

Brooklyn Heights Village

*345 Tuxedo Avenue
Brooklyn Heights, Ohio 44131*

*Michael S. Procuk
Mayor*

*Office: (216) 749-4300
Fax: (216) 741-3753*

August 20, 2012

Ms. Linda Mayer-Mack
Environmental Education Specialist
NEORS
3900 Euclid Avenue
Cleveland, Ohio 44115

Re: S3DP Application for Brooklyn Heights Village Park Stormwater Treatment Project

Dear Ms. Mack:

I am pleased to provide the enclosed Small Scale Stormwater Demonstration Projects (S3DP) Application offered through the Northeast Ohio Regional Sewer District's 2012 Watershed Grants Program. We are proposing to construct two demonstration rain gardens that collect runoff from existing facility rooftops, for the purpose of addressing areas of perpetual standing water where residents actively recreate. In addition, we are proposing to implement bioretention cells to capture and treat the runoff from the two main parking lots. Currently, the stormwater runoff generated from these parking lots is untreated and conveyed directly to West Creek via existing storm sewers.

It is our desire that these demonstration projects serve as a long-term resource to educate our residents and commercial and industrial property owners regarding alternative means of addressing stormwater runoff. The proposed project, situated in a highly visible setting, offers broad replicability and will present property owners the information they need to make similar improvements on their own properties. Furthermore, the Village encourages a decentralized approach to storm water quality and quantity management, and we feel this project compliments similar initiatives of the West Creek Preservation Committee, who the Village is partnering with to accomplish this effort.

If you have any questions regarding this application, please contact me at your convenience. I look forward to hearing a favorable response from you soon.

Sincerely,



Michael S. Procuk, Mayor
Village of Brooklyn Heights

NORTHEAST OHIO REGIONAL SEWER DISTRICT SMALL SCALE STORMWATER DEMONSTRATION PROJECTS

Application

Application Date: August 20, 2012

Community: Village of Brooklyn Heights

Project Manager: Michael E. Henry, PE

Mailing Address: 22999 Forbes Road, Suite B, Cleveland, Ohio 44146-5667

Phone Number: 440.439.1999

Email: henry@cvelimited.com

Name of Project: Brooklyn Heights Village Park Stormwater Treatment Project

Location of Proposed Project (address): At south terminus of West 4th Street; borders with City of Seven Hills (no street address)

Approximate Square Footage of Stormwater Control Measure: Four (4) locations totaling 2800 square feet

Project Start Date: February 1, 2013 (design phase)

Project End Date: April 30, 2013 (completed construction)

Estimated Total Project Cost: \$44,200

Amount Requested: \$39,800

Project area 'before' photo included: Yes (attached)

Brooklyn Heights Village Park Stormwater Treatment Project

Project Summary

The Village of Brooklyn Heights is requesting \$39,800 to design and construct 1000 square feet of rain gardens and an additional 1800 square feet of bioretention cells within their Village Park. This is property owned and maintained by the Village, and situated within the NEORSD service area. By controlling a direct discharge to West Creek, this project will directly implement recommendations of the state endorsed West Creek Watershed Action Plan and will assist with the implementation of the Lower Cuyahoga River Total Maximum Daily Load (TMDL).

The three primary goals of the project are: 1) to provide highly visible stormwater control measures that effectively treat stormwater runoff; 2) to resolve areas of chronic standing water that are situated adjacent to locations where visitors frequently engage in recreation; and 3). to educate commercial, industrial and residential property owners.

The project first involves collecting rooftop runoff from a restroom/maintenance facility building and from a picnic pavilion, and conveying it to two separate rain gardens (see attached Concept Plan). The runoff generated from the 2800 square feet of rooftop/concrete will be infiltrated via a total of 1000 square feet of rain garden area. Gutter systems and corresponding conveyance pipes will be added and/or re-directed to ensure the drainage area to each garden is limited to impervious surface runoff. Additionally, bioretention cells will be incorporated immediately downslope of the two main parking areas. A total of 2.49 acres of drainage area (38% impervious) will be conveyed to two separate bioretention areas totaling 1800 square feet, which will adhere to the ODNR Rainwater & Land Development Manual standard. The Village will also incorporate an internal water storage (IWS) zone as a unique design feature (standards developed by North Carolina State University – see attachment). Generally, this involves elevating the underdrain invert to ensure the bottom 12-18 inches of the soil media remains saturated at all times. The IWS design feature will further reduce discharge volumes, improve pollutant removal (i.e., TN, TP & TSS), and moderate runoff temperatures. Lastly, all control measures will incorporate appropriate species of trees as part of their planting plans and as site conditions warrant.

The bioretention cells will be situated on soils mapped out as ***Tg—Tioga loam, frequently flooded*** (see attachment). This soil map unit is characterized by a moderately high to high saturated hydraulic conductivity (Ksat) value, is well-drained and has a depth to water table of up to 72 inches. Although it is also characterized as frequently flooded, long-term employees of the Village have not witnessed flooding in the immediate areas of the proposed control measures. The Village expects a significant amount of collected runoff to infiltrate into the base layers of the BMP, further improving water quality.

The design of the project will commence no later than February 1, 2013 and construction will be completed by 4-30-13. The project will be designed by Chagrin Valley Engineering, Inc., excavated by outside contractors, installed by a combination of service department personnel and volunteers, and maintained long-term by the Village's Service Department and Recreation Department.

Visibility and Public Outreach

The project is located within the Village's most heavily used public park, which includes baseball fields, soccer fields and numerous passive recreation areas; an estimated 7500 visitors participate in recreational activities at the park annually. Both rain garden locations are situated immediately adjacent to site features that generate significant foot traffic (i.e., picnic pavilion and restrooms). The target audiences include homeowners and owners of commercial & industrial properties. Homeowners will be able to see working rain gardens up close so that they may consider a similar feature on their own property. Owners of commercial and industrial properties will be able to view aesthetically pleasing storm water control measures which they can incorporate into their site design for new development and redevelopment projects, or as a retrofit to an existing facility. An emphasis will be placed on how these practices can become eligible to earn credits to offset monthly fees associated with the forthcoming NEORSD stormwater utility.

The proximity of these control measures to public-use facilities, parking lots and existing hiking trails, will allow public officials, residents and other park visitors to easily access these practices and view them up close. This will provide all audiences an opportunity to visit the control measures during wet and dry weather conditions. Three permanent educational signs will be placed at appropriate locations and will serve to explain the details of the control measures, who contributed to their construction, what constitutes each type of practice, and why they were built.

The Village will post information on their website regarding the progress of construction and will maintain information that serves as an educational tool for interested audiences. Local media venues will also be contacted to promote this effort as a newsworthy community project, with the goal of promoting the project to business owners and residents within the immediate and surrounding communities. Furthermore, the West Creek Preservation Committee has been made aware of this proposed project, and has offered to promote its construction and purpose as demonstration stormwater control measures on their website and at board of trustees' meetings.

Ability to Provide Long Term Maintenance

The Village owns the land on which the control measures are proposed to be situated, and therefore has control of the site. Draft maintenance plans developed for these control measures (attached) describe the anticipated maintenance items and frequencies. They will be revised as necessary upon approval of the final design. The Village's Service Department will perform the routine inspections as summarized on the draft maintenance plan, and the Village's consulting engineer will perform an annual inspection of the practice. Items identified by either department will be addressed as appropriate and in a timely manner. Equipment that is anticipated to be needed to perform maintenance activities ranges from a backhoe to various hand tools, all of which the Service Department owns and utilizes on a daily basis.

Budget Summary Worksheet

Expenses	Value of In-Kind Service or Materials	Budget Request	Total Costs
Labor	\$4400	\$5100	\$9500
Materials	-	\$16,500	\$16,500
Equipment Rental	-	-	-
Plants	-	\$11,700	\$11,700
Other (Plan & Signage Design)	-	\$6500	\$6500
FUNDING TOTALS	\$4400	\$39,800	\$44,200

Please note, the Village is aware of the competitive nature of NEORSD's S3DP grant, and therefore is willing to accept a portion of the requested funding to construct any combination of the proposed control measures. For this reason, a breakdown of the four control measures is provided below for your use.

Control Measure	Portion of Total Cost	Portion of Budget Request
Rain Garden #1	\$6050	\$5450
Rain Garden #2	\$4500	\$4100
West Parking Lot Bioretention	\$15200	\$13,800
East Parking Lot Bioretention	\$18450	\$16,450

DRAINAGE AREA TO RAINGARDEN #1
(RESTROOMS/MAINTENANCE FACILITY)

EXISTING STORM INLET

RAINGARDEN #1

RAINGARDEN #2

WEST PARKING LOT

DRAINAGE AREA TO RAIN GARDEN #2
(PICNIC PAVILION)

DRAINAGE AREA TO
2 BIORETENTION CELLS

2 BIORETENTION CELLS

EXISTING OUTFALL

DRAINAGE AREA TO
2 BIORETENTION CELLS

EAST
PARKING
LOT

2 BIORETENTION CELLS

EXISTING OUTFALLS

WEST CREEK

BROOKLYN HEIGHTS VILLAGE PARK STORMWATER TREATMENT PROJECT CONCEPT PLAN

LEGEND

③ - PHOTO # AND DIRECTION



NO SCALE



Brooklyn Heights Village Park Stormwater Treatment Project

Before Photos of Project Area (taken August 14, 2012)



Photo #1 - Rain Garden #1 Location



Photo #2 - Rain Garden #2 Location



Photo #3 - West Parking Lot Looking East



Photo #4 - West Parking Lot Looking West



Photo #5 – East Parking Lot Looking West



Photo #6 – East Parking Lot Looking East



Photo #7 – East Parking Lot Looking South

The following images were taken from:
**Designing Bioretention With An
Internal Water Storage (IWS) Layer**
Design guidance for an innovative bioretention feature

Published By North Carolina Cooperative Extension
College of Agriculture & Life Sciences
November 2009

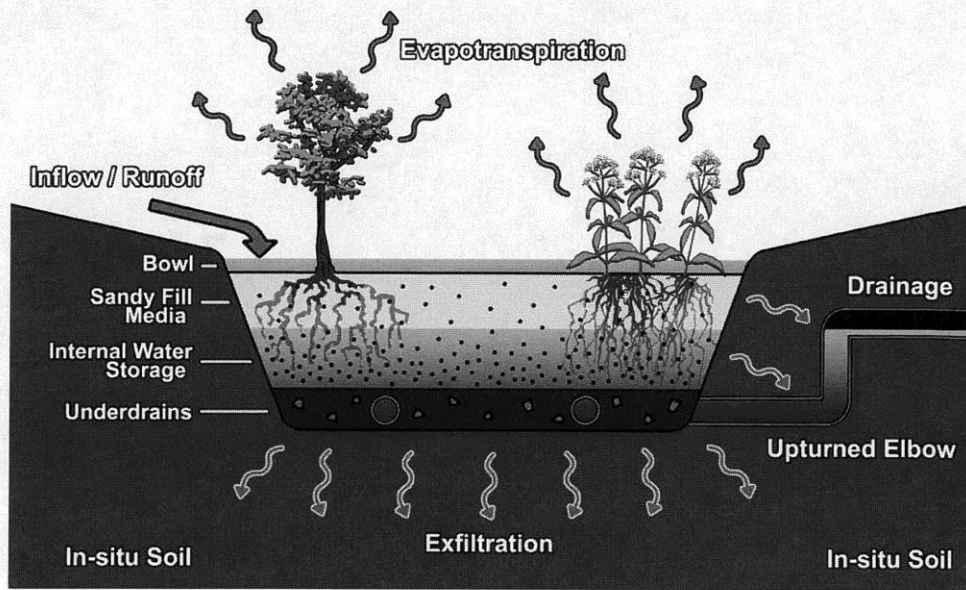


Figure 1. Schematic of a bioretention cell with an internal water storage layer.

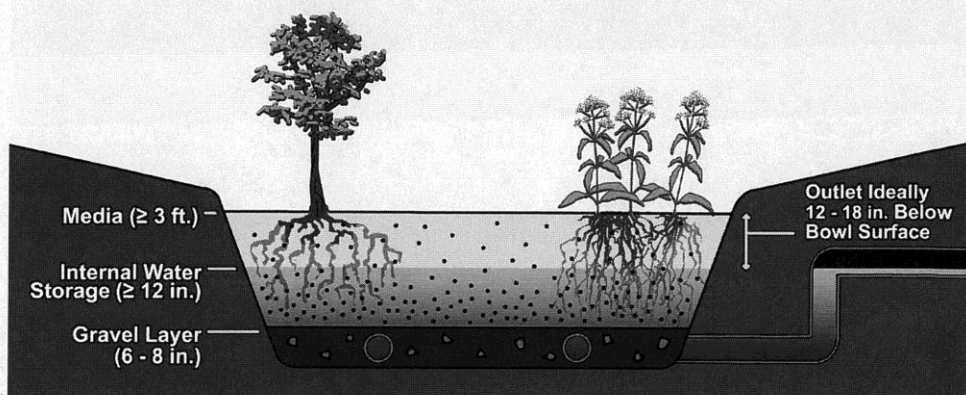


Figure 2. Design recommendations for bioretention with IWS to receive updated removal credits.

Cuyahoga County, Ohio

Tg—Tioga loam, frequently flooded

Map Unit Setting

Elevation: 600 to 1,800 feet

Mean annual precipitation: 30 to 50 inches

Mean annual air temperature: 45 to 54 degrees F

Frost-free period: 110 to 182 days

Map Unit Composition

Tioga and similar soils: 85 percent

Minor components: 15 percent

Description of Tioga

Setting

Landform: Flood plains

Parent material: Alluvium

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water

(Ksat): Moderately high to high (0.60 to 6.00 in/hr)

Depth to water table: About 36 to 72 inches

Frequency of flooding: Frequent

Frequency of ponding: None

Calcium carbonate, maximum content: 5 percent

Available water capacity: Moderate (about 7.8 inches)

Interpretive groups

Land capability (nonirrigated): 2w

Typical profile

0 to 8 inches: Loam

8 to 29 inches: Loam

29 to 60 inches: Loamy sand

Minor Components

Orrville

Percent of map unit: 15 percent

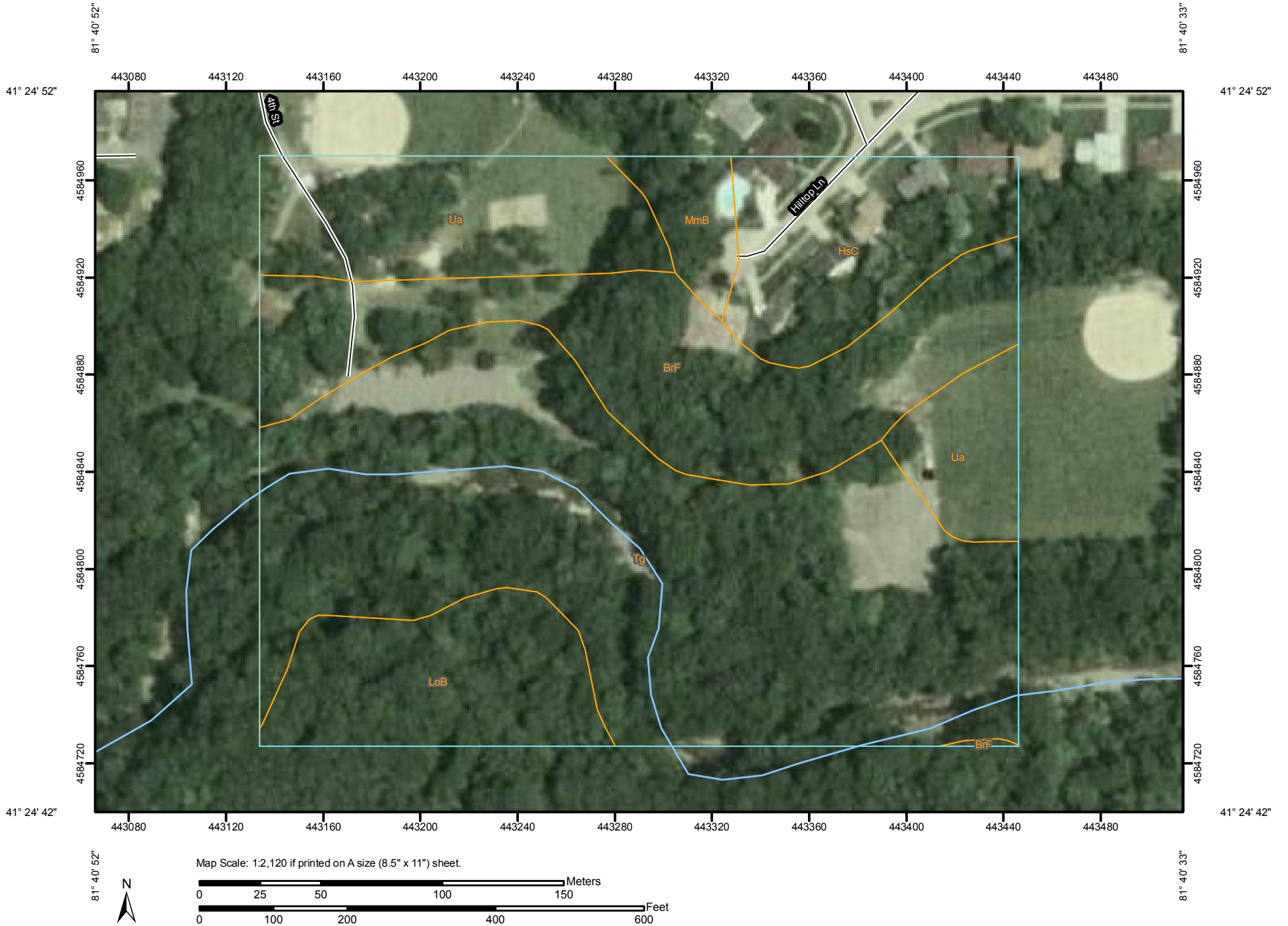
Landform: Flood plains

Data Source Information

Soil Survey Area: Cuyahoga County, Ohio

Survey Area Data: Version 11, Jan 27, 2010

Soil Map—Cuyahoga County, Ohio
(Oakwood Community Park - for NEORS S3DP)



Stormwater Control Measure Maintenance Plan (Draft)
For Bioretention Cells at Brooklyn Heights Village Park
Brooklyn Heights, Ohio

Design Feature	Frequency of Inspection (minimum)	What to Look For
Plant Stock	First growing season and during extended drought periods – every 2 weeks	<ul style="list-style-type: none"> • Health of plants – water as necessary
	Every two months	<ul style="list-style-type: none"> • Inspect plants for need to prune, split, and for any diseases in need of attention • Establishment of weeds and volunteer plants
Mulch Layer	Annually	<ul style="list-style-type: none"> • Ensure top layer of mulch is loose, free of accumulated debris and has a minimum 3-inch uniform depth
Soil Medium	Annually	<ul style="list-style-type: none"> • Maintain a pH of 5.2 – 7.0 • Ensure soil layer is not clogged with debris/sediments. The presence of standing water or saturated soil after 40 hours following a rain event is an indication the soil mix may be clogged and may need to be replaced.
Pre-treatment Areas (grass filter strip, gravel diaphragm, etc...)	Annually	<ul style="list-style-type: none"> • Ensure gravel diaphragm is not clogged with debris/sediments • Ensure grass filter strip is in good condition and not eroding and mowed as necessary (maintain 3" height)
Clean-out Pipe	Annually	<ul style="list-style-type: none"> • Ensure cap is in place and pipe is free of debris
Outlet Structure	Annually	<ul style="list-style-type: none"> • Ensure top grate and inside of structure is free of debris
Underdrains	At least annually after a significant rain event	<ul style="list-style-type: none"> • Ensure the outlet is free of debris and flowing
Curtain Drains	Annually	<ul style="list-style-type: none"> • Ensure they are free of debris (if visible)
Surface Layer	Every winter season	<ul style="list-style-type: none"> • Do not place winter snow plowing piles in bioretention area

Stormwater Control Measure Maintenance Plan (Draft)
For Rain Gardens at Brooklyn Heights Village Park
Brooklyn Heights, Ohio

First Year

- Water plants as necessary and remove weeds until plants become adequately established

Annually

- Remove dead plant material in the fall season or during the following spring season prior to new growth, either by hand, with a string trimmer or with a lawnmower.
- Remove weeds prior to setting seed....garden should be inspected by the end of June, August and October each year and all weeds should be removed.
- Apply a fresh layer of double-shredded hardwood mulch as needed to maintain a minimum 2-inch uniform layer over the entire garden.
- Ensure any existing earthen berms installed as part of the garden to create the ponding area are not eroding....repair erosion and re-stabilize the berm with vegetation as necessary.
- Split plant stock as necessary to maintain aesthetics and to prevent crowding of plants



FERGUSON WATERWORKS #527
 3845 GROVEPORT RD
 COLUMBUS, OH 43207-5126

EMAIL DUPLICATE INVOICE

Deliver
 From: Ronald Zanath
 Comments:

Please Contact With Questions:
 614-497-2323

Invoice Number	Customer	Page
0362878	15167	1

Please refer to Invoice Number when making payment and remit to:

TOTAL DUE ---> 1658.45

FEI-FERGUSON WATERWORKS #527
 PO BOX 644054
 PITTSBURGH, PA 15264-4054

Sold To:

VILLAGE OF BROOKLYN HEIGHTS
 345 TUXEDO AVE
 BROOKLYN HEIGHTS, OH 44131

Ship To:

VILLAGE OF BROOKLYN HEIGHTS
 345 TUXEDO AVE
 BROOKLYN HEIGHTS, OH 44131

Ship Whse	Sell Whse	Tax Code	Customer Order Number	Sales Person	Job Name	Invoice Date	Batch
1953	1953	OHE	2013001087	535	PARK STORM SEWER	10/11/2013	21240
Ordered	Shipped	Item Number	Description	Unit Price	UM	Amount	
			ALL 12" PVC IS SOLID WALL				
			PERFORATION BY CONTRACTOR				
2	2	H35121206	12X6 PVC SWR GXGXG TEE	98.550	EA	197.10	
5	5	H35121212	12 PVC SWR GXGXG TEE	181.400	EA	907.00	
4	4	H351812	12 PVC SWR GXG 90 BEND	126.600	EA	506.40	
1	1	H354412	12 PVC SWR PLUG	47.950	EA	47.95	

Invoice Sub-Total	1658.45
Tax	0.00
Total Amt	1658.45

TOTAL DUE ---> 1658.45

ALL ACCOUNTS ARE DUE AND PAYABLE PER THE CONDITIONS AND TERMS OF THE ORIGINAL INVOICE. ALL PAST DUE AMOUNTS ARE SUBJECT TO A SERVICE CHARGE AT THE MAXIMUM RATE ALLOWED BY STATE LAW PLUS COSTS OF COLLECTION INCLUDING ATTORNEY FEES IF INCURRED. FREIGHT TERMS ARE FOR OUR DOCK UNLESS OTHERWISE SPECIFIED ABOVE. COMPLETE TERMS AND CONDITIONS ARE AVAILABLE UPON REQUEST OR CAN BE VIEWED ON THE WEB AT http://wolseley.com/terms_conditionsSale.html
 GOVT BUYERS: ALL ITEMS QUOTED ARE OPEN MARKET UNLESS NOTED OTHERWISE.



FERGUSON WATERWORKS #527
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 614-497-2323

Invoice Number	Customer	Page
CM020235	15167	1

Please refer to Invoice Number when making payment and remit to:

TOTAL DUE ---> -581.63

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 PO BOX 644054
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 345 TUXEDO AVE
 BROOKLYN HEIGHTS, OH 44131

Ship To:

Ship Whse	Sell Whse	Tax Code	Customer Order Number	Sales Person	Job Name	Invoice Date	Batch
1953	1953	OHE	2013001087	535	PARK STORM SEWER	10/21/2013	CM0
Ordered	Shipped	Item Number	Description		Unit Price	UM	Amount
1	1	H351812	12 PVC SWR GXG 90 BEND OI 0362878		-126.600	EA	-126.60
		Cust PO:20130010		Job Name: PARK STORM SEWER			
2	2	H35121212	12 PVC SWR GXGXG TEE OI 0362878		-181.400	EA	-362.80
		Cust PO:20130010		Job Name: PARK STORM SEWER			
1	1	MUL040506	6 PVC SWR SW 45 ELL HXH OI 0363018		-8.800	EA	-8.80
		Cust PO:20130010		Job Name: PARK STORM SEWER			
1	1	SP-EJIW6110	EJIW 6110 DRAINAGE GRATE OI 0363018		-98.150	EA	-98.15
		Cust PO:20130010		Job Name: PARK STORM SEWER			
			15% RESTOCK 6110 DRAINAGE GRATE				
			\$98.15 X 15% = \$14.72				

Restocking Charge	14.72
Invoice Sub-Total	-596.35
Tax	0.00
Total Amt	-581.63

TOTAL DUE ---> -581.63

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EMAIL DUPLICATE CREDIT MEMO

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Please Contact With Questions:
 614-497-2323

Invoice Number	Customer	Page
CM020247	15167	1

Please refer to Invoice Number when making payment and remit to:

TOTAL DUE ---> -222.60

FEI-FERGUSON WATERWORKS #527
 PO BOX 644054
 PITTSBURGH, PA 15264-4054

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 345 TUXEDO AVE
 BROOKLYN HEIGHTS, OH 44131

Ship To:

Ship Whse	Sell Whse	Tax Code	Customer Order Number	Sales Person	Job Name	Invoice Date	Batch
1953	1953	OHE	2013001087	535	PARK STORM SEWER	10/22/2013	CM0
Ordered	Shipped	Item Number	Description		Unit Price	UM	Amount
28	28	SDR35P1214	12X14 SDR35 PVC GJ SWR PI OI 0363018		-7.950	FT	-222.60
		Cust PO:20130010	Job Name: PARK STORM SEWER				

Invoice Sub-Total -222.60
Tax 0.00
Total Amt -222.60

TOTAL DUE ---> -222.60

ALL ACCOUNTS ARE DUE AND PAYABLE PER THE CONDITIONS AND TERMS OF THE ORIGINAL INVOICE. ALL PAST DUE AMOUNTS ARE SUBJECT TO A SERVICE CHARGE AT THE MAXIMUM RATE ALLOWED BY STATE LAW PLUS COSTS OF COLLECTION INCLUDING ATTORNEY FEES IF INCURRED. FREIGHT TERMS ARE FOR OUR DOCK UNLESS OTHERWISE SPECIFIED ABOVE. COMPLETE TERMS AND CONDITIONS ARE AVAILABLE UPON REQUEST OR CAN BE VIEWED ON THE WEB AT http://wolseley.com/terms_conditionsSale.html
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FERGUSON WATERWORKS #527
 3845 GROVEPORT RD
 COLUMBUS, OH 43207-5126

EMAIL DUPLICATE INVOICE

Deliver
 From: Ronald Zanath
 Comments:

Please Contact With Questions:
 614-497-2323

Invoice Number	Customer	Page
0363018	15167	1

Please refer to Invoice Number when making payment and remit to:

TOTAL DUE ---> 2973.20

FEI-FERGUSON WATERWORKS #527
 PO BOX 644054
 PITTSBURGH, PA 15264-4054

Sold To:

VILLAGE OF BROOKLYN HEIGHTS
 345 TUXEDO AVE
 BROOKLYN HEIGHTS, OH 44131

Ship To:

VILLAGE OF BROOKLYN HEIGHTS
 345 TUXEDO AVE
 BROOKLYN HEIGHTS, OH 44131

Ship Whse	Sell Whse	Tax Code	Customer Order Number	Sales Person	Job Name	Invoice Date	Batch
1953	1953	OHE	2013001087	535	PARK STORM SEWER	10/10/2013	21233
Ordered	Shipped	Item Number	Description	Unit Price	UM	Amount	
			ALL 12" PVC IS SOLID WALL				
			PERFORATION BY CONTRACTOR				
3	3	SP-EJIW6110	EJIW 6110 DRAINAGE GRATE	98.150	EA	294.45	
2	2	F10561212	12 CI PVC X 12 CI PVC COUP	27.850	EA	55.70	
1	1	H352412	12 PVC SWR GXG 22-1/2 BEND	92.950	EA	92.95	
1	1	H352212	12 PVC SWR GXG 45 BEND	97.300	EA	97.30	
1	1	H351812	12 PVC SWR GXG 90 BEND	126.600	EA	126.60	
1	1	H354912	12 PVC SWR GSKT CAP	77.400	EA	77.40	
2	2	MUL040988	6 PVC SWR SW CAP	4.350	EA	8.70	
4	4	MUL040206	6 PVC SWR SW 90 ELL HXH	8.300	EA	33.20	
2	2	MUL040506	6 PVC SWR SW 45 ELL HXH	8.800	EA	17.60	
140	140	SDR35SWPPU10	6X10 SDR35 SW PVC SWR PERF PIPE	1.980	FT	277.20	
238	238	SDR35P1214	12X14 SDR35 PVC GJ SWR PIPE	7.950	FT	1892.10	

Invoice Sub-Total	2973.20
Tax	0.00
Total Amt	2973.20

TOTAL DUE ---> 2973.20

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 GOVT BUYERS: ALL ITEMS QUOTED ARE OPEN MARKET UNLESS NOTED OTHERWISE.

Klyn Nurseries
 PO BOX 343
 PERRY, OH 44081

Phone: (800) 860-8104
 Fax: (440) 259-3338

ORDER NO.	119256
CUSTOMER NO.	BRO345

INVOICE

INV 10/24/13

0

BILL TO:

VILLAGE OF BROOKLYN HTS
 345 TUXEDO AVE
 BROOKLYN HTS, OH 44131

Phone: (216) 749-4300
 Contact: CHRIS HARTMAN(216) 287-1813

SHIP TO:

VILLAGE OF BROOKLYN HTS
 345 TUXEDO AVE
 BROOKLYN HTS, OH 44131

Phone: (216) 749-4300
 Contact: CHRIS HARTMAN

SHIP DATE		SHIP VIA		F.O.B.		TERMS	
10/22/2013		TRK				NC/COD	
P.O. NUMBER		ORDER DATE		SALES PERSON		REFERENCE NO.	
2013001089		10/18/2013		GREG KANE		140300	
QUANTITY			DESCRIPTION	UNIT PRICE	EXTENDED PRICE		
ORD	ACK	SHIP					
94	94	94	CAREX plantaginea CLUMP 8" SQUAT	4.60	432.40		
25	25	25	IRIS versicolor CLUMP #2 CONT	6.00	150.00		
24	24	24	PANICUM v 'Rotstrahlbusch' CLUMP #2 CONT	6.50	156.00		
117	117	117	PANICUM v 'Shenandoah' CLUMP #2 CONT	6.50	760.50		
42	42	42	SORGHASTRUM nutans CLUMP #2 CONT	6.75	283.50		
90	90	90	SPOROBOLUS heterolepis CLUMP #2 CONT	6.75	607.50		
90	90	90	VERNONIA l 'Iron Butterfly' CLUMP #2 CONT	5.25	472.50		
482	482	482				NET AMOUNT	2862.40
						FREIGHT	400.00
						BALANCE DUE	3262.40

TO DEPARTMENT PARK
 HAS BEEN RECEIVED
 FOR PAYMENT
Col Hill
 DATE 12-6-13
 PO. NUMBER _____

*RAIN GARDENS
 ON GRANT*



Kurtz Bros., Inc.

*We make the good earth better!*TM

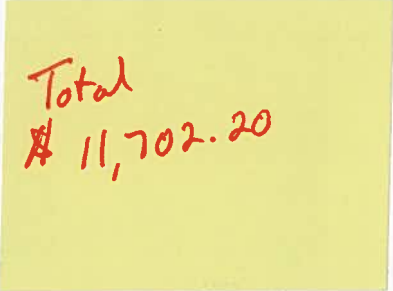
Corporate Office, Cleveland
6415 Granger Road
Independence, OH 44131 · (216) 986-7000

Invoice	C00451285A
Date	10/31/2013
Page	1

INVOICE

VILLAGE OF BROOKLYN HEIGHTS
345 TUXEDO AVE.

BROOKLYN HEIGHTS, OH 44131

Purchase Order No.	Customer ID	Payment Terms	Payment Due Date	Tax Schedule ID		
2013001088	BRO1028	NET 30 DAYS	11/30/2013	EXEMPT		
Item Description	Ship To Address	Ship Date	Unit of Measure	Quantity	Unit Price	Total Price
KB# 13287.0412-001 8 LIMESTONE GRAY DEAD OF WEST 4TH		10/15/2013	TN	17.47	\$19.00	\$331.93
						
					Subtotal	\$ 331.93
					Tax	\$ -
					Discount (10%)	\$ (33.20)
					Total	\$ 298.73

To ensure proper credit, please return this portion with your payment.



REMITTANCE ADVICE

REMIT TO:
KURTZ BROS., INC.,
P.O. BOX 931468
CLEVELAND, OHIO 44193

INVOICE DATE
10/31/2013

INVOICE DUE DATE
11/30/2013

INVOICE NO.
C00451285A
AMOUNT DUE
\$ 298.73

CUSTOMER NAME: VILLAGE OF BROOKLYN HEIGHTS
CUSTOMER NO: BRO1028

Thank you for your business!



Kurtz Bros., Inc.

We make the good earth better!™

Corporate Office, Cleveland
6415 Granger Road
Independence, OH 44131 · (216) 986-7000

Invoice	C00451286A
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INVOICE

VILLAGE OF BROOKLYN HEIGHTS
345 TUXEDO AVE.

BROOKLYN HEIGHTS, OH 44131

Purchase Order No.	Customer ID	Payment Terms	Payment Due Date		Tax Schedule ID	
2013001088	BRO1028	NET 30 DAYS	11/30/2013		EXEMPT	
Item Description	Ship To Address	Unit of Measure	Quantity	Unit Price	Total Price	
KB# 13283.0379-001 KB HYDRO CLEAR BIORETENTION SOIL DEAD OF WEST 4TH	Ship Date: 10/11/2013	YD	22.00	\$34.00	\$748.00	
KB# 13283.0379-002 KB HYDRO CLEAR BIORETENTION SOIL DEAD OF WEST 4TH	Ship Date: 10/11/2013	YD	22.00	\$34.00	\$748.00	
KB# 13287.0198-001 EARTHPRO HARDWOOD BLEND MULCH DEAD OF WEST 4TH	Ship Date: 10/14/2013	YD	34.00	\$22.00	\$748.00	
KB# 13287.0188-001 CONCRETE SAND DEAD OF WEST 4TH	Ship Date: 10/14/2013	TN	16.08	\$16.00	\$257.28	
KB# 13287.0185-001 CONCRETE SAND DEAD OF WEST 4TH	Ship Date: 10/14/2013	TN	15.72	\$16.00	\$251.52	
KB# 13287.0174-005 57 LIMESTONE (GREYWASH) DEAD OF WEST 4TH	Ship Date: 10/14/2013	TN	23.47	\$25.00	\$586.75	

REMITTANCE ADVICE



Kurtz Bros., Inc.

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Corporate Office, Cleveland
6415 Granger Road
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INVOICE

VILLAGE OF BROOKLYN HEIGHTS
345 TUXEDO AVE.

BROOKLYN HEIGHTS, OH 44131

Purchase Order No.	Customer ID	Payment Terms	Payment Due Date		Tax Schedule ID	
2013001088	BRO1028	NET 30 DAYS	11/30/2013		EXEMPT	
Item Description	Ship To Address	Unit of Measure	Quantity	Unit Price	Total Price	
KB# 13287.0182-001 8 LIMESTONE GRAY DEAD OF WEST 4TH	Ship Date: 10/14/2013	TN	16.13	\$19.00	\$306.47	
KB# 13287.0174-001 57 LIMESTONE (GREY/WASH) DEAD OF WEST 4TH	Ship Date: 10/14/2013	TN	24.52	\$25.00	\$613.00	
KB# 13287.0174-003 57 LIMESTONE (GREY/WASH) DEAD OF WEST 4TH	Ship Date: 10/14/2013	TN	24.59	\$25.00	\$614.75	
KB# 13287.0174-002 57 LIMESTONE (GREY/WASH) DEAD OF WEST 4TH	Ship Date: 10/14/2013	TN	25.60	\$25.00	\$640.00	
KB# 13287.0174-006 57 LIMESTONE (GREY/WASH) DEAD OF WEST 4TH	Ship Date: 10/15/2013	TN	26.51	\$25.00	\$662.75	
KB# 13287.0174-007 57 LIMESTONE (GREY/WASH) DEAD OF WEST 4TH	Ship Date: 10/15/2013	TN	26.94	\$25.00	(\$673.50)	

Subtotal	\$ 6,177.49
Tax	\$ -
Discount (10%)	\$ (617.75)
Total	\$ 5,559.74

6176.52

5558.87

To ensure proper credit, please return this portion with your payment.



REMITTANCE ADVICE

REMIT TO:
KURTZ BROS., INC.
P.O. BOX 931468
CLEVELAND, OHIO 44193

INVOICE DATE
10/31/2013

INVOICE DUE DATE
11/30/2013

INVOICE NO.
C00451286A
AMOUNT DUE
\$ 5,559.74

CUSTOMER NAME: VILLAGE OF BROOKLYN HEIGHTS
CUSTOMER NO: BRO1028

Thank you for your business!



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INVOICE

VILLAGE OF BROOKLYN HEIGHTS
345 TUXEDO AVE.

BROOKLYN HEIGHTS, OH 44131

Purchase Order No.	Customer ID	Payment Terms	Payment Due Date		Tax Schedule ID	
2013001088	BRO1028	NET 30 DAYS	11/30/2013		EXEMPT	
Item Description	Ship To Address	Ship Date:	Unit of Measure	Quantity	Unit Price	Total Price
KB# 13287.0192-006 KB HYDRO CLEAR BIORETENTION SOIL DEAD OF WEST 4TH		10/14/2013	YD	22.00	\$34.00	\$748.00
KB# 13287.0192-007 KB HYDRO CLEAR BIORETENTION SOIL DEAD OF WEST 4TH		10/14/2013	YD	22.00	\$34.00	\$748.00
KB# 13287.0192-003 KB HYDRO CLEAR BIORETENTION SOIL DEAD OF WEST 4TH		10/14/2013	YD	22.00	\$34.00	\$748.00
KB# 13287.0192-004 KB HYDRO CLEAR BIORETENTION SOIL DEAD OF WEST 4TH		10/14/2013	YD	22.00	\$34.00	\$748.00
KB# 13287.0192-005 KB HYDRO CLEAR BIORETENTION SOIL DEAD OF WEST 4TH		10/14/2013	YD	22.00	\$34.00	\$748.00
KB# 13287.0192-010 KB HYDRO CLEAR BIORETENTION SOIL DEAD OF WEST 4TH		10/14/2013	YD	22.00	\$34.00	\$748.00

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INVOICE

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BROOKLYN HEIGHTS, OH 44131

Purchase Order No.	Customer ID	Payment Terms	Payment Due Date	Tax Schedule ID	
2013001088	BRO1028	NET 30 DAYS	11/30/2013	EXEMPT	
Item Description	Ship To Address	Unit of Measure	Quantity	Unit Price	Total Price
KB# 13287.0192-008	Ship Date: 10/14/2013				
KB HYDRO CLEAR BIORETENTION SOIL		YD	22.00	\$34.00	\$748.00
DEAD OF WEST 4TH					
KB# 13287.0192-009	Ship Date: 10/14/2013				
KB HYDRO CLEAR BIORETENTION SOIL		YD	22.00	\$34.00	\$748.00
DEAD OF WEST 4TH					
				Subtotal	\$ 5,984.00
				Tax	\$ -
				Discount (10%)	\$ (598.40)
				Total	\$ 5,385.60

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KURTZ BROS., INC.
P.O. BOX 931468
CLEVELAND, OHIO 44193

INVOICE DATE
10/31/2013

INVOICE DUE DATE
11/30/2013

INVOICE NO.
C00451287A
AMOUNT DUE
\$ 5,385.60

CUSTOMER NAME: VILLAGE OF BROOKLYN HEIGHTS
CUSTOMER NO: BRO1028

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VILLAGE OF BROOKLYN HEIGHTS
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BROOKLYN HEIGHTS, OH 44131

Purchase Order No.	Customer ID	Payment Terms	Payment Due Date		Tax Schedule ID	
2013001088	BRO1028	NET 30 DAYS	11/30/2013		EXEMPT	
Item Description	Ship To Address	Unit of Measure	Quantity	Unit Price	Total Price	
KB# 13291.0112-001 KB HYDRO CLEAR BIORETENTION SOIL DEAD OF WEST 4TH	Ship Date: 10/18/2013	YD	15.00	\$34.00	\$510.00	
				Subtotal	\$	510.00
				Tax	\$	-
				Discount (10%)	\$	(51.00)
				Total	\$	459.00

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CLEVELAND, OHIO 44193

INVOICE DATE
10/31/2013

INVOICE DUE DATE
11/30/2013

INVOICE NO.
C00451288A
AMOUNT DUE
\$ 459.00

CUSTOMER NAME: VILLAGE OF BROOKLYN HEIGHTS
CUSTOMER NO: BRO1028

Thank you for your business!