



SPRINGFIELD

NEBRASKA

December 30, 2025

SYNOPSIS OF PROFESSIONAL STAFF COMMENTS FOR PLANNING COMMISSION & CITY COUNCIL

Lot 1 and Outlots A & B, Springfield Industrial

**Arun Agarwal (Owner)/Tribedo LLC (Subdivider)/Thompson Dreessen & Dorner (Agent)
Final Plat Application**

Thompson Dreessen & Dorner (“TD2”) (“Agent”) submitted the following documents on December 8, 2025, on behalf of Tribedo LLC (“Subdivider”) related to the property legally described as the East ½ of the Northwest Quarter of Section 14, Township 13 North, Range 11 East of the 6th P.M., Sarpy County, Nebraska, owned by Arun Agarwal (“Owner”):

1. Final Plat Checklist
2. Final Plat Application

The following exhibits were also provided:

1. Final Plat & Exhibits
 - a. Sanitary Sewer Plan
 - b. Sanitary Sewer Calculations
 - c. Sanitary Sewer Outfall Plan
 - d. Storm Sewer Plan
 - e. Paving Plan
 - f. Street Profile
2. Preliminary Drainage Study & PCSMP Calculations

Owner/Subdivider/Agent request the following in order to subdivide the land into an industrial development:

1. Final Plat of Lot 1 and Outlots A & B, Springfield Industrial

The documents were forwarded to the 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, Ryan Saunders (Springfield Platteview Community Schools), Sarpy County (Admin/Engineering/Public Works), Sarpy County Emergency Management Agency, Sarpy County GIS, Sarpy County Sheriff, and Chad Zimmerman (Springfield Fire Chief). Below is a synopsis of their comments.

Bill Seidler, Jr., City Attorney

City to develop a Subdivision Agreement, containing at least the City standard provisions, between the Subdivider and the City.

Jeff Ray, City Planner

No additional Planning comments for 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. Recommend a boundary adjustment application be submitted to the Agency board to consider amending and adjusting the phase boundary of the current Master Plan to include the entire parcel within the Phase 1A service area since the entire parcel is proposed to be serviced by Phase 1A. Considering the proposed extension of the localized outfall sewer to this development area bisects nearly the entire SC-7 subbasin, it may be prudent to include all of SC-7 into the Phase 1A service area.
 - a. Based on the current Agency Master Plan and the natural topography of the property, approximately 11 acres of the northeast corner of the parcel lies within the Phase 1A service area and the balance of the property, approximately 67 acres, lies within the “Long Term/Future” service area of the Agency. The “Long Term/Future” service area, identified in the Preliminary Engineering Report (PER) dated March 26, 2019 and revised November 23, 2020 is also referred to as Phase 3. While no formal or definitive timeline has been established for Phase 3 the PER suggested a design year of 40 years.
 - b. This application should be submitted and considered by the Agency board prior to final plat approval by the City of Springfield.
2. Recommend a grow zone boundary adjustment application be submitted to the Agency board for consideration to amend and adjust the growth boundary zone to include the entire parcel, including the entire SC-7 subbasin into the Phase 1A service area as outlined in **item 1 above**, within the Urban Development Zone (UDZ).
 - a. Based on the current Growth Management Plan, approximately 11 acres of the northeast corner of the parcel lies within the UDZ and the balance of the property, approximately 67 acres, lies within the Urban Reserve Zone (URZ).

Items 1 and 2 may be considered within the same application for simplification and these should be submitted prior to final plat approval by the City of Springfield.

3. It appears that the development proposal is showing the extension of outfall sewer through Lot 1 Southern Sarpy Acres, is consistent with the general location of the “Future” Master Plan Infrastructure of the Agency infrastructure which would support the SC-7 subbasin.
 - a. Agency staff could support the proposed alignment location with the understanding that the Agency would have no further infrastructure obligations within the SC-7 subbasin as modified (**see attached SC-7 Adjusted Boundary 12-9-25.pdf**).
 - b. In other words, the development alignment would supersede the current Agency Master Plan alignment in its entirety.



- c. The Masterplan changes requested within **item 1 above** would adjust that alignment accordingly in the Master Plan. This application should be submitted and considered by the Agency board prior to final plat approval by the City of Springfield.
- 4. No updated source and use of funds was provided as part of this final plat submittal.
 - a. Please provide more thorough detail on the specific expenses and proposed reimbursables, as well as any financial expectation for the Agency now or in the future.
 - b. If reimbursement of any portion of the outfall sewer outlined in **item 3 above** is expected, please provide an outline of what and/or how that reimbursement requested proposal would be structured.
 - i. This should be submitted and considered by the Agency board prior to final plat approval by the City of Springfield.
- 5. Upon further review of the Concept Refinement Basis of Design Technical Memorandum (TM), along with a consultation with HDR, there is not enough full flow design capacity at the proposed SCI manhole currently being shown however connection at or further downstream of SCI MH 18 would be permissible (**See attached HDR Review Sarpy Co Interceptor Combined Set 10-29-2021_jr.pdf**).
 - a. Land uses from this development area were assumed “industrial” based on the future land use plans provided by the City of Springfield at the time of the Agency’s initial system design. The estimated flow rate for that land use was approximately 1,879 GPD to the SC-3 subbasin and 62,408 GPD to the SC-7 subbasin. <https://scacwa.maps.arcgis.com/apps/instant/basic/index.html?appid=6307929e69234ac58f8eb18b6e533fda>.
 - b. Based on the current proposed layout, all flow from this development is being proposed to flow through the SC-7 subbasin generating a total proposed peak design flow of 2.14 MGD for the entire SC-7 subbasin. The TM for the Springfield Creek Interceptor Sewer (SCI) dated November 19, 2020 estimated approximately 2.18 MGD from Subbasin SC-7; however, its connection to that interceptor was proposed approximately 2,270 LF further south than the current proposed connection location.
- 6. Future developments 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. Should the addition of the SC-7 subbasin or even just this particular development from the SC-7 subbasin be added to the Phase 1A service area, more capacity would be utilized within what was previously proposed as the Phase 1A service.
 - b. The “timing” of development not happening across the entire service area all at once helps alleviate this concern however as more development builds out throughout the service area, additional pumps may need to be added at the lift station sites. The SCI line was designed for full system build out, so there should be no concern with that portion of the system.
- 7. City to provide the sewer connection agreement between the City of Springfield and the development area at the time of the final plat submittal.
- 8. Agent to provide an AutoCAD file of the final plat at the time of the final plat submittal.



- a. Based on the current final plat, the estimated Agency connection fees due at the time of the final plat will be \$484,031.71 (**see attached Springfield Industrial Sr. Fee Calcs_12-9-25.pdf**).
- b. Should **item 2 above** be pursued and the development area is moved within the UDZ, only half (½) of the connection fees would be due at the time of the platting equaling \$242,015.86 with the second half becoming due at the time of building permits for each lot being built upon.
 - 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, future fiscal years rates shall apply.
- c. The City of Springfield may have their own connection fee charge for the development on top of the Agency charges which is perfectly understandable; however, confirmation would help clarify the "reimbursables" relative to the sewer costs in the submittal.

9. 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 65% of the total acres of any residential to be developable with 5 EDU's per acre.
 - b. Based on the current final plat information, this development equates to a ratio of approximately 55%, which is less than planned. It should be noted that the preliminary plat suggested the further development of the surrounding property which would likely increase that ratio.
10. Recommend further due diligence within the development area after testing to confirm and ensure inflow and infiltration (I & I) is not encountered.
 - a. Recent developments 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.
11. The City of Springfield may also want to consider the following items:
 - a. The preliminary plat exhibits suggested an additional drive or public roadway west of Lot 1 which does not currently appear to be part of this final plat submittal.
 - b. The final plat submittal does not dedicate a sanitary sewer easement along the western property line as shown in some of the final plat exhibits.
 - c. If it is anticipated there will be future street connections to 150th Street to the properties to the east, Outlot B may become an issue as it segregates the 150th Street ROW eastern properties.

Brian Schuele, City Engineer w/ Olsson

1. The following documents were not included in the submittal and need to be provided prior to City Council approval.
 - a. Statement of estimated costs and financial assumptions for any possible sanitary and improvement districts (SID) connection fees.
 - b. Source and Use of Funds



- c. Draft subdivision agreement.
- d. Draft roadway agreement with Sarpy County.
- e. Bond, escrow, or security agreement.

2. The following documents were not included in the submittal and need to be provided prior to recording of the final plat.

- a. Final construction plans and specifications of improvements.
- b. Geotechnical Report.

3. Final Plat

- a. Final plat needs to show access easement obtained from the property owner to the west for the construction of the shared private entrance drive.
 - i. A draft of this easement needs to be submitted for city review, and an executed copy will need to be submitted prior to recording of the final plat.
 - ii. Subdivider to provide written evidence that adjacent property owner is willing to grant the easement prior to City Council approval.
- b. Final plat needs to show ROW dedication obtained from the property owner to the east for the construction of 150th Street.
 - i. A draft of this dedication needs to be submitted for city review, and an executed copy will need to be submitted prior to recording of the final plat.
 - ii. Subdivider to provide written evidence that adjacent property owner is willing to dedicate the ROW prior to city council approval.
- c. Final plat needs to show and label all easements, with a note stating that easements shall be recorded via a separate document.

4. Final Plat Exhibits

- a. Show sidewalks on Paving Plan.
 - i. Sidewalks adjacent to outlots will need to be constructed with the streets.
 - ii. Sidewalks adjacent to lots can be constructed at the time each lot develops.

5. PCSMP Drainage Study

- a. Development appears to meet the PCSMP requirements.
- b. A more detailed review of the plans will be performed by the city engineer as the plat moves forward.

MUD

No comments.

NDOT

No comments received.

OPPD

No additional comments.

Papio Missouri River Natural Resources District

No comments.



Sarpy County Admin

1. City to add the following to the Subdivision Agreement:
 - a. The County will not participate in any costs associated with 150th Street.
 - b. The County Engineer will need to review the design for 150th Street since it will be an SID street.
 - c. Subdivider is required to **contribute 25% of the cost of the signalization of 150th and Fairview Road** intersection if/when determined necessary by County Engineer or City of Springfield in the future.
 - d. County will not participate in any costs associated with the unnamed street on the west side of the development.
 - e. Subdivider is required to **pay County for one-lane of Fairview Road based on the development's frontage**. Third lane is projected to be added in 2027 construction season.
 - f. Subdivider is required **to pay the cost of right-turn lanes, if needed, at the west unnamed street and 150th Street.**
2. County will pursue a separate road **Interlocal Agreement with the development/SID.**

Sarpy County Engineer/Public Works

1. The second paragraph in the Surveyor's Certificate states "THENCE S0°249'20"E (ASSUMED BEARING) 74.97 FEET ON THE EAST LINE OF THE NW 1/4 OF SAID SECTION 14 TO THE SOUTH RIGHT OF WAY LINE OF FAIRVIEW ROAD AND THE POINT OF BEGINNING;
 - a. Agent to replace ASSUMED BEARING with ASSUMED FROM STATE PLANE? 2° TWIST.
2. Agent to indicate survey type under Agent name and address in upper right-hand corner.
 - a. (See attached **ACTUAL FINAL PLAT - Springfield Industrial Final Plat-A1570-104A(Comments) 12-16.pdf.**)

Sarpy County Emergency Management Agency

It appears that the property will be sufficiently covered by outdoor warning siren #31 (owned by Springfield). No other comments.

Sarpy County GIS

The final plat streets have changed since the prelim plat. It appears there will only be S 150th St in the plat for Phase 1 and Outlots A & B.

Sarpy County Sheriff

No comments.

Springfield Fire Chief

No comments.



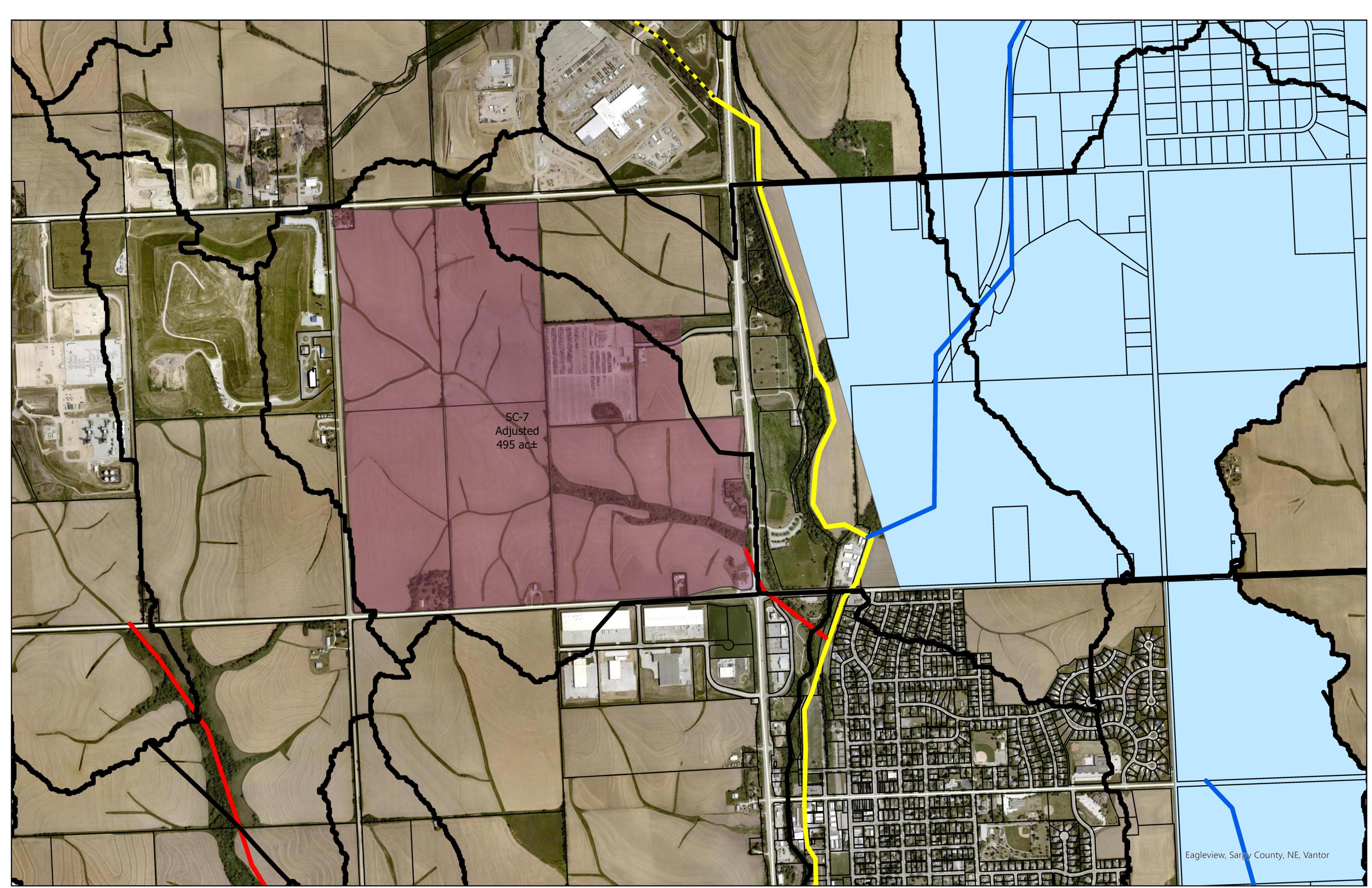
Ryan Saunders (Springfield Platteview Community Schools)

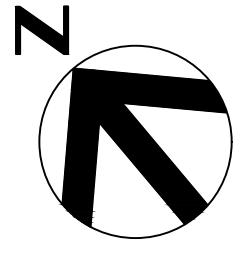
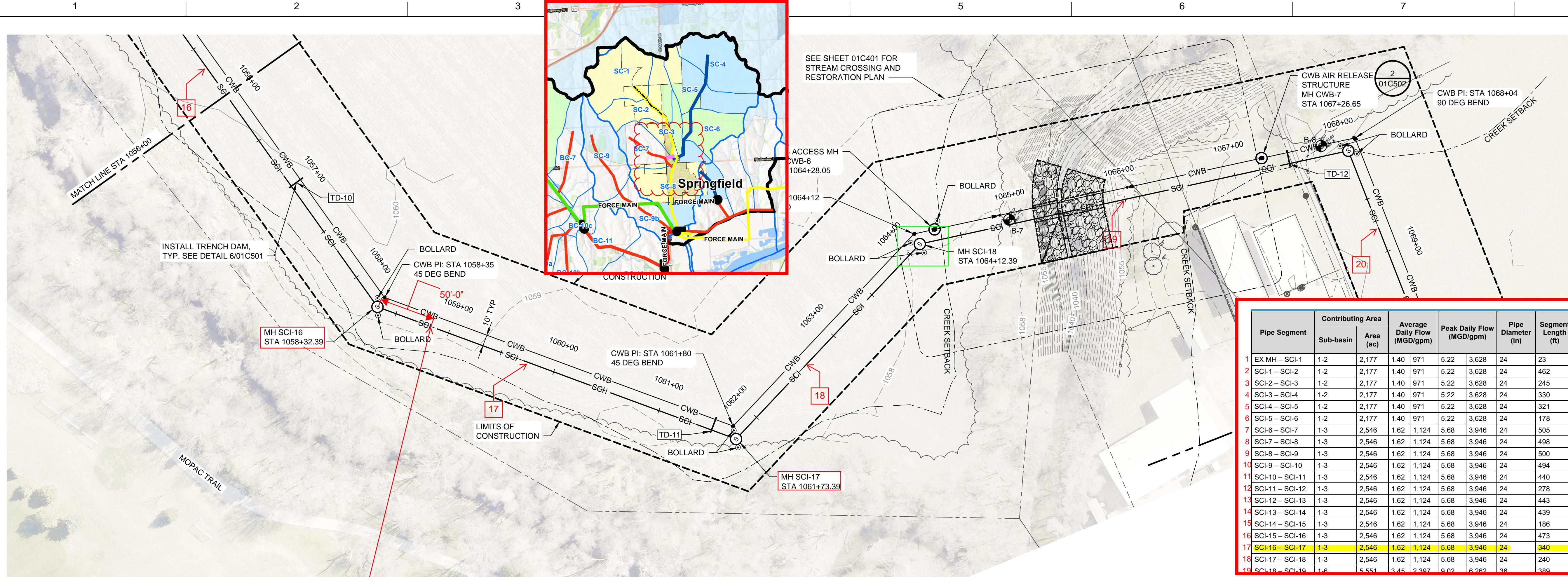
No comments received.

Attachments:

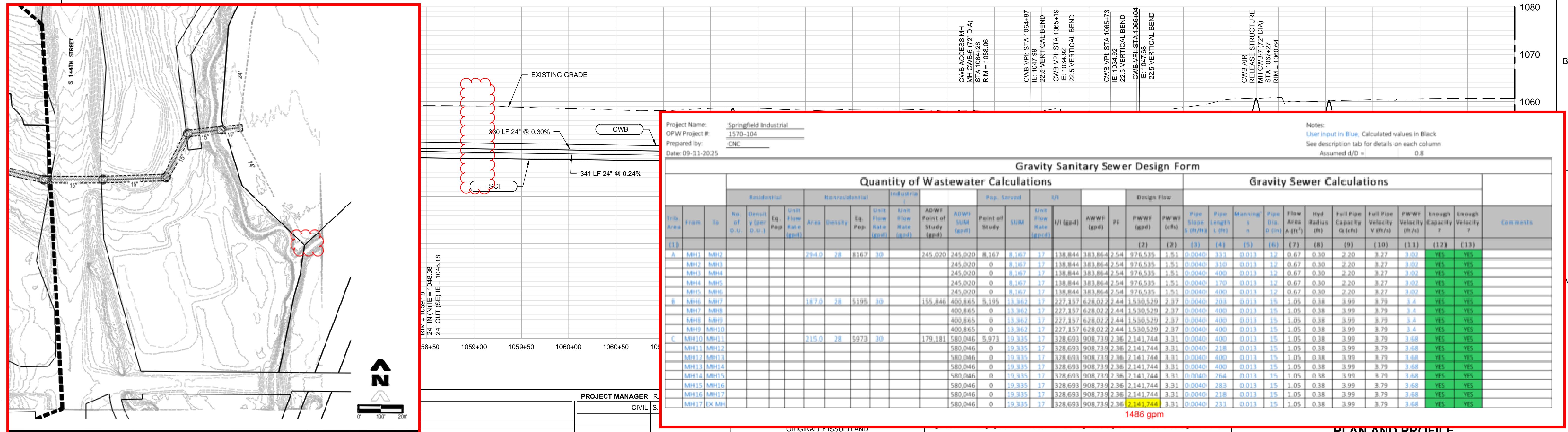
- SC-7 Adjusted Boundary 12-9-25.pdf
- HDR Review Sarpy Co Interceptor Combined Set 10-29-2021_jr.pdf
- Springfield Industrial Sr. Fee Calcs_12-9-25.pdf
- ACTUAL FINAL PLAT - Springfield Industrial Final Plat-A1570-104A(Comments) 12-16.pdf







Pipe Segment	Contributing Area		Average Daily Flow (MGD/gpm)		Peak Daily Flow (MGD/gpm)		Pipe Diameter (in)	Segment Length (ft)	Pipe Slope (ft/100 ft)	Full Pipe Capacity (gpm)	
	Sub-basin	Area (ac)									
1	EX MH – SCI-1	1-2	2,177	1.40	971	5.22	3,628	24	23	0.43	6,712
2	SCI-1 – SCI-2	1-2	2,177	1.40	971	5.22	3,628	24	462	0.19	4,418
3	SCI-2 – SCI-3	1-2	2,177	1.40	971	5.22	3,628	24	245	0.24	5,037
4	SCI-3 – SCI-4	1-2	2,177	1.40	971	5.22	3,628	24	330	0.21	4,621
5	SCI-4 – SCI-5	1-2	2,177	1.40	971	5.22	3,628	24	321	0.20	4,545
6	SCI-5 – SCI-6	1-2	2,177	1.40	971	5.22	3,628	24	178	0.35	6,008
7	SCI-6 – SCI-7	1-3	2,546	1.62	1,124	5.68	3,946	24	505	0.44	6,719
8	SCI-7 – SCI-8	1-3	2,546	1.62	1,124	5.68	3,946	24	498	0.46	6,903
9	SCI-8 – SCI-9	1-3	2,546	1.62	1,124	5.68	3,946	24	500	0.44	6,737
10	SCI-9 – SCI-10	1-3	2,546	1.62	1,124	5.68	3,946	24	494	0.59	7,826
11	SCI-10 – SCI-11	1-3	2,546	1.62	1,124	5.68	3,946	24	440	0.57	7,688
12	SCI-11 – SCI-12	1-3	2,546	1.62	1,124	5.68	3,946	24	278	0.28	5,357
13	SCI-12 – SCI-13	1-3	2,546	1.62	1,124	5.68	3,946	24	443	0.29	5,472
14	SCI-13 – SCI-14	1-3	2,546	1.62	1,124	5.68	3,946	24	439	0.71	8,596
15	SCI-14 – SCI-15	1-3	2,546	1.62	1,124	5.68	3,946	24	186	0.30	5,585
16	SCI-15 – SCI-16	1-3	2,546	1.62	1,124	5.68	3,946	24	473	0.29	5,478
17	SCI-16 – SCI-17	1-3	2,546	1.62	1,124	5.68	3,946	24	340	0.30	5,575
18	SCI-17 – SCI-18	1-3	2,546	1.62	1,124	5.68	3,946	24	240	0.22	4,828
19	SCI-18 – SCI-19	1-6	5,551	3.45	2,397	9.02	6,262	36	389	0.22	14,194



ORIGINALLY ISSUED AND
SEALED BY SEAN MICHAEL
DAVID BELL, E-13992, ON
6/30/2021. THIS MEDIA
SHOULD NOT BE
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DOCUMENT.

SOUTHERN SARPY COUNTY REGIONAL WASTEWATER SYSTEM - PHASE 1A SPRINGFIELD CREEK INTERCEPTOR SEWER, CWB SEWER, AND CWB EQUALIZATION BASIN

PLAN AND PROFILE STA 1056+00 TO STA 1070+00

SHEET
01C105

10/9/2025

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

Gross Plat Size 79.83977 Approx. had to estimate ROW of 153rd Street

		25-26	26-27	27-28
Lot No.	Size (Ac)	Conn Fee	Conn Fee	Conn Fee
1	16.03	\$ 480,643.52	\$ 504,688.52	\$ 513,905.77
2	13.66	\$ 409,581.44	\$ 430,071.44	\$ 437,925.94
3	13.9	\$ 416,777.60	\$ 437,627.60	\$ 445,620.10
4	14.92	\$ 447,361.28	\$ 469,741.28	\$ 478,320.28
Total	58.51	\$ 1,754,363.84	\$ 1,842,128.84	\$ 1,875,772.09
Outlot	Size (Ac)			
A	8.46			
B	2.34			
C	3.17			
D	1.7			
Total	15.67			
ROW	5.65977			
Total Buildable				
% Buildable	73.28%	> 65%	TRUE	
1/2 Due at F.P	\$ 877,181.92	\$ 921,064.42	\$ 937,886.05	

Table 1 – Growth Forecast Assumptions

Variable	Unit	Value
Overall Sarpy County Residential Population Growth	People/year	<ul style="list-style-type: none"> • 2015-2045 • 2046-2055
Percentage of Projected Incremental Growth Occurring South of Ridgeline:	Percent	<ul style="list-style-type: none"> • Year 2020 • Year 2025 • Year 2035 • 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	gpdc	100
Commercial Wastewater Flow	gpad	1,500
Industrial Wastewater Flow	gpad	1,500

12/9/2025

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

Gross Plat Size 29.58 Approx. had to estimate ROW of 153rd Street

	25-26	26-27	27-28
Lot No.	Size (Ac)	Conn Fee	Conn Fee
1	16.143	\$ 484,031.71	\$ 508,246.21

Total	16.143	\$ 484,031.71	\$ 508,246.21	\$ 517,528.44
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Outlot	Size (Ac)
A	8.37
B	1.61
Total	9.98

ROW & Future OL 3.457

Total Buildable

% Buildable	54.57%	> 65%	FALSE	
1/2 Due at F.P.	\$ 242,015.86	\$ 254,123.11	\$ 258,764.22	

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Variable	Unit	Value
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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

SPRINGFIELD INDUSTRIAL

LOT 1 AND OUTLOTS A AND B

BEING A PLATTING OF PART OF THE EAST 1/2 OF THE NW 1/4 OF SECTION 14, T13N, R11E OF THE 6th P.M., SARPY COUNTY, NEBRASKA.

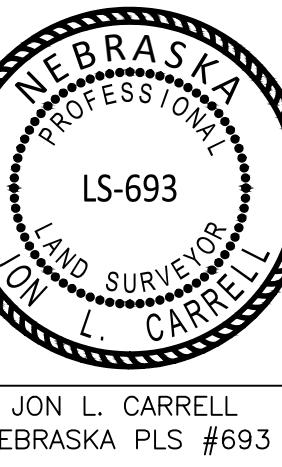
Reviewed by: JMB
12/10/2023 3:11:03 PM
Reviewed by: MSS
12/10/2023 8:53:59 AM

ASSUMED FROM STATE PLANE 2' TIRF
TENCE S02°49'20"E (ASSUMED BEARING) 74.97 FEET ON THE EAST LINE OF THE NW 1/4 OF SAID SECTION 14 TO THE SOUTH RIGHT OF WAY LINE OF FAIRVIEW ROAD AND THE POINT OF BEGINNING;
TENCE S02°49'20"E 1574.22 FEET CONTINUING ON THE EAST LINE OF THE NW 1/4 OF SAID SECTION 14 TO THE NW CORNER OF LOT 1, SPRINGFIELD BUSINESS PARK, A SUBDIVISION IN SAID SARPY COUNTY;
TENCE S02°49'04"E 989.44 FEET CONTINUING ON THE EAST LINE OF THE NW 1/4 OF SAID SECTION 14 TO THE SE CORNER THEREOF;
TENCE S06°42'14"W 622.47 FEET ON THE SOUTH LINE OF THE NW 1/4 OF SAID SECTION 14;
TENCE N42°32'47"W 126.11 FEET;
TENCE N40°12'54"W 231.53 FEET;
TENCE N56°36'43"W 351.73 FEET;
TENCE N87°10'38"E 1054.68 FEET;
TENCE N02°49'44"W 609.92 FEET;
TENCE N07°56'22"W 493.74 FEET;
TENCE N02°49'58"W 547.27 FEET ON THE WEST LINE OF THE EAST 1/2 OF THE NW 1/4 OF SAID SECTION 14 TO THE SOUTH RIGHT OF WAY LINE OF FAIRVIEW ROAD;
TENCE N86°52'52"W 1334.49 FEET ON THE SOUTH RIGHT OF WAY LINE OF SAID FAIRVIEW ROAD TO THE POINT OF BEGINNING, CONTAINING 29.58 ACRES MORE OR LESS

TD2
engineering & surveying

thompson, dreessen & dorner, 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

Survey Type



JON L. CARRELL
NEBRASKA PLS #693

PROPERTY LINE CURVE INFORMATION			
CURVE #	DELTA	LENGTH	RADIUS
A	15°52'58"	146.92'	73.93'
B	20°42'30"	169.87'	85.87'
C	08°12'15"	67.30'	47.00'
D	08°11'44"	75.81'	37.97'
E	08°12'15"	75.89'	53.00'
F	08°11'49"	67.24'	33.68'
G	05°06'33"	47.26'	23.65'
H	09°56'34"	81.56'	40.88'
J	15°52'59"	130.29'	65.57'
K	01°20'18"	12.38'	6.19'
			53.00'

SETBACK REQUIREMENTS

ZONING	FRONT YARD	SIDE YARD	STREET SIDE YARD	REAR YARD
LI	25'	0'	25'	15'

DEDICATION

KNOW ALL MEN BY THESE PRESENTS: THAT WE, TRIBEDO, LLC, A NEBRASKA LIMITED LIABILITY COMPANY, BEING THE OWNERS, OF THE LAND DESCRIBED WITHIN THE SURVEYOR'S CERTIFICATE AND EMBRACED WITHIN THIS PLAT, HAVE CAUSED SAID LAND TO BE SUBDIVIDED INTO STREETS, LOTS AND OUTLOTS TO BE NAMED, NUMBERED AND LETTERED AS SHOWN, SAID SUBDIVISION TO BE HERAFTER KNOWN AS SPRINGFIELD INDUSTRIAL, AND DO HEREBY RATIFY AND APPROVE OF THE DISPOSITION OF OUR PROPERTY AS SHOWN, AND DO HEREBY GRANT TO THE CARRIER OF THE PUBLIC UTILITY DISTRICT OF OMAHA, PUBLIC UTILITY DISTRICT OF OMAHA, NEBRASKA, THE RIGHT TO BE 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 RECEPTION 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 THE REAR BOUNDARY LINE OF THE EXTERIOR LOTS. THE TERM EXTERIOR LOT HEREBY DEFINED AS THOSE LOTS FORMING THE OUTER PERIMETER OF THE ABOVE DESCRIBED SUBDIVISION, SAID SIXTEEN (16') FOOT WIDE EASEMENT WILL BE REDUCED TO AN EIGHT (8') FOOT WIDE STRIP OF LAND WHEN THE ADJACENT LAND IS SURVEYED, PLATTED AND RECORDED IF SAID SIXTEEN (16') FOOT EASEMENT IS NOT OCCUPIED BY UTILITY FACILITIES AND IF REQUESTED BY THE OWNER.

PERPETUAL EASEMENTS SHALL BE GRANTED TO METROPOLITAN UTILITIES DISTRICT OF OMAHA, AND ANY NATURAL GAS PROVIDER, AND 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 CUL-DE-SAC STREETS AND ALONG ALL STREET FRONTAGES 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 HERIN GRANTED.

TRIBEDO, LLC,
A NEBRASKA LIMITED LIABILITY COMPANY

BY: _____
TITLE: _____

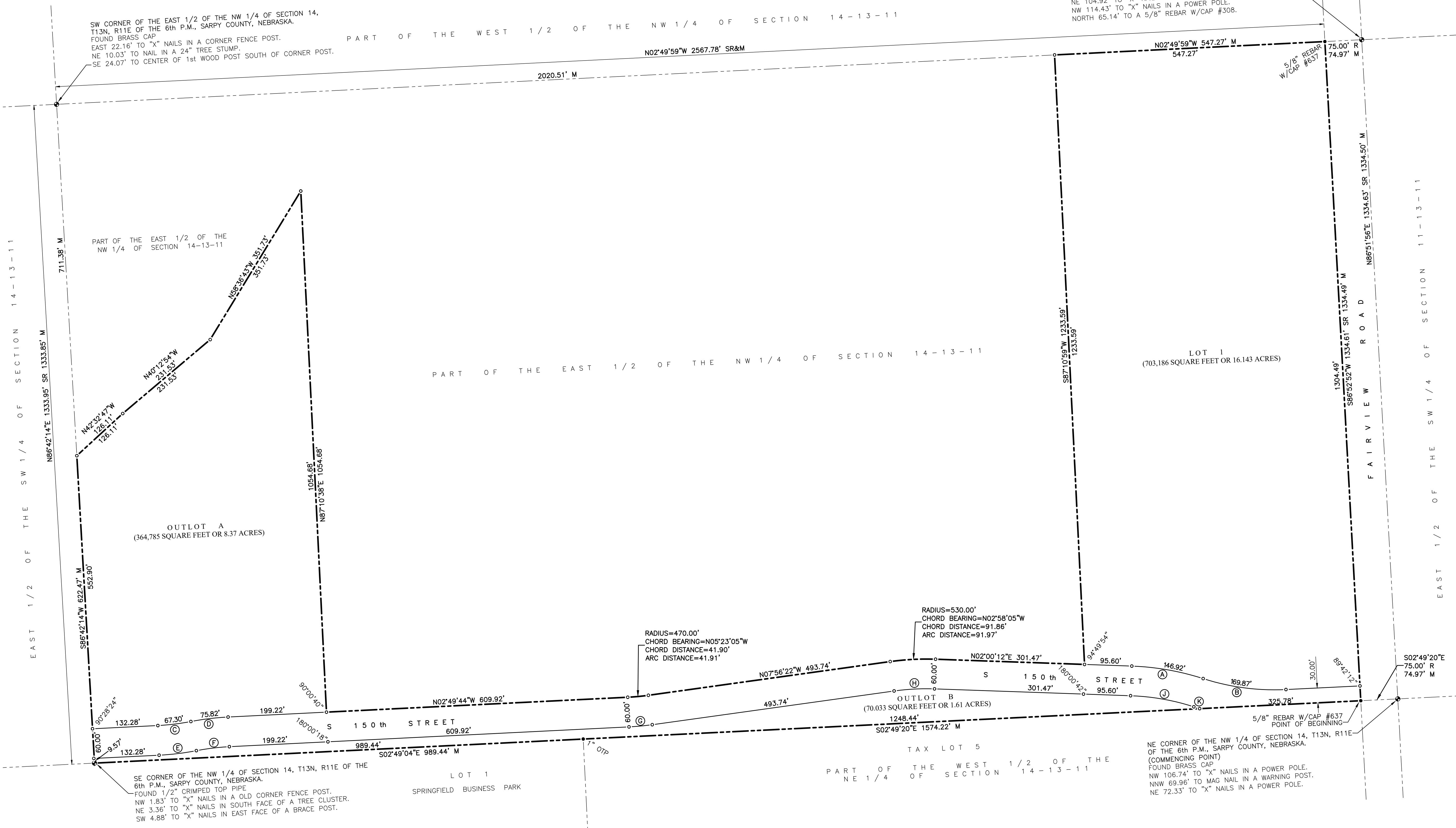
NOTES

1. THERE WILL BE NO DIRECT VEHICULAR ACCESS TO FAIRVIEW ROAD OVER THE NORTH LINE OF LOT 1.
2. OUTLOT A WILL PROVIDE DRAINAGE SERVICE FOR THE DEVELOPMENT AND WILL BE OWNED AND MAINTAINED BY SPRINGFIELD INDUSTRIAL.

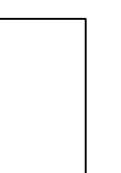
THE FOREGOING DEDICATION WAS ACKNOWLEDGED BEFORE ME, THIS _____ DAY OF _____, 2025 BY: _____, OF
TRIBEDO, LLC, A NEBRASKA LIMITED LIABILITY COMPANY ON BEHALF OF SAID COMPANY.

NOVEMBER 20, 2025
DATE

NOTARY PUBLIC



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 _____, 2025.



SARPY COUNTY TREASURER
TREASURER'S SEAL

APPROVAL OF THE SPRINGFIELD CITY PLANNING COMMISSION
THIS PLAT OF SPRINGFIELD INDUSTRIAL WAS APPROVED BY THE SPRINGFIELD CITY PLANNING COMMISSION THIS _____ DAY OF _____, 2025.

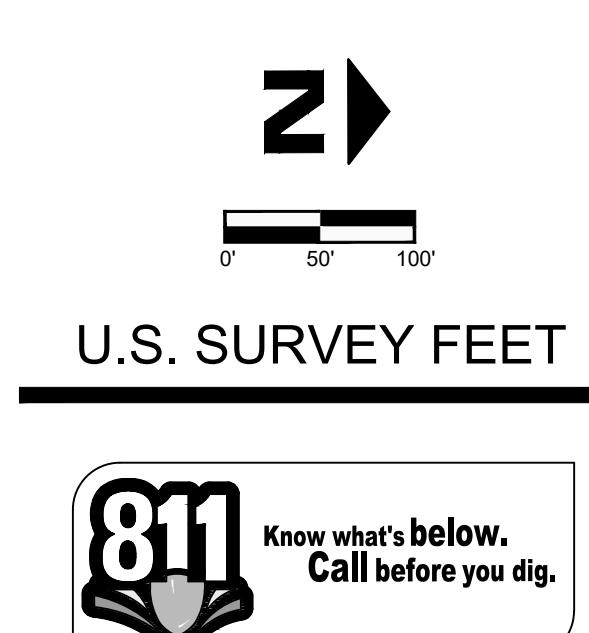
ATTEST: SECRETARY OF PLANNING COMMISSION CHAIRPERSON

APPROVAL OF THE SPRINGFIELD CITY COUNCIL
THIS PLAT OF SPRINGFIELD INDUSTRIAL WAS APPROVED BY THE CITY COUNCIL OF SPRINGFIELD, NEBRASKA THIS _____ DAY OF _____, 2025.

ATTEST: CITY CLERK, BARB HENNINGER MAYOR, ROBERT ROSELAND

APPROVAL OF THE SPRINGFIELD CITY ENGINEER
THIS PLAT OF SPRINGFIELD INDUSTRIAL WAS APPROVED BY THE SPRINGFIELD CITY ENGINEER THIS _____ DAY OF _____, 2025.

SPRINGFIELD CITY ENGINEER



Revision Dates		
No.	Description	MM-DD-YY
—	—	—
—	—	—
—	—	—

Job No.: A1570-104A
Drawn By: RJR
Reviewed By: JLC
Date: NOVEMBER 20, 2025
Book: 25/26
Pages: 16&17

Sheet Title
COUNTY SURVEYOR/ENGINEER

SPRINGFIELD,
NEBRASKA
SARPY COUNTY
FINAL PLAT
Sheet Number
SHEET 1 OF 1



FINAL PLAT CHECKLIST

Plat Name: Springfield Industrial

Subdivider's Name Tribedo, 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.
- Identification 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.

— Remaining items to be completed prior to recording
the final plat.

Bradley Huyck 12/8/25

Bradley Huyck, Project Engineer



FINAL PLAT APPLICATION

(please print or type)

Subdivider's Name Tribedo LLC

Address 10404 ESSEX COURT, SUIT 101, OMAHA, NE 68114

Phone (402) 408-0005 - _____ ext. _____

Owner's Name Arun Agarwal

Address 10404 ESSEX COURT, SUIT 101, OMAHA, NE 68114

Phone (402) 408-0005 - _____ ext. _____

Agent's Name Thompson Dreessen & Dorner

Address 10836 Old Mill Road, Omaha, Nebraska 68154

Phone (402) 330-8860 - _____ ext. _____

The Final Plat is requested for the property legally described as follows:

Lot 1 and Outlots A and B, Springfield Industrial, being a platting of part of the East 1/2 of the NW 1/4 of Section 14, T13N, R11E of the 6th P.M., Sarpy County, Nebraska

The current zoning of the property is as follows:

AR Agricultural Residential District

Name of the Final Plat:
Springfield Industrial

Number of lots in the Final Plat:
1 Lot and 2 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:

Rezoning from AG to LI will be required. Rezoning application and preliminary plat application were approved by city council on December 2, 2025.

The Final Plat is based on the Preliminary Plat for:
Springfield Industrial

This Preliminary Plat was approved by the City Council on:

Date December 2, 2025

Is the Final Plat consistent with the approved Preliminary Plat?

yes
 no

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

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

yes
 no

If not, list improvements which have not been completed:

No grading or public improvement construction has occurred 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 *John Doe*
Applicant

Date 12/3/2025, 2025

Application Fee: \$500.00 plus \$10.00 per lot

*fees are nonrefundable

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

SPRINGFIELD INDUSTRIAL

LOT 1 AND OUTLOTS A AND B

BEING A PLATTING OF PART OF THE EAST 1/2 OF THE NW 1/4 OF SECTION 14, T13N, R11E OF THE 6th P.M., SARPY COUNTY, NEBRASKA.

DEDICATION

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TRIBEDO, LLC,
A NEBRASKA LIMITED LIABILITY COMPANY

BY: _____
TITLE: _____

ACKNOWLEDGEMENT OF NOTARY

STATE OF NEBRASKA
COUNTY OF _____

THE FOREGOING DEDICATION WAS ACKNOWLEDGED BEFORE ME, THIS _____ DAY OF _____, 2025 BY _____, OF
TRIBEDO, LLC, A NEBRASKA LIMITED LIABILITY COMPANY ON BEHALF OF SAID COMPANY.

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT A BOUNDARY SURVEY OF THE SUBDIVISION DESCRIBED HEREIN WAS MADE UNDER MY DIRECT SUPERVISION AND THAT PERMANENT MARKERS HAVE BEEN FOUND OR SET AT ALL CORNERS OF SAID BOUNDARY AND THAT ONCE ALL GRADING HAS BEEN COMPLETED PERMANENT MARKERS WILL BE SET AT ALL LOT CORNERS WITHIN SAID SUBDIVISION TO BE KNOWN AS SPRINGFIELD INDUSTRIAL, LOT 1 AND OUTLOTS A AND B, BEING A PLATTING OF THAT PART OF THE EAST 1/2 OF THE NW 1/4 OF SECTION 14, T13N, R11E OF THE 6th P.M., SARPY COUNTY, NEBRASKA, MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE NE CORNER OF THE NW 1/4 OF SAID SECTION 14;

THENCE S02°49'20"E (ASSUMED BEARING) 74.97 FEET ON THE EAST LINE OF THE NW 1/4 OF SAID SECTION 14 TO THE SOUTH RIGHT OF WAY LINE OF FAIRVIEW ROAD AND THE POINT OF BEGINNING;

THENCE S02°49'20"E 1574.22 FEET CONTINUING ON THE EAST LINE OF THE NW 1/4 OF SAID SECTION 14 TO THE NW CORNER OF LOT 1, SPRINGFIELD BUSINESS PARK, A SUBDIVISION IN SAID SARPY COUNTY;

THENCE S02°49'04"E 989.44 FEET CONTINUING ON THE EAST LINE OF THE NW 1/4 OF SAID SECTION 14 TO THE SE CORNER THEREOF;

THENCE S06°42'14"W 622.47 FEET ON THE SOUTH LINE OF THE NW 1/4 OF SAID SECTION 14;

THENCE N42°32'47"W 126.11 FEET;

THENCE N40°12'54"W 231.53 FEET;

THENCE N56°36'43"W 351.73 FEET;

THENCE N87°10'38"E 1054.68 FEET;

THENCE N02°49'44"W 609.92 FEET;

THENCE NORTHWESTERLY ON A 470.00 FOOT RADIUS CURVE TO THE LEFT WITH A CHORD BEARING N05°23'05"W, CHORD DISTANCE OF 41.90 FEET AND ARC DISTANCE OF 41.91 FEET;

THENCE N07°56'22"W 493.74 FEET;

THENCE NORTHWESTERLY ON A 530.00 FOOT RADIUS CURVE TO THE RIGHT WITH A CHORD BEARING N02°58'05"W, CHORD DISTANCE OF 91.86 FEET AND ARC DISTANCE OF 91.97 FEET;

THENCE N02°00'12"E 301.47 FEET;

THENCE S08°10'58"W 1233.59 FEET TO THE WEST LINE OF THE EAST 1/2 OF THE NW 1/4 OF SAID SECTION 14;

THENCE N02°49'59"W 547.27 FEET ON THE WEST LINE OF THE EAST 1/2 OF THE NW 1/4 OF SAID SECTION 14 TO THE SOUTH RIGHT OF WAY LINE OF SAID FAIRVIEW ROAD;

THENCE S06°52'52"W 1334.49 FEET ON THE SOUTH RIGHT OF WAY LINE OF SAID FAIRVIEW ROAD TO THE POINT OF BEGINNING, CONTAINING 29.58 ACRES MORE OR LESS



JON L. CARRELL
NEBRASKA PLS #693

PROPERTY LINE	CURVE	INFORMATION
CURVE #	DELTA	LENGTH
A	15°52'58"	146.92'
B	20°42'30"	169.87'
C	08°12'15"	67.30'
D	08°11'44"	75.81'
E	08°12'15"	75.89'
F	08°11'49"	67.24'
G	05°06'33"	47.26'
H	09°56'34"	81.56'
J	15°52'59"	130.29'
K	01°20'18"	12.38'
		6.19'
		530.00'

SETBACK REQUIREMENTS

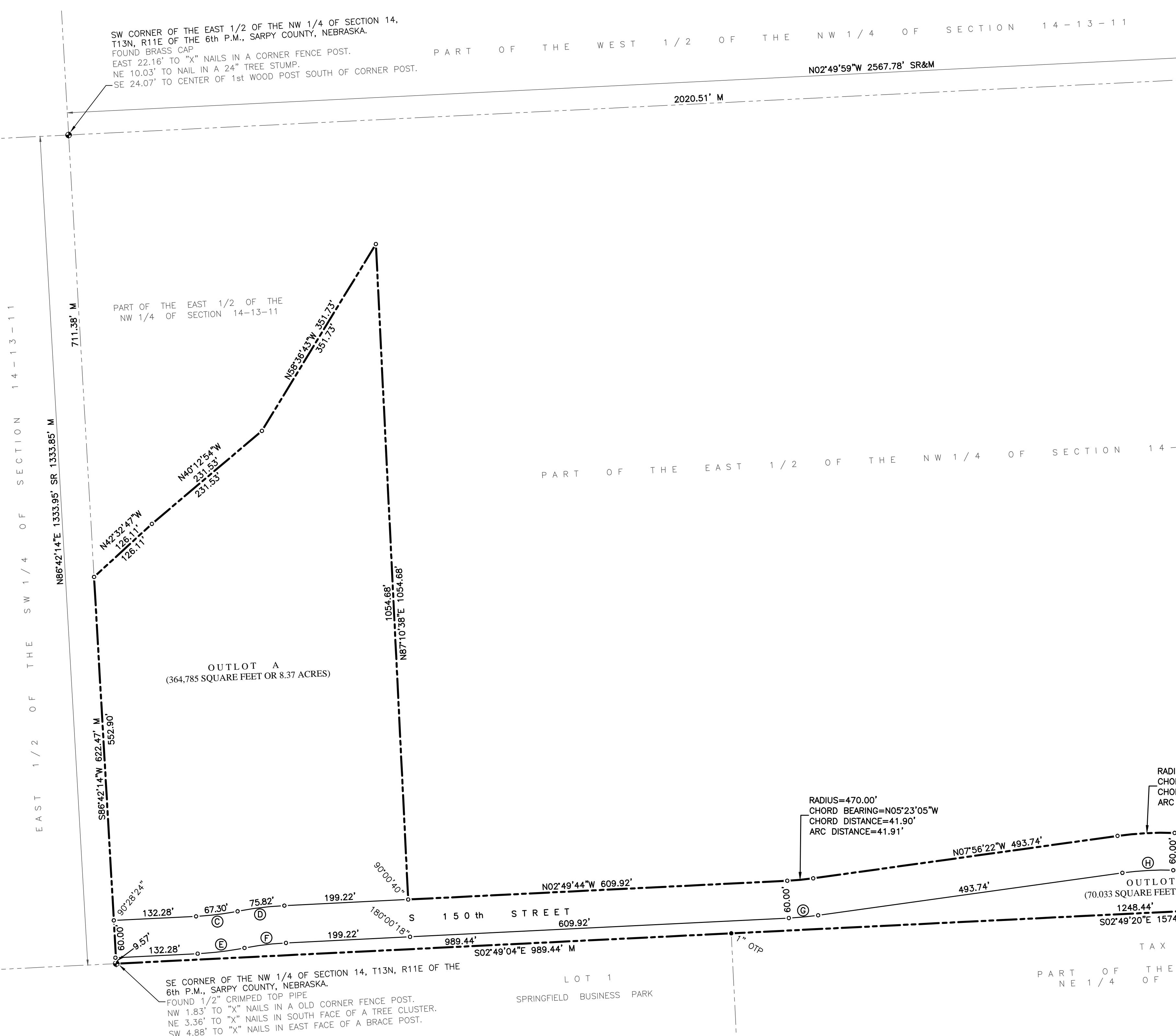
ZONING	FRONT YARD	SIDE YARD	STREET SIDE YARD	REAR YARD
LI	25'	0'	25'	15'

LEGEND

- CORNERS FOUND
- CORNERS SET
- (5/8" REBAR W/CAP #693)
- R RECORDED DISTANCE
- M MEASURED DISTANCE
- SR SURVEY RECORD PER SURVEY BY PLS #637 DATED 06/22/2022
- OTP OPEN TOP PIPE

NOTES

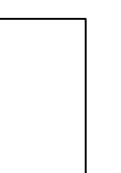
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2. OUTLOT A WILL PROVIDE DRAINAGE SERVICE FOR THE DEVELOPMENT AND WILL BE OWNED AND MAINTAINED BY SPRINGFIELD INDUSTRIAL.



NW CORNER OF THE EAST 1/2 OF THE NW 1/4 OF SECTION 14,
T13N, R11E OF THE 6th P.M., SARPY COUNTY, NEBRASKA.
FOUND CHISELED "X"
NE 104.92' TO "X" NAILS IN A POWER POLE.
NW 114.43' TO "X" NAILS IN A POWER POLE.
NORTH 65.14' TO A 5/8" REBAR W/CAP #308.

N02°49'59"W 547.27' M
W/5/8" REBAR #693
75.00' R
74.97' M
N02°49'59"W 2567.78' SR&M
2020.51' M

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 _____, 2025.



SARPY COUNTY TREASURER
TREASURER'S SEAL

APPROVAL OF THE SPRINGFIELD CITY PLANNING COMMISSION
THIS PLAT OF SPRINGFIELD INDUSTRIAL WAS APPROVED BY THE SPRINGFIELD CITY PLANNING COMMISSION THIS DAY OF _____, 2025.

ATTEST: SECRETARY OF PLANNING COMMISSION CHAIRPERSON

APPROVAL OF THE SPRINGFIELD CITY COUNCIL
THIS PLAT OF SPRINGFIELD INDUSTRIAL WAS APPROVED BY THE CITY COUNCIL OF SPRINGFIELD, NEBRASKA THIS DAY OF _____, 2025.

ATTEST: CITY CLERK, BARB HENNINGER MAYOR, ROBERT ROSELAND

APPROVAL OF THE SPRINGFIELD CITY ENGINEER
THIS PLAT OF SPRINGFIELD INDUSTRIAL WAS APPROVED BY THE SPRINGFIELD CITY ENGINEER THIS DAY OF _____, 2025.

SPRINGFIELD CITY ENGINEER



Revision Dates
No. Description MM-DD-YY
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-- -- -- --
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Job No.: A1570-104A
Drawn By: RJR
Reviewed By: JLC
Date: NOVEMBER 20, 2025
Book: 25/26
Pages: 16&17

Sheet Title
COUNTY SURVEYOR/ENGINEER

Sheet Number
EXHIBIT A

SPRINGFIELD,
NEBRASKA
SARPY COUNTY
FINAL PLAT

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

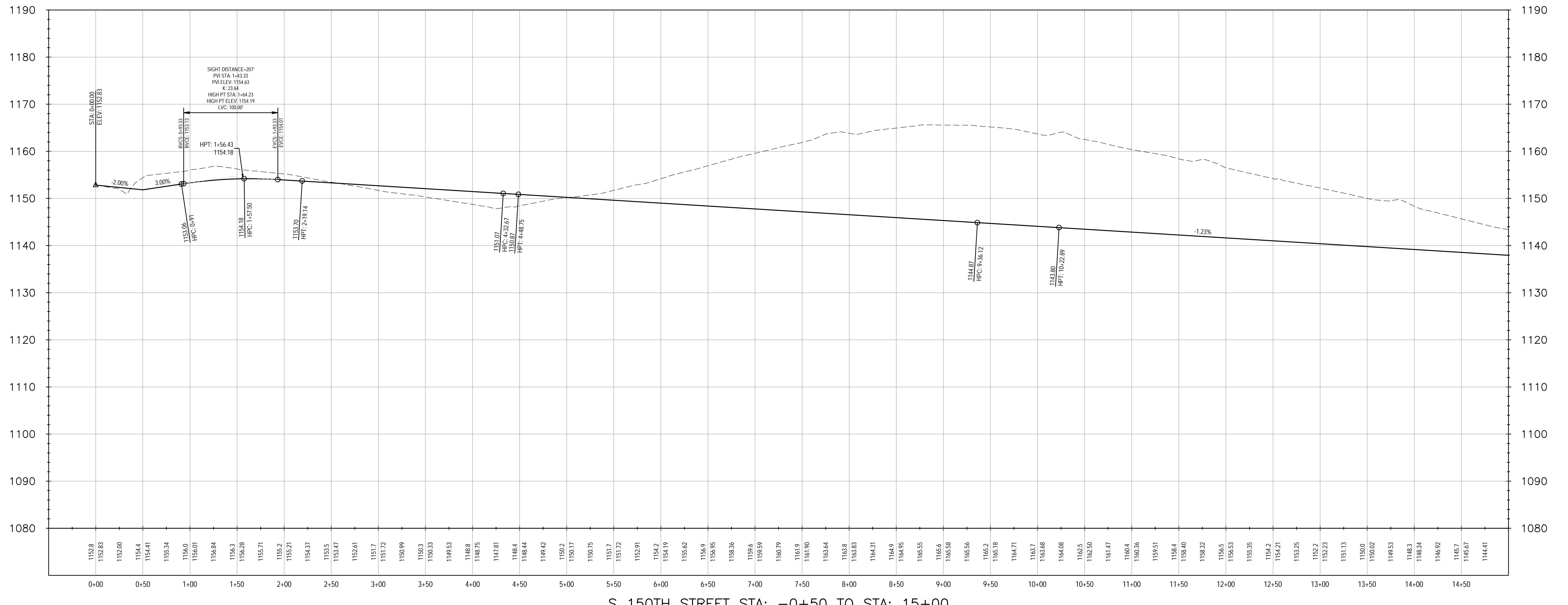
Survey Type

SPRINGFIELD INDUSTRIAL

LOT 1 AND OUTLOTS A AND B

SARPY COUNTY, NEBRASKA





Springfield Industrial

SPR-20250917-8086-P
PRELIMINARY
DRAINAGE STUDY & PCSMP CALCULATIONS



Bradley Huyck, P.E. 12/8/25
Project Engineer

Bradley Huyck, P.E.

Prepared by Connor Cloyd

DRAINAGE STUDY & PCSMP CALCULATIONS
Springfield Industrial
SPR-20250917-8086-P

TABLE OF CONTENTS

EXECUTIVE SUMMARY.....2 PAGES

SECTION 1

- PIPE COMPUTATIONS.....1 PAGE
- HYDROGRAPHS REPORT.....21 PAGES
- POND REPORT.....2 PAGES
- POND WATER ELEVATION VS TIME GRAPH.....1 PAGE
- SOIL REPORT.....20 PAGES

SECTION 2

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

DRAINAGE STUDY & PCSMP CALCULATIONS
Springfield Industrial
SPR-20250917-8086-P

EXECUTIVE SUMMARY

This drainage study was prepared for the Post-Construction Stormwater Management Plan (SPR-20250917-8086-P) for Springfield Industrial located on Fairview Road between S 144th Street and S 156th Street, Springfield, Sarpy County, Nebraska.

The total site is approximately 78.49 acres. The total disturbed area is approximately 76.84 acres. The proposed development will construct 4 new warehouse buildings, pavement, retaining walls, the necessary infrastructure to support the building, and an extended dry detention basin.

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

An extended dry detention basin will be used for stormwater detention and treatment and was 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 transport 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 south property line where an existing drainageway crosses through the site. There is one existing drainage area that contributes to IP1 which consists of almost the entirety of the proposed development site, and approximately 213 acres of farmland located west of the site. This area, EX1, is shown on the existing drainage map DM-1, located in Section 2 of this report. This area consists of row crops and surface drains from an area southeast of the intersection of Fairview Road and S 156th Street to IP1 to the southeast. The time of concentration for area EX1 has been calculated to be 59 minutes with an average basin slope of 2.5 percent and a hydraulic length of 3,572 feet.

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	Proposed Site and Western Area	275	12,022,316	11,322	12,010,994	78	0.37	1	Existing Drainageway
TOTAL EXISTING SITE		275	12,022,316	11,322	12,010,994	78	0.37		

II. Proposed Conditions

The proposed construction will consist of 4 warehouse buildings, pavement, retaining walls, utilities necessary for facility operations, and an extended dry detention basin (DB-1). The area of the site draining to impact point 1 is 3,419,024 square feet of which approximately 3,347,150 square feet will be disturbed during construction.

Proposed grading and storm sewer configurations result in 2 drainage areas. Area A1, which will consist of all the disturbed areas of the proposed site, and area B1, which will consist of the undisturbed areas to the west of the proposed site. Area A1 will be captured and treated by DB1 where it will then be discharged at IP1. The time of concentration for area A1 has been calculated to be 13.3 minutes, while the time of concentration for area B1 has been calculated to be 59 minutes.

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

ID	Description	Total Area (Ac.)	Total Area (SF)	Impervious (SF)	Perv. (SF)	Comp. CN	Composite C	Impact Point	Impact Point Description
A1	Buildings, Paving, & Bio-retention Basin 1	78	3,376,125	2,301,710	1,074,415	91	0.80	1	Existing Drainageway
B1	Existing area to the West	213	9,266,448	11,322	9,255,126	78	0.37	1	Existing Drainageway
TOTAL PROPOSED SITE		291	12,642,573	2,313,032	10,329,541	81	0.48		

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.

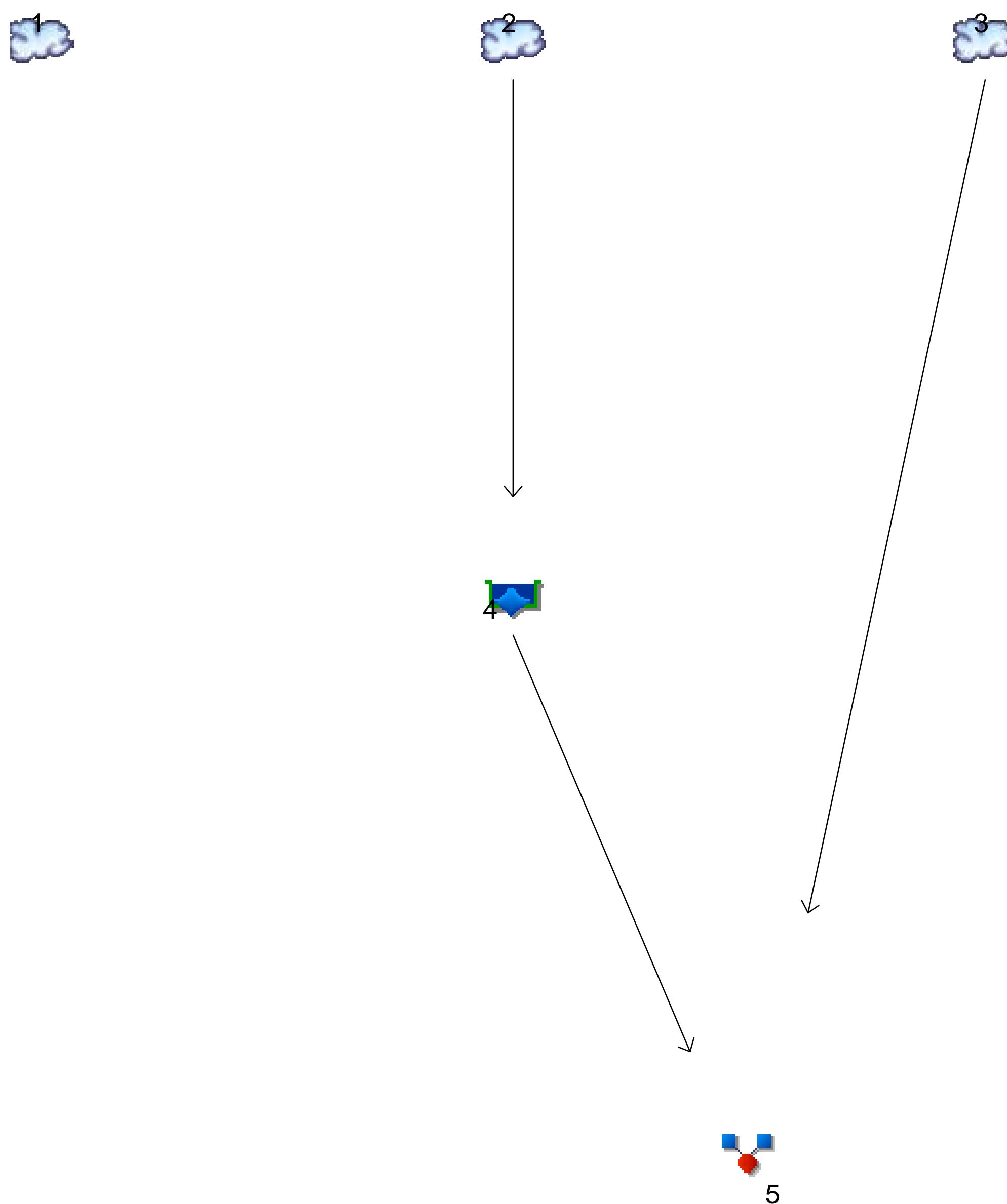
	2-Year (cfs)	10-Year (cfs)	100-Year (cfs)
Impact Point 1			
Pre-Construction	166	365	651
Post-Construction	138	295	519

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: CNC Date: 10-06-25 Checked By: BPH				Preliminary x Final Design				Drainage Area Project No. 1570-104 Design Storm: 10 yr.					
	Location	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	0.10	0.65	0.5734			15	0.01	1.00	6.24	7.65189	25	0.07	5	8.8	0.65	0.10	0.573	
A2							10	7	3.79	0.76	20.258			24	0.60	1.00	8.53	26.8013	124	0.24	10.1	7	0.76	3.89	20.71	
														24	0.58	1.00	8.53	26.8013	348	0.68	10.3	6.9	0.76	3.89	20.42	
														24	0.55	1.00	8.53	26.8013	135	0.26	11	6.7	0.76	3.89	19.83	
A3							5	8.8	0.34	0.60	1.7823			15	0.05	1.00	6.24	7.65189	25	0.07	5	8.8	0.60	0.34	1.782	
A4							10	8.8	7.14	0.89	55.854			36	0.63	1.00	11.2	79.03	287	0.43	11.3	6.6	0.84	11.37	62.76	
														36	0.63	1.00	11.2	79.03	210	0.31	11.7	6.6	0.84	11.37	62.76	
A5							5	8.8	0.87	0.45	3.4263			15	0.20	1.00	6.24	7.65189	25	0.07	5	8.8	0.45	0.87	3.426	
A6							10	7	6.36	0.84	37.23			42	0.71	1.00	12.4	119.217	355	0.48	12	6.6	0.82	18.59	100.4	
														42	0.69	1.00	12.4	119.217	100	0.13	12.5	6.5	0.82	18.59	98.91	
A7							5	8.8	0.51	0.50	2.2717			15	0.09	1.00	6.24	7.65189	25	0.07	5	8.8	0.50	0.51	2.272	
A8							10	8.8	7.72	0.85	57.473			48	0.71	1.00	13.5	170.217	463	0.57	12.6	6.5	0.82	26.83	143	
														48	0.69	1.00	13.5	170.217	128	0.16	13.2	6.4	0.82	26.83	140.8	
A9							5	8.8	0.60	0.57	2.9835			15	0.15	1.00	6.24	7.65189	25	0.07	5	8.8	0.57	0.60	2.984	
A10							10	8.8	3.15	0.72	19.896			48	0.86	3.00	23.5	294.825	140	0.1	13.3	6.4	0.80	30.58	157.5	
A11							10	7	12.58	0.88	77.226			42	0.42	1.00	12.4	119.217	443	0.6	10	7	0.88	12.58	77.23	
														42	0.41	1.00	12.4	119.217	524	0.7	10.6	6.9	0.88	12.58	76.12	
A12							10	7	14.20	0.95	94.462			48	0.91	1.00	13.5	170.217	470	0.58	11.3	6.6	0.92	26.78	161.9	
														48	0.91	1.00	13.5	170.217	118	0.15	11.9	6.6	0.92	26.78	161.9	
A13							5	8.8	0.50	0.65	2.8542			15	0.14	1.00	6.24	7.65189	25	0.07	5	8.8	0.65	0.50	2.854	
A14							10	7	4.98	0.85	29.705			54	0.68	1.00	14.7	233.038	245	0.28	12	6.6	0.90	32.27	192	
														54	0.66	1.00	14.7	233.038	225	0.26	12.3	6.5	0.90	32.27	189.1	
REMINDER: Check Storm Drain System for Major Storm Provisions.			*Water Course Legend Figure 2-2 FO - Forest FA - Fallow GR - Grass/Lawn BG - Bare Ground GW - Grass Waterway SG - Shallow Gut. Flow												NOTES:								Sheet 1 of 1			

Watershed Model Schematic

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



Legend

<u>Hyd. Origin</u>	<u>Description</u>
--------------------	--------------------

1	SCS Runoff	EX IP1
2	SCS Runoff	A1 Into SB1
3	SCS Runoff	B1 IP1
4	Reservoir	DB1
5	Combine	IP1 Proposed

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	----	-----	166.00	-----	-----	365.31	-----	-----	651.02	EX IP1
2	SCS Runoff	----	-----	229.30	-----	-----	387.60	-----	-----	593.03	A1 Into SB1
3	SCS Runoff	----	-----	128.57	-----	-----	282.95	-----	-----	504.24	B1 IP1
4	Reservoir	2	-----	10.03	-----	-----	13.25	-----	-----	18.18	DB1
5	Combine	3, 4	-----	138.26	-----	-----	295.92	-----	-----	519.09	IP1 Proposed

Hydrograph Summary Report

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

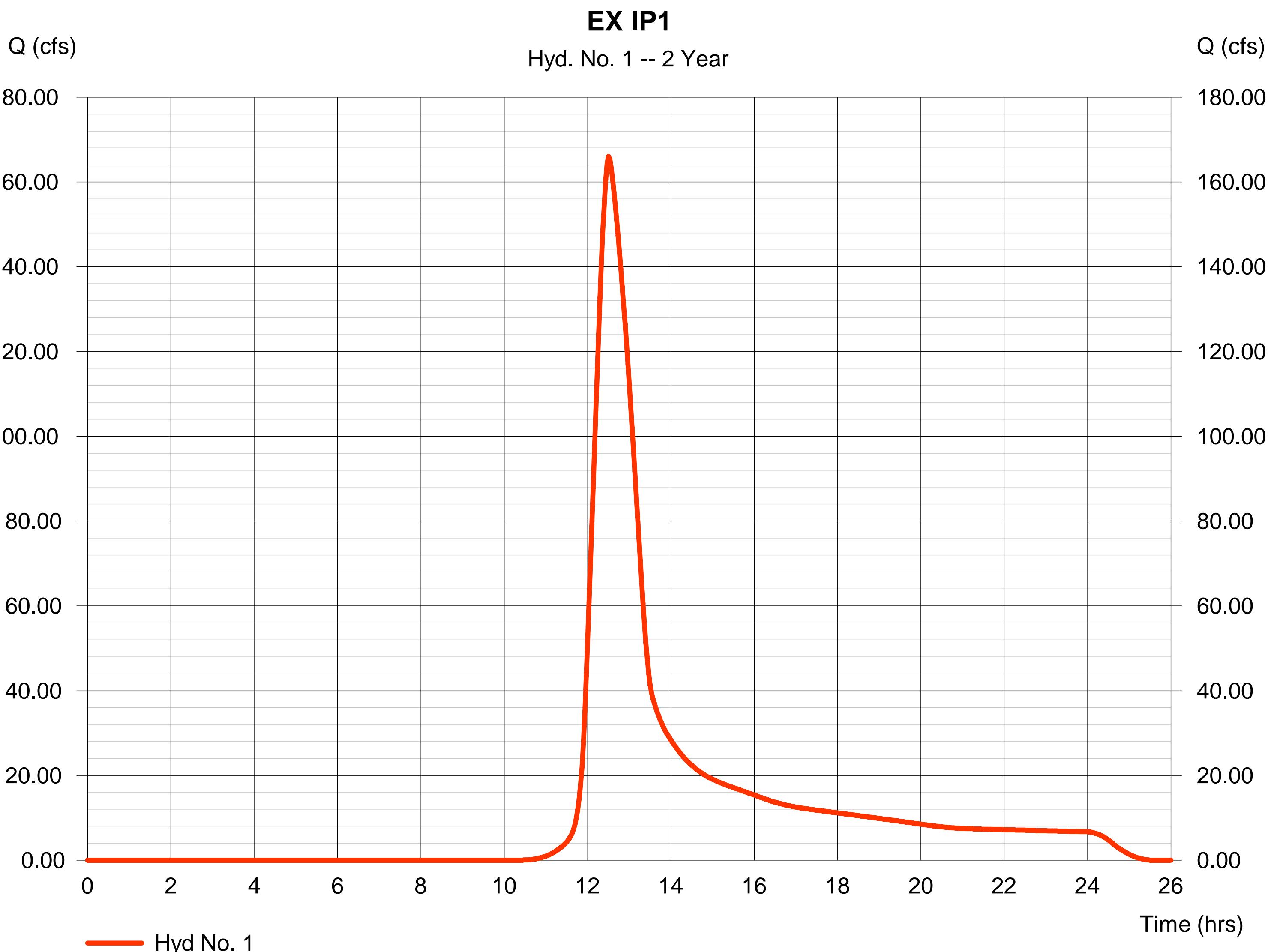
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	166.00	2	750	1,126,855	----	----	----	EX IP1
2	SCS Runoff	229.30	2	720	604,763	----	----	----	A1 Into SB1
3	SCS Runoff	128.57	2	750	872,801	----	----	----	B1 IP1
4	Reservoir	10.03	2	824	588,355	2	1102.66	376,095	DB1
5	Combine	138.26	2	750	1,461,153	3, 4	----	----	IP1 Proposed
Hydrograph.gpw				Return Period: 2 Year				Monday, 09 / 29 / 2025	

Hydrograph Report

Hyd. No. 1

EX IP1

Hydrograph type	= SCS Runoff	Peak discharge	= 166.00 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.50 hrs
Time interval	= 2 min	Hyd. volume	= 1,126,855 cuft
Drainage area	= 275.000 ac	Curve number	= 78
Basin Slope	= 2.5 %	Hydraulic length	= 3572 ft
Tc method	= LAG	Time of conc. (Tc)	= 59.20 min
Total precip.	= 3.00 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

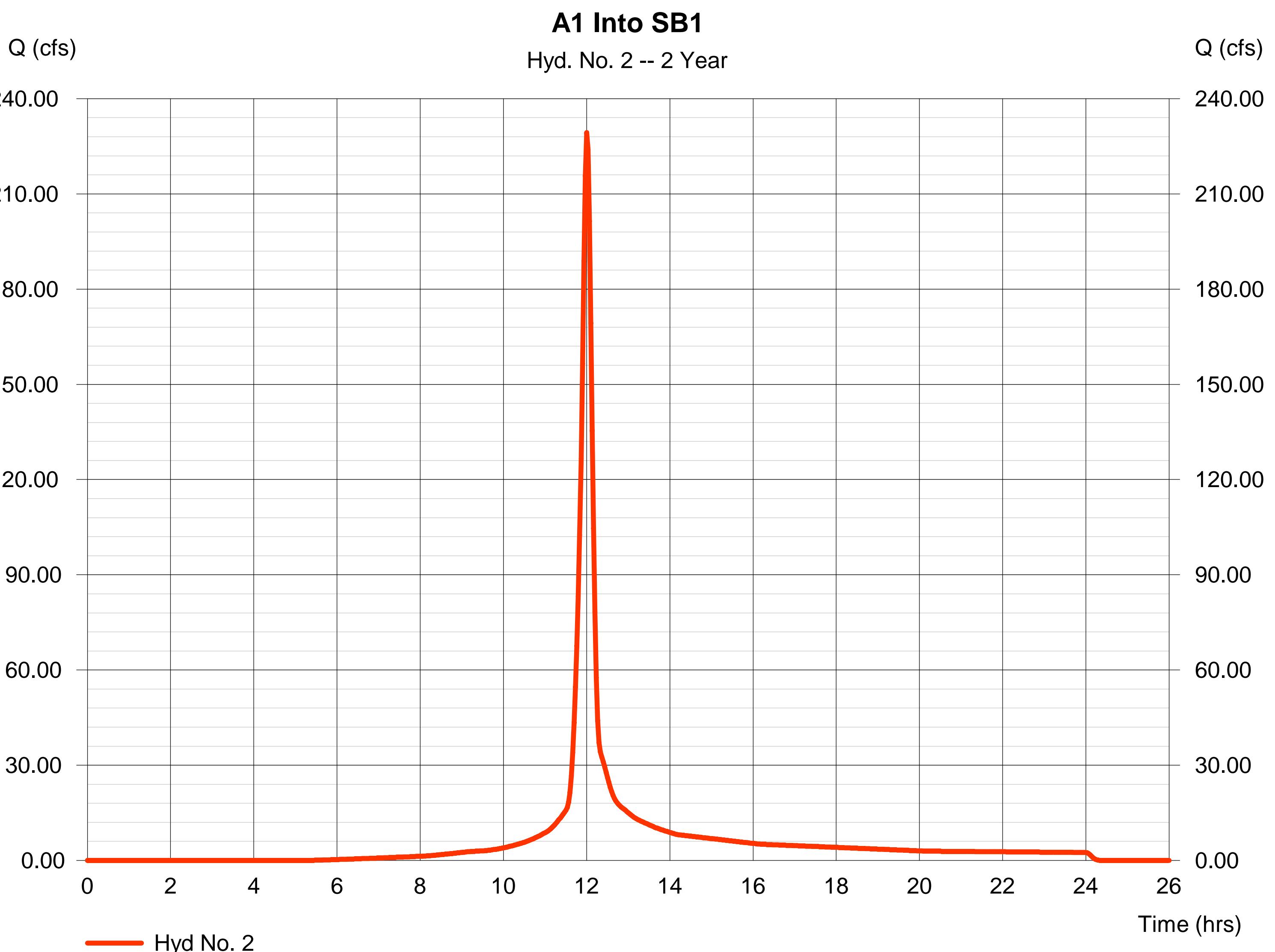


Hydrograph Report

Hyd. No. 2

A1 Into SB1

Hydrograph type	= SCS Runoff	Peak discharge	= 229.30 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.00 hrs
Time interval	= 2 min	Hyd. volume	= 604,763 cuft
Drainage area	= 78.000 ac	Curve number	= 91
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 13.30 min
Total precip.	= 3.00 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

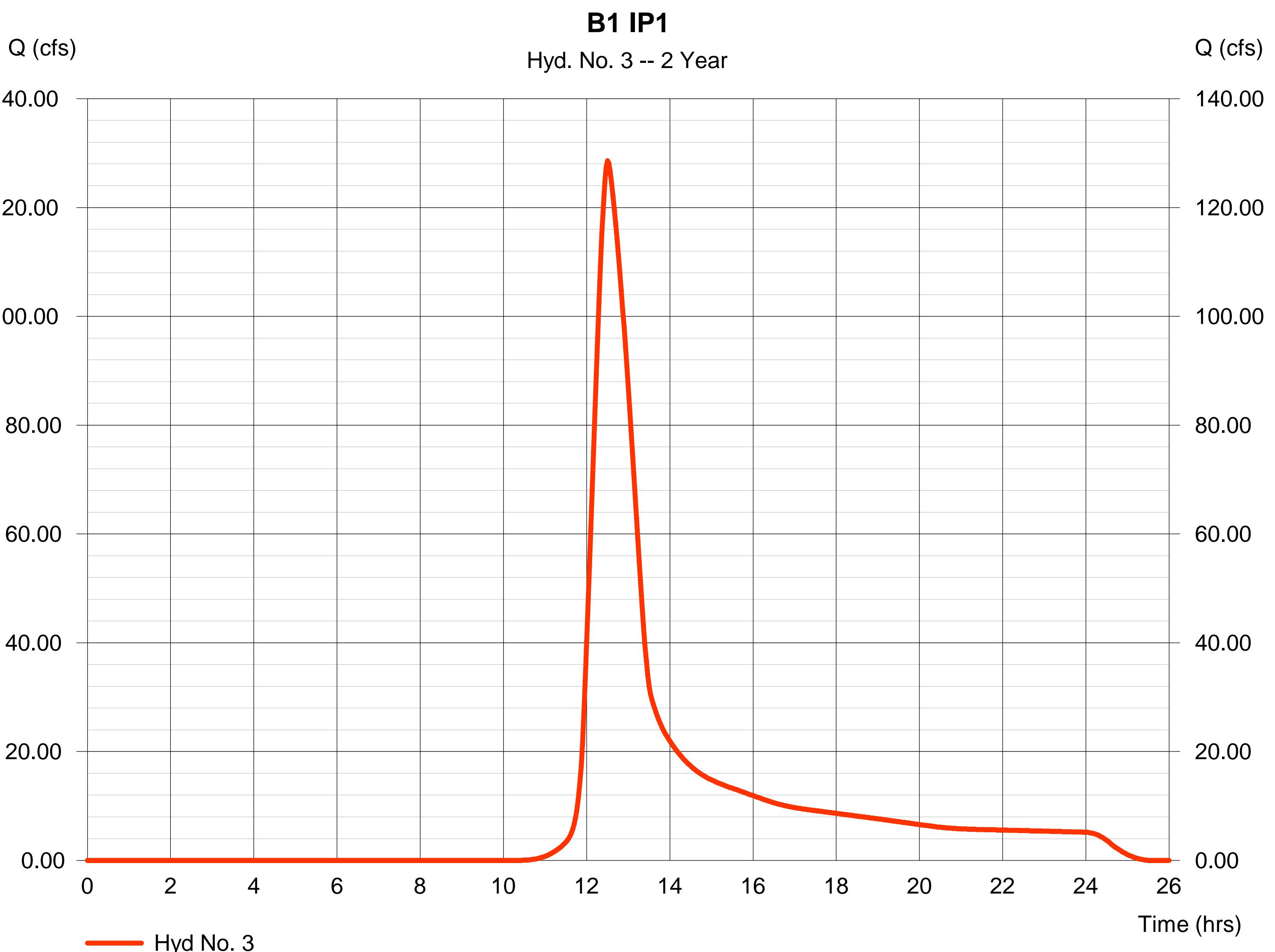


Hydrograph Report

Hyd. No. 3

B1 IP1

Hydrograph type	= SCS Runoff	Peak discharge	= 128.57 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.50 hrs
Time interval	= 2 min	Hyd. volume	= 872,801 cuft
Drainage area	= 213.000 ac	Curve number	= 78
Basin Slope	= 2.5 %	Hydraulic length	= 3572 ft
Tc method	= LAG	Time of conc. (Tc)	= 59.20 min
Total precip.	= 3.00 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



Hydrograph Report

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

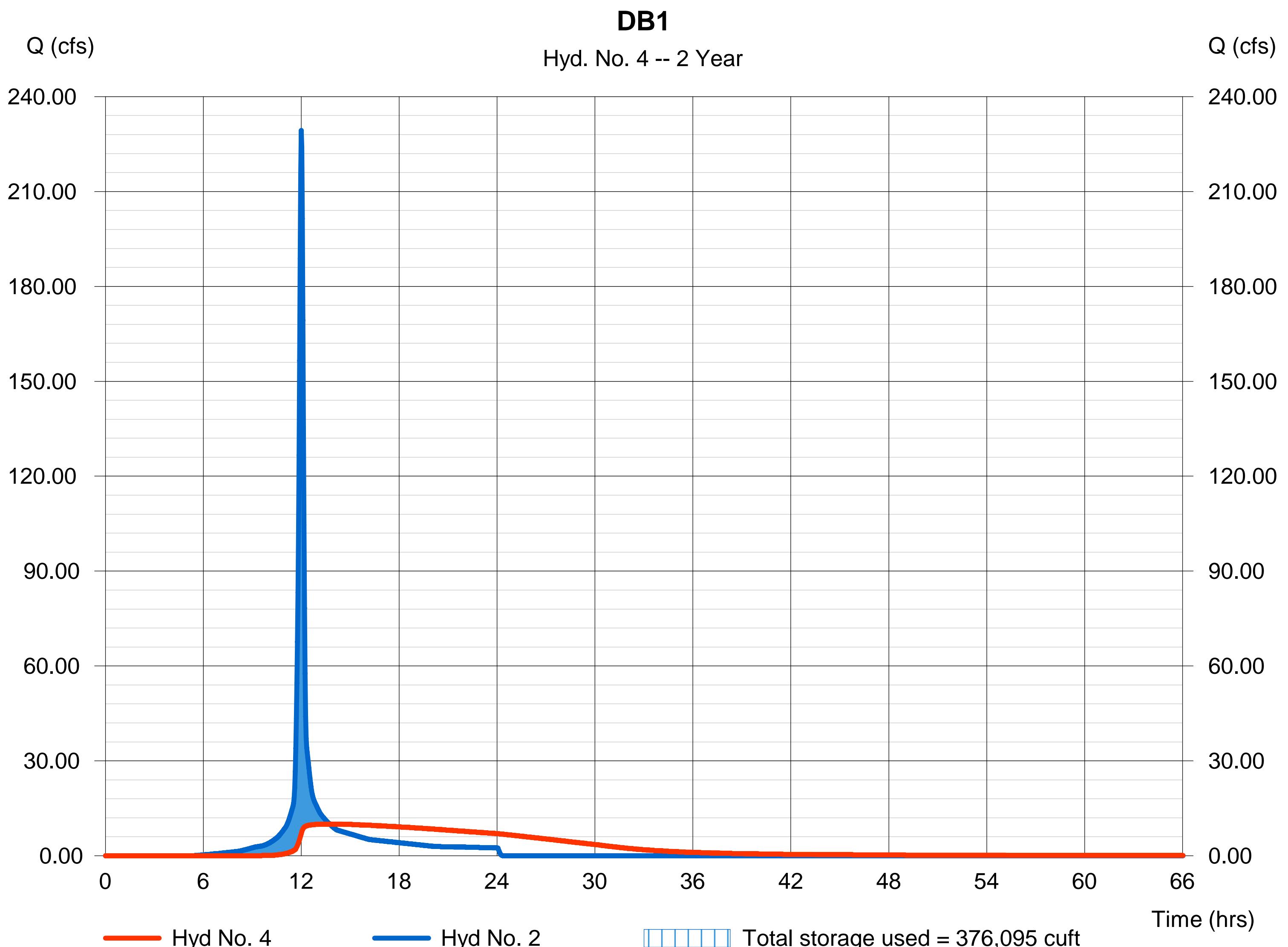
Monday, 09 / 29 / 2025

Hyd. No. 4

DB1

Hydrograph type	= Reservoir	Peak discharge	= 10.03 cfs
Storm frequency	= 2 yrs	Time to peak	= 13.73 hrs
Time interval	= 2 min	Hyd. volume	= 588,355 cuft
Inflow hyd. No.	= 2 - A1 Into SB1	Max. Elevation	= 1102.66 ft
Reservoir name	= DB1	Max. Storage	= 376,095 cuft

Storage Indication method used.



Hydrograph Report

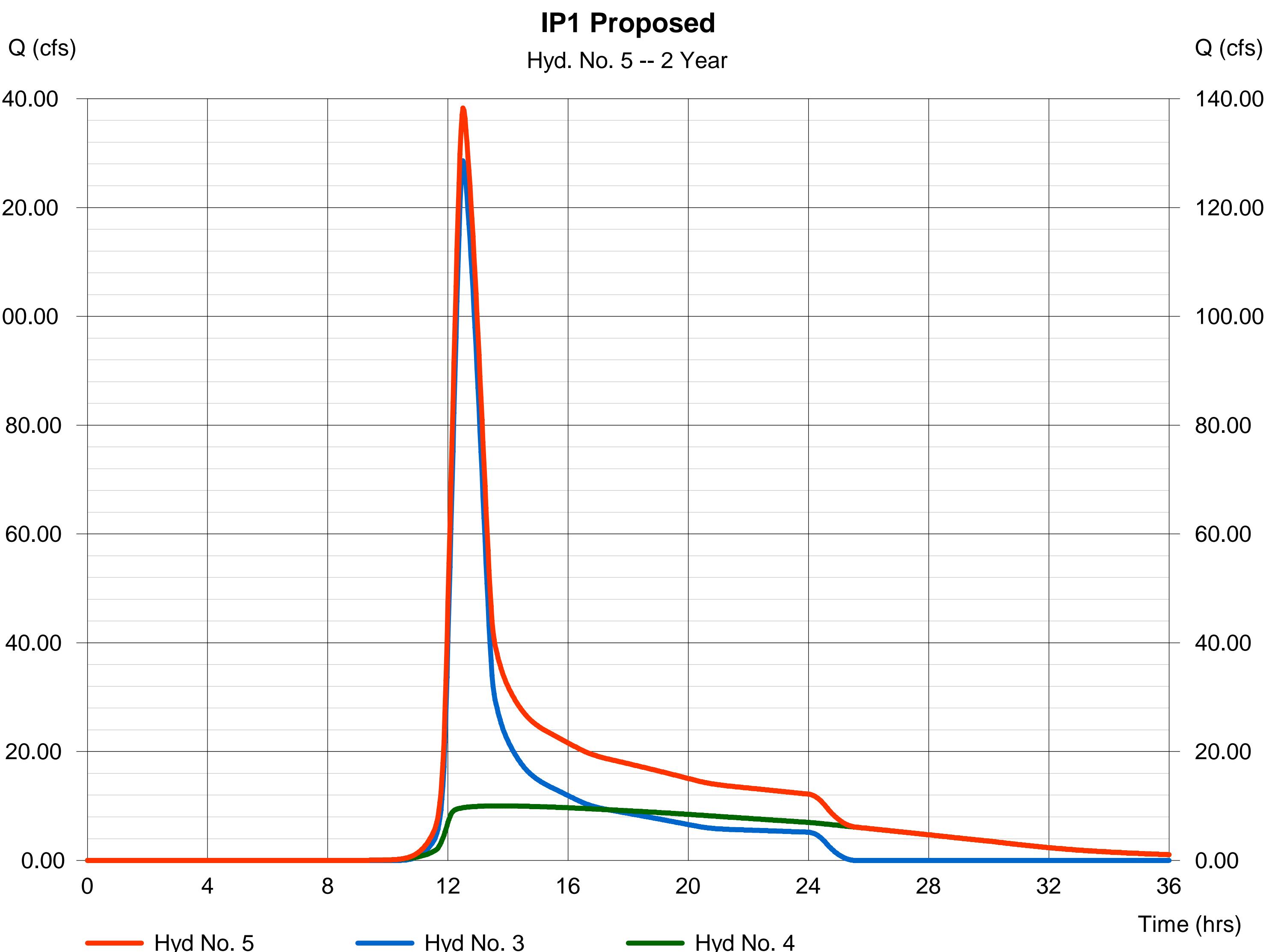
Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2024

Monday, 09 / 29 / 2025

Hyd. No. 5

IP1 Proposed

Hydrograph type	= Combine	Peak discharge	= 138.26 cfs
Storm frequency	= 2 yrs	Time to peak	= 12.50 hrs
Time interval	= 2 min	Hyd. volume	= 1,461,153 cuft
Inflow hyds.	= 3, 4	Contrib. drain. area	= 213.000 ac



Hydrograph Summary Report

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

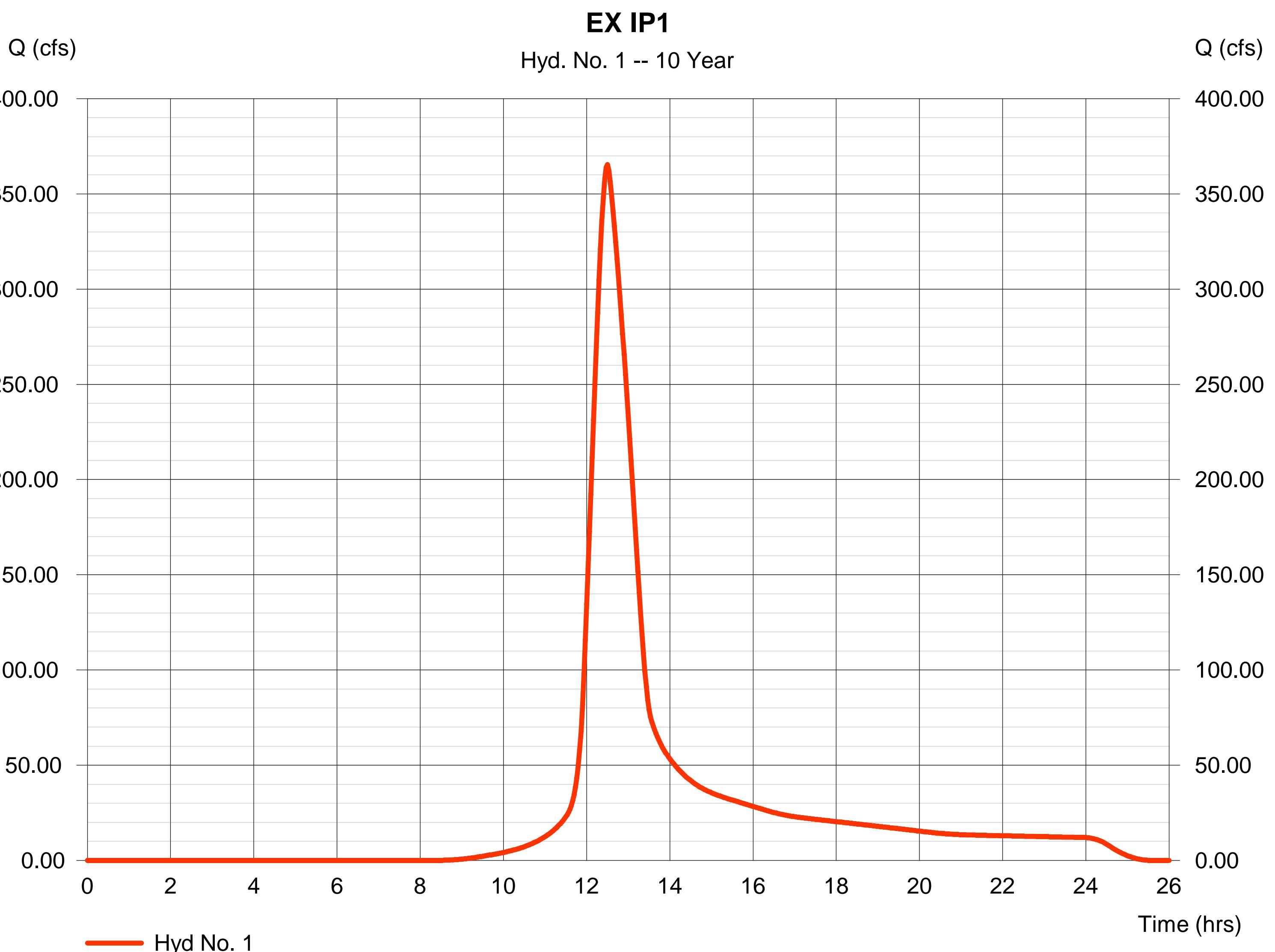
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	365.31	2	750	2,371,496	----	----	----	EX IP1
2	SCS Runoff	387.60	2	720	1,049,586	----	----	----	A1 Into SB1
3	SCS Runoff	282.95	2	750	1,836,830	----	----	----	B1 IP1
4	Reservoir	13.25	2	850	1,032,260	2	1104.67	683,454	DB1
5	Combine	295.92	2	750	2,869,092	3, 4	----	----	IP1 Proposed
Hydrograph.gpw					Return Period: 10 Year			Monday, 09 / 29 / 2025	

Hydrograph Report

Hyd. No. 1

EX IP1

Hydrograph type	= SCS Runoff	Peak discharge	= 365.31 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.50 hrs
Time interval	= 2 min	Hyd. volume	= 2,371,496 cuft
Drainage area	= 275.000 ac	Curve number	= 78
Basin Slope	= 2.5 %	Hydraulic length	= 3572 ft
Tc method	= LAG	Time of conc. (Tc)	= 59.20 min
Total precip.	= 4.60 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

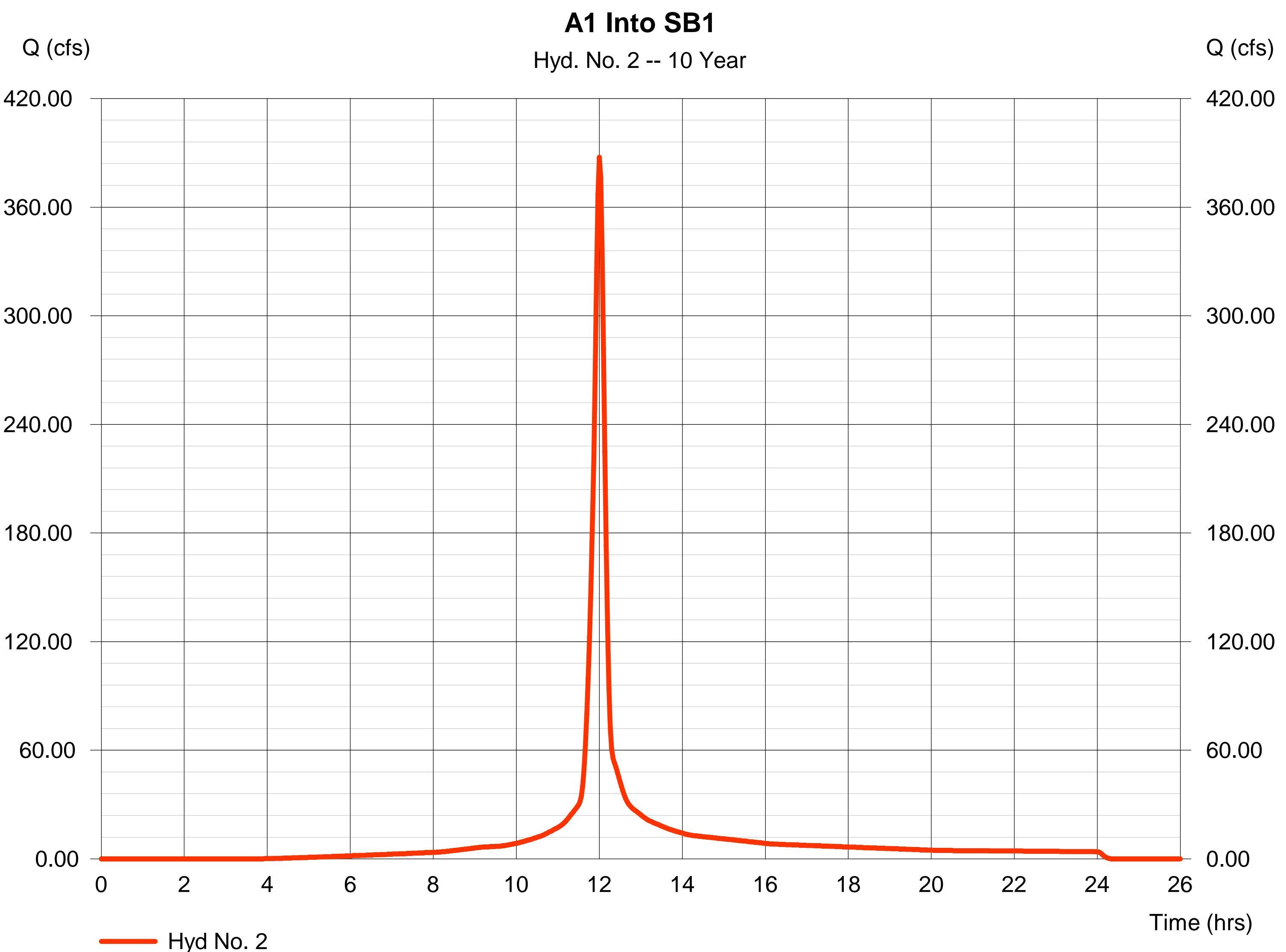


Hydrograph Report

Hyd. No. 2

A1 Into SB1

Hydrograph type	= SCS Runoff	Peak discharge	= 387.60 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.00 hrs
Time interval	= 2 min	Hyd. volume	= 1,049,586 cuft
Drainage area	= 78.000 ac	Curve number	= 91
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 13.30 min
Total precip.	= 4.60 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

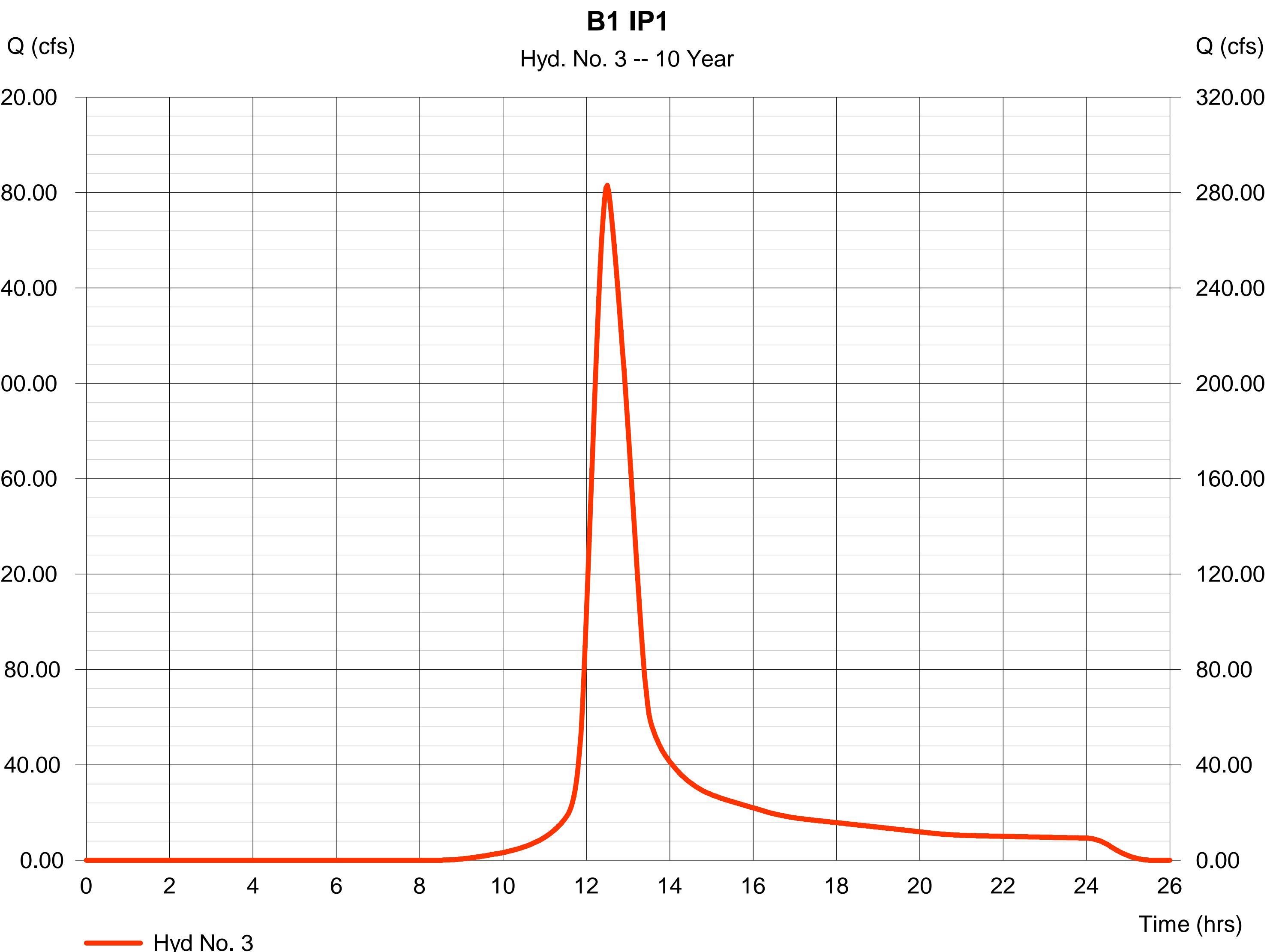


Hydrograph Report

Hyd. No. 3

B1 IP1

Hydrograph type	= SCS Runoff	Peak discharge	= 282.95 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.50 hrs
Time interval	= 2 min	Hyd. volume	= 1,836,830 cuft
Drainage area	= 213.000 ac	Curve number	= 78
Basin Slope	= 2.5 %	Hydraulic length	= 3572 ft
Tc method	= LAG	Time of conc. (Tc)	= 59.20 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

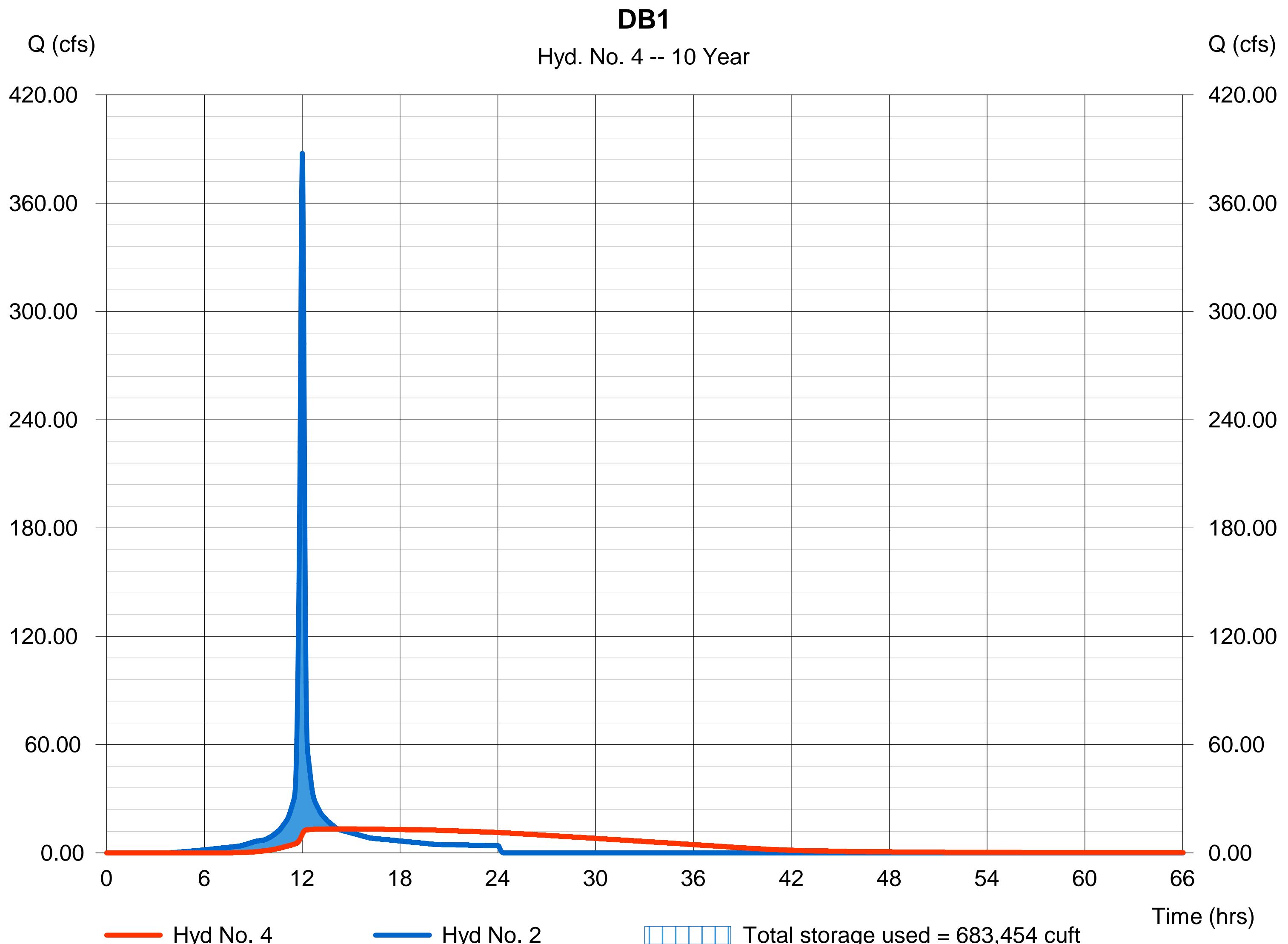
Monday, 09 / 29 / 2025

Hyd. No. 4

DB1

Hydrograph type	= Reservoir	Peak discharge	= 13.25 cfs
Storm frequency	= 10 yrs	Time to peak	= 14.17 hrs
Time interval	= 2 min	Hyd. volume	= 1,032,260 cuft
Inflow hyd. No.	= 2 - A1 Into SB1	Max. Elevation	= 1104.67 ft
Reservoir name	= DB1	Max. Storage	= 683,454 cuft

Storage Indication method used.

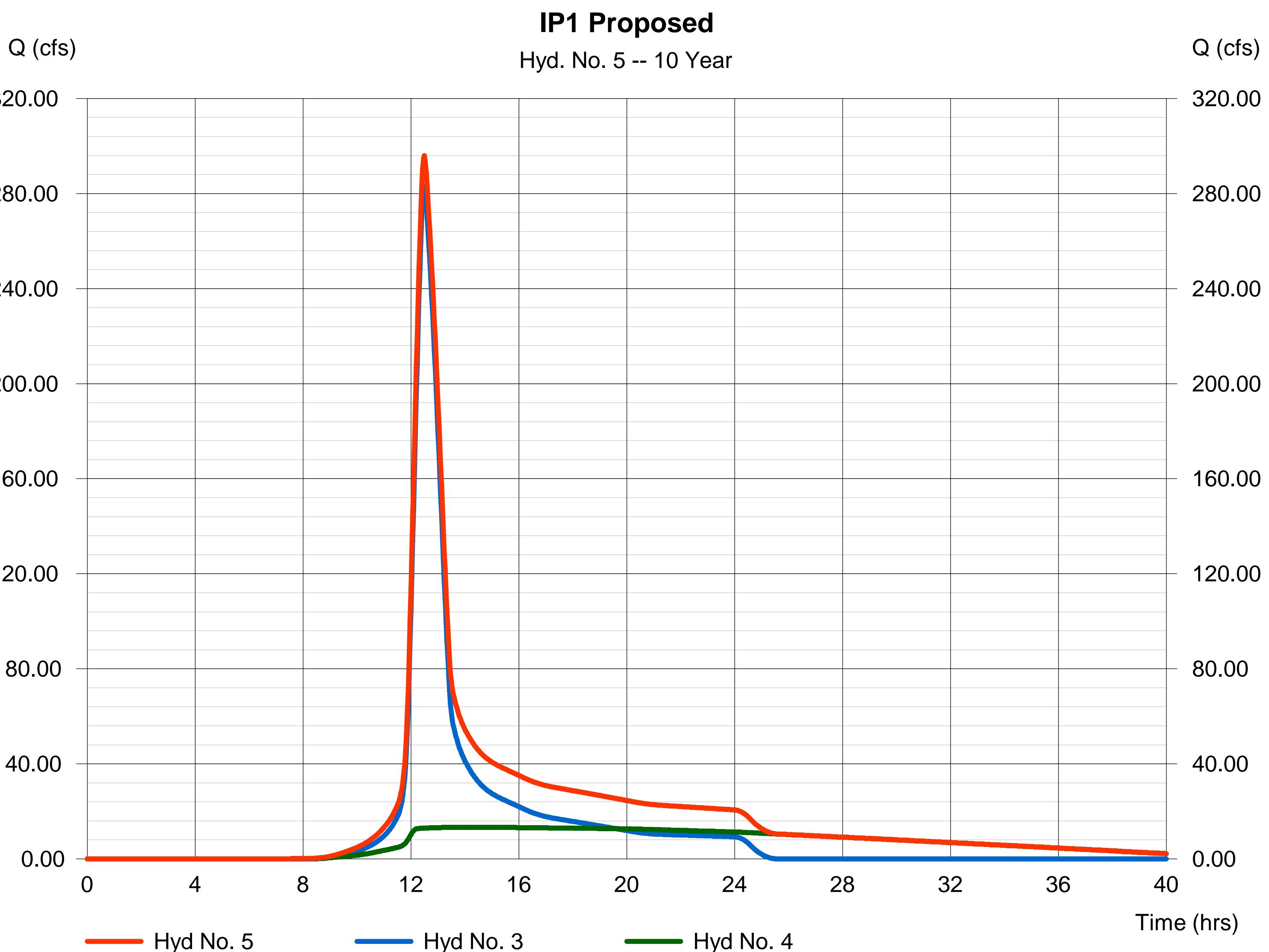


Hydrograph Report

Hyd. No. 5

IP1 Proposed

Hydrograph type	= Combine	Peak discharge	= 295.92 cfs
Storm frequency	= 10 yrs	Time to peak	= 12.50 hrs
Time interval	= 2 min	Hyd. volume	= 2,869,092 cuft
Inflow hyds.	= 3, 4	Contrib. drain. area	= 213.000 ac



Hydrograph Summary Report

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

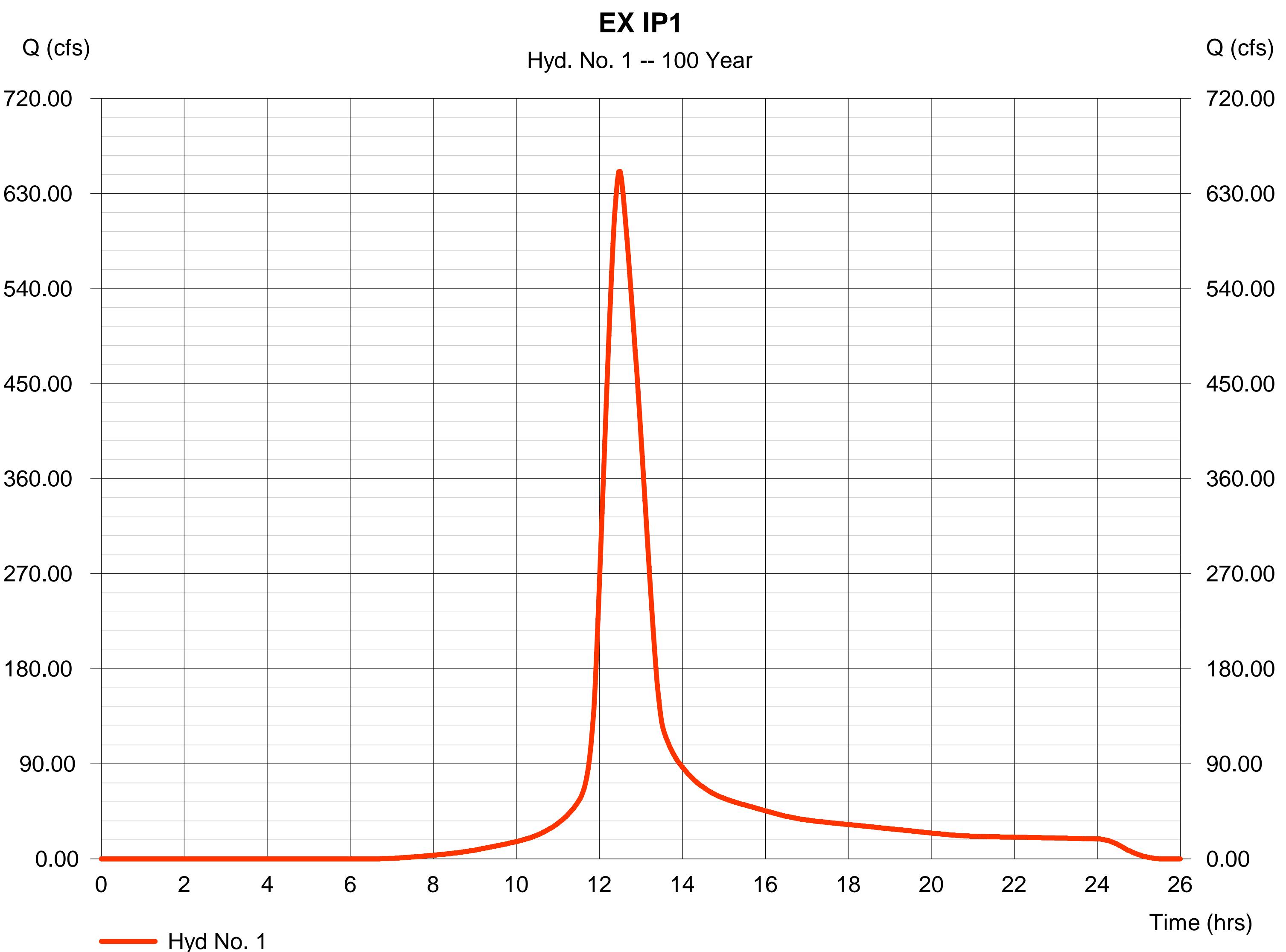
Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	651.02	2	750	4,196,252	----	----	----	EX IP1
2	SCS Runoff	593.03	2	720	1,647,910	----	----	----	A1 Into SB1
3	SCS Runoff	504.24	2	750	3,250,188	----	----	----	B1 IP1
4	Reservoir	18.18	2	872	1,629,088	2	1107.26	1,108,596	DB1
5	Combine	519.09	2	750	4,879,272	3, 4	----	----	IP1 Proposed
Hydrograph.gpw					Return Period: 100 Year			Monday, 09 / 29 / 2025	

Hydrograph Report

Hyd. No. 1

EX IP1

Hydrograph type	= SCS Runoff	Peak discharge	= 651.02 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.50 hrs
Time interval	= 2 min	Hyd. volume	= 4,196,252 cuft
Drainage area	= 275.000 ac	Curve number	= 78
Basin Slope	= 2.5 %	Hydraulic length	= 3572 ft
Tc method	= LAG	Time of conc. (Tc)	= 59.20 min
Total precip.	= 6.70 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

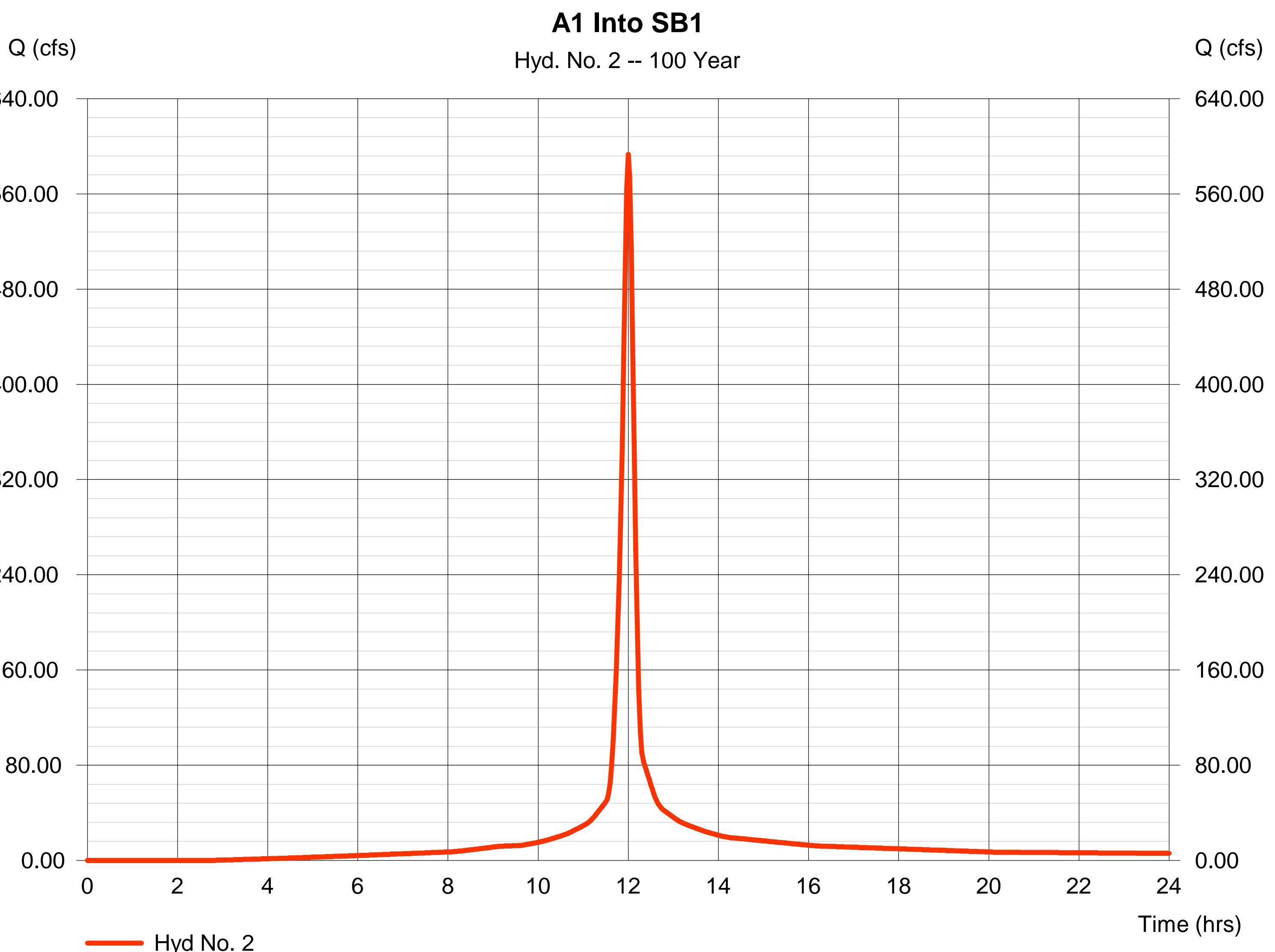


Hydrograph Report

Hyd. No. 2

A1 Into SB1

Hydrograph type	= SCS Runoff	Peak discharge	= 593.03 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.00 hrs
Time interval	= 2 min	Hyd. volume	= 1,647,910 cuft
Drainage area	= 78.000 ac	Curve number	= 91
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 13.30 min
Total precip.	= 6.70 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484

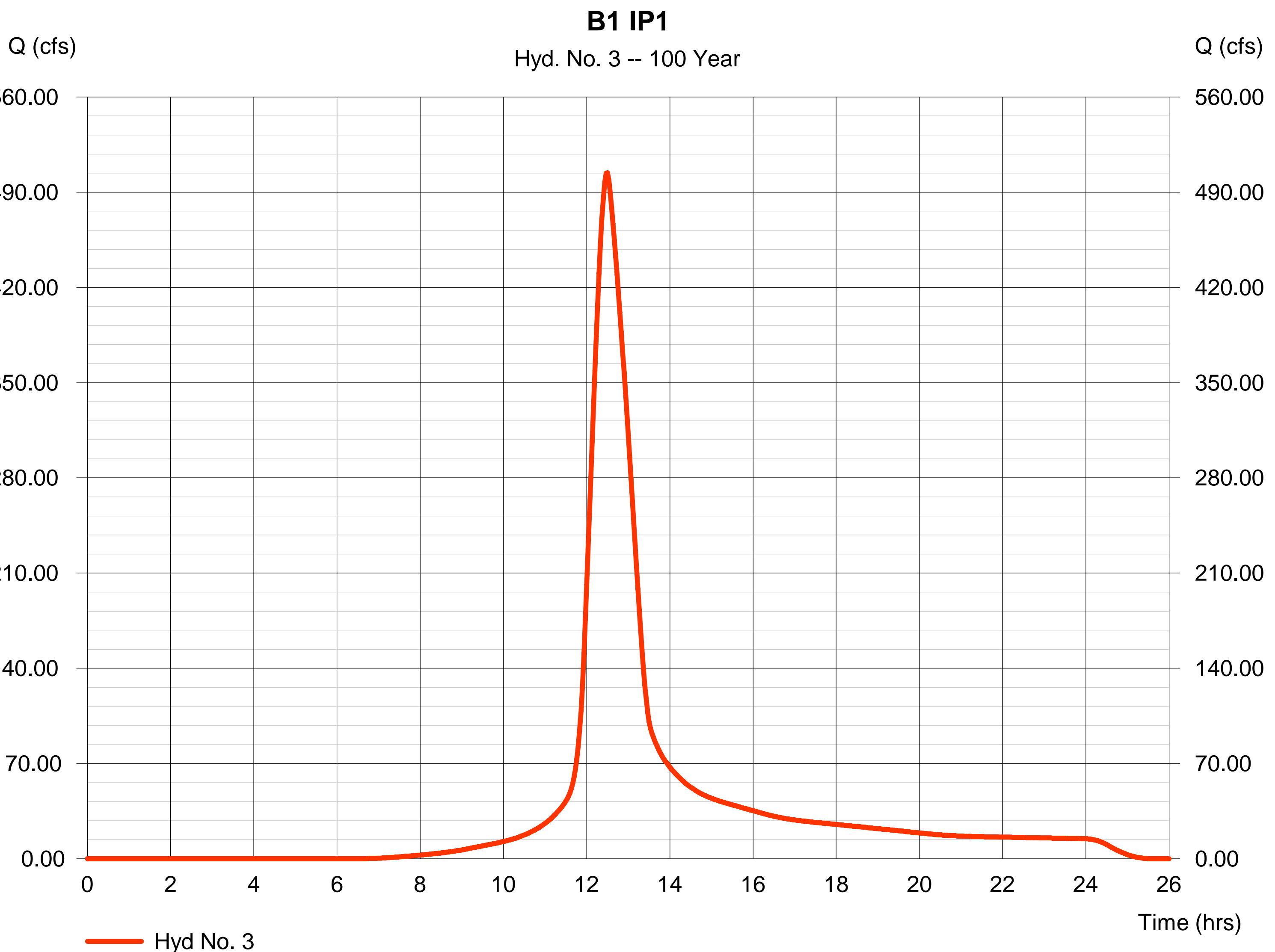


Hydrograph Report

Hyd. No. 3

B1 IP1

Hydrograph type	= SCS Runoff	Peak discharge	= 504.24 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.50 hrs
Time interval	= 2 min	Hyd. volume	= 3,250,188 cuft
Drainage area	= 213.000 ac	Curve number	= 78
Basin Slope	= 2.5 %	Hydraulic length	= 3572 ft
Tc method	= LAG	Time of conc. (Tc)	= 59.20 min
Total precip.	= 6.70 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



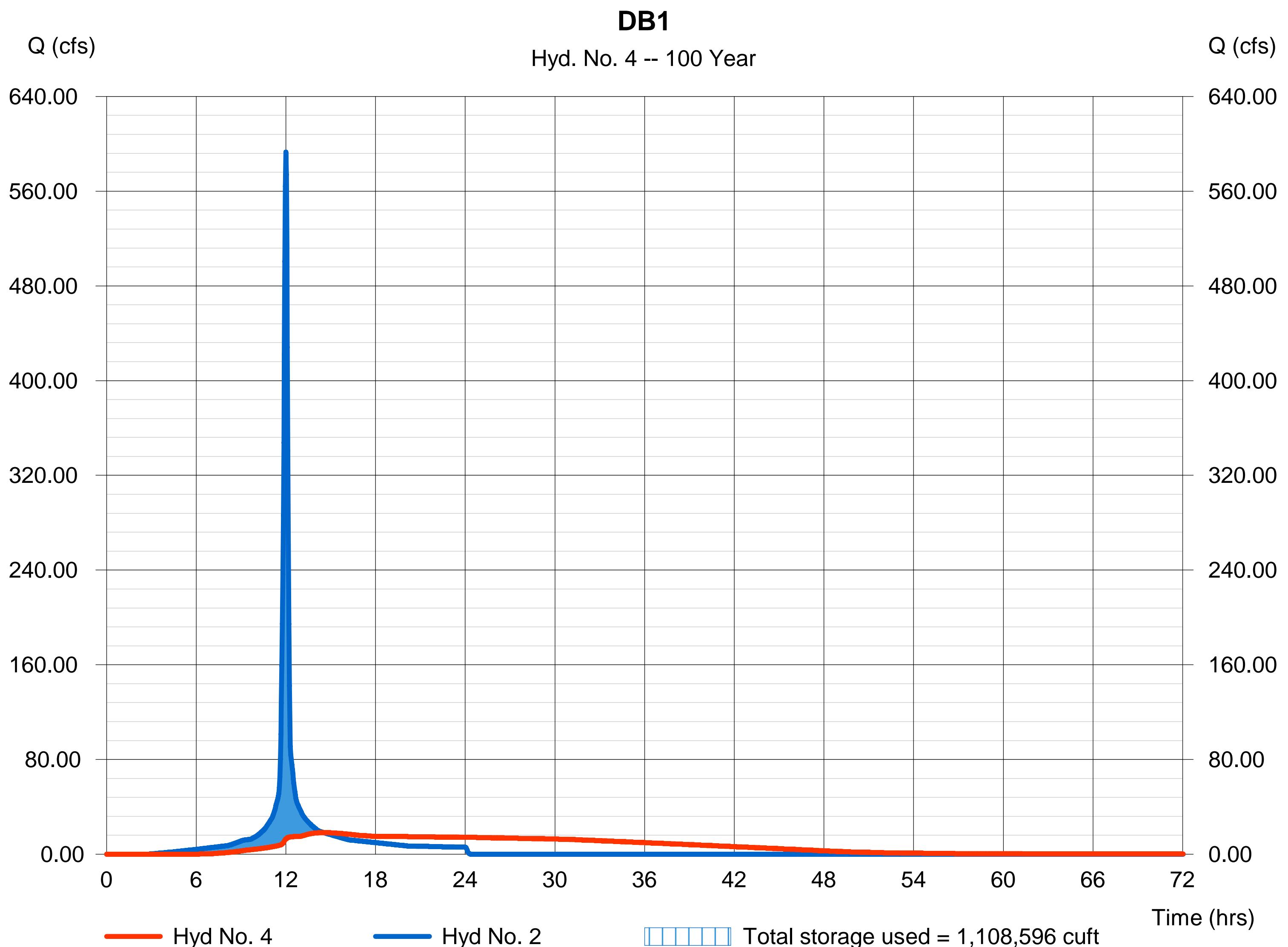
Hydrograph Report

Hyd. No. 4

DB1

Hydrograph type	= Reservoir	Peak discharge	= 18.18 cfs
Storm frequency	= 100 yrs	Time to peak	= 14.53 hrs
Time interval	= 2 min	Hyd. volume	= 1,629,088 cuft
Inflow hyd. No.	= 2 - A1 Into SB1	Max. Elevation	= 1107.26 ft
Reservoir name	= DB1	Max. Storage	= 1,108,596 cuft

Storage Indication method used.

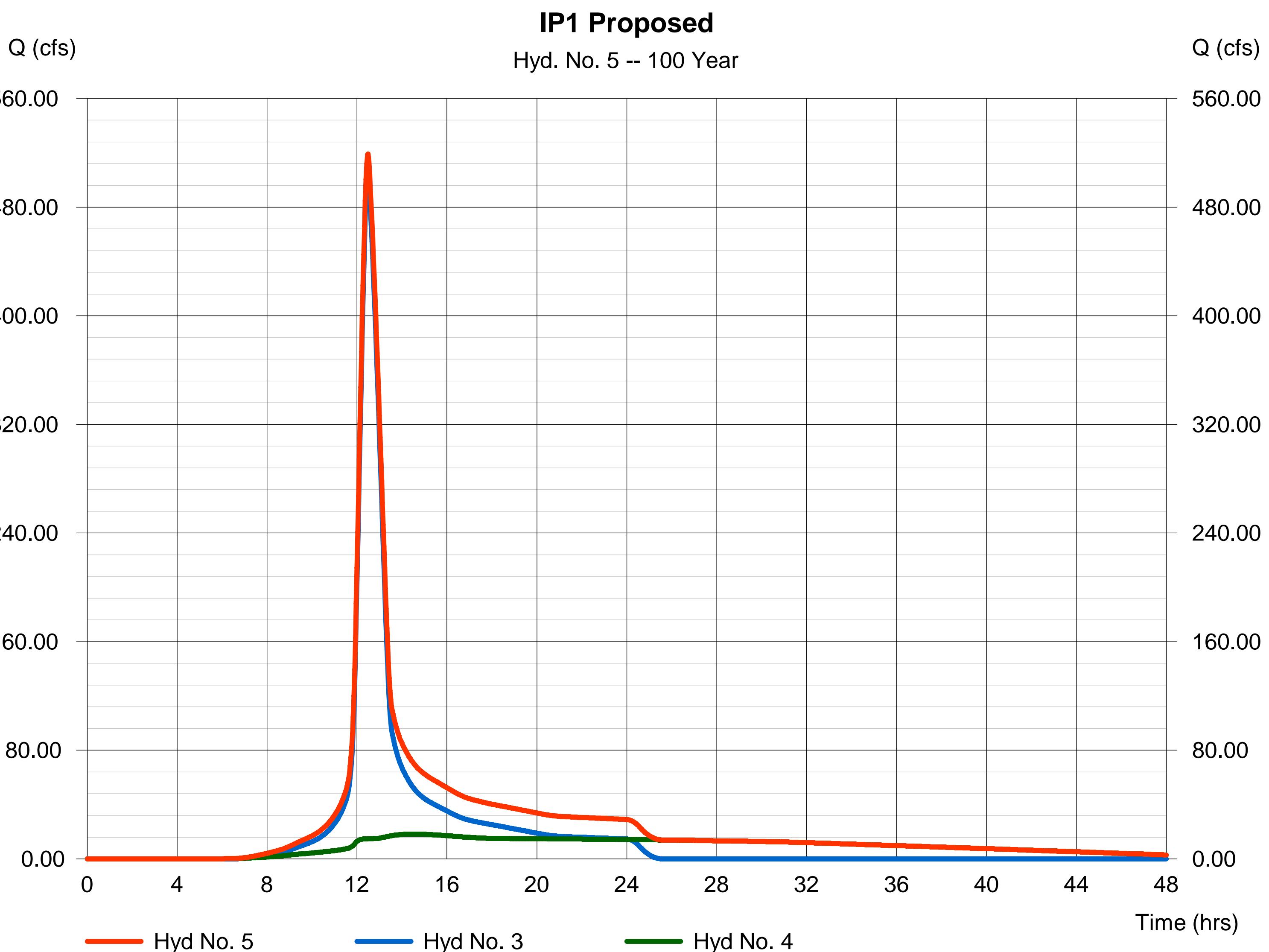


Hydrograph Report

Hyd. No. 5

IP1 Proposed

Hydrograph type	= Combine	Peak discharge	= 519.09 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.50 hrs
Time interval	= 2 min	Hyd. volume	= 4,879,272 cuft
Inflow hyds.	= 3, 4	Contrib. drain. area	= 213.000 ac



Hydraflow Rainfall Report

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

Monday, 09 / 29 / 2025

Return Period (Yrs)	Intensity-Duration-Frequency Equation Coefficients (FHA)			
	B	D	E	(N/A)
1	110.8217	18.3000	1.0108	-----
2	74.1125	11.8000	0.8974	-----
3	0.0000	0.0000	0.0000	-----
5	82.1212	10.1000	0.8627	-----
10	113.9855	12.1000	0.9024	-----
25	106.6791	11.3000	0.8449	-----
50	119.8696	11.8000	0.8406	-----
100	145.8254	12.7000	0.8636	-----

File name: Omaha.IDF

$$\text{Intensity} = B / (T_c + D)^E$$

Return Period (Yrs)	Intensity Values (in/hr)											
	5 min	10	15	20	25	30	35	40	45	50	55	60
1	4.60	3.78	3.20	2.78	2.46	2.20	1.99	1.82	1.67	1.55	1.44	1.35
2	5.89	4.66	3.87	3.32	2.91	2.60	2.35	2.14	1.97	1.83	1.71	1.60
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	7.90	6.17	5.09	4.35	3.81	3.40	3.07	2.81	2.58	2.40	2.24	2.10
10	8.79	6.98	5.80	4.98	4.37	3.90	3.52	3.22	2.96	2.75	2.56	2.40
25	10.09	8.05	6.74	5.81	5.13	4.60	4.18	3.83	3.54	3.29	3.08	2.90
50	11.19	8.99	7.56	6.54	5.79	5.20	4.73	4.34	4.02	3.74	3.51	3.30
100	12.19	9.84	8.28	7.18	6.35	5.70	5.18	4.75	4.40	4.09	3.83	3.60

Tc = time in minutes. Values may exceed 60.

Precip. file name: H:\Hydroflow Data\Omaha 24-hr Precip SCS.pcp

Storm Distribution	Rainfall Precipitation Table (in)							
	1-yr	2-yr	3-yr	5-yr	10-yr	25-yr	50-yr	100-yr
SCS 24-hour	0.00	3.00	0.00	3.90	4.60	5.30	6.00	6.70
SCS 6-Hr	0.00	1.80	0.00	0.00	2.60	0.00	0.00	4.00
Huff-1st	0.00	1.55	0.00	2.75	4.00	5.38	6.50	8.00
Huff-2nd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-3rd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-4th	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Huff-Indy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Custom	0.00	1.25	0.00	2.80	3.90	5.25	6.00	7.10

Pond Report

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

Monday, 09 / 29 / 2025

Pond No. 1 - DB1

Pond Data

Contours -User-defined contour areas. Average end area method used for volume calculation. Begining Elevation = 1100.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	1100.00	134,749	0	0
1.00	1101.00	139,554	137,152	137,152
2.00	1102.00	144,415	141,985	279,136
3.00	1103.00	149,332	146,874	426,010
4.00	1104.00	154,306	151,819	577,829
5.00	1105.00	159,337	156,822	734,650
6.00	1106.00	164,424	161,881	896,531
7.00	1107.00	169,568	166,997	1,063,527
8.00	1108.00	174,768	172,168	1,235,695
9.00	1109.00	180,025	177,396	1,413,091
10.00	1110.00	185,339	182,682	1,595,773
11.00	1111.00	190,708	188,024	1,783,797
12.00	1112.00	196,135	193,421	1,977,218

Culvert / Orifice Structures

Weir Structures

	[A]	[B]	[C]	[PrfRsr]		[A]	[B]	[C]	[D]
Rise (in)	= 18.00	8.00	Inactive	0.00	Crest Len (ft)	= 14.85	0.00	0.00	0.00
Span (in)	= 18.00	8.00	12.00	0.00	Crest El. (ft)	= 1107.00	0.00	0.00	0.00
No. Barrels	= 1	4	4	0	Weir Coeff.	= 3.33	3.33	3.33	3.33
Invert El. (ft)	= 1097.00	1100.10	1105.00	0.00	Weir Type	= 1	---	---	---
Length (ft)	= 170.00	1.00	1.00	0.00	Multi-Stage	= Yes	No	No	No
Slope (%)	= 1.00	1.00	1.00	n/a	Exfil.(in/hr)	= 0.000 (by Wet area)			
N-Value	= .013	.013	.013	n/a	TW Elev. (ft)	= 0.00			
Orifice Coeff.	= 0.60	0.60	0.60	0.60					
Multi-Stage	= n/a	Yes	Yes	No					

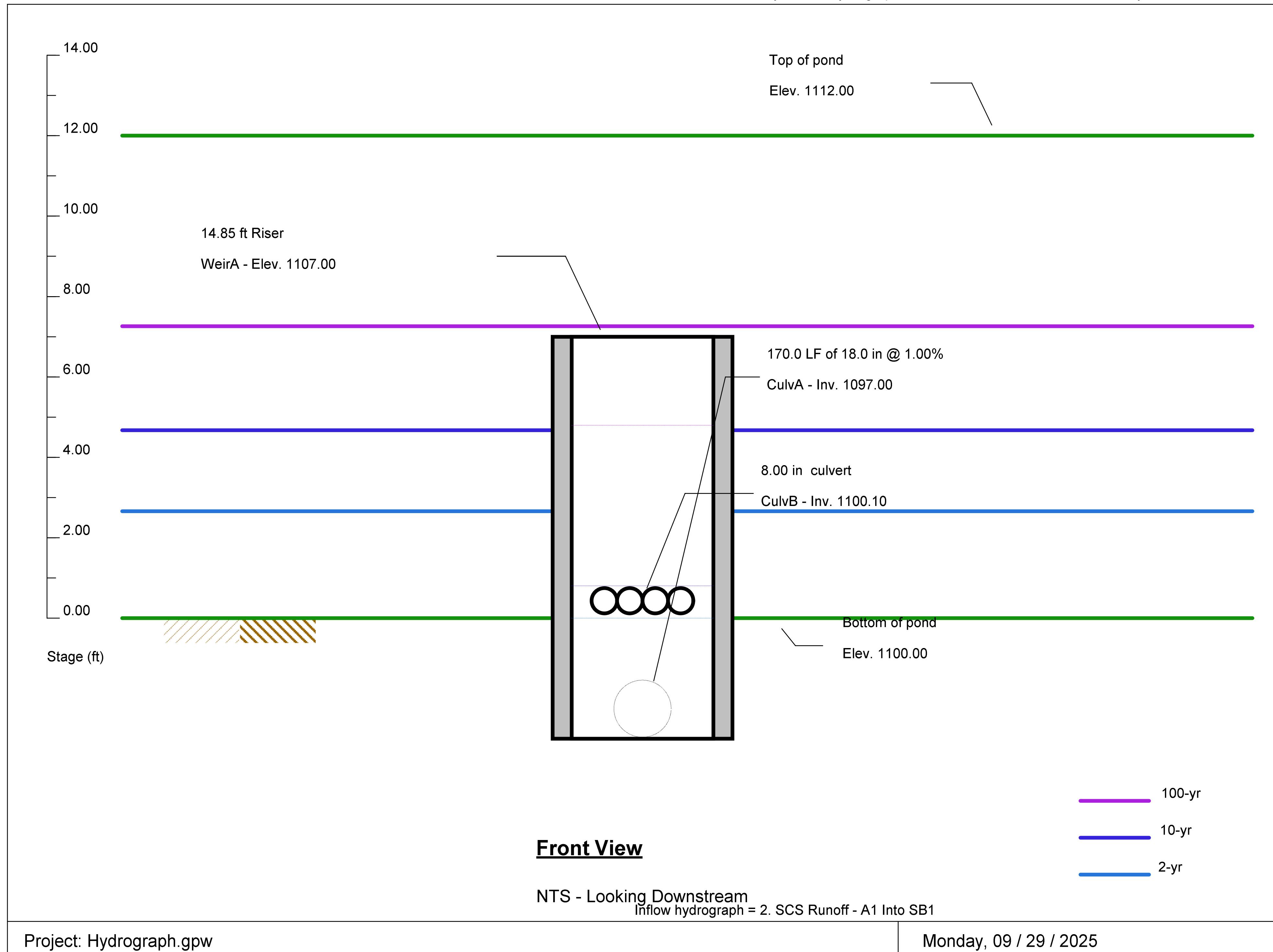
Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).

Stage / Storage / Discharge Table

Stage ft	Storage cuft	Elevation ft	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
0.00	0	1100.00	0.00	0.00	0.00	---	0.00	---	---	---	---	---	0.000
1.00	137,152	1101.00	11.86 oc	5.06 ic	0.00	---	0.00	---	---	---	---	---	5.060
2.00	279,136	1102.00	11.86 oc	8.41 ic	0.00	---	0.00	---	---	---	---	---	8.414
3.00	426,010	1103.00	11.86 oc	10.77 ic	0.00	---	0.00	---	---	---	---	---	10.77
4.00	577,829	1104.00	12.67 oc	12.67 ic	0.00	---	0.00	---	---	---	---	---	12.67
5.00	734,650	1105.00	13.52 oc	13.52 ic	0.00	---	0.00	---	---	---	---	---	13.52
6.00	896,531	1106.00	14.32 oc	14.32 ic	0.00	---	0.00	---	---	---	---	---	14.32
7.00	1,063,527	1107.00	15.08 oc	15.08 ic	0.00	---	0.00	---	---	---	---	---	15.08
8.00	1,235,695	1108.00	22.13 oc	1.75 ic	0.00	---	20.37 s	---	---	---	---	---	22.12
9.00	1,413,091	1109.00	23.15 oc	0.72 ic	0.00	---	22.41 s	---	---	---	---	---	23.13
10.00	1,595,773	1110.00	24.09 oc	0.43 ic	0.00	---	23.52 s	---	---	---	---	---	23.94
11.00	1,783,797	1111.00	24.99 oc	0.29 ic	0.00	---	24.33 s	---	---	---	---	---	24.63
12.00	1,977,218	1112.00	25.85 oc	0.22 ic	0.00	---	25.03 s	---	---	---	---	---	25.25

Pond No. 1 - DB1

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



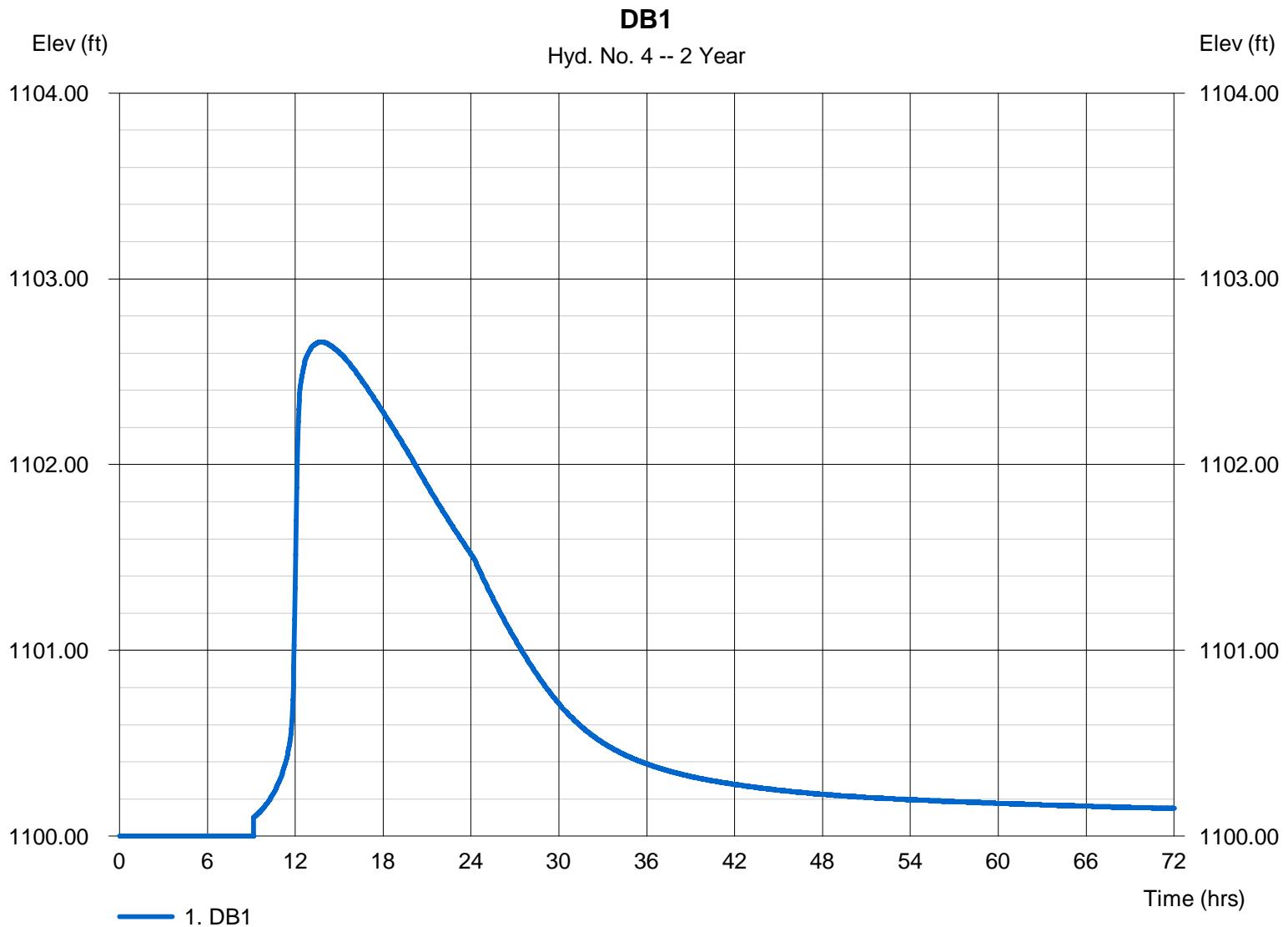
Hydrograph Report

Hyd. No. 4

DB1

Hydrograph type	= Reservoir	Peak discharge	= 10.03 cfs
Storm frequency	= 2 yrs	Time to peak	= 13.73 hrs
Time interval	= 2 min	Hyd. volume	= 588,355 cuft
Inflow hyd. No.	= 2 - A1 Into SB1	Max. Elevation	= 1102.66 ft
Reservoir name	= DB1	Max. Storage	= 376,095 cuft

Storage Indication method used.





United States
Department of
Agriculture



Natural
Resources
Conservation
Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

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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Contents

Preface.....	2
How Soil Surveys Are Made.....	5
Soil Map.....	8
Soil Map.....	9
Legend.....	10
Map Unit Legend.....	11
Map Unit Descriptions.....	11
Sarpy County, Nebraska.....	13
7234—Judson silty clay loam, 2 to 6 percent slopes.....	13
8035—Marshall-Contrary silty clay loams, 2 to 7 percent slopes.....	14
8153—Contrary-Marshall silty clay loams, 6 to 11 percent slopes.....	16
References.....	19

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

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

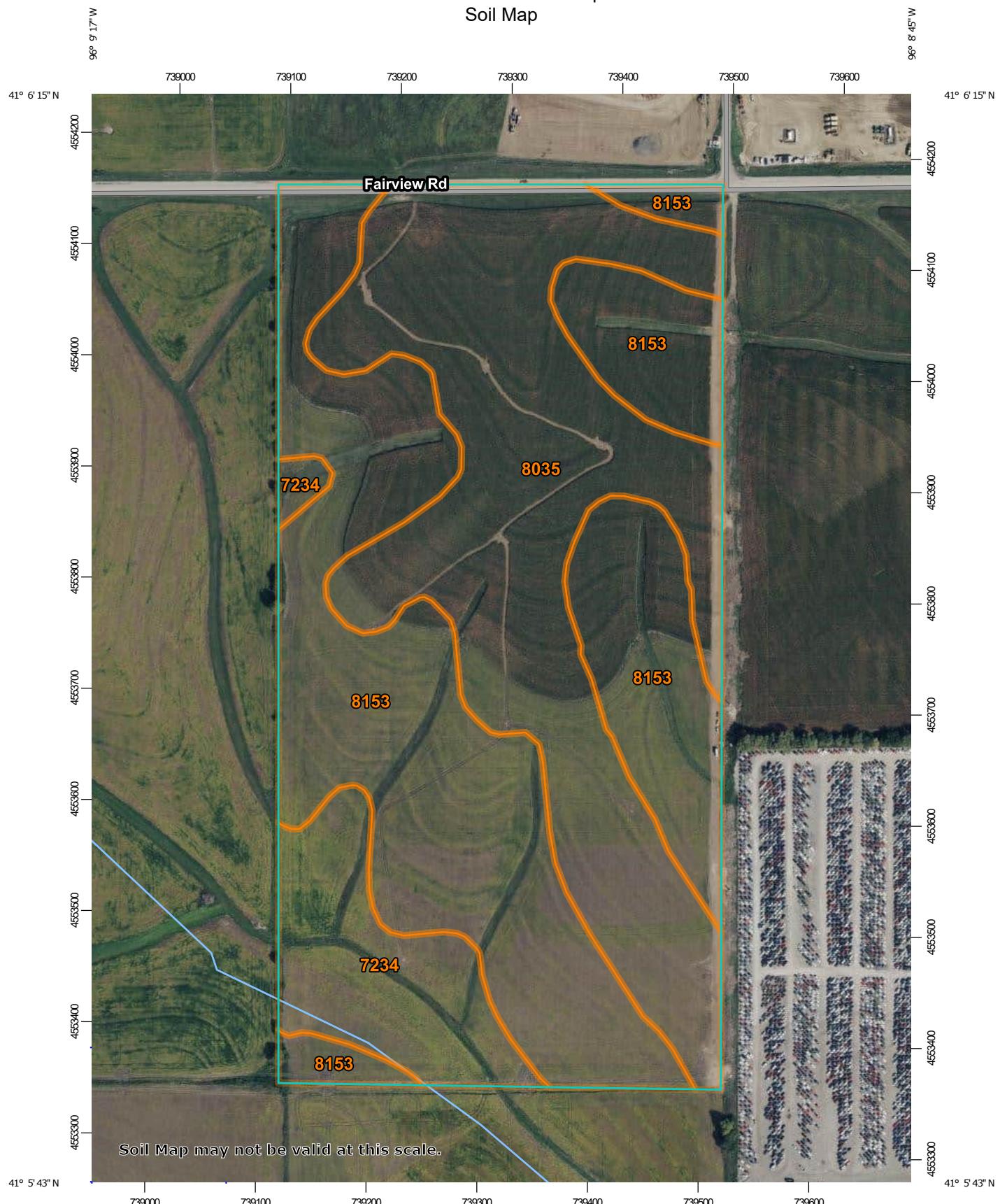
Custom Soil Resource Report

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: 1:4,770 if printed on A portrait (8.5" x 11") sheet.

0 50 100 150 200 250 300 Meters

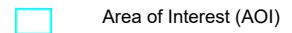
0 200 400 600 800 1000 1200 Feet

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



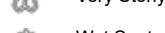
Sodic Spot

Spoil Area



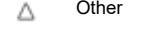
Stony Spot

Very Stony Spot



Very Stony Spot

Wet Spot



Wet Spot

Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



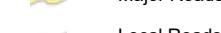
Interstate Highways



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 18, Aug 28, 2024

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	8.7	10.7%
8035	Marshall-Contrary silty clay loams, 2 to 7 percent slopes	32.2	39.9%
8153	Contrary-Marshall silty clay loams, 6 to 11 percent slopes	39.8	49.3%
Totals for Area of Interest		80.6	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

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): Foothslope

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 Foothslope 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: R107XB025IA - 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

Landform position (two-dimensional): Summit, shoulder

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): Summit, shoulder

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): Summit, shoulder, backslope

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

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): Summit, shoulder, backslope
Landform position (three-dimensional): Interfluve, head slope, nose slope, side 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, nose slope, side 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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Project Location

airview Road Between S 144th Street and S 156th Street

Springfield, NE 68114

ent Name

Professional Seal

Revision Dates

Drawn By: CNC Reviewed By: BPH
Job No.: 1570-104 Date: 10-06-25

Existing Drainage Plan

Page 10

•M-1

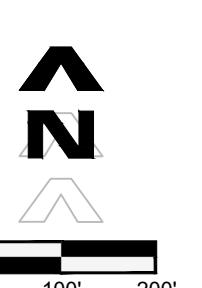
VM-1

EX1

75 Ac.

156TH STREET

An aerial photograph of a river flowing through a valley. A thick black dashed line starts from the bottom left and extends diagonally upwards towards the center of the image, indicating the path of a river or a specific feature. The river is a light blue color, and the surrounding land is a mix of green and brown. A small white rectangular box is positioned in the bottom right corner of the image.



Project Location

airview Road Between S 144th Street and S 156th Street

Springfield, NE 68114

ent Name
ribedo LLC

Professional Seal

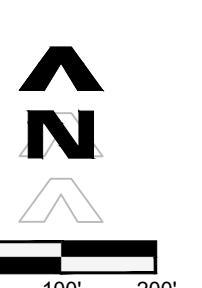
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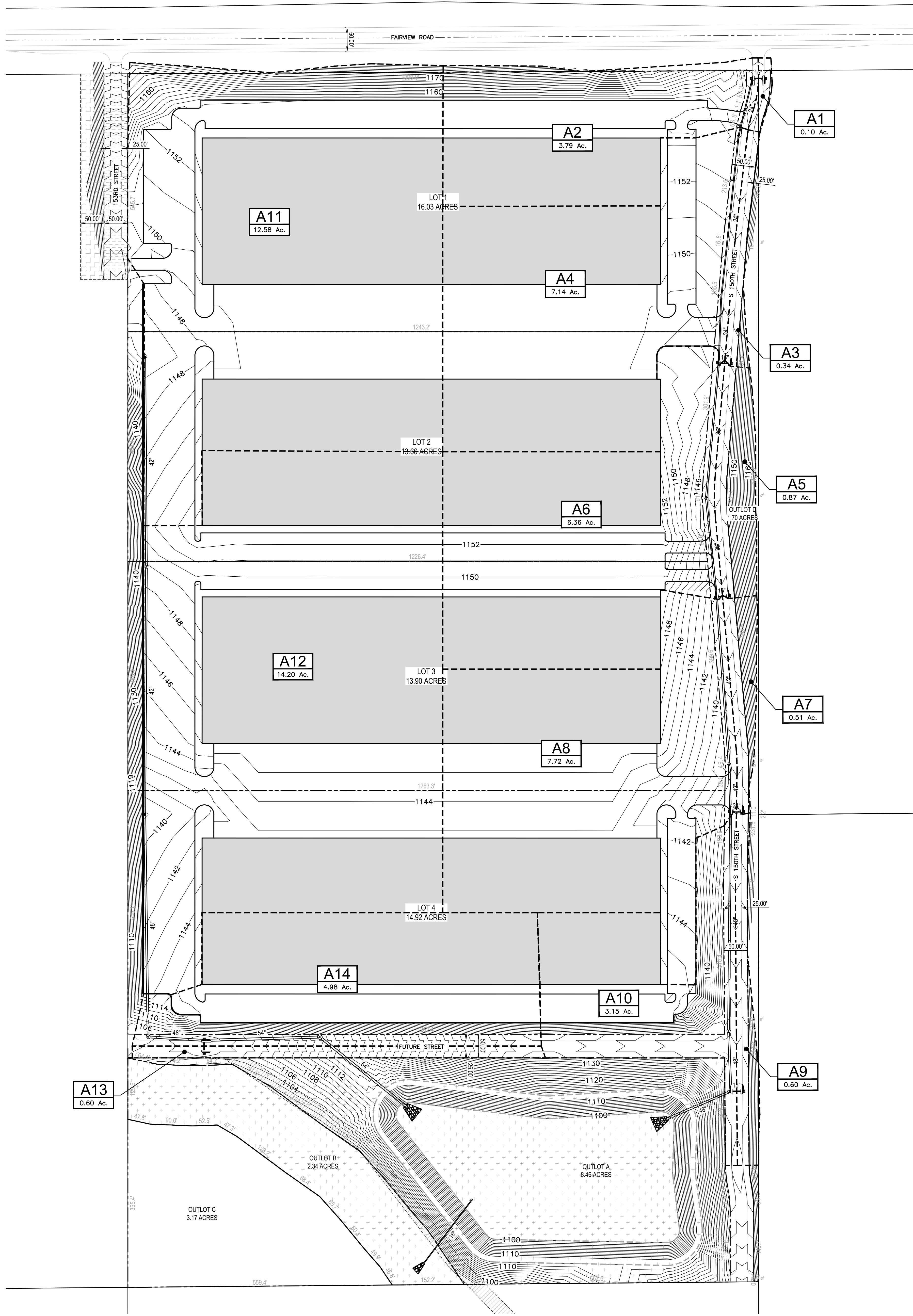
Proposed Drainage Plan

Page 10

M-2



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Reviewed By: BPH
Date: 10-06-25

Proposed Drainage Areas

4.3