

Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected

Worksheet Protected

Stormwater Facility Name: Retreat at TimberRidge Filing No. 4 - Pond 4

Facility Location & Jurisdiction: Approx. 1400' east of int. of Vollmer Rd. and Arroya Lane, El Paso County

User (Input) Watershed Characteristics

- Watershed Slope = 0.050 ft/ft
- Watershed Length-to-Width Ratio = 2.00 L:W
- Watershed Area = 48.50 acres
- Watershed Imperviousness = 7.1% 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: Detention Basin Characteristics

WQCV Design Drain Time = 40.00 hours

User Defined Stage [ft]	User Defined Area [ft^2]	User Defined Stage [ft]	User Defined Discharge [cfs]
0.00	106	0.00	0.00
1.00	1,547	1.00	0.03
2.00	2,988	2.00	0.06
3.00	10,267	3.00	0.11
4.00	17,546	4.00	4.58
5.00	19,716	5.00	29.26
6.00	21,886	6.00	60.58
7.00	24,268	7.00	146.79
8.00	26,651	8.00	321.23

Unresolved: These results do not match the MHFD results.

To address the discrepancy, try tweaking the SDI input values such as adding the overrides and putting in the stage per every two feet as is done in the MHFD. Or, put the MHFD calcs themselves in the SDI slot on EDARP. If that is the route taken, please add the two above lines to the MHFD calcs with a text box.

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	25 Year	50 Year	100 Year	
Design Storm Return Period =								
One-Hour Rainfall Depth =	0.53	1.19	1.50	1.75	2.00	2.25	2.52	in
Calculated Runoff Volume =	0.199	0.218	0.907	1.774	3.386	4.526	5.873	acre-ft
OPTIONAL Override Runoff Volume =								acre-ft
Inflow Hydrograph Volume =	0.199	0.217	0.907	1.773	3.385	4.526	5.872	acre-ft
Time to Drain 97% of Inflow Volume =	40	41	36	29	20	15	10	hours
Time to Drain 99% of Inflow Volume =	44	46	44	40	35	32	28	hours
Maximum Ponding Depth =	2.84	2.92	4.11	4.73	5.72	6.24	6.62	ft
Maximum Poned Area =	0.207	0.222	0.408	0.439	0.488	0.515	0.536	acres
Maximum Volume Stored =	0.185	0.204	0.585	0.848	1.307	1.567	1.768	acre-ft

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