

Minnehaha Creek Watershed District

REQUEST FOR BOARD ACTION

MEETING DATE: June 26th, 2014

TITLE: Authorization of Cost Share Funding- Cedar-Isles-Dean Neighborhood Association

RESOLUTION NUMBER: 14-054

PREPARED BY: Brett Eidem, Cost Share Specialist

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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 50 percent of the documented cost of the project, not to exceed \$9,362.50 from the Cost Share Fund, for the installation of 10 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, property owners and District staff.
2. Authorize the Administrator to execute and sign a Cost Share funding agreement with the Cedar-Isles-Dean Neighborhood Association and execute maintenance agreements between the District and the owners of the property where the BMP's are installed.

PROJECT/PROGRAM LOCATION:

Cedar-Isles-Dean Neighborhood, Minneapolis (map attached)

PROJECT TIMELINE:

Summer/Fall 2014

PROJECT/PROGRAM COST:

Fund name and number:

Current budget:

Amount approved in 2014 to date:

Requested amount of funding:

Cost Share Grant Program (3130)

\$670,786.00

\$81,308.82

50% of the documented costs for construction of 10 stormwater BMPs, not to exceed \$9,362.50

SUMMARY:

The Cedar Isles Dean Neighborhood Association (CIDNA) is partnering with Metro Blooms and the Minnehaha Creek Watershed District to educate property owners about the benefits of raingardens and help them install them on their property. Up to 10 property owners in Cedar-Isles-Dean neighborhood will be selected to receive an onsite consultation and a raingarden design from Metro Blooms. CIDNA will provide the majority of the funding for the project management, consultation, design and construction, so the property owner will receive a stormwater BMP at a nominal cost.

BENEFITS OF THE PROJECT AS THEY PERTAIN TO THE COST SHARE EVALUATION CRITERIA:

Water Quality: The CIDNA project will reduce the volume of runoff flowing into storm drains and out into Minnehaha Creek by promoting infiltration of stormwater runoff through raingardens and permeable pavers.

Soil Erosion Control: Projects will capture sediment from yards, driveways and roofs that would otherwise end up in Minnehaha Creek and will reduce erosion through volume reduction.

Wildlife Habitat: The project is innovative in its approach to stormwater management by incorporating backyard alleyway projects which will serve multiple purposes: they will beautify alleys, create habitat and protect clean water. Typical residential properties on alleyways are designed to drain 60% or more to the alleyway. Backyard projects have the potential to capture more stormwater and capture the most polluted runoff that leaves a property. These projects will serve as demonstration sites for other backyard/alleyway projects.

Collaboration: This project is in collaboration with Metro Blooms and citizens throughout the Cedar-Isles-Dean neighborhood as well as the neighborhood association (CIDNA). Projects engage citizens in the siting, design and installation of their own stormwater management practices and require financial support from each participant.

Public Outreach: Raingarden and permeable paver projects will be designed where they are able to capture the most stormwater runoff. Many of these sites will be publicly visible and those that are not will be asked to provide access to their practice for education/outreach events.

PROJECT DETAILS:

The project will include the construction of up to 3 permeable paver installations, as well as up to 7 raingarden installations. CIDNA will work with Metro Blooms to host workshops and educate homeowners on the benefits of stormwater BMPs, and recruitment methods to encourage additional homeowners to implement projects on their properties. Metro Blooms will coordinate with the MN Conservation Corps to assist with labor on the construction of raingardens.

The CAC has recommended funding this project contingent upon staff researching if the project reimbursement can go directly to the homeowners or CIDNA. Staff had proposed reimbursing CIDNA for a majority of its contributions, which include paying the costs of design consultations, organization of the project and construction labor. The homeowners' contribution would be nominal.

District legal counsel has advised that cost-share agreements can be structured to fit the circumstances of a particular project. Here, CIDNA has applied for the cost-share support and will be working directly with homeowners to be identified on design and installation. Therefore, the proposed structure of the MCWD cost share for this project is a grant agreement between the District and CIDNA, with reimbursement contingent on CIDNA's securing a maintenance agreement between the District and the individual property owners. From previous workshops hosted by CIDNA and Metro Blooms, the participating homeowners are well aware of the cost breakdown and the 10 year maintenance commitment to the BMPs.

DESIGN, CONSTRUCTION, AND MATERIAL COSTS

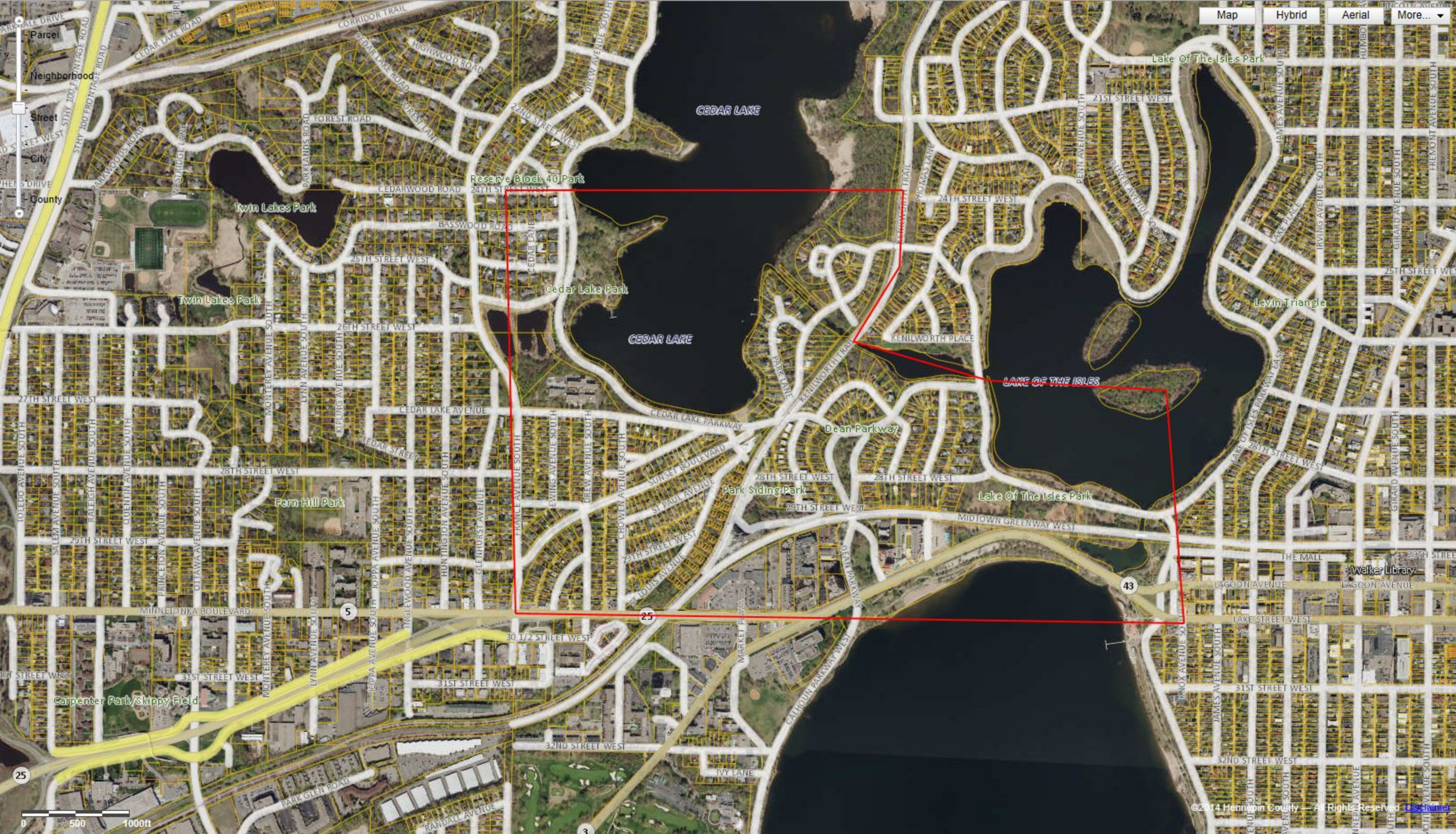
The eligible cost from the project designer's estimate for the 10 BMP installation comes to \$18,725.00.
(Cost Estimate Breakdown Attached)

STAFF RECOMMENDATION

Staff and the CAC recommends funding 50% of project, not to exceed \$9,362.50, 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. Location of Existing Volunteer Participants
3. Example of Raingarden Design
4. Example of Pervious Paver Design
5. Alleyway Perspective
6. Cost Estimate Breakdown




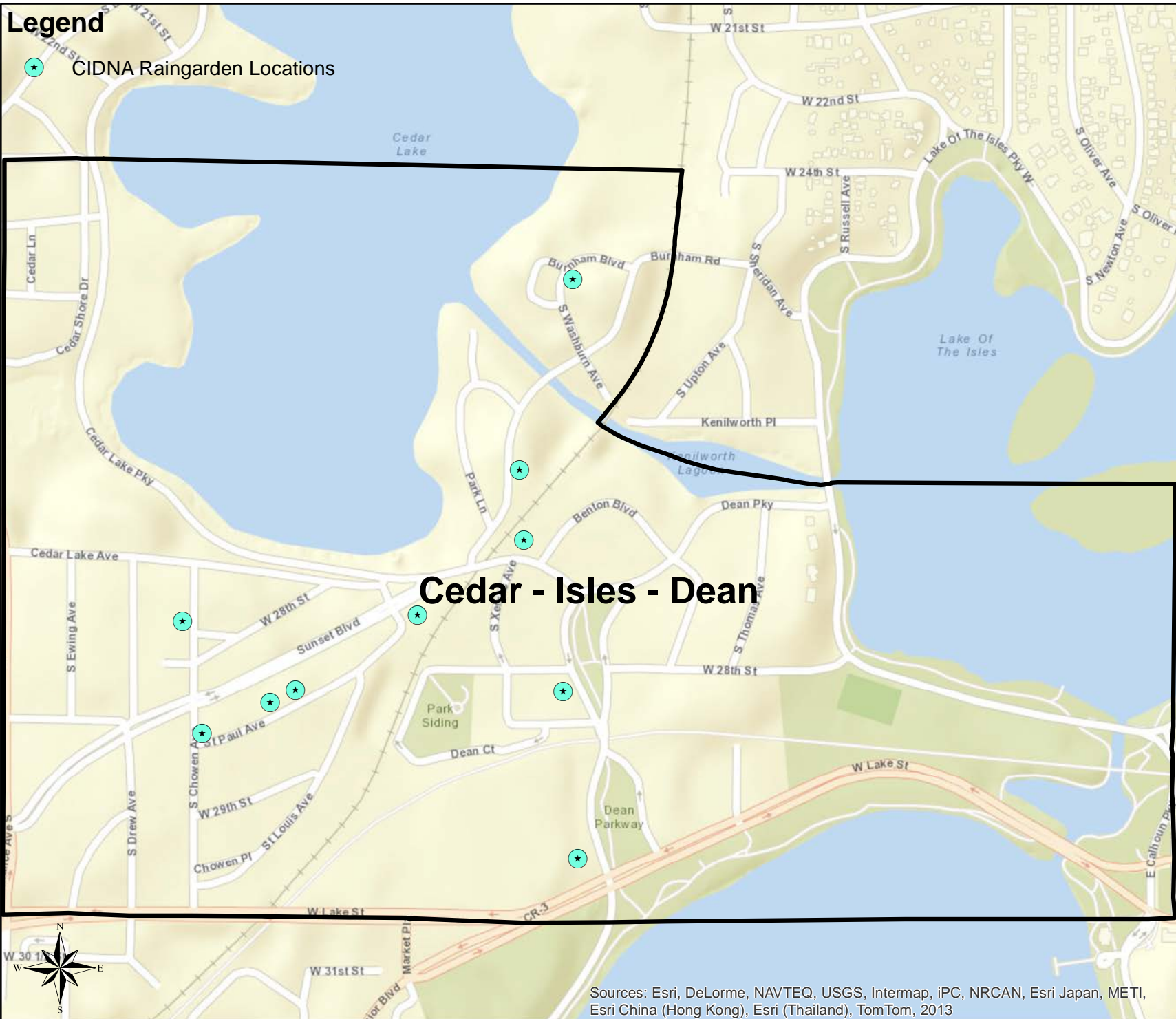
- Parcel
- Neighborhood
- Street
- City
- County

0 500 1000ft

Cedar Isles Dean Neighborhood of Raingardens

Legend

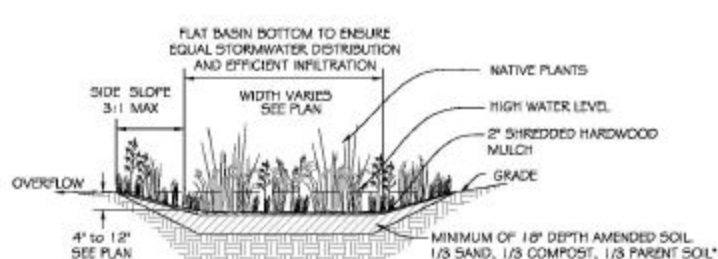
 CIDNA Raingarden Locations



Cedar - Isles - Dean

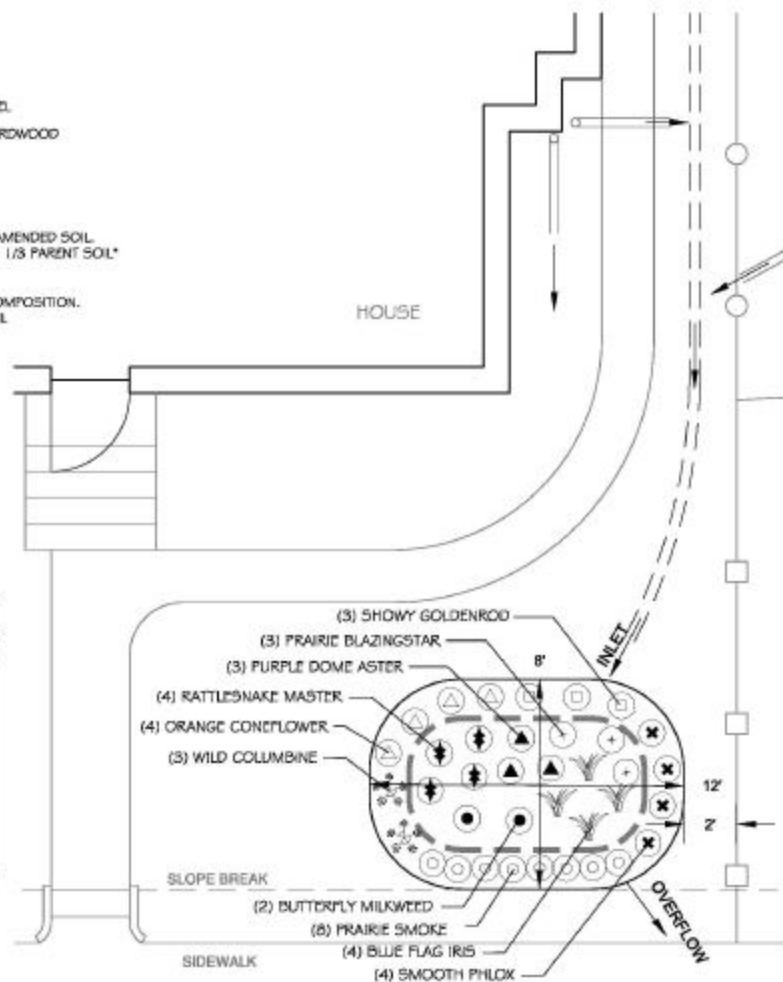
Participants

- 1 Phil Rosenbloom
2511 Washburn Ave S
- 2 Maythee Kanter
3426 St Paul Ave
- 3 Alex Dietz
2806 Dean Parkway
- 4 Annajeane Lee
2601 Burnham Rd
- 5 Karin Westgate
3534 St Paul Ave
- 6 Stacia Goodman
2724 Chowen Ave
- 7 Leila Brammer
2820 Cedar Lake Pkwy
- 8 Gail Lee
3438 St Paul Ave
- 9 Pat Shirley
2621 Burnham Rd
- 10 Norm DeWitt
2950 Dean Pkwy



*GENERAL FORMULA FOR AVERAGE SOILS.
 FORMULA TO BE ADJUSTED BASED ON EXISTING SOIL COMPOSITION.
 CLAY SOILS = MORE SAND/COMPOST, LESS PARENT SOIL
 SANDY SOILS = MORE COMPOST, NO SAND

PLANT SCHEDULE			
QTY	COMMON NAME	SCIENTIFIC NAME	SPACING
2	BUTTERFLY MILKWEED	<i>Asclepias tuberosa</i>	24"
3	PURPLE DOME ASTER	<i>Aster novae-angliae</i> 'Purple Dome'	18"
3	WILD COLUMBINE	<i>Aquilegia canadensis</i>	18"
4	RATTLE SNAKE MASTER	<i>Eryngium yuccifolium</i>	18"
8	PRAIRIE SMOKE	<i>Geum triflorum</i>	12"
4	BLUE FLAG IRIS	<i>Iris versicolor</i>	18"
3	PRAIRIE BLAZING STAR	<i>Liatris pycnostachya</i>	18"
4	SMOOTH PHLOX	<i>Phlox glaberrima</i>	18"
4	ORANGE CONEFLOWER	<i>Rudbeckia goldstrum</i>	18"
3	SHOWY GOLDENROD	<i>Solidago speciosa</i>	18"



NOTES

RAINGARDEN LOCATED IN THE FRONT YARD

STORMWATER IS CONVEYED TO RAINGARDEN VIA DRAIN TILE BURIED IN EAST SIDE YARD. DRAIN TILE WILL COLLECT WATER FROM OVERLAND DOWNSPOUTS FROM BOTH HOUSES.

DRAIN TILE TO BE INSTALLED BY OWNER. ENSURE THE TILE HAS A 1/8" (1/8' / 1 FOOT) SLOPE TO THE RAINGARDEN)

RAINGARDEN DETAILS:
 42 SF BASIN @ 9" DEPTH
 TOTAL PLANTED AREA = 85 SF
 3:1 SLIDE SLOPES

MULCH: .52 CY SHREDDED
 HARDWOOD @2IN DEPTH
 COMPOST: .77 CY

EXCAVATE BASIN AND GRADE TO DESIRED ELEVATION AND SIDE SLOPES.

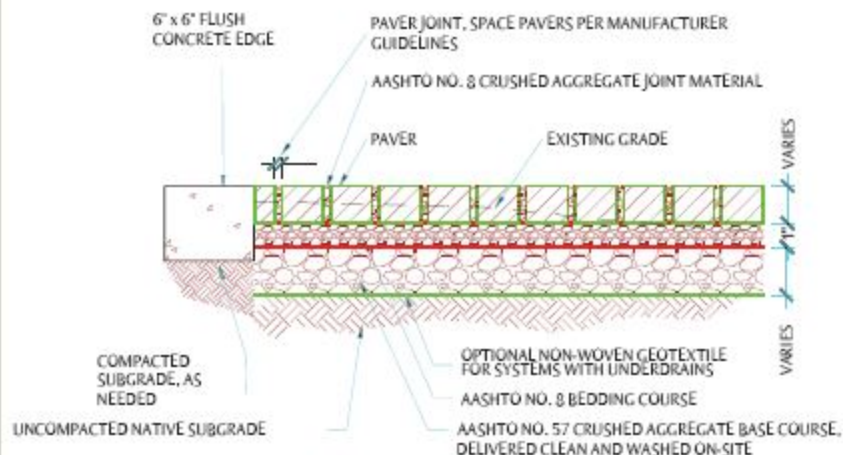
REMOVE ADDITIONAL 6" FROM BASIN BOTTOM. ADD COMPOST AND MIX INTO SOIL THOROUGHLY TO 18" DEPTH. REGRADE.

ENSURE BASIN BOTTOM IS FLAT FOR EVEN DISTRIBUTION OF STORM WATER AND EFFICIENT INFILTRATION.

OVERFLOW IS LOCATED AT THE SLOPE BREAK 3 FEET FROM THE SIDEWALK. ENSURE THAT THE OVERFLOW IS AT LEAST 9" ABOVE THE BASIN BOTTOM.

ADD 2" SHREDDED HARDWOOD MULCH. PLANT.





PERMEABLE PAVER NOTES

1. A FIELD TEST SHOWING THAT NATIVE SOILS WILL HAVE MINIMUM DESIGN INFILTRATION RATE OF 0.1 INCHES/HOUR SHALL BE SUBMITTED.
2. CONSULT A GEOTECHNICAL ENGINEER TO RECOMMEND AN AGGREGATE BASE COURSE THICKNESS BASED ON THE NATIVE SOILS IN A WET, UNCOMPACTED STATE AND THE TRAFFIC LOADING AND VOLUME.
3. THE GENERAL CONTRACTOR SHALL SUBMIT A NARRATIVE IDENTIFYING HOW PERVIOUS PAVEMENT SURFACES WILL BE PROTECTED FROM RECEIVING SEDIMENT DURING THE ENTIRE CONSTRUCTION PROJECT.
4. THE FULL EXTENT OF THE POROUS PAVEMENT SHALL BE FENCED OFF FROM THE FIRST DAY OF EARTH MOVING UNTIL PROJECT COMPLETION TO PREVENT COMPACTION OF THE SUBGRADE, TRACKING OF DIRT ONTO ANY LAYER OF THE FACILITY, AND STOCKPILING OF CONSTRUCTION MATERIALS THAT MAY CLOG THE SURFACE.
5. DURING EXCAVATION OF NATIVE SOILS TO THE BOTTOM OF THE FACILITY, RAINFALL MAY CAUSE FINES TO CLOG THE NATIVE SOIL SURFACE OF THE FACILITY. IF THE NATIVE SOIL HAS BEEN EXPOSED TO RAINFALL, HAND RAKE THE SURFACE TO A DEPTH OF 3" TO RESTORE INFILTRATION CAPACITY.
6. CALL THE FACILITY DESIGNER, [ENTER NAME HERE] AT [ENTER PHONE NUMBER HERE] 24 HOURS IN ADVANCE OF CONSTRUCTING THIS FACILITY SO CONSTRUCTION OBSERVATION MAY BE PERFORMED TO IDENTIFY VARIATIONS IN THE FIELD THAT MAY AFFECT DESIGN AND VERIFY PROPER CONSTRUCTION.
7. AGGREGATE BASE COURSE SHALL BE DELIVERED CLEAN (2% WASH LOSS) AND WASHED ON-SITE TO REDUCE WASH LOSS TO 0.5%. THIS MAY BE DONE BY HOSEING THE ROCK OFF WHILE STILL IN THE DELIVERY TRUCK OR AFTER STOCKPILING. SCOOP FROM THE TOP AND PLACE ROCK. HOSE OFF AS NEEDED AS THE PILE DIMINISHES SINCE FINES WILL MIGRATE TO LOWER LEVELS OF THE PILE.



Manufactured Permeable Pavers

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Scale: NTS



Neighborhood of Raingardens Budget Estimates

	Typical Raingarden Installation	Fee	Typical Permeable Paver Installation w/pl	Fee	\$35.75/square foot for everything
Neighborhood Association	Designs (on-site, design, project management)	\$300.00	Designs (on-site, design, project management)	\$525.00	
	Install Oversight (oversight during excavations and at plant distribution; mileage)	\$280.00	Install Oversight (oversight during excavations and at installation; mileage)	\$280.00	
	Raingarden Materials (signs)	\$10.00	Raingarden Materials (signs)	\$10.00	
			Labor (Contractor)	\$1,500.00	
	Neighborhood Association Total	\$590.00	Neighborhood Association Total	\$2,315.00	
Property Owner	Mulch	\$50.00	Landscaping Materials	\$1,000.00	
	Compost (optional)	\$30.00	Mulch	\$50.00	
	Plants (\$150 - \$300)	\$225.00	Compost (optional)	\$30.00	
	Sod/Soil Dumping	\$40.00	Plants (\$150 - \$300)	\$225.00	
			Sod/Soil Dumping	\$40.00	
	Property Owner Total*	\$345.00	Property Owner Total*	\$1,345.00	Landscaping materials & labor = \$25/square foot; estimate based on 100 sq. foot permeable pavement strip and small raingarden
Other	Property owner labor (@ \$12/hr)	\$120.00	Property owner labor (@ \$12/hr)	\$120.00	
	Total Other	\$120.00	Total Other	\$ 120.00	
	Project Estimate	\$ 1,055.00	Project Estimate	\$ 3,780.00	
	MCWD Cost Share Total	\$ 527.50	MCWD Cost Share Total	\$1,890	

*Cost is an estimate; actual cost to each property owner will be determined based on best available pricing at time of installations

Project Breakdown - 10 total projects

#	Project	Total Cost Estimate	MCWD Total Cost Share Estimates
7	Typical Raingarden Installation	\$ 7,385.00	\$ 3,692.50
3	Permeable Paver w/Plantings	\$ 11,340.00	\$ 5,670.00
		\$ 18,725.00	\$ 9,362.50 Total Cost Share Request