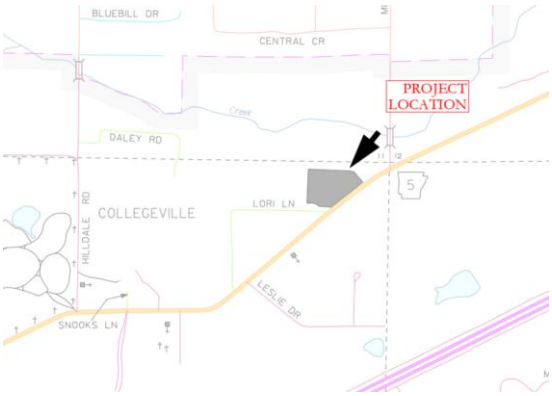
ELITE MEDICAL SUPPLIES

HWY 5, BRYANT, SALINE COUNTY, ARKANSAS

DRAINAGE REPORT

October 2026



Vicinity Map

Owner & Developer

TRC ELITE PROPERTIES LLC

By:

HOPE CONSULTING
ENGINEERS - SURVEYORS

129 N. Main Street
Benton, Arkansas 72015
PH. (501)315-2626
FAX (501) 315-0024
www.hopeconsulting.com

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DRAINAGE SUMMARY

PROJECT TITLE

ELITE MEDICAL SUPPLIES

PROJECT PROPERTY OWNER

TRC ELITE PROPERTIES LLC

PROJECT LOCATION

HWY 5, Bryant, Saline County, Arkansas

PROJECT DESCRIPTION

The proposed development is on Hwy 5. The total development site area is 1.8 acres.

DRAINAGE ANALYSIS

On Site Drainage- Rational method was used to determine the existing and proposed flows from proposed site. There will be One detention pond to detain water from this development. Detailed drainage calculations considering the future expected development have been conducted to determine the required detention volumes and outlet structures dimensions as required. Summary of the calculations are below:

North Detention Pond

- A detention pond has been proposed on the North side of the property.
- Pre-development area 0.93 acres.
- Post-development area 1.27 acres.
- Considering the existing condition, pre-development runoff coefficient 0.54.
- Post-development cumulative runoff coefficient 0.95.
- Bottom elevation of detention facility is 370.00'.

Peak flows for Pre and post development phase of onsite area have been tabulated below-

	Pre-development	Dev. Generated	Post-dev. After detention
	Peak Flow (cfs)	Peak Flow (cfs)	Peak Flow (cfs)
2-Year	2.15	7.37	1.41
5-Year	2.55	8.75	1.67
10- Year	2.87	9.83	1.89
25- Year	3.3	11.29	2.2
50- Year	3.62	12.43	2.44
100- Year	3.91	13.48	2.68

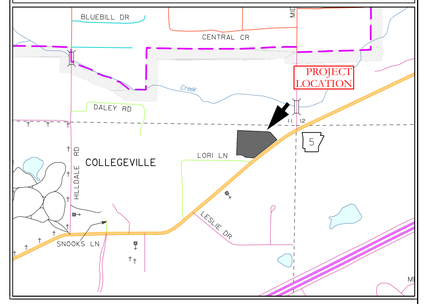
CONCLUSION

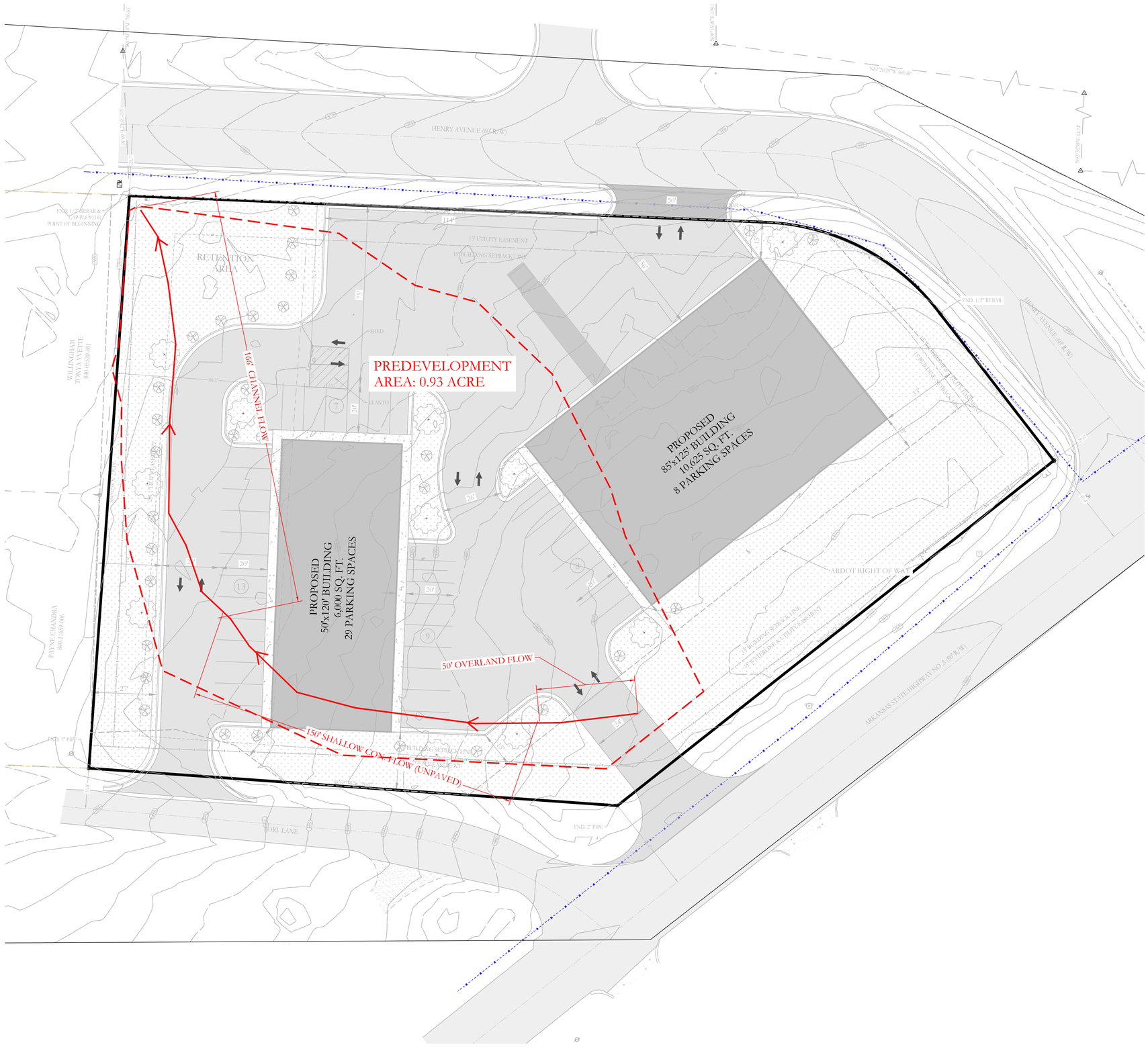
From the drainage calculation, it is seen that there is decrease in flow for all storm events due to the proposed detention pond.

Hydrograph Summary Report
NORTH DETENTION

811 Know what's below. Call before you dig.

VICINITY MAP:





PRE DEVELOPMENT AREA

Time of Concentration, tc (min)							
Area (ft2)	40425.0	Velocity	L (ft)	Height	S (ft/ft)	Coef, N	
Area (Acre)	*0.93*						
Total Flow Length, L (ft)	***366.0***						
Overland Flow Tc, $t_i = 0.83 \frac{(N L_i)^{0.467}}{S^{0.5}}$, (min)	*8.43*	-	50.0	2.2	*0.044*	0.60	
Shallow Concentrated Flow Tc, $t_{scs} = \frac{L_{scs}}{60\,V}$, (min) , unpaved *V=16.1345(S^0.5)*	*0.67*	*3.73*	150.0	8.0	*0.053*	-	
Channel Flow Tc, $t_{cs} = \frac{L_{cs}}{60\,V}$, (min) $V = \frac{1.49}{n} R^{\frac{2}{3}} S^{\frac{1}{2}}$ Channel Flow	*1.40*	*1.97*	166.0	3.8	*0.023*	Mannings n: 0.050	*Hydraulic Radius, R: 0.293*
Total time of concentration, tc (min)	10.50						
USE =	**10.50**						

PRE DEVELOPMENT AREA RUNOFF COEFFICIENT

	Area (ac)	100 year, C		100 year
Area (Undeveloped-Woodland)	0.93	0.49		0.45
Tot A =	0.93		Com. C =	**0.49**

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER NO. 20876 MD. TAMZIDUL ISLAM

CERTIFICATE OF AUTHORIZATION HOPE CONSULTING, INC. No. 1931 ARKANSAS

N

BASIS OF BEARING GRID NORTH ARKANSAS COORDINATE SYSTEM SOUTH ZONE BY GPS OBSERVATION

20' 10' 0 20'

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PREDEVELOPMENT
HWY5, BRYANT, SALINE COUNTY, ARKANSAS

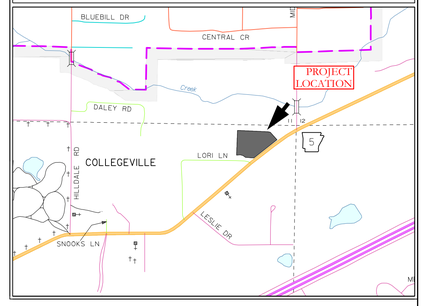
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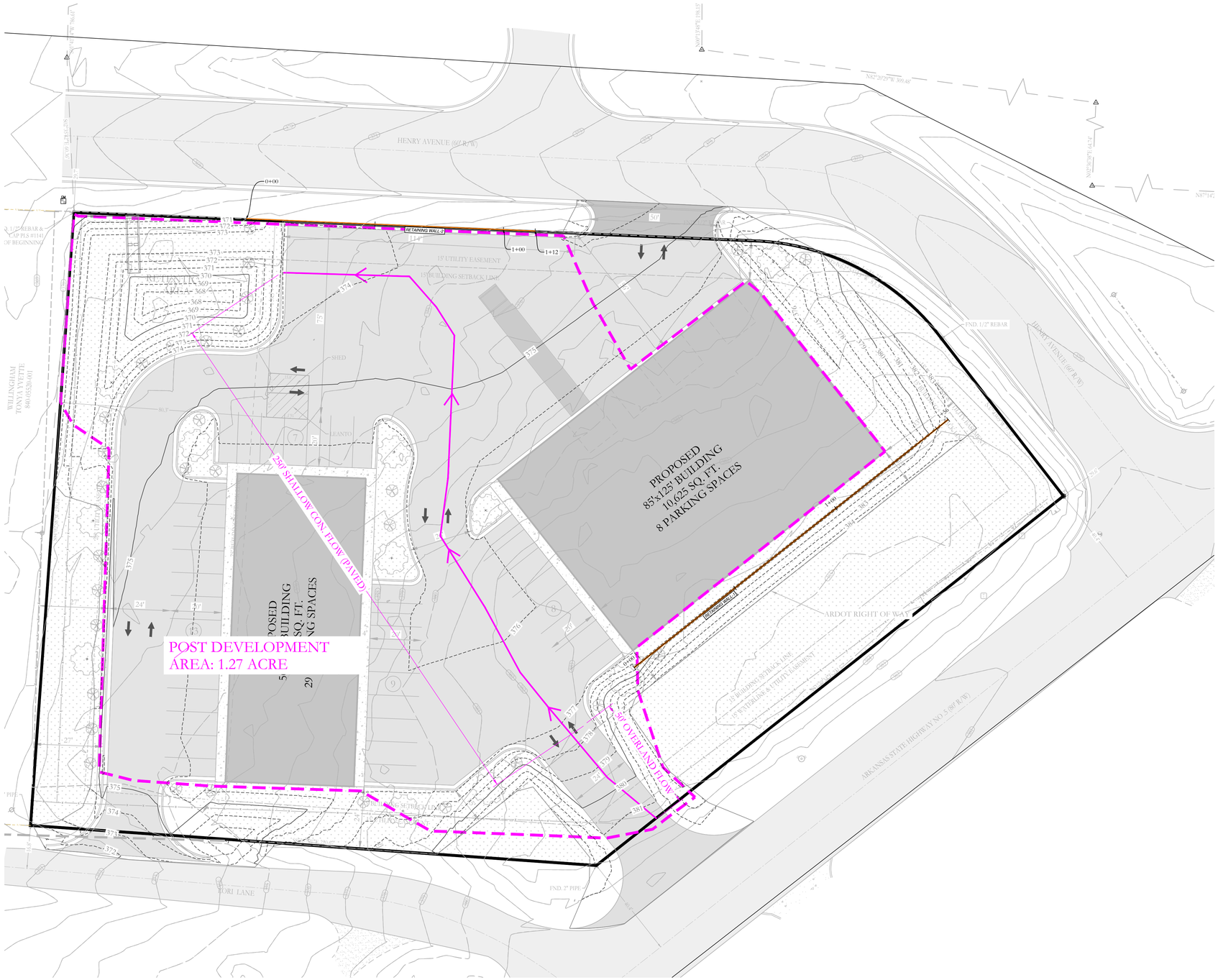
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VICINITY MAP:





POST DEVELOPMENT

Time of Concentration, tc (min)						
Area (ft2)	55380.1	Velocity	L (ft)	Height	S (ft/ft)	Coef, N
Area (Acre)	*1.27*					
Total Flow Length, L (ft)	***300.0***					
Overland Flow Tc, $t_i = 0.83 \frac{(N L_i)^{0.467}}{S^{0.5}}$, (min)	*1.48*	-	50.0	4.2	*0.083*	0.02
Shallow Concentrated Flow Tc, $t_{scs} = \frac{L_{scs}}{60\,V}$, (min) , paved						
V=20.3282(S^0.5)	*1.62*	*2.57*	250.0	4.0	*0.016*	-
Total time of concentration, tc (min)	3.10					
USE =	**5.00**					

PRE DEVELOPMENT AREA RUNOFF COEFFICIENT

	Area (ac)	100 year, C		100 year
Area (Undeveloped-Woodland)	1.27	0.95		1.21
Tot A =	1.27		Com. C =	**0.95**

STATE OF ARKANSAS LICENSED PROFESSIONAL ENGINEER NO. 20076 KAZI TAMZIDUL ISLAM

HOPE CONSULTING, INC. CERTIFICATE OF AUTHORIZATION No. 1931 ARKANSAS

BASIS OF BEARING GRID NORTH ARKANSAS COORDINATE SYSTEM SOUTH ZONE BY GPS OBSERVATION

20' 10' 0 20'

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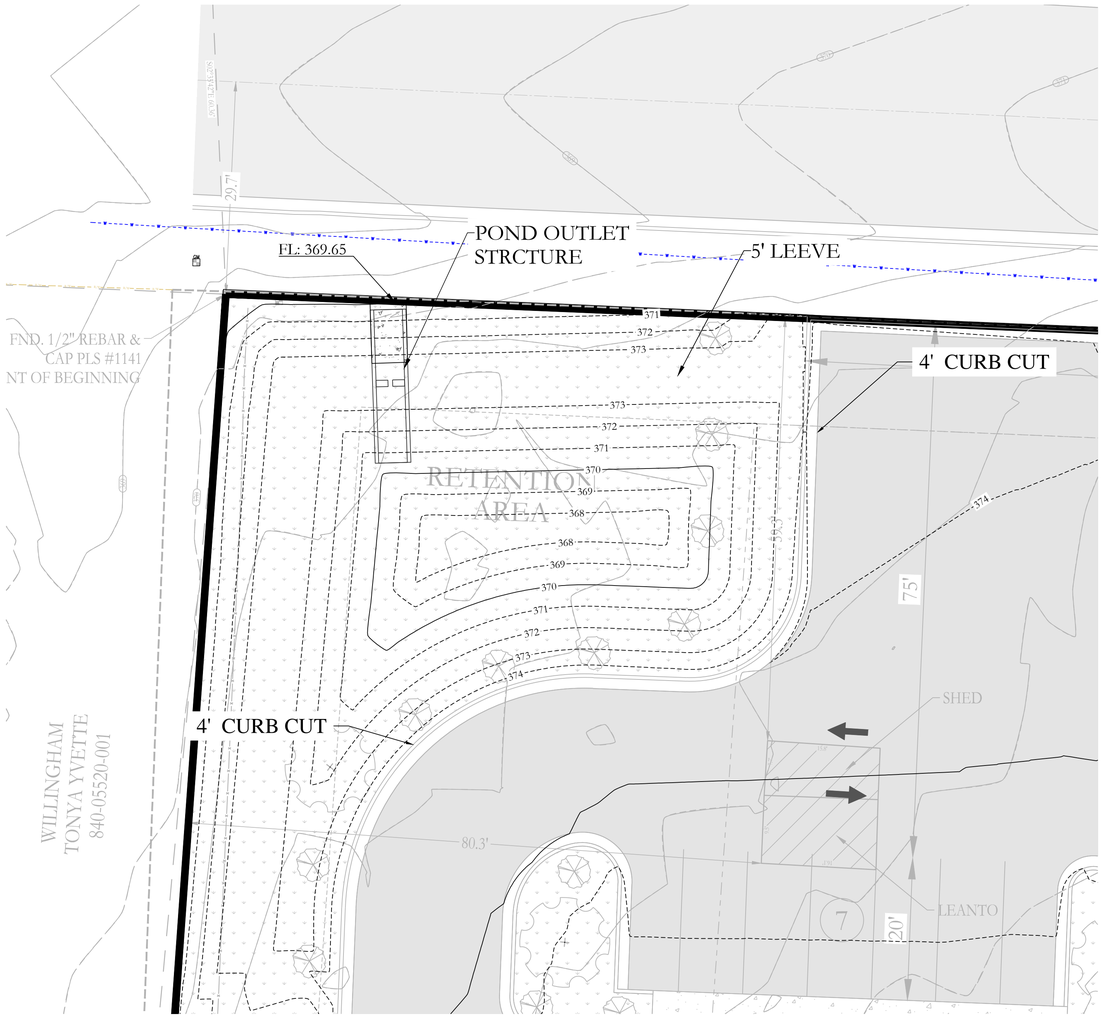
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ELITE MEDICAL SUPPLIES
POSTDEVELOPMENT
HWY5, BRYANT, SALINE COUNTY, ARKANSAS

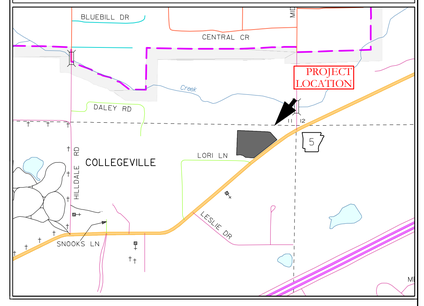
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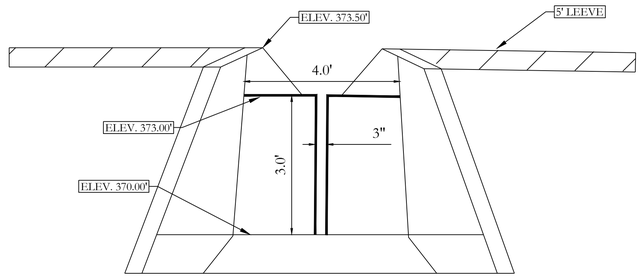
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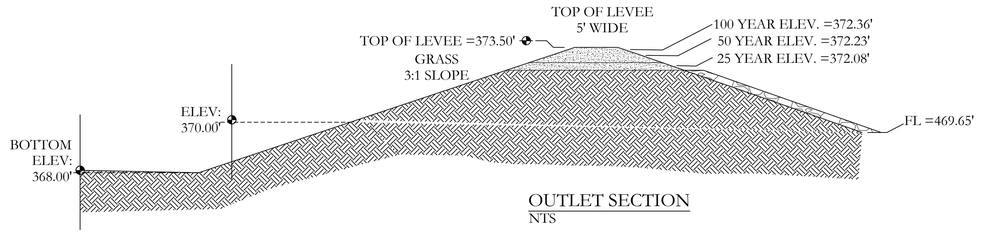


VICINITY MAP:





POND OUTLET STRUCTURE
SECTION VIEW



OUTLET SECTION
NTS

DETENTION POND MAINTENANCE PLAN

Background
The detention pond is located at the **North** of the subjected property. It is designed to temporarily detain stormwater to meet water quantity criteria before discharging off the property.

Routine Maintenance
Routine maintenance will include but not be limited to:
-Mowing of the bank slopes and area around the pond on a monthly basis during the growing season and as needed during the cooler months.

-The outlet pipe from the pond and other areas will be inspected monthly for debris which could inhibit the proper flow of discharge. Any debris will be removed immediately and disposed of or placed in a location to prevent future maintenance and to not cause impact up or downstream of the structure.

-Trash will be removed from around the pond to prevent entering the pond. Generally, the site should be kept free of loose trash which could be carried off site by wind or rain.

-Inspect the pond and outlet pipe for non-routine maintenance need.

Periodic or Non-Routine Maintenance
The routine inspection of the pond area and discharge pipe will identify needed repairs and non-routine maintenance. These items may include but not be limited to:

-Re-growth of trees on or around the pond bank. These should be cut and removed from the pond area.

-Sediment from the site may accumulate in the pond bottom and reduce the pond to below design volume requirements. The pond should be excavated if the pond bottom elevation reached a level that allows excessive aquatic growth or reduces the pond efficiency such, that the sediments are passing the discharge structure and release off site.

-Stabilization or re-grading of side slopes may be required periodically or after excessive rain events. Any disturbance of slopes should be reseeded or may require installation of erosion control materials until seeding can reestablish adequate grasses to prevent future erosion.

-Any other maintenance or repairs which would minimize other maintenance to the pond or outfall structures.

For questions or concerns about Tract "A", contact at 501-.

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No. 1931
ARKANSAS

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BASIS OF BEARING
GRID NORTH, ARKANSAS
COORDINATE SYSTEM, SOUTH ZONE
BY GPS OBSERVATION

10' 5' 0 10'

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DETANTION PLAN
HWY5, BRYANT, SALINE COUNTY, ARKANSAS

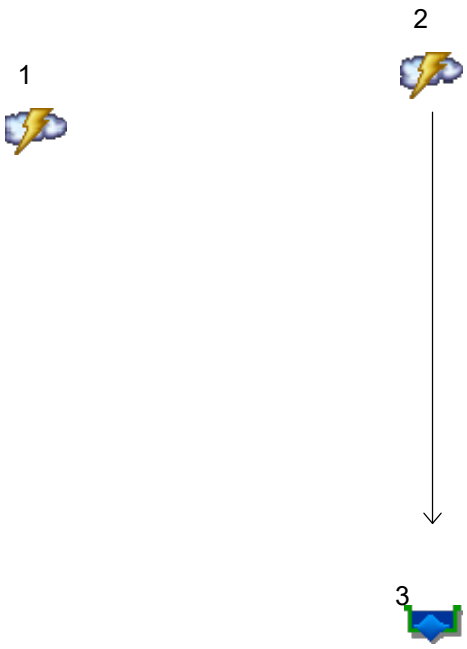
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Hydrograph Summary Report
NORTH DETENTION

Watershed Model Schematic



Legend

Hyd.	Origin	Description
1	Rational	PRE DEV
2	Rational	POST DEV-A
3	Reservoir	RESERVOIR

Hydrograph Return Period Recap

Hyd. No.	Hydrograph type (origin)	Inflow hyd(s)	Peak Outflow (cfs)								Hydrograph Description
			1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr	
1	Rational	------	-------	2.151	-------	2.555	2.877	3.304	3.620	3.917	PRE DEV
2	Rational	------	-------	7.377	-------	8.755	9.837	11.29	12.43	13.48	POST DEV-A
3	Reservoir	2	-------	1.410	-------	1.674	1.893	2.200	2.449	2.688	RESERVOIR

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2025

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	2.151	1	10	1,290	------	------	------	PRE DEV
2	Rational	7.377	1	5	2,213	------	------	------	POST DEV-A
3	Reservoir	1.410	1	9	2,112	2	371.52	1,846	RESERVOIR

Hydrograph Report

Hyd. No. 1

PRE DEV

Hydrograph type	=	Rational	Peak discharge	=	2.151 cfs
Storm frequency	=	2 yrs	Time to peak	=	10 min
Time interval	=	1 min	Hyd. volume	=	1,290 cuft
Drainage area	=	0.930 ac	Runoff coeff.	=	0.49
Intensity	=	4.719 in/hr	Tc by User	=	10.00 min
IDF Curve	=	26-0791 IDF.IDF	Asc/Rec limb fact	=	1/1

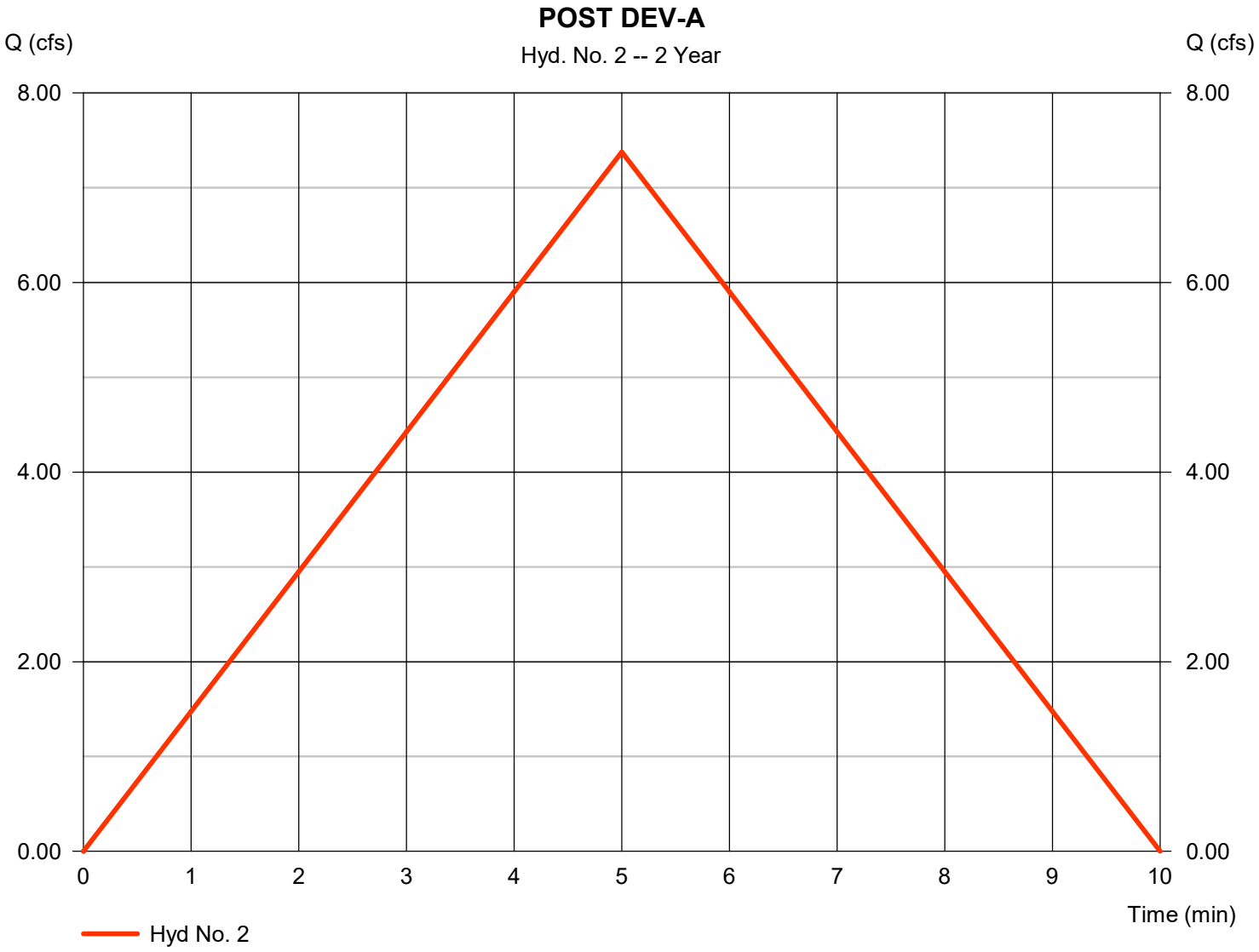


Hydrograph Report

Hyd. No. 2

POST DEV-A

Hydrograph type	=	Rational	Peak discharge	=	7.377 cfs
Storm frequency	=	2 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	2,213 cuft
Drainage area	=	1.270 ac	Runoff coeff.	=	0.95
Intensity	=	6.115 in/hr	Tc by User	=	5.00 min
IDF Curve	=	26-0791 IDF.IDF	Asc/Rec limb fact	=	1/1



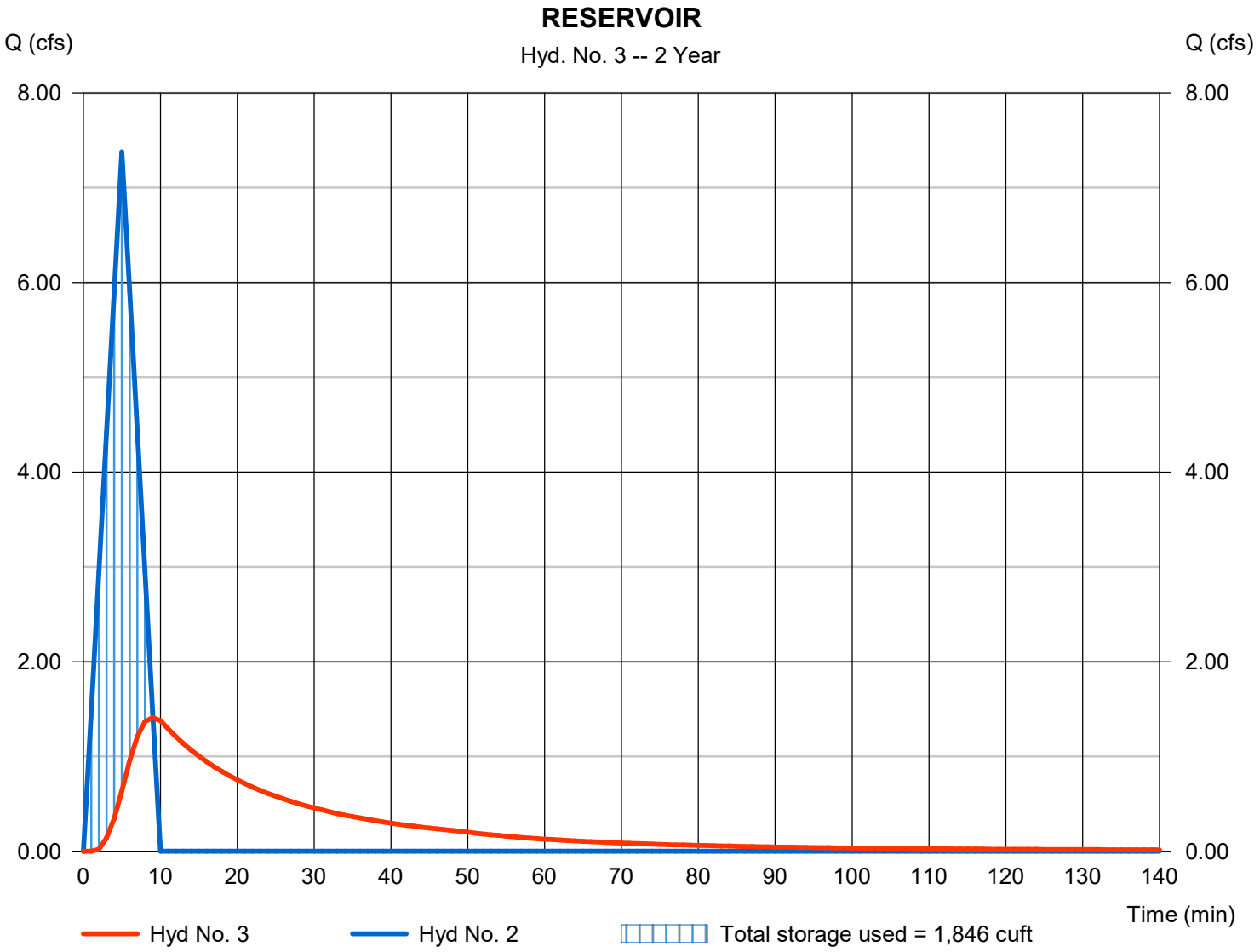
Hydrograph Report

Hyd. No. 3

RESERVOIR

Hydrograph type	=	Reservoir	Peak discharge	=	1.410 cfs
Storm frequency	=	2 yrs	Time to peak	=	9 min
Time interval	=	1 min	Hyd. volume	=	2,112 cuft
Inflow hyd. No.	=	2 - POST DEV-A	Max. Elevation	=	371.52 ft
Reservoir name	=	DETENTION	Max. Storage	=	1,846 cuft

Storage Indication method used.



Pond Report

Pond No. 1 - DETENTION

Pond Data

Contours -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 370.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	370.00	850	0	0
0.50	370.50	1,080	481	481
1.50	371.50	1,587	1,325	1,807
2.50	372.50	2,250	1,909	3,715
3.50	373.50	3,045	2,637	6,352

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	Inactive	0.00	0.00	0.00
Span (in)	= 18.00	0.00	0.00	0.00
No. Barrels	= 1	0	0	0
Invert El. (ft)	= 368.00	0.00	0.00	0.00
Length (ft)	= 30.00	0.00	0.00	0.00
Slope (%)	= 1.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

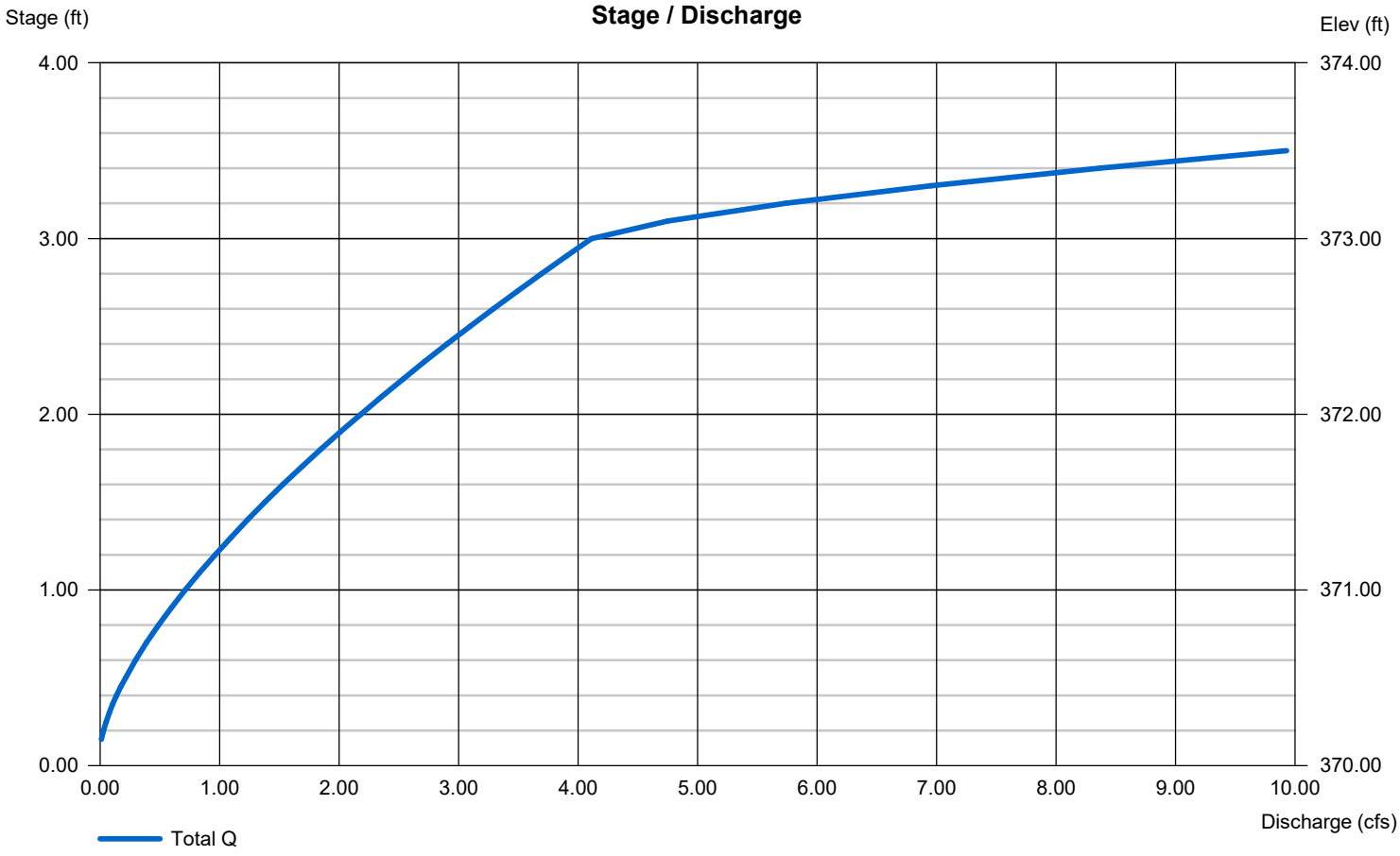
Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 0.25	4.00	0.00	0.00
Crest El. (ft)	= 370.10	373.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	Rect	Rect	---
Multi-Stage	= No	No	No	No

Exfil.(in/hr) = 0.000 (by Contour)

TW Elev. (ft) = 0.00

Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2025

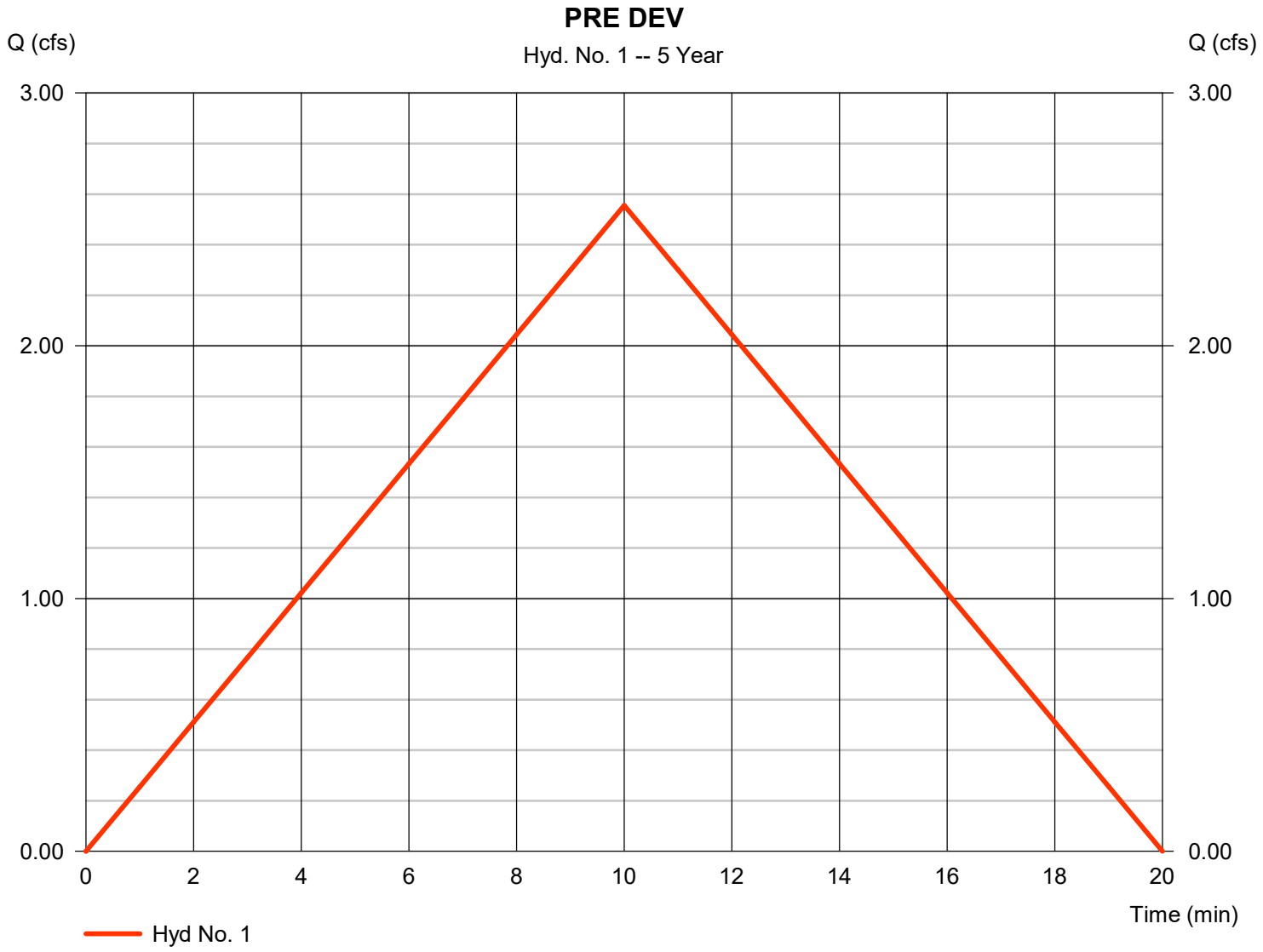
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	2.555	1	10	1,533	------	------	------	PRE DEV
2	Rational	8.755	1	5	2,627	------	------	------	POST DEV-A
3	Reservoir	1.674	1	9	2,525	2	371.69	2,175	RESERVOIR

Hydrograph Report

Hyd. No. 1

PRE DEV

Hydrograph type	=	Rational	Peak discharge	=	2.555 cfs
Storm frequency	=	5 yrs	Time to peak	=	10 min
Time interval	=	1 min	Hyd. volume	=	1,533 cuft
Drainage area	=	0.930 ac	Runoff coeff.	=	0.49
Intensity	=	5.608 in/hr	Tc by User	=	10.00 min
IDF Curve	=	26-0791 IDF.IDF	Asc/Rec limb fact	=	1/1

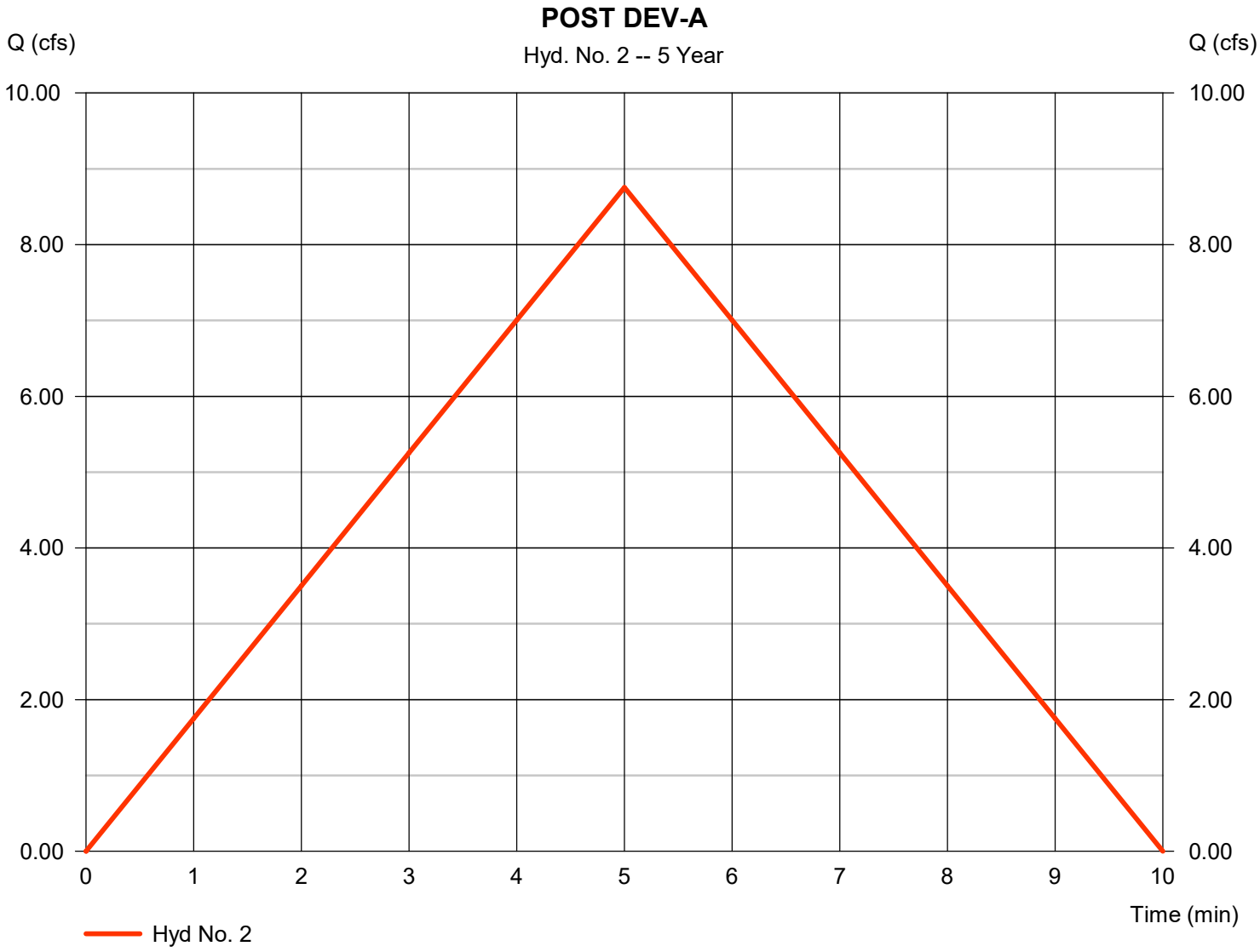


Hydrograph Report

Hyd. No. 2

POST DEV-A

Hydrograph type	=	Rational	Peak discharge	=	8.755 cfs
Storm frequency	=	5 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	2,627 cuft
Drainage area	=	1.270 ac	Runoff coeff.	=	0.95
Intensity	=	7.257 in/hr	Tc by User	=	5.00 min
IDF Curve	=	26-0791 IDF.IDF	Asc/Rec limb fact	=	1/1



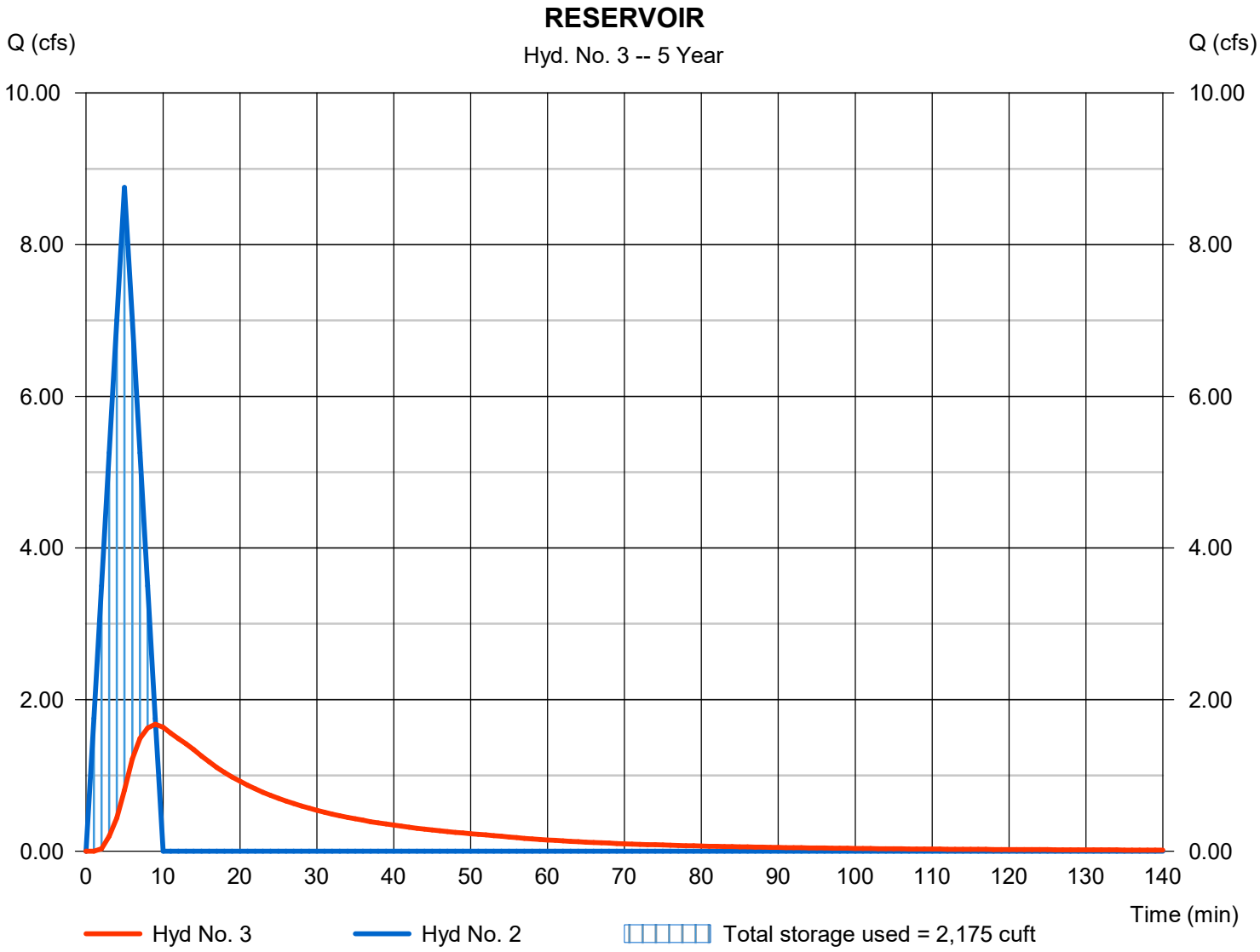
Hydrograph Report

Hyd. No. 3

RESERVOIR

Hydrograph type	=	Reservoir	Peak discharge	=	1.674 cfs
Storm frequency	=	5 yrs	Time to peak	=	9 min
Time interval	=	1 min	Hyd. volume	=	2,525 cuft
Inflow hyd. No.	=	2 - POST DEV-A	Max. Elevation	=	371.69 ft
Reservoir name	=	DETENTION	Max. Storage	=	2,175 cuft

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2025

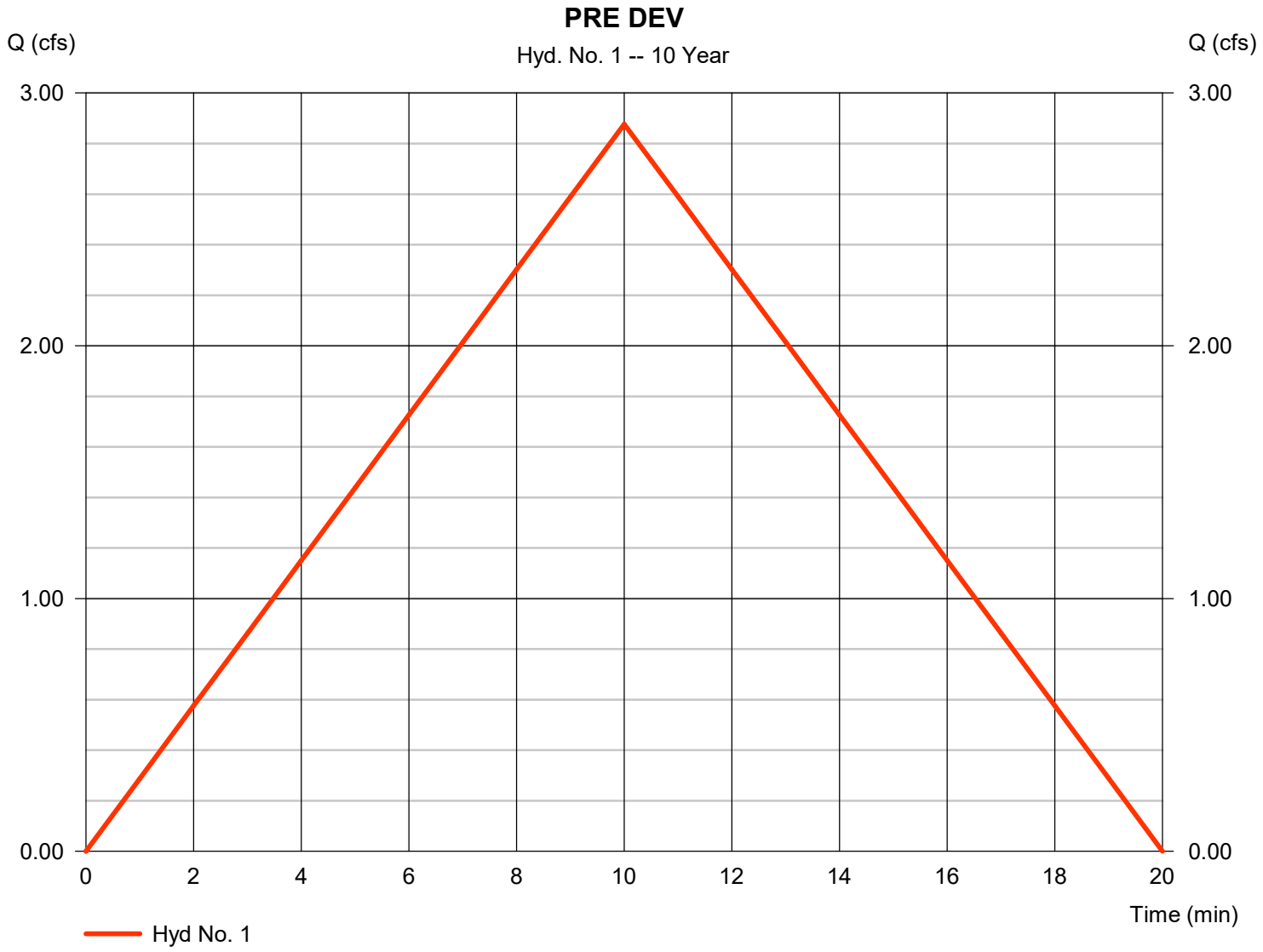
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	2.877	1	10	1,726	------	------	------	PRE DEV
2	Rational	9.837	1	5	2,951	------	------	------	POST DEV-A
3	Reservoir	1.893	1	9	2,850	2	371.83	2,434	RESERVOIR

Hydrograph Report

Hyd. No. 1

PRE DEV

Hydrograph type	=	Rational	Peak discharge	=	2.877 cfs
Storm frequency	=	10 yrs	Time to peak	=	10 min
Time interval	=	1 min	Hyd. volume	=	1,726 cuft
Drainage area	=	0.930 ac	Runoff coeff.	=	0.49
Intensity	=	6.313 in/hr	Tc by User	=	10.00 min
IDF Curve	=	26-0791 IDF.IDF	Asc/Rec limb fact	=	1/1

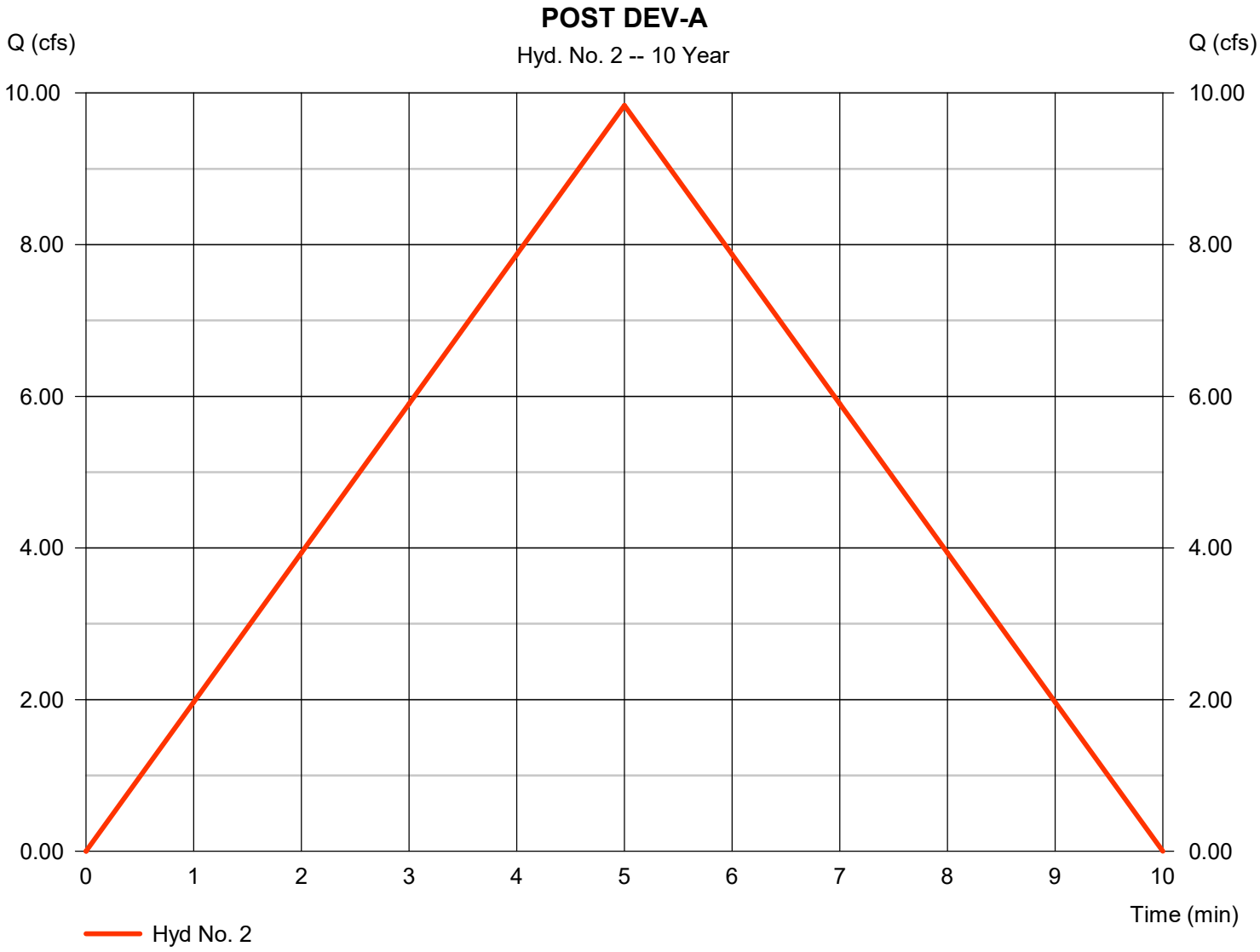


Hydrograph Report

Hyd. No. 2

POST DEV-A

Hydrograph type	=	Rational	Peak discharge	=	9.837 cfs
Storm frequency	=	10 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	2,951 cuft
Drainage area	=	1.270 ac	Runoff coeff.	=	0.95
Intensity	=	8.153 in/hr	Tc by User	=	5.00 min
IDF Curve	=	26-0791 IDF.IDF	Asc/Rec limb fact	=	1/1



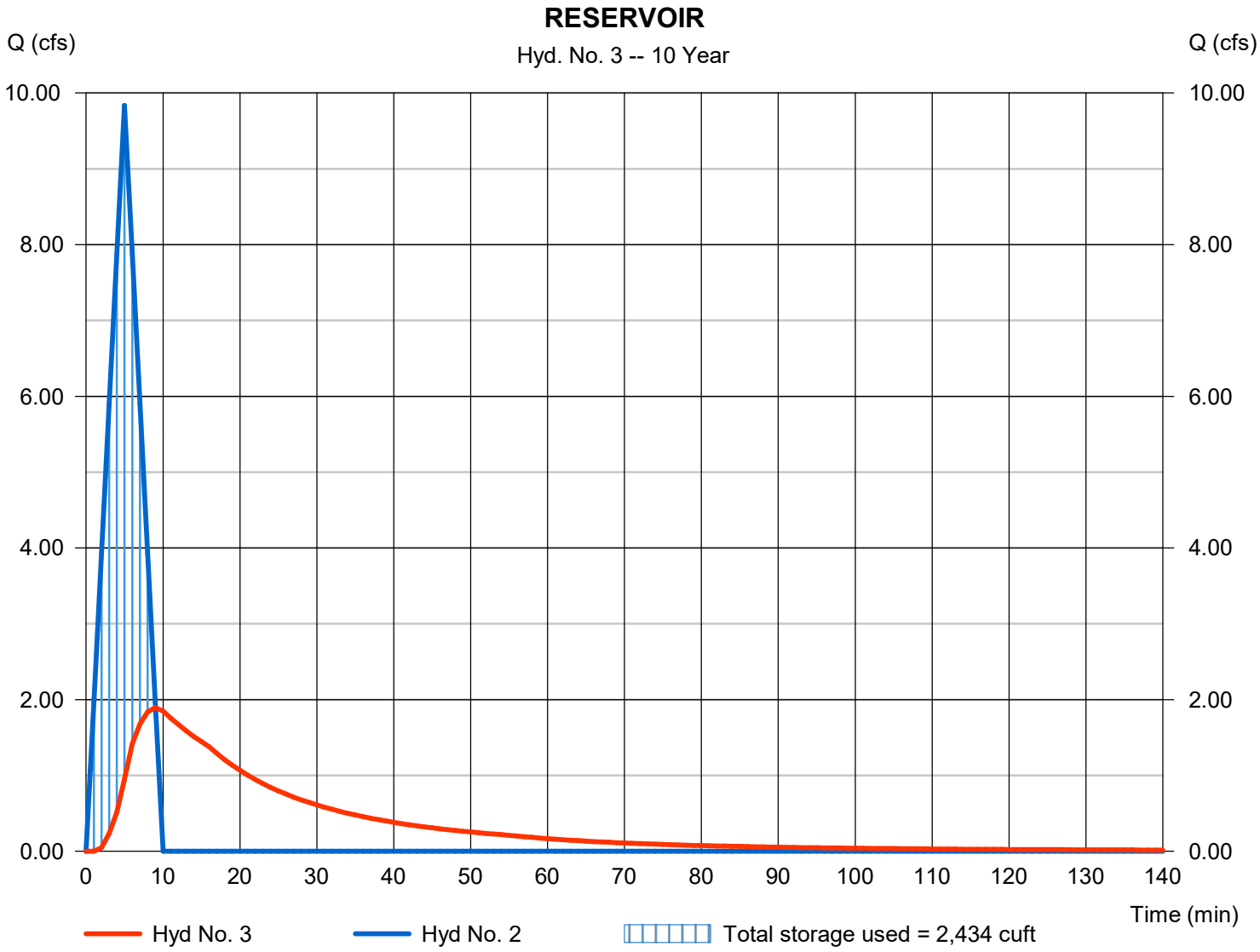
Hydrograph Report

Hyd. No. 3

RESERVOIR

Hydrograph type	=	Reservoir	Peak discharge	=	1.893 cfs
Storm frequency	=	10 yrs	Time to peak	=	9 min
Time interval	=	1 min	Hyd. volume	=	2,850 cuft
Inflow hyd. No.	=	2 - POST DEV-A	Max. Elevation	=	371.83 ft
Reservoir name	=	DETENTION	Max. Storage	=	2,434 cuft

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2025

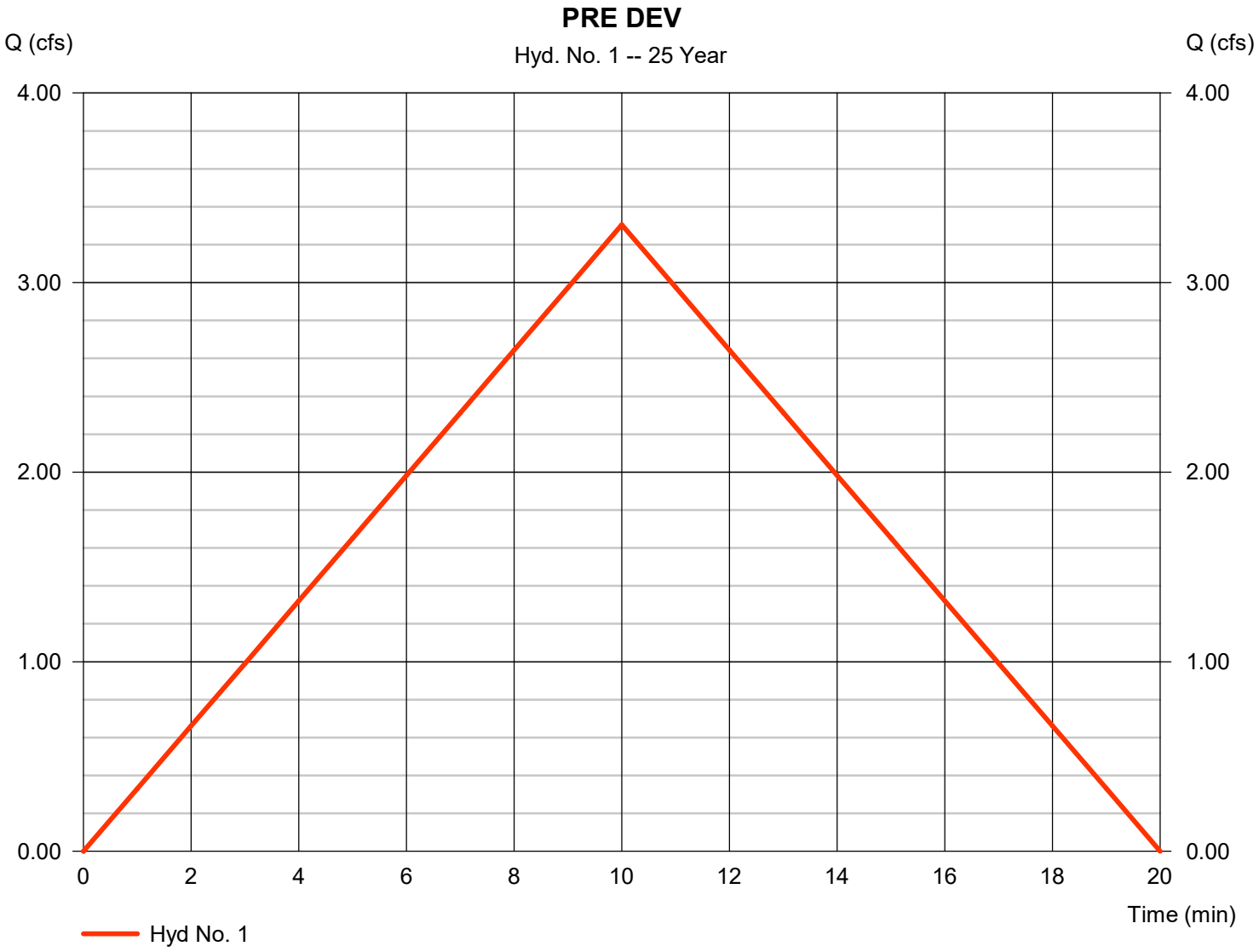
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	3.304	1	10	1,983	------	------	------	PRE DEV
2	Rational	11.29	1	5	3,387	------	------	------	POST DEV-A
3	Reservoir	2.200	1	9	3,285	2	372.01	2,782	RESERVOIR

Hydrograph Report

Hyd. No. 1

PRE DEV

Hydrograph type	=	Rational	Peak discharge	=	3.304 cfs
Storm frequency	=	25 yrs	Time to peak	=	10 min
Time interval	=	1 min	Hyd. volume	=	1,983 cuft
Drainage area	=	0.930 ac	Runoff coeff.	=	0.49
Intensity	=	7.251 in/hr	Tc by User	=	10.00 min
IDF Curve	=	26-0791 IDF.IDF	Asc/Rec limb fact	=	1/1

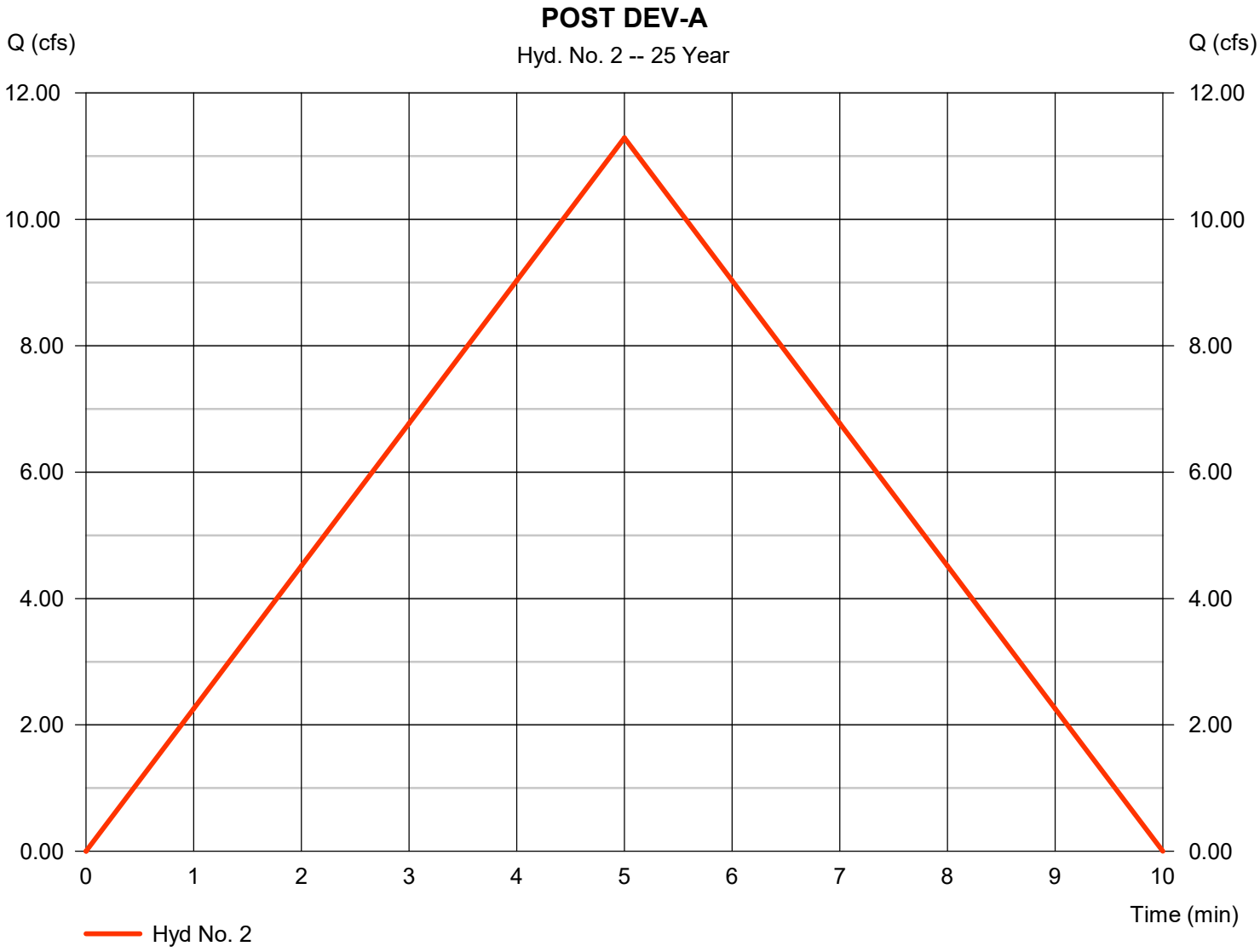


Hydrograph Report

Hyd. No. 2

POST DEV-A

Hydrograph type	=	Rational	Peak discharge	=	11.29 cfs
Storm frequency	=	25 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	3,387 cuft
Drainage area	=	1.270 ac	Runoff coeff.	=	0.95
Intensity	=	9.356 in/hr	Tc by User	=	5.00 min
IDF Curve	=	26-0791 IDF.IDF	Asc/Rec limb fact	=	1/1



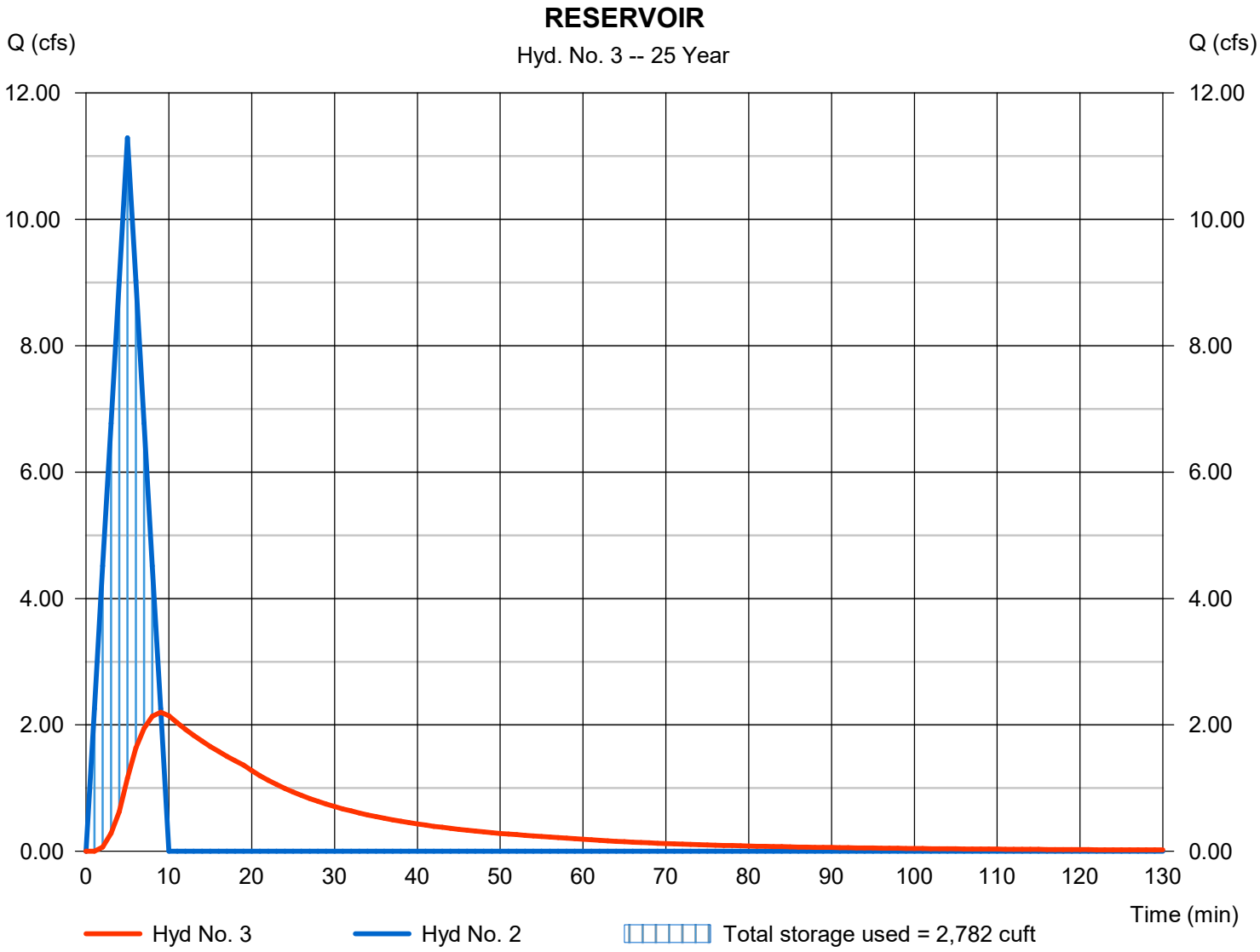
Hydrograph Report

Hyd. No. 3

RESERVOIR

Hydrograph type	=	Reservoir	Peak discharge	=	2.200 cfs
Storm frequency	=	25 yrs	Time to peak	=	9 min
Time interval	=	1 min	Hyd. volume	=	3,285 cuft
Inflow hyd. No.	=	2 - POST DEV-A	Max. Elevation	=	372.01 ft
Reservoir name	=	DETENTION	Max. Storage	=	2,782 cuft

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2025

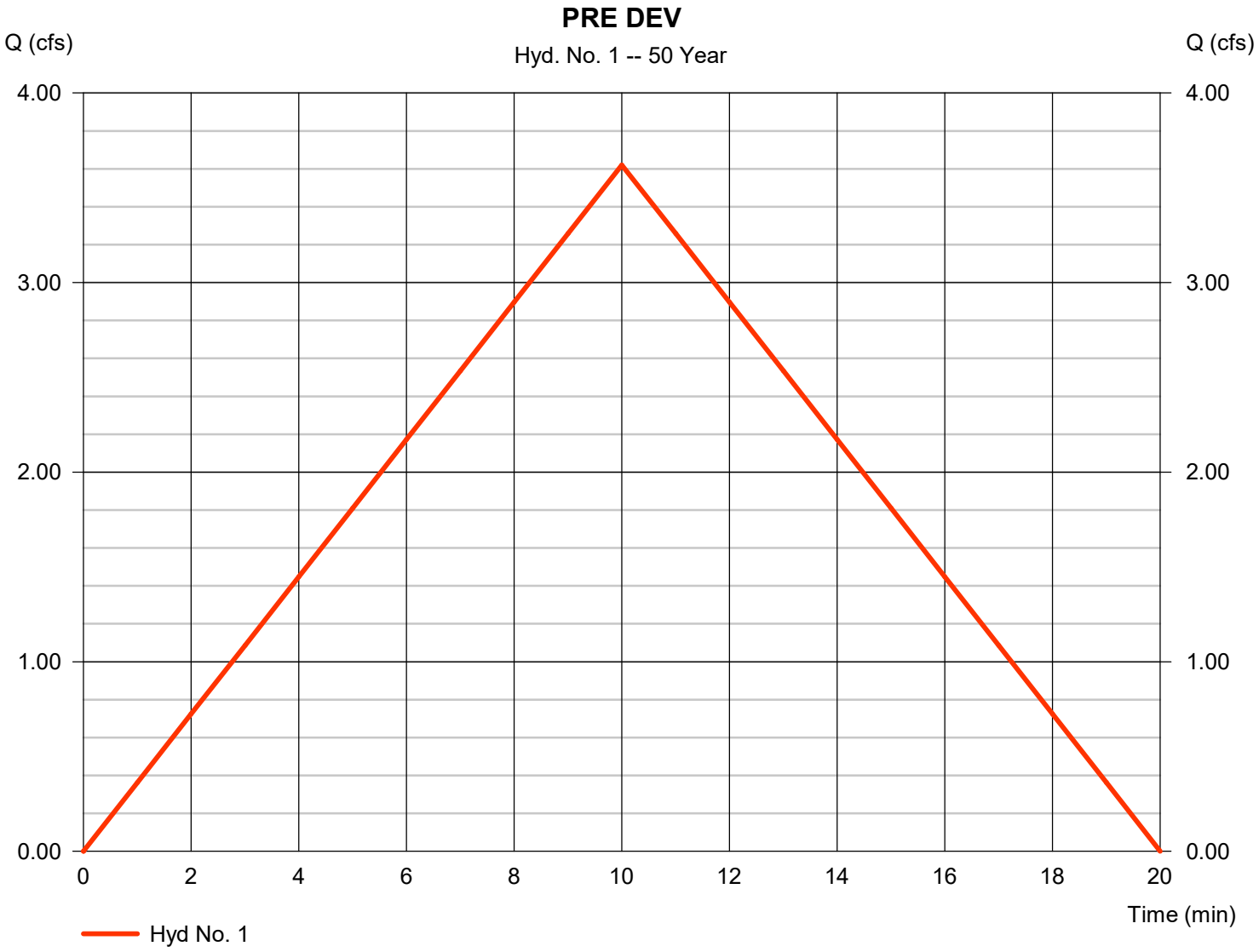
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	3.620	1	10	2,172	------	------	------	PRE DEV
2	Rational	12.43	1	5	3,728	------	------	------	POST DEV-A
3	Reservoir	2.449	1	9	3,626	2	372.15	3,053	RESERVOIR

Hydrograph Report

Hyd. No. 1

PRE DEV

Hydrograph type	=	Rational	Peak discharge	=	3.620 cfs
Storm frequency	=	50 yrs	Time to peak	=	10 min
Time interval	=	1 min	Hyd. volume	=	2,172 cuft
Drainage area	=	0.930 ac	Runoff coeff.	=	0.49
Intensity	=	7.945 in/hr	Tc by User	=	10.00 min
IDF Curve	=	26-0791 IDF.IDF	Asc/Rec limb fact	=	1/1

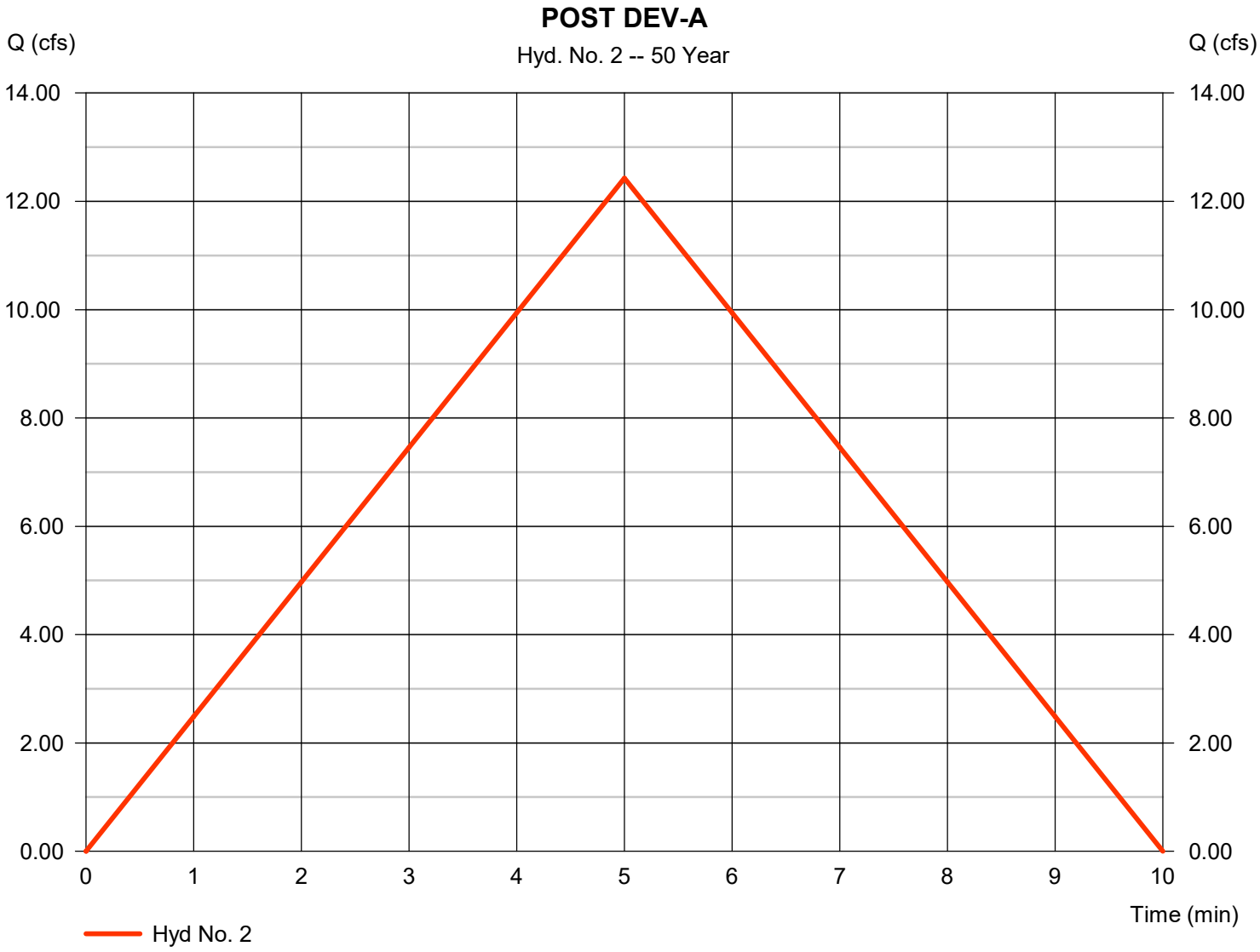


Hydrograph Report

Hyd. No. 2

POST DEV-A

Hydrograph type	=	Rational	Peak discharge	=	12.43 cfs
Storm frequency	=	50 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	3,728 cuft
Drainage area	=	1.270 ac	Runoff coeff.	=	0.95
Intensity	=	10.300 in/hr	Tc by User	=	5.00 min
IDF Curve	=	26-0791 IDF.IDF	Asc/Rec limb fact	=	1/1



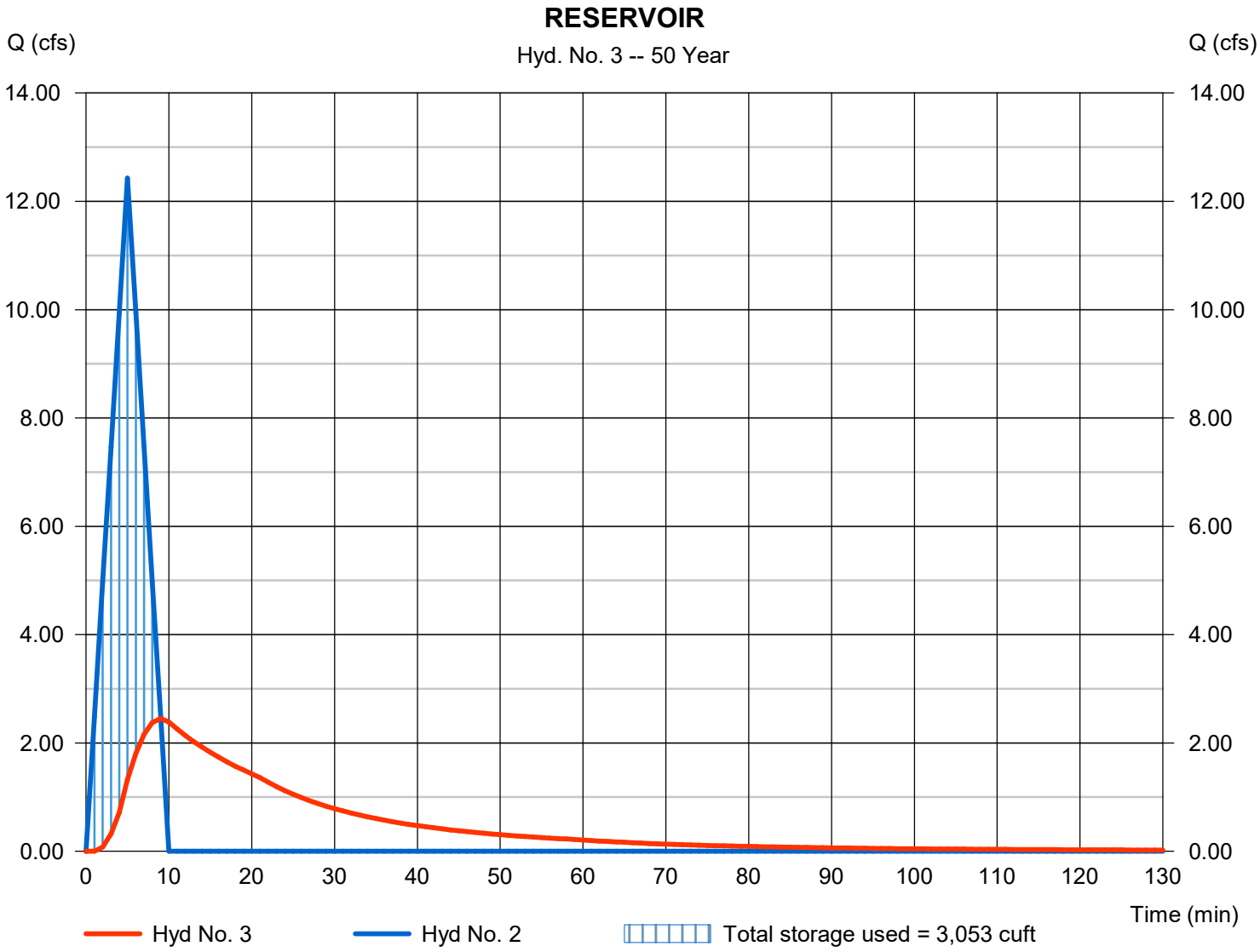
Hydrograph Report

Hyd. No. 3

RESERVOIR

Hydrograph type	=	Reservoir	Peak discharge	=	2.449 cfs
Storm frequency	=	50 yrs	Time to peak	=	9 min
Time interval	=	1 min	Hyd. volume	=	3,626 cuft
Inflow hyd. No.	=	2 - POST DEV-A	Max. Elevation	=	372.15 ft
Reservoir name	=	DETENTION	Max. Storage	=	3,053 cuft

Storage Indication method used.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2025

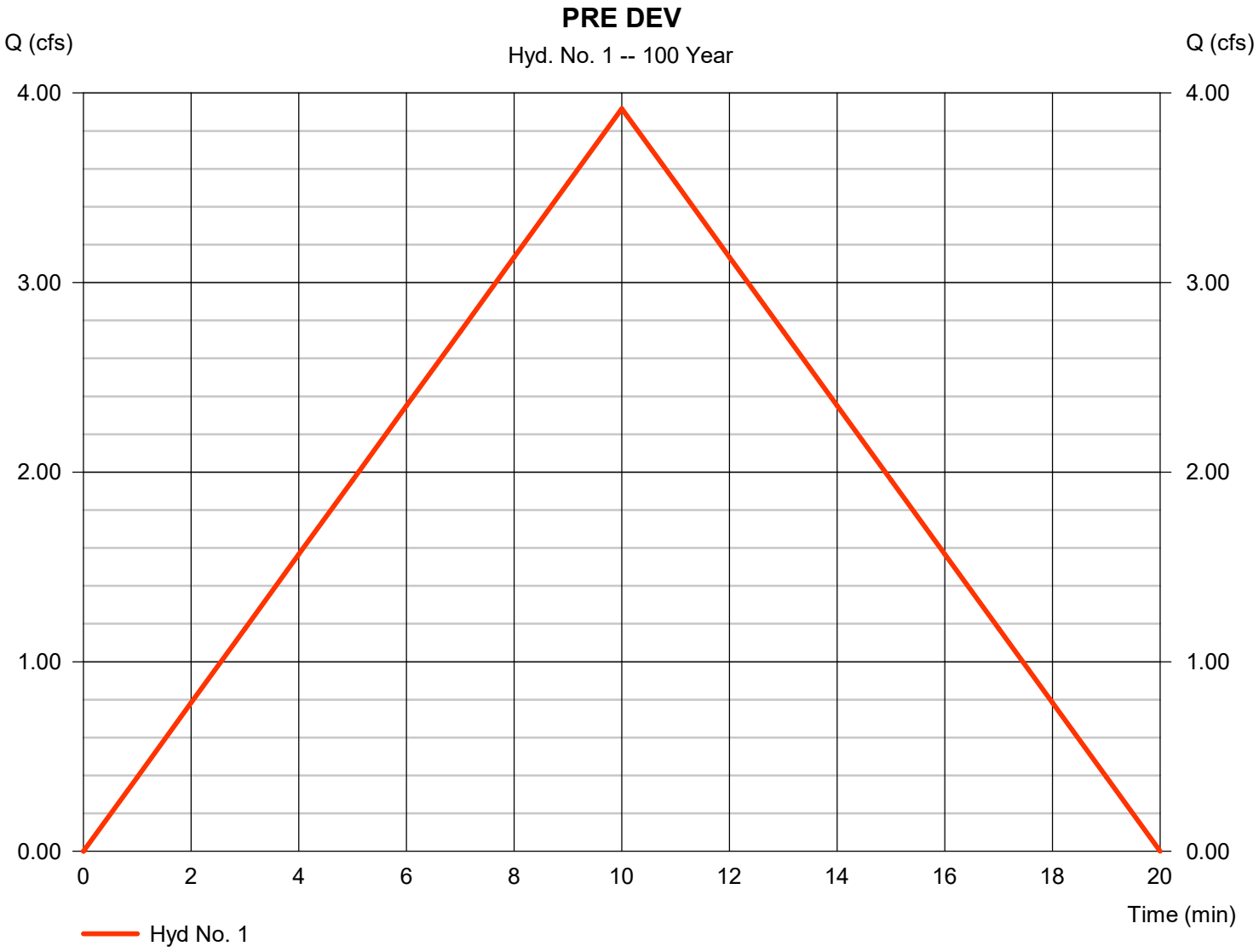
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	Rational	3.917	1	10	2,350	------	------	------	PRE DEV
2	Rational	13.48	1	5	4,044	------	------	------	POST DEV-A
3	Reservoir	2.688	1	9	3,943	2	372.28	3,303	RESERVOIR

Hydrograph Report

Hyd. No. 1

PRE DEV

Hydrograph type	=	Rational	Peak discharge	=	3.917 cfs
Storm frequency	=	100 yrs	Time to peak	=	10 min
Time interval	=	1 min	Hyd. volume	=	2,350 cuft
Drainage area	=	0.930 ac	Runoff coeff.	=	0.49
Intensity	=	8.596 in/hr	Tc by User	=	10.00 min
IDF Curve	=	26-0791 IDF.IDF	Asc/Rec limb fact	=	1/1

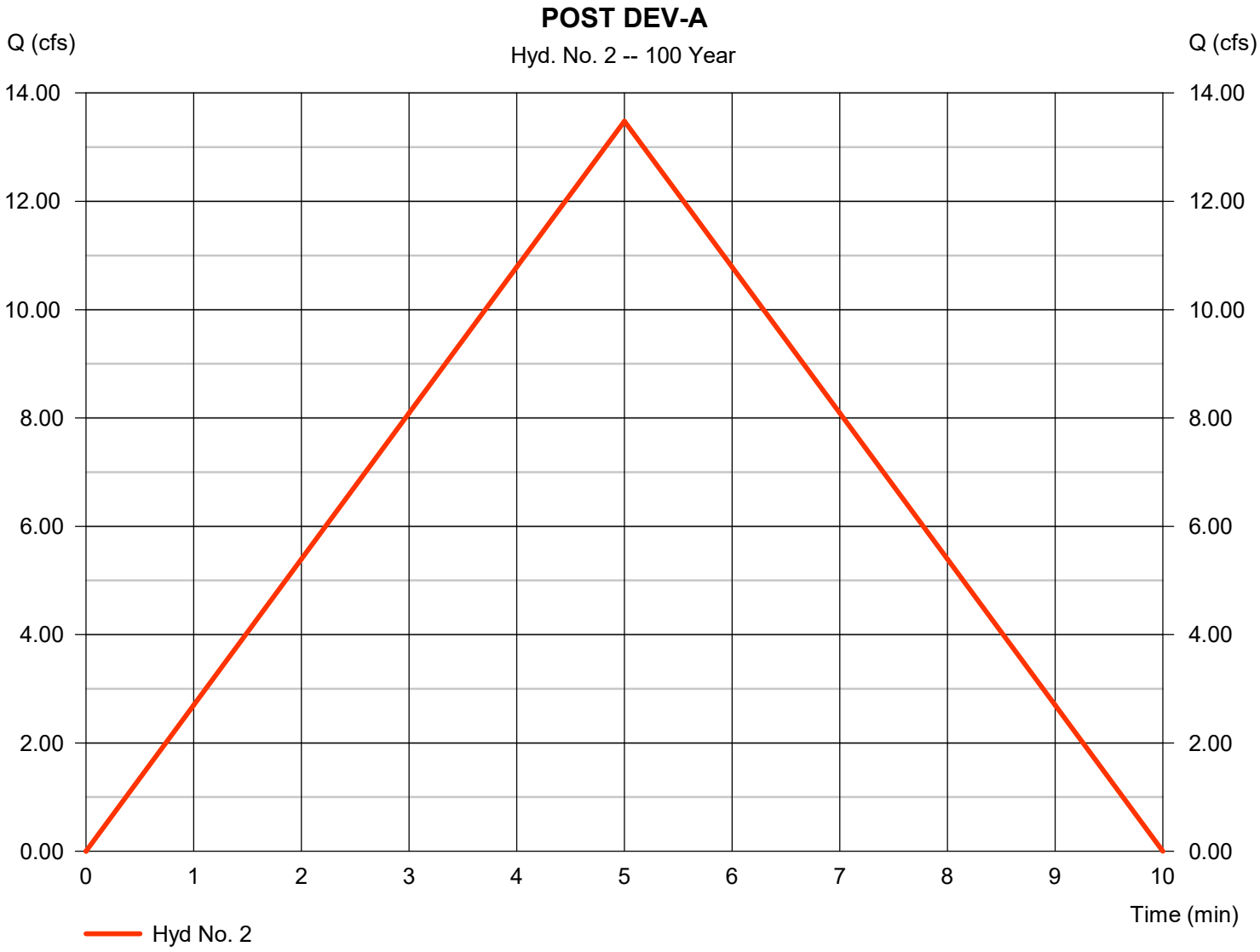


Hydrograph Report

Hyd. No. 2

POST DEV-A

Hydrograph type	=	Rational	Peak discharge	=	13.48 cfs
Storm frequency	=	100 yrs	Time to peak	=	5 min
Time interval	=	1 min	Hyd. volume	=	4,044 cuft
Drainage area	=	1.270 ac	Runoff coeff.	=	0.95
Intensity	=	11.174 in/hr	Tc by User	=	5.00 min
IDF Curve	=	26-0791 IDF.IDF	Asc/Rec limb fact	=	1/1



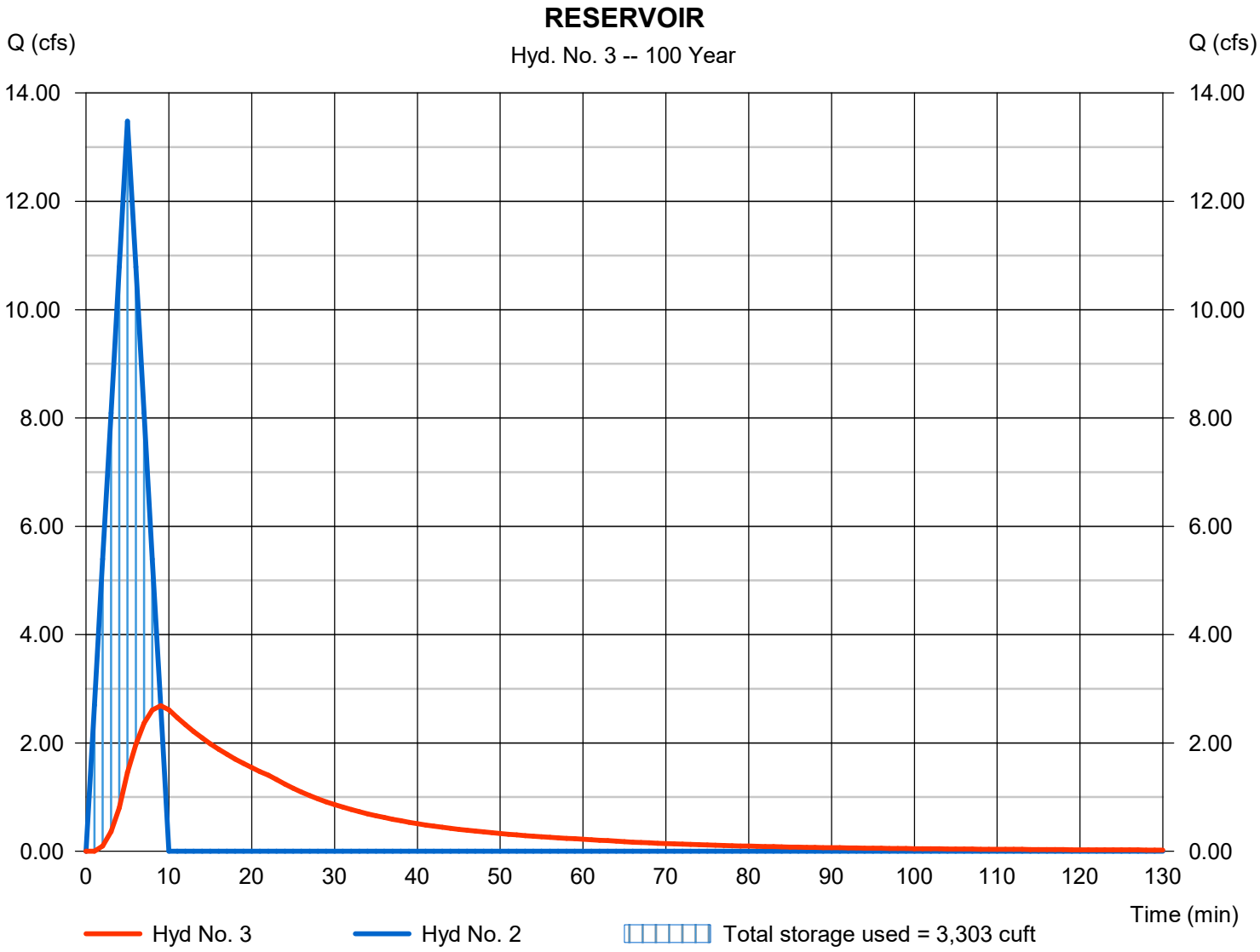
Hydrograph Report

Hyd. No. 3

RESERVOIR

Hydrograph type	=	Reservoir	Peak discharge	=	2.688 cfs
Storm frequency	=	100 yrs	Time to peak	=	9 min
Time interval	=	1 min	Hyd. volume	=	3,943 cuft
Inflow hyd. No.	=	2 - POST DEV-A	Max. Elevation	=	372.28 ft
Reservoir name	=	DETENTION	Max. Storage	=	3,303 cuft

Storage Indication method used.



Hydraflow Rainfall Report

Return Period (Yrs)	Intensity-Duration-Frequency Equation Coefficients (FHA)			
	B	D	E	(N/A)
1	23.7902	4.9000	0.6469	--------
2	29.2027	5.5000	0.6650	--------
3	0.0000	0.0000	0.0000	--------
5	34.4145	5.5000	0.6620	--------
10	39.6208	5.7000	0.6670	--------
25	45.2262	5.7000	0.6648	--------
50	46.6831	5.2000	0.6507	--------
100	47.7305	4.8000	0.6362	--------

File name: 26-0791 IDF.IDF

Intensity = B / (Tc + D)^E

Return Period (Yrs)	Intensity Values (in/hr)											
	5 min	10	15	20	25	30	35	40	45	50	55	60
1	5.40	4.14	3.44	2.97	2.64	2.39	2.19	2.03	1.90	1.78	1.69	1.60
2	6.11	4.72	3.92	3.39	3.01	2.72	2.49	2.31	2.15	2.02	1.91	1.81
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	7.26	5.61	4.66	4.03	3.58	3.24	2.97	2.75	2.57	2.41	2.28	2.16
10	8.15	6.31	5.25	4.54	4.04	3.65	3.34	3.10	2.89	2.71	2.56	2.43
25	9.36	7.25	6.03	5.23	4.64	4.20	3.85	3.56	3.33	3.12	2.95	2.80
50	10.30	7.94	6.60	5.72	5.08	4.60	4.22	3.91	3.65	3.43	3.24	3.08
100	11.17	8.60	7.14	6.19	5.51	4.99	4.58	4.25	3.97	3.74	3.54	3.36

Tc = time in minutes. Values may exceed 60.

Precip. file name: Sample.pcp

Storm Distribution	Rainfall Precipitation Table (in)							
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
SCS 24-hour	0.00	2.20	0.00	3.30	4.25	5.77	6.80	7.95
SCS 6-Hr	0.00	1.80	0.00	0.00	2.60	0.00	0.00	4.00
Huff-1st	0.00	1.55	0.00	2.75	4.00	5.38	6.50	8.00
Huff-2nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-3rd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-4th	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-Indy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Custom	0.00	1.75	0.00	2.80	3.90	5.25	6.00	7.10

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NOAA Atlas 14, Volume 9, Version 2
Location name: Alexander, Arkansas, USA*
Latitude: 34.6403°, Longitude: -92.4646°
Elevation: 382 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Deborah Martin, Sandra Pavlovic, Ishani Roy, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Michael Yekta, Geoffery Bonnin

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	5.40 (4.36-6.64)	6.12 (4.93-7.52)	7.26 (5.83-8.94)	8.17 (6.53-10.1)	9.38 (7.24-11.9)	10.3 (7.76-13.2)	11.2 (8.15-14.7)	12.0 (8.44-16.2)	13.1 (8.86-18.2)	13.9 (9.17-19.6)
10-min	3.95 (3.19-4.85)	4.48 (3.61-5.50)	5.31 (4.27-6.55)	5.98 (4.78-7.40)	6.88 (5.30-8.69)	7.54 (5.69-9.68)	8.17 (5.97-10.7)	8.80 (6.17-11.9)	9.59 (6.48-13.3)	10.2 (6.71-14.4)
15-min	3.21 (2.59-3.95)	3.64 (2.94-4.48)	4.32 (3.47-5.32)	4.86 (3.89-6.02)	5.59 (4.30-7.07)	6.12 (4.62-7.87)	6.64 (4.85-8.74)	7.15 (5.02-9.65)	7.80 (5.27-10.8)	8.26 (5.46-11.7)
30-min	2.39 (1.93-2.94)	2.72 (2.19-3.34)	3.24 (2.60-3.99)	3.65 (2.92-4.52)	4.20 (3.23-5.31)	4.60 (3.47-5.91)	4.99 (3.64-6.56)	5.37 (3.77-7.24)	5.84 (3.95-8.10)	6.18 (4.09-8.74)
60-min	1.60 (1.29-1.97)	1.81 (1.46-2.23)	2.16 (1.73-2.66)	2.43 (1.94-3.01)	2.80 (2.16-3.55)	3.08 (2.33-3.96)	3.36 (2.45-4.42)	3.63 (2.55-4.90)	3.98 (2.69-5.52)	4.23 (2.80-5.98)
2-hr	1.00 (0.816-1.22)	1.13 (0.922-1.38)	1.34 (1.09-1.64)	1.52 (1.22-1.86)	1.75 (1.36-2.21)	1.93 (1.47-2.47)	2.11 (1.55-2.76)	2.28 (1.62-3.07)	2.51 (1.71-3.47)	2.68 (1.79-3.77)
3-hr	0.752 (0.615-0.912)	0.849 (0.694-1.03)	1.01 (0.822-1.23)	1.14 (0.925-1.40)	1.33 (1.04-1.67)	1.47 (1.13-1.87)	1.61 (1.20-2.10)	1.76 (1.25-2.36)	1.95 (1.34-2.69)	2.10 (1.40-2.94)
6-hr	0.452 (0.373-0.544)	0.514 (0.423-0.619)	0.618 (0.507-0.746)	0.707 (0.577-0.857)	0.833 (0.660-1.04)	0.934 (0.722-1.19)	1.04 (0.776-1.35)	1.15 (0.822-1.53)	1.29 (0.893-1.77)	1.41 (0.946-1.96)
12-hr	0.265 (0.220-0.316)	0.305 (0.253-0.364)	0.373 (0.309-0.447)	0.433 (0.357-0.521)	0.520 (0.416-0.649)	0.590 (0.461-0.746)	0.664 (0.500-0.859)	0.741 (0.536-0.985)	0.848 (0.590-1.16)	0.933 (0.631-1.29)
24-hr	0.155 (0.130-0.184)	0.180 (0.151-0.214)	0.223 (0.186-0.265)	0.261 (0.217-0.311)	0.316 (0.255-0.393)	0.361 (0.284-0.454)	0.409 (0.311-0.527)	0.460 (0.335-0.608)	0.530 (0.371-0.720)	0.586 (0.399-0.805)
2-day	0.091 (0.077-0.107)	0.105 (0.088-0.123)	0.129 (0.109-0.152)	0.150 (0.126-0.178)	0.182 (0.148-0.224)	0.208 (0.165-0.259)	0.235 (0.180-0.301)	0.264 (0.194-0.347)	0.305 (0.215-0.411)	0.337 (0.231-0.460)
3-day	0.066 (0.056-0.077)	0.076 (0.065-0.089)	0.093 (0.079-0.109)	0.108 (0.091-0.128)	0.130 (0.106-0.160)	0.148 (0.118-0.184)	0.167 (0.128-0.212)	0.187 (0.138-0.244)	0.214 (0.152-0.288)	0.236 (0.163-0.321)
4-day	0.053 (0.045-0.062)	0.061 (0.052-0.071)	0.074 (0.063-0.087)	0.086 (0.072-0.101)	0.103 (0.084-0.125)	0.116 (0.093-0.144)	0.131 (0.101-0.166)	0.146 (0.108-0.190)	0.167 (0.118-0.223)	0.183 (0.126-0.248)
7-day	0.035 (0.030-0.040)	0.040 (0.034-0.046)	0.048 (0.041-0.056)	0.055 (0.047-0.064)	0.065 (0.054-0.079)	0.074 (0.059-0.090)	0.082 (0.063-0.103)	0.091 (0.067-0.117)	0.103 (0.073-0.137)	0.112 (0.078-0.151)
10-day	0.028 (0.024-0.032)	0.031 (0.027-0.036)	0.037 (0.032-0.043)	0.042 (0.036-0.049)	0.050 (0.041-0.060)	0.055 (0.045-0.067)	0.061 (0.048-0.077)	0.067 (0.050-0.087)	0.076 (0.054-0.100)	0.082 (0.057-0.110)
20-day	0.018 (0.016-0.021)	0.020 (0.018-0.023)	0.024 (0.020-0.027)	0.026 (0.023-0.030)	0.030 (0.025-0.036)	0.033 (0.027-0.040)	0.036 (0.028-0.044)	0.039 (0.029-0.049)	0.043 (0.031-0.056)	0.046 (0.032-0.061)
30-day	0.015 (0.013-0.017)	0.016 (0.014-0.019)	0.019 (0.016-0.021)	0.021 (0.018-0.024)	0.024 (0.020-0.028)	0.026 (0.021-0.031)	0.028 (0.022-0.034)	0.030 (0.022-0.038)	0.032 (0.023-0.042)	0.034 (0.024-0.046)
45-day	0.012 (0.010-0.014)	0.013 (0.012-0.015)	0.015 (0.013-0.017)	0.017 (0.015-0.019)	0.019 (0.016-0.023)	0.021 (0.017-0.025)	0.022 (0.018-0.028)	0.024 (0.018-0.030)	0.026 (0.019-0.034)	0.028 (0.019-0.037)
60-day	0.010 (0.009-0.011)	0.011 (0.010-0.013)	0.013 (0.012-0.015)	0.015 (0.013-0.017)	0.017 (0.014-0.020)	0.018 (0.015-0.022)	0.020 (0.016-0.024)	0.021 (0.016-0.027)	0.023 (0.017-0.030)	0.024 (0.017-0.032)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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PF graphical