

# Clipper Hills Hilltop Stormwater Management Facility Retrofit

## **Background:**

The Clipper Hills Hilltop stormwater management facility is an existing facility located off of MacBeth Way in Eldersburg. This facility was targeted because vegetation had grown up on the facility due to lack of maintenance, the facility was not functioning properly, and it was not capturing all of the intended run-off from the subdivision. Because of the condition of the facility the County wanted to bring it up to current standards thereby ensuring that the facility provides stormwater control for the entire contributing drainage area, and it can be easily maintained.

## **Scope of Work:**

The site was cleared by Magstone in the fall of 2011. Carroll Land Service surveyed and analyzed the site to determine if the facility was capturing the intended drainage area, and to see if additional drainage could be conveyed and treated in the facility. The design for the facility included upgrading the existing storm drain system, while installing additional inlets to capture the drainage. The existing embankment and riser were removed, the new embankment was constructed with a clay core, two anti-seep collars, and an emergency spillway. The bottom of the facility included a 18” layer of #8 stone with 6” HDPE type “SP” pipe laying on top to draw any excess water off the surface. The pipe was topped with 18” of a sand-soil green wood chip mixture. All of the slopes were designed at 3:1 to allow efficient machine mowing. The drainage from the adjacent Harvest Farms Section 3 facility was conveyed into the Hilltop facility. The Harvest Farms facility was filled in and a small recharge facility was installed. The facilities were designed to meet and exceed all current county and state stormwater management regulations.

## **Sequence of Construction:**

The County sent letters to the Homeowners Association and a meeting was held on June 23, 2010 with the President of the Association. During the design process the county worked closely with the Homeowners Association to transfer the stormwater management facility to the County. Adjacent property owners were notified of the proposed construction. State permits were obtained for the retrofit of this facility. The facility went out to bid in March 7, 2012 with bids due back April 4, 2012.

The job was awarded to Thomas, Bennett, & Hunter and was slated to begin in the Summer of 2012. The pre construction meeting was held in May, and construction began shortly after. The contractor completed the project in December, but had to wait for a 2” stand of grass to be established before the grading completion certificate was issued. The grading completion certificate was issued on August 5, 2013. The as-built was accepted by the County on February 13, 2013.

## **Project Details:**

Watershed:	S. Branch Patapsco
Drainage Area:	80.17 acres
Impervious Surface Treated:	18.54 acres
Costs: Clearing/Engineering	\$ 40,189.00/ \$ 52,542.00
Construction	\$ 658,899.00

## **Submitted By:**

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