

# Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected

Worksheet Protected

**Stormwater Facility Name:** EXISTING DETENTION BASIN D W/ PROPOSED OUTLET STRUCTURE MODIFICATIONS

**Facility Location & Jurisdiction:** LOCATED: NW CORNER OF SNEFFLES ST & MESA RIDGE PKWY; JURISDICTION: MESA RDIGE METRO DIST, NO. 1

**User Input: Watershed Characteristics**

Watershed Slope =	0.035	ft/ft
Watershed Length =	4090	ft
Watershed Area =	98.90	acres
Watershed Imperviousness =	49.1%	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
0.60	13,215	0.60	0.20
1.60	50,745	1.60	0.64
2.60	55,231	2.60	1.07
3.60	58,662	3.60	1.36
4.60	64,191	4.60	1.59
5.60	67,213	5.60	4.51
6.60	70,292	6.60	25.63
7.60	73,458	7.60	63.52
8.60	73,831	8.60	115.77
9.60	80,094	9.60	178.48
10.60	83,808	10.60	250.05
11.60	87,413	11.60	552.09
12.60	93,285	12.60	1458.41

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**

Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	in
One-Hour Rainfall Depth =	0.53	1.00	1.28	1.55	2.34	2.74	in
Calculated Runoff Volume =	1.680	3.506	4.870	6.863	13.542	17.231	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	1.680	3.505	4.869	6.862	13.535	17.224	acre-ft
Time to Drain 97% of Inflow Volume =	37.7	52.8	61.7	66.9	62.0	59.4	hours
Time to Drain 99% of Inflow Volume =	41.2	57.8	67.6	73.7	71.2	69.7	hours
Maximum Ponding Depth =	2.20	3.55	4.49	5.63	7.57	8.32	ft
Maximum Poned Area =	1.23	1.34	1.46	1.54	1.68	1.69	acres
Maximum Volume Stored =	1.532	3.276	4.601	6.300	9.440	10.693	acre-ft

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