

SWMU-16-021(c)



Sandia National Laboratories

1/8/81

Operated for the U.S. Department of Energy by  
Sandia Corporation

James M. Phelan (ITRD)  
Environmental Restoration Technologies

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December 15, 2000

Don Hickmott  
Los Alamos National Laboratory  
EES-1; MS-D462  
Los Alamos, NM 87545

Dear Don,

Enclosed are (2) copies of the Final Design Review drawings for the Martin Spring Catchbasin Stormfilter. Please review and let me know if they need revision. I have sent two copies to Lynn Kidman at IT for their review. We designed a box to be attached to the face of the weir to initiate flow into the Catchbasin Stormfilter. The box has an overflow pipe that will allow continuous flow monitoring by the weir setup even if the Catchbasin Stormfilter becomes plugged or valved off for maintenance. We can have the box made locally in Albuquerque or you can use LANL resources – so please let me know. After each Catchbasin Stormfilter there is a U-tube sampling port that can collect a 2-L water sample with a 3 x 15 inch bailer from the ground surface. Excavation depths will be about 4.5 feet, which may be a challenge if the welded tuff is present. Prior to mobilizing field installation, is it prudent to evaluate this with a test pit excavation? Please advise.

  
Jim

cc: (2) Final Design Review Drawings  
IT Corporation  
Lynn Kidman  
Kevin Reid  
335 Central Park Square  
Los Alamos, NM 87544

Exceptional Service in the National Interest



6278

Los Alamos National Laboratory  
Technical Area 16  
Martin Spring Catchbasin StormFilter  
Final Design Review

December 15, 2000

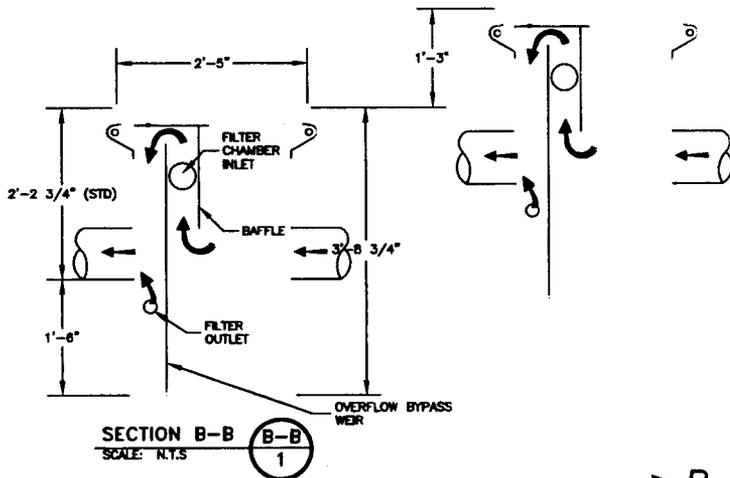
Prepared by  
Sandia National Laboratories  
Environmental Restoration Technologies Department  
James M. Phelan  
Bruce A. Reavis  
Albuquerque, NM



**GENERAL NOTES:**

- 1.) STORMFILTER BY STORMWATER MANAGEMENT INC., PORTLAND, OREGON (800-548-4667)
- 2.) CATCH BASIN MUST BE SET LEVEL.
- 3.) EXTERNAL PIPING AND COUPLINGS TO BE PROVIDED BY OTHERS.
- 4.) FLEXIBLE COUPLING TO BE USED AT INLET & OUTLET. FERNCO OR ENGINEER APPROVED.
- 5.) STORMFILTER REQUIRES REGULAR MAINTENANCE. REFER TO OPERATION AND MAINTENANCE MANUAL FOR DETAILS.
- 6.) CATCH BASIN STORMFILTER SPECIFICATIONS:

	STANDARD UNIT	H-20 UNIT (OPTIONAL)
LOAD RATING:	12,000 LB.	20,000 LB. (MIN)
CONSTRUCTION:	10 GAUGE STEEL	1/4" STEEL PLATE
INLET GRATE:	CAST IRON	DUCTILE IRON
CONCRETE COLLAR:	NOT REQUIRED	REQUIRED



SECTION B-B  
SCALE: N.T.S.

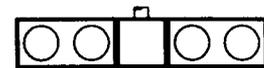
**STORMWATER MANAGEMENT**

2035 N.E. COLUMBIA BLVD. • PORTLAND, OR 97211  
(503) 240-3393 • FAX: 240-9553

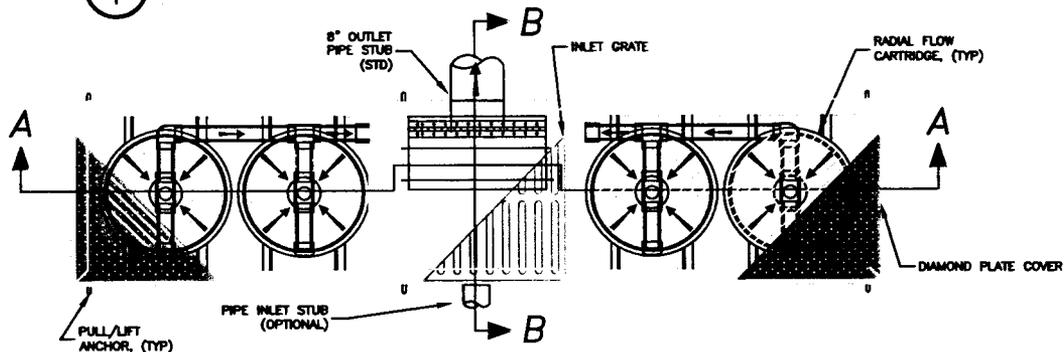
**FOUR CARTRIDGE STEEL CATCH BASIN STORMFILTER® DATA**

STRUCTURE CALLOUT ID			
RIM ELEVATION (FT)			
WATER QUALITY FLOW (CFS)			
PEAK FLOW (CFS)			
RETURN PERIOD OF PEAK FLOW			
MEDIA TYPE			
H-20 LOADING* REQUIRED?	YES		
SOLID COVER AT INLET*	YES		
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE*		PVC	8"
OUTLET PIPE*(8" STD)		PVC	8"

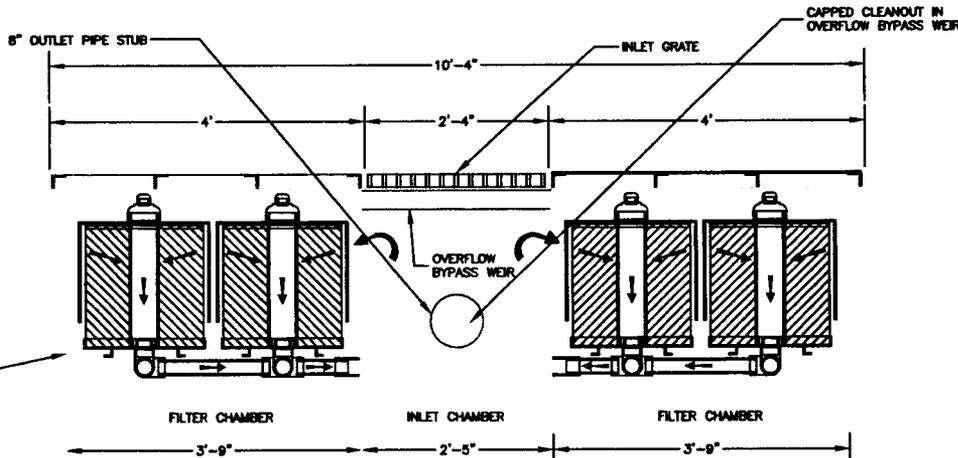
CONFIGURATION:



\*NON-STANDARD ITEMS AVAILABLE AT EXTRA COST



CATCH BASIN STORMFILTER - PLAN  
SCALE: N.T.S.



CATCH BASIN STORMFILTER - SECTION  
SCALE: N.T.S.

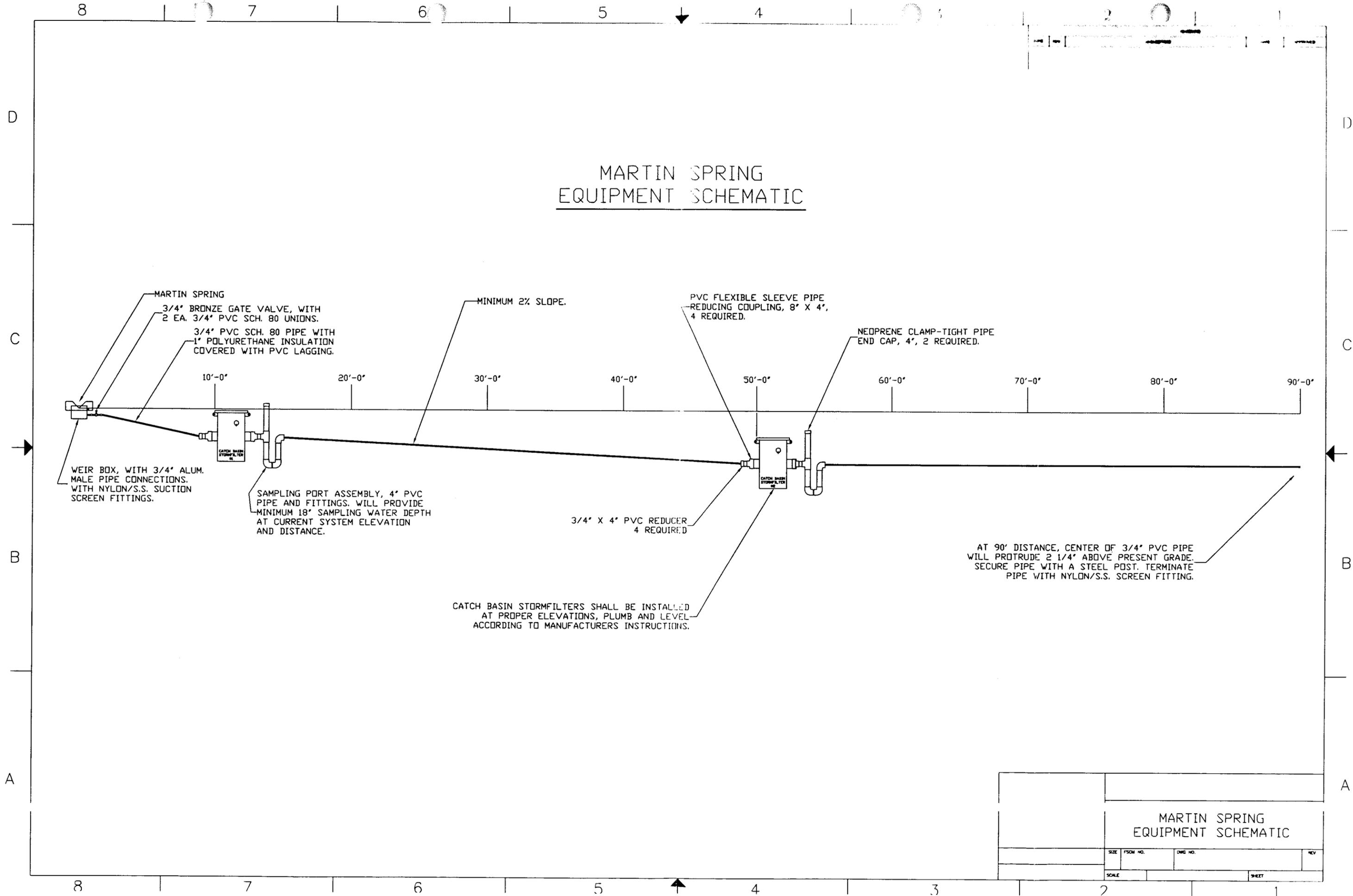
The STORMWATER MANAGEMENT StormFilter  
U.S. PATENT No. 5,222,889,  
No. 5,707,887, No. 6,027,890,  
No. 6,884,878, AND OTHER U.S.  
AND FOREIGN PATENTS PENDING

DESIGNED BY:	CHECKED BY:	CHECK DATE:
DRAWN BY:	APPROVED BY:	APPR. DATE:
DATE	BY	REVISION

CATCH BASIN STORMFILTER 4-CARTRIDGE SYSTEM		
SCALE:	PROJECT NO.	DRAWING FILE NAME:



# MARTIN SPRING EQUIPMENT SCHEMATIC



MARTIN SPRING EQUIPMENT SCHEMATIC			
SCALE	PSOM NO.	DWG NO.	REV

8

7

6

5

4

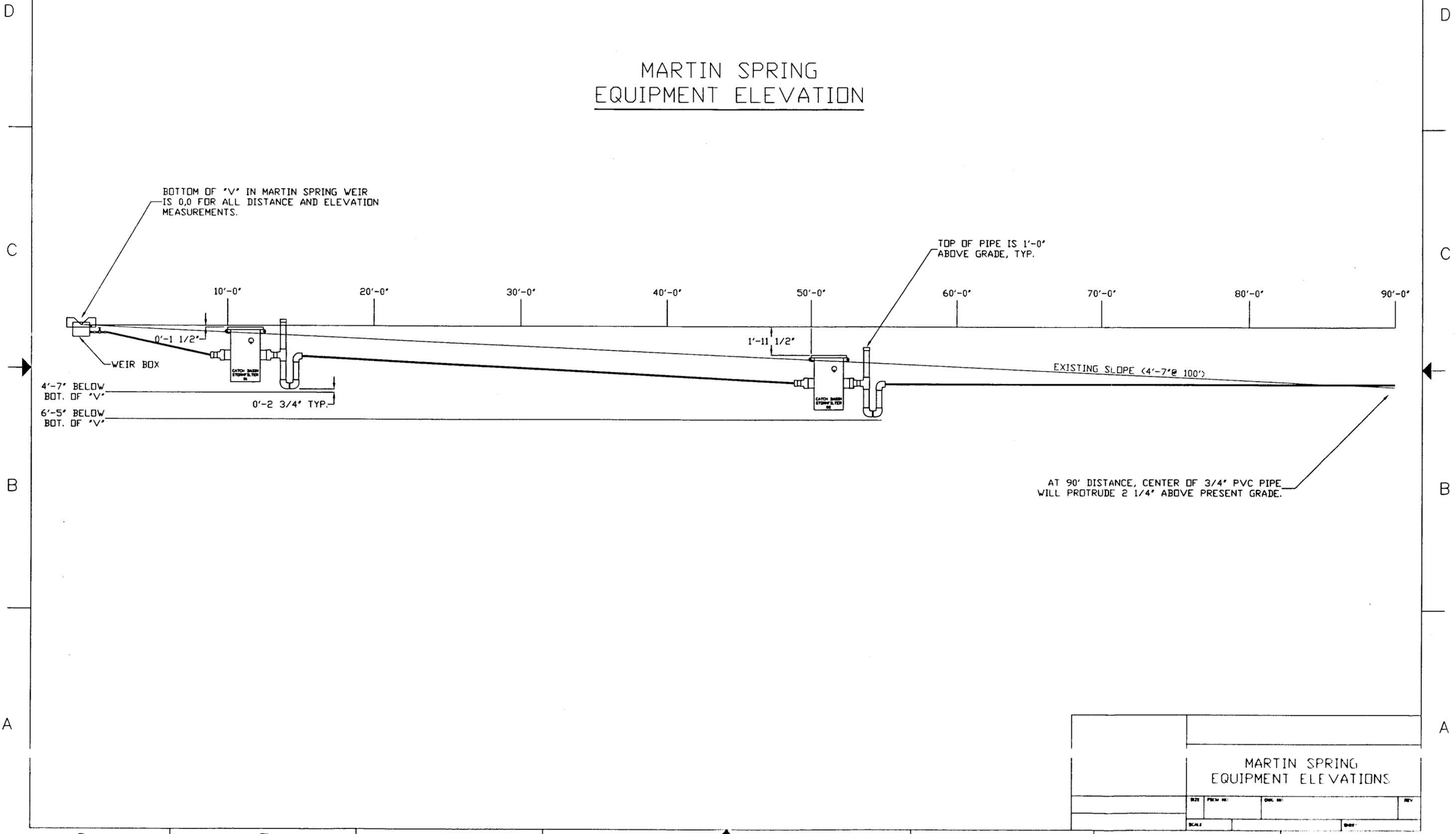
3

2

1

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

# MARTIN SPRING EQUIPMENT ELEVATION



BOTTOM OF "V" IN MARTIN SPRING WEIR IS 0.0 FOR ALL DISTANCE AND ELEVATION MEASUREMENTS.

TOP OF PIPE IS 1'-0" ABOVE GRADE, TYP.

4'-7" BELOW BOT. OF "V"  
6'-5" BELOW BOT. OF "V"

EXISTING SLOPE <math>4'-7''@100'</math>

AT 90' DISTANCE, CENTER OF 3/4' PVC PIPE WILL PROTRUDE 2 1/4' ABOVE PRESENT GRADE.

## MARTIN SPRING EQUIPMENT ELEVATIONS


8

7

6

5

4

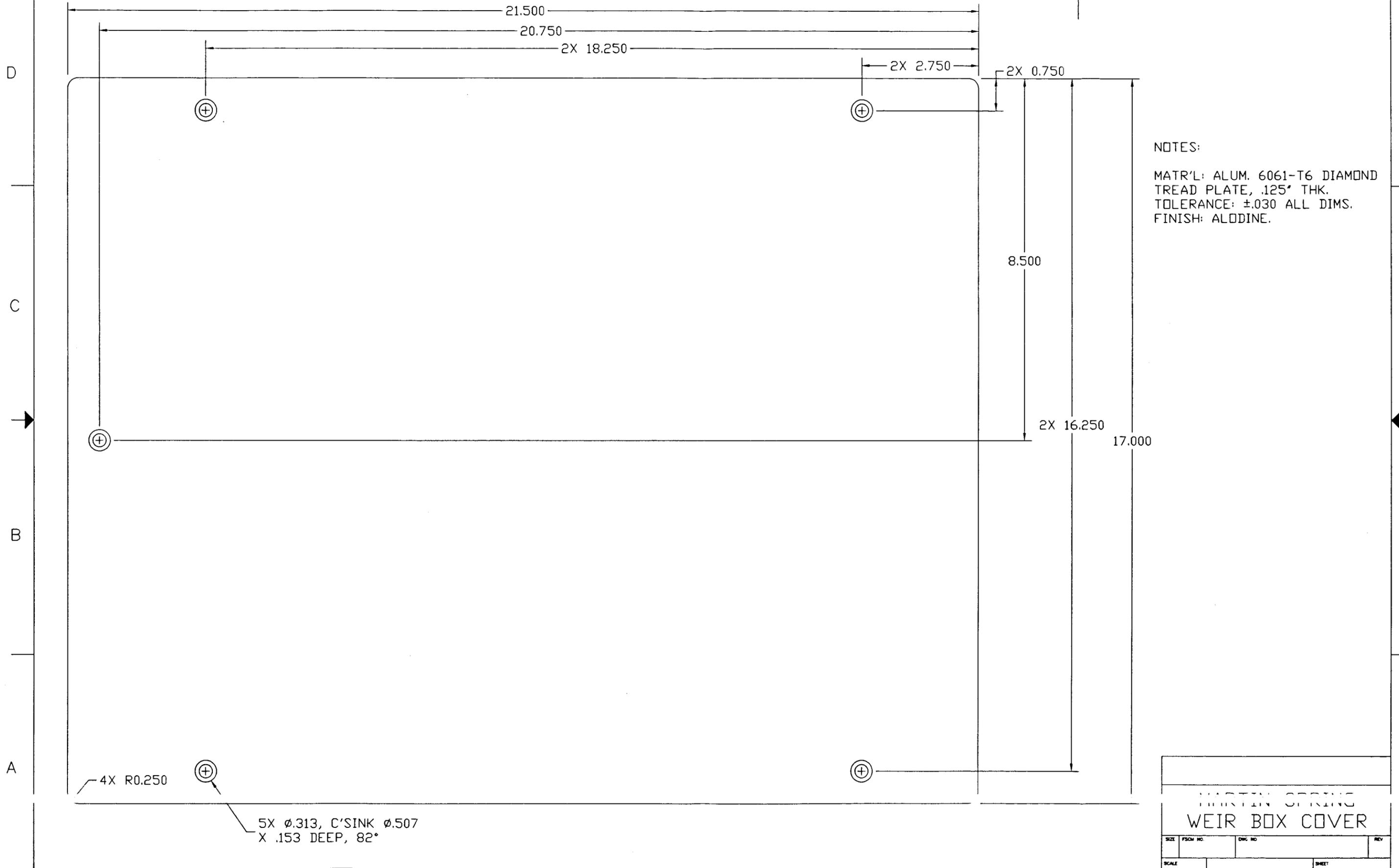
3

2

1

8 7 6 5 4 3 2 1

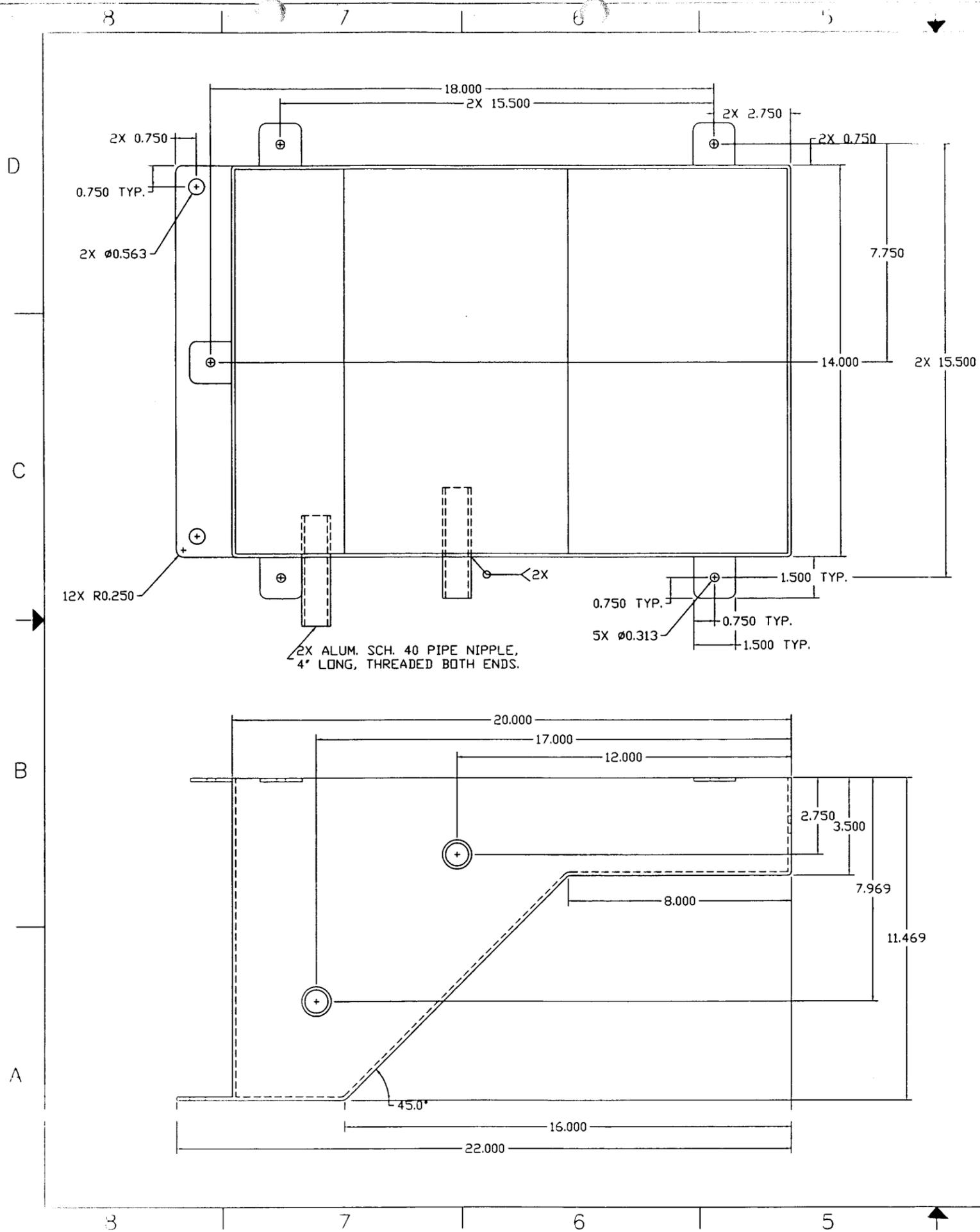
REV		DATE	APPROVED



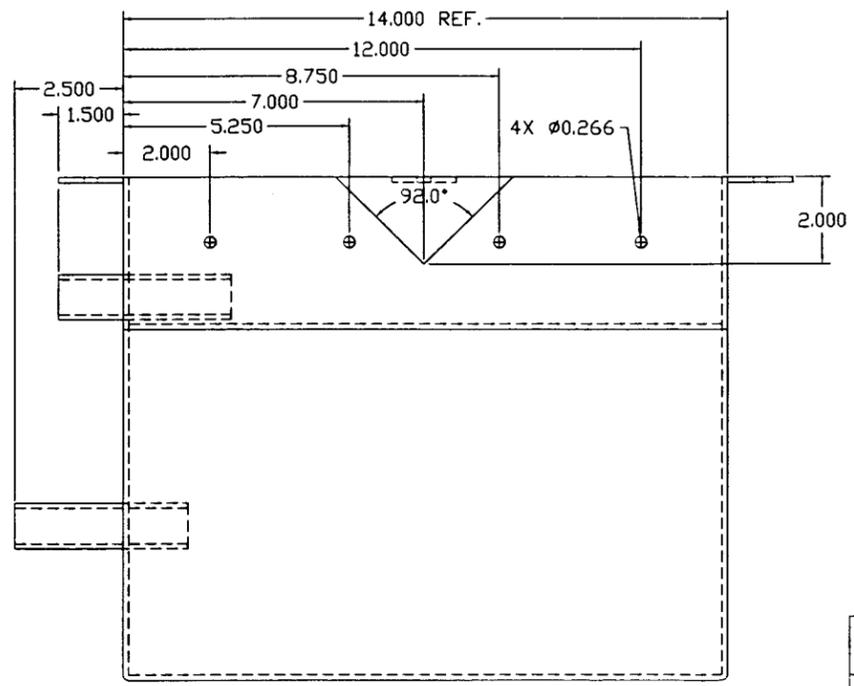
NOTES:  
 MATR'L: ALUM. 6061-T6 DIAMOND  
 TREAD PLATE, .125" THK.  
 TOLERANCE:  $\pm$ .030 ALL DIMS.  
 FINISH: ALDODINE.

MARTIN SPRING WEIR BOX COVER			
SIZE	PSCM NO.	DWG NO.	REV
SCALE			SHEET

8 7 6 5 4 3 2 1



NOTES:  
 MATERIAL: ALUM. 5052-H32, .125" THK.  
 TOLERANCE: ±.030 ALL DIMS.  
 FINISH: ALDINE  
 WELDING: PER CONSULTANT'S INSTR.



WEIR BOX			
SIZE	FROM NO.	DWG NO.	REV
SCALE	SHEET		

Los Alamos National Laboratory  
Technical Area 16  
Martin Spring Catchbasin StormFilter  
Final Design Review

December 15, 2000

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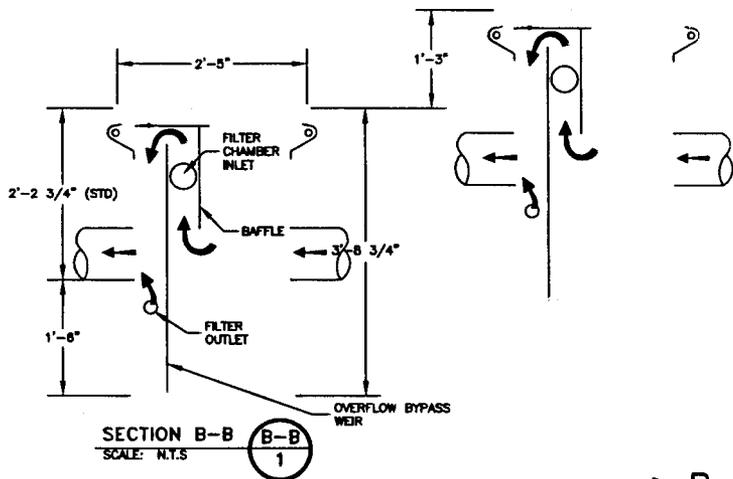
Prepared by  
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Environmental Restoration Technologies Department  
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Bruce A. Reavis  
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**GENERAL NOTES:**

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CONCRETE COLLAR:	NOT REQUIRED	REQUIRED



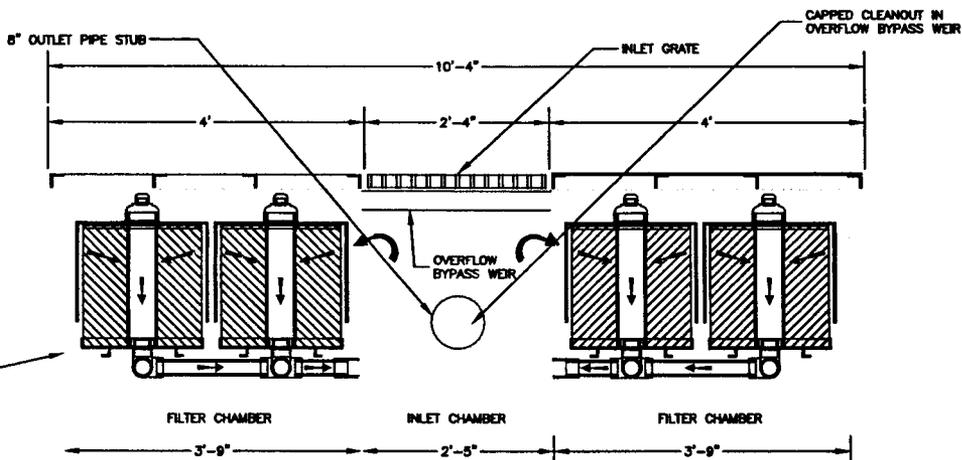
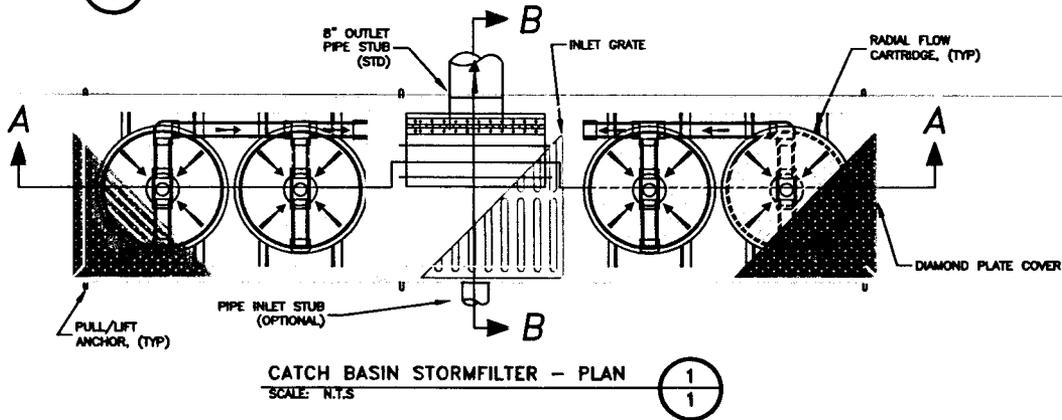
# STORMWATER MANAGEMENT

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## FOUR CARTRIDGE STEEL CATCH BASIN STORMFILTER® DATA

STRUCTURE CALLOUT ID			
RIM ELEVATION (FT)			
WATER QUALITY FLOW (CFS)			
PEAK FLOW (CFS)			
RETURN PERIOD OF PEAK FLOW			
MEDIA TYPE			
H-20 LOADING* REQUIRED?		YES	
SOLID COVER AT INLET*		YES	
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE*		PVC	8"
OUTLET PIPE*(8" STD)		PVC	8"
CONFIGURATION:			
*NON-STANDARD ITEMS AVAILABLE AT EXTRA COST			



The STORMWATER MANAGEMENT StormFilter  
 U.S. PATENT No. 5,382,889,  
 No. 5,707,887, No. 6,087,890,  
 No. 6,684,878, AND OTHER U.S.  
 AND FOREIGN PATENTS PENDING

**CATCH BASIN STORMFILTER - SECTION A-A**  
 SCALE: N.T.S.

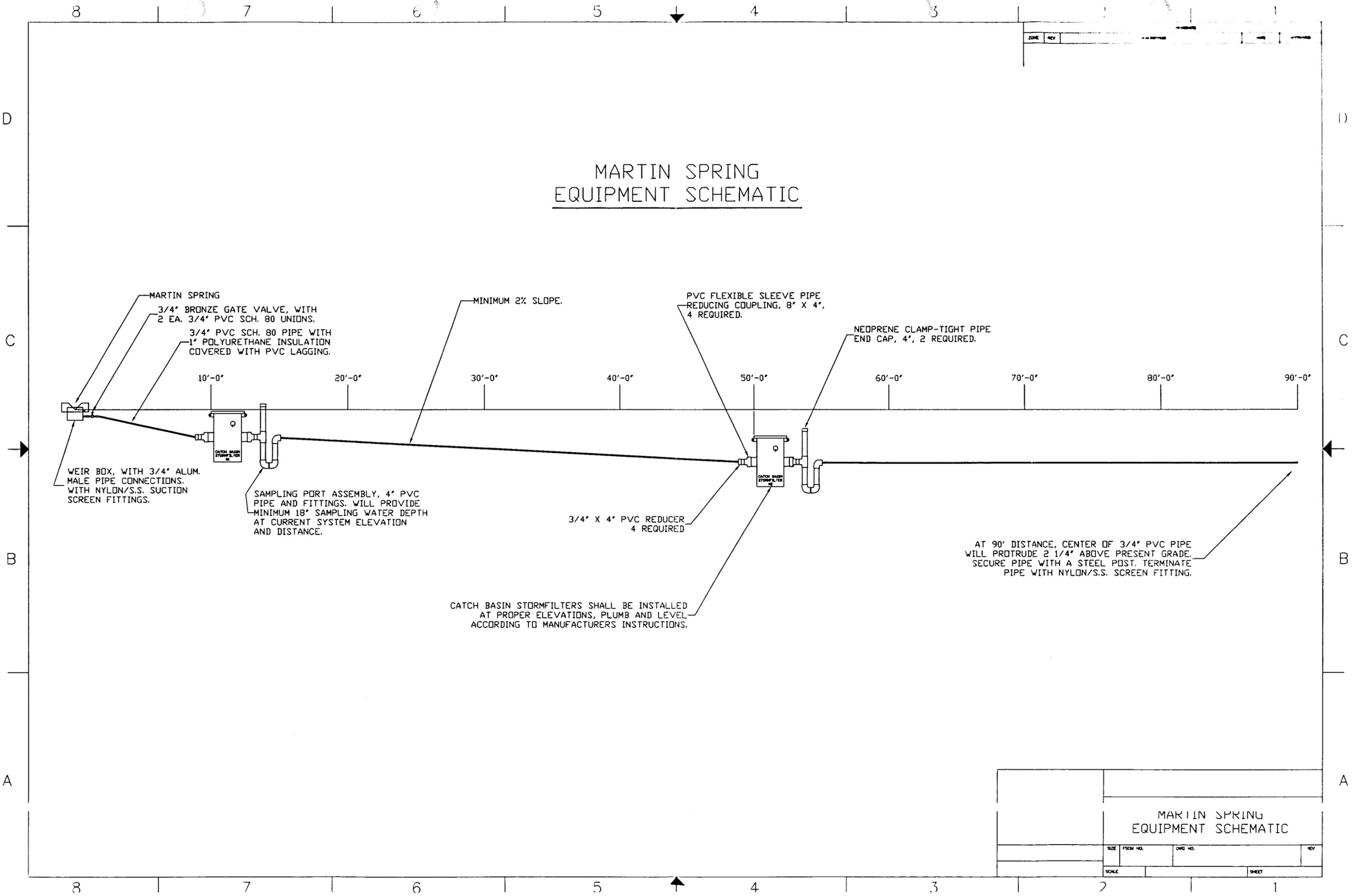
DESIGNED BY:	CHECKED BY:	CHECK DATE:		
DRAWN BY:	APPROVED BY:	APPL. DATE:		
DATE	BY	REVISION	OK'D	APPL.

**CATCH BASIN STORMFILTER  
4-CARTRIDGE SYSTEM**

SCALE: \_\_\_\_\_ PROJECT NO. \_\_\_\_\_ DRAWING FILE NAME: \_\_\_\_\_



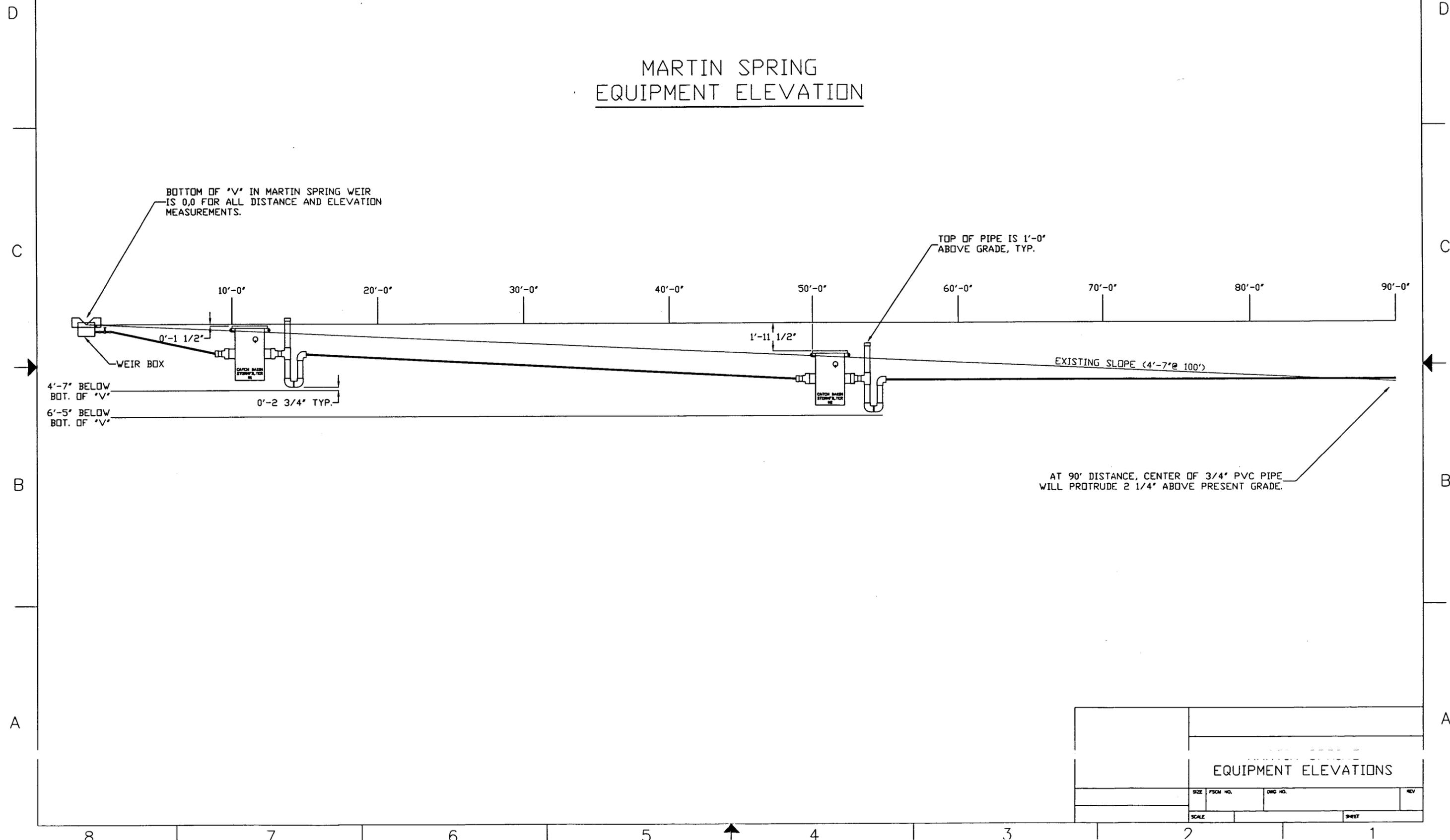
# MARTIN SPRING EQUIPMENT SCHEMATIC



MARTIN SPRING EQUIPMENT SCHEMATIC			
SCALE	PSOM NO.	DWG NO.	REV
			SHEET

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

## MARTIN SPRING EQUIPMENT ELEVATION



BOTTOM OF "V" IN MARTIN SPRING WEIR IS 0.0 FOR ALL DISTANCE AND ELEVATION MEASUREMENTS.

TOP OF PIPE IS 1'-0" ABOVE GRADE, TYP.

EXISTING SLOPE (4'-7" @ 100')

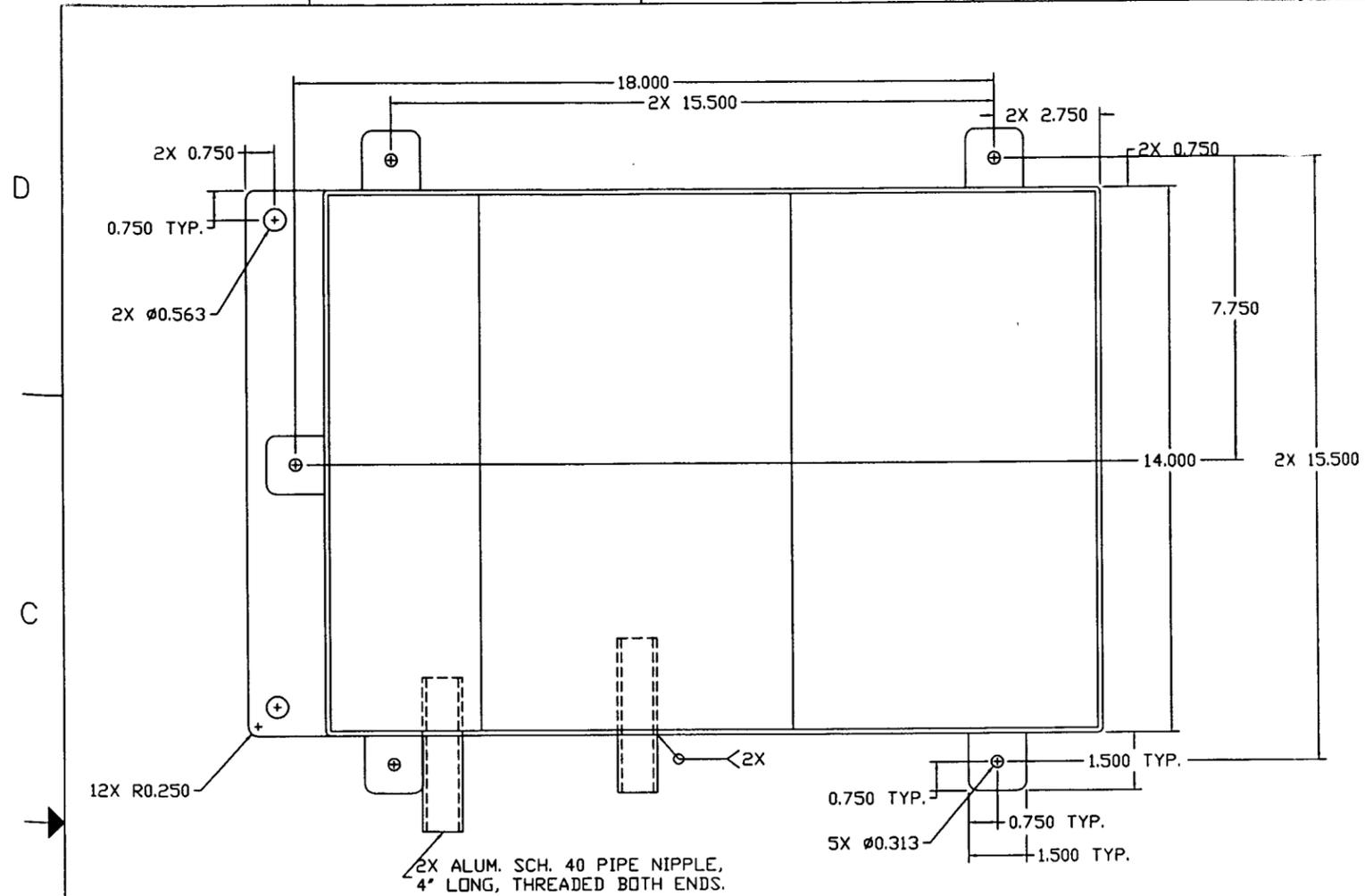
AT 90' DISTANCE, CENTER OF 3/4" PVC PIPE WILL PROTRUDE 2 1/4" ABOVE PRESENT GRADE.

4'-7" BELOW  
BOT. OF "V"  
6'-5" BELOW  
BOT. OF "V"

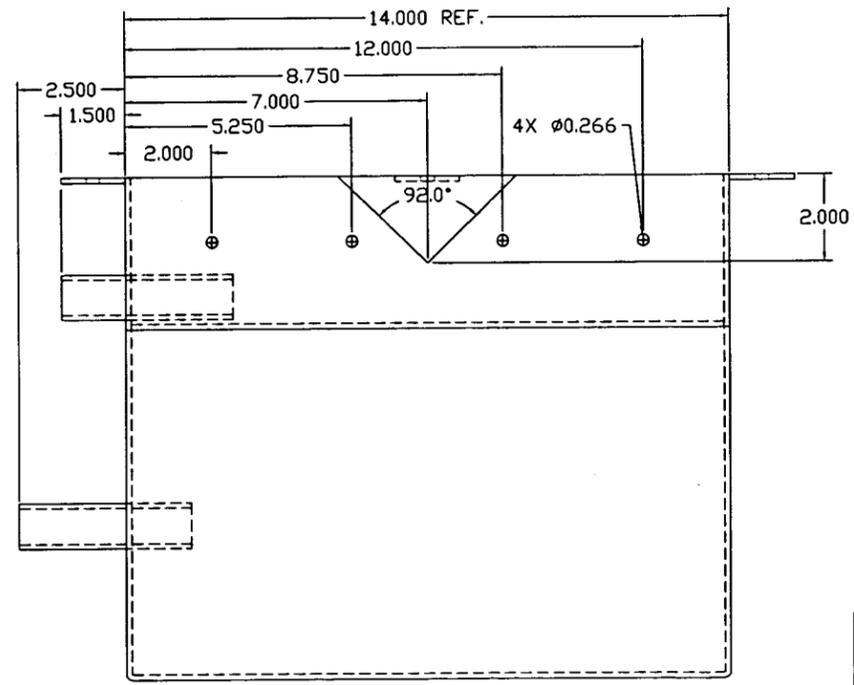
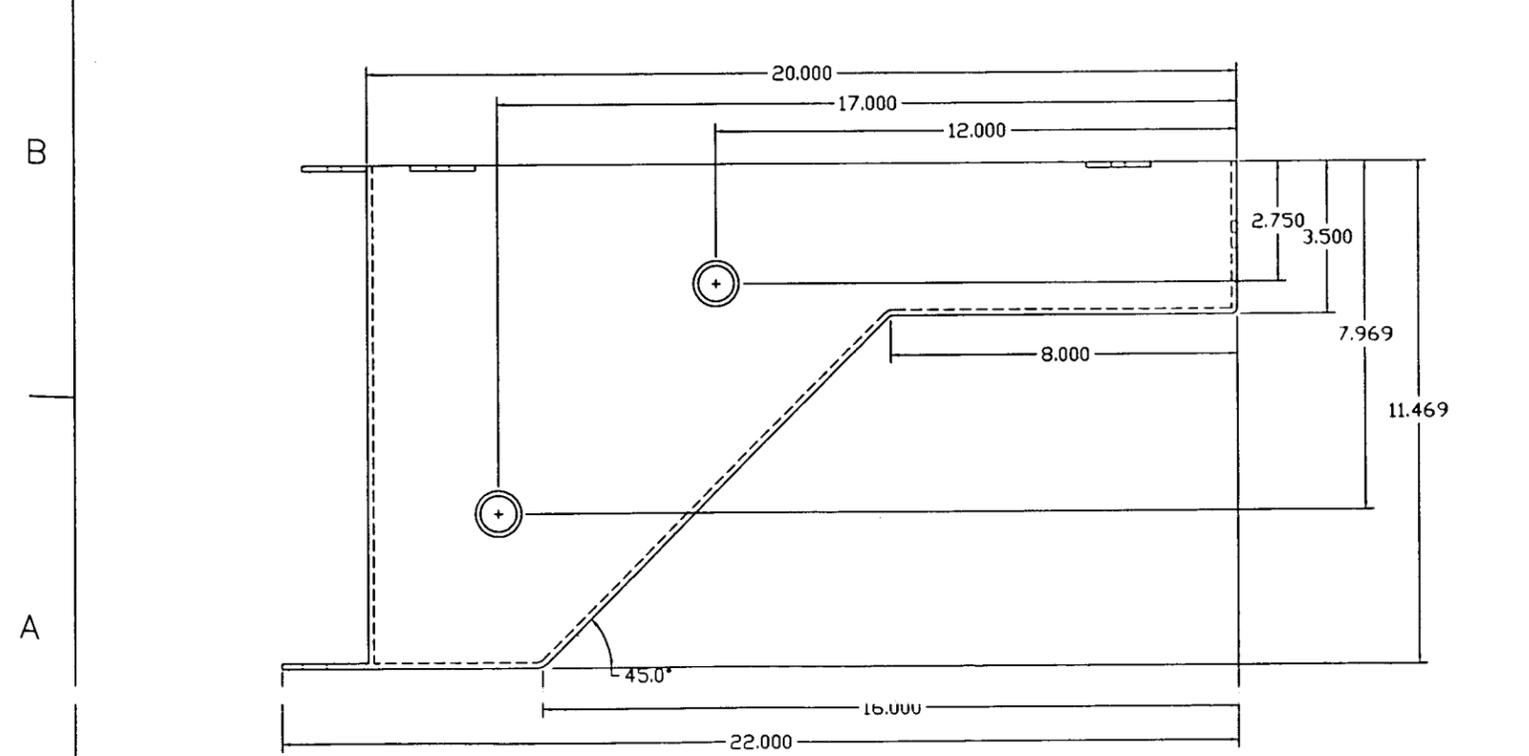
EQUIPMENT ELEVATIONS			
SIZE	FORM NO.	DWG. NO.	REV
SCALE	SHEET		

8 7 6 5 4 3 2 1

ZONE		REV	DESCRIPTION	DATE	APPROVED



NOTES:  
 MATERIAL: ALUM. 5052-H32, .125" THK.  
 TOLERANCE: ±.030 ALL DIMS.  
 FINISH: ALDINE  
 WELDING: PER CONSULTANT'S INSTR.

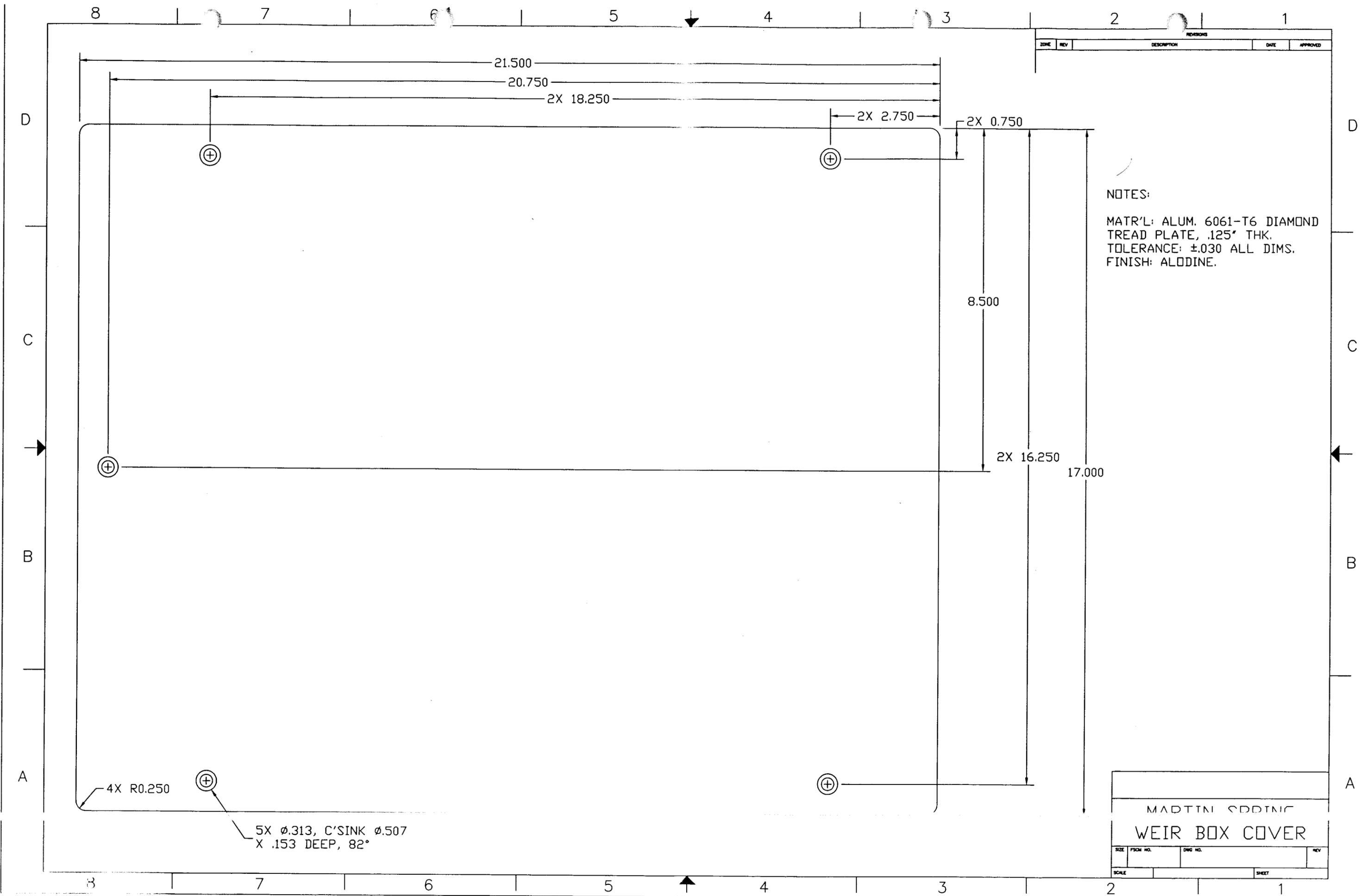


MADTIN SPRING  
WEIR BOX

SIZE	FSM NO.	DWG NO.	REV

SCALE SHEET

8 7 6 5 4 3 2 1



ZONE		REV	DESCRIPTION	DATE	APPROVED

NOTES:  
 MATR'L: ALUM. 6061-T6 DIAMOND  
 TREAD PLATE, .125" THK.  
 TOLERANCE: ±.030 ALL DIMS.  
 FINISH: ALODINE.

MADTTN CODING			
WEIR BOX COVER			
SIZE	FORM NO.	DWG NO.	REV
SCALE			SHEET