Stormwater Detention and Infiltration Design Data Sheet

SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: Detention Pond A

Facility Location & Jurisdiction: Flying Horse North Filing No. 3 - El Paso County

User Input: Watershed Characteristics

Extended Detention Basin (EDB)	EDB	
Watershed Area =	25.30	acres
Watershed Length =	1,800	ft
Watershed Length to Centroid =	400	ft
Watershed Slope =	0.050	ft/ft
Watershed Imperviousness =	35.0%	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
Target WQCV Drain Time =	40.0	hours

Location for 1-hr Rainfall Depths (use dropdown):

User Input

After providing required inputs above including 1-hour rainfall depths, click 'Run CUHP' to generate runoff hydrographs using the embedded Colorado Urban Hydrograph Procedure.

Once CUHP has been run and the Stage-Area-Discharge information has been provided, click 'Process Data' to interpolate the Stage-Area-Volume-Discharge data and generate summary results in the table below. Once this is complete, click 'Print to PDF'.

User Defined	User Defined	User Defined	User Defined
Stage [ft]	Area [ft^2]	Stage [ft]	Discharge [cfs]
0.00	10	0.00	0.00
1.00	1,091	1.00	0.07
2.00	7,411	2.00	0.09
3.00	17,259	3.00	0.21
4.00	23,517	4.00	0.31
5.00	28,715	5.00	10.63
6.00	34,100	6.00	23.94
7.00	40,636	7.00	25.92
8.00	48,445	8.00	27.76
8.50	55,140	8.50	54.73
9.00	57,141	9.00	108.09

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

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Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
One-Hour Rainfall Depth =	N/A	1.19	1.50	1.75	2.25	2.52	in
CUHP Runoff Volume =	0.350	0.896	1.390	1.839	3.004	3.671	acre-ft
Inflow Hydrograph Volume =	N/A	0.896	1.390	1.839	3.004	3.671	acre-ft
Time to Drain 97% of Inflow Volume =	35.1	58.7	58.0	56.3	51.7	49.1	hours
Time to Drain 99% of Inflow Volume =	36.8	61.7	62.4	61.9	60.4	59.5	hours
Maximum Ponding Depth =	2.90	3.98	4.38	4.71	5.60	6.08	ft
Maximum Ponded Area =	0.37	0.54	0.58	0.62	0.73	0.79	acres
Maximum Volume Stored =	0.352	0.844	1.072	1.271	1.875	2.237	acre-ft

Lyon, Richie

From: mailer@digitaldataservices.com
Sent: Thursday, April 11, 2024 9:35 AM

To: Lyon, Richie

Subject: Stormwater Detention and Infiltration Facility - Flying Horse North Filing No. 3 Pond A

This email came from outside the HR Green organization. Please use caution when clicking on hyperlinks and opening attachments

Thank you for submitting to the Colorado Stormwater Detention and Infiltration database. Your facility has been recorded and the local jurisdiction has been notified.

Facility ID: <u>SWDF-20240411083420</u>

Name: Flying Horse North Filing No. 3 Pond A

Division: South Platte

Jurisdiction: ElPasoCo

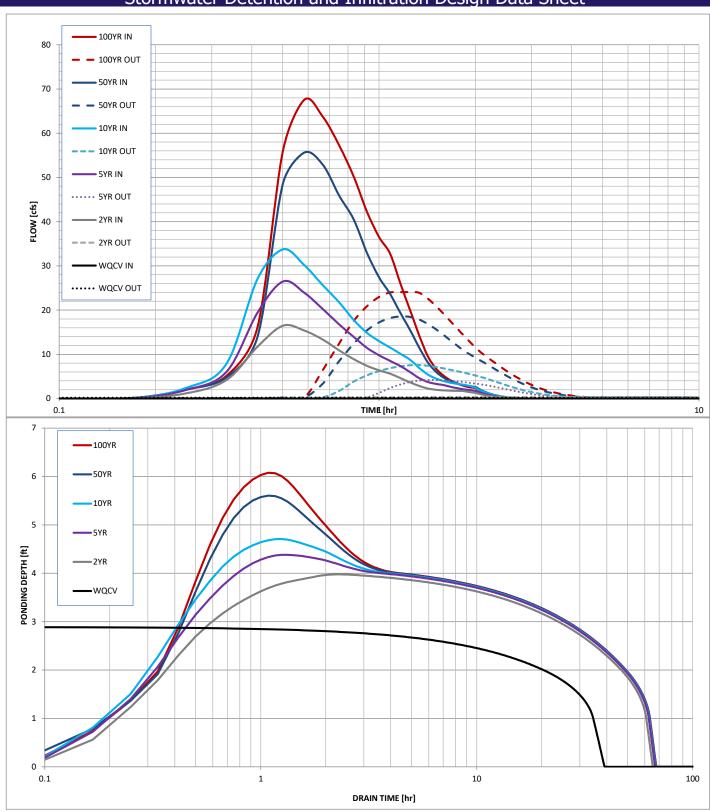
Design Storm: Full Spectrum

Water Surface Acres: 1.3

Edit Key: 5b7695070dcafac436c6fa75b46f192b

If you wish to edit the facility in the future, you will need the Edit Key listed above. If you lose the key, you will not be able to edit the facility information in the future.

Stormwater Detention and Infiltration Design Data Sheet



Stormwater Detention and Infiltration Design Data Sheet

SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: **Detention Pond B**

Facility Location & Jurisdiction: Flying Horse North Filing No. 3 - El Paso County

User Input: Watershed Characteristics

Extended Detention Basin (EDB)	EDB	
Watershed Area =	128.40	acres
Watershed Length =	4,000	ft
Watershed Length to Centroid =	665	ft
Watershed Slope =	0.050	ft/ft
Watershed Imperviousness =	10.0%	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
Target WQCV Drain Time =	40.0	hours

Location for 1-hr Rainfall Depths (use dropdown):

User Input

After providing required inputs above including 1-hour rainfall depths, click 'Run CUHP' to generate runoff hydrographs using the embedded Colorado Urban Hydrograph Procedure.

Once CUHP has been run and the Stage-Area-Discharge information has been provided, click 'Process Data' to interpolate the Stage-Area-Volume-Discharge data and generate summary results in the table below. Once this is complete, click 'Print to PDF'.

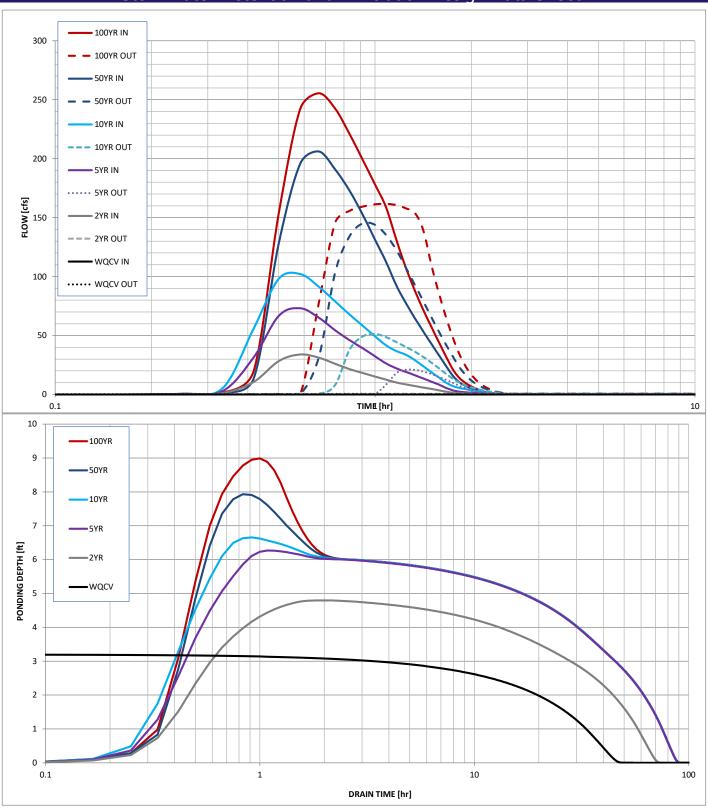
User Defined	User Defined	User Defined	User Defined
Stage [ft]	Area [ft^2]	Stage [ft]	Discharge [cfs]
0.00	440	0.00	0.00
1.00	6,860	1.00	0.16
2.00	11,730	2.00	0.22
3.00	17,800	3.00	0.28
4.00	24,750	4.00	0.52
5.00	32,325	5.00	0.64
6.00	37,580	6.00	0.74
7.00	41,900	7.00	78.15
8.00	45,840	8.00	150.82
9.00	50,000	9.00	161.92
10.00	54,370	10.00	172.31
10.50	62,250	10.50	177.28
11.00	64,651	11.00	182.11

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Routed Hydrograph Results

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Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	
One-Hour Rainfall Depth =	N/A	1.19	1.50	1.75	2.25	2.52	in
CUHP Runoff Volume =	0.719	1.712	3.777	5.836	12.010	15.612	acre-ft
Inflow Hydrograph Volume =	N/A	1.712	3.777	5.836	12.010	15.612	acre-ft
Time to Drain 97% of Inflow Volume =	39.6	60.7	72.9	69.0	58.4	53.0	hours
Time to Drain 99% of Inflow Volume =	42.7	65.1	79.3	77.4	72.7	70.3	hours
Maximum Ponding Depth =	3.21	4.79	6.27	6.66	7.93	8.99	ft
Maximum Ponded Area =	0.44	0.70	0.89	0.93	1.04	1.15	acres
Maximum Volume Stored =	0.723	1.622	2.806	3.163	4.414	5.576	acre-ft





Lyon, Richie

From: mailer@digitaldataservices.com
Sent: Thursday, April 11, 2024 9:40 AM

To: Lyon, Richie

Subject: Stormwater Detention and Infiltration Facility - Flying Horse North Filing No. 3 Pond B

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Thank you for submitting to the Colorado Stormwater Detention and Infiltration database. Your facility has been recorded and the local jurisdiction has been notified.

Facility ID: <u>SWDF-20240411083953</u>

Name: Flying Horse North Filing No. 3 Pond B

Division: Arkansas

Jurisdiction: ElPasoCo

Design Storm: Full Spectrum

Water Surface Acres: 1.5

Edit Key: 9a54eec9c096365b2256c67e1c6a20ea

If you wish to edit the facility in the future, you will need the Edit Key listed above. If you lose the key, you will not be able to edit the facility information in the future.