

## Stormwater Detention and Infiltration Design Data Sheet

SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: The Rock Commerce Center

Facility Location & Jurisdiction: El Paso County

User Input: Watershed Characteristics

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	Extended Detention Basin (EDB)	•	EDB		
Watershed Area =			11.38		acres
	Watershed Lengt	1,550		ft	
	Watershed Length to Centroi	775		ft	
Watershed Slope =			0.030		ft/ft
	Watershed Imperviousnes	s =	85.0%		percent
	Percentage Hydrologic Soil Group	4 =	0.0%		percent
	Percentage Hydrologic Soil Group	100.0%		percent	
	Percentage Hydrologic Soil Groups C/I	0.0%		percent	
	Target WQCV Drain Time	e =	40.0		hours
	Location for 1-hr Rainfall Depths	n):			
	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	0	0.00	0.00
1.00	747	1.00	0.05
2.00	4,659	2.00	0.07
3.00	9,002	3.00	0.14
4.00	10,517	4.00	0.17
5.00	12,089	5.00	0.25
6.00	13,719	6.00	0.34
7.00	15,407	7.00	10.15
8.00	17,156	8.00	10.89
9.00	18,969	9.00	101.53
10.00	20,803	10.00	300.74

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

## Routed Hydrograph Results

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Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	I			
One-Hour Rainfall Depth =	N/A	0.90	1.20	1.46	2.17	2.52	in			
CUHP Runoff Volume =	0.343	0.688	0.960	1.208	1.927	2.289	acre-ft			
Inflow Hydrograph Volume =	N/A	0.688	0.960	1.208	1.927	2.289	acre-ft			
Time to Drain 97% of Inflow Volume =	39.3	59.7	69.7	72.3	68.4	66.6	hours			
Time to Drain 99% of Inflow Volume =	41.3	62.8	73.8	77.3	75.8	75.2	hours			
Maximum Ponding Depth =	3.55	4.78	5.69	6.20	6.91	7.47	ft			
Maximum Ponded Area =	0.23	0.27	0.30	0.32	0.35	0.37	acres			
Maximum Volume Stored =	0.345	0.649	0.911	1.071	1.306	1.509	acre-ft			

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