2014 Chesapeake Bay Green Streets-Green Jobs-Green Towns

Grant Application

Applicant Information:

Mission: The Town of Garrett Park, incorporated in 1898, is a National Historic District, an arboretum, and a nuclear free zone. It is dedicated to maintaining its historic character as a small, self-governing, welcoming municipality, and places great value on maintaining its beauty and quality of life, and in minimizing its environmental and energy impact.

Type: local government

EIN: 52-6012503

Exec. Officer: Peter Benjamin
Mayor
P.O. Box 84
4600 Waverly Ave.
Garrett Park, MD 20896

301/933-7488
peter.gpmayor@verizon.net

Project Officer: Gene Swearingen

Grant Information:

Amount: $250,000

Grant Period: May 1, 2014 through December 15, 2015

Watershed: Middle Potomac Watershed

County: Montgomery County

State: MD

Project Abstract:

Request for Implementation/Construction grant for Green Infrastructure project:

The Town of Garrett Park recently received a Safe Routes to School (SRTS) grant from the Maryland State Highway Administration for the replacement of existing and construction of new sidewalks, in order to encourage walking and biking, rather than driving. The sidewalks will be located in areas with a large number of trees, thick vegetation and varied topography. The Chesapeake Bay Trust grant would be used to leverage the SRTS investment in order to incorporate low impact "green" construction and best management practices with the goals of providing a safe walking environment, maintaining the Town's tree canopy and reducing the water runoff from the new and replacement sidewalks.

Project Timeline:

The project timeline assumes completion of the project within two years:

11/1/13 - 5/1/14	Prepare, obtain SHA solicitation approval, and distribute an RFP for the design of the new and replacement sidewalks; vendor selection.
5/15/14 - 9/15/14	Preliminary engineering and design; prepare hearing materials.
101/14 - 1/1/15	Conduct public meetings and hearings; Town Council project approval. Obtain Environmental and other clearances
1/1/15 - 3/1/15	Final Engineering, prepare drawings and bid documents.
3/15/15 - 5/15/15	Send out construction RFP; contractor bid response preparation.
5/15/15-8/15/15	Evaluate responses, obtain BAFOs, obtain SHA approval to award and construct

9/8/15 - 9/8/15	Town Council awards contract
10/1/15 - 11/3015	Construction
12/1/15 - 12/15/15	Final inspection and acceptance

Project Partnerships:

The Maryland State Highway Administration is a committed partner for this project. As the administrator of the Safe Routes to School Project, SHA is providing the SRTS Grant in the amount of $561,286; technical assistance with the required RFPs for both Engineering and Construction; assistance with the required environmental and other clearances, and final approvals of the project when construction is complete.

A letter of support from the Maryland State Highway Administration will be forthcoming.

Project Deliverables:

To be completed on-line

Project Description Narrative:

1) Describe the project and justify the need for assistance.

The Town of Garrett Park is on the National Register of Historic Places and a portion of the town is in the State of Maryland Historic Trust designated historic district. The Town is also designated as an Arboretum, which means that all of the canopy, trees and vegetation, within the town are planned and carefully maintained. These designations are critically important to all of the residents of the Town as it plans and constructs projects related to streets and sidewalks.

The Town is the recipient of a Safe Routes to School (SRTS) grant awarded on August 7, 2013. The grant amount, $561,286.00, includes amounts for the design and construction of new sidewalks and curbs and the

replacement of existing sidewalks and curbs including driveway crossings, ADA ramps, marked crosswalks and signage at each of the crosswalks. The sketch plans for the project are attached to this request. Those sketch plans, included in the grant application, only serve to delineate the project extent and general location and are not the expected final design. All of the proposed sidewalk locations are within Town right-of-way. No purchase of private right-of-way will be required.

In developing the SRTS Grant application the Town used a very preliminary sidewalk design including a five-foot wide impervious concrete construction, as required by SHA for the application. However, because of the trees and topography of the sidewalk routes, it has now become clear that the width and alignment of the sidewalk will need to be adjusted to avoid and protect, to the maximum extent possible, the trees and other plantings along the routes and that it would be desirable for the materials used to construct the sidewalk to be pervious to reduce the storm water runoff.

The Town is seeking funding from the Chesapeake Bay Trust Grant Program to:

> Provide assistance with the cost of changing the construction from impervious to pervious materials. In determining that cost differential the Town Engineer has developed cost estimated for bioretention requirements and the cost differential of using pervious rather than impervious materials.
>
> Provide assistance with the cost of removing the existing impervious black top along one of the sidewalk routes and the existing asphalt curbs along all routes. The existing sidewalk has experienced damage from tree roots and water leaving it virtually unusable. By removing the existing materials, rerouting the sidewalk away from the trees and using a permeable material the route will be safe, usable and will substantially reduce water runoff.
>
> Provide assistance with the cost of building root bridges or other tree-protective measures, moving those trees that must be moved or if absolutely necessary replacing those trees which may need to be removed with as mature trees as possible. In addition, the Town has committed to working with each property owner along the routes of the sidewalks to insure that minimal damage is done to those trees and other plantings.

As with previous sidewalk projects in Garrett Park, the Safe Routes to School project must maintain the historic and natural character of the Town while providing safe access to walkers and cyclists.

Because the final design of the project has not been completed, the costs and design elements are "best estimates". Based on the current schedule for the project, the engineering and design firm will be selected in May 2014. That firm will be selected based partly on their experience with designs that provide innovative ways to work around, rather than through trees and vegetation, materials that complement the environment rather than harm it, and materials that limit storm water runoff rather than increase it.

2) Maps indicating the watershed in which the project is located.

Watershed and location maps are attached

3) a. Description of how the sites were selected.

The sites for this project were selected based on the need for safe walkways to Garrett Park Elementary School. Two of the sites (Oxford Street and north Kenilworth Avenue) currently have no sidewalks and the third (Clermont/Montrose) is sufficiently degraded that bikers, parents pushing strollers and children walking to school walk and ride in the street. Parked cars along the Town's narrow streets create blind spots for drivers, pedestrians and bikers alike, and they force children to walk in the center of the road around the parked cars. Hills and curves further obstruct vision and exacerbate the danger for children and adults on the roadway.

In a survey conducted in 2012 by Garrett Park Elementary School, of the 162 children who reported that they walked to school, 59% of the children "always" walk to school, 31% "frequently" walk to school and 7% "rarely" walked to school. When asked what would encourage these children/families to walk more frequently, the most common cited factor was "more and/or improved sidewalks" (cited by 33% of the survey respondents.

In addition to the children and parents, the Town of Garrett Park has a large senior citizen population, many of whom walk the same routes as the elementary school children and who also must walk in the streets due to the lack of safe sidewalks.

3) b. The Town is now developing the RFP for engineering/design. The final designs will be completed in the spring of 2015. The attached maps and drawings are sketch designs and may not represent the final locations of the sidewalks. The Town owns all rights-of-way for the sidewalk project.

The attached photographs are of the proposed sites and show existing conditions. Proposed grades and material volumes will be developed as part of the design, which is to be completed in Spring 2014.

Planting Plan. The Town has created a planting program for the entire Town which includes native species as well as species selected based on the location and the other trees and flora at that site. The program includes plantings twice annually with the planting sites selected due to vacancies in the canopy, replacing dead trees and filling sites along the streets in Town. The Town also carries out a preventive pruning program each year. The goal of these programs is to keep the Town trees alive and safe for as long as possible. The Town Arborist in conjunction with the Garrett Park Arboretum Committee determines the planting plan and the seasonal tree maintenance plan.

In addition to the Arboretum program there are specific planting programs for each of the four parks within the Town. Those parks offer passive recreation including hiking trails, children's play areas and garden areas. Within the parks, the town is developing Rain Garden demonstration areas and will develop "shaded" rain gardens designed to thrive underneath the canopy of the park areas

The Town's maintenance crew plants and cares for all town-owned trees and numerous flora.

The planting plan relative to this grant application includes designing sidewalk routes which meander around and away from trees, root protection strategies for those trees near the sidewalks, moving and replanting trees and where required and finally removing trees as a last resort.

4) Cost Information: Attached

5) Estimated Cost-Efficiency Strategies and Metrics.

The cost efficiency will be determined by the final design.

6) Part of an Existing Strategy

The Town has an ongoing plan for the maintenance and replacement of trees within the Arboretum. That plan calls for the protection of trees during any construction project. For replacement or new trees required for the sidewalk routes, the Town intends to take advantage of the Grant Tree Coupon program to purchase trees.

7) Community Engagement.

.It is the practice of the Town to draw opinions and support from a wide audience within the Town regardless of age, physical disability, or ethnicity. In order to engage that audience the town has:

Created a "Sidewalk Citizens Advisory Committee" which is representative of the diverse nature community and the many groups which have interest in the project. The Committee meets monthly and is intended to be a sounding board for all details and issues of the project. Currently the Committee is actively involved in the development of the Engineering/Design RFP and will have input into the ultimate selection of the Engineering /Design firm.

Town staff has met with every property owner whose property abuts the sidewalk routes. Those meetings are intended to make the owners aware of the project, receive information on how it might impact them and to develop a communication link to insure that ongoing information flows to those most impacted by the project.

The Town has held a series of public hearings to get input from all Town residents regarding the need for the project and the sites selected. Those hearings resulted in the requirement that the project be "green" in terms of saving the canopy and using green materials. As the project moves forward additional public hearings, newspaper articles, website information, communication through the Town's Resident's Listserv and meetings with property owners will be used as part of the design process and the construction process. All of these communication methods will provide and opportunity for feedback and recommendations, from residents and will be used to insure that the construction phase of the project does not proceed until the design is agreed to by those impacted.

8) Experience in Similar Projects.

Because the Town maintains all of its own streets and sidewalks, it has installed sidewalks in other parts of the Town. However, this will be the first project in which "green" construction methods and materials will be emphasized. Montgomery County, in conjunction with the Town, has developed innovative ways to handle runoff by encouraging rain gardens on private property in various locations. The Town has also constructed two major storm water drainage projects.

As a designated arboretum, the Town has committed itself to the retention and the trees and the protection of the canopy that those trees afford. The Town also has an ongoing tree-planting plan for new trees with annual

targets for the placement of new trees. The Town maintenance crew is experienced in planting and maintaining the town's trees.

9) Ultimate implementation of the project.

Match funding for the project comes from the Federal Highway Administration and is managed by the Maryland State Highway Administration (SHA) of the Maryland Department of Transportation. The funding, $561,286, is provided as reimbursement for actual costs incurred. All work on the project will be done by contractors selected through a SHA-approved procurement process. The selected contractors will prepare construction plans, cost estimates and the appropriate Maryland Department of Engineering (MDE) documents for the construction and reconstruction of pedestrian facilities along Garrett Park roadways. The specific roadways are described in the text and maps contained in the attached grant application submitted by the Town.

All costs incurred by the town through use of its own staff will be covered by the Town and reimbursement will not be requested through either the STRS grant or a Chesapeake Bay Trust grant.

10) Mitigation or Enforcement Effort:

N/A

11) Scope of Work and Qualifications

Development of RFP for Engineering and Design Services. This work is ongoing and is being done by Town staff with the review and approval of the State Highway Administration. SHA is now reviewing the RFP with a time frame of sending it out to potential bidders by the end of February. The bid will be open for 30 days. The selection process/criteria will include qualifications related to "green" design, work on similar projects, especially Safe Routes to School projects, and experience with small local governments. The cost selection criteria will be based on the best value rather than the lowest bidder. The Town requires that all solicitations include outreach to DBE firms. The SHA as a partner in this project will assist with determining DBE goals, consistent with Federal requirements.

The winning bidder is expected to be selected in May 2014.

Completion and approval of design including public hearings. The development of the design is expected to take five months and will include

several public hearings as well as status meetings during the process and information disseminated through the Town list serve and newsletter.

Selection of Construction oversight firm. The construction of the sidewalks will require the services of an engineering firm able to oversee the daily work of the construction contractor. SHA regulations prohibit the Engineering/Design firm from providing the construction oversight. The firm will assist with the development of the Construction RFP as well as provide oversight as the project progresses.

Development of Construction RFP. Town staff, the engineering firm, and the Construction oversight firm will develop the RFP. With the assistance of the engineering and construction oversight firm and concurrence from the SHA, the Town will select the firm to provide all construction services.

Selection of Construction firm. The construction firm will be selected through another formal RFP process with at least thirty days allowed for responses. The selection process will be based on experience with similar projects, ability to complete the project in a timely fashion and cost. The finalist selection will be based on the lowest qualified bid.

Construction. The construction phase is expected to take approximately two months.

Final approval of the construction. The Oversight Contractor and SHA will assist in the review and approval of the construction. Final payment will not be released until that approval is obtained.

Plantings.

12) Estimated Green Jobs Benefits. It is too early in our process to estimate any impact this project may have on green jobs.

Budget Upload

Garrett Park Green Roads
"Curb Extension" Urban Bioretention
Concept Plan - Typical Details

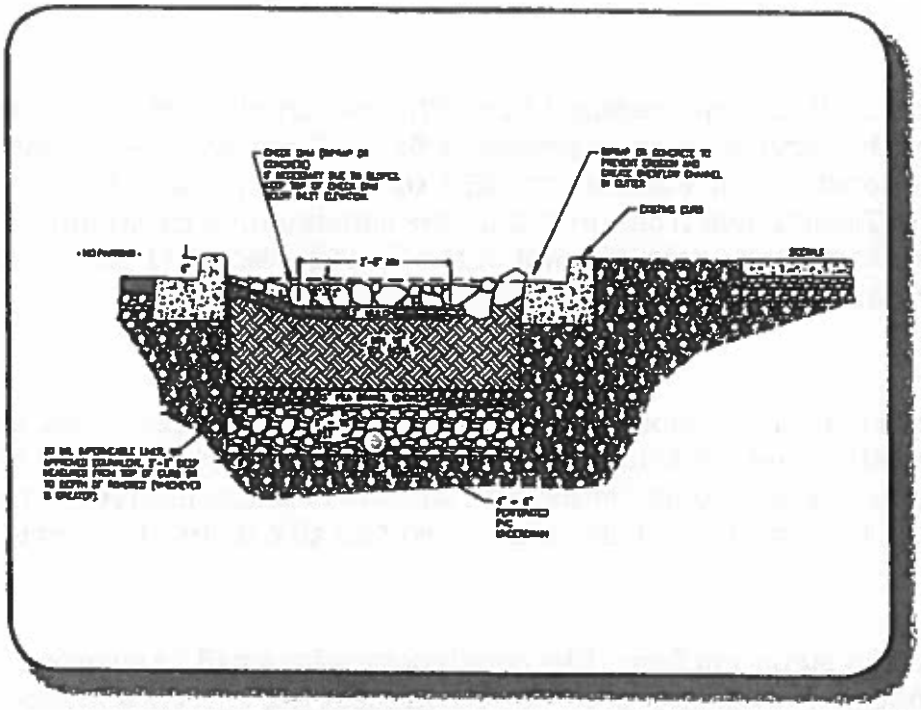


Figure UB-4. Typical cross-section for stormwater curb extension. See Figure UB-3 for location of cross-section A-A.

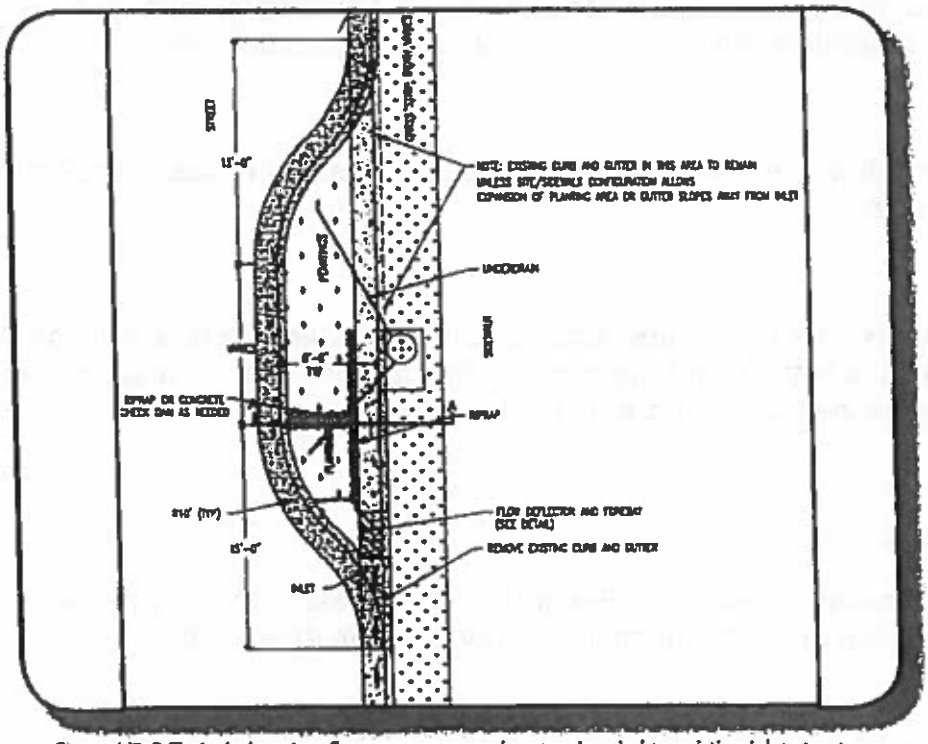
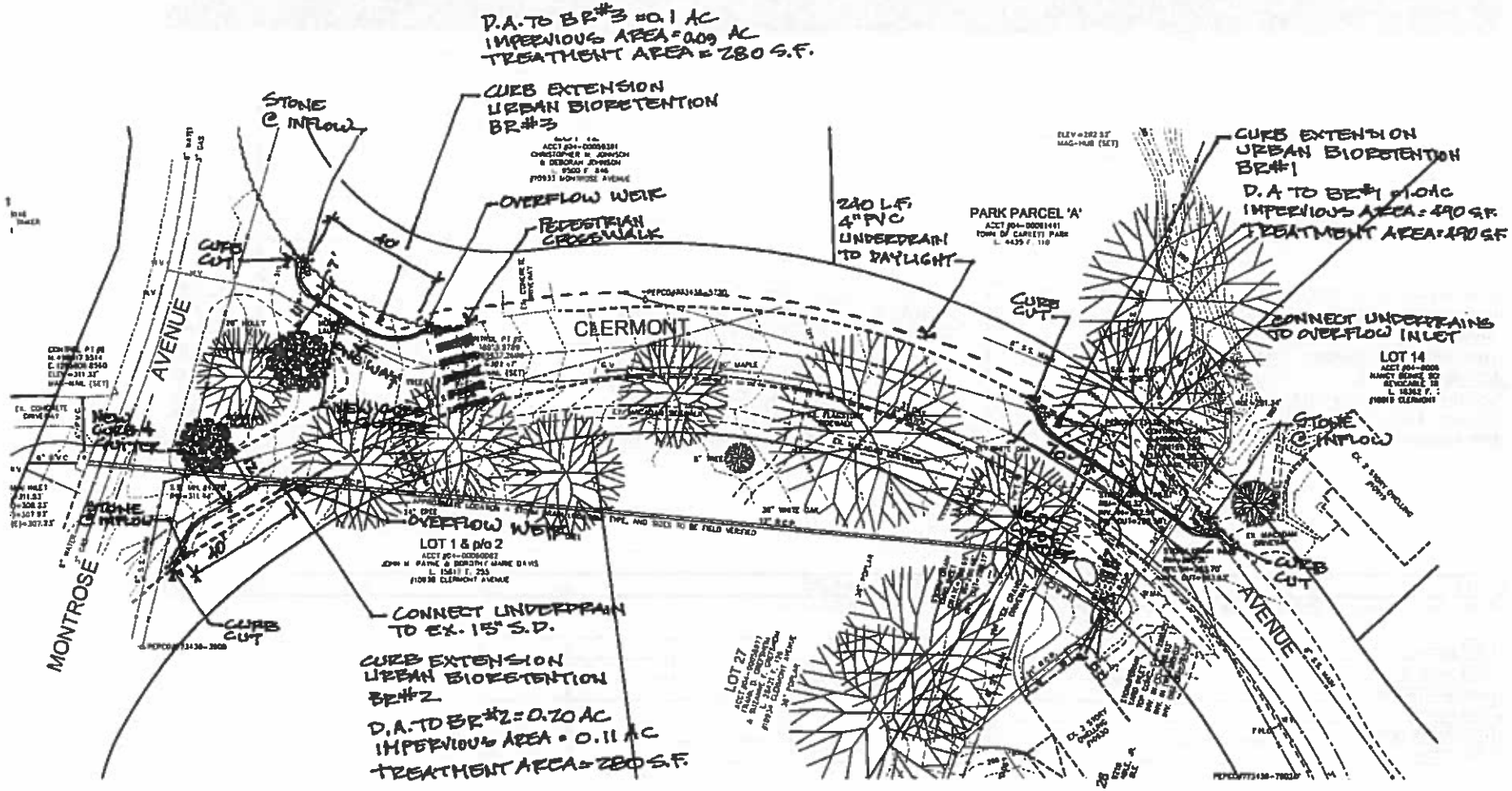


Figure UB-3. Typical plan view for stormwater curb extension tied to existing inlet structure. See Figure UB-4 for detail of cross-section A-A.



Garrett Park Green Roads
Curb Extension" Urban Bioretention
Concept Plan

Chesapeake Bay Trust - Grant Application Budget Form

Applicant Name: Town of Garrett Park, MD
Project Title: Sidewalks

Budget Item	Budget Category	Quantity	Cost per Item	Amount Requested	Cash Match	Source of Cash Match	Status of Cash Match	In-kind Match	Source of In-Kind Match	Status of In-Kind Match	Total
											$ -
											$ -
											$ -
											$ -
											$ -
											$ -
											$ -
											$ -
											$ -
											$ -
											$ -
											$ -
Engineering and Design	contractual			$ 47,500	$ 65,000	SHA Grant	in-hand				$ 112,500
Removal of Gray Material	contractual			$ 29,470	$ 15,000	SHA Grant	in-hand				$ 44,470
Construction	contractual			$ 127,300	$ 272,200	SHA Grant	in-hand				$ 399,500
Tree Relocation, Planting	contractual			$ 45,730	$ -						$ 45,730
Mobilization, MOT	contractual			$ -	$ 36,000	SHA Grant	in-hand				$ 36,000
Construction Management	contractual			$ -	$ 40,000	SHA Grant	in-hand				$ 40,000
Signage, Markings, Repair	contractual			$ -	$ 52,000	SHA Grant	in-hand				$ 52,000
Miscellaneous	contractual			$ -	$ 81,086	SHA Grant	in-hand				$ 81,086
											$ -
											$ -
											$ -
											$ -
											$ -
											$ -
TOTAL				***$ 250,000***	***$ 561,286***			***$ -***			***$ 811,286***

If you need additional space, please use additional form(s) by saving with a different filename

Total personnel	$ -	$ -			$ -
Total supplies	$ -	$ -			$ -
Total contractual	$ 250,000	$ 561,286			$ -
Total travel	$ -	$ -			$ -
Total field trip fees	$ -	$ -			$ -
Total other	$ -	$ -			$ -

"Gray" Material Removal Costs

Disposal of Existing Asphalt

Clermont and Montrose

Item:

Sidewalk	$3,200
Curb	$6,290
Pavement	$1,500
Driveway Aprons	$1,500
Double Driveway Aprons	$200
Sawcut Existing Asphalt	$2,200
Subtotal	$14,890

Kenilworth - Waverly Ave. to Argyle Ave.

Item:

Sidewalk	$0
Curb	$600
Pavement	$750
Driveway Aprons	$800
Double Driveway Aprons	$400
Sawcut Existing Asphalt	$1,020
Subtotal	$3,570

Oxford Ave. - Montrose Ave. to Weymouth Ave.

Item:

Sidewalk	$320
Curb	$5,500
Pavement	$1,650
Driveway Aprons	$800
Double Driveway Aprons	$200
Sawcut Existing Asphalt	$2,450
Subtotal	$10,920

Tree Relocation, Removal and Planting

Landscape Costs, all Sidewalk Routes

Item:		
Tree/root Protection		$18,000
Tree Removal		$10,230
Tree Planting		$10,000
Landscaping repairs		$7,500
	subtotal	$45,730

Total Material Removal and Landscape Costs: **$75,110**

Urban Bioretention Costs

From attached Engineer's opinion: **$92,925**

Construction and Design Costs

From attached Engineer's opinioon: **$81,965**

Total Grant Request: $250,000

ENGINEER'S OPINION OF CONSTRUCTION AND DESIGN COST - GREEN STREETS CONCEPT PLAN
THE TOWN OF GARRETT PARK, MD

Green Infrastructure - Green Roads - Urban Bioretention

	ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
04.00	**CLERMONT AVENUE - Bioretention #1**				
04.01	Install bioretention, stone, soil, Underdrain, plantings	490	SF	38.00	$18,620
04.02	remove/ dispose pavement and excavate	490	SF	12.00	$5,880
04.03	Concrete Curb and Gutter	95	LF	23.00	$2,185
04.04	connect UD to SD Inlet	1	EA	200.00	$200
	BR #1 Subtotal				**$26,885**
05.00	**CLERMONT AVENUE - Bioretention #2**				
05.01	Install bioretention, stone, soil, Underdrain, plantings	280	SF	38.00	$10,640
05.02	remove/ dispose pavement and excavate	280	SF	12.00	$3,360
05.03	Concrete Curb and Gutter	65	LF	23.00	$1,495
05.04	connect UD to SD pipe	1	EA	250.00	$250
	BR #2 Subtotal				**$15,745**
06.00	**CLERMONT AVENUE - Bioretention #3**				
06.01	Install bioretention, stone, soil, Underdrain, plantings	280	SF	38.00	$10,640
06.02	remove/ dispose pavement and excavate	280	SF	12.00	$3,360
06.03	Concrete Curb and Gutter	65	LF	23.00	$1,495
06.04	4" UD trench and backfill to daylight	240	LF	20.00	$4,800
	BR #3 Subtotal				**$20,295**
				SUBTOTAL Construction	**$62,925**
11.00	**PROFESSIONAL SERVICES**				
11.01	Survey	1	LS	5,000.00	$5,000
11.02	Engineering Design	1	LS	25,000.00	$25,000
				SUBTOTAL Design	**$30,000**
				DESIGN AND CONSTRUCTION COST	**$92,925**

Notes: the unit price for SF of bioretention is based on past DC Department of the Environment River Smart Program studies
The total contributting DA = 1.3 ac, Impervious area =0.8 ac

ENGINEER'S OPINION OF CONSTRUCTION AND DESIGN COST - GREEN STREETS CONCEPT PLAN
THE TOWN OF GARRETT PARK, MD

SIDEWALK IMPROVEMENTS - Green Infrastructure - Porous Concrete

				Conventional		Green Sidewalk		
	ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	COST DIFFERENCE
01.00	**CLERMONT AVENUE AND MONTROSE AVENUE**							
01.01	Concrete Sidewalk, 5-Feet Wide, 4" Thick - 1565 LF	7825	SF	8.00	$62,600	11.00	$86,075	$23,475
01.02	Concrete Driveway Entrances	15	EA	1,100.00	$16,500	1,340.00	$20,100	$3,600
01.03	Concrete Irregular Driveway Entrances	1	EA	2,000.00	$2,000	2,400.00	$2,400	$400
02.00	**KENILWORTH AVENUE (Waverley Ave. to Argyle Ave.)**							
02.01	Concrete Sidewalk, 5-Feet Wide, 4" Thick - 680 LF	3400	SF	8.00	$27,200	11.00	$37,400	$10,200
02.02	Concrete Driveway Entrances	8	EA	1,100.00	$8,800	1,340.00	$10,720	$1,920
02.03	Concrete Double Driveway Entrances	2	EA	2,000.00	$4,000	2,400.00	$4,800	$800
03.00	**OXFORD AVENUE (Montrose Ave. to Weymouth Ave.)**							
03.01	Concrete Sidewalk, 5-Feet Wide, 4" Thick - 1450 LF	7250	SF	8.00	$58,000	11.00	$79,750	$21,750
03.02	Concrete Driveway Entrances	8	EA	1,100.00	$8,800	1,340.00	$10,720	$1,920
03.03	Concrete Double Driveway Entrances	1	EA	2,000.00	$2,000	2,400.00	$2,400	$400
			SUBTOTAL Construction		$189,900		$254,365	$64,465
10.00	**PROFESSIONAL SERVICES**							
10.01	Engineering Design	1	LS	27,500.00	$27,500	45,000.00	$45,000	$17,500
			SUBTOTAL Design		$27,500		$45,000	$17,500
		DESIGN AND CONSTRUCTION COST			$217,400		$299,365	$81,965

Notes: the price difference for porous concrete:
additional $1 per sf per concrete plus additional 10" to 12" aggregate layer below concrete (avg $2 per SF)
The final depth of aggregate depends on the street slope.