Bryant Development and Review Committee Meeting

Boswell Municipal Complex - City Hall Conference Room

210 SW 3rd Street

Date: March 28, 2024 - **Time:** 9:00 AM

Call to Order

Old Business

New Business

1. Pinnacle Point Assisted Living - 6845 Hwy 5 - Site Plan Addition

Robby Hubbard - Requesting approval for addition of fencing around detention pond.

- 0844-PLN-02.pdf

2. Bryant School Admin Building - 1511 N Reynolds - Site Plan Addition

Josh Minton - Requesting Approval for Changes to the Stormwater Drainage on Site

- 0847-PLN-01.pdf
- 0847-DRN-01.pdf

3. Discussion on City Sewer in Area of Brandon Road

Jack Moseley - Requesting Discussion on Sewer

Staff Approved

4. P31 Boutique - 3507 Marketplace Ste 200 - Sign Permit

L Graphics - Requesting Sign Permit Approval - STAFF APPROVED

- 0845-APP-01.pdf

Permit Report

Adjournments

LW ARCHITECTS

COA # C786
803 MOUNT MORIAH
SUITE 100B
MEMPHIS, TN 38117
(901) 683-7175 p.
(901) 683-2385 f.
llw@llwarchitects.com

ISSUED	DATE
PRELIMINARY DRAWINGS	05-08-2018
FOR PERMIT	09-06-2019

NO.	REVISIONS	DATE

VICINITY MAP
SCALE: N.T.S.

Fence to be 5'-0" off the back of the curb

Approximately 625' of fence from highway 5 towards Woody Drive.

4'-0" tall Ameristar Fence decorative fence with smooth top rail. Fence to be located next to the side walk.

PROPERTY LINE

ASPHALT PAVING - SEE CIVIL
CREEK BELOW
STORM DRAIN (TYP.) - SEE CIVIL
STORM DRAIN (TYP.) - SEE CIVIL

FLAGPOLE W/ GROUND MOUNTED UPLIGHT
GREASE TRAP - SEE PLUMBING
CAR WASH
DUMPSTER/ STORAGE AREA
TRANSFORMER ON CONCRETE PAD - SEE CIVIL
SERVICE/ RECEIVING
LANDSCAPING
STORM DRAIN (TYP.) - SEE CIVIL
GAS METER & UG GAS SERVICE BY LOCAL UTILITY

ASPHALT PAVING - SEE CIVIL

TWO STORY AREA
ONE STORY AREA
HEAT PUMP UNITS (TYP.)
RECREATION COURT
RAISED PLANTERS
COURTYARD
LANDSCAPING - SEE CIVIL
STORM DRAIN (TYP.) - SEE CIVIL
LANDSCAPING
ONE STORY AREA
STORM DRAIN (TYP.) - SEE CIVIL

PROPERTY LINE

30' ACCESS DRIVE

CREEK BELOW

ASPHALT PAVING - SEE CIVIL

PORTE COCHERE

BOLLARD (TYP.)

PATIO
ONE STORY AREA

ASPHALT PAVING - SEE CIVIL

5' WIDE CONCRETE SIDEWALK

STORM DRAIN (TYP.) - SEE CIVIL
ASPHALT PAVING - SEE CIVIL
STORM DRAIN (TYP.) - SEE CIVIL

RETAINING WALL - SEE CIVIL

PROPERTY LINE

STATE HIGHWAY 5

PROPERTY LINE

GENERAL NOTES:
1. ALL SITE PLAN INFORMATION IS BASED ON TOPOGRAPHIC SURVEY PREPARED BY CIVIL ENGINEER: PICKERING FIRM, INC. (901-726-8110 PHONE)
2. ALL CONCRETE WALKS TO BE 5'-0" (U.N.O.) WIDE TYPICAL SIDEWALKS WITH NON-SLIP LIGHT BROOM FINISH - SEE CIVIL.
3. REFER TO CIVIL ENGINEERING DRAWINGS FOR ADDITIONAL INFORMATION PERTAINING TO DRAINAGE DESIGN, CURB CUTS, PAVING, AND PARKING LOT DIMENSIONS.
4. ALL ACCESSIBLE ROUTES SHALL COMPLY WITH ADA GUIDELINES.
5. ALL EXTERIOR SIGNAGE SHALL BE AS DIRECTED BY OWNER (EXCEPT AS DETAILED WITHIN THESE CONSTRUCTION DOCUMENTS) AND IN COMPLIANCE WITH LOCAL CODES. GENERAL CONTRACTOR TO PROVIDE ELECTRICAL CONDUIT & POWER. SIGNAGE & FOUNDATION ARE O.F.O.I.
6. GENERAL CONTRACTOR TO PROVIDE PAINTED STRIPING, WORDING, DIRECTIONAL ARROWS AND SYMBOLS IN ACCORDANCE WITH SPECIFICATIONS, NATIONAL AND LOCAL CODES.
7. PRIOR TO CONSTRUCTION GENERAL CONTRACTOR SHALL VERIFY ALL ITEMS SHOWN AS EXISTING ON THESE DRAWINGS AND NOTIFY THIS OFFICE OF ANY DISCREPANCIES.
8. CONTRACTOR MUST TAKE PRECAUTIONS TO PROTECT OWNER'S PROPERTY FROM CONSTRUCTION OPERATIONS. BOUNDARY OF CONTRACTOR'S WORK AND STORAGE AREAS WILL BE DEFINED TO MUTUAL AGREEMENT BY CONFERENCE.
9. SHOULD FIELD CONDITIONS DIFFER FROM PLANS TO THE EXTENT UNNECESSARY COSTS ARE INCURRED OR DELAYS ARE ANTICIPATED, THE OWNER AND ARCHITECT SHALL BE CONSULTED. AN ALTERNATE SCHEME, IF POSSIBLE WILL BE ESTABLISHED TO ATTEMPT TO SOLVE THE PROBLEM DISCOVERED.
10. COORDINATE EXTERIOR UTILITY LOCATIONS W/ CIVIL ENGINEERING DWGS & WITH UTILITY COMPANIES.
11. ALL BUILDING DIMENSIONS ARE TO FACE OF FINISH.
12. G.C. TO FOLLOW THE MINIMUM REQUIREMENTS FOR PAVEMENT DESIGN RECOMMENDATION WALL U.N.O. PER CIVIL DRAWINGS AND SOIL REPORT.
13. LIMITS OF CONSTRUCTION TO BE AREA WITHIN PROPERTY LINE OR AS INDICATED WITH LIMIT LINES OF CONSTRUCTION.
14. ALL ROOF DRAINS INCLUDING DOWNSPOTS FROM GUTTERS TO TIE INTO STORM DRAINAGE SYSTEM (SEE CIVIL).
15. PROVIDE UNDERGROUND ELECTRICAL CONDUIT (NOT WIRED) FOR THE ABILITY TO ADD ELECTRIC CAR (EV) CHARGING STATIONS FOR A MINIMUM OF 2% OF THE TOTAL PARKING COUNT. EXACT LOCATIONS TO BE DETERMINED BY OWNER/ARCHITECT. MAINTAIN ACCESSIBLE WIDTH REQUIREMENT OF ADJACENT SIDEWALK. PROVIDE PIPE BOLLARD TO PROTECT CHARGING STATION. PROVIDE SIGN STATING "ELECTRIC VEHICLE PARKING AND CHARGING STATION". COORDINATE ALL REQUIREMENTS WITH CHARGING STATION MANUFACTURER.

SITE PLAN
SCALE: 1" = 30'-0"

CALL NORTH

TOTAL PARKING:
STANDARD GRADE PARKING: 75
ACCESSIBLE GRADE PARKING: 4
TOTAL PARKING: 79

SEAL

PINNACLE POINT
AT BRYANT

BRYANT, ARKANSAS

SHEET NAME
SITE PLAN

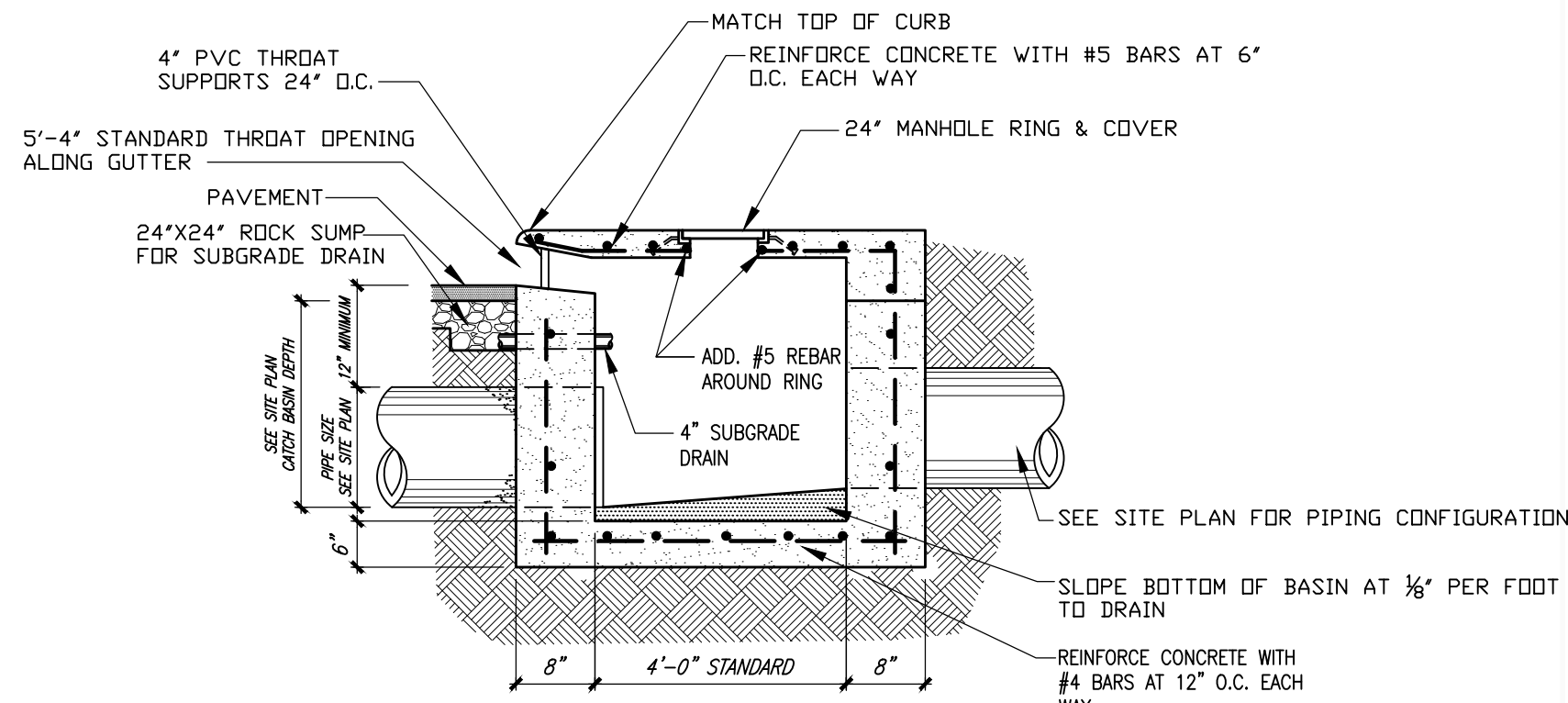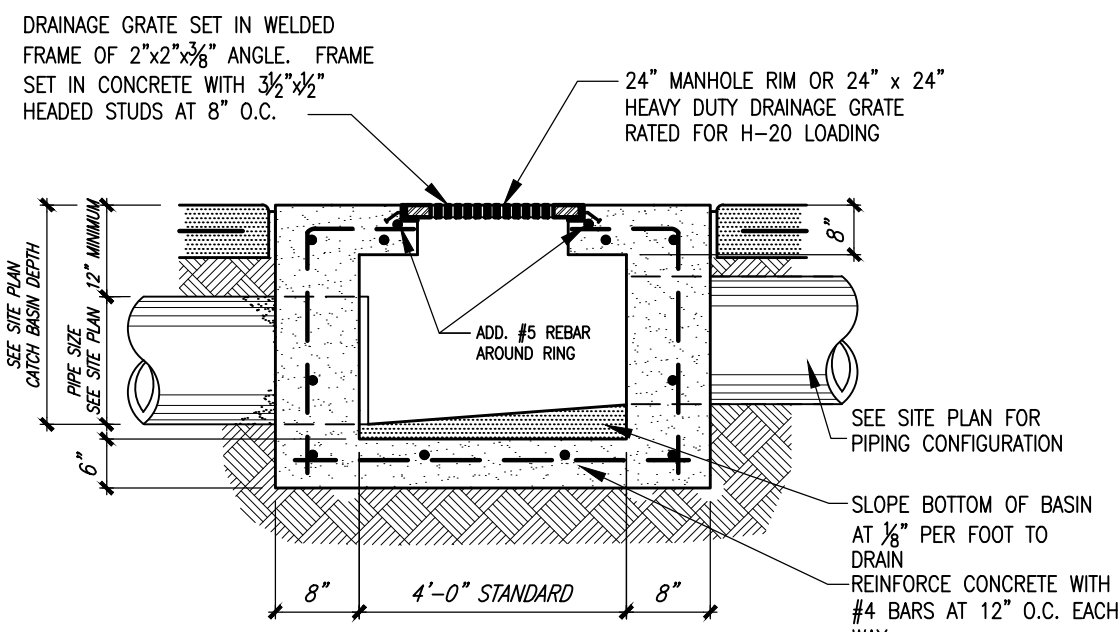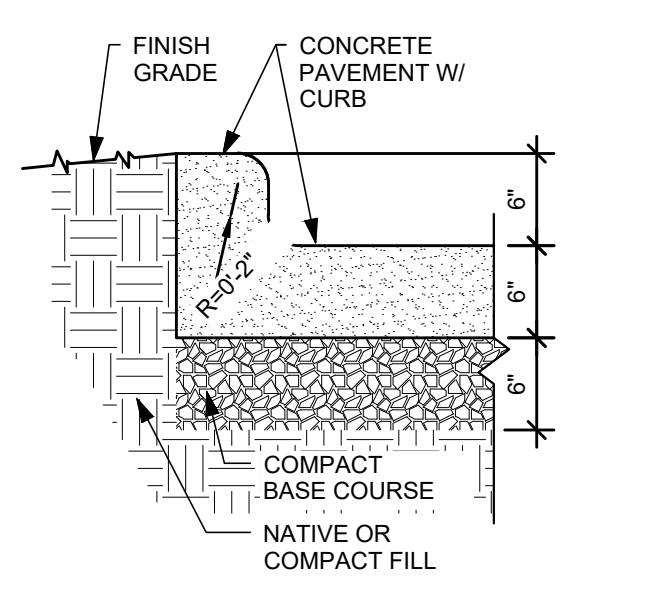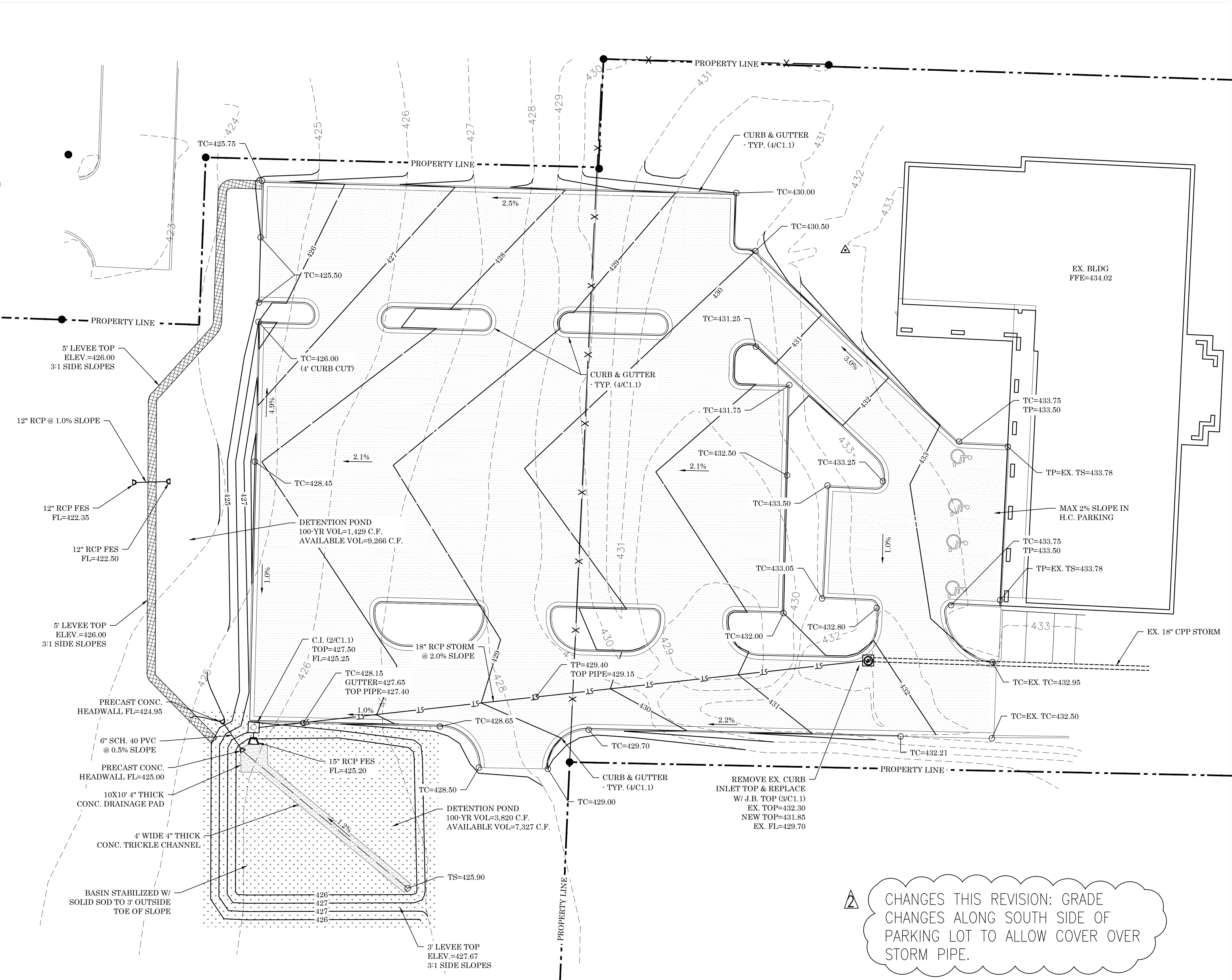| DATE	09-06-2019
DRAWN BY	BVB
CHECKED BY	DRL
FILE NAME	0218-A101
SCALE	AS NOTED
PROJECT NO.	0218
DRAWING	

A1.1

Detail 2 — Storm Drainage Curb Inlet (C.I.) Detail

- 4" PVC THROAT SUPPORTS 24" O.C.
- MATCH TOP OF CURB
- REINFORCE CONCRETE WITH #5 BARS AT 6" O.C. EACH WAY
- 5'-4" STANDARD THROAT OPENING ALONG GUTTER
- 24" MANHOLE RING & COVER
- PAVEMENT
- 24"X24" ROCK SUMP FOR SUBGRADE DRAIN
- ADD. #5 REBAR AROUND RING
- 4" SUBGRADE DRAIN
- SEE SITE PLAN FOR PIPING CONFIGURATION
- SLOPE BOTTOM OF BASIN AT ½" PER FOOT TO DRAIN
- REINFORCE CONCRETE WITH #4 BARS AT 12" O.C. EACH WAY
- 8" / 4'-0" STANDARD / 8"

2 STORM DRAINAGE CURB INLET (C.I.) DETAIL
C1.1 NOT TO SCALE

Detail 3 — Storm Drainage Junction Box (J.B.) Detail

- DRAINAGE GRATE SET IN WELDED FRAME OF 2"x2"x⅜" ANGLE. FRAME SET IN CONCRETE WITH 3½"x½" HEADED STUDS AT 8" O.C.
- 24" MANHOLE RIM OR 24" x 24" HEAVY DUTY DRAINAGE GRATE RATED FOR H-20 LOADING
- ADD. #5 REBAR AROUND RING
- SEE SITE PLAN FOR PIPING CONFIGURATION
- SLOPE BOTTOM OF BASIN AT ½" PER FOOT TO DRAIN
- REINFORCE CONCRETE WITH #4 BARS AT 12" O.C. EACH WAY
- 8" / 4'-0" STANDARD / 8"

3 STORM DRAINAGE JUNCTION BOX (J.B.) DETAIL
C1.1 NOT TO SCALE

Detail 4 — Curb & Gutter Detail

- FINISH GRADE
- CONCRETE PAVEMENT W/ CURB
- COMPACT BASE COURSE
- NATIVE OR COMPACT FILL

4 CURB & GUTTER DETAIL
C1.1 NOT TO SCALE

General Site Grading Notes

GENERAL SITE GRADING NOTES:

1. ALL BIDDERS SHALL FIELD VERIFY EXIST SITE CONDITIONS SO AS TO BE FAMILIAR WITH PROJECT PRIOR TO BIDDING. WORK INCLUDED IN THIS CONTRACT. ANY DISCREPANCIES SHALL BE ADDRESSED PRIOR TO BIDDING.

2. CONTRACTOR TO VERIFY AND MARK ALL EXISTING UTILITIES PRIOR BEFORE ANY DEMOLITION OR NEW CONSTRUCTION WORK COMMENCES.

3. ALL WORK SHALL CONFORM TO LOCAL & STATE CODES. ELECTRICAL & PLUMBING LINES SHALL BE INSTALLED BY PROFESSIONALS LICENSED BY THE STATE OF ARKANSAS.

4. FIELD VERIFY EXACT LOCATION OF ALL EXISTING TREES; EXIST TREES NOT IN CONSTRUCTION AREA TO BE PROTECTED WITH 2x WOOD PLANKS CONT. IN LINE WITH DRIP EDGE OF TREE, SECURED TOGETHER & FLAGGED W/ORANGE TAPE. HEAVY EQUIPMENT TO WORK AS FAR AS POSSIBLE FROM EXIST TREES TO PREVENT DAMAGE TO FEEDER ROOTS. CONTRACTOR WILL BE REQUIRED TO COMPENSATE OWNER FOR ANY EXISTING TREES WHICH ARE DAMAGED OR DIE DUE TO CONSTRUCTION WORK.

5. THE GENERAL CONTRACTOR SHALL HAVE THE GEOTECHNICAL ENGINEER EMPLOYED TO OBSERVE SITE WORK MEET WITH THE GEOTECHNICAL ENGINEER THAT PROVIDED THE SOIL'S REPORT. THIS MEETING SHOULD OCCUR AT OR BEFORE THE PRE-CONSTRUCTION MEETING TO INSURE THE AMOUNT OF UNDERCUT THAT MAY BE REQUIRED FOR THE PROJECT. RECOMMENDATIONS BY GEO-TECHNICAL ENGINEER SHALL NOT BE IMPLEMENTED INTO WORK WITHOUT AUTHORIZATION FROM OWNER & ARCHITECT. NOTIFY ARCHITECT IMMEDIATELY IF UNEXPECTED SUBSURFACE CONDITIONS ARE ENCOUNTERED. THE CONTRACTOR WILL REFERENCE THE GEOTECHNICAL REPORT FOR A MORE DETAILED DESCRIPTION OF EARTHWORK AND COMPACTION REQUIREMENTS.

6. SEQUENCE OF EARTHWORK ACTIVITIES (REFERENCE GEOTECH REPORT):
1)THE SITE WILL BE CLEARED OF ALL TREES NECESSARY FOR SITE CONSTRUCTION, SEE CLEARING LIMITS.
2)THE TOP 1.0' OF SOIL WILL BE STRIPPED UNDER ALL STRUCTURAL ELEMENTS (BUILDINGS, PARKING & DRIVE AREAS). THIS MATERIAL CAN BE USED ON SITE AS UNCLASSIFIED FILL (GREEN SPACES).
3)SEE GEOTECH REPORT FOR UNDERCUT RECOMMENDATIONS. SELECT FILL WILL BE PLACED TO 10' OUTSIDE BUILDING, 3' OUTSIDE THE CURB FOR DRIVES AND PARKING.
4)PROOF ROLL ALL SUBGRADE PRIOR TO PLACING FILL, REMOVE AND REPLACE WITH COMPACTED SELECT FILL AS DIRECTED BY GEOTECH.
5)SELECT FILL WILL BE PLACED IN LOOSE 8" LIFTS AND COMPACTED TO 95% MODIFIED PROCTOR WITHIN 2% OPTIMUM MOISTURE CONTENT. SEE GEOTECH REPORT FOR SELECT FILL REQUIREMENTS. ON-SITE MATERIAL BELOW THE 1.0' STRIPPING MAY BE USED FOR SELECT FILL VERIFY WITH GEOTECH.

7. ALL HANDICAP PARKING AND ACCESSIBLE ROUTES SHALL MEET ADA REQUIREMENTS. MAXIMUM CROSS-SLOPE ON ANY ACCESSIBLE ROUTE SHALL NOT EXCEED 2.0% AND THE MAXIMUM RUNNING-SLOPE ON ANY ACCESSIBLE ROUTE SHALL NOT EXCEED 5.0% WITHOUT HANDRAILS AND LANDING AREAS. 8.3% WITH HANDRAILS AND LANDING AREAS. HANDICAPPED PARKING AREAS SHALL NOT SLOPE MORE THAN 2.0% IN ANY DIRECTION. EACH HANDICAP PARKING SPOT SHALL HAVE A SIGN. THE CONTRACTOR WILL REFER TO THE "CODE OF FEDERAL REGULATIONS" 28 CFR PART 36 "ADA STANDARDS FOR ACCESSIBLE DESIGN" FOR A MORE DETAILED DESCRIPTION OF STANDARDS.

Site Legend

SITE LEGEND:

Symbol	Description
——	EX. CONTOUR LINE
—PL—	PROPERTY LINE
—S—	EX. SEWER LINE
—G—	EX. GAS LINE
—E—	EX. OVERHEAD ELECTRIC
—W—	EX. WATER LINE
100	PR. CONTOUR
—V—	PR. WATER
—S—	PR. SEWER
—G—	PR. GAS
—ST—	PR. STORM PIPE
▷	PR. WATERLINE BLOCKING
	PR. CONCRETE
TS	TOP OF SIDEWALK
TP	TOP OF PAVEMENT
TC	TOP OF CURB
TG	TOP OF GROUND
TT	TOP OF TRACK
RCAP	REINFORCED ARCH CONCRETE PIPE
CPP	CORRUGATED PLASTIC PIPE
FL	FLOW LINE
C.O.T.G.	CLEAN OUT TO GRADE
EX	EXISTING
PR	PROPOSED

Paving Legend

PAVING LEGEND:

- LIGHT DUTY FLEXIBLE PAVEMENT
- 2" ASPHALT SURFACE COURSE AHTD SPECS
- 6" CLASS 7 CRUSHED STONE BASE COURSE
- COMPACTED SELECT FILL - 95% MOD. PROCTOR

NOTE: PAVEMENT SECTIONS WERE TAKEN FROM THE SOILS REPORT BY GARVER ENGINEERING. REFER TO THIS REPORT FOR A MORE DETAILED DESCRIPTION OF SELECT MATERIAL AND COMPACTION REQUIREMENTS.

Site Grading & Storm Drainage Plan

NORTH

1 SITE GRADING & STORM DRAINAGE PLAN
C1.1 SCALE: 1" = 20'
0   20   40

Labels on plan:
- PROPERTY LINE
- CURB & GUTTER - TYP. (4/C1.1)
- TC=425.75
- TC=430.00
- TC=430.50
- EX. BLDG FFE=434.02
- TC=431.25
- 2.5%
- TC=425.50
- TC=426.00 (4' CURB CUT)
- TC=431.75
- TC=433.75 / TP=433.50
- 5' LEVEE TOP ELEV.=426.00 3:1 SIDE SLOPES
- 12" RCP @ 1.0% SLOPE
- 4.9%
- CURB & GUTTER - TYP. (4/C1.1)
- TC=432.50
- TC=433.25
- TP=EX. TS=433.78
- 12" RCP FES FL=422.35
- 2.1%
- TC=428.45
- TC=433.50
- 12" RCP FES FL=422.50
- TC=433.75 / TP=433.50
- MAX 2% SLOPE IN H.C. PARKING
- DETENTION POND 100-YR VOL=1,429 C.F. AVAILABLE VOL=9,266 C.F.
- 1.0%
- TC=433.05
- TP=EX. TS=433.78
- 5' LEVEE TOP ELEV.=426.00 3:1 SIDE SLOPES
- C.I. (2/C1.1) TOP=427.50 FL=425.25
- 18" RCP STORM @ 2.0% SLOPE
- TC=432.80
- EX. 18" CPP STORM
- TP=429.40 TOP PIPE=429.15
- TC=432.00
- PRECAST CONC. HEADWALL FL=424.95
- TC=428.15 GUTTER=427.65 TOP PIPE=427.40
- TC=EX. TC=432.95
- 6" SCH. 40 PVC @ 0.5% SLOPE
- TC=428.65
- 1.0%
- REMOVE EX. CURB INLET TOP & REPLACE W/ J.B. TOP (3/C1.1) EX. TOP=432.30 NEW TOP=431.85 EX. FL=429.70
- PRECAST CONC. HEADWALL FL=425.00
- 15" RCP FES FL=425.20
- TC=428.50
- TC=429.70
- 2.2%
- TC=EX. TC=432.50
- 10X10' 4" THICK CONC. DRAINAGE PAD
- PROPERTY LINE
- TC=432.21
- DETENTION POND 100-YR VOL=3,820 C.F. AVAILABLE VOL=7,327 C.F.
- 4' WIDE 4" THICK CONC. TRICKLE CHANNEL
- CURB & GUTTER - TYP. (4/C1.1)
- TC=429.00
- TS=425.90
- BASIN STABILIZED W/ SOLID SOD TO 3' OUTSIDE TOE OF SLOPE
- 3' LEVEE TOP ELEV.=427.67 3:1 SIDE SLOPES

Revision Clouds

△2 CHANGES THIS REVISION: GRADE CHANGES ALONG SOUTH SIDE OF PARKING LOT TO ALLOW COVER OVER STORM PIPE.

△3 CHANGES THIS REVISION: ADDITIONAL DETENTION POND ADDED ON WEST SIDE OF PARKING LOT.
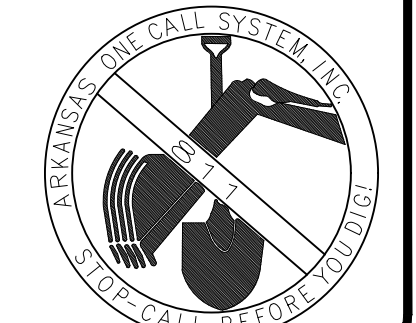
Title Block

Bryant Admin Parking

Stormwater Management Report

City of Bryant, Saline County, Arkansas

Original Submittal:
February 20, 2023

Revised Submittal:
March 15, 2024

MINTON ENGINEERING, INC.

300 Northport Dr.
Cabot, AR 72023
501.941.5559 phone
501.941.5557 fax

I.   Pre-Development Conditions

This project involves constructing a new parking lot on the west side of an existing building located at 1511 N. Reynolds Road in the city limits of Bryant, Arkansas. This is the old Summerwood Petro office that is being converted into the Bryant Schools Administration office.

The site currently has a detention pond on the west side, but this pond will be removed for the new parking lot. Considering this, the site detention will be designed as though the pre-development condition is undeveloped.

II.   Post-Development Conditions

The project proposes to add a new parking lot on the west (back) side of the existing building. Since the existing detention pond is being removed, a new detention pond is proposed at the southwest corner of the site. Approximately 65% of the site will flow through the detention pond and 35% will drain through the northwest corner. Now 100% of this site as well as a portion of the gas station will flow through the new pond.

III.   Design Considerations

The detention for this project was designed using the rational method. The pre-development flow, post development flow and detention volume were determined by the attached calculations are summarized below. The calculations were compiled using Autodesk Hydraflow, information used is attached to this report.

Summary Table:

Description	Pre-Development	Post-Development	Pond Elev (new pond)
2-Year Storm	6.69 cfs	2.20 cfs	423.59
5-Year Storm	7.80 cfs	2.64 cfs	423.70
10-Year Storm	8.64 cfs	2.93 cfs	423.77
25-Year Storm	9.88 cfs	3.31 cfs	423.89
50-Year Storm	10.86 cfs	3.59 cfs	423.33
100-Year Storm	11.84 cfs	3.72 cfs	424.04

IV.   Conclusion

Post-development flow will be less than the pre-development flow for the 2-100 year storm events. The pond will detain the 100-yr storm by utilizing a storage volume of 1,429 CF. The pond has an available volume of 9,266 CF and will store the 100-year storm w/ 1.96' of freeboard available. The outlet structure will utilize a 12" storm pipe.

Please consider this report and let me know if any additional information is required.
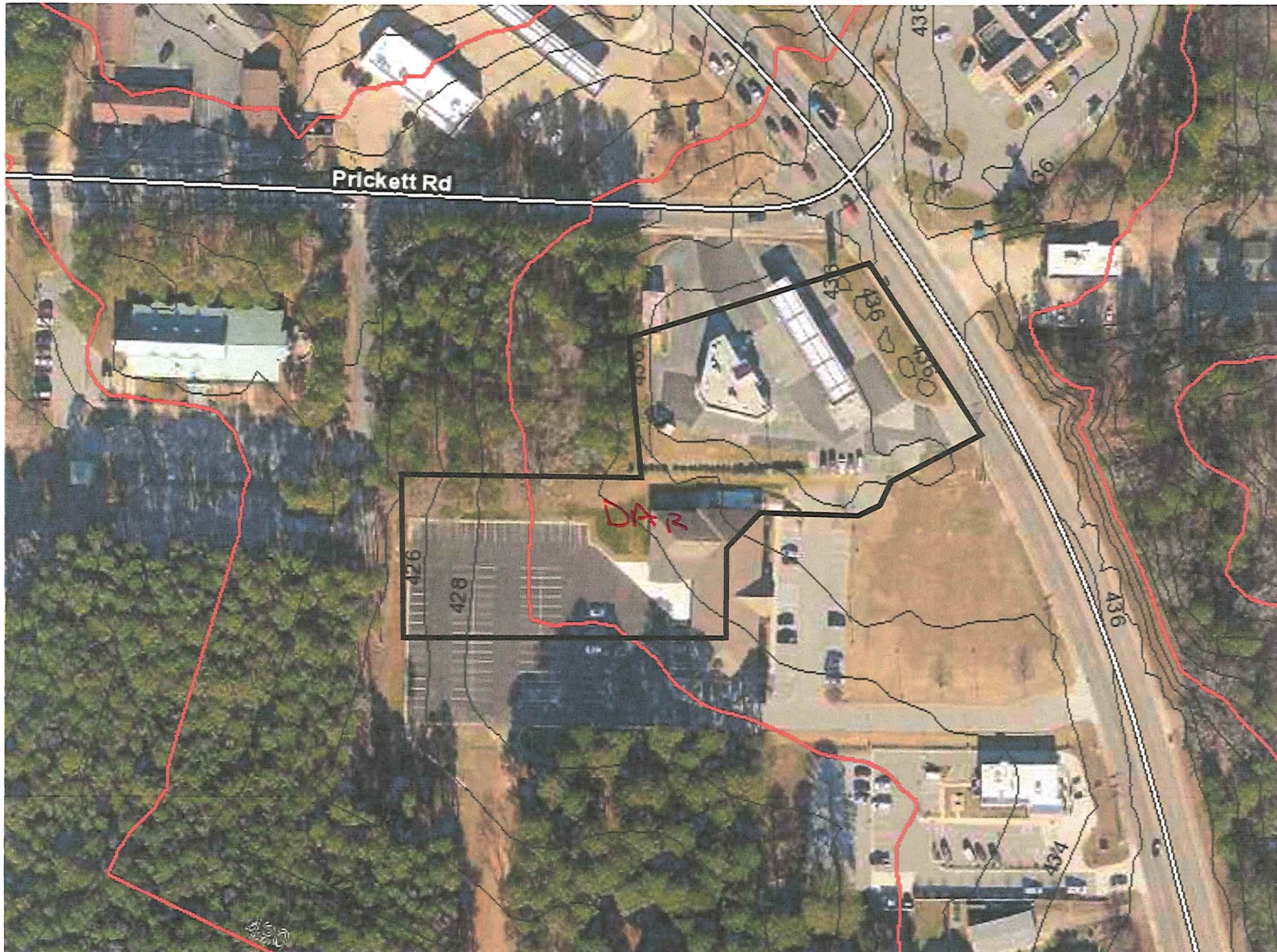
Sincerely,

Josh Minton, PE
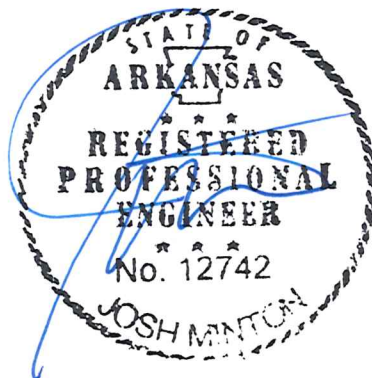
HYDRAULIC CALCULATIONS

Revised Condition Map

$DA_{Rev} = 2.3$ AC

$C = 0.25$ pre-Dev

$C = 0.9$ Post-Dev

Pre - Development MAP

Note: Consider entire site to
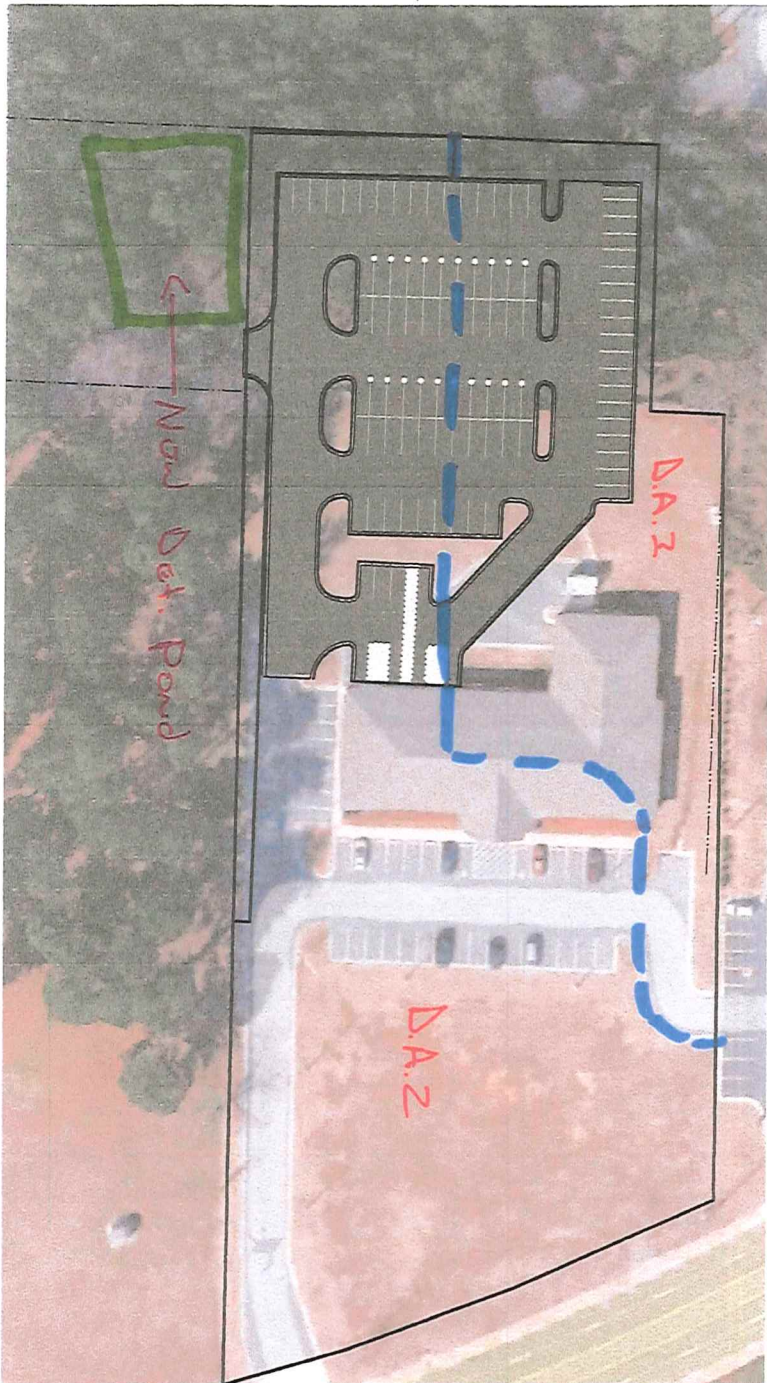be undeveloped since ex.
Det. Pond will be removed.

SCALE: 1" = 100'

Total Area = 3.6 AC
C = 0.25

Ex Det. Pond
To Be Removed

Post Development MAP

D.A. 1
A Total = 1.2 Ac
A Hard Surf = 0.7 Ac   C = 0.9
A green = 0.5 Ac   C = 0.25

D.A. 2
A Total = 2.4 Ac
A HS = 1.2 Ac   C = 0.9
A green = 1.2 Ac   C = 0.25

D.A. 1

D.A. 2

← New Det. Pond

Scale: 1" = 100'

Watershed Model Schematic

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023
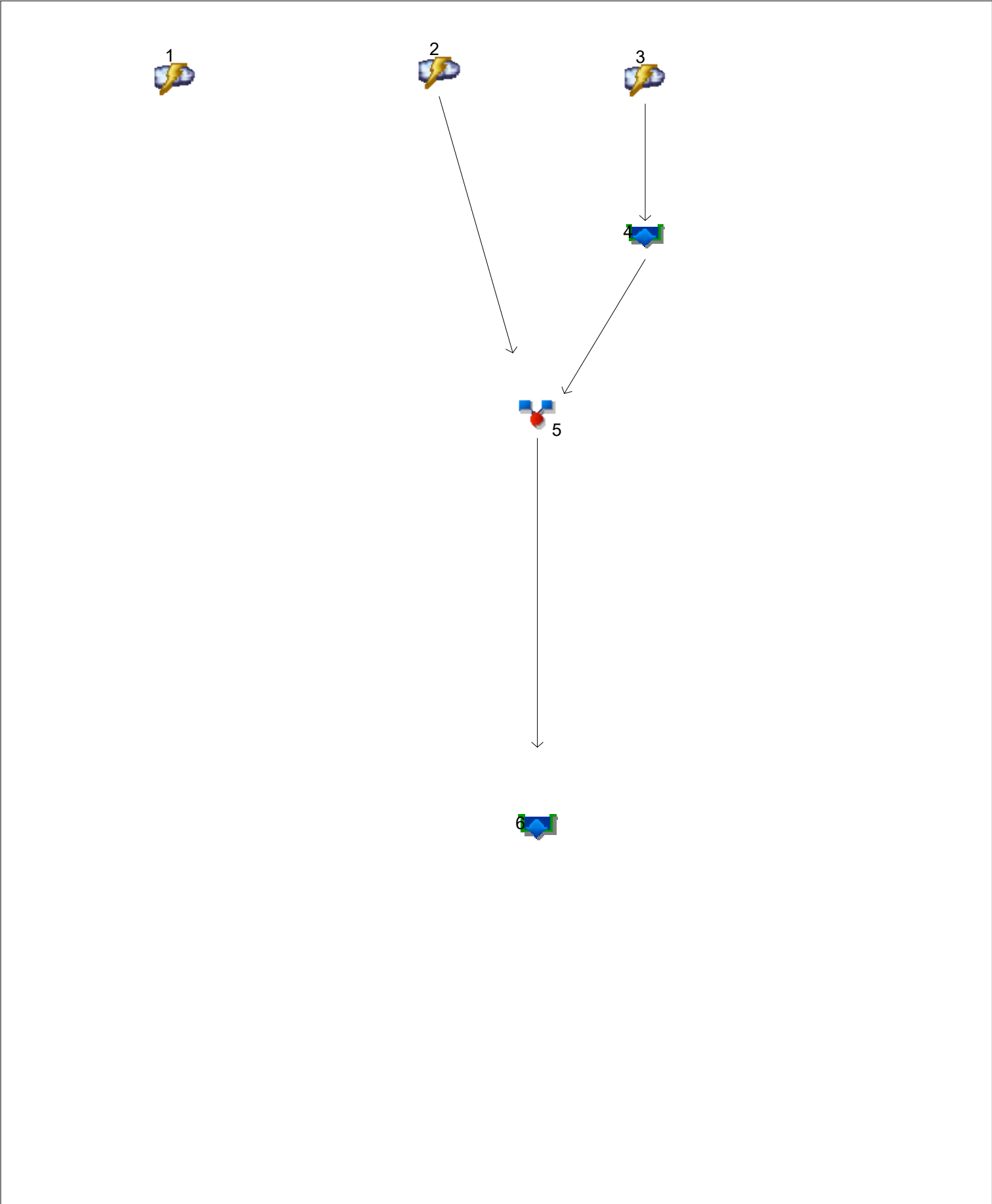
Hydrograph Return Period Recap

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	Rational	------	-------	6.693	-------	7.804	8.638	9.878	10.86	11.84	Pre-Development
2	Rational	------	-------	11.79	-------	13.75	15.22	17.40	19.13	20.86	Post Dev DA 1
3	Rational	------	-------	7.930	-------	9.245	10.23	11.70	12.86	14.02	Post Dev. DA 2
4	Reservoir	3	-------	0.817	-------	0.863	0.897	0.945	0.981	1.016	Detention Pond
5	Combine	2, 4	-------	4.953	-------	5.731	6.288	7.116	7.769	8.423	Total Post Dev
6	Reservoir	5	-------	2.199	-------	2.640	2.926	3.314	3.587	3.720	Additional Pond

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

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	Rational	6.693	1	5	2,008	------	------	------	Pre-Development
2	Rational	11.79	1	5	3,538	------	------	------	Post Dev DA 1
3	Rational	7.930	1	5	2,379	------	------	------	Post Dev. DA 2
4	Reservoir	0.817	1	9	2,375	3	426.22	2,087	Detention Pond
5	Combine	4.953	1	5	3,667	2, 4	------	------	Total Post Dev
6	Reservoir	2.199	1	8	3,666	5	423.59	812	Additional Pond

Bryant Admin Hydrographs w gas sta.gpw	Return Period: 2 Year	Tuesday, 03 / 19 / 2024

Hydrograph Report

Hyd. No. 1

Pre-Development

|			
Hydrograph type	= Rational	Peak discharge	= 6.693 cfs
Storm frequency	= 2 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 2,008 cuft
Drainage area	= 4.700 ac	Runoff coeff.	= 0.25*
Intensity	= 5.697 in/hr	Tc by User	= 5.00 min
IDF Curve	= Pulaski County.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(5.900 x 0.25) + (5.200 x 0.90)] / 4.700

Pre-Development

Hyd. No. 1 -- 2 Year

Hyd No. 1

Hydrograph Report

Tuesday, 03 / 19 / 2024
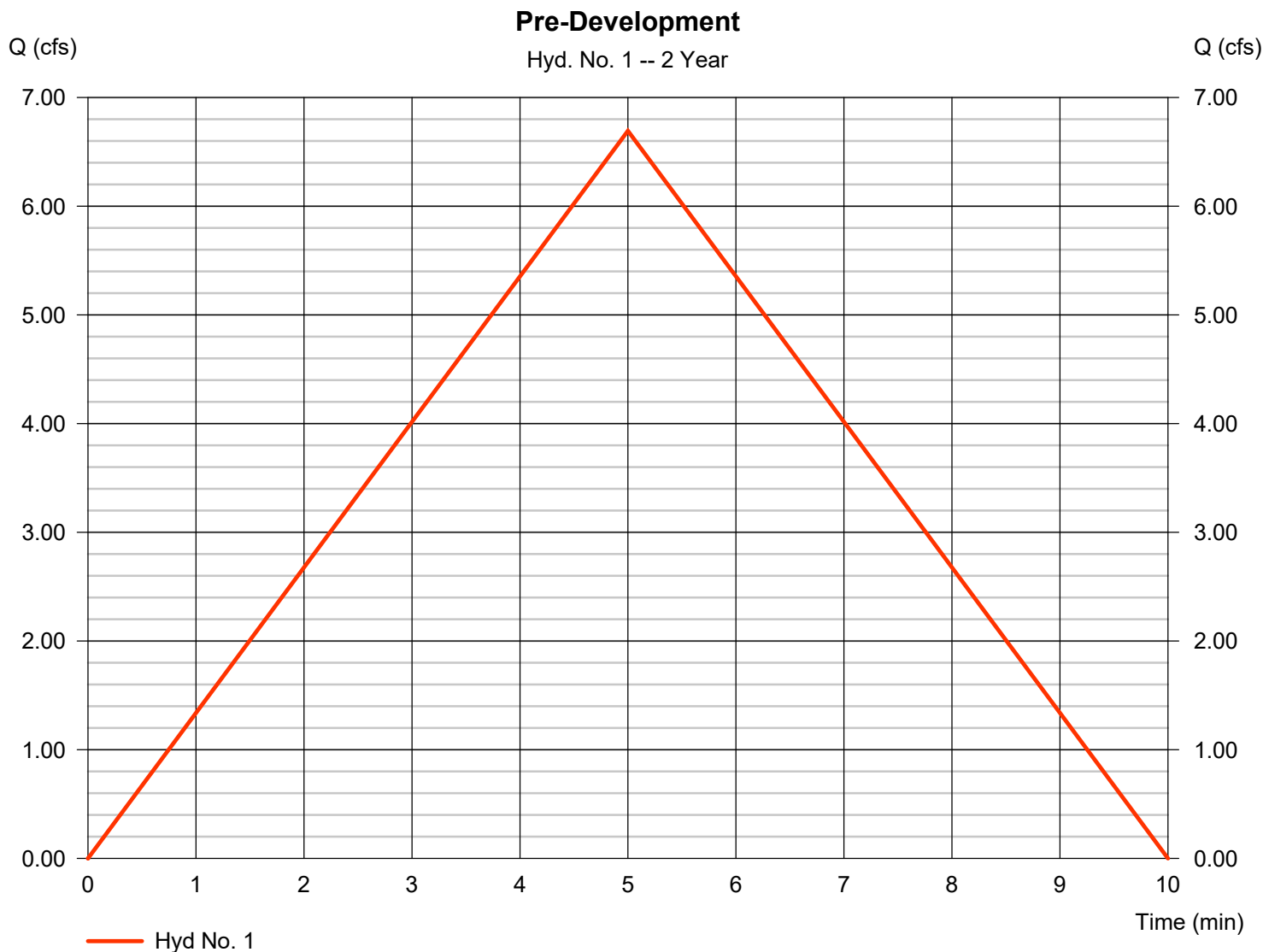
Hyd. No. 2

Post Dev DA 1

Hydrograph type	= Rational	Peak discharge	= 11.79 cfs
Storm frequency	= 2 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 3,538 cuft
Drainage area	= 2.300 ac	Runoff coeff.	= 0.9*
Intensity	= 5.697 in/hr	Tc by User	= 5.00 min
IDF Curve	= Pulaski County.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(0.700 x 0.90) + (0.500 x 0.25)] / 2.300

Post Dev DA 1

Hyd. No. 2 -- 2 Year

Q (cfs)   Q (cfs)

Time (min)

—— Hyd No. 2

Hydrograph Report

Hyd. No. 3

Post Dev. DA 2

Hydrograph type	= Rational	Peak discharge	= 7.930 cfs
Storm frequency	= 2 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 2,379 cuft
Drainage area	= 2.400 ac	Runoff coeff.	= 0.58*
Intensity	= 5.697 in/hr	Tc by User	= 5.00 min
IDF Curve	= Pulaski County.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(1.200 x 0.90) + (1.200 x 0.25)] / 2.400

Post Dev. DA 2

Hyd. No. 3 -- 2 Year
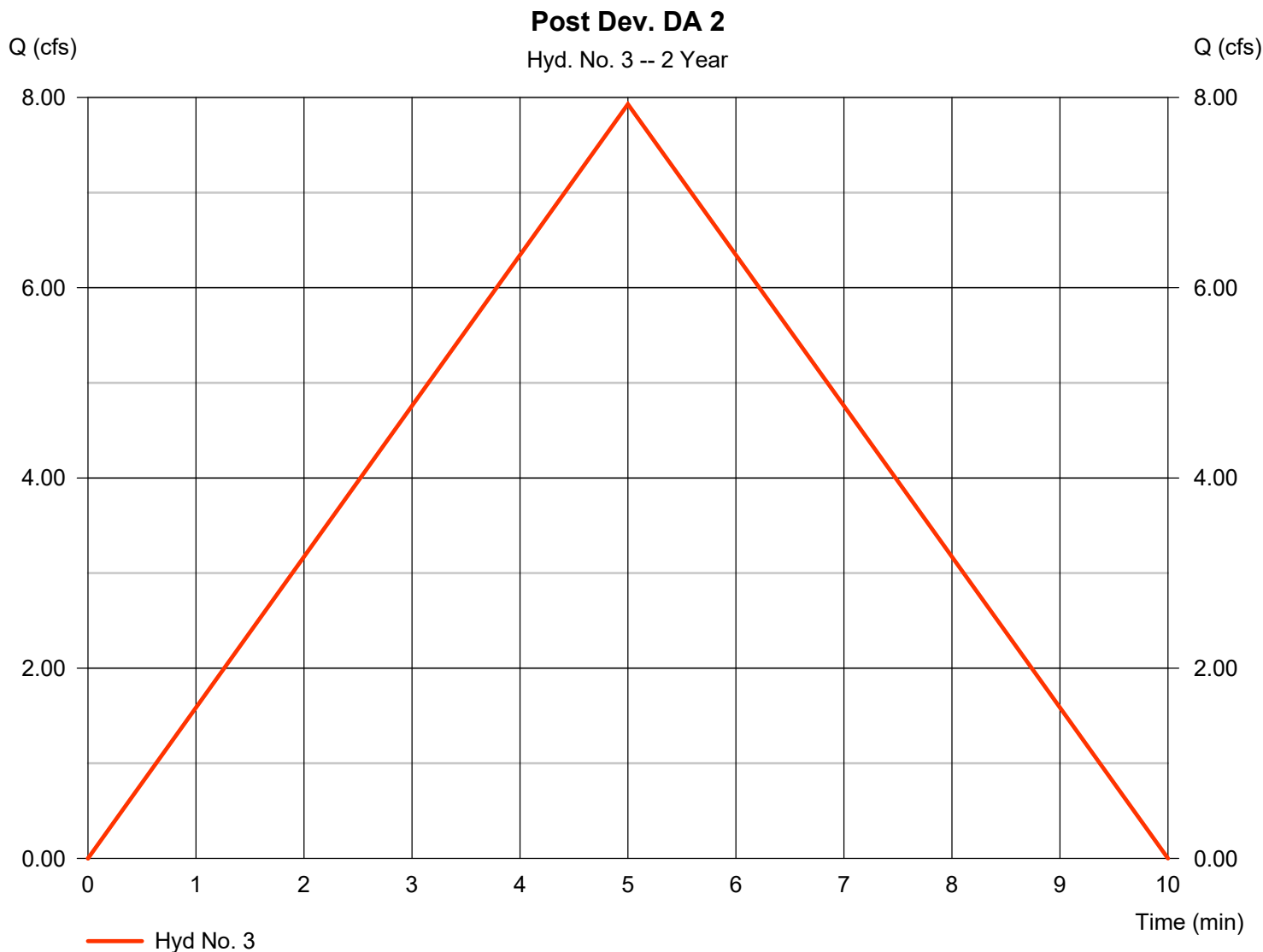
— Hyd No. 3

Hydrograph Report

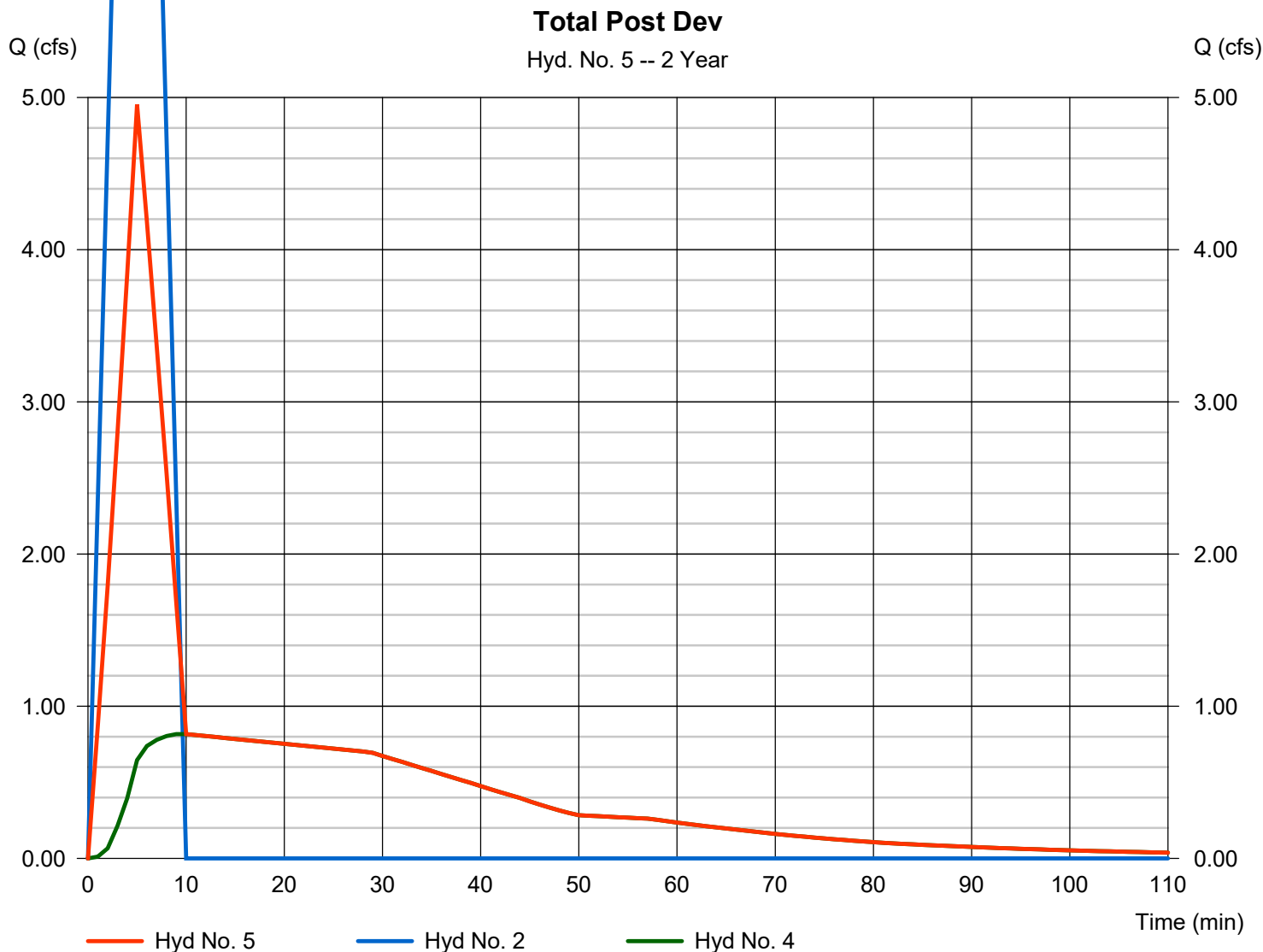Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023   Tuesday, 03 / 19 / 2024

Hyd. No. 4

Detention Pond

Hydrograph type	= Reservoir		Peak discharge	= 0.817 cfs
Storm frequency	= 2 yrs		Time to peak	= 9 min
Time interval	= 1 min		Hyd. volume	= 2,375 cuft
Inflow hyd. No.	= 3 - Post Dev. DA 2		Max. Elevation	= 426.22 ft
Reservoir name	= Det. Pond		Max. Storage	= 2,087 cuft

Storage Indication method used.

Detention Pond

Hyd. No. 4 -- 2 Year

Pond Report
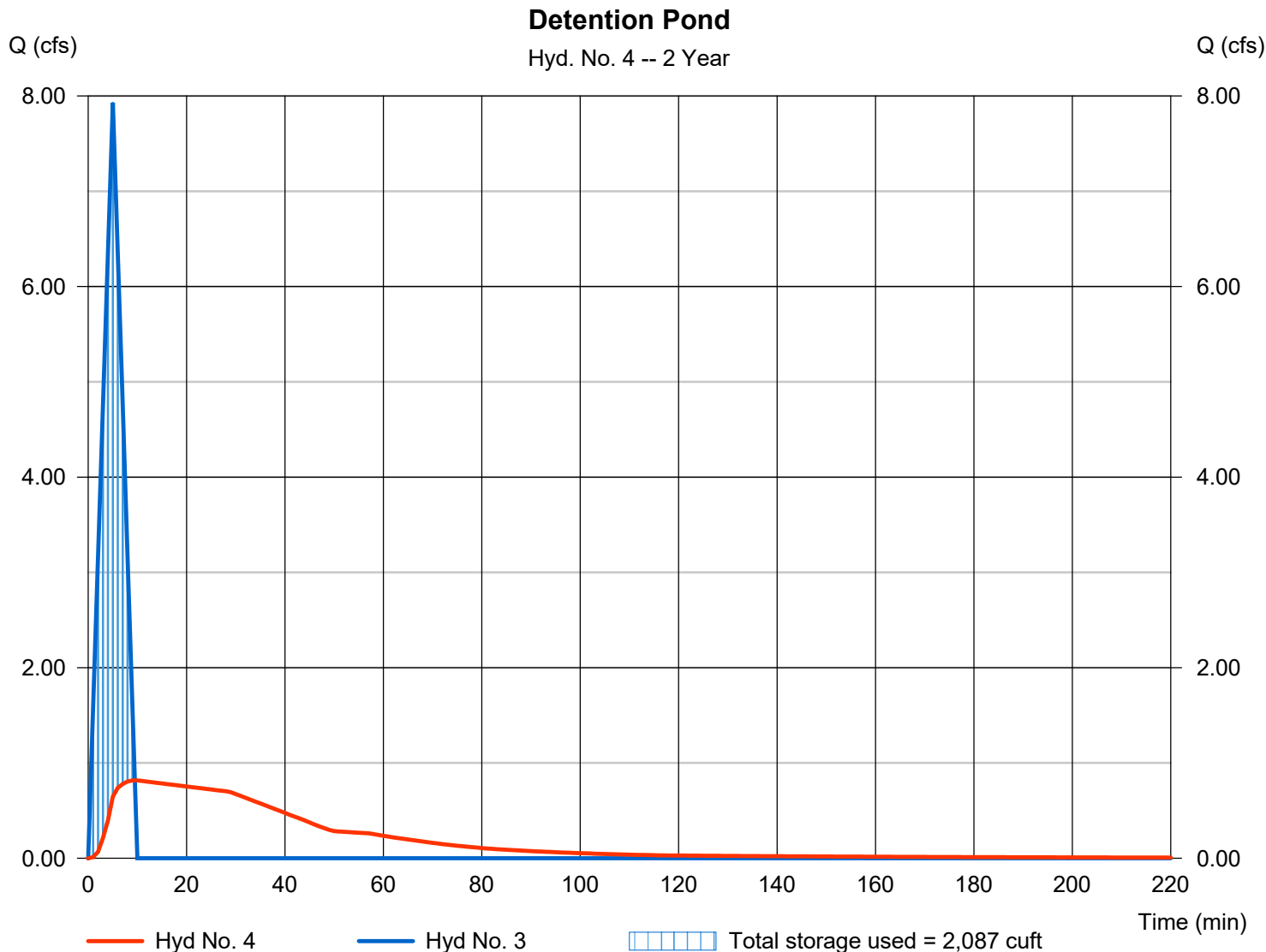
Pond No. 1 - Det. Pond

Pond Data

Contours -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 425.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	425.00	00	0	0
1.00	426.00	3,700	1,233	1,233
2.00	427.00	4,000	3,849	5,082
2.50	427.50	5,000	2,245	7,327

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 6.00	0.00	0.00	0.00
Span (in)	= 6.00	0.00	0.00	0.00
No. Barrels	= 1	0	0	0
Invert El. (ft)	= 425.00	0.00	0.00	0.00
Length (ft)	= 20.00	0.00	0.00	0.00
Slope (%)	= 0.50	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	Inactive	Inactive	Inactive	Inactive
Crest El. (ft)	= 0.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Rect	---	---	---
Multi-Stage	= No	No	No	No
Exfil.(in/hr)	= 0.000 (by Contour)			
TW Elev. (ft)	= 0.00			

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

Stage / Discharge
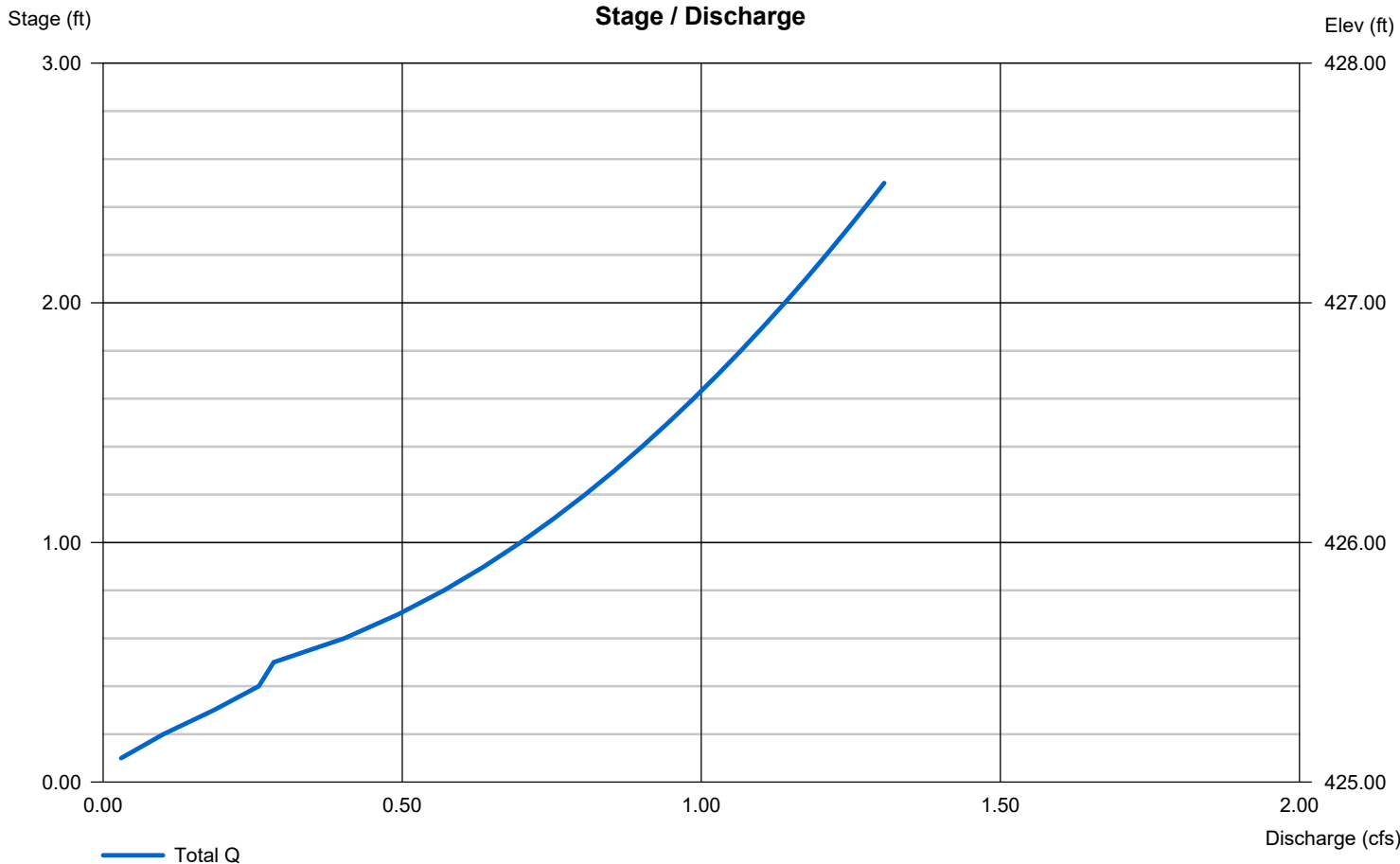
Total Q

Hydrograph Report

Hyd. No. 5

Total Post Dev

Hydrograph type	= Combine		Peak discharge	= 4.953 cfs
Storm frequency	= 2 yrs		Time to peak	= 5 min
Time interval	= 1 min		Hyd. volume	= 3,667 cuft
Inflow hyds.	= 2, 4		Contrib. drain. area	= 2.300 ac

Total Post Dev

Hyd. No. 5 -- 2 Year

Q (cfs)

Time (min)

Hyd No. 5   Hyd No. 2   Hyd No. 4

Hydrograph Report

Hyd. No. 6

Additional Pond

Hydrograph type	= Reservoir	Peak discharge	= 2.199 cfs
Storm frequency	= 2 yrs	Time to peak	= 8 min
Time interval	= 1 min	Hyd. volume	= 3,666 cuft
Inflow hyd. No.	= 5 - Total Post Dev	Max. Elevation	= 423.59 ft
Reservoir name	= Additional Pond	Max. Storage	= 812 cuft

Storage Indication method used.

Additional Pond

Hyd. No. 6 -- 2 Year

Hyd No. 6   Hyd No. 5   Total storage used = 812 cuft

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023 — Tuesday, 03 / 19 / 2024
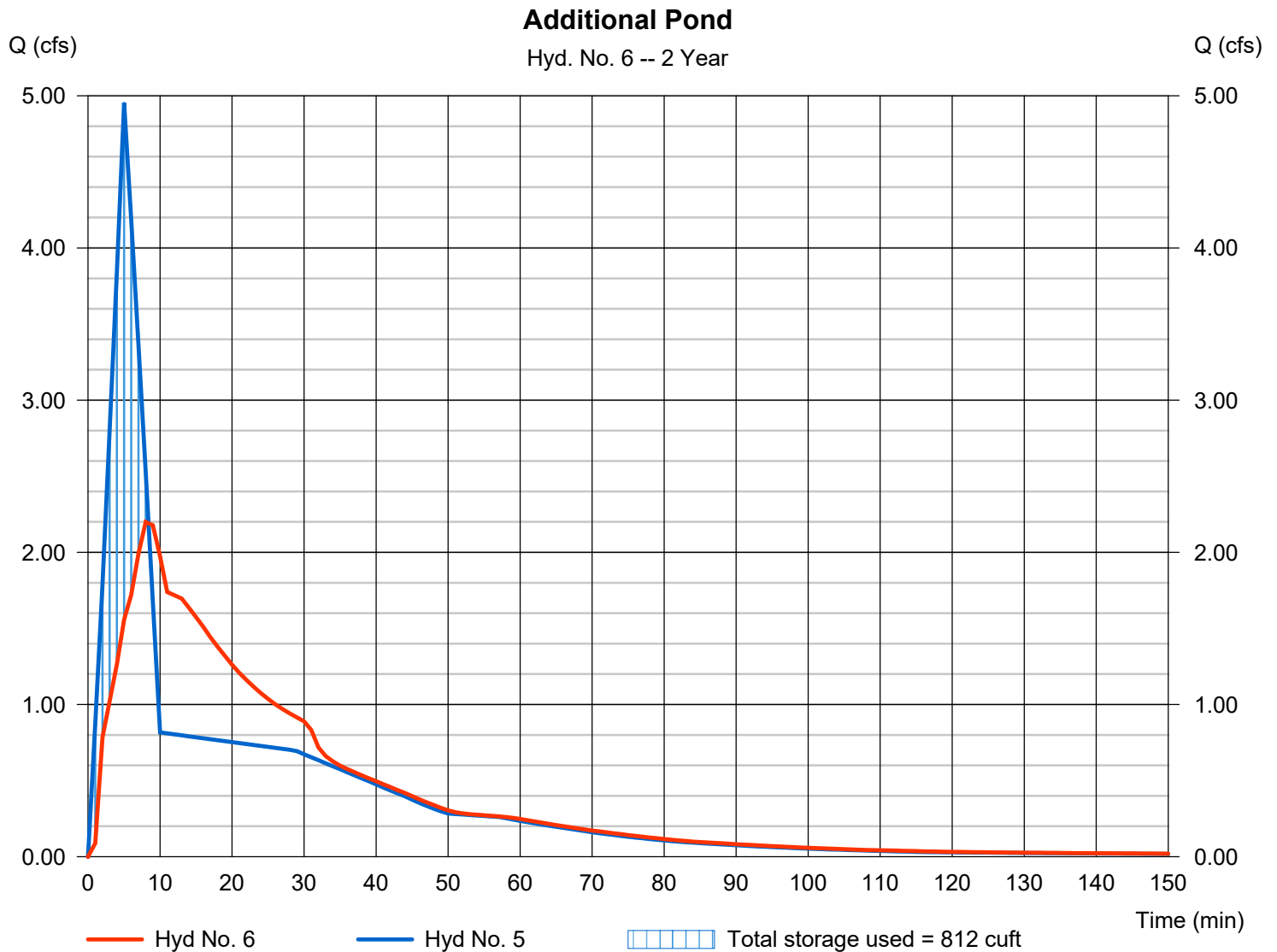
Pond No. 2 - Additional Pond
Pond Data

Contours -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 422.50 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	422.50	00	0	0
0.50	423.00	500	83	83
1.50	424.00	2,165	1,235	1,318
2.50	425.00	4,200	3,127	4,445
3.50	426.00	5,471	4,821	9,266

Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 12.00	0.00	0.00	0.00
Span (in)	= 12.00	0.00	0.00	0.00
No. Barrels	= 1	0	0	0
Invert El. (ft)	= 422.50	0.00	0.00	0.00
Length (ft)	= 15.00	0.00	0.00	0.00
Slope (%)	= 1.00	0.00	0.00	n/a
N-Value	= .013	.013	.013	n/a
Orifice Coeff.	= 0.60	0.60	0.60	0.60
Multi-Stage	= n/a	No	No	No

Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 0.00	0.00	0.00	0.00
Crest El. (ft)	= 0.00	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= ---	---	---	---
Multi-Stage	= No	No	No	No
Exfil.(in/hr)	= 0.000 (by Wet area)			
TW Elev. (ft)	= 0.00			

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

Stage / Discharge

Total Q

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

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	Rational	7.804	1	5	2,341	------	------	------	Pre-Development
2	Rational	13.75	1	5	4,124	------	------	------	Post Dev DA 1
3	Rational	9.245	1	5	2,774	------	------	------	Post Dev. DA 2
4	Reservoir	0.863	1	10	2,769	3	426.32	2,456	Detention Pond
5	Combine	5.731	1	5	4,276	2, 4	------	------	Total Post Dev
6	Reservoir	2.640	1	8	4,275	5	423.70	942	Additional Pond

Bryant Admin Hydrographs w gas sta.gpw	Return Period: 5 Year	Tuesday, 03 / 19 / 2024

Hydrograph Report

Hyd. No. 1

Pre-Development

Hydrograph type	= Rational	Peak discharge	= 7.804 cfs
Storm frequency	= 5 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 2,341 cuft
Drainage area	= 4.700 ac	Runoff coeff.	= 0.25*
Intensity	= 6.642 in/hr	Tc by User	= 5.00 min
IDF Curve	= Pulaski County.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(5.900 x 0.25) + (5.200 x 0.90)] / 4.700

Pre-Development
Hyd. No. 1 -- 5 Year
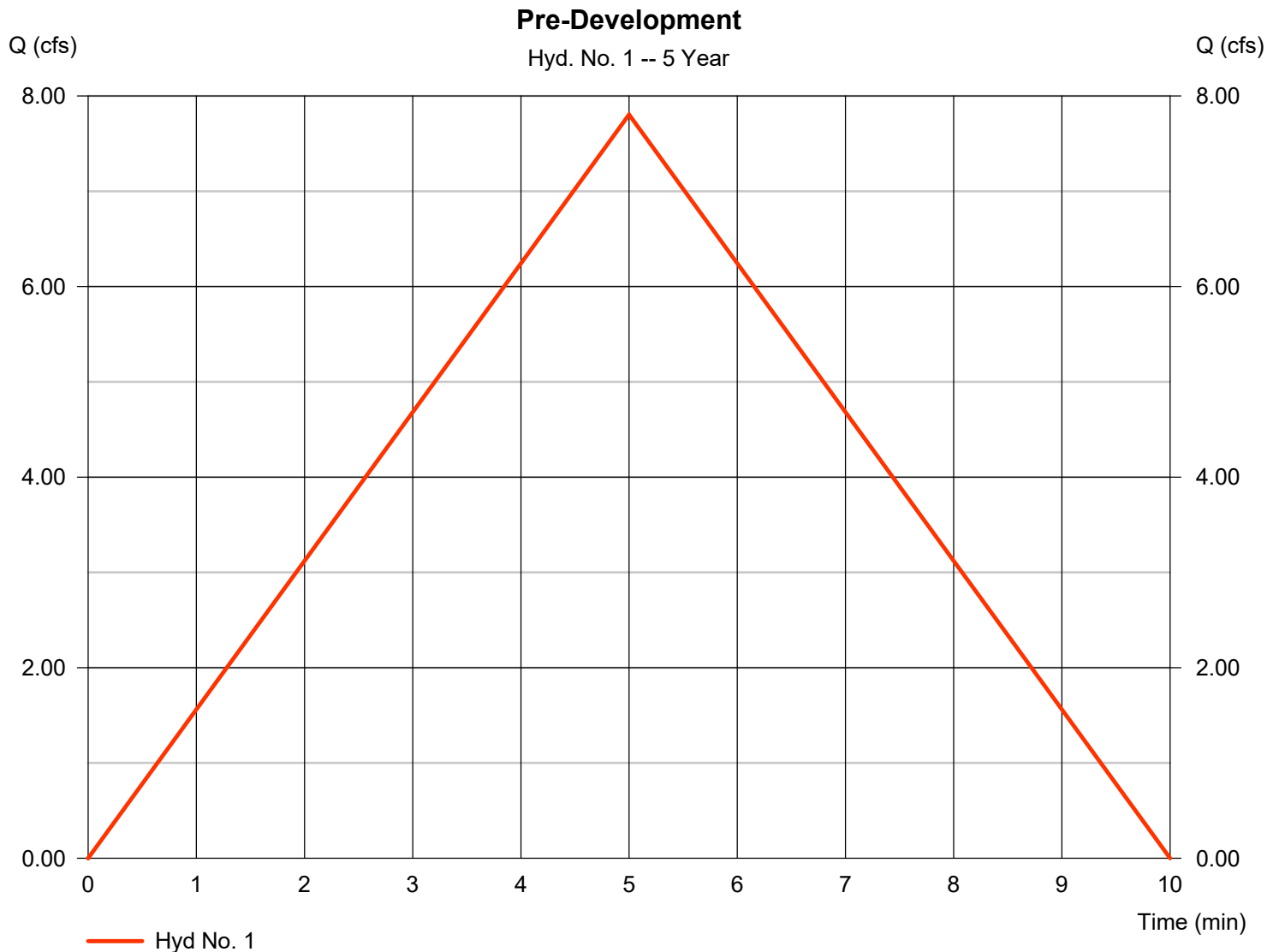
Hydrograph Report

Hyd. No. 2

Post Dev DA 1

Hydrograph type	= Rational	Peak discharge	= 13.75 cfs
Storm frequency	= 5 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 4,124 cuft
Drainage area	= 2.300 ac	Runoff coeff.	= 0.9*
Intensity	= 6.642 in/hr	Tc by User	= 5.00 min
IDF Curve	= Pulaski County.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(0.700 x 0.90) + (0.500 x 0.25)] / 2.300

Post Dev DA 1

Hyd. No. 2 -- 5 Year
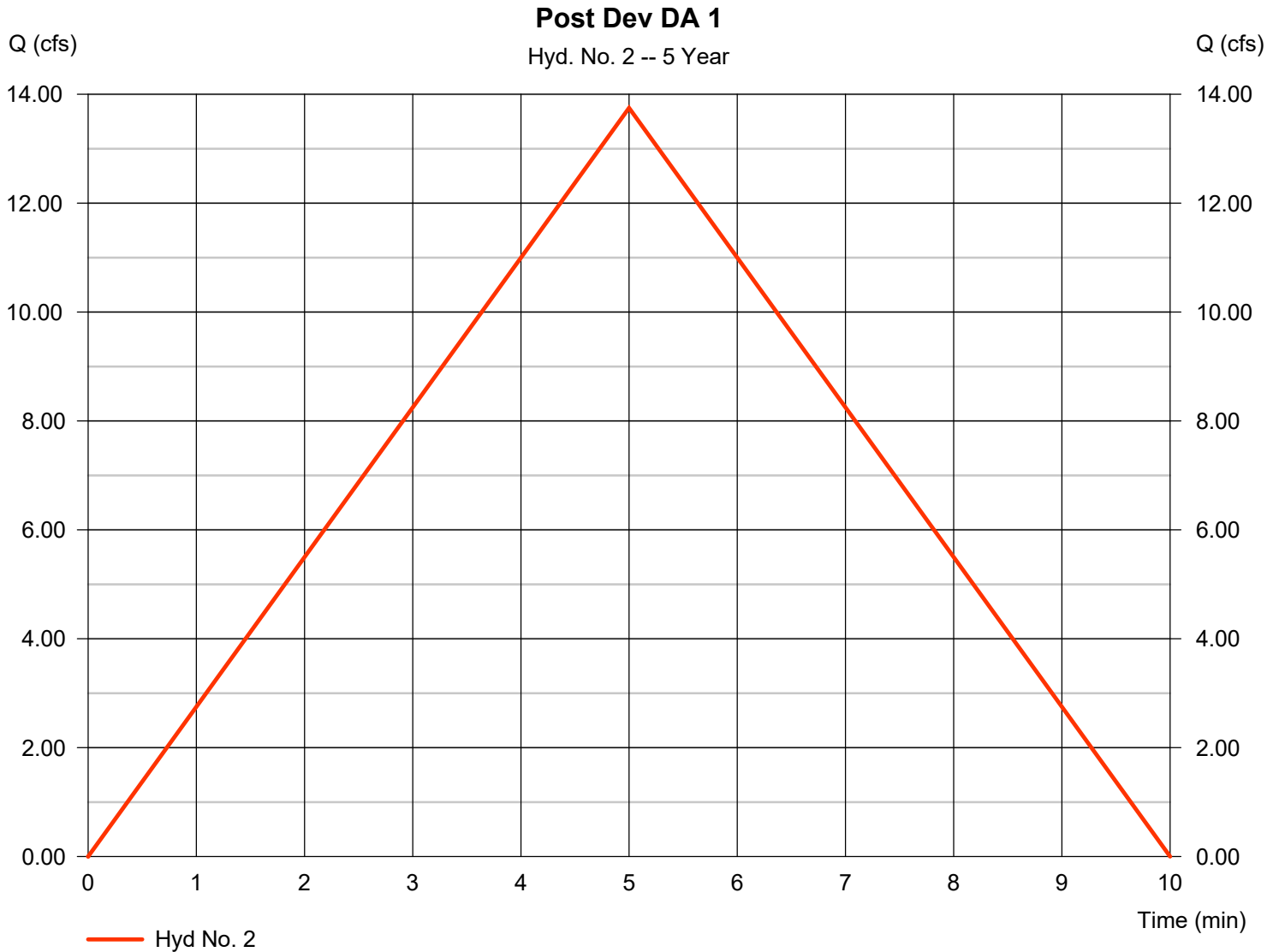
Hyd No. 2

Hydrograph Report

Tuesday, 03 / 19 / 2024

Hyd. No. 3

Post Dev. DA 2

Hydrograph type	= Rational	Peak discharge	= 9.245 cfs
Storm frequency	= 5 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 2,774 cuft
Drainage area	= 2.400 ac	Runoff coeff.	= 0.58*
Intensity	= 6.642 in/hr	Tc by User	= 5.00 min
IDF Curve	= Pulaski County.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(1.200 x 0.90) + (1.200 x 0.25)] / 2.400

Post Dev. DA 2

Hyd. No. 3 -- 5 Year

Hydrograph Report

Hyd. No. 4

Detention Pond

Hydrograph type	= Reservoir	Peak discharge	= 0.863 cfs
Storm frequency	= 5 yrs	Time to peak	= 10 min
Time interval	= 1 min	Hyd. volume	= 2,769 cuft
Inflow hyd. No.	= 3 - Post Dev. DA 2	Max. Elevation	= 426.32 ft
Reservoir name	= Det. Pond	Max. Storage	= 2,456 cuft

Storage Indication method used.
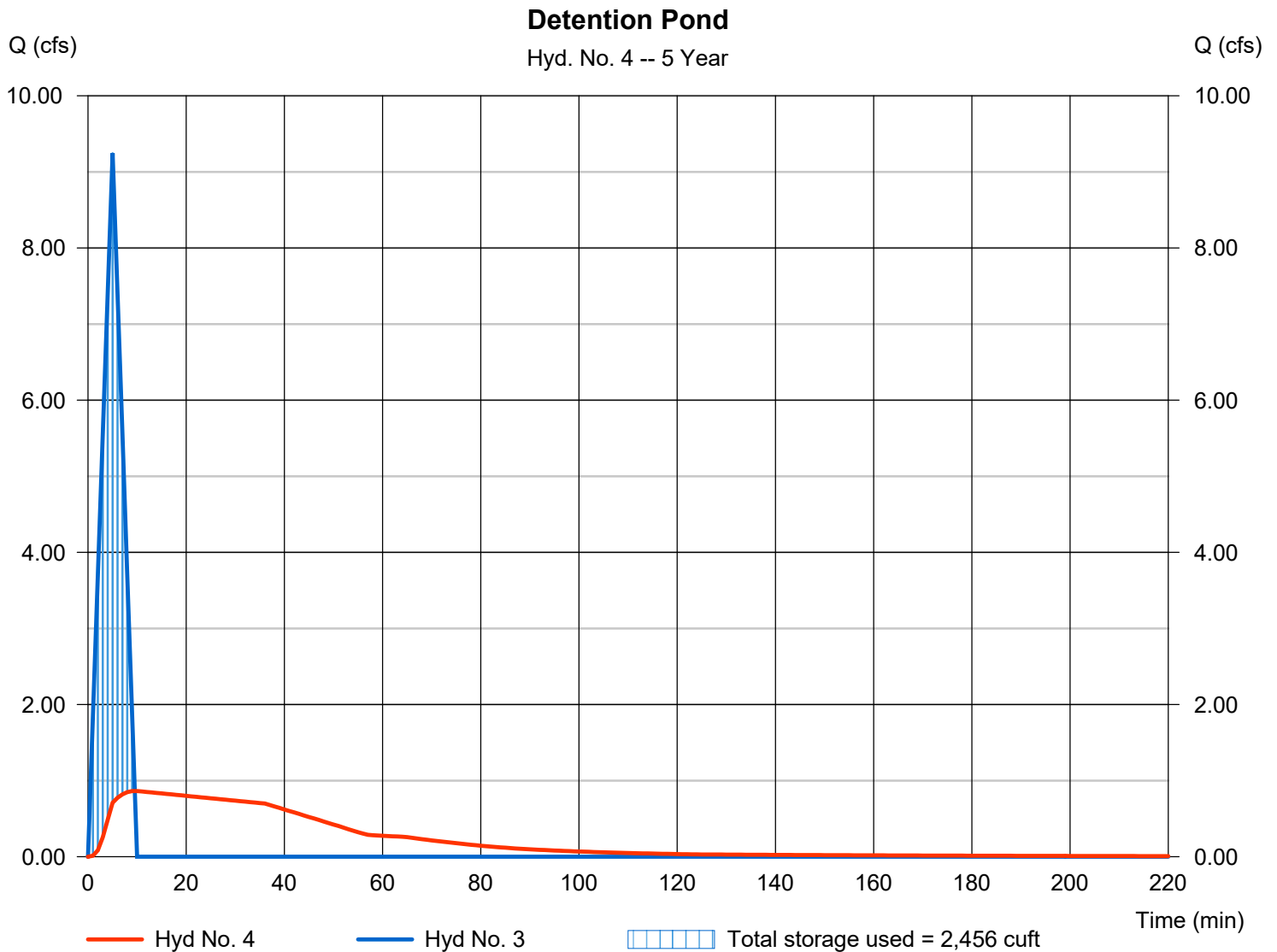
Detention Pond

Hyd. No. 4 -- 5 Year

Hyd No. 4   Hyd No. 3   Total storage used = 2,456 cuft

Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023   Tuesday, 03 / 19 / 2024

Hyd. No. 5

Total Post Dev

Hydrograph type	= Combine		Peak discharge	= 5.731 cfs
Storm frequency	= 5 yrs		Time to peak	= 5 min
Time interval	= 1 min		Hyd. volume	= 4,276 cuft
Inflow hyds.	= 2, 4		Contrib. drain. area	= 2.300 ac
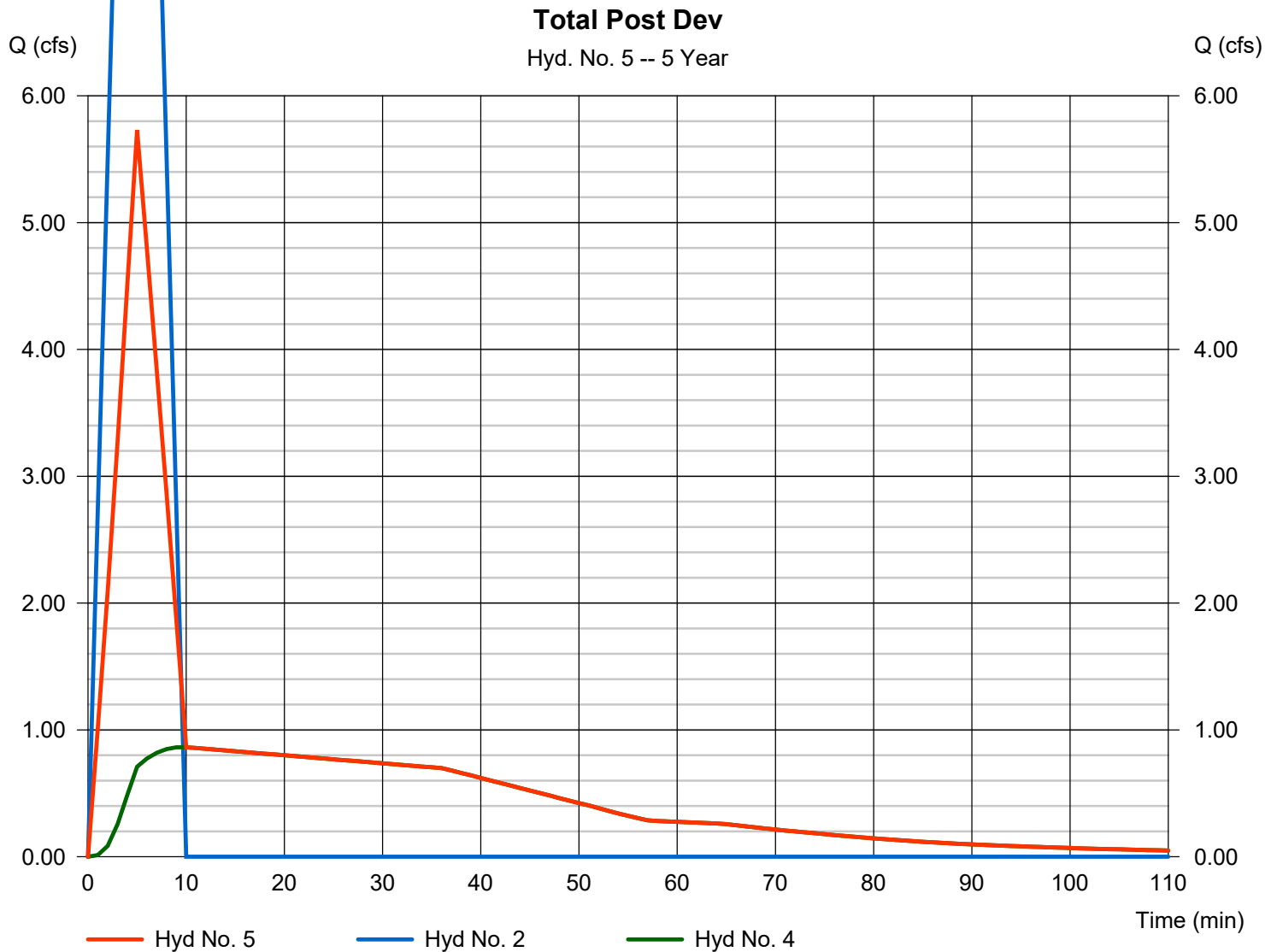
Total Post Dev

Hyd. No. 5 -- 5 Year

Legend: Hyd No. 5, Hyd No. 2, Hyd No. 4

Hydrograph Report

Hyd. No. 6

Additional Pond

Hydrograph type	= Reservoir		Peak discharge	= 2.640 cfs
Storm frequency	= 5 yrs		Time to peak	= 8 min
Time interval	= 1 min		Hyd. volume	= 4,275 cuft
Inflow hyd. No.	= 5 - Total Post Dev		Max. Elevation	= 423.70 ft
Reservoir name	= Additional Pond		Max. Storage	= 942 cuft

Storage Indication method used.

Additional Pond

Hyd. No. 6 -- 5 Year

Legend: Hyd No. 6   Hyd No. 5   Total storage used = 942 cuft

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

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	Rational	8.638	1	5	2,591	------	------	------	Pre-Development
2	Rational	15.22	1	5	4,565	------	------	------	Post Dev DA 1
3	Rational	10.23	1	5	3,070	------	------	------	Post Dev. DA 2
4	Reservoir	0.897	1	10	3,066	3	426.39	2,738	Detention Pond
5	Combine	6.288	1	5	4,733	2, 4	------	------	Total Post Dev
6	Reservoir	2.926	1	8	4,732	5	423.77	1,040	Additional Pond

Bryant Admin Hydrographs w gas sta.gpw	Return Period: 10 Year	Tuesday, 03 / 19 / 2024

Hydrograph Report

Hyd. No. 1

Pre-Development

Hydrograph type	= Rational	Peak discharge	= 8.638 cfs
Storm frequency	= 10 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 2,591 cuft
Drainage area	= 4.700 ac	Runoff coeff.	= 0.25*
Intensity	= 7.351 in/hr	Tc by User	= 5.00 min
IDF Curve	= Pulaski County.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(5.900 x 0.25) + (5.200 x 0.90)] / 4.700

Pre-Development

Hyd. No. 1 -- 10 Year

Hyd No. 1

Hydrograph Report

Hyd. No. 2

Post Dev DA 1

Hydrograph type	= Rational	Peak discharge	= 15.22 cfs
Storm frequency	= 10 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 4,565 cuft
Drainage area	= 2.300 ac	Runoff coeff.	= 0.9*
Intensity	= 7.351 in/hr	Tc by User	= 5.00 min
IDF Curve	= Pulaski County.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(0.700 x 0.90) + (0.500 x 0.25)] / 2.300

Post Dev DA 1

Hyd. No. 2 -- 10 Year
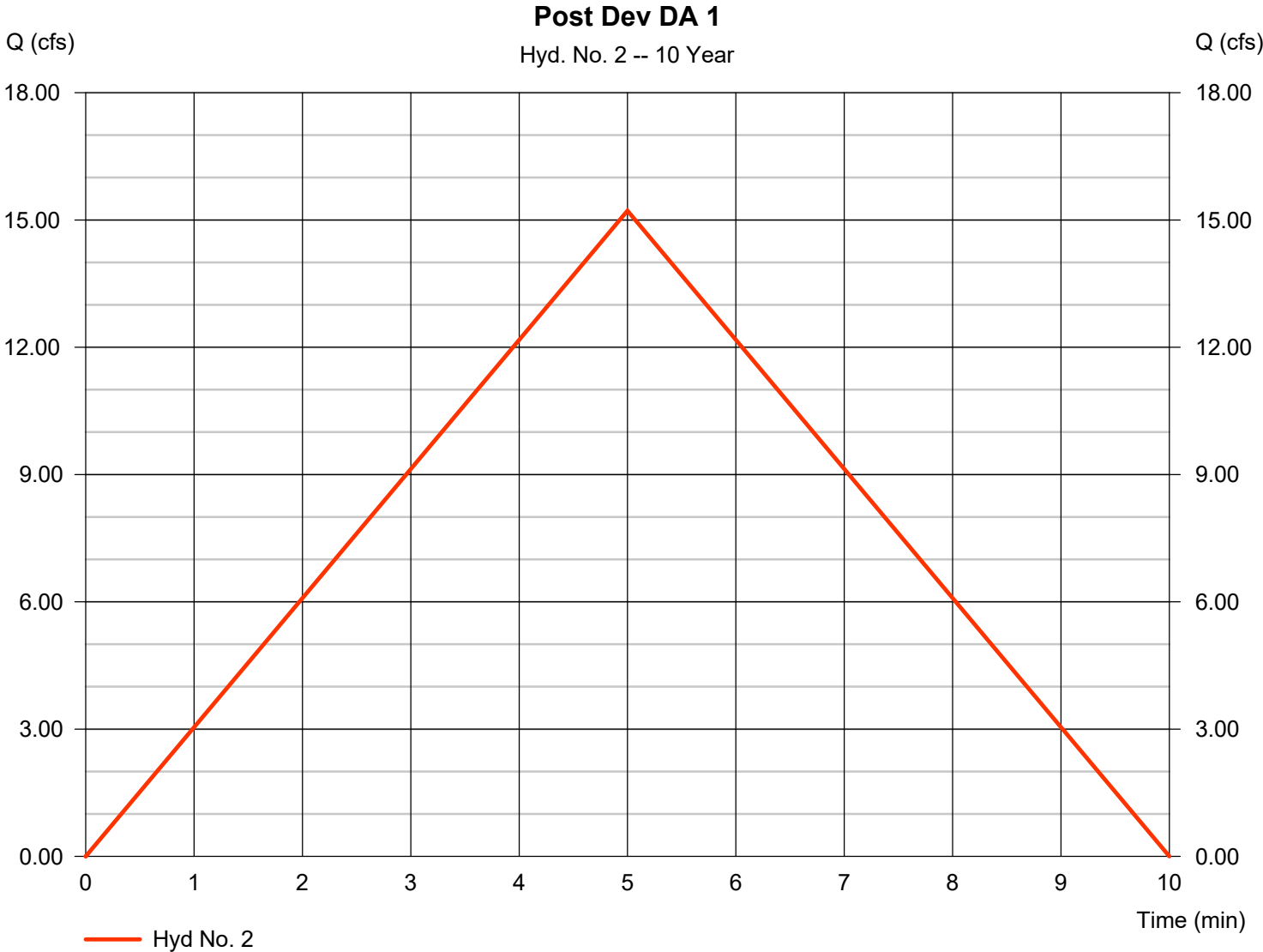
— Hyd No. 2

Hydrograph Report

Hyd. No. 3

Post Dev. DA 2

Hydrograph type	= Rational	Peak discharge	= 10.23 cfs
Storm frequency	= 10 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 3,070 cuft
Drainage area	= 2.400 ac	Runoff coeff.	= 0.58*
Intensity	= 7.351 in/hr	Tc by User	= 5.00 min
IDF Curve	= Pulaski County.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(1.200 x 0.90) + (1.200 x 0.25)] / 2.400

Post Dev. DA 2

Hyd. No. 3 -- 10 Year
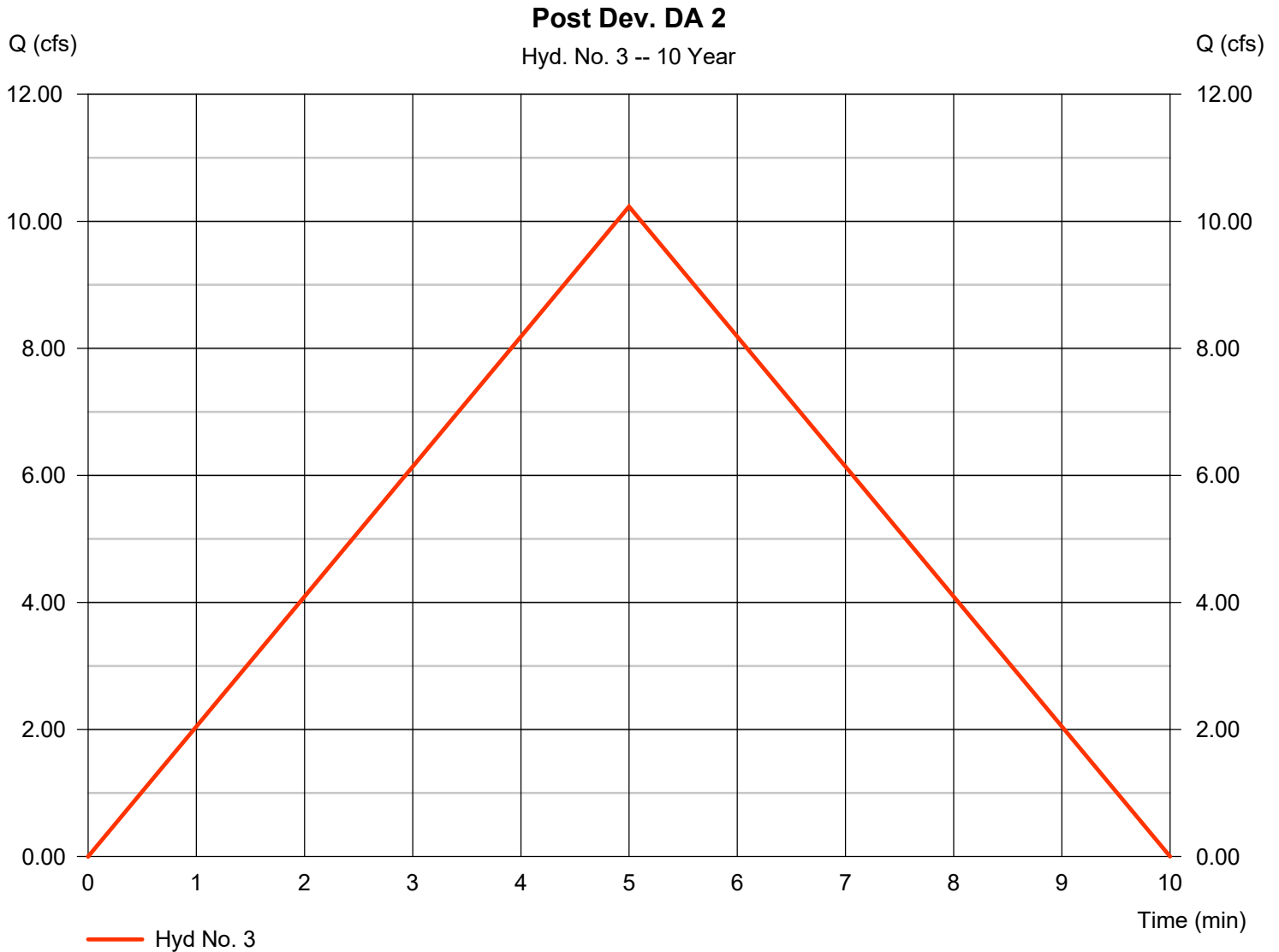
Hyd No. 3

Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023   Tuesday, 03 / 19 / 2024

Hyd. No. 4

Detention Pond

Hydrograph type	= Reservoir		Peak discharge	= 0.897 cfs
Storm frequency	= 10 yrs		Time to peak	= 10 min
Time interval	= 1 min		Hyd. volume	= 3,066 cuft
Inflow hyd. No.	= 3 - Post Dev. DA 2		Max. Elevation	= 426.39 ft
Reservoir name	= Det. Pond		Max. Storage	= 2,738 cuft

Storage Indication method used.

Detention Pond

Hyd. No. 4 -- 10 Year

Hydrograph Report

Hyd. No. 5

Total Post Dev

Hydrograph type	= Combine		Peak discharge	= 6.288 cfs
Storm frequency	= 10 yrs		Time to peak	= 5 min
Time interval	= 1 min		Hyd. volume	= 4,733 cuft
Inflow hyds.	= 2, 4		Contrib. drain. area	= 2.300 ac

Total Post Dev

Hyd. No. 5 -- 10 Year

Legend: Hyd No. 5, Hyd No. 2, Hyd No. 4
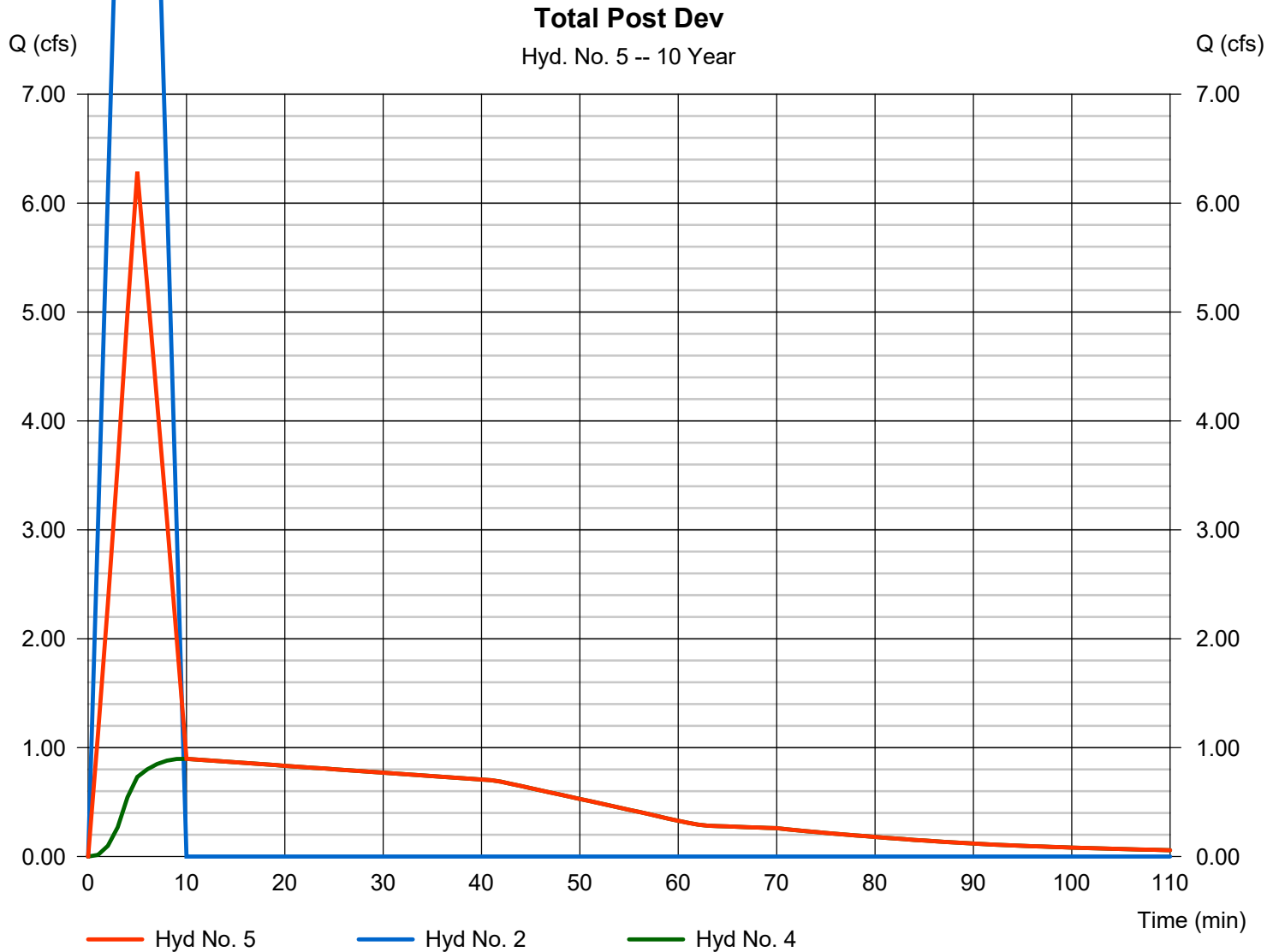
Hydrograph Report

Hyd. No. 6

Additional Pond

Hydrograph type	= Reservoir		Peak discharge	= 2.926 cfs
Storm frequency	= 10 yrs		Time to peak	= 8 min
Time interval	= 1 min		Hyd. volume	= 4,732 cuft
Inflow hyd. No.	= 5 - Total Post Dev		Max. Elevation	= 423.77 ft
Reservoir name	= Additional Pond		Max. Storage	= 1,040 cuft

Storage Indication method used.

Additional Pond

Hyd. No. 6 -- 10 Year

Hydrograph Summary Report

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	Rational	9.878	1	5	2,963	------	------	------	Pre-Development
2	Rational	17.40	1	5	5,220	------	------	------	Post Dev DA 1
3	Rational	11.70	1	5	3,511	------	------	------	Post Dev. DA 2
4	Reservoir	0.945	1	10	3,506	3	426.50	3,158	Detention Pond
5	Combine	7.116	1	5	5,413	2, 4	------	------	Total Post Dev
6	Reservoir	3.314	1	8	5,412	5	423.89	1,187	Additional Pond

Bryant Admin Hydrographs w gas sta.gpw	Return Period: 25 Year	Tuesday, 03 / 19 / 2024

Hydrograph Report

Hyd. No. 1

Pre-Development

Hydrograph type	= Rational	Peak discharge	= 9.878 cfs
Storm frequency	= 25 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 2,963 cuft
Drainage area	= 4.700 ac	Runoff coeff.	= 0.25*
Intensity	= 8.406 in/hr	Tc by User	= 5.00 min
IDF Curve	= Pulaski County.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(5.900 x 0.25) + (5.200 x 0.90)] / 4.700

Pre-Development

Hyd. No. 1 -- 25 Year

Hydrograph Report

Hyd. No. 2

Post Dev DA 1

Hydrograph type	= Rational	Peak discharge	= 17.40 cfs
Storm frequency	= 25 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 5,220 cuft
Drainage area	= 2.300 ac	Runoff coeff.	= 0.9*
Intensity	= 8.406 in/hr	Tc by User	= 5.00 min
IDF Curve	= Pulaski County.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(0.700 x 0.90) + (0.500 x 0.25)] / 2.300

Post Dev DA 1

Hyd. No. 2 -- 25 Year

Q (cfs)

Q (cfs)

— Hyd No. 2

Time (min)
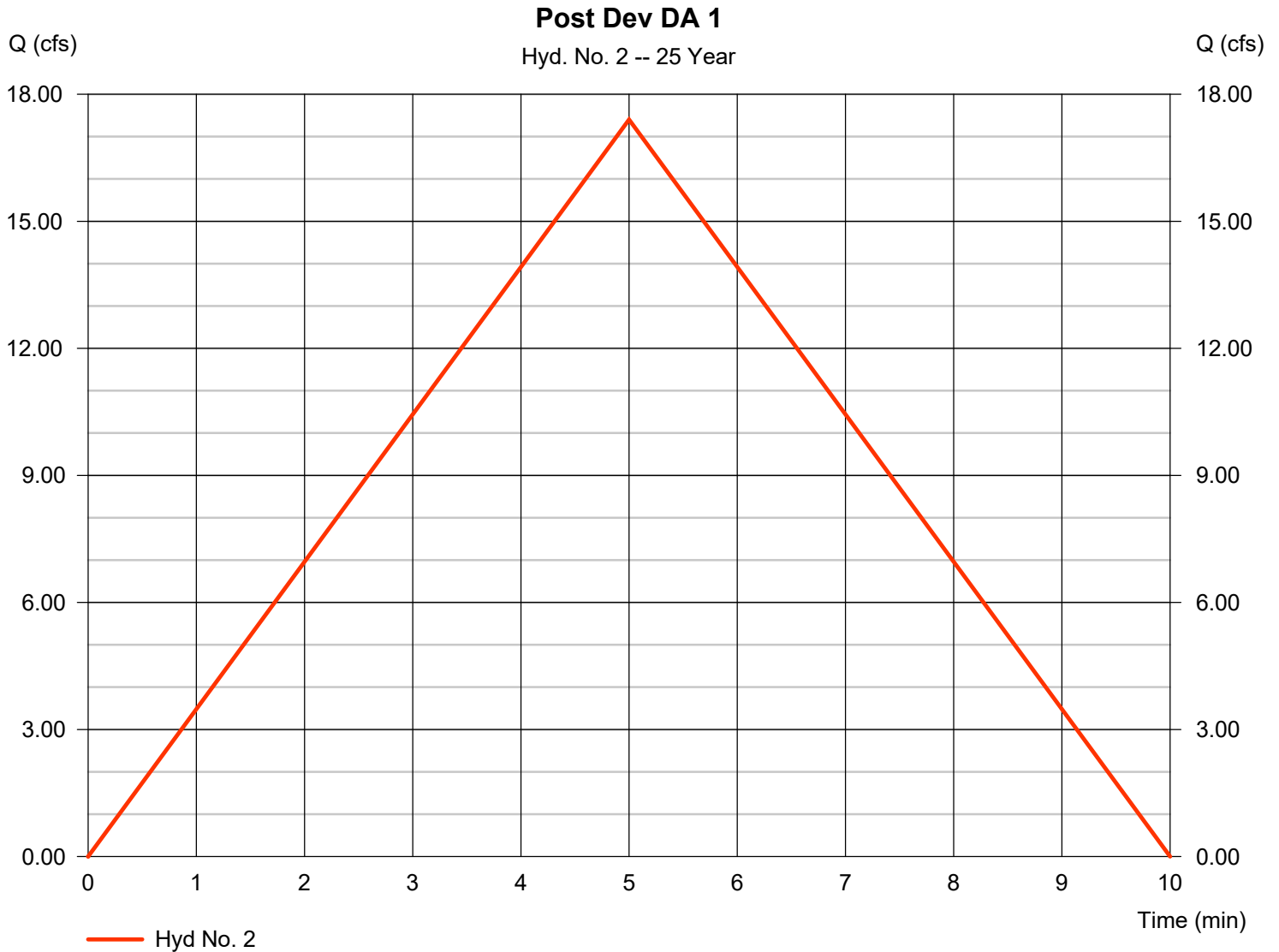
Hydrograph Report

Hyd. No. 3

Post Dev. DA 2

Hydrograph type	= Rational	Peak discharge	= 11.70 cfs
Storm frequency	= 25 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 3,511 cuft
Drainage area	= 2.400 ac	Runoff coeff.	= 0.58*
Intensity	= 8.406 in/hr	Tc by User	= 5.00 min
IDF Curve	= Pulaski County.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(1.200 x 0.90) + (1.200 x 0.25)] / 2.400

Post Dev. DA 2

Hyd. No. 3 -- 25 Year

Q (cfs)

Time (min)
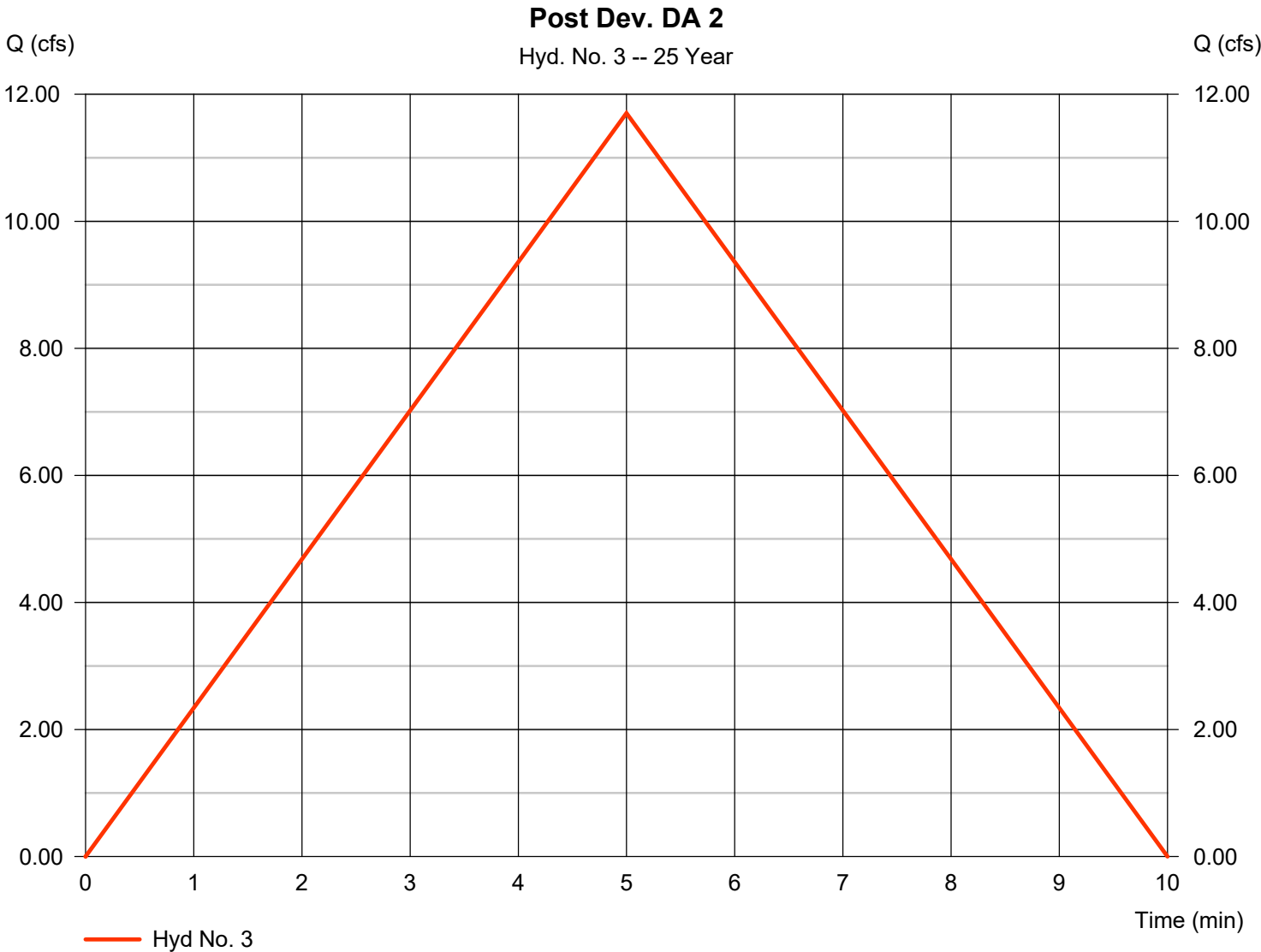
— Hyd No. 3

Hydrograph Report

Hyd. No. 4

Detention Pond

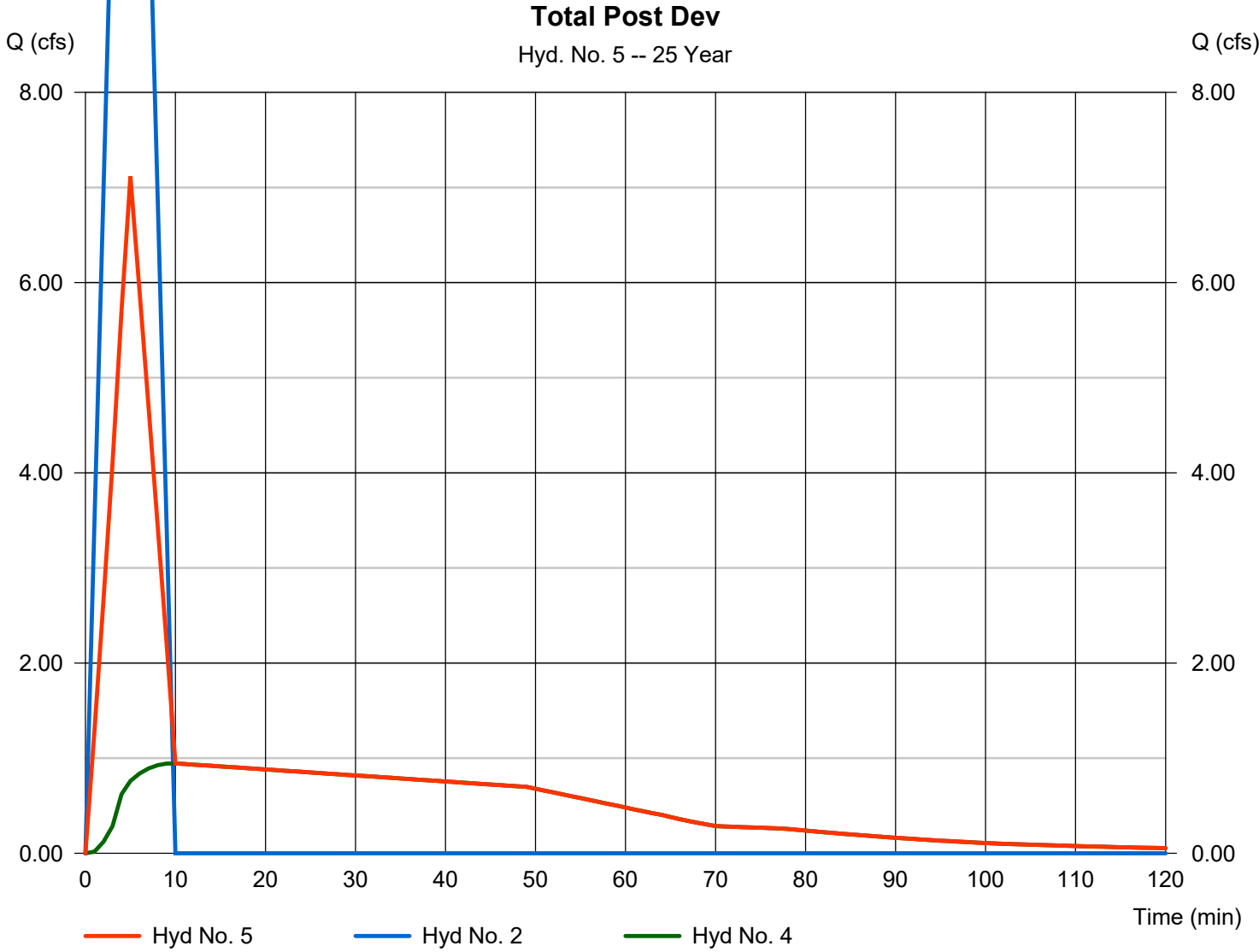|					
Hydrograph type	= Reservoir		Peak discharge	= 0.945 cfs
Storm frequency	= 25 yrs		Time to peak	= 10 min
Time interval	= 1 min		Hyd. volume	= 3,506 cuft
Inflow hyd. No.	= 3 - Post Dev. DA 2		Max. Elevation	= 426.50 ft
Reservoir name	= Det. Pond		Max. Storage	= 3,158 cuft

Storage Indication method used.
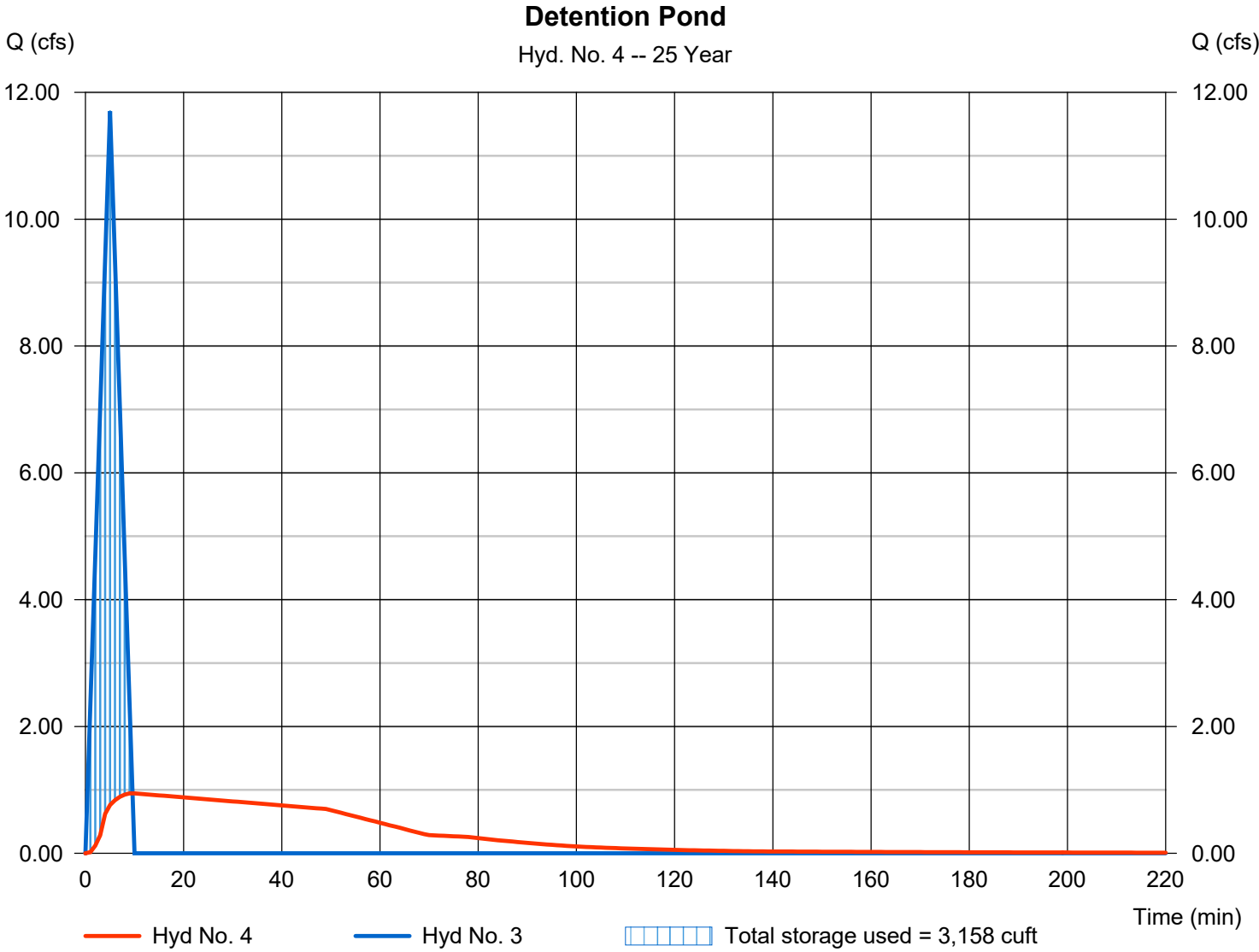
Detention Pond

Hyd. No. 4 -- 25 Year

Hyd No. 4   Hyd No. 3   Total storage used = 3,158 cuft

Hydrograph Report

Hyd. No. 5

Total Post Dev

Hydrograph type	= Combine		Peak discharge	= 7.116 cfs
Storm frequency	= 25 yrs		Time to peak	= 5 min
Time interval	= 1 min		Hyd. volume	= 5,413 cuft
Inflow hyds	= 2, 4		Contrib. drain. area	= 2.300 ac

Total Post Dev

Hyd. No. 5 -- 25 Year

Hyd No. 5   Hyd No. 2   Hyd No. 4

Hydrograph Report

Hyd. No. 6

Additional Pond

Hydrograph type	= Reservoir		Peak discharge	= 3.314 cfs
Storm frequency	= 25 yrs		Time to peak	= 8 min
Time interval	= 1 min		Hyd. volume	= 5,412 cuft
Inflow hyd. No.	= 5 - Total Post Dev		Max. Elevation	= 423.89 ft
Reservoir name	= Additional Pond		Max. Storage	= 1,187 cuft

Storage Indication method used.

Additional Pond

Hyd. No. 6 -- 25 Year

Q (cfs)

Time (min)

—— Hyd No. 6	—— Hyd No. 5	Total storage used = 1,187 cuft

Hydrograph Summary Report

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	Rational	10.86	1	5	3,257	------	------	------	Pre-Development
2	Rational	19.13	1	5	5,738	------	------	------	Post Dev DA 1
3	Rational	12.86	1	5	3,859	------	------	------	Post Dev. DA 2
4	Reservoir	0.981	1	10	3,854	3	426.59	3,488	Detention Pond
5	Combine	7.769	1	5	5,950	2, 4	------	------	Total Post Dev
6	Reservoir	3.587	1	8	5,949	5	423.99	1,302	Additional Pond

Bryant Admin Hydrographs w gas sta.gpw	Return Period: 50 Year	Tuesday, 03 / 19 / 2024

Hydrograph Report

Hyd. No. 1

Pre-Development

Hydrograph type	= Rational	Peak discharge	= 10.86 cfs
Storm frequency	= 50 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 3,257 cuft
Drainage area	= 4.700 ac	Runoff coeff.	= 0.25*
Intensity	= 9.240 in/hr	Tc by User	= 5.00 min
IDF Curve	= Pulaski County.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(5.900 x 0.25) + (5.200 x 0.90)] / 4.700

Pre-Development

Hyd. No. 1 -- 50 Year

Hydrograph Report

Hyd. No. 2

Post Dev DA 1

Hydrograph type	= Rational	Peak discharge	= 19.13 cfs
Storm frequency	= 50 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 5,738 cuft
Drainage area	= 2.300 ac	Runoff coeff.	= 0.9*
Intensity	= 9.240 in/hr	Tc by User	= 5.00 min
IDF Curve	= Pulaski County.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(0.700 x 0.90) + (0.500 x 0.25)] / 2.300

Post Dev DA 1

Hyd. No. 2 -- 50 Year

─── Hyd No. 2

Hydrograph Report

Hyd. No. 3

Post Dev. DA 2

Hydrograph type	= Rational	Peak discharge	= 12.86 cfs
Storm frequency	= 50 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 3,859 cuft
Drainage area	= 2.400 ac	Runoff coeff.	= 0.58*
Intensity	= 9.240 in/hr	Tc by User	= 5.00 min
IDF Curve	= Pulaski County.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(1.200 x 0.90) + (1.200 x 0.25)] / 2.400

Post Dev. DA 2

Hyd. No. 3 -- 50 Year
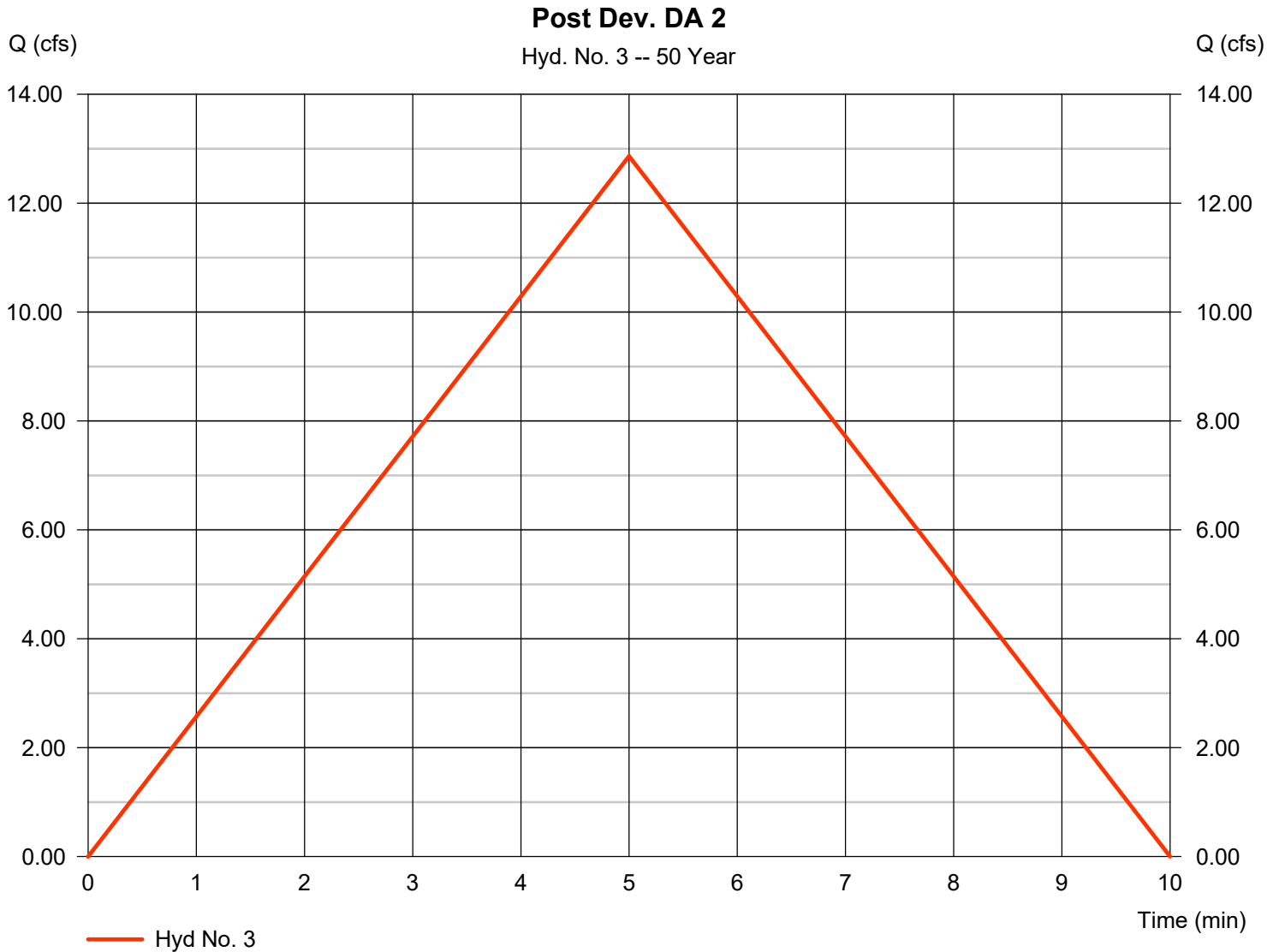
Hyd No. 3

Hydrograph Report

Hyd. No. 4

Detention Pond

Hydrograph type	= Reservoir		Peak discharge	= 0.981 cfs
Storm frequency	= 50 yrs		Time to peak	= 10 min
Time interval	= 1 min		Hyd. volume	= 3,854 cuft
Inflow hyd. No.	= 3 - Post Dev. DA 2		Max. Elevation	= 426.59 ft
Reservoir name	= Det. Pond		Max. Storage	= 3,488 cuft

Storage Indication method used.

Detention Pond

Hyd. No. 4 -- 50 Year

Hydrograph Report

Hyd. No. 5

Total Post Dev

Hydrograph type	= Combine	Peak discharge	= 7.769 cfs
Storm frequency	= 50 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 5,950 cuft
Inflow hyds.	= 2, 4	Contrib. drain. area	= 2.300 ac

Total Post Dev

Hyd. No. 5 -- 50 Year
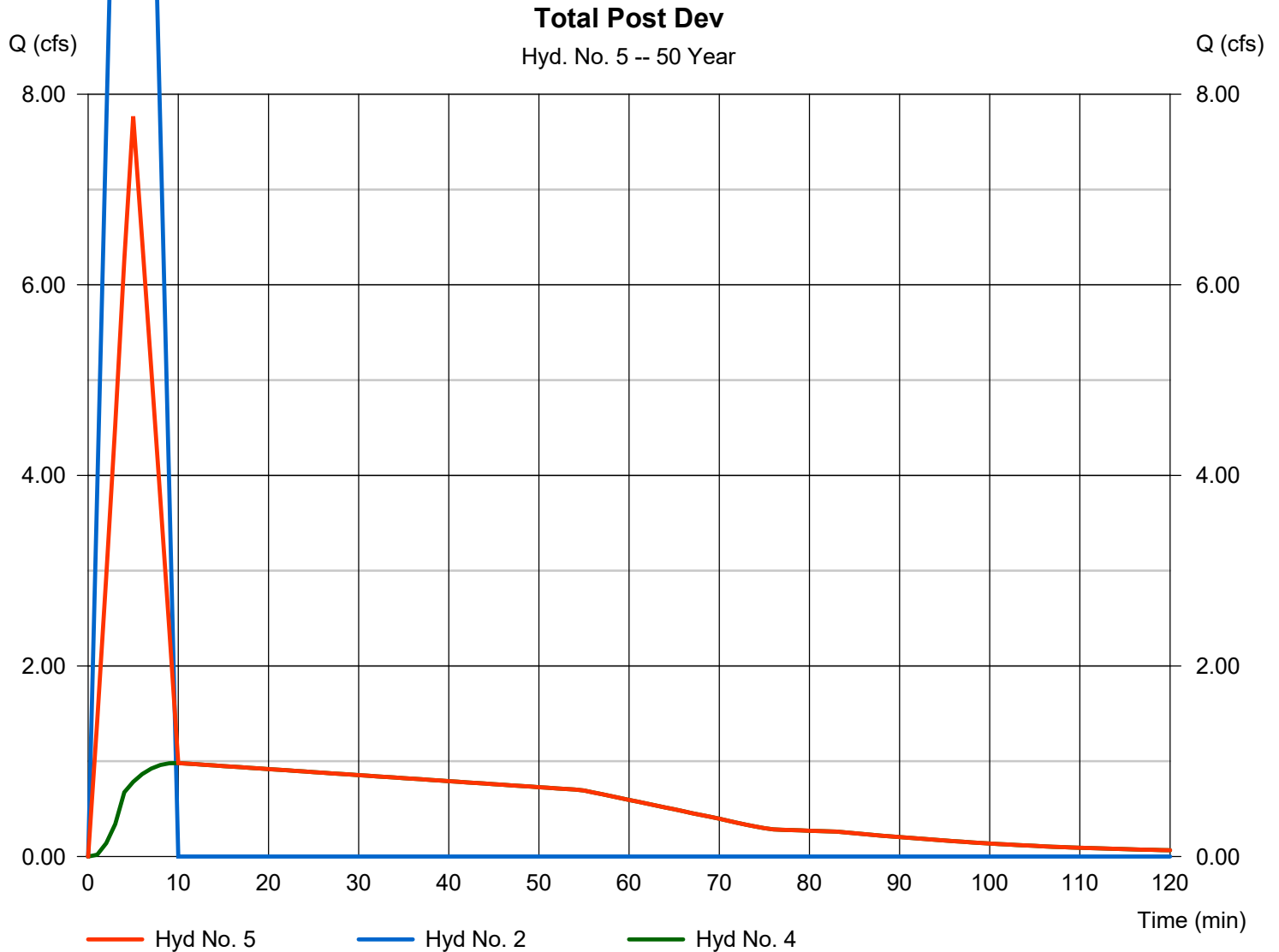
Hydrograph Report

Hyd. No. 6

Additional Pond

Hydrograph type	= Reservoir		Peak discharge	= 3.587 cfs
Storm frequency	= 50 yrs		Time to peak	= 8 min
Time interval	= 1 min		Hyd. volume	= 5,949 cuft
Inflow hyd. No.	= 5 - Total Post Dev		Max. Elevation	= 423.99 ft
Reservoir name	= Additional Pond		Max. Storage	= 1,302 cuft

Storage Indication method used.

Additional Pond

Hyd. No. 6 -- 50 Year

Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023

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	Rational	11.84	1	5	3,552	------	------	------	Pre-Development
2	Rational	20.86	1	5	6,257	------	------	------	Post Dev DA 1
3	Rational	14.02	1	5	4,207	------	------	------	Post Dev. DA 2
4	Reservoir	1.016	1	10	4,203	3	426.67	3,820	Detention Pond
5	Combine	8.423	1	5	6,488	2, 4	------	------	Total Post Dev
6	Reservoir	3.720	1	8	6,488	5	424.04	1,429	Additional Pond

| Bryant Admin Hydrographs w gas sta.gpw	Return Period: 100 Year	Tuesday, 03 / 19 / 2024

Hydrograph Report

Hyd. No. 1

Pre-Development

Hydrograph type	= Rational	Peak discharge	= 11.84 cfs
Storm frequency	= 100 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 3,552 cuft
Drainage area	= 4.700 ac	Runoff coeff.	= 0.25*
Intensity	= 10.075 in/hr	Tc by User	= 5.00 min
IDF Curve	= Pulaski County.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(5.900 x 0.25) + (5.200 x 0.90)] / 4.700

Pre-Development

Hyd. No. 1 -- 100 Year
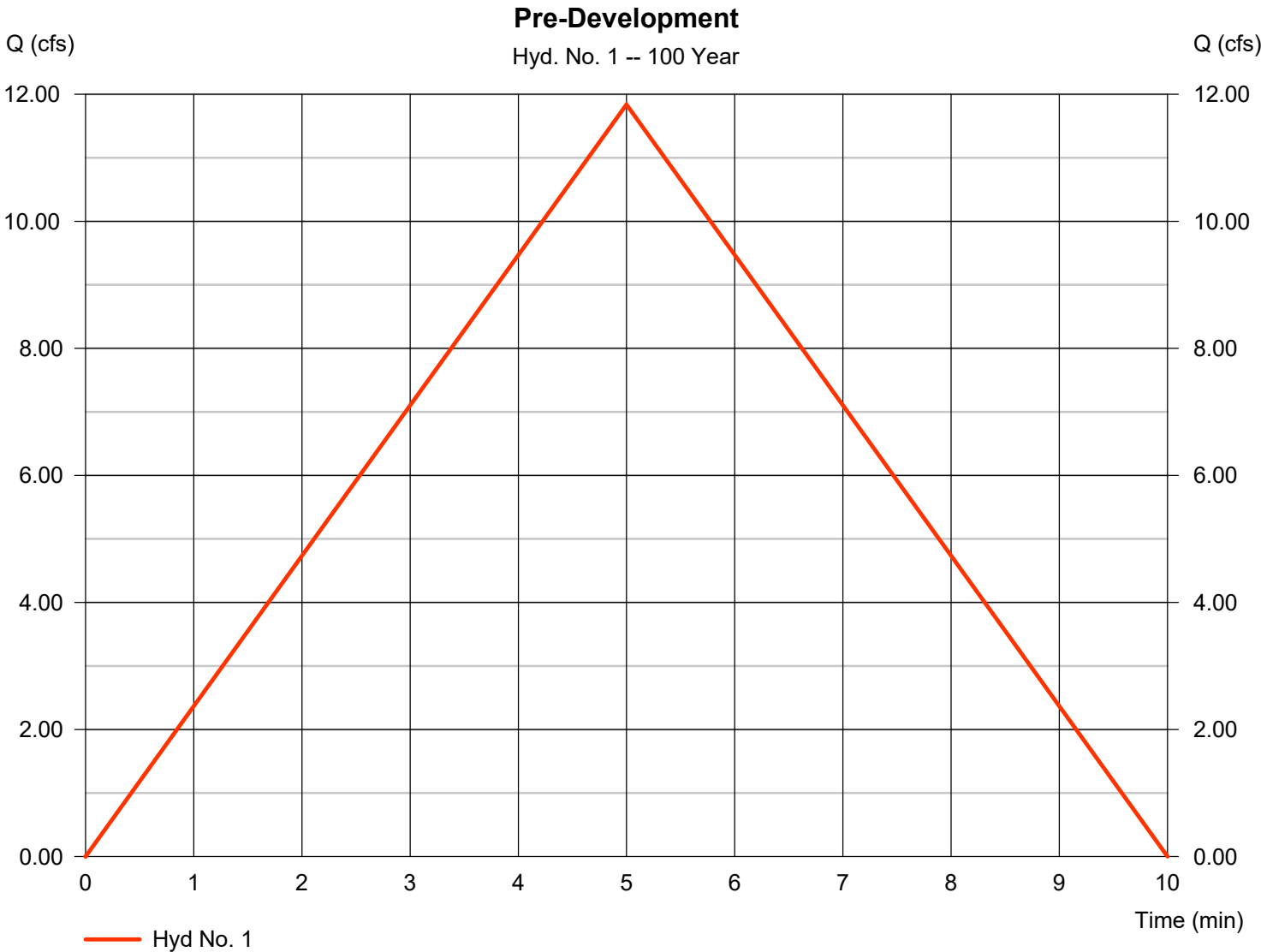
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2023   Tuesday, 03 / 19 / 2024

Hyd. No. 2

Post Dev DA 1

Hydrograph type	= Rational	Peak discharge	= 20.86 cfs
Storm frequency	= 100 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 6,257 cuft
Drainage area	= 2.300 ac	Runoff coeff.	= 0.9*
Intensity	= 10.075 in/hr	Tc by User	= 5.00 min
IDF Curve	= Pulaski County.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(0.700 x 0.90) + (0.500 x 0.25)] / 2.300

Post Dev DA 1

Hyd. No. 2 -- 100 Year

Q (cfs) ... Time (min)
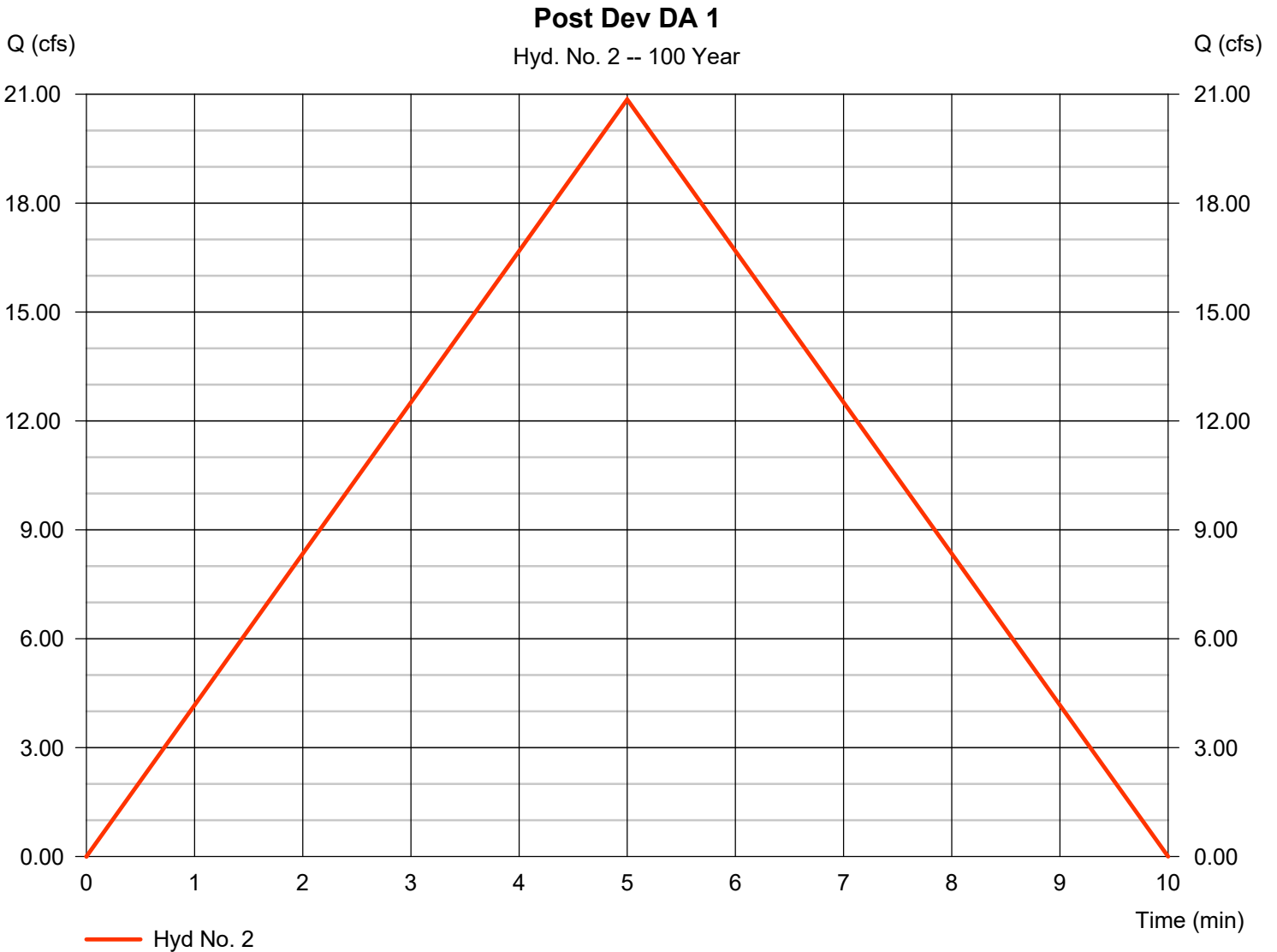
— Hyd No. 2

Hydrograph Report

Hyd. No. 3

Post Dev. DA 2

Hydrograph type	= Rational	Peak discharge	= 14.02 cfs
Storm frequency	= 100 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 4,207 cuft
Drainage area	= 2.400 ac	Runoff coeff.	= 0.58*
Intensity	= 10.075 in/hr	Tc by User	= 5.00 min
IDF Curve	= Pulaski County.IDF	Asc/Rec limb fact	= 1/1

* Composite (Area/C) = [(1.200 x 0.90) + (1.200 x 0.25)] / 2.400

Post Dev. DA 2

Hyd. No. 3 -- 100 Year

Hyd No. 3

Hydrograph Report

Hyd. No. 4

Detention Pond

Hydrograph type	= Reservoir	Peak discharge	= 1.016 cfs
Storm frequency	= 100 yrs	Time to peak	= 10 min
Time interval	= 1 min	Hyd. volume	= 4,203 cuft
Inflow hyd. No.	= 3 - Post Dev. DA 2	Max. Elevation	= 426.67 ft
Reservoir name	= Det. Pond	Max. Storage	= 3,820 cuft

Storage Indication method used.
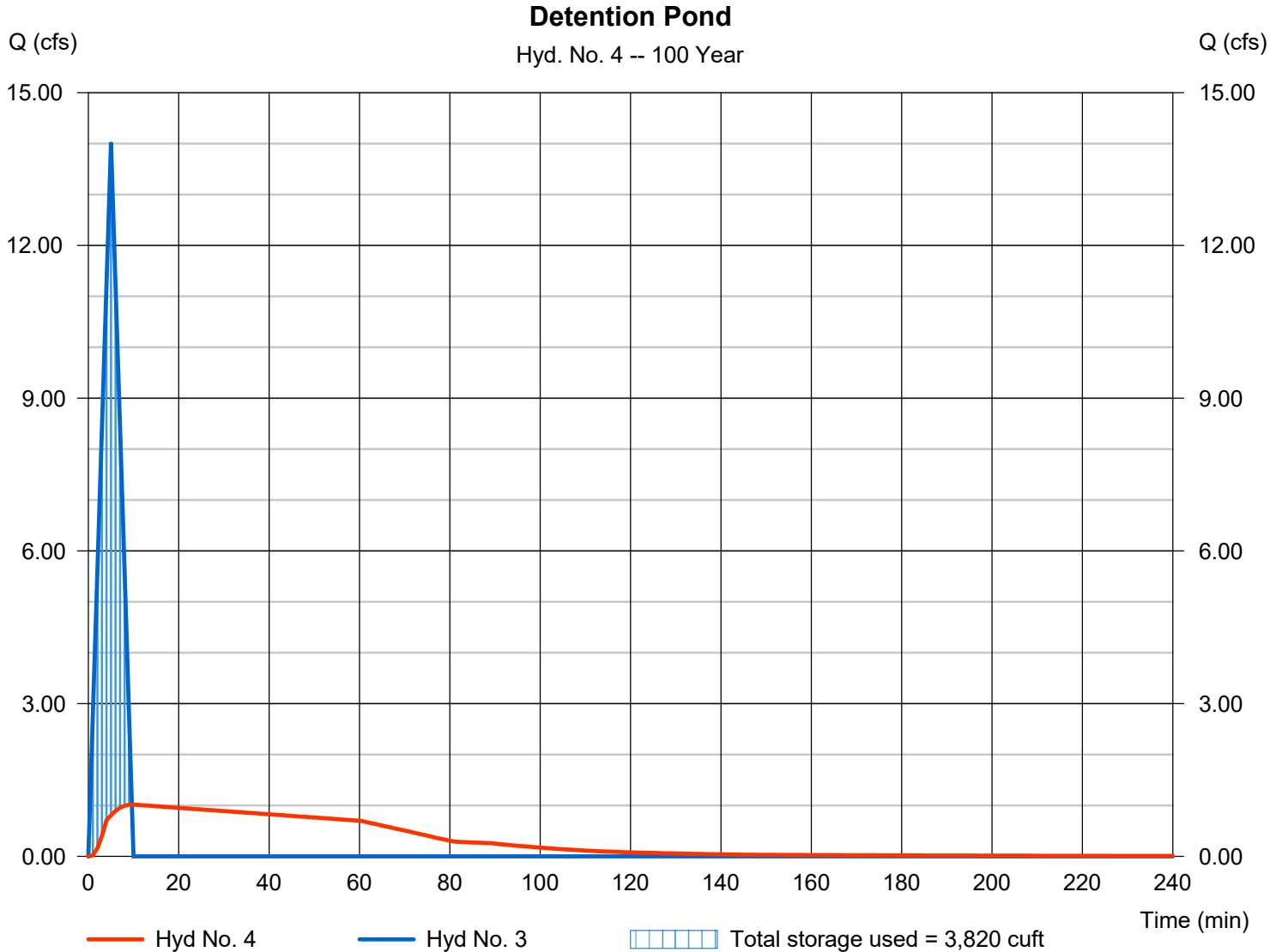
Detention Pond

Hyd. No. 4 -- 100 Year

Hydrograph Report

Hyd. No. 5

Total Post Dev

Hydrograph type	= Combine	Peak discharge	= 8.423 cfs
Storm frequency	= 100 yrs	Time to peak	= 5 min
Time interval	= 1 min	Hyd. volume	= 6,488 cuft
Inflow hyds.	= 2, 4	Contrib. drain. area	= 2.300 ac

Total Post Dev

Hyd. No. 5 -- 100 Year
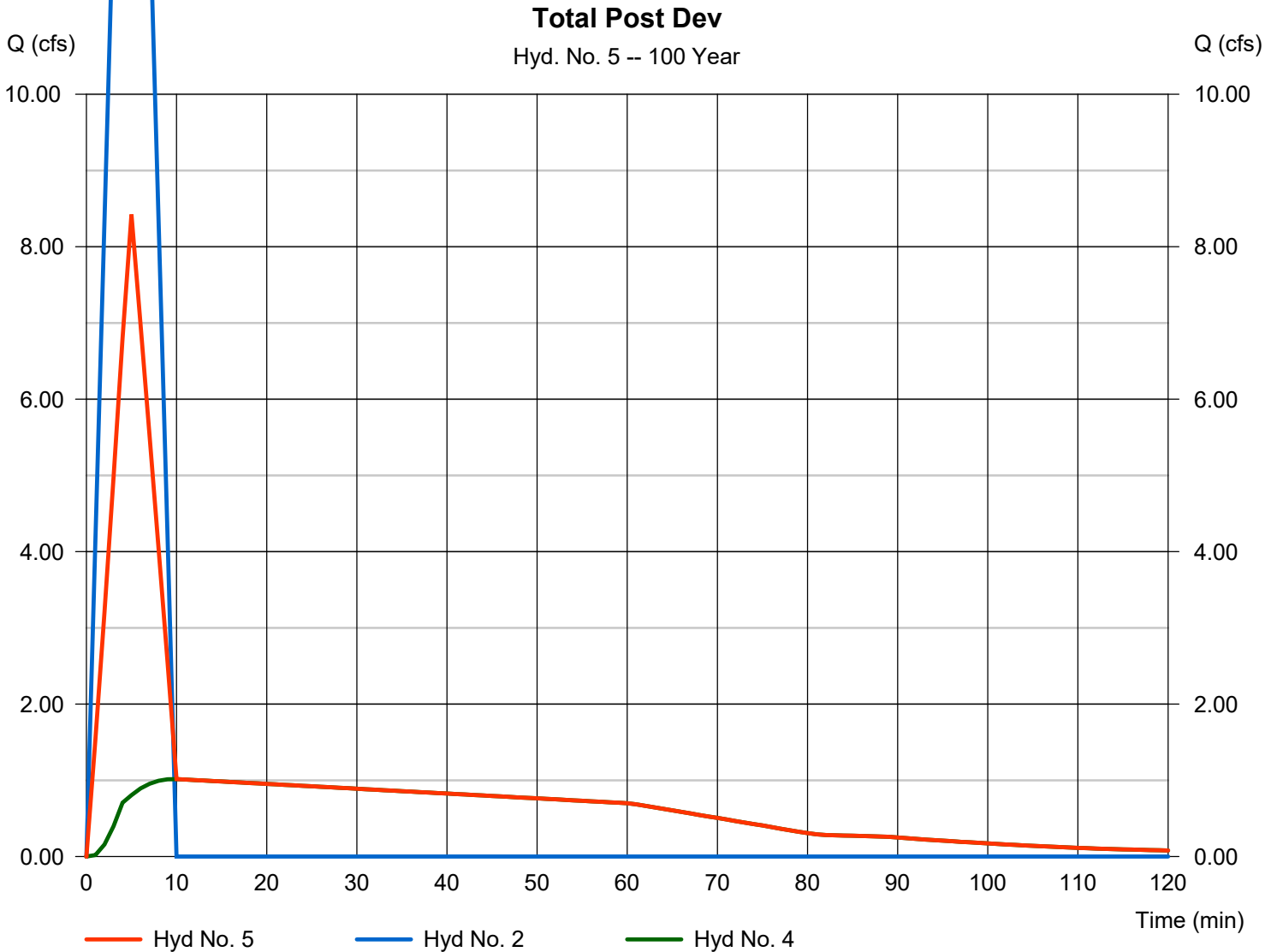
Hydrograph Report

Tuesday, 03 / 19 / 2024

Hyd. No. 6

Additional Pond

Hydrograph type	= Reservoir	Peak discharge	= 3.720 cfs
Storm frequency	= 100 yrs	Time to peak	= 8 min
Time interval	= 1 min	Hyd. volume	= 6,488 cuft
Inflow hyd. No.	= 5 - Total Post Dev	Max. Elevation	= 424.04 ft
Reservoir name	= Additional Pond	Max. Storage	= 1,429 cuft

Storage Indication method used.

Additional Pond

Hyd. No. 6 -- 100 Year

Legend: Hyd No. 6 — Hyd No. 5 — Total storage used = 1,429 cuft
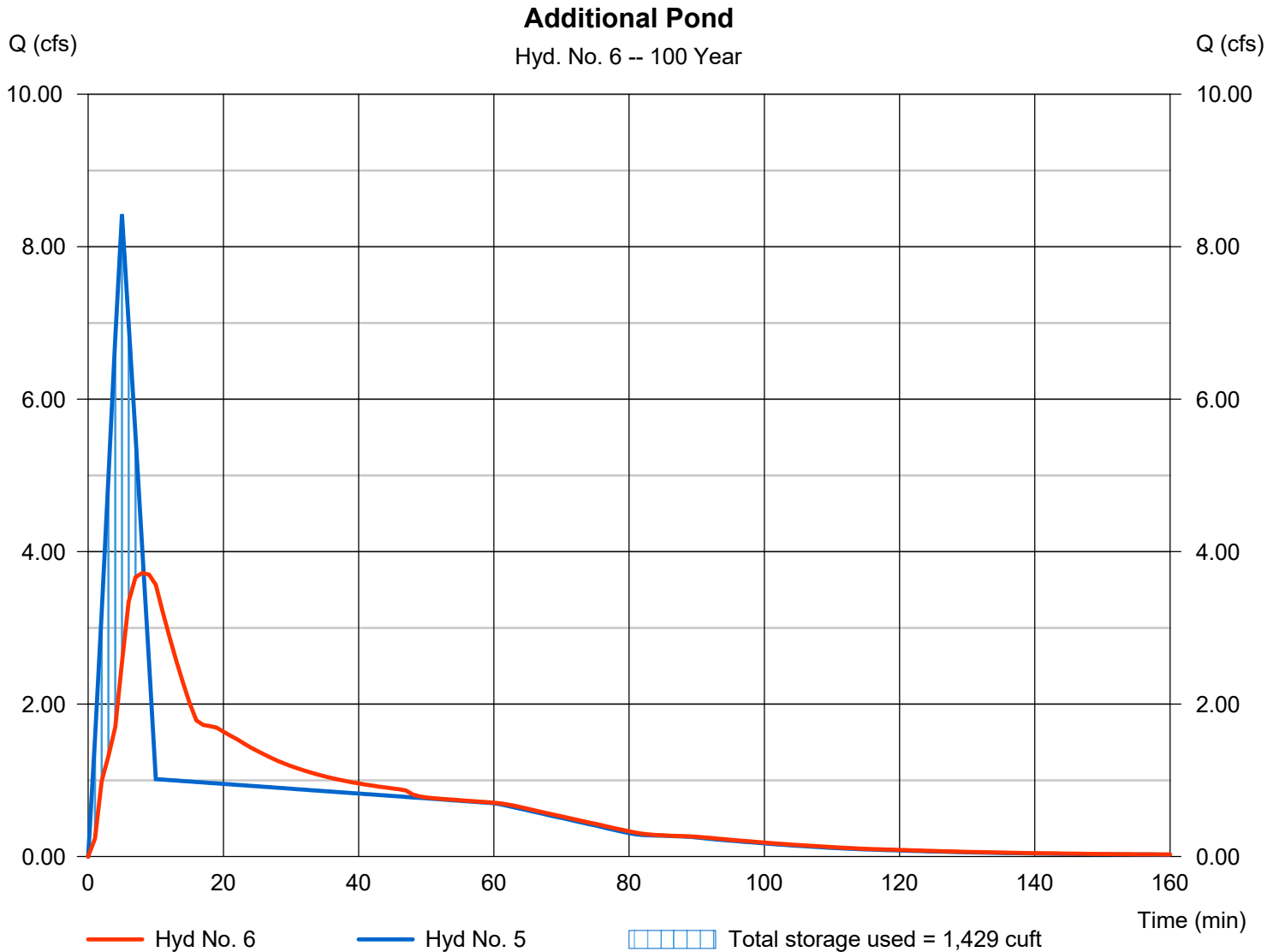
City of Bryant, Arkansas
Community Development
210 SW 3rd Street Bryant, AR 72022
501-943-0943

SIGN PERMIT APPLICATION

Applicants are advised to read the Sign Ordinance prior to completing and signing this form. The Sign Ordinance is available at www.cityofbryant.com under the Planning and Community Development tab.

> Note: Electrical Permits may be Required, Please contact the Community Development Office for more information.

Date: 3/13/2024

Sign Co. or Sign Owner

Name L. Graphics
Address 701 N. Reynolds Rd
City, State, Zip Bryant, AR 72022
Phone (501) 653-4444
Alternate Phone _____

Property Owner

Name Bart Furguson
Address 3507 Marketplace ste. 200
City, State, Zip Bryant, AR 72022
Phone (501) 840-2282
Alternate Phone _____

GENERAL INFORMATION

Name of Business P31 Boutique
Address/Location of sign 3507 Marketplace ste. 200

Zoning Classification _____

Please use following page to provide details on the signs requesting approval. Along with information provided on this application, **a Site Plan showing placement of sign(s) and any existing sign(s) on the property is required** to be submitted. **Renderings of the sign(s) showing the correct dimensions is also required** to be submitted with the application. A thirty-five dollar ($35) per sign payment will be collected at the time of permit issuance. According to the Sign Ordinance a fee for and sign variance or special sign permit request shall be one hundred dollars ($100). Additional documentation may be required by Sign Administrator.

READ CAREFULLY BEFORE SIGNING

I Joelam , do hereby certify that all information contained within this application is true and correct. I fully understand that the terms of the Sign Ordinance supersede the Sign Administrator's approval and that all signs must fully comply with all terms of the Sign Ordinance regardless of approval. I further certify that the proposed sign is authorized by the owner of the property and that I am authorized by the property owner to make this application. I understand

that no sign may be placed in public right of way. I understand that I must comply with all Building and Electrical Codes and that it is my responsibility to obtain all necessary permits.

Use table below to enter information regarding each sign for approval. Please use each letter to reference each sign rendering.

SIGN	Type (Façade, Pole, Monument, other)	Dimensions (Height, Length, Width)	Sqft (Measured in whole as rectangle)	Height of Sign (Measured from lot surface)		Column for Admin Certifying Approval
				Top of Sign	Bottom of Sign	
A	Wall mount Channel letter	60"X60"	25SQ Ft	18	13	
B						
C						
E						
F						
G						

Wall mount cabinet w/ LED lighting

60 in

60 in

P31
-BOUTIQUE-

18 feet