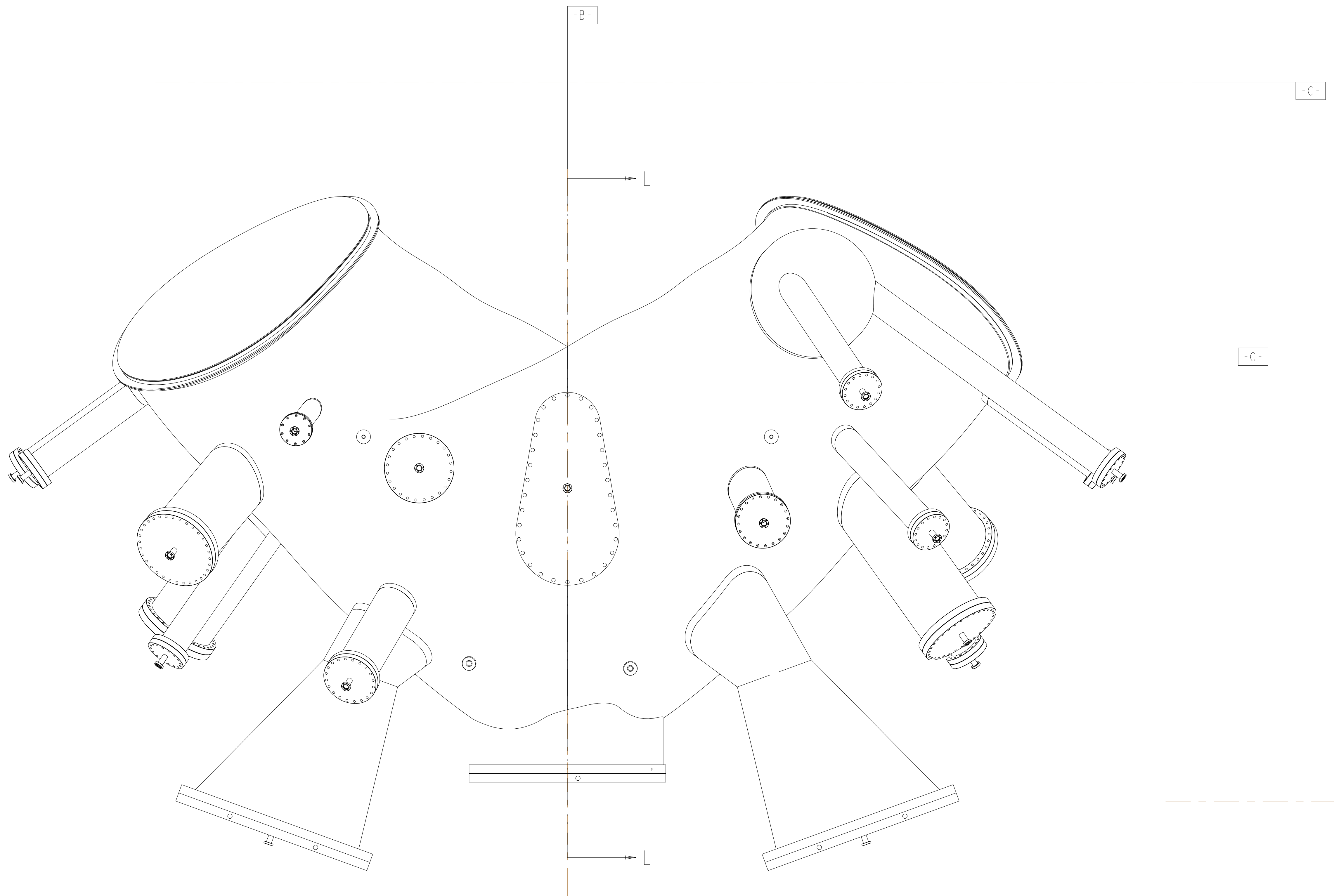
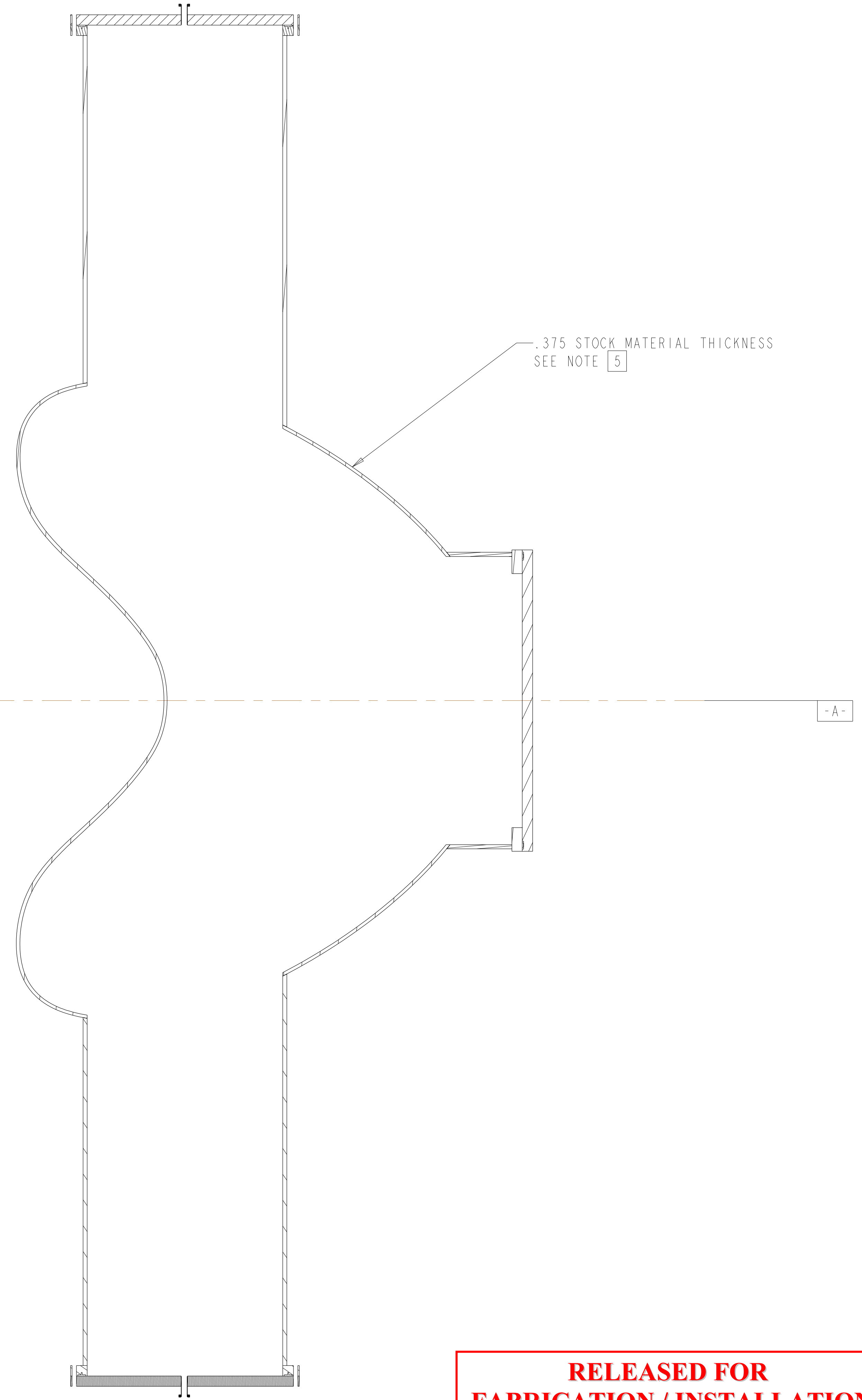




FOR NOTES AND PARTS LIST SEE SHEET 1



TOP VIEW



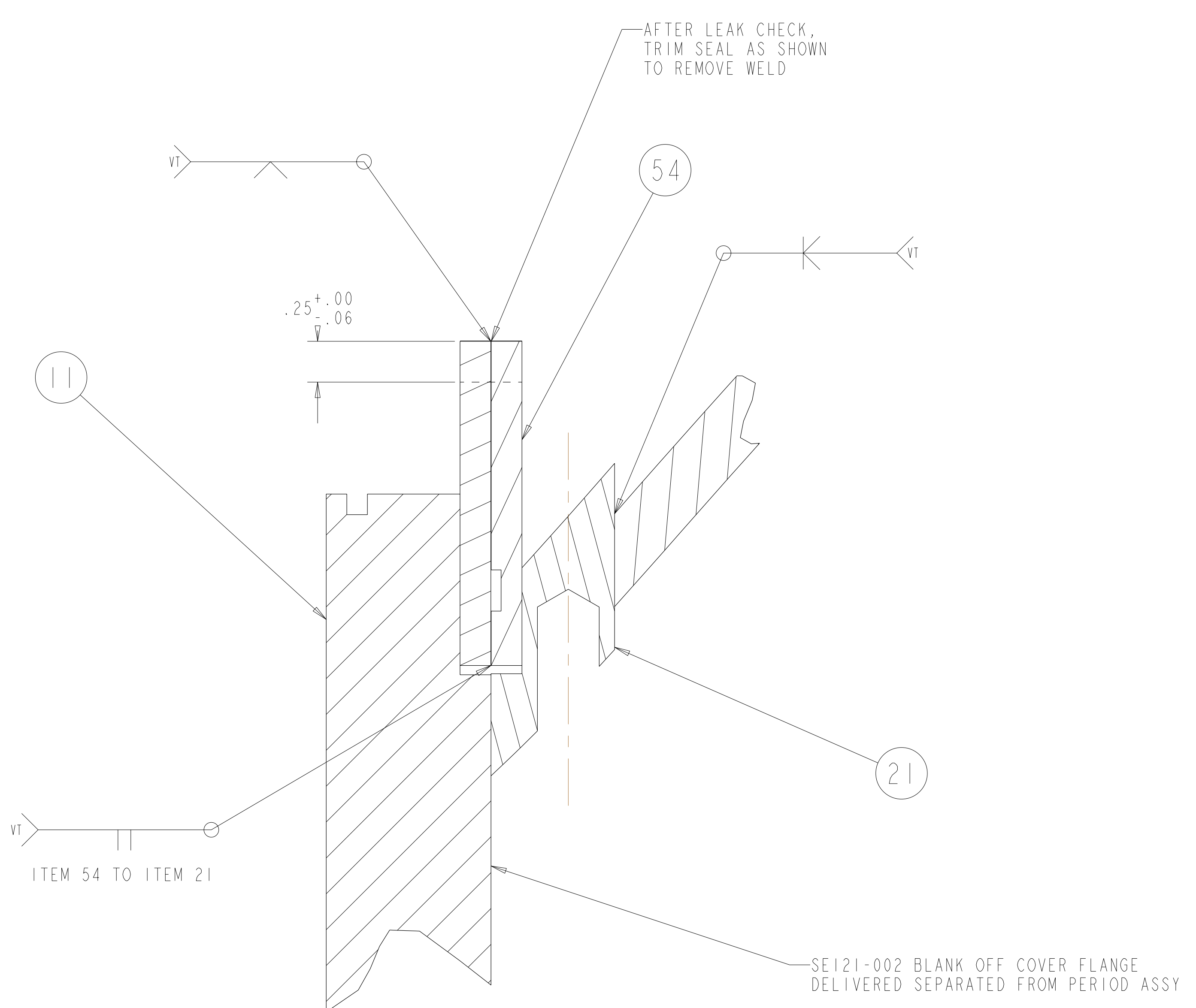
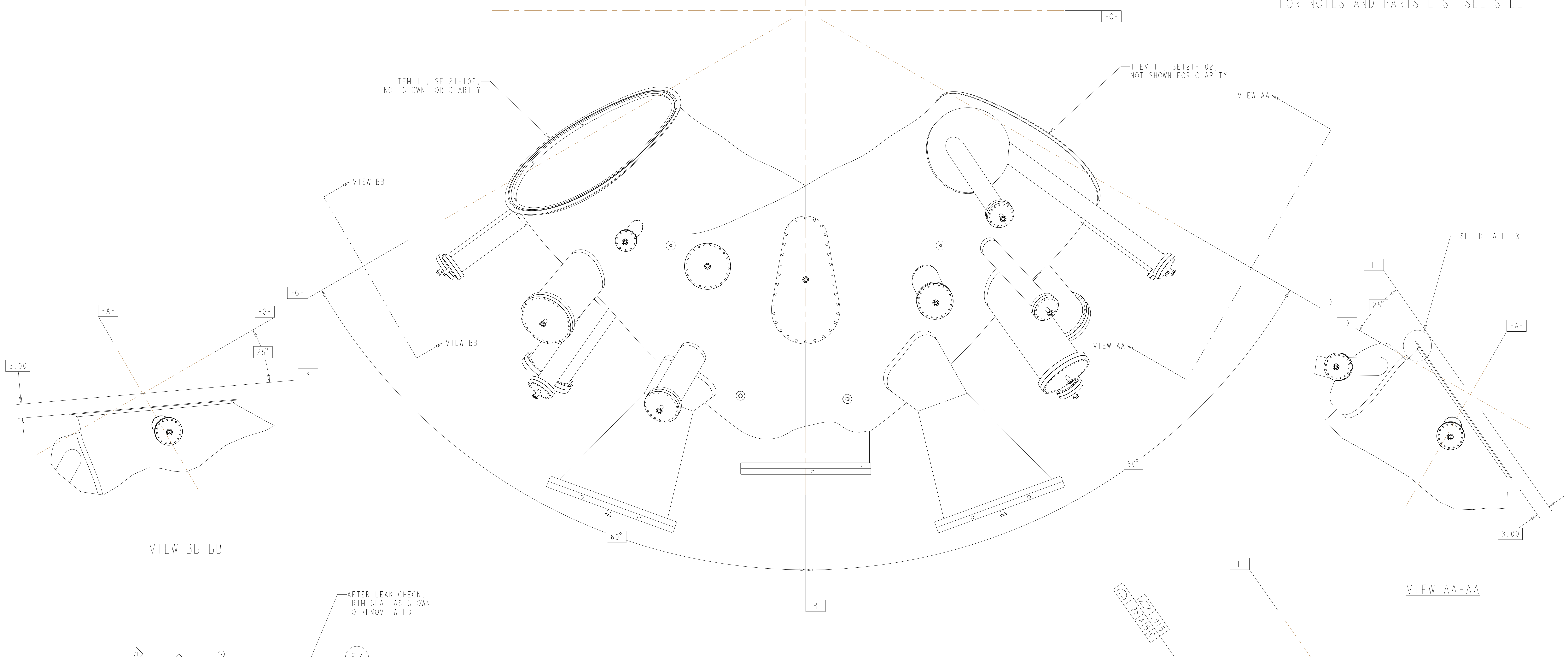
SECTION L-L  
 VESSEL THICKNESS

**RELEASED FOR  
 FABRICATION / INSTALLATION**  
 PPPL Drafting:

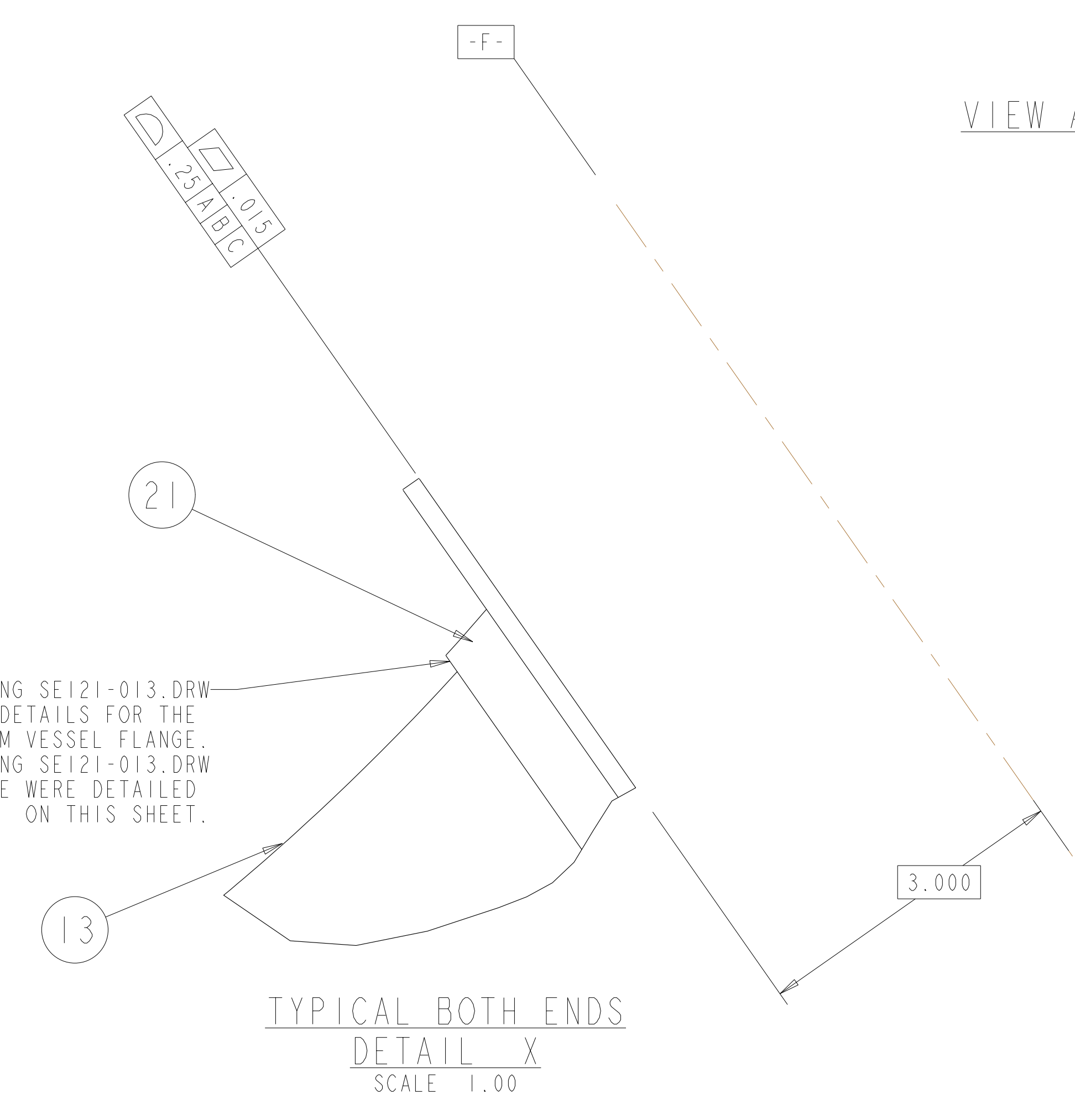
Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC, Oak Ridge, Tennessee PROJECT NAME						
NATIONAL COMPACT STELLERATOR EXPERIMENT VACUUM VESSEL PERIOD INSPECTION AND LEAK CHECK ASSEMBLY						
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS
5	X-10	5700	3	2 19	A	U
RELEASE LEVEL		SE120-004			REV	
Fabrication					2	

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FOR NOTES AND PARTS LIST SEE SHEET 1



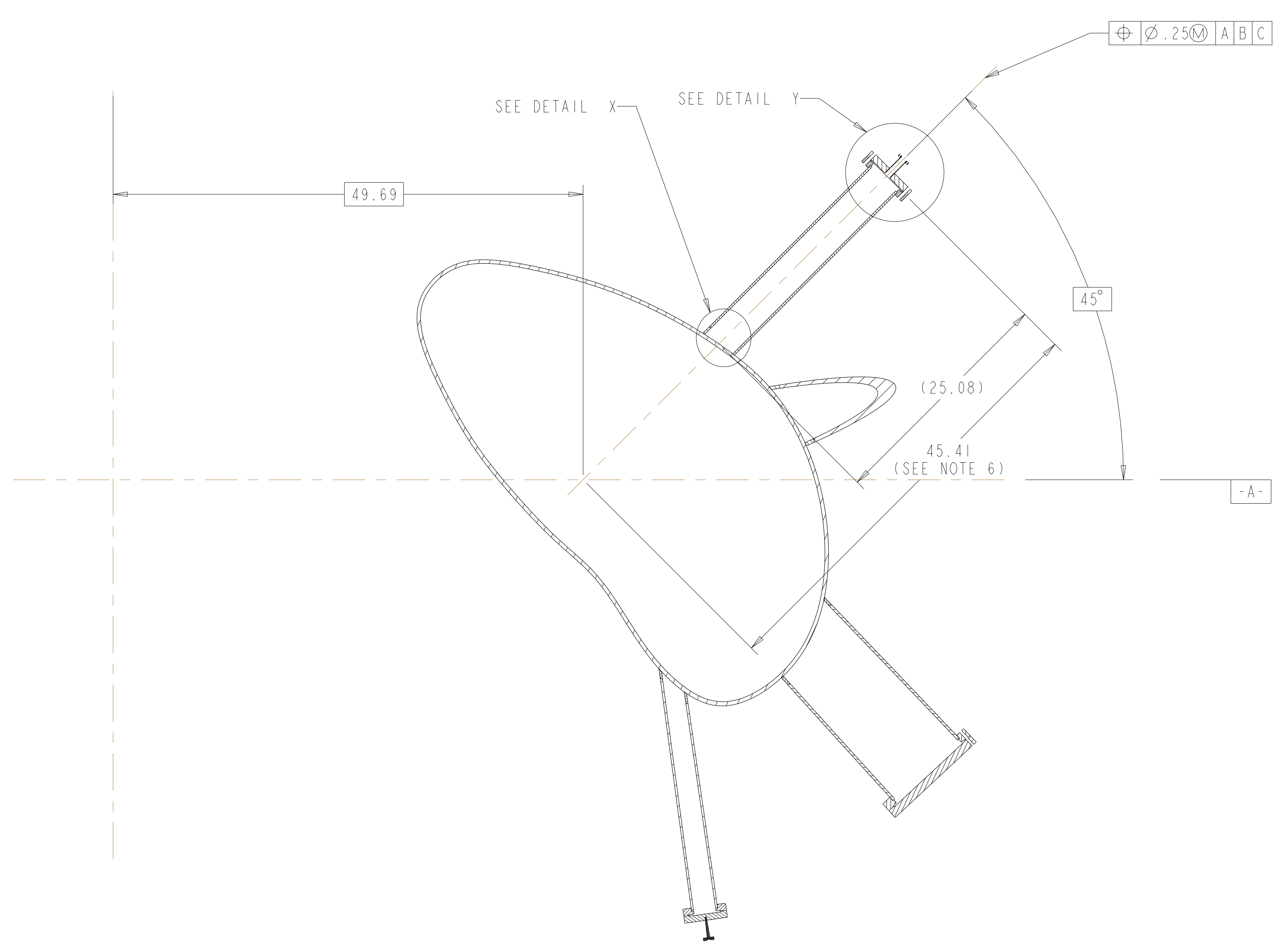
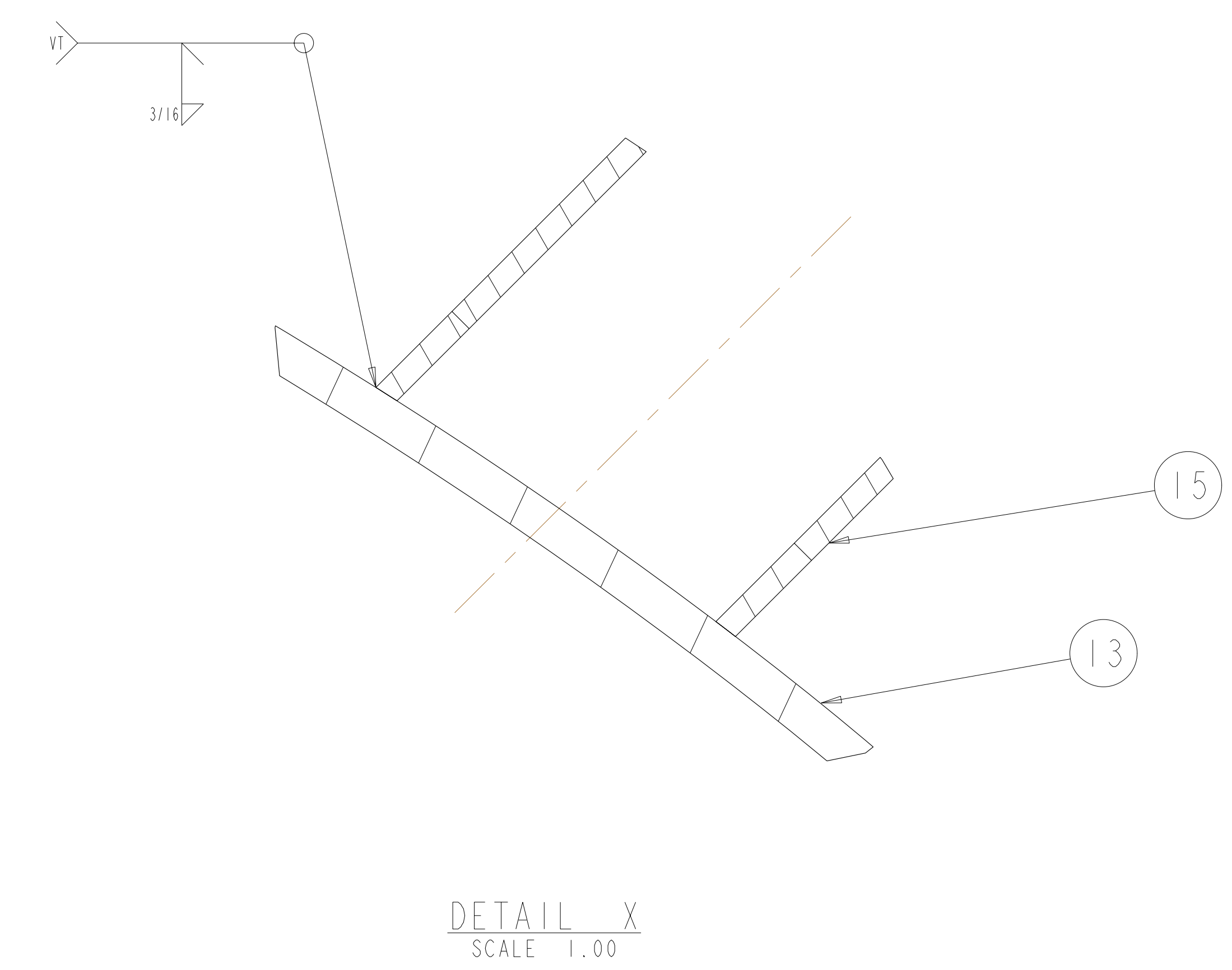
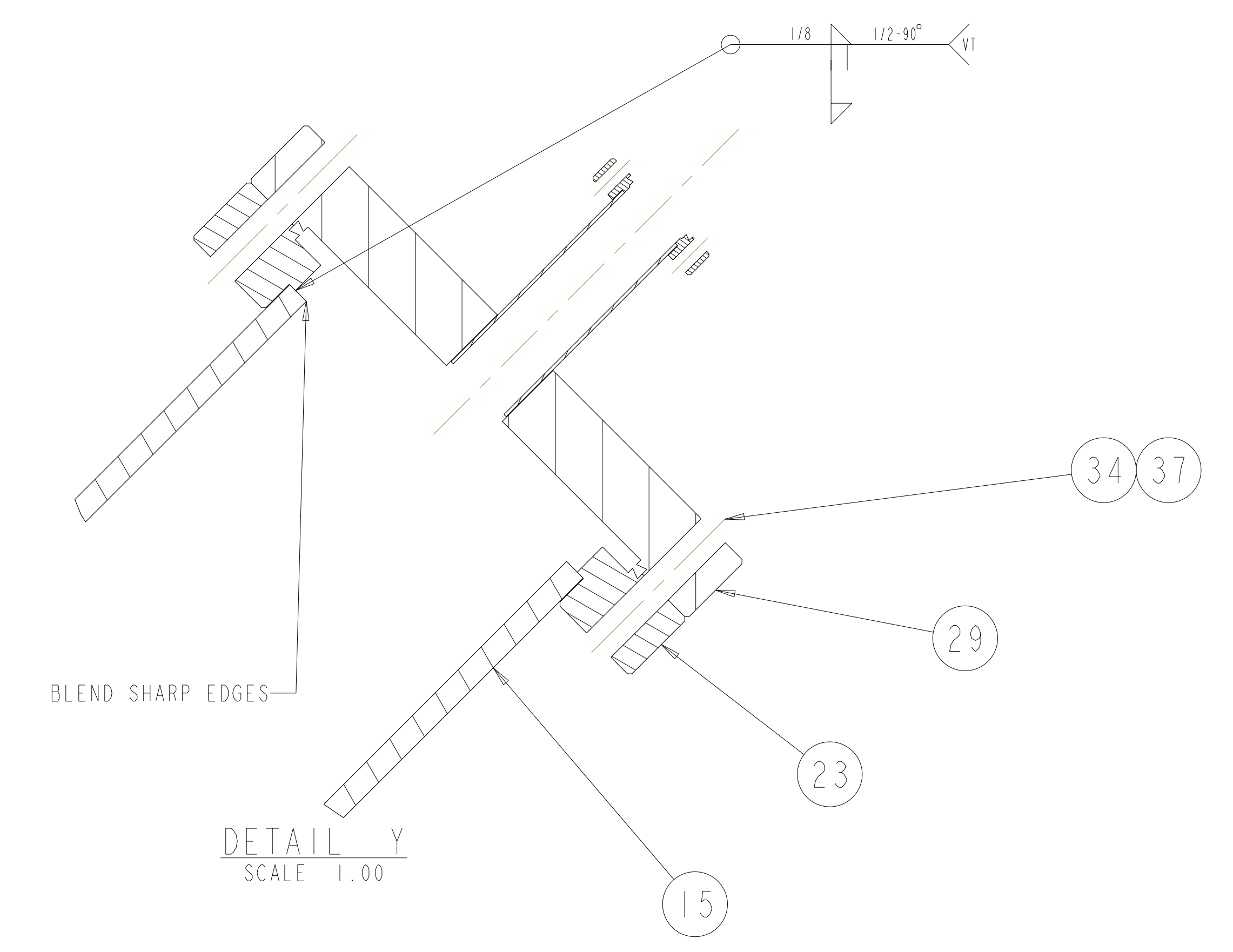
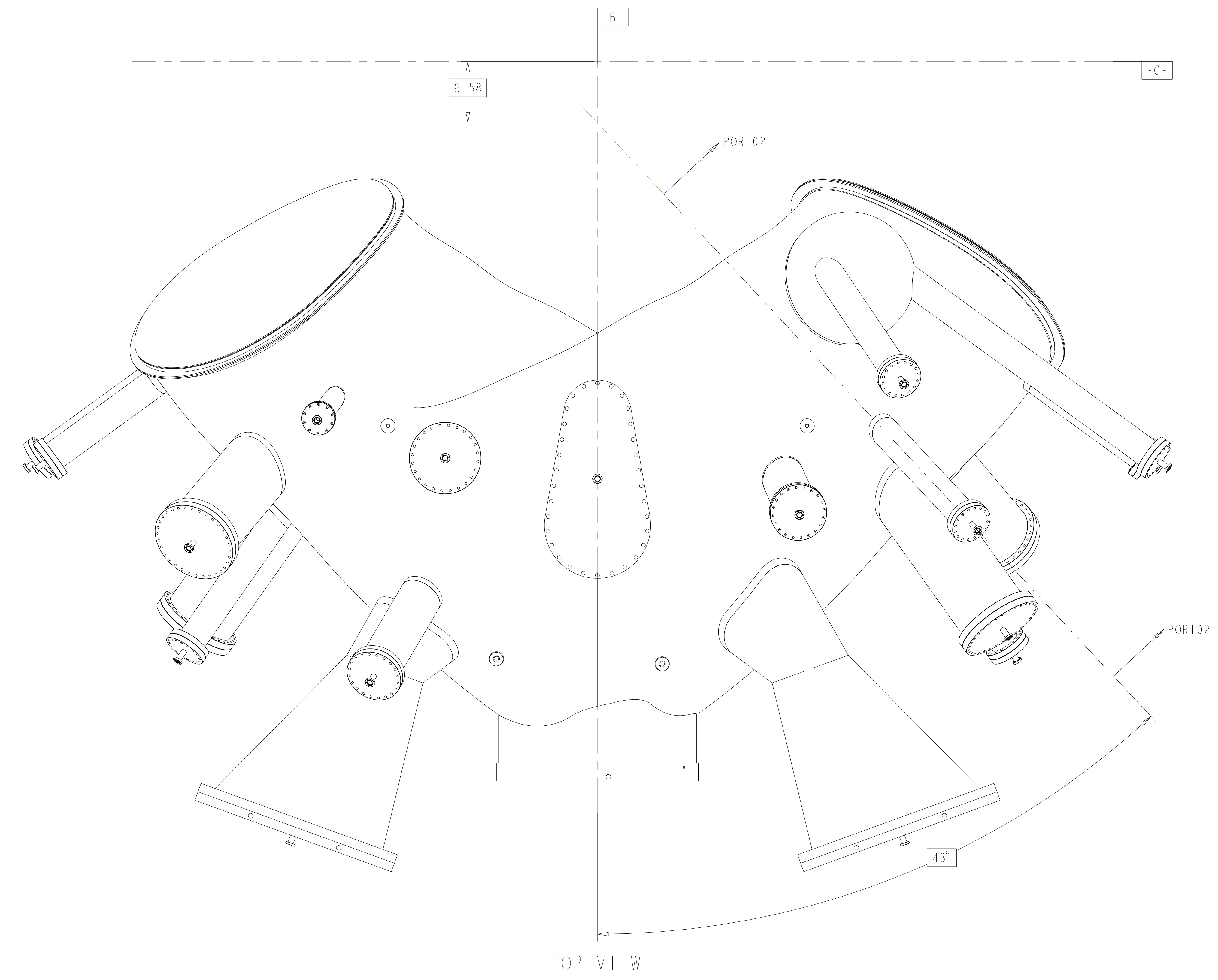
SEE DRAWING SE121-013.DRW FOR ADDITIONAL DETAILS FOR THE VACUUM VESSEL FLANGE. DIMENSIONS ON DRAWING SE121-013.DRW APPLY AS IF THEY WERE DETAILED ON THIS SHEET.



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PROJECT NAME							
NATIONAL COMPACT STELLARATOR EXPERIMENT							
VACUUM VESSEL							
PERIOD INSPECTION AND LEAK CHECK							
ASSEMBLY							
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS	
5	X-10	5700	3	3 19	A	U	
RELEASE LEVEL	Fabrication						
SE120-004						REV	2

FOR PARTS LIST AND NOTES SEE SHEET 1.



TYPICAL PORT 2A AND 2B SECTION PORT02-PORT02

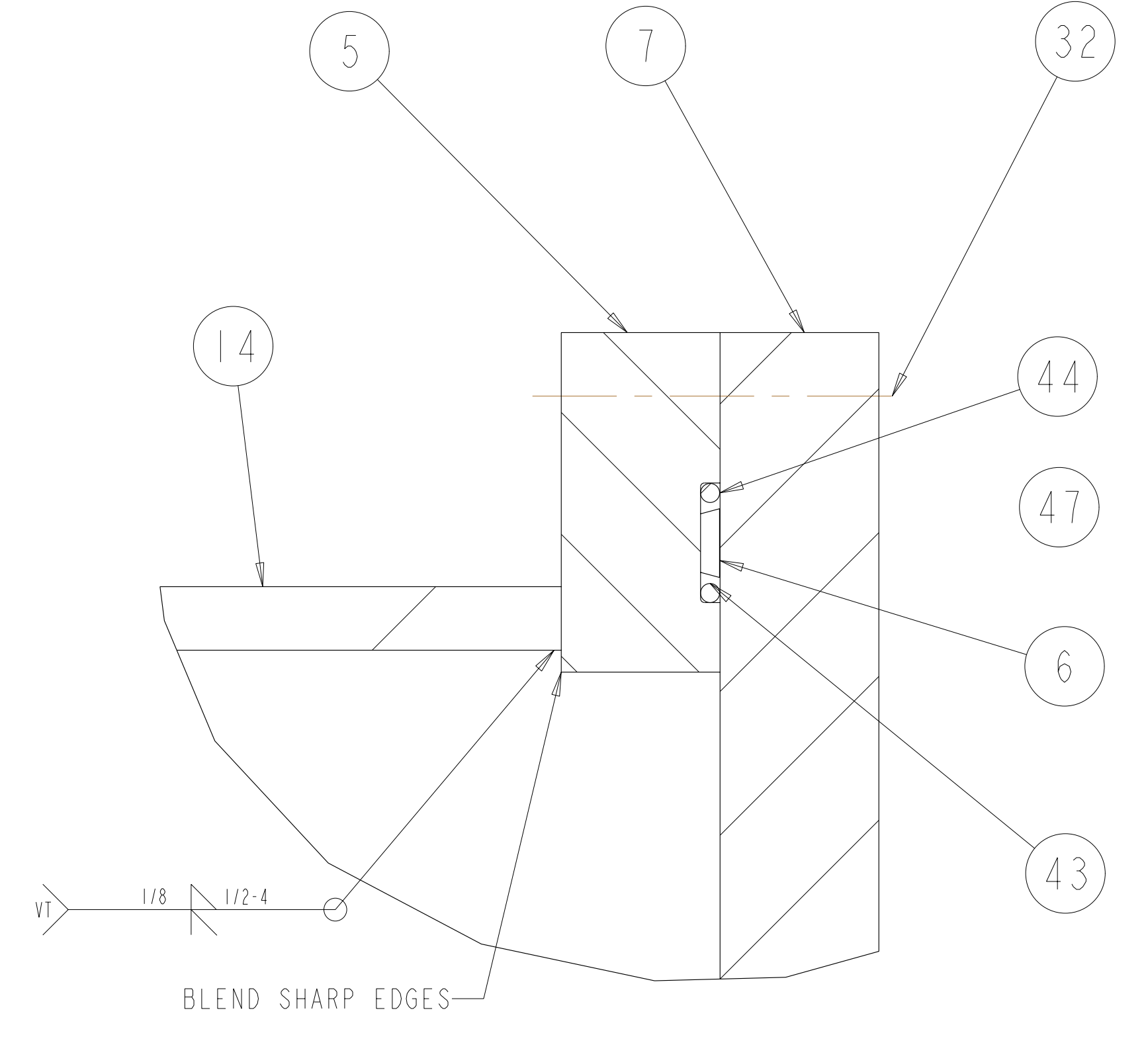
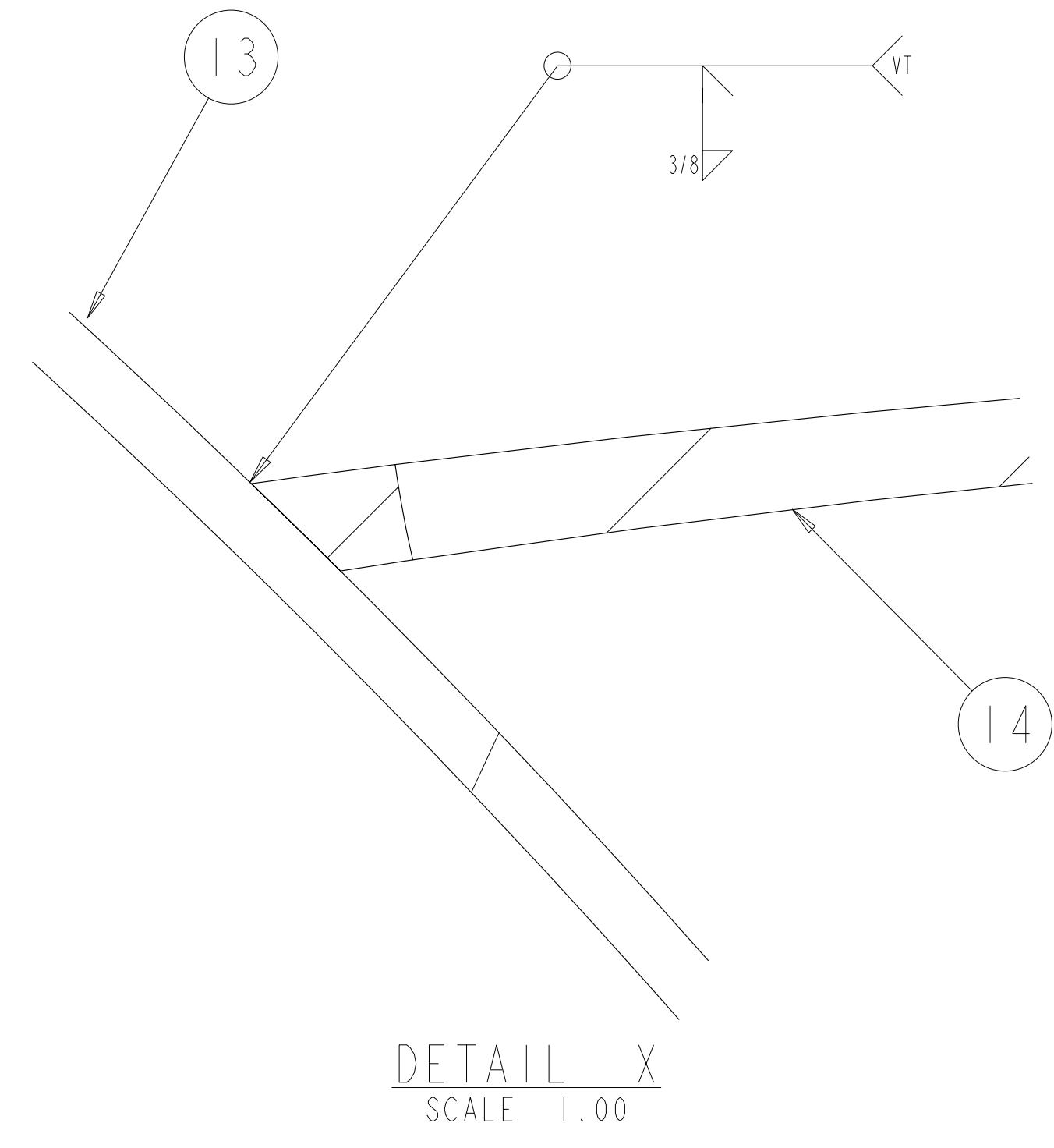
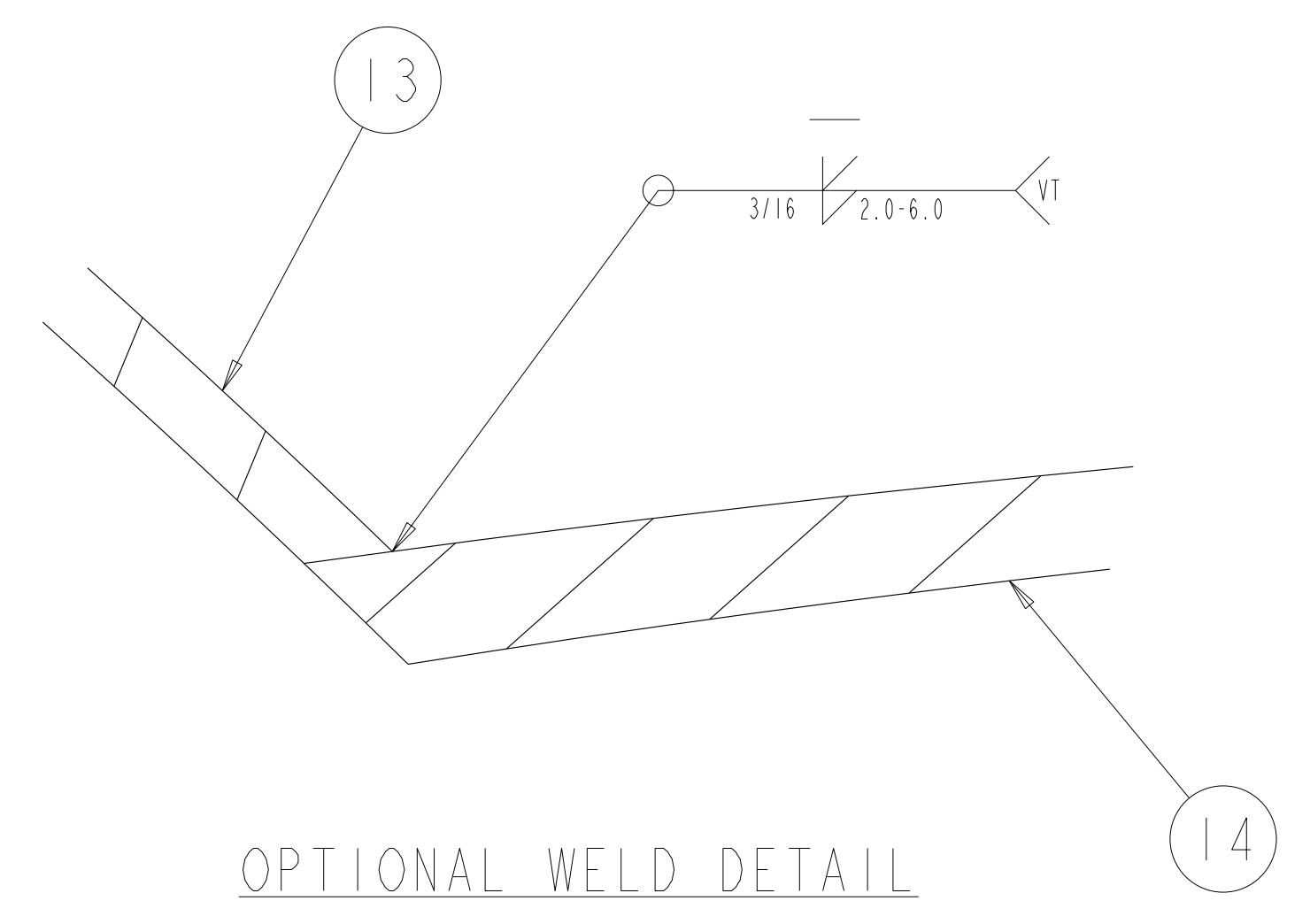
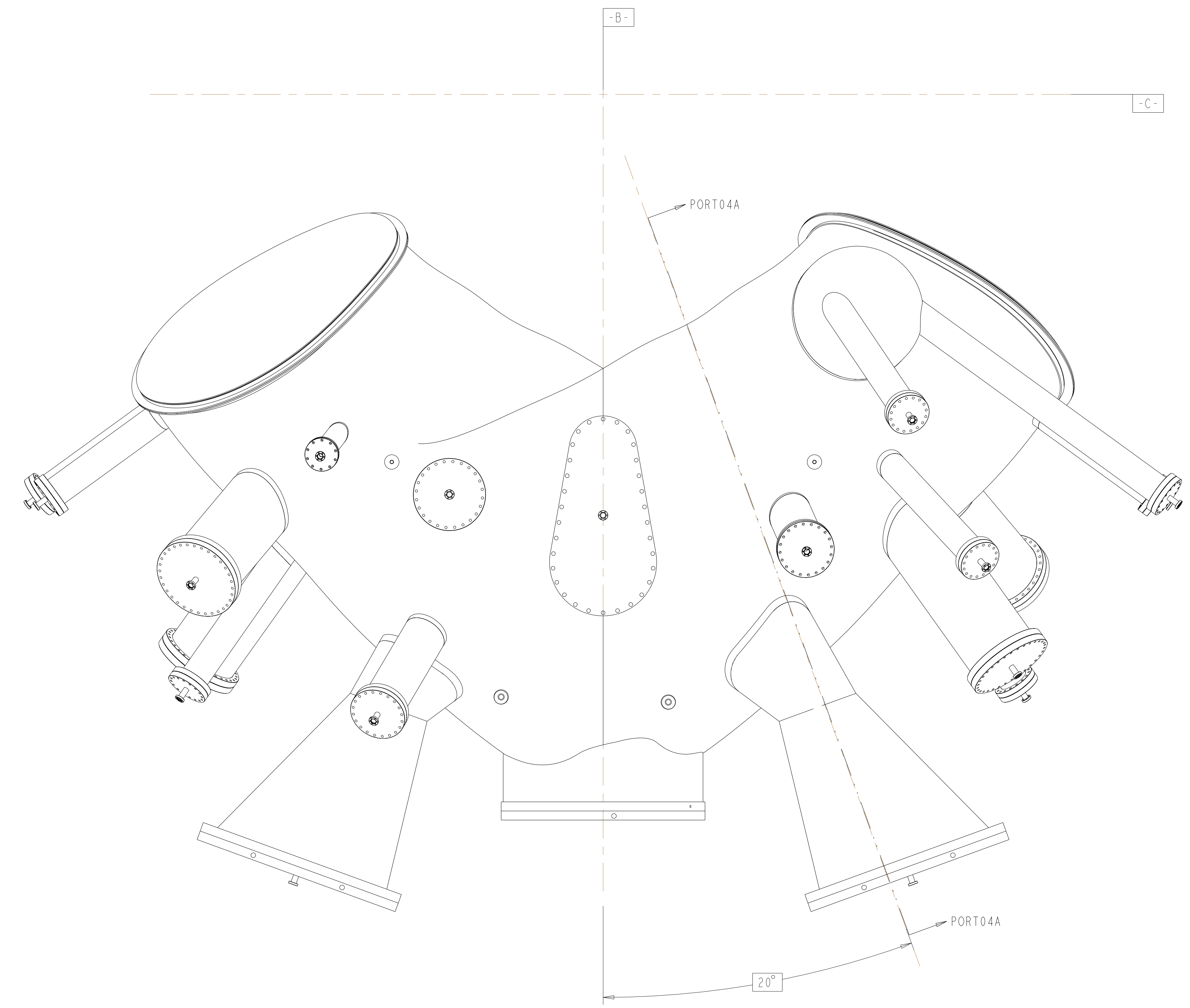
**RELEASED FOR FABRICATION / INSTALLATION**  
 PPPL Drafting:

UT-BATTELLE		Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC, Oak Ridge, Tennessee					
NATIONAL COMPACT STELLARATOR EXPERIMENT							
VACUUM VESSEL							
PERIOD INSPECTION AND LEAK CHECK ASSEMBLY							
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS	
5	X-10	5700	3	4	19	A	U
RELEASE LEVEL	SE120-004						REV
Fabrication							2

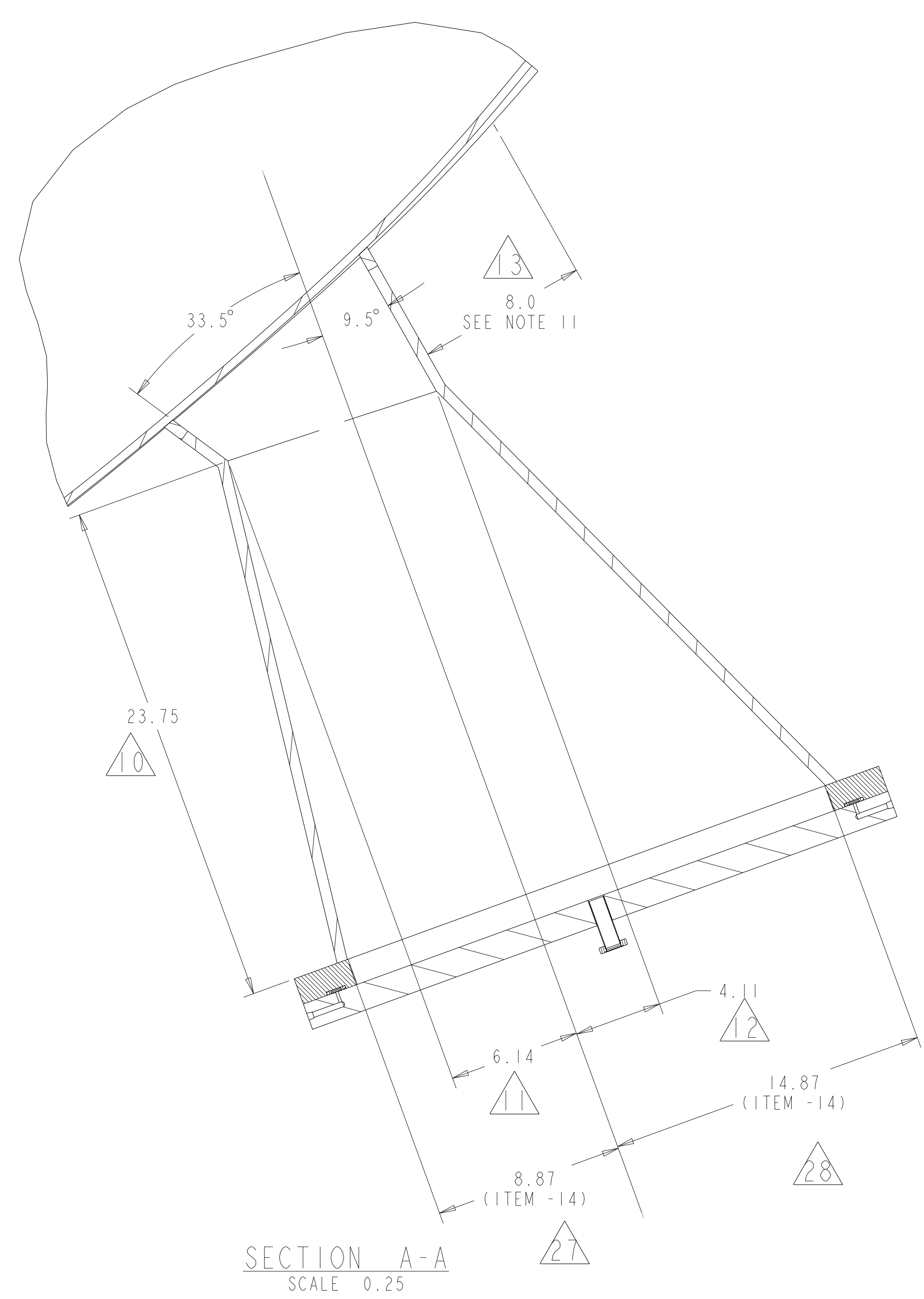
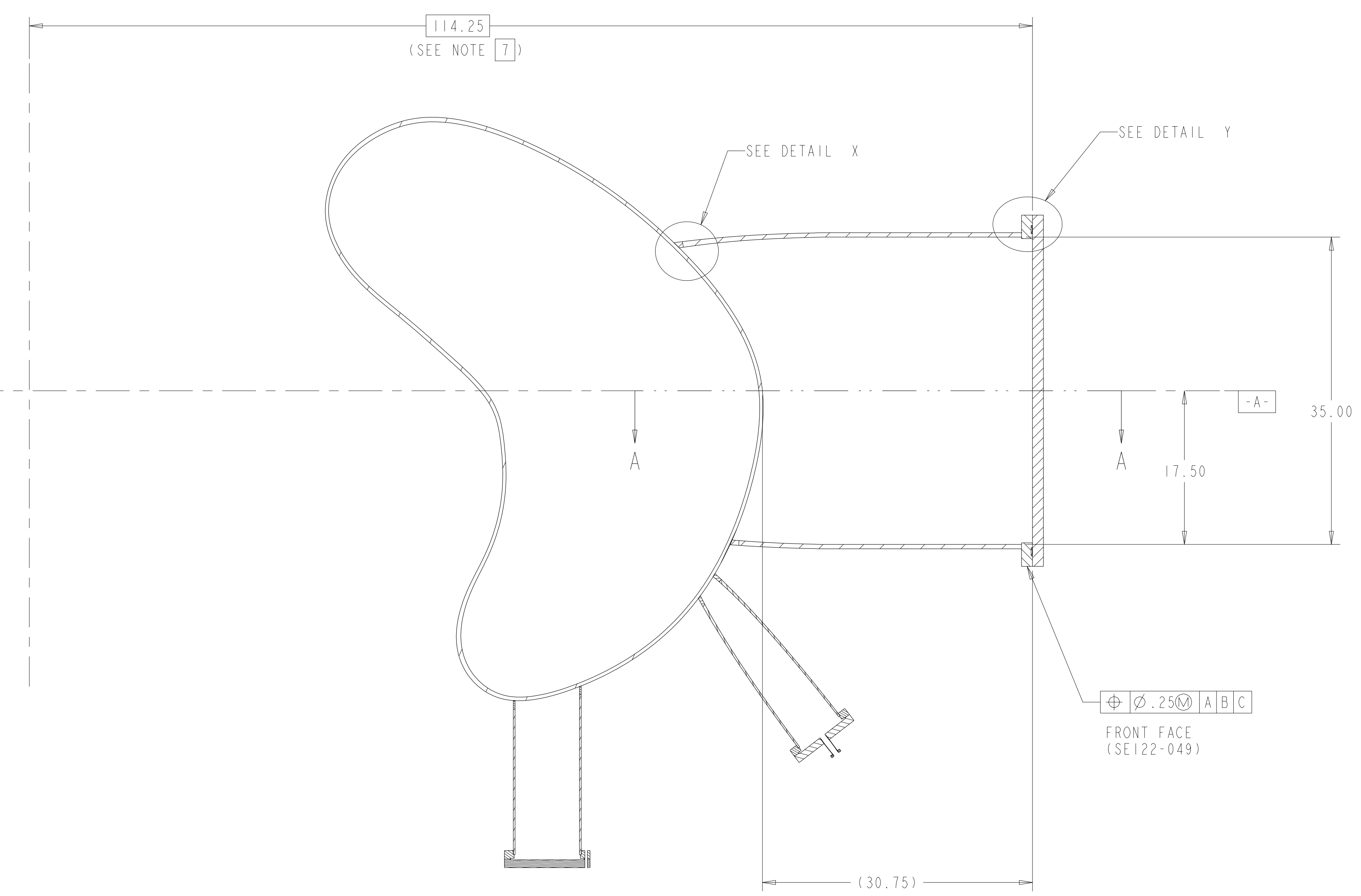
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SE120-004

FOR PARTS LIST AND NOTES SEE SHEET 1.



TOP VIEW

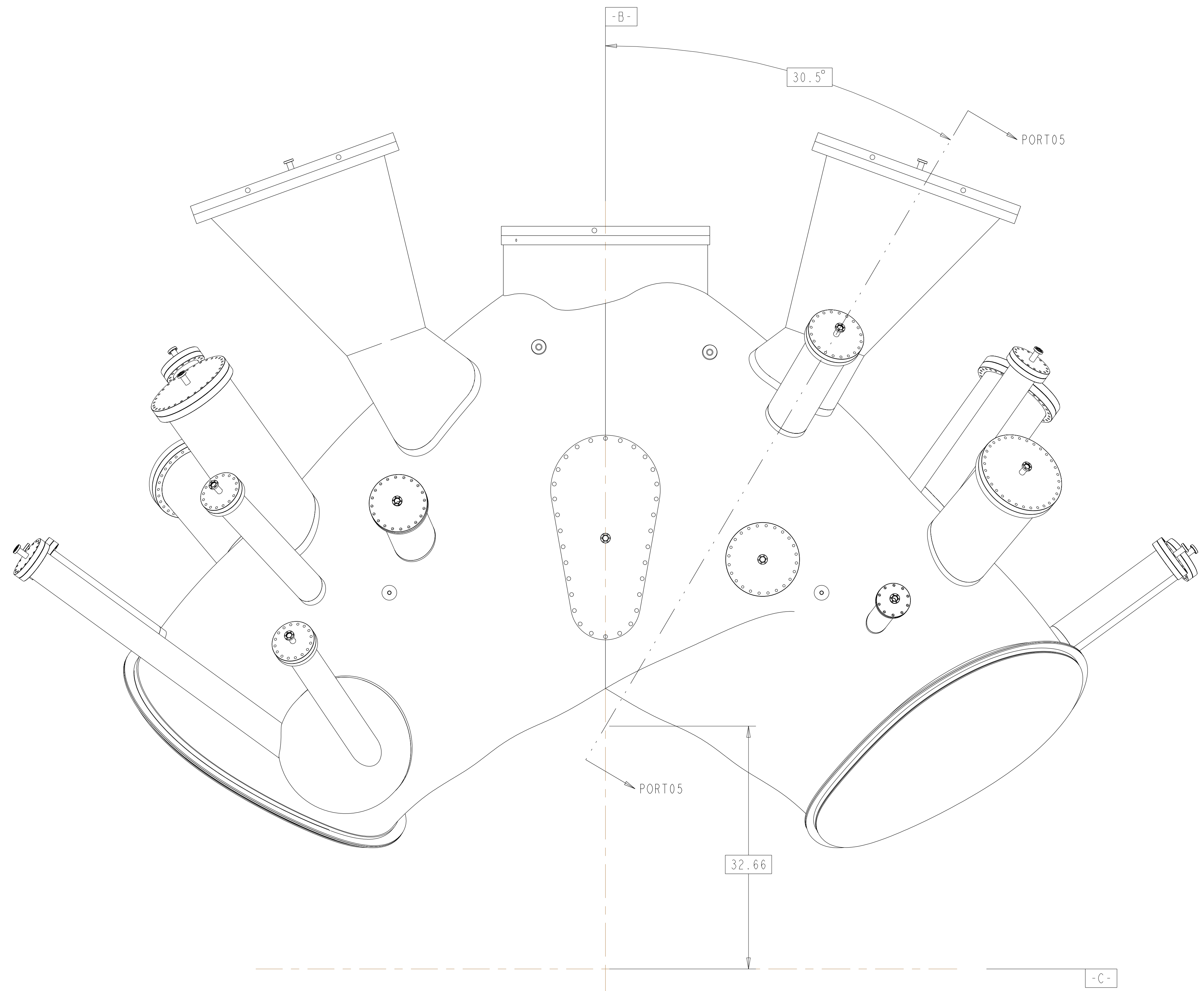


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 PPPL Drafting:

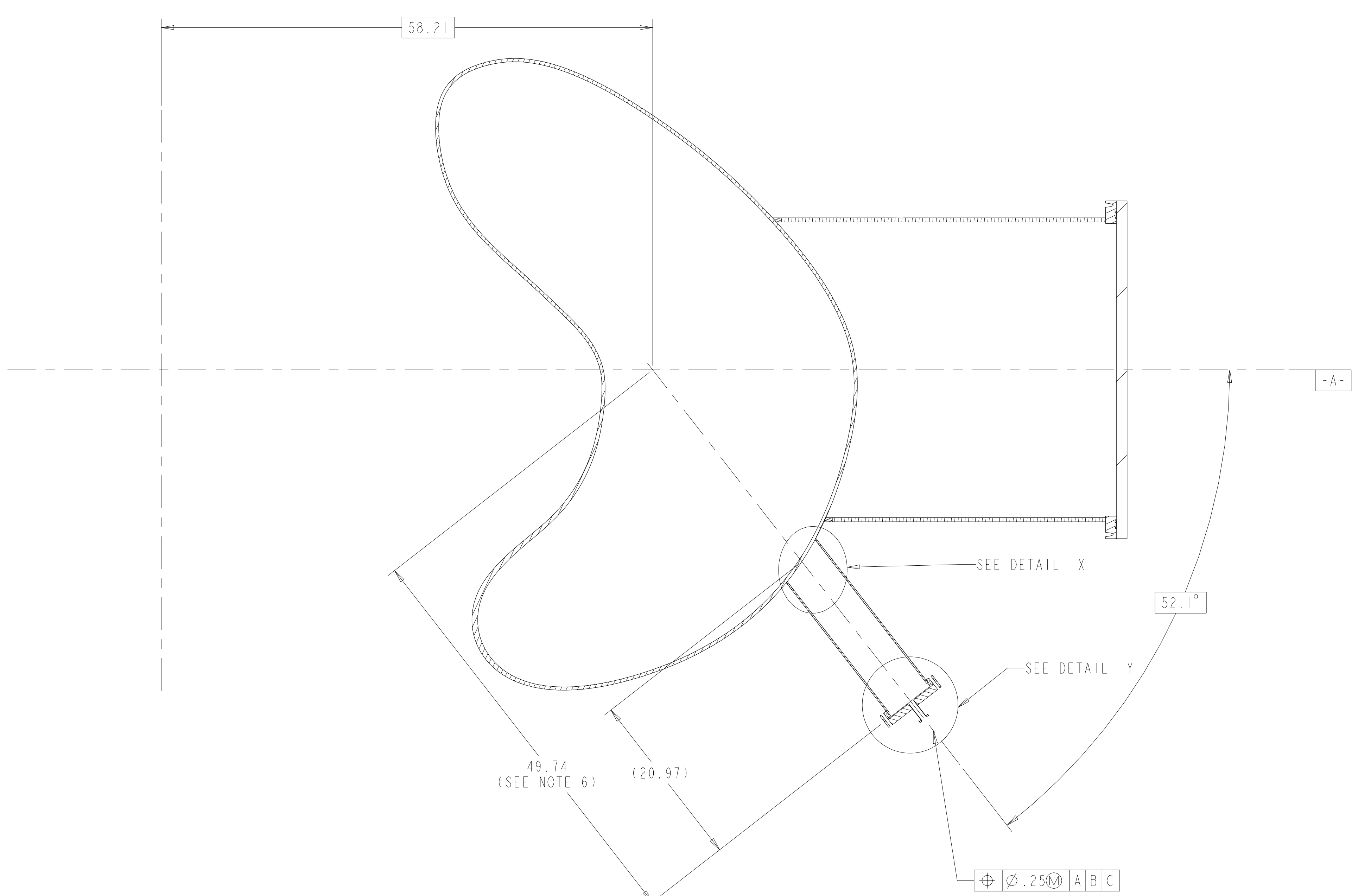
TYPICAL PORT 4A AND 4B SECTION PORT04A-PORT04A

UT-BATTELLE		Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC., Oak Ridge, Tennessee	
PROJECT NAME			
NATIONAL COMPACT STELLERATOR EXPERIMENT			
VACUUM VESSEL			
PERIOD INSPECTION AND LEAK CHECK ASSEMBLY			
VERSION NO.	PLANT	BLDG	FL
5	X-10	5700	3
RELEASE LEVEL			
Fabrication			
SHT OF	TYPE	CLASS	
19	A	U	
		REV	
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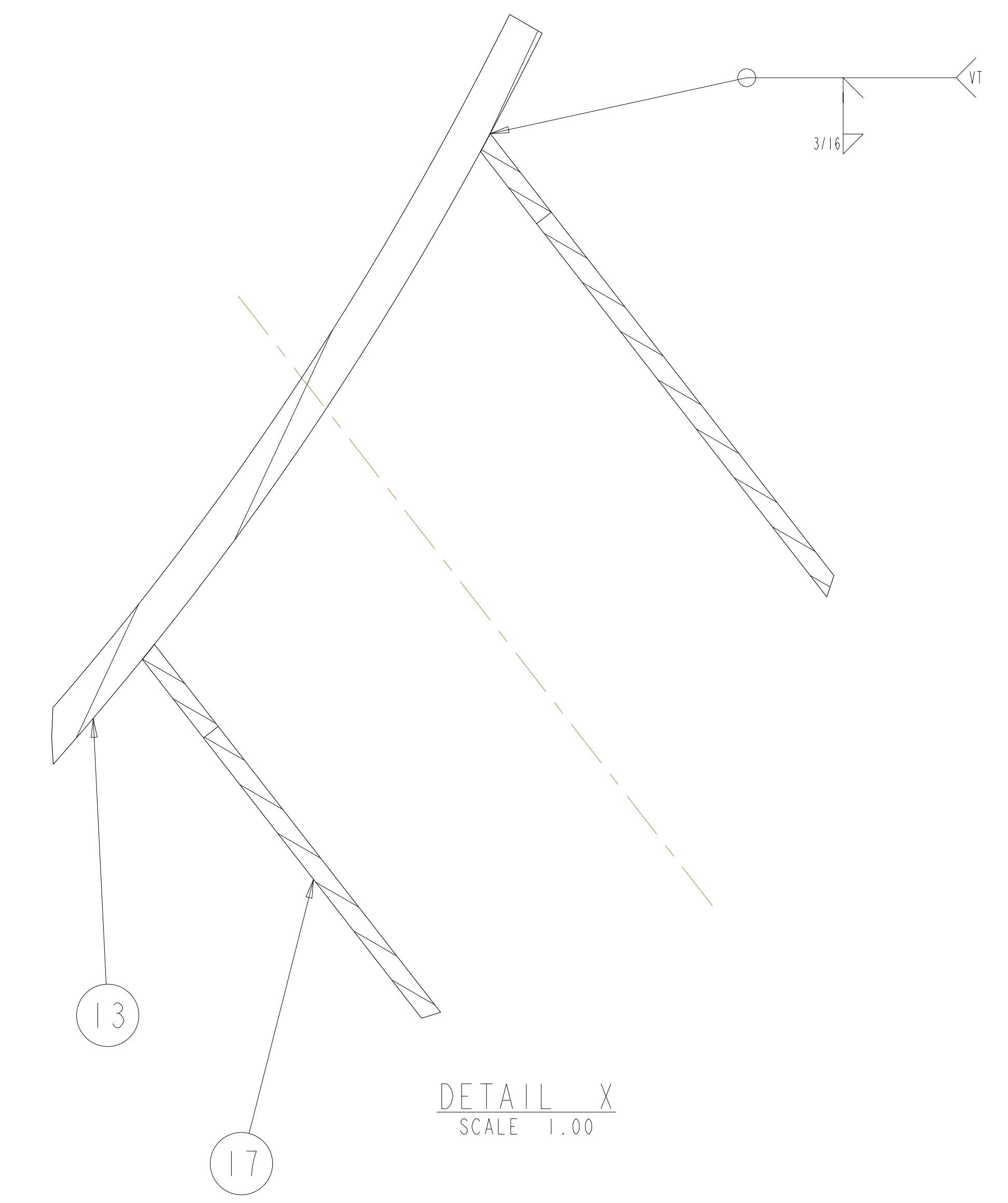


BOTTOM VIEW

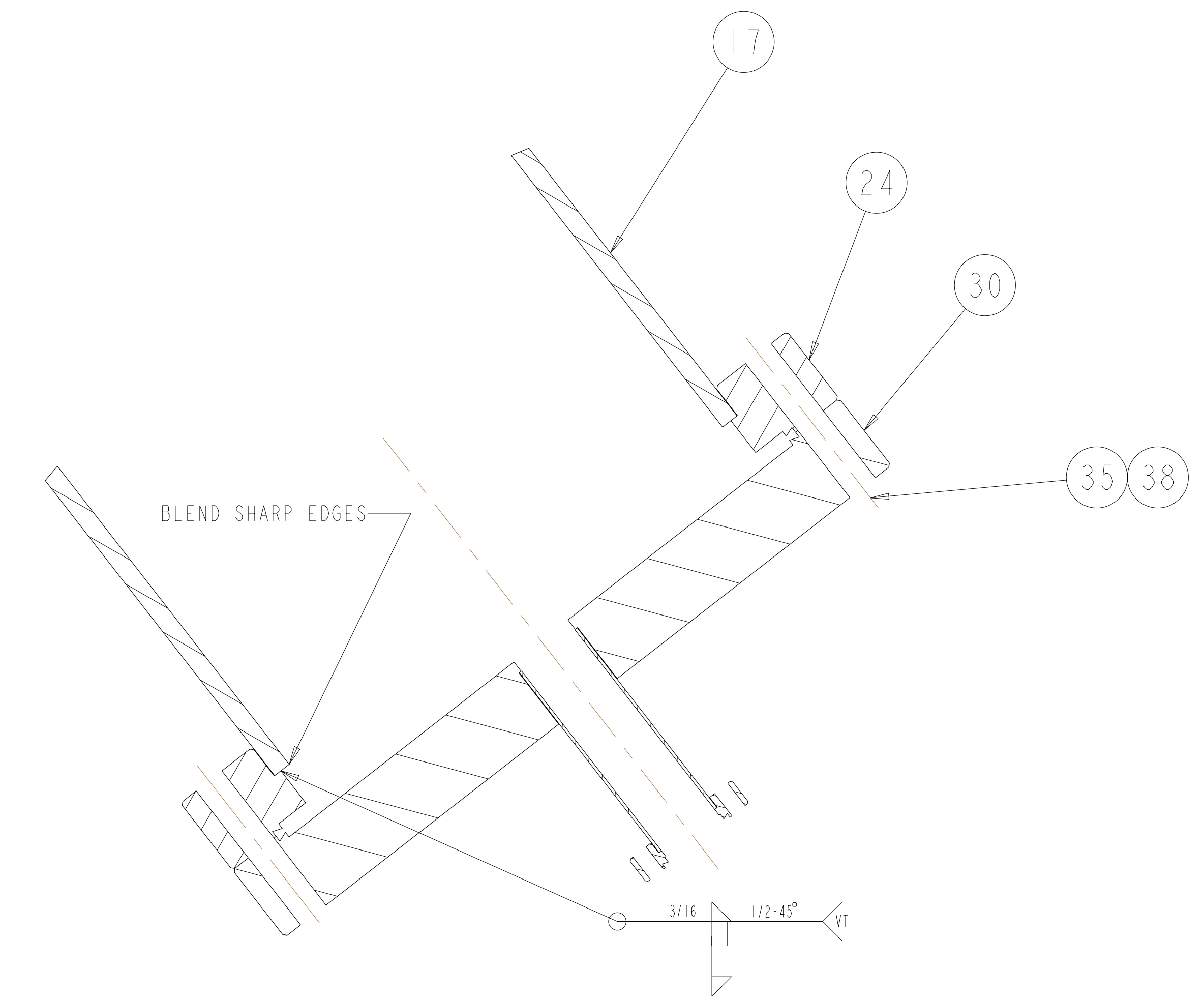


TYPICAL PORT 5A AND 5B SECTION PORT05-PORT05

FOR PARTS LIST AND NOTES SEE SHEET 1.



DETAIL X  
SCALE 1.00

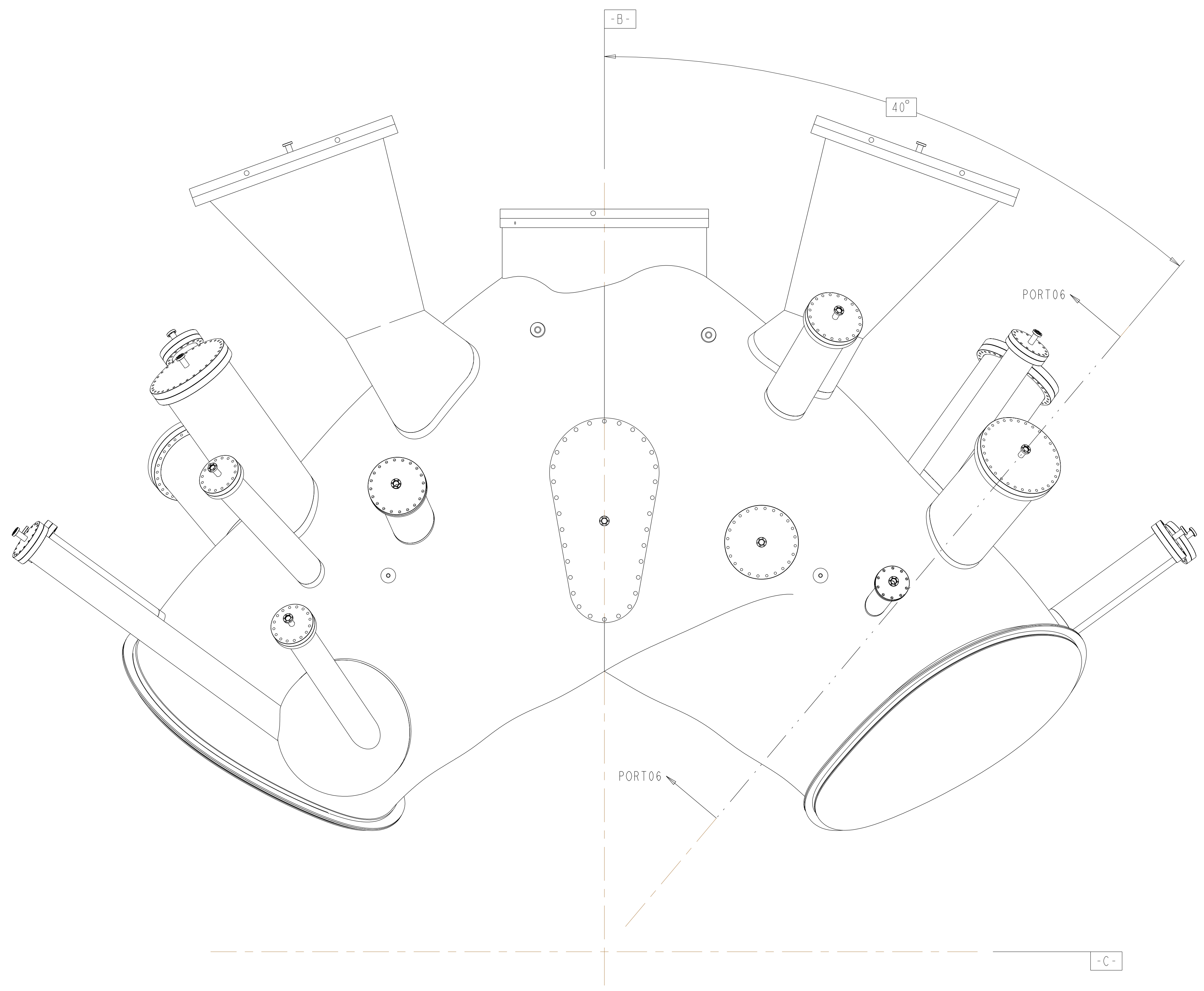


DETAIL Y  
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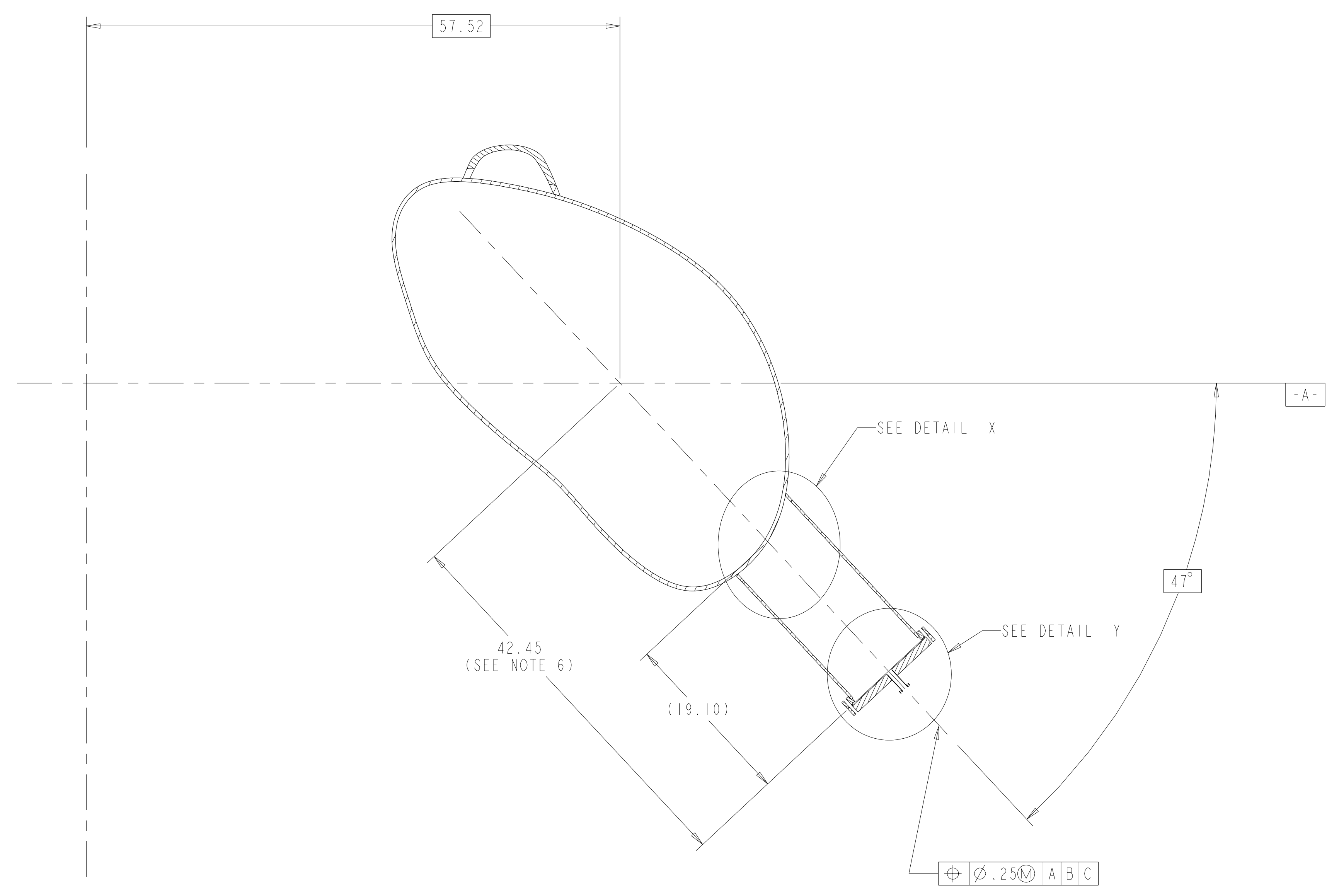
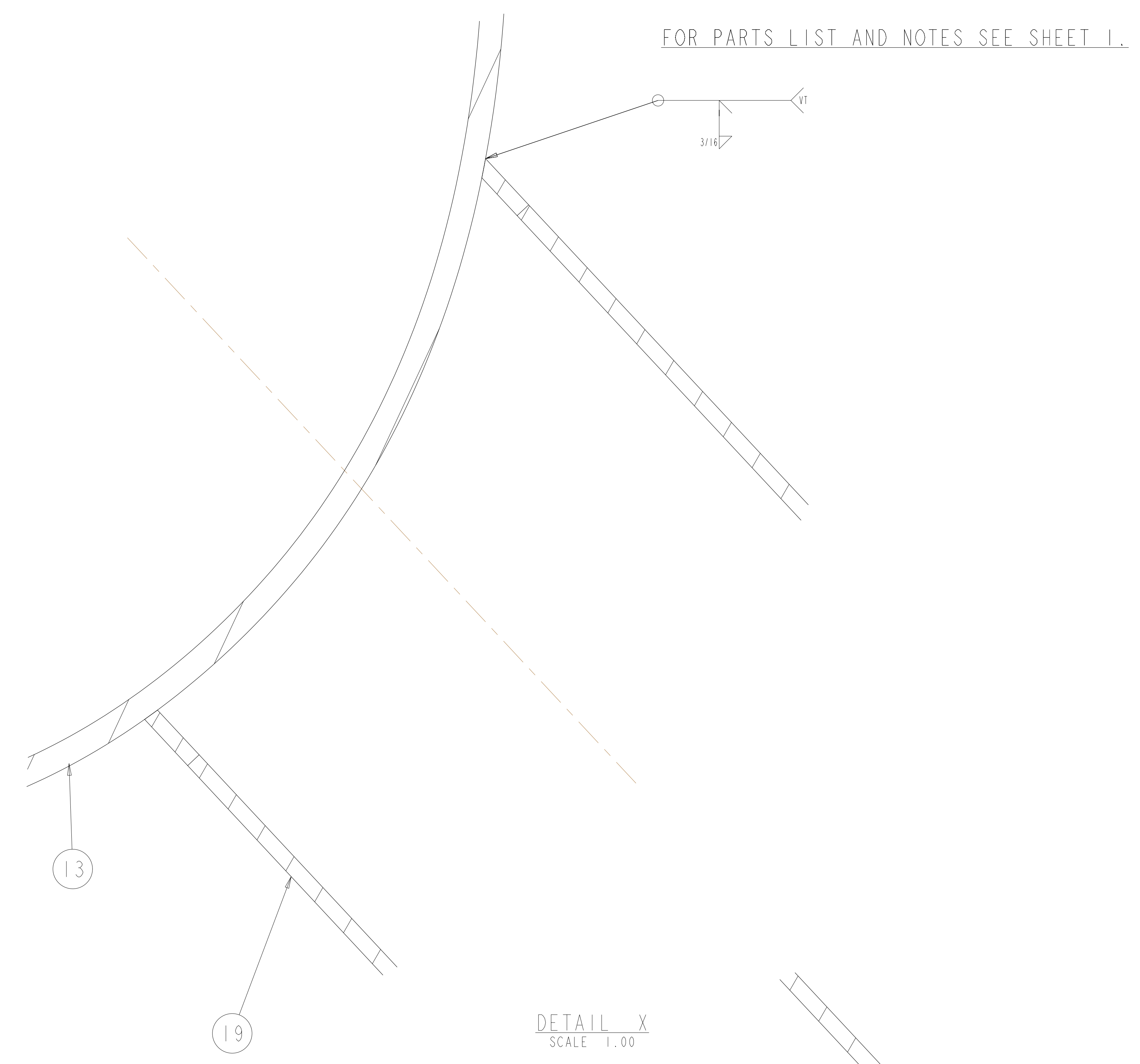
**RELEASED FOR FABRICATION / INSTALLATION**  
 PPPL Drafting:

UT-BATTELLE		Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC, Oak Ridge, Tennessee						
PROJECT NAME								
NATIONAL COMPACT STELLARATOR EXPERIMENT								
VACUUM VESSEL								
PERIOD INSPECTION AND LEAK CHECK ASSEMBLY								
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS		
5	X-10	5700	3	6	19	A	U	
RELEASE LEVEL		SE120-004					REV	
Fabrication							2	

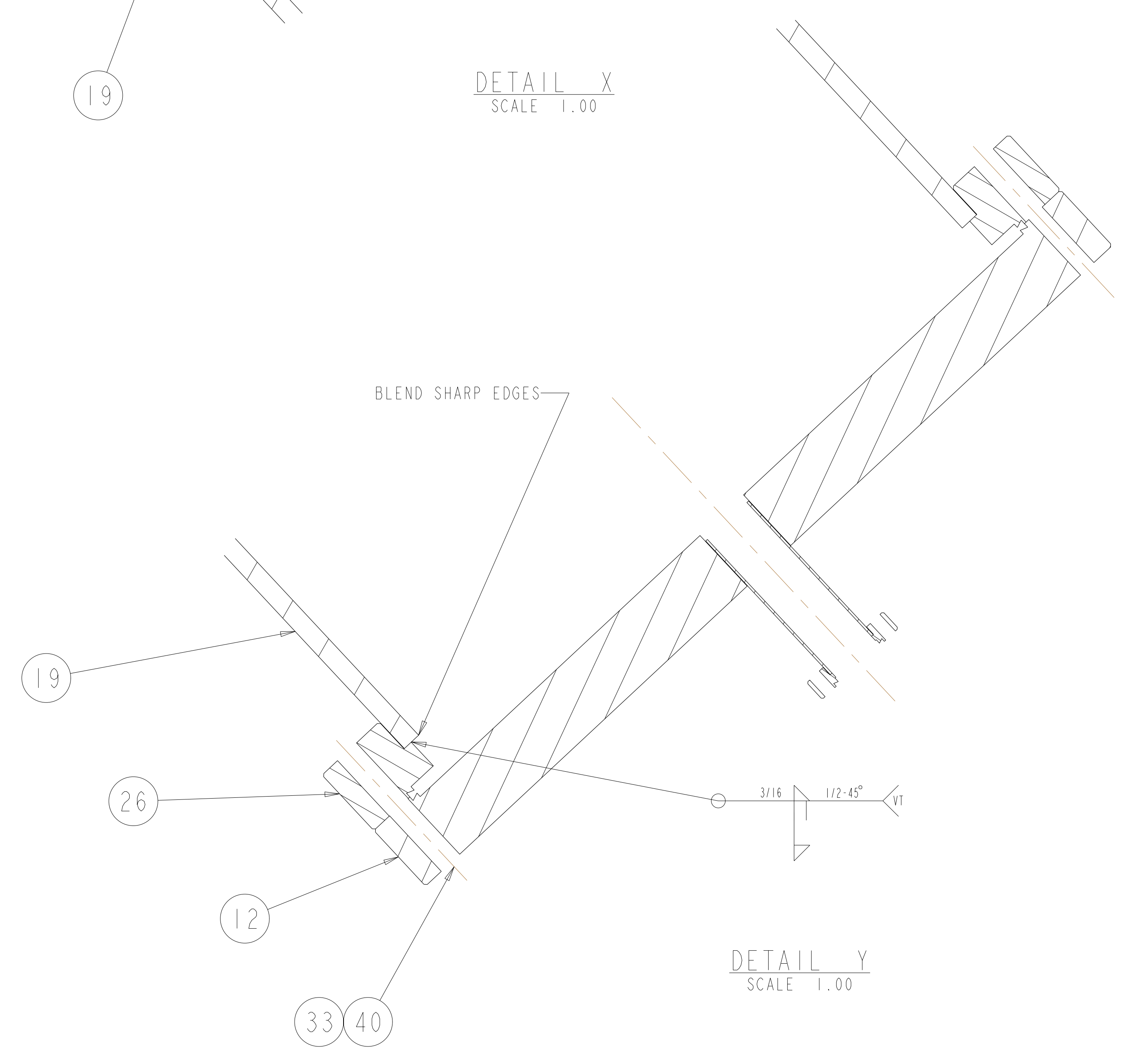
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BOTTOM VIEW



TYPICAL PORT 6A AND 6B  
 SECTION PORT06-PORT06

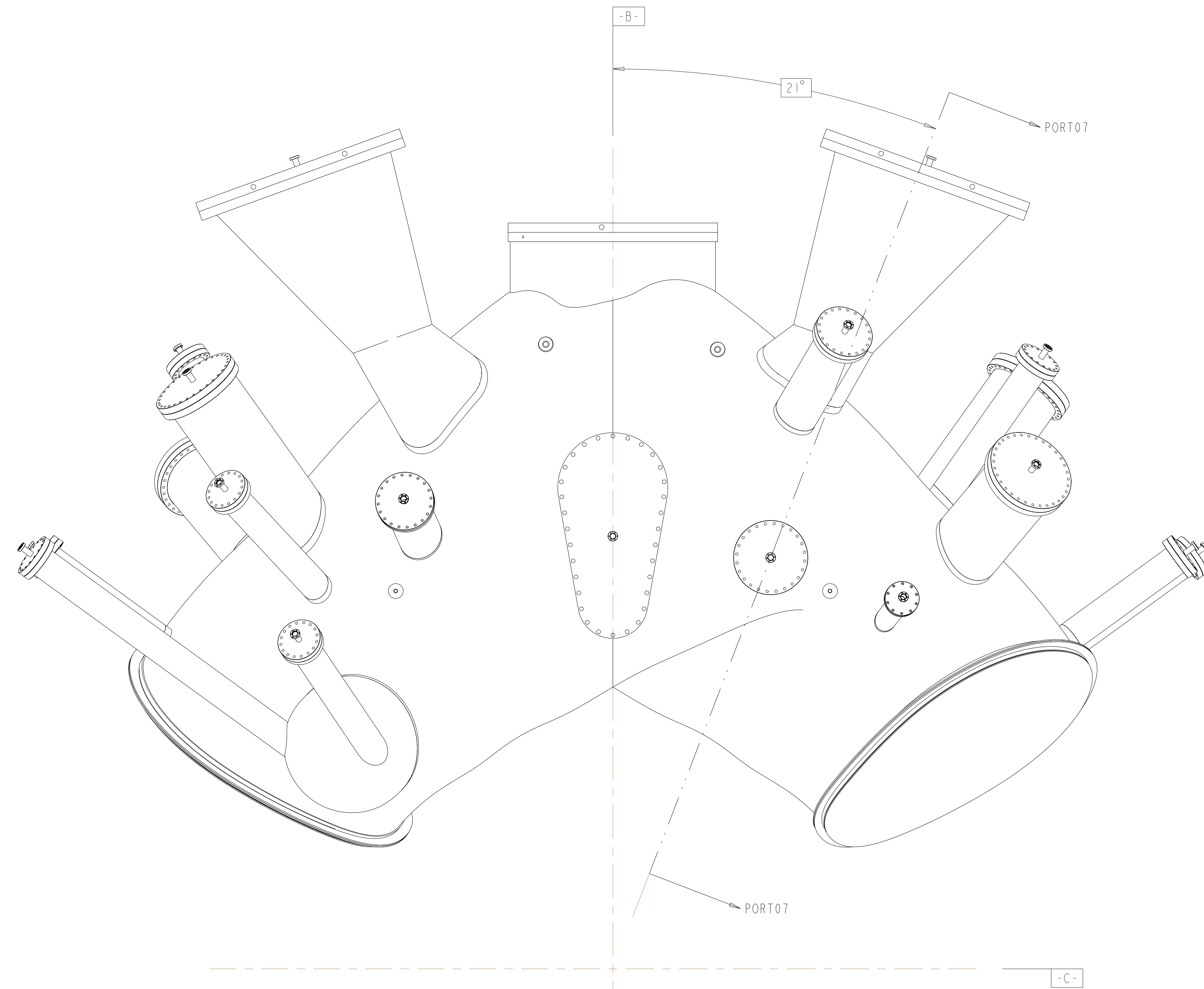


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 PPPL Drafting:

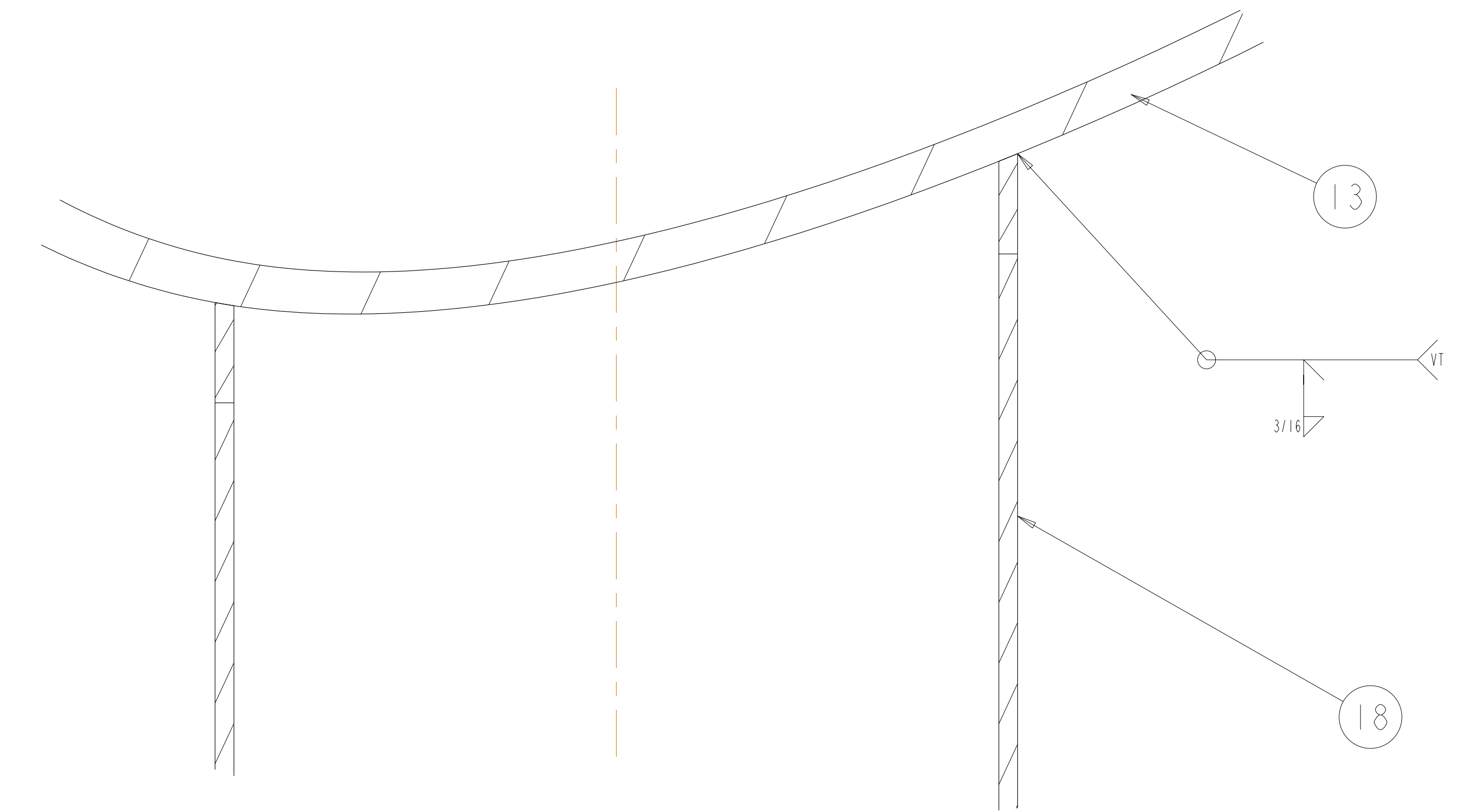
<b>UT-BATTELLE</b>		Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC, Oak Ridge, Tennessee					
NATIONAL COMPACT STELLARATOR EXPERIMENT		PROJECT NAME					
VACUUM VESSEL PERIOD INSPECTION AND LEAK CHECK ASSEMBLY		CLASS					
VERSION NO. 5	PLANT X-10	BLDG 5700	FL 3	SHT OF 7	TYPE 19	CLASS A	REV U
RELEASE LEVEL Fabrication		SEI20-004				REV 2	

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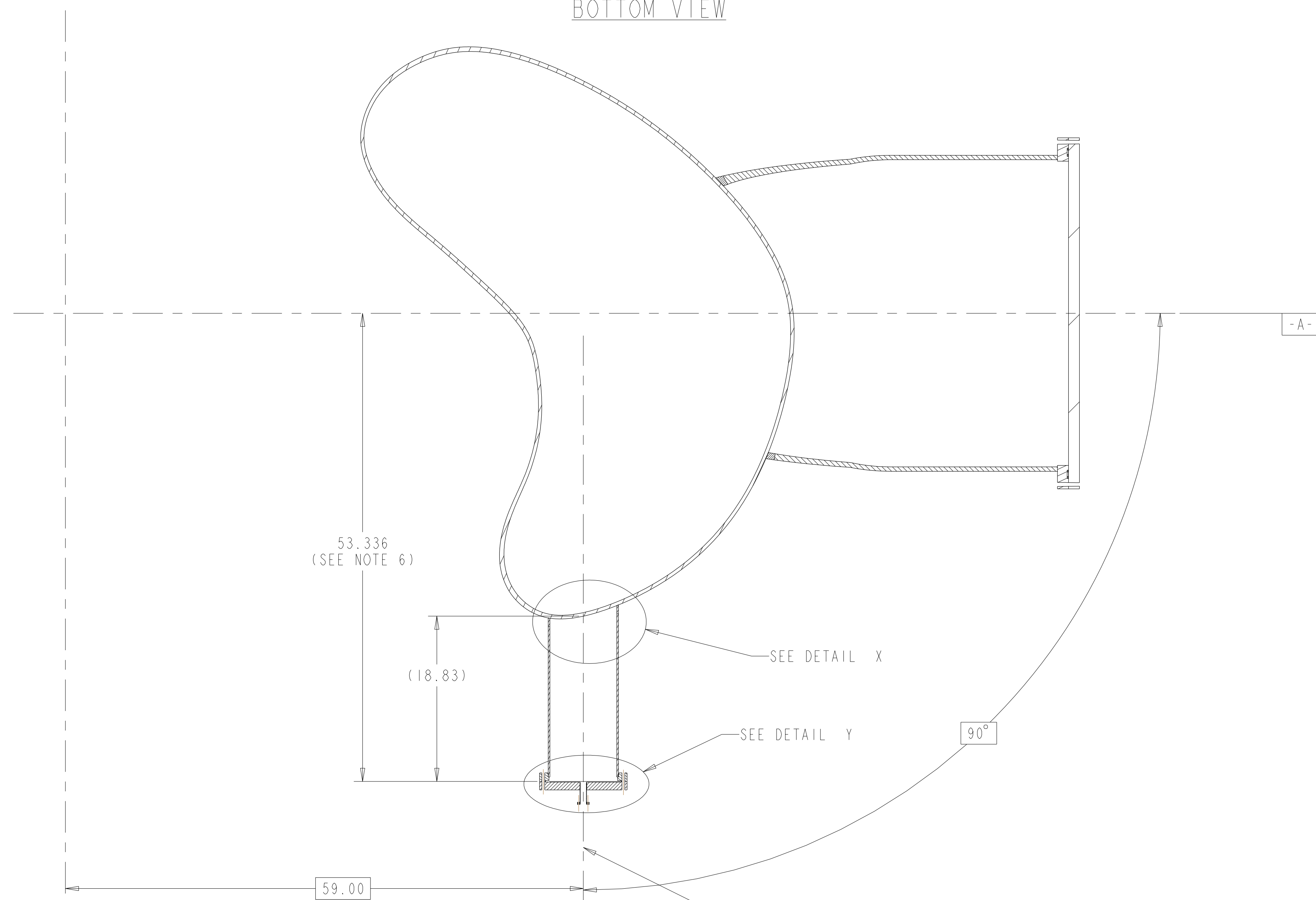
FOR PARTS LIST AND NOTES SEE SHEET 1.



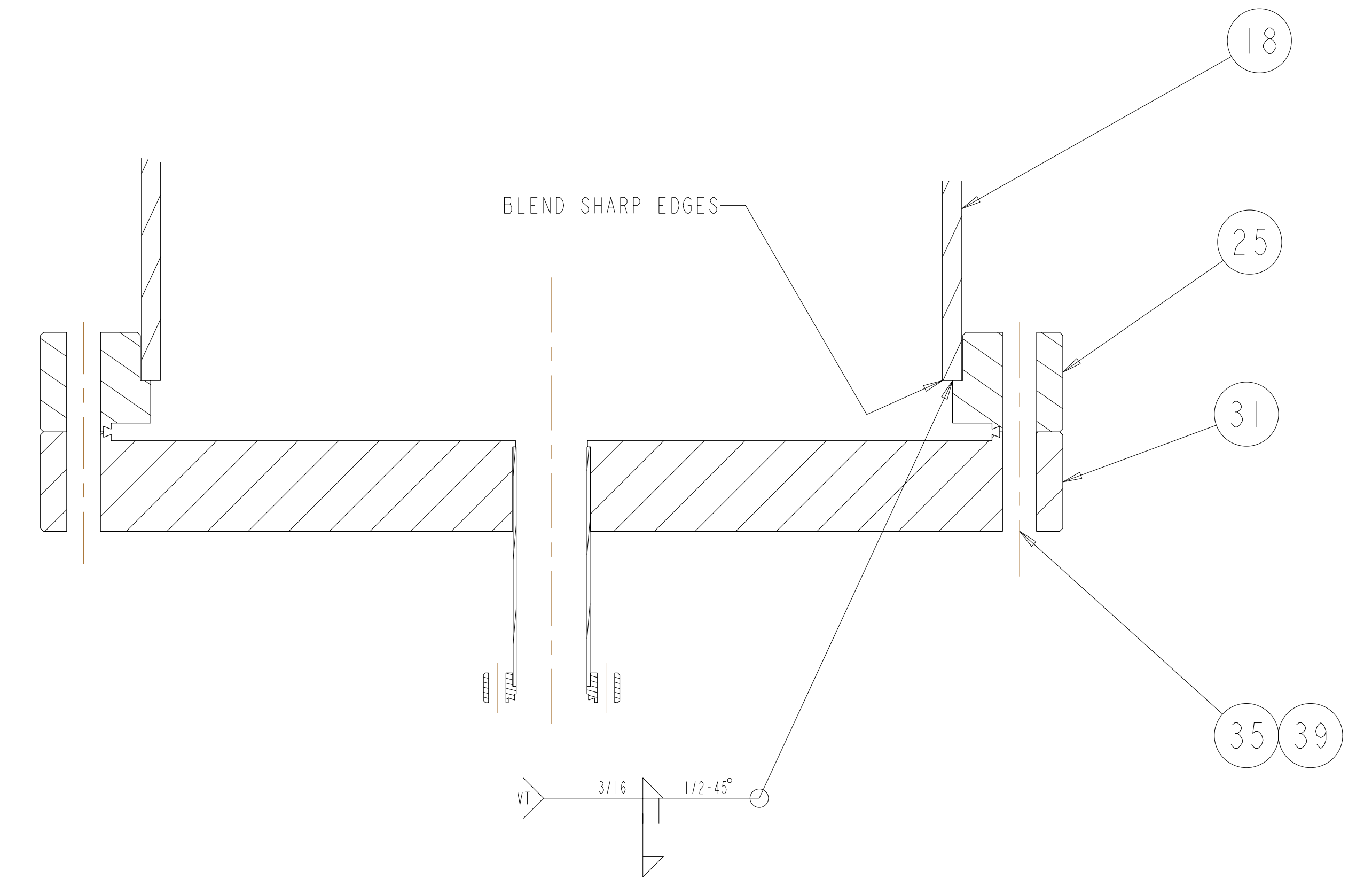
BOTTOM VIEW



DETAIL X  
SCALE 1.00



TYPICAL PORT 7A AND 7B  
SECTION PORT07-PORT07



DETAIL Y  
SCALE 1.00

**RELEASED FOR  
FABRICATION / INSTALLATION**  
PPPL Drafting:

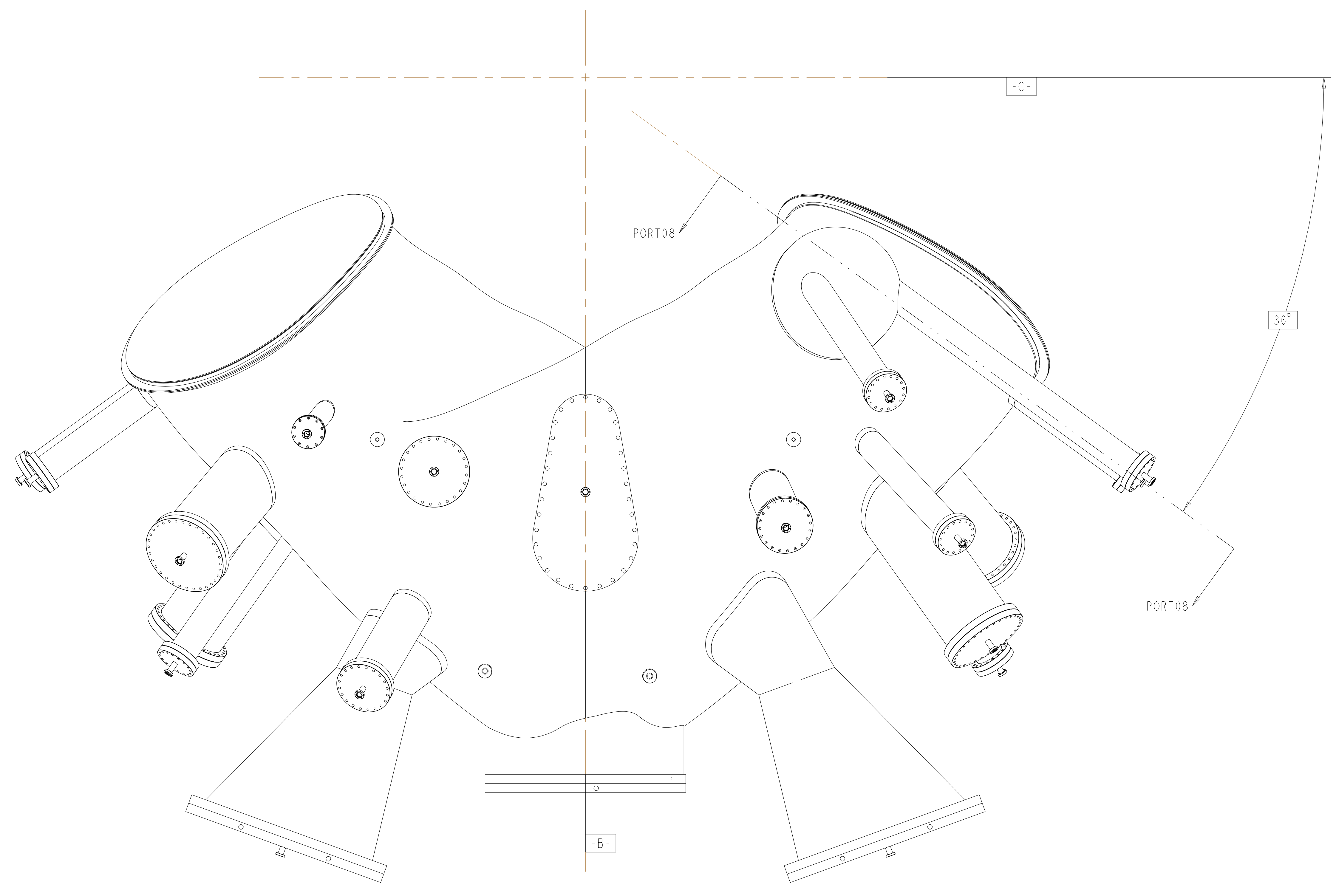
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NATIONAL COMPACT STELLARATOR EXPERIMENT		PROJECT NAME					
VACUUM VESSEL PERIOD INSPECTION AND LEAK CHECK ASSEMBLY		CLASS					
VERSION NO. 5	PLANT X-10	BLDG 5700	FL 3	SHT OF 8 19	TYPE A	CLASS U	REV 2
RELEASE LEVEL Fabrication	SE120-004						

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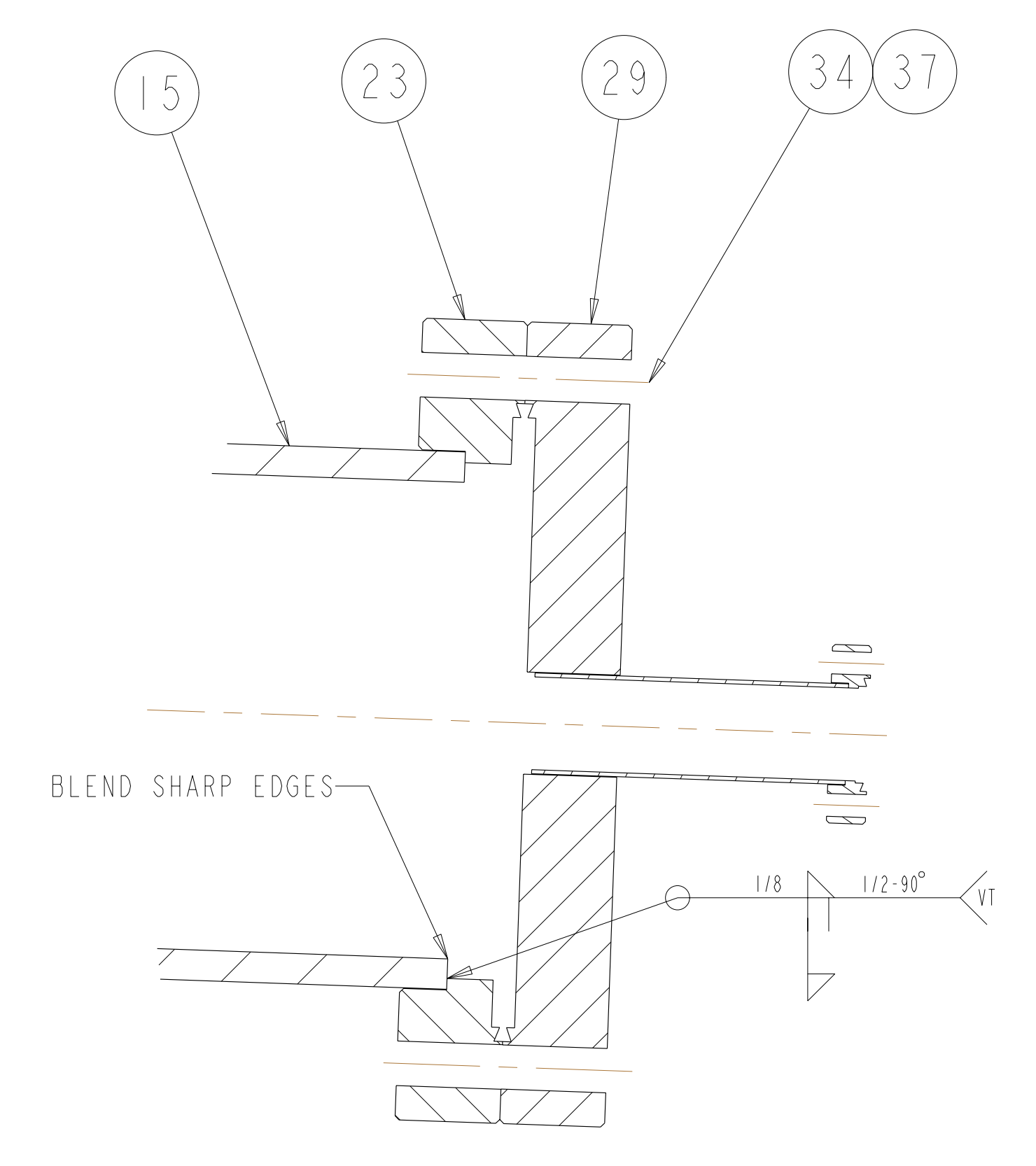
SE120-004



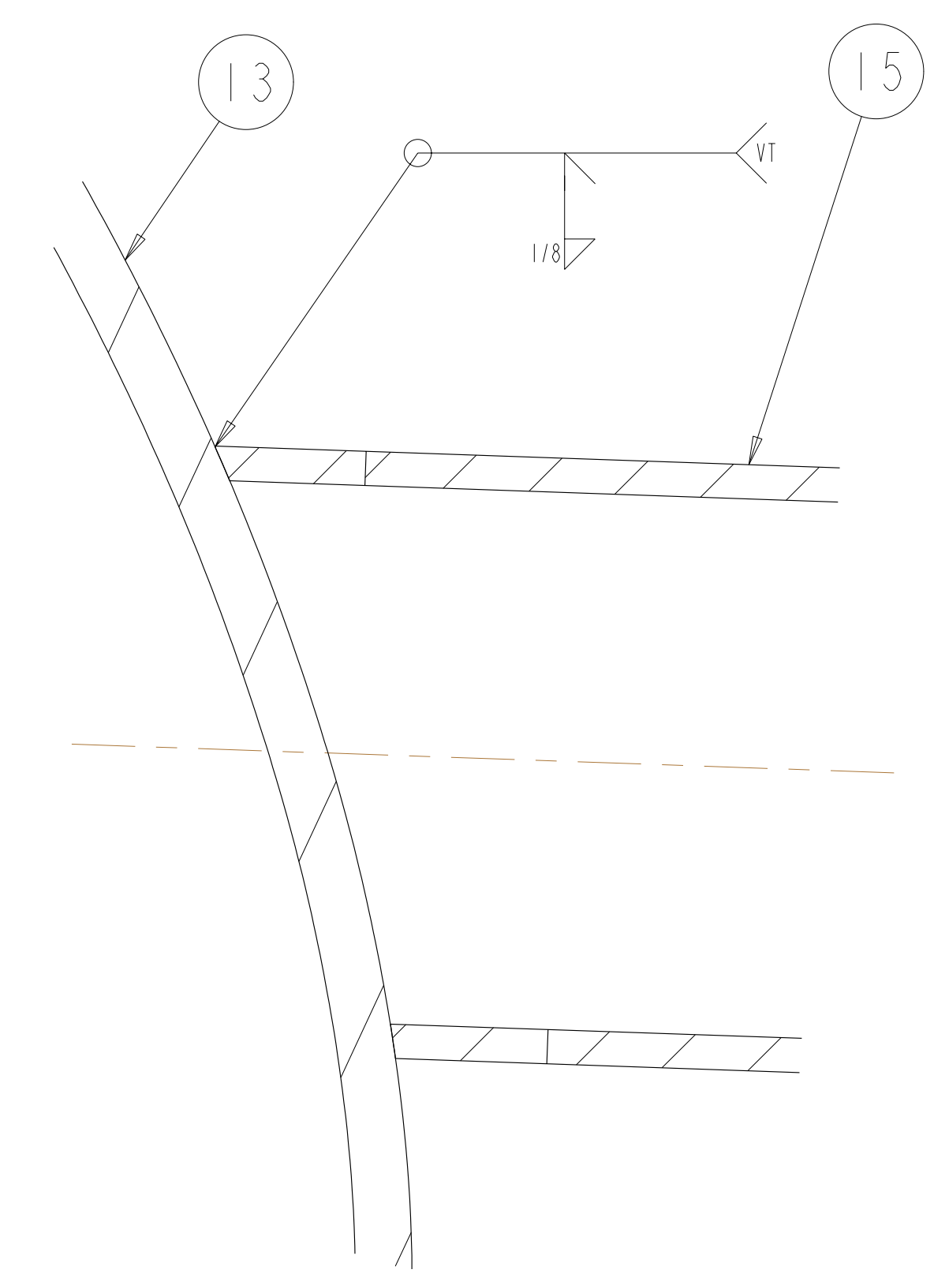
FOR PARTS LIST AND NOTES SEE SHEET 1.



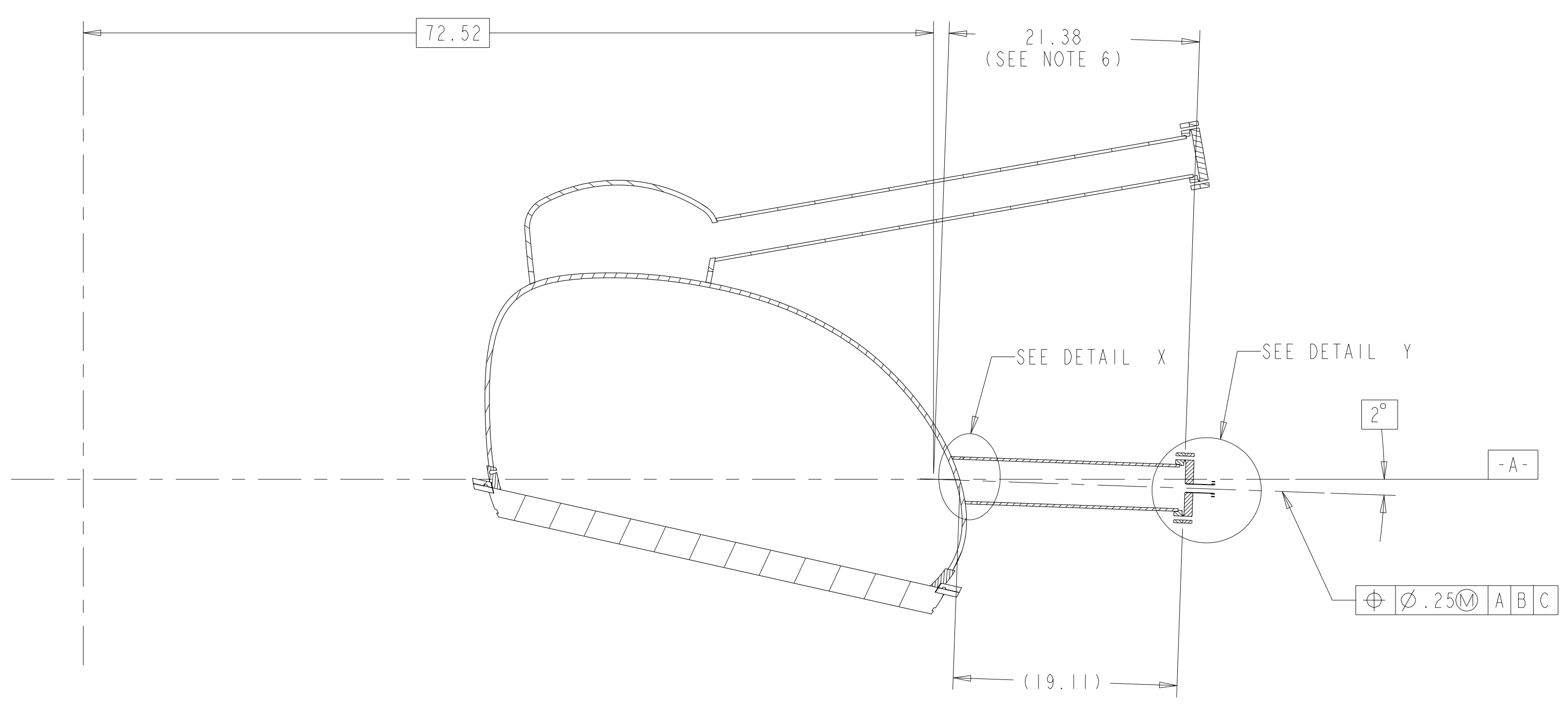
TOP VIEW



DETAIL Y  
 SCALE 1.00



DETAIL X  
 SCALE 1.00



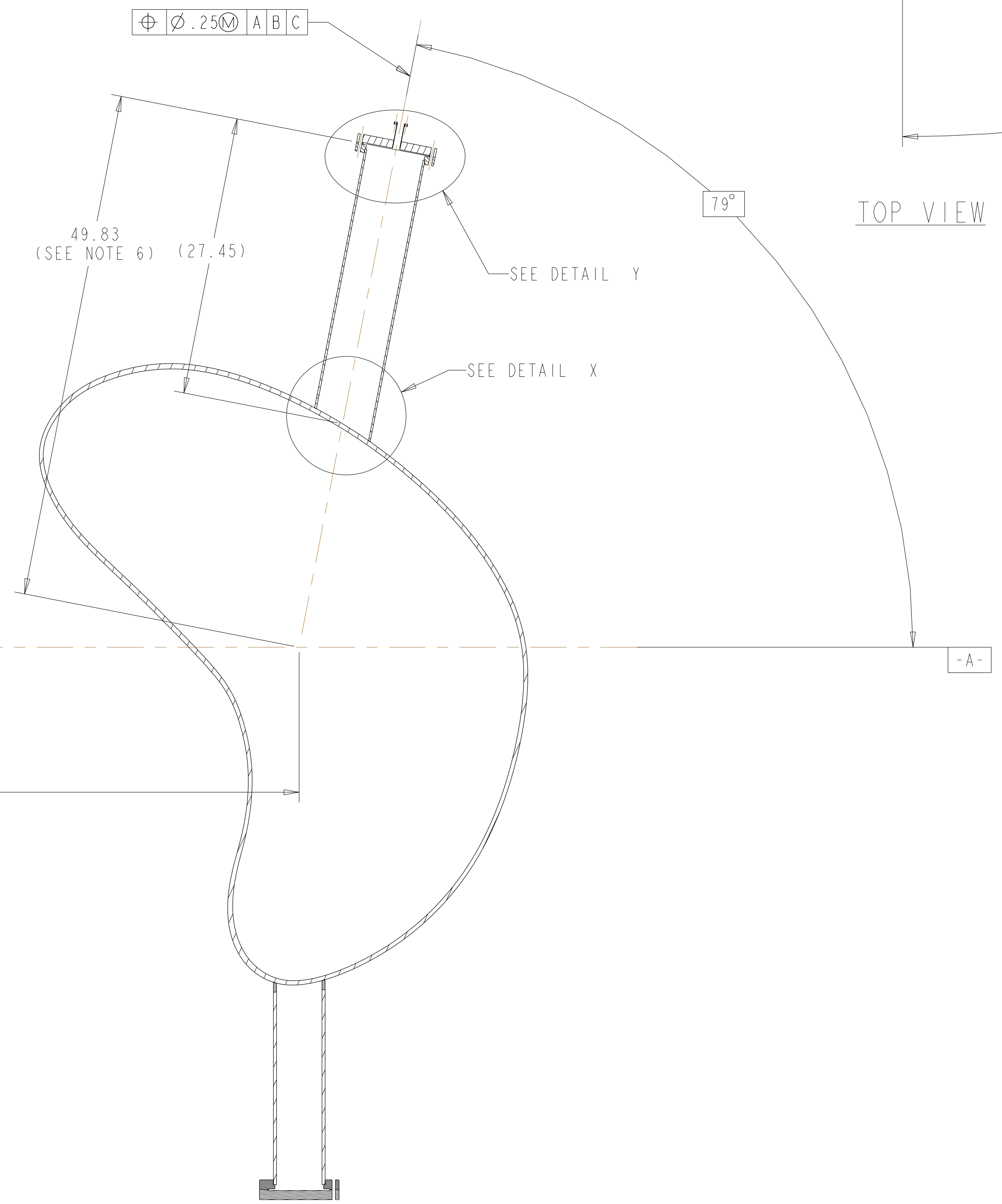
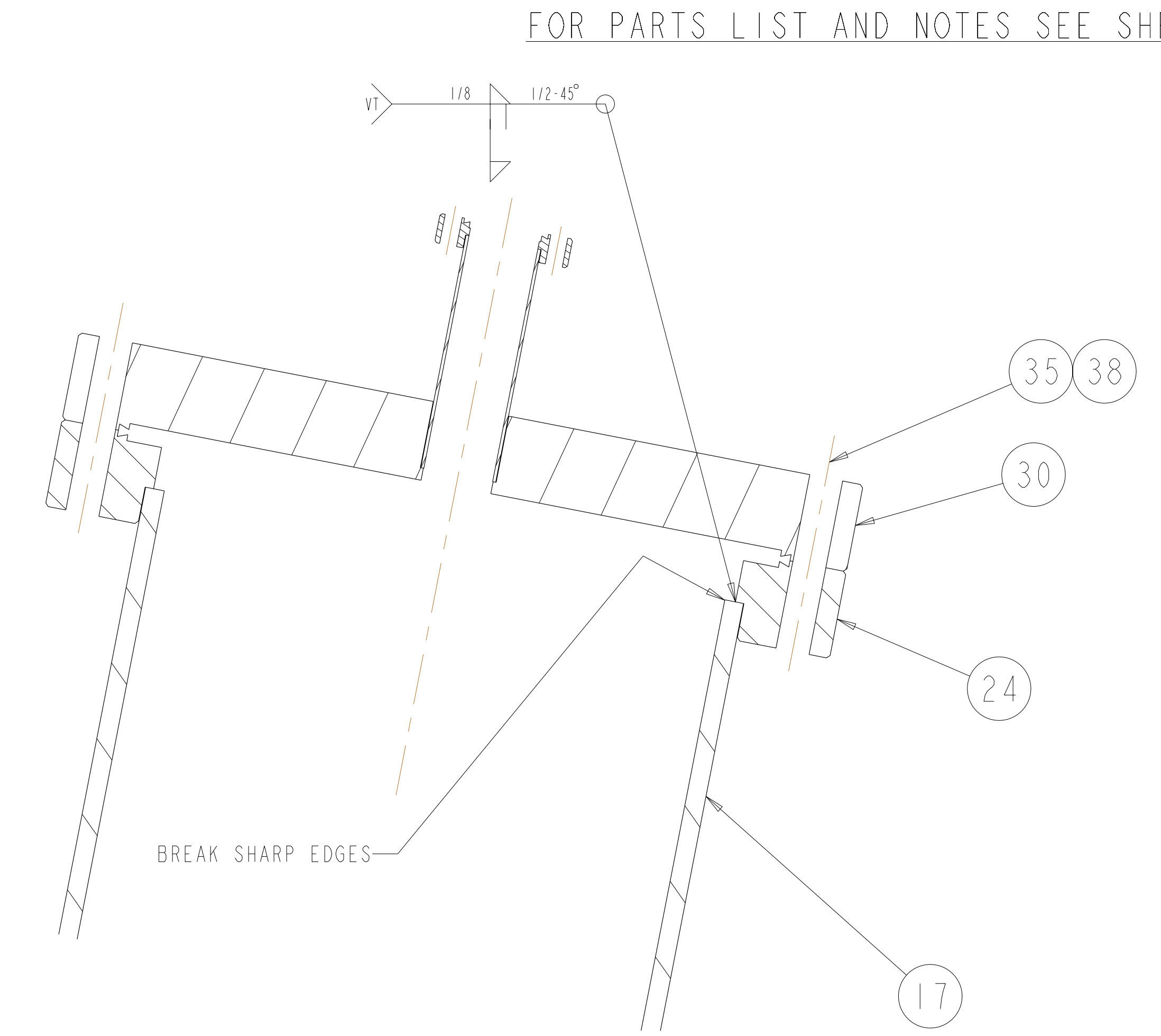
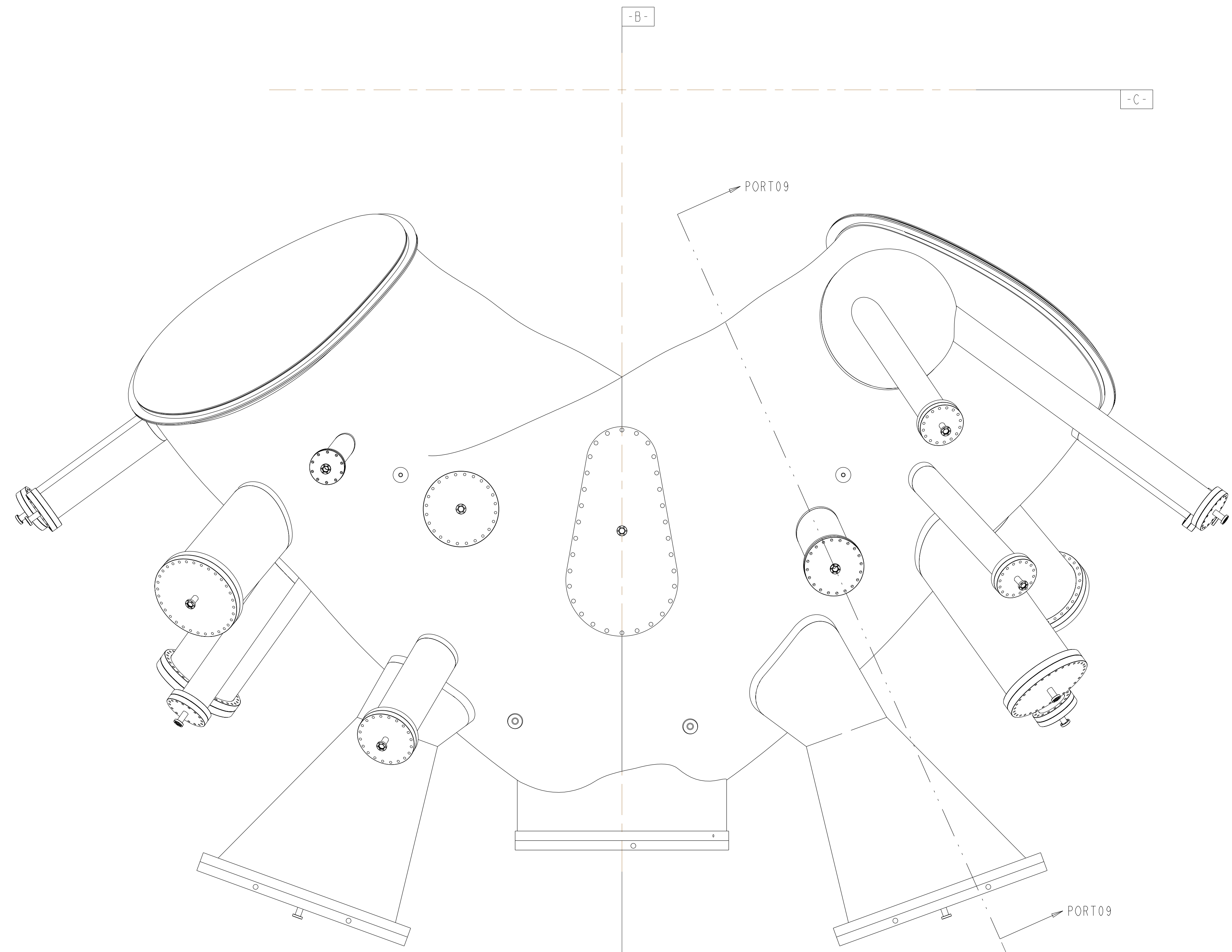
TYPICAL PORT 8A AND 8B  
 SECTION PORT08-PORT08

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 PPPL Drafting:

Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC., Oak Ridge, Tennessee PROJECT NAME						
NATIONAL COMPACT STELLERATOR EXPERIMENT VACUUM VESSEL PERIOD INSPECTION AND LEAK CHECK ASSEMBLY						
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS
5	X-10	5700	3	9 19	A	U
RELEASE LEVEL	SE120-004					REV
Fabrication						2

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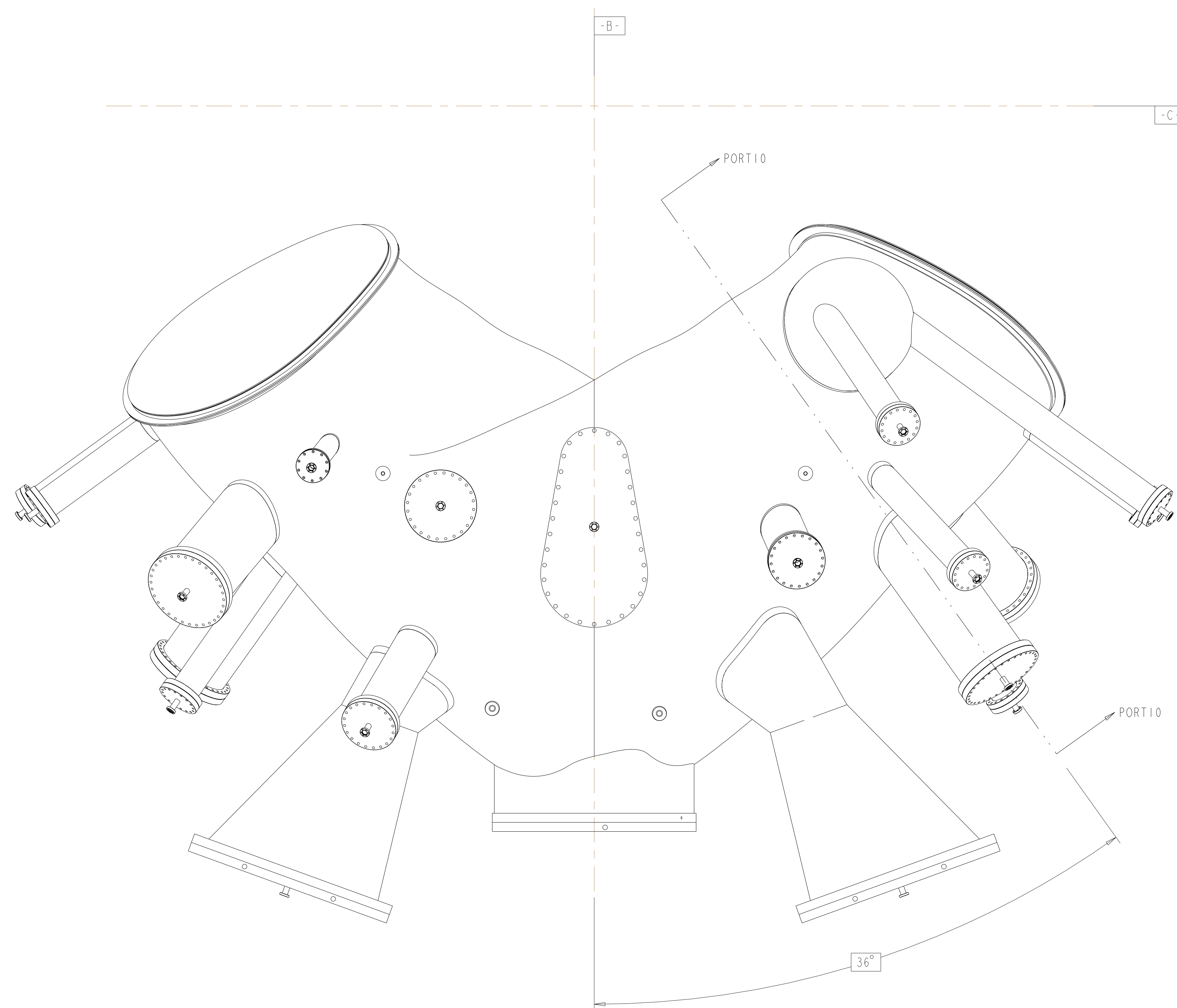
TYPICAL PORT 9A AND 9B  
 SECTION PORT09-PORT09

**RELEASED FOR  
 FABRICATION / INSTALLATION**  
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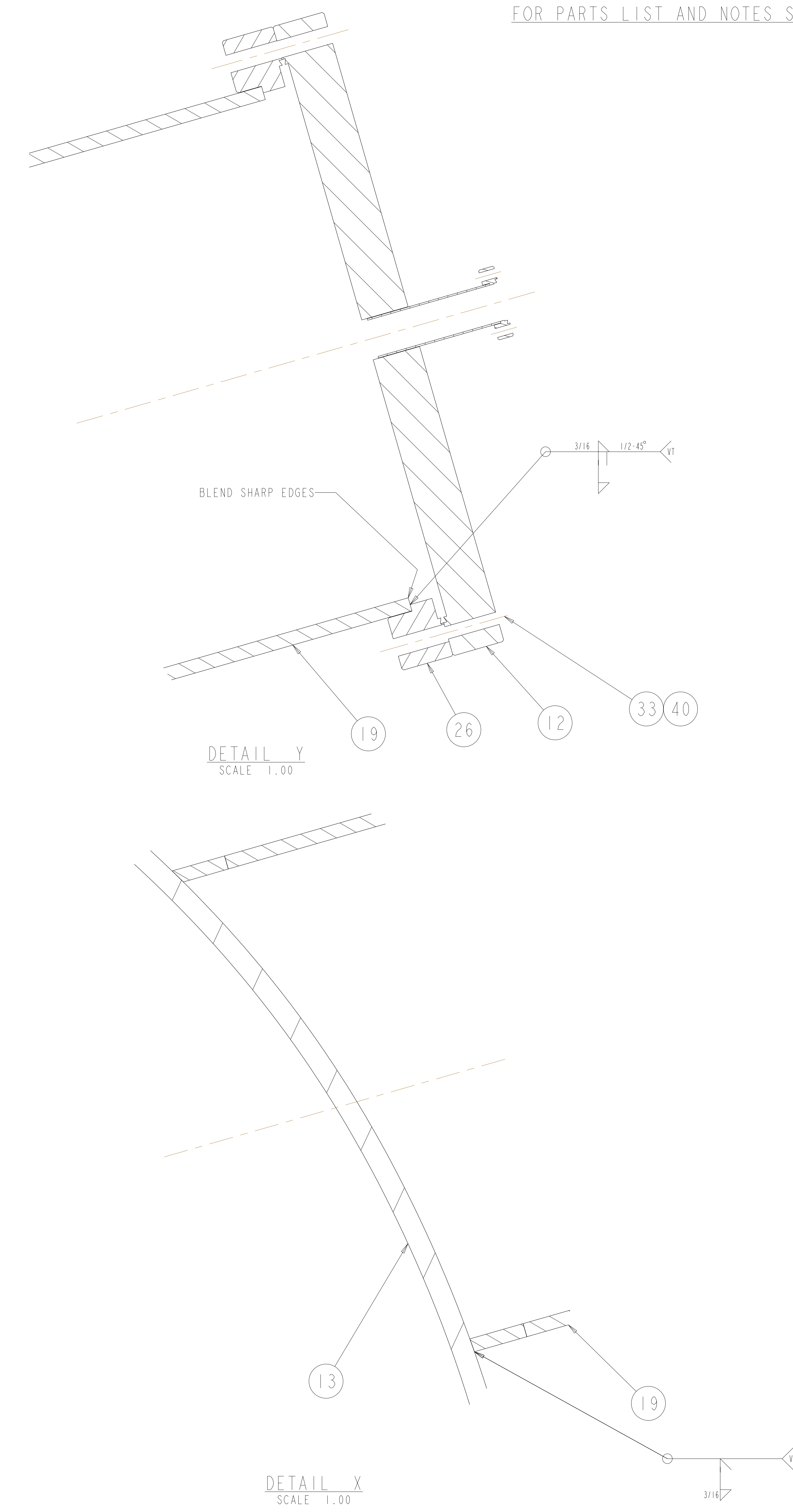
<b>UT-BATTELLE</b>		Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC, Oak Ridge, Tennessee					
PROJECT NAME							
NATIONAL COMPACT STELLARATOR EXPERIMENT							
VACUUM VESSEL							
PERIOD INSPECTION AND LEAK CHECK							
ASSEMBLY							
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS	
5	X-10	5700	3	10	19	A	U
RELEASE LEVEL		SE120-004					REV
Fabrication							2

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FOR PARTS LIST AND NOTES SEE SHEET 1.

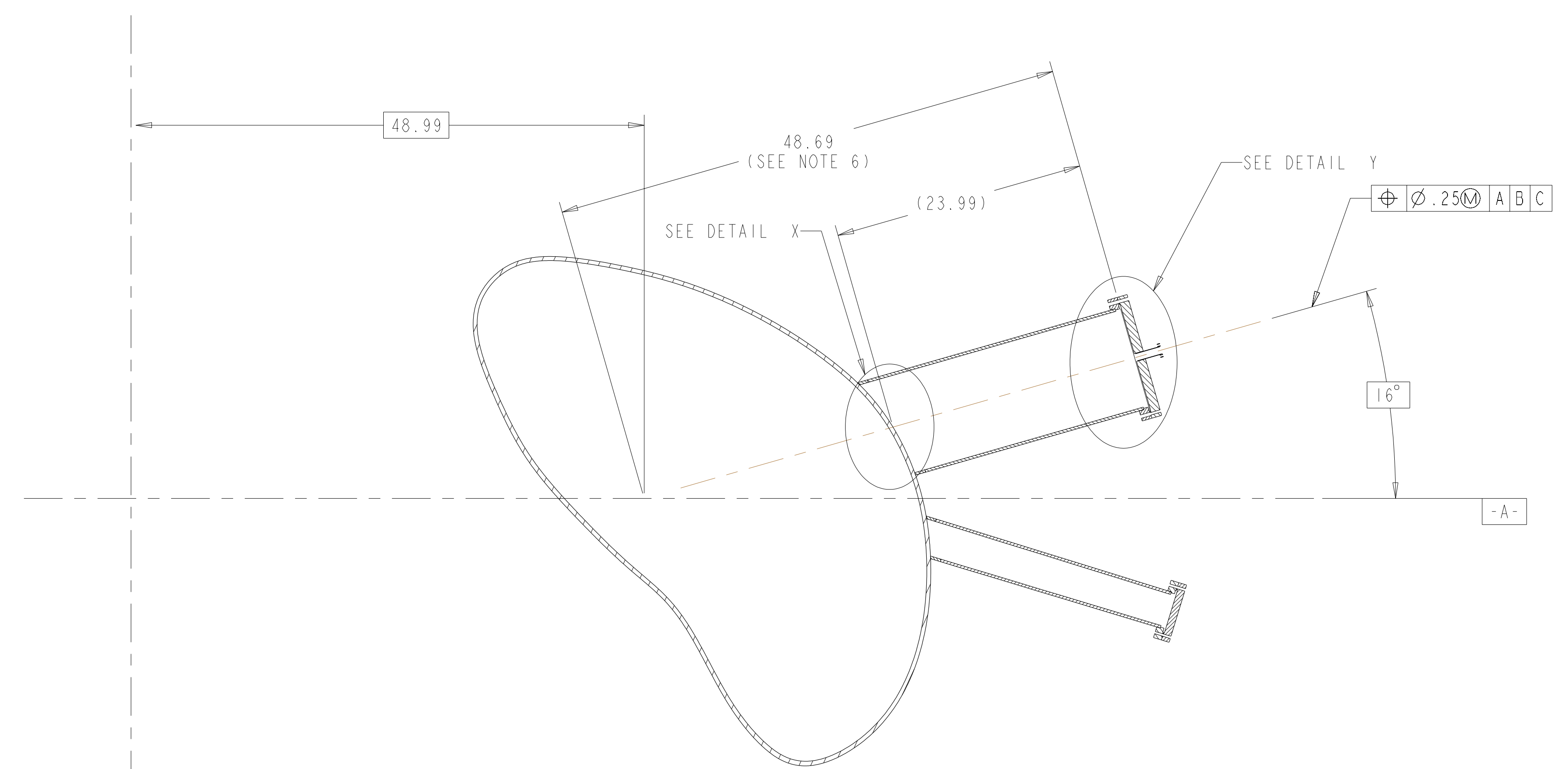


TOP VIEW



DETAIL Y  
SCALE 1.00

DETAIL X  
SCALE 1.00



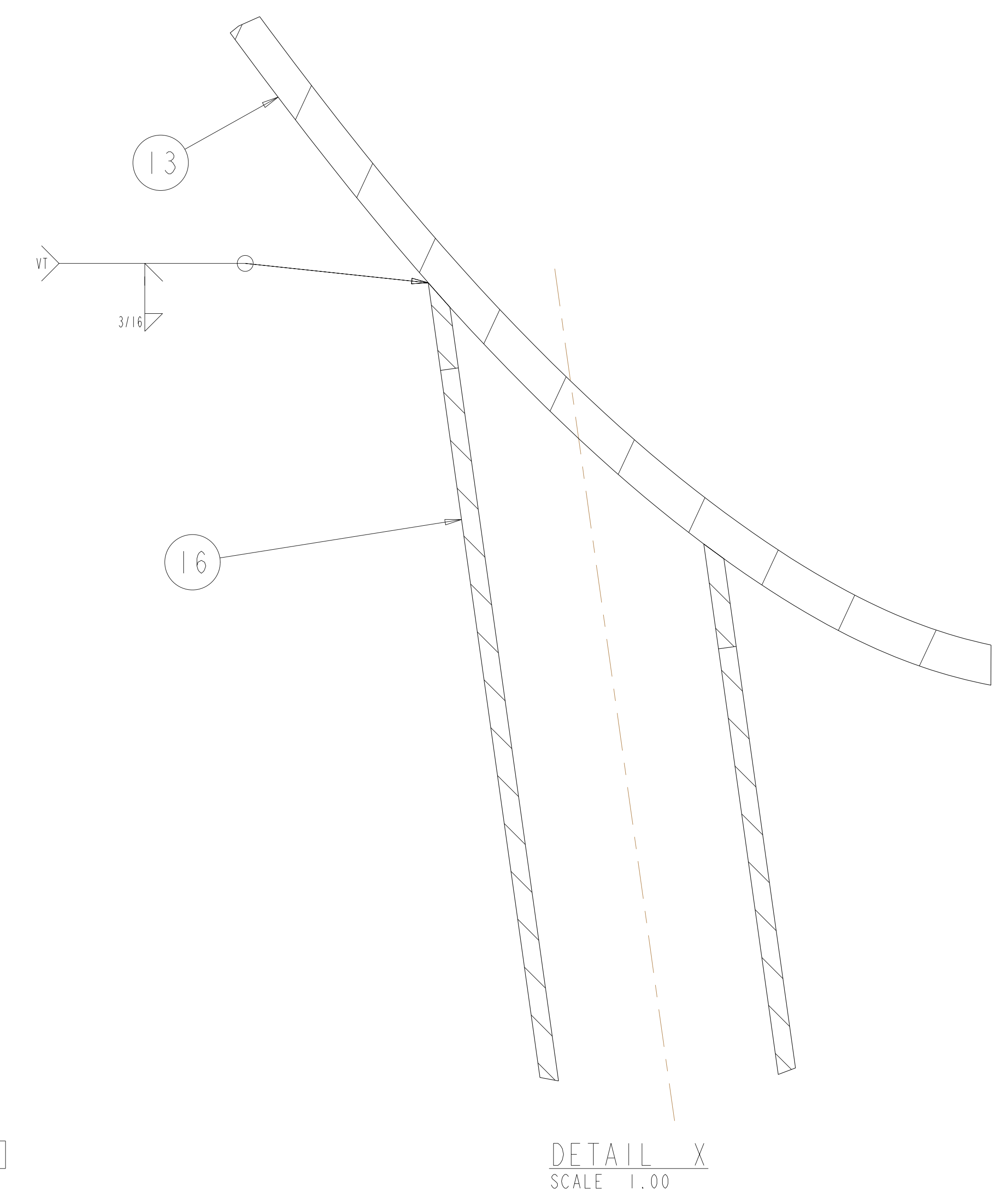
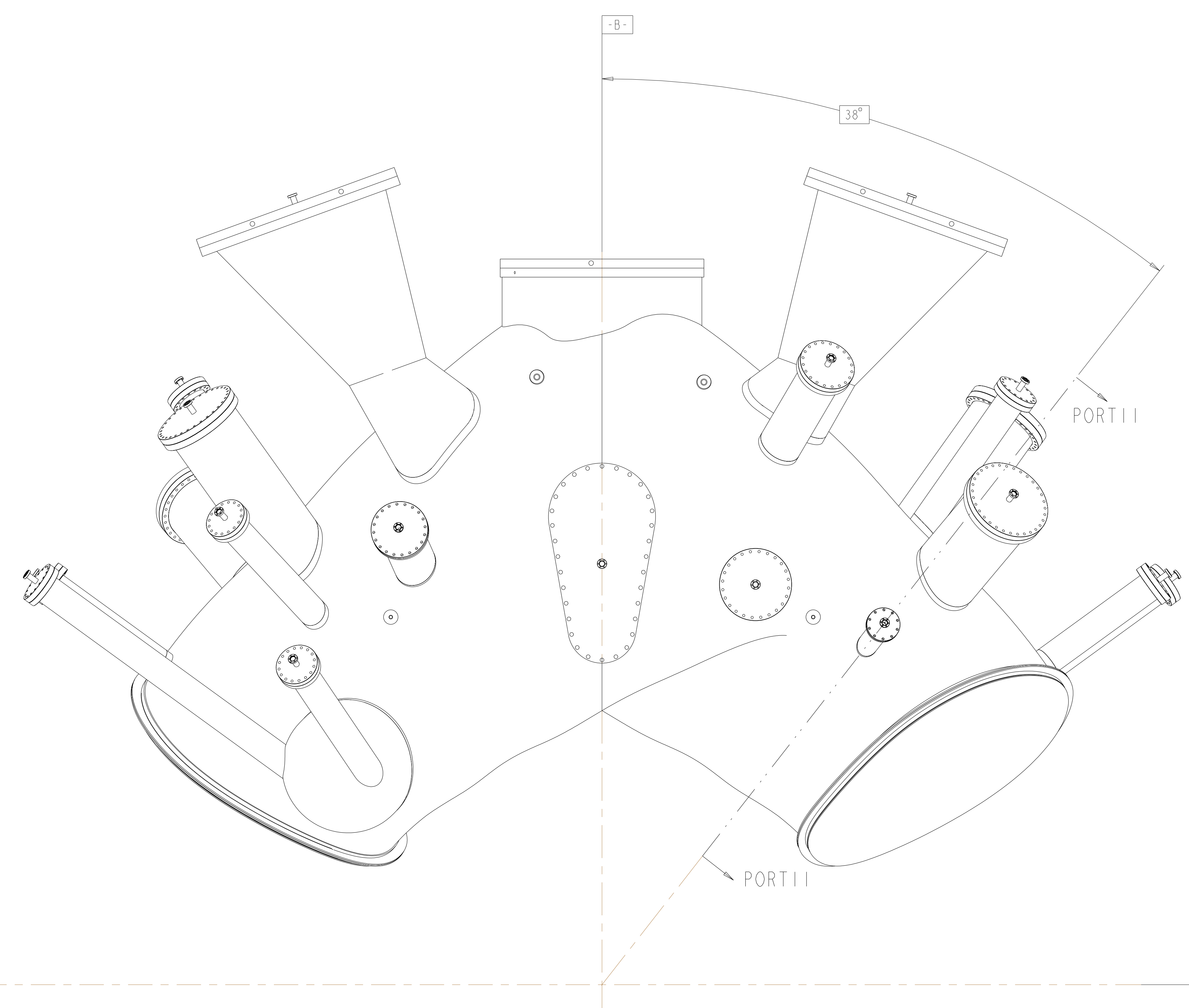
TYPICAL PORT 10A AND 10B  
SECTION PORT10-PORT10

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FABRICATION / INSTALLATION**  
PPPL Drafting:

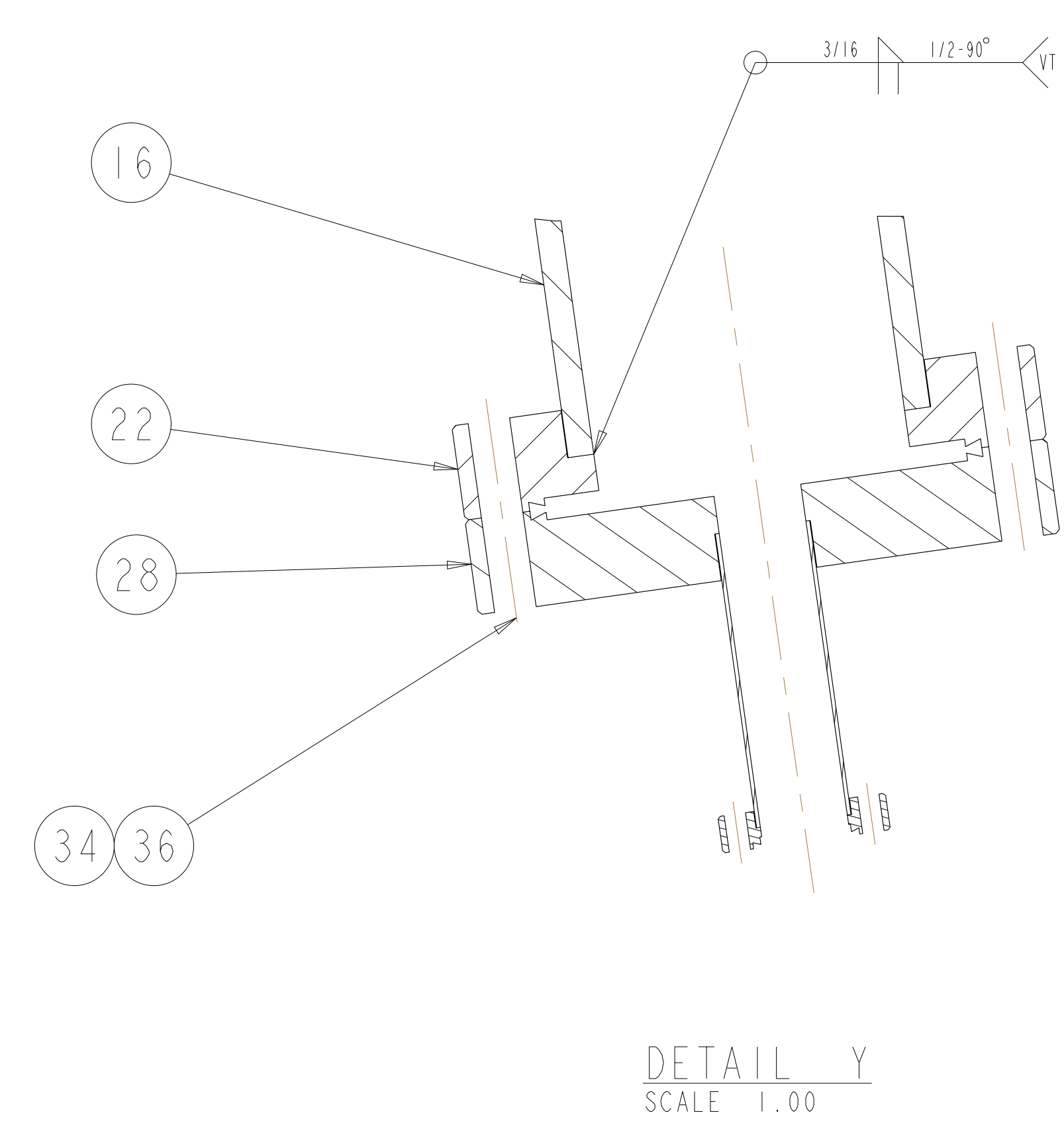
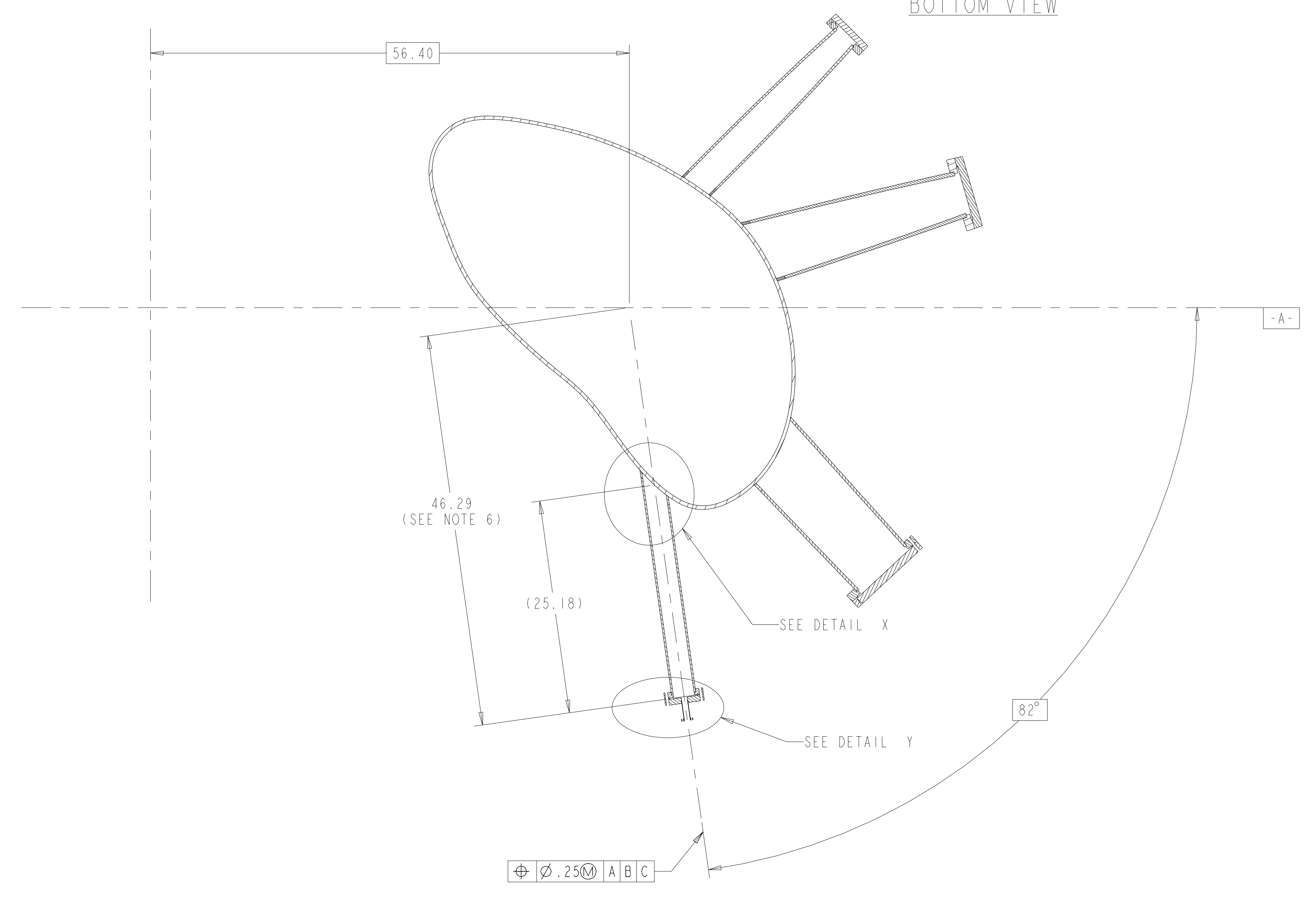
<b>UT-BATTELLE</b>		Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC, Oak Ridge, Tennessee					
		PROJECT NAME					
		NATIONAL COMPACT STELLARATOR EXPERIMENT					
		VACUUM VESSEL					
		PERIOD INSPECTION AND LEAK CHECK					
		ASSEMBLY					
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS	
5	X-10	5700	3	11 19	A	U	
RELEASE LEVEL	Fabrication		SE120-004				REV 2

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FOR PARTS LIST AND NOTES SEE SHEET 1.



BOTTOM VIEW



TYPICAL PORT IIA AND IIB SECTION PORT III-PORT III

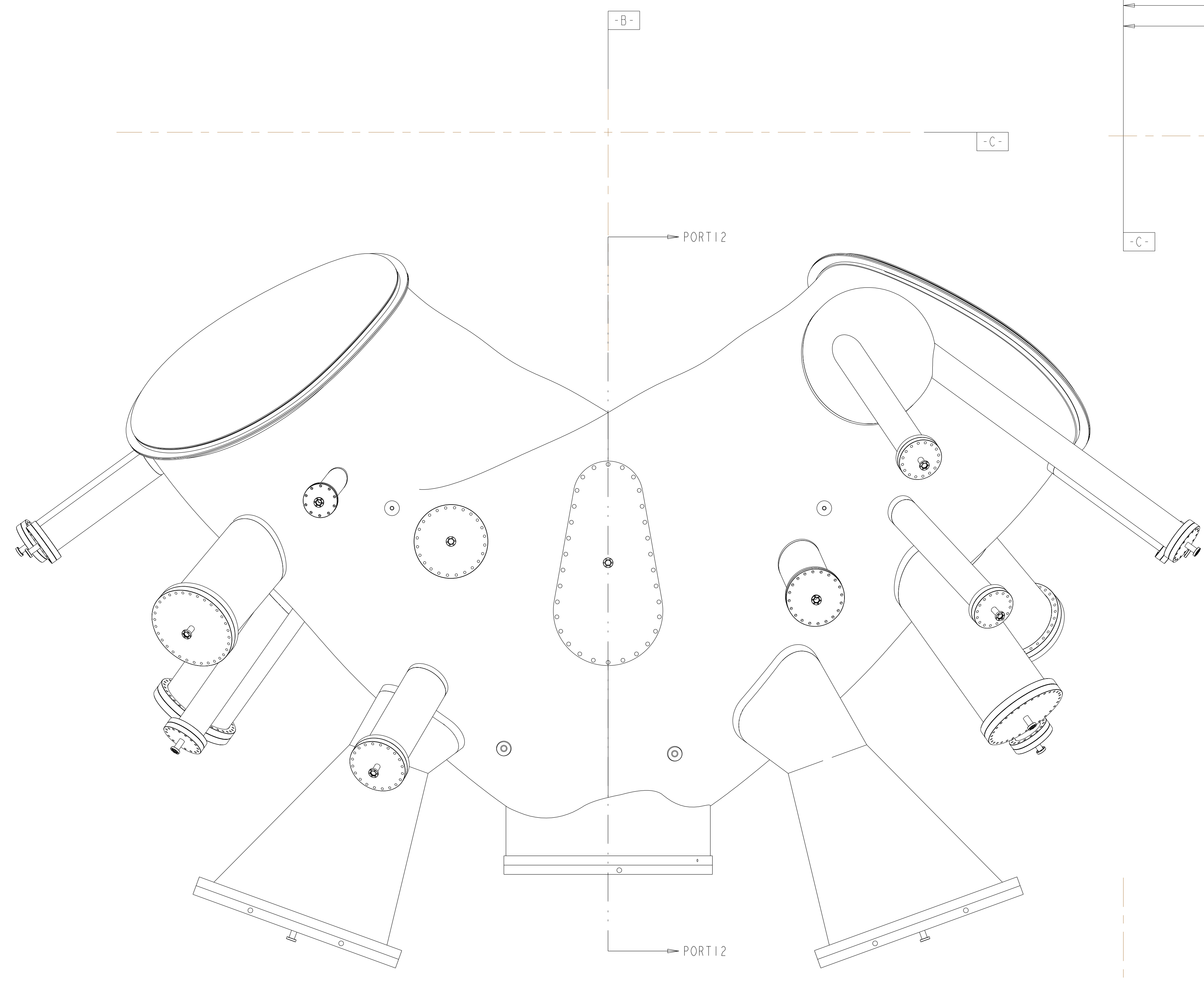
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 PPPL Drafting:

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NATIONAL COMPACT STELLARATOR EXPERIMENT							
VACUUM VESSEL PERIOD INSPECTION AND LEAK CHECK ASSEMBLY							
VERSION NO. 5	PLANT X-10	BLDG 5700	FL 3	SHT OF 12 19	TYPE A	CLASS U	
RELEASE LEVEL Fabrication		SE120-004				REV 2	

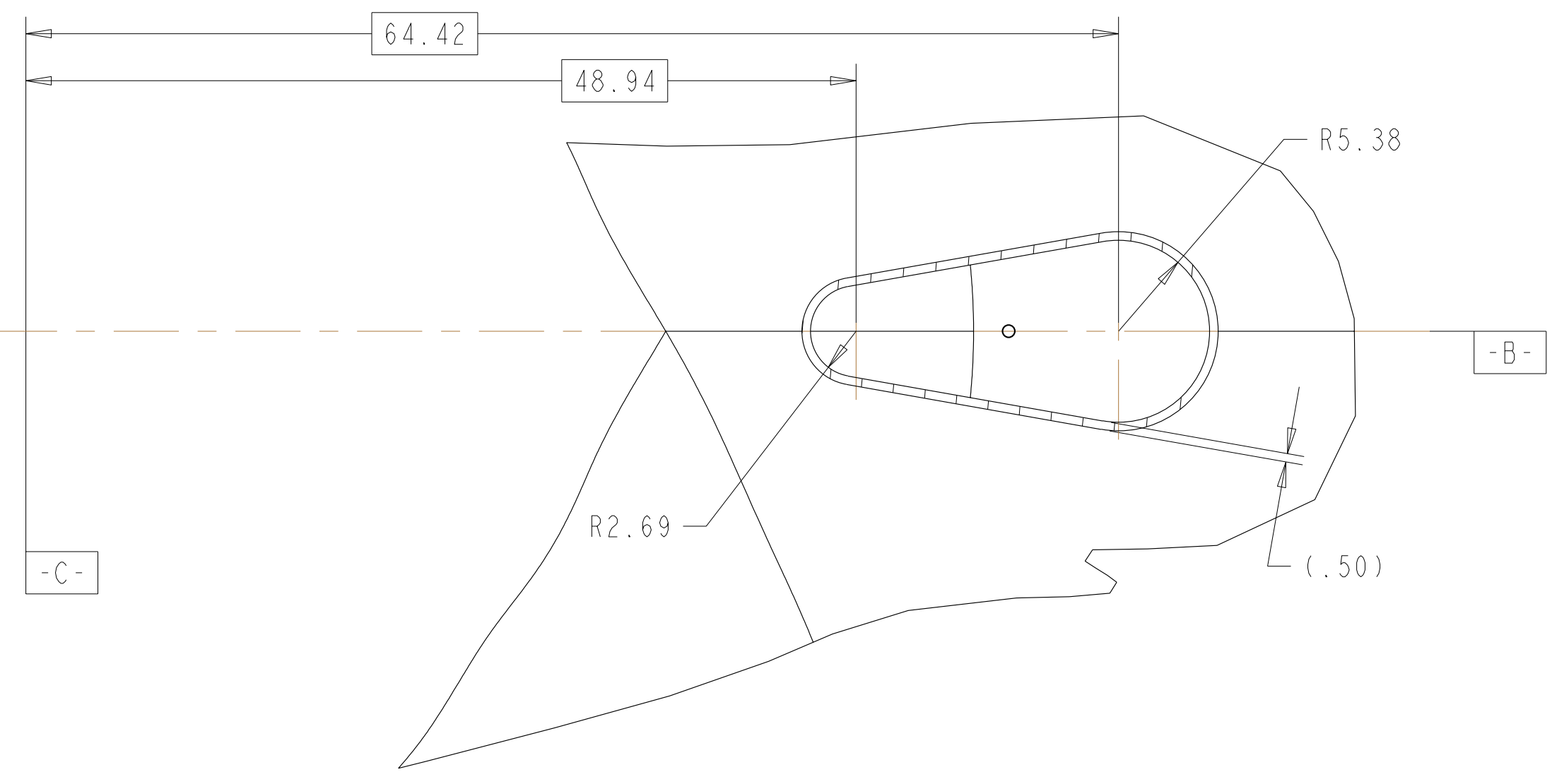
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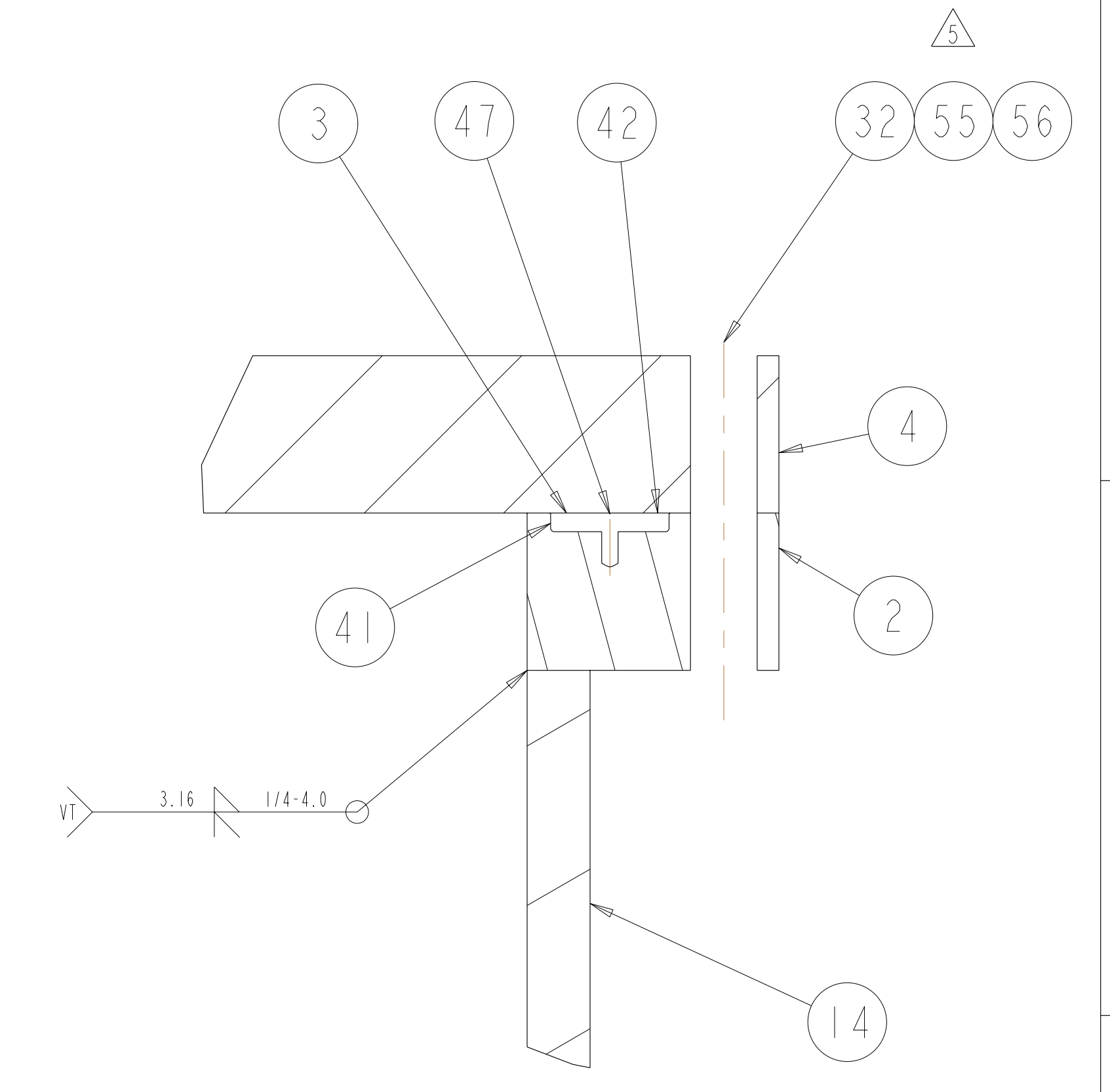
FOR PARTS LIST AND NOTES SEE SHEET 1.



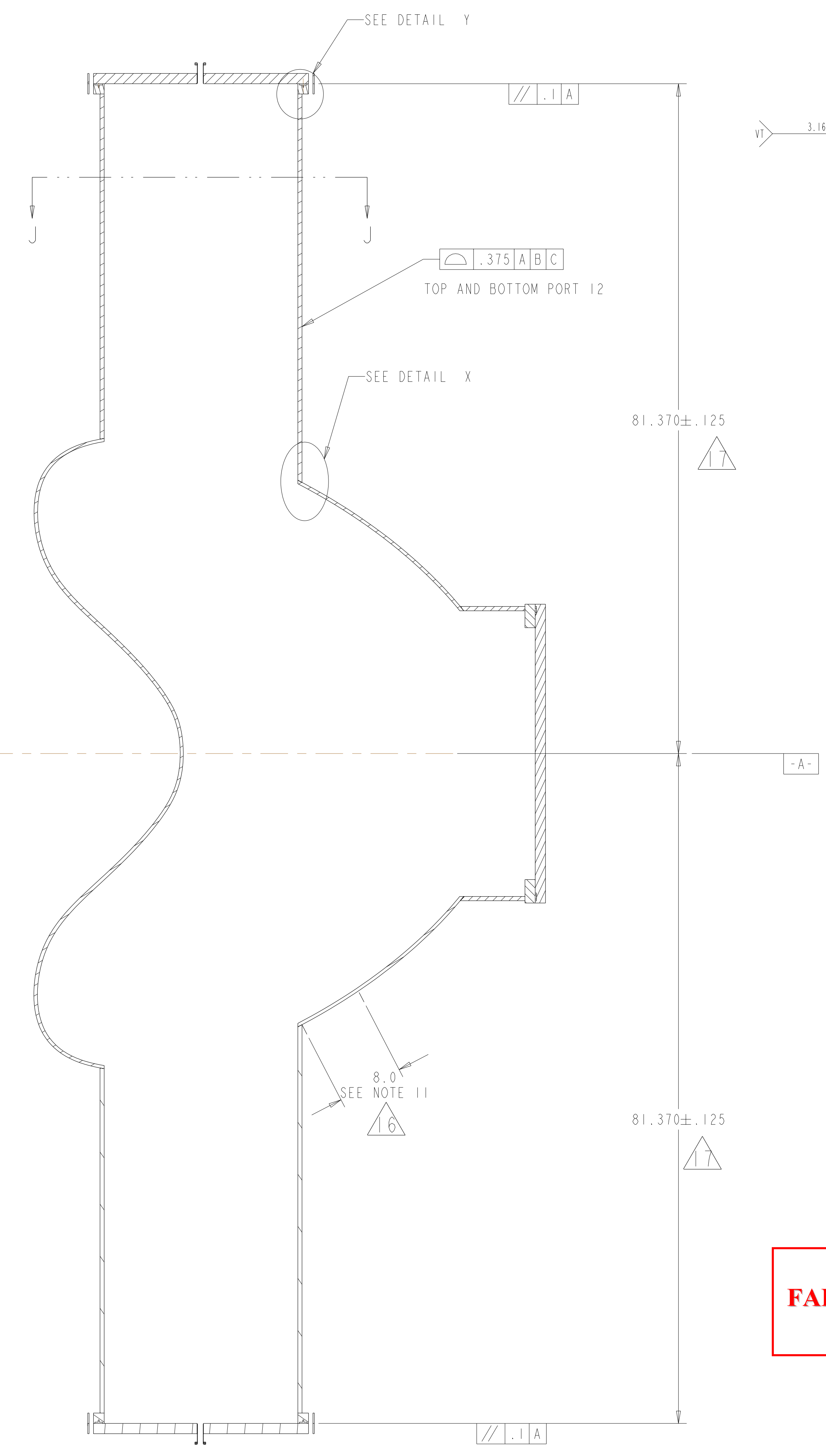
TOP VIEW



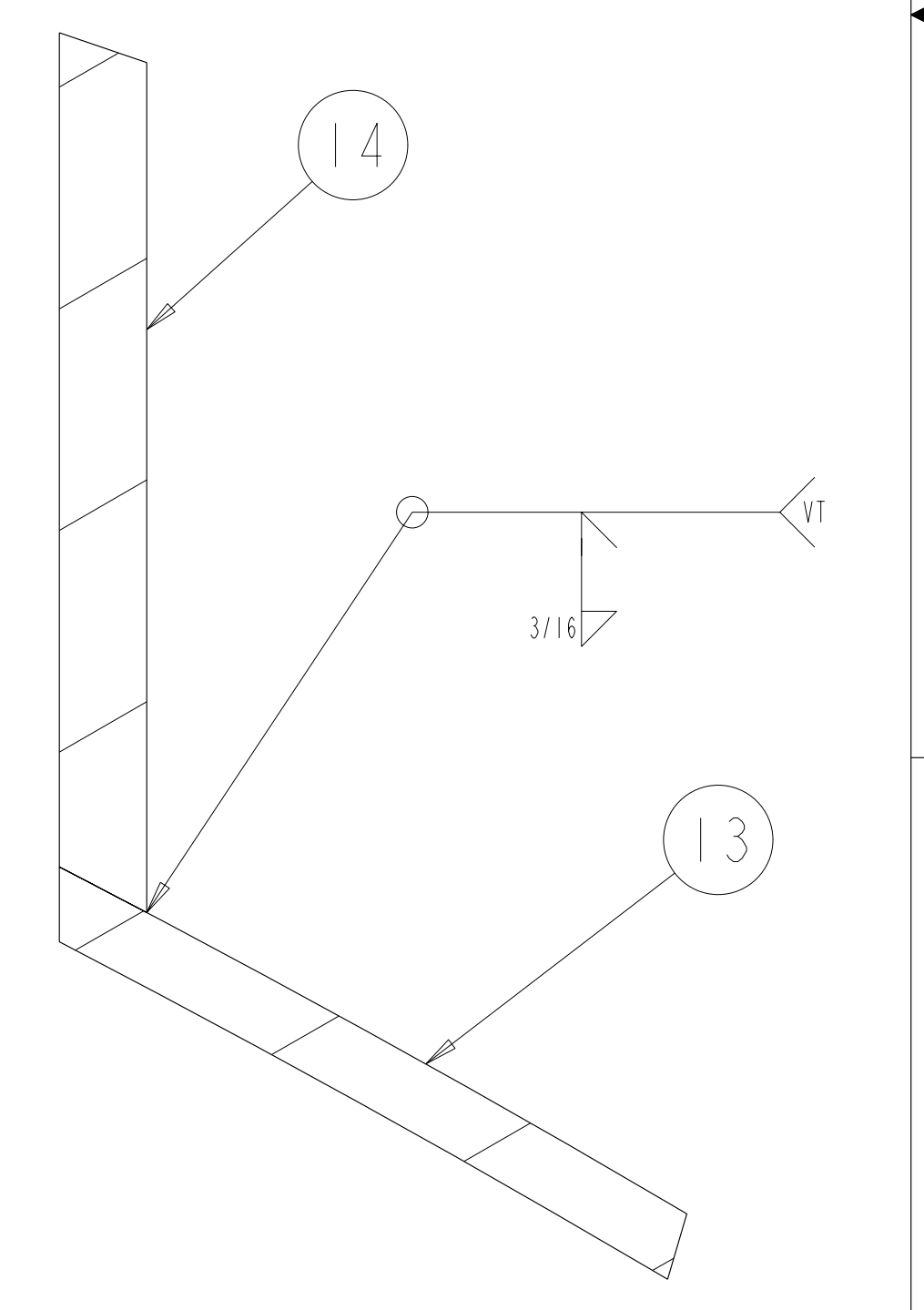
SECTION J-J  
 TYP TOP AND BOTTOM



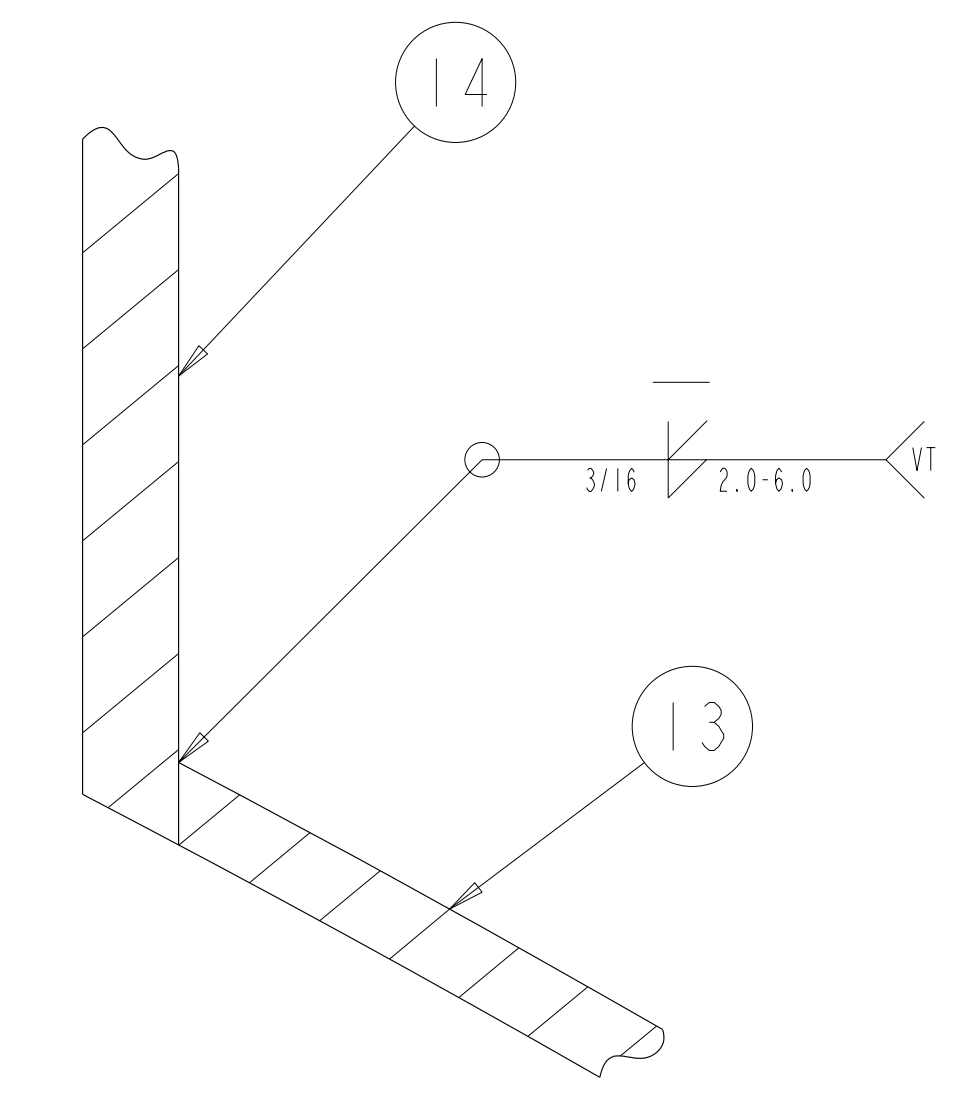
DETAIL Y  
 SCALE 1.00



SECTION PORT12-PORT12



DETAIL X  
 SCALE 1.00



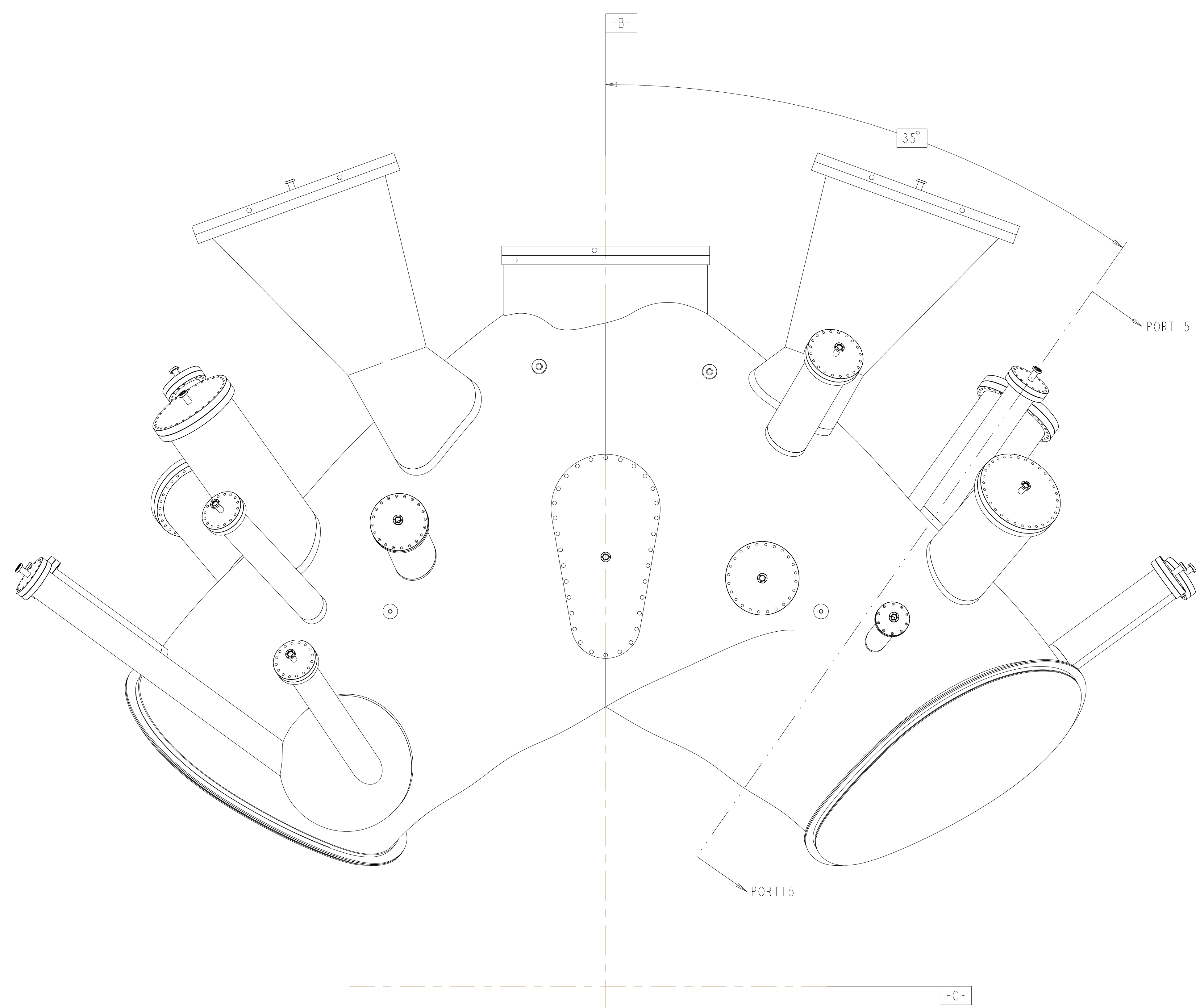
OPTIONAL WELD DETAIL

**RELEASED FOR FABRICATION / INSTALLATION**  
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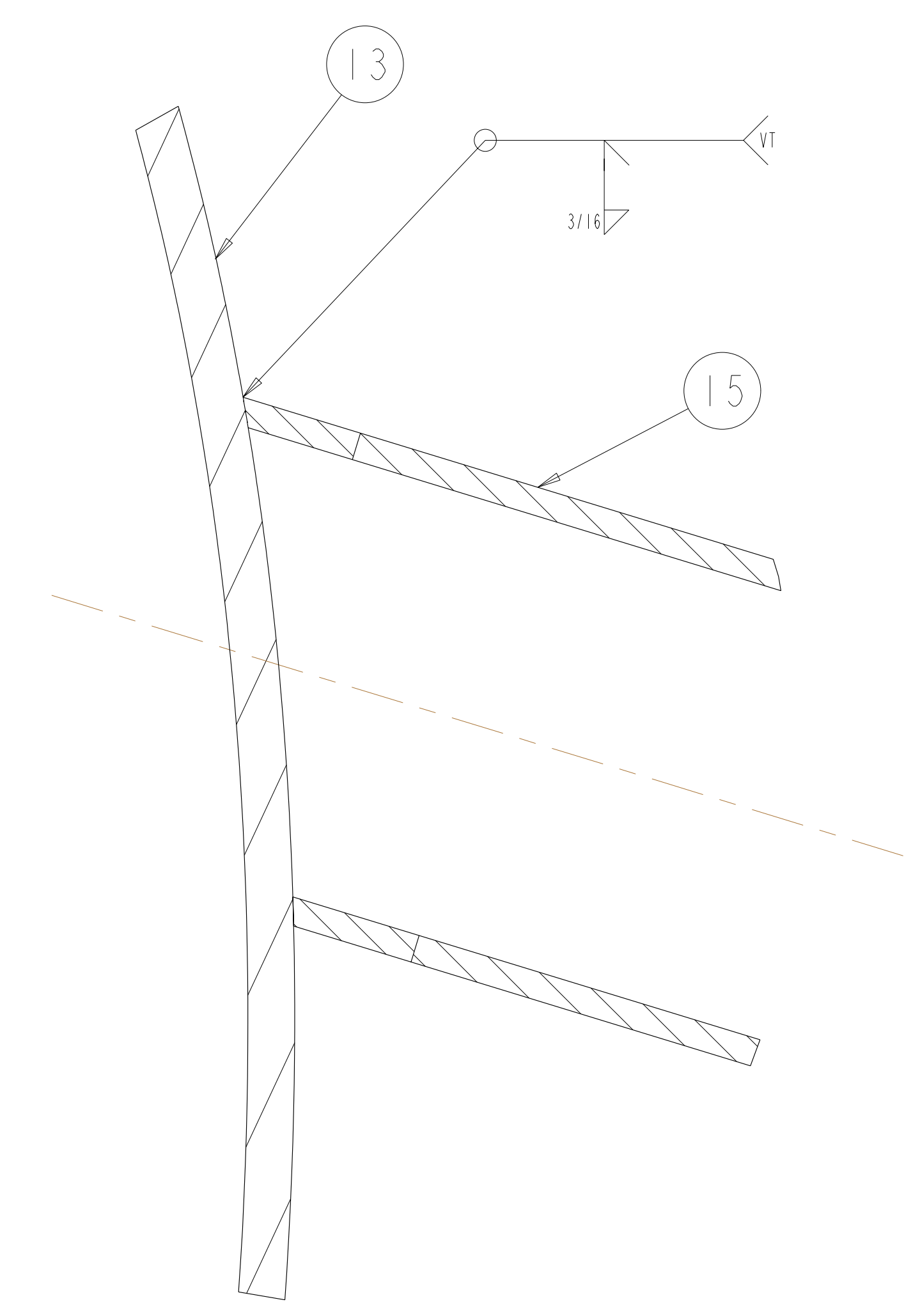
Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT CONTRACT DE-AC05-80OR21400 UT-BATTELLE, LLC, Oak Ridge, Tennessee PROJECT NAME:						
NATIONAL COMPACT STELLARATOR EXPERIMENT VACUUM VESSEL PERIOD INSPECTION AND LEAK CHECK ASSEMBLY						
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS
5	X-10	5700	3	13	A	U
RELEASE LEVEL	SE120-004					REV
Fabrication						2

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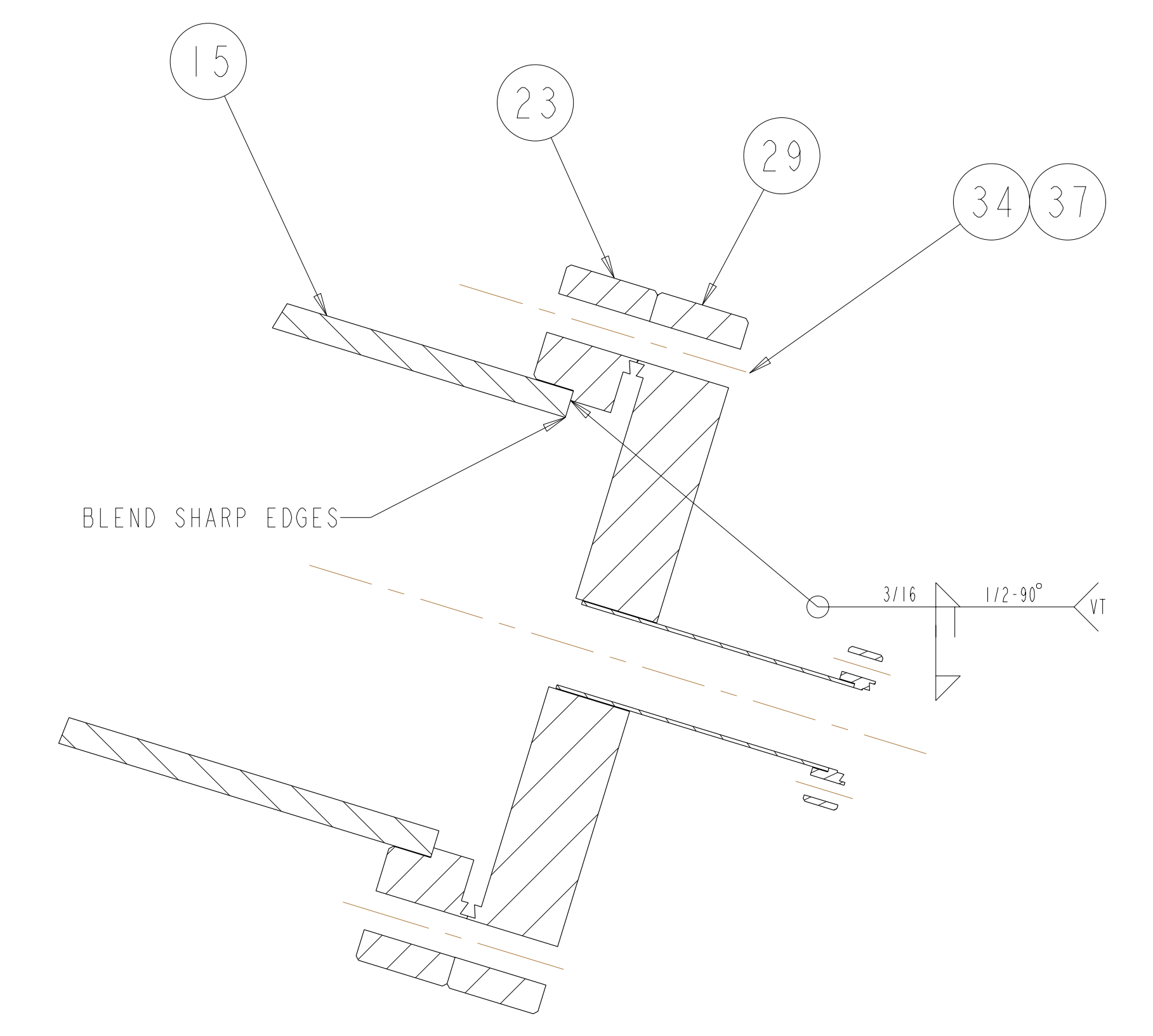
FOR PARTS LIST AND NOTES SEE SHEET 1.



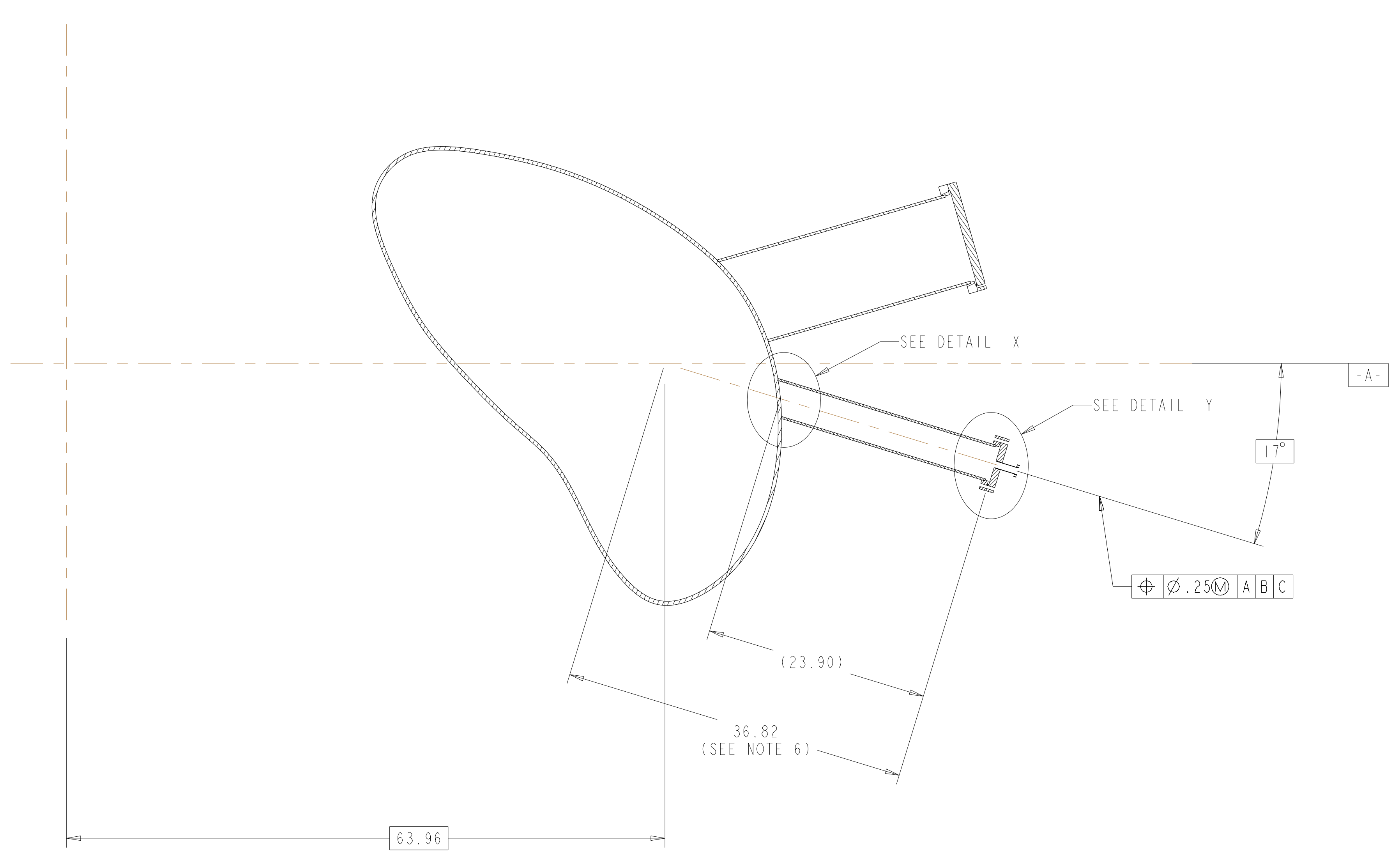
BOTTOM VIEW



DETAIL X  
SCALE 1.00



DETAIL Y  
SCALE 1.00



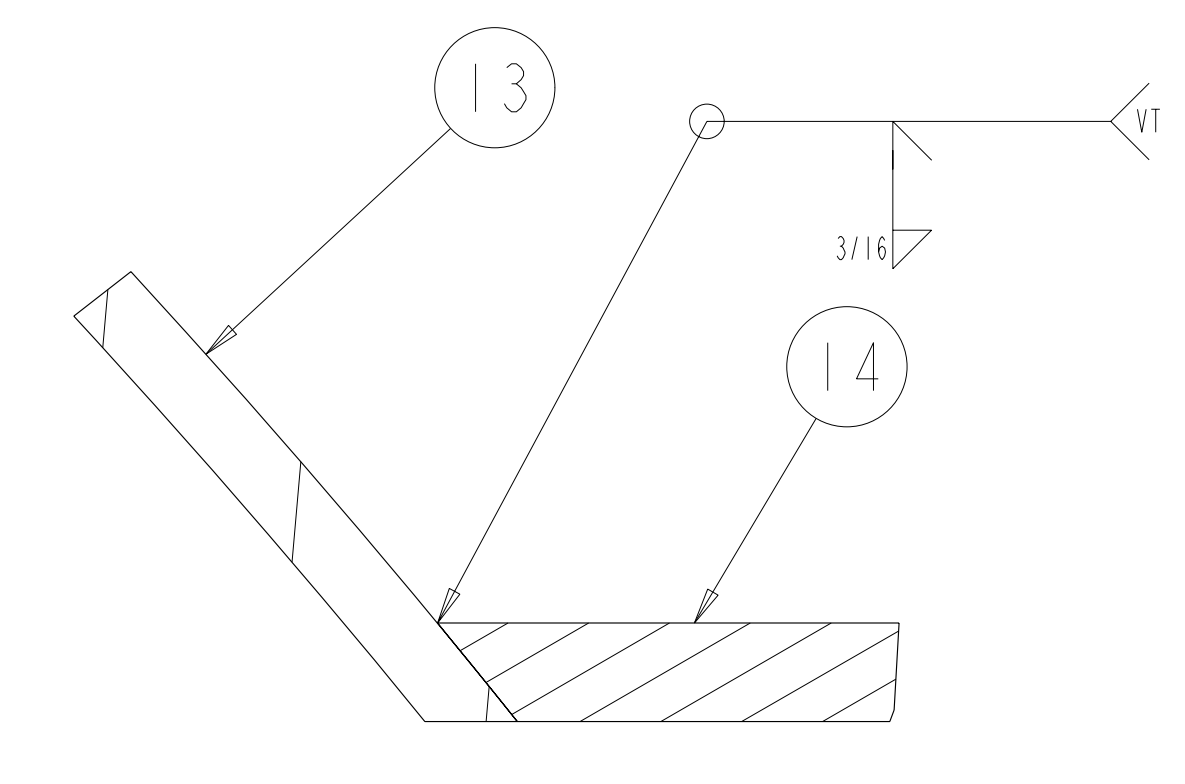
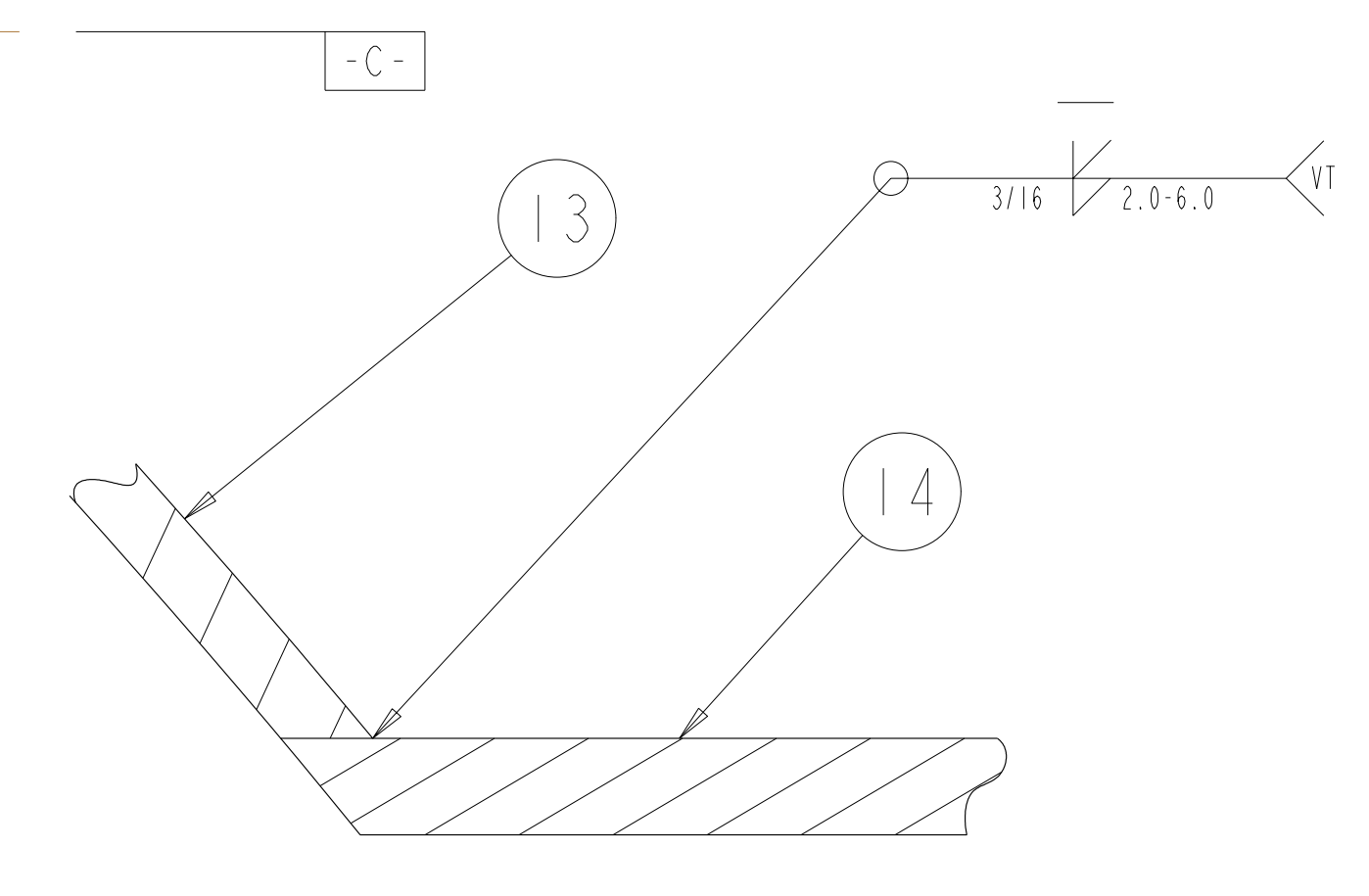
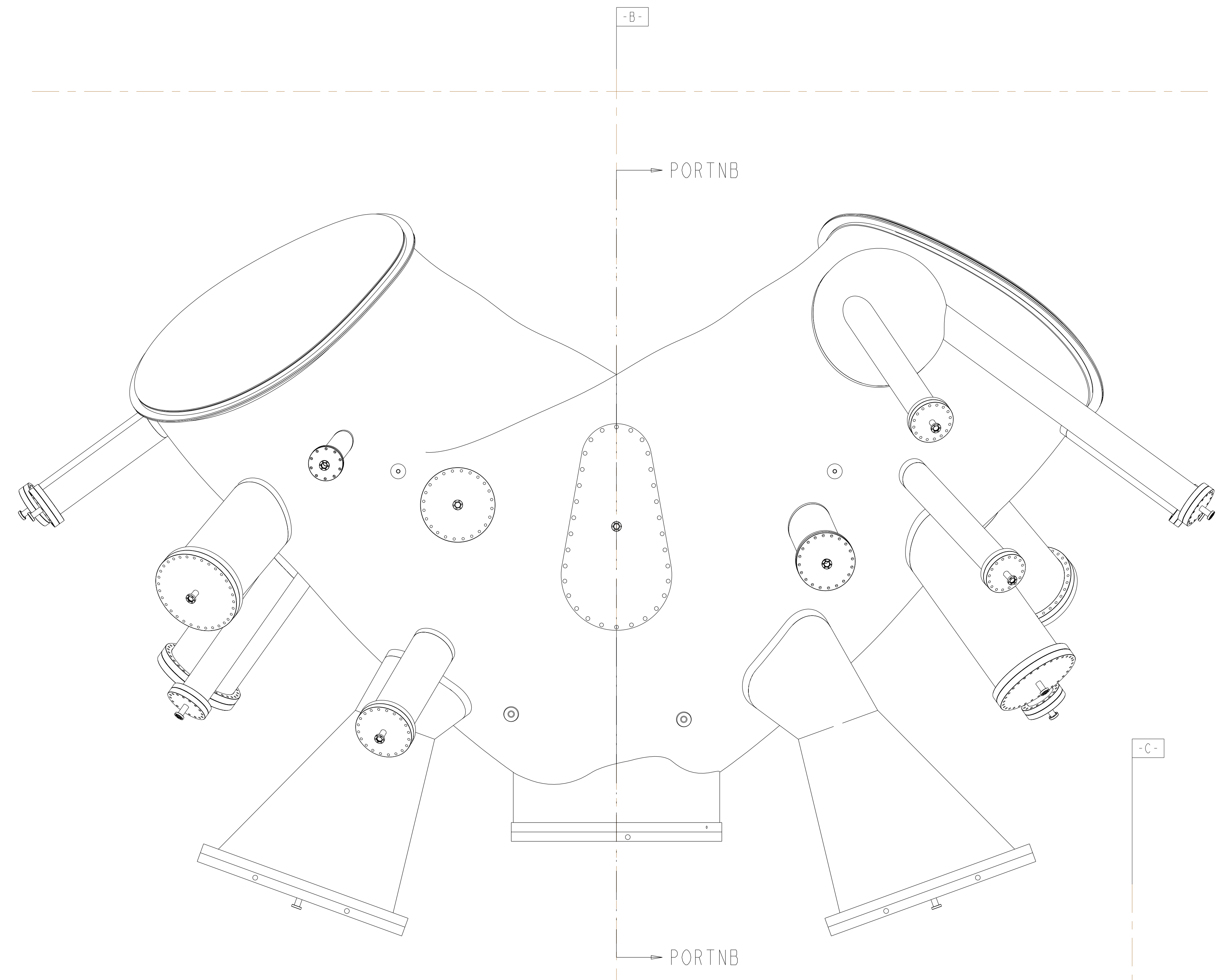
TYPICAL PORT 15A AND 15B  
SECTION PORT15-PORT15

**RELEASED FOR  
FABRICATION / INSTALLATION**  
 PPPL Drafting:

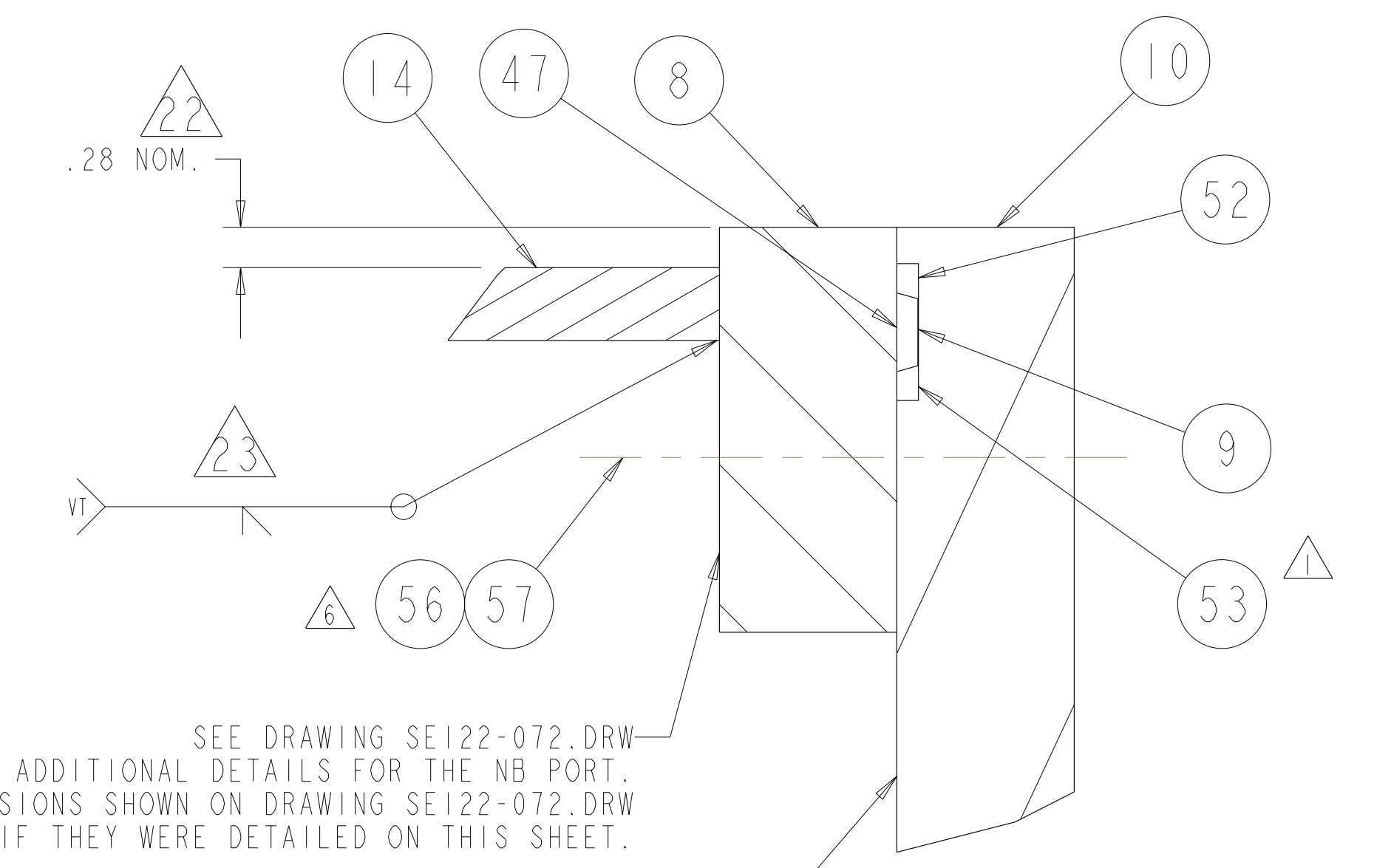
<b>UT-BATTELLE</b>		Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC, Oak Ridge, Tennessee					
PROJECT NAME		NATIONAL COMPACT STELLARATOR EXPERIMENT					
SUBJECT		VACUUM VESSEL PERIOD INSPECTION AND LEAK CHECK ASSEMBLY					
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS	
5	X-10	5700	3	14 19	A	U	
RELEASE LEVEL		SE120-004					REV
Fabrication							2

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FOR PARTS LIST AND NOTES SEE SHEET 1



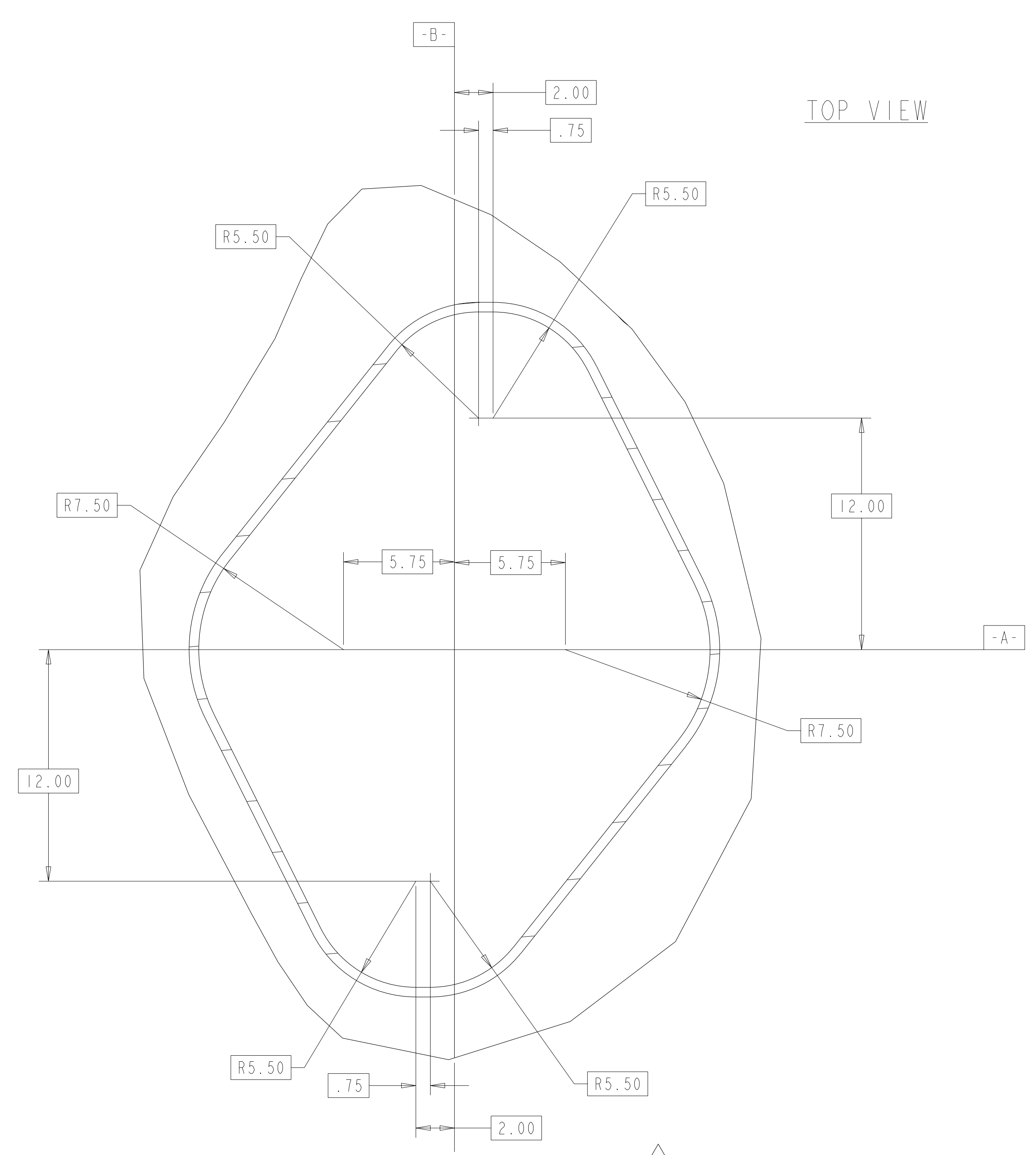
DETAIL X  
 SCALE 1.00



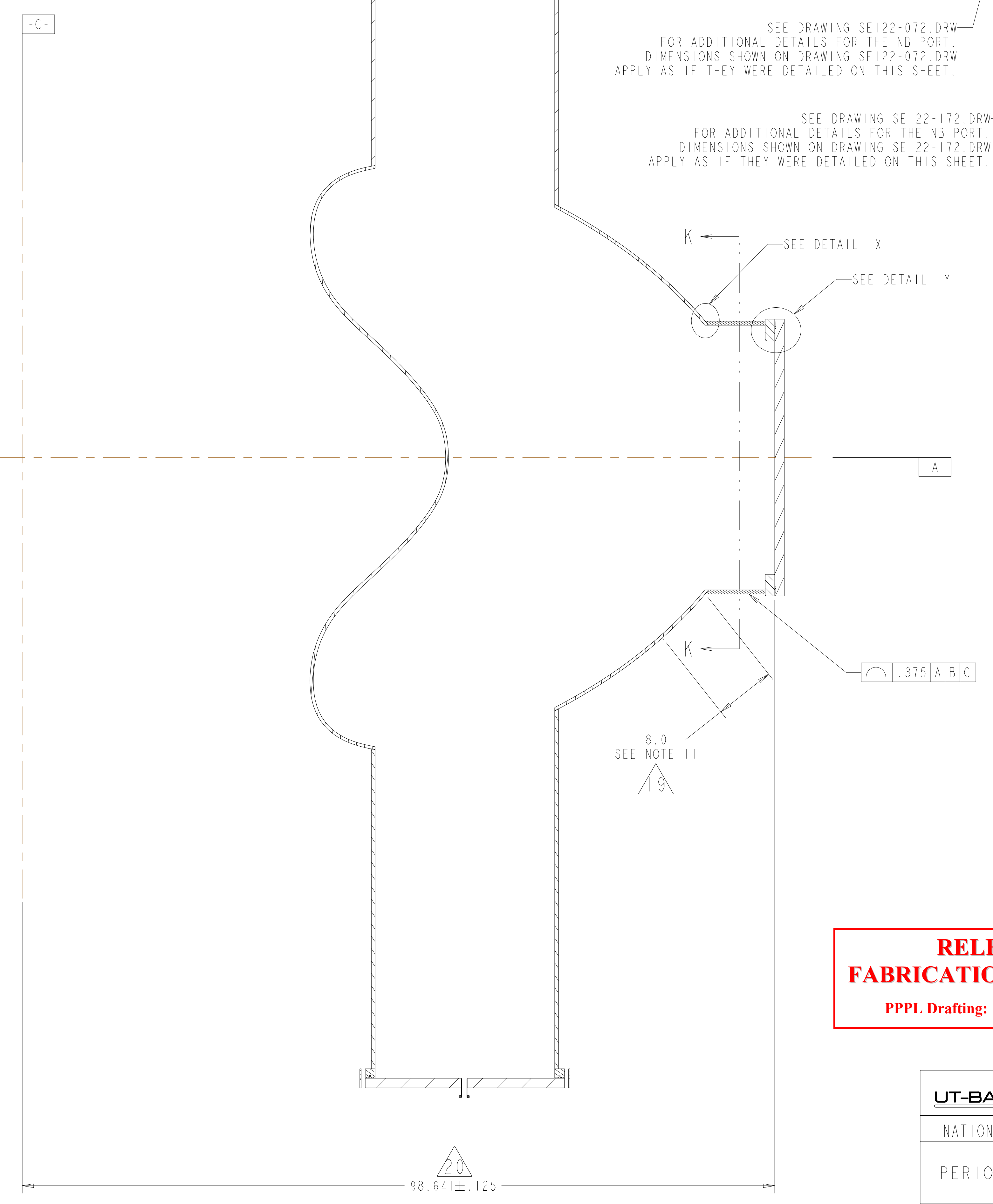
SEE DRAWING SE122-072.DRW FOR ADDITIONAL DETAILS FOR THE NB PORT. DIMENSIONS SHOWN ON DRAWING SE122-072.DRW APPLY AS IF THEY WERE DETAILED ON THIS SHEET.

SEE DRAWING SE122-172.DRW FOR ADDITIONAL DETAILS FOR THE NB PORT. DIMENSIONS SHOWN ON DRAWING SE122-172.DRW APPLY AS IF THEY WERE DETAILED ON THIS SHEET.

DETAIL Y  
 SCALE 1.00



SECTION K-K  
 SCALE 0.25



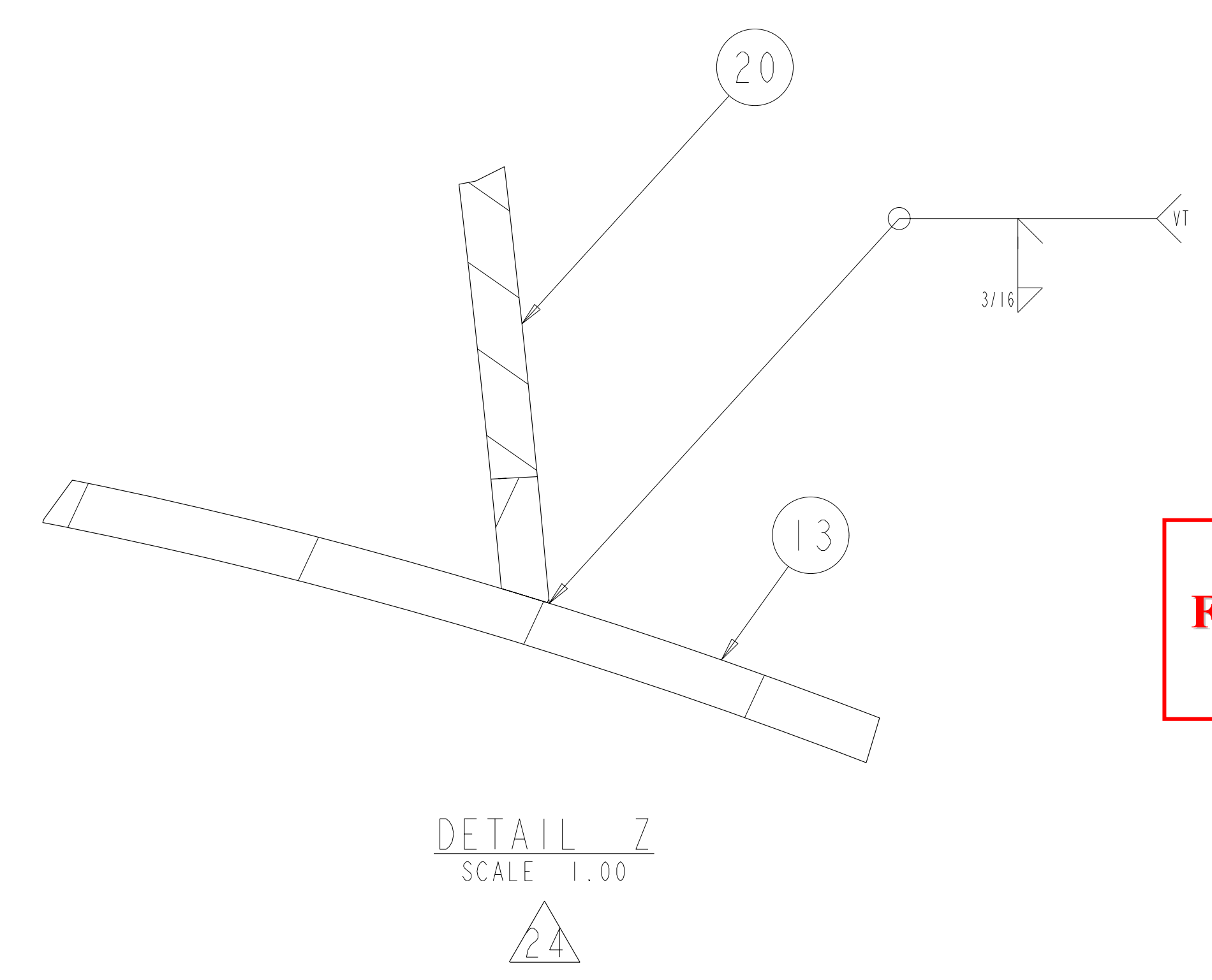
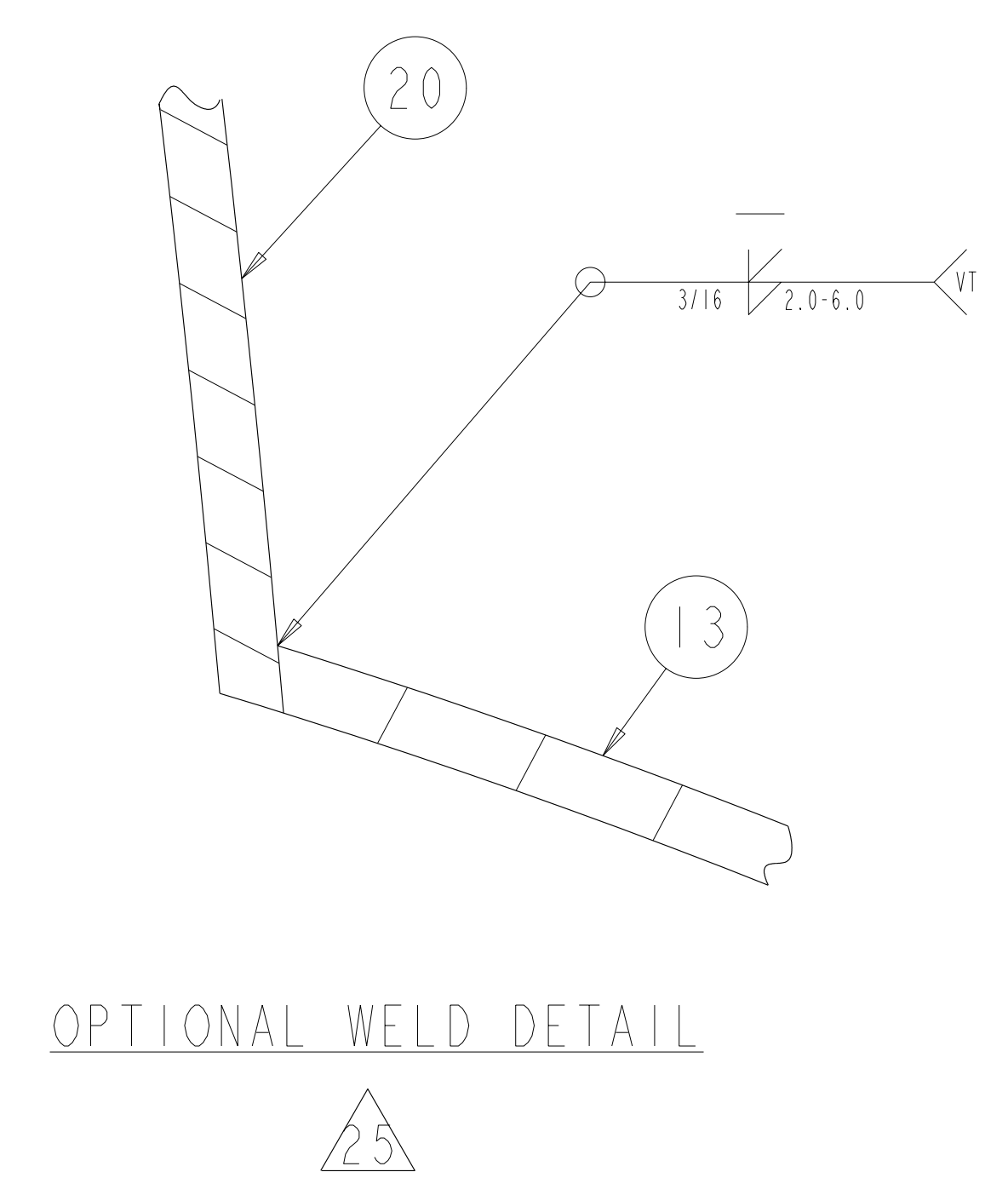
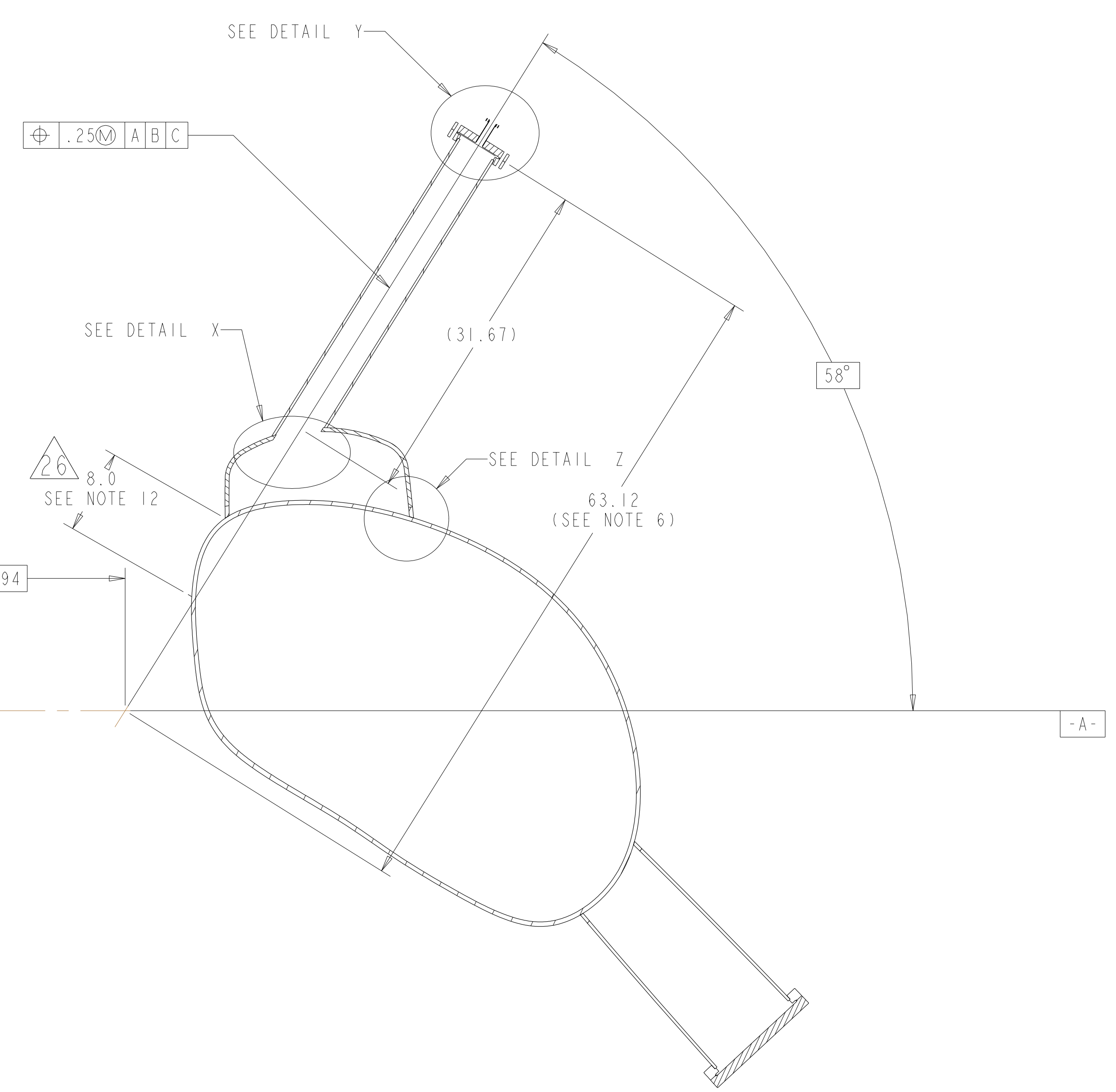
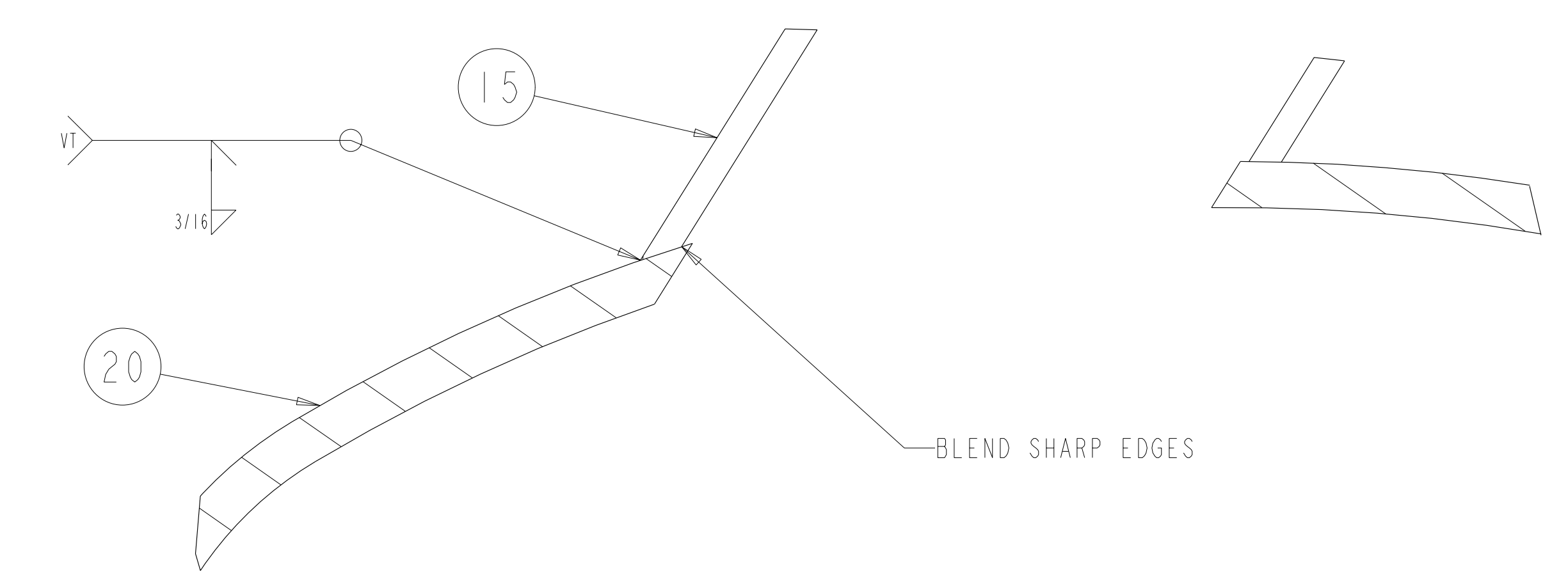
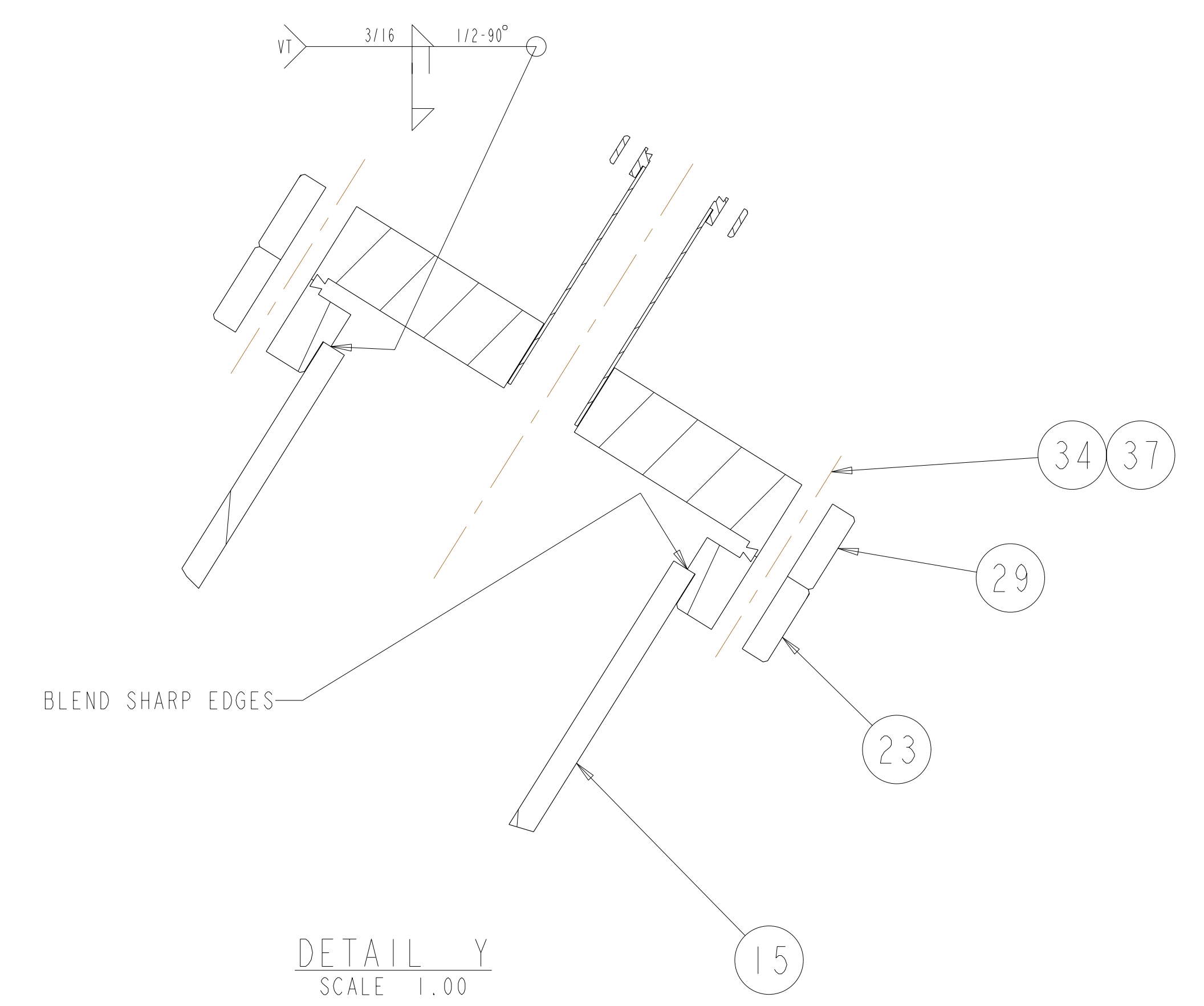
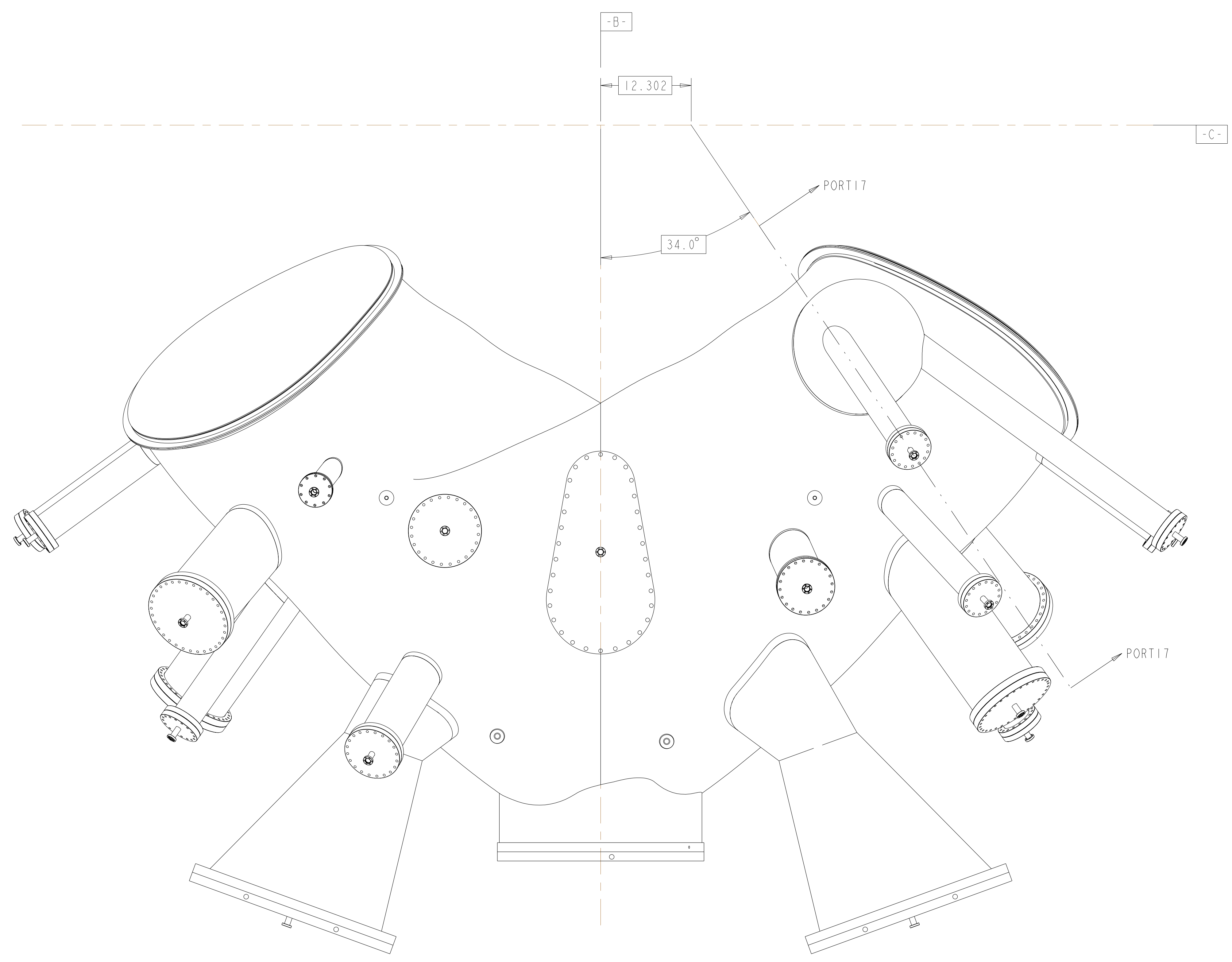
SECTION PORTNB-PORTNB

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 PPPL Drafting:

Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC, Oak Ridge, Tennessee PROJECT NAME						
NATIONAL COMPACT STELLARATOR EXPERIMENT VACUUM VESSEL PERIOD INSPECTION AND LEAK CHECK ASSEMBLY						
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS
5	X-10	5700	3	15	A	U
RELEASE LEVEL		SE120-004		REV		2
Fabrication						

SE120-004

FOR PARTS LIST AND NOTES SEE SHEET 1.



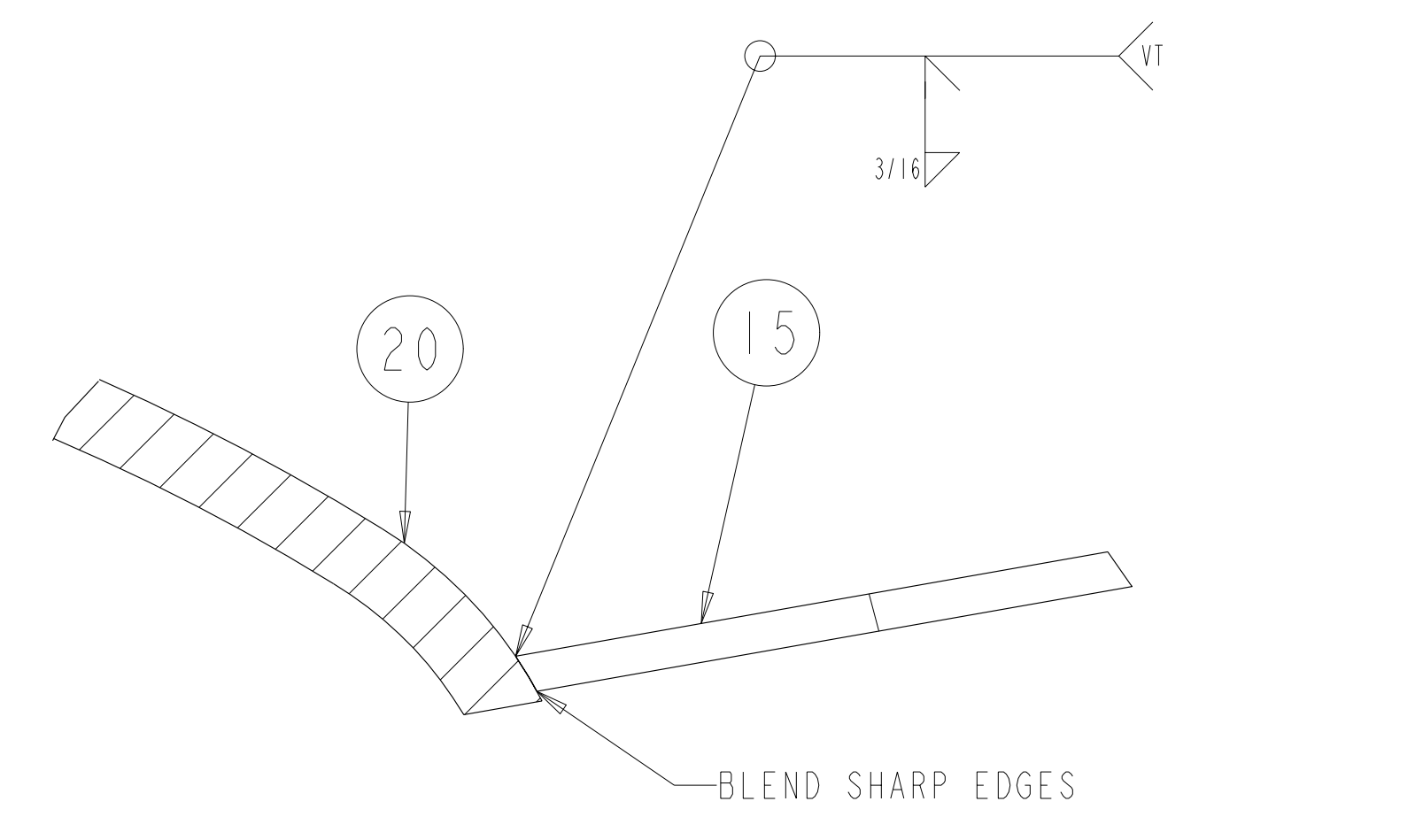
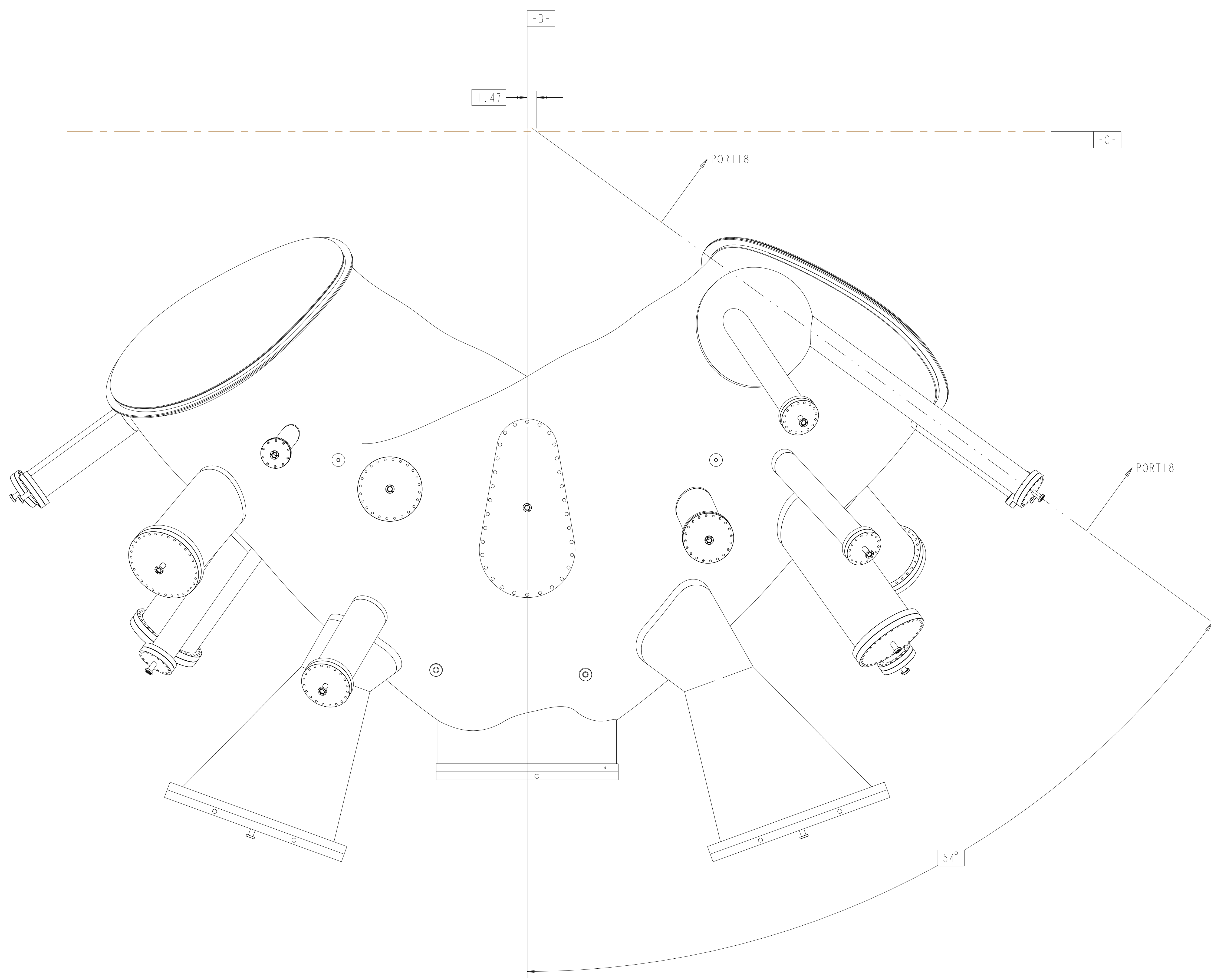
**RELEASED FOR  
FABRICATION / INSTALLATION**  
 PPPL Drafting:

Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC, Oak Ridge, Tennessee PROJECT NAME						
NATIONAL COMPACT STELLARATOR EXPERIMENT VACUUM VESSEL PERIOD INSPECTION AND LEAK CHECK ASSEMBLY						
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS
5	X-10	5700	3	16	19	A
RELEASE LEVEL		SE120-004			REV	
Fabrication					2	

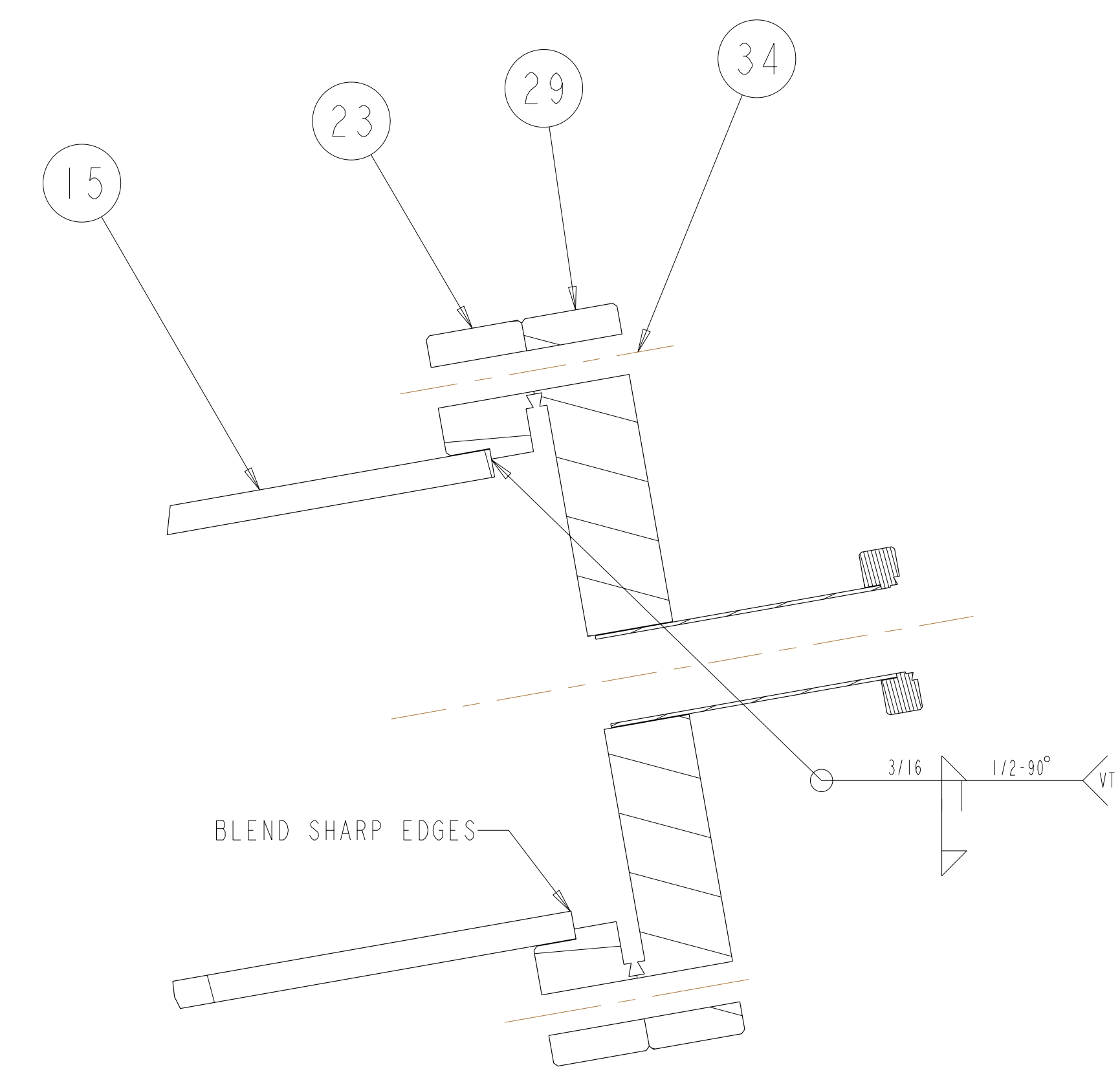
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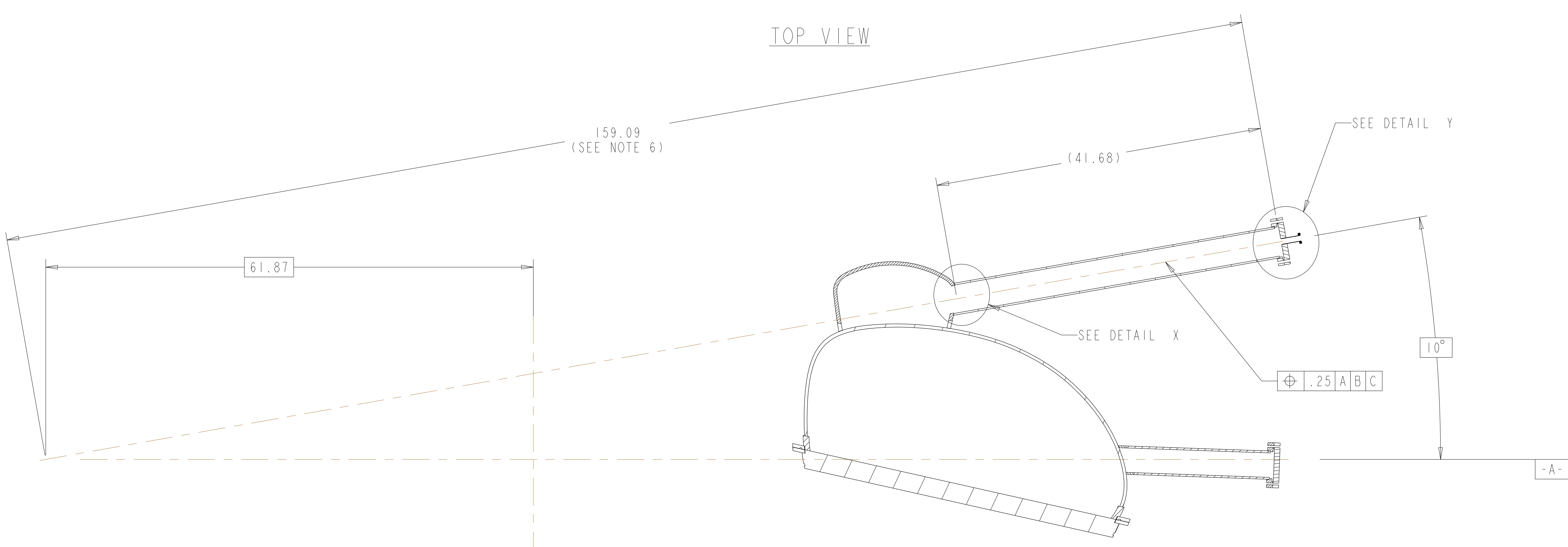
FOR PARTS LIST AND NOTES SEE SHEET 1.



DETAIL X  
 SCALE 1.00



DETAIL Y  
 SCALE 1.000



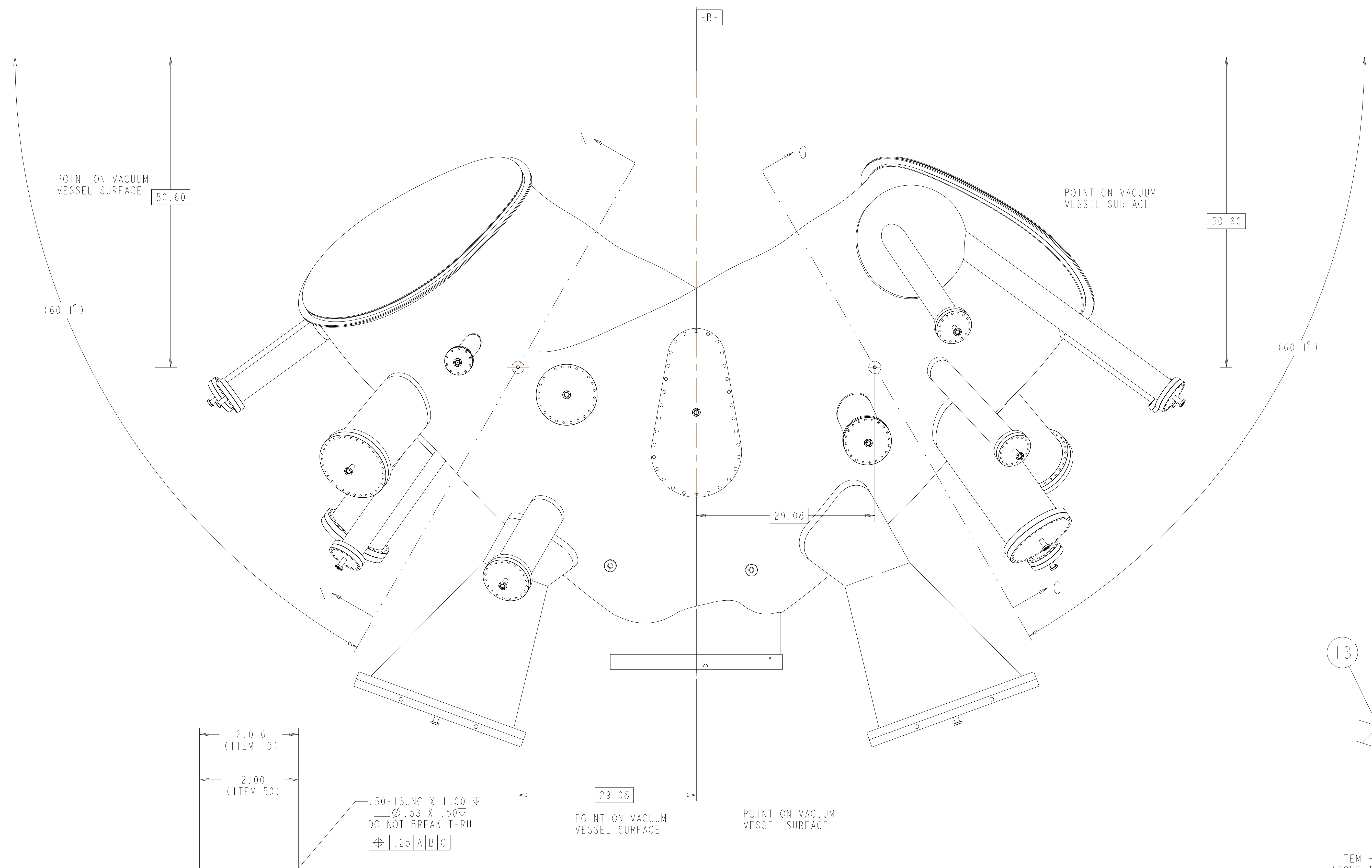
TYPICAL PORT 18A AND 18B  
 SECTION PORT18-PORT18

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 FABRICATION / INSTALLATION**  
 PPPL Drafting:

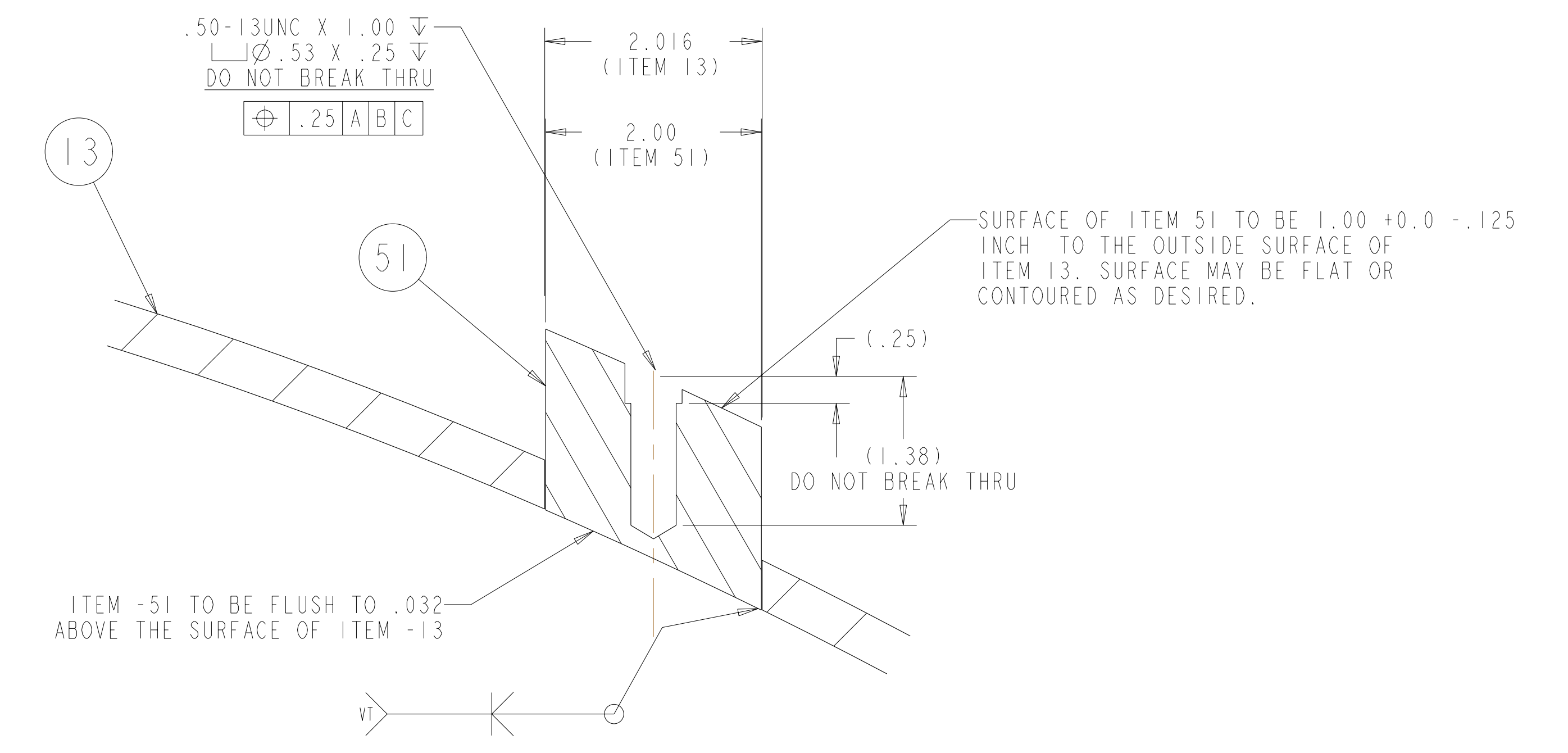
<b>UT-BATTELLE</b>		Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC, Oak Ridge, Tennessee						
PROJECT NAME								
NATIONAL COMPACT STELLARATOR EXPERIMENT								
VACUUM VESSEL								
PERIOD INSPECTION AND LEAK CHECK								
ASSEMBLY								
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS		
5	X-10	5700	3	17 19	A	U		
RELEASE LEVEL		SE120-004					REV	
Fabrication							2	

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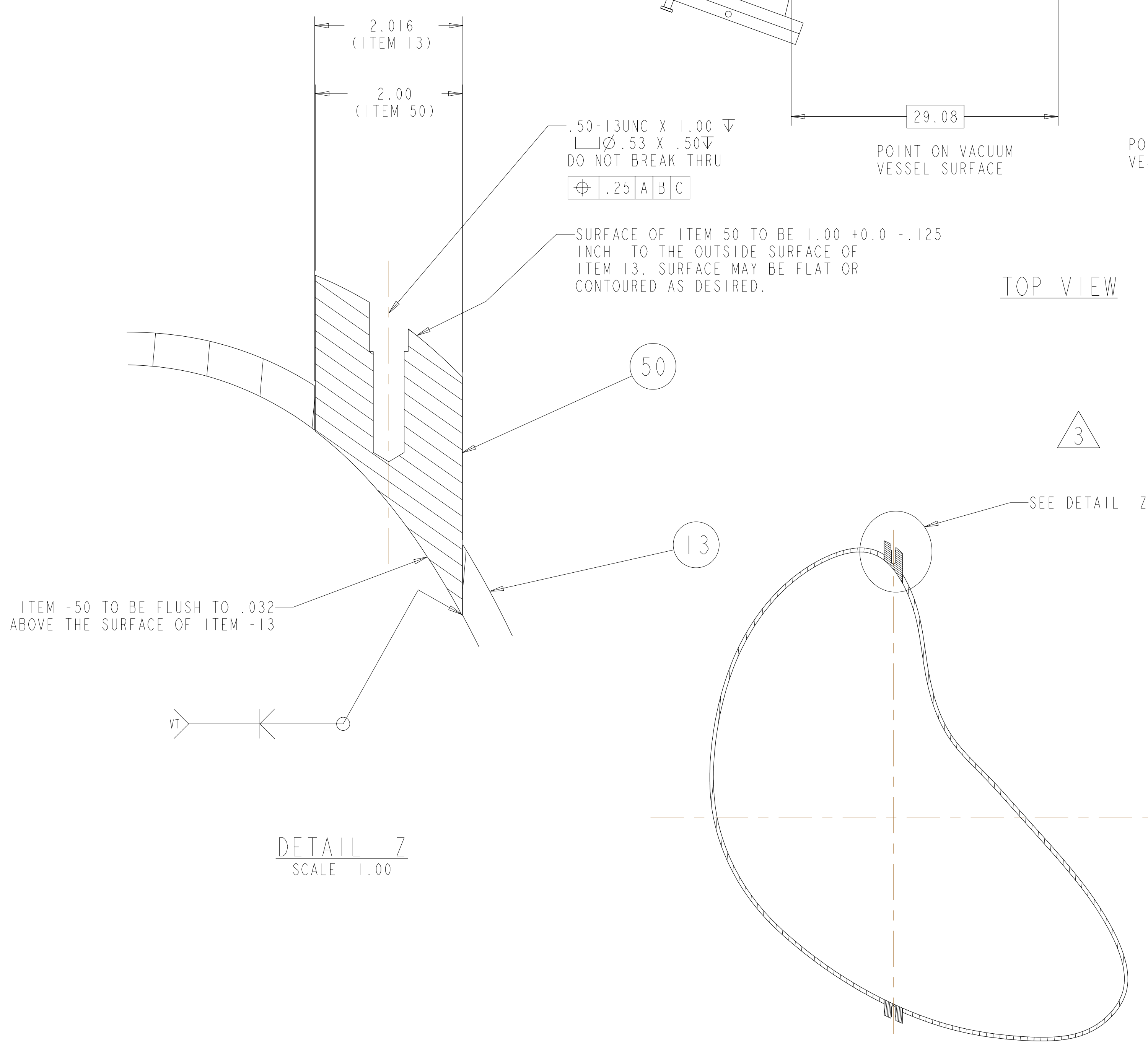
FOR PARTS LIST AND NOTES SEE SHEET 1.



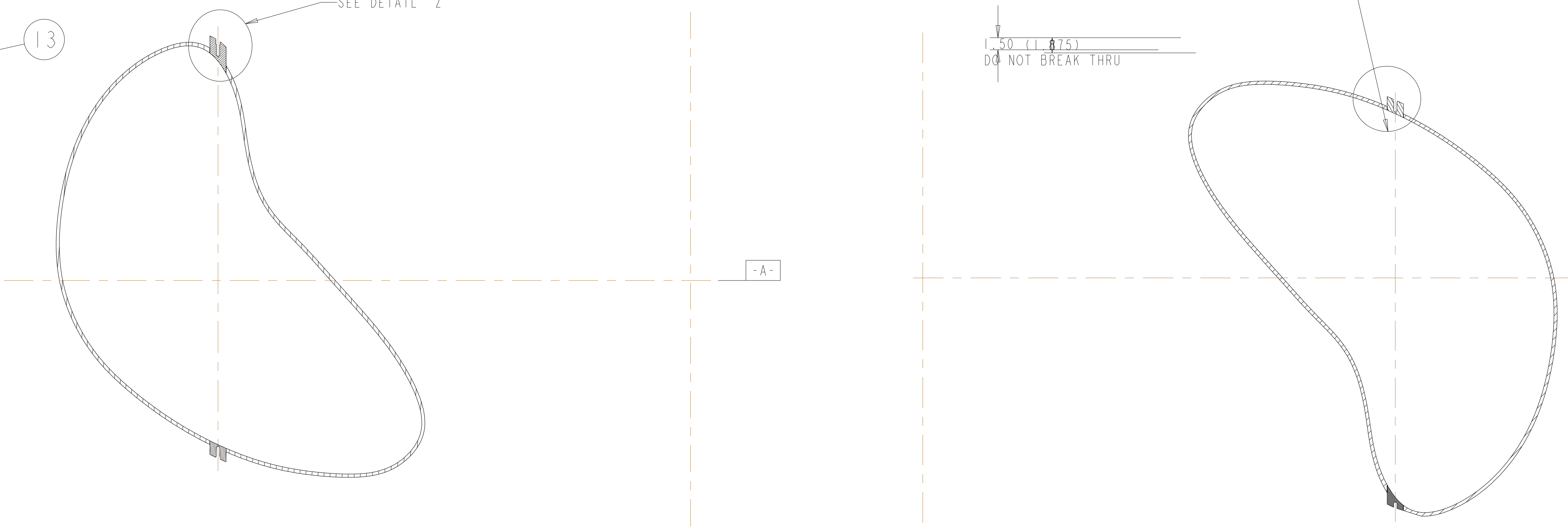
TOP VIEW



DETAIL X  
TYPICAL 2 PLACES  
SCALE 1.00



DETAIL Z  
SCALE 1.00



SECTION N-N

SECTION G-G

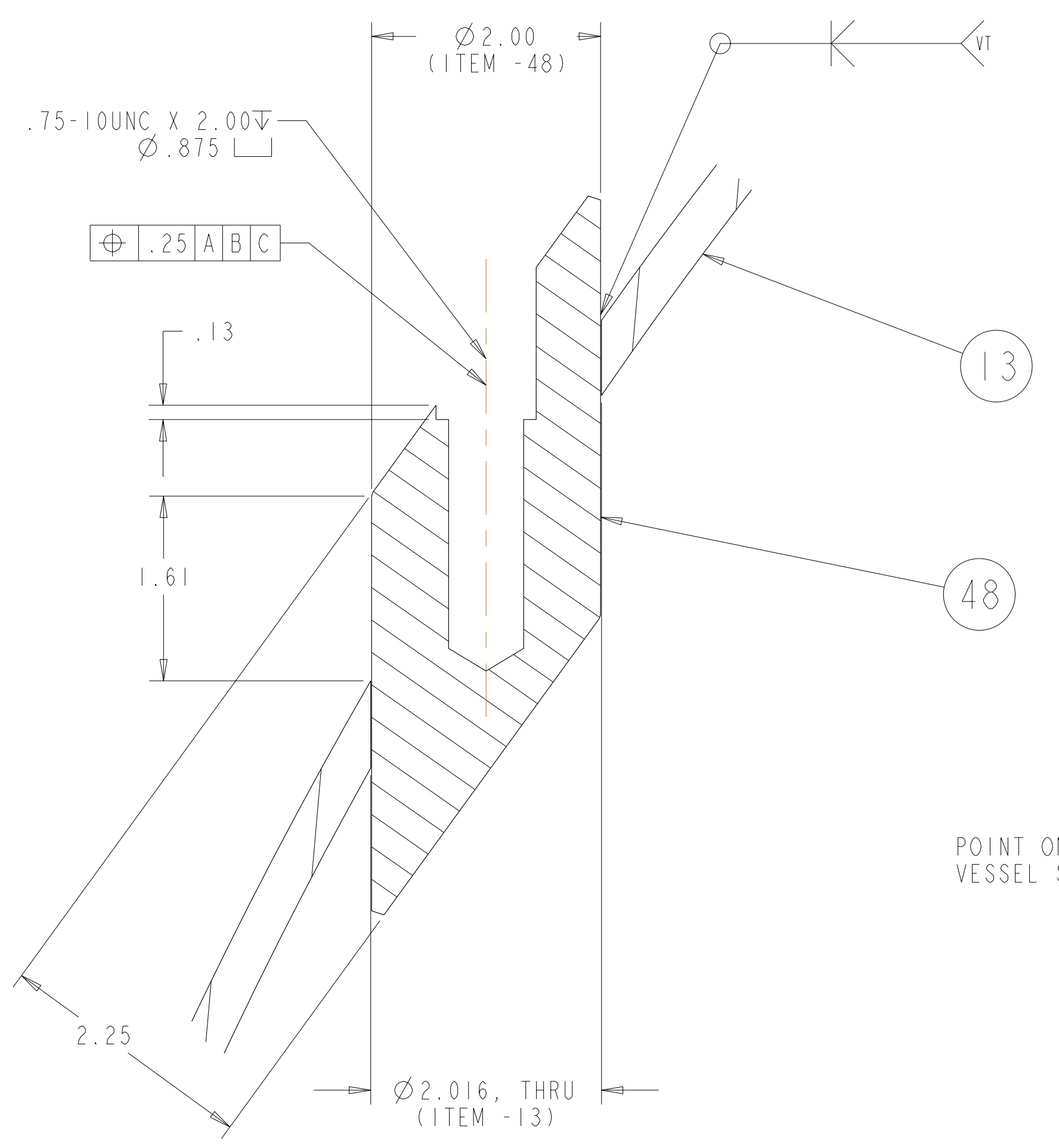
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FABRICATION / INSTALLATION**

PPPL Drafting:

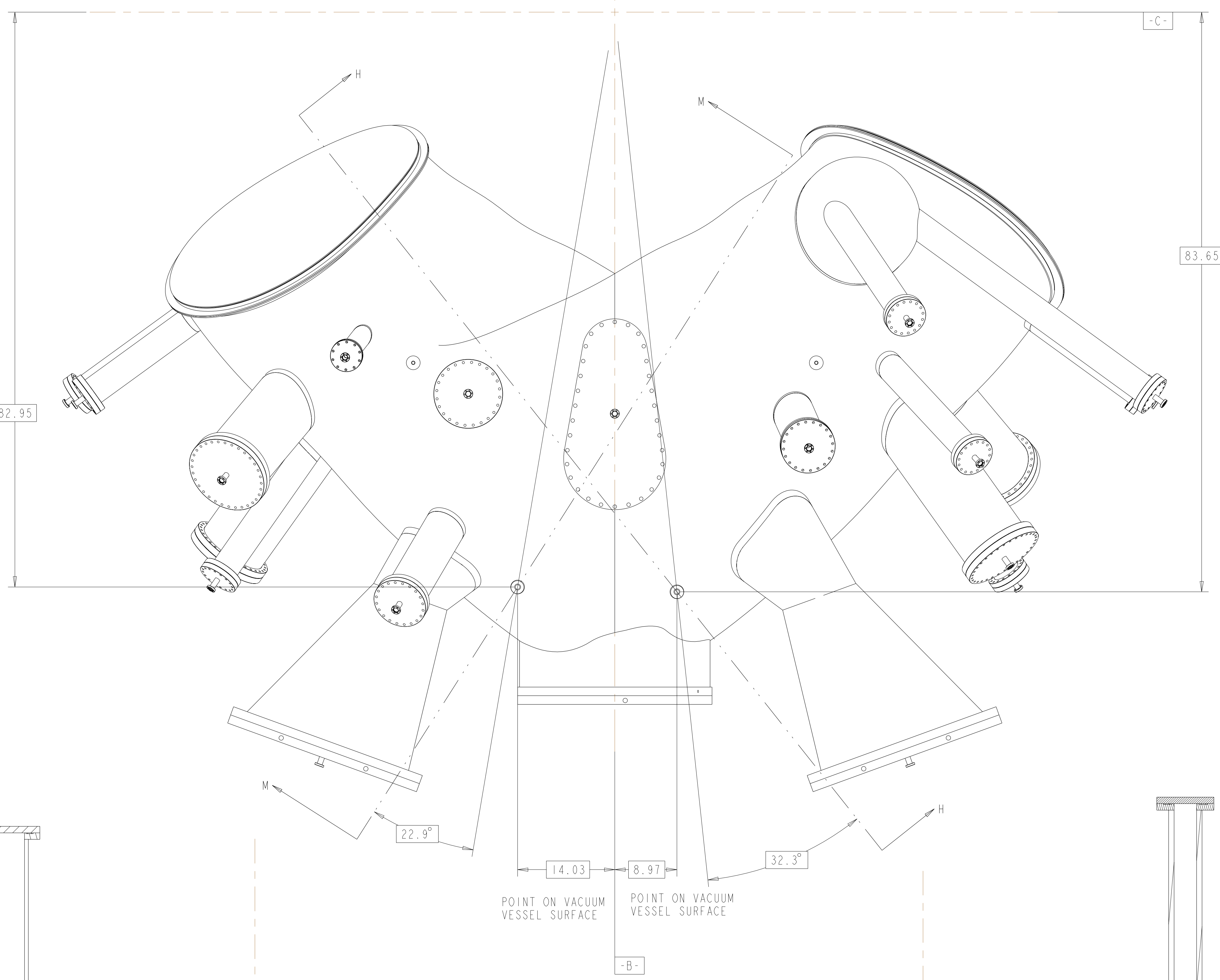
UT-BATTELLE		Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC, Oak Ridge, Tennessee					
NATIONAL COMPACT STELLARATOR EXPERIMENT							
VACUUM VESSEL PERIOD INSPECTION AND LEAK CHECK ASSEMBLY							
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS	
3+	X-10	5700	3	8	19	A	U
RELEASE LEVEL Fabrication		SE120-004					REV 2

SE120-004

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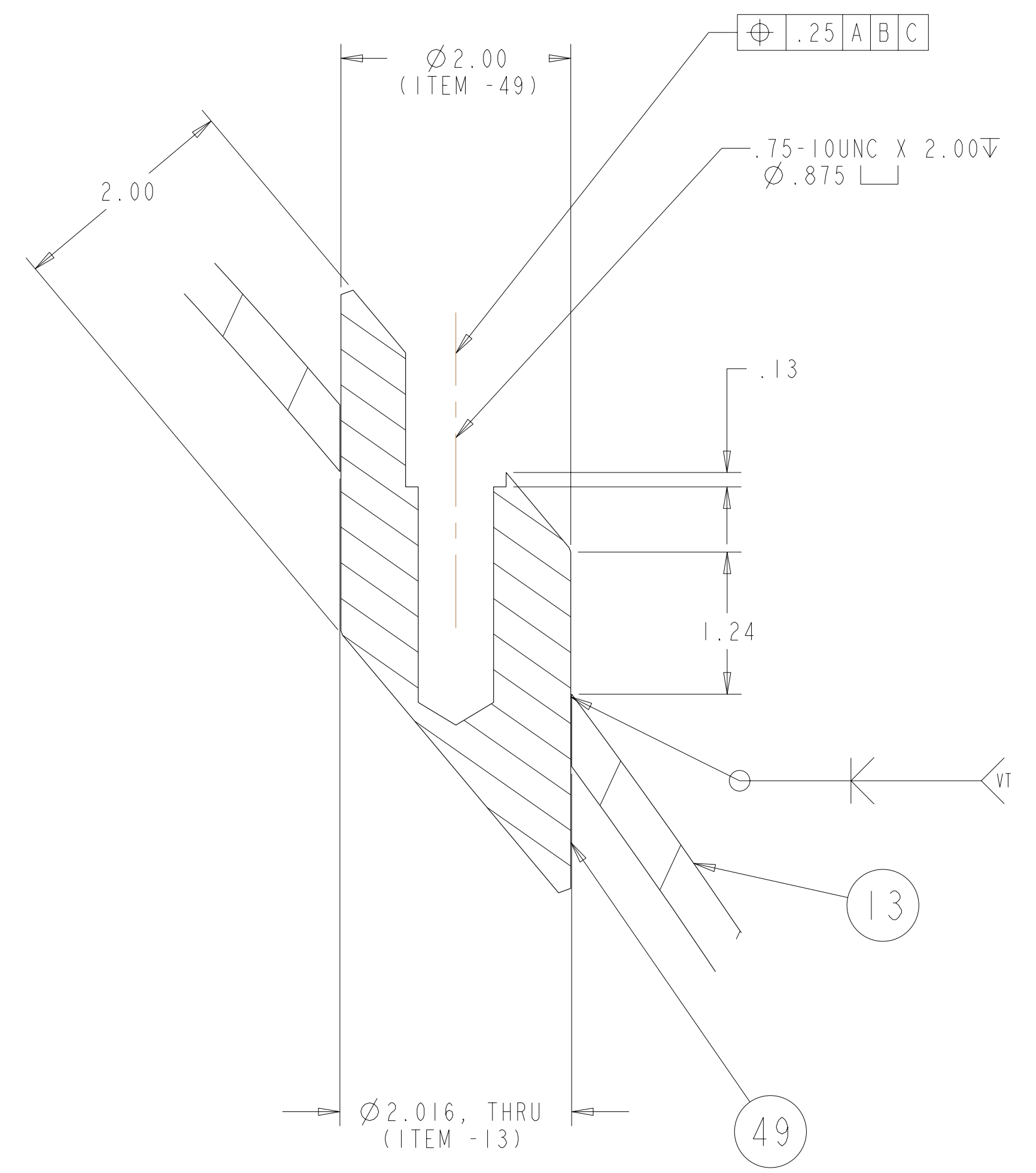
DETAIL W  
SCALE 1.00



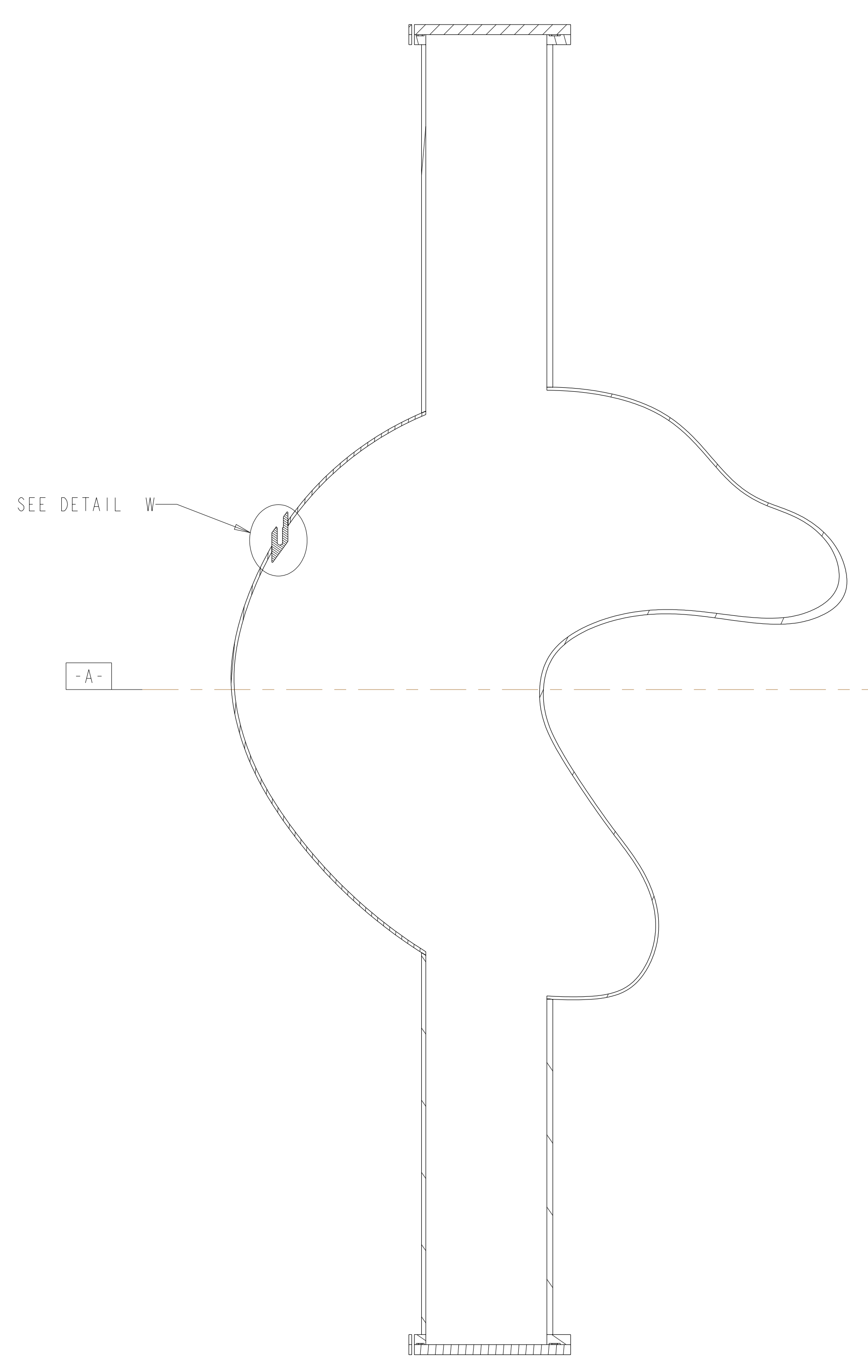
TOP VIEW

FOR PARTS LIST AND NOTES SEE SHEET 1.

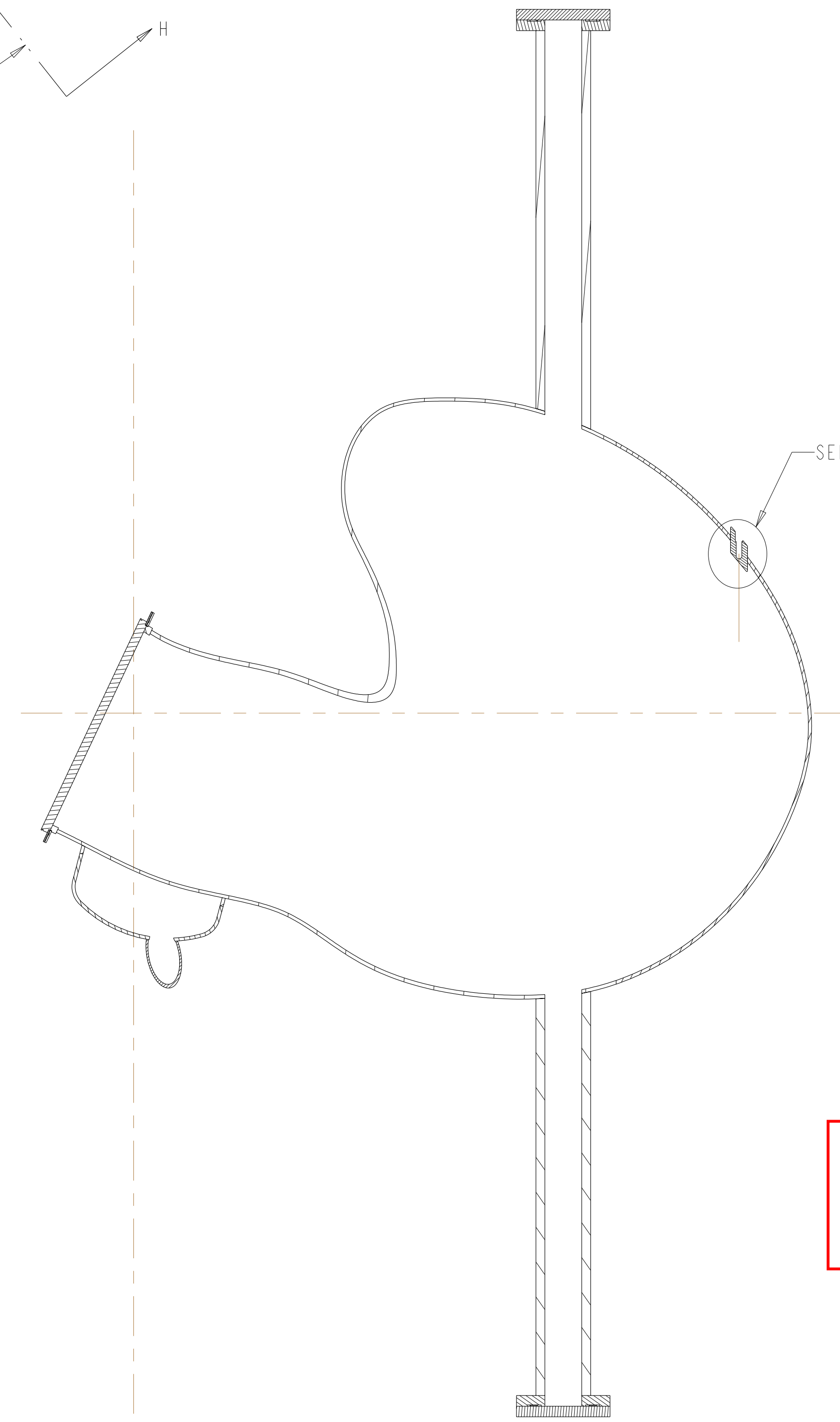
POINT ON VACUUM VESSEL SURFACE



DETAIL Y  
SCALE 1.00



SECTION M-M  
SCALE 0.09



SECTION H-H  
SCALE 0.09

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FABRICATION / INSTALLATION**  
PPPL Drafting:

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NATIONAL COMPACT STELLARATOR EXPERIMENT							PROJECT NAME			
VACUUM VESSEL PERIOD INSPECTION AND LEAK CHECK ASSEMBLY							CLASS			
VERSION NO. 5	PLANT X-10	BLDG 5700	FL 3	SHT OF 19	TYPE A	CLASS U	REV 2		U	
RELEASE LEVEL Fabrication							SEI20-004		1	

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