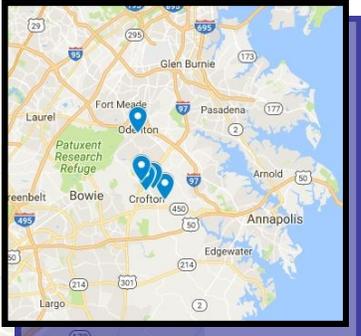




Watershed Stewards Academy

Session 1: Stormwater Tour October 8, 2016



Crofton Stormwater Tour

1. Crofton Public Library
1681 Riedel Rd.
Crofton, MD

2. Residential Stream
1720 Basil Way
Gambrills, MD

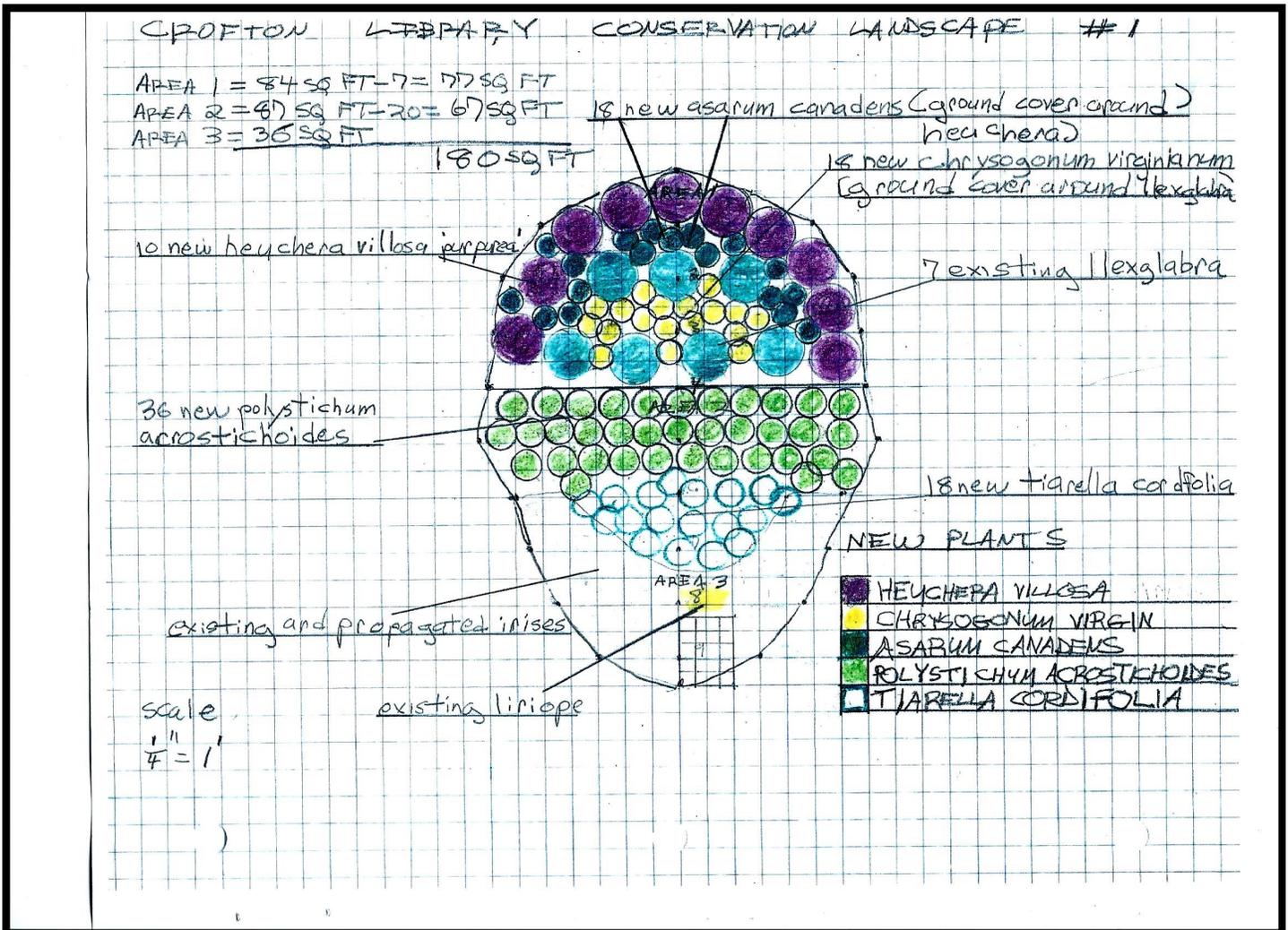
3. Crofton Town Hall
1576 Crofton Pkwy.
Crofton, MD

4. Simon Residence
1573 Crofton Pkwy.
Crofton, MD

5. Rupert's Ravine Restoration
Princess Shopping Center
2510 Conway Rd.
Crofton, MD

6. Ark and Dove Presbyterian Church
8424 Piny Orchard Pkwy.
Odenton, MD

Crofton Library



Type of Project: Conservation Landscape Planting

The purpose of this project is to rehabilitate two conservation landscapes on the grounds of the Crofton Community Library at 1681 Riedel Rd, Crofton, MD 21114 to enhance their stormwater retention ability. Each landscape captures stormwater runoff from surrounding turf and nearby impervious surfaces adjacent to a heavily used public building. The landscapes in their pre-rehabilitation condition had many weeds and not enough other plants to reach their stormwater mitigation potential. An extensive weed removal effort was begun this spring and will continue throughout the summer. Existing plants will remain in place and have been documented with the assistance of the Crofton Village Garden Club Master Gardener, Jim Mac-Nicholl. Planting plans have been created for both landscapes with the objective of enhancing their ability to capture rainwater runoff and improve their aesthetic appeal.

Gardens at library were installed as a series of Boy Scout Eagle Scout projects over the years 2012-2013.

CROFTON LIBRARY CONSERVATION LANDSCAPE # 2

Lex verticillata (existing)

Lex glabra (existing)

amelanchier arborea (existing)

Lex glabra (existing)

Lex verticillata (existing)

Sedum telepinum (existing)

Lex verticillata (existing)
Ysimaquia ciliata (existing)

Lex glabra (existing)

amelanchier arborea (existing)

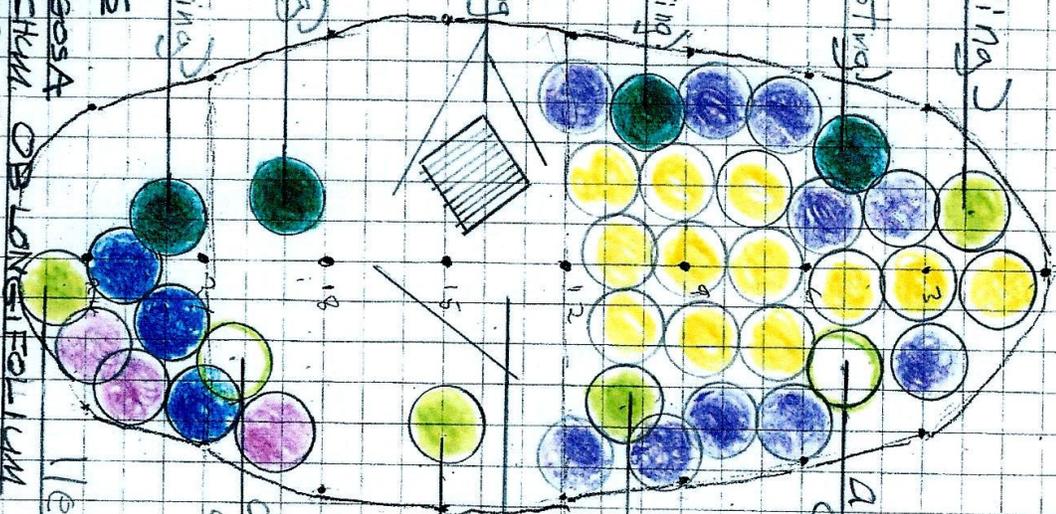
Lex glabra (existing)

Lex verticillata (existing)

NEW PLANTS

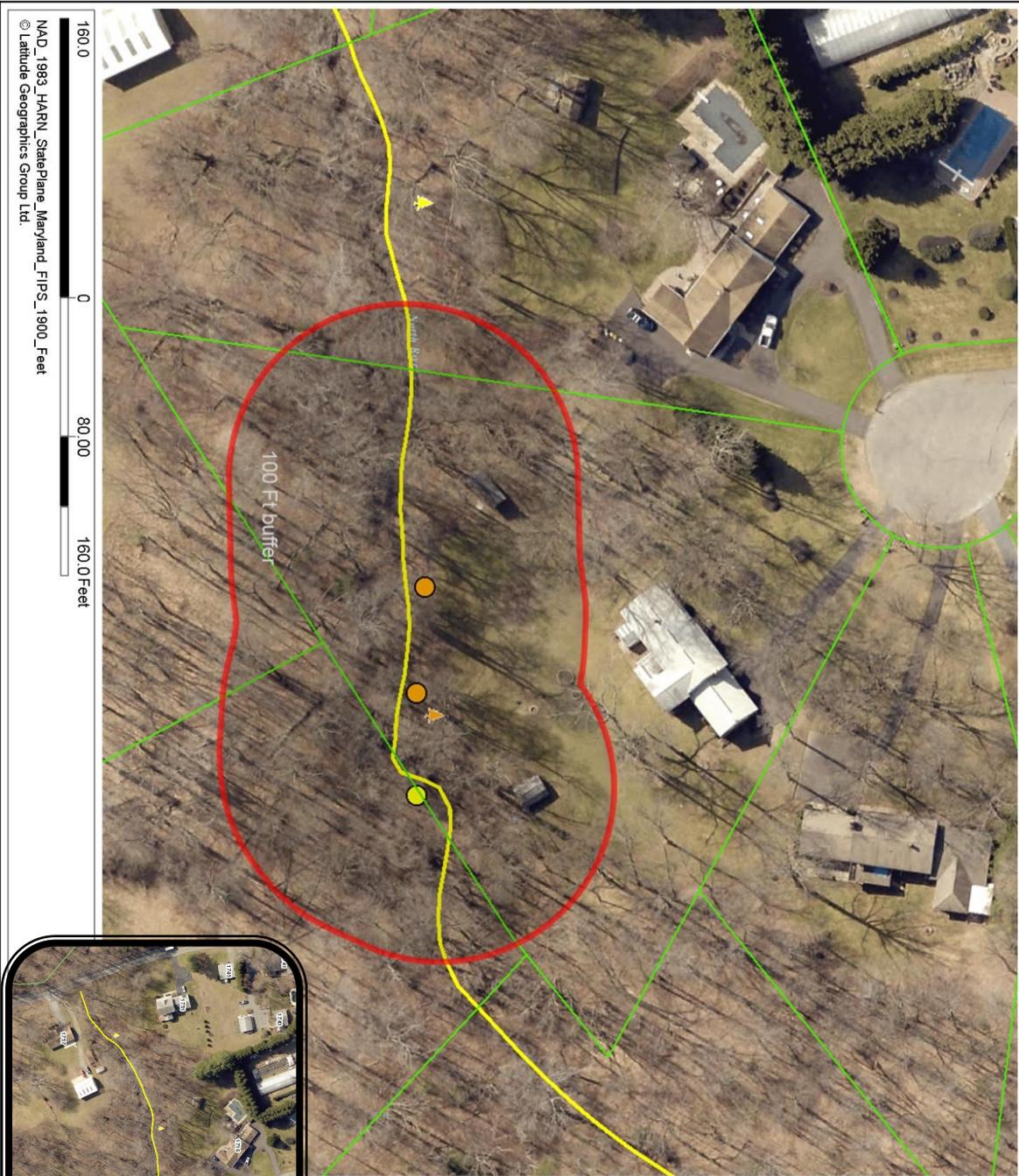
SOLIDAGO RUPEOSA	OB-LONGIFOLIUM
SYMPHYOTRICHUM	
BAPTISIA AUSTRALIS	
PHLOX PILOSA	

Scale 1" = 238.50 SQ. FT.



1720 Basil Way

Degraded Stream



- Legend**
- Parcels
 - Deficient Buffer
 - ▲ 1
 - ▲ 5
 - ▲ 7
 - ▲ 10
 - 2
 - 5
 - 10
 - Contributory Percent Impervious Reach
 - 0 - 10% Lowest
 - 11 - 19%
 - 20 - 25%
 - 26 - 100% Highest
 - ◆ Outfalls
 - Storm Inlets
 - Culvert
 - Sewer Lines

Simon Residence



Type of Project: Rain Garden and Conservation Landscape 2011

\$800 master plan and rain garden design (included AA County permitting documents and handling)

\$1500 rain garden and overflow construction (completed by contractor)

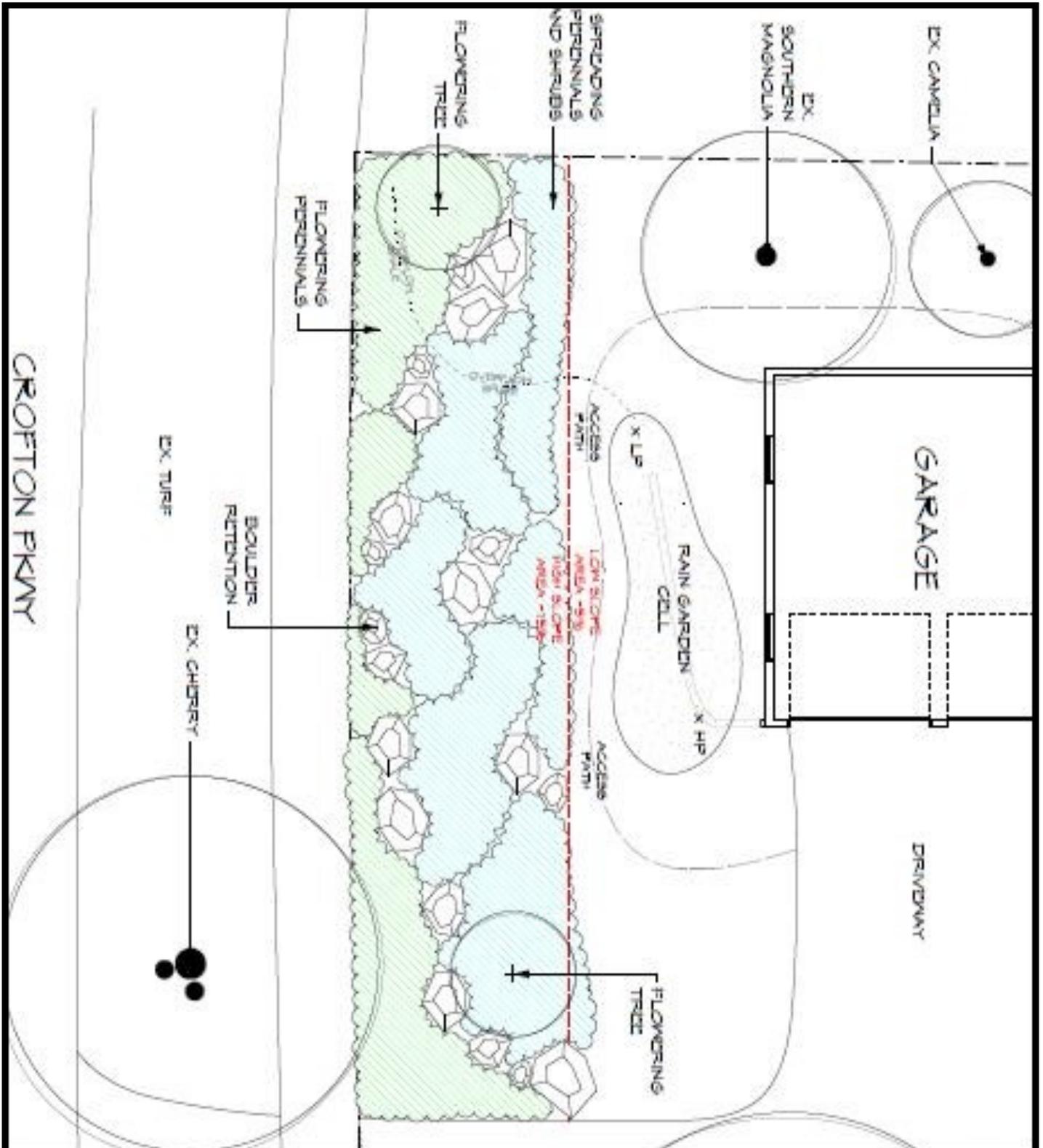
\$500 plants (planted by volunteers)

\$4500 conservation landscape plants, materials and planting labor by contractor. This also included site preparation, removal of English ivy and old timbers, and installation of silt fence

\$3950 boulders, and steps materials and labor

Total: \$11250

Designer & Contractor McHale Landscape Design



DATE: 04/29/10
 SCALE: 1/8"=1'-0"
 REVISION DATE:
 SHEET NO.:
 1 of 1

SIMON RESIDENCE
 1573 CROFTON PKWY
 CROFTON, MD

FRONT SLOPE
 CONCEPT PLAN



MCHALE
 LANDSCAPE DESIGN, INC.
 11100 WOODBURN
 ANNAPOLIS, MD 21403
 P: 410-293-0000
 F: 410-293-0001
 www.mchalelandscape.com

Ruppert's Ravine Stream Restoration



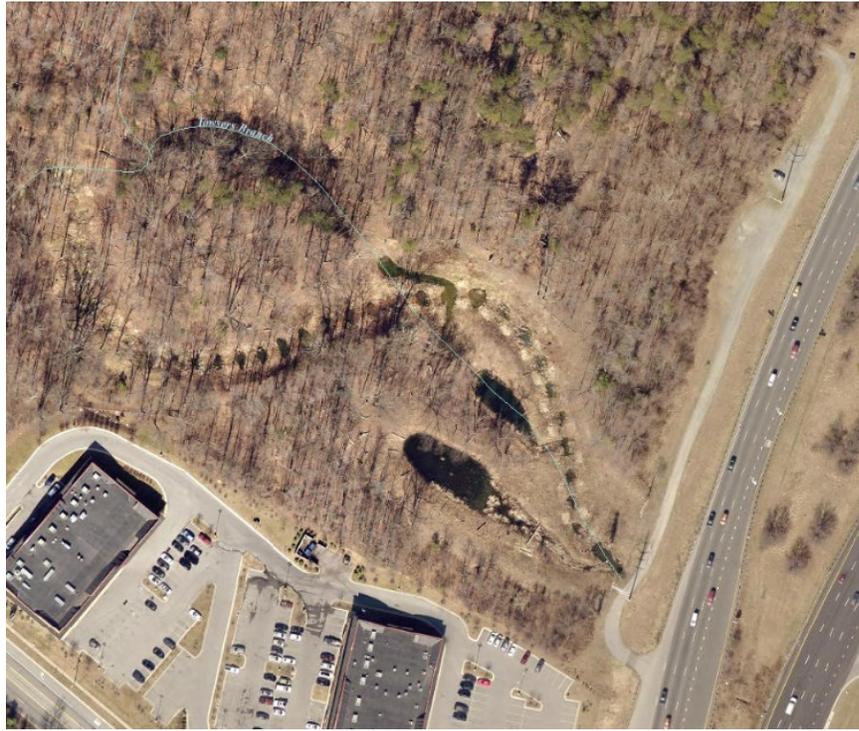
Type of Project: Anne Arundel County Stream Restoration

Drainage Area: 59.26 (23.1 Impervious)

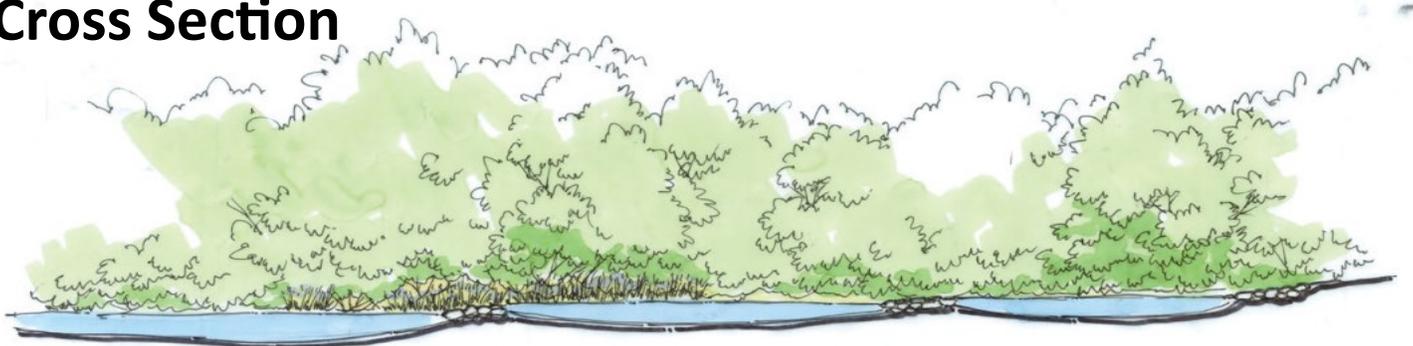
Description: Ruppert's Ravine was an unattractive, low quality stream system characterized by channel erosion and sedimentation resulting from unstable soils and a stormwater dominated hydrologic regime. Areas in the stream's flow path were dominated by invasive species such as multiflora rose and honeysuckle. The design employs a regenerative stormwater conveyance (RSC) approach, converting the head-cutting stream channel into a stable seepage wetland ecosystem well linked to its historic floodplain. By recharging the groundwater table, a number of threatened plant species associated with Anne Arundel County's native acid seep wetland systems can be supported. The design also includes two acres of reforestation. This project was completed in 2013.

Designer: Collaboration between Underwood and Associates & Biohabitats

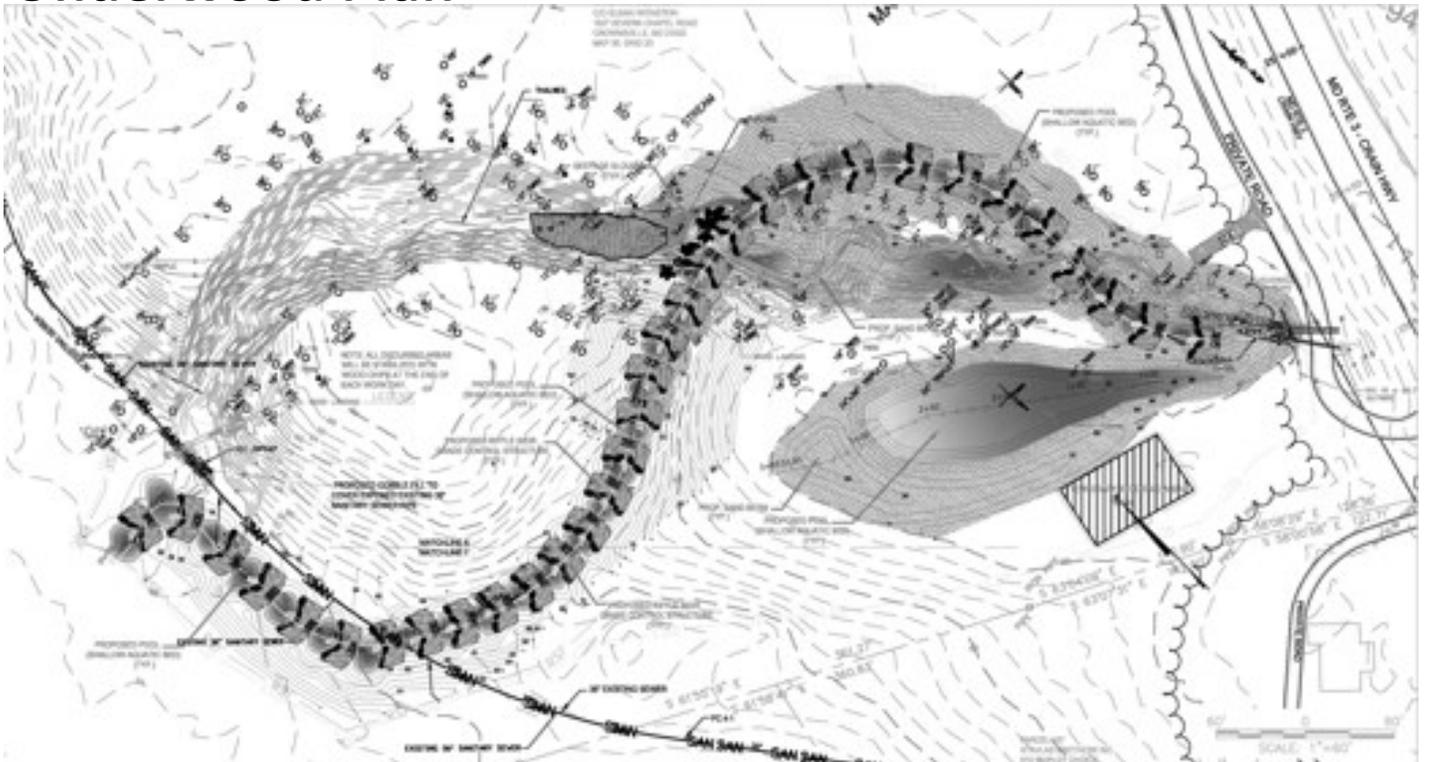
Overview



Cross Section



Underwood Plan



Ark and Dove Presbyterian Church



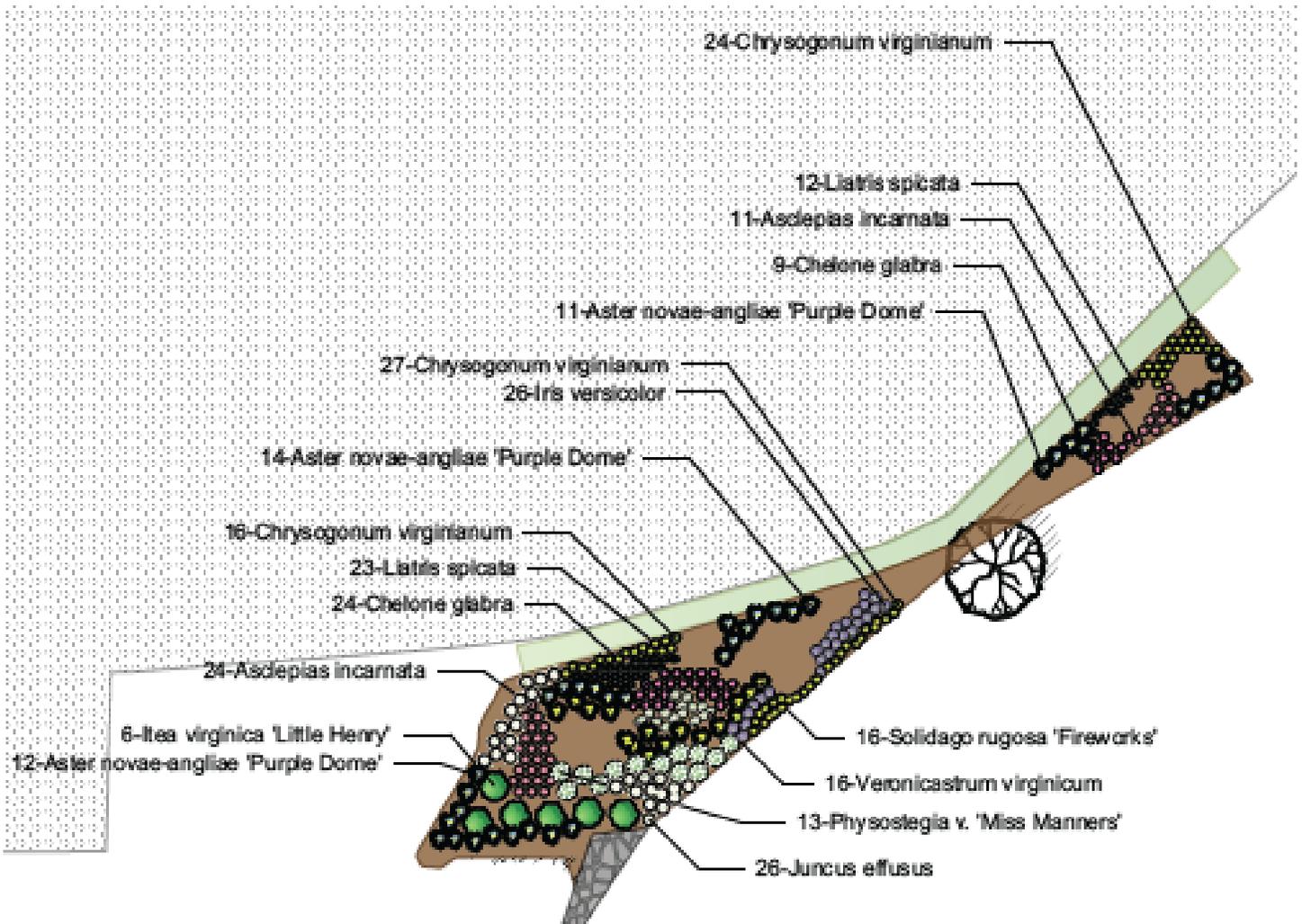
Type of Project: Bioretention and Cisterns

Description: Ark and Dove Presbyterian Church's (ADPC) project treats 2,000 square feet of impervious surface with a combination of one rain garden, 12 rain barrels and a conservation garden. These practices will remove 5.4 lbs. of Nitrogen, 0.6 lbs. of Phosphorous and 18 tons of sediment from nearby creeks and streams each year. ADPC has also been fostering environmental education in adults and children through specific sermons and messages about the importance of how we deal with stormwater and the consequences of inaction. They also have inspired other congregants to take action, and facilitated the purchase and installation of 15 residential rain barrels for members of their congregation. This summer, the Vacation Bible school curriculum was based on "Water Around the World" – exploring the social justice aspects of who has access to clean water interwoven with hands on examples of how we can act locally for others. In the future, Ark and Dove hopes to further its Creation Care Ministry through more educational and hands-on activities revolving around our relationship to water.

Designer: John Shorb Landscaping

Contact Person: Robert Yeager , rubarb72@verizon.net

Zoomed In View of the Planting



Project Budget

Description	Amount	Accepted
RainBoxes (three)	\$3,202.94	<input type="checkbox"/>
Rain Gardens	\$25,529.52	<input type="checkbox"/>
Gravel with Plantings in Swale	\$3,118.21	<input type="checkbox"/>
Rain Columns (four)	\$6,610.72	<input type="checkbox"/>
RainBoxes (six)	\$4,301.55	<input type="checkbox"/>
Hercules Rain Storage (2)	\$7,143.40	<input type="checkbox"/>