



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: Homestead @ Sterling Ranch Filing	ng No. 2 (Sand Filter Addendum)
Owner name: SR Land, LLC	
Location Address:	
Beaver Brook Drive	
Latitude and Longitude:	'
38.9634, -104.674	
Assessor's Parcel #: 5233301001 Section: 33	Township: 12S Range: 65W
Expected Completion date: March, 2022	
Project acreage: 2.74 Design Ponding Acres: 0.	Design Storm: 100
Design Engineer Email Address: rburns@jrengineering.	COM
To ensure compliance with C.R.S. 37-92-602(8), the completed Stor Detention and Infiltration Design Data Sheet must be attached . The https://maperture.digitaldataservices.com/gvh/?viewer=cswdif# (and the completed Stor Detention and Infiltration Design Data Sheet must be attached . The latest the completed Stor Detention and Infiltration Design Data Sheet must be attached . The latest the l	e form can be found here:
List all permanent water quality control measure(s) (EDBs, rain gard	dens, etc):
2-sand filters (Basin X1, and Basins Y1,	W1, & X2)
For all projects for which the constrained redevelopment sites stan	dard is applied, provide an explanation of why it is
not practicable to meet the full design standards.	,
not practicable to meet the full design standards.	
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Attach Operations and Maintenance (O&M) Plan describing the op	·
long-term observation, maintenance, and operation of control mea maintenance activities. If multiple, different water quality control	• • • • • • • • • • • • • • • • • • • •
& M Plan must be provided for each facility.	neasures are used at the same location, a separate
Attach Private Detention Basin / Stormwater Quality Best Manage	_
Easement addressing maintenance of BMPs that shall be binding or	
Attachments:	Review Engineer JR /CP EPC Project File No. CDR-20-012
Stormwater Detention and Infiltration Design Data Sheet O & M Plan	EPC Project File No. CDR-20-012
Maintenance and Access Agreement	

Stormwater Detention and Infiltration Design Data Sheet

Workhook Protected

Worksheet Protecte

Stormwater Facility Name: Sand Filter Basin (W1, Y1, X2)

Facility Location & Jurisdiction: El Paso County - Homestead @ Sterling Ranch Filing No. 2

User Input: Watershed Characteristics

Watershed Slope =	0.020	ft/ft
Watershed Length =	900	ft
Watershed Area =	2.74	acres
Watershed Imperviousness =	25.0%	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
		• ·

Location for 1-hr Rainfall Depths (use dropdown):

Denver - Capitol Building	•
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WQCV Treatment Method =

User Defined	User Defined	User Defined	User Defined
Stage [ft]	Area [ft^2]	Stage [ft]	Discharge [cfs]
0.00	3,358	0.00	0.00
1.00	4,326	1.00	0.23
2.00	5,395	2.00	3.12
2.50	5,967	2.50	15.57
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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 =	0.53	1.19	1.50	1.75	2.25	2.52	in
Calculated Runoff Volume =		0.052	0.075	0.121	0.281	0.363	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =		0.051	0.075	0.120	0.280	0.362	acre-ft
Time to Drain 97% of Inflow Volume =		15.8	16.0	16.3	13.5	12.5	hours
Time to Drain 99% of Inflow Volume =		20.3	20.4	20.7	18.0	17.0	hours
Maximum Ponding Depth =		0.46	0.66	1.01	1.50	1.71	ft
Maximum Ponded Area =		0.09	0.09	0.10	0.11	0.12	acres
Maximum Volume Stored =		0.038	0.055	0.089	0.141	0.164	acre-ft

Stormwater Detention and Infiltration Design Data Sheet

