

**City of Ramsey**  
**Agenda**  
**Environmental Policy Board (EPB)**  
**Monday April 1, 2013**  
**6:30 pm**  
**Mississippi River Room, 7550 Sunwood Drive NW**

- 1. Call to Order**
- 2. Citizen Input**
- 3. Approve Agenda**
- 4. Approve Minutes**
  1. Approve Meeting Minutes Dated March 4, 2013
- 5. Policy Board Business**
  1. Appointment of Chairperson and Vice Chairperson
  2. Environmental Expo Discussion
  3. Prairie Establishment in Utility Corridor
- 6. Board/Staff Input**
  - Recycling Event (May 4)
  - Arbor Day Planting (May 18)
  - Focus on Environment Article
- 7. Adjournment**

**Environmental Policy Board (EPB)**

**4. 1.**

**Meeting Date:** 04/01/2013

**By:** Chris Anderson, Community  
Development

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**Title:**

Approve Meeting Minutes Dated March 4, 2013

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**Attachments**

Meeting Minutes Dated March 4, 2013

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**Form Review**

**Inbox**  
Chris Anderson (Originator)

Form Started By: Chris Anderson

**Reviewed By**  
Chris Anderson

Final Approval Date: 03/29/2013

**Date**  
03/29/2013 01:10 PM  
Started On: 03/27/2013 08:16 AM

**ENVIRONMENTAL POLICY BOARD  
CITY OF RAMSEY  
ANOKA COUNTY  
STATE OF MINNESOTA**

On Monday, March 4, 2013, the Environmental Policy Board (EPB) met in the Mississippi River Conference Room at the Ramsey Municipal Center, 7550 Sunwood Drive N.W., Ramsey, Minnesota.

Members Present:     Chairperson Michael Max  
                          Board Member Bob Bentz  
                          Board Member John Enstrom  
                          Board Member Larry Lewis (arrived at 6:45 p.m.)  
                          Board Member Stodola (arrived at 6:35 p.m.)  
                          Board Member Michael Valentine

Members Absent:     Board Member Michael Hiatt

Also Present:         Associate Planner/Environmental Coordinator Chris Anderson

**1.     CALL TO ORDER**

Chairperson Max called the meeting to order at 6:33 p.m.

**2.     CITIZEN INPUT**

None.

**3.     APPROVE AGENDA**

Motion by Board Member Valentine and seconded by Board Member Bentz to approve the agenda as submitted.

Motion carried. Voting Yes: Chairperson Max, Board Member Valentine, Bentz, and Enstrom.  
Voting No: None. Absent: Board Members Hiatt, Lewis and Stodola.

**4.     APPROVE MINUTES**

**4.01: Approve Meeting Minutes Dated February 4, 2013**

Motion by Board Member Valentine and seconded by Board Member Bentz to approve the regular meeting minutes dated February 4, 2013.

Motion carried. Voting Yes: Chairperson Max, Board Member Valentine, Bentz, and Enstrom.  
Voting No: None. Absent: Board Members Hiatt, Lewis and Stodola.

**5.     POLICY BOARD BUSINESS**

### **5.01: Tree Preservation Ordinance Review**

Associate Planner/Environmental Coordinator Anderson presented the staff report. He confirmed consensus to move the regulation pertaining to planting distance from a fire hydrant to 10 feet.

Board Member Stodola arrived at the meeting.

Associate Planner/Environmental Coordinator Anderson confirmed consensus on the items included in the staff report that had come forward from the discussion at the previous meeting of the Board.

Board Member Lewis arrived.

Board Member Enstrom referenced an area regarding historic trees, or landmark trees, and questioned what would qualify a tree for that status.

Associate Planner/Environmental Coordinator Anderson provided the definition for that term.

Motion by Board Member Valentine and seconded by Board Member Stodola to direct staff to prepare an ordinance amendment to incorporate the draft revisions into the Tree Preservation Ordinance and forward the ordinance amendment to the Planning Commission for a public hearing.

Motion carried. Voting Yes: Chairperson Max, Board Member Valentine, Stodola, Bentz, Enstrom, and Lewis. Voting No: None. Absent: Board Member Hiatt.

### **5.02: Environmental Expo Discussion**

Associate Planner/Environmental Coordinator Anderson presented the staff report.

Board Member Enstrom provided additional information on his conversations with the owners of Central Landscaping. He confirmed that he would pass on the date and time and also provided staff with the telephone number and contact information.

Associate Planner/Environmental Coordinator Anderson continued to review the staff report, including the proposed layout for the event. He noted that the Master Gardeners will still likely participate but did not think it was likely that the Ramsey Garden Club would because the event will be held in the fall rather than the spring and they used this event primarily as a way to promote their spring plant sale.

Chairperson Max provided an update on the meeting that took place with the Subcommittee and noted that the vendors suggested all linked to the environment as your backyard.

Board Member Lewis stated that the Subcommittee felt that it was important to develop a theme that could be carried through the event. He explained that this theme is broad and will appeal to the average Ramsey resident, rather than aiming for a specialized topic that would not appeal to as many people.

Chairperson Max stated that once the theme was developed, the Subcommittee could now determine the type of vendors needed to match that theme. He advised that the keynote speaker could touch on a couple aspects suggested by the Board.

Board Member Lewis stated that he had not yet spoken with the potential speakers. He explained that the event will be as all encompassing as it can be in order to reach out to families. He stated that Ramsey is in a unique position, between the two rivers and provided examples of vendors that could align with the theme and still be a bit different than what has occurred in the past, such as a fly fishing demonstration from Cabella's.

Board Member Valentine stated that Ramsey is a very unique community with a close connection to a diverse group of wildlife.

Board Member Lewis stated that it would be nice to have some activity driven vendors mixed in with some businesses, such as Ramsey Bicycle. He explained that vendor could tie into the environment with the bike trails and physical fitness.

Chairperson Max stated that it would be nice to have some hands-on activities, such as building birdhouses.

Board Member Enstrom suggested choosing one area, such as birding per event, to ensure that new material is being brought forward each year rather than having the same activity each year.

Board Member Lewis stated that birding may be too narrow and suggested instead outdoor activities.

Board Member Stodola stated that it would be nice to have a local vendor that sells outdoor games.

Further discussion ensued regarding potential vendors and local businesses that could be reached out to in order to gauge their interest in participating in the event.

Associate Planner/Environmental Coordinator Anderson noted that all of those sound like good ideas and advised that the next step would be to reach out and gain contacts to gauge the level of interest.

Board Member Lewis suggested that all Board Members develop a list of potential vendors for the event and bring it to the next meeting, where that list can be split between Board Members to begin making calls. He noted that the layout may need to be reconsidered because of the difference in the event this year and the potential vendors.

Associate Planner/Environmental Coordinator Anderson stated that he could prepare a few options for layout that he could present at the next Board meeting.

## **6. BOARD / STAFF INPUT**

- **QCTV Promo**

Associate Planner/Environmental Coordinator Anderson advised that he and Chairperson Max recently taped a promotional spot at QCTV featuring the tree sale and environmental expo. He stated that if there are other topics or ideas, QCTV is willing to tape spots at the studio or out in the field.

Chairperson Max stated that QCTV actually suggested that this be a regular taping that could be aired in Ramsey. He advised of possible themes for the tapings.

Associate Planner/Environmental Coordinator Anderson asked that Board Members provide input on potential ideas for segments.

- **Native Prairie Planting Under a Transmission Corridor**

Associate Planner/Environmental Coordinator Anderson identified a transmission corridor that runs through Alpine Park and noted that an agreement has been made with the utility company for plantings to be established under the transmission lines. He stated that there will be establishment of native prairie plantings that will run under the transmission line in a local park, which fits with a demonstration project listed in the Work Plan. He stated that this will be the second demonstration project that will occur in Alpine Park this year. He stated that the Board could invest in signage that could be installed. He reported that work will begin this year with completion in 2014 or 2015. He confirmed that he could email the details to the Board Members.

- **Other**

Board Member Lewis stated that he did not notice an article from the EPB in the recent copy of the Ramsey newsletter.

Associate Planner/Environmental Coordinator noted that a recycling article was included but noted that he only has the full sheet of icons and would need Board Member Lewis to email him a separate file of the individual icon for the EPB in order to incorporate that into the newsletter article.

Chairperson Max stated that he had reached out to the Council Liaison and was told that more information would be available once the Council finalizes their strategic planning and identifies priorities.

Board Member Enstrom provided an update on changes that will take place in regard to Atlas 14 in the near future.

Associate Planner/Environmental Coordinator Anderson provided additional information in regard to flood elevations and the FEMA requirements for building.

Chairperson Max stated that he received an email that Board Member Enstrom will not be renewing his term on the Board.

Board Member Enstrom stated that he had not received any information.

Associate Planner/Environmental Coordinator Anderson noted that packets were mailed to Board Members with expiring terms over the last couple months.

Board Member Enstrom stated that he has other obligations and will not be reapplying to the Board.

Chairperson Max thanked Board Member Enstrom for his contributions to the Board.

## **7. ADJOURNMENT**

Motion by Board Member Stodola and seconded by Board Member Valentine to adjourn the meeting.

The meeting adjourned at 8:00 p.m.

Respectfully submitted,

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Chris Anderson  
Associate Planner/Environmental Coordinator

ATTEST:

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JoAnn Shaw  
Community Development Secretary

Drafted by Amanda Staple  
*TimeSaver Off Site Secretarial, Inc.*

**Environmental Policy Board (EPB)**

**5. 1.**

**Meeting Date:** 04/01/2013

**By:** Chris Anderson, Community  
Development

**Title:**

Appointment of Chairperson and Vice Chairperson

**Background:**

Each year, the Board must appoint a Chairperson and Vice Chairperson whose role(s) would be to run the monthly meetings and act as spokesperson for the Board as needed. Historically, this had been done during the first meeting of each year; however, when the board/commission terms shifted to April through March, the appointment process was shifted to occur in April. The last time appointments were nominated, the Board chose to coincide the appointments with their work plan, which now runs July through June. Staff would recommend conducting the appointment process in April as there could be a potential at some point for the Chair or Vice Chair to choose not to re-apply for their seat and thus, there would be a gap of several months that would need to be addressed.

**Recommendation:**

Staff would recommend that the Board proceed with appointing the Chair and Vice Chair for the normal term of April through March, coinciding with board/commission appointments.

**Action:**

Motion to appoint \_\_\_\_\_ as Chairperson of the Environmental Policy Board for the term of April 2013 through March 2014.

Motion to appoint \_\_\_\_\_ as Vice Chairperson of the Environmental Policy Board for the term of April 2013 through March 2014.

**Form Review**

**Inbox**  
Chris Anderson (Originator)

**Reviewed By**  
Chris Anderson

**Date**  
03/29/2013 01:14 PM  
Started On: 03/27/2013 04:10 PM

Form Started By: Chris Anderson

Final Approval Date: 03/29/2013

**Environmental Policy Board (EPB)**

**5. 2.**

**Meeting Date:** 04/01/2013

**By:** Chris Anderson, Community Development

**Title:**

Environmental Expo Discussion

**Background:**

Based on the discussion from the March meeting, Staff compiled a list of the ideas relating to possible vendors or concepts for this year's expo event, which is attached. Also, Staff has created a tentative layout of the exhibitor space within the 120' by 40' tent, which is also attached. Essentially, within the tent, there will be space for twenty-three (23) exhibitors. This incorporates an end cap at one end of the tent, which should help draw folks all the way to end of the tent. This also includes an 'aisle' that connects the expo tent to the bingo tent. One row of exhibitors will have access to electricity (as shown on the attached layout). Each space will be 10' x 10' and there could be room for display of items to the outside of the tent, adjacent to an exhibitor's booth area.

**Observations:**

Per the discussion last month, the emphasis of this case really will be to identify potential exhibitors and a keynote speaker to contact/invite to participate in the Environmental Expo event and assigning these tasks to Board Members and/or Staff. Staff has explored the possibility of having an RV displayed as part of the event. Last year, City Staff spent a lot of time researching an RV expo event. Two things were evident from that work, one is that if one vendor is invited, they all would need to be invited (space becomes a limiting factor) and secondly, it just didn't make sense from their perspective to have a staff person off-site at an event rather than on their sales lot with all their units. So, it does not appear that this particular concept will work for this year's event.

**Recommendation:**

With five (5) months until the event, if a well-recognized name is to be a speaker at the event, that needs to be solidified very soon (both for their scheduling presumably and for promotional efforts on our end). Also, it would be good to get started on invites to potential exhibitors to help with some early promotion of the event as well. Several exhibitors that have participated in the past (and have been fairly popular) that the Board may wish to consider inviting back include: Audubon Center of the Northwoods (about \$500, live raptors and reptiles native to MN), Geological Society of MN (about \$100, rocks/fossils exhibit), Cheerful Chuggers 4-H (no cost, good 'hands on' activities for kids), and MN Herpetological Society (about \$100, exotic reptiles/amphibians). The list of exhibitors from the 2012 event is also attached for reference.

**Action:**

Based on discussion.

**Attachments**

Exhibitor Ideas/Concepts

Draft Exhibitor Space Layout

2012 Exhibitor List

**Form Review**

**Inbox**  
Chris Anderson (Originator)

**Reviewed By**  
Chris Anderson

**Date**  
03/29/2013 01:13 PM

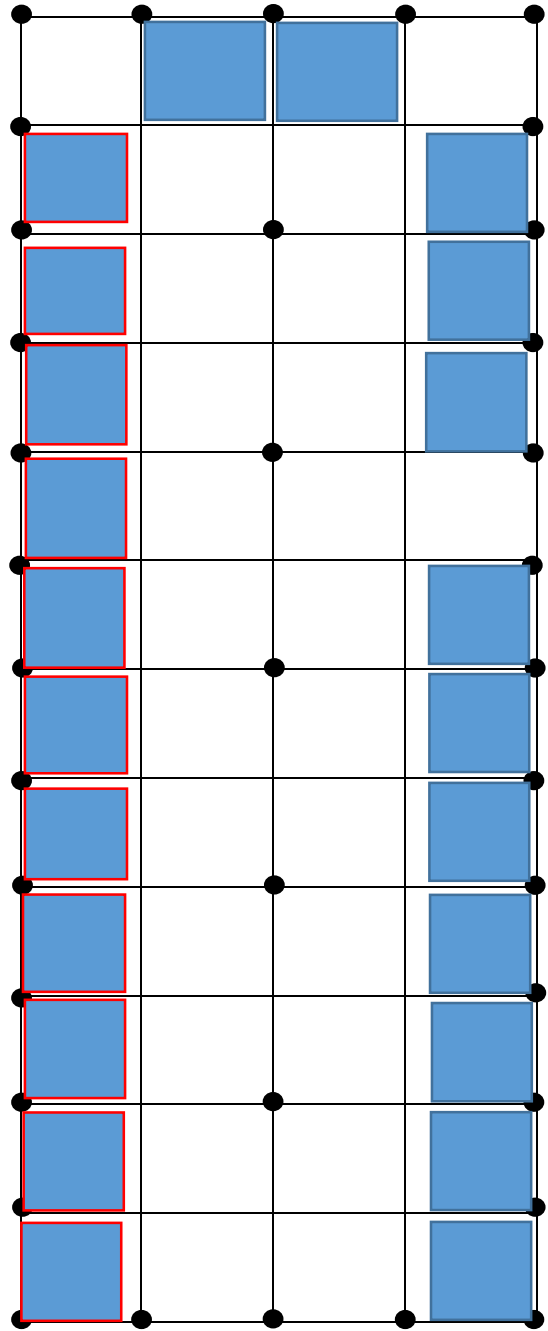
Form Started By: Chris Anderson

Started On: 03/27/2013 01:53 PM

Final Approval Date: 03/29/2013

## Exhibitor Ideas

- Photography
- Cabela's (fishing/canoeing)
- Dick's
- Sports Authority
- Relevant Wildlife (maybe check with Three Rivers Park District Eastman Nature Center)
- Ramsey Bicycle
- Allina (benefits of healthy living)
- Yard games producer
- Hunting/fishing guides (is this too close to Game Fair??)
- Ramsey Elementary Environmental Learning Area
- Mississippi River Guide (Dan Gapen from Big Lake was specifically mentioned)
- Chainsaw Sculptures
- Central Landscapes
- Outdoor gear/clothing vendor
- Outdoor living spaces
- Chain saws/yard equipment vendor
- Astronomy (nighttime telescopes)
- Ice fishing/camping



= Booth space



= Booth with electrical hook up



## 2012 Environmental Expo

Business	Table #
<b>Main Lobby and Corridor Area</b>	
Cheerful Chuggers 4-H	1
Environmental Policy Board & Welcome Table	2
Anderson Irrigation	3
Anoka Ramsey Farm and Garden	4
Hostas and More	5
Donna's Goats Milk Products	6
East Side Oil Companies	7
City of Ramsey Garden Club	8
Metropolitan Mosquito Control District (MMCD)	9
Northern Lights Soccer (NLS)/Green Valley Greenhouse (GVGH)	10
Geological Society of Minnesota (GSM)	11
Great River Energy	12
Thirty-One	13
Norwex	14
ACE Solid Waste	15
MN Herpetological Society	16
Minnesota Well Water Association (MWWA)	17
<b>Alexander Ramsey Conference Room</b>	
Home Depot	18
Wood Carvers Association Metro Chapter	19
Lower Rum River Water Management Organization (LRRWMO)	20
Oliver Kelley Farm	21
Parks & Recreation Commission	22
Wildlife Science Center	23
Anoka County Master Gardeners	24
Anoka County Tree Care Advisors	25

# 2012 Environmental Expo

**Environmental Policy Board (EPB)**

**5.3.**

**Meeting Date:** 04/01/2013

**By:** Chris Anderson, Community Development

**Title:**

Prairie Establishment in Utility Corridor

**Background:**

As the Board knows, GRE has agreed to do a prairie establishment within their utility corridor along the west end of Alpine Park. Attached is the proposed plan, submitted by Prairie Restorations, as well as an excerpt from it that focuses on the species of grasses and wildflowers that will be installed. Ultimate completion of this project will be in 2015 per the proposed plan but, in the meantime, the Board could begin to discuss appropriate content for a sign placed in Alpine Park that describes what will be done within the corridor, highlight some of the species, benefits of prairie establishment, and possibly some wildlife that may be associated with it. This case is intended to initiate discussion and brainstorming for signage that highlights the project and hopefully encourages residents to consider doing something similar on their property.

**Observations:**

This may also be a good time to start looking at the timeline for the rain garden rehabilitation at Alpine Park. This demonstration project was also anticipated to include some signage that would call attention to the rain garden and some of the species found within it. The eastern end of the rain garden (near the playground) is where there is the most foot traffic; thus, that will be the focal area of the rehabilitation for the most educational benefit and awareness of the project. Most of the preparatory work that had been suggested previously (removal of invasive Siberian elms and cleaning out sediment from the spillways) are normally addressed by Parks staff as time permits and will not be a component of this project (plus, at the east end, there are no spillways or Siberian elms). The planting of the site to introduce more species diversity to the area and signage will be the focus of this project. Attached to this case are a couple different planting plans (prepared for a different project) that provide some insight into potential species.

**Recommendation:**

With planning of the Environmental Expo event starting to 'ramp up', Staff doesn't want either of these demonstration projects to get lost in the shuffle. It is recommended that the Board start discussing each project, even if in general terms yet, to start to identify timelines, action steps and sign content (sign size likely would be 24" by 36", similar to signage in Sunfish Park).

**Action:**

Based on discussion.

**Attachments**

[Prairie Restoration Proposal](#)

[Excerpt of Species List](#)

[Rain Garden Example Species](#)

**Form Review**

**Inbox**  
Chris Anderson (Originator)

**Reviewed By**  
Chris Anderson

**Date**  
03/29/2013 01:14 PM

Form Started By: Chris Anderson

Started On: 03/28/2013 11:22 AM

Final Approval Date: 03/29/2013

# Proposal to Establish a Native Prairie Landscape in the Great River Energy Transmission Line Corridor Ramsey, MN

Prepared for:

Patrick Carlson  
Land Rights Consultant  
Great River Energy  
Maple Grove, MN 55369

Approximate site size: 2.75 acres

Prepared by:

Mike Evenocheck  
Sales Manager  
763-631-9430  
[mevo@prairieresto.com](mailto:mevo@prairieresto.com)

**Prairie  
Restorations, Inc.** 

31646 128<sup>th</sup> Street  
Princeton, MN 55371  
[www.prairieresto.com](http://www.prairieresto.com)

**A. [Company Background:](#) (Follow the blue links to learn more)**

Prairie Restorations, Inc. (PRI) has been dedicated to the restoration and management of native plant communities for over 35 years. We are fortunate to have worked with thousands of clients on a wide variety of projects in both the public and private sectors throughout the Upper Midwest.

The PRI staff currently consists of 45 full-time professionals and about an equal number of seasonal employees which operate out of six Minnesota locations. Most of the staff has B.S. degrees in natural resource related fields such as biology, forestry, horticulture or wildlife. As a full service restoration company, PRI is able to provide our clients expertise and service in all facets of native landscape restoration. Along with consulting, design, installation and land management services, we also produce our own local ecotype seed and plant materials which are used on all of our projects.

The PRI Team is committed to and passionate about protecting and enhancing our valuable natural resources. It is this dedication that is brought to each and every one of our projects. We are proud to offer the best expertise, services and products available in the industry and appreciate the opportunity to provide you with this proposal.

**B. Project Overview:**

1. GRE and the City of Ramsey are looking at the possibility of establishing a native prairie landscape in a transmission corridor easement in Ramsey, MN. Currently, this corridor is overgrown with trees and shrubs that need to be removed for standard maintenance purposes. The native prairie landscape is being proposed as an aesthetically appealing and ecologically appropriate option that will also require less maintenance than traditional corridor vegetation.
2. In certain areas of the project site, it may be necessary to plant select native tree and shrub species for the main purpose of visual screening. The selected species will likely have a mature height of about 7-14 feet and will be planted along the outside perimeter of the project area. General planting locations will be determined by GRE and the City of Ramsey.
3. In order to ensure that the restoration establishes successfully, a 3-year maintenance program will be implemented. This program will be carried out by Prairie Restorations, Inc., with the help from the City of Ramsey, and will include activities such as mowing, spot herbicide application and prescribed burning.
4. The following proposal outlines the recommended materials and procedures for the restoration project:

C. Site preparation:

1. This winter, the trees and shrubs will be removed from the project area (*to be done by Carr's Tree Service*). Where applicable, stumps will be treated with herbicide to prevent resprouting.
2. Next spring, allow the site to green up, followed by an application of Roundup Originalmax® and Garlon 3A® herbicide as per manufacturer's directions. Allow a minimum of 20 days before disturbing the vegetation with other procedures.
3. Burn off the dead vegetation by implementing a controlled burn using appropriate procedures, equipment and permits.
4. Harrow (or lightly disk as needed) the soil to create a viable seedbed.

D. Seed and Seeding:

1. Acceptable seeding dates for native species are in the spring or summer before August 10<sup>th</sup> or in the fall between September 20<sup>th</sup> and freeze-up. This project would likely be seeded in early June of 2013.
2. As a means to stabilize the site and facilitate maintenance during the developmental period, the project area will initially be seeded with native grasses only.
3. All grass seed will be sown via broadcasting (a native seed drill may also be used if conditions warrant).
4. A harrowing or raking will follow the seeding in order to incorporate the seed into the soil.
5. Once the grasses have become established, wildflower seed will be interseeded throughout the project area. This will most likely occur during the spring of 2015 immediately following the implementation of a prescribed management burn.
6. All wildflower seed will be sown via broadcasting.
7. The seed mixes shall consist of the following species and amounts:

Grasses

**lbs./project area**

**Mixed height mesic mix:**

32% Big bluestem, 28% Little bluestem, 22% Indian grass,  
10% Side oats grama, 3% Canada wild rye, 2% Switch grass  
by PLS weight. 1% Kalm's brome, 1% June grass,  
1% Prairie dropseed by bulk weight ..... 30

**Note:** A wheat or oat cover crop can be sown along with the native grasses at a rate of approximately 25 lbs. per acre. Wheat/oats is an annual grass species that germinates quickly and will reduce the risk of soil erosion on the site.

**Wildflowers**

**oz./project area**

Wild lupine (*Lupinus perennis*) ..... 8

**Mixed height mesic mix:**

16% Black-eyed Susan, 12% Purple prairie clover, 12% Hoary vervain,  
7% White prairie clover, 6% Leadplant, 6% Common ox-eye,  
5% Tall blazing star, 4% Fragrant giant hyssop, 4% Smooth aster,  
4% Stiff goldenrod, 3.5% Golden alexander, 3% Azure aster,  
3% Bush clover, 3% Wild bergamot, 2% Upland goldenrod,  
2% Blue vervain, 1.5% Mountain mint, 1% Yarrow,  
1% Stiff tickseed, 1% Canada tick trefoil, 1% Meadow blazing star,  
1% Gray goldenrod, 0.5% Common milkweed,  
0.5% Showy goldenrod, all by bulk weight..... 80

**E. Erosion Control:**

1. Cover crop will be sown along with the native grasses.
2. Optionally, the project area can be mulched with clean straw at a rate of 1.5 tons per acre.

**F. Trees and Shrubs:**

Optionally, container grown shrubs can be planted in designated areas of the project. In order to guard against herbivory (deer browsing), it is recommended that (at a minimum) that Plantskydd deer repellent be applied to each tree. Biodegradable weed mats are also recommended to reduce weed competition.

Suitable species will be chosen from the following list:

<b>Shrub Species</b>	<b>Size</b>
Serviceberry ( <i>Amelanchier sp.</i> )	2 gal
Gray dogwood ( <i>Cornus racemosa</i> )	2 gal
Round-leaved dogwood ( <i>Cornus rugosa</i> )	2 gal
Hazelnut ( <i>Corylus americana</i> )	2 gal
Elderberry ( <i>Sambucus canadensis</i> )	2 gal

**G. Management:**

1. Management (maintenance) plays a vital role in the eventual success of any native landscape installation, especially during the establishment period.
2. During the first growing season the project area may need to be mowed to control annual weed development. If a “closed” canopy of weed cover develops, it should be mowed to aid in the growth of the prairie seedlings by reducing competition. Mowing may also be necessary if the weeds are about to set seed. Optimum cutting height, depending on the wildflower species present, is typically 4 to 6 inches. Mowings done by PRI will be billed separately unless they are included as part of the installation contract.
3. In years following the first growing season, management services could include site monitoring, prescribed burning, mowing, spot spraying, spot mowing, herbicide wicking or hand weeding. PRI provides estimates for management services on an annual basis prior to the growing season. Most of these services are billed on a time and materials basis and the annual estimates are not exceeded without client approval. Some services such prescribed burning are provided as a lump sum cost. A summary of billing rates and materials costs will be provided with the estimate.

**H. Anticipated Management:**

<b>Year</b>	<b>Projected Management Procedures</b>
2013	Complete site mowings to control annual weed canopy (2 or 3 mowings as needed to be done by the City under PRI guidance) Project monitoring
2014	1 complete site mowing if necessary (to be done by the City) Integrated Plant Management (IPM) - spot spraying, spot mowing, wicking, hand weeding, etc (2-3 visits are typical) Project monitoring
2015	Spring burn to encourage native plant growth and to help deter the presence of non-native and woody species. IPM (2-3 visits) Project monitoring

I. **Costs:** Based on 2.75 acre site

Base Costs

<b>Site preparation</b> ( <i>includes spraying, burning, and soil prep</i> ).....	\$2,350
<b>Seed and seeding grasses as specified</b> (2013).....	\$1,830
<b>Seed and seeding flowers as specified</b> (2015) .....	\$2,050
<b>Total</b> .....	<b>\$6,230</b>

Other Options

<b>Straw mulching entire project area</b> .....	\$2,470
<b>Provide and install 2 gallon shrubs as needed</b> .....	\$50/plant*
<b>Provide and install 18-24 inch bareroot shrubs as needed</b> .....	\$26/plant*

\*Includes applying Plantskydd deer repellent (one application) and weed barrier. For larger quantities, this unit price could be adjusted downward. Prices do not include warranty.

Maintenance

**Estimated maintenance costs**

Growing season 2013.....	<b>\$250 (site assessment and coordination)</b>
Growing season 2014.....	<b>\$1,300</b>
Growing season 2015.....	<b>\$1,200 + \$990 burn</b>

**Please note:** Maintenance is typically billed on a time and materials basis. Work is billed upon completion until the site's maintenance needs are met (the yearly estimate is not exceeded without prior approval).

Also note that the first three years of a restoration are the most crucial in terms of needed maintenance. Typically, costs decrease once the restoration reaches a relative level of maturity (after the 3<sup>rd</sup> or 4<sup>th</sup> growing season)

J. **Guarantee:** Prairie Restorations, Inc. (PRI) has a great tradition of successfully installing native landscapes throughout the Upper Midwest. We feel our expertise in this industry is second to none and we stand behind every one of our projects. Because we are confident in our abilities to provide you with the best possible materials and services, we are proud to offer the following guarantee:

*On projects installed by PRI crews within the specified dates, we will guarantee successful establishment within three full growing seasons, given the following conditions:*

1. *That PRI materials and PRI installation services are used on the project.*
2. *That the failure of the project is not due to the actions of others.*
3. *That PRI staff has been consistently involved with the maintenance of the project (consultation with the client or direct utilization of PRI management services) from the time of germination until the end of the third growing season (i.e. mowing, spot spraying, controlled burning).*

*This outline provides a step-by-step plan for accomplishing the restoration of this site. If successful establishment does not occur within three full growing seasons, all necessary steps will be taken to ensure the eventual success of the project, at no additional charge. For purposes of this guarantee, successful establishment is defined as follows: That the presence of at least 75% of the original seeded or planted species can be found on site, and that the overall density of vegetation is comprised of no less than 75% native species.*

Restoration outline prepared by Prairie Restorations, Inc. (PRI), Princeton, Minnesota  
.pro

C. Site preparation:

1. This winter, the trees and shrubs will be removed from the project area (*to be done by Carr's Tree Service*). Where applicable, stumps will be treated with herbicide to prevent resprouting.
2. Next spring, allow the site to green up, followed by an application of Roundup Originalmax® and Garlon 3A® herbicide as per manufacturer's directions. Allow a minimum of 20 days before disturbing the vegetation with other procedures.
3. Burn off the dead vegetation by implementing a controlled burn using appropriate procedures, equipment and permits.
4. Harrow (or lightly disk as needed) the soil to create a viable seedbed.

D. Seed and Seeding:

1. Acceptable seeding dates for native species are in the spring or summer before August 10<sup>th</sup> or in the fall between September 20<sup>th</sup> and freeze-up. This project would likely be seeded in early June of 2013.
2. As a means to stabilize the site and facilitate maintenance during the developmental period, the project area will initially be seeded with native grasses only.
3. All grass seed will be sown via broadcasting (a native seed drill may also be used if conditions warrant).
4. A harrowing or raking will follow the seeding in order to incorporate the seed into the soil.
5. Once the grasses have become established, wildflower seed will be interseeded throughout the project area. This will most likely occur during the spring of 2015 immediately following the implementation of a prescribed management burn.
6. All wildflower seed will be sown via broadcasting.
7. The seed mixes shall consist of the following species and amounts:

Grasses

**lbs./project area**

**Mixed height mesic mix:**

32% Big bluestem, 28% Little bluestem, 22% Indian grass,  
10% Side oats grama, 3% Canada wild rye, 2% Switch grass  
by PLS weight. 1% Kalm's brome, 1% June grass,  
1% Prairie dropseed by bulk weight ..... 30

**Note:** A wheat or oat cover crop can be sown along with the native grasses at a rate of approximately 25 lbs. per acre. Wheat/oats is an annual grass species that germinates quickly and will reduce the risk of soil erosion on the site.

Wildflowers

oz./project area

Wild lupine (*Lupinus perennis*)..... 8

**Mixed height mesic mix:**

16% Black-eyed Susan, 12% Purple prairie clover, 12% Hoary vervain,  
7% White prairie clover, 6% Leadplant, 6% Common ox-eye,  
5% Tall blazing star, 4% Fragrant giant hyssop, 4% Smooth aster,  
4% Stiff goldenrod, 3.5% Golden alexander, 3% Azure aster,  
3% Bush clover, 3% Wild bergamot, 2% Upland goldenrod,  
2% Blue vervain, 1.5% Mountain mint, 1% Yarrow,  
1% Stiff tickseed, 1% Canada tick trefoil, 1% Meadow blazing star,  
1% Gray goldenrod, 0.5% Common milkweed,  
0.5% Showy goldenrod, all by bulk weight ..... 80

**E. Erosion Control:**

1. Cover crop will be sown along with the native grasses.
2. Optionally, the project area can be mulched with clean straw at a rate of 1.5 tons per acre.

























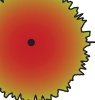


**F. Trees and Shrubs:**

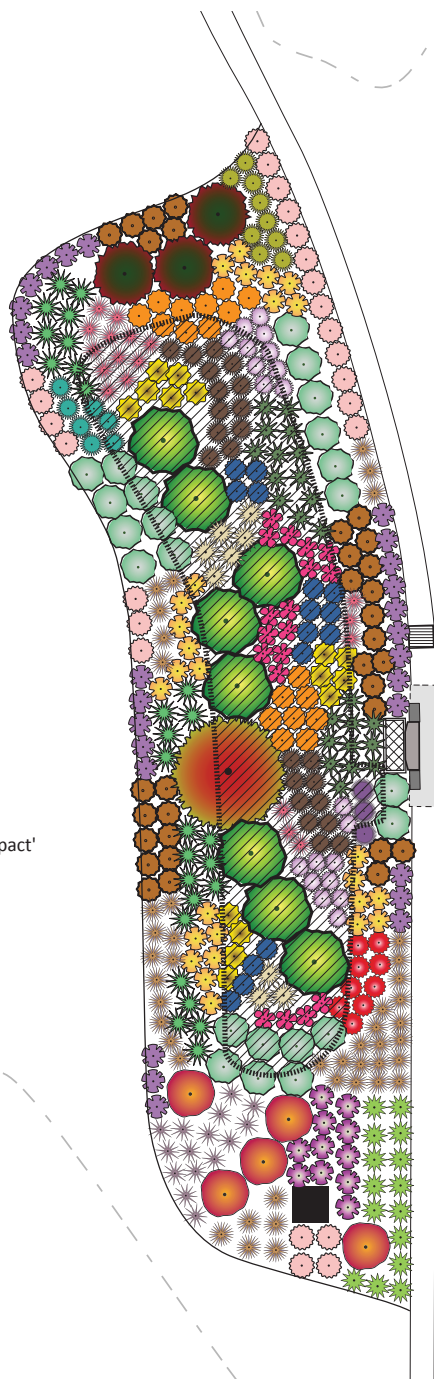
Optionally, container grown shrubs can be planted in designated areas of the project. In order to guard against herbivory (deer browsing), it is recommended that (at a minimum) that Plantskydd deer repellent be applied to each tree. Biodegradable weed mats are also recommended to reduce weed competition.

Suitable species will be chosen from the following list:

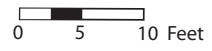
<b>Shrub Species</b>	<b>Size</b>
Serviceberry ( <i>Amelanchier sp.</i> )	2 gal
Gray dogwood ( <i>Cornus racemosa</i> )	2 gal
Round-leaved dogwood ( <i>Cornus rugosa</i> )	2 gal
Hazelnut ( <i>Corylus americana</i> )	2 gal
Elderberry ( <i>Sambucus canadensis</i> )	2 gal

RAIN GARDEN 1 - PLANT LIST

SYM	QTY	COMMON NAME	SCIENTIFIC NAME
	24	Prairie Smoke	<i>Geum triflorum</i>
	27	Rough Blazingstar	<i>Liatris aspera</i>
	42	Little Bluestem	<i>Schizachyrium scoparium</i>
	32	Side Oats Grama	<i>Bouteloua curtipendula</i>
	9	Butterfly Weed	<i>Asclepias tuberosa</i>
	27	Prairie Blazingstar	<i>Liatris pycnostachya</i>
	22	Big Bluestem	<i>Andropogon gerardii</i>
	7	Oxeye	<i>Heliopsis helianthoides</i>
	3	Wild Bergamot	<i>Monarda fistulosa</i>
	15	Prairie Dropseed	<i>Sporobolus heterolepis</i>
	9	Red Columbine	<i>Aquilegia canadensis</i>
	18	Bottle Gentian	<i>Gentiana andrewsii</i>
	15	Brown-eyed Susan	<i>Rudbeckia subtomentosa</i>
	11	Wild Lupine	<i>Lupinus perennis</i>
	23	Soft Rush	<i>Juncus effusus</i>
	18	New England Aster	<i>Aster novae-angliae</i>
	9	Turtlehead	<i>Chelone glabra</i>
	15	Blue Lobelia	<i>Lobelia siphilitica</i>
	18	Blue Flag Iris	<i>Iris versicolor</i>
	24	Fox Sedge	<i>Carex vulpinoidea</i>
	18	Joe Pye Weed	<i>Eupatorium maculatum</i>
	15	June Grass	<i>Koeleria macrantha</i>
	3	Black Chokeberry	<i>Aronia melanocarpa</i>
	3	Compact American Cranberry	<i>Viburnum trilobum 'Bailey's Compact'</i>
	1	Isanti Dogwood	<i>Cornus sericea 'Isanti'</i>
	23	Dwarbush Honeysuckle	<i>Diervilla lonicera</i>
	5	White Wild Indigo	<i>Baptisia lactea</i>



PLANTING NOTES:  
 - PLANT PERENNIALS AT 24" SPACING  
 - PLANT SHRUBS AS SHOWN ON PLAN



STORMWATER INFILTRATION DESIGN:  
 PLANTING PLAN\_RAIN GARDEN 1

Location: RICE LAKE ELEMENTARY SCHOOL  
 575 Birch Street  
 Circle Pines, MN 55014  
 District: RCWD



















Date: 02.08.11

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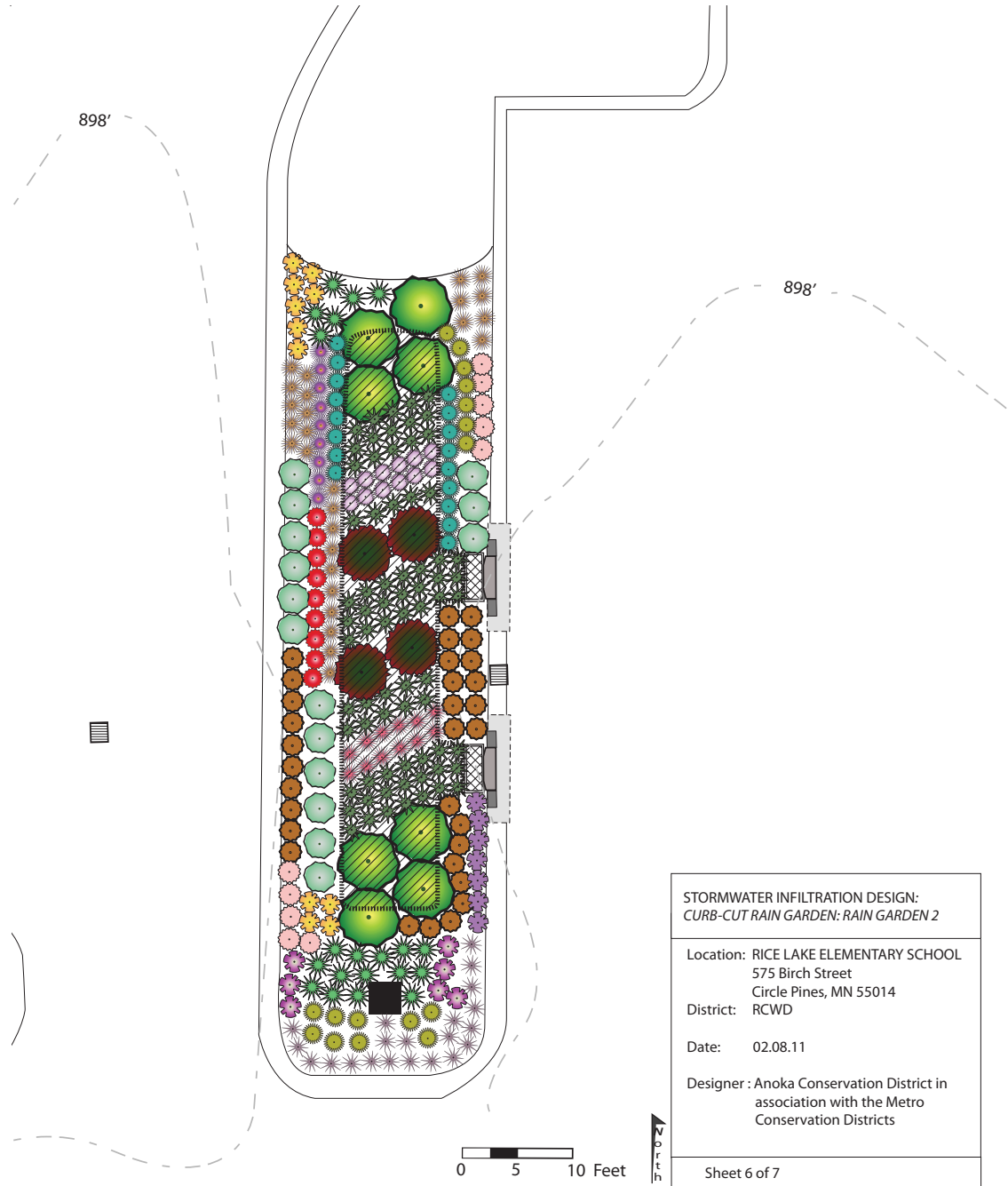
Sheet 5 of 7

Metro

RAIN GARDEN 2 - PLANT LIST

SYM	QTY	COMMON NAME	SCIENTIFIC NAME
	10	Prairie Smoke	Geum triflorum
	7	Rough Blazingstar	Liatris aspera
	27	Little Bluestem	Schizachyrium scoparium
	31	Side Oats Grama	Bouteloua curtipendula
	16	Butterfly Weed	Asclepias tuberosa
	11	Prairie Blazingstar	Liatris pycnostachya
	20	Big Bluestem	Andropogon gerardii
	17	Oxeye	Heliopsis helianthoides
	9	Prairie Alumroot	Heuchera richardsonii
	9	Red Columbine	Aquilegia canadensis
	12	New England Aster	Aster novae-angliae
	72	Fox Sedge	Carex vulpinoidea
	9	Joe Pye Weed	Eupatorium maculatum
	7	Wild Lupine	Lupinus perennis
	21	June Grass	Koeleria macrantha
	8	Black Chokeberry	Aronia melanocarpa
	4	Compact American Cranberry	Viburnum trilobum 'Bailey's Compact'
	15	Dwarf Bush Honeysuckle	Diervilla lonicera

PLANTING NOTES:  
 - PLANT PERENNIALS AT 24" SPACING  
 - PLANT SHRUBS AS SHOWN ON PLAN



STORMWATER INFILTRATION DESIGN:  
 CURB-CUT RAIN GARDEN: RAIN GARDEN 2

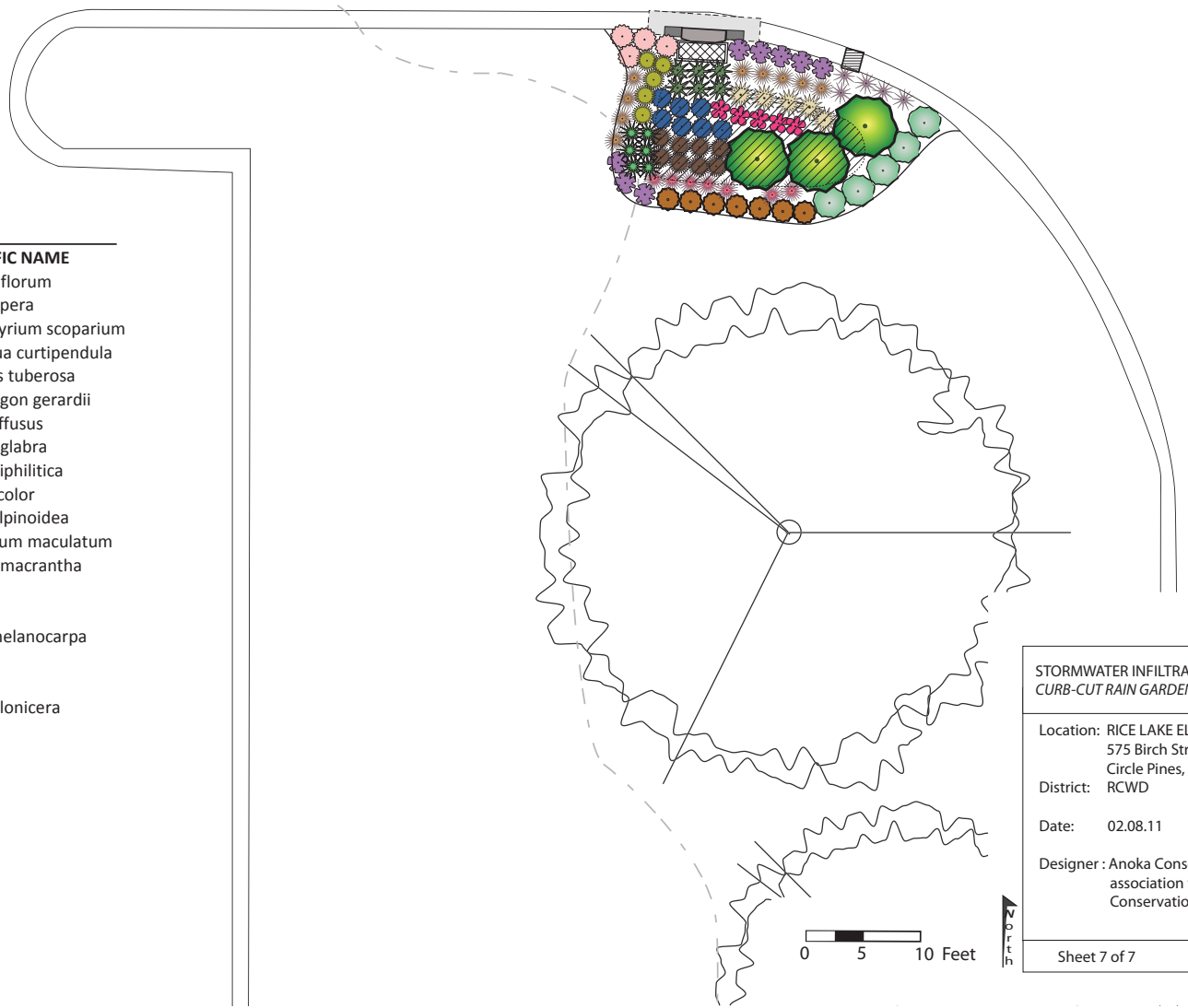
Location: RICE LAKE ELEMENTARY SCHOOL  
 575 Birch Street  
 Circle Pines, MN 55014  
 District: RCWD

Date: 02.08.11












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 association with the Metro  
 Conservation Districts

Sheet 6 of 7

898'



RAIN GARDEN 3 - PLANT LIST

SYM	QTY	COMMON NAME	SCIENTIFIC NAME
	4	Prairie Smoke	Geum triflorum
	8	Rough Blazingstar	Liatris aspera
	9	Little Bluestem	Schizachyrium scoparium
	7	Side Oats Grama	Bouteloua curtipendula
	5	Butterfly Weed	Asclepias tuberosa
	6	Big Bluestem	Andropogon gerardii
	8	Soft Rush	Juncus effusus
	5	Turtlehead	Chelone glabra
	7	Blue Lobelia	Lobelia siphilitica
	5	Blue Flag Iris	Iris versicolor
	6	Fox Sedge	Carex vulpinoidea
	7	Joe Pye Weed	Eupatorium maculatum
	5	June Grass	Koeleria macrantha
	3	Black Chokeberry	Aronia melanocarpa
	5	Dwarf Bush Honeysuckle	Diervilla lonicera

PLANTING NOTES:  
 - PLANT PERENNIALS AT 24" SPACING  
 - PLANT SHRUBS AS SHOWN ON PLAN

STORMWATER INFILTRATION DESIGN:  
 CURB-CUT RAIN GARDEN: RAIN GARDEN 3

Location: RICE LAKE ELEMENTARY SCHOOL  
 575 Birch Street  
 Circle Pines, MN 55014  
 District: RCWD

Date: 02.08.11

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