

Hydrograph Report

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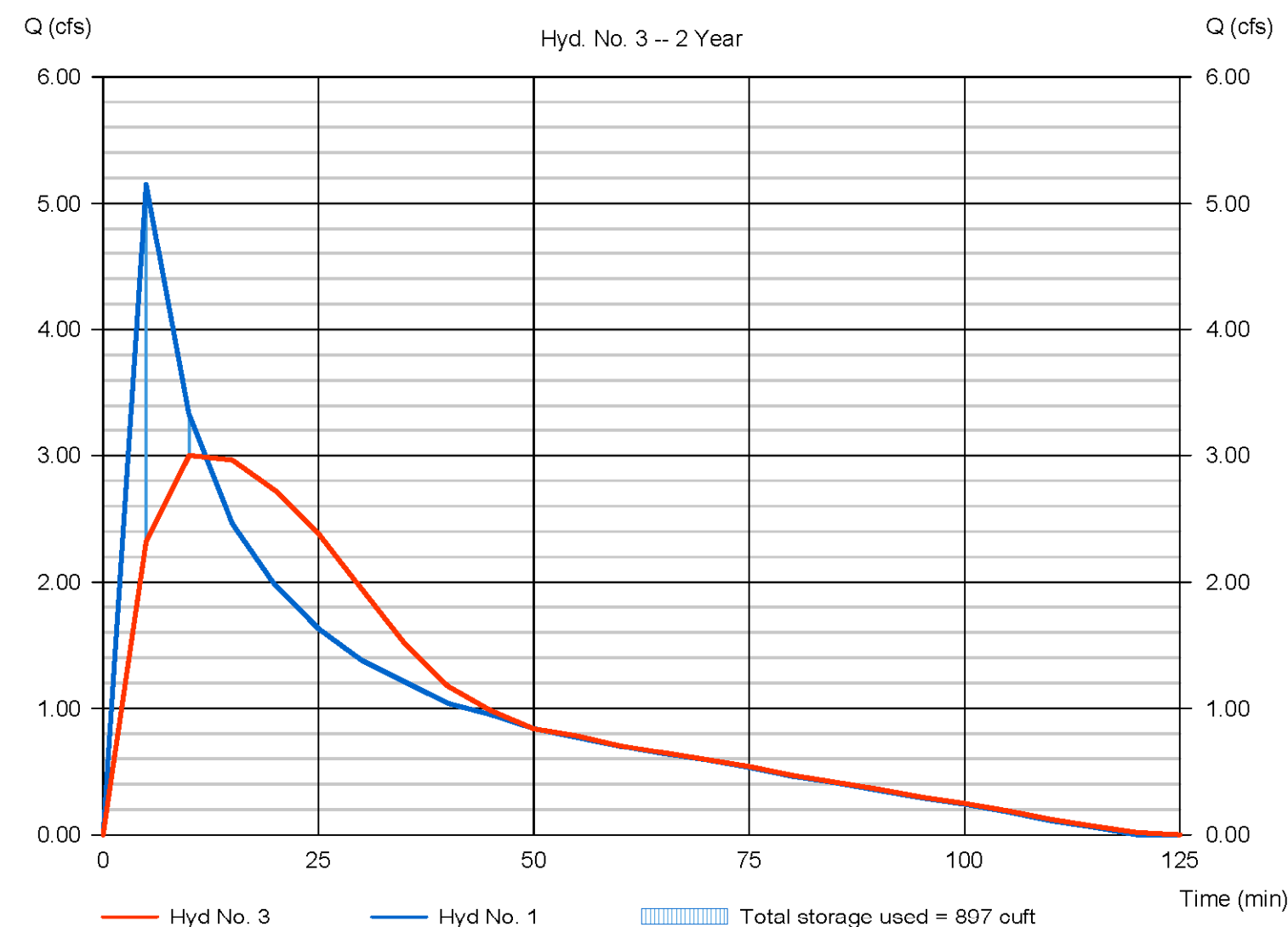
Hydraflow Hydrographs by Intellisolve v9.22 Wednesday, May 8, 2013

Hyd. No. 3

pre-dev - 10% routing

Hydrograph type = Reservoir	Peak discharge = 2,997 cfs
Storm frequency = 2 yrs	Time to peak = 10 min
Time interval = 5 min	Hyd. volume = 7,585 cuf
Inflow hyd. No. = 1 - To detention	Max. Elevation = 281.42 ft
Reservoir name = 54 in CMP detain to pre-dev - 10%	Max. Storage = 897 cuf

Storage Indication method used.



Hydrograph Report

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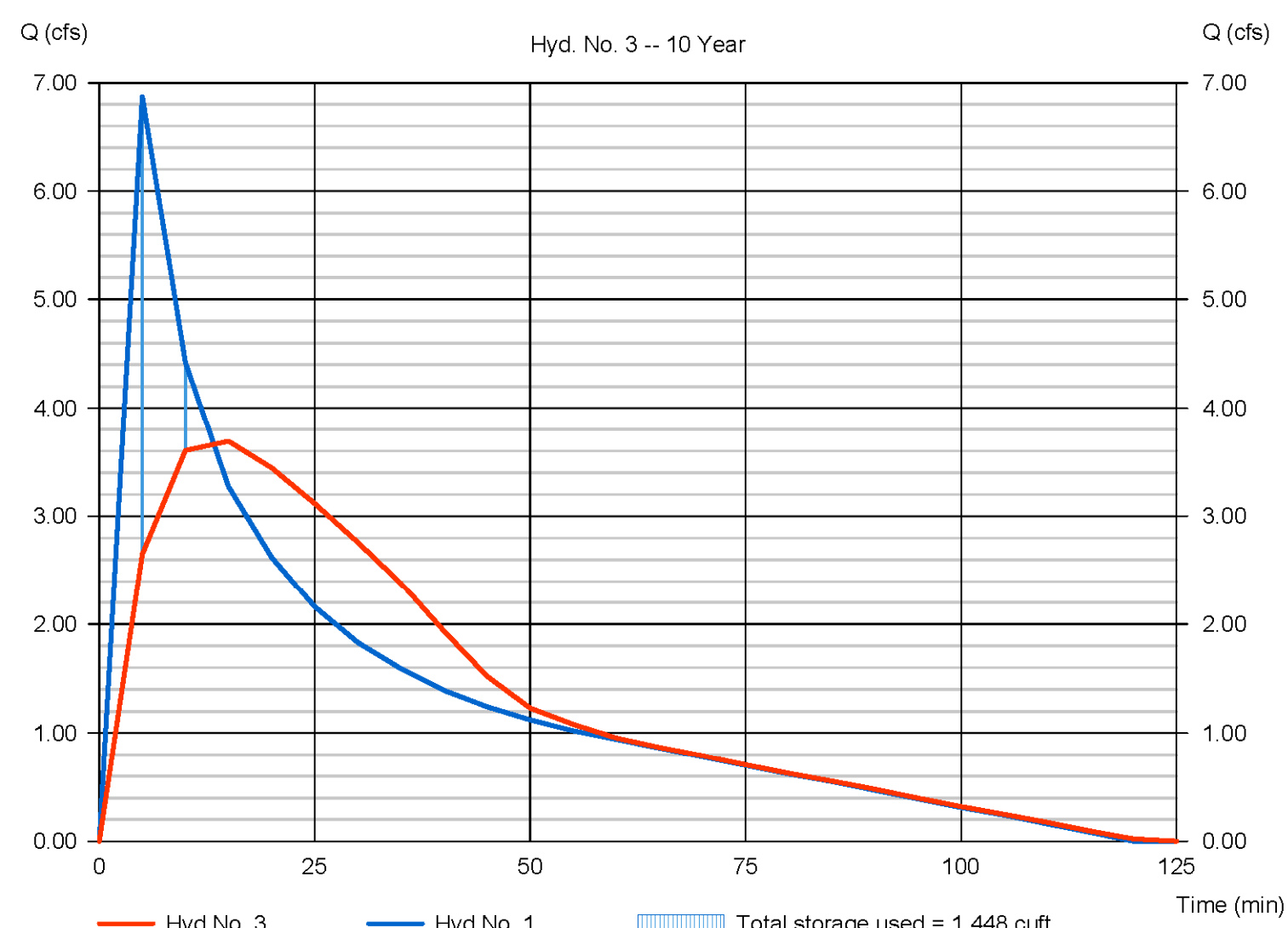
Hydraflow Hydrographs by Intellisolve v9.22 Wednesday, May 8, 2013

Hyd. No. 3

pre-dev - 10% routing

Hydrograph type = Reservoir	Peak discharge = 3,689 cfs
Storm frequency = 10 yrs	Time to peak = 15 min
Time interval = 5 min	Hyd. volume = 10,090 cuf
Inflow hyd. No. = 1 - To detention	Max. Elevation = 282.90 ft
Reservoir name = 54 in CMP detain to pre-dev - 10%	Max. Storage = 1,448 cuf

Storage Indication method used.



Pond Report

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Hydraflow Hydrographs by Intellisolve v9.22 Wednesday, May 8, 2013

Pond No. 2 - 54 in CMP detain to pre-dev - 10%

Pond Data

UG Chambers - Invert elev. = 278.60 ft, Rise x Span = 4.50 x 4.50 ft, Barrel Len = 101.00 ft, No. Barrels = 1, Slope = 0.50%, Headers = No

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuf)	Total storage (cuf)
0.00	278.60	n/a	0	0
0.50	279.10	n/a	39	39
1.00	279.60	n/a	138	178
1.50	280.10	n/a	187	365
2.00	280.60	n/a	213	578
2.50	281.10	n/a	225	804
3.00	281.60	n/a	225	1,029
3.50	282.10	n/a	213	1,242
4.00	282.60	n/a	187	1,429
4.50	283.10	n/a	138	1,567
5.01	283.61	n/a	39	1,607

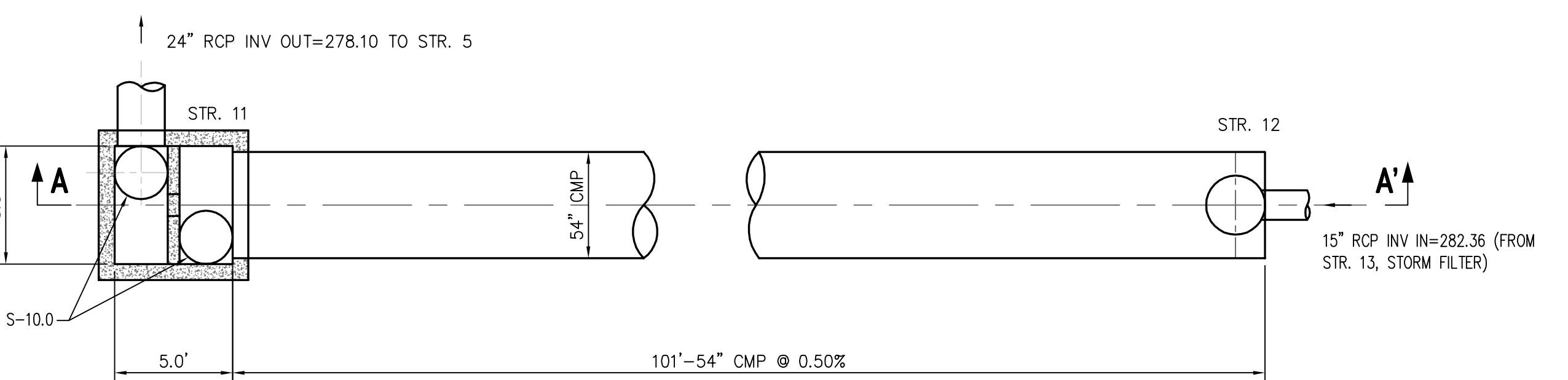
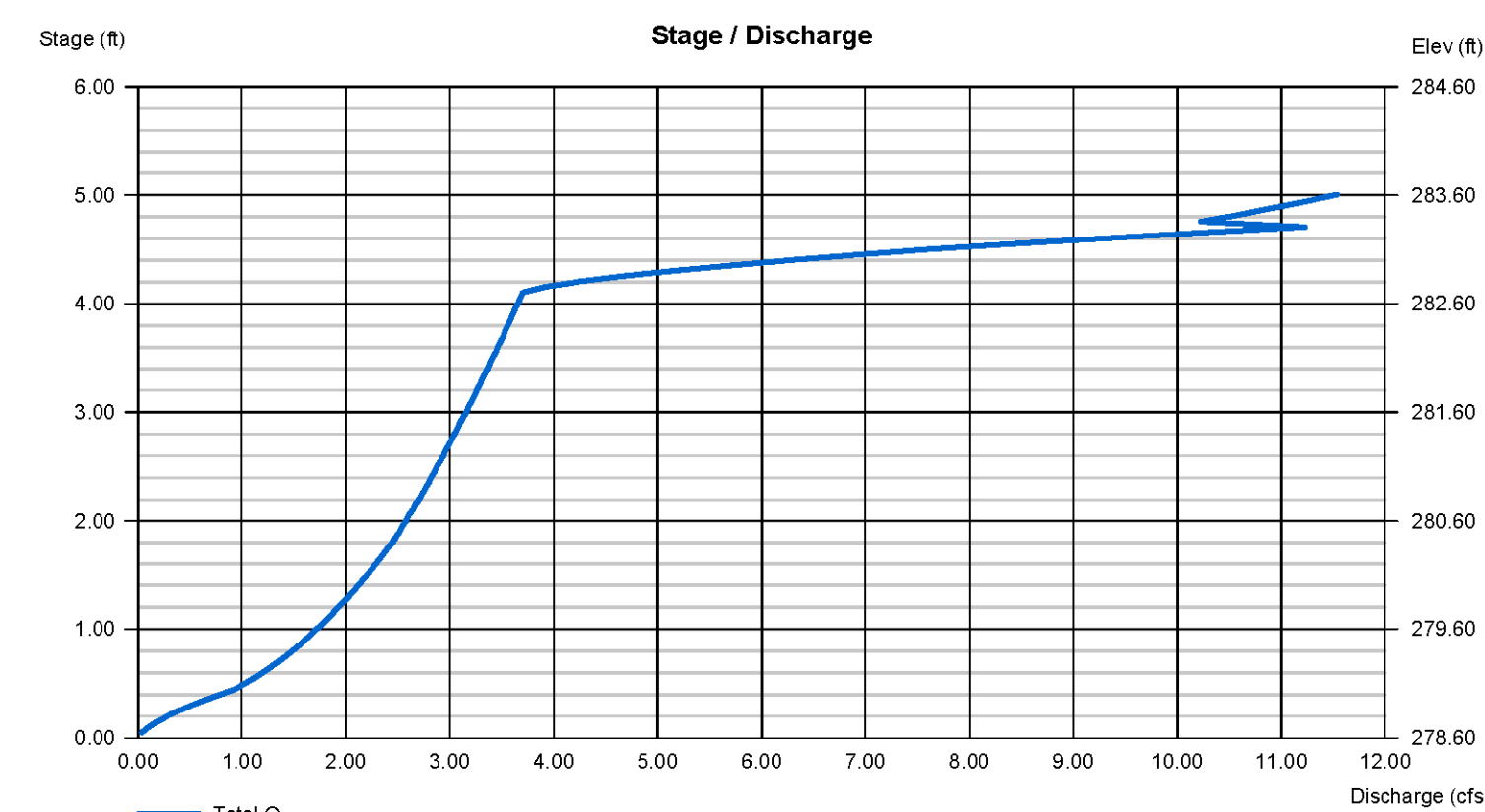
Culvert / Orifice Structures

	[A]	[B]	[C]	[PrfRsr]
Rise (in)	= 24.00	5.30	Inactive	0.00
Span (in)	= 24.00	11.00	0.00	0.00
No. Barrels	= 1	1	0	0
Invert El. (ft)	= 278.10	278.60	0.00	0.00
Length (ft)	= 2.00	0.00	0.00	0.00
Slope (%)	= 6.50	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	Yes	No	No

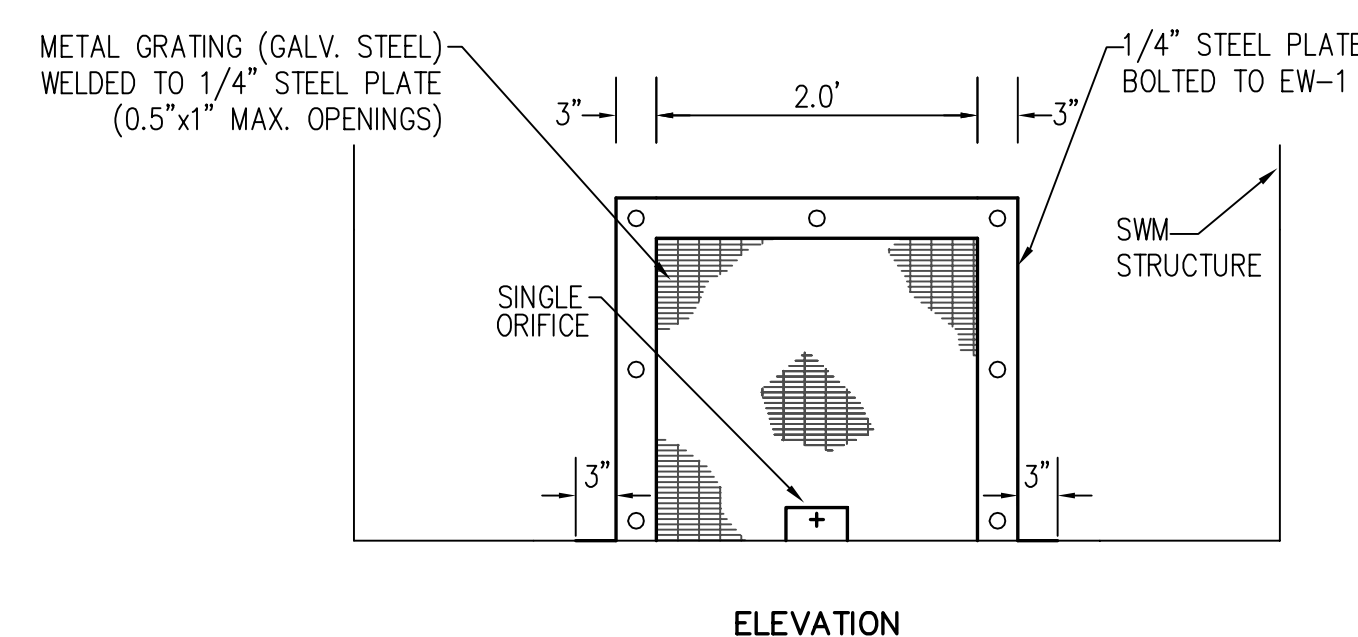
Weir Structures

	[A]	[B]	[C]	[D]
Crest Len (ft)	= 5.00	Inactive	0.00	0.00
Crest El. (ft)	= 282.70	0.00	0.00	0.00
Weir Coeff.	= 3.33	3.33	3.33	3.33
Weir Type	= Riser	Rect	---	---
Multi-Stage	= Yes	No	No	No
Exfil. (in/hr)	= 0.000 (by Contour)			
TW Elev. (ft)	= 0.00			

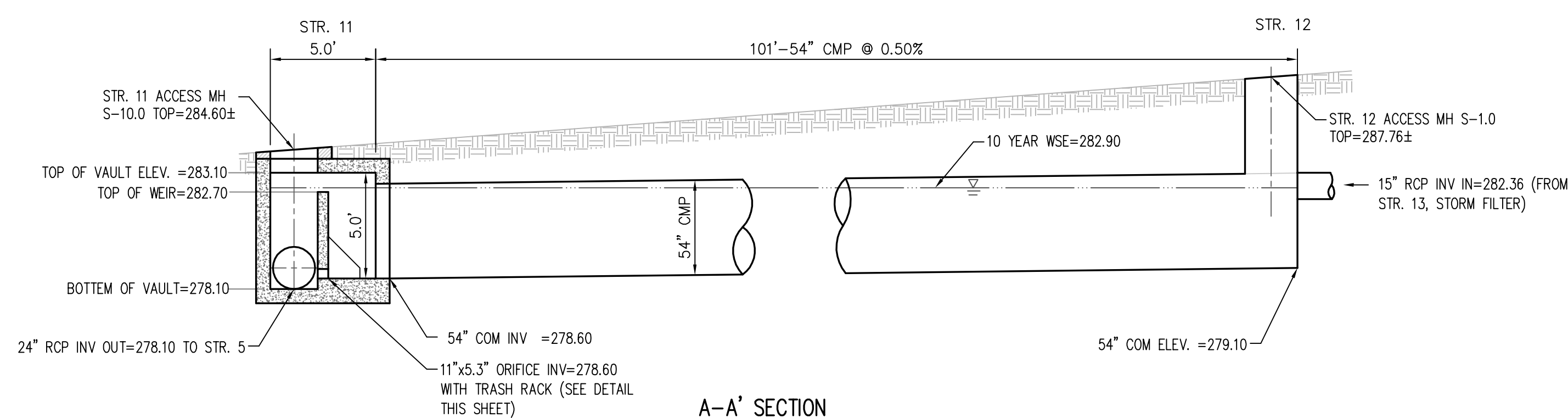
Note: Culvert/Orifice outflows are analyzed under inlet (ic) and outlet (oc) control. Weir risers checked for orifice conditions (ic) and submergence (s).



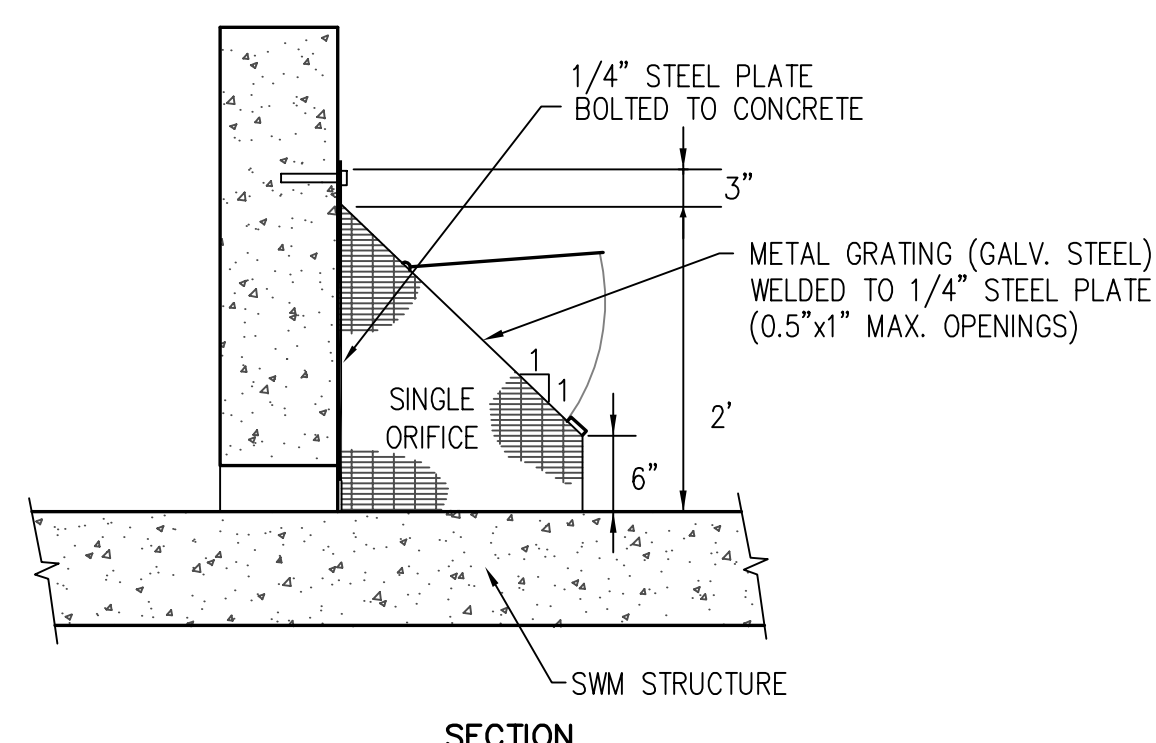
PLAN VIEW



ELEVATION



A-A' SECTION



SECTION

NOTES:

- THIS DETAIL (METAL GRATING AND STEEL PLATE) MAY BE APPLIED DIRECTLY AGAINST CONCRETE.
- A 1.5'x2' HINGED GATE WITH LOCKING MECHANISM SHALL BE INSTALLED ON THE FRONT FACE OF THE CAGE.

SWM TRASH RACK DETAIL

NOT TO SCALE

DETENTION SUMMARY

AS SHOWN ON THE HYDROGRAPH REPORTS ON THIS SHEET, THE DETENTION SYSTEM HAS A STORAGE VOLUME OF 1,448 CUBIC FEET AND THE MAXIMUM RELEASE RATES FROM THE DETENTION SYSTEM ARE AS FOLLOWS:
 Q2 = 3.00 CFS
 Q10 = 3.69 CFS

STORMWATER MANAGEMENT DETAILS 1

THE RESERVE
AT TINNER HILL
 CITY OF FALLS CHURCH, VIRGINIA

NO.	DESCRIPTION	REVISION APPROVED BY		DATE	
		REV. BY	APPROVED	DATE	APPROVED



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 ESTABLISHED 1945
 INCORPORATED
 DATE: 02/20/13
 SCALE: 1"=20'

CHECKED: KYW
 DRAWN: MM