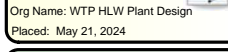

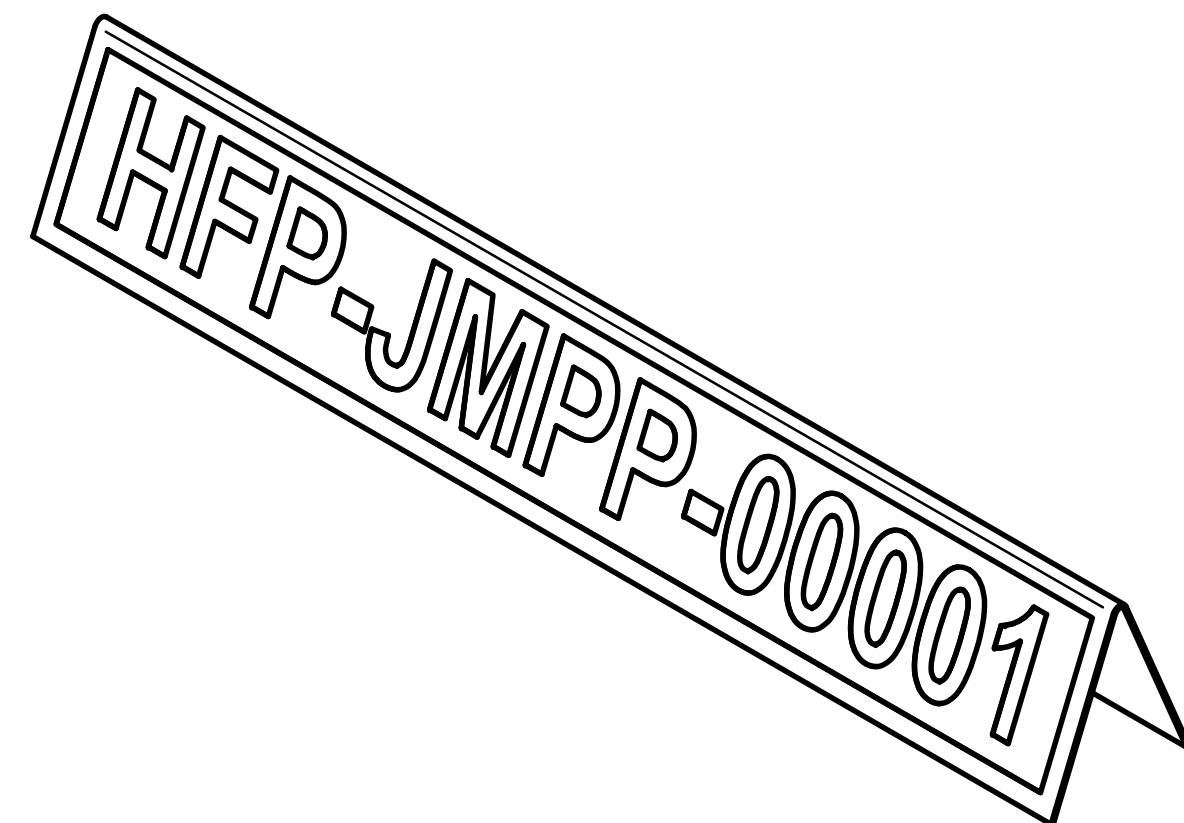
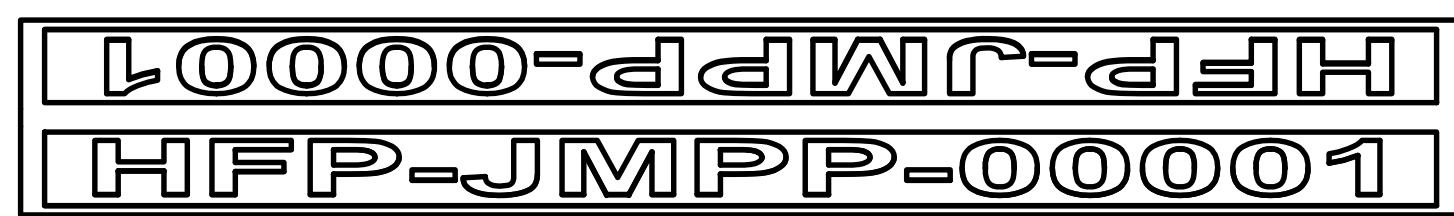
																
		<table border="1"> <tr> <th colspan="2">TOLERANCES</th> </tr> <tr> <td>0</td> <td>±1</td> </tr> <tr> <td>.00</td> <td>±.06</td> </tr> <tr> <td>.000</td> <td>±.010</td> </tr> <tr> <td>ANGLE</td> <td>± 0°-30'</td> </tr> </table>		TOLERANCES		0	±1	.00	±.06	.000	±.010	ANGLE	± 0°-30'	0	ISSUED FOR CONSTRUCTION	SEE STAMPS
TOLERANCES																
0	±1															
.00	±.06															
.000	±.010															
ANGLE	± 0°-30'															
		REV	DESCRIPTION	ORG	CHKD	RWD	APVD	DATE								
		REVISION HISTORY														
		PROJECT NO. 24590 SITE HANFORD AREA 200E BUILDING NO. 30		 RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2435 STEVENS CENTER PLACE RICHLAND, WA 99354												
ISSUED BY RTP-WTP PDC		ISSUE STATE		CONTRACT No: DE-AC27-01RV14136												
ORIGINATOR		BY		DATE												
CHECKER		SEE STAMP		SEE STAMP												
APPROVER		<i>Jim McGrath</i>		SEE STAMP												
REVIEWER		SEE STAMP		SEE STAMP												
CONTENT APPLICABLE TO ALARA? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		SCALE: NONE														
ADR NO. 24590-WTP-ADR-PL-02-005		REV: 2														
		24590-HLW-P61-P27T-00020				REV 0										

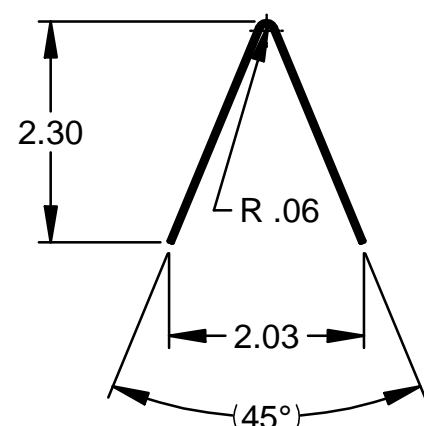
1 NAMEPLATE
VESSEL OR EQUIPMENT

2 NAMEPLATE
VESSEL OR EQUIPMENT

3 NAMEPLATE
WALLBOXES



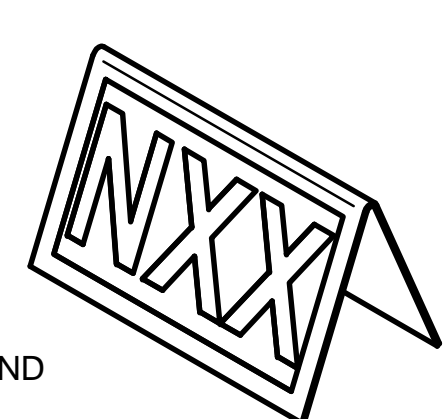
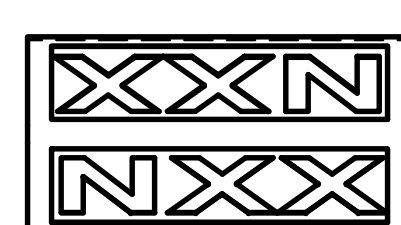
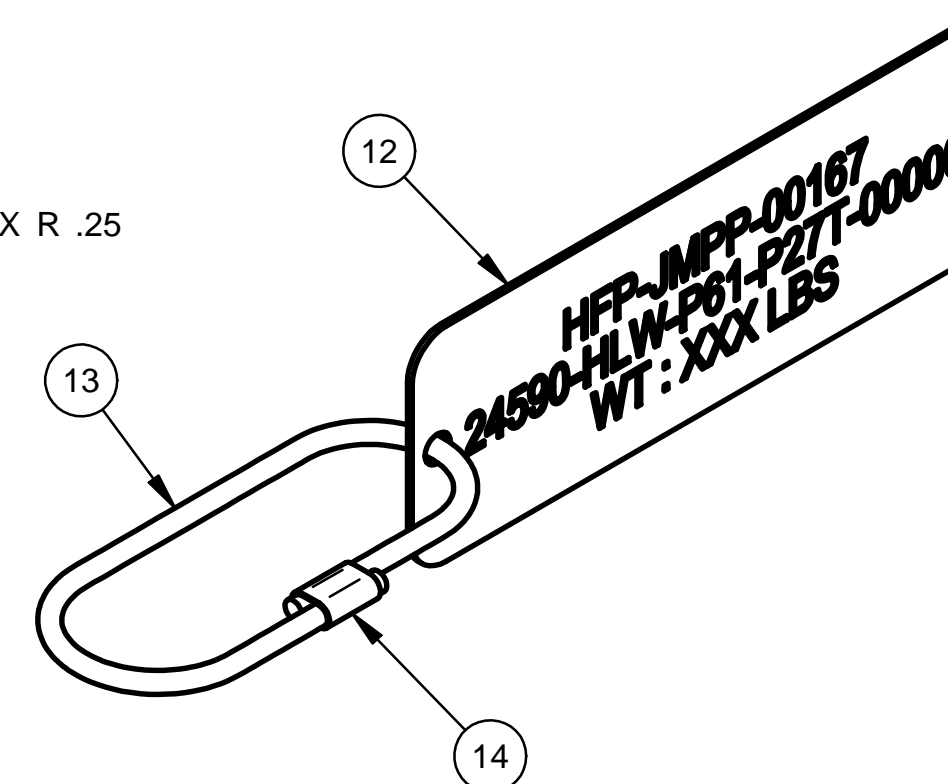
4 NAMEPLATE
JUMPERS ONLY



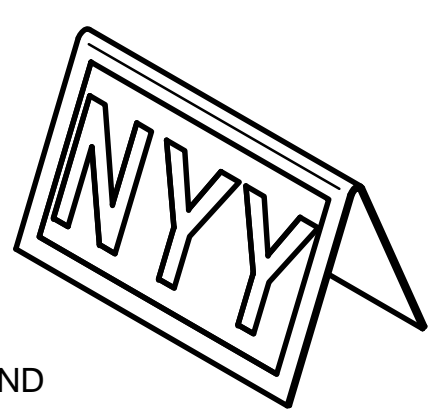
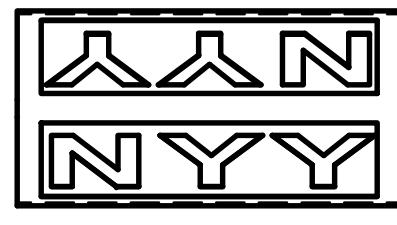
5 NAMEPLATE
JUMPERS ONLY

6 NAMEPLATE

7 NAMETAG
SEE NOTE 9



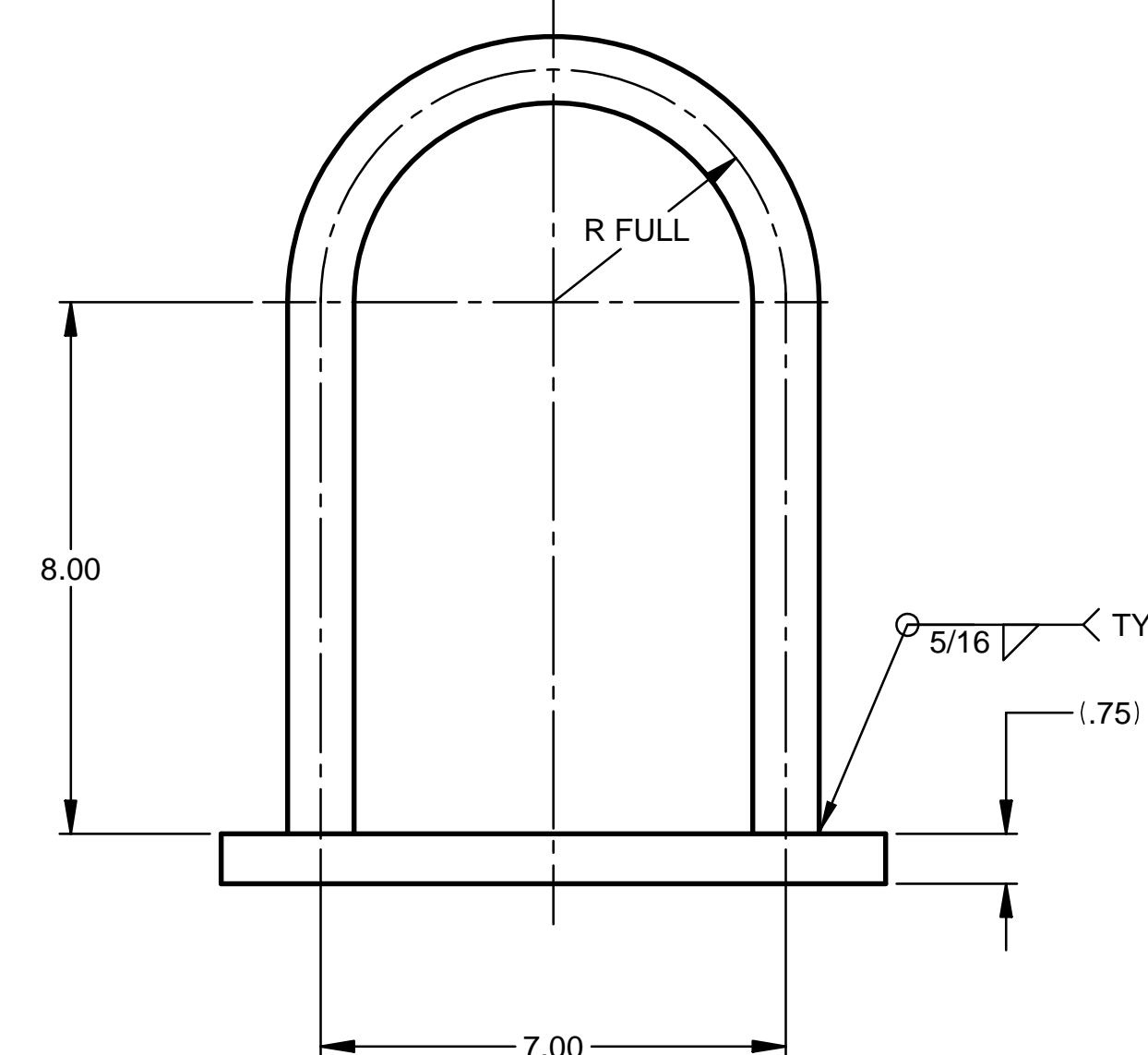
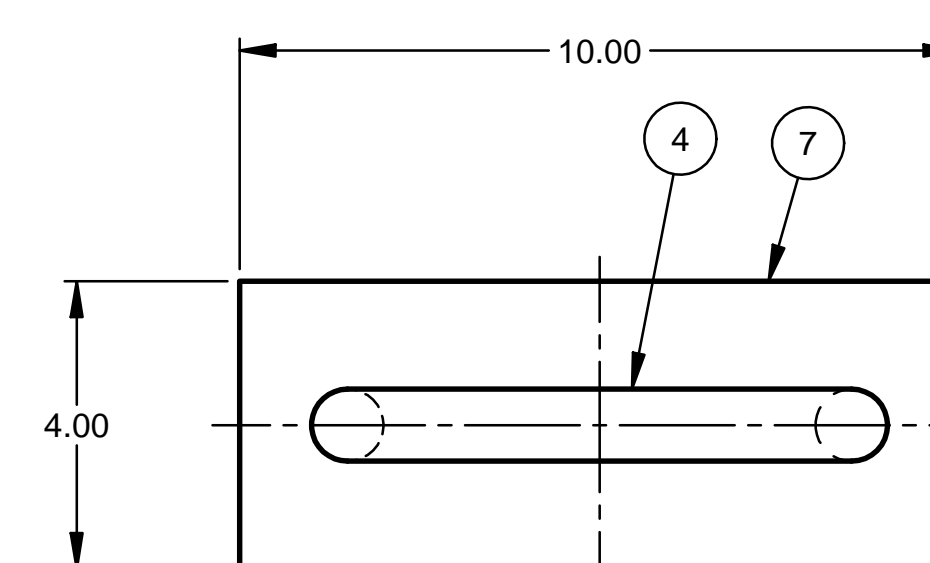
8 NAMEPLATE
JUMPERS ONLY



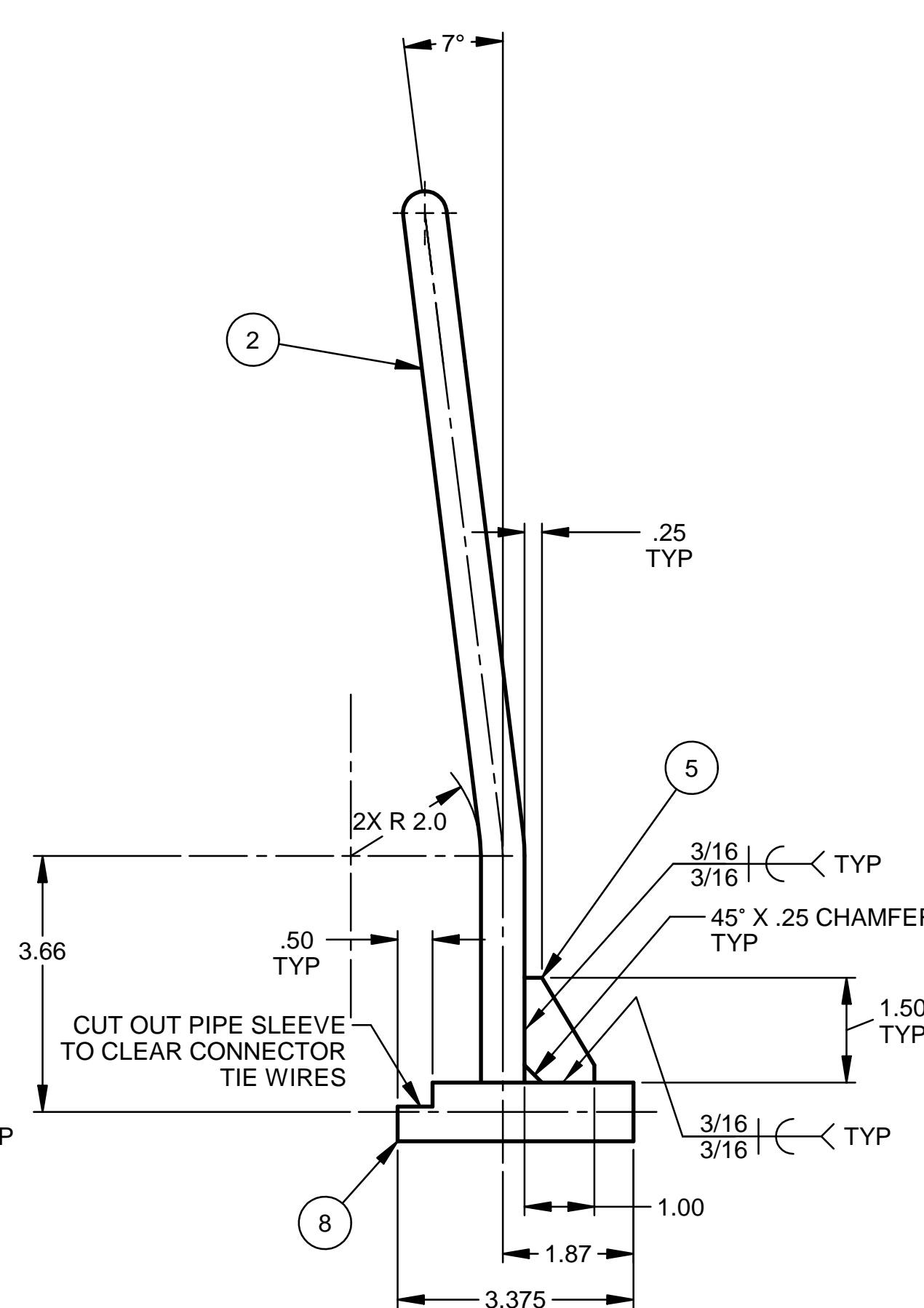
9 NAMEPLATE
JUMPERS ONLY

10 NAMEPLATE

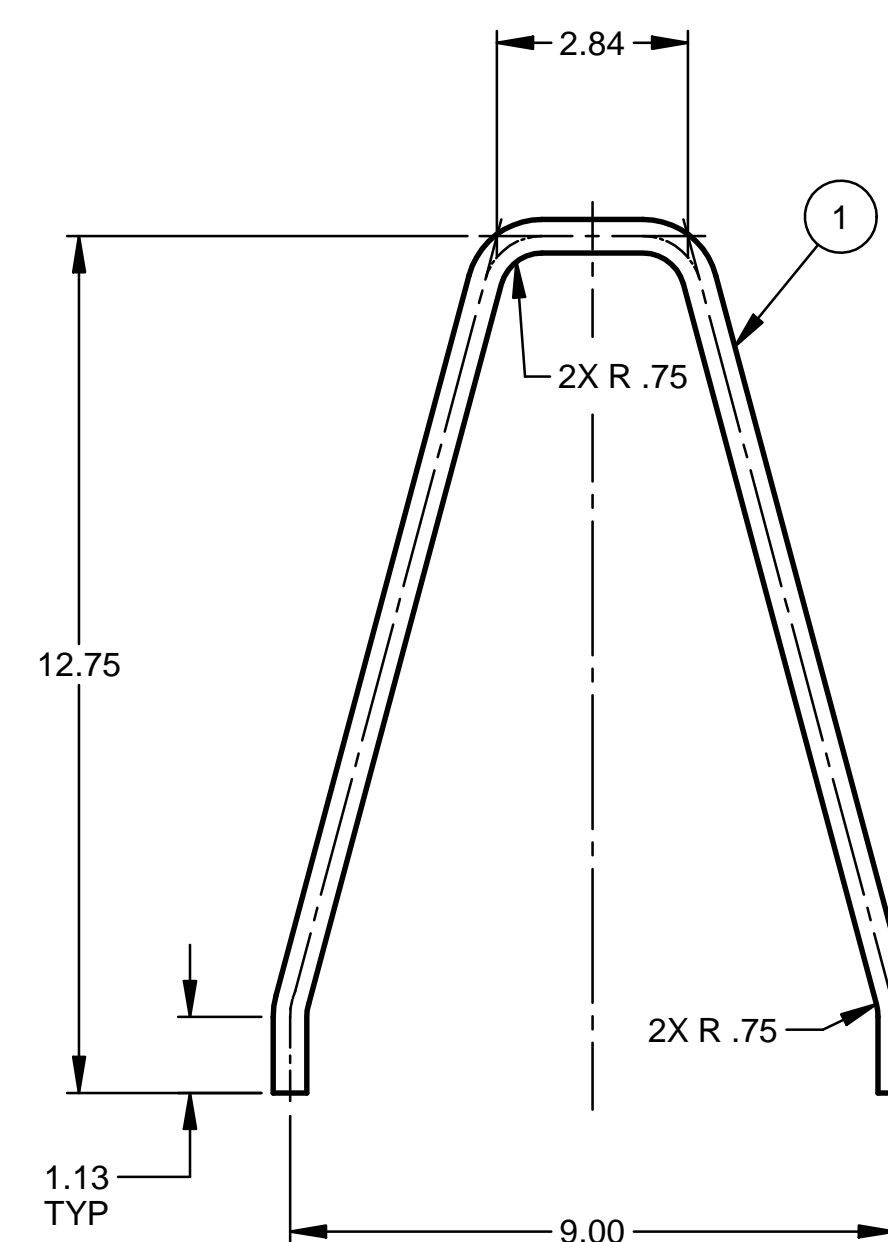
11 NAMEPLATE
DUMPS ONLY



DETAIL 4



DETAIL 6

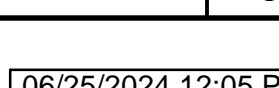


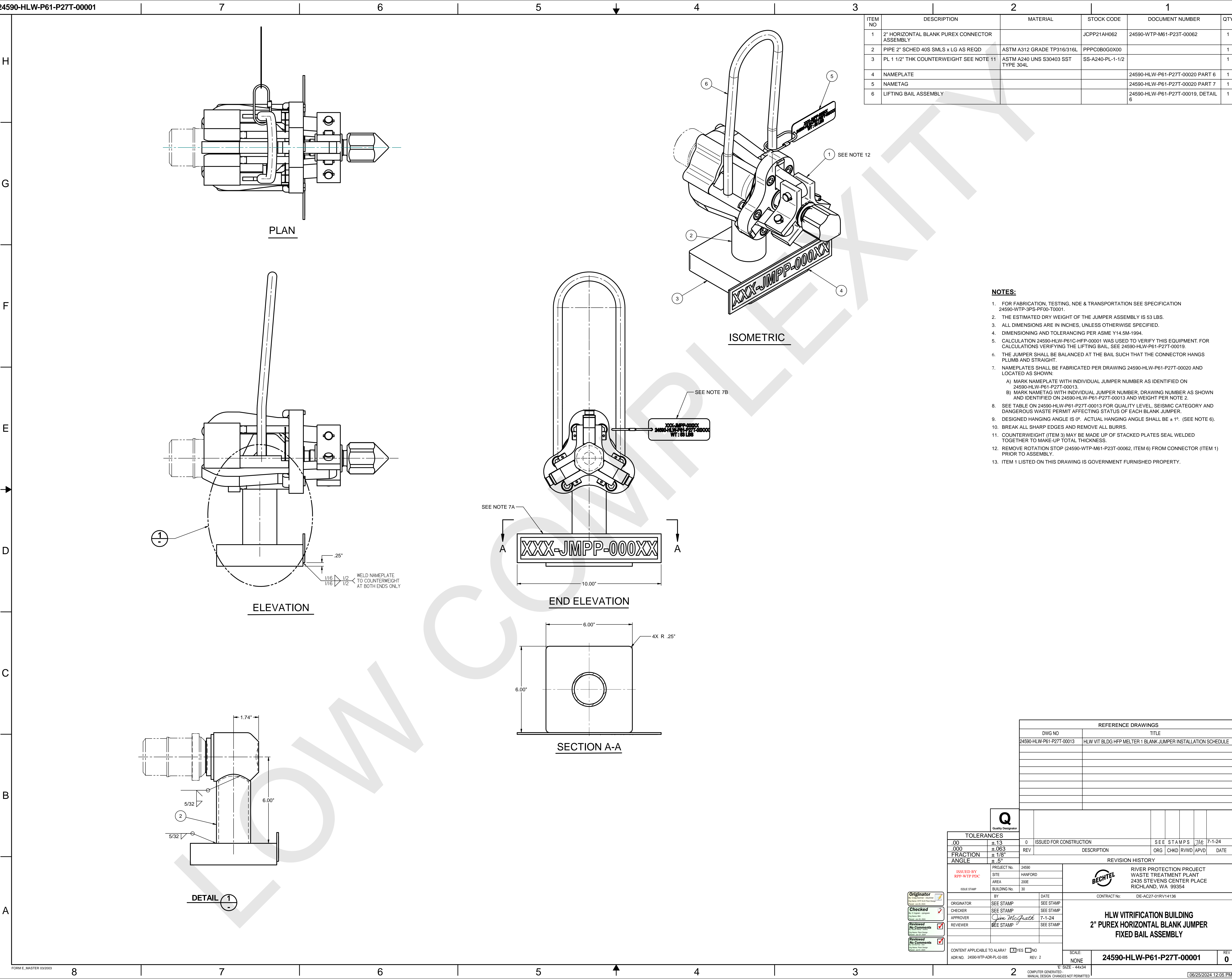
DETAIL 9

FOR DUNNAGE AND BAIL MOUNT DETAILS SEE INDIVIDUAL JUMPER FABRICATION DRAWINGS.

1. FOR FABRICATION, TESTING, NDE & TRANSPORTATION SEE SPECIFICATION 24590-WTP-SPS-PF00-0001
2. FOR RAIL LOAD CAPACITY, SEE CALCULATION 24590-4LW-P61-C-P277-00002.
3. FOR ESTIMATED CENTER OF GRAVITY (CG) LOCATION AND WEIGHT, SEE INDIVIDUAL JUMPER FABRICATION DRAWING.
4. RAIL STOP LIFTING ANGLE IS DETERMINED BY POSITION OF THE STOP ROD WHEN SLEEVE IS WELDED IN POSITION PER JUMPER FABRICATION DRAWING.
5. FOR QUALITY LEVEL AND SEISMIC CATEGORY SEE INDIVIDUAL JUMPER FABRICATION DRAWING.
6. ALL DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE NOTED.
7. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994
8. BREAK ALL SHARP EDGES AND REMOVE ALL BURRS

06/12/2024 12:03 PM

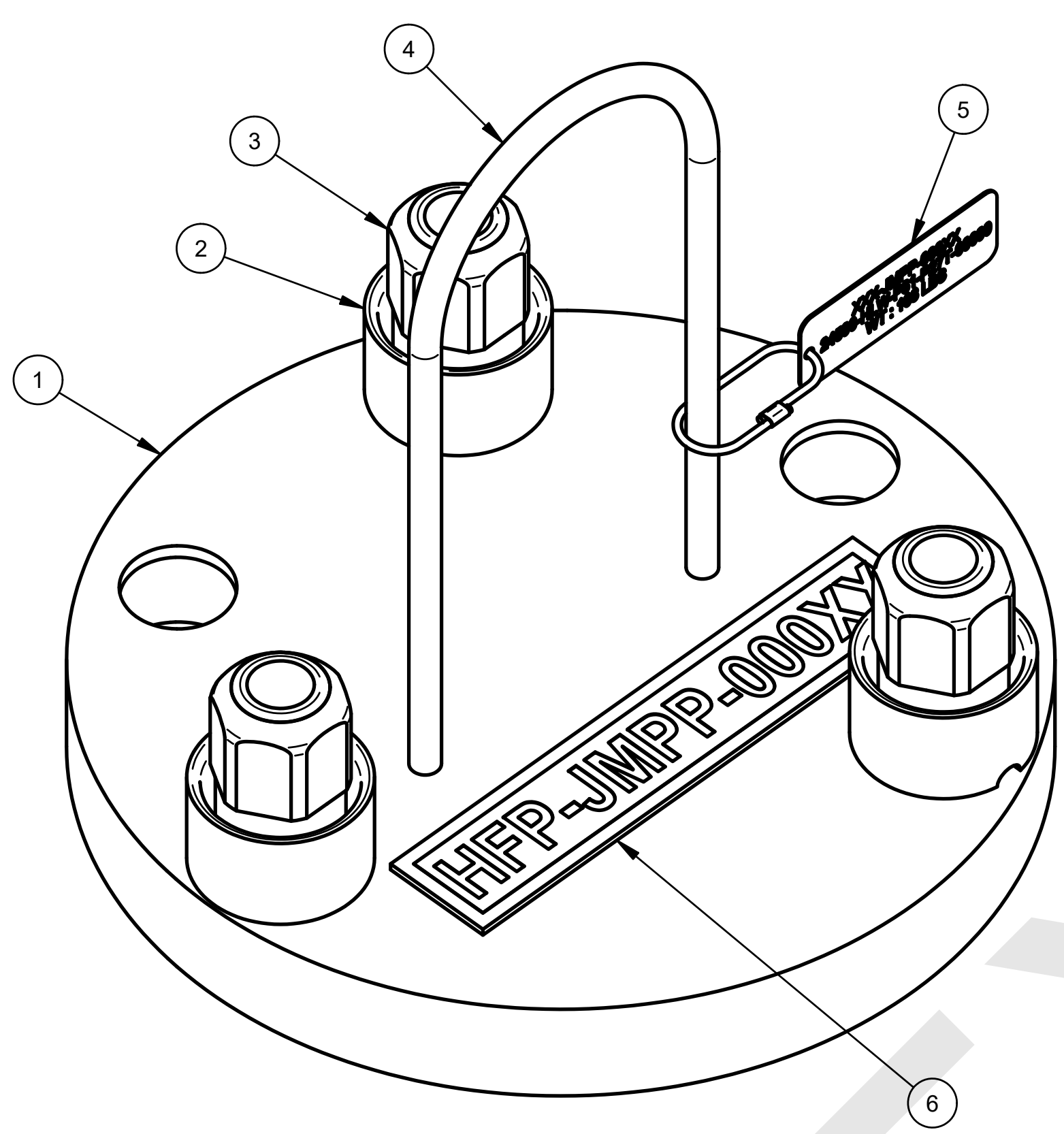
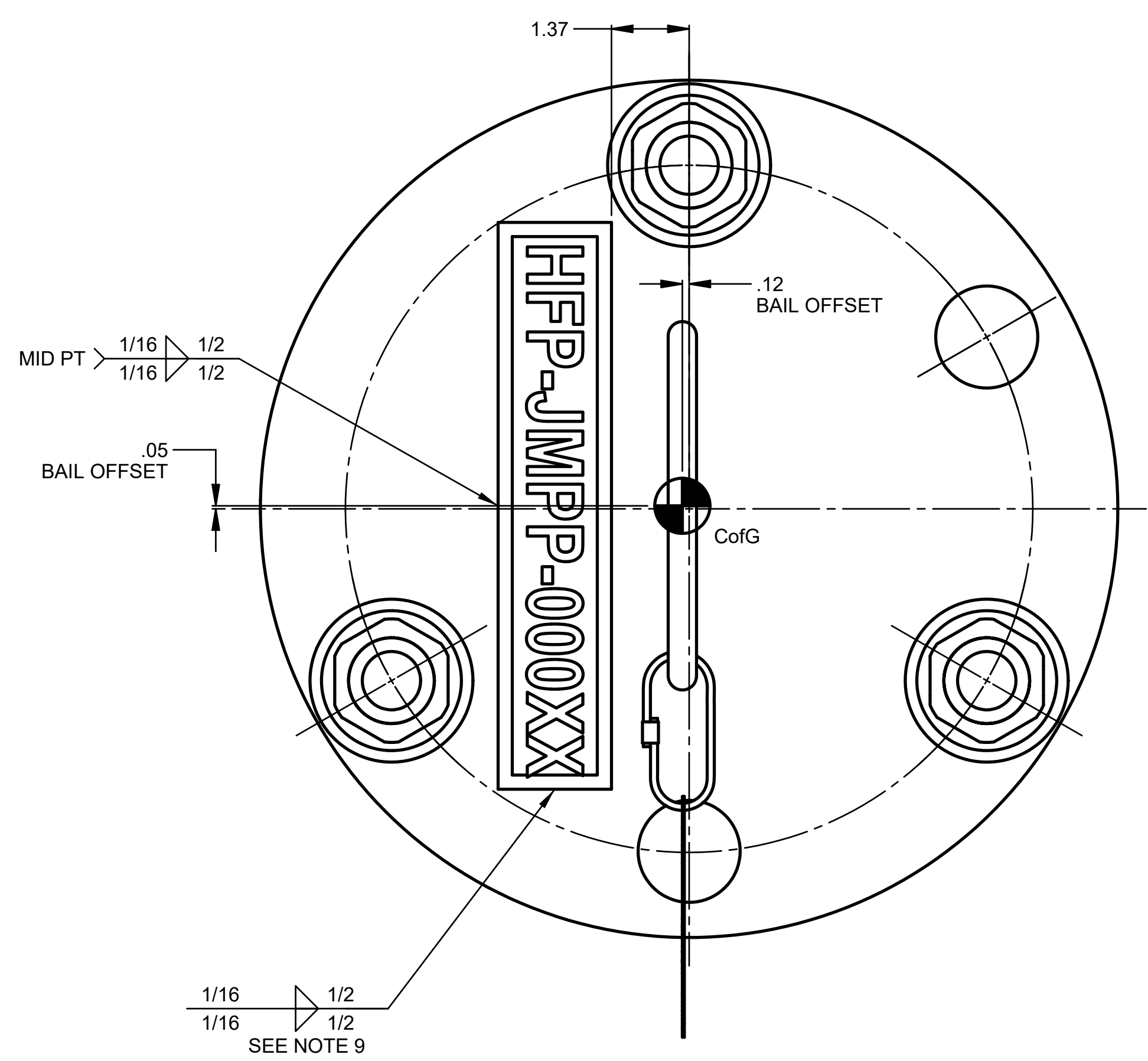




H
G
F
E
D
C
B
A

H
G
F
E
D
C
B
A

ITEM NO	DESCRIPTION	MATERIAL	STOCK CODE	DOCUMENT NUMBER	QTY
1	REMOTE 3-BOLT BLIND FLANGE 4" x 15.12" OD PLATE THICKNESS AS REQD FOR MACHINING	ASTM A240 TYPE 316L			1
2	NUT CUP			24590-WTP-M0-50-00016 ITEM 8	3
3	REMOTE NUT			24590-WTP-M0-50-00016, ITEM 14	3
4	LIFTING BAIL			24590-HLW-P61-P27T-00019 DET 7	1
5	NAMETAG X 4 1/4" LG			24590-HLW-P61-P27T-00020 PT 7	1
6	NAMEPLATE X 10" LONG			24590-HLW-P61-P27T-00020 PT 6	1

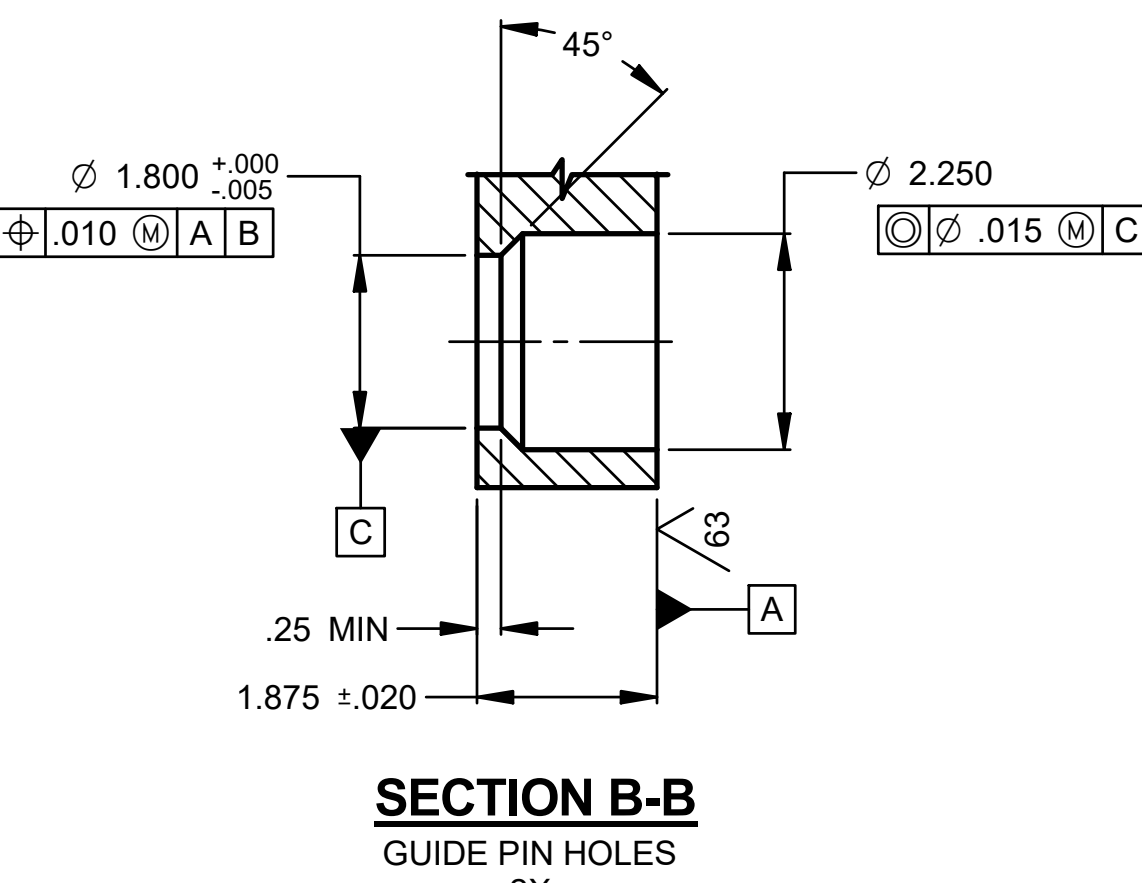
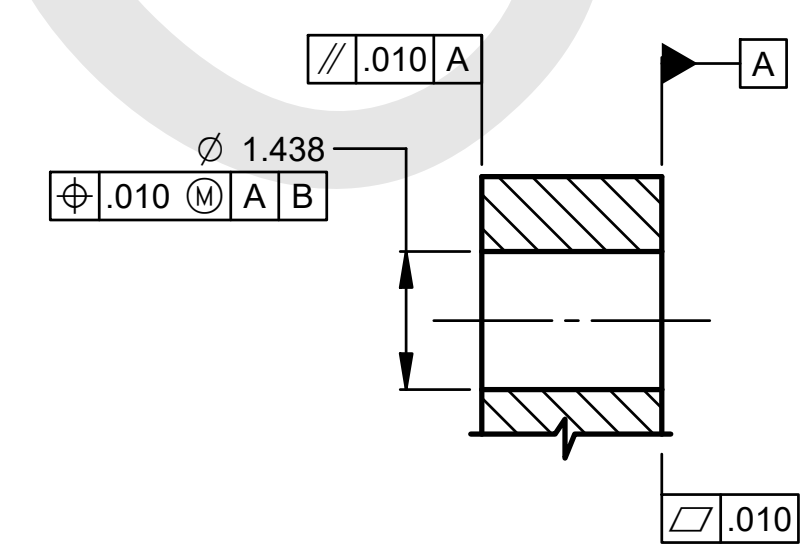
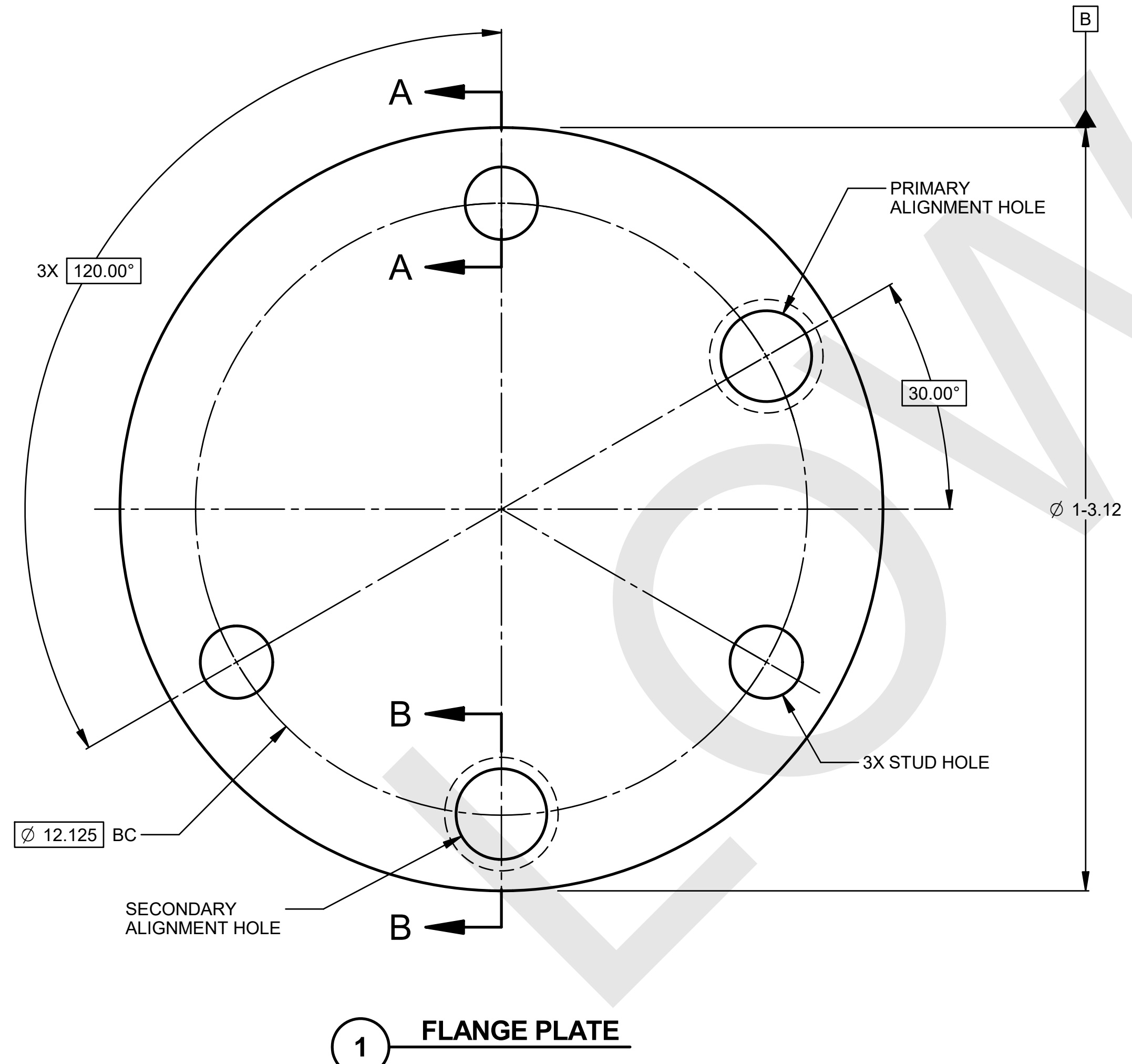
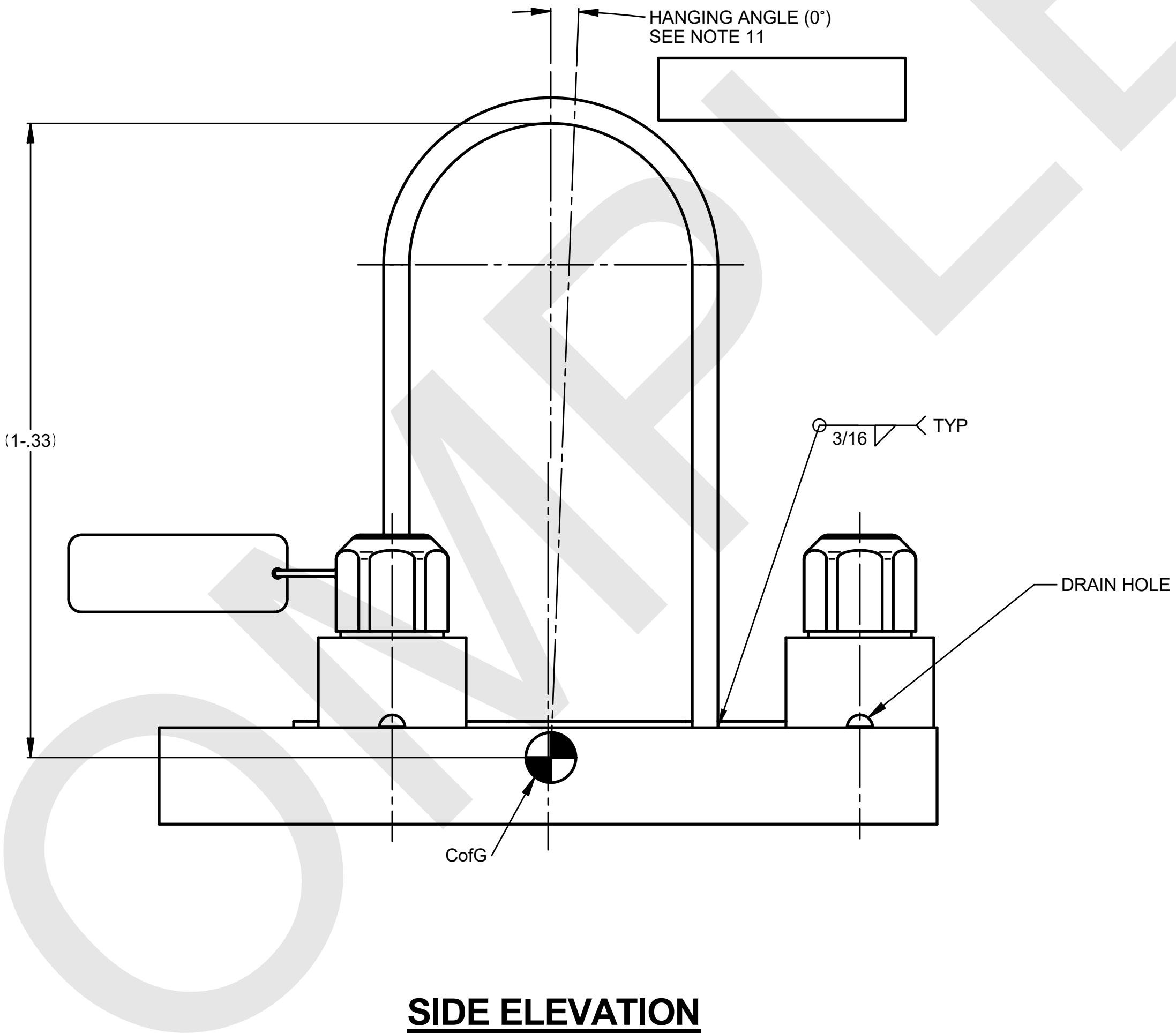
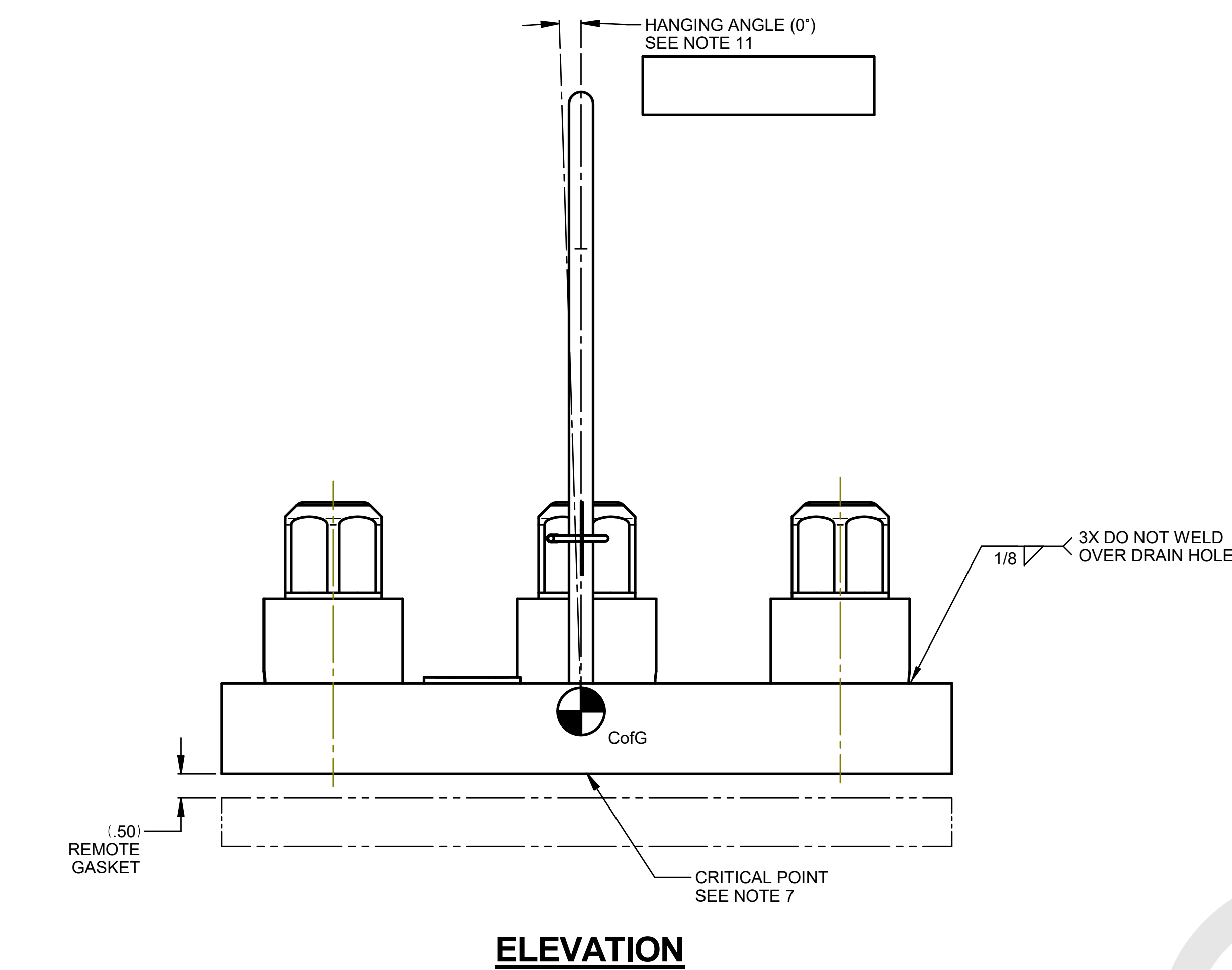


- NOTES:**
- FOR FABRICATION, TESTING, NDE, & TRANSPORTATION SEE SPECIFICATION 24590-WTP-3PS-PF00-T0001.
 - RECORD SURVEYED VALUES FOR THE CRITICAL DIMENSIONS, HANGING ANGLE AND WEIGHT IN THE BLANK BOXES PROVIDED ON THIS DRG.
 - THE ESTIMATED DRY WEIGHT OF THE JUMPER ASSEMBLY IS 122 LBS. RECORD FINAL WEIGHT IN BOX BELOW.
 - ALL DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE SPECIFIED.
 - DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.
 - NAMEPLATES SHALL BE FABRICATED PER DRAWING 24590-HLW-P61-P27T-00020 AND LOCATED AS SHOWN: FOR RESPECTIVE JUMPER AND DRAWING No. SEE TABLE BELOW.
A) MARK NAMEPLATE ITEM 6 AS FOLLOWS: HFP-JMPP-000XX
B) MARK NAME TAG ITEM 5 AS FOLLOWS: HFP-JMPP-000XX
24590-HLW-P61-P27T-00099
WT: (SEE BOX IN NOTE 4)
 - ALL ITEMS SHOWN ARE QUALITY LEVEL Q AND SEISMIC CAT III, UNLESS OTHERWISE SPECIFIED.
 - BREAK ALL SHARP EDGES AND REMOVE ALL BURRS.
 - SEE DRAWING 24590-HLW-P61-P27T-00032 FOR NAMEPLATE NOZZLE NUMBERING AND EQUIPMENT CROSSWALK.
 - CRITICAL POINT FOR THE 3-BOLT FLANGE EXISTS AT THE INTERSECTION OF THE CENTERLINE AND LOCATING PLANE (FLAT FACE) OF THE FLANGE.
 - DESIGN OUT OF PLANE HANGING ANGLE IS 0°. ACTUAL HANG ANGLE SHALL BE ± 1°. RECORD FINAL HANG ANGLE IN BLANK BOXES ON DRAWING.

MELTER 1:
JUMPER: HFP-JMPP-00140 DRAWING #: 24590-HLW-P61-P27T-00099
JUMPER: HFP-JMPP-00148 DRAWING #: 24590-HLW-P61-P27T-00099

MELTER 2:
JUMPER: HFP-JMPP-00143 DRAWING #: 24590-HLW-P61-P27T-00099
JUMPER: HFP-JMPP-00153 DRAWING #: 24590-HLW-P61-P27T-00099

REFERENCE DRAWINGS	
DWG NO	TITLE
24590-HLW-P61-P27T-00013	HLW VITN BLDG HFP SYST MLTR 1 BLANK PROC PIPING JUMPER INSTALLN SCHED
24590-HLW-P61-P27T-00256	HLW VITN BLDG HFP SYST MLTR 2 BLANK PROC PIPING JUMPER INSTALLN SCHED
24590-HLW-P61-P27T-00019	HLW VITRIFICATION BUILDING JUMPER LIFTING BAIL DETAILS
24590-HLW-P61-P27T-00020	HLW VITRIFCN BLDG REMOTE HANDLING EQUIPT & JUMPERS IDENTIFCN DRG
24590-WTP-M0-50-00016	WTP REMOTE FASTENERS



CONTENTS OF THIS DOCUMENT ARE DANGEROUS WASTE PERMIT AFFECTING

Q Quality Designator		A		ISSUE FOR USE		SEE STAMPS		1-27-25	
TOLERANCES		REV		DESCRIPTION		ORG		CHKD	
.00 ±.031									
.000 ±.015									
FRACTION ± 1/16"									
ANGLE ± 0.5°									
ISSUED BY RPP-WTP-PDC		PROJECT No. 24590		DATE		CONTRACT No. DE-AC27-01RV14136			
ISSUE STAMP		SITE HANFORD				RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2435 STEVENS CENTER PLACE RICHLAND, WA 99354			
BY		AREA 200E							
CHECKED		BUILDING No. 30							
ORIGINATOR		SEE STAMP		DATE					
CHECKER		SEE STAMP		DATE					
APPROVER		1-27-25		DATE					
REVIEWER		SEE STAMP		DATE					
CONTENT APPLICABLE TO ALARA? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		REV: 2		SCALE: NONE		24590-HLW-P61-P27T-00099		REV A	
ADR NO. 24590-WTP-ADR-PL-02-005									

ITEM NO	DESCRIPTION	MATERIAL	STOCK CODE	DOCUMENT NUMBER	QTY
1	2" 3-WAY VERTICAL 3 x 1/2" PUREX CONNECTOR		JCPP22AV073	24590-WTP-M61-P23T-00073	1
2	UNVALVED PLUG FULL FLOW 1/2" FNPT STAUBLI # RBE 08.6203/IC	316 SST			2
3	UNVALVED PLUG FULL FLOW 1/2" FNPT STAUBLI # RBE 11.6203/IC	316 SST	CM-FPA-PY01-00066-1		1
4	PIPE 1/2" SCHED 80S (TIE BOLT SLEEVE)	ASTM A312 GR TP316/316L	PPPC0B0H0W0K	SEE DETAIL	1 LF
5	PL 1/4" THK (BASE PLATE)	ASTM A240 SST TYPE 304L	SS-A240-PL-1/4		1
6	PL 1/4" THK (NOZZLE SUPPORT PLATE)	ASTM A240 SST TYPE 304L	SS-A240-PL-1/4		1
7	5/8" DIA ROD x 8 1/4" LG ROTATION STOP	ASTM A276 SST TYPE 304L	SS-A276-BAR-5/8		1
8	TS 2" x 2" x 1/4" x LG AS REQD	ASTM A554 GR MT304L	SS-A554-TS-2X2X1/4-SRL		1 LF
9	ELBOW 1/2" 90° LR SCHED 40S SMLS BW	ASTM A403 GR WP316/316L-S	PFQNV60G1600		3
10	ELBOW 1/2" 45° LR SCHED 40S SMLS BW	ASTM A403 GR WP316/316L-S	PFRRV60G1400		2
11	PL 1/4" THK (ATTACHMENT PLATE)	ASTM A240 SST TYPE 304L	SS-A240-PL-1/4	SEE DETAIL	1
12	PIPE 1/2" SCHED 40S SMLS x LG AS REQD	ASTM A312 GR TP316/316L	PPC0B0G0W0K		3 LF
13	FOLDING BAIL			24590-HLW-P61-P27T-00019 DETAIL 1	1
14	NAMEPLATE NXX			24590-HLW-P61-P27T-00020 PART 10	1
15	NAMEPLATE x 10" LG			24590-HLW-P61-P27T-00020 PART 5	1
16	NAME TAG x 4 1/4" LONG			24590-HLW-P61-P27T-00020 PART 7	1

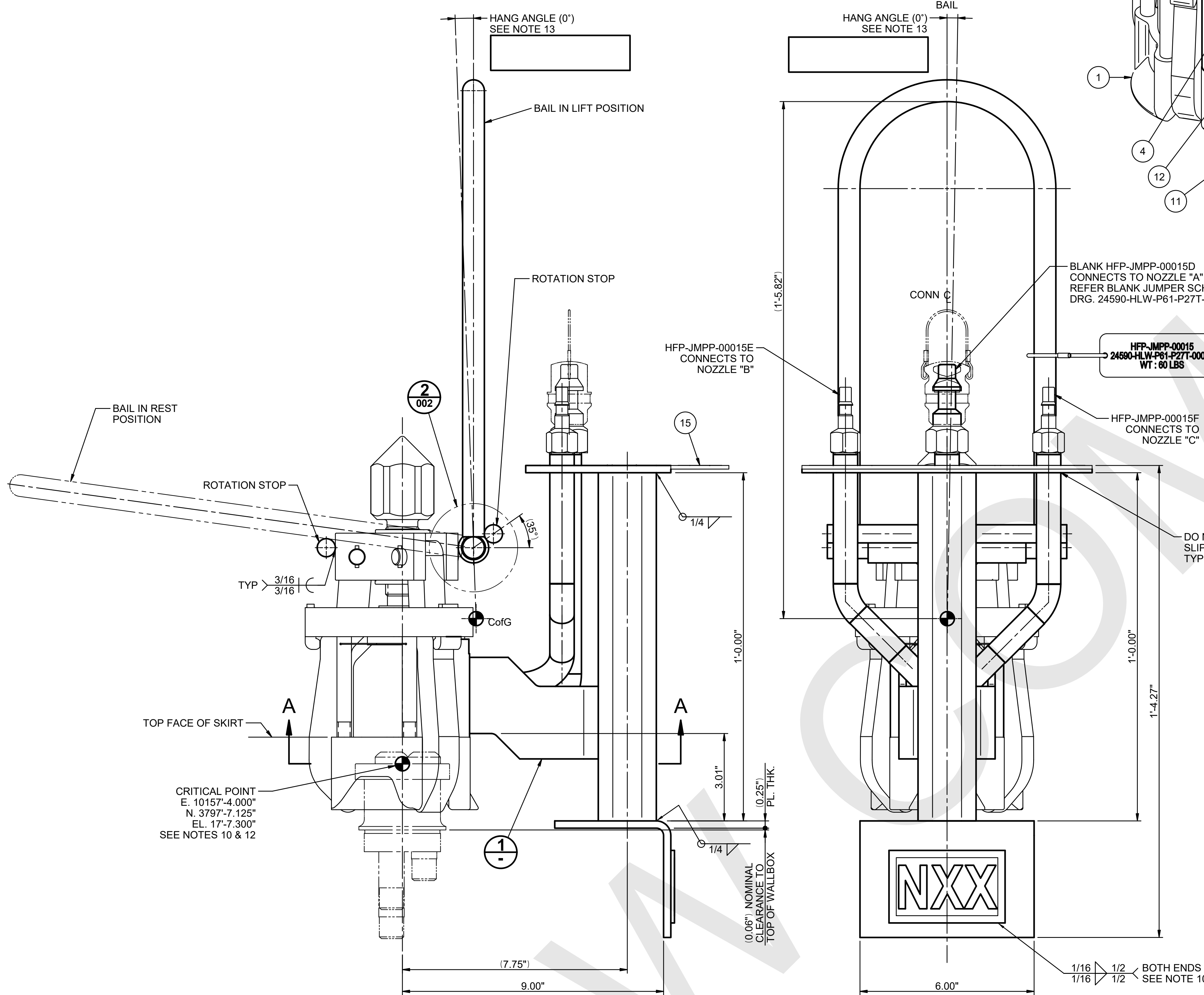
NOTES:

1. FOR FABRICATION, TESTING, NDE & TRANSPORTATION SEE SPECIFICATION.
24590-WTP-3PS-PF00-T0001.
2. ITEM 1 LISTED ON THIS DRAWING IS GOVERNMENT FURNISHED PROPERTY.
3. RECORD SURVEYED VALUES FOR THE CRITICAL DIMENSIONS, HANG ANGLE AND WEIGHT IN THE BLANK BOXES PROVIDED ON THIS DRG.
4. THE ESTIMATED DRY WEIGHT OF THE JUMPER ASSEMBLY IS 60 LBS. RECORD FINAL WEIGHT IN BOX BELOW.

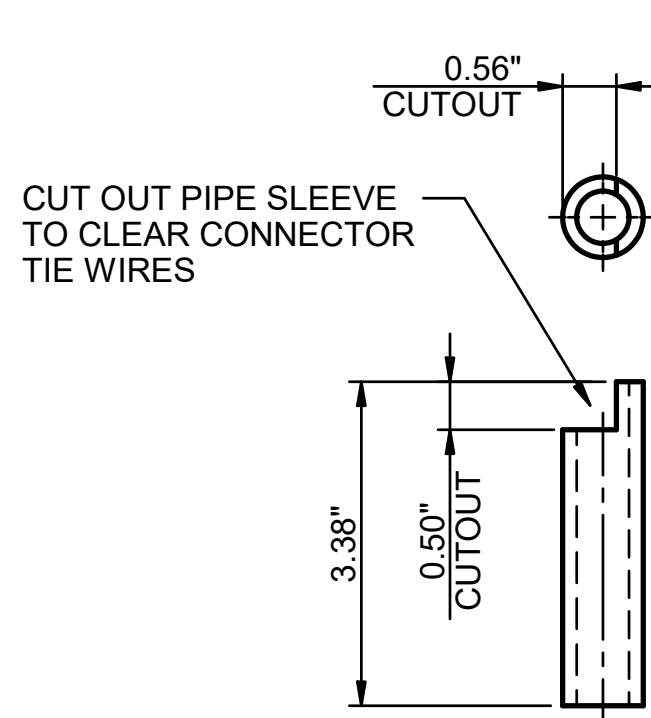
5. ALL DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE SPECIFIED.
6. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.

7. NAMEPLATES SHALL BE FABRICATED PER DRAWING 24590-HLW-P61-P27T-00020 AND LOCATED AS SHOWN:
- A) MARK NAMEPLATE (ITEM 15) AS FOLLOWS: HFP-JMPP-00015
- B) MARK NAME TAG (ITEM 16) AS FOLLOWS: HFP-JMPP-00015
24590-HLW-P61-P27T-00039
WT: (SEE WEIGHT
BOX NOTE 4) LBS

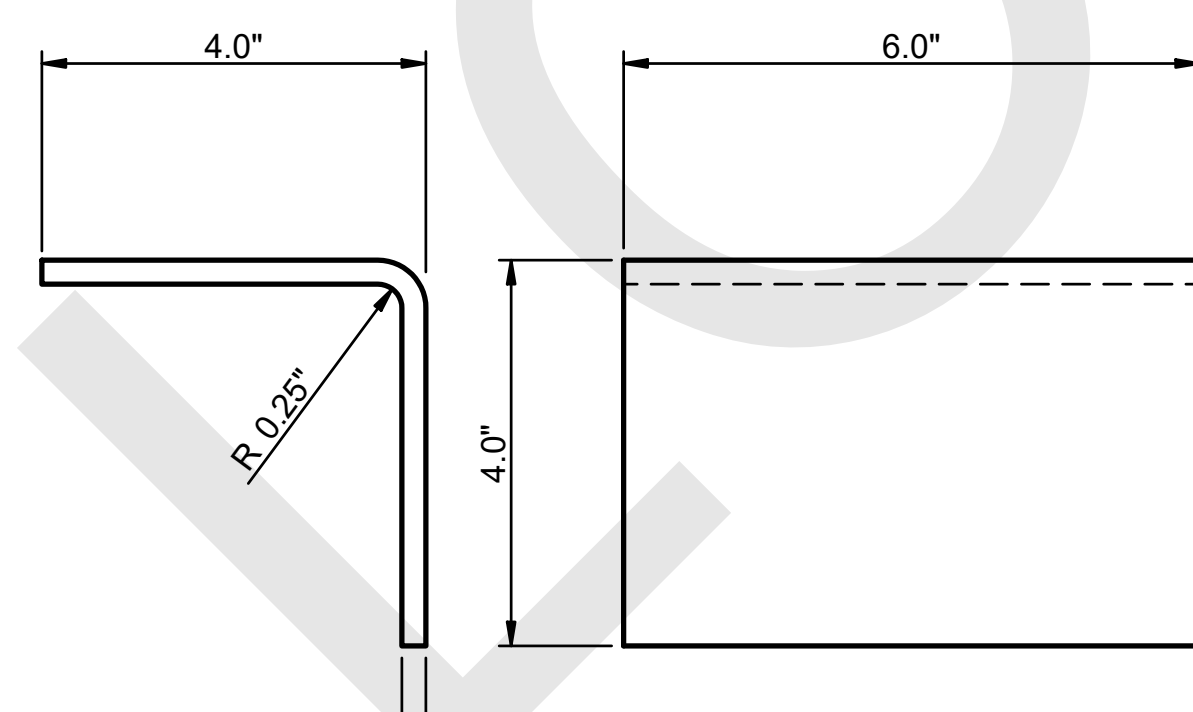
8. ALL ITEMS SHOWN ARE QUALITY LEVEL CM AND SEISMIC CATEGORY SC-II, UNLESS OTHERWISE SPECIFIED.
9. BREAK ALL SHARP EDGES AND REMOVE ALL BURRS.
10. SEE DRAWING 24590-HLW-P61-P27T-00032 FOR NAMEPLATE NOZZLE NUMBERING AND EQUIPMENT CROSSWALK.
11. FIELD TO VERIFY FINAL NOZZLE LOCATIONS PRIOR TO FULL FABRICATION AND INSTALLATION OF JUMPER.
12. CENTER POINT FOR THE 1/2" WAY PUREX NOZZLE, EXISTS AT THE INTERSECTION OF THE CENTERLINE AND THE LOCATING PLANE (PLAT FACE) OF THE NOZZLE. SEE DRAWING 24590-WTP-P61-P27T-00001, DETAIL 9.
13. DESIGN OUT OF PLANE HANGING ANGLE IS 0°. ACTUAL HANG ANGLE SHALL BE $\pm 1^\circ$.



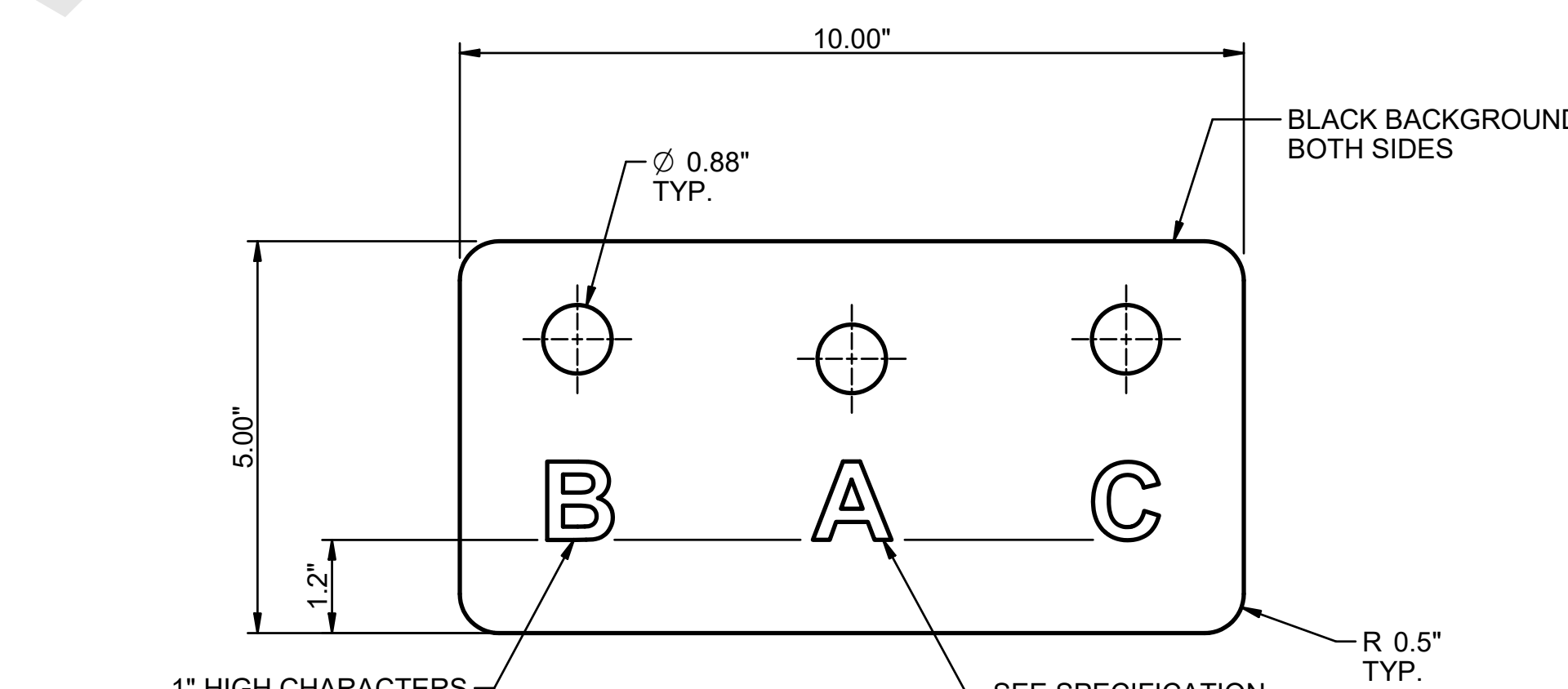
ELEVATION



4 TIE BOLT SLEEVE

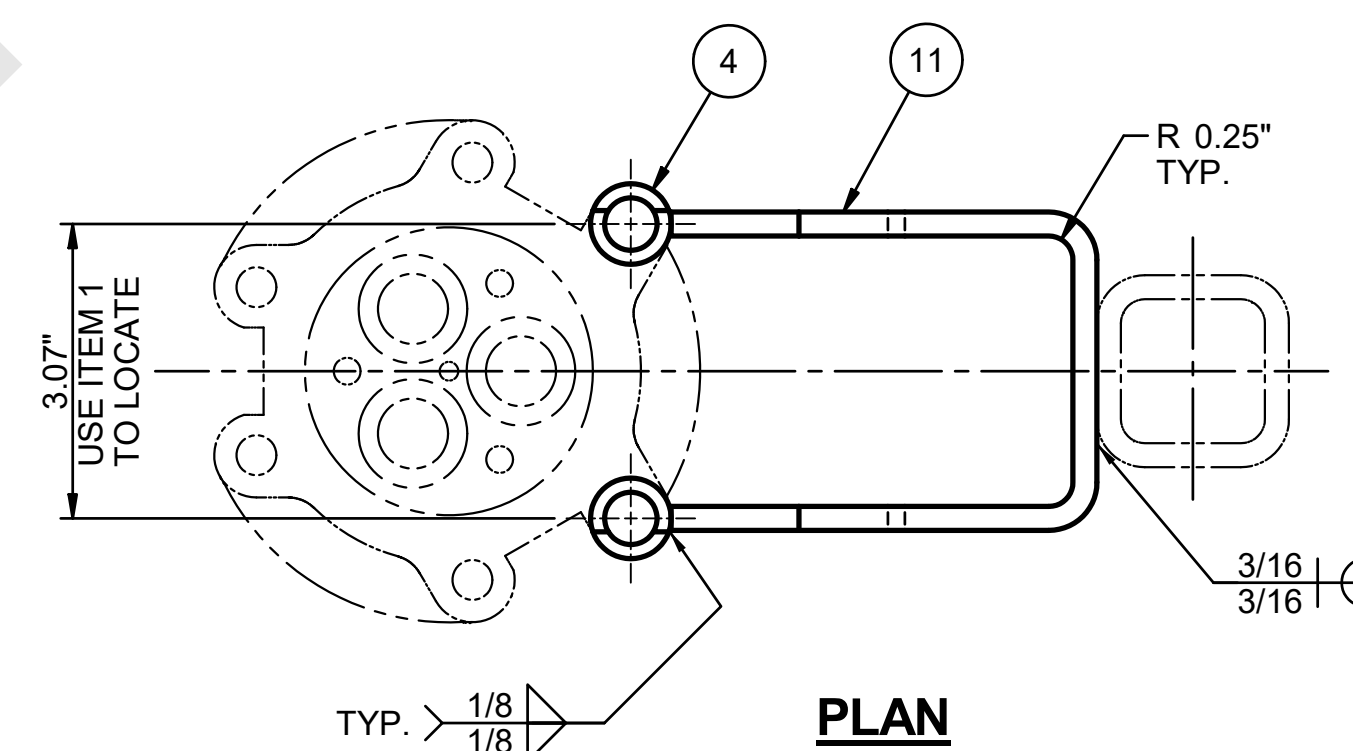


5 BASE PLATE

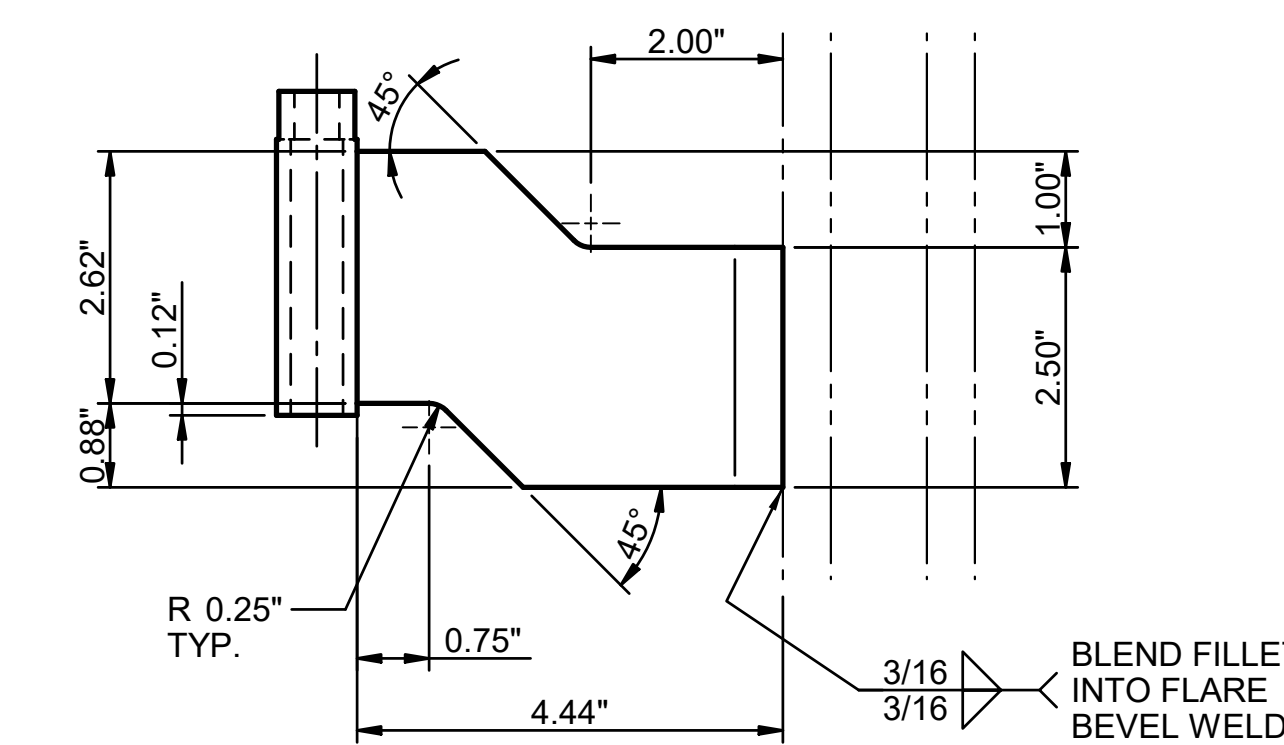


6 NOZZLE SUPPORT PLATE

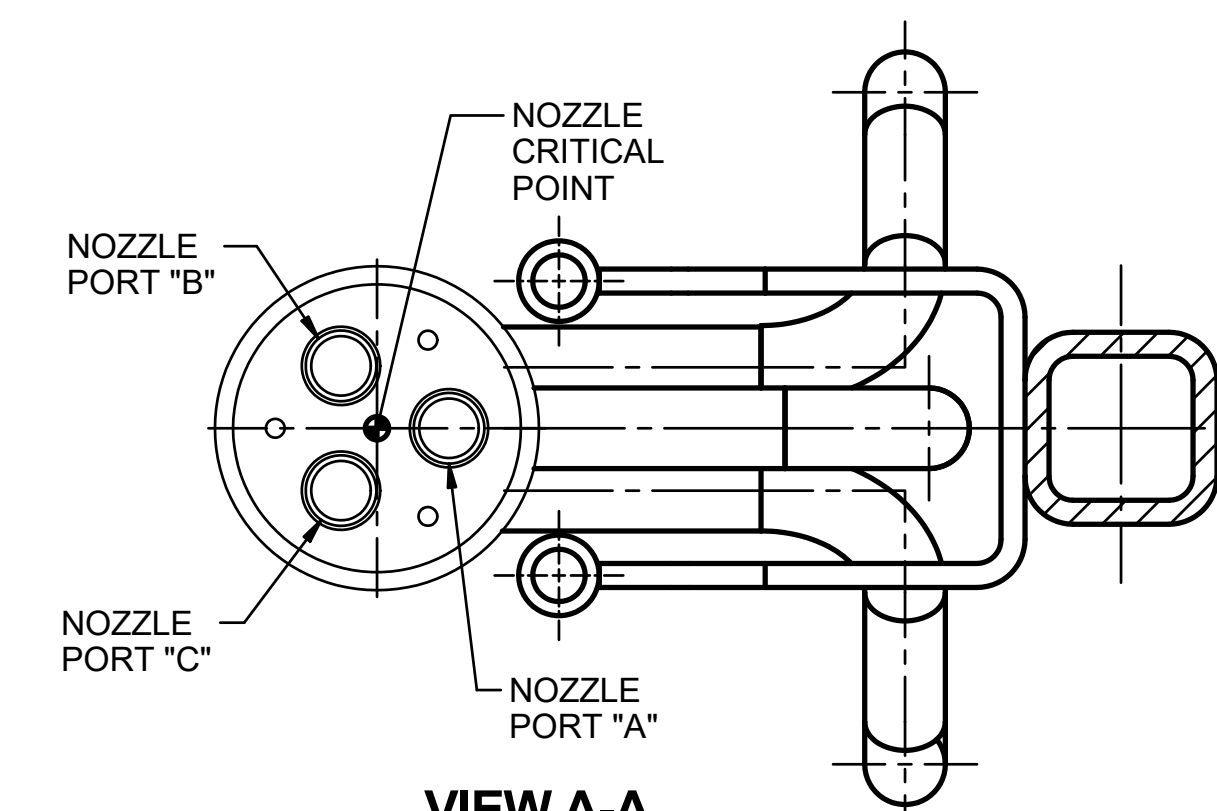
ISOMETRIC



PLAN





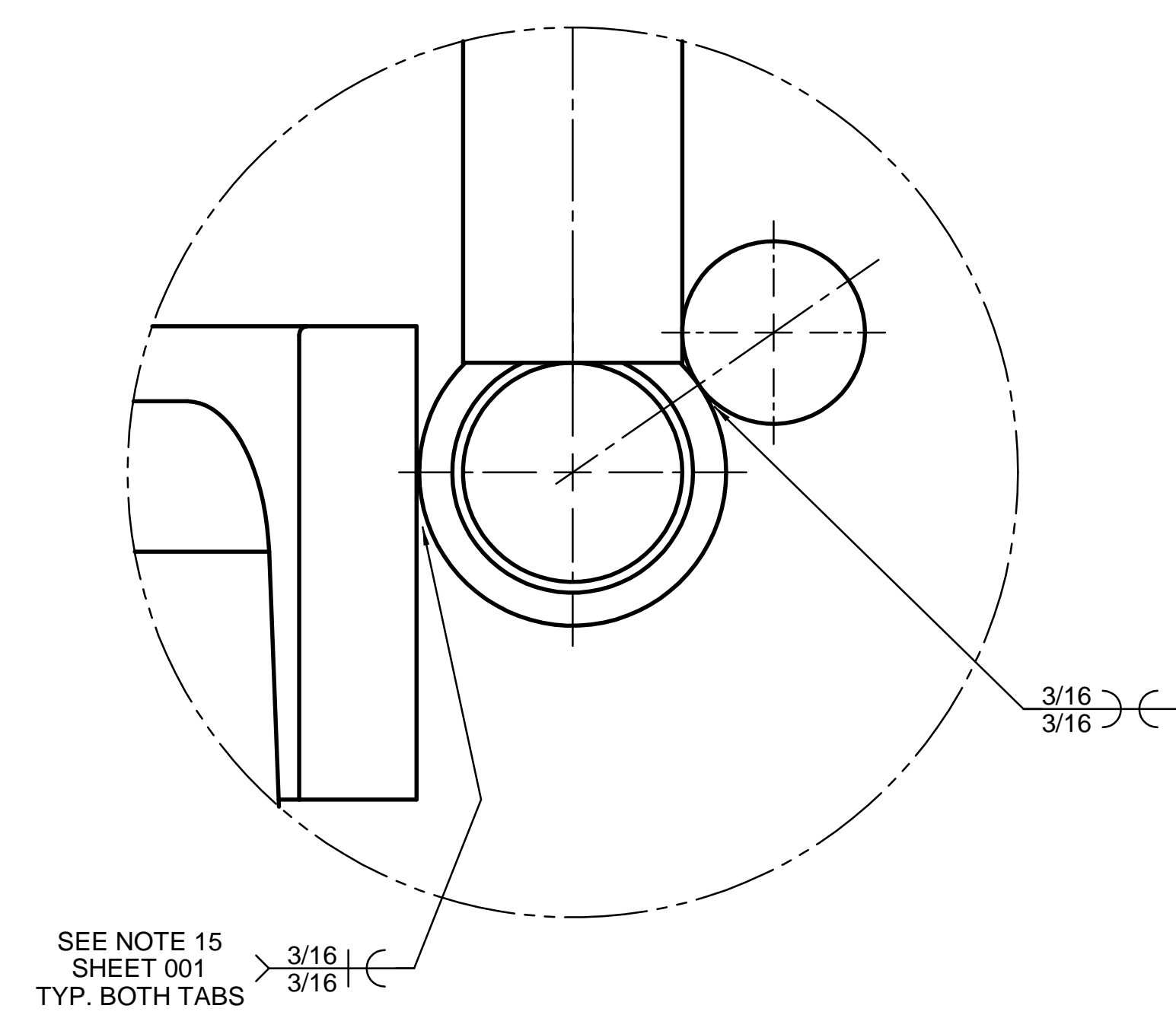
DETAIL 1
ATTACHMENT
PLATE



VIEW A-A
SOME ITEMS NOT SHOWN
FOR CLARITY

DRAWING INDEX	
DWG NO	TITLE
24590-HLW-P61-P27T-00039002	HLW VITRIFICH BLDG PROCESS PIPING JUMPER - MLTR 1 HFP-JMP-00015 Sh 2
REFERENCE DRAWINGS	
DWG NO	TITLE
24590-HLW-M6-HFP-00005001	P&ID - HLW MELTER FEED PROCESS SYSTEM ADS PUMP CONTROLS HFP-MFP-00001
24590-HLW-P61-P27T-00013	HLW HFP SYSTEM - MELTER 1 BLANK PROCESS JUMPER INSTALL N SCHED.
24590-HLW-M6X-HFP-00030001	MS JUMPER LIST FOR 24590-HLW-M6-HFP-00005001
24590-HLW-M6X-HFP-00050001	MS EQUIPMENT LIST FOR 24590-HLW-M6-HFP-00005001
24590-HLW-P61-P27T-00019	HLW STANDARD JUMPER LIFTING BAL DETAILS
24590-HLW-P61-P27T-00020	HLW REMOTE HANDLING EQUIPMENT & JUMPER IDENTIFICATION DRG.
24590-WTP-M61-P23T-00070	WTP ASSEMBLY VERTICAL 2 IN INLET & OUTLET PUMP CONNECTOR

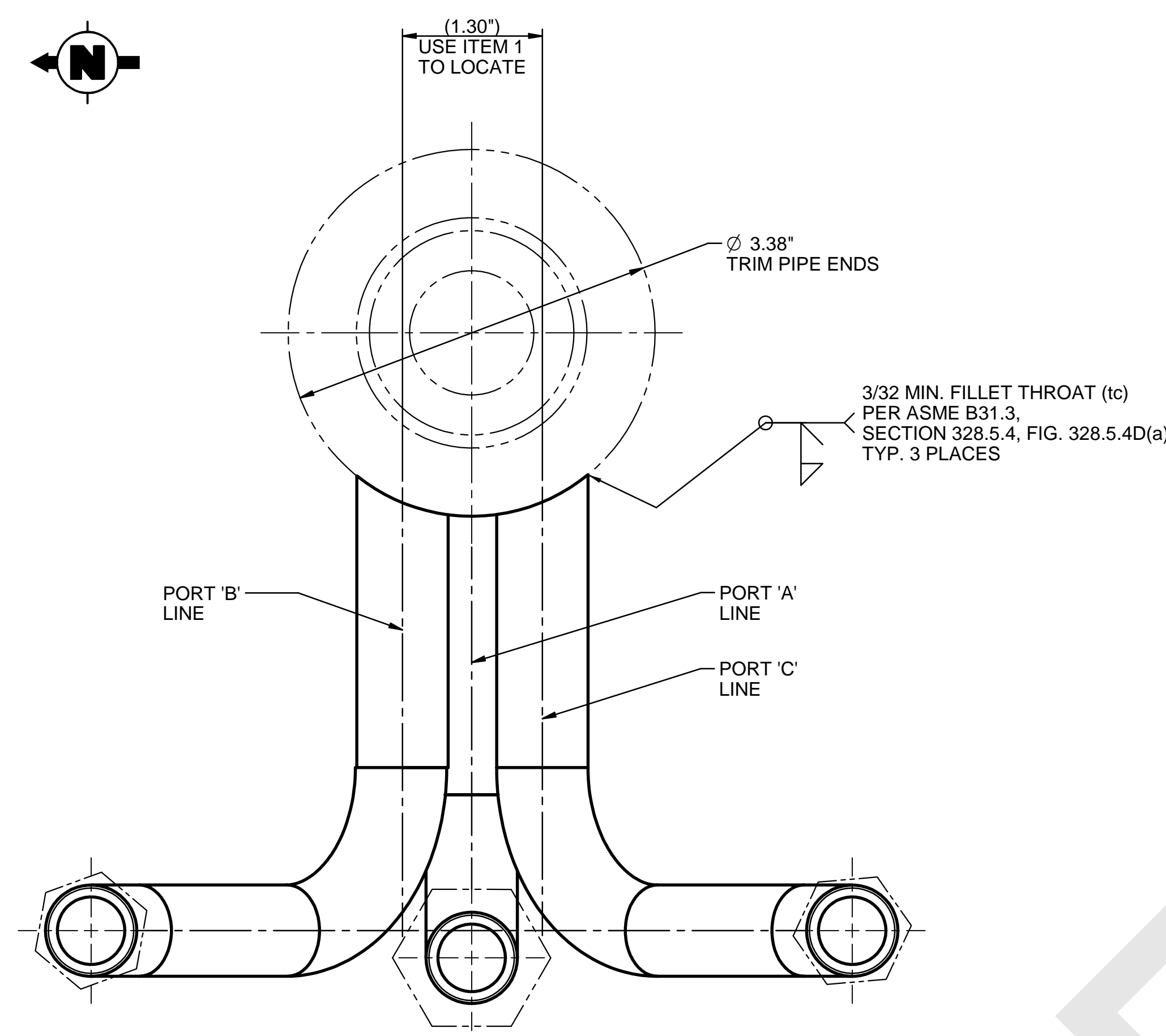
											
TOLERANCES		A		ISSUE FOR USE		SEE STAMPS		1-24-25			
0.00	± .13	REV		DESCRIPTION		ORG		CHKD		RW/WD/AP/VD	
0.00	± .063										
FRACTION	± 1/8"										
ANGLE	± 0.5°										
ISSUED BY RPP-WTP-PDC		PROJECT No. 24590 SITE HANFORD AREA 200E BUILDING No. 30				RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2435 STEVENS CENTER PLACE RICHLAND, WA 99354					
ISSUE STAMP		BY SEE STAMP		DATE SEE STAMP		CONTRACT No. DE-AC27-01RV14136					
ORIGINATOR CHECKER		SEE STAMP SEE STAMP		SEE STAMP SEE STAMP		HLW VITRIFICATION BLDG PROCESS PIPING JUMPER - MELTER 1 HFP-JMPP-00015 SHEET 1 OF 2					
APPROVER REVIEWER		<i>Jim McFarath</i> SEE STAMP		1-24-25 SEE STAMP							
CONTENT APPLICABLE TO ALARMA? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		REV: 2		SCALE:		24590-HLW-P61-P2T7-00039001		REV A			
ADR No. 24590-WTP-ADR-PL-02-005				NAME:							



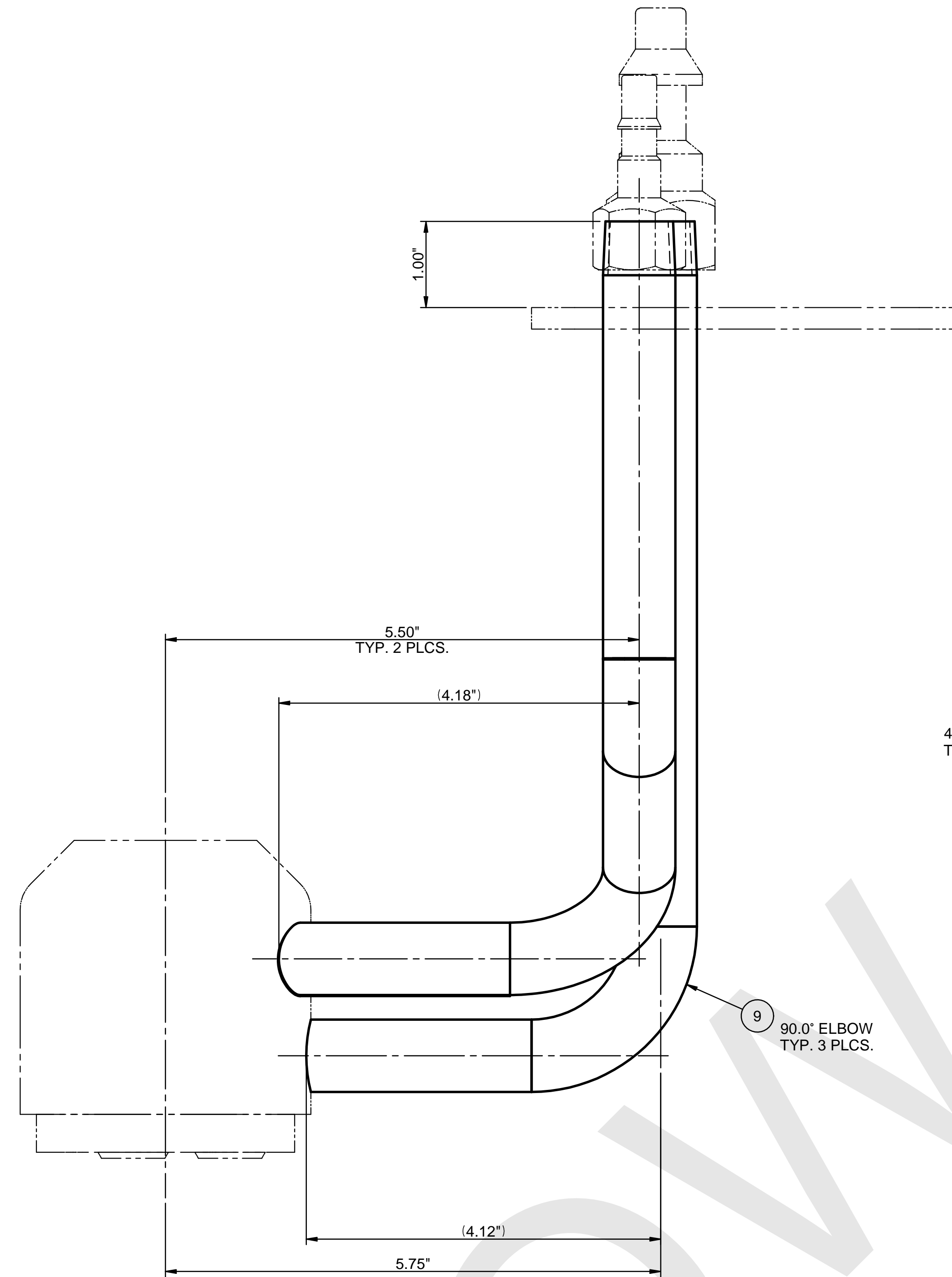
SEE NOTE 15
SHEET 001
TYP. BOTH TABS

DETAIL
FOLDING BAIL
ATTACHMENT

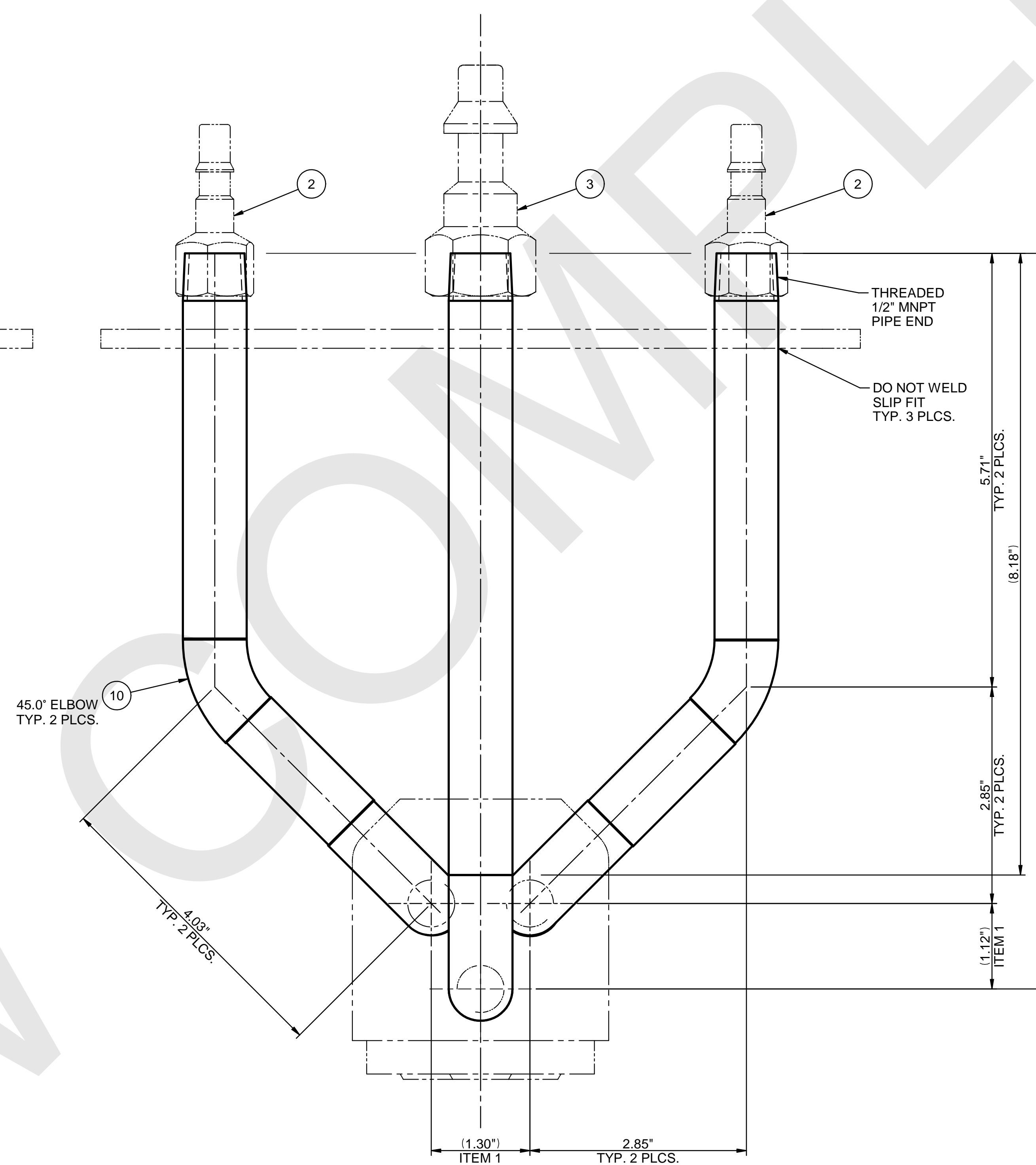
2
001



PLAN



SIDE ELEVATION



ELEVATION

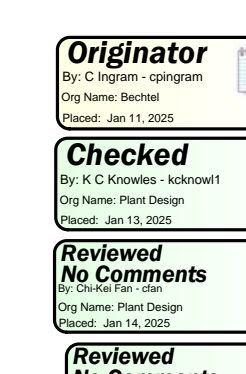
NOTES:

- FOR PARTS LIST & GENERAL NOTES REFER TO SHEET 001.
- ALL PIPE & FITTINGS CONFORM TO ENGINEERING SPECIFICATION FOR PIPING MATERIAL CLASSIFICATION PIPE CLASS S11B; 24590-WTP-3PB-P000-TS11B.

DRAWING INDEX	
DWG NO	TITLE
24590-HLW-P61-P27T-00039001	HLW VITRIFICATION BLDG PROCESS PIPING JUMPER - MLTR 1 HFP-JMPP-00015 SH 1
REFERENCE DRAWINGS	
DWG NO	TITLE
24590-HLW-M6-HFP-00005001	HLW MELTER FEED PROCESS SYSTEM ADS PUMP CONTROLS HFP-PMMP-00001

TOLERANCES	
.00	± .13
.000	± .063
FRACTION	± 1/8"
ANGLE	± 0.5°

ISSUED BY		REVISION HISTORY	
ANGLE ± 0.5"			
PROJECT No. 24590			
SITE HANFORD			
ISSUE BY RPP-WTP PDC		RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2435 STEVENS CENTER PLACE RICHLAND, WA 99354	
ISSUE STAMP			
BY		DATE	
ORIGINATOR SEE STAMP		CONTRACT No. DE-AC27-01RV14136	
CHECKER SEE STAMP		HLW VITRIFICATION BUILDING	
APPROVER Jim McGrath		PROCESS PIPING JUMPER - MELTER 1	
REVIEWER SEE STAMP		HFP-JMPP-00015	
		SHT 2 OF 2	

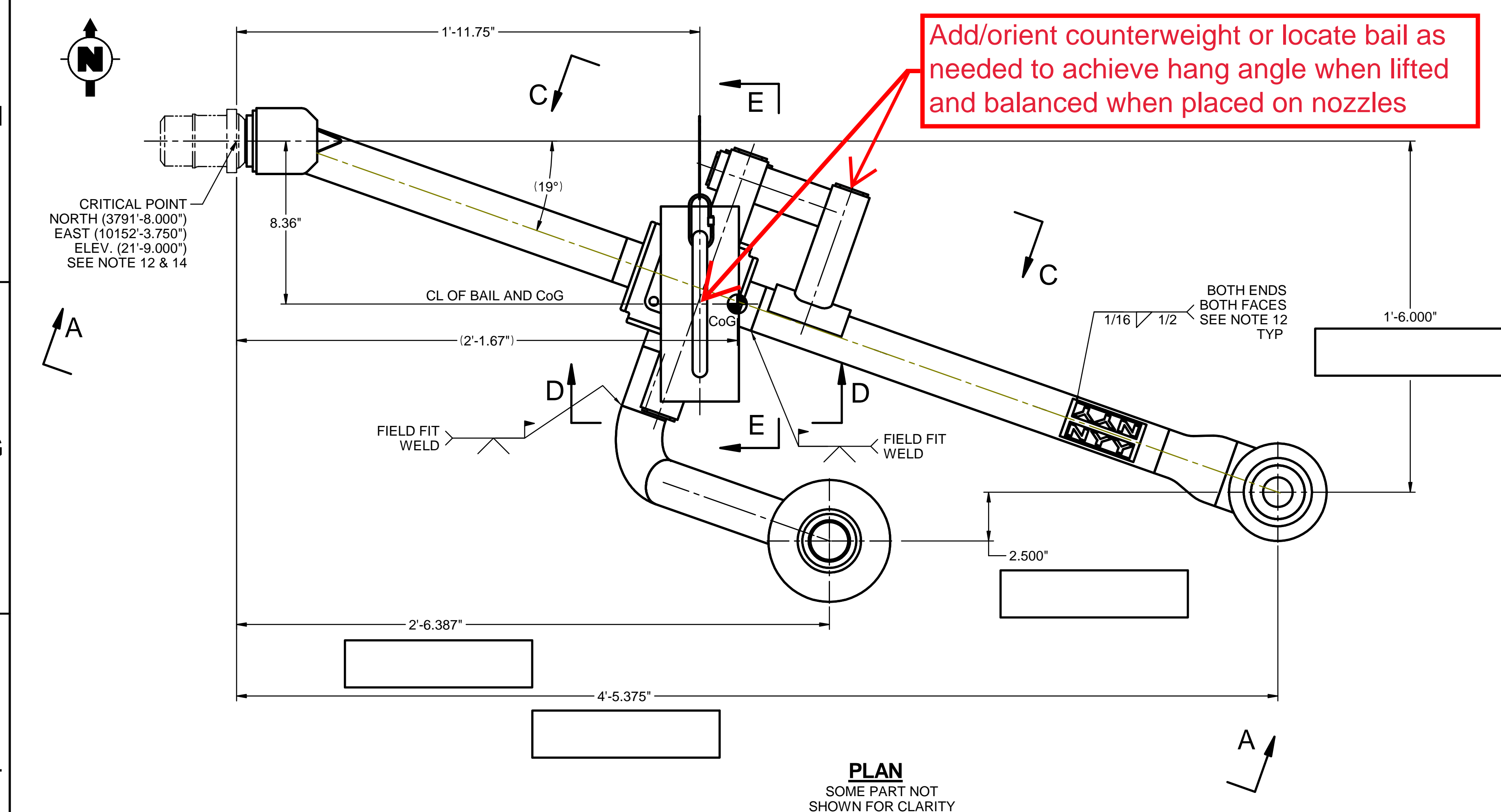


ORIGINATOR	
BY	DATE
CHECKER	SEE STAMP
APPROVER	Jim McGrath
REVIEWER	SEE STAMP

RIVER PROTECTION PROJECT
WASTE TREATMENT PLANT
2435 STEVENS CENTER PLACE
RICHLAND, WA 99354

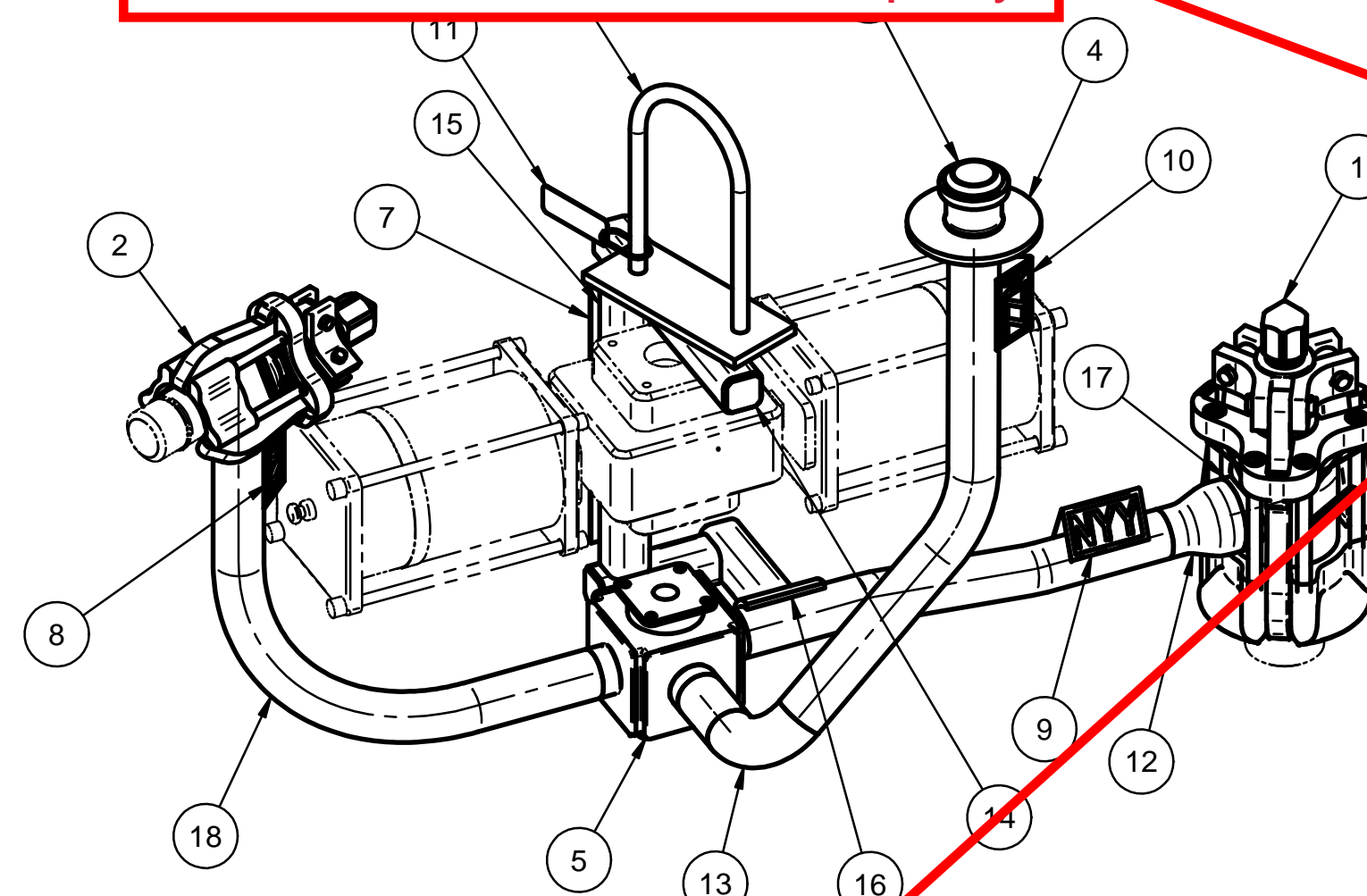
CONTRACT No. DE-AC27-01RV14136
**HLW VITRIFICATION BUILDING
PROCESS PIPING JUMPER - MELTER 1
HFP-JMPP-00015
SHT 2 OF 2**

CONTENT APPLICABLE TO ALARA?	
YES	NO
ADR NO. 24590-WTP-ADR-PL-02-005	REV. 2
SCALE:	
NONE	24590-HLW-P61-P27T-00039002
REV	A



Supplier to assemble PUREX Connector

Government Furnished Property



Name Plate by Supplier

ITEM NO	DESCRIPTION	MATERIAL	STOCK CODE	DOCUMENT NUMBER	QTY
1	3" VERT 3" IN & OUT CONNECTOR		JCPP31AV088	24590-WTP-M61-P23T-00088	1
2	HORIZONTAL 2" INLET & OUTLET PUREX CONNECTOR 2"		JCPP21AH087	24590-WTP-M61-P23T-00087	1
3	2" MALE NOZZLE SCHED 80		JCPP21NZ07	24590-WTP-M61-P23T-00005 PT 7	1
4	2" STANDARD ROUND KICK-OFF PLATE - PT4			24590-WTP-M61-P23T-00040	1
5	2" VALVE, HFP-VV-0039				1
6	LIFTING BAIL			24590-HLW-P61-P27T-00019 DET 2	1
7	NAMEPLATE			24590-HLW-P61-P27T-00020 PT5	1
8	NAMEPLATE NXX			24590-HLW-P61-P27T-00020 PT 8	1
9	NAMEPLATE NYY			24590-HLW-P61-P27T-00020 PT 9	1
10	NAMEPLATE NZZ			24590-HLW-P61-P27T-00020 PT 9	1
11	NAME TAG			24590-HLW-P61-P27T-00020 PT7	1
12	REDUCER CONC 3" X 2" SCHED 40S/SCHED 80S SMLS BW	ASTM A403 GR WP316/316L-S	PFCRV60G3X2K		1
13	ELBOW 2" 90° LR SCHED 80S SMLS BW	ASTM A403 GR WP316/316L-S	PFQNV60H1604		1
14	TS CAP 2" - SHEET 10 GA (.135)	ASTM A240 TYPE 304L	SS-A240-SH-10-GA		4
15	TS 2" x 2" x 1/4" x LG AS REQD	ASTM A554 GR MT304L	SS-A554-TS-2X2X1/4-SRL		4 LF
16	TUBING 3.00" DIA X .312 WALL X 4" LONG	ASTM A511 GR MT304L	SS-A511-TB-3X5/16		1
17	PIPE 3" SCHED 40S SMLS X LG AS REQD	ASTM A312 GR TP316/316L	PPPC0B0G0X02		1 LF
18	PIPE 2" SCHED 80S SMLS X LG AS REQD	ASTM A312 GR TP316/316L	PPPC0B0H0X00		5 LF

Specification to be supplied at RFP

Note

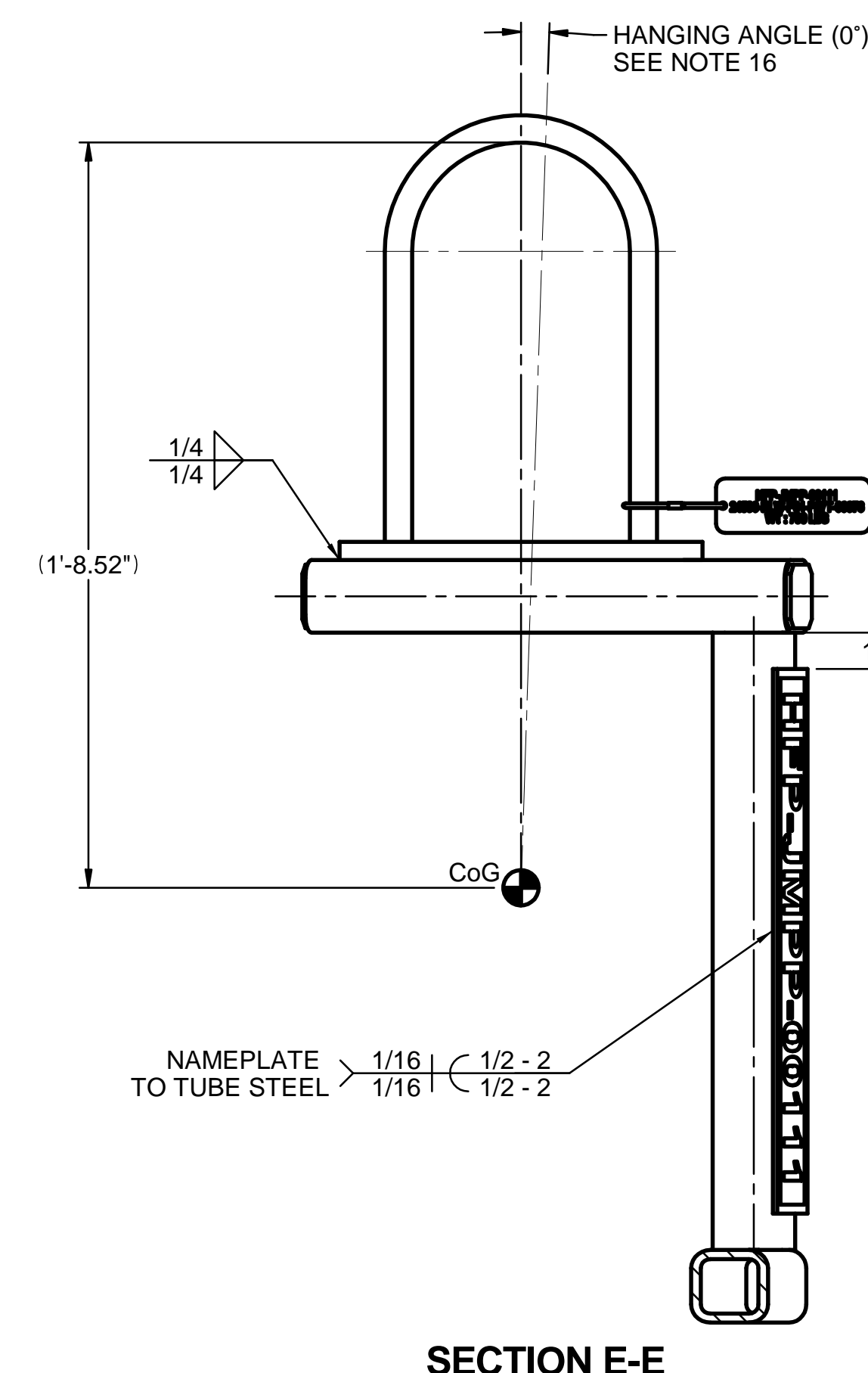
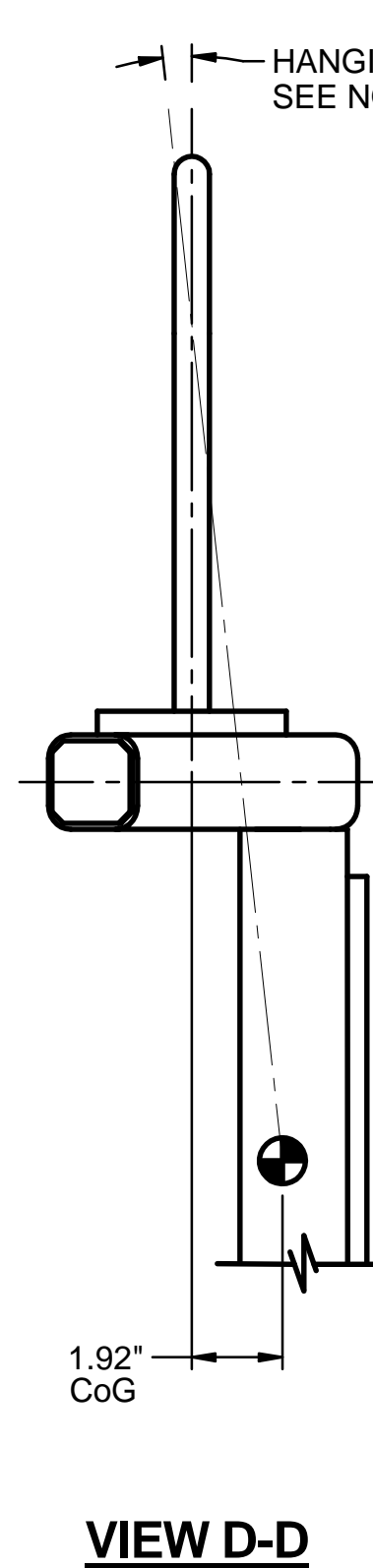
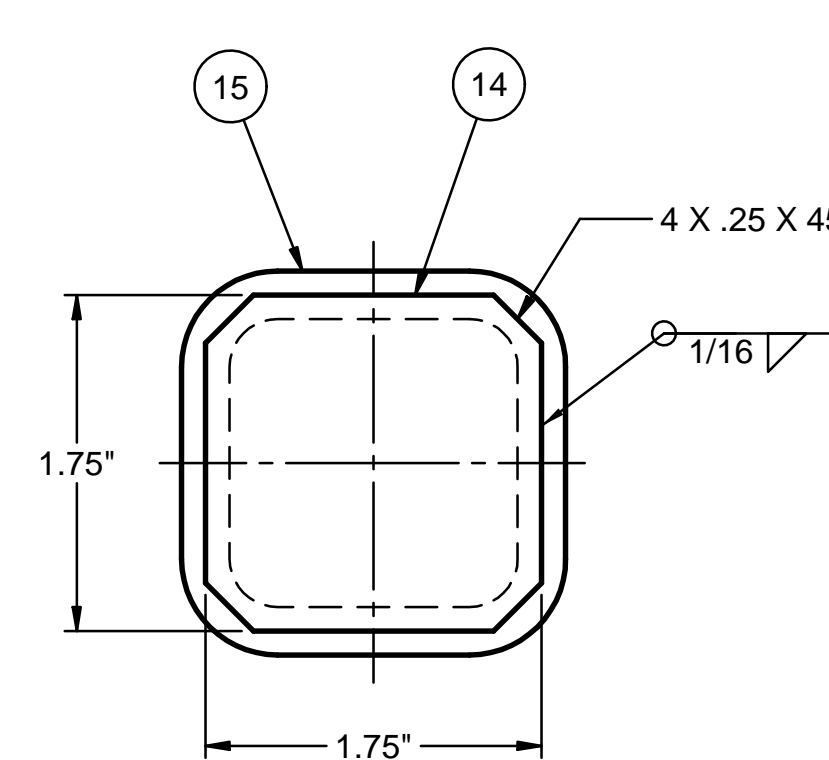
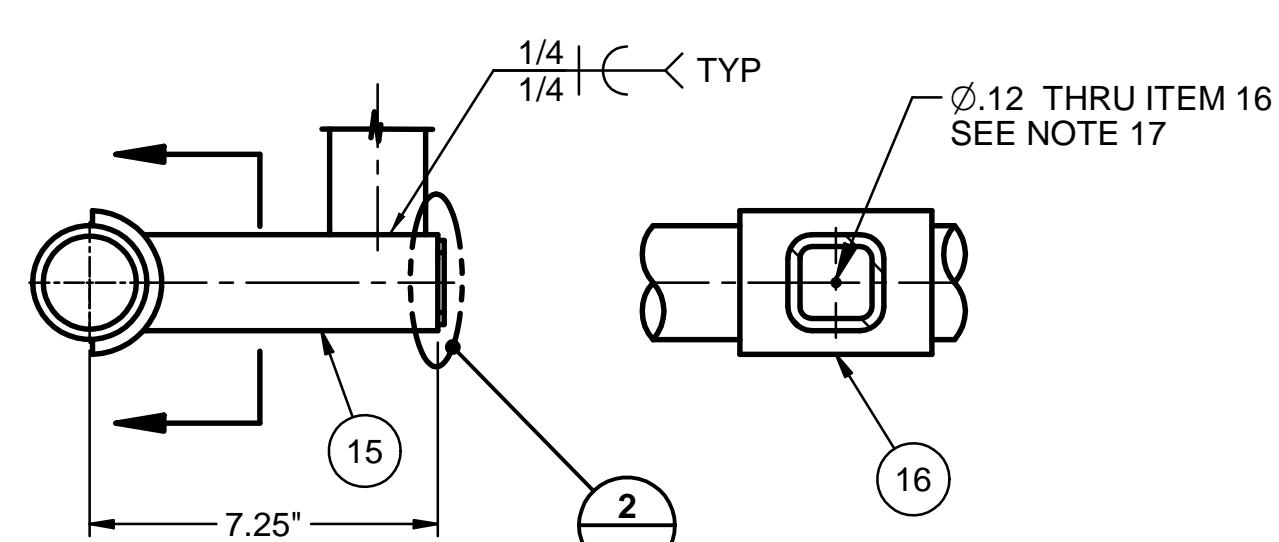
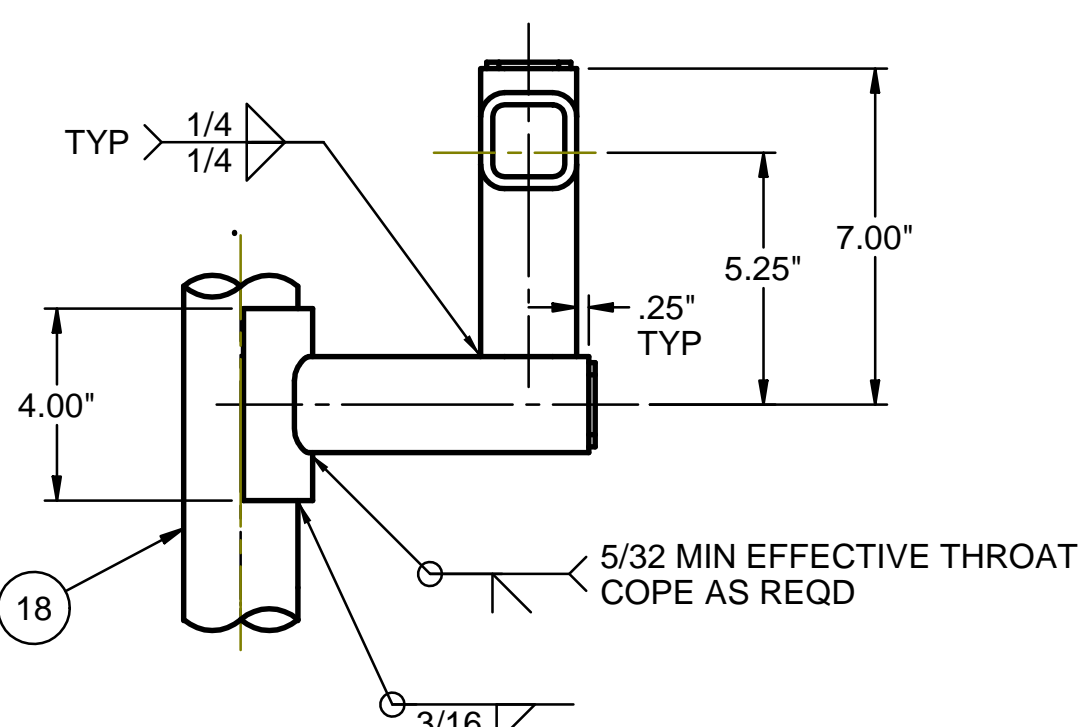
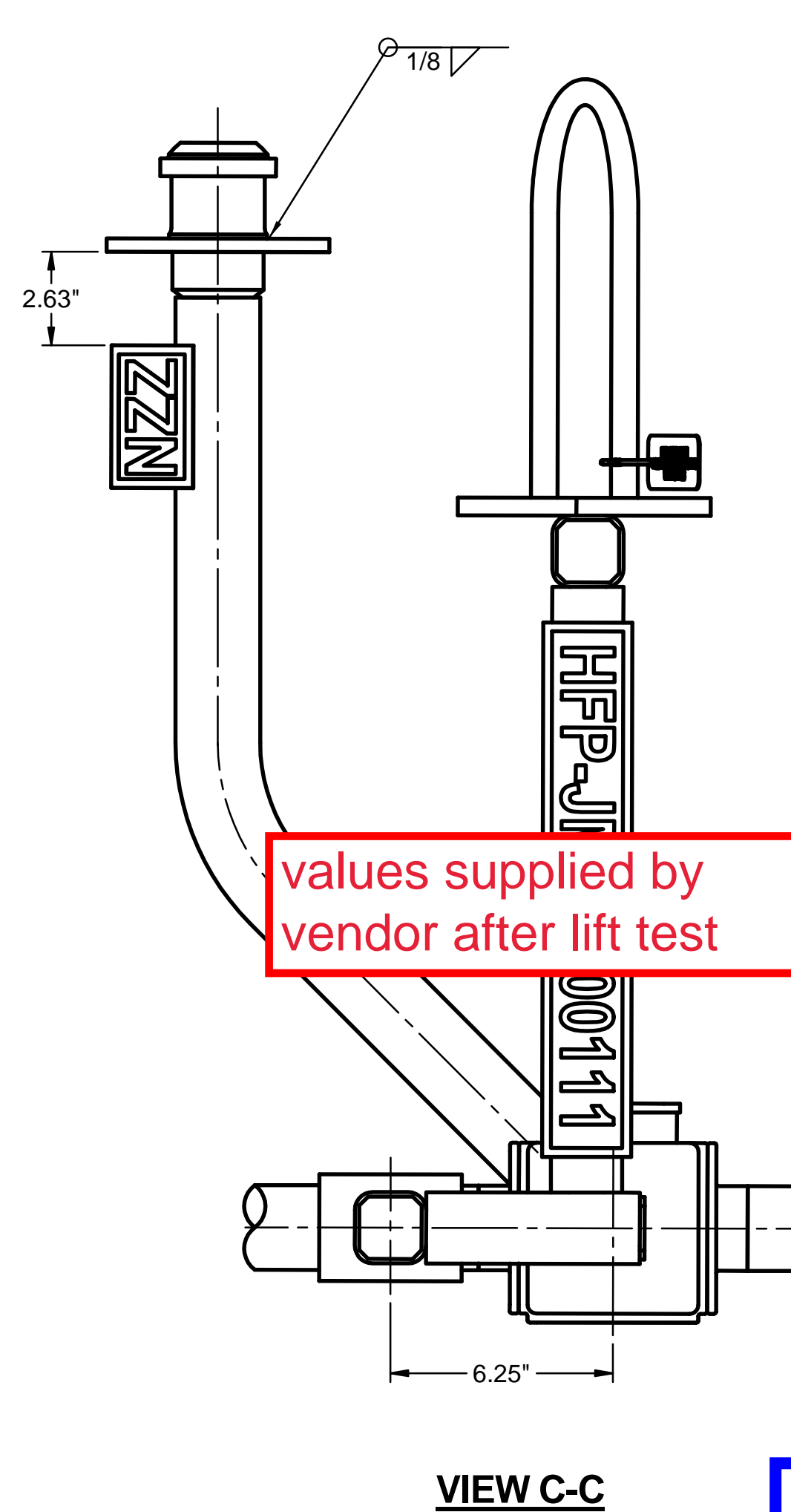
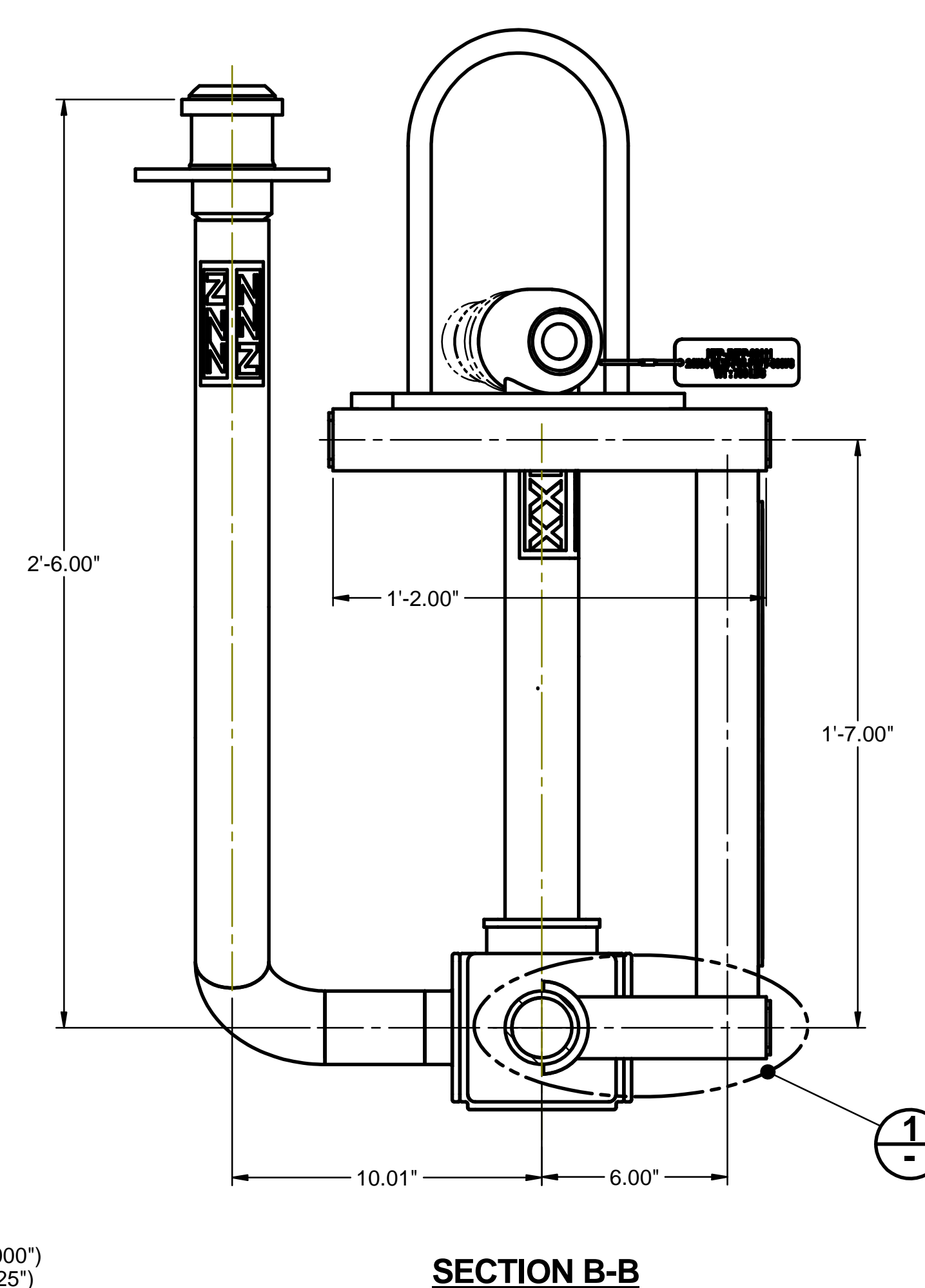
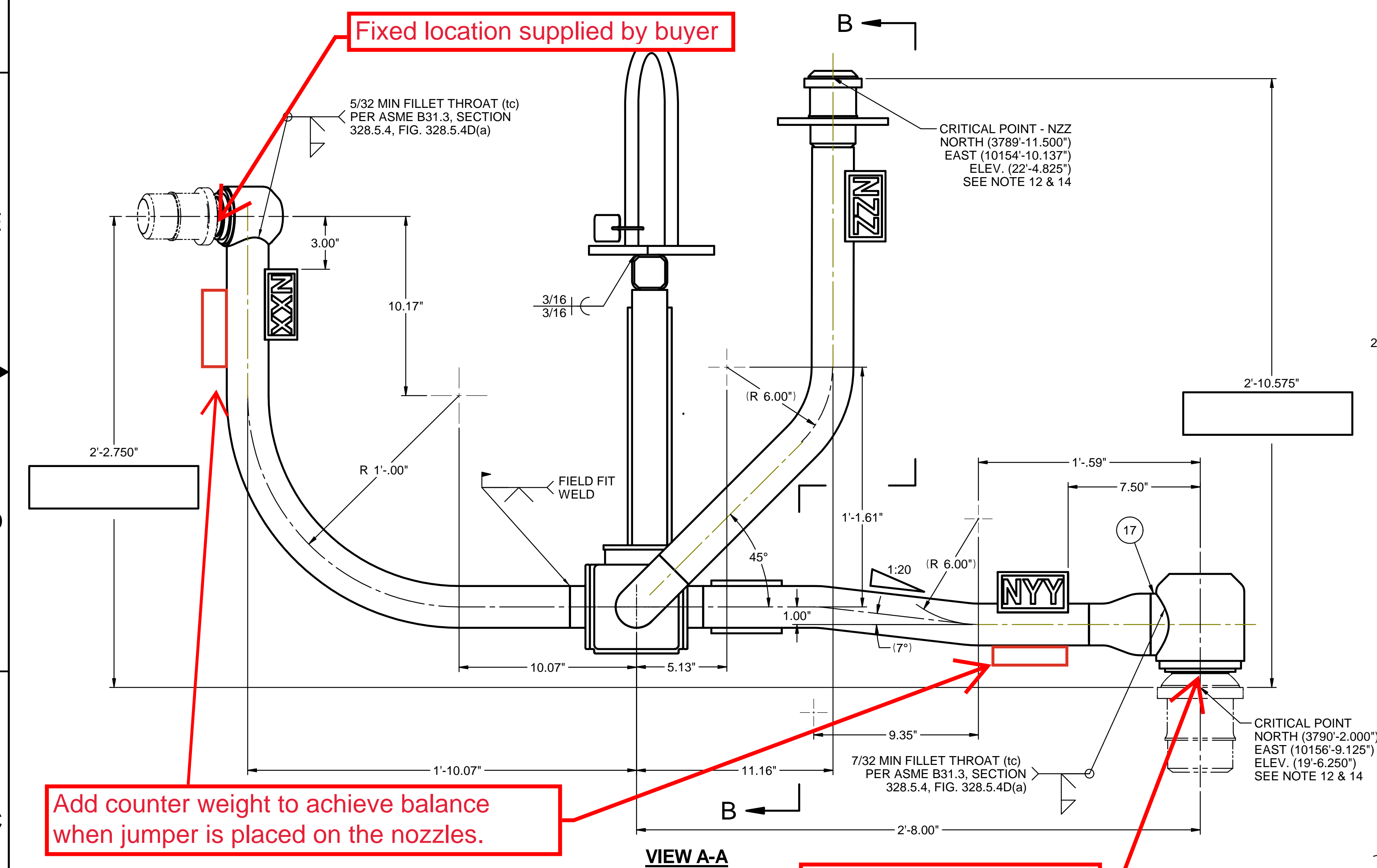
NOTES:

- FOR FABRICATION, TESTING, NDE, & TRANSPORTATION SEE SPECIFICATION 24590-WTP-3PS-PF00-T0001.
- ITEMS 1, 2 & 3 LISTED ON THIS DRAWING ARE GOVERNMENT FURNISHED PROPERTY.**
- RECORD SURVEYED VALUES FOR THE CRITICAL DIMENSIONS, HANGING ANGLE AND WEIGHT IN THE BOXES PROVIDED.
- THE ESTIMATED DRY WEIGHT OF THE JUMPER ASSEMBLY IS 786 LBS. RECORD FINAL WEIGHT IN BOX BELOW.
- PROCESS PIPING WILL HAVE A 3D BEND RADIUS UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE SPECIFIED.
- DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.
- DELETED.
- NAMEPLATES SHALL BE FABRICATED PER DRAWING 24590-HLW-P61-P27T-00020 AND LOCATED AS SHOWN:
A) MARK NAMEPLATE (ITEM 7) AS FOLLOWS: HFP-JMPP-00111
B) MARK NAME TAG (ITEM 11) AS FOLLOWS: HFP-JMPP-00111
24590-HLW-P61-P27T-00076
WT: SEE BOX IN NOTE 4.
- ALL ITEMS SHOWN ARE QUALITY LEVEL Q AND SEISMIC CATEGORY III, UNLESS OTHERWISE SPECIFIED.
- BREAK ALL SHARP EDGES AND REMOVE ALL BURRS.
- SEE DRAWING 24590-HLW-P61-P27T-00032 FOR NAMEPLATE NOZZLE NUMBERING AND EQUIPMENT CROSSWALK.
- FIELD TO VERIFY FINAL NOZZLE LOCATIONS PRIOR TO FULL FABRICATION AND INSTALLATION OF JUMPER.
- CRITICAL POINT FOR THE PUREX NOZZLE EXISTS AT THE INTERSECTION OF THE CENTERLINE AND THE LOCATING PLANE (FLAT FACE) OF THE NOZZLE. SEE DRAWING 24590-WTP-P61-P27T-00001, DETAIL 9.
- JUMPER SHALL BE BALANCED SUCH THAT ITEM 1 ENGAGES WITH NOZZLE FIRST. DESIGNED HANGING ANGLE IS 5°. ACTUAL HANGING ANGLE SHALL BE 3° MIN / 9° MAX. (SEE NOTE 14).
- DESIGN OUT OF PLANE HANGING ANGLE IS 0°. ACTUAL HANGING ANGLE SHALL BE ± 1°. (SEE NOTE 14).
- PROVIDE VENT HOLE IN ITEM 16 TO RELEASE TRAPPED GASES DURING WELDING.

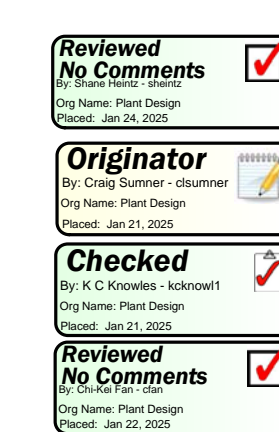
values supplied by vendor after lift test

Temperature controlled fab area and stored in shop up to twelve months

Supplier to fabricate jumper based on final nozzle as-built location, validate balance of jumper, confirm set jumper stays on location without hook.
RT film retention required.
Shop to ship jumpers with final adjustment made in buyer.
Material requisition to be a basic order agreement.



Load test of jumpers per specification for Q jumpers



TOLERANCES	
±.13	±.063
±.18	±.093
±.5°	±.5°

ISSUED BY RFP-WTP PDC	
ORIGINATOR	DATE
CHECKER	DATE
APPROVER	DATE
REVIEWER	DATE

CONTENT APPLICABLE TO ALARA?	YES	NO
ADR NO. 24590-WTP-ADR-PL-02-005	REV: 2	

REFERENCE DRAWINGS	
DWG NO	TITLE
24590-HLW-M6-HFP-00001002	P&ID - HLW MELTER FEED PROC SYS SAMPLE/TRANS PUMPS HFP-PMP-00005A/B
24590-HLW-M6YX-HFP-00001002	MS JUMPER LIST FOR PAID 24590-HLW-M6-HFP-00001002
24590-HLW-M6ZX-HFP-00001002	MS EQUIPMENT LIST FOR 24590-HLW-M6-HFP-00001002
24590-HLW-M6-HFP-00002001	P&ID - HLW MELTER FEED PROC SYS MELTER FEED VESSEL HFP-VSL-00002
24590-HLW-P61-P27T-00019	HLW STANDARD JUMPER LIFTING BAIL DETAILS
24590-HLW-P61-P27T-00020	HLW REMOTE HANDLING EQUIPMENT & JUMPER IDENTIFICATION DRAWING
24590-WTP-M61-P23T-00067	WTP ASSEMBLY HORIZONTAL 2" INLETS & OUTLETS PUREX CONNECTOR 2"
24590-WTP-M61-P23T-00088	WTP ASSEMBLY VERTICAL 3" INLETS & OUTLETS PUREX CONNECTOR 3"
24590-WTP-M61-P23T-00005	WTP DETAILS - NOZZLES PUREX CONNECTOR 1", 2", 3", 4"

ISSUE STAMP	DATE
ORIGINATOR	DATE
CHECKER	DATE
APPROVER	DATE
REVIEWER	DATE

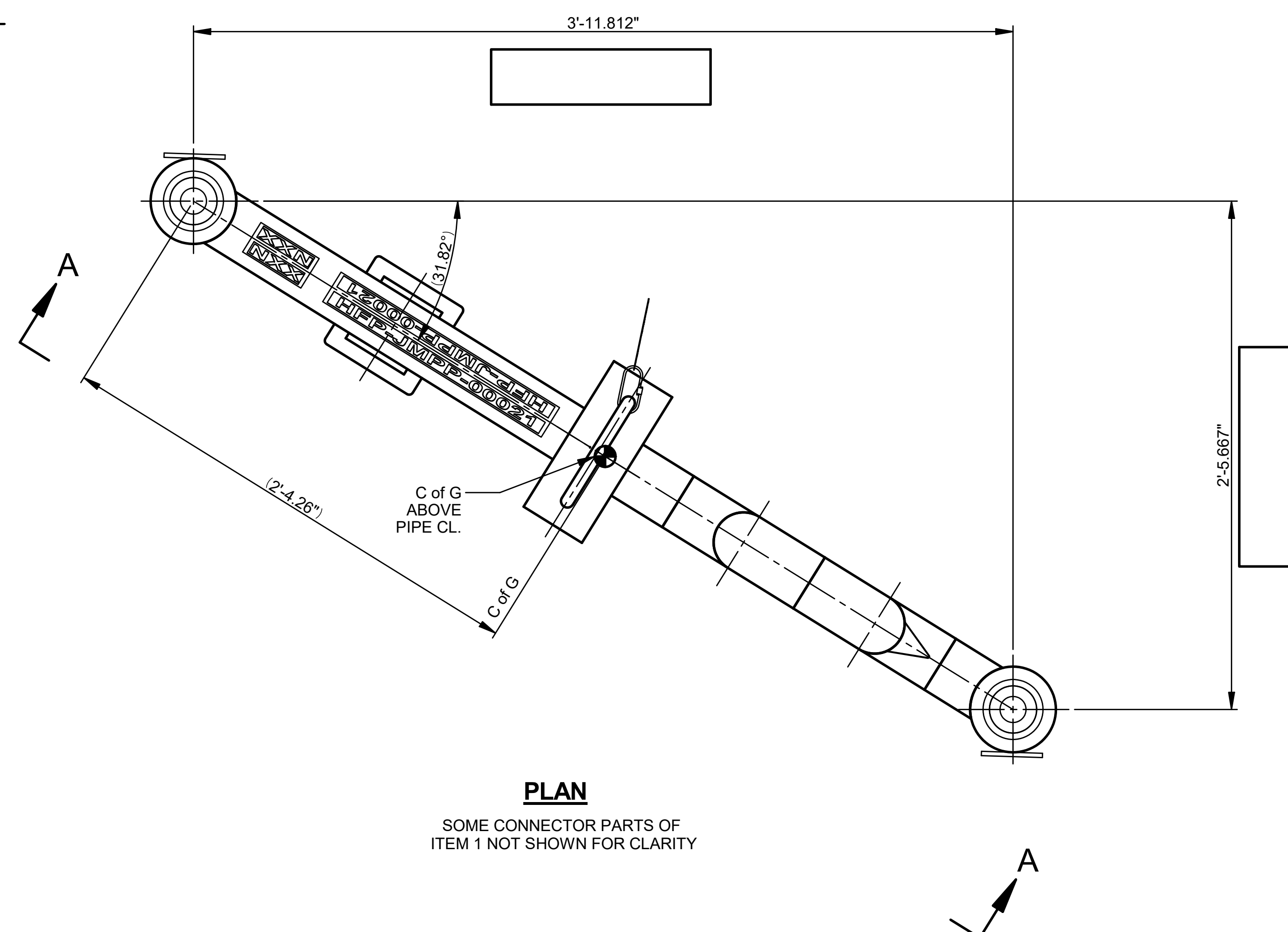
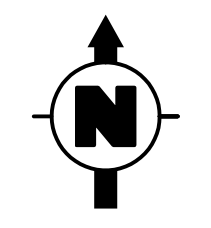
PROJECT No.	24590
SITE	HANFORD
AREA	200E
BUILDING No.	30

CONTRACT No.	DE-AC27-01RV14136
RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2435 STEVENS CENTER PLACE RICHLAND, WA 99354	
HLW VITRIFICATION BUILDING PROCESS PIPING JUMPER - MELTER 1 HFP-JMPP-00111	
24590-HLW-P61-P27T-00076	

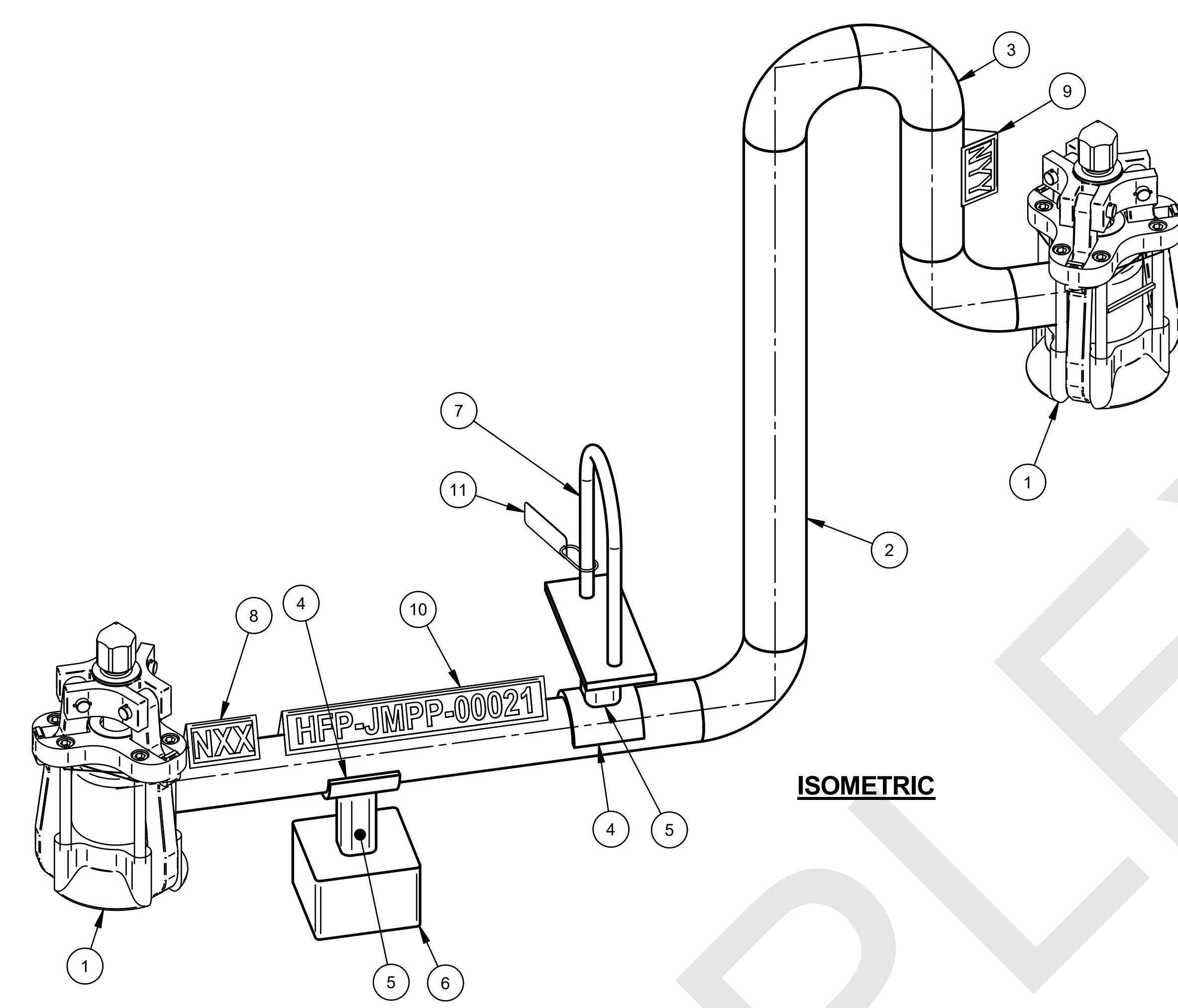
SCALE:	NONE
REV:	A

CONTENTS OF THIS DOCUMENT ARE DANGEROUS WASTE PERMIT AFFECTING

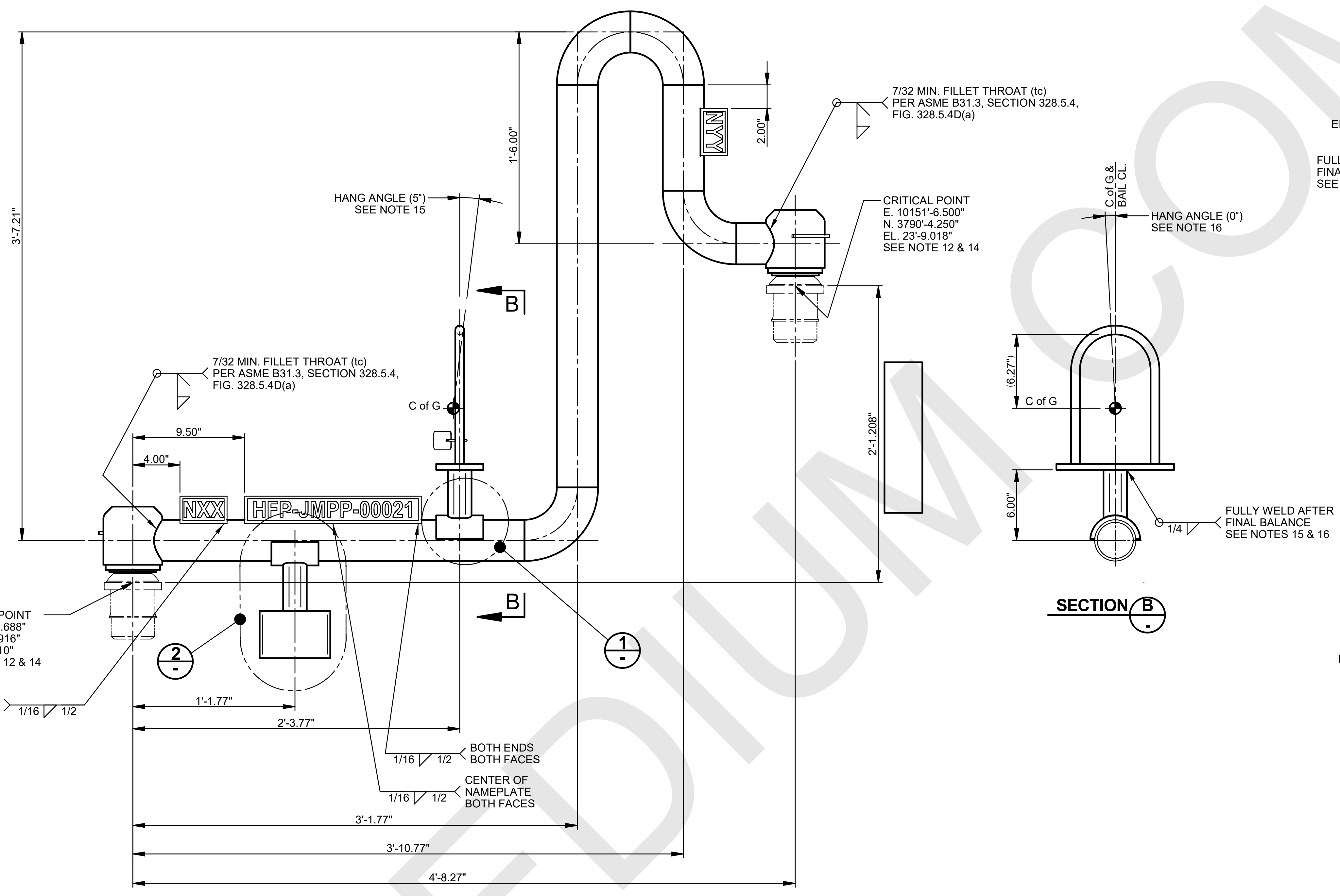
H
G
F
E
D
C
B
A



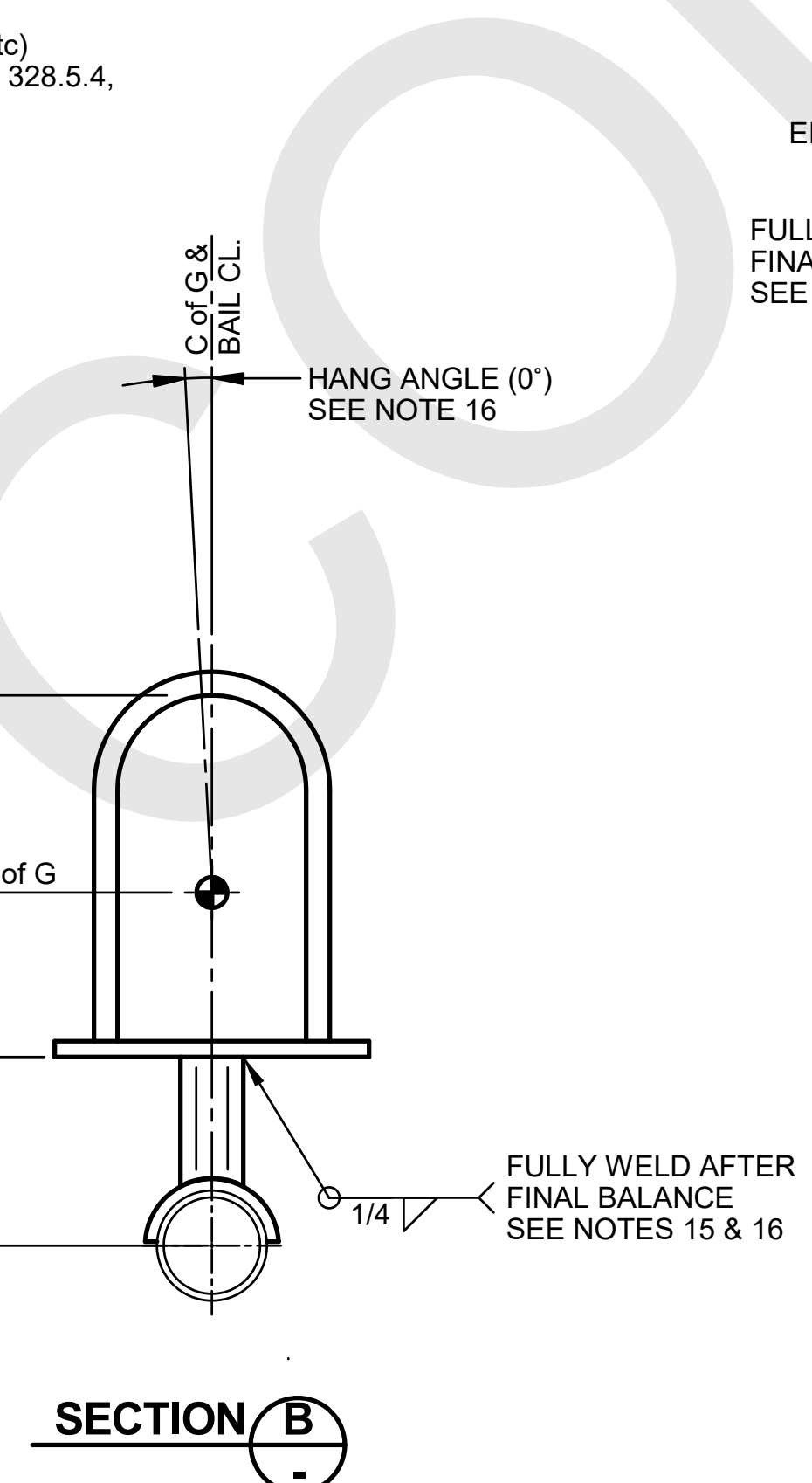
PLAN
SOME CONNECTOR PARTS OF
ITEM 1 NOT SHOWN FOR CLARITY



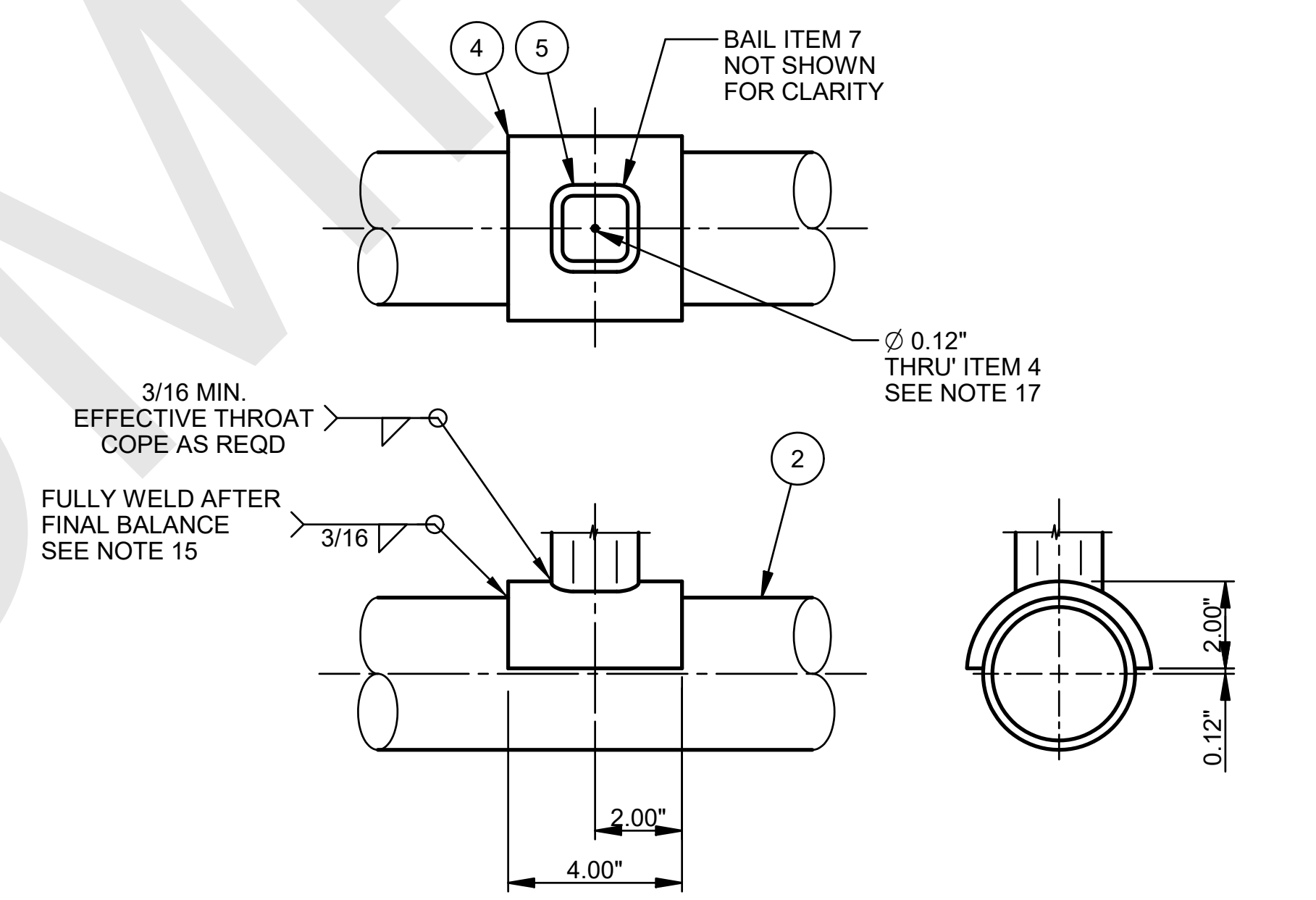
ISOMETRIC



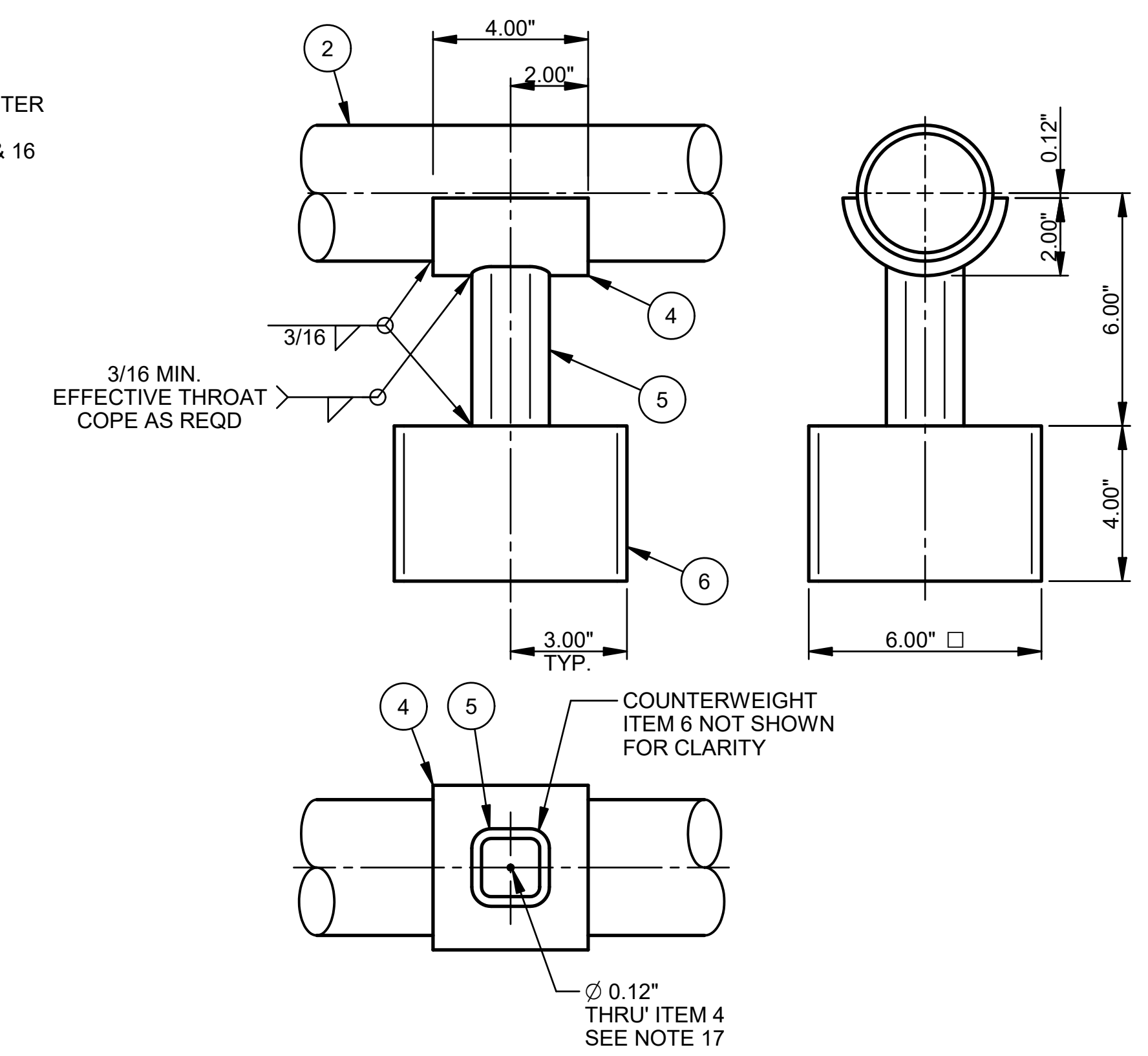
VIEW A-A



SECTION B-B



DETAIL 1
BAIL WRAP PLATE



DETAIL 2
COUNTERWEIGHT

ITEM NO	DESCRIPTION	MATERIAL	STOCK CODE	DOCUMENT NUMBER	QTY
1	3" VERTICAL PUREX CONNECTOR	ASTM A312 GR TP316/316L	JCPP31AV088	24590-WTP-M61-P23T-00088	2
2	PIPE 3" SCHED 40S SMLS x LENGTH AS REQD	ASTM A403 GR WP316/316L-S	PPPC0B0G0W02		7 LF
3	ELBOW 3" 90° LR SCHED 40S SMLS BW	PFQNV60G160G			4
4	TUBING 4.25 DIA x 0.375 WALL X 4" LONG	ASTM A511 GR MT304L	SS-A511-TB-4-1/4X3/8		2
5	TS 2" x 2" x 1/4" LENGTH AS REQD	ASTM A554 GR MT 304L	SS-A554-TS-2X2X1/4-SRL		1 LF
6	4" THK COUNTERWEIGHT (SEE NOTE 18)	ASTM A240 TYPE 304L			1
7	LIFTING BAIL			24590-HLW-P61-P27T-00019 DET 2	1
8	NAMEPLATE NXX			24590-HLW-P61-P27T-00020 PART 8	1
9	NAMEPLATE NYY			24590-HLW-P61-P27T-00020 PART 9	1
10	NAMEPLATE x 15" LG			24590-HLW-P61-P27T-00020 PART 4	1
11	NAME TAG x 4 1/4" LG			24590-HLW-P61-P27T-00020 PART 7	1

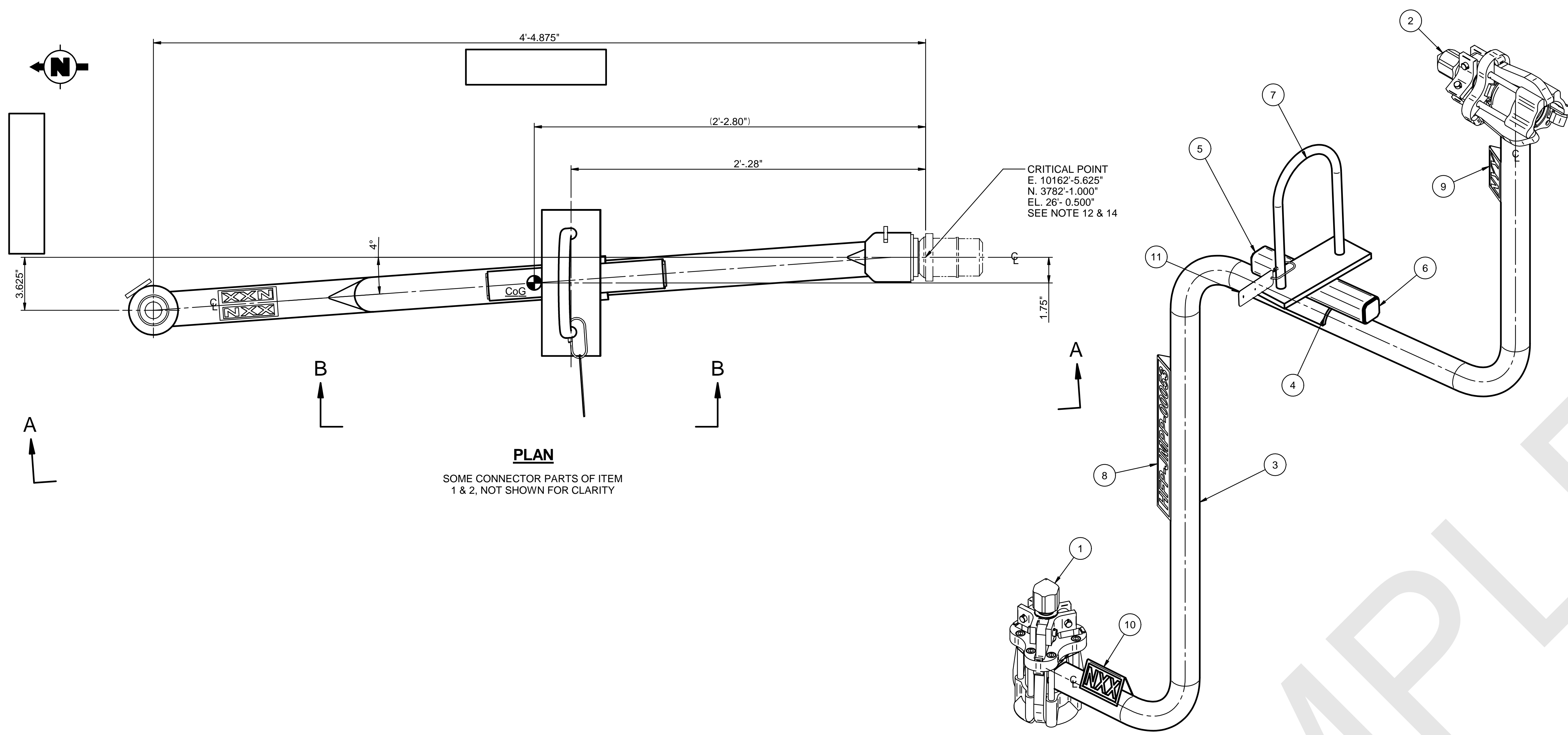
- NOTES:**
- FOR FABRICATION, TESTING, NDE, & TRANSPORTATION SEE SPECIFICATION: 24590-WTP-3PS-PF00-T0001
 - ITEMS 1 AND 2 LISTED ON THIS DRAWING ARE GOVERNMENT FURNISHED PROPERTY.
 - RECORD SURVEYED VALUES FOR THE CRITICAL DIMENSIONS, HANGING ANGLE AND WEIGHT IN BLANK BOXES PROVIDED ON THIS DRG.
 - THE ESTIMATED DRY WEIGHT OF THE JUMPER ASSEMBLY IS 285 LBS. RECORD FINAL WEIGHT IN BOX BELOW.
 - PROCESS PIPING WILL HAVE A 3D BEND RADIUS UNLESS OTHERWISE NOTED.
 - ALL DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE SPECIFIED.
 - DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.
 - DELETED...
 - NAMEPLATES SHALL BE FABRICATED PER DRAWING 24590-HLW-P61-P27T-00020 AND LOCATED AS SHOWN:
A) MARK NAMEPLATE (ITEM 10) AS FOLLOWS: HFP-JMPP-00021
B) MARK NAME TAG (ITEM 11) AS FOLLOWS: HFP-JMPP-00021
24590-HLW-P61-P27T-00043
WT: (SEE WEIGHT BOX NOTE 4) lbs.
 - ALL ITEMS SHOWN ARE QUALITY LEVEL Q AND SEISMIC CAT SC-III, UNLESS OTHERWISE SPECIFIED.
 - BREAK ALL SHARP EDGES AND REMOVE ALL BURRS.
 - SEE DRAWING 24590-HLW-P61-P27T-00032 FOR NAMEPLATE NOZZLE NUMBERING AND EQUIPMENT CROSSWALK.
 - FIELD TO VERIFY FINAL NOZZLE LOCATIONS PRIOR TO FULL FABRICATION AND INSTALLATION OF JUMPER.
 - CRITICAL POINT FOR THE PUREX NOZZLE EXISTS AT THE INTERSECTION OF THE CENTERLINE AND THE LOCATING PLANE (FLAT FACE) OF THE NOZZLE. SEE DRAWING 24590-WTP-P61-P27T-00001, DETAIL 9.
 - JUMPER SHALL BE BALANCED SUCH THAT LOWER ITEM 1 ENGAGES WITH NOZZLE FIRST (SEE NOTE 14). DESIGNED HANGING ANGLE IS 5°. ACTUAL HANG ANGLE SHALL BE 3° MIN / 9° MAX.
 - DESIGNED OUT OF PLANE HANGING ANGLE IS 0°. ACTUAL HANG ANGLE SHALL BE ± 1°.
 - PROVIDE VENT HOLE IN ITEM 4 TO RELEASE GAS PRESSURE DURING WELDING.
 - COUNTERWEIGHT TO BE MADE UP OF STACKED PLATES OF AVAILABLE THICKNESS, SEAL WELDED TOGETHER.

DWG NO	TITLE
24590-HLW-M6-HFP-00001003	P&ID - HLW MELTER FEED PROCESS SYSTEM INSTRN / VENT HFP-VSL-00001
24590-HLW-M6-HFP-00001003	MS JUMPER LIST FOR 24590-HLW-M6-HFP-00001003
24590-HLW-M6-HFP-00001003	MS EQUIPMENT LIST FOR 24590-HLW-M6-HFP-00001003
24590-HLW-P61-P27T-00019	HLW STANDARD JUMPER LIFTING BAIL DETAILS
24590-HLW-P61-P27T-00020	HLW REMOTE HANDLING EQUIPMENT & JUMPER IDENTIFICATION DRG.
24590-WTP-M61-P23T-00088	WTP ASSEMBLY VERTICAL 3" INLET & OUTLET PUREX CONNECTOR

Q Quality Designator		A		ISSUE FOR USE		SEE STAMPS	1-15-25
TOLERANCES		REV		DESCRIPTION		ORG CHKD RWD/APVD DATE	
00 ± .13							
000 ± .063							
FRACTION ± 1/8"							
ANGLE ± 0.5°							
PROJECT No. 24590		DATE		REVISION HISTORY			
SITE HANFORD				RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2435 STEVENS CENTER PLACE RICHLAND, WA 99354			
AREA 200E				CONTRACT No. DE-AC27-01RV14136			
BUILDING No. 30				HLW VITRIFICATION BUILDING PROCESS PIPING JUMPER - MELTER 1 HFP-JMPP-00021			
BY		DATE					
ORIGINATOR		SEE STAMPS					
CHECKER		SEE STAMPS					
APPROVER		Jim McGrath		1-15-25			
REVIEWER		SEE STAMPS					
CONTENT APPLICABLE TO ALARA? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		SCALE: NONE		24590-HLW-P61-P27T-00043		REV A	
ADR NO. 24590-WTP-ADR-PL-02-005		REV: 2					

CONTENTS OF THIS DOCUMENT ARE
DANGEROUS WASTE PERMIT AFFECTING

H
G
F
E
D
C
B
A

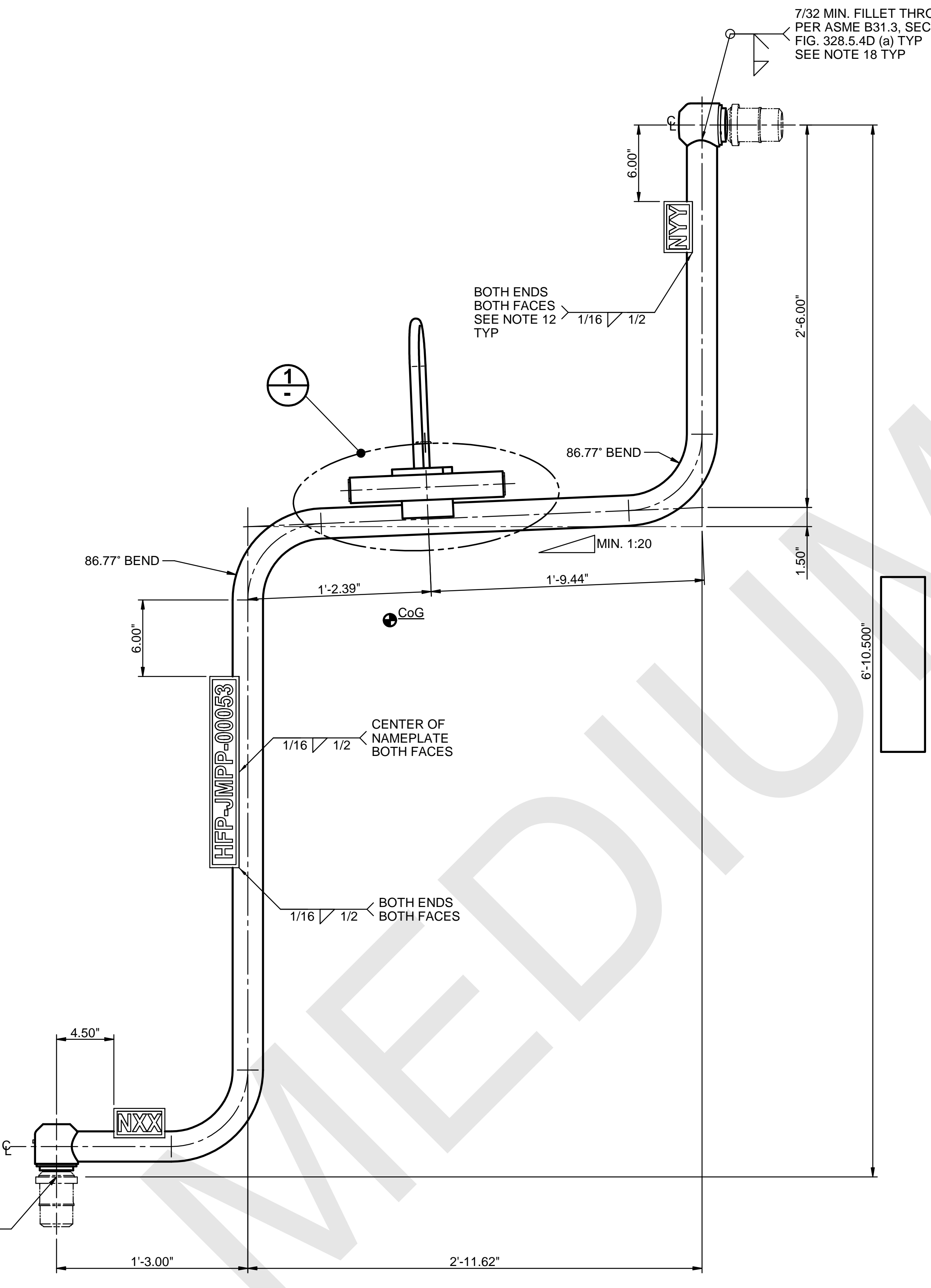


PLAN
SOME CONNECTOR PARTS OF ITEM 1 & 2, NOT SHOWN FOR CLARITY

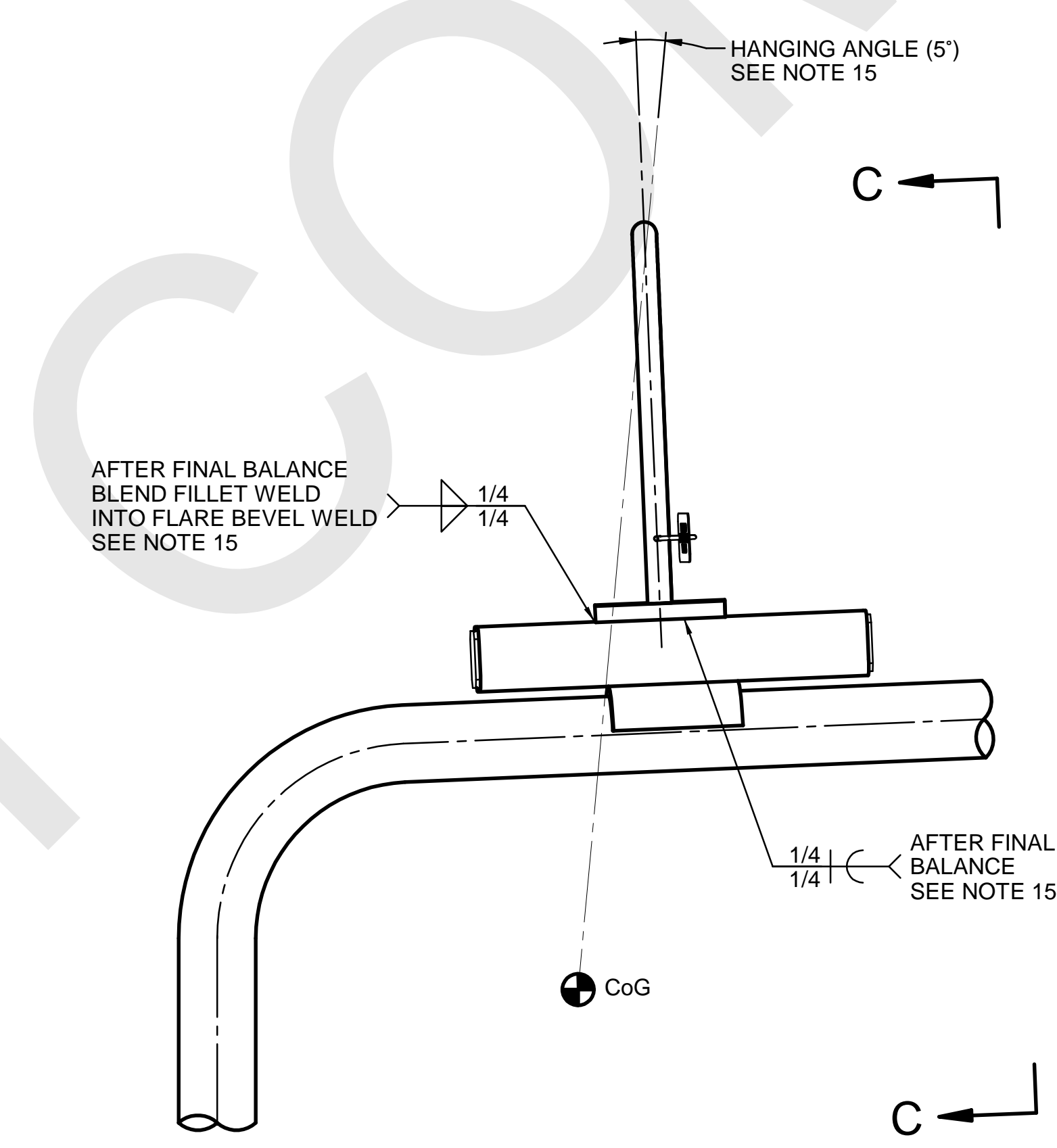
ISOMETRIC

ITEM NO	DESCRIPTION	MATERIAL	STOCK CODE	DOCUMENT NUMBER	QTY
1	VERTICAL 2" INLET & OUTLET PUREX CONNECTOR 2"		JCPP21AV061	24590-WTP-M61-P23T-00061	1
2	HORIZONTAL 2" INLET & OUTLET PUREX CONNECTOR 2"		JCPP21AH087	24590-WTP-M61-P23T-00087	1
3	PIPE 2" SCHED 80S SMLS x LG AS REQD	ASTM A312 GR TP 316/316L	PPPC0B0H0X00		11 LF
4	TUBING 3.00" DIA. x 5/16" WALL x 4.00" LG. (WRAP PLATE)	ASTM A511 GR MT304L	SS-A511-TB-3X5/16		1
5	TS 2" x 2" x 1/4"	ASTM A554 GR MT304L	SS-A554-ST-2X2X1/4-SRL		1 LF
6	TS CAP 2" - SHEET 10 GA (.135)	ASTM A240 TYPE 304L	SS-A240-SH-10GA		2
7	LIFTING BAIL			24590-HLW-P61-P27T-00019 DET 2	1
8	NAMEPLATE - 15" LG			24590-HLW-P61-P27T-00020 PT4	1
9	NAMEPLATE NYX			24590-HLW-P61-P27T-00020 PT9	1
10	NAMEPLATE NXX			24590-HLW-P61-P27T-00020 PT 8	1
11	NAME TAG			24590-HLW-P61-P27T-00020 PT7	1

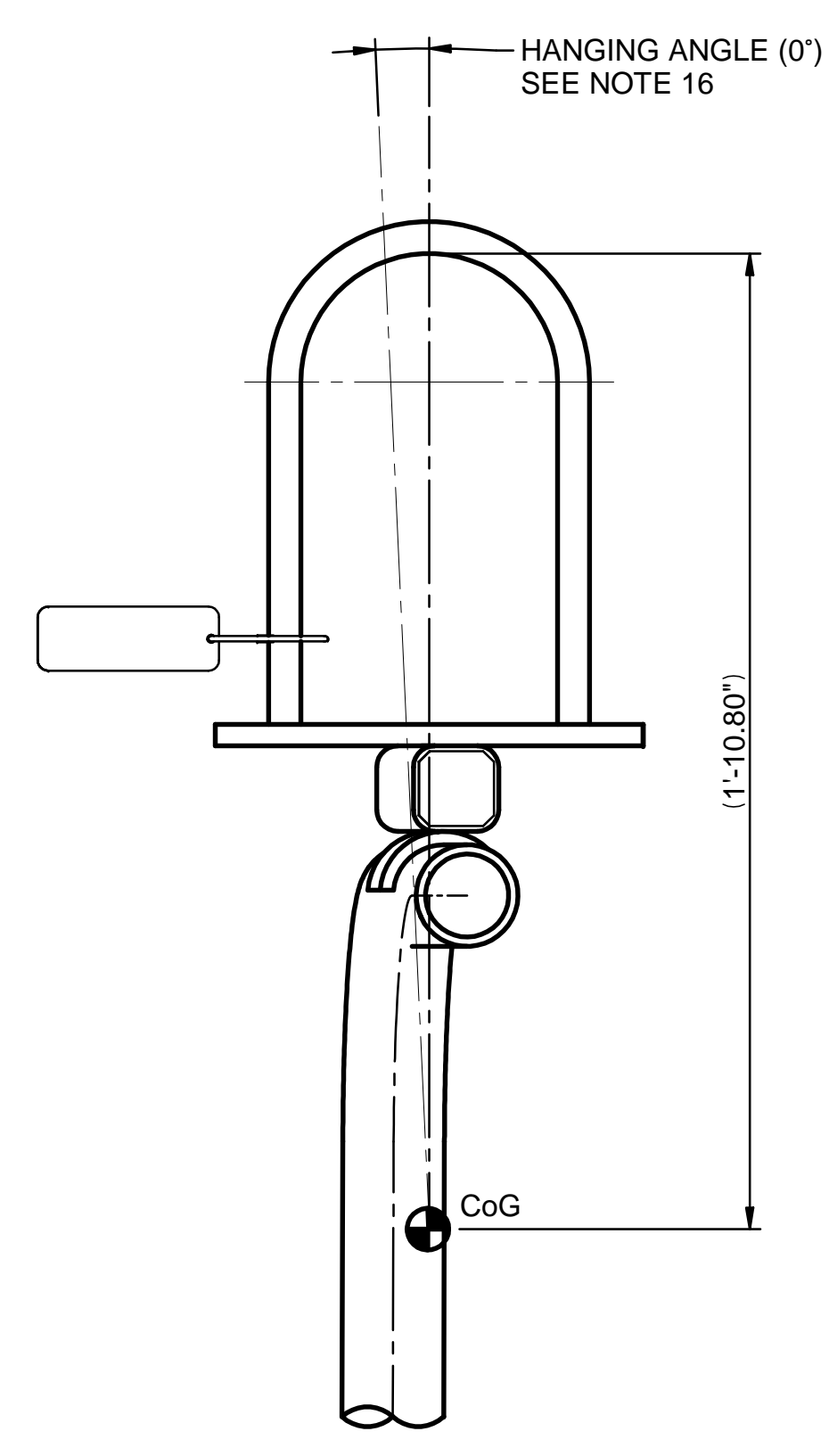
- NOTES:**
- FOR FABRICATION, TESTING, NDE, & TRANSPORTATION SEE SPECIFICATION 24590-WTP-3PS-PF00-T0001.
 - ITEMS 1 AND 2 LISTED ON THIS DRAWING ARE GOVERNMENT FURNISHED PROPERTY.
 - RECORD SURVEYED VALUES FOR THE CRITICAL DIMENSIONS, HANGING ANGLE AND WEIGHT IN THE BOXES PROVIDED.
 - THE ESTIMATED DRY WEIGHT OF THE JUMPER ASSEMBLY IS 127 LBS. RECORD FINAL WEIGHT IN BOX BELOW.
 - PROCESS PIPING WILL HAVE A 3D BEND RADIUS UNLESS OTHERWISE NOTED.
 - ALL DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE SPECIFIED.
 - DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.
 - DELETED
 - NAMEPLATES SHALL BE FABRICATED PER DRAWING 24590-HLW-P61-P27T-00020 AND LOCATED AS SHOWN:
 - MARK NAMEPLATE ITEM 8 AS FOLLOWS: HFP-JMPP-00053
 - MARK NAMEPLATE ITEM 11 AS FOLLOWS: HFP-JMPP-00053
 - ALL ITEMS SHOWN ARE QUALITY LEVEL Q AND SEISMIC CAT SC-III, UNLESS OTHERWISE SPECIFIED.
 - BREAK ALL SHARP EDGES AND REMOVE ALL BURRS.
 - SEE DRAWING 24590-HLW-P61-P27T-00032 FOR NAMEPLATE NOZZLE NUMBERING AND EQUIPMENT CROSSWALK.
 - FIELD TO VERIFY FINAL NOZZLE LOCATIONS PRIOR TO FULL FABRICATION AND INSTALLATION OF JUMPER
 - CRITICAL POINT FOR THE PUREX NOZZLE EXISTS AT THE INTERSECTION OF THE CENTERLINE AND THE LOCATING PLANE (FLAT FACE) OF THE NOZZLE. SEE DRAWING 24590-WTP-P61-P27T-00001, DETAIL 9.
 - JUMPER SHALL BE BALANCED SUCH THAT ITEM 1 ENGAGES WITH NOZZLE FIRST. DESIGNED HANGING ANGLE IS 5°. ACTUAL HANGING ANGLE SHALL BE 3° MIN / 9° MAX. (SEE NOTE 14).
 - DESIGN OUT OF PLANE HANGING ANGLE IS 0°. ACTUAL HANGING ANGLE SHALL BE ± 1°. (SEE NOTE 14).
 - PROVIDE VENT HOLE IN ITEM 4 TO RELEASE GAS PRESSURE DURING WELDING.
 - TAPERBORE PIPE I.D. TO MATCH I.D. OF PUREX AS REQUIRED.



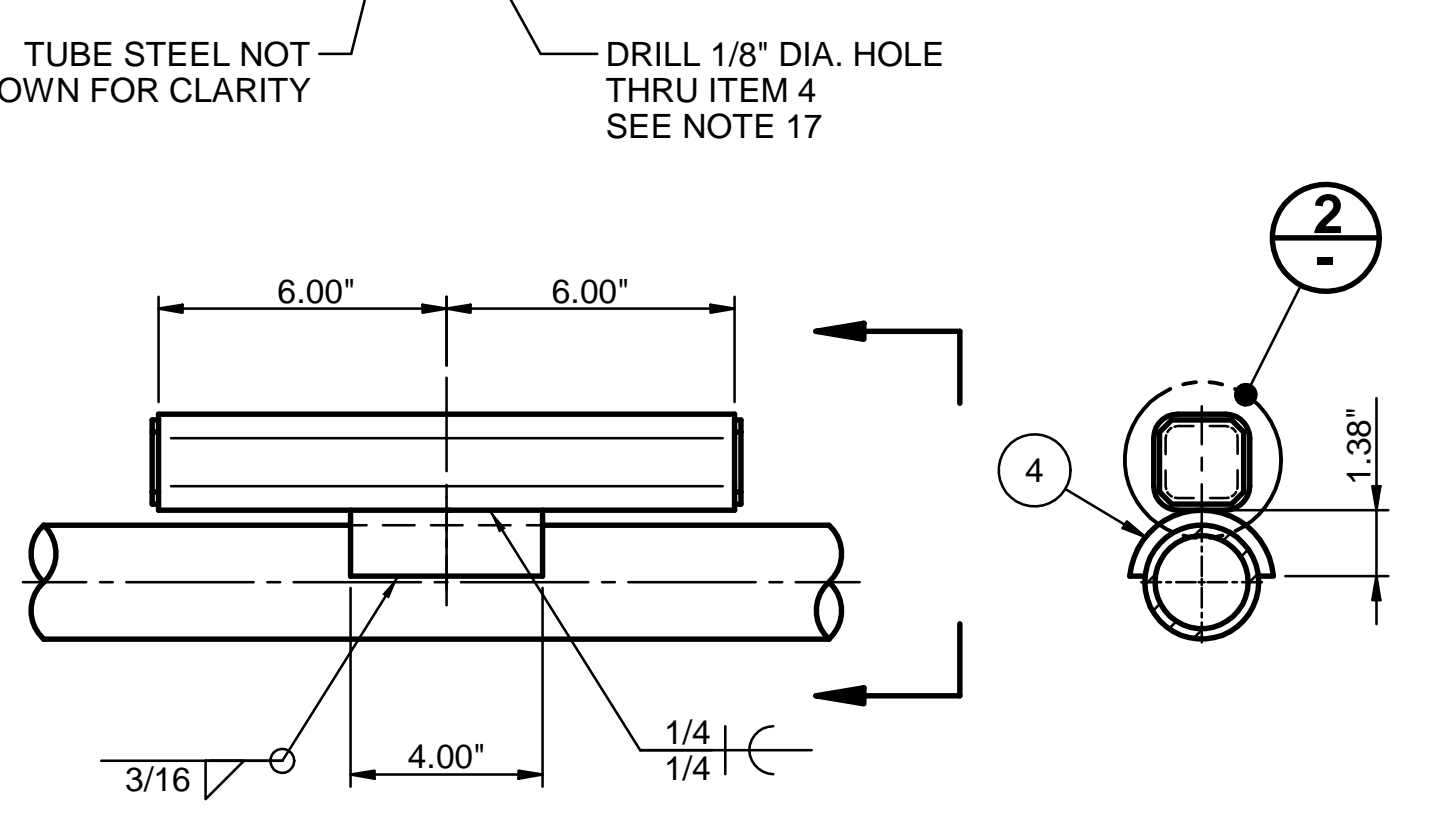
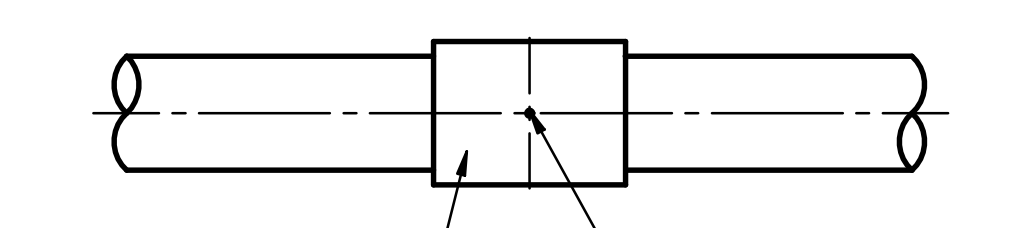
VIEW A-A



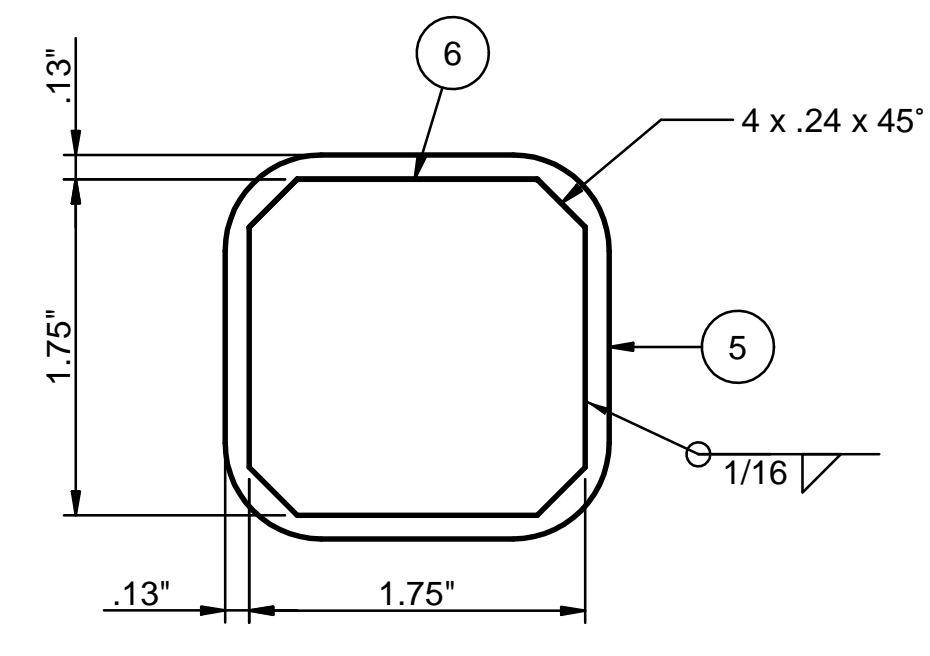
VIEW B-B



SECTION C-C



DETAIL
BAIL DUNNAGE

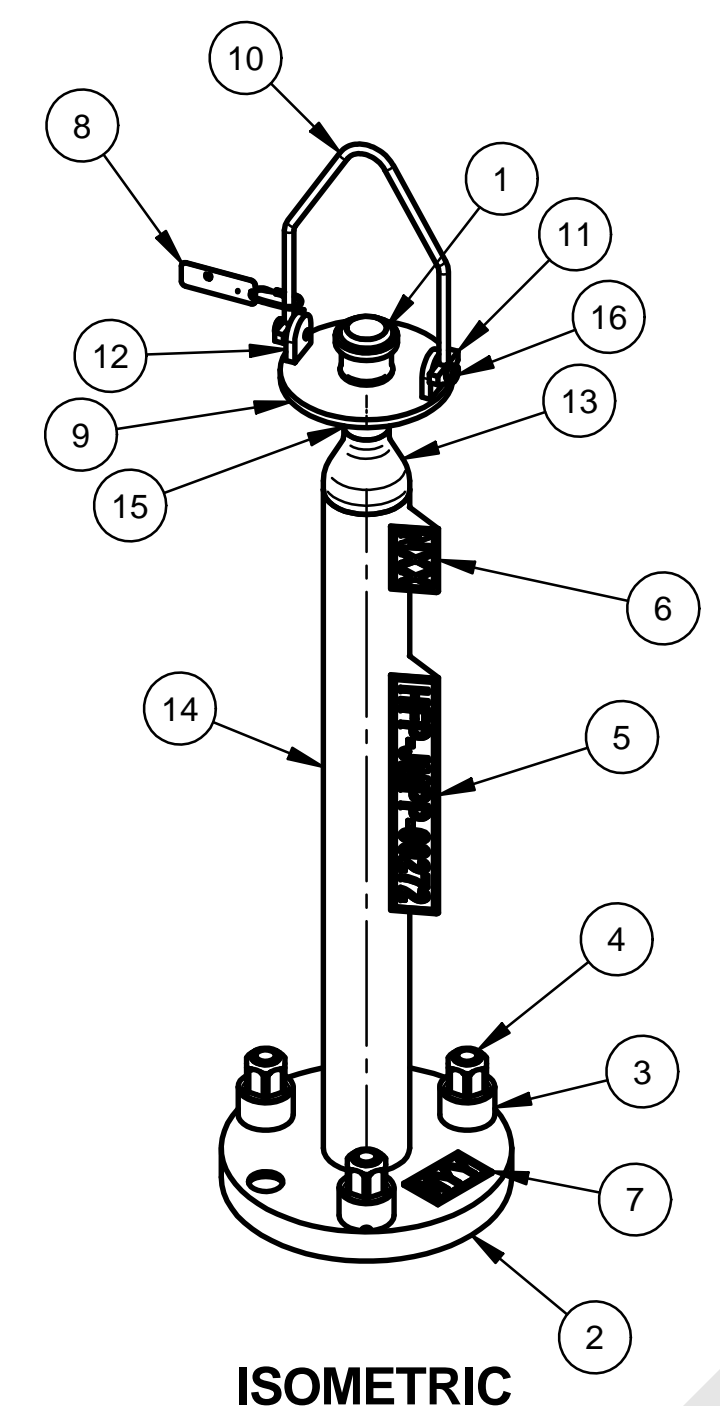
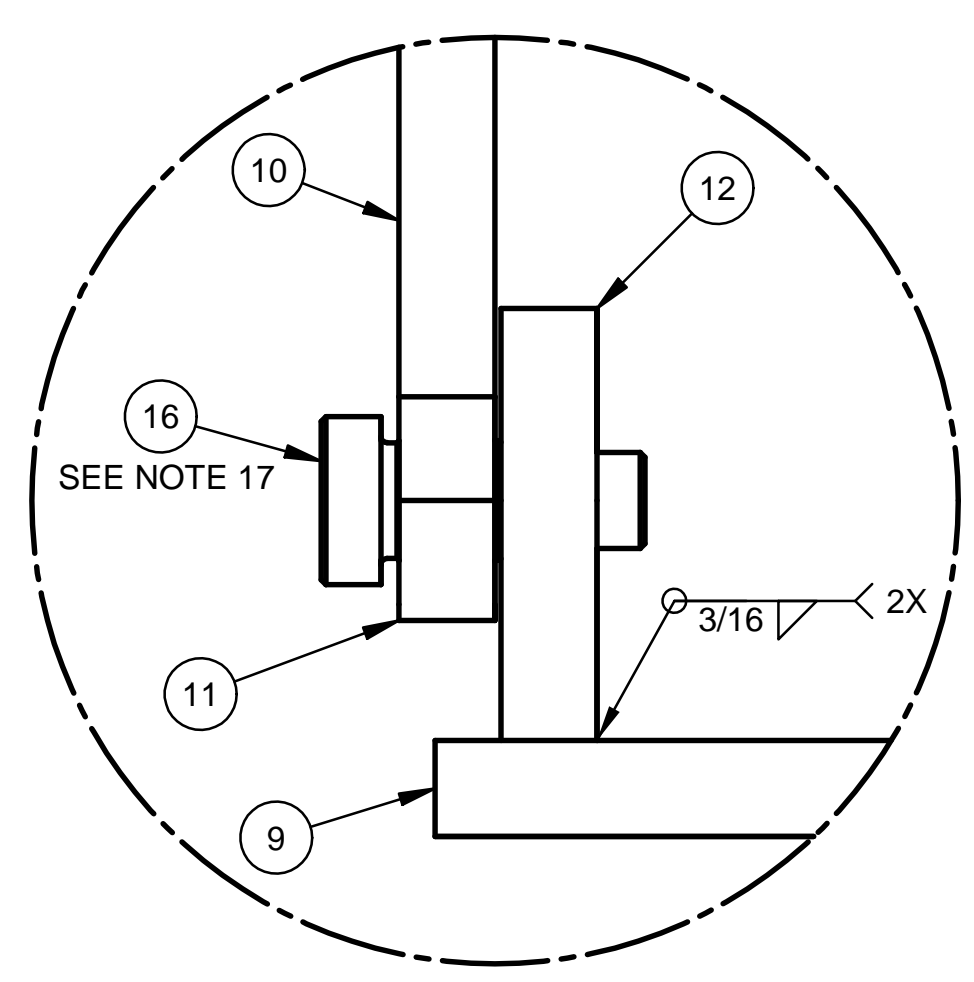
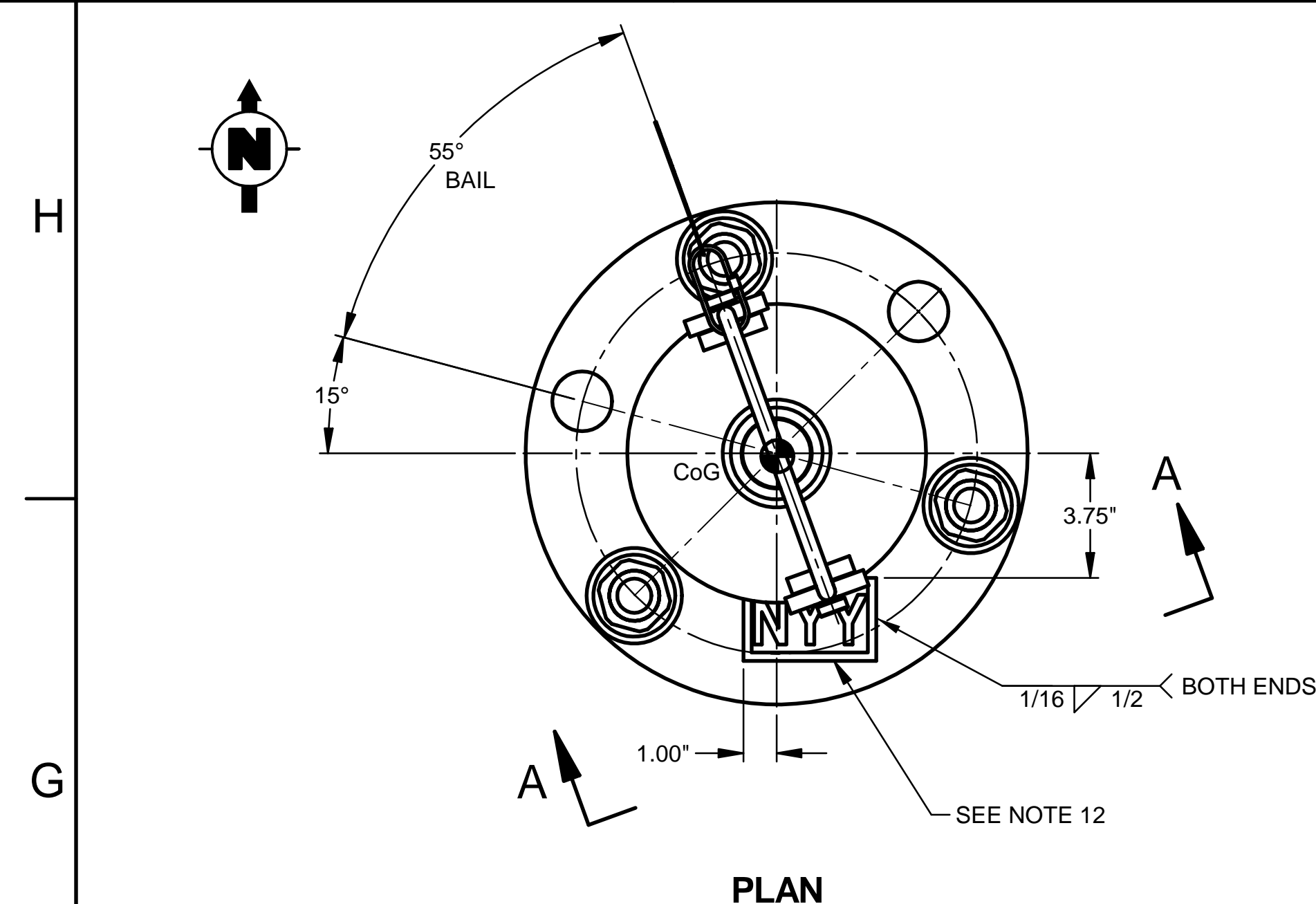


CAP DETAIL
TUBESTEEL CAP (2 REQ'D)

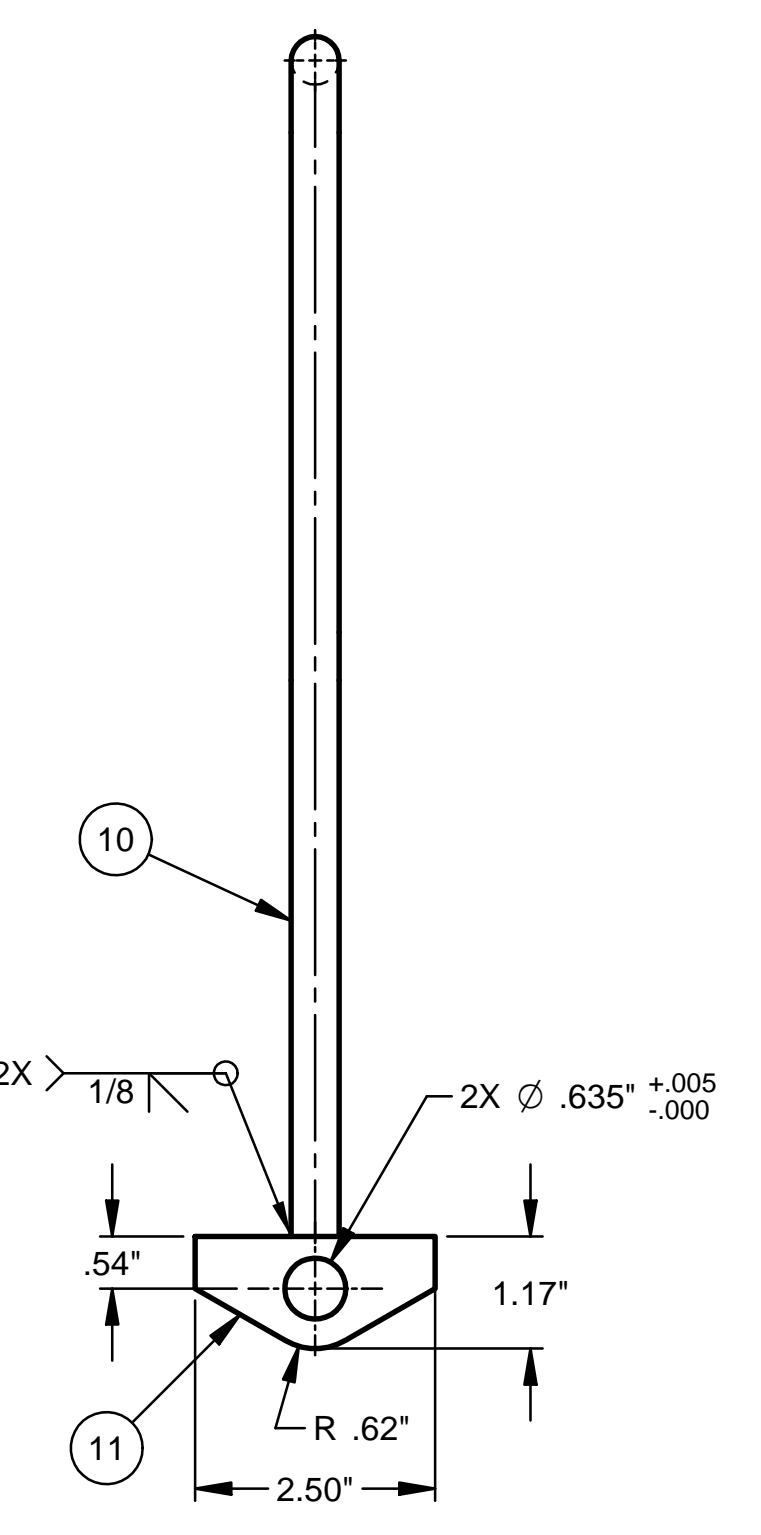
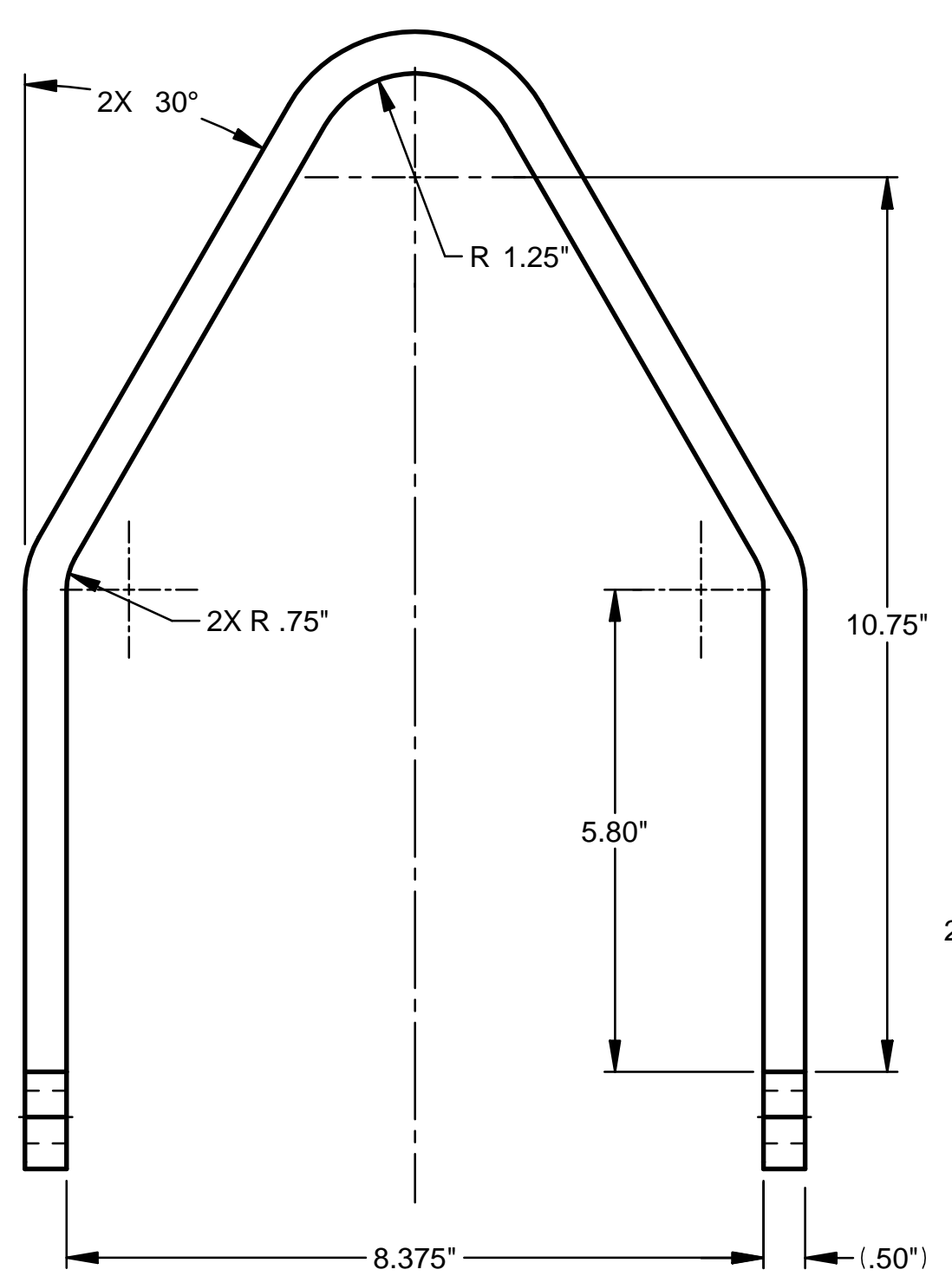
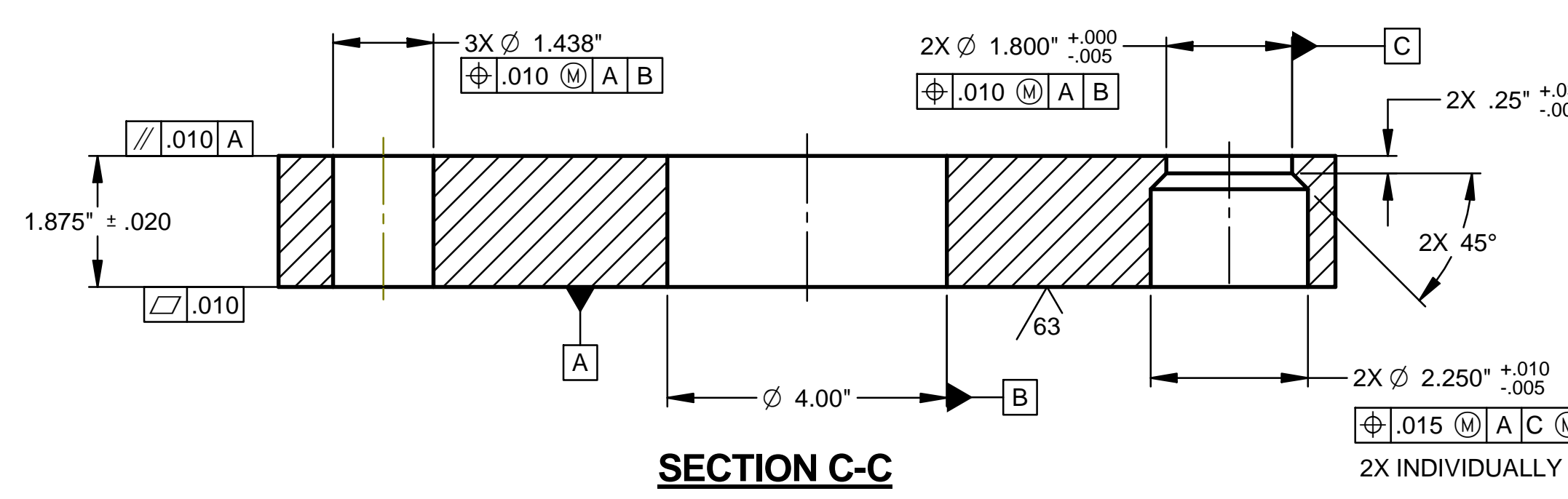
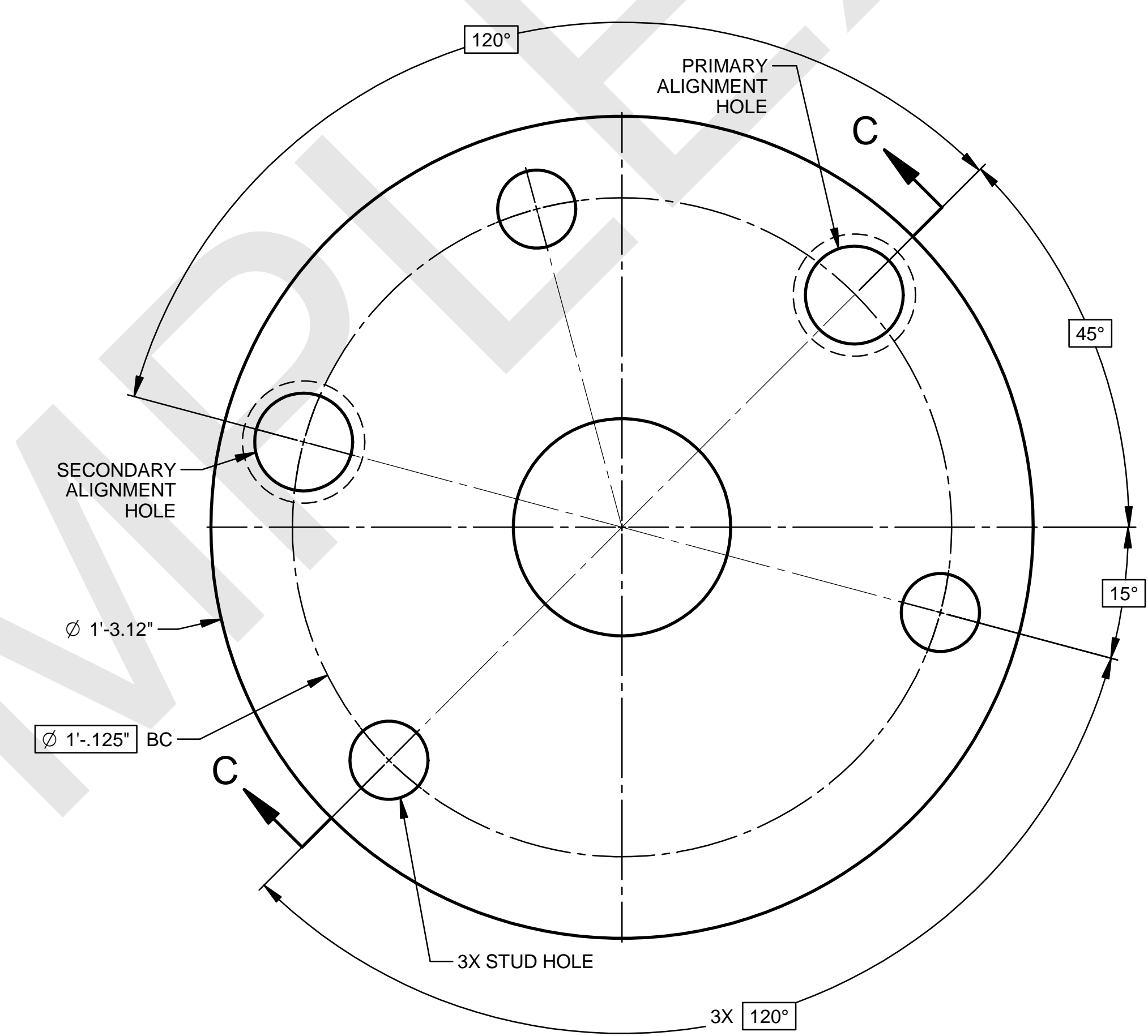
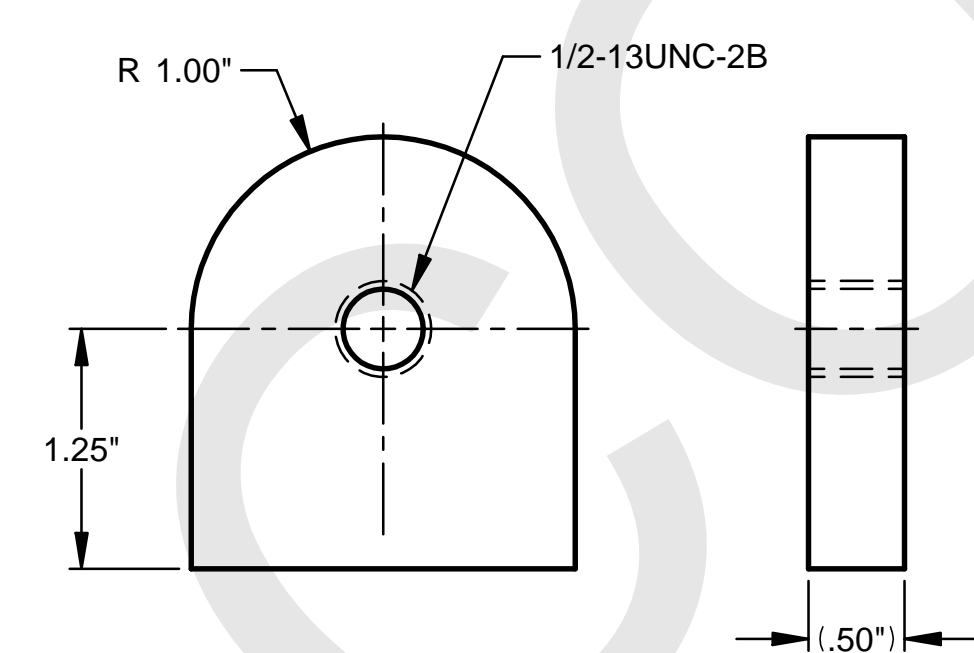
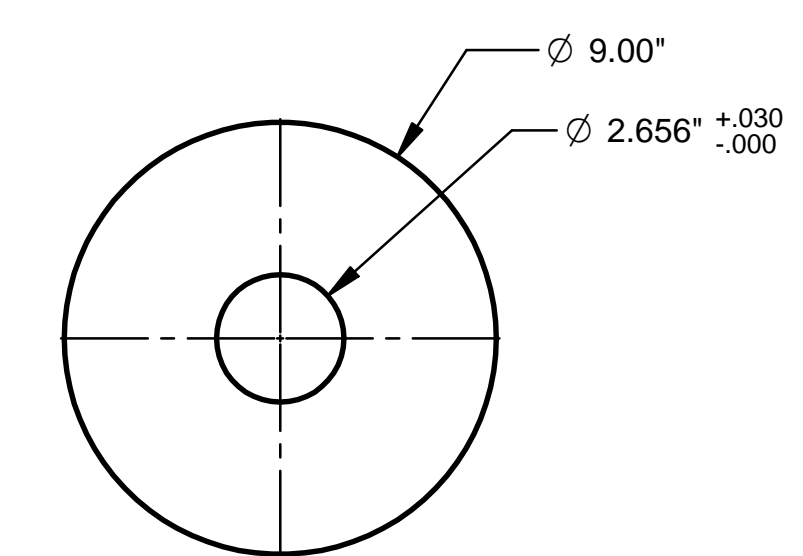
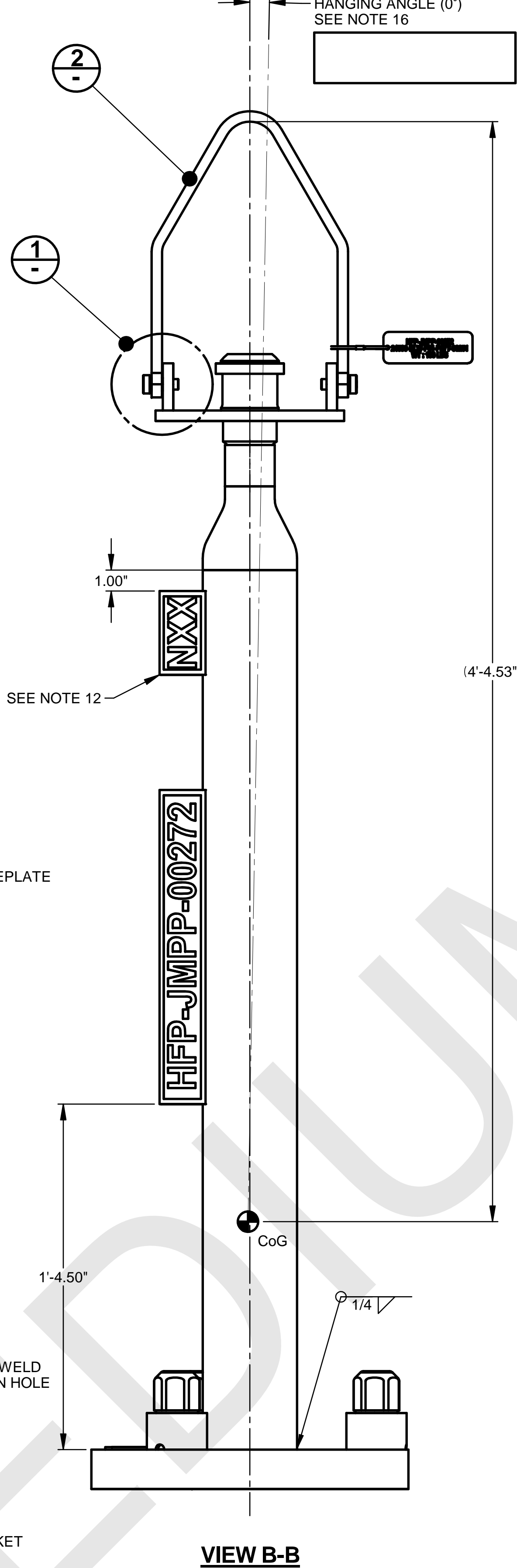
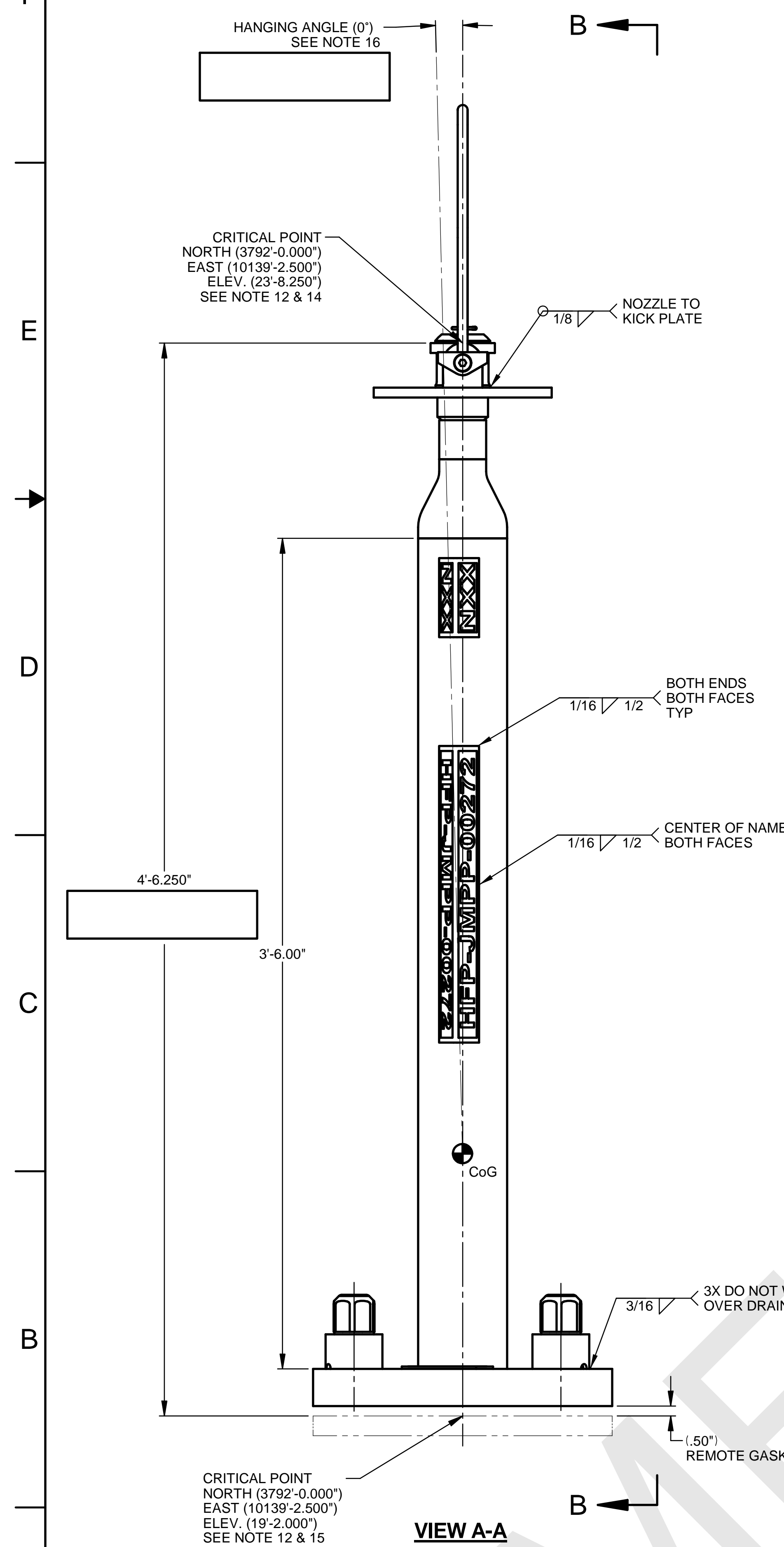
CONTENT OF THIS DRAWING ARE DANGEROUS WASTE PERMIT AFFECTING

DWG NO	TITLE
24590-HLW-M6 HFP-00020001	P&ID - HLW MELTER FEED PROCESS SYS MELTER FEED VESSEL HFP-VSL-00002
24590-HLW-M6YZ-HFP-00020001	MS JUMPER LIST FOR P&ID 24590-HLW-M6 HFP-00020001
24590-HLW-M6ZX-HFP-00020001	MS EQUIPMENT LIST FOR P&ID 24590-HLW-M6 HFP-00020001
24590-HLW-P61-P27T-00019	HLW STANDARD JUMPER LIFTING BAIL DETAILS
24590-HLW-P61-P27T-00020	HLW REMOTE HANDLING EQUIP. & JUMPER IDENTIFICATION DRAWING
24590-WTP-M61-P23T-00061	WTP ASSEMBLY VERTICAL 2" INLET & OUTLET PUREX CONNECTOR 2"
24590-WTP-M61-P23T-00087	WTP ASSEMBLY HORIZONTAL 2" INLET & OUTLET PUREX CONNECTOR 2"
24590-WTP-3PB-P000-TS14E	RPP-WTP ENGINEERING SPECIFICATION FOR PIPE CALSS S11B

Q Quality Designer		REVISION HISTORY	
TOLERANCES ±.13 ±.063 ±.125 ±.5"		A ISSUE FOR USE SEE STAMPS REV DESCRIPTION ORG CHKD RWD/APVD DATE	
Originator By: [Signature] Checked: [Signature] Reviewed: [Signature]		REVISION HISTORY 1-22-25 2-22-25 3-22-25	
ISSUED BY RPP-WTP PDC		PROJECT No. 24590 SITE HANFORD AREA 200E BUILDING No. 30	
BY [Signature] SEE STAMP CHECKER [Signature] APPROVER [Signature] REVIEWER [Signature]		DATE [Signature] [Signature] [Signature] [Signature]	
CONTRACT No. DE-AC27-01RV14136		SCALE: NONE	
HLW VITRIFICATION BUILDING MELTER 1 PROCESS PIPING JUMPER HFP-JMPP-00053		24590-HLW-P61-P27T-00060	



ITEM NO	DESCRIPTION	MATERIAL	STOCK CODE	DOCUMENT NUMBER	QTY
1	2" MALE NOZZLE SCHED 40		JCPP21NZ03	24590-WTP-M61-P23T-00005 PT3	1
2	REMOTE FLANGE 4" x 15.125" OD 3-BOLT UPPER THICKNESS AS REQD FOR MACHINING	ASTM A240 TYPE 316L SST	SS-A240-PL-1/78		1
3	NUT CUP			24590-WTP-M0-50-00016 ITEM 8	3
4	REMOTE NUT 1 1/4"-8 ACME 2G			24590-WTP-M0-50-00016, PN 14	3
5	NAMEPLATE X 1'-3" LONG			24590-HLW-P61-P27T-00020 PT4	1
6	NAMEPLATE NXX			24590-HLW-P61-P27T-00020 PT 8	1
7	NAMEPLATE NYY			24590-HLW-P61-P27T-00020 PT11	1
8	NAME TAG			24590-HLW-P61-P27T-00020 PT7	1
9	PL 1/2" THK (KICK PLATE)	ASTM A240 TYPE 304L	SS-A240-PL-1/2		1 LF
10	ROD 1/2" DIA x LG AS REQD (LIFTING BAIL)	ASTM A276 TYPE 304L	SS-A276-BAR-1/2		3 LF
11	PL 1/2" THK (BAIL COLLAR)	ASTM A240 TYPE 304L	SS-A240-PL-1/2		2
12	PL 1/2" THK (LIFTING TAB)	ASTM A240 TYPE 304L	SS-A240-PL-1/2		2
13	REDUCER CON 4" X 2" SCHED 40S SMLS BW	ASTM A403 GR WP316/316L	PFCRV60G1E2B		1
14	PIPE 4" SCHED 40S SMLS X LG AS REQD	ASTM A312 GR TP316/316	PPPC0B0GX03		4 LF
15	PIPE 2" SCHED 40S SMLS X LG AS REQD	ASTM A312 GR TP316/316	PPPC0B0GX00		1 LF
16	SHOULDER SCREW 5/8" HEX SOCKET HD 1/2"-13UNC x 5/8" LG SHOULDER	ASTM A193 GR B8		SEE NOTE 17	2



- NOTES:**
- FOR FABRICATION, TESTING, NDE, & TRANSPORTATION SEE SPECIFICATION 24590-WTP-3PS-PF00-T0001.
 - ITEM 1 LISTED ON THIS DRAWING IS GOVERNMENT FURNISHED PROPERTY.
 - RECORD SURVEYED VALUES FOR THE CRITICAL DIMENSIONS, HANGING ANGLE AND WEIGHT IN THE BOXES PROVIDED.
 - THE ESTIMATED DRY WEIGHT OF THE JUMPER ASSEMBLY IS 150 LBS. RECORD FINAL WEIGHT IN BOX BELOW.
 - PROCESS PIPING WILL HAVE A 3D BEND RADIUS UNLESS OTHERWISE NOTED.
 - ALL DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE SPECIFIED.
 - DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.
 - DELETED.
 - NAMEPLATES SHALL BE FABRICATED PER DRAWING 24590-HLW-P61-P27T-00020 AND LOCATED AS SHOWN:
A) MARK NAMEPLATE (ITEM 5) AS FOLLOWS: HFP-JMPP-00272
B) MARK NAMEPLATE (ITEM 8) AS FOLLOWS: HFP-JMPP-00272 24590-HLW-P61-P27T-00251 WT: (SEE BOX IN NOTE 4)
 - ALL ITEMS SHOWN ARE QUALITY LEVEL Q AND SEISMIC CATEGORY III, UNLESS OTHERWISE SPECIFIED.
 - BREAK ALL SHARP EDGES AND REMOVE ALL BURRS.
 - SEE DRAWING 24590-HLW-P61-P27T-00032 FOR NAMEPLATE NOZZLE NUMBERING AND EQUIPMENT CROSSWALK.
 - FIELD TO VERIFY FINAL NOZZLE LOCATIONS PRIOR TO FULL FABRICATION AND INSTALLATION OF JUMPER.
 - CRITICAL POINT FOR THE PUREX NOZZLE EXISTS AT THE INTERSECTION OF THE CENTERLINE AND THE LOCATING PLANE (FLAT FACE) OF THE NOZZLE. SEE DRAWING 24590-WTP-P61-P27T-00001, DETAIL 9.
 - CRITICAL POINT FOR THE 3-BOLT FLANGE EXISTS AT THE INTERSECTION OF THE CENTERLINE AND THE LOCATING PLANE (FLAT MATING FACE) OF THE FLANGE.
 - JUMPER SHALL BE BALANCED SUCH THAT DESIGN OUT OF PLANE HANGING ANGLE IS 0°. ACTUAL HANGING ANGLE SHALL BE ± 1°. RECORD FINAL HANGING ANGLE IN BLANK BOXES ON DRAWING.
 - SECURE SHOULDER SCREW WITH SAFETY WIRE, PIN OR EQUIVALENT FOR REMOTE NUCLEAR SERVICE.

REFERENCE DRAWINGS	
DWG NO	TITLE
24590-HLW-M6-HFP-00001004	P&ID - HLW MELTER FEED PROCESS SYS COOLING & UTILITIES HFP-VSL-00001
24590-HLW-M6YX-HFP-00001004	MS JUMPER LIST FOR P&ID 24590-HLW-M6-HFP-00001004
24590-HLW-M6ZX-HFP-00001004	MS EQUIPMENT LIST FOR P&ID 24590-HLW-M6-HFP-00001004
24590-HLW-P61-P27T-00020	HLW REMOTE HANDLING EQUIPMENT & JUMPER IDENTIFICATION DRAWING
24590-WTP-M61-P23T-00001	VERTICAL 2" INLET & OUTLET PUREX CONNECTOR 2"
24590-WTP-M0-50-00016	WTP REMOTE FASTENERS
24590-WTP-M61-P23T-00005	WTP DETAILS - NOZZLES PUREX MALE CONNECTOR 1", 2", 3", 4"

Q Quality Designer

TOLERANCES

00	±.13
.000	±.063
FRACTION	± 1/8"
ANGLE	± 0.5°

ISSUED BY RFP-WTP-PDC

ORIGINATOR SEE STAMP

CHECKER SEE STAMP

APPROVER Jim McQuate 1-27-25

REVIEWER SEE STAMP

PROJECT No. 24590

SITE HANFORD

AREA 200E

BUILDING No. 30

DATE

CONTRACT No. DE-AC27-01RV14136

RIVER PROTECTION PROJECT

WASTE TREATMENT PLANT

2435 STEVENS CENTER PLACE

RICHLAND, WA 99354

HLW VITRIFICATION BUILDING

MELTER 1

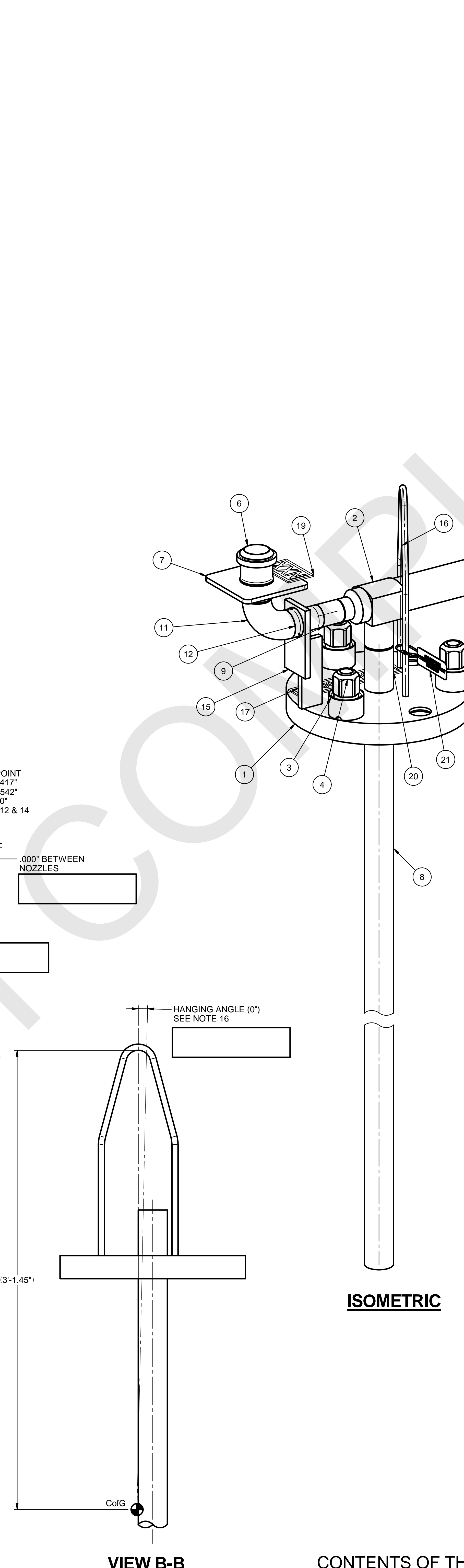
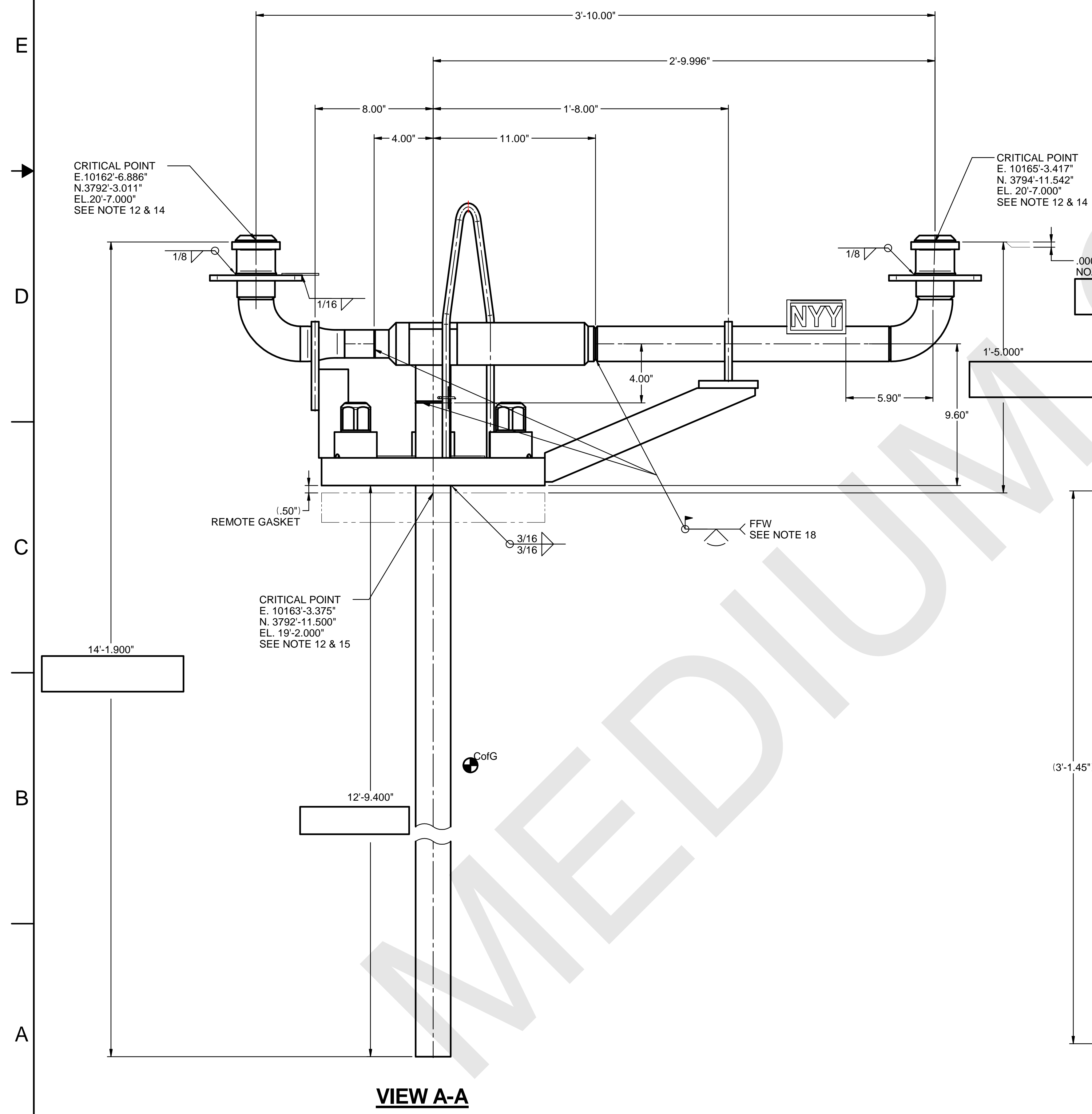
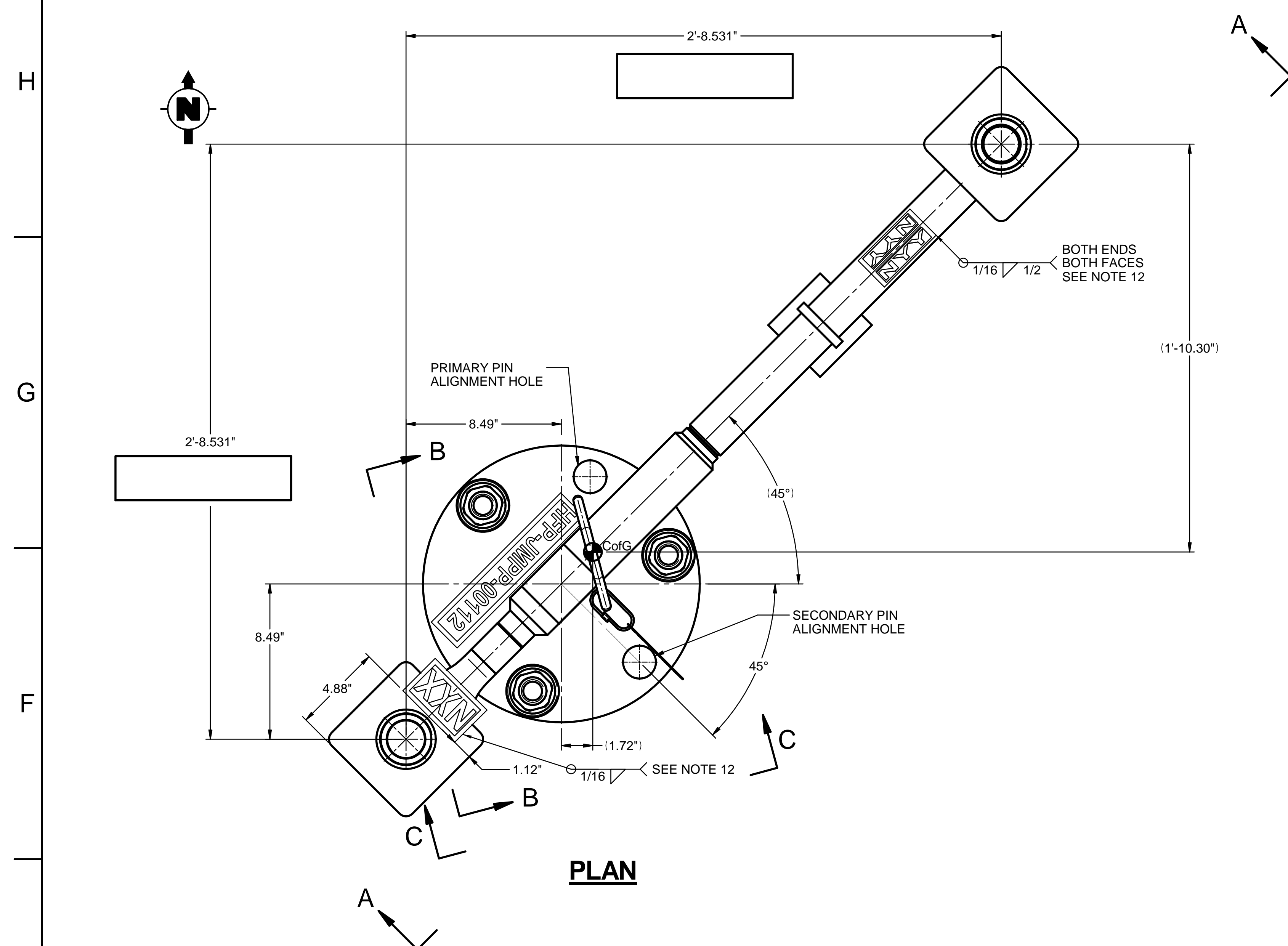
PROCESS PIPING JUMPER

HFP-JMPP-00272

SCALE: NONE

24590-HLW-P61-P27T-00251

REV A

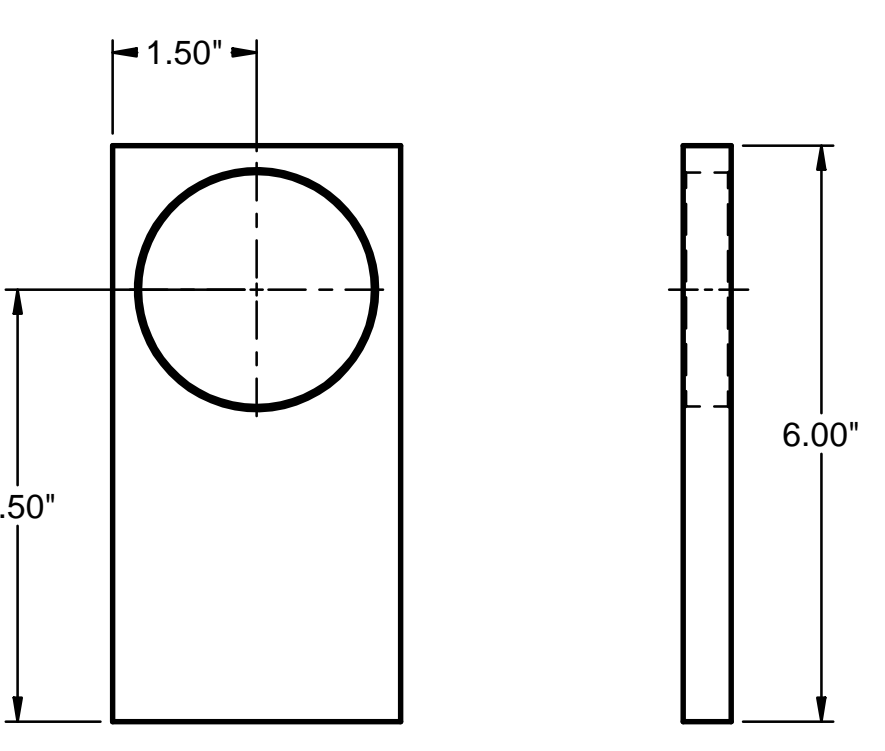


ITEM NO	DESCRIPTION	MATERIAL	STOCK CODE	DOCUMENT NUMBER	QTY
1	REMOTE FLANGE 4" x 12.75" OD 3-BOLT UPPER THICKNESS AS REQD FOR MACHINING	ASTM A240 TYPE 316L	QL-POA-PY00-00004-137		1
2	EJECTOR 1 1/2" X 2" X 2" HFP-EJCTR-00002	SST TYPE 316L		24590-HLW-MPD-HFP-00006	1
3	NUT CUP			24590-WTP-M0-50-00016 ITEM 8	3
4	REMOTE NUT 1 1/4"-8 ACME 2G	ASTM A276		24590-WTP-MO-50-00016, PN 14	3
5	2" MALE NOZZLE SCHED 80		JCPP21NZ07	24590-WTP-M61-P23T-00005 PT7	1
6	2" MALE NOZZLE SCHED 40		JCPP21NZ03	24590-WTP-M61-P23T-00005 PT3	1
7	2" STANDARD SQUARE KICK-OFF PLATE		JCPP21KP02	24590-WTP-M61-P23T-00040 PT2	2
8	PIPE 2" SCHED 80S SMLS X LG AS REQD	ASTM A31 GR TP316/316L	PPPB08HX00		15 LF
9	PIPE 1.5" SCHED 40S SMLS X LG AS REQD	ASTM A312 GR TP316/316L	PPPB08H0W0N		1 LF
10	ELBOW 2" 90° LR SCHED 80S SMLS BW	ASTM A403 GR WP316/316L-S	PFQNV60H1604		1
11	ELBOW 2" 90° LR SCHED 40S SMLS BW	ASTM A403 GR WP316/316L-S	PFQNV60G1604		1
12	REDUCER CON 2" X 1.5" SCHED 40S SMLS BW	ASTM A403 GR WP316/316L	PFRCRV60G1E07		1
13	GUIDE ASSEMBLY (2" PIPE)			SEE DETAIL 11	1
14	FB 1/2" x 2" x LG AS REQD (GUIDE SUPPORT)	ASTM A276 TYPE 304L	SS-A276-FLATBAR-1/2-2	SEE DETAIL 12	1
15	PL 1/2" THK (GUIDE PLATE)	ASTM A240 TYPE 304L	SS-A240-PL-1/2	SEE DETAIL 13	1
16	BAR 1/2" DIA x LG AS REQD (BAIL)	ASTM A276 TYPE 304L	SS-A276-BAR-1/2	SEE DETAIL 16	1
17	FB 1/2" x 2" x 6" LG	ASTM A276 TYPE 304L	SS-A276-FLATBAR-1/2-2		1
18	NAMEPLATE NYY			24590-HLW-P61-P27T-00020 PT 9	1
19	NAMEPLATE NXX			24590-HLW-P61-P27T-00020 PT10	1
20	NAMEPLATE X 10" LG			24590-HLW-P61-P27T-00020 PT6	1
21	NAME TAG X 4 1/4" LG			24590-HLW-P61-P27T-00020 PT7	1

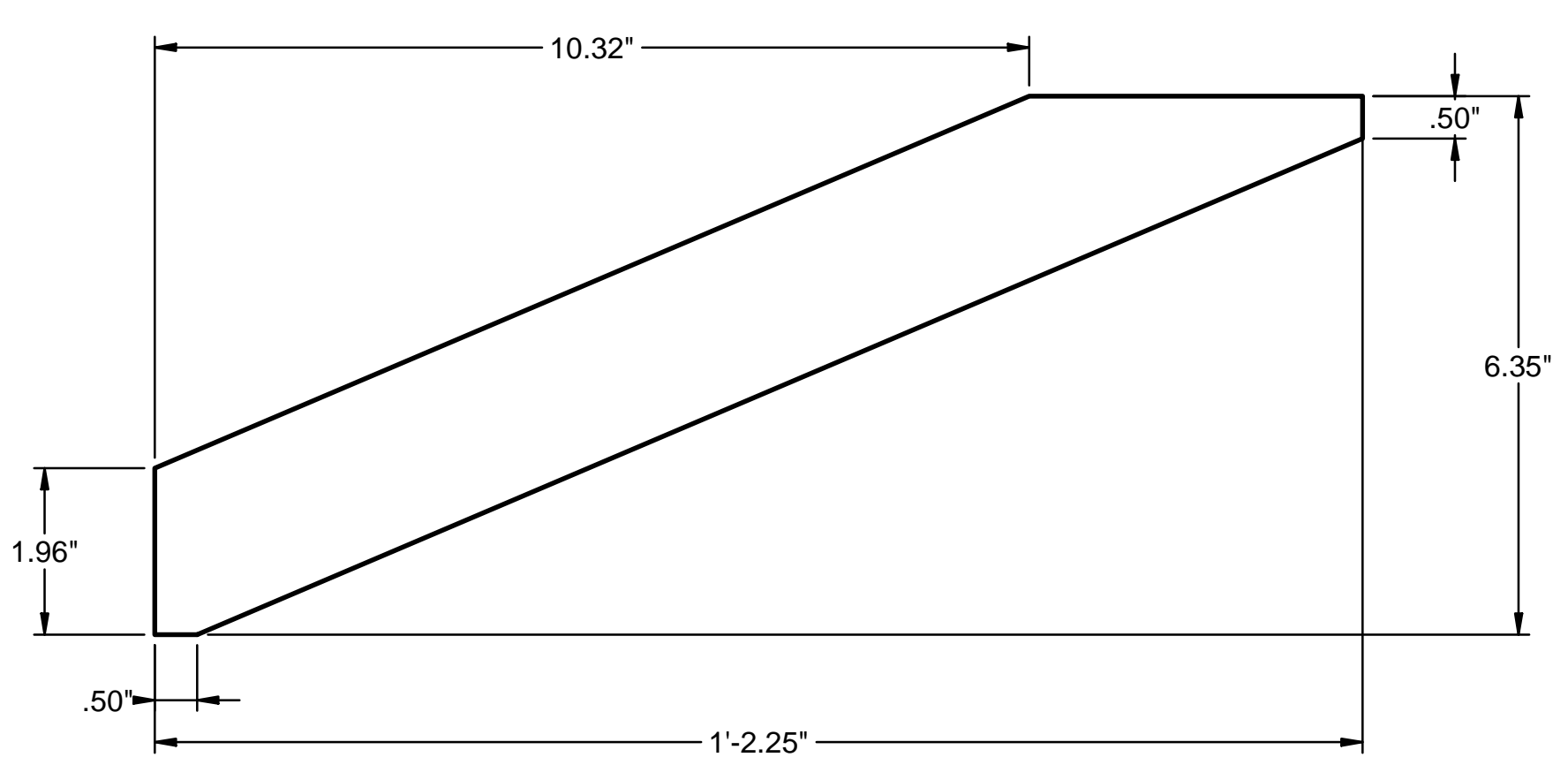
- NOTES:**
- FOR FABRICATION, TESTING, NDE, & TRANSPORTATION SEE SPECIFICATION 24590-WTP-3PS-PF00-TO001.
 - ITEMS 5 & 6 LISTED ON THIS DRAWING ARE GOVERNMENT FURNISHED PROPERTY.
 - RECORD SURVEYED VALUES FOR THE CRITICAL DIMENSIONS, HANGING ANGLE AND WEIGHT IN THE BOXES PROVIDED.
 - THE ESTIMATED DRY WEIGHT OF THE JUMPER ASSEMBLY IS 228 LBS. RECORD FINAL WEIGHT IN BOX BELOW.
 - PROCESS PIPING WILL HAVE A 3D BEND RADIUS UNLESS OTHERWISE NOTED.
 - ALL DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE SPECIFIED.
 - DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.
 - DELETED.
 - NAMEPLATES SHALL BE FABRICATED PER DRAWING 24590-HLW-P61-P27T-00020 AND LOCATED AS SHOWN:
 - MARK NAMEPLATE (ITEM 20) AS FOLLOWS: HFP-JMPP-00112
 - MARK NAME TAG (ITEM 21) AS FOLLOWS: HFP-JMPP-00112
24590-HLW-P61-P27T-00077
WT: SEE BOX IN NOTE 4
 - ALL ITEMS SHOWN ARE QUALITY LEVEL Q AND SEISMIC CAT III, UNLESS OTHERWISE SPECIFIED.
 - BREAK ALL SHARP EDGES AND REMOVE ALL BURRS.
 - SEE DRAWING 24590-HLW-P61-P27T-00032 FOR NAMEPLATE NOZZLE NUMBERING AND EQUIPMENT CRYSTAL
 - FIELD TO VERIFY FINAL NOZZLE LOCATIONS PRIOR TO FULL FABRICATION AND INSTALLATION OF JUMPER
 - CRITICAL POINT FOR THE PUREX NOZZLE EXISTS AT THE INTERSECTION OF THE CENTERLINE AND THE LOCATING PLANE (FLAT FACE) OF THE NOZZLE. SEE DRAWING 24590-WTP-P61-P27T-00001, DETAIL 9.
 - CRITICAL POINT FOR THE 3-BOLT FLANGE EXISTS AT THE INTERSECTION OF THE CENTERLINE AND THE LOCATING PLANE (FLAT MATING FACE) OF THE FLANGE.
 - DESIGN OUT OF PLANE HANGING ANGLE IS 0°. ACTUAL HANGING ANGLE SHALL BE ± 1°. (SEE NOTE 15) RECORD FINAL HANG ANGLE IN BLANK BOXES ON DRAWING.
 - WELDING TO BE COMPLETED IN FOLLOWING ORDER:
 - 3 X HFP-EJCTR-00002 (ITEM 2) FFWS TO ATTACHED PIPING;
 - SUCTION PIPE (ITEM 8) TO REMOTE FLANGE (ITEM 1)
 - BAIL (ITEM 16) TO REMOTE FLANGE (ITEM 1)
 - ADD NAMEPLATE (ITEM 20) TO REMOTE FLANGE (ITEM 1) LAST TO ENSURE BAIL CLEARANCE.
 - ADD 2" OF PIPE FOR FIELD FIT UP (FFW) AT HFP-EJCTR-00002 NOZZLES DURING FABRICATION. FIELD VERIFY DIMENSIONS OF AT HFP-EJCTR-00002 PRIOR TO FINAL MAKE UP.

[illegible]

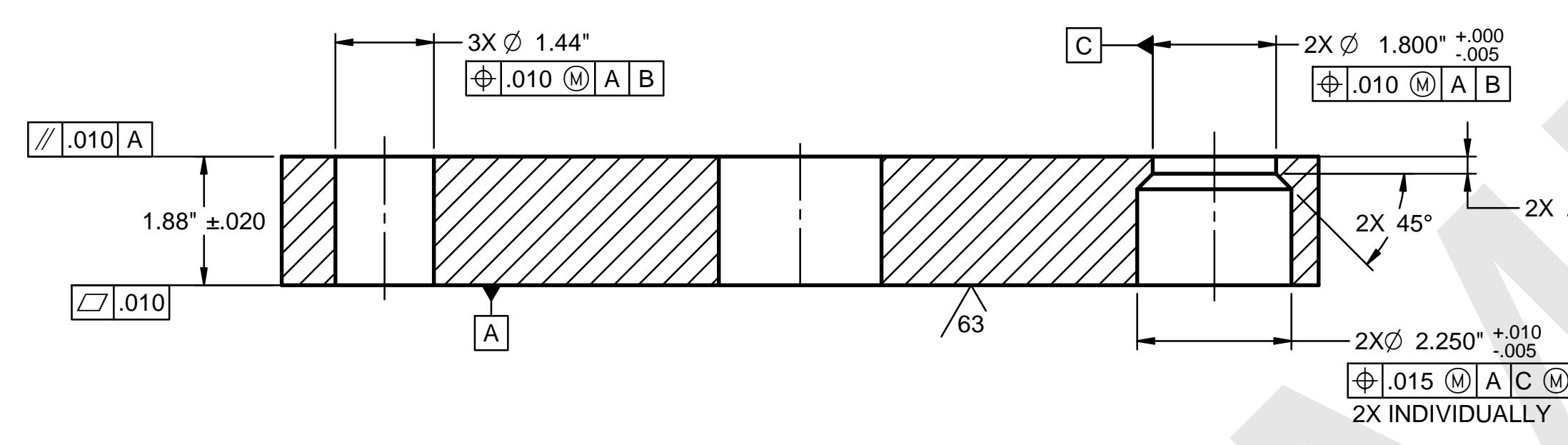
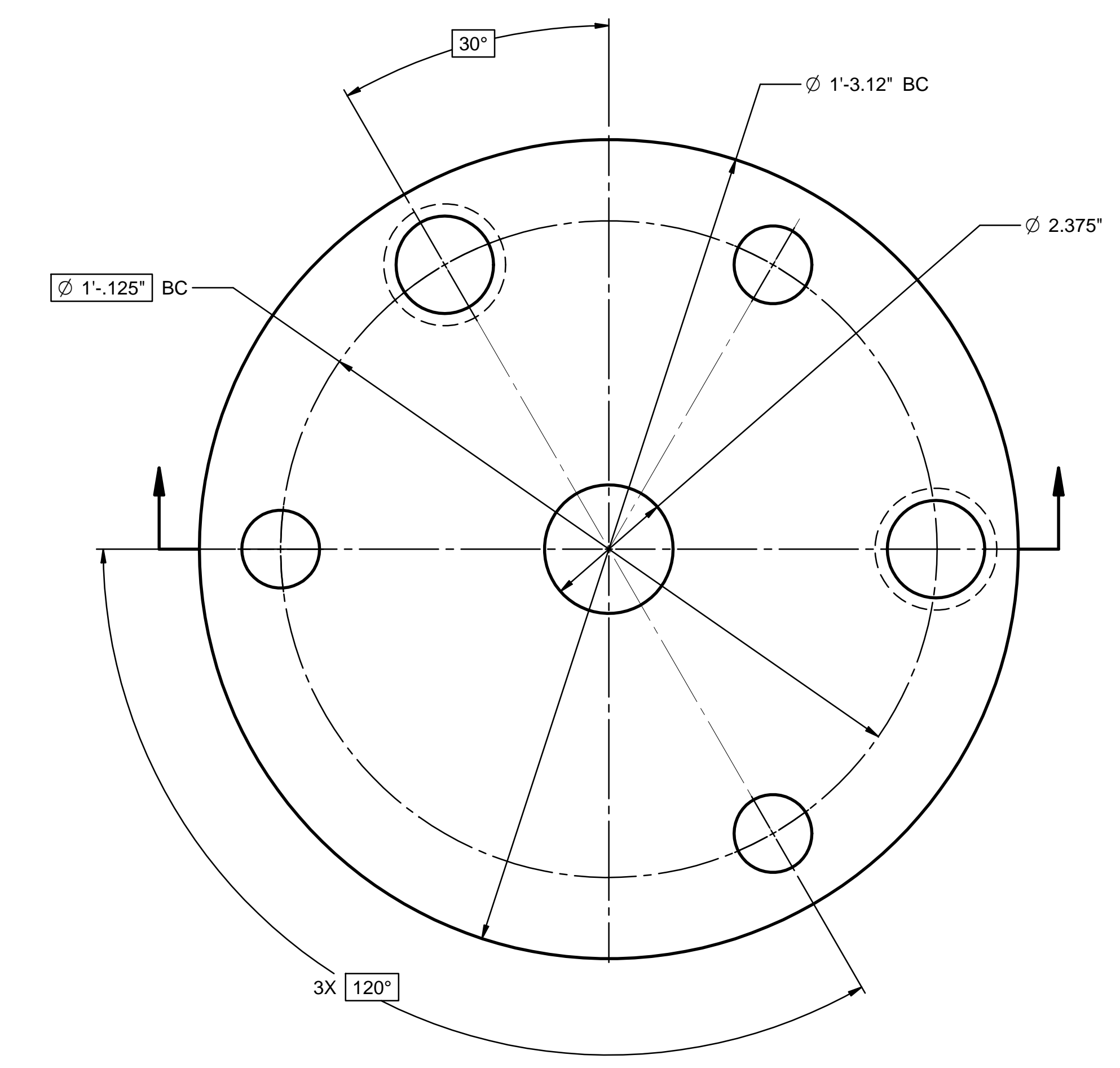
H
G
F
E
D
C
B
A



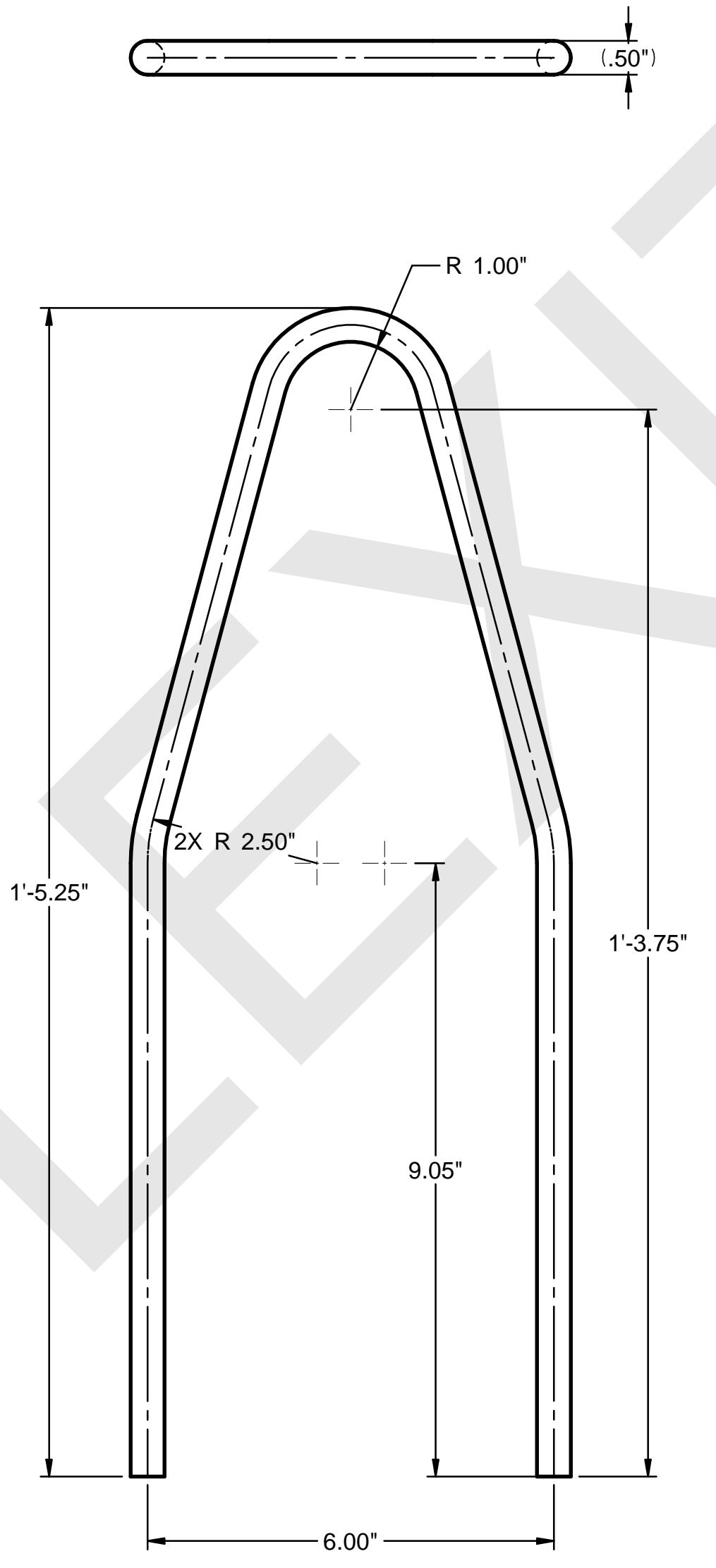
10 GUIDE PLATE



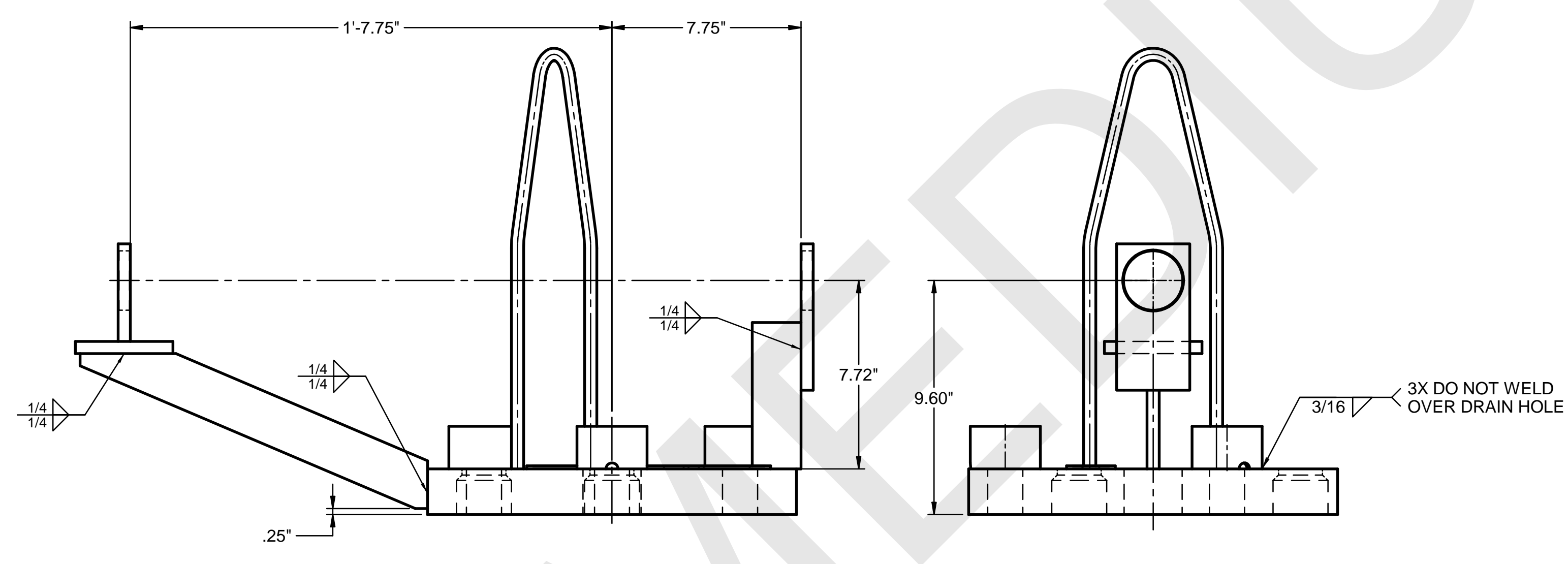
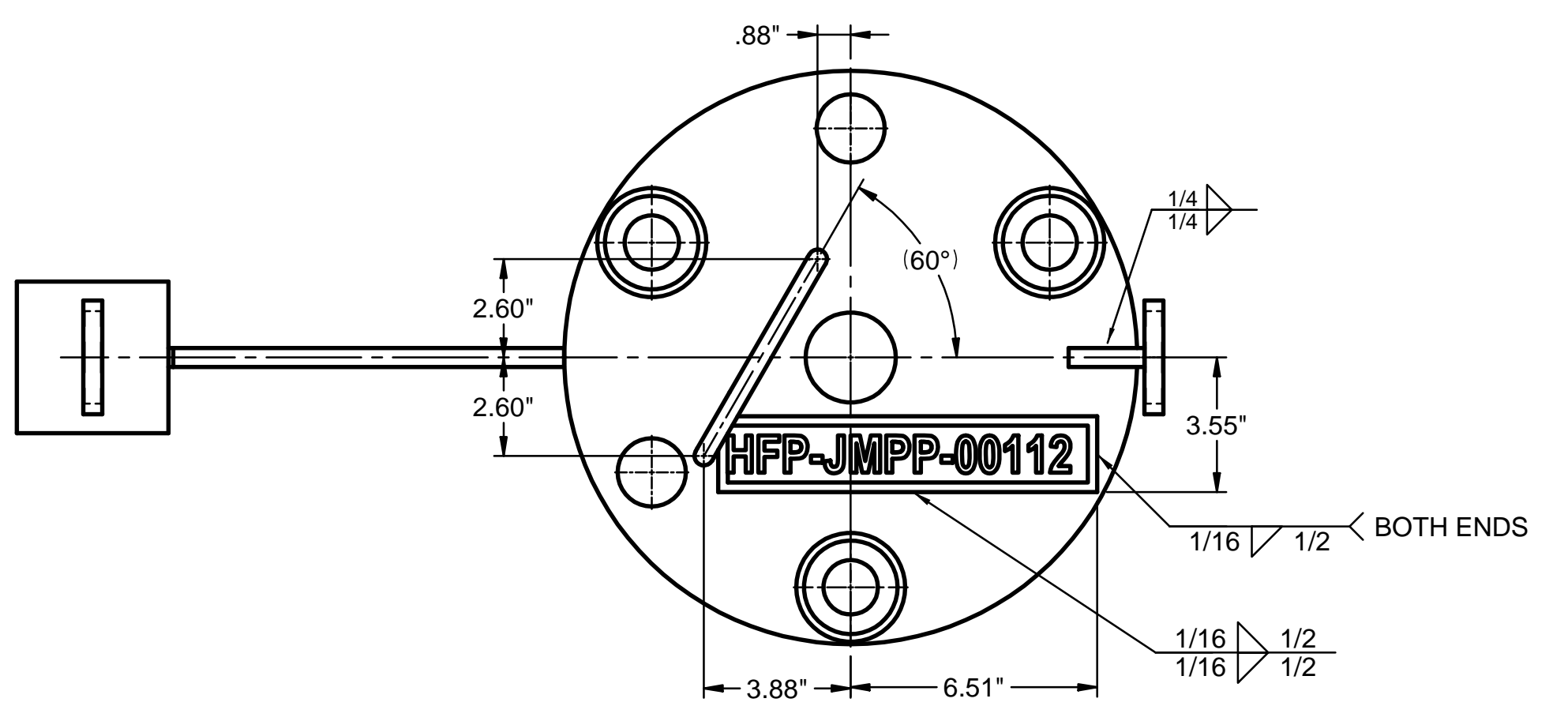
9 PL 1/2 THK
(GUIDE SUPPORT)



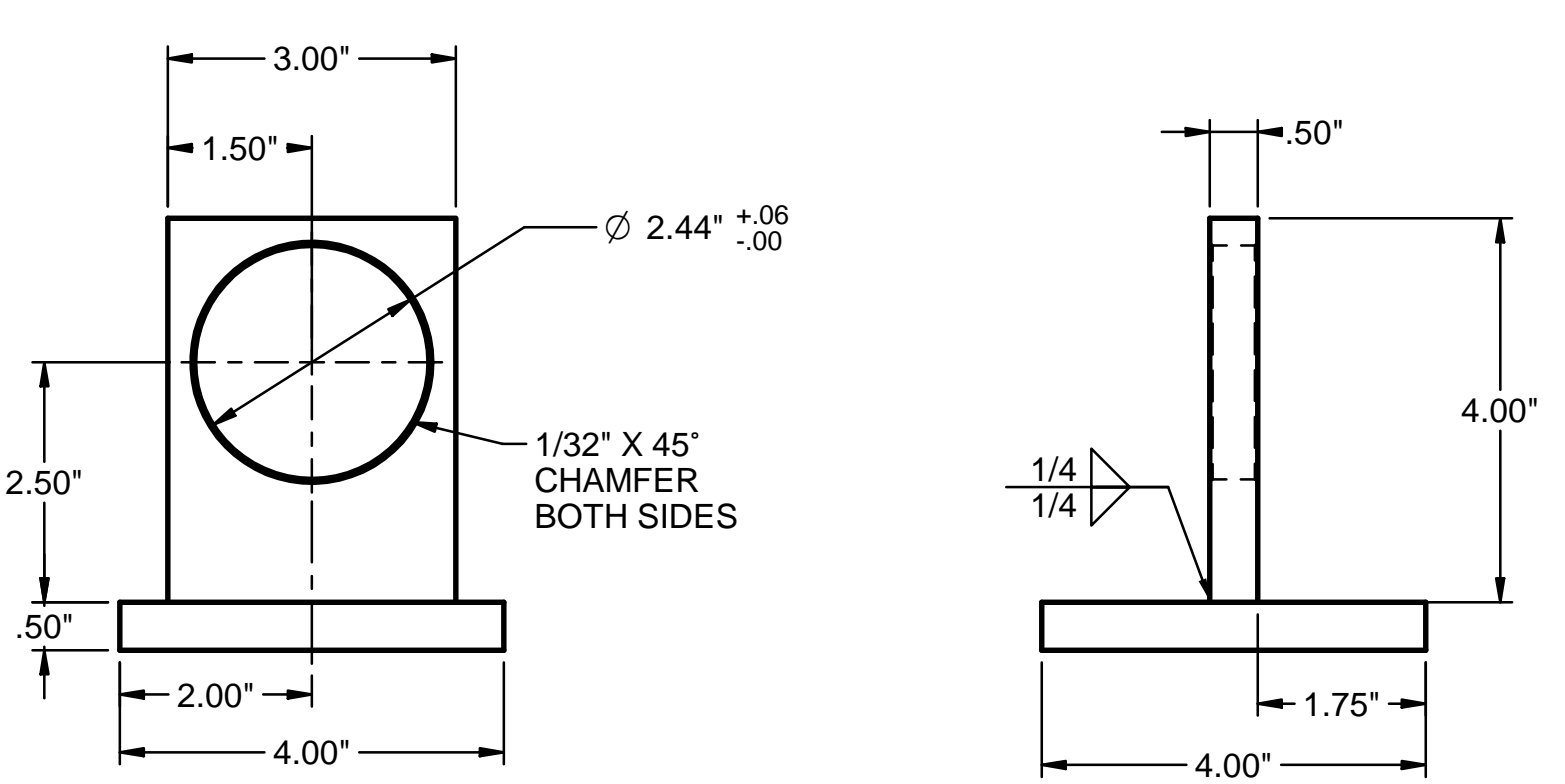
11 REMOTE FLANGE



12 BAR 1/2" DIA
(BAIL)



DETAIL 1
FLANGE WELDMENT
SOME PARTS NOT
SHOWN FOR CLARITY



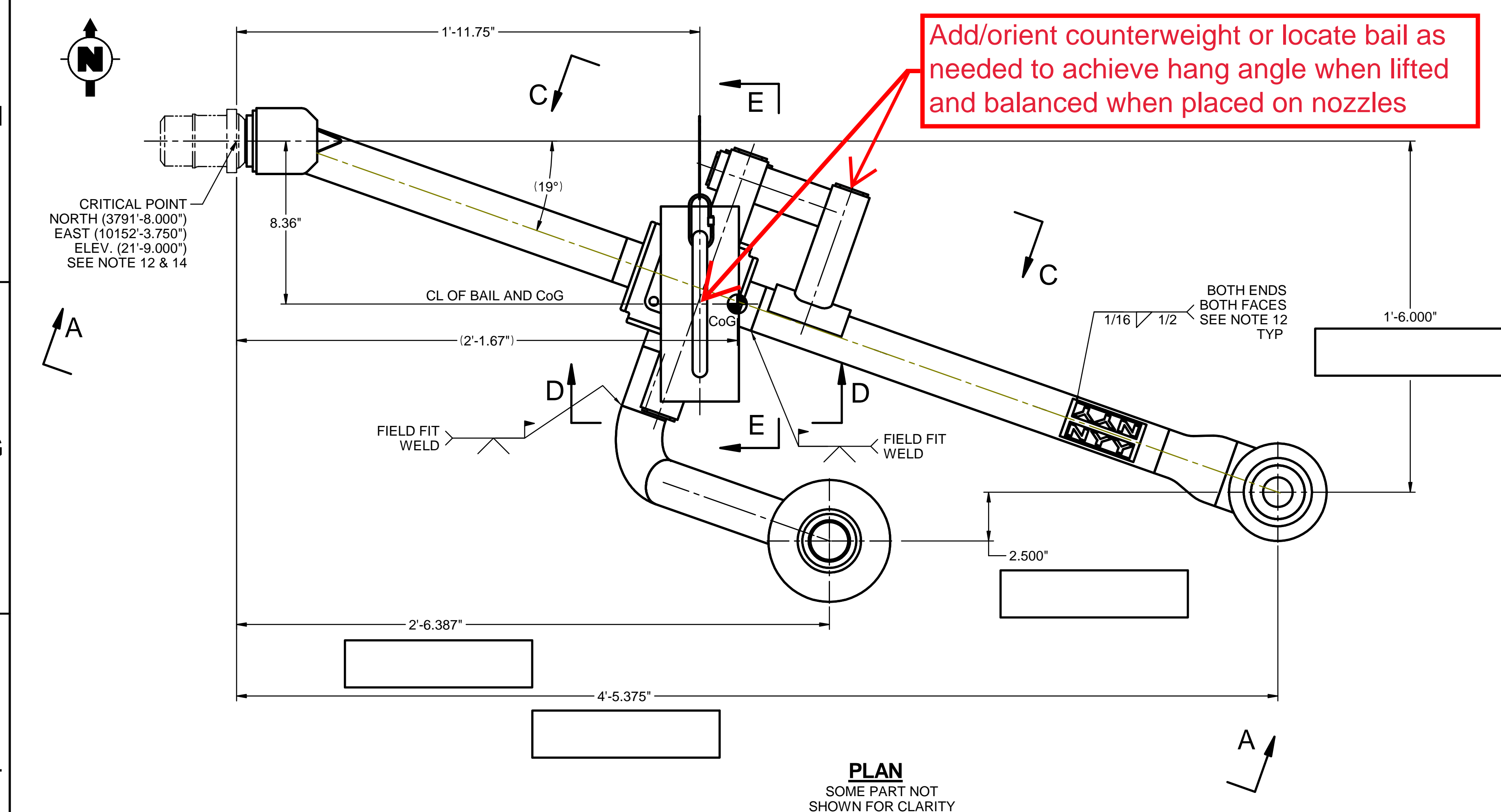
DETAIL 2
GUIDE ASSEMBLY

NOTES:
1. FOR GENERAL NOTES AND BILL OF MATERIALS LIST REFER TO SHEET 001.

DRAWING INDEX	
DWG NO	TITLE
24590-HLW-P61-P27T-00077001	HLW VITRIFCN BLDG PROCESS PIPING JUMPER - MLTR 1 HFP-JMPP-00112 SH 1
REFERENCE DRAWINGS	
DWG NO	TITLE
24590-HLW-M6-HFP-00002003	P&ID - HLW MELTER FEED PROCESS SYS MELTER FEED VESSEL HFP-VSL-00002

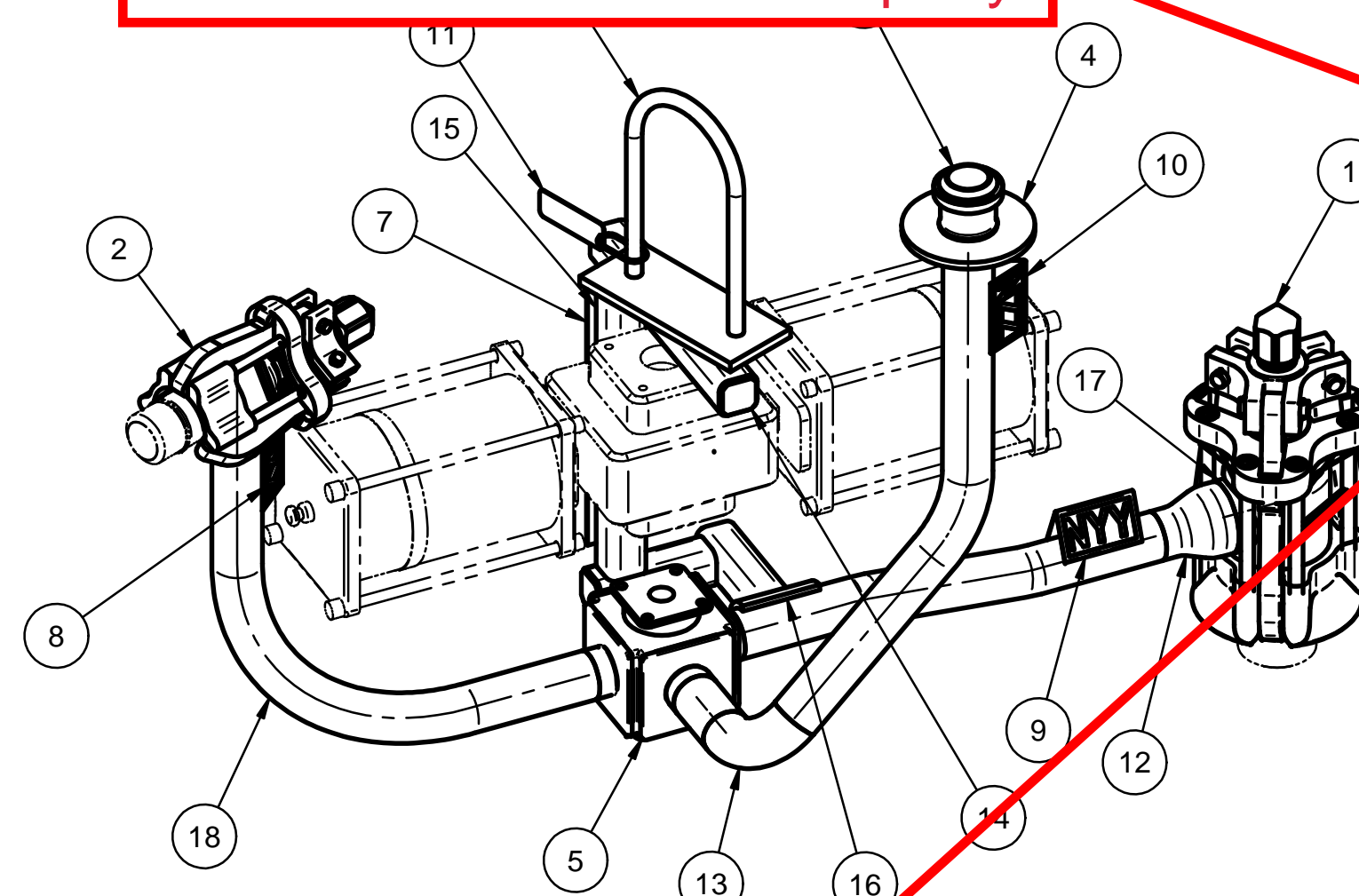
Q Quality Designer	
TOLERANCES	
.00	±.13
.000	±.063
FRACTION	± 1/8"
ANGLE	± .5°
BY	DATE
ORIGINATOR	SEE STAMP
CHECKER	SEE STAMP
APPROVER	1-27-25
REVIEWER	SEE STAMP
PROJECT No. 24590	
SITE HANFORD	
AREA 200E	
BUILDING No. 30	
CONTRACT No. DE-AC27-01RV14136	
RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2435 STEVENS CENTER PLACE RICHLAND, WA 99354	
HLW VITRIFICATION BUILDING MELTER 1 PROCESS PIPING JUMPER HFP-JMPP-00112 SHT. 2 OF 2	
24590-HLW-P61-P27T-00077002	
SCALE: NONE	
E' SIZE - 44x34	
COMPUTER GENERATED: MANUAL DESIGN CHANGES NOT PERMITTED	

CONTENTS OF THIS DOCUMENTS ARE
DANGEROUS WASTE PERMIT AFFECTING



Supplier to assemble PUREX Connector

Government Furnished Property



Name Plate by Supplier

ITEM NO	DESCRIPTION	MATERIAL	STOCK CODE	DOCUMENT NUMBER	QTY
1	3" VERT 3" IN & OUT CONNECTOR		JCPP31AV088	24590-WTP-M61-P23T-00088	1
2	HORIZONTAL 2" INLET & OUTLET PUREX CONNECTOR 2"		JCPP21AH087	24590-WTP-M61-P23T-00087	1
3	2" MALE NOZZLE SCHED 80		JCPP21NZ07	24590-WTP-M61-P23T-00005 PT 7	1
4	2" STANDARD ROUND KICK-OFF PLATE - PT4			24590-WTP-M61-P23T-00040	1
5	2" VALVE, HFP-VV-0039				1
6	LIFTING BAIL			24590-HLW-P61-P27T-00019 DET 2	1
7	NAMEPLATE			24590-HLW-P61-P27T-00020 PT5	1
8	NAMEPLATE NXX			24590-HLW-P61-P27T-00020 PT 8	1
9	NAMEPLATE NYY			24590-HLW-P61-P27T-00020 PT 9	1
10	NAMEPLATE NZZ			24590-HLW-P61-P27T-00020 PT 9	1
11	NAME TAG			24590-HLW-P61-P27T-00020 PT7	1
12	REDUCER CONC 3" X 2" SCHED 40S/SCHED 80S SMLS BW	ASTM A403 GR WP316/316L-S	PFCRV60G3X2K		1
13	ELBOW 2" 90° LR SCHED 80S SMLS BW	ASTM A403 GR WP316/316L-S	PFQNV60H1604		1
14	TS CAP 2" - SHEET 10 GA (.135)	ASTM A240 TYPE 304L	SS-A240-SH-10-GA		4
15	TS 2" x 2" x 1/4" x LG AS REQD	ASTM A554 GR MT304L	SS-A554-TS-2X2X1/4-SRL		4 LF
16	TUBING 3.00" DIA X .312 WALL X 4" LONG	ASTM A511 GR MT304L	SS-A511-TB-3X5/16		1
17	PIPE 3" SCHED 40S SMLS X LG AS REQD	ASTM A312 GR TP316/316L	PPPC0B0G0X02		1 LF
18	PIPE 2" SCHED 80S SMLS X LG AS REQD	ASTM A312 GR TP316/316L	PPPC0B0H0X00		5 LF

Specification to be supplied at RFP

Note

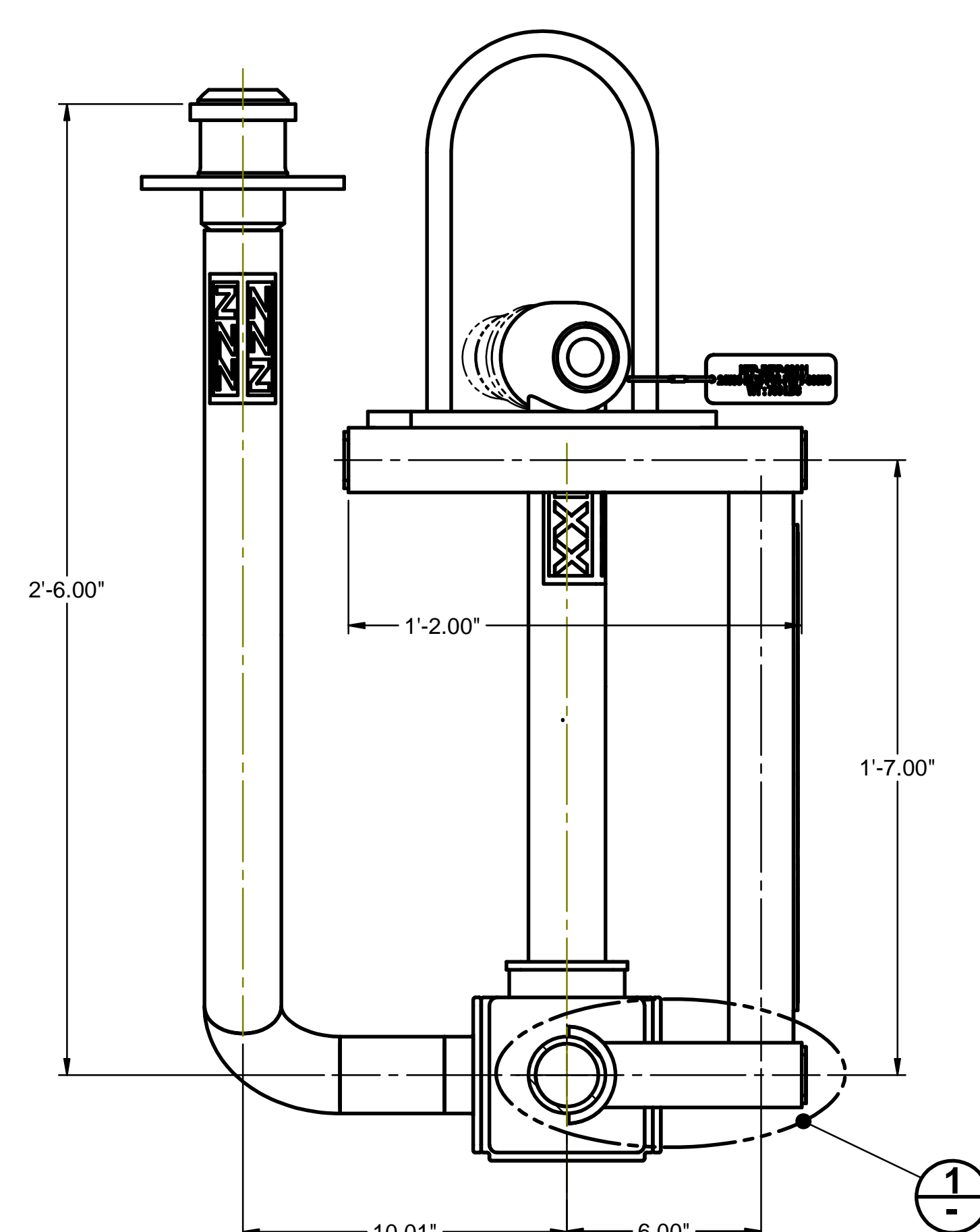
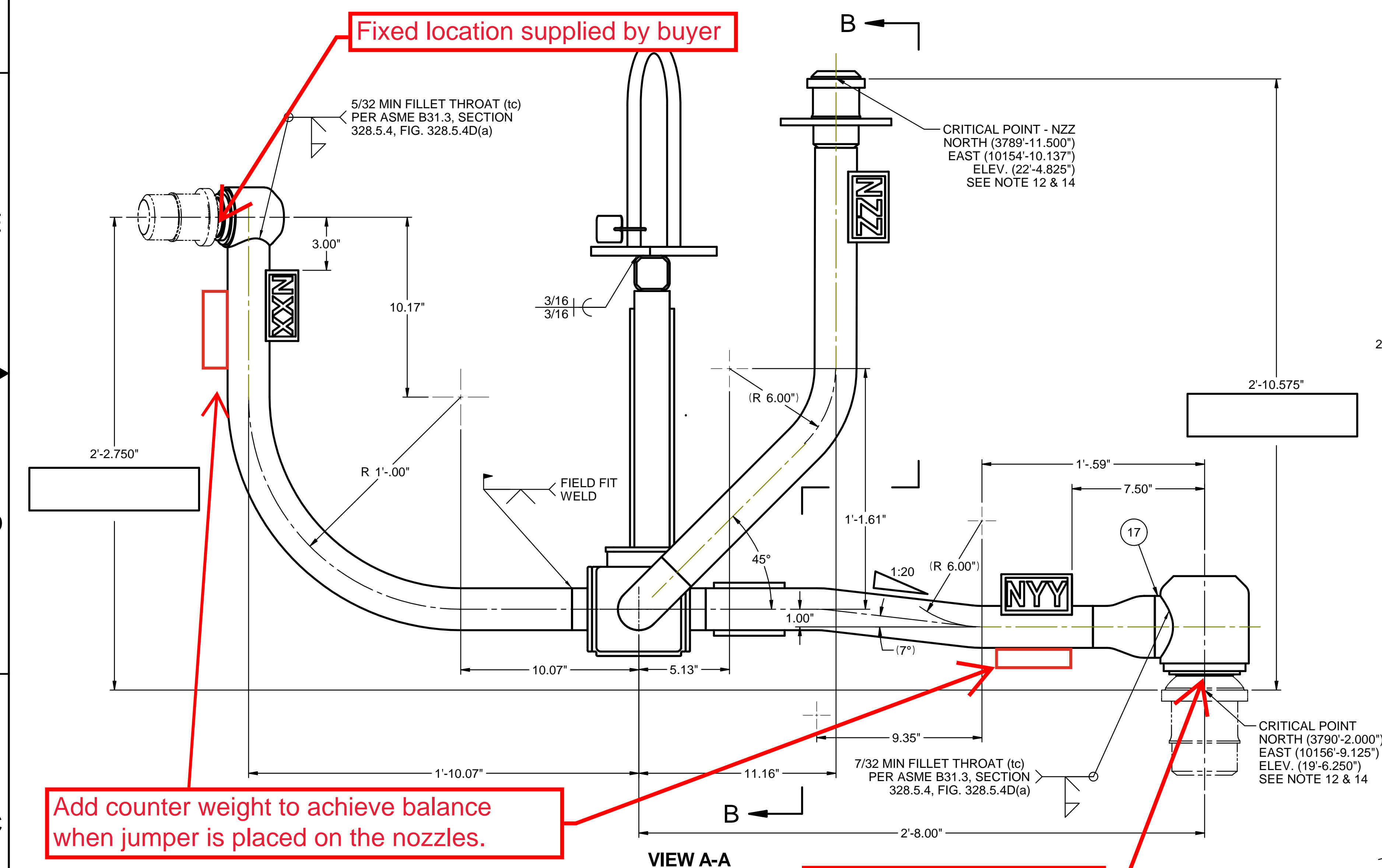
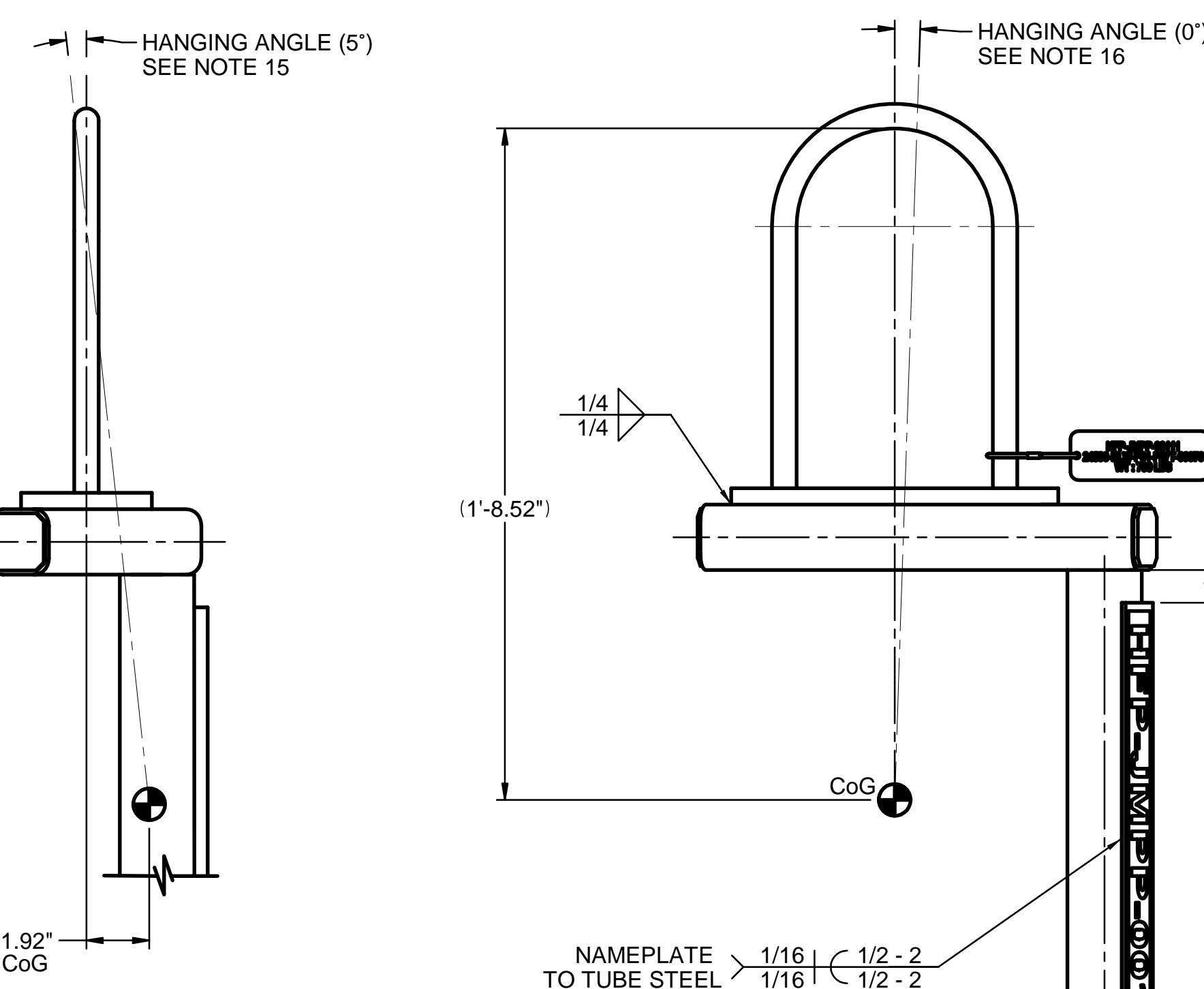
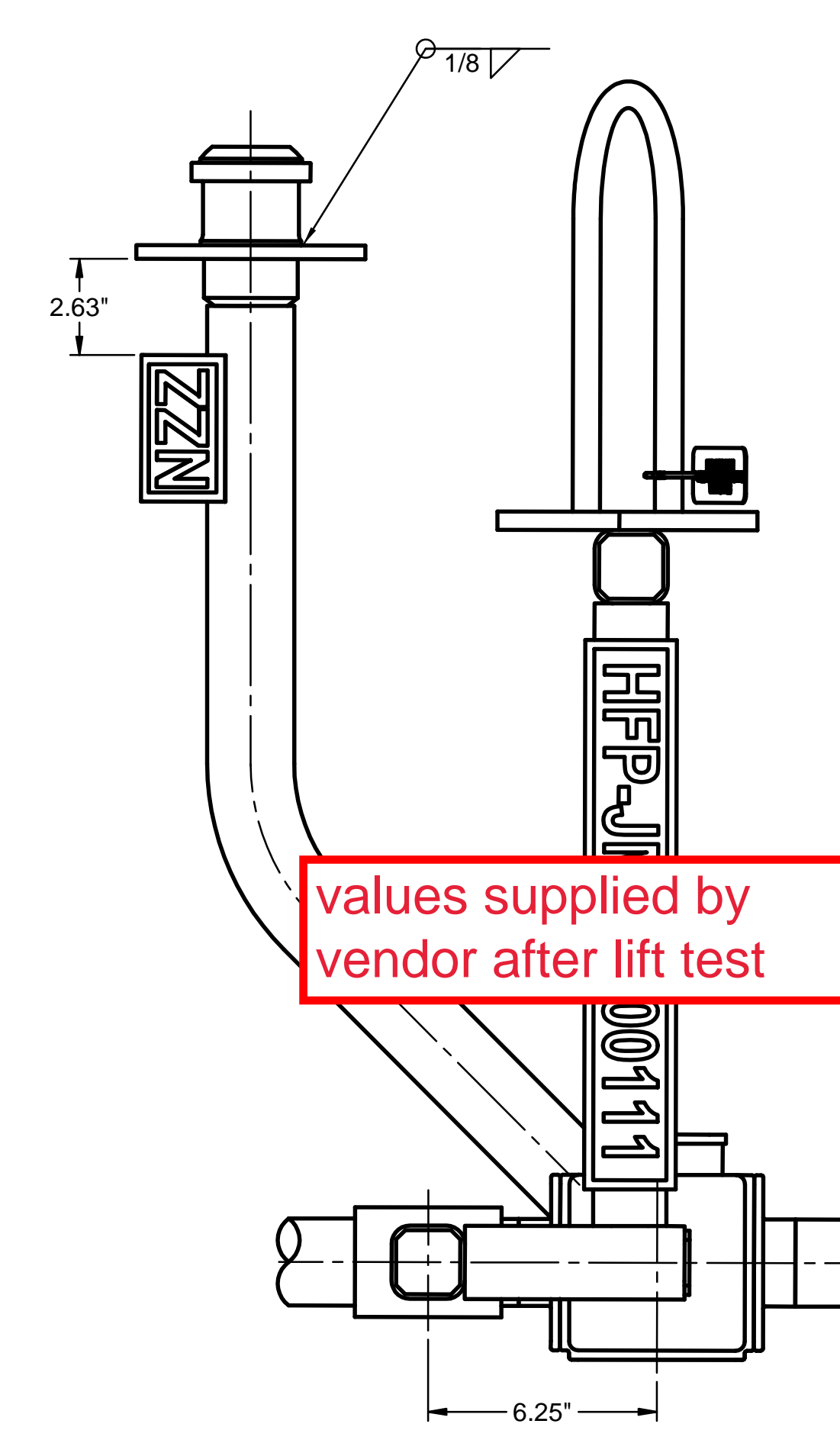
NOTES:

- FOR FABRICATION, TESTING, NDE, & TRANSPORTATION SEE SPECIFICATION 24590-WTP-3PS-PF00-T0001.
- ITEMS 1, 2 & 3 LISTED ON THIS DRAWING ARE GOVERNMENT FURNISHED PROPERTY.**
- RECORD SURVEYED VALUES FOR THE CRITICAL DIMENSIONS, HANGING ANGLE AND WEIGHT IN THE BOXES PROVIDED.
- THE ESTIMATED DRY WEIGHT OF THE JUMPER ASSEMBLY IS 786 LBS. RECORD FINAL WEIGHT IN BOX BELOW.
- PROCESS PIPING WILL HAVE A 3D BEND RADIUS UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE SPECIFIED.
- DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.
- DELETED.
- NAMEPLATES SHALL BE FABRICATED PER DRAWING 24590-HLW-P61-P27T-00020 AND LOCATED AS SHOWN:
A) MARK NAMEPLATE (ITEM 7) AS FOLLOWS: HFP-JMPP-00111
B) MARK NAME TAG (ITEM 11) AS FOLLOWS: HFP-JMPP-00111
24590-HLW-P61-P27T-00076
WT: SEE BOX IN NOTE 4.
- ALL ITEMS SHOWN ARE QUALITY LEVEL Q AND SEISMIC CATEGORY III, UNLESS OTHERWISE SPECIFIED.
- BREAK ALL SHARP EDGES AND REMOVE ALL BURRS.
- SEE DRAWING 24590-HLW-P61-P27T-00032 FOR NAMEPLATE NOZZLE NUMBERING AND EQUIPMENT CROSSWALK.
- FIELD TO VERIFY FINAL NOZZLE LOCATIONS PRIOR TO FULL FABRICATION AND INSTALLATION OF JUMPER.
- CRITICAL POINT FOR THE PUREX NOZZLE EXISTS AT THE INTERSECTION OF THE CENTERLINE AND THE LOCATING PLANE (FLAT FACE) OF THE NOZZLE. SEE DRAWING 24590-WTP-P61-P27T-00001, DETAIL 9.
- JUMPER SHALL BE BALANCED SUCH THAT ITEM 1 ENGAGES WITH NOZZLE FIRST. DESIGNED HANGING ANGLE IS 5°. ACTUAL HANGING ANGLE SHALL BE 3° MIN / 9° MAX. (SEE NOTE 14).
- DESIGN OUT OF PLANE HANGING ANGLE IS 0°. ACTUAL HANGING ANGLE SHALL BE ± 1°. (SEE NOTE 14).
- PROVIDE VENT HOLE IN ITEM 16 TO RELEASE TRAPPED GASES DURING WELDING.

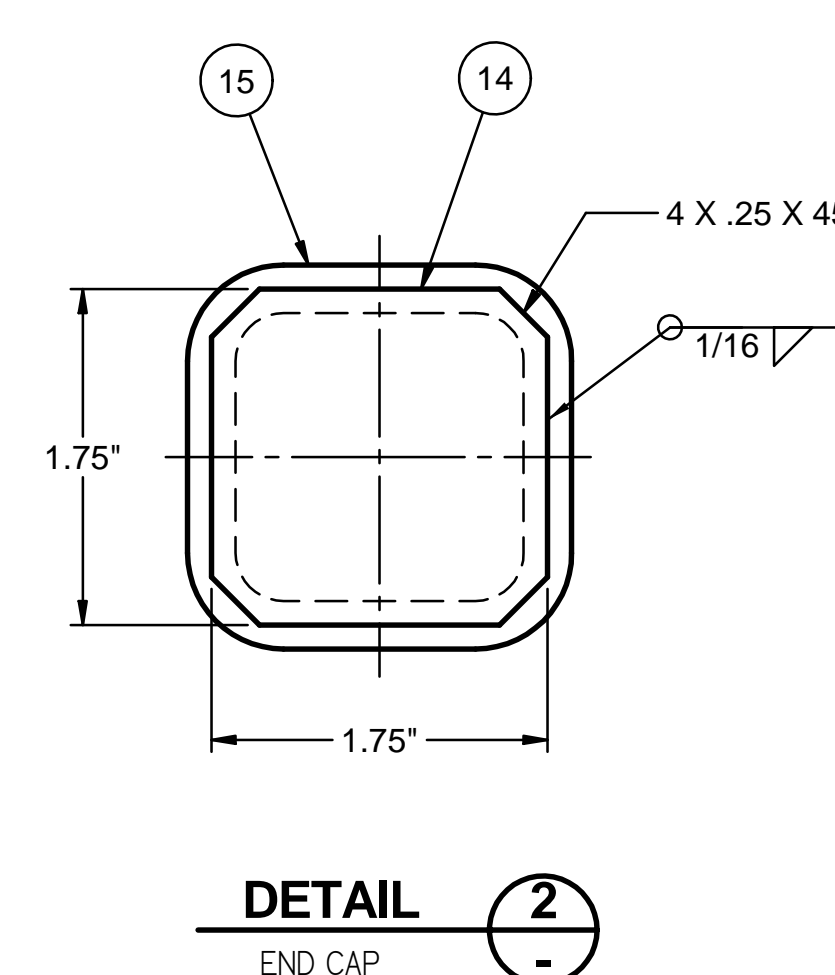
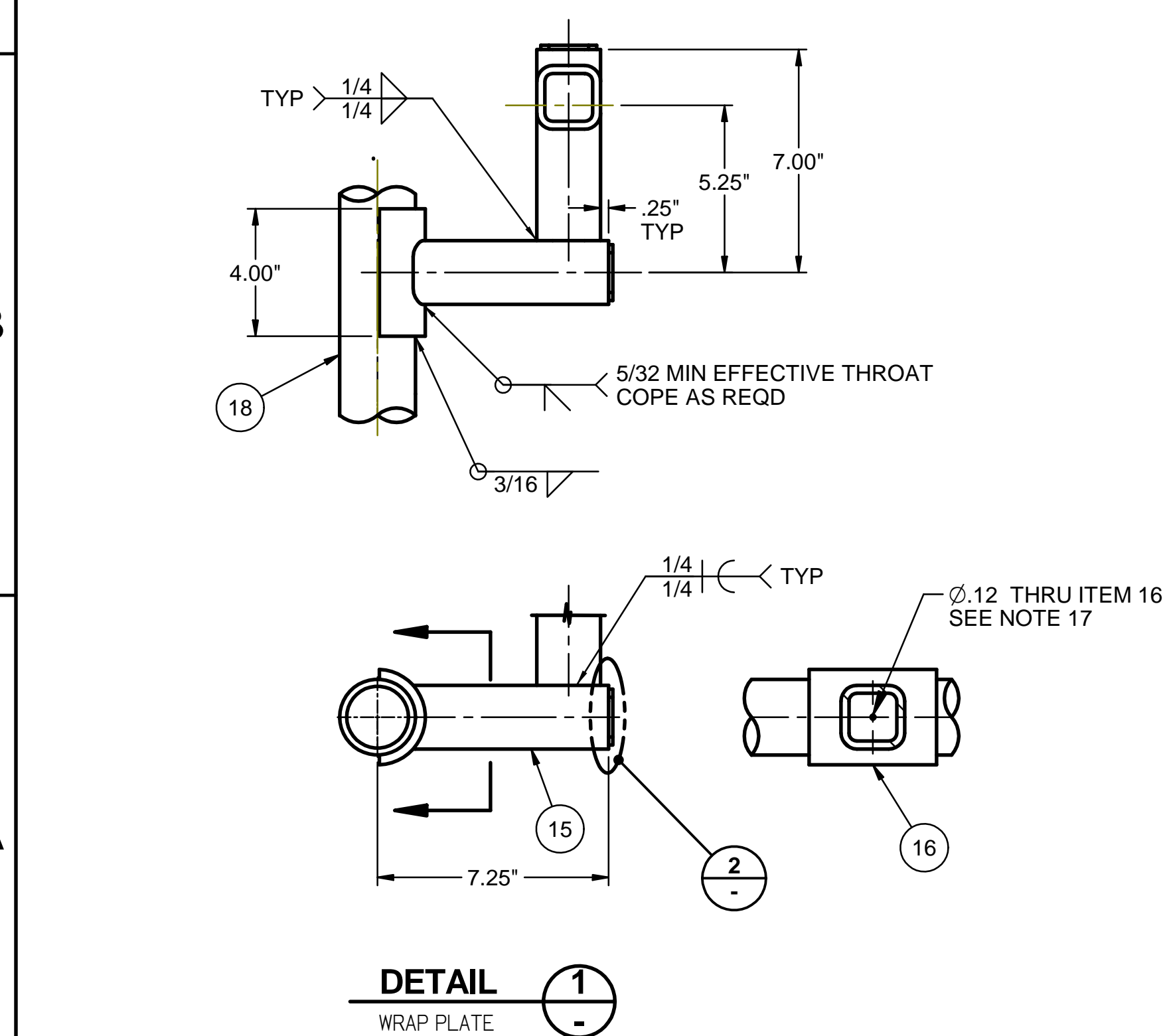
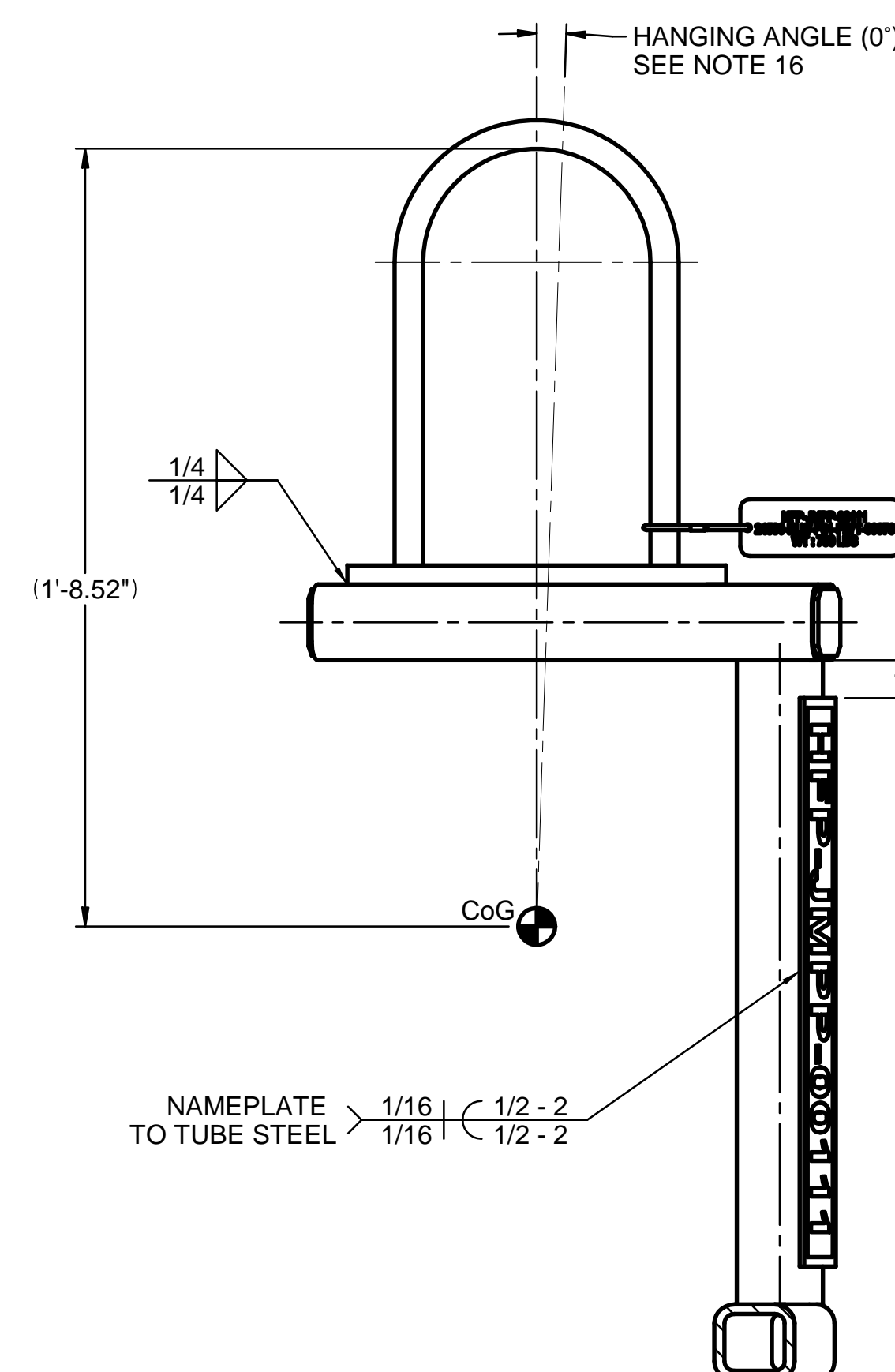
values supplied by vendor after lift test

Temperature controlled fab area and stored in shop up to twelve months

Supplier to fabricate jumper based on final nozzle as-built location, validate balance of jumper, confirm set jumper stays on location without hook.
RT film retention required.
Shop to ship jumpers with final adjustment made in buyer.
Material requisition to be a basic order agreement.

**VIEW C-C**

Load test of jumpers per specification for Q jumpers

**SECTION E-E**

CONTENTS OF THIS DOCUMENT ARE DANGEROUS WASTE PERMIT AFFECTING



TOLERANCES	
±.13	±.063
±.1/8	±.5°
FRACTION ANGLE	

ISSUED BY RFP-WTP PDC	
ORIGINATOR	DATE
CHECKER	DATE
APPROVER	DATE
REVIEWER	DATE

PROJECT No. 24590	
SITE	HANFORD
AREA	200E
BUILDING No.	30

REVISION HISTORY	
ORIGINATOR	DATE
CHECKER	DATE
APPROVER	DATE
REVIEWER	DATE

CONTRACT No. DE-AC27-01RV14136	
RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2435 STEVENS CENTER PLACE RICHLAND, WA 99354	
HLW VITRIFICATION BUILDING PROCESS PIPING JUMPER - MELTER 1 HFP-JMPP-00111	
24590-HLW-P61-P27T-00076	

SCALE: NONE	
REV: 2	

DATE: 01/27/2025 07:11 AM	
---------------------------	--

H

G

F

E

D

C

B

A

H

G

F

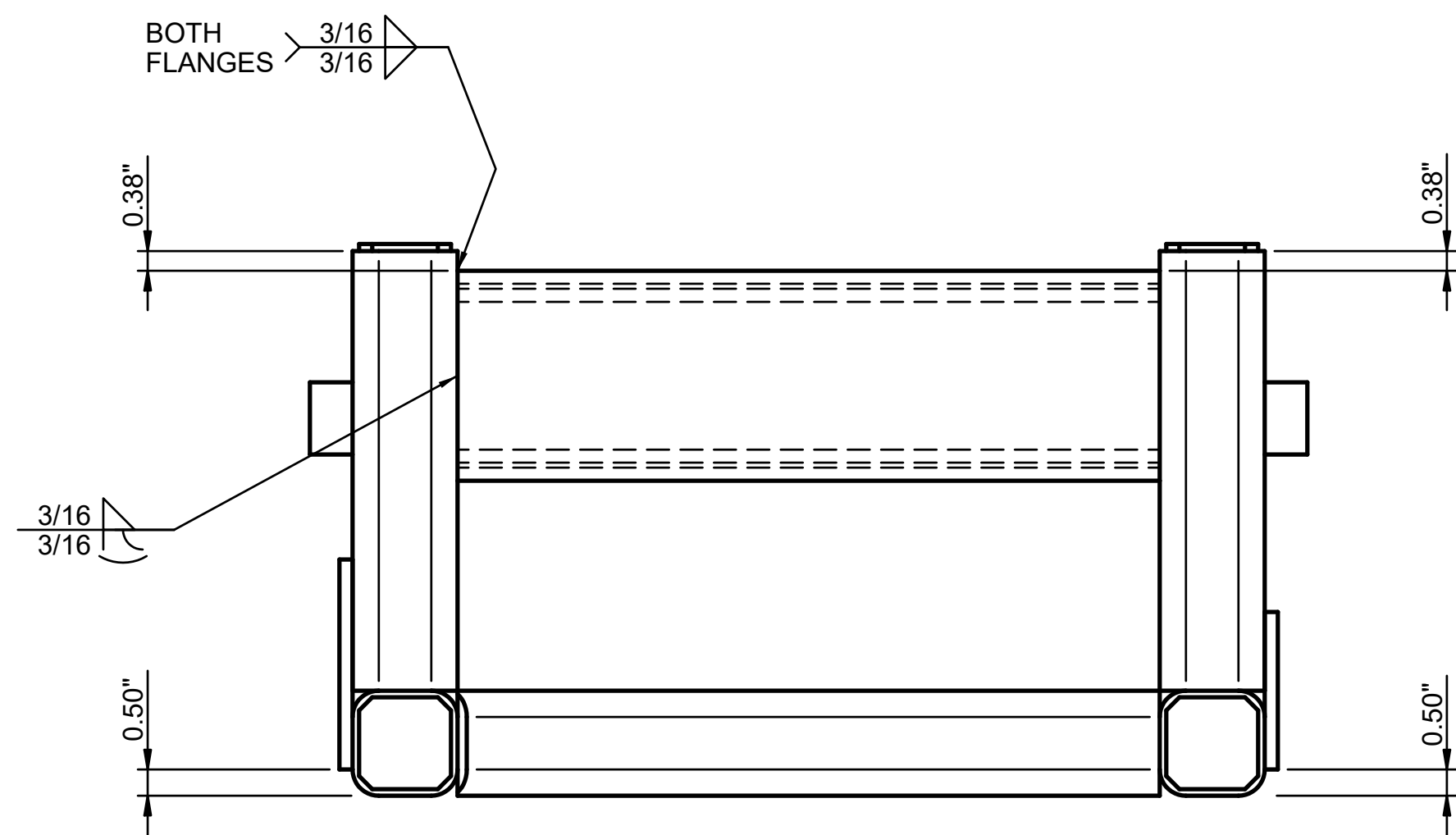
E

D

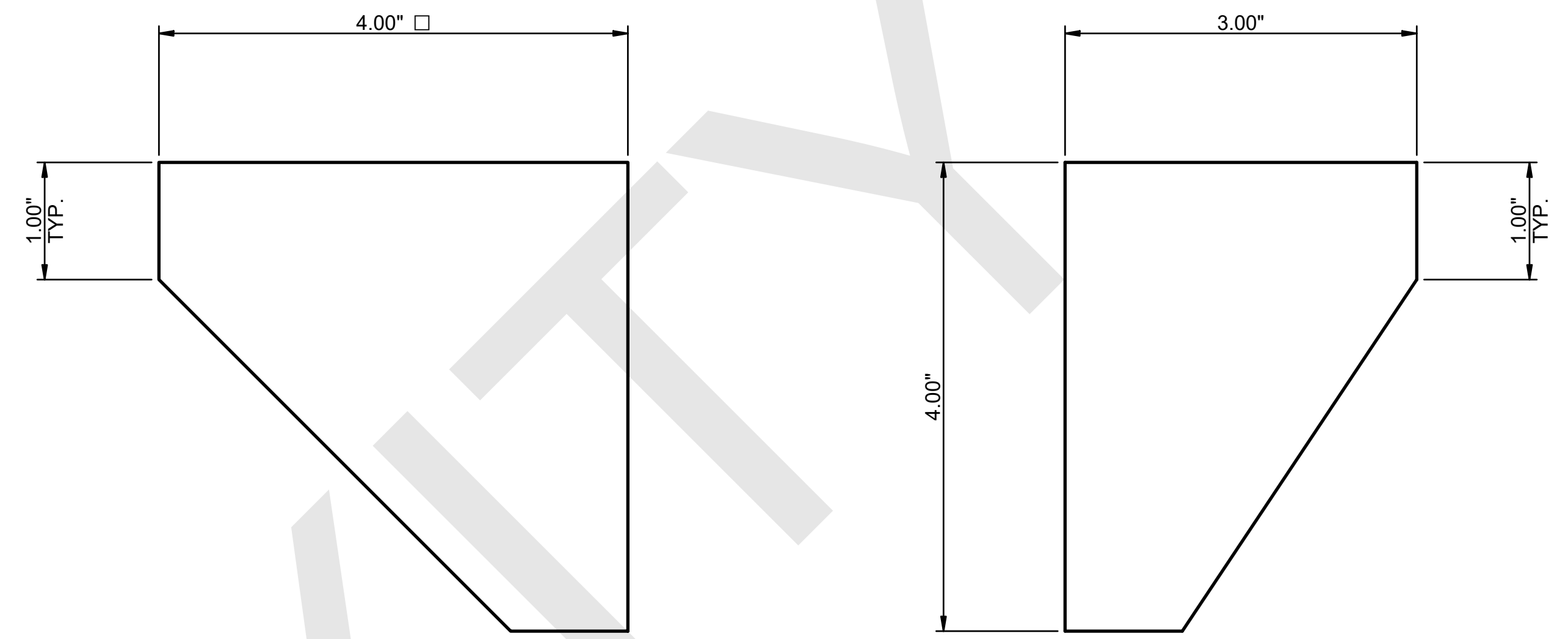
C

B

A

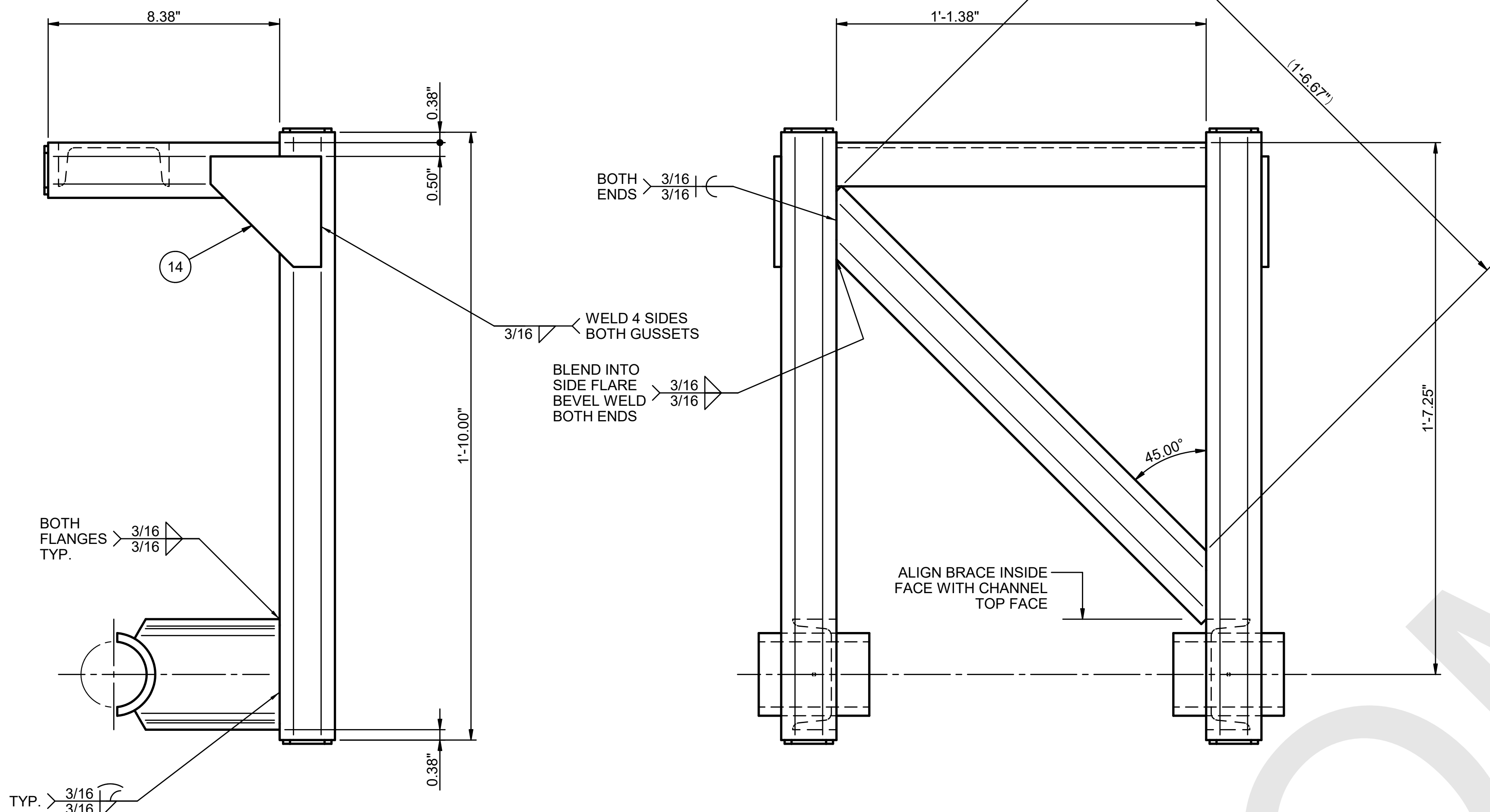


PLAN



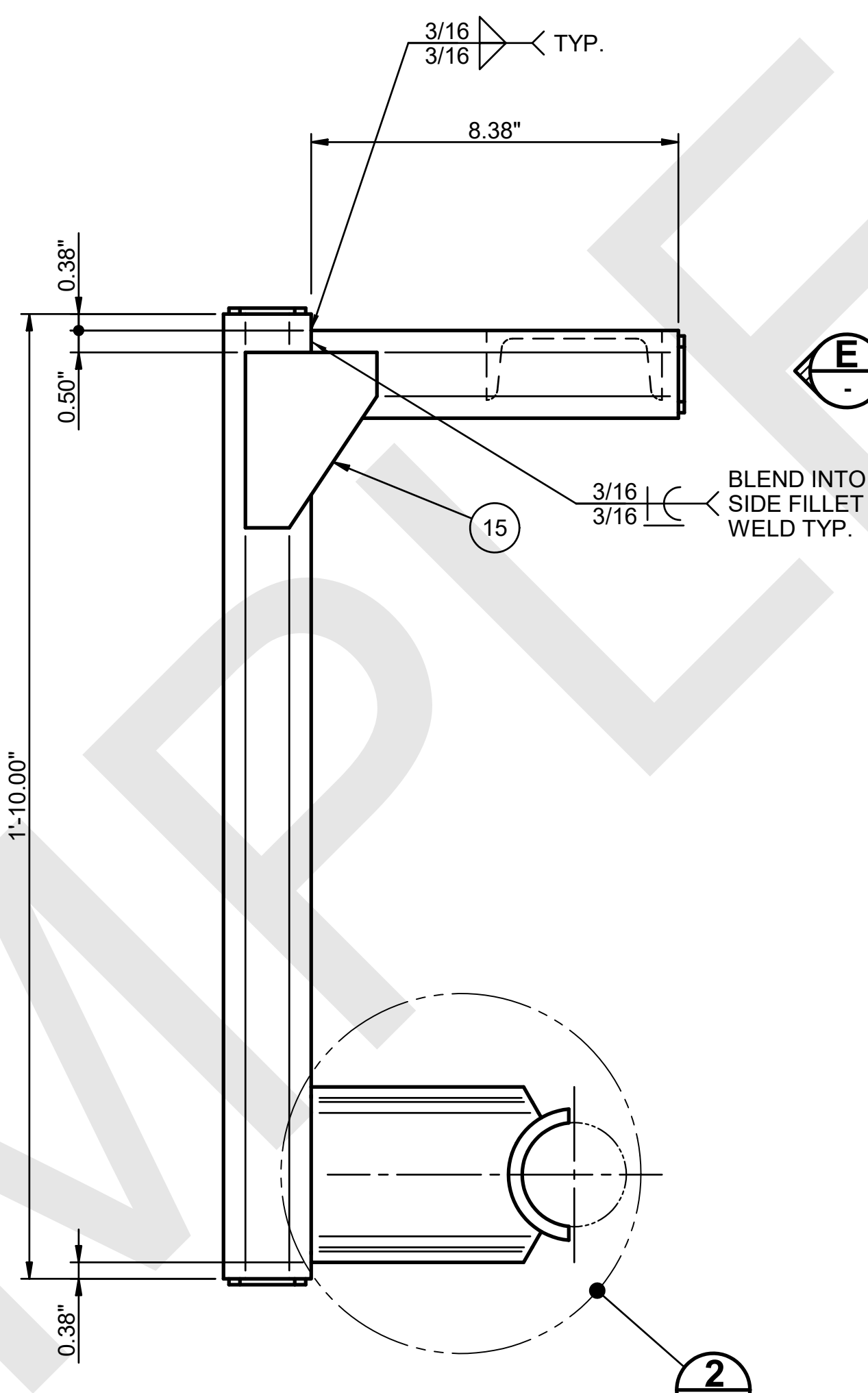
14 GUSSET

15 GUSSET

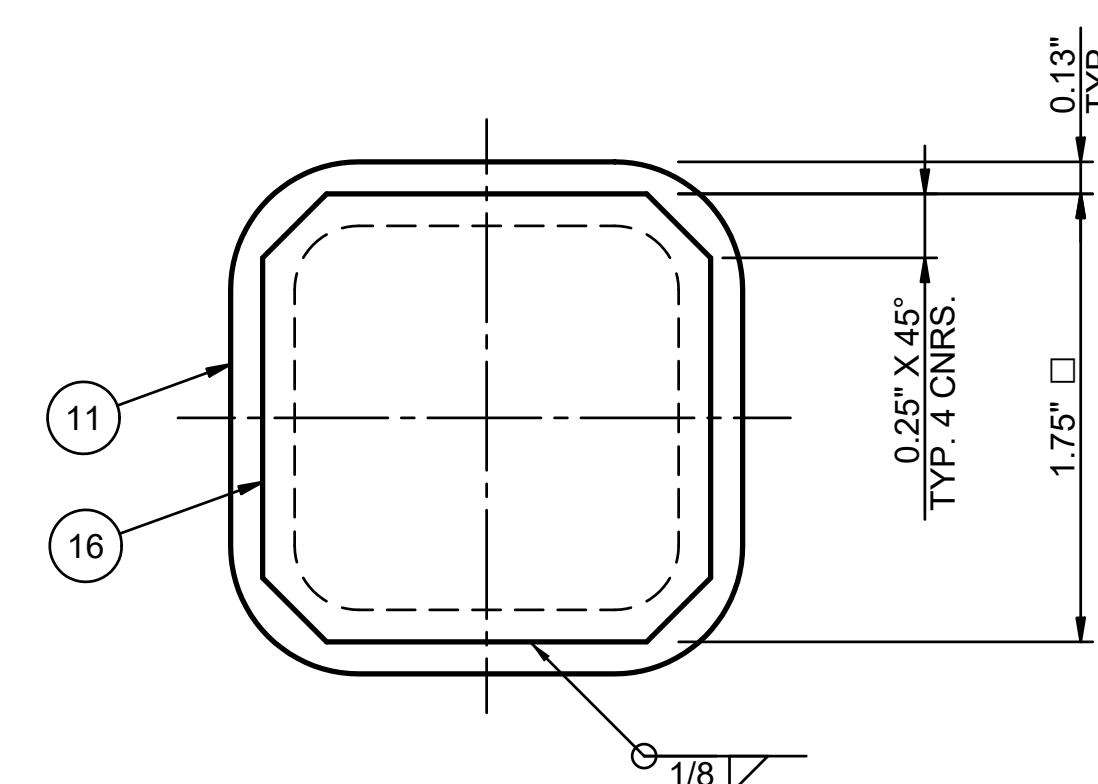


END ELEVATION

DETAIL 1
LIFT FRAME



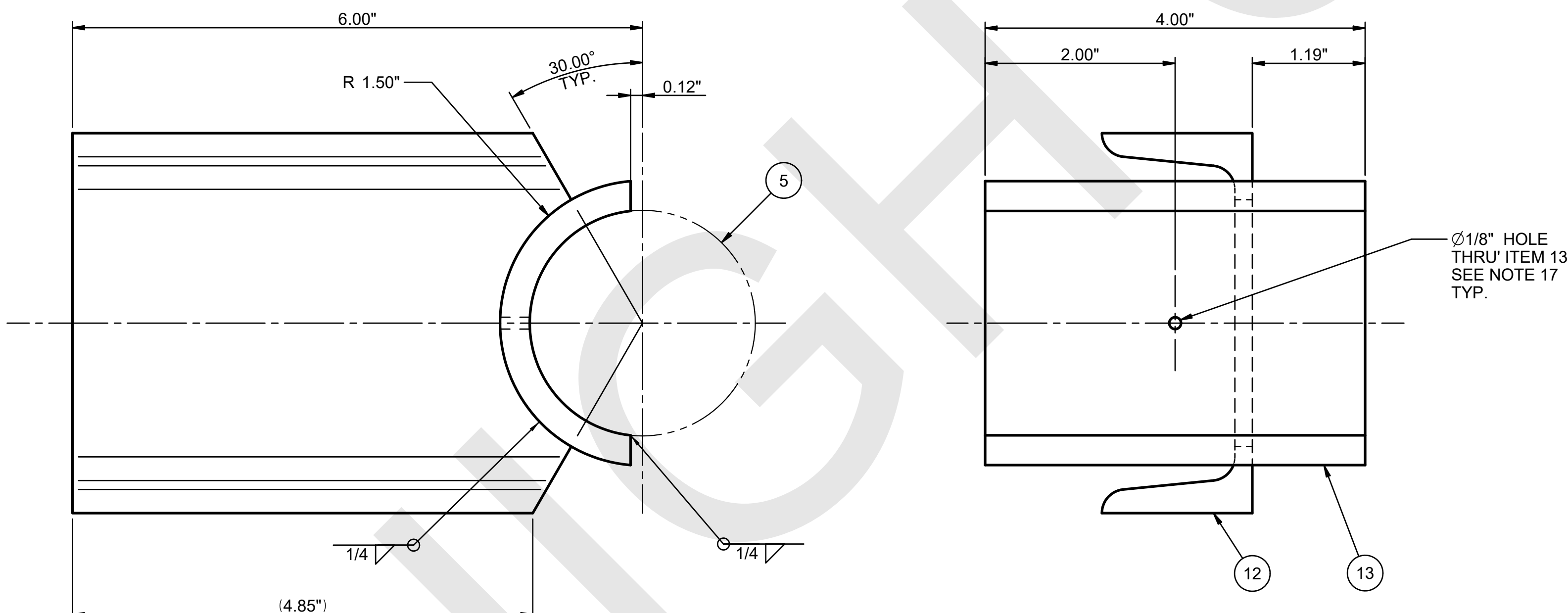
END ELEVATION



VIEW E
TUBE END CAP
6 PLCS.

NOTES:

1. FOR GENERAL NOTES AND BILL OF MATERIAL LIST, REFER TO SHEET 001.



DETAIL 2
TYP. 2 PLCS.

END ELEVATION

Reviewed No Comments
Checked
Reviewed No Comments

Q Quality Designer
TOLERANCES
± 0.13
± 0.063
± 1/8"
± 0.5"

ISSUED BY
PROJECT No. 24590
SITE HANFORD
AREA 200E
BUILDING No. 30
DATE
ORIGINATOR
CHECKER
APPROVER
REVIEWER

DRAWING INDEX	
DWG NO	TITLE
24590-HLW-P61-P27T-00075001	HLW VITRIFICATION BLDG PROCESS PIPING JUMPER - MLTR 1 HFP-JMPP-00110 SH 1
REFERENCE DRAWINGS	
DWG NO	TITLE
24590-HLW-M6-HFP-00001002	HLW MELTER FEED PROCESS SYSTEM SAMPLE TRANSFER PUMPS HFP-PMP-00005AB

REVISION HISTORY	
REV	DESCRIPTION
1	ISSUE FOR USE
2	DESCRIPTION

CONTRACT No. DE-AC27-01RV14136
RIVER PROTECTION PROJECT
WASTE TREATMENT PLANT
2435 STEVENS CENTER PLACE
RICHLAND, WA 99354
HLW VITRIFICATION BUILDING
PROCESS PIPING JUMPER - MELTER 1
HFP-JMPP-00110
SHT 2 OF 2
24590-HLW-P61-P27T-00075002
REV A

CONTENTS OF THIS DOCUMENT ARE
DANGEROUS WASTE PERMIT AFFECTING

CONTENT APPLICABLE TO ALARA? ☒ YES ☐ NO
ADR NO. 24590-WTP-ADR-PL-02-005 REV. 2

H

G

F

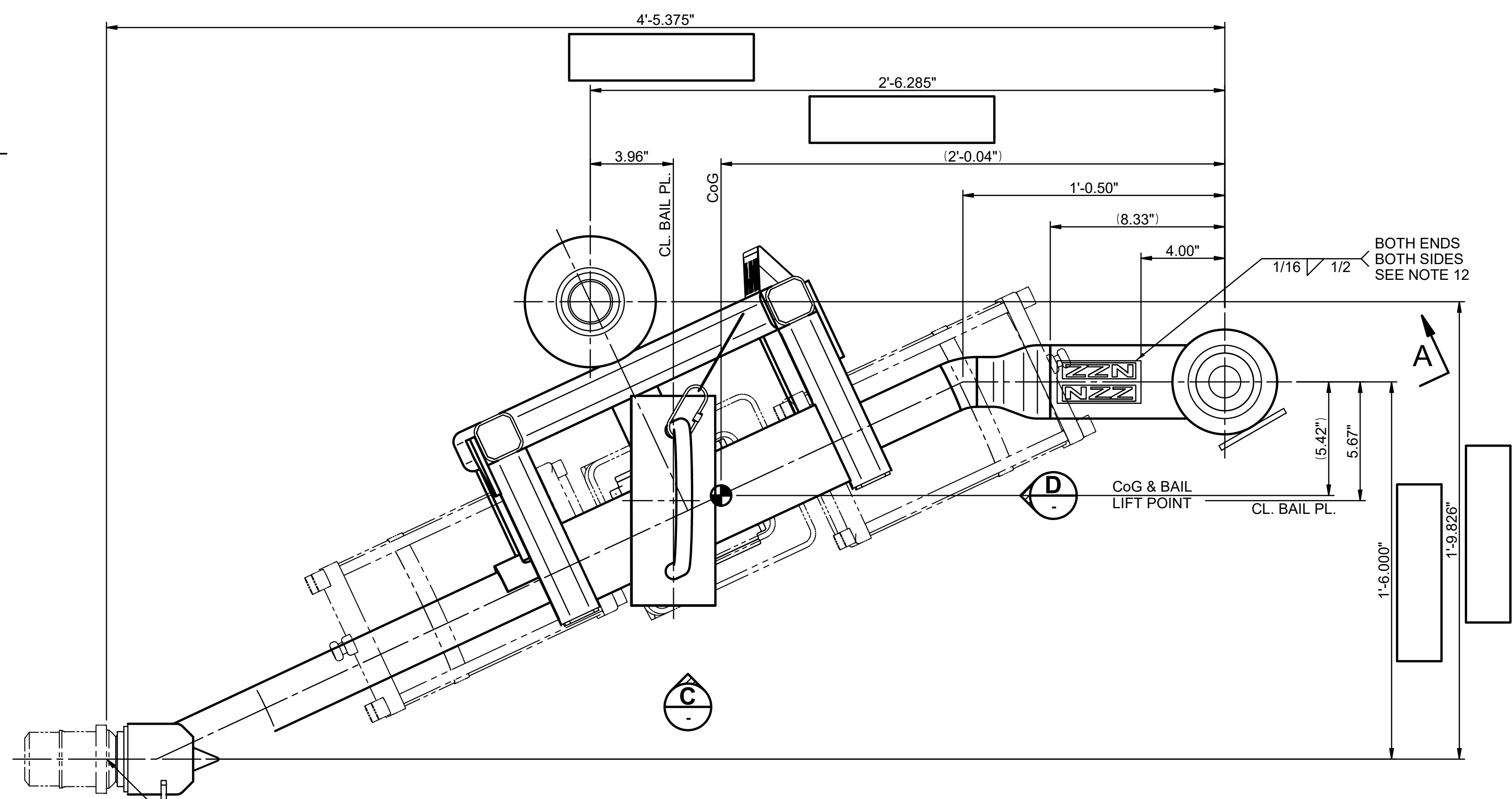
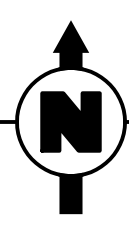
E

D

C

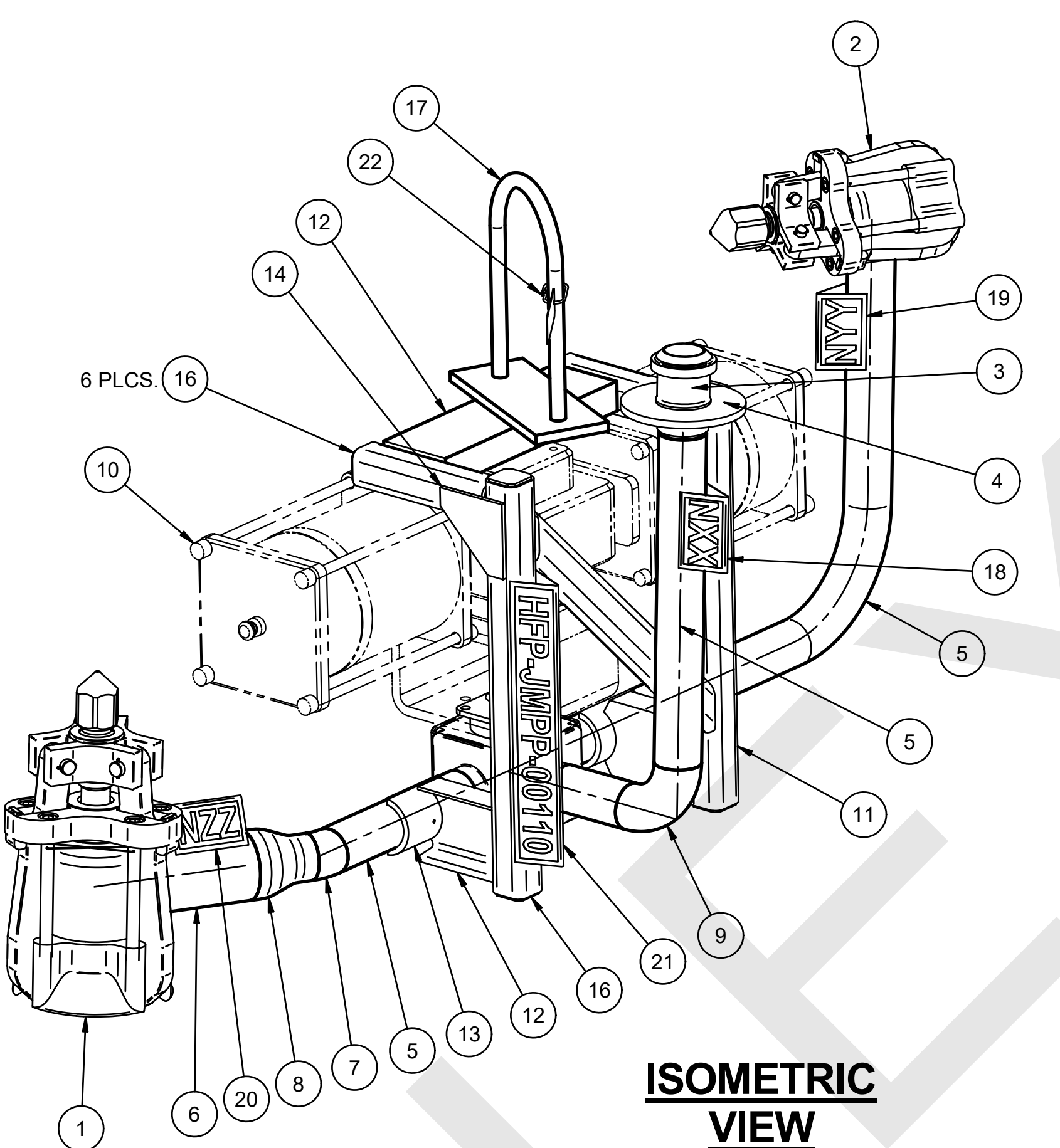
B

A

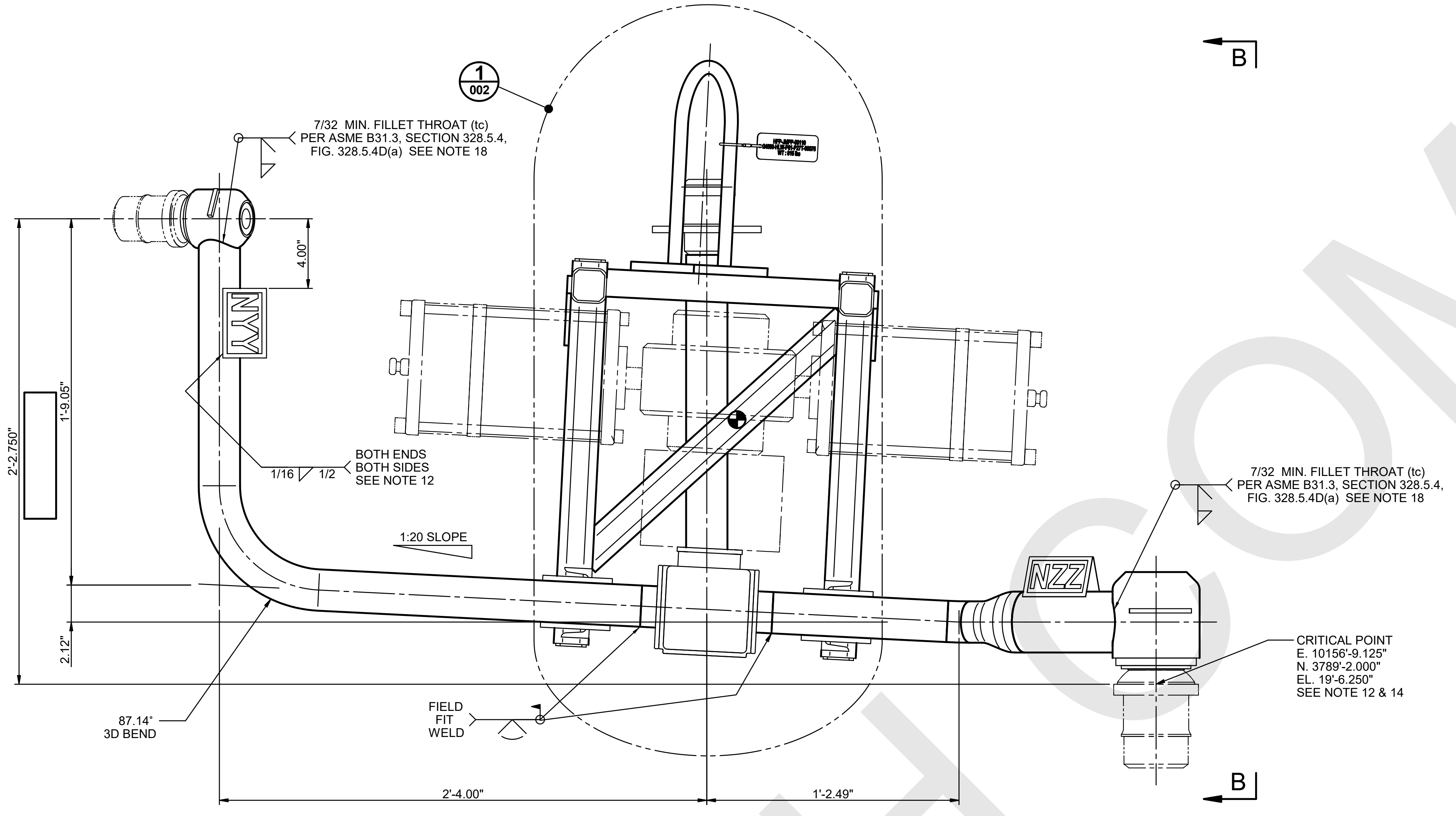


PLAN

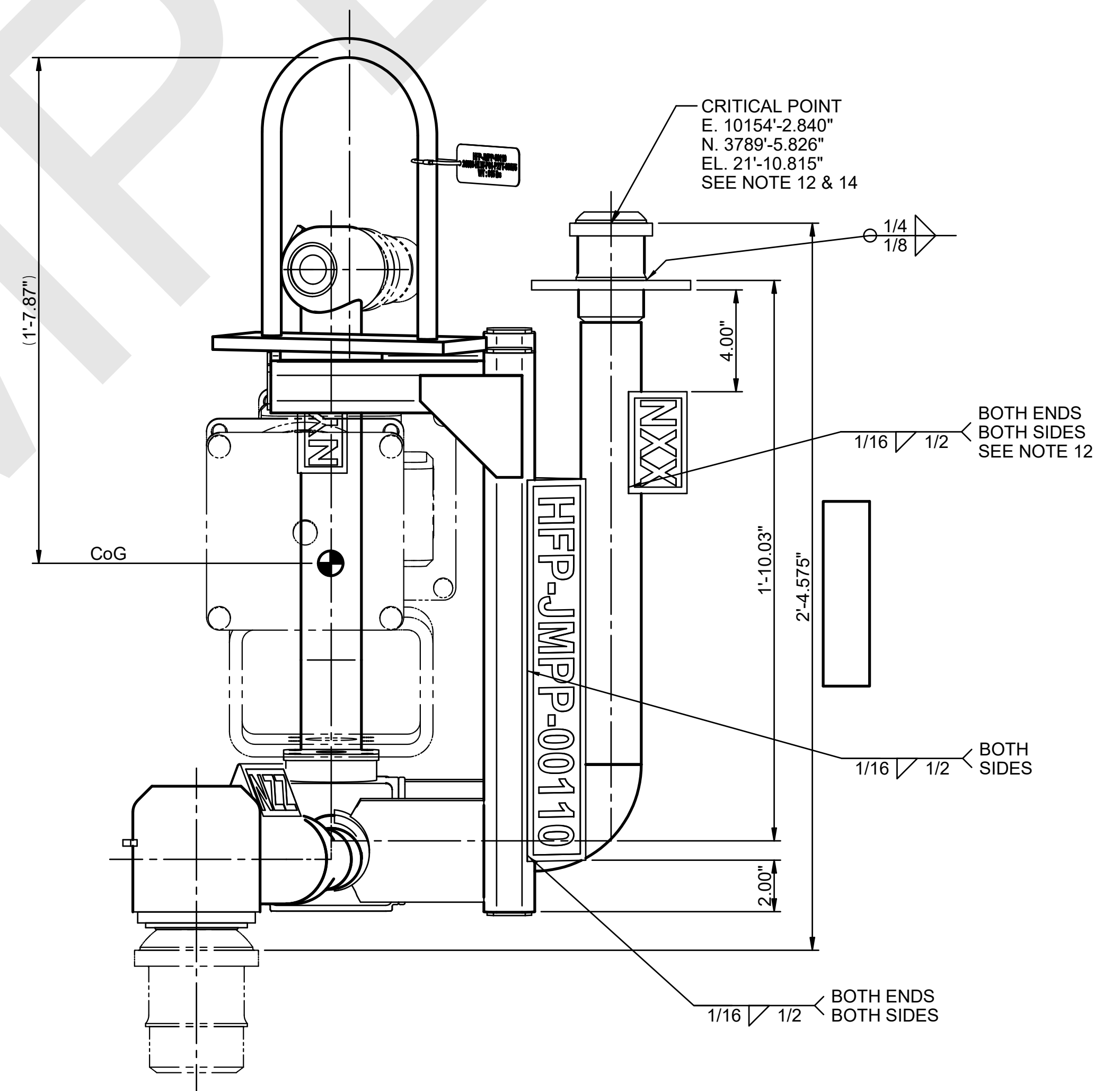
SOME CONNECTOR PARTS OF ITEMS 1 & 2, NOT SHOWN FOR CLARITY



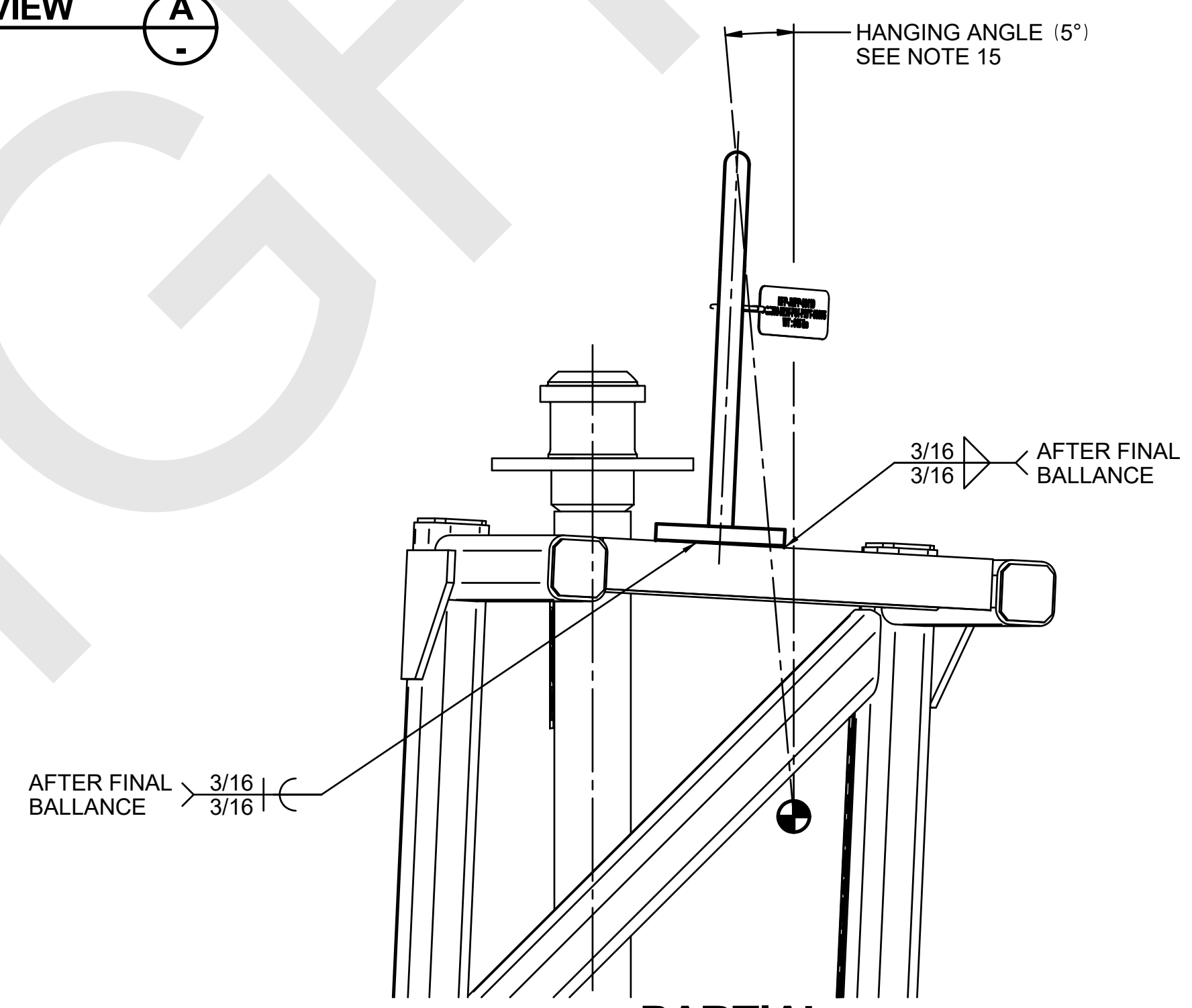
ISOMETRIC VIEW



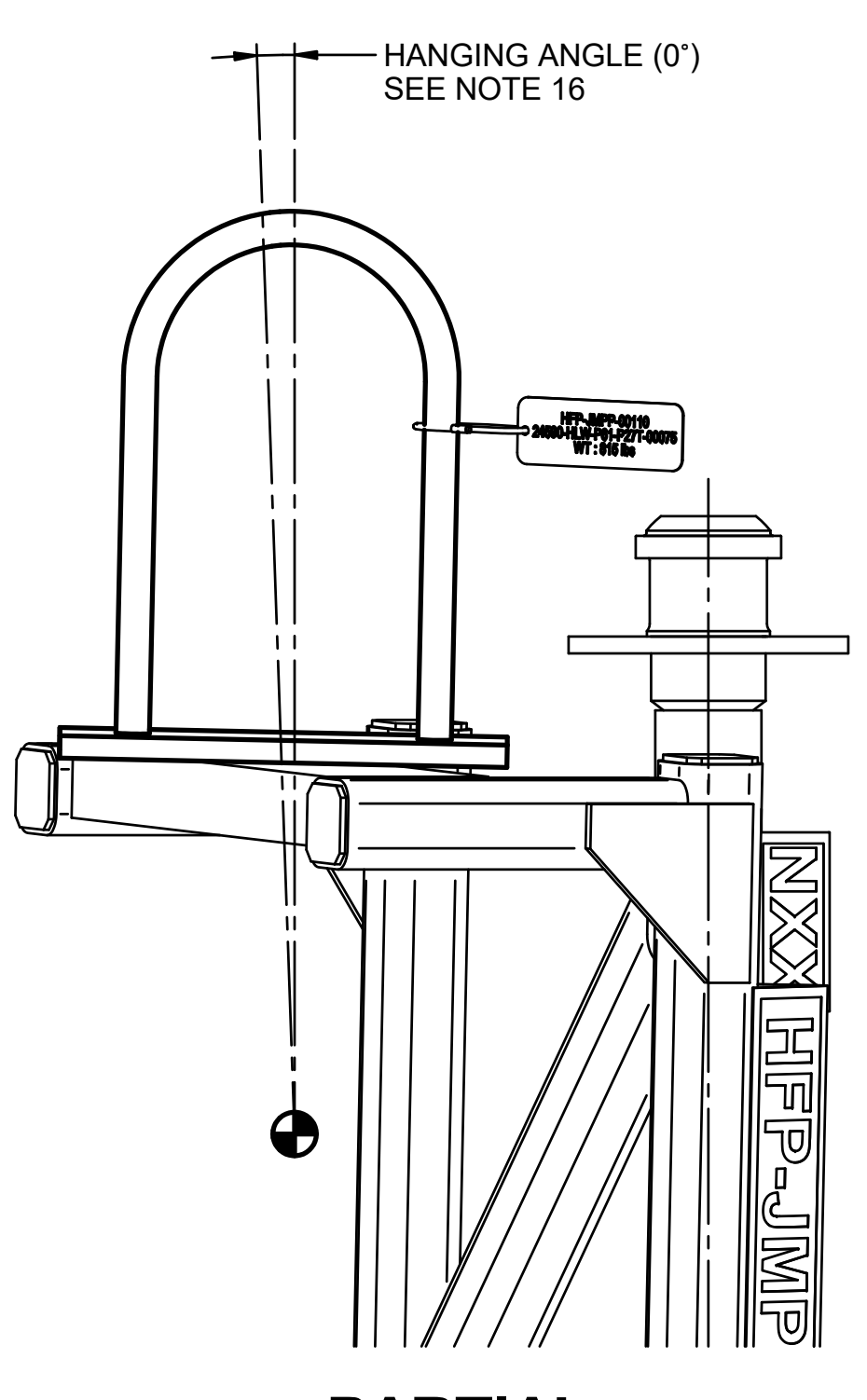
VIEW A



VIEW B



PARTIAL VIEW C



PARTIAL VIEW D

CONTENTS OF THIS DOCUMENT ARE DANGEROUS WASTE PERMIT AFFECTING

ITEM NO	DESCRIPTION	MATERIAL	STOCK CODE	DOCUMENT NUMBER	QTY
1	VERTICAL 3" INLET & OUTLET PUREX CONNECTOR		JCPP31AV088	24590-WTP-M61-P23T-00088	1
2	HORIZONTAL 2" INLET & OUTLET PUREX CONNECTOR		JCPP21AH087	24590-WTP-M61-P23T-00087	1
3	2" MALE NOZZLE SCHED 80		JCPP21NZ07	24590-WTP-M61-P23T-00005 PART 7	1
4	2" STANDARD ROUND KICK-OFF PLATE			24590-WTP-M61-P23T-00040 PART 4	1
5	PIPE 2" SCHED 80S SMLS X LG AS REQD	ASTM A312 GR TP316/316L	PPPC0B0H0X00		4 LF
6	PIPE 3" SCHED 40S SMLS X LG AS REQD	ASTM A312 GR TP316/316L	PPPC0B0G0X02		1 LF
7	ELBOW 2" 45° LR SCHED 80S SMLS BW (TRIMMED 25.22")	ASTM A403 GR WP316/316L	PFRNV60H1404		1
8	REDUCER CONC 3" X 2" SCHED 40S/SCHED 80S SMLS BW	ASTM A403 GR WP316/316L	PFCRV60G3X2K		1
9	ELBOW 2" 90° LR SCHED 80S SMLS BW	ASTM A403 GR WP316/316L	PFRNV60H1604		1
10	BALL VALVE 2" 3-WAY (HFP-YV-0040)				1
11	TS 2" x 2" x 1/4" X LG. AS REQD	ASTM A554 GR MT304L	SS-A554-TS-2X2X1-SRL	SEE DETAIL, SHEET 002	6 LF
12	C4 x 5.4 X LG AS REQD	ASTM A276 TYPE 304L		SEE DETAIL, SHEET 002	3 LF
13	TUBING 3.00" DIA. X 5/16" WALL X 4" LG.	ASTM A511 GR MT304L		SEE DETAIL, SHEET 002	2
14	PL 1/4" THK (GUSSET)	ASTM A240 TYPE 304L	SS-A240-PL-1/4	SEE DETAIL, SHEET 002	1
15	PL 1/4" THK (GUSSET)	ASTM A240 TYPE 304L	SS-A240-PL-1/4	SEE DETAIL, SHEET 002	1
16	TS CAP 2" - SHEET 10 GA (.135)	ASTM A240 TYPE 304L	SS-A240-SH-10GA		6
17	LIFTING BAIL			24590-HLW-P61-P27T-00019 DET 2	1
18	NAMEPLATE NXX			24590-HLW-P61-P27T-00020 PART 8	1
19	NAMEPLATE NYY			24590-HLW-P61-P27T-00020 PART 9	1
20	NAMEPLATE NZZ			24590-HLW-P61-P27T-00020 PART 2	1
21	NAMEPLATE x 15" LG.			24590-HLW-P61-P27T-00020 PART 4	1
22	NAME TAG x 4 1/4" LONG			24590-HLW-P61-P27T-00020 PART 7	1

NOTES:

- FOR FABRICATION, TESTING, NDE, & TRANSPORTATION SEE SPECIFICATION: 24590-WTP-3PS-PF00-T0001.
- ITEMS 1, 2, 3 & 4 LISTED ON THIS DRAWING ARE GOVERNMENT FURNISHED PROPERTY.
- RECORD SURVEYED VALUES FOR THE CRITICAL DIMENSIONS, HANGING ANGLE AND WEIGHT IN BLANK BOXES PROVIDED ON THIS DRG.
- THE ESTIMATED DRY WEIGHT OF THE JUMPER ASSEMBLY IS 815 lbs. RECORD FINAL WEIGHT IN BOX BELOW.
- PROCESS PIPING WILL HAVE A 3D BEND RADIUS UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE SPECIFIED.
- DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.
- DELETED
- NAMEPLATES SHALL BE FABRICATED PER DRAWING 24590-HLW-P61-P27T-00020 AND LOCATED AS SHOWN:
A) MARK NAMEPLATE (ITEM 21) AS FOLLOWS: HFP-JMPP-00110
B) MARK NAMEPLATE (ITEM 22) AS FOLLOWS: HFP-JMPP-00110
24590-HLW-P61-P27T-00075
WT: (SEE WEIGHT BOX NOTE 4) lbs.
- ALL ITEMS SHOWN ARE QUALITY LEVEL Q AND SEISMIC CATEGORY III, UNLESS OTHERWISE SPECIFIED.
- BREAK ALL SHARP EDGES AND REMOVE ALL BURRS.
- SEE DRAWING 24590-HLW-P61-P27T-00032 FOR NAMEPLATE NOZZLE NUMBERING AND EQUIPMENT CROSSWALK.
- FIELD TO VERIFY FINAL NOZZLE LOCATIONS PRIOR TO FULL FABRICATION AND INSTALLATION OF JUMPER.
- CRITICAL POINT FOR THE PUREX NOZZLE EXISTS AT THE INTERSECTION OF THE CENTERLINE AND THE LOCATING PLANE (FLAT FACE) OF THE NOZZLE. SEE DRAWING 24590-WTP-P61-P27T-00001, DETAIL 9.
- JUMPER SHALL BE BALANCED SUCH THAT ITEM 1 ENGAGES WITH NOZZLE FIRST (SEE NOTE 14). DESIGNED HANGING ANGLE IS 5°. ACTUAL HANG ANGLE SHALL BE 3° MIN / 9° MAX.
- DESIGNED OUT OF PLANE HANGING ANGLE IS 0°. ACTUAL HANG ANGLE SHALL BE ±1°. (SEE NOTE 14)
- PROVIDE VENT HOLE IN ITEM 13 TO RELEASE TRAPPED GASES DURING WELDING.
- TAPERBORE PIPE I.D. TO MATCH I.D. OF PUREX PORT AS REQUIRED.

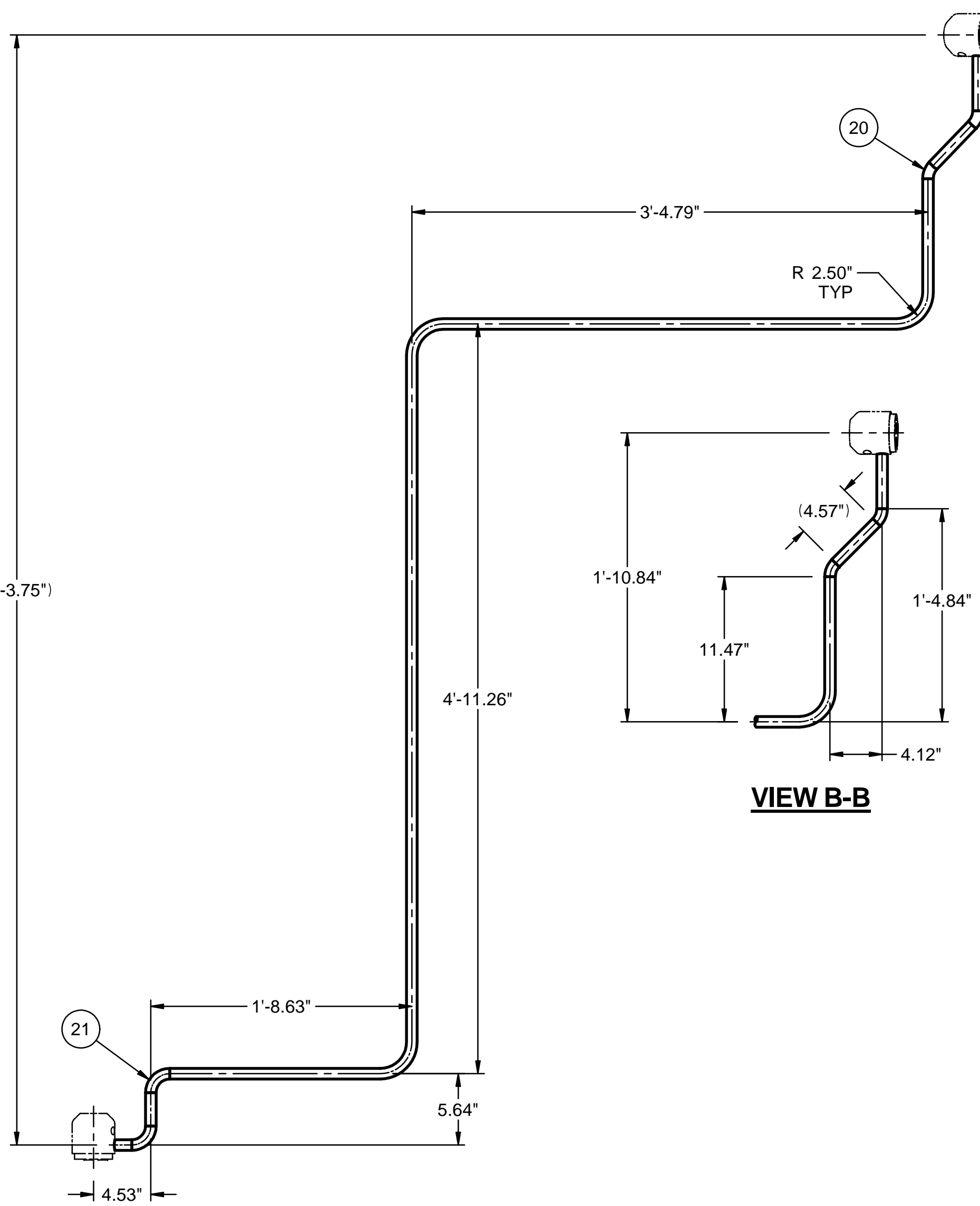
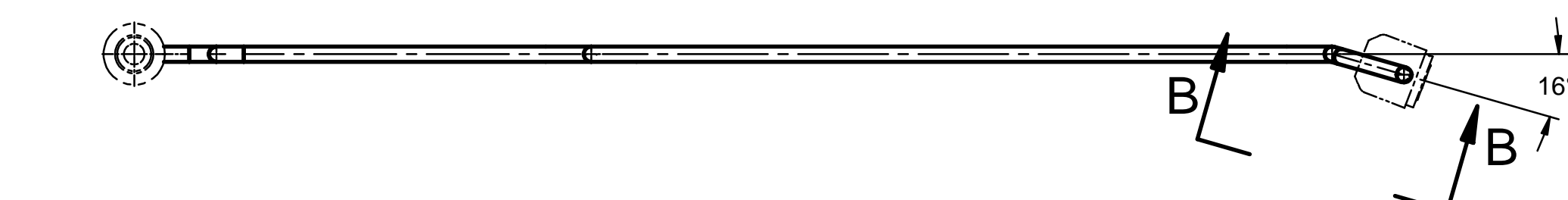
HOLDS:

- DIMENSIONS AND WEIGHT OF HFP-YV-0040.

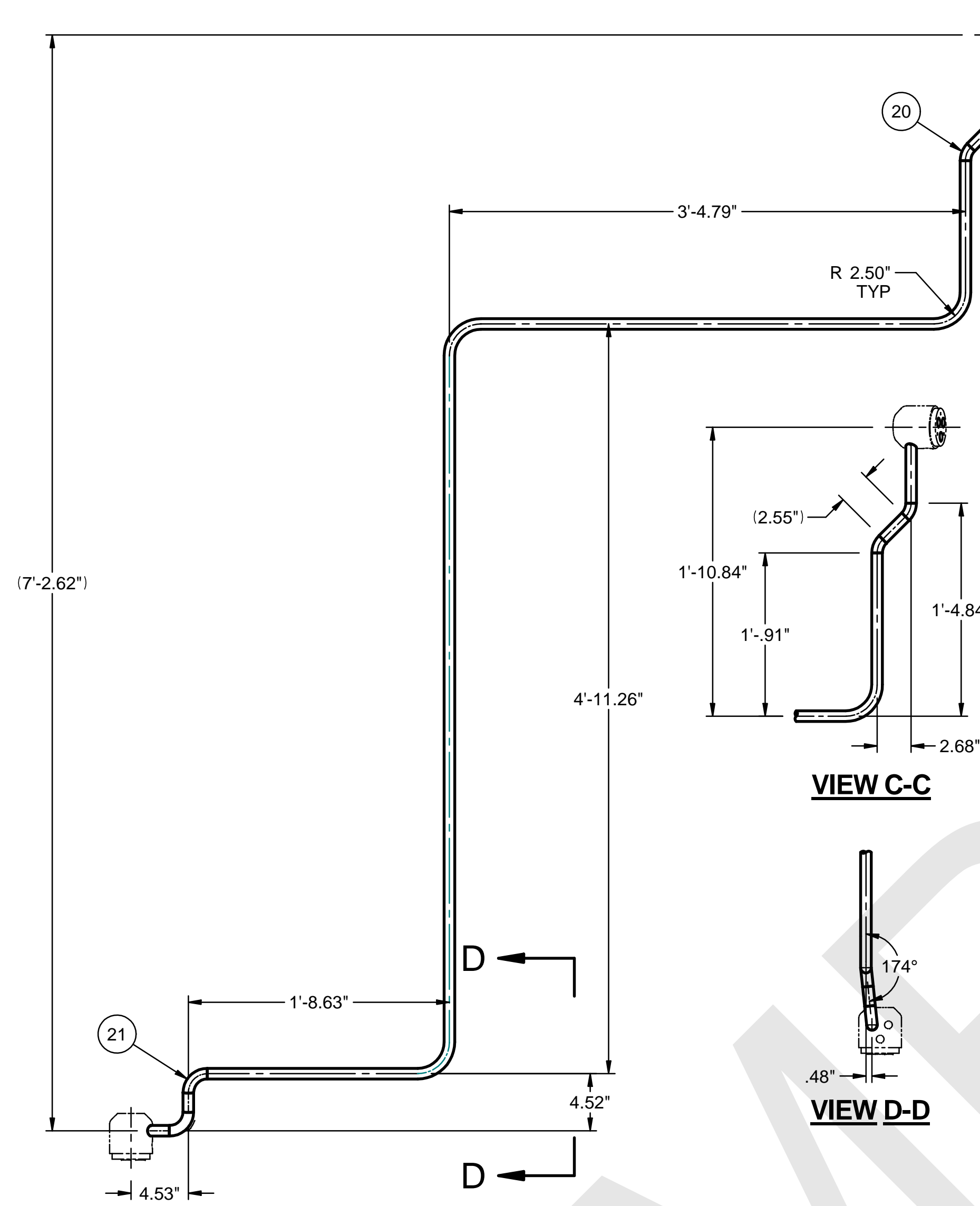
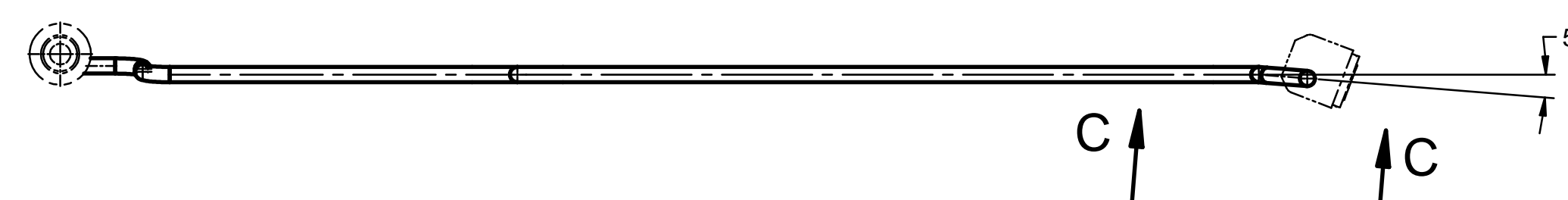
DRAWING INDEX	
DWG NO	TITLE
24590-HLW-P61-P27T-00075002	HLW VITRIFICATION BLDG PROCESS PIPING JUMPER - MLTR 1 HFP-JMPP-00110 SH.2
REFERENCE DRAWINGS	
DWG NO	TITLE
24590-HLW-M6-HFP-00001002	HLW MELTER FEED PROCESS SYSTEM SAMPLE TRANSFER PUMPS HFP-PMP-00005AB
24590-HLW-M6-HFP-00001002	M.S. JUMPER LIST FOR 24590-HLW-M6-HFP-00001002
24590-HLW-M6-HFP-00001002	M.S. EQUIPMENT LIST FOR 24590-HLW-M6-HFP-00001002
24590-HLW-P61-P27T-00019	HLW STANDARD JUMPER LIFTING BAIL DETAILS
24590-HLW-P61-P27T-00020	HLW REMOTE HANDLING EQUIPMENT & JUMPER IDENTIFICATION DRG.
24590-WTP-M61-P23T-00087	WTP ASSEMBLY HORIZONTAL 2" INLET & OUTLET PUREX CONNECTOR 2"
24590-WTP-M61-P23T-00088	WTP ASSEMBLY VERTICAL 3" INLET & OUTLET PUREX CONNECTOR 3"
24590-WTP-M61-P23T-00005	WTP DETAILS - NOZZLES PUREX MALE CONNECTOR 1" 2" 3" 4"

Q Quality Designator		A		ISSUE FOR USE		SEE STAMPS	1-27-25				
TOLERANCES		± 0.13		REV		DESCRIPTION		ORG	CHKD	RWD/APVD	DATE
FRACTION		± 1/8"									
ANGLE		± 0.5°									
PROJECT No.		24590		CONTRACT No.		DE-AC27-01RV14136					
SITE		HANFORD		RIVER PROTECTION PROJECT		WASTE TREATMENT PLANT					
AREA		200E		2435 STEVENS CENTER PLACE		RICHLAND, WA 99354					
BUILDING No.		30		CONTRACT No.		DE-AC27-01RV14136					
BY		DATE		ORIGINATOR		SEE STAMP					
CHECKER		SEE STAMP		APPROVER		1-27-25					
REVIEWER		SEE STAMP		REVIEWER		SEE STAMP					
CONTENT APPLICABLE TO ALARA?		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		SCALE:		NONE					
ADR NO. 24590-WTP-ADR-PL-02-005		REV: 2		E' SIZE - 44x34		24590-HLW-P61-P27T-00075001					
COMPUTER GENERATED:		MANUAL DESIGN: CHANGES NOT PERMITTED		[01/17/2025 11:48 AM]							

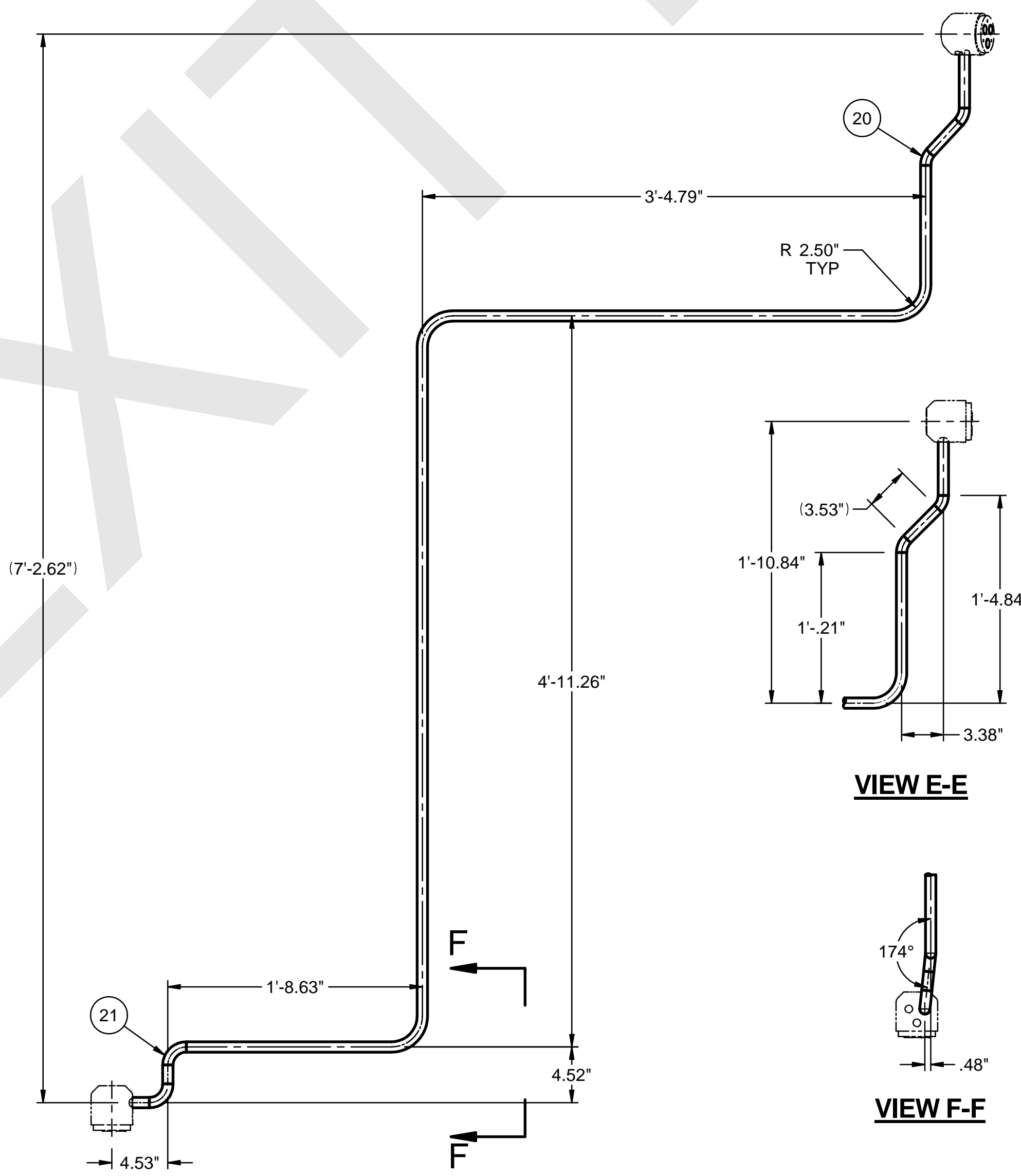
FOR PARTS LIST, NOTES AND REFERENCE DRAWINGS
SEE 24590-HLW-P61-P27T-00053001



17 PIPE A



18 PIPE B



19 PIPE C

DRAWING INDEX	
DWG NO	TITLE
24590-HLW-P61-P27T-00053001	HLW VIT BLDG PROCESS PIPING JUMPER - MELTER 1 HFP-JMPP-00031 SHT 1
24590-HLW-P61-P27T-00053002	HLW VIT BLDG PROCESS PIPING JUMPER - MELTER 1 HFP-JMPP-00031 SHT 2
REFERENCE DRAWINGS	
DWG NO	TITLE
24590-HLW-M6-HFP-00002002	P&ID - HLW MELTER FEED PROCESS SYSTEM INSTRUMENT/VENT HFP-VSL-00002

CM Quality Designer	TOLERANCES		REVISION HISTORY
	±.00	±.13	
	±.000	±.063	
	FRACTION	± 1/8"	
ANGLE		± .5°	REVISION HISTORY
ISSUED BY RPP-WTP-DEC		DATE	
PROJECT No. 24590		DATE	
SITE HANFORD		DATE	
AREA 200E		DATE	REVISION HISTORY
BUILDING No. 30		DATE	
BY		DATE	
ORIGINATOR		DATE	
CHECKER		DATE	REVISION HISTORY
APPROVER		DATE	
REVIEWER		DATE	
DATE		DATE	
CONTENT APPLICABLE TO ALARA? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		SCALE: NONE	REVISION HISTORY
ADR NO. 24590-WTP-ADR-PL-02-005 REV: 2		SCALE: NONE	
COMPUTER GENERATED: MANUAL DESIGN CHANGES NOT PERMITTED		SCALE: NONE	
FORM E, MASTER 03/2003		SCALE: NONE	

Originator
By: [Signature]
Date: 12/15/2023

Checked
By: [Signature]
Date: 12/15/2023

Reviewed
By: [Signature]
Date: 12/15/2023

Reviewed
By: [Signature]
Date: 12/15/2023

CM
Quality Designer

REVISION HISTORY

REV	DESCRIPTION	ORG	CHKD	RWDD	APVD	DATE
A	ISSUE FOR USE					1-24-25

BECHTEL

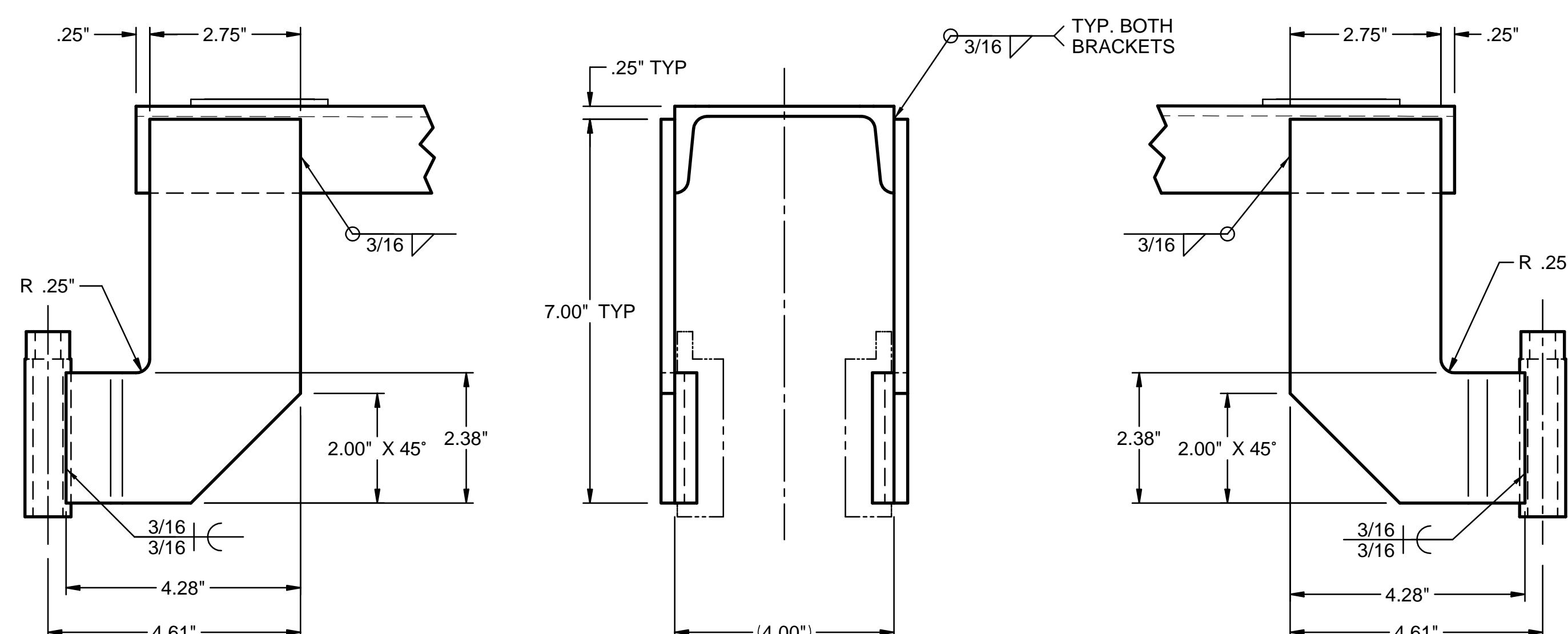
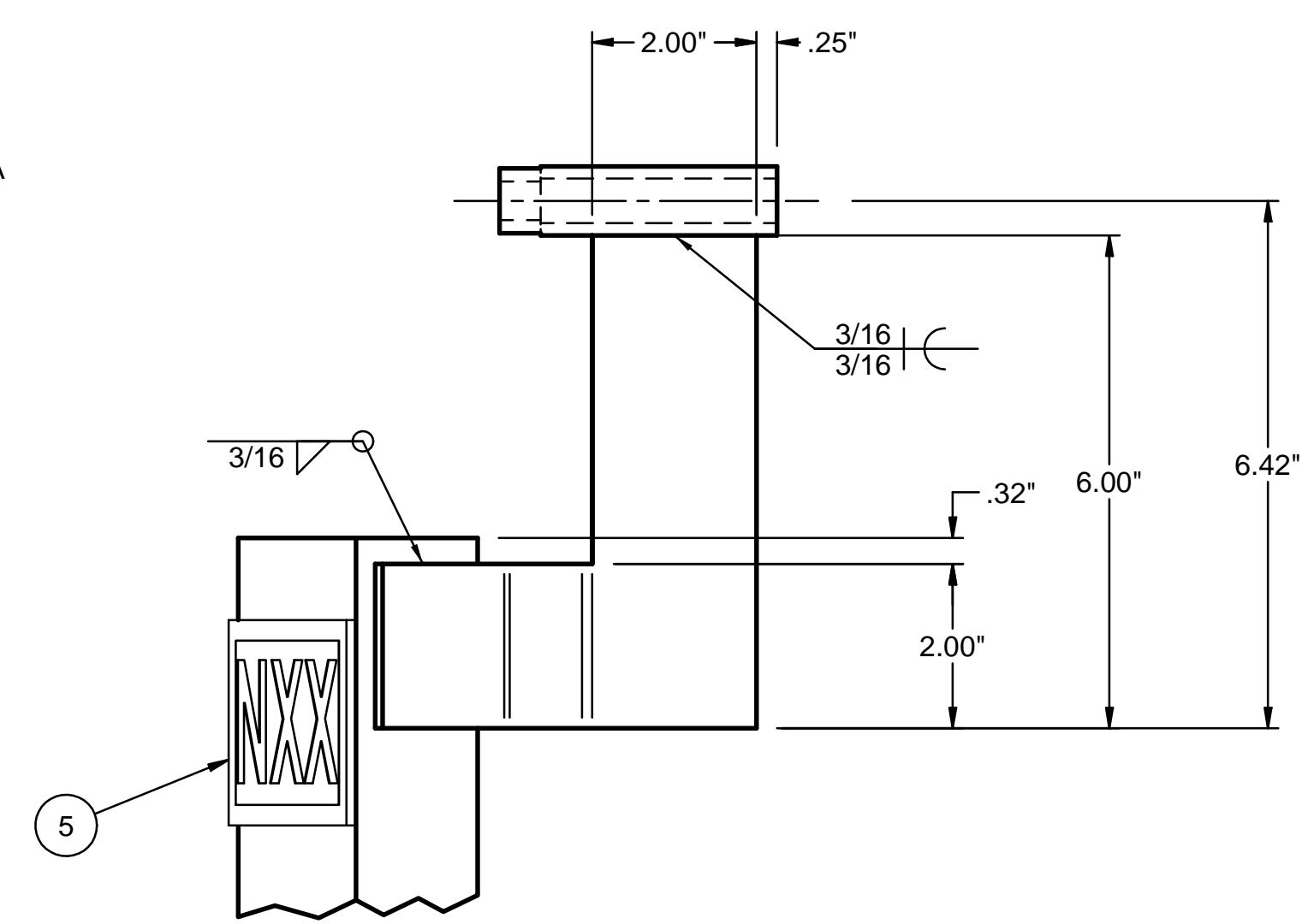
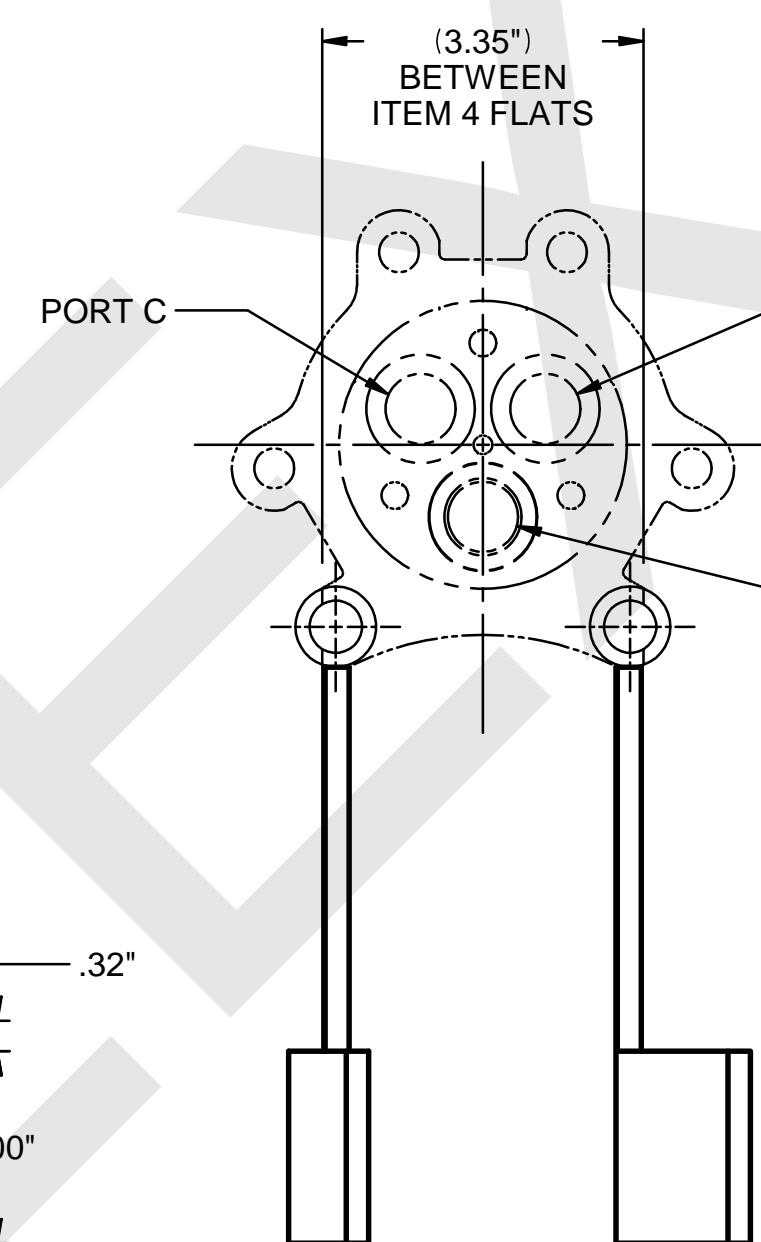
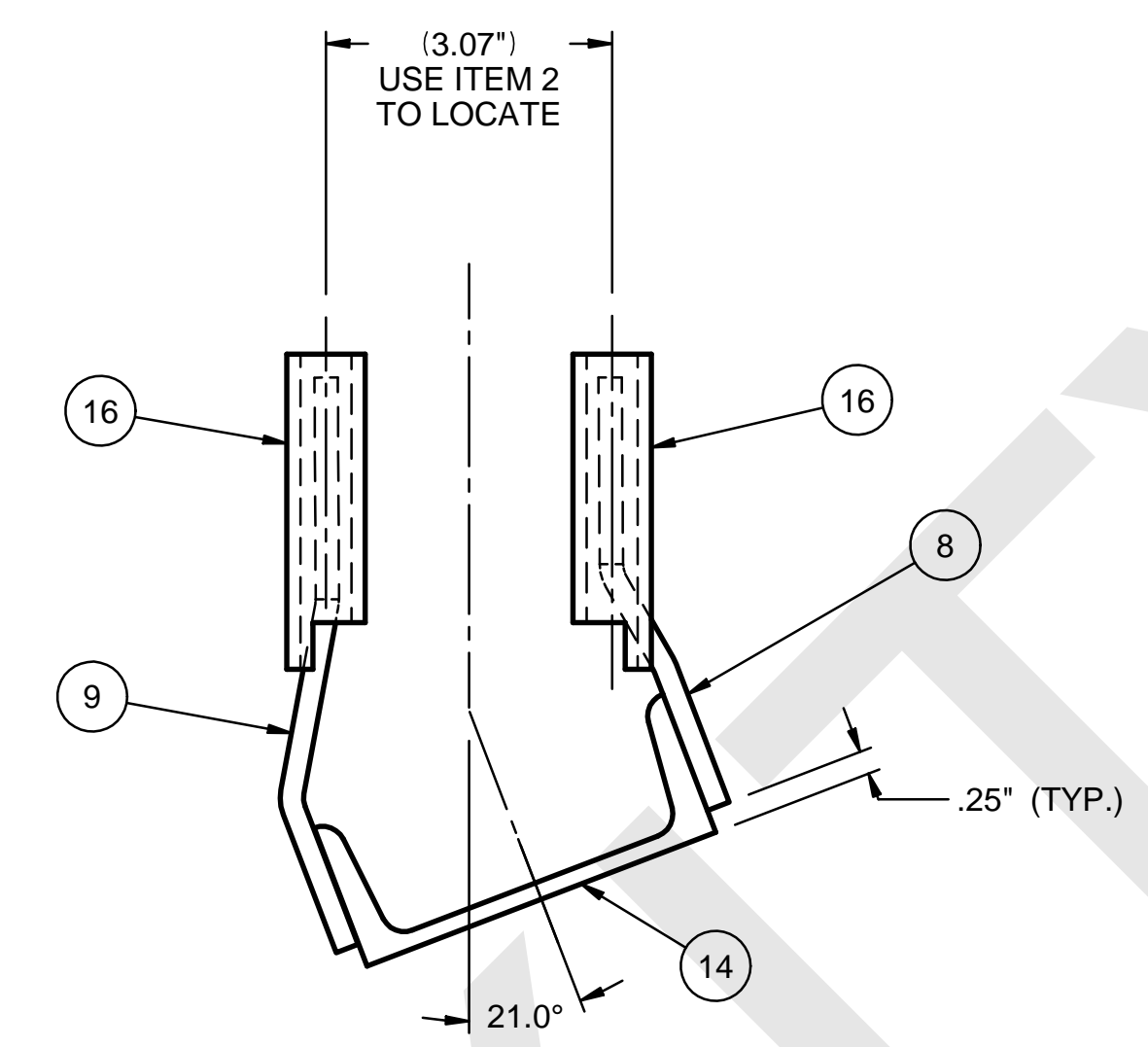
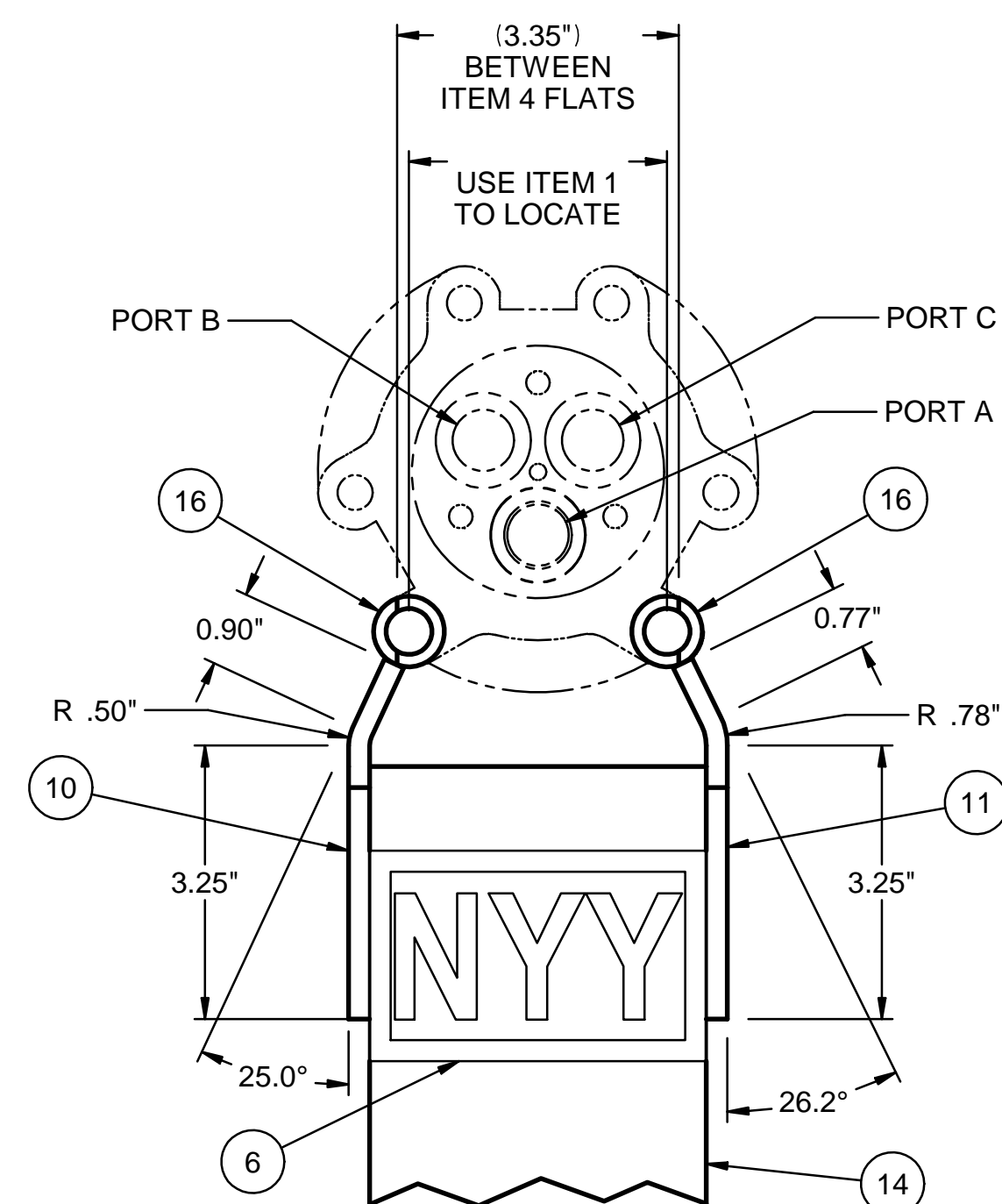
RIVER PROTECTION PROJECT
WASTE TREATMENT PLANT
2435 STEVENS CENTER PLACE
RICHLAND, WA 99354

CONTRACT No. DE-AC27-01RV14136

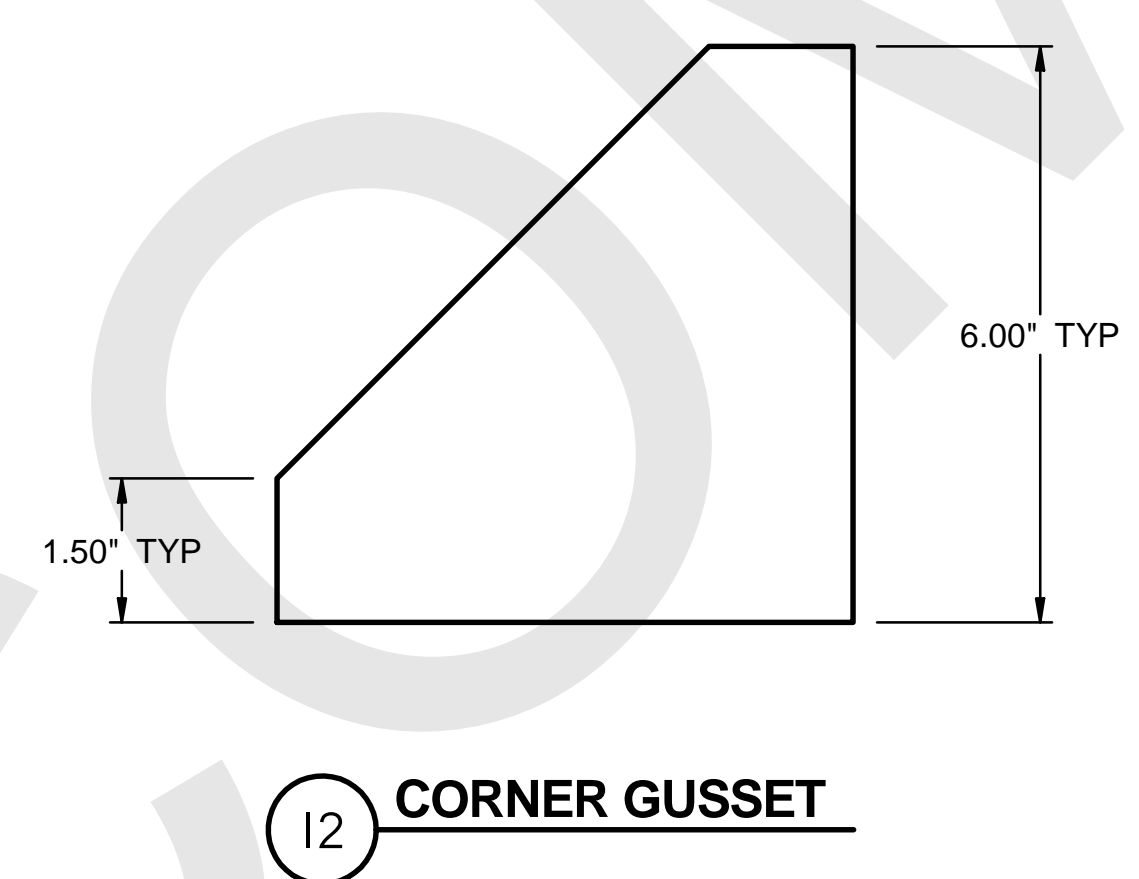
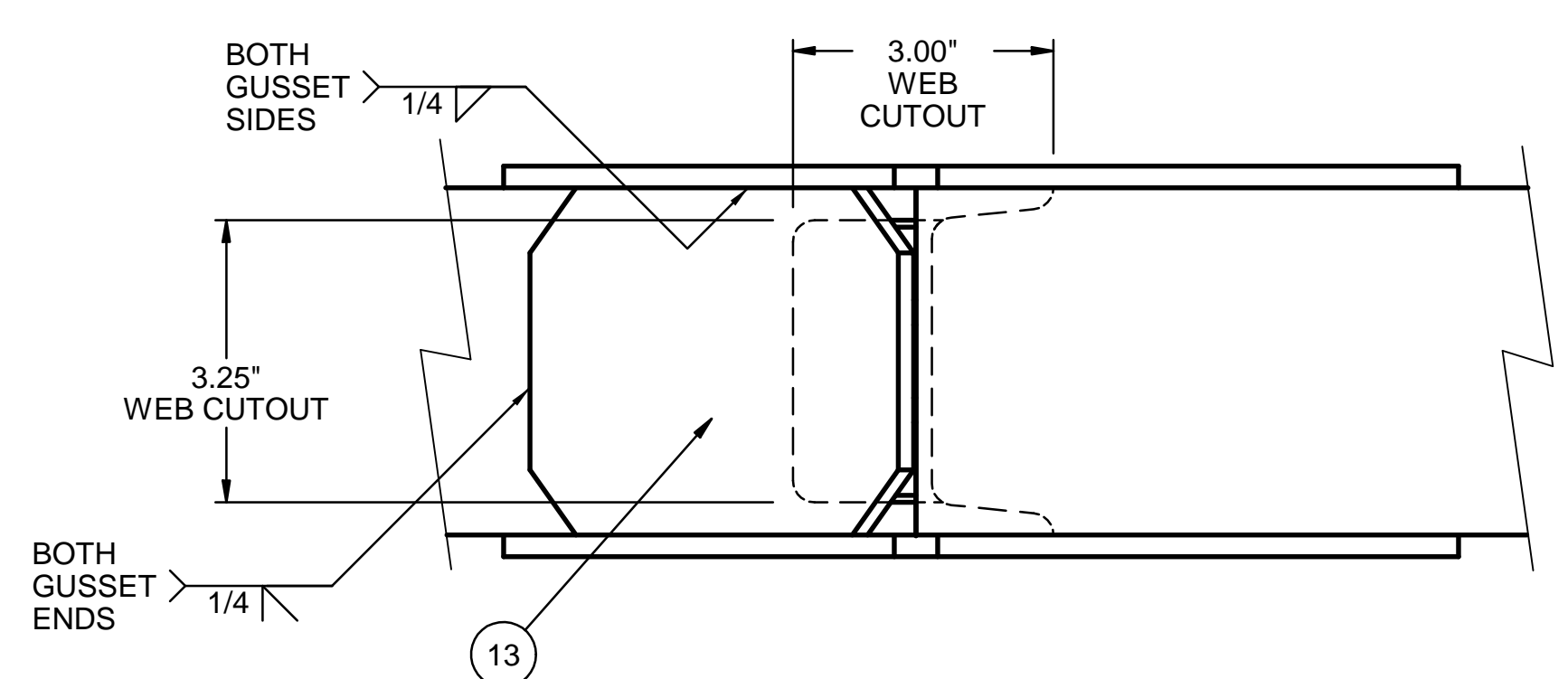
**HLW VITRIFICATION BUILDING
PROCESS PIPING JUMPER - MELTER 1
HFP-JMPP-00031
SHT 3 OF 3**

24590-HLW-P61-P27T-00053003

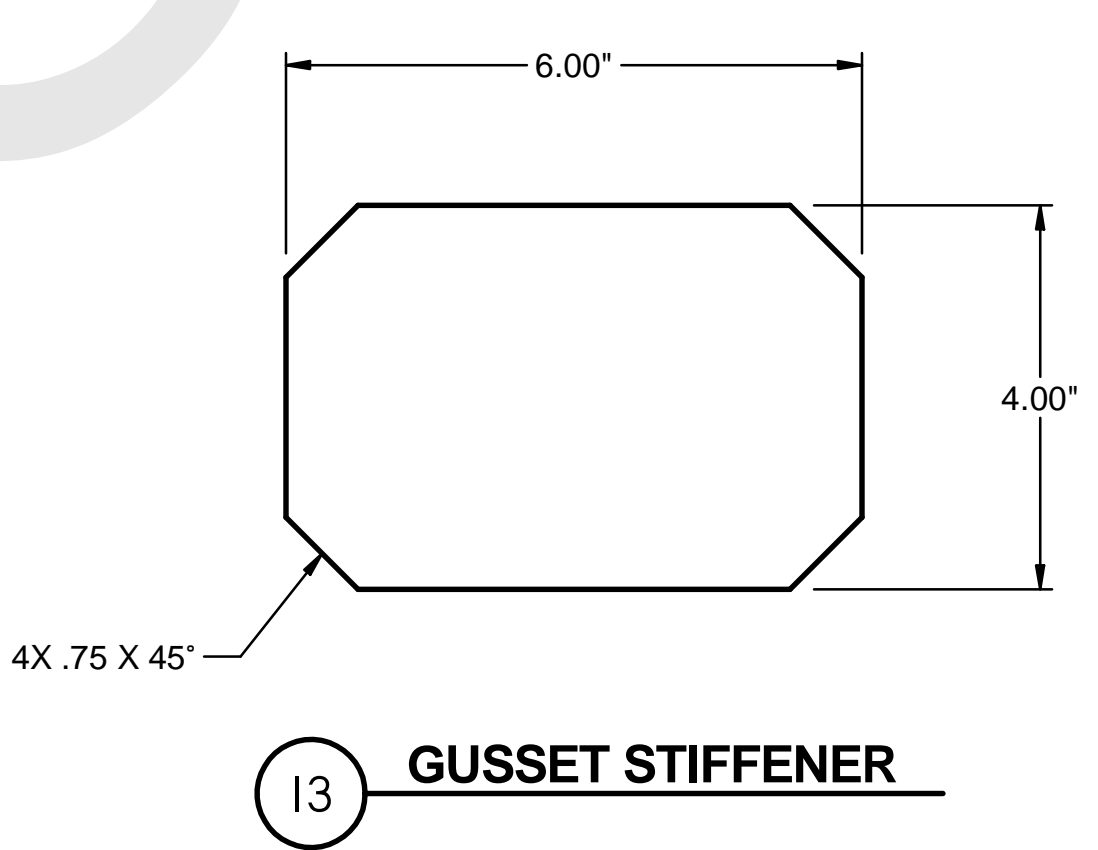
FOR PARTS LIST, NOTES AND REFERENCE DRAWINGS
SEE 24590-HLW-P61-P27T-00053001



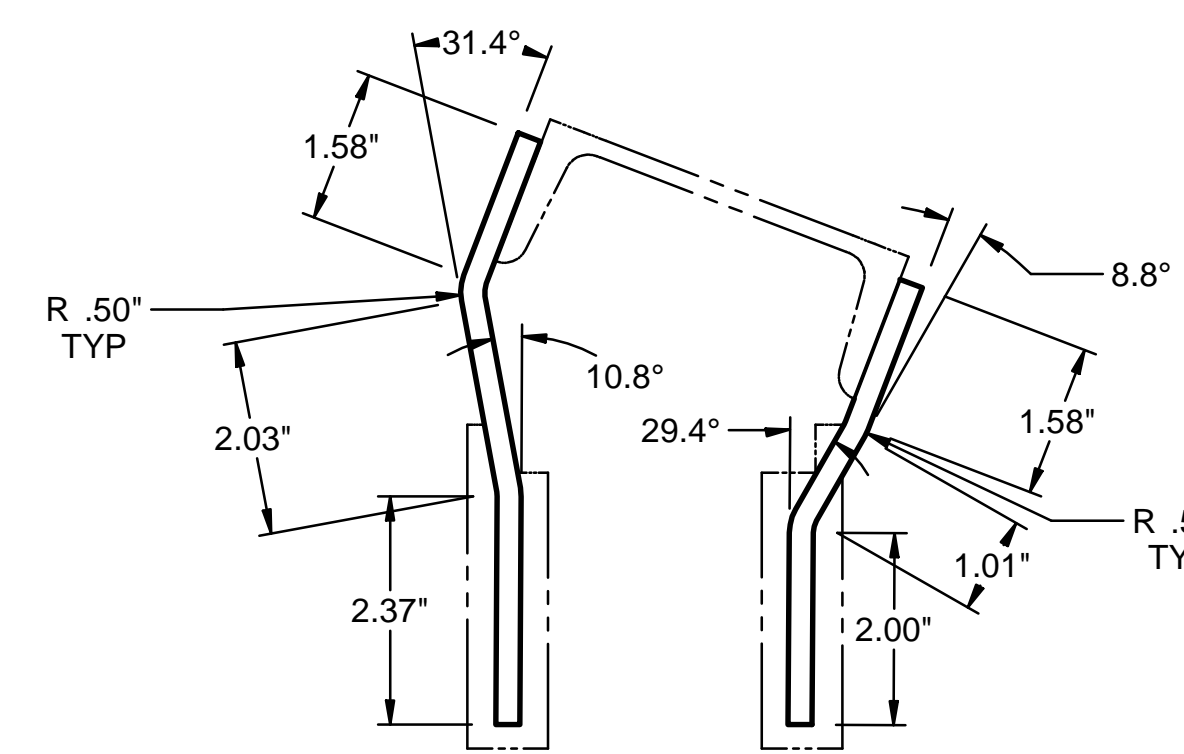
VERTICAL CONNECTOR BRACKETRY



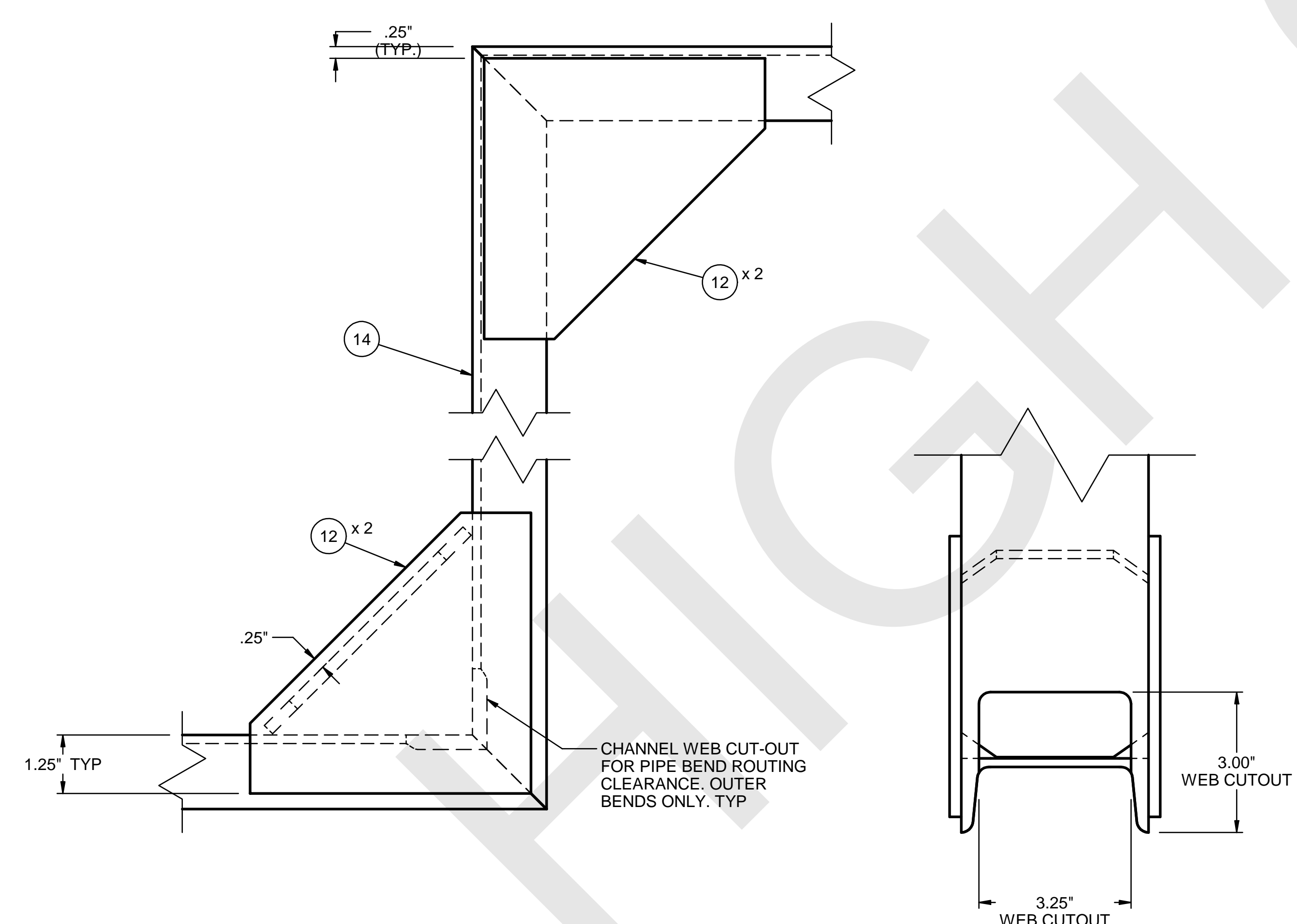
12 CORNER GUSSET



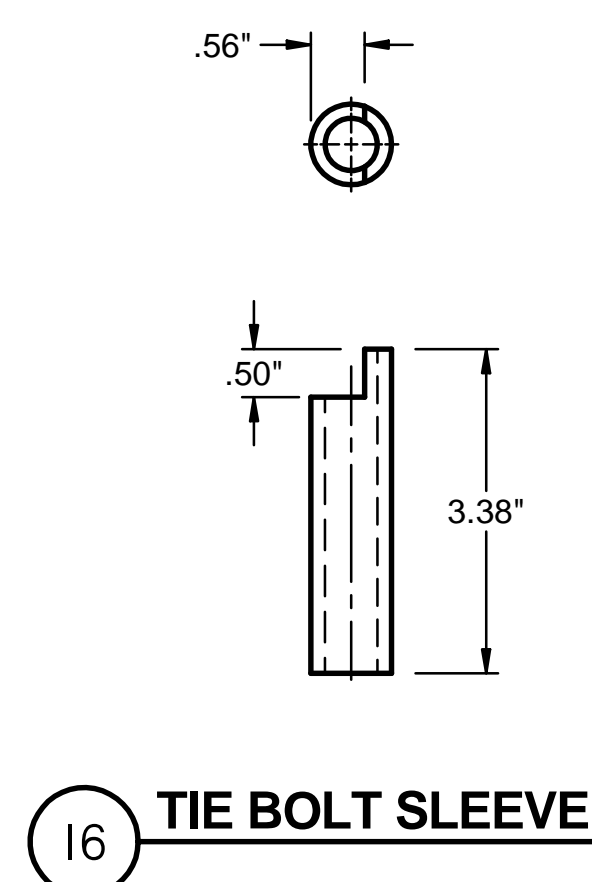
13 GUSSET STIFFENER



HORIZONTAL CONNECTOR BRACKETRY



SUPPORT STRUCTURE
CORNER BRACING



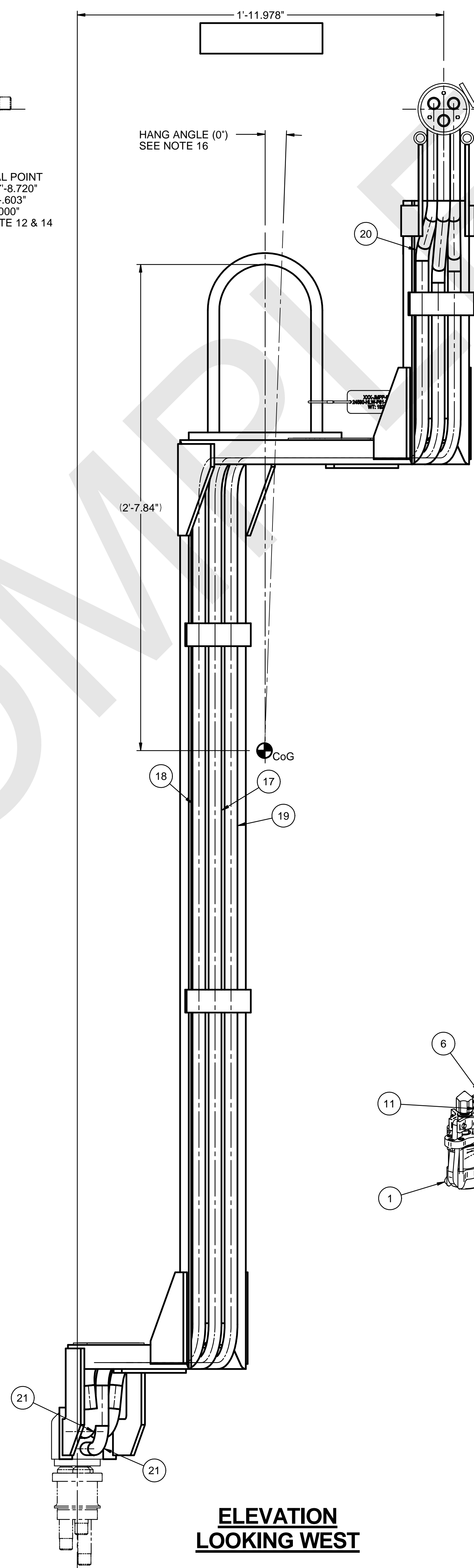
16 TIE BOLT SLEEVE

DRAWING INDEX	
DWG NO	TITLE
24590-HLW-P61-P27T-00053001	HLW VIT BLDG PROCESS PIPING JUMPER - MELTER 1 HFP-JMPP-00031 SHT 1
24590-HLW-P61-P27T-00053003	HLW VIT BLDG PROCESS PIPING JUMPER - MELTER 1 HFP-JMPP-00031 SHT 3
REFERENCE DRAWINGS	
DWG NO	TITLE
24590-HLW-M6-HFP-00002002	P&ID - HLW MELTER FEED PROCESS SYSTEM INSTRUMENT/VENT HFP-VSL-00002

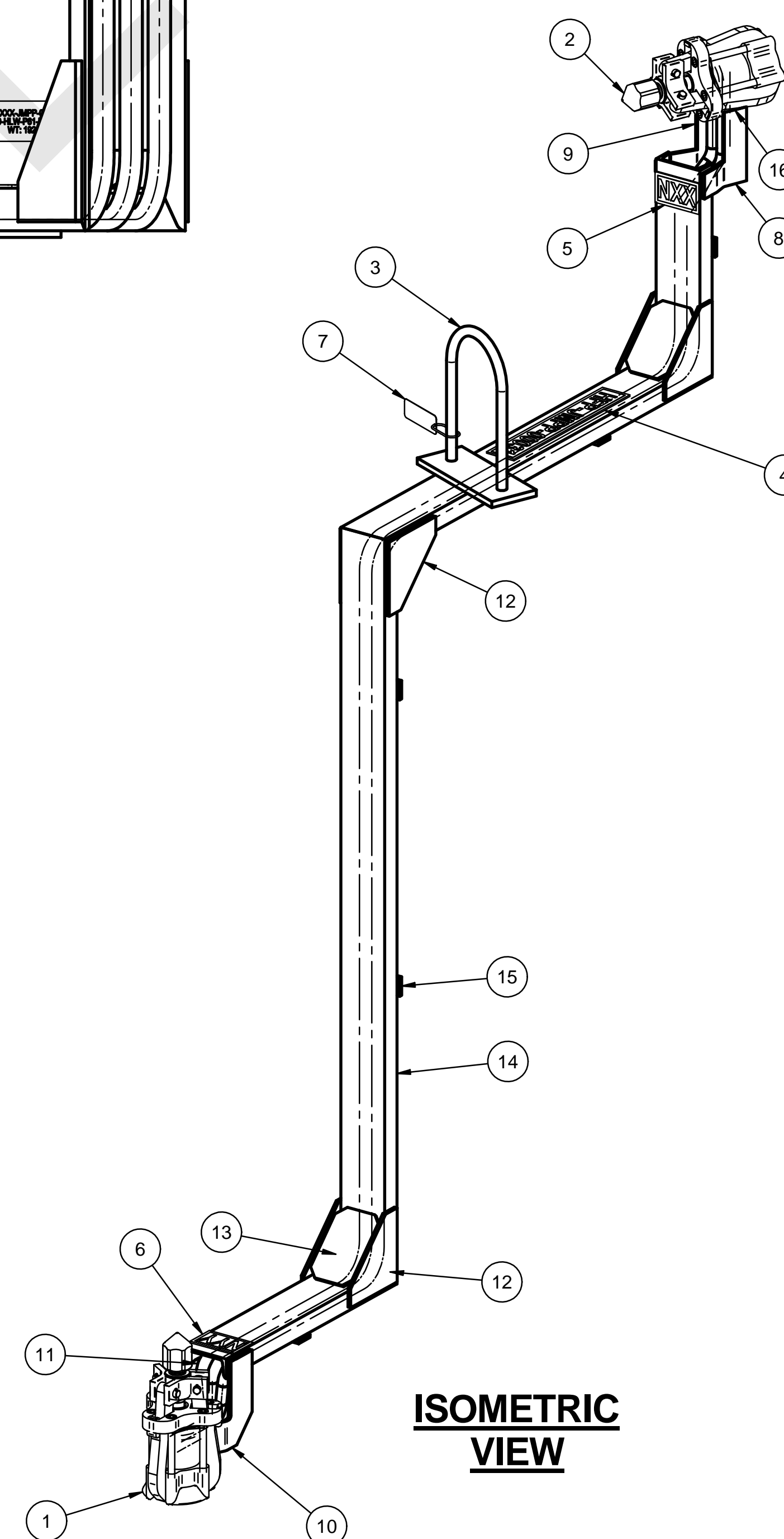
CM Quality Designer	
TOLERANCES	
±.00	±.13
±.000	±.063
FRACTION	± 1/8"
ANGLE	± .5°
ISSUED BY RPP-WTP-PDC	PROJECT No. 24590
ISSUE STAMP	SITE HANFORD
BY	DATE
ORIGINATOR	SEE STAMP
CHECKER	SEE STAMP
APPROVER	1-24-25
REVIEWER	SEE STAMP
REVIEWED No Comments	REVISION HISTORY
REVIEWED No Comments	CONTRACT No. DE-AC27-01RV14136
REVIEWED No Comments	HLW VITRIFICATION BUILDING PROCESS PIPING JUMPER - MELTER 1 HFP-JMPP-00031 SHT 2 OF 3
CONTENT APPLICABLE TO ALARA? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	SCALE: NONE
ADR NO. 24590-WTP-ADR-PL-02-005	REV: 2
COMPUTER GENERATED: MANUAL DESIGN CHANGES NOT PERMITTED	24590-HLW-P61-P27T-00053002
REV: A	



PLAN



ELEVATION
LOOKING WEST



ISOMETRIC
VIEW

NOTES:

1. FOR FABRICATION, STRESSING, NDE, & TRANSPORTATION SEE SPECIFICATION 24590-WTP-3PS-PF00-T0001.
2. ITEMS 1 AND 2 LISTED ON THIS DRAWING ARE GOVERNMENT FURNISHED PROPERTY.
3. RECORD SURVEYED VALUES FOR THE CRITICAL DIMENSIONS, HANGING ANGLE AND WEIGHT IN THE BOXES PROVIDED.
4. THE ESTIMATED DRY WEIGHT OF THE JUMPER ASSEMBLY IS 192 LBS. RECORD FINAL WEIGHT IN BOX BELOW.
5. PROCESS PIPING WILL HAVE A 5D BEND RADIUS UNLESS OTHERWISE NOTED.
6. ALL DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE SPECIFIED.
7. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.
8. DELETED.
9. NAMEPLATES SHALL BE FABRICATED PER DRAWING 24590-HLW-P61-P27T-00020 AND LOCATED AS SHOWN:
 - A) MARK NAMEPLATE (ITEM 4) AS FOLLOWS: HFP-JMPP-00031
 - B) MARK NAME TAG (ITEM 7) AS FOLLOWS: HFP-JMPP-00031
24590-HLW-P61-P27T-00053
WT: SEE BOX IN NOTE 4.
10. ALL ITEMS SHOWN ARE QUALITY LEVEL CM AND SEISMIC CATEGORY III, UNLESS OTHERWISE SPECIFIED.
11. BREAK ALL SHARP EDGES AND REMOVE ALL BURRS.
12. SEE DRAWING 24590-HLW-P61-P27T-00032 FOR NAMEPLATE NOZZLE NUMBERING AND EQUIPMENT CROSSWALK.
13. FIELD TO VERIFY FINAL NOZZLE LOCATIONS PRIOR TO FULL FABRICATION AND INSTALLATION OF JUMPER.
14. CRITICAL POINT FOR THE PUREX NOZZLE EXISTS AT THE INTERSECTION OF THE CENTERLINE AND THE LOCATING PLANE (FLAT FACE) OF THE NOZZLE. SEE DRAWING 24590-WTP-P61-P27T-00001, DETAIL 3.
15. JUMPER SHALL BE BALANCED SUCH THAT ITEM 1 ENGAGES WITH NOZZLE FIRST. DESIGNED HANGING ANGLE IS 5°. ACTUAL HANGING ANGLE SHALL BE 3° MIN / 9° MAX. (SEE NOTE 14).
16. DESIGN OUT OF PLANE HANGING ANGLE IS 0°. ACTUAL HANGING ANGLE SHALL BE ± 1°. (SEE NOTE 14).

CM
Quality Design

TOLERANCES		A	ISSUE FOR USE	SEE	STAMPS	1-24-25
.00	±.13	REV	DESCRIPTION	ORG	CHKD	DATE
.000	+ .063					

FRACTION	± 1/8"
ANGLE	± .5°
PROJECT No. 24590	
SITE HANFORD	
AREA 30E	
BUILDING No. 20E	
ISSUED BY RPP-WTP PDC	
GSSS STAMP	
BY	DATE
ORIGINATOR SEE STAMP	SEE STAMP
CHECKER SEE STAMP	SEE STAMP
APPROVER <i>Jam McGrath</i>	1-24-25
REVIEWER SEE STAMP	SEE STAMP

RIVER PROTECTION PROJECT
WASTE TREATMENT PLANT
2436 STEVENS CENTER PLACE
RICHMOND, VA 23054

CONTRACT No. DE-AC27-01RV14136

HLW VITRIFICATION BUILDING

PROCESS JUMP JUMPER - MELTER 1

UNIT 2 OF 2

SHT 1 OF 3

CONTENT APPLICABLE TO ALARA? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO ADR NO. 24590-WTP-ADR-PL-02-005 REV: 2		SCALE: NONE	24590-HLW-P61-P27T-00053001	REV A
--	--	----------------	------------------------------------	-----------------

H

G

F

E

D

C

B

A

H

G

F

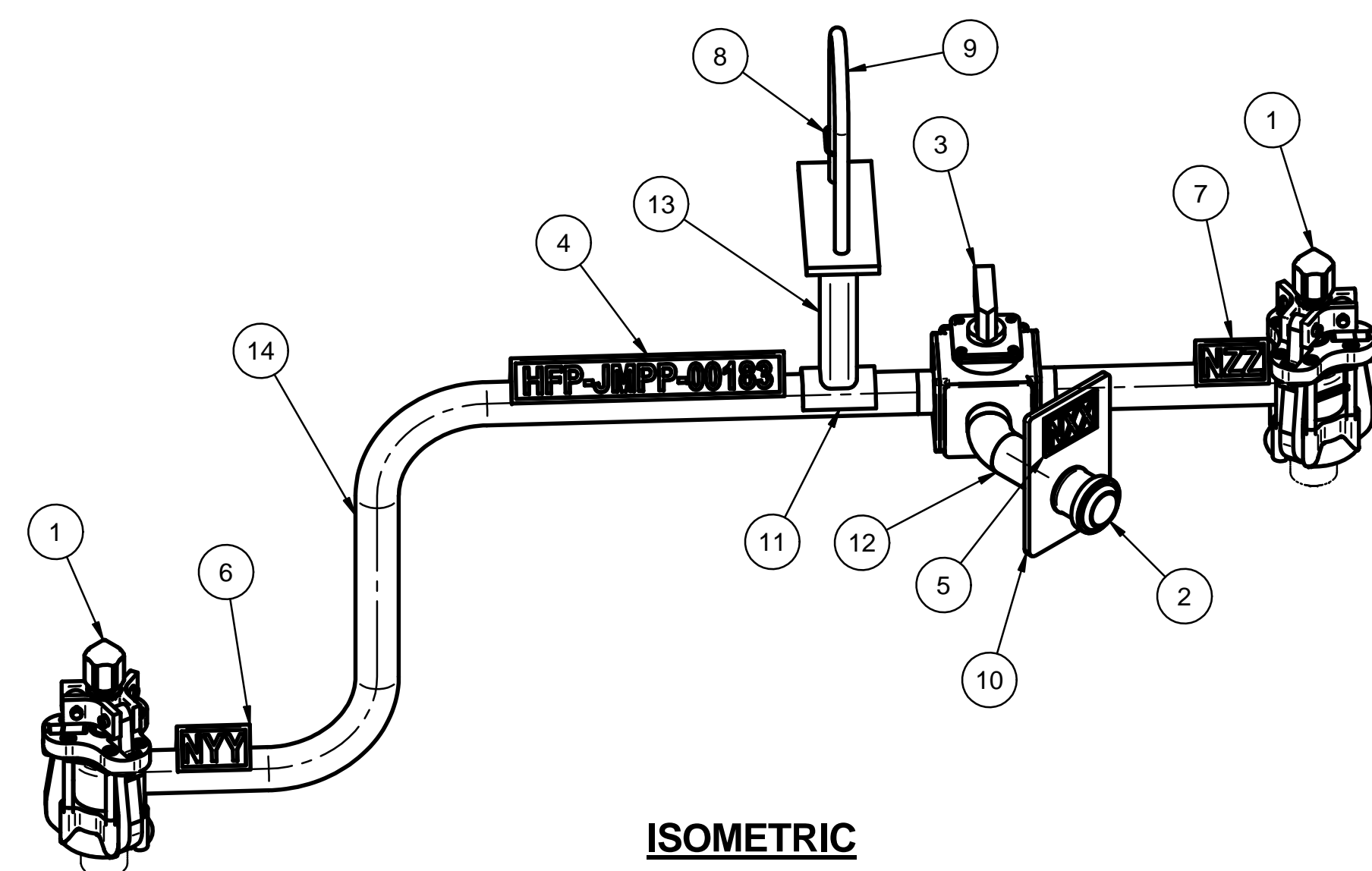
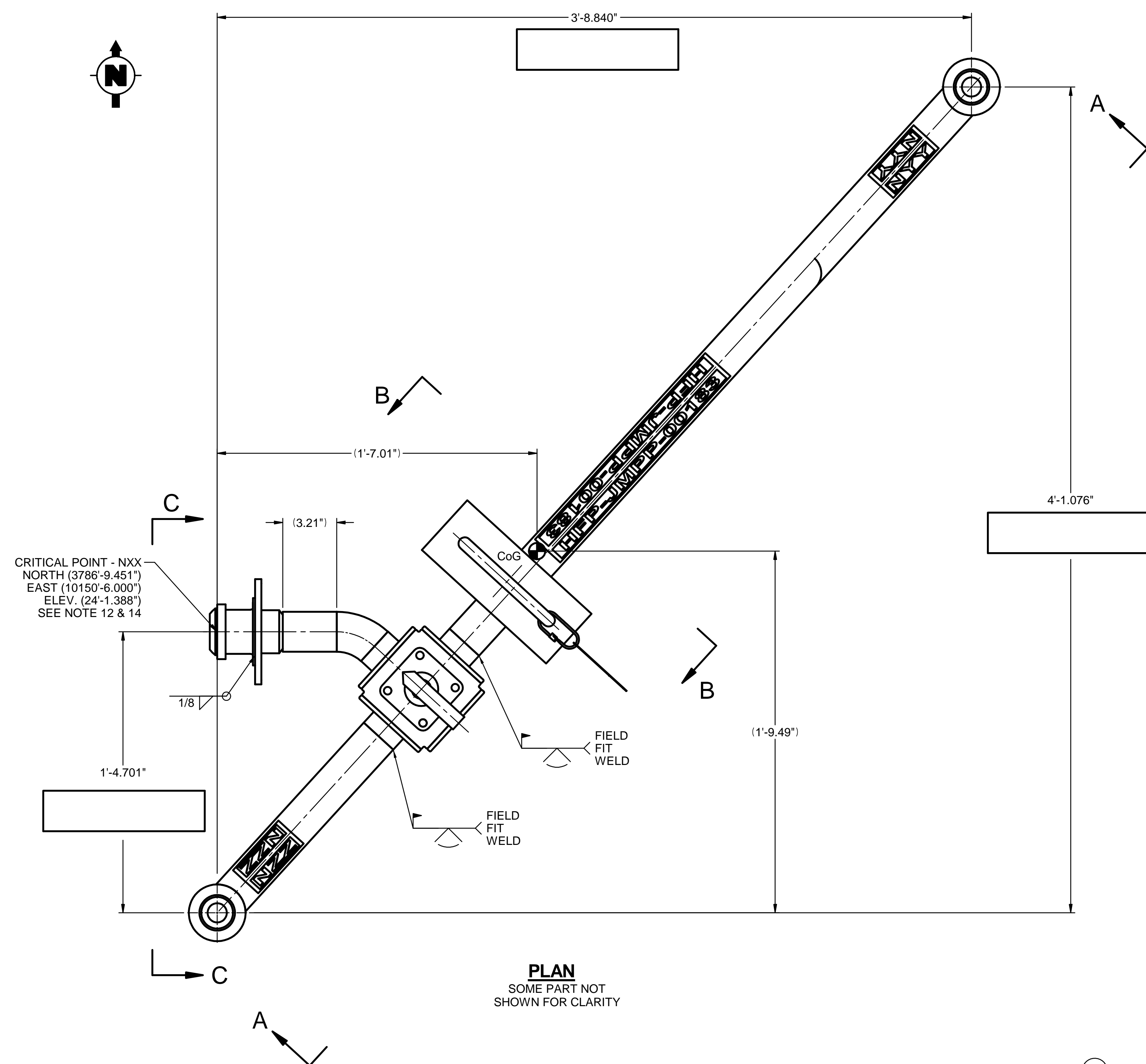
E

D

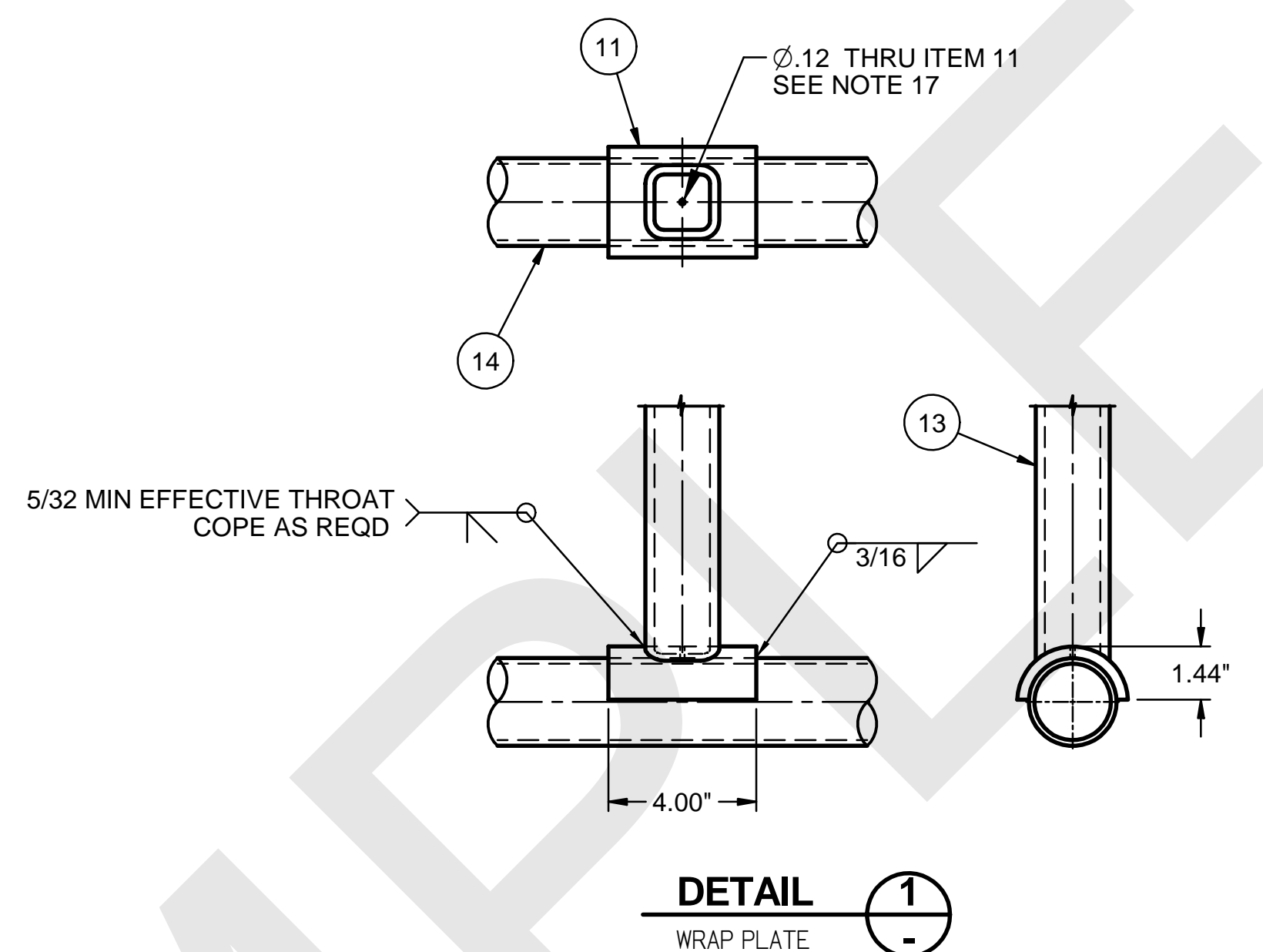
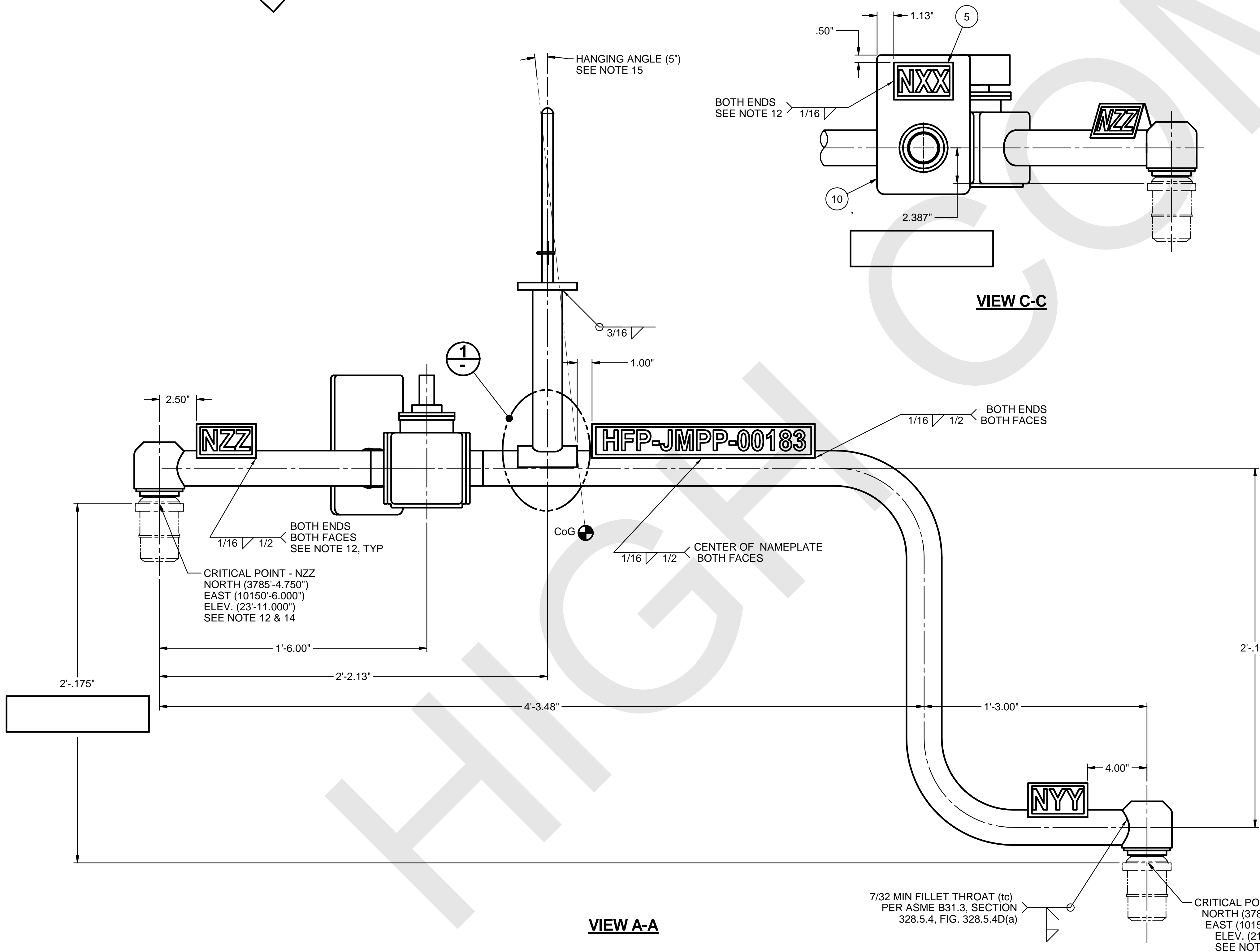
C

B

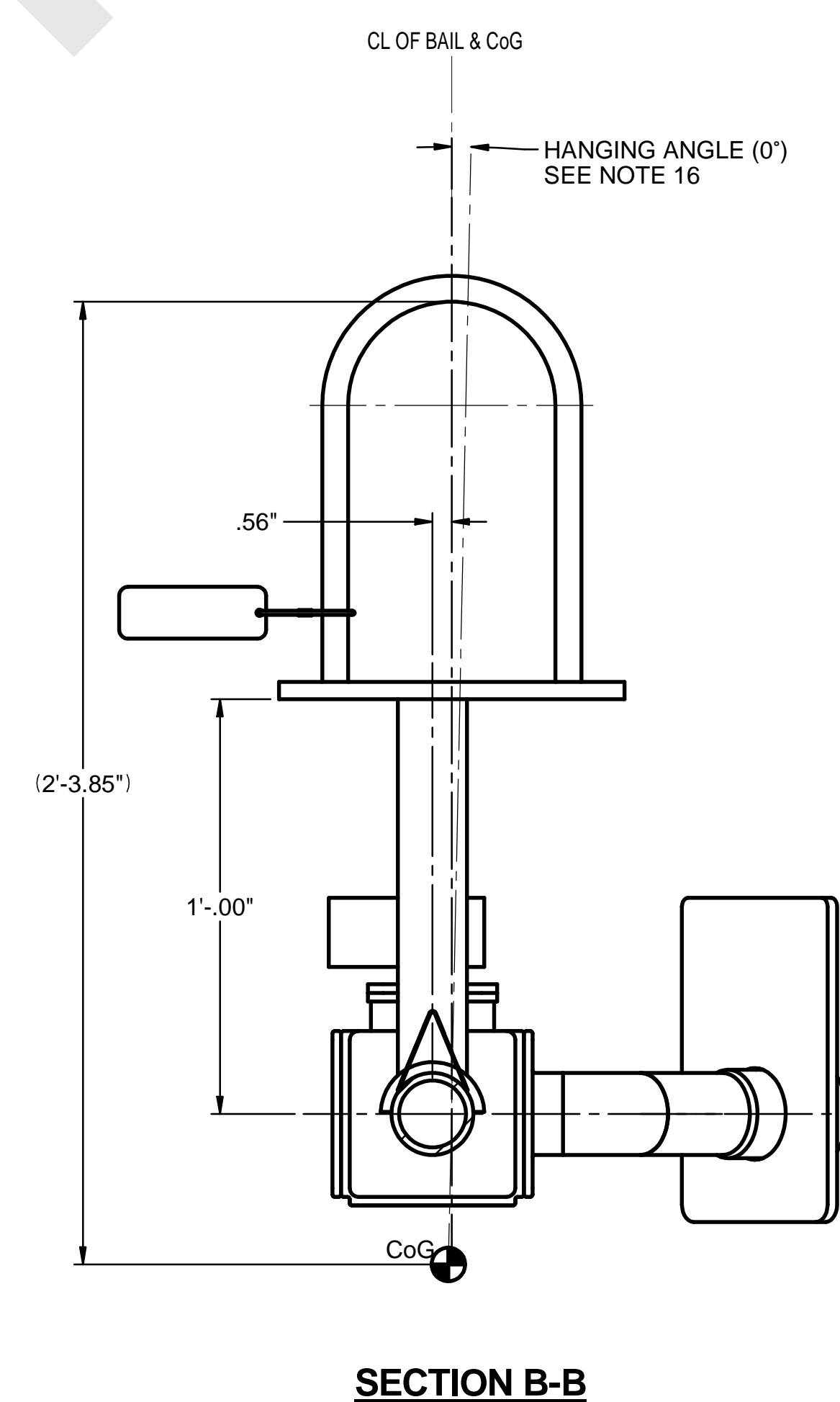
A



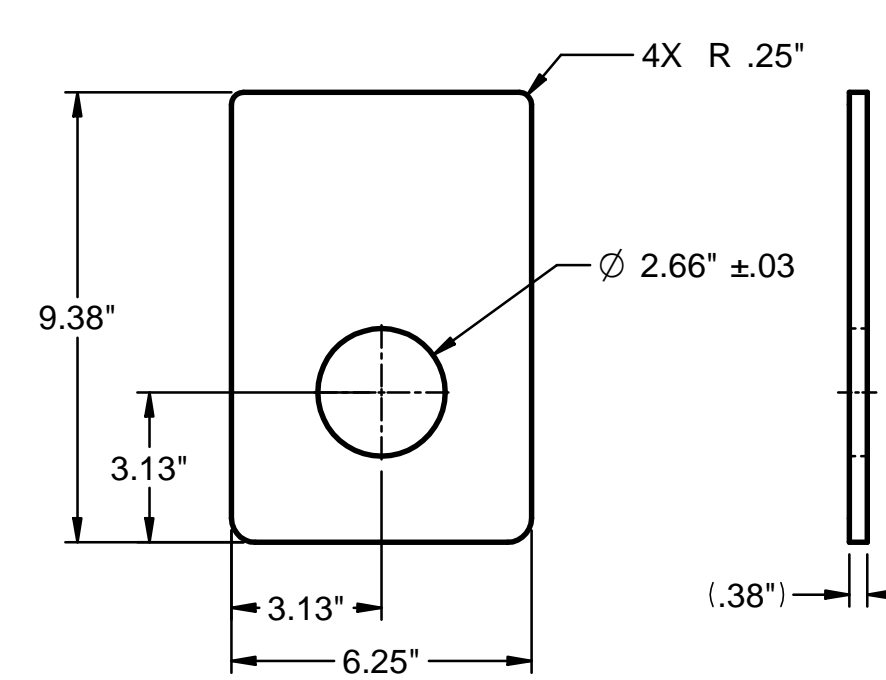
ISOMETRIC

DETAIL 1
WRAP PLATE

VIEW C-C



SECTION B-B



2" OFFSET KICK OFF PLATE

CONTENTS OF THIS DOCUMENT ARE
DANGEROUS WASTE PERMIT AFFECTING

ITEM NO	DESCRIPTION	MATERIAL	STOCK CODE	DOCUMENT NUMBER	QTY
1	VERTICAL 2" INLET & OUTLET PUREX CONNECTOR 2"		JCPP21AV061	24590-WTP-M61-P23T-00061	2
2	2" MALE NOZZLE SCHED 80		JCPP21NZ07	24590-WTP-M61-P23T-00005 PT7	1
3	2" 3-WAY VALVE, SCHED80S				1
4	NAMEPLATE X 15" LONG			24590-HLW-P61-P27T-00020 PT4	1
5	NAMEPLATE NXX			24590-HLW-P61-P27T-00020 PT10	1
6	NAMEPLATE NYY			24590-HLW-P61-P27T-00020 PT 9	1
7	NAMEPLATE NZZ			24590-HLW-P61-P27T-00020 PT 9	1
8	NAME TAG			24590-HLW-P61-P27T-00020 PT7	1
9	LIFTING BAIL			24590-HLW-P61-P27T-00019 DET 2	1
10	2" OFFSET KICK OFF PLATE	ASTM A240 TYPE 304L	SS-A240-PL-3/8		1
11	TUBING 3.00" DIA X .312 WALL X 4" LONG	ASTM A511 GR MT304L	SS-A511-TB-3X5/16		1
12	ELBOW 2" 45° LR SCHED 80S SMLS BW	ASTM A403 GR WP316/316L-S	PFRNV60H1404		1
13	TS 2" X 2" X 1/4" X LG AS REQD	ASTM A554 GR MT304L	SS-A554-TS-2X2X1/-SRL		1 LF
14	PIPE 2" SCHED 80S SMLS X LG AS REQD	ASTM A312 GR TP316/316L	PPPC080H0X00		6 LF

NOTES:

- FOR FABRICATION, TESTING, NDE, & TRANSPORTATION SEE SPECIFICATION 24590-WTP-3PS-PF00-T0001.
- ITEM 1 AND 3 LISTED ON THIS DRAWING ARE GOVERNMENT FURNISHED PROPERTY.
- RECORD SURVEYED VALUES FOR THE CRITICAL DIMENSIONS, HANGING ANGLE AND WEIGHT IN THE BOXES PROVIDED.
- THE ESTIMATED DRY WEIGHT OF THE JUMPER ASSEMBLY IS 158 LBS. RECORD FINAL WEIGHT IN BOX BELOW.
- PROCESS PIPING WILL HAVE A 3D BEND RADIUS UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE SPECIFIED.
- DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.
- DELETED.
- NAMEPLATES SHALL BE FABRICATED PER DRAWING 24590-HLW-P61-P27T-00020 AND LOCATED AS SHOWN:

A) MARK NAMEPLATE (ITEM 4) AS FOLLOWS: HFP-JMPP-00183

B) MARK NAMEPLATE (ITEM 8) AS FOLLOWS: HFP-JMPP-00183
- ALL ITEMS SHOWN ARE QUALITY LEVEL Q AND SEISMIC CATEGORY III, UNLESS OTHERWISE SPECIFIED.
- BREAK ALL SHARP EDGES AND REMOVE ALL BURRS.
- SEE DRAWING 24590-HLW-P61-P27T-00032 FOR NAMEPLATE NOZZLE NUMBERING AND EQUIPMENT CROSSWALK.
- FIELD TO VERIFY FINAL NOZZLE LOCATIONS PRIOR TO FULL FABRICATION AND INSTALLATION OF JUMPER.
- CRITICAL POINT FOR THE PUREX NOZZLE EXISTS AT THE INTERSECTION OF THE CENTERLINE AND THE LOCATING PLANE (FLAT FACE) OF THE NOZZLE. SEE DRAWING 24590-WTP-P61-P27T-00001, DETAIL 9.
- JUMPER SHALL BE BALANCED SUCH THAT THE LOWER CONNECTOR ENGAGES WITH THE NOZZLE FIRST. DESIGNED HANGING ANGLE IS 5°. ACTUAL HANGING ANGLE SHALL BE 3° MIN / 9° MAX. (SEE NOTE 14).
- DESIGN OUT OF PLANE HANGING ANGLE IS 0°. ACTUAL HANGING ANGLE SHALL BE ± 1° (SEE NOTE 14).
- PROVIDE VENT HOLE IN ITEM 11 TO RELEASE TRAPPED GASES DURING WELDING.

HOLD

- DIMENSIONS AND WEIGHT OF 2" 3-WAY VALVE (ITEM 3).

REFERENCE DRAWINGS	
DWG NO	TITLE
24590-HLW-M6-HFP-00001002	P&ID - HLW MELTER FEED PROC SYS SAMPLE/TRANS PUMPS HFP-PMP-00005A/B
24590-HLW-M6YX-HFP-00001002	MS JUMPER LIST FOR PAID 24590-HLW-M6-HFP-00001002
24590-HLW-M6ZX-HFP-00001002	MS EQUIPMENT LIST FOR 24590-HLW-M6-HFP-00001002
24590-HLW-P61-P27T-00019	HLW STANDARD JUMPER LIFTING BAIL DETAILS
24590-HLW-P61-P27T-00020	HLW REMOTE HANDLING EQUIPMENT & JUMPER IDENTIFICATION DRAWING
24590-WTP-M61-P23T-00088	WTP ASSEMBLY VERTICAL 3" INLETS & OUTLETS PUREX CONNECTOR 3"
24590-WTP-M61-P23T-00005	WTP DETAILS - NOZZLES PUREX CONNECTOR 1", 2", 3", 4"

Q Quality Designer	
TOLERANCES	ISSUE FOR USE
±.13	REV
±.063	DESCRIPTION
±.1/8"	ORG
±.5"	CHKD
ANGLE	RWD
APPROVED	DATE
1-27-25	

PROJECT No.	24590
SITE	HANFORD
AREA	200E
BUILDING No.	30
BY	DATE
ORIGINATOR	SEE STAMP
CHECKER	SEE STAMP
APPROVER	1-27-25
REVIEWER	SEE STAMP

REVISION HISTORY	
CONTRACT No.	DE-AC27-01RV14136
RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2435 STEVENS CENTER PLACE RICHLAND, WA 99354	
HLW VITRIFICATION BUILDING PROCESS PIPING JUMPER - MELTER 1 HFP-JMPP-00183	

CONTENT APPLICABLE TO ALARA? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	SCALE: NONE	REV: 2
ADR NO. 24590-WTP-ADR-PL-02-005	24590-HLW-P61-P27T-00089	

FORM E, MASTER 03/2003	8	7	6	5	4	3	2	1
------------------------	---	---	---	---	---	---	---	---