Stormwater Detention and Infiltration Design Data Sheet

SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: Kum & Go - El Paso

Facility Location & Jurisdiction: Security Boulevard & Main Street, El Paso, Colorado

User Input: Watershed Characteristics

Extended Detention Basin (EDB)	EDB				
Watershed Area =	1.29	acres			
Watershed Length =	275	ft			
Watershed Length to Centroid =	150	ft			
Watershed Slope =	0.020	ft/ft			
Watershed Imperviousness =	83.0%	percent			
Percentage Hydrologic Soil Group A =	0.0%	percent			
Percentage Hydrologic Soil Group B =	100.0%	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	2,870	0.00	0.00
1.00	2,870	1.00	0.01
2.00	2,870	2.00	0.02
3.00	2,870	3.00	0.03
4.00	2,870	4.00	1.43

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

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Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
One-Hour Rainfall Depth =	N/A	0.99	1.27	1.53	2.31	2.70	in
CUHP Runoff Volume =	0.037	0.079	0.106	0.132	0.216	0.258	acre-ft
Inflow Hydrograph Volume =	N/A	0.079	0.106	0.132	0.216	0.258	acre-ft
Time to Drain 97% of Inflow Volume =	>120	>120	>120	>120	>120	>120	hours
Time to Drain 99% of Inflow Volume =	>120	>120	>120	>120	>120	>120	hours
Maximum Ponding Depth =	0.57	1.17	1.58	1.96	3.12	3.36	ft
Maximum Ponded Area =	0.07	0.07	0.07	0.07	0.07	0.07	acres
Maximum Volume Stored =	0.038	0.077	0.104	0.129	0.206	0.221	acre-ft

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