

## El Paso County MS4 Post Construction Detention / Water Quality Facility Documentation Form

This document **must be completed and submitted** with required attachments to the County for projects requiring a detention and/or a water quality facility. A separate completed form must be submitted for each facility.

Project name:	The Citizen on Constitution			
Owner name:	The Citizen on Constitution, LLC			
Location Addre	SS:			
SWC of Const	itution Ave and Marksheffel Road			
Latitude and Lo				
38.8673, -104	1.6865			
Assessor's Parc	el #: 54051-04-074&074	ection: 5 Tov	vnship: 14S	Range: 65W
Expected Comp	oletion date: Spring 2024		_	
Project acreage	12.26 Design Po	onding Acres: 0.47	Design Storm:	100-yr <b>▼</b>
Design Enginee	r Email Address:   mitchell.hess@k	imley-horn.com		
Detention and	pliance with C.R.S. 37-92-602(8), th Infiltration Design Data Sheet <b>must</b> cure.digitaldataservices.com/gvh/?v	<b>be attached</b> . The form ca		Data Sheet)
List all perman	ent water quality control measure(	s) (EDBs, rain gardens, etc)	:	
Extended Det	ention Basin			
	for which the constrained redevelo	opment sites standard is ap	oplied, provide an ex	planation of why it is
long-term obse maintenance a	ons and Maintenance (O&M) Planervation, maintenance, and operation ctivities. If multiple, different wate be provided for each facility.	on of control measure(s), i	ncluding routine insp	ection frequencies and
	Detention Basin / Stormwater Qua	•		•
Easement add	essing maintenance of BMPs that s	shall be binding on all subs	equent owners of the	e permanent BMPs.
Attachments:			Review Engineer	DT / GR
Stormwater De	tention and Infiltration Design Data	a Sheet <b>EP</b>	PC Project File No.	SF226
Maintenance a	nd Access Agreement			

## Stormwater Detention and Infiltration Design Data Sheet

SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: Citizen On Constitution-Extended Detention Facility

Facility Location & Jurisdiction: SWC of Constitution Avenue and Marksheffel Road- El Paso County, CO

User Input: Watershed Characteristics

User Input

Extended Detention Basin (EDB)	EDB				
Watershed Area =	11.25	acres			
Watershed Length =	1,200	ft			
Watershed Length to Centroid =	600	ft			
Watershed Slope =	0.020	ft/ft			
Watershed Imperviousness =	71.0%	percent			
Percentage Hydrologic Soil Group A =	66.5%	percent			
Percentage Hydrologic Soil Group B =	33.5%	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):					

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	10	0.00	0.00
1.23	1,075	1.23	0.05
2.23	5,842	2.23	0.07
3.23	8,472	3.23	0.13
4.23	10,582	4.23	0.18
5.23	12,841	5.23	0.32
6.23	15,225	6.23	0.51
7.23	17,729	7.23	0.61
8.23	20,348	8.23	0.70
9.23	23,172	9.23	0.78
10.03	25,384	10.03	0.84

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

<u>atted Tryatograph Results</u>						_	
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 =	0.262	0.746	0.986	1.177	1.663	1.974	acre-ft
Inflow Hydrograph Volume =	N/A	0.746	0.986	1.177	1.663	1.974	acre-ft
Time to Drain 97% of Inflow Volume =	38.0	65.2	71.2	74.5	81.3	84.8	hours
Time to Drain 99% of Inflow Volume =	40.3	69.1	75.8	79.8	88.3	92.9	hours
Maximum Ponding Depth =	3.25	5.09	5.81	6.33	7.53	8.20	ft
Maximum Ponded Area =	0.20	0.29	0.33	0.36	0.42	0.47	acres
Maximum Volume Stored =	0.263	0.703	0.926	1.104	1.567	1.868	acre-ft



