Stormwater Detention and Infiltration Design Data Sheet

Workbook Protected Worksheet Protected

Stormwater Facility Name: Homestead North at Sterling Ranch

Facility Location & Jurisdiction: Pond C

User Input: Watershed Characteristics

Watershed Slope =	0.034	ft/ft
Watershed Length =	1580	ft
Watershed Area =	224.40	acres
Watershed Imperviousness =	10.3%	percent
Percentage Hydrologic Soil Group A =		percent
Percentage Hydrologic Soil Group B =	100.0%	percent
Percentage Hydrologic Soil Groups C/D =		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	90	0.00	0.00
0.24	421	0.24	0.09
1.24	9,215	1.24	0.20
2.24	25,614	2.24	0.43
3.24	37,949	3.24	0.66
4.24	43,976	4.24	0.88
5.24	47,684	5.24	35.83
6.24	51,279	6.24	99.85
7.24	54,996	7.24	126.14
8.24	58,816	8.24	134.71
9.24	62,675	9.24	142.76
9.99	65,646	9.99	148.51
10.24	66,643	10.24	196.81
11.24	70,696	11.24	690.10

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 =	1.285	1.501	2.331	5.240	18.965	25.864	acre-ft
OPTIONAL Override Runoff Volume =							acre-ft
Inflow Hydrograph Volume =	1.285	1.501	2.330	5.231	18.959	25.854	acre-ft
Time to Drain 97% of Inflow Volume =	37.5	40.7	**50.4**	46.0	32.4	27.4	hours
Time to Drain 99% of Inflow Volume =	39.7	43.3	54.1	52.5	45.1	**42.3**	hours
Maximum Ponding Depth =	3.24	3.47	4.30	5.58	10.49	10.97	ft
Maximum Ponded Area =	0.87	0.90	1.01	1.12	1.55	**1.60**	acres
Maximum Volume Stored =	1.230	1.442	2.224	3.596	10.141	10.911	acre-ft

Stormwater Detention and Infiltration Design Data Sheet