

ACCEPTED for FILE Engineering Review 09/07/2021 10:29:18 AM dsdrice JeffRice@elpaseco.com (719) 520-7877 EPC Planning & Community Development Department

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:	Urban Collection at Palmer Village Pond B	
Owner name:	MDC Holdings - Richmond American Homes	
Location Addre	ress:	
South East Co	Corner of Constitution Ave and Hannah Ridge Dr, Colorado Springs, CO	
Latitude and Lo	ongitude:	
38.8676, -104	4.6879	
Assessor's Parc	Section: 5 Township: 14	Range: 65
Expected Com	npletion date:	
Project acreag		. 100 yr ▼
Design Engine	er Email Address: gellis@jrengineering.com	
Detention and	npliance with C.R.S. 37-92-602(8), the completed Stormwater d Infiltration Design Data Sheet must be attached. The form can be found here: rture.digitaldataservices.com/gvh/?viewer=cswdif# (click on Download SDI Designs)	gn Data Sheet)
List all perman	nent water quality control measure(s) (EDBs, rain gardens, etc):	
Extended Det	tention Basin, Pond B	
For all projects	s for which the constrained redevelopment sites standard is applied, provide an	explanation of why it is
not practicable	e to meet the full design standards.	
The practicable	e to meet the fail design standards.	
	(0.000) Planting the control of the	
long-term obse	tions and Maintenance (O&M) Plan describing the operation and maintenance parties are used and operation of control measure(s), including routine in activities. If multiple, different water quality control measures are used at the safet be provided for each facility.	nspection frequencies and
Attach Private	e Detention Basin / Stormwater Quality Best Management Practice Maintenan	ce Agreement and
Easement add	dressing maintenance of BMPs that shall be binding on all subsequent owners of	the permanent BMPs.
Attachments:	Review Engineer	JR / GR
Stormwater De	Review Engineer etention and Infiltration Design Data Sheet EPC Project File No.	SF-20-028
	and Access Agreement	

Stormwater Detention and Infiltration Design Data Sheet

SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: Pond B

Facility Location & Jurisdiction: Urban Collection At Palmer Village, Constitution Ave, El Paso County/ El Paso County

User Input: Watershed Characteristics

Extend	ed Detention Basin (EDB)	•	EDB	
Watershed Area =			4.57	acres
Watershed Length =			700	ft
Watershed Length to Centroid =		227	ft	
	Watershed Slope	=	0.028	ft/ft
	Watershed Imperviousness	; =	54.3%	percent
Percentage Hydrologic Soil Group A =		100.0%	percent	
Percentage Hydrologic Soil Group B =		0.0%	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):				1):
	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	447	1.00	0.01
2.00	3,633	2.00	0.03
3.00	5,896	3.00	0.08
4.00	7,370	4.00	0.20
5.00	9,044	5.00	1.86
6.00	10,876	6.00	71.64
7.00	13,042	7.00	226.22

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	1.19	1.50	1.75	2.25	2.52	in
CUHP Runoff Volume =	0.083	0.207	0.274	0.328	0.485	0.583	acre-ft
Inflow Hydrograph Volume =	N/A	0.207	0.274	0.328	0.485	0.583	acre-ft
Time to Drain 97% of Inflow Volume =	40.4	57.1	60.8	62.8	61.7	60.2	hours
Time to Drain 99% of Inflow Volume =	44.1	62.8	67.3	69.8	70.0	69.3	hours
Maximum Ponding Depth =	2.34	3.23	3.64	3.94	4.47	4.81	ft
Maximum Ponded Area =	0.10	0.14	0.16	0.17	0.19	0.20	acres
Maximum Volume Stored =	0.083	0.193	0.254	0.302	0.395	0.462	acre-ft



