

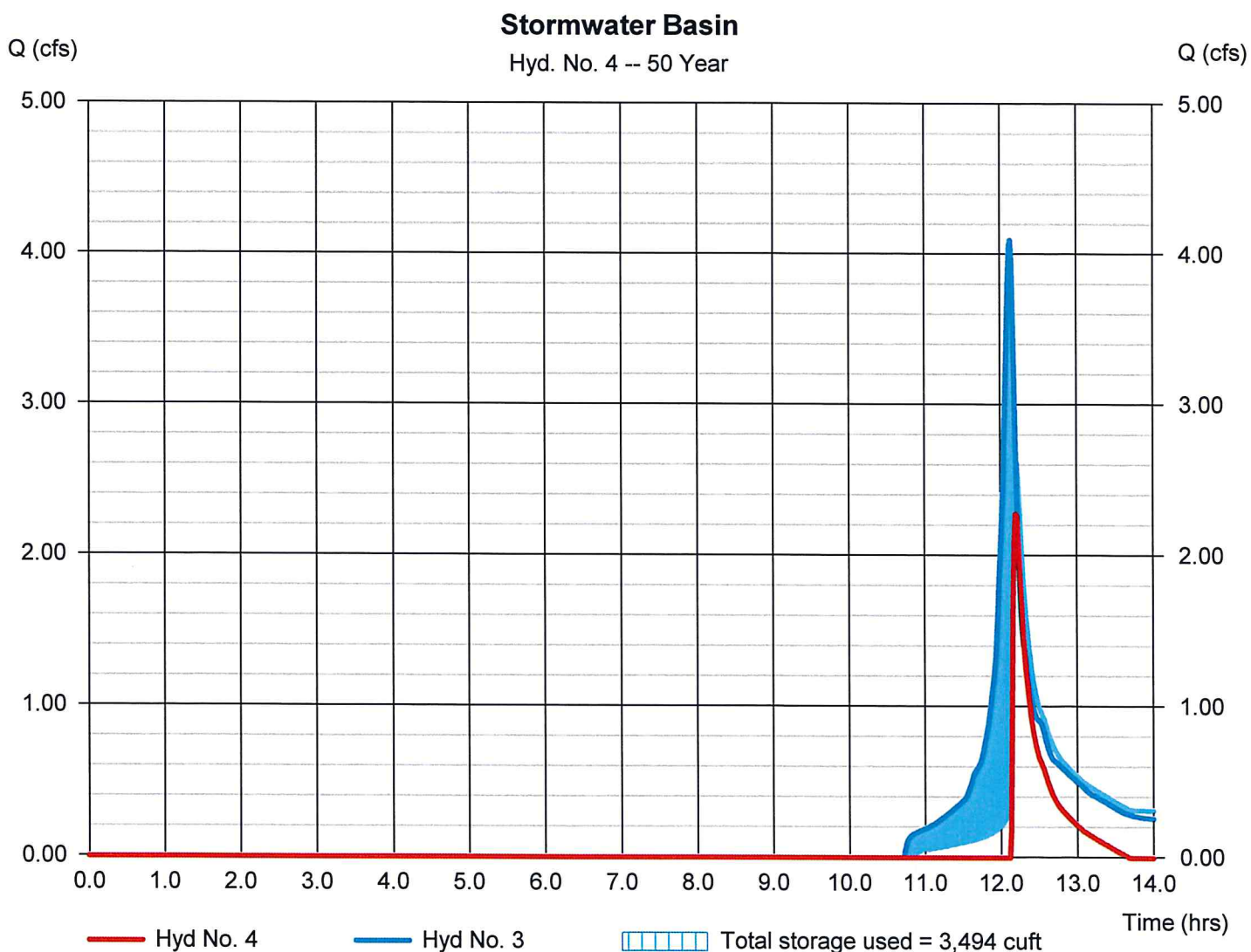
Hydrograph Report

Hyd. No. 4

Stormwater Basin

Hydrograph type	= Reservoir	Peak discharge	= 2.277 cfs
Storm frequency	= 50 yrs	Time to peak	= 12.20 hrs
Time interval	= 1 min	Hyd. volume	= 2,713 cuft
Inflow hyd. No.	= 3 - Forbay	Max. Elevation	= 131.28 ft
Reservoir name	= Pond 1	Max. Storage	= 3,494 cuft

Storage Indication method used. Exfiltration extracted from Outflow.



Hydrograph Summary Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2025

Hyd. No.	Hydrograph type (origin)	Peak flow (cfs)	Time interval (min)	Time to Peak (min)	Hyd. volume (cuft)	Inflow hyd(s)	Maximum elevation (ft)	Total strge used (cuft)	Hydrograph Description
1	SCS Runoff	3.956	1	727	12,232	-----	-----	-----	Existing Area
2	SCS Runoff	4.916	1	727	15,285	-----	-----	-----	Proposed Area
3	Reservoir	4.858	1	728	14,773	2	131.46	786	Forbay
4	Reservoir	3.734	1	730	4,253	3	131.39	3,691	Stormwater Basin
Route 32 - Drainage Calculations - SCSgw. Return Period: 100 Year								Tuesday, 09 / 23 / 2025	

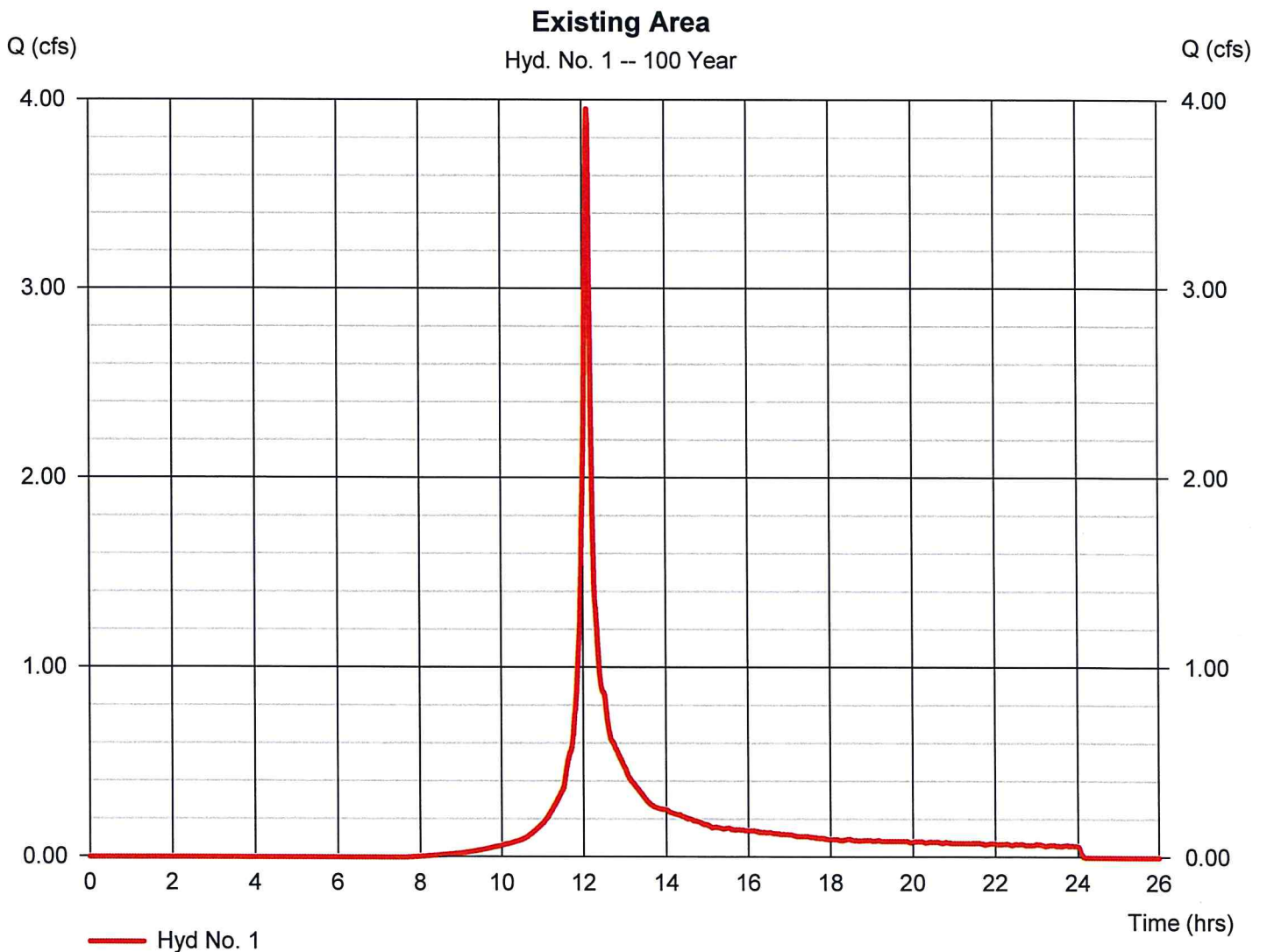
Hydrograph Report

Hyd. No. 1

Existing Area

Hydrograph type	= SCS Runoff	Peak discharge	= 3.956 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.12 hrs
Time interval	= 1 min	Hyd. volume	= 12,232 cuft
Drainage area	= 0.800 ac	Curve number	= 68*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 7.82 in	Distribution	= Custom
Storm duration	= NOAA Type D Distribution 1 shape	Shape factor	= 484

* Composite (Area/CN) = [(0.350 x 98) + (0.450 x 45)] / 0.800



Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2025

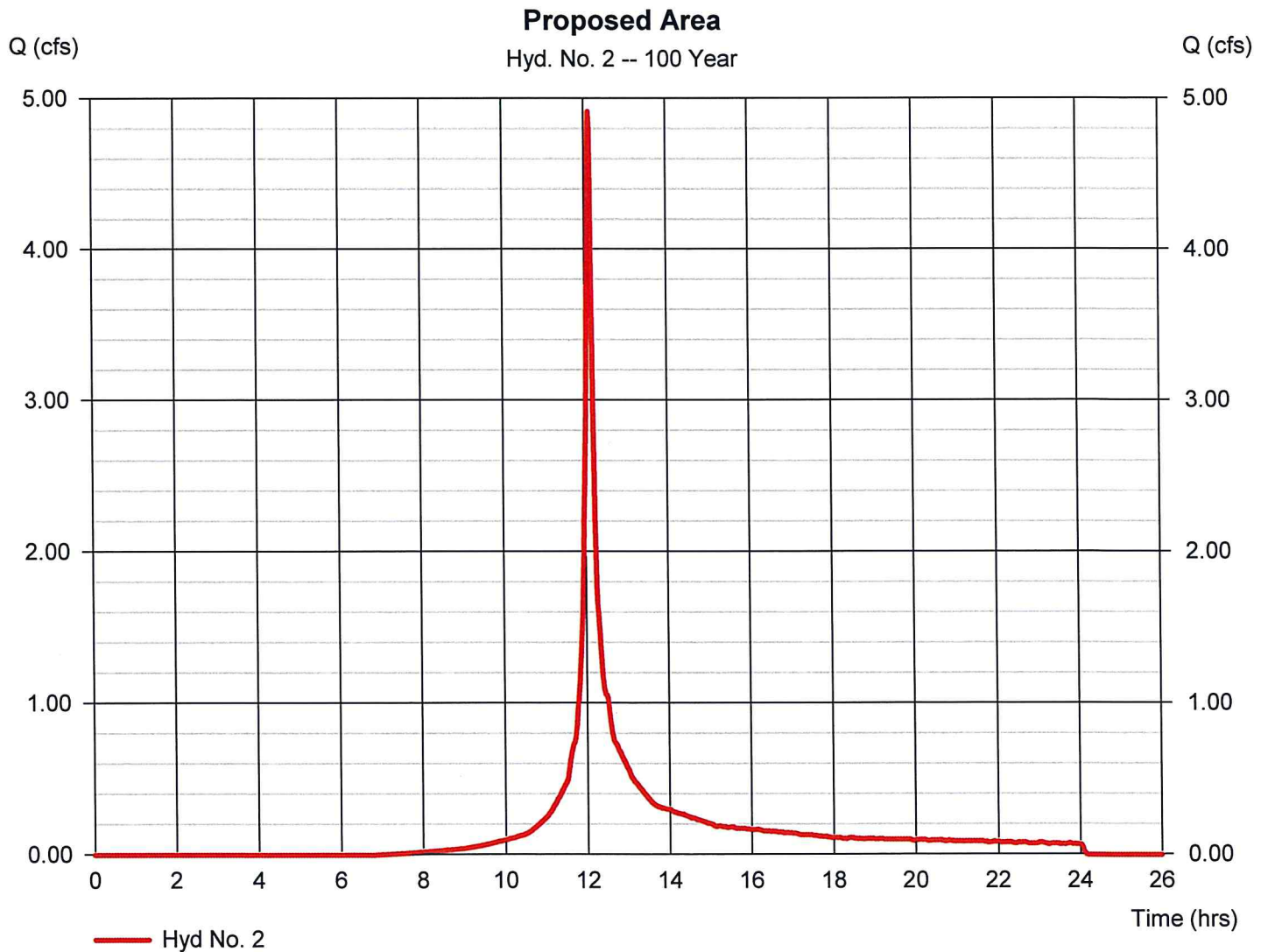
Tuesday, 09 / 23 / 2025

Hyd. No. 2

Proposed Area

Hydrograph type	= SCS Runoff	Peak discharge	= 4.916 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.12 hrs
Time interval	= 1 min	Hyd. volume	= 15,285 cuft
Drainage area	= 0.900 ac	Curve number	= 72*
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= User	Time of conc. (Tc)	= 5.00 min
Total precip.	= 7.82 in	Distribution	= Custom
Storm duration	= NOAA Type D Distribution 1 shape	Shape factor	= 484

* Composite (Area/CN) = [(0.500 x 98) + (0.400 x 39)] / 0.900



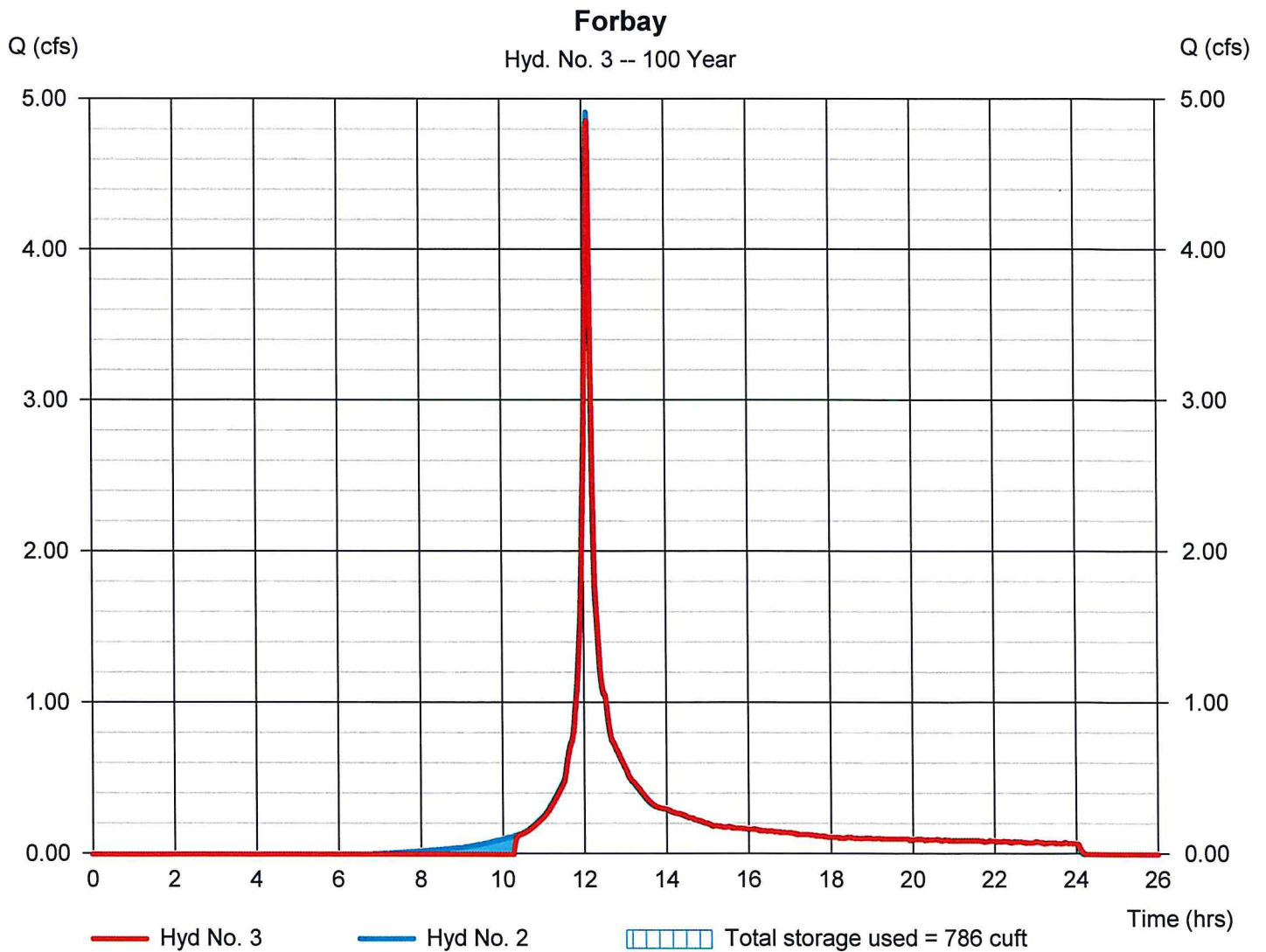
Hydrograph Report

Hyd. No. 3

Forbay

Hydrograph type	= Reservoir	Peak discharge	= 4.858 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.13 hrs
Time interval	= 1 min	Hyd. volume	= 14,773 cuft
Inflow hyd. No.	= 2 - Proposed Area	Max. Elevation	= 131.46 ft
Reservoir name	= Forebay	Max. Storage	= 786 cuft

Storage Indication method used.



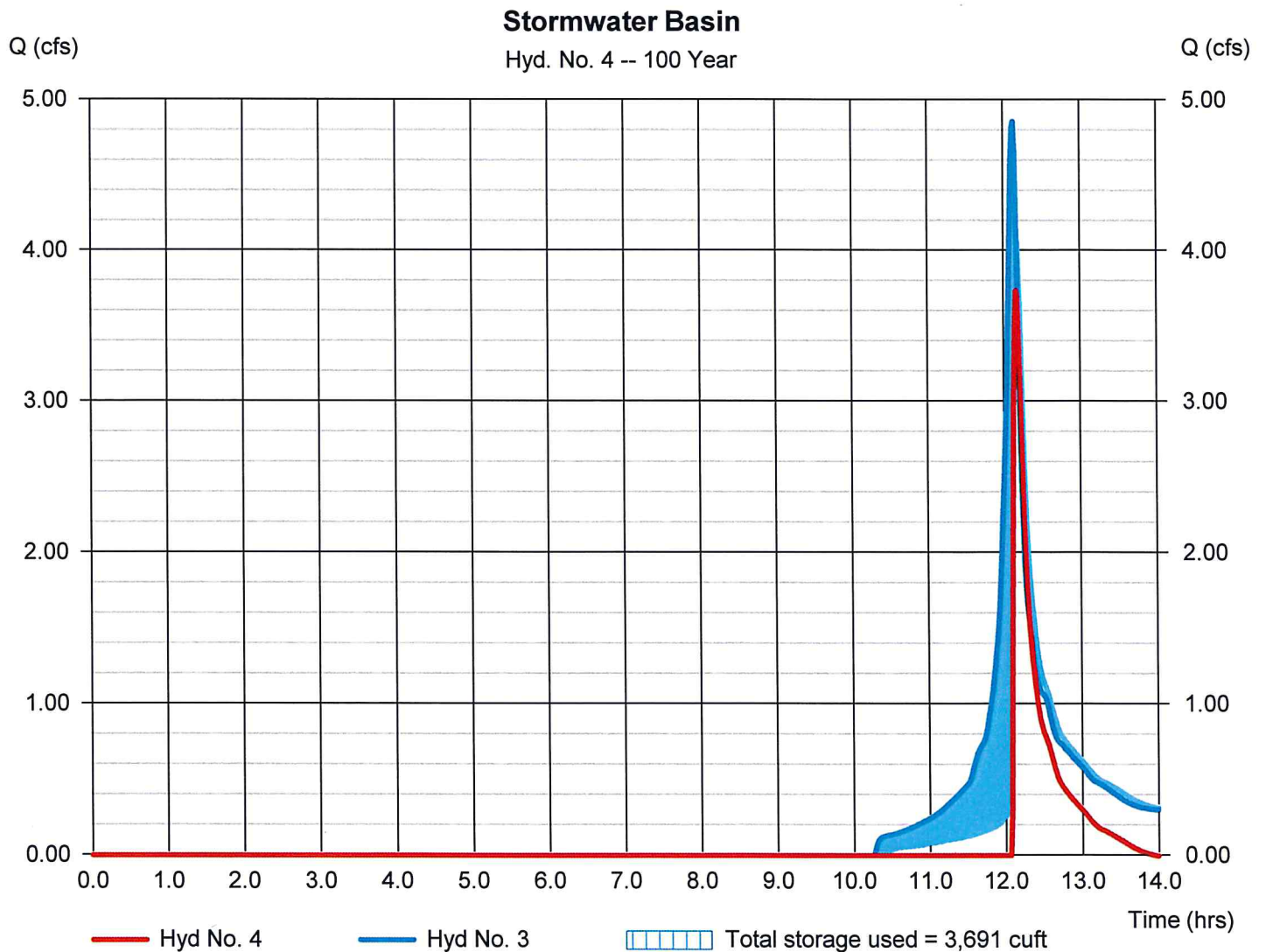
Hydrograph Report

Hyd. No. 4

Stormwater Basin

Hydrograph type	= Reservoir	Peak discharge	= 3.734 cfs
Storm frequency	= 100 yrs	Time to peak	= 12.17 hrs
Time interval	= 1 min	Hyd. volume	= 4,253 cuft
Inflow hyd. No.	= 3 - Forbay	Max. Elevation	= 131.39 ft
Reservoir name	= Pond 1	Max. Storage	= 3,691 cuft

Storage Indication method used. Exfiltration extracted from Outflow.



Pond Report

Pond No. 3 - Forebay

Pond Data

Contours -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 129.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	129.00	80	0	0
1.00	130.00	260	161	161
2.00	131.00	450	351	512
3.00	132.00	760	598	1,110
4.00	133.00	1,170	958	2,068

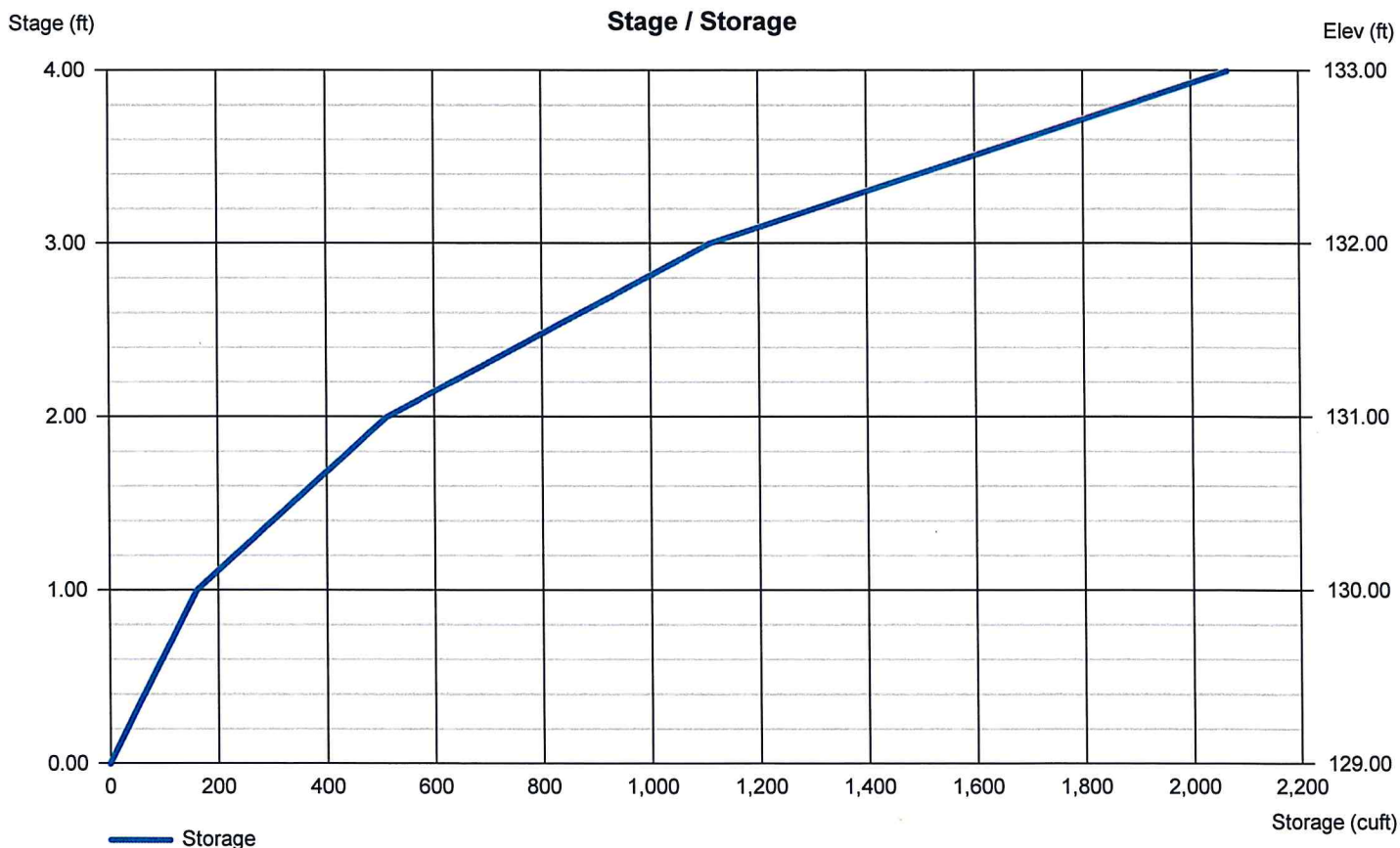
Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 0.00	0.00	0.00	0.00
Span (in)	= 0.00	0.00	0.00	0.00
No. Barrels	= 0	0	0	0
Invert El. (ft)	= 0.00	0.00	0.00	0.00
Length (ft)	= 0.00	0.00	0.00	0.00
Slope (%)	= 0.00	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)	= 6.00	0.00	0.00	0.00
Crest El. (ft)	= 131.00	0.00	0.00	0.00
Weir Coeff.	= 2.60	3.33	3.33	3.33
Weir Type	= Broad	---	---	---
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).



Pond Report

Pond No. 1 - Pond 1

Pond Data

Contours -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 127.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	127.00	150	0	0
0.50	127.50	260	101	101
1.00	128.00	370	157	258
1.50	128.50	530	224	482
2.00	129.00	680	302	783
2.50	129.50	865	385	1,169
3.00	130.00	1,055	479	1,648
3.50	130.50	1,345	598	2,246
4.00	131.00	1,650	747	2,994
4.50	131.50	1,975	905	3,899
5.00	132.00	2,315	1,071	4,970
5.50	132.50	2,715	1,256	6,226
6.00	133.00	3,110	1,455	7,681

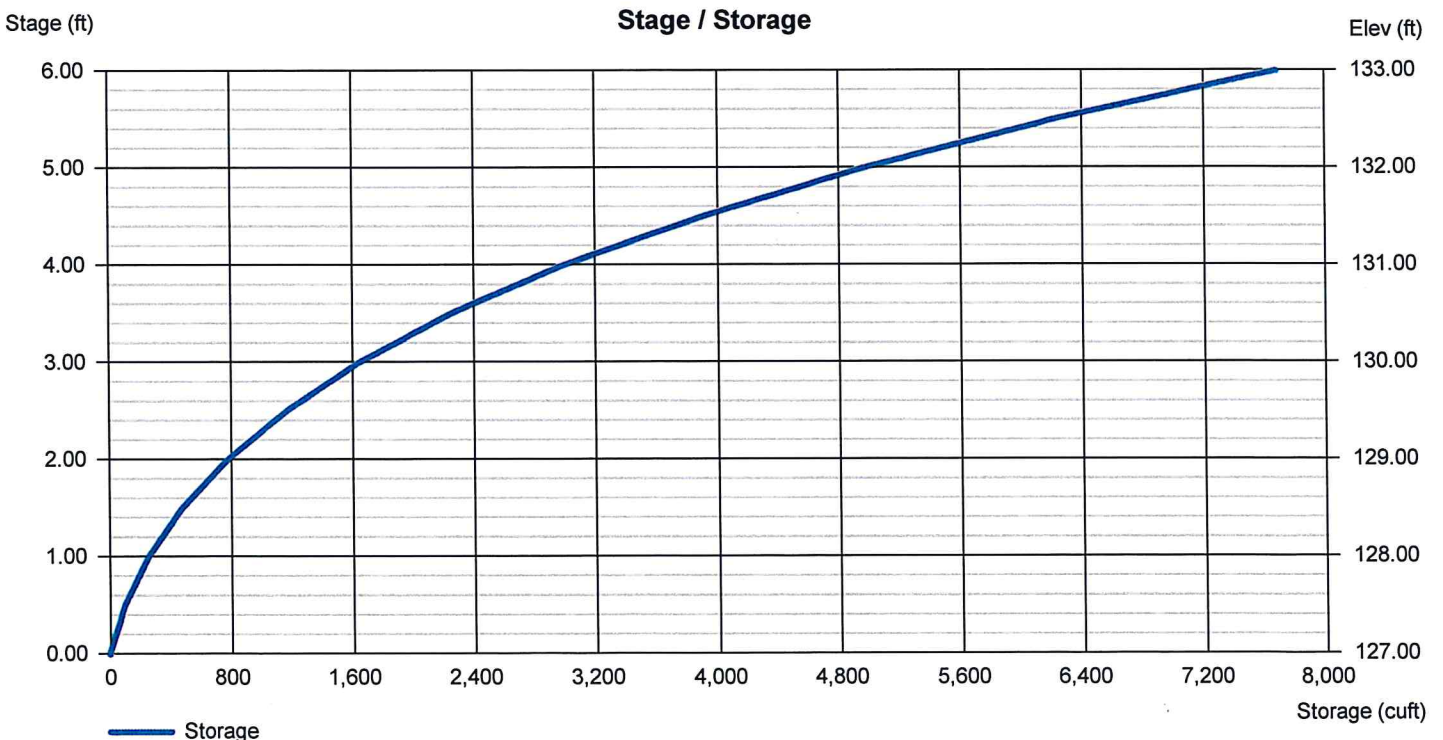
Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	Inactive	Inactive	Inactive	Inactive
Span (in)	= 0.00	0.00	0.00	0.00
No. Barrels	= 1	1	1	0
Invert El. (ft)	= 0.00	0.00	0.00	0.00
Length (ft)	= 0.00	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)	= 6.00	0.00	0.00	0.00
Crest El. (ft)	= 131.00	0.00	0.00	0.00
Weir Coeff.	= 2.60	3.33	3.33	3.33
Weir Type	= Broad	Broad	---	---
Multi-Stage	= No	No	No	No
Exfil.(in/hr)	= 8.270 (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).



GREEN SITE DESIGN LLC

Civil • Structural • Survey

317 Main Street

NORWICH, CONNECTICUT 06360

(860) 892-1380

PROJECT NAME: _____

PROJECT NO: _____ SHEET NO. _____ OF _____

BY: _____ DATE _____

SCALE: _____

RIPRAP SPLASH PAD

$$L = \frac{1.7Q}{D^{3/2}} + 8D$$

$$Q_{25} = 5.8 \text{ CFS}$$

$$L = \frac{1.7(5.8)}{(1.25)^{3/2}} + 8(1.25) = 17 \text{ LF}$$

$$W = 3D + 0.4L = 3(1.25) + 0.4(17) = 11 \text{ FEET}$$

$$d_{50} = \left(\frac{0.02}{TW} \right) \left(\frac{Q}{D} \right)^{4/3} = 0.25 \text{ FEET} = 3 \text{ INCHES}$$

USE MODIFIED RIPRAP