Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected Worksheet Protected

Stormwater Facility Name: Pond W-5

Facility Location & Jurisdiction: Sterling Ranch Sudivision, Marksheffel Road, El Paso County / El Paso County

User Input: Watershed Characteristics

Watershed Slope =	0.025	ft/ft
Watershed Length =	2500	ft
Watershed Area =	175.68	acres
Watershed Imperviousness =	53.0%	percent
Percentage Hydrologic Soil Group A =	54.8%	percent
Percentage Hydrologic Soil Group B =	45.2%	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	632	0.00	0.00
0.58	1,269	0.58	0.01
1.50	15,375	1.50	0.01
2.50	40,729	2.50	0.01
3.50	76,997	3.50	0.01
4.50	112,420	4.50	0.25
5.50	136,692	5.50	0.45
6.50	158,382	6.50	15.00
7.50	176,379	7.50	187.00
8.50	188,901	8.50	245.00
9.50	202,723	9.50	327.00
10.50	210,154	10.50	410.00
11.50	217,594	11.50	480.00

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	
One-Hour Rainfall Depth =	0.53	1.19	1.50	1.75	2.25	2.52	in
Calculated Runoff Volume =	3.142	7.627	10.843	13.906	22.334	26.591	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	3.141	7.619	10.842	13.899	22.331	26.586	acre-ft
Time to Drain 97% of Inflow Volume =	>90	>90	>90	>90	>90	>90	hours
Time to Drain 99% of Inflow Volume =	>90	>90	>90	>90	>90	>90	hours
Maximum Ponding Depth =	3.98	5.60	6.33	6.77	7.62	8.15	ft
Maximum Ponded Area =	2.16	3.18	3.54	3.75	4.08	4.23	acres
Maximum Volume Stored =	3.128	7.501	9.943	11.590	14.896	17.099	acre-ft

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