
  - a. Notice of receipt by Lake West Development Co. of certified mail – May 10, 2018
4. Letter – P. Ryan to T. Jeffery, requesting extension of conditional approval of permit 2015-036 – June 4, 2018
5. Email – T. Jeffery to Perry Ryan, Lake West Development, July 3, 2018

### Findings

The applicant is requesting a one-year extension of the conditional approval of application 2015-036 for construction of three homes to complete a five-lot subdivision in Minnetonka. The application, as modified in a request received April 20, 2017, was conditionally approved at the June 7, 2017, meeting of the RPBCWD Board of Managers. The conditions of June 2017 approval were as follows:

1. Continued compliance with General Requirements.
2. Financial assurance in the amount of \$185,700.
3. Receipt in recordation [of] a maintenance declaration for the stormwater management facilities and wetland buffer. The declaration must also include a stormwater reuse monitoring and reporting plan. A draft must be approved by the District prior to recordation.
4. Receipt of an additional permit fee of \$2,860.70 for excess cost recovery.

To date, none of the above-listed conditions have been satisfied and the permit has not been issued. Notwithstanding, on April 12, 2018, RPBCWD permit coordinator Terry Jeffery observed that tree clearing and construction of one home had occurred on the subject property. On May 9, 2018, Mr. Jeffery sent a notice of probable violation to Curt Fretham of Lake West Development Co, alerting Lake West that work had been undertaken despite the failure to secure a permit and seeking immediate submission of updated site plans and a request for a permit modification for work necessary to bring the project into compliance with the terms of permit 2015-036 and RPBCWD rules. A representative of Lakewest received the NOPV on May 10, 2018 as indicated by the certified mail receipt included.

On June 4, 2018, RPBCWD received a request from Lake West to extend the conditional approval of application 2015-036, as modified in June 2017.

On June 28, 2018, Mr. Jeffery and Scott Sobiech, the RPBCWD engineer, met with Perry Ryan, Vice President of Land Development at Lake West, at the RPBCWD offices to discuss options for retrofitting compliance measures for the already constructed home and necessary steps for RPBCWD to approve another modification to the application for the completion of the proposed subdivision. RPBCWD has received no updated plans or designs for the project since the late June meeting. RPBCWD also has received no response to Mr. Jeffery's July 3, 2018, email request for a good-faith reimbursement of excess costs incurred by RPBCWD in the matter.

The land-disturbing activity and construction that has already taken place has created approximately 3,675 square feet of regulated impervious surface, the runoff from which is not being treated. The condition is resulting in increased pollution of and additional risk to downgradient and downstream water resources, including but not limited to a small onsite wetland.

**Recommendation:**

1. Based on the above-summarized record, staff recommends denial of the request for a one-year permit extension for conditionally approved permit 2015-036.

**Board Action**

Manager \_\_\_\_\_ moved, and Manager \_\_\_\_\_ seconded to \_\_\_\_\_ the request for a one-year permit extension for application No. 2015-036





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## Riley Purgatory Bluff Creek Watershed District Permit Application Review

**Permit No:** 2015-036

**Original Application:** Conditionally approved at September 1, 2016 meeting

**Modification Request Received complete:** April 20, 2017

**Applicant:** Lake West Development LLC

**Consultant:** Reid Schulz, Landform Professional Services

**Project:** Saville West Subdivision –Construction of a 5-lot single family home subdivision. Three infiltration basins, two rainwater gardens, vegetated swales and rainwater harvesting/reuse will provide storm water quantity, volume and quality control.

**Location:** 5325 County Road 101, Minnetonka, MN

**Reviewer:** Scott Sobiech, Barr Engineering

### Rules: Applicable rules checked

	Rule B: Floodplain Management		Rule H: Appropriation of Public Waters
X	Rule C: Erosion and Sediment Control		Rule I: Appropriation of Groundwater
X	Rule D: Wetland and Creek Buffers	X	Rule J: Stormwater Management
	Rule E: Dredging and Sediment Removal		Rule K: Variances and Exceptions
	Rule F: Shoreline/Streambank Stabilization	X	Rule L: Permit Fees
	Rule G: Waterbody Crossings	X	Rule M: Financial Assurances

### Rule Conformance Summary

Rule	Issue	Conforms to RBPCWD Rules?	Comments
C	Erosion Control Plan	Yes	
D	Wetland and Creek Buffers	See Comment	See Rule Specific Permit Condition D1.
J	Stormwater Management	Rate	Yes
		Volume	Yes
		Water Quality	Yes
		Low Floor Elev.	Yes
		Maintenance	See Comment
L	Permit Fee	Yes	\$1,000 was received on July 6, 2015. Additional \$2,860.70 for excess cost recovery

Rule	Issue	Conforms to RBPCWD Rules?	Comments
M	Financial Assurance	See Comment	The financial assurance has been calculated at \$185,700.

### **Project Description**

The applicant proposes to modify the project by reducing the project footprint and the number of lots from 12 in the original submittal to five. The project proposes the subdivision of three existing single-family home properties into five. The proposal includes the construction of three new homes, while two of the lots will retain the existing single family homes. An existing wetland is located on the northeast portion of the site. The project includes three infiltration basins, two rainwater gardens, vegetated swales and rainwater harvesting/reuse to provide storm water quantity, volume and quality control. The Managers conditionally approved the original submittal in September 2016. The applicant has not completed the steps necessary to satisfy the conditions on the approval, so the permit has not been issued, but the conditional approval remains effective to September 2017.

The original permit submittal included the placement of 21 cubic yards of fill below the 100-year flood elevation of the wetland (922.0), the project activities must conform to the RPBCWD's Floodplain Management and Drainage Alterations rule (Rule B). Because the revised submittal eliminated the fill within the floodplain of the wetland Rule B is no longer applicable.

The project site information is summarized below:

	Original Project	Modification Request
Total Site Area (acres)	6.03	3.81
Existing Site Impervious (acres)	0.30	0.24
New (Increase) in Site Impervious Area (acres)	1.24 (413% increase)	0.495 (107% increase)
Total Disturbed Area (acres)	3.4	1.34

Exhibits:

1. Permit Application dated July 6, 2015.
2. Watershed Plan Sheets (12 sheets) dated July 6, 2015 (revised May 25, 2017).
3. Stormwater Management Plan Revised June 26, 2015 (revised May 25, 2017).
4. Geotechnical Exploration and Engineering Review in June 26, 2015 Stormwater Management Plan.
5. Wetland Delineation Report in June 26, 2015 Stormwater Management Plan (dated February 6, 2014).
6. P8 Model in May 26, 2017 submittal.
7. MnRAM documentation received July 17, 2015.
8. MIDS Calculator file received May 11, 2017
9. HydroCad models for existing and proposed conditions received May 26, 2016
10. Response to Comments dated May 9, 2017.

**Rule Specific Permit Conditions**

**Rule C: Erosion and Sediment Control**

Because the project will alter over 1.34 acres of land-surface area the project must conform to the requirements in the RPBCWD Erosion and Sediment Control rule (Rule C, Subsection 2.1).

The erosion control plan prepared by Landform Professional Services includes installation of silt fence, inlet protection for storm sewer catch basins, a rock construction entrance, placement of a minimum of 6 inches of topsoil, decompaction of areas compacted during construction, and retention of native topsoil onsite. The applicant indicated Lakewest Excavating will be responsible for all erosion control on the site. The proposed project conforms to the erosion and sediment control requirements of Rule C.

**Rule D: Wetland and Creek Buffers**

Because the proposed work triggers a permit under RPBCWD Rules B and J and the onsite wetland is protected by the state Wetland Conservation Act, Rule D, Subsections 2.1a and 3.1 require buffer on the portion of the wetland downgradient from the proposed land-disturbing activities. No draining, filling of the onsite wetland is proposed.

A 2014 wetland delineation for the site was included with the submittal. The MnRAM analysis dated February 6, 2014 indicates that the wetland onsite is a medium value wetland according to Appendix D1. Rule D, Subsection 3.1.a.iii requires a wetland buffer with an average of 40 feet from the delineated edge of the wetland, minimum 20 feet. The applicant proposed wetland buffers for the wetland which provide a 40-foot average, 25-foot minimum consistent with the widths identified in Rule D, Subsection 3.1 for medium value wetlands. The applicant is proposing buffer monument locations consistent with criteria in Rule D, Subsection 3.3. The Applicant is proposing revegetating disturbed

areas within the proposed buffer with native vegetation in conformance with Rule D, Subsection 3.2. A note is included on the plan sheet indicating the project will be constructed so as to minimize the potential transfer of aquatic invasive species (e.g., zebra mussels, Eurasian watermilfoil, etc.) to the maximum extent possible conforming to Rule D, Subsection 3.5. To conform to the RPBCWD Rule D the following revisions are needed:

- D1. Buffer areas and maintenance requirements must be documented in a declaration recorded after review and approval by RPBCWD in accordance with Rule D, Subsection 3.4.

**Rule J: Stormwater Management**

Because the project will alter over 1.34 acres of land-surface area the project must meet the criteria of RPBCWD’s Stormwater Management rule (Rule J, Subsection 2.1). The criteria listed in Subsection 3.1 will apply to the entire project parcel because the project will increase the imperviousness of the entire parcel by more than 100 percent (Rule J, Subsection 2.3).

The developer is proposing construction of three infiltration basins, two rainwater gardens, vegetated swales and three rainwater harvesting/reuse facilities to provide the rate control, volume abstraction and water quality management on the site. The rainwater gardens will have an elevated underdrain to promote infiltration of runoff. Water collect in the raingarden underdrain is directed to the rainwater harvesting/reuse systems. Vegetated filter strips and swales will provide pretreatment for the infiltration basins and rainwater gardens.

**Rate Control**

In order to meet the rate control criteria listed in Subsection 3.1.a, the 2-, 10-, and 100-year post development peak runoff rates must be equal to or less than the existing discharge rates at all locations where stormwater leaves the site. The applicant used a HydroCAD hydrologic model to simulate runoff rates for pre- and post-development conditions for the 2-, 10-, and 100-year frequency storm events using a nested rainfall distribution, and a 100-year frequency, 10-day snowmelt event. The existing and proposed 2-, 10-, and 100-year frequency discharges from the site are summarized in the table below. The proposed project is in conformance with RPBCWD Rule J, Subsection 3.1.a.

Modeled Discharge Location	2-Year Discharge (cfs)		10-Year Discharge (cfs)		100-Year Discharge (cfs)		10-Day Snowmelt (cfs)	
	Ex	Prop	Ex	Prop	Ex	Prop	Ex	Prop
Tracy Lynn	2.8	2.7	5.3	5.1	10.1	9.9	1.5	1.5
South	1.1	<0.1	2.2	1.6	4.3	4.1	0.6	0.6
Wetland	2.7	1.1	5.1	2.9	9.9	9.3	1.5	1.5

**Volume Abstraction**

Subsection 3.1.b of Rule J requires the abstraction onsite of 1.1 inches of runoff from all impervious surface of the parcel. An abstraction volume of 1,983 cubic feet is required from the 0.495 acres (21,561 square feet) of impervious area on the project for volume retention. The applicant has proposed three infiltration basins, vegetated swales, and three rainwater harvesting/reuse to abstract 1,029 cubic feet, 12 cubic feet, and 1,034 cubic feet, respectively of runoff from the site. Pretreatment of runoff is provided vegetated filter strips.

Soil borings performed by Northern Technologies, Inc. show that soils in the project area are primarily clays; the MN Stormwater Manual indicates an infiltration rate of 0.06 inches per hour for such soils. The soil borings show no groundwater was observed to a boring depth of 21 feet. Groundwater is at least 3 feet below the bottom of the proposed underground infiltration system (Rule J, Subsection 3.1.b.ii).

Required Abstraction Depth (inches)	Required Abstraction Volume (cubic feet)	Provided Abstraction Volume (cubic feet)
1.1	1,983	2,075

Because the proposed water reuse irrigation systems require consistent use at a specified rate to meet District requirements, performance monitoring for the site will be required to ensure that the project is able to meet the RPBCWD volume abstraction requirement as has been proposed. In accordance with Rule J, Subsection 2.6 performance monitoring, and as a stipulation of issuing a permit for this project, the Applicant must submit an operations plan and monitor the proposed irrigation systems to determine the ability of the system to achieve the estimated volume abstraction as presented in the design. The monitoring program must be included in the maintenance declaration that is recorded with the County. The recorded reuse volume must be submitted to the RPBCWD on a yearly basis. If it is determined that the system is not performing as designed, the applicant will need to submit a revised design and construction plan to demonstrate that the volume abstraction standard will be achieved.

Based on information reviewed, the proposed project conforms to Rule J, Subsection 3.1.b.

**Water Quality Management**

Subsection 3.1.c of Rule J requires the Applicant provide for at least 60 percent annual removal efficiency for total phosphorus (TP), and at least 90 percent annual removal efficiency for total suspended solids (TSS) from site runoff. The Applicant is proposing three infiltration basins, two

rainwater gardens, vegetated swales and three rainwater harvesting/reuse to achieve the required TP and TSS removals and submitted a P8 model and MIDS calculator file to estimate the TP and TSS removals.

Based on information reviewed, the proposed project conforms to Rule J, Subsection 3.1.c.

Pollutant of Interest	Regulated Site Loading (lbs/yr)	Required Load Removal (lbs/yr) <sup>1</sup>	Provided Load Reduction (lbs/yr)
Total Suspended Solids (TSS)	418.0	376.2(90%)	376.7 (90.1%)
Total Phosphorus (TP)	1.66	1.0 (60%)	1.37 (82.5%)

<sup>1</sup>Required load reduction is calculated based on the removal criteria in Rule J, Subsection 3.1c and the load generated from all the impervious area on the site.

**Low floor Elevation**

No structure may be constructed or reconstructed such that its lowest floor elevation is less than 2 feet above the 100-year event flood elevation according to Rule J, Subsection 3.6. The low floor elevation of the homes and the adjacent stormwater management feature is summarized below. The project meets the requirements of Rule J, Subsection 3.6.

Location Riparian to Stormwater Facility	Low Floor Elevation of Building (feet)	100-year Event Flood Elevation of Adjacent Stormwater Facility (feet)	Freeboard (feet)
Lot 1	918.43	929.0	10.57
Lot 2	926.89	931.0	4.11
Lot 3	926.89	928.9	2.01
Lot 4	927.0	924.29	2.71
Lot 5	918.4	914.12	4.28

**Maintenance**

Subsection 3.7 of Rule J requires the submission of a maintenance plan. All stormwater management structures and facilities must be designed for maintenance access and properly maintained in perpetuity to assure that they continue to function as designed.

- J1. Permit applicant must provide a draft maintenance and inspection plan. Once approved by RPBCWD, the plan must be recorded on the deed in a form acceptable to the District.

**Rule L: Permit Fee:**

Fees for the project are:

Rule C & J ..... \$1,000

The RPBCWD permit fee schedule adopted in December 2015 indicates that costs of site inspections, analysis of the proposed activities, services of consultants and compliance assurance in excess of \$2,000 for properties less than 5 acres will be charged to the permit applicant. The review of this permit application has resulted in \$4,860.70 of consultant time.

- L1. In accordance with the adopted RPBCWD permit-fee schedule, because the engineer and legal time to review this permit exceeded \$2,000 the applicant must submit an additional permit fee of \$2,860.70 for excess cost recovery.

**Rule M: Financial Assurance:**

Rules C: Silt fence: 1,800 L.F. x \$2.50/L.F. = .....	\$3,700
Restoration: 3.4 acres x \$2,500/acre = .....	\$3,350
Rules D: Wetland Buffer: \$5,000 + \$1,000/acre over 10 acres = .....	\$5,000
Rules J: Infiltration: 7,116 sq. ft. x \$6/sq. ft. = .....	\$42,700
Water Reuse: \$60,000 x 125%= .....	\$75,000
Contingency (10%) .....	\$13,000
Administration (30%) .....	<u>\$42,900</u>
Total Financial Assurance.....	\$185,700

**Applicable General Requirements:**

1. The RPBCWD Administrator and Engineer shall be notified at least three days prior to commencement of work.
2. Construction shall be consistent with the plans and specifications approved by the District as a part of the permitting process. The date of the approved plans and specifications is listed on the permit.
3. The applicant must require the installation of water reuse irrigation system with flow meter to record the usage for each lot as part of the performance monitoring requirement of the permit.
4. Return or allowed expiration of any remaining surety and permit close out is dependent on the permit holder providing proof that all required documents have been recorded and providing as-built drawings that show that the project was constructed as approved by the Managers and in conformance with the RPBCWD rules and regulations.

**Findings**

1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.

2. The proposed project conforms to Rule C and will conform to Rules D and J if the Rule Specific Permit Conditions listed above are met.

**Recommendation:**

Approval of the permit contingent upon:

1. Continued compliance with General Requirements.
2. Financial Assurance in the amount of \$185,700.
3. Receipt in recordation a maintenance declaration for the stormwater management facilities and wetland buffer. The declaration must also include a stormwater reuse monitoring and reporting plan. A draft must be approved by the District prior to recordation.
4. Receipt of an additional permit fee of \$2,860.70 for excess cost recovery.

By accepting the permit, when issued, the applicant agrees to the following stipulations:

1. Per Rule J Subsection 4.5, upon completion of the site work, the permittee must submit as-built drawings demonstrating that at the time of final stabilization, stormwater facilities conform to design specifications as approved by the District.
2. Per Rule J Subsection 2.6, performance monitoring, the applicant must monitor the proposed irrigation systems to provide the volume abstraction as presented in the design. The recorded reuse volume must be submitted to the RPBCWD annually. If it is determined that the irrigation systems are not performing as designed, a revised design must be submitted to the District for approval to demonstrate that the volume abstraction and water quality standard is achieved.
3. Single-family homes to be constructed on lots in the subdivision created under the terms of permit 2015-036, if issued, must have an impervious surface area and configuration materially consistent with the approved plans. Home design proposed that differs materially from the approved plans will be subject to re-review for compliance with all applicable regulatory requirements.

**Board Action**

It was moved by Manager \_\_\_\_\_, seconded by Manager \_\_\_\_\_ to approve permit modification for permit No. 2015-036 with the conditions recommended by staff.



**NPDES AREA SUMMARY**

	EXISTING	PROPOSED
PERVIOUS	2.91 ACRES	2.61 ACRES
IMPERVIOUS	2.4 ACRES	0.24 ACRES
TOTAL	3.15 ACRES	3.15 ACRES

**BUILDING TYPE** ——— XXXXX  
 FB = FULL BASEMENT      FBWO/FB : FRONT GARAGE ELEVATION  
 FBWO = FULL BASEMENT WALL OUT      BWO : WALKOUT UNIT / FULL BASEMENT UNIT  
 FLO = FULL BASEMENT      XXXXX : FINISH BASEMENT ELEVATION  
 LO = LOSE OUT      L : GARAGE ELEVATION  
 SWO = SLOTTED ENTRY      L GARAGE LOCATION INDICATED BY DRIVEWAY.  
 LOCK OUT  
 SLAB = SLAB ON GRADE

**PAD DETAIL**

NO SCALE

**LEGEND**

SYMBOL	DESCRIPTION	ESTIMATED QUANTITY
	INLET PROTECTION	3 EACH
	SILT FENCE	420 FEET
	TREE FENCE	240 FEET
	VEHICLE TRACKING PAD	1 EACH
	PAVEMENT SAWCUT	
	CONSTRUCTION LIMITS	
	100-YR FLOODPLAIN	
	SWALE	

**WETLAND INFORMATION**

WETLAND — TYPE: MANAGE I  
 FIN. WETLAND BUFFER = 25'  
 AVG. WETLAND BUFFER AREA = 40'  
 WETLAND BUFFER SETBACK = 10'  
 WETLAND PERIMETER = 332 FEET  
 WETLAND BUFFER AREA = 13,327 SQ. FT.  
 AVERAGE BUFFER PROVIDED = 13,327 / 332 = 40.1 FEET  
 WETLAND BUFFER SIGNS = 0  
 AREA NOT INCLUDED IN WETLAND PERIMETER AND BUFFER CALCULATION DUE TO SPRING LAKE ROAD RESTRICTIONS  
 WETLAND BUFFER SIGN SEE DETAIL C7.2/6

**GRADING NOTES**

- CONTACT UTILITY SERVICE PROVIDERS FOR FIELD LOCATION OF SERVICES 72 HOURS PRIOR TO BEGINNING GRADING.
- REFER TO THE GEOTECHNICAL REPORT PREPARED BY NORTHERN TECHNOLOGIES INC. DATED 07/18/2025, FOR ADDITIONAL INFORMATION ON BACKFILL MATERIAL AND GROUNDWATER CONDITIONS.
- REMOVE TOPSOIL FROM GRADING AREAS AND STOCKPILE SUFFICIENT QUANTITY FOR REUSE. MATERIALS MAY BE TINED ROOTS/LANDSCAPE AREAS FOR USE ON SITE AND REPLACED WITH EXCESS ORGANIC MATERIAL WITH PRIOR OWNER APPROVAL.
- REMOVE SURFACE AND GROUND WATER FROM EXCAVATIONS. PROVIDE INITIAL LISTS OF STABLE FOUNDATION MATERIAL IF EXPOSED SOILS ARE WEAK AND UNSTABLE.
- REFER TO STRUCTURAL SPECIFICATIONS FOR EARTHWORK REQUIREMENTS FOR BUILDING PADS.
- AN INDEPENDENT TESTING FIRM SHALL VERIFY THE REMOVAL OF ORGANIC AND UNSTABLE SOILS. SOIL CORRECTION AND COMPACTION AND PROVIDE PERIODIC REPORTS TO THE OWNER.
- PLACE AND COMPACT FILL USING LIFT THICKNESSES MATCHED TO SOIL TYPE AND COMPACTION EQUIPMENT TO OBTAIN SPECIFIED COMPACTION THROUGHOUT THE LIFT.
- COMPACT MATERIAL IN PAVED AREAS TO 90% OF MAXIMUM DRY DENSITY. STANDARD PROCTOR (ASTM D998) EXCEPT THE TOP 3 FEET WHICH SHALL BE COMPACTED TO 100%. COMPACT TO 90% DENSITY WHERE FILL DEPTH EXCEEDS 10 FEET.
- IF CORPACTION OCCURS WITHIN THE INFILTRATION BASIN OR ANY RAIN GARDENS DURING SITE PREPARATION AND CONSTRUCTION, DECOMPACTION MUST BE COMPLETED PRIOR TO FINAL GRADING OF THE SITE.
- LOTS TO BE CUSTOM GRADED. SUBMIT GRADING PLAN AT THE TIME OF BUILDING PERMIT APPLICATIONS TO BE BUILT BY HOMEOWNER. SEE DETAIL C7.1/7 FOR PLANTING MATERIALS.
- ALL GRADING THAT TAKES PLACE WITHIN THE BUFFER SHALL BE REVEGETATED WITH NATIVE VEGETATION.

**EROSION PREVENTION AND SEDIMENT CONTROL NOTES**

- INSTALL PERIMETER SEDIMENT CONTROLS PRIOR TO BEGINNING WORK AND MAINTAIN FOR DURATION OF CONSTRUCTION. REMOVE CONTROLS AFTER AREAS CONTRIBUTING RUNOFF ARE PERMANENTLY STABILIZED AND DISPOSE OF OFF SITE.
- LIFT SOIL DISTURBANCE TO THE GRADING LIMITS SHOWN. SCHEDULE OPERATIONS TO MINIMIZE LENGTH OF EXPOSURE OF DISTURBED AREAS.
- MANAGEMENT PRACTICES SHOWN ARE THE MINIMUM REQUIREMENT. INSTALL AND MAINTAIN ADDITIONAL CONTROLS AS WORK PROCEEDS TO PREVENT EROSION AND CONTROL SEDIMENT CARRIED BY WIND OR WATER.
- EXCAVATE PONDS EARLY IN THE CONSTRUCTION SEQUENCE. REMOVE SEDIMENT FROM PONDS PERIODICALLY AND AFTER AREAS CONTRIBUTING RUNOFF ARE PERMANENTLY STABILIZED.
- CONTRACTOR SHALL PREVENT SEDIMENT LOADED WATER FROM ENTERING THE INFILTRATION SYSTEM UNTIL THE SITE IS COMPLETELY STABILIZED.
- ALL EXPOSED SOIL AREAS MUST BE STABILIZED WITHIN 72 HOURS OF COMPLETION OF WORK IN EACH AREA. IF WITHIN 1 FEET OF PREPARED WATER USE THE FOLLOWING NOTE INSTEAD: ALL EXPOSED SOILS AREAS SHALL BE STABILIZED PRIOR TO LIFT SOIL EROSION IN THAT PORTION OF THE SITE WHERE CONSTRUCTION HAS TEMPORARILY OR PERMANENTLY CEASED.
- SEED, SOIL, MULCH AND FERTILIZER SHALL MEET THE FOLLOWING SPECIFICATIONS, AS NOTED:  
 SEED  
 SELECTED NUMBER: TRIST 3076  
 TRIST 3076  
 FN TYPE 22-11 @ 30.5 LB/AC — TEMPORARY EROSION CONTROL  
 FN TYPE 22-01 @ 100 LB/AC — PERMANENT TURF  
 MULCH (INDOT TYPE) @ 2 TON/AC, CSC ANCHORED/INDOT 3082  
 FERTILIZER (INDOT 3050)/INDOT 2975
- HYDRAULIC PILING AND OTHER PRACTICES MUST BE USED ON SLOPES OF 3:1 OR STEEPER TO PROVIDE IMMEDIATE STABILIZATION.
- AT LEAST SIX INCHES OF TOPSOIL OR ORGANIC MATTER MUST BE SPREAD AND INCORPORATED INTO THE UNDERLYING SOIL DURING FINAL SITE TREATMENT WHEREVER TOPSOIL HAS BEEN REMOVED.
- THE CONTRACTOR MUST, AT A MINIMUM INSPECT, MAINTAIN AND REPAIR ALL DISTURBED SURFACES AND ALL EROSION AND SEDIMENT CONTROL FACILITIES AND SOIL STABILIZATION TECHNIQUES EVERY DAY WORK IS PERFORMED ON THE SITE AND AT LEAST WEEKLY UNTIL LAND-RESTORING ACTIVITY HAS CEASED. THEREAFTER, THE CONTRACTOR MUST PERFORM THESE RESPONSIBILITIES AT LEAST WEEKLY UNTIL VEGETATIVE COVER IS ESTABLISHED.
- NO SITE WORK — INCLUDING GRADING OR TREE REMOVAL — IS PERMITTED ON THE SPRING LAKE LOTS SUCH WORK WILL BE REVIEWED AND APPROVED ONLY IN CONNECTION WITH INDIVIDUAL BUILDING PERMITS FOR THESE LOTS. SITE WORK FOR REMOVAL OR INSTALLATION OF UTILITY SERVICES MAY BE ALLOWED IF APPROVED IN WRITING BY CITY STAFF.
- CONSTRUCTION SITE WASTE MUST BE PROPERLY MANAGED INCLUDING DISCARDING BUILDING MATERIALS, CONCRETE TRUCK WASHOUT, CHEMICALS, LITTER AND SANITARY WASTE AT THE CONSTRUCTION SITE.
- SOIL SURFACES COMPACTED DURING CONSTRUCTION MUST BE DECOMPACTED THROUGH SOIL AMENDMENT AND/OR RIPPING TO A DEPTH OF 18 INCHES WHILE TAKING CARE TO AVOID UTILITIES, TREE ROOTS AND OTHER EXISTING VEGETATION PRIOR TO FINAL REVEGETATION OR OTHER STABILIZATION.
- ACTIVITIES MUST BE CONDUCTED SO AS TO MINIMIZE THE POTENTIAL TRANSFER OF AQUATIC INVASIVE SPECIES (REBAR RUBBERS, EROSION WATERBULB, ETC.) TO THE EXTENT POSSIBLE.

**DEVELOPER**

LAKE WEST DEVELOPMENT CO., LLC.  
 15400 HIGHWAY 7  
 MINNETONKA, MN 55345  
 TEL: 952.939.3300

**MUNICIPALITY**



PROJECT  
**SAVILLE WEST  
 1ST ADDITION  
 MINNETONKA, MN**

**SHEET INDEX**

NO.	TITLE
C01	CIVIL TITLE SHEET
C11	EXISTING CONDITIONS
C12	GROUNDWATER EROSION CONTROL PLAN
C13	UTILITY PLAN
C14	CIVIL CONSTRUCTION DETAILS
C15	CIVIL CONSTRUCTION DETAILS
L11	TREE PRESERVATION PLAN (NORTH)
L12	TREE PRESERVATION PLAN (SOUTH)
L13	TREE PRESERVATION TABLE
L14	TREE PRESERVATION TABLE
L15	TREE PRESERVATION TABLE

**REVISION HISTORY**

DATE	REVISION	BY
04 MAY 2026	BY ADDITION PLAT SURVEILLANT	
04 MAY 2027	ADD ADDITION WATERSHED SURVEILLANT	
04 MAY 2027	BY ADDITION CITY COMMENTS	
04 MAY 2027	WATERSHED REVISION #1	
04 MAY 2027	CITY COMMENTS	
10 MAY 2027	WATERSHED REVISION #2	
25 MAY 2027	WATERSHED REVISION #3	

**PROJECT MANAGER REVIEW**

DATE: \_\_\_\_\_ REVIEWED BY: \_\_\_\_\_

**CERTIFICATION**

**PRELIMINARY NOT FOR CONSTRUCTION**

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

**WATERSHED REVISION #3**  
 05-25-2017

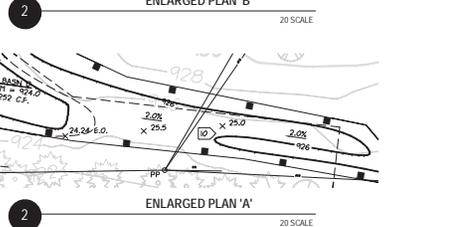
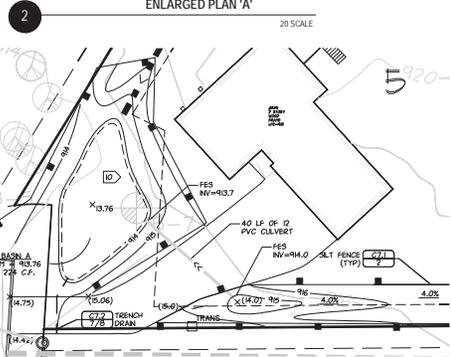
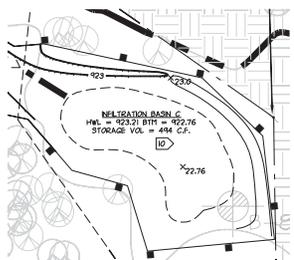
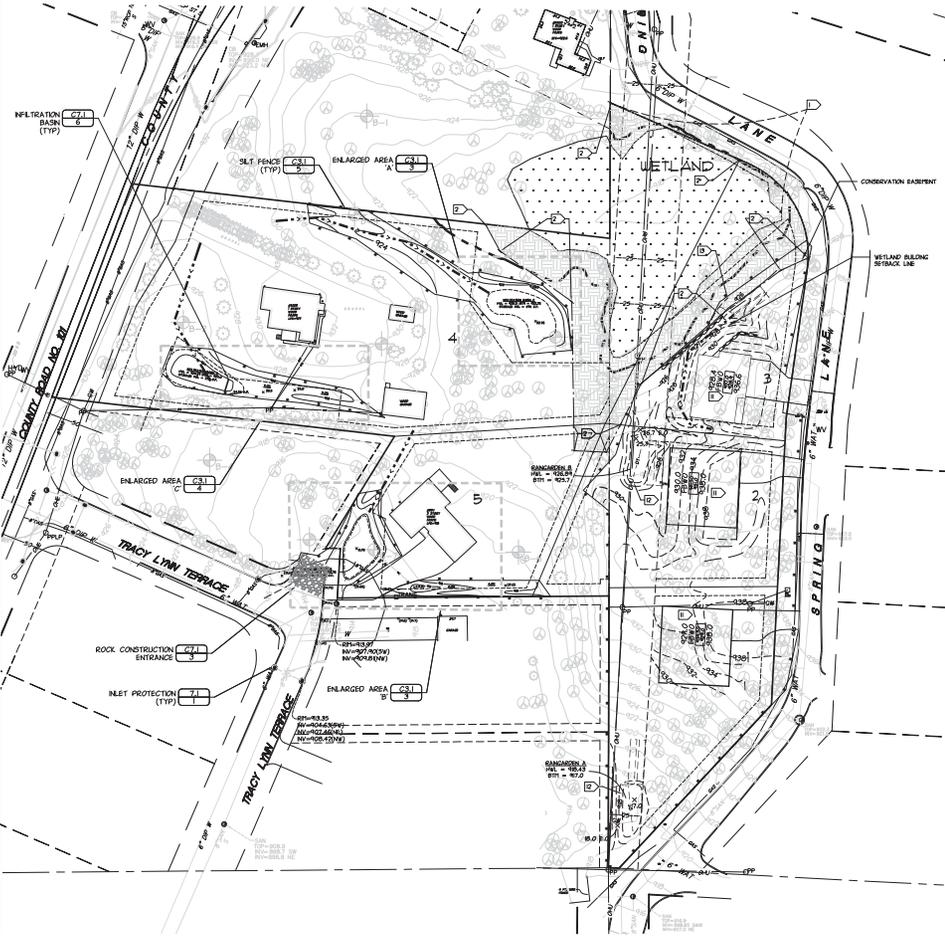
**LANDFORM**  
 From Site to Finish

105 South Fifth Avenue      Tel: 612-252-6070  
 Suite 515      Fax: 612-252-6077  
 Minneapolis, MN 55401      Web: landform.net

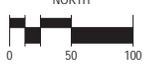
FILE NAME: C:\BTL\WOOD1  
 PROJECT NO.: LWD14001

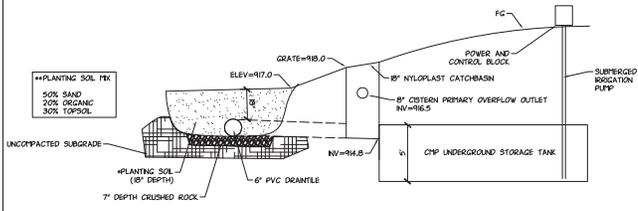
GRADING, DRAINAGE AND EROSION CONTROL  
**C3.1**

SHEET NO. 511



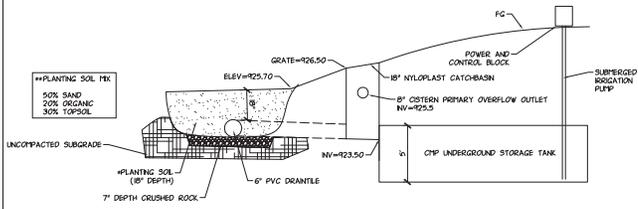
Know what's Below.  
 Call before you dig.





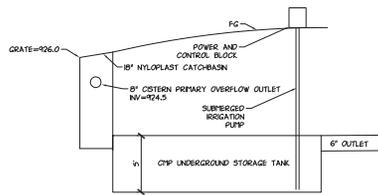
RAIN GARDEN A/CISTERN LOT 1

NO SCALE



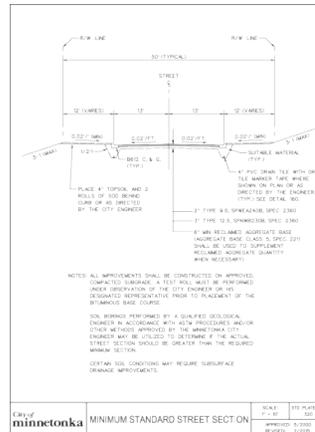
RAIN GARDEN B / CISTERN LOT 2

NO SCALE



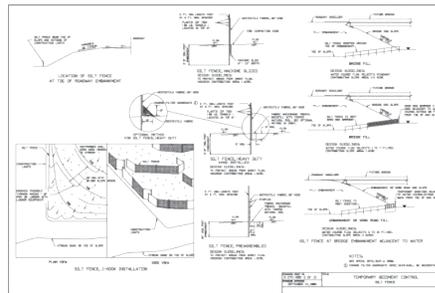
RAINWATER CISTERN LOT 3

NO SCALE



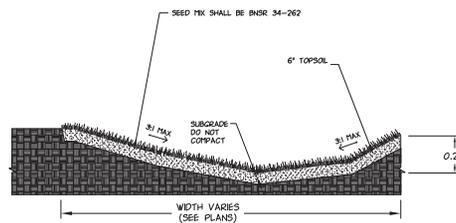
STANDARD STREET SECTION

NO SCALE



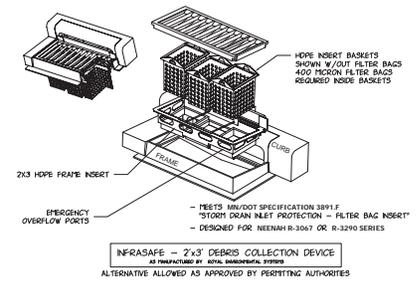
SILT FENCE

NO SCALE



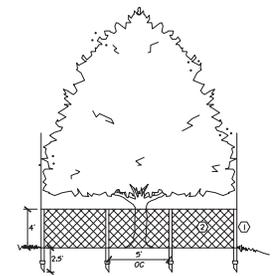
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NO SCALE



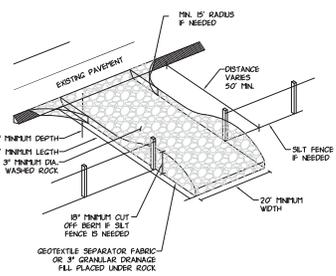
INLET PROTECTION 2'x3'

NO SCALE



TREE PROTECTION

NO SCALE



VEHICLE TRACKING PAD

NO SCALE

DEVELOPER  
LAKE WEST DEVELOPMENT CO., LLC.  
15400 HIGHWAY 7  
MINNETONKA, MN 55345  
TEL. 952.930.3000

MUNICIPALITY  
City of  
minnetonka

PROJECT  
SAVILLE WEST  
1ST ADDITION  
MINNETONKA, MN

SHEET INDEX

C01	CIVIL TITLE SHEET
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REVISION HISTORY

DATE	REVISION	BY
04 NOV 2016	BY ADDITION PLAT SUBMITTAL	
14 JAN 2017	BY ADDITION WATERSHED SURVEILLANCE	
28 FINE 2017	BY ADDITION CITY COMMENTS	
04 APR 2017	WATERSHED SURVEILLANCE	
04 MAY 2017	CITY COMMENTS	
12 MAY 2017	WATERSHED SURVEILLANCE #2	
25 MAY 2017	WATERSHED SURVEILLANCE #3	

PROJECT MANAGER REVIEW

APPROVED	DATE
	04/26/2017

CERTIFICATION

PRELIMINARY  
NOT FOR  
CONSTRUCTION

WATERSHED REVISION #3  
05-25-2017

LANDFORM  
From Site to Finish

105 South Fifth Avenue  
Suite 515  
Minneapolis, MN 55401  
Tel: 612-252-4070  
Fax: 612-252-4077  
Web: landform.net

FILE NAME: C711.LWD001.DWG  
PROJECT NO.: LWD14001

CONSTRUCTION DETAILS  
C7.1

SHEET NO. 12/11  
Landform and Site to Finish are service marks of Landform Professional Services, LLC.



SAVILLE WEST

MINNETONKA, MN



**L A N D F O R M**  
From Site to Finish

**RAINWATER REUSE  
MAP**

08.14.2015 Revised 09.08.2015  
Landscape Site to Finish prepared for the benefit of Landform Professional Services, LLC

# Water Conservation System

## Summary of Maintenance

### Summary of Equipment:

**SkyHarvester System with Touch Screen fully integrated monitoring and control.**

- SkyHarvester system controls have several alarms and are designed to self protect against conditions such as low water level, high or low voltage, high or low pressure, phase imbalance, filter status, and control power. This system reduces the amount of time and money spent on preventative maintenance and unnecessary manual monitoring. See system credentials or specifications for all alarms provided with your system.
- Underground SkyHarvester storage tank(s)
- Rainwater tank pre-filter(s)
- Discharge filtration to 5 micron with automatic self cleaning filter(s)
- Motorized valves for city water automatic back up
- Ultra Violet light unit(s)

### Monthly:

#### Pump station:

- Visually inspect pump station and all components to ensure they are free from debris.
- Inspect pump station for any leaks or loose bolts. Note: bolts can become loose from vibration and temperature changes.
- Insure system has no active alarms indicated on operator interface

#### Rainwater tank pre-filter

- Visually inspect rainwater pre-filter to ensure it is free from debris and is in proper working condition. This time interval can decrease after owner/operator has a familiarity with their system.

- Note operation of self cleaning nozzles (if equipped). If debris is too large, or is building up on screen, remove and clean with pressurized hose and re-install.

#### **Bi-annually:**

##### **Pump Station and Filtration:**

- Consult a PSN service technician to perform an inspection and check operation of system. [www.pumpservicenetwork.com](http://www.pumpservicenetwork.com)
- Self cleaning filter is monitored and flushed by control package. Contact your PSN provider to perform a filter inspection, or see detail filter breakdown in Watertronics owner's manual.
- Check pump flow, pressure, and amperage against initial start-up measurements. If pump or impellers, or rotating assembly needs maintenance a disparity will show in the performance. Initial start-up measurements available from PSN service provider.

#### **Annually:**

##### **Inspect Cistern (clean as required to the standards below)**

- The interior of the tank will be washed out to remove all mud, silt, and other contaminants. The pressure washing will allow for proper inspection of the coating and substrate.
- If required, disinfect the tank(s) by spray method prior to returning each tank back into service.
- Tank and all piping to storage tank should be kept clean and free of construction debris and garbage during construction, until the time that construction is complete. Whenever possible allow the first rain event to by-pass the tank and act as a flush of the piping system before putting rainwater harvesting system into operation.

##### **Sensors and Switches**

- Inspect float switch to ensure mechanical float switch is in proper working order.
- Inspect digital level sensor to ensure it is free from sediment and debris.
- Check digital level reading with actual measured level, if large disparity, contact a PSN provider to calibrate level sensor

- Check digital pressure reading with actual measured level, if large disparity, contact a PSN provider to calibrate pressure sensor

### **UV Equipment**

- Replace UV bulb every 365 days. Replacement lamp and quartz sleeve should be inspected for imperfections and cleaned with a soft, lintless wipe wetted with a Lamp/Reflector cleaning solution prior to installation. Improper installation or cleaning will degrade the performance of the UV system. Do not touch UV bulb directly, oils from skin can cause the bulb to prematurely fail. Note, Watertronics may use different UV manufactures on various Watertronics systems. Please consult actual UV manual contained inside Watertronics owner's manual.

### **Pump Station and Discharge Filter**

- Disassemble discharge filter, inspect internal rotating assembly and gear for wear, add grease if needed.
- Check pressure relief valve opening pressure. If pressure is lower than initial setting, adjust accordingly.

Maintain System per required maintenance of each component as provided in the operations manual provided with each customized solution. Control system monitors pump, power, filtration, and level. System is self protecting, may only require service due to a component failure to site condition.

## **NOTICE OF PROBABLE VIOLATION**

### **Riley-Purgatory-Bluff Creek Watershed District**

18681 Lake Drive East, Chanhassen, MN 55317

www.rpbcwd.org

Subject Property: Lot 1, 2, 3, 4, and 5, Block 1, SAVILLE FARMS, Hennepin County, Minnesota  
PIDs 2911722330039, 2911722330040, 2911722330041, 3011722440064, 3011722440063

Address: 5324 Spring Lane, Minnetonka, MN

Property Owner: Lakewest Development Co, LLC

Permit Number: 2015-036 Permittee (if different) \_\_\_\_\_

Contractor: \_\_\_\_\_

Date and Time: May 9, 2018

---

The following apparent violations have been observed by RPBCWD staff:

#### **Rule/Permit/Order**

#### **Description**

1. Rules A, C, D, J, L, M

Riley-Purgatory-Bluff Creek Watershed District permit 2015-036, authorizing subdivision of and construction of three houses to complete a five-lot subdivision consisting of the properties listed above, was conditionally approved by the RPBCWD Board of Managers on June 7, 2017. The conditions on approval of the permit – provided in “recommendation” in the attached memo from the RPBCWD engineer – have not been resolved and permit 2015-036 has not been issued. Notwithstanding, regulated activities – including subdivision of the parcels and land-disturbing activities subject to RPBCWD rules C, D and J has proceeded. The land-disturbing work has created potentially unmitigated risk to downgradient and downstream water resources, including but not limited to a small onsite wetland.

No further work may take place on any of the property that is the subject of permit application 2015-036 until updated site plans and data necessary to demonstrate compliance with applicable RPBCWD regulatory requirements have been submitted and approved and a permit is issued.

Note that the conditional approval of permit 2015-036 will expire on June 7, 2018.

You are requested to take the following actions to address the circumstances described above:

Action	Requested Date/ Time for Compliance
1. Applicant must submit updated site plans and data necessary to demonstrate compliance with applicable RPBCWD regulatory requirements. Extension of the conditional approval of permit 2015-036 will not be considered until such information is submitted.	May 25, 2018

This is not a legally binding order of the Riley-Purgatory-Bluff Creek Watershed District. **However, if you do not complete the actions requested above by the indicated deadline(s), RPBCWD staff will schedule an enforcement hearing before the RPBCWD board of managers. You will be provided with notice of the scheduled hearing and, at the hearing, an opportunity to appear before and be heard by the managers.** The timeliness and completeness of your actions will be considered by the board of managers in deciding whether to take further enforcement steps. The board may issue an order requiring remedial, corrective, preventative or other actions to achieve compliance with applicable RPBCWD requirements.

The listing of apparent violations above does not prevent the board from finding additional or other violations on the basis of evidence presented. Under Minnesota Statutes section 103D.545, failure to comply with RPBCWD rules, the conditions of your permit or an order of the board of managers subjects you to possible civil and criminal penalties. Pursuant to RPBCWD Rule L, you will be liable for all costs incurred by RPBCWD in obtaining and monitoring your compliance with applicable RPBCWD rules, permit terms and conditions, and orders of the board of managers, including consultants' costs and attorneys' fees.

This notice does not affect the ability of any other federal, state or local body of government to take enforcement action against you pursuant to its own laws and regulations.

**ISSUED BY:**

Terry Jeffery, Permit Coordinator/Project Manager  
Name/Title (Print)

\_\_\_\_\_  
Signature

**ISSUED VIA:**

**EMAIL** (email: curtfl@lwestdev.com)

**IN PERSON**

**OTHER** (certified mail: 14525 Highway 7, Suite 256, Minnetonka, MN 55345)

**ISSUED TO/RECEIVED BY:**

Curt Fretham/Owner  
Name/Title (Print)

Date: May 9, 2018

Lakewest Development Company, LLC  
Title/Organization (Print)

14525 Highway 7, Suite 256  
Minnetonka, MN 55345  
952.930.3000  
Address & Telephone

\_\_\_\_\_  
Signature

*Your signature here indicates only that you received this notice. Your signature does not constitute an admission of any kind with respect to the apparent violations listed above.*

**cc (via email):**

Claire Bleser, RPBCWD administrator; RPBCWD legal counsel; City of Minnetonka; Hennepin County; Lee Dahlberg, Tollberg Homes

7016 3560 0001 0031 8867

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*Domestic Mail Only*

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MINNETONKA, MN 55345

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\$	
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<input type="checkbox"/> Return Receipt (hardcopy)	\$ 0.00
<input type="checkbox"/> Return Receipt (electronic)	\$ 0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$ 0.00
<input type="checkbox"/> Adult Signature Required	\$ 0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$ 0.00

0317  
02

Postmark  
Here

Postage	\$0.50
\$	
<b>Total Postage and Fees</b>	<b>\$3.95</b>
\$	

05/09/2018

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Street and Apt. No., or PO Box No.

City, State, ZIP+4®

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Remove X

Your item was delivered to an individual at the address at 11:14 am on May 10, 2018 in MINNETONKA, MN 55345.

 **Delivered**

May 10, 2018 at 11:14 am  
Delivered, Left with Individual  
MINNETONKA, MN 55345

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**Tracking History** **May 10, 2018, 11:14 am**

Delivered, Left with Individual  
MINNETONKA, MN 55345

Your item was delivered to an individual at the address at 11:14 am on May 10, 2018 in MINNETONKA, MN 55345.

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**May 10, 2018, 3:32 am**

Departed USPS Regional Facility  
MINNEAPOLIS MN DISTRIBUTION CENTER

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**May 9, 2018, 6:33 pm**

Arrived at USPS Regional Facility  
MINNEAPOLIS MN DISTRIBUTION CENTER

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**May 9, 2018, 4:59 pm**

Departed Post Office  
CHANHASSEN, MN 55317

**May 9, 2018, 12:59 pm**

USPS in possession of item

CHANHASSEN, MN 55317

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**FAQs (<http://faq.usps.com/?articleId=220900>)**

# LAKE WEST DEVELOPMENT, LLC

Monday, June 04, 2018

**Terry Jeffery**

Project Manager / Permit Administrator  
Riley Purgatory Bluff Creek Watershed District  
18681 Lake Drive East  
Chanhassen, MN 55317  
O: 952-807-6885  
E: [tjeffery@rpbcwd.org](mailto:tjeffery@rpbcwd.org)

RE: **Saville West Permit Extension Request (Permit No. 2015-036)**  
Riley Purgatory Bluff Creek Watershed District

This is a formal request for a one-year extension to Lake West Development's existing Saville West Riley Purgatory Bluff Creek Watershed District permit (Permit No. 2015-036). This extension is needed to allow for time to meet conditional approval requirements set forth by the watershed district.

Sincerely,



Perry Ryan  
Vice President – Land Development  
Lake West Development  
14525 Highway 7, Suite 265  
Minnetonka, MN 55345  
O: 952-653-1359  
E: [perry@lwestdev.com](mailto:perry@lwestdev.com)

CC: Curt Fretham

Encl: Riley Purgatory Bluff Creek Watershed District Permit Application Review  
Lake West Development – Bridgewater Bank Check No. 3568

**From:** [Terry Jeffery](#)  
**To:** ["Perry@lwestdev.com"](mailto:Perry@lwestdev.com)  
**Cc:** [Scott Sobiech \(SSobiech@barr.com\)](mailto:SSobiech@barr.com); [Claire Bleser](#)  
**Subject:** RE: 2015-036 Saville West  
**Date:** Wednesday, July 11, 2018 1:39:55 PM  
**Attachments:** [image003.png](#)  
[image004.png](#)

---

Perry,

On the advice of legal counsel, we will be recommending that the permit review period be extended for 60-days at tonight's meeting rather than extending the permit. This will provide until October 2, 2018 for Lakewest Development, LLC to either comply with the current permit conditions or find a path forward with your consulting engineer for a permit modification. Thank you.

Regards,  
Terry



---

**From:** Terry Jeffery  
**Sent:** Tuesday, July 3, 2018 2:52 PM  
**To:** 'Perry@lwestdev.com' <Perry@lwestdev.com>  
**Cc:** Scott Sobiech (SSobiech@barr.com) <SSobiech@barr.com>  
**Subject:** 2015-036 Saville West

Perry,

It might go some way towards demonstrating a good faith effort that Lakewest Development is earnest in finding a solution if your were to provide the \$2,800 Lakewest is in arrears. The permit extension is on the July 11<sup>th</sup> meeting. Thank you.

Regards,  
Terry





18681 Lake Drive East  
 Chanhassen, MN 55317  
 952-607-6512  
 www.rpbcwd.org

## Riley Purgatory Bluff Creek Watershed District Permit Application Review

**Permit No:** 2017-007  
**Received complete:** July 30, 2018  
**Assignee:** HP Holdings, LLC  
**Permit Holder:** Pentom Land Company  
**Project:** 2017-007 Cedarcrest Stables – The permit holder, Dan Blake of Pentom Land Company, is requesting to transfer permit 2017-007 to HP Holdings, LLC.  
**Location:** 15900 Flying Cloud Dr (CSAH 61), Eden Prairie, 55347  
**Reviewer:** Terry Jeffery, Permit Coordinator

### Rules: Applicable rules checked

X	Rule A: Procedural Requirements		Rule H: Appropriation of Public Waters
	Rule B: Floodplain Management		Rule I: Appropriation of Groundwater
	Rule C: Erosion and Sediment Control		Rule J: Stormwater Management
	Rule D: Wetland and Creek Buffers		Rule K: Variances and Exceptions
	Rule E: Dredging and Sediment Removal		Rule L: Permit Fees
	Rule F: Shoreline/Streambank Stabilization		Rule M: Financial Assurances
	Rule G: Waterbody Crossings		Rule N: Enforcement

### Rule Conformance Summary

Rule	Issue	Conforms to RBPCWD Rules?	Comments
A	Procedural Requirements	Yes	

### Project Description

The applicant has requested transfer of the conditional approval of permit 2017-007. The terms and conditions of approval are provided in the

Exhibits:

1. RPBCWD permit report 2017-007 – September 7, 2016
2. Letter, signed by seller and new assignee, acknowledging agreement to transfer permit 2017-007 to HP Holdings, LLC dated August 9, 2018

## Findings

### **Rule A: Procedural Requirements**

The application for RPBCWD permit 2017-007 was conditionally approved on June 7, 2017, for a period of two (2) years. This approval was issued to Dan Blake of the Pemtom Land Company with the following conditions:

- a. Continued compliance with General Requirements.
- b. Financial Assurance in the amount of \$102,500.
- c. Applicant providing the name and contact information of the individual responsible for erosion and sediment control at the site.
- d. Permit Applicant must provide for maintenance and inspection of the stormwater facilities in perpetuity. The City of Eden Prairie has agreed to assume maintenance and inspection responsibilities for the detention and infiltration basins on the north side of the road between Valley Road and Stirrup Lane on behalf of the Applicant. For RPBCWD to approve the permit with this arrangement, the applicant must provide for review and approval documentation showing:
  - i. The applicant must provide for review and approval documentation showing a binding commitment from the city to RPBCWD and the applicant, by which the city assumes the maintenance responsibility on behalf of the applicant;
  - ii. commitment from the applicant as property owner to the city providing the necessary property rights to enter the property/ies on which the facility/ies are located and conduct the necessary maintenance activities.  
On approval of RPBCWD, the documentation must be recorded in the county property records for the relevant property/ies. Permit applicant must also provide a draft maintenance and inspection plan for the rainwater garden features on the southern portion of the property. Once approved by RPBCWD, the plan must be recorded in the county property records in a form acceptable to the District.
- e. Submission of a receipt showing recordation of a maintenance declaration for the rainwater garden features on the southern portion of the property. A draft of the declaration must be approved by the District prior to recordation.
- f. Indemnification of RPBCWD against any claims related to offsite stormwater flow.
- g. Receipt of an additional permit fee of \$4,417.30 for excess cost recovery.

In addition, the approval included the following stipulation, which the applicant agreed to accept along with the permit, if and when issued:

1. Per Rule J Subsection 4.5, upon completion of the site work, the permittee must submit as-built drawings demonstrating that at the time of final stabilization, stormwater facilities conform to design specifications as approved by the District.
2. Single-family homes to be constructed on lots in the subdivision created under the terms of permit 2017-007, if issued, must have an impervious surface area and configuration materially consistent with the approved plans to be exempt from additional stormwater permitting requirements. Home design proposed that differs materially from the approved plans will be subject to re-review for compliance with all applicable stormwater-management (and other regulatory) requirements.
3. The downspouts for custom lots 11 – 13 must be directed to the north to the infiltration BMPs consistent with the approved plans.

None of the conditions of approval have been satisfied, and the permit has not issued.

Riley-Purgatory-Bluff Creek Watershed District received written confirmation from the land owner and the permit assignee of their consent to the transfer of the conditional approval to HP Holdings LLC. There are no pending probable violations associated with this permit application.

The proposed assignee, HP Holdings, LLC has agreed in writing to assume responsibility for satisfaction of the conditions of approval and to comply with the terms of the permit, if issued, as required by Rule A, paragraph 5.1. The assignee provided a \$3,000 application fee when it was assumed the permit had expired. A portion of this fee will be applied towards the \$40 transfer fee and the remainder will be credited toward the excess-cost recovery amount due. The assignee understands that the permit will not be released, and no work can commence until the conditions of approval, including the submission and acceptance by RPBCWD of the financial assurance per Rule A paragraph 5.3, have been satisfied.

**Rule L: Permit Fee:**

Fees for the permit transfer are:

Rule A ..... \$40

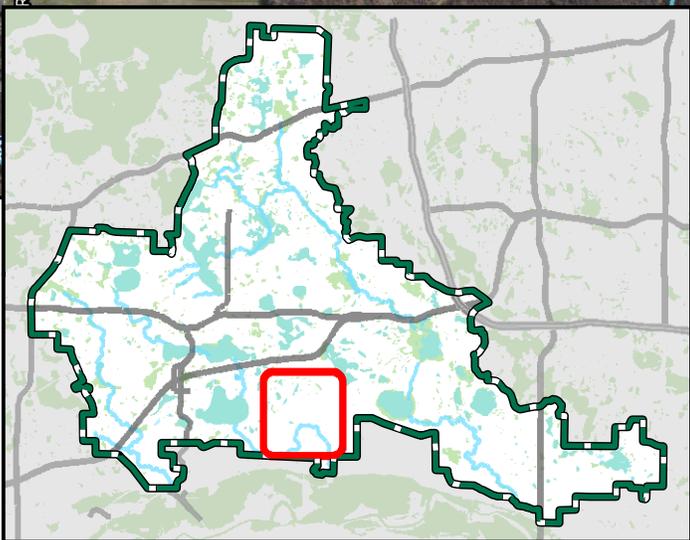
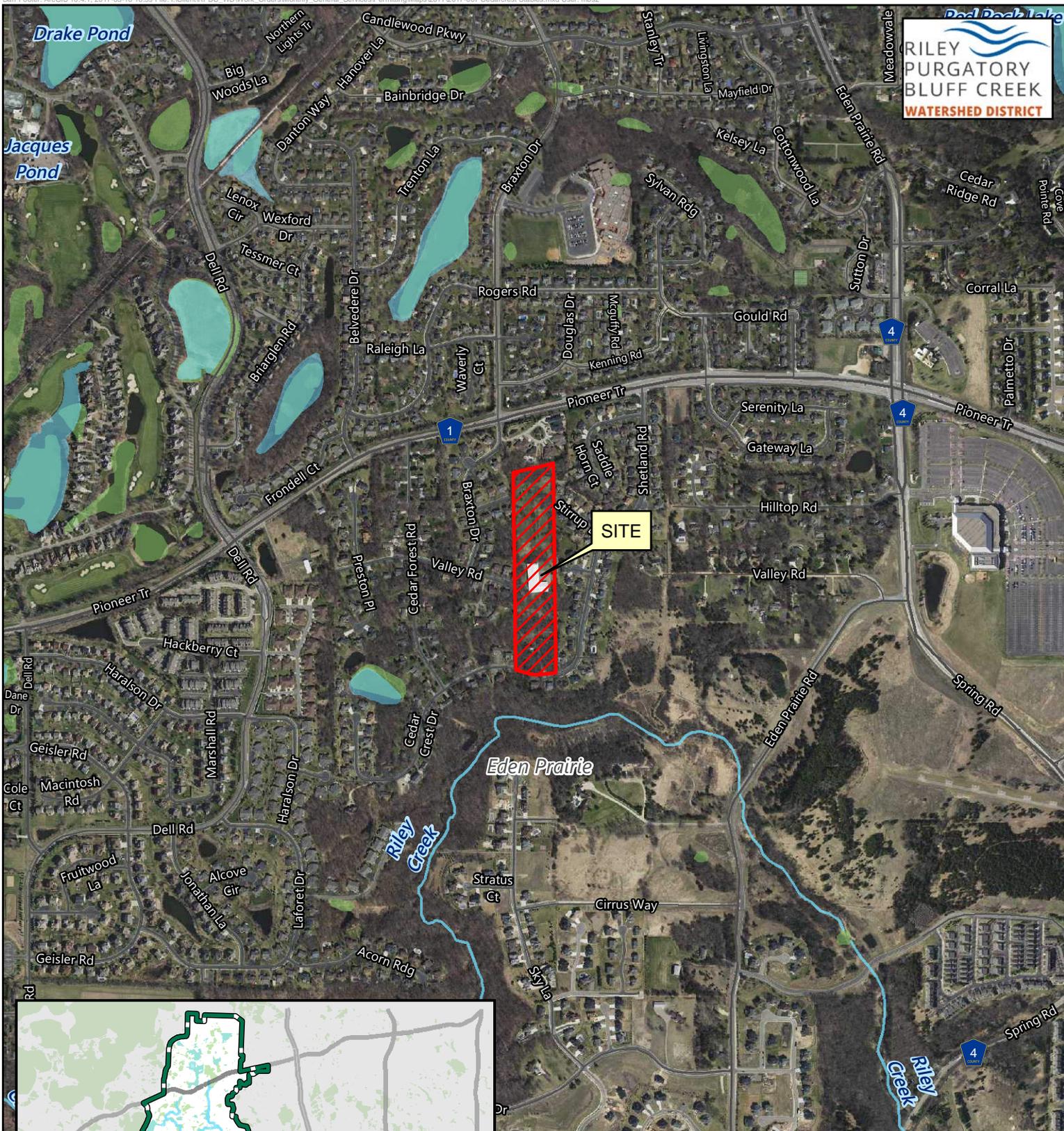
**Recommendation:**

Approval.

**Board Action**

It was moved by Manager \_\_\_\_\_, seconded by Manager \_\_\_\_\_ to approve the assignment of conditional approval of permit application No. 2017-007 from Pemtom to HP Holdings, LLC.





Feet



Permit Location Map

CEDARCREST STABLES

EDEN PRAIRIE

**Permit 2017-007**

Riley Purgatory Bluff Creek

Watershed District

This letter is to acknowledge that the physical signed and dated receipt of watershed Permit No 2017-007 Transfer Request HP Holdings LLC has been delivered by Owners (Robin Ruben or Mark Costello) to Homestead (Buyer) or their agents directly.

---

Buyer (or agent)  Date 8-13-18

Owner Mark Costello Date 8/13/18



August 9, 2018

Terry Jeffrey  
Project and Permit Manager  
Riley Purgatory Bluff Creek  
18681 Lake Drive East  
Chanhassen, MN 55317

RE: Permit No 2017-007 Transfer Request to HP Holdings, LLC

Dear Mr. Jeffrey:

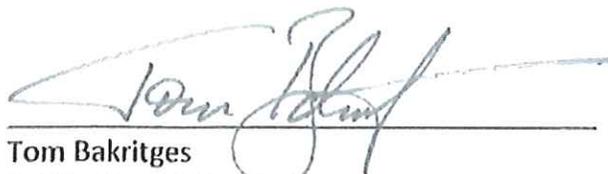
The Owners of the property at 16780 Cedarcrest Drive, Eden Prairie have entered into a Purchase and Sale Agreement with HP Holdings, LLC for the sale of approximately 10.7 acres.

Upon purchase, HP Holdings, LLC desires to develop the property into 17 single family lots, consistent with Riley Purgatory Bluff Creek Watershed District Permit No 2017-007.

HP Holdings, LLC requests a transfer of Permit No 2017-007 to HP Holdings, LLC or its assigns. HP Holdings, LLC acknowledges it will become subject to the conditions in the Permit upon transfer and upon title transfer of the property to HP Holdings, LLC or its assigns.

  
Robin Ruben and Mark Costello  
Owner

Aug 10, 2018

  
Tom Bakritges  
HP Holdings, LLC

**From:** Dan Blake  
**To:** [Terry Jeffery](mailto:Terry.Jeffery)  
**Subject:** Re: Cedarcrest Stables re-submission  
**Date:** Monday, August 27, 2018 5:21:35 PM  
**Attachments:** [image002.png](#)  
[image002.png](#)

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Terry -

The Pemtom Land Company was the applicant for Riley Purgatory Bluff Creek Watershed District Permit No. 2017-007. The Pemtom Land Company no longer has any interest in the permit property and has assigned all rights in prior permits and approvals associated with the Cedarcrest Stable project to Homestead Partners/HP Holdings, LLC. Pemtom hereby grants permission to the District to transfer the permit to Homestead Partners/HP Holdings, LLC. Thank you.

Dan Blake  
The Pemtom Land Company  
952.937.0716  
612.282.5482

On Mon, Aug 27, 2018 at 4:07 PM Terry Jeffery <[tjeffery@rpbcwd.org](mailto:tjeffery@rpbcwd.org)> wrote:

Dan,

As you are the permit holder, I will need something from you in writing that you are transferring permit 2017-007 to Homestead Partners, LLC. An email is sufficient. I already having something from Homestead and from the land owners. I need to get this into the board packet by Wednesday. Thank you.



18681 Lake Drive East  
 Chanhassen, MN 55317  
 952-607-6512  
 www.rpbcwd.org

## Riley Purgatory Bluff Creek Watershed District Permit Application Review

Permit No: 2018-016

Application Received complete: May 23, 2018 (review timeline extended on July 21, 2018)

**Applicant:** Level 7 Development LLC, Bahram Akradi

**Consultant:** Landform Professional Services, Steve Sabraski

**Project:** Avienda – This project proposes construction of Phase I of the development which will encompass mass grading, installation of public utilities, public stormwater management systems, and construction of public streets, trails and sidewalks within Bluff Creek Boulevard, Avienda Parkway, and Sunset Trail. The stormwater management system includes infiltration basins, vegetated swales, and a detention pond, and will provide runoff volume abstraction, water quality treatment, and rate control.

**Location:** SW corner of Powers and Lyman Boulevard Chanhassen, Minnesota

**Reviewer:** Scott Sobiech, PE, Barr Engineering

### Rules: Applicable rules checked

X	Rule B: Floodplain Management		Rule H: Appropriation of Public Waters
X	Rule C: Erosion and Sediment Control		Rule I: Appropriation of Groundwater
X	Rule D: Wetland and Creek Buffers	X	Rule J: Stormwater Management
	Rule E: Dredging and Sediment Removal	X	Rule K: Variances and Exceptions
	Rule F: Shoreline/Streambank Stabilization	X	Rule L: Permit Fees
	Rule G: Waterbody Crossings	X	Rule M: Financial Assurances

### Rule Conformance Summary

Rule	Issue	Conforms to RBPCWD Rules?	Comments	
B	Floodplain Management and Drainage Alterations	No	See Rule K variance discussion	
C	Erosion Control Plan	See Comment	See Rule Specific Permit Condition C1.	
D	Wetland and Creek Buffer	See Comment	See Rule Specific Permit Condition D1-D2.	
J	Stormwater Management	Rate	Yes	
		Volume	See Comment	See Rule Specific Permit Condition J1.
		Water Quality	Yes	
		Low Floor Elev.	Yes	

Rule	Issue		Conforms to RBPCWD Rules?	Comments
		Maintenance	See Comment	See Rule Specific Permit Condition J2.
K	Variances and Exceptions		See Comment	Variance from compensatory storage location requirements in subsection 3.2 of the Floodplain Management and Drainage Alteration Rule requested.
L	Permit Fee		See Comment	\$4,500 was received on 3/22/18. Additional \$16,136.88 for excess cost recovery
M	Financial Assurance		See Comment	The financial assurance has been calculated at 43,875,600.

**Project Description**

The site comprises approximately 116 acres of non-contiguous land located at the southwest and southeast corners of Lyman Boulevard (County Road 18) and Powers Boulevard (County Road 17) immediately north of U.S. Highway 212 in the City of Chanhassen, Minnesota. The majority of the site consists of farm fields with the southwest corner containing a wooded area. The fields, some of which have been idle for a couple years, are mostly separated by tree lines. There are 10 wetlands on site and two off but adjacent to the site; all are protected by the Wetland Conservation Act. A watercourse connects two of the wetlands. There are no public water wetlands on or adjacent to the site. Runoff from the northeast and eastern portion of the site drains east is eventually draining to Lake Susan, while the rest of the site drains west and south, ultimately reaching Bluff Creek.

This application proposes construction of Phase I of the Avienda development which entails mass grading roughly 96 acres of the site, installation of public utilities, public stormwater management systems, and construction of public streets, trails and sidewalks within Bluff Creek Boulevard, Avienda Parkway, and Sunset Trail. Much of the graded area will be converted to vegetated pervious area in anticipation of future site development. The stormwater management systems includes infiltration basins, vegetated swales, and a detention pond will provide runoff volume abstraction, water quality treatment, and rate control.

The applicant also provided big picture proof of concept information for the full build-out condition of the Avienda development to gauge whether the final project would be able to achieve compliance with the RPBCWD regulatory program. The full build-out of the site is anticipated to take several years and involves construction of public roads and utilities, residential, commercial, hotel, and office components with associated private improvements. No work beyond Phase 1 will be authorized by this permit, if issued. As individual lots or future subdivided parcels within the Avienda site are developed, the property owner/developer must submit a separate application with necessary supporting materials showing compliance of the proposed work with applicable RPBCWD regulatory requirements, which have already been amended since the application was submitted and may subsequently be further revised. Further, unless removed in a subsequent revision of the RPBCWD rules, the common scheme of development framework in subsection 2.5 of Rule J will apply to build-out of the properties. RPBCWD's approval, if granted, of this permit 2018-016 does not represent a determination of compliance of the ultimate build-out condition of the Avienda development with RPBCWD regulatory requirements. The data for the ultimate Avienda development in this report are provided for information only.

The project site information is summarized below:

	Phase 1	Ultimate Build-Out
Total Site Area (acres)	115.5	115.5
Existing Site Impervious (acres)	0.52	0.52
Post Construction Site Impervious (acres)	8.25	66.23
New (Increase) in Site Impervious Area (acres)	7.73	65.71
Disturbed impervious surface (acres)	0.52	0.52
Exempt Impervious Trail and sidewalk (acres) <sup>1</sup>	2.28	2.28
Total Disturbed Area (acres)	96.63	96.63

<sup>1</sup>Because the proposed trails and sidewalks do not exceed 10 feet in width and will be boarded downgradient by a pervious area at least half the trail width, the 2.28 acres of trail and sidewalk are exempt from the stormwater requirements (Rule J, Subsection 2.2d)

Exhibits:

1. Permit Application received March 22, 2018
2. Property Ownership clarification received May 21, 2018
3. Permit transmittal cover letter dated March 21, 2018

4. Phase 1 Stormwater Management Plan – DP 6.4 dated March 21, 2018 (revised April 25, 2018, May 23, 2018, July 16, 2018, August 3, 2018, and August 23, 2018)
5. Project Plan Set (27 sheets) dated March 21, 2018 (revised April 25, 2018, May 24, 2018, June 29, 2018, August 3, 2018, and August 23, 2018)
6. Geotechnical Evaluation Report dated April 12, 2017 (Braun Intertec)
7. Double Ring Infiltrometer testing Results dated August 16, 2017 (Braun Intertec)
8. Piezometer Water Level Summary Letter dated October 16, 2017 (Braun Intertec)
9. Highway 212 Design Build Quality Assurance Audit Summary dated September 30, 2005
10. Phase 1 HydroCAD Models received March 22, 2018 (revised May 24, 2018)
11. Existing, Phase 1, and Ultimate conditions HydroCAD Models received April 25, 2018 (revised May 23, 2018, July 16, 2018, August 3, 2018, and August 23, 2018 )
12. P8 Models Received April 25, 2018 (revised May 23, 2018, July 16, 2018, August 3, 2018, August 16, 2018, and August 23, 2018)
13. The Preserve at Bluff Creek 1<sup>st</sup> Addition dated June 12, 2003
14. Preserve 5<sup>th</sup> AsBuilt Record Plan dated February 20, 2015
15. Camden Ridge New Sheet Grad dated July 31, 2013
16. Avienda MnRAM received April 25, 2018
17. Minnesota Wetland Conservation Act Notice of Decision dated December 22, 2017
18. Response to comments received April 25, 2018, May 24, 2018, July 16, 2018, and August 3, 2018,
19. Variance request dated August 22, 2018
20. Engineer's Opinion of Probable Cost received August 26, 2018

### **Rule Specific Permit Conditions**

#### **Rule B: Floodplain Management and Drainage Alterations**

Because Phase 1 of the proposed development project involves the placement of a total of 5,284 cubic yards of fill below the 100-year flood elevation of wetland 1 (el. 907.61), wetland 2 (el. 909.9), and wetland 7 & 8 (el. 901.66), the project activities must conform to the RPBCWD's Floodplain Management and Drainage Alterations rule (Rule B). In addition, there are two other wetlands (WL5 and WL9) that will be filled (and eliminated) and WL 6 will be partially disturbed. Because these three wetland are on slopes they do not exhibit natural banks required meet the watercourse definition or an enclosed natural depression with definable banks required to be a waterbody and they do not provide flood storage, Rule B does not apply to WL5, WL6, and WL9.

Because the applicant is not proposing to construct any structures as part of Phase 1, no analysis under the freeboard requirement in Rule B, Subsection 3.1, is necessary. (As individual lots or future subdivided parcels within the Avienda site are developed, the developer must submit a separate application with

necessary supporting materials for the proposed work to show compliance with the freeboard requirement, among others.)

Placement of fill below the 100-year flood elevation is prohibited unless fully compensatory storage at the same elevation (+/- 1 foot) and within the floodplain of the same waterbody is provided (Rule B, Subsection 3.2). The supporting materials demonstrate, and the RPBCWD Engineer concurs, that in Phase 1 an aggregate total of 5,284 cubic yards of fill will be placed and 11,133 cubic yards of compensatory storage will be created below the 100-year flood elevation of 909.9 (set relative to the existing level elevation of the highest water resource being filled), thus providing a net increase in the floodplain storage. (Full build-out of the site is expected to involve reduction of the compensatory storage volume provided to 5,660 cubic yard.) Because the compensatory storage will not be provided at the same elevation (+/- 1 foot) and within the floodplain of the same waterbody, the applicant as requested a variance from this requirement of Rule B, Subsection 3.2. See the Rule K discussion for additional information on the variance request.

Because filling of wetlands onsite to facilitate site development and providing alternative storages areas will alter the timing and duration of flows leaving the site, the applicant must demonstrate that the alterations will not have an adverse offsite impact and will not adversely affect flood risk, basin or channel stability, groundwater hydrology, stream baseflow, water quality, or aquatic or riparian habitat (Rule B subsection 3.3). The RPBCWD engineer concurs with the applicant's use of Board of Soils and Water Resources (BWSRs) Recommended Wetland Management Standards: Minnesota Routine Assessment Method for Evaluating Wetland Functions, Version 3.0 to demonstrate the change in hydrology will not adversely impact the onsite and adjacent downstream wetlands.

All wetlands remaining on site under the proposed conditions have been assessed as medium value. For medium-value wetlands, the guide allows 1-year and 2-year storms to have up to 48-hours of additional inundation over the existing condition and up to 14-days (336- hours) of additional inundation for the 10-year storm. It also indicates an allowable increase in bounce for the 10-year event of between 0-1.0 feet. For Wetlands 3 & 4, the additional inundation time for the 1, 2, and 10-year storms are all under 28-hours. Wetlands immediately downstream of the site (MnDOT M09 and MnDOT M10) don't drain down to their outlet elevations within 999 hours, which is the limit for modeling in HydroCAD, under existing conditions so the applicant elected 15-days (360-hours) as a comparison point. For the 10-year storms the Phase I and Ultimate water level increases are less than the recommended 1 foot. By demonstrating, that the project aligns with BWSR's recommended wetland management standard the applicant has demonstrated the project will not adversely impact the wetlands.

The applicant also provided pre- and post-project water quality modeling to demonstrate no adverse impact to water quality. The modeling results show the total suspended solids and total phosphorus load leaving the site after the development will be less than the existing load leaving the site. In addition, for drainage to Lake Susan and Riley Creek, the total runoff volume for proposed storms with a return frequency of 2-years or shorter is less than the existing and the peak discharge rate is less than existing. For

drainage to Bluff Creek, total runoff volumes for proposed storms with a return frequency of 10-years or shorter are less than the existing volumes and again the peak discharge rates are less than existing. This also supports the engineer's determination that the project meets the requirements of Rule B, subsection 3.3.

There is one natural watercourse conveying runoff between wetland 4 and a MnDOT wetland (M09) that is located to the southeast of the project site. Rule B, Subsection 3.4 does not allow placing, constructing or reconstructing structures or paved surfaces within 100 feet of the centerline of any watercourse. Phase 1 construction activities will not place any structures or paved surfaces within 100 feet of this watercourse, those complying with Rule B, subsection 3.4. A note on the stormwater pollution prevention plan sheet requires the construction to be conducted to minimize the potential transfer of aquatic invasive species conforming to Rule B, Subsection 3.5.

The proposed project conforms to the floodplain management and drainage alteration requirements of Rule B with the exception of subsection 3.2, from which the applicant has requested a variance

#### **Rule C: Erosion and Sediment Control**

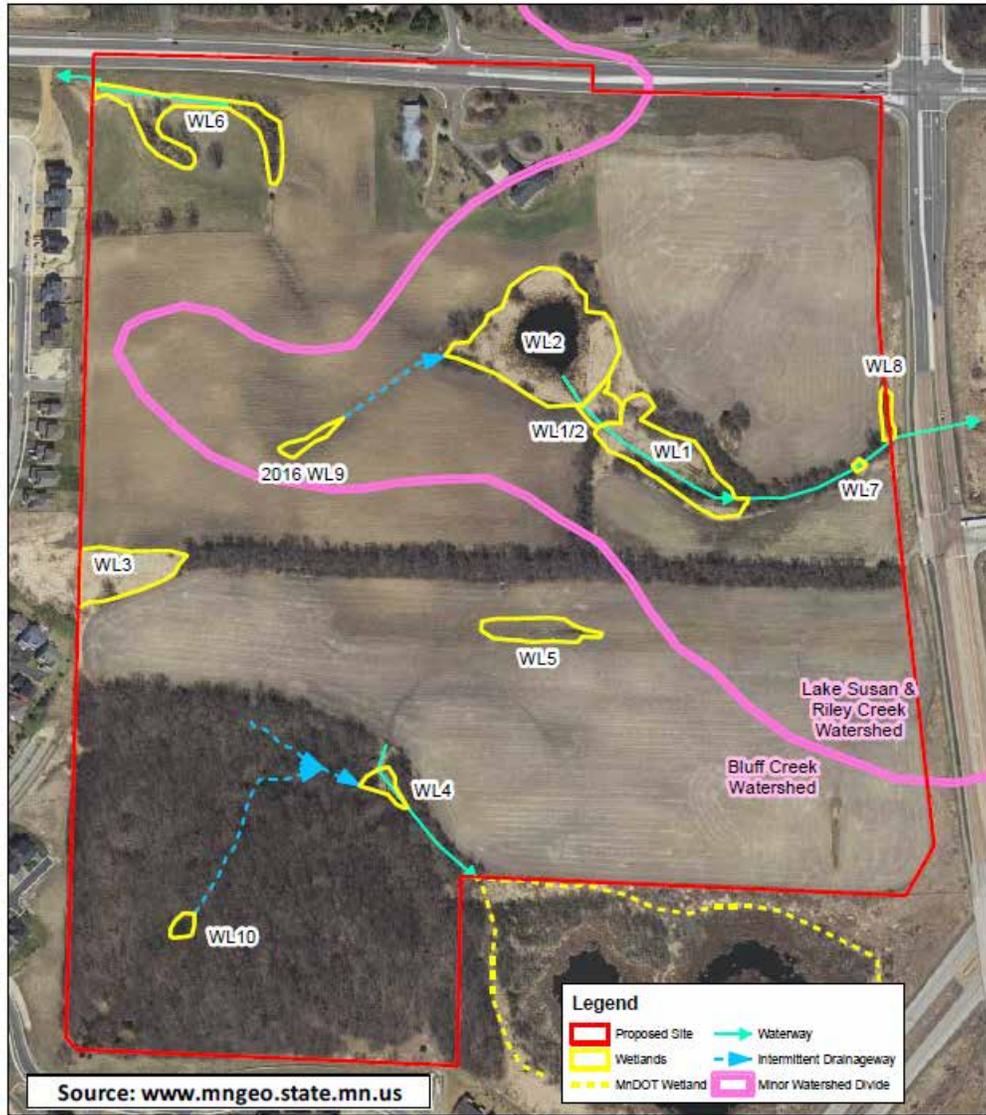
Because the project will alter 96.63 acres of land-surface area the project must conform to the requirements in the RPBCWD Erosion and Sediment Control rule (Rule C, Subsection 2.1).

The erosion control plan prepared by Landform Professional Services includes installation of silt fence, inlet protection for storm sewer catch basins, daily inspection, placement of a minimum of 6 inches of topsoil, decompaction of areas compacted during construction, and retention of native topsoil onsite. To conform to the RPBCWD Rule C requirements the following revisions are needed:

- C1. The Applicant must provide the name and contact information of the individual responsible for erosion control at the site. RPBCWD must be notified if the responsible individual changes during the permit term.

#### **Rule D: Wetland and Creek Buffers**

Because the proposed work triggers a permit under RPBCWD Rule B and Rule J and 10 wetlands protected by the state Wetland Conservation Act are downgradient from the proposed construction activities, Rule D, Subsections 2.1a and 3.1 require buffer on the edges of the wetlands that are downgradient from the land-disturbing activities. The City of Chanhassen is the LGU administering WCA requirements and in that capacity approved elimination of six wetlands (wetlands WL1, WL2, WL5, WL7, WL8, and WL9) on the project site, as well as the partial filling wetland WL6 as part of the proposed Phase 1 construction activities. Because the applicant proposes to disturb a portion of wetland WL6, wetland buffer must be provided around the entire (remaining) wetland on the parcel (a buffer map is provided below for reference).



**Figure 4 - Minor Watershed Boundaries (2016 Metro Aerial)**



A Minnesota Wetland Conservation Act Notice of Decision, dated December 22, 2017, was included with the submittal. The MnRAM analysis submitted indicates that the wetlands onsite are a medium value wetland (Appendix D1). Rule D, Subsection 3.1.a.iii requires a wetland buffer with an average of 40 feet from the delineated edge of the wetland, minimum 20 feet. The buffer widths are summarized in the table below.

Wetland ID	RPBCWD Wetland Value	Required Minimum Width <sup>1</sup> (ft)	Required Average Width <sup>1</sup> (ft)	Provided Minimum Width (ft)	Provided Average Width (ft)
Wetland WL3	Medium	20	40	28.4	40.7
Wetland WL4	Medium	20	40	40	40
Wetland WL6	Medium	20	40	24	40.2
Wetland M09 <sup>2</sup>	Medium	20	40	20	43.6

<sup>1</sup> Average and minimum required buffer width under Rule D, Subsection 3.1.a.

<sup>2</sup> Wetland M09 is located off but adjacent to the project site.

The Applicant is proposing revegetating disturbed areas within the proposed buffer with native vegetation in conformance with Rule D, Subsection 3.2. A note is included on the plan sheet indicating the project will be constructed so as to minimize the potential transfer of aquatic invasive species (e.g., zebra mussels, Eurasian watermilfoil, etc.) to the maximum extent possible conforming to Rule D, Subsection 3.5.

To conform to the RPBCWD Rule D the following revisions are needed:

- D1. Buffer areas and maintenance requirements must be documented in a declaration recorded after review and approval by RPBCWD in accordance with Rule D, Subsection 3.4.
- D2. There appears to be proposed grading outside the parcel boundary along Powers Boulevard and storm sewer installation discharging into MnDOT Wetland M09. The off site work to install the storm sewer and grade along Powers Boulevard is upgradient from the wetland and will therefore require wetland buffer with a 20 foot minimum, 40 foot average. The applicant must provide documentation acceptable to the administrator, on advice of counsel, indicating if the property rights to construct the storm sewer and site grading allow for restoration with native vegetation, the designation of a buffer and the right to maintain that buffer.

### **Rule J: Stormwater Management**

Because the project will alter 96.63 acres of land-surface area, increase the imperviousness of the entire site by more than 50%, the project must meet the criteria of RPBCWD's Stormwater Management rule (Rule J, Subsection 2.3) for all the impervious surface on the site.

The project includes installation of vegetated swales, a detention pond, and infiltration basins with pretreatment to provide runoff volume abstraction, water quality treatment, and rate control. Pretreatment of runoff prior to entering infiltration areas is provided by vegetated swales, grass strips, or proprietary hydrodynamic separators (large manholes structures designed to pretreat runoff).

**Rate Control**

In order to meet the rate control criteria listed in Subsection 3.1.a, the 2-, 10-, and 100-year post development peak runoff rates must be equal to or less than the existing discharge rates at all locations where stormwater leaves the site. The applicant used a HydroCAD hydrologic model to simulate runoff rates for pre- and post-development conditions for the 2-, 10-, and 100-year frequency storm events using a nested rainfall distribution, and a 100-year frequency, 10-day snowmelt event. The existing and proposed 2-, 10-, and 100-year frequency discharges from the site are summarized in the table below. Phase 1 of the proposed project is in conformance with RPBCWD Rule J, Subsection 3.1.a.

Discharge Location	2-Year Discharge (cfs)		10-Year Discharge (cfs)		100-Year Discharge (cfs)		10-Day Snowmelt (cfs)	
	Ex	Prop	Ex	Prop	Ex	Prop	Ex	Prop
Powers South	0.6	0.0	1.5	0.0	3.8	0.0	0.1	0.0
East Culvert	18.4	4.9	55.1	12.5	128.9	34.6	7.2	5.1
Powers North	0.1	0.0	0.7	0.0	2.7	0.0	0.1	0.0
Lyman NE	0.3	0.0	2.5	0.0	9.7	0.0	0.4	0.0
Lyman North	0.4	0.0	2.1	0.0	7.0	0.0	0.3	0.0
Wetland 6	16.6	3.4	36.9	9.1	81.5	28.4	3.1	2.6
Wetland 3	9.0	1.3	18.6	2.6	40.4	8.8	1.5	1.1
West Woods	0.7	0.2	3.0	1.5	11.0	7.2	0.6	0.5
Southwest	0.2	0.2	1.9	1.9	8.9	8.9	0.7	0.7
East Woods	0.2	0.2	1.7	1.7	8.3	8.3	0.6	0.6
Wetland 4 Channel	19.3	4.8	45.3	16.6	111.6	50.1	6.0	5.0
South	9.1	3.9	19.1	8.0	40.1	16.4	1.1	0.4
Southeast	9.0	2.0	18.9	4.4	40.2	13.8	1.4	0.9

**Volume Abstraction**

Subsection 3.1.b of Rule J requires the abstraction onsite of 1.1 inches of runoff from the impervious surface of the parcel. An abstraction volume of 23,837 cubic feet is required from the 260,041 square feet of regulated impervious area. Because the proposed trails and sidewalks do not exceed 10 feet in width and will be boarded downgradient by a pervious area at least half the trail width, the 2.28 acres of trail and sidewalk are exempt from the stormwater requirements (Rule J, Subsection 2.2d). The project includes infiltration basins with pretreatment to provide runoff volume abstraction, water quality treatment, and

rate control. Pretreatment of runoff prior to entering the infiltration areas is provided by vegetated swales, grass strips, or proprietary hydrodynamic separators (Rule J, Subsection 3.1b.i).

Soil borings performed by Braun Intertec show that soils in the project area are typically clay soils with a couple of areas being underlain by silty sand soils. Braun Intertec also performed ten onsite infiltration tests in the subsurface soils and the results indicated unadjusted infiltration rates of 0.1 to 2.4 inches per hour. Because the site will be mass graded for Phase 1, thus disturbing most of the areas where the infiltration test were conducted, the applicant elected to use an infiltration rate of 0.06 inches per hour in their design based on the MN Stormwater Manual guidance for clay soils. The soil boring information summarized in the table shows that groundwater is at least 3 feet below the bottom of all but one of the proposed best management practices (BMPs) (Rule J, Subsection 3.1.b.ii). While some borings are close to the proposed BMPs, it is not clear that they are within the system footprint as required in Rule J, subsection 4.3c.

Proposed BMP	Nearest Boring	Boring is within footprint?	Groundwater Elevation (feet)	BMP Bottom Elevation (feet)	Separation (feet)
North West Interim Basin	ST-1	See comment J1 below	No groundwater observed at nearest boring bottom (el 867.0)	908.78	41.78
West North Interim Basin	ST-13	See comment J1 below	No groundwater observed at nearest boring bottom (el 913.0)	915.43	2.43 (noncompliant)
Avienda Pkwy NW	ST-31	Yes	905.3	912.53	7.23
Avienda Pkwy NE	ST-32	See comment J1 below	No groundwater observed at nearest boring bottom (el 890.4)	907.58	17.18
East Central Interim Basin	ST-16	See comment J1 below	No groundwater observed at nearest boring bottom (el 900.9)	905.43	4.53
Center North Interim Basin	ST-6	See comment J1 below	No groundwater observed at nearest boring bottom (el 887.7)	908.13	20.43
Center South Interim Basin	ST-17	See comment J1 below	No groundwater observed at nearest boring bottom (el 900.6)	908.13	7.53
Aveinda Pkwy SE	ST-29	Yes	No groundwater observed at nearest boring bottom (el 887.6)	905.93	18.33

Proposed BMP	Nearest Boring	Boring is within footprint?	Groundwater Elevation (feet)	BMP Bottom Elevation (feet)	Separation (feet)
Bluff Creek Blvd East	ST-19	See comment J1 below	No groundwater observed at nearest boring bottom (el 893.4)	900.18	6.78
South East Interim Basin	ST-12	See comment J1 below	No groundwater observed at nearest boring bottom (el 891.8)	896.83	5.03
South Center Interim Basin	ST-18	See comment J1 below	No groundwater observed at nearest boring bottom (el 874.3)	890.76	16.46
Triangle Basin	ST-11	See comment J1 below	No groundwater observed at nearest boring bottom (el 866.5)	884.5	18
Bluff Creek Blvd West	ST-8	See comment J1 below	No groundwater observed at nearest boring bottom (el 901.6)	908.43	6.83
West South Interim Basin	ST-30	See comment J1 below	No groundwater observed at nearest boring bottom (el 903.7)	921.03	17.33

The table below summarizes the volume abstraction on the site. Based on information reviewed, the proposed project conforms to Rule J, Subsection 3.1.b.

Required Abstraction Depth (inches)	Required Abstraction Volume (cubic feet)	Provided Abstraction Depth (inches)	Provided Abstraction Volume (cubic feet)
1.1	23,837	1.7	35,979

To conform to the RPBCWD Rule J, Subsection 3.3.a the following revision is needed:

- J1. Paragraph 4.3c of the rule requires a soil boring at the proposed infiltration sites to demonstrate that the bottoms of the filtration and infiltration basins are at least 3 feet above the water table, the soils present below the basin and confirm the infiltration capacity. The applicant must submit documentation verifying the soils present, infiltration capacity of the soil and the groundwater

elevation at the following BMPs. If the soils, groundwater elevation or infiltration capacity are less than anticipated or result in noncompliance with separation to groundwater, design modifications to ensure compliance with RPBCWD requirements would need to be submitted (in the form an application for a permit modification or new permit).

- North West Interim Basin,
- West North Interim Basin,
- Avienda Pkwy NE,
- East Central Interim Basin,
- Center North Interim Basin,
- Center South Interim Basin,
- Bluff Creek Blvd East,
- South East Interim Basin,
- South Center Interim Basin,
- Triangle Basin,
- Bluff Creek Blvd West, and
- West South Interim Basin.

This can be accomplished by soil boring, permeability tests, infiltrometer test, potholing or other methods. If the soils, groundwater elevation or infiltration capacity are less than anticipated, design modifications to ensure compliance with RPBCWD requirements would need to be submitted (in the form an application for a permit modification or new permit).

***Water Quality Management***

Subsection 3.1.c of Rule J requires the Applicant provide for at least 60 percent annual removal efficiency for total phosphorus (TP), and at least 90 percent annual removal efficiency for total suspended solids (TSS) from site runoff. The Applicant is proposing 14 infiltration basins, vegetated swales, and a detention pond to achieve the required TP and TSS removals and submitted a P8 model to support a determination that the proposed stormwater management system will provide the necessary TP and TSS removals.

Pollutant of Interest	Regulated Site Loading (lbs/yr)	Required Load Removal (lbs/yr)	Provided Load Reduction (lbs/yr)
Total Suspended Solids (TSS)	60,690	54,621 (90%)	54,781 (90.2%)
Total Phosphorus (TP)	219.3	131.6 (60%)	172.4 (78.6%)

Based on information reviewed, the proposed project conforms to Rule J, Subsection 3.1.c.

***Low floor Elevation***

No structure may be constructed or reconstructed such that its lowest floor elevation is less than 2 feet above the 100-year event flood elevation according to Rule J, Subsection 3.6. The applicant is not proposing to construct any structures as part of Phase 1. Because the Phase 1 construction activities do impact the 100-year flood elevation of two wetlands and one stormwater detention area that are adjacent to off-site structures, the applicant must demonstrate that the modifications of these and construction of new stormwater facilities will not result bringing the low floor elevation of an adjacent structure (offsite) into noncompliance with this criteria. The low floor elevation of the adjacent structures and the modified stormwater management features is summarized below. The RPBCWD Engineer concurs that the proposed project is in conformance with Rule J, Subsection 3.6.

Adjacent Lowest Structure Locations	Low Floor Elevation of Building (feet)	Adjacent Facility	100-year Event Flood Elevation of Adjacent Stormwater Facility (feet)	Freeboard (feet)
Preserve at Bluff Creek 1 <sup>st</sup>	925.5	33P	922.10	3.4
Preserve at Bluff Creek 5 <sup>th</sup>	897.1	WL6	885.79	11.31
Preserve at Bluff Creek 1 <sup>st</sup>	912.3	34P	909.24	3.06

**Maintenance**

Subsection 3.7 of Rule J requires the submission of a maintenance plan. All stormwater management structures and facilities must be designed for maintenance access and properly maintained in perpetuity to assure that they continue to function as designed.

- J2. Permit applicant must provide a draft maintenance and inspection plan. Once approved by RPBCWD, the plan must be recorded on the deed in a form acceptable to the District.

**Rule K: Variances and Exceptions**

The local governmental unit (LGU) administering the Wetland Conservation Act (WCA), City of Chanhassen, approved the filling six wetlands and partial filling another on the project site. Rule B subsection 3.2 requires compensatory storage at the same elevation (+/- 1 foot) and within the floodplain of the same waterbody. The Applicant requested variances from these provisions of RPBCWD’s Rule B – Floodplain Management and Drainage Alterations.

Both variances result from the unique condition of the LGU’s having approved complete elimination (and replacement via purchase of wetland bank credits) of the four wetlands (wetland 1, wetland 2, wetland 7, and wetland 8). The attached variance request letter submitted on behalf of the applicant cites several facts related to the development in support of the request. Rule K requires the Board of Managers to find that because of unique conditions inherent to the subject property the application of rule provisions will impose a practical difficulty on the Applicant. Assessment of practical difficulty is conducted against the following criteria:

1. how substantial the variation is from the rule provision;
2. the effect of the variance on government services;
3. whether the variance will substantially change the character of or cause material adverse effect to water resources, flood levels, drainage or the general welfare in the District, or be a substantial detriment to neighboring properties;
4. whether the practical difficulty can be alleviated by a technically and economically feasible method other than a variance. Economic hardship alone may not serve as grounds for issuing a variance if any reasonable use of the property exists under the terms of the District rules;
5. how the practical difficulty occurred, including whether the landowner, the landowner’s agent or representative, or a contractor, created the need for the variance; and
6. in light of all of the above factors, whether allowing the variance will serve the interests of justice.

It is the applicant's obligation to address these criteria to support a variance request. Following is the RPBCWD engineer's assessment of information received relevant to the applicant's request for a variance from the compensatory storage criteria to be at the same elevation (+/- 1 foot) and within the floodplain of the same waterbody:

- Related to variance criterion 1 – The supporting materials demonstrate that Phase 1 will involve an aggregate total of 5,284 cubic yards of fill and 11,133 cubic yards of compensatory storage below the 100 year floodplain, thus providing a net increase in the floodplain storage. The bold numbers in the Comparative Floodplain Storage table below illustrates the difference in storage volume by elevation

Elevation	Existing Storage Volume (cf)				Phase 1 Storage Volume (cf)						
	Wetland 1	Wetland 2	Wetland 8	Existing Cumulative Storage (cf)	1P	2P	3P	11.4P	14P	15P	P1 Cumulative Storage (cf)
895.70			-	-							-
896.00			2	2							-
897.00			228	230							-
898.00			663	893							-
899.00			1,818	2,711							-
900.00			5,505	8,216							-
901.00			12,508	20,724							-
901.66			13,279	34,003							-
902.00				34,003							-
903.00				34,003							-
904.00				34,003							-
905.00				34,003				189			189
905.40	-			34,003							189
906.00	4,671			38,674				-		687	876
907.00	41,146			79,820	111,868			-		13,412	126,156
907.61	45,734			125,554						-	126,156
908.00				125,554					6,294		132,450
908.30				125,554							132,450
909.00		-		125,554	150,869				17,289		300,608
909.90		17,135		142,689							300,608

- With regard to variance criteria 2 and 3 – The information submitted demonstrates compliance with Rule B, subsection 3.3, which requires no off-site adverse impacts. The Rule B discussion above illustrates that the proposed alternations will not have an adverse effects to offsite governmental services, water resources, flood levels, or neighboring properties. The proposed variance only impacts the applicant’s property.
- Technical measures incorporated into the project plan to alleviate the practical difficulty (variance criterion 4) include creation of infiltration basins and a wet detention basin but at a higher elevation to facilitate site development. Because the wetlands will no longer exist the compensatory storage cannot be provided within the floodplain of the same waterbody.
- With regard to variance criterion 5, the applicant has created the circumstances leading to the variances, but did so with the approval of another relevant regulatory body, the LGU administering WCA..

The engineer finds there is an adequate technical basis for the managers to rely on to grant the requested variance.

**Rule L: Permit Fee:**

Fees for the project are:

Rule C & J ..... \$4,500

The RPBCWD permit fee schedule adopted in December 2015 indicates that costs of site inspections, analysis of the proposed activities, services of consultants and compliance assurance in excess of \$5,000 for properties greater than 10 acres will be charged to the permit applicant. In accordance with the adopted RPBCWD permit-fee schedule, because the engineer, legal, and staff time to review this permit exceeded \$5,000 the applicant must submit an additional permit fee of \$16,136.88 for excess cost recovery.

**Rule M: Financial Assurance:**

Rule C:

Perimeter Control: 18,000 L.F. x \$2.50/L.F. = ..... \$45,000

Restoration: 96.6 acres x \$2,500/acre = ..... \$241,600

Rule D:

Wetland and Creek Buffer: \$5,000 + \$1,000/acre over 10 acres = ..... \$5,000

Rule J:

Infiltration: 303,700 sq ft x \$6/sq ft= ..... \$1,822,200

Wet Detention Basin: 125% of Engineer’s Opinion of Cost (1.25\*\$375,000) = ..... \$468,800

Hydrodynamic Separators: 125% of Engineer’s Opinion of Cost (1.25\*\$85,000) = ..... \$106,300

Swales: 125% of Engineer’s Opinion of Cost (1.25\*\$17,000) = ..... \$21,300

Contingency (10%) ..... \$271,000

Administration (30%) ..... \$894,400

Total Financial Assurance..... \$3,875,600

### **Applicable General Requirements:**

1. The RPBCWD Administrator and Engineer shall be notified at least three days prior to commencement of work.
2. Construction shall be consistent with the plans and specifications approved by the District as a part of the permitting process. The date of the approved plans and specifications is listed on the permit.
3. Return or allowed expiration of any remaining surety and permit close out is dependent on the permit holder providing proof that all required documents have been recorded and providing as-built drawings that show that the project was constructed as approved by the Managers and in conformance with the RPBCWD rules and regulations.

### **Findings**

1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.
2. The proposed project will conform to Rules C, D, and J if the Rule Specific Permit Conditions listed above are met.

### **Recommendation:**

Approval of the permit contingent upon:

1. Continued compliance with General Requirements.
2. Financial Assurance in the amount of \$3,875,600.
3. Applicant providing the name and contact information of the individual responsible for erosion and sediment control at the site.
4. The applicant submitting documentation verifying the soils present, infiltration capacity of the soil and the groundwater elevation at North West Interim Basin, West North Interim Basin, Avienda Pkwy NE, East Central Interim Basin, Center North Interim Basin, Center South Interim Basin, Bluff Creek Blvd East, South East Interim Basin, South Center Interim Basin, Triangle Basin, Bluff Creek Blvd West, and West South Interim Basin. This can be accomplished by soil boring, permeability tests, infiltrometer test, potholing or other methods. If the soils, groundwater elevation or infiltration capacity are less than anticipated or result in noncompliance with separation to groundwater, design modifications to ensure compliance with RPBCWD requirements would need to be submitted (in the form an application for a permit modification or new permit).
5. Receipt of documentation demonstrating the Applicant has the necessary permissions to complete the proposed grading, and storm sewer construction outside the property boundary. The necessary permissions must be obtained prior issuance of a permit for the work from RPBCWD. The property rights must allow for restoration with native vegetation, the designation of a buffer and the right to maintain that buffer.

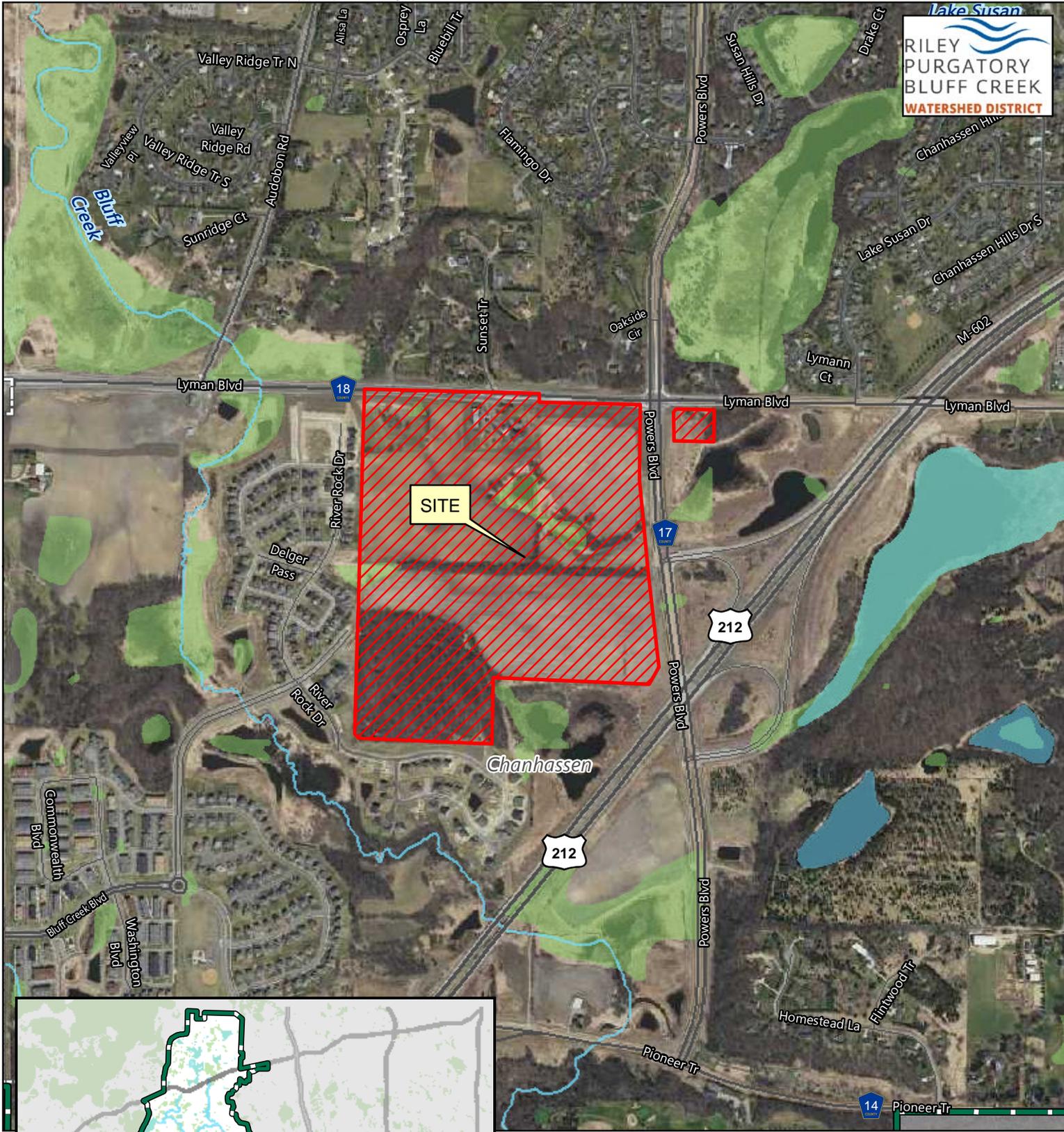
6. Receipt in recordation a maintenance declaration for the operation and maintenance of the buffer and stormwater management facilities. A draft must be approved by the District prior to recordation.
7. Compliance with rule-specific permit conditions, including receipt of an additional permit fee of \$16,136.88 for excess cost recovery.

By accepting the permit, when issued, the applicant agrees to the following stipulations:

1. Per Rule J Subsection 4.5, upon completion of the site work, the permittee must submit as-built drawings demonstrating that at the time of final stabilization, stormwater facilities conform to design specifications as approved by the District.

**Board Action**

It was moved by Manager \_\_\_\_\_, seconded by Manager \_\_\_\_\_ to approve permit for permit No. 2018-016 with the conditions recommended by staff at the September 5, 2018 RPBCWD Board of Managers meeting.



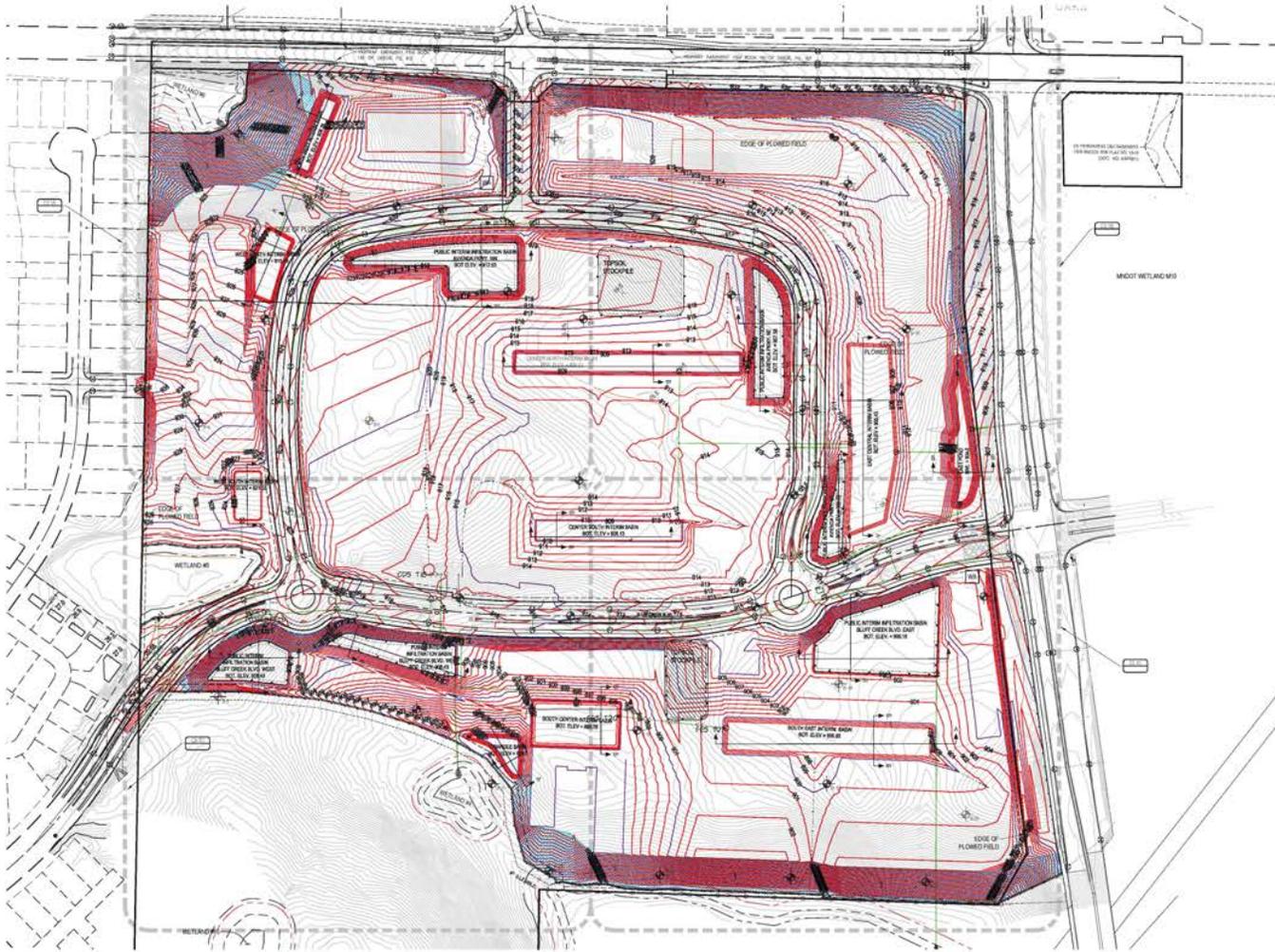
Permit Location Map



Feet



AVIENDA  
**Permit 2018-016**  
Riley Purgatory Bluff Creek  
Watershed District



**GENERAL NOTES**

- FOR CONSTRUCTION STAKING AND SURVEYING SERVICES CONTACT LANDFORM PROFESSIONAL SERVICES AT 612.352.8070.
- EROSION PREVENTION AND SEDIMENT CONTROL NOTES**
- INSTALL PERMANENT SEDIMENT CONTROLS PRIOR TO BEGINNING WORK AND MAINTAIN FOR DURATION OF CONSTRUCTION. INSTALL POINT-BASIN PROTECTION SEDIMENT CONTROLS WITHIN 15 DAYS OF COMPLETION OF BASIN GRADING. REMOVE PERMANENT CONTROLS AFTER AREAS CONTRIBUTING RUNOFF ARE PERMANENTLY STABILIZED AND COVERED BY GRASS.
- LIMIT SOIL DISTURBANCE TO THE GRADING LIMITS SHOWN. SCHEDULE OPERATIONS TO MINIMIZE LENGTH OF EXPOSURE OF DISTURBED AREAS.
- MANAGEMENT PRACTICES SHOWN ARE THE MINIMUM REQUIREMENT. INSTALL AND MAINTAIN ADDITIONAL CONTROLS AS NEEDED TO PREVENT EROSION AND CONTROL SEDIMENT CAUSED BY WIND OR WATER.
- REFER TO SWPPP NOTES ON SHEET C2.4 FOR ADDITIONAL REQUIREMENTS.
- EXCAVATE PONDS AND TEMPORARY SEDIMENTATION BASINS EARLY IN THE CONSTRUCTION SEQUENCE. REMOVE SEDIMENT FROM PONDS AND BASINS PERIODICALLY AND AFTER AREAS CONTRIBUTING RUNOFF ARE PERMANENTLY STABILIZED.
- CONTRACTOR SHALL PREVENT SEDIMENT LOADED WATER FROM ENTERING INFILTRATION SYSTEMS UNTIL THE SITE IS COMPLETELY STABILIZED.
- ALL EXPOSED SOILS SHALL BE STABILIZED IMMEDIATELY TO LIMIT SOIL EROSION IN THAT PORTION OF THE SITE WHERE CONSTRUCTION HAS TEMPORARILY OR PERMANENTLY CEASED.
- TEMPORARY SEED: 50% M.L.G. AND FERTILIZER SHALL MEET THE FOLLOWING SPECIFICATIONS, AS MODIFIED:  
 TYPICAL SEED: M.L.G. 15 LBS./AC. MOISTURE 30%  
 M.L.G. 25 LBS./AC. @ 30% L.B.A.C. TEMPORARY EROSION CONTROL MOISTURE 30%  
 M.L.G. 25 LBS./AC. @ 35 L.B.A.C. PERMANENT WETLAND BUFFER MOISTURE 30%  
 FERTILIZER FOR PERMANENT TURF ONLY MOISTURE 30%  
 GENERAL PLACEMENT MOISTURE 30%
- SEE SITE RESTORATION SHEET FOR PERMANENT TURF AND LANDSCAPE ESTABLISHMENT.
- SCAPE ADJACENT STREETS CLEAN DAILY AND SHEEP CLEAN WEEKLY.

**GRADING NOTES**

- CONTACT UTILITY SERVICE PROVIDERS FOR FIELD LOCATION OF SERVICES 72 HOURS PRIOR TO BEGINNING GRADING.
- REFER TO THE GEOLOGICAL REPORT PREPARED BY BRUNNEN & BOSTER, DATED APRIL 15, 2011, FOR ADDITIONAL INFORMATION ON SHOULDER MATERIALS AND GROUNDWATER CONDITIONS.
- REMOVE TOPSOIL FROM GRADING AREAS AND STOCKPILE SUFFICIENT QUANTITY FOR REUSE MAINTAIN STOCKPILES WITH MINIMUM 4:1 SLOPES.
- REMOVE SURFACE AND GRADED WADING FROM EXCAVATIONS. PROVIDE INITIAL LIFT OF STABLE FOUNDATION MATERIAL IF EXPOSED SOILS ARE NOT AVAILABLE.
- AN INDEPENDENT TESTING FIRM SHALL VERIFY THE REMOVAL OF ORGANIC AND UNSATURATED SOILS. SOIL CORRECTION AND COMPACTION AND PROVIDE PERIODIC REPORTS TO THE OWNER.
- PLACE AND COMPACT FILL USING LIFT THICKNESSES MATCHED TO SOIL TYPE AND COMPACTION EQUIPMENT TO OBTAIN SPECIFIED COMPACTION THROUGHOUT THE LIFT.
- COMPACT CONVEYER SOILS IN PAVED AREAS TO 95% OF MAXIMUM DRY DENSITY. STAGED PROCTOR (ASTM D698) EXCEPT THE TOP 3 FEET WHICH SHALL BE COMPACTED TO 100%. COMPACT TO DEPTH UNLESS WHERE FULL DEPTH EXCEEDS 8 FEET. THE ROAD SHALL BE WITHIN PROCTOR MAXIMUM DENSITY CONTROL RANGE UNLESS ALL PORTIONS OF THE EMPAVEMENT SHALL BE COMPACTED TO NOT LESS THAN 95% OF MODIFIED PROCTOR DENSITY (ASTM D1557).
- AVOID SOIL COMPACTION OF INFILTRATION PRACTICES. ANY EQUIPMENT USED IN INFILTRATION AREAS SHOULD BE SMALL SCALED AND TRACKED.
- ALL DISTURBED SOIL SURFACE AREAS EXCEPT FOR THE AREAS UNDER THE PROPOSED STREET PAVEMENT AND THE TRAIL AND SIDEWALKS SHALL BE DECOMPACTED TO A DEPTH OF 30 INCHES AND COVERED WITH SIX INCHES OF TOPSOIL. REFER TO SPRING STANDARD EROSION CONTROL NOTES FOR ADDITIONAL REQUIREMENTS.

**LEGEND**

SYMBOL	DESCRIPTION	ESTIMATED QUANTITY
	INLET PROTECTION	124 EACH
	SILT FENCE	18 000 FEET
	VEHICLE TRACKING PAD	2 EACH
	EROSION CONTROL BLANKET	
	CONCRETE WASHOUT	
	DRAINAGE SWALE	

**RPCBCD STANDARD EROSION CONTROL NOTES (CONT.)**

- NATURAL TOPOGRAPHY AND SOIL CONDITIONS MUST BE PROTECTED, INCLUDING RETENTION (INSTE OF NATIVE TOPSOIL) TO THE GREATEST EXTENT POSSIBLE.
- ADDITIONAL MEASURES, SUCH AS HYDROLOGIC MATCHING AND OTHER PRACTICES AS SPECIFIED BY THE DISTRICT MUST BE USED ON SLOPES OF 3:1 (V) OR STEEPER TO PROVIDE ADEQUATE STABILIZATION.
- FINAL SITE STABILIZATION MEASURES MUST SPECIFY THAT AT LEAST SIX INCHES OF TOPSOIL OR ORGANIC MATTER BE SPREAD AND INCORPORATED INTO THE UNDERLYING SOIL. OURSINGRAPHIC SITE TREATMENT WHENEVER TOPSOIL HAS BEEN REMOVED.
- CONSTRUCTION SITE WASTE SUCH AS DISCARDED BUILDING MATERIALS, CONCRETE, TRUCK WASHOUT, CHEMICALS, LITTER AND SANITARY WASTE MUST BE PROPERLY MANAGED.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL (BMPs) MUST BE MAINTAINED UNTIL COMPLETION OF CONSTRUCTION AND RESTORATION IS ESTABLISHED. SUFFICIENT TO MAINTAIN STABILITY OF THE SITE, AS DETERMINED BY THE DISTRICT.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL (BMPs) MUST BE REMOVED UPON FINAL STABILIZATION.

**RPCBCD STANDARD EROSION CONTROL NOTES (CONT.)**

- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN 7 CALENDAR DAYS AFTER LAND-RESTORATION WORK HAS TEMPORARILY OR PERMANENTLY CEASED OR A PRIORITY THAT DEPENDS ON AN UNPAVED WATER, WITHIN 14 DAYS ELSEWHERE.
- SOIL SURFACES COMPACTED DURING CONSTRUCTION AND REMAINING PERIODS UPON COMPLETION OF CONSTRUCTION MUST BE DECOMPACTED THROUGH SOIL AMENDMENT AND/OR RAMPING TO A DEPTH OF 18 INCHES WHILE TAKING CARE TO AVOID UTILITIES. THESE SOOTS AND OTHER EXISTING VEGETATION PRIOR TO FINAL RESTORATION OF OTHER STABILIZATION.
- THE PROMOTES MUST, AT A MINIMUM, RESPECT MAINTAIN AND REPAIR ALL DISTURBED SURFACES AND ALL EROSION AND SEDIMENT CONTROL FACILITIES AND SOIL STABILIZATION MEASURES EVERY DAY WORK IS BEING DONE ON THE SITE AND AT LEAST WEEKLY UNTIL LAND-RESTORATION ACTIVITY HAS CEASED. THEREAFTER, THE PROMOTES MUST PERFORM THESE RESPONSIBILITIES AT LEAST WEEKLY UNTIL, WHENEVER COVER IS ESTABLISHED, THE PROMOTES MUST ALSO PERFORM THESE RESPONSIBILITIES ALSO WITHIN 24 HOURS OF THE END OF ANY 6-HOUR OR GREATER RAINFALL EVENT UNLESS, WHEN THE COVER IS ESTABLISHED THE PROMOTES WILL MAINTAIN A LOG OF ACTIVITIES UNDER THIS SECTION FOR INSPECTION BY THE DISTRICT ON REQUEST.
- ACTIVITIES MUST BE CONDUCTED SO AS TO MINIMIZE THE POTENTIAL TRANSPORT OF AQUATIC INVASIVE SPECIES (E.G., ZOSTERA MUGGESSII, SAGINAW WETLANDS, ETC.) TO THE MINIMUM EXTENT POSSIBLE.

**DEVELOPER**  
**LEVEL 7 DEVELOPMENT, LLC**  
 4800 KINGS POINT RD  
 MINNETONKA, MN 55331



**PROJECT**  
**AVIENDA**

**SHEET INDEX**

NO.	DESCRIPTION
C1.1	PHASE 1 GRADING, DRAINAGE, & EROSION CONTROL
C1.2	PHASE 2 GRADING, DRAINAGE, & EROSION CONTROL
C1.3	PHASE 3 GRADING, DRAINAGE, & EROSION CONTROL
C1.4	PHASE 4 GRADING, DRAINAGE, & EROSION CONTROL
C1.5	PHASE 5 GRADING, DRAINAGE, & EROSION CONTROL
C1.6	PHASE 6 GRADING, DRAINAGE, & EROSION CONTROL
C1.7	PHASE 7 GRADING, DRAINAGE, & EROSION CONTROL
C1.8	PHASE 8 GRADING, DRAINAGE, & EROSION CONTROL
C1.9	PHASE 9 GRADING, DRAINAGE, & EROSION CONTROL
C1.10	PHASE 10 GRADING, DRAINAGE, & EROSION CONTROL
C1.11	PHASE 11 GRADING, DRAINAGE, & EROSION CONTROL
C1.12	PHASE 12 GRADING, DRAINAGE, & EROSION CONTROL
C1.13	PHASE 13 GRADING, DRAINAGE, & EROSION CONTROL
C1.14	PHASE 14 GRADING, DRAINAGE, & EROSION CONTROL
C1.15	PHASE 15 GRADING, DRAINAGE, & EROSION CONTROL
C1.16	PHASE 16 GRADING, DRAINAGE, & EROSION CONTROL
C1.17	PHASE 17 GRADING, DRAINAGE, & EROSION CONTROL
C1.18	PHASE 18 GRADING, DRAINAGE, & EROSION CONTROL
C1.19	PHASE 19 GRADING, DRAINAGE, & EROSION CONTROL
C1.20	PHASE 20 GRADING, DRAINAGE, & EROSION CONTROL
C1.21	PHASE 21 GRADING, DRAINAGE, & EROSION CONTROL
C1.22	PHASE 22 GRADING, DRAINAGE, & EROSION CONTROL
C1.23	PHASE 23 GRADING, DRAINAGE, & EROSION CONTROL
C1.24	PHASE 24 GRADING, DRAINAGE, & EROSION CONTROL
C1.25	PHASE 25 GRADING, DRAINAGE, & EROSION CONTROL
C1.26	PHASE 26 GRADING, DRAINAGE, & EROSION CONTROL
C1.27	PHASE 27 GRADING, DRAINAGE, & EROSION CONTROL
C1.28	PHASE 28 GRADING, DRAINAGE, & EROSION CONTROL
C1.29	PHASE 29 GRADING, DRAINAGE, & EROSION CONTROL
C1.30	PHASE 30 GRADING, DRAINAGE, & EROSION CONTROL
C1.31	PHASE 31 GRADING, DRAINAGE, & EROSION CONTROL
C1.32	PHASE 32 GRADING, DRAINAGE, & EROSION CONTROL
C1.33	PHASE 33 GRADING, DRAINAGE, & EROSION CONTROL
C1.34	PHASE 34 GRADING, DRAINAGE, & EROSION CONTROL
C1.35	PHASE 35 GRADING, DRAINAGE, & EROSION CONTROL
C1.36	PHASE 36 GRADING, DRAINAGE, & EROSION CONTROL
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C1.40	PHASE 40 GRADING, DRAINAGE, & EROSION CONTROL
C1.41	PHASE 41 GRADING, DRAINAGE, & EROSION CONTROL
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C1.44	PHASE 44 GRADING, DRAINAGE, & EROSION CONTROL
C1.45	PHASE 45 GRADING, DRAINAGE, & EROSION CONTROL
C1.46	PHASE 46 GRADING, DRAINAGE, & EROSION CONTROL
C1.47	PHASE 47 GRADING, DRAINAGE, & EROSION CONTROL
C1.48	PHASE 48 GRADING, DRAINAGE, & EROSION CONTROL
C1.49	PHASE 49 GRADING, DRAINAGE, & EROSION CONTROL
C1.50	PHASE 50 GRADING, DRAINAGE, & EROSION CONTROL

**ISSUE / REVISION HISTORY**

NO.	DESCRIPTION	DATE
1	ISSUE	08/23/2018
2	REVISION	08/23/2018
3	REVISION	08/23/2018
4	REVISION	08/23/2018
5	REVISION	08/23/2018
6	REVISION	08/23/2018
7	REVISION	08/23/2018
8	REVISION	08/23/2018
9	REVISION	08/23/2018
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49	REVISION	08/23/2018
50	REVISION	08/23/2018

**PROJECT MANAGER REVIEW**

DATE: 08/23/2018

**CERTIFICATION**

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly licensed professional engineer in the State of Minnesota.

**PRELIMINARY NOT FOR CONSTRUCTION**

**WATERSHED SUBMITTAL**  
 08.23.2018



105 South Fifth Avenue  
 Suite 513  
 Minneapolis, MN 55401  
 Tel: 612-252-9070  
 Fax: 612-252-9077  
 Web: landform.net

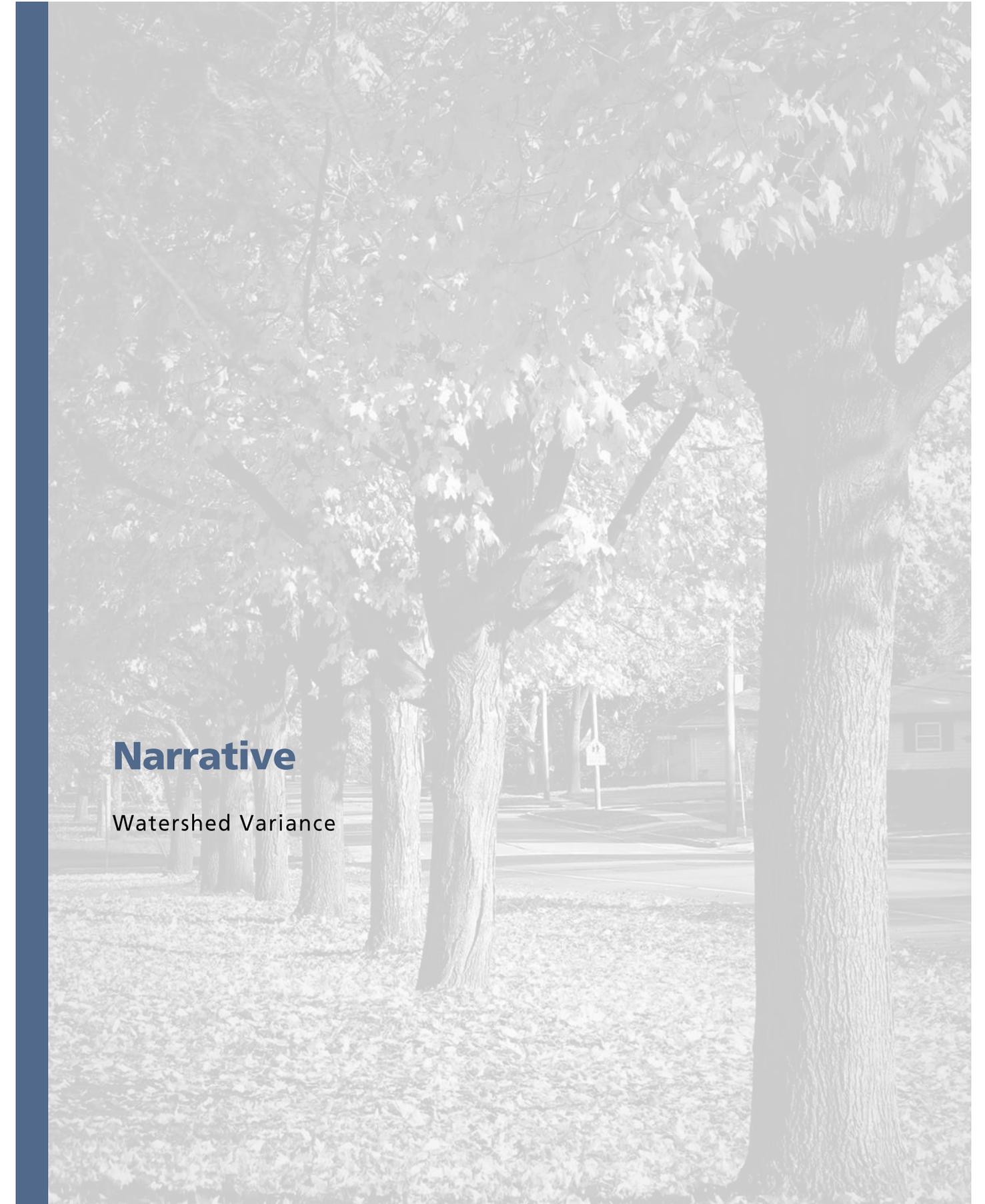
FILE NAME: C015C0001.DWG  
 PROJECT NO: SCD10001

**PHASE 1 GRADING, DRAINAGE, & EROSION CONTROL**  
**C3.1**

**811**  
 Know what's Below.  
 Call before you dig.

**NORTH**

0 150 300



## **Narrative**

Watershed Variance

L A N D F O R M

# Narrative

Avienda

Chanhassen, MN

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L A N D F O R M

August 20, 2018

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Summary .....	4
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## Introduction

On behalf of Level 7 Development, LLC, Landform is pleased to submit this application for two variances from to Riley Purgatory Bluff Creek Watershed District (RPBCWD) Rule B, Subsection 2.1. Approval of the variances will allow the development to proceed in accordance with preliminary plat and PUD approvals granted by the City of Chanhassen and are consistent with the wetland approvals. We are excited about the improvements proposed for this site.

## Variance

### Variance Request #1

We are requesting City approval for a variance from Rule B, Subsection 2.1 which requires the project to provide compensatory storage within +/- one foot of the fill. This requirement cannot be practicably met within each increment of elevation for this site. The Avienda project will provide a cumulative compensatory storage which greatly exceeds the total existing storage for both the phase 1 and ultimate buildout scenarios. Refer to Table 17 for additional information regarding the compensatory storage. The requested variance meets the standards outlined in the rules as follows:

#### *1.1 How substantial the variation is from the rule provision.*

The variation from the rule provision is insignificant. Specifically, the storage volume exceeds the existing total storage for both the phase I and ultimate buildout scenarios. The intent of the rule is met for compensatory storage as shown in Table 17.

#### *1.2 The effect of the variance on government services.*

There will be no effect of the variance on government services. The site conditions provide adequate compensatory storage on site and will be managed by the developer.

#### *1.3 Whether the variance will substantially change the character of or cause material adverse effect to water resources, flood levels, drainage or the general welfare in the District, or be a substantial detriment to neighboring properties.*

There will be no material adverse effect to water resources, flood levels, drainage or general welfare in the District nor any substantial detriment to neighboring properties. As noted in Table 17, the cumulative compensatory storage greatly exceeds the existing storage for both the phase I and ultimate build out scenarios.

#### *1.4 Whether the practical difficulty can be alleviated by a technically and economically feasible method other than a variance. Economic hardship alone may not serve as grounds for issuing a variance if any reasonable use of the property exists under the terms of the District rules.*

There is no technically or economically feasible alternative to the variance.

#### *1.5 How the practical difficulty occurred, including whether the landowner, the landowner's agent or representative, or a contractor, created the need for the variance.*

The practical difficulty is not created by the landowner or their agent but is the result of the conflicts between the watershed rules, LGU approvals and other agency requirements.

*1.6 In light of all of the above factors, whether allowing the variance will serve the interests of justice.*

Allowing the variance with serve the interests of justice by allowing the project to proceed forward as approved by the City of Chanhassen and providing compensatory storage that exceeds the total existing storage for both the phase I and ultimate buildout scenarios.

## **Variance Request #2**

We are requesting City approval for a variance from Rule B, Subsection 2.1 which requires the project to provide compensatory storage within the same waterbody. The waterbodies as defined by the RPBCWD consist of wetlands which are permitted to be impacted by the LGU. Providing compensatory storage within these waterbodies is not possible. The requested variance meets the standards outlined in the rules as follows:

*1.1 How substantial the variation is from the rule provision.*

The variation from the rule provision is insignificant. The waterbodies in question are wetlands that have been permitted for impact by the LGU and, therefore, it is not technically possible to comply with the rule.

*1.2 The effect of the variance on government services.*

There will be no effect of the variance on government services.

*1.3 Whether the variance will substantially change the character of or cause material adverse effect to water resources, flood levels, drainage or the general welfare in the District, or be a substantial detriment to neighboring properties.*

There will be no material adverse effect to water resources, flood levels, drainage or general welfare in the District nor any substantial detriment to neighboring properties. As noted in Table 17, the cumulative compensatory storage greatly exceeds the existing storage for both the phase I and ultimate build out scenarios and will be provided on site.

*1.4 Whether the practical difficulty can be alleviated by a technically and economically feasible method other than a variance. Economic hardship alone may not serve as grounds for issuing a variance if any reasonable use of the property exists under the terms of the District rules.*

There is no technically or economically feasible alternative to the variance. The waterbodies in question have been permitted by the LGU to be impacted and it is not technically possible to comply with the rule.

*1.5 How the practical difficulty occurred, including whether the landowner, the landowner's agent or representative, or a contractor, created the need for the variance.*

The practical difficulty is not created by the landowner or their agent.

*1.6 In light of all of the above factors, whether allowing the variance will serve the interests of justice.*

Allowing the variance with serve the interests of justice by allowing the project to proceed forward as approved by the City of Chanhassen. The compensatory storage will be provided on site in compliance with all other watershed rules.

## Summary

We respectfully request approval of the two variances to allow construction of the Avienda Regional/Lifestyle Center at the southwest corner of intersection of Powers Boulevard and Lyman Boulevard in Chanhassen.

## Contact Information

This document was prepared by:

Kendra Lindahl, AICP  
Landform  
105 South Fifth Avenue, Suite 513  
Minneapolis, MN 55401

Any additional questions regarding this application can be directed to Steve Sabraski at [ssabraski@landform.net](mailto:ssabraski@landform.net) or 612.638.0243.

## Riley Purgatory Bluff Creek Watershed District Permit Application Review

Permit No: 2018-028

**Application Received complete:** May 4, 2018 (review timeline extensions approved at June 6, 2018 and August 8, 2018 meetings)

**Applicant:** Eden Prairie Schools

**Consultant:** Anderson-Johnson Associated, Inc., Bill Diede

**Project:** Oak Point Elementary Parking Lot –Construction of a new park lot and reconstruction of the site entrance, including new bituminous pavement, concrete curb and gutter, and storm sewer on the Eden Prairie School property. An underground infiltration systems will provide storm water rate, volume and quality control.

**Location:** 13400 Staring Lake Parkway Eden Prairie, Minnesota 55347

**Reviewer:** Scott Sobiech, PE, Barr Engineering

**Rules: Applicable rules checked**

	Rule B: Floodplain Management		Rule H: Appropriation of Public Waters
X	Rule C: Erosion and Sediment Control		Rule I: Appropriation of Groundwater
X	Rule D: Wetland and Creek Buffers	X	Rule J: Stormwater Management
	Rule E: Dredging and Sediment Removal		Rule K: Variances and Exceptions
	Rule F: Shoreline/Streambank Stabilization		Rule L: Permit Fees
	Rule G: Waterbody Crossings		Rule M: Financial Assurances

### Rule Conformance Summary

Rule	Issue	Conforms to RBPCWD Rules?	Comments
C	Erosion Control Plan	See Comment	See Rule Specific Permit Condition C1.
D	Wetland and Creek Buffer	See Comment	See Rule Specific Permit Condition D1.
J	Stormwater Management	Rate	Yes
		Volume	Yes
		Water Quality	Yes
		Low Floor Elev.	Yes
		Maintenance	See Comment
L	Permit Fee	NA	Governmental Agency
M	Financial Assurance	NA	Governmental Agency

## **Project Description**

The proposed redevelopment includes the construction of a new park lot and reconstruction of the site entrance, including new bituminous pavement, concrete curb and gutter, and storm sewer on the Eden Prairie School property. An underground infiltration system will provide storm water rate, volume and quality control. Purgatory Creek runs through an adjacent property that is also owned by the school district. The project site information is summarized below:

1. Total Site Area: 23.05 acres
2. Existing Site Impervious Area: 7.99 acres (348,044 square feet)
3. Post Construction Site Impervious: 8.596 acres (374,441 square feet)
4. New (Increase) in Site Impervious Area: 0.584 acres (25,439 square feet) (7.3% increase in site impervious area)
5. Disturbed impervious surface: 0.193 acres (8,407 square feet) (2.4% of existing site impervious area)
6. Total Disturbed Area: 1.13 acres

### Exhibits:

1. Permit Application dated April 25, 2018
2. Stormwater Management Report – Oak Point Elementary Parking Lot dated April 25, 2018 (revised July 27, 2018 and August 16, 2018)
3. Project Plan Set (10 sheet) dated March 23, 2018 (revised sheet C1.1, C1.2, C1.3, and C2.1 dated June 22, 2018 and August 16, 2018)
4. Draft Geotechnical Evaluation Report dated April 25, 2018 (Braun Intertec).
5. HydroCAD Models received April 25, 2018 (revised July 27, 2018, August 16, 2018, and August 17, 2018)
6. P8 Model Received April 25, 2018 (revised July 27, 2018, August 16, 2018, and August 17, 2018)
7. Draft Maintenance declaration and exhibits dated July 27, 2018
8. Operations and Maintenance Plan received July 27, 2018
9. Response to comments received July 27, 2018 and August 16, 2018

## **Rule Specific Permit Conditions**

### **Rule C: Erosion and Sediment Control**

Because the project will alter 1.13 acres of land-surface area the project must conform to the requirements in the RPBCWD Erosion and Sediment Control rule (Rule C, Subsection 2.1).

The erosion control plan prepared by Anderson-Johnson Associated, Inc. includes installation of silt fence, inlet protection for storm sewer catch basins, daily inspection, placement of a minimum of 6

inches of topsoil, decompaction of areas compacted during construction, and retention of native topsoil onsite. To conform to the RPBCWD Rule C requirements the following revisions are needed:

- C1. The Applicant must provide the name and contact information of the individual responsible for erosion control at the site. RPBCWD must be notified if the responsible individual changes during the permit term.

**Rule D: Wetland and Creek Buffers**

Because the proposed work triggers a permit under RPBCWD Rule J and Purgatory Creek is onsite, Rule D, Subsections 2.1a and 3.1 require buffer on the portion of the creek downgradient from the proposed land-disturbing activities. (The creek will not be disturbed by the proposed work.)

Purgatory Creek flows through the project site and requires an average buffer width of 50 feet from the creek centerline, minimum 30 feet in accordance with Rule D, Subsection 3.1.a.v for a public waters watercourse. The applicant provided a buffer zone and marker location map confirming that the proposed buffer area extends the required average widths as summarized in the table below.

Regulated Feature	Require Minimum Width (ft)	Require Average Width (ft)	Provided Minimum Width (ft)	Provided Buffer Width(ft)
Purgatory Creek	30	50	50	50

The Applicant is not proposing to disturb any area within the proposed buffer and will maintain the area in a natural state in conformance with Rule D, Subsection 3.2. A note is included on the plan sheet indicating the project will be constructed so as to minimize the potential transfer of aquatic invasive species (e.g., zebra mussels, Eurasian watermilfoil, etc.) to the maximum extent possible conforming to Rule D, Subsection 3.5.

To conform to the RPBCWD Rule D the following revisions are needed:

- D1. Buffer areas and maintenance requirements must be documented in a written agreement after review and approval by RPBCWD in accordance with Rule D, Subsection 3.4.

**Rule J: Stormwater Management**

Because the project will alter 1.13 acres of land-surface area, increase the imperviousness of the entire site by less than 50%, and disturb less than 50% of the existing imperviousness the project must meet the criteria of RPBCWD’s Stormwater Management rule (Rule J, Subsection 2.3) for the disturbed and replaced and new impervious surface on the site.

The project includes installation of an underground infiltration system with pretreatment to provide runoff volume abstraction, water quality treatment, and rate control. Pretreatment of runoff prior to entering the underground infiltration system is provided by an isolator row, which is a row of underground chambers with the purpose of pretreating runoff and allowing access for inspection and maintenance activities.

**Rate Control**

In order to meet the rate control criteria listed in Subsection 3.1.a, the 2-, 10-, and 100-year post development peak runoff rates must be equal to or less than the existing discharge rates at all locations where stormwater leaves the site. The applicant used a HydroCAD hydrologic model to simulate runoff rates for pre- and post-development conditions for the 2-, 10-, and 100-year frequency storm events using a nested rainfall distribution, and a 100-year frequency, 10-day snowmelt event. The existing and proposed 2-, 10-, and 100-year frequency discharges from the site are summarized in the table below.

Discharge Location	2-Year Discharge (cfs)		10-Year Discharge (cfs)		100-Year Discharge (cfs)		10-Day Snowmelt (cfs)	
	Ex	Prop	Ex	Prop	Ex	Prop	Ex	Prop
Southwest	1.1	0.5	2.5	1.3	5.1	3.7	<0.1	<0.1
South	1.4	1.0	2.9	2.1	6.1	4.2	<0.1	<0.1
Southeast	4.5	4.2	8.0	7.5	14.4	13.6	<0.1	<0.1

The proposed project is in conformance with RPBCWD Rule J, Subsection 3.1.a.

**Volume Abstraction**

Subsection 3.1.b and 2.3 of Rule J requires the abstraction onsite of 1.1 inches of runoff from all disturbed and additional impervious surface of the parcel. An abstraction volume of 3,103 cubic feet is required from the 33,846 square feet of regulated impervious area on the project for volume retention. The project includes an underground infiltration system, with pretreatment using an isolator row, to abstract runoff from the site (Rule J, Subsection 3.1b.i).

Soil borings performed by Braun Intertec show that soils in the project area are typically lean clay soils. The MN Stormwater Manual indicates an infiltration rate of 0.06 inches per hour for such soils. Soil borings show groundwater at a boring depth of 12 feet, corresponding to elevation 826.5. Because the proposed bottom of the underground infiltration system will be at elevation 834.3, the groundwater is at least 3 feet below the bottom of the proposed underground infiltration system (Rule J, Subsection 3.1.b.ii).

The table below summarizes the volume abstraction on the site. Based on information reviewed, the proposed project conforms to Rule J, Subsection 3.1.b.

Required Abstraction Depth (inches)	Required Abstraction Volume (cubic feet)	Provided Abstraction Depth (inches)	Provided Abstraction Volume (cubic feet)
1.1	3,103	1.17	3,300

**Water Quality Management**

Subsection 3.1.c of Rule J requires the Applicant provide for at least 60 percent annual removal efficiency for total phosphorus (TP), and at least 90 percent annual removal efficiency for total suspended solids (TSS) from site runoff. The Applicant is proposing an infiltration basin to achieve the required TP and TSS removals and submitted a P8 model to support a determination that the proposed stormwater management system will provide the necessary TP and TSS removals.

Pollutant of Interest	Regulated Site Loading (lbs/yr)	Required Load Removal (lbs/yr)	Provided Load Reduction (lbs/yr) <sup>1</sup>
Total Suspended Solids (TSS)	663	597 (90%)	666 (>100%)
Total Phosphorus (TP)	2.1	1.26 (60%)	1.9 (90%)

<sup>1</sup> Removals are greater than the regulated site loading because the BMP is treating a larger area than the regulated portion of the site.

Based on information reviewed, the proposed project conforms to Rule J, Subsection 3.1.c.

**Low floor Elevation**

No structure may be constructed or reconstructed such that its lowest floor elevation is less than 2 feet above the 100-year event flood elevation according to Rule J, Subsection 3.6. The low floor elevation of the adjacent Control Concepts building and the adjacent stormwater management feature is summarized below. The information demonstrates the project meets the requirements of Rule J, Subsection 3.6.

Structure	Low Floor Elevation of Building (feet)	100-year Event Flood Elevation of Adjacent Stormwater Facility (feet)	Freeboard (feet)
School Building	854.1	836.2	17.9

***Maintenance***

Subsection 3.7 of Rule J requires the submission of a maintenance plan. All stormwater management structures and facilities must be designed for maintenance access and properly maintained in perpetuity to assure that they continue to function as designed.

- J1. Permit applicant must provide a draft maintenance and inspection plan. Once approved by RPBCWD, the plan must be documented in a written agreement with the RPBCWD.

**Applicable General Requirements:**

1. The RPBCWD Administrator and Engineer shall be notified at least three days prior to commencement of work.
2. Construction shall be consistent with the plans and specifications approved by the District as a part of the permitting process. The date of the approved plans and specifications is listed on the permit.
3. Return or allowed expiration of any remaining surety and permit close out is dependent on the permit holder providing proof that all required documents have been recorded and providing as-built drawings that show that the project was constructed as approved by the Managers and in conformance with the RPBCWD rules and regulations.

**Findings**

1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.
2. The proposed project will conform to Rules C, D, and J if the Rule Specific Permit Conditions listed above are met.

**Recommendation:**

Approval of the permit contingent upon:

1. Continued compliance with General Requirements.
2. Applicant providing the name and contact information of the individual responsible for erosion and sediment control at the site.

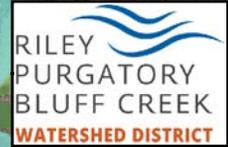
3. Permit applicant must provide a draft maintenance agreement and inspection plan for the management of stormwater BMPs and wetland buffer areas, including exhibit clearly identifying buffer area, buffer monument locations and stormwater BMPs. Once approved by RPBCWD, the plan must be documented in a written agreement with the RPBCWD.

By accepting the permit, when issued, the applicant agrees to the following stipulations:

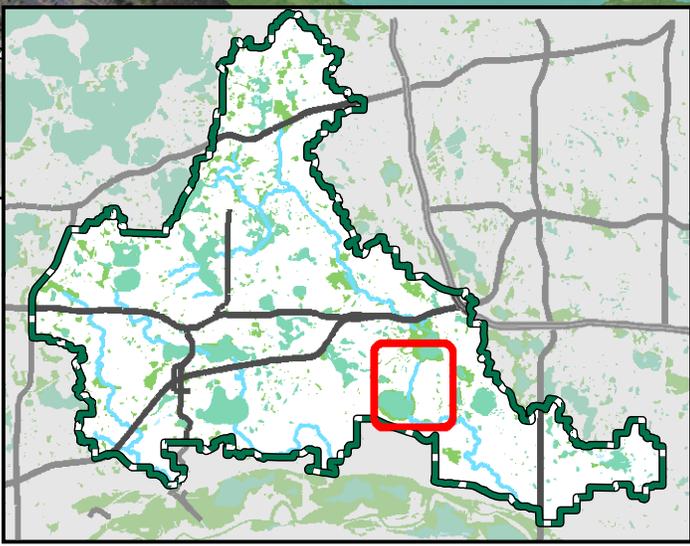
1. Per Rule J Subsection 4.5, upon completion of the site work, the permittee must submit as-built drawings demonstrating that at the time of final stabilization, stormwater facilities conform to design specifications as approved by the District.

**Board Action**

It was moved by Manager \_\_\_\_\_, seconded by Manager \_\_\_\_\_ to approve permit for permit No. 2018-028 with the conditions recommended by staff at the September 5, 2018 RPBCWD Board of Managers meeting.



**SITE**



Feet



Permit Location Map

OAK POINT ELEMENTARY SCHOOL  
PARKING LOT  
**Permit 2018-028**  
Riley Purgatory Bluff Creek  
Watershed District





## Memorandum

**To:** Riley-Purgatory-Bluff Creek Watershed District Board of Managers  
**From:** Katie Wolohan, PE and Scott Sobiech, PE; Barr Engineering  
**Subject:** Lake Susan Park Pond Watershed Treatment and Stormwater Reuse Project – Project Status Update  
**Date:** 8/30/2018  
**Project:** 23/27-0053.14 013B  
**c:** Claire Bleser – RPBCWD Administrator

This memorandum provides an update for the Lake Susan Park Pond Watershed Treatment and Stormwater Reuse Project, a project being constructed in partnership between the Riley-Purgatory-Bluff Creek Watershed District (RPBCWD) and the City of Chanhassen. This project entails the retrofitting of the existing irrigation system at Lake Susan Park to treat and utilize stormwater from Lake Susan Pond on the site and installation of an iron-enhanced sand filter (IESF) for phosphorus removal from pond overflow to a creek and downstream Lake Susan. This project is funded in part by a Clean Water Fund grant through the Minnesota Board of Water and Soil Resources.

The project was bid in the late winter/early spring of 2018. The bid opening was held on March 20, 2018 with the recommendation of the bidder being made to the RPBCWD board on March 27, 2018. Peterson Companies, Inc. (Peterson) was the recommended low bidder. The Notice of Award was made on May 4, 2018 and Notice to Proceed was made on May 21, 2018. The preconstruction meeting was held on May 22, 2018.

The contract documents for the project require the work to be substantially completed by September 28, 2018, and require all work by Peterson and its subcontractors to have been completed and ready for final payment September 28, 2018.

### Construction Activities and Timeline

Beginning at the preconstruction meeting in late May, numerous requests for Peterson's construction schedule were made although no construction schedule was provided until August 6, 2018. Peterson had already started working at the site in late-July 2018, prior to notifying Barr or providing a schedule. The schedule received on August 6, 2018 indicates substantial completion by September 10, 2018. A revised schedule has not been received (has been requested). At this time, Barr anticipates substantial completion on or before September 28, 2018 per the contract documents.

Work progress is ongoing at the Lake Susan Park site. Work completed to date includes:

- Erosion control
- A portion of the necessary clearing and grubbing
- Excavation of the IESF

- Geotextile placement within the IESF
- Mixing of iron filings and sand, placement of some iron-enhanced sand
- Treatment shelter subgrade excavation and fill placement
- HDPE pipe and electrical conduit directional drilling

The following are photos of the work completed to date:



**Iron-enhanced sand filter excavation.**



**Iron-enhanced sand filter post excavation, geotextile placement and iron-enhanced sand backfill.**



**Pump pad foundation (has since been re-excavated to remove additional subgrade soils) and directionally drilled HDPE.**

#### **Construction Administration and Observation**

The construction administration and observation budget originally authorized by the RPBCWD Board (\$29,000) as part of Task Order 13B approval in July of 2017 assumed construction would last six weeks.

Since the Board's authorization of change order 1 to Task Order 13B covering wetland delineation reporting, additional site survey, utility locates, and soil borings, wet well pump design and later redesign to suction pumps, stilling well design for water level transmission, treatment system building design, out of scope coordination with vendors to accommodate changes to the City of Chanhassen's preferences and requirements, and City of Chanhassen requested additional, out of scope meetings. Because the level of effort to complete these out of scope tasks was below the Administrator's authority to approve change orders for the project, Administrator Bleser authorized the additional work on June 26, 2018.

The submittal process with Peterson has been much more time intensive than originally scoped, due to incorrect submittals and numerous revisions required for each submittal (see attached project milestone and submittal timeline). More time has also been required to address more information requests/questions from the contractor, address lack of communication from the contractor, etc.

The following table summarizes the approved budget including authorized revisions, the amount spent, and anticipated additional budget to complete the Lake Susan Park Pond Watershed Treatment and Stormwater Reuse Project:

Task Order 19 Tasks	Approved Budget including authorized Adjustments	Amount Spent Through 8/24/2018	Estimated Additional Work	Comment
<b>Task 1: Project Stakeholder Agreement</b>	\$2,200	\$40	0	Task complete
<b>Task 2: Final Design, Permitting and Project Management</b>	\$96,700	\$111,592	0	Authorized wetland delineation, additional site survey, block treatment building & associated foundation, cooperative agreement assistance added \$15,000 to original design budget
<b>Task 3: Bidding /Bid Opening/Recommendation to Board</b>	\$9,300	\$4,437	0	Task complete
<b>Task 3: Construction Services</b>	\$29,000	\$17,452	\$20,000	Additional budget requested due to more effort needed for multiple rounds of submittal reviews, additional field observation time to verifying contractor performance with respect to design and to supervise rework (re-excavation, etc.), extra coordination with contractor in order to prevent further delays or installation of materials prior to approval.
<b>Project Total</b>	<b>\$137,200</b>	<b>\$136,890</b>	<b>\$20,000</b>	
<b>Budget Remaining</b>		<b>\$310</b>		As of 8/24/18
<b>Budget Increase Request</b>			<b>\$20,000<sup>1</sup></b>	
<sup>1</sup> Work remaining includes construction observation, request for information and submittal review, punch list walk through, finalize O&M, pay application processing, and project close-out.				

We have reviewed the amount of time spent on Construction Administration to date, including the time spent in relation to submittals, information requests/questions from the contractor, dealing with project delay/schedule, etc. The approved construction services budget was \$29,000, which includes bidding, construction observation and construction administration. The original budget anticipated approximately 100 hours of work, and as of 8/24/2018, over 140 hours have been spent on construction administration. We estimate less than 40% of the work is complete on site, and additional and increased construction observation will be needed between now and substantial completion. Because of the time intensive submittal process due to incorrect contractor submittals and construction observation activities to date; the authorized construction services budget is being expended at a faster rate than anticipated. Based on the contractor's performance to date, including not following the plans, lack of communication and miscommunication, we suggest the board authorize Barr spend additional construction oversight time to verify that the project is built per the design. **Our best estimate of the additional budget needed to**

**To:** Riley-Purgatory-Bluff Creek Watershed District Board of Managers  
**From:** Katie Wolohan, PE and Scott Sobiech, PE; Barr Engineering  
**Subject:** Lake Susan Park Pond Watershed Treatment and Stormwater Reuse Project – Project Status Update  
**Page:** 5

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**see this project through completion is \$20,000. We are requesting that the RPBCWD Board of Managers consider authorizing Barr Engineering to spend an additional budget of \$20,000 for the Lake Susan Park Pond Watershed Treatment and Stormwater Reuse Project, which should be completed by September 28, 2018 per the contract documents.**

**Attachments:**

- Schedule of submittals and reviews as developed by Barr
- Peterson project completion schedule (last received 8/6/2018)



Week		Week 5							Week 6							Week 7							Week 8							Week 9									
Date	Major Comments on Submittals	6/3	6/4	6/5	6/6	6/7	6/8	6/9	6/10	6/11	6/12	6/13	6/14	6/15	6/16	6/17	6/18	6/19	6/20	6/21	6/22	6/23	6/24	6/25	6/26	6/27	6/28	6/29	6/30	7/1	7/2	7/3	7/4	7/5					
Notice of Award																																							
Notice to Proceed																																							
Preconstruction Meeting/Additional In-Person Meetings																																							
Requests for Construction Schedule																																							
Request for Submittal Schedule																																							
<b>Submittals</b>																																							
-WaterTronics Pump/Treatment System	Missing panel schematics; oversized UV disinfection and filtration; several items not to spec (pumps, pump priming, level sensing, etc.)																																						
-Seed																																							
-Earthwork	Riprap, geotextile, and fine filter material not to spec, incomplete gradation and iron filings information, etc.																																						
-Pipes and Misc Appurtenances (Irrigation)																																							
-Concrete (Mortar and Block Color)																																							
-Water Level Control Structure																																							
-Metal Doors																																							
-Electrical																																							
-Alarm Beacon																																							
-Truss Plan																																							
-Treatment Shelter Materials																																							
-Concrete (Masonry Grout and Unit Masonry)																																							
-Concrete Reinforcement																																							
-Directional Drilling Plan																																							
-Spare Parts List																																							
-Rubber Check Valve																																							
-Tracer Wire																																							
-Cam and Groove Fittings																																							
-Irrigation System Connection																																							
-Stilling Well																																							
-Precast Concrete Manhole																																							
-Building Subgrade Materials																																							
-Electrical Schematic																																							
-PVC and HDPE Pipe																																							
-Tracer Wire Accessories																																							









## Memorandum

**To:** Riley-Purgatory-Bluff Creek Watershed District Board of Managers  
**From:** Jen Koehler, PE and Scott Sobiech, PE; Barr Engineering  
**Subject:** Chanhassen High School Stormwater Reuse Project – Project Status Update  
**Date:** 8/30/2018  
**Project:** 23/27-0053.14 019  
**c:** Claire Bleser – RPBCWD Administrator

This memorandum provides an update for the Chanhassen High School Stormwater Reuse Project, a project being constructed in partnership between the Riley-Purgatory-Bluff Creek Watershed District (RPBCWD), the Carver County Independent School District 112 (ISD112), and the City of Chanhassen. This project entails the retrofitting of the existing irrigation system at the high school to treat and utilize stormwater from an existing pond on the site, unless water levels in the pond drop too low and then the potable water supply is used for back-up. This project is funded in part by a stormwater grant from the Metropolitan Council.

The project was bid in the late winter/early spring of 2018. The bid opening was held on March 20, 2018 with the recommendation of the bidder being made to the RPBCWD board on March 27, 2018. Peterson Companies, Inc. (Peterson) was the recommended low bidder. The Notice of Award was made on May 4, 2018 and Notice to Proceed was made on May 21, 2018. The preconstruction meeting was held on May 22, 2018.

To prevent conflict with teachers and students returning to school at the end of August, a very specific construction window was provided in the contract documents. The contract documents for the project require the work to have been substantially completed by July 30, 2018, and require all work by Peterson and its subcontractors to have been completed and ready for final payment August 17, 2018.

### **Construction Activities and Timeline**

Beginning at the preconstruction meeting in late May, numerous requests for Peterson's construction schedule were made although no construction schedule was provided until July 24, 2018. Peterson did not begin any work at the site until late-July 2018, and on August 9, 2018 Peterson provide a letter indicating they were not going to complete the work at the site by August 17, 2018, due to material delivery delays and the submittal process (letter is attached for reference). Peterson's project manager provided an updated schedule providing for substantial completion by September 20, 2018. No claim for a change in contract time (e.g., proposed change order) has been submitted for RPBCWD's approval.

In response to the letter from Peterson, a meeting was held on August 15, 2018 between RPBCWD, ISD112, Peterson, and Barr staff to discuss the project delays and the contractor's ability to meet the

updated contractor proposed schedule. Peterson was reminded that the work be completed in strict accordance with project specifications absolutely as soon as possible and by the September 20, 2018 date identified in the schedule provided. The group reiterated the importance of the contract time, particularly critical under the circumstances, with fall sports activities already under way, teachers returning to school in late-August and the full student body back September 4. The project work was originally designed and scheduled to occur when the campus was least populated, and Peterson was reminded that with this delay, they will need to assess and implement the procedures and protections necessary to ensure safety and manage all forms of traffic and the increasing number of students, faculty and staff who will be on campus in coming weeks. Moving forward, weekly status updates were requested of Peterson (and have been provided), outlining the work completed during that week and the anticipated schedule of work for the following week.

Administrator Bleser worked with legal counsel and engineers to draft and sent a letter regarding the project delay and not meeting the schedule outlined in the contract documents to the Johnathan Peterson, the president of Peterson Companies, Inc. on August 17, 2018. (Letter attached for reference). The letter stressed that it is most imperative to RPBCWD and its partners, though, that the work be completed in strict accordance with project specifications absolutely as soon as possible and by the September 20 date. The letter also reiterated that noncompliance with the contract times implicates the liquidated damages provisions of the contract for the work (article 3, section 3.03, of the agreement) and that RPBCWD reserves its contractual right to deduct liquidated damages from amounts due to Peterson for the work.

Work progress is ongoing at the Chanhassen High School site. Work completed to date includes:

- Installation of temporary erosion control measures
- Preparation and construction of the pump pad and treatment shelter foundations
- Site grading and backfill around the foundations
- Installation of the electrical supply lines in the Chanhassen High School building to the treatment shelter and pump pad,
- Installation of the low voltage communication line from the proposed treatment shelter to the existing irrigation box/controls, and
- Installation of the electrical line for the water level sensor at the existing pond outlet control structure.

Peterson is waiting on delivery of treatment shelter building materials before construction of the treatment shelter can begin. Based on Peterson's revised construction schedule and follow-up conversations, the contractor indicated a delivery date of 9/5/2018 for the CMU block material and construction should begin shortly after. The reuse pump and treatment components will be delivered and installed after completion of the shelter. See attached Construction Schedule from Peterson.

The following are photos of the work completed to date:



**Treatment shelter and pump pad foundations from above.**



**Pump pad foundation.**



**Line for water level sensor at existing pond outlet structure**



**Low voltage communication line in Magellan Easement from treatment shelter to existing irrigation box/controls**

During the installation of the low voltage line from the treatment system to the existing irrigation box/controls, the contractor's electrical subcontractor (Killmer Electric) placed 1040' of the low voltage communication line approximate 32 ft from the pipeline (a much larger encroachment than was shown in the construction drawings or approved in the encroachment agreement between Magellan pipeline and ISD112). According to the contractor, the Magellan field staff approved this location (IDS 112, RPBCWD, and Barr were not present did not approve the change in location. The new alignment was discovered during a construction site visit when the line was nearly completely installed along the unapproved alignment). Once discovered, we asked the subcontractor remove the line as installed and reconstruct per the construction plans, but this work has not yet been completed. The contractor provided a short form encroachment agreement, signed off by Magellan and Killmer Electric, although it was not fully-executed as it is missing the signature of the encroaching party (in this case, this appears to be the ISD112, the property owner). Barr coordinated with the Magellan representative, ISD112, and RPBCWD to understand how this field form affected the revised encroachment agreement between Magellan and the ISD112 from May 2017. Magellan reviewed how the line was installed and determined that due to retaining wall anchors and potential conflict, would prefer that the wire remain as it was installed and did not wish for the wire to be reconstructed per the existing agreement/construction plans. This has required coordination with Magellan, the contractor, and ISD112 to coordinate survey of the line as installed and to provide Magellan with the appropriate paperwork and revised exhibits to develop an Amendment to the Encroachment Agreement for signature by the ISD112 to capture the actual installation location.

#### **Construction Administration and Observation**

The construction administration and observation budget authorized by the RPBCWD Board (\$19,000) as part of Task Order 19 approval in October of 2016 assumed construction would last six weeks.

Since the Boards authorization of change order 1 to Task Order 19 covering project redesign and rebidding, additional assistance developing the cooperative agreement with ISD 112, and extensive coordination of the encroachment agreement with the Magellan pipeline; ISD 112 requested additional, out of scope, meetings and multiple bid alternates for the treatment shelter type be included in the contract documents prior to bidding. In addition, the city of Chanhassen requested a second preconstruction meeting and ISD 112 requested Bid Alternate C be selected and incorporated into the contract documents. Because the level of effort to complete these out of scope task was below the Administrator's approval limit, Administrator Bleser authorized the additional work on June 26, 2018.

The submittal process with Peterson has been much more time intensive than originally scoped, due to incorrect submittals and numerous revisions required for each submittal. (see attached project milestone and submittal timeline) More time has also been required to address more information requests/questions from the contractor, dealing with project delay/schedule, etc.

The following table summarizes the approved budget including authorized revisions, the amount spent, and anticipated additional budget to complete the Chanhassen High School stormwater reuse project:

Task Order 19 Tasks	Approved Budget including authorized Adjustments	Amount Spent Through 8/24/2018	Estimated Additional Work	Comment
<b>Task 1: Project Development and Coordination</b>	\$8,400	\$7,840	0	Task Complete; Includes out of scope work (~\$3,700) in the development of the ISD 112 Agreement
<b>Task 2: Design of Stormwater Reuse System</b>	\$97,100	\$99,722	0	Authorized redesign, bid alternate inclusion, cooperative agreement assistance added \$21,000 to original design budget
<b>Task 3: Construction Services</b>	\$34,400	\$31,913	\$15,000	Authorized rebidding, 2 <sup>nd</sup> preconstruction meeting and revisions to construction documents for alternate selection added \$5,000 to original design budget
<b>Task 4: Education and Outreach</b>	\$0		0	CO #1 transferred all E&O RPBCWD staff and original budget to task 3
<b>Project Total</b>	<b>\$139,900</b>	<b>\$139,475</b>		
<b>Budget Remaining</b>		<b>\$425</b>		As of 8/24/18
<b>Budget Increase Request</b>			<b>\$15,000<sup>1</sup></b>	

<sup>1</sup>Work remaining includes construction observation, request for information and submittal review, punch list walk through, finalize O&M, pay application processing, and project close-out

We have reviewed the amount of time spent on Construction Administration to date; including the time spent in relation to submittals, information requests/questions from the contractor, dealing with project delay/schedule, etc. The approved construction services budget was \$34,400, which includes bidding, construction observation and construction administration. Because of the rebidding, time intensive submittal process due to incorrect contractor submittals, construction observation activities to date, and extended construction schedule; the authorized construction services budget is being expended at a faster rate than anticipated. Based on the contractor's performance to date, including not following the plans, lack of and miscommunication, we suggest the board authorize Barr spend additional construction oversight time to verify that the project is built per the design. **Our best estimate of the additional budget needed to see this project through completion is \$15,000. We are requesting that the RPBCWD Board of Managers consider authorizing Barr Engineering to spend an additional budget of \$15,000 for the Chanhassen High School stormwater reuse project, which should be completed by September 20, 2018 per the schedule provided by Peterson.**

**To:** Riley-Purgatory-Bluff Creek Watershed District Board of Managers  
**From:** Jen Koehler, PE and Scott Sobiech, PE; Barr Engineering  
**Subject:** Chanhassen High School Stormwater Reuse Project – Project Status Update  
**Page:** 7

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**Attachments:**

- 8/9/2018 Letter from Peterson companies regarding project delay
- 8/17/2018 Letter from RPBCWD to Peterson
- Schedule of submittals and reviews as developed by Barr
- Peterson project completion schedule



8326 WYOMING TRAIL  
CHISAGO CITY, MN 55013  
(P) 651.257.6864  
(F) 651.257.3393  
PETERSONCOMPANIES.NET

August 9, 2018

**Project Name:** Chanhassen High School Stormwater Reuse  
**Project Owner/Manager:** ISD 112/Barr Engineering  
**Project Contact:** Jennifer Koehler

RE: Project Completion

John,

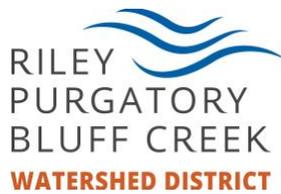
As outlined in the specifications the intention was for the project to be completed by 17-August 2018. Due to the lengthy submittal process, we have not been able to place material orders or line up subcontractors, with any confidence. For example, roof trusses are 2-4 weeks for delivery, roll up doors are 3-4 weeks for delivery, steel roofing is 2-3 weeks, the CMU block is a 5-week lead time. All of these items have been ordered, none will be delivered before the 08/17 completion date.

Moving forward, we will have the electrical items that may impact students completed by the 17<sup>th</sup>. Any other operations will have minimal impact on the returning student-athletes or general population that are visiting the property.

Please feel free to contact me with any questions you may have.

Sincerely,

Andy Marchant  
Project Manager  
Peterson Companies  
651-257-0364 (o)  
[amarchant@petersoncompanies.net](mailto:amarchant@petersoncompanies.net)



18681 Lake Drive East  
Chanhassen, MN 55317  
952-607-6512  
www.rpbcwd.org

August 17, 2018

VIA EMAIL & CERTIFIED MAIL

Jonathan M. Peterson, President  
Peterson Companies Inc.  
jpeterson@petersoncompanies.net  
8326 Wyoming Trail  
Chisago City MN 55013

Re. Chanhassen High School Stormwater Reuse Project – delay

Mr. Peterson,

As you know, your firm has been engaged by the Riley-Purgatory-Bluff Creek Watershed District to complete construction of the above-captioned project at Chanhassen High School. The project is an important one for RPBCWD, and RPBCWD very much values the underlying partnership with Carver County Independent School District 112 and the City of Chanhassen that has made the project possible.

The contract documents for the project require the work to have been substantially completed by July 30, 2018, and require all work by Peterson Companies and its subcontractors to have been completed and ready for final payment by today, August 17, 2018. Noncompliance with these contract times implicates the liquidated damages provisions of the contract for the work (article 3, section 3.03, of the agreement). As of the date of this letter, the work has not been substantially completed. Monday, August 13, Peterson project manager Andy Marchant provided Barr Engineering, RPBCWD's project engineer, with an updated schedule providing for substantial completion by September 20, 2018. No claim for a change in contract time (e.g., proposed change order) has been submitted for RPBCWD's approval.

RPBCWD reserves its contractual right to deduct liquidated damages from amounts due to Peterson for the work. (This letter cannot and does not constitute approval of a change order.) Most imperative to RPBCWD and its partners, though, is that the work be completed in strict accordance with project specifications absolutely as soon as possible and by the September 20 date identified by Mr. Marchant at the latest. Contract times are always important, but are particularly critical under the circumstances, with fall sports activities already under way, teachers returning to school next week and the full student body back September 4. The project work was designed and scheduled to occur when the campus was least populated, and Peterson will need to assess and implement the procedures and protections necessary to ensure safety and manage all forms of traffic in light of the delay in the work and the increasing number of students, faculty and staff who will be on campus in coming weeks. Any costs incurred for developing and implementing these measures will be borne solely by Peterson.

The RPBCWD engineers at Barr will be in contact with you early next week to follow up on this communication. I look forward to successful completion of the work.

Sincerely,

A handwritten signature in blue ink that reads "Claire Bleser". The signature is written in a cursive, flowing style.

Claire Bleser  
Administrator

c/ Andy Marchant, Ryan Potvin, Peterson Companies; Scott Sobiech, Jennifer Koehler, Barr Engineering; Michael McLaughlin, ISD 112; Michael Welch, Smith Partners PLLP







Friday, August 31, 2018

From: Claire Bleser

To: Board of Managers

Re: Chanhassen High School Funds

Dear Managers,

Due to unexpected delays from the contractor, multiple back and forth and additional site observation, the District needs additional funds to cover the expense for the construction and management of this project. Staff recommends that \$50,000 be transferred from Reserve to Lake Chanhassen High School. This project is in the start to middle completion and anticipate that final additional expenses would not exceed \$50,000.

**Staff recommendations:**

Authorize Administrator Bleser to transfer \$50,000 from Reserves to Chanhassen High School project.

**RESOLUTION NO. 2018-08**

**RILEY-PURGATORY-BLUFF CREEK WATERSHED DISTRICT  
BOARD OF MANAGERS**

**Accepting responsibility for  
Wetland Conservation Act administration in Shorewood**

Manager \_\_\_\_\_ offered the following resolution and moved its adoption, seconded by Manager \_\_\_\_\_.

**WHEREAS** the state Wetland Conservation Act of 1991 (WCA) is implemented through the adoption by local government units (LGUs) of the rules duly adopted by the Board of Water and Soil Resources (BWSR) under Minnesota Statutes chapter 14 pertaining to wetland draining, filling and excavation, codified at Minnesota Rules chapter 8420;

**WHEREAS** Minnesota Rules 8420.0200, subpart 1E, allows a city to designate another local unit of government as the entity responsible for administration and implementation of WCA through the passage of resolutions by both entities;

**WHEREAS** each entity must provide notice to BWSR, the Department of Natural Resources, and the relevant soil and water conservation district of the designation, along with a copy of the resolution and a description of the applicable geographic area, within 15 business days of adoption of the resolution;

**WHEREAS** the Minnehaha Creek Watershed District has been acting as the LGU for those portions of Shorewood that lie within the legal jurisdiction of RPBCWD; and

**WHEREAS** the City of Shorewood, by its resolution no. 18-082, adopted August 27, 2018, designated Riley-Purgatory-Bluff Creek Watershed District (RPBCWD) as the LGU implementing WCA for those portions of Shorewood within RPBCWD.

**NOW THEREFORE BE IT RESOLVED** that pursuant to Minnesota Statutes section 103D.335, subdivision 1; Minnesota Statutes section 103G.005, subdivision 10i; and Minnesota Rules 8420.0200, subpart 1E, and independent of its rules adopted pursuant to Minnesota Statutes section 103D.341, the RPBCWD Board of Managers accepts and agrees to exercise administrative responsibility as the LGU for WCA within those portions of the legal boundaries of the City of Shorewood that lie within the jurisdiction of Riley-Purgatory-Bluff Creek Watershed District,

effective on the Minnehaha Creek Watershed District's adoption of a resolution relinquishing its status as WCA LGU for the portion of Shorewood within the legal jurisdiction of RPBCWD;

**BE IT FURTHER RESOLVED** that the Board of Managers directs the administrator to provide notice of the adoption of this resolution, with all required supporting information, as provided above and in accordance with Minnesota Rules 8420.0200, subp. 1; and

**BE IT FINALLY RESOLVED** that pursuant to Minnesota Rule 8420.0200, subpart 2H, the RPBCWD administrator is to collect a fee equal to the reasonable staff and consultant cost to review and process an application for determination under WCA and for that purpose may require a fee in a reasonable amount from an applicant.

The question was on the adoption of the resolution and there were \_\_\_\_ ( ) yeas and \_\_\_\_ ( ) nays as follows:

	<u>Yea</u>	<u>Nay</u>	<u>Abstain</u>	<u>Absent</u>
Crafton				
Koch				
Pedersen				
Ward				
Ziegler				

Upon vote, the chair declared the resolution adopted.

Dated: September 5, 2018.

\* \* \* \* \*

I, David Ziegler, Secretary of the Riley-Purgatory-Bluff Creek Watershed District, do hereby certify that I have compared the above resolution with the original thereof as the same appears of record and on file with RPBCWD and find the same to be a true and correct transcription thereof.

IN TESTIMONY WHEREOF, I set my hand this \_\_\_\_ day of \_\_\_\_\_, 2018.

\_\_\_\_\_  
\_\_\_\_\_, Secretary

Friday, August 31, 2018

Re: Investment funds

Dear Managers,

The District currently has funds with two banks. Klein Bank receive funds from the state and the county. The District accounts are checking accounts that accrue 0% interest. The District also has funds with Wells Fargo where money is invested into CDs that are FDIC insured. CDs interest rate vary from month to month depending on the current market place. Wells Fargo CD rates are comparable to what 4M Fund offers. The 4M fund would allow us to accrue interest on funds on a daily basis.

Staff recommends that the District joins the 4M Fund so that money can accrue interest on a daily basis.

Sincerely,

Claire Bleser  
District Administrator

**FUND PERFORMANCE as of 8/27/2018**

CLASS/SERIES	4M Liquid Fund	4M Plus Fund
DAILY RATE	1.72%	1.81%
7-DAY	1.71%	1.80%
7-DAY EFFECTIVE	1.72%	1.81%

**Daily Rate:** The Daily Rate refers to income generated over the previous one day period; the income is then annualized.

**7-Day Average Rate:** The 7-Day Average Rate refers to income generated over the previous seven day period; the income is then annualized.

**7-Day Effective Rate:** The 7-Day Effective Rate is calculated in the same manner but assumes reinvestment of income over the seven day period. Due to compounding, the 7-Day Effective Rate will be slightly higher than the 7-Day Average Rate.

The rates and returns above represent past performance and should not be viewed as a guarantee of future results. Fund performance changes over time and current performance may be lower or higher than what is stated. The most recent yield information can be viewed at [www.4mfund.com](http://www.4mfund.com).

**FIXED INCOME INVESTMENT INDICATIONS as of 8/27/2018**

*Term to maturity*

	90 Days	180 Days	270 Days	1 Year	18 Months	2 Years	3 Years
Top Ten Certificates of Deposit (\$250K)	2.00% to 2.15%	2.15% to 2.30%	2.28% to 2.40%	2.45% to 2.55%	2.55% to 2.65%	2.65% to 2.70%	2.70% to 2.90%
DTC CD	1.81%	1.95%	2.07%	2.25%	2.50%	2.81%	3.01%
U.S. Government Agency	1.91%	2.11%	2.21%	2.34%	2.49%	2.54%	2.60%
U.S. Government Treasury	1.99%	2.14%	2.23%	2.33%	2.48%	2.53%	2.59%

\*Rates Available Upon Request

Fixed Rate Investment rates are quoted net of all transaction fees. Rates are subject to change and may be different than those available at the time of execution. CD rates represent the highest and lowest rates paid on the top 10 yielding banks for FDIC insured \$250,000 CDs and do not take into consideration individual portfolio holdings. CDs are quoted as yield to maturity investments and are subject to early withdrawal penalty, unless otherwise waived.

Information on action item “p” (Permit 2018-052 HCRRA Culvert Replacements) will be distributed to the board as it becomes available.