

**Job Name: 25-2821 HWY 111 Water Transmission Main**  
**Job Location: Spencer, TN**  
**Contractor: Twin States Utilities, Inc.**

PC: Erica Bradley  
 TECH: J. Horsley - A  
 Plant: 100



Structure ID: **ARV1**

Spec: Sanitary  
 Type: SAN.MH (OPEN BTM)  
 Size: 48"

Rim: 5.5'  
 Invert: 0'  
 Rim to Invert: 5.5'

Sump: 18"  
 Floor (Top): -1.5'  
 Floor Height: 0"

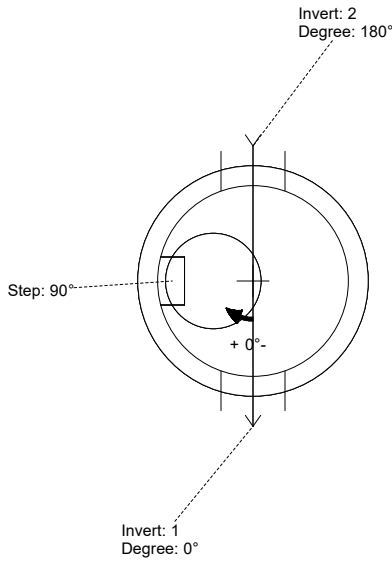
Floor (Bot): -1.5'  
 Overall Height: 7'  
 Slack: 0"

**Structure Notes:**

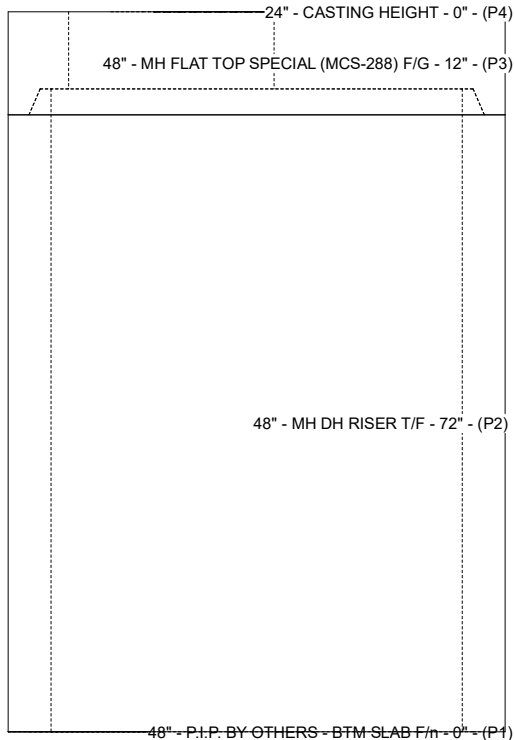
1. PER ASTM C-478 SPECIFICATIONS
2. CONCRETE: 4,000 PSI AT 28 DAYS
3. REINFORCEMENT:
  - FLAT LID: #4 BAR @ 10" C.C. E.W. (GRADE 60)
  - RISER: PER ASTM A615
4. STEPS AT 90 DEGREES
5. HOE MCS-288 FRAME & COVER "WATER" SUPPLIED BY ICAST - FRAME TO BE CAST INTO FLAT LID FLANGE SIDE UP
6. 6" DIA. OPENING REQUIRED IN FLAT LID FOR 4" VENT PIPE

**STRUCTURE SUMMARY:**

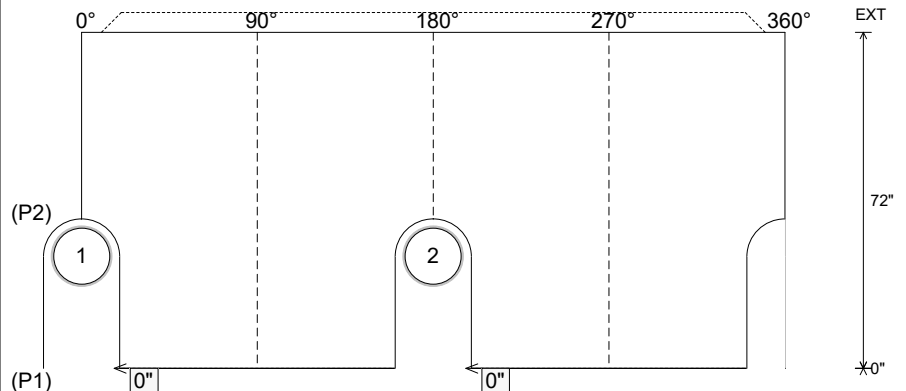
P4) 24" - CASTING HEIGHT - 0"	0 lb
P3) 48" - MH FLAT TOP SPECIAL (MCS-288) F/G - 12"	1575 lb
P2) 48" - MH DH RISER T/F - 72"	4617 lb
P1) 48" - P.I.P. BY OTHERS - BTM SLAB F/n - 0"	0 lb
1) CASTING - HOE MCS-288 F/C CAST-IN	123 lb
1) This Structure Includes a Cast-in Item - HOE MCS-288 Frame	0 lb
2) 48" - Conseal CS-102 1.00" (Double)	0 lb
2) DOGHOUSE - 16"x32"	0 lb
6) MH Step ML-10-TDS-NCR - 10"	0 lb
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Structure Total:	6315 lb



Position	Elev	Angle	Pipe	Pipe OD	Hole	Connector	Up (L)	Ref
Rim	5.5'							
Reducer								
Invert 1	0'	0°	12" DI	13"	16" x 32"	DOGHOUSE 16"x32"	0"	P2
Invert 2	0'	180°	12" DI	13"	16" x 32"	DOGHOUSE 16"x32"	0"	P2
Invert 3								
Invert 4								
Invert 5								
Invert 6								
Invert 7								
Invert 8								

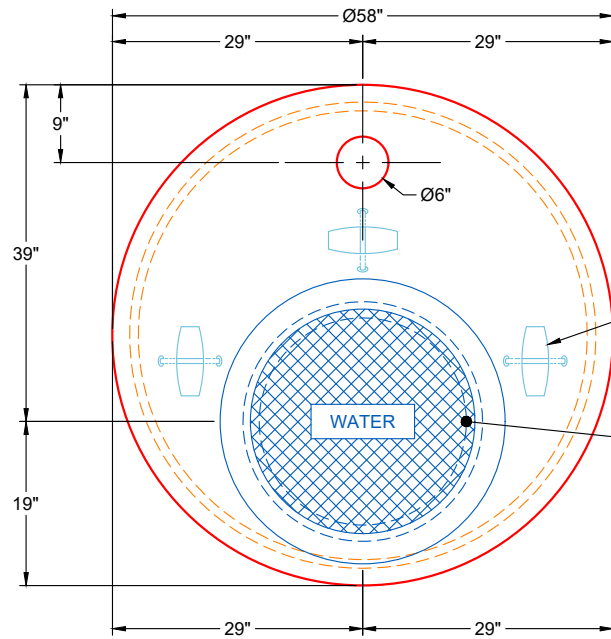


**Cast (Int. Dim.) - Interior Dimensions**



Submittal Drawing  
 1/26/2026 8:16:55 AM

SUBMITTAL  
 APPROVED BY:



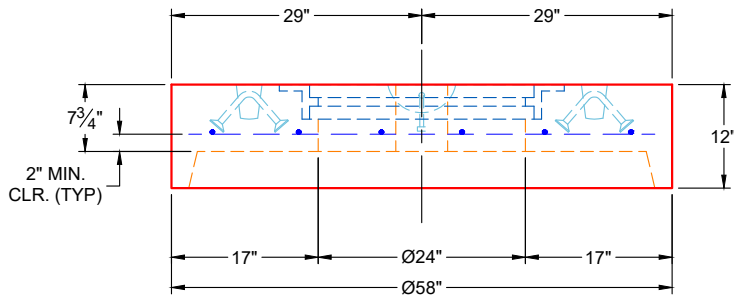
**PLAN VIEW**

3 EA. CONAC A-ANCHORS FOR PLANT & FIELD HANDLING

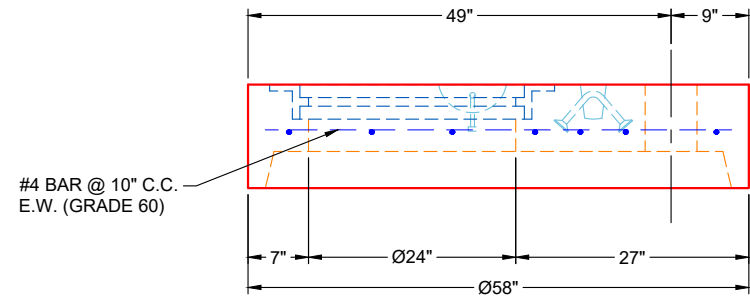
HOE MCS-288 FRAME & COVER "WATER" SUPPLIED BY ICAST - FRAME TO BE CAST INTO FLAT LID FLANGE SIDE UP

**GENERAL NOTES:**

1. MANUFACTURED PER ASTM C-478 (LATEST REVISION)
2. CONCRETE: 5,000 PSI AT 28 DAYS
3. REINFORCEMENT: #4 BAR @ 10" C.C. E.W. (GRADE 60) - 2" MIN. REBAR CLEARANCE (TYP)
4. HOE MCS-288 FRAME & COVER "STORM" SUPPLIED BY ICAST - FRAME TO BE CAST INTO FLAT LID FLANGE SIDE UP
5. WEIGHT: 1,575 LBS
6. Ø6" OPENING REQUIRED IN FLAT LID FOR 4" VENT PIPE



**FRONT VIEW**



**SIDE VIEW**

#4 BAR @ 10" C.C. E.W. (GRADE 60)

**REVISION INFORMATION**

REV.	DATE	DESCRIPTION



SUBMITTAL DRAWING: 48" MH FLAT LID SPECIAL, 12" HT.		
CUSTOMER: TWIN STATES UTILITIES, INC.		
PROJECT: HWY 111 WATER TRANSMISSION MAIN		
STRUCTURE: ARV1		
QUOTE/SALES ORDER NO: 25-2821		
CHECKED BY: B. SMITH	DRAWN BY: K. CARDWELL	
DATE: 01/26/26	SCALE: NTS	PG. 1 OF 1