EPC STORMWATER REVIEW COMMENTS IN ORANGE BOXES WITH BLACK TEXT

User Defined

Stage [ft]

0.00

1.00

2.00

3.00

4.00

5.00

6.00

7.00

User Defined

Discharge [cfs]

0.00

0.02

0.04

0.28

60.32

66.23

105.18

268.50

Stormwater Detention and Infiltration Design Data Sheet

SDI-Design Data v2.00, Released January 2020

These don't match the MHFD spreadsheet in

User Defined

Stage [ft]

0.00

1.00

2.00

3.00

4.00

5.00

6.00

7.00

the drainage report.

User Defined

Area [ft^2]

173

1,719

9,084

22,994

33,136

38,308

44,332

51,031

Stormwater Facility Name: Pond A2

Facility Location & Jurisdiction: Overlook Filing No. 1- El Paso County

User Input: Watershed Characteristics

Extended Detention Basin (EDB)	EDB	
Watershed Area =	61.98	acres
Watershed Length =	2,500	ft
Watershed Length to Centroid =	1,250	ft
Watershed Slope =	0.030	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 =	0.8%	percent
Target WQCV Drain Time =	40.0	hours
Location for 1-hr Rainfall Depths (ise dropdown):	

THE MHFD DETENTION SPREADSHEETS
OVERRIDE THE WQCV TO INCLUDE ONLY THE
AREAS OF THE ROADWAYS, AS THE OTHER
PORTIONS ARE EXEMPT. THERE IS NO WAY TO
OVERRIDE SDI SPREADSHEET WITH THE
MANUAL WQCV. THIS RESULTS IN VERY
DIFFERENT RESULTS. THE ONLY WAY TO GET
THE SDI TO SHOW SIMILAR VALUES WOULD BE
TO MANAULLY MANIPULATE THE WATERSHED
AREA AND OTHER FACTORS TO GET CLOSER
TO THE ACTUAL WQCV.

luding 1-hour ate runoff do Urban

Area-Discharge cess Data' to large data and elow. Once this

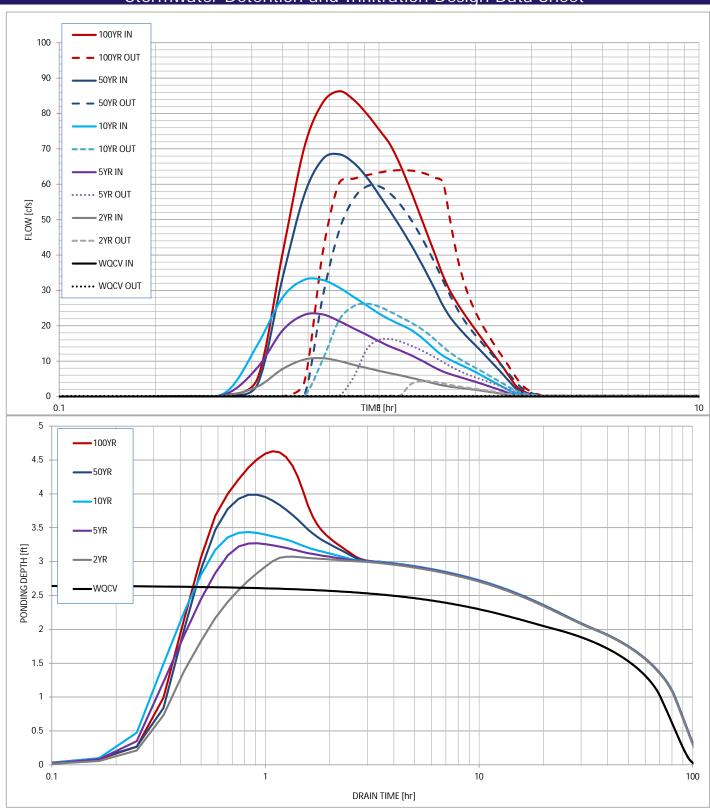
These drain times are signficantly different than what is reported in the drainage report. See comments there

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 =	0.346	0.827	1.827	2.824	5.814	7.559	acre-ft
Inflow Hydrograph Volume =	N/A	0.827	1.827	2.824	5.814	7.559	acre-ft
Time to Drain 97% of Inflow Volume =	79.0	80.4	66.3	54.8	28.3	21.4	hours
Time to Drain 99% of Inflow Volume =	87.3	92.5	84.6	78.9	65.1	58.2	hours
Maximum Ponding Depth =	2.65	3.07	3.27	3.44	3.99	4.63	ft
Maximum Ponded Area =	0.41	0.54	0.59	0.63	0.76	0.83	acres
Maximum Volume Stored =	0.346	0.550	0.662	0.764	1.144	1.658	acre-ft





SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: Pond B1

Facility Location & Jurisdiction: Overlook Filing No. 1- El Paso County

User Input: Watershed Characteristics

Extended Detention Basin (EDB)	•	EDB	
Watershed Area	40.47	acres	
Watershed Length	3,000	ft	
Watershed Length to Centroid	=	1,500	ft
Watershed Slope	=	0.045	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 (se 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.

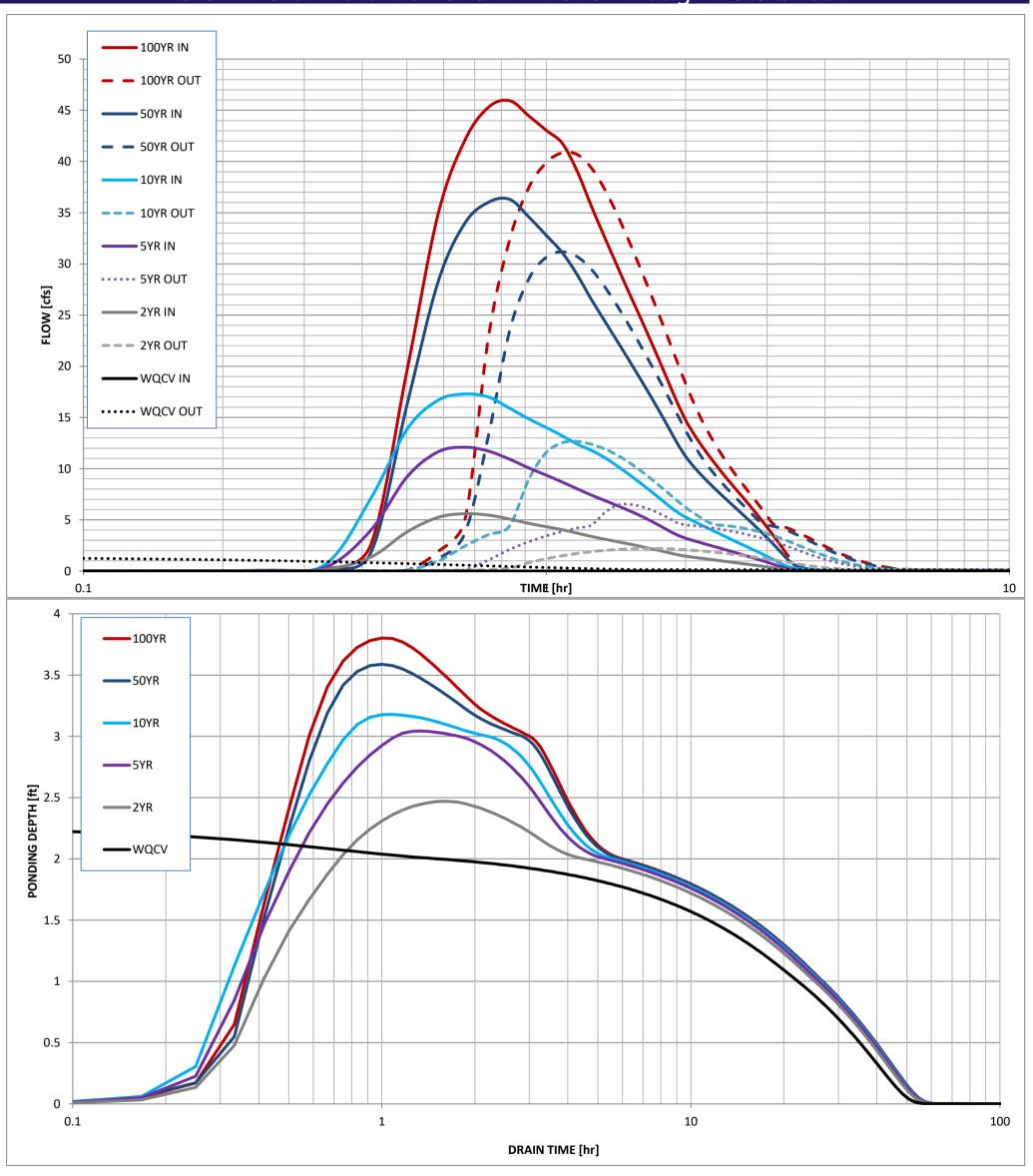
Once CUHP has been run and the Stage-Area-Discharge information has been provided, click 'Process Data' to interpolate the Stage-Area-Volume-Discharge data and generate summary results in the table below. Once this is complete, click 'Print to PDF'.

Stage [ft] Area [ft^2] Stage [ft] Discharge [cfs] 0.00 139 0.00 0.00 1.00 1,816 1.00 0.02 2.00 9,806 2.00 0.14 3.00 20,473 3.00 4.54 4.00 30,839 4.00 49.96 5.00 38,709 5.00 155.07 6.00 46,803 6.00 369.35	User Defined	User Defined	User Defined	User Defined
1.00 1,816 1.00 0.02 2.00 9,806 2.00 0.14 3.00 20,473 3.00 4.54 4.00 30,839 4.00 49.96 5.00 38,709 5.00 155.07	Stage [ft]	Area [ft^2]	Stage [ft]	Discharge [cfs]
2.00 9,806 2.00 0.14 3.00 20,473 3.00 4.54 4.00 30,839 4.00 49.96 5.00 38,709 5.00 155.07	0.00	139	0.00	0.00
3.00 20,473 3.00 4.54 4.00 30,839 4.00 49.96 5.00 38,709 5.00 155.07	1.00	1,816	1.00	0.02
4.00 30,839 4.00 49.96 5.00 38,709 5.00 155.07	2.00	9,806	2.00	0.14
5.00 38,709 5.00 155.07	3.00	20,473	3.00	4.54
	4.00	30,839	4.00	49.96
6.00 46,803 6.00 369.35	5.00	38,709	5.00	155.07
	6.00	46,803	6.00	369.35
,				

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Routed Hydrograph Results

<u>uteu riyurograpii Kesuits</u>							_
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 =	0.226	0.540	1.194	1.845	3.800	4.940	acre-ft
Inflow Hydrograph Volume =	N/A	0.540	1.194	1.845	3.800	4.940	acre-ft
Time to Drain 97% of Inflow Volume =	34.9	29.3	21.0	17.2	9.8	6.7	hours
Time to Drain 99% of Inflow Volume =	41.9	39.5	33.4	28.8	21.1	18.8	hours
Maximum Ponding Depth =	2.28	2.47	3.04	3.18	3.59	3.80	ft
Maximum Ponded Area =	0.29	0.34	0.48	0.51	0.61	0.66	acres
Maximum Volume Stored =	0.227	0.287	0.522	0.591	0.817	0.954	acre-ft



SDI-Design Data v2.00, Released January 2020

Stormwater Facility Name: Pond B8

Facility Location & Jurisdiction: Overlook Filing No. 1- El Paso County

User Input: Watershed Characteristics

Extended Detention Basin (EDB)	•	EDB	
Watershed Area	62.83	acres	
Watershed Length	4,000	ft	
Watershed Length to Centroic	! =	2,000	ft
Watershed Slope	= =	0.050	ft/ft
Watershed Imperviousness	9.0%	percent	
Percentage Hydrologic Soil Group A	۱ =	0.0%	percent
Percentage Hydrologic Soil Group E	3 =	100.0%	percent
Percentage Hydrologic Soil Groups C/D) =	0.0%	percent
Target WQCV Drain Time	= 9	40.0	hours
Location for 1-hr Rainfall Depths	se dropdown)	<u>.</u>	
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 Stage [ft] User Lefined Area [ft^2] User Defined Stage [ft] User Defined Discharge [cfs] 0.00 180 0.00 0.00 1.00 812 1.00 0.02 2.00 7,385 2.00 0.12 3.00 21,644 3.00 0.26 4.00 30,169 4.00 28.81 5.00 35,429 5.00 36.64 6.00 40,734 6.00 48.62 7.00 46,264 7.00 177.29 8.00 48,000 8.00 409.63				
0.00 180 0.00 0.00 1.00 812 1.00 0.02 2.00 7,385 2.00 0.12 3.00 21,644 3.00 0.26 4.00 30,169 4.00 28.81 5.00 35,429 5.00 36.64 6.00 40,734 6.00 48.62 7.00 46,264 7.00 177.29	User Defined	User Defined	User Defined	User Defined
1.00 812 1.00 0.02 2.00 7,385 2.00 0.12 3.00 21,644 3.00 0.26 4.00 30,169 4.00 28.81 5.00 35,429 5.00 36.64 6.00 40,734 6.00 48.62 7.00 46,264 7.00 177.29	Stage [ft]	Area [ft^2]	Stage [ft]	Discharge [cfs]
2.00 7,385 2.00 0.12 3.00 21,644 3.00 0.26 4.00 30,169 4.00 28.81 5.00 35,429 5.00 36.64 6.00 40,734 6.00 48.62 7.00 46,264 7.00 177.29	0.00	180	0.00	0.00
3.00 21,644 3.00 0.26 4.00 30,169 4.00 28.81 5.00 35,429 5.00 36.64 6.00 40,734 6.00 48.62 7.00 46,264 7.00 177.29	1.00	812	1.00	0.02
4.00 30,169 4.00 28.81 5.00 35,429 5.00 36.64 6.00 40,734 6.00 48.62 7.00 46,264 7.00 177.29	2.00	7,385	2.00	0.12
5.00 35,429 5.00 36.64 6.00 40,734 6.00 48.62 7.00 46,264 7.00 177.29	3.00	21,644	3.00	0.26
6.00 40,734 6.00 48.62 7.00 46,264 7.00 177.29	4.00	30,169	4.00	28.81
7.00 46,264 7.00 177.29	5.00	35,429	5.00	36.64
	6.00	40,734	6.00	48.62
8.00 48,000 8.00 409.63	7.00	46,264	7.00	177.29
	8.00	48,000	8.00	409.63

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Routed Hydrograph Results

ateu riyurograpii Kesuits							_
Design Storm Return Period =	WQCV	2 Year	5 Year	10 Year	50 Year	100 Year	I
One-Hour Rainfall Depth =	N/A	1.19	1.50	1.75	2.25	2.52	in
CUHP Runoff Volume =	0.321	0.793	1.795	2.801	5.843	7.619	acre-ft
Inflow Hydrograph Volume =	N/A	0.793	1.795	2.801	5.843	7.619	acre-ft
Time to Drain 97% of Inflow Volume =	31.9	36.1	30.8	27.3	19.2	15.6	hours
Time to Drain 99% of Inflow Volume =	37.8	42.6	37.9	35.6	30.6	28.3	hours
Maximum Ponding Depth =	2.75	3.11	3.40	3.65	4.79	5.58	ft
Maximum Ponded Area =	0.41	0.52	0.57	0.62	0.79	0.88	acres
Maximum Volume Stored =	0.323	0.490	0.646	0.797	1.610	2.265	acre-ft

