DRAINAGE REPORT

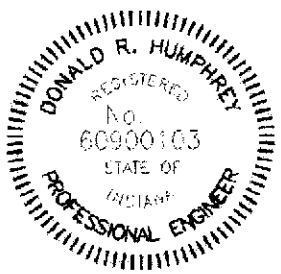
FOR

INTEGRITY ROTATIONAL MOLDING

NEW WAREHOUSE ADDITION PROJECT

701 N. Carr Road
Plainfield, Indiana

June 2026



Donald R Humphrey
6/11/26

PREPARED BY:
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TECHNICAL DRAINAGE REPORT
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DRAINAGE REPORT
NEW WAREHOUSE ADDITION PROJECT

PROJECT NARRATIVE:

This project involves the construction of a new 57,420 SF Warehouse Addition located at 701 N. Carr Road in Plainfield, Indiana. The property is a 7.28 acre parcel which currently includes two (2) light manufacturing and warehouse buildings for Integrity Rotational Molding. The project will include new asphalt drive and parking areas, six truck loading docks, asphalt fire access roads, and a dry detention pond for stormwater storage. The project will disturb approximately 3.0 acres and include 1.70 acres of new impervious areas.

EXISTING CONDITIONS:

The existing property consists of a partially developed industrial lot that includes two light manufacturing and warehouse buildings totaling approximately 66,000 SF along with an asphalt drive and parking lot along the south side and three truck docks and gravel drive area along the east side.

Stormwater runoff from the site generally sheet drains to the south into an existing swale running along the asphalt trail to the south. The west portion of the site in front of the buildings drains directly into the public storm sewer system on Carr Road while the parking lot drains south into the swale. The east side of the property where the new building addition will be constructed is mostly wooded, relatively flat, and sheet drains south to southwest into the swale. A portion of the north building drains into this eastern drainage basin which covers approximately 3.85 acres and is identified as Basin #1 for the purpose of this report. The remainder of the site outside of Basin #1 will not be disturbed or affected by the project.

As predicted from the attached Hydrographs (NCRS TR55 Method), the pre-developed stormwater runoff rates for Basin #1are as follows:

Storm Event	Basin #1
Q_2	3.74 cfs
Q_{10}	6.67 cfs
Q_{100}	11.82 cfs

Site Soils

Site soils within the property and project area vary between Brookston silty clay loam (YbvA) which is a Hydrologic Groub B soil and Crosby silt loam (YclA) which is a Group C soil. A significant portion of the site is heavily wooded.

PROPOSED CONDITIONS:

The proposed improvements include construction of a new 54,920 SF warehouse addition, 2,500 building connector with six truck docks, and a new asphalt parking and maneuvering area. Two new asphalt emergency fire lanes will be constructed along the north and south side of the warehouse

addition. The total area disturbed by the project including all site improvements is approximately 3.0 acres which includes the new asphalt drive constructed within the 24' access easement. The total amount of new impervious area including the building roof, asphalt, and concrete docks is approximately 1.70 acres.

The new building roof will slope from north to south and the roof drains will be collected into a new storm sewer piping system that flows into a new dry-detention basin. Stormwater runoff from the new asphalt parking and truck maneuvering areas will also be collected by this storm sewer system. A stormwater quality device will be installed within the storm sewer system upstream of the dry-detention pond as discussed below.

Using the NCRS method, the stormwater runoff from the post-developed site, as predicted by the Hydrographs attached, is as follows:

Storm Event	Basin #1
Q_2	10.48 cfs
Q_{10}	16.68 cfs
Q_{100}	26.89 cfs

STORMWATER DETENTION

The proposed project will add a significant amount of new impervious surfaces including the new building, concrete truck docks, and asphalt paving. As a result, the peak stormwater runoff from the site will increase and in accordance with the Town of Plainfield Drainage Ordinance Section 4 on-site detention will be required to control runoff from the site. Per Section 4, the allowable release rate for the site under a 100 year storm event must be less than or equal to the 10 year storm runoff or the existing site.

In order to meet this requirement, a dry-detention pond will be constructed along the east side of the property and runoff from all new impervious surfaces will be routed to the pond via a new storm sewer system. As shown in the hydrographs included in the report, the proposed pond outfall structure will include a 10" orifice in the concrete structure that will result in the following pond discharge:

Storm Event	Target Release Rate	Actual Release Rate
Q10	3.74 cfs (Pre Q2)	2.78 cfs
Q100	6.67 cfs (Pre Q10)	3.70 cfs

STORM WATER QUALITY:

The project will disturb more than 1.0 acres and will therefore be subject to the storm water quality provisions of the Town of Plainfield Ordinance No 33-2006 as well as fall under the IDEM Construction Stormwater General Permit requirements.

In accordance with Chapter 8 of the Hendricks Count Technical Stormwater Manual, stormwater quality measures must provide a minimum reduction in Total Suspended Solids (TSS) of 80%. A mechanical

vortex separator device will be installed along with the dry-detention pond to meet this 80% TSS removal efficiency.

In order to meet the stormwater quality treatment requirements, the project will include a new hydrodynamic separator unit (ADS Arcadia Model AR6) having an NJDEP certified maximum treatment flow rate of 3.78 cfs and a maximum 10 year On-Line Flow Rate of 7.58 cfs.

SUMMARY AND CONCLUSIONS:

The proposed project will disturb approximately 3.0 acres of the 7.32 acre site and the development will result in approximately 1.70 acres of new hard surface (impervious) area. The project will include a new storm sewer collection system that will capture stormwater runoff from all impervious areas of the developed site. Stormwater detention will be provided by an on-site dry detention basin which will discharge to an existing swale just south of the property. Upon completion of the proposed improvements, the peak stormwater runoff from a 100 year storm event will be less than that from a 10 year storm under the current (pre-developed) condition. Therefore, the proposed improvements will have no significant impact on the downstream stormwater detention facilities or public stormwater infrastructure system.

DRAINAGE CALCULATIONS

Existing (Pre-Developed) Conditions

The pre-developed project area is approximately 3.85 acres which includes half of the north building, the hard surface areas east of the buildings, and the wooded area along the north and south portions of the property. A summary of thecurrent land use designations is as follows:

Description	Total Area	Grass	Pavement	Roofs
Basin #1	3.85 Acres	2.87 Acres	0.63 Acres	0.35 Acres

Existing Basin #1 Runoff (NCRS TR 55 Method)
Area= 3.94 acres, Tc= 37 min. (see TR55 Tc Worksheet attached)
Weighted Cn = 20% Type B soil, wooded and 80% Type C soil, wooded.
Weighted Curve for Pervious Area = (0.20 x 66) + (0.80 x 77) = 74.8

Weighted Curve for Basin #1 = (2.87 x 74.8) + (0.98 x 98)/3.85 = 80.7

Peak Storm Water Runoff (Q) From Hydrographs

Storm Event	Basin #1
Q_2	3.74 cfs
Q_{10}	6.67 cfs
Q_{100}	11.82 cfs

Post Developed Conditions

The post-developed conditions of the entire 3.85 acre Basin #1 are summarized as follows:

Description	Total Area	Grass	Pavement	Roofs
Basin #1	3.85 Acres	1.54 Acres	0.64 Acres	1.67 Acres

Post Developed Basin #1 Runoff (NCRS TR 55 Method
Area= 3.85 acres, Tc= 7.0 min. (from Storm Sewer Report)
Weighted Cn = 20% Type B soil, grass good condition and 80% Type C soil, grass good condition.
Weighted Curve for Pervious Area = (0.20 x 61) + (0.80 x 74) = 71.4

Weighted Curve for Basin #1 = (1.54 x 71.4) + (0.64 x 98) + (1.67 x 98)/3.85 = 87.4

Peak Storm Water Runoff (Q) From Hydrographs

Storm Event	Basin #1
Q_2	10.48 cfs
Q_{10}	16.88 cfs
Q_{100}	26.89 cfs

STORM SEWER AREA TABLE

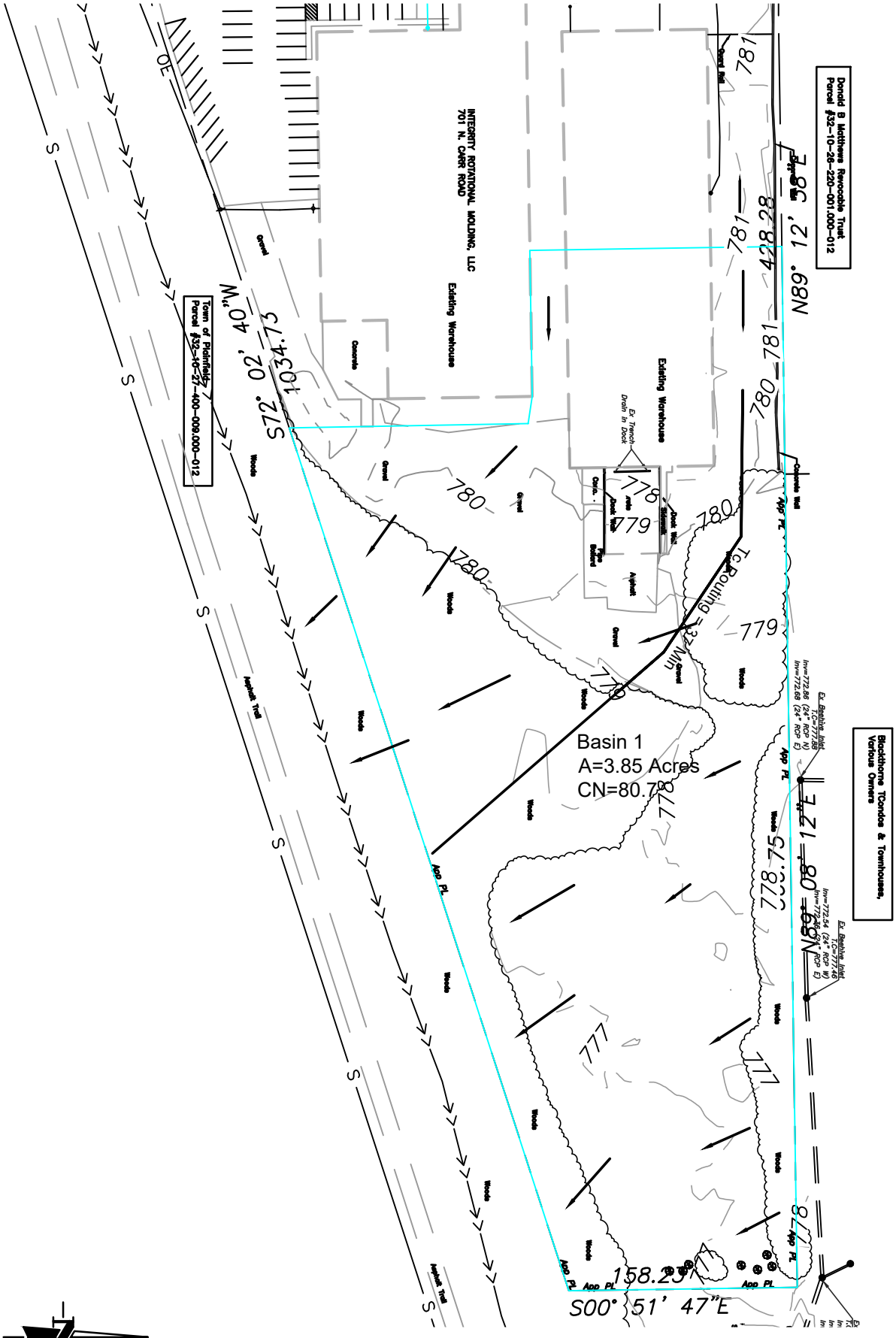
Basin #	Storm Str. #	Total Area (Ac)	Roof Surface Area (C=0.90)	Hard Surface Area (C=0.85)	Grass Area (C=0.20)	Runoff Coefficient C
ST1	ST1	0.897	0.405	0.363	0.129	0.78
ST2	ST2	0.210	0.000	0.180	0.030	0.76
ST3	ST3	0.602	0.528	0.042	0.032	0.86
ST4	ST4	0.498	0.427	0.040	0.031	0.85
ST5	ST5	0.350	0.303	0.028	0.019	0.86
TOTAL AREA		***2.557***	***1.663***	***0.653***	***0.210***	*0.82*

FLOW THROUGH BMP SIZING

Contributing Drainage Area = 2.56 Acres (111.5114 SF)
Percent Impervious Area = 2.316 Acres/2.56 Acres = 0.904 (90.4%)

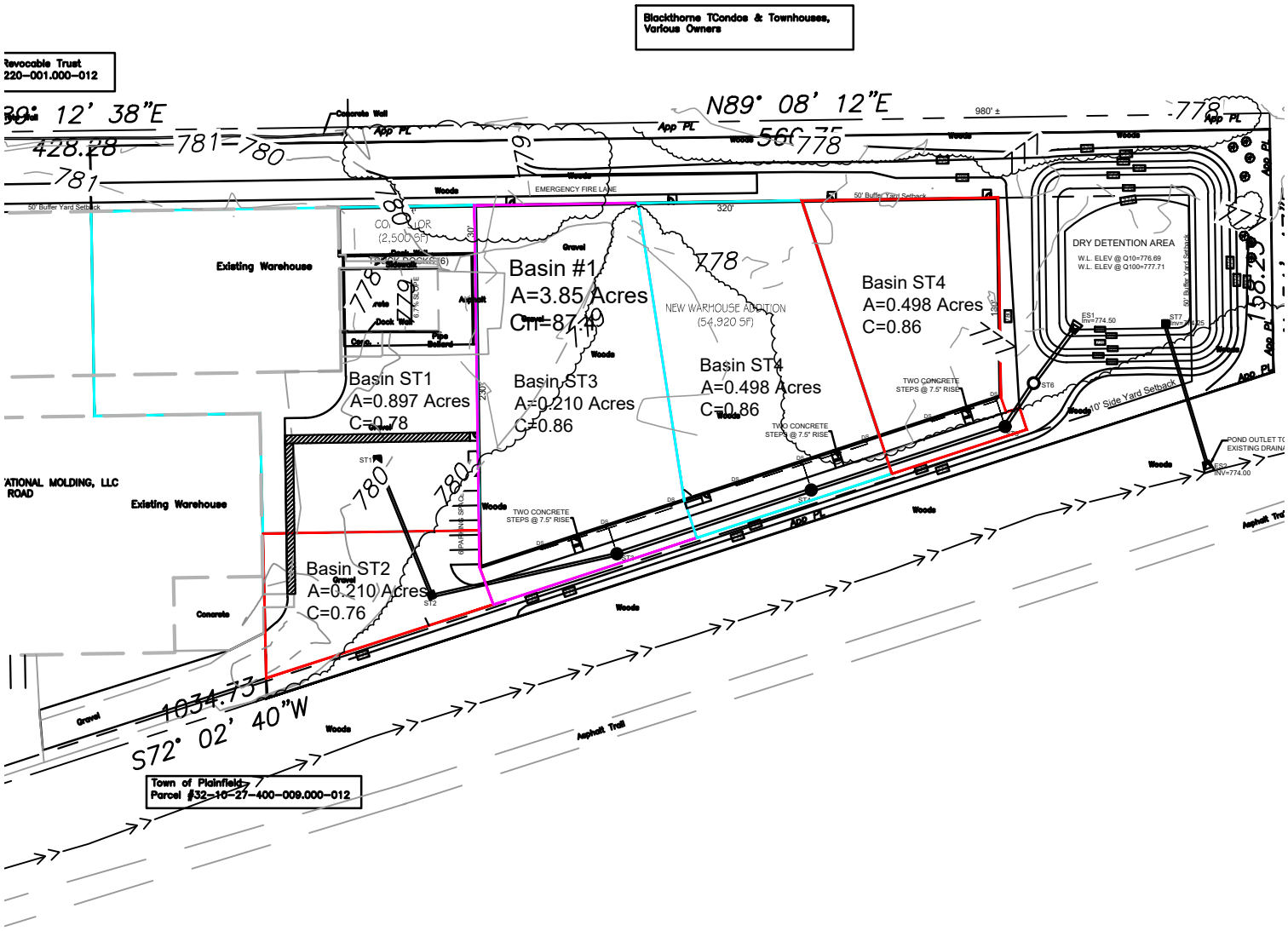
Water Quality Curve Number CNwq – 98.5 (From Exhibit 701-1)

Based on a 1" Rain Event, 24 hour storm, and Type II distribution, the Peak Storm Water Quality Volume as provided by the BMP Hydrograph = 3.0 cfs



Scale: 1"–100'

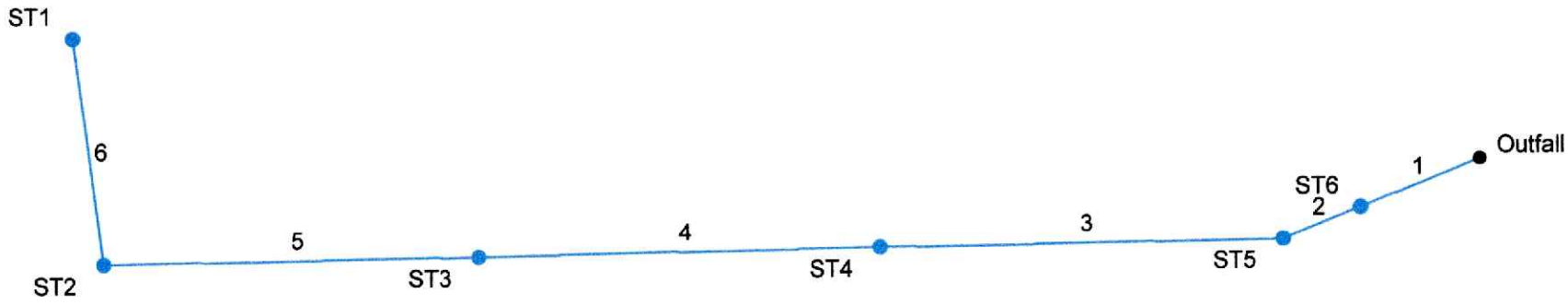
INTEGRITY ROTATIONAL MOLDING
NEW WAREHOUSE ADDITION
PRE-DEVELOPED BASIN MAP



Scale: 1"–100'

INTEGRITY ROTATIONAL MOLDING
NEW WAREHOUSE ADDITION
POST-DEVELOPED BASIN MAP

Hydraflow Storm Sewers Extension for Autodesk® Civil 3D® Plan



Project File: Storm Sewer Layout.stm	Number of lines: 6	Date: 6/10/2026

Storm Sewers v2026.00

TESCO

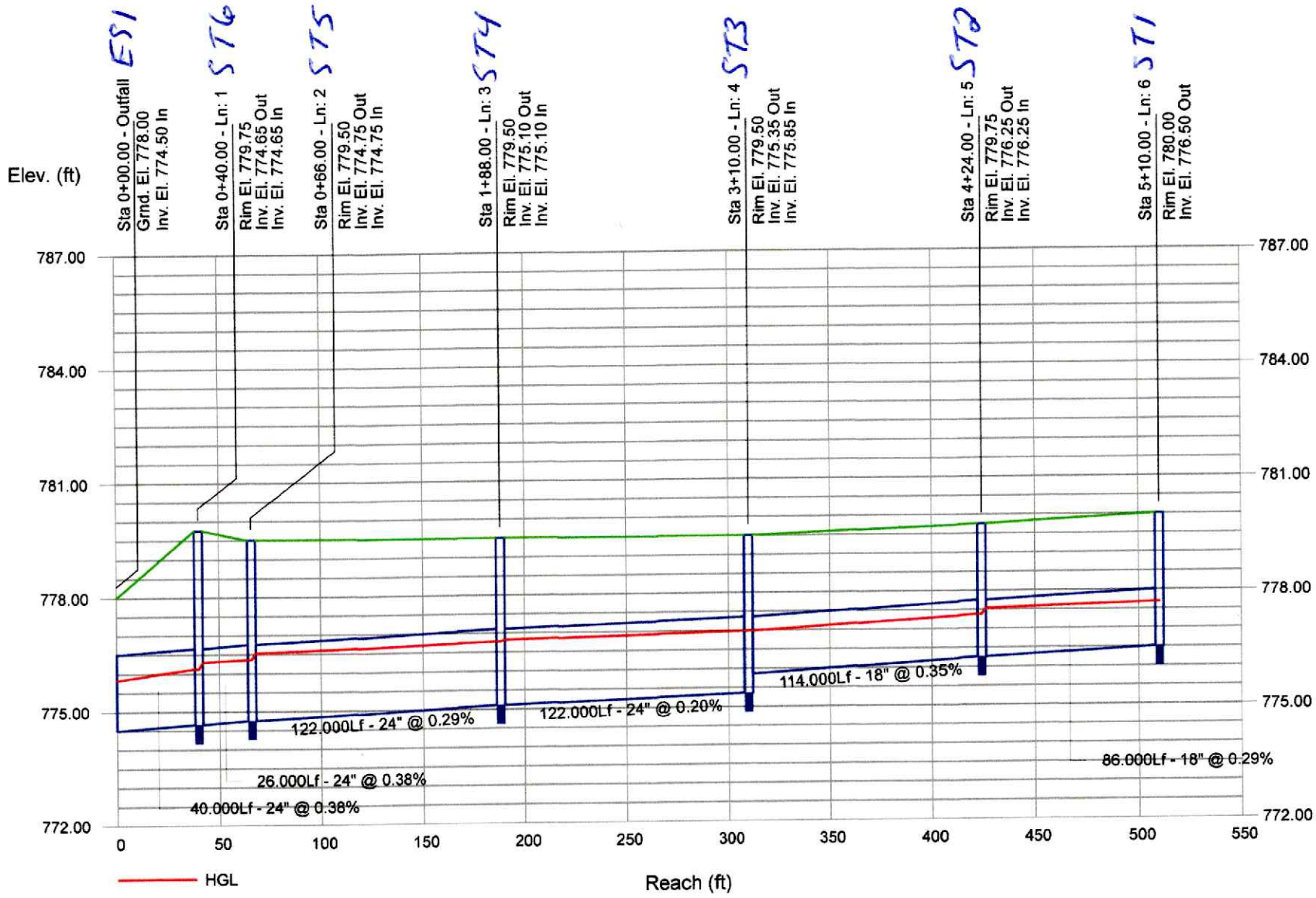
Line No.	Inlet ID	Drng Area (ac)	Total Area (ac)	Runoff Coeff (C)	Tc (min)	i Inlet (in/hr)	Incr Q (cfs)	Flow Rate (cfs)	Capac Full (cfs)	Vel Ave (ft/s)	Line Length (ft)	Line Size (in)	Line Slope (%)	Invert Dn (ft)	Invert Up (ft)	HGL Dn (ft)	HGL Up (ft)	n-val Pipe	Cover Up (ft)	Cover Dn (ft)
1	ST6	0.00	2.56	0.00	7.4	0.00	0.00	13.54	15.01	5.79	40.000	24	0.38	774.50	774.65	775.82	776.12	0.012	3.10	1.50
2	ST5	0.35	2.56	0.86	7.3	7.30	2.20	13.61	15.19	4.97	26.000	24	0.38	774.65	774.75	776.30	776.36	0.012	2.75	3.10
3	ST4	0.50	2.21	0.85	6.7	7.30	3.10	11.99	13.12	4.17	122.000	24	0.29	774.75	775.10	776.53	776.77	0.012	2.40	2.75
4	ST3	0.60	1.71	0.86	6.0	7.30	3.77	9.49	11.09	3.39	122.000	24	0.20	775.10	775.35	776.82	776.98	0.012	2.15	2.40
5	ST2	0.21	1.11	0.76	5.5	7.30	1.17	6.12	6.74	4.31	114.000	18	0.35	775.85	776.25	776.98	777.37	0.012	2.00	2.15
6	ST1	0.90	0.90	0.78	5.0	7.30	5.13	5.13	6.13	3.31	86.000	18	0.29	776.25	776.50	777.53	777.68	0.012	2.00	2.00

Project File: Storm Sewer Layout.stm | Number of lines: 6 | Date: 6/10/2026

NOTES: Intensity = 56.72 / (Inlet time + 8.60) ^ 0.79 -- Return period = 10 Yrs. ; ** Critical depth

Storm Sewer Profile

Proj. file: Storm Sewer Layout.stm



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Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026

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	3.744	3	738	18,331	-----	-----	-----	Basin 1 Pre-Developed
2	SCS Runoff	10.48	3	717	23,773	-----	-----	-----	Basin 1 Post Developed
3	Reservoir	2.261	3	729	22,683	2	776.00	8,183	Dry Detention

TR55 Tc Worksheet

Hyd. No. 1

Basin 1 Pre-Developed

Description	A		B		C		Totals
Sheet Flow							
Manning's n-value	= 0.150		0.400		0.011		
Flow length (ft)	= 238.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 2.66		0.00		0.00		
Land slope (%)	= 0.60		0.00		0.00		
Travel Time (min)	**= 34.81**	**+**	**0.00**	**+**	**0.00**	**=**	**34.81**
Shallow Concentrated Flow							
Flow length (ft)	= 172.00		0.00		0.00		
Watercourse slope (%)	= 0.65		0.00		0.00		
Surface description	= Unpaved		Unpaved		Paved		
Average velocity (ft/s)	=1.30		0.00		0.00		
Travel Time (min)	**= 2.20**	**+**	**0.00**	**+**	**0.00**	**=**	**2.20**
Channel Flow							
X sectional flow area (sqft)	= 0.00		0.00		0.00		
Wetted perimeter (ft)	= 0.00		0.00		0.00		
Channel slope (%)	= 0.00		0.00		0.00		
Manning's n-value	= 0.015		0.015		0.015		
Velocity (ft/s)	=0.00						
			0.00				
					0.00		
Flow length (ft)	({0})0.0		0.0		0.0		
Travel Time (min)	**= 0.00**	**+**	**0.00**	**+**	**0.00**	**=**	**0.00**

Total Travel Time, Tc ..... **37.01 min**

Hydrograph Report

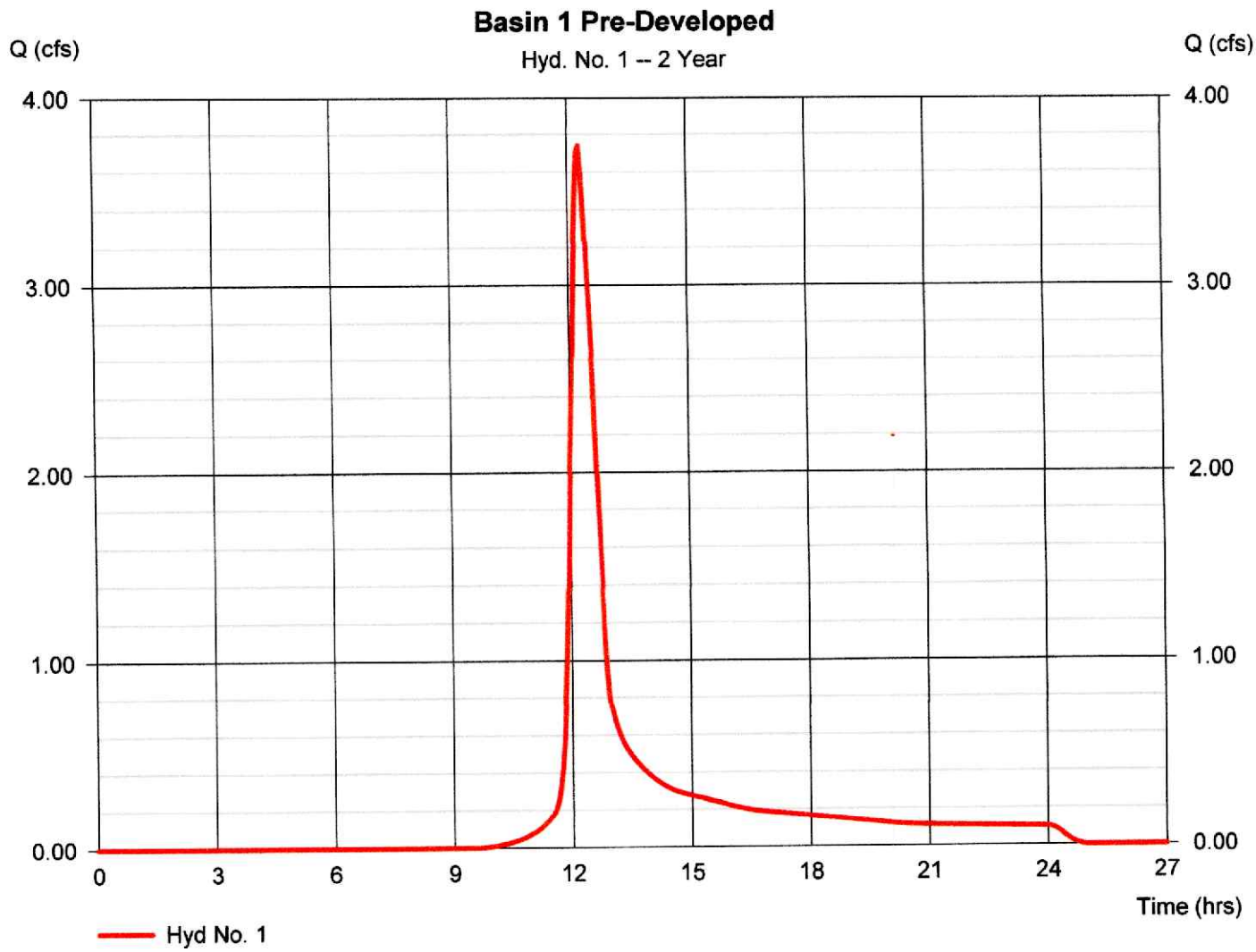
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026 — Wednesday, 06 / 10 / 2026

Hyd. No. 1

Basin 1 Pre-Developed

Hydrograph type	= SCS Runoff	Peak discharge	= 3.744 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.30 hrs
Time interval	= 3 min	Hyd. volume	= 18,331 cuft
Drainage area	= 3.850 ac	Curve number	= 80.7*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 37.00 min
Total precip.	= 3.05 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(2.750 x 61) + (0.390 x 98) + (0.230 x 98)] / 3.850



Hydrograph Report

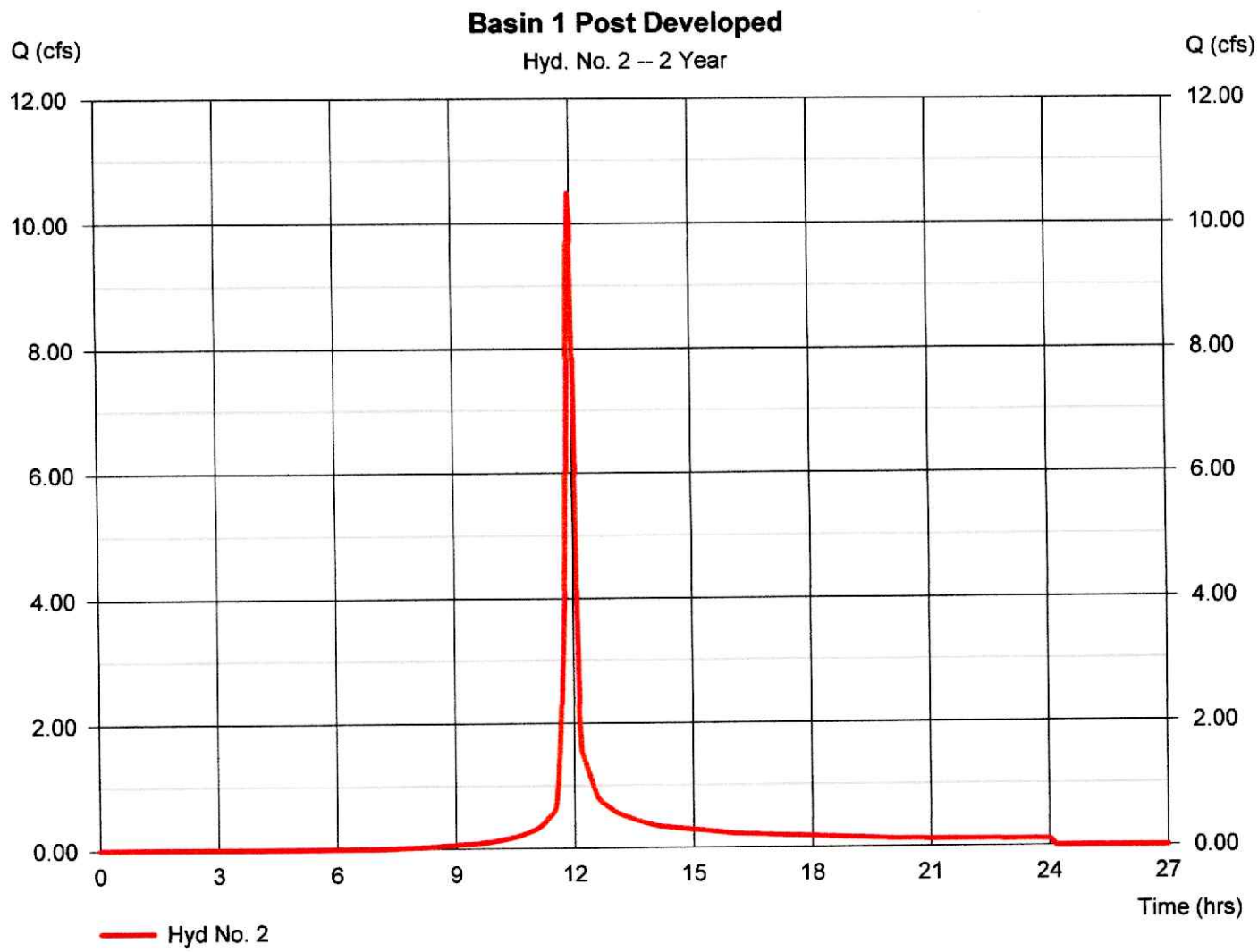
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026 — Wednesday, 06 / 10 / 2026

Hyd. No. 2

Basin 1 Post Developed

Hydrograph type	= SCS Runoff	Peak discharge	= 10.48 cfs
Storm frequency	= 2 yrs	Time to peak	= 11.95 hrs
Time interval	= 3 min	Hyd. volume	= 23,773 cuft
Drainage area	= 3.850 ac	Curve number	= 87.4*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 7.00 min
Total precip.	= 3.05 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(2.660 x 61) + (0.480 x 98) + (0.230 x 98)] / 3.850



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026

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	6.665	3	735	32,104	-----	-----	-----	Basin 1 Pre-Developed
2	SCS Runoff	16.68	3	717	38,422	-----	-----	-----	Basin 1 Post Developed
3	Reservoir	2.783	3	729	36,710	2	776.69	14,336	Dry Detention

Hydrograph Report

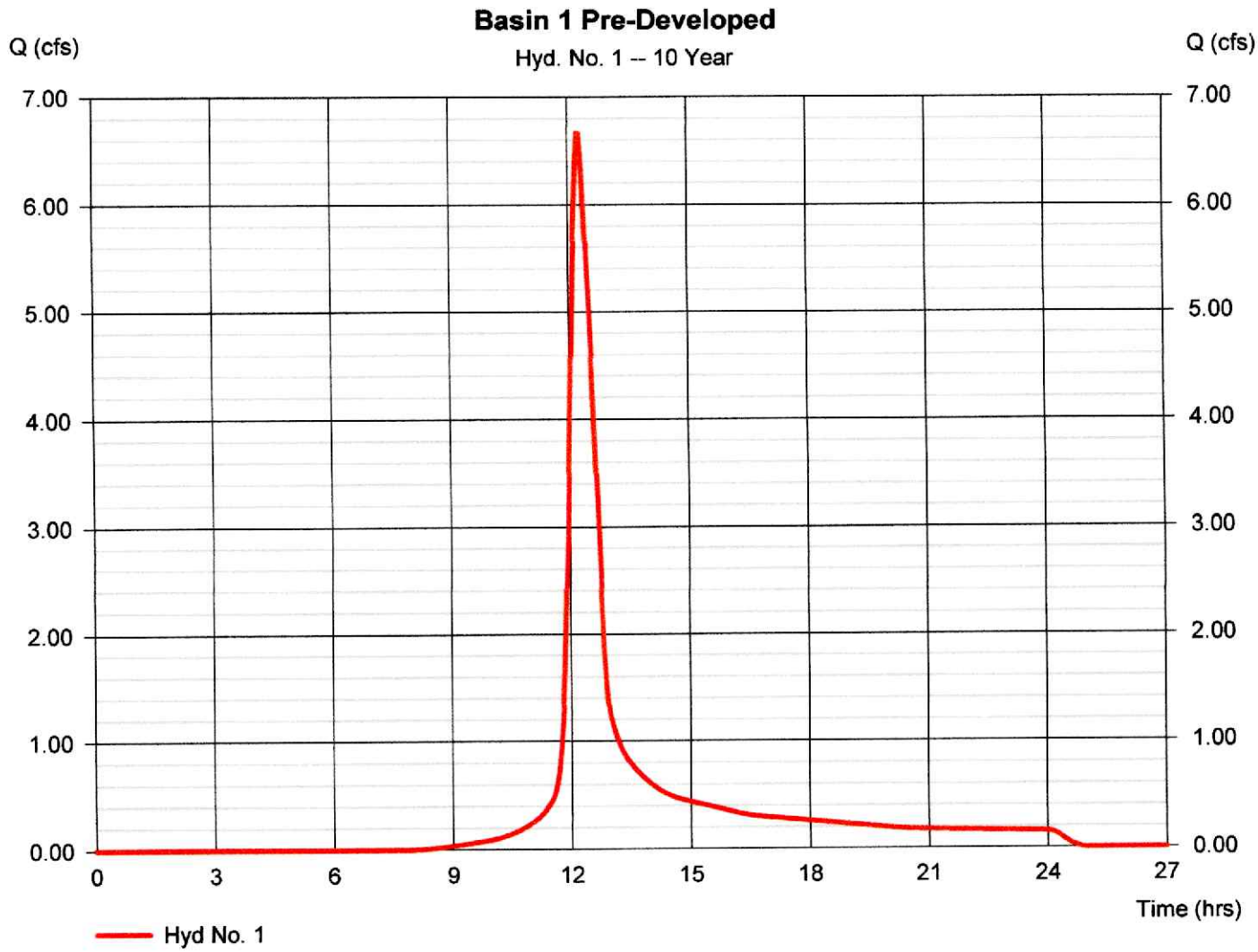
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026 — Wednesday, 06 / 10 / 2026

Hyd. No. 1

Basin 1 Pre-Developed

Hydrograph type	= SCS Runoff	Peak discharge	= 6.665 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.25 hrs
Time interval	= 3 min	Hyd. volume	= 32,104 cuft
Drainage area	= 3.850 ac	Curve number	= 80.7*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 37.00 min
Total precip.	= 4.28 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(2.750 x 61) + (0.390 x 98) + (0.230 x 98)] / 3.850



Hydrograph Report

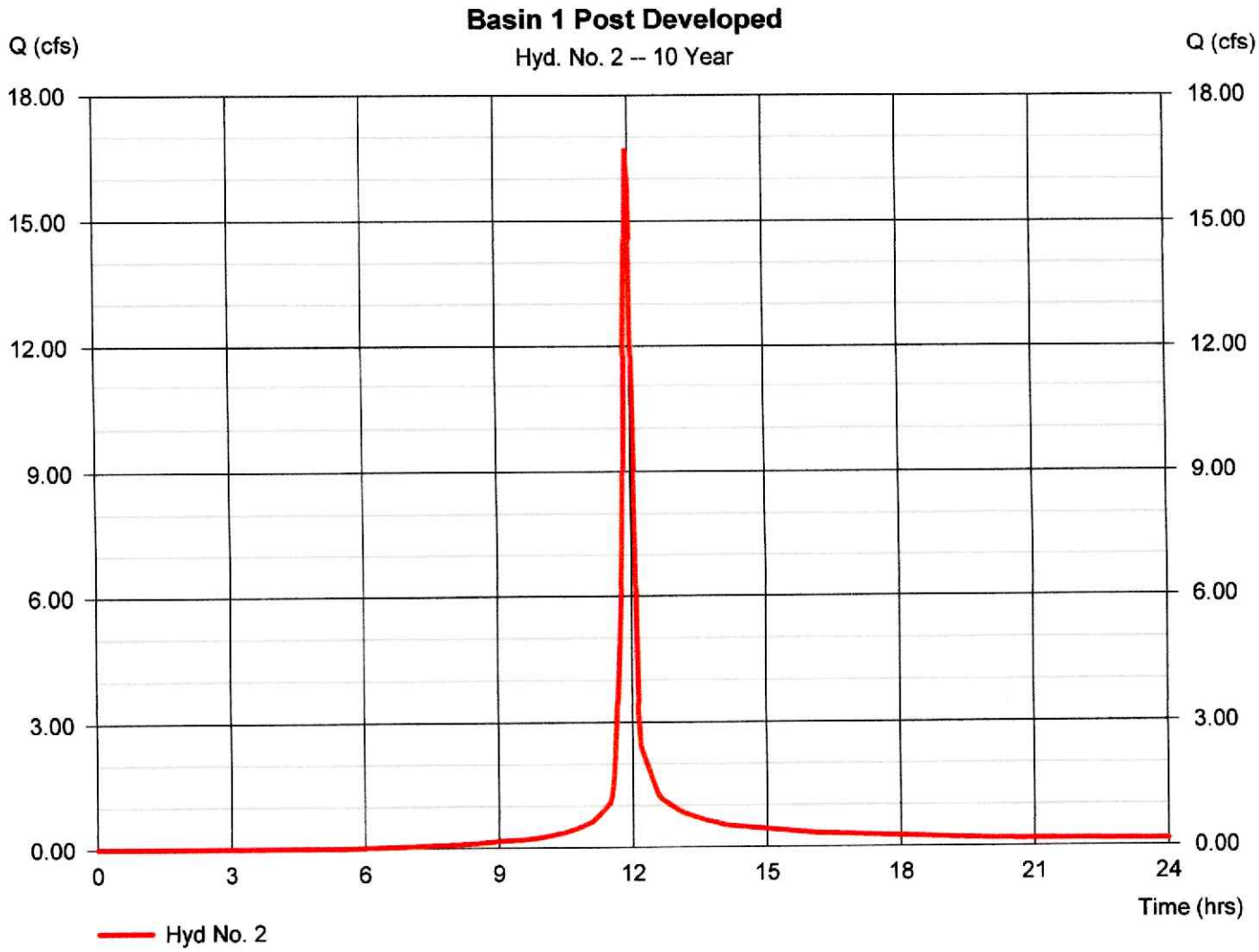
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026 — Wednesday, 06 / 10 / 2026

Hyd. No. 2

Basin 1 Post Developed

Hydrograph type	= SCS Runoff	Peak discharge	= 16.68 cfs
Storm frequency	= 10 yrs	Time to peak	= 11.95 hrs
Time interval	= 3 min	Hyd. volume	= 38,422 cuft
Drainage area	= 3.850 ac	Curve number	= 87.4*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 7.00 min
Total precip.	= 4.28 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(2.660 x 61) + (0.480 x 98) + (0.230 x 98)] / 3.850



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026

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	11.82	3	735	56,769	-----	-----	-----	Basin 1 Pre-Developed
2	SCS Runoff	26.89	3	717	63,530	-----	-----	-----	Basin 1 Post Developed
3	Reservoir	3.695	3	732	60,766	2	777.71	25,120	Dry Detention

Storm Hydrographs.gpw | Return Period: 100 Year | Wednesday, 06 / 10 / 2026

Hydrograph Report

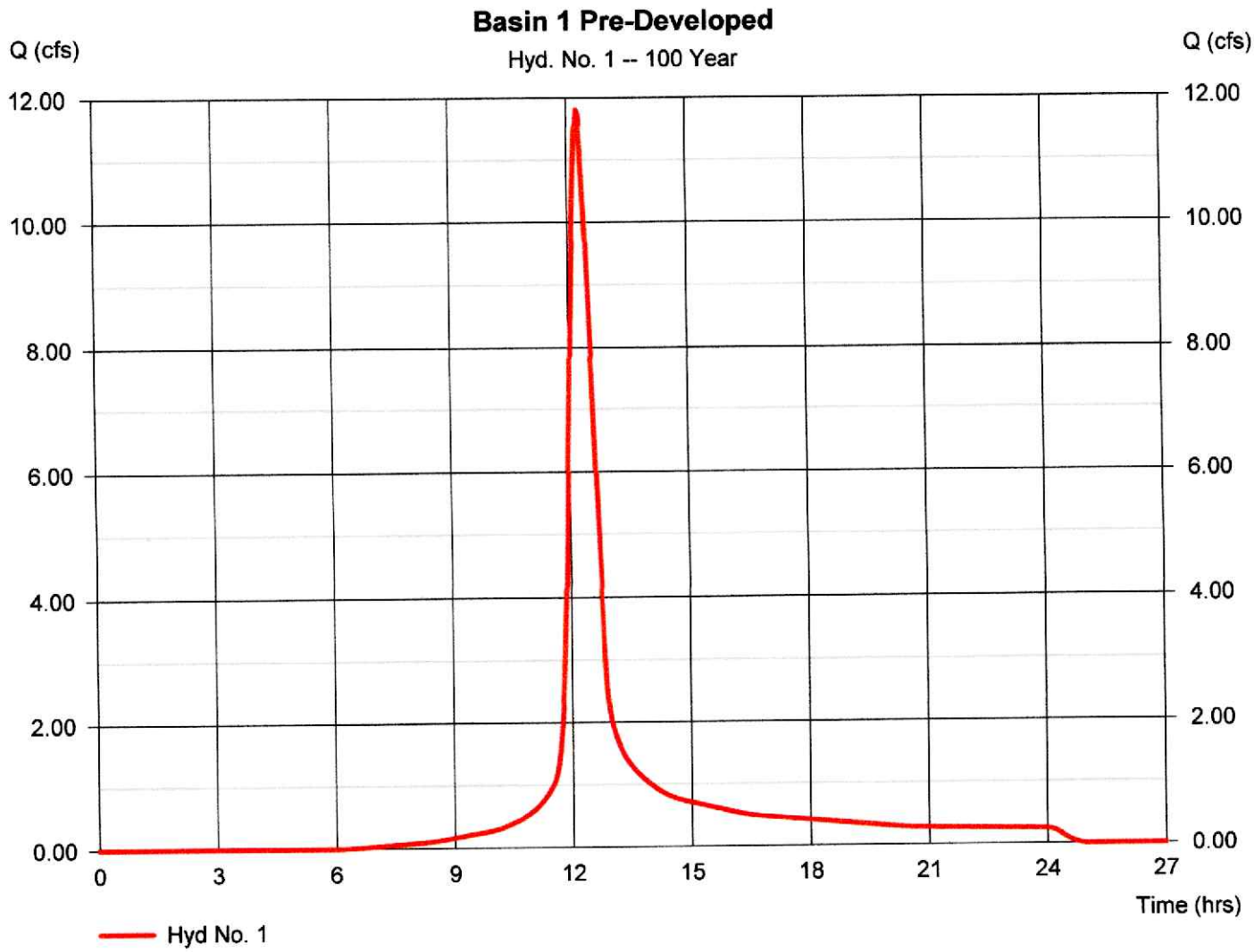
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026 — Wednesday, 06 / 10 / 2026

Hyd. No. 1

Basin 1 Pre-Developed

Hydrograph type	= SCS Runoff	Peak discharge	= 11.82 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.25 hrs
Time interval	= 3 min	Hyd. volume	= 56,769 cuft
Drainage area	= 3.850 ac	Curve number	= 80.7*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 37.00 min
Total precip.	= 6.30 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(2.750 x 61) + (0.390 x 98) + (0.230 x 98)] / 3.850



Hydrograph Report

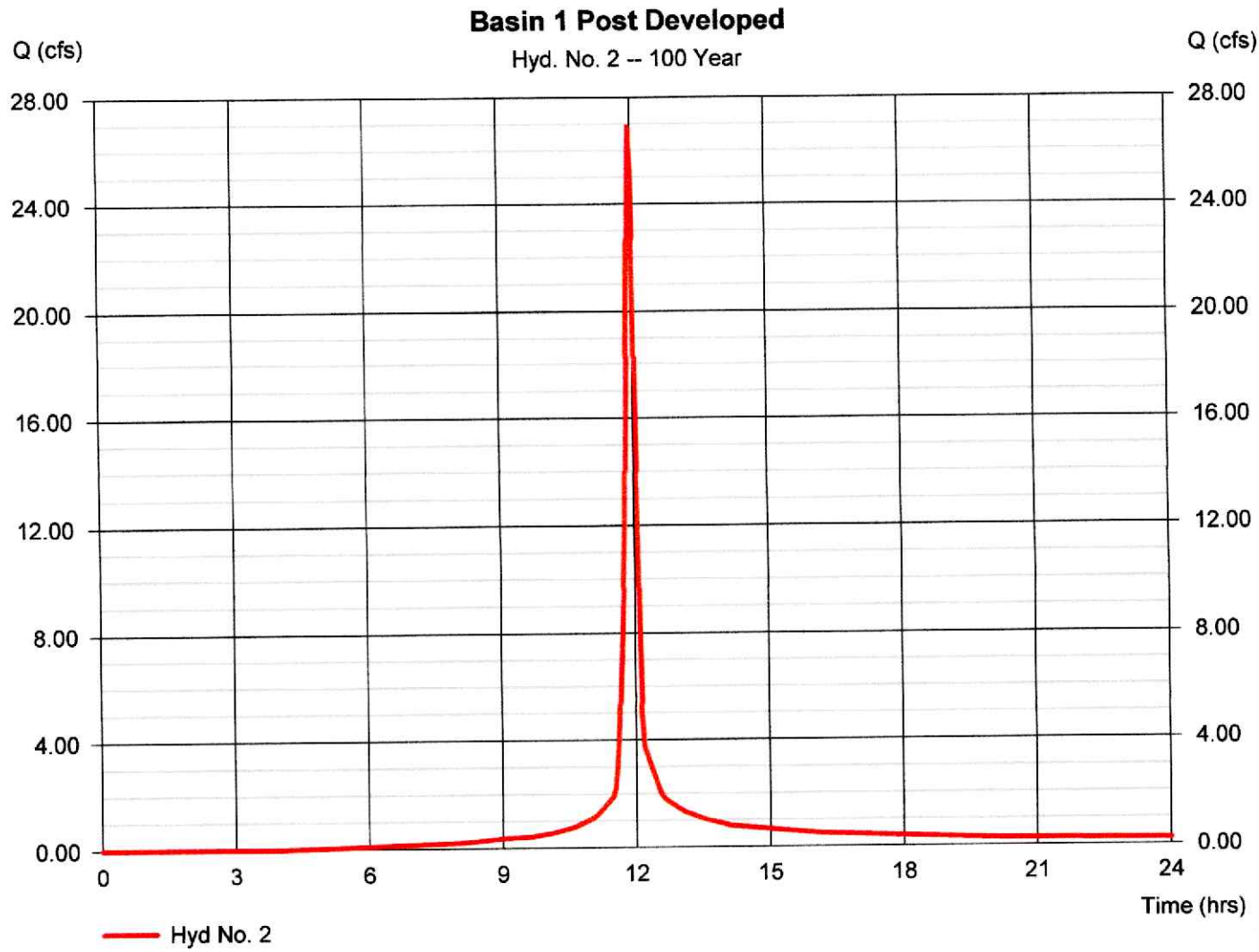
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026 — Wednesday, 06 / 10 / 2026

Hyd. No. 2

Basin 1 Post Developed

Hydrograph type	= SCS Runoff	Peak discharge	= 26.89 cfs
Storm frequency	= 100 yrs	Time to peak	= 11.95 hrs
Time interval	= 3 min	Hyd. volume	= 63,530 cuft
Drainage area	= 3.850 ac	Curve number	= 87.4*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 7.00 min
Total precip.	= 6.30 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

* Composite (Area/CN) = [(2.660 x 61) + (0.480 x 98) + (0.230 x 98)] / 3.850



Pond Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026 — Wednesday, 06 / 10 / 2026

Pond No. 1 - Dry Detention Pond

Pond Data

Contours -User-defined contour areas. Average end area method used for volume calculation. Begining Elevation = 774.25 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	774.25	10	0	0
0.25	774.50	500	64	64
0.75	775.00	5,610	1,528	1,591
1.75	776.00	7,500	6,555	8,146
2.75	777.00	10,470	8,985	17,131
3.75	778.00	12,090	11,280	28,411
4.75	779.00	13,805	12,948	41,359

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 15.00	10.00	Inactive	0.00
Span (in)	= 15.00	10.00	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 774.25	774.25	0.00	0.00
Length (ft)	= 82.00	1.00	0.00	0.00
Slope (%)	= 0.25	0.30	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	Yes	No	No

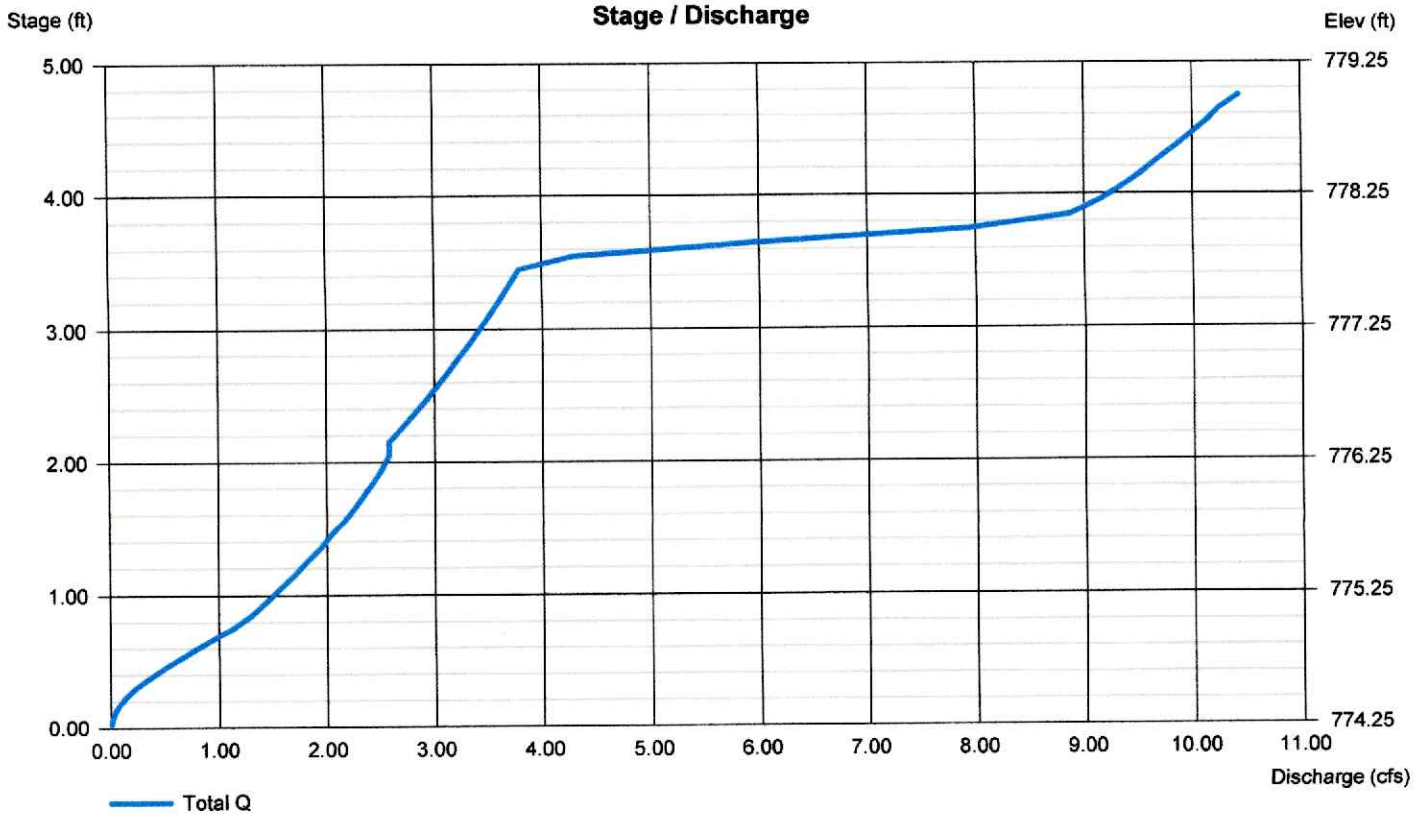
Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 14.00	0.00	0.00	0.00
Crest El. (ft)	= 777.75	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	---	---	---
Multi-Stage	= Yes	No	No	No

Exfil.(in/hr) = 0.500 (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 Report

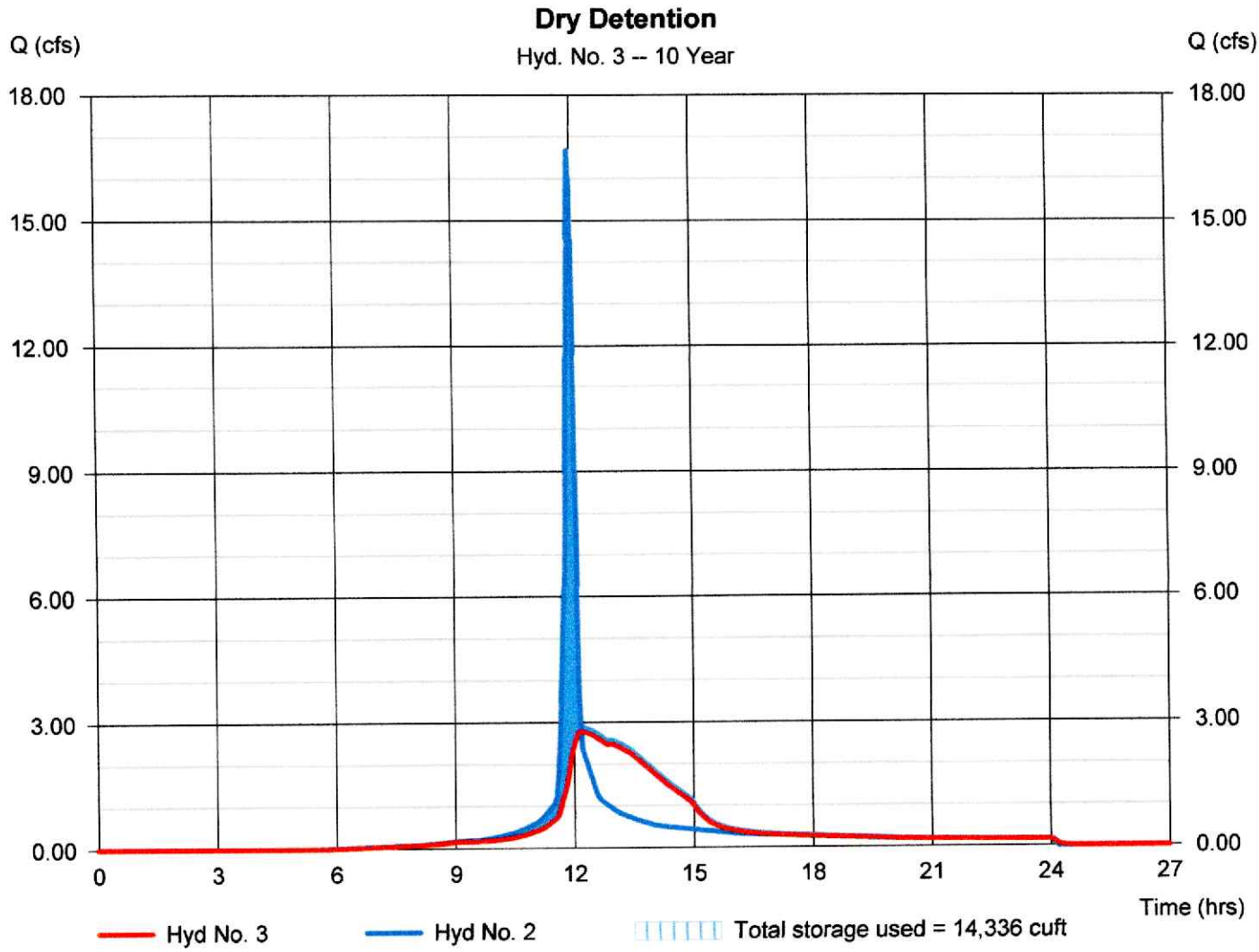
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026 — Wednesday, 06 / 10 / 2026

Hyd. No. 3

Dry Detention

Hydrograph type	= Reservoir	Peak discharge	= 2.783 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.15 hrs
Time interval	= 3 min	Hyd. volume	= 36,710 cuft
Inflow hyd. No.	= 2 - Basin 1 Post Developed	Max. Elevation	= 776.69 ft
Reservoir name	= Dry Detention Pond	Max. Storage	= 14,336 cuft

Storage Indication method used. Exfiltration extracted from Outflow.



Hydrograph Report

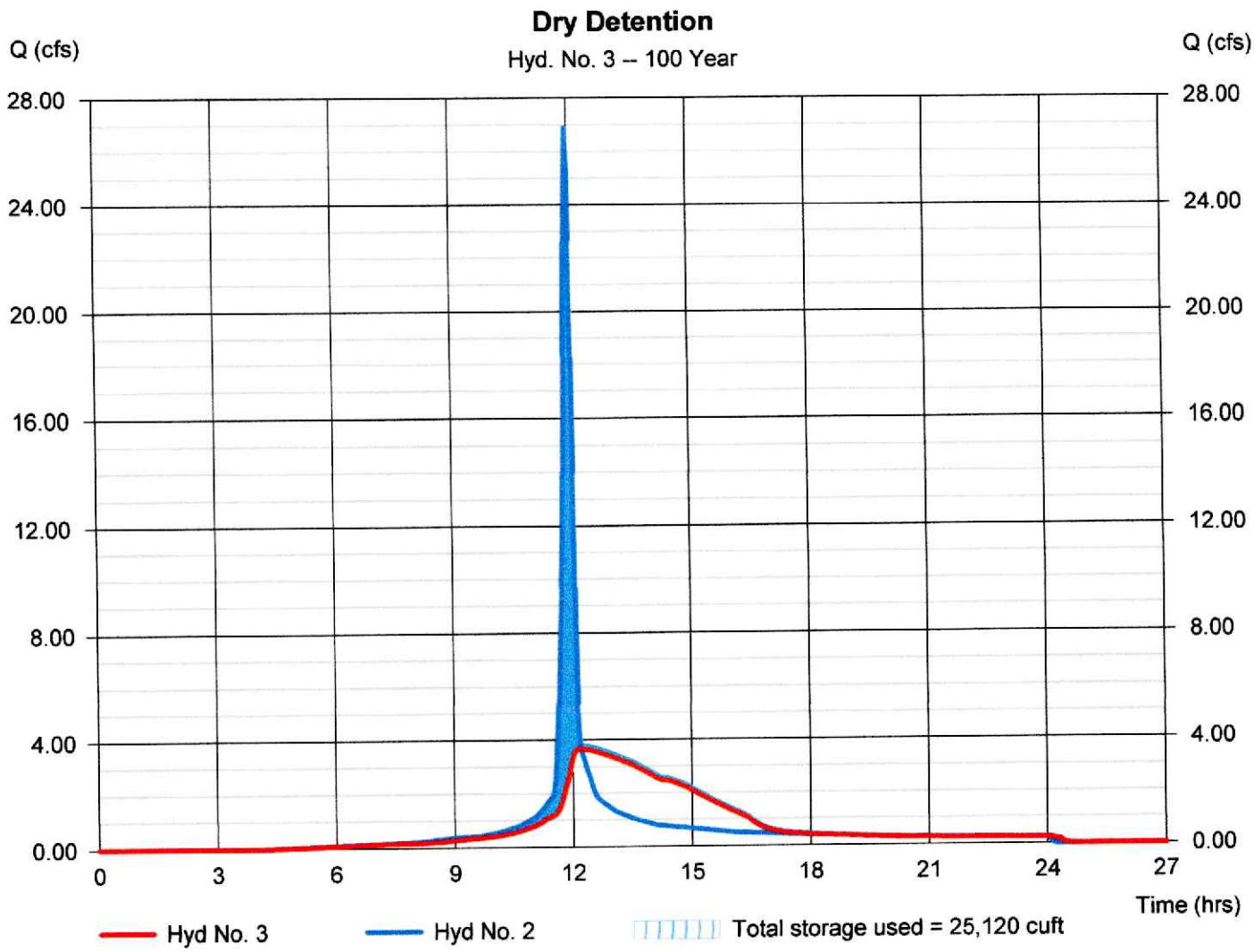
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026 — Wednesday, 06 / 10 / 2026

Hyd. No. 3

Dry Detention

Hydrograph type	= Reservoir	Peak discharge	= 3.695 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.20 hrs
Time interval	= 3 min	Hyd. volume	= 60,766 cuft
Inflow hyd. No.	= 2 - Basin 1 Post Developed	Max. Elevation	= 777.71 ft
Reservoir name	= Dry Detention Pond	Max. Storage	= 25,120 cuft

Storage Indication method used. Exfiltration extracted from Outflow.



Hydrograph Report

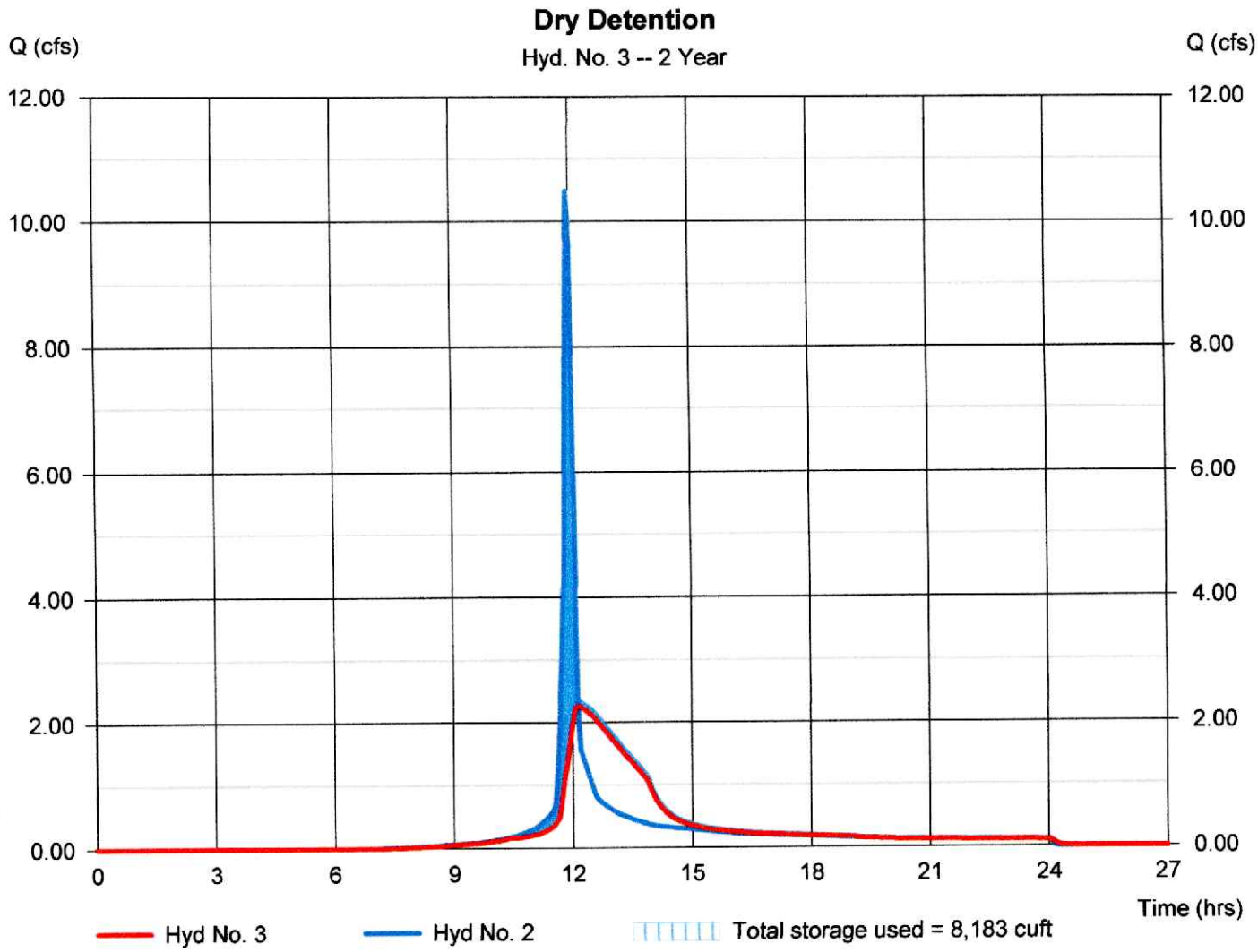
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026 — Wednesday, 06 / 10 / 2026

Hyd. No. 3

Dry Detention

Hydrograph type	= Reservoir	Peak discharge	= 2.261 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.15 hrs
Time interval	= 3 min	Hyd. volume	= 22,683 cuft
Inflow hyd. No.	= 2 - Basin 1 Post Developed	Max. Elevation	= 776.00 ft
Reservoir name	= Dry Detention Pond	Max. Storage	= 8,183 cuft

Storage Indication method used. Exfiltration extracted from Outflow.



BMP Hydrograph

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026

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	3.001	3	717	7,300	------	------	------	BMP Hydrograph

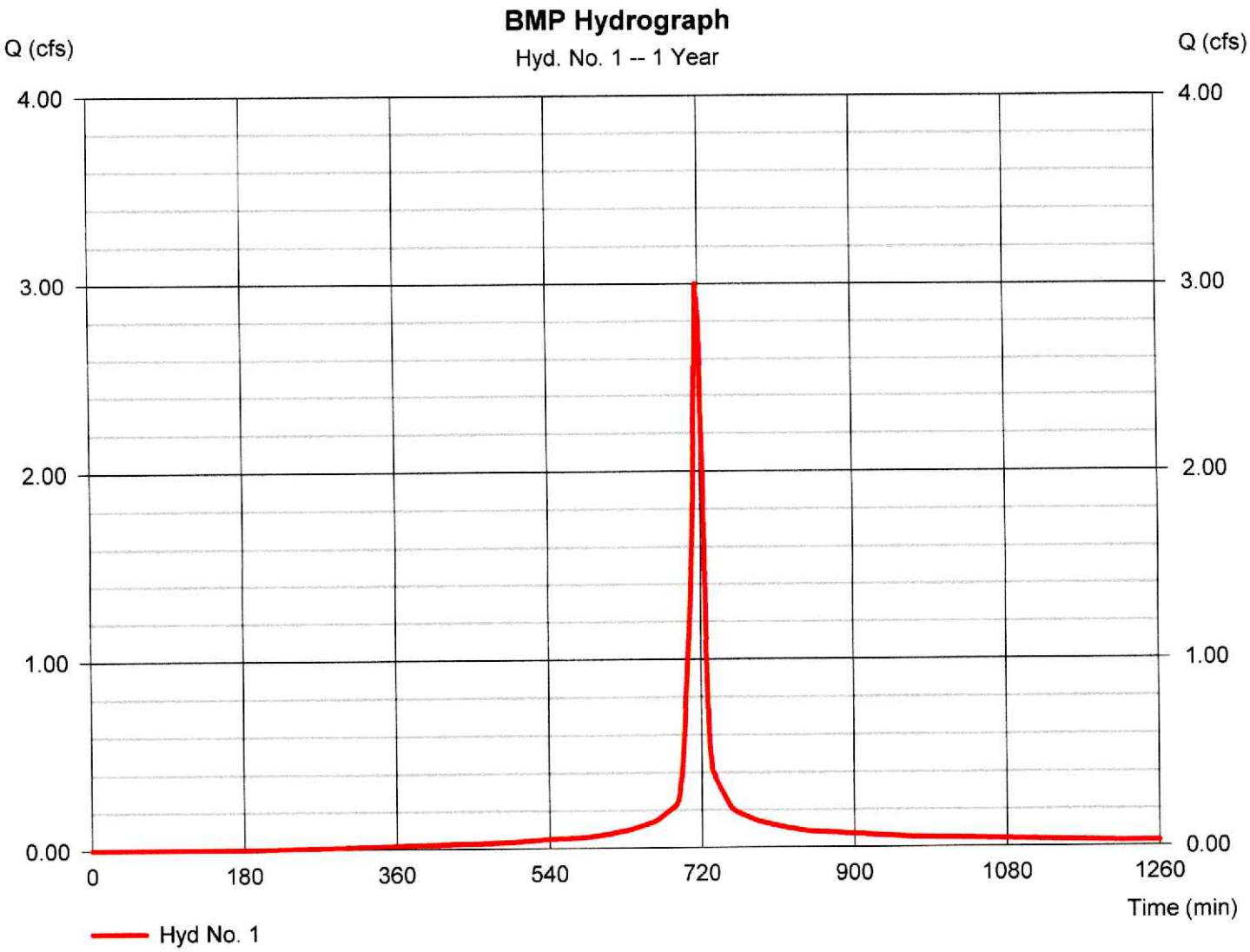
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2026 — Wednesday, 06 / 10 / 2026

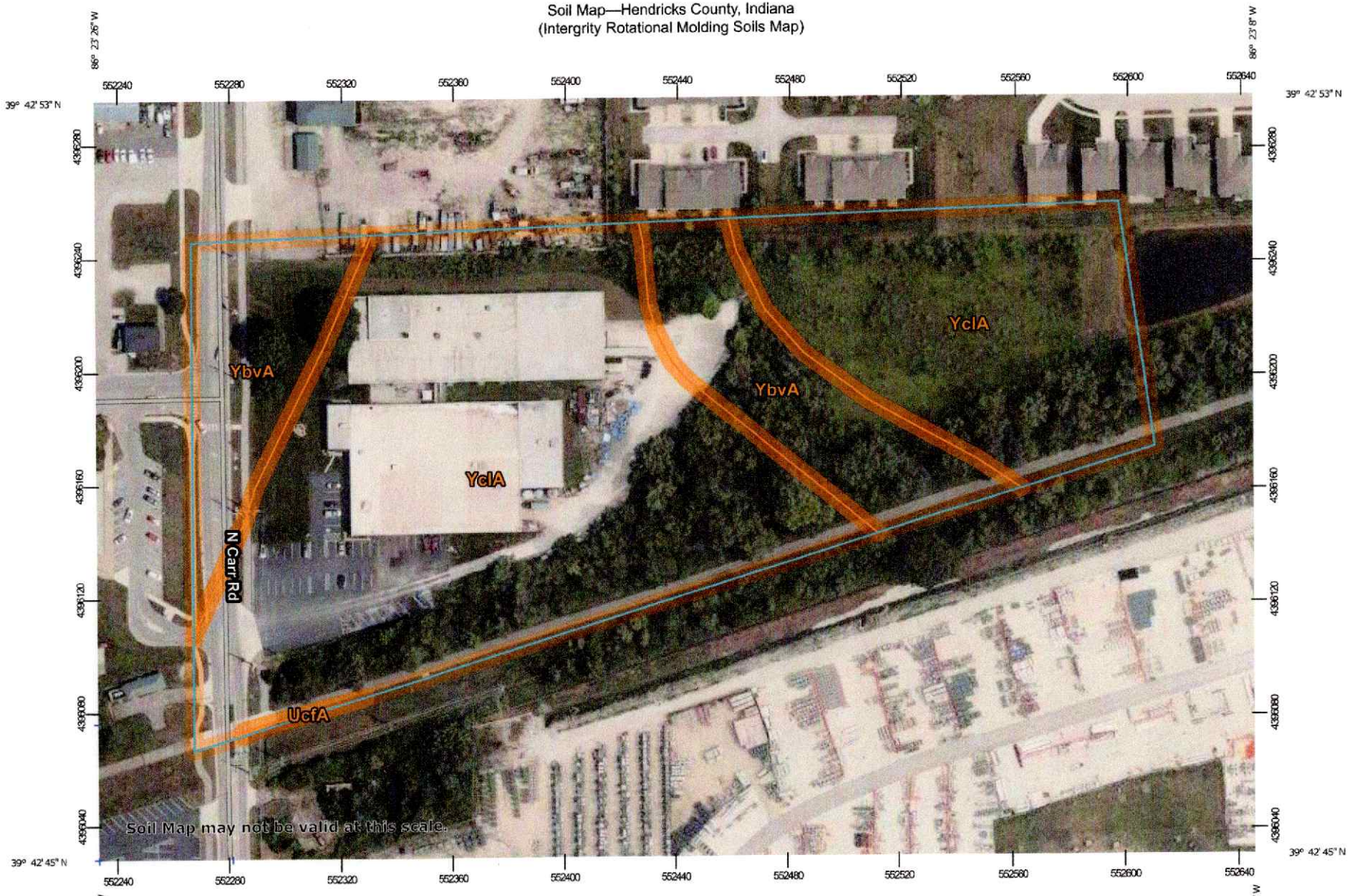
Hyd. No. 1

BMP Hydrograph

Hydrograph type	= SCS Runoff	Peak discharge	= 3.001 cfs
Storm frequency	= 1 yrs	Time to peak	= 717 min
Time interval	= 3 min	Hyd. volume	= 7,300 cuft
Drainage area	= 2.560 ac	Curve number	= 98.5
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 1.00 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Soil Map—Hendricks County, Indiana
(Intergrity Rotational Molding Soils Map)



Map Scale: 1:1,890 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 25 50 100 150

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

USDA **Natural Resources Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

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Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
UcfA	Urban land-Crosby silt loam complex, fine-loamy subsoil, 0 to 2 percent slopes	0.0	0.1%
YbvA	Brookston silty clay loam-Urban land complex, 0 to 2 percent slopes	2.4	21.5%
YclA	Crosby silt loam, fine-loamy subsoil-Urban land complex, 0 to 2 percent slopes	8.8	78.4%
Totals for Area of Interest		**11.2**	**100.0%**

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Hendricks County, Indiana
Survey Area Data: Version 29, Sep 3, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

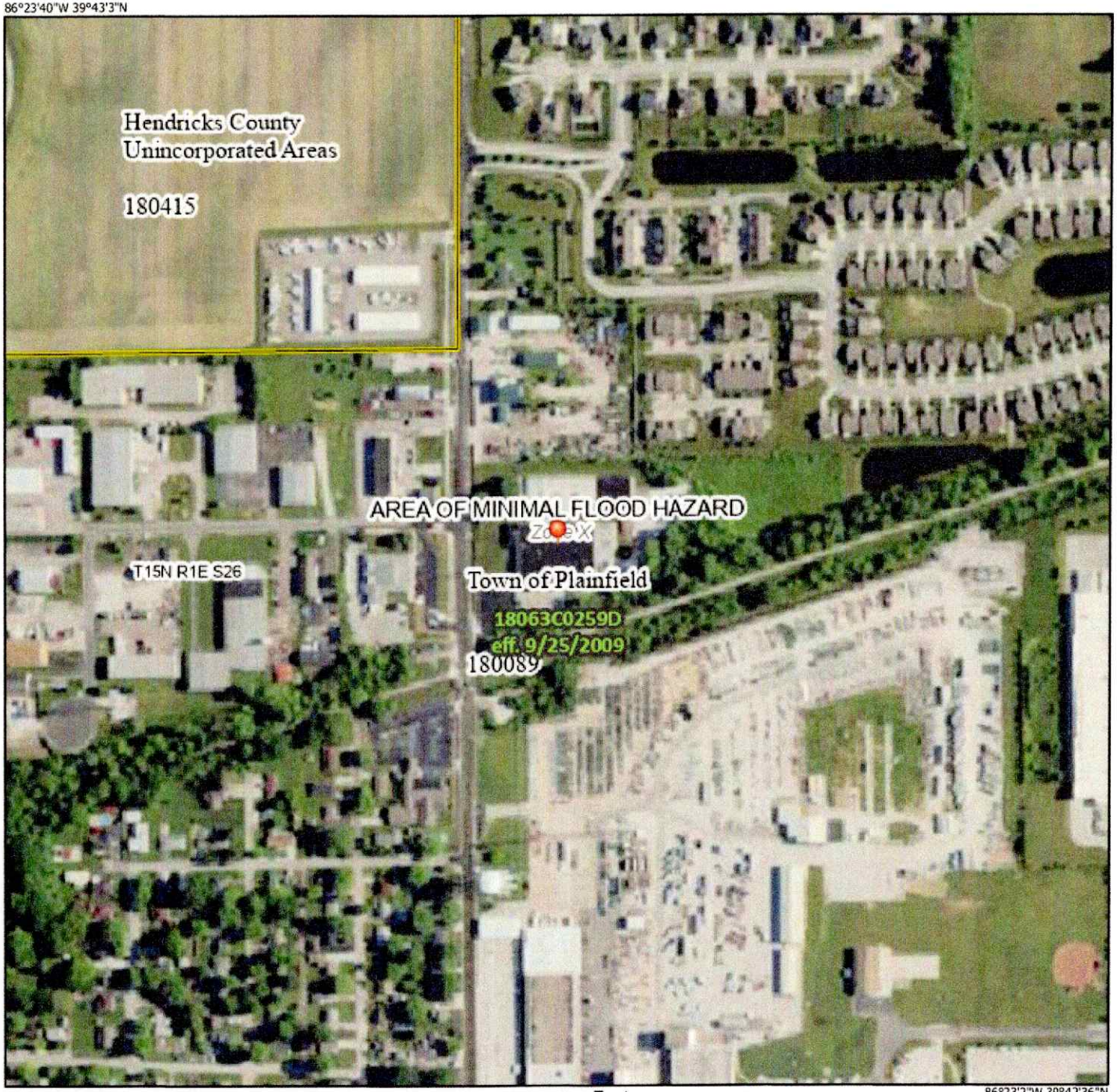
Date(s) aerial images were photographed: Mar 1, 2024—Jul 1, 2024

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

National Flood Hazard Layer FIRMette

FEMA

86°23'40"W 39°43'3"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

86°23'2"W 39°42'36"N

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represen an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/10/2026 at 11:34 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.