



SPRINGFIELD

NEBRASKA

PLANNING COMMISSION REPORT
APRIL 14, 2026 AGENDA

Agenda Item:	Subject:	Submitted By:
Agenda Items 6B and 7B	Application for Revised Preliminary Plat and Final Plat submitted by Belcaro Development LLC (“Subdivider”) and Gregory Mahloch (“Owner”) for property generally located at the Southwest Corner of 132 nd Street & Platteview Road, Springfield, NE	Kathleen Gottsch City Administrator

Synopsis

Thompson Dreesen & Dorner (“TD2”) (“Agent”) submitted the following document on March 9, 2026, on behalf of Joseph Gomez with Belcaro Development (“Subdivider”) related to the property legally described as Irreg N ½ NE ¼ and Tax Lot 34A of Section 24, Township 13, Range 11 of the 6th P.M., Sarpy County, Nebraska, consisting of approximately 61.43 AC, owned by Gregory Mahloch (“Owner”):

1. Final Plat Application
 - a. Application indicates that a “revised preliminary plat is also being submitted concurrently with the final plat, as there are minor revisions from the approved preliminary plat,” which was approved by the City Council on February 3, 2026.

The following exhibits were also provided:

1. Final Plat Checklist
2. Final Plat
3. Plat Exhibits
 - a. Revised Preliminary Plat
 - b. Paving Plan
 - c. General Obligation Paving Plan
 - d. Sanitary Sewer Plan
 - e. Sanitary Sewer Calculations
 - f. Grading and Erosion Control
 - g. Storm Sewer Plan
 - h. Post Construction Stormwater Management Plan
 - i. Water Main Plan
4. Authority to Act
5. Source and Use of Funds
6. Revised Drainage Study
7. Roundabout ROW – 4 Lane Option

8. Landscape Plan – Exhibit G – Reduced

Owner/Subdivider/Agent request the following in order to subdivide the land into a residential development:

1. Final Plat of Lots 1-133 and Outlots A-L, Springfield Highlands

The documents were forwarded to the Residential Planning Review Team, which is comprised of Bill Seidler, Jr. (city attorney), Jeff Ray (city planner), Jeff Thompson (engineer for Sarpy County & Cities Wastewater Agency (SCCWWA)), Brian Schuele (city engineer with Olsson), MUD, NDOT, OPPD Land Management, Papio Missouri River Natural Resources District, Sarpy County (Admin/Engineering/Public Works), Sarpy County Emergency Management Agency, Sarpy County GIS, Sarpy County Planning, Sarpy County Sheriff, Chad Zimmerman (Springfield Fire Chief), and Ryan Saunders (Springfield Platteview Community Schools).

A copy of the synopsis of comments from the Planning Review Team, as well as the submitted documents and exhibits, are attached.

Recommendation

Planning Commission consideration. Refer to staff comments in synopsis.

Attachments

Synopsis of Comments

Springfield Highland FP Connection Fee Calcs_3-12-26.pdf

Springfield Highlands Final Plat-COMMENTS 3-16-26.pdf

Springfield Highlands Final Streets.pdf

Final Plat Application

Final Plat Checklist

Final Plat

Plat Exhibits

Revised Preliminary Plat

Paving Plan

General Obligation Paving Plan

Sanitary Sewer Plan

Sanitary Sewer Calculations

Grading and Erosion Control

Storm Sewer Plan

Post Construction Stormwater Management Plan

Water Main Plan

Authority to Act

Source and Use of Funds

Revised Drainage Study

Roundabout ROW – 4 Lane Option

Landscape Plan – Exhibit G – Reduced



SPRINGFIELD

NEBRASKA

March 30, 2026

SYNOPSIS OF PROFESSIONAL STAFF COMMENTS FOR PLANNING COMMISSION & CITY COUNCIL

Lots 1-133 and Outlots A-L Gregory Mahloch (Owner)/Joseph Gomez, Belcaro Development (Subdivider)/TD2 (Agent) Revised Preliminary Plat & Final Plat

Thompson Dreesen & Dorner (“TD2”) (“Agent”) submitted the following documents on March 9, 2026, on behalf of Joseph Gomez with Belcaro Development (“Subdivider”) related to the property legally described as the Irregular North One-Half of the Northeast Quarter and Tax Lot 34A of Section 24, Township 13, Range 11 of the 6th P.M., Sarpy County, Nebraska, consisting of approximately 61.43 acres, more or less, and generally located on the southwest corner of 132nd Street and Platteview Road, Sarpy County, Nebraska, owned by Gregory Mahloch (“Owner”):

1. Final Plat Application
 - a. Application indicates that a revised preliminary plat is also being submitted concurrently with the final plat, as there are minor revisions from the approved preliminary plat, which was approved by the City Council on February 3, 2026.

The following exhibits were also provided:

1. Final Plat Checklist
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 - i. Water Main Plan
4. Authority to Act
5. Source and Use of Funds
6. Revised Drainage Study
7. Roundabout ROW – 4 Lane Option
8. Landscape Plan – Exhibit G – Reduced

At the request of Jeff Thompson (SCCWWA), TD2 also provided the following documents:

1. Springfield Highlands (2380-104) Lot Sizes 3-12-26

2. Springfield Highlands (2380-104A) CAD 3-12-26

Owner/Subdivider/Agent request the following in order to subdivide the land into a residential development:

1. Final Plat of Lots 1-133 and Outlots A-L, Springfield Highlands (previously known as 132 Platteview)

The documents were forwarded to the Residential Planning Review Team, which is comprised of Bill Seidler, Jr. (city attorney), Jeff Ray (city planner), Jeff Thompson (engineer for Sarpy County & Cities Wastewater Agency (SCCWWA)), Brian Schuele (city engineer with Olsson), MUD, NDOT, OPPD Land Management, Papio Missouri River Natural Resources District, Sarpy County (Admin/Engineering/Public Works), Sarpy County Emergency Management Agency, Sarpy County GIS, Sarpy County Planning, Sarpy County Sheriff, Chad Zimmerman (Springfield Fire Chief), and Ryan Saunders (Springfield Platteview Community Schools). Below is a synopsis of their comments.

Bill Seidler, Jr., City Attorney

1. Description
 - a. This is an application for final plat by Belcaro Development, LLC for land owned by Greg Mahloch.
 - b. A revised preliminary plat is also submitted.
 - c. The parcel of land is east of the current corporate limits of Springfield. It is within Springfield's extraterritorial zoning jurisdiction. The land is currently unimproved farmland.
 - d. The Subdivider has submitted a final plat for a subdivision called Springfield Highlands. An S.I.D. cost estimate indicates that the Subdivider proposes forming a Sanitary Improvement District (S.I.D.).
 - e. The final plat consists of One Hundred Thirty-Three (133) residential lots, and Twelve (12) outlots. The description states it is for One (1) commercial lot, One Hundred Twenty (120) single family lots, and Twelve (12) multifamily lots.
 - f. My previous analysis of the preliminary plat was December 17, 2025, under a name of 132 Platteview.
2. Documents Reviewed
 - a. Final Plat Application;
 - b. Sources and Uses of funds dated March 9, 2026;
 - c. Final Plat
 - d. Certificate of Authority to Act dated December 23, ineligible year;
 - e. Springfield Highlands LP Exhibit G;
 - f. Springfield Highlands Final Plat Checklist;
 - g. Springfield Highlands Plat Exhibits;
 - h. Springfield Highlands Revised Drainage Study; and
 - i. Springfield Highlands Roundabout ROW
3. Agency
 - a. The Certificate of Authority states that Gregory Mahloch is the owner. The final plat application states that Joseph Gomez is the owner. The current ownership structure needs to be resolved before this matter progresses.
 - i. *Staff Response: Joseph Gomez of Belcaro Group is the applicant and is allowed to submit these applications per the Certificate of Authority to Act granted by Greg Mahloch.*
4. S.I.D. versus other methods of public improvement methods.
 - a. Under Springfield Subdivision Regulations, a preliminary plat must contain an itemized cost estimate for all public improvements and detailed breakdown of portion of estimated costs to be borne by the subdivider and those borne by the City, S.I.D. or other proposed issuer of public debt.



- b. Based on recent S.I.D. construction cost estimates, the S.I.D. property tax levy would be significantly higher than the City levy.
 - c. The city should consider alternatives to S.I.D. construction.
 - d. S.I.D.s are not part of the corporate limits of the city, and the city derives no property tax revenue from them. They do, however, have the potential for demands from the city by S.I.D. residents, who do not understand the distinction between the city and the S.I.D.
 - e. S.I.D.s are governed by an S.I.D. Board of Directors, elected by the lot owners.
 - f. In the past, S.I.D.s adjacent to Springfield were allowed to increase the population, to allow for construction and amortization of city waterworks and city sewer systems across a larger population.
 - g. With the addition of large industrial construction in the northern part of the corporate limits of Springfield, the creation of the South Sarpy Sewer Agency and its financing mechanisms, there may be different considerations for additional construction and population. The city still is responsible for its water system, and the functioning of the city utility system and available water system should be considered.
5. Development Risks to Springfield
- a. A risk is that the development may not be able to construct all lots with houses, townhomes, and commercial buildings at the projected value.
 - b. If the Subdivider cannot sell all of the lots at the projected price, and collect the special assessments, or if the average value of the houses, apartments, or buildings is less than the projected value, it may mean that the S.I.D. would have to address its debt. It would also mean that the projected debt could not be retired according to the projected schedule.
 - c. It is unknown if the current market conditions in Springfield, or the surrounding area, would allow for construction on all lots.
6. Annexation Risk
- a. If it is the policy of the City of Springfield not to annex S.I.D.s until the S.I.D. reduces its debt to a level that can be serviced at the then-current levy of the city, it may mean that annexation of the area may never occur.
 - b. The tax levy of the S.I.D. should be compared to the property tax levy of the City of Springfield. It is unknown what the district tax levy would have to be to service its construction, debt, and operation cost.
 - c. If the S.I.D. cannot generate sufficient revenue to maintain its infrastructure, it may allow its infrastructure to deteriorate, which would create a problem for the city, with deteriorated streets, sewers, and outlots in an area within city limits.
 - d. If, in the future, the city cannot, or will not, annex this S.I.D., because of debt levels, or infrastructure considerations, the city would not be able to annex areas east of this S.I.D. that were contiguous with this S.I.D. but not the corporate limits of the city. This means that if an area arose to the east, of this projected S.I.D., that the city desired to annex, that the city could not reach the new subdivision. The city could not extend it extra territorial zoning jurisdiction.
7. Impact of Potential Lot Combinations and Undeveloped Lots
- a. The Sources and Uses of Funds Exhibit projects a valuation of \$100,890,000.00.
 - b. If lots within the subdivision are combined into single lots, or if lots are undeveloped, either by choice or because of market conditions, this could affect the valuation of the entire S.I.D. If the S.I.D. does not reach the projected valuation, the S.I.D. may not be able to retire its debt.
 - c. There are a number of known variables of unknown value that will affect the city's approach to annexing this S.I.D. They include market forces of the lot buyer, timing of lot development, cumulative value of parcels within the S.I.D., and levy rate set by the S.I.D. directors.
 - d. The Subdivider's methodology of the valuation assumption should be explored.



8. Outlots

- a. The issue of who will own and maintain the outlots should be investigated. The plat refers to a Homeowners' Association (HOA) and the Association's responsibility to maintain outlots B-1. Because the lots are trail space, it may be more appropriate to have them maintained by the S.I.D.
- b. Outlots A and E will be owned and maintained by S.I.D. for permanent retention basins. Outlots B-D and F-J will be owned and maintained by the HOA for Green Space, Trails, and Amenities.
- c. If the city annexes the S.I.D., the city will be responsible for maintaining outlots A and E, unless some other provision has been made for their maintenance. Some method for outlot maintenance, now and in the future, should be proposed by the Subdivider.
- d. With respect to outlots B-D and F-J, the putative trail and park lots, an HOA may not have sufficient funds, or the political will, to develop or maintain the other outlots. What should be their level of maintenance? The standard of maintenance by the HOA should be considered.
- e. If the S.I.D. is annexed, the city still would not control these outlots. The use of outlots L and K should be discussed.

9. Trails

- a. The Springfield 2025 Comprehensive Plan appears to indicate a proposed trail in this area (Page 157). The comprehensive plan trail is continuous and runs east to west. The proposed plat shows short north/south trail segments. Because of the location of the segments, they would be subject to encroachment by the adjoining lots. The trail matter should be discussed. See also discussion of outlots and ownership.

10. Development Agreement

- a. A City Subdivision Improvements Agreement, containing at least the city standard provisions, needs to be discussed with the Subdivider.
- b. The city will have to check if it has adequate water supply to service these lots.

Jeff Ray, City Planner

The final plat is good from a planning and zoning perspective assuming the zone change is approved prior to the revised preliminary plat and final plat. *Staff Response: The zone change was previously approved by the City Council on February 3, 2026, contingent upon approval of the final plat.*

Jeff Thompson, SCCWWA Engineer

SCCWWA staff review is based on the SCCWWA policy and procedures currently in effect at the time of this review.

1. Future development and actual flow quantities within the entire service area will need to be monitored and evaluated routinely by the Agency to ensure system surcharging and/or limiting capacities do not occur.
 - a. Based on the current Agency master plan the above reference parcel is currently located entirely in the Phase 1A service area however approximately 12 acres of the easterly portion of the parcel naturally drains east towards 132nd Street through the SCX-1 subbasin.
 - b. Based on the current proposed final plat layout, all flow is being proposed to flow west through the SC-8 subbasin indirectly through the City of Springfield's conveyance system. Conceptually this means slightly more capacity could be utilized within the SC-8 subbasin than previously proposed however that would include an assumption of I/I of approximate 13,535 gpd which may or may not ever occur. ADWF are proposed at 44,584 gpd which is approximately 4,875 gpd less than that which was previously assumed to SC-8 and 12,207 gpd less than that previously assumed from the entire development area.
2. City to provide, at the time of the final plat submittal, the sewer connection agreement between the City of Springfield and the development area.



3. SID to pay half (1/2) of the sewer connection fees; the remaining half (1/2) will be required at the time of the building permit application with each lot.
 - a. Based on the current final plat, the estimated half (1/2) of the connection fees due will be \$634,551.39 (see attached **Springfield Highland FP Connection Fee Calcs 3-12-26.pdf**).
 - i. These fees are based on the 2025-2026 fiscal year rates which expire June 30, 2026. Should the final plat not be approved by then or a phased development approach is desired, future fiscal years rates shall apply.
 - b. The City of Springfield may have their own connection fee charge for the development on top of the Agency charges which is perfectly understandable to assist in the cost sharing of any previously constructed localized outfall sewer(s) allowing service to this development.
4. The SCCWWA shall not be responsible for any type of reimbursements towards this development area.
 - a. The Source and Use of Funds ("SUF") provided with the development packet calls for "Financial Reimbursement" of "SCCWWA Sewer Fees" with a superscript notation (3) stating, "50% of SCCWWA Sewer Fees shall be paid by the SID as a General Obligation expense at time of platting and shall be reimbursed by others at building permit (remaining 50% shall be paid by others at building permit)."
5. SCCWWA will review layout of future final plat submittals for any changes to the development ratio.
 - a. The Regional Wastewater System Financial Assessment TM_2015 3-11-16(final) Waatach and Platte River Regional Wastewater System Refinement Technical Memorandum and the Regional Wastewater Treatment Alternatives Technical Memorandum estimated 60% of the total acres of any residential to be developable with 5 EDU's per acre.
 - b. Based on the current preliminary plat information, this development equates to a ratio of 68.90% which is larger than those preliminary engineering estimates. This ratio exceeds that of the engineering estimates but again will require long term monitoring effects to the system.
6. Recommend further due diligence within the development area after testing to confirm and ensure inflow and infiltration ("I & I") is not encountered.
 - a. Recent development within the Agency jurisdiction have found newly constructed developments are experiencing I & I issues even after initial system testing.
 - b. An inflatable plug at the tie in structures prior to any initial home construction may be prudent for identifying this type of issue.

Brian Schuele, City Engineer w/ Olsson

1. The following documents were not included in the submittal:
 - a. Draft subdivision agreement.
 - b. Draft roadway agreement with Sarpy County.
 - c. Bond, escrow, or security agreement.
 - d. Construction documents.
2. Final Plat
 - a. Agent to prepare separate documents, if needed, to indicate how easements for trails, parks, detention, etc. are being established.
3. PCSMP Drainage Study
 - a. Development appears to meet the PCSMP requirements.
 - b. A more detailed review will be performed by the city as part of the Construction Document review when submitted.
4. Source and Use of Funds
 - a. No comments.



No comments.

NDOT

No comments received.

OPPD

1. Subdivider to **contact OPPD Utility Coordinator for electrical needs.**
 - a. The north side of the property has a 3phase overhead line.
2. Subdivider to **include the following standard dedication language on the final plat:**
 - a. Dedication

Know all men by these presents that we, , owners of the property described in the Certification of Survey and embraced within the plat, have caused said land to be subdivided into lots and streets to be numbered and named as shown, said subdivision to be hereafter known as (lots numbered as shown), and we do hereby ratify and approve of the disposition of our property as shown on the plat, and we do hereby dedicate to the public for public use the streets, avenues and circles, and we do hereby grant easements as shown on this plat, we do further grant a perpetual easement to the Omaha Public Power District, Qwest Communications and any company which has been granted a franchise to provide a cable television system in the area to be subdivided, their successors and assigns, to erect, operate, maintain, repair and renew poles, wires, cables, conduits and other related facilities, and to extend thereon wires or cables for the carrying and transmission of electric current for light, heat and power and for the transmission of signals and sounds of all kinds including signals provided by a cable television system, and the reception on, over, through, under and across a five-foot (5') wide strip of land abutting all front and side boundary lot lines; an eight-foot (8') wide strip of land abutting the rear boundary lines of all interior lots; and a sixteen-foot (16') wide strip of land abutting the rear boundary lines of all exterior lots. The term exterior lots is herein defined as those lots forming the outer perimeter of the above-described addition. Said sixteen-foot (16') wide easement will be reduced to an eight-foot (8') wide strip when the adjacent land is surveyed, platted and recorded. No permanent buildings or retaining walls shall be placed in the said easement ways, but the same may be used for gardens, shrubs, landscaping and other purposes that do not then or later interfere with the aforesaid uses or rights herein granted.

Papio Missouri River Natural Resources District

No comments.

Sarpy County Admin/Engineer/Public Works

The following are the comments received from Sarpy County Public Works on the Final Plat (**see attached Springfield Highlands Final Plat-COMMENTS 3-16-26.pdf**):

1. Add "Dedication" on Main Street and 132nd Street.
2. Add Range Number to the section by the Land Surveyor's stamp on drawing.
 - a. Currently, the plat shows "SW ¼ of Section 18-13-"
3. Add "Drives" in the dedication block.
 - a. "...BEING THE MORTGAGE HOLDER OF THE LAND DESCRIBED WITHIN THE SURVEYOR'S CERTIFICATE AND EMBRACED WITHIN THIS PLAT, HAVE CAUSED SAID LAND TO BE SUBDIVIDED INTO STREETS, DRIVES, LOTS AND OUTLOTS..."

Sarpy County Emergency Management Agency

No comments received.



1. The streets for this new development have been provided (**see attached Springfield Highlands Final Streets.pdf**).

Sarpy County Planning

No comments.

Sarpy County Sheriff

1. Concerned with the 1/8-mile proximity of the neighborhood access to Platteview Road and 132nd Street.
2. Presume there will be a raised concrete median connected to the roundabout to the west to prevent residents from turning left (west) out of the neighborhood.
 - a. If there is no physical barrier, there will be motorists attempting to turn left despite signage.

Springfield Fire Chief

No comments.

Ryan Saunders (Springfield Platteview Community Schools)

No comments received.

Attachments:

- Springfield Highland FP Connection Fee Calcs_3-12-26.pdf
- Springfield Highlands Final Plat-COMMENTS 3-16-26.pdf
- Springfield Highlands Final Streets.pdf



Raw Acres

Ac

Agency Rates per Ac	25-26	26-27	27-28
	\$ 29,984.00	\$ 31,484.00	\$ 32,059.00

Lot #	Platted Lot Area (acres)	25-26 Conn Fee	26-27 Conn Fee	27-28 Conn Fee
1	5.760	\$ 172,707.84	\$ 181,347.84	\$ 184,659.84
2	0.290	\$ 8,695.36	\$ 9,130.36	\$ 9,297.11
3	0.273	\$ 8,185.63	\$ 8,595.13	\$ 8,752.11
4	0.260	\$ 7,795.84	\$ 8,185.84	\$ 8,335.34
5	0.243	\$ 7,286.11	\$ 7,650.61	\$ 7,790.34
6	0.304	\$ 9,115.14	\$ 9,571.14	\$ 9,745.94
7	0.278	\$ 8,335.55	\$ 8,752.55	\$ 8,912.40
8	0.294	\$ 8,815.30	\$ 9,256.30	\$ 9,425.35
9	0.269	\$ 8,065.70	\$ 8,469.20	\$ 8,623.87
10	0.248	\$ 7,436.03	\$ 7,808.03	\$ 7,950.63
11	0.248	\$ 7,436.03	\$ 7,808.03	\$ 7,950.63
12	0.248	\$ 7,436.03	\$ 7,808.03	\$ 7,950.63
13	0.248	\$ 7,436.03	\$ 7,808.03	\$ 7,950.63
14	0.248	\$ 7,436.03	\$ 7,808.03	\$ 7,950.63
15	0.248	\$ 7,436.03	\$ 7,808.03	\$ 7,950.63
16	0.248	\$ 7,436.03	\$ 7,808.03	\$ 7,950.63
17	0.248	\$ 7,436.03	\$ 7,808.03	\$ 7,950.63
18	0.278	\$ 8,335.55	\$ 8,752.55	\$ 8,912.40
19	0.201	\$ 6,026.78	\$ 6,328.28	\$ 6,443.86
20	0.170	\$ 5,097.28	\$ 5,352.28	\$ 5,450.03
21	0.170	\$ 5,097.28	\$ 5,352.28	\$ 5,450.03
22	0.170	\$ 5,097.28	\$ 5,352.28	\$ 5,450.03
23	0.170	\$ 5,097.28	\$ 5,352.28	\$ 5,450.03
24	0.170	\$ 5,097.28	\$ 5,352.28	\$ 5,450.03
25	0.170	\$ 5,097.28	\$ 5,352.28	\$ 5,450.03
26	0.170	\$ 5,097.28	\$ 5,352.28	\$ 5,450.03
27	0.170	\$ 5,097.28	\$ 5,352.28	\$ 5,450.03
28	0.168	\$ 5,037.31	\$ 5,289.31	\$ 5,385.91
29	0.174	\$ 5,217.22	\$ 5,478.22	\$ 5,578.27
30	0.151	\$ 4,527.58	\$ 4,754.08	\$ 4,840.91
31	0.327	\$ 9,804.77	\$ 10,295.27	\$ 10,483.29
32	0.298	\$ 8,935.23	\$ 9,382.23	\$ 9,553.58
33	0.379	\$ 11,363.94	\$ 11,932.44	\$ 12,150.36
34	0.298	\$ 8,935.23	\$ 9,382.23	\$ 9,553.58
35	0.326	\$ 9,774.78	\$ 10,263.78	\$ 10,451.23
36	0.316	\$ 9,474.94	\$ 9,948.94	\$ 10,130.64
37	0.286	\$ 8,575.42	\$ 9,004.42	\$ 9,168.87
38	0.287	\$ 8,605.41	\$ 9,035.91	\$ 9,200.93
39	0.345	\$ 10,344.48	\$ 10,861.98	\$ 11,060.36
40	0.362	\$ 10,854.21	\$ 11,397.21	\$ 11,605.36

Variable	Unit	Value
Overall Sarpy County Residential Population Growth	People/year	• 3,625
• 2015-2045		• 2,845
• 2046-2055		
Percentage of Projected Incremental Growth Occurring South of Ridgeline:	Percent	• 10
• Year 2020		• 25
• Year 2025		• 75
• Year 2035		• 90
• Year 2050		
Single Family Residential	People/DU	2.7
Dwelling Units (DU) per Gross Acre	DU/acre	3
People per Gross Acre	People/acre	8.1
Developable Acre to Gross Acre Ratio (Residential)	Percent	60
Commercial Growth	SF/10 years	500,000
Commercial Building Area per Developable Acre	SF/acre	13,700
Area per Commercial Employee	SF/employee	196
Commercial Employees per Developable Acre	Employees/acre	70
Industrial Growth	SF/10 years	3,000,000
Industrial Building Area per Developable Acre	SF/acre	12,000
Area per Industrial Employee	SF/employee	600
Industrial Employees per Developable Acre	Employees/acre	20
Developable Acre to Gross Acre Ratio (Commercial/Industrial)	Percent	65
Residential Wastewater Flow	gpcd	100
Commercial Wastewater Flow	gpad	1,500
Industrial Wastewater Flow	gpad	1,500

Lot #	Platted Lot Area (acres)	25-26		26-27		27-28	
		Conn Fee	Conn Fee	Conn Fee	Conn Fee	Conn Fee	Conn Fee
41	0.310	\$ 9,295.04	\$ 9,760.04	\$ 9,938.29			
42	0.340	\$ 10,194.56	\$ 10,704.56	\$ 10,900.06			
43	0.272	\$ 8,155.65	\$ 8,563.65	\$ 8,720.05			
44	0.242	\$ 7,256.13	\$ 7,619.13	\$ 7,758.28			
45	0.242	\$ 7,256.13	\$ 7,619.13	\$ 7,758.28			
46	0.242	\$ 7,256.13	\$ 7,619.13	\$ 7,758.28			
47	0.300	\$ 8,995.20	\$ 9,445.20	\$ 9,617.70			
48	0.317	\$ 9,504.93	\$ 9,980.43	\$ 10,162.70			
49	0.247	\$ 7,406.05	\$ 7,776.55	\$ 7,918.57			
50	0.224	\$ 6,716.42	\$ 7,052.42	\$ 7,181.22			
51	0.289	\$ 8,665.38	\$ 9,098.88	\$ 9,265.05			
52	0.333	\$ 9,984.67	\$ 10,484.17	\$ 10,675.65			
53	0.262	\$ 7,855.81	\$ 8,248.81	\$ 8,399.46			
54	0.261	\$ 7,825.82	\$ 8,217.32	\$ 8,367.40			
55	0.259	\$ 7,765.86	\$ 8,154.36	\$ 8,303.28			
56	0.257	\$ 7,705.89	\$ 8,091.39	\$ 8,239.16			
57	0.255	\$ 7,645.92	\$ 8,028.42	\$ 8,175.05			
58	0.254	\$ 7,615.94	\$ 7,996.94	\$ 8,142.99			
59	0.252	\$ 7,555.97	\$ 7,933.97	\$ 8,078.87			
60	0.242	\$ 7,256.13	\$ 7,619.13	\$ 7,758.28			
61	0.242	\$ 7,256.13	\$ 7,619.13	\$ 7,758.28			
62	0.241	\$ 7,226.14	\$ 7,587.64	\$ 7,726.22			
63	0.241	\$ 7,226.14	\$ 7,587.64	\$ 7,726.22			
64	0.241	\$ 7,226.14	\$ 7,587.64	\$ 7,726.22			
65	0.241	\$ 7,226.14	\$ 7,587.64	\$ 7,726.22			
66	0.241	\$ 7,226.14	\$ 7,587.64	\$ 7,726.22			
67	0.302	\$ 9,055.17	\$ 9,508.17	\$ 9,681.82			
68	0.257	\$ 7,705.89	\$ 8,091.39	\$ 8,239.16			
69	0.235	\$ 7,046.24	\$ 7,398.74	\$ 7,533.87			
70	0.235	\$ 7,046.24	\$ 7,398.74	\$ 7,533.87			
71	0.235	\$ 7,046.24	\$ 7,398.74	\$ 7,533.87			
72	0.235	\$ 7,046.24	\$ 7,398.74	\$ 7,533.87			
73	0.235	\$ 7,046.24	\$ 7,398.74	\$ 7,533.87			
74	0.238	\$ 7,136.19	\$ 7,493.19	\$ 7,630.04			
75	0.260	\$ 7,795.84	\$ 8,185.84	\$ 8,335.34			
76	0.295	\$ 8,845.28	\$ 9,287.78	\$ 9,457.41			
77	0.273	\$ 8,185.63	\$ 8,595.13	\$ 8,752.11			
78	0.296	\$ 8,875.26	\$ 9,319.26	\$ 9,489.46			
79	0.257	\$ 7,705.89	\$ 8,091.39	\$ 8,239.16			
80	0.257	\$ 7,705.89	\$ 8,091.39	\$ 8,239.16			
81	0.257	\$ 7,705.89	\$ 8,091.39	\$ 8,239.16			
82	0.257	\$ 7,705.89	\$ 8,091.39	\$ 8,239.16			
83	0.257	\$ 7,705.89	\$ 8,091.39	\$ 8,239.16			
84	0.257	\$ 7,705.89	\$ 8,091.39	\$ 8,239.16			
85	0.257	\$ 7,705.89	\$ 8,091.39	\$ 8,239.16			

Lot #	Platted Lot Area (acres)	25-26		26-27		27-28	
		Conn Fee	Conn Fee	Conn Fee	Conn Fee	Conn Fee	Conn Fee
86	0.257	\$ 7,705.89	\$ 8,091.39	\$ 8,239.16			
87	0.257	\$ 7,705.89	\$ 8,091.39	\$ 8,239.16			
88	0.288	\$ 8,635.39	\$ 9,067.39	\$ 9,232.99			
89	0.295	\$ 8,845.28	\$ 9,287.78	\$ 9,457.41			
90	0.301	\$ 9,025.18	\$ 9,476.68	\$ 9,649.76			
91	0.324	\$ 9,714.82	\$ 10,200.82	\$ 10,387.12			
92	0.318	\$ 9,534.91	\$ 10,011.91	\$ 10,194.76			
93	0.283	\$ 8,485.47	\$ 8,909.97	\$ 9,072.70			
94	0.274	\$ 8,215.62	\$ 8,626.62	\$ 8,784.17			
95	0.336	\$ 10,074.62	\$ 10,578.62	\$ 10,771.82			
96	0.309	\$ 9,265.06	\$ 9,728.56	\$ 9,906.23			
97	0.348	\$ 10,434.43	\$ 10,956.43	\$ 11,156.53			
98	0.359	\$ 10,764.26	\$ 11,302.76	\$ 11,509.18			
99	0.370	\$ 11,094.08	\$ 11,649.08	\$ 11,861.83			
100	0.338	\$ 10,134.59	\$ 10,641.59	\$ 10,835.94			
101	0.327	\$ 9,804.77	\$ 10,295.27	\$ 10,483.29			
102	0.329	\$ 9,864.74	\$ 10,358.24	\$ 10,547.41			
103	0.332	\$ 9,954.69	\$ 10,452.69	\$ 10,643.59			
104	0.291	\$ 8,725.34	\$ 9,161.84	\$ 9,329.17			
105	0.286	\$ 8,575.42	\$ 9,004.42	\$ 9,168.87			
106	0.284	\$ 8,515.46	\$ 8,941.46	\$ 9,104.76			
107	0.322	\$ 9,654.85	\$ 10,137.85	\$ 10,323.00			
108	0.324	\$ 9,714.82	\$ 10,200.82	\$ 10,387.12			
109	0.350	\$ 10,494.40	\$ 11,019.40	\$ 11,220.65			
110	0.294	\$ 8,815.30	\$ 9,256.30	\$ 9,425.35			
111	0.297	\$ 8,905.25	\$ 9,350.75	\$ 9,521.52			
112	0.316	\$ 9,474.94	\$ 9,948.94	\$ 10,130.64			
113	0.372	\$ 11,154.05	\$ 11,712.05	\$ 11,925.95			
114	0.399	\$ 11,963.62	\$ 12,562.12	\$ 12,791.54			
115	0.309	\$ 9,265.06	\$ 9,728.56	\$ 9,906.23			
116	0.265	\$ 7,945.76	\$ 8,343.26	\$ 8,495.64			
117	0.333	\$ 9,984.67	\$ 10,484.17	\$ 10,675.65			
118	0.295	\$ 8,845.28	\$ 9,287.78	\$ 9,457.41			
119	0.261	\$ 7,825.82	\$ 8,217.32	\$ 8,367.40			
120	0.319	\$ 9,564.90	\$ 10,043.40	\$ 10,226.82			
121	0.390	\$ 11,693.76	\$ 12,278.76	\$ 12,503.01			
122	0.306	\$ 9,175.10	\$ 9,634.10	\$ 9,810.05			
123	0.302	\$ 9,055.17	\$ 9,508.17	\$ 9,681.82			
124	0.278	\$ 8,335.55	\$ 8,752.55	\$ 8,912.40			
125	0.290	\$ 8,695.36	\$ 9,130.36	\$ 9,297.11			
126	0.254	\$ 7,615.94	\$ 7,996.94	\$ 8,142.99			
127	0.302	\$ 9,055.17	\$ 9,508.17	\$ 9,681.82			
128	0.291	\$ 8,725.34	\$ 9,161.84	\$ 9,329.17			
129	0.381	\$ 11,423.90	\$ 11,995.40	\$ 12,214.48			
130	0.500	\$ 14,992.00	\$ 15,742.00	\$ 16,029.50			

Lot #	Platted Lot Area (acres)	25-26 Conn Fee	26-27 Conn Fee	27-28 Conn Fee
131	0.326	\$ 9,774.78	\$ 10,263.78	\$ 10,451.23
132	0.252	\$ 7,555.97	\$ 7,933.97	\$ 8,078.87
133	0.239	\$ 7,166.18	\$ 7,524.68	\$ 7,662.10

Total 42.326

Total Sewer Connection Fee \$ 1,269,102.78 \$ 1,332,591.78 \$ 1,356,929.23

Outlot A	1.424
Outlot B	0.686
Outlot C	0.256
Outlot D	0.254
Outlot E	2.506
Outlot F	0.693
Outlot G	0.379
Outlot H	0.250
Outlot I	0.181
Outlot J	0.076
Outlot K	0.073
Outlot L	0.278

Total Outlot 7.06

Right of Way 12.048

Total Project Acres 61.430

1/2 Due at F.P \$ 634,551.39 \$ 666,295.89 \$ 678,464.62

Based on Regional Regional Wasterwater System Financial Assessment TM_2015 3-11-16(final) Waatach and Platte River Regional Wastewater System Refinement Technical Memorandum and the Regional Wastewater Treatment Alternatives Technical Memorandum 60% of total acres estimated to be developable with 5 EDU's per acre

Development Developable Acres	68.90%	>60%	TRUE
-------------------------------	--------	------	------

EDU's 211.63

Connection Fees Owed to Omaha (\$293/EDU)

Note: only 1/2 due to Omaha at the time of final plat \$ 31,003.80



FINAL PLAT APPLICATION

(please print or type)

Subdivider's Name Belcaro Development LLC

Address 7520 S 95TH Street, La Vista, NE 68128

Phone (402)415-9554 ext. _____

Owner's Name Joseph Gomez

Address 7520 S 95TH Street, La Vista, NE 68128

Phone (402)415-9554 ext. _____

Agent's Name Thompson, Dreessen & Dorner, Inc. (TD2)

Address 10836 Old Mill Road, Omaha, NE 68154

Phone (402)330-8860 ext. _____

The Final Plat is requested for the property legally described as follows:
Lots 1-133 and Outlots A-L, Springfield Highlands, a proposed
subdivision in Sarpy County, NE.

The current zoning of the property is as follows:
The property is currently zoned R87.

Name of the Final Plat:
Springfield Highlands

Number of lots in the Final Plat:
133 Lots (1 Commercial, 12 multifamily, 120 single family)
12 Outlots

Does the subdivider have any interest in the land surrounding the final plat?

- yes
- no

If yes, please describe the nature of such interest:

Will the Final Plat require any zoning or other action (rezone, planned development, conditional use, vacations) to complete the development?

- yes
- no

If yes, please describe the nature of the action:

A request of a zone change is necessary for the commercial lots (BG) 12 four-plex lots(R30), and 12 single family lots (R50). A revised preliminary plat is also being submitted concurrently with the final plat, as there are minor revisions from the approved prelim plat.

The Final Plat is based on the Preliminary Plat for:

A revised preliminary plat is also being submitted concurrently with the final plat, as there are minor revisions from the approved prelim plat.

This Preliminary Plat was approved by the City Council on:

Date February 3, 2026

Is the Final Plat consistent with the approved Preliminary Plat?

- yes
- no

If not, explain the proposed changes and the reasons therefore:

Per coordination with Sarpy County, the accesses to 132nd St at Valley Dr and Platteview Rd at 10th Ave have been revised. Additionally, the intersection of 6th and Platteview Dr was made a T-intersection with Platteview Dr being the through street per staff comments.

Have all improvements required by the Preliminary Plat application process been completed?

- yes
- no

If not, list improvements which have not been completed:

No improvements have been at this time.

- ✓ ***Please refer to the Final Plat Checklist for a complete list of required information.***
- ✓ ***Complete information must be provided by the applicant or no action will be taken.***
- ✓ ***Please refer to the Review Schedule for submittal deadlines and public hearing dates.***

I hereby certify that all required information and materials are herewith attached and said materials are true and accurate to the best of my knowledge.

Signed _____
Applicant 

Date March 9, 2026

Application Fee: \$500.00 plus \$10.00 per lot
*fees are nonrefundable

All fees are due and payable to the City Treasurer upon application.



FINAL PLAT CHECKLIST

Plat Name: Springfield Highlands (Lots 1-133 and Outlots A-L)

Subdivider's Name Belcaro Development LLC

Final Plats shall include the following information:

After approval of the Preliminary Plat by the Planning Commission, the subdivider shall prepare and submit to the Planning Commission a Final Plat prepared by a registered engineer and registered land surveyor for recording purposes and shall submit to the City Engineer:

- A sanitary sewer plan
- A surface storm drainage plan within the subdivision (this requirement may vary on a case by case basis, subject to City Council review and approval).
- A street profile plan with a statement of proposed street improvements

Final Plat, in conformance with the approved Preliminary Plat, shall include:

- Name of subdivision
- Date, north arrow and scale
- Boundary lines of area being subdivided (heavy dashed lines) with accurate distance, angles other than 90 degrees, boundaries and location of section and half-section lines in relation to Plat.
- Include lands adjoining subdivision for a distance of two hundred (200) feet on all sides, all names of such additions, and streets, together with property lines, lot and block numbers and other designations, (except dimensions, to be shown by broken lines.) Dimensions of bounding streets, together with lot dimensions on side adjoining streets shall be shown.
- Identifications systems for all lots and blocks.
- Proposed streets, cul-de-sacs, (with names), alleys, easements and other dedications and lots of other parcels of land must be accurately dimensioned. All angles other than ninety (90) degrees, as required to definitely establish lines or parcels of land, must be shown.
- Locations of markings (in feet and decimals of a foot) of iron pipe, three-quarters (3/4) of an inch plus or minus, in diameter and not less than two (2) feet in length at all lot corners and change in alignments of such lines.

- The point of beginning and ending of curve, its radius and total deflection angle.
- Certification by a registered land surveyor.
- A notarized certification signed and acknowledged by all parties having any titled interest in, or lien upon the land to be subdivided consenting to the Final Plat including the dedication of parts of the land for streets, easements, and other purposes.
- A certification signed by the County Treasurer stating that there are no regular or special taxes due or delinquent against the platted land.
- A form for the approval of the Planning Commission.
- A form for the approval of the City Council to be signed by the Mayor and attested to by the City Clerk.
- Location description of the subdivision by the section, township, range, county, and state and including metes and bounds description for the boundaries of the subdivision.
- A form for the approval of the City Engineer.
- A form for Acknowledgement by Notary.
- A form for Certificate of County Register of Deeds.
- One copy of any private restrictions or covenants affecting the subdivision or any part thereof, if applicable.

**Please refer to the Springfield Subdivision Regulations for subdivision design standards.*

**All other remaining items shall be completed prior to recording the final plat.

A handwritten signature in blue ink, appearing to read "Bealby Hylf".

3/9/26

SPRINGFIELD HIGHLANDS

LOTS 1 THROUGH 133, INCLUSIVE, AND OUTLOTS A THROUGH L, INCLUSIVE

BEING A PLATTING OF TAX LOT 34A AND THAT PART OF THE E 1/2 OF THE NE 1/4 OF SECTION 24, TOWNSHIP 13 NORTH, RANGE 11 EAST OF THE 6TH P.M., ALL IN SARPY COUNTY, NEBRASKA.

PARCEL CURVE INFORMATION				
CURVE #	DELTA	LENGTH	TANGENT	RADIUS
26	6°57'12"	129.53'	64.85'	1067.39'
27	12°42'02"	44.33'	22.26'	200.00'

CENTERLINE CURVE INFORMATION				
CURVE #	DELTA	LENGTH	TANGENT	RADIUS
1	48°48'59"	127.80'	68.07'	150.00'
2	42°35'34"	111.51'	58.47'	150.00'
3	21°18'26"	74.38'	37.62'	200.00'
4	16°58'54"	44.46'	22.39'	150.00'
5	14°28'33"	37.90'	19.05'	150.00'
6	20°47'14"	54.42'	27.51'	150.00'
7	31°42'55"	83.03'	42.61'	150.00'
8	61°45'53"	161.70'	89.71'	150.00'
9	17°43'47"	154.72'	77.98'	500.00'
10	45°11'32"	118.31'	62.43'	150.00'
11	44°46'45"	117.23'	61.79'	150.00'
12	45°27'21"	119.00'	62.83'	150.00'
13	44°48'28"	117.31'	61.84'	150.00'

CENTERLINE CURVE INFORMATION				
CURVE #	DELTA	LENGTH	TANGENT	RADIUS
14	18°23'48"	48.16'	24.29'	150.00'
15	18°23'53"	48.17'	24.29'	150.00'
16	13°56'48"	36.51'	18.35'	150.00'
17	27°27'46"	239.66'	122.18'	500.00'
18	43°33'56"	228.11'	119.89'	300.00'
19	22°46'41"	79.51'	40.29'	200.00'
20	27°27'46"	239.66'	122.18'	500.00'
21	13°56'48"	36.51'	18.35'	150.00'
22	25°35'18"	66.99'	34.06'	150.00'
23	25°35'18"	133.98'	68.13'	300.00'
24	12°42'02"	66.50'	33.39'	300.00'
25	19°27'24"	169.79'	85.72'	500.00'

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS SURVEY WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF NEBRASKA AND THAT THIS SURVEY WAS MADE IN ACCORDANCE WITH THE LAWS IN EFFECT AS OF THE DATE SHOWN HEREON AND THAT PERMANENT MARKERS HAVE BEEN FOUND OR SET AT ALL CORNERS OF SAID BOUNDARY AND THAT PERMANENT MARKERS WILL BE SET AT ALL LOT CORNERS AND ANGLE POINTS WITHIN SAID SUBDIVISION TO BE KNOWN AS SPRINGFIELD HIGHLANDS, LOTS 1 THROUGH 133, INCLUSIVE, AND OUTLOTS A THROUGH L, INCLUSIVE, BEING A PLATTING OF TAX LOT 34A AND THAT PART OF THE E 1/2 OF THE NE 1/4 OF SECTION 24, TOWNSHIP 13 NORTH, RANGE 11 EAST OF THE 6TH P.M., ALL IN SARPY COUNTY, NEBRASKA, ALL MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NW CORNER OF THE NE 1/4 OF SAID SECTION 24; THENCE S89°33'45"E (ASSUMED BEARING) 2612.33 FEET ON THE NORTH LINE OF SAID SECTION 24 TO THE NW CORNER THEREOF; THENCE S07°05'41"E 609.48 FEET ON THE EAST LINE OF SAID SECTION 24; THENCE ON THE NORTHERLY LINE OF SPRINGFIELD PINES REPLAT 1, A SUBDIVISION IN SAID SARPY COUNTY FOR THE FOLLOWING 17 (SEVENTEEN) DESCRIBED COURSES; THENCE S89°55'47"W 413.18 FEET TO THE NW CORNER OF LOT 75, SAID SPRINGFIELD PINES REPLAT 1; THENCE S11°28'31"W 352.33 FEET TO THE SW CORNER OF LOT 73, SAID SPRINGFIELD PINES REPLAT 1; THENCE S10°25'39"W 15.33 FEET TO THE NORTH LINE OF OUT LOT F, SAID SPRINGFIELD PINES REPLAT 1; THENCE N63°54'28"W 191.79 FEET TO THE EAST RIGHT OF WAY LINE OF N 10TH AVENUE; THENCE N75°00'40"W 50.00 FEET TO THE WEST RIGHT OF WAY LINE OF SAID N 10TH AVENUE; THENCE SOUTHWESTERLY ON A 365.39 FOOT RADIUS CURVE TO THE RIGHT WITH A CHORD BEARING S18°52'31"W, CHORD DISTANCE OF 41.59 FEET AND ARC DISTANCE OF 41.62 FEET TO THE NW CORNER OF LOT 29, SPRINGFIELD PINES REPLAT 1; THENCE N59°23'43"W 127.14 FEET ON THE NORTHERLY LINE OF LOT 29, SAID SPRINGFIELD PINES REPLAT 1 TO THE NW CORNER THEREOF; THENCE S2°35'18"W 68.66 FEET TO THE SW CORNER OF LOT 29, SAID SPRINGFIELD PINES REPLAT 1; THENCE S61°37'54"W 114.03 FEET TO THE NW CORNER OF LOT 27, SAID SPRINGFIELD PINES REPLAT 1; THENCE S83°37'22"W 224.36 FEET TO THE NW CORNER OF LOT 24, SAID SPRINGFIELD PINES REPLAT 1; THENCE N49°26'55"W 28.71 FEET; THENCE S49°36'57"W 121.15 FEET; THENCE S87°21'37"W 65.67 FEET; THENCE S56°36'37"W 104.53 FEET; THENCE S21°23'03"E 46.81 FEET TO THE NW CORNER OF LOT 23, SAID SPRINGFIELD PINES REPLAT 1; THENCE S24°36'53"W 51.55 FEET TO THE SW CORNER OF LOT 23, SAID SPRINGFIELD PINES REPLAT 1; THENCE S33°36'57"W 351.87 FEET TO THE NE CORNER OF LOT 1, SPRINGFIELD GARDENS, A SUBDIVISION IN SAID SARPY COUNTY; THENCE ON THE NORTH LINE OF SAID SPRINGFIELD GARDENS FOR THE FOLLOWING 5 (FIVE) DESCRIBED COURSES; THENCE S72°23'43"W 89.91 FEET TO THE EAST RIGHT OF WAY LINE OF N 8TH STREET; THENCE N17°33'08"W 4.97 FEET ON THE EAST RIGHT OF WAY LINE OF SAID N 8TH STREET; THENCE S72°42'28"W 137.60 FEET TO THE NW CORNER OF LOT 2, SAID SPRINGFIELD GARDENS; THENCE N78°56'19"W 99.56 FEET TO THE NORTHERLY ANGLE POINT OF LOT 4, SAID SPRINGFIELD GARDENS; THENCE N89°30'03"W 135.00 FEET TO THE EAST RIGHT OF WAY LINE OF N 7TH STREET; THENCE N89°32'02"W 186.74 FEET ON THE NORTH LINE OF SAID SPRINGFIELD GARDENS FOR THE FOLLOWING 5 (FIVE) DESCRIBED COURSES; THENCE S72°23'43"W 89.91 FEET TO THE NORTH LINE OF SAID SPRINGFIELD GARDENS; A SUBDIVISION IN SAID SARPY COUNTY; THENCE N00°05'17"W 228.15 FEET ON THE EAST LINE OF SAID HIGHWAY ADDITION TO SPRINGFIELD; THENCE N00°10'36"W 641.53 FEET CONTINUING ON THE EAST LINE OF SAID HIGHWAY ADDITION TO SPRINGFIELD TO THE POINT OF BEGINNING.

CONTAINS: 2,784,456 SQUARE FEET OR 63,922 ACRES, MORE OR LESS.

FEBRUARY 20, 2026
DATE



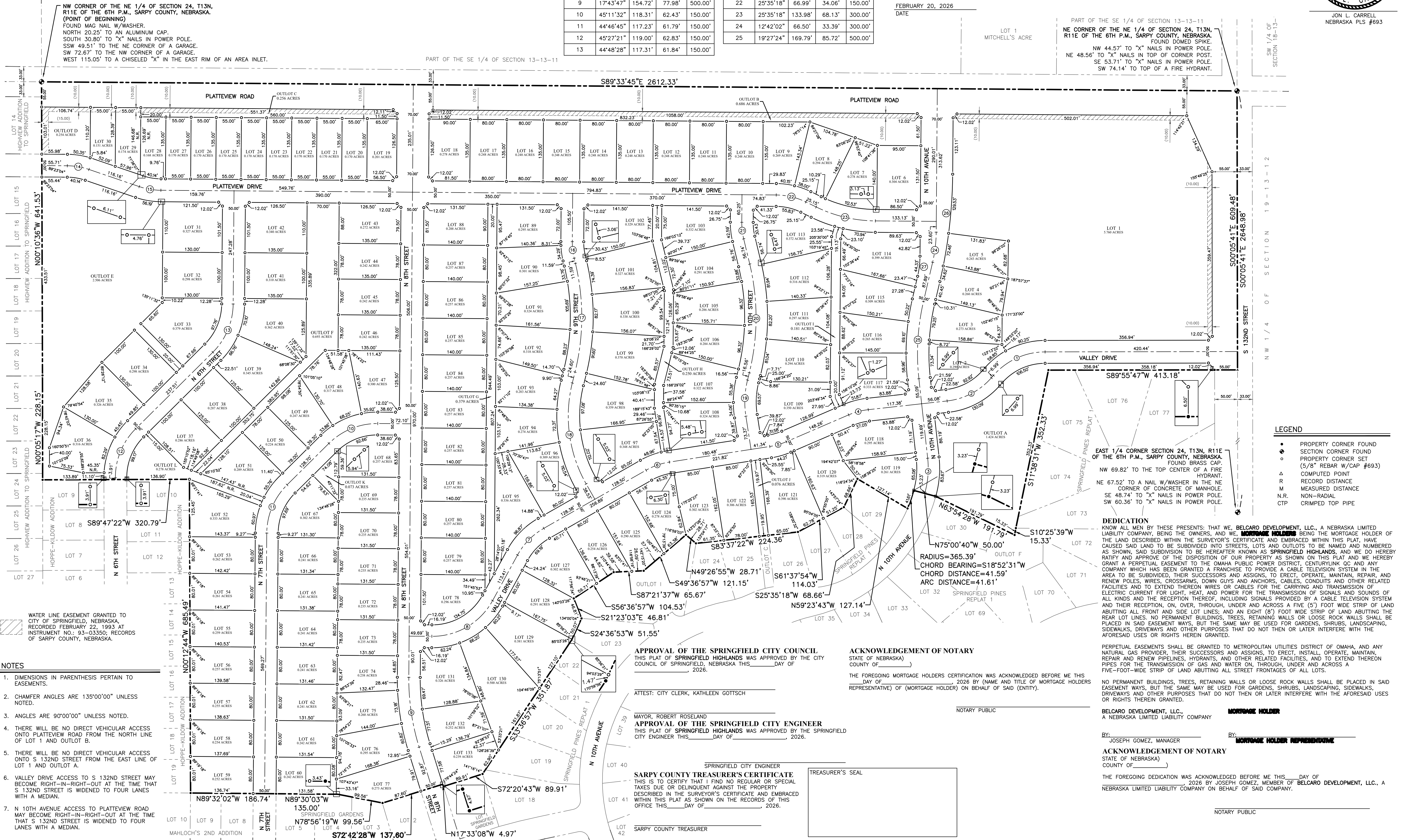
thompson, dreessen & dornier, inc.
10836 Old Mill Rd
Omaha, NE 68154
p.402.330.8860 f.402.330.5866
td2co.com
dba: TD2 Engineering & Surveying
NE CA-0199

APPROVAL OF THE SPRINGFIELD CITY PLANNING COMMISSION
THIS PLAN OF SPRINGFIELD HIGHLANDS WAS APPROVED BY THE SPRINGFIELD CITY PLANNING COMMISSION THIS _____ DAY OF _____, 2026.

REVIEW BY SARPY COUNTY PUBLIC WORKS
THIS PLAN OF SPRINGFIELD HIGHLANDS WAS REVIEWED BY THE SARPY COUNTY SURVEYORS OFFICE THIS _____ DAY OF _____, 2026.

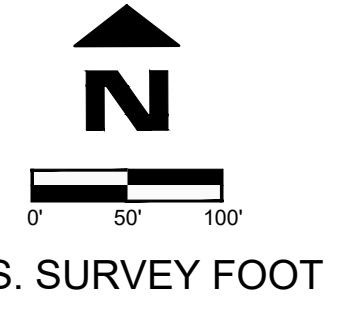
ATTEST: SECRETARY OF PLANNING COMMISSION _____ CHAIRPERSON _____

SARPY COUNTY SURVEYOR/ENGINEER _____



SPRINGFIELD HIGHLANDS
LOTS 1 THROUGH 133, INCLUSIVE, AND
OUTLOTS A THROUGH L, INCLUSIVE

- LEGEND**
- PROPERTY CORNER FOUND
 - SECTION CORNER FOUND
 - PROPERTY CORNER SET (5/8" REBAR W/CAP #693)
 - △ COMPUTED POINT
 - R RECORD DISTANCE
 - M MEASURED DISTANCE
 - N.R. NON-RADIAL
 - CTP CRIMPED TOP PIPE



DEDICATION
KNOW ALL MEN BY THESE PRESENTS: THAT WE, BELCARO DEVELOPMENT, LLC, A NEBRASKA LIMITED LIABILITY COMPANY, BEING THE OWNERS, AND WE, METROPOLITAN UTILITIES DISTRICT OF OMAHA, BEING THE MORTGAGE HOLDER OF THE LAND DESCRIBED WITHIN THE SURVEYORS CERTIFICATE AND EMBRACED WITHIN THIS PLAT, HAVE CAUSED SAID LAND TO BE SUBDIVIDED INTO STREETS, LOTS AND OUTLOTS TO BE NAMED AND NUMBERED AS SHOWN, SAID SUBDIVISION TO BE HEREAFTER KNOWN AS SPRINGFIELD HIGHLANDS, AND WE DO HEREBY RATIFY AND APPROVE OF THE DISPOSITION OF OUR PROPERTY AS SHOWN ON THIS PLAT AND WE HEREBY GRANT A PERPETUAL EASEMENT TO THE OMAHA PUBLIC POWER DISTRICT, CENTURYLINK CO. AND ANY COMPANY WHICH HAS BEEN GRANTED A FRANCHISE TO PROVIDE A CABLE TELEVISION SYSTEM IN THE AREA TO BE SUBDIVIDED, THEIR SUCCESSORS AND ASSIGNS, TO ERECT, OPERATE, MAINTAIN, REPAIR, AND RENEW POLES, WIRES, CROSSARMS, DOWN GUYS AND ANCHORS, CABLES, CONDUITS AND OTHER RELATED FACILITIES AND TO EXTEND THEREON WIRES OR CABLES FOR THE CARRYING AND TRANSMISSION OF ELECTRIC CURRENT FOR LIGHT, HEAT, AND POWER FOR THE TRANSMISSION OF SIGNALS AND SOUNDS OF ALL KINDS AND THE RECEIPT THEREOF, INCLUDING SIGNALS PROVIDED BY A CABLE TELEVISION SYSTEM AND THEIR RECEPTION, ON, OVER, THROUGH, UNDER AND ACROSS A FIVE (5') FOOT WIDE STRIP OF LAND ABUTTING ALL FRONT AND SIDE LOT LINES; AND AN EIGHT (8') FOOT WIDE STRIP OF LAND ABUTTING THE REAR LOT LINES; NO PERMANENT BUILDINGS, TREES, RETAINING WALLS OR LOOSE ROCK WALLS SHALL BE PLACED IN SAID EASEMENT WAYS BUT THE SAME MAY BE USED FOR GARDENS, SHRUBS, LANDSCAPING, SIDEWALKS, DRIVEWAYS AND OTHER PURPOSES THAT DO NOT THEN OR LATER INTERFERE WITH THE AFORESAID USES OR RIGHTS HEREIN GRANTED.

PERPETUAL EASEMENTS SHALL BE GRANTED TO METROPOLITAN UTILITIES DISTRICT OF OMAHA, AND ANY NATURAL GAS PROVIDER, THEIR SUCCESSORS AND ASSIGNS, TO ERECT, INSTALL, OPERATE, MAINTAIN, REPAIR AND RENEW PIPELINES, HYDRANTS, AND OTHER RELATED FACILITIES, AND TO EXTEND THEREON PIPES FOR THE TRANSMISSION OF GAS AND WATER ON, THROUGH, UNDER AND ACROSS A FIVE-FOOT-WIDE STRIP OF LAND ABUTTING ALL STREET FRONTS OF ALL LOTS.

NO PERMANENT BUILDINGS, TREES, RETAINING WALLS OR LOOSE ROCK WALLS SHALL BE PLACED IN SAID EASEMENT WAYS, BUT THE SAME MAY BE USED FOR GARDENS, SHRUBS, LANDSCAPING, SIDEWALKS, DRIVEWAYS AND OTHER PURPOSES THAT DO NOT THEN OR LATER INTERFERE WITH THE AFORESAID USES OR RIGHTS HEREIN GRANTED.

BELCARO DEVELOPMENT, LLC, A NEBRASKA LIMITED LIABILITY COMPANY **MORTGAGE HOLDER**

BY: JOSEPH GOMEZ, MANAGER **MORTGAGE HOLDER REPRESENTATIVE**

APPROVAL OF THE SPRINGFIELD CITY COUNCIL
THIS PLAT OF SPRINGFIELD HIGHLANDS WAS APPROVED BY THE CITY COUNCIL OF SPRINGFIELD, NEBRASKA THIS _____ DAY OF _____, 2026.

ATTEST: CITY CLERK, KATHLEEN GOTTSCH _____

ACKNOWLEDGEMENT OF NOTARY
STATE OF NEBRASKA)
COUNTY OF _____

THE FOREGOING MORTGAGE HOLDERS CERTIFICATION WAS ACKNOWLEDGED BEFORE ME THIS _____ DAY OF _____, 2026 BY (NAME AND TITLE OF MORTGAGE HOLDERS REPRESENTATIVE) OF (MORTGAGE HOLDER) ON BEHALF OF SAID (ENTITY).

NOTARY PUBLIC _____

SARPY COUNTY TREASURER'S CERTIFICATE
THIS IS TO CERTIFY THAT I FIND NO REGULAR OR SPECIAL TAXES DUE OR DELINQUENT AGAINST THE PROPERTY DESCRIBED IN THE SURVEYOR'S CERTIFICATE AND EMBRACED WITHIN THIS PLAT AS SHOWN ON THE RECORDS OF THIS OFFICE THIS _____ DAY OF _____, 2026.

SARPY COUNTY TREASURER

- NOTES**
- DIMENSIONS IN PARENTHESIS PERTAIN TO EASEMENTS.
 - CHAMFER ANGLES ARE 135°00'00" UNLESS NOTED.
 - ANGLES ARE 90°00'00" UNLESS NOTED.
 - THERE WILL BE NO DIRECT VEHICULAR ACCESS ONTO PLATTEVIEW ROAD FROM THE NORTH LINE OF LOT 1 AND OUTLOT B.
 - THERE WILL BE NO DIRECT VEHICULAR ACCESS ONTO S 132ND STREET FROM THE EAST LINE OF LOT 1 AND OUTLOT A.
 - VALLEY DRIVE ACCESS TO S 132ND STREET MAY BECOME RIGHT-IN-RIGHT-OUT AT THE TIME THAT S 132ND STREET IS WIDENED TO FOUR LANES WITH A MEDIAN.
 - N 10TH AVENUE ACCESS TO PLATTEVIEW ROAD MAY BECOME RIGHT-IN-RIGHT-OUT AT THE TIME THAT S 132ND STREET IS WIDENED TO FOUR LANES WITH A MEDIAN.

Revision Dates

No.	Description	MM-DD-YY

Job No.: A2380-104A
Drawn By: BJH
Reviewed By: JLC
Date: 02/20/2026
Grid Book: 136
Pages: 51-55

Sheet Title
**SPRINGFIELD, NEBRASKA
SARPY COUNTY
FINAL PLAT**
Sheet Number

SHEET 1 OF 1

CERTIFICATE OF AUTHORITY TO ACT

This Certificate of Authority to Act (the "Certificate") is made and entered into as of this 23rd day of December, 2010 by and between:

Owner:

GREGORY MATLOCH (Hereinafter referred to as "Owner")

Applicant:

G12 Ventures Inc, A Nebraska limited liability company (Hereinafter referred to as the "Applicant") AND BELCARO DEVELOPMENT LLC, A NEBRASKA LIMITED LIABILITY COMPANY.

RECITALS

WHEREAS, Owner is the fee simple owner of certain real property located in Springfield, Nebraska, more particularly described in **Exhibit A** attached hereto and incorporated herein by this reference (the "Property"); and

WHEREAS, Applicant desires to obtain certain permits, zoning, platting, subdivision approvals, and/or other approvals from applicable governmental authorities to allow for the desired use of the Property; and

WHEREAS, Owner is willing to authorize Applicant and its designated agents to act on Owner's behalf for the limited purposes set forth herein.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Authorization

Owner hereby authorizes the Applicant and the Applicant's engineering firm, Thompson, Dreessen and Domer, to apply for and obtain any permits, zoning, platting, subdivision approvals, and/or other approvals deemed necessary to allow for the desired use of the Property by the Applicant.

2. Costs and Expenses

The Applicant shall bear the entire cost of obtaining all such approvals. Owner shall not be required to incur any costs or expenses in connection with the same.

3. Owner's Cooperation

Owner agrees to cooperate with and to assist the Applicant in obtaining approval for any such subdivision, rezoning, variances, permits, and approvals. This cooperation includes, but is not limited to, signing all documents to the extent necessary for obtaining the same, provided that such cooperation does not require the Owner to incur any costs or expenses.

4. Term

This Certificate shall be effective as of the date first written above and shall remain in full force and effect until the desired approvals are obtained, or until terminated by either party with thirty (30) days written notice to the other party.

5. Governing Law

This Certificate shall be governed by and construed in accordance with the laws of the State of Nebraska.

IN WITNESS WHEREOF, the parties have executed this Certificate of Authority to Act as of the date first above written.

OWNER:

By: _____

Name: GREGORY MAHLOCH

Title: OWNER

APPLICANT:

G12 Ventures Inc. + BELCARD DEVELOPMENT LLC

By: _____

Name: _____

Title: President

Name of Addition

Springfield Highlands

SID # **New**

Source and Use of Funds:

(Provide a separate sheet for the preliminary plat and for each final plat phase.)

	Proposed Improvements		Total Cost	General Obligation	Special Assessed	Financing Reimbursable	Private
	Quantity	Construction Cost					
Storm Sewer							
Storm Sewer	5,880	LF	\$1,682,300	\$2,366,900	\$2,366,900		
PCSMP Acquisition	3.9	AC.	\$176,900	\$212,300	\$212,300		
Sanitary Sewer							
SCCWVA Sewer Fees	61.5	AC.	\$922,100	\$1,094,000	\$1,094,000	\$1,094,000 ³	
Interior	12,290	LF	\$1,290,400	\$1,815,600	\$1,815,600		
Paving							
Exterior (Platteview Rd and 132nd St)	4,537	SY	\$835,100	\$1,175,000	\$1,175,000	\$587,500 ⁵	
Interior	28,970	SY	\$2,167,400	\$3,049,500	\$759,000	\$2,290,500	
132nd and Platteview Roundabout Contribution	1	LS	\$315,000	\$443,300	\$443,300	\$332,500 ⁴	
City Review Fee	1	LS	\$70,800	\$70,800	\$70,800		
Springfield ASIP Fee	1	LS	\$60,000	\$72,000	\$72,000		
ADA Ramps and SID Sidewalks	1	LS	\$479,100	\$674,100	\$674,100		
Water							
Interior (in ROWs)	9,390	LF	\$1,464,200	\$2,060,100	\$2,060,100		
Exterior							
Water Connection-Capital Facility Fees	1	LS	\$127,100	\$152,600	\$152,600		
Electricity (SF, MF, and Commercial)	1	LS	\$618,400	\$870,100	\$870,100		
Gas (Interior)							
Gas (Exterior)							
Total			<u>\$10,208,800</u>	<u>\$14,056,300</u>	<u>\$7,020,000</u>	<u>\$7,036,300</u>	<u>\$2,014,000</u>

¹ Total cost includes engineering fees and administrative fees

² Attach a statement of assumptions as basis for preliminary projections.

³ 50% of SCCWWA Sewer Fees shall be paid by the SID as a General Obligation expense at time of platting and shall be reimbursed by others at building permit (remaining 50% shall be paid by others at building permit).

⁴ 25% contribution for roundabout at the intersection 132nd St and Platteview Rd (Sarpy County project).

⁵ Exterior paving of 132nd St and Platteview Rd shall include 6 ft of widening on each side (project side and opposite side) for a total road width of 37 ft, and tapering down to 25 ft to match existing road. 50% of these improvements shall be reimbursed by adjacent properties upon

G.O. Debt Less Reimbursement	\$ 5,006,000
Valuation	\$ 100,890,000
Debt Ratio	4.96%

Date March 9, 2026

REVISED PRELIMINARY COST ESTIMATE
 Springfield Highlands (SW Corner of 132nd and Platteview Rd)
 TD2 NO: 2380-104
 DATE: 03-09-26
 SID: New

Total = acres
 Residential = acres
 ROW = acres

ITEM OF WORK	UNIT	QUANTITY	UNIT PRICE	AMOUNT
SANITARY SEWER				
6-inch Stub San. Swr. w/ Crushed Rock Bedding	LF	4540	\$52.00	\$236,080.00
8-inch Stub San. Swr. w/ Crushed Rock Bedding	LF	60	\$56.00	\$3,360.00
8-inch Main Line San. Swr. w/ Crushed Rock Bedding	LF	7750	\$56.00	\$434,000.00
Directional Bore 8" PVC	LF	200	\$160.00	\$32,000.00
18-inch O.D. Welded Steel Casing	LF	0	\$150.00	\$0.00
Bore and Jack 18-inch O.D. Welded Steel Casing	LF	0	\$600.00	\$0.00
Wyes or Slants	EA	168	\$300.00	\$50,400.00
54" I.D. Sanitary Sewer Manhole	VF	630	\$635.00	\$400,050.00
Standard Ring & Cover	EA	48	\$1,000.00	\$48,000.00
Tap Existing Manhole/Stub	EA	1	\$5,000.00	\$5,000.00
Crushed Rock, Unstable Trench	TON	100	\$100.00	\$10,000.00
Geotextile Fabric, Unstable Trench	SY	100	\$100.00	\$10,000.00
Lift Station w/ Backup Generator	LS	0	\$400,000.00	\$0.00
4" PVC DR 14 Force Main w/ Tracer Wire	LF	0	\$38.00	\$0.00
Subtotal (5% Contingency)				\$1,290,334.50
Engineering Fees, 21%				\$270,970.25
Legal Fees, 5%				\$64,516.73
Warrant Interest, 1 Yrs. @ 8%				\$103,226.76
Subtotal				\$1,729,048.23
Warrant Fee, 5%				\$86,452.41
Total				\$1,815,500.64
SANITARY SEWER OUTFALL				
Mobilization	LS	0	\$100,000.00	\$0.00
Directional Bore PVC Siphon (10")	LF	0	\$150.00	\$0.00
12-inch San. Swr. w/ Crushed Rock Bedding	LF	0	\$100.00	\$0.00
15-inch San. Swr. w/ Crushed Rock Bedding	LF	0	\$110.00	\$0.00
Bore and Jack 18-inch O.D. Welded Steel Casing	LF	0	\$650.00	\$0.00
54" I.D. Sanitary Sewer Manhole	VF	0	\$700.00	\$0.00
Standard Ring & Cover	EA	0	\$1,000.00	\$0.00
Tap Existing Manhole/Stub	EA	0	\$5,000.00	\$0.00
84" Siphon Outlet Manhole	EA	0	\$60,000.00	\$0.00
84" Siphon Inlet Manhole	EA	0	\$60,000.00	\$0.00
Directional Bore 15" PVC Sewer Siphon Pipe	LF	0	\$100.00	\$0.00
Dewatering, If necessary	LS	0	\$50,000.00	\$0.00
Crushed Rock, Unstable Trench	TON	0	\$100.00	\$0.00
Geotextile Fabric, Unstable Trench	SY	0	\$6.00	\$0.00
Seeding/Matting	SY	0	\$2.00	\$0.00
Geotech Report	LS	0	\$20,000.00	\$0.00
Topographic Survey	LS		\$20,000.00	\$0.00
Permanent Easement	ACRE		\$50,000.00	\$0.00
Temporary Easement	ACRE	0	\$10,000.00	\$0.00
Subtotal (5% Contingency)				\$0.00
Engineering Fees, 21%				\$0.00
Legal Fees, 5%				\$0.00

Warrant Interest, 1 Yrs. @ 8%	\$0.00
Subtotal	\$0.00
Warrant Fee, 5%	\$0.00
Total	\$0.00

PAVEMENT, MINOR (SPECIAL ASSESS)

Mobilizaton	LS	1.00	\$150,000.00	\$150,000.00
7-inch PCC Pavement	SY	21930	\$56.00	\$1,228,080.00
9-inch PCC Pavement	SY	870	\$80.00	\$69,600.00
Common Excavation	CY	8772	\$10.00	\$87,720.00
5" Wide (White) Striping	LF	0	\$5.50	\$0.00
5" Wide (Yellow) Striping	LF	0	\$5.50	\$0.00
12" Wide (White) Striping	LF	0	\$14.00	\$0.00
Preformed Pavement Marking Symbol	EA	0	\$1,000.00	\$0.00
Adjust Manhole	EA	50	\$300.00	\$15,000.00
Street Signs	EA	0	\$300.00	\$0.00

Subtotal (5% Contingency)				\$1,627,920.00
Engineering Fees, 21%				\$341,863.20
Legal Fees, 5%				\$81,396.00
Warrant Interest, 1 Yrs. @ 8%				\$130,233.60
Subtotal				\$2,181,412.80
Warrant Fee, 5%				\$109,070.64
Total				\$2,290,483.44

PAVEMENT, MINOR (GENERAL OBLIGATION)

Mobilizaton	LS	1	\$100,000.00	\$100,000.00
6-inch Median Pavement	SY	162	\$70.00	\$11,324.44
7-inch PCC Pavement	SY	4995	\$58.00	\$289,722.89
9-inch PCC Pavement	SY	1013	\$78.00	\$79,005.33
Common Excavation	CY	2468	\$10.00	\$24,679.56
Adjust Manhole	EA	0	\$1,000.00	\$0.00
5" Wide (White) Striping	LF	600	\$5.00	\$3,000.00
5" Wide (Yellow) Striping	LF	0	\$8.00	\$0.00
12" Wide (White) Striping	LF	0	\$14.00	\$0.00
Preformed Pavement Marking Symbol	EA	6	\$1,000.00	\$6,000.00
Pavement Removal	SY	0	\$50.00	\$0.00
Street Signs	EA	0	\$500.00	\$0.00

Subtotal (5% Contingency)				\$539,418.83
Engineering Fees, 21%				\$113,277.96
Legal Fees, 5%				\$26,970.94
Warrant Interest, 1 Yrs. @ 8%				\$43,153.51
Subtotal				\$722,821.24
Warrant Fee, 5%				\$36,141.06
Total				\$758,962.30

PAVEMENT, MAJOR (PLatteview Road and 132nd St)

Traffic Control and Mobilization	LS	1	\$100,000.00	\$100,000.00
Pavement Removal	SY	0	\$20.00	\$0.00
6-inch Median Pavement	SY	0	\$40.00	\$0.00
7-inch PCC Pavement	SY	0	\$45.00	\$0.00
9-inch PCC Pavement	SY	4537	\$80.00	\$362,960.00
Common Excavation	CY	18148	\$10.00	\$181,480.00
Adjust Manhole	EA	0	\$300.00	\$0.00
5" Wide (White) Striping	LF	7610	\$8.00	\$60,880.00
5" Wide (Yellow) Striping	LF	0	\$8.00	\$0.00
12" Wide (White) Striping	LF	0	\$14.00	\$0.00
Curb Inlets	EA	0	\$3,500.00	\$0.00
Seeding and Matting, Erosion Items	LS	0	\$100,000.00	\$0.00
30-inch RCP Storm Sewer	LF	300	\$300.00	\$90,000.00

Subtotal (5% Contingency)				\$835,086.00
Engineering Fees, 21%				\$175,368.06
Legal Fees, 5%				\$41,754.30
Warrant Interest, 1 Yrs. @ 8%				\$66,806.88
Subtotal				\$1,119,015.24
Warrant Fee, 5%				\$55,950.76
Total				\$1,174,966.00

132nd and Platteview Roundabout Contribution

Traffic Light Improvements	EA	1	\$300,000.00	\$300,000.00

Subtotal (5% Contingency)				\$315,000.00
Engineering Fees, 21%				\$66,150.00
Legal Fees, 5%				\$15,750.00
Warrant Interest, 1 Yrs. @ 8%				\$25,200.00
Subtotal				\$422,100.00
Warrant Fee, 5%				\$21,105.00
Total				\$443,205.00

WATER INTERIOR

Interior Water Mains	L.F.	9390.0	\$135.00	\$1,267,650.00
Interior Water Mains Master Fee	AC	0.0	\$150.00	\$0.00
Connection Charges	LS	0.0	\$150.00	\$0.00

Subtotal (5% Contingency)				\$1,331,032.50
Engineering Fees, 21%				\$279,516.83
Legal Fees, 5%				\$66,551.63
Warrant Interest, 1 Yrs. @ 8%				\$106,482.60
Subtotal				\$1,783,583.55
Warrant Fee, 5%				\$89,179.18
Total				\$1,872,762.73

WATER PIONEER MAIN FEE				
Pioneer Main Fee	LF		\$160.00	\$0.00
Connection Charge	LS	0.0		\$0.00

Subtotal (0% Contingency)				\$0.00
Engineering Fees, 0%				\$0.00
Legal Fees, 5%				\$0.00
Warrant Interest, 1 Yrs. @ 8%				\$0.00
Subtotal				\$0.00
Warrant Fee, 5%				\$0.00
Total				\$0.00
WATER EXTERIOR				
Exterior Water Mains	LF		\$150.00	\$0.00
Connection Charges	LS			\$0.00

Subtotal (5% Contingency)				\$0.00
Engineering Fees, 21%				\$0.00
Legal Fees, 5%				\$0.00
Warrant Interest, 1 Yrs. @ 8%				\$0.00
Subtotal				\$0.00
Warrant Fee, 5%				\$0.00
Total				\$0.00
GAS				
Total				\$0.00

Subtotal (0% Contingency)				\$0.00
Engineering Fees, 3%				\$0.00
Legal Fees, 5%				\$0.00
Warrant Interest, 1 Yrs. @ 8%				\$0.00
Subtotal				\$0.00
Warrant Fee, 5%				\$0.00
Total				\$0.00
POWER				
Single Family Lots	EA	168	\$3,300.00	\$554,400.00
Comm/Industrial Backbone	AC	5.8	\$6,000.00	\$34,500.00

Subtotal (5% Contingency)				\$618,345.00
Engineering Fees, 21%				\$129,852.45
Legal Fees, 5%				\$30,917.25
Warrant Interest, 1 Yrs. @ 8%				\$49,467.60
Subtotal				\$828,582.30
Warrant Fee, 5%				\$41,429.12
Total				\$870,011.42

STORM SEWER (GENERAL OBLIGATION)

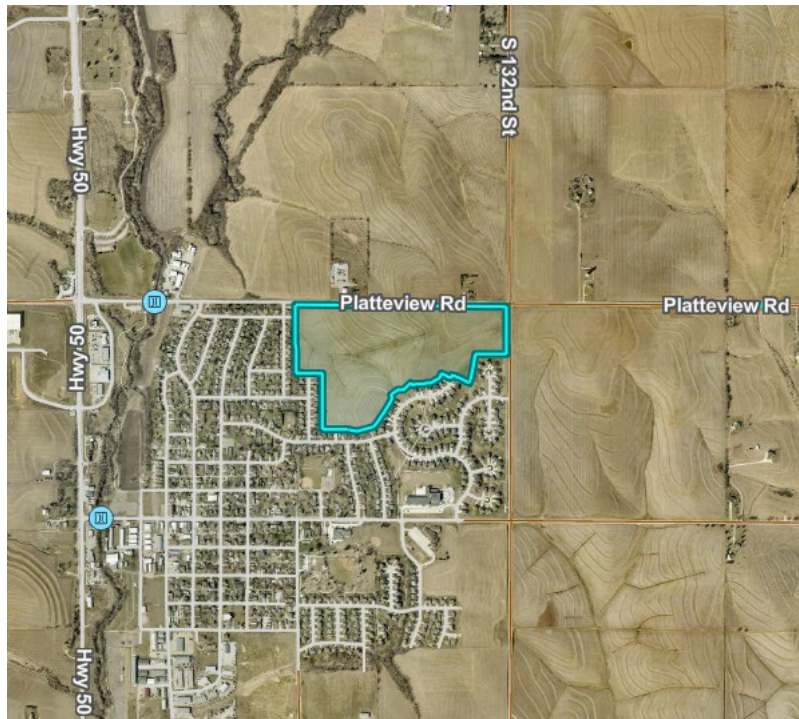
15-inch RCP Storm Sewer	LF	80	\$65.00	\$5,200.00
18-inch RCP Storm Sewer	LF	1050	\$75.00	\$78,750.00
24-inch RCP Storm Sewer	LF	960	\$85.00	\$81,600.00
30-inch RCP Storm Sewer	LF	1500	\$115.00	\$172,500.00
36-inch RCP Storm Sewer	LF	1150	\$175.00	\$201,250.00
42-inch RCP Storm Sewer	LF	440	\$220.00	\$96,800.00
48-inch RCP Storm Sewer	LF	700	\$215.00	\$150,500.00
54-inch RCP Storm Sewer	LF	0	\$325.00	\$0.00
60-inch RCP Storm Sewer	LF	0	\$400.00	\$0.00
72-inch RCP Storm Sewer	LF	0	\$400.00	\$0.00
84-inch RCP Storm Sewer	LF	0	\$500.00	\$0.00
Storm Manhole, 54-inch I.D.	EA	1	\$12,000.00	\$12,000.00
Storm Manhole, 60-inch I.D.	EA	1	\$13,500.00	\$13,500.00
Storm Manhole, 72-inch I.D.	EA	8	\$15,000.00	\$120,000.00
Storm Manhole, 84-inch I.D.	EA	4	\$18,000.00	\$72,000.00
Storm Manhole, 96-inch I.D.	EA	1	\$20,000.00	\$20,000.00
Storm Manhole, 108-inch I.D.	EA	0	\$20,001.00	\$0.00
Standard Ring and Cover	EA	18	\$1,000.00	\$18,000.00
Curb Inlets	EA	55	\$6,000.00	\$330,000.00
Area Inlets	EA	2	\$5,500.00	\$11,000.00
Flared End Sections	EA	5	\$6,000.00	\$30,000.00
10' X 4' Box Culvert w/ Wingwalls	LF	0	\$3,000.00	\$0.00
Rip Rap	TON	250	\$120.00	\$30,000.00
Embankment for Box Culvert	CY	0	\$12.00	\$0.00
Culvert Tree Clearing	LS	0	\$10,000.00	\$0.00
Temporary 48" CMP for Culvert Surcharge	LF	0	\$200.00	\$0.00
Sediment Basin Cleanout	CY	7900	\$10.00	\$79,000.00
PCSMP Outlet	EA	2	\$40,000.00	\$80,000.00

Subtotal (5% Contingency)				\$1,682,205.00
Engineering Fees, 21%				\$353,263.05
Legal Fees, 5%				\$84,110.25
Warrant Interest, 1 Yrs. @ 8%				\$134,576.40
Subtotal				\$2,254,154.70
Warrant Fee, 5%				\$112,707.74
Total				\$2,366,862.44

SIDEWALK (GENERAL OBLIGATION)				
6" P.C.C. Sidewalk Pavement	SY	7117	\$45.00	\$320,265.00
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Subtotal (5% Contingency)				\$336,278.25
Engineering Fees, 21%				\$70,618.43
Legal Fees, 5%				\$16,813.91
Warrant Interest, 1 Yrs. @ 8%				\$26,902.26
Subtotal				\$450,612.86
Warrant Fee, 5%				\$22,530.64
Total				\$473,143.50
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RAMPS (GENERAL OBLIGATION)				
Handicap Ramps	EA	68	\$2,000.00	\$136,000.00
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Subtotal (5% Contingency)				\$142,800.00
Engineering Fees, 21%				\$29,988.00
Legal Fees, 5%				\$7,140.00
Warrant Interest, 1 Yrs. @ 8%				\$11,424.00
Subtotal				\$191,352.00
Warrant Fee, 5%				\$9,567.60
Total				\$200,919.60
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PCSMP				
Land Acquisition	AC	3.93	45,000.00	176,850.00
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Subtotal				176,850.00
Fees, 20%				35,370.00
Total				212,220.00
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ROW				
Land Acquisition	AC	3.40	48,000.00	163,200.00
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Subtotal				163,200.00
Fees, 20%				32,640.00
Total				195,840.00
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SEWER FEES				
Pioneer Main Fee	AC	61.5	\$29,984.00	\$1,844,016.00
Connection Charge	LS			\$0.00
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Subtotal (0% Contingency)				\$1,844,016.00
Engineering Fees, 0%				\$0.00
Legal Fees, 5%				\$92,200.80
Warrant Interest, 1 Yrs. @ 8%				\$147,521.28
Subtotal				\$2,083,738.08
Warrant Fee, 5%				\$104,186.90
Total				\$2,187,924.98

SPRINGFIELD HIGHLANDS

SPR-2026XXXX-XXXX-S
DRAINAGE STUDY AND PCSMP CALCULATIONS



 3/9/26
Project Engineer

Bradley Huyck, P.E.

**DRAINAGE STUDY AND PCSMP CALCULATIONS
SPRINGFIELD HIGHLANDS
SPR-2025XXXX-XXXX-S**

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SECTION 2

- DM-1 EXISTING DRAINAGE MAP
- DM-2 PROPOSED DRAINAGE MAP
- DM-3 PROPOSED DRAINAGE AREAS

DRAINAGE STUDY AND PCSMP CALCULATIONS SPRINGFIELD HIGHLANDS

EXECUTIVE SUMMARY

This drainage study was prepared for the Post-Construction Stormwater Management Plan for Springfield Highlands located at the intersection of S 132nd Street and Platteview Road, Springfield, Sarpy County, Nebraska.

The total site is approximately 61.43 acres. The total disturbed area is approximately 61.43 acres. The proposed development will consist of 12 R30 Lots, 12 R50 Lots, 1 BG Lots, 108 R87 Lots, the necessary infrastructure, and two extended dry detention basins.

The Rational Method was used for pipe sizing calculations and the SCS Method was used for analysis of stormwater runoff and detention.

Two extended dry detention basins will be used for stormwater detention and treatment and were designed using the *Omaha Regional Stormwater Design Manual, Chapter 8: Stormwater Best Management Practices and Bioretention Gardens* by Ted Hartsig and Steven N. Rodie.

The intent of this drainage study is to demonstrate the proposed storm sewers have been designed to adequately convey stormwater runoff from this site, Best Management Practices (BMPs) utilized on this site will adequately treat the first half inch of runoff, and BMPs will adequately detain stormwater to meet pre- and post-construction stormwater runoff requirements.

I. Existing Conditions

The existing site is agricultural use consisting of row crops. Impact Point 1 is located along the western side of the site at Platteview Drive. Impact Point 2 is in the southeast corner of the site. Impact Point 3 is in the northeast corner of the site. There are 3 existing drainage areas on the site. The existing areas, shown on DM-1 in Section 2 of this report, consist of areas EX1, EX2, and EX3. Area EX1 is 48.5 acres of farmland and existing residential development that surface drain to Impact Point 1. Area EX2 Consists of 13.0 acres of farmland in the northeast corner of the site. Drainage from EX2 surface flows to Impact point 2. Area EX3 Consists of 1.16 acres of farmland in the northeast corner of the site. The area flows offsite to the east via culvert underneath S132nd Street. The time of concentration for each area was calculated using the TR55 method.

Information for the existing area and impact point is included in the table below.

ID	Description	Total Area (Ac.)	Total Area (SF)	Impervious (SF)	Pervious (SF)	Composite CN	Composite C	Impact Point	Impact Point Description
EX-1	Western Portion of Site	48.5	2,110,935	25,225	2,085,710	77	0.37	1	Existing Storm Sewer
EX-2	Eastern Portion of Site	13.0	568,346	12,811	55,535	77	0.37	2	Existing Basin
EX-3	Northeastern Corner of Site	1.16	50,358	6,912	43,446	77	0.37	3	Existing Culvert
TOTAL EXISTING SITE		62.66	2,729,639	44,948	2,184,691	77	0.37		

II. Proposed Conditions

The proposed construction will consist of 12 R30 Lots, 12 R50 Lots, 1 BG Lots, 108 R87 Lots, the necessary infrastructure, and two extended dry detention basins.

Proposed grading and storm sewer configurations result in 3 drainage areas. Area A1, which will consist of the western portion of the site, area A2 which will consist of the eastern portion of the site, and area A3, which will consist of the northeastern corner of the site. Area A1 will be captured and treated by DB1 where it will then be discharged at IP1. Area A2 will be captured and treated by DB2 where it will then be discharged at IP2. Area A3 will not be captured and will discharge into the existing culvert under S132nd Street.

Further information for each proposed area is shown in the table below.

ID	Description	Total Area (Ac.)	Total Area (SF)	Comp. CN	Composite C	Impact Point	Impact Point Description
A1	Western portion of the Site	51.84	2,258,150	83	0.40	1	Existing Storm Sewer
A2	Eastern Portion of the Site	13.81	601,563	90	0.45	2	Existing Basin
A3	Northeastern Corner of Site	0.61	26,571	77	0.37	3	Existing Culvert
TOTAL PROPOSED SITE		62.66	2,729,639	81	0.43		

IV. Runoff Summary

Hydraflow Hydrographs Extension for AutoCAD Civil 3D 2024 was used to calculate the pre- and post-construction stormwater runoff rates for the 2-, 10-, and 100-year storm events for Impact Point 1. The pre- and post-construction runoff rates for this development are shown in the table below. The proposed construction will decrease the flows for the 2-, 10-, and 100-year storm events.

	2-Year (cfs)	10-Year (cfs)	100-Year (cfs)
Impact Point 1			
Pre-Construction	49	108	194
Post-Construction	4	50	173
Impact Point 2			
Pre-Construction	18	38	68
Post-Construction	2	28	64
Impact Point 3			
Pre-Construction	2	5	8
Post-Construction	1	3	4

SECTION 1

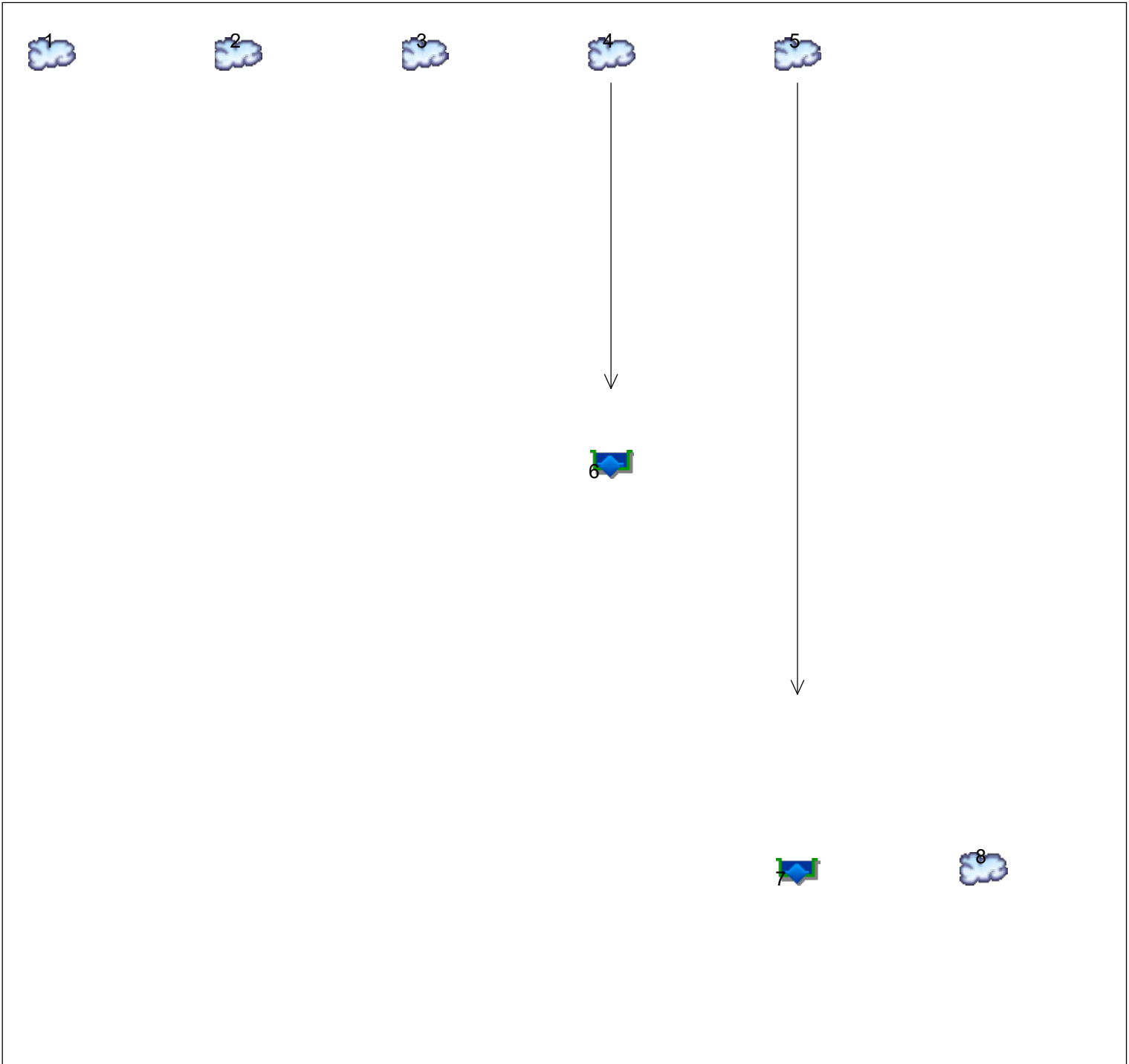
Imp Pt. No.	COMPUTATION FORM STORM DRAINAGE SYSTEM DESIGN BY THE RATIONAL METHOD			THOMPSON DREESSEN & DORNER Consulting Engineers & Land Surveyors Omaha, NE 68154 (402)330-8860				Calculated By: SS Date: 03-09-26 Checked By: BPH				Preliminary x Final Design			Drainage Area Project No. 2380-104 Design Storm: 10 yr.										
	Conveyance		Direct Runoff							Travel Time (System Design)					Total Runoff										
	From	To	W.S. or No.	O.F.L. ft.	W.C. Type *	S %	V fps	Ti min	i in/hr	A Ac.	C	q cfs	Conv Sys No.	Size	Slope min %	des %	V des. fps	Cap. (all.) cfs	Lgth ft.	t min	TOC min	i	Comp. C	Total A Ac.	Des. Q cfs
A1							5	8.8	8.40	0.90	66.511		36	0.71	1.00	11.2	79.03				8.8	0.90	8.40	66.51	
A2							5	8.8	0.67	0.75	4.4649		18	0.13	1.00	7.04	12.4436				8.8	0.75	0.67	4.465	
A3							5	8.8	0.53	0.76	3.5021		18	0.41	1.00	7.04	12.4436				8.8	0.76	1.20	7.988	
A4							5	8.8	0.53	0.75	3.4871		15	0.21	1.00	6.24	7.65189				8.8	0.75	0.53	3.487	
A5							5	8.8	0.13	0.66	0.7275		18	0.97	1.00	7.04	12.4436				8.8	0.75	1.85	12.2	
B1							5	8.8	1.88	0.59	9.742		18	0.62	1.00	7.04	12.4436				8.8	0.59	1.88	9.742	
B2							5	8.8	0.34	0.64	1.8846		18	0.88	1.00	7.04	12.4436				8.8	0.60	2.21	11.63	
B3							5	8.8	1.43	0.58	7.3477		18	0.35	1.00	7.04	12.4436				8.8	0.58	1.43	7.348	
B4							5	8.8	0.48	0.61	2.5674		24	0.65	1.00	8.53	26.8013				8.8	0.59	4.12	21.54	
B5							5	8.8	1.76	0.58	9.0499		18	0.53	1.00	7.04	12.4436				8.8	0.58	1.76	9.05	
B6							5	8.8	0.64	0.61	3.4512		30	0.49	1.00	9.9	48.5977				8.8	0.59	6.53	34.04	
B7							5	8.8	0.35	0.64	1.9893		30	0.87	1.00	9.9	48.5977				8.8	0.59	8.64	45.08	
B9							5	8.8	1.18	0.60	6.2433		30	0.02	1.00	9.9	48.5977				8.8	0.60	1.18	6.243	
B8							5	8.8	0.10	0.68	0.6179		30	0.93	1.00	9.9	48.5977				8.8	0.68	7.81	46.85	
B10							5	8.8	0.33	0.60	1.7779		15	0.05	1.00	6.24	7.65189				8.8	0.60	0.33	1.778	
B11							5	8.8	0.09	0.68	0.5545		36	0.39	1.00	11.2	79.03				8.8	0.68	8.24	49.18	
B12							5	8.8	0.21	0.62	1.1612		15	0.02	1.00	6.24	7.65189				8.8	0.62	0.21	1.161	
B13							5	8.8	0.08	0.68	0.4768		18	0.02	1.00	7.04	12.4436				8.8	0.64	0.29	1.638	
B40							5	8.8	1.51	0.65	8.5921		18	0.68	1.00	7.04	12.4436				8.8	0.64	1.80	10.23	
B14							5	8.8	2.59	0.58	13.184		24	0.24	1.00	8.53	26.8013				8.8	0.58	2.59	13.18	
B15							5	8.8	0.63	0.61	3.3783		24	0.38	1.00	8.53	26.8013				8.8	0.58	3.22	16.56	
B41							5	8.8	0.83	0.59	4.309		18	0.12	1.00	7.04	12.4436				8.8	0.59	0.83	4.309	
B42							5	8.8	0.18	0.65	0.9944		24	0.67	1.00	8.53	26.8013				8.8	0.59	4.23	21.87	
B16							5	8.8	0.98	0.58	5.0585		18	0.17	1.00	7.04	12.4436				8.8	0.58	0.98	5.058	
B17							5	8.8	0.45	0.60	2.3557		30	0.36	1.00	9.9	48.5977				8.8	0.59	5.66	29.28	
B18							5	8.8	3.35	0.58	17.055		24	0.41	1.00	8.53	26.8013				8.8	0.58	3.35	17.06	
B19							5	8.8	0.89	0.64	5.0428		36	0.42	1.00	11.2	79.03				8.8	0.59	9.90	51.38	
B20							5	8.8	2.77	0.58	14.168		24	0.28	1.00	8.53	26.8013				8.8	0.58	2.77	14.17	
B21							5	8.8	0.68	0.62	3.6881		36	0.77	1.00	11.2	79.03				8.8	0.59	13.35	69.23	
B22							5	8.8	0.61	0.60	3.2112		15	0.18	1.00	6.24	7.65189				8.8	0.60	0.61	3.211	
B23							5	8.8	0.54	0.60	2.8494		18	0.24	1.00	7.04	12.4436				8.8	0.60	1.15	6.061	
B24							5	8.8	1.86	0.58	9.5484		36	0.91	1.00	11.2	79.03				8.8	0.59	14.50	75.29	
B25							5	8.8	0.86	0.60	4.5666		18	0.59	1.00	7.04	12.4436				8.8	0.58	1.86	9.548	
B26							5	8.8	1.68	0.58	8.5424		42	0.57	1.00	12.4	119.217				8.8	0.59	17.22	89.41	
B27							5	8.8	0.44	0.61	2.3273		18	0.77	1.00	7.04	12.4436				8.8	0.58	1.68	8.542	
B28							5	8.8	1.88	0.58	9.5025		18	0.59	1.00	7.04	12.4436				8.8	0.58	1.88	9.503	
B29							5	8.8	0.33	0.65	1.89		24	0.69	1.00	8.53	26.8013				8.8	0.59	4.32	22.26	
B30							5	8.8	1.89	0.58	9.6599		42	0.88	1.00	12.4	119.217				8.8	0.59	21.54	111.7	
B31							5	8.8	1.26	0.59	6.5129		18	0.61	1.00	7.04	12.4436				8.8	0.58	1.89	9.66	
B32							5	8.8	1.24	0.59	6.4495		24	0.37	1.00	8.53	26.8013				8.8	0.58	3.15	16.17	
B33							5	8.8	0.91	0.59	4.6928		18	0.27	1.00	7.04	12.4436				8.8	0.59	1.24	6.45	
B34							5	8.8	1.01	0.59	5.2821		30	0.32	1.00	9.9	48.5977				8.8	0.59	5.30	27.32	
B35							5	8.8	1.01	0.59	5.2821		18	0.18	1.00	7.04	12.4436				8.8	0.59	1.01	5.282	
B35							5	8.8	1.14	0.59	5.9298		48	0.78	1.00	13.5	170.217				8.8	0.59	28.99	150.2	
B35							5	8.8	1.14	0.59	5.9298		48	0.78	1.00	13.5	170.217				8.8	0.59	28.99	150.2	
B35							5	8.8	1.14	0.59	5.9298		48	0.78	1.00	13.5	170.217				8.8	0.59	28.99	150.2	
B36							5	8.8	3.76	0.58	19.238		48	0.78	1.00	13.5	170.217				8.8	0.59	28.99	150.2	
B37							5	8.8	0.61	0.61	3.3085		24	0.52	1.00	8.53	26.8013				8.8	0.58	3.76	19.24	
B38							5	8.8	0.87	0.59	4.4911		24	0.71	1.00	8.53	26.8013				8.8	0.59	4.37	22.55	
B39							5	8.8	0.47	0.61	2.503		24	0.03	1.00	8.53	26.8013				8.8	0.59	0.87	4.491	
B39							5	8.8	0.47	0.61	2.503		48	0.86	1.00	13.5	170.217				8.8	0.59	30.32	157.2	
B39							5	8.8	0.47	0.61	2.503		48	0.53	1.00	13.5	170.217				6.9	0.59	30.32	123.3	

REMINDER: Check Storm Drain Water Course Legend Figure 2-2
System for Major Storm Provis FO - Forest
FA - Fallow
GR - Grass/Lawn
BG - Bare Ground
GW - Grass Waterway
SG - Shallow Gut. Flow

NOTES:

Watershed Model Schematic

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024



Legend

<u>Hyd.</u>	<u>Origin</u>	<u>Description</u>
1	SCS Runoff	EX-3
2	SCS Runoff	EX-2
3	SCS Runoff	EX-1
4	SCS Runoff	A-2
5	SCS Runoff	A-1
6	Reservoir	PP-2 TO POND2
7	Reservoir	PP 1 TO POND1
8	SCS Runoff	A-3

Hydrograph Return Period Recap

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

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	----	----	2.114	----	----	4.480	----	6.751	7.909	EX-3
2	SCS Runoff	----	----	17.10	----	----	37.72	----	57.27	67.27	EX-2
3	SCS Runoff	----	----	48.39	----	----	107.56	----	164.21	193.29	EX-1
4	SCS Runoff	----	----	42.76	----	----	73.21	----	99.67	112.81	A-2
5	SCS Runoff	----	----	86.61	----	----	169.14	----	243.84	281.41	A-1
6	Reservoir	4	----	1.232	----	----	27.86	----	50.45	63.60	PP-2 TO POND2
7	Reservoir	5	----	3.178	----	----	49.85	----	129.66	172.44	PP 1 TO POND1
8	SCS Runoff	----	----	1.112	----	----	2.356	----	3.550	4.159	A-3

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

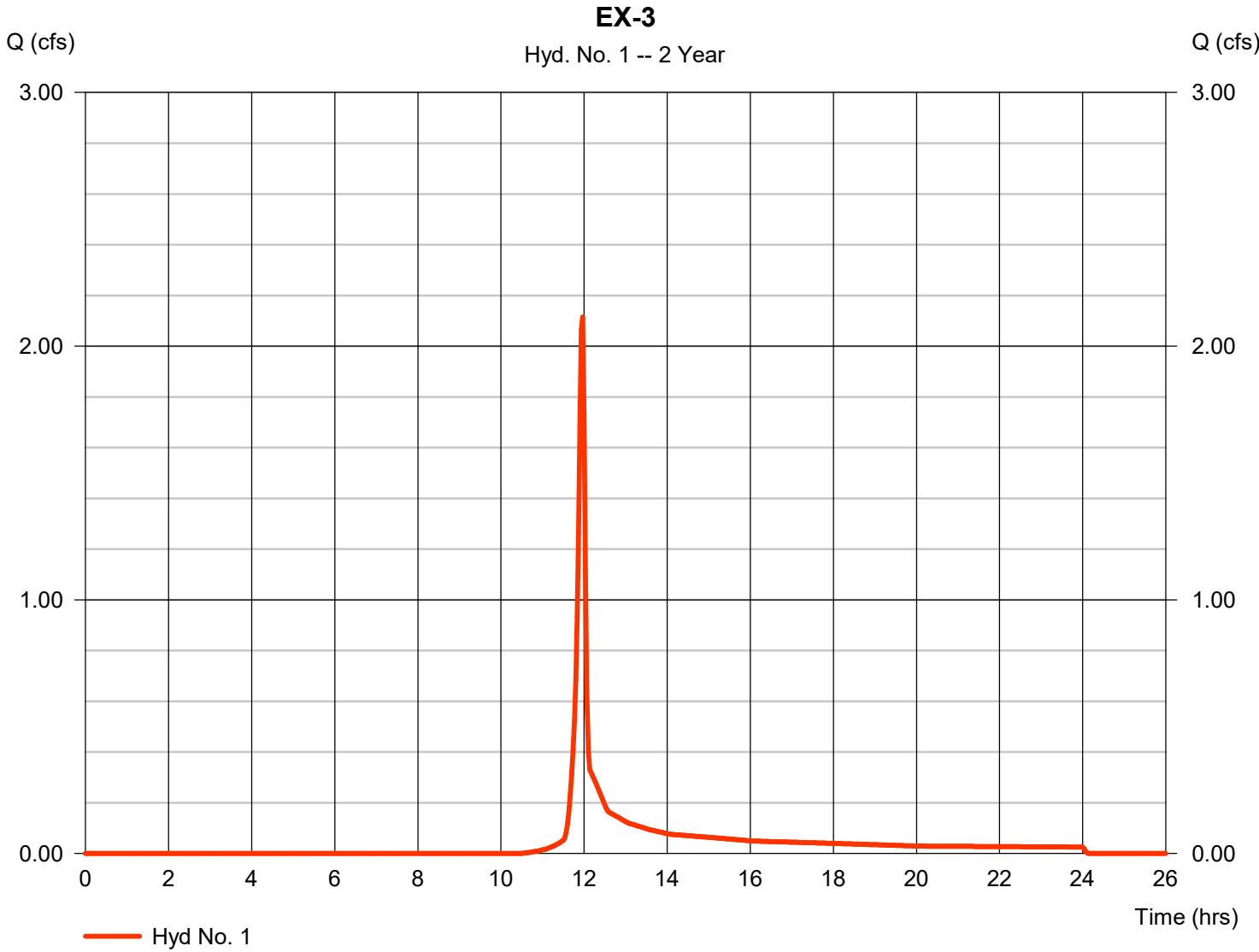
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	SCS Runoff	2.114	2	718	4,228	-----	-----	-----	EX-3	
2	SCS Runoff	17.10	2	724	49,468	-----	-----	-----	EX-2	
3	SCS Runoff	48.39	2	730	185,462	-----	-----	-----	EX-1	
4	SCS Runoff	42.76	2	718	99,465	-----	-----	-----	A-2	
5	SCS Runoff	86.61	2	724	272,213	-----	-----	-----	A-1	
6	Reservoir	1.232	2	880	98,061	4	1141.97	63,811	PP-2 TO POND2	
7	Reservoir	3.178	2	944	266,806	5	1091.42	171,754	PP 1 TO POND1	
8	SCS Runoff	1.112	2	718	2,223	-----	-----	-----	A-3	
2380-104-PCSMP_Updated_2.gpw					Return Period: 2 Year			Monday, 03 / 9 / 2026		

Hydrograph Report

Hyd. No. 1

EX-3

Hydrograph type	= SCS Runoff	Peak discharge	= 2.114 cfs
Storm frequency	= 2 yrs	Time to peak	= 11.97 hrs
Time interval	= 2 min	Hyd. volume	= 4,228 cuft
Drainage area	= 1.160 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.00 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

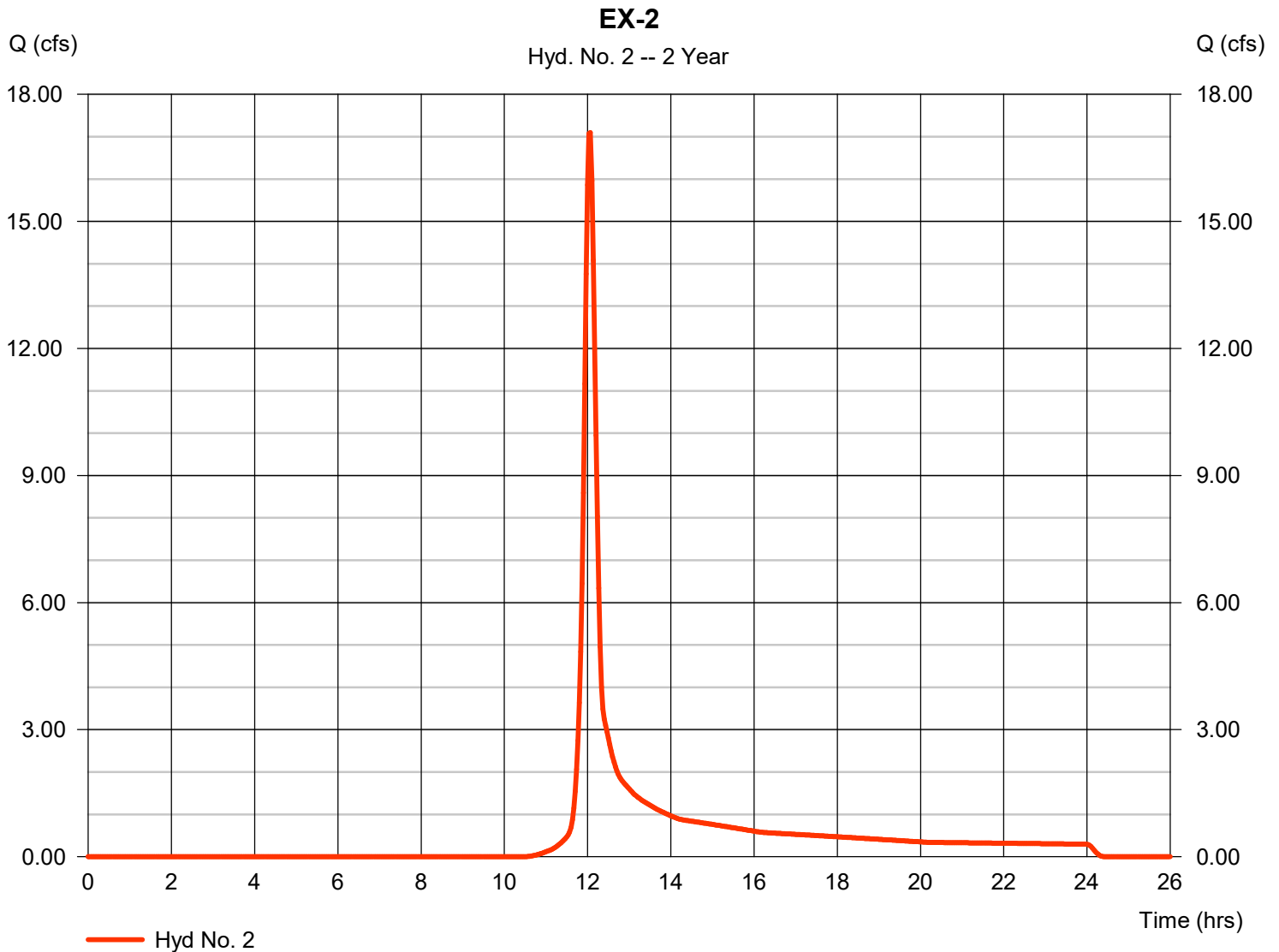


Hydrograph Report

Hyd. No. 2

EX-2

Hydrograph type	= SCS Runoff	Peak discharge	= 17.10 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 49,468 cuft
Drainage area	= 13.050 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 14.00 min
Total precip.	= 3.00 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



TR55 Tc Worksheet

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Hyd. No. 2

EX-2

<u>Description</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>Totals</u>
Sheet Flow				
Manning's n-value	= 0.170	0.011	0.011	
Flow length (ft)	= 100.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 3.00	0.00	0.00	
Land slope (%)	= 2.00	0.00	0.00	
Travel Time (min)	= 11.18	+ 0.00	+ 0.00	= 11.18
Shallow Concentrated Flow				
Flow length (ft)	= 550.00	0.00	0.00	
Watercourse slope (%)	= 4.00	0.00	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	=3.23	0.00	0.00	
Travel Time (min)	= 2.84	+ 0.00	+ 0.00	= 2.84
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				14.00 min

Hydrograph Report

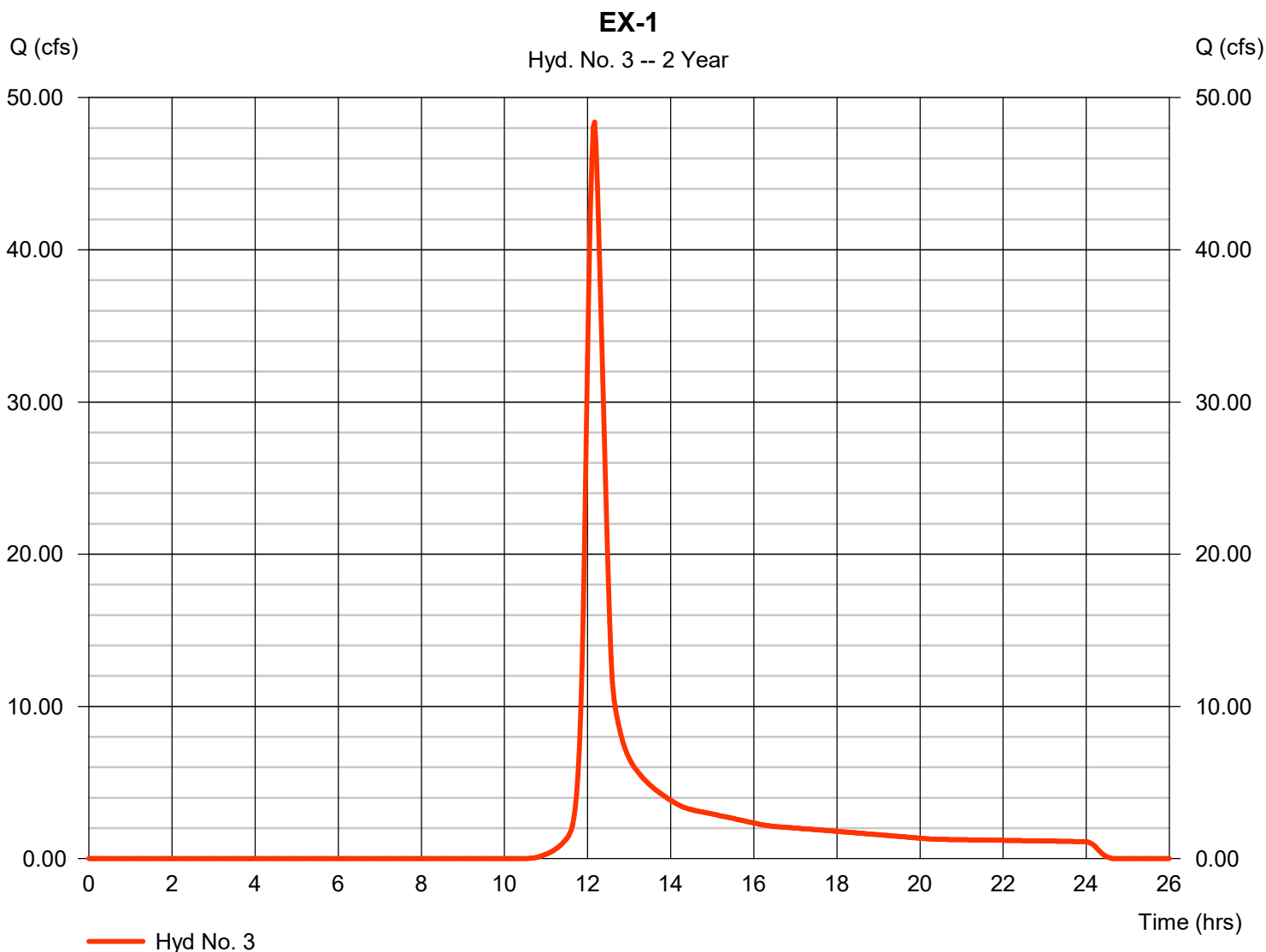
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Monday, 03 / 9 / 2026

Hyd. No. 3

EX-1

Hydrograph type	= SCS Runoff	Peak discharge	= 48.39 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.17 hrs
Time interval	= 2 min	Hyd. volume	= 185,462 cuft
Drainage area	= 48.460 ac	Curve number	= 77
Basin Slope	= 2.0 %	Hydraulic length	= 1000 ft
Tc method	= TR55	Time of conc. (Tc)	= 26.60 min
Total precip.	= 3.00 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



TR55 Tc Worksheet

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Hyd. No. 3

EX-1

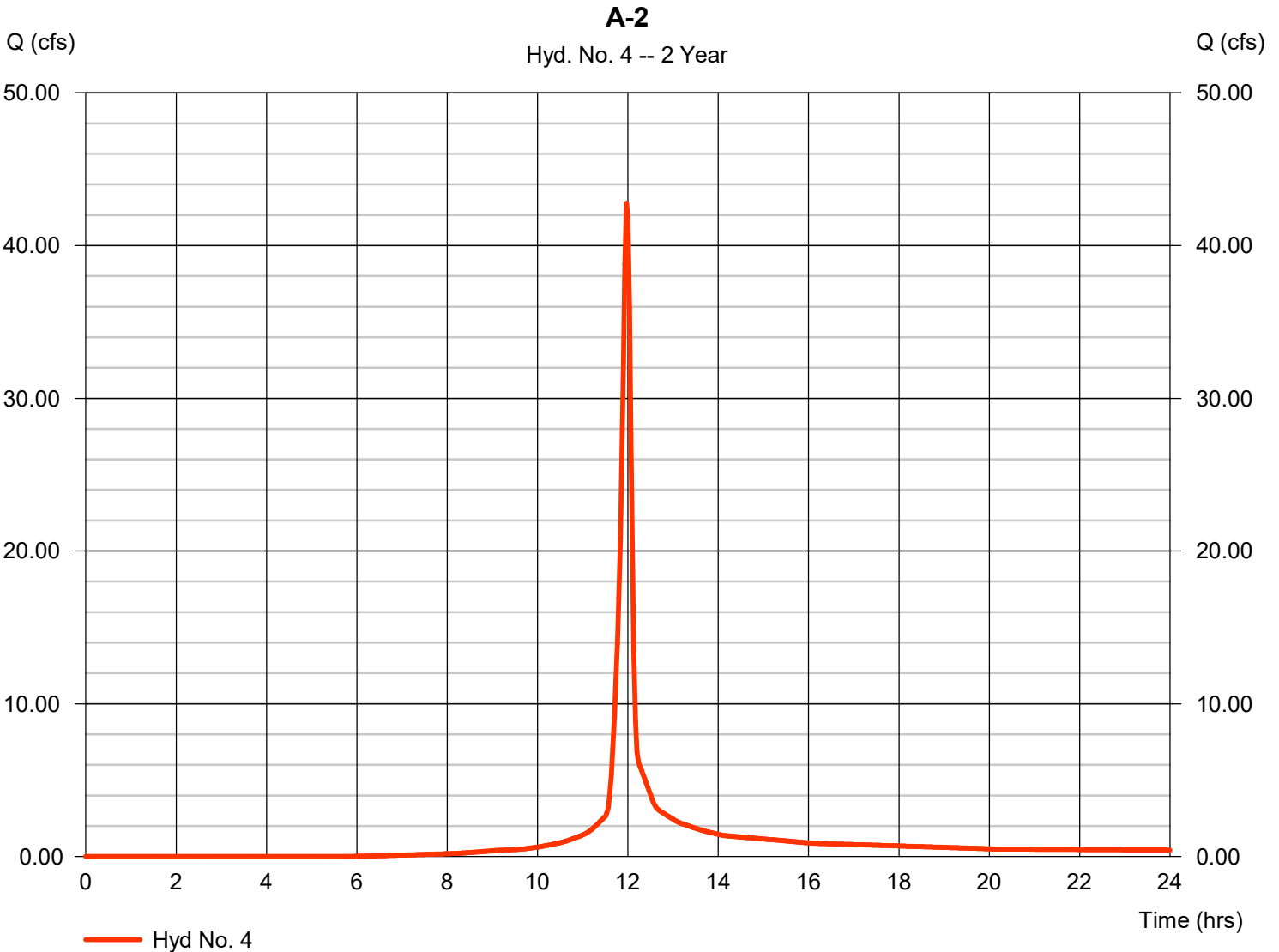
<u>Description</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>Totals</u>
Sheet Flow				
Manning's n-value	= 0.170	0.011	0.011	
Flow length (ft)	= 200.0	0.0	0.0	
Two-year 24-hr precip. (in)	= 3.00	0.00	0.00	
Land slope (%)	= 3.50	0.00	0.00	
Travel Time (min)	= 15.57	+ 0.00	+ 0.00	= 15.57
Shallow Concentrated Flow				
Flow length (ft)	= 2000.00	0.00	0.00	
Watercourse slope (%)	= 3.50	0.00	0.00	
Surface description	= Unpaved	Paved	Paved	
Average velocity (ft/s)	=3.02	0.00	0.00	
Travel Time (min)	= 11.04	+ 0.00	+ 0.00	= 11.04
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				26.60 min

Hydrograph Report

Hyd. No. 4

A-2

Hydrograph type	= SCS Runoff	Peak discharge	= 42.76 cfs
Storm frequency	= 2 yrs	Time to peak	= 11.97 hrs
Time interval	= 2 min	Hyd. volume	= 99,465 cuft
Drainage area	= 13.810 ac	Curve number	= 90
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.60 min
Total precip.	= 3.00 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



TR55 Tc Worksheet

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Hyd. No. 4

A-2

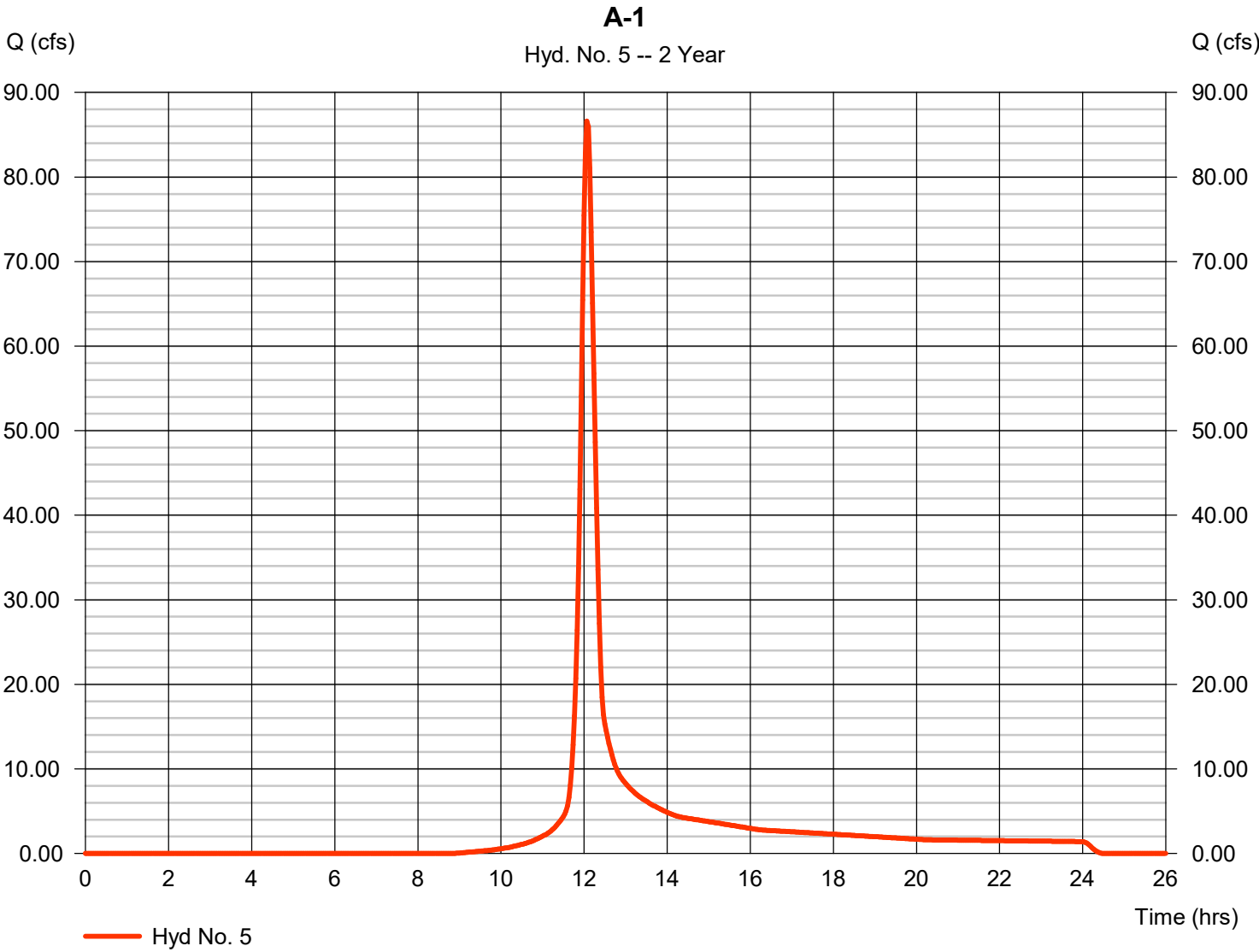
<u>Description</u>	<u>A</u>		<u>B</u>		<u>C</u>		<u>Totals</u>
Sheet Flow							
Manning's n-value	= 0.011		0.011		0.011		
Flow length (ft)	= 300.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 3.00		0.00		0.00		
Land slope (%)	= 3.00		0.00		0.00		
Travel Time (min)	= 2.56	+	0.00	+	0.00	=	2.56
Shallow Concentrated Flow							
Flow length (ft)	= 700.00		0.00		0.00		
Watercourse slope (%)	= 2.00		0.00		0.00		
Surface description	= Paved		Paved		Paved		
Average velocity (ft/s)	=2.87		0.00		0.00		
Travel Time (min)	= 4.06	+	0.00	+	0.00	=	4.06
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							6.60 min

Hydrograph Report

Hyd. No. 5

A-1

Hydrograph type	= SCS Runoff	Peak discharge	= 86.61 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 272,213 cuft
Drainage area	= 51.840 ac	Curve number	= 83
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 18.20 min
Total precip.	= 3.00 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



TR55 Tc Worksheet

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Hyd. No. 5

A-1

<u>Description</u>	<u>A</u>		<u>B</u>		<u>C</u>		<u>Totals</u>
Sheet Flow							
Manning's n-value	= 0.011		0.011		0.011		
Flow length (ft)	= 300.0		0.0		0.0		
Two-year 24-hr precip. (in)	= 3.00		0.00		0.00		
Land slope (%)	= 3.00		0.00		0.00		
Travel Time (min)	= 2.56	+	0.00	+	0.00	=	2.56
Shallow Concentrated Flow							
Flow length (ft)	= 2700.00		0.00		0.00		
Watercourse slope (%)	= 2.00		0.00		0.00		
Surface description	= Paved		Paved		Paved		
Average velocity (ft/s)	=2.87		0.00		0.00		
Travel Time (min)	= 15.65	+	0.00	+	0.00	=	15.65
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							18.20 min

Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

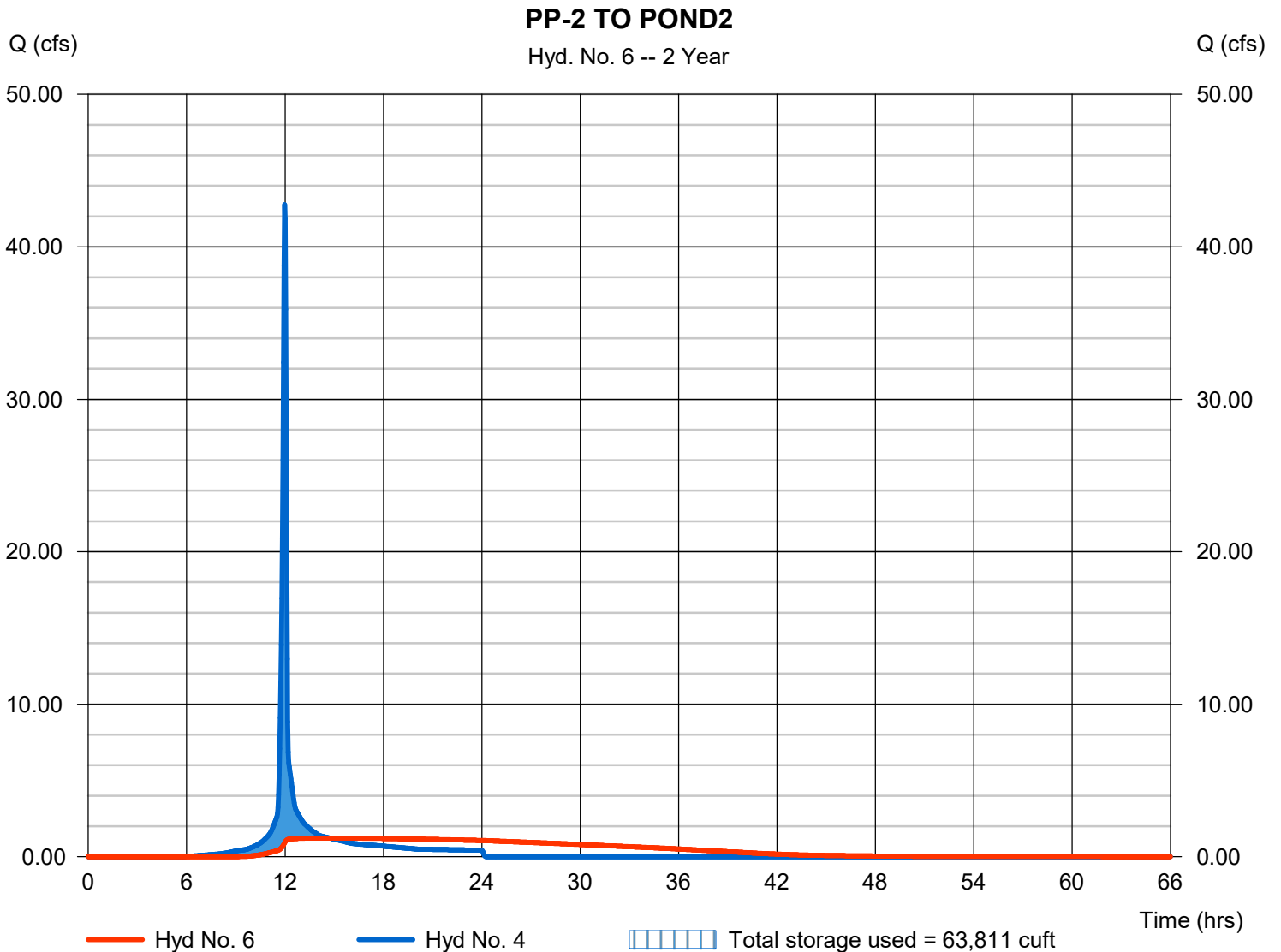
Monday, 03 / 9 / 2026

Hyd. No. 6

PP-2 TO POND2

Hydrograph type	= Reservoir	Peak discharge	= 1.232 cfs
Storm frequency	= 2 yrs	Time to peak	= 14.67 hrs
Time interval	= 2 min	Hyd. volume	= 98,061 cuft
Inflow hyd. No.	= 4 - A-2	Max. Elevation	= 1141.97 ft
Reservoir name	= Pond-2	Max. Storage	= 63,811 cuft

Storage Indication method used.



Pond Report

Pond No. 2 - Pond-2

Pond Data

Contours -User-defined contour areas. Average end area method used for volume calculation. Beginning Elevation = 1138.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	1138.00	12,762	0	0
1.00	1139.00	14,338	13,550	13,550
2.00	1140.00	16,009	15,173	28,723
3.00	1141.00	17,777	16,893	45,616
4.00	1142.00	19,641	18,709	64,325
5.00	1143.00	21,601	20,621	84,946
6.00	1144.00	23,657	22,629	107,575
7.00	1145.00	25,810	24,734	132,308

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 24.00	5.00	0.00	0.00
Span (in)	= 24.00	5.00	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 1138.00	1138.10	0.00	0.00
Length (ft)	= 110.00	0.50	0.00	0.00
Slope (%)	= 1.50	0.10	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)	= 10.14	8.00	Inactive	0.00
Crest El. (ft)	= 1142.00	1143.00	0.00	0.00
Weir Coeff.	= 3.33	2.60	3.33	3.33
Weir Type	= 1	Broad	---	---
Multi-Stage	= Yes	No	No	No
Exfil.(in/hr)	= 0.000 (by Wet area)			
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).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Civ A cfs	Civ B cfs	Civ C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	1138.00	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
0.10	1,355	1138.10	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
0.20	2,710	1138.20	0.03 ic	0.03 ic	---	---	0.00	0.00	---	---	---	---	0.028
0.30	4,065	1138.30	0.11 ic	0.10 ic	---	---	0.00	0.00	---	---	---	---	0.100
0.40	5,420	1138.40	0.20 ic	0.20 ic	---	---	0.00	0.00	---	---	---	---	0.198
0.50	6,775	1138.50	0.29 ic	0.29 ic	---	---	0.00	0.00	---	---	---	---	0.290
0.60	8,130	1138.60	0.35 ic	0.35 ic	---	---	0.00	0.00	---	---	---	---	0.355
0.70	9,485	1138.70	0.41 ic	0.41 ic	---	---	0.00	0.00	---	---	---	---	0.411
0.80	10,840	1138.80	0.48 ic	0.46 ic	---	---	0.00	0.00	---	---	---	---	0.460
0.90	12,195	1138.90	0.52 ic	0.50 ic	---	---	0.00	0.00	---	---	---	---	0.505
1.00	13,550	1139.00	0.56 ic	0.55 ic	---	---	0.00	0.00	---	---	---	---	0.546
1.10	15,067	1139.10	0.60 ic	0.58 ic	---	---	0.00	0.00	---	---	---	---	0.584
1.20	16,585	1139.20	0.64 ic	0.62 ic	---	---	0.00	0.00	---	---	---	---	0.617
1.30	18,102	1139.30	0.65 ic	0.65 ic	---	---	0.00	0.00	---	---	---	---	0.649
1.40	19,619	1139.40	0.69 ic	0.68 ic	---	---	0.00	0.00	---	---	---	---	0.680
1.50	21,137	1139.50	0.73 ic	0.71 ic	---	---	0.00	0.00	---	---	---	---	0.707
1.60	22,654	1139.60	0.74 ic	0.74 ic	---	---	0.00	0.00	---	---	---	---	0.736
1.70	24,171	1139.70	0.78 ic	0.76 ic	---	---	0.00	0.00	---	---	---	---	0.763
1.80	25,689	1139.80	0.79 ic	0.79 ic	---	---	0.00	0.00	---	---	---	---	0.789
1.90	27,206	1139.90	0.84 ic	0.81 ic	---	---	0.00	0.00	---	---	---	---	0.814
2.00	28,723	1140.00	0.84 ic	0.84 ic	---	---	0.00	0.00	---	---	---	---	0.839
2.10	30,412	1140.10	0.89 ic	0.86 ic	---	---	0.00	0.00	---	---	---	---	0.862
2.20	32,102	1140.20	0.89 ic	0.89 ic	---	---	0.00	0.00	---	---	---	---	0.887
2.30	33,791	1140.30	0.95 ic	0.91 ic	---	---	0.00	0.00	---	---	---	---	0.908
2.40	35,480	1140.40	0.95 ic	0.93 ic	---	---	0.00	0.00	---	---	---	---	0.931
2.50	37,170	1140.50	0.95 ic	0.95 ic	---	---	0.00	0.00	---	---	---	---	0.953
2.60	38,859	1140.60	1.01 ic	0.97 ic	---	---	0.00	0.00	---	---	---	---	0.974
2.70	40,548	1140.70	1.01 ic	1.00 ic	---	---	0.00	0.00	---	---	---	---	0.996
2.80	42,238	1140.80	1.02 ic	1.02 ic	---	---	0.00	0.00	---	---	---	---	1.015
2.90	43,927	1140.90	1.07 ic	1.04 ic	---	---	0.00	0.00	---	---	---	---	1.035
3.00	45,616	1141.00	1.07 ic	1.06 ic	---	---	0.00	0.00	---	---	---	---	1.056
3.10	47,487	1141.10	1.07 ic	1.07 ic	---	---	0.00	0.00	---	---	---	---	1.075
3.20	49,358	1141.20	1.13 ic	1.09 ic	---	---	0.00	0.00	---	---	---	---	1.094
3.30	51,229	1141.30	1.13 ic	1.11 ic	---	---	0.00	0.00	---	---	---	---	1.113
3.40	53,100	1141.40	1.13 ic	1.13 ic	---	---	0.00	0.00	---	---	---	---	1.132

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Pond-2

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
3.50	54,970	1141.50	1.20 ic	1.15 ic	---	---	0.00	0.00	---	---	---	---	1.149
3.60	56,841	1141.60	1.20 ic	1.17 ic	---	---	0.00	0.00	---	---	---	---	1.167
3.70	58,712	1141.70	1.20 ic	1.19 ic	---	---	0.00	0.00	---	---	---	---	1.186
3.80	60,583	1141.80	1.20 ic	1.20 ic	---	---	0.00	0.00	---	---	---	---	1.203
3.90	62,454	1141.90	1.26 ic	1.22 ic	---	---	0.00	0.00	---	---	---	---	1.219
4.00	64,325	1142.00	1.26 ic	1.24 ic	---	---	0.00	0.00	---	---	---	---	1.237
4.10	66,387	1142.10	2.29 ic	1.22 ic	---	---	1.07	0.00	---	---	---	---	2.291
4.20	68,449	1142.20	4.30 ic	1.20 ic	---	---	3.02	0.00	---	---	---	---	4.216
4.30	70,511	1142.30	6.72 ic	1.17 ic	---	---	5.55	0.00	---	---	---	---	6.718
4.40	72,573	1142.40	9.69 ic	1.13 ic	---	---	8.54	0.00	---	---	---	---	9.678
4.50	74,635	1142.50	13.09 ic	1.09 ic	---	---	11.94	0.00	---	---	---	---	13.03
4.60	76,697	1142.60	16.71 ic	1.01 ic	---	---	15.69	0.00	---	---	---	---	16.70
4.70	78,759	1142.70	20.66 ic	0.89 ic	---	---	19.77	0.00	---	---	---	---	20.66
4.80	80,822	1142.80	24.85 ic	0.69 ic	---	---	24.16	0.00	---	---	---	---	24.85
4.90	82,884	1142.90	27.37 ic	0.52 ic	---	---	26.85 s	0.00	---	---	---	---	27.37
5.00	84,946	1143.00	28.42 ic	0.45 ic	---	---	27.97 s	0.00	---	---	---	---	28.42
5.10	87,209	1143.10	29.22 ic	0.40 ic	---	---	28.82 s	0.66	---	---	---	---	29.87
5.20	89,472	1143.20	29.88 ic	0.36 ic	---	---	29.52 s	1.86	---	---	---	---	31.74
5.30	91,734	1143.30	30.46 ic	0.32 ic	---	---	30.13 s	3.42	---	---	---	---	33.88
5.40	93,997	1143.40	30.98 ic	0.30 ic	---	---	30.68 s	5.26	---	---	---	---	36.24
5.50	96,260	1143.50	31.46 ic	0.27 ic	---	---	31.19 s	7.35	---	---	---	---	38.81
5.60	98,523	1143.60	31.91 ic	0.25 ic	---	---	31.66 s	9.67	---	---	---	---	41.58
5.70	100,786	1143.70	32.34 ic	0.23 ic	---	---	32.10 s	12.18	---	---	---	---	44.51
5.80	103,049	1143.80	32.75 ic	0.22 ic	---	---	32.52 s	14.88	---	---	---	---	47.63
5.90	105,312	1143.90	33.14 ic	0.21 ic	---	---	32.93 s	17.76	---	---	---	---	50.89
6.00	107,575	1144.00	33.52 ic	0.19 ic	---	---	33.32 s	20.80	---	---	---	---	54.31
6.10	110,048	1144.10	33.89 ic	0.18 ic	---	---	33.70 s	24.00	---	---	---	---	57.88
6.20	112,521	1144.20	34.26 ic	0.17 ic	---	---	34.08 s	27.34	---	---	---	---	61.59
6.30	114,995	1144.30	34.61 ic	0.17 ic	---	---	34.44 s	30.83	---	---	---	---	65.44
6.40	117,468	1144.40	34.96 ic	0.16 ic	---	---	34.79 s	34.46	---	---	---	---	69.41
6.50	119,941	1144.50	35.30 ic	0.15 ic	---	---	35.14 s	38.21	---	---	---	---	73.50
6.60	122,415	1144.60	35.64 ic	0.14 ic	---	---	35.49 s	42.10	---	---	---	---	77.73
6.70	124,888	1144.70	35.97 ic	0.14 ic	---	---	35.83 s	46.10	---	---	---	---	82.07
6.80	127,362	1144.80	36.30 ic	0.13 ic	---	---	36.14 s	50.23	---	---	---	---	86.51
6.90	129,835	1144.90	36.62 ic	0.13 ic	---	---	36.47 s	54.48	---	---	---	---	91.07
7.00	132,308	1145.00	36.94 ic	0.12 ic	---	---	36.78 s	58.83	---	---	---	---	95.74

...End

Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Monday, 03 / 9 / 2026

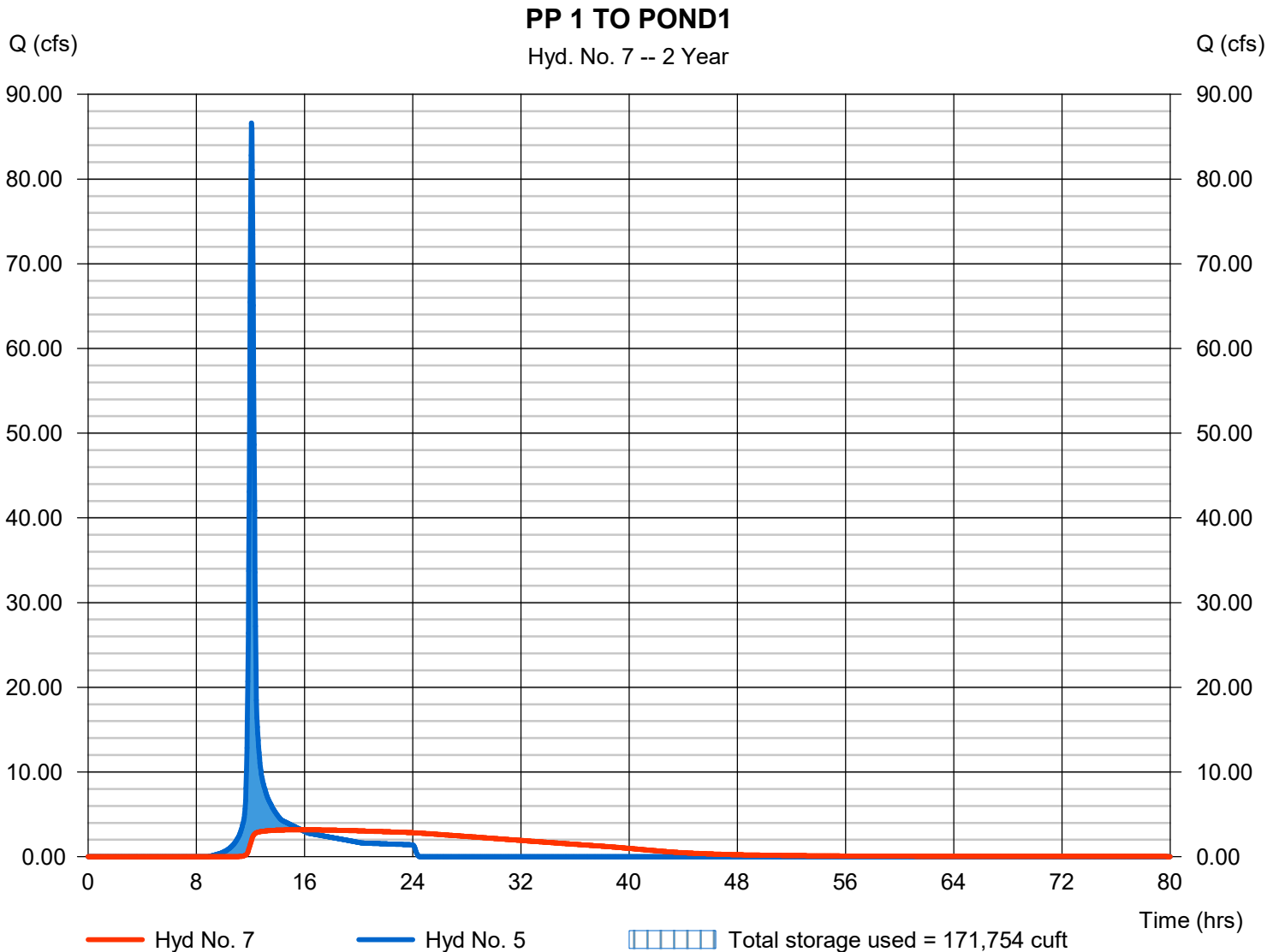
Hyd. No. 7

PP 1 TO POND1

Hydrograph type = Reservoir
Storm frequency = 2 yrs
Time interval = 2 min
Inflow hyd. No. = 5 - A-1
Reservoir name = Pond-1

Peak discharge = 3.178 cfs
Time to peak = 15.73 hrs
Hyd. volume = 266,806 cuft
Max. Elevation = 1091.42 ft
Max. Storage = 171,754 cuft

Storage Indication method used.



Pond No. 1 - Pond-1

Pond Data

Contours -User-defined contour areas. Average end area method used for volume calculation. Beginning Elevation = 1088.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	1088.00	45,290	0	0
1.00	1089.00	48,012	46,651	46,651
2.00	1090.00	50,812	49,412	96,063
3.00	1091.00	53,688	52,250	148,313
4.00	1092.00	56,641	55,165	203,478
5.00	1093.00	59,671	58,156	261,634
6.00	1094.00	62,778	61,225	322,859
7.00	1095.00	65,962	64,370	387,229

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 48.00	6.00	Inactive	0.00
Span (in)	= 48.00	6.00	0.00	0.00
No. Barrels	= 1	2	1	1
Invert El. (ft)	= 1088.00	1088.10	0.00	0.00
Length (ft)	= 110.00	0.50	0.50	0.50
Slope (%)	= 1.00	0.10	0.10	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)	= 14.85	24.00	Inactive	Inactive
Crest El. (ft)	= 1092.00	1093.50	0.00	0.00
Weir Coeff.	= 3.33	2.60	3.33	3.33
Weir Type	= 1	Broad	---	---
Multi-Stage	= Yes	No	No	No
Exfil.(in/hr)	= 0.000 (by Wet area)			
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).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Civ A cfs	Civ B cfs	Civ C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
0.00	0	1088.00	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
0.10	4,665	1088.10	0.00	0.00	---	---	0.00	0.00	---	---	---	---	0.000
0.20	9,330	1088.20	0.07 ic	0.06 ic	---	---	0.00	0.00	---	---	---	---	0.063
0.30	13,995	1088.30	0.23 ic	0.23 ic	---	---	0.00	0.00	---	---	---	---	0.228
0.40	18,660	1088.40	0.47 ic	0.46 ic	---	---	0.00	0.00	---	---	---	---	0.460
0.50	23,326	1088.50	0.75 ic	0.73 ic	---	---	0.00	0.00	---	---	---	---	0.725
0.60	27,991	1088.60	0.95 ic	0.95 ic	---	---	0.00	0.00	---	---	---	---	0.945
0.70	32,656	1088.70	1.14 ic	1.12 ic	---	---	0.00	0.00	---	---	---	---	1.118
0.80	37,321	1088.80	1.26 ic	1.25 ic	---	---	0.00	0.00	---	---	---	---	1.249
0.90	41,986	1088.90	1.38 ic	1.36 ic	---	---	0.00	0.00	---	---	---	---	1.361
1.00	46,651	1089.00	1.51 ic	1.46 ic	---	---	0.00	0.00	---	---	---	---	1.464
1.10	51,592	1089.10	1.65 ic	1.56 ic	---	---	0.00	0.00	---	---	---	---	1.559
1.20	56,533	1089.20	1.66 ic	1.66 ic	---	---	0.00	0.00	---	---	---	---	1.664
1.30	61,475	1089.30	1.81 ic	1.75 ic	---	---	0.00	0.00	---	---	---	---	1.754
1.40	66,416	1089.40	1.84 ic	1.84 ic	---	---	0.00	0.00	---	---	---	---	1.838
1.50	71,357	1089.50	1.97 ic	1.93 ic	---	---	0.00	0.00	---	---	---	---	1.929
1.60	76,298	1089.60	2.00 ic	2.00 ic	---	---	0.00	0.00	---	---	---	---	2.003
1.70	81,240	1089.70	2.14 ic	2.09 ic	---	---	0.00	0.00	---	---	---	---	2.089
1.80	86,181	1089.80	2.16 ic	2.16 ic	---	---	0.00	0.00	---	---	---	---	2.163
1.90	91,122	1089.90	2.32 ic	2.24 ic	---	---	0.00	0.00	---	---	---	---	2.237
2.00	96,063	1090.00	2.32 ic	2.32 ic	---	---	0.00	0.00	---	---	---	---	2.316
2.10	101,288	1090.10	2.51 ic	2.38 ic	---	---	0.00	0.00	---	---	---	---	2.376
2.20	106,513	1090.20	2.51 ic	2.45 ic	---	---	0.00	0.00	---	---	---	---	2.450
2.30	111,738	1090.30	2.52 ic	2.52 ic	---	---	0.00	0.00	---	---	---	---	2.518
2.40	116,963	1090.40	2.71 ic	2.58 ic	---	---	0.00	0.00	---	---	---	---	2.577
2.50	122,188	1090.50	2.71 ic	2.65 ic	---	---	0.00	0.00	---	---	---	---	2.645
2.60	127,413	1090.60	2.71 ic	2.71 ic	---	---	0.00	0.00	---	---	---	---	2.711
2.70	132,638	1090.70	2.92 ic	2.76 ic	---	---	0.00	0.00	---	---	---	---	2.763
2.80	137,863	1090.80	2.92 ic	2.83 ic	---	---	0.00	0.00	---	---	---	---	2.827
2.90	143,088	1090.90	2.92 ic	2.89 ic	---	---	0.00	0.00	---	---	---	---	2.890
3.00	148,313	1091.00	2.94 ic	2.94 ic	---	---	0.00	0.00	---	---	---	---	2.945
3.10	153,830	1091.10	3.14 ic	3.00 ic	---	---	0.00	0.00	---	---	---	---	2.998
3.20	159,346	1091.20	3.14 ic	3.06 ic	---	---	0.00	0.00	---	---	---	---	3.057
3.30	164,863	1091.30	3.14 ic	3.11 ic	---	---	0.00	0.00	---	---	---	---	3.115
3.40	170,379	1091.40	3.17 ic	3.17 ic	---	---	0.00	0.00	---	---	---	---	3.166

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Pond-1

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	Clv A cfs	Clv B cfs	Clv C cfs	PrfRsr cfs	Wr A cfs	Wr B cfs	Wr C cfs	Wr D cfs	Exfil cfs	User cfs	Total cfs
3.50	175,895	1091.50	3.38 ic	3.21 ic	---	---	0.00	0.00	---	---	---	---	3.215
3.60	181,412	1091.60	3.38 ic	3.27 ic	---	---	0.00	0.00	---	---	---	---	3.270
3.70	186,928	1091.70	3.38 ic	3.32 ic	---	---	0.00	0.00	---	---	---	---	3.324
3.80	192,445	1091.80	3.38 ic	3.38 ic	---	---	0.00	0.00	---	---	---	---	3.377
3.90	197,961	1091.90	3.42 ic	3.42 ic	---	---	0.00	0.00	---	---	---	---	3.421
4.00	203,478	1092.00	3.62 ic	3.47 ic	---	---	0.00	0.00	---	---	---	---	3.470
4.10	209,294	1092.10	5.03 ic	3.46 ic	---	---	1.56	0.00	---	---	---	---	5.024
4.20	215,109	1092.20	7.97 ic	3.41 ic	---	---	4.42	0.00	---	---	---	---	7.827
4.30	220,925	1092.30	11.79 ic	3.34 ic	---	---	8.13	0.00	---	---	---	---	11.47
4.40	226,740	1092.40	15.87 ic	3.28 ic	---	---	12.51	0.00	---	---	---	---	15.80
4.50	232,556	1092.50	20.70 ic	3.21 ic	---	---	17.48	0.00	---	---	---	---	20.70
4.60	238,372	1092.60	26.12 ic	3.14 ic	---	---	22.98	0.00	---	---	---	---	26.12
4.70	244,187	1092.70	32.57 ic	3.07 ic	---	---	28.96	0.00	---	---	---	---	32.03
4.80	250,003	1092.80	38.72 ic	3.00 ic	---	---	35.39	0.00	---	---	---	---	38.39
4.90	255,819	1092.90	45.15 ic	2.92 ic	---	---	42.22	0.00	---	---	---	---	45.15
5.00	261,634	1093.00	52.29 ic	2.84 ic	---	---	49.45	0.00	---	---	---	---	52.29
5.10	267,757	1093.10	59.90 ic	2.75 ic	---	---	57.05	0.00	---	---	---	---	59.79
5.20	273,879	1093.20	67.85 oc	2.61 ic	---	---	65.00	0.00	---	---	---	---	67.61
5.30	280,002	1093.30	75.29 oc	2.12 ic	---	---	73.17 s	0.00	---	---	---	---	75.29
5.40	286,124	1093.40	81.69 oc	2.04 ic	---	---	79.65 s	0.00	---	---	---	---	81.69
5.50	292,247	1093.50	87.24 oc	1.96 ic	---	---	85.28 s	0.00	---	---	---	---	87.24
5.60	298,369	1093.60	92.24 oc	1.88 ic	---	---	90.35 s	1.97	---	---	---	---	94.21
5.70	304,492	1093.70	96.80 oc	1.81 ic	---	---	94.99 s	5.58	---	---	---	---	102.38
5.80	310,614	1093.80	101.02 oc	1.75 ic	---	---	99.26 s	10.26	---	---	---	---	111.27
5.90	316,737	1093.90	104.92 oc	1.68 ic	---	---	103.23 s	15.79	---	---	---	---	120.70
6.00	322,859	1094.00	108.56 oc	1.62 ic	---	---	106.93 s	22.06	---	---	---	---	130.61
6.10	329,296	1094.10	111.83 ic	1.56 ic	---	---	110.27 s	29.00	---	---	---	---	140.83
6.20	335,733	1094.20	114.36 ic	1.50 ic	---	---	112.87 s	36.54	---	---	---	---	150.90
6.30	342,170	1094.30	116.74 ic	1.44 ic	---	---	115.30 s	44.65	---	---	---	---	161.39
6.40	348,607	1094.40	118.99 ic	1.38 ic	---	---	117.60 s	53.28	---	---	---	---	172.26
6.50	355,044	1094.50	121.12 ic	1.33 ic	---	---	119.78 s	62.40	---	---	---	---	183.51
6.60	361,481	1094.60	123.15 ic	1.28 ic	---	---	121.86 s	71.99	---	---	---	---	195.12
6.70	367,918	1094.70	125.09 ic	1.23 ic	---	---	123.85 s	82.02	---	---	---	---	207.11
6.80	374,355	1094.80	126.96 ic	1.19 ic	---	---	125.77 s	92.50	---	---	---	---	219.45
6.90	380,792	1094.90	128.76 ic	1.15 ic	---	---	127.61 s	103.37	---	---	---	---	232.13
7.00	387,229	1095.00	130.50 ic	1.11 ic	---	---	129.38 s	114.64	---	---	---	---	245.13

...End

Hydrograph Report

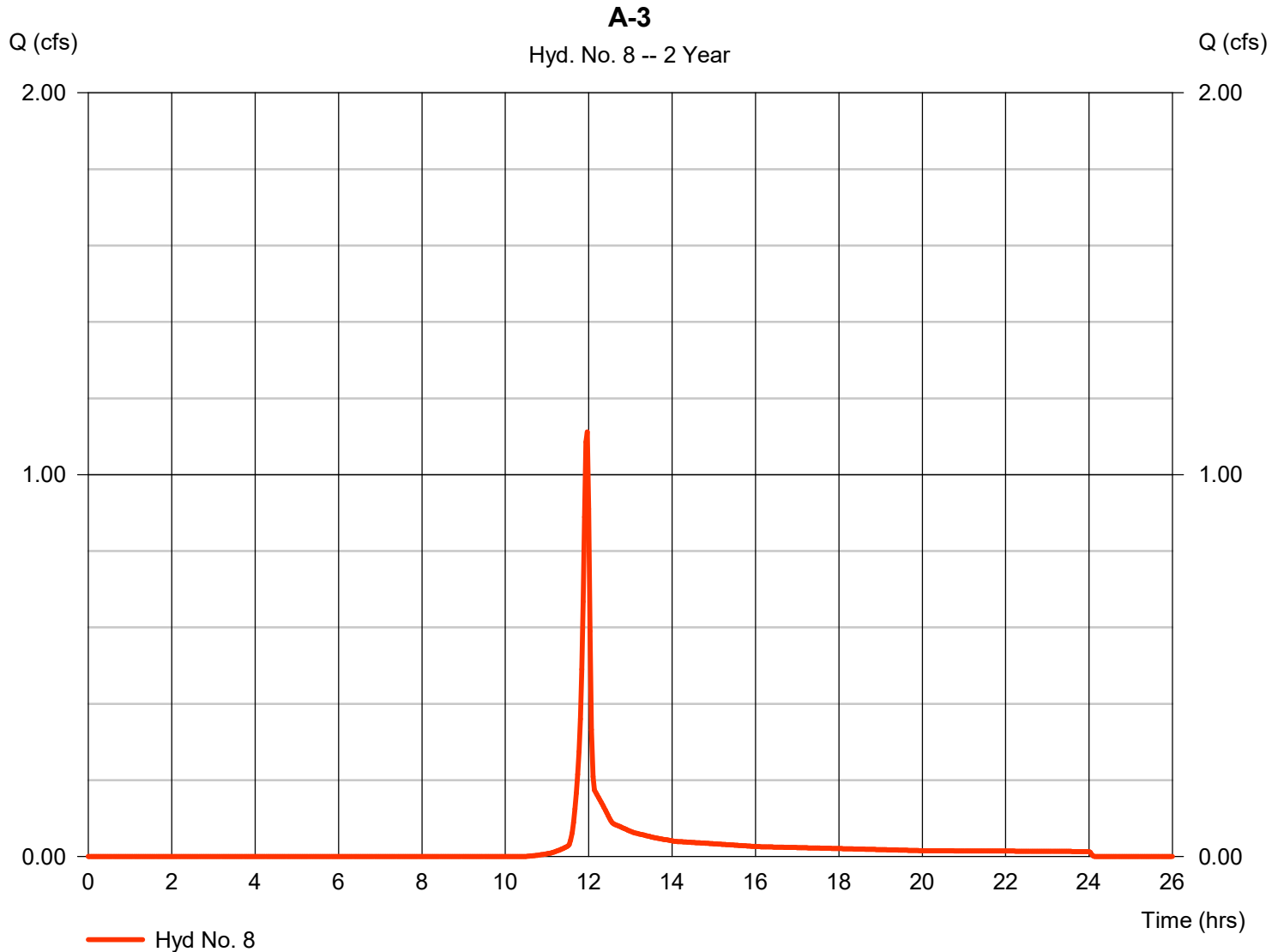
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Monday, 03 / 9 / 2026

Hyd. No. 8

A-3

Hydrograph type	= SCS Runoff	Peak discharge	= 1.112 cfs
Storm frequency	= 2 yrs	Time to peak	= 11.97 hrs
Time interval	= 2 min	Hyd. volume	= 2,223 cuft
Drainage area	= 0.610 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 3.00 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

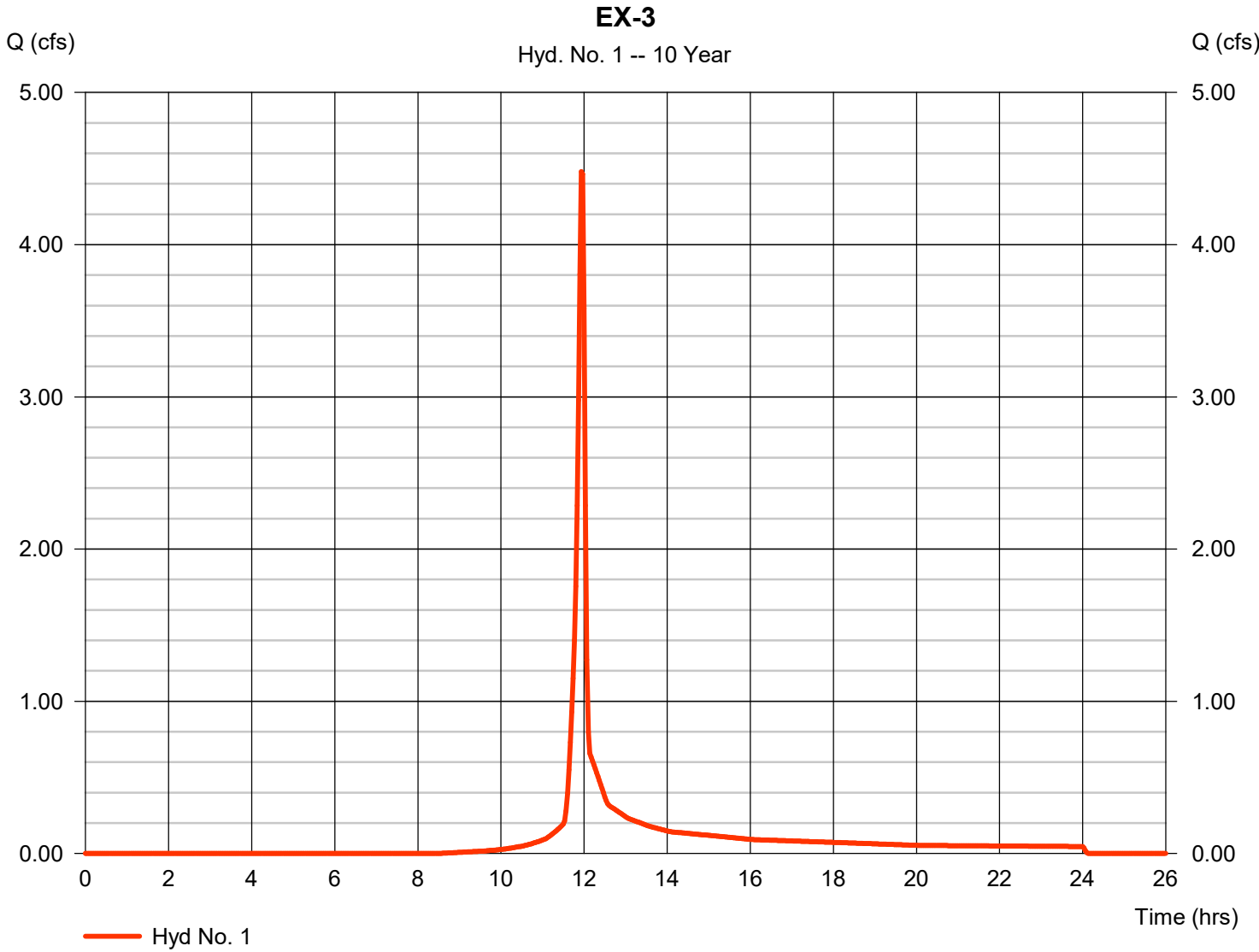
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description	
1	SCS Runoff	4.480	2	716	9,048	-----	-----	-----	EX-3	
2	SCS Runoff	37.72	2	722	105,865	-----	-----	-----	EX-2	
3	SCS Runoff	107.56	2	728	396,900	-----	-----	-----	EX-1	
4	SCS Runoff	73.21	2	718	175,034	-----	-----	-----	A-2	
5	SCS Runoff	169.14	2	724	529,652	-----	-----	-----	A-1	
6	Reservoir	27.86	2	726	173,624	4	1142.95	83,848	PP-2 TO POND2	
7	Reservoir	49.85	2	742	524,053	5	1092.97	259,652	PP 1 TO POND1	
8	SCS Runoff	2.356	2	716	4,758	-----	-----	-----	A-3	
2380-104-PCSMP_Updated_2.gpw					Return Period: 10 Year			Monday, 03 / 9 / 2026		

Hydrograph Report

Hyd. No. 1

EX-3

Hydrograph type	= SCS Runoff	Peak discharge	= 4.480 cfs
Storm frequency	= 10 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 9,048 cuft
Drainage area	= 1.160 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 4.60 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

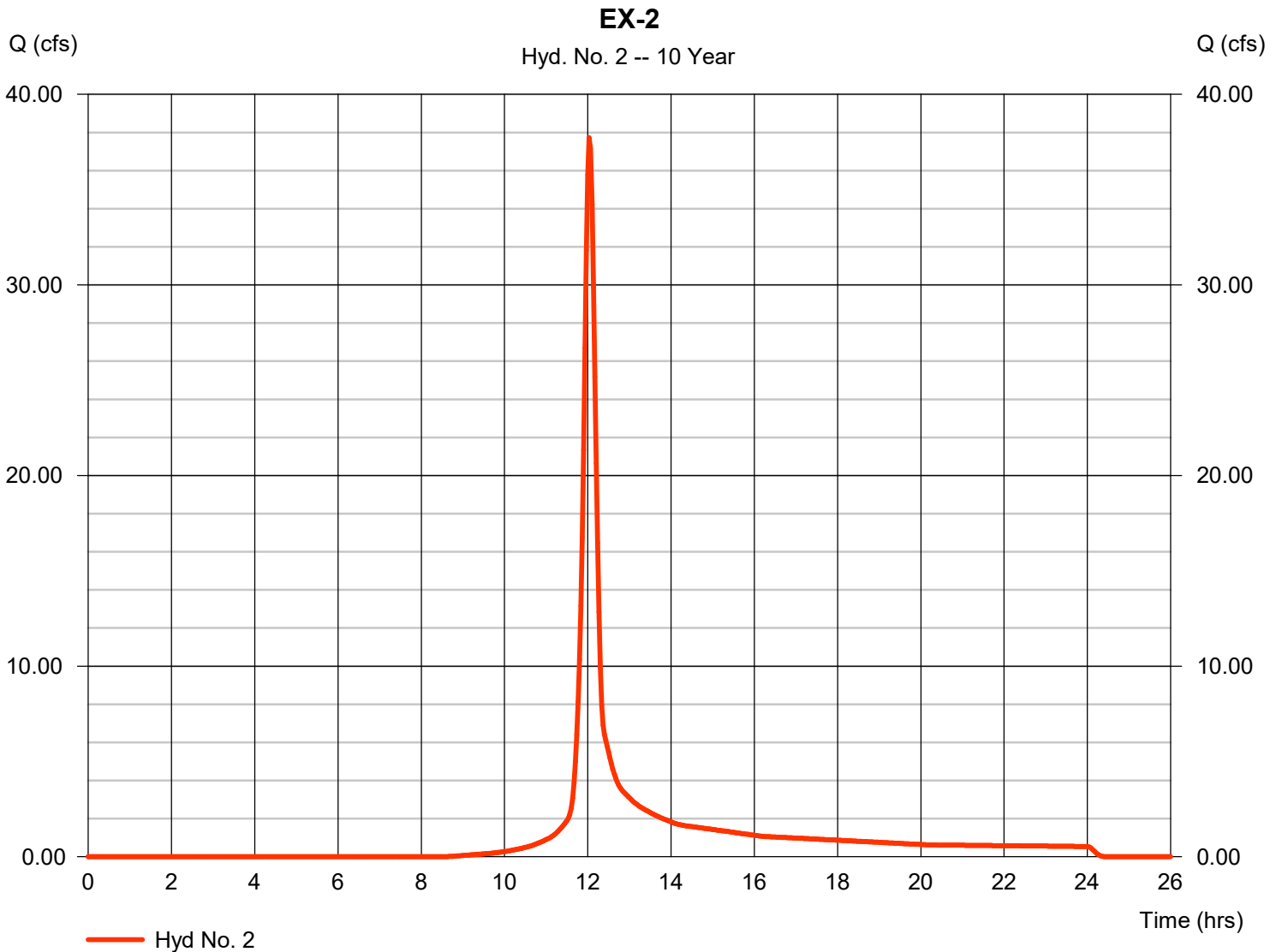
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Monday, 03 / 9 / 2026

Hyd. No. 2

EX-2

Hydrograph type	= SCS Runoff	Peak discharge	= 37.72 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.03 hrs
Time interval	= 2 min	Hyd. volume	= 105,865 cuft
Drainage area	= 13.050 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 14.00 min
Total precip.	= 4.60 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

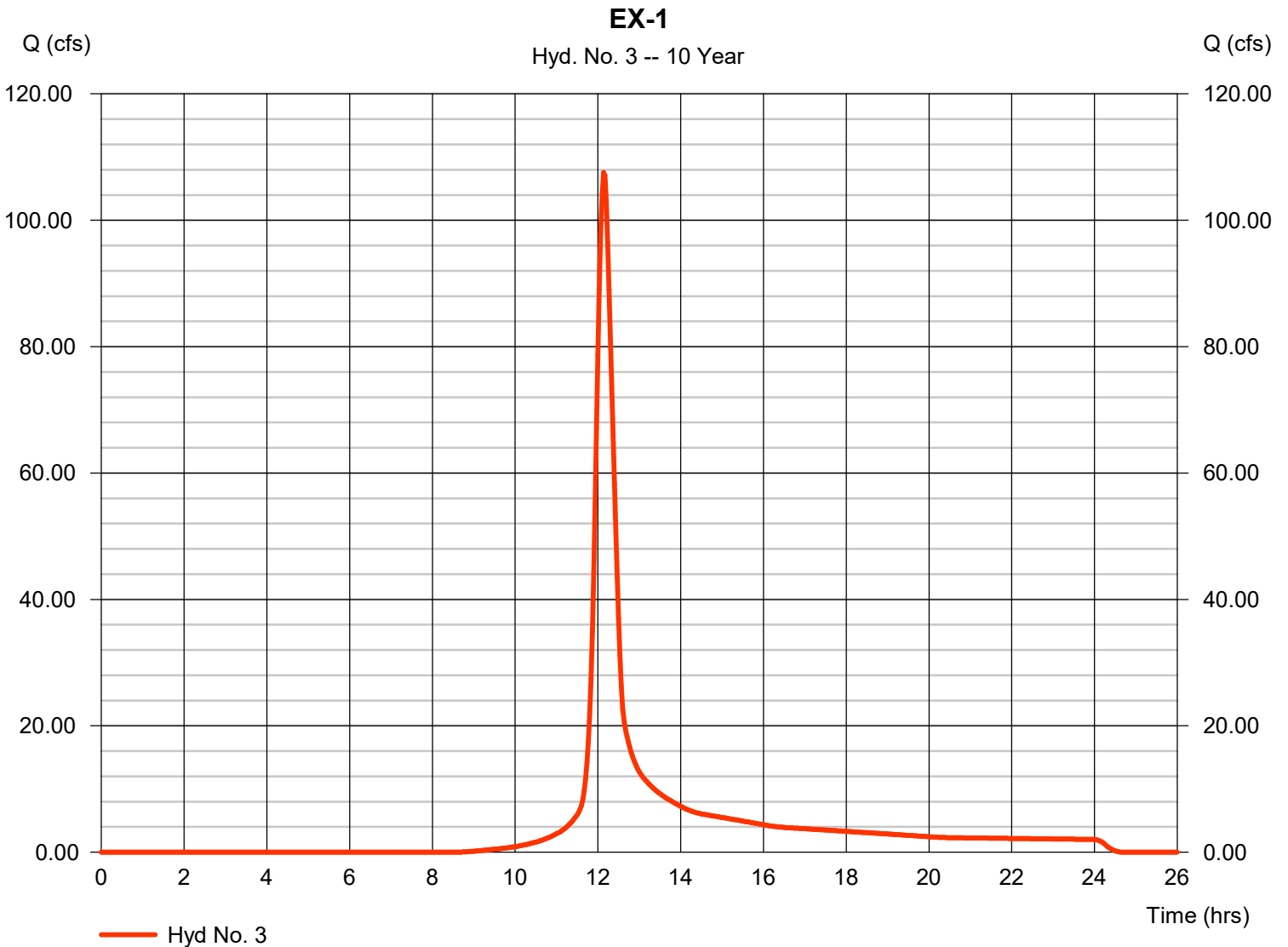
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Monday, 03 / 9 / 2026

Hyd. No. 3

EX-1

Hydrograph type	= SCS Runoff	Peak discharge	= 107.56 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.13 hrs
Time interval	= 2 min	Hyd. volume	= 396,900 cuft
Drainage area	= 48.460 ac	Curve number	= 77
Basin Slope	= 2.0 %	Hydraulic length	= 1000 ft
Tc method	= TR55	Time of conc. (Tc)	= 26.60 min
Total precip.	= 4.60 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

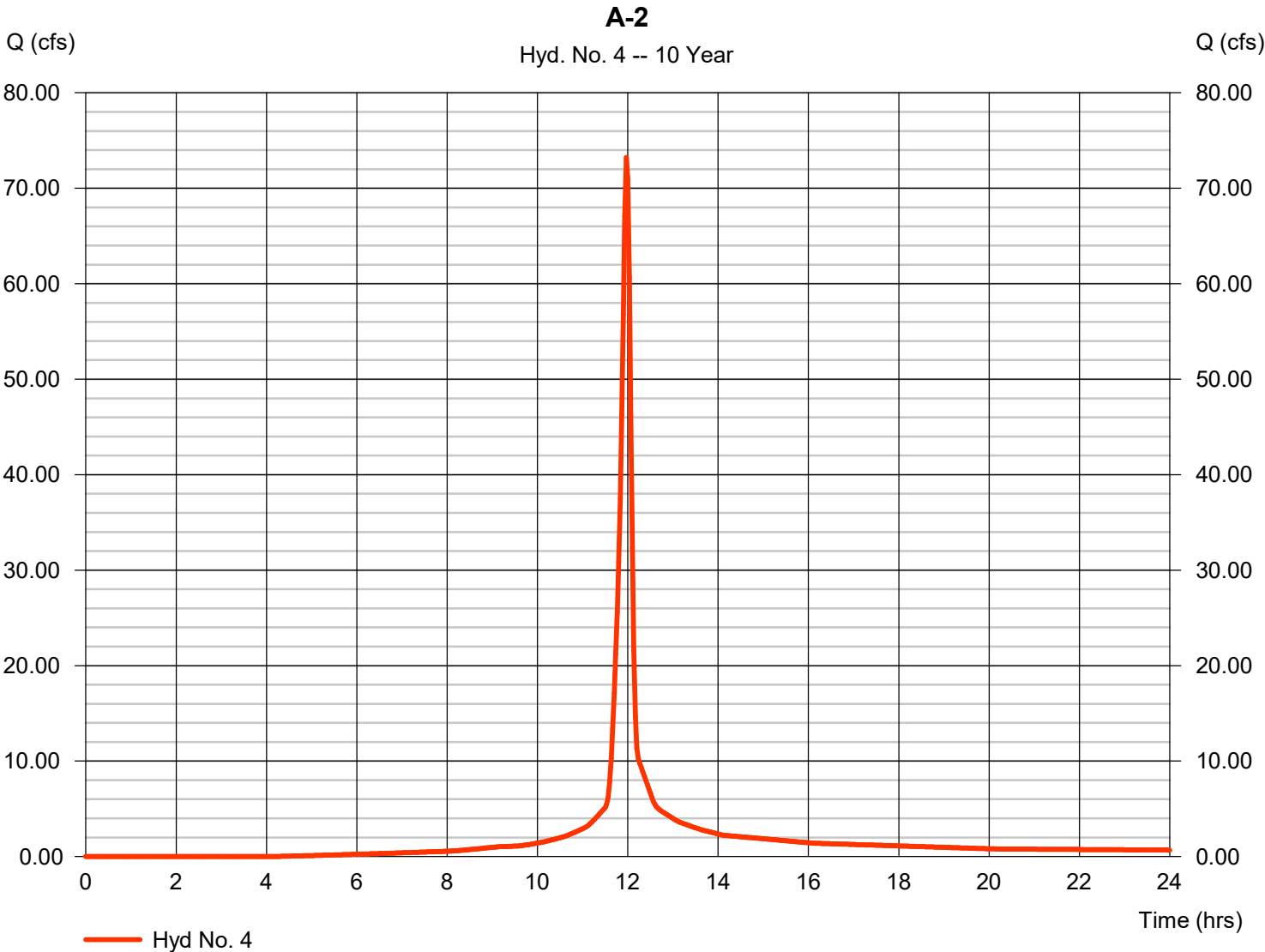


Hydrograph Report

Hyd. No. 4

A-2

Hydrograph type	= SCS Runoff	Peak discharge	= 73.21 cfs
Storm frequency	= 10 yrs	Time to peak	= 11.97 hrs
Time interval	= 2 min	Hyd. volume	= 175,034 cuft
Drainage area	= 13.810 ac	Curve number	= 90
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.60 min
Total precip.	= 4.60 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

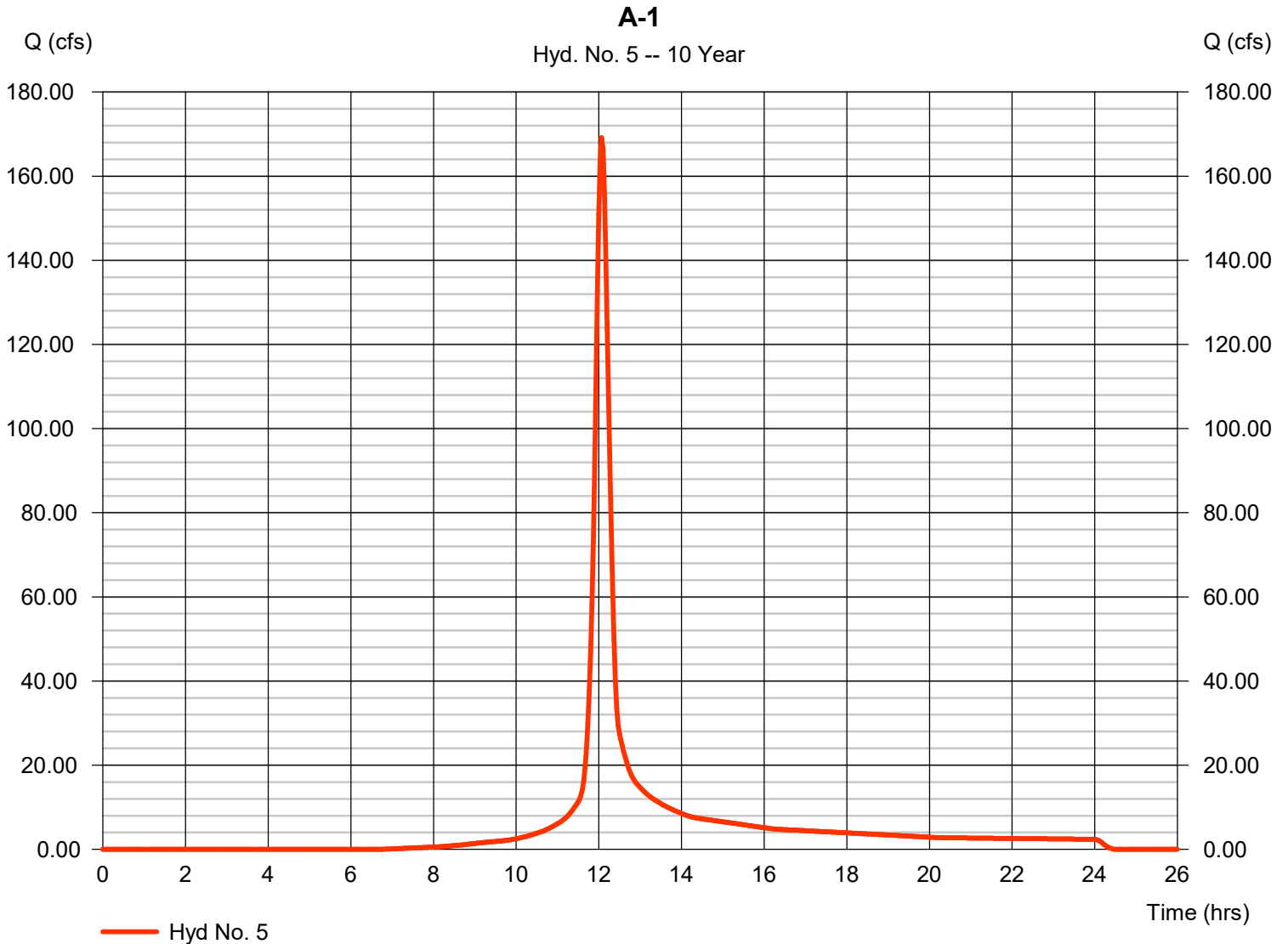
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Monday, 03 / 9 / 2026

Hyd. No. 5

A-1

Hydrograph type	= SCS Runoff	Peak discharge	= 169.14 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 529,652 cuft
Drainage area	= 51.840 ac	Curve number	= 83
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 18.20 min
Total precip.	= 4.60 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Monday, 03 / 9 / 2026

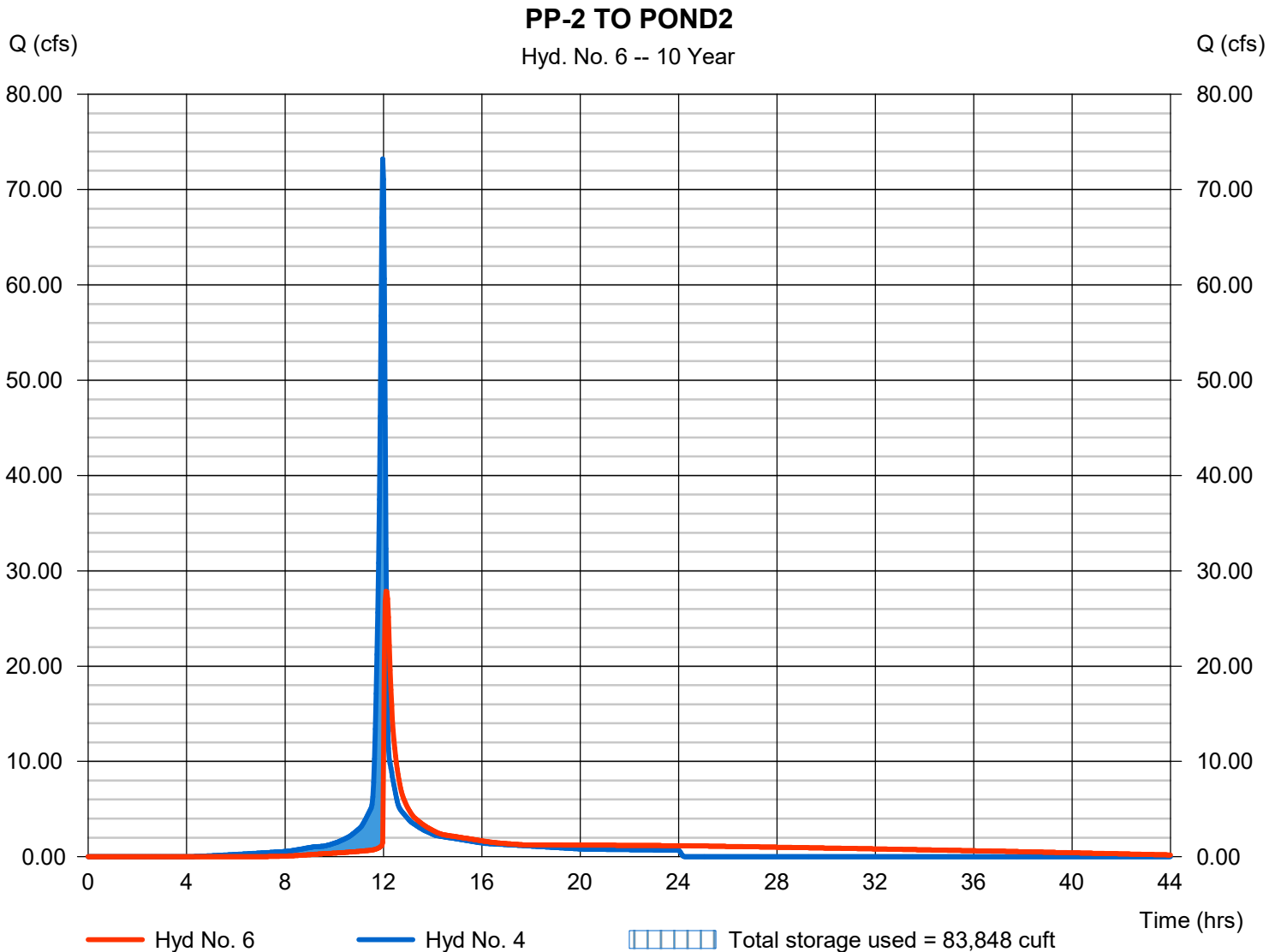
Hyd. No. 6

PP-2 TO POND2

Hydrograph type = Reservoir
Storm frequency = 10 yrs
Time interval = 2 min
Inflow hyd. No. = 4 - A-2
Reservoir name = Pond-2

Peak discharge = 27.86 cfs
Time to peak = 12.10 hrs
Hyd. volume = 173,624 cuft
Max. Elevation = 1142.95 ft
Max. Storage = 83,848 cuft

Storage Indication method used.



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Monday, 03 / 9 / 2026

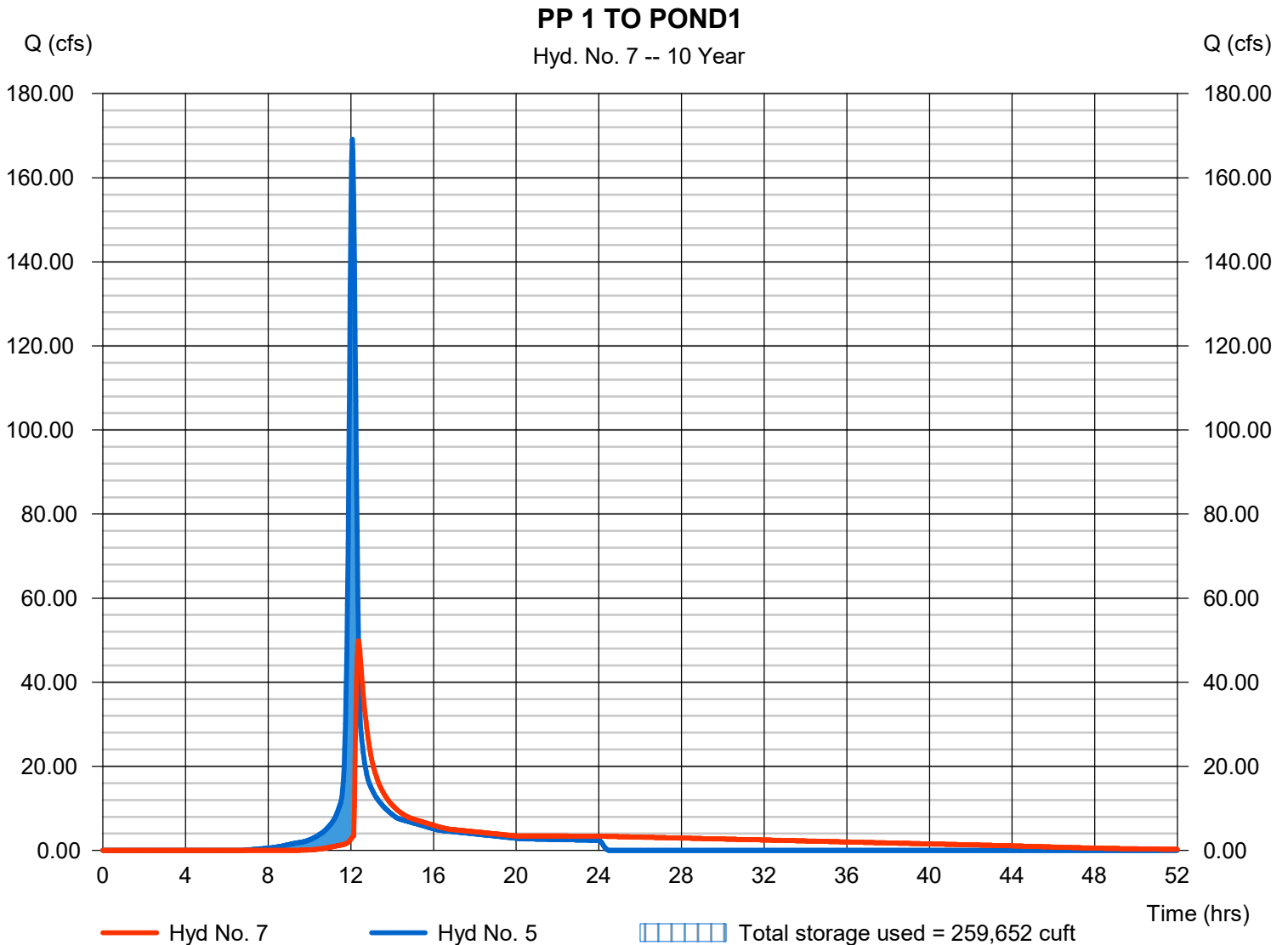
Hyd. No. 7

PP 1 TO POND1

Hydrograph type = Reservoir
 Storm frequency = 10 yrs
 Time interval = 2 min
 Inflow hyd. No. = 5 - A-1
 Reservoir name = Pond-1

Peak discharge = 49.85 cfs
 Time to peak = 12.37 hrs
 Hyd. volume = 524,053 cuft
 Max. Elevation = 1092.97 ft
 Max. Storage = 259,652 cuft

Storage Indication method used.

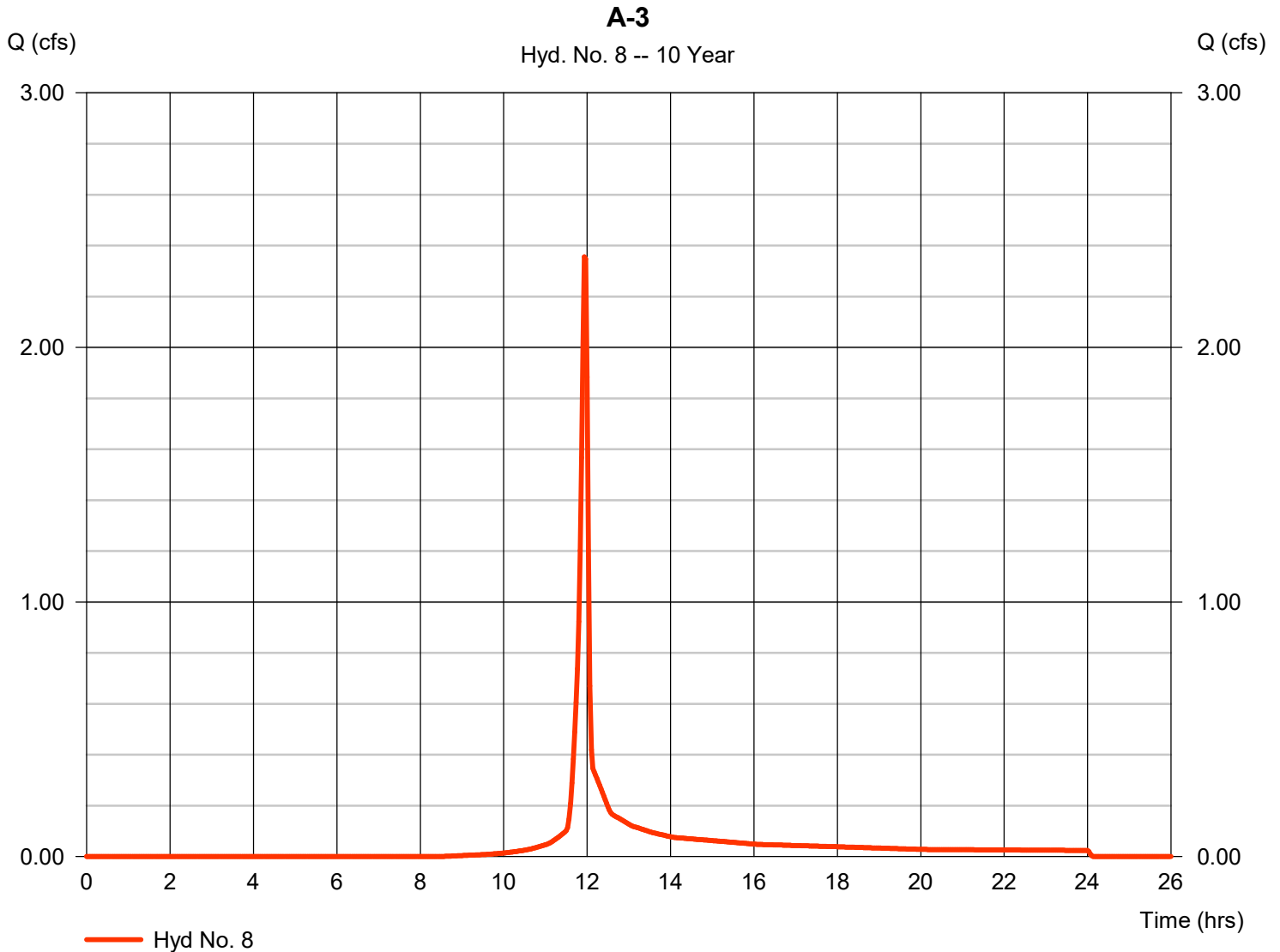


Hydrograph Report

Hyd. No. 8

A-3

Hydrograph type	= SCS Runoff	Peak discharge	= 2.356 cfs
Storm frequency	= 10 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 4,758 cuft
Drainage area	= 0.610 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 4.60 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

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	6.751	2	716	13,734	-----	-----	-----	EX-3	
2	SCS Runoff	57.27	2	722	160,689	-----	-----	-----	EX-2	
3	SCS Runoff	164.21	2	728	602,440	-----	-----	-----	EX-1	
4	SCS Runoff	99.67	2	718	242,925	-----	-----	-----	A-2	
5	SCS Runoff	243.84	2	724	769,911	-----	-----	-----	A-1	
6	Reservoir	50.45	2	726	241,510	4	1143.89	105,008	PP-2 TO POND2	
7	Reservoir	129.66	2	736	764,263	5	1093.99	322,271	PP 1 TO POND1	
8	SCS Runoff	3.550	2	716	7,222	-----	-----	-----	A-3	
2380-104-PCSMP_Updated_2.gpw					Return Period: 50 Year			Monday, 03 / 9 / 2026		

Hydrograph Report

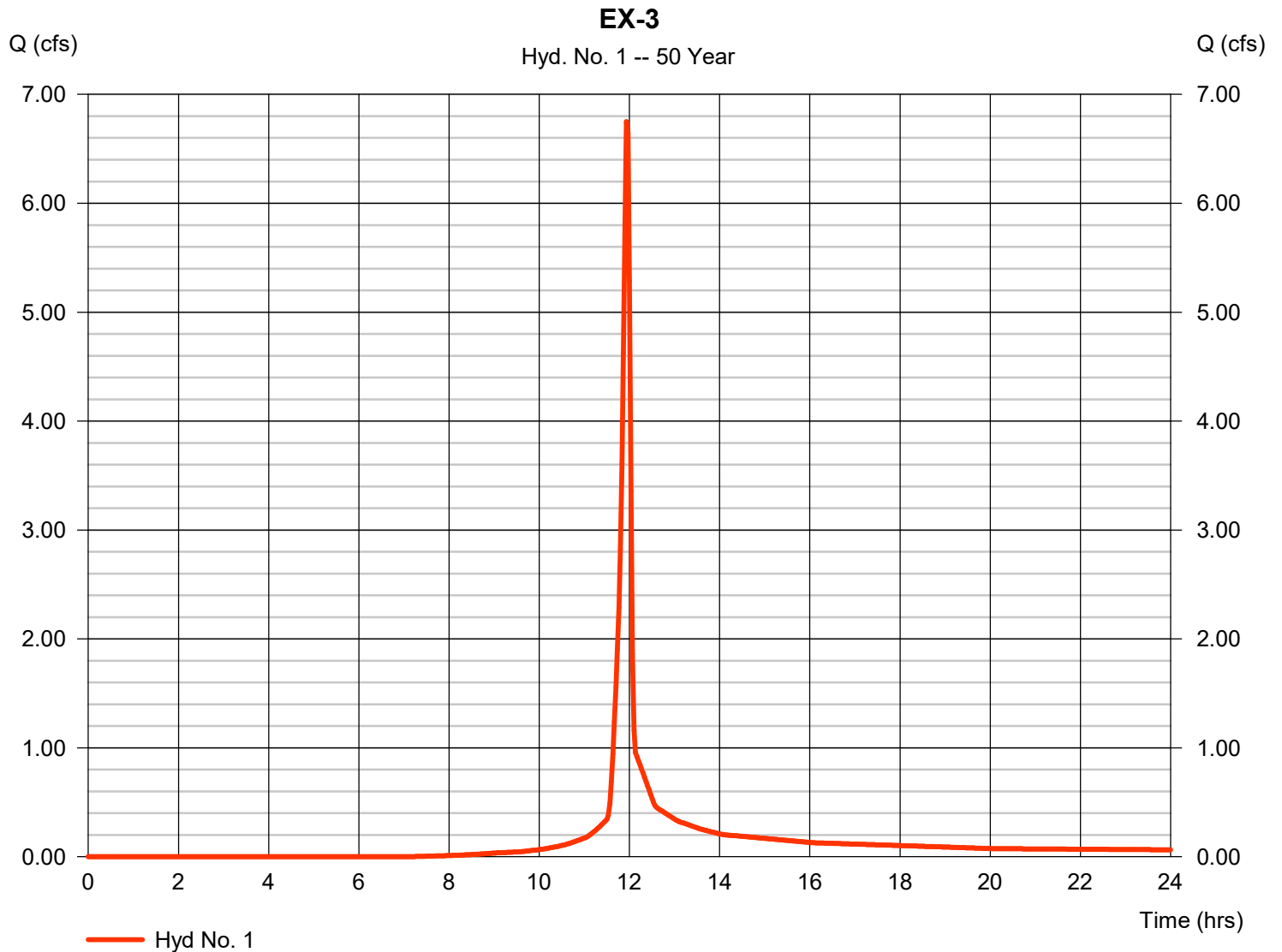
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Monday, 03 / 9 / 2026

Hyd. No. 1

EX-3

Hydrograph type	= SCS Runoff	Peak discharge	= 6.751 cfs
Storm frequency	= 50 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 13,734 cuft
Drainage area	= 1.160 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.00 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

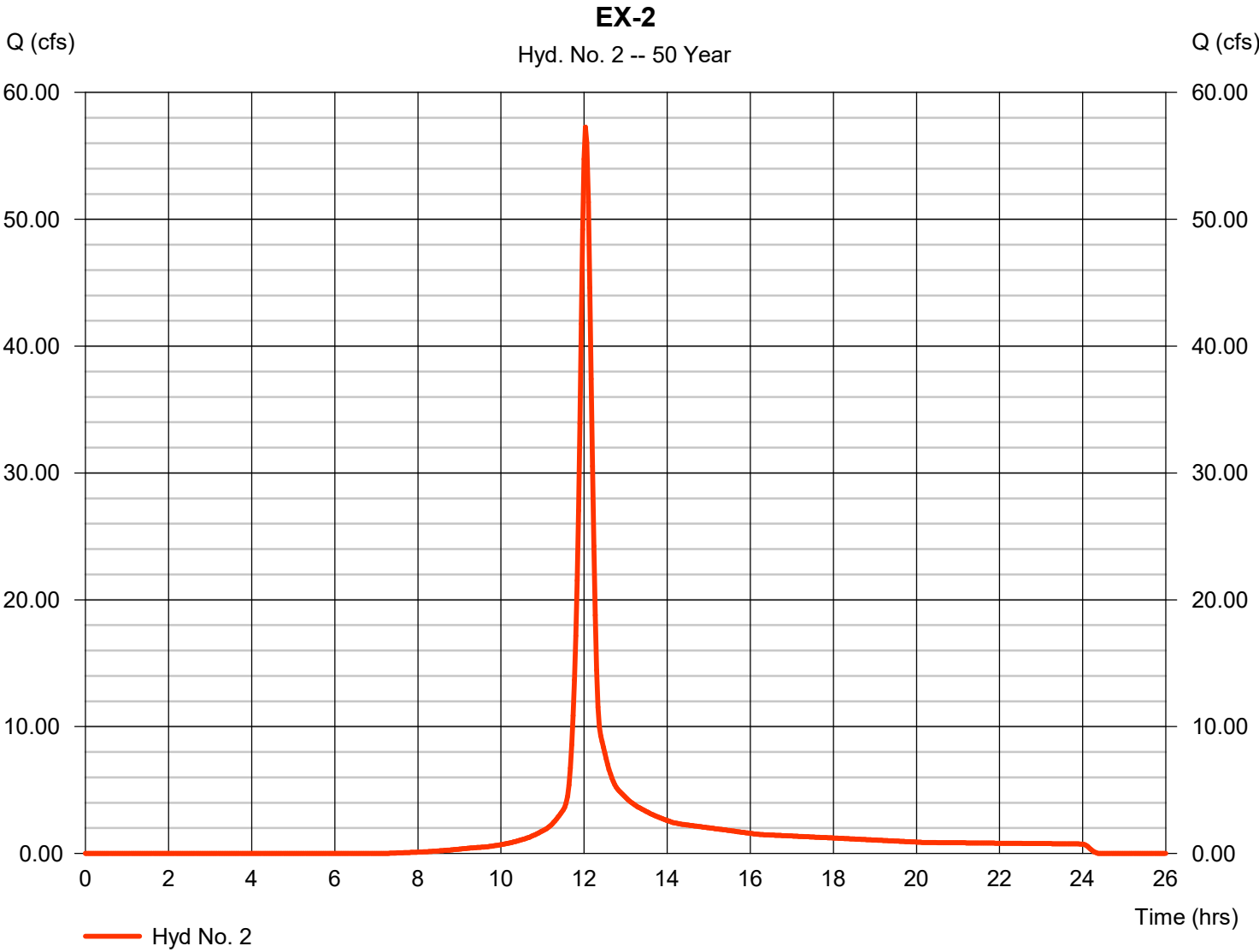


Hydrograph Report

Hyd. No. 2

EX-2

Hydrograph type	= SCS Runoff	Peak discharge	= 57.27 cfs
Storm frequency	= 50 yrs	Time to peak	= 12.03 hrs
Time interval	= 2 min	Hyd. volume	= 160,689 cuft
Drainage area	= 13.050 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 14.00 min
Total precip.	= 6.00 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

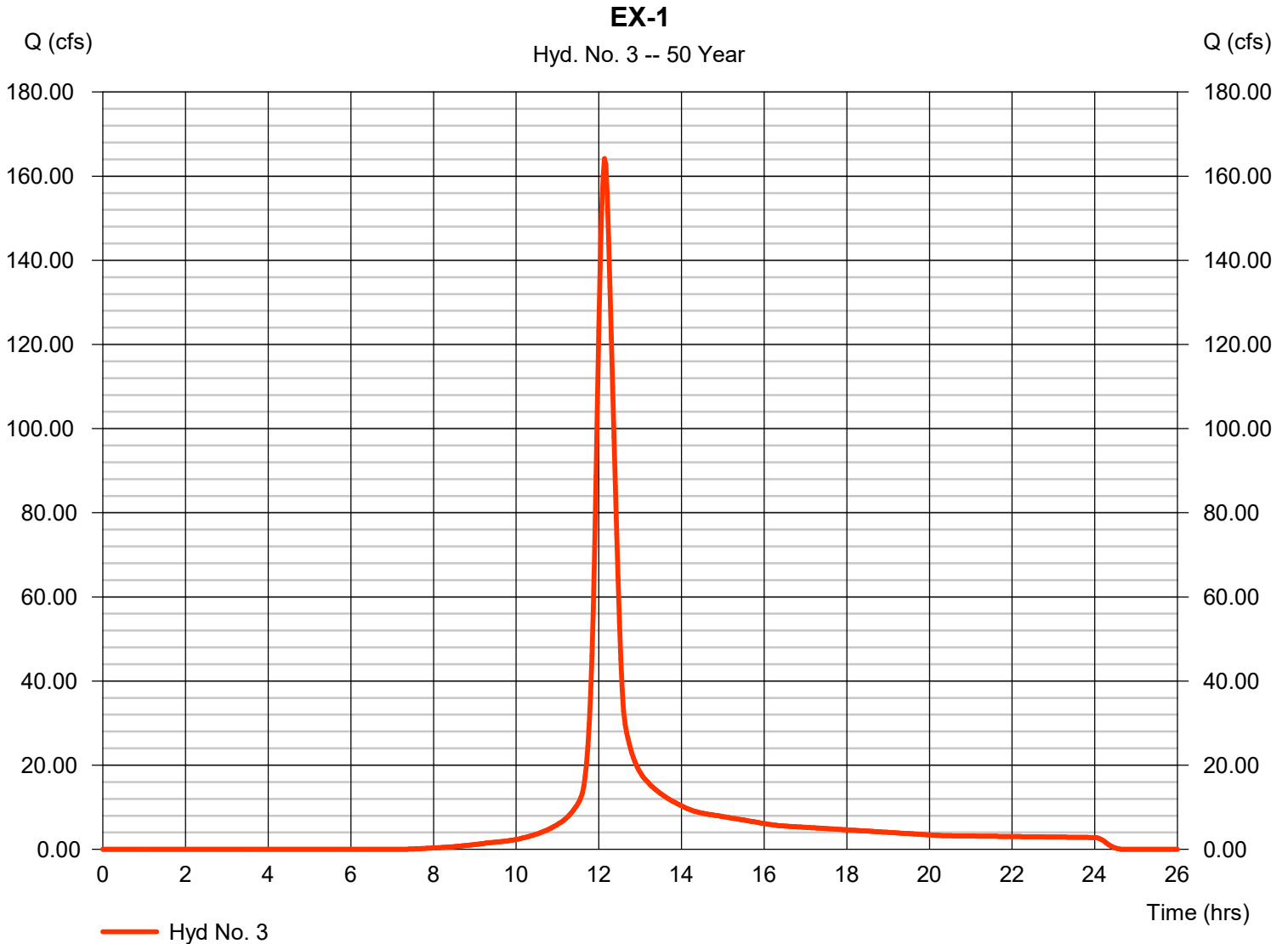
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Monday, 03 / 9 / 2026

Hyd. No. 3

EX-1

Hydrograph type	= SCS Runoff	Peak discharge	= 164.21 cfs
Storm frequency	= 50 yrs	Time to peak	= 12.13 hrs
Time interval	= 2 min	Hyd. volume	= 602,440 cuft
Drainage area	= 48.460 ac	Curve number	= 77
Basin Slope	= 2.0 %	Hydraulic length	= 1000 ft
Tc method	= TR55	Time of conc. (Tc)	= 26.60 min
Total precip.	= 6.00 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

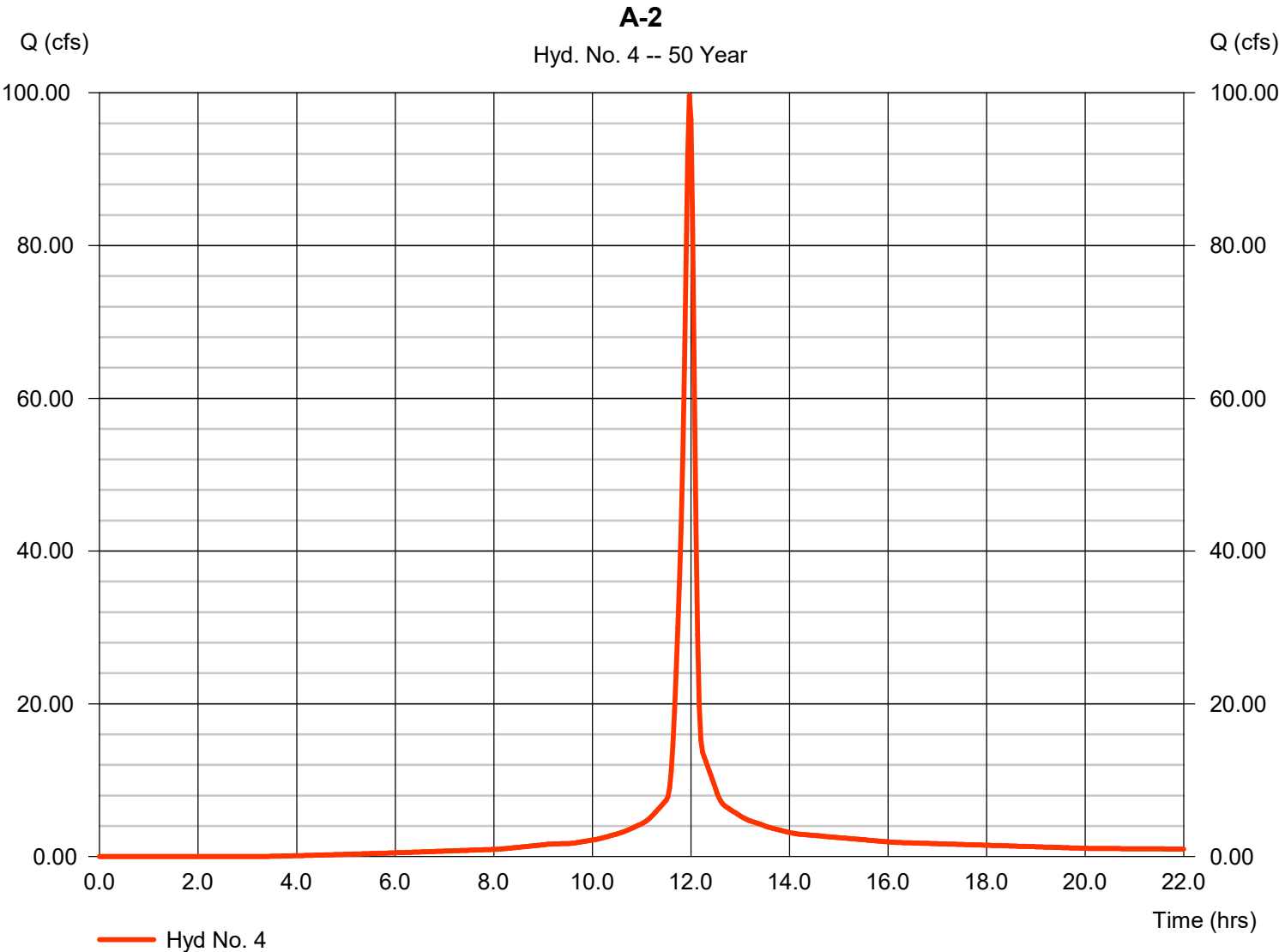


Hydrograph Report

Hyd. No. 4

A-2

Hydrograph type	= SCS Runoff	Peak discharge	= 99.67 cfs
Storm frequency	= 50 yrs	Time to peak	= 11.97 hrs
Time interval	= 2 min	Hyd. volume	= 242,925 cuft
Drainage area	= 13.810 ac	Curve number	= 90
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.60 min
Total precip.	= 6.00 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

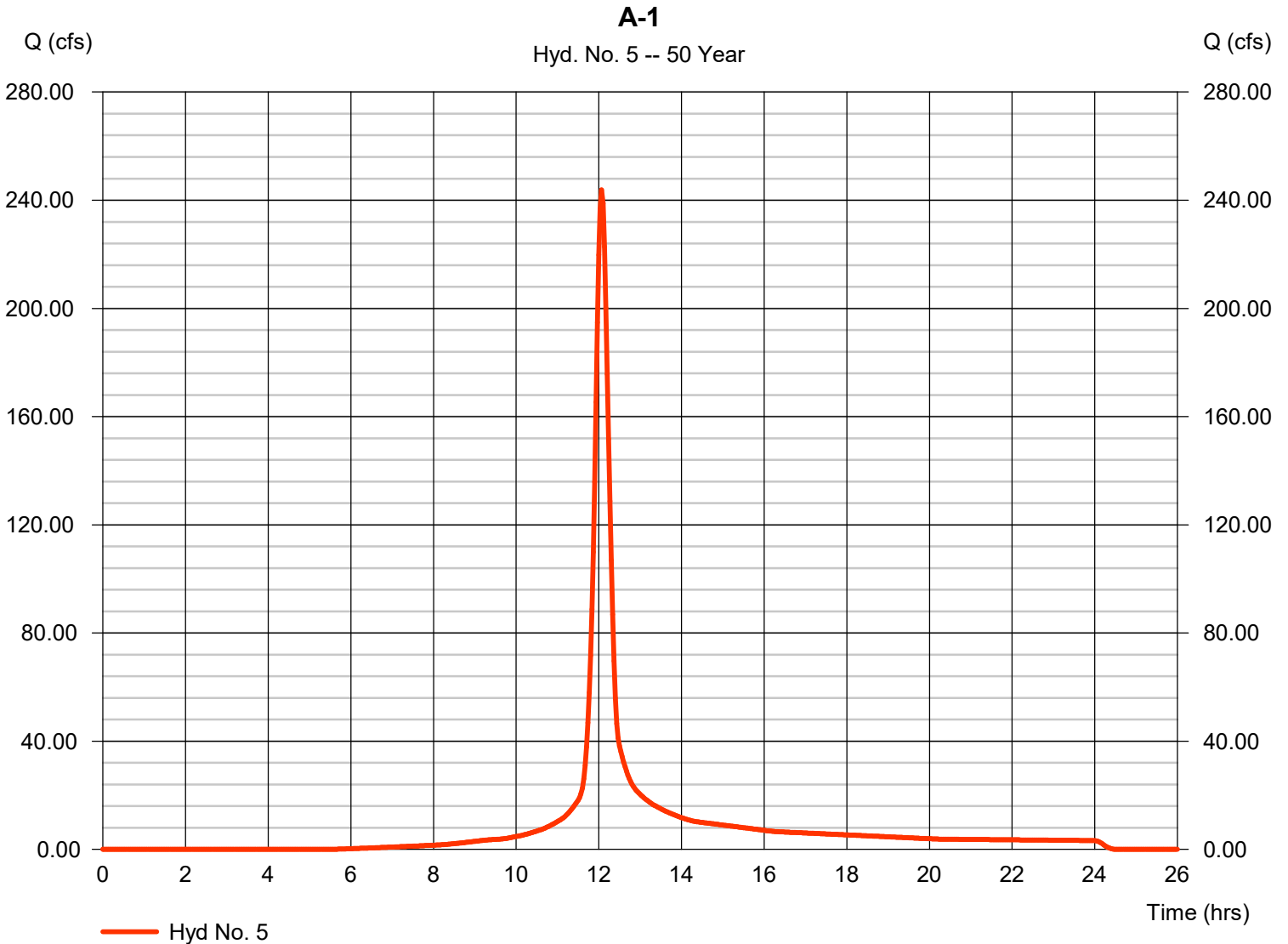
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Monday, 03 / 9 / 2026

Hyd. No. 5

A-1

Hydrograph type	= SCS Runoff	Peak discharge	= 243.84 cfs
Storm frequency	= 50 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 769,911 cuft
Drainage area	= 51.840 ac	Curve number	= 83
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 18.20 min
Total precip.	= 6.00 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Monday, 03 / 9 / 2026

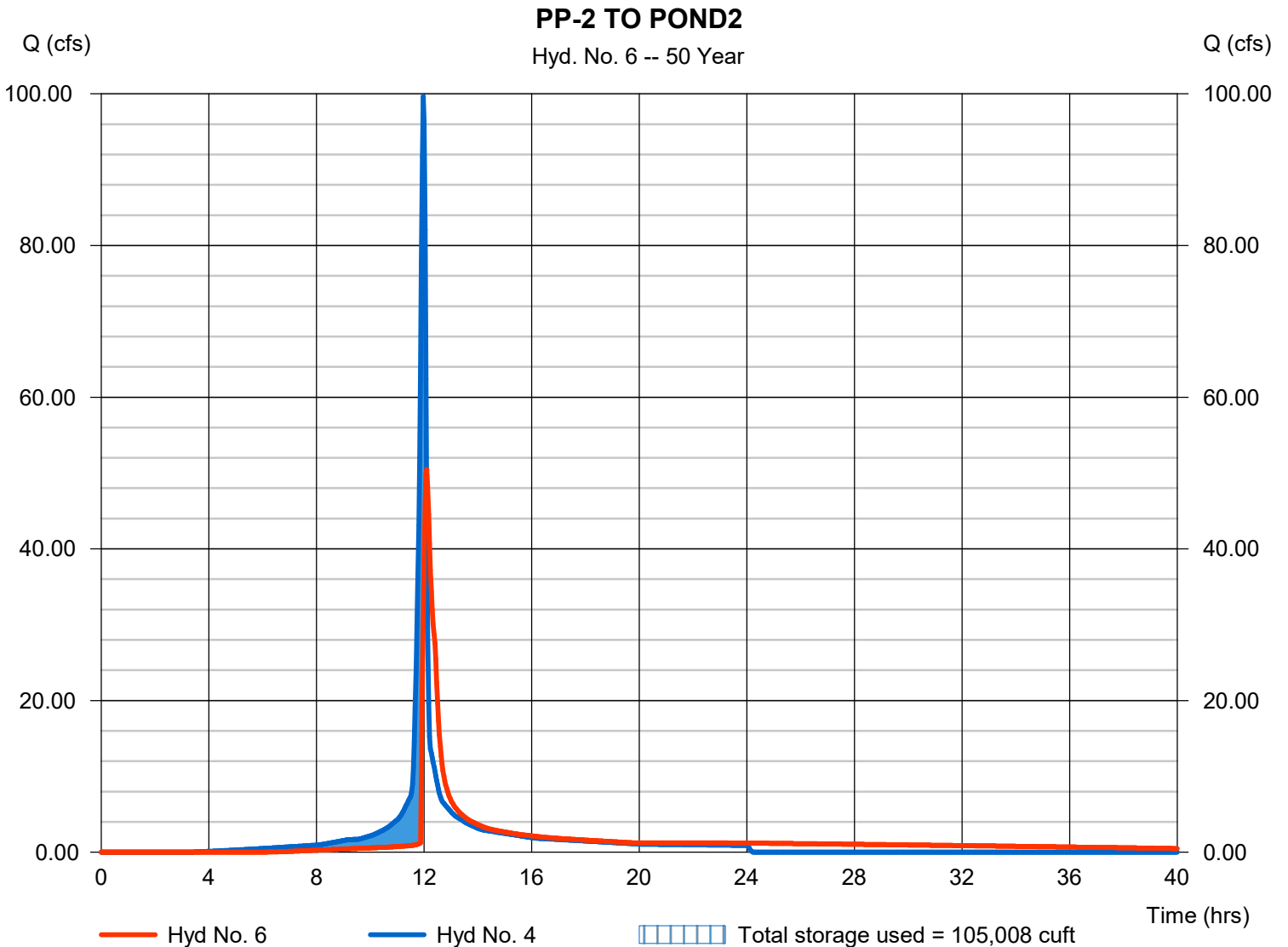
Hyd. No. 6

PP-2 TO POND2

Hydrograph type = Reservoir
Storm frequency = 50 yrs
Time interval = 2 min
Inflow hyd. No. = 4 - A-2
Reservoir name = Pond-2

Peak discharge = 50.45 cfs
Time to peak = 12.10 hrs
Hyd. volume = 241,510 cuft
Max. Elevation = 1143.89 ft
Max. Storage = 105,008 cuft

Storage Indication method used.



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Monday, 03 / 9 / 2026

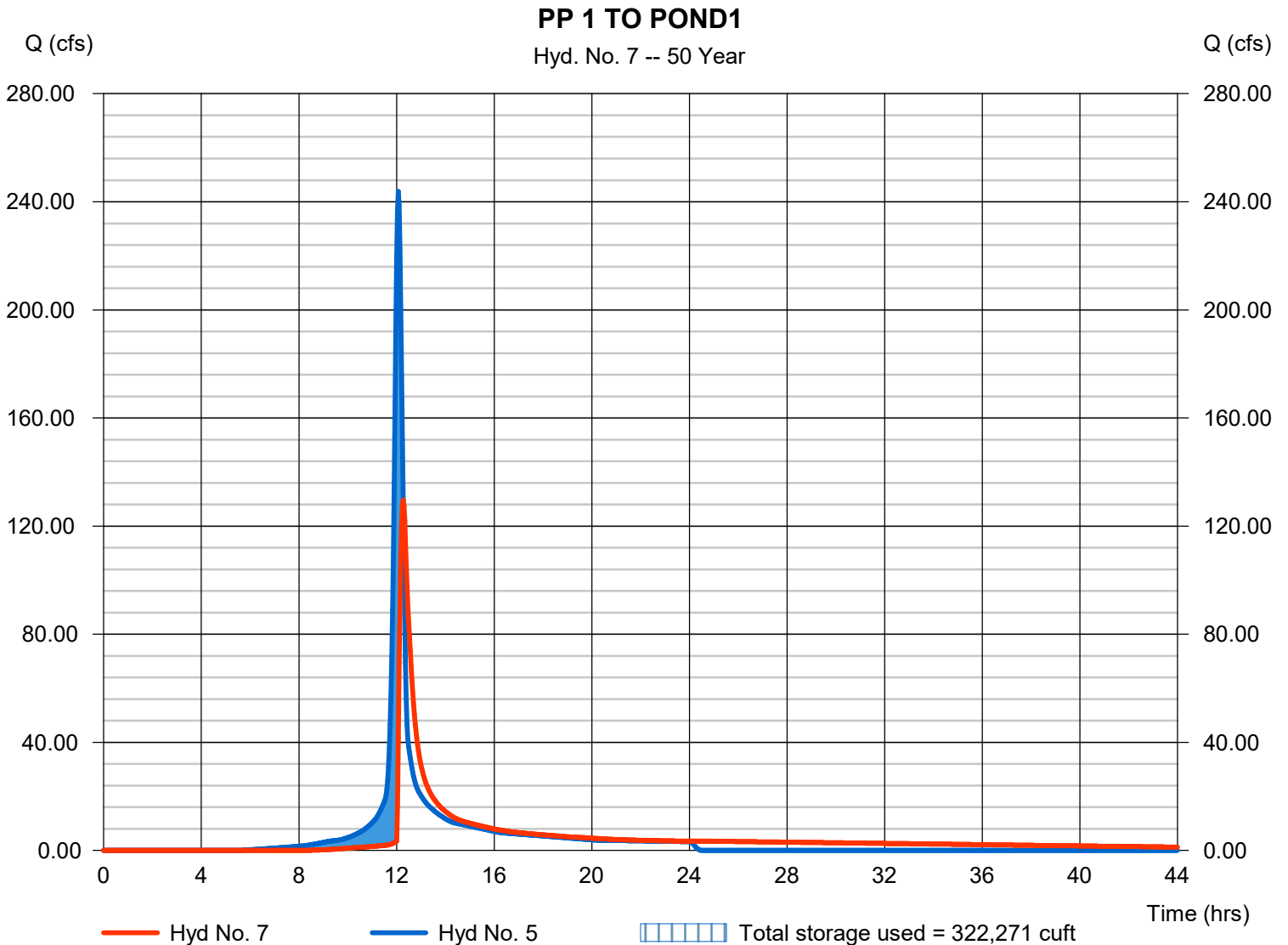
Hyd. No. 7

PP 1 TO POND1

Hydrograph type = Reservoir
 Storm frequency = 50 yrs
 Time interval = 2 min
 Inflow hyd. No. = 5 - A-1
 Reservoir name = Pond-1

Peak discharge = 129.66 cfs
 Time to peak = 12.27 hrs
 Hyd. volume = 764,263 cuft
 Max. Elevation = 1093.99 ft
 Max. Storage = 322,271 cuft

Storage Indication method used.

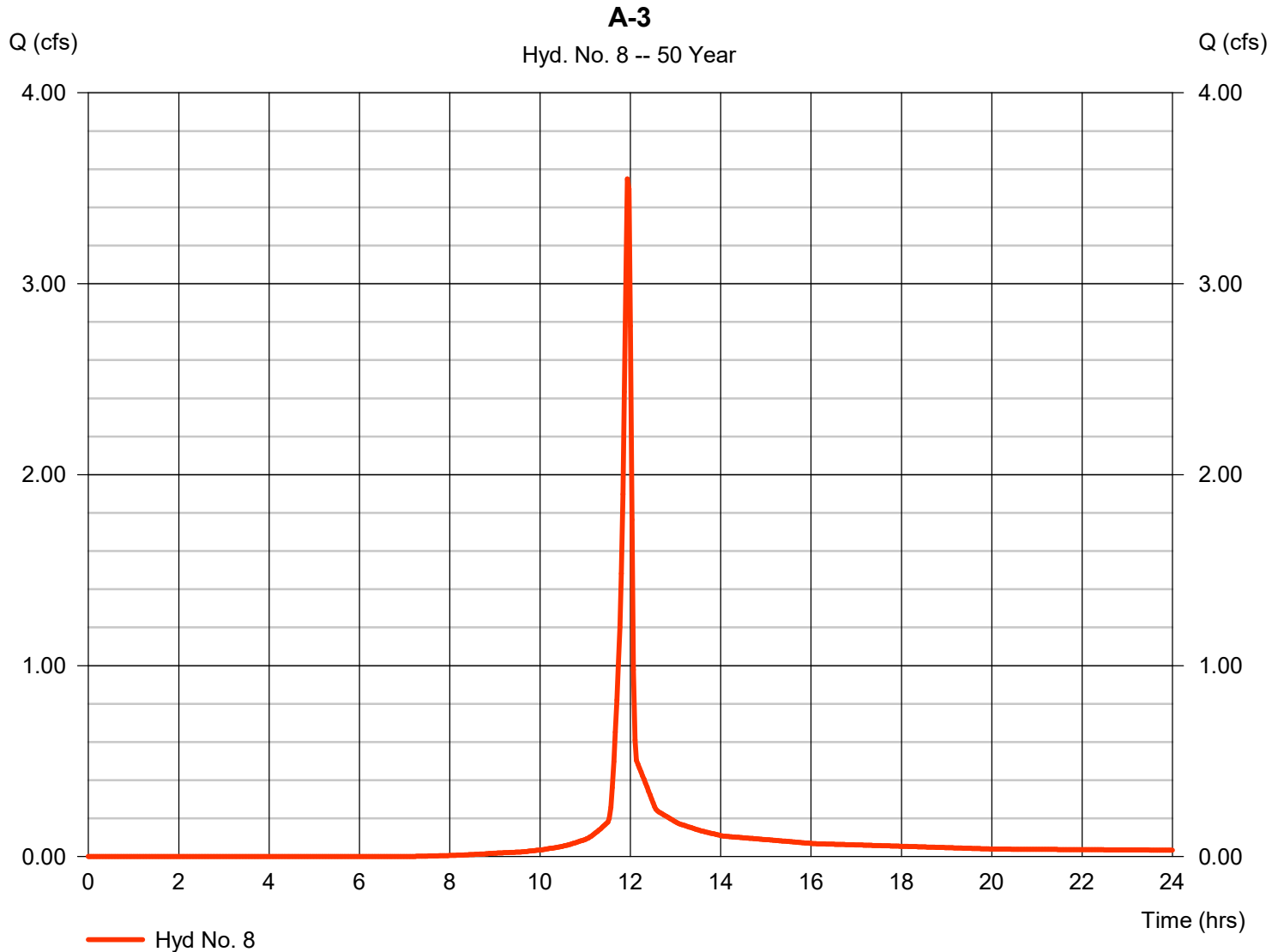


Hydrograph Report

Hyd. No. 8

A-3

Hydrograph type	= SCS Runoff	Peak discharge	= 3.550 cfs
Storm frequency	= 50 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 7,222 cuft
Drainage area	= 0.610 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.00 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

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	7.909	2	716	16,174	-----	-----	-----	EX-3	
2	SCS Runoff	67.27	2	722	189,237	-----	-----	-----	EX-2	
3	SCS Runoff	193.29	2	728	709,471	-----	-----	-----	EX-1	
4	SCS Runoff	112.81	2	718	277,188	-----	-----	-----	A-2	
5	SCS Runoff	281.41	2	724	892,960	-----	-----	-----	A-1	
6	Reservoir	63.60	2	724	275,770	4	1144.25	113,817	PP-2 TO POND2	
7	Reservoir	172.44	2	734	887,306	5	1094.40	348,710	PP 1 TO POND1	
8	SCS Runoff	4.159	2	716	8,505	-----	-----	-----	A-3	
2380-104-PCSMP_Updated_2.gpw					Return Period: 100 Year			Monday, 03 / 9 / 2026		

Hydrograph Report

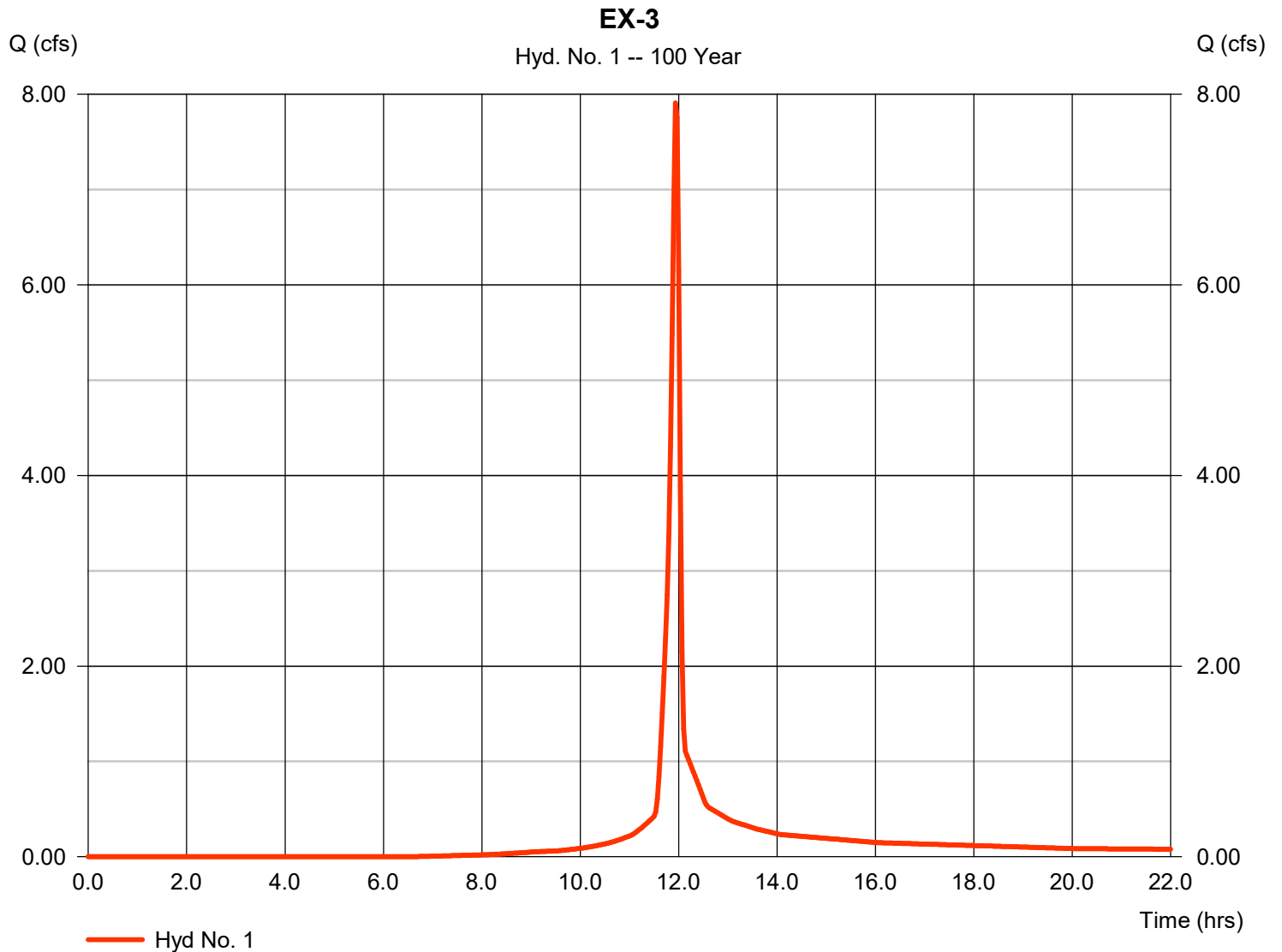
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Monday, 03 / 9 / 2026

Hyd. No. 1

EX-3

Hydrograph type	= SCS Runoff	Peak discharge	= 7.909 cfs
Storm frequency	= 100 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 16,174 cuft
Drainage area	= 1.160 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.70 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

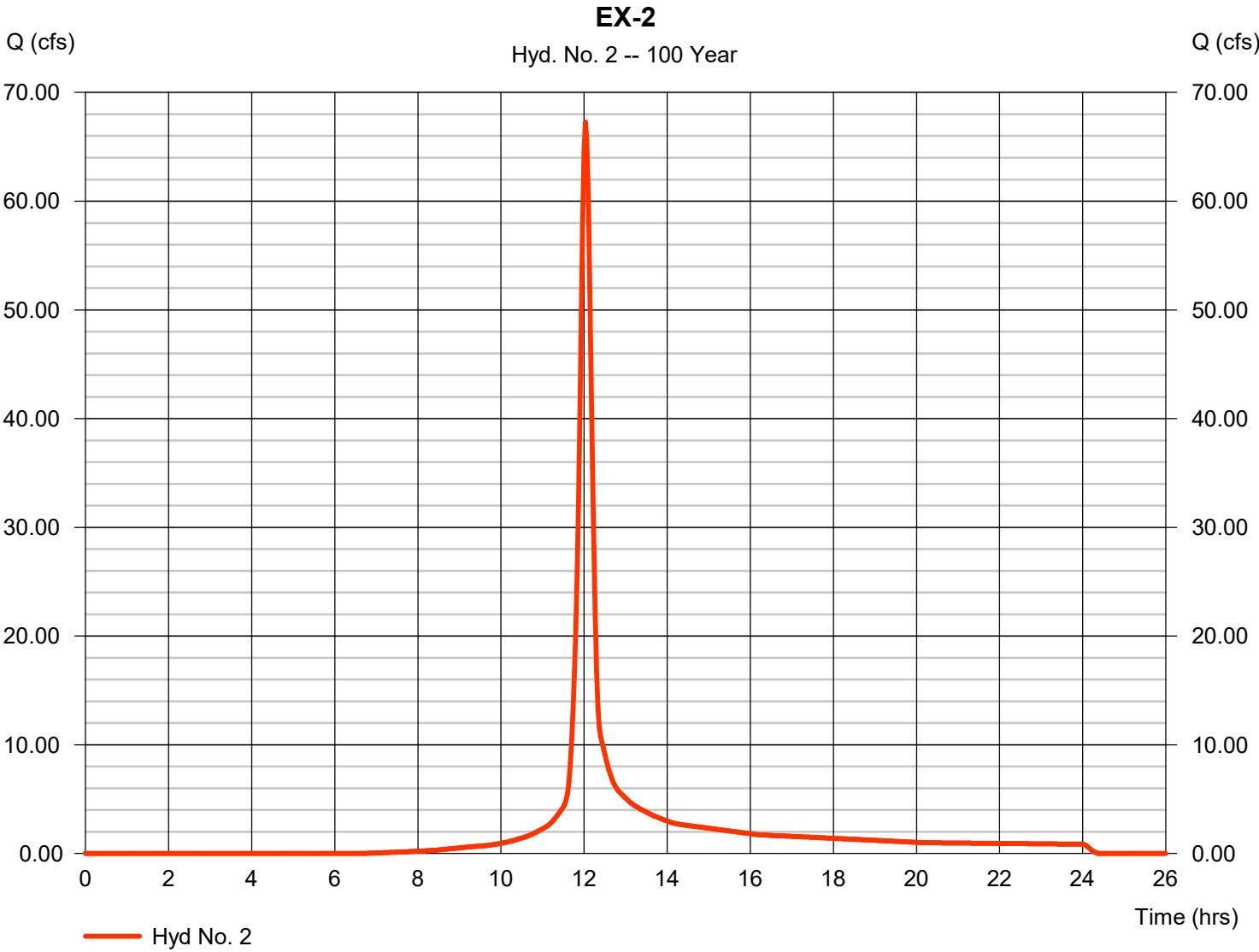


Hydrograph Report

Hyd. No. 2

EX-2

Hydrograph type	= SCS Runoff	Peak discharge	= 67.27 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.03 hrs
Time interval	= 2 min	Hyd. volume	= 189,237 cuft
Drainage area	= 13.050 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 14.00 min
Total precip.	= 6.70 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

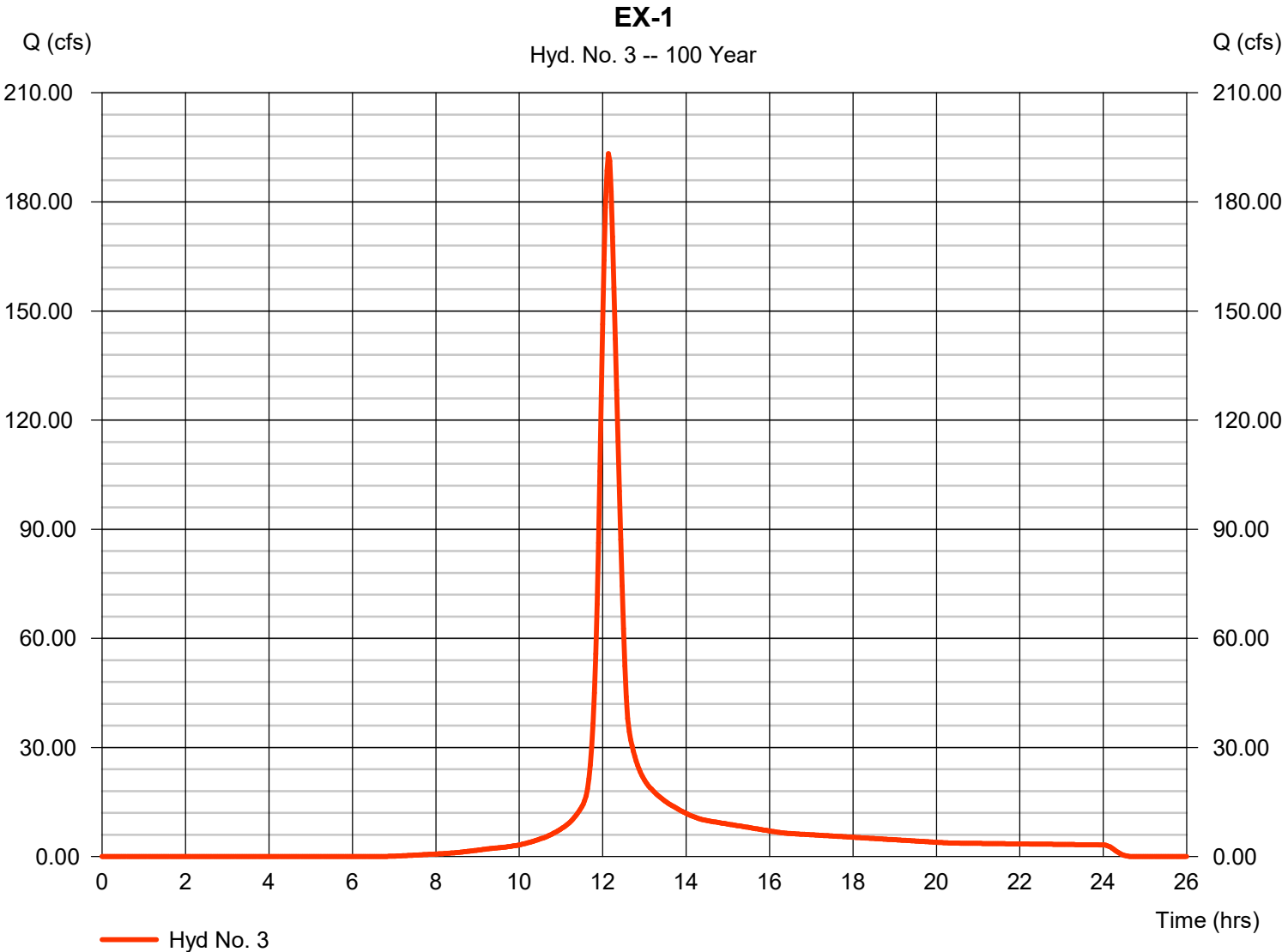


Hydrograph Report

Hyd. No. 3

EX-1

Hydrograph type	= SCS Runoff	Peak discharge	= 193.29 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.13 hrs
Time interval	= 2 min	Hyd. volume	= 709,471 cuft
Drainage area	= 48.460 ac	Curve number	= 77
Basin Slope	= 2.0 %	Hydraulic length	= 1000 ft
Tc method	= TR55	Time of conc. (Tc)	= 26.60 min
Total precip.	= 6.70 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

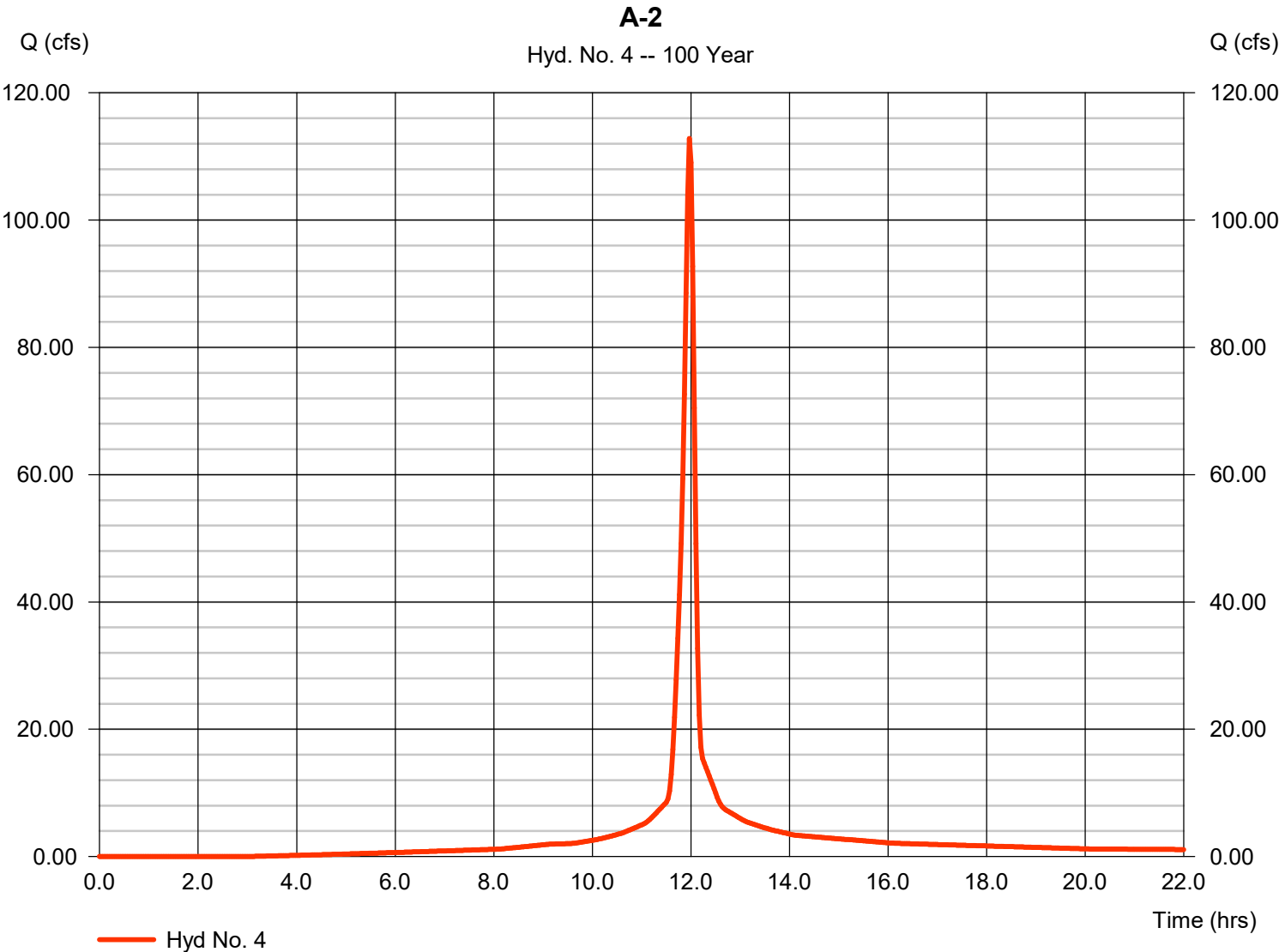


Hydrograph Report

Hyd. No. 4

A-2

Hydrograph type	= SCS Runoff	Peak discharge	= 112.81 cfs
Storm frequency	= 100 yrs	Time to peak	= 11.97 hrs
Time interval	= 2 min	Hyd. volume	= 277,188 cuft
Drainage area	= 13.810 ac	Curve number	= 90
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 6.60 min
Total precip.	= 6.70 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

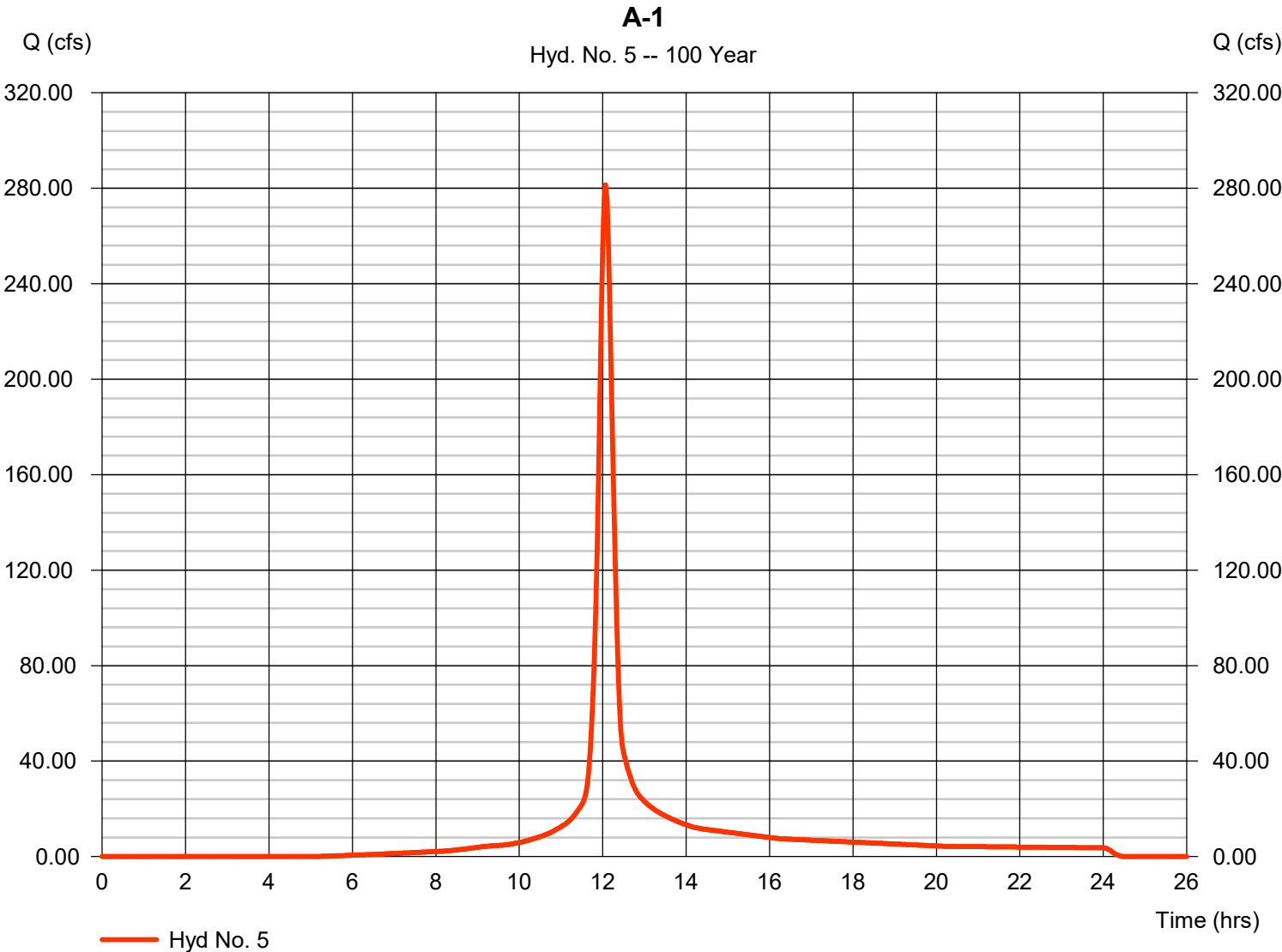


Hydrograph Report

Hyd. No. 5

A-1

Hydrograph type	= SCS Runoff	Peak discharge	= 281.41 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.07 hrs
Time interval	= 2 min	Hyd. volume	= 892,960 cuft
Drainage area	= 51.840 ac	Curve number	= 83
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 18.20 min
Total precip.	= 6.70 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Monday, 03 / 9 / 2026

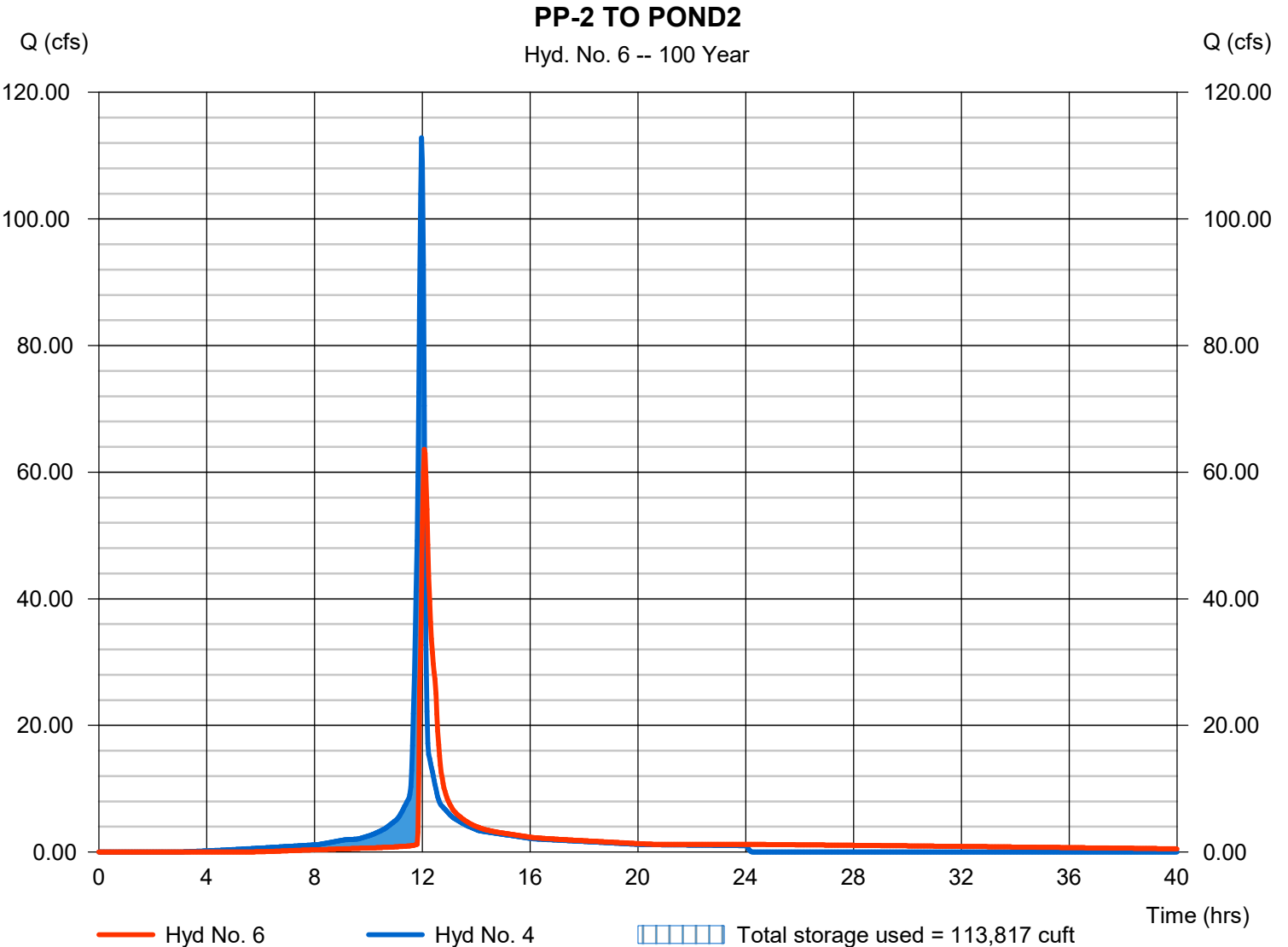
Hyd. No. 6

PP-2 TO POND2

Hydrograph type = Reservoir
 Storm frequency = 100 yrs
 Time interval = 2 min
 Inflow hyd. No. = 4 - A-2
 Reservoir name = Pond-2

Peak discharge = 63.60 cfs
 Time to peak = 12.07 hrs
 Hyd. volume = 275,770 cuft
 Max. Elevation = 1144.25 ft
 Max. Storage = 113,817 cuft

Storage Indication method used.



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

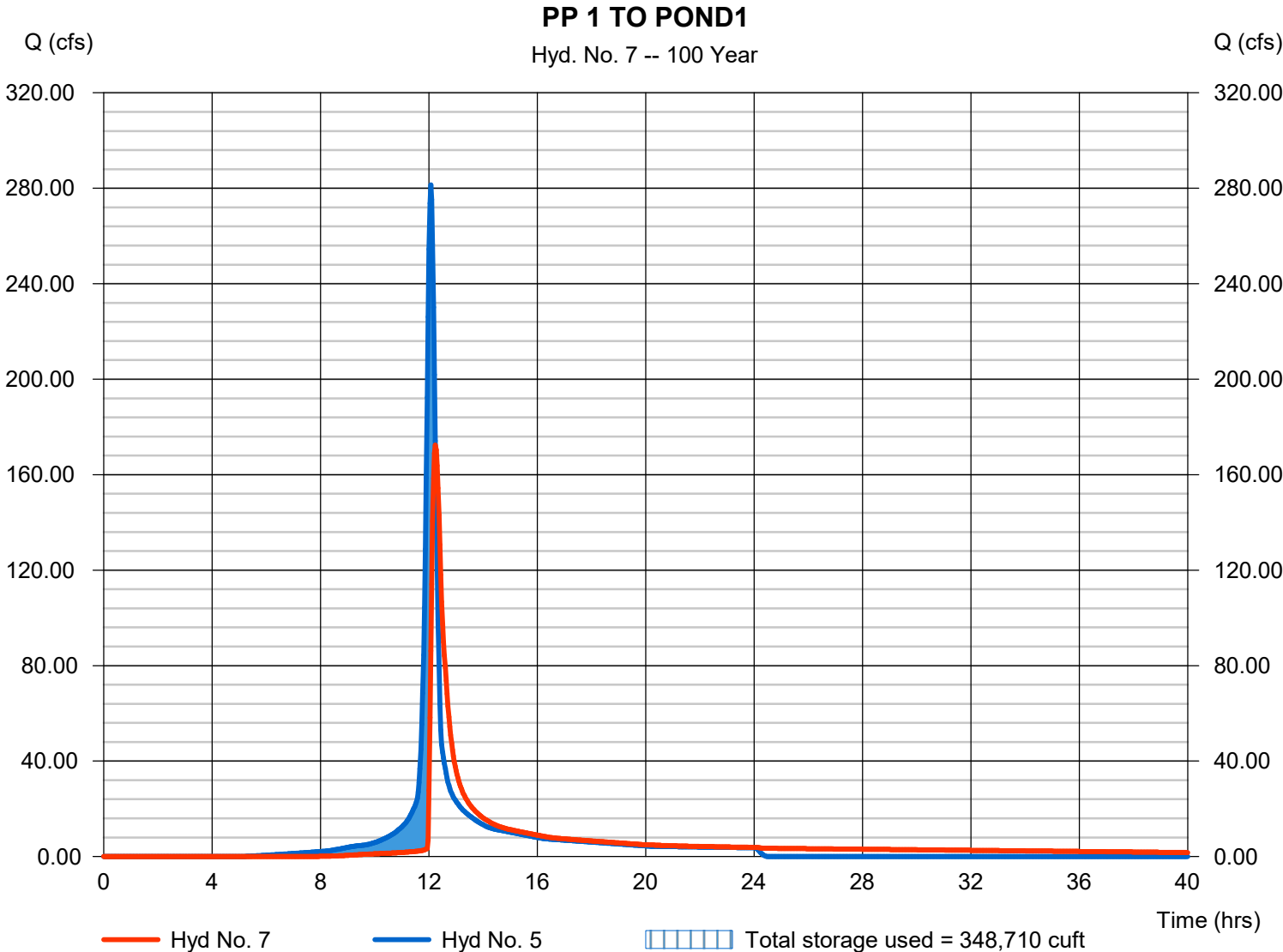
Monday, 03 / 9 / 2026

Hyd. No. 7

PP 1 TO POND1

Hydrograph type	= Reservoir	Peak discharge	= 172.44 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.23 hrs
Time interval	= 2 min	Hyd. volume	= 887,306 cuft
Inflow hyd. No.	= 5 - A-1	Max. Elevation	= 1094.40 ft
Reservoir name	= Pond-1	Max. Storage	= 348,710 cuft

Storage Indication method used.

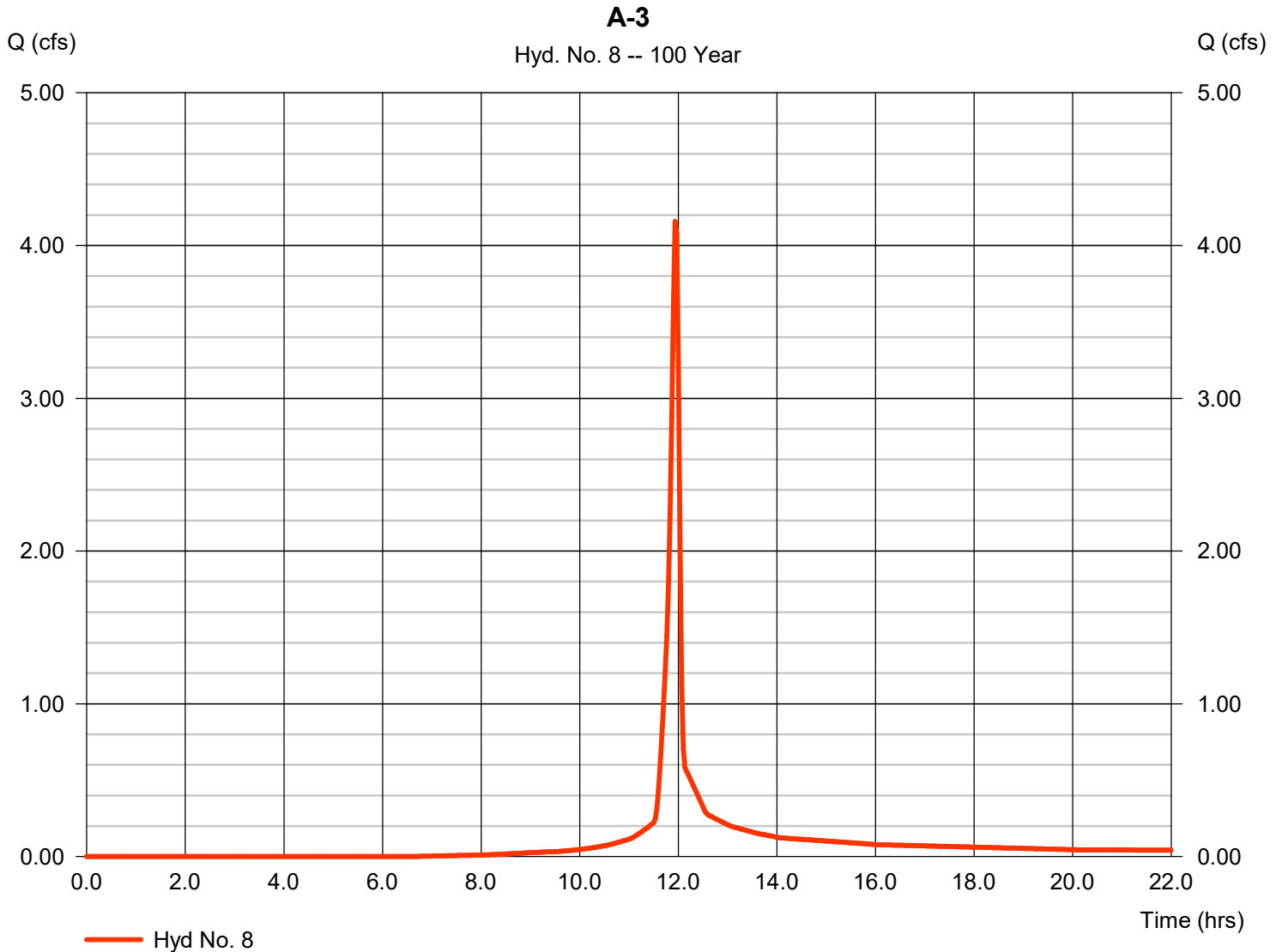


Hydrograph Report

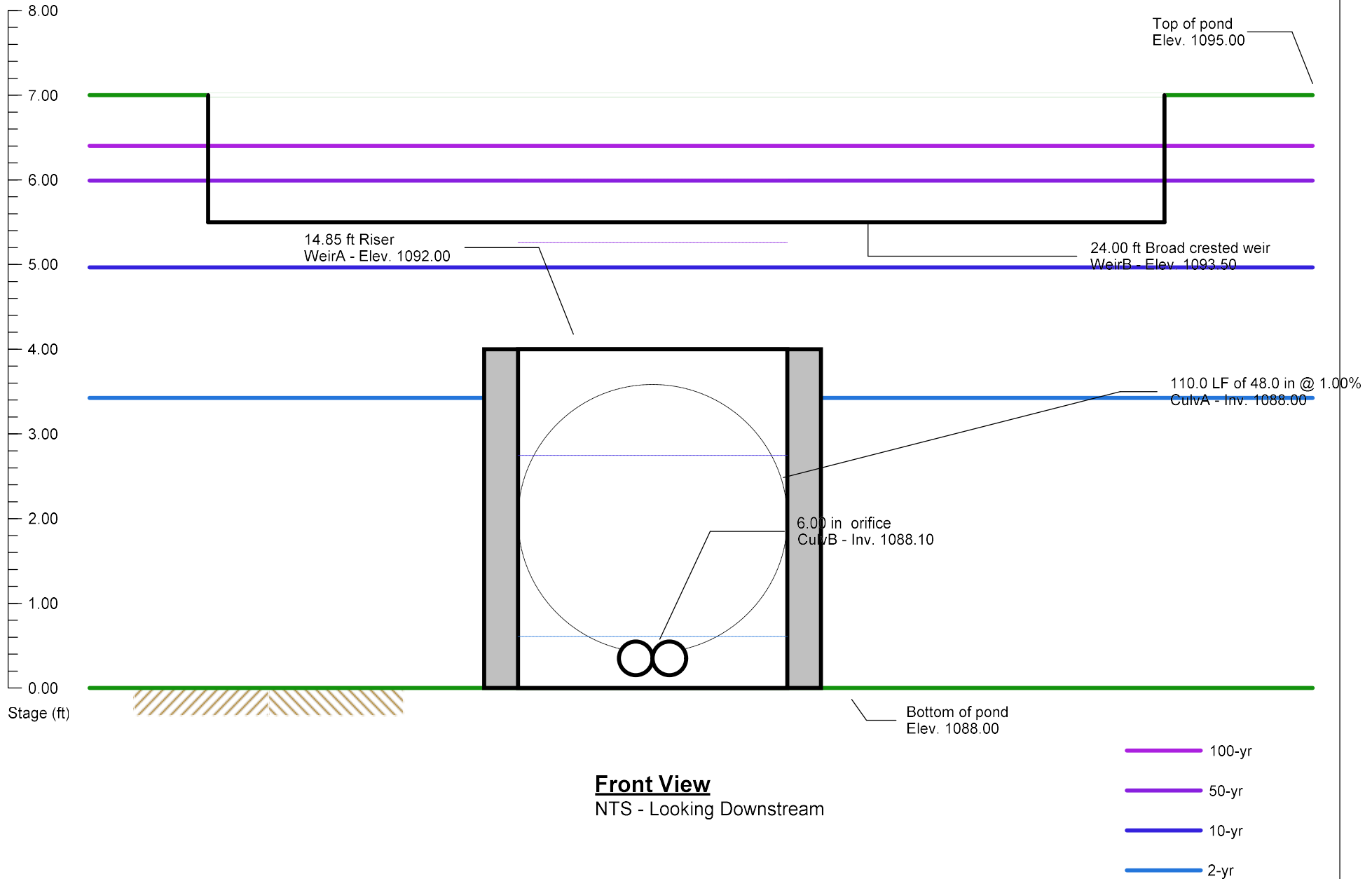
Hyd. No. 8

A-3

Hydrograph type	= SCS Runoff	Peak discharge	= 4.159 cfs
Storm frequency	= 100 yrs	Time to peak	= 11.93 hrs
Time interval	= 2 min	Hyd. volume	= 8,505 cuft
Drainage area	= 0.610 ac	Curve number	= 77
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 6.70 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Pond No. 1 - Pond-1



Front View
NTS - Looking Downstream

Inflow hydrograph = 5. SCS Runoff - A-1

Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

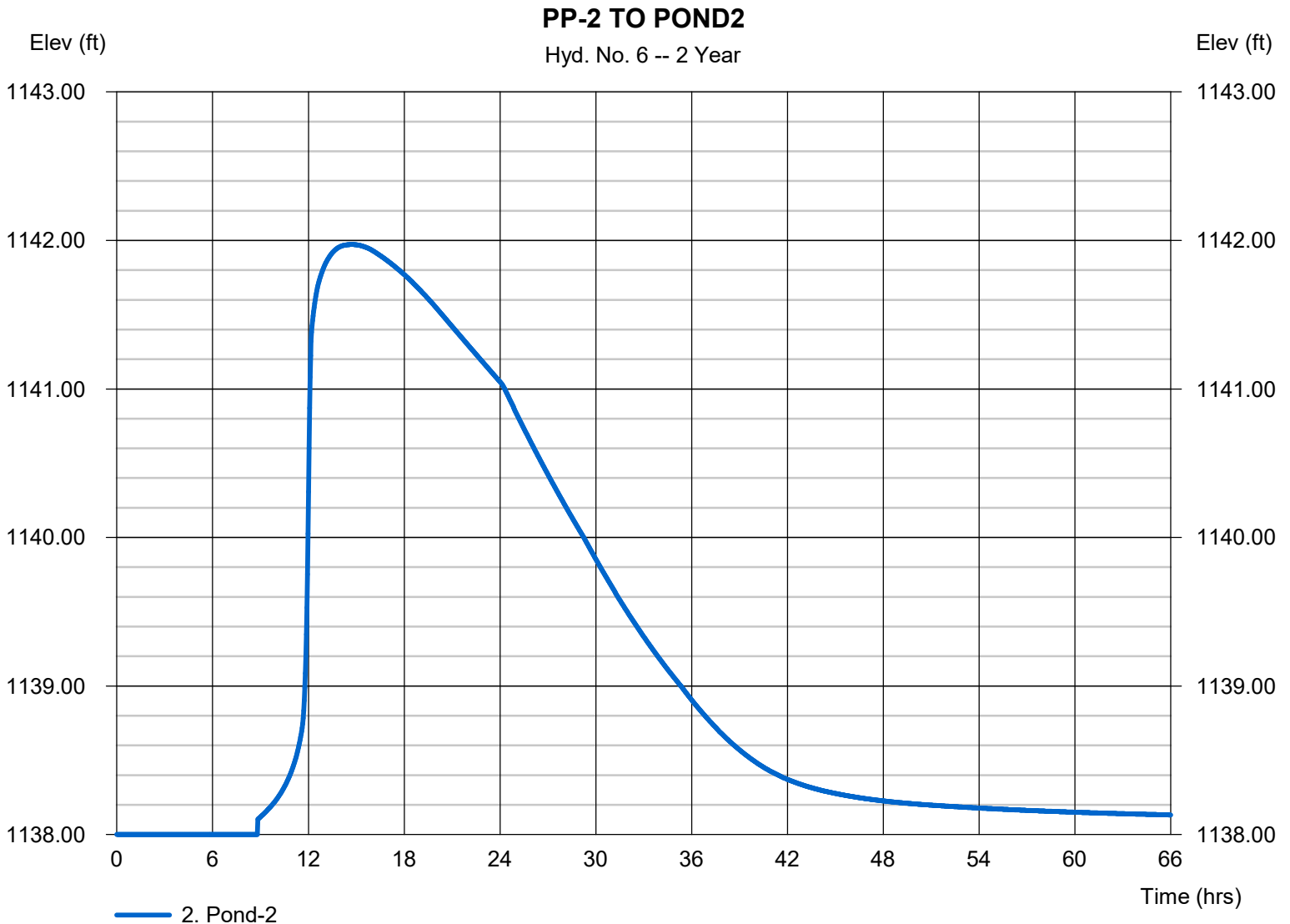
Monday, 03 / 9 / 2026

Hyd. No. 6

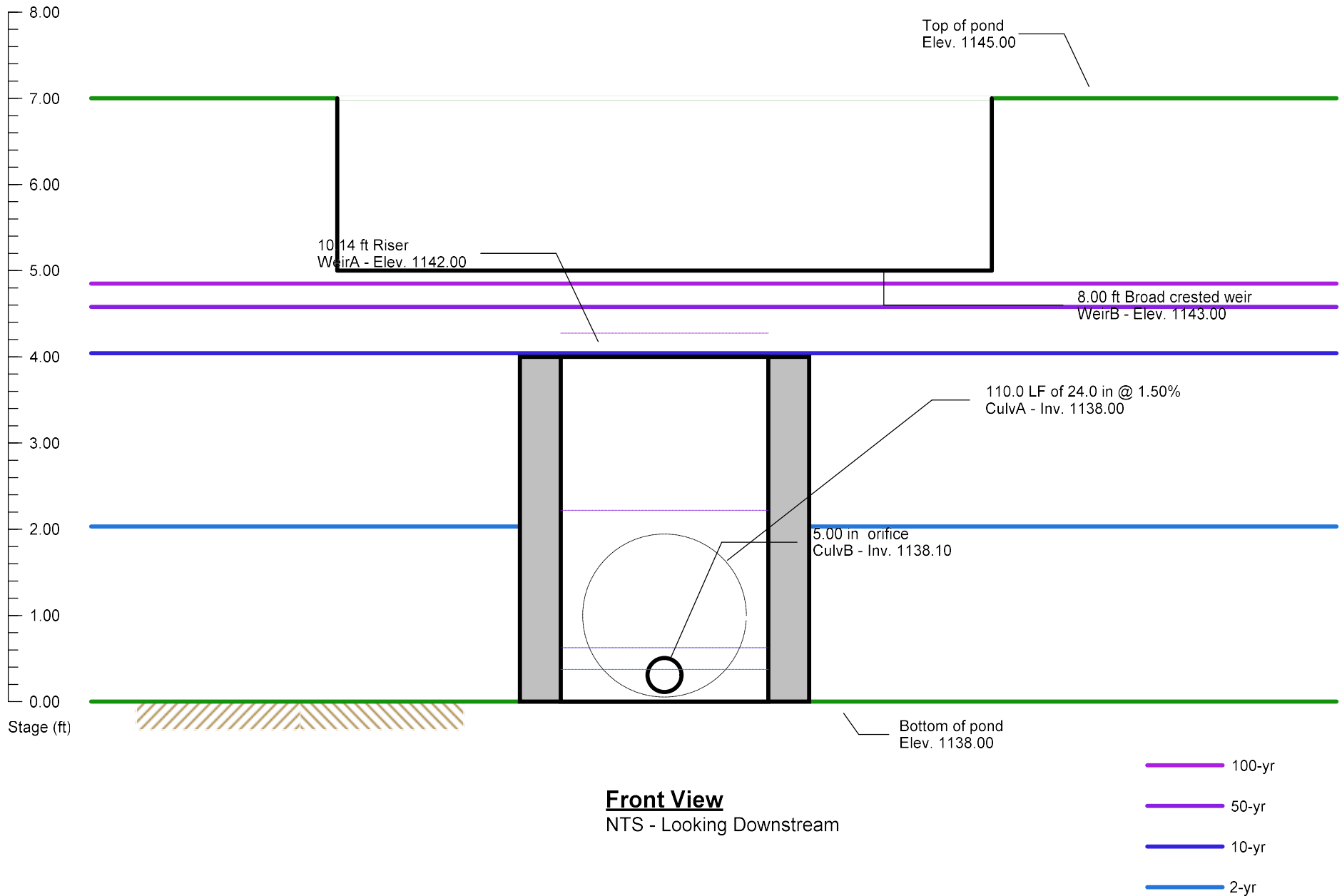
PP-2 TO POND2

Hydrograph type	= Reservoir	Peak discharge	= 1.232 cfs
Storm frequency	= 2 yrs	Time to peak	= 14.67 hrs
Time interval	= 2 min	Hyd. volume	= 98,061 cuft
Inflow hyd. No.	= 4 - A-2	Max. Elevation	= 1141.97 ft
Reservoir name	= Pond-2	Max. Storage	= 63,811 cuft

Storage Indication method used.



Pond No. 2 - Pond-2



Front View
NTS - Looking Downstream

Inflow hydrograph = 6. Reservoir - PP-2 TO POND2

Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Monday, 03 / 9 / 2026

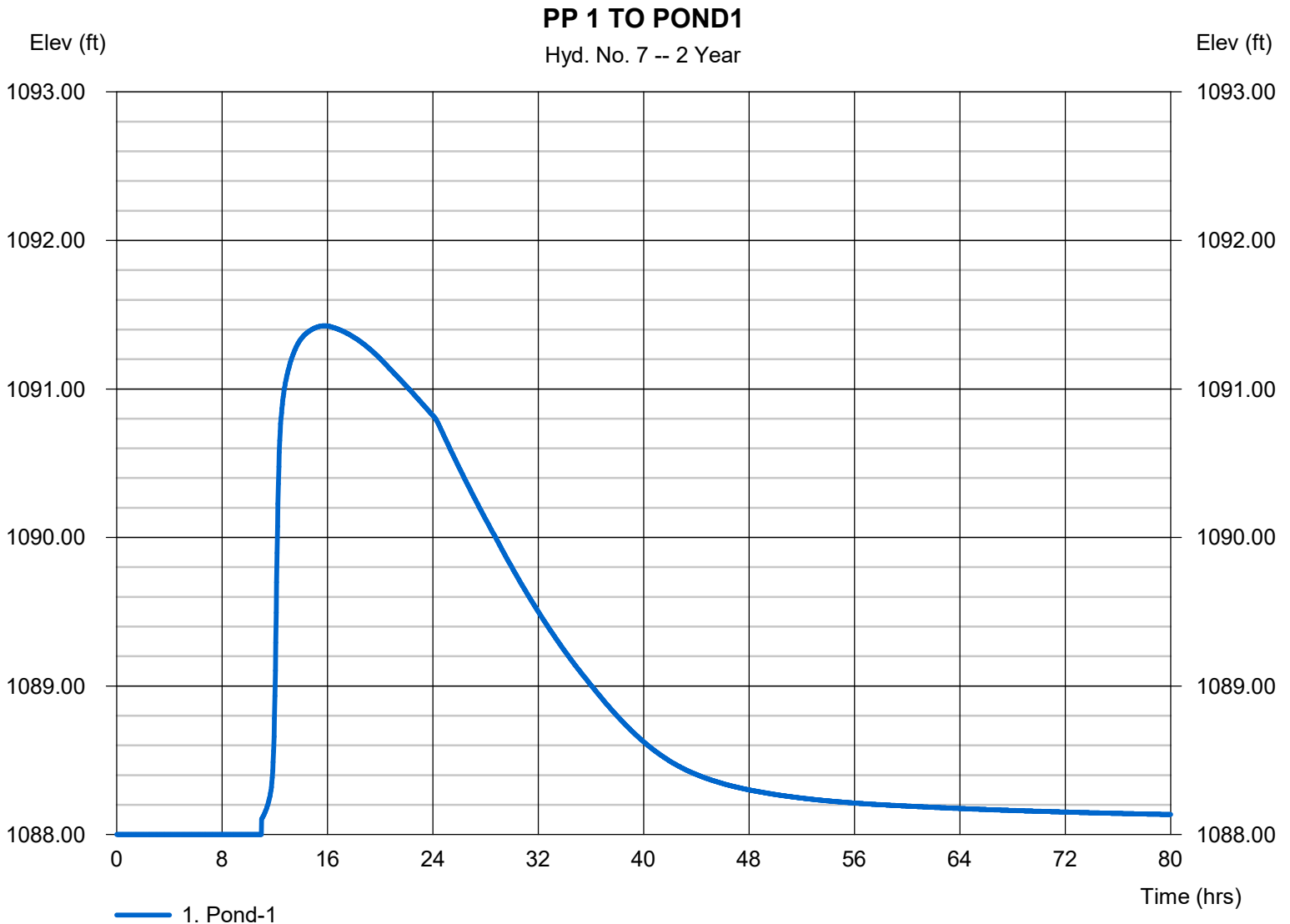
Hyd. No. 7

PP 1 TO POND1

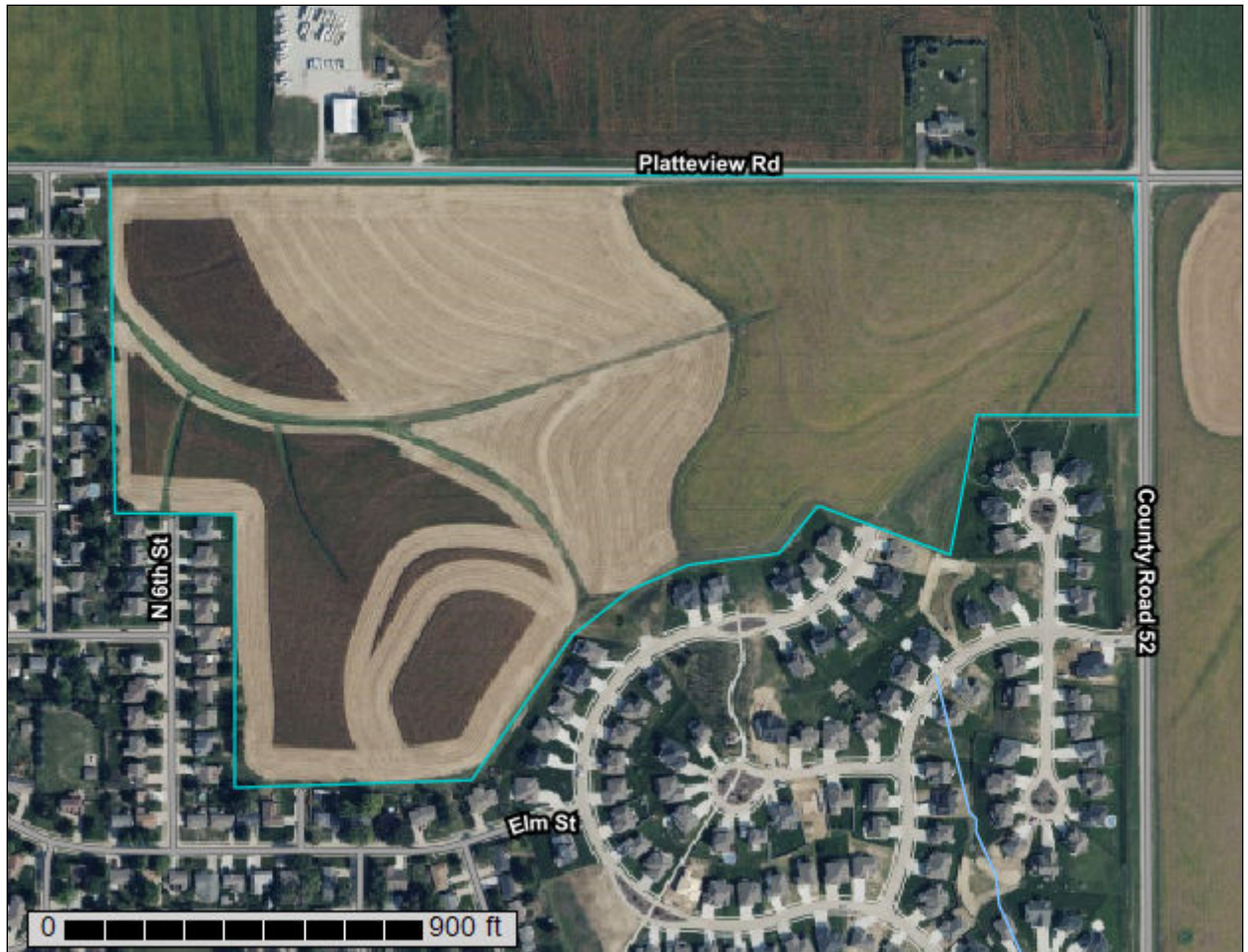
Hydrograph type = Reservoir
Storm frequency = 2 yrs
Time interval = 2 min
Inflow hyd. No. = 5 - A-1
Reservoir name = Pond-1

Peak discharge = 3.178 cfs
Time to peak = 15.73 hrs
Hyd. volume = 266,806 cuft
Max. Elevation = 1091.42 ft
Max. Storage = 171,754 cuft

Storage Indication method used.



Custom Soil Resource Report for Sarpy County, Nebraska



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

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scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

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identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

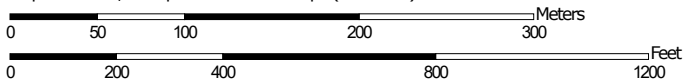
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map




Map Scale: 1:4,330 if printed on A landscape (11" x 8.5") sheet.




Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

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 1:12,000.

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: Sarpy County, Nebraska
 Survey Area Data: Version 19, Sep 8, 2025

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

Date(s) aerial images were photographed: Data not available.

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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
7234	Judson silty clay loam, 2 to 6 percent slopes	0.0	0.0%
8035	Marshall-Contrary silty clay loams, 2 to 7 percent slopes	27.4	44.0%
8153	Contrary-Marshall silty clay loams, 6 to 11 percent slopes	35.0	56.0%
Totals for Area of Interest		62.4	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

Custom Soil Resource Report

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Sarpy County, Nebraska

7234—Judson silty clay loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 2sy70
Elevation: 960 to 1,350 feet
Mean annual precipitation: 30 to 32 inches
Mean annual air temperature: 50 to 51 degrees F
Frost-free period: 160 to 170 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Judson and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Judson

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Silty colluvium

Typical profile

Ap - 0 to 9 inches: silty clay loam
A - 9 to 22 inches: silty clay loam
AB - 22 to 28 inches: silty clay loam
Bt - 28 to 35 inches: silty clay loam
BC - 35 to 52 inches: silty clay loam
C - 52 to 79 inches: silty clay loam

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 10 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 11.6 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Ecological site: R107XB008MO - Loamy Footslope Savanna
Hydric soil rating: No

Minor Components

Kennebec, occasionally flooded

Percent of map unit: 14 percent
Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R107XB0251A - Loamy Floodplain Prairie
Hydric soil rating: No

Ackmore, occasionally flooded

Percent of map unit: 4 percent
Landform: Flood plains
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R107XB019MO - Wet Floodplain Prairie
Hydric soil rating: No

Kezan, occasionally flooded

Percent of map unit: 2 percent
Landform: Flood plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R107XB019MO - Wet Floodplain Prairie
Hydric soil rating: Yes

8035—Marshall-Contrary silty clay loams, 2 to 7 percent slopes

Map Unit Setting

National map unit symbol: 1vfg4
Elevation: 800 to 1,300 feet
Mean annual precipitation: 24 to 36 inches
Mean annual air temperature: 39 to 61 degrees F
Frost-free period: 155 to 175 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Marshall and similar soils: 59 percent
Contrary and similar soils: 41 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Marshall

Setting

Landform: Loess hills

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Landform position (two-dimensional): Shoulder, summit

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex

Across-slope shape: Convex, linear

Parent material: Fine-silty noncalcareous loess

Typical profile

Ap - 0 to 7 inches: silty clay loam

A - 7 to 18 inches: silty clay loam

Bw - 18 to 47 inches: silty clay loam

C - 47 to 80 inches: silty clay loam

Properties and qualities

Slope: 2 to 7 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: High (about 11.9 inches)

Interpretive groups

Land capability classification (irrigated): 3e

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C

Ecological site: R107XB007MO - Loess Upland Prairie

Hydric soil rating: No

Description of Contrary

Setting

Landform: Loess hills

Landform position (two-dimensional): Shoulder, summit

Landform position (three-dimensional): Interfluve

Down-slope shape: Convex

Across-slope shape: Convex, linear

Parent material: Fine-silty loess

Typical profile

Ap - 0 to 7 inches: silty clay loam

Bw - 7 to 55 inches: silty clay loam

C - 55 to 80 inches: silty clay loam

Properties and qualities

Slope: 2 to 7 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 5 percent

Available water supply, 0 to 60 inches: High (about 11.6 inches)

Interpretive groups

Land capability classification (irrigated): 3e

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C

Ecological site: R107XB002MO - Deep Loess Upland Prairie

Hydric soil rating: No

8153—Contrary-Marshall silty clay loams, 6 to 11 percent slopes

Map Unit Setting

National map unit symbol: 1vfgk

Elevation: 800 to 1,300 feet

Mean annual precipitation: 24 to 36 inches

Mean annual air temperature: 39 to 61 degrees F

Frost-free period: 155 to 175 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Contrary and similar soils: 55 percent

Marshall and similar soils: 39 percent

Minor components: 6 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Contrary

Setting

Landform: Loess hills

Landform position (two-dimensional): Shoulder, backslope, summit

Landform position (three-dimensional): Interfluve, side slope, nose slope, head slope

Down-slope shape: Convex

Across-slope shape: Convex, linear

Parent material: Fine-silty loess

Typical profile

Ap - 0 to 7 inches: silty clay loam

Bw - 7 to 55 inches: silty clay loam

C - 55 to 80 inches: silty clay loam

Properties and qualities

Slope: 6 to 12 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

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Calcium carbonate, maximum content: 5 percent
Available water supply, 0 to 60 inches: High (about 11.6 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R107XB002MO - Deep Loess Upland Prairie
Hydric soil rating: No

Description of Marshall

Setting

Landform: Loess hills
Landform position (two-dimensional): Shoulder, backslope, summit
Landform position (three-dimensional): Interfluve, side slope, nose slope, head slope
Down-slope shape: Convex
Across-slope shape: Convex, linear
Parent material: Fine-silty noncalcareous loess

Typical profile

Ap - 0 to 7 inches: silty clay loam
A - 7 to 18 inches: silty clay loam
Bw - 18 to 47 inches: silty clay loam
C - 47 to 80 inches: silty clay loam

Properties and qualities

Slope: 6 to 12 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 11.9 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R107XB007MO - Loess Upland Prairie
Hydric soil rating: No

Minor Components

Ida

Percent of map unit: 6 percent
Landform: Loess hills
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Head slope, side slope, nose slope
Down-slope shape: Convex
Across-slope shape: Convex, linear
Ecological site: R107XB012MO - Calcareous Loess Upland Prairie
Hydric soil rating: No

Custom Soil Resource Report

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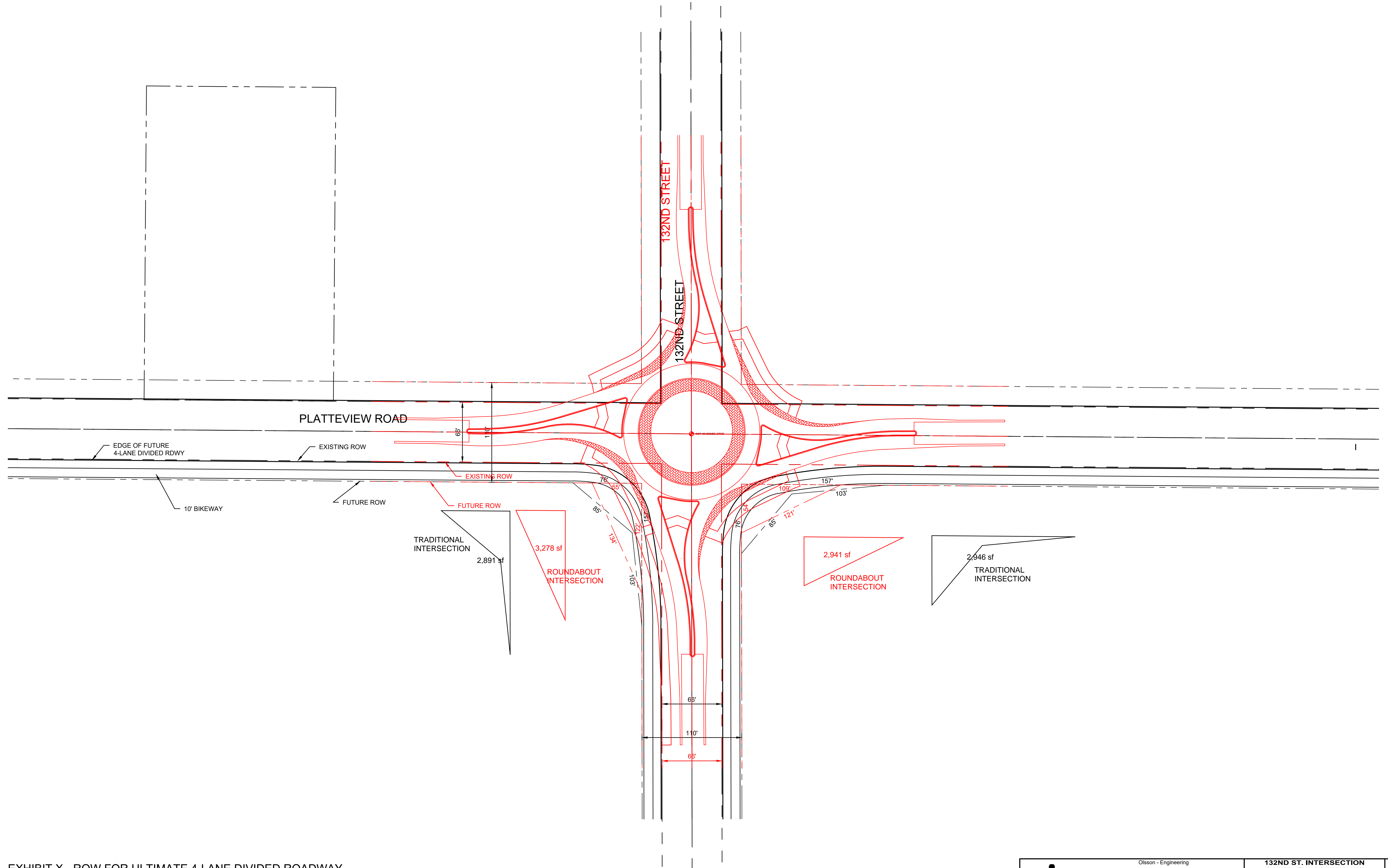
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SECTION 2



DWG: F:\2024\04001-04500\024-04177-A\40-Design\AutoCAD\Final Plans\Xref\T_PBASE_ALT_Ultimate_A2404177.dwg
 USER: mpeters
 DATE: February 2, 2026

EXHIBIT X - ROW FOR ULTIMATE 4-LANE DIVIDED ROADWAY

