

Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected

Worksheet Protected

Stormwater Facility Name: Homestead at Sterling Ranch Filing No.2 FSD Pond 1

Facility Location & Jurisdiction: 38.964784 Latitude, 104.67180 Longitude

User Input: Watershed Characteristics

Watershed Slope = 0.020 ft/ft
 Watershed Length = 875 ft
 Watershed Area = 16.51 acres
 Watershed Imperviousness = 44.1% 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):
 User Input

WQCV Treatment Method = Extended Detention

User Defined Stage [ft]	User Defined Area [ft^2]	User Defined Stage [ft]	User Defined Discharge [cfs]
0.00	0	0.00	0.00
0.33	40	0.33	0.02
0.83	100	0.83	0.03
1.83	4,187	1.83	0.05
3.83	8,006	3.83	0.12
5.83	11,106	5.83	2.00
7.83	14,529	7.83	35.00
9.83	18,087	9.83	50.50

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

	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
Design Storm Return Period =							
One-Hour Rainfall Depth =	0.50	1.19	1.50	1.75	2.25	2.52	in
Calculated Runoff Volume =	0.262	0.632	1.014	1.341	2.214	2.661	acre-ft
OPTIONAL Override Runoff Volume =							
Inflow Hydrograph Volume =	0.262	0.632	1.014	1.341	2.214	2.660	acre-ft
Time to Drain 97% of Inflow Volume =	45.1	55.9	54.4	52.0	45.9	43.2	hours
Time to Drain 99% of Inflow Volume =	46.9	59.7	60.3	59.4	56.9	55.7	hours
Maximum Ponding Depth =	3.37	4.91	6.00	6.38	7.32	7.77	ft
Maximum Poned Area =	0.16	0.22	0.26	0.28	0.31	0.33	acres
Maximum Volume Stored =	0.248	0.548	0.811	0.914	1.189	1.335	acre-ft

Stormwater Detention and Infiltration Design Data Sheet

