Northeast Ohio Regional Sewer District

Protecting Your Health and Environment

2012 WATERSHED GRANTS PROGRAM
SMALL SCALE STORMWATER DEMONSTRATION PROJECTS (S3DP) APPLICATION
April 9, 2012

Eligibility Requirements

Small Scale Stormwater Demonstration Project (S3DP) funding is available for projects that meet the criteria described herein:

- Located on property within the Northeast Ohio Regional Sewer District's (the District) service area
- Demonstrates on-site stormwater control measures
- Request is of $15,000.00 or less. If your project has a higher cost, please contact the District to discuss. We will consider innovative projects with higher costs.
- Long-term maintenance plan
- Supported by local member community
- Completion by December 31, 2012
- Qualified applicants must represent the local community or a non-profit 501(c)(3) organization working in partnership with the local member community.
- Applicant must demonstrate control of project site through ownership or signed contract with the land owner where the proposed project will be installed.

Use for Public Outreach and Education

The following applies to all projects:

1) The District shall be permitted to photograph any project selected for S3DP funding and to incorporate this project into the District's overall public education and outreach efforts for stormwater management.
2) The District shall have design approval for any signage or public education and outreach efforts related to the project.
3) The District shall be acknowledged on any public advertisement or outreach efforts related to the project.

Evaluation

District staff will evaluate eligible requests for S3DP funding based on the following criteria:

1) Project Visibility (20 points)
2) Project Readiness to Proceed (15 points)
3) Project Addresses a Stormwater Management Problem (25 points)
4) Project Furthers Public Understanding of On-site Stormwater Control Measures (20 points)
5) Applicant Includes Matching Funds or In-Kind Services (10 points)
6) Incorporation of Trees (10 points)

Timeline and Submissions

NORTHEAST OHIO REGIONAL SEWER DISTRICT
SCALE STORMWATER DEMONSTRATION PROJECTS

Complete applications must be received by the District no later than**, May 11, 2012** for consideration for 2012 funding. Awards will be contingent on funding availability and the District is under no obligation to fund any S3DP request. Direct all submissions and questions for S3DP to:

Linda Mayer Mack (216) 881-6600 ext 6833 mackl@neorsd.org

NORTHEAST OHIO REGIONAL SEWER DISTRICT
SCALE STORMWATER DEMONSTRATION PROJECTS

Application

Application Date: 10 May 2012

Community: Berea , Baldwin-Wallace College

Project Manager: David Krueger

Mailing Address: 275 Eastland Rd

Berea, OH 44017

Phone Number: 440.822.4184

Email: dkrueger@bw.edu

Name of Project: R. Amelia Harding House for Sustainable Living

Location of Proposed Project (address): Bagley and Mulberry Rd

Berea, OH 44017

Approximate Square Footage of Stormwater Control Measure: 200'x150'

Project Start Date: June or July 2012 Project End Date: December 2012

Estimated Total Project Cost: $2.5MM

Amount Requested: $15,000

Project area 'before' photo included ☐ Yes ☒ No

NORTHEAST OHIO REGIONAL SEWER DISTRICT
SCALE STORMWATER DEMONSTRATION PROJECTS

The application must include the following:

1) Project Summary: (300 word maximum) Include a project description that addresses the eligibility requirements detailed above.

2) Visibility and Public Outreach (300 word maximum)
What audience will be exposed to this S3DP (neighbors, students, community groups, general public)? Describe how these groups will be exposed to the project – include methods of exposure and frequency. Include a letter of support from the community (i.e.; Mayor, Councilperson).

3) Ability to Provide Long Term Maintenance (300 word maximum)
Discuss:

- Who owns the land where the S3DP will be located? Does the applicant have site control?
- What maintenance is required for this project?
- Who will provide on-going maintenance and how will this maintenance be ensured?
- Does the applicant have the necessary equipment required for maintenance? What is that equipment?

4) Budget Summary Worksheet

Expenses	Value of In-Kind Service or Materials	Budget Request	Total Costs
Labor			
Materials			
Equipment Rental			
Plants			
Other			
FUNDING TOTALS	$	$	$

NOTE: This is a reimbursement grant and payments will be made on project specific invoices only.

Baldwin-Wallace College
R. Amelia Harding House for Sustainable Living
Storm Water Green Technologies for Adoption On-site

Project Summary

This proposal seeks funding for storm water management technologies and practices to be integrated into our R. Amelia Harding House for Sustainable Living at Baldwin-Wallace College (after July 1, Baldwin Wallace University), to open in August 2012. This anticipated LEED certified gold building, our first LEED project on campus, will provide state of the art green technologies (energy, water, waste, biodiversity, food) that will permit 45 Baldwin-Wallace students to practice the quest for sustainable living and learning. Lead architect for the project is Bill Doty of Doty and Miller Architects. This $2.5M renovation project moves closer to final funding, with $392,000 in funds still to be raised. This grant would help us to implement a fuller array of green technologies that move toward our goal of getting the building and premises "off the storm water grid." The project is in mid-construction, on schedule to open in August.

Our architectural plans, some parts of which are subject to final funding, include the following green storm water management technologies:
1. a vegetative roof that will cover approximately 60% of the existing flat roof surface of the building (with the remaining surface functioning as an outdoor terrace for study and leisure),
2. rain barrels and cisterns to divert all storm water run-off from all pitched roof surfaces for use for on-site, student managed agricultural production, and possibly an on-site rain garden or bioswale.
3. All city mandated hard surfaces (sidewalks and one driveway) will be pervious pavement surfaces requiring no artificial drainage.
4. Removal of all non-native species (except a few existing mature trees) to be replaced by all native species of vegetation that will require no on-going permanent watering and very little maintenance.

Our goal is to have all of these technologies fully installed by December 2012. The vegetative roof will be installed this summer, as will the permeable pavement, prior to student arrival in late August 2012. Installation of rain barrels, cisterns, and native flora will be the last step of completion and would occur in late summer or early fall.

All existing trees will remain on the property, with consideration of additional native species.

Visibility and Public Outreach

On the edge of our campus bordered by two main streets in Berea (Bagley Rd., Mulberry/Rt. 237), this highly visible facility will be one of BW's "gateways" to our community. With strong encouragement from the City of Berea, including some financial support from municipal government, this residence hall will be a living/learning laboratory that opens itself not only to all members of the BW community, but also to residents of west side suburbs. Thus, all of the green storm water management technologies will be highly visible to the general public. In the facility's first semester of operation, our residence life staff will initiate a student-led learning/teaching program with two primary audiences. The first audience, student residents and campus community members, will be fully educated on the functions and ease of use of these technologies. The second constituency will be citizens of the large western suburban region. We will initiate a "student ambassador" or "conservation corps" program that will select 5 or 6 student residents who will serve as public spokespersons and speakers for outside groups. Some of these sessions will be on-site so that as many members of surrounding communities as possible can visit

facility to see and learn about these technologies from the student ambassadors. Other programs will be off-site, at the invitation of outside community, nonprofit, educational, government, and business groups. Our aim is to make these demonstration technologies as highly visible as possible so that others can replicate our practices. The beauty of these technologies is their small-scale, making them transferrable to other residents and small businesses. We have applied for a special grant from the Dominion Foundation for this purpose. In addition, the entire third floor of the building will have independent external access, and is intended for public events and meetings that will include non-residents for programming in sustainability and in our on-site green technologies.

(While we do not have a letter of support from the Berea mayor or City Council, please know we have been collaborating with them for over two years on this project and they are immensely excited by the opportunities for Berea residents to learn from our efforts.)

Long Term Maintenance

Baldwin-Wallace will be the sole owner of this property and all technologies thereon except the solar panel array, with full site control of all green technologies discussed in this proposal. We anticipate little to no maintenance of these technologies. The vegetative roof will be covered under standard building warranties, as will permeable pavements. Rain barrels and cisterns will be maintained by student residents as possible and as necessary by the BW buildings and grounds department. The promise and expectation of the native species to be planted on site is that they will require little to no on-going maintenance. Indeed, our gold level LEED certification requirements mandate that the species we plant require no permanent watering, after an initial gestation period. In general, on-going maintenance will be folded into the campus buildings and grounds schedule.

Daily management of rain barrels and cisterns will fall to student residents. During the growing season, this water will be utilized for on-site agricultural production. Because we aim to have an on-site greenhouse and/or tunnel vision hoop house, we aim to have a long, extended growing season that can stretch into winter months.

Budget request

The following are the green storm water-related technologies associated with our project. Because we are still $392,000 short of the full $2.5MM required to complete the project, we fear that the external green technology expenses will be the first to be cut, given that some of them are not essential to getting residents in the building.

The following approximate costs have been provided by the associate architect in charge of our project (Joe Linek, Doty and Miller).

1. Vegetative roof	$25,000
2. permeable pavements/pavers	$36,000
3. native species in landscaping	$32,000
4. rain barrels/cisterns	$3,000

Approximately one-half of these costs are associated with materials and one-half with labor costs of installation.

It is conceivable that we could secure some volunteer student and staff labor for some labor associated with these installations, especially rain barrels and cisterns and perhaps with planting of native species in the landscaping of the property.
B-W is working diligently to close the funding gap to try to bring all of these technologies to fruition. Perhaps some of the above initiatives are more attractive to the NEORSD than others. We will be pleased to give the District optimal publicity, both on-site through signage and through web-based information. Harding House will have its own designated web-page that will describe all aspects of the project, include real-time data on utility inputs and consumption, and list all supporting external sponsors of the project. Thus, if there are particular pieces of the project that the District would like to fund and be recognized for, we will work with you to make that happen.

Doty & Miller Architects
600 broadway avenue
bedford, ohio 44146
tel: 440-399-4100
fax: 440-399-4111
www.dotyandmiller.com

view of study lounge
scale : none

BALDWIN WALLACE COLLEGE

Proposed Renovation for
Hanson Hall - Sustainability House

March 4, 2010

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view of rooftop trellis garden
scale : none

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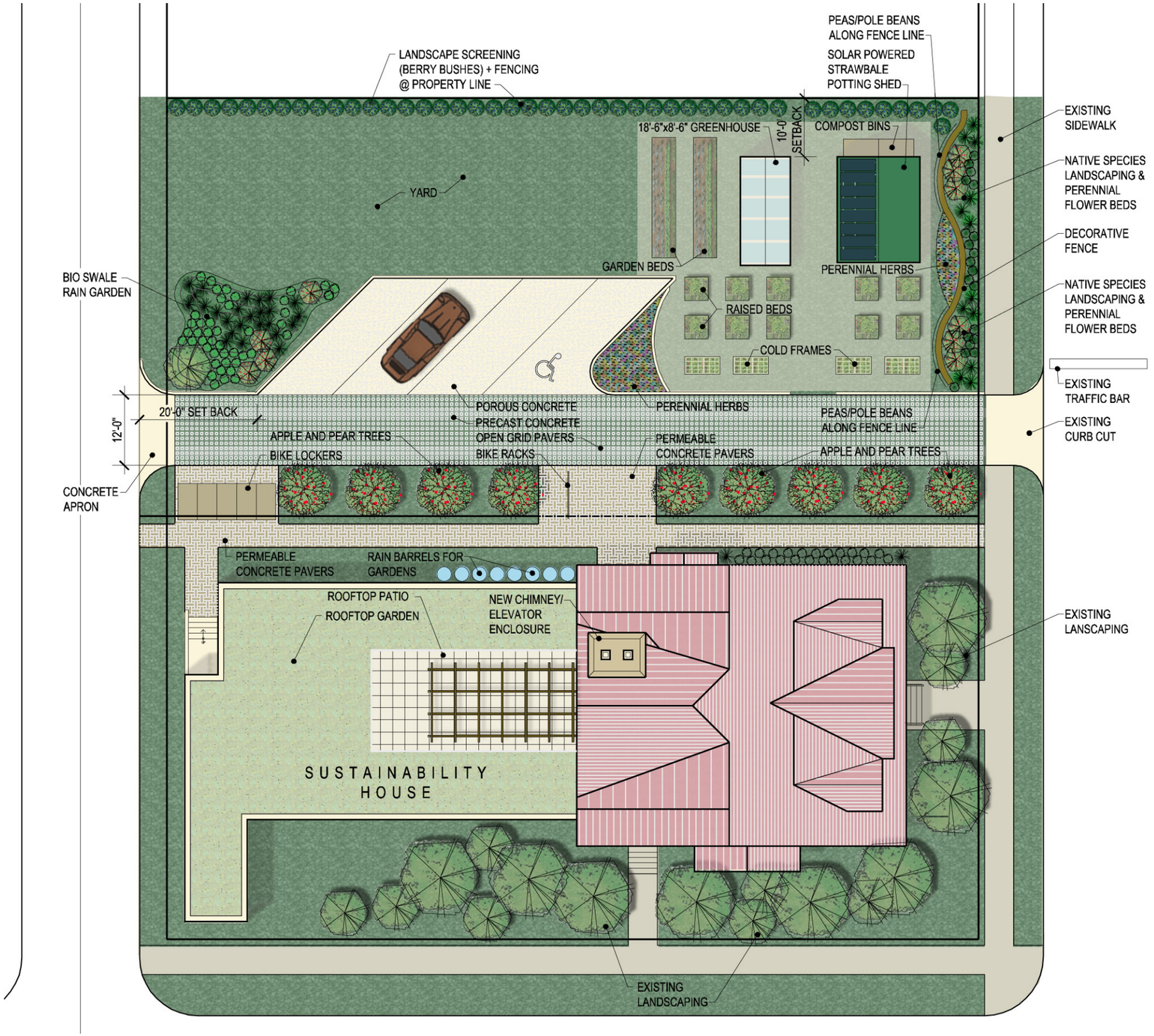

Phase 1
Removal of adjacent house
Landscape screening and fencing at property line
Wicker fence property screening
Accessible paved walk
Installation of new accessible elevator
New Third Floor Lounge
New Rooftop Garden
New HVAC, Plumbing & Elec.
New windows

Phase 2
Reconfigure 1st Floor
New Finishes at 1st Floor
Permeable concrete paver parking spaces
Compost bins
Raised Beds
Rain Garden, Food Garden
Rain collection barrels

Phase 3
Reconfigure 2nd Floor
New finishes at 2nd Floor
Cold frames
Greenhouse

Phase 4
Reconfigure and finish
Basement
Bike lockers

proposed site plan
scale : none

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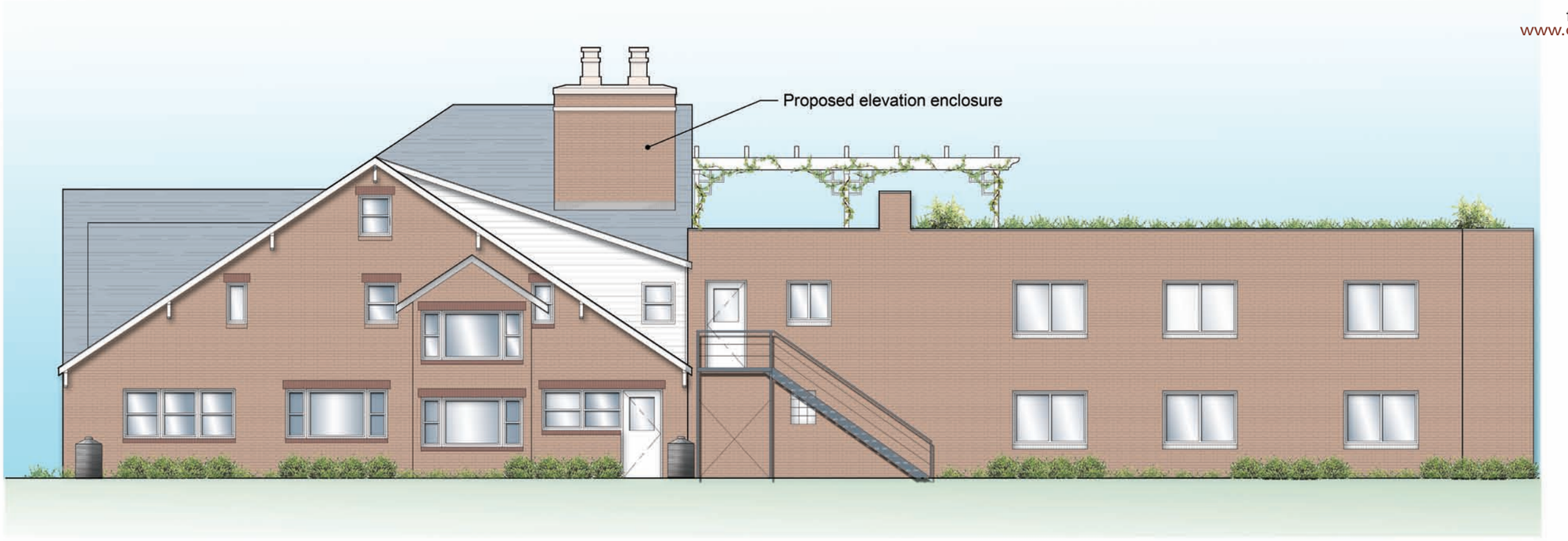

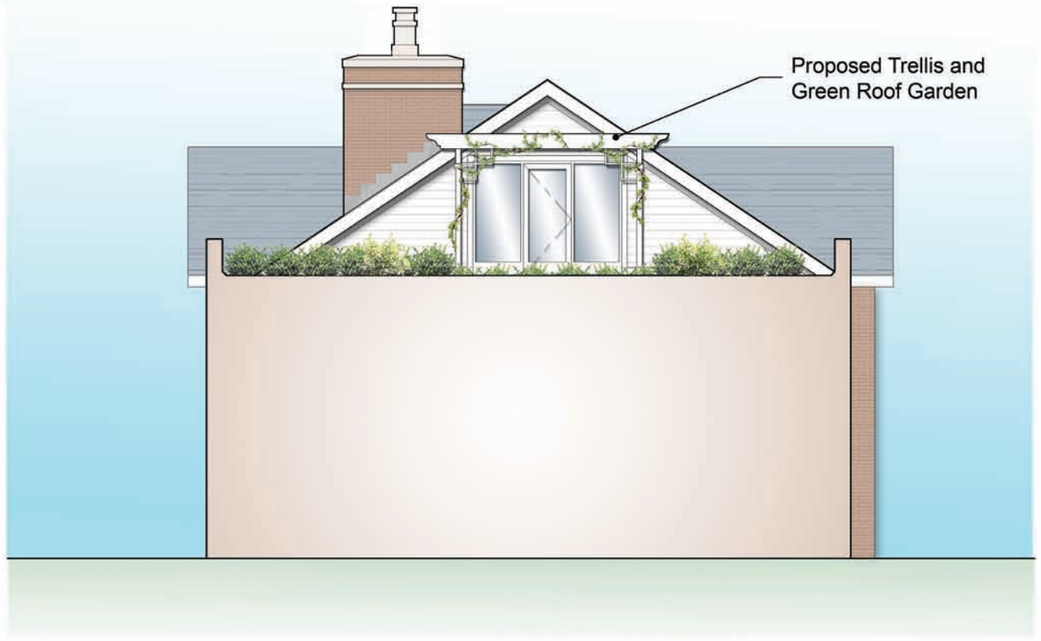

PHASE 1
proposed exterior elevations
scale : none

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PHASE 1
proposed attic loft and green roof plan
scale : none