Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.14

05-20-2020

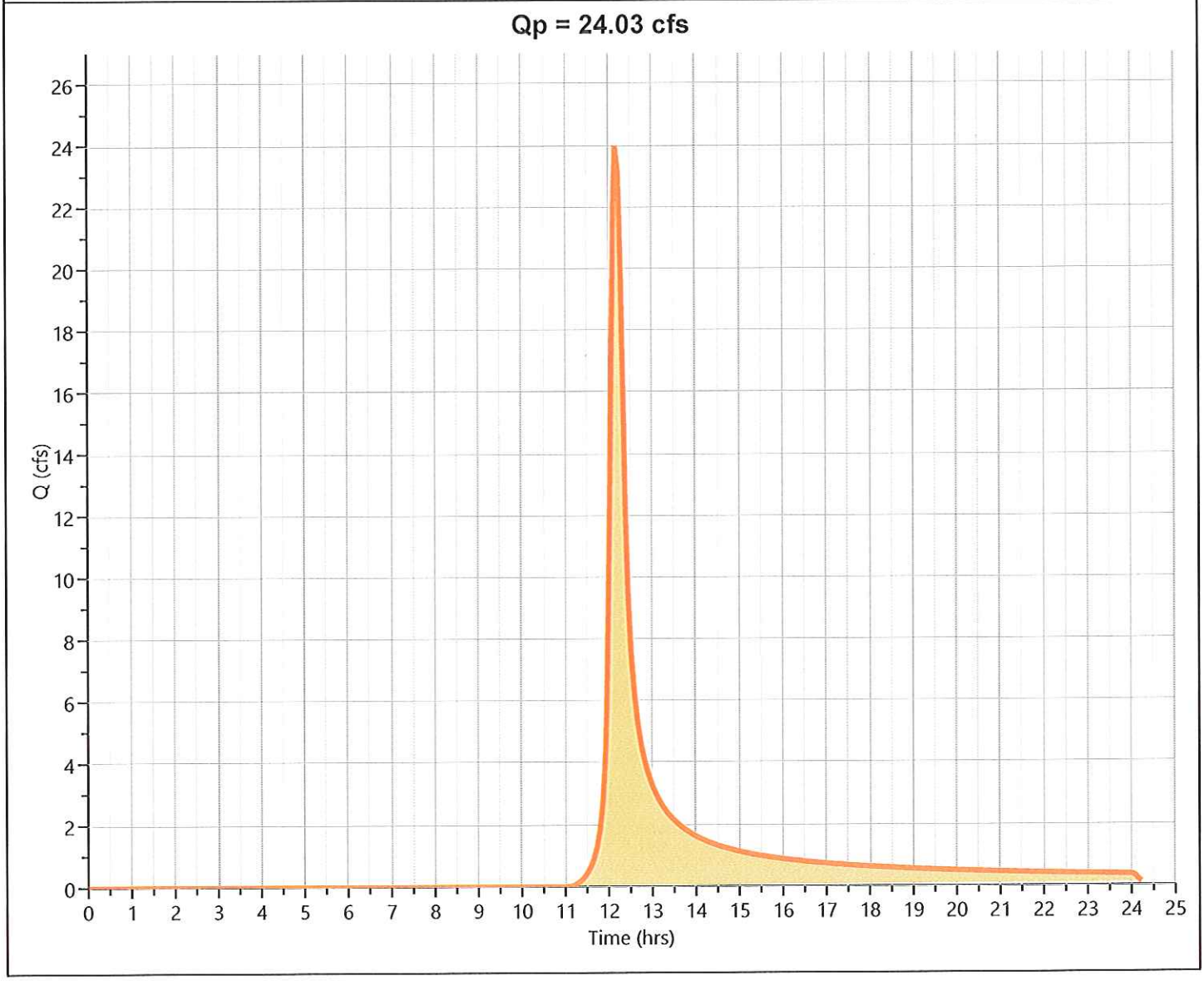
Post Det Bypass

Hyd. No. 6

Hydrograph Type	= NRCS Runoff	Peak Flow	= 24.03 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.20 hrs
Time Interval	= 2 min	Runoff Volume	= 75,874 cuft
Drainage Area	= 16.69 ac	Curve Number	= 71*
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 15.97 min
Total Rainfall	= 3.84 in	Design Storm	= Synthetic
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.35	98	Bit/Roofs/Drives
0.92	74	Lawn - Soil C
15.42	70	Woods - Soil C
16.69	**71**	Weighted CN Method Employed



Hydrograph Report

Project Name:

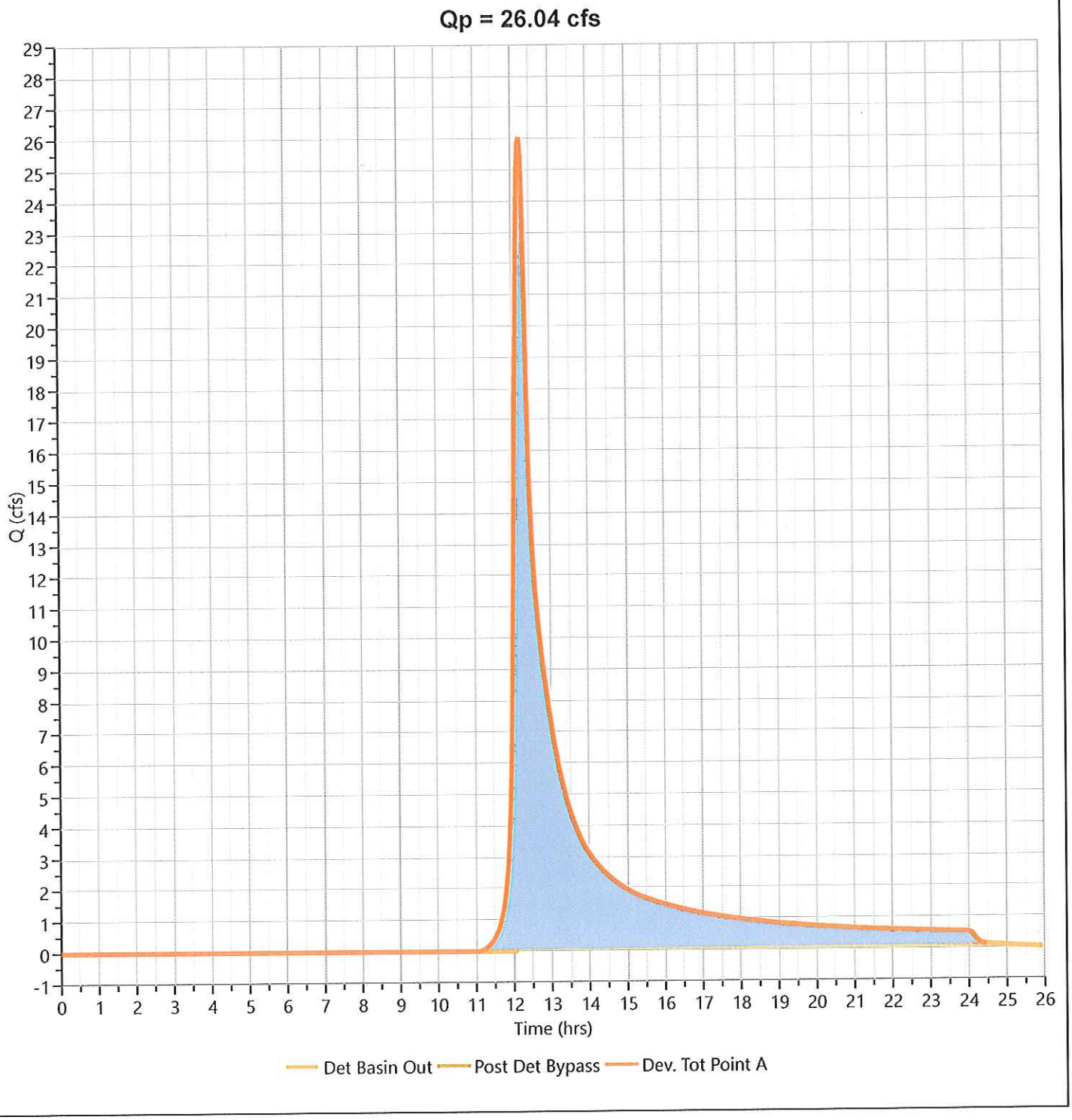
Hydrology Studio v 3.0.0.14

05-20-2020

Dev. Tot Point A

Hyd. No. 7

Hydrograph Type	= Junction	Peak Flow	= 26.04 cfs
Storm Frequency	= 10-yr	Time to Peak	= 12.23 hrs
Time Interval	= 2 min	Hydrograph Volume	= 114,154 cuft
Inflow Hydrographs	= 5, 6	Total Contrib. Area	= 16.69 ac



Design Storm Report

Custom Storm filename: WJW-2019-A.cds

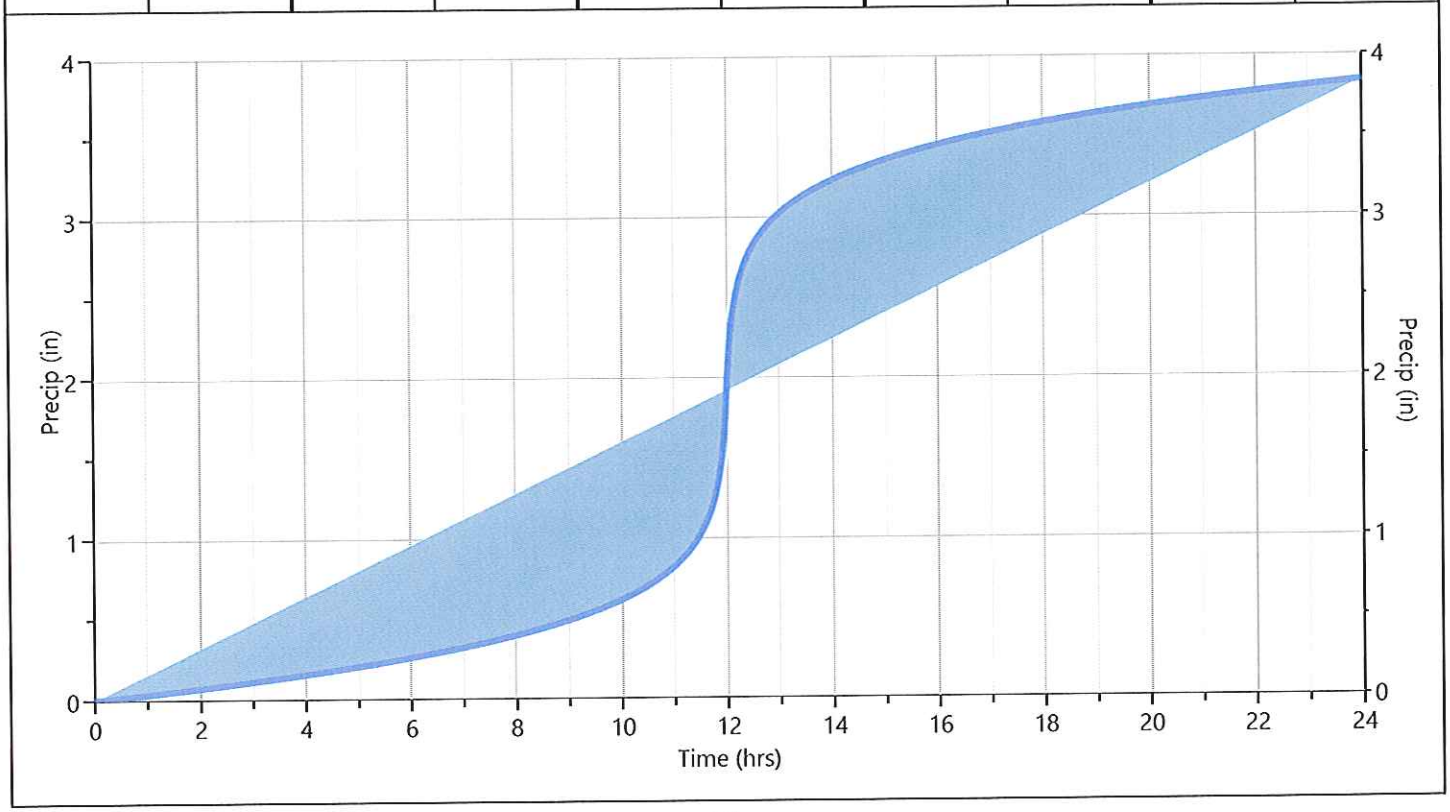
Hydrology Studio v 3.0.0.14

05-20-2020

Storm Distribution: IDF Based - Synthetic

Storm Duration	Total Rainfall Volume (in)								
	1-yr	2-yr	3-yr	5-yr	✔ 10-yr	25-yr	50-yr	100-yr	
24 hrs	0	2.71	0	2.84	3.84	3.56	4.56	5.38	

Incremental Rainfall Distribution, 10-yr									
Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)
11.00	0.962806	11.37	1.499665	11.73	3.493011	12.10	9.198534	12.47	2.099669
11.03	0.994587	11.40	1.581466	11.77	3.961182	12.13	7.202607	12.50	1.956868
11.07	1.028633	11.43	1.672935	11.80	4.564631	12.17	5.873907	12.53	1.832330
11.10	1.065278	11.47	1.775885	11.83	5.366981	12.20	4.935575	12.57	1.722848
11.13	1.104760	11.50	1.892543	11.87	6.476521	12.23	4.242742	12.60	1.625884
11.17	1.147461	11.53	2.025747	11.90	8.091158	12.27	3.713059	12.63	1.539445
11.20	1.193786	11.57	2.179193	11.93	10.608870	12.30	3.296649	12.67	1.461935
11.23	1.244187	11.60	2.357697	11.97	14.942430	12.33	2.961695	12.70	1.392043
11.27	1.299238	11.63	2.567673	12.00	23.638020	12.37	2.687085	12.73	1.328731
11.30	1.359642	11.67	2.817881	12.03	18.444110	12.40	2.458262	12.77	1.271129
11.33	1.426101	11.70	3.120506	12.07	12.452720	12.43	2.264953	12.80	1.218462



Hydrograph 25-yr Summary

Project Name:

05-20-2020

Hydrology Studio v 3.0.0.14

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Flow (cfs)	Time to Peak (hrs)	Hydrograph Volume (cuft)	Inflow Hyd(s)	Maximum Elevation (ft)	Maximum Storage (cuft)
1	NRCS Runoff	Pre Point A	36.74	12.20	94,074	----		
2	NRCS Runoff	Det Basin In-1	19.53	12.17	47,117	----		
3	NRCS Runoff	Det. Basin In -2	0.288	12.20	969	----		
4	Junction	Det Basin In Tot	19.80	12.17	48,086	2, 3		
5	Pond Route	Det Basin Out	5.563	12.53	32,500	4	112.12	23,955
6	NRCS Runoff	Post Det Bypass	25.64	12.20	64,967	----		
7	Junction	Dev. Tot Point A	27.36	12.23	97,467	5, 6		

Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.14

05-20-2020

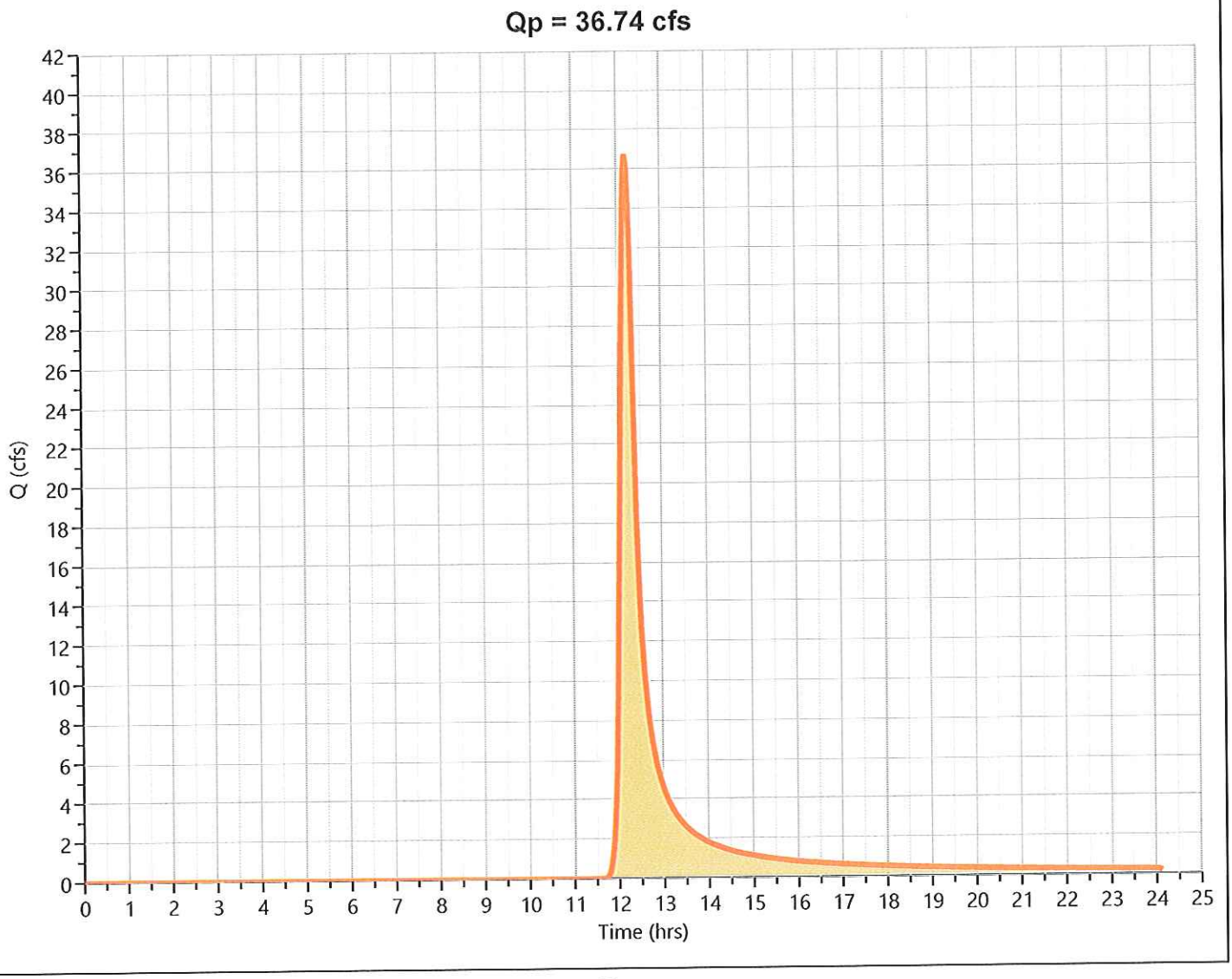
Pre Point A

Hyd. No. 1

Hydrograph Type	= NRCS Runoff	Peak Flow	= 36.74 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.20 hrs
Time Interval	= 2 min	Runoff Volume	= 94,074 cuft
Drainage Area	= 25.48 ac	Curve Number	= 70*
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 15.97 min
Total Rainfall	= 3.56 in	Design Storm	= Synthetic
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.21	98	Bit / Roofs / Drives
0.47	74	Lawn - Soil C
0.42	30	Brush - Soil A
24.38	70	Woods - Soil C
25.48	**70**	Weighted CN Method Employed



Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.14

05-20-2020

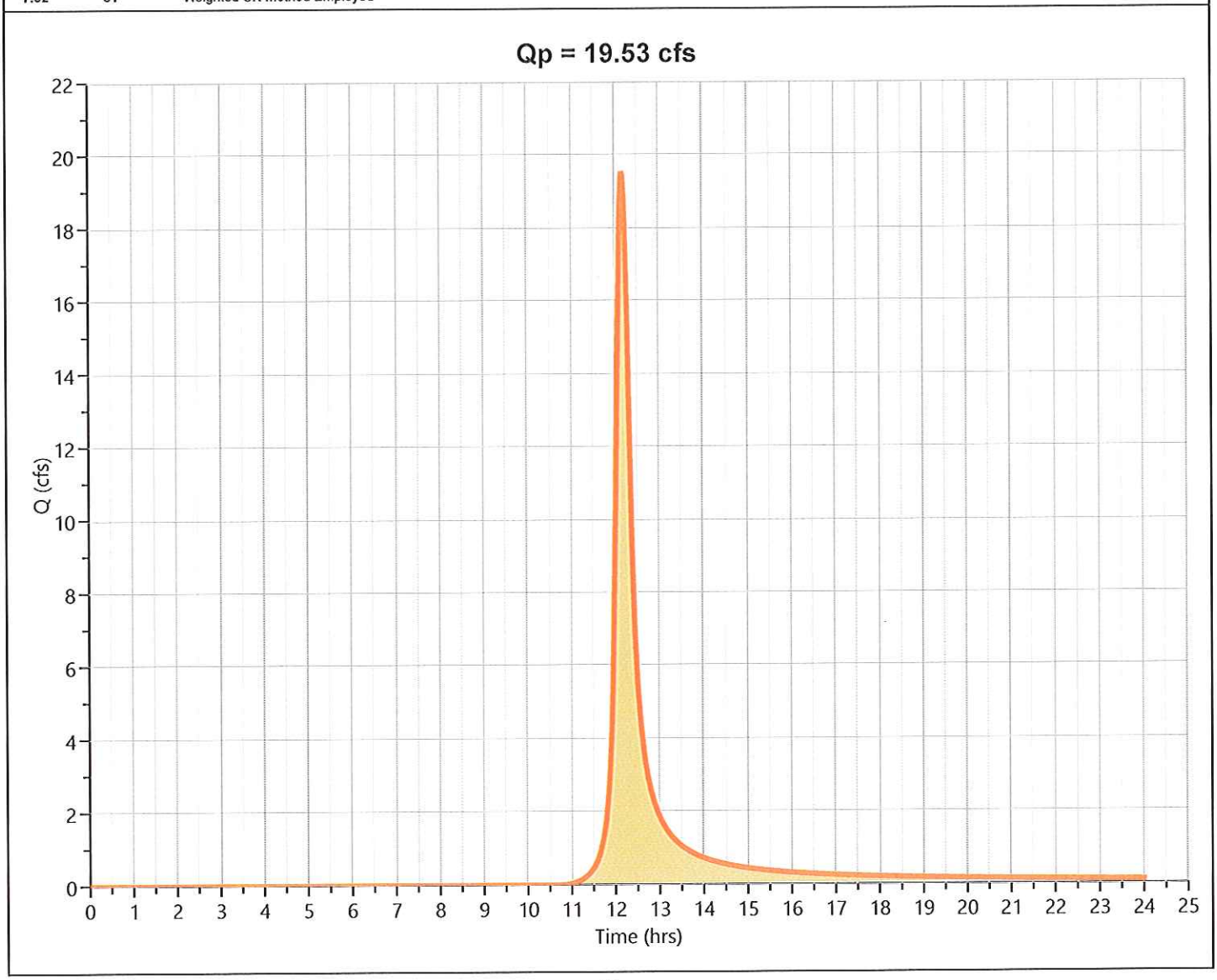
Det Basin In-1

Hyd. No. 2

Hydrograph Type	= NRCS Runoff	Peak Flow	= 19.53 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.17 hrs
Time Interval	= 2 min	Runoff Volume	= 47,117 cuft
Drainage Area	= 7.62 ac	Curve Number	= 80.9*
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 14.07 min
Total Rainfall	= 3.56 in	Design Storm	= Synthetic
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
2.95	98	Bit / Roofs / Walks
0.42	39	Lawn - Soil A
3.36	74	Lawn - Soil C
0.89	70	Woods - Soil C
7.62	**81**	Weighted CN Method Employed



Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.14

05-20-2020

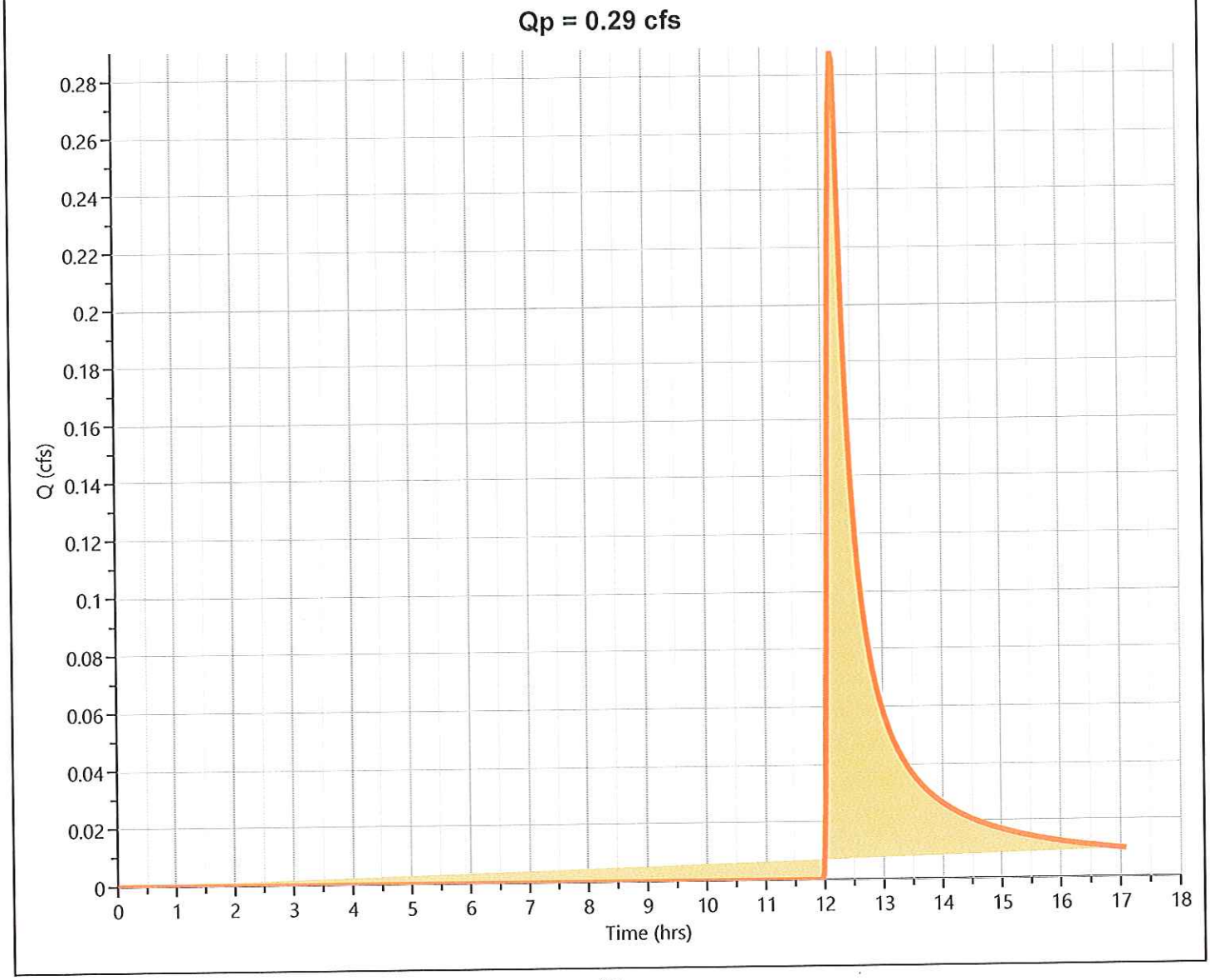
Det. Basin In -2

Hyd. No. 3

Hydrograph Type	= NRCS Runoff	Peak Flow	= 0.288 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.20 hrs
Time Interval	= 2 min	Runoff Volume	= 969 cuft
Drainage Area	= 0.81 ac	Curve Number	= 54*
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 8.69 min
Total Rainfall	= 3.56 in	Design Storm	= Synthetic
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.42	39	Lawn - Soil A
0.39	70	Woods - Soil C
0.81	**54**	Weighted CN Method Employed



Hydrograph Report

Project Name:

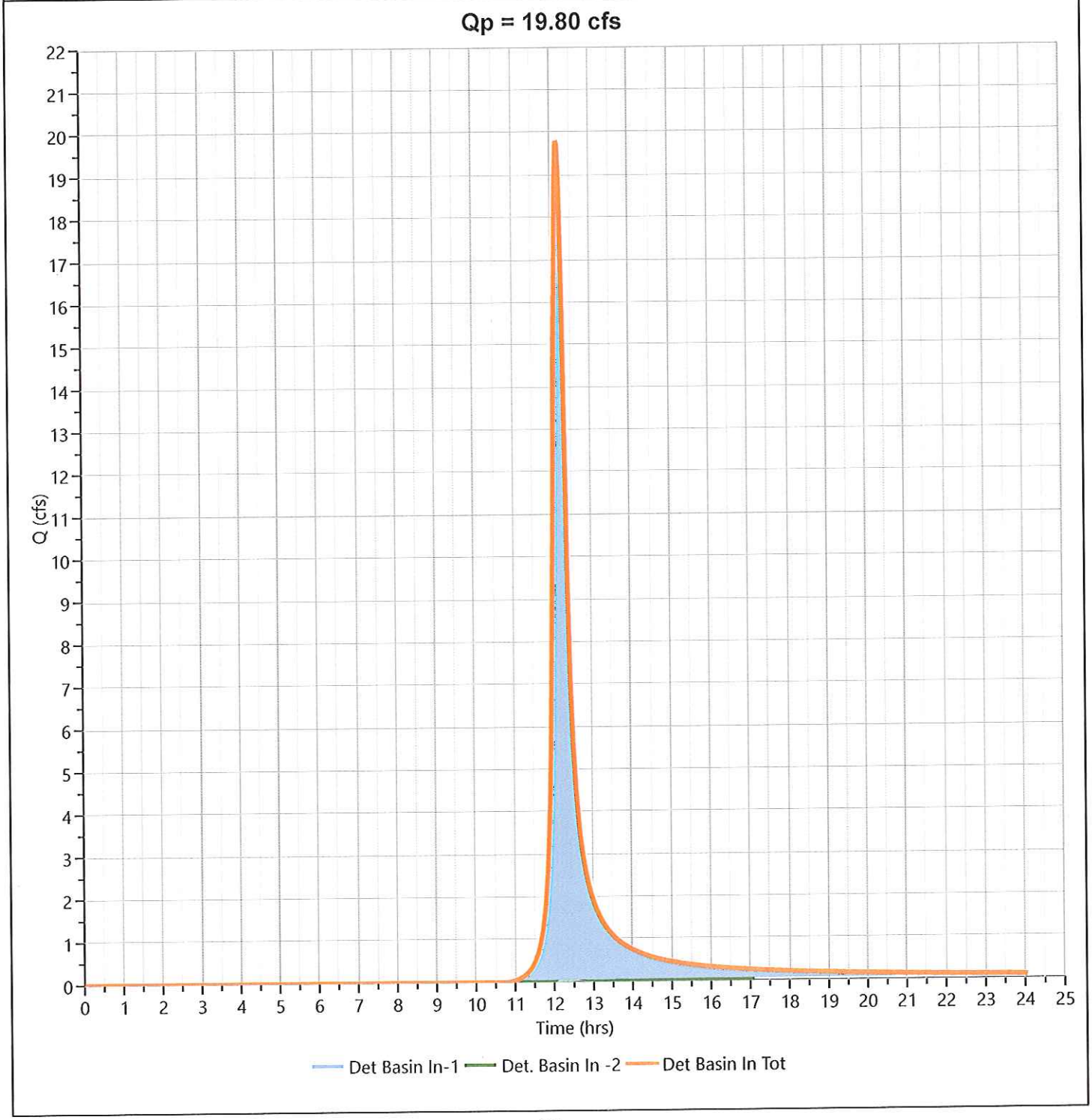
Hydrology Studio v 3.0.0.14

05-20-2020

Det Basin In Tot

Hyd. No. 4

Hydrograph Type	= Junction	Peak Flow	= 19.80 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.17 hrs
Time Interval	= 2 min	Hydrograph Volume	= 48,086 cuft
Inflow Hydrographs	= 2, 3	Total Contrib. Area	= 8.43 ac



Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.14

05-20-2020

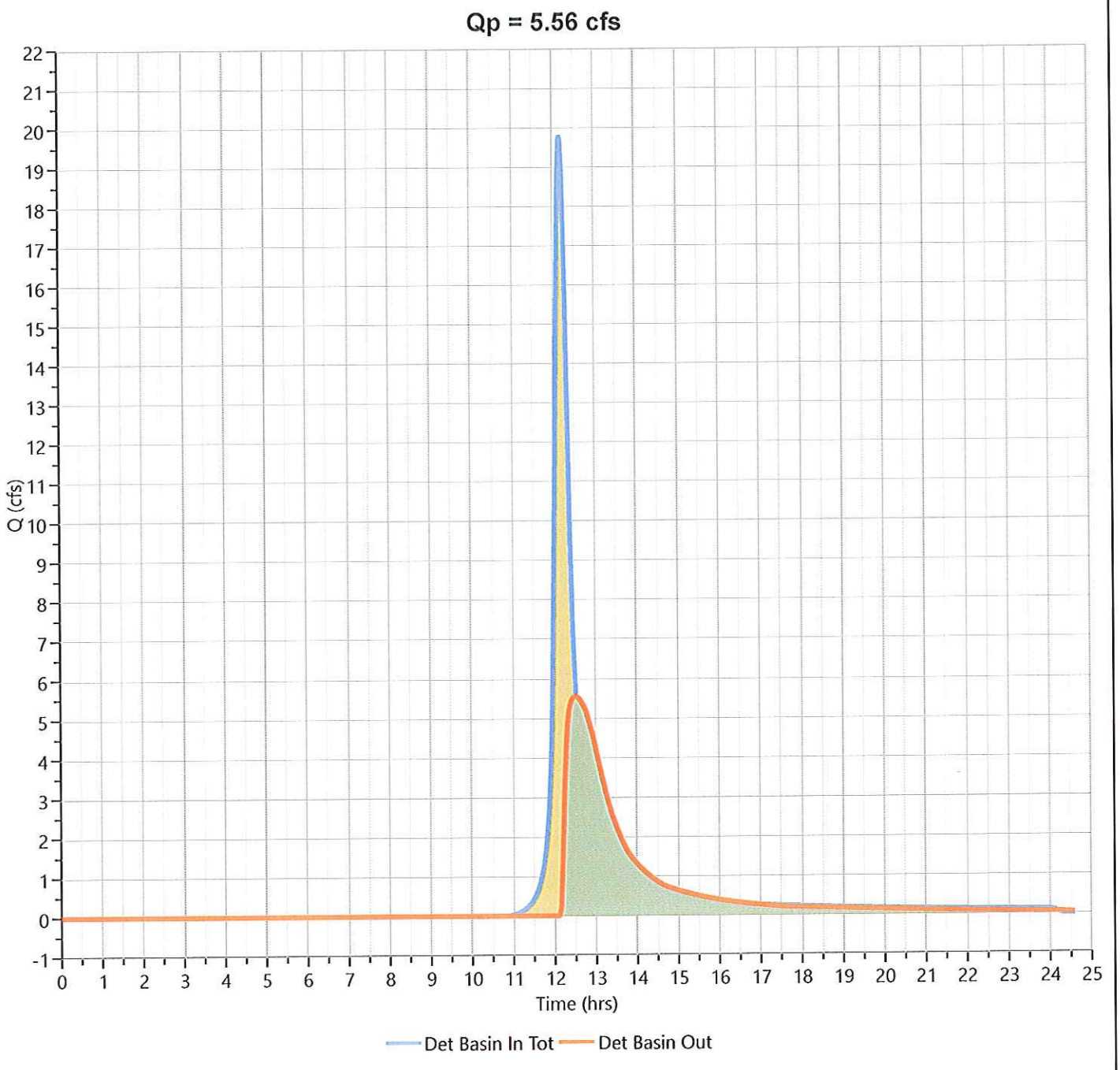
Det Basin Out

Hyd. No. 5

Hydrograph Type	= Pond Route	Peak Flow	= 5.563 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.53 hrs
Time Interval	= 2 min	Hydrograph Volume	= 32,500 cuft
Inflow Hydrograph	= 4 - Det Basin In Tot	Max. Elevation	= 112.12 ft
Pond Name	= Basin A	Max. Storage	= 23,955 cuft

Pond Routing by Storage Indication Method

Center of mass detention time = 1.17 hrs



Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.14

05-20-2020

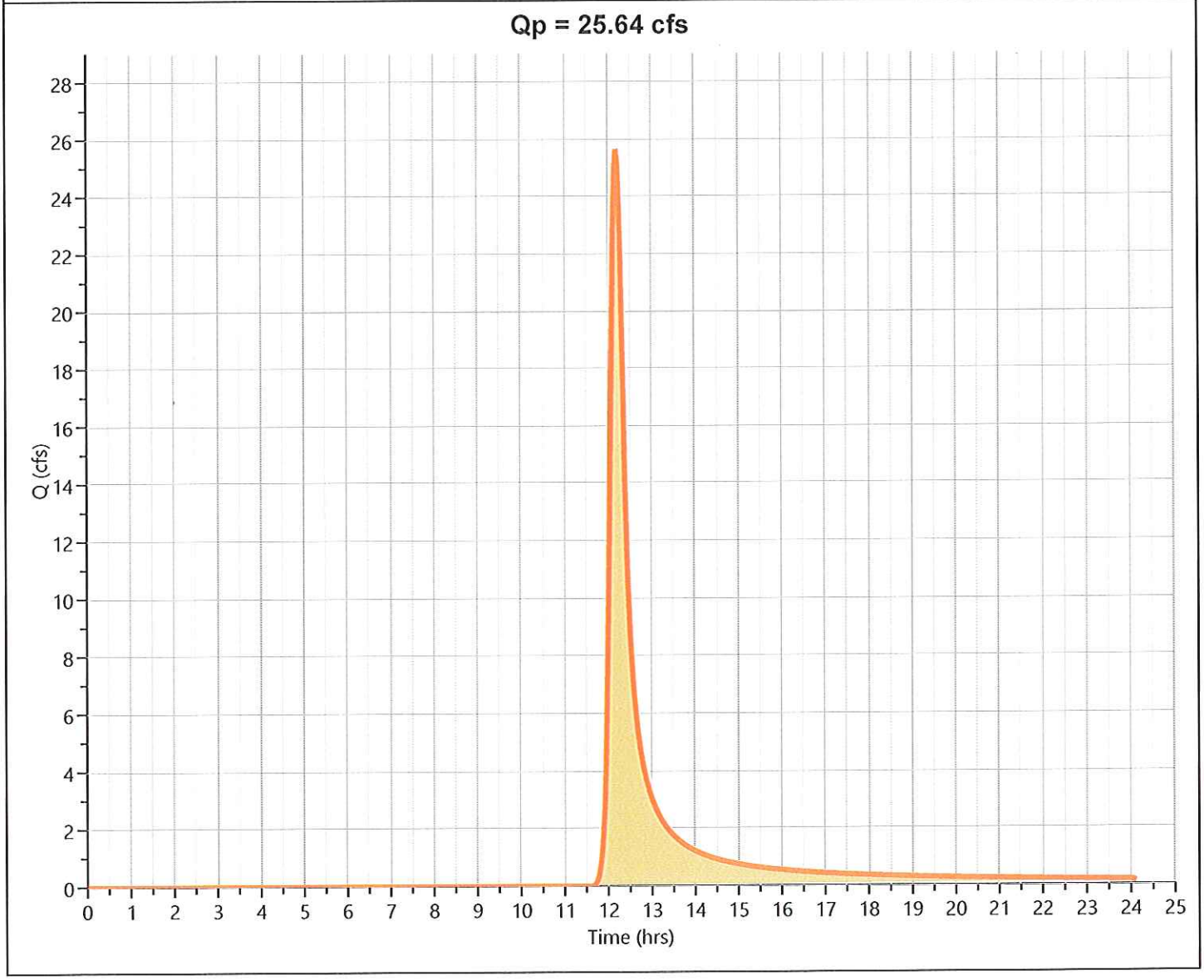
Post Det Bypass

Hyd. No. 6

Hydrograph Type	= NRCS Runoff	Peak Flow	= 25.64 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.20 hrs
Time Interval	= 2 min	Runoff Volume	= 64,967 cuft
Drainage Area	= 16.69 ac	Curve Number	= 71*
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 15.97 min
Total Rainfall	= 3.56 in	Design Storm	= Synthetic
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.35	98	Bit/Roofs/Drives
0.92	74	Lawn - Soil C
15.42	70	Woods - Soil C
16.69	**71**	Weighted CN Method Employed



Hydrograph Report

Project Name:

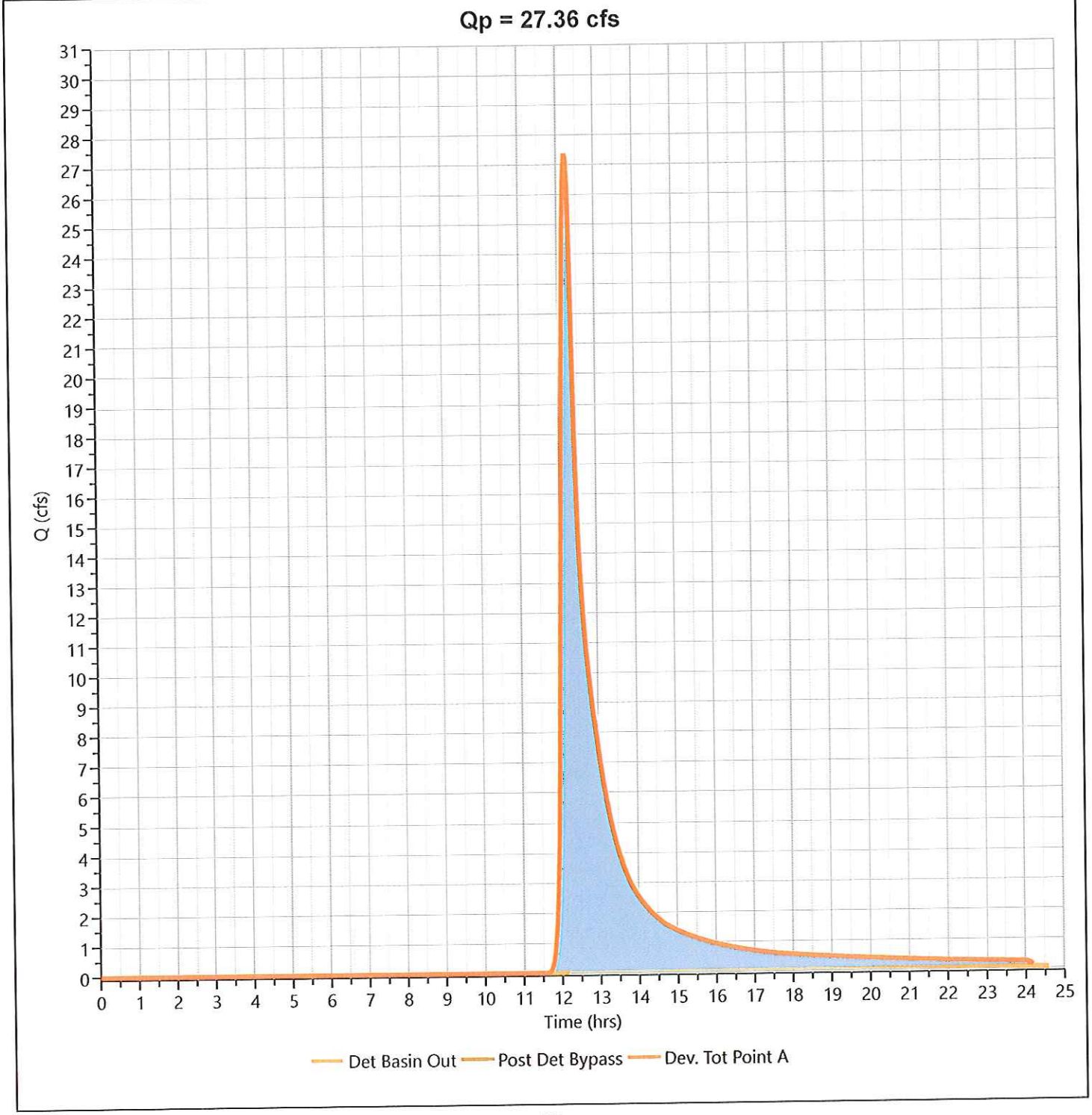
Hydrology Studio v 3.0.0.14

05-20-2020

Dev. Tot Point A

Hyd. No. 7

Hydrograph Type	= Junction	Peak Flow	= 27.36 cfs
Storm Frequency	= 25-yr	Time to Peak	= 12.23 hrs
Time Interval	= 2 min	Hydrograph Volume	= 97,467 cuft
Inflow Hydrographs	= 5, 6	Total Contrib. Area	= 16.69 ac



Design Storm Report

Custom Storm filename: WJW-2019-A.cds

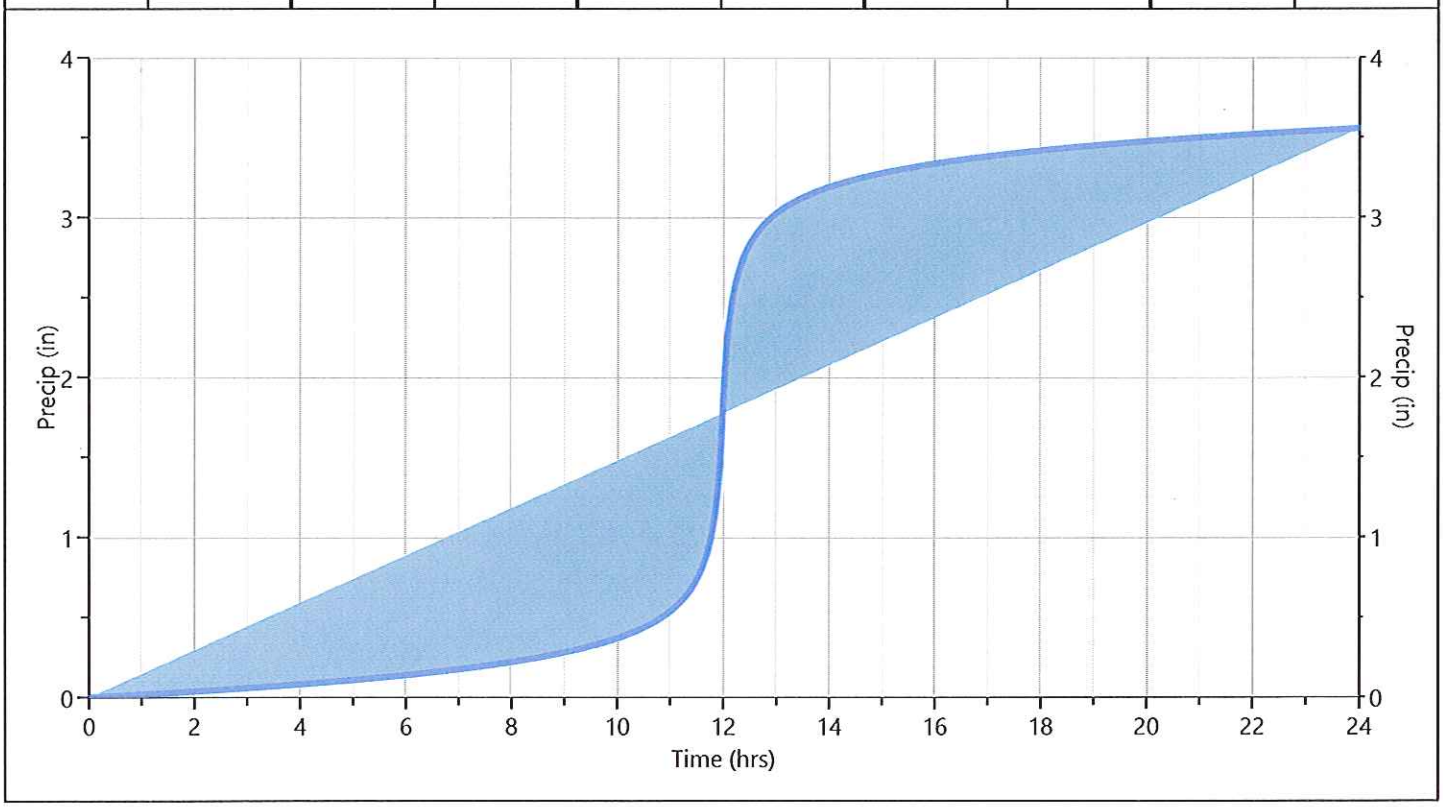
Hydrology Studio v 3.0.0.14

05-20-2020

Storm Distribution: IDF Based - Synthetic

Storm Duration	Total Rainfall Volume (in)								
	1-yr	2-yr	3-yr	5-yr	10-yr	✔ 25-yr	50-yr	100-yr	
24 hrs	0	2.71	0	2.84	3.84	3.56	4.56	5.38	

Incremental Rainfall Distribution, 25-yr									
Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)
11.00	0.851083	11.37	1.492405	11.73	4.088593	12.10	11.252180	12.47	2.255821
11.03	0.887251	11.40	1.594377	11.77	4.706013	12.13	8.849597	12.50	2.071404
11.07	0.926375	11.43	1.709342	11.80	5.497015	12.17	7.184911	12.53	1.911759
11.10	0.968742	11.47	1.839805	11.83	6.536627	12.20	5.979574	12.57	1.772475
11.13	1.014805	11.50	1.988769	11.87	7.946289	12.23	5.075920	12.60	1.650095
11.17	1.065016	11.53	2.160192	11.90	9.933758	12.27	4.379106	12.63	1.541877
11.20	1.119924	11.57	2.359009	11.93	12.879990	12.30	3.829134	12.67	1.445651
11.23	1.180172	11.60	2.591801	11.97	17.549860	12.33	3.386474	12.70	1.359606
11.27	1.246572	11.63	2.867126	12.00	**25.681110**	12.37	3.024232	12.73	1.282310
11.30	1.319957	11.67	3.196645	12.03	21.001600	12.40	2.723491	12.77	1.212573
11.33	1.401448	11.70	3.596306	12.07	14.925490	12.43	2.470684	12.80	1.149368



Hydrograph 100-yr Summary

Project Name:

05-20-2020

Hydrology Studio v 3.0.0.14

Hyd. No.	Hydrograph Type	Hydrograph Name	Peak Flow (cfs)	Time to Peak (hrs)	Hydrograph Volume (cuft)	Inflow Hyd(s)	Maximum Elevation (ft)	Maximum Storage (cuft)
1	NRCS Runoff	Pre Point A	68.96	12.20	209,610	----		
2	NRCS Runoff	Det Basin In-1	29.86	12.17	89,433	----		
3	NRCS Runoff	Det. Basin In -2	1.101	12.13	3,263	----		
4	Junction	Det Basin In Tot	30.93	12.17	92,695	2, 3		
5	Pond Route	Det Basin Out	8.782	12.53	75,807	4	113.57	41,728
6	NRCS Runoff	Post Det Bypass	46.98	12.17	142,353	----		
7	Junction	Dev. Tot Point A	53.76	12.20	218,159	5, 6		

Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.14

05-20-2020

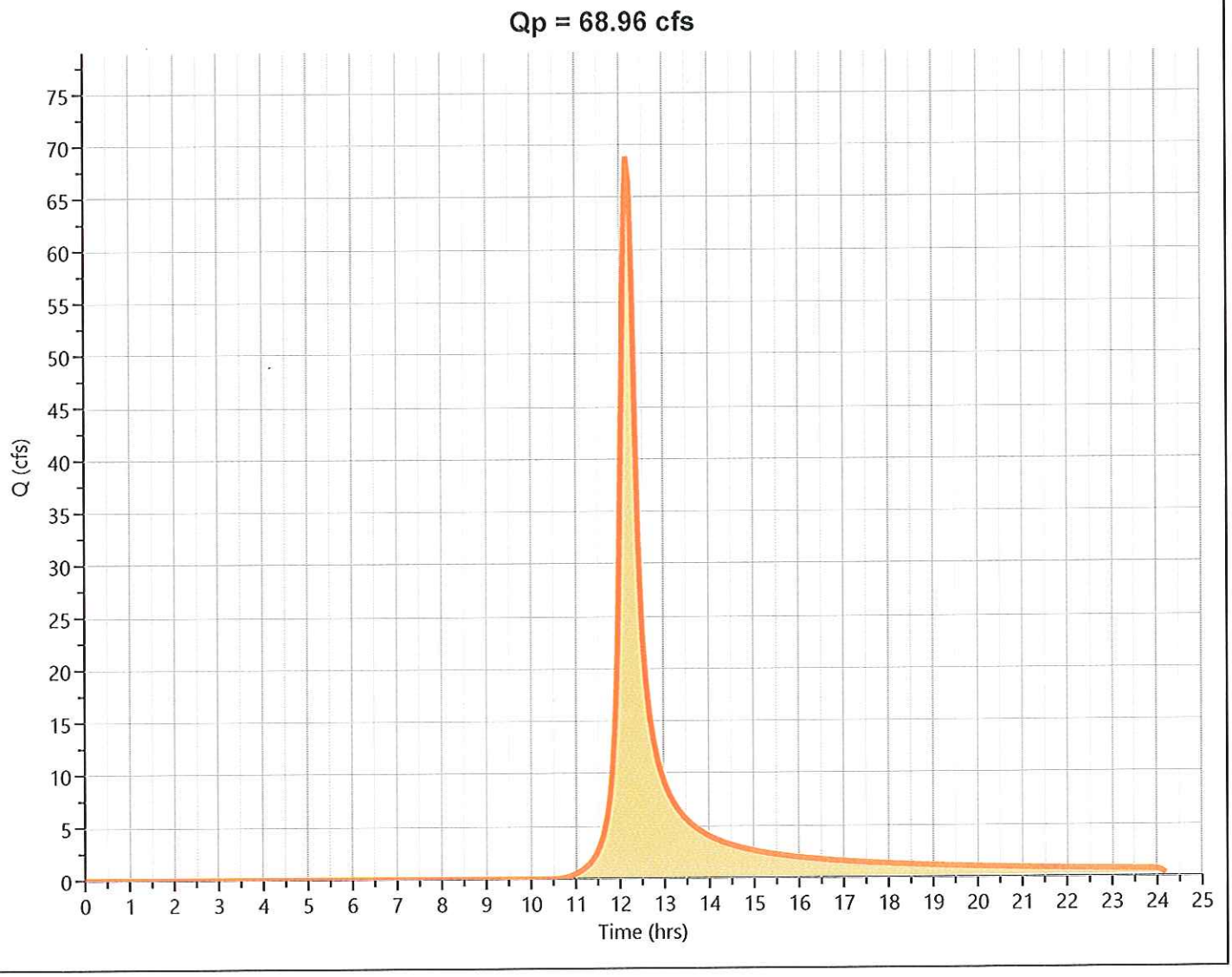
Pre Point A

Hyd. No. 1

Hydrograph Type	= NRCS Runoff	Peak Flow	= 68.96 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.20 hrs
Time Interval	= 2 min	Runoff Volume	= 209,610 cuft
Drainage Area	= 25.48 ac	Curve Number	= 70*
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 15.97 min
Total Rainfall	= 5.38 in	Design Storm	= Synthetic
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.21	98	Bit / Roofs / Drives
0.47	74	Lawn - Soil C
0.42	30	Brush - Soil A
24.38	70	Woods - Soil C
25.48	**70**	Weighted CN Method Employed



Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.14

05-20-2020

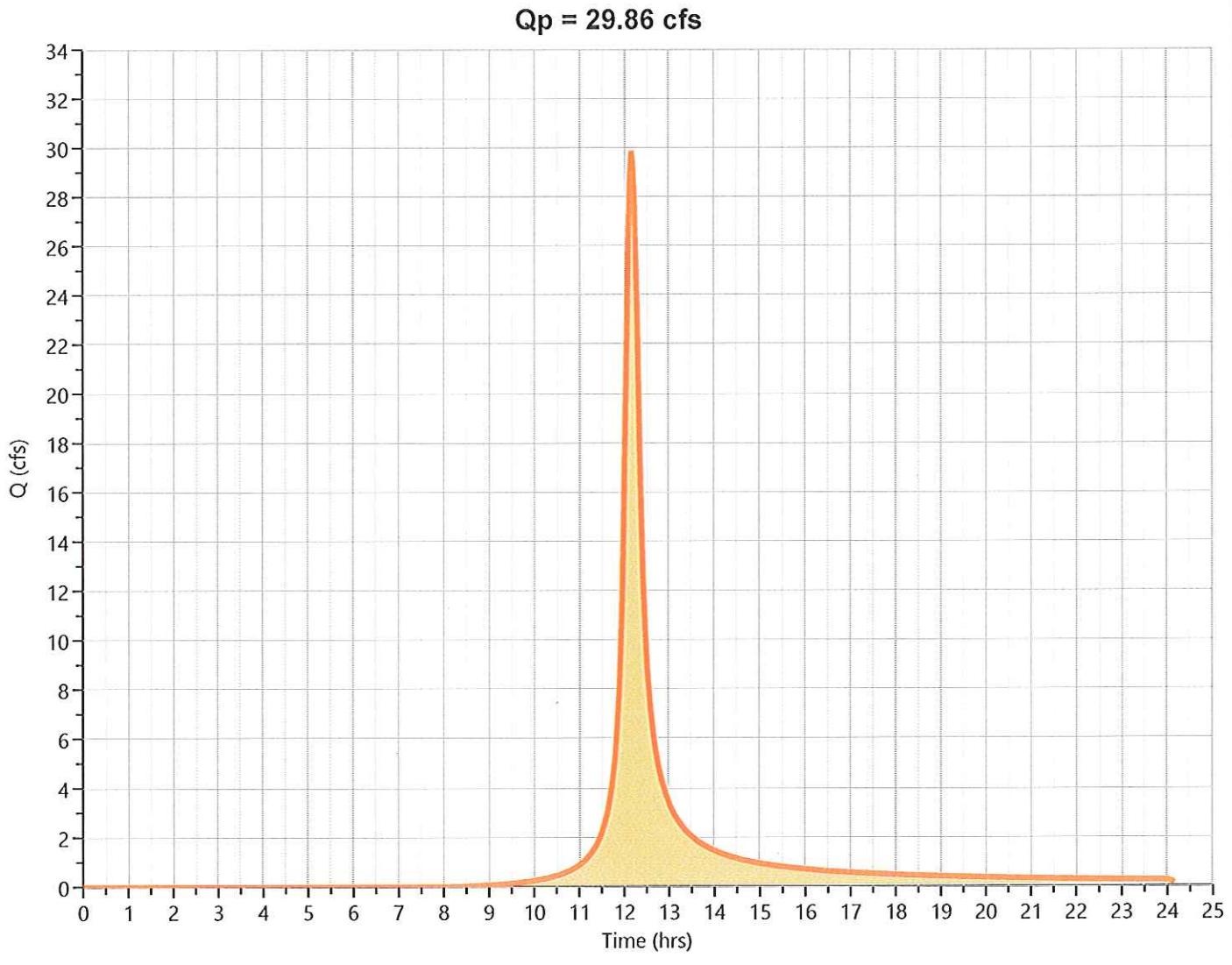
Det Basin In-1

Hyd. No. 2

Hydrograph Type	= NRCS Runoff	Peak Flow	= 29.86 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.17 hrs
Time Interval	= 2 min	Runoff Volume	= 89,433 cuft
Drainage Area	= 7.62 ac	Curve Number	= 80.9*
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 14.07 min
Total Rainfall	= 5.38 in	Design Storm	= Synthetic
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
2.95	98	Bit / Roofs / Walks
0.42	39	Lawn - Soil A
3.36	74	Lawn - Soil C
0.89	70	Woods - Soil C
7.62	**81**	Weighted CN Method Employed



Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.14

05-20-2020

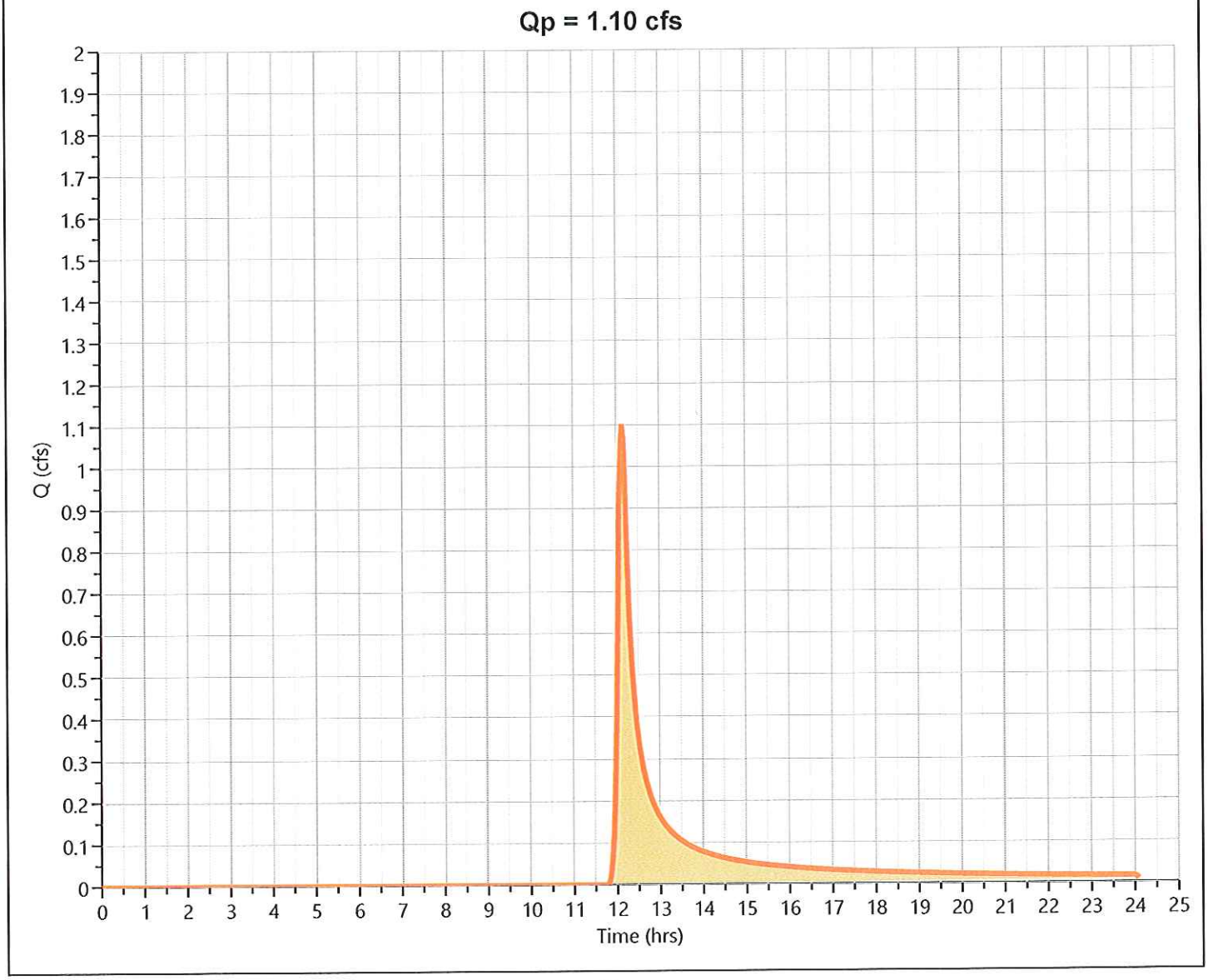
Det. Basin In -2

Hyd. No. 3

Hydrograph Type	= NRCS Runoff	Peak Flow	= 1.101 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.13 hrs
Time Interval	= 2 min	Runoff Volume	= 3,263 cuft
Drainage Area	= 0.81 ac	Curve Number	= 54*
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 8.69 min
Total Rainfall	= 5.38 in	Design Storm	= Synthetic
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.42	39	Lawn - Soil A
0.39	70	Woods - Soil C
0.81	54	Weighted CN Method Employed



Hydrograph Report

Project Name:

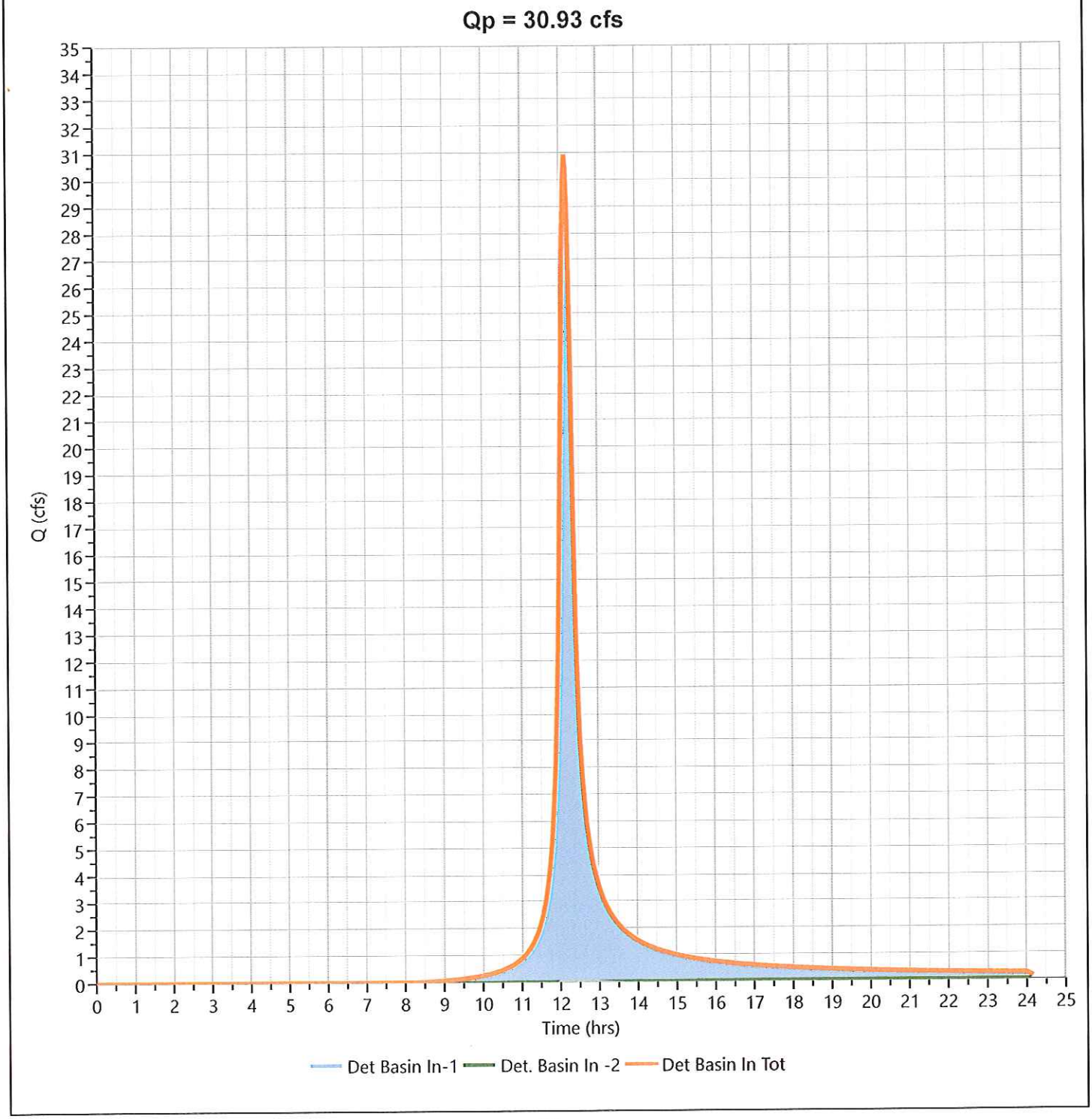
Hydrology Studio v 3.0.0.14

05-20-2020

Det Basin In Tot

Hyd. No. 4

Hydrograph Type	= Junction	Peak Flow	= 30.93 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.17 hrs
Time Interval	= 2 min	Hydrograph Volume	= 92,695 cuft
Inflow Hydrographs	= 2, 3	Total Contrib. Area	= 8.43 ac



Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.14

05-20-2020

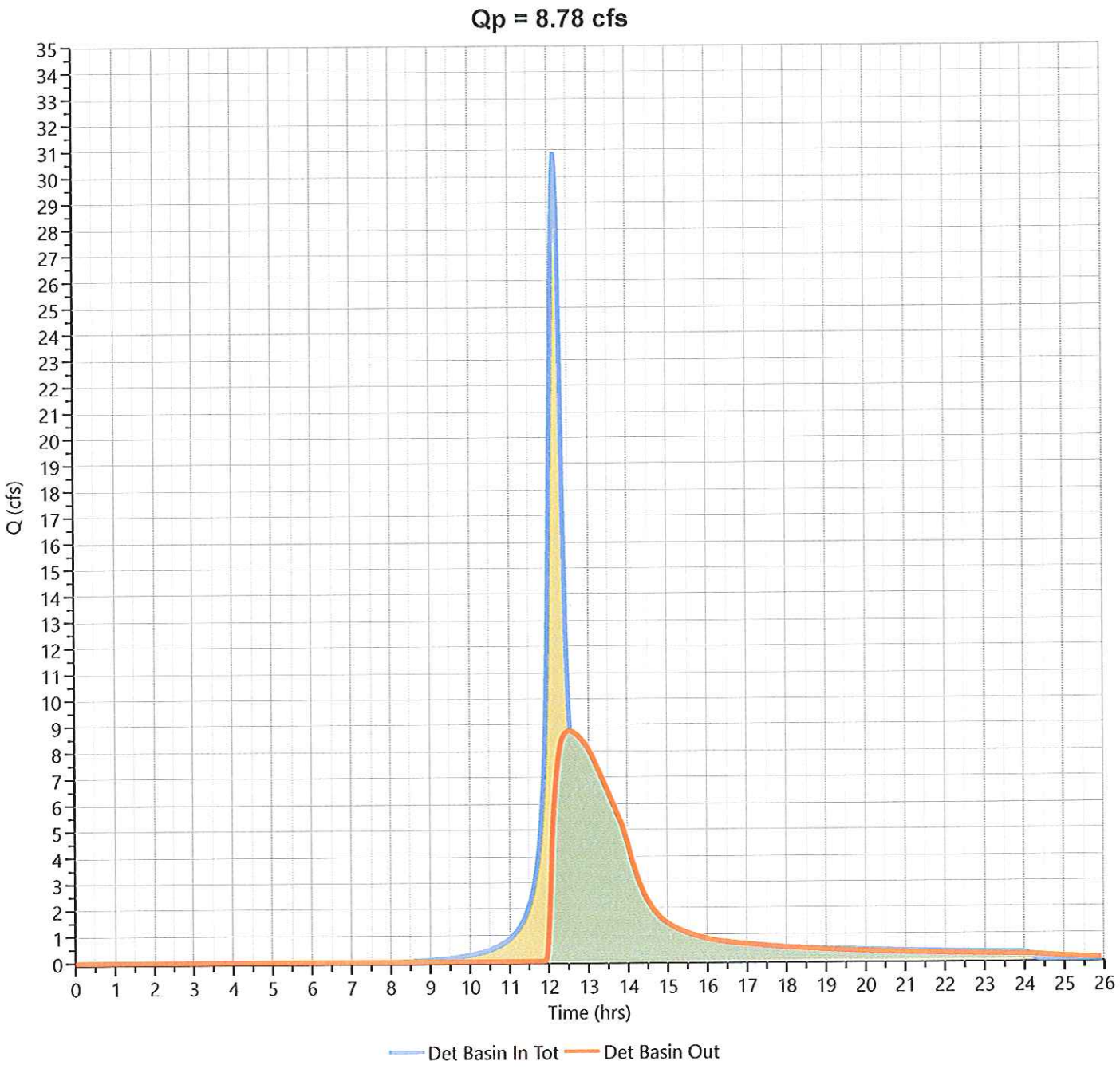
Det Basin Out

Hyd. No. 5

Hydrograph Type	= Pond Route	Peak Flow	= 8.782 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.53 hrs
Time Interval	= 2 min	Hydrograph Volume	= 75,807 cuft
Inflow Hydrograph	= 4 - Det Basin In Tot	Max. Elevation	= 113.57 ft
Pond Name	= Basin A	Max. Storage	= 41,728 cuft

Pond Routing by Storage Indication Method

Center of mass detention time = 1.08 hrs



Hydrograph Report

Project Name:

Hydrology Studio v 3.0.0.14

05-20-2020

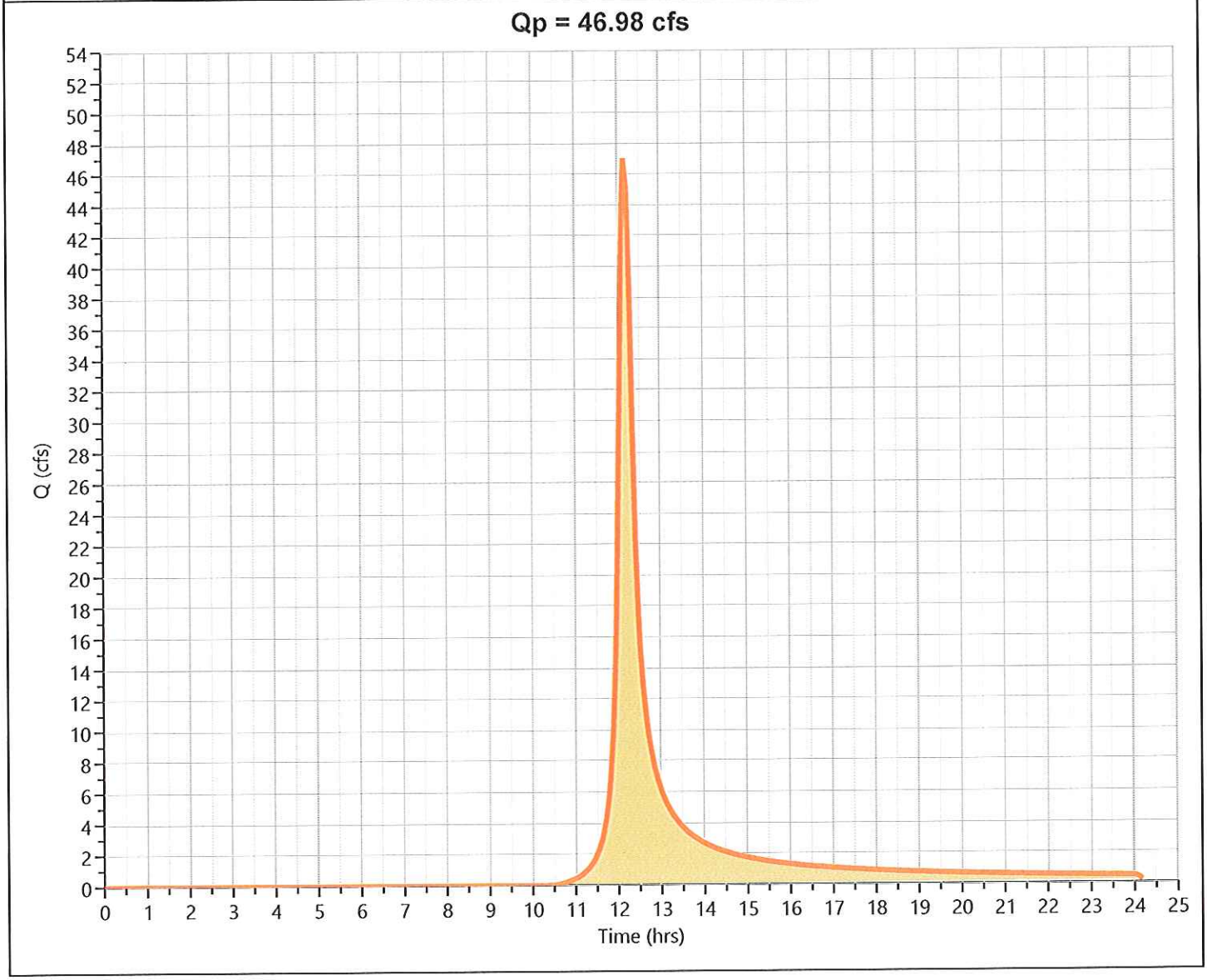
Post Det Bypass

Hyd. No. 6

Hydrograph Type	= NRCS Runoff	Peak Flow	= 46.98 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.17 hrs
Time Interval	= 2 min	Runoff Volume	= 142,353 cuft
Drainage Area	= 16.69 ac	Curve Number	= 71*
Tc Method	= TR55 (See Worksheet)	Time of Conc. (Tc)	= 15.97 min
Total Rainfall	= 5.38 in	Design Storm	= Synthetic
Storm Duration	= 24 hrs	Shape Factor	= 484

*** Composite CN Worksheet**

AREA (ac)	CN	DESCRIPTION
0.35	98	Bit/Roofs/Drives
0.92	74	Lawn - Soil C
15.42	70	Woods - Soil C
16.69	**71**	Weighted CN Method Employed



Hydrograph Report

Project Name:

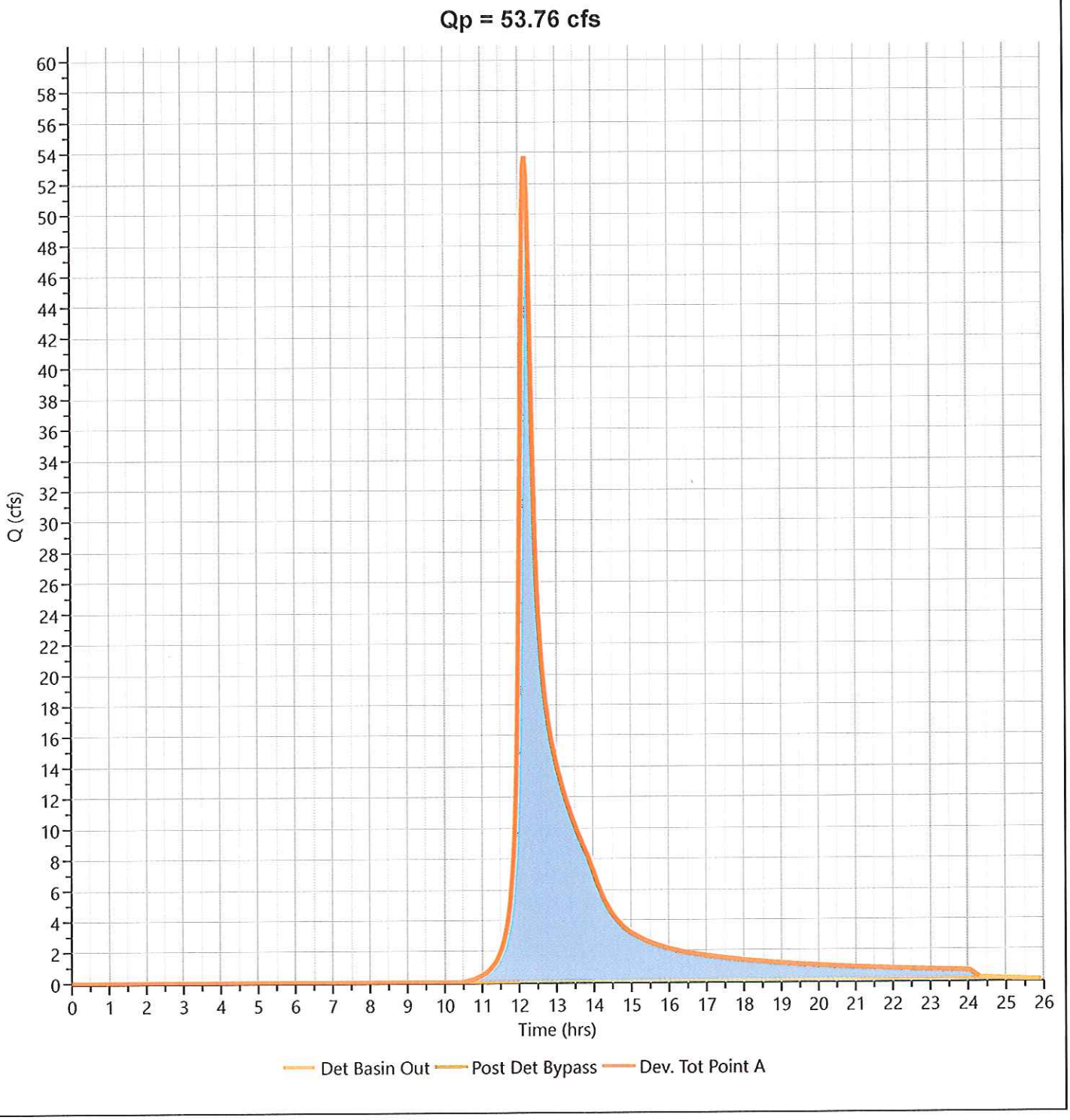
Hydrology Studio v 3.0.0.14

05-20-2020

Dev. Tot Point A

Hyd. No. 7

Hydrograph Type	= Junction	Peak Flow	= 53.76 cfs
Storm Frequency	= 100-yr	Time to Peak	= 12.20 hrs
Time Interval	= 2 min	Hydrograph Volume	= 218,159 cuft
Inflow Hydrographs	= 5, 6	Total Contrib. Area	= 16.69 ac



Design Storm Report

Custom Storm filename: WJW-2019-A.cds

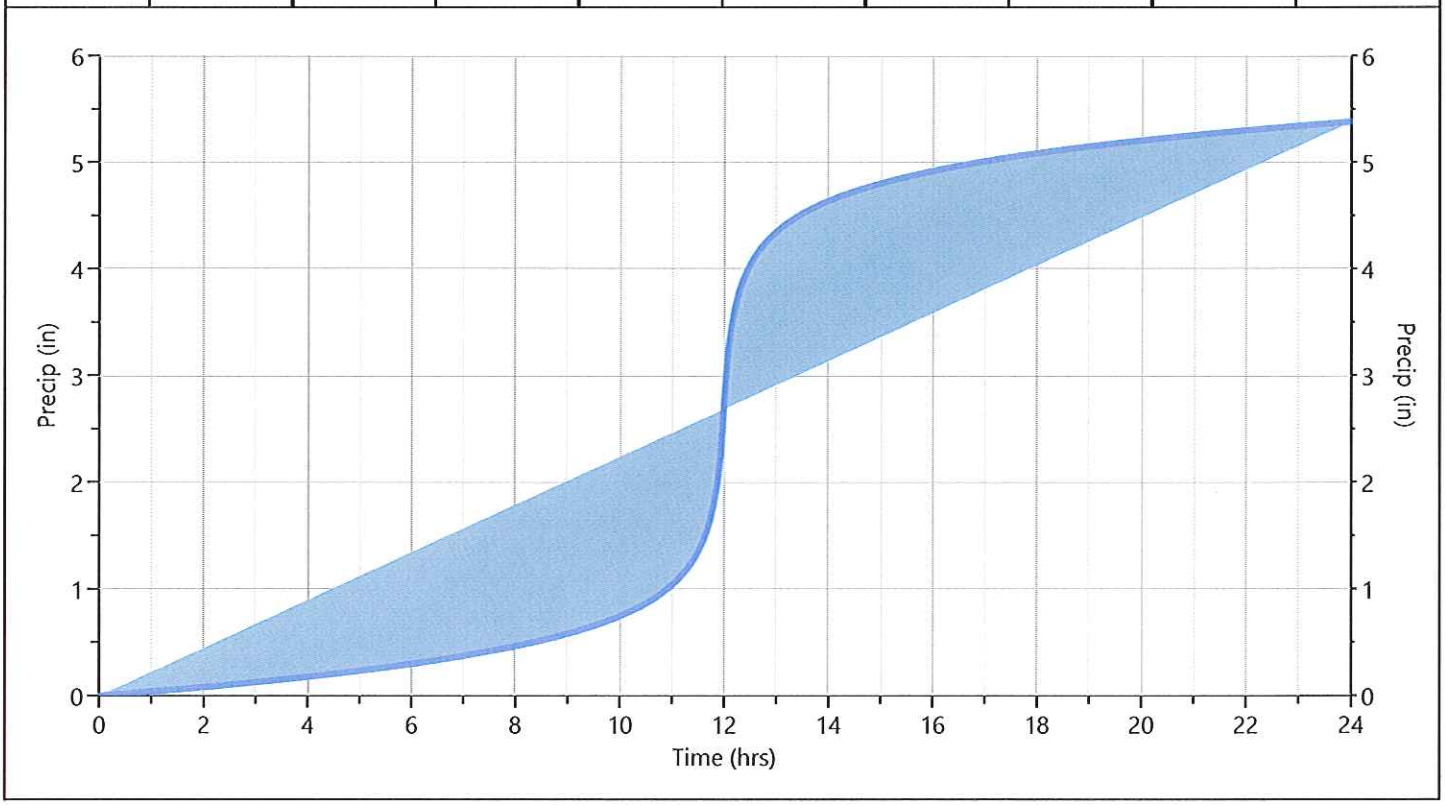
Hydrology Studio v 3.0.0.14

05-20-2020

Storm Distribution: IDF Based - Synthetic

Storm Duration	Total Rainfall Volume (in)								
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	✔ 100-yr	
24 hrs	0	2.71	0	2.84	3.84	3.56	4.56	5.38	

Incremental Rainfall Distribution, 100-yr									
Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)	Time (hrs)	Precip (in)
11.00	1.417494	11.37	2.332711	11.73	5.727625	12.10	14.154890	12.47	3.368759
11.03	1.470757	11.40	2.473807	11.77	6.494975	12.13	11.423600	12.50	3.122377
11.07	1.528049	11.43	2.631783	11.80	7.463074	12.17	9.482395	12.53	2.907228
11.10	1.589823	11.47	2.809691	11.83	8.713555	12.20	8.046377	12.57	2.718019
11.13	1.656675	11.50	3.011274	11.87	10.375800	12.23	6.949651	12.60	2.550507
11.17	1.729131	11.53	3.241277	11.90	12.665450	12.27	6.090069	12.63	2.401304
11.20	1.807952	11.57	3.505778	11.93	15.965770	12.30	5.401659	12.67	2.267694
11.23	1.893973	11.60	3.812528	11.97	21.016290	12.33	4.840255	12.70	2.147460
11.27	1.988173	11.63	4.171801	**12.00**	**29.411120**	12.37	4.375243	12.73	2.038717
11.30	2.091742	11.67	4.597187	12.03	24.634530	12.40	3.984880	12.77	1.940012
11.33	2.206016	11.70	5.107236	12.07	18.202410	12.43	3.653312	12.80	1.850033



WENTWORTH CIVIL
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Email: Wes@WentworthCivil.com

WATER QUALITY VOLUME CALCULATIONS

PREPARED FOR LINDO CONSTRUCTION, LLC
90 MAPLE AVE.
MONTVILLE, CT
DATE: 5-20-20

AREA = 339,607 SF

IMPERVIOUS AREA = 128,502 SF : I = ..38

WQV=1"((.05+(.9)(.38)) x 339,607 sf / 12" = 11,094 cf

FROM STORMWATER CALCULATION POND DESIGN:

DEPTH OF WQV (MINIMUM BASIN BOTTOM TO LOW FLOW OUTLET): 1.7 FT

SEDIMENT FOREBAY (10% WQV): 1,109 CF (MIN.)

Treatment methods of first 1" rainfall from impervious areas (WQV) that falls on proposed roof, walk and pavement areas will be collected by drainage system and discharged to the onsite Infiltration / Detention Basin and stored during small storms of 1" or less. This volume of water will percolate into the bottom of the infiltration basin over a period up to 24 hours.

Composite C Worksheet

Suzibfvlq dp h#lqzhuiSuzibfvlq dp h##

3705<05353

Wzup z dvhuMxg hf6353#/6BB4;

Line No	Description	Drainage Area (ac)	Runoff Coeff (C)	C x A	Composite (C)	Structure ID
1	Bit / Roof	0.030	0.90	0.027		CB 212
	Grass	0.040	0.35	0.014		
	Totals	0.070		0.041	0.59	
2	Bit / Roof	0.090	0.90	0.081		CB 214
	Grass	0.110	0.35	0.039		
	Totals	0.200		0.120	0.60	
3	Bit / Roof	0.020	0.90	0.018		CB 213
	Grass	0.030	0.35	0.011		
	Totals	0.050		0.029	0.57	
4	Bit. / Roof	0.040	0.90	0.036		CB 215
	Grass	0.100	0.35	0.035		
	Woods	0.350	0.20	0.070		
	Totals	0.490		0.141	0.29	
5	Bit / Roof	0.070	0.90	0.063		CB 217
	Grass	0.130	0.35	0.046		
	Woods	0.250	0.20	0.050		
	Totals	0.450		0.159	0.35	
6	Bit / Roof	0.040	0.90	0.036		CB 219
	Grass	0.120	0.35	0.042		
	Totals	0.160		0.078	0.49	
7	Bit / Roof	0.260	0.90	0.234		CB221
	Grass	0.180	0.17	0.031		
	Totals	0.440		0.265	0.60	
8	Bit / Roof	0.070	0.90	0.063		CB 223
	Grass	0.190	0.35	0.067		
	Totals	0.260		0.130	0.50	

Project File: Trial 3.sws

Composite C Worksheet

Wrup zdwhuVxgjhiB353#/5BB#;

Line No	Description	Drainage Area (ac)	Runoff Coeff (C)	C x A	Composite (C)	Structure ID
9	Bit / Roof	0.170	0.90	0.153		CB 241
	Grass	0.080	0.22	0.018		
	Totals	0.250		0.171	0.68	
10	Bit / Roof	0.120	0.90	0.108		CB 237
	Grass	0.130	0.22	0.029		
	Totals	0.250		0.137	0.55	
11	Bit / Roof	0.130	0.90	0.117		CB 235
	Grass	0.120	0.22	0.026		
	Totals	0.250		0.143	0.57	
12	Bit / Roof	0.230	0.90	0.207		CB 233
	Grass	0.160	0.22	0.035		
	Totals	0.390		0.242	0.62	
13	Bit / Roof	0.270	0.90	0.243		CB 234
	Grass	0.100	0.22	0.022		
	Totals	0.370		0.265	0.72	
14	Bit / Roof	0.110	0.90	0.099		CB 232
	Grass	0.070	0.22	0.015		
	Totals	0.180		0.114	0.64	
15	Bit / Roof	0.020	0.90	0.018		CB 211
	Grass	0.030	0.35	0.011		
	Totals	0.050		0.029	0.57	
16	Grass	0.200	0.35	0.070		CB 241
	Woods	0.800	0.20	0.160		
	Totals	1.000		0.230	0.23	

Composite C Worksheet

Sur rhfv/Q dp h-#/qvhu/Sur rhfv/Q dp hIL

3705<05353

Wrup z dvhu/Wxg lr/5353#/6BB4;

Line No	Description	Drainage Area (ac)	Runoff Coeff (C)	C x A	Composite (C)	Structure ID
17	Bit / Roof	0.090	0.90	0.081		CB 220
	Grass	0.120	0.35	0.042		
	Totals	**0.210**		**0.123**	**0.59**	
18	Bit / Roof	0.130	0.90	0.117		CB 225
	Grass	0.140	0.22	0.031		
	Totals	**0.270**		**0.148**	**0.55**	
19	Bit / Roof	0.140	0.90	0.126		CB 226
	Grass	0.230	0.22	0.051		
	Totals	**0.370**		**0.177**	**0.48**	
20	Bit / Roofs	0.230	0.90	0.207		CB 239
	Grass	1.010	0.22	0.222		
	Totals	**1.240**		**0.429**	**0.35**	
21	Bit / Roof	0.050	0.90	0.045		CB 238
	Grass	0.050	0.17	0.009		
	Totals	**0.100**		**0.054**	**0.53**	
22	Bit / Roof	0.270	0.90	0.243		CB 236
	Grass	0.190	0.22	0.042		
	Totals	**0.460**		**0.285**	**0.62**	

Project File: Trial 3.sws

Inlet Report

Project Name: Enter Project Name...

Stormwater Studio 2020 v 3.0.0.18

05-19-2020

Line No	Inlet		Q				Curb		Grate			Gutter							Inlet			Byp Line No
	Id	Type	Catch (cfs)	Carry (cfs)	Capt (cfs)	Byp (cfs)	Ht (in)	L (ft)	L (ft)	W (ft)	Area (sqft)	So (ft/ft)	W (ft)	Sw (ft/ft)	Sx (ft/ft)	n	Depth (ft)	Spread (ft)	Depth (ft)	Spread (ft)	Depr (in)	
1	CB 212	Combination	0.33	0.00	0.33	0.00	4.0	3.20	3.20	3.20	-	0.070	11.00	0.032	0.032	0.013	0.07	2.31	0.07	2.31	0.0	0
2	CB 214	Combination	0.96	0.00	0.96	0.00	4.0	3.20	3.20	1.60	-	0.070	11.00	0.032	0.032	0.013	0.11	3.44	0.11	3.44	0.0	1
3	CB 213	Combination	0.23	0.00	0.23	0.00	4.0	3.20	3.20	1.60	-	0.070	11.00	0.032	0.032	0.013	0.06	2.00	0.06	2.00	0.0	15
4	CB 215	Combination	1.00	0.00	1.00	0.00	4.0	3.20	3.20	1.60	-	0.075	11.00	0.032	0.032	0.013	0.11	3.44	0.11	3.44	0.0	3
5	CB 217	Combination	1.26	0.00	1.26	0.00	4.0	3.20	3.20	1.60	-	0.075	11.00	0.032	0.032	0.013	0.12	3.75	0.12	3.75	0.0	4
6	CB 219	Combination	0.63	0.00	0.63	0.00	4.0	3.20	3.20	1.60	-	0.100	11.00	0.032	0.032	0.013	0.09	2.75	0.09	2.75	0.0	5
7	CB221	Combination	2.12	0.00	2.12	0.00	4.0	3.20	3.20	1.60	-	0.070	11.00	0.032	0.032	0.013	0.15	4.59	0.15	4.59	0.0	6
8	CB 223	Combination	1.04	0.00	1.04	0.00	4.0	3.20	3.20	1.60	5.12	Sag	11.00	0.032	0.032	0.013	0.18	5.49	0.18	5.49	0.0	7
9	CB 241	Combination	1.37	0.00	1.37	0.00	4.0	3.20	3.20	1.60	-	0.020	11.00	0.032	0.032	0.013	0.16	4.94	0.16	4.94	0.0	8
10	CB 237	Combination	1.10	0.00	1.10	0.00	4.0	3.20	3.20	1.60	-	0.014	11.00	0.032	0.032	0.013	0.16	4.88	0.16	4.88	0.0	9
11	CB 235	Combination	1.14	0.00	1.14	0.00	4.0	3.20	3.20	1.60	-	0.020	11.00	0.032	0.032	0.013	0.15	4.63	0.15	4.63	0.0	10
12	CB 233	Combination	1.94	0.00	1.94	0.00	4.0	3.20	3.20	1.60	-	0.020	11.00	0.032	0.032	0.013	0.18	5.63	0.18	5.63	0.0	11
13	CB 234	Combination	2.14	0.00	2.14	0.00	4.0	3.20	3.20	1.60	5.12	Sag	11.00	0.032	0.032	0.013	0.27	8.30	0.27	8.30	0.0	12
14	CB 232	Combination	0.93	0.00	0.93	0.00	4.0	3.20	3.20	1.60	-	0.010	11.00	0.032	0.032	0.013	0.16	4.84	0.16	4.84	0.0	13
15	CB 211	Combination	0.23	0.00	0.23	0.00	4.0	3.20	3.20	3.20	-	0.070	11.00	0.032	0.032	0.013	0.06	2.00	0.06	2.00	0.0	1
16	CB 241	Drop Grate	1.85	0.00	1.85	0.00	-	-	3.20	1.60	5.12	Sag	11.00	0.032	0.032	0.013	0.16	21.01	0.16	21.01	0.0	15
17	CB 220	Combination	1.00	0.00	1.00	0.00	4.0	3.20	3.20	1.60	-	0.100	11.00	0.032	0.032	0.013	0.10	3.25	0.10	3.25	0.0	2
18	CB 225	Combination	1.19	0.00	1.19	0.00	4.0	3.20	3.20	1.60	-	0.090	11.00	0.032	0.032	0.013	0.11	3.53	0.11	3.53	0.0	8
19	CB 226	Combination	1.43	0.00	1.43	0.00	4.0	3.20	3.20	1.60	-	0.090	11.00	0.032	0.032	0.013	0.12	3.78	0.12	3.78	0.0	17
20	CB 239	Drop Grate	2.56	0.00	2.56	0.00	-	-	3.20	1.60	5.12	Sag	11.00	0.032	0.032	0.013	0.20	23.45	0.20	23.45	0.0	9
21	CB 238	Combination	0.43	0.00	0.43	0.00	4.0	3.20	3.20	1.60	-	0.014	11.00	0.032	0.032	0.013	0.11	3.41	0.11	3.41	0.0	7
22	CB 236	Combination	2.29	0.00	2.29	0.00	4.0	3.20	3.20	1.60	-	0.020	11.00	0.032	0.032	0.013	0.19	5.97	0.19	5.97	0.0	21

Notes: Return Period = 10-yrs. All curb inlets are Horiz throat..

Project File: Trial 3.stm

Storm Sewer Tabulation

Project Name: Enter Project Name...

Stormwater Studio 2020 v 3.0.0.18

04-29-2020

Line ID	Length	Drng Area		Rational	C x A		Tc		Intensity	Total Q	Capacity	Velocity	Line		Invert Elev		HGL Elev		Surface Elev		Line No
		Incr	Total		Incr	Total	Inlet	Syst					Size	Slope	Up	Dn	Up	Dn	Up	Dn	
	(ft)	(ac)	(ac)	(C)			(min)	(min)	(in/hr)	(cfs)	(cfs)	(ft/s)	(in)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	
212-210	100.00	0.070	7.510	0.59	0.04	3.52	5.0	14.86	5.58	19.63	15.94	6.25	24	0.50	111.30	110.80	113.55	112.80	118.51	0.00	1
214-212	133.24	0.200	6.390	0.60	0.12	3.22	5.0	14.65	5.62	18.07	28.51	13.11	18	7.37	124.83	115.01	126.28	115.93	128.63	118.51	2
213-214	18.52	0.050	6.190	0.57	0.03	3.10	5.0	14.62	5.62	17.41	13.37	9.86	18	1.62	125.13	124.83	127.54	127.03	128.63	128.63	3
215-213	104.61	0.490	6.140	0.29	0.14	3.07	8.0	14.44	5.65	17.34	28.12	9.87	18	7.17	132.63	125.13	134.08	128.46	136.13	128.63	4
217-215	103.60	0.450	5.650	0.35	0.16	2.93	5.0	14.26	5.68	16.63	28.25	9.48	18	7.24	140.13	132.63	141.57	134.78	143.63	136.13	5
219-217	147.05	0.160	5.200	0.49	0.08	2.77	5.0	13.99	5.73	15.86	29.20	12.46	18	7.73	151.50	140.13	152.92	140.96	156.75	143.63	6
221-219	141.42	0.440	4.830	0.60	0.26	2.57	5.0	13.72	5.78	14.83	38.54	13.73	18	13.47	172.30	153.25	173.70	153.94	172.30	156.75	7
223-221	31.43	0.260	4.390	0.50	0.13	2.30	5.0	13.65	5.79	13.33	22.08	7.54	18	4.42	170.19	168.80	174.84	174.33	173.69	172.30	8
241-223	139.42	0.250	3.490	0.68	0.17	1.85	5.0	13.38	5.84	10.77	13.64	8.78	15	4.46	176.71	170.49	179.04	175.16	180.21	173.69	9
237-241	213.88	0.250	2.000	0.55	0.14	1.24	5.0	7.80	7.10	8.82	7.82	7.19	15	1.47	179.85	176.71	183.98	179.99	183.36	180.21	10
235-237	187.69	0.250	1.650	0.57	0.14	1.05	5.0	7.29	7.25	7.62	9.34	6.21	15	2.09	183.78	179.85	187.18	184.56	187.28	183.36	11
233-235	190.84	0.390	0.940	0.62	0.24	0.62	5.0	6.58	7.47	4.66	12.82	4.47	15	3.94	191.30	183.78	192.16	187.75	194.50	187.28	12
234-233	26.08	0.370	0.550	0.72	0.27	0.38	5.0	6.44	7.52	2.87	8.19	3.03	15	1.61	191.72	191.30	192.48	192.52	195.60	194.50	13
232-234	158.88	0.180	0.180	0.64	0.12	0.12	5.0	5.00	8.03	0.93	6.44	1.84	15	0.99	193.30	191.72	193.69	192.84	196.50	195.60	14
211-212	20.00	0.050	1.050	0.57	0.03	0.26	5.0	5.35	7.90	2.04	7.91	4.15	15	1.50	115.31	115.01	115.88	115.50	118.51	118.51	15
241-211	65.53	1.000	1.000	0.23	0.23	0.23	5.0	5.00	8.03	1.85	6.48	3.08	15	1.01	115.97	115.31	116.51	116.02	118.50	118.51	16
220-219	18.44	0.210	0.210	0.59	0.12	0.12	5.0	5.00	8.03	1.00	8.24	1.26	15	1.63	153.55	153.25	154.20	154.22	156.75	156.75	17
225-223	134.12	0.270	0.640	0.55	0.15	0.33	5.0	5.17	7.97	2.60	21.52	3.09	15	11.11	185.39	170.49	186.04	175.84	188.79	173.69	18
226-225	18.64	0.370	0.370	0.48	0.18	0.18	5.0	5.00	8.03	1.43	6.69	1.85	15	1.07	185.59	185.39	186.25	186.27	188.79	188.79	19
239-241	70.19	1.240	1.240	0.35	0.43	0.43	13.0	13.00	5.91	2.56	20.95	3.07	15	10.53	184.10	176.71	184.74	180.43	187.30	180.21	20
238-237	18.53	0.100	0.100	0.53	0.05	0.05	5.0	5.00	8.03	0.43	8.35	0.35	15	1.67	180.16	179.85	184.92	184.92	183.36	183.36	21
236-235	18.48	0.460	0.460	0.62	0.29	0.29	5.0	5.00	8.03	2.29	8.23	1.87	15	1.62	184.08	183.78	187.88	187.86	187.28	187.28	22

Notes: IDF File = SampleIDF.idf, Return Period = 10-yrs.

Project File: Trial 3.swc

APPENDIX A

WARNING: THESE PLANS NOT TO BE USED FOR LOCATION OF UNDERGROUND UTILITIES.
CALL BEFORE YOU DIG 1-800-922-4455 TWO WORKING DAYS BEFORE YOU DIG.

LOCATION OF EXISTING FEATURES TAKEN FROM TOWN GIS MAPS & FIELD SKETCHES.
THIS PLAN IS NOT TO BE CONSTRUED AS AN ACCURATE SURVEY OR USED BEYOND INTENDED PURPOSES
OF PROJECT FEASIBILITY PURPOSES.

GRAPHIC SCALE

60 0 60 120

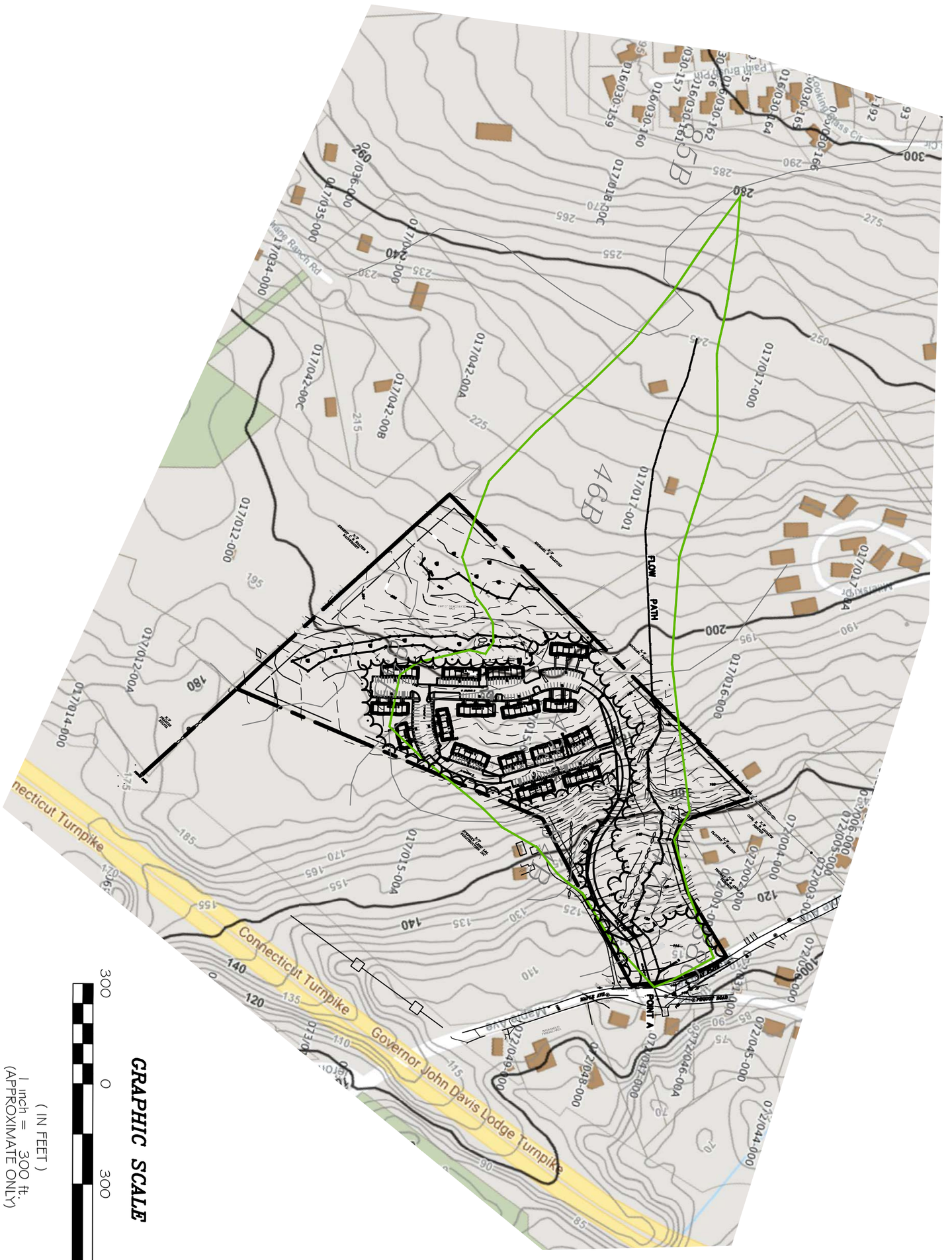
(IN FEET)

1 inch = 60 ft.
(APPROXIMATE ONLY)

WENTWORTH CIVIL
ENGINEERS LLC
177 WEST TOWN ST.
LEBANON, CT 06249
TEL. (860) 642-7255
FAX (860) 642-7694
wells.wentworthcivil.com

CATCH BASIN DRAINAGE AREA MAP
90 MAPLE AVE
PREPARED FOR
LINDO CONSTRUCTION, LLC
MONTVILLE, CONNECTICUT

DATE:	4-06-20
SCALE:	1"=60'
SHEET	1 OF 1
MAP NO. 18-003-1CB	



APPENDIX B

EXISTING CONDITIONS OVERALL DRAINAGE MAP
90 MAPLE AVE
PREPARED FOR
LINDO CONSTRUCTION, LLC
MONTVILLE, CONNECTICUT

DATE:	4-06-20
SCALE:	1"=300'
SHEET	1 OF 1
MAP NO. 18-003-1DE	

WENTWORTH CIVIL ENGINEERS LLC
177 WEST TOWN ST.
LEBANON, CT 06249
TEL. (860) 642-7255
FAX (860) 642-4794
web: wentworthcivil.com

GRAPHIC SCALE

300 0 300 600

(IN FEET)
1 inch = 300 ft.
(APPROXIMATE ONLY)

APPENDIX C

WENTWORTH CIVIL ENGINEERS LLC
177 WEST TOWN ST.
LEBANON, CT 06249
TEL. (860) 642-7255
FAX (860) 642-4794
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DEVELOPED CONDITIONS
OVERALL DRAINAGE MAP
90 MAPLE AVE
PREPARED FOR
LINDO CONSTRUCTION, LLC
MONTVILLE, CONNECTICUT

DATE:	4–06–20
SCALE:	1"=300'
SHEET	1 OF 1
MAP NO. 18–003–1DD	