

**MEETING DATE:** April 9, 2015

**TITLE:** Authorization of Cost Share Funding- Union Congregational Church

**RESOLUTION NUMBER:** 15-XXX

**PREPARED BY:** Brett Eidem, Cost Share Grant Administrator

**E-MAIL:** beidem@minnehahacreek.org

**TELEPHONE:** 952-641-4523

**REVIEWED BY:**  Administrator  Counsel  Program Mgr. (Name): Telly Mamayek  
 Board Committee  Engineer  Other

**WORKSHOP ACTION:**

<input checked="" type="checkbox"/> Advance to Board mtg. Consent Agenda.	<input type="checkbox"/> Advance to Board meeting for discussion prior to action.
<input type="checkbox"/> Refer to a future workshop (date): _____	<input type="checkbox"/> Refer to taskforce or committee (date): _____
<input type="checkbox"/> Return to staff for additional work.	<input type="checkbox"/> No further action requested.
<input type="checkbox"/> Other (specify): _____	

**PURPOSE or ACTION REQUESTED:**

1. Authorize funding of 75 percent of the documented cost of the project, not to exceed \$15,525.00 from the Cost Share Fund, for the installation of 4 stormwater BMPs, contingent on a signed grant agreement and signed maintenance agreements that include a landscape design plan that is mutually agreed upon by the grant recipient and District staff.
2. Authorize the Administrator to execute and sign a Cost Share funding and maintenance agreement between Union Congregational Church and the District.

**PROJECT/PROGRAM LOCATION:**

3700 Alabama Ave S, St. Louis Park (map attached)

**PROJECT TIMELINE:**

Summer 2015

**PROJECT/PROGRAM COST:**

Fund name and number:

**Cost Share Grant Program (3130)**

Current budget:

\$832,000

Amount approved in 2015 to date:

\$516,290

Requested amount of funding:

75% of the documented costs for construction of 4 stormwater BMPs, not to exceed \$15,525.00.

## **PROJECT DETAILS:**

The project consists of:

- Removal of existing turf grass and redirection of stormwater through an added curb to divert roof and parking lot runoff to a pre-treatment catch basin and then eventually to a two cell raingarden
- Installation of a cistern to capture and re-use roof runoff to water vegetable garden
- Installation of a permeable paver community sitting area where there will be educational signage about the project and other nearby District initiatives
- Education curriculum that will be incorporated into connected day care and opportunities to work with Hopkins and St. Louis Park High School environmental science clubs

## **ESTIMATED WATER QUALITY BENEFITS**

- **Annual Volume Reduction**
  - 245,637 gallons/year
- **Annual Total Suspended Solids Reduction**
  - 132 lbs/year
- **Annual Total Phosphorus Reduction**
  - 0.5 lbs/year

(These estimated reductions have been calculated by Metro Blooms through a WinSlamm model, and checked by staff using an Excel spreadsheet calculator developed by Wenck Associates for stormwater BMP's.)

## **SUMMARY:**

Union Congregational Church is a small congregation in St. Louis Park with large opportunities for water quality improvement and education and outreach within the community. This project is led by two 2014 Master Water Stewards, Sue Nissen and Randy Holst. The church is located just west of Hwy 7 and Hwy 100, and is less than a mile from the Districts geographic focus of the Urban Corridor in St. Louis Park. The MWS worked with District staff, Metro Blooms and Ecoscapes to create an entire site retrofit to capture as much of the runoff from the 1.2 acre site as possible. However, even with District's cost-share assistance, the church cannot afford to implement the entire site retrofit. Similar to the past funded cost share project at St. Luke Presbyterian Church in Minnetonka, we identified the most visible BMPs with the greatest potential for water quality impact. The project proposes a two cell raingarden with a pre-treatment catch basin on the most visible corner of the property, capturing a majority of the sites impervious surface. The project is also proposing a large above ground cistern to capture and re-use roof runoff for their existing vegetable garden. There will also be a permeable paver community sitting area next to the raingarden, to engage the congregation, passersby, and serve as an outdoor classroom for the daycare and other school fieldtrips.

The church site currently creates a large amount of untreated runoff that flows directly into the street and city storm sewer. The approximate area of impervious runoff is 16,995 square feet (sf). The drainage area where the three BMPs are located is a total of 68,131 sf. The designer used a 1.25" rain event to calculate what the project could capture. The four stormwater BMPs would be able to capture 82% of this drainage area. The catch basin will capture a majority of the sediment from parking lot and roof runoff, extending the longevity of the raingarden and minimizing maintenance from sedimentation. The two cell raingarden will be planted with native plants and trees that infiltrate water and support wildlife, with specific emphasis on providing habitat for pollinators and Monarch butterflies. The area will be covered with hardwood mulch and edged with Chilton edging. The 275 gallon cistern will capture roof runoff and will be re-used to water the nearby vegetable garden. The church proposes creating an outdoor area to rest and reflect, study or connect with others, by installing a 10' by10' permeable Willow Creek brickstone paver patio nestled between the second cell of the raingarden and the Church at the corner of Alabama Avenue and Oxford Street. Stepping-stones will lead from

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Resolutions are not final until approved by the Board and signed by the Board Secretary.**

the sidewalk along Alabama Avenue into the sitting area. This area will be a highly visible, welcoming space for the community. It's a place for classes to study, students to take their parents, congregants to gather and neighbors to explore. District staff will work with the church to create educational signage on benefits of the raingarden, but also will connect this project to other District initiatives in the area for greater education of MCWD.

The church is connected to KidZone, a neighborhood daycare (voted best daycare in St. Louis Park in 2014- SLP Magazine). The staff at KidZone already embraces authentic curriculum about the environment and sustainability. They raise organic foods for their own kitchen and donation in the church vegetable garden. This spring all five classrooms are starting plants (including native plants) from seed, for their garden plots at the church and their home gardens. The daycare is highly enthusiastic and committed to incorporating numerous lessons about rain gardens, water usage, native plants, and pollinators into their curriculum. Hopkins and St. Louis Park high schools both have Environmental Science Clubs. Students in the clubs often need volunteer hours. Kirk Shoeger, who teaches at Hopkins High School, is contacting the clubs to explore strategies for students to volunteer and visit the site.

On March 11<sup>th</sup>, 2015, staff presented the project at the CAC meeting and received a unanimous recommendation for funding. There was a discussion over whether the sitting area next to the garden should be included in the District funding. We usually do not fund patio spaces, but the consensus of the CAC was that having the designated community space for an outdoor classroom will lead to a much more engaging and successful project. After final clarification from legal counsel, the creation of impervious surface is not eligible for cost share funding. The contractor has proposed an alternative permeable paver patio, which will demonstrate another BMP alternative for the construction of impervious surface.

## **DESIGN, CONSTRUCTION, AND MATERIAL COSTS**

The total project cost is approximately \$20,700, which includes an estimate of \$1,500 for educational signage.

## **STAFF RECOMMENDATION**

Staff and the CAC reviewed the project through the community engagement evaluation criteria, and is recommending funding of 75% of the project, not to exceed \$15,525.00, contingent on a signed grant and maintenance agreement that is mutually agreed upon by the Cost Share recipients and District staff.

### Attachments:

1. Aerial Site Plan
2. Site Design Plans
3. Cost Share Evaluation Review
4. Union Congregational Church Proposal
5. Cost Estimate Breakdown

**RESOLUTION**

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**RESOLUTION NUMBER:**    15-XXX

**TITLE:**            **Cost Share Funding for Union Congregational Church Stormwater Management Project**

WHEREAS, the Cost Share Program was established by the MCWD to provide grants to property owners to design and install best management practices that will reduce the volume and increase the quality of stormwater flowing offsite and provide support for beyond-regulation projects that protect and improve water resources; and

WHEREAS, the District's 2007 Comprehensive Water Resources Management plan also identifies expanding the knowledge base of water resources management and providing education opportunities through demonstrative projects within the watershed as key functions of the Cost Share Program; and

WHEREAS, funds are available in the 2015 budget for the Cost Share Grant Program; and

WHEREAS, Union Congregational Church applied for cost share funding for a 4 stormwater BMP projects to collect and infiltrate roof and driveway runoff, and

WHEREAS, on March 11, 2015, the grant proposal was reviewed by the Citizen Advisory Committee (CAC) and the CAC made a recommendation to the Board to approve the proposal and provide funding in the amount requested; and

WHEREAS, MCWD staff has reviewed the proposal and the CAC's recommendation, and finds the proposal to be consistent with the goals the Stormwater BMP Cost Share Program and recommends funding of \$15,525.00 from the Stormwater BMP Cost Share fund; and

NOW, THEREFORE, BE IT RESOLVED, that the MCWD Board of Managers authorizes funding of 75 percent of the documented costs for construction of 4 stormwater BMPs and educational signage, not to exceed \$15,525.00, by Union Congregational Church from the Stormwater BMP Cost Share fund, contingent on a signed grant and maintenance agreement that includes a final landscape design plan and educational signage that is approved for Cost Share purposes by the grant recipient, property owners and District staff; and

NOW, THEREFORE, BE IT FURTHER RESOLVED, that the MCWD Board of Managers authorizes the Administrator on advice and consent of counsel to sign a grant agreement and maintenance agreement with the property owner on which BMP's are to be installed.

Resolution Number 15-XXX was moved by Manager \_\_\_\_\_, seconded by Manager \_\_\_\_\_.  
Motion to adopt the resolution \_\_\_ ayes, \_\_\_ nays, \_\_\_ abstentions. Date: \_\_\_\_\_.

\_\_\_\_\_  
Secretary

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Welcome

Results

Links

- [Tax information](#)
- [View oblique imagery \(Bing maps\)](#)
- [Survey documents](#)
- [About the data](#)

**PID: 1611721330012**

3700 Alabama Ave S  
St. Louis Park, MN 55416

**Owner/Taxpayer**

**Owner:** Union Cong Church

**Taxpayer:** UNION CONG CHURCH  
3700 ALABAMA AVE  
ST LOUIS PARK MN 55416

**Tax District**

**School Dist:** 283

**Sewer Dist:**

**Watershed Dist:** 3

**Parcel**

**Parcel Area:** 1.29 acres  
56,341 sq ft

**Torrens/Abstract:** Both

**Addition:** Rgt St Louis Park

**Lot:**

**Block:** 048

**Metes & Bounds:** Lots 17 To 21 Incl  
And Lots 24 To 30  
Incl Blk 48 Rgt Of St  
Louis Park Also Lots  
5 And 6 Blk 48 St  
Louis Park Center Incl  
Vac Alley

**Tax Data (Payable 2014)**

**Market Value:** \$0

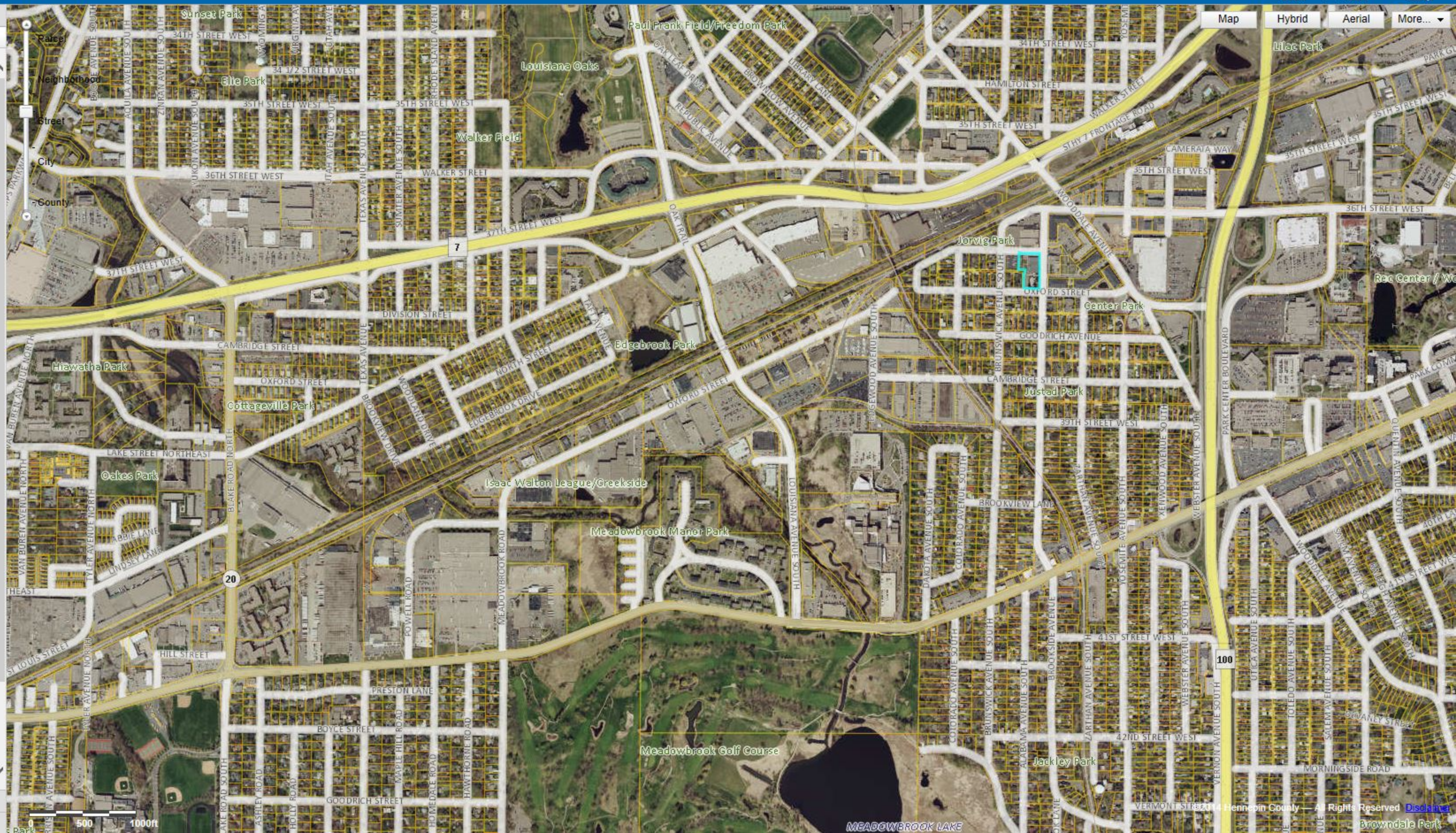
**Total Tax:** \$0.00

**Property Type:** Commercial-Preferred

**Homestead:** Non-Homestead

**Year Built:**

**Legend**



Map Hybrid Aerial More...





Find a PID or an address on the map

Welcome

Results

Links

- [City information](#)
- [View oblique imagery \(Bing maps\)](#)
- [About the data](#)

PID:	1611721330012
Address:	3700 ALABAMA AVE S ST. LOUIS PARK, 55416
Owner Name:	UNION CONG CHURCH
Acres:	1.29

Land Cover

No Ecologically Signif. Area Present

No Natural Resource Corridor Present

Soils

No Public Waters Present

No Floodplain Present

No Wetlands Present

Watershed

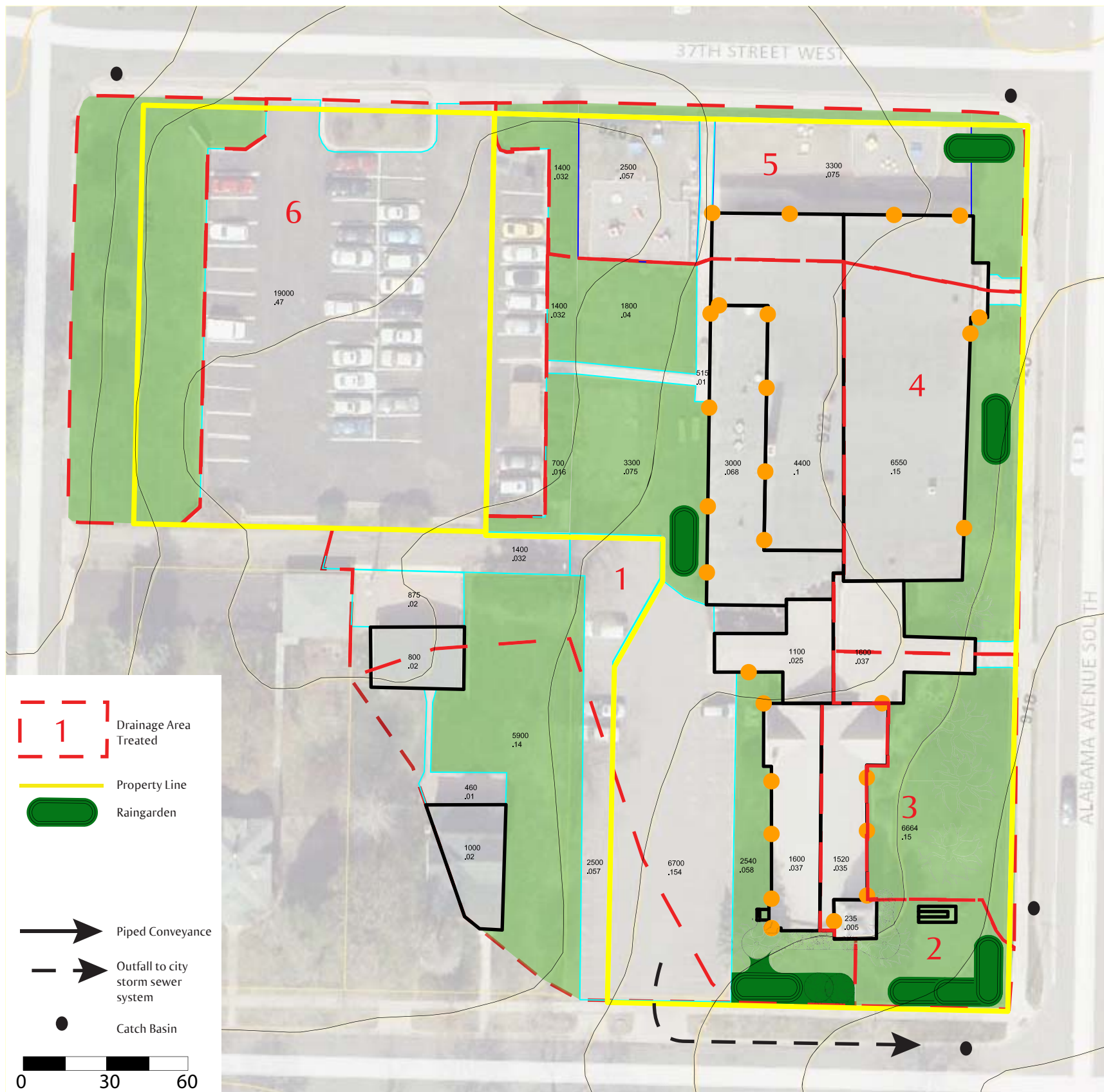
Legend

http://www.hennepin.us/



Map Hybrid Aerial Land Water





**Union Congregational Church**  
 Comprehensive Stormwater Drainage Map  
 prepared by: Metro Blooms



# Project Proposal - No Channel Drain

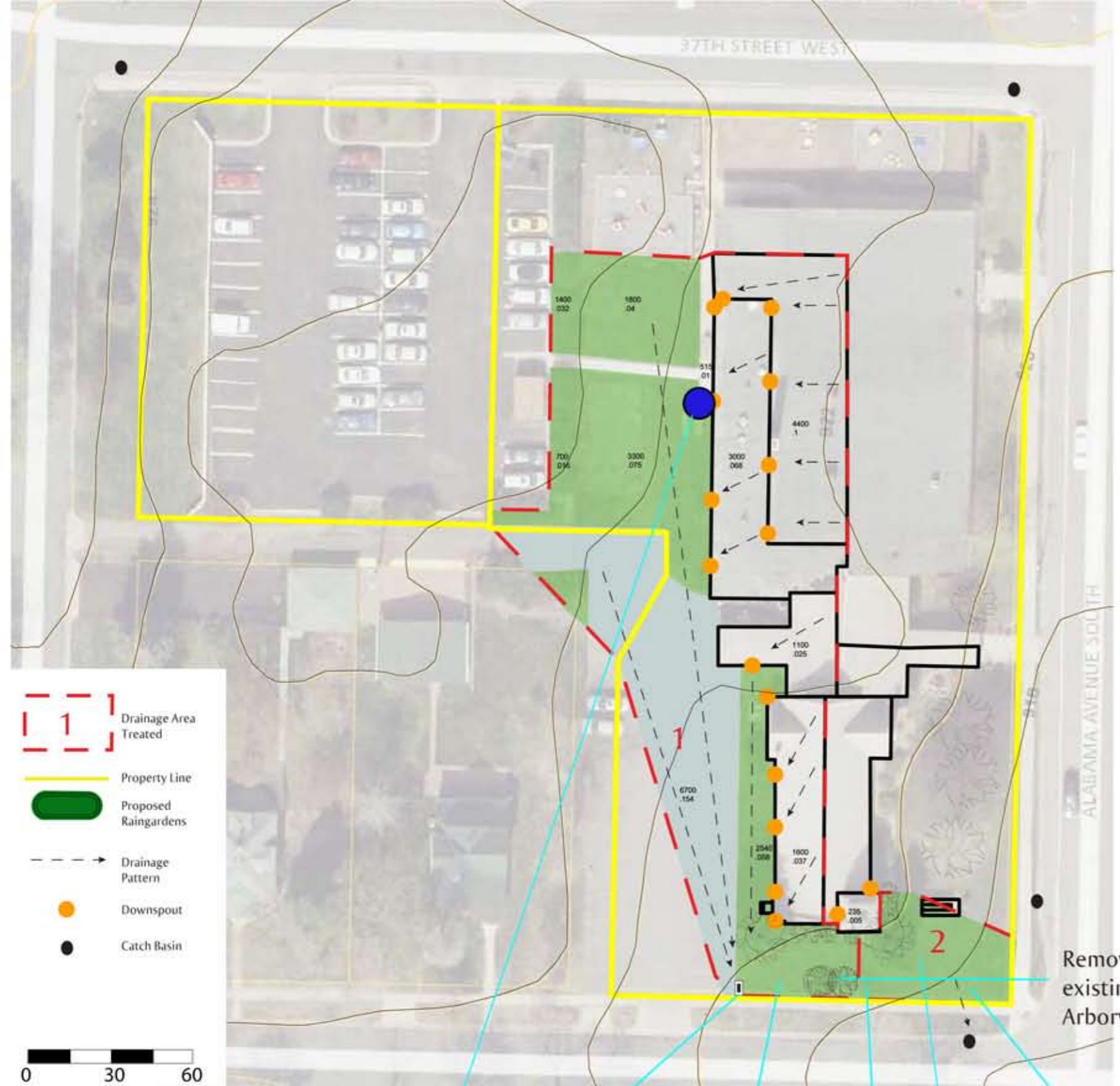
Concrete pre-treatment sediment basin before flowing into Raingarden 1. Raingarden 1 will overflow through a vegetated swale into Raingarden 2. Raingarden 2 will overflow onto sidewalk and into city catch basin.

<b>Area of Proposed Project:</b>	<b>1,500 sq ft</b>
Raingarden 1:	600 sq ft / 275 sq ft
Vegetated Swale:	300 sq ft / 150 sq ft
Raingarden 2:	600 sq ft / 275 sq ft
Channel Drain:	

<b>Total Area of Drainage Area:</b>	<b>26,735 sq ft</b>	<b>.61 acre</b>
Impervious:		
Roof:	10,980 sq ft	.25 acre
Parking:	5,500 sq ft	.13 acre
Walk:	515 sq ft	.012 acre
Pervious:		
Turf:	9,740 sq ft	.22 acre

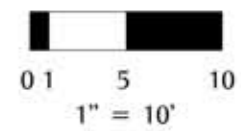
## Total Volume and Pollution Reduction:

	<b>Runoff Volume:</b>	<b>Sediment:</b>	<b>Phosphorous:</b>
Before:	271617 gallons	147.5 lbs	.5743 lbs
After:	25980 gallons	15.5 lbs	.06244 lbs
	<b>82.18%</b>	<b>89.5%</b>	<b>89.13%</b>

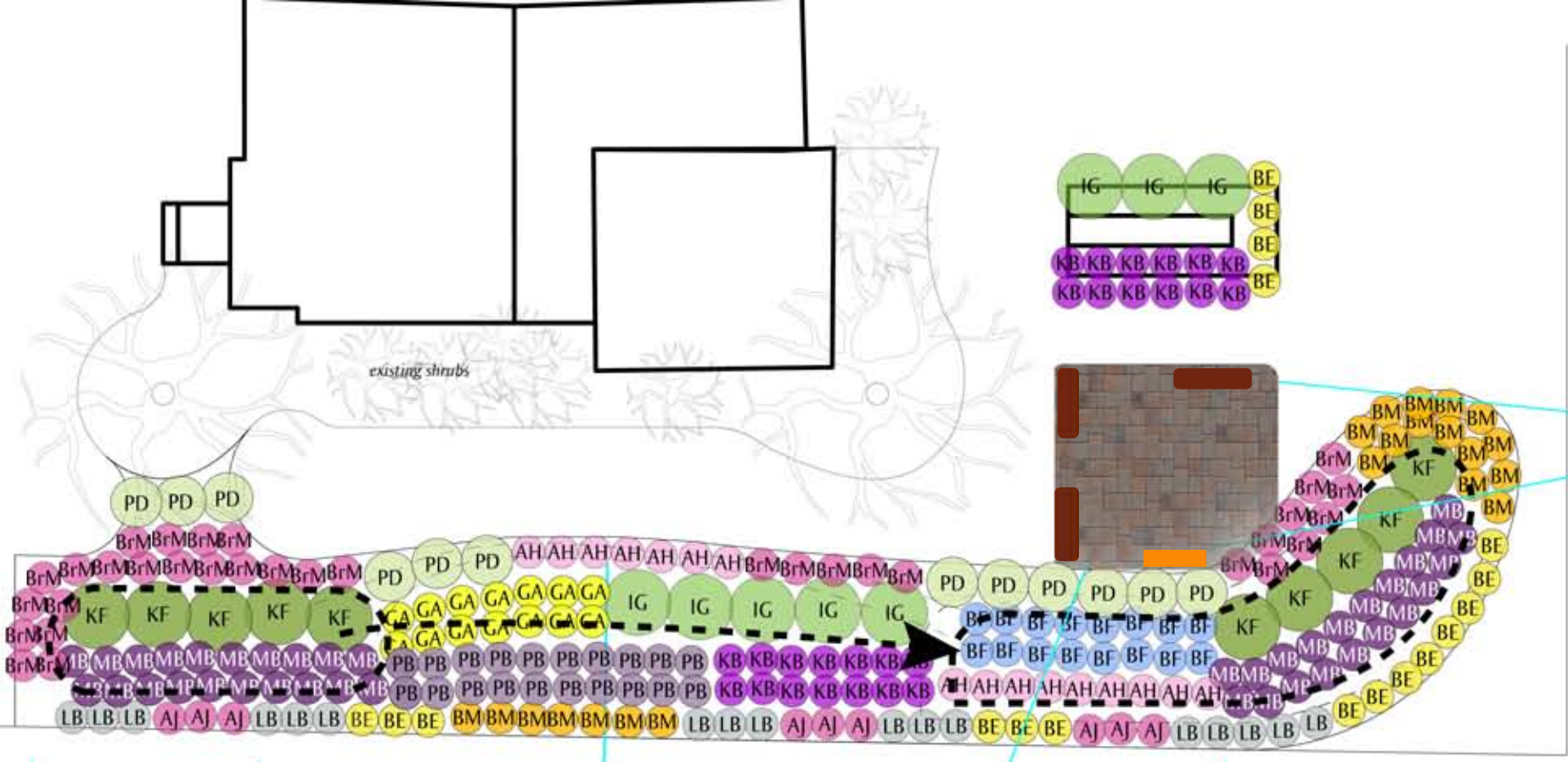


- Drainage Area Treated
- Property Line
- Proposed Raingardens
- Drainage Pattern
- Downspout
- Catch Basin

Re-use Cistern  
 Pre-Treatment Sump Basin  
 Raingarden 1  
 Swale Overflow from RG1 to RG2  
 Permeable Pavers  
 Raingarden 2  
 Remove existing Arborvitae







Educational Signage and Seating

Pre-Treatment Sump Basin

Raingarden 1

Swale Overflow from RG1 to RG2

Permeable Paver Patio

Raingarden 2

Rain Garden Extent  
~1500 sq ft  
Rain Garden Basin  
800 sq ft

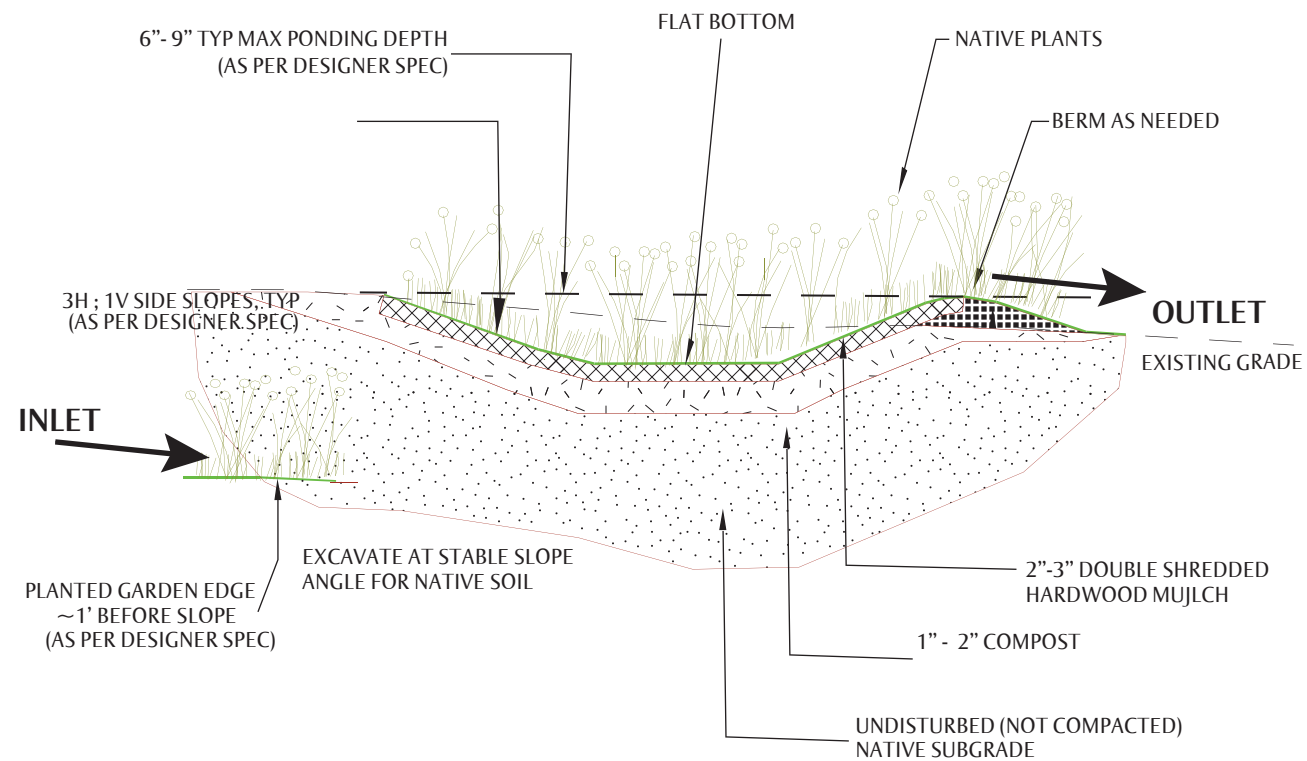
Double Shredded Hardwood Mulch @ 2" depth (1st year)  
Soil Ammendment 70% sand / 30% compost @ 6" depth

	Common Name	Latin Name	Spacing	Height
AH	Anisse Hyssop	<i>Agastache foeniculum</i>	18"	18"
BE	Black-Eyed Susan	<i>Rudbeckia hirta</i>	18"	2'
BF	Blue Flag Iris	<i>Iris versicolor</i>	18"	3'
BM	Butterfly Milkweed	<i>Asclepias tuberosa</i>	18"	18"
BrM	Bradbury's Monarda	<i>Monarda bradburiana</i>	2'	2'
GA	Golden Alexanders	<i>Zizia aurea</i>	2'	2'
IG	Indian Grass	<i>Sorghastrum nutans</i>	2'	4' - 6'
KF	Karl Foerster Grass	<i>Calamagrostis x acutiflora</i>	2'	3'
LB	Little Bluestem	<i>Schyzachyrium scocaparium</i>	2'	3'
KB	Kobold Blazing Star	<i>Liatris spicata 'Kobold'</i>	1'	2'
MB	Meadow Blazing Star	<i>Liatris ligulostylis</i>	1'	4'
PB	Prairie Blazing Star	<i>Liatris poychnostachya</i>	1'	4'
PD	Prairie Dropseed	<i>Sporobolus heterolepis</i>	2'	2'

## Union Congregational Church

Raingarden Planting Plan  
prepared by: Metro Blooms





## INFILTRATION RAIN GARDEN WITH PLANTING SOIL NOTES

### DESIGN NOTES:

- PLANT WITH PLANTS PER LANDSCAPE ARCHITECT DESIGN. NATIVE PLANTS ARE PREFERRED BECAUSE:
- ~THEY PROVIDE HABITAT AND FOOD SOURCE FOR WILDLIFE.
  - ~THE LARGE ROOT STRUCTURE FACILITATES INFILTRATION OF STORM WATER RUNOFF

### CONSTRUCTION NOTES:

#### PLANT MATERIAL AVAILABLE FROM:

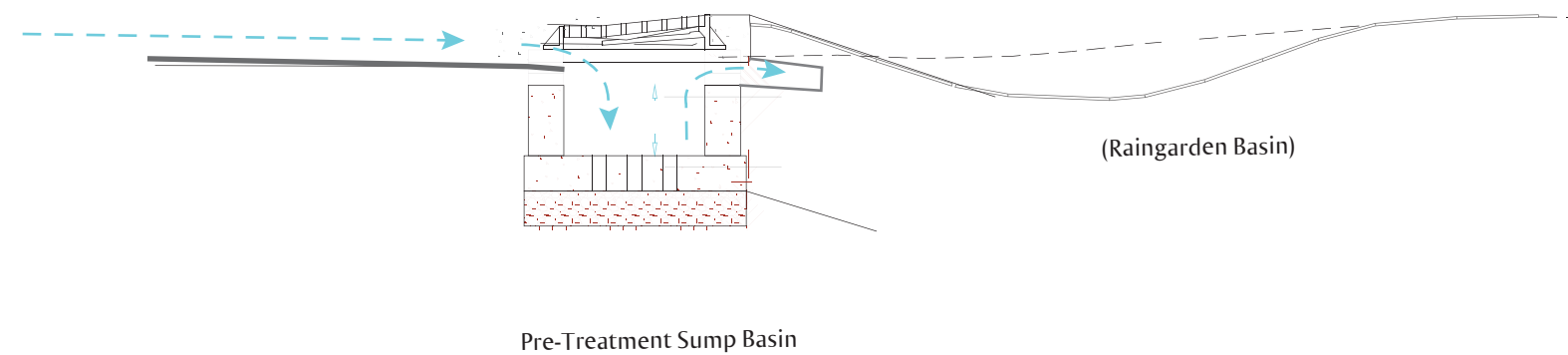
- ~ GLACIAL RIDGE GROWERS
- ~LANDSCAPE ALTERNATIVES
- ~SUNRISE NATIVE PLANTS
- ~DRAGONFLY GARDENS
- ~PRAIRIE RESTORATIONS INC.

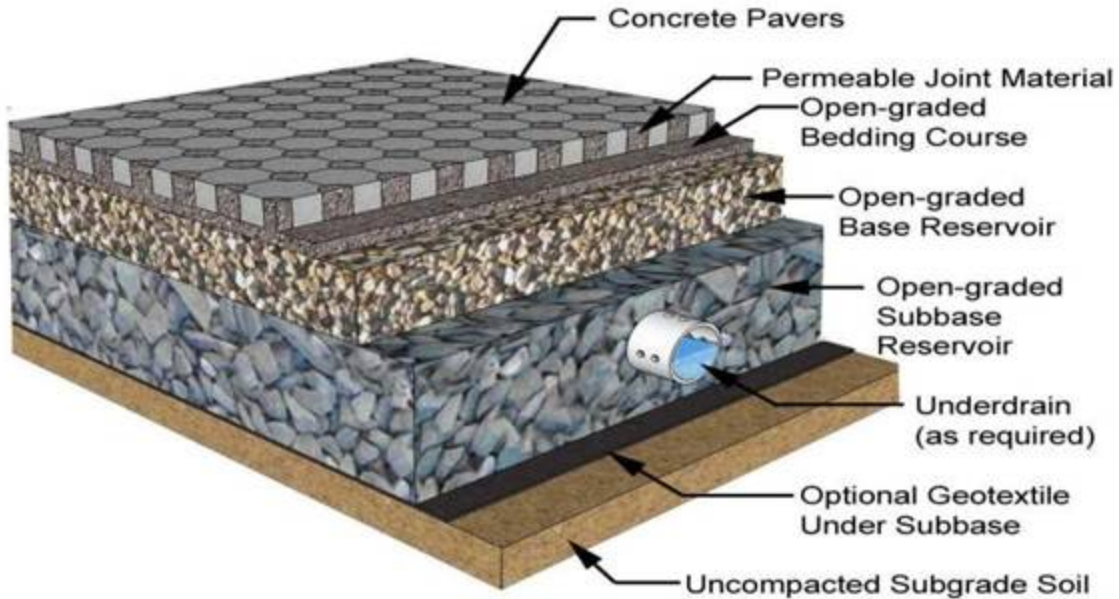
#### DOUBLE SHREDDED HARDWOOD MULCH, COMPOST, AND DRAIN TILE AVAILABLE FROM:

- ~KERN LANDSCAPE RESOURCES
- ~HEDBERG'S
- ~PATIO TOWN

### MAINTENANCE NOTES:

- ~WATER PLANTS AT LEAST 1" PER WEEK FOR DURATION OF FIRST YEAR TO ESTABLISH ROOT STRUCTURE
- ~KEEP GARDEN FREE OF WEEDY INVASIVE PLANTS
- ~CONNECT DOWNSPOUTS ONLY AFTER PLANTS ARE ESTABLISHED. DURING 2ND YEAR.
- ~CUT BACK DECAYING PLANT MATERIAL AND COMPOST IN EARLY SPRING BEFORE NEW GROWTH





**Cost Share Grant Evaluation Form**

Name of Reviewer: Brett Eidem

**Community Engagement Grant**

Date Reviewed: 3-7-2015

**Applicant:** Union Congregational Church

**Project:** Raingarden/Re-Use Cistern

**Total Project Budget:** \$21,850

**Community Engagement Grant:** must be designed to produce greater public awareness of ways to improve water quality. These projects use a stormwater BMP as a demonstration to educate the public to build community capacity to grow knowledge and support of stormwater management in the community.

Organization Type: Church		
Are the Goals of Project Clearly Outlined? Yes. SW Mgmt onsite and Education/Outreach to congregation and greater community		
Past History: Has the applicant applied before? No		
<i>Project Design (30pts)</i>		
<b>Notes:</b> 1.25" rain event prevents 245,637 gallons, 132 lbs TSS and 0.5 lbs phosphorous, re-use some water for veg gardens -Budget Detailed out, Maintenance plan clearly outlines who will upkeep the garden and when	10 /10	<b>Water Resource Improvement to MCWD</b>
	5 /5	<b>Innovative Design</b>
	5 /5	<b>Budget Detail</b>
	10 /10	<b>Maintenance Plan</b>
<b>Project Design Total:</b>		<b>30 /30</b>
<i>Education &amp; Outreach (60 pts)</i>		
<b>Notes:</b> Great opportunities for influence within community through education curriculum with daycare, Ed. signage and learning area. Outreach techniques include working with high schools, social media, annual events. Not leveraging other funds at this time.	20 /20	<b>Influence within Community</b>
	25 /25	<b>Outreach Techniques</b>
	10 /10	<b>Visibility of Demonstration</b>
	0 /5	<b>Leveraging Other Grant Funds</b>
<b>Education and Outreach Total:</b>		<b>55 /60</b>
<i>Water Resource Prioritization (10 pts)</i>		
<b>Notes:</b> MCD would like to design signage to include other District initiatives nearby, within a mile of Urban corridor	5 /10	<b>Alignment with District Priorities</b>
<b>Water Resource Prioritization Total:</b>		<b>5 /10</b>
<b>Total:</b>		<b>90 /100</b>
<b>100 -90pts 75% Funding</b>	The proposal is among the very best; it exceeds expectations in many areas, was very clearly presented, is an excellent match for this funding, and should be funded. Potential for up to 75% funding, not to exceed \$100,000 *project will need Board approval for funding requests over \$5,000 and a public hearing if funding request is over \$50,000	
<b>89-75 pts 50% Funding</b>	The proposal is generally strong and is a good match for this funding. If enough funding is available, this proposal should be funded. A few concerns might need to be addressed. Potential for up to 50% Funding, not to exceed \$50,000 *project will need Board approval for funding requests over \$5,000 and a public hearing if funding request is over \$50,000	
<b>74-50 pts Needs Further Development</b>	The proposal has some strengths but also several problem areas. Areas of concern would need to be addressed before further consideration of funding for this proposal.	
<b>49-0 pts Does Not Qualify</b>	This proposal is quite weak in many of the important areas. Concerns preclude recommendation of funding for this proposal.	
<i>Reporting</i>	<p>*Required for all Community Engagement projects, needed before phased reimbursement is released</p> <ul style="list-style-type: none"> <li>- Description and location of outreach techniques used</li> <li>- Number of people engaged and educated on the project</li> <li>- Has the project and outreach initiated other efforts on improving water quality and awareness</li> <li>- Opportunities for monitoring</li> <li>- Inspection Form</li> </ul>	

**Comments and Notes:** This project is a cost effective solution to SW mgmt., while bringing together the greater community to bring awareness to and promote water quality. By partnering with a daycare, developing education curriculum, and creating an outdoor space for people to gather while including educational signage on a highly visible corner, and a capture/re-use for gardens and hosting annual events, this is a very valuable project to the District. Staff recommends 75% funding, not to exceed \$16,387.50 Church does not have a lot of funds, would need large amount of reimbursement first year, smaller amount for reporting years after.

Cost Share 2015 Detailed Evaluation Criteria  
Community Engagement Grant Evaluation Criteria

**Project Design- 30 Points**

- Water resource impact to MCWD (cost benefit)
  - o Proposed project captures greater than 50% of site runoff
  - o Reduces flow, promotes infiltration, reduces erosion
  - o Creates habitat and promotes pollinator plants
  - o Entire site design, with detailed breakdown of BMPs and correlating removals of each
- Innovation- something we haven't funded before, innovative use of stormwater BMPs, first of its kind in the region/state, multi-functionality, re-use system
- Budget- Detailed cost estimate of project (construction and outreach efforts)
- Maintenance- having a detailed maintenance plan and recommended schedule

**Education and Outreach- 60 Points**

- Influence within Community
  - o Delineating who within the organization will execute education and outreach efforts
  - o Partnerships
    - Schools, other organizations- establishing classroom curriculum around water quality education
    - Collaborations- working with other organizations on the same water quality project
  - o Community Capacity- Does the project encourage community involvement or service by local citizens?
- Outreach Techniques
  - o Educational Signage- Project specific/ Connections to other District Efforts
  - o Host an Event-utilizing partnerships to host an event that incorporates stormwater management awareness and creates a foundation for building community capacity to impact the problem of water pollution
  - o Innovative Outreach Techniques- Use of cutting edge technology, something we haven't funded before, first of its kind in the region/state, utilizing social media
- Visibility- How easily can passersby understand what the project is and how it works
- Leveraging other funds- is project utilizing other grant dollars or resources to accomplish project goals

**Water Resource Prioritization- 10- Points**

- Proximity to Focal Geography of MCWD Initiatives
  - o How can the project complement other District initiatives/future projects
- Proximity to an impaired waterbody
  - o How does project address impairments through BMPs or education
- Protection of high value resource

**Reporting- Required for Community Engagement projects**

- o Description of outreach techniques used and their location
- o Number of people educated and engaged on the project
- o Has the project and outreach initiated other efforts on improving water quality and awareness
- o Opportunities for monitoring
- o Inspection Report

Cost Share Grant Funding Proposal  
**FOR UNION CONGREGATIONAL CHURCH, ST. LOUIS PARK, MN**

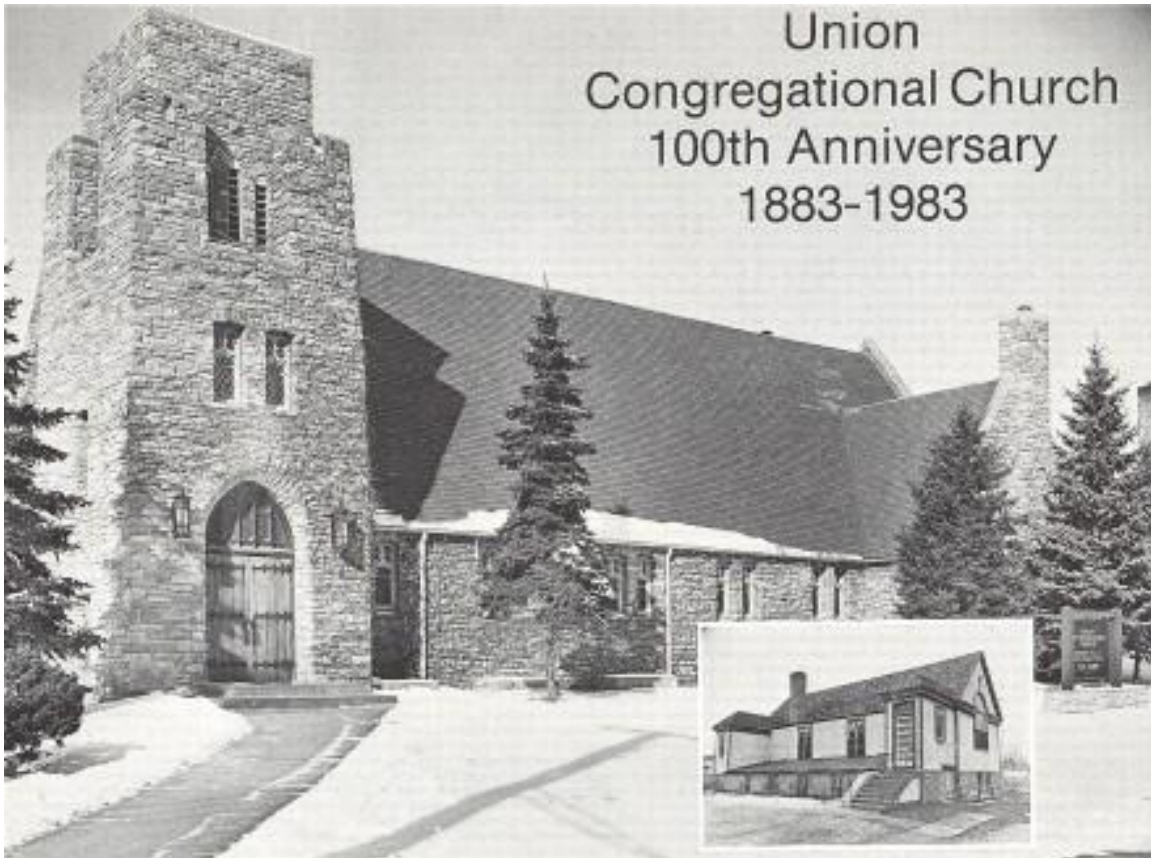
Presented To  
**MINNEHAHA CREEK WATERSHED DISTRICT**

**Board of Managers**

Sherry White, President  
Brian Shekleton, Vice President  
Richard Miller, Treasurer  
Jeffrey Casale, Secretary

Jim Calkins, Manager  
Pam Blixt, Manager  
Bill Olson, Manager

**Citizen Advisory Committee**  
**Cost Share Grant Administrator**  
Brett Eidem



Presented by  
Sue Nissen and Randy Holst  
Master Water Stewards, Minnehaha Creek Watershed District  
March 6, 2015

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Storm Water Management Plan	

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Rain Barrel	

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Maintenance Plan	Page 8
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Education & Outreach	Pages 9-11
Union Congregational Church	
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MSW Coupons	
Potential Partnerships	

Project Team	Page 12
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## Attachments

SWMP Nov 24, 2014 Comprehensive Storm Water Management Plan, Metro Blooms  
(6 pages) *The first page shows the Comprehensive Plan*

UCC Final Design (3 pages) (labeled Rain Garden Planting Guide Metro Blooms)

UCC Final Design with Sitting Space & Walkway (1 page)

Estimate EcoScapes UCC Bullet Points, EcoScapes Sustainable Landscaping (3 pages)

## Situation Analysis

### UNION CONGREGATIONAL CHURCH

Union Congregational United Church of Christ is St. Louis Park's oldest church, founded in 1883. The 250-member congregation holds strong beliefs about social justice and individual responsibility for caring for the earth. Out of these beliefs came a phone call to Freshwater Society requesting guidance in managing rainwater on The Church property. As a part of their social justice thinking the congregation believes it is important to lead by example in the community. They see this proposed project as an opportunity to both demonstrate rainwater BMP's through building and maintaining BMP's projects and promote education in their church, child-care center tenant and their St. Louis Park community.

Visibly well-situated on Alabama Avenue South, a north-south through street just west of Highway 100 and south of Highway 7 in St. Louis Park, the property divides



Union Church property includes area inside blue lines plus the parking lot with vehicles.

three types of land use: a newer medium-density mixed use housing development, existing older residential neighborhood and light commercial.

The building and grounds occupy approximately  $\frac{3}{4}$  of a block and include a 1940's era stone sanctuary, and 1960's era narthex and educational wing. Grounds include a preschool age playground, garden with plots, two parking lots and miscellaneous lawns. *Note: the large parking lot on northwest corner is church property.*

All current water conveyance on the property is traditional and age appropriate for the buildings and grounds.



## KIDZONE CHILD CARE CENTER

During the week Union houses Kid Zone Child Care Center (KidZone) in its education wing. KidZone is a daycare center for children infant through pre-kindergarten (age five and a half) serving St. Louis Park families since 1989. Currently over 50% of students attending KidZone live within three blocks the church. St. Louis Park Magazine selected KidZone as “Best St. Louis Park Daycare” in 2015.



Young KidZone students in the Union garden

The staff at KidZone already embraces authentic curriculum about the environment and sustainability. They raise organic foods for their own kitchen and donation in the church vegetable garden. This spring all five classrooms are starting plants (including native plants) from seed, for their garden plots at the church and their home gardens.

Going forward Director Marcy Dearing and Kathy Rappos, Food & Nutrition Director are highly enthusiastic and committed to incorporating numerous lessons about rain gardens, water usage, native plants, and pollinators into their curriculum. (See Education & Outreach)

Two electronic newsletters keep KidZone parents informed, a regular monthly newsletter and a seasonal gardening newsletter. Monthly occasions or celebrations are held for students and their families.

## COMPREHENSIVE STORM WATER MANAGEMENT PLAN

Metro Blooms completed a comprehensive storm water management plan of the Union site. The plan identified four major areas around the church that would benefit from capturing runoff: south side of sanctuary, east side of education building, KidZone playground, and west side of education building. The analysis was used as a tool to educate Union leadership about runoff on their property and to evaluate potential projects.

After discussion it was decided to begin with the areas that highest immediate impact and visibility, both with rainwater mitigation and educational outreach.

## Overview of Selected Projects

### *Two Rain Gardens with BioSwale, and Sitting Area*



Photo taken from corner of Alabama Avenue (through street to right) and Oxford Street (to left). Entrance to Union parking lot is on left side of picture.

*Summary:* The first project proposes two rain gardens with MCWD educational signage, a rain garden lending library, and a sitting area, filling the lawn area at Alabama/Oxford corner extending down Oxford to the church parking lot, the runoff source. The entrance to the sitting area will be off the sidewalk on Alabama Avenue.

*Runoff Benefit:* In a 1.25" rain event this project will prevent 245,637 gallons of rainwater, 132 lbs sediment and 0.5 lbs phosphorous from reaching the storm sewer visible on Oxford Street.

*Education/Outreach Potential:* The area will be highly visible to traffic on Alabama Avenue and easily accessible for congregants, neighbors and KidZone students and their families walking the neighborhood or going to church. The area with sitting area tucked in the garden would invite people to stop or gather for study, reflection, and immersion in the benefits of rain gardens and native habitat.

### *Rain Barrel Project*



*Summary:* The second project is a 250-gallon rain barrel to the right of the door on the west side of the education building.

*Runoff Benefit:* Collection of water from the downspout near the door, decreasing pooling in the lawn.

*Education/Outreach Potential:* The area is highly visible when entering the church. Congregants and KidZone students will model using collected water for garden plots.

## Project Descriptions and Costs

### Two Rain Gardens with Bio Swale

We propose installing two rain gardens with bio swale on the south lawn of Union Church from the corner of Alabama and Oxford Streets the church parking lot. The gardens will infiltrate runoff from .61 acre of turf, parking lot, roof and sidewalk as indicated in the Metro Blooms Rain Garden Planting Plan This project will prevent 245,637 gallons of water, 132 pounds of sediment and .5 pounds phosphorus from reaching the storm sewer. The two gardens and swale will cover 1500 square feet and will capture 82.18 % of the runoff volume from the drainage area.

To convey the runoff into the rain gardens a new curb and gutter with apron will be installed along the parking lot for approximately 15' and to prevent sediment build-up in the first garden, a pretreatment structure (Rain Guardian or similar) will be installed at the entrance of the rain garden. This structure will capture 89.5% of the sediment and 89% of the phosphorous carried by the runoff.

The gardens will be excavated and graded as shown in the plan and planted with native plants and trees that infiltrate water and support wildlife, with specific emphasis on providing habitat for pollinators and Monarch butterflies. The area will be covered with hardwood mulch and edged with Chilton edging.

Additional information about garden installation can be in found in EcoScapes Estimate.

Cost: \$12,800

### Rain Garden Signage

1. MCWD will design a sign for a garden that educates visitors about this rain garden and other nearby MCWD projects. Cost: \$1,500
2. Individual plants in the garden will be identified with engraved plant markers showing common and Latin names of each type of plants. Cost: \$150



## Rain Garden Outreach Sitting Area

We propose creating an outdoor area to rest and reflect, study or connect with others, by installing a 10' by 10' Permeable Willow Creek brickstone nestled between the second garden and the church at the corner of Alabama Avenue and Oxford Street. Stepping-stones will lead from the sidewalk along Alabama Avenue into the sitting area.

This area will be a highly visible, welcoming space for the community. It's a place for classes to study, students to take their parents, congregants to gather and neighbors to explore.

Cost: \$4,000

## Rain Garden Little Lending Library



At the sitting area, we propose a wooden little lending library. The church will keep it stocked with educational materials about rain gardens, managing storm water, native plants and pollinators, and coupons for free MWS consultations. The community will be encouraged to add materials and books. Materials could be used while in the garden or taken home by visitors.

Cost \$250

## Rain Barrel Project



We propose a 4' x 4' x 2' Versa-lok retaining wall base for a 275-gallon rain barrel (example picture at left) with spigot and overflow to hold filtered runoff from the education-building roof for use by the daycare in watering the vegetable garden. The base will raise the rain barrel the ground so that water can easily be accessed for use in the garden.

The rain barrel will be located by the door on the west side of the education building, and a screen will filter storm water collected from the downspout there before

it enters the barrel. The rain barrel will be enclosed with a cedar fence.  
(Rain barrel continued)

This project will be visible to anyone entering on the west side of the church and will be used for watering the garden plots throughout the growing season by students and congregants.

Cost: \$1,500

## **Installation Plan**

EcoScapes Sustainable Landscaping will complete most of the project installation. A proposal from EcoScapes is included in this proposal. Volunteer labor from Union is planned for planting the rain gardens.

## **Maintenance Plan**

Kirk Shoeger, Chairman of Union Church Building & Grounds Committee, will supervise maintenance on the rain gardens and rain barrel. Kirk has been chairman for one-and-one-half years and has been on the committee for seven years. Seven members serve on the committee.

1. *Training:* Kirk Shoeger will meet with Craig Stark from EcoScapes after installation for instruction on maintaining the gardens and rain barrel. He will train the Summer Grounds Crew.
2. *Manual:* Create a written manual with care information and maintenance schedule for all installations. Including but not limited to cleaning of pretreatment structure, care for the new plantings, fact sheets for individual plants, and upkeep on the rain barrel system. The Chairman of Building & Ground Committee, Kirk Shoeger, will be responsible for selecting a place at the church to store the manual.
3. *Volunteer Labor:* Labor for maintaining the gardens and rain barrel will come from these sources:
  - a. *Four-member Summer Grounds Crew*
  - b. *Spring/Fall All Church Cleanup Day:* For over the 30 years the church has held spring and fall clean up days. 50% of the work is on the grounds, and includes seasonal garden work. Rain Garden care will be added to those days under the supervision of Kirk Shoeger.
  - c. *Youth Group Service Commitment:* One specific garden task will be selected by the Union Youth Group as one of it's service commitments to the church under direction of Leah Springer, Director of Faith Formation.
  - d. *New Volunteers:* Recruit congregants interested in gardening at events (Pancake Breakfast and Open House), bulletin board, and newsletter,

with the goal of setting up a dedicated group for the rain garden maintenance.

## **Education and Outreach**

### AT UNION CHURCH

Union Church is excited to demonstrate spread the word about storm water reduction strategies to their community. From leadership through congregants, they are looking forward expanding their earth stewardship and outreach.

1. *Union Annual Earth Day Event: Pancake Breakfast, April 19, 2015* hosted by Leah Springer, Director of Faith Formation and Union Youth Group with support from Kirk Shoeger, Building & Grounds, and Randy Holst and Sue Nissen, Master Water Stewards. Held between Sunday morning services. KidZone families will also be invited to attend. Cost \$150
  - a. *Education:* This is an education event, to introduce storm water management and potential upcoming project, up to 30 minute program
    - i. Why do we need to keep rainwater on Union's property?
    - ii. Summary of storm water issues on Union property
    - iii. How can a project at Union Church help reduce runoff? Include data from comprehensive plan.
    - iv. What can you do at your home? Offer MSW Coupons
  - b. *Volunteer Help:* Identify and engage potential volunteers interested in conservation and gardening, for planting/maintaining gardens and participating in education/outreach.
  - c. *Fundraiser:* Kirk thinks there is potential to supplement the funds the Church Council has already committed to this project by make available variety of sizes of financial opportunities for funding the projects – i.e. gift the rain barrel, a type of plant, etc.
  - d. *Pollinator Plant Give-Away:* To build interest and knowledge about native plants, 12 plants will be given away in raffle, for winners to plant in their home gardens.
2. *Ongoing Communication:* The monthly newsletter, *The Uniter*, and weekly email, *The Epistle*, and the church website will be used for a variety of article and timely updates, written by Kirk Shoeger, Sue Nissen, Randy Holst or yet to be identified new project volunteers.
3. *Community Open House Fall 2015:* Date to be determined. Planning will take place summer 2015 lead by Kirk Shoeger with assistance from Randy Holst, Sue Nissen, colleagues from Master Water Stewards, and yet to be identified new church volunteers. Once garden is in, more people are involved in maintenance, the church will host an open house, inviting KidZone, neighbors from a one mile radius around the church and include the medium density (senior/townhome) development and traditional neighbor hood. To build

interest and knowledge about native plants, 12 plants will be given away in raffle, for winners to plant in their home gardens. Cost \$200

4. *What's Going on in the Rain Garden? White Board: 36" by 24"* white board mounted on the wall in the fellowship hall where many people can see it, this board will be an easily manageable space where news about what is going on currently in the rain gardens or at the rain barrel can be posted to encourage congregants to learn more about and visit the garden. Cost \$30
  - a. It will hold two or three pieces *short* pieces of current information about the garden or rain barrel, such as *"Blazing Stars are just opening. Look for tall purple spikes. John saw Monarch butterflies there Saturday!"* or *"In last weeks rain our gardens prevented XXX gallons of water from reaching the storm sewer"*.
  - b. The date of the update or siting will be noted.
  - c. Kirk Shoeger or someone he assigns to the project will update the board each week prior to Sunday services to build curiosity and so that the congregation gets into the habit of checking for the latest activity in the garden or at the rain barrel.

#### ESTABLISHED PARTNERSHIP KID ZONE CHILD CARE CENTER

1. *Classroom/Curriculum Activities*
  - Each classroom grow native rain garden plants from seed, plant at church or take home,
  - Older students watch progress of the rain garden, incorporate math, which plants will grow faster or taller,
  - Starting fall 2015 older children harvest seed heads from rain garden,
  - All classes visit the rain garden to see seasonal changes, art projects
  - Rain gauges for classrooms to measure rainfall, walk to garden after a 1.25 inch rainfall, observe, measure water level,
  - Students walk by rain garden with family and try to identify plants,
  - Hallway Bulletin Boards with measurements, pictures, etc.
  - Observe wildlife
2. *KidZone Newsletters*
  - Seasonal Garden Newsletter: Short articles encouraging families to stop by the projects to see what is currently going on, news about what to look for the rain garden or rain barrel area during growing season, links to additional information
  - Monthly newsletter, larger stories, i.e. planting the garden
3. *KidZone Spring Open House* - MWS Tours by Randy Holst, Sue Nissen or colleagues, of rain garden for families attending. Date to be determined.
4. *Preschool Rain garden Backpacks*. Collaborate with KidZone to prepare backpacks that allow self-guided student exploration and discovery of the garden. To include plant pictures either baseball card style plant cards

- (Metro Blooms) or pictures on a stick (Blue Thumb), magnifier, measuring tools, drawing paper, pencil. Cost: \$120
5. *Laminated Plant Information Sheets* – durable format for families can find in the Rain Garden Lending Library. Each sheet would give information on one plant and why it's important in the garden.

## MWS COUPONS

The MSW program offers coupons for a free one-hour consultation. Coupons will be available at the church and KidZone, and in the Rain Garden Lending Library, with the goal of engaging people in solving runoff problems on their property and specifically to taking advantage of the proximity that many people have to Union Church. Our vision is to help create a saturated area around the church where property owners have decreased the runoff and increase natural habitat, especially pollinator and Monarch butterfly habit on properties close to the church.

Cost: Provided by Freshwater Society

## POTENTIAL PARTNERSHIPS

- St. Louis Park Magazine. Last year the KidZone garden was featured in this publication. Plans are to follow up about an article on the rain gardens and rain barrel.
- Hopkins and St. Louis Park high schools both have Environmental Science Clubs. Students in the clubs often need volunteer hours. Kirk Shoeger, who teaches at Hopkins High School, is contacting the clubs to explore strategies for students to volunteer.



## **TOTAL PROPOSAL COSTS**

### **Garden & Rain Barrel Costs**

Onsite Consultation and Design Fees	\$ 900
Two Rain Gardens with Bio Swale	\$ 12,800
Permeable Paver Outreach Sitting Area	\$ 4,000
Educational Signage*	\$ 1,500
Rain Barrel Project	\$ 1,500
Total for Design, Gardens, Permeable Pavers & Rain Barrel (What Qualifies for Cost Share Funding)	\$ 20,700

### **Education/Outreach Cost**

Rain Garden Lending Library	\$ 200
Union Earth Day Event/April 19, 2015	\$ 150
Neighborhood Open House/ Fall 2015	\$ 200
White Board	\$ 30
Backpacks	\$ 120
Total Education/Outreach	\$ 700
<b>Total Cost</b>	<b>\$ 21,400</b>

\*Cost of producing MCWD sign is an estimate

### **Project Team**

Kirk Shoger, Chairman of Union Church Building & Grounds Committee, Randy Holst and Sue Nissen, 2014 Master Water Stewards, with assistance and support from Peggy Knapp, Freshwater Society, Brett Eidem, MCWD, Andy Novak, Metro Blooms, and Craig Stark, EcoScapes.



## Estimate

Union Congregational Church  
W 37th St  
St Louis Park, MN 55416

**Project:** Raingarden Installations

**Date:** March 30, 2014

**Proposal #1: Raingarden # 1 & 2 Installation:** Install raingardens # 1 & 2 as designed in plan submitted by Metro Blooms. Excavate and grade raingardens as shown in plan. Haul away approx.. 50 yards of soil away. Remove 2 arborvitae trees. Install 10 yards of compost and mix soil into garden. Install soil erosion control fabric on berm of garden. Create bio Swale between to areas. Install new curb and gutter along parking lot for approx.. 15' and an apron to a new pretreatment structure to entrance of rain garden, Rain Guardian or other. Install rock outlet as shown on plan. Install 4- 10 ornamental trees, 300 1 gallon perennials. Mulch raingarden with 12 yards of shredded hardwood mulch. Repair or replace turf areas disturbed by project. Install Chilton edging along church side of raingarden, approx.. 150ft.

\$12,800.00

**Proposal #2:** Install 10' x 10' Permeable Willow Creek brickstone paver patio adjacent to raingarden for outreach and education. Install 3 Chilton stone outcroppings for benches or can be memorial benches for members of the church. Install 15 Chilton stepping stones to lead to the patio from the sidewalk.

\$4000.00

**Proposal #3:** Install 4' x 4' x 2' Versa-lok retaining wall base for a 275 gal. Rain barrel. Install Rain barrel with a spigot and overflow. Conceal rain barrel with a Cedar fence on sides and front.

\$1,500.00

### Contract Terms

This is an agreement between "Customer", defined above, and Ecoscapes Sustainable Landscaping. Under the terms set forth below, Customer agrees to purchase the services of Ecoscapes in preparing and constructing the landscaping and/or brick paving and/or retaining wall design as set forth in the Proposals, and Ecoscapes agrees to render such services. As consideration, Customer agrees to pay Ecoscapes the amount shown as "Total" in the Project Description ("Contract Price") in exchange for performing the services described in the Contract Description. The parties further agree as follows:

### Payments

Customer will pay Ecoscapes 50% of the Contract Price upon acceptance of the Proposal. Ecoscapes will invoice Customer for the remaining balance along with any change orders due to site conditions, customer's changes or additions, and design changes, when work is substantially complete, as determined by Ecoscapes. The invoice shall be paid by



Customer within 15 days of the invoice date. If the total balance is not received by Ecoscapes by the end of the 15-day period, interest will be paid on that balance by Customer at a rate of 1.5% per month. Failure by Customer to pay the remaining balance within 105 days will constitute breach of this agreement. Upon breach of this agreement, Customer agrees to pay all costs of collecting any remaining balances, including attorney's fees. No warranties will be issued until full payment is received.

#### **Brick Paving/ Retaining Walls**

Ecoscapes warrants that brick paving or retaining wall material used in this contract will be free from defects and the installation will be functional for a period of two (2) years from the date of completion of the Contract, provided the installation was used as was intended when the Contract was designed, and was not misused. Any repairs/replacements made to any installation after expiration of the warranty will be made at Customer's expense. Any repairs made to any installation by any party other than Ecoscapes voids any warranties offered by Ecoscapes.

#### **Changes**

Ecoscapes will make reasonable efforts to complete the Contract as designed. Circumstances may arise beyond the control of Ecoscapes that may prevent construction of the Contract exactly as planned. Ecoscapes will make reasonable efforts to minimize this impact on the design and construction. Customer acknowledges this possibility and accepts the action Ecoscapes will take to minimize the potential change in design. If Customer wishes to change any part of the installation after this agreement is signed, but prior to commencement of installation, which results in additional material or labor costs for Ecoscapes or results in delays in the completion of the Contract, said costs will be added to the remaining balance of the Contract and billed as part of the original Contract. Any changes in the design or Contract, whether the changes result in additional time, cost, or neither, must be made in writing and signed by both parties, using an Additional Work Order Form.

#### **Permits**

Ecoscapes is responsible for securing the right of way and sewer permits. Unless specified in writing, Ecoscapes is not responsible for code violation made at Customer request.

#### **PROJECT START AND COMPLETION**

An estimate of the number of days to complete the contracted work and an expected start date are provided as a courtesy. There may be delays in the beginning date and completion date due to poor weather or other circumstances beyond the control of Ecoscapes. Those delays will not alter or invalidate any part of this Contract, nor will they entitle Customer to additional rights under the Contract

#### **Termination**

This agreement may be canceled by Customer by mailing written notice to Ecoscapes before midnight the third business day after Customer has signed this agreement. If after that time Customer wishes to terminate this Contract, Customer must give Ecoscapes five (5) days advance written notice. Ecoscapes will retain any monies paid by Customer up



to the effective date of termination, and is entitled to any expenses for materials or other expenses incurred by Ecoscapes.

**Notice of Lien Rights**

AS REQUIRED BY THE MINNESOTA CONSTRUCTION LIEN LAW, BUILDER HEREBY NOTIFIES OWNER THAT PERSONS OR COMPANIES FURNISHING LABOR OR MATERIALS FOR THE CONSTRUCTION ON OWNER'S LAND MAY HAVE LIEN RIGHTS ON OWNER'S LAND AND BUILDINGS IF NOT PAID. THOSE ENTITLED TO LIEN RIGHTS, IN ADDITION TO THE UNDERSIGNED BUILDER, ARE THOSE WHO CONTRACT DIRECTLY WITH THE OWNER OR THOSE WHO GIVE THE OWNER NOTICE WITHIN 60 DAYS AFTER THEY FIRST FURNISH LABOR OR MATERIALS FOR THE CONSTRUCTION. ACCORDINGLY, OWNER PROBABLY WILL RECEIVE NOTICES FROM THOSE WHO FURNISH LABOR OR MATERIALS FOR THE CONSTRUCTION, AND SHOULD GIVE A COPY OF EACH NOTICE RECEIVED TO THE MORTGAGE LENDER, IF ANY, TO SEE THAT ALL POTENTIAL LIEN CLAIMANTS ARE DULY PAID.

The failure of Ecoscapes to enforce any right accruing under this agreement shall not be construed as a waiver of a subsequent right of Ecoscapes to enforce the same or any other right, term or condition.

This agreement shall be interpreted and enforced in accordance with the laws of the State of Minnesota.

To agree to individual proposals of contract, initial next to price of agreed proposal and write in calculated total contract price in space provided. Sign contract below to create a binding agreement.

Customer Signature \_\_\_\_\_ Date \_\_\_\_\_