Stormwater Detention and Infiltration Design Data Sheet

SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: Waterview East Commercial, Pond 1

Facility Location & Jurisdiction: SEC of Powers Boulevard and Bradley Rd., Colorado Springs, Colorado

User Input: Watershed Characteristics

•		1				
Extended Detention Basin (EDB)	EDB					
Watershed Area =	2.75	acres				
Watershed Length =	380	ft				
Watershed Length to Centroid =	190	ft				
Watershed Slope =	0.014	ft/ft				
Watershed Imperviousness =	47.2%	percent				
Percentage Hydrologic Soil Group A =	50.0%	percent				
Percentage Hydrologic Soil Group B =	50.0%	percent				
Percentage Hydrologic Soil Groups C/D =	0.0%	percent				
Target WQCV Drain Time =	40.0	hours				
Location for 1-hr Rainfall Depths (use dropdown):						
User Input	•					

After providing required inputs above including 1-hour rainfall depths, click 'Run CUHP' to generate runoff hydrographs using the embedded Colorado Urban Hydrograph Procedure.

Once CUHP has been run and the Stage-Area-Discharge information has been provided, click 'Process Data' to interpolate the Stage-Area-Volume-Discharge data and generate summary results in the table below. Once this is complete, click 'Print to PDF'.

User Defined	User Defined	User Defined	User Defined
Stage [ft]	Area [ft^2]	Stage [ft]	Discharge [cfs]
0.00	1,481	0.00	0.00
1.00	2,150	1.00	0.02
2.00	2,919	2.00	0.09
3.00	3,789	3.00	1.85
4.00	4,759	4.00	2.15
5.00	5,830	5.00	18.02

After completing and printing this worksheet to a pdf, go to: https://maperture.digitaldataservices.com/gvh/?viewer=cswdif
Create a new stormwater facility, and attach the PDF of this worksheet to that record.

Routed Hydrograph Results

Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
One-Hour Rainfall Depth =	N/A	1.19	1.52	1.75	2.25	2.55	in
CUHP Runoff Volume =	0.046	0.112	0.157	0.196	0.311	0.388	acre-ft
Inflow Hydrograph Volume =	N/A	0.112	0.157	0.196	0.311	0.388	acre-ft
Time to Drain 97% of Inflow Volume =	77.5	73.6	66.8	62.3	52.6	48.0	hours
Time to Drain 99% of Inflow Volume =	100.3	96.5	89.9	85.5	76.0	71.7	hours
Maximum Ponding Depth =	1.08	2.01	2.23	2.42	3.11	3.68	ft
Maximum Ponded Area =	0.05	0.07	0.07	0.08	0.09	0.10	acres
Maximum Volume Stored =	0.046	0.100	0.116	0.130	0.186	0.241	acre-ft



