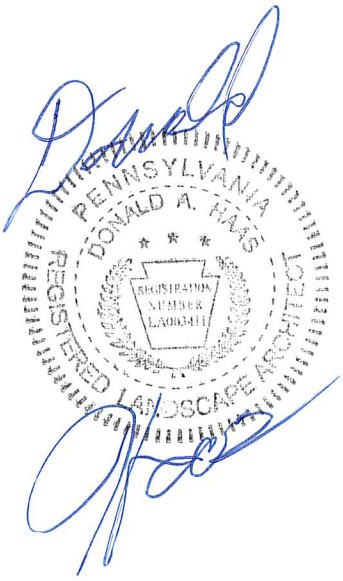
Appendix G:

Stormwater Calculations for LVPC



BASIN A modeling

The initial model using the contour area of 79,915 sq. ft. for the basin bottom as well as the top of fill media (i.e., contour 290.00').

1.0' is removed (i.e., zero storage volume) from the routing, from 288.00 to 289.00 where the lowest orifice (underdrain orifice) is installed.

1.0' is 30% void space, from 289.00 to 290.00 with an area of 79,915.

79,915 x 1 x 30% = 23,974 cu. ft.

This was then approximated by artificially adjusting the contour areas to achieve the noted volumes. Some volume was not utilized leaving the calculations slightly conservative.
The remaining contours are reflective of the surface design conditions.

Pond Name: BMP A

Row	Stage	Elevation	Contour Area	Incremental Storage	Total Storage
	(ft)	(ft)	(sqft)	(cuft)	(cuft)
0	0.00	288.00	0	0.000	0.000
1	2.00	290.00	35,965	23,974	23,974
2	2.01	290.01	79,915	565	24,539
3	4.00	292.00	88,068	167,061	191,600
4	6.00	294.00	96,468	184,454	376,054
5	8.00	296.00	105,115	201,501	577,555
6					
7					

Fill

~~BR Bypass~~ Time of Concentration is 4.9