BARTON & SHUMER ENGINEERING, LLC

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BLACKWATER FARMS SUBDIVISION

Baldwin County, Alabama

Drainage Methodology:

This project consists of the division of a single piece of land into five (5) residential lots. The property is located on the east side of County Road 85 South with ±640 feet of roadway frontage. The property is the north half of the southwest quarter of the southwest quarter of Section 35 and contains approximately 19.06 acres. The property is being subdivided into four (4) lots of ±1.6 acres each and a remnant parcel containing 12.62 acres. The majority of the property is currently used as farm land with row crops with some isolated areas of trees.

The property has a ridge that runs from north to south approximately 600 feet from County Road 85 South. The drainage analysis consisted of two area calculations for each watershed (east and west). The east portion of the subdivision contains the five (5) smaller lots and the west is entirely within the remnant parcel. Based on the USGS Web Soil Survey the western portion of the property is primarily soil group A and B while the east side of the ridge contains B and C soils. Soil Group B was used to establish the Curve Numbers for the impact analysis of this development.

Calculations for the weighted curve number for each portion of the property were performed by treating the existing row crop property (CN=81) as pasture land (50-75% ground cover fair condition - CN=69), the smaller lots were calculated as 1.3 acre lots (CN=67.1) based on the one (1) (CN=68) and two (2) (CN=65) acre lots as a basis and the larger lot was calculated as two (2) acre lots (CN=65).

Using the SCS method with there will not be an increase in runoff as a result of changing from a farmed property to the proposed residential lots.

Site Area = 830,280 SF (±19.06 AC)

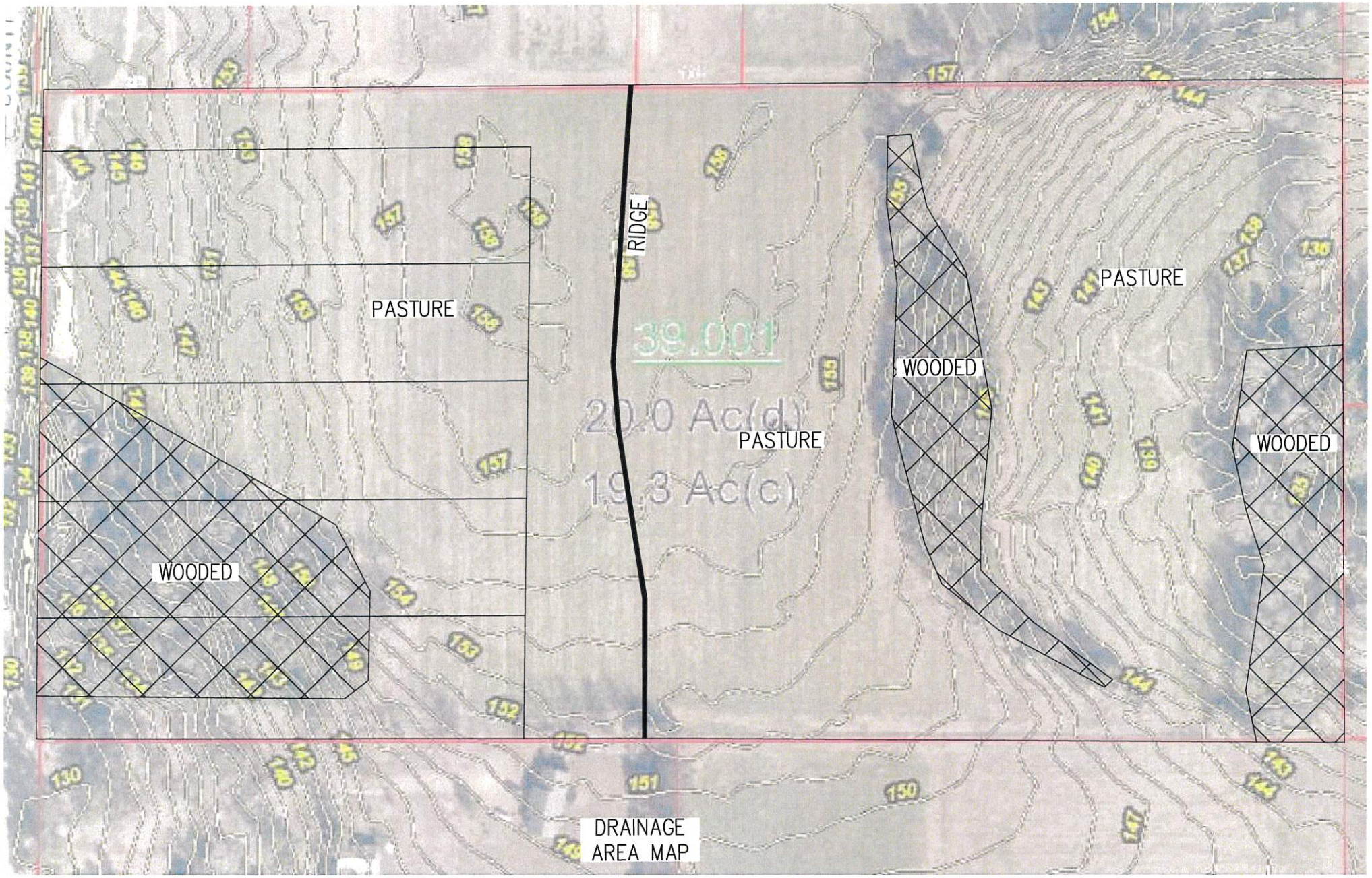
WEST EXISTING:
CN = 67
(60) WOODED = 1.81 AC
(69) PASTURE = 6.77 AC
Tc = 4 min (Kirpich)

WEST PROPOSED:
C = 66.58
(67.1) RESIDENTIAL (1.3 AC) = 6.44 AC
(65) RESIDENTIAL (12.6 AC) = 2.14 AC
Tc = 4 min (Kirpich)

EAST EXISTING:
CN = 68
(60) WOODED = 1.59 AC
(69) PASTURE = 8.89 AC
Tc = 5 min (Kirpich)

EAST PROPOSED:
C = 65
(65) RESIDENTIAL (12.6 AC) - 100%
Tc = 5 min (Kirpich)

The results of the subdivision will not increase the runoff from the site based on the SCS method. No storm water runoff abatement is proposed.


RIDGE
PASTURE
PASTURE
PASTURE
WOODED
WOODED
WOODED
39.001
20.0 Ac(d)
19.3 Ac(c)
DRAINAGE
AREA MAP

Hydraflow Rainfall Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Wednesday, 12 / 2 / 2020

Return Period (Yrs)	Intensity-Duration-Frequency Equation Coefficients (FHA)			
	B	D	E	(N/A)
1	0.0000	0.0000	0.0000	--------
2	90.2916	15.0000	0.8392	--------
3	0.0000	0.0000	0.0000	--------
5	68.5683	13.4000	0.7363	--------
10	76.2161	14.2000	0.7325	--------
25	67.3050	12.8000	0.6766	--------
50	77.2983	13.9000	0.6825	--------
100	76.9607	13.8000	0.6601	--------

File name: ELBERTA 2020.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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	7.31	6.06	5.20	4.57	4.08	3.70	3.39	3.13	2.91	2.72	2.55	2.41
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	8.03	6.73	5.83	5.18	4.67	4.27	3.94	3.67	3.43	3.23	3.05	2.90
10	8.75	7.38	6.44	5.73	5.19	4.75	4.39	4.09	3.83	3.61	3.42	3.25
25	9.60	8.12	7.10	6.35	5.76	5.30	4.92	4.60	4.33	4.09	3.88	3.70
50	10.40	8.86	7.78	6.98	6.35	5.85	5.43	5.09	4.79	4.53	4.30	4.10
100	11.10	9.50	8.37	7.53	6.88	6.35	5.91	5.54	5.23	4.95	4.71	4.50

Tc = time in minutes. Values may exceed 60.

Precip. file name: D:\BARTON ENGINEERING\Civil\Drainage\Hydraflow\BLACKWATER FARM.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	6.02	0.00	7.67	9.25	11.70	13.90	16.30
SCS 6-Hr	0.00	4.33	0.00	5.33	6.24	7.61	8.76	10.00
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

Hydrograph Report

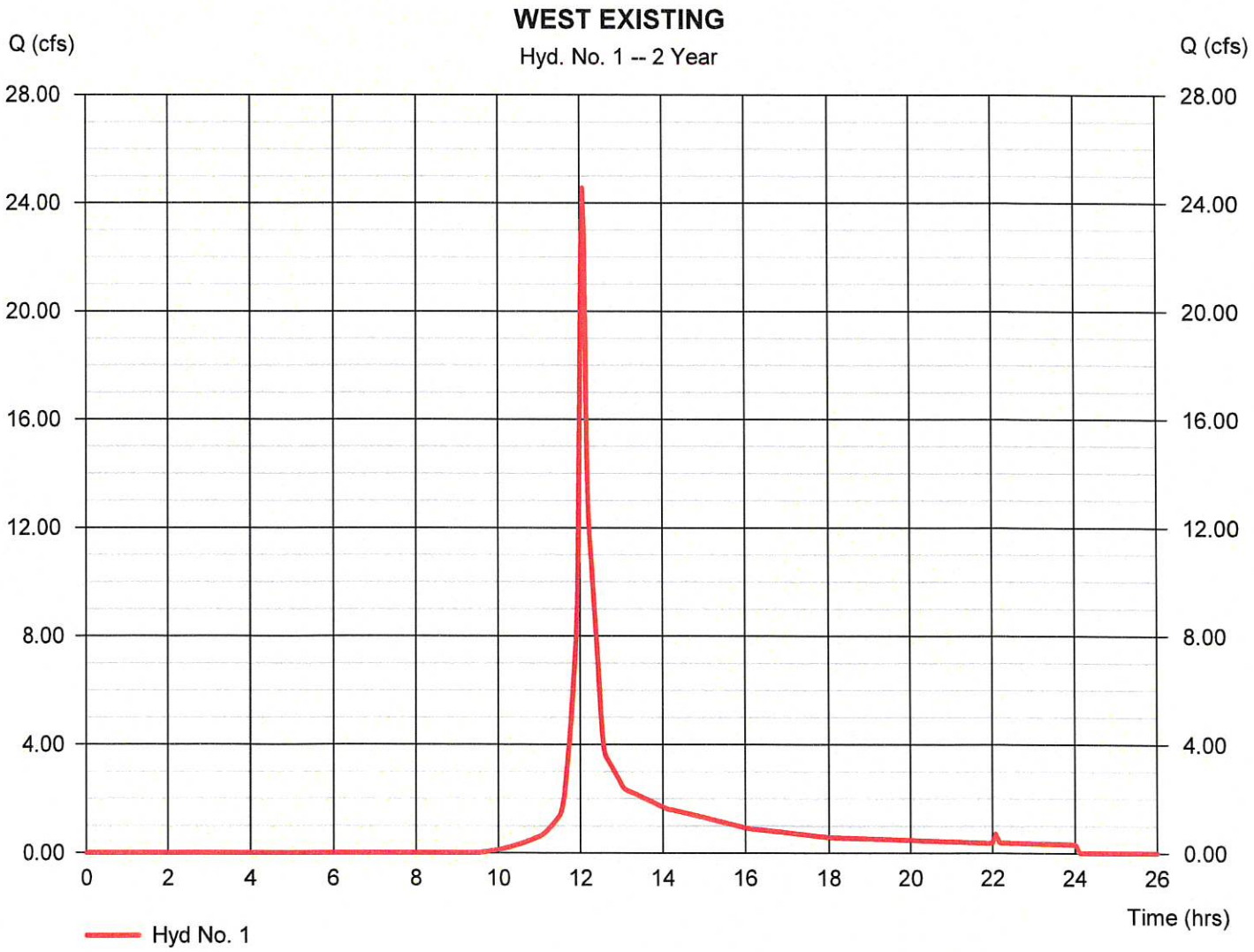
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Wednesday, 12 / 2 / 2020

Hyd. No. 1

WEST EXISTING

Hydrograph type	= SCS Runoff	Peak discharge	= 24.56 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 74,315 cuft
Drainage area	= 8.580 ac	Curve number	= 67*
Basin Slope	= 4.3 %	Hydraulic length	= 650 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 3.84 min
Total precip.	= 6.02 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.810 x 60) + (6.770 x 69)] / 8.580



Hydrograph Report

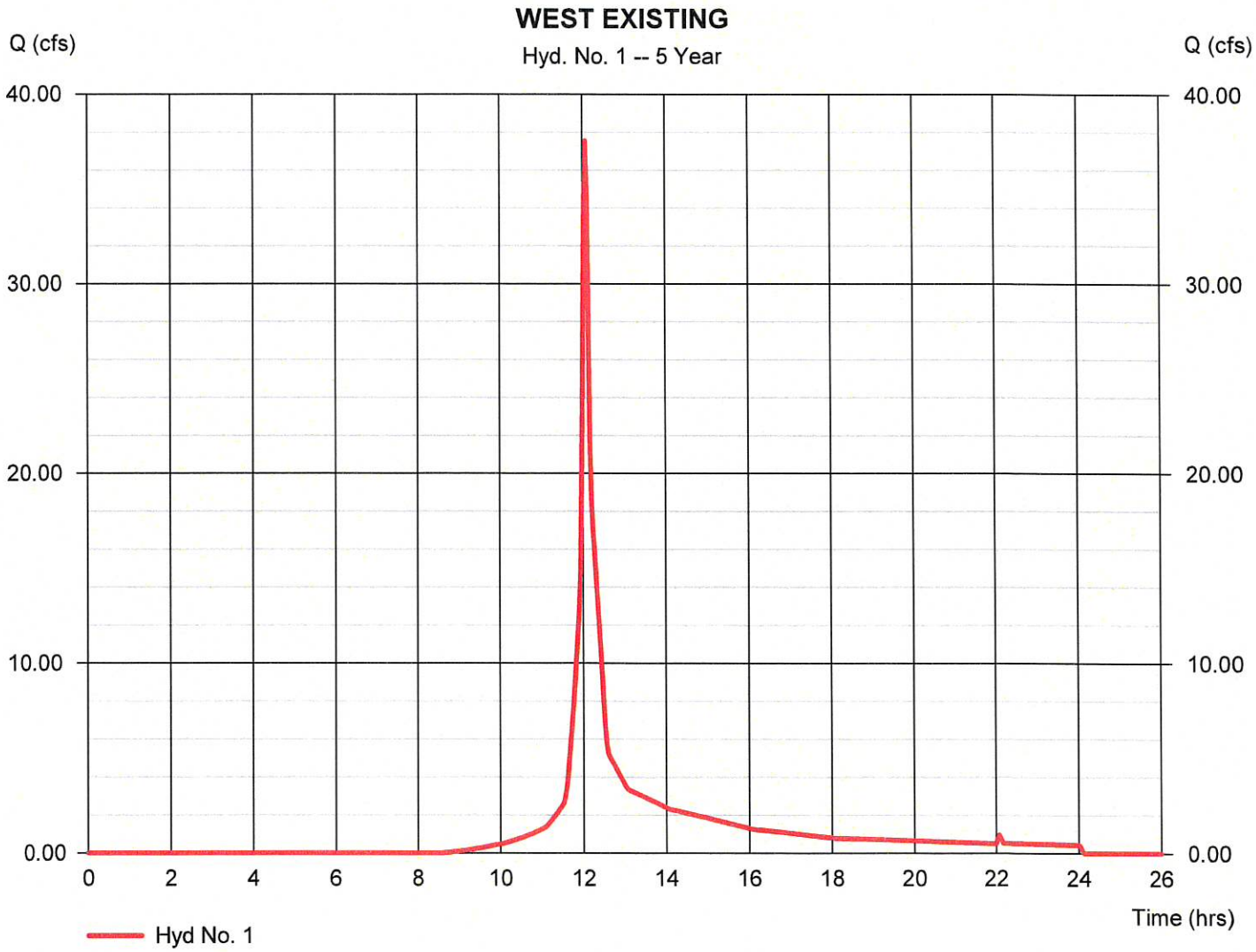
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Wednesday, 12 / 2 / 2020

Hyd. No. 1

WEST EXISTING

Hydrograph type	= SCS Runoff	Peak discharge	= 37.56 cfs
Storm frequency	= 5 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 112,387 cuft
Drainage area	= 8.580 ac	Curve number	= 67*
Basin Slope	= 4.3 %	Hydraulic length	= 650 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 3.84 min
Total precip.	= 7.67 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.810 x 60) + (6.770 x 69)] / 8.580



Hydrograph Report

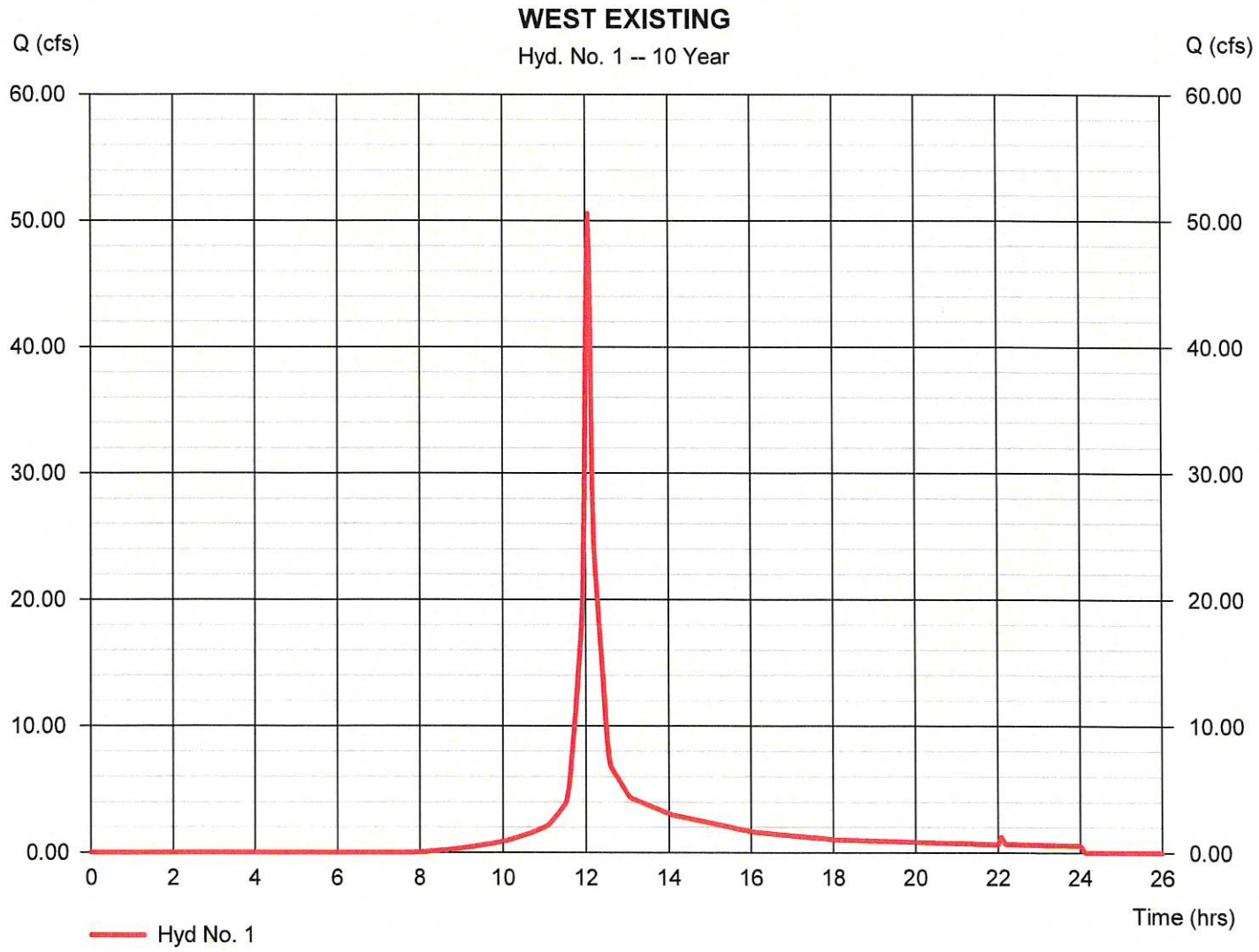
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Wednesday, 12 / 2 / 2020

Hyd. No. 1

WEST EXISTING

Hydrograph type	= SCS Runoff	Peak discharge	= 50.58 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 151,213 cuft
Drainage area	= 8.580 ac	Curve number	= 67*
Basin Slope	= 4.3 %	Hydraulic length	= 650 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 3.84 min
Total precip.	= 9.25 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.810 x 60) + (6.770 x 69)] / 8.580



Hydrograph Report

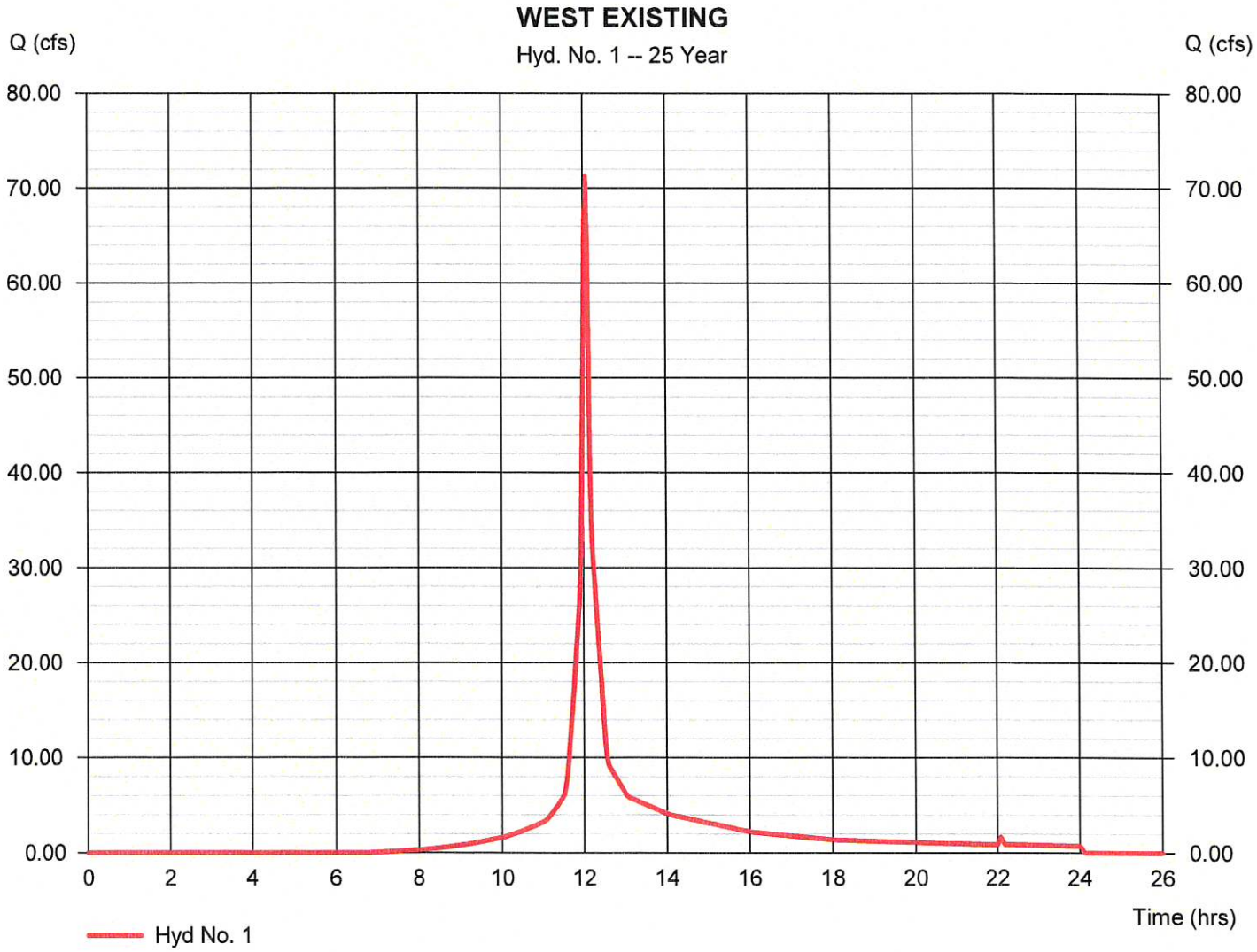
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Wednesday, 12 / 2 / 2020

Hyd. No. 1

WEST EXISTING

Hydrograph type	= SCS Runoff	Peak discharge	= 71.32 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 214,338 cuft
Drainage area	= 8.580 ac	Curve number	= 67*
Basin Slope	= 4.3 %	Hydraulic length	= 650 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 3.84 min
Total precip.	= 11.70 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.810 x 60) + (6.770 x 69)] / 8.580



Hydrograph Report

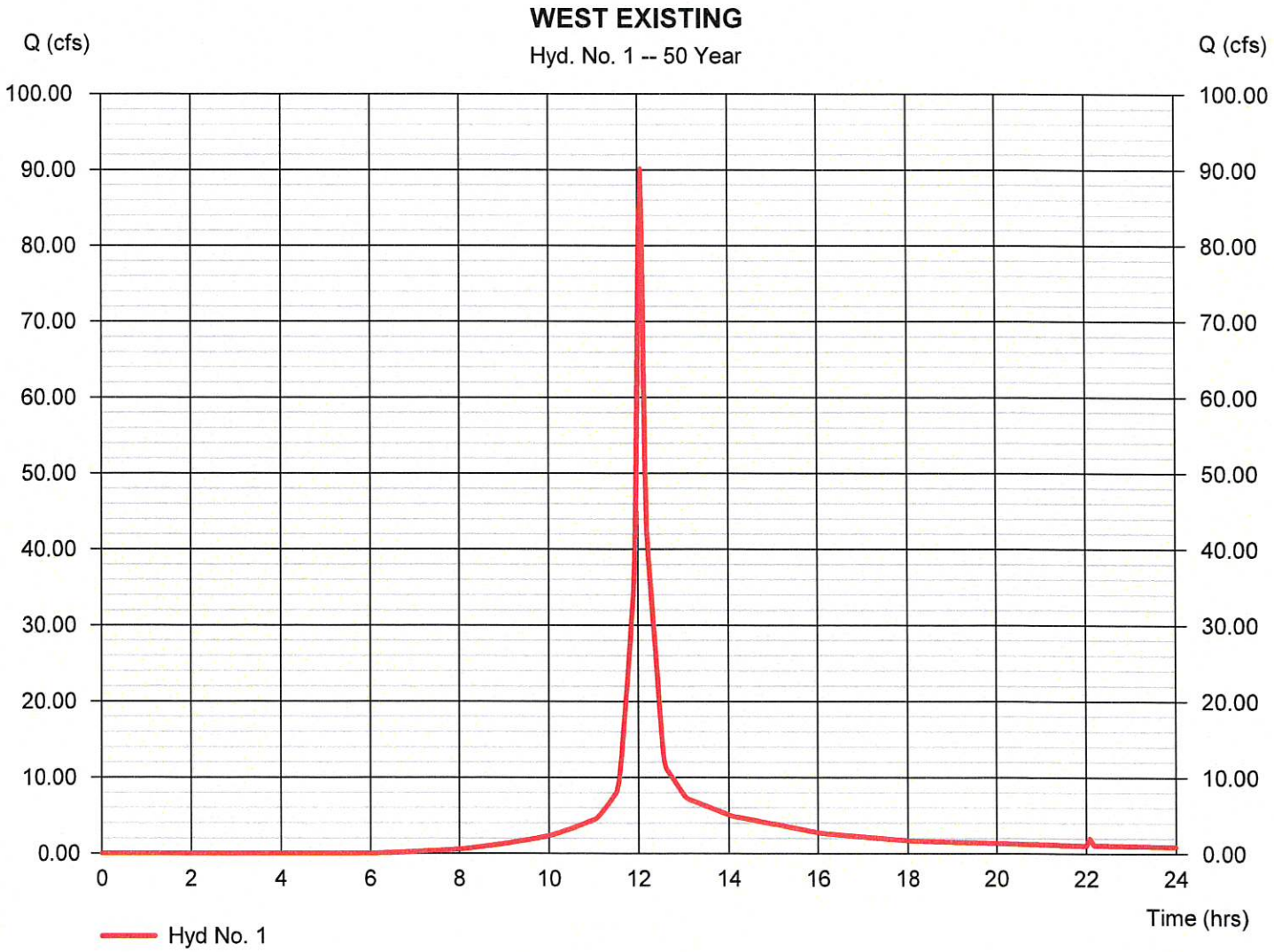
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 Wednesday, 12 / 2 / 2020

Hyd. No. 1

WEST EXISTING

Hydrograph type	= SCS Runoff	Peak discharge	= 90.18 cfs
Storm frequency	= 50 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 272,990 cuft
Drainage area	= 8.580 ac	Curve number	= 67*
Basin Slope	= 4.3 %	Hydraulic length	= 650 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 3.84 min
Total precip.	= 13.90 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.810 x 60) + (6.770 x 69)] / 8.580



Hydrograph Report

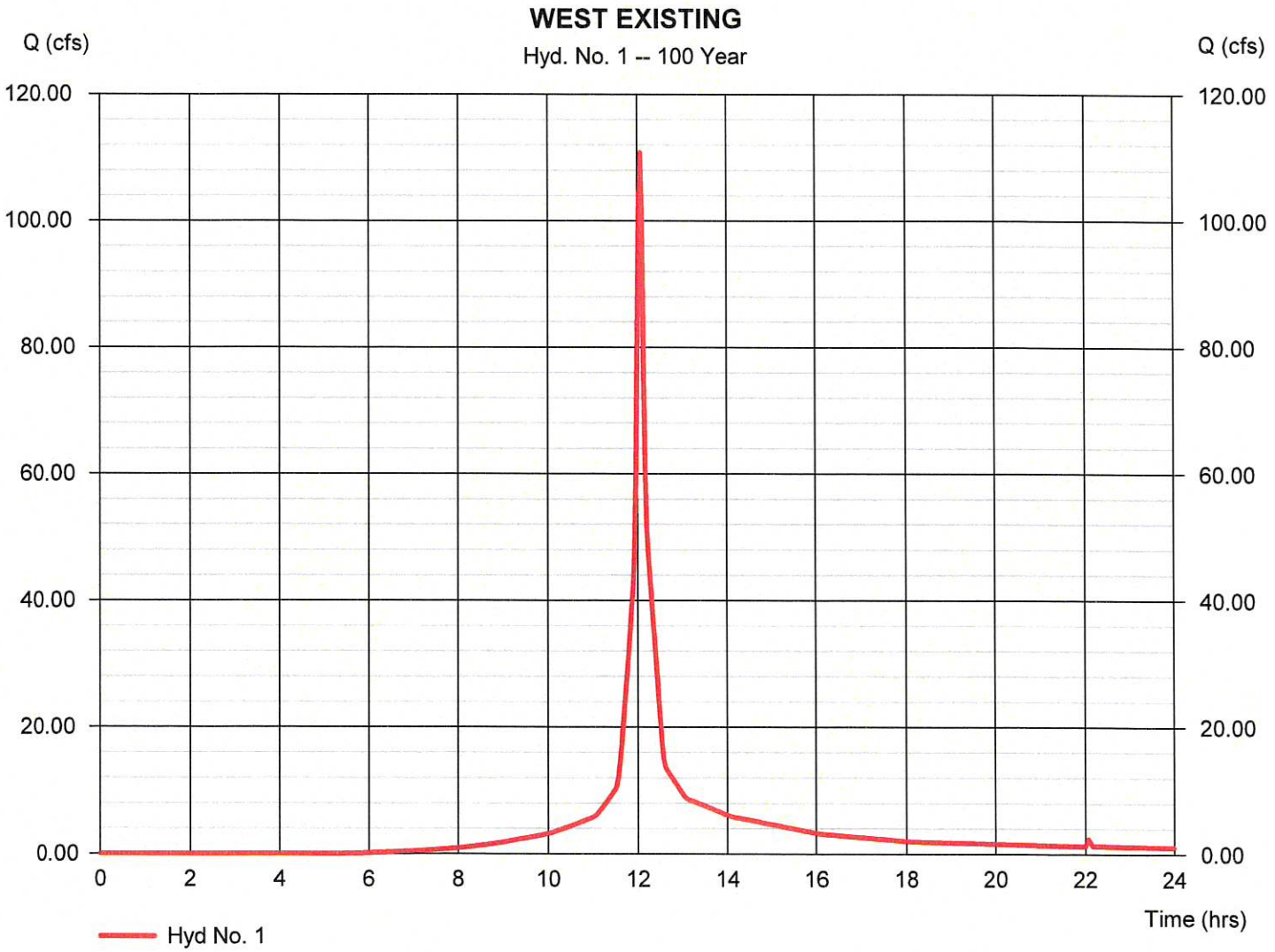
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Wednesday, 12 / 2 / 2020

Hyd. No. 1

WEST EXISTING

Hydrograph type	= SCS Runoff	Peak discharge	= 110.82 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 338,359 cuft
Drainage area	= 8.580 ac	Curve number	= 67*
Basin Slope	= 4.3 %	Hydraulic length	= 650 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 3.84 min
Total precip.	= 16.30 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.810 x 60) + (6.770 x 69)] / 8.580



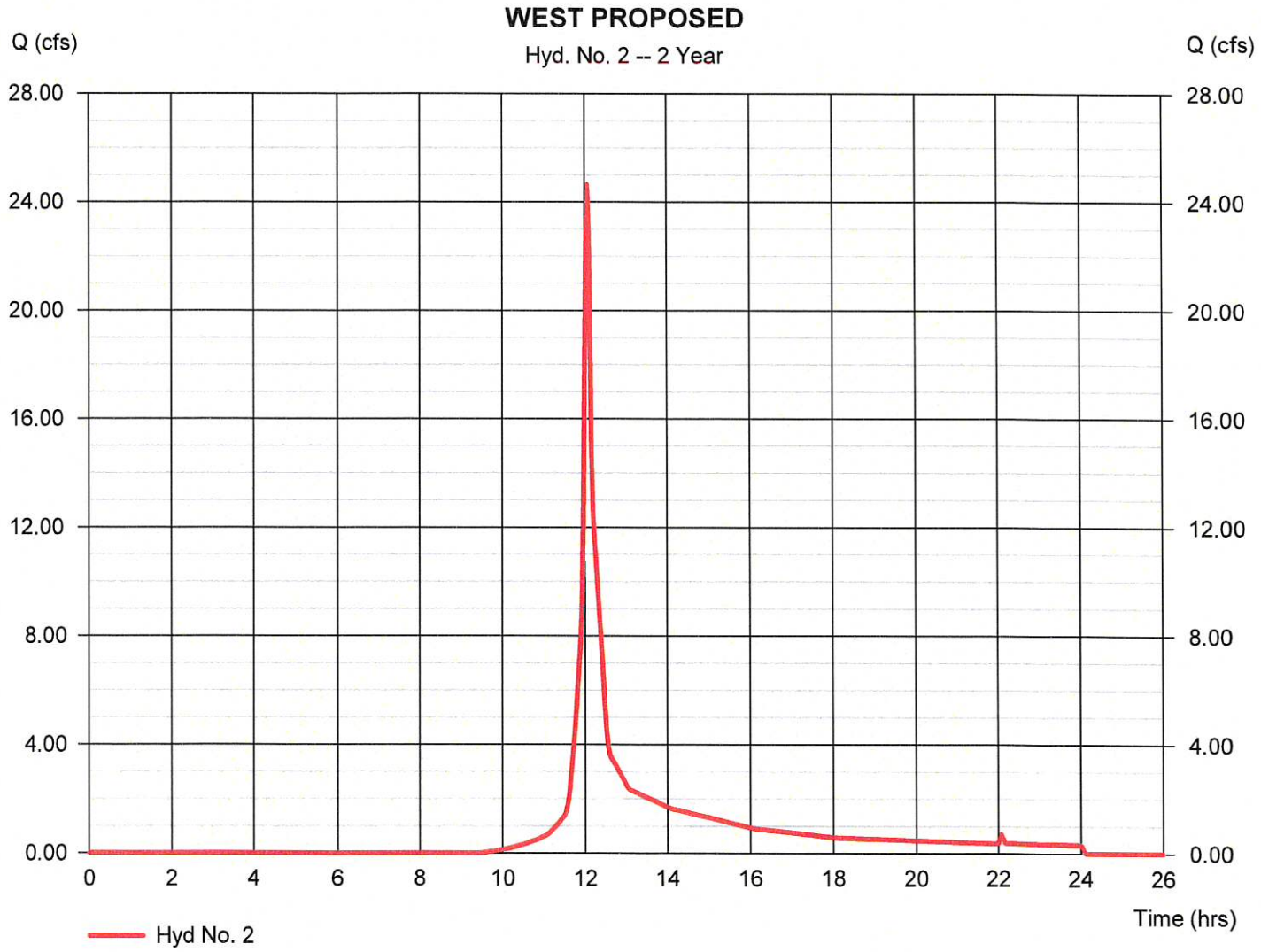
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Wednesday, 12 / 2 / 2020

Hyd. No. 2

WEST PROPOSED

Hydrograph type	= SCS Runoff	Peak discharge	= 24.66 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 74,580 cuft
Drainage area	= 8.580 ac	Curve number	= 67.1
Basin Slope	= 4.3 %	Hydraulic length	= 650 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 3.84 min
Total precip.	= 6.02 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



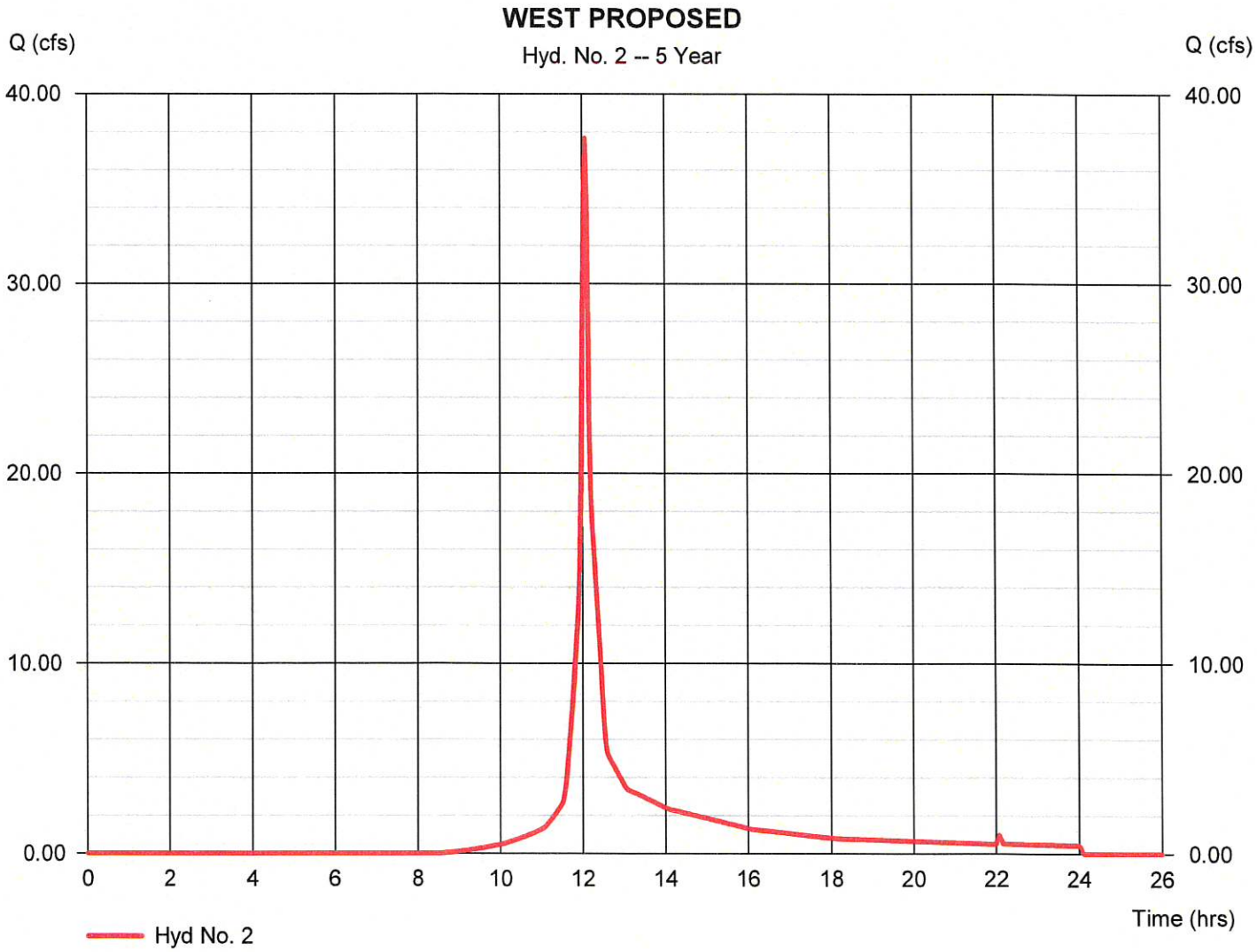
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Wednesday, 12 / 2 / 2020

Hyd. No. 2

WEST PROPOSED

Hydrograph type	= SCS Runoff	Peak discharge	= 37.67 cfs
Storm frequency	= 5 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 112,709 cuft
Drainage area	= 8.580 ac	Curve number	= 67.1
Basin Slope	= 4.3 %	Hydraulic length	= 650 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 3.84 min
Total precip.	= 7.67 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



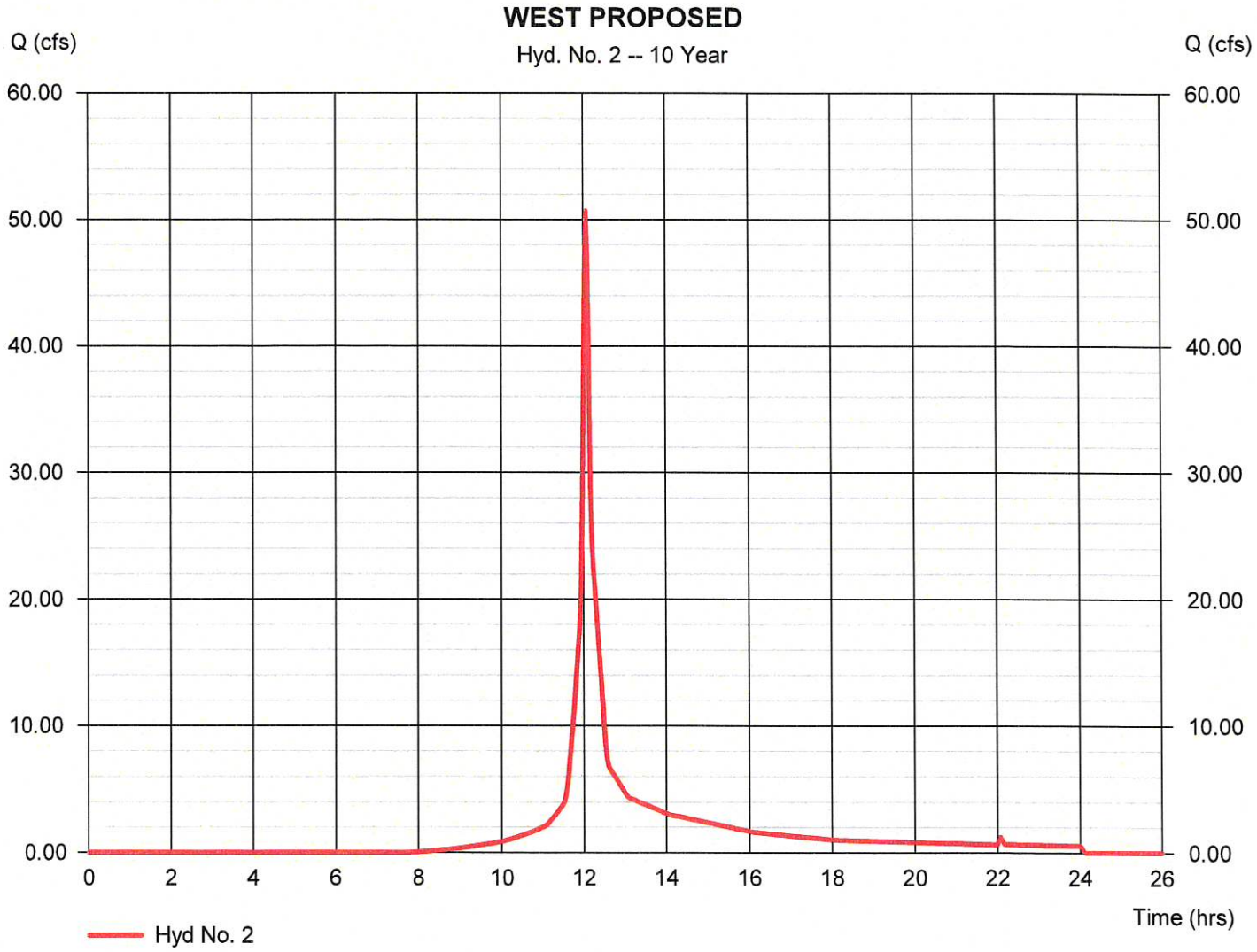
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Wednesday, 12 / 2 / 2020

Hyd. No. 2

WEST PROPOSED

Hydrograph type	= SCS Runoff	Peak discharge	= 50.70 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 151,580 cuft
Drainage area	= 8.580 ac	Curve number	= 67.1
Basin Slope	= 4.3 %	Hydraulic length	= 650 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 3.84 min
Total precip.	= 9.25 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



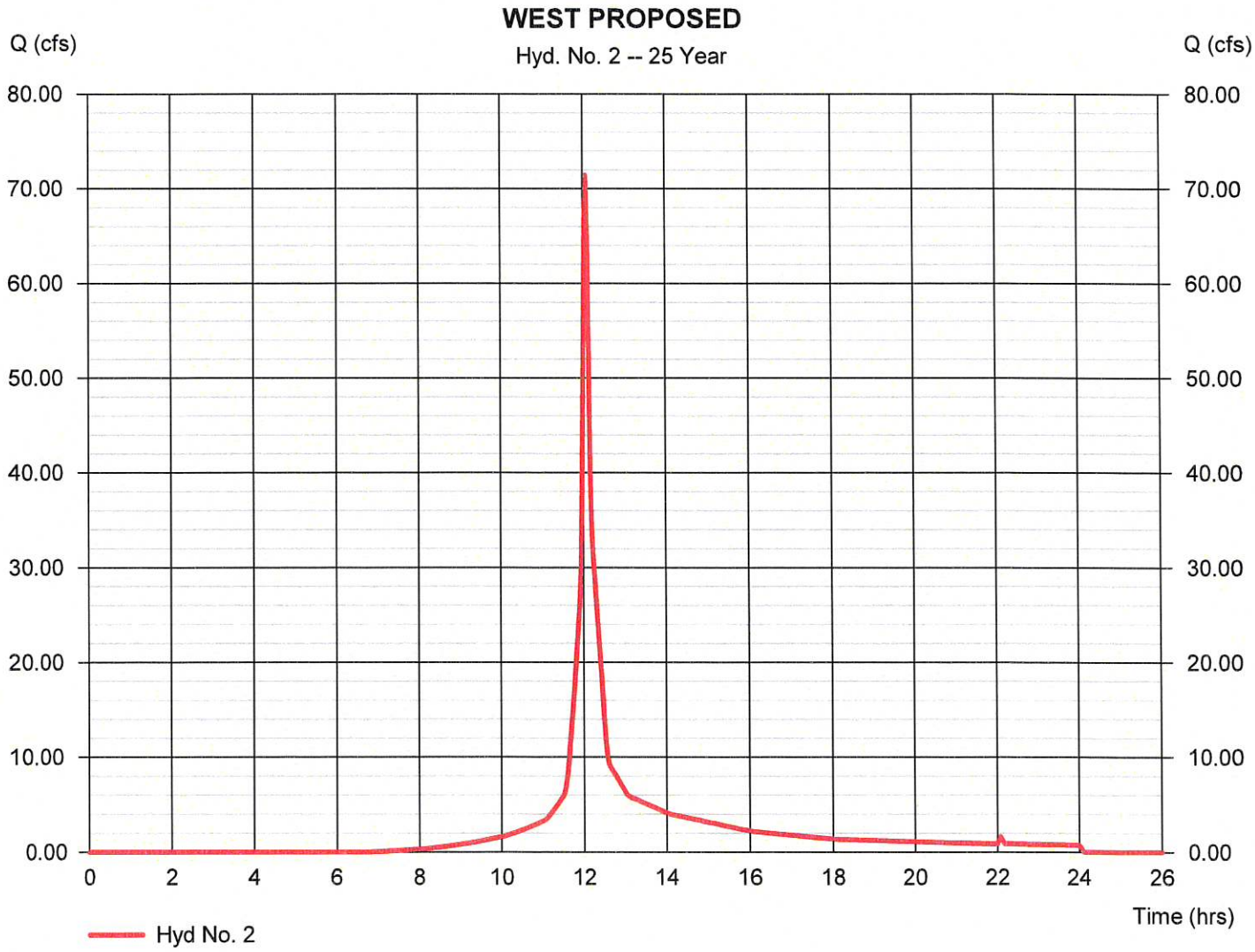
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Wednesday, 12 / 2 / 2020

Hyd. No. 2

WEST PROPOSED

Hydrograph type	= SCS Runoff	Peak discharge	= 71.45 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 214,760 cuft
Drainage area	= 8.580 ac	Curve number	= 67.1
Basin Slope	= 4.3 %	Hydraulic length	= 650 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 3.84 min
Total precip.	= 11.70 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



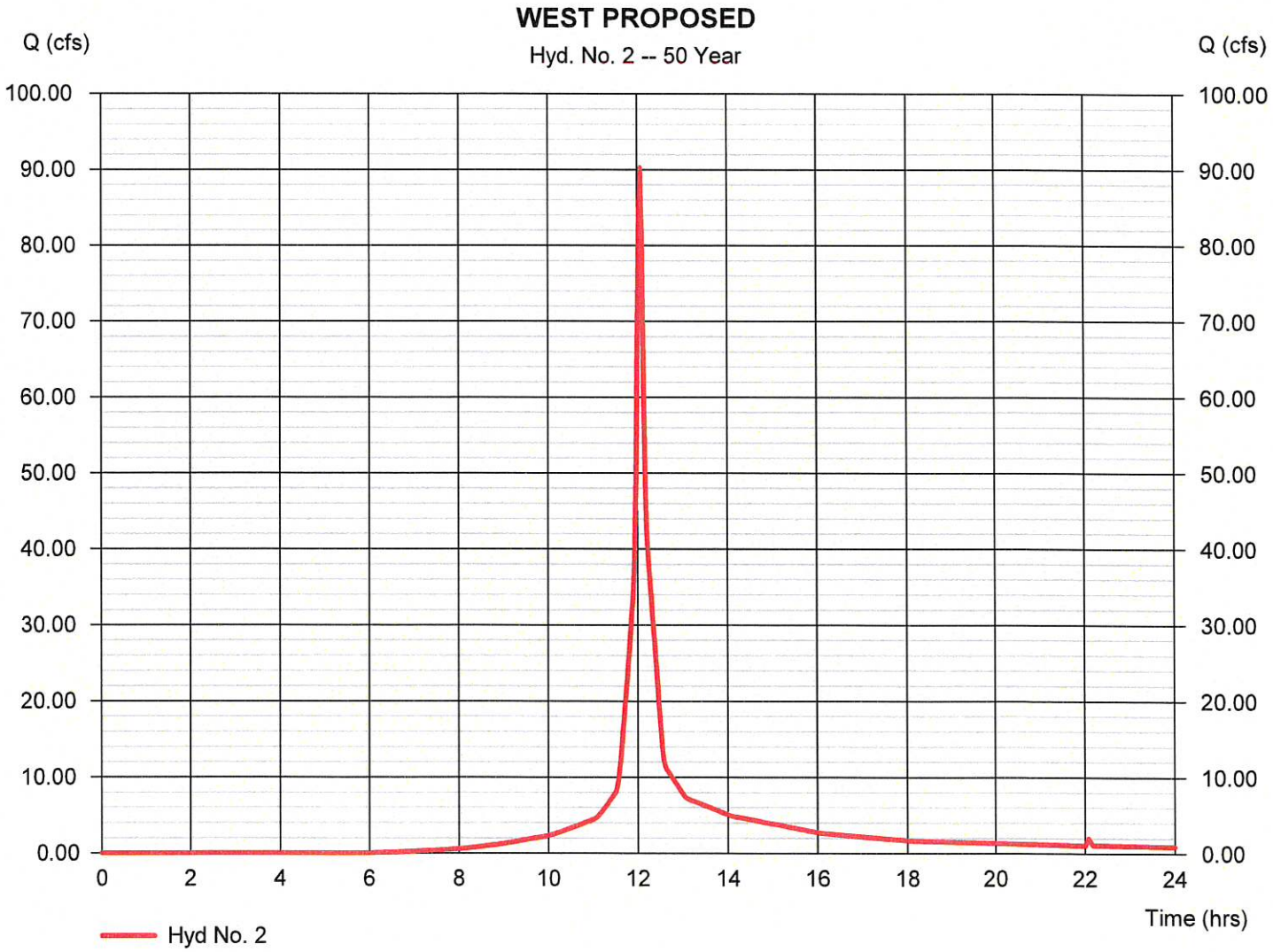
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Wednesday, 12 / 2 / 2020

Hyd. No. 2

WEST PROPOSED

Hydrograph type	= SCS Runoff	Peak discharge	= 90.31 cfs
Storm frequency	= 50 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 273,451 cuft
Drainage area	= 8.580 ac	Curve number	= 67.1
Basin Slope	= 4.3 %	Hydraulic length	= 650 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 3.84 min
Total precip.	= 13.90 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



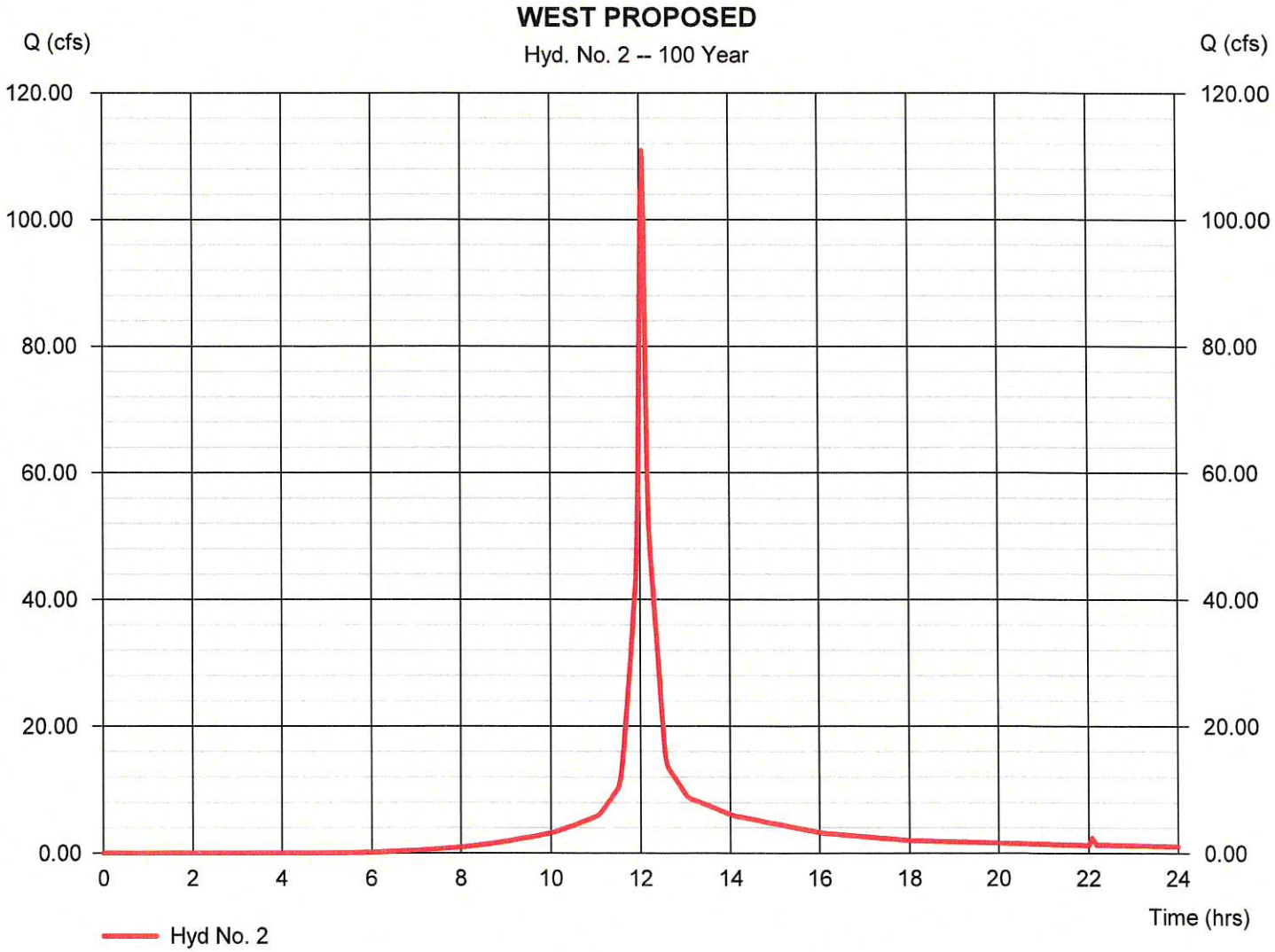
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Wednesday, 12 / 2 / 2020

Hyd. No. 2

WEST PROPOSED

Hydrograph type	= SCS Runoff	Peak discharge	= 110.96 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 338,854 cuft
Drainage area	= 8.580 ac	Curve number	= 67.1
Basin Slope	= 4.3 %	Hydraulic length	= 650 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 3.84 min
Total precip.	= 16.30 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

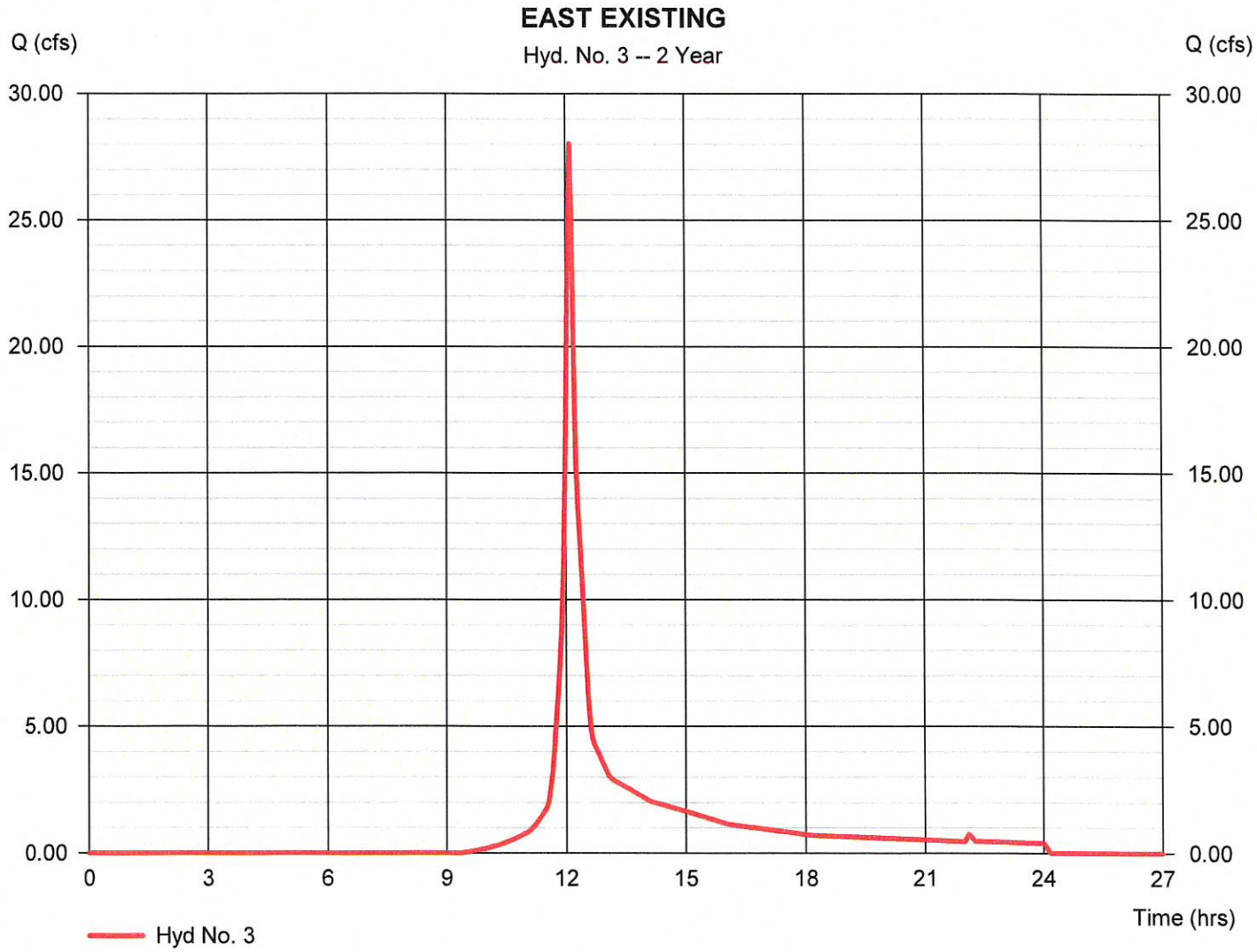
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Wednesday, 12 / 2 / 2020

Hyd. No. 3

EAST EXISTING

Hydrograph type	= SCS Runoff	Peak discharge	= 28.03 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 94,019 cuft
Drainage area	= 10.480 ac	Curve number	= 68*
Basin Slope	= 3.0 %	Hydraulic length	= 840 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 5.39 min
Total precip.	= 6.02 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.590 x 60) + (8.890 x 69)] / 10.480



Hydrograph Report

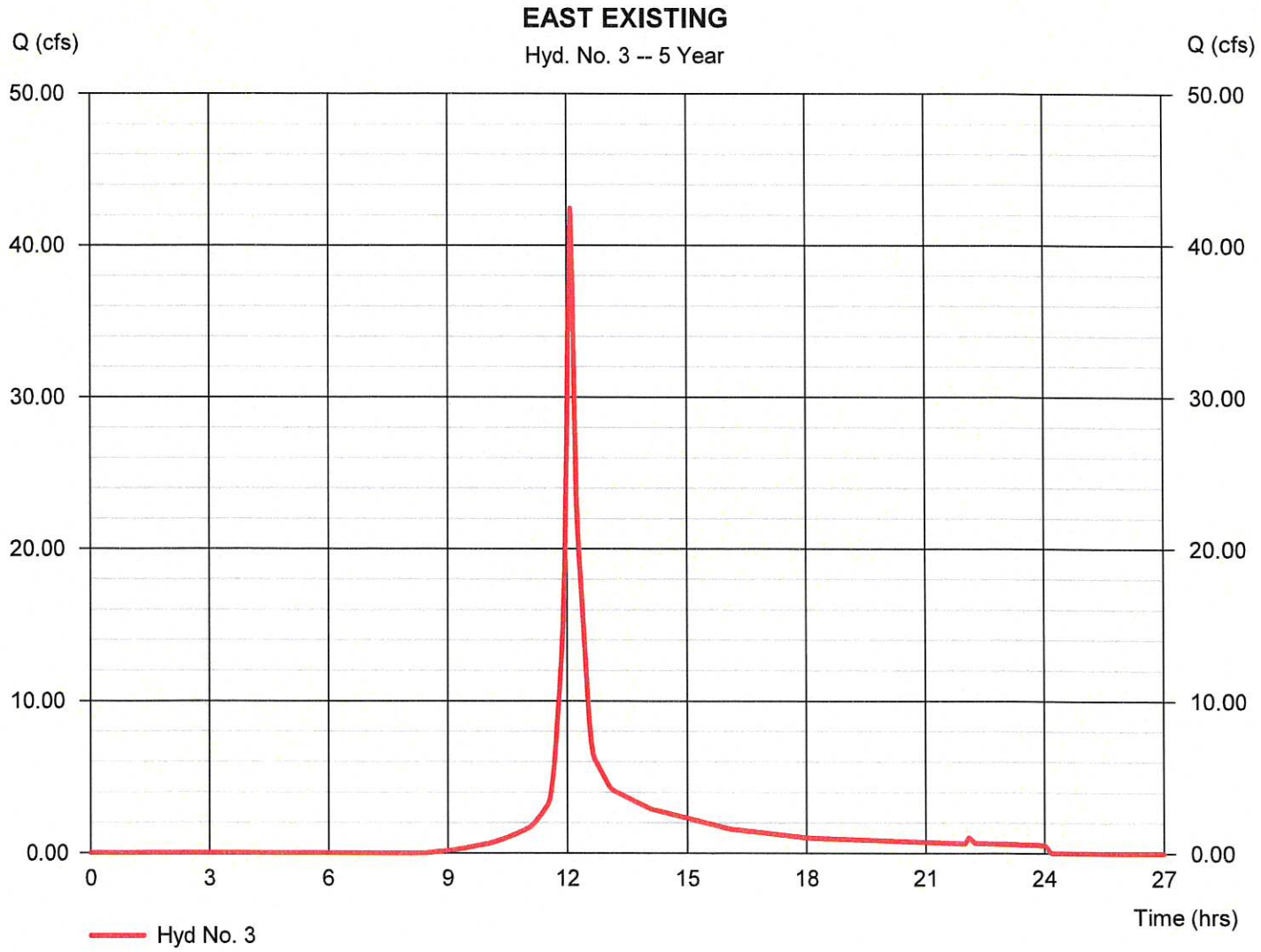
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Wednesday, 12 / 2 / 2020

Hyd. No. 3

EAST EXISTING

Hydrograph type	= SCS Runoff	Peak discharge	= 42.46 cfs
Storm frequency	= 5 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 141,219 cuft
Drainage area	= 10.480 ac	Curve number	= 68*
Basin Slope	= 3.0 %	Hydraulic length	= 840 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 5.39 min
Total precip.	= 7.67 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.590 x 60) + (8.890 x 69)] / 10.480



Hydrograph Report

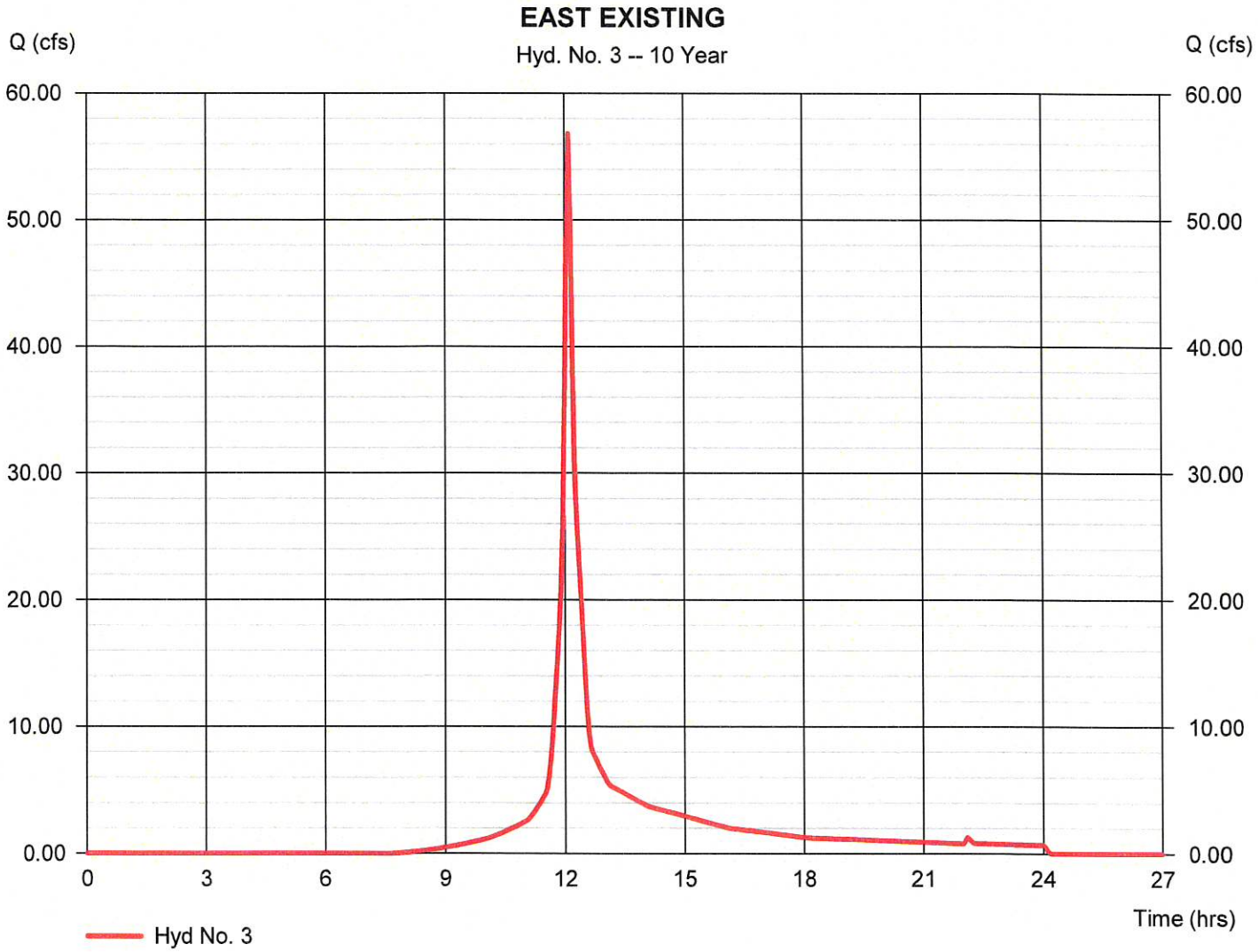
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Wednesday, 12 / 2 / 2020

Hyd. No. 3

EAST EXISTING

Hydrograph type	= SCS Runoff	Peak discharge	= 56.84 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 189,184 cuft
Drainage area	= 10.480 ac	Curve number	= 68*
Basin Slope	= 3.0 %	Hydraulic length	= 840 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 5.39 min
Total precip.	= 9.25 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.590 x 60) + (8.890 x 69)] / 10.480



Hydrograph Report

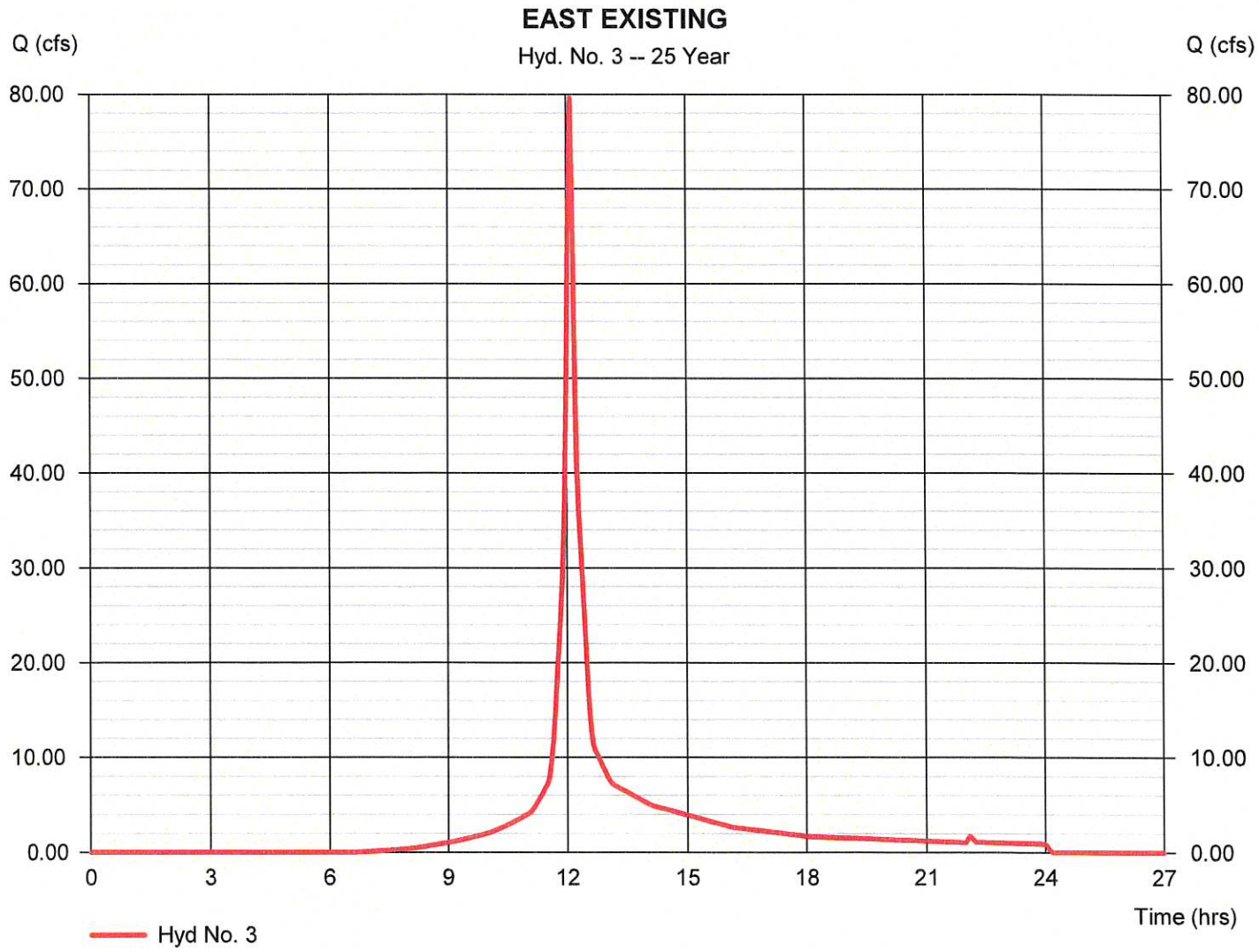
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Wednesday, 12 / 2 / 2020

Hyd. No. 3

EAST EXISTING

Hydrograph type	= SCS Runoff	Peak discharge	= 79.67 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 266,948 cuft
Drainage area	= 10.480 ac	Curve number	= 68*
Basin Slope	= 3.0 %	Hydraulic length	= 840 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 5.39 min
Total precip.	= 11.70 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.590 x 60) + (8.890 x 69)] / 10.480



Hydrograph Report

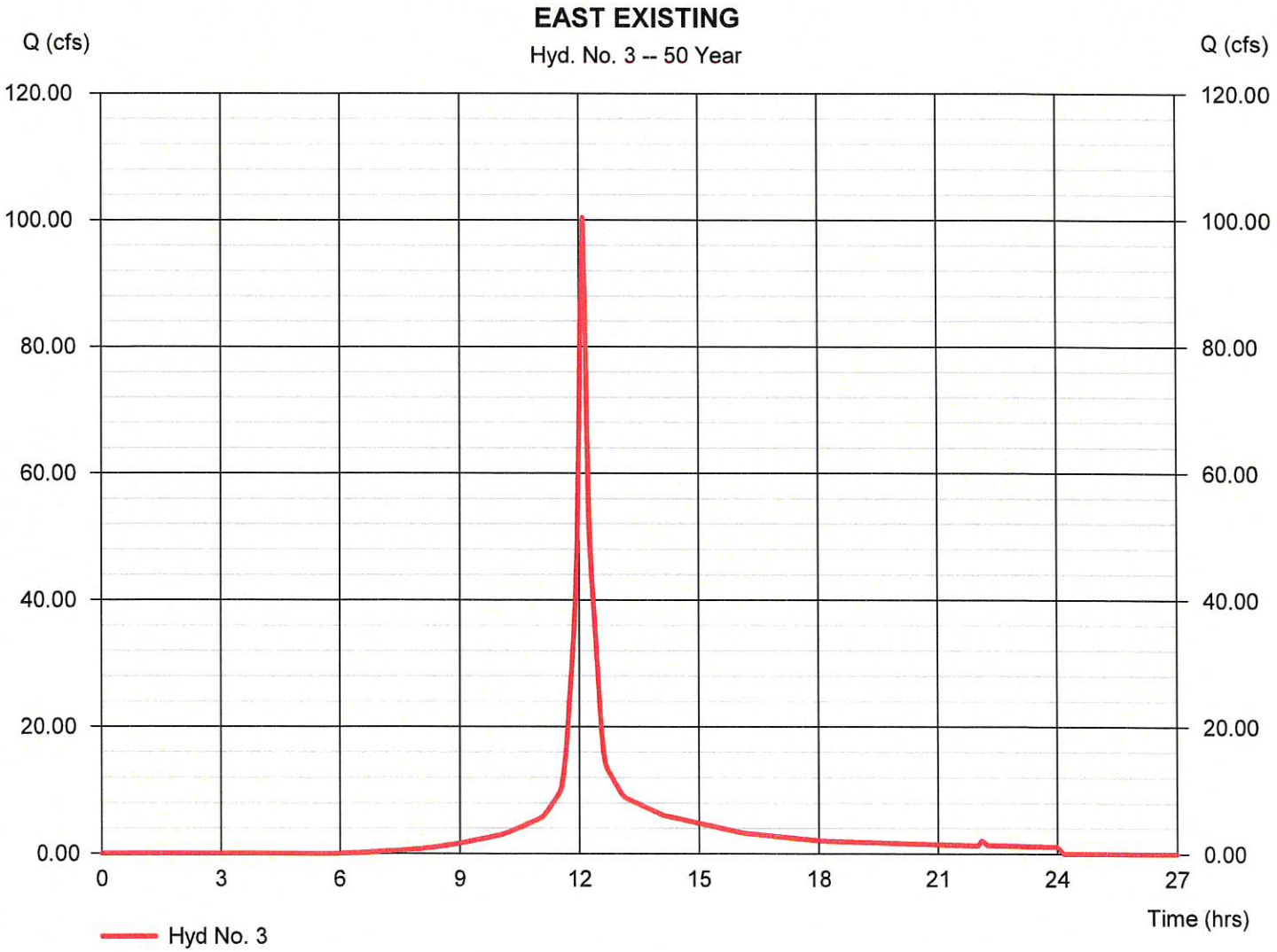
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Wednesday, 12 / 2 / 2020

Hyd. No. 3

EAST EXISTING

Hydrograph type	= SCS Runoff	Peak discharge	= 100.39 cfs
Storm frequency	= 50 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 339,050 cuft
Drainage area	= 10.480 ac	Curve number	= 68*
Basin Slope	= 3.0 %	Hydraulic length	= 840 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 5.39 min
Total precip.	= 13.90 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.590 x 60) + (8.890 x 69)] / 10.480



Hydrograph Report

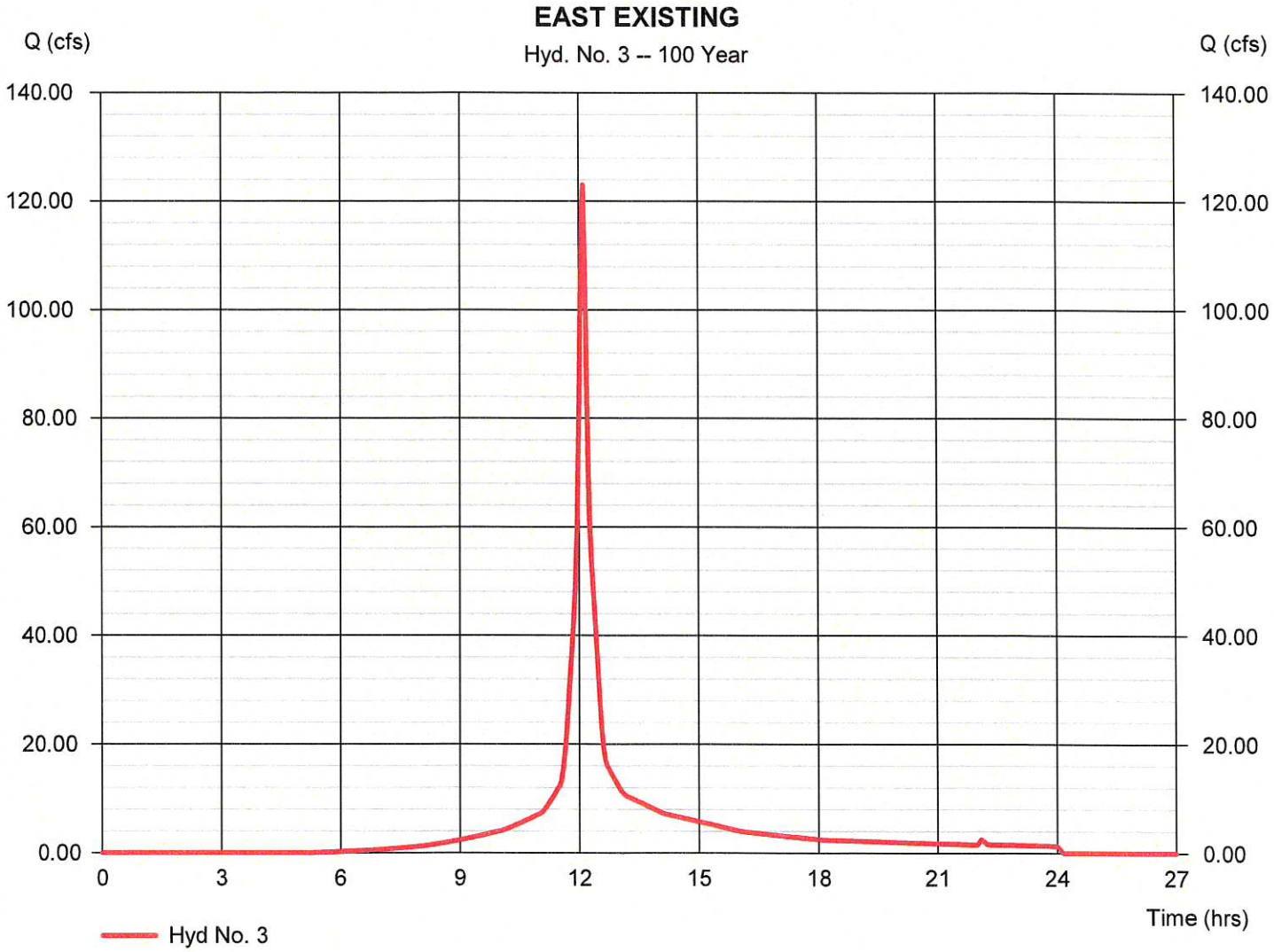
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Wednesday, 12 / 2 / 2020

Hyd. No. 3

EAST EXISTING

Hydrograph type	= SCS Runoff	Peak discharge	= 123.04 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 419,297 cuft
Drainage area	= 10.480 ac	Curve number	= 68*
Basin Slope	= 3.0 %	Hydraulic length	= 840 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 5.39 min
Total precip.	= 16.30 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(1.590 x 60) + (8.890 x 69)] / 10.480



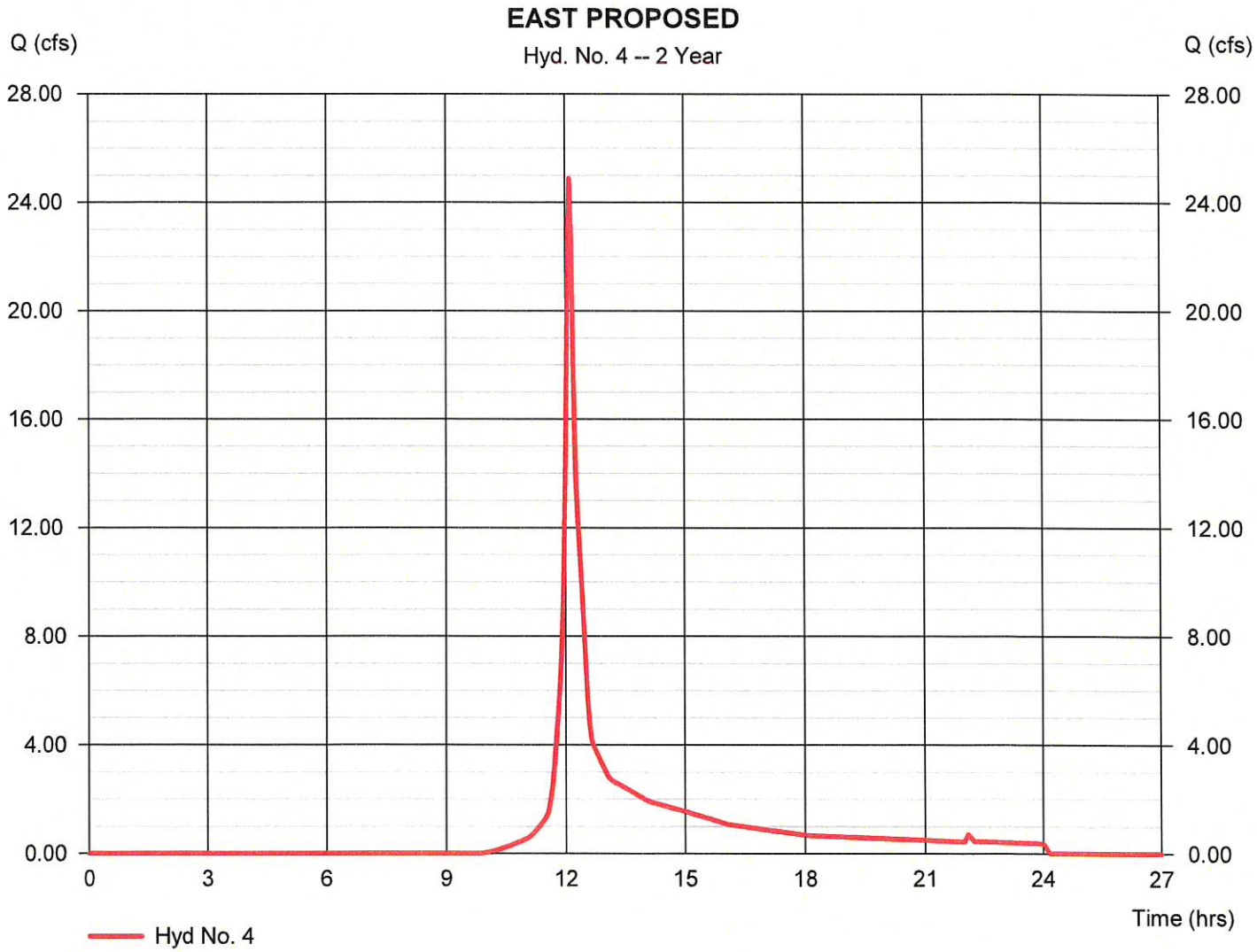
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Wednesday, 12 / 2 / 2020

Hyd. No. 4

EAST PROPOSED

Hydrograph type	= SCS Runoff	Peak discharge	= 24.88 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 84,378 cuft
Drainage area	= 10.480 ac	Curve number	= 65
Basin Slope	= 3.0 %	Hydraulic length	= 840 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 5.39 min
Total precip.	= 6.02 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



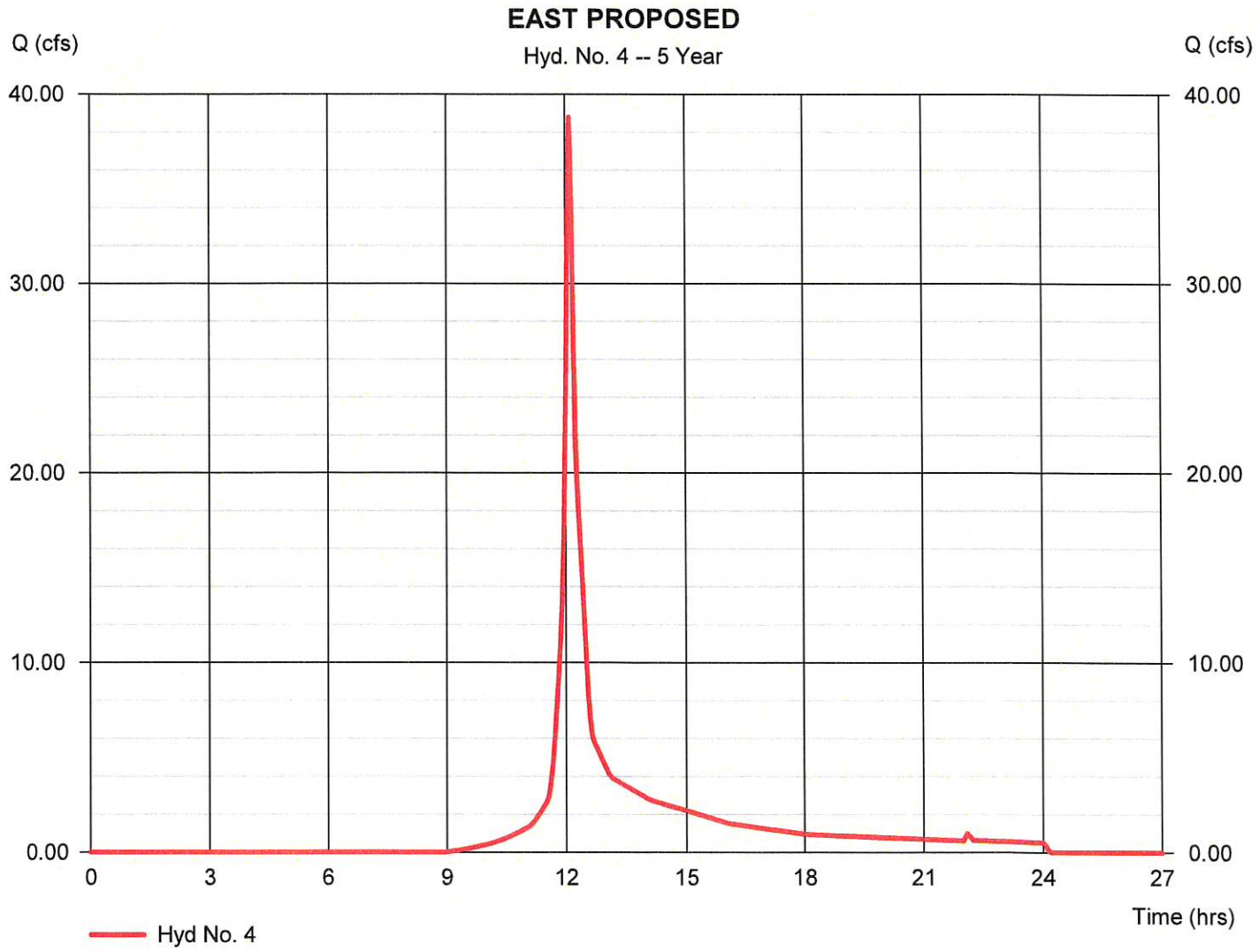
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Wednesday, 12 / 2 / 2020

Hyd. No. 4

EAST PROPOSED

Hydrograph type	= SCS Runoff	Peak discharge	= 38.79 cfs
Storm frequency	= 5 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 129,432 cuft
Drainage area	= 10.480 ac	Curve number	= 65
Basin Slope	= 3.0 %	Hydraulic length	= 840 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 5.39 min
Total precip.	= 7.67 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



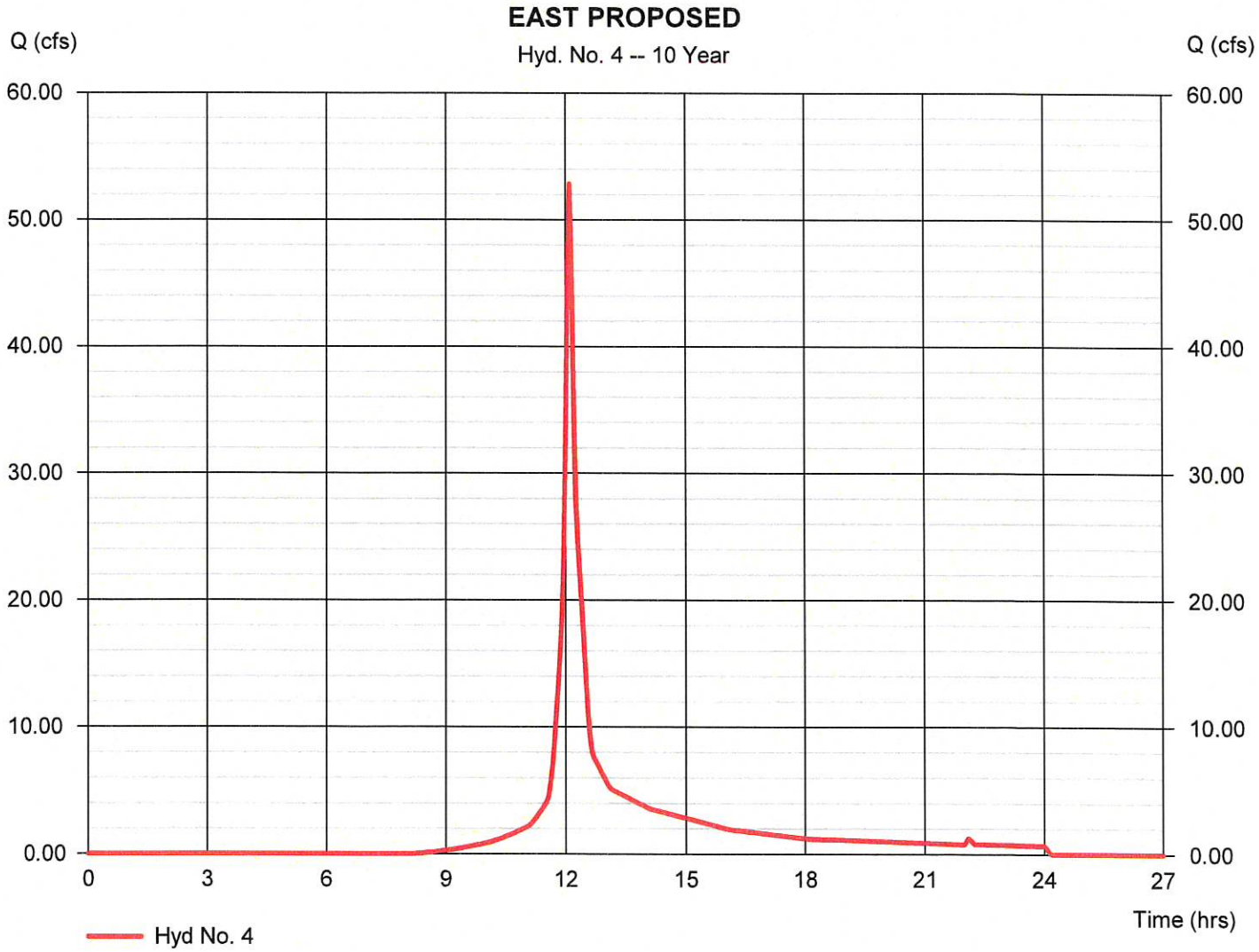
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Wednesday, 12 / 2 / 2020

Hyd. No. 4

EAST PROPOSED

Hydrograph type	= SCS Runoff	Peak discharge	= 52.85 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 175,721 cuft
Drainage area	= 10.480 ac	Curve number	= 65
Basin Slope	= 3.0 %	Hydraulic length	= 840 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 5.39 min
Total precip.	= 9.25 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



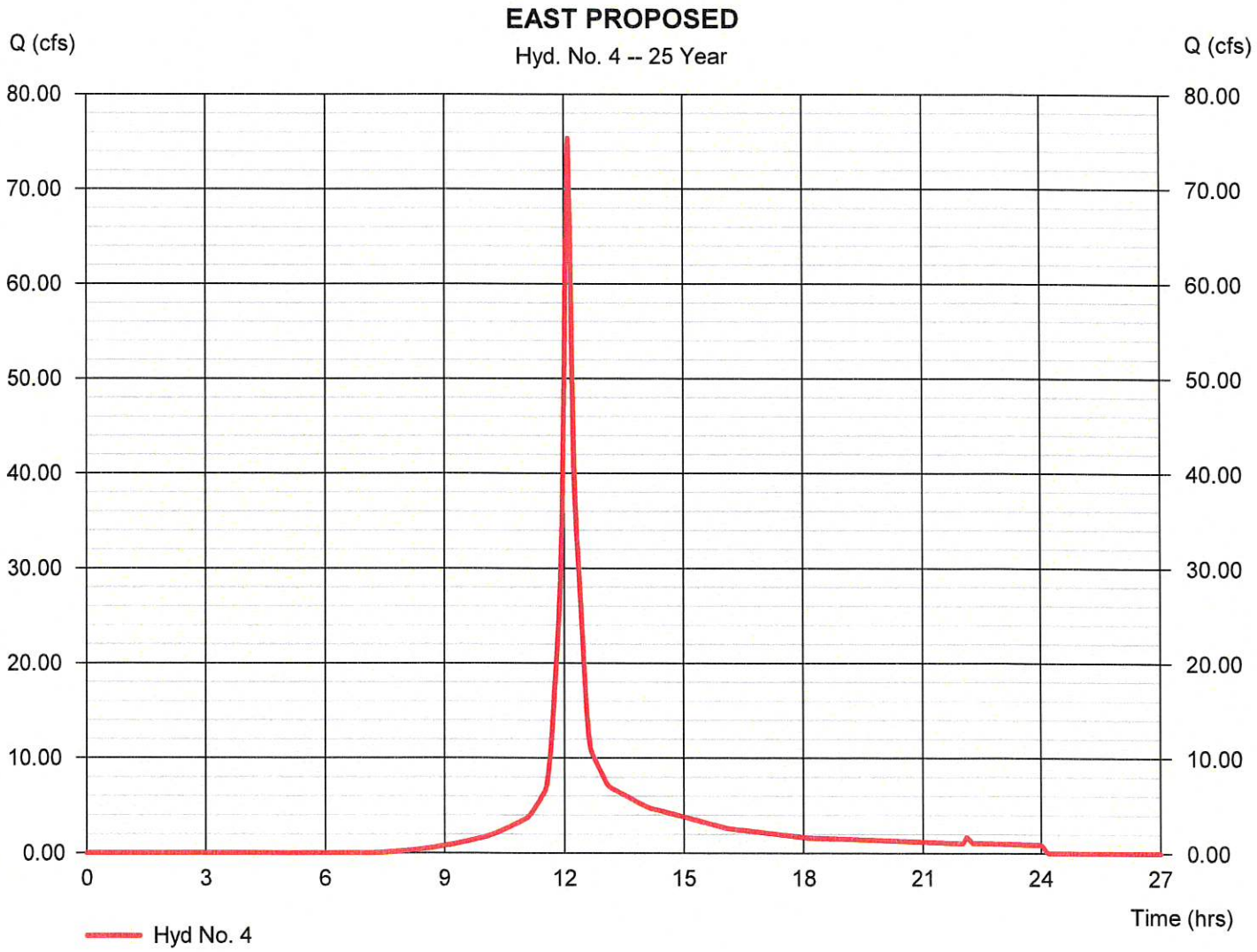
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Wednesday, 12 / 2 / 2020

Hyd. No. 4

EAST PROPOSED

Hydrograph type	= SCS Runoff	Peak discharge	= 75.38 cfs
Storm frequency	= 25 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 251,426 cuft
Drainage area	= 10.480 ac	Curve number	= 65
Basin Slope	= 3.0 %	Hydraulic length	= 840 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 5.39 min
Total precip.	= 11.70 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484



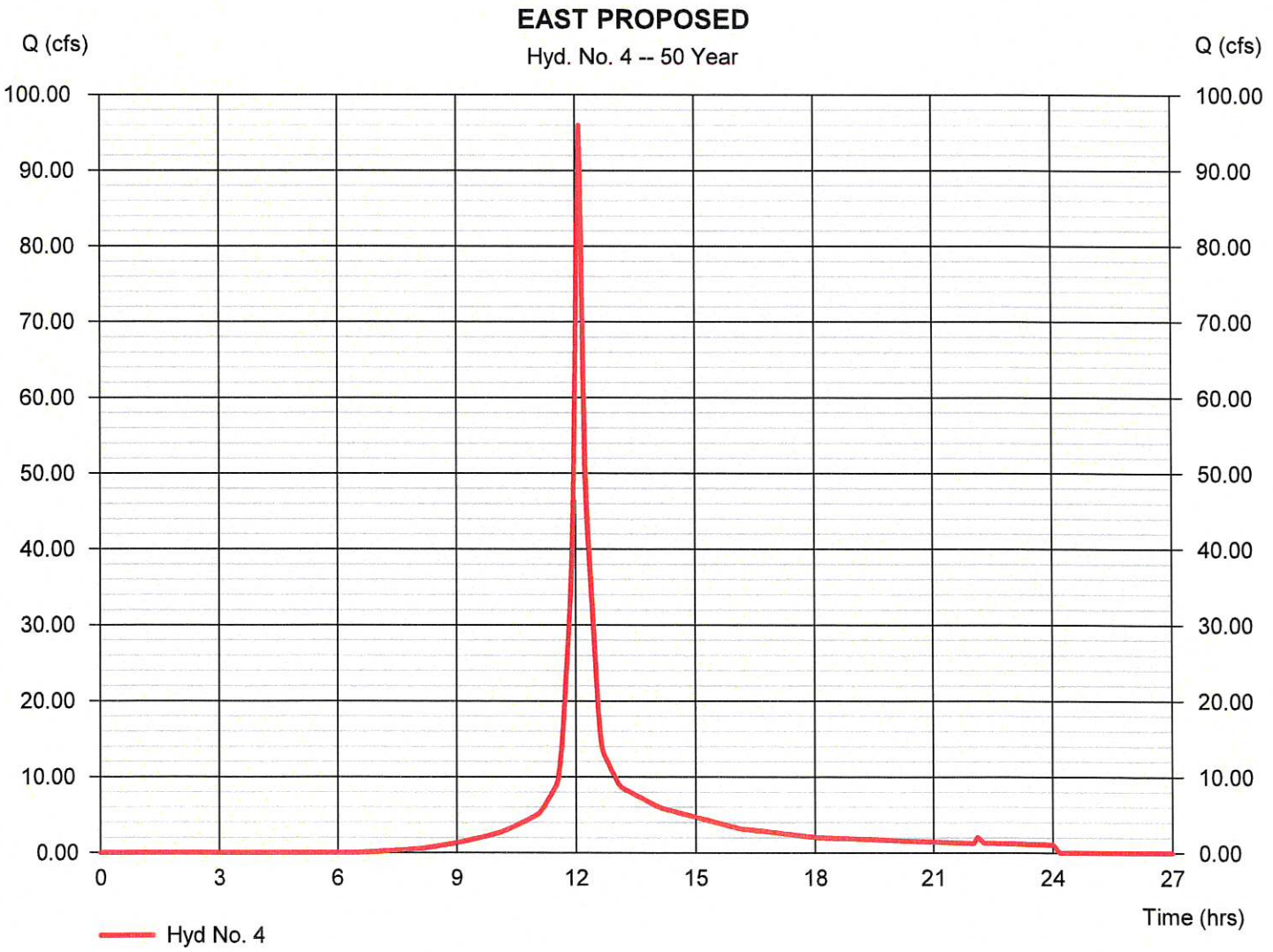
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2020 — Wednesday, 12 / 2 / 2020

Hyd. No. 4

EAST PROPOSED

Hydrograph type	= SCS Runoff	Peak discharge	= 95.97 cfs
Storm frequency	= 50 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 322,083 cuft
Drainage area	= 10.480 ac	Curve number	= 65
Basin Slope	= 3.0 %	Hydraulic length	= 840 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 5.39 min
Total precip.	= 13.90 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, 12 / 2 / 2020

Hyd. No. 4

EAST PROPOSED

Hydrograph type	= SCS Runoff	Peak discharge	= 118.59 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.10 hrs
Time interval	= 3 min	Hyd. volume	= 401,065 cuft
Drainage area	= 10.480 ac	Curve number	= 65
Basin Slope	= 3.0 %	Hydraulic length	= 840 ft
Tc method	= KIRPICH	Time of conc. (Tc)	= 5.39 min
Total precip.	= 16.30 in	Distribution	= Type III
Storm duration	= 24 hrs	Shape factor	= 484