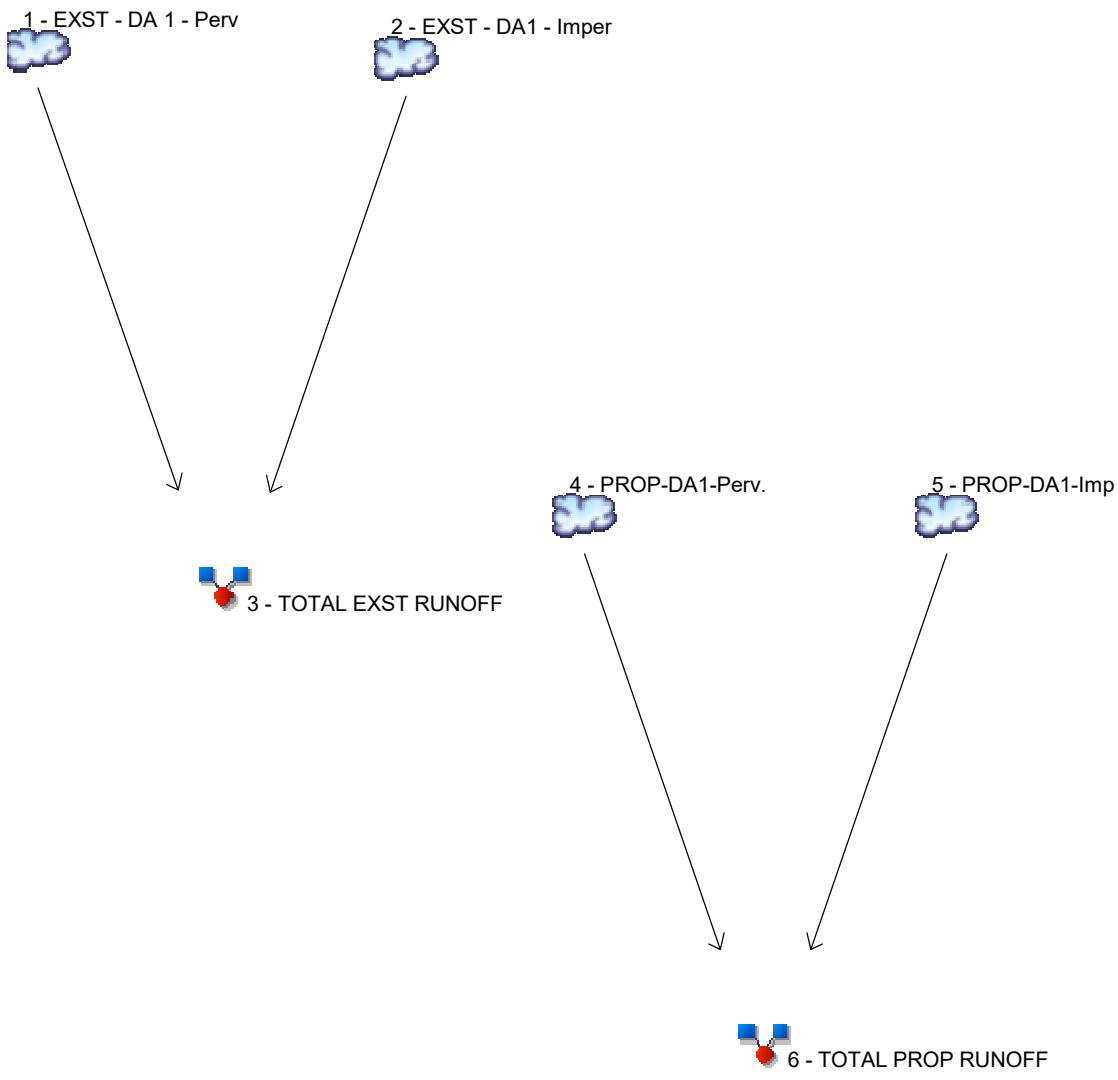
Watershed Model Schematic

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020



Legend

Hyd.	Origin	Description
1	SCS Runoff	EXST - DA 1 - Perv
2	SCS Runoff	EXST - DA1 - Imper
3	Combine	TOTAL EXST RUNOFF
4	SCS Runoff	PROP-DA1-Perv.
5	SCS Runoff	PROP-DA1-Imp
6	Combine	TOTAL PROP RUNOFF

Hydrograph Return Period Recap

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020

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	SCS Runoff	------	-------	0.140	-------	-------	0.267	0.348	0.408	0.473	EXST - DA 1 - Perv
2	SCS Runoff	------	-------	0.937	-------	-------	1.467	1.798	2.043	2.308	EXST - DA1 - Imper
3	Combine	1, 2	-------	1.077	-------	-------	1.734	2.146	2.451	2.781	TOTAL EXST RUNOFF
4	SCS Runoff	------	-------	0.154	-------	-------	0.293	0.382	0.447	0.519	PROP-DA1-Perv.
5	SCS Runoff	------	-------	0.916	-------	-------	1.434	1.757	1.997	2.256	PROP-DA1-Imp
6	Combine	4, 5	-------	1.070	-------	-------	1.727	2.139	2.444	2.775	TOTAL PROP RUNOFF

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020

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	SCS Runoff	0.140	2	724	418	------	------	------	EXST - DA 1 - Perv
2	SCS Runoff	0.937	2	724	3,162	------	------	------	EXST - DA1 - Imper
3	Combine	1.077	2	724	3,581	1, 2	------	------	TOTAL EXST RUNOFF
4	SCS Runoff	0.154	2	724	459	------	------	------	PROP-DA1-Perv.
5	SCS Runoff	0.916	2	724	3,091	------	------	------	PROP-DA1-Imp
6	Combine	1.070	2	724	3,550	4, 5	------	------	TOTAL PROP RUNOFF

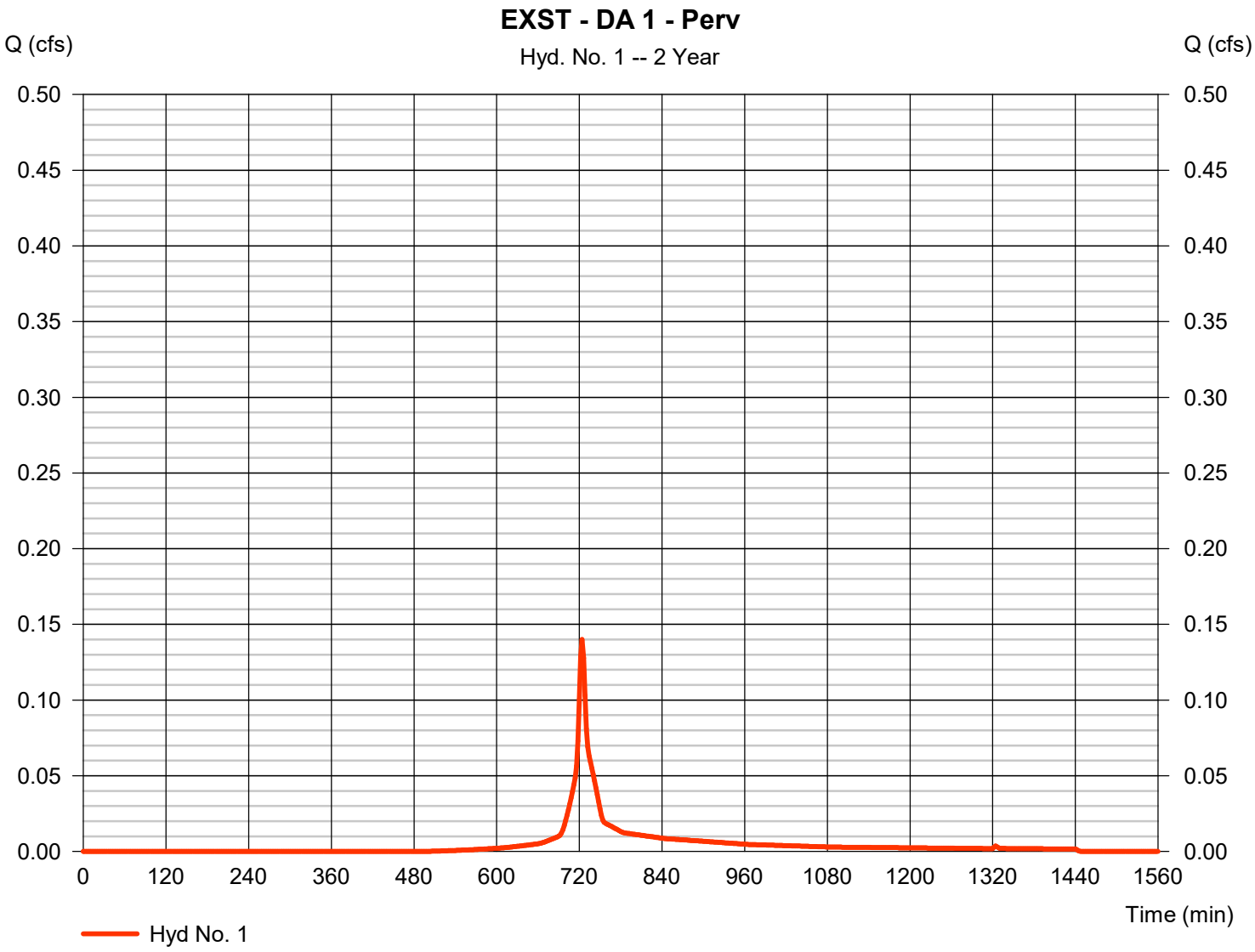
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 1

EXST - DA 1 - Perv

Hydrograph type	= SCS Runoff	Peak discharge	= 0.140 cfs
Storm frequency	= 2 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 418 cuft
Drainage area	= 0.072 ac	Curve number	= 84
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 6.00 min
Total precip.	= 3.23 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



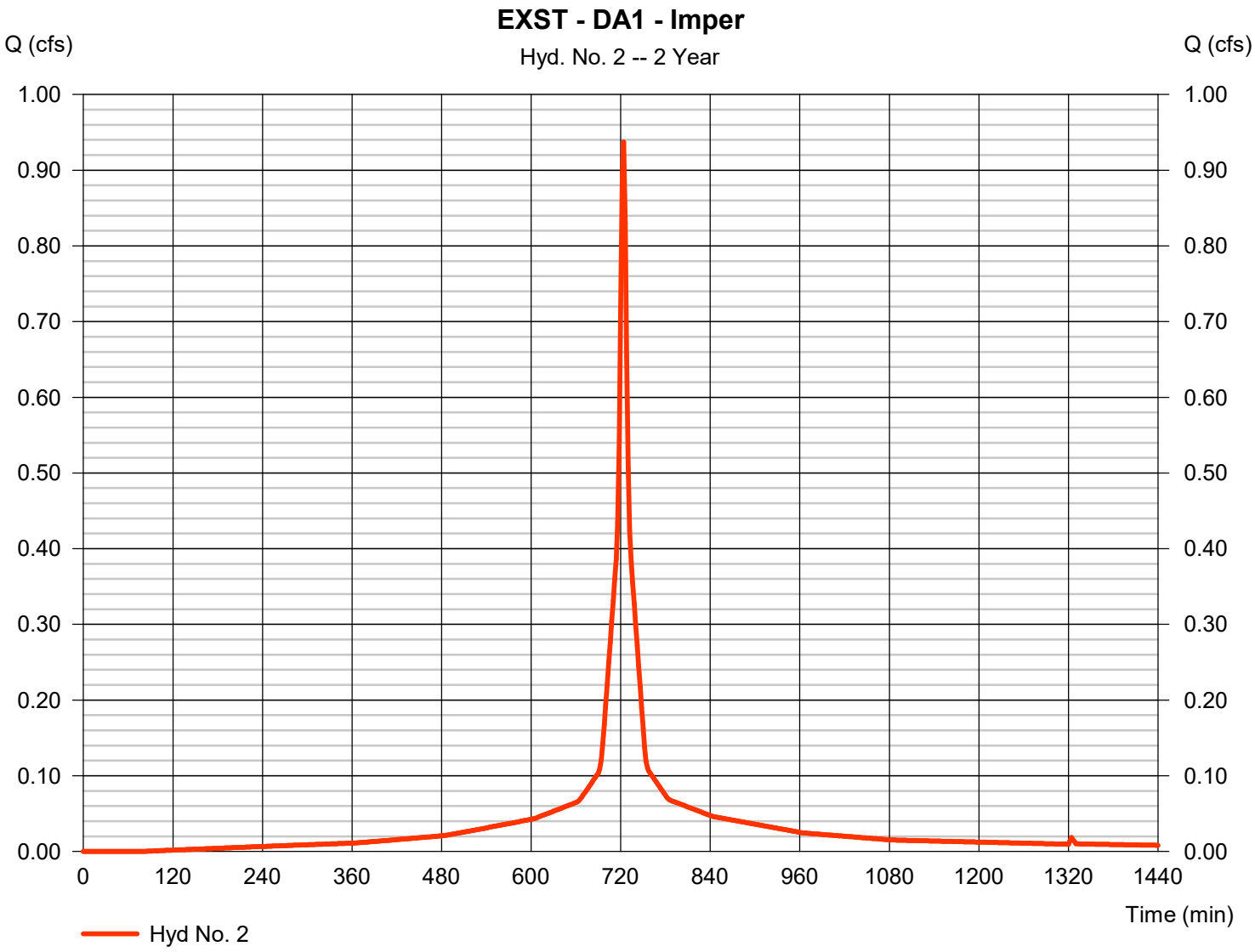
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 2

EXST - DA1 - Imper

Hydrograph type	= SCS Runoff	Peak discharge	= 0.937 cfs
Storm frequency	= 2 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 3,162 cuft
Drainage area	= 0.310 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 6.00 min
Total precip.	= 3.23 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



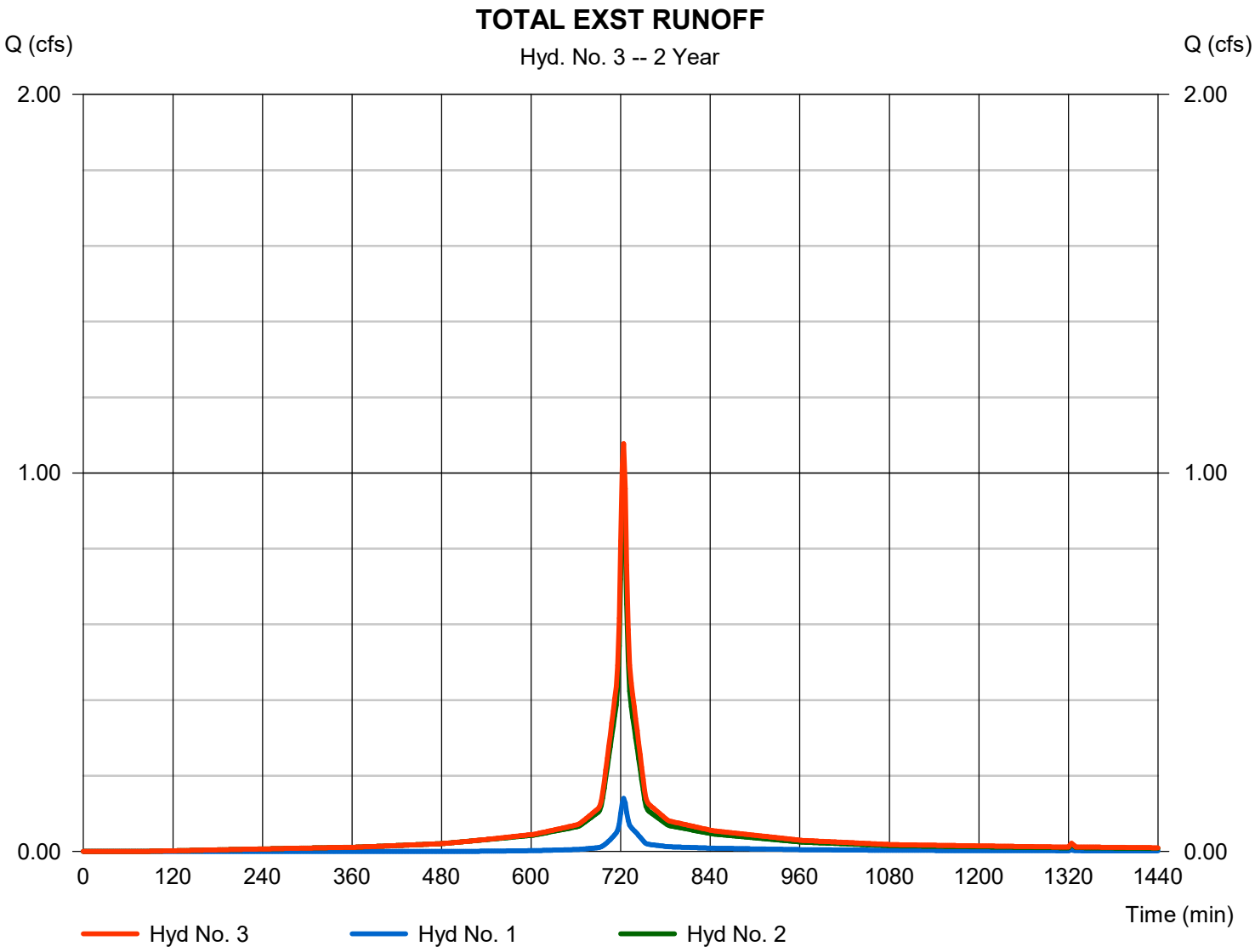
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 3

TOTAL EXST RUNOFF

Hydrograph type	= Combine	Peak discharge	= 1.077 cfs
Storm frequency	= 2 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 3,581 cuft
Inflow hyds.	= 1, 2	Contrib. drain. area	= 0.382 ac



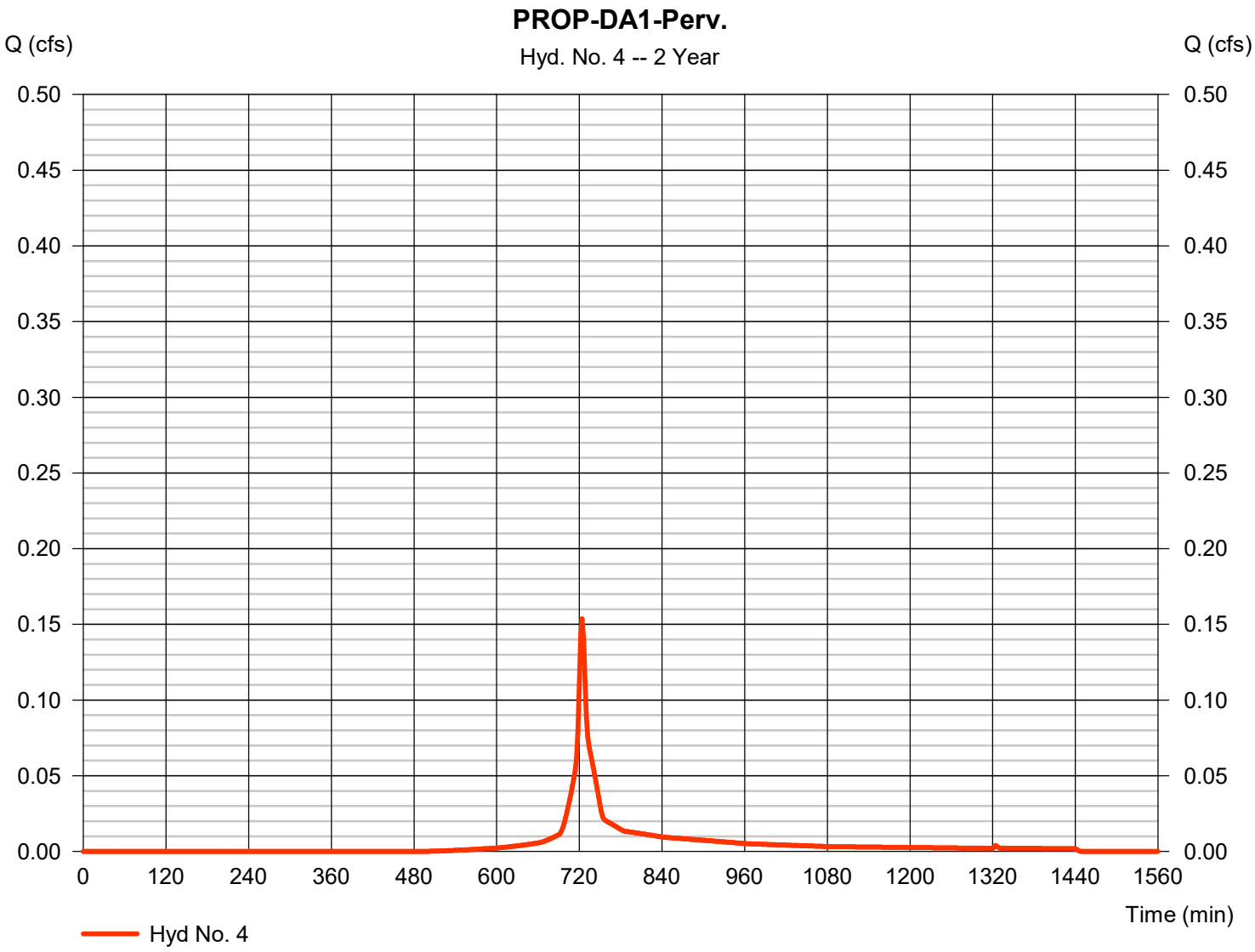
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 4

PROP-DA1-Perv.

Hydrograph type	= SCS Runoff	Peak discharge	= 0.154 cfs
Storm frequency	= 2 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 459 cuft
Drainage area	= 0.079 ac	Curve number	= 84
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 6.00 min
Total precip.	= 3.23 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



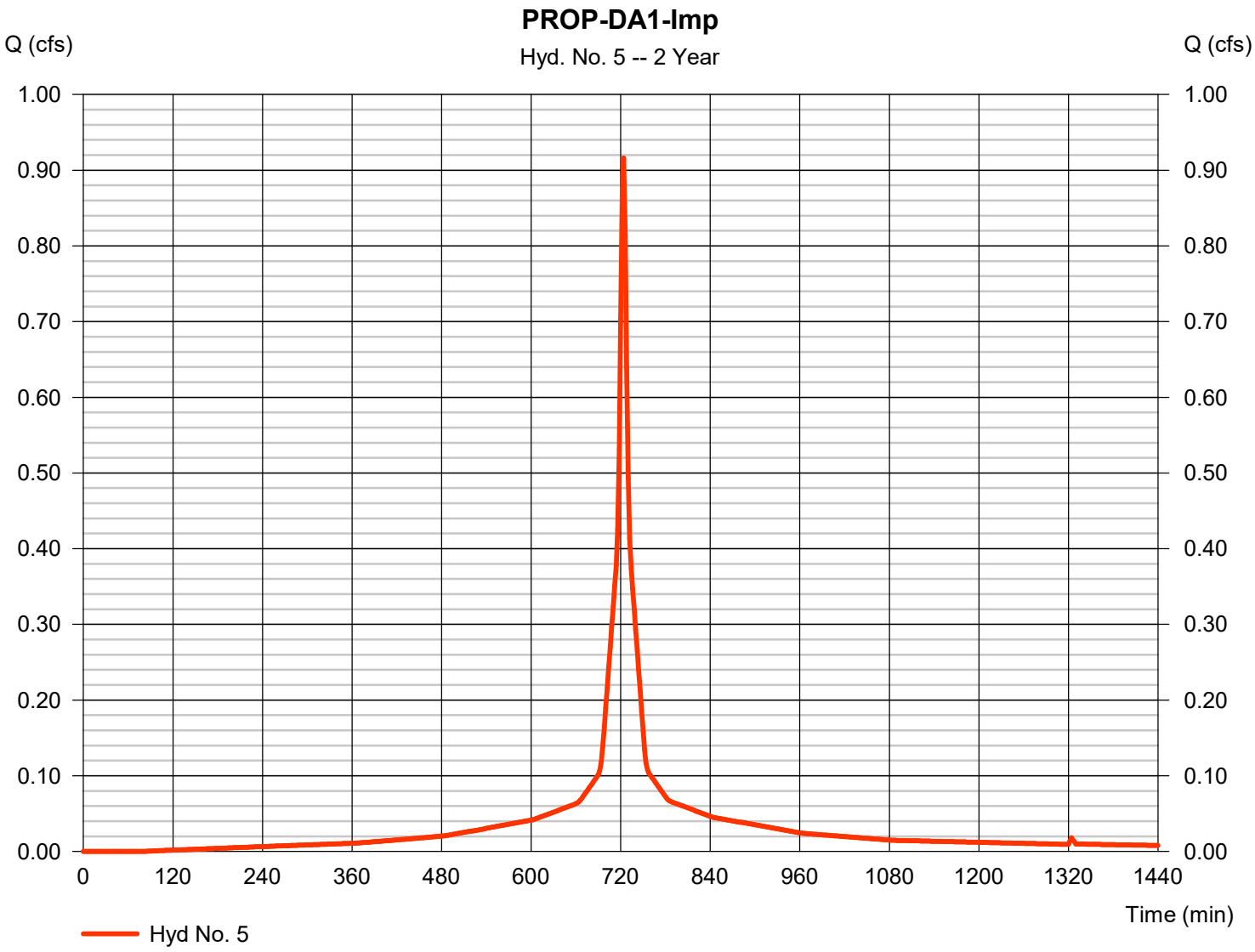
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 5

PROP-DA1-Imp

Hydrograph type	= SCS Runoff	Peak discharge	= 0.916 cfs
Storm frequency	= 2 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 3,091 cuft
Drainage area	= 0.303 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 6.00 min
Total precip.	= 3.23 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



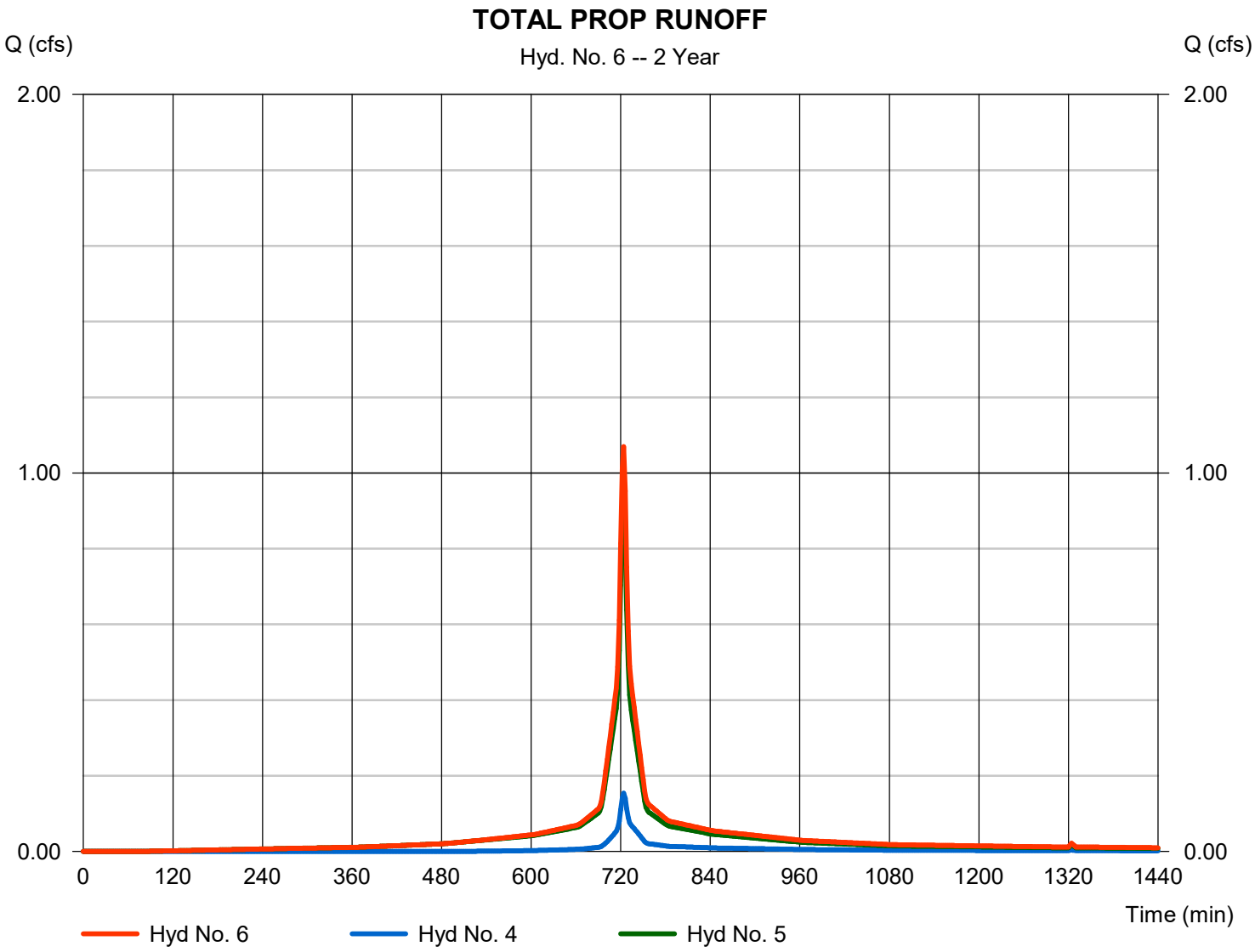
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 6

TOTAL PROP RUNOFF

Hydrograph type	= Combine	Peak discharge	= 1.070 cfs
Storm frequency	= 2 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 3,550 cuft
Inflow hyds.	= 4, 5	Contrib. drain. area	= 0.382 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020

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	SCS Runoff	0.267	2	724	806	------	------	------	EXST - DA 1 - Perv
2	SCS Runoff	1.467	2	724	5,046	------	------	------	EXST - DA1 - Imper
3	Combine	1.734	2	724	5,852	1, 2	------	------	TOTAL EXST RUNOFF
4	SCS Runoff	0.293	2	724	884	------	------	------	PROP-DA1-Perv.
5	SCS Runoff	1.434	2	724	4,932	------	------	------	PROP-DA1-Imp
6	Combine	1.727	2	724	5,816	4, 5	------	------	TOTAL PROP RUNOFF

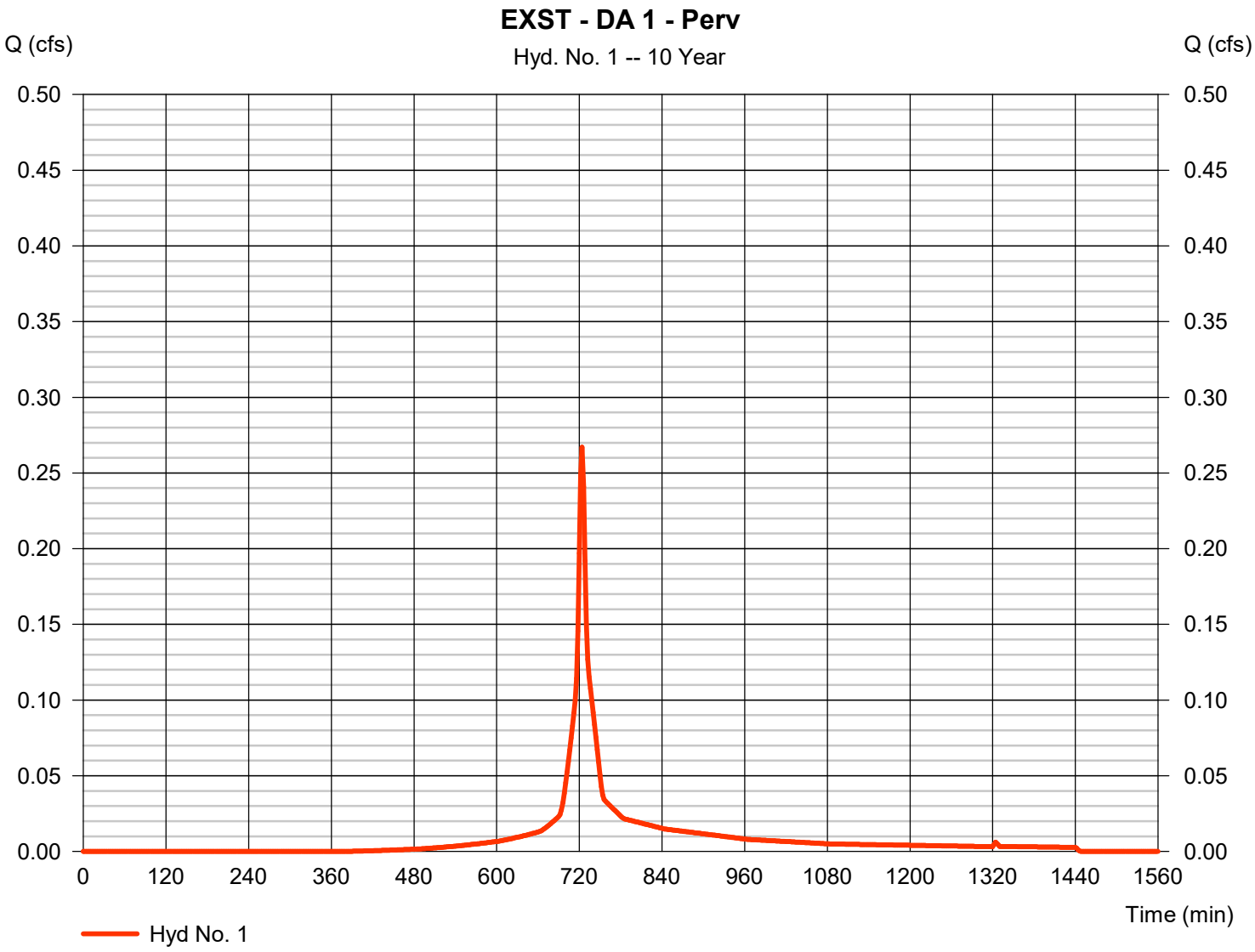
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 1

EXST - DA 1 - Perv

Hydrograph type	= SCS Runoff	Peak discharge	= 0.267 cfs
Storm frequency	= 10 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 806 cuft
Drainage area	= 0.072 ac	Curve number	= 84
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 6.00 min
Total precip.	= 5.02 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



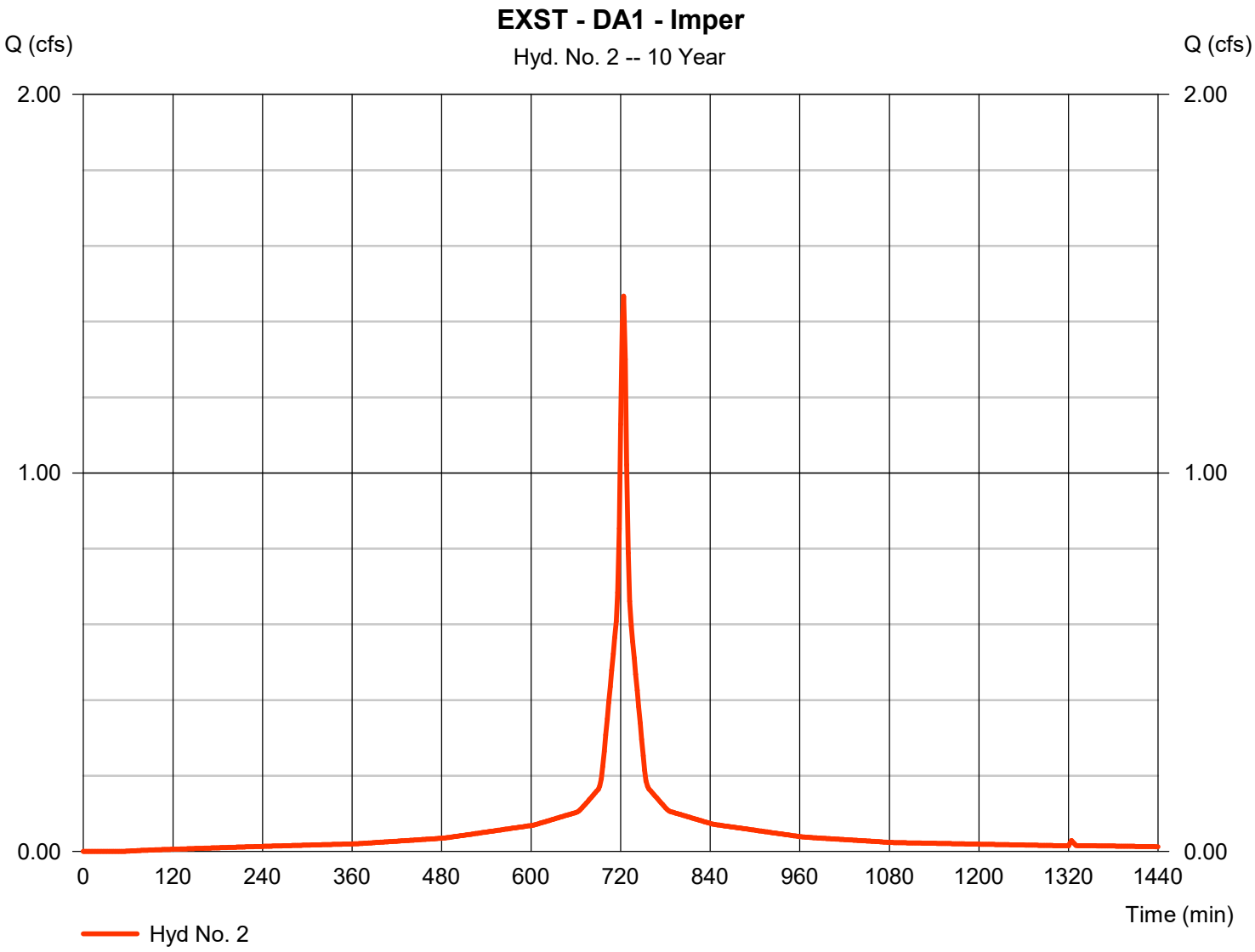
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 2

EXST - DA1 - Imper

Hydrograph type	= SCS Runoff	Peak discharge	= 1.467 cfs
Storm frequency	= 10 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 5,046 cuft
Drainage area	= 0.310 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 6.00 min
Total precip.	= 5.02 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



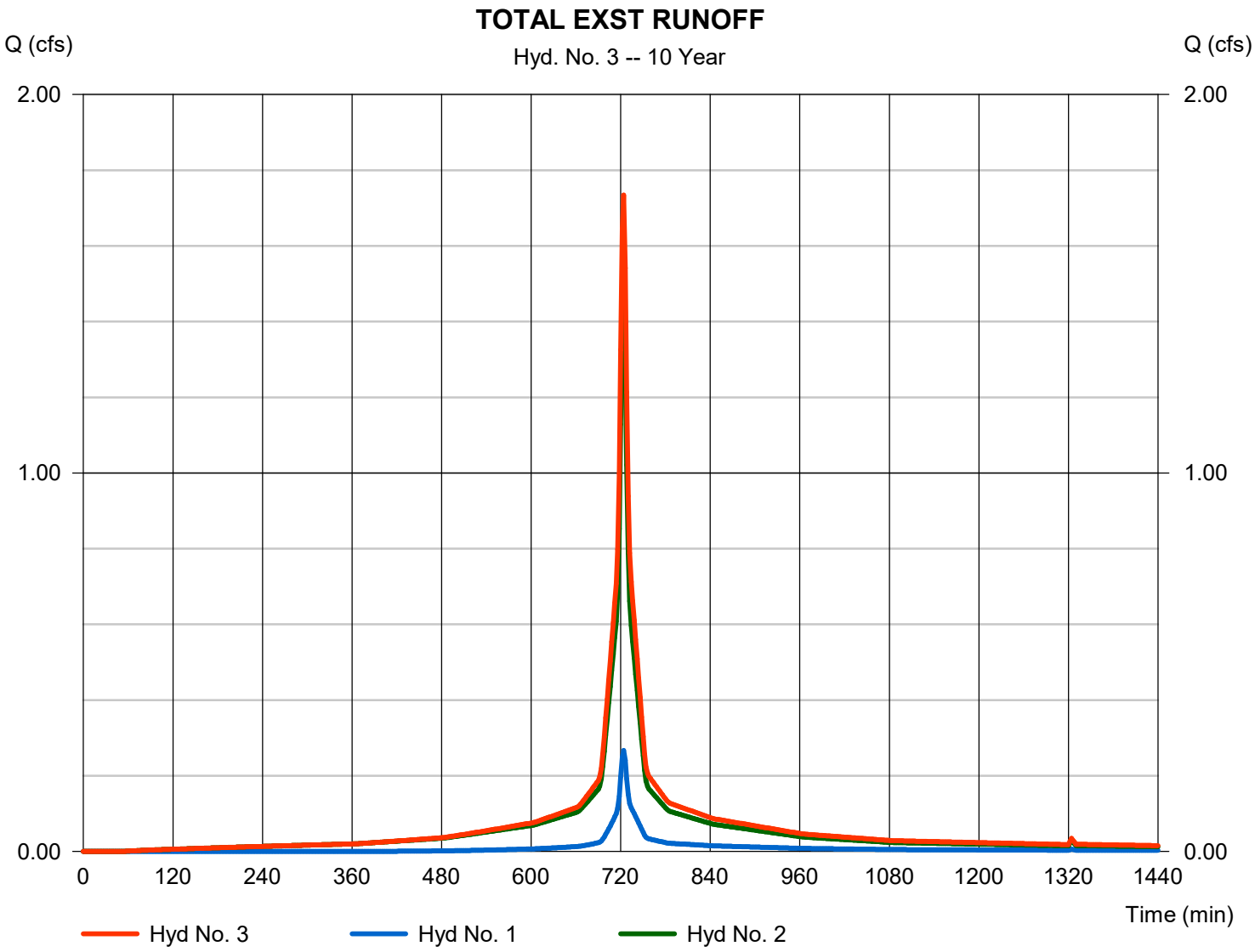
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 3

TOTAL EXST RUNOFF

Hydrograph type	= Combine	Peak discharge	= 1.734 cfs
Storm frequency	= 10 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 5,852 cuft
Inflow hyds.	= 1, 2	Contrib. drain. area	= 0.382 ac



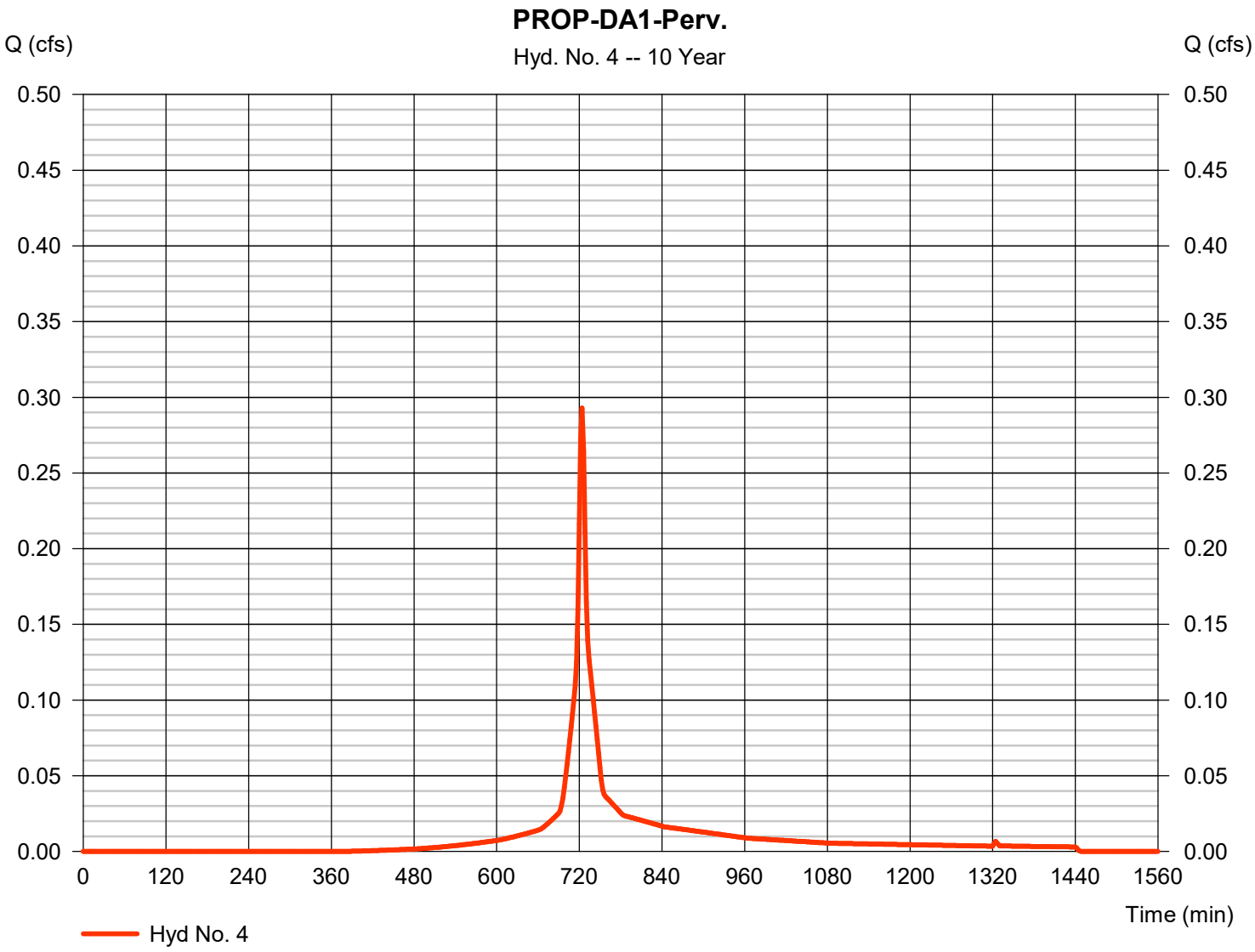
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 4

PROP-DA1-Perv.

Hydrograph type	= SCS Runoff	Peak discharge	= 0.293 cfs
Storm frequency	= 10 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 884 cuft
Drainage area	= 0.079 ac	Curve number	= 84
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 6.00 min
Total precip.	= 5.02 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



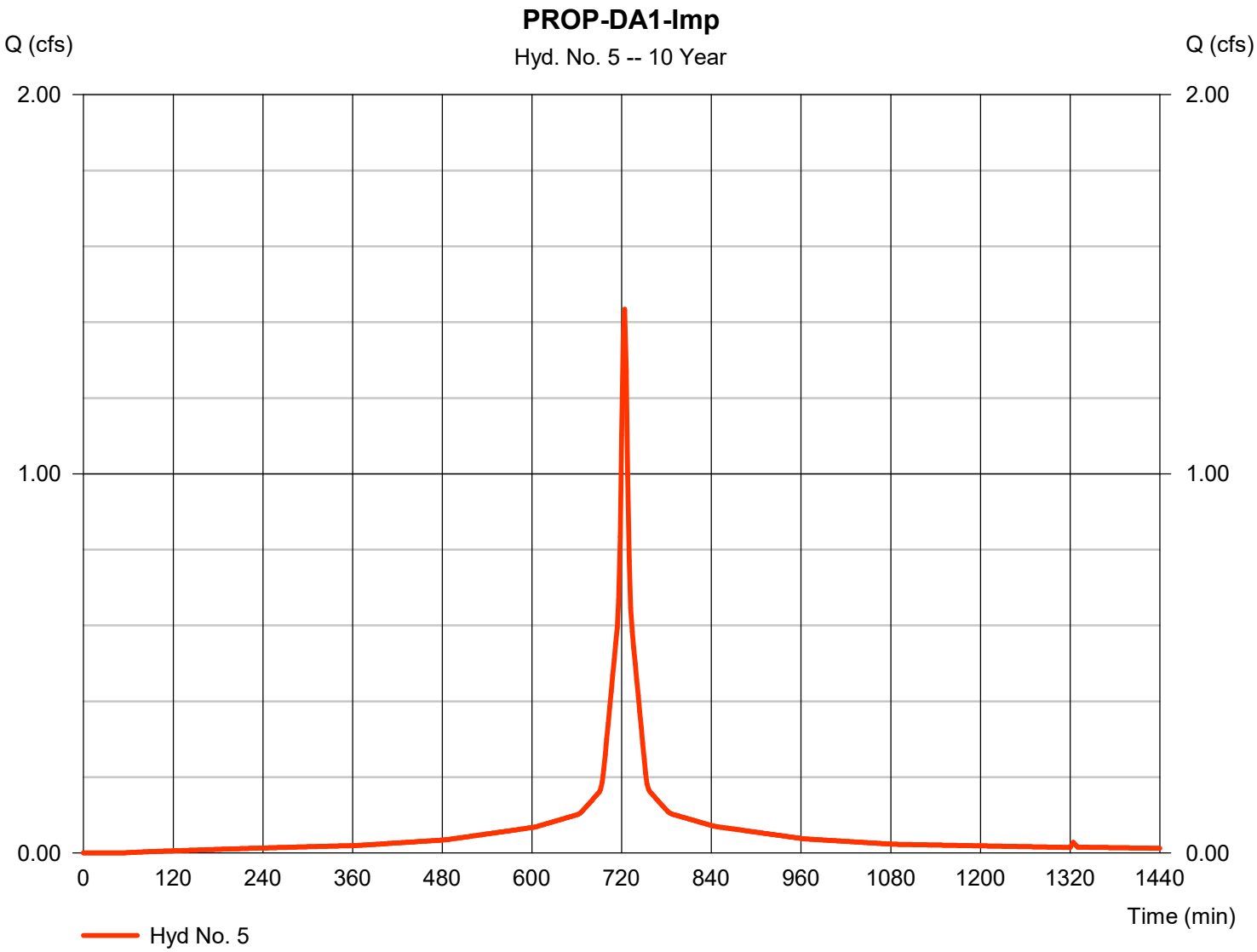
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 5

PROP-DA1-Imp

Hydrograph type	= SCS Runoff	Peak discharge	= 1.434 cfs
Storm frequency	= 10 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 4,932 cuft
Drainage area	= 0.303 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 6.00 min
Total precip.	= 5.02 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



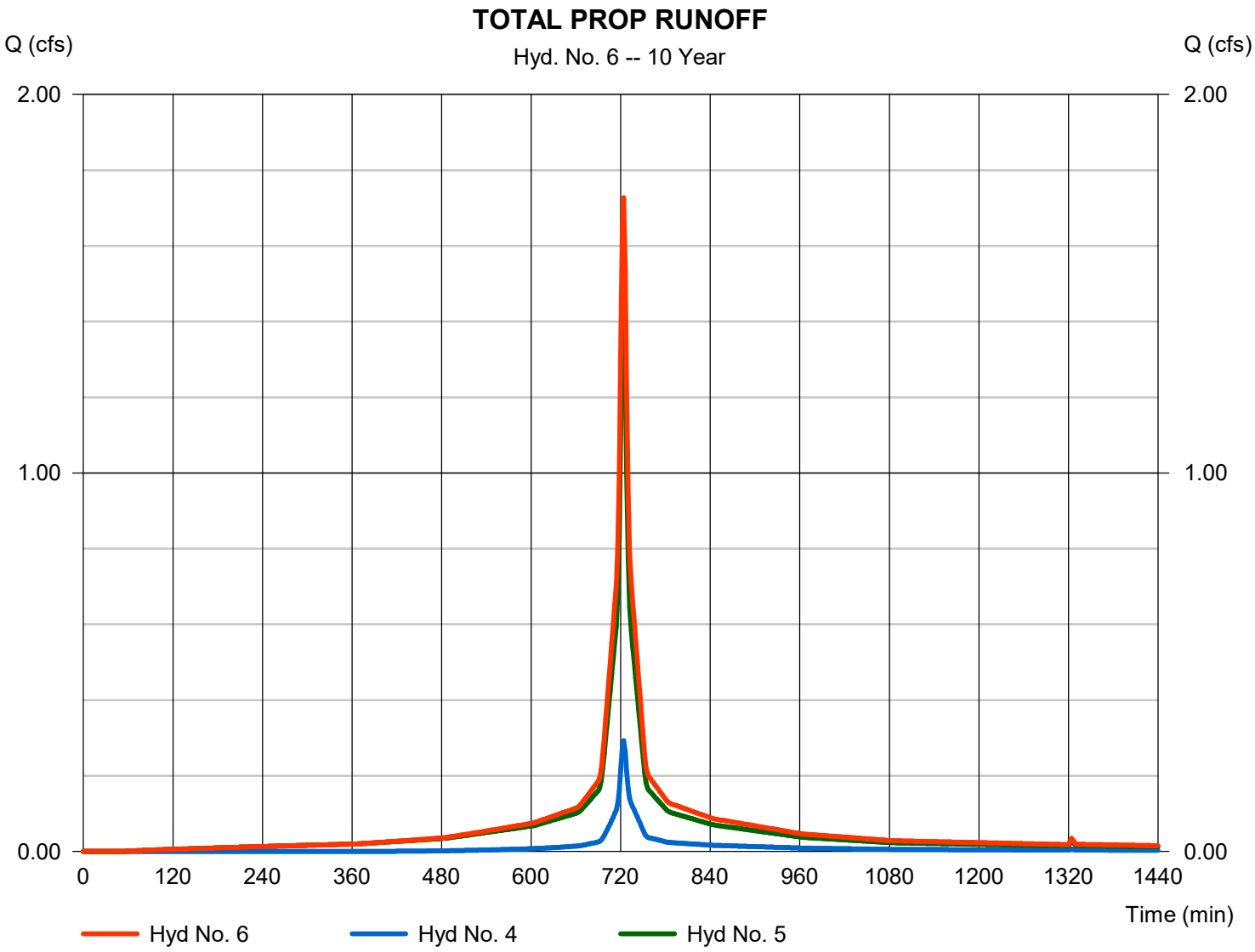
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 6

TOTAL PROP RUNOFF

Hydrograph type	= Combine	Peak discharge	= 1.727 cfs
Storm frequency	= 10 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 5,816 cuft
Inflow hyds.	= 4, 5	Contrib. drain. area	= 0.382 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020

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	SCS Runoff	0.348	2	724	1,060	------	------	------	EXST - DA 1 - Perv
2	SCS Runoff	1.798	2	724	6,226	------	------	------	EXST - DA1 - Imper
3	Combine	2.146	2	724	7,287	1, 2	------	------	TOTAL EXST RUNOFF
4	SCS Runoff	0.382	2	724	1,163	------	------	------	PROP-DA1-Perv.
5	SCS Runoff	1.757	2	724	6,086	------	------	------	PROP-DA1-Imp
6	Combine	2.139	2	724	7,249	4, 5	------	------	TOTAL PROP RUNOFF

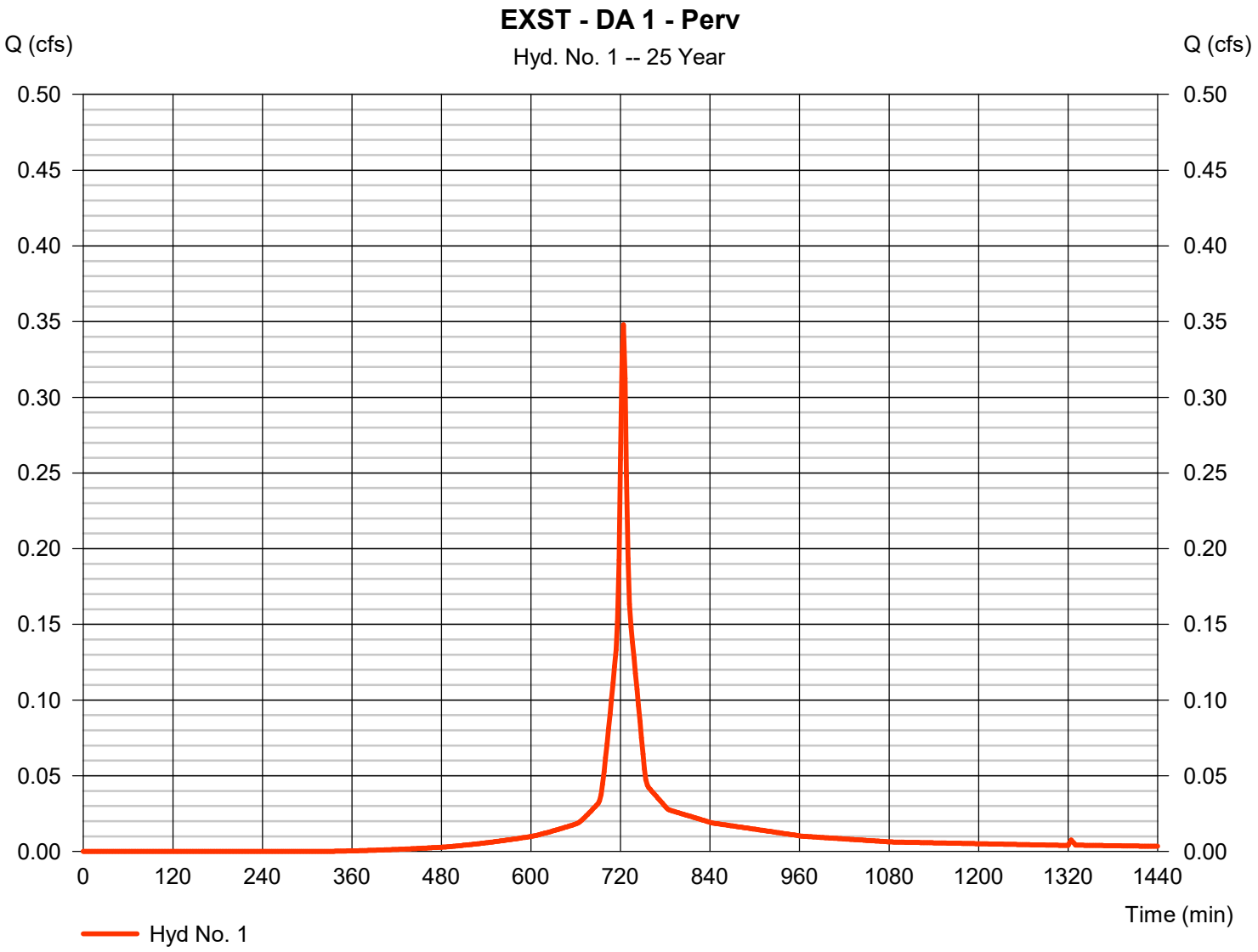
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 1

EXST - DA 1 - Perv

Hydrograph type	= SCS Runoff	Peak discharge	= 0.348 cfs
Storm frequency	= 25 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 1,060 cuft
Drainage area	= 0.072 ac	Curve number	= 84
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 6.00 min
Total precip.	= 6.14 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



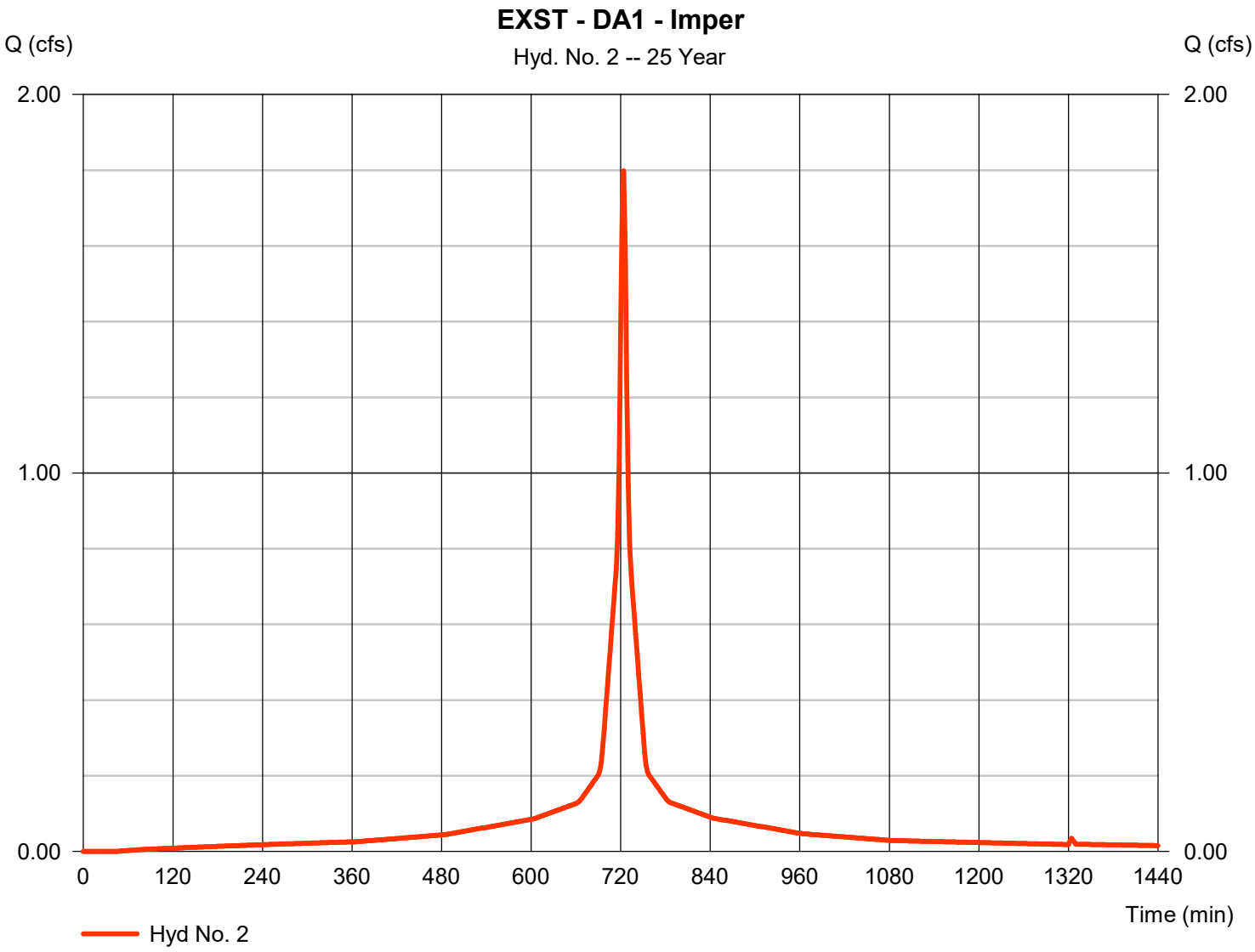
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 2

EXST - DA1 - Imper

Hydrograph type	= SCS Runoff	Peak discharge	= 1.798 cfs
Storm frequency	= 25 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 6,226 cuft
Drainage area	= 0.310 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 6.00 min
Total precip.	= 6.14 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



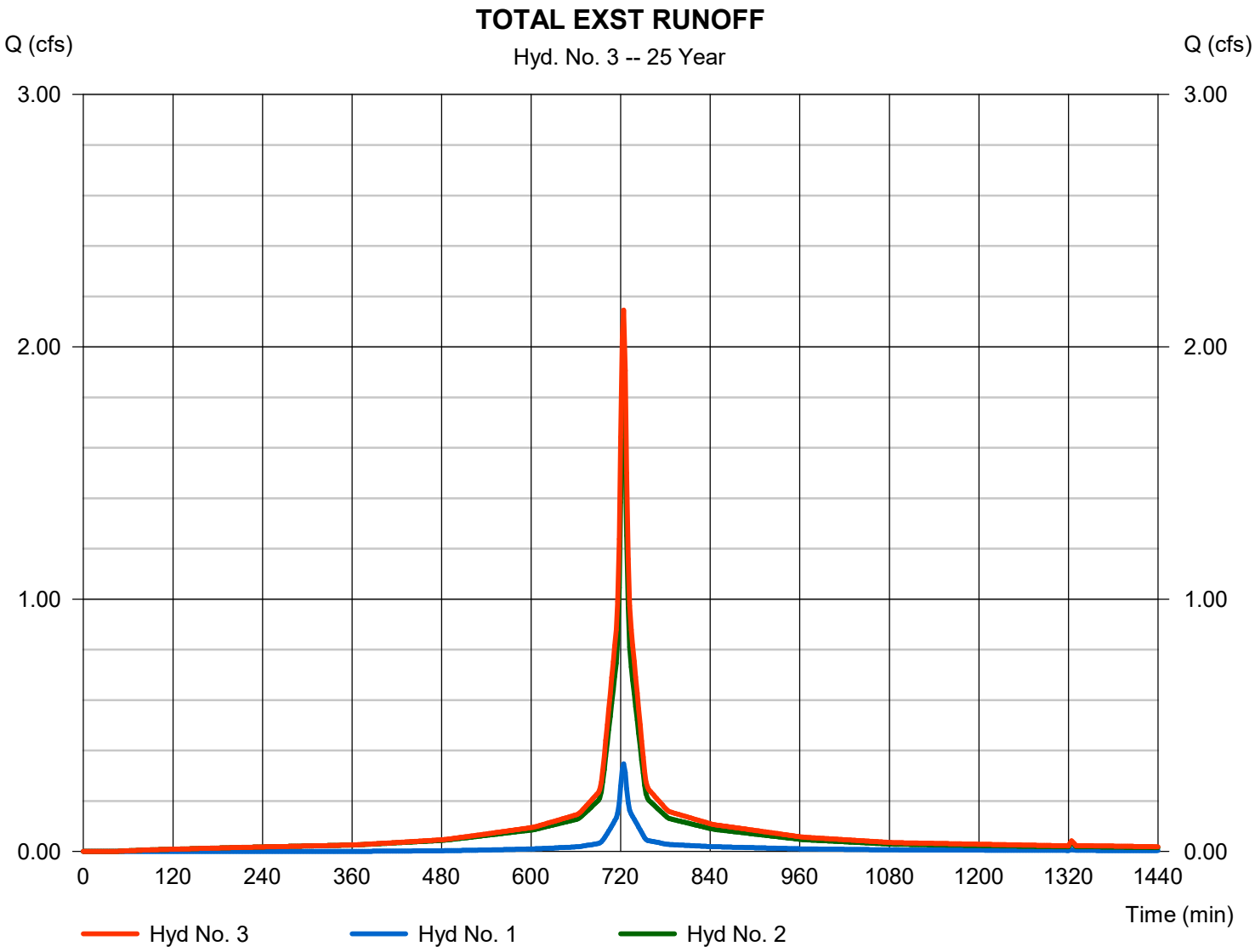
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 3

TOTAL EXST RUNOFF

Hydrograph type	= Combine	Peak discharge	= 2.146 cfs
Storm frequency	= 25 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 7,287 cuft
Inflow hyds.	= 1, 2	Contrib. drain. area	= 0.382 ac



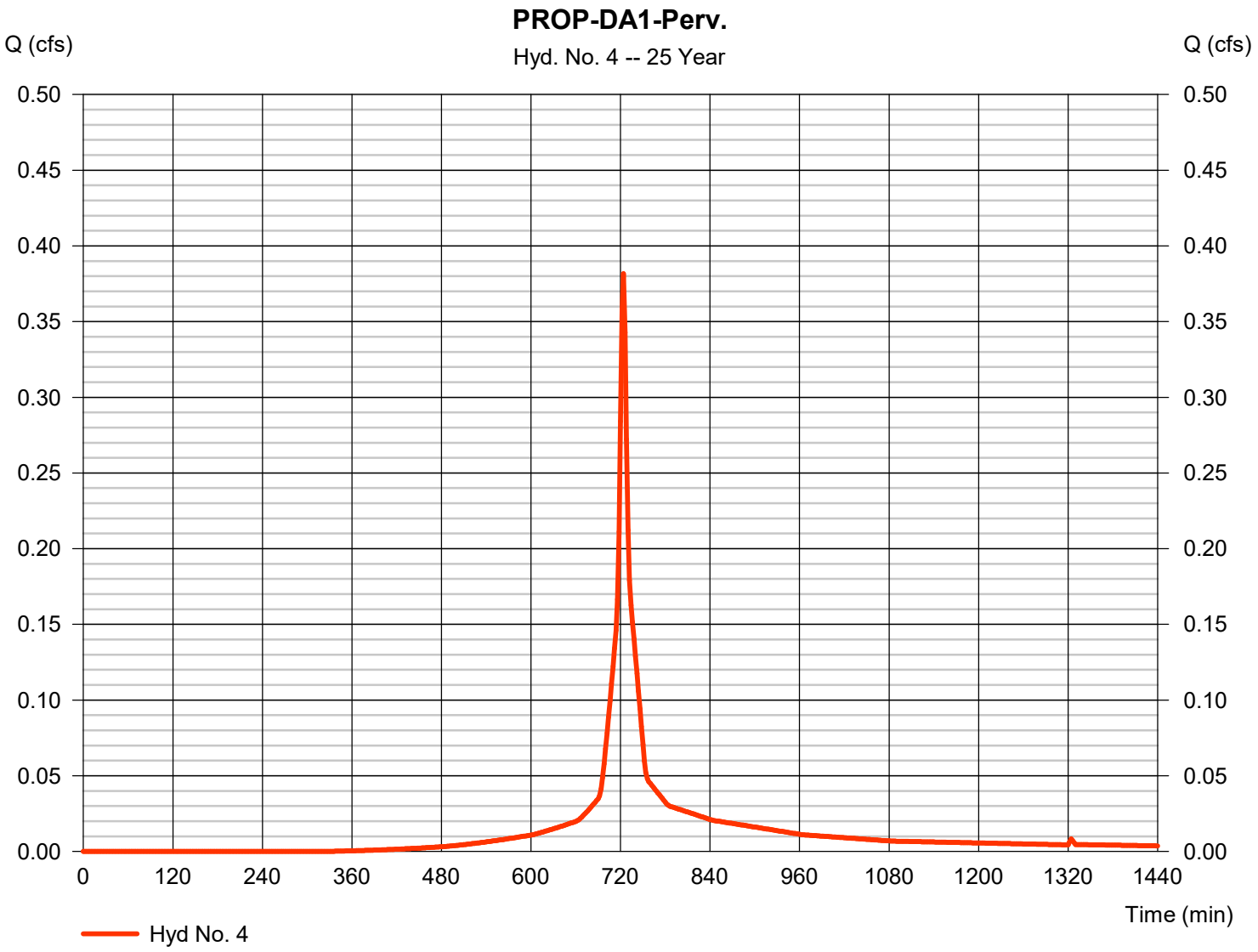
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 4

PROP-DA1-Perv.

Hydrograph type	= SCS Runoff	Peak discharge	= 0.382 cfs
Storm frequency	= 25 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 1,163 cuft
Drainage area	= 0.079 ac	Curve number	= 84
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 6.00 min
Total precip.	= 6.14 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



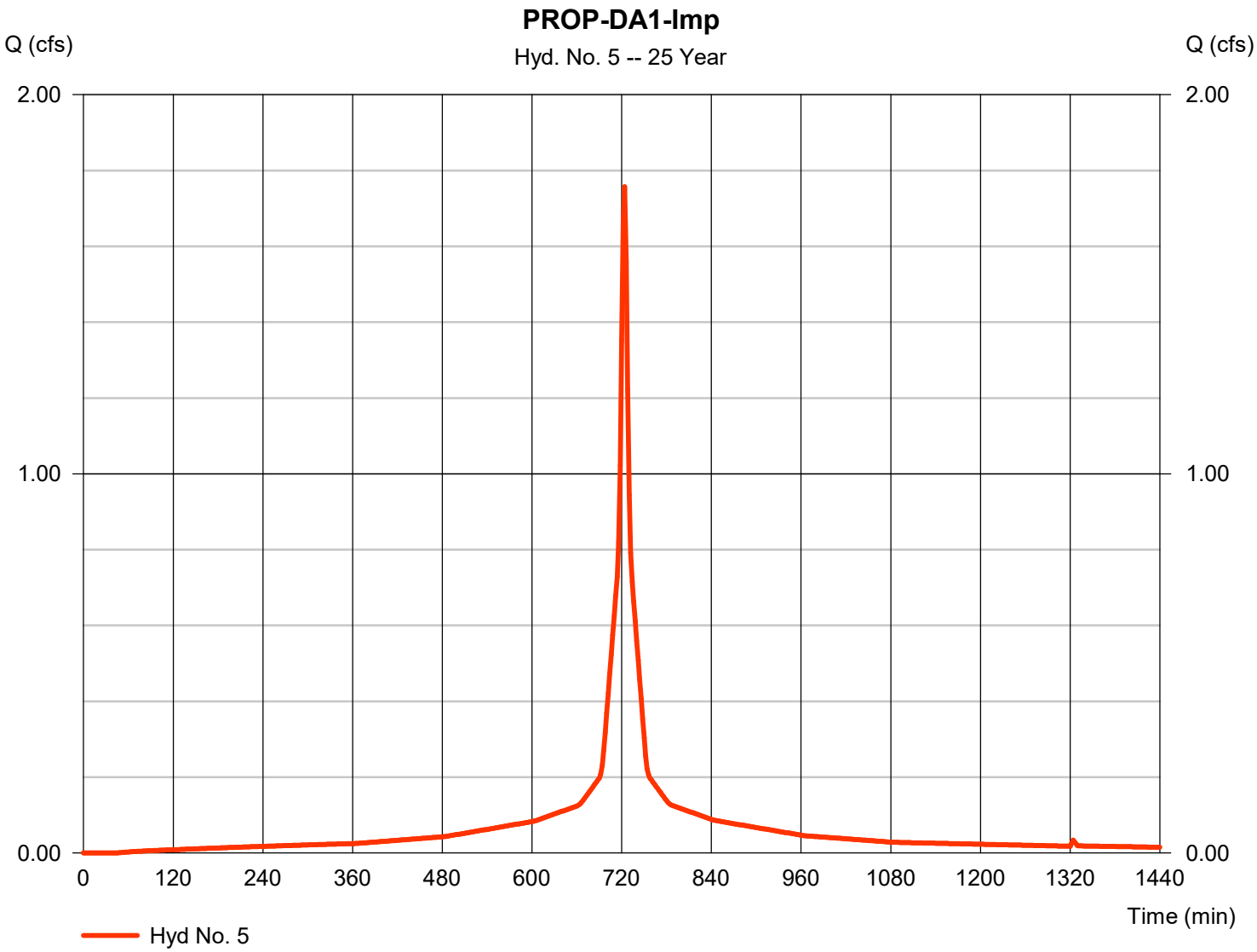
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 5

PROP-DA1-Imp

Hydrograph type	= SCS Runoff	Peak discharge	= 1.757 cfs
Storm frequency	= 25 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 6,086 cuft
Drainage area	= 0.303 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 6.00 min
Total precip.	= 6.14 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



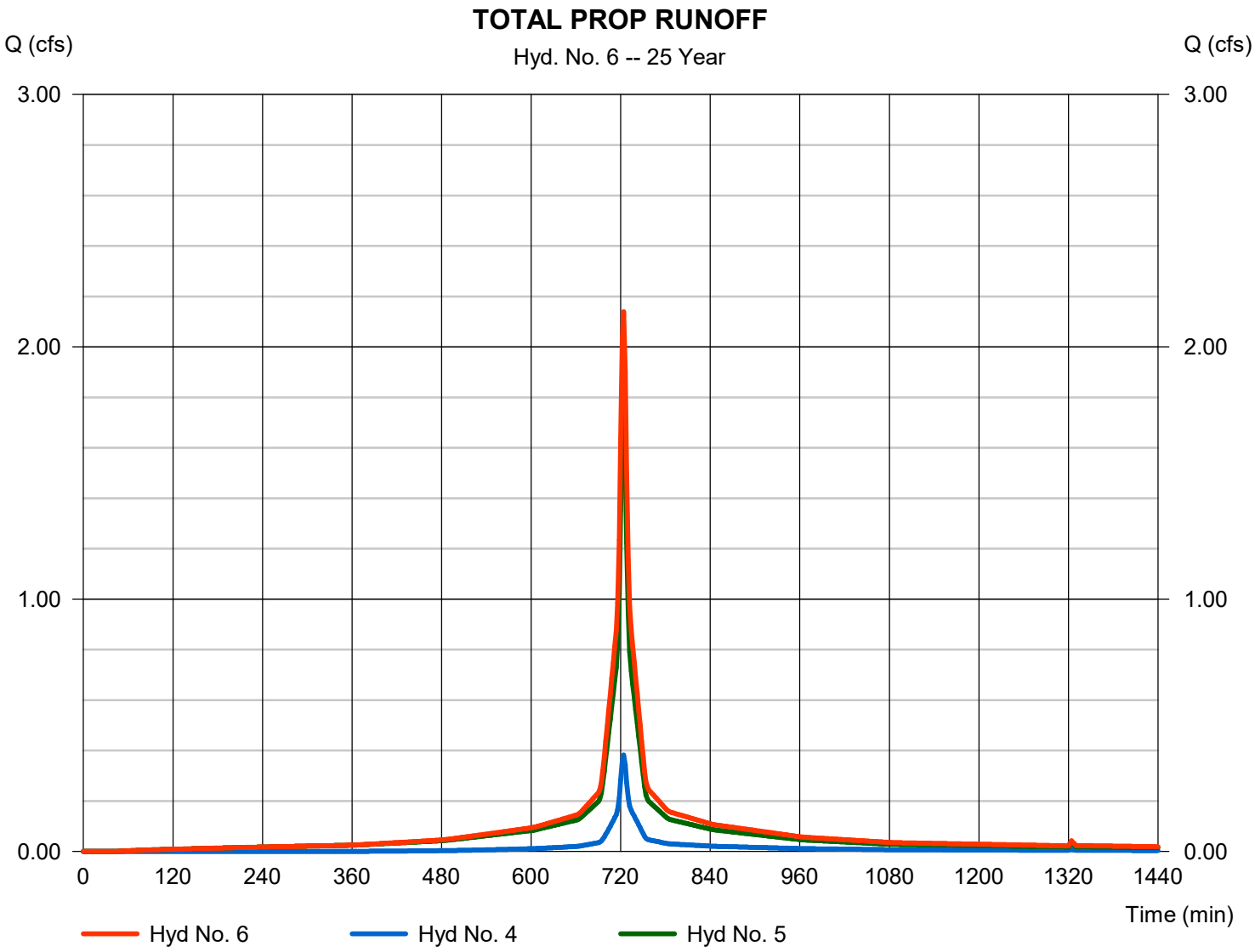
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 6

TOTAL PROP RUNOFF

Hydrograph type	= Combine	Peak discharge	= 2.139 cfs
Storm frequency	= 25 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 7,249 cuft
Inflow hyds.	= 4, 5	Contrib. drain. area	= 0.382 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020

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	SCS Runoff	0.408	2	724	1,252	------	------	------	EXST - DA 1 - Perv
2	SCS Runoff	2.043	2	724	7,101	------	------	------	EXST - DA1 - Imper
3	Combine	2.451	2	724	8,353	1, 2	------	------	TOTAL EXST RUNOFF
4	SCS Runoff	0.447	2	724	1,374	------	------	------	PROP-DA1-Perv.
5	SCS Runoff	1.997	2	724	6,941	------	------	------	PROP-DA1-Imp
6	Combine	2.444	2	724	8,315	4, 5	------	------	TOTAL PROP RUNOFF

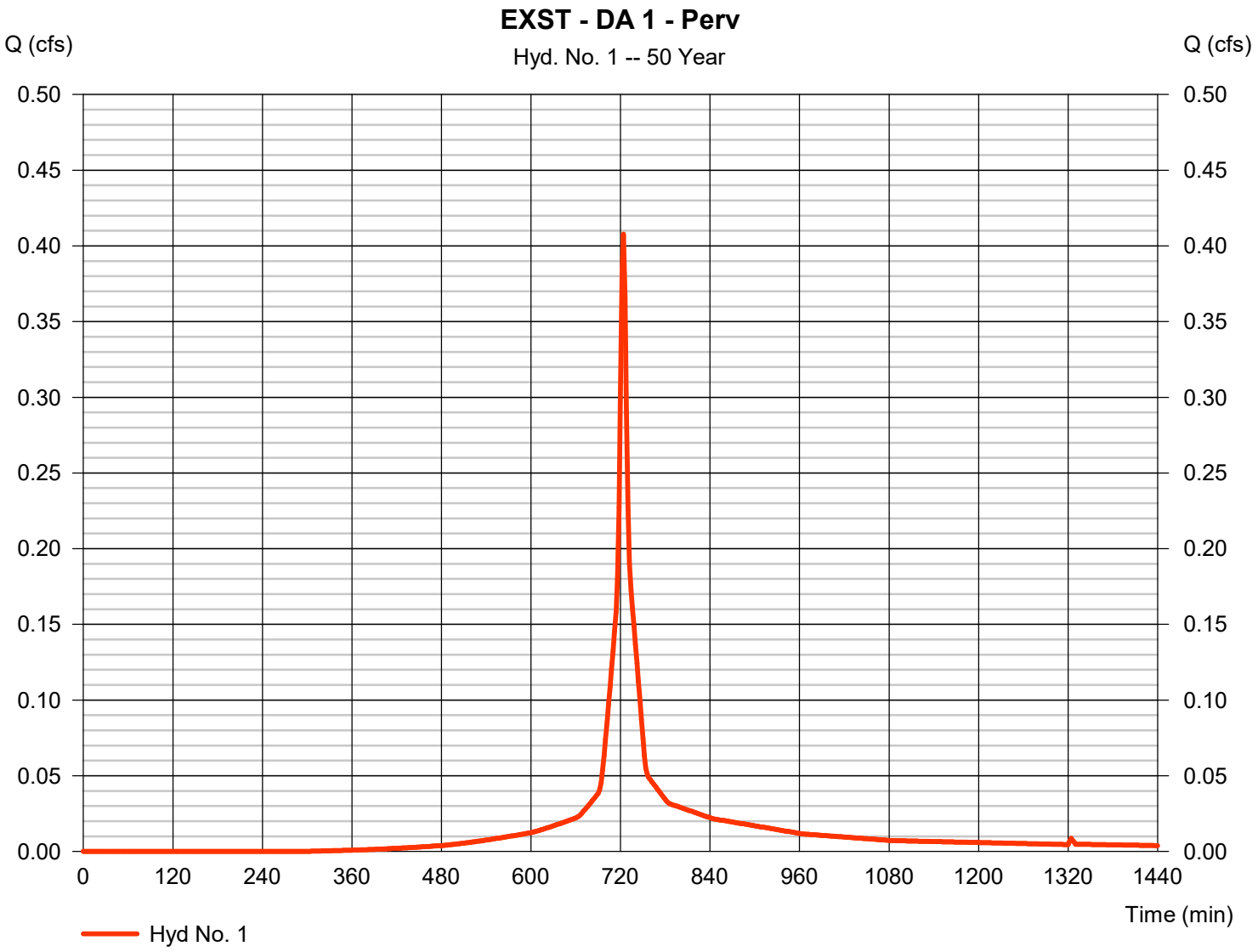
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 1

EXST - DA 1 - Perv

Hydrograph type	= SCS Runoff	Peak discharge	= 0.408 cfs
Storm frequency	= 50 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 1,252 cuft
Drainage area	= 0.072 ac	Curve number	= 84
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 6.00 min
Total precip.	= 6.97 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



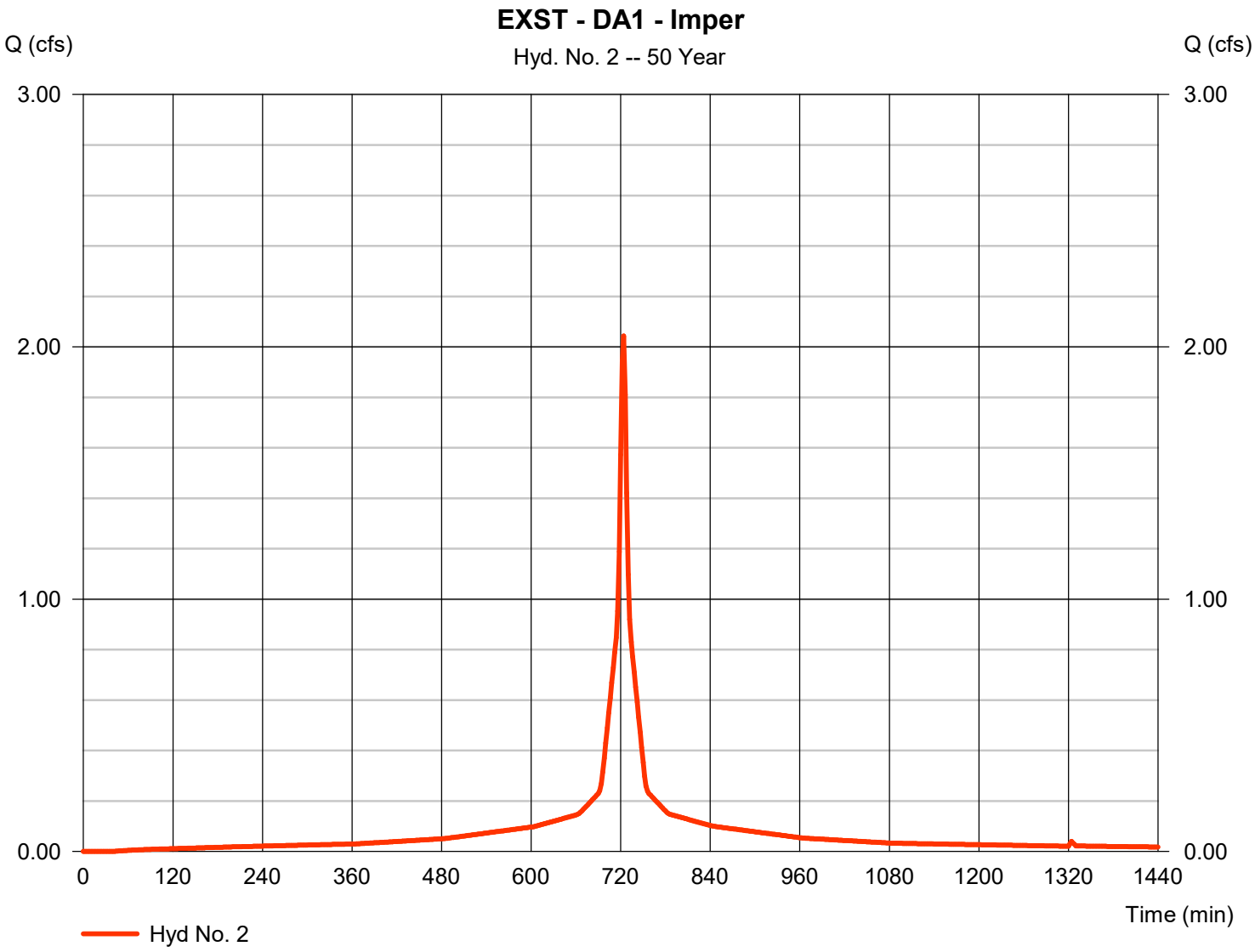
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 2

EXST - DA1 - Imper

Hydrograph type	= SCS Runoff	Peak discharge	= 2.043 cfs
Storm frequency	= 50 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 7,101 cuft
Drainage area	= 0.310 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 6.00 min
Total precip.	= 6.97 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



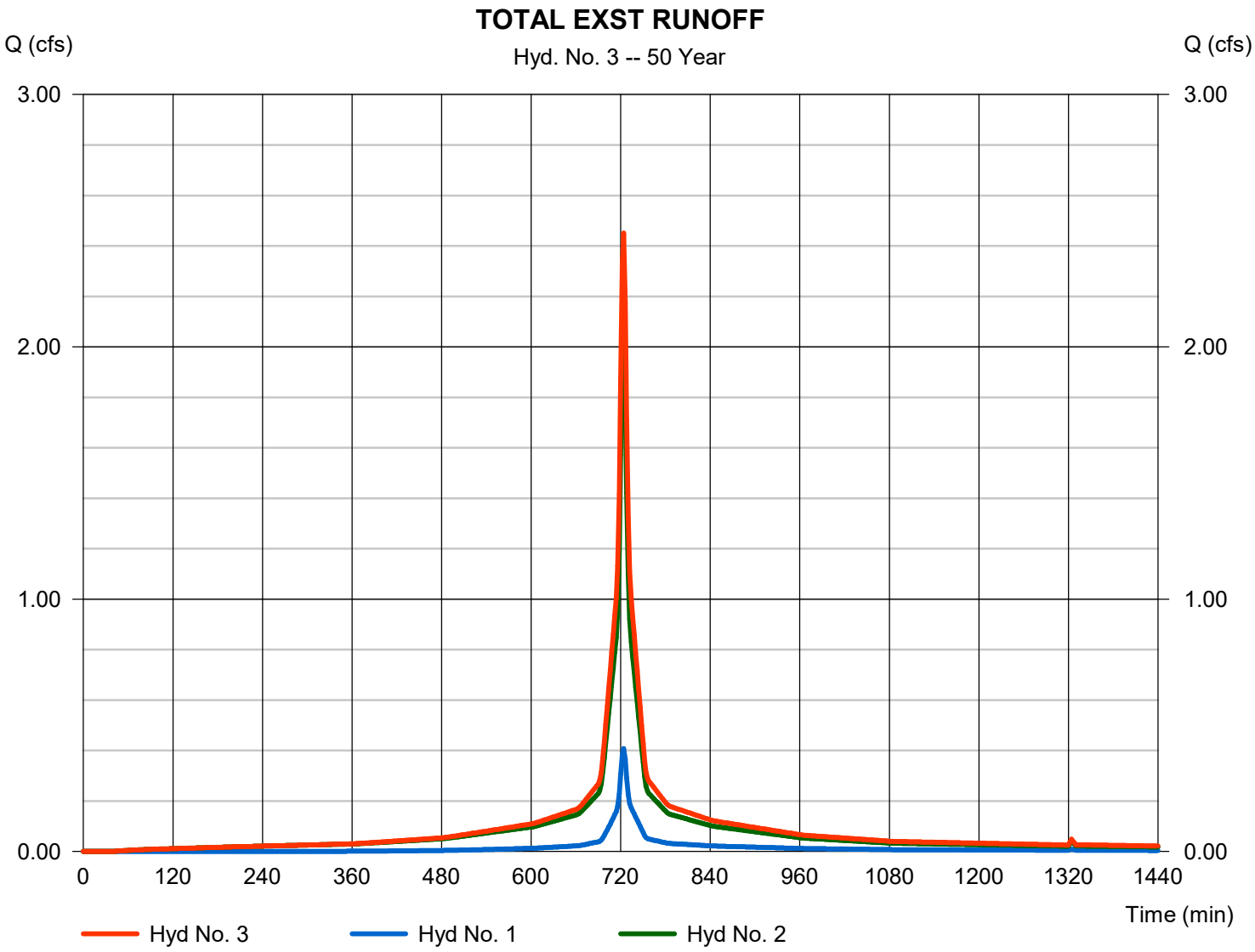
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 3

TOTAL EXST RUNOFF

Hydrograph type	= Combine	Peak discharge	= 2.451 cfs
Storm frequency	= 50 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 8,353 cuft
Inflow hyds.	= 1, 2	Contrib. drain. area	= 0.382 ac



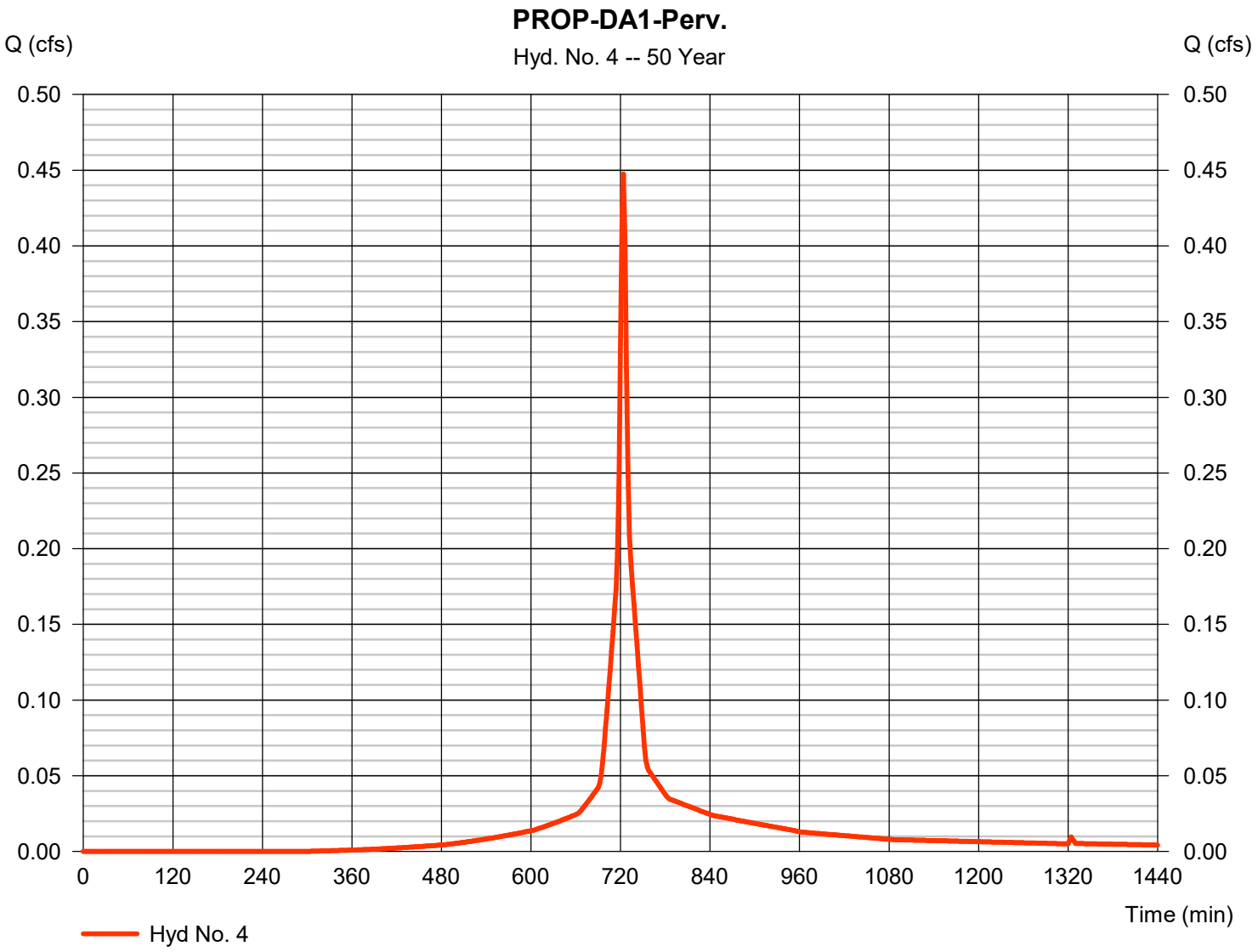
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 4

PROP-DA1-Perv.

Hydrograph type	= SCS Runoff	Peak discharge	= 0.447 cfs
Storm frequency	= 50 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 1,374 cuft
Drainage area	= 0.079 ac	Curve number	= 84
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 6.00 min
Total precip.	= 6.97 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



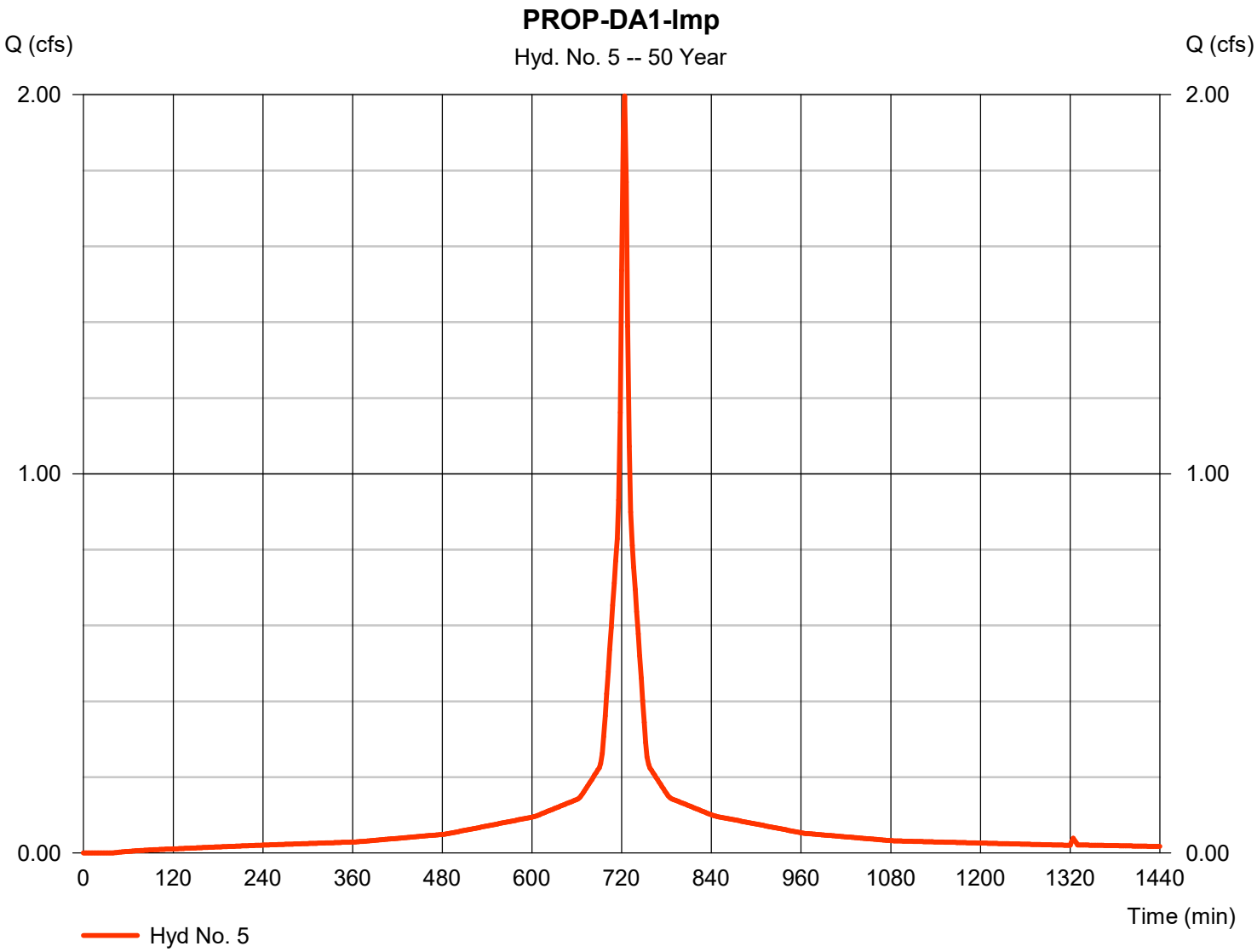
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 5

PROP-DA1-Imp

Hydrograph type	= SCS Runoff	Peak discharge	= 1.997 cfs
Storm frequency	= 50 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 6,941 cuft
Drainage area	= 0.303 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 6.00 min
Total precip.	= 6.97 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



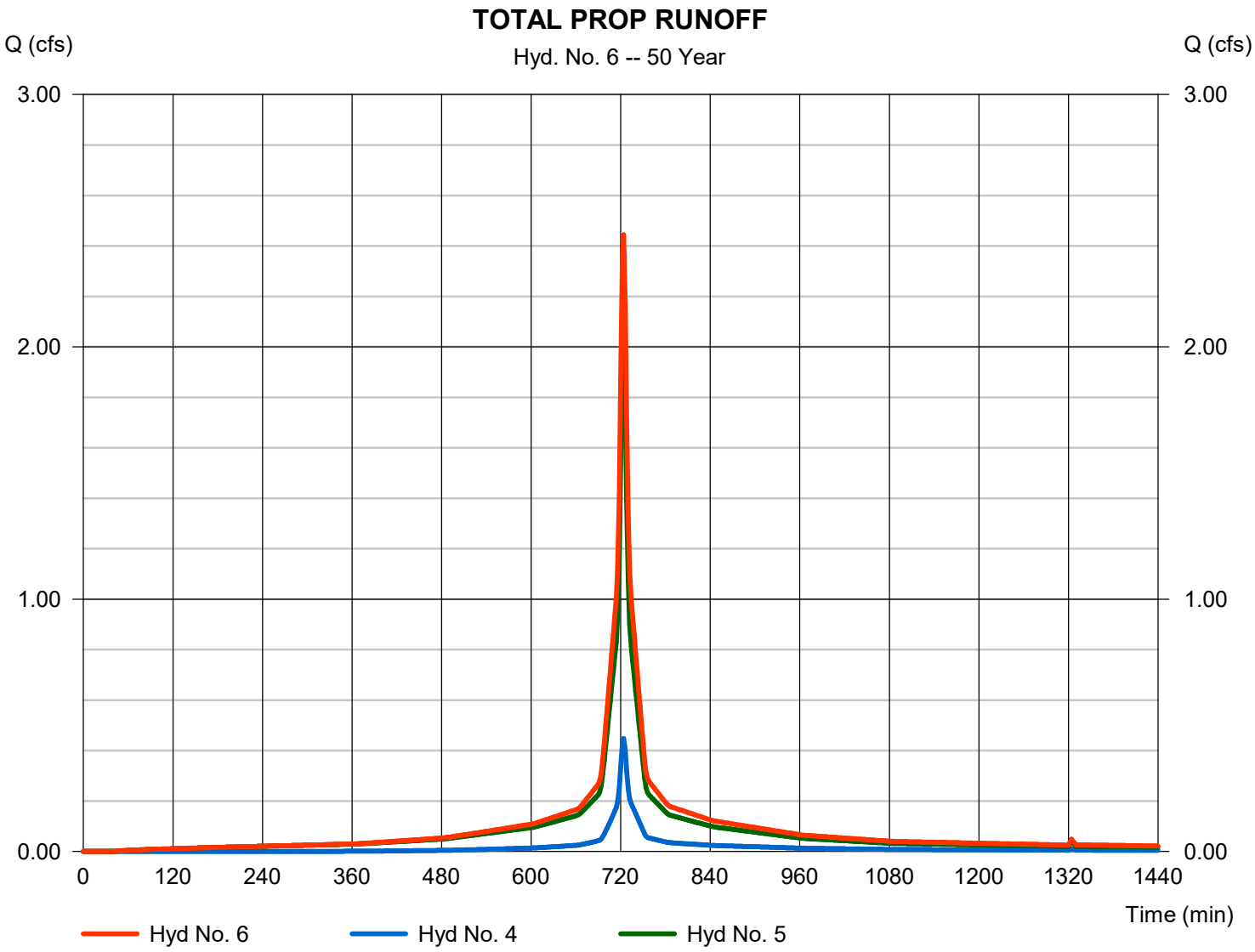
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 6

TOTAL PROP RUNOFF

Hydrograph type	= Combine	Peak discharge	= 2.444 cfs
Storm frequency	= 50 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 8,315 cuft
Inflow hyds.	= 4, 5	Contrib. drain. area	= 0.382 ac



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020

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	SCS Runoff	0.473	2	724	1,463	------	------	------	EXST - DA 1 - Perv
2	SCS Runoff	2.308	2	724	8,050	------	------	------	EXST - DA1 - Imper
3	Combine	2.781	2	724	9,513	1, 2	------	------	TOTAL EXST RUNOFF
4	SCS Runoff	0.519	2	724	1,605	------	------	------	PROP-DA1-Perv.
5	SCS Runoff	2.256	2	724	7,868	------	------	------	PROP-DA1-Imp
6	Combine	2.775	2	724	9,473	4, 5	------	------	TOTAL PROP RUNOFF

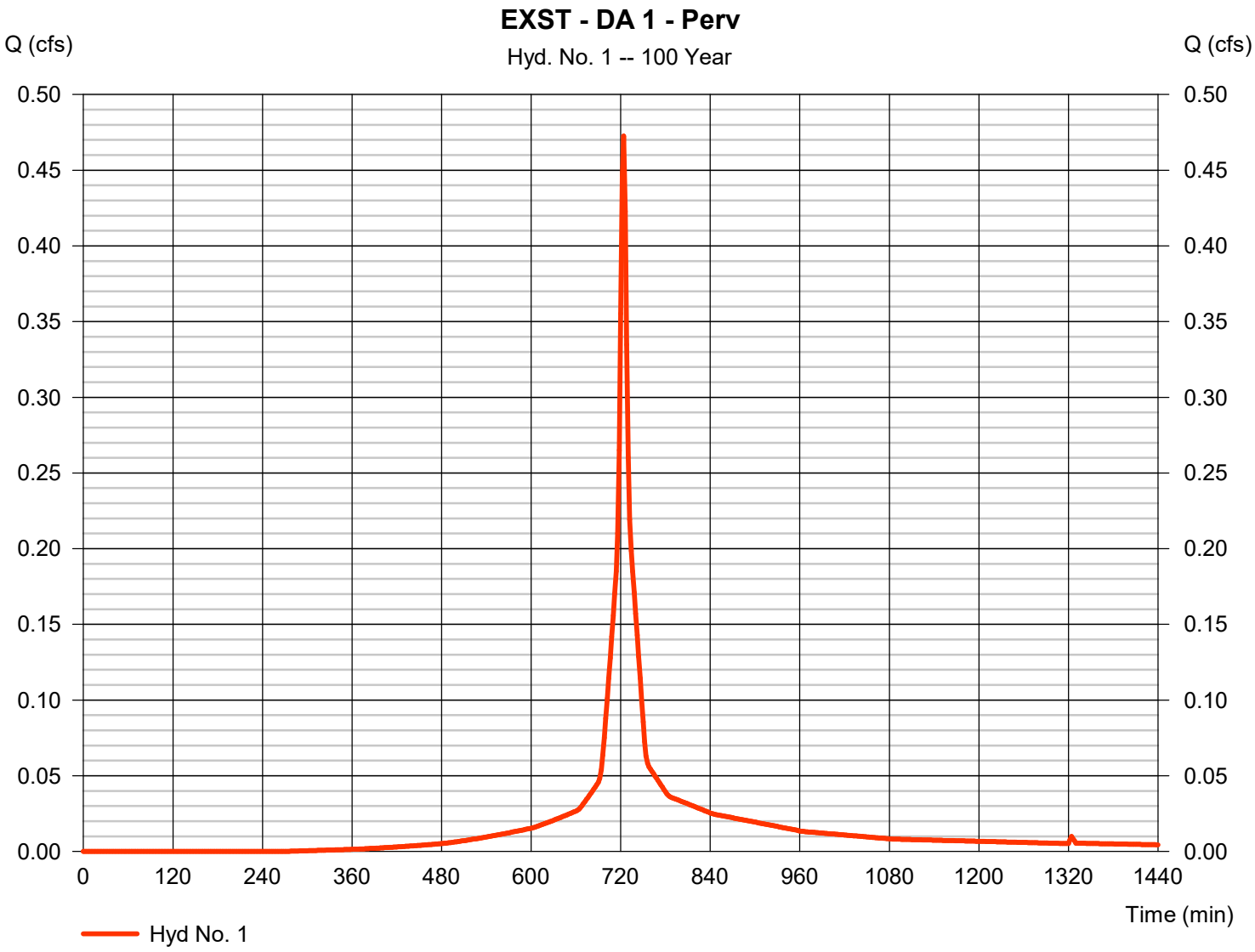
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 1

EXST - DA 1 - Perv

Hydrograph type	= SCS Runoff	Peak discharge	= 0.473 cfs
Storm frequency	= 100 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 1,463 cuft
Drainage area	= 0.072 ac	Curve number	= 84
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 6.00 min
Total precip.	= 7.87 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



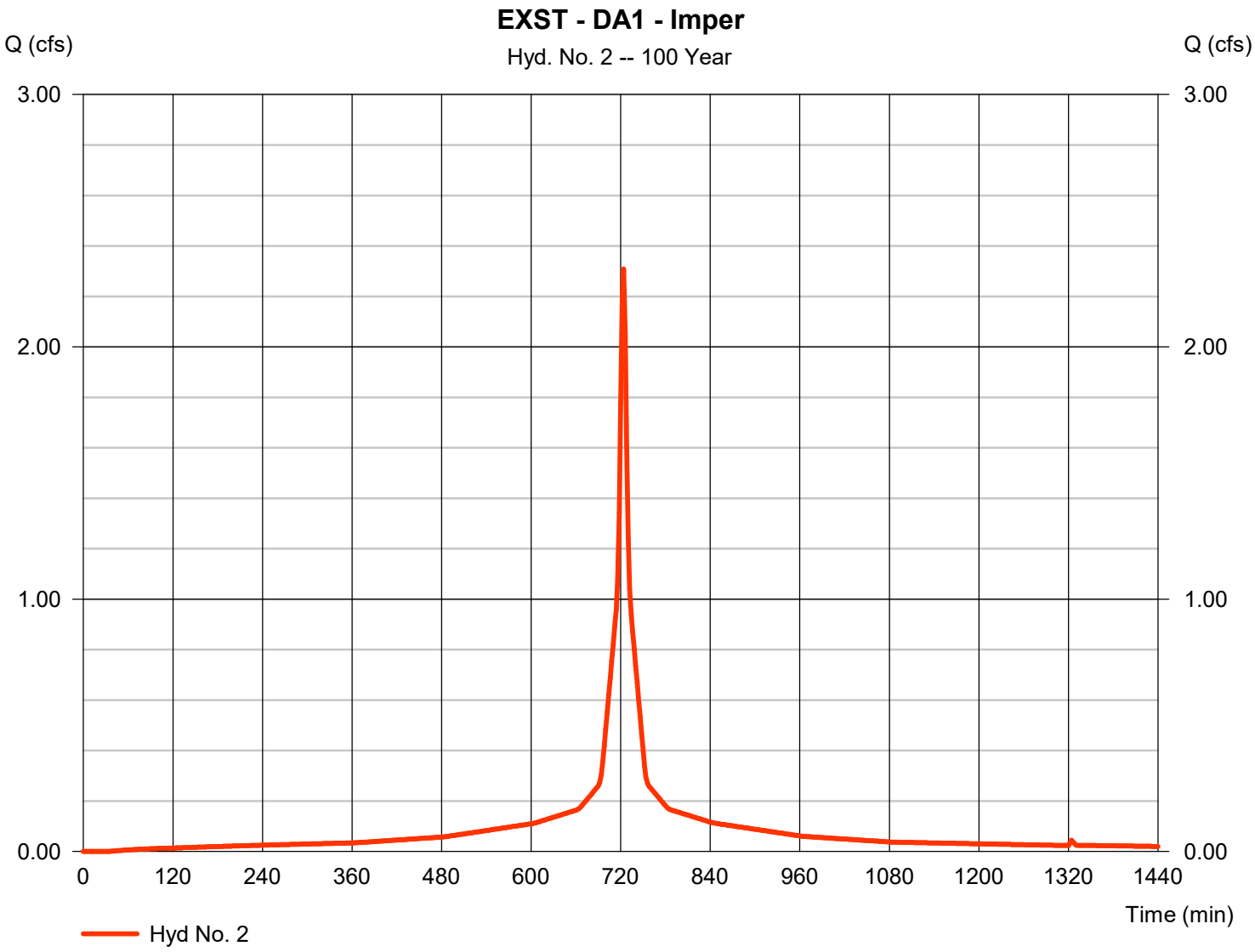
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 2

EXST - DA1 - Imper

Hydrograph type	= SCS Runoff	Peak discharge	= 2.308 cfs
Storm frequency	= 100 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 8,050 cuft
Drainage area	= 0.310 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 6.00 min
Total precip.	= 7.87 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



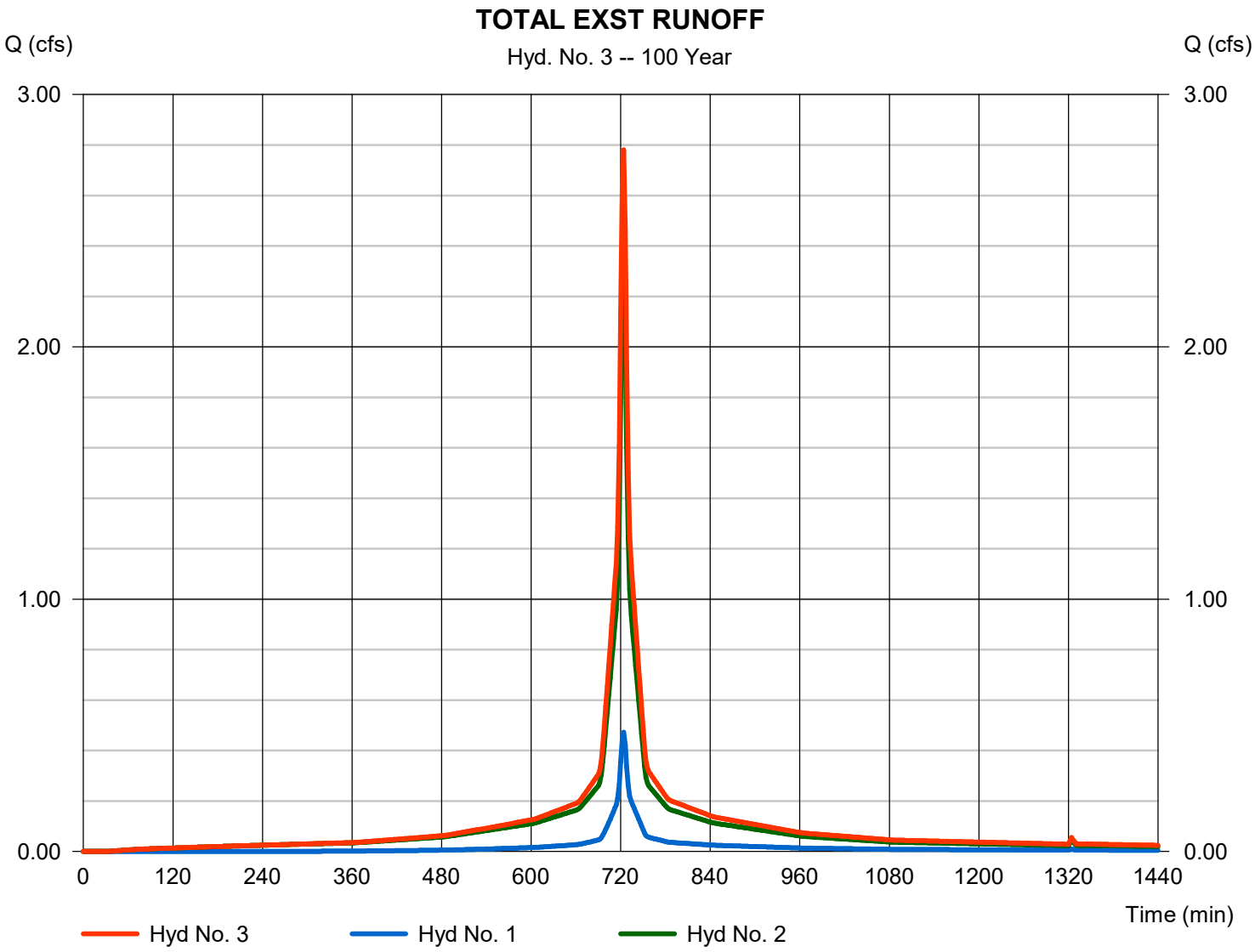
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 3

TOTAL EXST RUNOFF

Hydrograph type	= Combine	Peak discharge	= 2.781 cfs
Storm frequency	= 100 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 9,513 cuft
Inflow hyds.	= 1, 2	Contrib. drain. area	= 0.382 ac



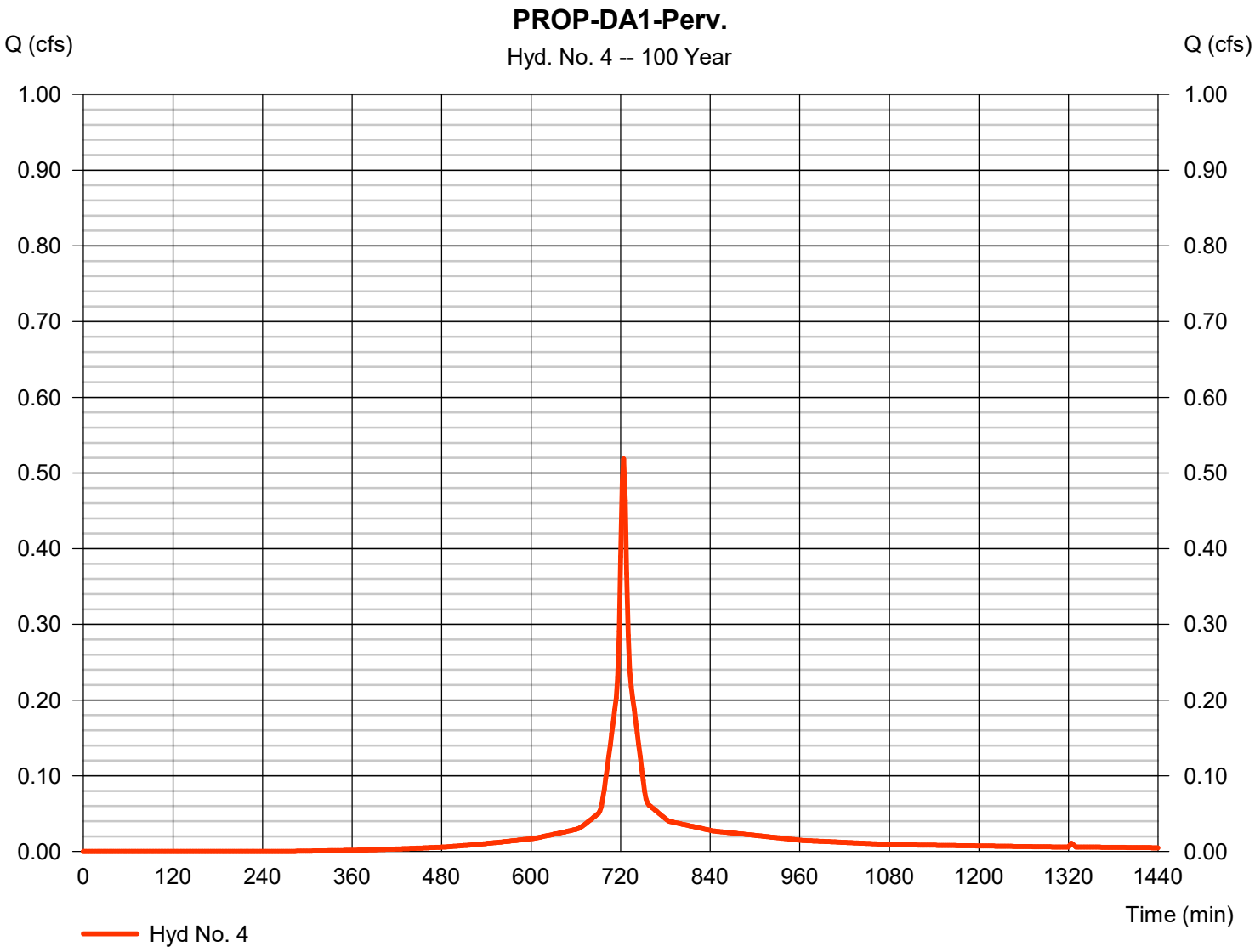
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 4

PROP-DA1-Perv.

Hydrograph type	= SCS Runoff	Peak discharge	= 0.519 cfs
Storm frequency	= 100 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 1,605 cuft
Drainage area	= 0.079 ac	Curve number	= 84
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 6.00 min
Total precip.	= 7.87 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



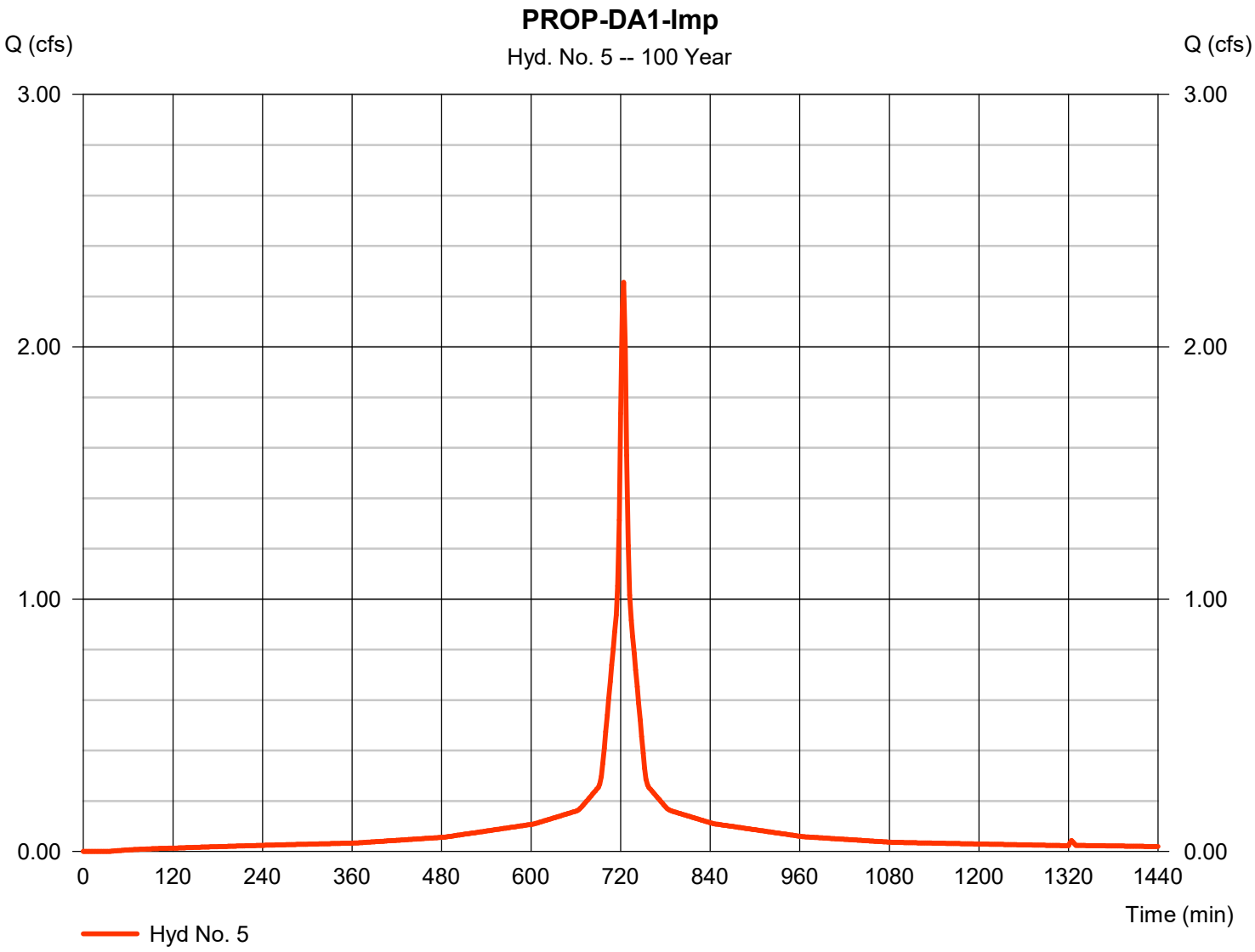
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 5

PROP-DA1-Imp

Hydrograph type	= SCS Runoff	Peak discharge	= 2.256 cfs
Storm frequency	= 100 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 7,868 cuft
Drainage area	= 0.303 ac	Curve number	= 98
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 6.00 min
Total precip.	= 7.87 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



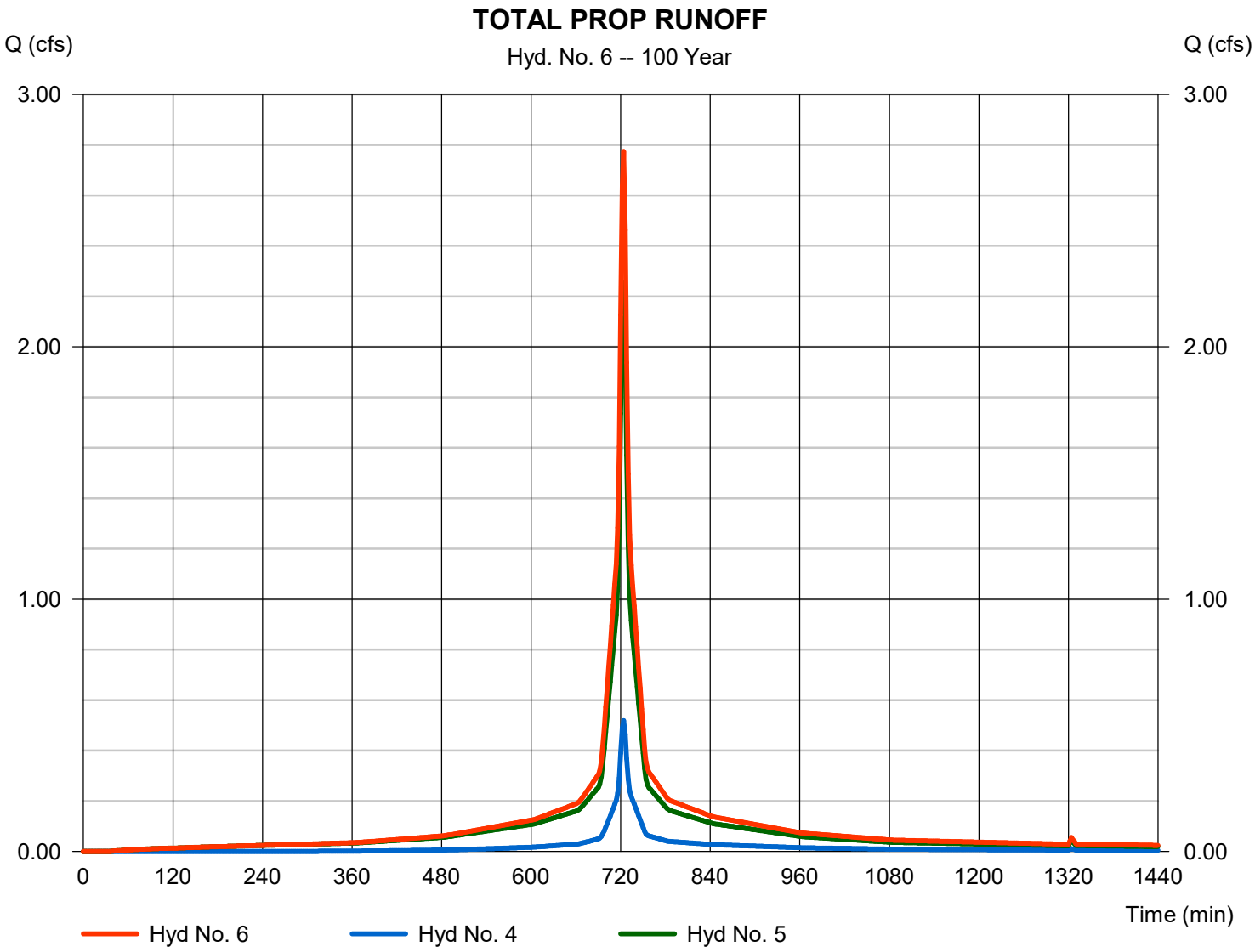
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 09 / 2 / 2020

Hyd. No. 6

TOTAL PROP RUNOFF

Hydrograph type	= Combine	Peak discharge	= 2.775 cfs
Storm frequency	= 100 yrs	Time to peak	= 724 min
Time interval	= 2 min	Hyd. volume	= 9,473 cuft
Inflow hyds.	= 4, 5	Contrib. drain. area	= 0.382 ac



Hydraflow Rainfall Report

Return Period (Yrs)	Intensity-Duration-Frequency Equation Coefficients (FHA)			
	B	D	E	(N/A)
1	17.5553	3.6000	0.7135	--------
2	22.2595	3.9000	0.7234	--------
3	0.0000	0.0000	0.0000	--------
5	26.5862	3.5000	0.7058	--------
10	33.1214	3.8000	0.7174	--------
25	39.2806	3.7000	0.7120	--------
50	43.7602	3.6000	0.7083	--------
100	50.6208	3.8000	0.7153	--------

File name: Concord MA.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	3.78	2.73	2.18	1.84	1.60	1.43	1.30	1.19	1.10	1.02	0.96	0.91
2	4.58	3.32	2.66	2.24	1.95	1.74	1.58	1.44	1.33	1.24	1.17	1.10
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	5.87	4.24	3.39	2.86	2.50	2.23	2.02	1.85	1.72	1.60	1.50	1.42
10	6.96	5.04	4.04	3.41	2.97	2.65	2.40	2.20	2.04	1.90	1.78	1.68
25	8.42	6.09	4.88	4.12	3.60	3.21	2.91	2.67	2.47	2.30	2.16	2.04
50	9.53	6.89	5.52	4.66	4.07	3.63	3.29	3.02	2.79	2.61	2.45	2.31
100	10.68	7.74	6.21	5.24	4.58	4.08	3.70	3.39	3.14	2.93	2.75	2.59

Tc = time in minutes. Values may exceed 60.

oncord, MA (West Concord - 1134 Main Street) OVP# 38100P356149 -JPM.27599\CIVIL\Engineering\Concord MA.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	2.63	3.23	0.00	4.21	5.02	6.14	6.97	7.87
SCS 6-Hr	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-1st	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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