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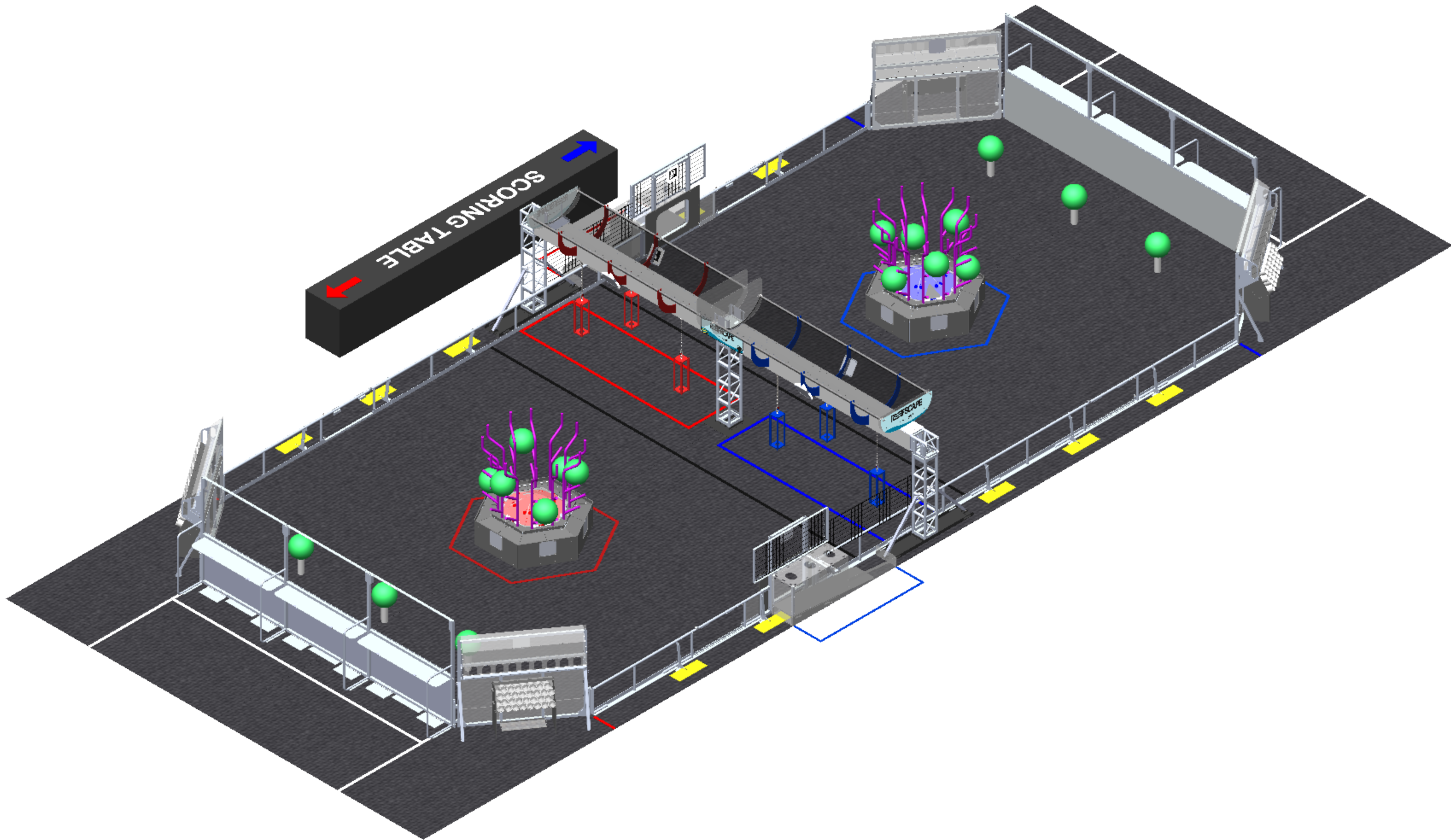
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UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/2$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .50$

**MATERIAL/FINISH:**

DO NOT SCALE DRAWING

FIELD

NAME

DATE

DRAWN

DF

12/20/2024

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**COMMENTS:**

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EDGES.



TITLE:  
**2025 Field Layout  
and Marking**

SIZE DWG. NO. REV

**C** FE-2025

SCALE: 1:50 SHEET 1 OF 5

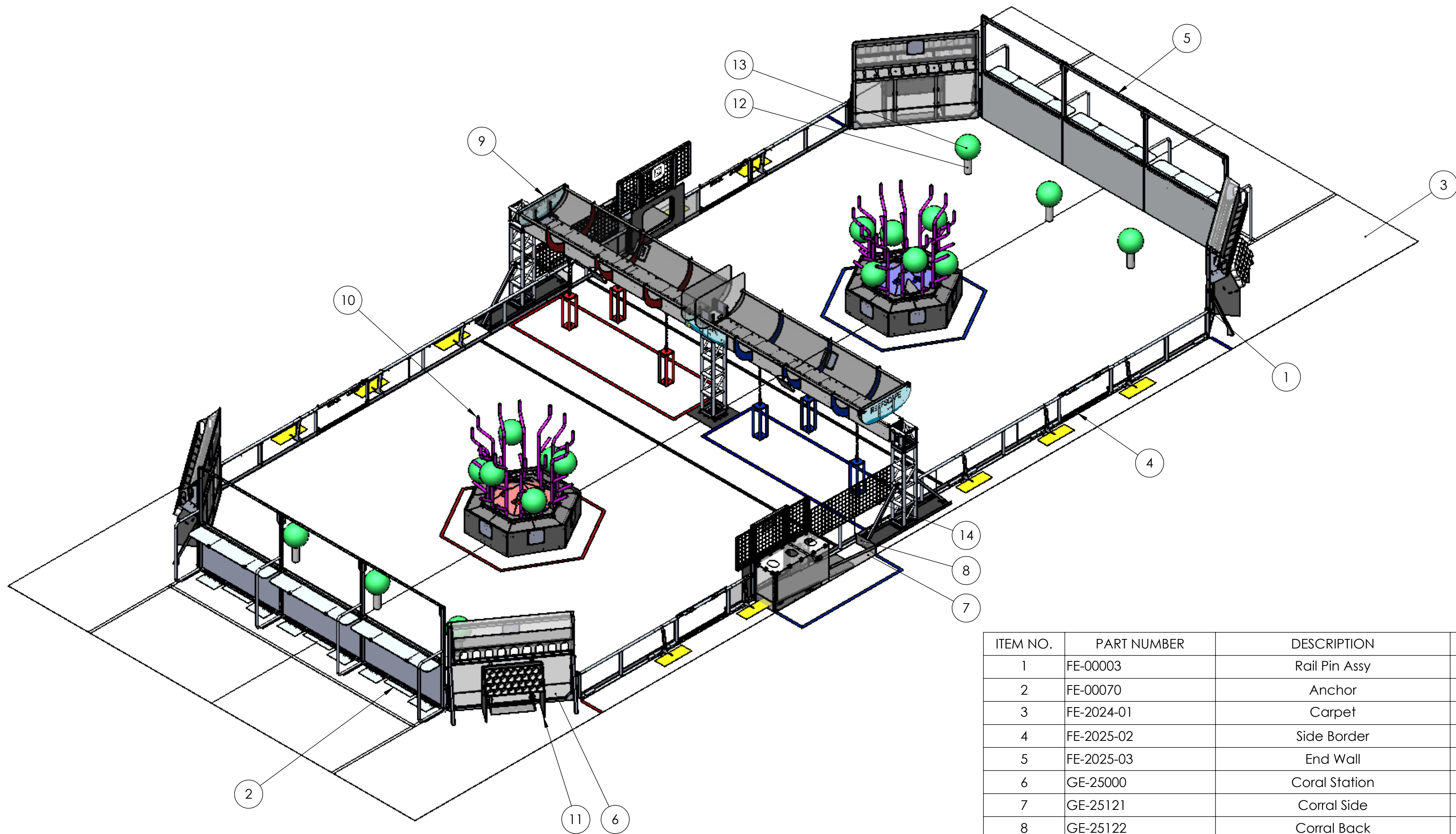
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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-00003	Rail Pin Assy	8
2	FE-00070	Anchor	3
3	FE-2024-01	Carpet	2
4	FE-2025-02	Side Border	2
5	FE-2025-03	End Wall	2
6	GE-25000	Coral Station	4
7	GE-25121	Corral Side	2
8	GE-25122	Corral Back	2
9	GE-25200	Barge	1
10	GE-25300	Reef	2
11	GE-25410	Coral Holder	4
12	GE-25500	Coral	126
13	GE-25501	Algae	18
14	fence 2x6	ULINE Grid (Part# - H-4297)	2

UNLESS OTHERWISE SPECIFIED:		FIELD	NAME	DATE	 			
		DRAWN	DF	12/20/2024				
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/2$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .50$		PROPRIETARY AND CONFIDENTIAL  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.				TITLE:  2025 Field Layout and Marking		
MATERIAL/FINISH:		COMMENTS:  REMOVE ALL BURRS AND SHARP EDGES.				SIZE  C	DWG. NO.  FE-2025	REV
DO NOT SCALE DRAWING						SCALE: 1:50		SHEET 2 OF 5

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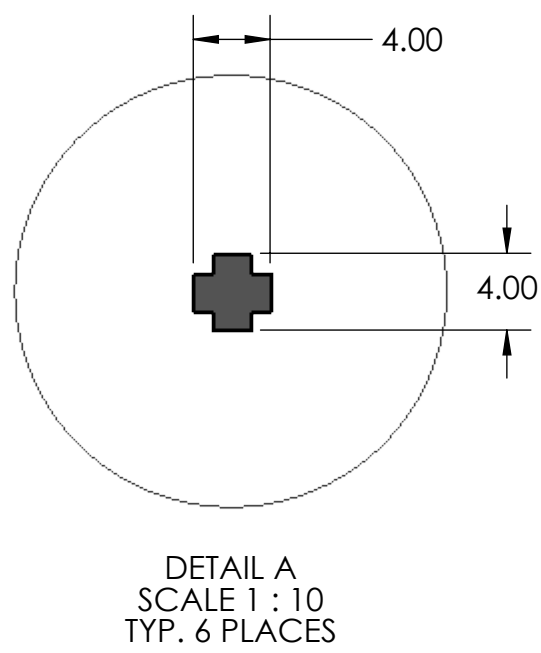
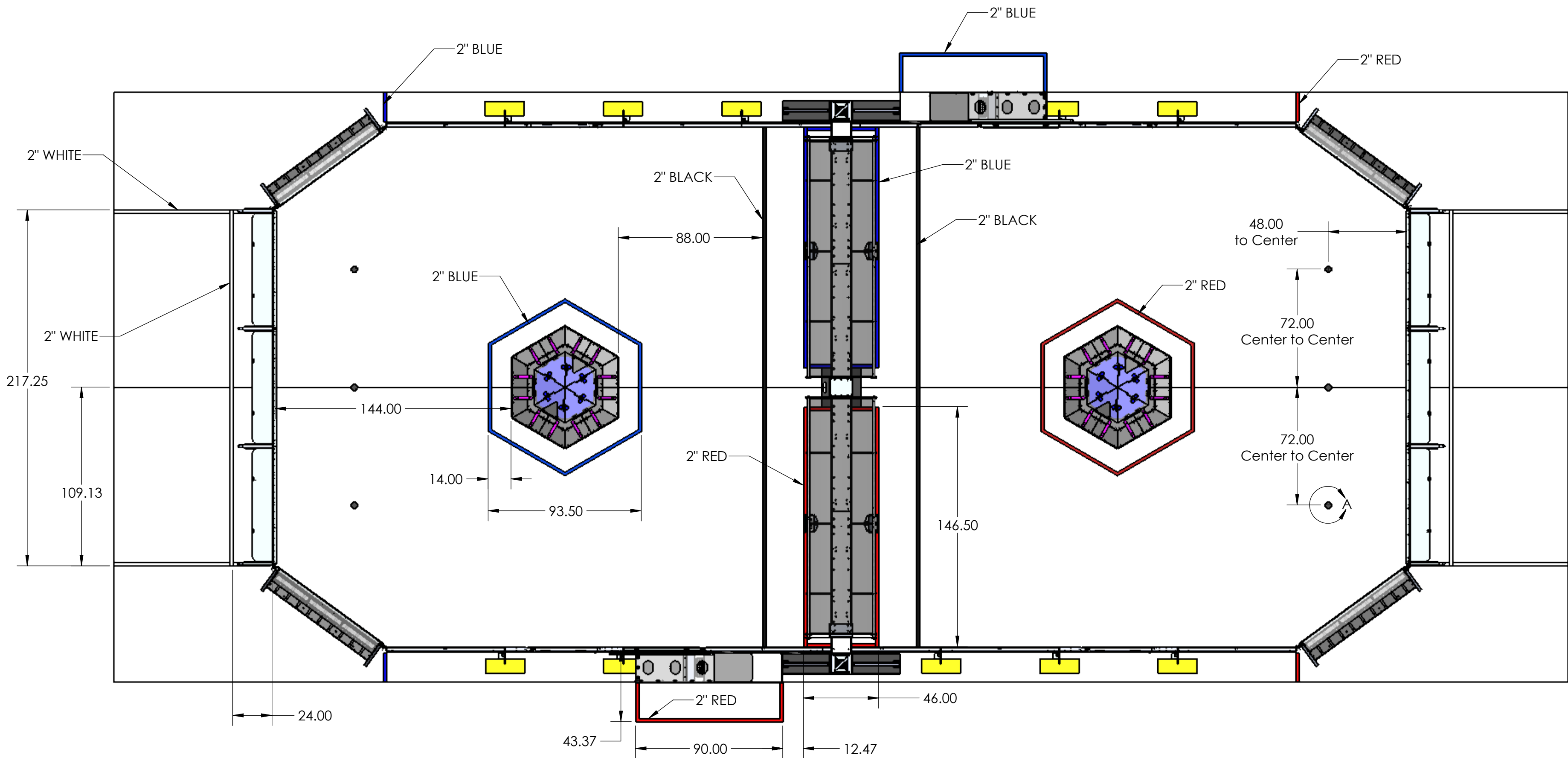
C

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UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/2$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .50$

MATERIAL/FINISH:

DO NOT SCALE DRAWING

FIELD	NAME	DATE
DRAWN	DF	12/20/2024

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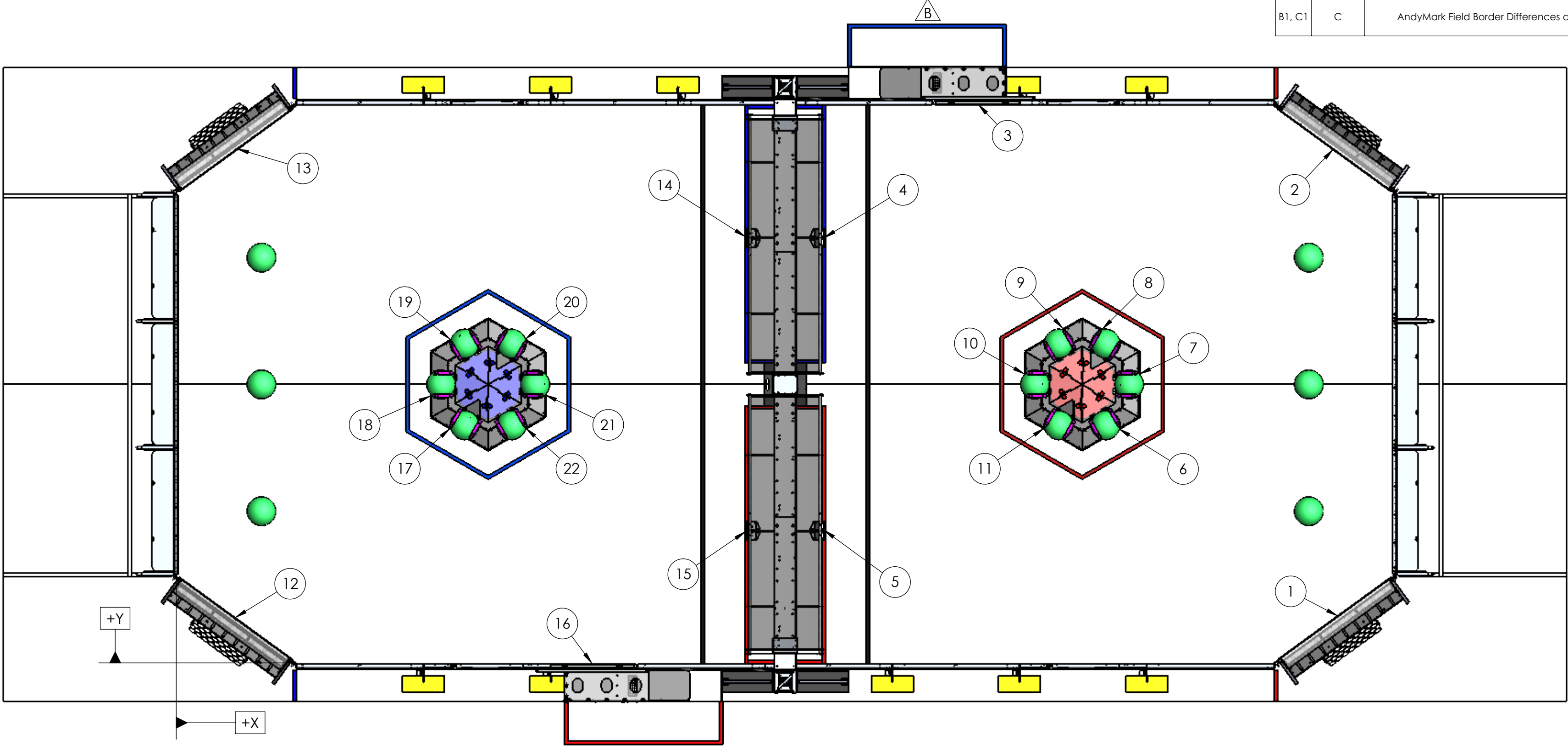


TITLE:  
**2025 Field Layout and Marking**

SIZE	DWG. NO.	REV
<b>C</b>	FE-2025	

SCALE: 1:50 SHEET 3 OF 5

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
B2	A	"X-Rotation" changed to "Y-Rotation"	1/6/2025	JO
D2	B	Tape Colors Fixed	1/27/2025	JO
B1, C1	C	AndyMark Field Border Differences added	2/13/2025	JO



AndyMark Field Differences:  
Please see Team Update 12  
for more information about  
why these differences exist,  
how to adjust to different field  
borders, and what field to expect  
at events.

ID	X	Y
1	656.98	24.73
2	656.98	291.90
3	452.40	316.21
4	365.20	241.44
5	365.20	75.19
6	530.49	129.97
7	546.87	158.30
8	530.49	186.63
9	497.77	186.63
10	481.39	158.30
11	497.77	129.97
12	33.91	24.73
13	33.91	291.90
14	325.68	241.44
15	325.68	75.19
16	238.49	0.42
17	160.39	129.97
18	144.00	158.30
19	160.39	186.63
20	193.10	186.63
21	209.49	158.30
22	193.10	129.97

### April Tag Coordinates


The XYZ Origin is established in the bottom left corner of the field (as viewed in the image above). An x coordinate of 0 is aligned with the Blue Alliance Station diamond plate, A y coordinate of 0 is aligned with the side border polycarbonate on the Scoring Table side of the field. A z coordinate of 0 is on the carpet.

+Z is up into the air from the carpet, +X is horizontal to the right (in this image above) toward the opposing alliance stations, and +Y runs from the Field Border towards the REEFS.

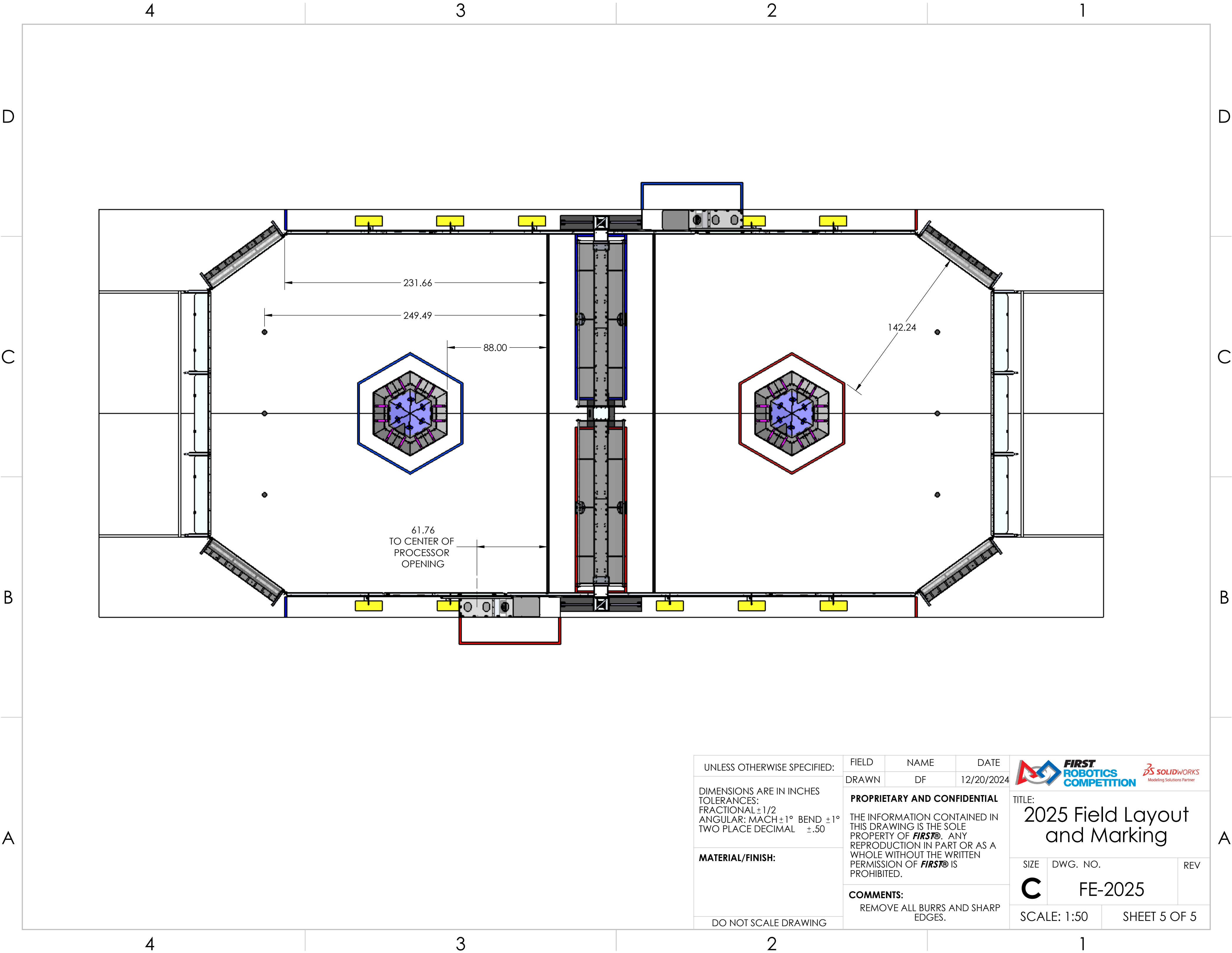
The face-pose of the tags is denoted with 1 degree representation, the Z-rotation. 0° faces the red alliance station, 90° faces the non- scoring table side, and 180° faces the blue alliance station. For the X-Rotation, 0° is perpendicular to the Z plane, and 90 degrees is facing the carpet. Distances are measured to the center of the tag.

ID	X	Y	Z	Z-Rotation	Y-Rotation
1	657.37	25.80	58.50	126°	0°
2	657.37	291.20	58.50	234°	0°
3	455.15	317.15	51.25	270°	0°
4	365.20	241.64	73.54	0°	30°
5	365.20	75.39	73.54	0°	30°
6	530.49	130.17	12.13	300°	0°
7	546.87	158.50	12.13	0°	0°
8	530.49	186.83	12.13	60°	0°
9	497.77	186.83	12.13	120°	0°
10	481.39	158.50	12.13	180°	0°
11	497.77	130.17	12.13	240°	0°
12	33.51	25.80	58.50	54°	0°
13	33.51	291.20	58.50	306°	0°
14	325.68	241.64	73.54	180°	30°
15	325.68	75.39	73.54	180°	30°
16	235.73	-0.15	51.25	90°	0°
17	160.39	130.17	12.13	240°	0°
18	144.00	158.50	12.13	180°	0°
19	160.39	186.83	12.13	120°	0°
20	193.10	186.83	12.13	60°	0°
21	209.49	158.50	12.13	0°	0°
22	193.10	130.17	12.13	300°	0°

UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/2$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .50$  MATERIAL/FINISH:    DO NOT SCALE DRAWING	FIELD	NAME	DATE
	DRAWN	JO	12/20/2024
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 			TITLE: 2025 Field Layout and Marking		
SIZE	DWG. NO.		REV		
C	FE-2025		C		
SCALE: 1:50		SHEET 4 OF 5			





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TOLERANCES:  
FRACTIONAL  $\pm 1/2$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .50$

MATERIAL/FINISH:

DO NOT SCALE DRAWING

FIELD	NAME	DATE
DRAWN	DF	12/20/2024

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TITLE:  
**2025 Field Layout and Marking**

SIZE	DWG. NO.	REV
<b>C</b>	FE-2025	

SCALE: 1:50 SHEET 5 OF 5

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	Redraw	5/14/2008	narosenberg
A4, 2-A2, 2-B4	B	Items renumbered, solid rod diameter updated, drawing reformatted.	3/19/2020	CPO

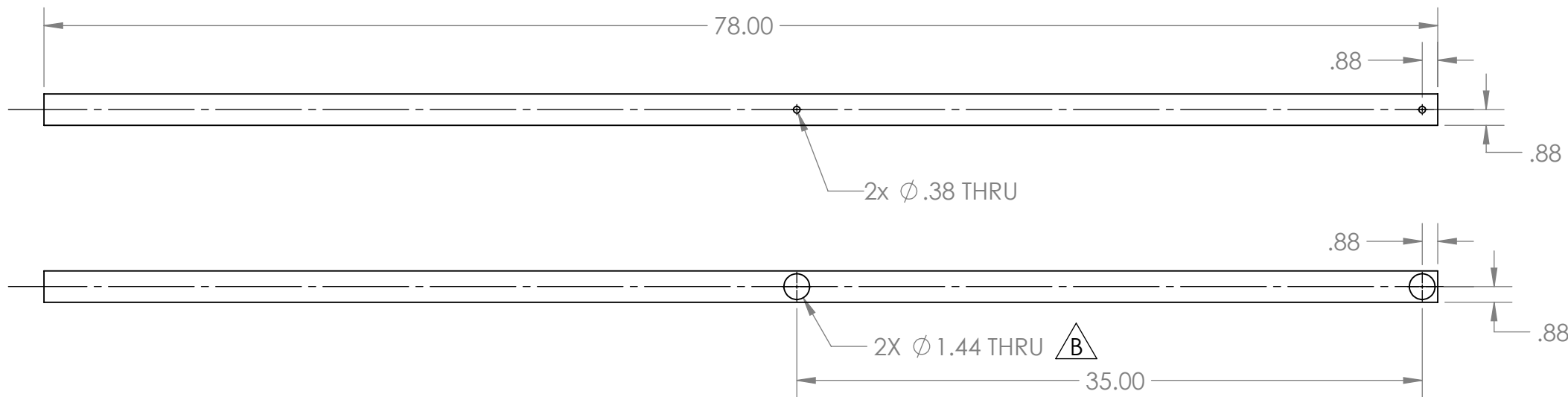
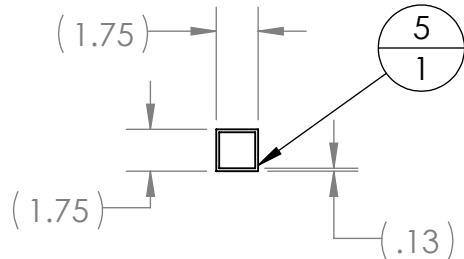
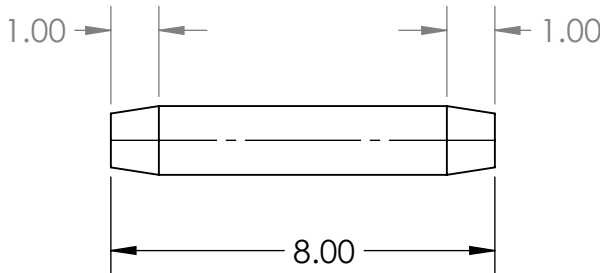
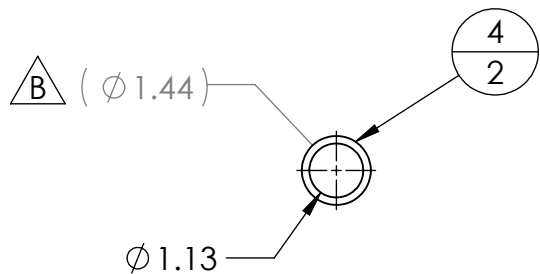
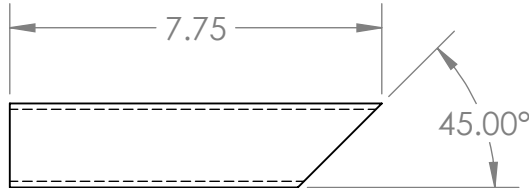
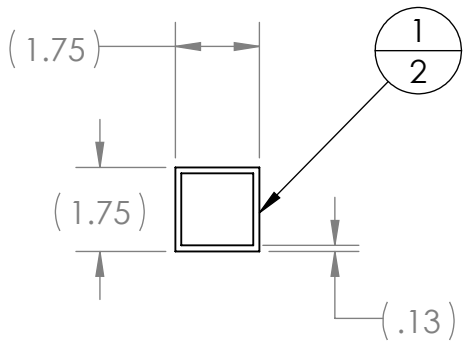


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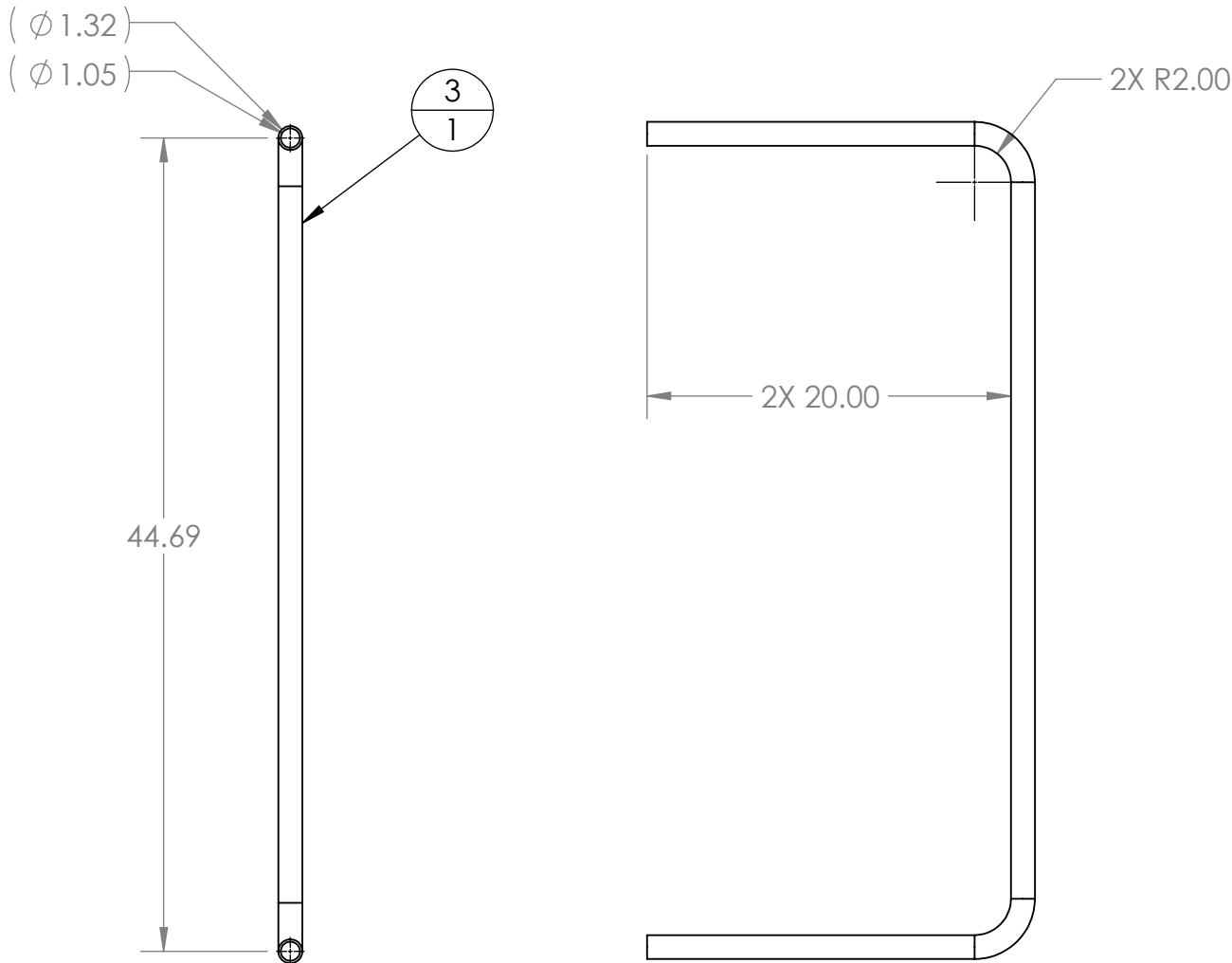
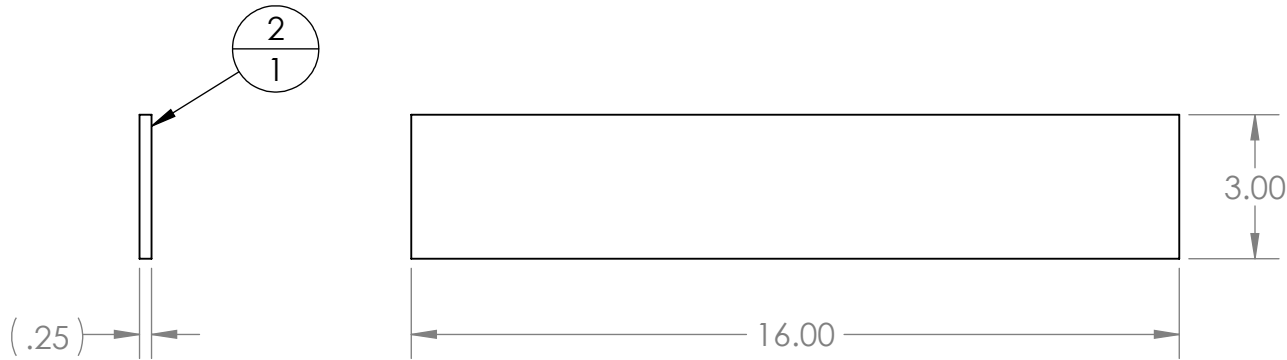
		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	 		
		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .001$	DRAWN			TITLE:  <h1>Drivers Station Support</h1>		
			CHECKED					
			ENG APPR.					
			MFG APPR.					
			Q.A.					
		INTERPRET GEOMETRIC TOLERANCING PER:	COMMENTS:			SIZE DWG. NO. REV <b>B</b> <b>FE-00001</b> <b>B</b>		
		MATERIAL						
		FINISH						
NEXT ASSY	USED ON							
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:2 WEIGHT: SHEET 2 OF 3		

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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	<div></div> <div>TITLE: <h1>Drivers Station Support</h1></div>	
		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.001	DRAWN				
			CHECKED				
			ENG APPR.				
			MFG APPR.				
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.			SIZE <b>B</b>	
		MATERIAL	COMMENTS:				
		FINISH					
NEXT ASSY	USED ON					DWG. NO. <b>FE-00001</b>	REV <b>B</b>
APPLICATION		DO NOT SCALE DRAWING				WEIGHT:	SHEET 3 OF 3

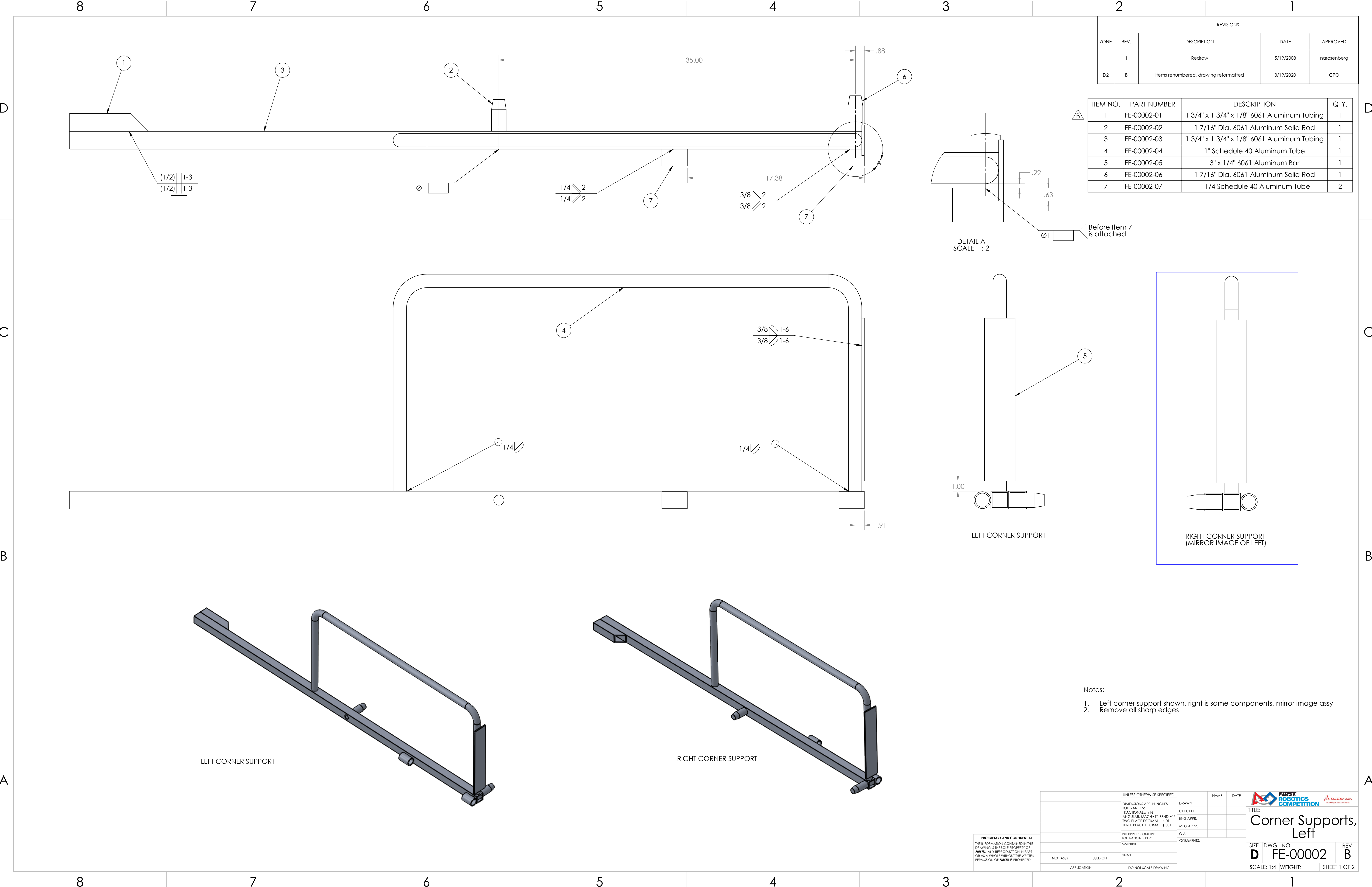
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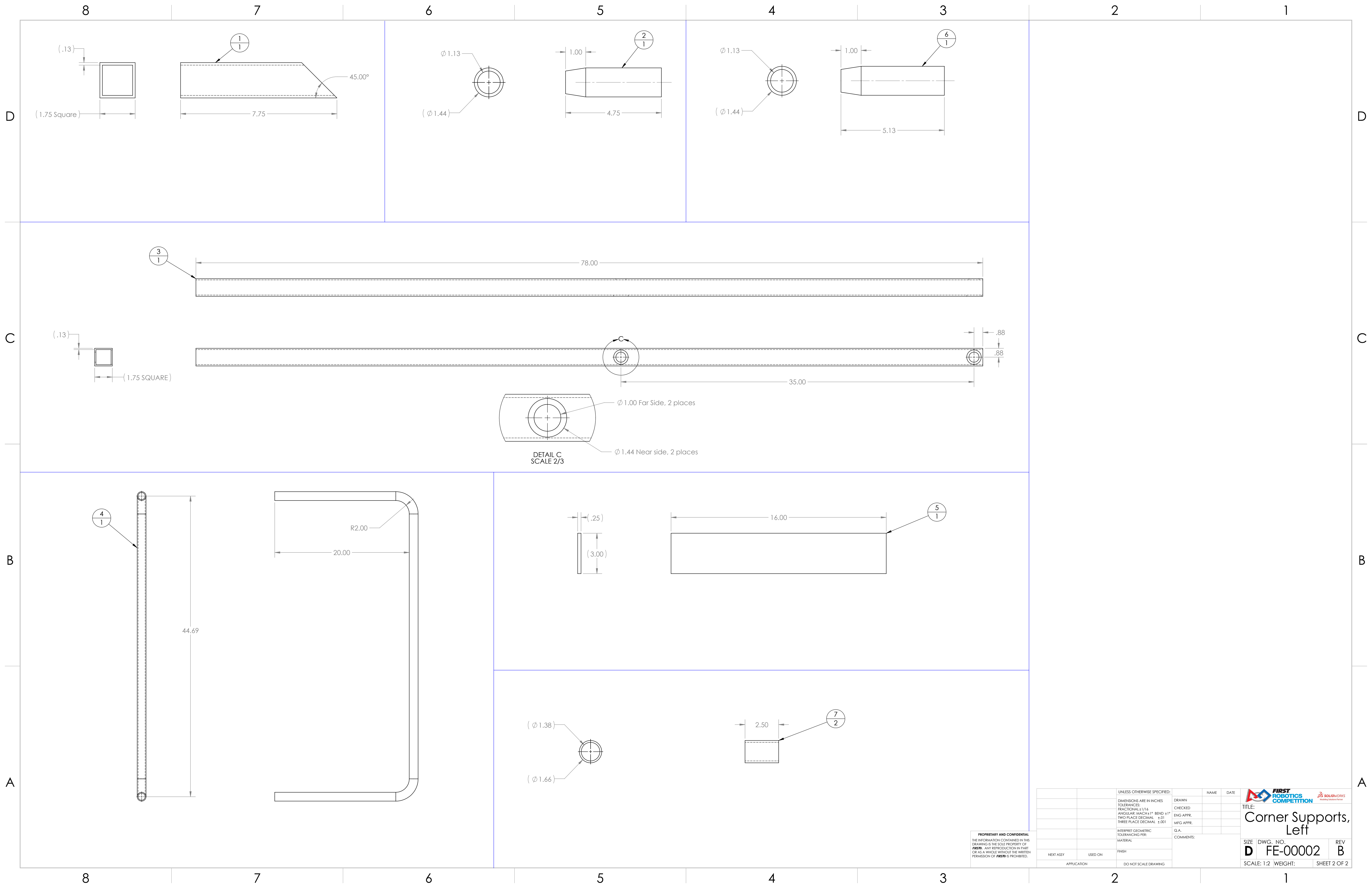




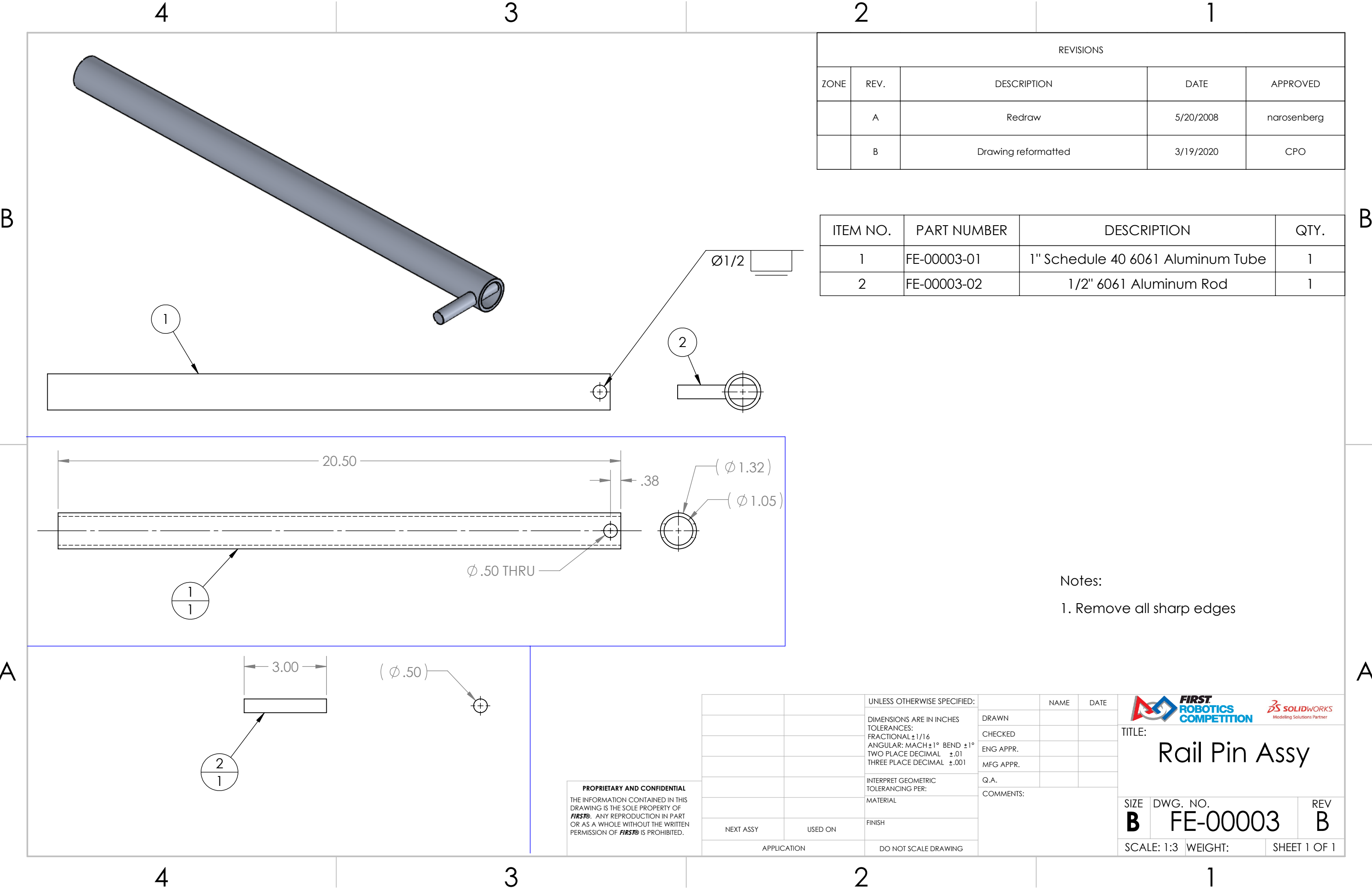
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UNLESS OTHERWISE SPECIFIED:		DRAWN	NAME	DATE
DIMENSIONS ARE IN INCHES		CHECKED		
TOLERANCES:		ENG APPR.		
FRACTIONAL: ±1/16		MFG APPR.		
ANGULAR: MACH ±1° BEND ±1°				
TWO PLACE DECIMAL: ±.01				
THREE PLACE DECIMAL: ±.001				
INTERPRET GEOMETRIC TOLERANCING PER:		Q.A. COMMENTS:		
MATERIAL				
FINISH				
NEXT ASSY	USED ON			
APPLICATION		DO NOT SCALE DRAWING		

TITLE:		SIZE DWG. NO.		REV
Corner Supports, Left		D FE-00002		B
SCALE: 1:4		WEIGHT:		SHEET 1 OF 2









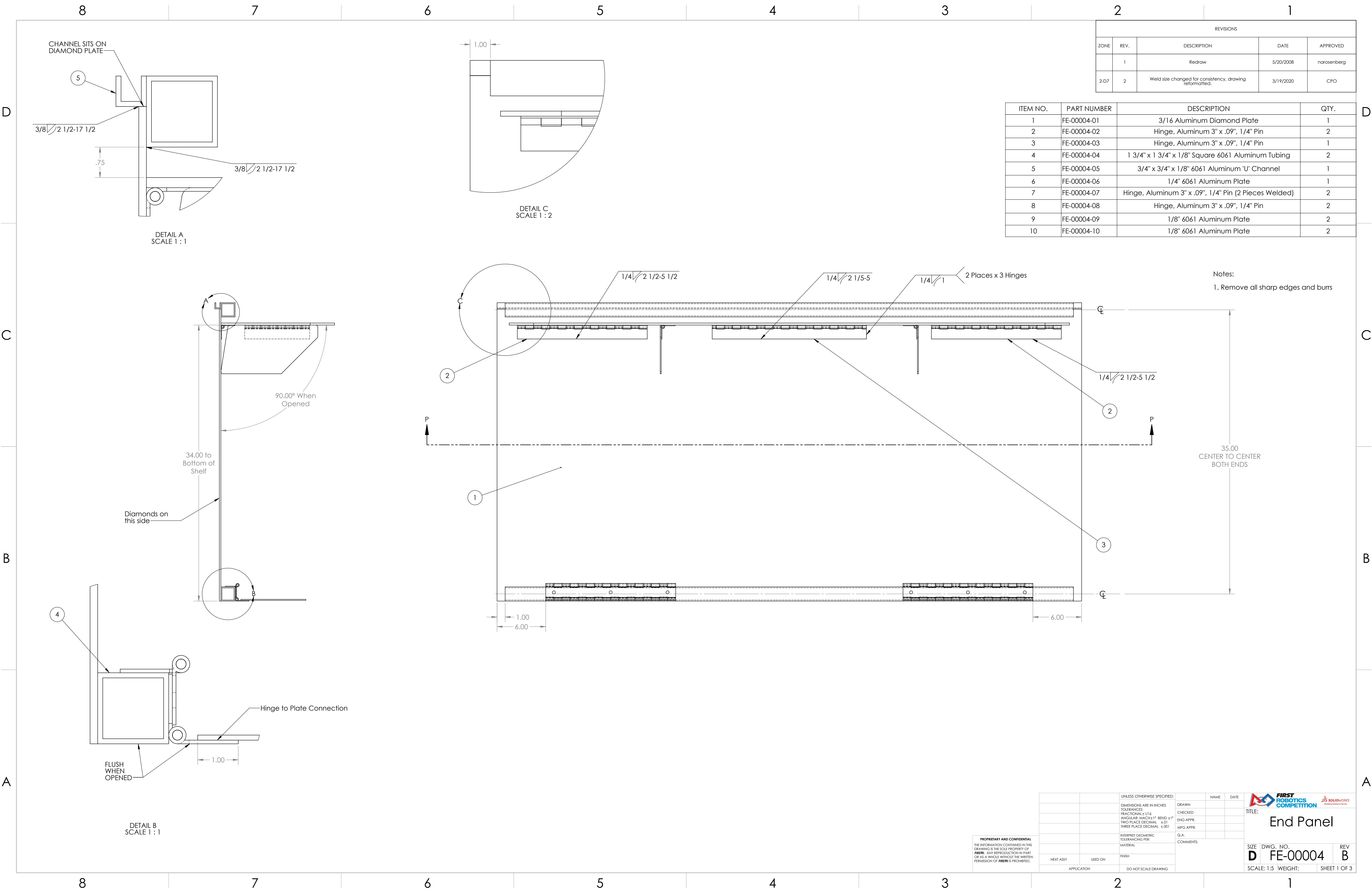
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	Redraw	5/20/2008	narosenberg
	B	Drawing reformatted	3/19/2020	CPO

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-00003-01	1" Schedule 40 6061 Aluminum Tube	1
2	FE-00003-02	1/2" 6061 Aluminum Rod	1

Notes:  
1. Remove all sharp edges

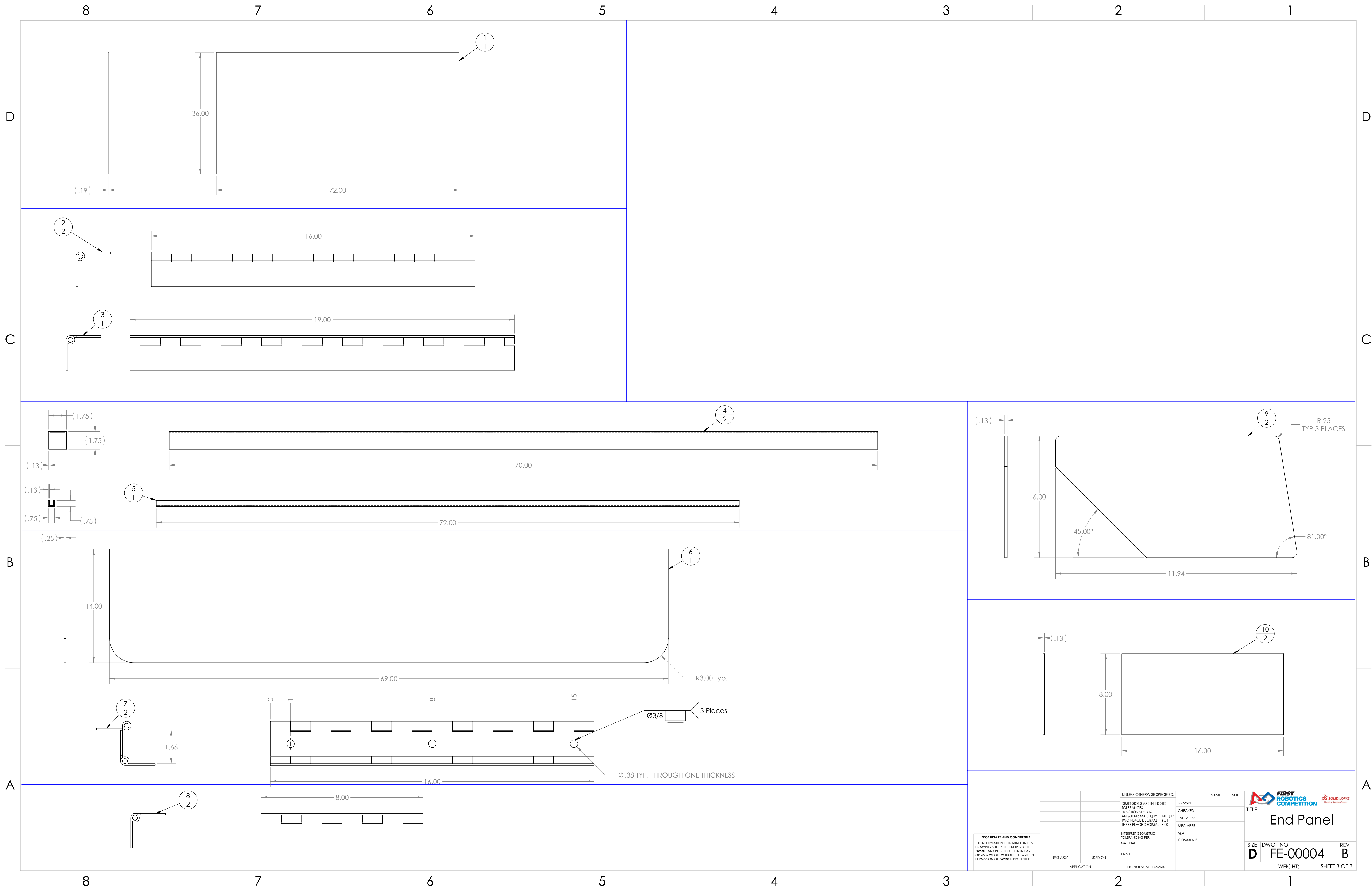
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		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/16 ANGULAR: MACH ± 1° BEND ± 1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.001	DRAWN			TITLE:  Rail Pin Assy				
			CHECKED							
			ENG APPR.							
			MFG APPR.							
			Q.A.							
		INTERPRET GEOMETRIC TOLERANCING PER:	COMMENTS:			SIZE DWG. NO. REV <b>B</b> FE-00003 <b>B</b>				
		MATERIAL								
		FINISH								
NEXT ASSY	USED ON									
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:3		WEIGHT:	SHEET 1 OF 1	













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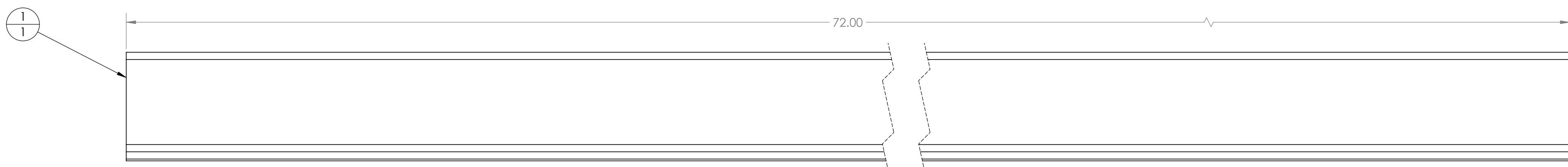
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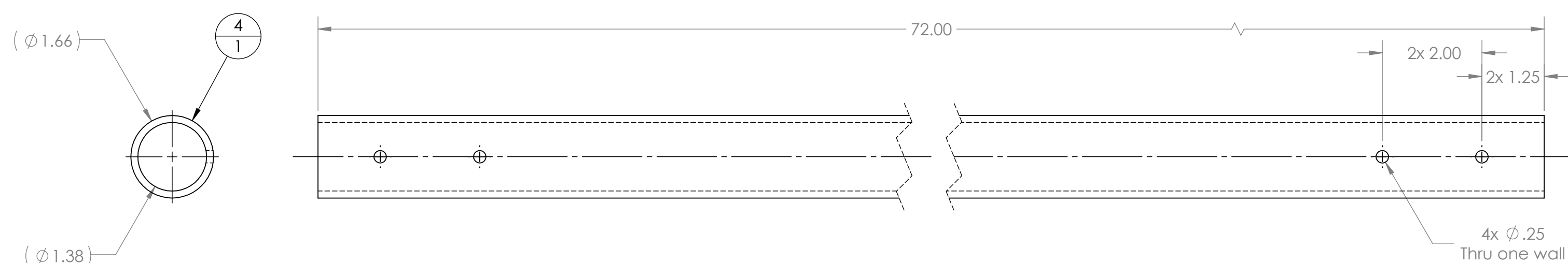
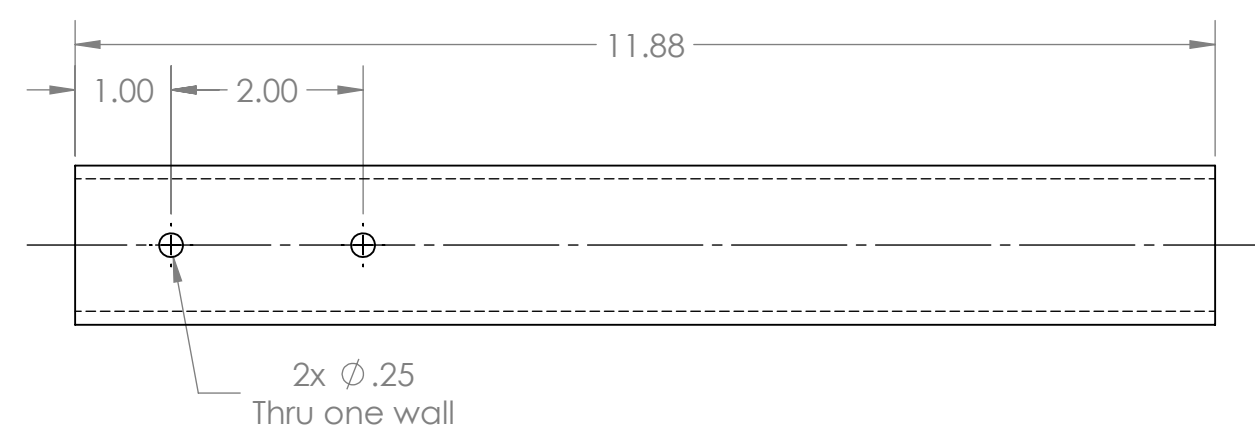
2

1

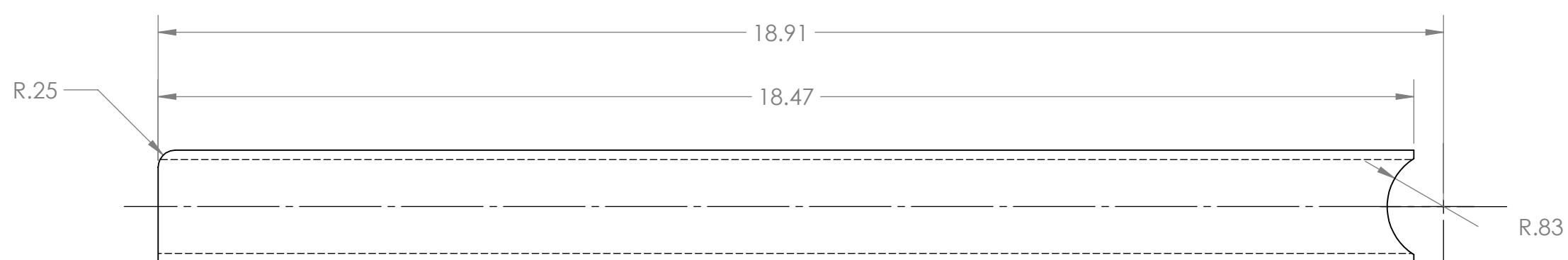
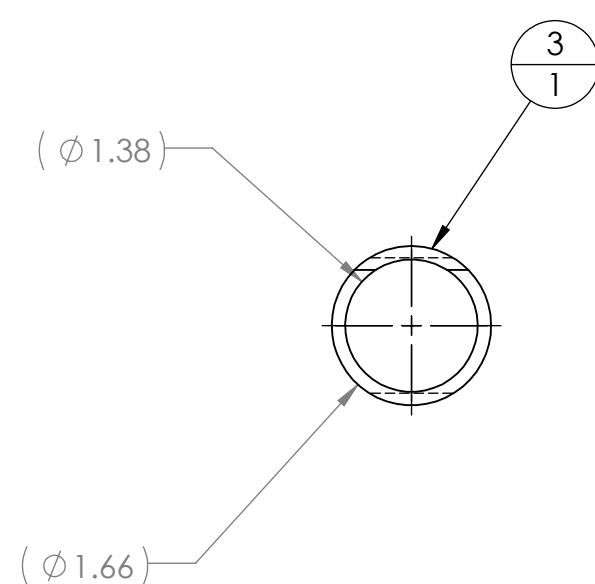
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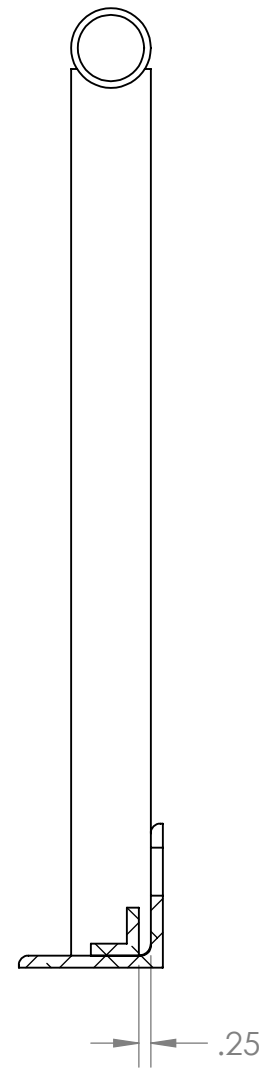
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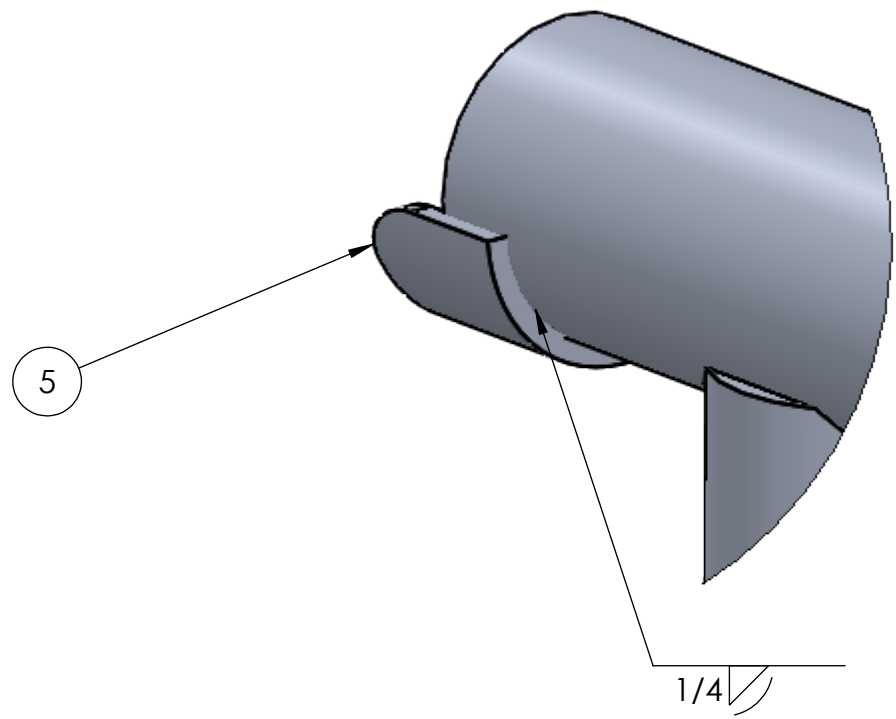
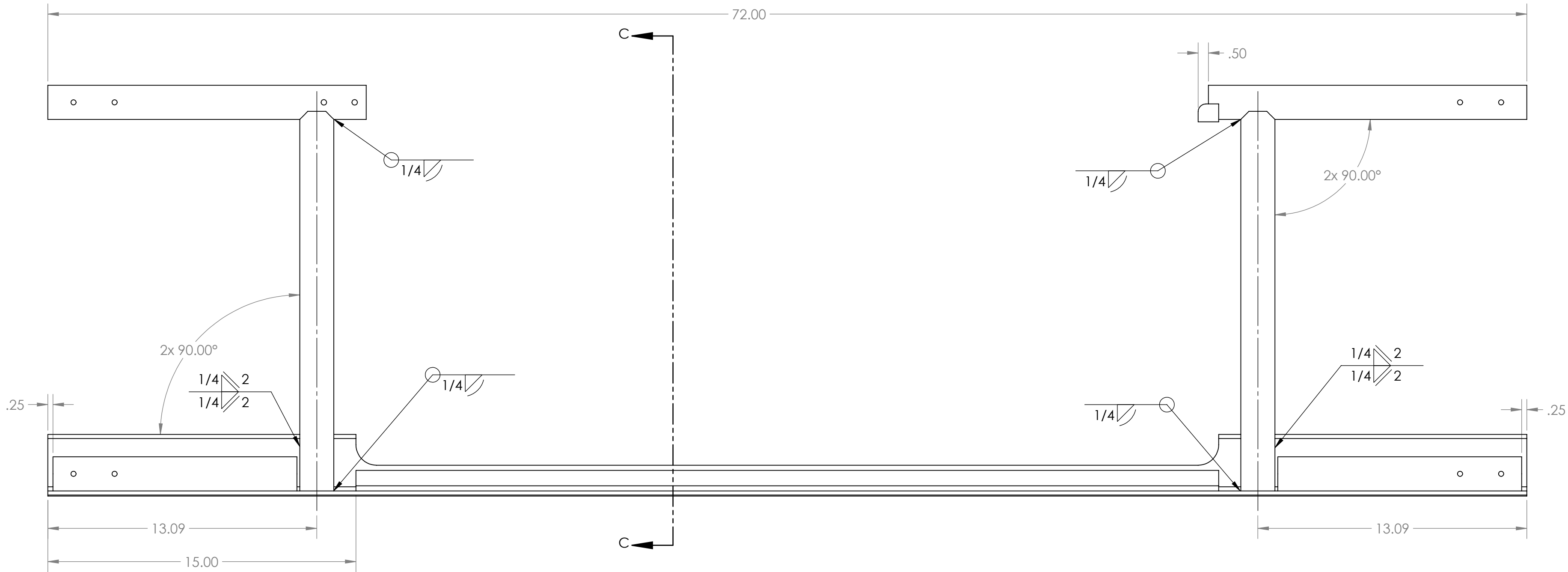
A

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			INTERPRET GEOMETRIC TOLERANCING PER:  MATERIAL	G.A.  COMMENTS:			
	NEXT ASSY	USED ON	FINISH				
	APPLICATION		DO NOT SCALE DRAWING				
				SIZE DWG. NO.		REV	
				D FE-00005		B	
				SCALE: 1:2 WEIGHT:		SHEET 2 OF 2	

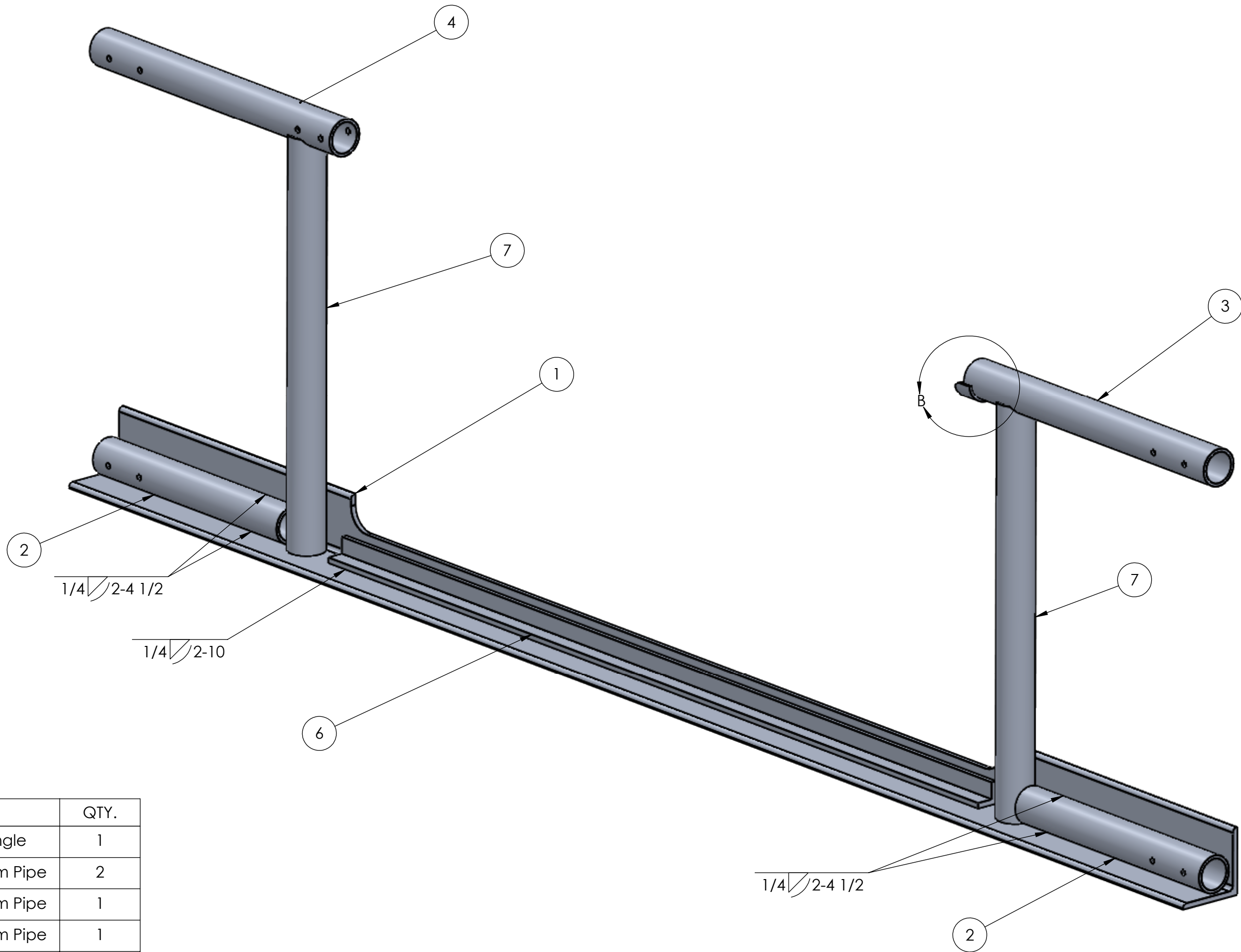
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	Redrawn	8/7/2008	narosenberg
A7, 2-B6, 3-C6	B	Parts renumbered, drawing reformatted, hole diameter updated, hole changed to thru one wall for consistency.	3/20/2020	CPO



SECTION C-C



DETAIL B  
SCALE 1 : 1





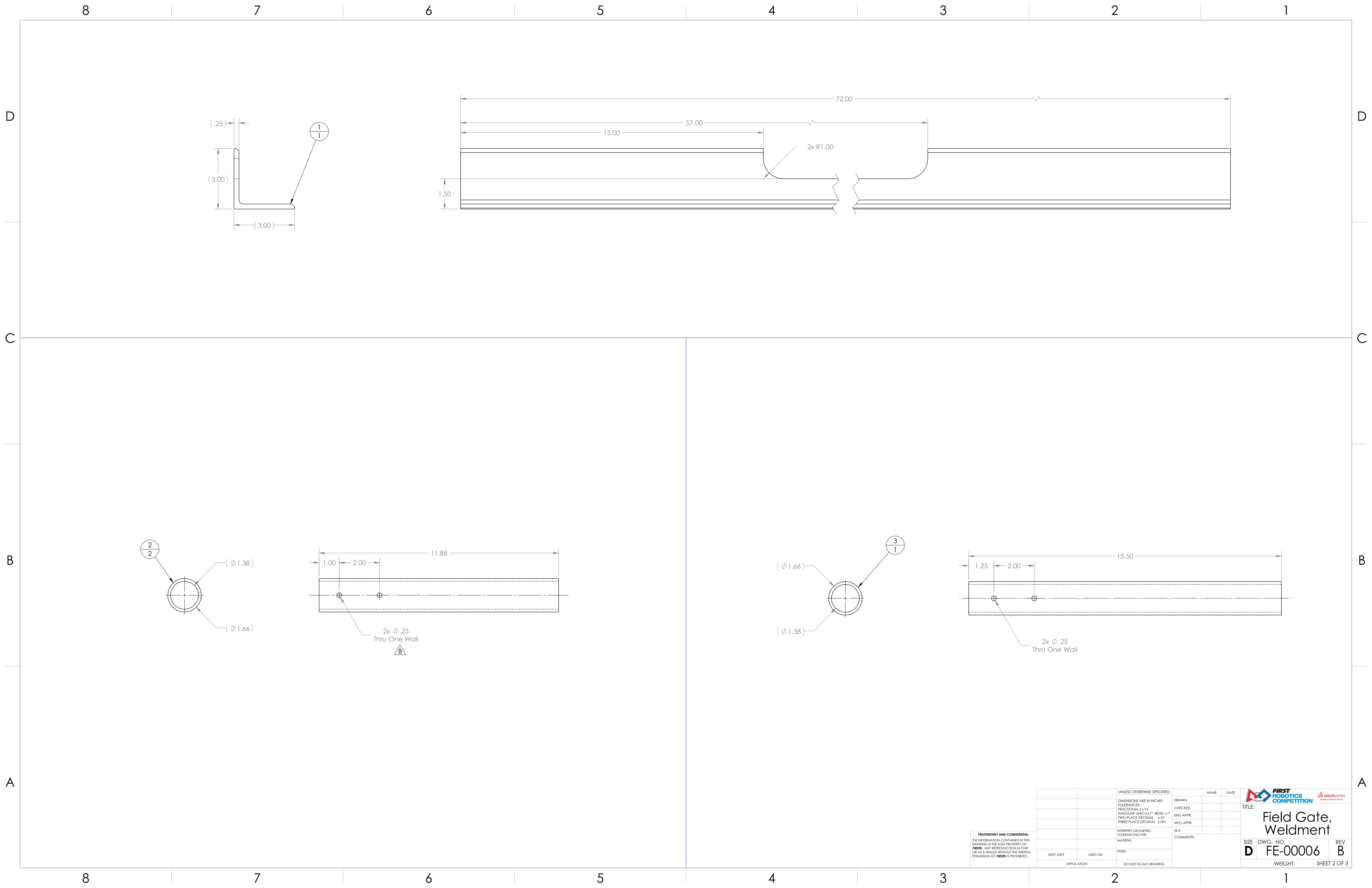
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-00006-01	3" x 3" x 1/4" 6061-T6 Aluminum Angle	1
2	FE-00006-02	1-1/4" Schedule 40 6061-T6 Aluminum Pipe	2
3	FE-00006-03	1-1/4" Schedule 40 6061-T6 Aluminum Pipe	1
4	FE-00006-04	1-1/4" Schedule 40 6061-T6 Aluminum Pipe	1
5	FE-00006-05	1-1/2" Schedule 40 6061-T6 Aluminum Pipe	1
6	FE-00006-06	1" x 1" x 1/4" 6061-T6 Aluminum Angle	1
7	FE-00006-07	1-1/4" Schedule 40 6061-T6 Aluminum Pipe	2



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DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.001	DRAWN		
	CHECKED		
	ENG APPR.		
	MFG APPR.		
INTERPRET GEOMETRIC TOLERANCING PER:		Q.A. COMMENTS:	
MATERIAL			
FINISH			
NEXT ASSY	USED ON		
APPLICATION		DO NOT SCALE DRAWING	

 		TITLE: <b>Field Gate, Weldment</b>	
SIZE <b>D</b>	DWG. NO. <b>FE-00006</b>	REV <b>B</b>	
SCALE: 1:4 WEIGHT:		SHEET 1 OF 3	

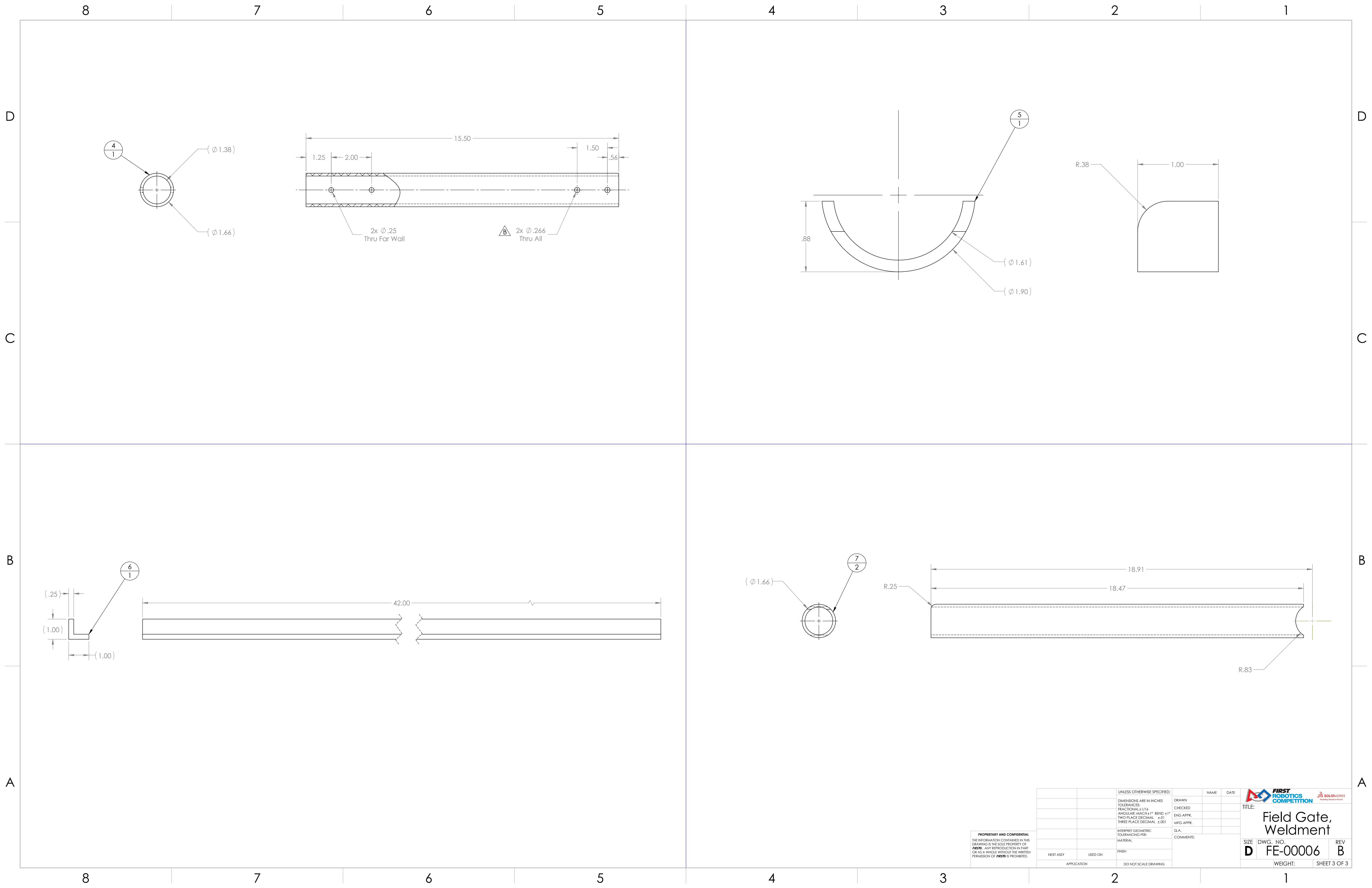


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		DIMENSIONS ARE IN INCHES	DRAWN		
		TOLERANCES:	CHECKED		
		FRACTIONAL: $\pm 1/16$	ENG APPR.		
		ANGULAR: $MACH \pm 1^\circ$ BEND $\pm 1^\circ$	MFG APPR.		
		TWO PLACE DECIMAL $\pm .01$			
		THREE PLACE DECIMAL $\pm .001$			
		INTERPRET GEOMETRIC TOLERANCING PER:			
		MATERIAL			
		FINISH			
NEXT ASSY	USED ON				
APPLICATION		DO NOT SCALE DRAWING			

		 	
		TITLE: <b>Field Gate, Weldment</b>	
SIZE	DWG. NO.	REV	
<b>D</b>	<b>FE-00006</b>	<b>B</b>	
WEIGHT:		SHEET 2 OF 3	

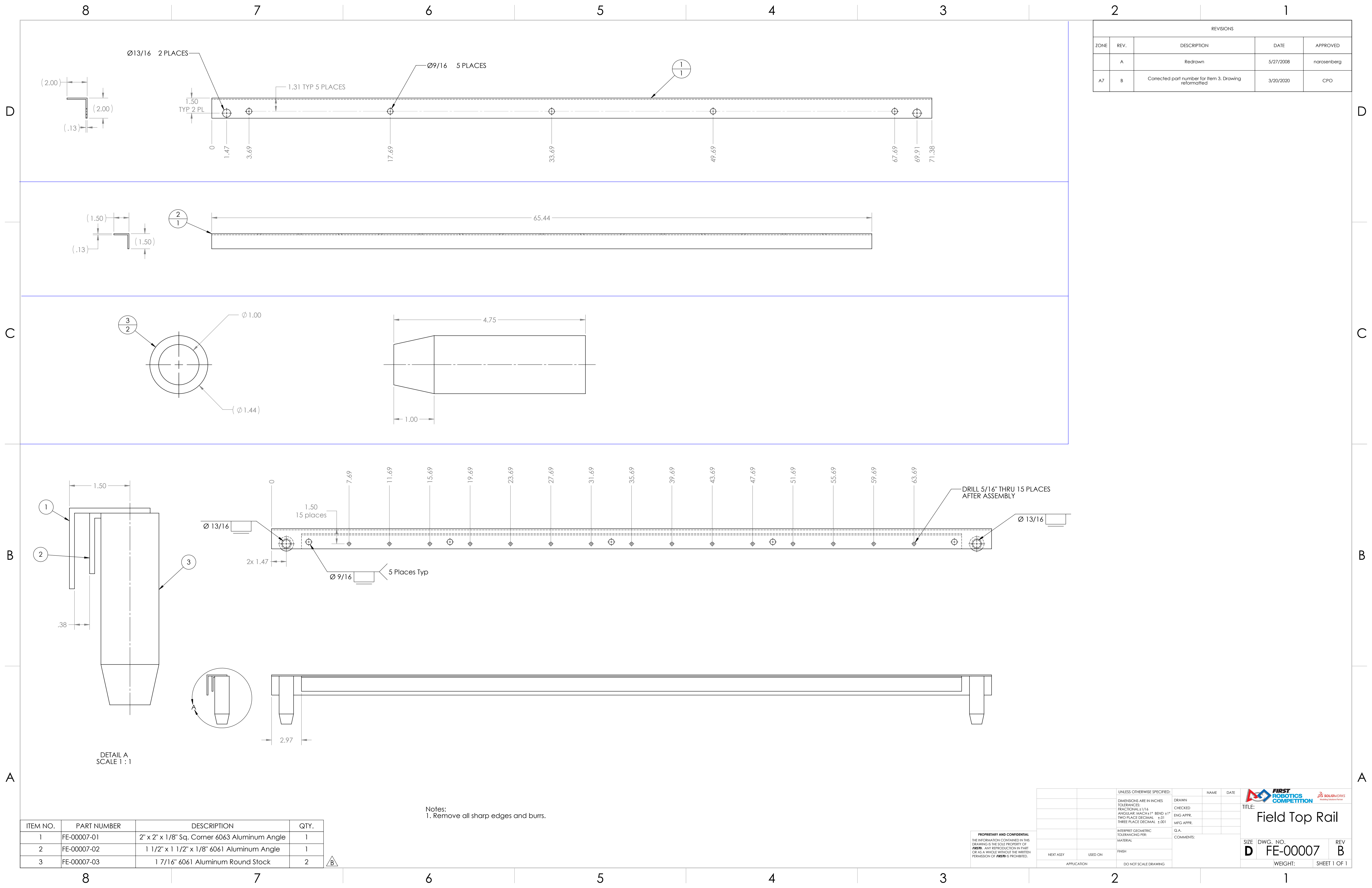


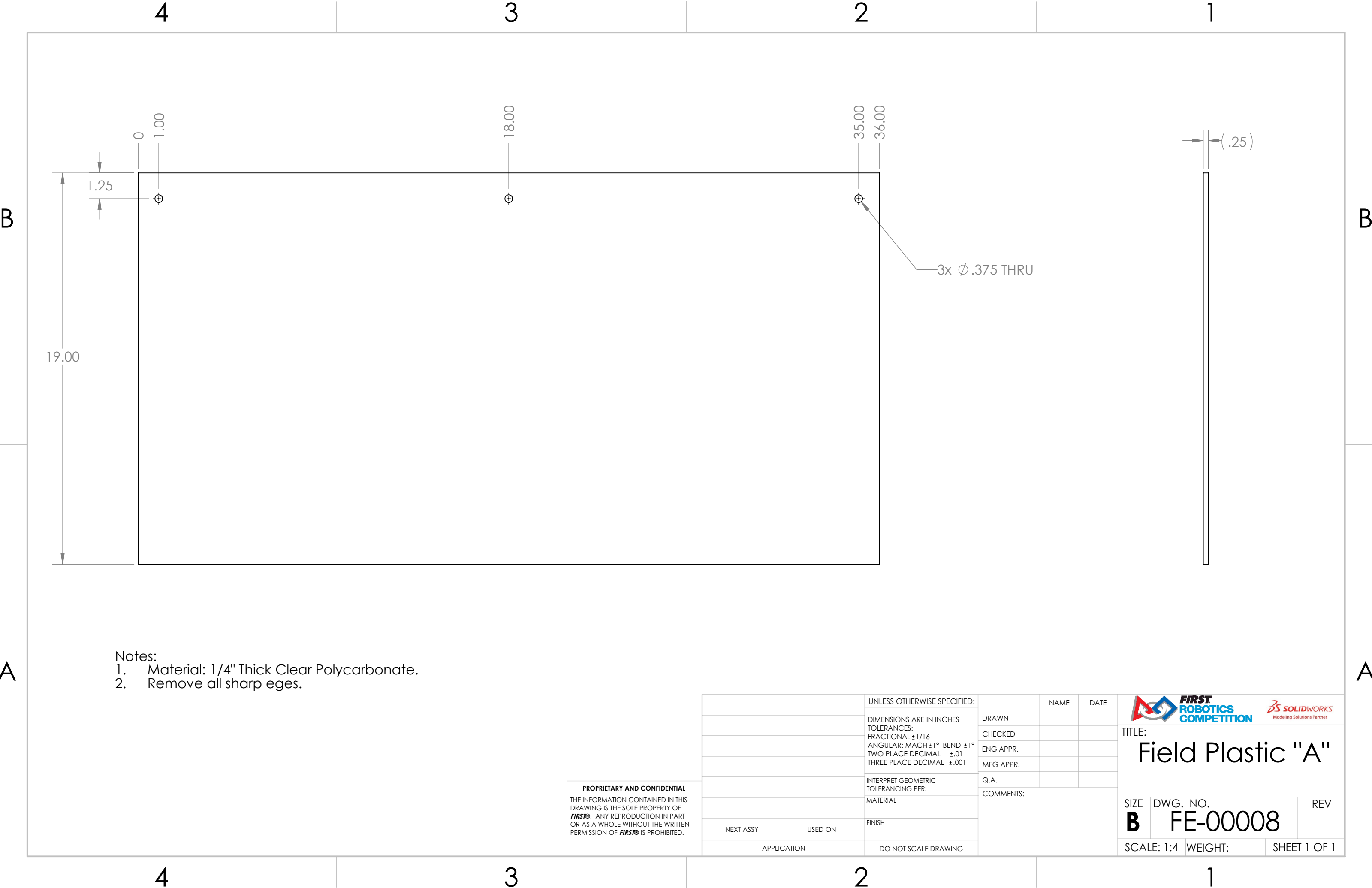


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UNLESS OTHERWISE SPECIFIED:		DRAWN	NAME	DATE
DIMENSIONS ARE IN INCHES		CHECKED		
TOLERANCES:		ENG APPR.		
FRACTIONAL: ±1/16		MFG APPR.		
ANGULAR: MACH ±1° BEND ±1°		Q.A.		
TWO PLACE DECIMAL ±.01		COMMENTS:		
THREE PLACE DECIMAL ±.001				
INTERPRET GEOMETRIC TOLERANCING PER:				
MATERIAL				
FINISH				
NEXT ASSY	USED ON			
APPLICATION		DO NOT SCALE DRAWING		



FIRST ROBOTICS COMPETITION		SOLIDWORKS Modeling Solutions Partner
TITLE:		Field Gate, Weldment
SIZE	DWG. NO.	REV
D	FE-00006	B
WEIGHT:		SHEET 3 OF 3

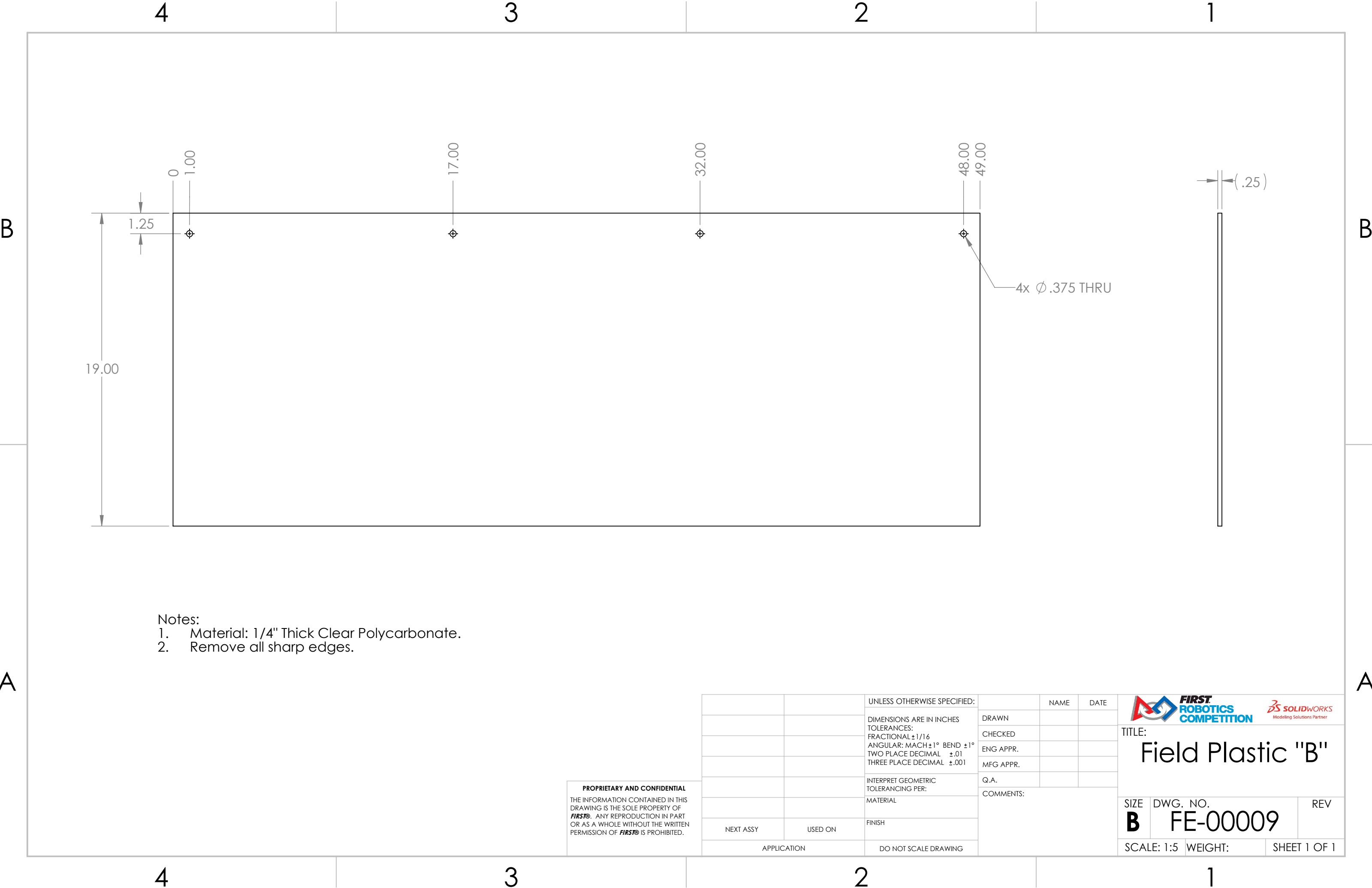






- Notes:
- 1. Material: 1/4" Thick Clear Polycarbonate.
  - 2. Remove all sharp edges.

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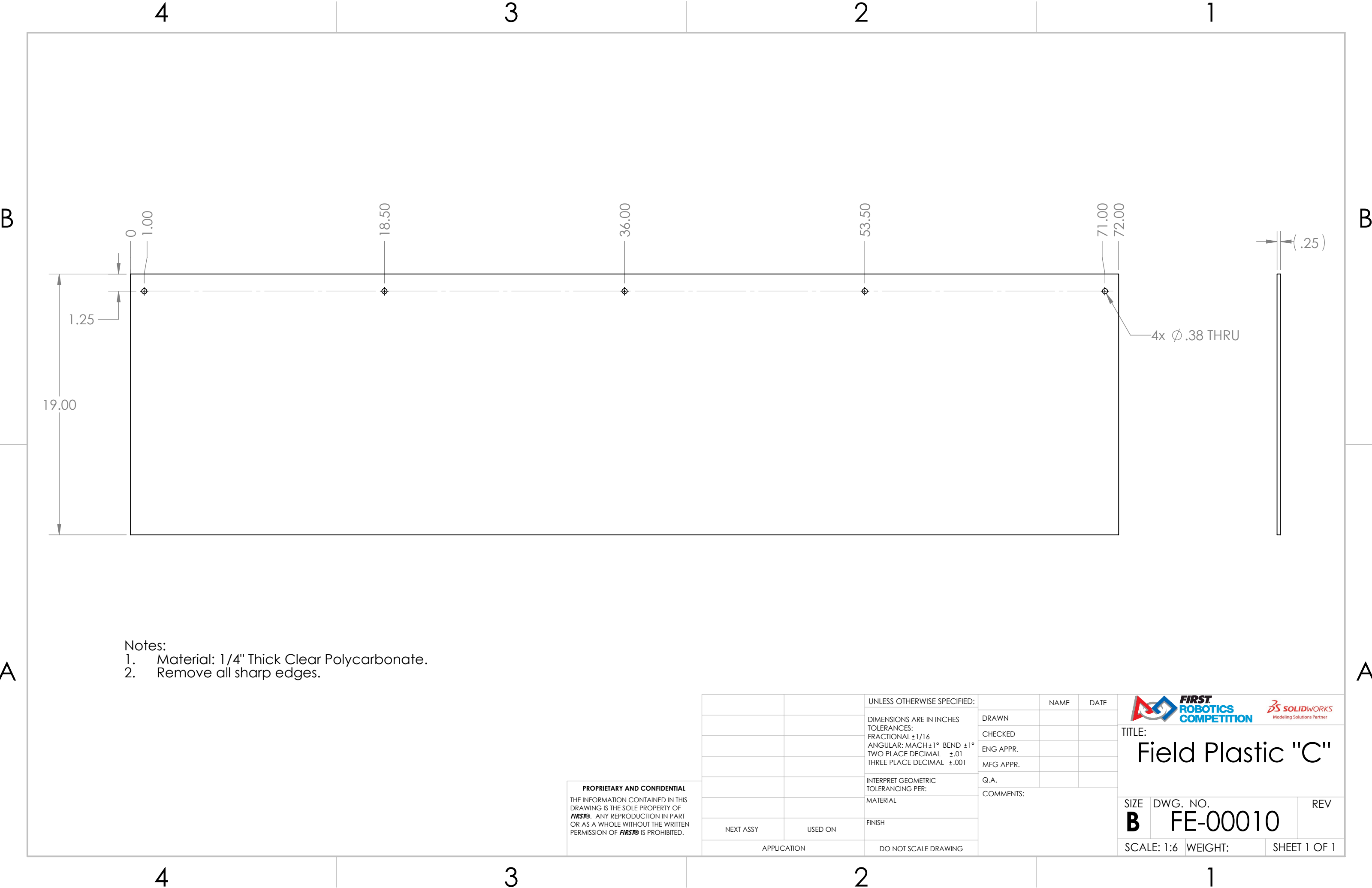
		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	<div><div>FIRST ROBOTICS COMPETITION</div></div> <div><div>SOLIDWORKS Modeling Solutions Partner</div></div>			
		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.001	DRAWN			TITLE:  Field Plastic "A"			
			CHECKED						
			ENG APPR.						
			MFG APPR.						
			Q.A.						
		INTERPRET GEOMETRIC TOLERANCING PER:	COMMENTS:			SIZE DWG. NO. REV  B FE-00008			
		MATERIAL							
		FINISH							
NEXT ASSY	USED ON								
APPLICATION		DO NOT SCALE DRAWING							



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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	<div></div>		
		DIMENSIONS ARE IN INCHES	DRAWN			TITLE:  Field Plastic "B"		
		TOLERANCES:	CHECKED					
		FRACTIONAL $\pm 1/16$	ENG APPR.					
		ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$	MFG APPR.					
		TWO PLACE DECIMAL $\pm .01$	Q.A.					
		THREE PLACE DECIMAL $\pm .001$	COMMENTS:			SIZE DWG. NO. REV  <b>B</b> FE-00009		
		INTERPRET GEOMETRIC TOLERANCING PER:						
		MATERIAL						
		FINISH				SCALE: 1:5 WEIGHT: SHEET 1 OF 1		
NEXT ASSY	USED ON							
APPLICATION		DO NOT SCALE DRAWING						





Notes:

- 1. Material: 1/4" Thick Clear Polycarbonate.
- 2. Remove all sharp edges.

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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE
		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .001$	DRAWN		
			CHECKED		
			ENG APPR.		
			MFG APPR.		
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.		
		MATERIAL	COMMENTS:		
		FINISH			
NEXT ASSY	USED ON				
APPLICATION		DO NOT SCALE DRAWING			
			TITLE: Field Plastic "C"		
SIZE <b>B</b>	DWG. NO. <b>FE-00010</b>	REV			
SCALE: 1:6	WEIGHT:	SHEET 1 OF 1			

1



B

41.50

Notes:

**PROPRIETARY AND CONFIDENTIAL**

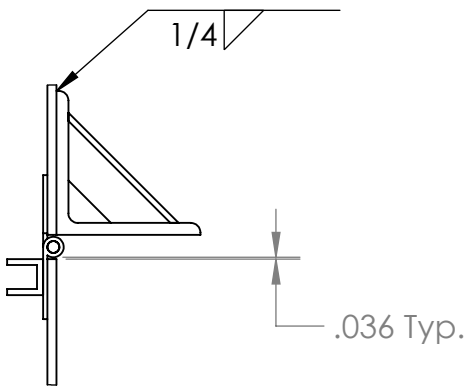
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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	 <b>FIRST</b> <b>ROBOTICS</b> <b>COMPETITION</b> 		
		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .001$	DRAWN			TITLE: <h1>Drivers Station Acrylic</h1>		
			CHECKED					
			ENG APPR.			SIZE DWG. NO. REV <b>B</b> FE-00012		
			MFG APPR.					
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.			SCALE: 1:8 WEIGHT: SHEET 1 OF 1		
		MATERIAL	COMMENTS:					
		FINISH						
NEXT ASSY	USED ON							
APPLICATION		DO NOT SCALE DRAWING						

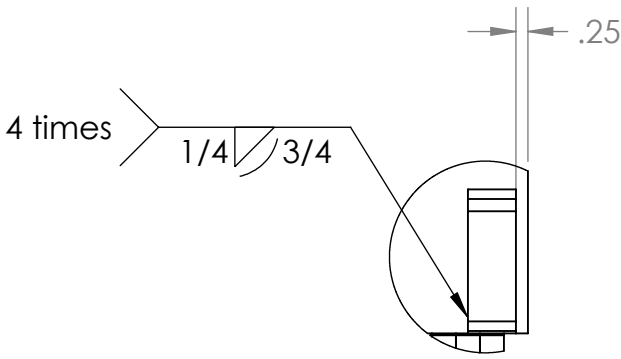
1

A

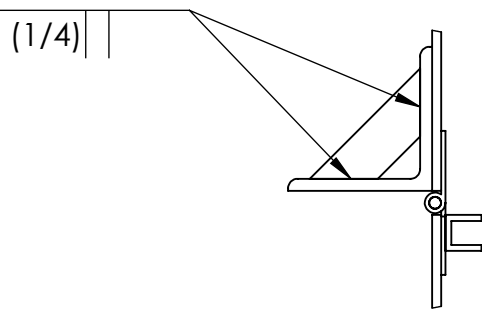
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	Redrawn	5/27/2008	narosenberg
	B	Drawing Reformatted	3/20/2020	CPO



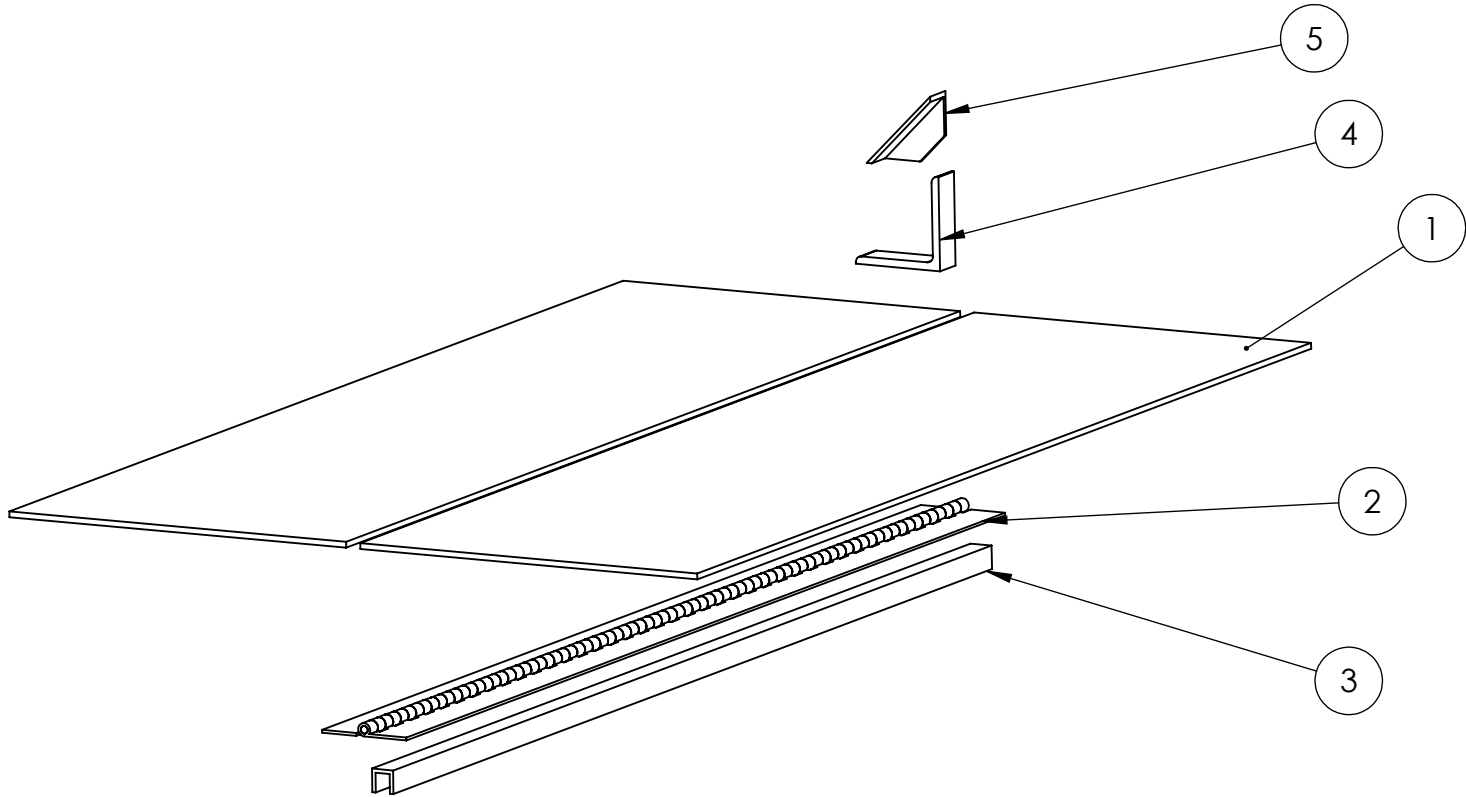
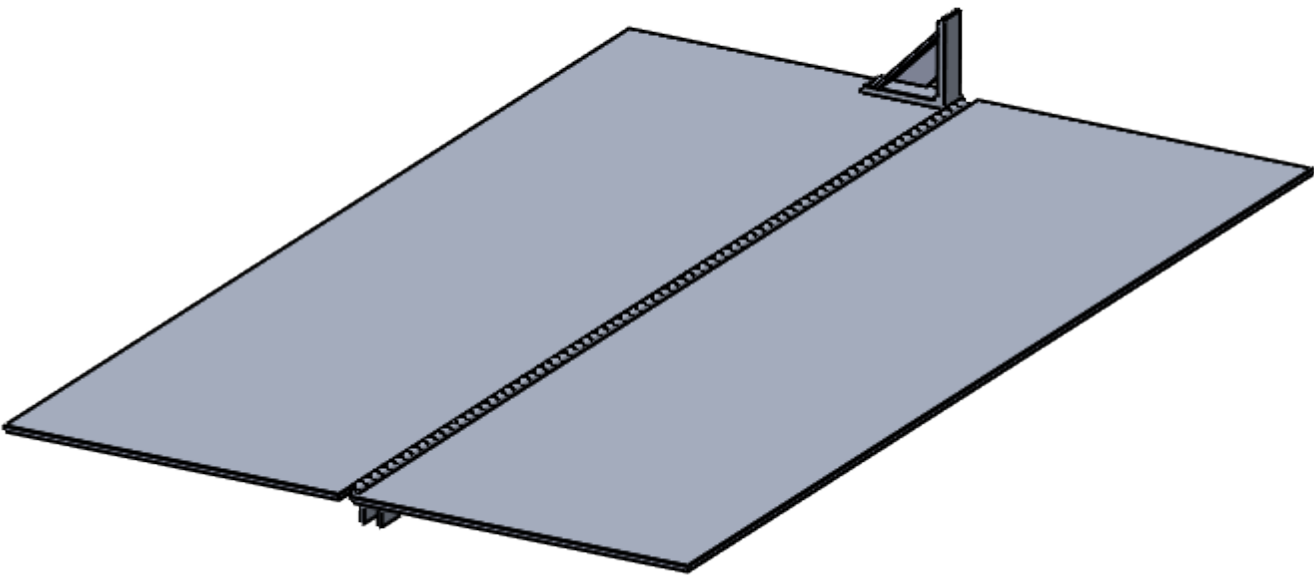
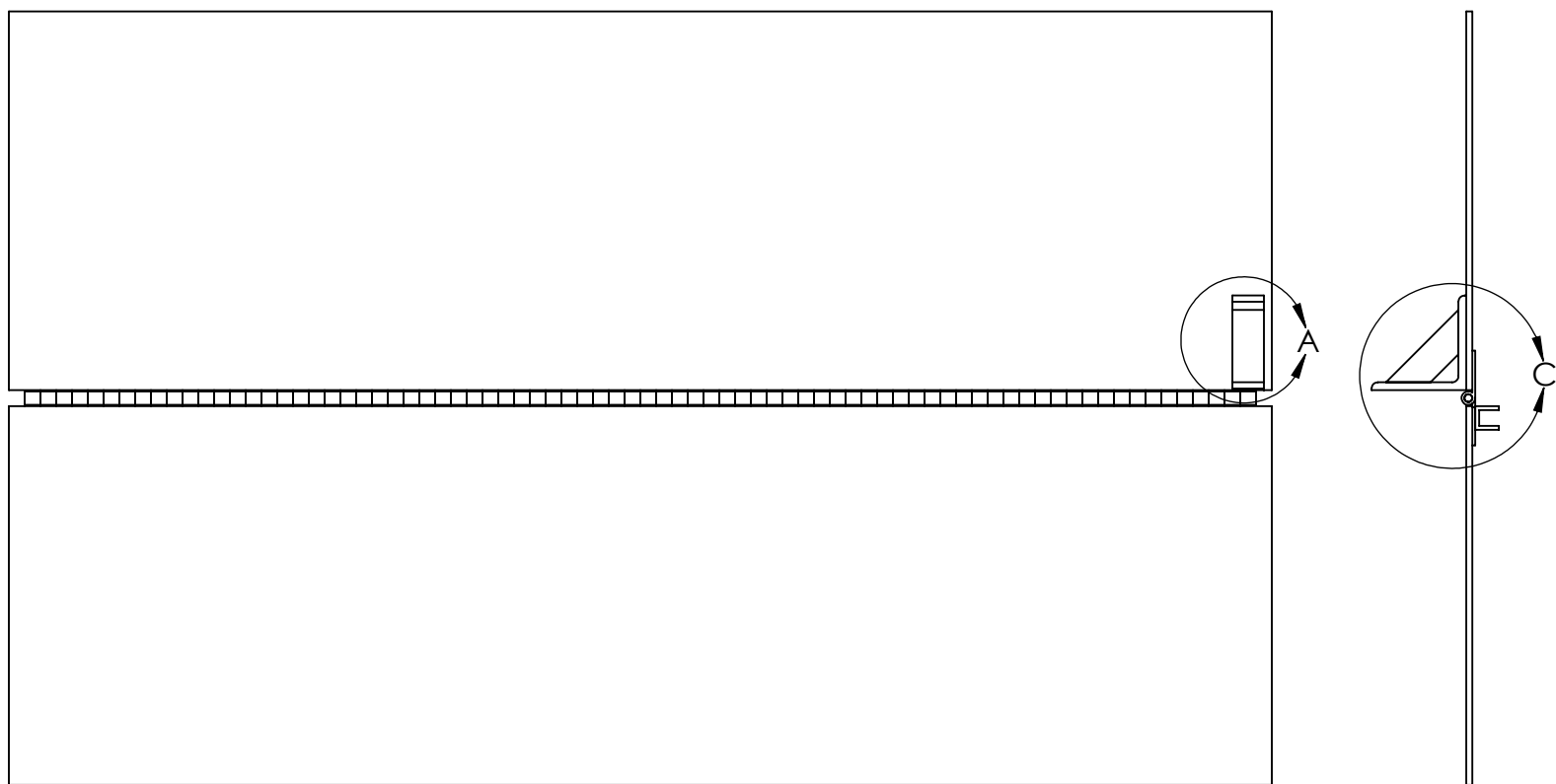
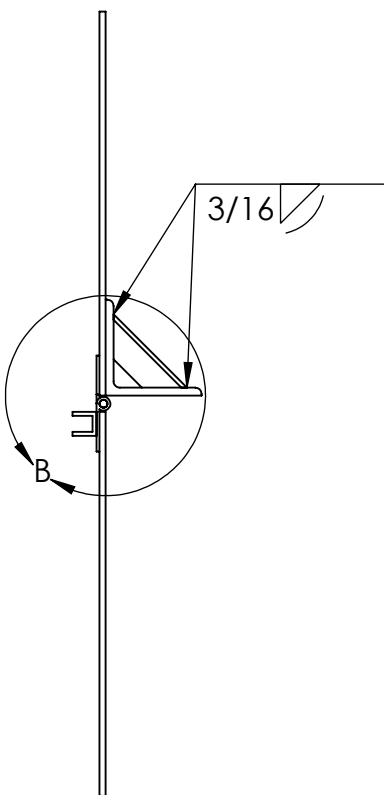
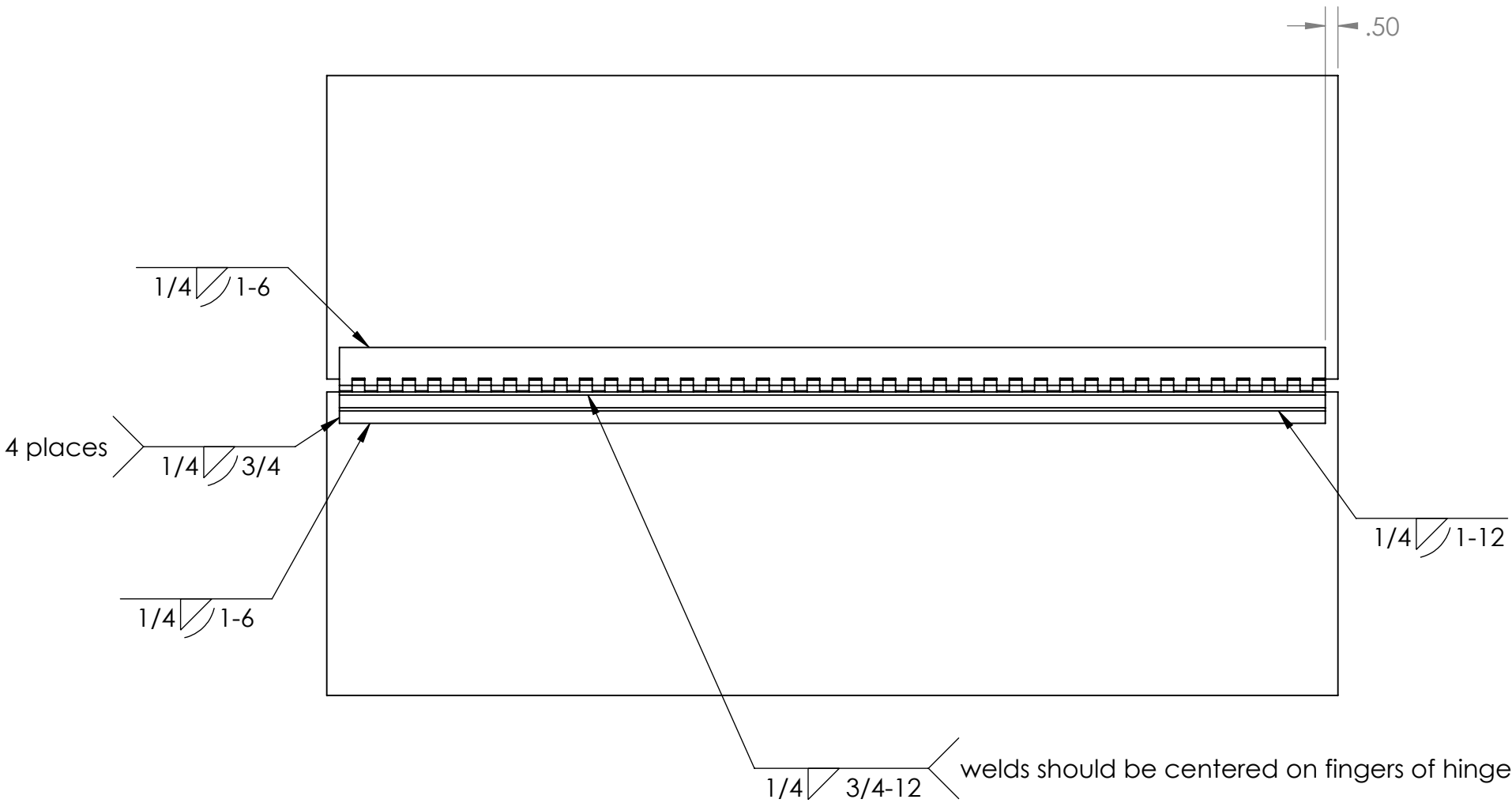
DETAIL B  
SCALE 1 : 4



DETAIL A  
SCALE 1 : 4





DETAIL C  
SCALE 1 : 4

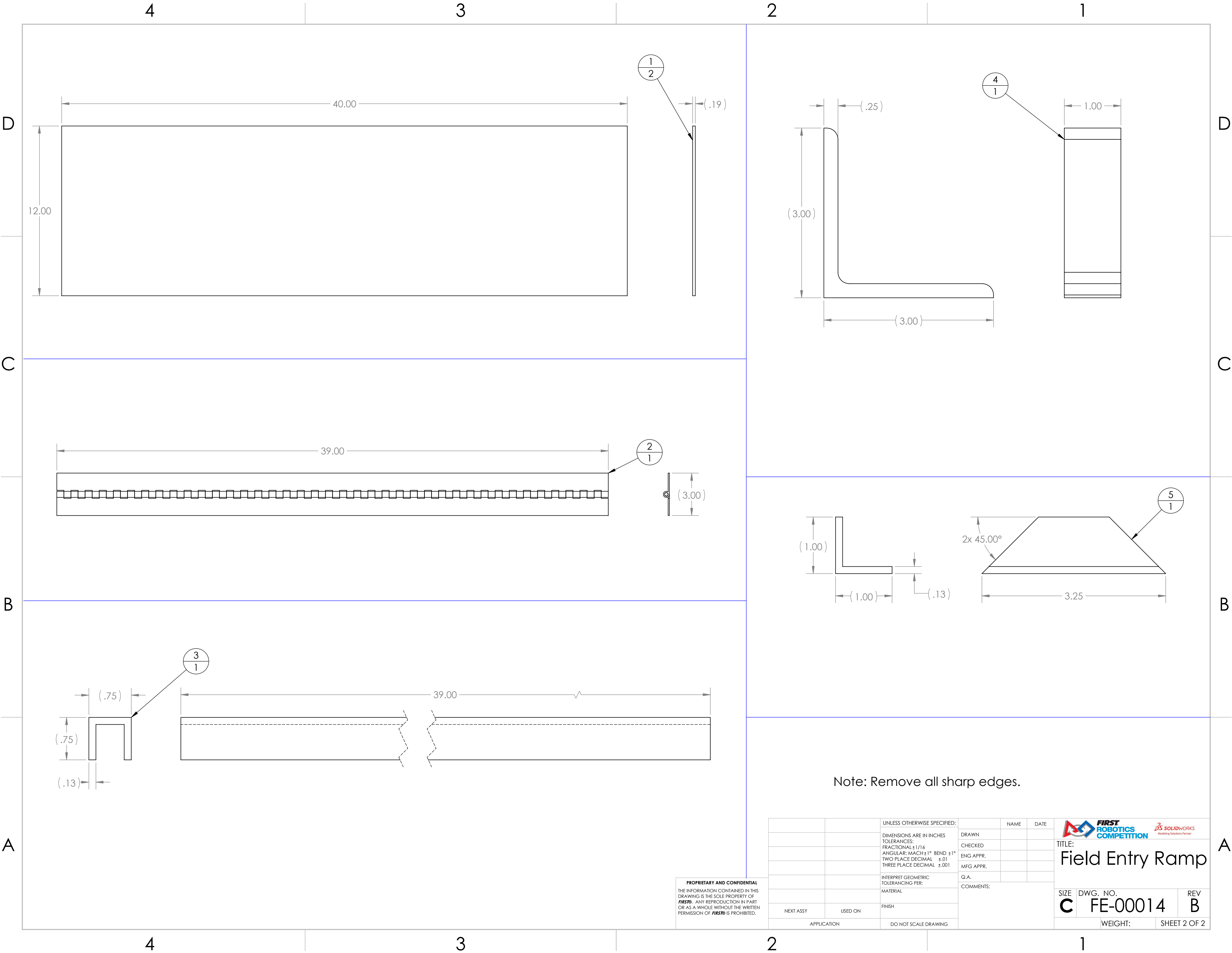


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-00014-01	3/16" 3003 Aluminum Diamond Plate	2
2	FE-00014-02	3" Aluminum Hinge, 1/4" Pin	1
3	FE-00014-03	3/4" x 3/4" x 1/8" 6061-T6 Aluminum 'U' Channel	1
4	FE-00014-04	3" x 3" x 1/4" 6061-T6 Aluminum Angle	1
5	FE-00014-05	1" x 1" x 1/8" 6061-T6 Aluminum Angle	1



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DIMENSIONS ARE IN INCHES		DRAWN	
TOLERANCES:		CHECKED	
FRACTIONAL: 1/16		ENG APPR.	
ANGULAR: MACH ±1° BEND ±1°		MFG APPR.	
TWO PLACE DECIMAL ±.01		Q.A.	
THREE PLACE DECIMAL ±.001		COMMENTS:	
INTERPRET GEOMETRIC TOLERANCING PER:			
MATERIAL			
FINISH			
NEXT ASSY	USED ON		
APPLICATION			
DO NOT SCALE DRAWING			

		 Modeling Solutions Partner	
TITLE: Field Entry Ramp			
SIZE <b>C</b>	DWG. NO. <b>FE-00014</b>		REV <b>B</b>
SCALE: 1/6 WEIGHT:		SHEET 1 OF 2	

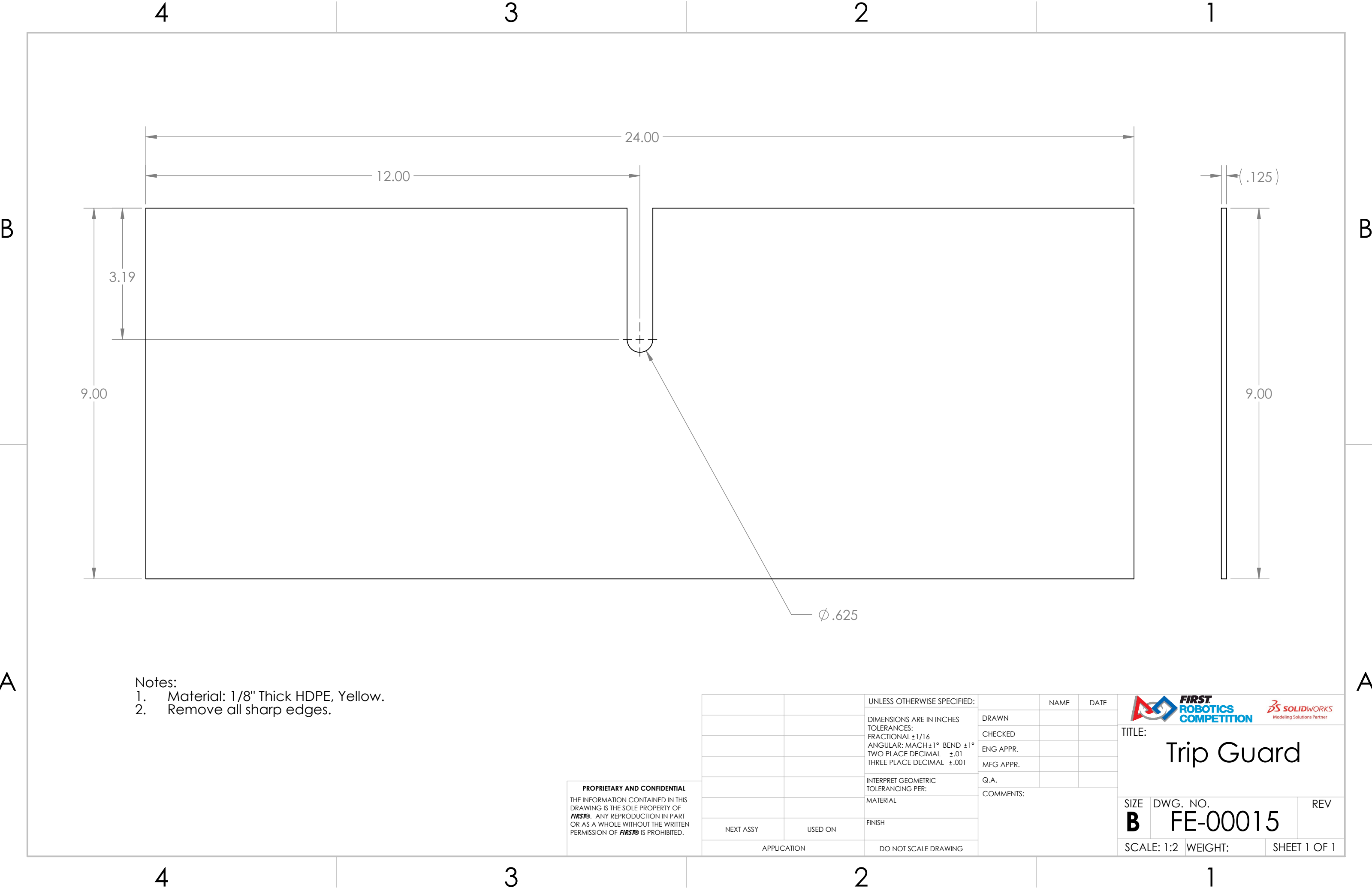


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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	 									
		DIMENSIONS ARE IN INCHES	DRAWN												
		TOLERANCES:	CHECKED												
		FRACTIONAL ±1/16	ENG APPR.												
		ANGULAR: MACH ±1° BEND ±1°	MFG APPR.												
		TWO PLACE DECIMAL ±.01													
		THREE PLACE DECIMAL ±.001													
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.												
		MATERIAL	COMMENTS:												
NEXT ASSY	USED ON	FINISH				TITLE: <h1>Field Entry Ramp</h1> <table><tr><td>SIZE</td><td>DWG. NO.</td><td>REV</td></tr><tr><td>C</td><td>FE-00014</td><td>B</td></tr><tr><td colspan="2">WEIGHT:</td><td>SHEET 2 OF 2</td></tr></table>	SIZE	DWG. NO.	REV	C	FE-00014	B	WEIGHT:		SHEET 2 OF 2
SIZE	DWG. NO.	REV													
C	FE-00014	B													
WEIGHT:		SHEET 2 OF 2													
APPLICATION		DO NOT SCALE DRAWING													









- Notes:
- 1. Material: 1/8" Thick HDPE, Yellow.
  - 2. Remove all sharp edges.

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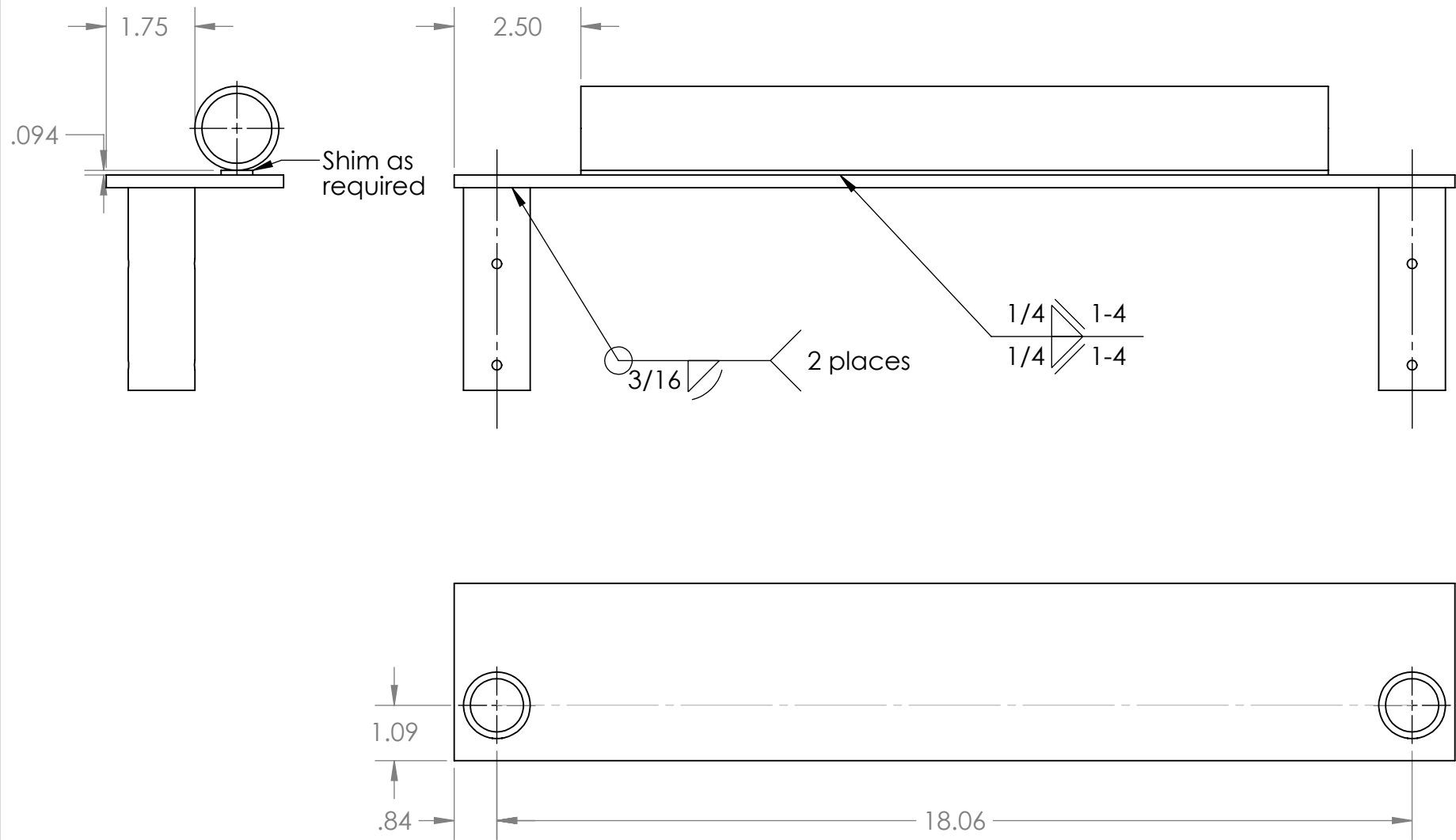
		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	<div></div>		
		DIMENSIONS ARE IN INCHES	DRAWN			TITLE:  Trip Guard		
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		FRACTIONAL $\pm 1/16$	ENG APPR.					
		ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$	MFG APPR.					
		TWO PLACE DECIMAL $\pm .01$	Q.A.					
		THREE PLACE DECIMAL $\pm .001$	COMMENTS:			SIZE DWG. NO. REV  B FE-00015		
		INTERPRET GEOMETRIC TOLERANCING PER:						
		MATERIAL						
		FINISH				SCALE: 1:2 WEIGHT: SHEET 1 OF 1		
NEXT ASSY	USED ON							
APPLICATION		DO NOT SCALE DRAWING						

B

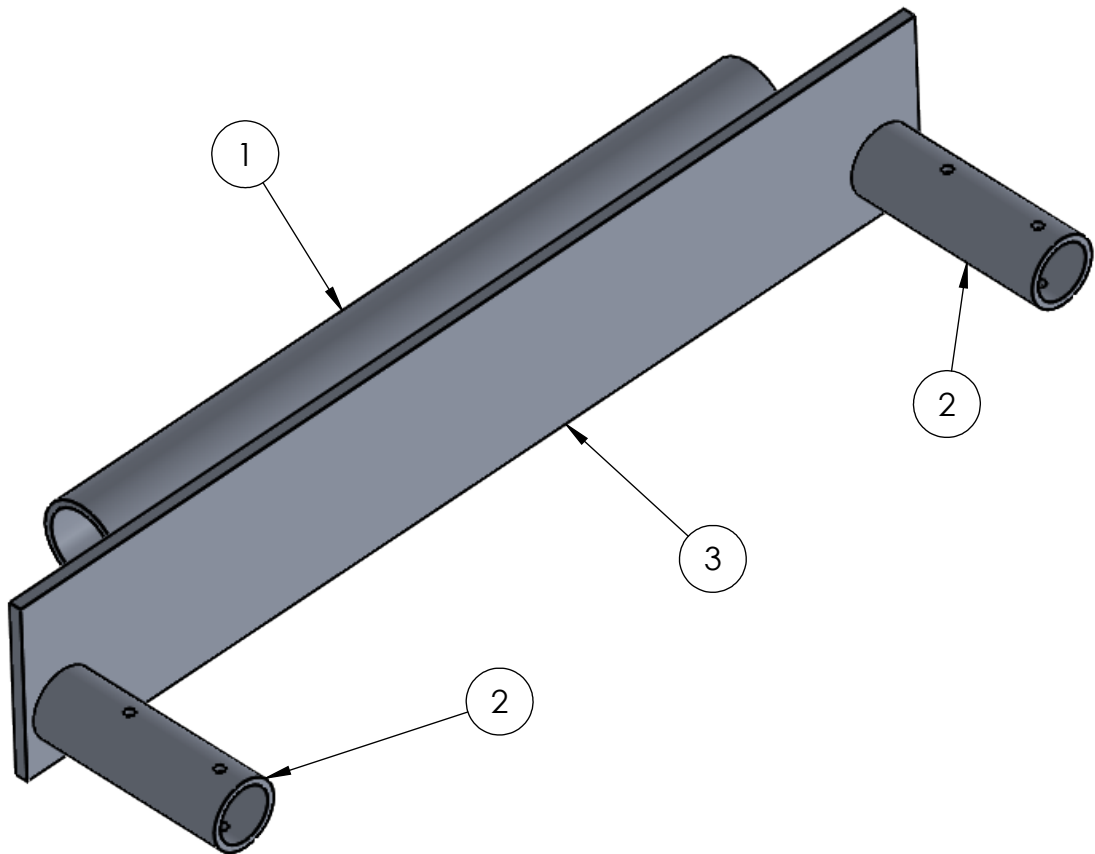
A

B

A





REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	Redrawn	5/30/2008	narosenberg
	B	Drawing reformatted.	3/20/2020	CPO



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-00018-01	1 1/4" Schedule 40 6061-T6 Aluminum Pipe	1
2	FE-00018-02	1" Schedule 40 6061-T6 Aluminum Pipe	2
3	FE-00018-03	3 1/2" x 1/4" 6061-T6 Aluminum Bar	1

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DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .001$	DRAWN		
	CHECKED		
	ENG APPR.		
	MFG APPR.		
INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.		
MATERIAL	COMMENTS:		
FINISH			
NEXT ASSY	USED ON		
APPLICATION		DO NOT SCALE DRAWING	



TITLE:  
**Corner Connector**

SIZE  
**B**

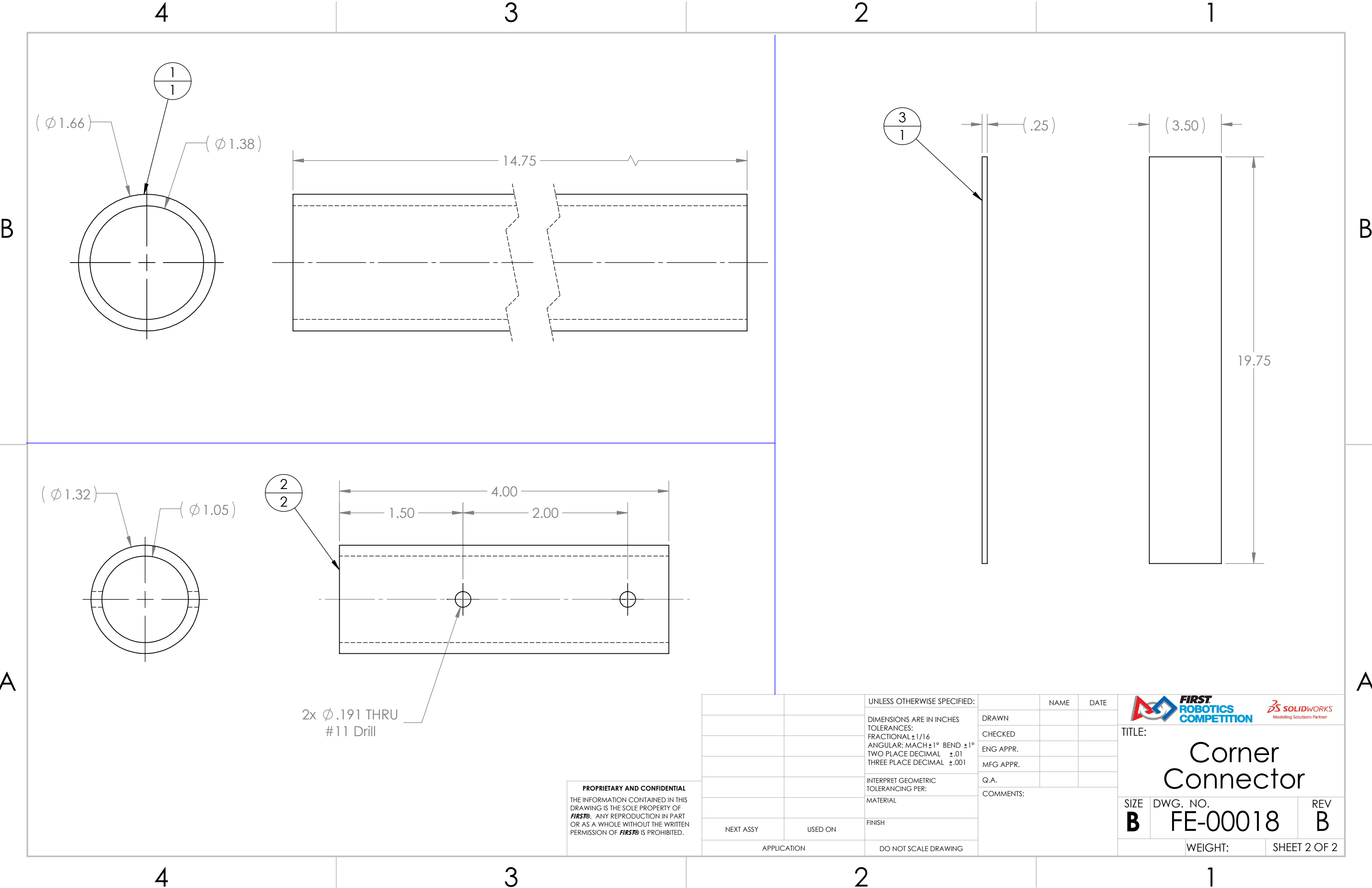
DWG. NO.  
**FE-00018**

REV  
**B**



SCALE: 1:3

WEIGHT:

SHEET 1 OF 2

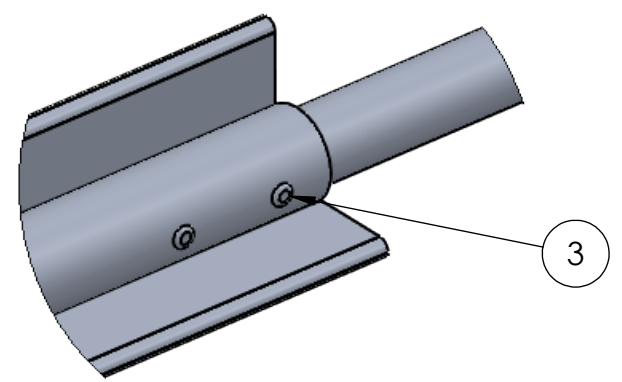
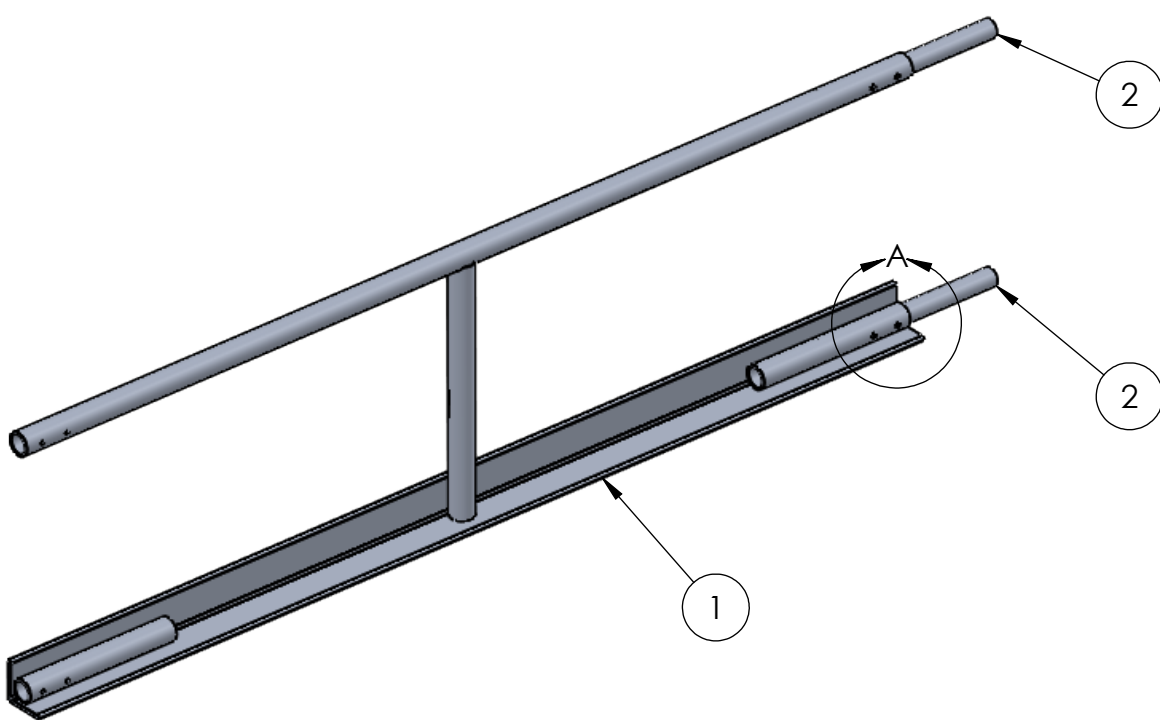
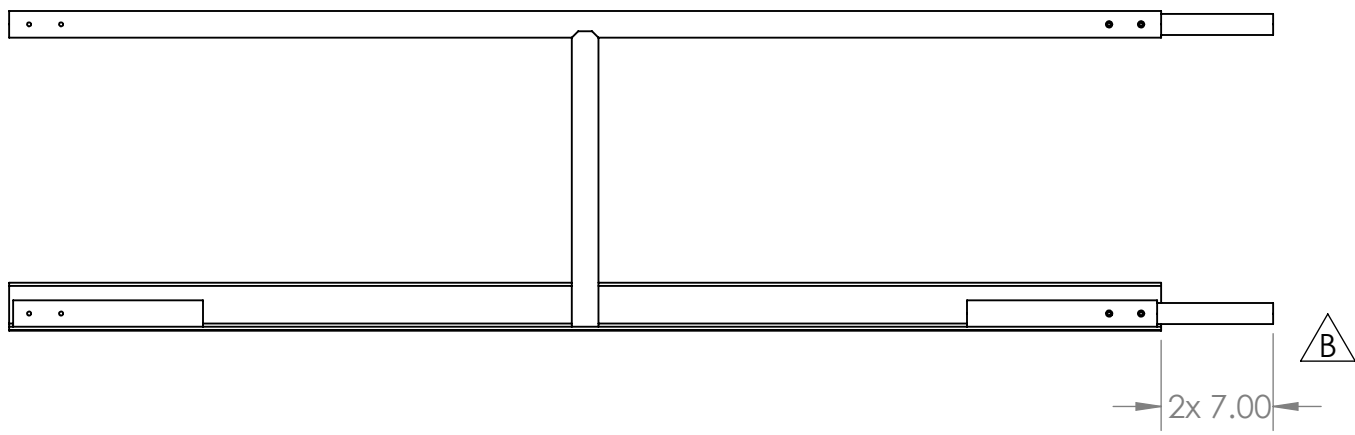


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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	<div></div>		
		DIMENSIONS ARE IN INCHES	DRAWN			TITLE:  <h1>Corner Connector</h1>		
		TOLERANCES:	CHECKED					
		FRACTIONAL $\pm 1/16$	ENG APPR.					
		ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$	MFG APPR.					
		TWO PLACE DECIMAL $\pm .01$	Q.A.					
		THREE PLACE DECIMAL $\pm .001$	COMMENTS:			SIZE <b>B</b>	DWG. NO. <b>FE-00018</b>	REV <b>B</b>
		INTERPRET GEOMETRIC TOLERANCING PER:						
		MATERIAL						
		FINISH						
NEXT ASSY	USED ON							
APPLICATION		DO NOT SCALE DRAWING	WEIGHT: SHEET 2 OF 2					

B

B



DETAIL A  
SCALE 1 : 3

A



A

C

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-00005	Field Rail	1
2	FE-00026	Connector Pin	2
3	rivet_.1875_.251-.375	3/16" Aluminum Rivet, .251-.375 Grip Range	4

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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE
		DIMENSIONS ARE IN INCHES	DRAWN		
		TOLERANCES:	CHECKED		
		FRACTIONAL ±1/16	ENG APPR.		
		ANGULAR: MACH ±1° BEND ±1°	MFG APPR.		
		TWO PLACE DECIMAL ±.01	Q.A.		
		THREE PLACE DECIMAL ±.001	COMMENTS:		
		INTERPRET GEOMETRIC TOLERANCING PER:			
		MATERIAL			
		FINISH			
NEXT ASSY	USED ON				
APPLICATION		DO NOT SCALE DRAWING			



TITLE:  
**Field Rail Assy - Mid**

SIZE <b>B</b>	DWG. NO. <b>FE-00022</b>	REV <b>C</b>
------------------	-----------------------------	-----------------

SCALE: 1:12 WEIGHT: SHEET 1 OF 1

4

3

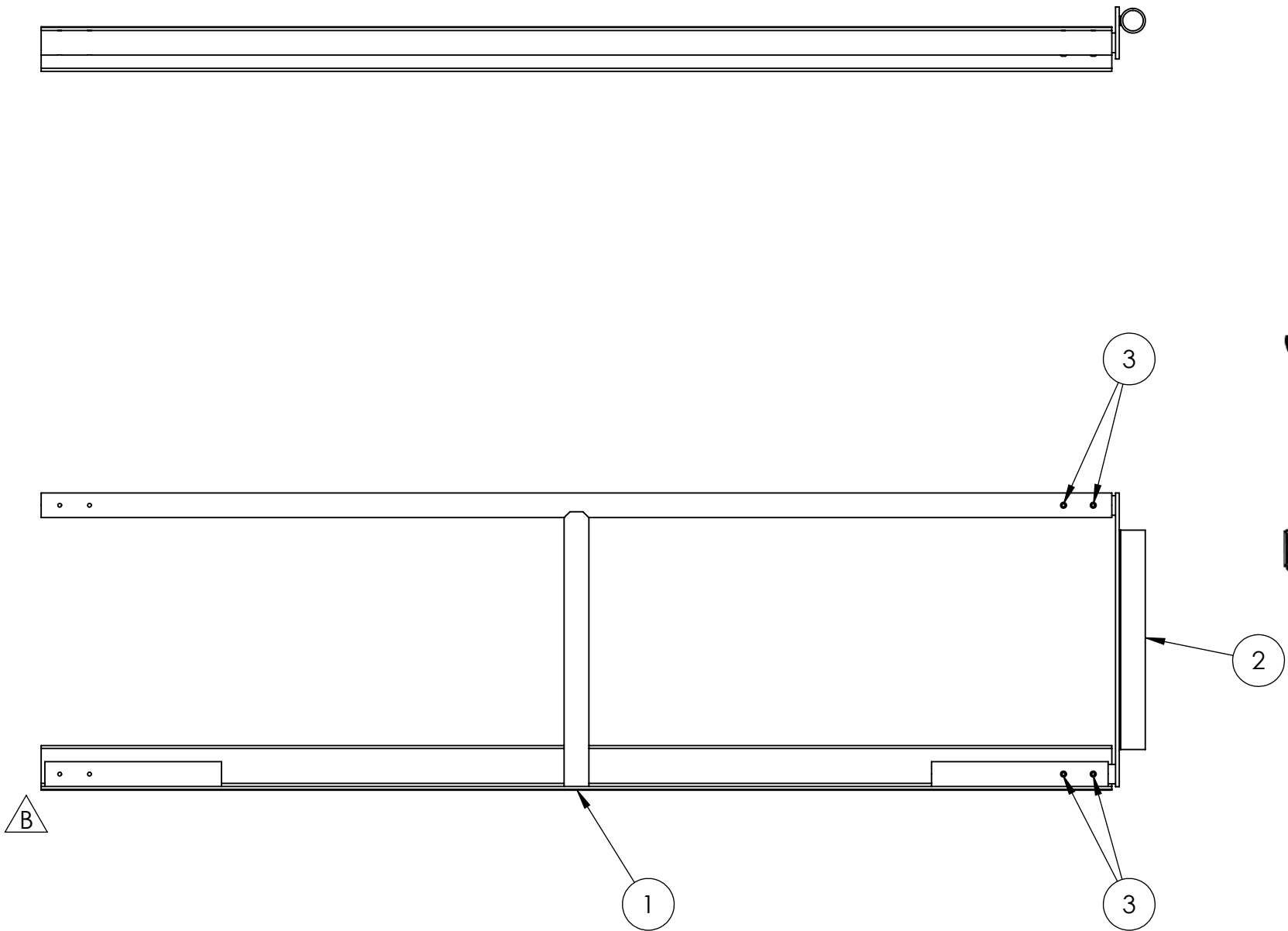
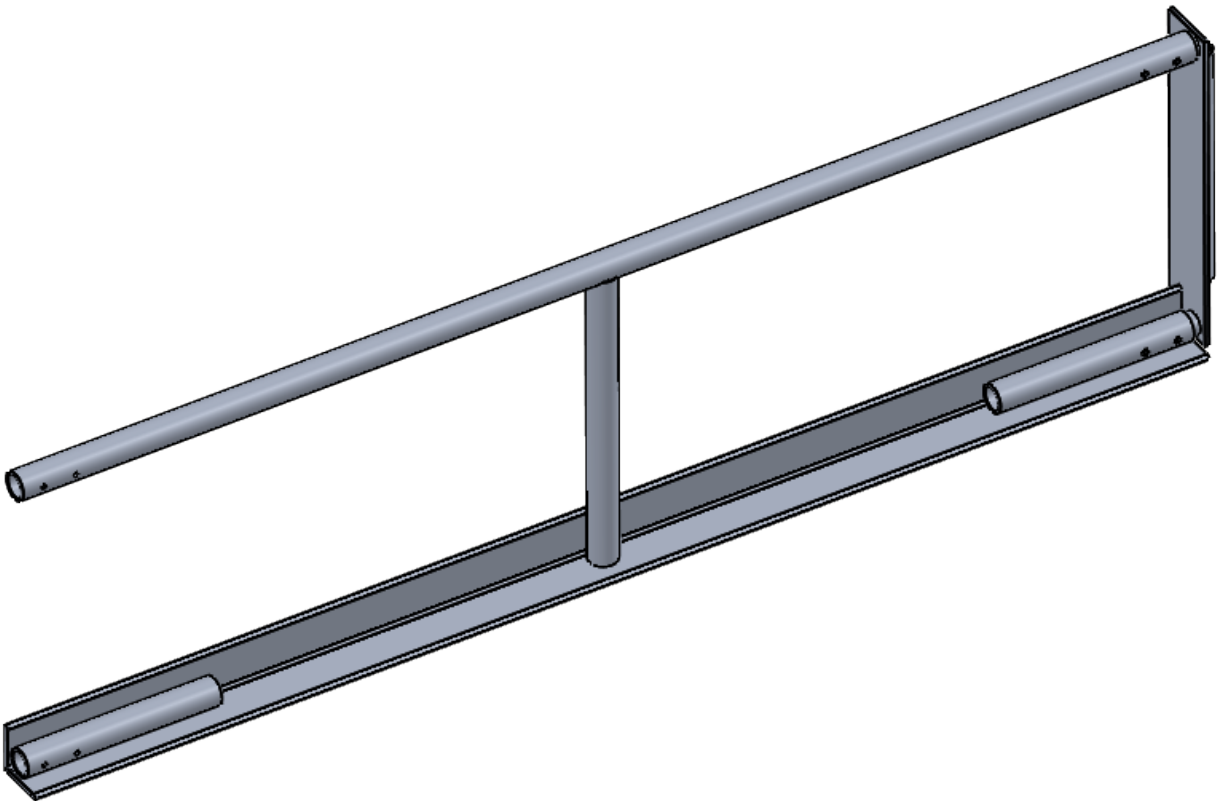
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1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
A4	B	Removed use of FE-00018 Connector Pin, modified rivet part number and description.	3/20/2020	CPO

B

B



B

1

3

2

3



B

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-00005	Field Rail	1
2	FE-00018	Corner Connector	1
3	rivet_.1875_.251-.375	3/16" Aluminum Rivet, .251-.375 Grip Range	4

4

3

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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	 			
		DIMENSIONS ARE IN INCHES	DRAWN			TITLE:  <b>Field Rail Assy - Left</b>			
		TOLERANCES:	CHECKED						
		FRACTIONAL $\pm 1/16$	ENG APPR.						
		ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$	MFG APPR.						
		TWO PLACE DECIMAL $\pm .01$	Q.A.						
		THREE PLACE DECIMAL $\pm .001$	COMMENTS:			SIZE DWG. NO. REV <b>B FE-00023 B</b>			
		INTERPRET GEOMETRIC TOLERANCING PER:							
		MATERIAL							
		FINISH							
NEXT ASSY	USED ON								
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:10		WEIGHT:	SHEET 1 OF 1



2

1

A



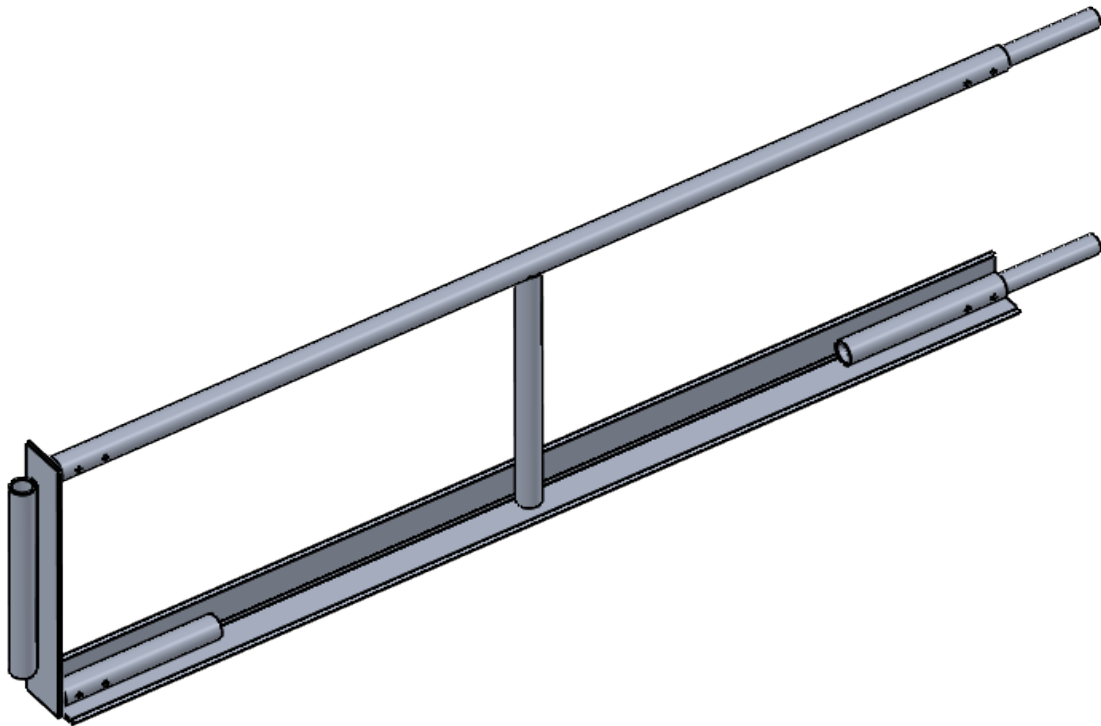
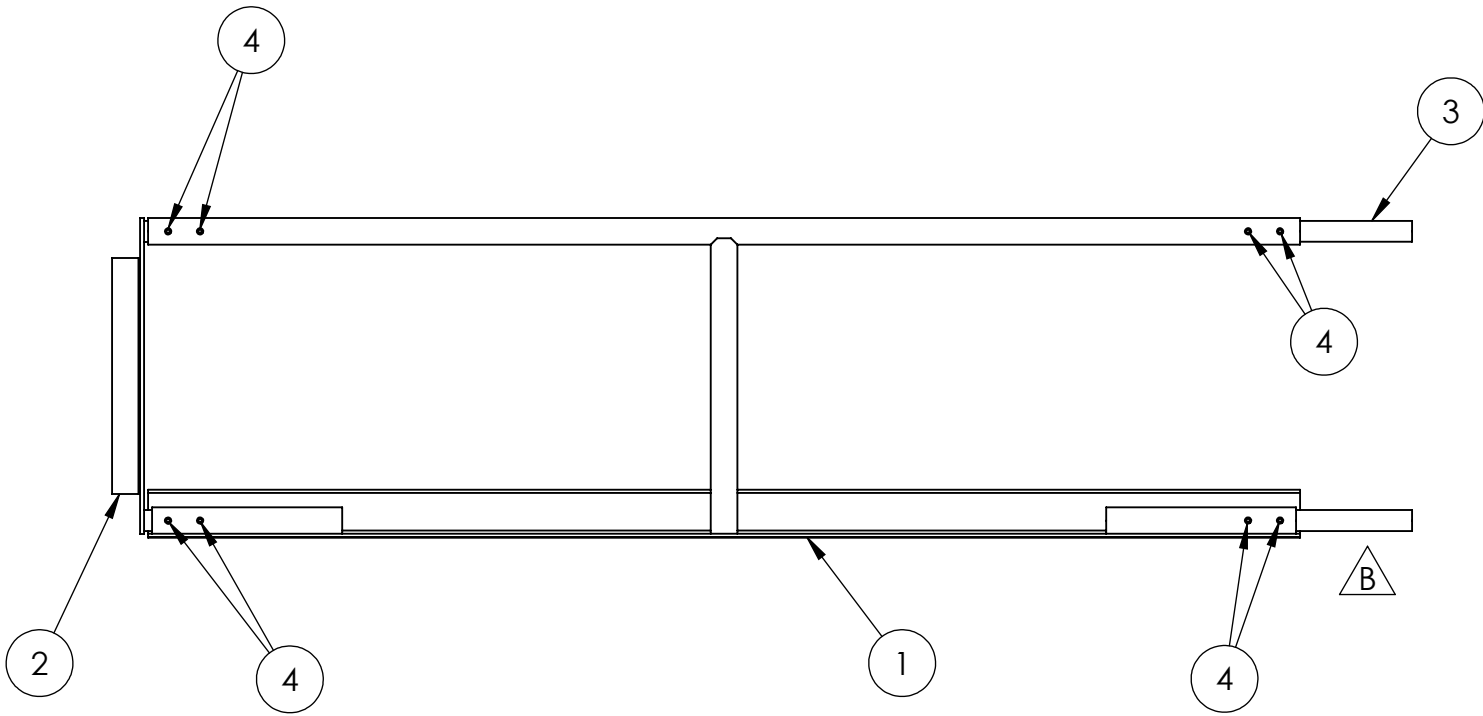
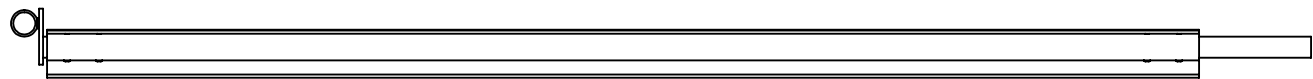
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3

2

1



REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
A3, A4	B	Additional FE-00026 Connector Pin added to assembly, rivet part number and description modified	3/20/2020	CPO



B

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-00005	Field Rail	1
2	FE-00018	Corner Connector	1
3	FE-00026	Connector Pin	2
4	rivet_.1875_.251-.375	3/16" Aluminum Rivet, .251-.375 Grip Range	8

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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	 			
		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.001	DRAWN			TITLE:  <b>Field Rail Assy - Right</b>			
			CHECKED						
			ENG APPR.						
			MFG APPR.						
			Q.A.						
		INTERPRET GEOMETRIC TOLERANCING PER:	COMMENTS:						
		MATERIAL							
		FINISH							
NEXT ASSY	USED ON								
APPLICATION		DO NOT SCALE DRAWING					SIZE <b>B</b>	DWG. NO. <b>FE-00024</b>	REV <b>B</b>
			SCALE: 1:12		WEIGHT:		SHEET 1 OF 1		

4

3

2

1

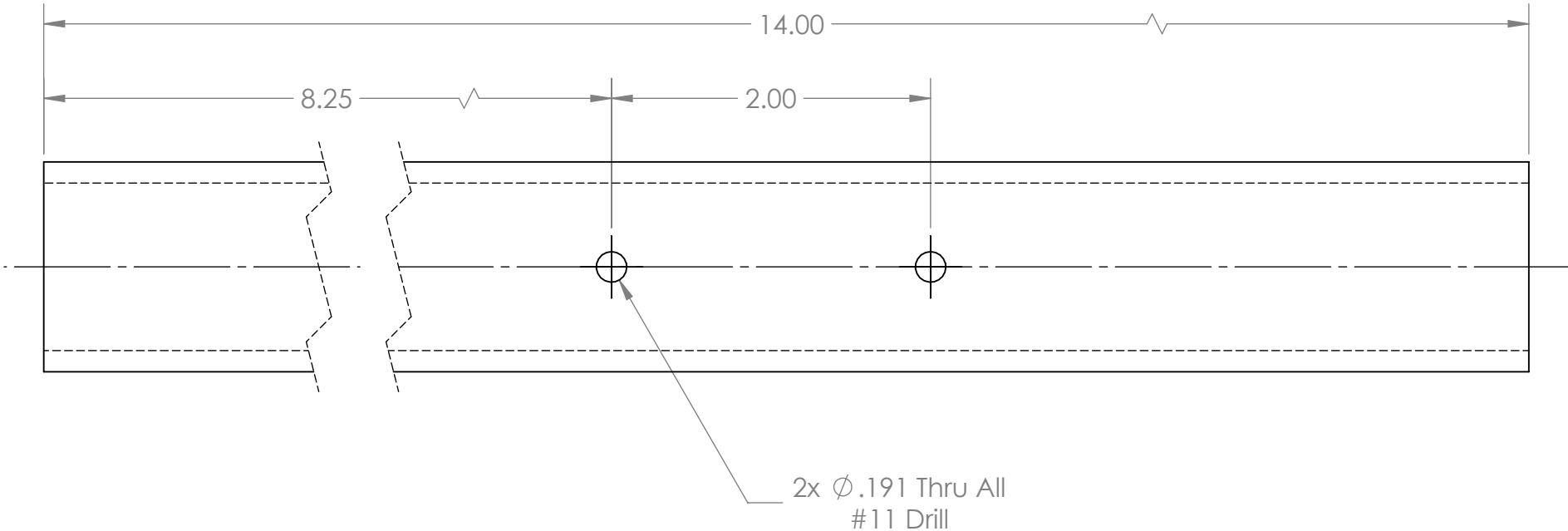
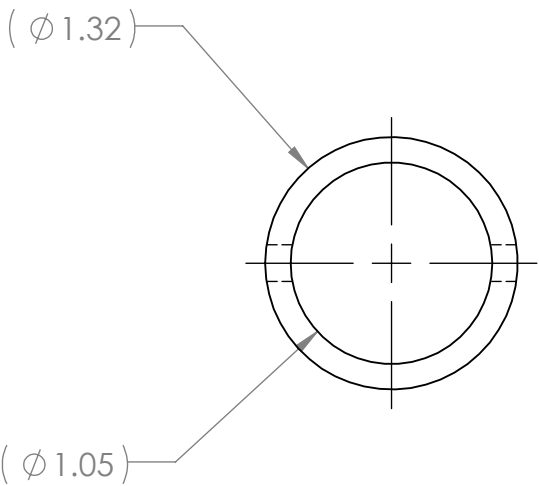
4

3

2



1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	redrawn	6/5/2008	dfoster



- Notes:
1. Material: 1" Schedule 40 Pipe, 6061-T6 Aluminum
  2. Remove all sharp edges

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		UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/16 ANGULAR: MACH ± 1° BEND ± 1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.001	DRAWN	NAME	DATE	<div></div> <div>TITLE: <h1>Connector Pin</h1></div>		
			CHECKED					
			ENG APPR.					
			MFG APPR.					
			Q.A.					
		INTERPRET GEOMETRIC TOLERANCING PER:	COMMENTS:			<div>SIZE DWG. NO. REV</div> <div><b>B</b> <b>FE-00026</b> <b>A</b></div>		
		MATERIAL						
		FINISH						
NEXT ASSY	USED ON							
APPLICATION		DO NOT SCALE DRAWING	SCALE: 1:1				WEIGHT:	SHEET 1 OF 1

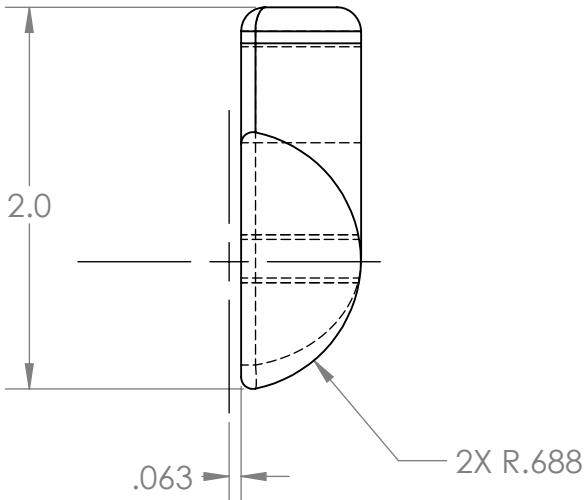
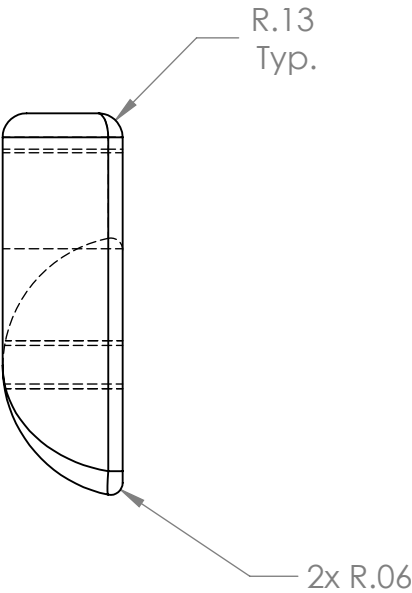
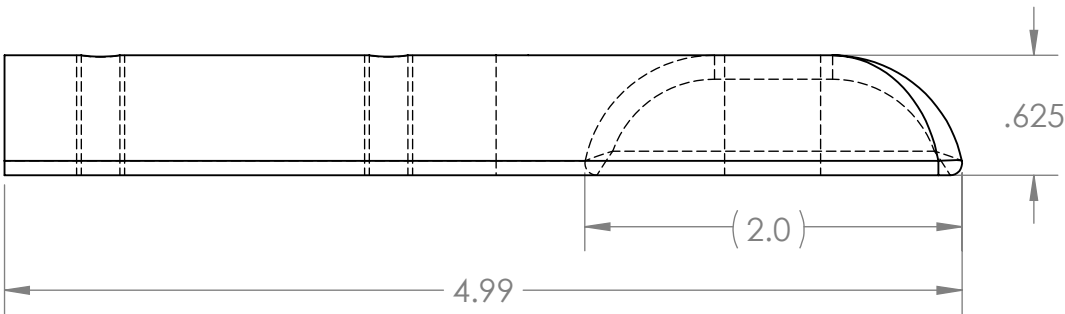
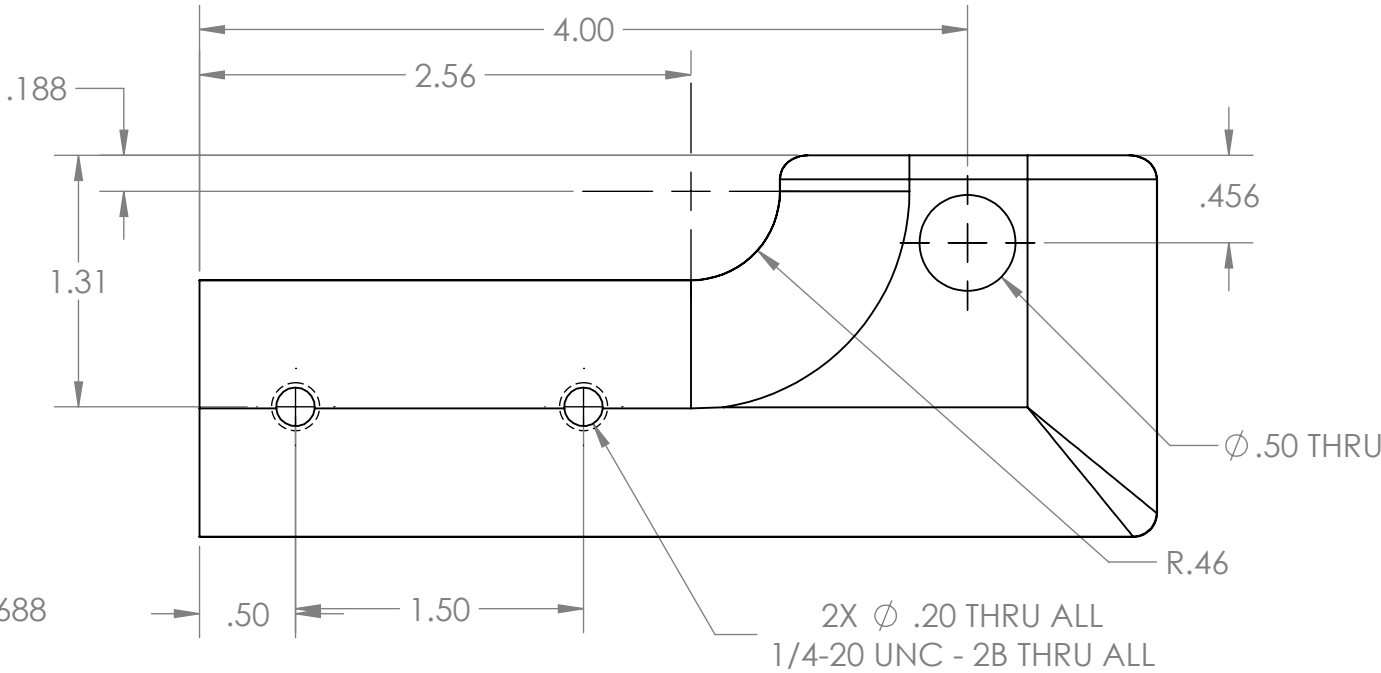
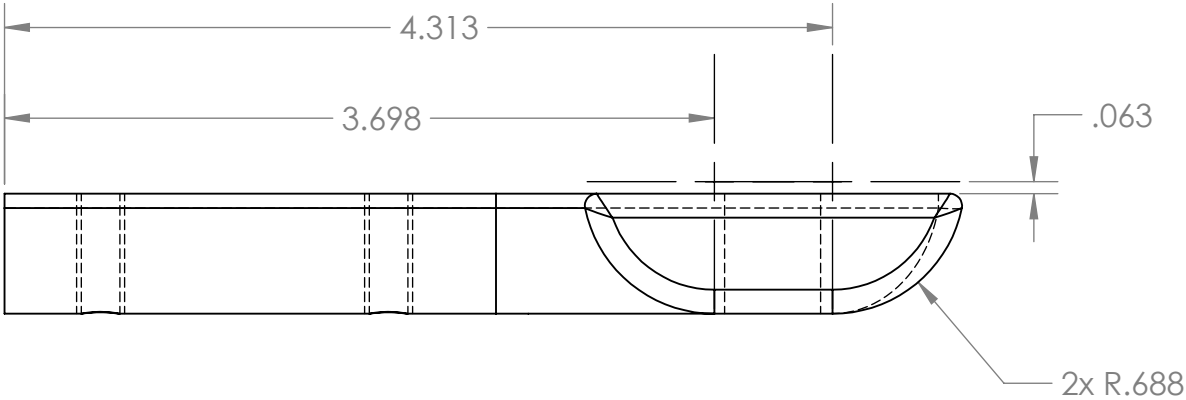
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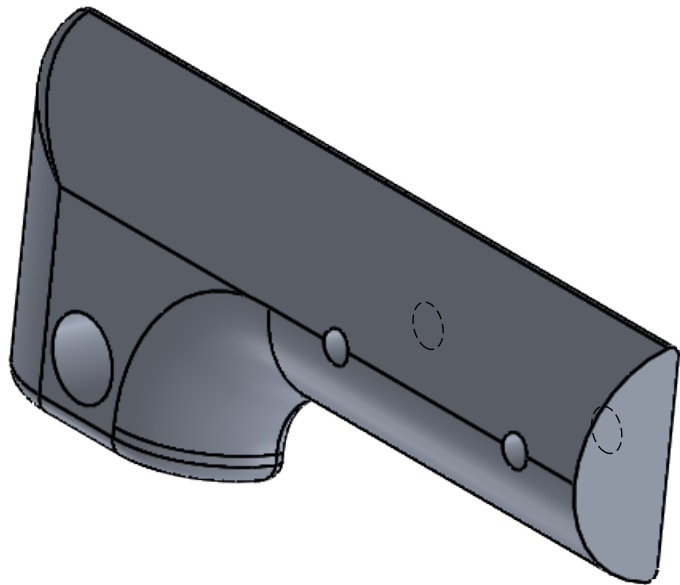
2

1



REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	redrawn	8/8/2008	dfoster



- Notes:
1. Material: 6063 Aluminum
  2. Remove all sharp edges



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UNLESS OTHERWISE SPECIFIED:		NAME	DATE	  TITLE: <b>Hinge, Insert</b>	
DIMENSIONS ARE IN INCHES		DRAWN			
TOLERANCES:		CHECKED			
FRACTIONAL $\pm 1/16$		ENG APPR.			
ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$		MFG APPR.			
TWO PLACE DECIMAL $\pm .01$		Q.A.		SIZE DWG. NO. REV <b>B FE-00027 A</b>	
THREE PLACE DECIMAL $\pm .001$		COMMENTS:			
INTERPRET GEOMETRIC TOLERANCING PER:					
MATERIAL				SCALE: 1:1 WEIGHT: SHEET 1 OF 1	
FINISH					
NEXT ASSY	USED ON	DO NOT SCALE DRAWING			
APPLICATION					

4

3

2

1

4

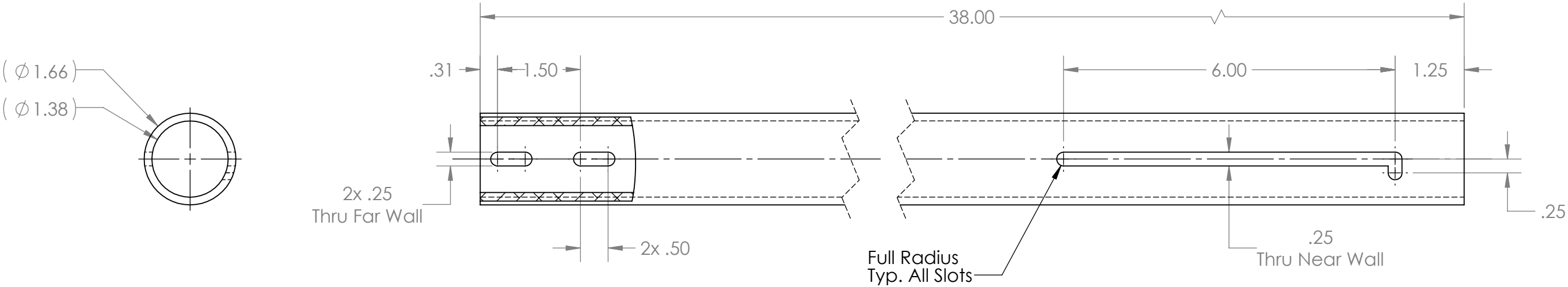
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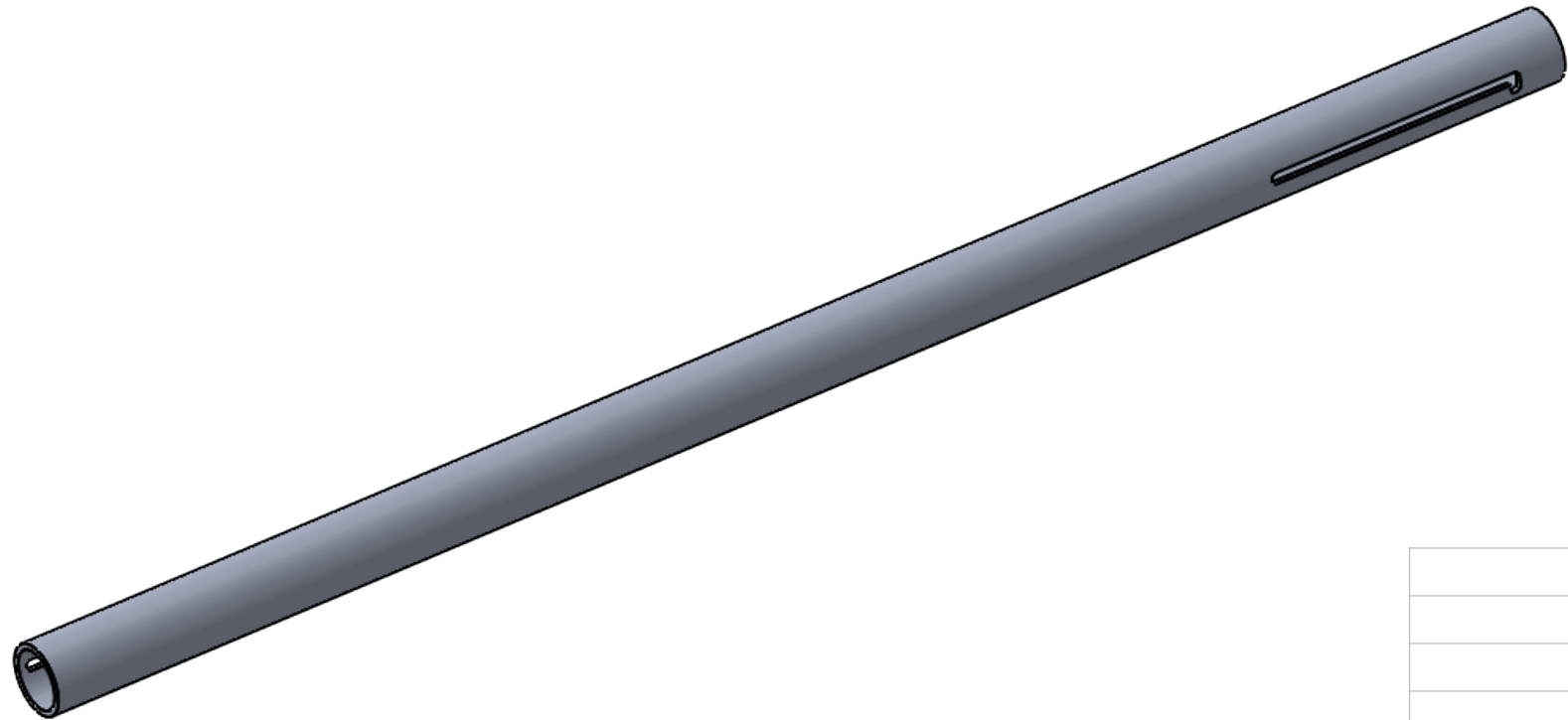
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	Redrawn	8/6/2008	dfoster

B



B




A



A

- Notes:
1. Material: 1-1/4" Aluminum 6061-T6 Schedule 40 Pipe
  2. Remove all sharp edges.

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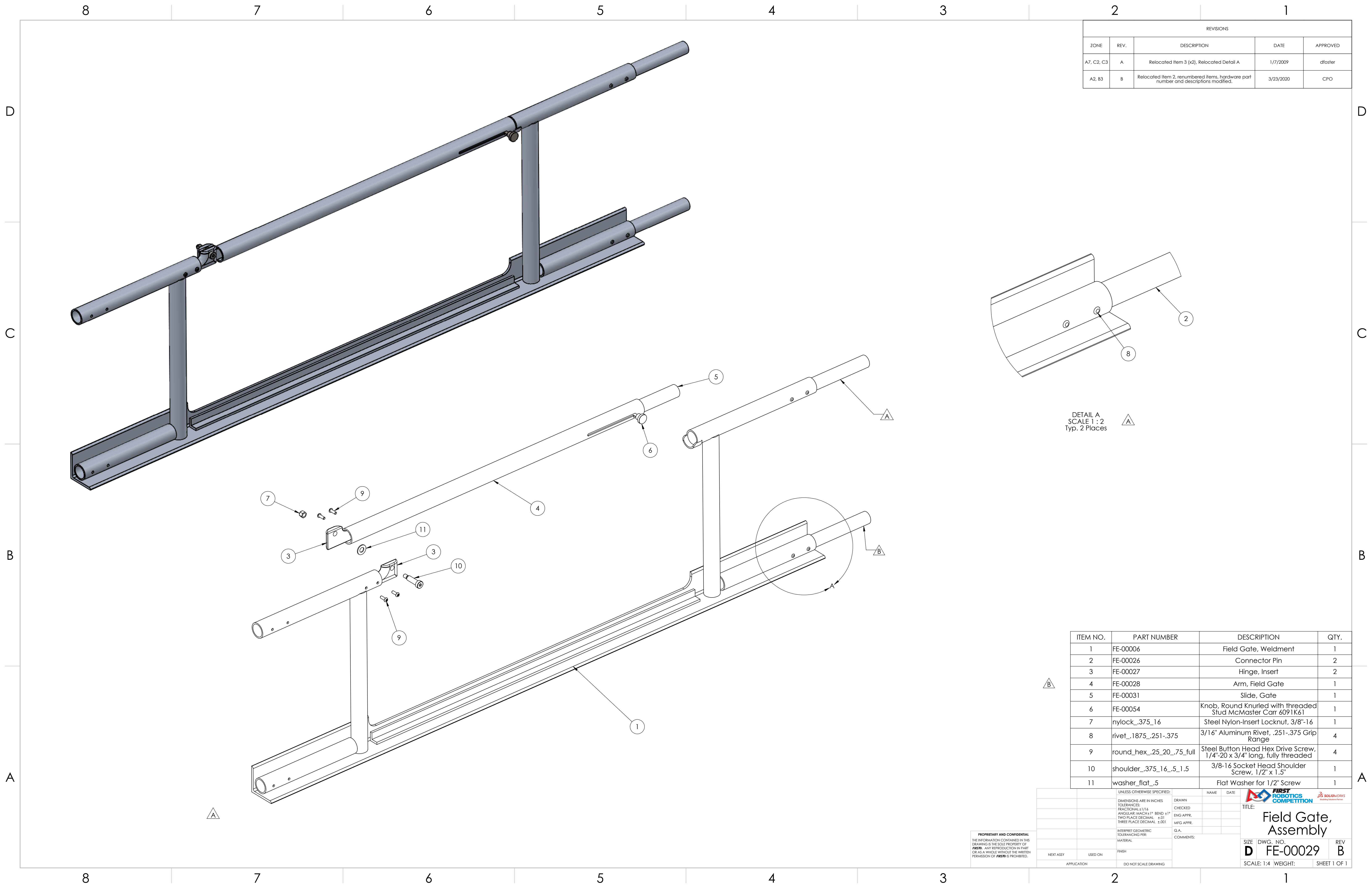
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			CHECKED						
			ENG APPR.						
			MFG APPR.						
			Q.A.						
		INTERPRET GEOMETRIC TOLERANCING PER:	COMMENTS:			SIZE DWG. NO. REV <b>B</b> <b>FE-00028</b> <b>A</b>			
		MATERIAL							
		FINISH							
NEXT ASSY	USED ON								
APPLICATION		DO NOT SCALE DRAWING							

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2

1



REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
A7, C2, C3	A	Relocated Item 3 (x2), Relocated Detail A	1/7/2009	dfoster
A2, B3	B	Relocated Item 2, renumbered items, hardware part number and descriptions modified.	3/23/2020	CPO

DETAIL A  
SCALE 1 : 2  
Typ. 2 Places

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-00006	Field Gate, Weldment	1
2	FE-00026	Connector Pin	2
3	FE-00027	Hinge, Insert	2
4	FE-00028	Arm, Field Gate	1
5	FE-00031	Slide, Gate	1
6	FE-00054	Knob, Round Knurled with threaded Stud McMaster Carr 6091K61	1
7	nylock_.375_16	Steel Nylon-Insert Locknut, 3/8"-16	1
8	rivet_.1875_.251-.375	3/16" Aluminum Rivet, .251-.375 Grip Range	4
9	round_hex_.25_20_.75_full	Steel Button Head Hex Drive Screw, 1/4"-20 x 3/4" long, fully threaded	4
10	shoulder_.375_16_.5_1.5	3/8-16 Socket Head Shoulder Screw, 1/2" x 1.5"	1
11	washer_flat_.5	Flat Washer for 1/2" Screw	1

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UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES	DRAWN		
FRACTIONAL: ±1/16	CHECKED		
TOLERANCES:	ENG APPR.		
ANGULAR: MACH ±1° BEND ±1°	MFG APPR.		
TWO PLACE DECIMAL ±.01			
THREE PLACE DECIMAL ±.001			
INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.		
MATERIAL	COMMENTS:		
FINISH			
NEXT ASSY	USED ON		
APPLICATION	DO NOT SCALE DRAWING		

TITLE:		FIRST ROBOTICS COMPETITION		SOLIDWORKS	
SIZE		DWG. NO.		REV	
D		FE-00029		B	
SCALE: 1:4		WEIGHT:		SHEET 1 OF 1	



4

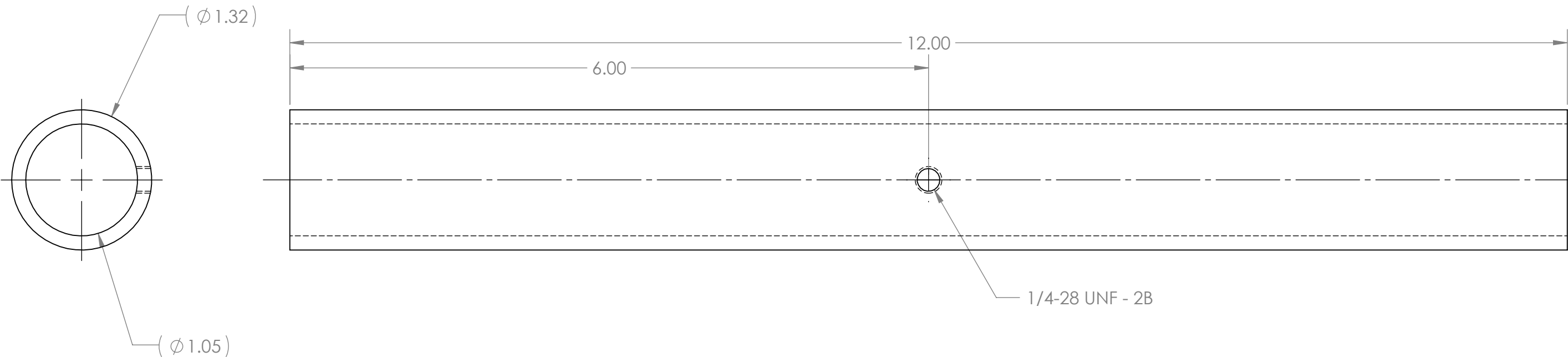
3

2

1

B

B





Notes:

1. Material: 1" Schedule 40 Aluminum 6061-T6.
2. Remove all sharp edges.

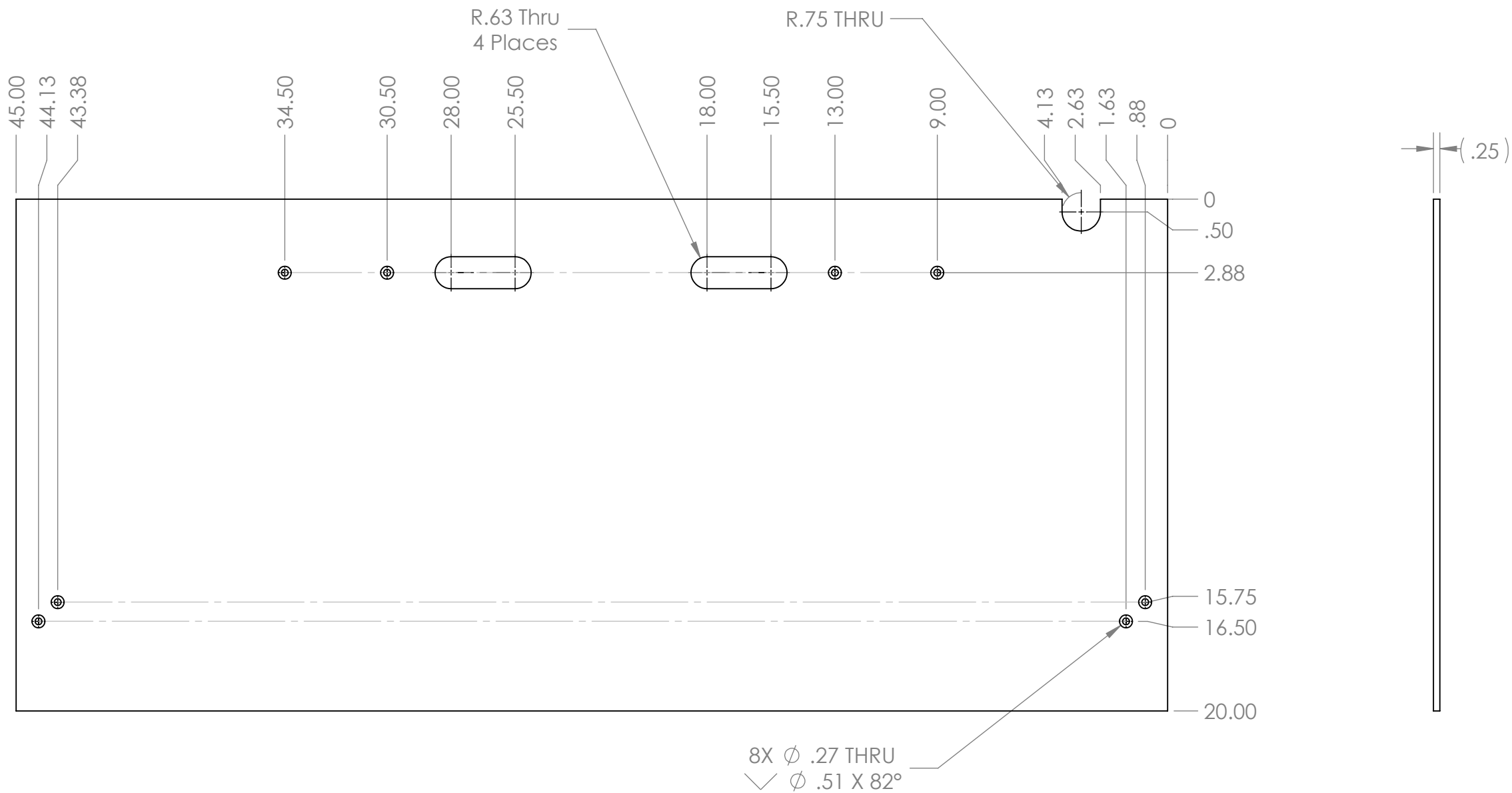
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A

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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	<div><div>FIRST ROBOTICS COMPETITION</div><div>SOLIDWORKS Modeling Solutions Partner</div></div>			
		DIMENSIONS ARE IN INCHES	DRAWN			TITLE:  Slide, Gate			
		TOLERANCES:	CHECKED						
		FRACTIONAL $\pm 1/16$	ENG APPR.						
		ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$	MFG APPR.						
		TWO PLACE DECIMAL $\pm .01$	Q.A.						
		THREE PLACE DECIMAL $\pm .001$	COMMENTS:			SIZE DWG. NO. REV <b>B</b> FE-00031  SCALE: 1:1 WEIGHT: SHEET 1 OF 1			
		INTERPRET GEOMETRIC TOLERANCING PER:							
		MATERIAL							
		FINISH							
NEXT ASSY	USED ON								
APPLICATION		DO NOT SCALE DRAWING							

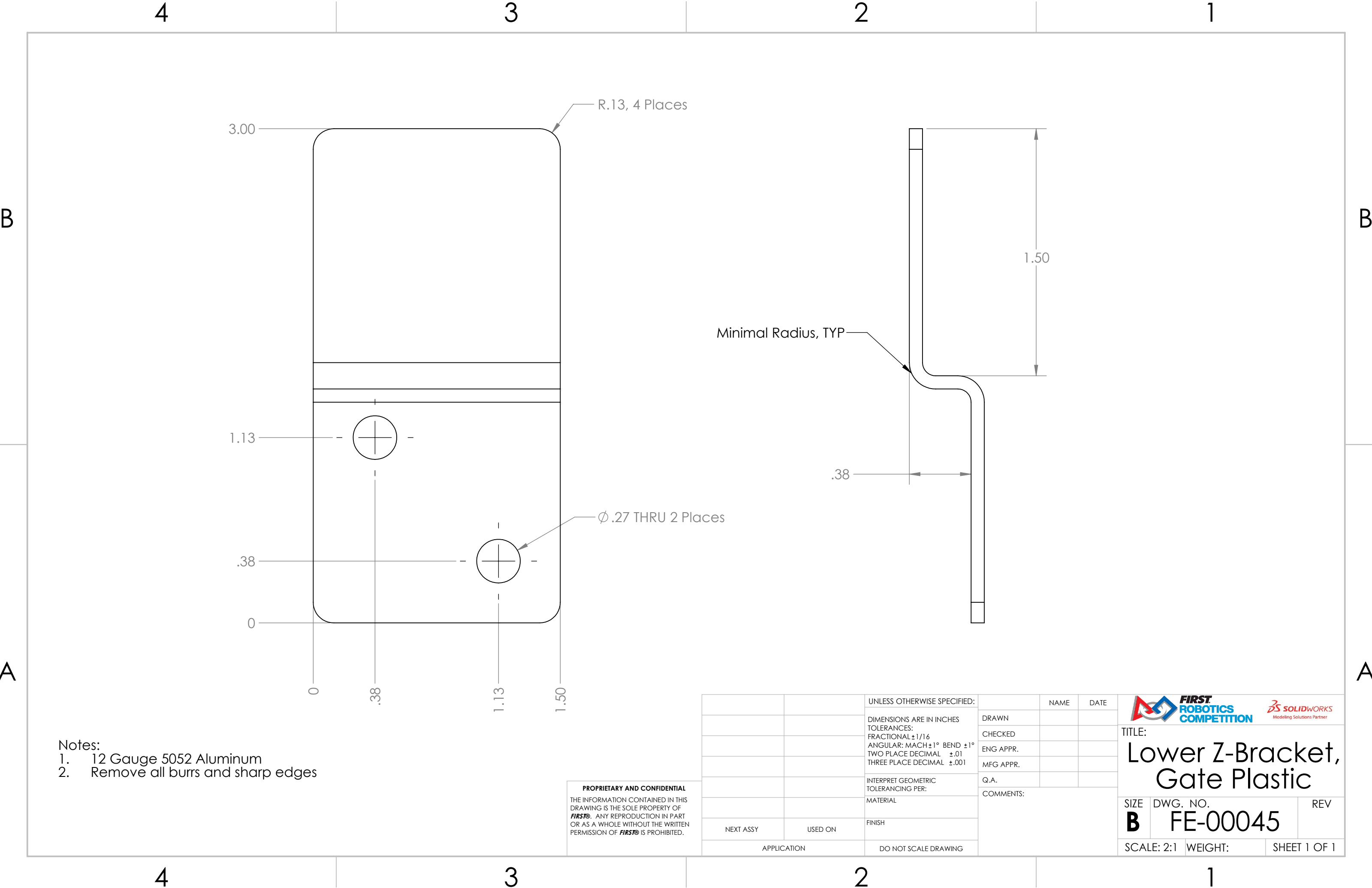
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	Added counter sinks, hand holes and a notch	9/23/14	MLC



- Notes:
- Material: 1/4" Clear Polycarbonate
  - Remove all burrs and sharp edges.



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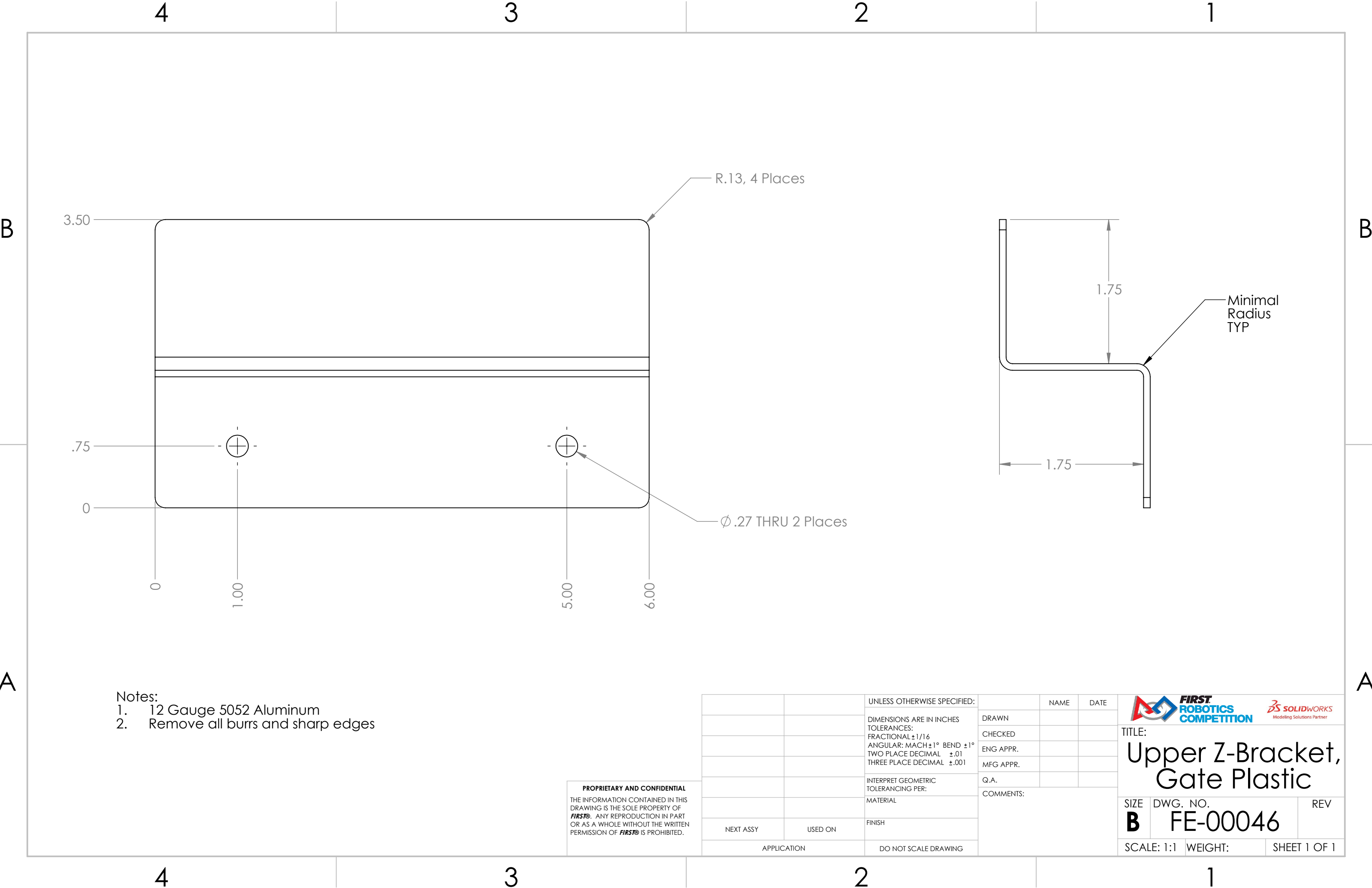
UNLESS OTHERWISE SPECIFIED:		NAME	DATE	TITLE: <b>Field Plastic "G"</b>
DIMENSIONS ARE IN INCHES		DRAWN		
TOLERANCES:		CHECKED		
FRACTIONAL $\pm 1/16$		ENG APPR.		
ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$		MFG APPR.		
TWO PLACE DECIMAL $\pm .01$		Q.A.		SIZE <b>B</b>
THREE PLACE DECIMAL $\pm .001$		COMMENTS:		
INTERPRET GEOMETRIC TOLERANCING PER:				
MATERIAL				DWG. NO. <b>FE-00044</b>
FINISH				REV <b>A</b>
NEXT ASSY	USED ON			SCALE: 1:5
APPLICATION		DO NOT SCALE DRAWING		WEIGHT:
				SHEET 1 OF 1



- Notes:
- 12 Gauge 5052 Aluminum
  - Remove all burrs and sharp edges



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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	<div><div>FIRST ROBOTICS COMPETITION</div><div><div>SOLIDWORKS Modeling Solutions Partner</div></div></div>			
		DIMENSIONS ARE IN INCHES	DRAWN			TITLE: <div>Lower Z-Bracket, Gate Plastic</div>			
		TOLERANCES:	CHECKED						
		FRACTIONAL $\pm 1/16$	ENG APPR.						
		ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$	MFG APPR.						
		TWO PLACE DECIMAL $\pm .01$	Q.A.						
		THREE PLACE DECIMAL $\pm .001$	COMMENTS:			SIZE DWG. NO. REV <div>B FE-00045</div>			
		INTERPRET GEOMETRIC TOLERANCING PER:							
		MATERIAL							
		FINISH							
NEXT ASSY	USED ON								
APPLICATION		DO NOT SCALE DRAWING	SCALE: 2:1 WEIGHT: SHEET 1 OF 1						



- Notes:
- 12 Gauge 5052 Aluminum
  - Remove all burrs and sharp edges

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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	<div><div></div><div>TITLE: Upper Z-Bracket, Gate Plastic</div><div><div>SIZE B</div><div>DWG. NO. FE-00046</div><div>REV</div></div><div>SCALE: 1:1</div><div>WEIGHT:</div><div>SHEET 1 OF 1</div></div>			
		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.001	DRAWN						
			CHECKED						
			ENG APPR.						
			MFG APPR.						
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.						
		MATERIAL	COMMENTS:						
		FINISH							
NEXT ASSY	USED ON								
APPLICATION		DO NOT SCALE DRAWING							

4

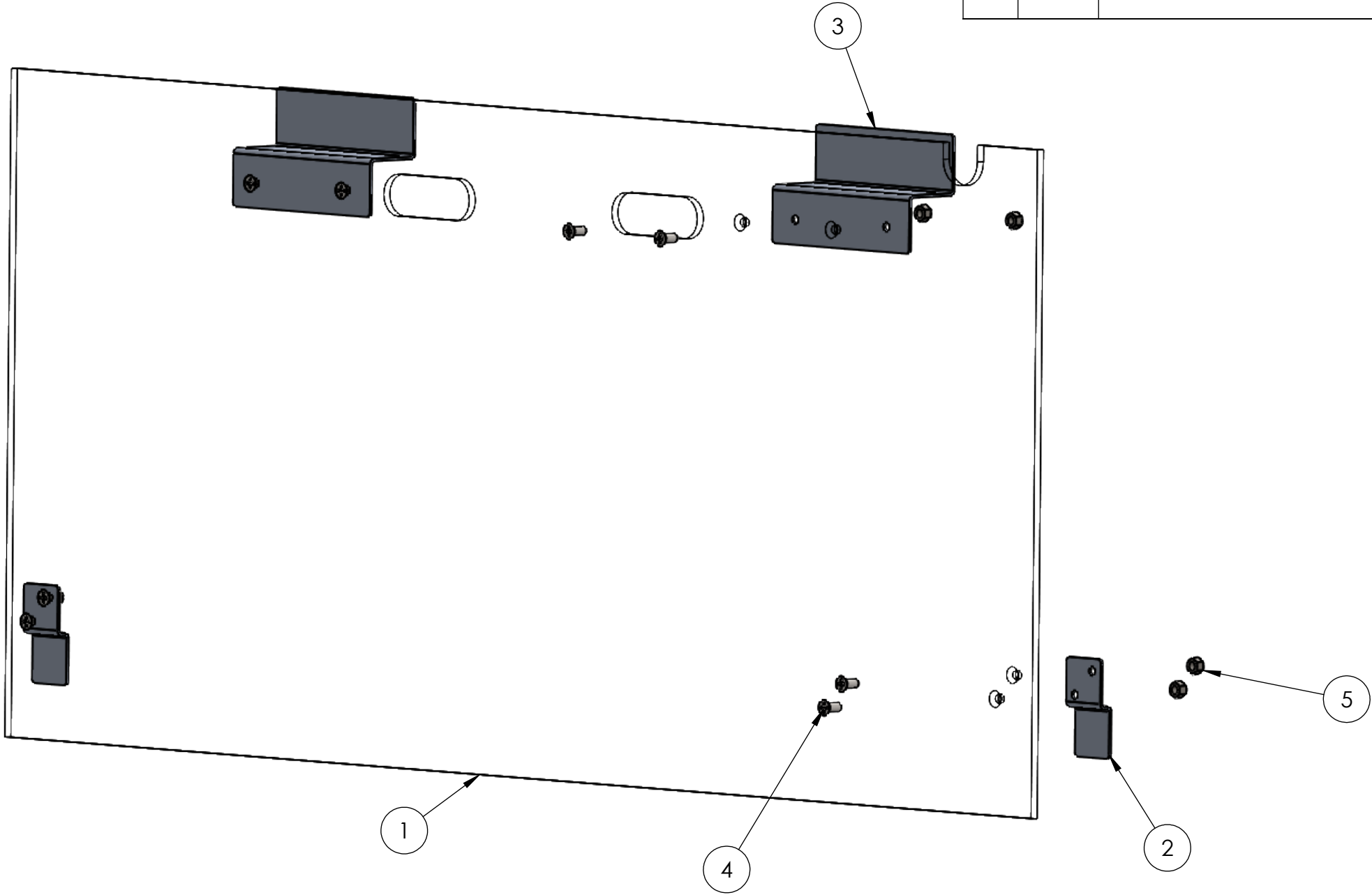
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2

1

REVISIONS

ZONE	REV.	DESCRIPTION	DATE	APPROVED
A4	A	Fastener part number and descriptions modified.	3/23/2020	CPO





A

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-00044	Field Plastic "G"	1
2	FE-00045	Lower Z-Bracket, Gate Plastic	2
3	FE-00046	Upper Z-Bracket, Gate Plastic	2
4	flat_phil_.25_20_.625	Steel Phillips Flat Head Screw, 1/4"x20 x 5/8" long, fully threaded	8
5	nylock_.25_20	Steel Nylon-Insert Locknut, 1/4"-20	8

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DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .001$		DRAWN	
		CHECKED	
		ENG APPR.	
		MFG APPR.	
INTERPRET GEOMETRIC TOLERANCING PER:		Q.A.	
MATERIAL		COMMENTS:	
FINISH			
NEXT ASSY	USED ON		
APPLICATION		DO NOT SCALE DRAWING	



TITLE:  

# Gate Plastic Assembly

SIZE  
**B**

DWG. NO.  
**FE-00047**

REV  
**A**

SCALE: 1:4

WEIGHT:

SHEET 1 OF 1

4

3

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1

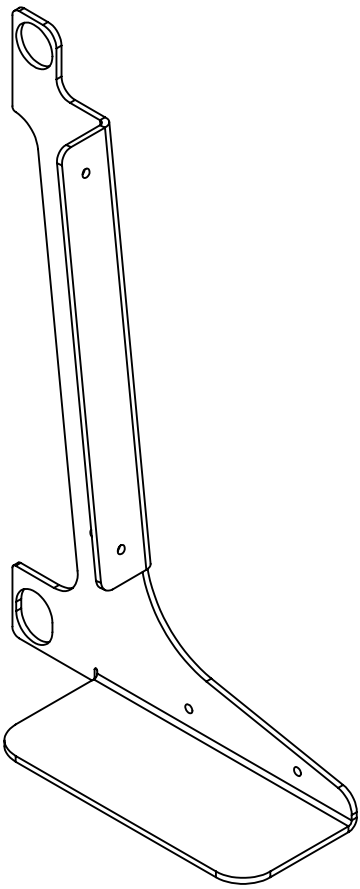
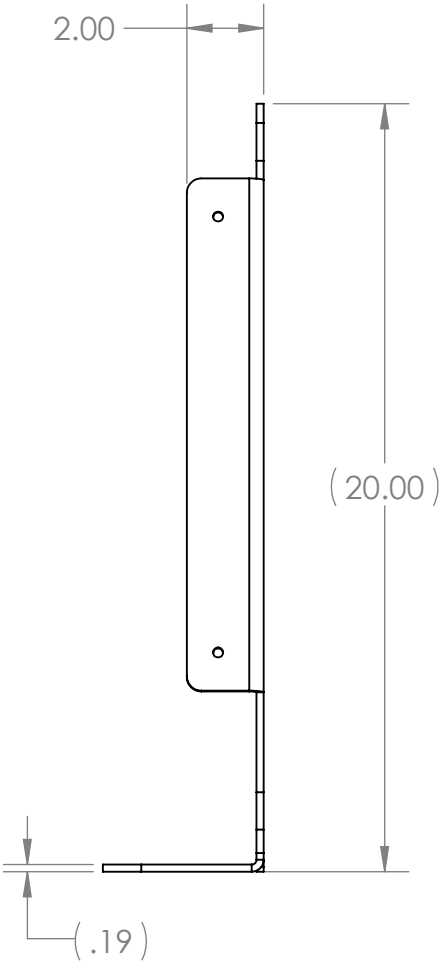
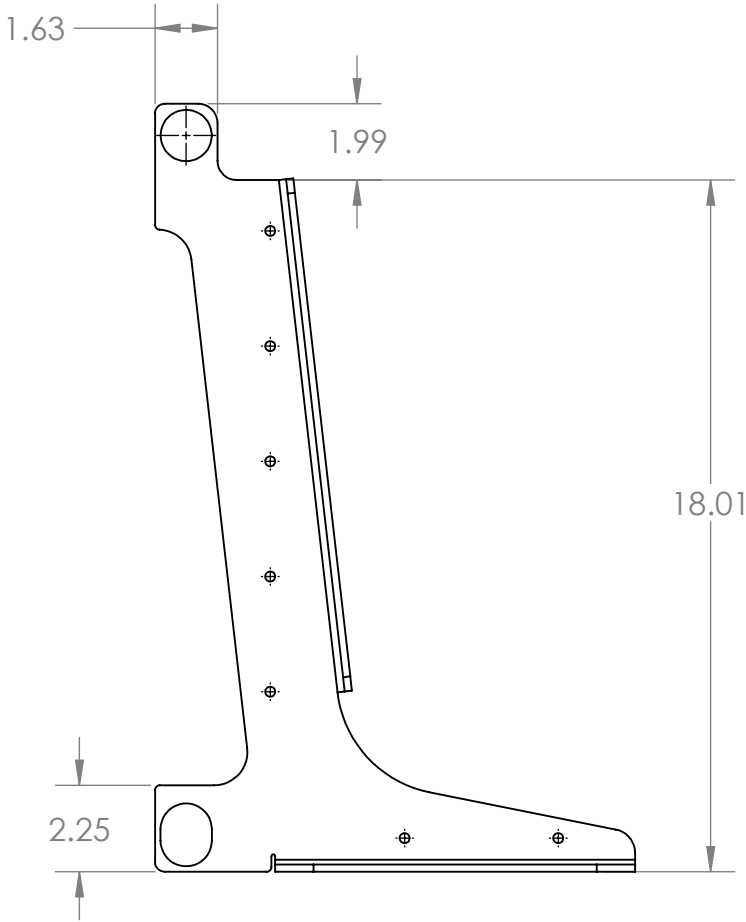
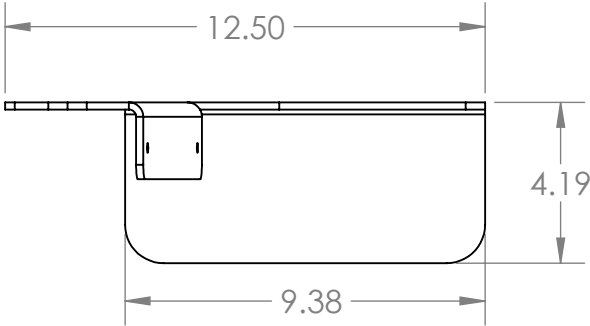


4

3



2

1



Note:  
Material: 5052 Aluminum Sheet, 3/16" Thick  
This drawing represents overall dimensions for AndyMark AM-2810. Please see the AndyMark website for more details regarding part dimensions.

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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	 		
		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .001$	DRAWN			TITLE:  <h1>Outrigger</h1>		
			CHECKED					
			ENG APPR.					
			MFG APPR.					
			Q.A.					
		INTERPRET GEOMETRIC TOLERANCING PER:	COMMENTS:			SIZE DWG. NO. REV <b>B</b> FE-00050		
		MATERIAL						
		FINISH						
NEXT ASSY	USED ON							
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:5 WEIGHT: SHEET 1 OF 1		

4

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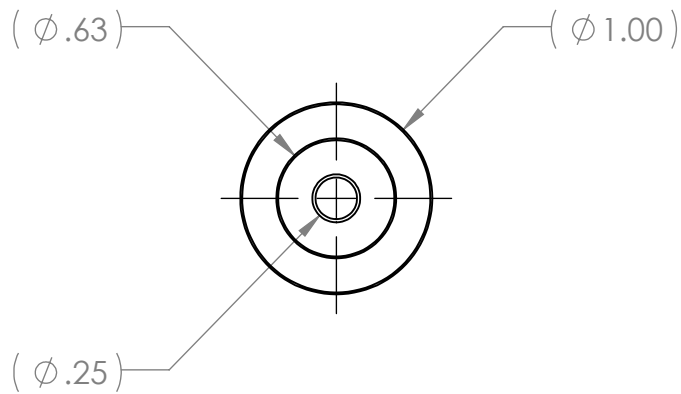
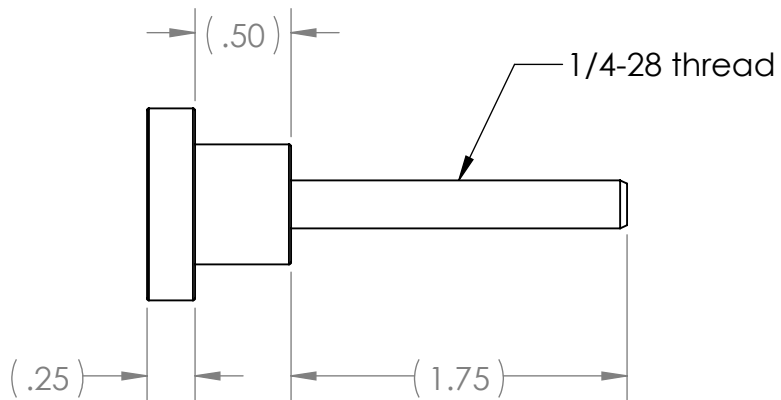
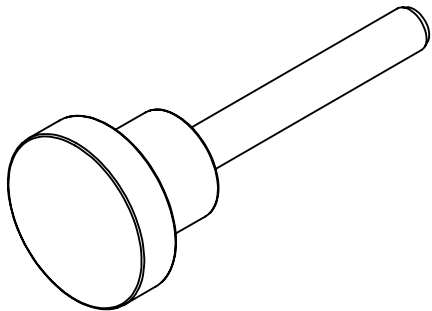
3

2

1

B



B



Notes:

1. Description: 303 Stainless Steel Knurled Knob with 1/4"-28 Thread 1-3/4" Long Stud, 1" Head Diameter
2. Vendor: McMaster-Carr
3. Part Number: 6091K61
4. Equivalent substitutions allowed

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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	<div></div> <div>TITLE: Knob, Round Knurled with threaded Stud McMaster Carr 6091K61</div>
		DIMENSIONS ARE IN INCHES	DRAWN			
		TOLERANCES:	CHECKED			
		FRACTIONAL $\pm 1/16$	ENG APPR.			
		ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$	MFG APPR.			
		TWO PLACE DECIMAL $\pm .01$	Q.A.			SIZE DWG. NO. REV
		THREE PLACE DECIMAL $\pm .001$	COMMENTS:			
		INTERPRET GEOMETRIC TOLERANCING PER:				
		MATERIAL				SCALE: 1:1 WEIGHT: SHEET 1 OF 1
		FINISH				
NEXT ASSY	USED ON					
APPLICATION		DO NOT SCALE DRAWING				

4

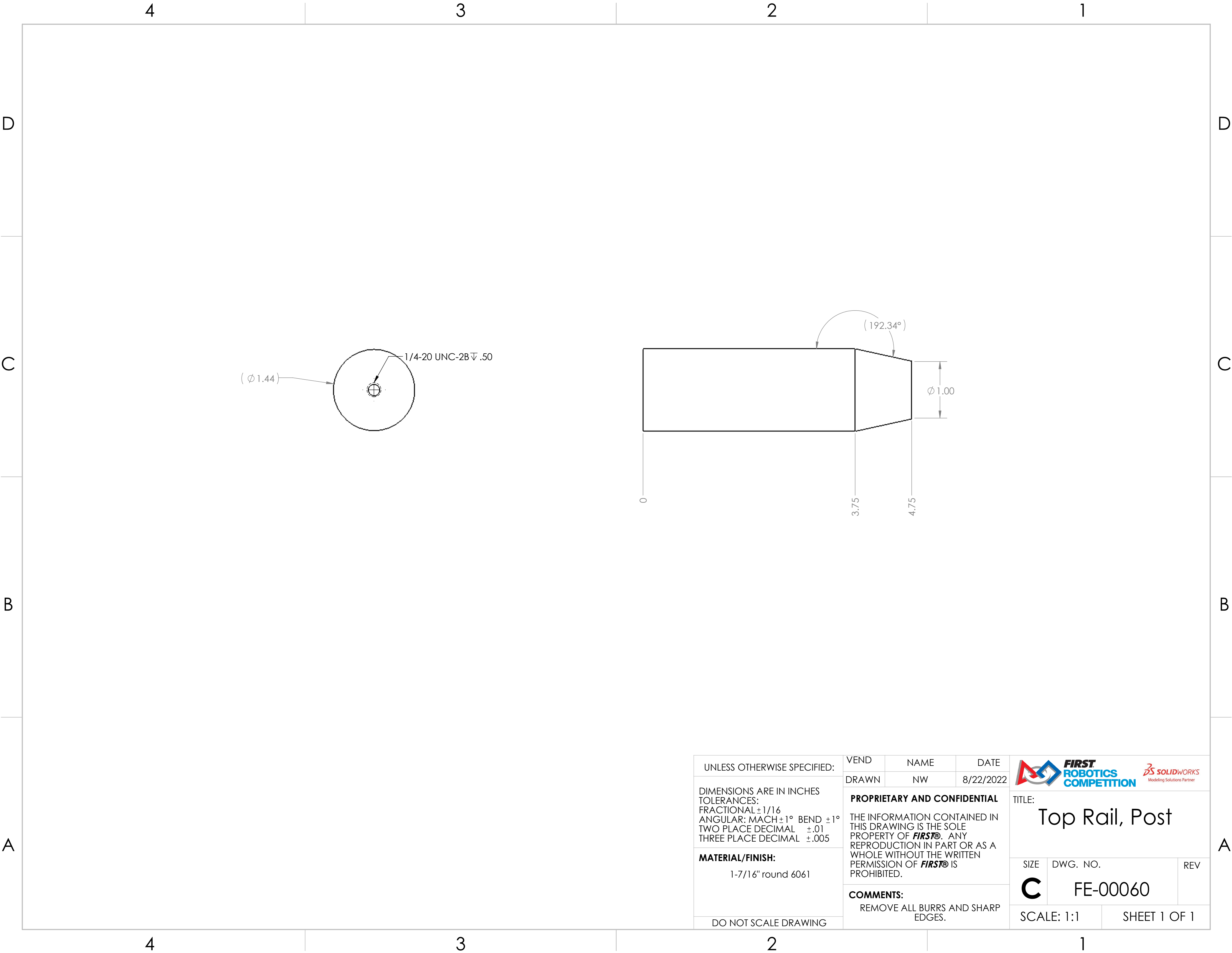
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2

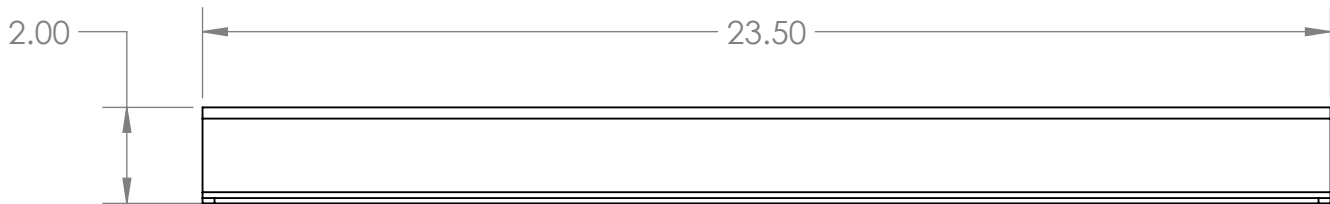
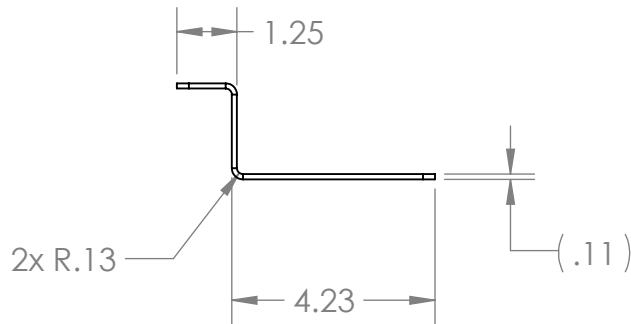
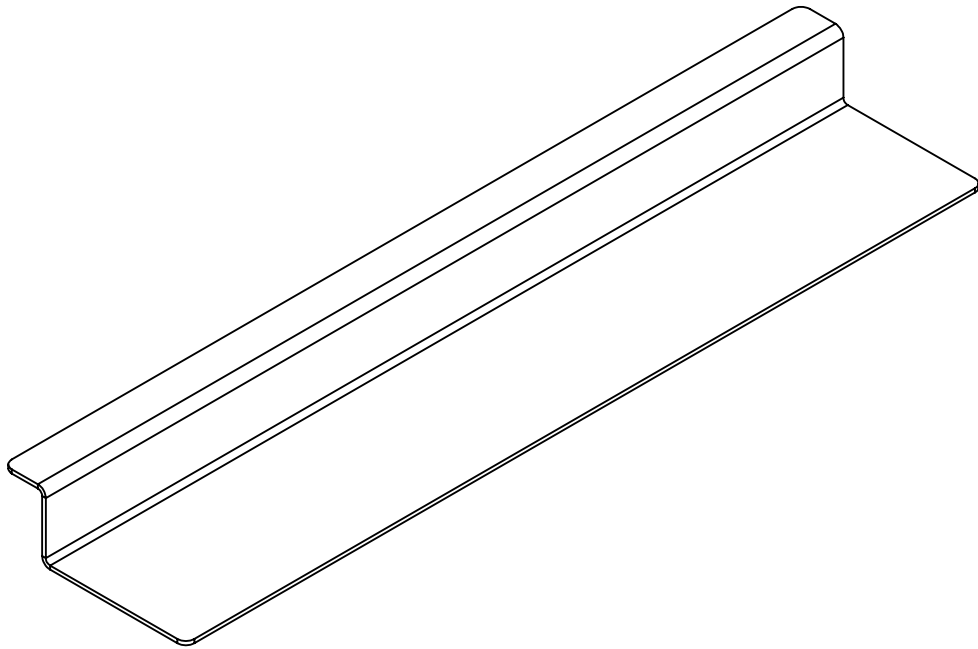
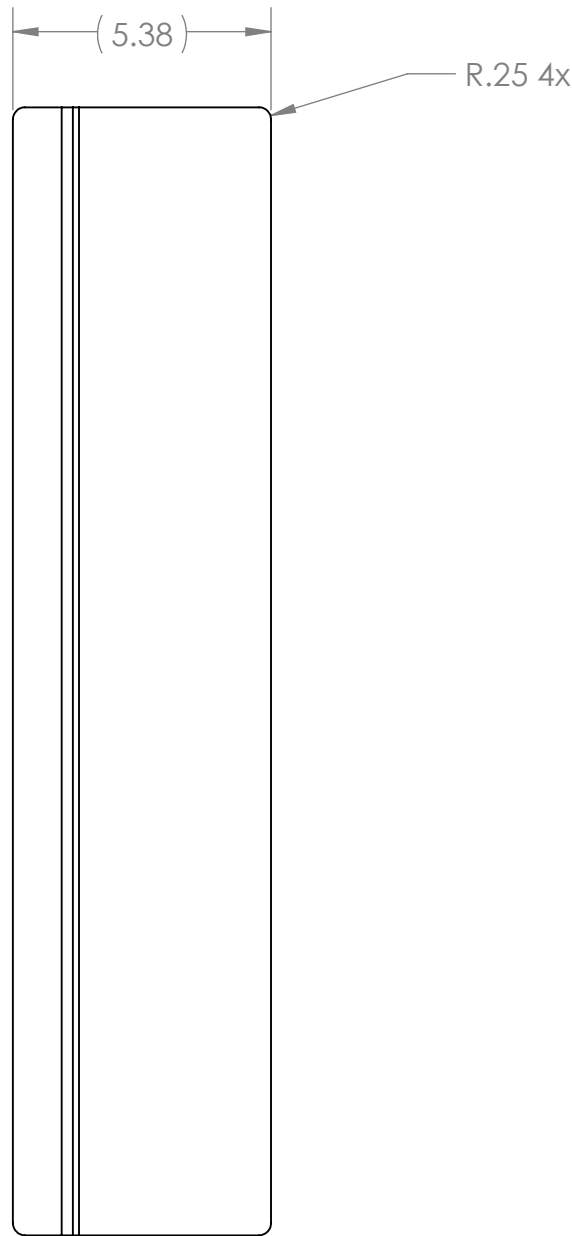
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A

A

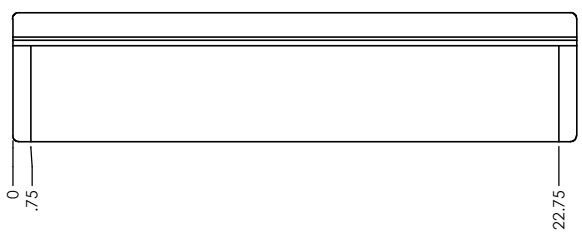
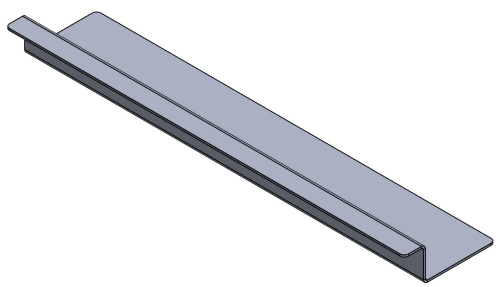
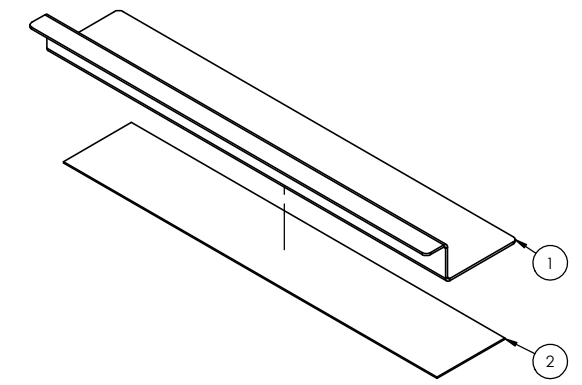




UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .005$  <b>MATERIAL/FINISH:</b>  1-7/16" round 6061  DO NOT SCALE DRAWING	VEND	NAME	DATE	<div></div> <div>TITLE: <h1>Top Rail, Post</h1></div>		
	DRAWN	NW	8/22/2022			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.  <b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			SIZE <b>C</b>	DWG. NO. <b>FE-00060</b>	REV
SCALE: 1:1		SHEET 1 OF 1				



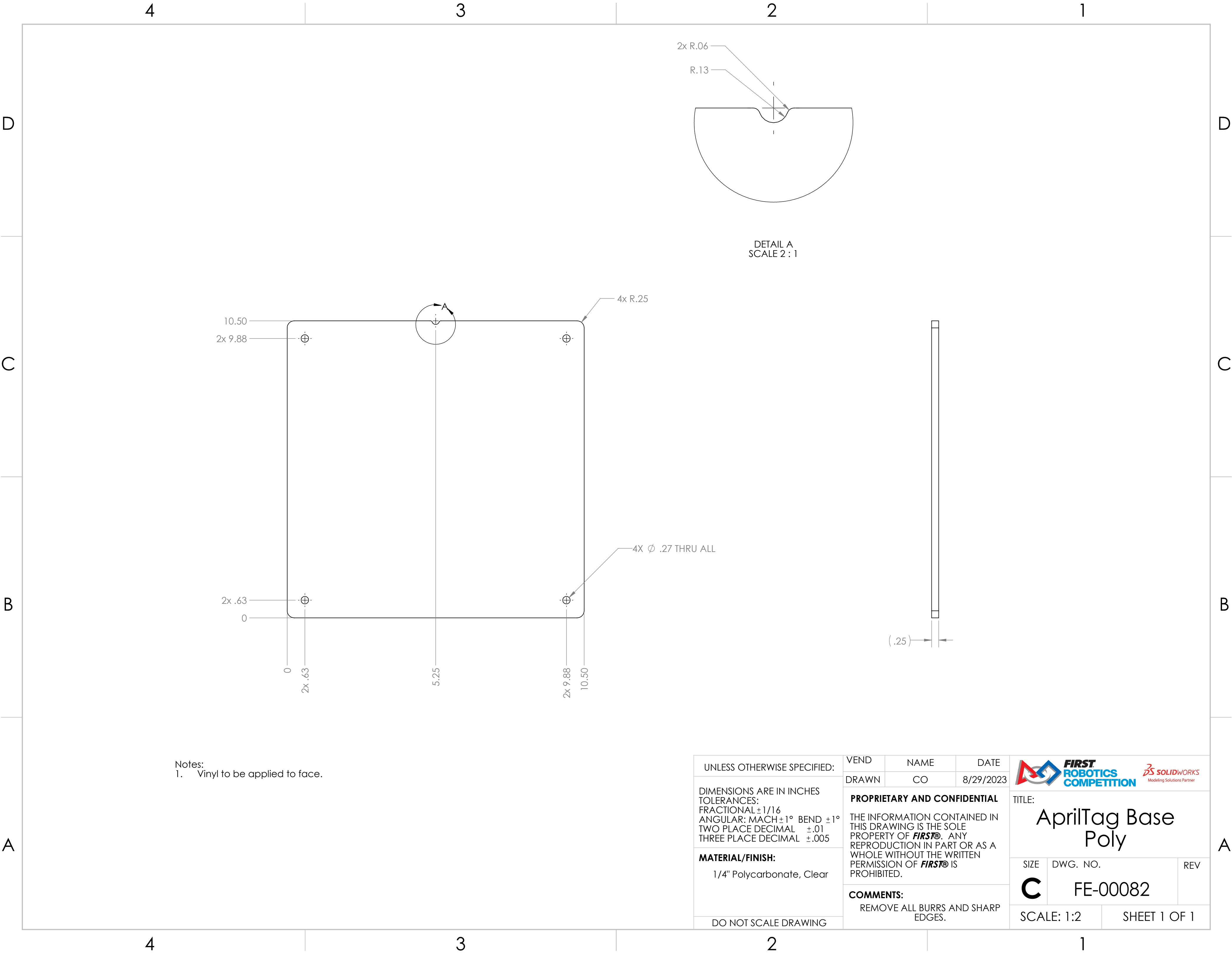
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	DRAWN	NW	8/24/2022			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE	DWG. NO.	REV
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			<b>C</b>	FE-00070	
SCALE: 1:4		SHEET 1 OF 1				

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-00070	Anchor	1
2	Hook_4_22	4" x 22" Hook, Adhesive Backed	1





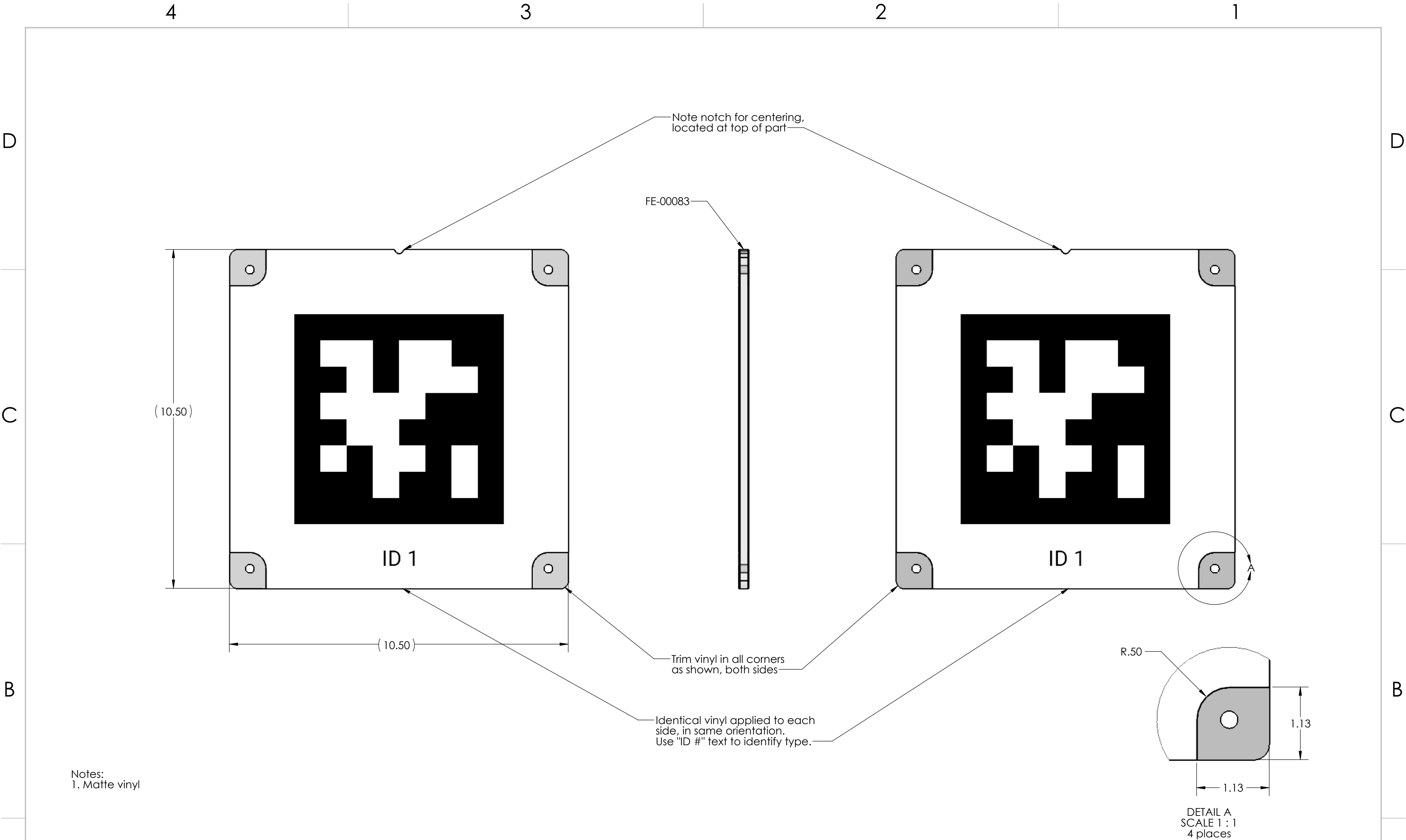
UNLESS OTHERWISE SPECIFIED:	FIELD	NAME	DATE	 <b>FIRST ROBOTICS COMPETITION</b>  <b>SOLIDWORKS</b> Modeling Solutions Partner
	DRAWN	NW	10/3/2022	
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/2 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.50	PROPRIETARY AND CONFIDENTIAL			TITLE:
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			FE-00070 w/ hook
MATERIAL/FINISH:	COMMENTS:			SIZE
	REMOVE ALL BURRS AND SHARP EDGES.			DWG. NO.
DO NOT SCALE DRAWING				C
				FE-00071
				SCALE: 1:4
				SHEET 1 OF 1





Notes:  
1. Vinyl to be applied to face.

UNLESS OTHERWISE SPECIFIED:	VEND	NAME	DATE	<div></div>	
	DRAWN	CO	8/29/2023		
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	PROPRIETARY AND CONFIDENTIAL			TITLE:  AprilTag Base Poly	
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.				
MATERIAL/FINISH:  1/4" Polycarbonate, Clear	COMMENTS:			SIZE	
	REMOVE ALL BURRS AND SHARP EDGES.			DWG. NO.	
DO NOT SCALE DRAWING				REV	
				C	
			FE-00082		
			SCALE: 1:2		SHEET 1 OF 1



Notes:  
1. Matte vinyl

Tag Variations			
Part Number	Vinyl Image	Vinyl QTY per field	Part QTY per field
FE-00083-ID1	FE-00083-ID1-Vinyl	2	1
FE-00083-ID2	FE-00083-ID2-Vinyl	2	1
FE-00083-ID3	FE-00083-ID3-Vinyl	2	1
FE-00083-ID4	FE-00083-ID4-Vinyl	2	1
FE-00083-ID5	FE-00083-ID5-Vinyl	2	1
FE-00083-ID6	FE-00083-ID6-Vinyl	2	1
FE-00083-ID7	FE-00083-ID7-Vinyl	2	1
FE-00083-ID8	FE-00083-ID8-Vinyl	2	1
FE-00083-ID9	FE-00083-ID9-Vinyl	2	1
FE-00083-ID10	FE-00083-ID10-Vinyl	2	1



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/2$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .50$

MATERIAL/FINISH:  
Polycarbonate/Vinyl

DO NOT SCALE DRAWING

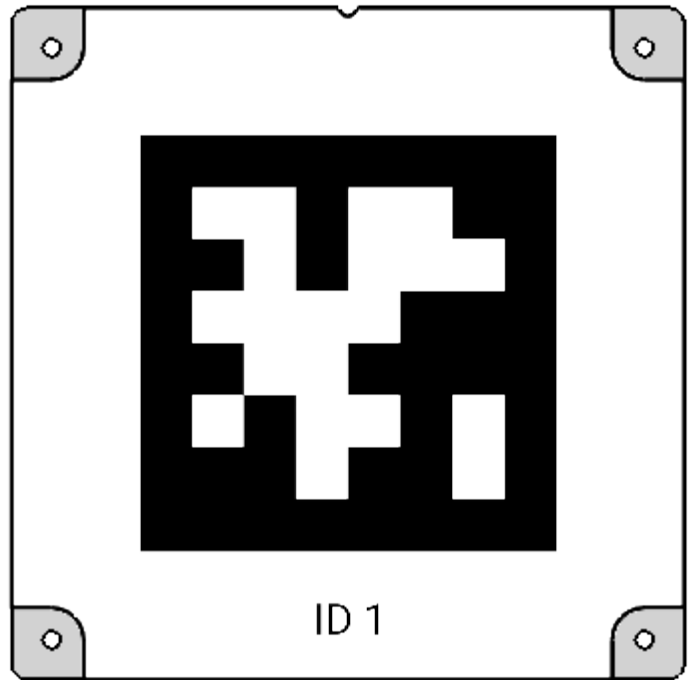
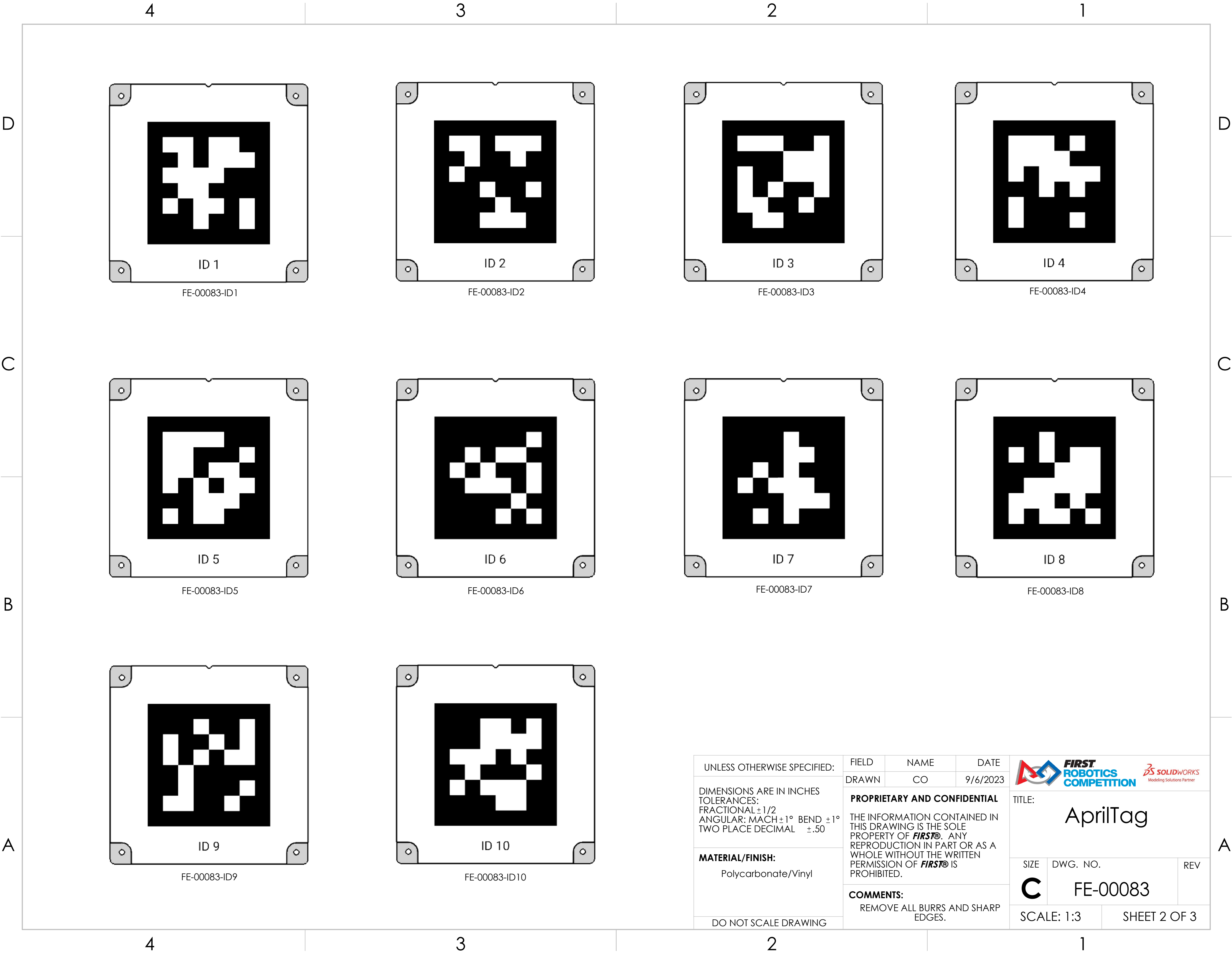
FIELD	NAME	DATE
DRAWN	CO	9/6/2023
PROPRIETARY AND CONFIDENTIAL		
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.		
COMMENTS: REMOVE ALL BURRS AND SHARP EDGES.		



TITLE:  

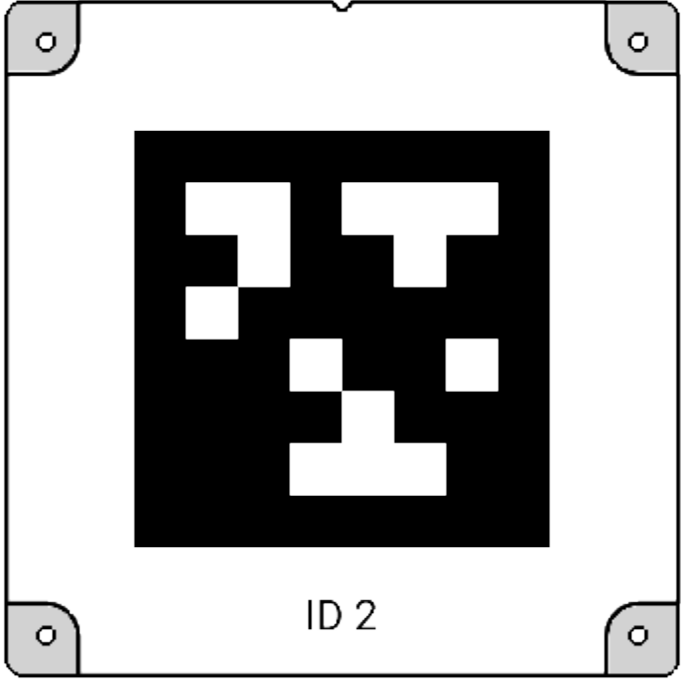
# AprilTag

SIZE	DWG. NO.	REV
<b>C</b>	FE-00083	
SCALE: 1:2		SHEET 1 OF 3



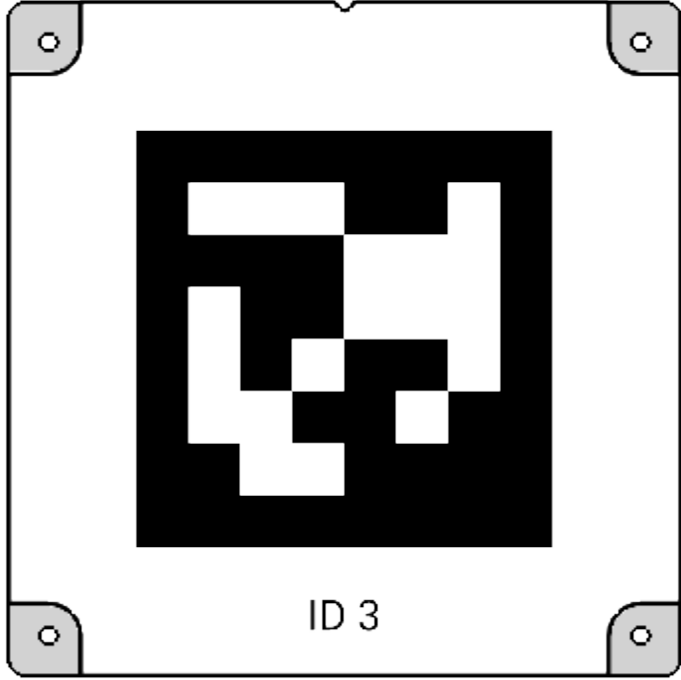
ID 1

FE-00083-ID1



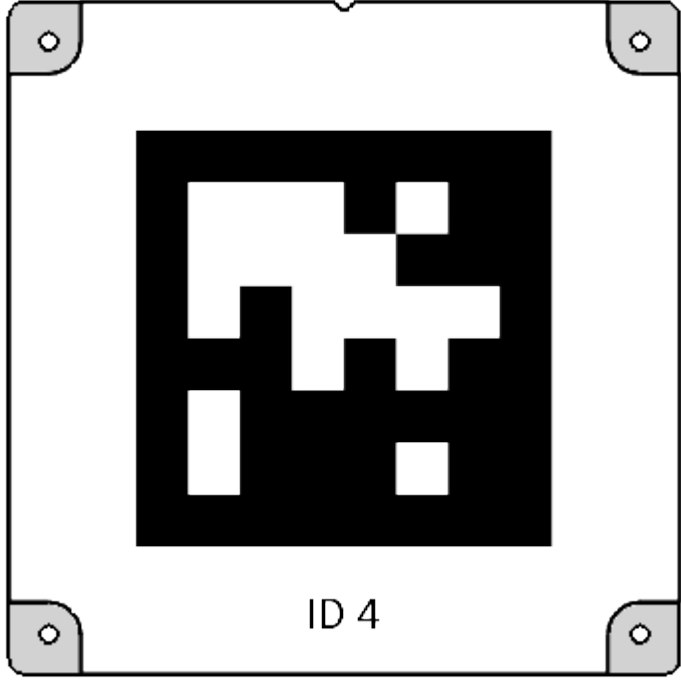
ID 2

FE-00083-ID2



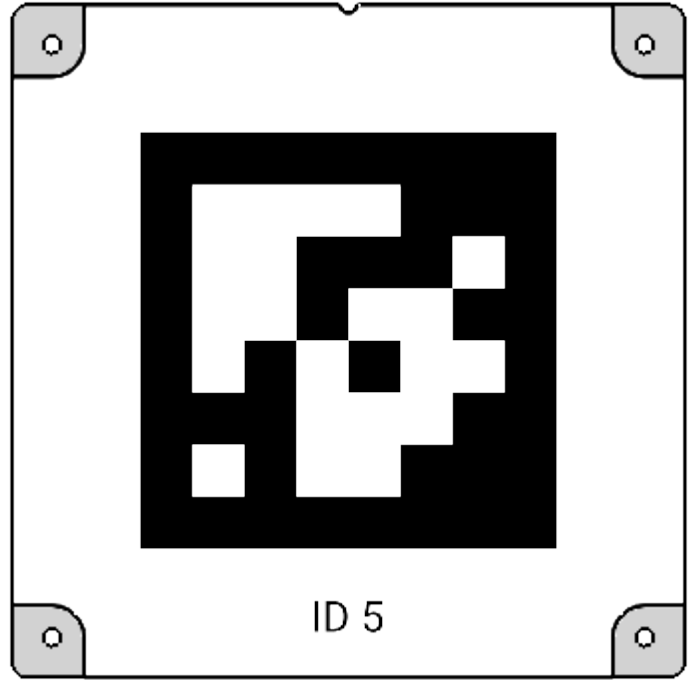
ID 3

FE-00083-ID3



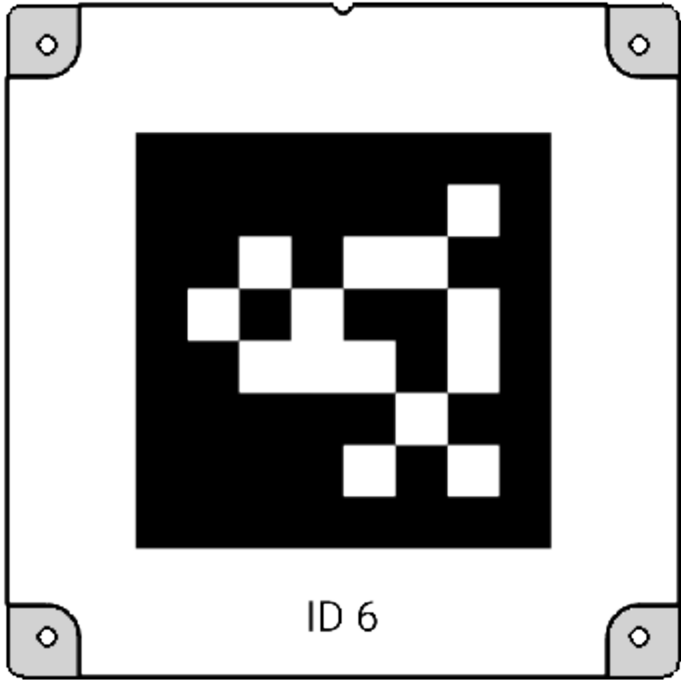
ID 4

FE-00083-ID4



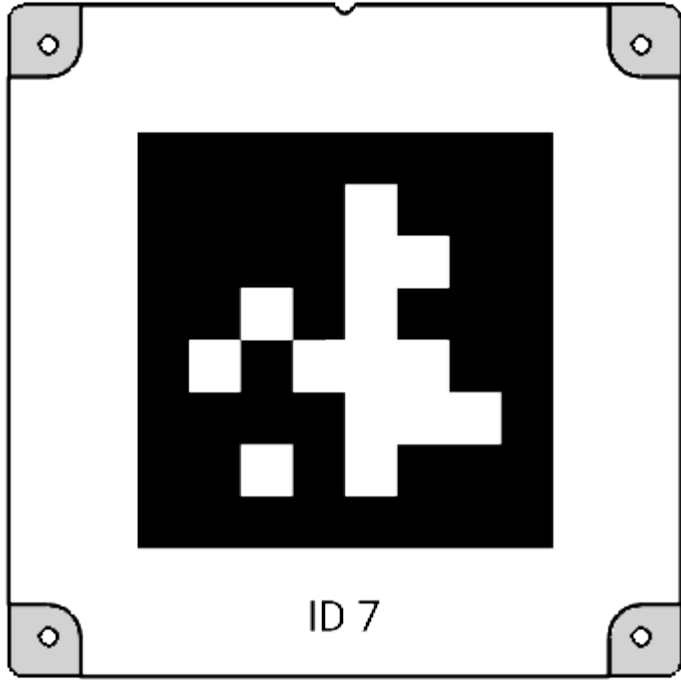
ID 5

FE-00083-ID5



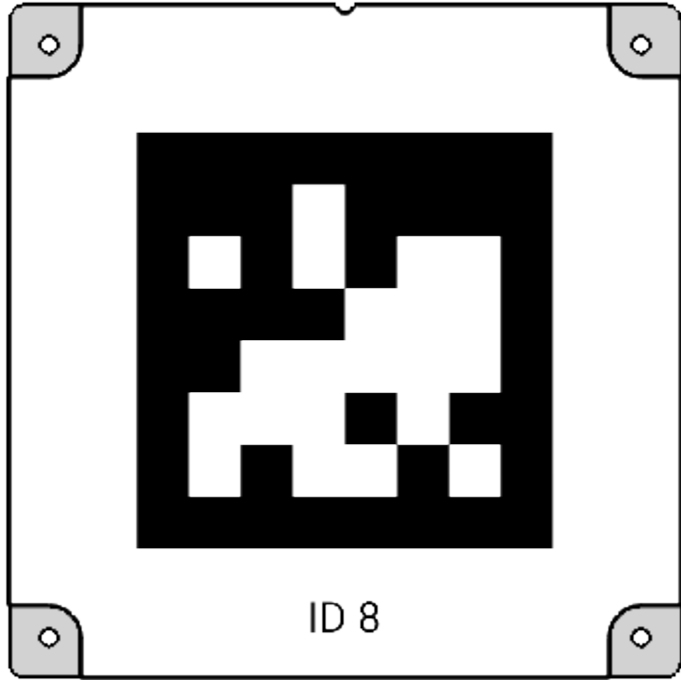
ID 6

FE-00083-ID6



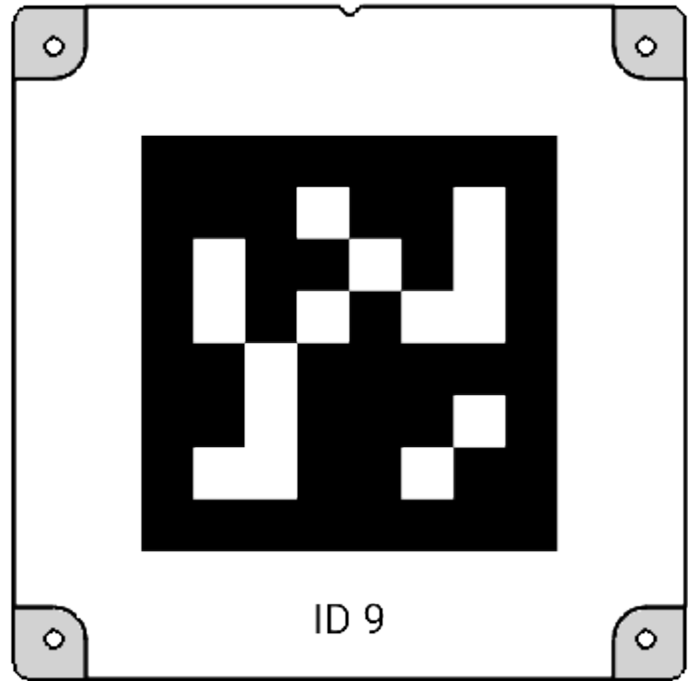
ID 7

FE-00083-ID7



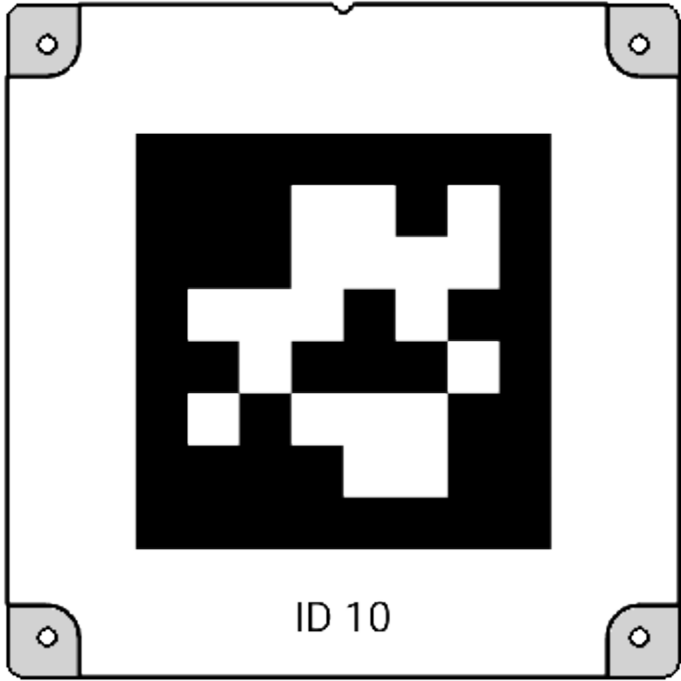
ID 8

FE-00083-ID8



ID 9

FE-00083-ID9



ID 10

FE-00083-ID10

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/2$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .50$

**MATERIAL/FINISH:**  
Polycarbonate/Vinyl

DO NOT SCALE DRAWING

FIELD	NAME	DATE
DRAWN	CO	9/6/2023

**PROPRIETARY AND CONFIDENTIAL**  
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF **FIRST**. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF **FIRST** IS PROHIBITED.

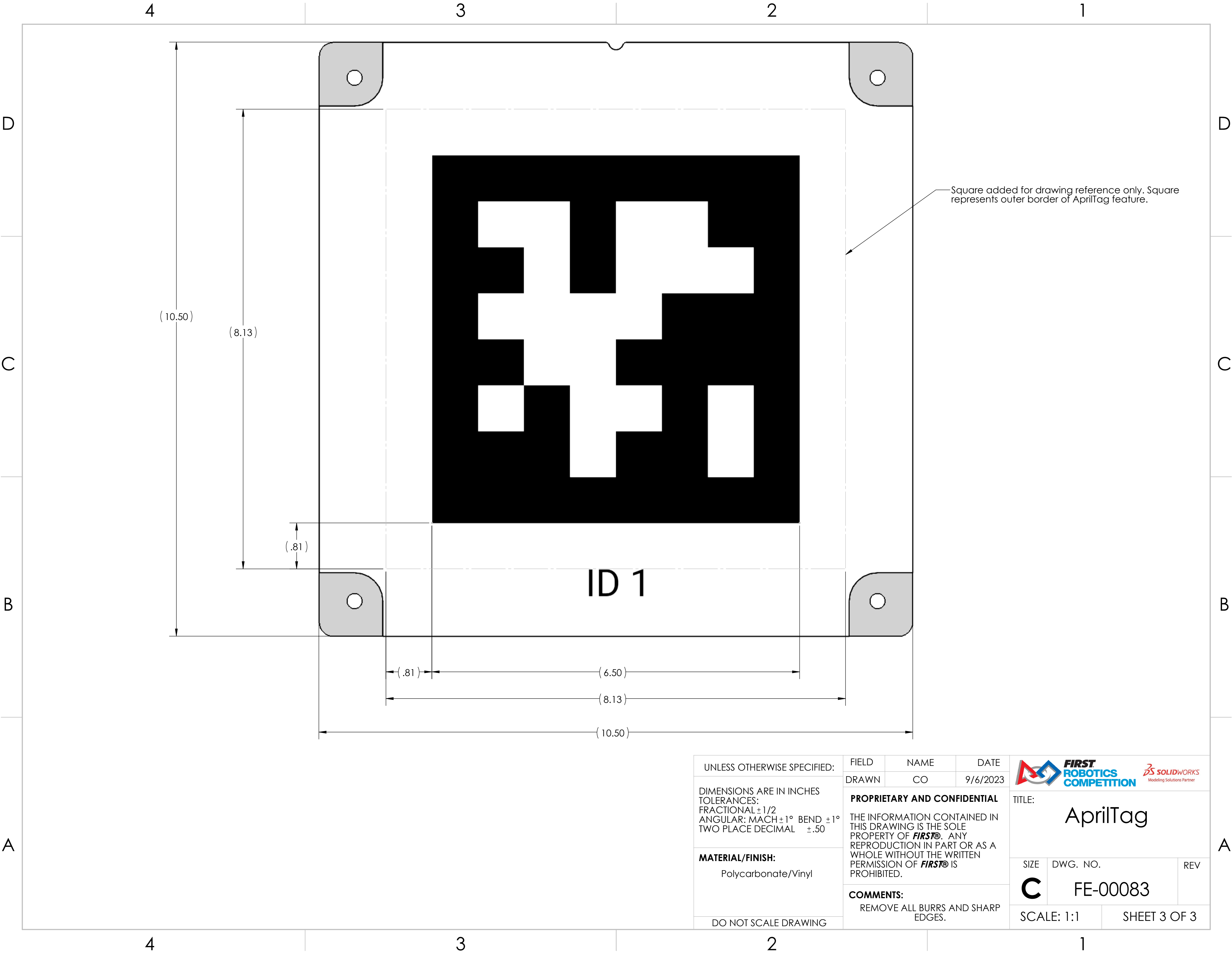
**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.



TITLE:  
**AprilTag**

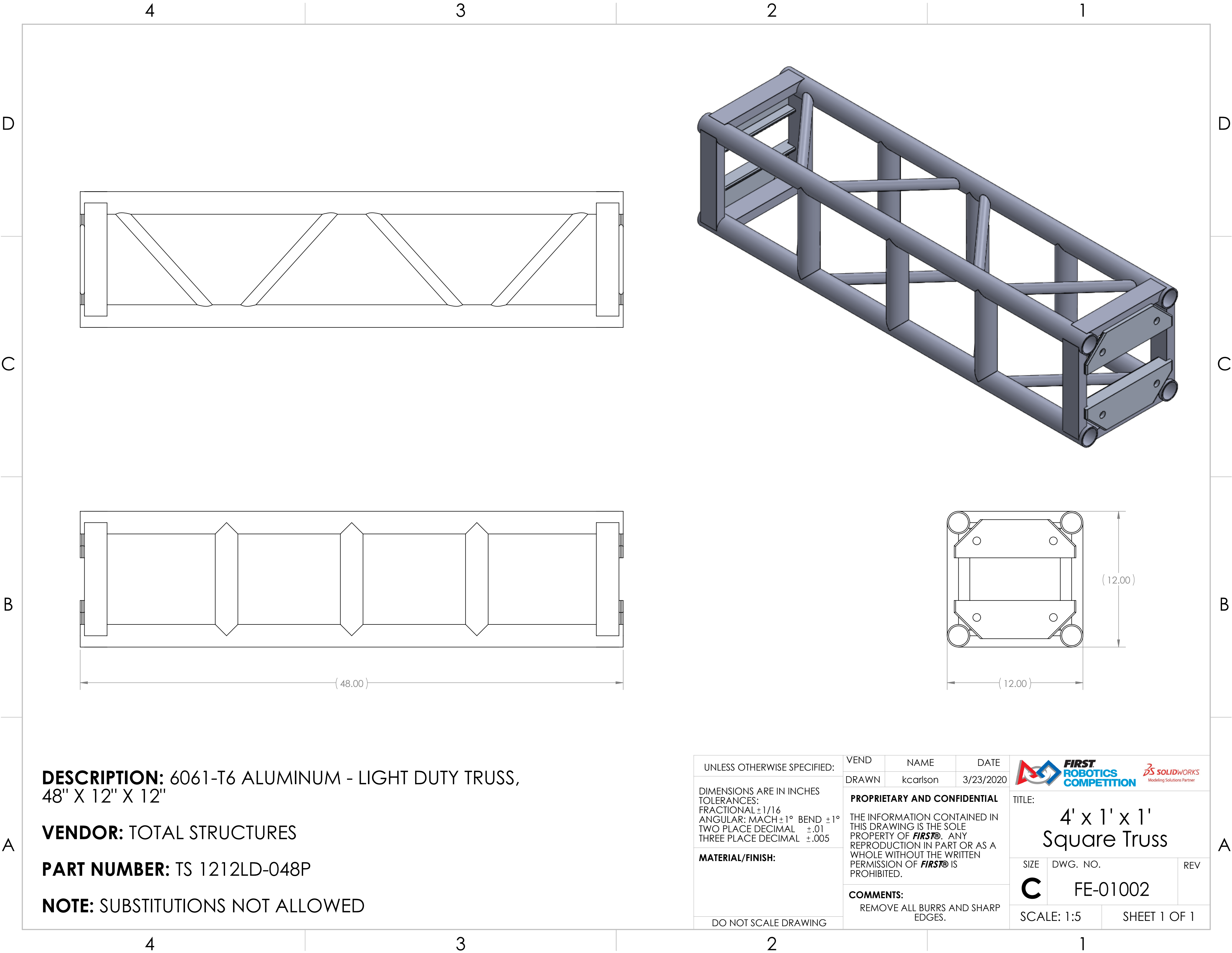
SIZE	DWG. NO.	REV
<b>C</b>	FE-00083	

SCALE: 1:3 SHEET 2 OF 3



UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/2$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .50$	FIELD	NAME	DATE
	DRAWN	CO	9/6/2023
MATERIAL/FINISH:  Polycarbonate/Vinyl	PROPRIETARY AND CONFIDENTIAL  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST</b> IS PROHIBITED.		
	COMMENTS: REMOVE ALL BURRS AND SHARP EDGES.		
DO NOT SCALE DRAWING		TITLE:  AprilTag	
		SIZE <b>C</b>	DWG. NO. FE-00083
		REV	
		SCALE: 1:1	
		SHEET 3 OF 3	







**DESCRIPTION:** 6061-T6 ALUMINUM - LIGHT DUTY TRUSS,  
48" X 12" X 12"

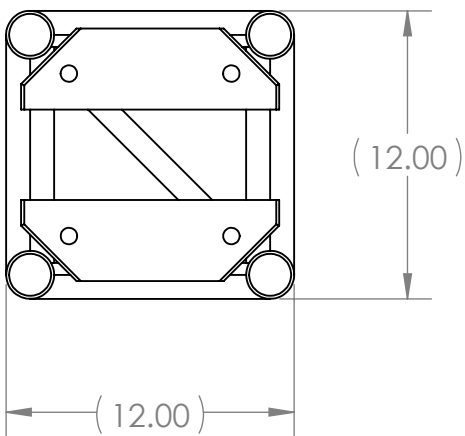
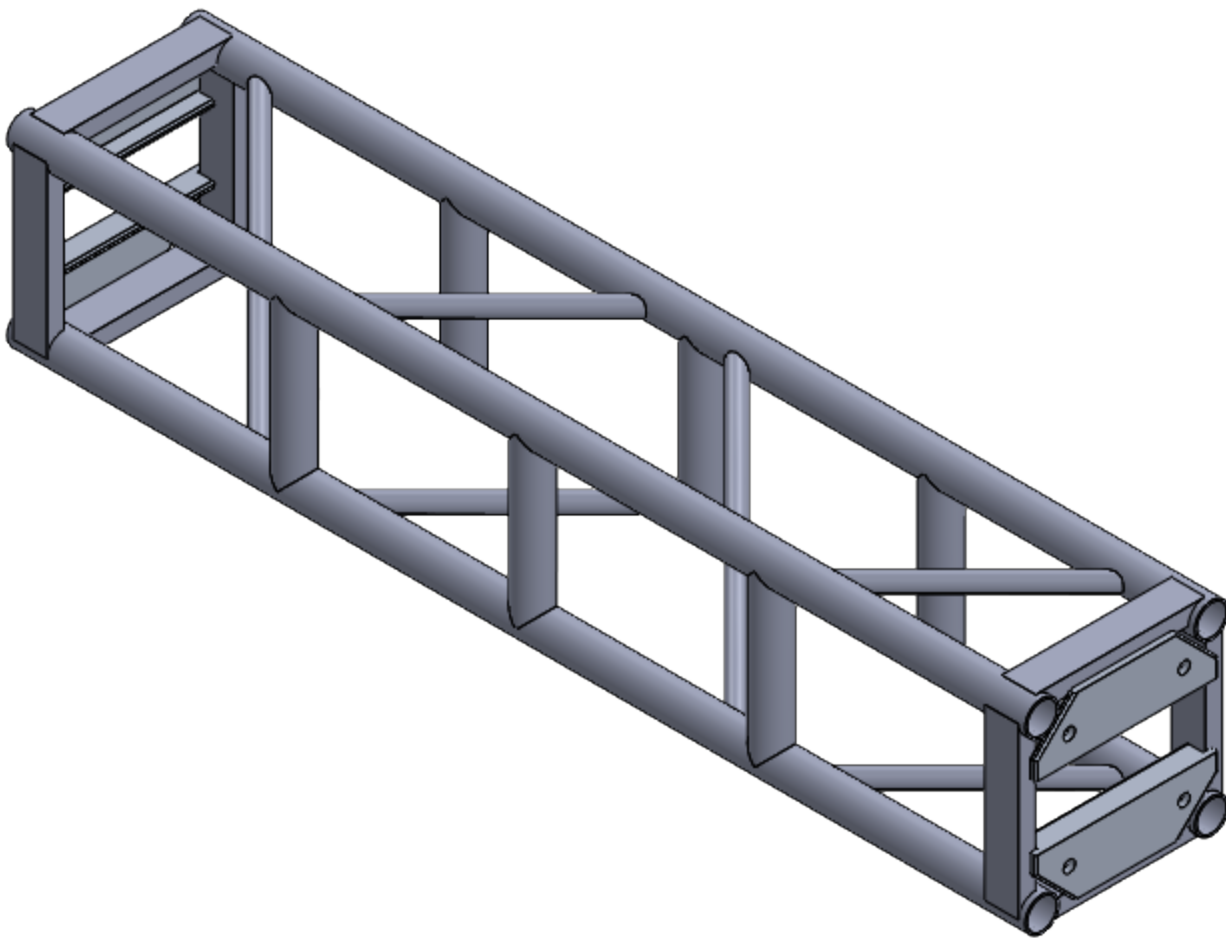
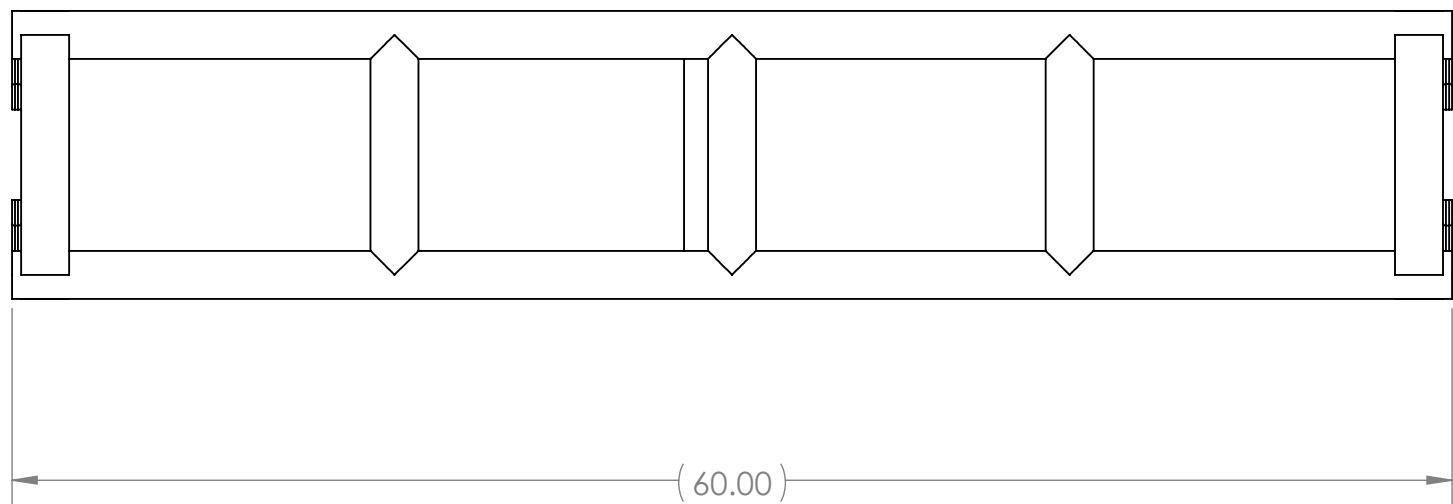
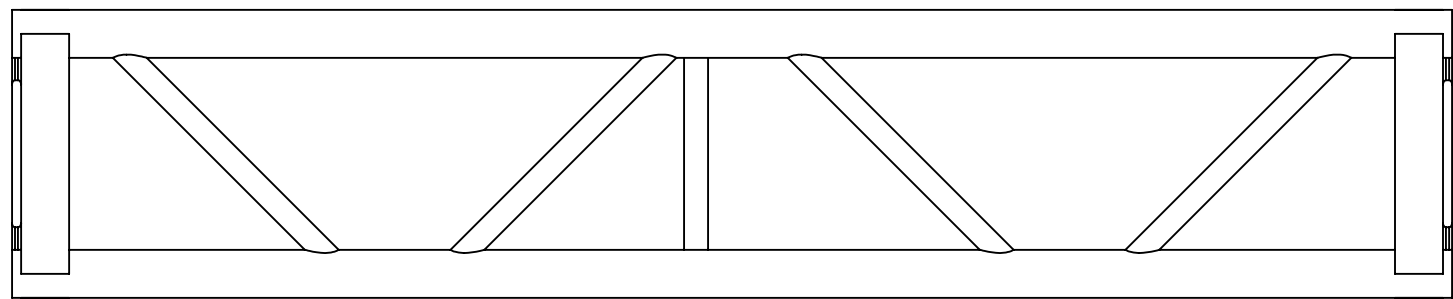
**VENDOR:** TOTAL STRUCTURES

**PART NUMBER:** TS 1212LD-048P

**NOTE:** SUBSTITUTIONS NOT ALLOWED

UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005  <b>MATERIAL/FINISH:</b>    DO NOT SCALE DRAWING	VEND	NAME	DATE	 		
	DRAWN	kcarlson	3/23/2020			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.  <b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.				TITLE:  4' x 1' x 1' Square Truss	
				SIZE	DWG. NO.	REV
				C	FE-01002	
				SCALE: 1:5		SHEET 1 OF 1







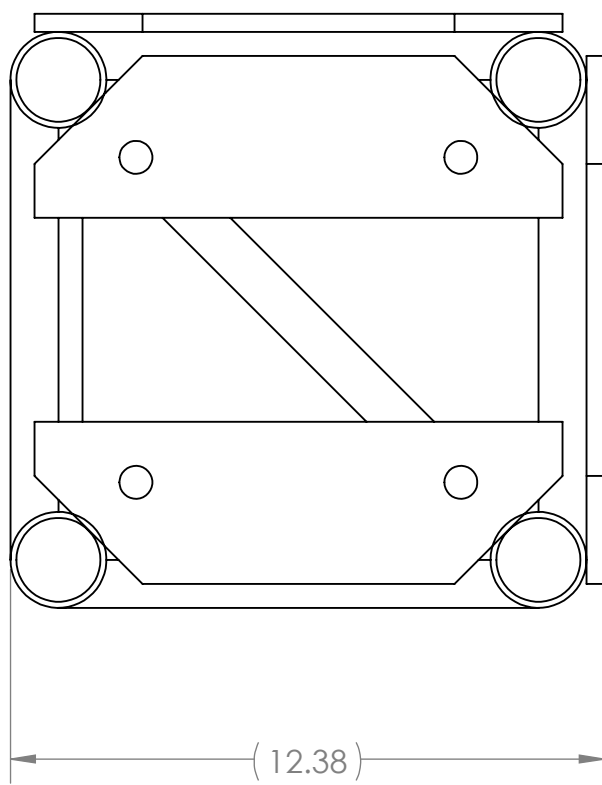
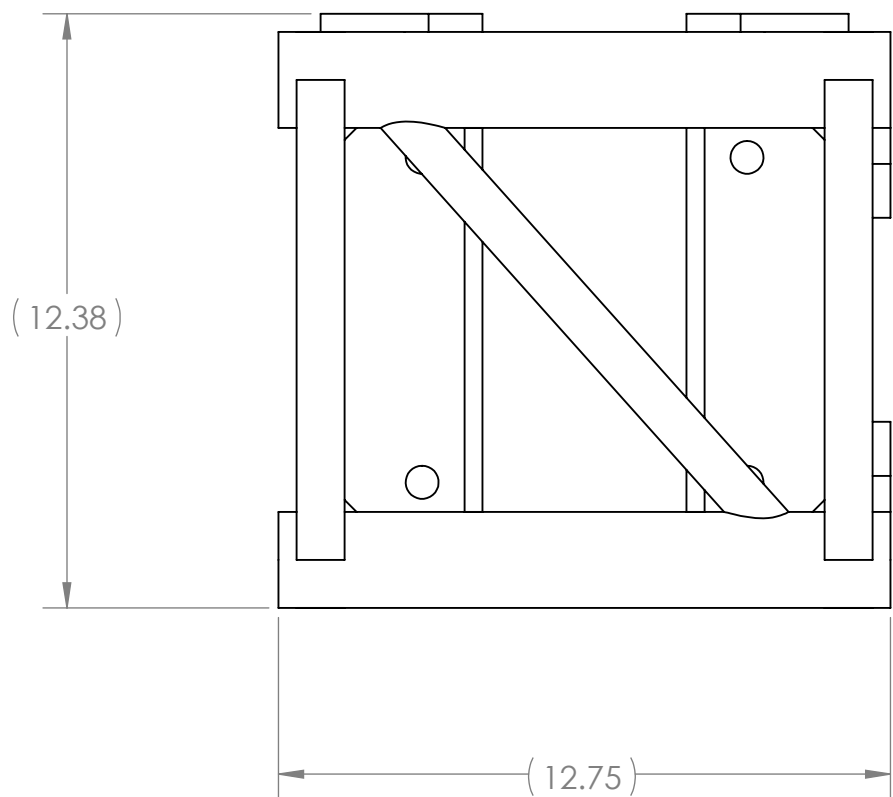
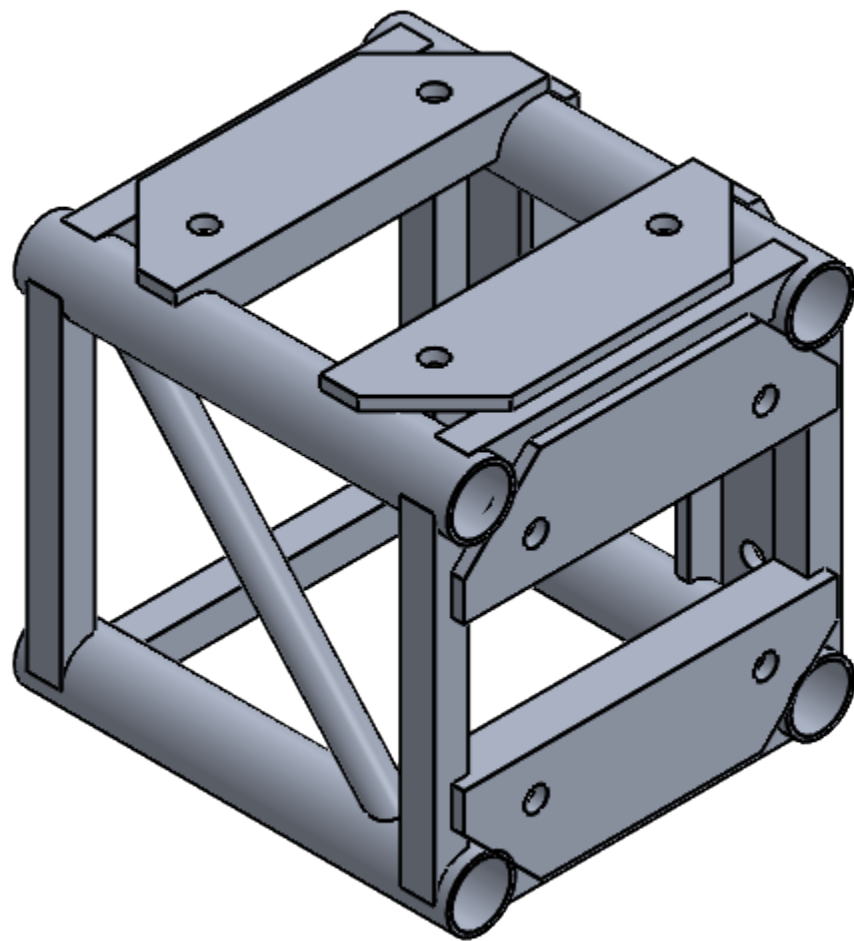
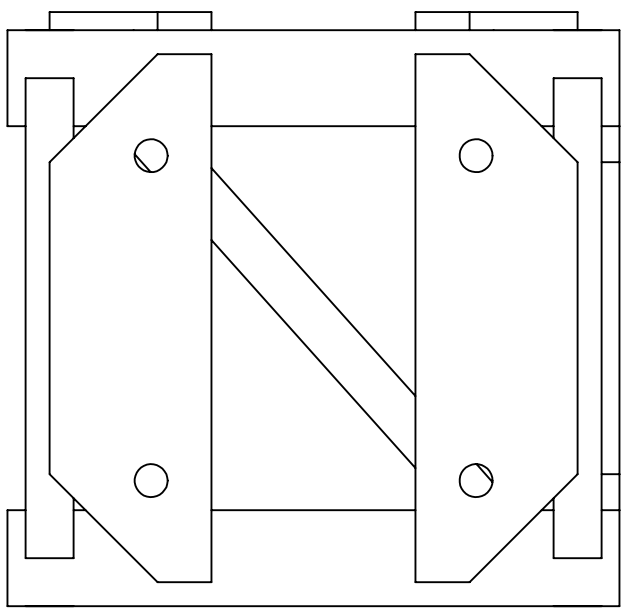
**DESCRIPTION:** 6061-T6 ALUMINUM - LIGHT DUTY TRUSS,  
60" X 12" X 12"

**VENDOR:** TOTAL STRUCTURES

**PART NUMBER:** TS 1212LD-060P

**NOTE:** SUBSTITUTIONS NOT ALLOWED

UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .005$  <b>MATERIAL/FINISH:</b>     DO NOT SCALE DRAWING	VEND	NAME	DATE	  TITLE: <b>5' x 1' x 1'</b> <b>Square Truss</b>	
	DRAWN	kcarlson	3/23/2020		
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST</b> IS PROHIBITED.			SIZE	DWG. NO.
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			<b>C</b>	FE-01003
SCALE: 1:8		SHEET 1 OF 1			





**DESCRIPTION:** 6061-T6 ALUMINUM - LIGHT DUTY TRUSS,  
3-SIDED CORNER BLOCK

**VENDOR:** TOTAL STRUCTURES

**PART NUMBER:** TS 1212LD-C3P

**NOTE:** SUBSTITUTIONS NOT ALLOWED

UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .005$  <b>MATERIAL/FINISH:</b>          DO NOT SCALE DRAWING	VEND	NAME	DATE	<div><div></div><div>TITLE: <b>3 Way Corner Block</b></div></div>	
	DRAWN	kcarlson	3/23/2020		
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE	DWG. NO.
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			<b>C</b>	FE-01012
SCALE: 1:4		SHEET 1 OF 1			

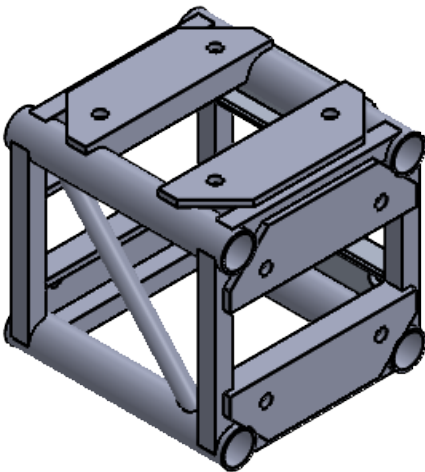
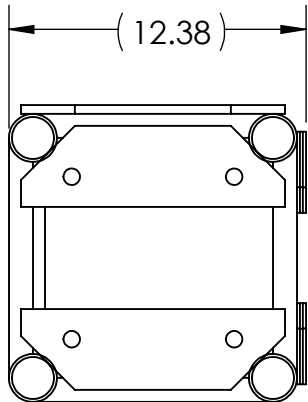
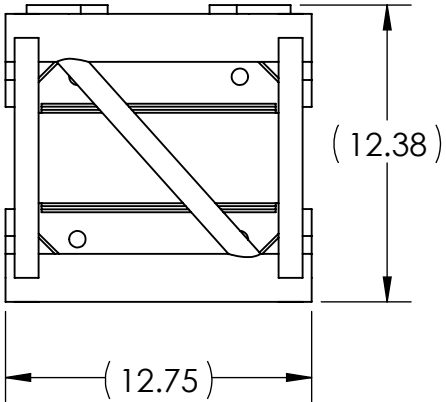
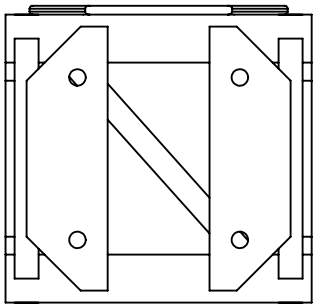
4

3

2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
A3	A	Added Note	10/28/2019	KAMC



**DESCRIPTION:** 6061-T6 ALUMINUM - LIGHT DUTY TRUSS,  
4-SIDED CORNER BLOCK

**VENDOR:** TOTAL STRUCTURES

**PART NUMBER:** TS 1212LD-C4P

**NOTE:** SUBSTITUTIONS NOT ALLOWED



PROPRIETARY AND CONFIDENTIAL  
THE INFORMATION CONTAINED IN THIS  
DRAWING IS THE SOLE PROPERTY OF  
FIRST®. ANY REPRODUCTION IN PART  
OR AS A WHOLE WITHOUT THE WRITTEN  
PERMISSION OF FIRST® IS PROHIBITED.

		UNLESS OTHERWISE SPECIFIED:		NAME	DATE
		DIMENSIONS ARE IN INCHES	DRAWN	KAMC	9/23/19
		TOLERANCES:	CHECKED		
		FRACTIONAL: $\pm 1/16$	ENG APPR.		
		ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$	MFG APPR.		
		TWO PLACE DECIMAL $\pm .01$	Q.A.		
		THREE PLACE DECIMAL $\pm .001$	COMMENTS:		
		INTERPRET GEOMETRIC TOLERANCING PER:			
		MATERIAL			
		FINISH			
NEXT ASSY	USED ON				
APPLICATION		DO NOT SCALE DRAWING			
			TITLE: TS 1212LD-C4P, 4 Way Corner Block Light Duty Truss, Total Structures		
			SIZE <b>B</b>	DWG. NO. <b>FE-01013</b>	REV
			SCALE: 1:8	WEIGHT:	SHEET 1 OF 1

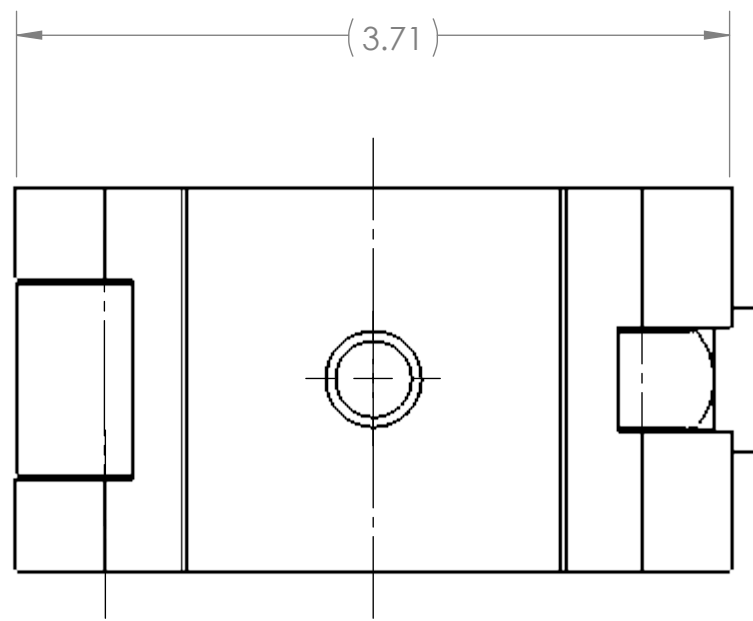
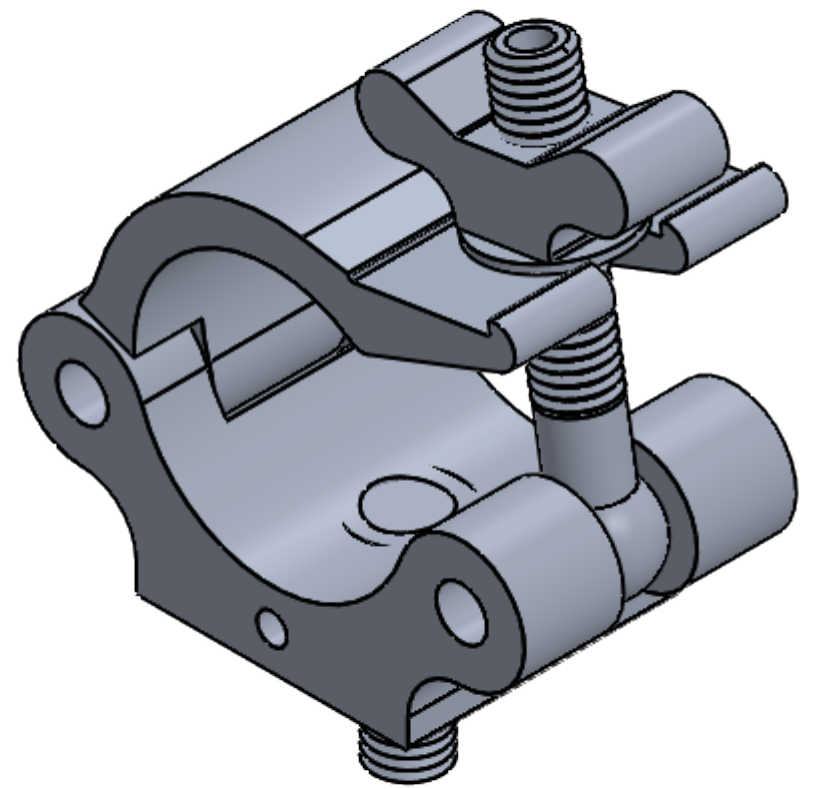
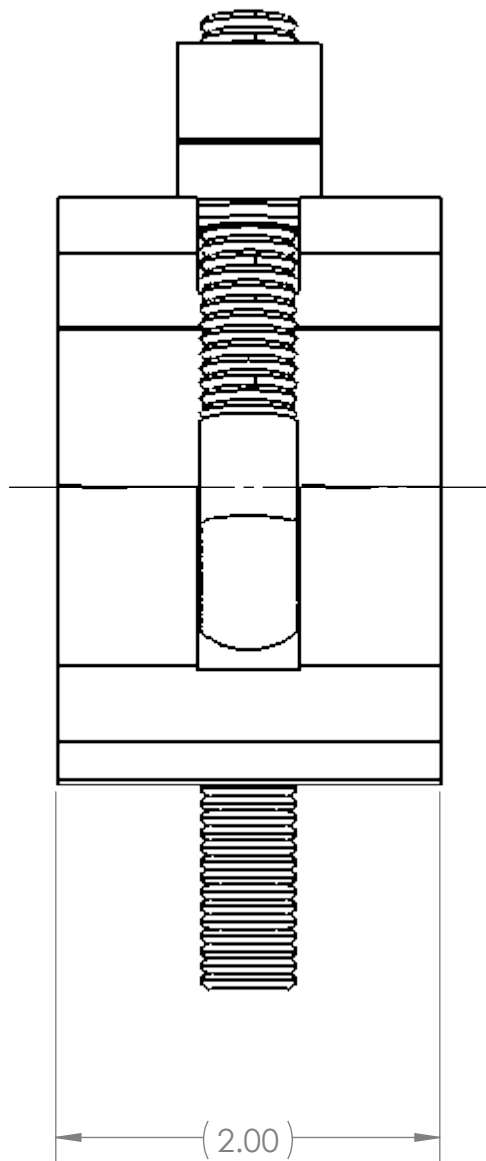
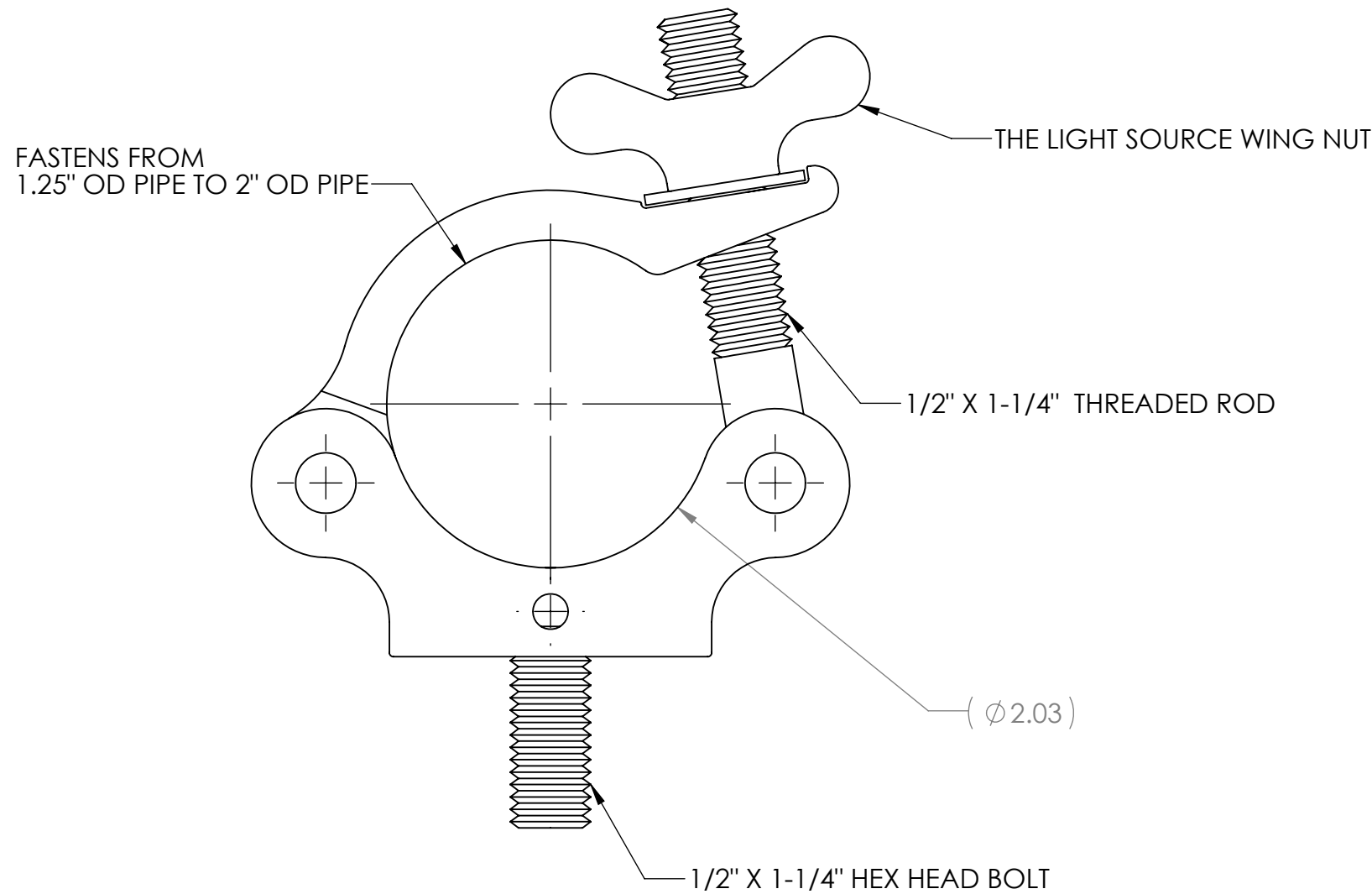


4

3

2

1





**DESCRIPTION:** CHEESE BOROUGH FOR TRUSS - MLM MEGA COUPLER, SILVER

**VENDOR:** TOTAL STRUCTURES VIA THE LIGHT SOURCE

**PART NUMBER:** MLM MEGA COUPLER

**NOTE:** SUBSTITUTIONS NOT ALLOWED

UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005  <b>MATERIAL/FINISH:</b>          DO NOT SCALE DRAWING	VEND	NAME	DATE	<div><div></div><div>TITLE: Cheeseborough for Truss _ Single</div></div>		
	DRAWN	kcarlson	3/23/2020			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.				SIZE DWG. NO. REV  <b>C</b> FE-01016	
	<b>COMMENTS:</b>  REMOVE ALL BURRS AND SHARP EDGES.					
SCALE: 1:1		SHEET 1 OF 1				

4

3

2

1

D

D

C

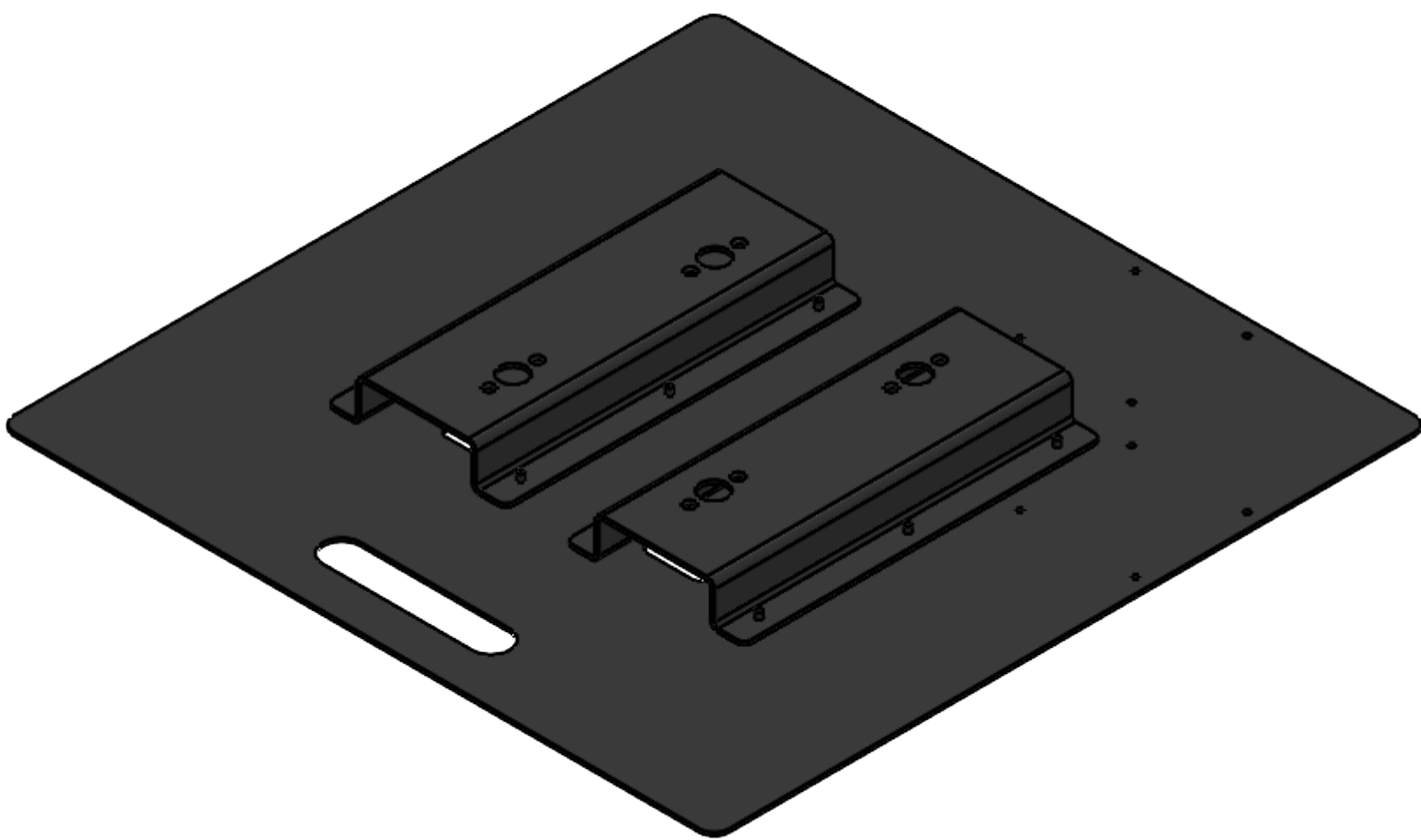
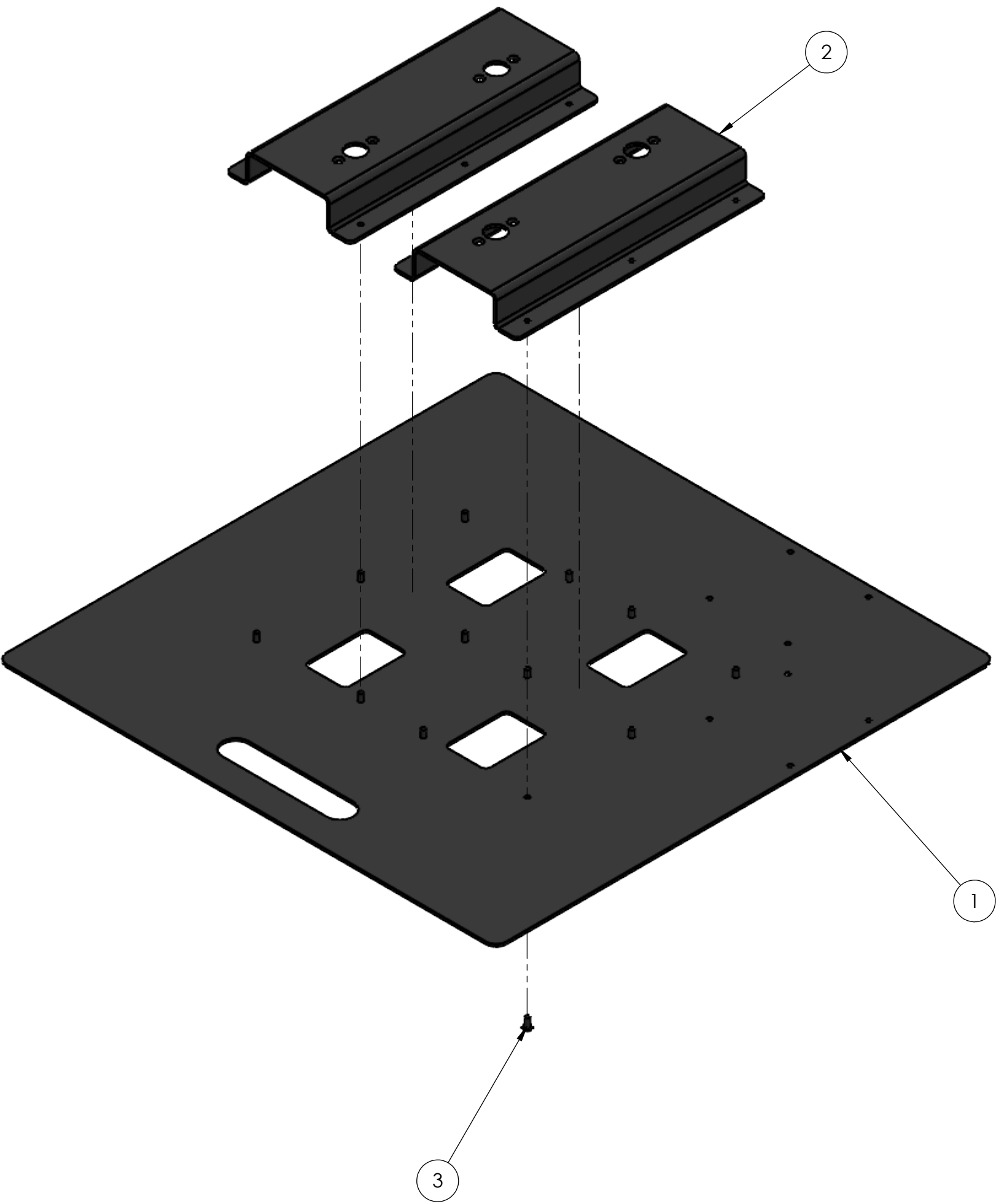
C

B

B



A

A

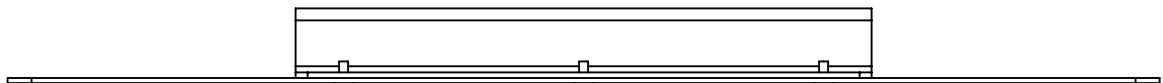
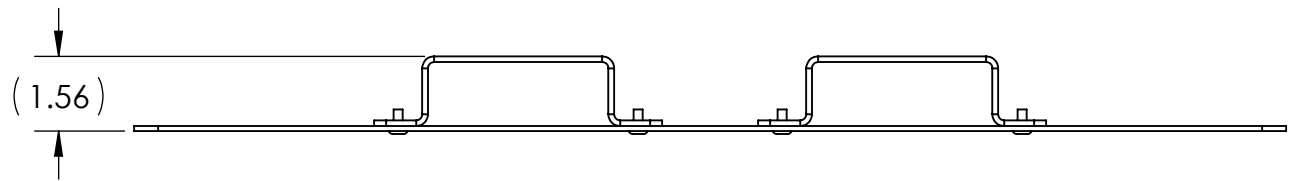
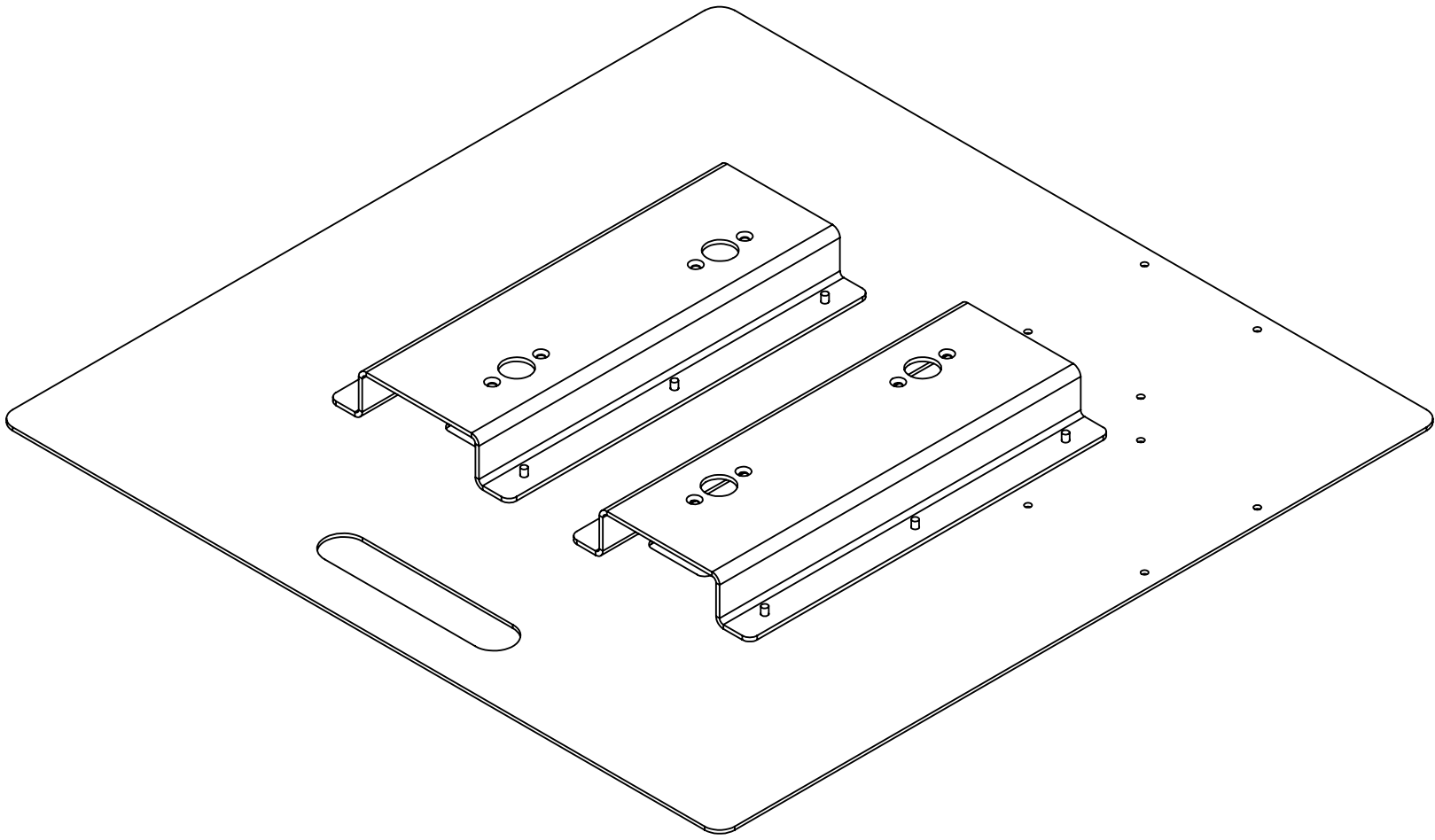
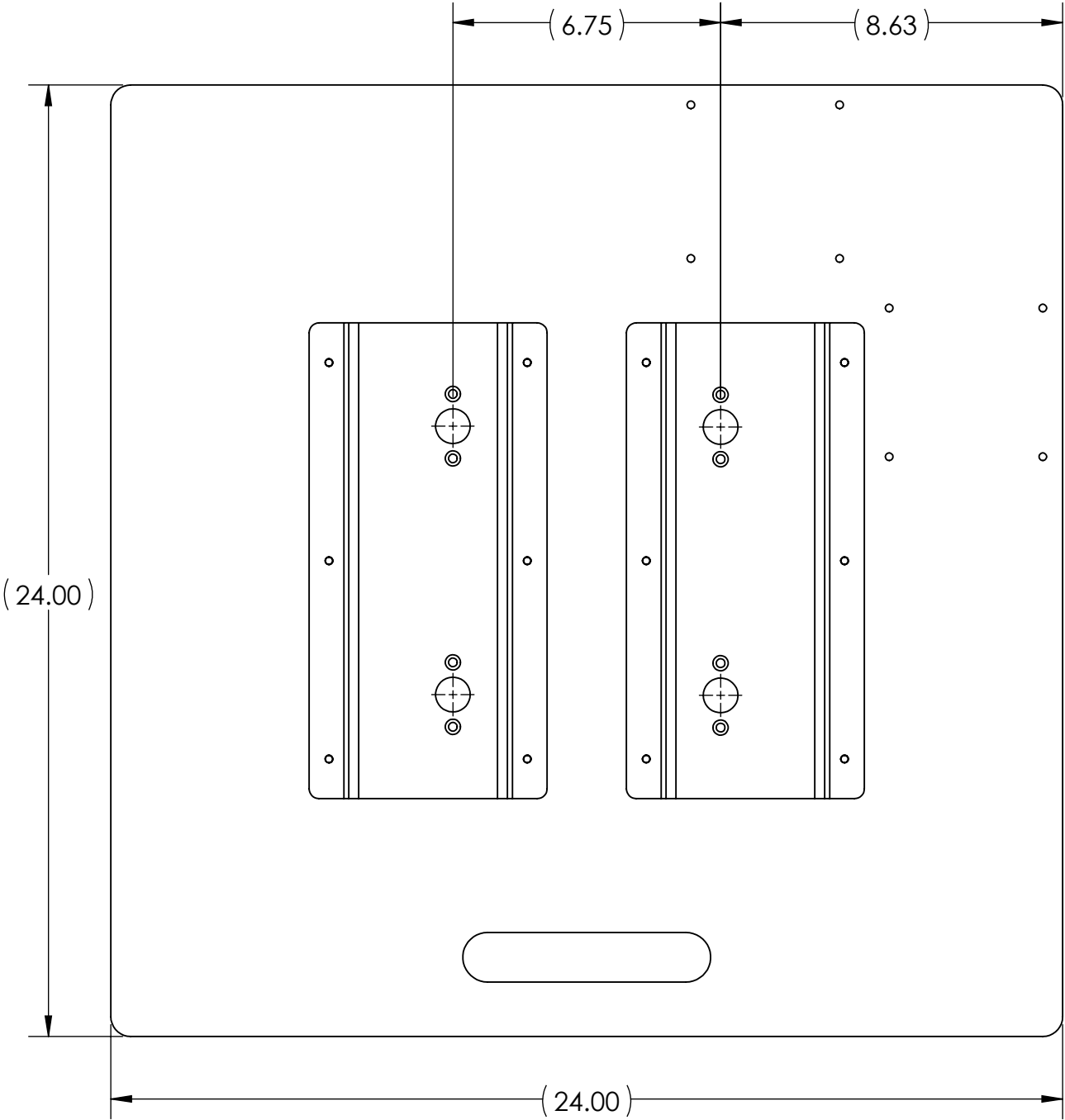




- Notes:
- 1. Rivets should be plated or stainless steel
  - 2. Tag or label with part number.
  - 3. Powder Coated Black (Full Assembly).

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-01020-01	Truss Base - Sheet Metal Assembly, Base Plate	1
2	FE-01020-02	Truss Base - Sheet Metal Assembly, Truss Feet	2
3	rivet_.1875_.126-.25	3/16" Rivet, .126-.25 Grip Range	12

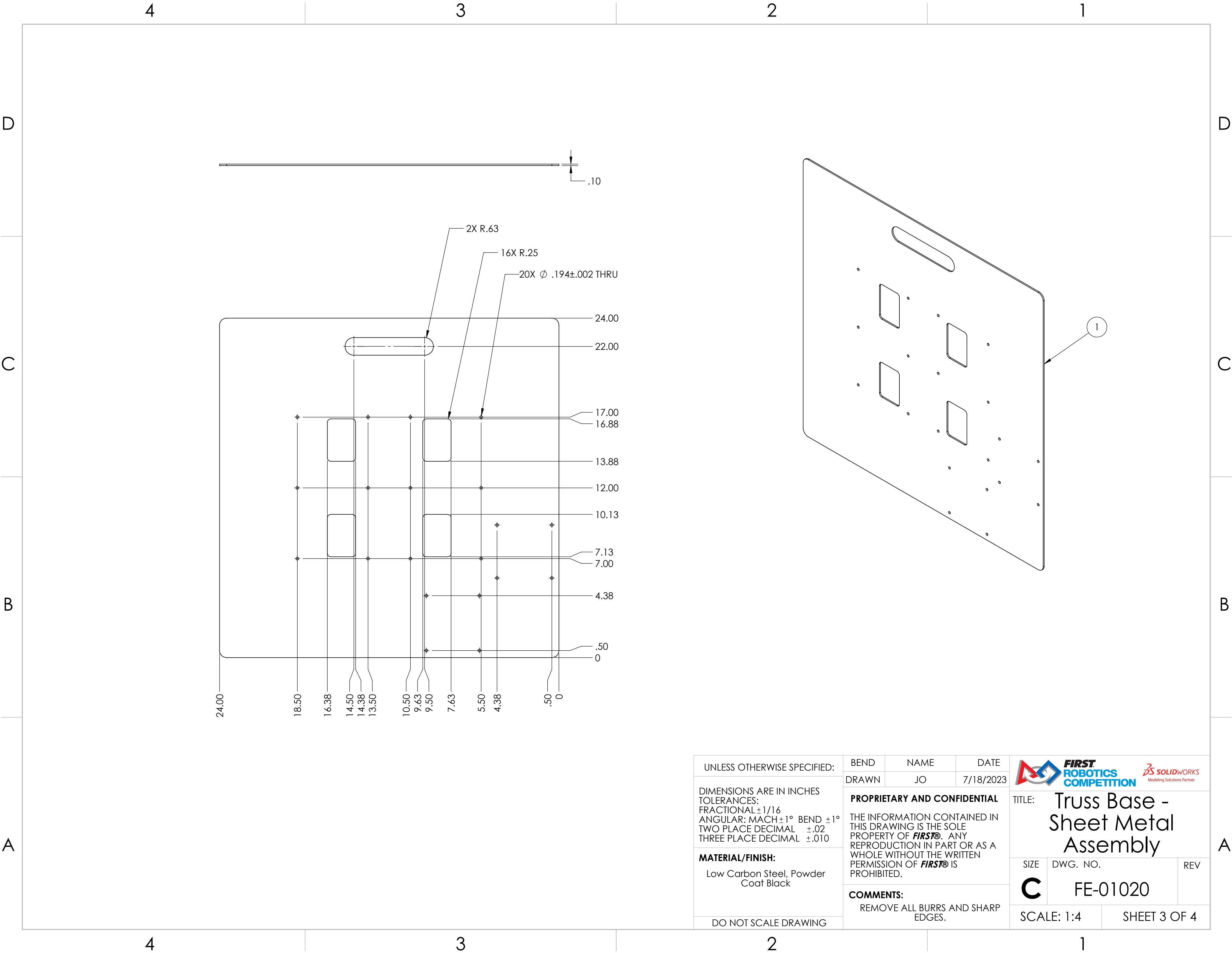
UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .02$ THREE PLACE DECIMAL $\pm .010$  <b>MATERIAL/FINISH:</b>  Low Carbon Steel, Powder Coat Black  DO NOT SCALE DRAWING	BEND	NAME	DATE	 	
	DRAWN	JO	7/18/2023		
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			TITLE: Truss Base - Sheet Metal Assembly	
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			SIZE <b>C</b>	DWG. NO. FE-01020 REV
SCALE: 1:4		SHEET 1 OF 4			





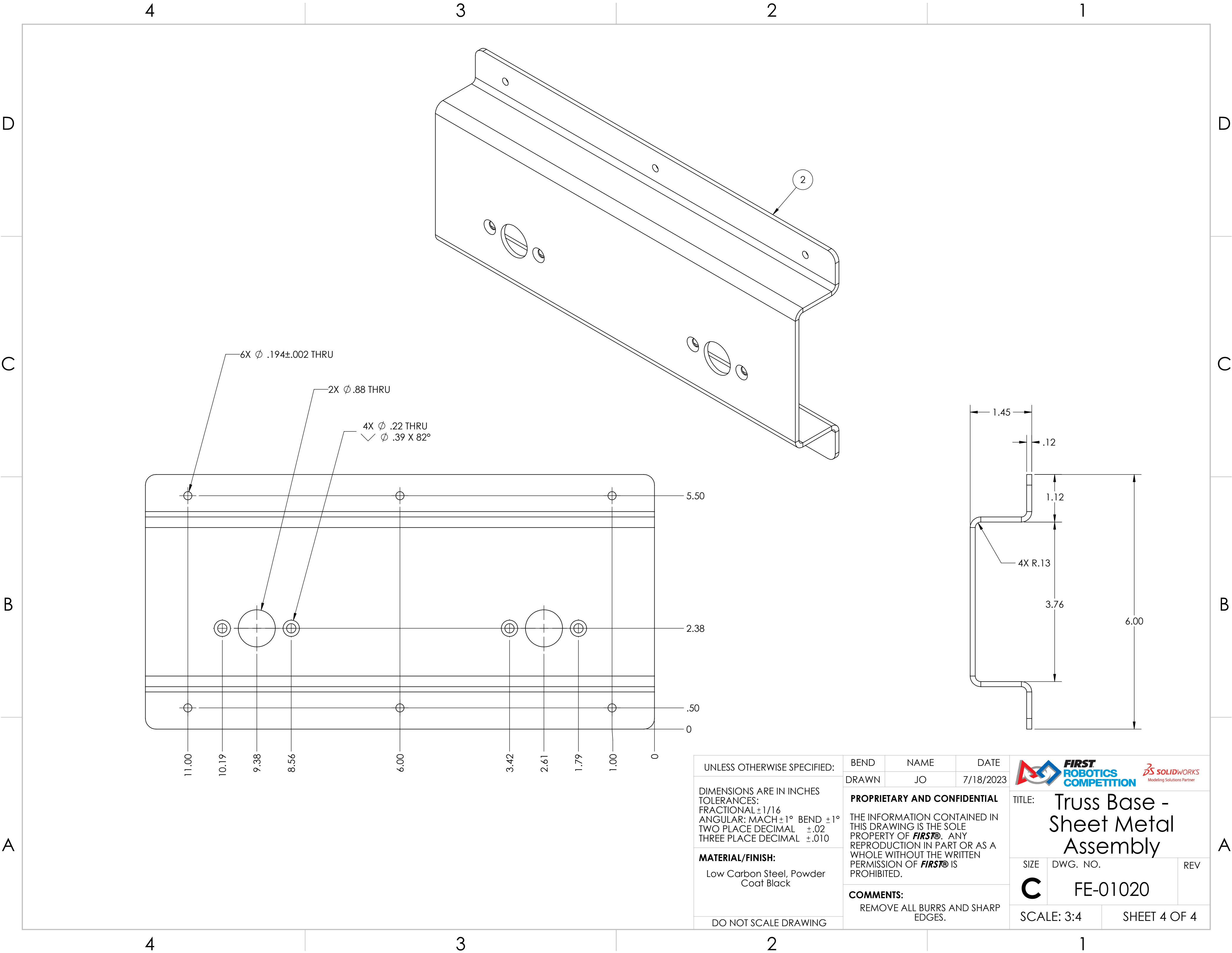


UNLESS OTHERWISE SPECIFIED:	BEND	NAME	DATE	<div></div>		
	DRAWN	JO	7/18/2023			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.02 THREE PLACE DECIMAL ±.010	PROPRIETARY AND CONFIDENTIAL			TITLE:		
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			Truss Base - Sheet Metal Assembly		
MATERIAL/FINISH:  Low Carbon Steel, Powder Coat Black	COMMENTS:  REMOVE ALL BURRS AND SHARP EDGES.			SIZE	DWG. NO.	REV
				C	FE-01020	
DO NOT SCALE DRAWING				SCALE: 1:4		SHEET 2 OF 4





UNLESS OTHERWISE SPECIFIED:	BEND	NAME	DATE	<div></div>
	DRAWN	JO	7/18/2023	
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.02 THREE PLACE DECIMAL ±.010	PROPRIETARY AND CONFIDENTIAL			TITLE: Truss Base - Sheet Metal Assembly
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			
	MATERIAL/FINISH:	COMMENTS:		
Low Carbon Steel, Powder Coat Black	REMOVE ALL BURRS AND SHARP EDGES.			DWG. NO.
DO NOT SCALE DRAWING				REV
				C
			FE-01020	
SCALE: 1:4			SHEET 3 OF 4	



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .02$   
THREE PLACE DECIMAL  $\pm .010$

**MATERIAL/FINISH:**  
Low Carbon Steel, Powder  
Coat Black

DO NOT SCALE DRAWING

BEND	NAME	DATE
DRAWN	JO	7/18/2023

**PROPRIETARY AND CONFIDENTIAL**  
THE INFORMATION CONTAINED IN  
THIS DRAWING IS THE SOLE  
PROPERTY OF **FIRST®**. ANY  
REPRODUCTION IN PART OR AS A  
WHOLE WITHOUT THE WRITTEN  
PERMISSION OF **FIRST®** IS  
PROHIBITED.

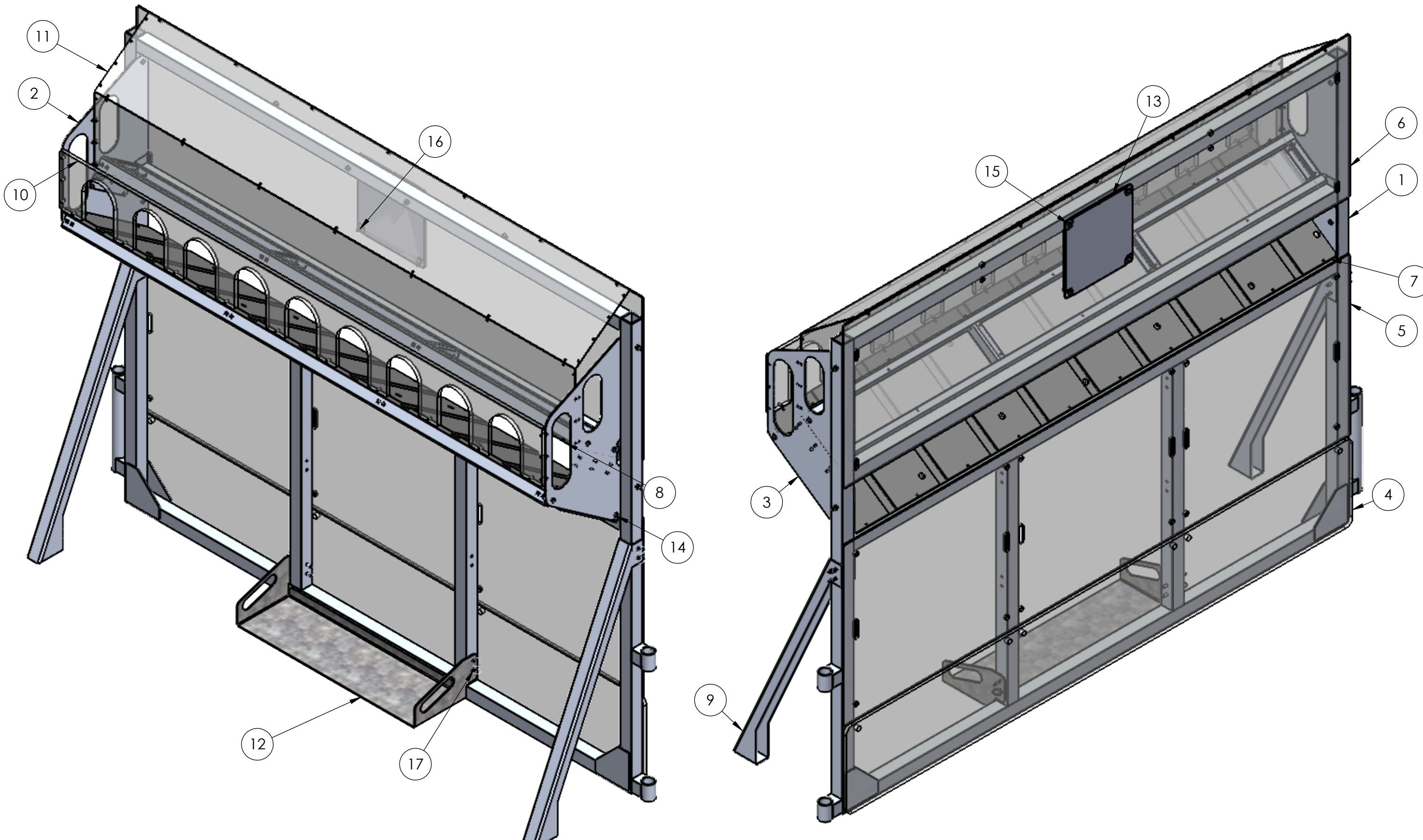
**COMMENTS:**  
REMOVE ALL BURRS AND SHARP  
EDGES.



TITLE: **Truss Base -  
Sheet Metal  
Assembly**



SIZE	DWG. NO.	REV
<b>C</b>	<b>FE-01020</b>	

SCALE: 3:4 SHEET 4 OF 4



Note: April Tag ID # changes depending on which Coral Station it is on. See the Field Layout and Marking Diagram for more details.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25001	Field Border Frame	1
2	GE-25002	Left Side Plate Assembly	1
3	GE-25003	Right Side Plate Assembly	1
4	GE-25007	Bumper Plastic	1
5	GE-25008	Lower Front Plastic	1
6	GE-25009	Upper Front Plastic	1
7	GE-25010	Chute Ramp Assembly	1
8	GE-25015	Chute Cover Assembly	1
9	GE-25019	Frame Support Leg	2
10	GE-25020	Back Divider Plastic	1
11	GE-25021	Top Cover Plastic	2
12	GE-25022	Floor Support - 2025 Specific	1
13	FE-00083-ID2	AprilTag	1
14	Configurable Bolt	1" Long 1/4-20 Hex Head Bolt	10
15	Configurable Bolt	2.5" Long 1/4-20 Hex Head Bolt	6
16	nylock_.25_20	Steel Nylon-Insert Locknut, 1/4"-20	8
17	98320A143	Zinc-Plated Steel Ring-Grip Quick-Release Pin	8

UNLESS OTHERWISE SPECIFIED:	FIELD	NAME	DATE	<div></div>		
	DRAWN	JO	10/28/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/2 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.50	PROPRIETARY AND CONFIDENTIAL			TITLE:  Coral Station		
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.					
MATERIAL/FINISH:	COMMENTS:			SIZE	DWG. NO.	REV
DO NOT SCALE DRAWING	REMOVE ALL BURRS AND SHARP EDGES.			C	GE-25000	
				SCALE: 1:10		SHEET 1 OF 2

4

3

2

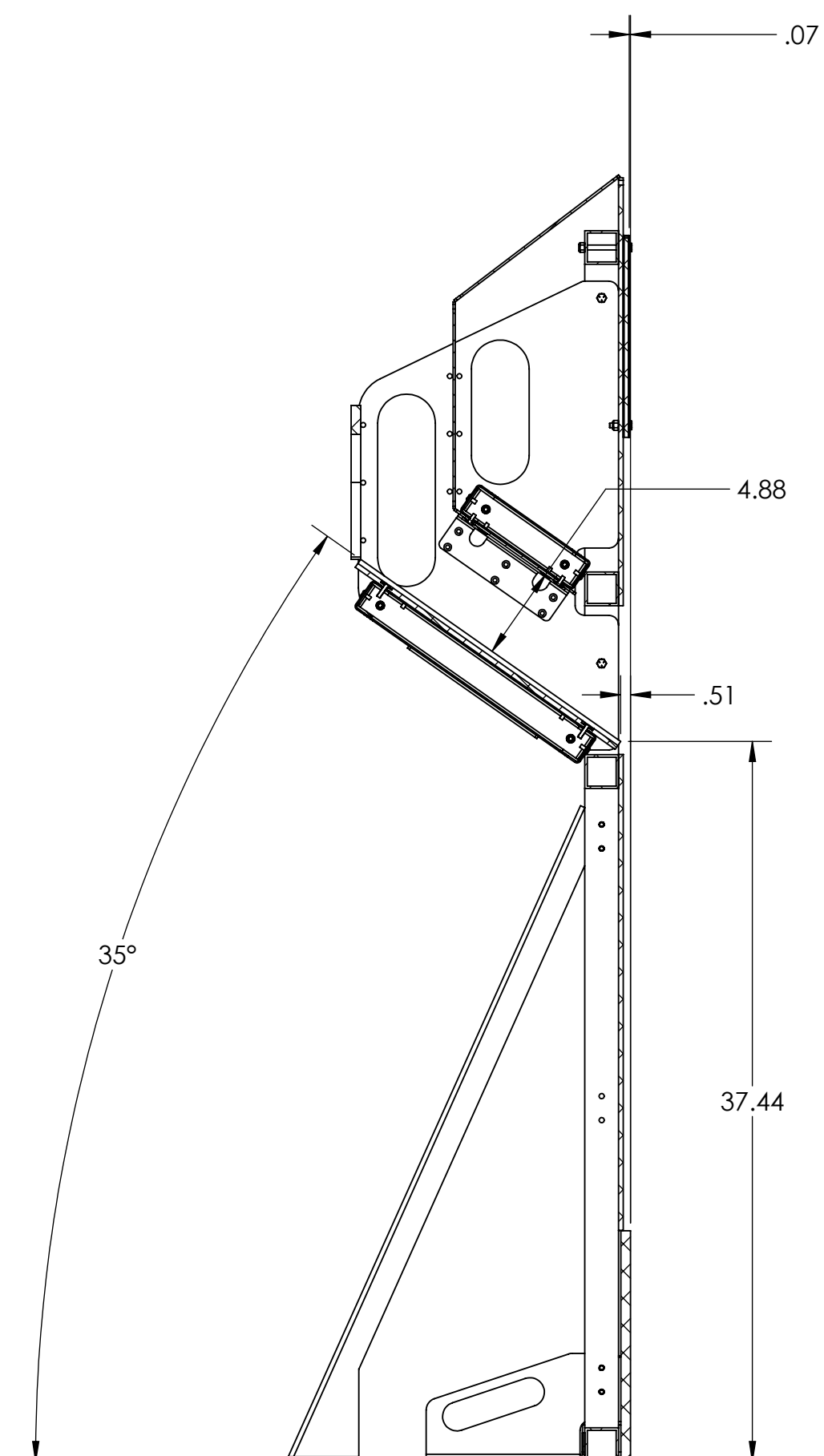
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D

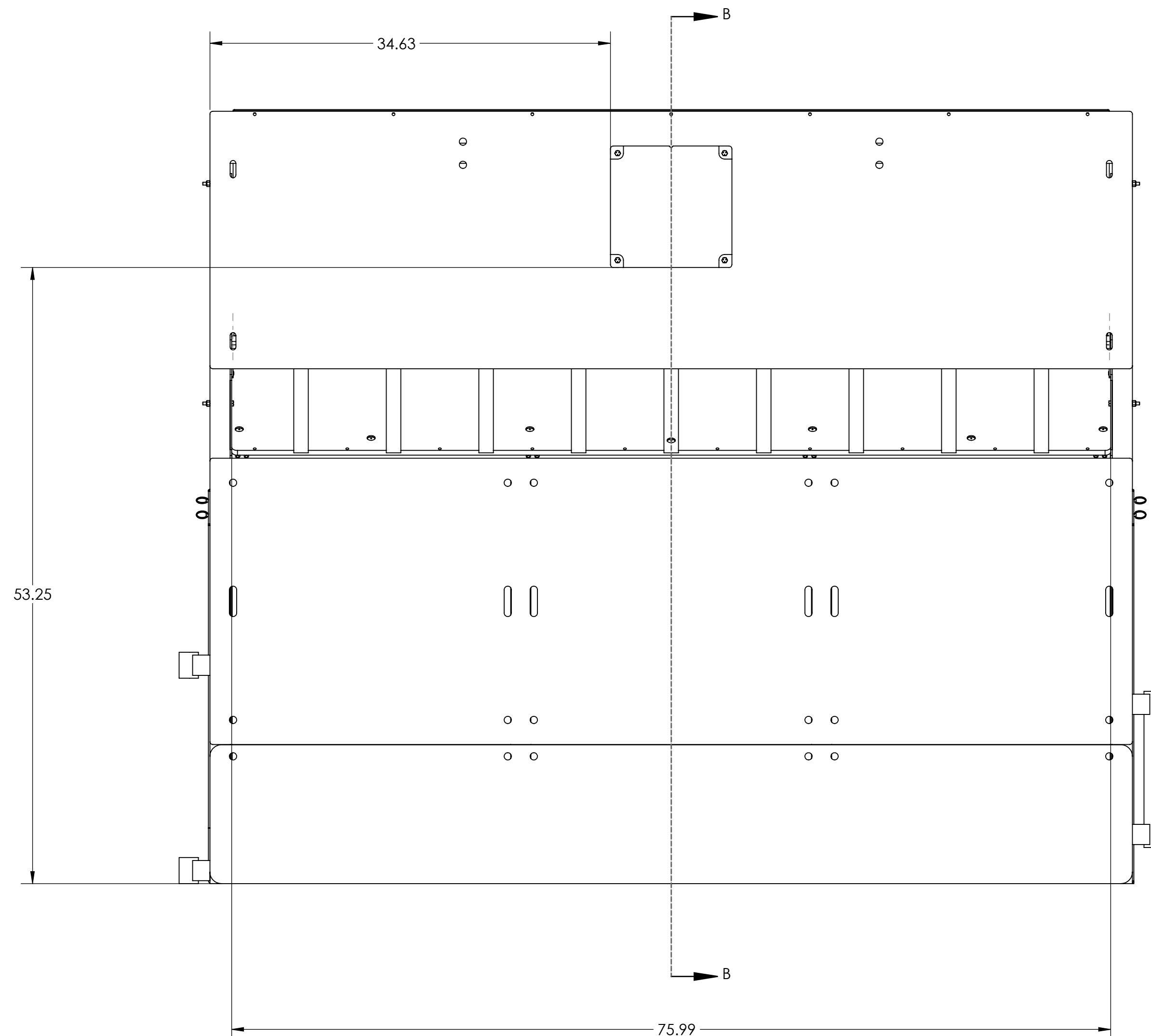
C



B

A

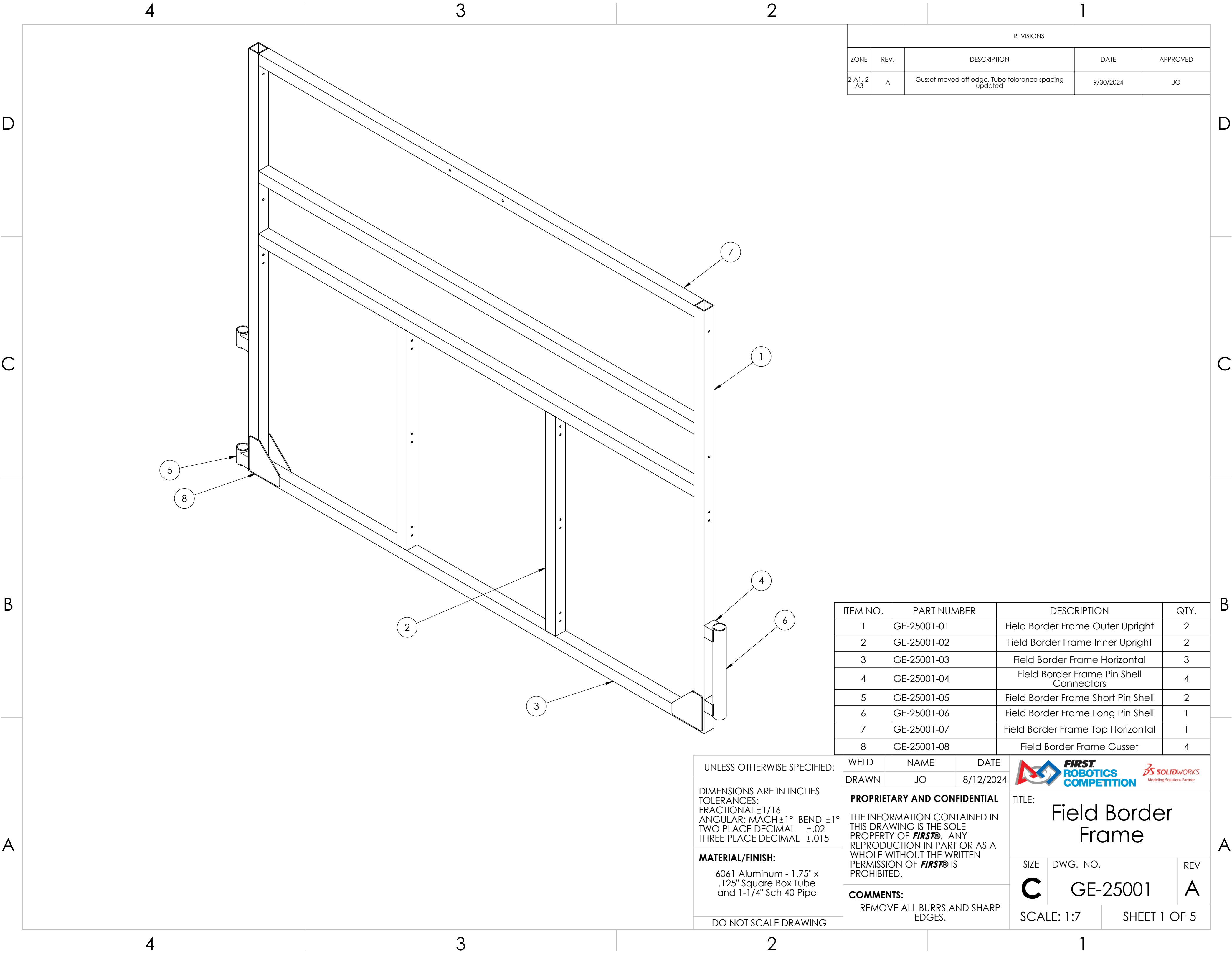


SECTION B-B



UNLESS OTHERWISE SPECIFIED:		FIELD	NAME	DATE	 	
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/2$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .50$		DRAWN	JO	10/28/2024	TITLE:  Coral Station	
		PROPRIETARY AND CONFIDENTIAL			SIZE DWG. NO. REV	
		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.				
MATERIAL/FINISH:		COMMENTS: REMOVE ALL BURRS AND SHARP EDGES.			C GE-25000	
DO NOT SCALE DRAWING					SCALE: 1:8 SHEET 2 OF 2	





REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
2-A1, 2-A3	A	Gusset moved off edge, Tube tolerance spacing updated	9/30/2024	JO

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25001-01	Field Border Frame Outer Upright	2
2	GE-25001-02	Field Border Frame Inner Upright	2
3	GE-25001-03	Field Border Frame Horizontal	3
4	GE-25001-04	Field Border Frame Pin Shell Connectors	4
5	GE-25001-05	Field Border Frame Short Pin Shell	2
6	GE-25001-06	Field Border Frame Long Pin Shell	1
7	GE-25001-07	Field Border Frame Top Horizontal	1
8	GE-25001-08	Field Border Frame Gusset	4

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .02$   
THREE PLACE DECIMAL  $\pm .015$



MATERIAL/FINISH:  
6061 Aluminum - 1.75" x  
.125" Square Box Tube  
and 1-1/4" Sch 40 Pipe

DO NOT SCALE DRAWING

WELD	NAME	DATE
DRAWN	JO	8/12/2024

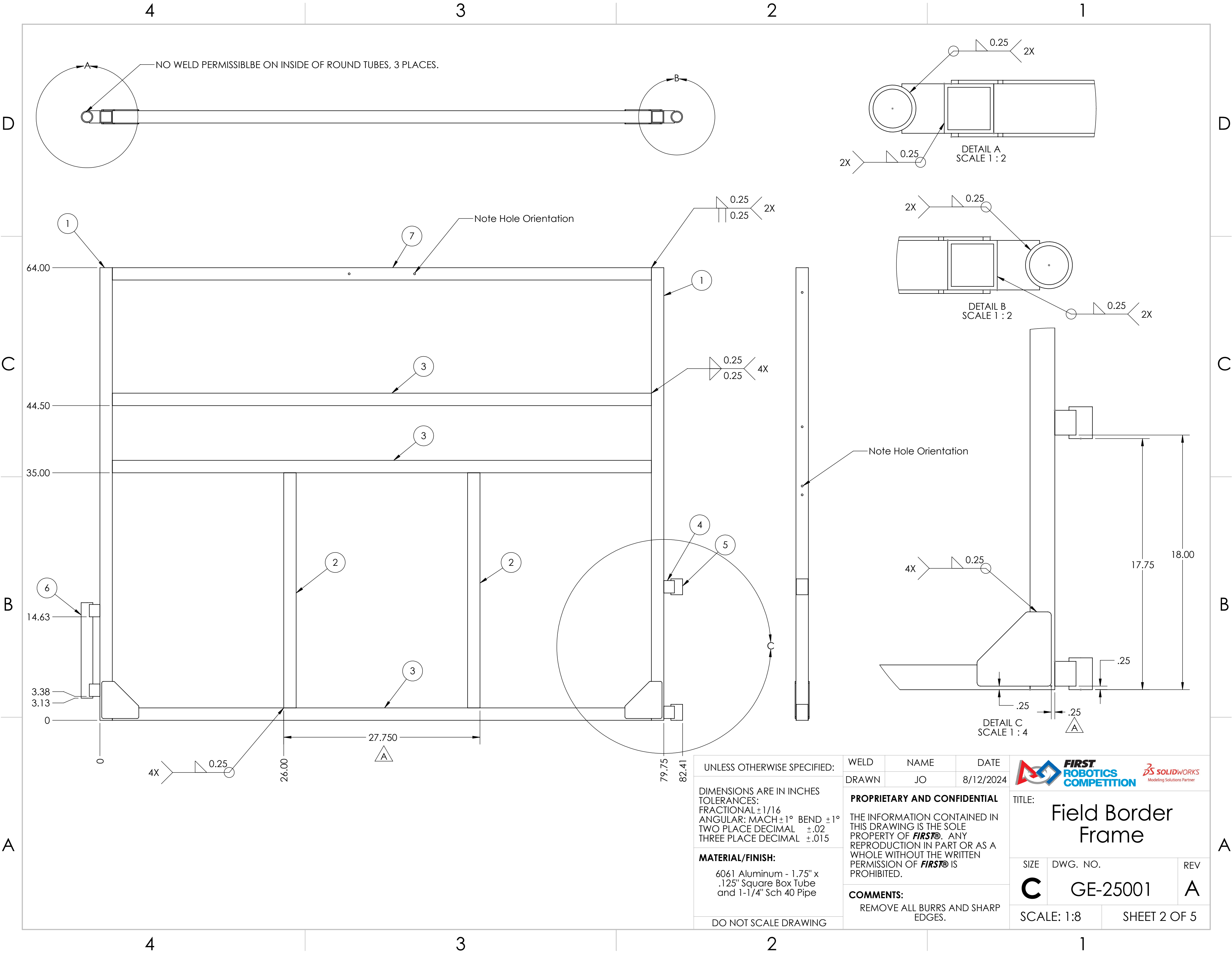
PROPRIETARY AND CONFIDENTIAL  
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF **FIRST®**. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF **FIRST®** IS PROHIBITED.

COMMENTS:  
REMOVE ALL BURRS AND SHARP EDGES.



TITLE:  
**Field Border Frame**

SIZE <b>C</b>	DWG. NO. <b>GE-25001</b>	REV <b>A</b>
SCALE: 1:7		SHEET 1 OF 5



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .02$   
THREE PLACE DECIMAL  $\pm .015$

**MATERIAL/FINISH:**  
6061 Aluminum - 1.75" x  
.125" Square Box Tube  
and 1-1/4" Sch 40 Pipe

DO NOT SCALE DRAWING

WELD	NAME	DATE
DRAWN	JO	8/12/2024

**PROPRIETARY AND CONFIDENTIAL**

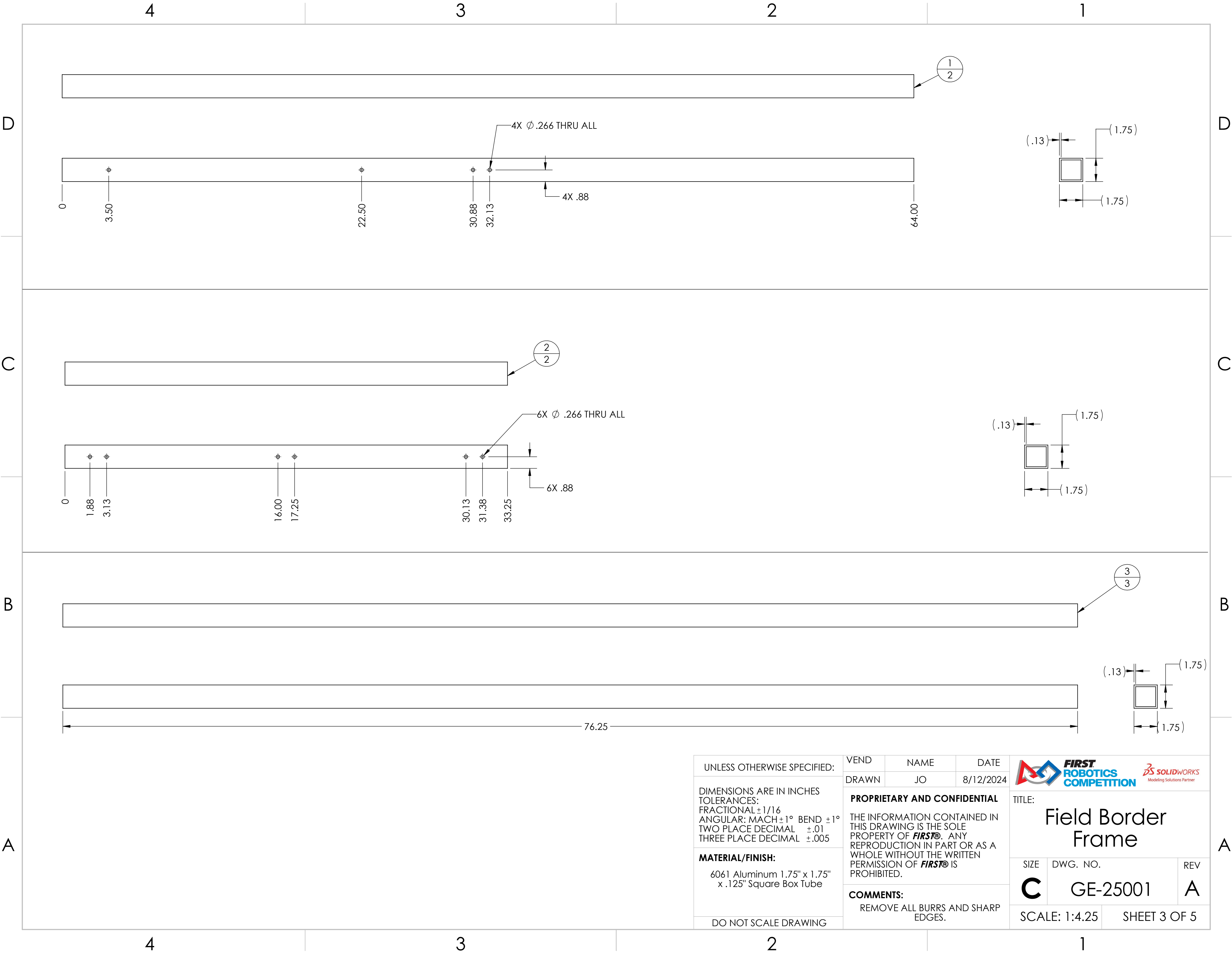
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF **FIRST®**. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF **FIRST®** IS PROHIBITED.

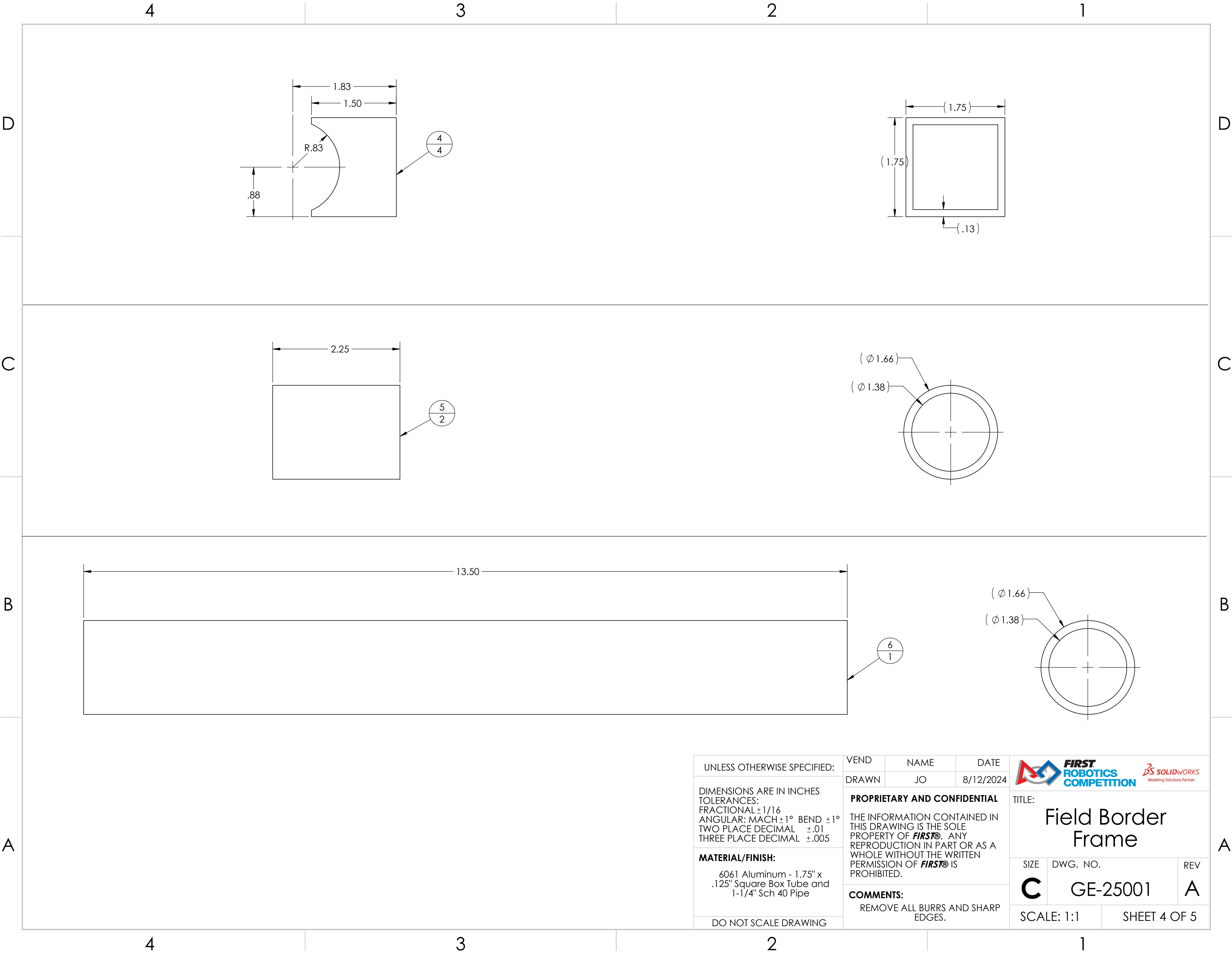
**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.





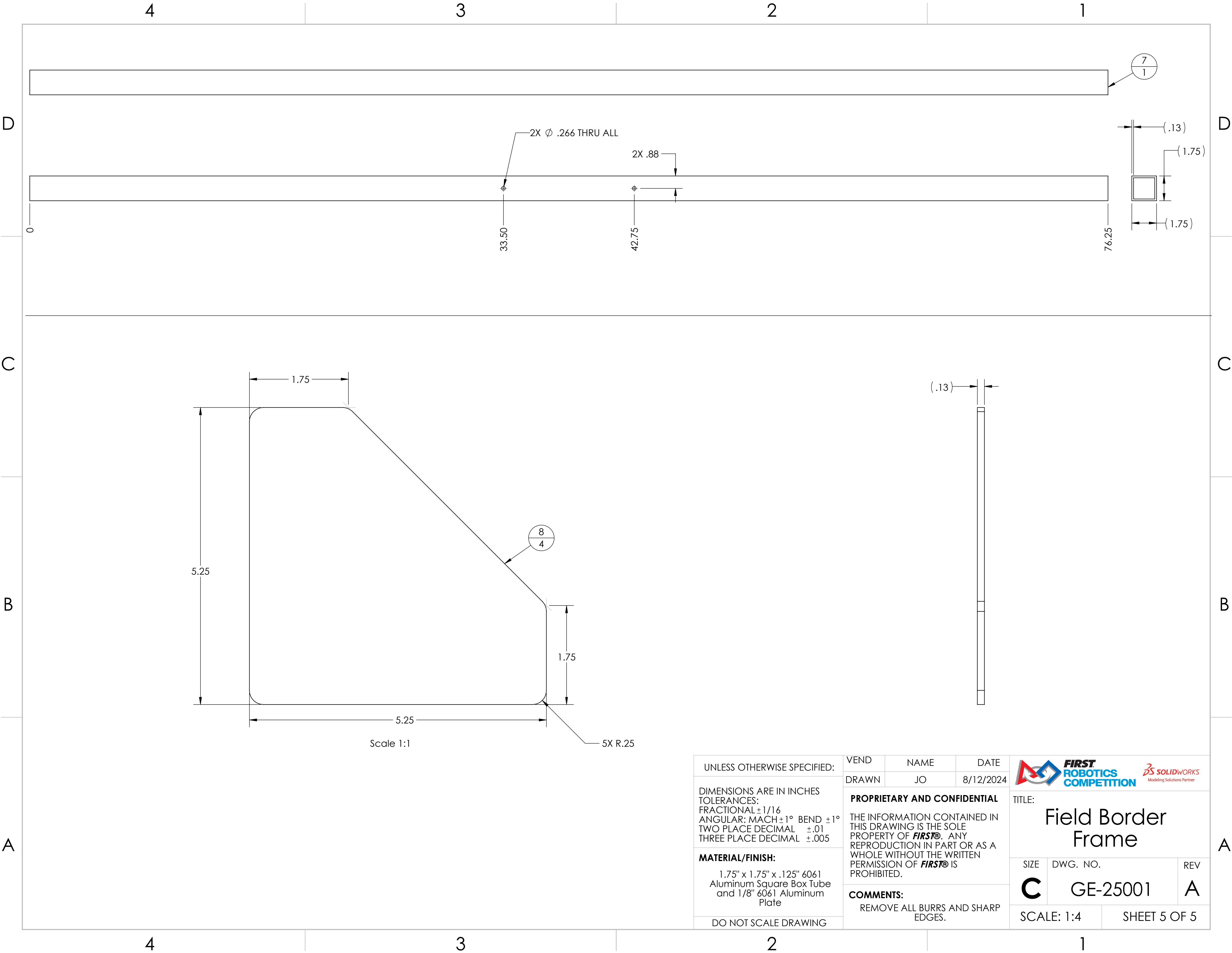
TITLE: <b>Field Border Frame</b>		
SIZE <b>C</b>	DWG. NO. <b>GE-25001</b>	REV <b>A</b>
SCALE: 1:8		SHEET 2 OF 5







UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .005$  <b>MATERIAL/FINISH:</b>  6061 Aluminum - 1.75" x .125" Square Box Tube and 1-1/4" Sch 40 Pipe  DO NOT SCALE DRAWING	VEND	NAME	DATE	<div></div> <div>TITLE:  Field Border Frame</div>		
	DRAWN	JO	8/12/2024			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE	DWG. NO.	REV
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			<b>C</b>	GE-25001	A
SCALE: 1:1		SHEET 4 OF 5				



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

**MATERIAL/FINISH:**  
1.75" x 1.75" x .125" 6061  
Aluminum Square Box Tube  
and 1/8" 6061 Aluminum  
Plate

DO NOT SCALE DRAWING

VEND	NAME	DATE
DRAWN	JO	8/12/2024

**PROPRIETARY AND CONFIDENTIAL**  
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REPRODUCTION IN PART OR AS A  
WHOLE WITHOUT THE WRITTEN  
PERMISSION OF **FIRST®** IS  
PROHIBITED.

**COMMENTS:**  
REMOVE ALL BURRS AND SHARP  
EDGES.



TITLE:  
**Field Border  
Frame**

SIZE	DWG. NO.	REV
<b>C</b>	GE-25001	<b>A</b>

SCALE: 1:4 SHEET 5 OF 5

4

3

2

1

D

D

C

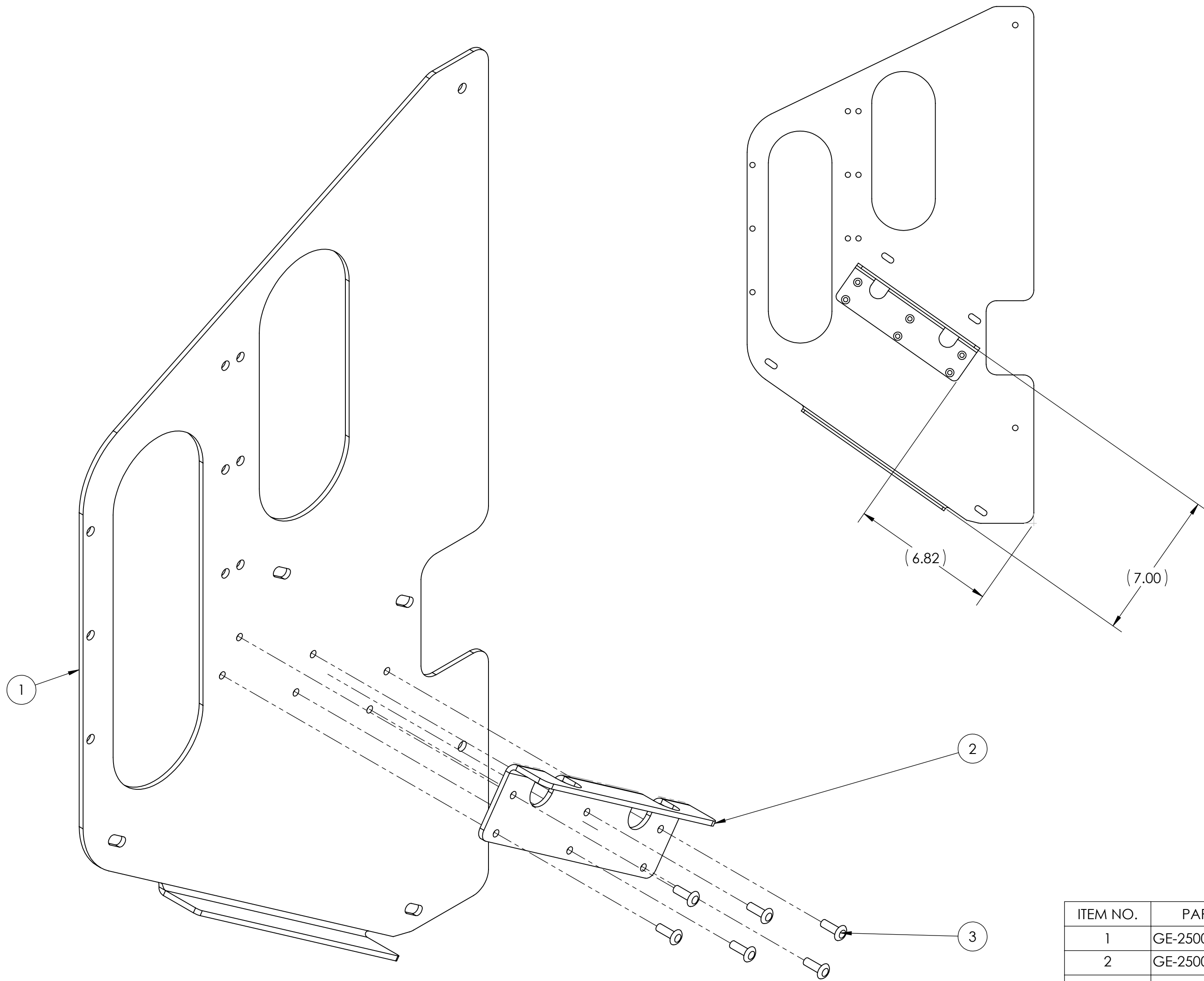
C

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B



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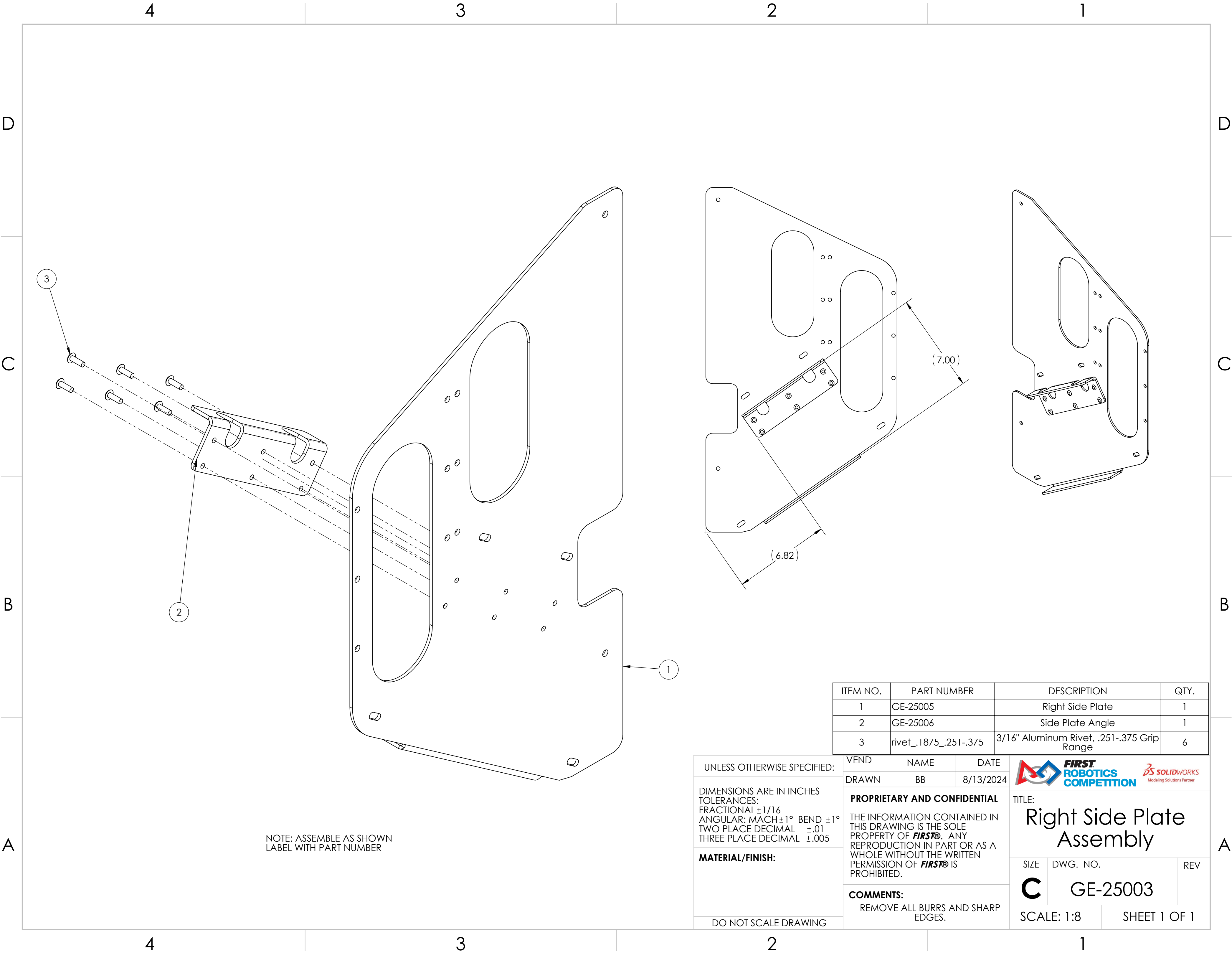
A



NOTE: ASSEMBLE AS SHOWN  
LABEL WITH PART NUMBER



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25004	Left Side Plate	1
2	GE-25006	Side Plate Angle	1
3	rivet_.1875_.251-.375	3/16" Aluminum Rivet, .251-.375 Grip Range	6

UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005  MATERIAL/FINISH:   DO NOT SCALE DRAWING		VEND	NAME	DATE	<div></div> <div>TITLE: <h1>Left Side Plate Assembly</h1></div> <div><div>SIZE <b>C</b></div><div>DWG. NO. GE-25002</div><div>REV</div></div> <div>SCALE: 1:8</div> <div>SHEET 1 OF 1</div>	
		DRAWN	BB	8/13/2024		



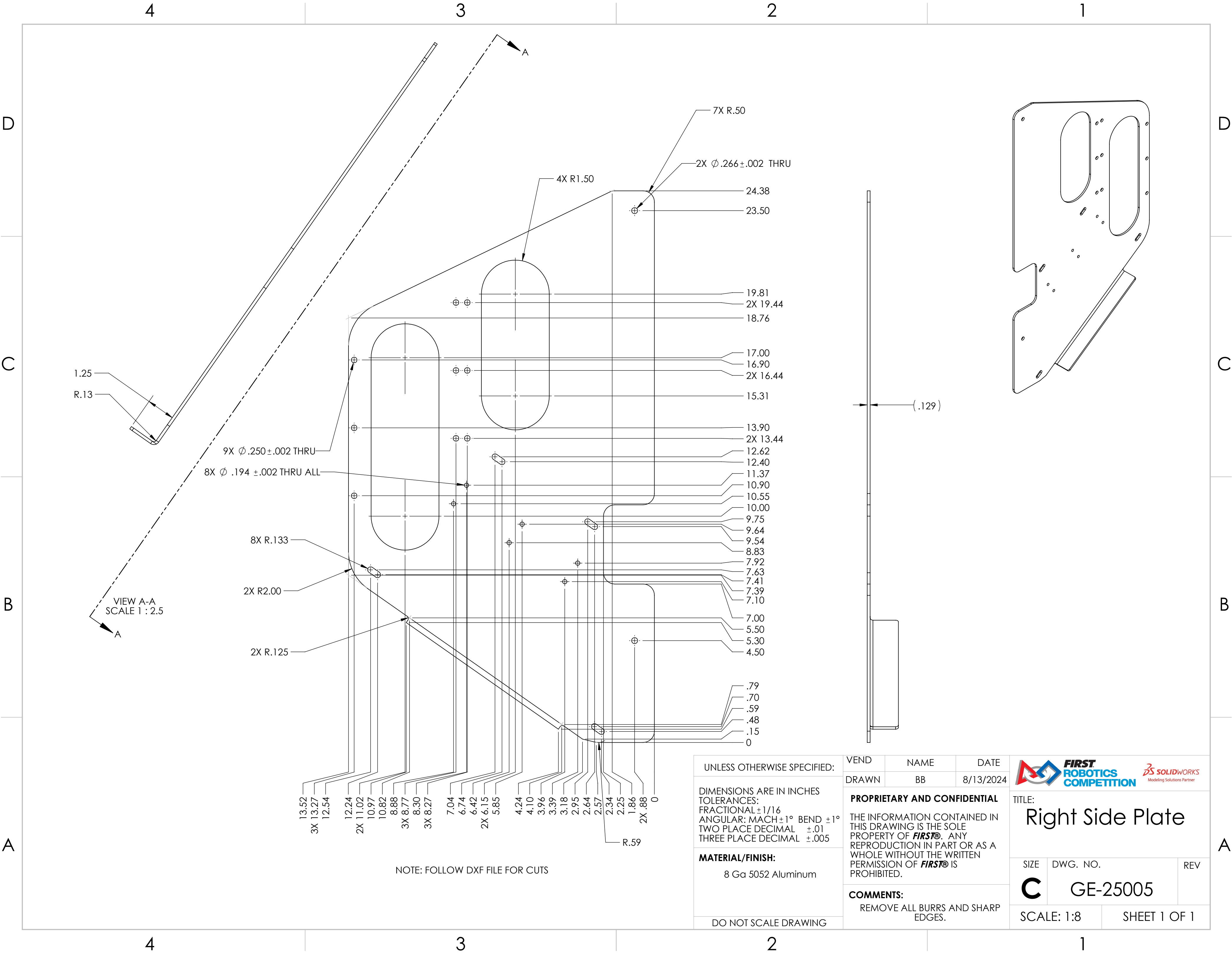
NOTE: ASSEMBLE AS SHOWN  
LABEL WITH PART NUMBER

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25005	Right Side Plate	1
2	GE-25006	Side Plate Angle	1
3	rivet_.1875_.251-.375	3/16" Aluminum Rivet, .251-.375 Grip Range	6

UNLESS OTHERWISE SPECIFIED:	VEND	NAME	DATE	<div></div>		
	DRAWN	BB	8/13/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	PROPRIETARY AND CONFIDENTIAL			TITLE:		
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			Right Side Plate Assembly		
MATERIAL/FINISH:	COMMENTS: REMOVE ALL BURRS AND SHARP EDGES.			SIZE	DWG. NO.	REV
				C	GE-25003	
DO NOT SCALE DRAWING				SCALE: 1:8		SHEET 1 OF 1







UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

**MATERIAL/FINISH:**

8 Ga 5052 Aluminum

DO NOT SCALE DRAWING

VEND	NAME	DATE
DRAWN	BB	8/13/2024

**PROPRIETARY AND CONFIDENTIAL**

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**COMMENTS:**

REMOVE ALL BURRS AND SHARP EDGES.



TITLE:

Right Side Plate

SIZE

**C**

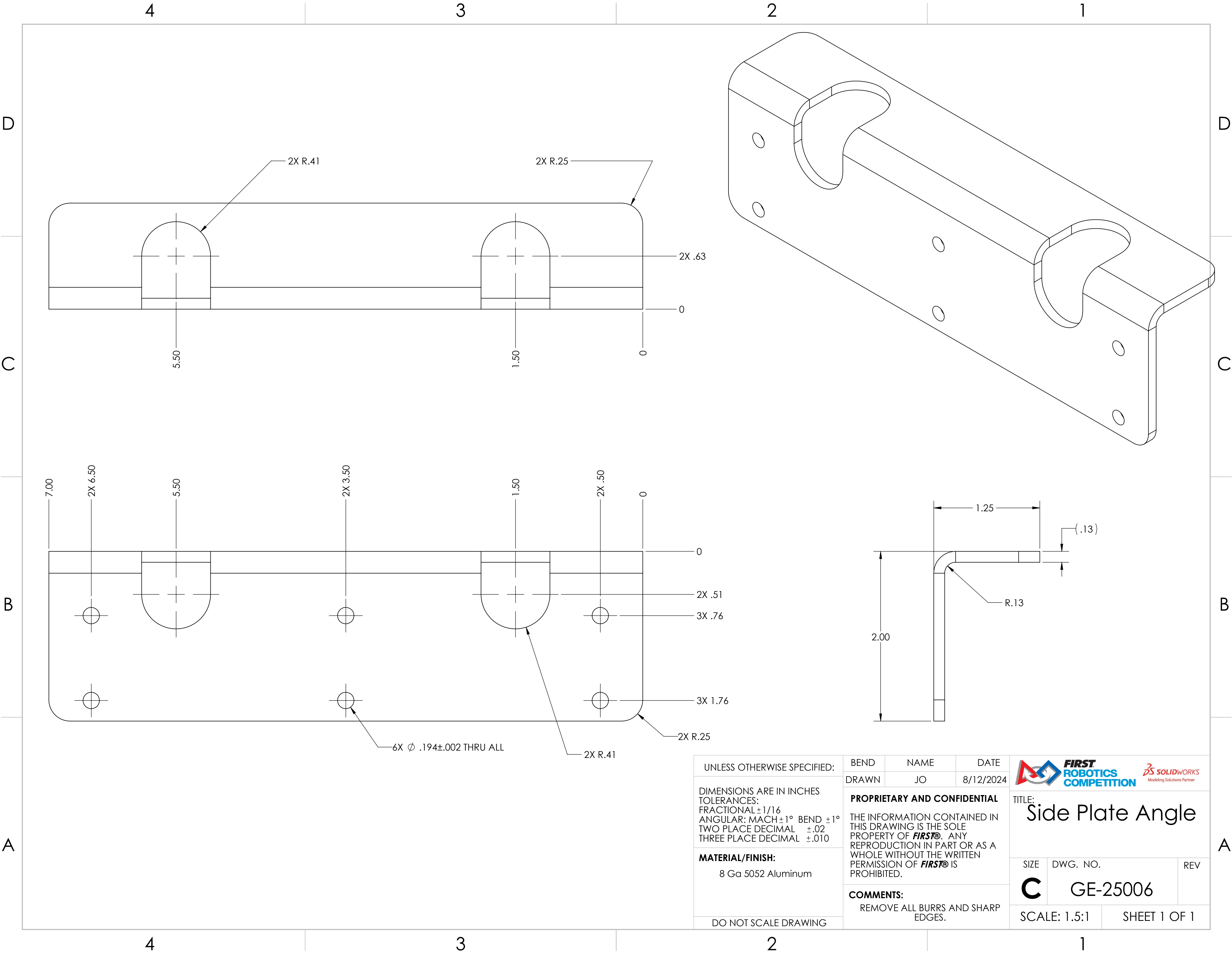
DWG. NO.

GE-25005

REV

SCALE: 1:8

SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .02$   
THREE PLACE DECIMAL  $\pm .010$

**MATERIAL/FINISH:**  
8 Ga 5052 Aluminum

DO NOT SCALE DRAWING

BEND	NAME	DATE
DRAWN	JO	8/12/2024

**PROPRIETARY AND CONFIDENTIAL**

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**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.

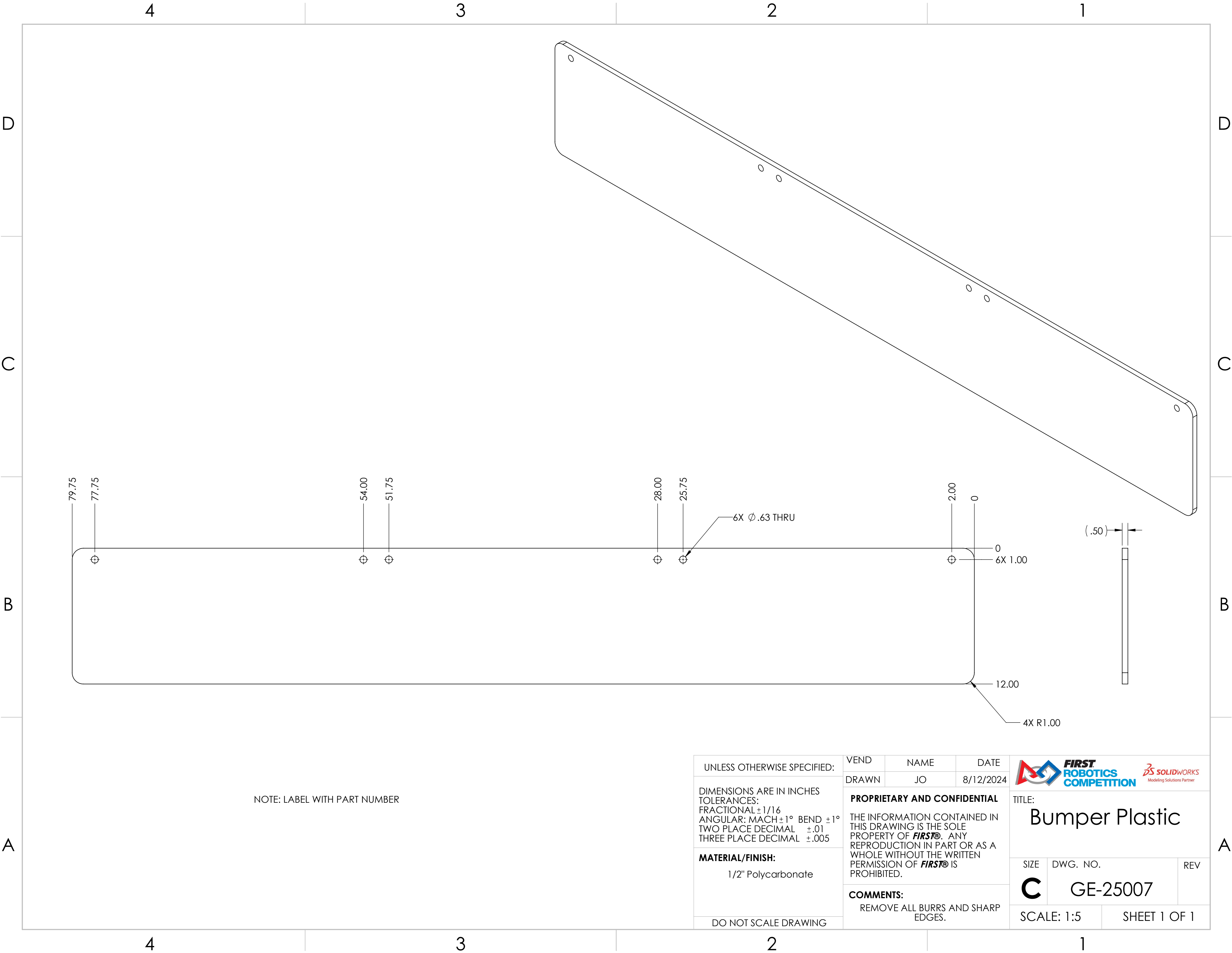


TITLE:  
**Side Plate Angle**

SIZE	DWG. NO.	REV
<b>C</b>	GE-25006	

SCALE: 1.5:1

SHEET 1 OF 1



NOTE: LABEL WITH PART NUMBER

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

**MATERIAL/FINISH:**  
1/2" Polycarbonate

DO NOT SCALE DRAWING

VEND

NAME

DATE

DRAWN

JO

8/12/2024

**PROPRIETARY AND CONFIDENTIAL**

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**COMMENTS:**

REMOVE ALL BURRS AND SHARP EDGES.



**FIRST  
ROBOTICS  
COMPETITION**



TITLE:

Bumper Plastic

SIZE

**C**

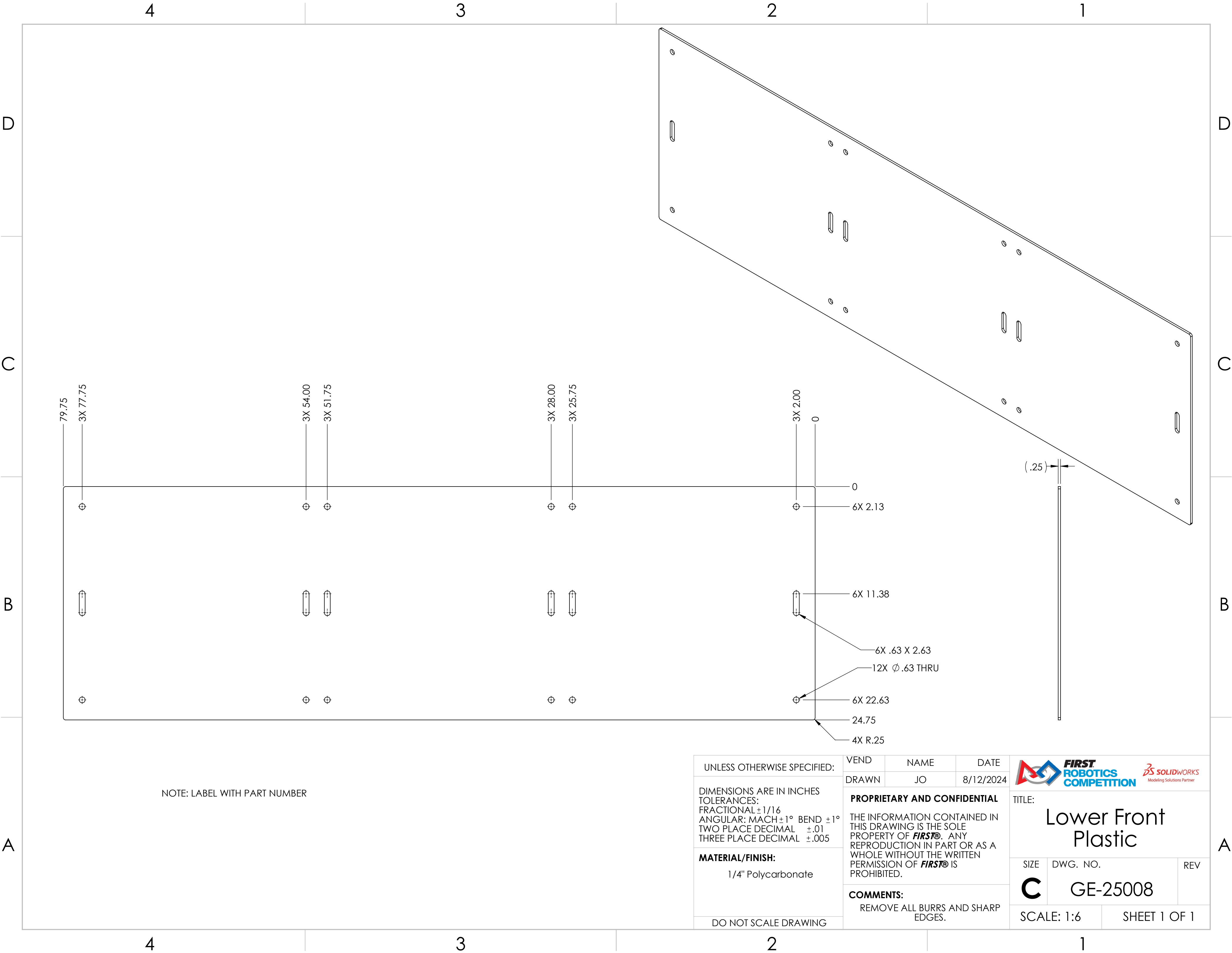
DWG. NO.

GE-25007

REV

SCALE: 1:5

SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$


**MATERIAL/FINISH:**  
1/4" Polycarbonate

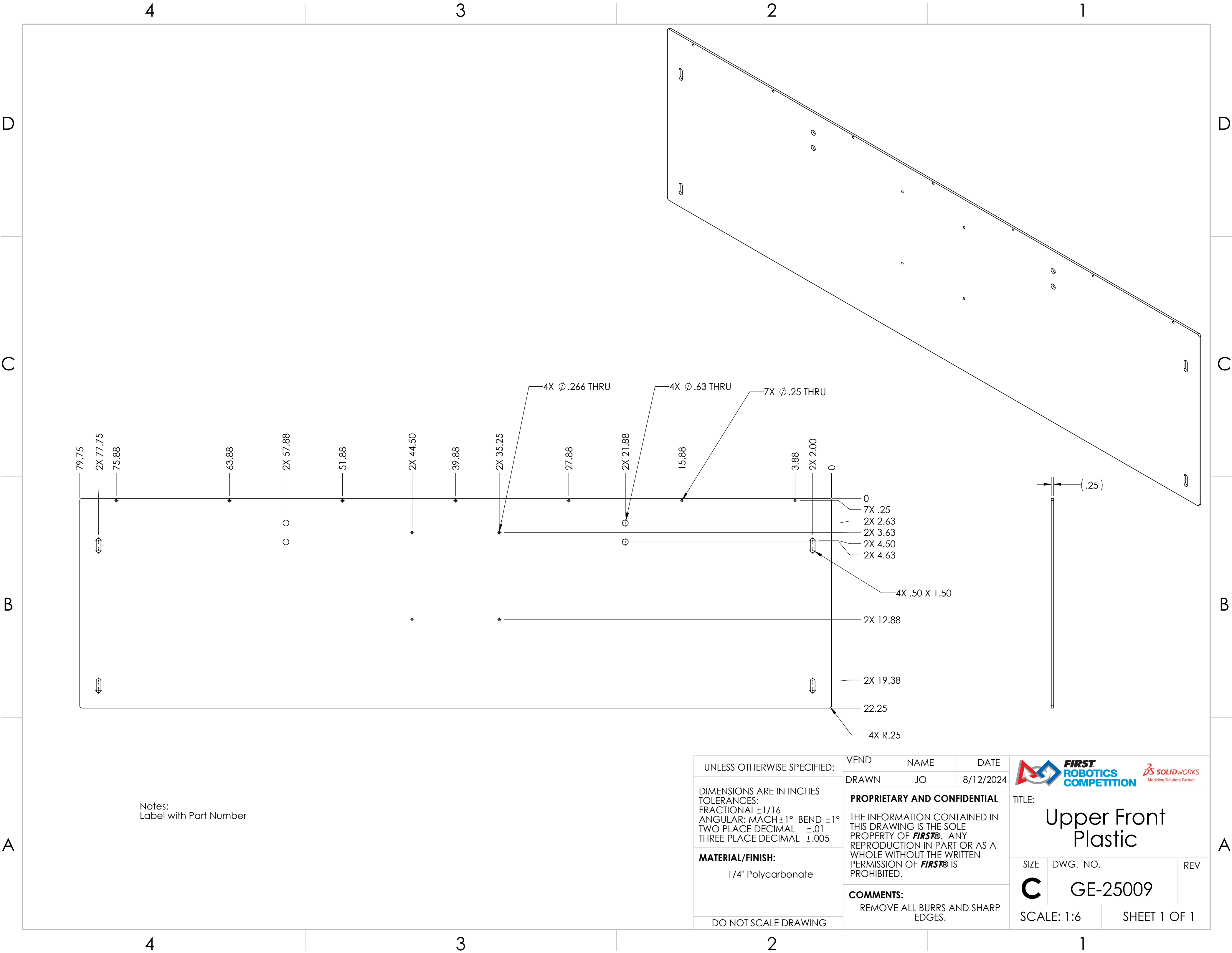
DO NOT SCALE DRAWING

VEND	NAME	DATE
DRAWN	JO	8/12/2024



**PROPRIETARY AND CONFIDENTIAL**  
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**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.

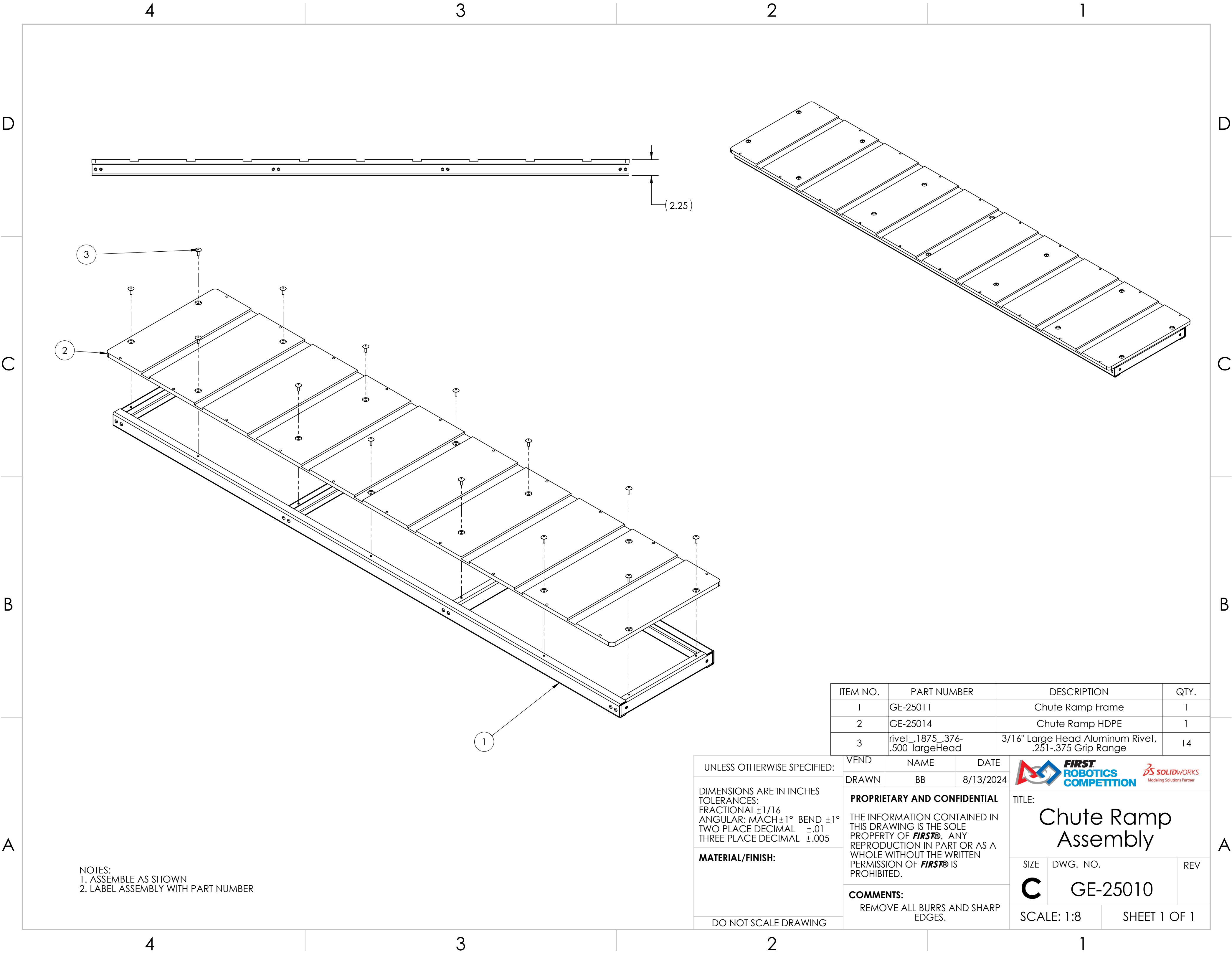
		
TITLE: <b>Lower Front Plastic</b>		
SIZE <b>C</b>	DWG. NO. <b>GE-25008</b>	REV
SCALE: 1:6		SHEET 1 OF 1



Notes:  
Label with Part Number

UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .005$  <b>MATERIAL/FINISH:</b>  1/4" Polycarbonate  DO NOT SCALE DRAWING	VEND	NAME	DATE	<div></div> <div>TITLE:  Upper Front Plastic</div>		
	DRAWN	JO	8/12/2024			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE	DWG. NO.	REV
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			<b>C</b>	GE-25009	
SCALE: 1:6		SHEET 1 OF 1				





ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25011	Chute Ramp Frame	1
2	GE-25014	Chute Ramp HDPE	1
3	rivet_.1875_.376-.500_largeHead	3/16" Large Head Aluminum Rivet, .251-.375 Grip Range	14

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

MATERIAL/FINISH:

DO NOT SCALE DRAWING

VEND  
DRAWN



NAME  
BB

DATE  
8/13/2024

PROPRIETARY AND CONFIDENTIAL

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COMMENTS:  
REMOVE ALL BURRS AND SHARP EDGES.



TITLE:  
**Chute Ramp Assembly**

SIZE  
**C**

DWG. NO.  
**GE-25010**

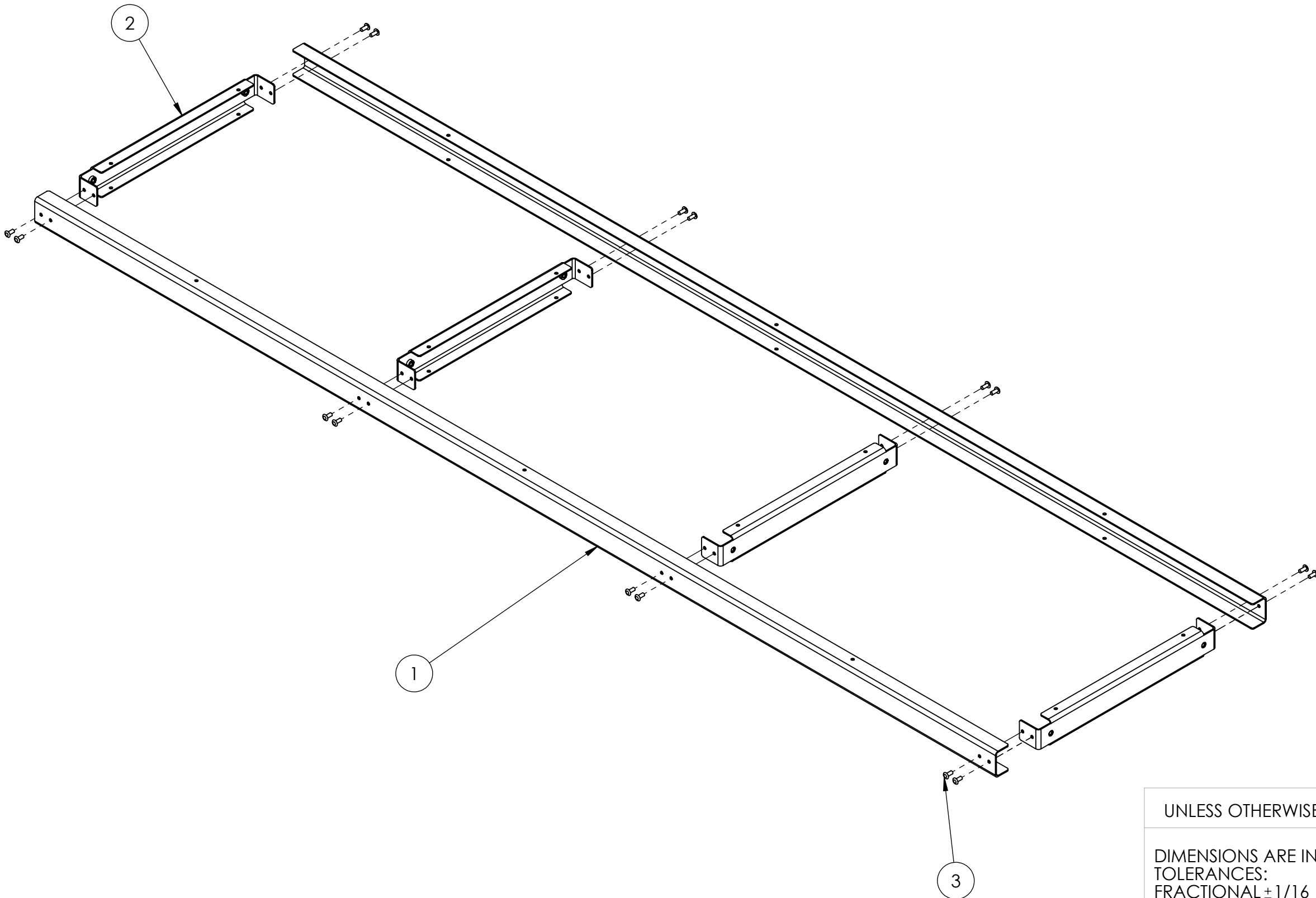
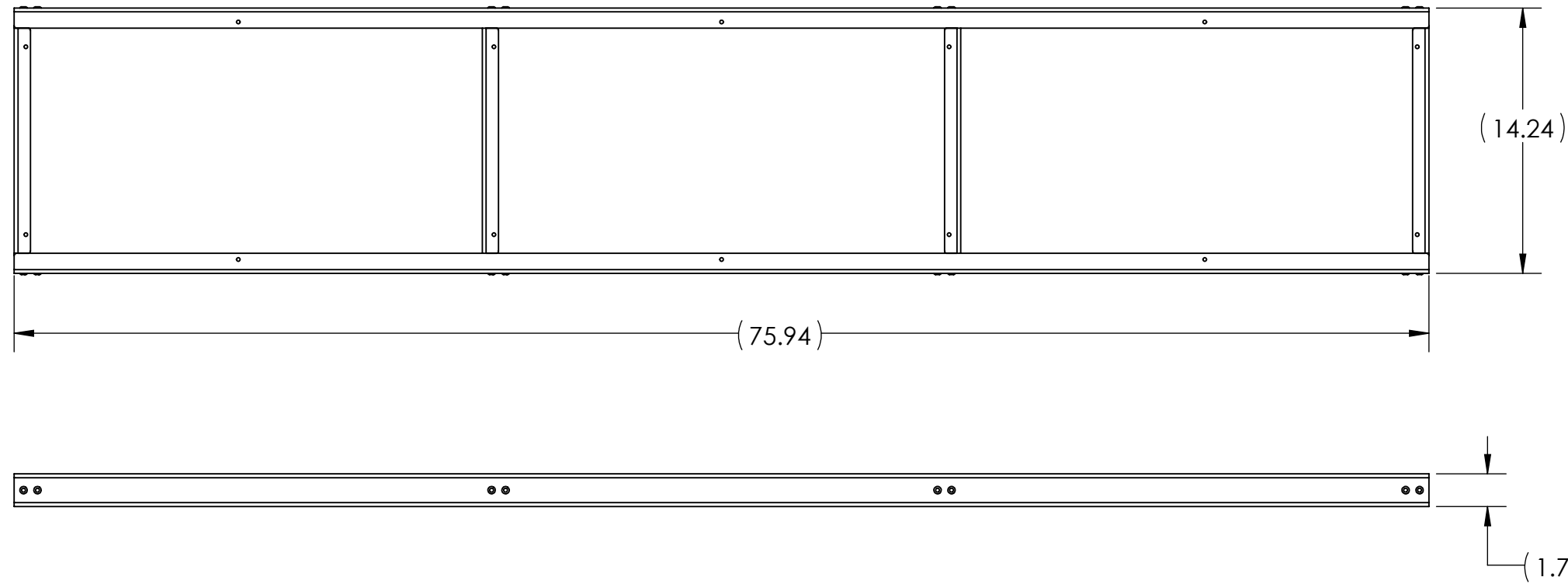
REV

SCALE: 1:8

SHEET 1 OF 1

NOTES:  
1. ASSEMBLE AS SHOWN  
2. LABEL ASSEMBLY WITH PART NUMBER







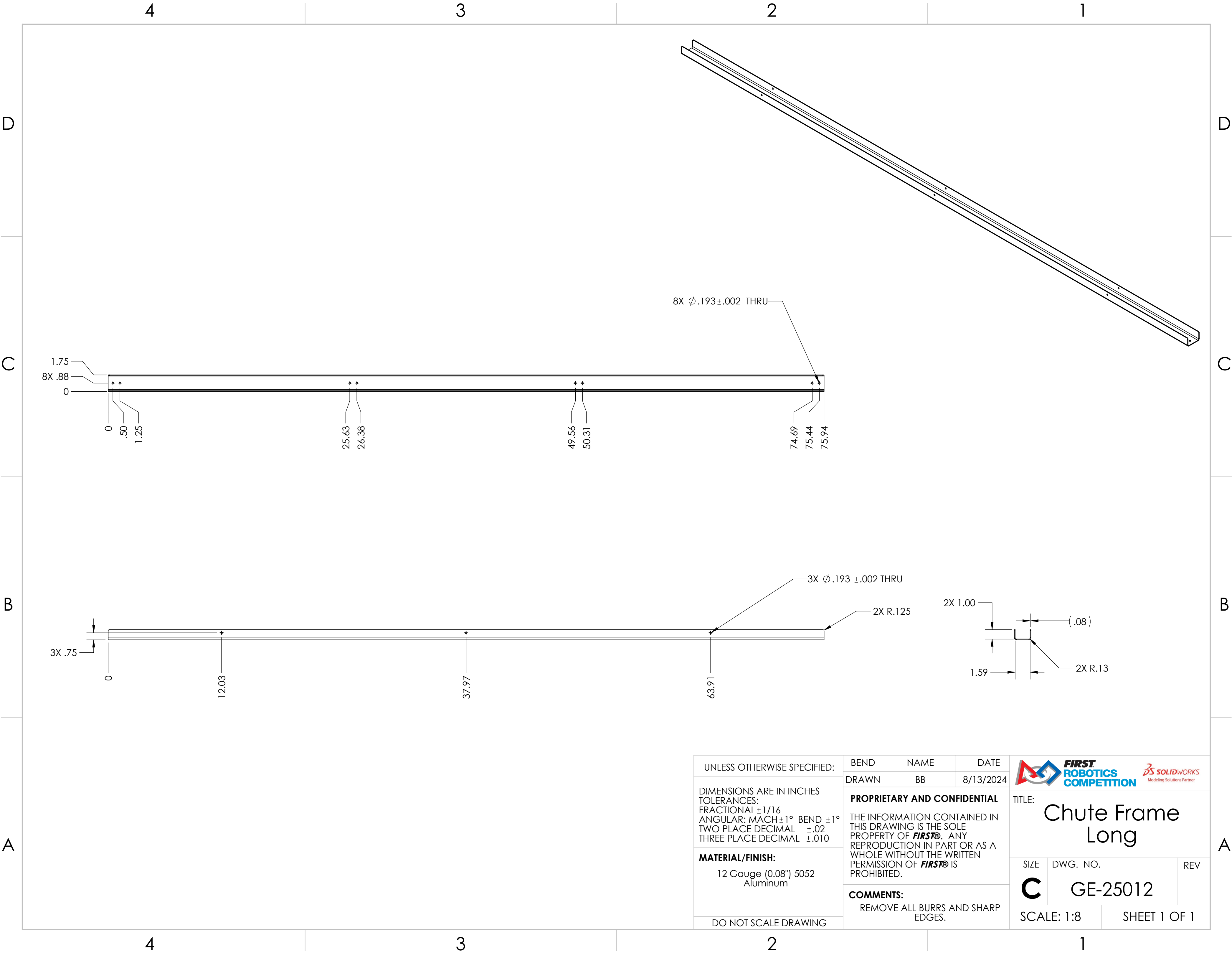
NOTE: ASSEMBLE AS SHOWN



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25012	Chute Frame Long	2
2	GE-25013	Chute Ramp Frame Short with PEMs	4
3	rivet_.1875_.126-.25	3/16" Rivet, .126-.25 Grip Range	16

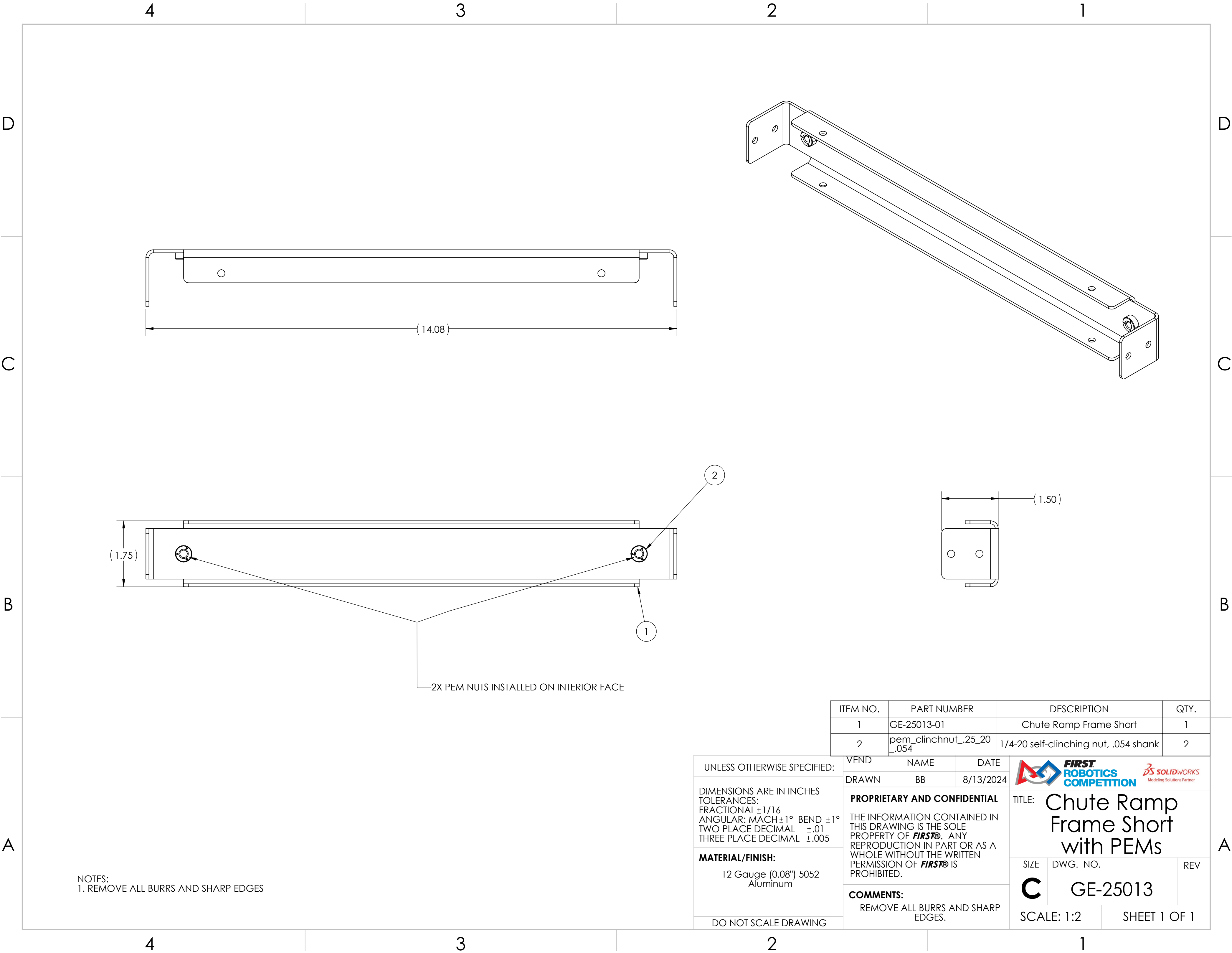
UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .005$
MATERIAL/FINISH:
DO NOT SCALE DRAWING

VEND	NAME	DATE
DRAWN	BB	8/13/2024
PROPRIETARY AND CONFIDENTIAL		
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COMMENTS:		
REMOVE ALL BURRS AND SHARP EDGES.		

 		
TITLE:		
Chute Ramp Frame		
SIZE	DWG. NO.	REV
C	GE-25011	
SCALE: 1:12		SHEET 1 OF 1





UNLESS OTHERWISE SPECIFIED:	BEND	NAME	DATE	<div></div>		
	DRAWN	BB	8/13/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.02 THREE PLACE DECIMAL ±.010	<b>PROPRIETARY AND CONFIDENTIAL</b>			TITLE:  Chute Frame Long		
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.					
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			SIZE	DWG. NO.	REV
<b>MATERIAL/FINISH:</b>  12 Gauge (0.08") 5052 Aluminum				C	GE-25012	
				SCALE: 1:8		SHEET 1 OF 1
DO NOT SCALE DRAWING						



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25013-01	Chute Ramp Frame Short	1
2	pem_clinchnut_.25_20_.054	1/4-20 self-clinching nut, .054 shank	2

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .005$
<b>MATERIAL/FINISH:</b> 12 Gauge (0.08") 5052 Aluminum
DO NOT SCALE DRAWING

VEND	NAME	DATE
DRAWN	BB	8/13/2024
<b>PROPRIETARY AND CONFIDENTIAL</b> THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.		
<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.		

 		
TITLE: Chute Ramp Frame Short with PEMs		
SIZE	DWG. NO.	REV
<b>C</b>	GE-25013	
SCALE: 1:2		SHEET 1 OF 1

NOTES:  
1. REMOVE ALL BURRS AND SHARP EDGES

4

3

2

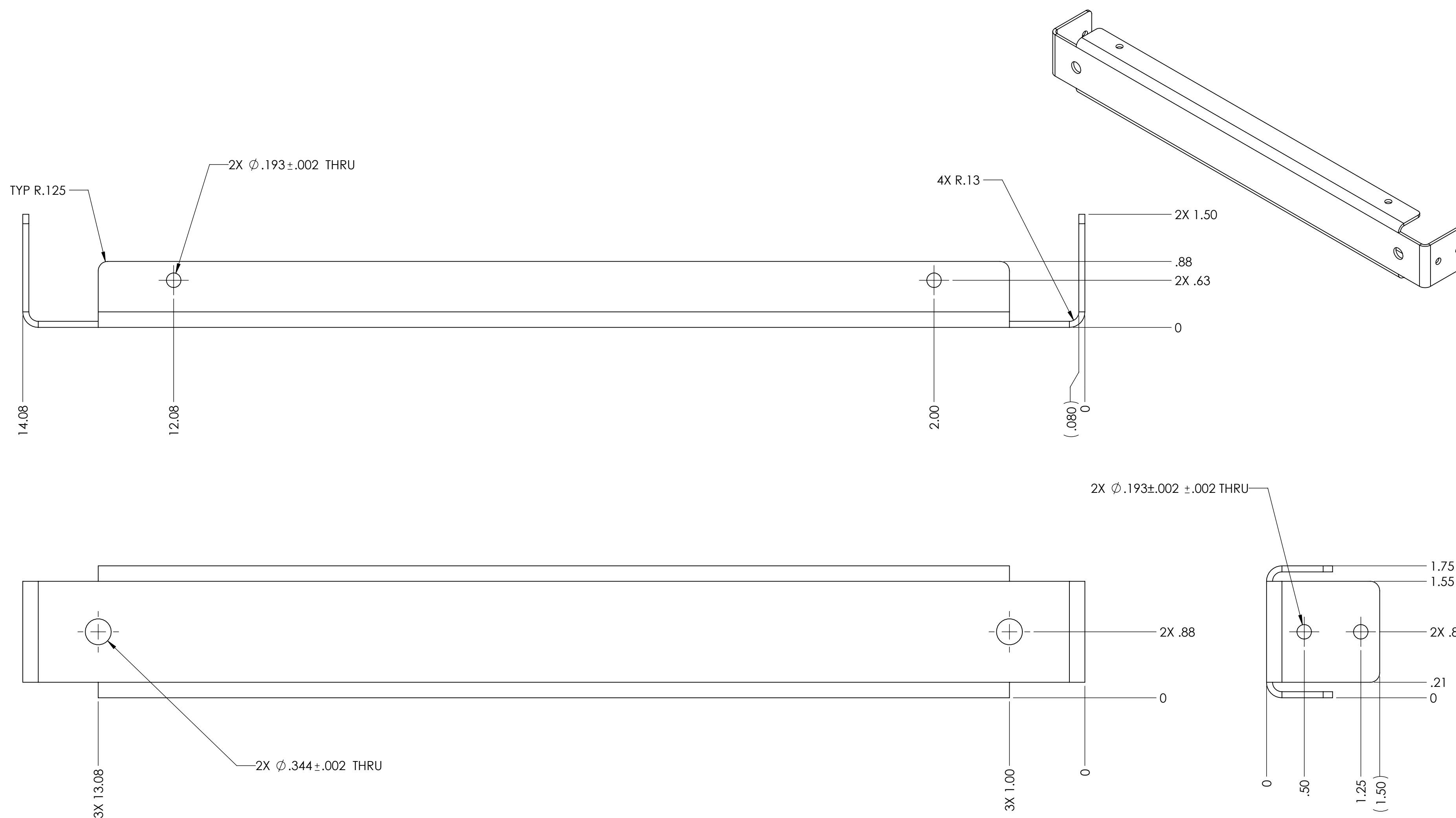
1



D

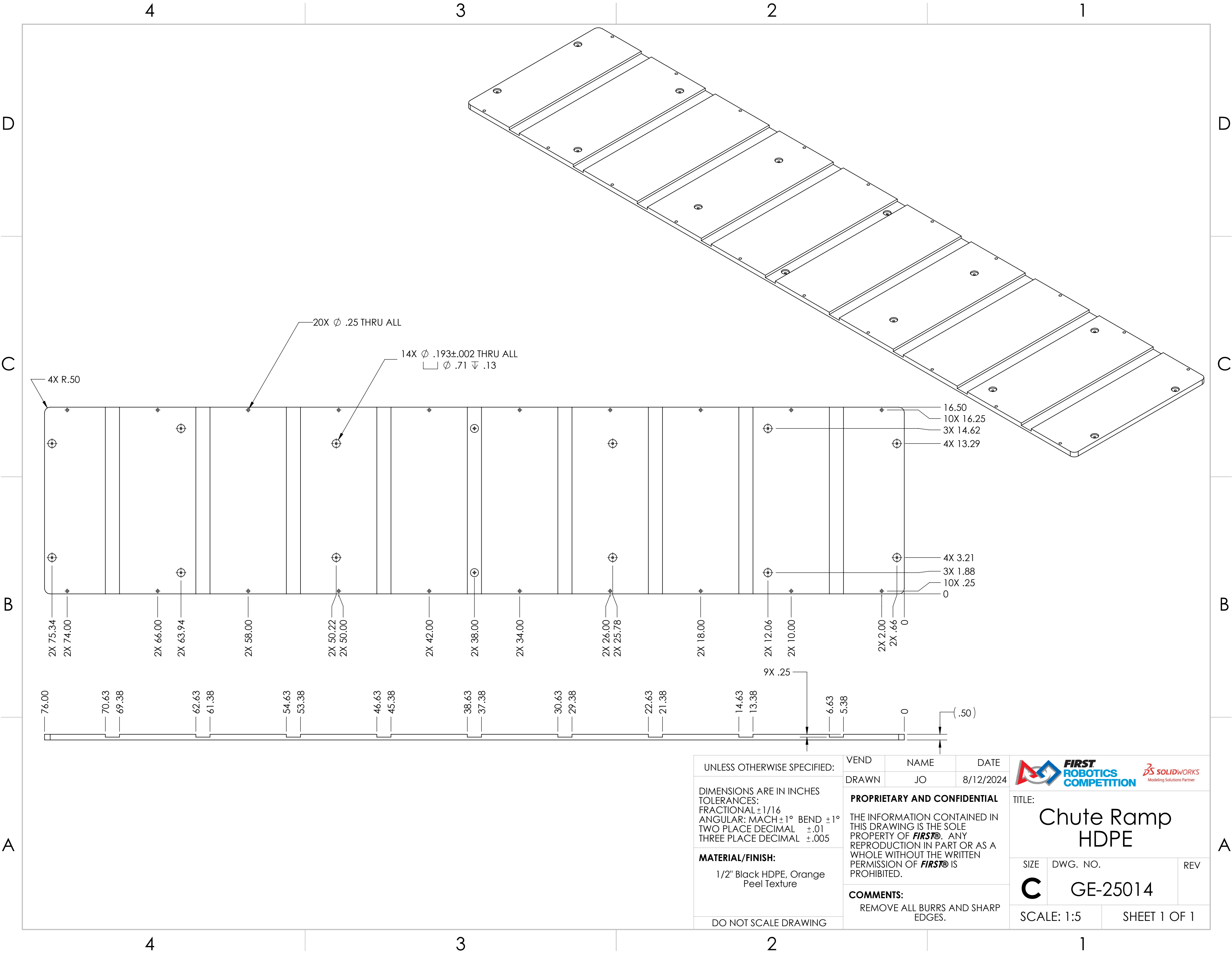
C

B

A



UNLESS OTHERWISE SPECIFIED:	BEND	NAME	DATE	 	
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .02$ THREE PLACE DECIMAL $\pm .010$	DRAWN	BB	8/13/2024	TITLE:	
	PROPRIETARY AND CONFIDENTIAL			Chute Ramp Frame Short	
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE DWG. NO. REV	
MATERIAL/FINISH:  12 Gauge (0.08") 5052 Aluminum	COMMENTS:			C GE-25013-01	
	REMOVE ALL BURRS AND SHARP EDGES.			SCALE: 1:2 SHEET 1 OF 1	



4X R.50

20X  $\varnothing$  .25 THRU ALL

14X  $\varnothing$  .193 $\pm$ .002 THRU ALL  
 $\square$   $\varnothing$  .71  $\nabla$  .13

16.50  
10X 16.25  
3X 14.62  
4X 13.29

4X 3.21  
3X 1.88  
10X .25  
0

2X 75.34  
2X 74.00

2X 66.00  
2X 63.94

2X 58.00

2X 50.22  
2X 50.00

2X 42.00

2X 38.00

2X 34.00

2X 26.00  
2X 25.78

2X 18.00

2X 12.06  
2X 10.00

2X 2.00  
2X .66  
0

76.00  
70.63  
69.38

62.63  
61.38

54.63  
53.38

46.63  
45.38

38.63  
37.38

30.63  
29.38

22.63  
21.38



14.63  
13.38

9X .25

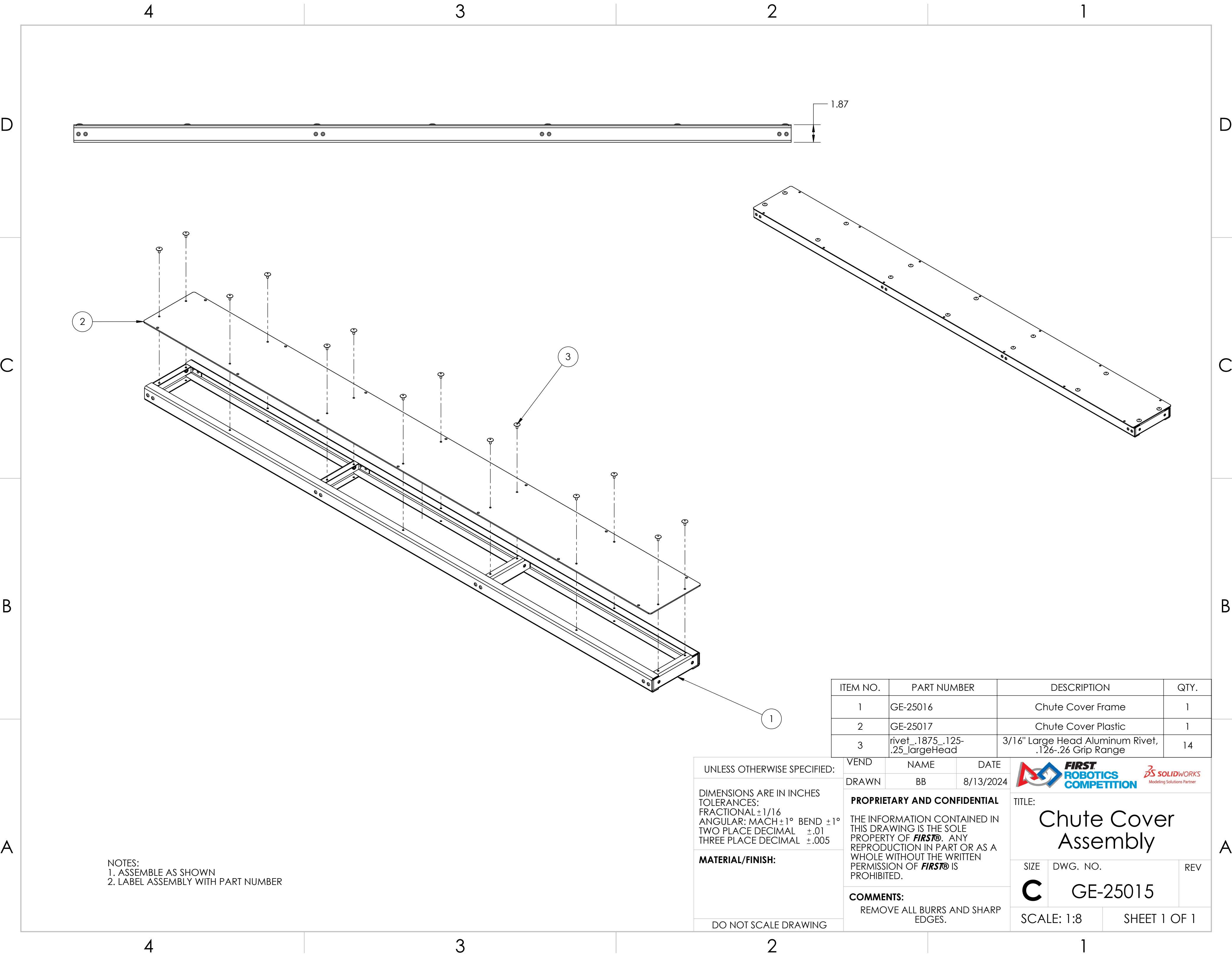
6.63  
5.38

0

(.50)

UNLESS OTHERWISE SPECIFIED:	VEND	NAME	DATE	<div></div> <div>TITLE:</div> <div>Chute Ramp HDPE</div>	
	DRAWN	JO	8/12/2024		
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	PROPRIETARY AND CONFIDENTIAL			<div>SIZE</div> <div>C</div> <div>DWG. NO.</div> <div>GE-25014</div> <div>REV</div> <div></div>	
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.				
	COMMENTS:				
MATERIAL/FINISH:	REMOVE ALL BURRS AND SHARP EDGES.			SCALE: 1:5	
1/2" Black HDPE, Orange Peel Texture				SHEET 1 OF 1	
DO NOT SCALE DRAWING					





ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25016	Chute Cover Frame	1
2	GE-25017	Chute Cover Plastic	1
3	rivet_.1875_.125-.25_largeHead	3/16" Large Head Aluminum Rivet, .126-.26 Grip Range	14

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

MATERIAL/FINISH:

DO NOT SCALE DRAWING

VEND  
DRAWN



NAME  
BB

DATE  
8/13/2024

PROPRIETARY AND CONFIDENTIAL

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COMMENTS:  
REMOVE ALL BURRS AND SHARP EDGES.



TITLE:  

# Chute Cover Assembly

SIZE  
**C**

DWG. NO.  
GE-25015

REV

SCALE: 1:8

SHEET 1 OF 1

NOTES:  
1. ASSEMBLE AS SHOWN  
2. LABEL ASSEMBLY WITH PART NUMBER



4

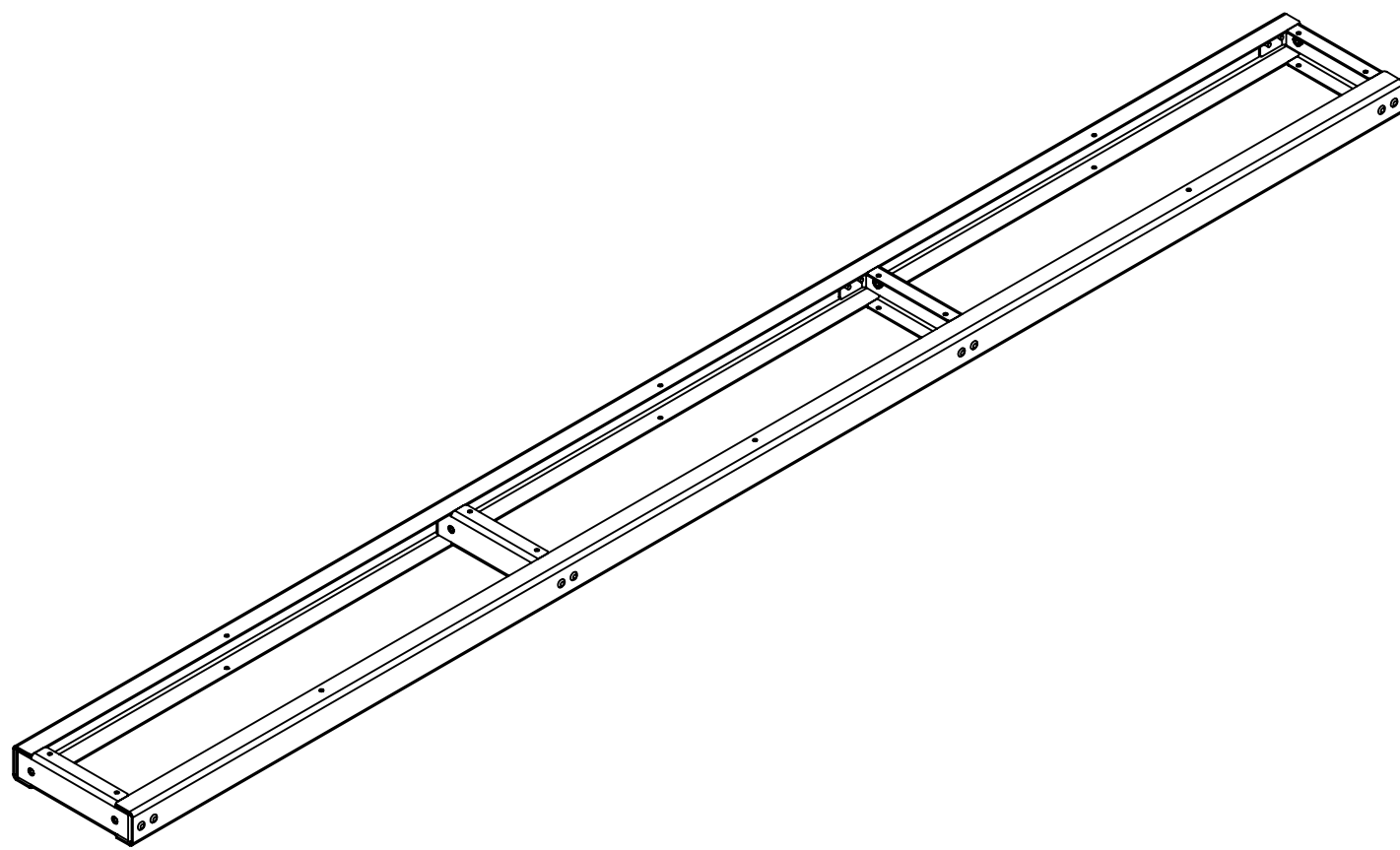
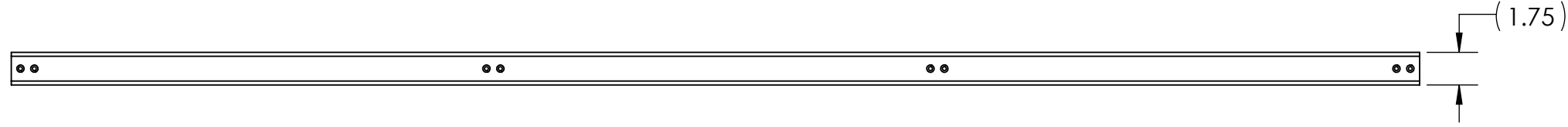
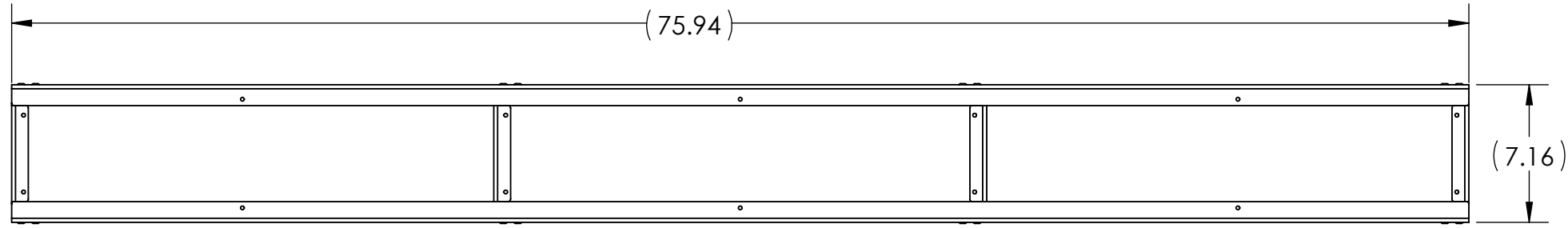
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2

1

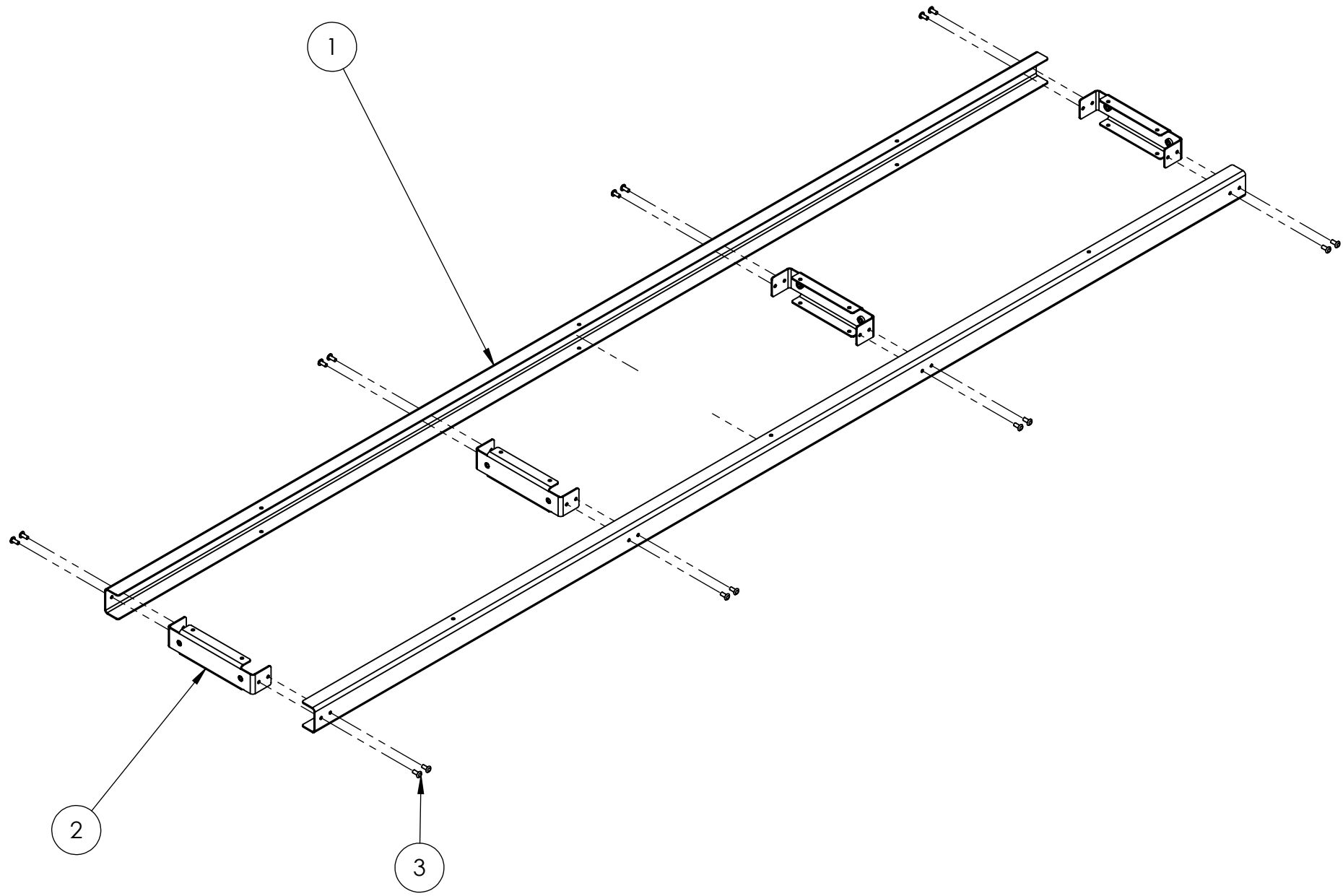
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D



C

C



B



B

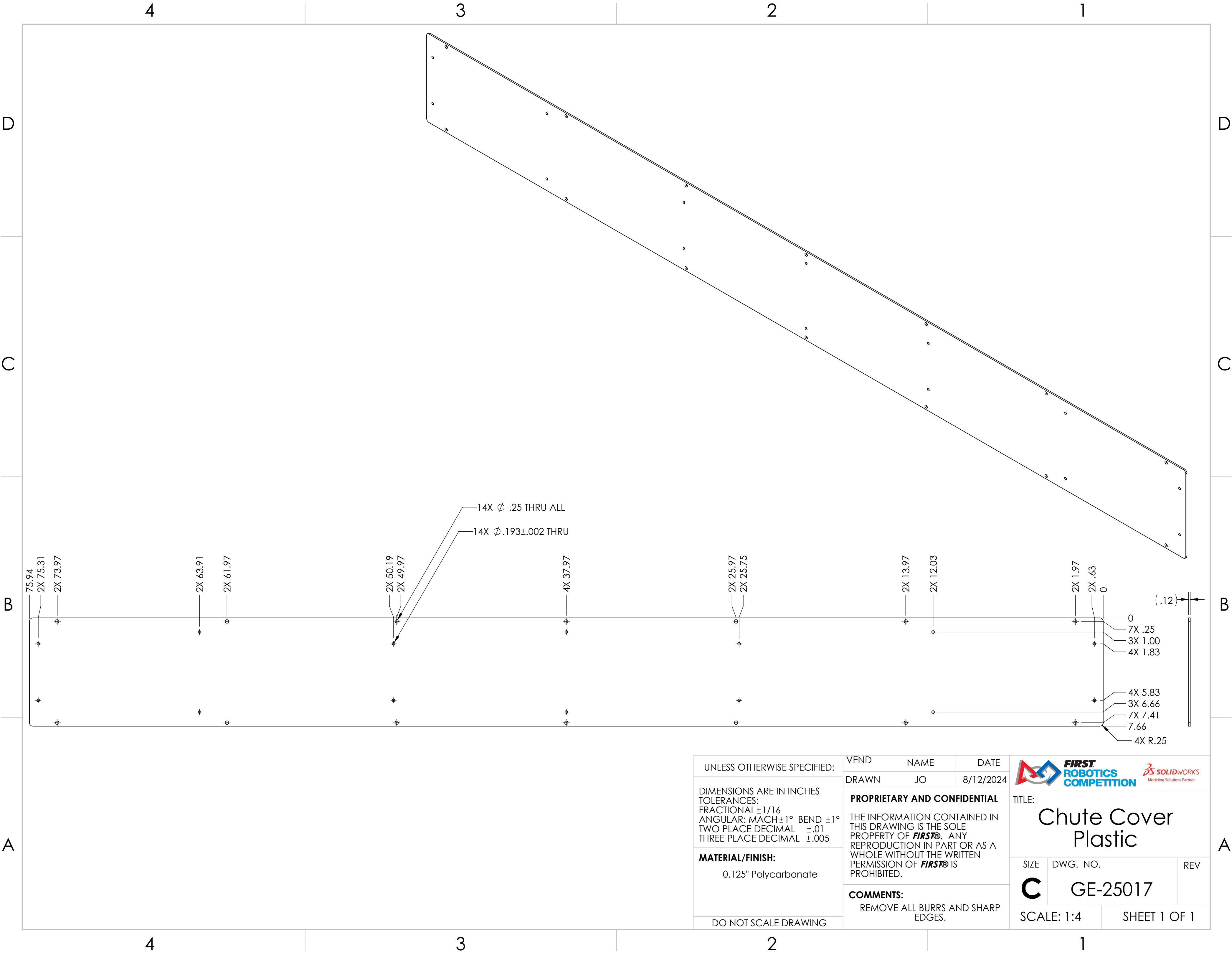
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A

NOTE: ASSEMBLE AS SHOWN

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25012	Chute Frame Long	2
2	GE-25018	Chute Cover Frame Short with PEMs	4
3	rivet_.1875_.126-.25	3/16" Rivet, .126-.25 Grip Range	16

UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005  <b>MATERIAL/FINISH:</b>          <b>DO NOT SCALE DRAWING</b>	VEND	NAME	DATE	 	
	DRAWN	BB	8/13/2024		
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			TITLE:  <div>Chute Cover Frame</div>	
	<b>COMMENTS:</b>  REMOVE ALL BURRS AND SHARP EDGES.			SIZE  <b>C</b>	DWG. NO.  GE-25016  REV
			SCALE: 1:12		SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

**MATERIAL/FINISH:**  
0.125" Polycarbonate

DO NOT SCALE DRAWING

VEND	NAME	DATE
DRAWN	JO	8/12/2024

**PROPRIETARY AND CONFIDENTIAL**

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF **FIRST**. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF **FIRST** IS PROHIBITED.

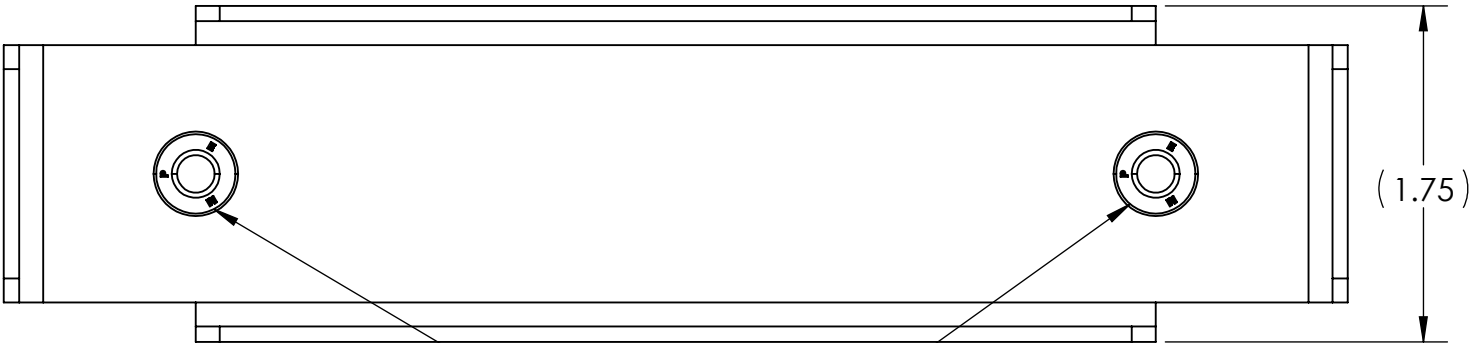
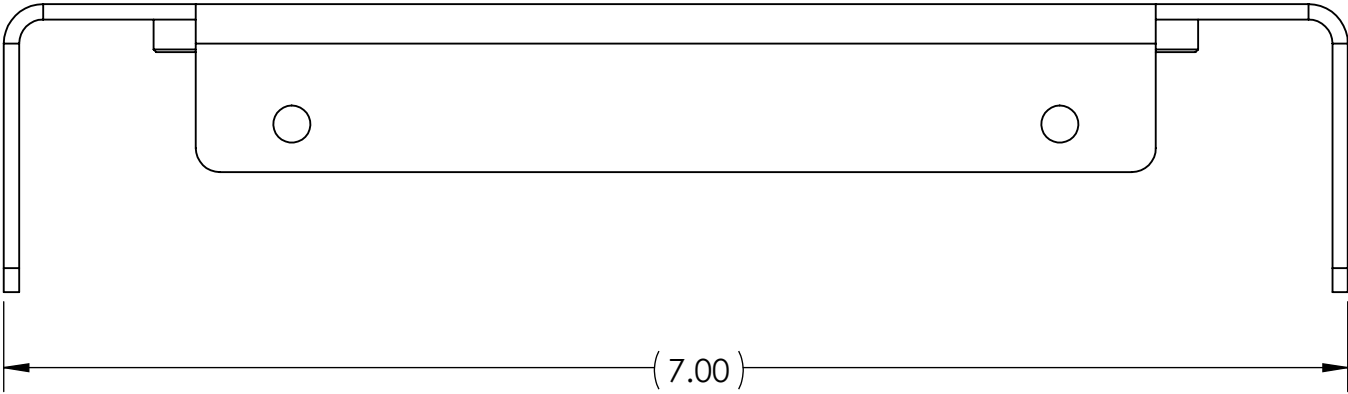
**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.



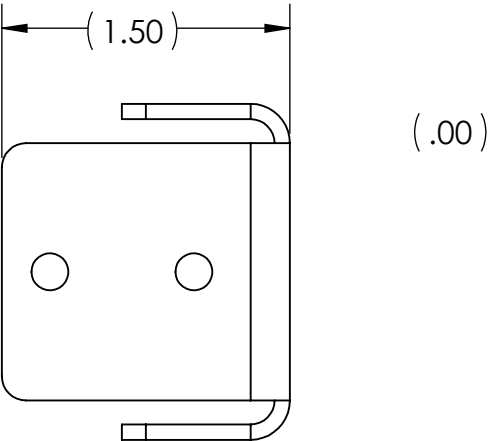
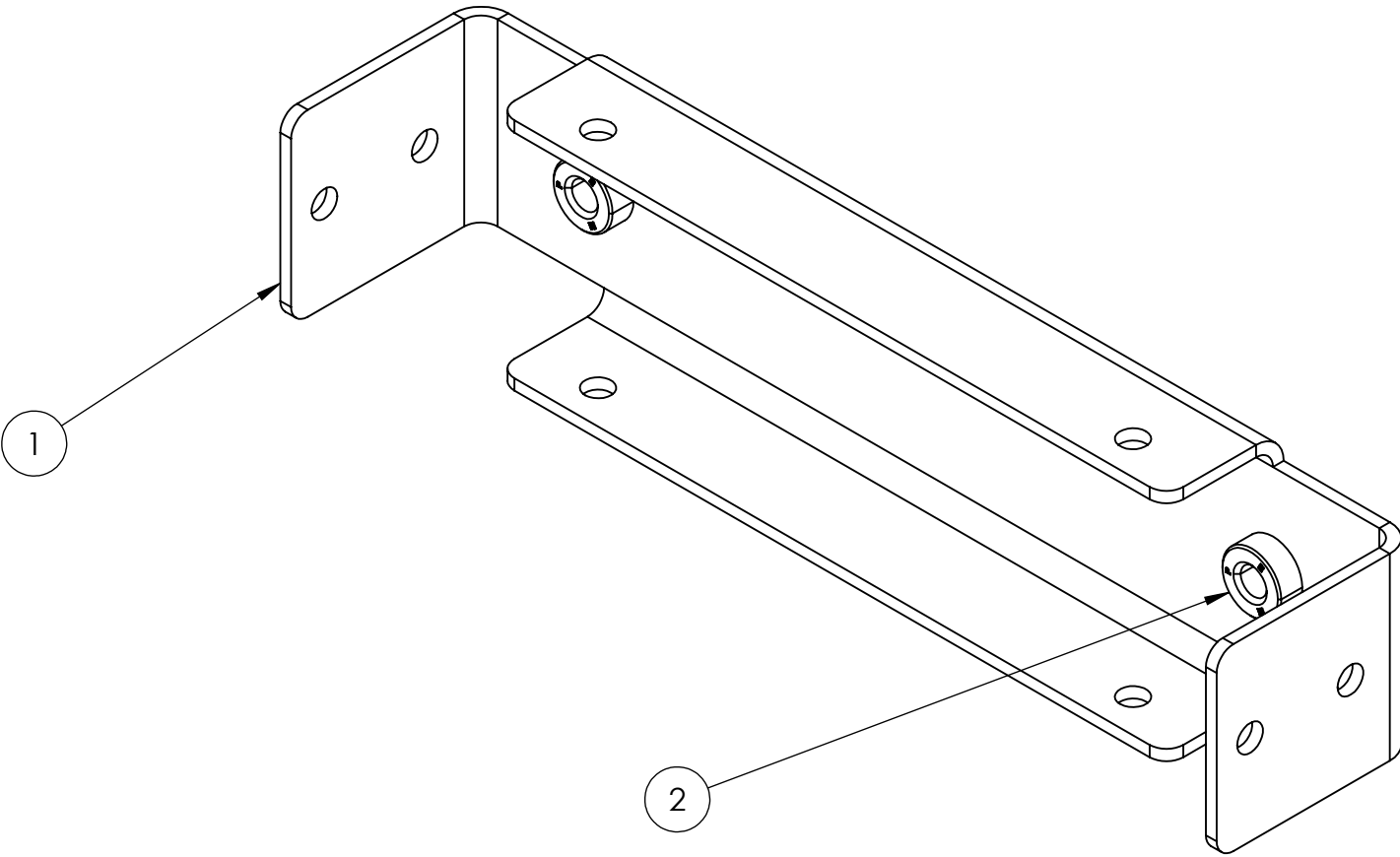
TITLE:  
**Chute Cover Plastic**

SIZE	DWG. NO.	REV
<b>C</b>	GE-25017	

SCALE: 1:4 SHEET 1 OF 1



2X PEM NUTS INSTALLED ON INTERIOR FACE



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25018-01	Chute Cover Frame Short	1
2	pem_clinchnut_.25_20_.054	1/4-20 self-clinching nut, .054 shank	2

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

MATERIAL/FINISH:  
12 Gauge (0.08") 5052 Aluminum

DO NOT SCALE DRAWING

VEND  
DRAWN



NAME  
BB

DATE  
8/13/2024

PROPRIETARY AND CONFIDENTIAL

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COMMENTS:  
REMOVE ALL BURRS AND SHARP EDGES.



TITLE: Chute Cover Frame Short with PEMs

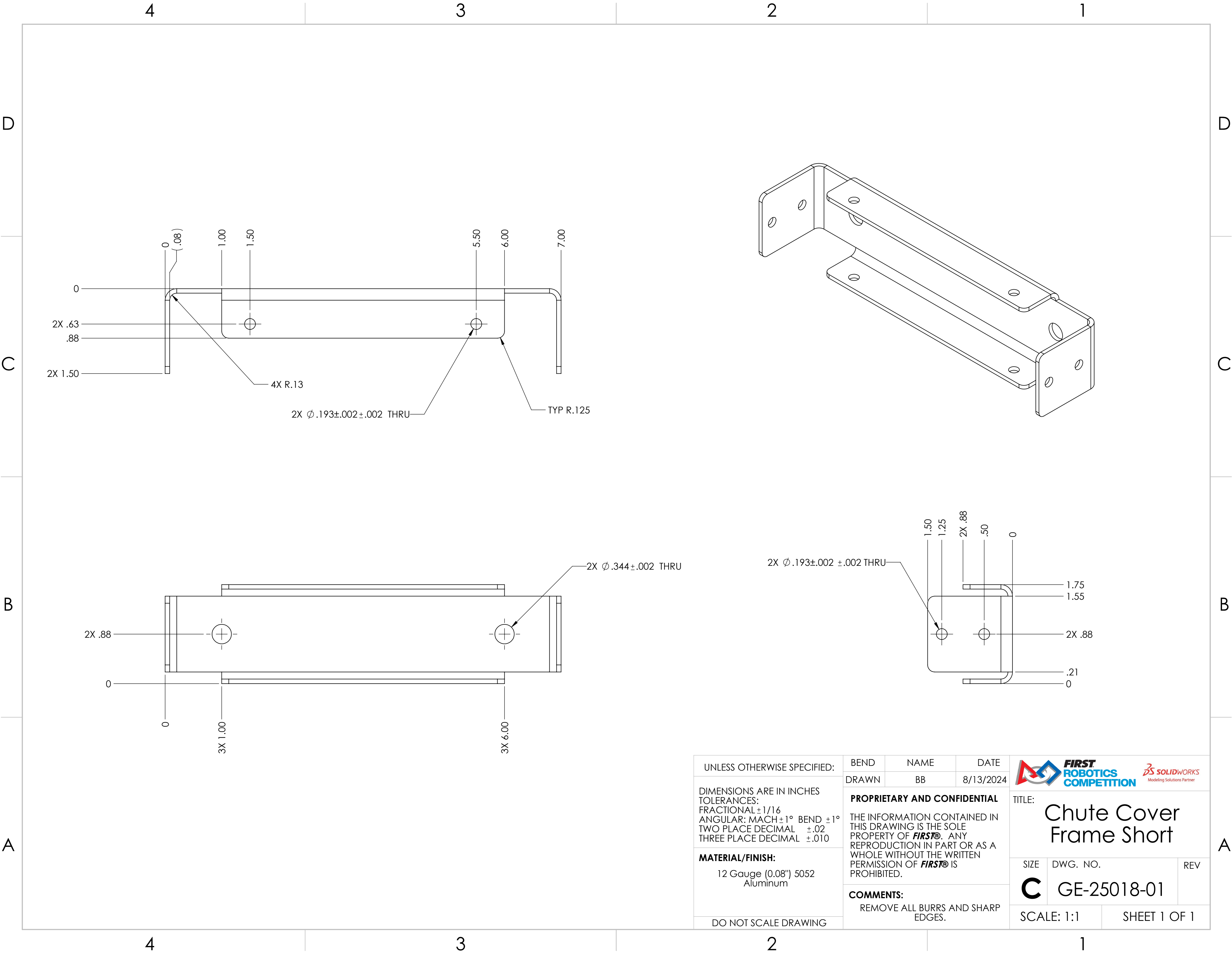
SIZE  
**C**



DWG. NO.  
GE-25018

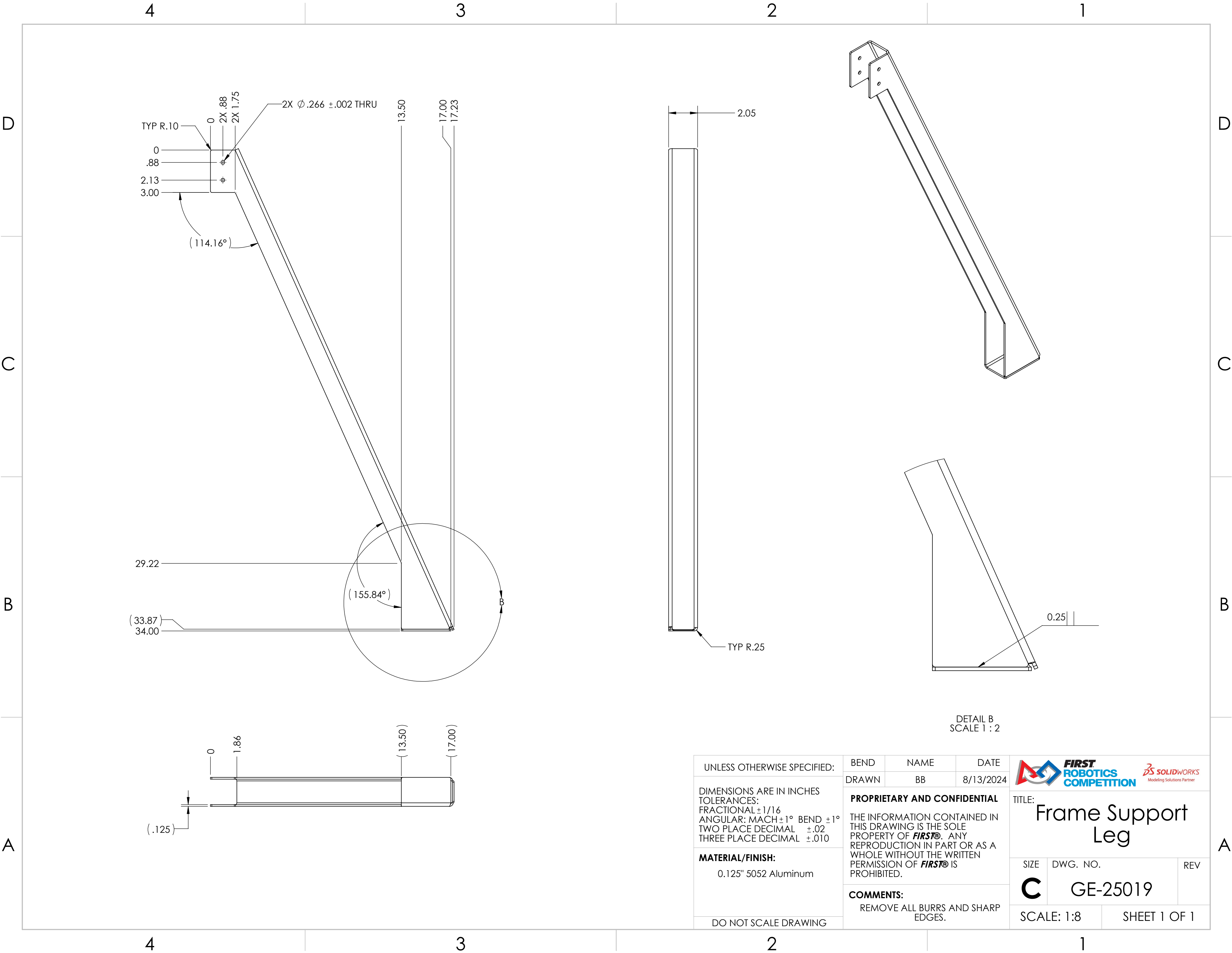
REV

SCALE: 1:1

SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED:	BEND	NAME	DATE	<div></div> <div>TITLE: <b>Chute Cover Frame Short</b></div>		
	DRAWN	BB	8/13/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.02 THREE PLACE DECIMAL ±.010	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE	DWG. NO.	REV
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			<b>C</b>	GE-25018-01	
				SCALE: 1:1		SHEET 1 OF 1
MATERIAL/FINISH:						
12 Gauge (0.08") 5052 Aluminum						
DO NOT SCALE DRAWING						



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL ±1/16  
ANGULAR: MACH ±1° BEND ±1°  
TWO PLACE DECIMAL ±.02  
THREE PLACE DECIMAL ±.010

**MATERIAL/FINISH:**  
0.125" 5052 Aluminum

DO NOT SCALE DRAWING

BEND	NAME	DATE
DRAWN	BB	8/13/2024

**PROPRIETARY AND CONFIDENTIAL**

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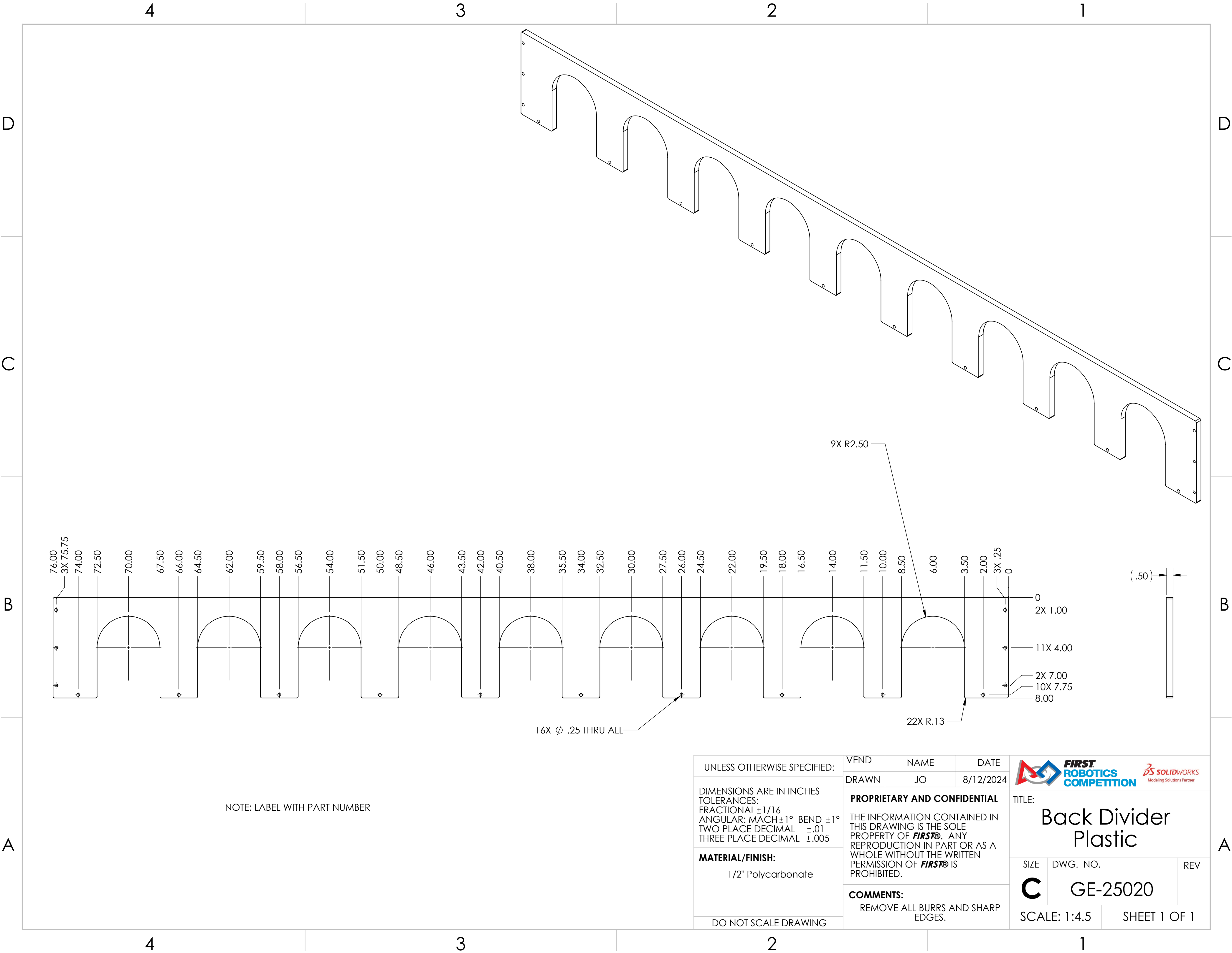
**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.



TITLE: **Frame Support Leg**

SIZE	DWG. NO.	REV
<b>C</b>	GE-25019	

SCALE: 1:8 SHEET 1 OF 1



NOTE: LABEL WITH PART NUMBER

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

**MATERIAL/FINISH:**  
1/2" Polycarbonate

DO NOT SCALE DRAWING

VEND	NAME	DATE
DRAWN	JO	8/12/2024

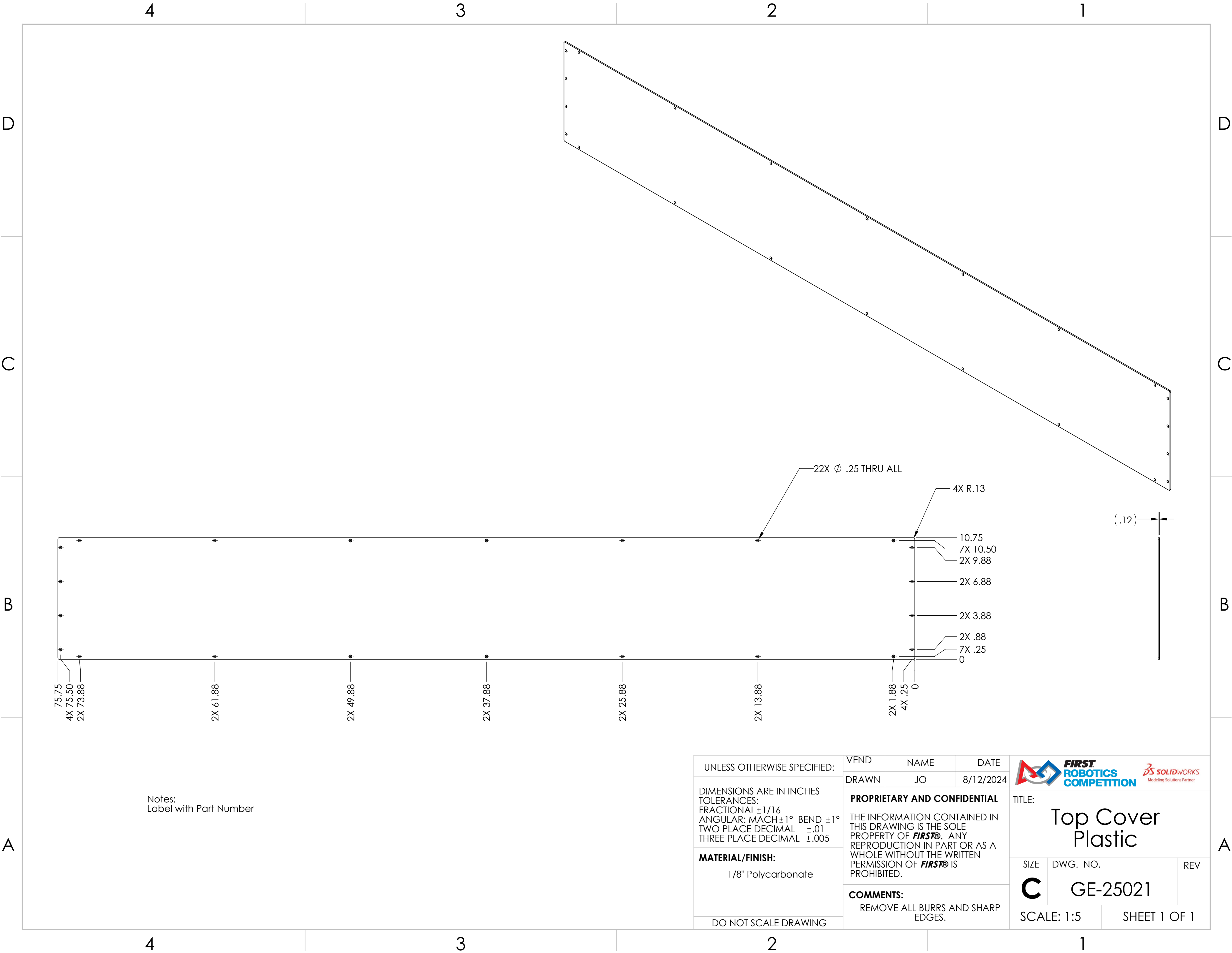
**PROPRIETARY AND CONFIDENTIAL**  
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF **FIRST**. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF **FIRST** IS PROHIBITED.

**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.





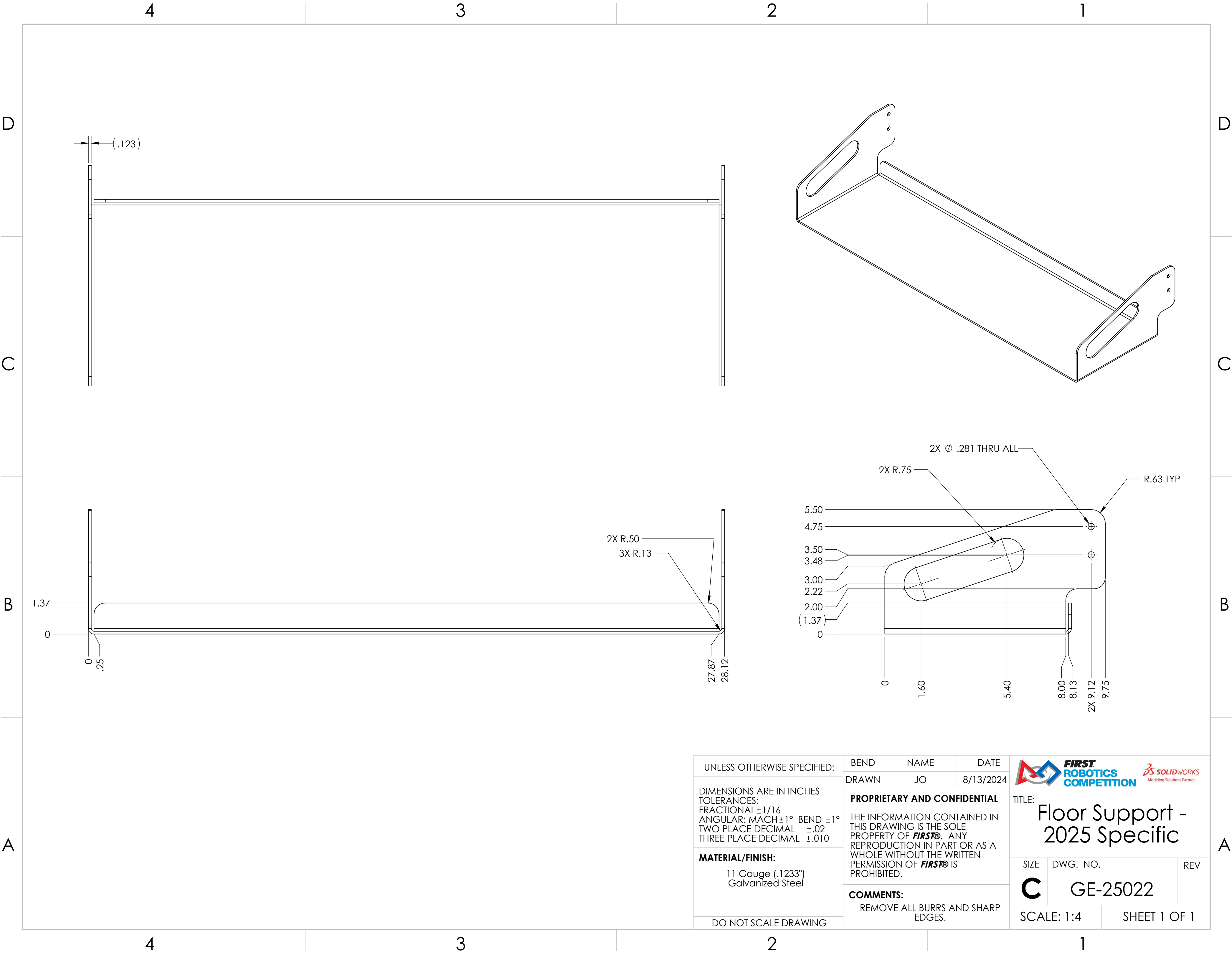
TITLE: <b>Back Divider Plastic</b>		
SIZE <b>C</b>	DWG. NO. <b>GE-25020</b>	REV
SCALE: 1:4.5		SHEET 1 OF 1





Notes:  
Label with Part Number

UNLESS OTHERWISE SPECIFIED:	VEND	NAME	DATE	<div></div> <div>TITLE:  Top Cover Plastic</div>		
	DRAWN	JO	8/12/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	PROPRIETARY AND CONFIDENTIAL			SIZE  C		
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.					
MATERIAL/FINISH:  1/8" Polycarbonate	COMMENTS:			DWG. NO.		REV
	REMOVE ALL BURRS AND SHARP EDGES.			GE-25021		
DO NOT SCALE DRAWING				SCALE: 1:5		SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .02$   
THREE PLACE DECIMAL  $\pm .010$

**MATERIAL/FINISH:**  
11 Gauge (.1233")  
Galvanized Steel

DO NOT SCALE DRAWING

BEND  
DRAWN  
NAME  
JO  
DATE  
8/13/2024

**PROPRIETARY AND CONFIDENTIAL**  
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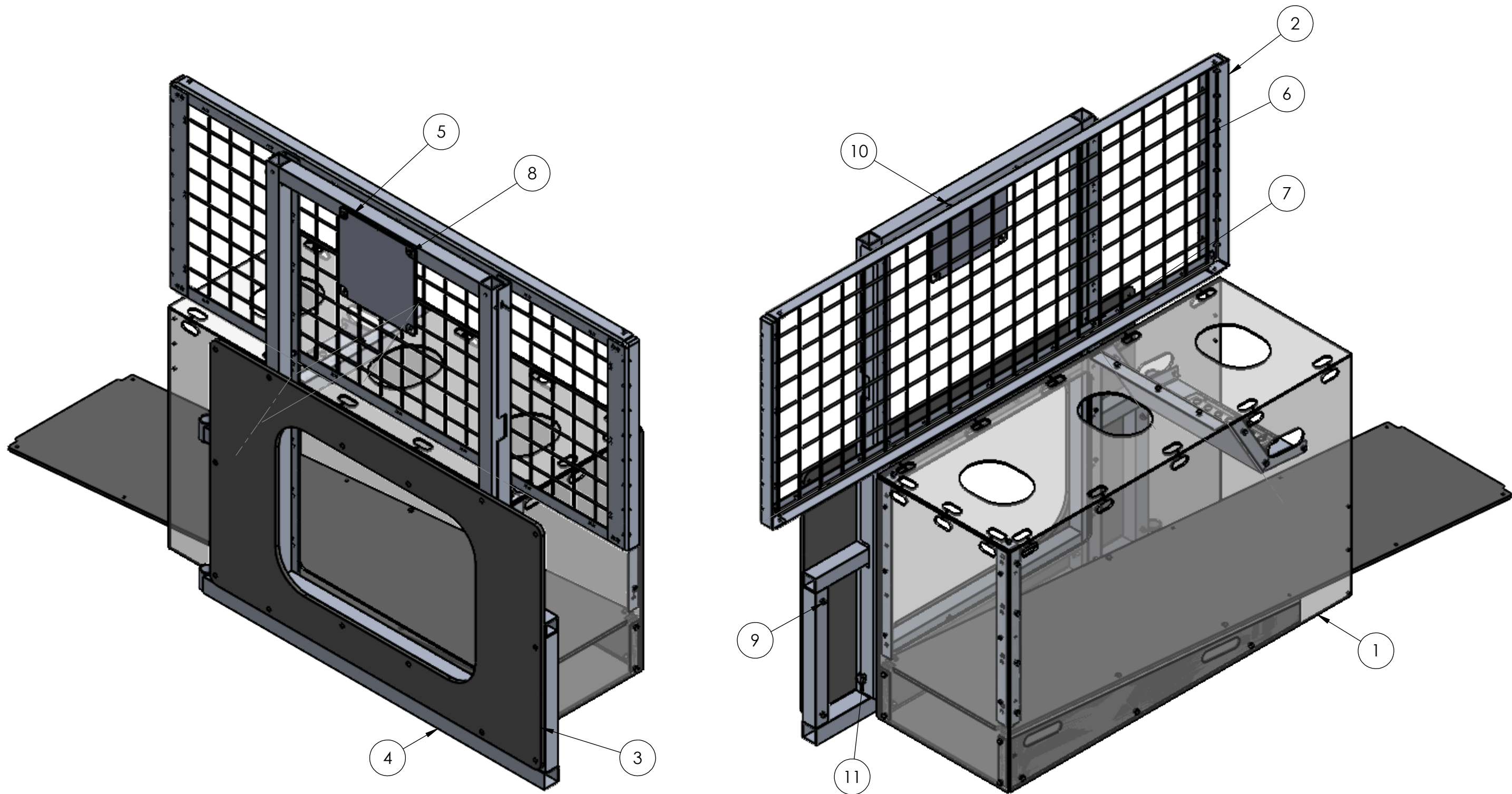
**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.



TITLE:  
**Floor Support - 2025 Specific**



SIZE  
**C**  
DWG. NO.  
**GE-25022**  
REV

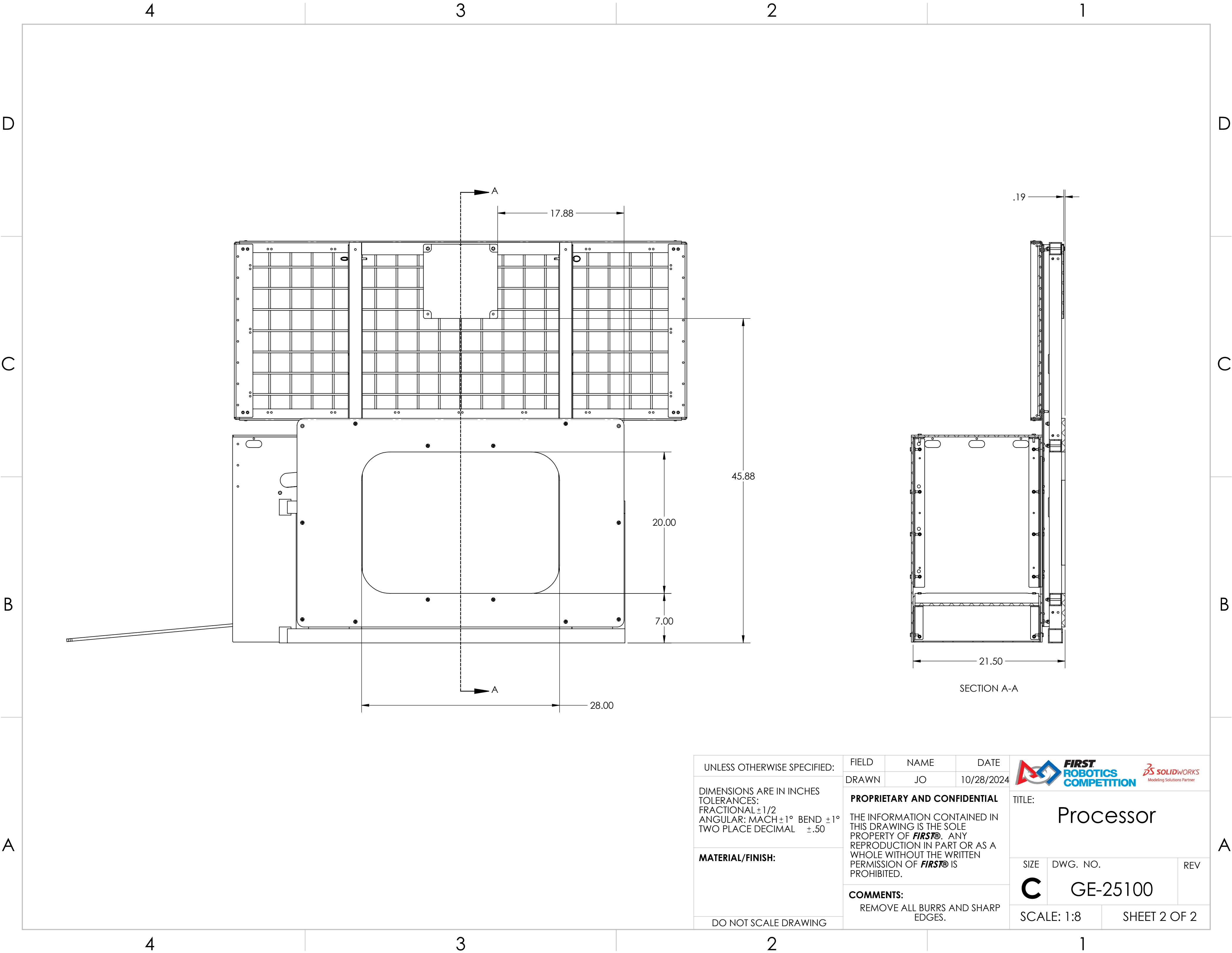
SCALE: 1:4  
SHEET 1 OF 1





Note: April Tag ID # changes depending on which Processor it is on. See the Field Layout and Marking Diagram for more details.

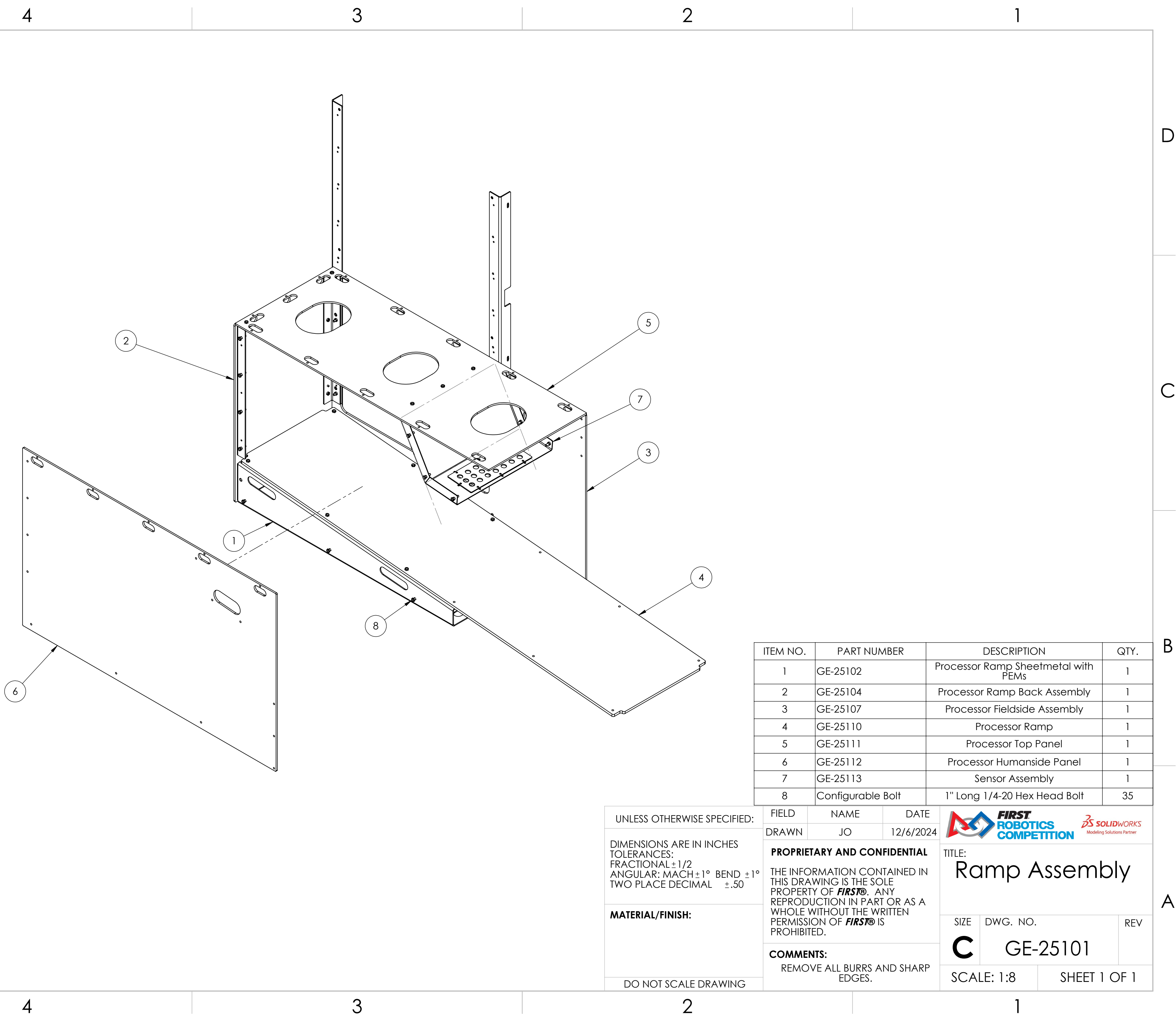
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25101	Ramp Assembly	1
2	GE-25116	Fence Frame	1
3	GE-25119	Processor Opening	1
4	GE-25120	Processor Weldment	1
5	FE-00083-ID3	AprilTag	1
6	fence	ULINE Grid	1
7	Configurable Bolt	1" Long 1/4-20 Hex Head Bolt	4
8	Configurable Bolt	2.5" Long 1/4-20 Hex Head Bolt	2
9	flat_phil_.25_20_2.75	Steel Phillips Flat Head Screw, 1/4"-20 x 2-3/4" long, fully threaded	12
10	nylock_.25_20	Steel Nylon-Insert Locknut, 1/4"-20	14
11	pin_quick_ring_.25_2.3125	Pin, Ring-Grip Quick-Release with SS Ring, 1/4" Diameter, 2.3125" Usable Length	6

UNLESS OTHERWISE SPECIFIED:	FIELD	NAME	DATE	<div></div>		
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/2 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.50	DRAWN	JO	10/28/2024	TITLE:		
	PROPRIETARY AND CONFIDENTIAL			Processor		
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE		
	COMMENTS:			DWG. NO.		
MATERIAL/FINISH:	REMOVE ALL BURRS AND SHARP EDGES.			C	GE-25100	REV
DO NOT SCALE DRAWING				SCALE: 1:10		SHEET 1 OF 2



UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/2$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .50$  <b>MATERIAL/FINISH:</b>     <b>DO NOT SCALE DRAWING</b>	FIELD	NAME	DATE	<div></div>	
	DRAWN	JO	10/28/2024		
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.				TITLE:  <b>Processor</b>
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.				SIZE <b>C</b>  SCALE: 1:8
				DWG. NO. <b>GE-25100</b>	REV
				SHEET 2 OF 2	





ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25102	Processor Ramp Sheetmetal with PEMs	1
2	GE-25104	Processor Ramp Back Assembly	1
3	GE-25107	Processor Fieldside Assembly	1
4	GE-25110	Processor Ramp	1
5	GE-25111	Processor Top Panel	1
6	GE-25112	Processor Humanside Panel	1
7	GE-25113	Sensor Assembly	1
8	Configurable Bolt	1" Long 1/4-20 Hex Head Bolt	35



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/2$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .50$

MATERIAL/FINISH:

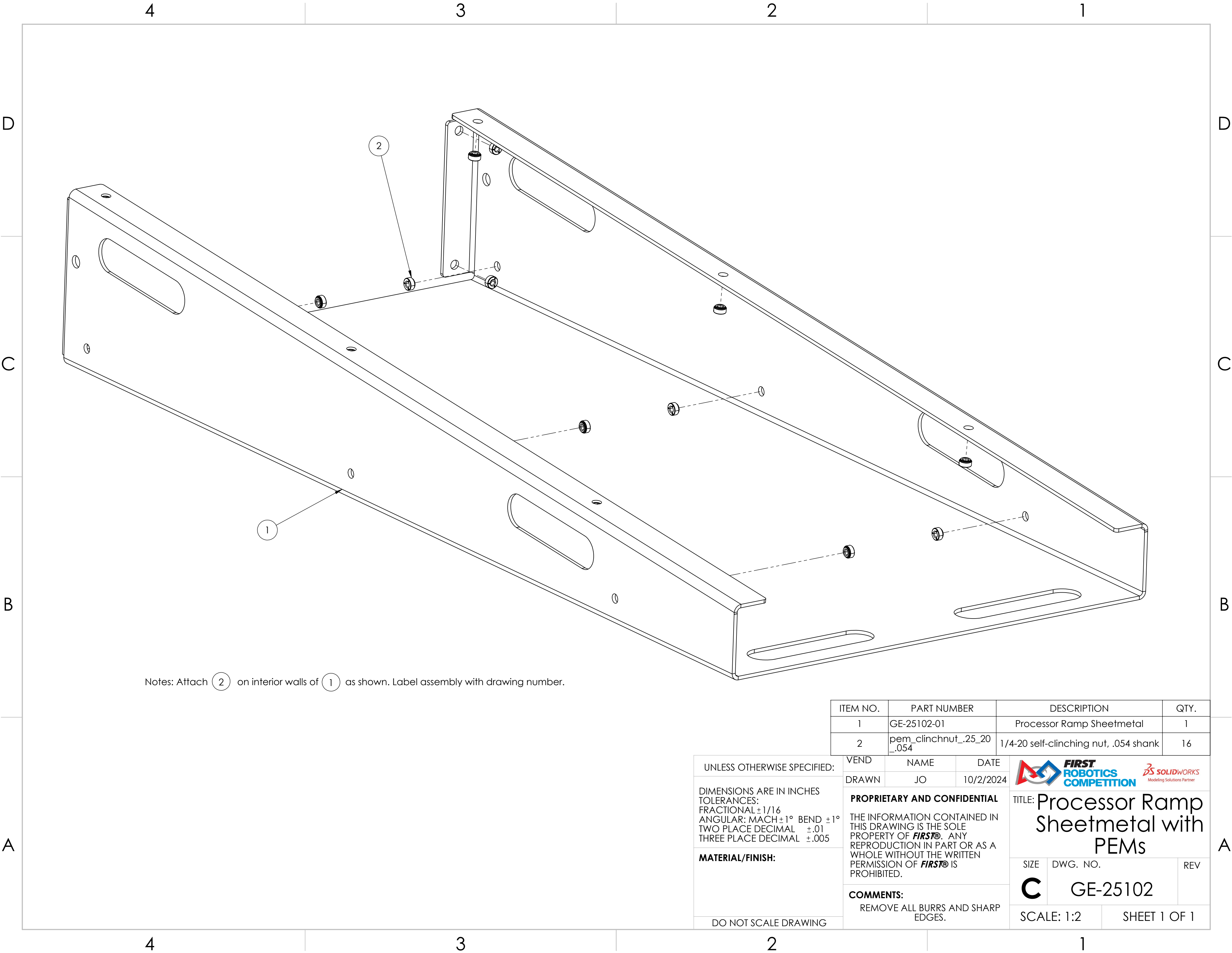
DO NOT SCALE DRAWING

FIELD	NAME	DATE
DRAWN	JO	12/6/2024
<b>PROPRIETARY AND CONFIDENTIAL</b>		
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.		
<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.		



TITLE:  
**Ramp Assembly**

SIZE	DWG. NO.	REV
<b>C</b>	GE-25101	
SCALE: 1:8		SHEET 1 OF 1



Notes: Attach 2 on interior walls of 1 as shown. Label assembly with drawing number.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25102-01	Processor Ramp Sheetmetal	1
2	pem_clinchnut_.25_20_.054	1/4-20 self-clinching nut, .054 shank	16

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

**MATERIAL/FINISH:**

DO NOT SCALE DRAWING

VEND

DRAWN

**PROPRIETARY AND CONFIDENTIAL**

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**COMMENTS:**

REMOVE ALL BURRS AND SHARP EDGES.

NAME

JO

DATE

10/2/2024

**FIRST**  
ROBOTICS  
COMPETITION

**3S** SOLIDWORKS  
Modeling Solutions Partner

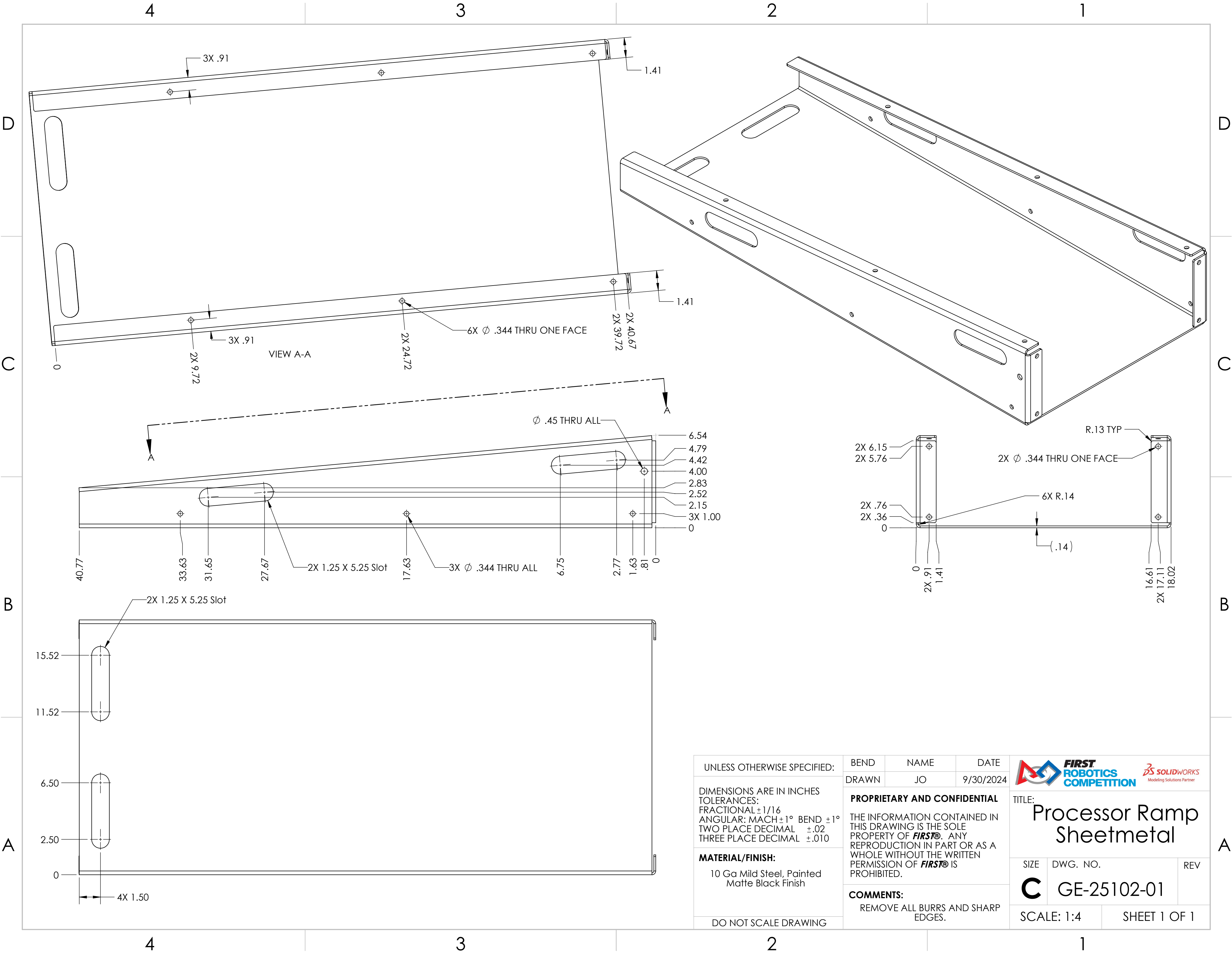
TITLE: Processor Ramp Sheetmetal with PEMs

SIZE	DWG. NO.	REV
<b>C</b>	GE-25102	

SCALE: 1:2

SHEET 1 OF 1





UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .02$   
THREE PLACE DECIMAL  $\pm .010$

**MATERIAL/FINISH:**  
10 Ga Mild Steel, Painted  
Matte Black Finish

DO NOT SCALE DRAWING

BEND	NAME	DATE
DRAWN	JO	9/30/2024

**PROPRIETARY AND CONFIDENTIAL**

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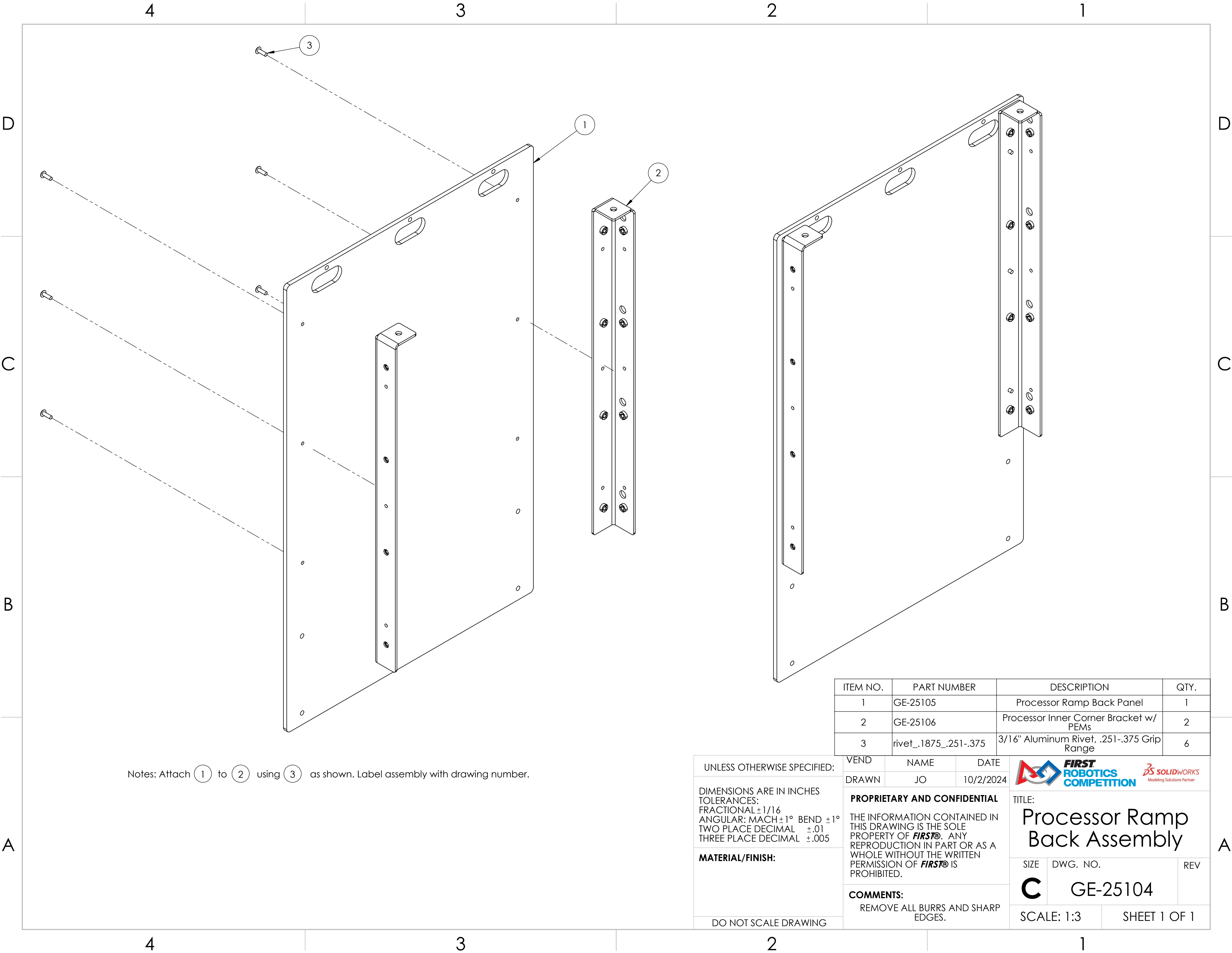
**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.



TITLE:  
**Processor Ramp Sheetmetal**

SIZE	DWG. NO.	REV
<b>C</b>	GE-25102-01	

SCALE: 1:4 SHEET 1 OF 1



Notes: Attach 1 to 2 using 3 as shown. Label assembly with drawing number.

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

MATERIAL/FINISH:

DO NOT SCALE DRAWING

VEND	NAME	DATE
DRAWN	JO	10/2/2024

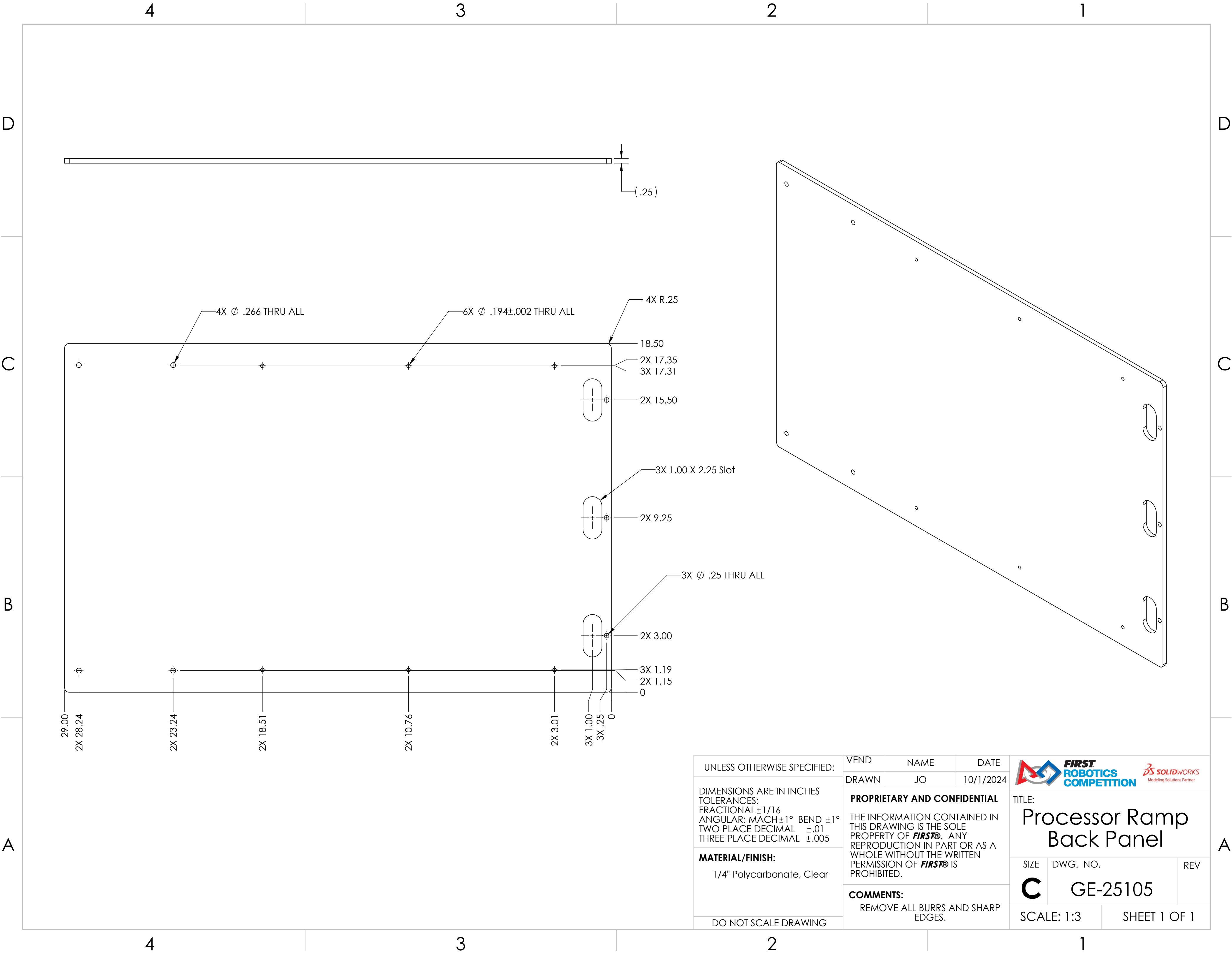
PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF **FIRST**. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF **FIRST** IS PROHIBITED.

COMMENTS:  
REMOVE ALL BURRS AND SHARP EDGES.



TITLE: Processor Ramp Back Assembly		
SIZE C	DWG. NO. GE-25104	REV
SCALE: 1:3		SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

**MATERIAL/FINISH:**  
1/4" Polycarbonate, Clear

DO NOT SCALE DRAWING

VEND	NAME	DATE
DRAWN	JO	10/1/2024

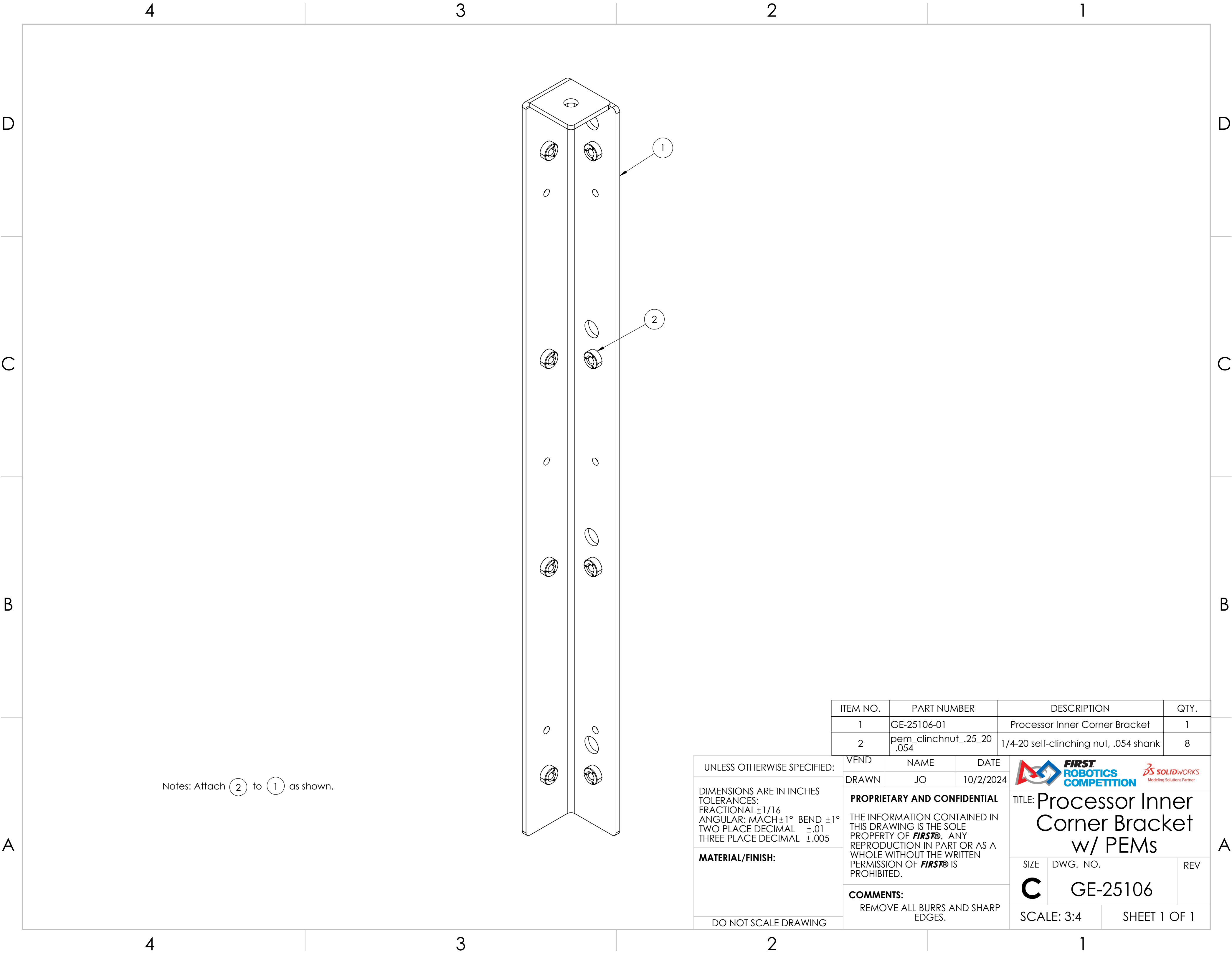
**PROPRIETARY AND CONFIDENTIAL**

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF **FIRST**. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF **FIRST** IS PROHIBITED.

**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.

 		
TITLE:		

Processor Ramp Back Panel		
SIZE	DWG. NO.	REV
<b>C</b>	GE-25105	
SCALE: 1:3		SHEET 1 OF 1



Notes: Attach 2 to 1 as shown.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25106-01	Processor Inner Corner Bracket	1
2	pem_clinchnut_.25_20_.054	1/4-20 self-clinching nut, .054 shank	8

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

MATERIAL/FINISH:

DO NOT SCALE DRAWING

VEND

NAME

DATE

DRAWN

JO



10/2/2024

PROPRIETARY AND CONFIDENTIAL

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COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.



TITLE: Processor Inner Corner Bracket w/ PEMs

SIZE

DWG. NO.

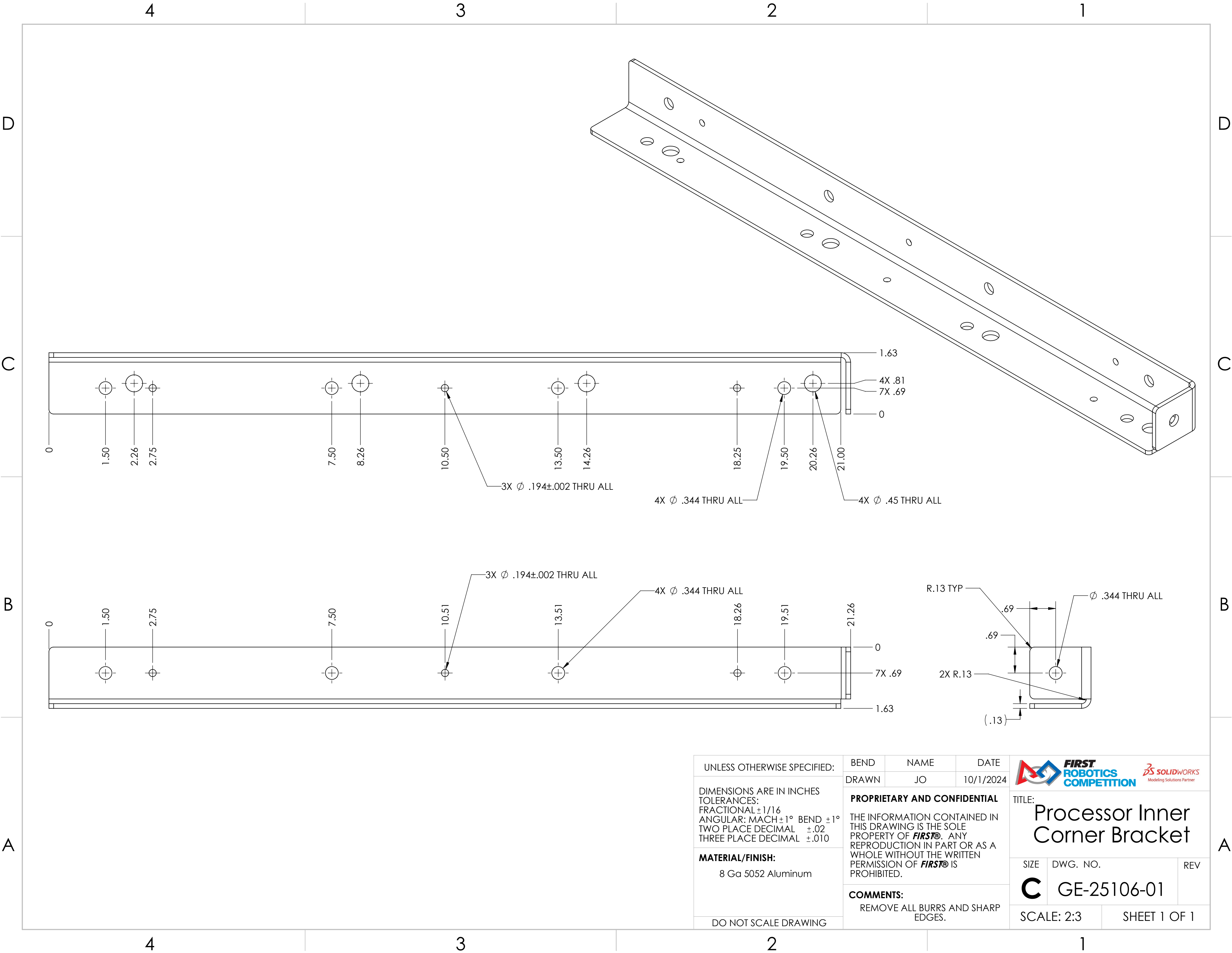
REV



C

GE-25106

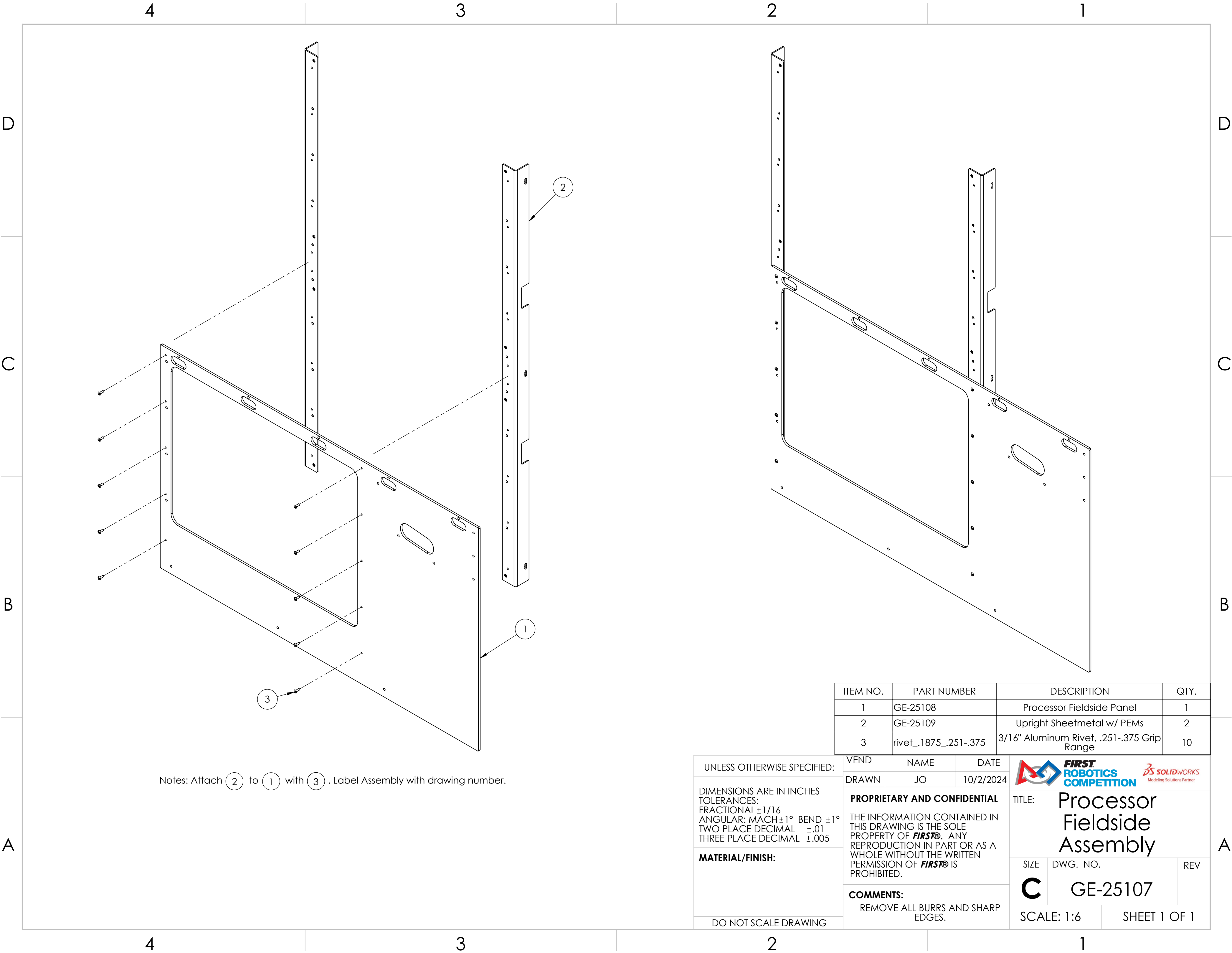
SCALE: 3:4

SHEET 1 OF 1





UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.02 THREE PLACE DECIMAL ±.010  <b>MATERIAL/FINISH:</b>  8 Ga 5052 Aluminum  DO NOT SCALE DRAWING	BEND	NAME	DATE	<div></div> <div>TITLE: <b>Processor Inner Corner Bracket</b></div> <div>SIZE <b>C</b></div> <div>SCALE: 2:3</div>			
	DRAWN	JO	10/1/2024			<div>DWG. NO. <b>GE-25106-01</b></div> <div>SHEET 1 OF 1</div>	
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.						
<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.							

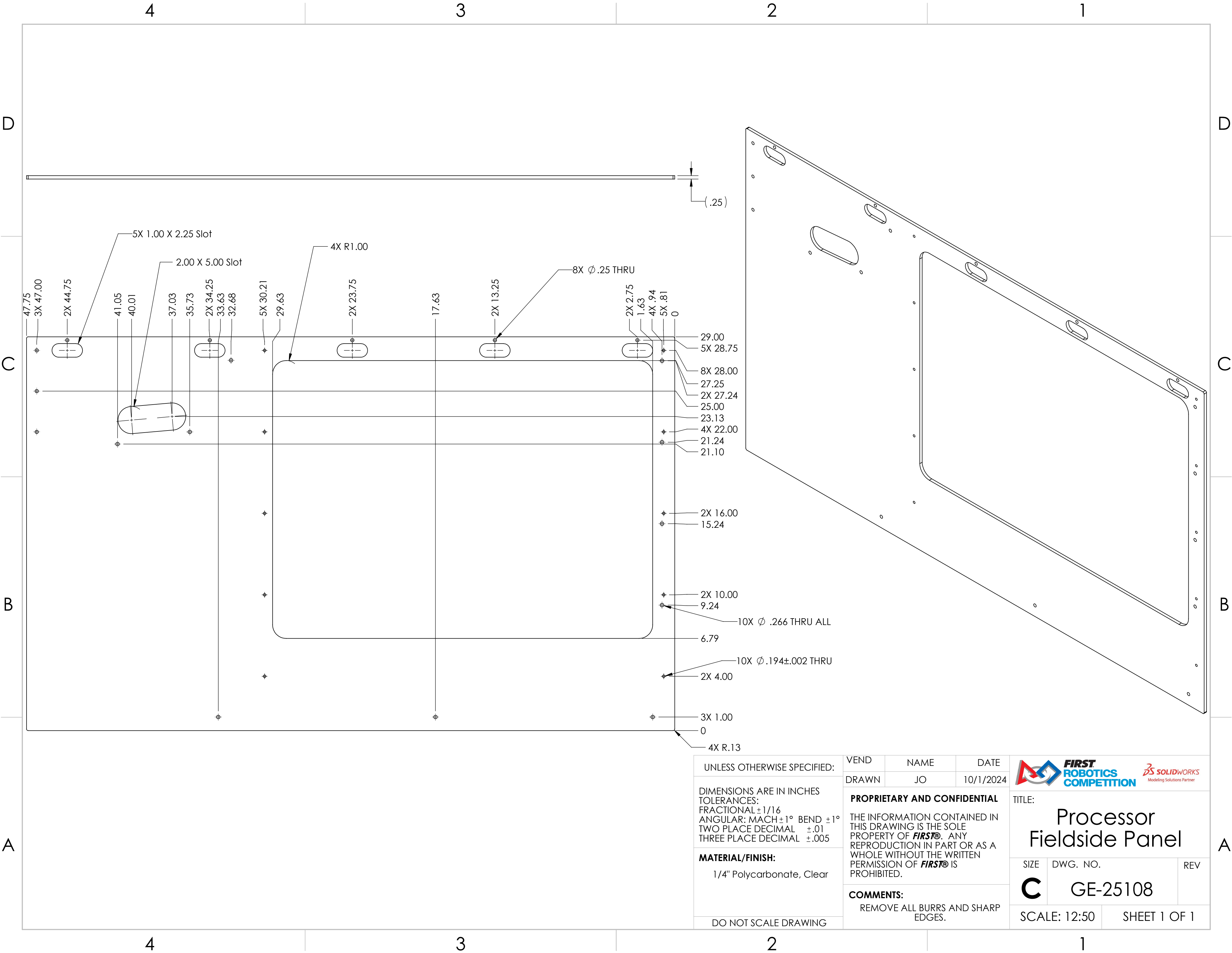




Notes: Attach 2 to 1 with 3. Label Assembly with drawing number.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25108	Processor Fieldside Panel	1
2	GE-25109	Upright Sheetmetal w/ PEMs	2
3	rivet_.1875_.251-.375	3/16" Aluminum Rivet, .251-.375 Grip Range	10

UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005  <b>MATERIAL/FINISH:</b>     <b>DO NOT SCALE DRAWING</b>	VEND	NAME	DATE	<div><div><b>FIRST</b> ROBOTICS COMPETITION</div></div> <div>TITLE: Processor Fieldside Assembly</div>			
	DRAWN	JO	10/2/2024				
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.				SIZE	DWG. NO.	REV
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.				<b>C</b>	GE-25107	
				SCALE: 1:6		SHEET 1 OF 1	



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

**MATERIAL/FINISH:**  
1/4" Polycarbonate, Clear

DO NOT SCALE DRAWING

VEND	NAME	DATE
DRAWN	JO	10/1/2024

**PROPRIETARY AND CONFIDENTIAL**

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF **FIRST**. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF **FIRST** IS PROHIBITED.

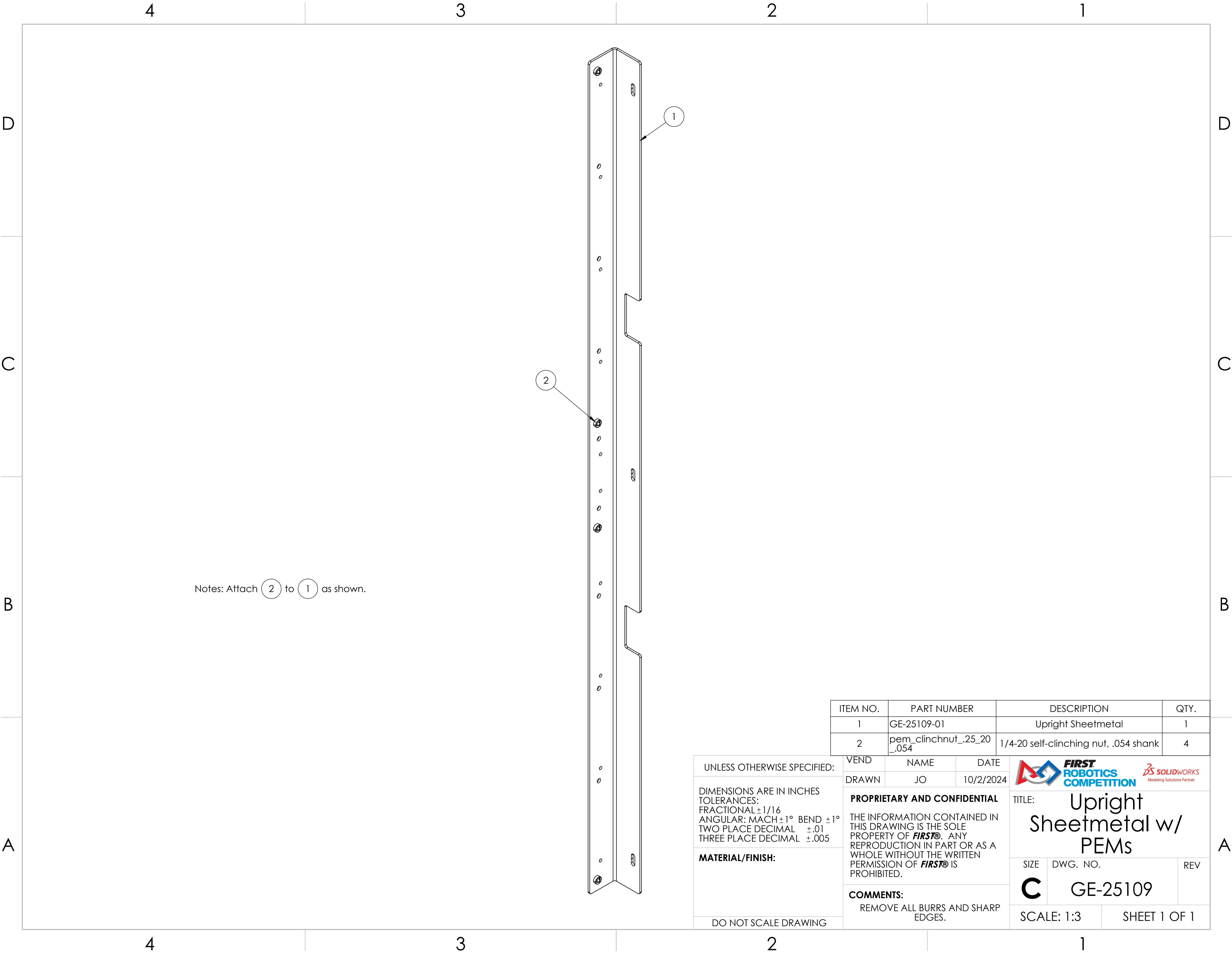
**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.



TITLE:  
**Processor Fieldside Panel**

SIZE	DWG. NO.	REV
<b>C</b>	GE-25108	

SCALE: 12:50 SHEET 1 OF 1



Notes: Attach 2 to 1 as shown.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25109-01	Upright Sheetmetal	1
2	pem_clinchnut_.25_20_.054	1/4-20 self-clinching nut, .054 shank	4

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

MATERIAL/FINISH:

DO NOT SCALE DRAWING

VEND  
DRAWN



NAME  
JO

DATE  
10/2/2024

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF **FIRST**. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF **FIRST** IS PROHIBITED.

COMMENTS:  
REMOVE ALL BURRS AND SHARP EDGES.



TITLE: Upright Sheetmetal w/ PEMs

SIZE  
**C**

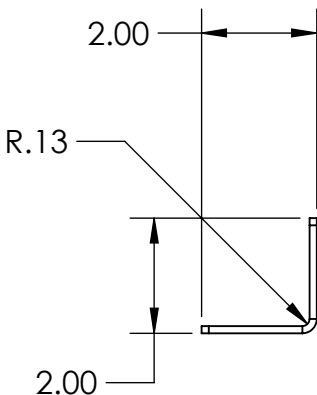
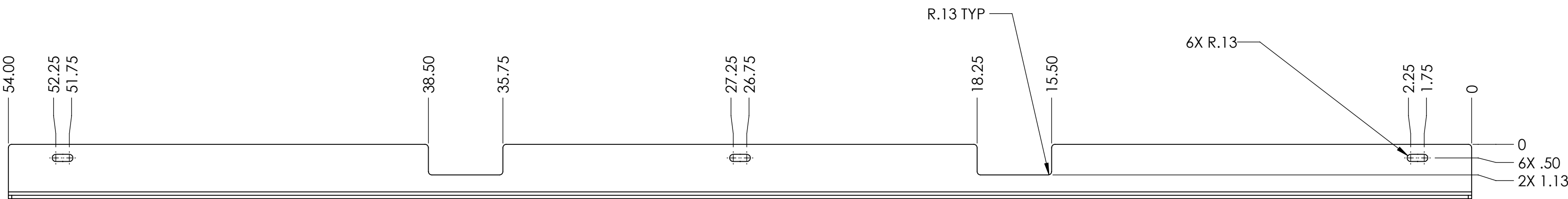
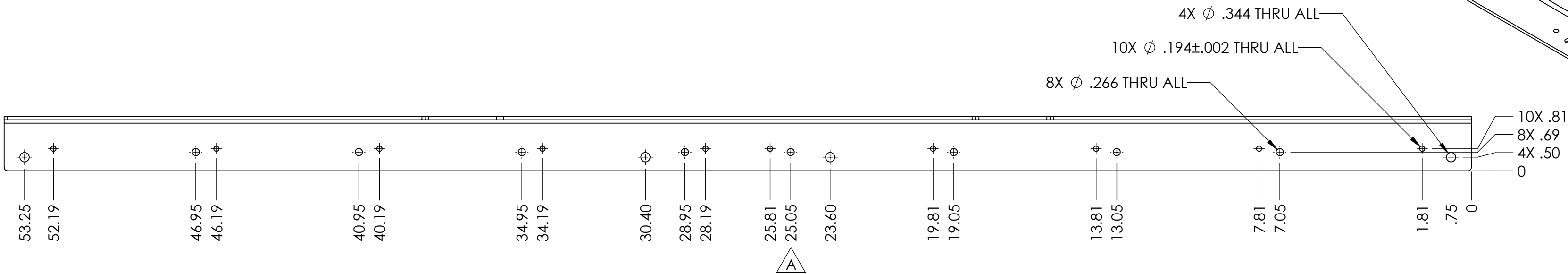
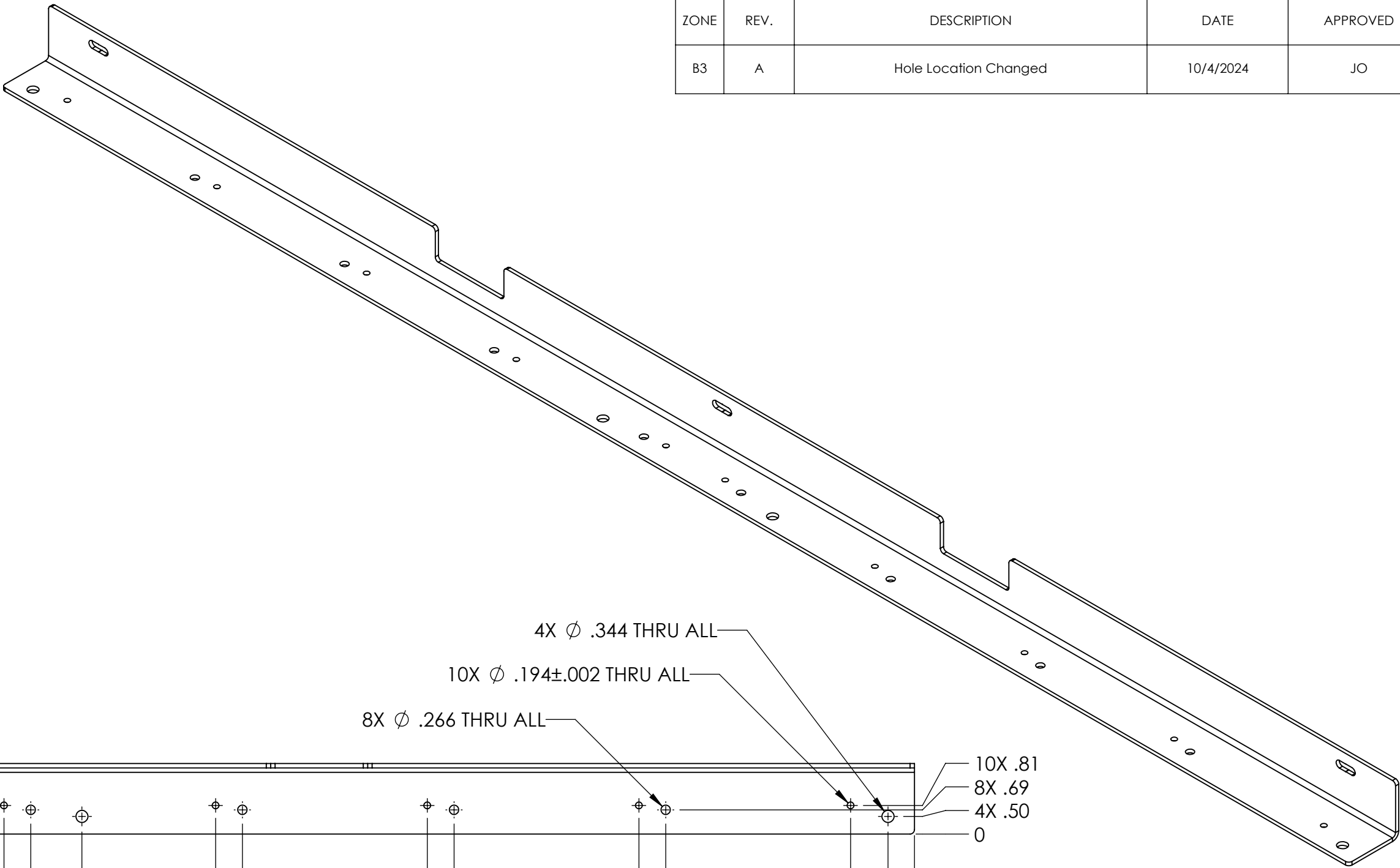
DWG. NO.  
GE-25109

REV

SCALE: 1:3

SHEET 1 OF 1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
B3	A	Hole Location Changed	10/4/2024	JO



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .02$   
THREE PLACE DECIMAL  $\pm .010$

**MATERIAL/FINISH:**  
8 Ga 5052 Aluminum

DO NOT SCALE DRAWING

BEND	NAME	DATE
DRAWN	JO	9/30/2024

**PROPRIETARY AND CONFIDENTIAL**

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**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.



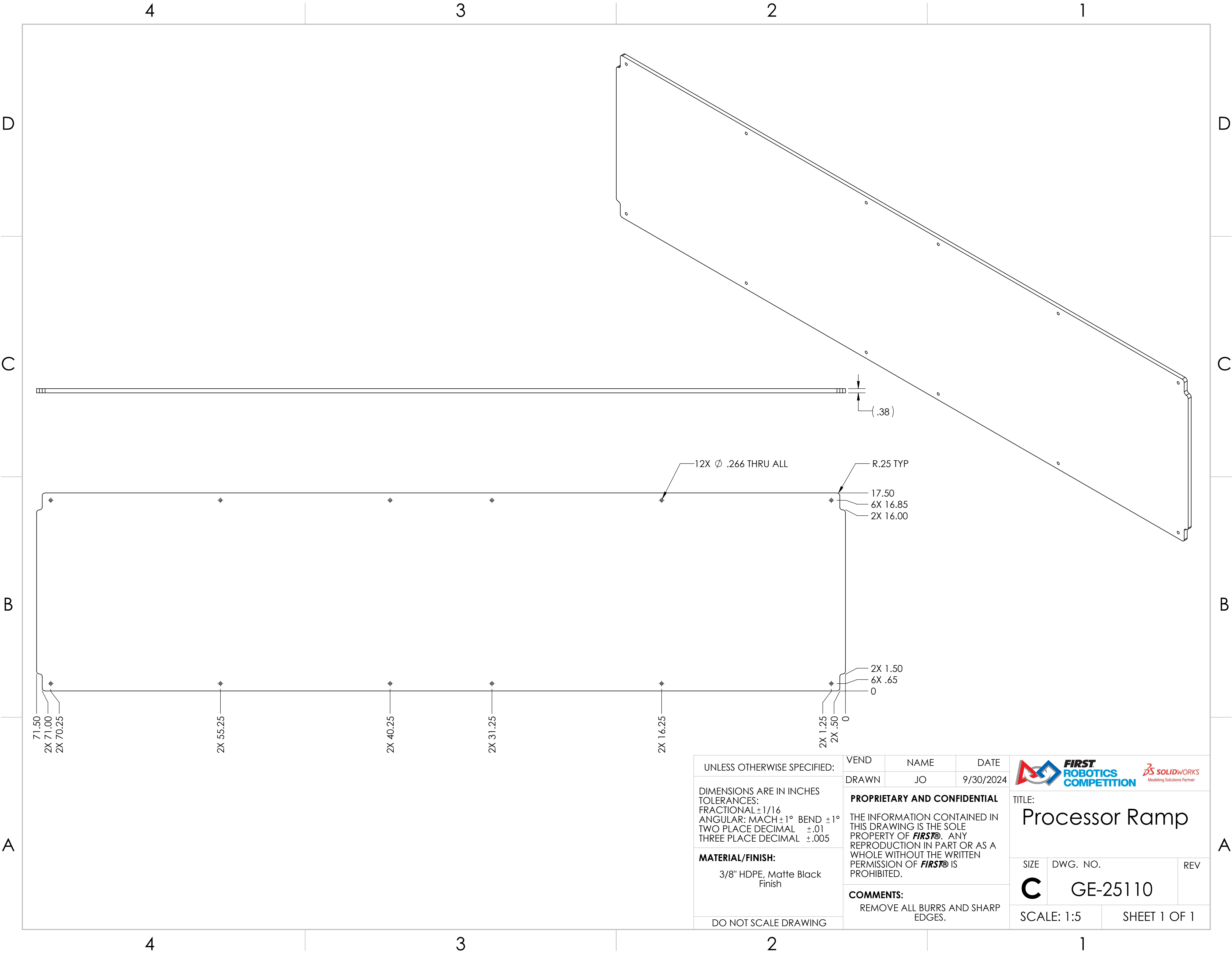
**FIRST**  
ROBOTICS  
COMPETITION



TITLE:  
**Upright  
Sheetmetal**

SIZE	DWG. NO.	REV
<b>C</b>	GE-25109-01	<b>A</b>

SCALE: 3:10 SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

**MATERIAL/FINISH:**  
3/8" HDPE, Matte Black  
Finish

DO NOT SCALE DRAWING

VEND

NAME

DATE

DRAWN

JO

9/30/2024

**PROPRIETARY AND CONFIDENTIAL**  
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THIS DRAWING IS THE SOLE  
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REPRODUCTION IN PART OR AS A  
WHOLE WITHOUT THE WRITTEN  
PERMISSION OF **FIRST®** IS  
PROHIBITED.

**COMMENTS:**  
REMOVE ALL BURRS AND SHARP  
EDGES.



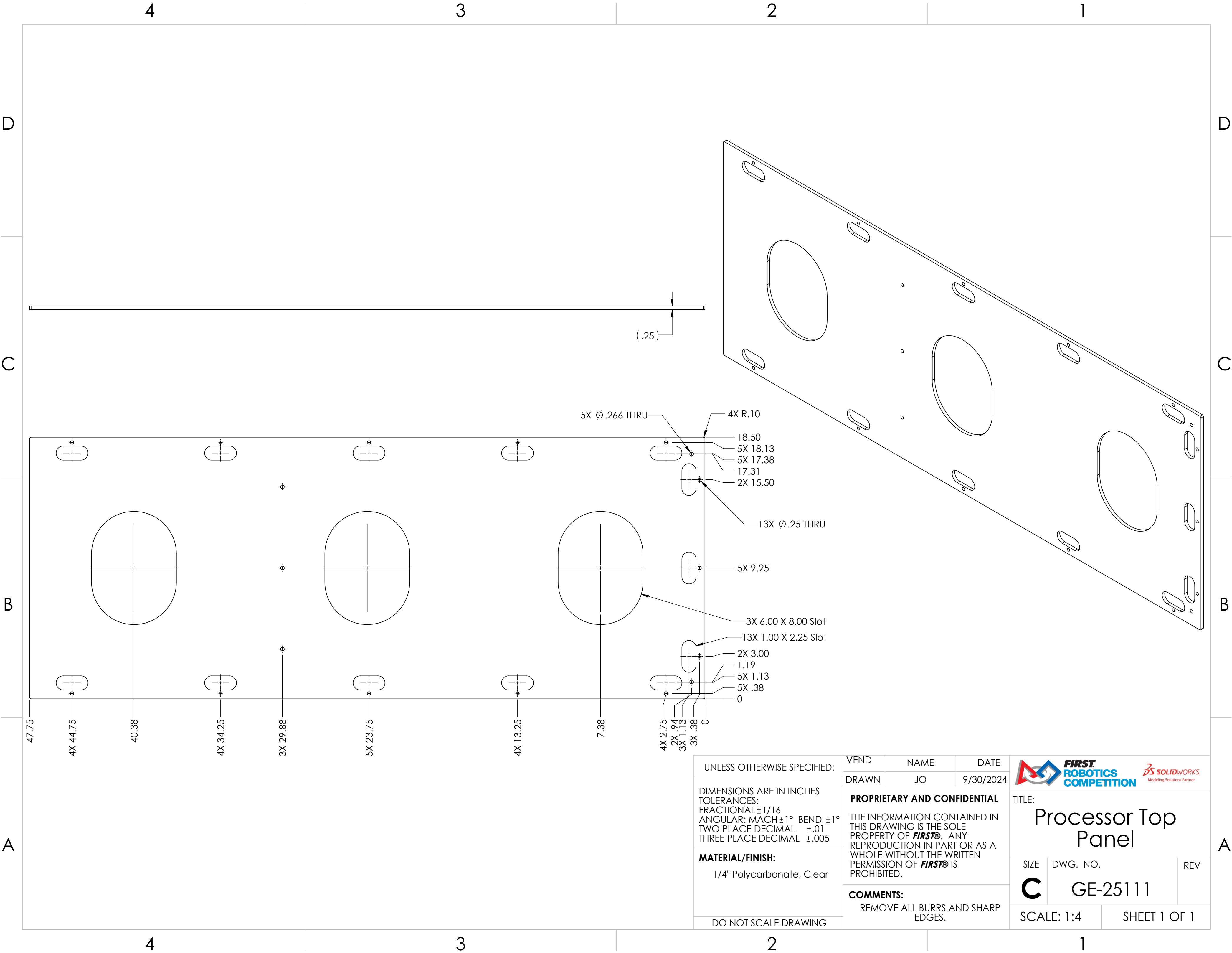
TITLE:  
**Processor Ramp**

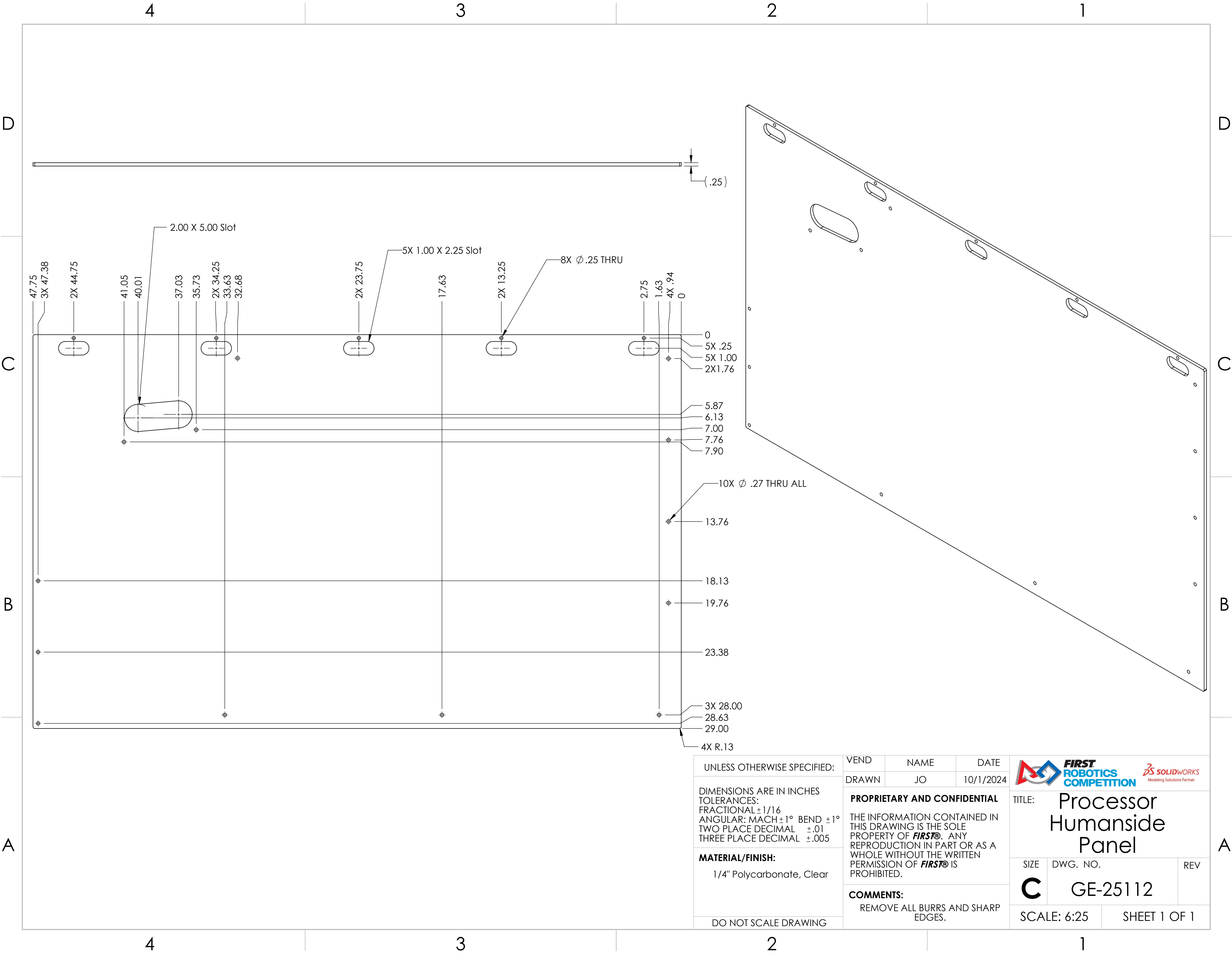
SIZE DWG. NO. REV

**C** GE-25110

SCALE: 1:5 SHEET 1 OF 1







UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

**MATERIAL/FINISH:**  
1/4" Polycarbonate, Clear


DO NOT SCALE DRAWING

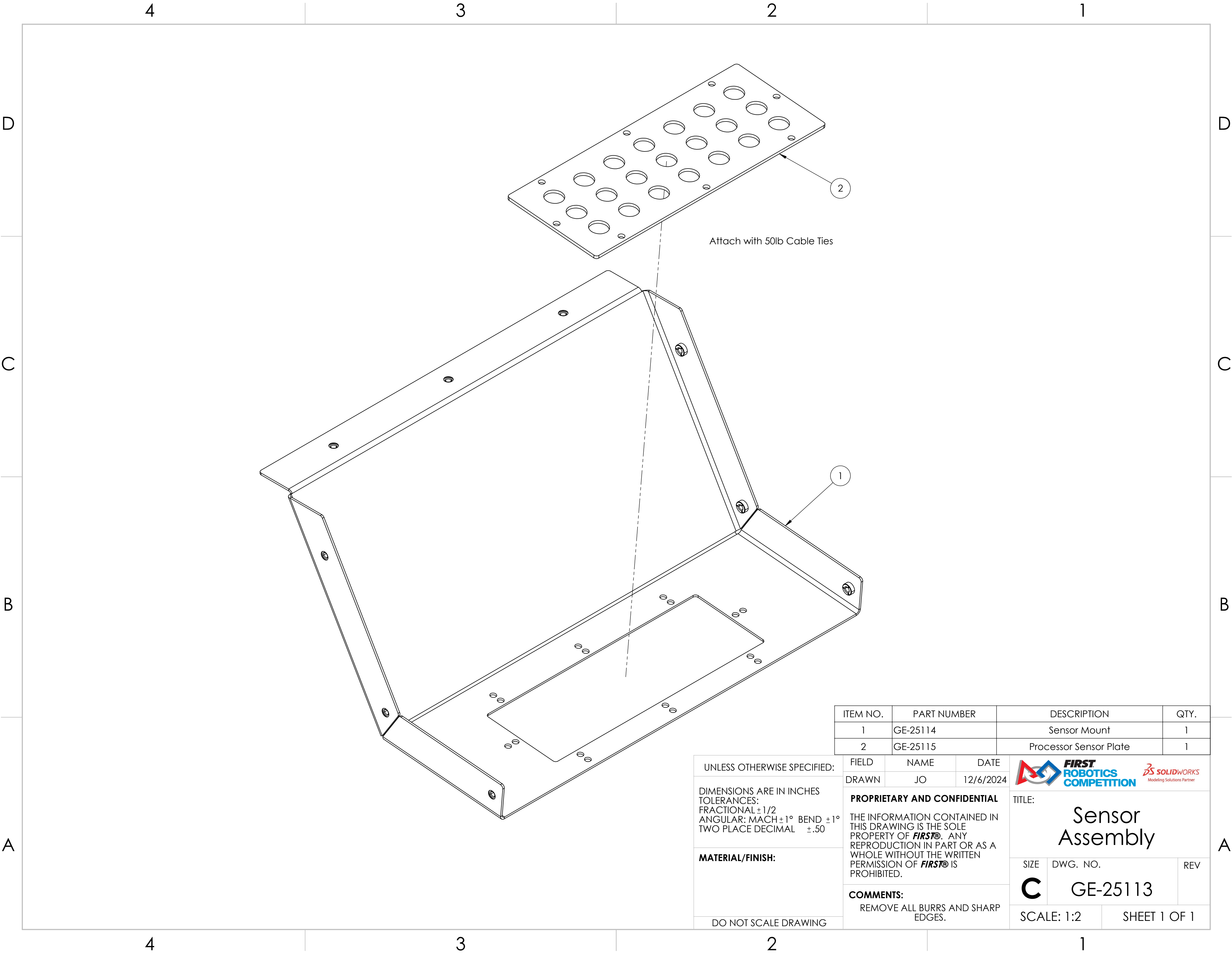
VEND	NAME	DATE
DRAWN	JO	10/1/2024

**PROPRIETARY AND CONFIDENTIAL**

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**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.

		
TITLE: Processor Humanside Panel		
SIZE	DWG. NO.	REV
<b>C</b>	GE-25112	
SCALE: 6:25		SHEET 1 OF 1



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25114	Sensor Mount	1
2	GE-25115	Processor Sensor Plate	1

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/2$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .50$

MATERIAL/FINISH:

DO NOT SCALE DRAWING

FIELD	NAME	DATE
DRAWN	JO	12/6/2024

**PROPRIETARY AND CONFIDENTIAL**

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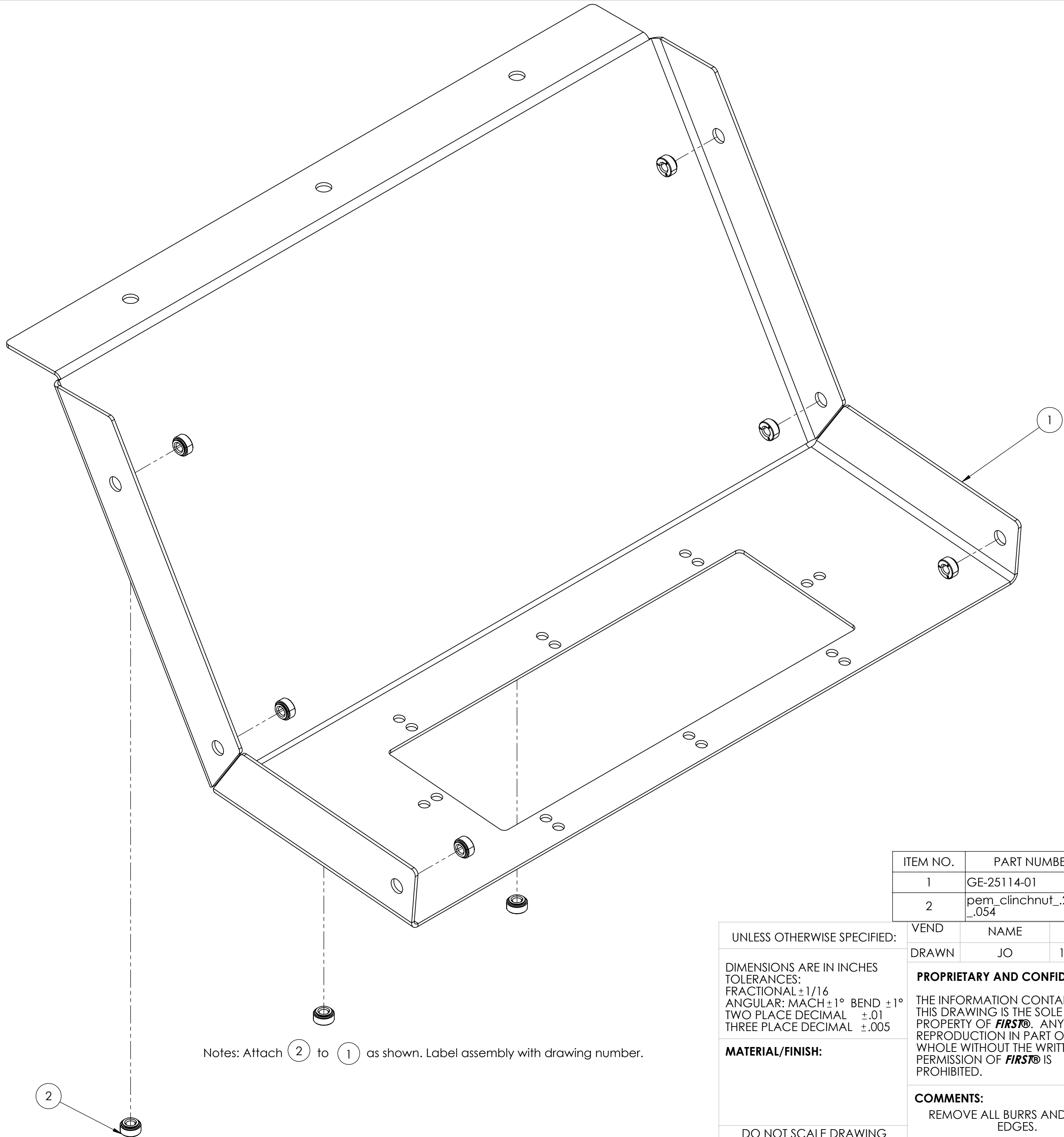
**COMMENTS:**

REMOVE ALL BURRS AND SHARP EDGES.



TITLE:  Sensor Assembly		
SIZE <b>C</b>	DWG. NO. GE-25113	REV

SCALE: 1:2	SHEET 1 OF 1
------------	--------------



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25114-01	Processor Sensor Mount Sheetmetal	1
2	pem_clinchnut_.25_20_.054	1/4-20 self-clinching nut, .054 shank	9

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

MATERIAL/FINISH:

DO NOT SCALE DRAWING

VEND	NAME	DATE
DRAWN	JO	10/2/2024

PROPRIETARY AND CONFIDENTIAL

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COMMENTS:  
REMOVE ALL BURRS AND SHARP EDGES.

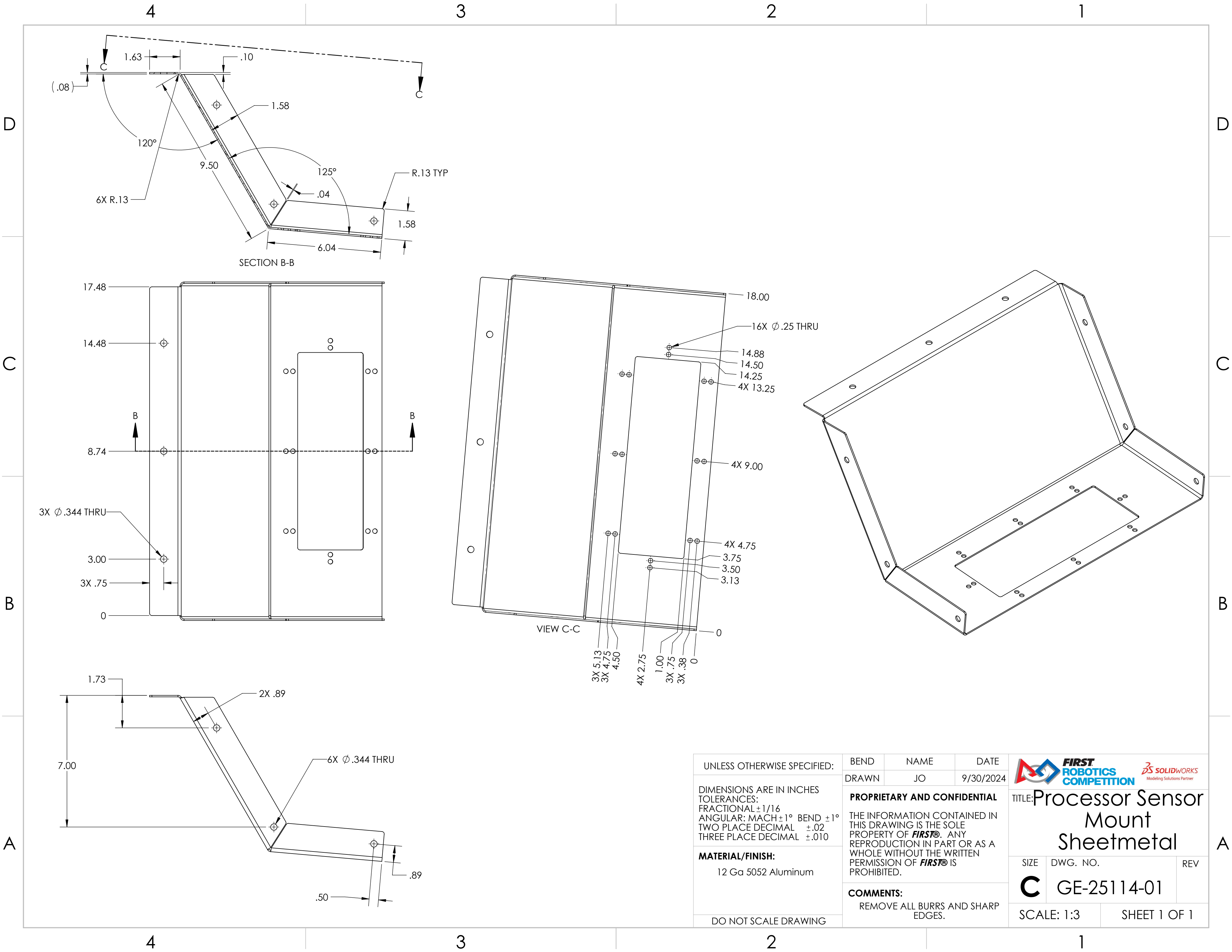




TITLE:  
**Sensor Mount**

SIZE	DWG. NO.	REV
------	----------	-----

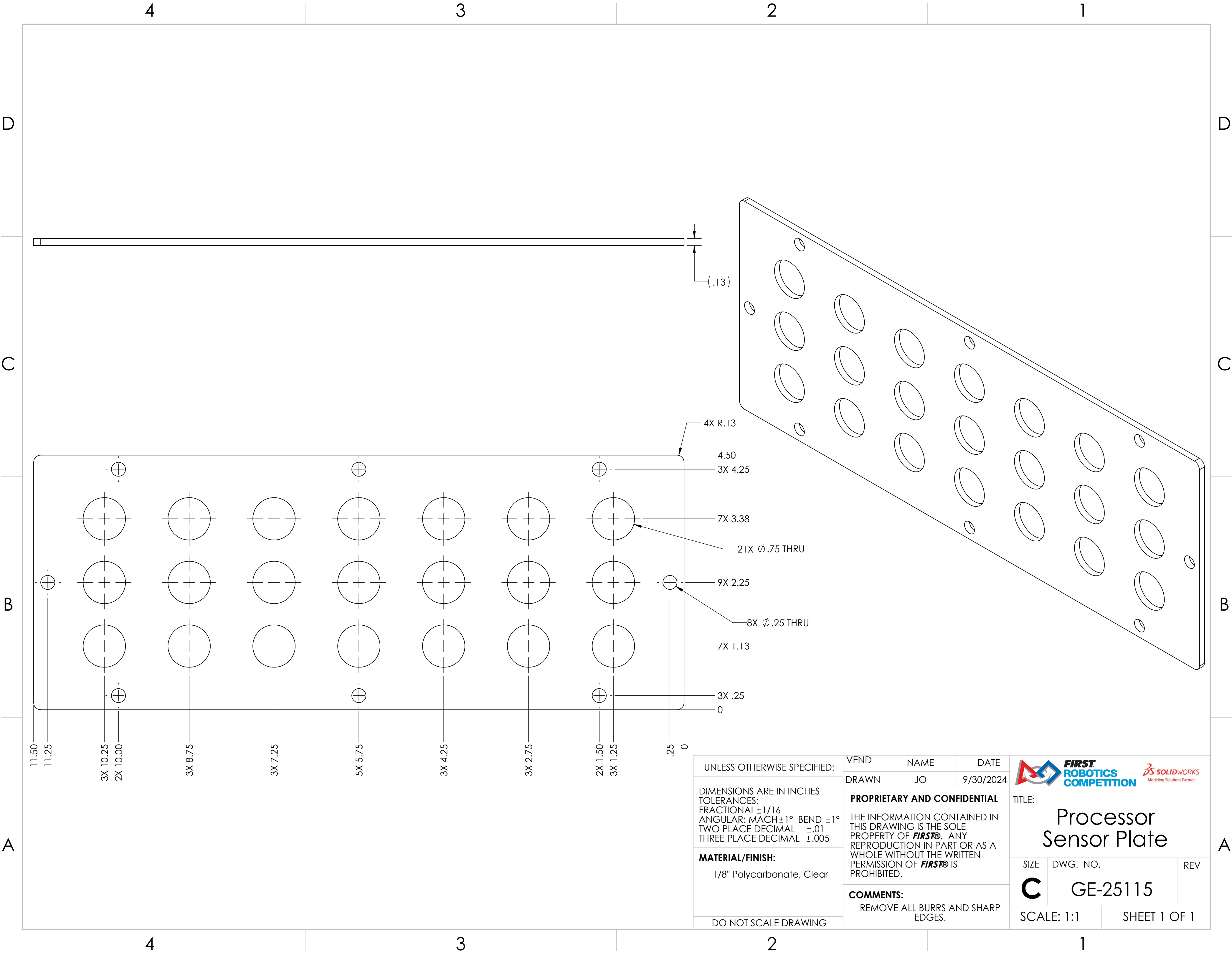
**C** GE-25114

SCALE: 2:3 SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.02 THREE PLACE DECIMAL ±.010  <b>MATERIAL/FINISH:</b>  12 Ga 5052 Aluminum  DO NOT SCALE DRAWING	BEND	NAME	DATE	<div></div> <div>TITLE: Processor Sensor Mount Sheetmetal</div>		
	DRAWN	JO	9/30/2024			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.  <b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.				SIZE	DWG. NO.
				<b>C</b>	GE-25114-01	
				SCALE: 1:3		SHEET 1 OF 1





UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

**MATERIAL/FINISH:**  
1/8" Polycarbonate, Clear


DO NOT SCALE DRAWING

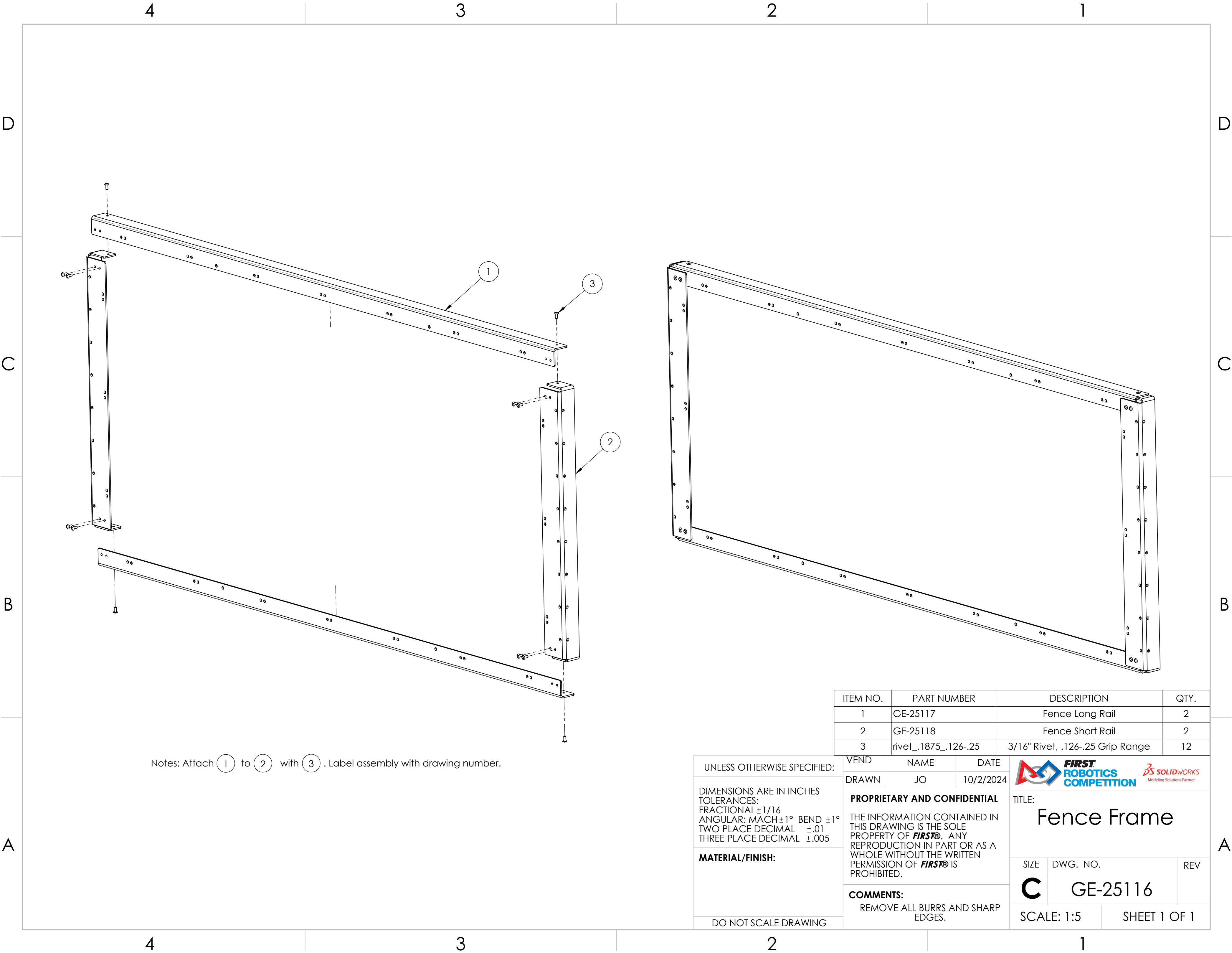
VEND	NAME	DATE
DRAWN	JO	9/30/2024

**PROPRIETARY AND CONFIDENTIAL**

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**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.

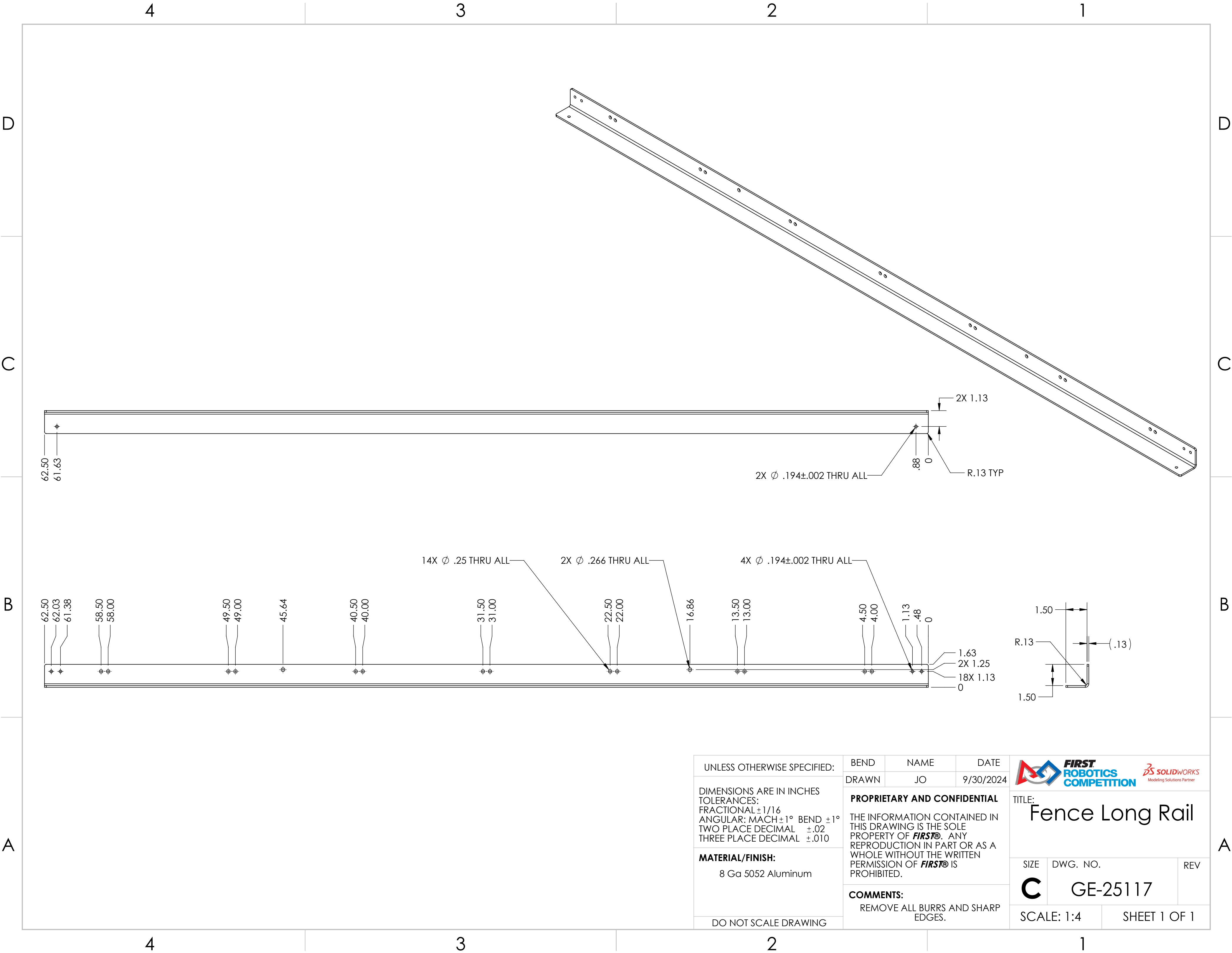
		
TITLE: <b>Processor Sensor Plate</b>		
SIZE <b>C</b>	DWG. NO. <b>GE-25115</b>	REV
SCALE: 1:1		SHEET 1 OF 1





Notes: Attach 1 to 2 with 3 . Label assembly with drawing number.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25117	Fence Long Rail	2
2	GE-25118	Fence Short Rail	2
3	rivet_.1875_.126-.25	3/16" Rivet, .126-.25 Grip Range	12

UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/16 ANGULAR: MACH ± 1° BEND ± 1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005  <b>MATERIAL/FINISH:</b>     <b>DO NOT SCALE DRAWING</b>		VEND	NAME	DATE	 		
		DRAWN	JO	10/2/2024			
		<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			TITLE:  <b>Fence Frame</b>		
		<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			SIZE	DWG. NO.	REV
					<b>C</b>	GE-25116	
					SCALE: 1:5		SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED:	BEND	NAME	DATE	<div></div> <div>TITLE: Fence Long Rail</div>		
	DRAWN	JO	9/30/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.02 THREE PLACE DECIMAL ±.010	PROPRIETARY AND CONFIDENTIAL			<div>SIZE</div> <div>C</div> <div>DWG. NO.</div> <div>GE-25117</div> <div>REV</div>		
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.					
	COMMENTS:					
MATERIAL/FINISH:	REMOVE ALL BURRS AND SHARP EDGES.			<div>SCALE: 1:4</div> <div>SHEET 1 OF 1</div>		
8 Ga 5052 Aluminum						
DO NOT SCALE DRAWING						

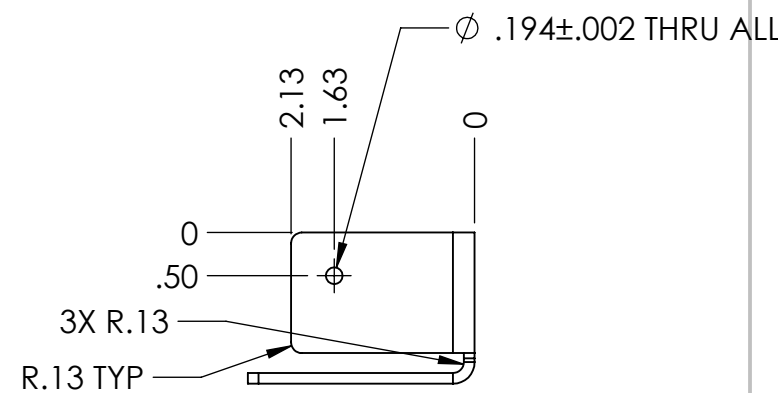
1



D

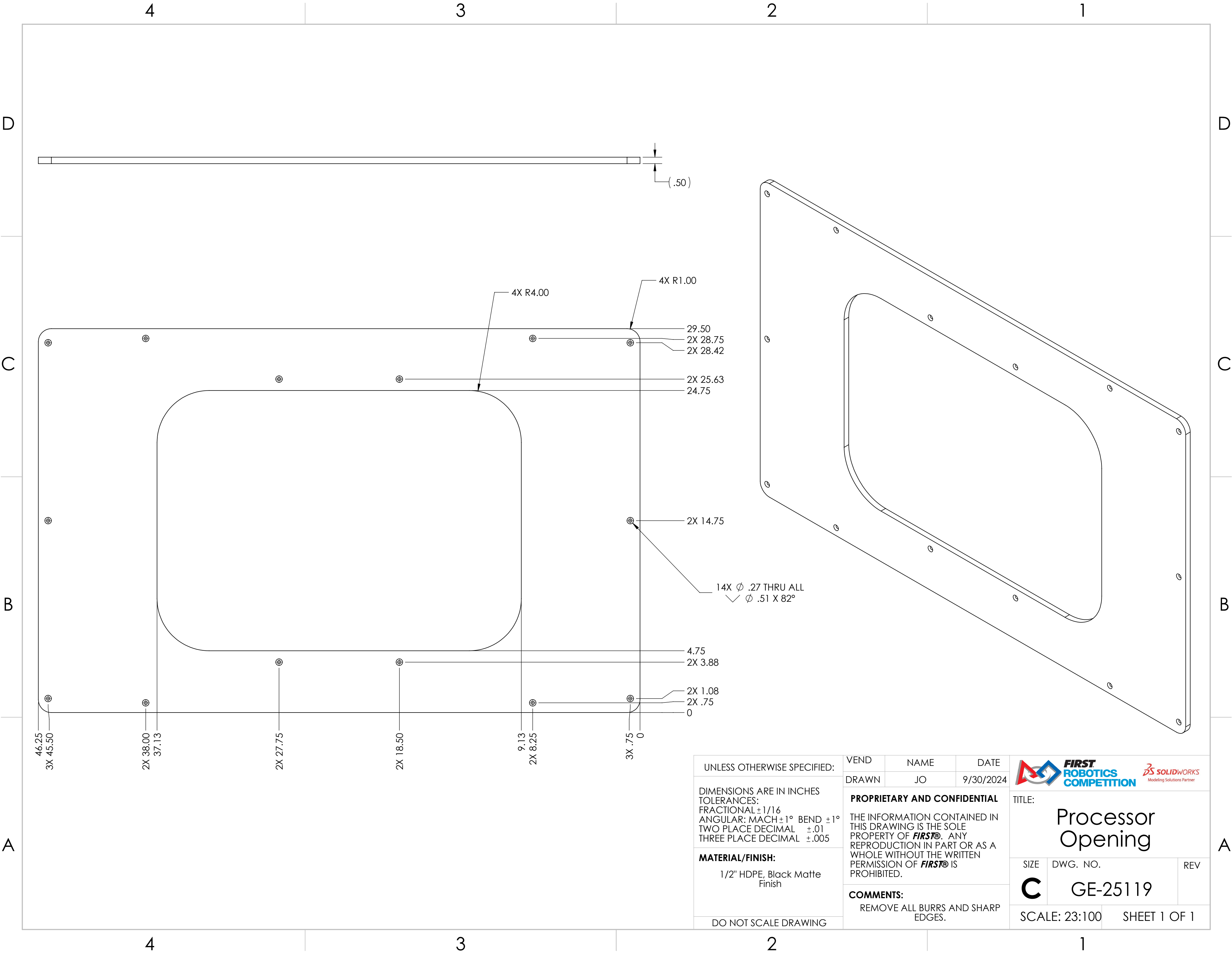
C

B

A



UNLESS OTHERWISE SPECIFIED:	BEND	NAME	DATE	<div></div>		
	DRAWN	JO	9/30/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH±1° BEND ±1° TWO PLACE DECIMAL ±.02 THREE PLACE DECIMAL ±.010	PROPRIETARY AND CONFIDENTIAL			TITLE:  Fence Short Rail		
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.					
	MATERIAL/FINISH:  8 Ga 5052 Aluminum	COMMENTS:  REMOVE ALL BURRS AND SHARP EDGES.			SIZE  C	DWG. NO.  GE-25118
DO NOT SCALE DRAWING				SCALE: 9:20		SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

**MATERIAL/FINISH:**  
1/2" HDPE, Black Matte Finish

DO NOT SCALE DRAWING

VEND	NAME	DATE
DRAWN	JO	9/30/2024

**PROPRIETARY AND CONFIDENTIAL**

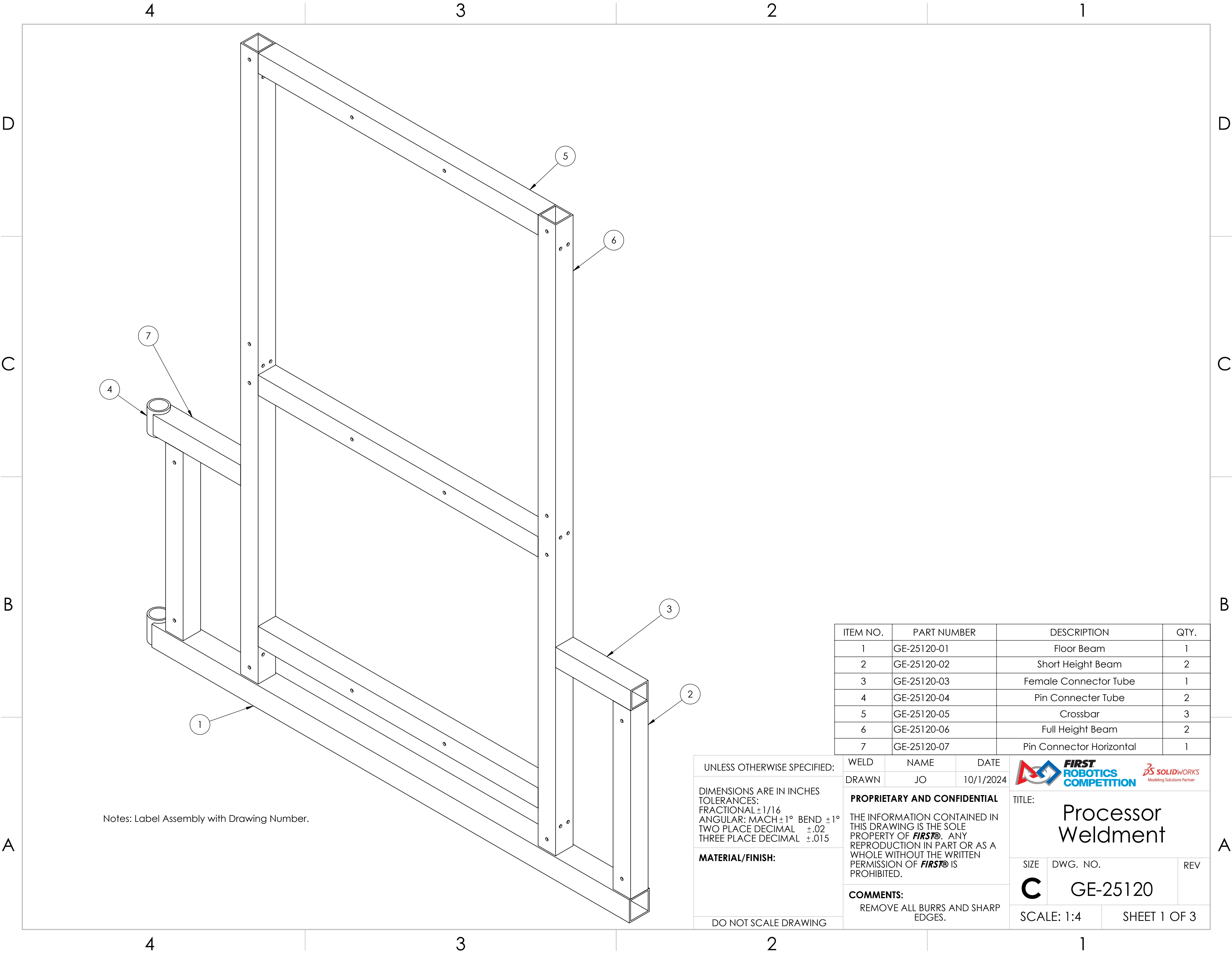
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**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.





TITLE: <b>Processor Opening</b>		
SIZE <b>C</b>	DWG. NO. <b>GE-25119</b>	REV
SCALE: 23:100		SHEET 1 OF 1

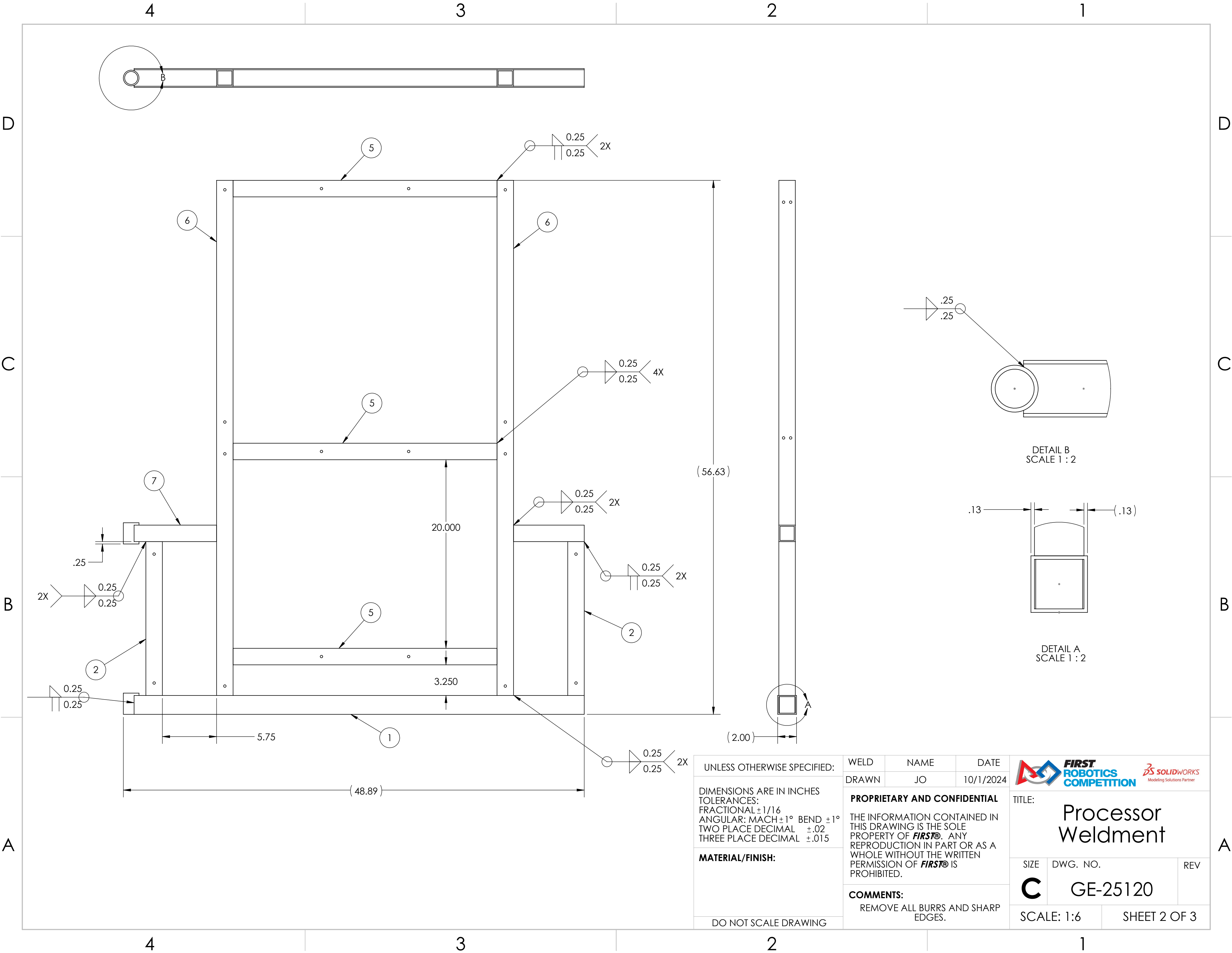






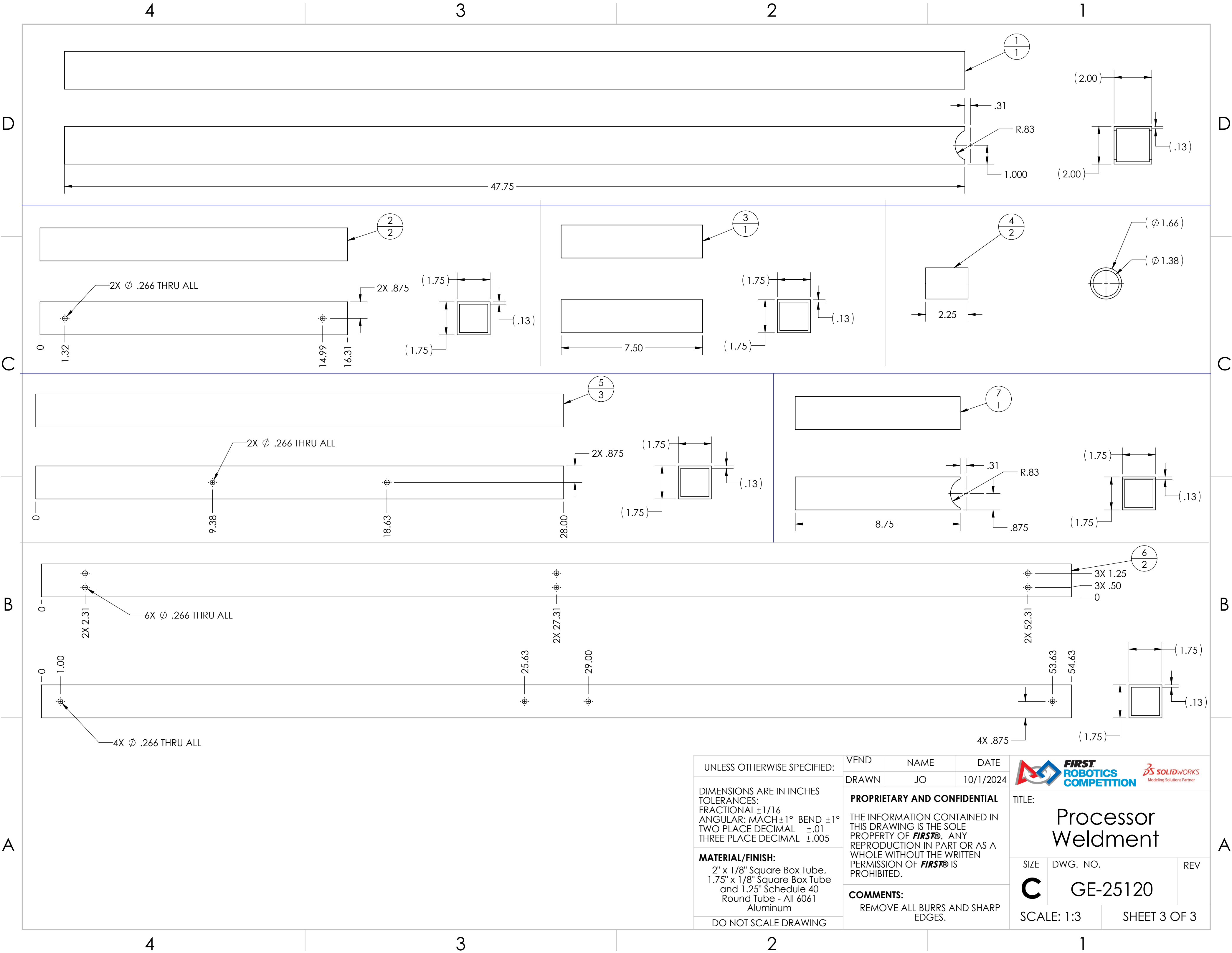
Notes: Label Assembly with Drawing Number.

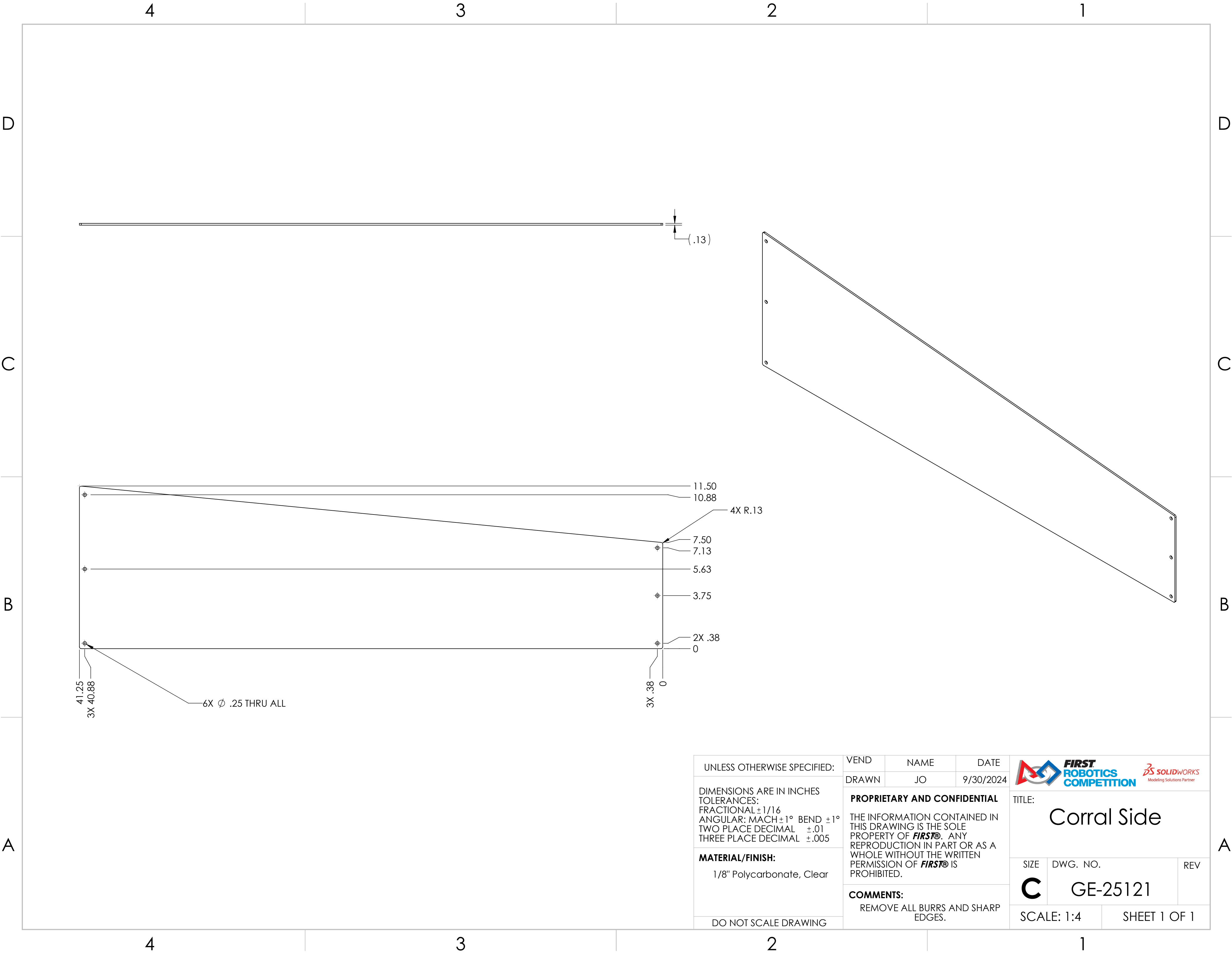
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25120-01	Floor Beam	1
2	GE-25120-02	Short Height Beam	2
3	GE-25120-03	Female Connector Tube	1
4	GE-25120-04	Pin Connector Tube	2
5	GE-25120-05	Crossbar	3
6	GE-25120-06	Full Height Beam	2
7	GE-25120-07	Pin Connector Horizontal	1

UNLESS OTHERWISE SPECIFIED:		WELD	NAME	DATE	 		
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.02 THREE PLACE DECIMAL ±.015  <b>MATERIAL/FINISH:</b>          <b>DO NOT SCALE DRAWING</b>		DRAWN	JO	10/1/2024	TITLE:		
		<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.				Processor Weldment	
		<b>COMMENTS:</b>  REMOVE ALL BURRS AND SHARP EDGES.				SIZE	DWG. NO.
					C	GE-25120	
					SCALE: 1:4		SHEET 1 OF 3



UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .02$ THREE PLACE DECIMAL $\pm .015$  <b>MATERIAL/FINISH:</b>    DO NOT SCALE DRAWING	WELD	NAME	DATE	 	
	DRAWN	JO	10/1/2024		
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.				TITLE:  <b>Processor Weldment</b>
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.				SIZE <b>C</b> DWG. NO. <b>GE-25120</b> REV
SCALE: 1:6				SHEET 2 OF 3	





UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

**MATERIAL/FINISH:**  
1/8" Polycarbonate, Clear

DO NOT SCALE DRAWING

VEND	NAME	DATE
DRAWN	JO	9/30/2024

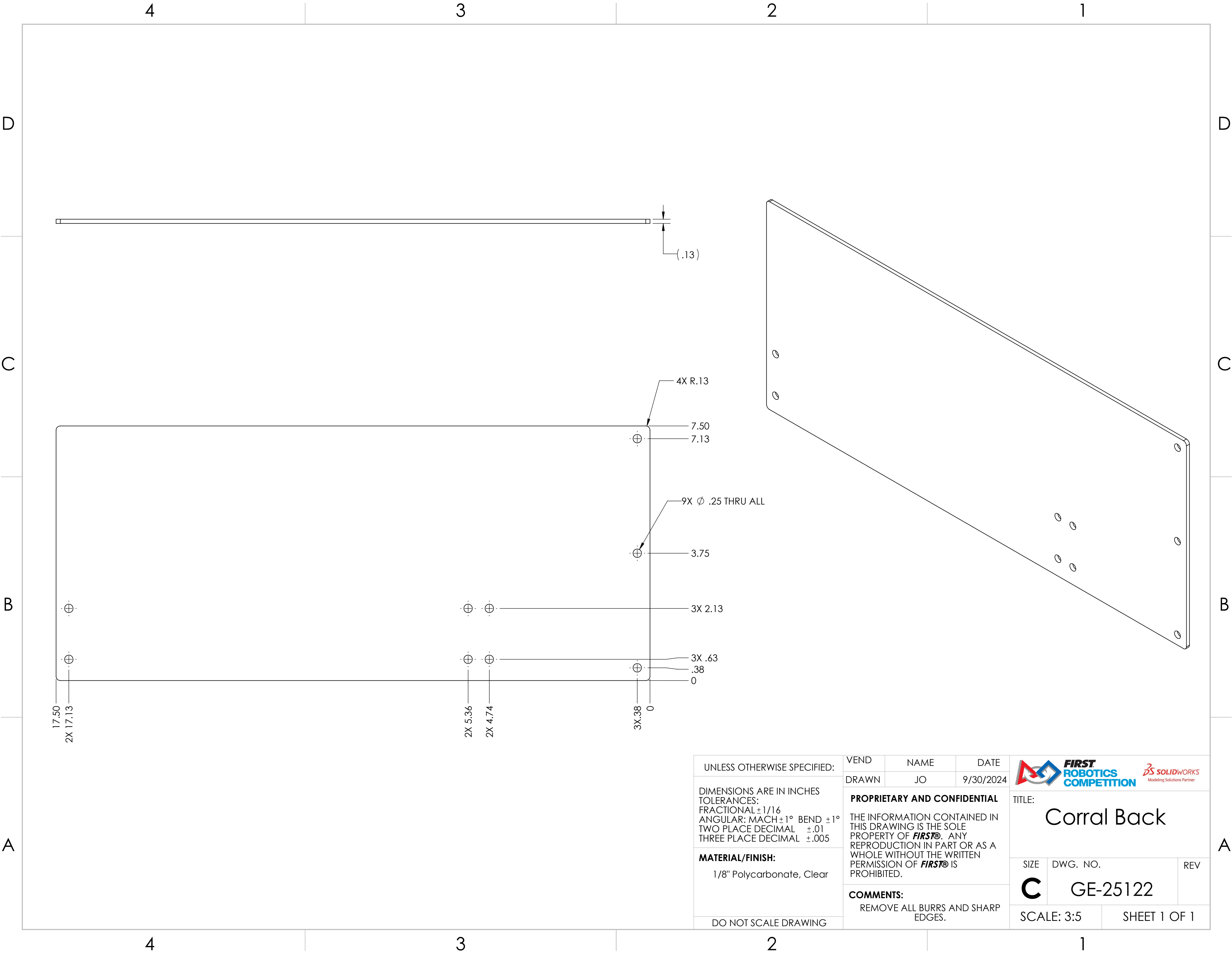
**PROPRIETARY AND CONFIDENTIAL**

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF **FIRST**. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF **FIRST** IS PROHIBITED.

**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.



TITLE: <b>Corral Side</b>		
SIZE <b>C</b>	DWG. NO. <b>GE-25121</b>	REV
SCALE: 1:4		SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

**MATERIAL/FINISH:**  
1/8" Polycarbonate, Clear

DO NOT SCALE DRAWING

VEND	NAME	DATE
DRAWN	JO	9/30/2024

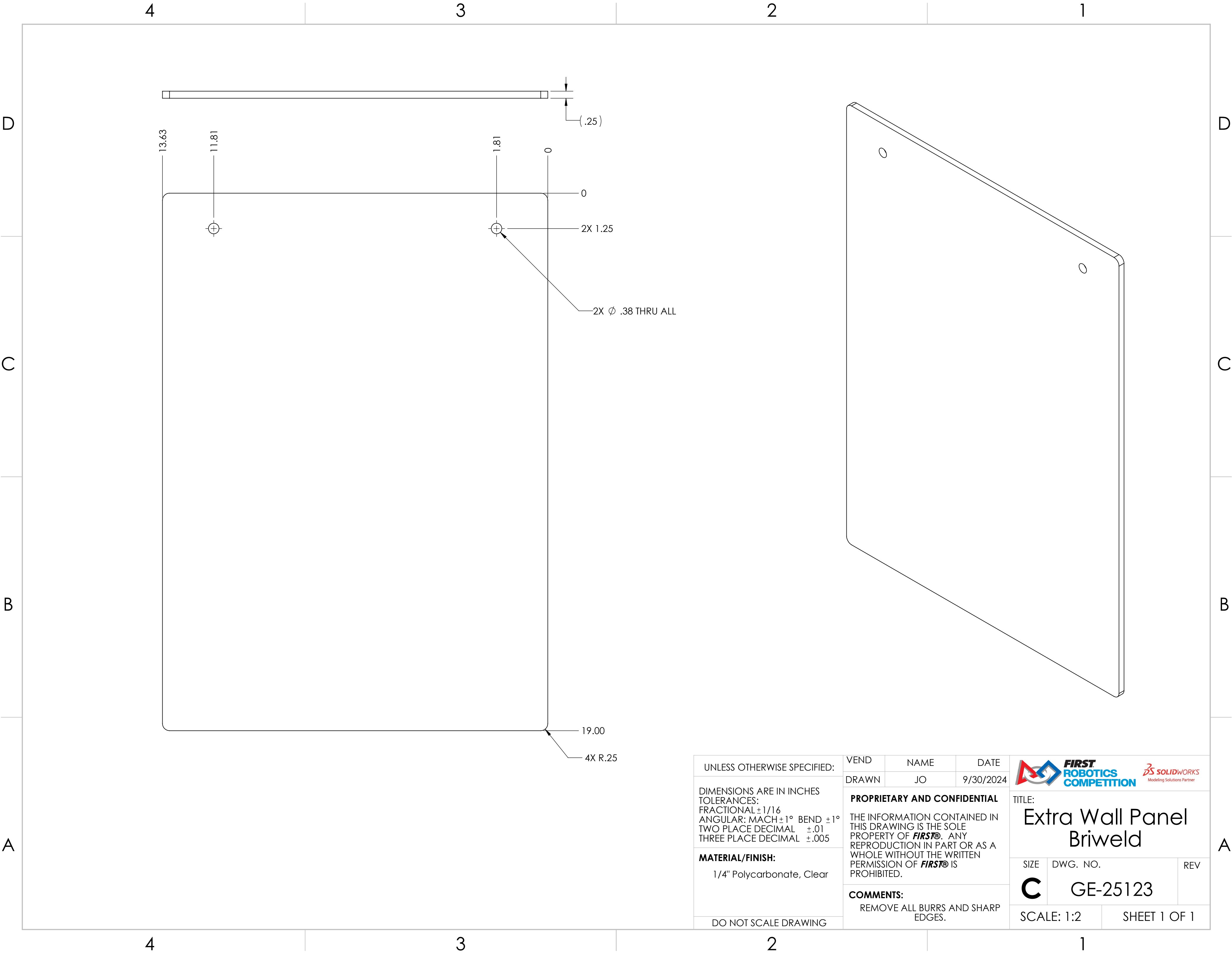
**PROPRIETARY AND CONFIDENTIAL**  
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**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.



TITLE: Corral Back		
SIZE <b>C</b>	DWG. NO. GE-25122	REV
SCALE: 3:5		SHEET 1 OF 1

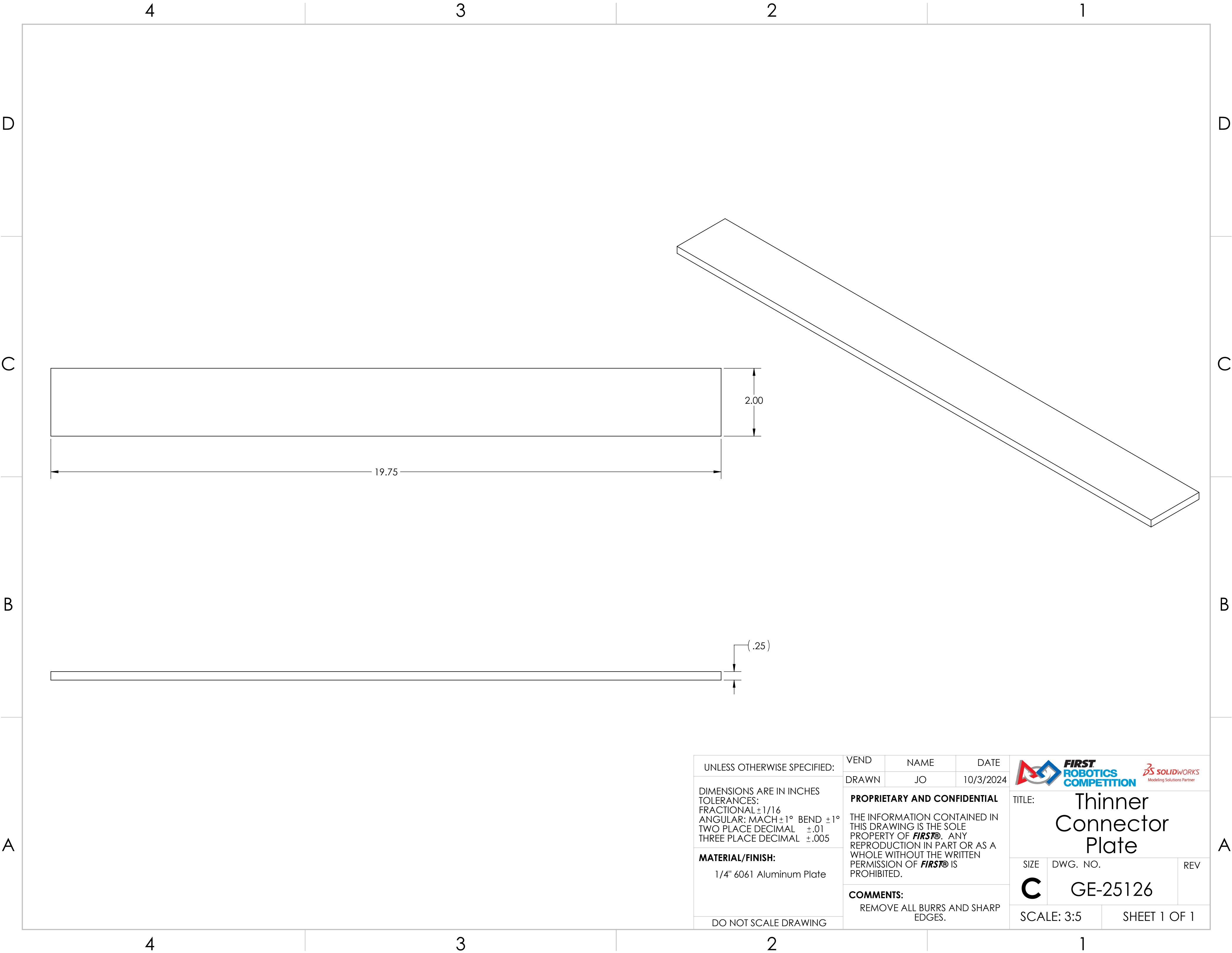






UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005  <b>MATERIAL/FINISH:</b>  1/4" Polycarbonate, Clear   DO NOT SCALE DRAWING	VEND	NAME	DATE	<div></div> <div>TITLE: <b>Extra Wall Panel Briweld</b></div>		
	DRAWN	JO	9/30/2024			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.  <b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.					
SIZE		DWG. NO.		REV		
<b>C</b>		GE-25123				
SCALE: 1:2			SHEET 1 OF 1			







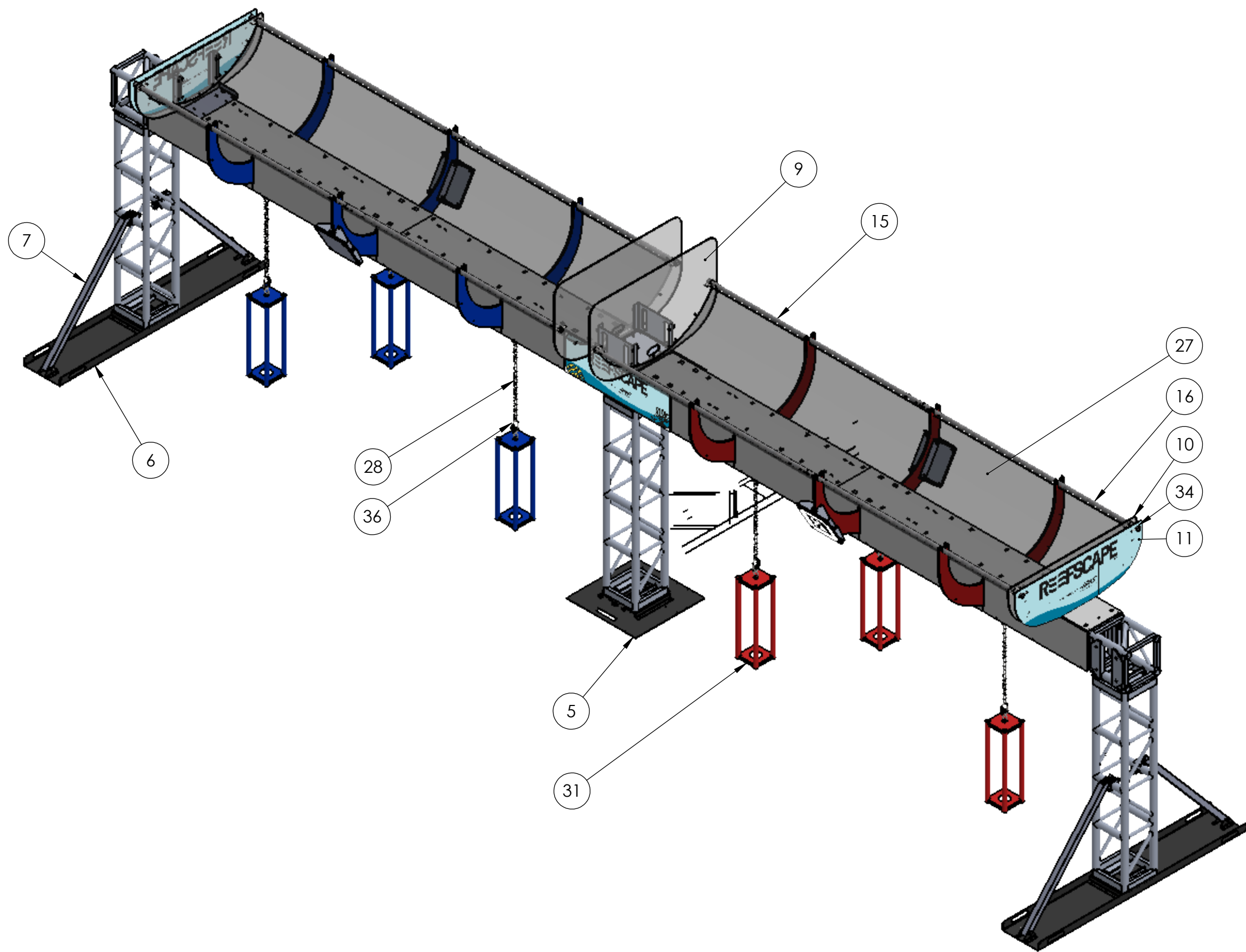
UNLESS OTHERWISE SPECIFIED:	VEND	NAME	DATE	<div></div> <div>TITLE: Thinner Connector Plate</div>		
	DRAWN	JO	10/3/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	PROPRIETARY AND CONFIDENTIAL			SIZE DWG. NO. REV		
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.					
	MATERIAL/FINISH:	COMMENTS:			C GE-25126	
1/4" 6061 Aluminum Plate	REMOVE ALL BURRS AND SHARP EDGES.					
DO NOT SCALE DRAWING				SCALE: 3:5		SHEET 1 OF 1

D




C

B

A



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-01002	4' x 1' x 1' Square Truss	4
2	FE-01003	5' x 1' x 1' Square Truss	5
3	FE-01012	3 Way Corner Block	2
4	FE-01013	TS 1212LD-C4P, 4 Way Corner Block Light Duty Truss, Total Structures	1
5	FE-01021		1
6	GE-25203	Truss Base, Long - Sheet Metal Assembly	2
7	GE-25205	Truss Brace Assembly	4
8	GE-25206	Backboard Brace	1
9	GE-25207	Backboard	2
10	GE-25208	Inner Front	2
11	GE-25209	Outer Front w/Vinyl	2
12	GE-25211	Side Panel w/Vinyl	2
13	GE-25213	Rib, Blue	3
14	GE-25214	Rib, Red	3
15	GE-25215	Net Tube Assembly	4
16	GE-25216	Net Tube, Outer	4
17	GE-25218	Brace, Barge End	2
18	GE-25220-ID14	April Tag Assembly, Truss (ID14)	1
19	GE-25220-ID15	April Tag Assembly, Truss (ID15)	1
20	GE-25220-ID4	April Tag Assembly, Truss (ID4)	1
21	GE-25220-ID5	April Tag Assembly, Truss (ID5)	1
22	GE-25221	Top Diffuser	4
23	GE-25222	Side Diffuser 1	4
24	GE-25223	Side Diffuser 2	8
25	GE-25224	Side Diffuser 3	4
26	GE-25227	Diffuser Top, Small	2
27	GE-25228	Net	2
28	GE-25229	Cage Chain	4
29	GE-25230	Eye Nut Assembly	6
30	GE-25231-Blue	Cage Assembly, Blue	3
31	GE-25231-Red	Cage Assembly, Red	3
32	hex_.625_11_2.00	Hex Head Bolt, 5/8"-11 Thread, 2" length	56
33	hexnut_.625_11	5/8"-11 hex nut	52
34	pin_quick_ring_.25_2.3 125	Pin, Ring-Grip Quick-Release with SS Ring, 1/4" Diameter, 2.3125" Usable Length	24
35	washer_flat_.625	Flat washer for 5/8" screw	108
36	3216T41_Carabiner	Carabiner, Locking Steel, .38 thick	10
37	Configurable Bolt	1" Long 1/4-20 Hex Head Bolt	8

UNLESS OTHERWISE SPECIFIED:		FIELD	NAME	DATE	<div></div>		
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/2$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .50$		DRAWN	JO	12/16/2024			
MATERIAL/FINISH:		PROPRIETARY AND CONFIDENTIAL			TITLE:  Barge		
		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.					
		COMMENTS: REMOVE ALL BURRS AND SHARP EDGES.			SIZE	DWG. NO.	REV
DO NOT SCALE DRAWING					C	GE-25200	
					SCALE: 1:25		SHEET 1 OF 3

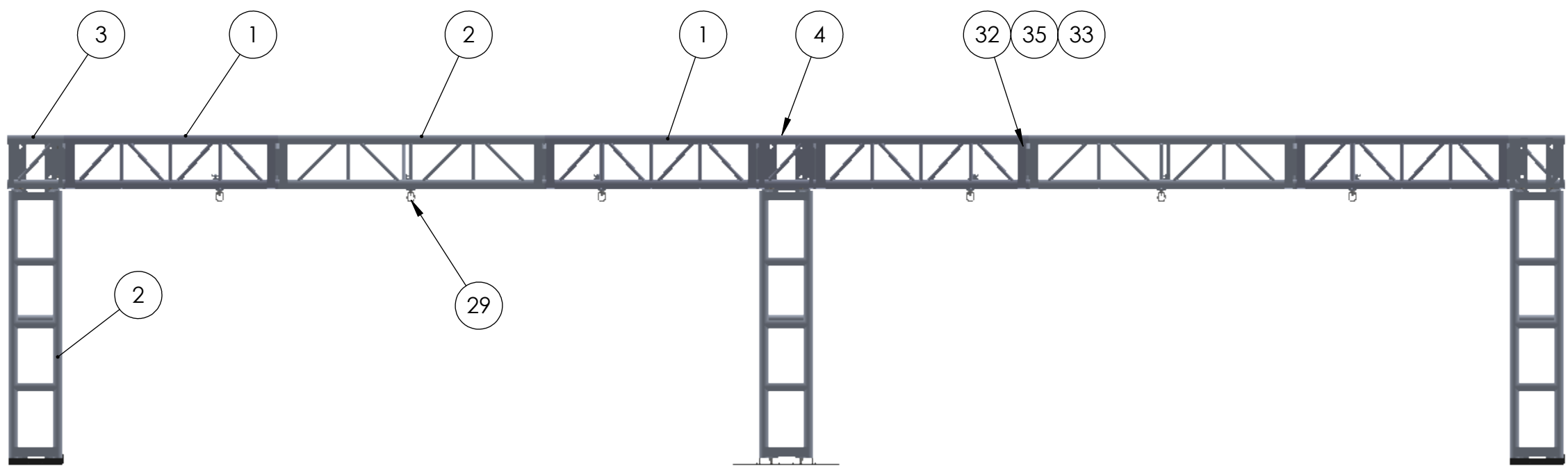
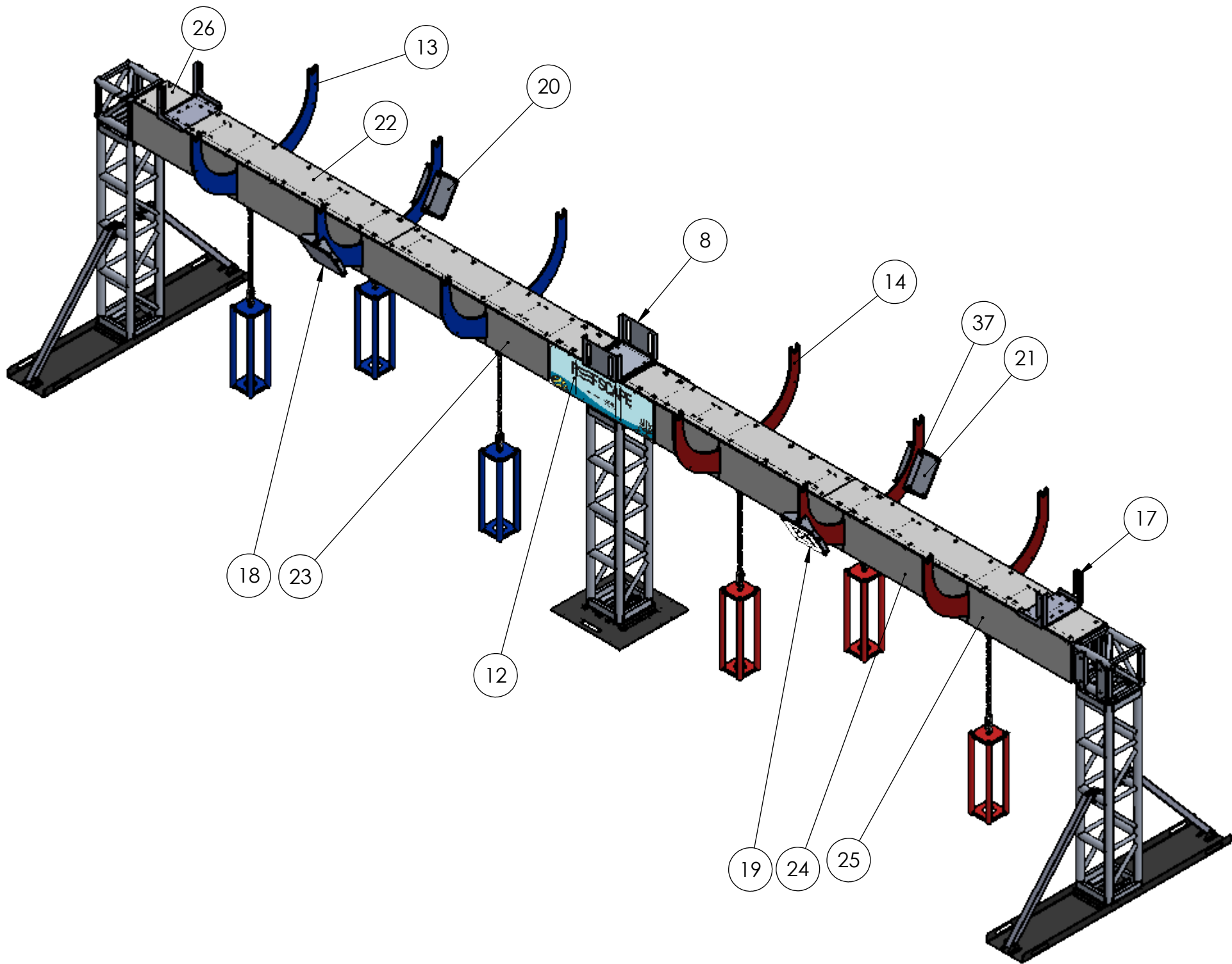
D

C

B

A





Truss Layout

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/2$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .50$

**MATERIAL/FINISH:**

DO NOT SCALE DRAWING

FIELD

NAME

DATE

DRAWN

JO

12/16/2024

**PROPRIETARY AND CONFIDENTIAL**

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**COMMENTS:**

REMOVE ALL BURRS AND SHARP EDGES.



**FIRST  
ROBOTICS  
COMPETITION**



Modeling Solutions Partner

TITLE:

Barge

SIZE

DWG. NO.

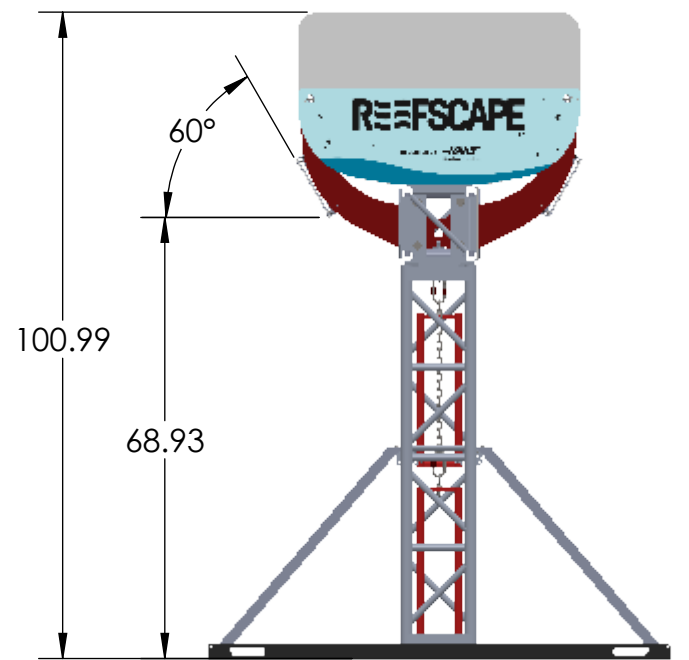
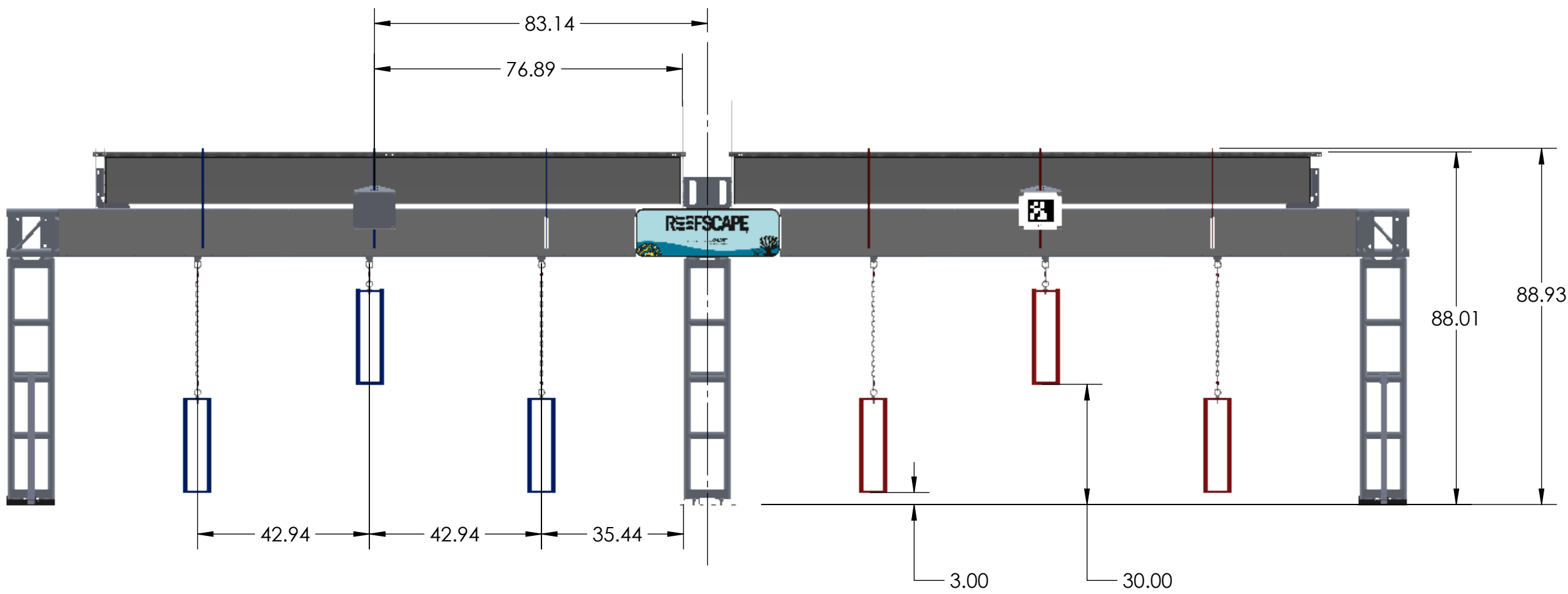
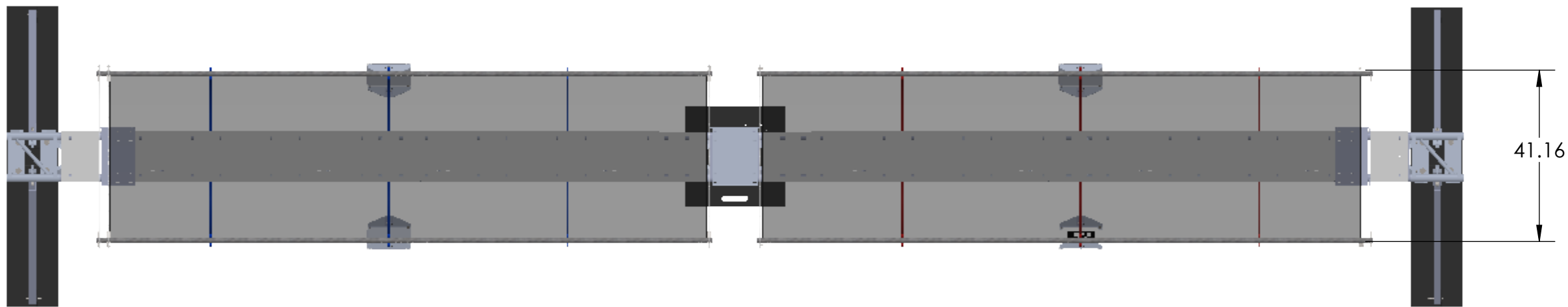
REV

**C**

GE-25200

SCALE: 1:30

SHEET 2 OF 3



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/2$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .50$

**MATERIAL/FINISH:**

DO NOT SCALE DRAWING

FIELD

DRAWN

NAME

JO

DATE

12/16/2024

**PROPRIETARY AND CONFIDENTIAL**

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WHOLE WITHOUT THE WRITTEN  
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PROHIBITED.

**COMMENTS:**

REMOVE ALL BURRS AND SHARP  
EDGES.



**FIRST  
ROBOTICS  
COMPETITION**

**3D SOLIDWORKS**  
Modeling Solutions Partner

TITLE:

Barge

SIZE

**C**

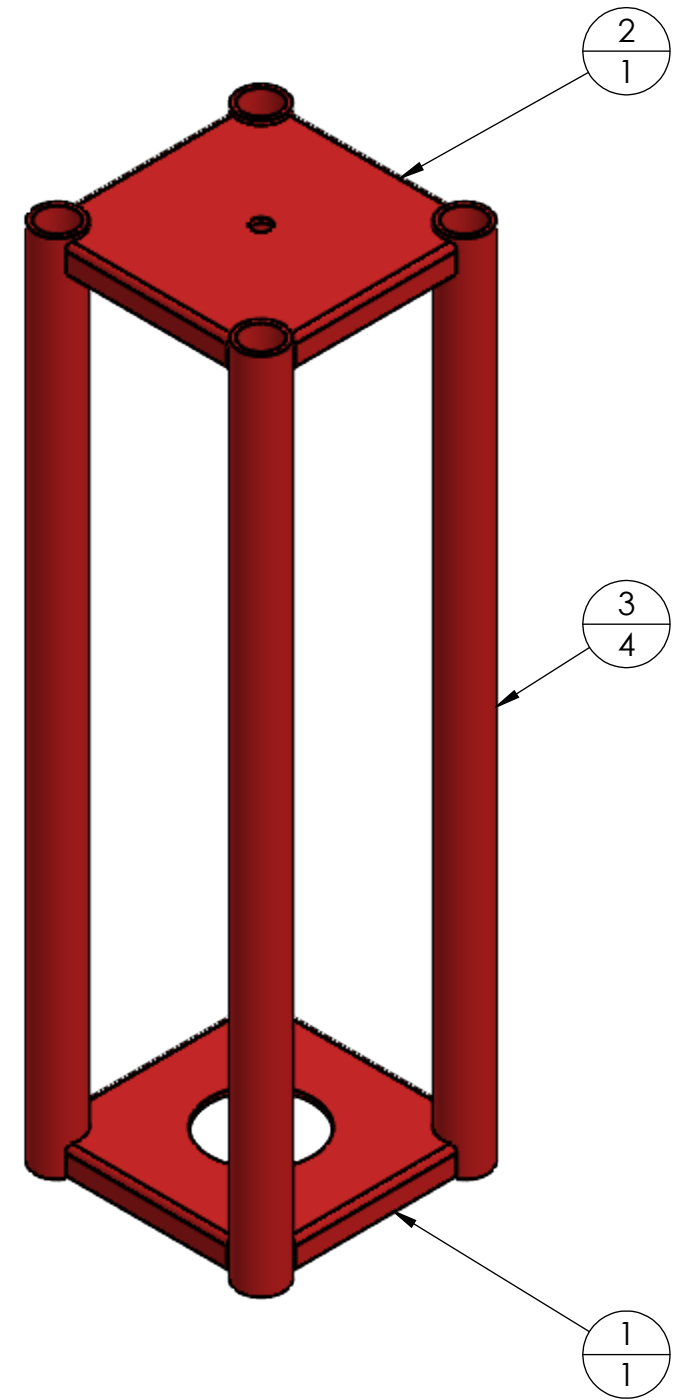
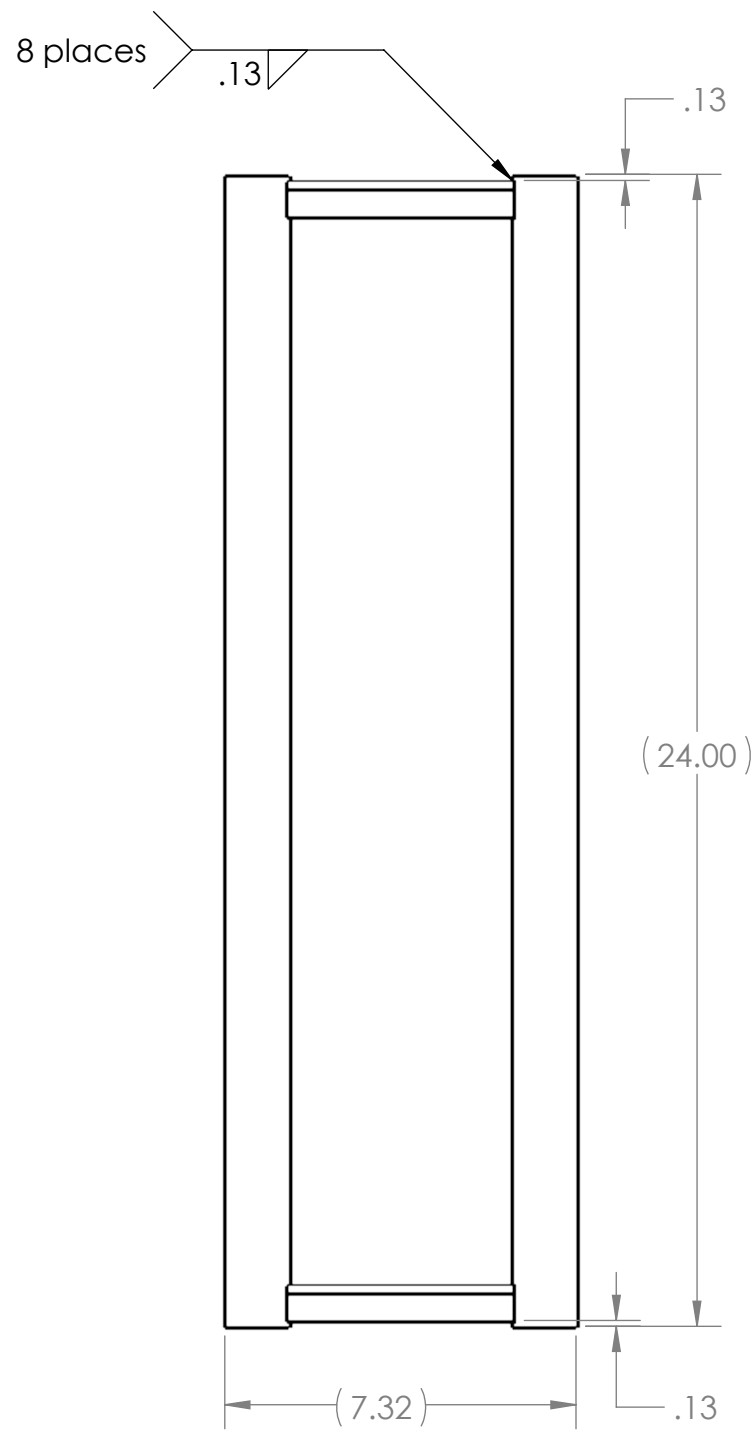
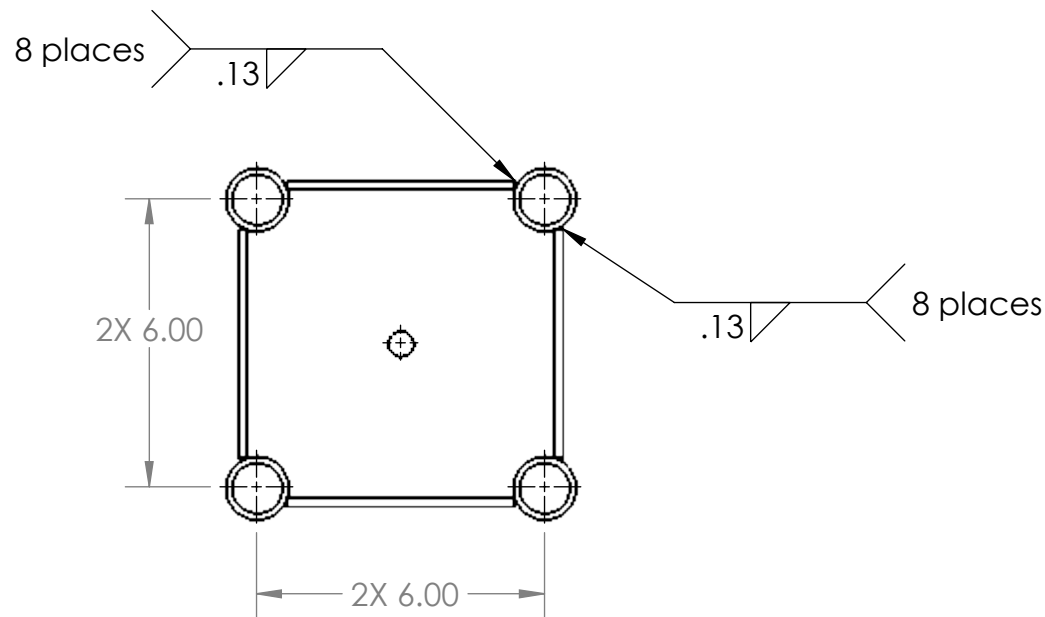
DWG. NO.

GE-25200



REV

SCALE: 1:30

SHEET 3 OF 3



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25201-01	10 ga. A36/1008 Mild Steel Sheet	1
2	GE-25201-02	10 ga. A36/1008 Mild Steel Sheet	1
3	GE-25201-03	1" Schedule 40 Pipe, A500 Steel	4

UNLESS OTHERWISE SPECIFIED:	WELD	NAME	DATE	<div><div></div><div>TITLE: Cage Weldment, Red</div></div>		
	DRAWN	DF	7/10/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .02$ THREE PLACE DECIMAL $\pm .015$	PROPRIETARY AND CONFIDENTIAL			THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST</b> ®. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST</b> ® IS PROHIBITED.		
	COMMENTS:					
	REMOVE ALL BURRS AND SHARP EDGES.					
MATERIAL/FINISH:	Steel, welded and powder coated RAL# 3020			SIZE	DWG. NO.	REV
DO NOT SCALE DRAWING				C	GE-25201	
				SCALE: 1:4		SHEET 1 OF 2

D

C

B

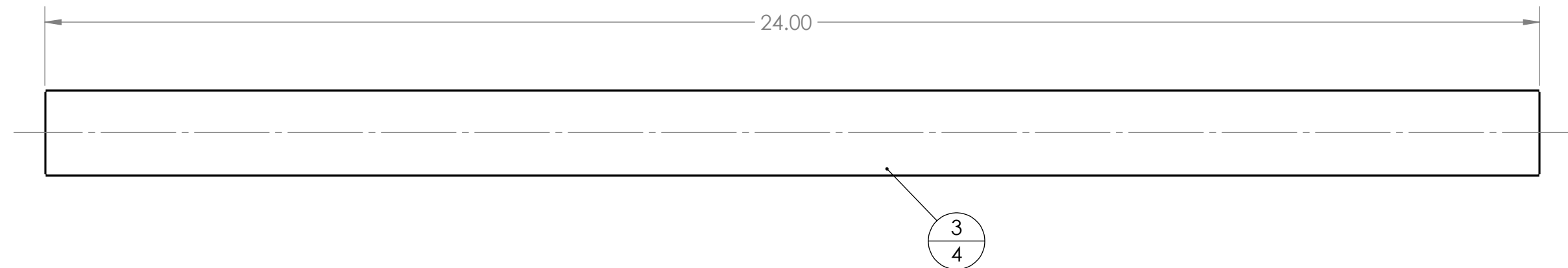
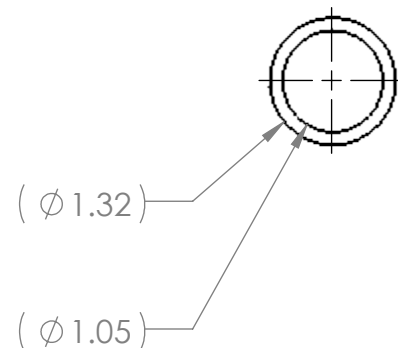
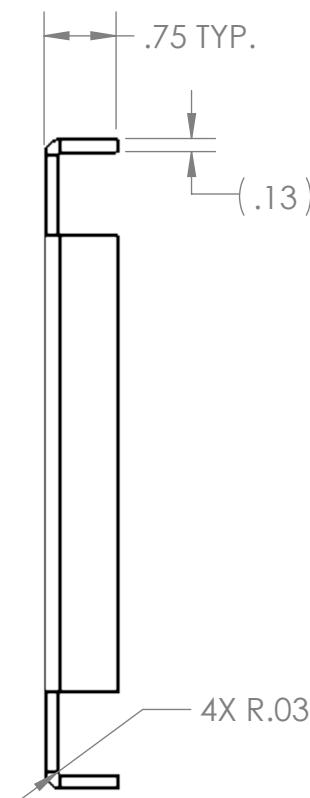
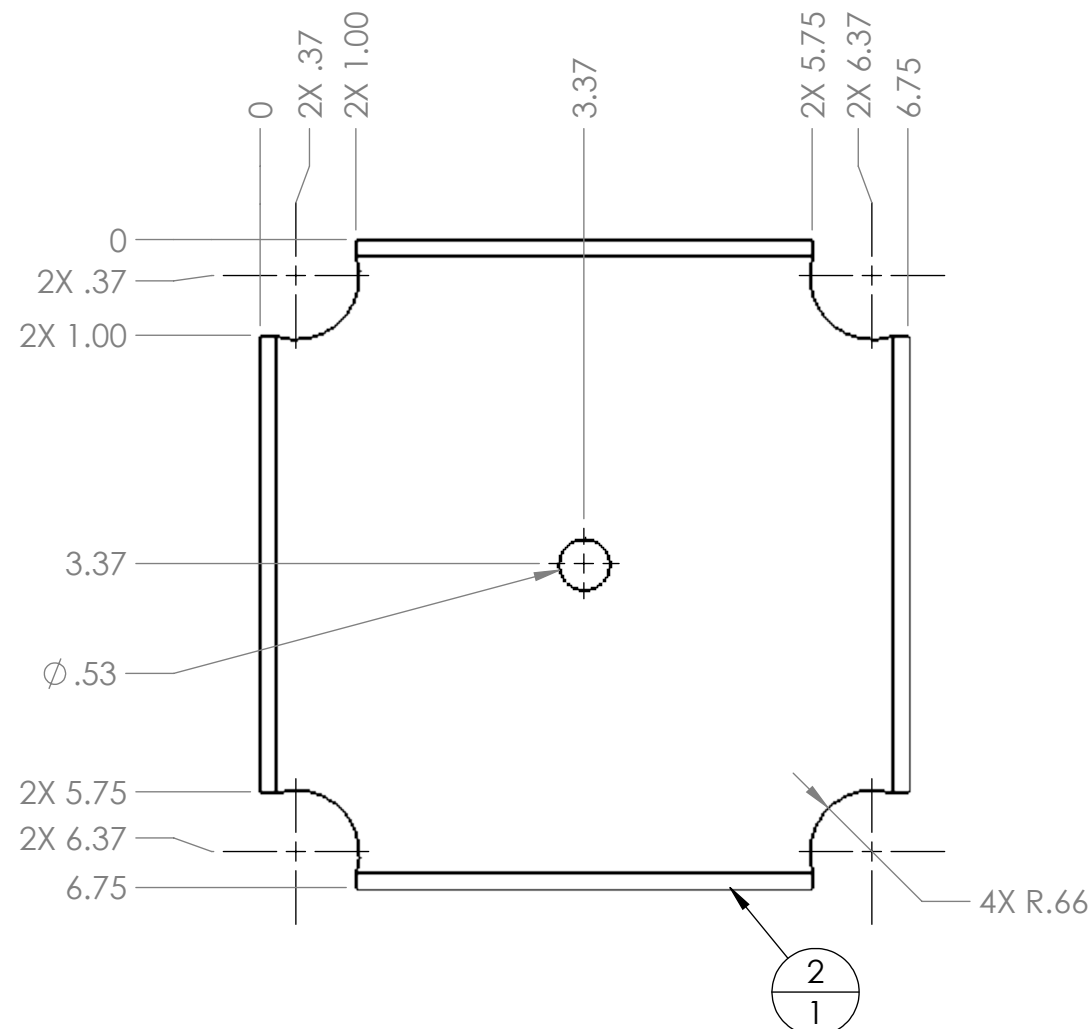
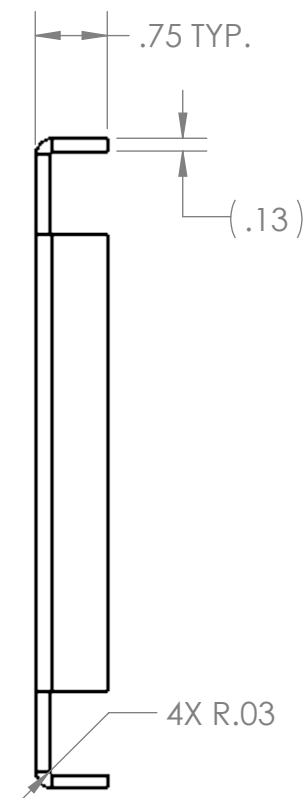
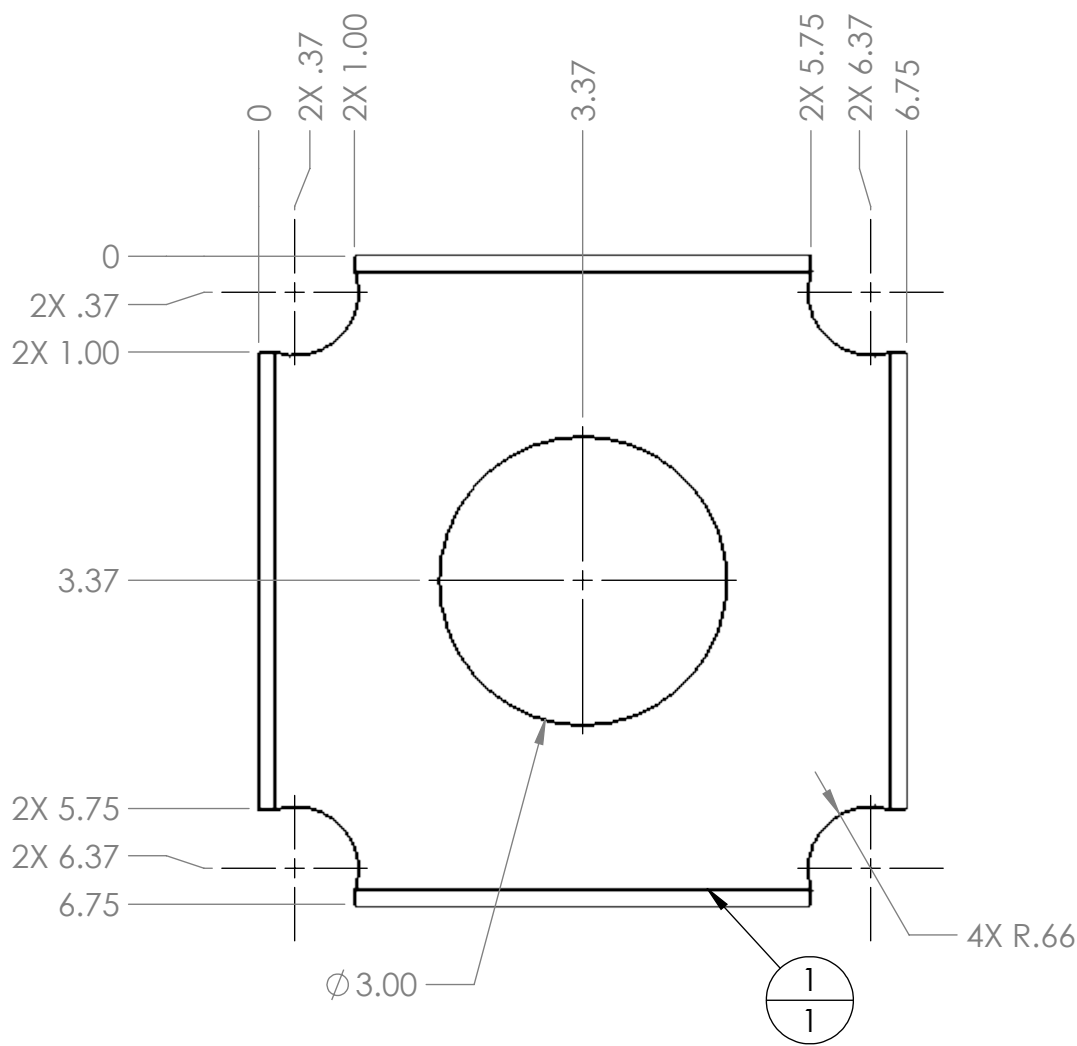
A



D

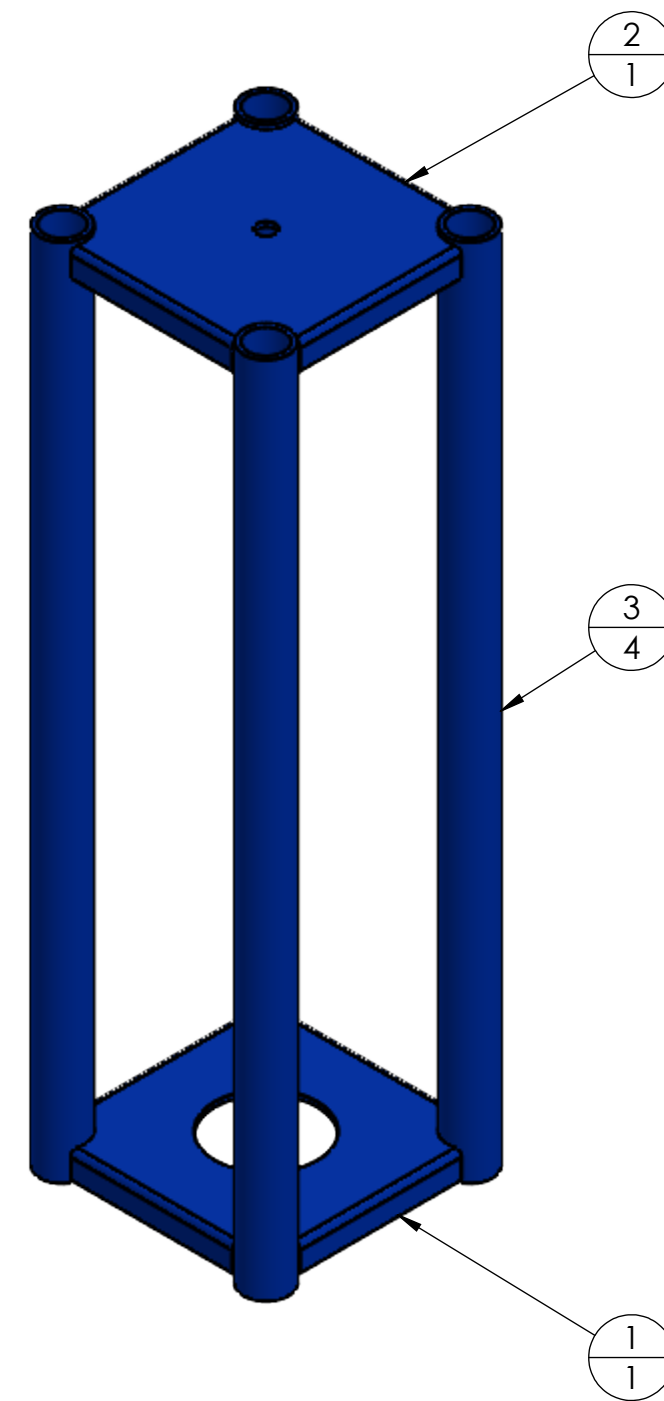
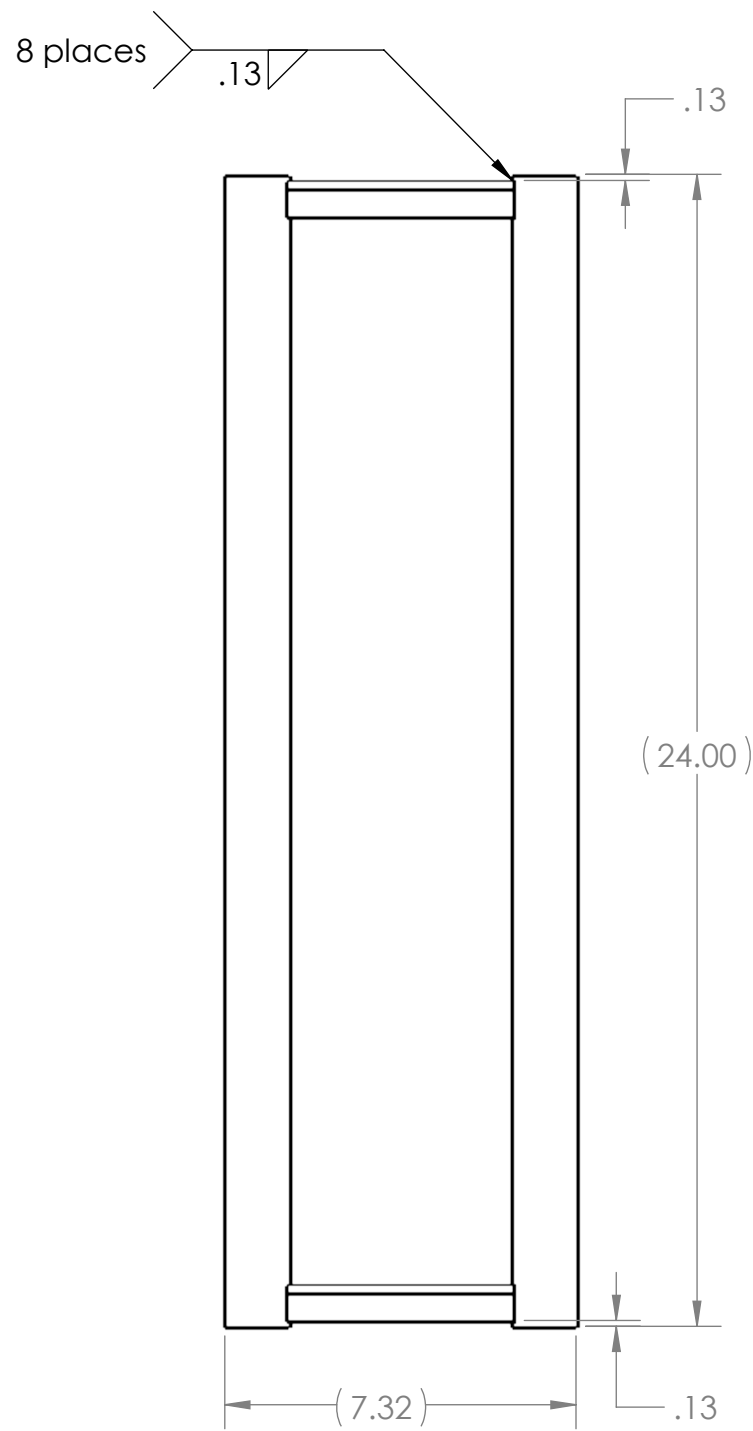
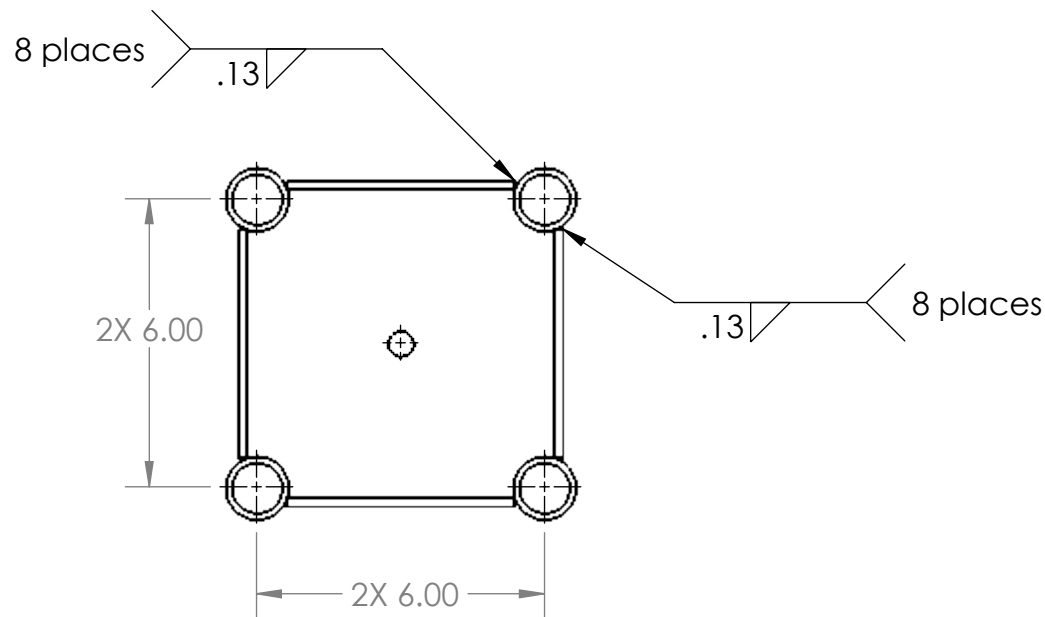
C

B



A



UNLESS OTHERWISE SPECIFIED:	WELD	NAME	DATE	<div><div>FIRST ROBOTICS COMPETITION</div><div>SOLIDWORKS Modeling Solutions Partner</div></div>		
	DRAWN	DF	7/10/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.02 THREE PLACE DECIMAL ±.015	PROPRIETARY AND CONFIDENTIAL			TITLE: <div>Cage Weldment, Red</div>		
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.					
MATERIAL/FINISH:	COMMENTS:			SIZE	DWG. NO.	REV
Steel, welded and powder coated RAL# 3020	REMOVE ALL BURRS AND SHARP EDGES.			C	GE-25201	
DO NOT SCALE DRAWING				SCALE: 1:2		SHEET 2 OF 2



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25202-01	10 ga. A36/1008 Mild Steel Sheet	1
2	GE-25202-02	10 ga. A36/1008 Mild Steel Sheet	1
3	GE-25202-03	1" Schedule 40 Pipe, A500 Steel	4

UNLESS OTHERWISE SPECIFIED:	WELD		NAME		DATE		<div><div>FIRST ROBOTICS COMPETITION</div><div>Modeling Solutions Partner</div></div>	
	DRAWN		DF		7/10/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .02$ THREE PLACE DECIMAL $\pm .015$	PROPRIETARY AND CONFIDENTIAL							
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.							
MATERIAL/FINISH:	COMMENTS:							TITLE:
Steel, welded and powder coated RAL# 5017	REMOVE ALL BURRS AND SHARP EDGES.							
DO NOT SCALE DRAWING	SIZE		DWG. NO.			REV		
	C		GE-25202					
SCALE: 1:4			SHEET 1 OF 2					



D

C

B

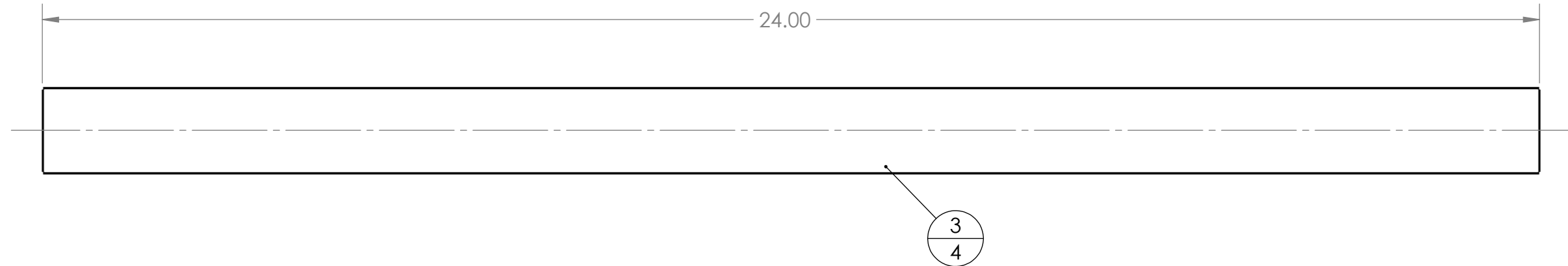
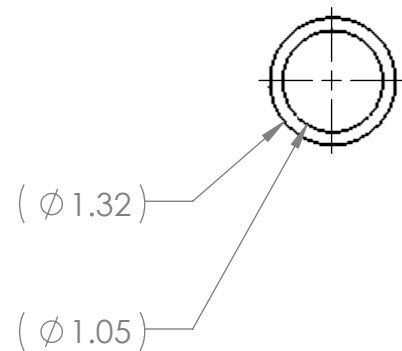
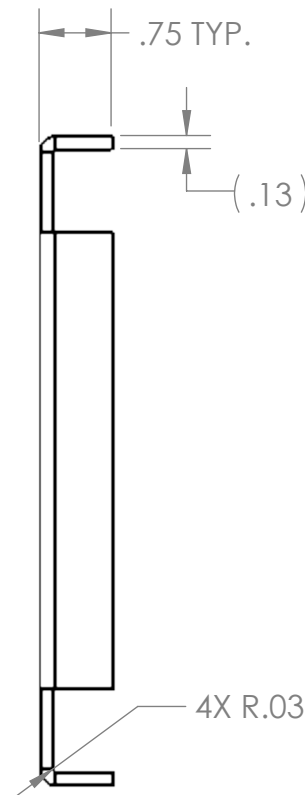
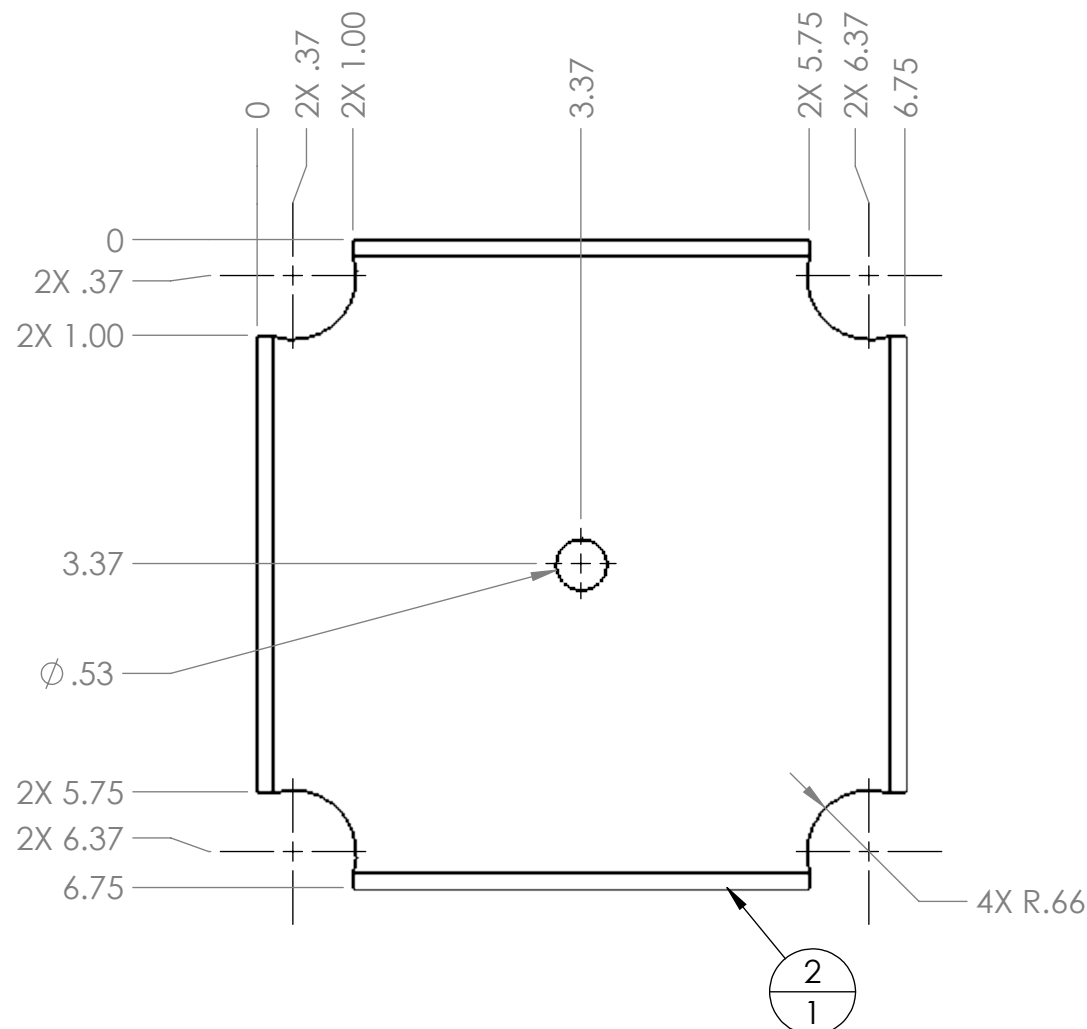
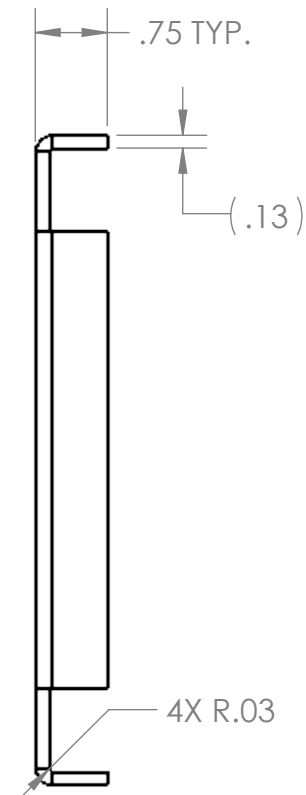
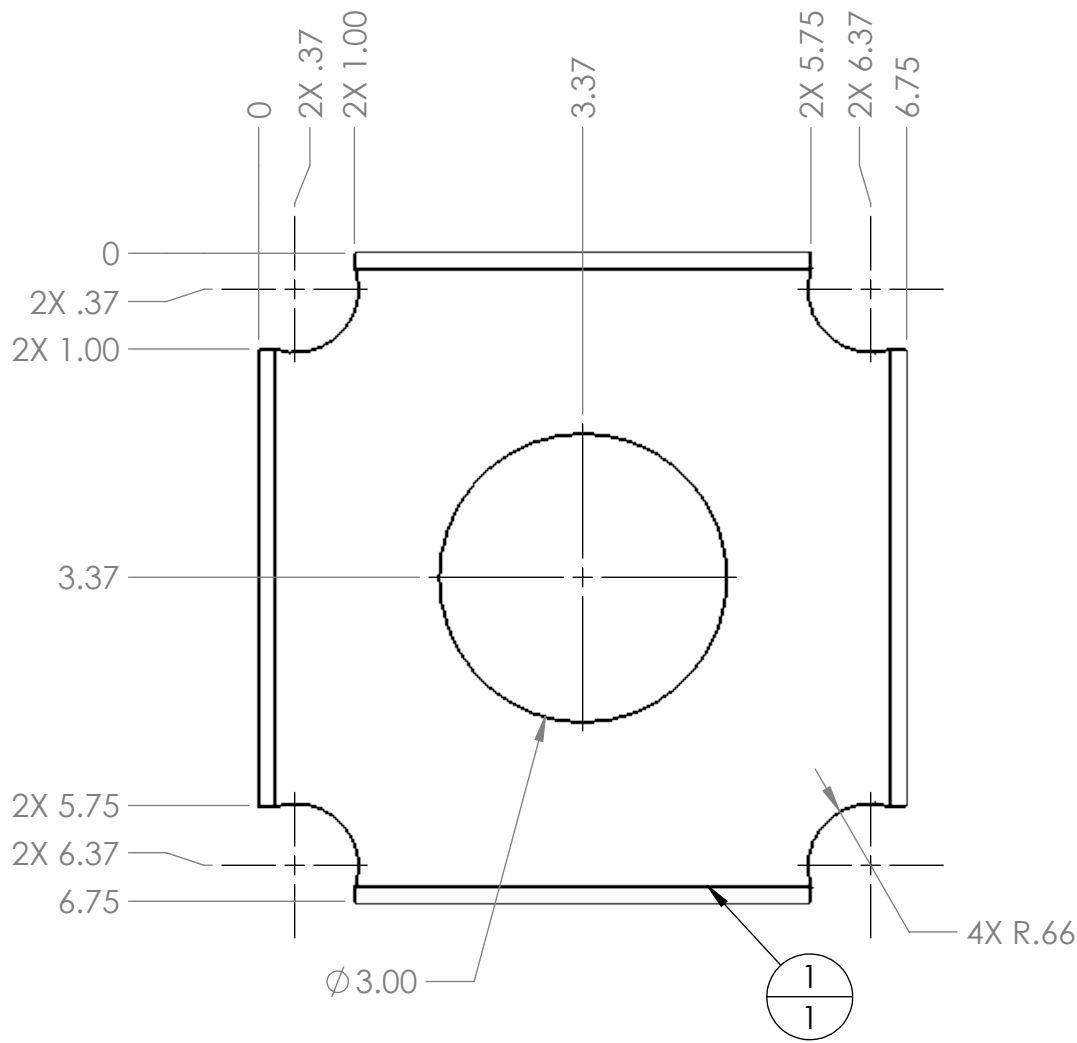
A



D

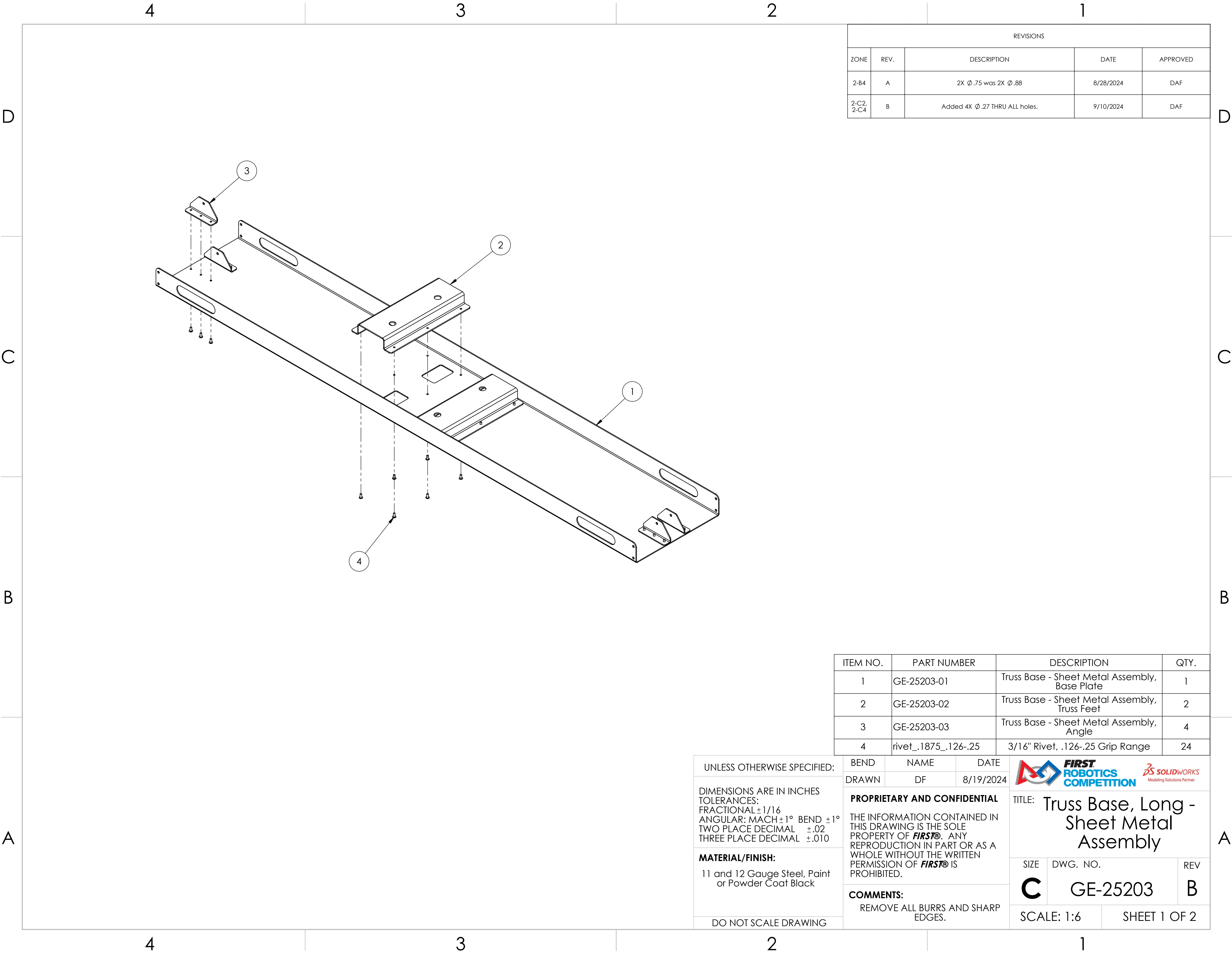
C

B

A





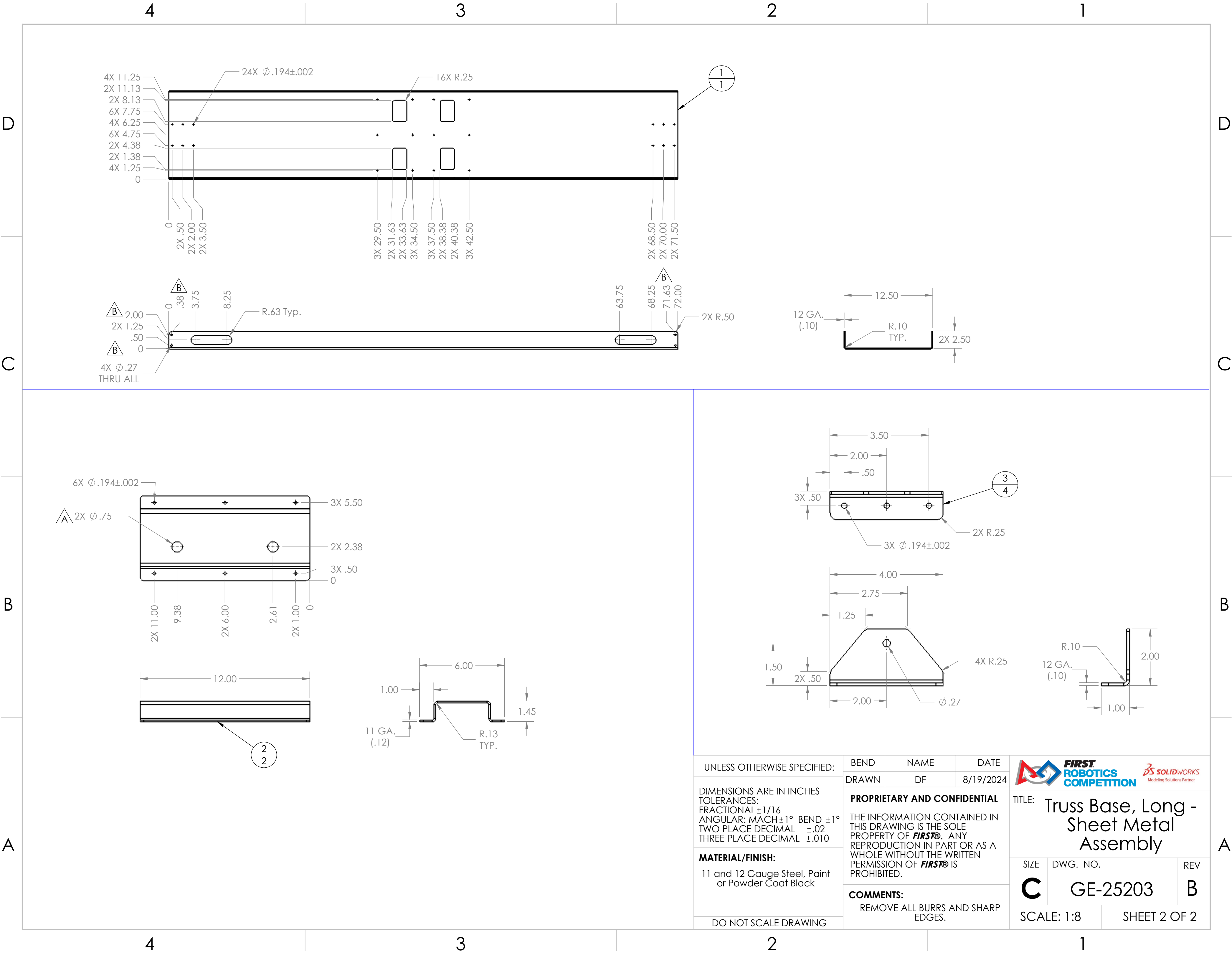
UNLESS OTHERWISE SPECIFIED:	WELD	NAME	DATE	 		
	DRAWN	DF	7/10/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.02 THREE PLACE DECIMAL ±.015	PROPRIETARY AND CONFIDENTIAL			TITLE:  Cage Weldment, Blue		
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF FIRST®. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF FIRST® IS PROHIBITED.					
MATERIAL/FINISH:  Steel, welded and powder coated RAL# 5017	COMMENTS:			SIZE	DWG. NO.	REV
	REMOVE ALL BURRS AND SHARP EDGES.			C	GE-25202	
DO NOT SCALE DRAWING				SCALE: 1:2		SHEET 2 OF 2



REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
2-B4	A	2X $\phi$ .75 was 2X $\phi$ .88	8/28/2024	DAF
2-C2, 2-C4	B	Added 4X $\phi$ .27 THRU ALL holes.	9/10/2024	DAF

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25203-01	Truss Base - Sheet Metal Assembly, Base Plate	1
2	GE-25203-02	Truss Base - Sheet Metal Assembly, Truss Feet	2
3	GE-25203-03	Truss Base - Sheet Metal Assembly, Angle	4
4	rivet_.1875_.126-.25	3/16" Rivet, .126-.25 Grip Range	24

UNLESS OTHERWISE SPECIFIED:		BEND	NAME	DATE	 	
		DRAWN	DF	8/19/2024		
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.02 THREE PLACE DECIMAL ±.010		<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			TITLE: Truss Base, Long - Sheet Metal Assembly	
		MATERIAL/FINISH:		<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.		
11 and 12 Gauge Steel, Paint or Powder Coat Black		C GE-25203 B				
DO NOT SCALE DRAWING					SCALE: 1:6 SHEET 1 OF 2	



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .02$   
THREE PLACE DECIMAL  $\pm .010$

**MATERIAL/FINISH:**  
11 and 12 Gauge Steel, Paint  
or Powder Coat Black

DO NOT SCALE DRAWING

BEND

DRAWN

NAME

DF

DATE

8/19/2024

**PROPRIETARY AND CONFIDENTIAL**

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WHOLE WITHOUT THE WRITTEN  
PERMISSION OF **FIRST®** IS  
PROHIBITED.

**COMMENTS:**

REMOVE ALL BURRS AND SHARP  
EDGES.



TITLE: Truss Base, Long -  
Sheet Metal  
Assembly

SIZE

**C**

DWG. NO.

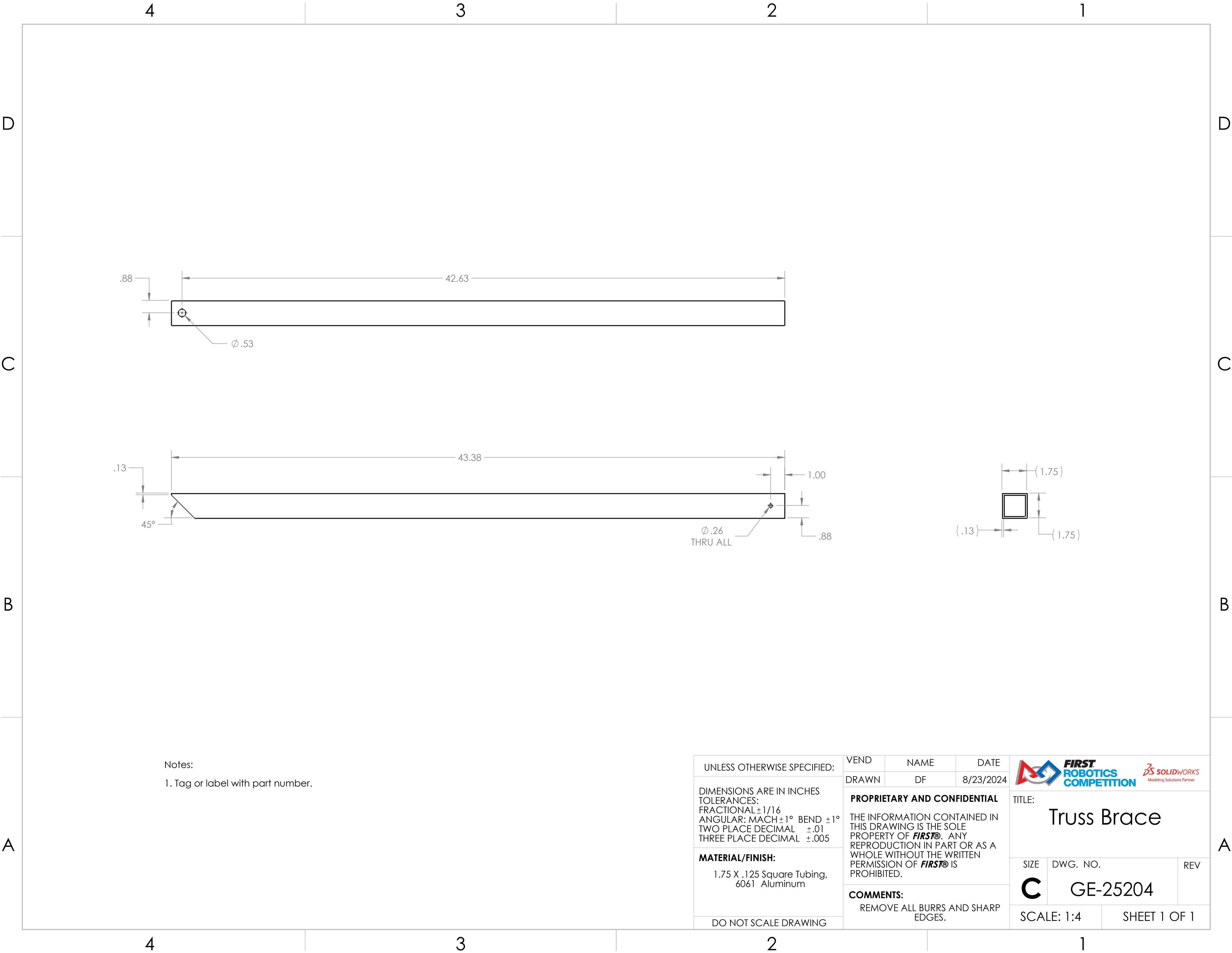
GE-25203

REV



**B**

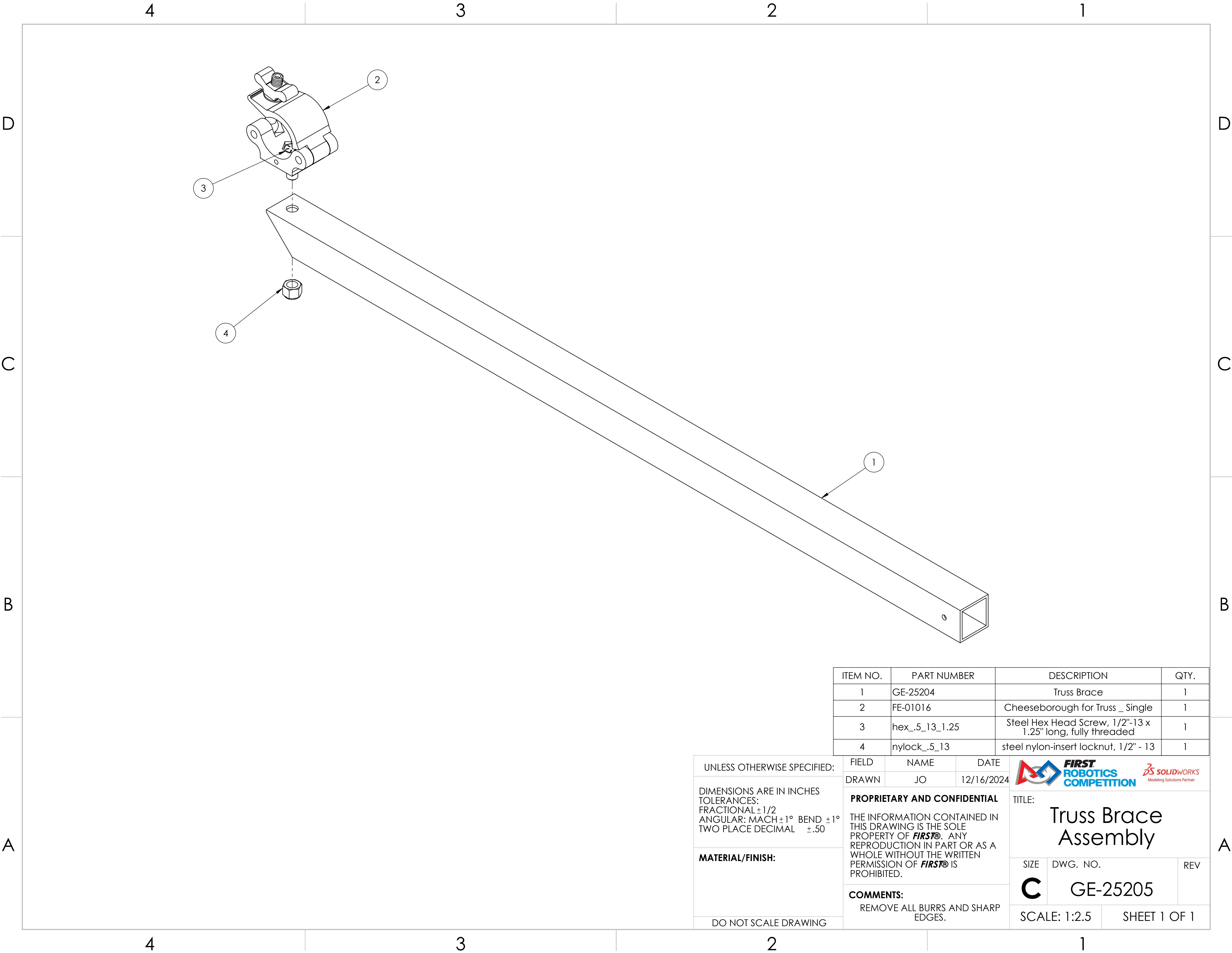
SCALE: 1:8

SHEET 2 OF 2





Notes:  
1. Tag or label with part number.

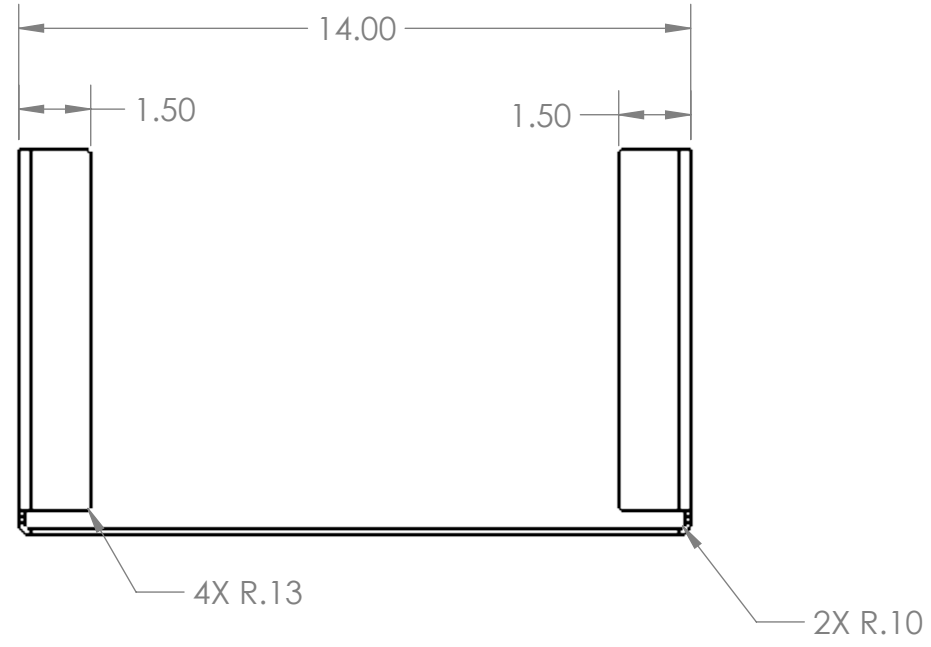
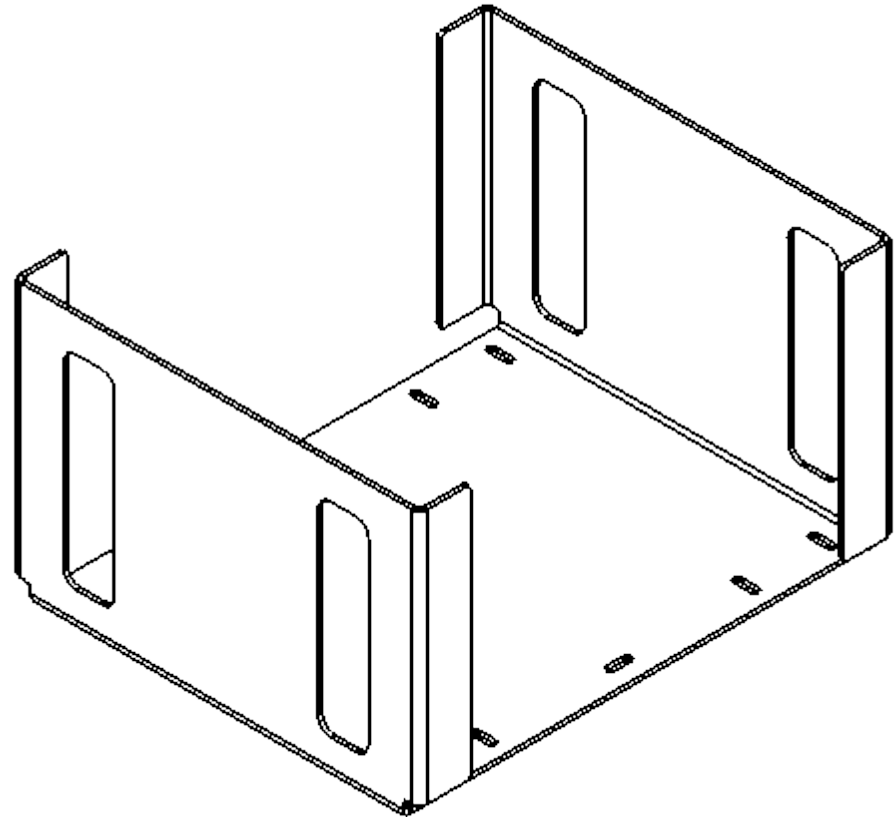
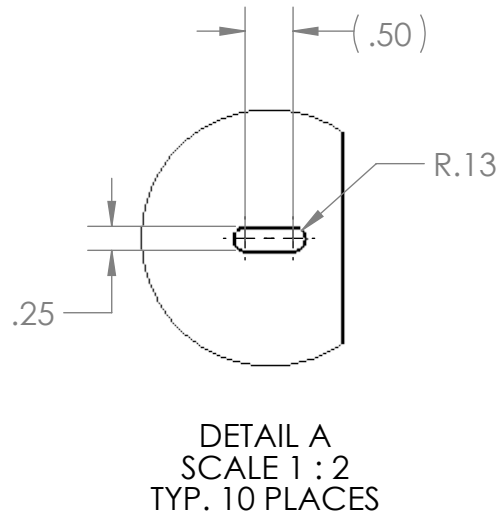
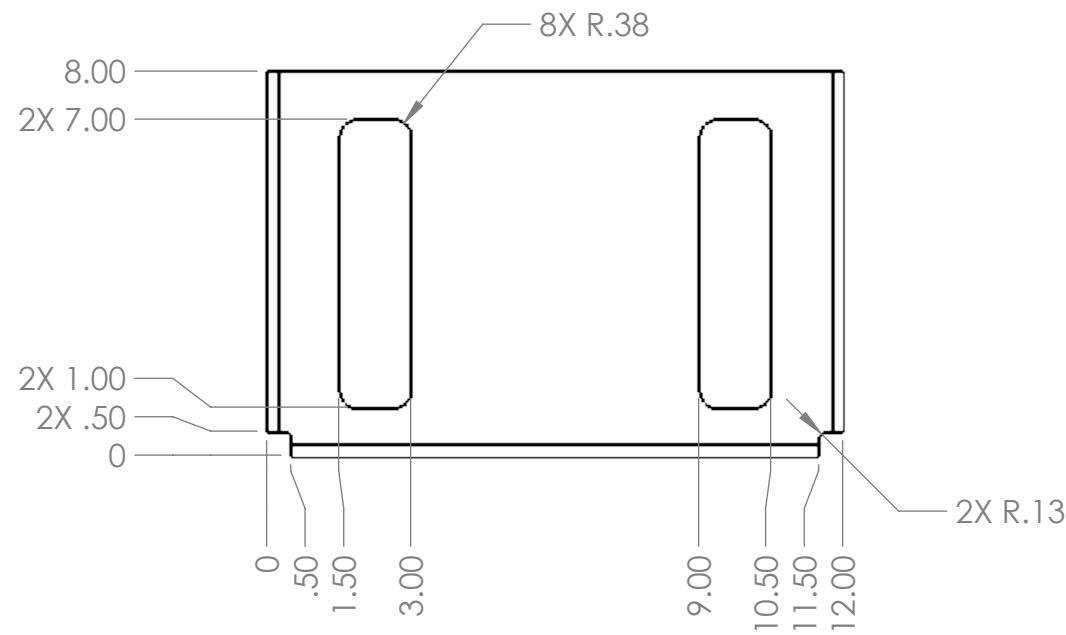
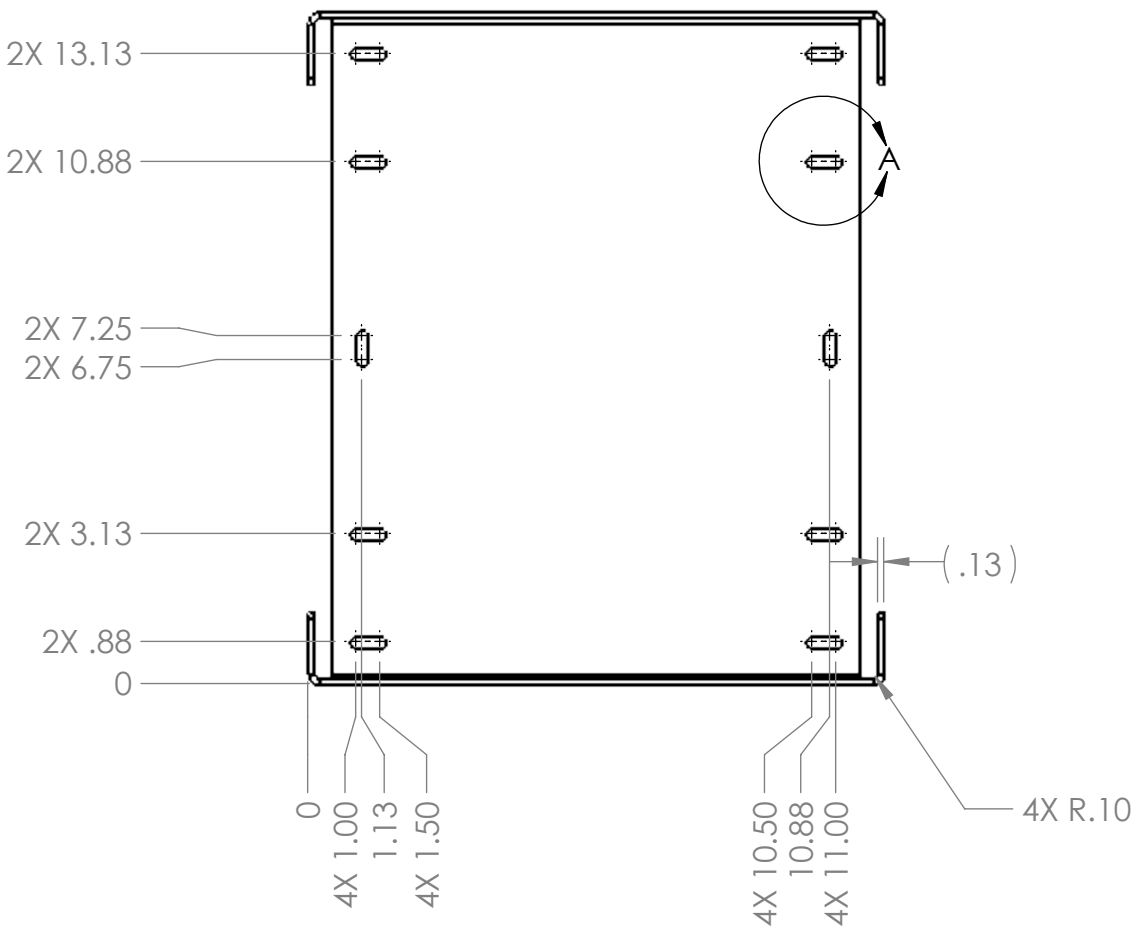
UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .005$  <b>MATERIAL/FINISH:</b>  1.75 X .125 Square Tubing, 6061 Aluminum  DO NOT SCALE DRAWING	VEND	NAME	DATE	<div></div> <div>TITLE: <h1>Truss Brace</h1></div>		
	DRAWN	DF	8/23/2024			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE	DWG. NO.	REV
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			<b>C</b>	GE-25204	
SCALE: 1:4		SHEET 1 OF 1				





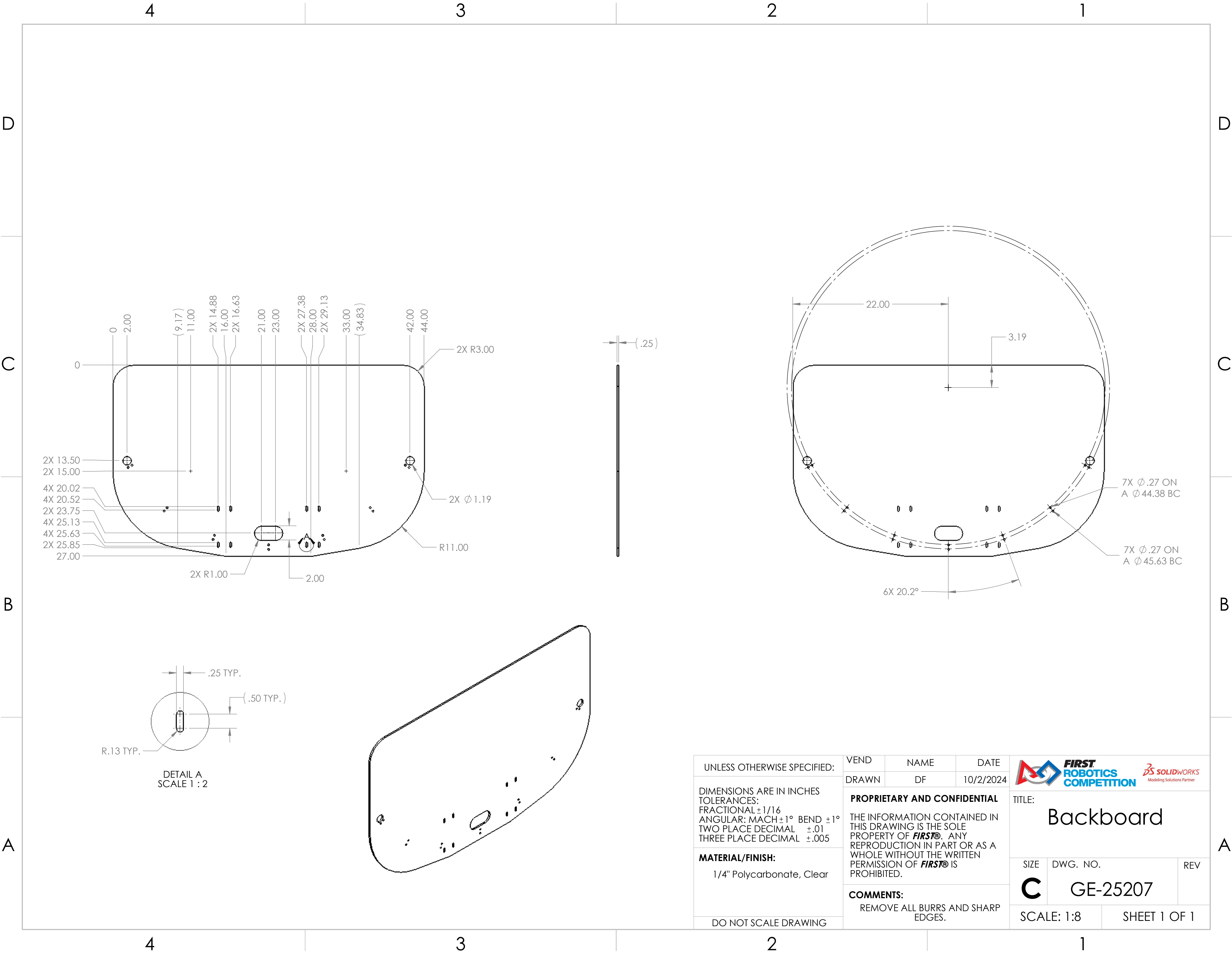
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25204	Truss Brace	1
2	FE-01016	Cheeseborough for Truss _ Single	1
3	hex_.5_13_1.25	Steel Hex Head Screw, 1/2"-13 x 1.25" long, fully threaded	1
4	nylock_.5_13	steel nylon-insert locknut, 1/2" - 13	1



UNLESS OTHERWISE SPECIFIED:		FIELD	NAME	DATE	<div></div>	
<div>DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/2 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.50</div>		DRAWN	JO	12/16/2024	TITLE:	
		<div>PROPRIETARY AND CONFIDENTIAL</div> <div>THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b>. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.</div>			Truss Brace Assembly	
		<div>COMMENTS:</div> <div>REMOVE ALL BURRS AND SHARP EDGES.</div>			SIZE: DWG. NO. REV	
DO NOT SCALE DRAWING					C	GE-25205
					SCALE: 1:2.5 SHEET 1 OF 1	



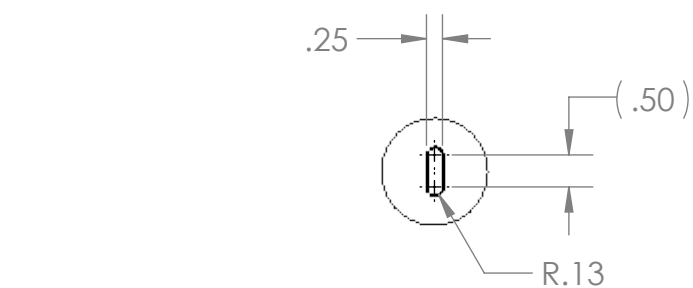
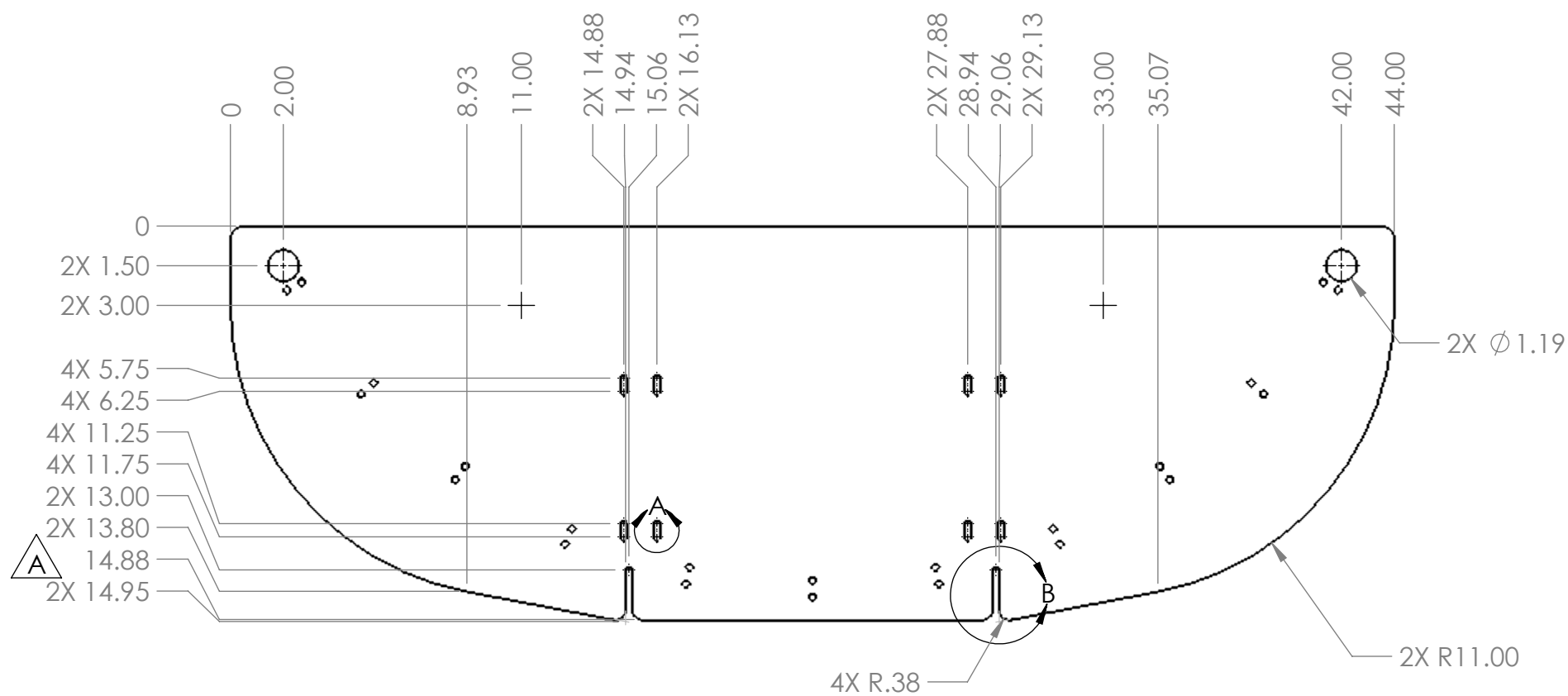


UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL±1/16 ANGULAR: MACH±1° BEND ±1° TWO PLACE DECIMAL ±.02 THREE PLACE DECIMAL ±.010  <b>MATERIAL/FINISH:</b>  8 ga. 5052 Aluminum Sheet  DO NOT SCALE DRAWING	BEND	NAME	DATE	<div></div> <div>TITLE:  Backboard Brace</div>		
	DRAWN	DF	10/3/2024			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.  <b>COMMENTS:</b>  REMOVE ALL BURRS AND SHARP EDGES.				SIZE	DWG. NO.
				C	GE-25206	
				SCALE: 1:4		SHEET 1 OF 1

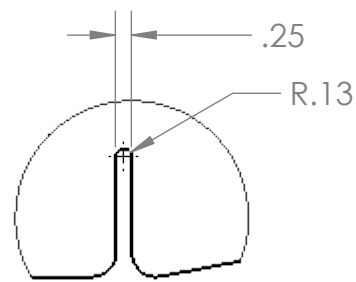


UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .005$  <b>MATERIAL/FINISH:</b>  1/4" Polycarbonate, Clear  DO NOT SCALE DRAWING	VEND	NAME	DATE	  TITLE:  Backboard	
	DRAWN	DF	10/2/2024		
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE	DWG. NO.
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			<b>C</b>	GE-25207
SCALE: 1:8		SHEET 1 OF 1			

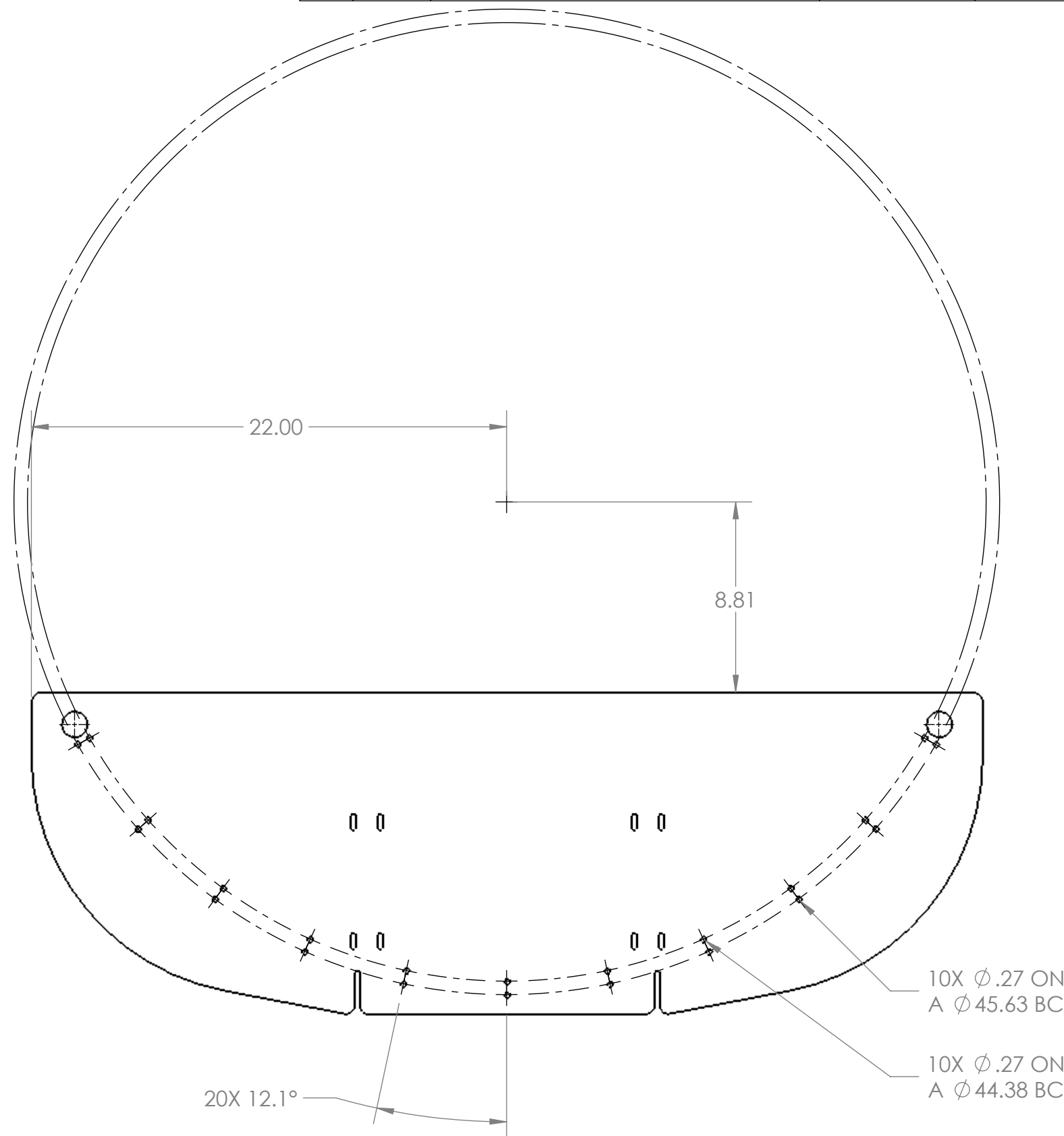
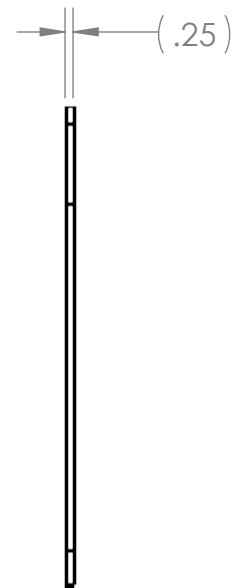
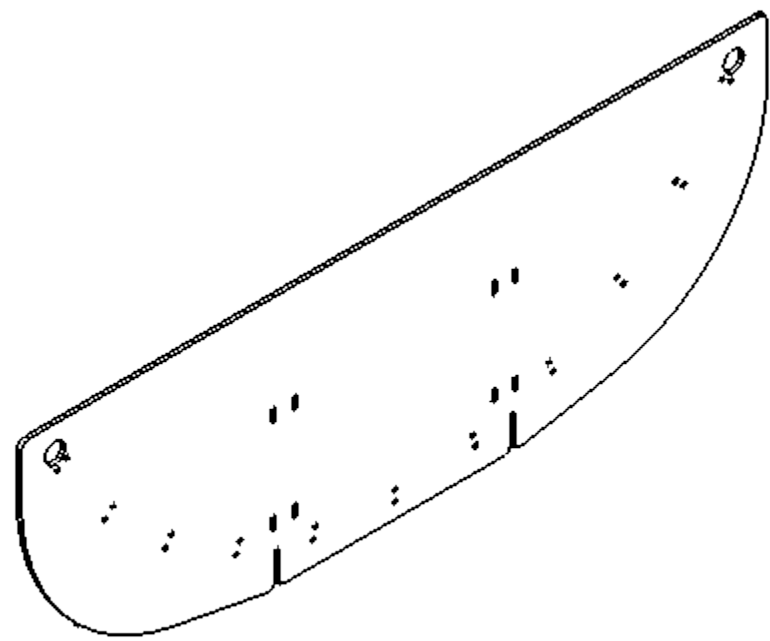
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
B4	A	14.88 was 15.00	10/3/2024	DF





DETAIL A  
SCALE 1 : 3  
TYP. 8 PLACES



DETAIL B  
SCALE 1 : 3  
TYP. 2 PLACES





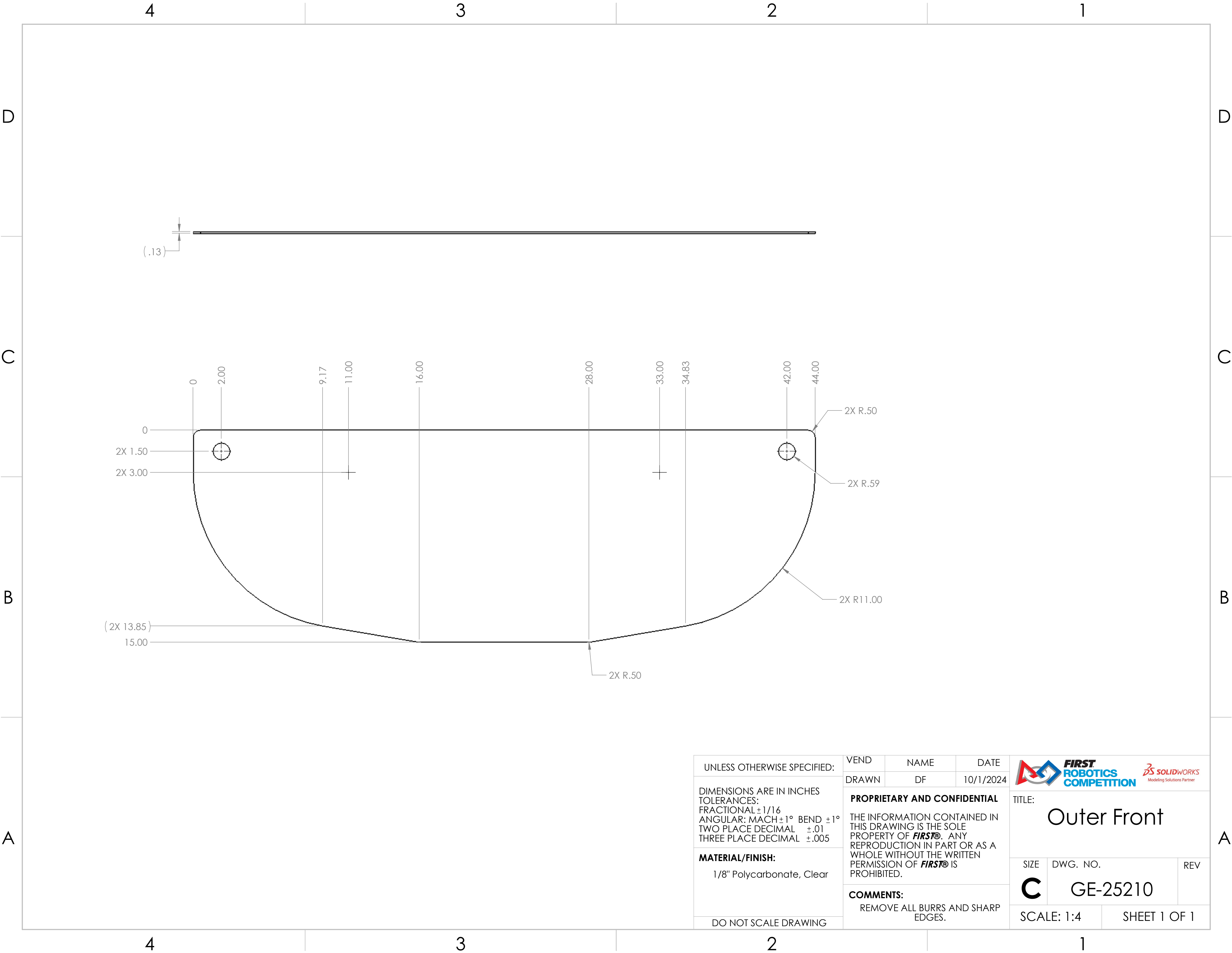
UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005  <b>MATERIAL/FINISH:</b>  1/4" Polycarbonate, Clear          DO NOT SCALE DRAWING	VEND	NAME	DATE	<div></div>		
	DRAWN	DF	10/3/2024			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			TITLE:  Inner Front		
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			SIZE	DWG. NO.	REV
			C	GE-25208	A	
			SCALE: 1:6		SHEET 1 OF 1	



REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
B2	A	Updated graphics	10/21/2024	DF



Notes:  
1. QTY per field: 2  
2. Gloss Vinyl finish.

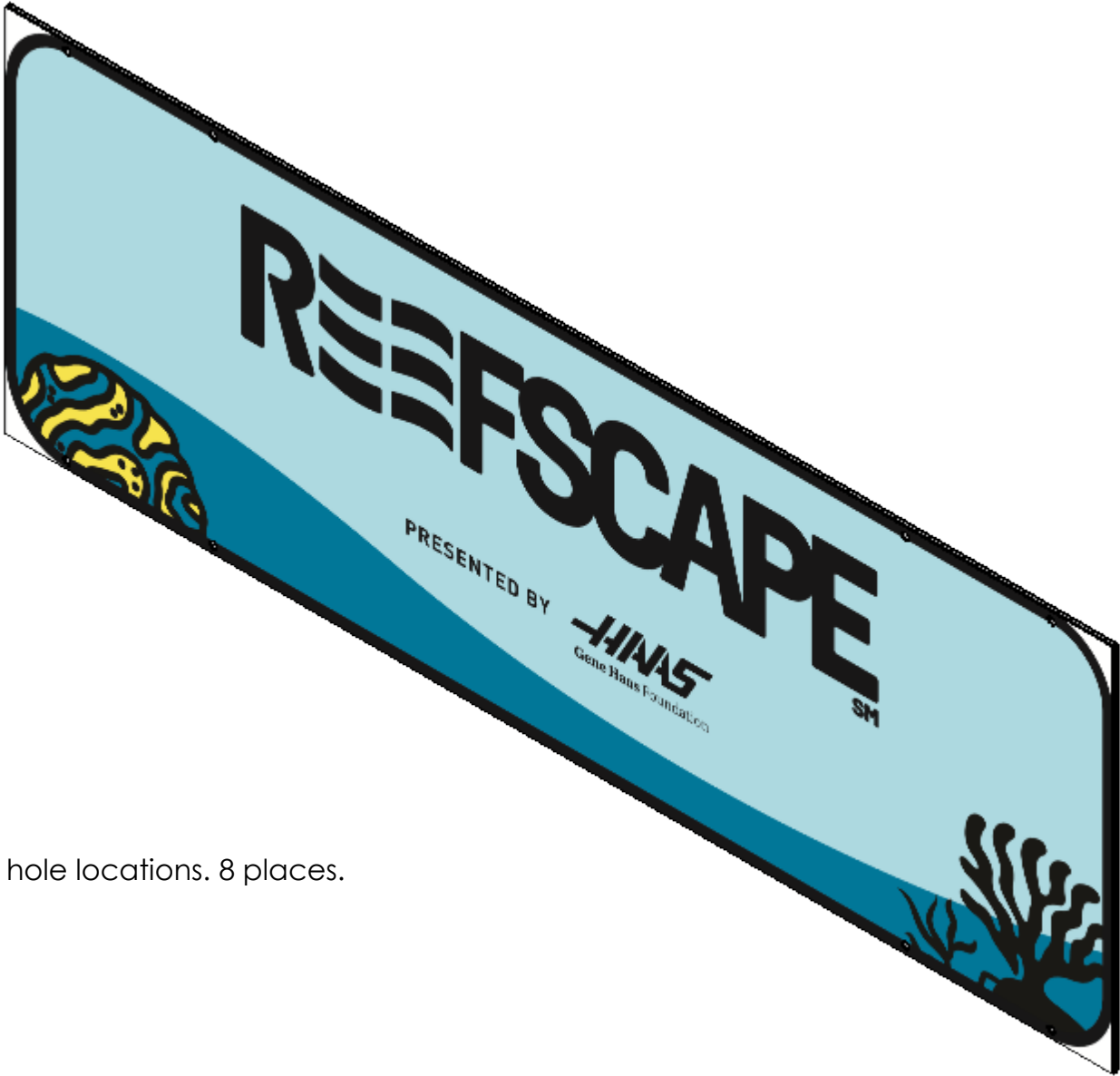
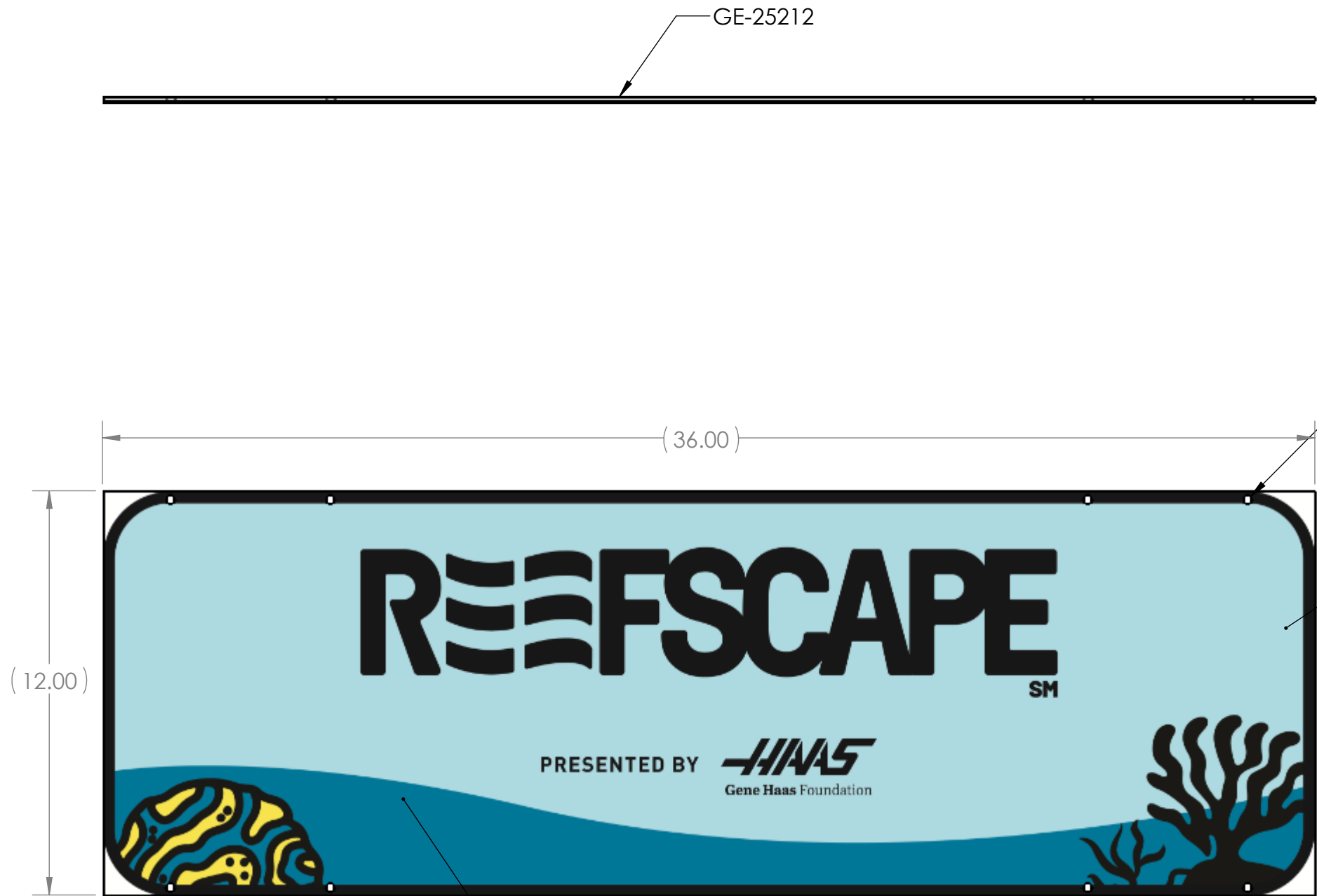
UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .005$  <b>MATERIAL/FINISH:</b>     DO NOT SCALE DRAWING	VEND DRAWN	NAME DF	DATE 10/7/2024	  TITLE: <b>Outer Front w/Vinyl</b>	
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE <b>C</b>	DWG. NO. <b>GE-25209</b>
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			REV <b>A</b>	SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005  <b>MATERIAL/FINISH:</b>  1/8" Polycarbonate, Clear  DO NOT SCALE DRAWING	VEND	NAME	DATE	<div><div></div><div>TITLE: <h1>Outer Front</h1></div></div>		
	DRAWN	DF	10/1/2024			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.  <b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.				SIZE	DWG. NO.
				<b>C</b>	GE-25210	
				SCALE: 1:4		SHEET 1 OF 1



REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
B2	A	Updatedg graphics	10/21/2024	DF



GE-25211-Vinyl  
Apply vinyl to one face. Front and back of part are identical.

- Notes:
- QTY per field: 2
  - Gloss Vinyl finish.

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

**MATERIAL/FINISH:**

DO NOT SCALE DRAWING

VEND	NAME	DATE
DRAWN	DF	10/8/2024

**PROPRIETARY AND CONFIDENTIAL**

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF **FIRST®**. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF **FIRST®** IS PROHIBITED.

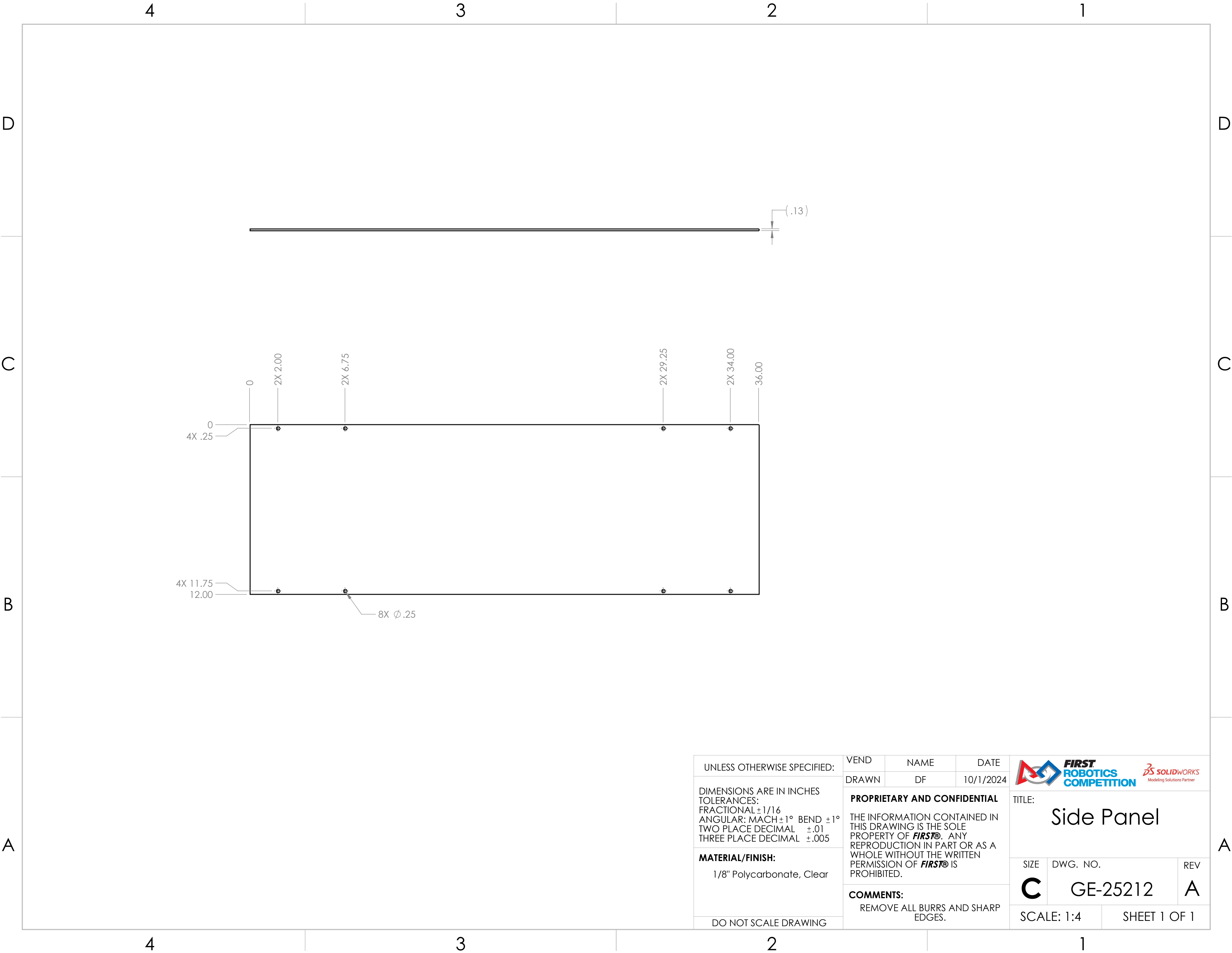
**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.





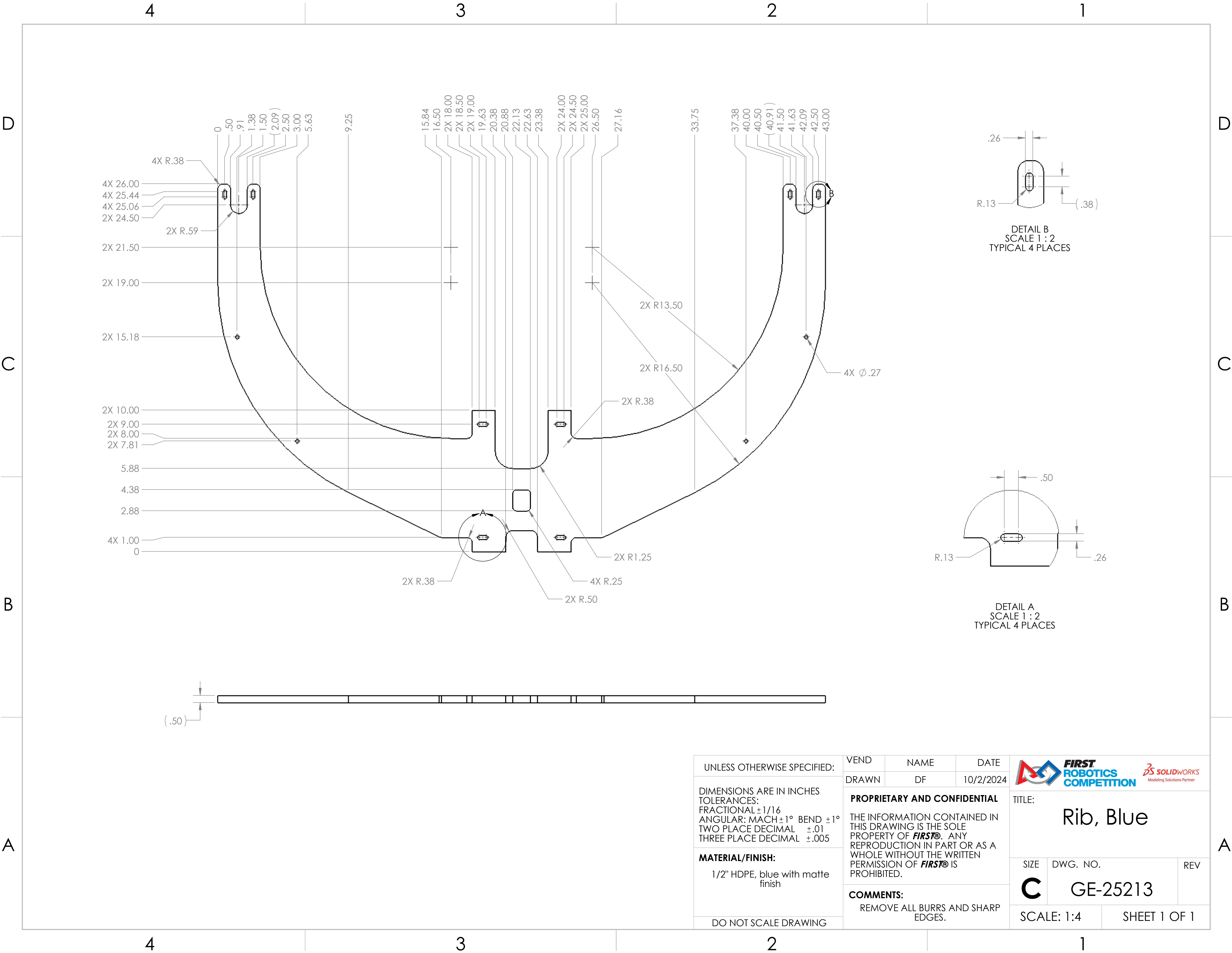
TITLE:  
**Side Panel  
w/Vinyl**



SIZE	DWG. NO.	REV
<b>C</b>	GE-25211	<b>A</b>

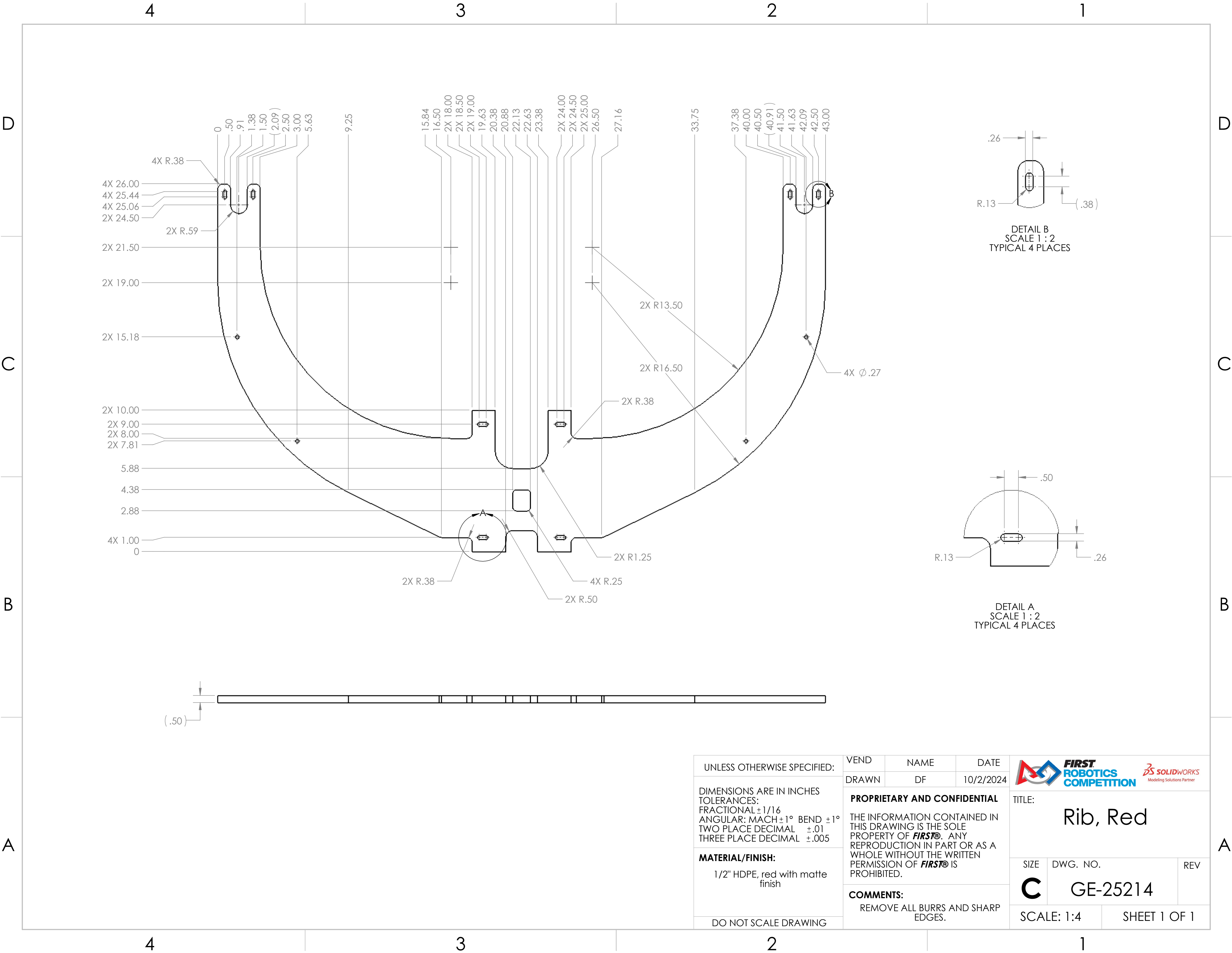
SCALE: 1:4 SHEET 1 OF 1





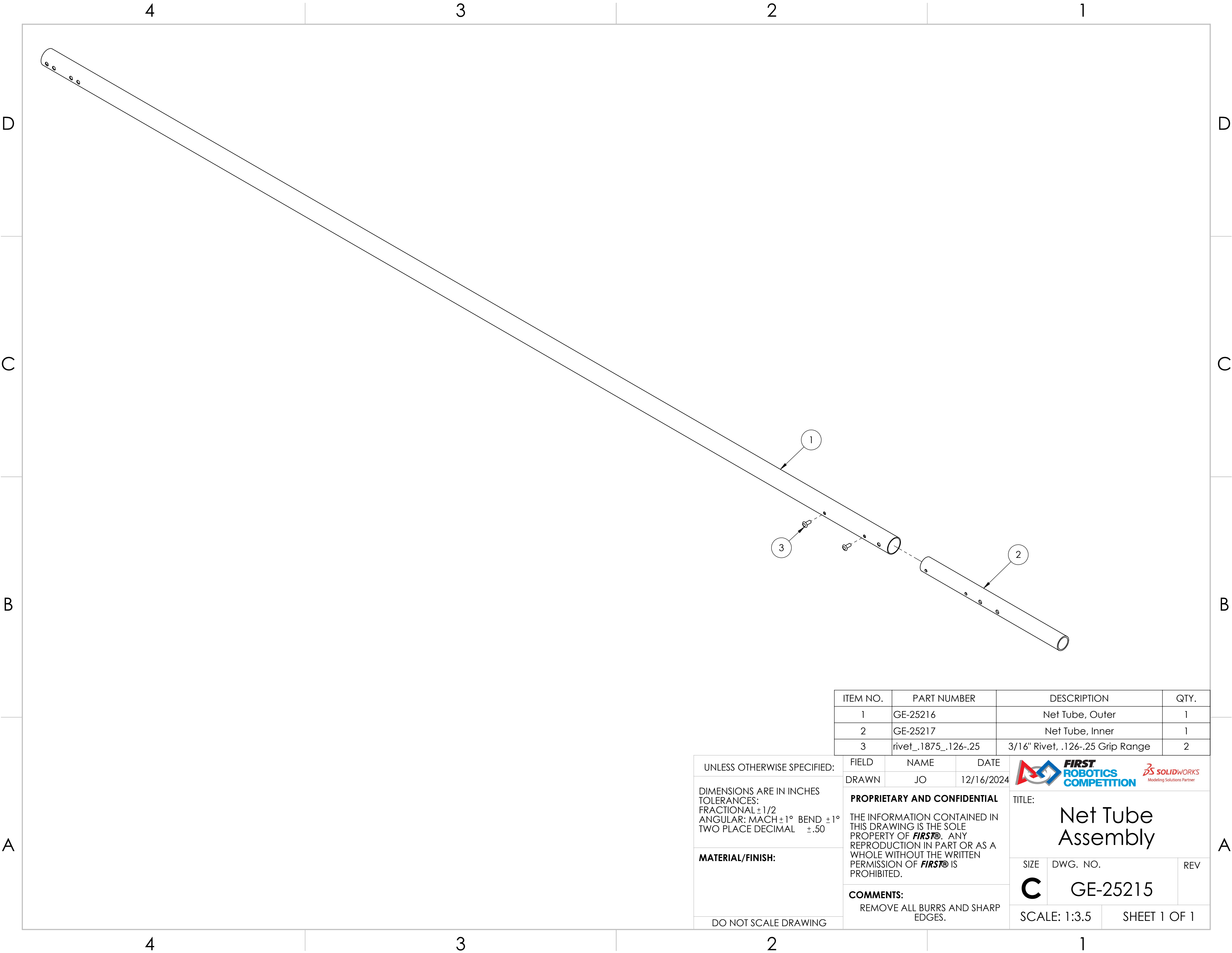
UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005  <b>MATERIAL/FINISH:</b>  1/8" Polycarbonate, Clear   DO NOT SCALE DRAWING	VEND	NAME	DATE	<div></div> <div>TITLE: <h1>Side Panel</h1></div>		
	DRAWN	DF	10/1/2024			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE	DWG. NO.	REV
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			<b>C</b>	GE-25212	<b>A</b>
SCALE: 1:4		SHEET 1 OF 1				





UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .005$  <b>MATERIAL/FINISH:</b>  1/2" HDPE, blue with matte finish  DO NOT SCALE DRAWING	VEND	NAME	DATE	<div></div> <div>TITLE:  Rib, Blue</div>		
	DRAWN	DF	10/2/2024			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE	DWG. NO.	REV
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			<b>C</b>	GE-25213	
SCALE: 1:4		SHEET 1 OF 1				



UNLESS OTHERWISE SPECIFIED:	VEND	NAME	DATE	<div></div>		
	DRAWN	DF	10/2/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	PROPRIETARY AND CONFIDENTIAL			TITLE:  Rib, Red		
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.					
MATERIAL/FINISH:  1/2" HDPE, red with matte finish	COMMENTS:  REMOVE ALL BURRS AND SHARP EDGES.			SIZE  C	DWG. NO.  GE-25214	REV
	DO NOT SCALE DRAWING			SCALE: 1:4		SHEET 1 OF 1



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25216	Net Tube, Outer	1
2	GE-25217	Net Tube, Inner	1
3	rivet_.1875_.126-.25	3/16" Rivet, .126-.25 Grip Range	2

UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/2$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .50$  <b>MATERIAL/FINISH:</b>          <b>DO NOT SCALE DRAWING</b>	FIELD DRAWN	NAME JO	DATE 12/16/2024	 	
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			TITLE:  <b>Net Tube Assembly</b>	
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			SIZE <b>C</b>	DWG. NO. <b>GE-25215</b>
				SCALE: 1:3.5	REV SHEET 1 OF 1

D

C

B

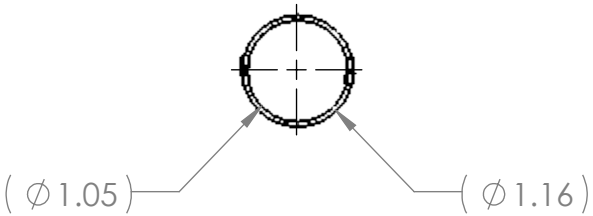
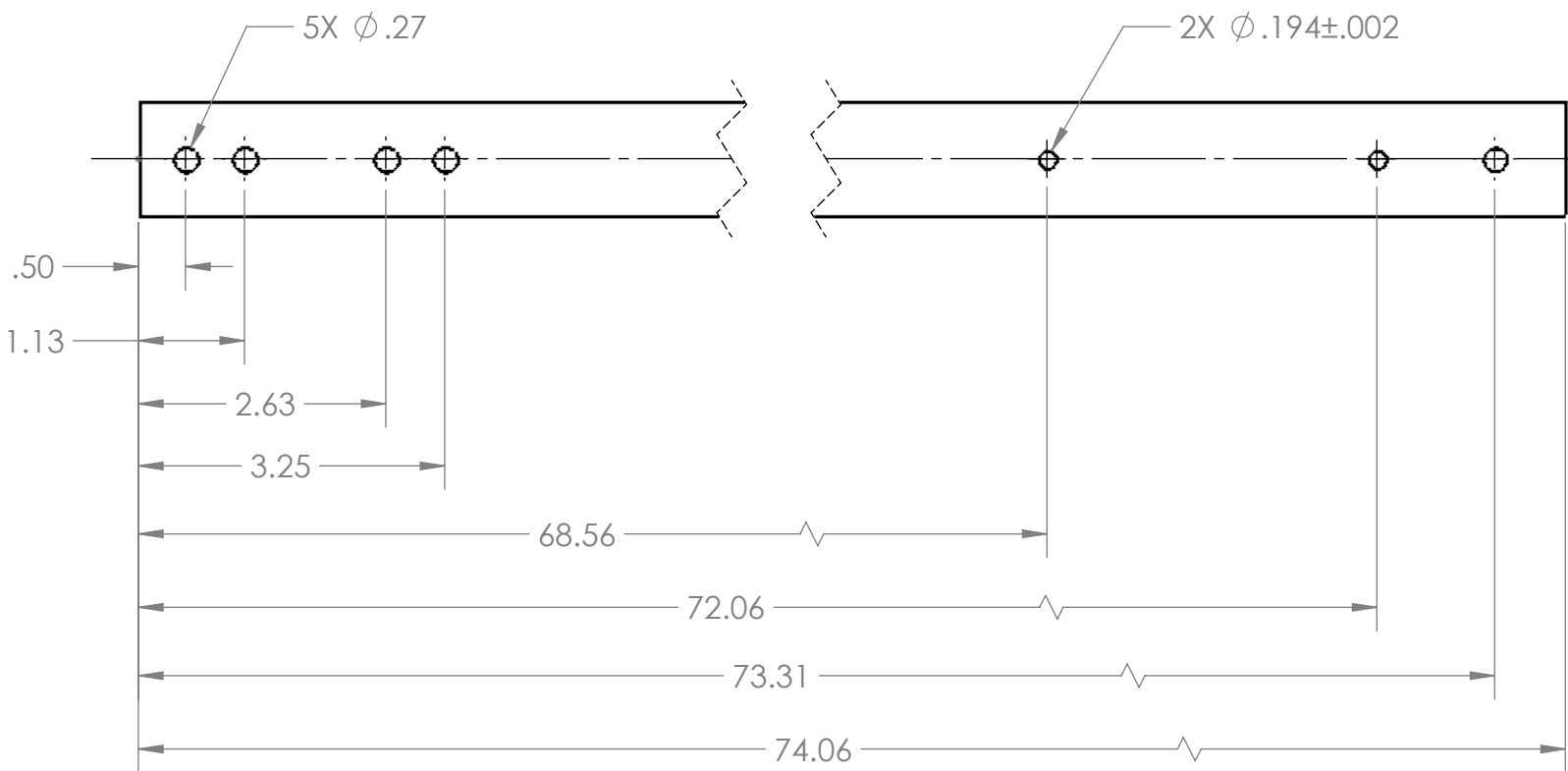
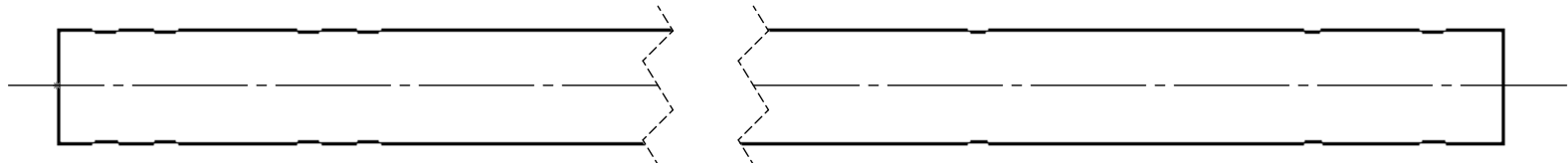
A



D

C

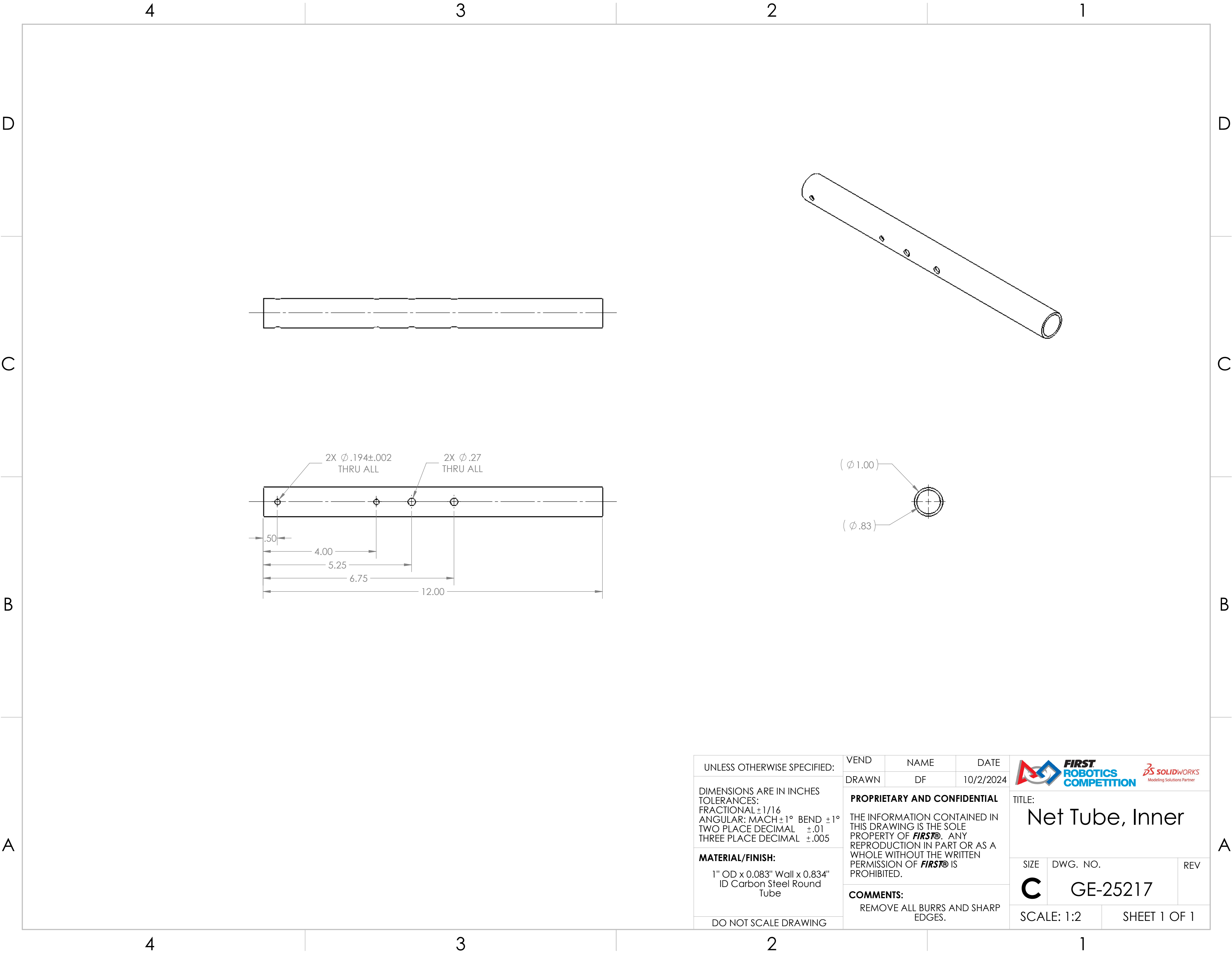
B



A

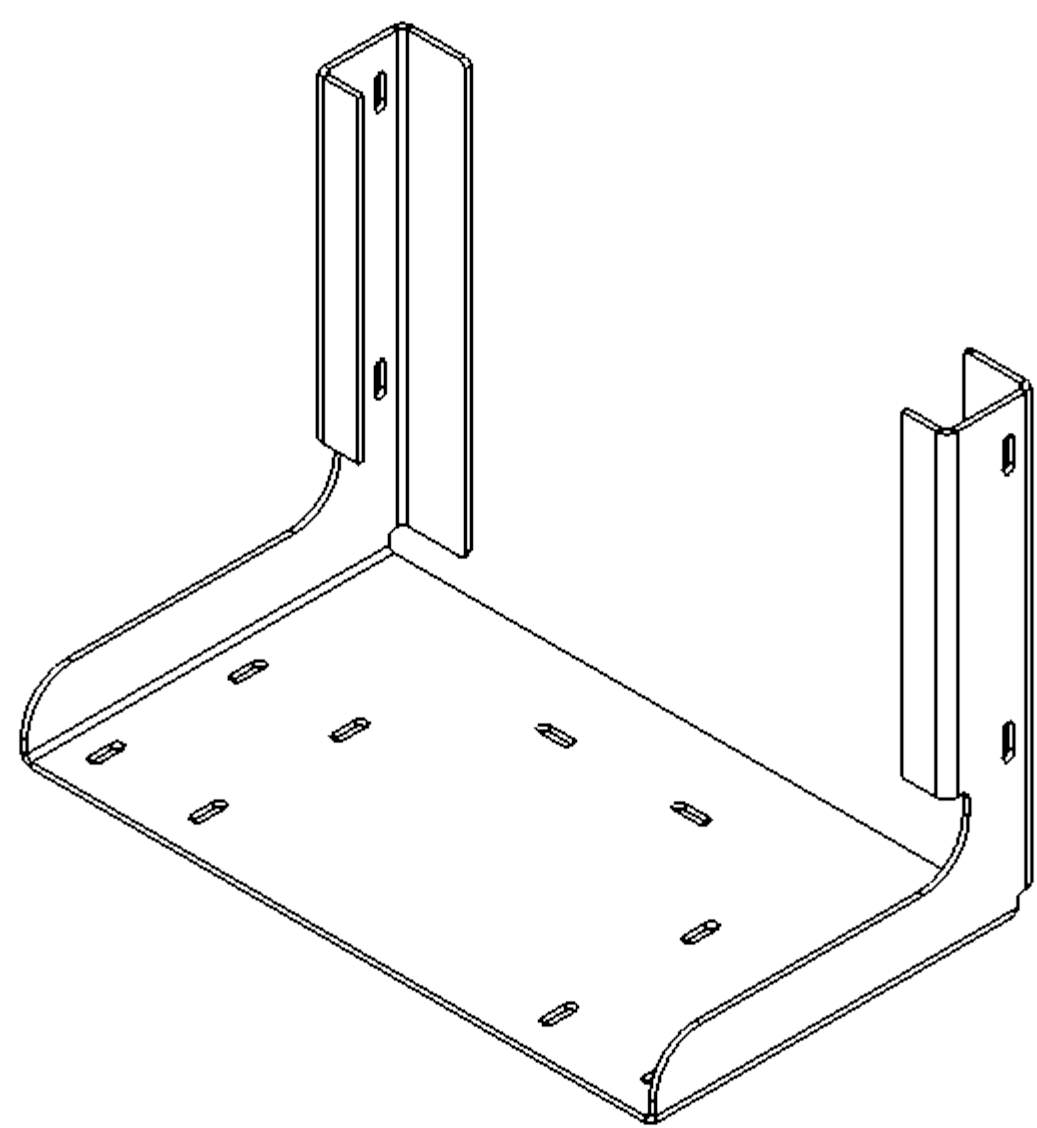
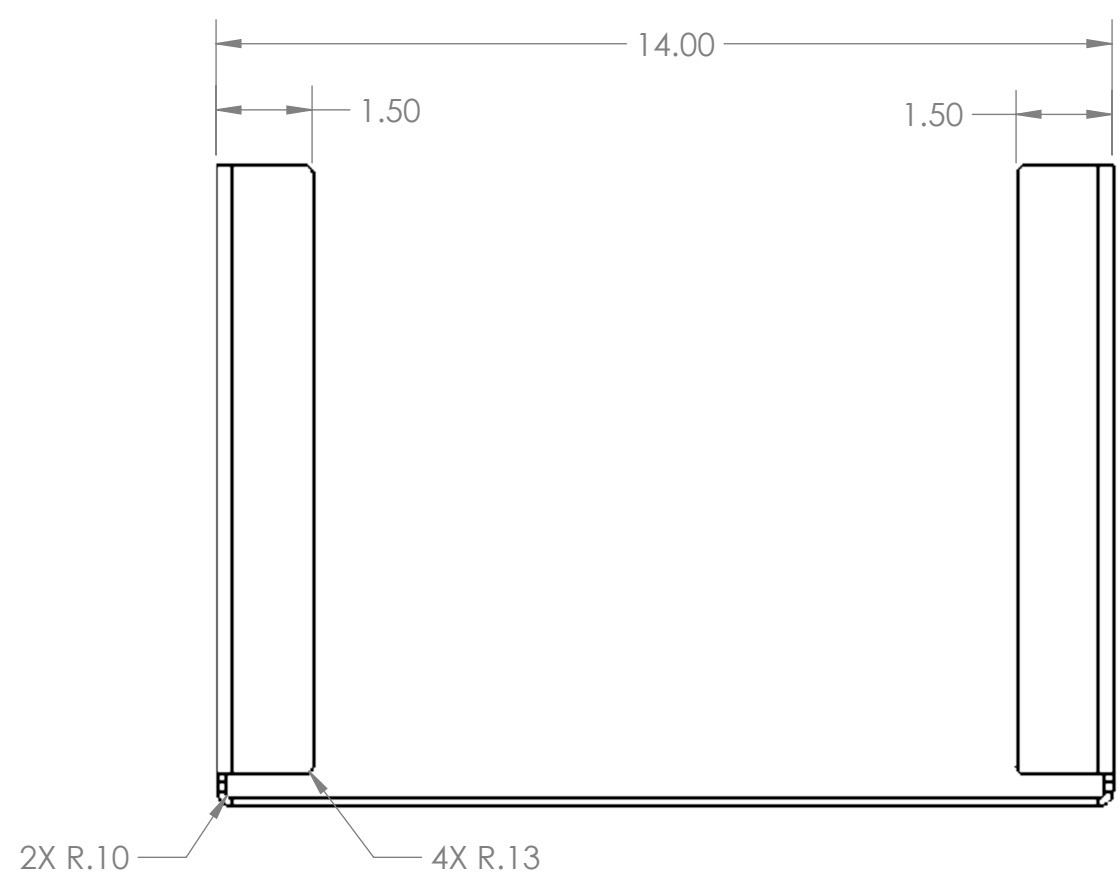
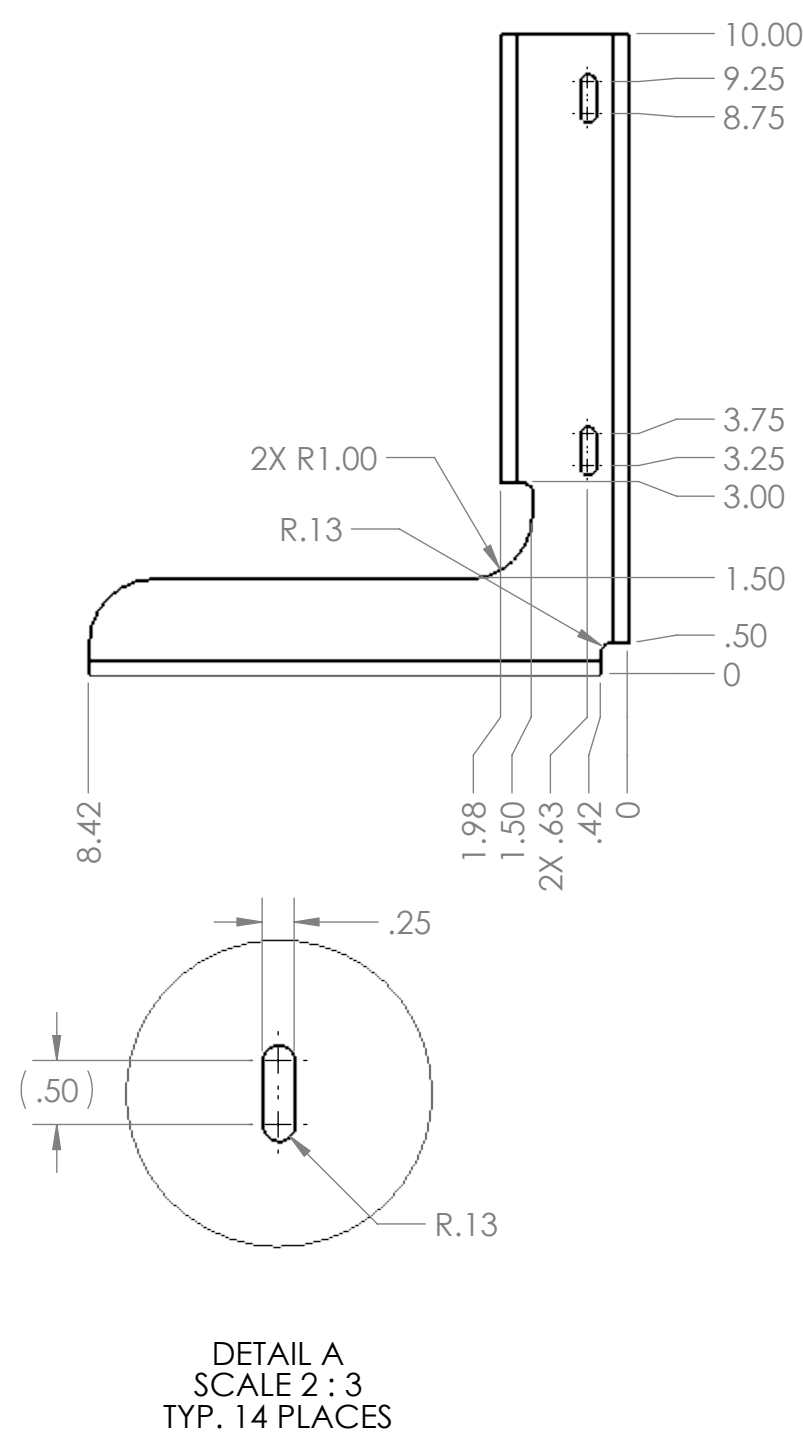
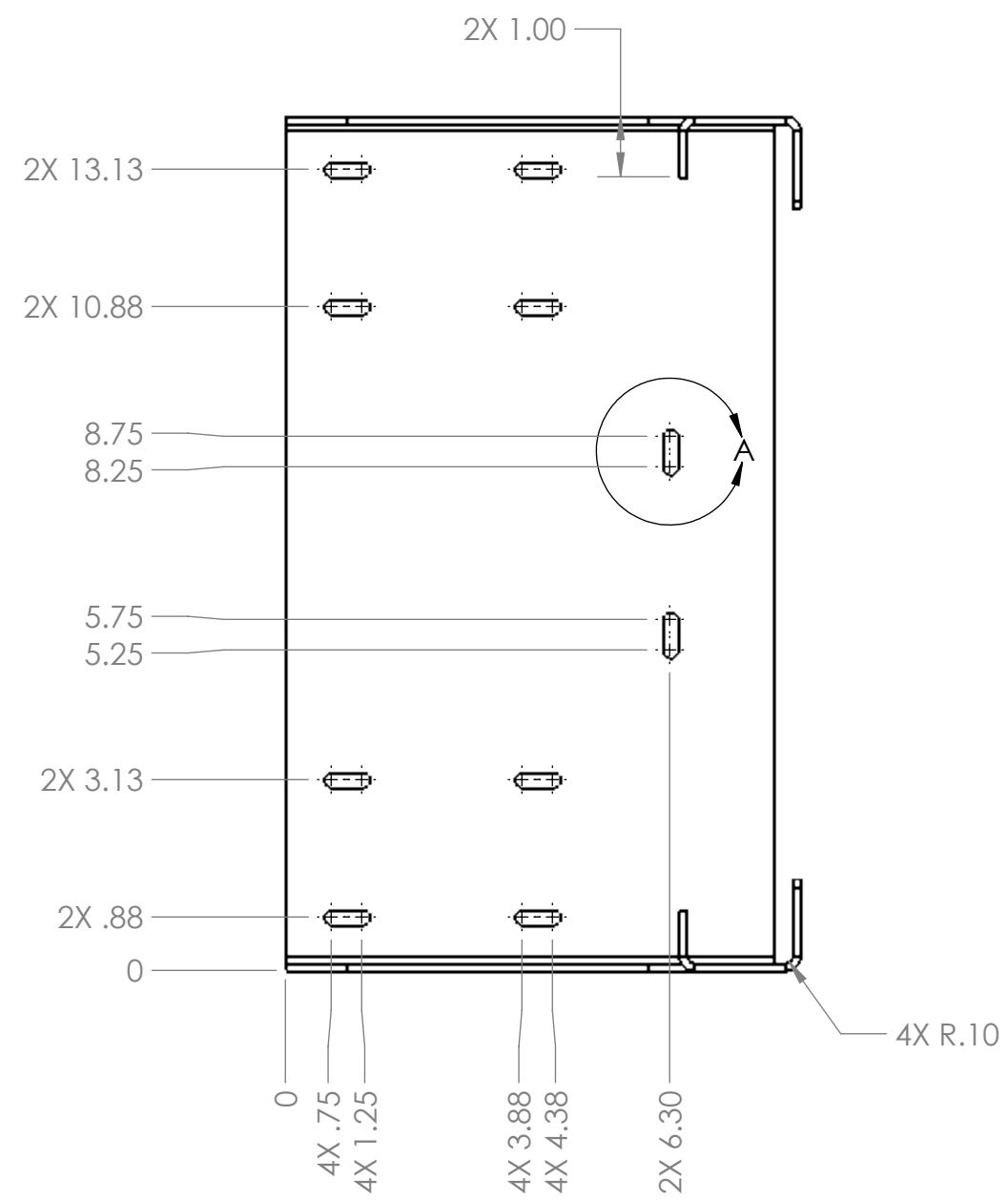




UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005  <b>MATERIAL/FINISH:</b>  1" EMT Conduit, Galvanized  DO NOT SCALE DRAWING	VEND	NAME	DATE	<div></div> <div>TITLE: Net Tube, Outer</div>		
	DRAWN	DF	10/2/2024			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE	DWG. NO.	REV
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			<b>C</b>	GE-25216	
SCALE: 1:2		SHEET 1 OF 1				



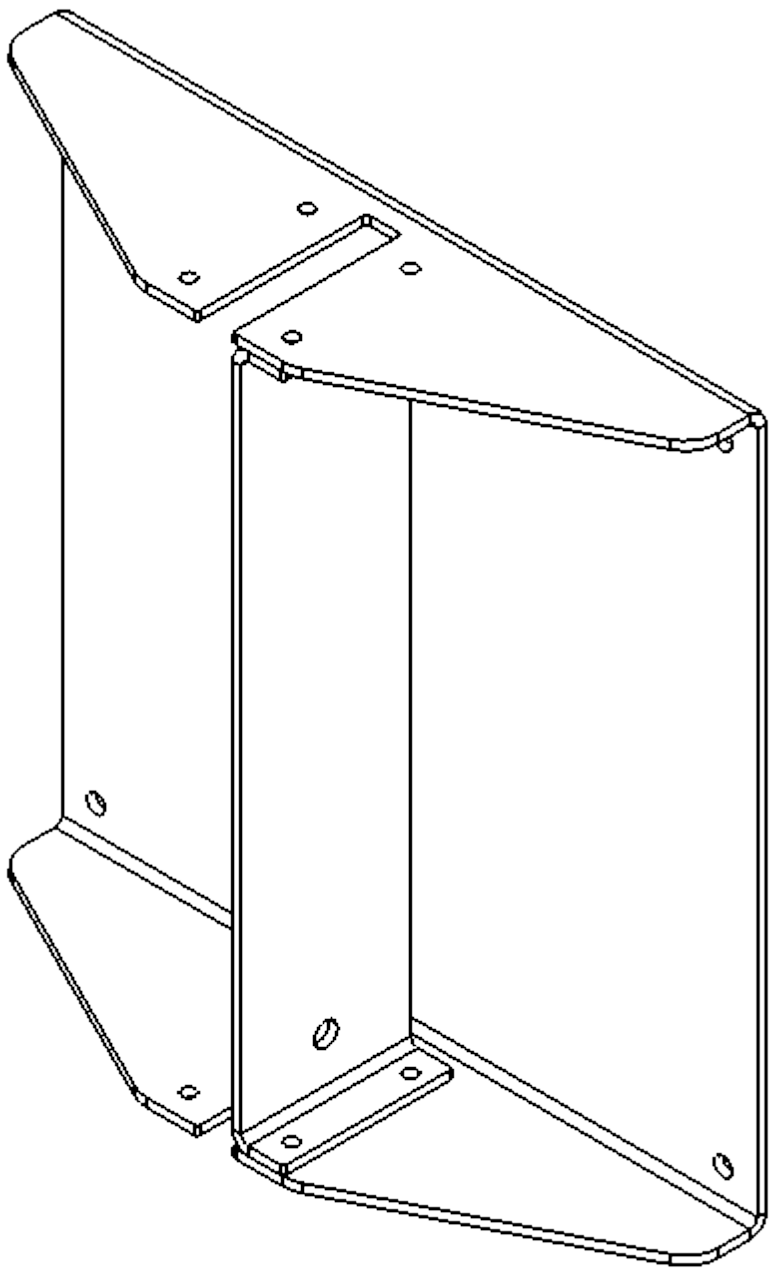
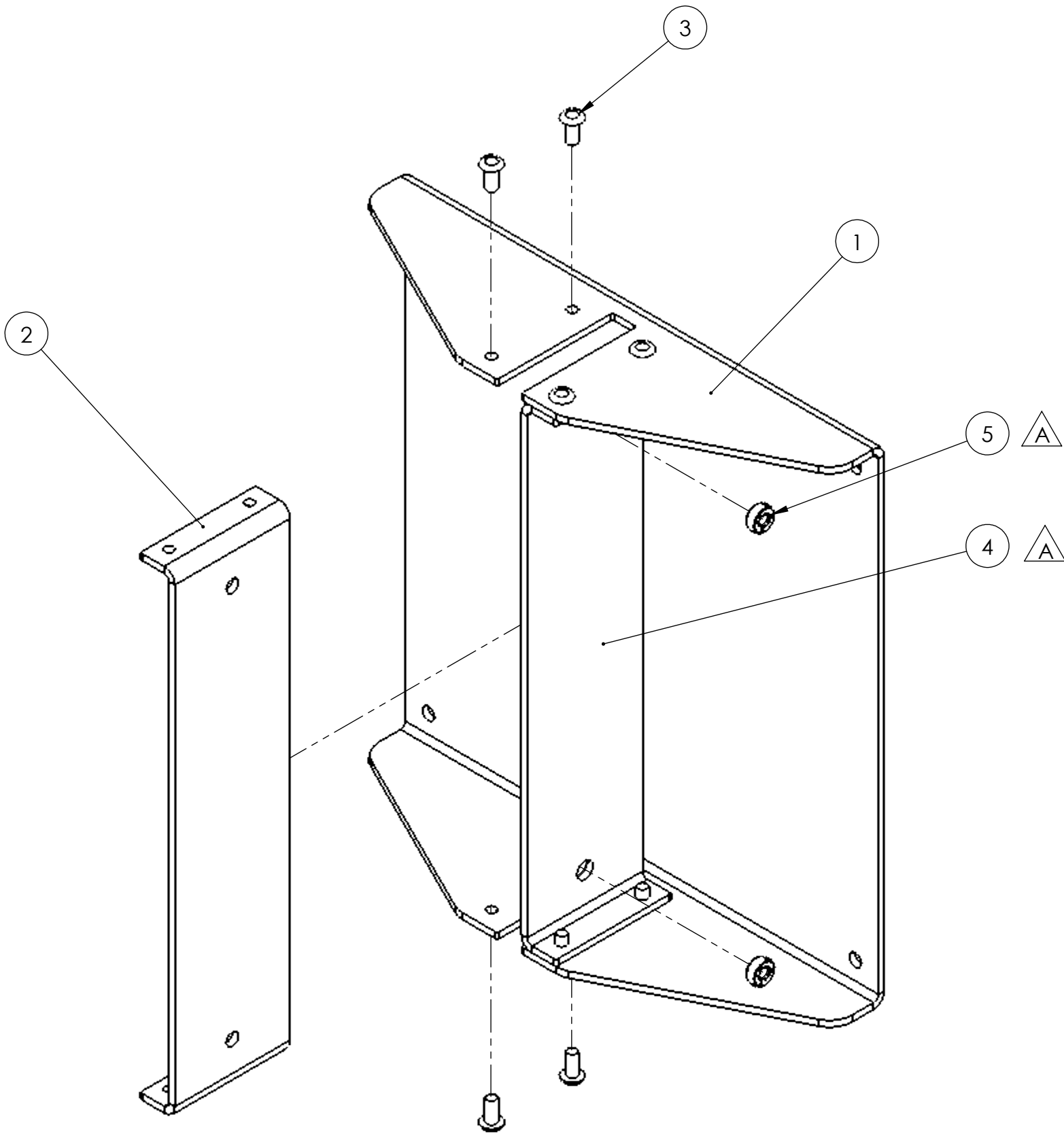


UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .005$  <b>MATERIAL/FINISH:</b>  1" OD x 0.083" Wall x 0.834" ID Carbon Steel Round Tube  DO NOT SCALE DRAWING	VEND	NAME	DATE	<div></div> <div>TITLE: Net Tube, Inner</div>		
	DRAWN	DF	10/2/2024			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE	DWG. NO.	REV
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			<b>C</b>	GE-25217	
SCALE: 1:2		SHEET 1 OF 1				





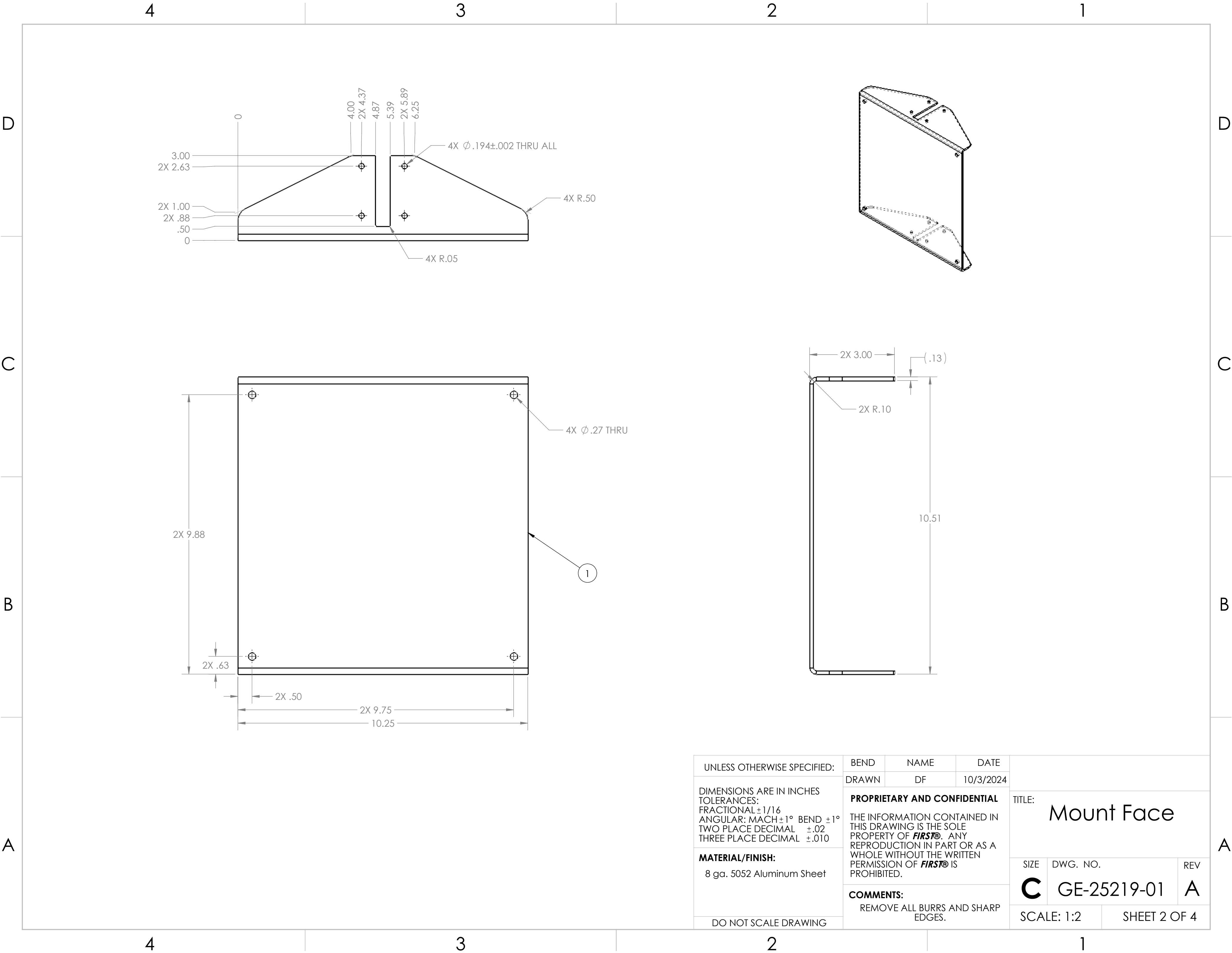
UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.02 THREE PLACE DECIMAL ±.010  <b>MATERIAL/FINISH:</b>  8 ga. 5052 Aluminum Sheet  DO NOT SCALE DRAWING	BEND	NAME	DATE	<div></div> <div>TITLE: Brace, Barge End</div>				
	DRAWN	DF	10/3/2024					
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.				SIZE		DWG. NO.	REV
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.				C		GE-25218	
				SCALE: 1:3		SHEET 1 OF 1		

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
C2, 4-B3	A	Added Items 4 and 5. Added detail views of Item 4 to Sheet 4.	10/10/2024	DAF

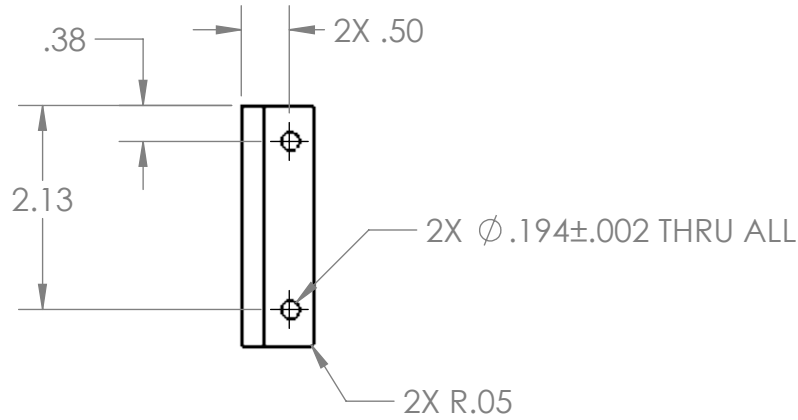
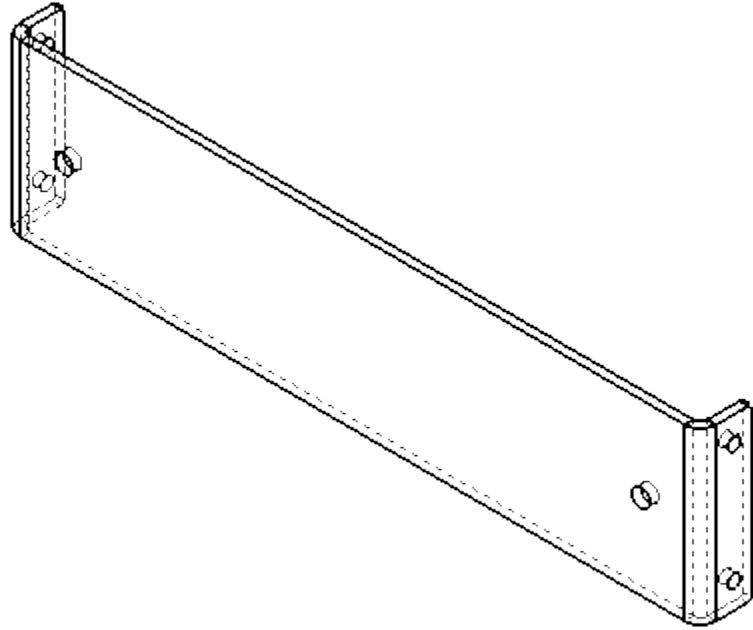
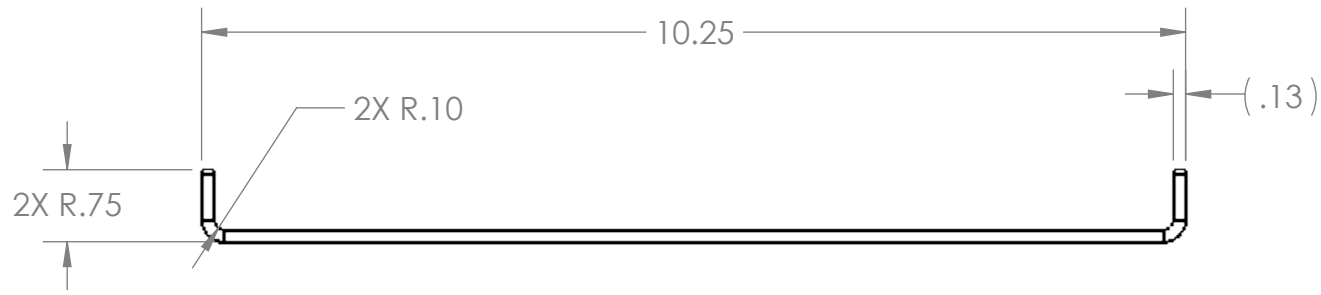


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25219-01	Mount Face	1
2	GE-25219-02	Bracket	1
3	rivet_.1875_.126-.25	3/16" Rivet, .126-.25 Grip Range	8
4	GE-25219-03	Bracket with PEM nuts	1
5	pem_clinchnut_.25_20_.054	1/4-20 self-clinching nut, .054 shank	2

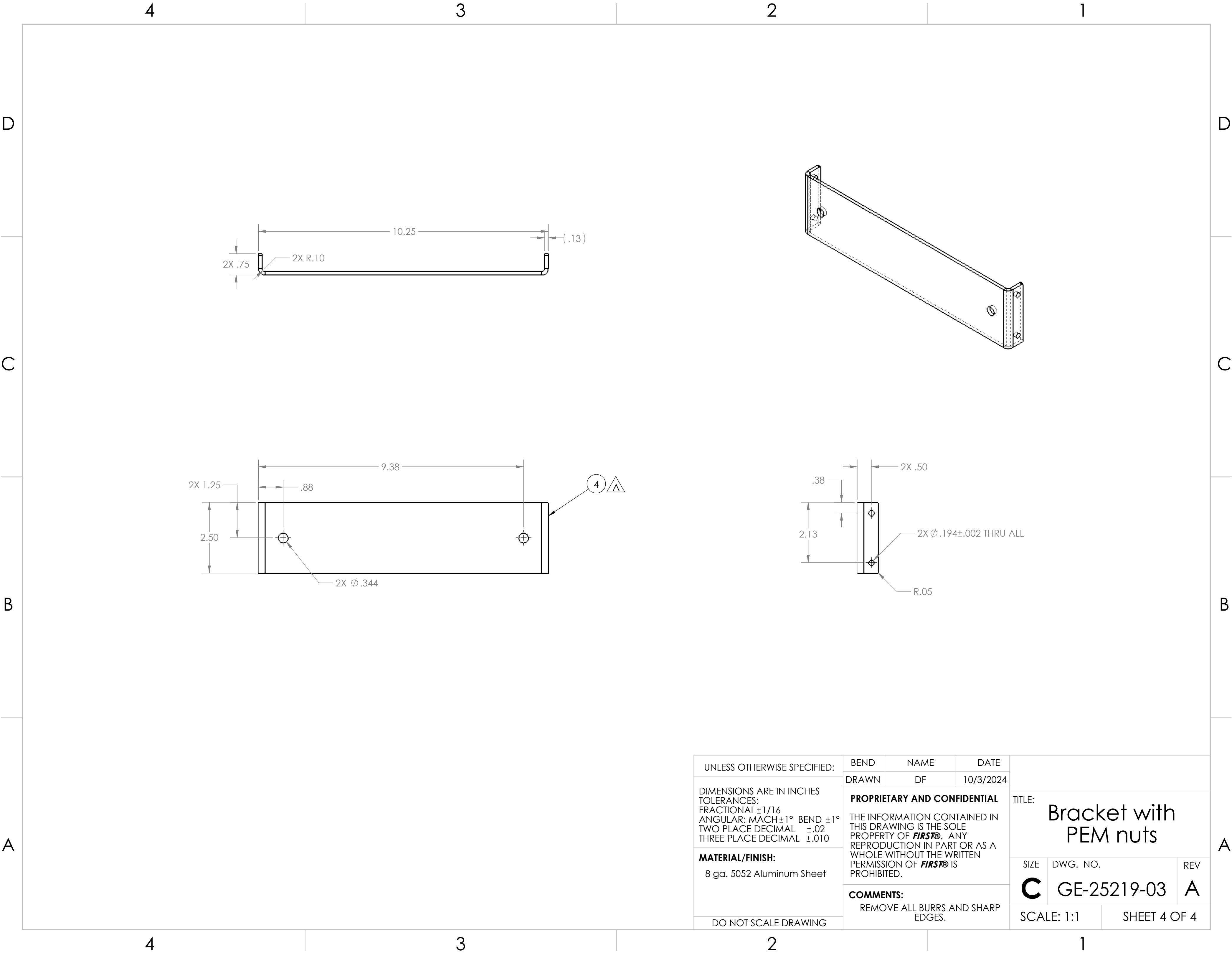
UNLESS OTHERWISE SPECIFIED:	BEND		NAME		DATE		<div></div>		
	DRAWN		DF		10/3/2024				
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.02 THREE PLACE DECIMAL ±.010	PROPRIETARY AND CONFIDENTIAL						TITLE:		
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.						Holder, April Tag		
MATERIAL/FINISH:  8 ga. 5052 Aluminum Sheet	COMMENTS:  REMOVE ALL BURRS AND SHARP EDGES.						SIZE	DWG. NO.	REV
							C	GE-25219	A
DO NOT SCALE DRAWING							SCALE: 1:2		SHEET 1 OF 4



UNLESS OTHERWISE SPECIFIED:	BEND	NAME	DATE	TITLE: <div>Mount Face</div>		
	DRAWN	DF	10/3/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.02 THREE PLACE DECIMAL ±.010	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE	DWG. NO.	REV
				C	GE-25219-01	A
	<b>MATERIAL/FINISH:</b>  8 ga. 5052 Aluminum Sheet	<b>COMMENTS:</b>  REMOVE ALL BURRS AND SHARP EDGES.			SCALE: 1:2	
DO NOT SCALE DRAWING						

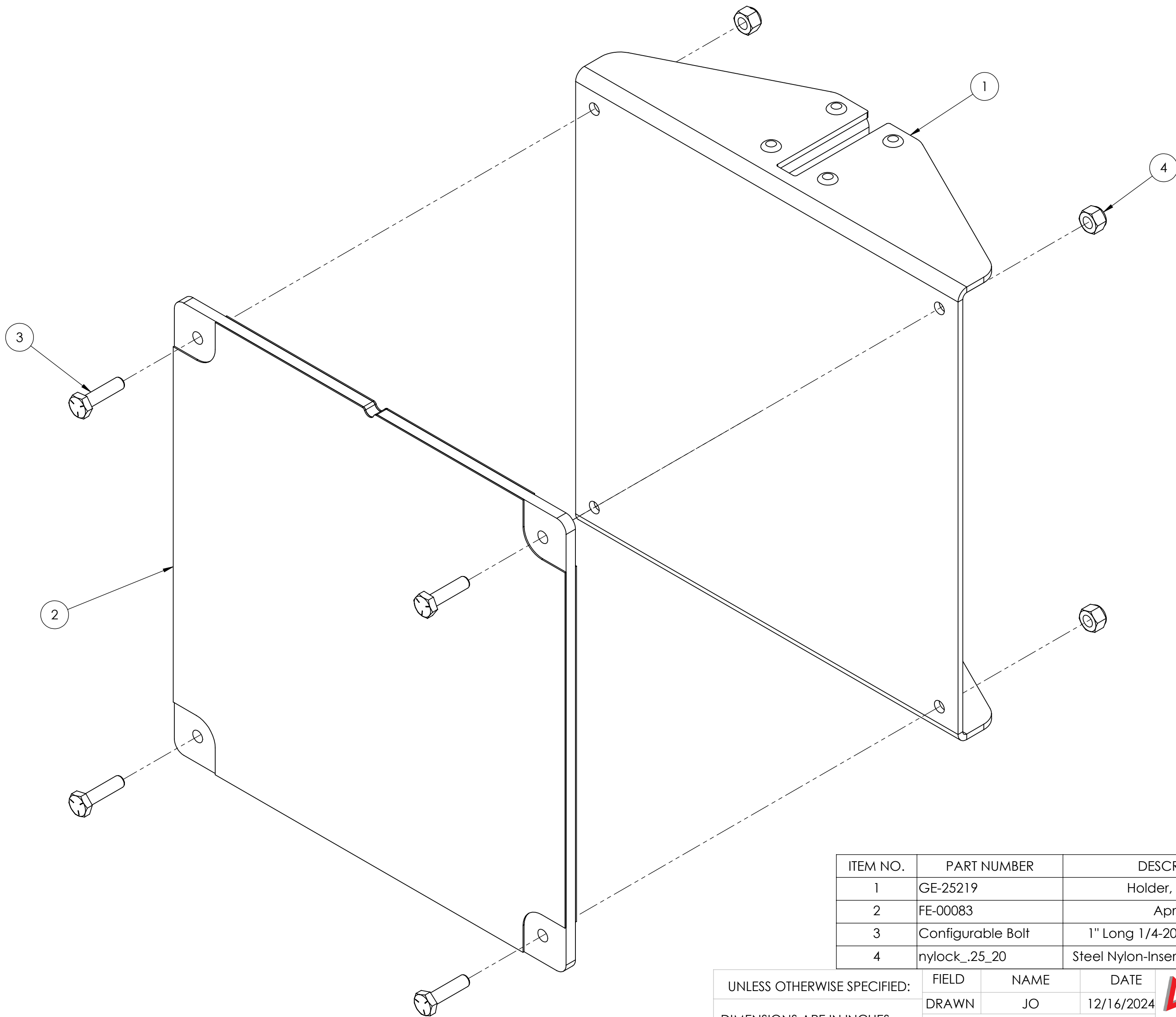


UNLESS OTHERWISE SPECIFIED:	BEND	NAME	DATE	TITLE: <div>Bracket</div>		
	DRAWN	DF	10/3/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.02 THREE PLACE DECIMAL ±.010	PROPRIETARY AND CONFIDENTIAL			SIZE C GE-25219-02 SCALE: 1:1		
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.					
	COMMENTS: REMOVE ALL BURRS AND SHARP EDGES.					
MATERIAL/FINISH: 8 ga. 5052 Aluminum Sheet						
DO NOT SCALE DRAWING						





UNLESS OTHERWISE SPECIFIED:	BEND	NAME	DATE	TITLE: <b>Bracket with PEM nuts</b>		
	DRAWN	DF	10/3/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm$ 1/16 ANGULAR: MACH $\pm$ 1° BEND $\pm$ 1° TWO PLACE DECIMAL $\pm$ .02 THREE PLACE DECIMAL $\pm$ .010  <b>MATERIAL/FINISH:</b> 8 ga. 5052 Aluminum Sheet	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE	DWG. NO.	REV
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			<b>C</b>	GE-25219-03	<b>A</b>
DO NOT SCALE DRAWING	SCALE: 1:1		SHEET 4 OF 4			



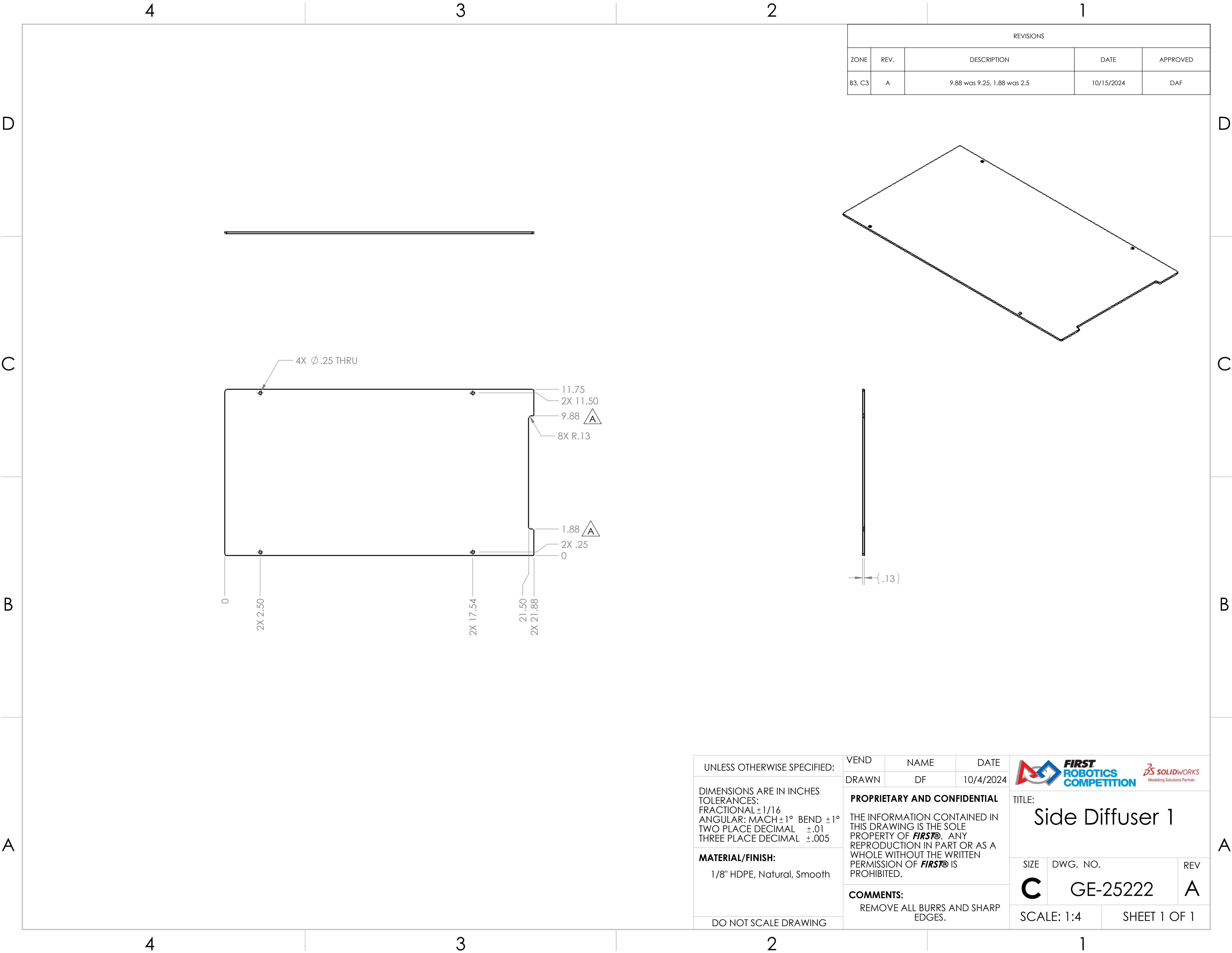


Notes:  
1. AprilTag ID#'s 4, 5, 14, 15 will be used in this assembly.



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25219	Holder, April Tag	1
2	FE-00083	AprilTag	1
3	Configurable Bolt	1" Long 1/4-20 Hex Head Bolt	4
4	nylock_.25_20	Steel Nylon-Insert Locknut, 1/4"-20	4

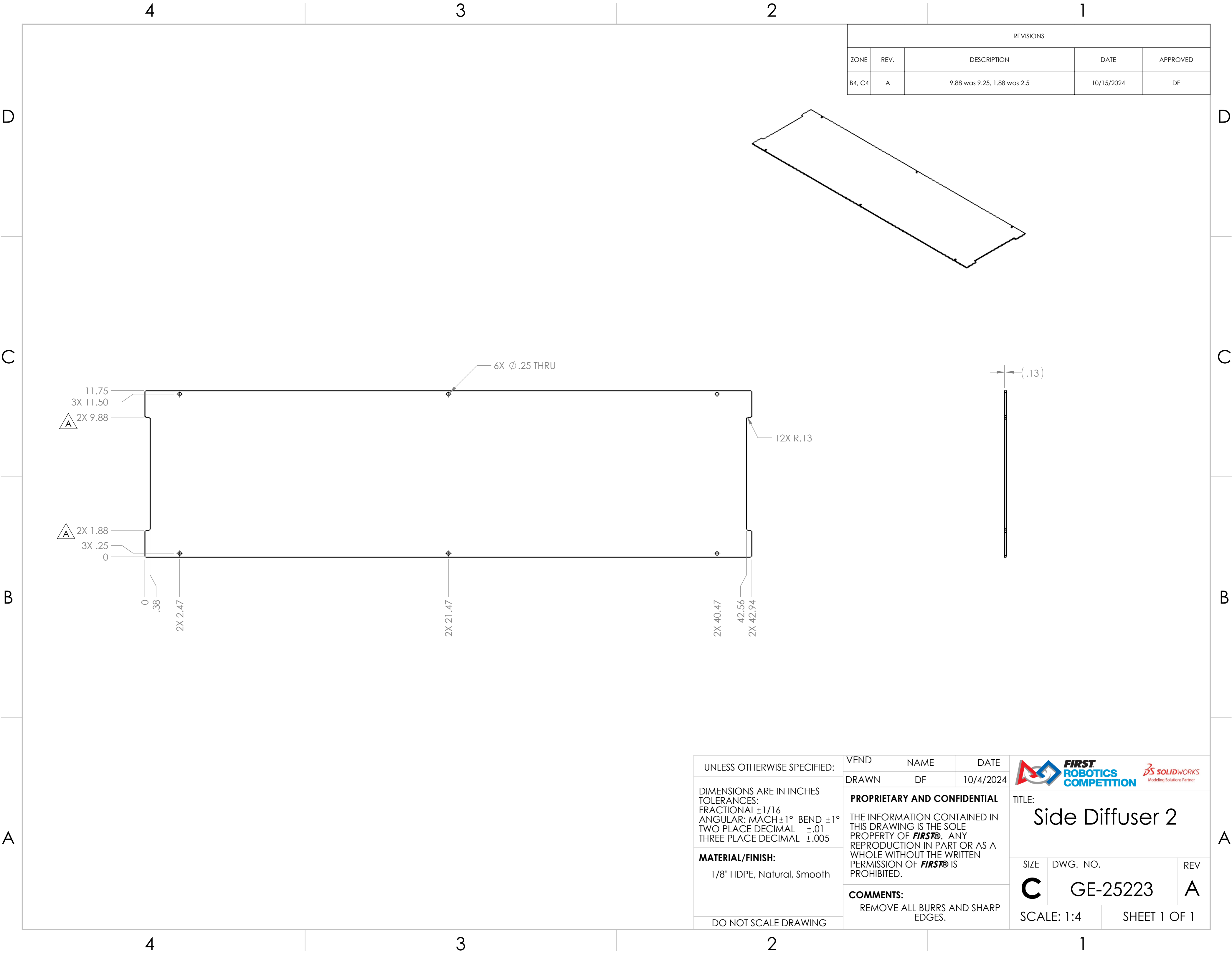
UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/2 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.50	FIELD	NAME	DATE	<div></div>		
	DRAWN	JO	12/16/2024			
	TITLE:  April Tag Assembly, Truss					
MATERIAL/FINISH:	PROPRIETARY AND CONFIDENTIAL			SIZE	DWG. NO.	REV
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			C	GE-25220	
DO NOT SCALE DRAWING	COMMENTS: REMOVE ALL BURRS AND SHARP EDGES.			SCALE: 2:3		SHEET 1 OF 1







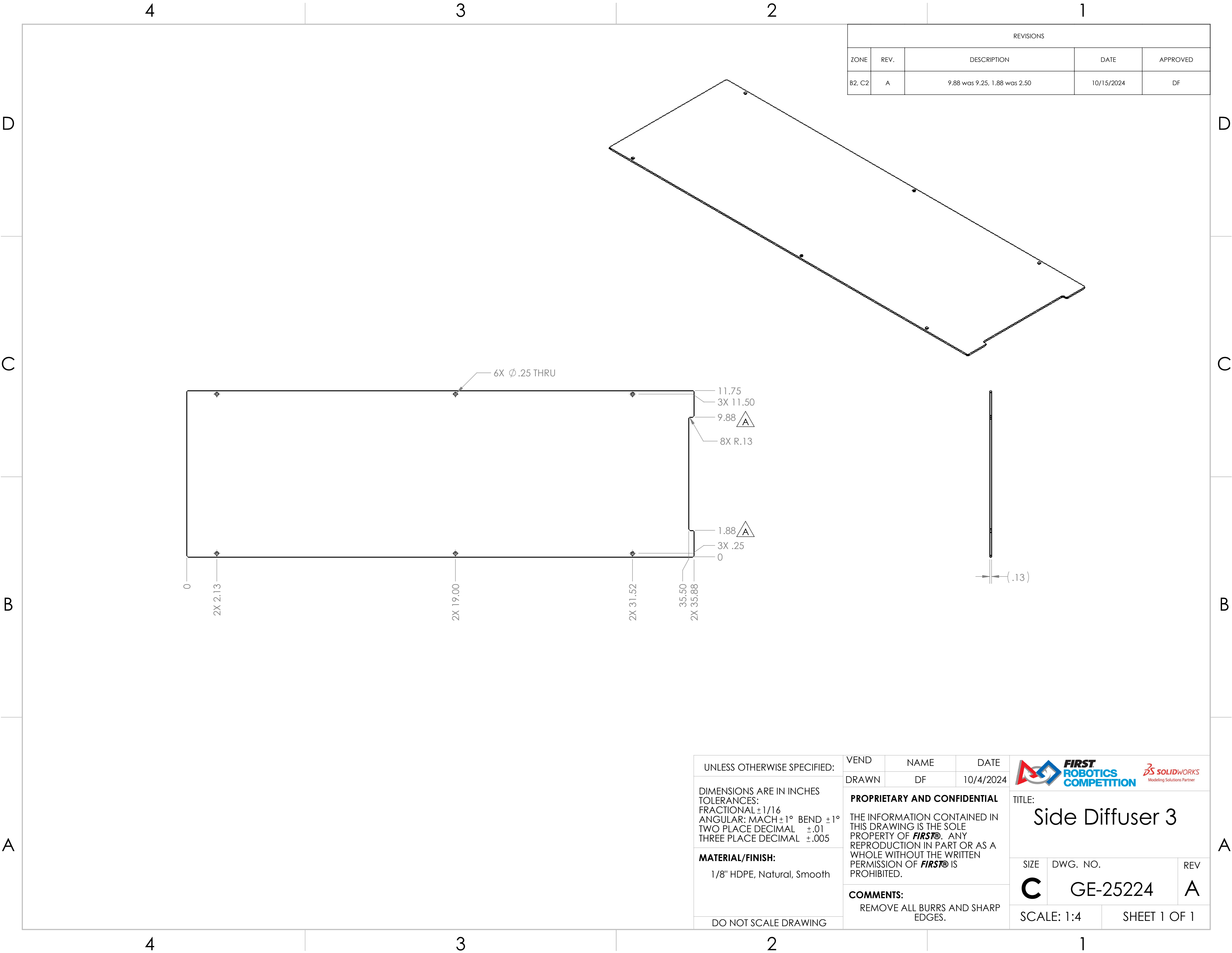
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
B3, C3	A	9.88 was 9.25, 1.88 was 2.5	10/15/2024	DAF

UNLESS OTHERWISE SPECIFIED:	VEND	NAME	DATE	<div></div>		
	DRAWN	DF	10/4/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	PROPRIETARY AND CONFIDENTIAL			TITLE:		
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			Side Diffuser 1		
	MATERIAL/FINISH:  1/8" HDPE, Natural, Smooth			SIZE	DWG. NO.	REV
DO NOT SCALE DRAWING	COMMENTS:  REMOVE ALL BURRS AND SHARP EDGES.			C	GE-25222	A
				SCALE: 1:4		SHEET 1 OF 1





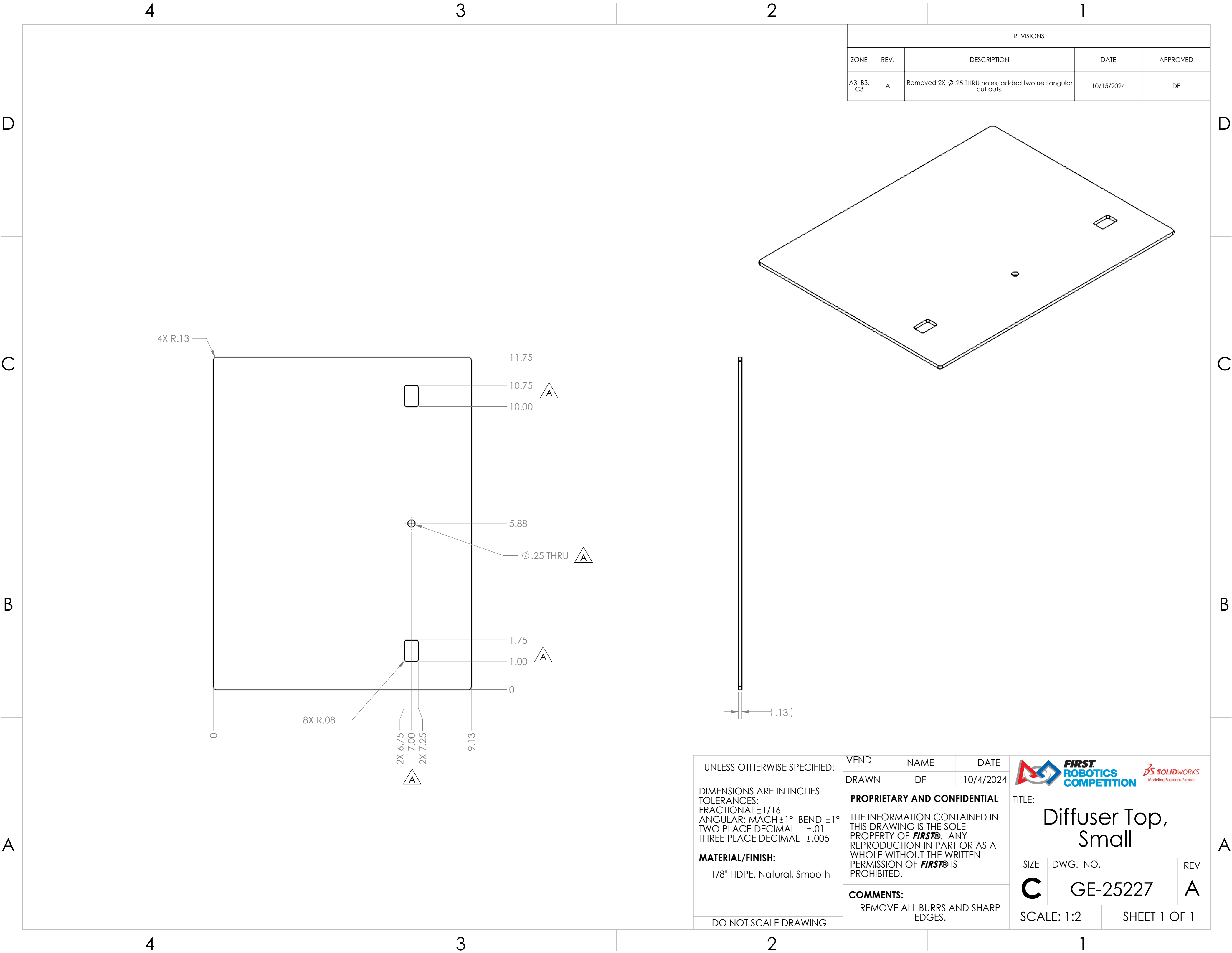
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
B4, C4	A	9.88 was 9.25, 1.88 was 2.5	10/15/2024	DF

UNLESS OTHERWISE SPECIFIED:	VEND	NAME	DATE	<div></div> <div>TITLE: Side Diffuser 2</div>					
	DRAWN	DF	10/4/2024						
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	PROPRIETARY AND CONFIDENTIAL			SIZE		DWG. NO.		REV	
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.								
	COMMENTS:			C		GE-25223		A	
REMOVE ALL BURRS AND SHARP EDGES.									
MATERIAL/FINISH:	1/8" HDPE, Natural, Smooth			SCALE: 1:4		SHEET 1 OF 1			
DO NOT SCALE DRAWING									





REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
B2, C2	A	9.88 was 9.25, 1.88 was 2.50	10/15/2024	DF

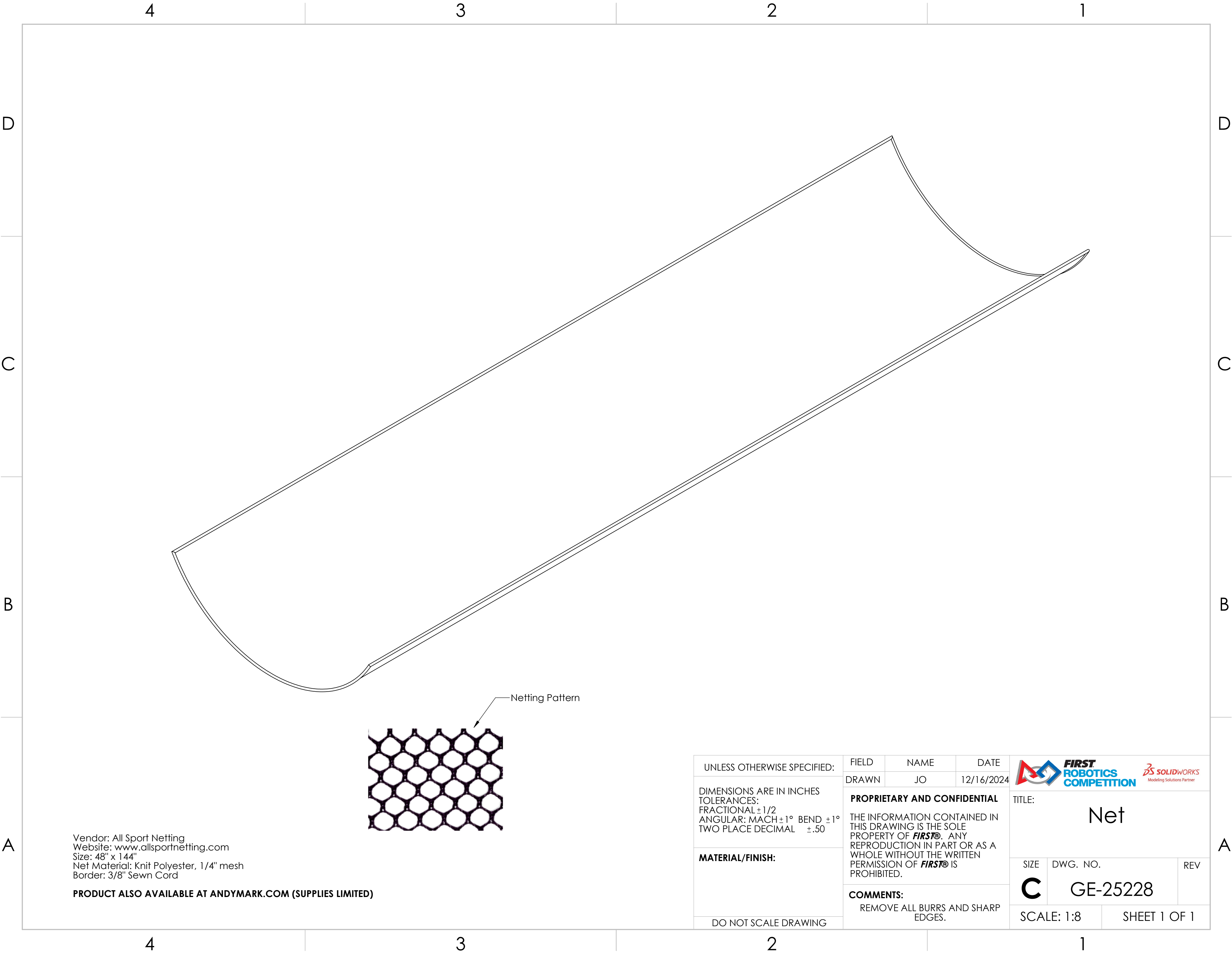
UNLESS OTHERWISE SPECIFIED:	VEND	NAME	DATE	<div><div></div><div>TITLE: Side Diffuser 3</div></div>		
	DRAWN	DF	10/4/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	PROPRIETARY AND CONFIDENTIAL			THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.		
	COMMENTS:					
MATERIAL/FINISH:	1/8" HDPE, Natural, Smooth			SIZE	DWG. NO.	REV
				C	GE-25224	A
DO NOT SCALE DRAWING				SCALE: 1:4		SHEET 1 OF 1



REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
A3, B3, C3	A	Removed 2X Ø.25 THRU holes, added two rectangular cut outs.	10/15/2024	DF



UNLESS OTHERWISE SPECIFIED:	VEND	NAME	DATE	<div></div>		
	DRAWN	DF	10/4/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	PROPRIETARY AND CONFIDENTIAL			TITLE:  Diffuser Top, Small		
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.					
	MATERIAL/FINISH:  1/8" HDPE, Natural, Smooth	COMMENTS:  REMOVE ALL BURRS AND SHARP EDGES.			SIZE  C	DWG. NO.  GE-25227
DO NOT SCALE DRAWING				SCALE: 1:2		SHEET 1 OF 1

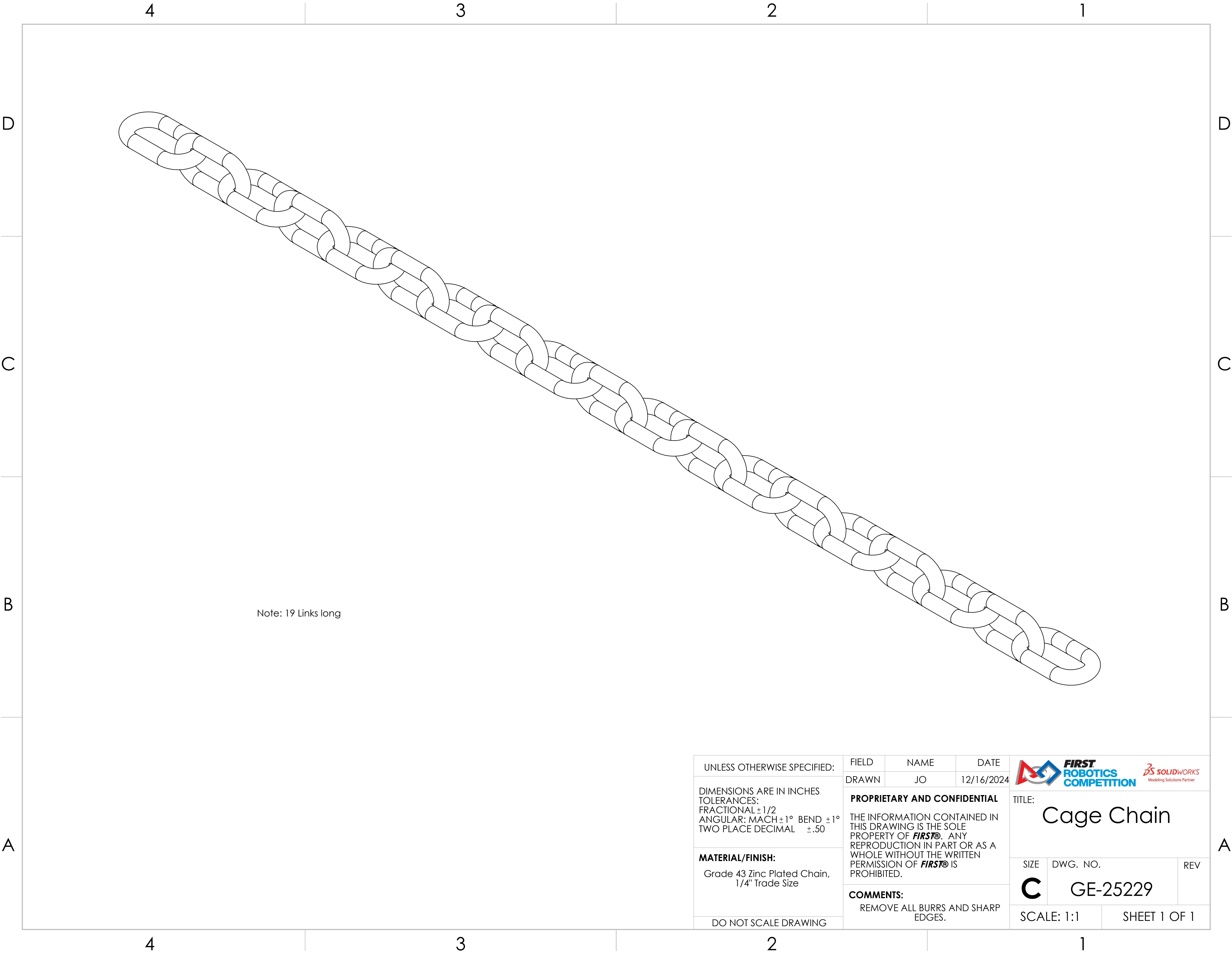






Vendor: All Sport Netting  
Website: [www.allsportnetting.com](http://www.allsportnetting.com)  
Size: 48" x 144"  
Net Material: Knit Polyester, 1/4" mesh  
Border: 3/8" Sewn Cord

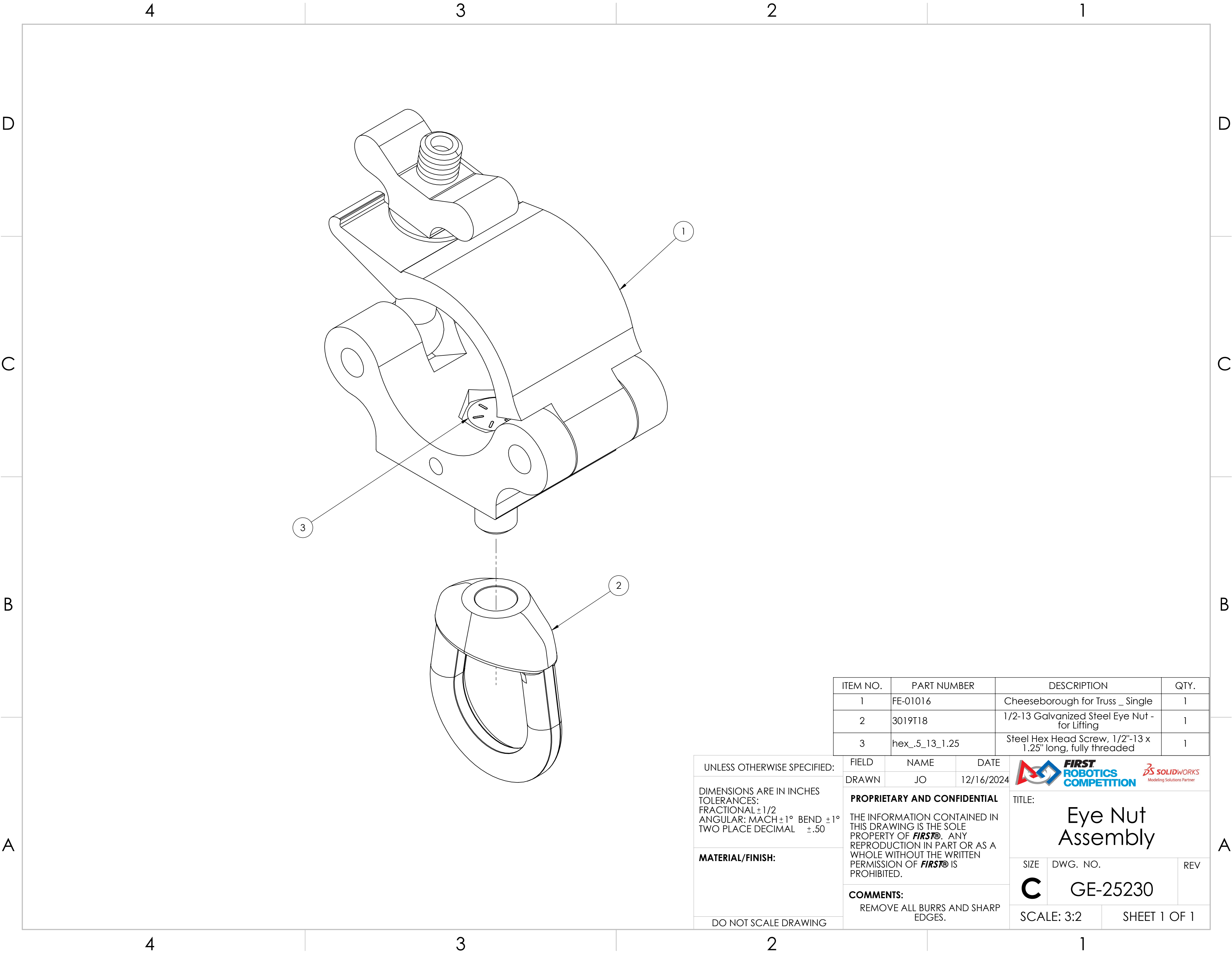
PRODUCT ALSO AVAILABLE AT [ANDYMARK.COM](http://ANDYMARK.COM) (SUPPLIES LIMITED)

UNLESS OTHERWISE SPECIFIED:	FIELD	NAME	DATE	<div></div>		
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/2$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .50$	DRAWN	JO	12/16/2024	TITLE:  Net		
MATERIAL/FINISH:	PROPRIETARY AND CONFIDENTIAL  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE	DWG. NO.	REV
	COMMENTS: REMOVE ALL BURRS AND SHARP EDGES.			C	GE-25228	
DO NOT SCALE DRAWING				SCALE: 1:8		SHEET 1 OF 1



Note: 19 Links long

UNLESS OTHERWISE SPECIFIED:		FIELD	NAME	DATE	 	
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/2$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .50$		DRAWN	JO	12/16/2024		
<b>MATERIAL/FINISH:</b> Grade 43 Zinc Plated Chain, 1/4" Trade Size		<b>PROPRIETARY AND CONFIDENTIAL</b> THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			TITLE: Cage Chain	
DO NOT SCALE DRAWING		<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			SIZE <b>C</b>	DWG. NO. GE-25229
					REV	
					SCALE: 1:1	
					SHEET 1 OF 1	



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-01016	Cheeseborough for Truss _ Single	1
2	3019T18	1/2-13 Galvanized Steel Eye Nut - for Lifting	1
3	hex_.5_13_1.25	Steel Hex Head Screw, 1/2"-13 x 1.25" long, fully threaded	1

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/2$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .50$

MATERIAL/FINISH:

DO NOT SCALE DRAWING

FIELD

DRAWN

NAME

JO

DATE



12/16/2024

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF **FIRST®**. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF **FIRST®** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.



TITLE:

Eye Nut Assembly

SIZE

DWG. NO.

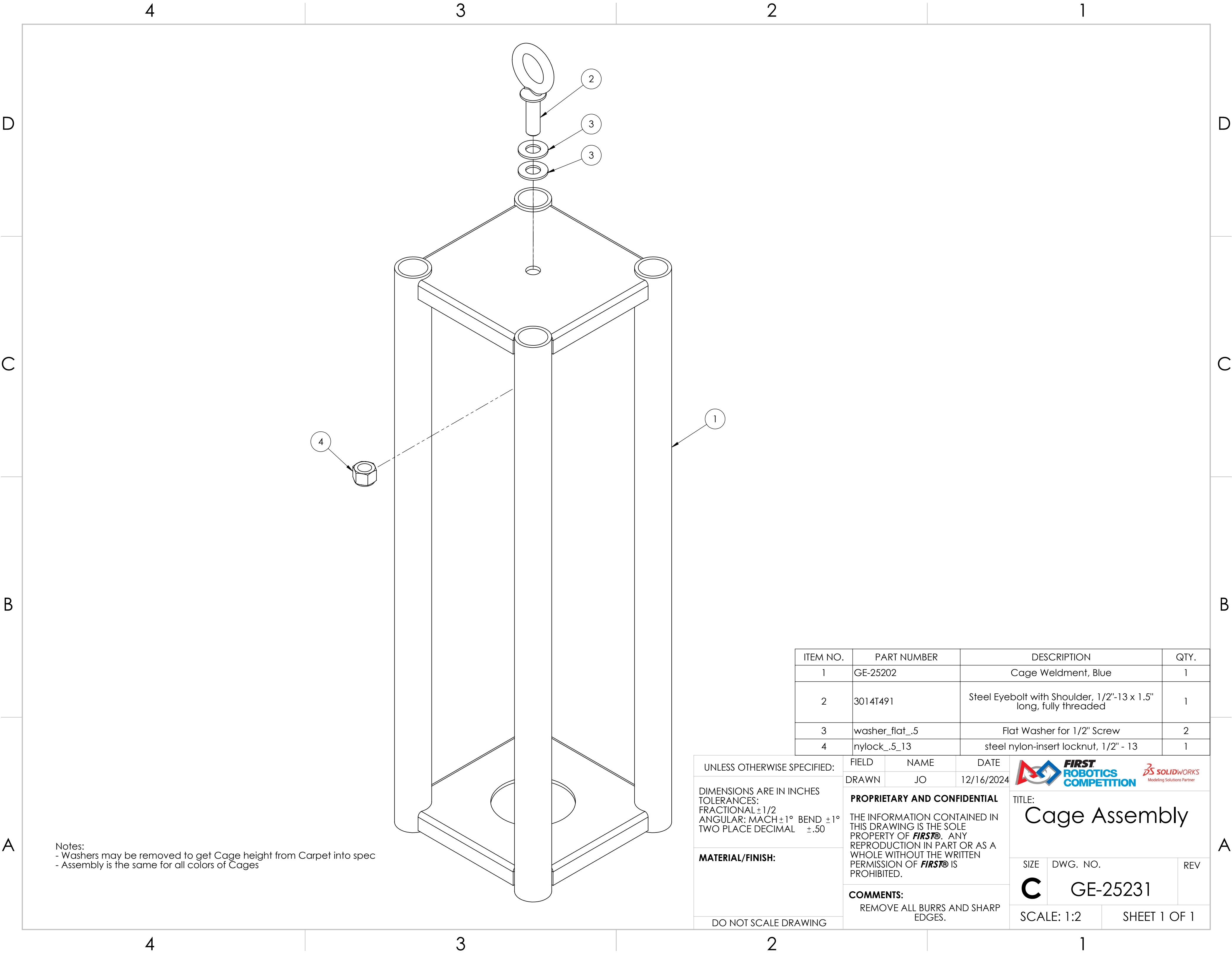
REV

C

GE-25230

SCALE: 3:2

SHEET 1 OF 1



Notes:  
- Washers may be removed to get Cage height from Carpet into spec  
- Assembly is the same for all colors of Cages

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25202	Cage Weldment, Blue	1
2	3014T491	Steel Eyebolt with Shoulder, 1/2"-13 x 1.5" long, fully threaded	1
3	washer_flat_.5	Flat Washer for 1/2" Screw	2
4	nylock_.5_13	steel nylon-insert locknut, 1/2" - 13	1

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/2$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .50$

MATERIAL/FINISH:

DO NOT SCALE DRAWING

FIELD

DRAWN

NAME

JO

DATE



12/16/2024

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF **FIRST®**. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF **FIRST®** IS PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.



TITLE:

Cage Assembly

SIZE

DWG. NO.

REV

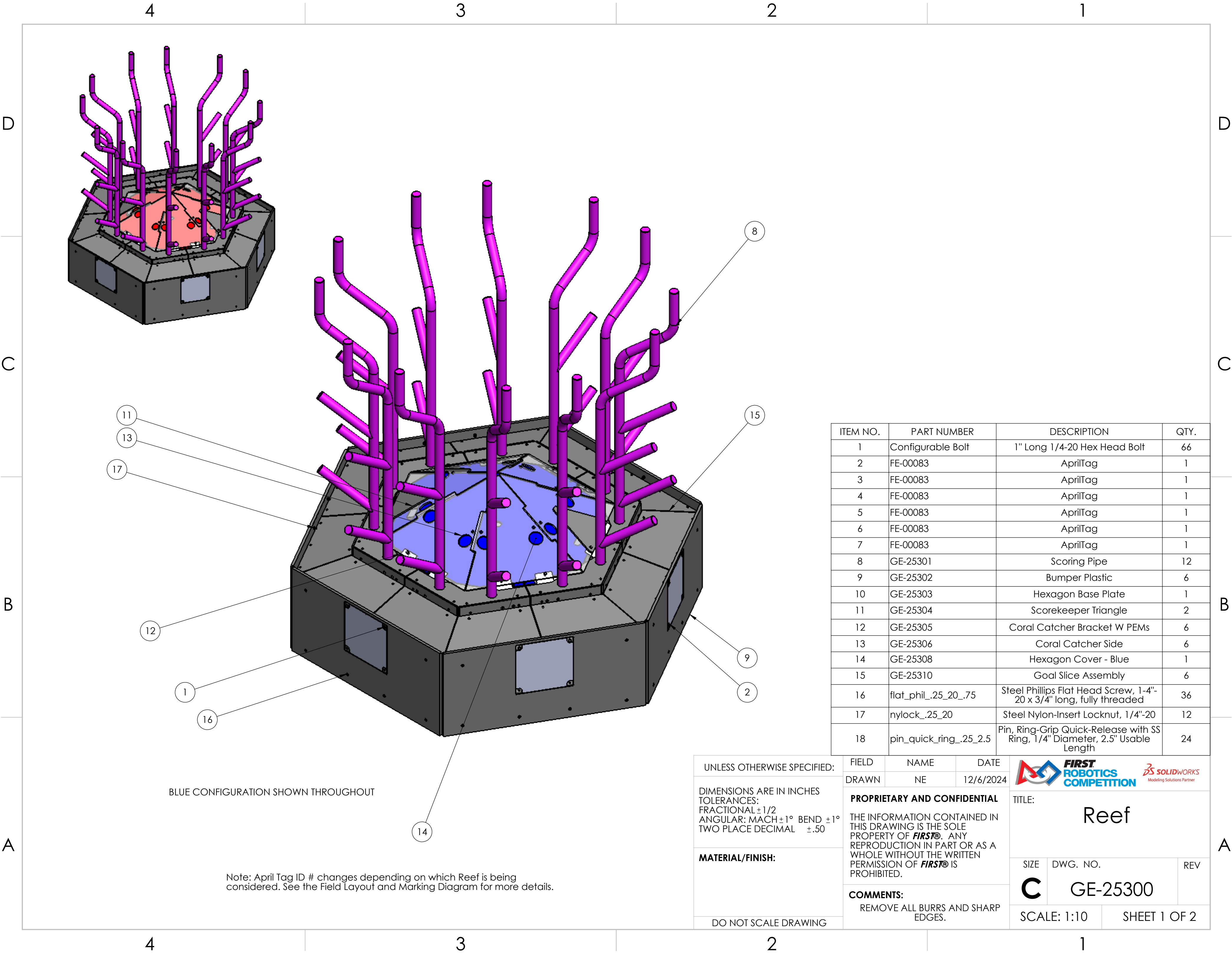
C

GE-25231

SCALE: 1:2

SHEET 1 OF 1





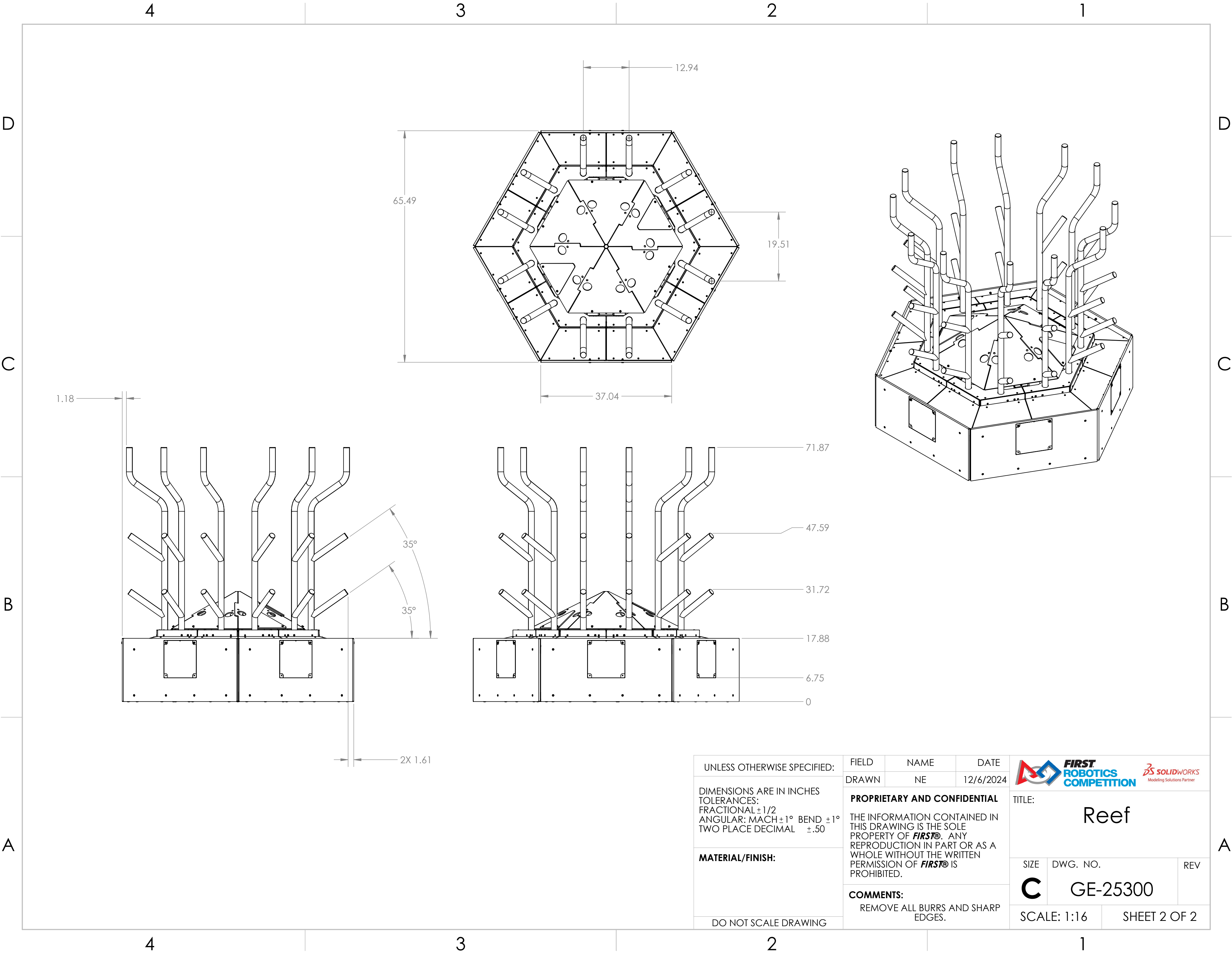


BLUE CONFIGURATION SHOWN THROUGHOUT

Note: April Tag ID # changes depending on which Reef is being considered. See the Field Layout and Marking Diagram for more details.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	Configurable Bolt	1" Long 1/4-20 Hex Head Bolt	66
2	FE-00083	AprilTag	1
3	FE-00083	AprilTag	1
4	FE-00083	AprilTag	1
5	FE-00083	AprilTag	1
6	FE-00083	AprilTag	1
7	FE-00083	AprilTag	1
8	GE-25301	Scoring Pipe	12
9	GE-25302	Bumper Plastic	6
10	GE-25303	Hexagon Base Plate	1
11	GE-25304	Scorekeeper Triangle	2
12	GE-25305	Coral Catcher Bracket W PEMs	6
13	GE-25306	Coral Catcher Side	6
14	GE-25308	Hexagon Cover - Blue	1
15	GE-25310	Goal Slice Assembly	6
16	flat_phil_.25_20_.75	Steel Phillips Flat Head Screw, 1-4"-20 x 3/4" long, fully threaded	36
17	nylock_.25_20	Steel Nylon-Insert Locknut, 1/4"-20	12
18	pin_quick_ring_.25_2.5	Pin, Ring-Grip Quick-Release with SS Ring, 1/4" Diameter, 2.5" Usable Length	24

UNLESS OTHERWISE SPECIFIED:		FIELD	NAME	DATE	<div><div>FIRST ROBOTICS COMPETTITION</div></div> <div><div>SOLIDWORKS Modeling Solutions Partner</div></div>	
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/2 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.50		DRAWN	NE	12/6/2024	TITLE:  Reef	
MATERIAL/FINISH:		<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE DWG. NO. REV	
DO NOT SCALE DRAWING					C GE-25300	
		<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			SCALE: 1:10 SHEET 1 OF 2	



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/2$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .50$

MATERIAL/FINISH:

DO NOT SCALE DRAWING

FIELD	NAME	DATE
DRAWN	NE	12/6/2024

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF **FIRST®**. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF **FIRST®** IS PROHIBITED.

COMMENTS:  
REMOVE ALL BURRS AND SHARP EDGES.

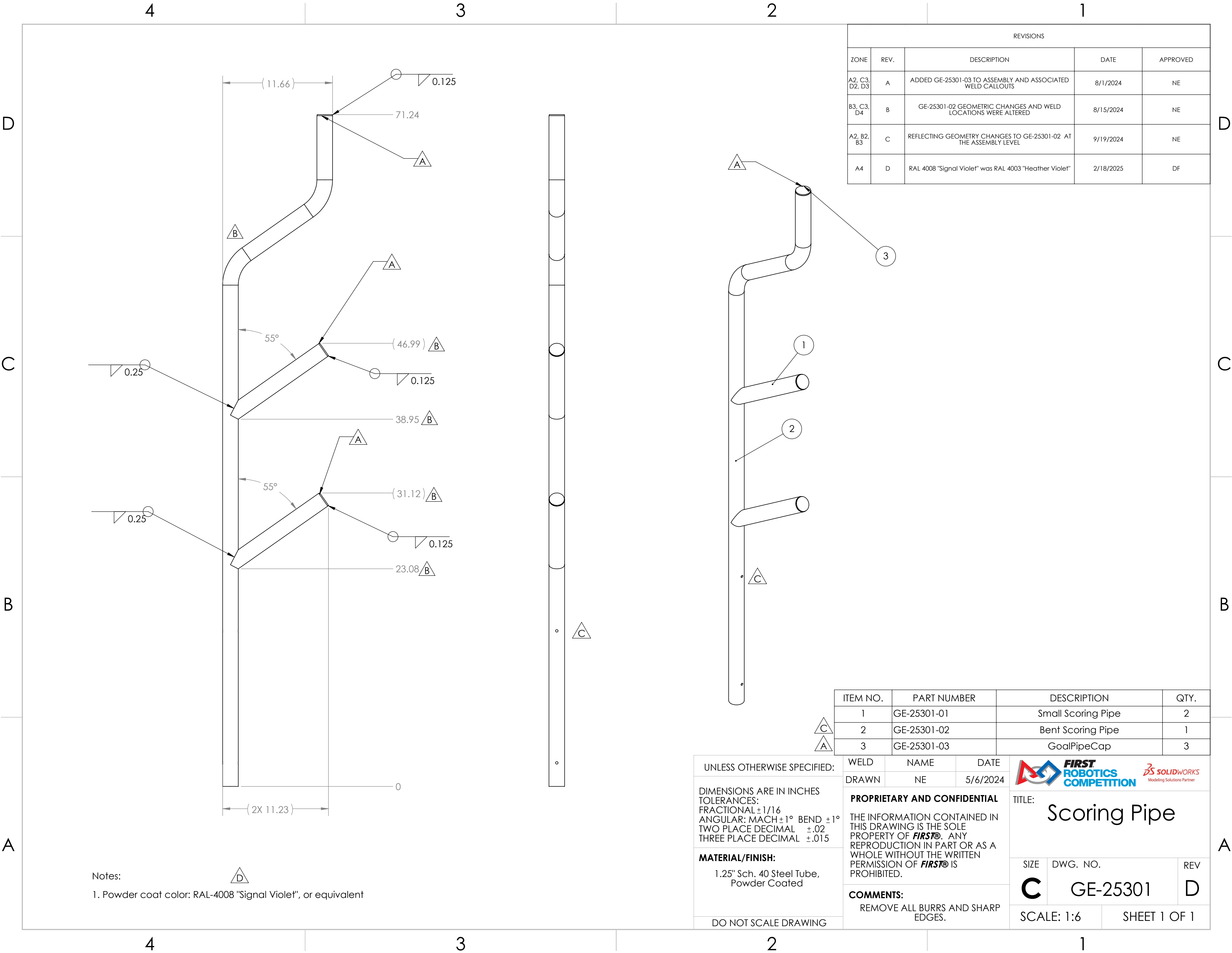


TITLE:  
**Reef**

SIZE	DWG. NO.	REV
<b>C</b>	GE-25300	



SCALE: 1:16      SHEET 2 OF 2





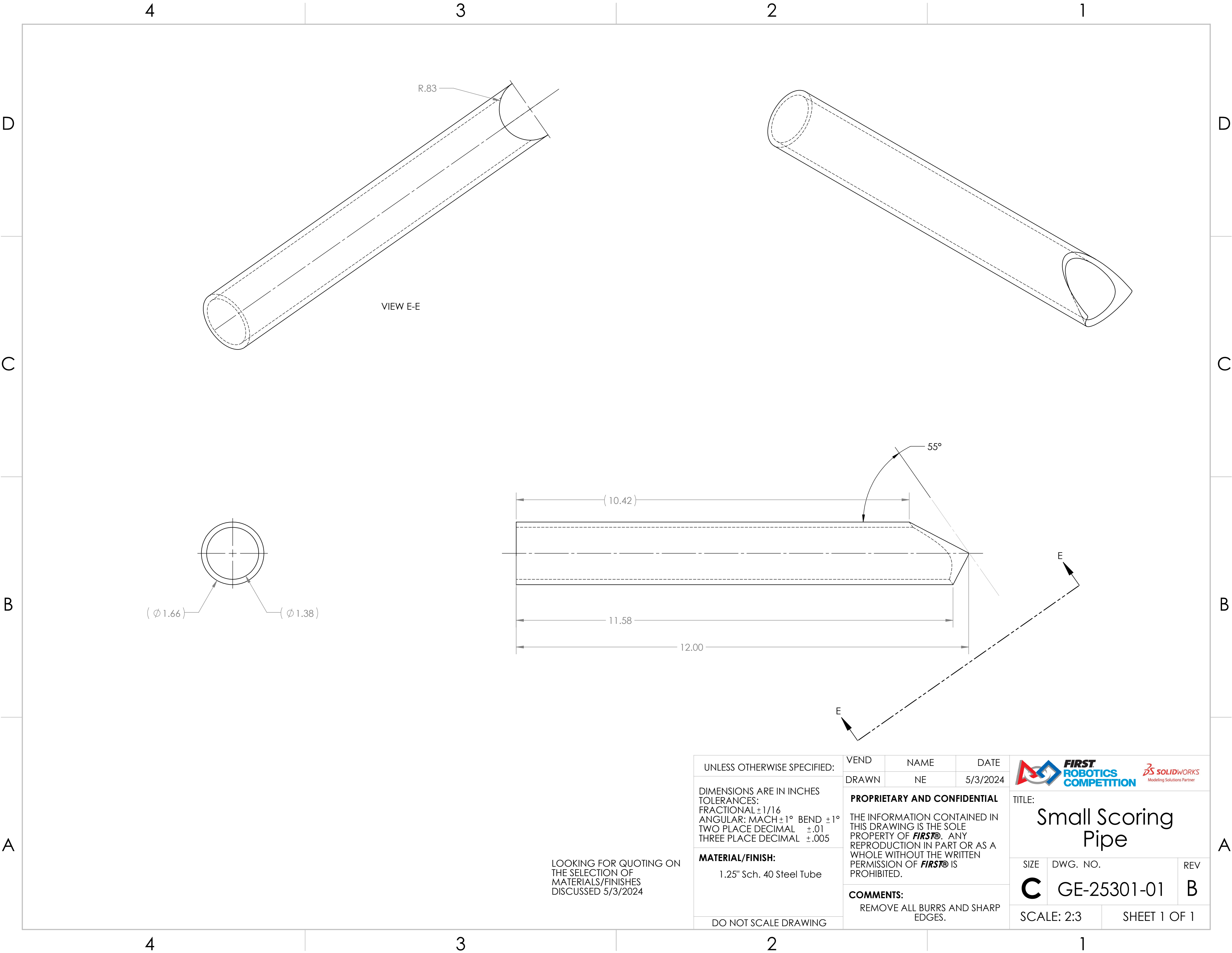
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
A2, C3, D2, D3	A	ADDED GE-25301-03 TO ASSEMBLY AND ASSOCIATED WELD CALLOUTS	8/1/2024	NE
B3, C3, D4	B	GE-25301-02 GEOMETRIC CHANGES AND WELD LOCATIONS WERE ALTERED	8/15/2024	NE
A2, B2, B3	C	REFLECTING GEOMETRY CHANGES TO GE-25301-02 AT THE ASSEMBLY LEVEL	9/19/2024	NE
A4	D	RAL 4008 "Signal Violet" was RAL 4003 "Heather Violet"	2/18/2025	DF

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25301-01	Small Scoring Pipe	2
2	GE-25301-02	Bent Scoring Pipe	1
3	GE-25301-03	GoalPipeCap	3



UNLESS OTHERWISE SPECIFIED:		WELD	NAME	DATE	<div><div></div><div><div>FIRST ROBOTICS COMPETITION</div></div></div> <div></div>	
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH±1° BEND ±1° TWO PLACE DECIMAL ±.02 THREE PLACE DECIMAL ±.015		DRAWN	NE	5/6/2024	<div>TITLE:  Scoring Pipe</div> <div><div>SIZE</div><div>DWG. NO.</div><div>REV</div></div> <div><div>C</div><div>GE-25301</div><div>D</div></div> <div><div>SCALE: 1:6</div><div>SHEET 1 OF 1</div></div>	
MATERIAL/FINISH:  1.25" Sch. 40 Steel Tube, Powder Coated		PROPRIETARY AND CONFIDENTIAL  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.				
DO NOT SCALE DRAWING		COMMENTS:  REMOVE ALL BURRS AND SHARP EDGES.				

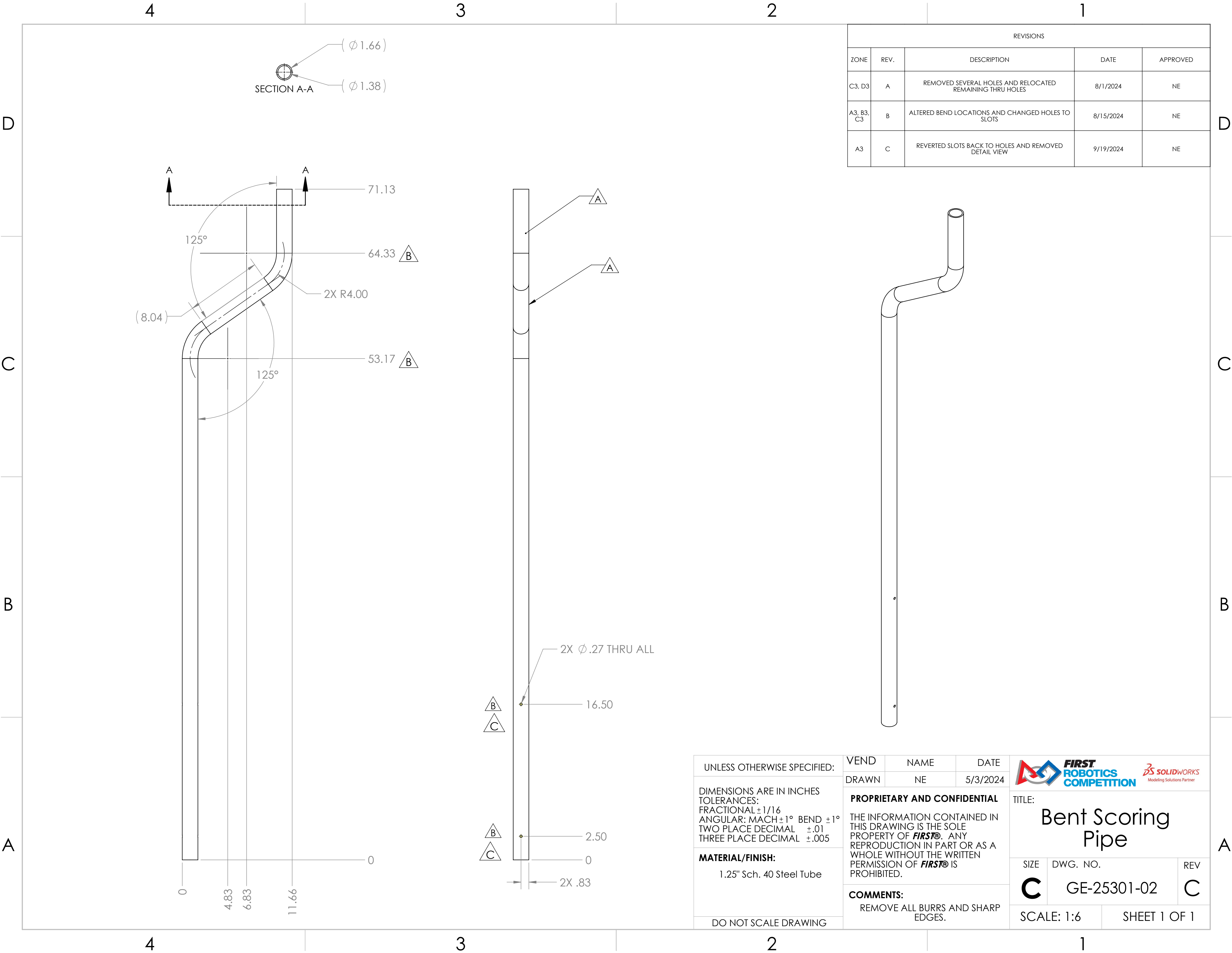
Notes:

1. Powder coat color: RAL-4008 "Signal Violet", or equivalent





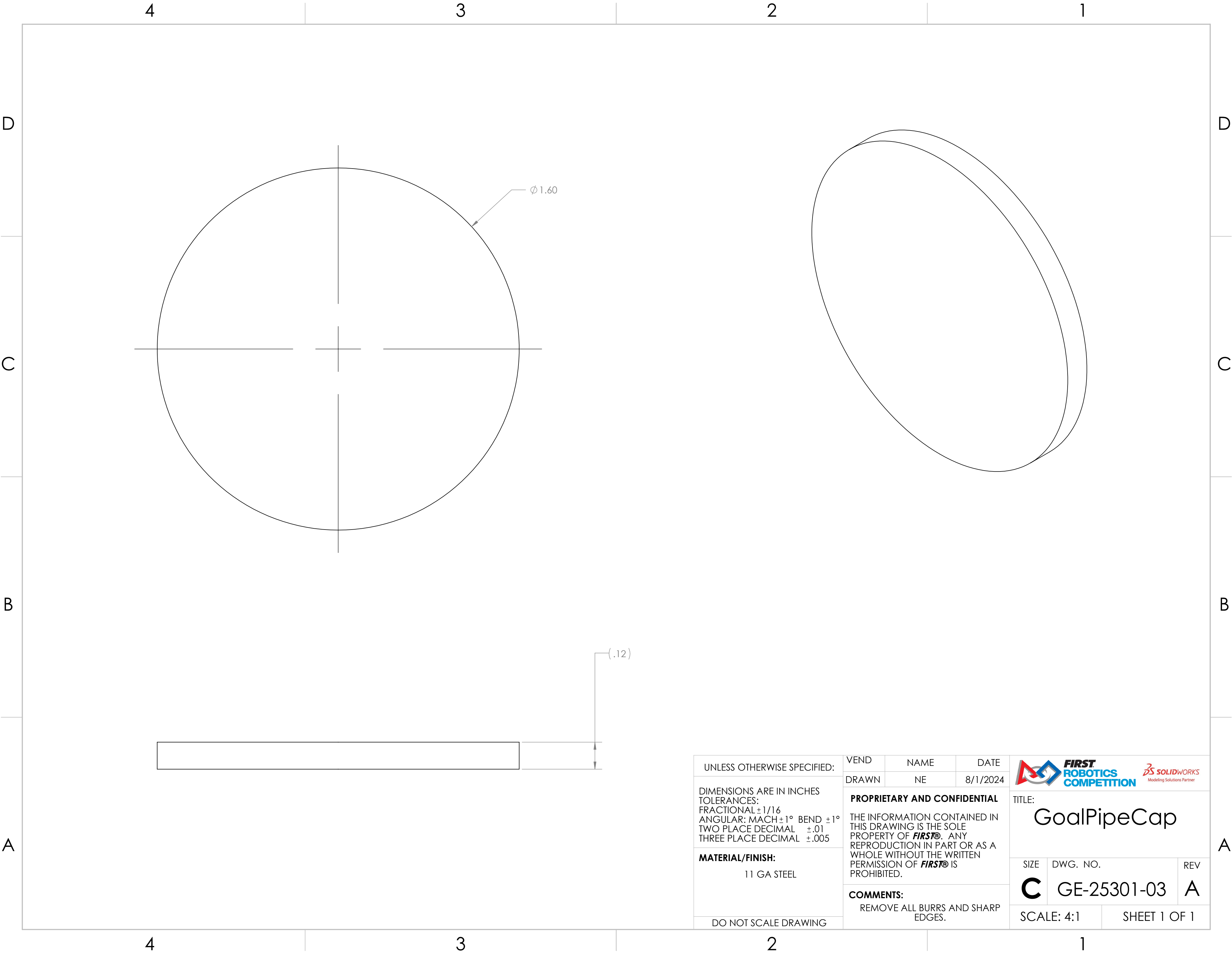
LOOKING FOR QUOTING ON  
THE SELECTION OF  
MATERIALS/FINISHES  
DISCUSSED 5/3/2024

UNLESS OTHERWISE SPECIFIED:	VEND	NAME	DATE	<div></div>		
	DRAWN	NE	5/3/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	PROPRIETARY AND CONFIDENTIAL			TITLE:  Small Scoring Pipe		
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.					
	MATERIAL/FINISH:  1.25" Sch. 40 Steel Tube	COMMENTS:			SIZE	DWG. NO.
REMOVE ALL BURRS AND SHARP EDGES.			C	GE-25301-01	B	
DO NOT SCALE DRAWING				SCALE: 2:3		SHEET 1 OF 1



REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
C3, D3	A	REMOVED SEVERAL HOLES AND RELOCATED REMAINING THRU HOLES	8/1/2024	NE
A3, B3, C3	B	ALTERED BEND LOCATIONS AND CHANGED HOLES TO SLOTS	8/15/2024	NE
A3	C	REVERTED SLOTS BACK TO HOLES AND REMOVED DETAIL VIEW	9/19/2024	NE

UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005  <b>MATERIAL/FINISH:</b>  1.25" Sch. 40 Steel Tube  DO NOT SCALE DRAWING	VEND	NAME	DATE	<div></div>		
	DRAWN	NE	5/3/2024			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.  <b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.					
TITLE:			Bent Scoring Pipe			
SIZE	DWG. NO.		REV			
C	GE-25301-02		C			
SCALE: 1:6		SHEET 1 OF 1				



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

**MATERIAL/FINISH:**  
11 GA STEEL

DO NOT SCALE DRAWING

VEND

DRAWN

NAME

NE

DATE

8/1/2024

**PROPRIETARY AND CONFIDENTIAL**

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF **FIRST®**. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF **FIRST®** IS PROHIBITED.

**COMMENTS:**

REMOVE ALL BURRS AND SHARP EDGES.



**FIRST**  
ROBOTICS  
COMPETITION



Modeling Solutions Partner

TITLE:

GoalPipeCap

SIZE

**C**

DWG. NO.

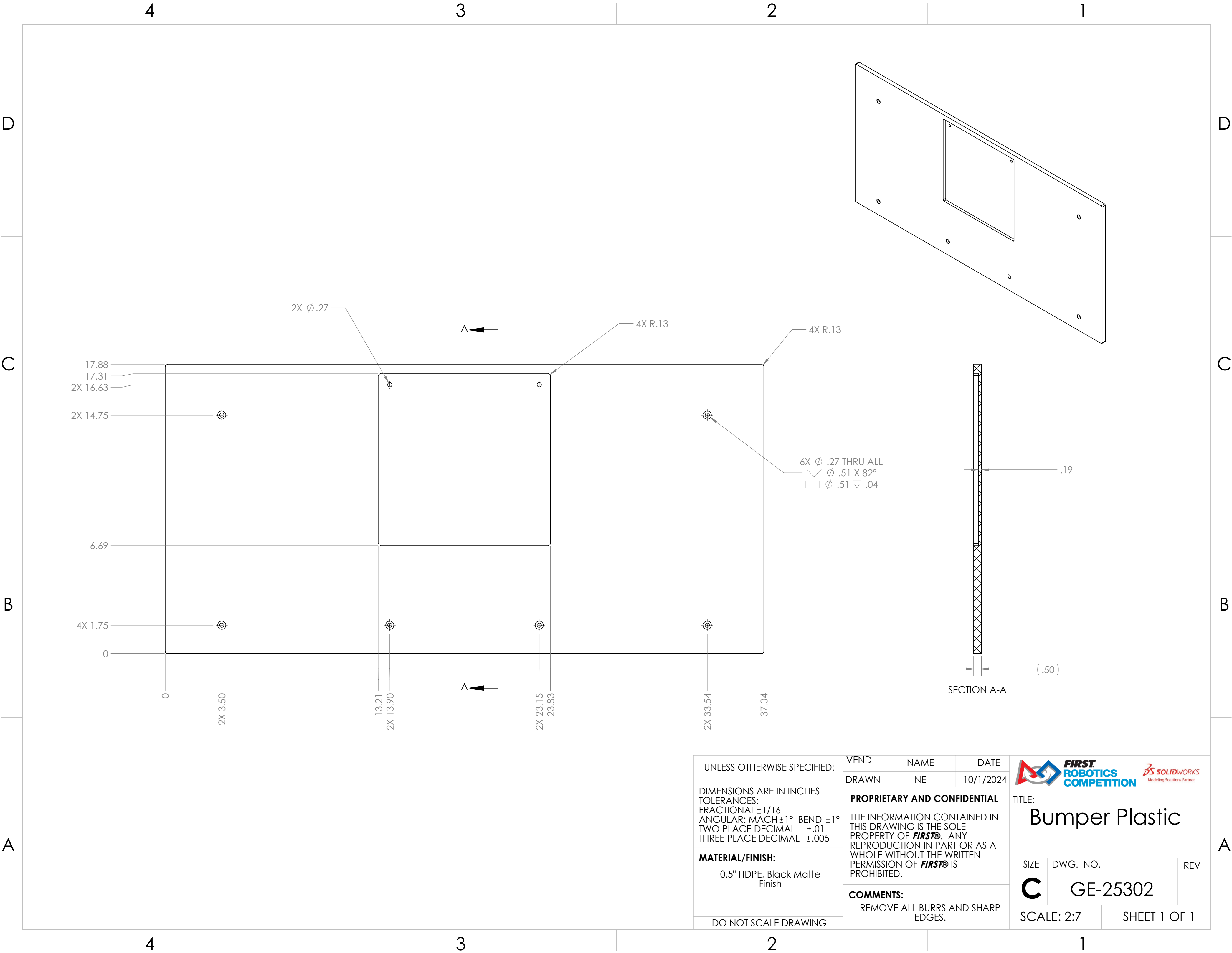
GE-25301-03



REV

**A**

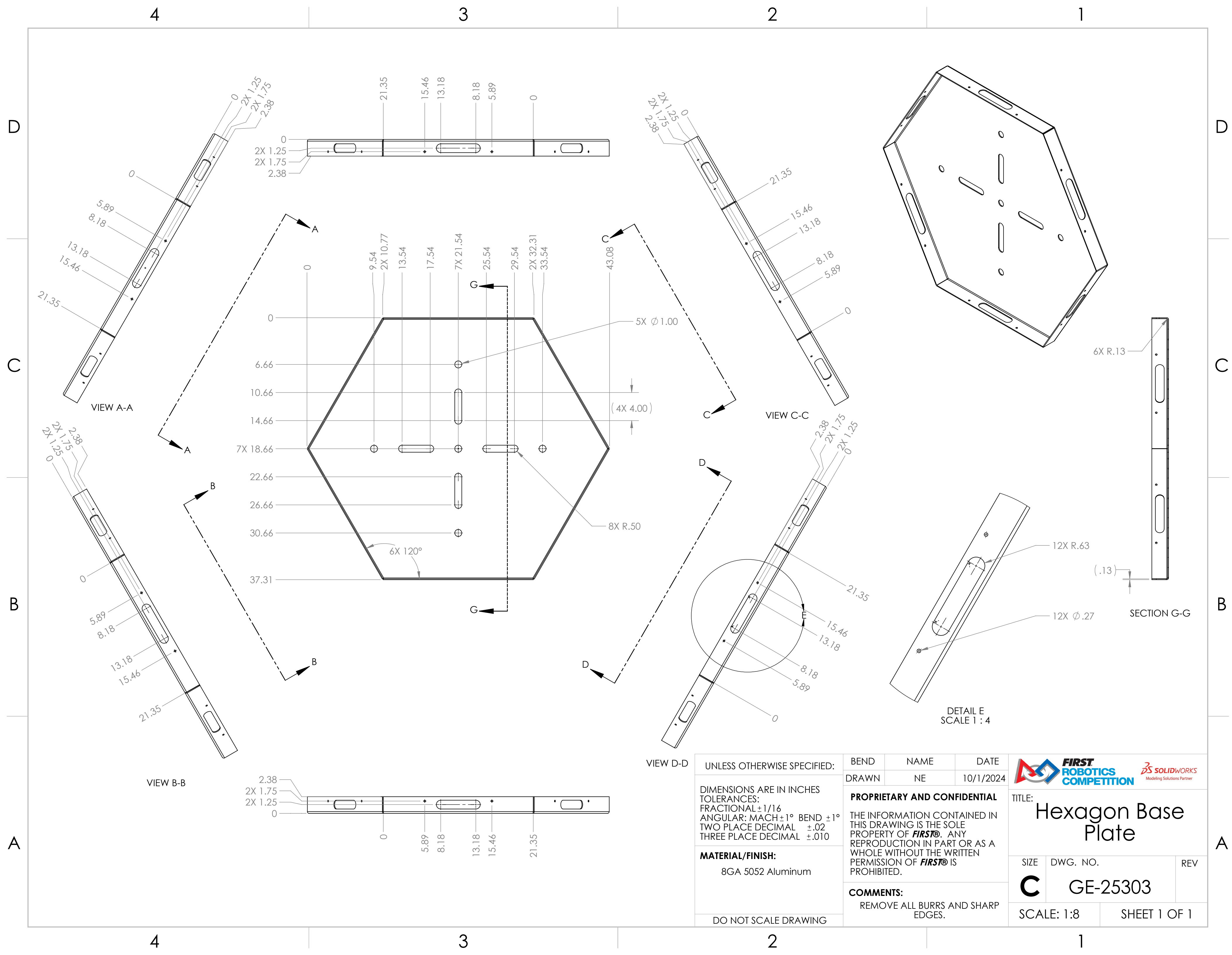
SCALE: 4:1

SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005  <b>MATERIAL/FINISH:</b>  0.5" HDPE, Black Matte Finish  DO NOT SCALE DRAWING	VEND	NAME	DATE	<div></div> <div>TITLE: <b>Bumper Plastic</b></div>		
	DRAWN	NE	10/1/2024			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.  <b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.				SIZE	DWG. NO.
				<b>C</b>	GE-25302	
				SCALE: 2:7		SHEET 1 OF 1







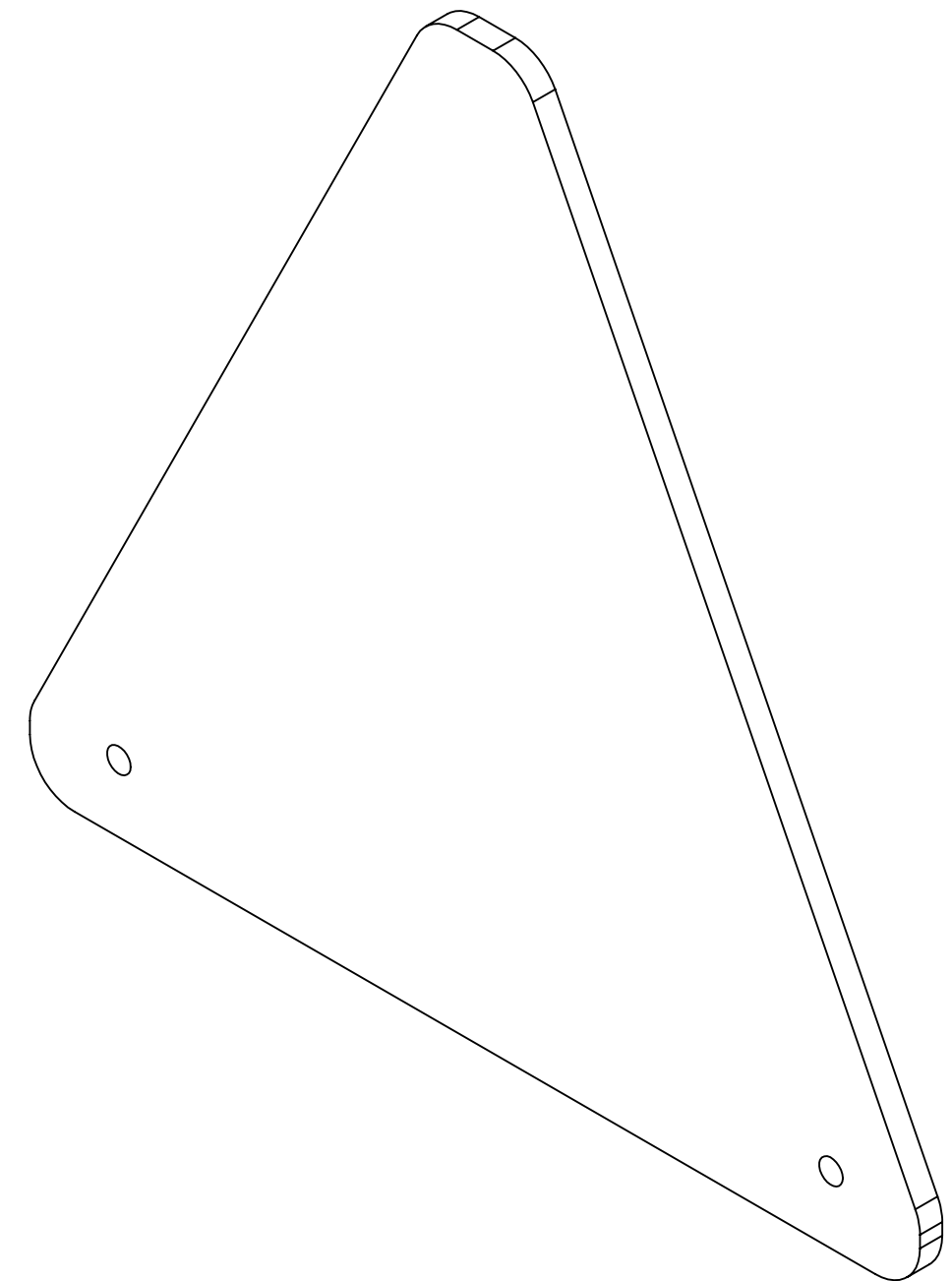
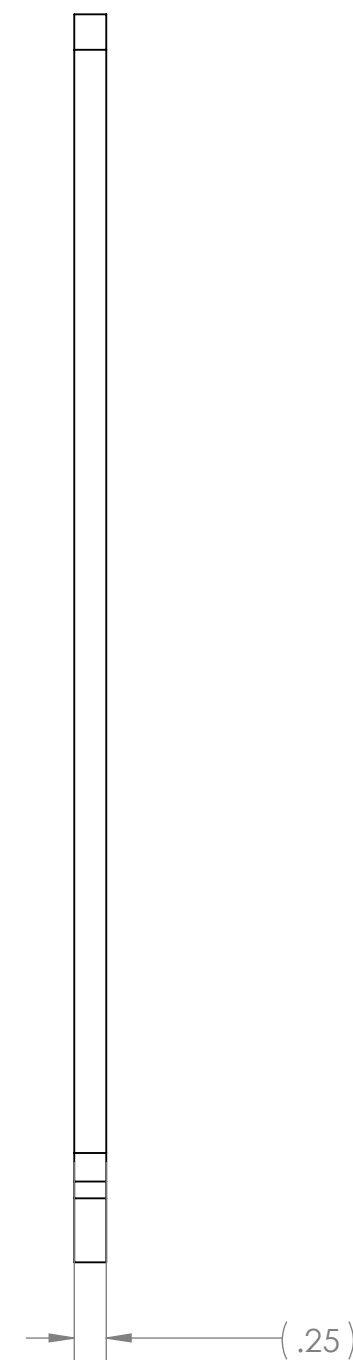
1



D

C

B

A



UNLESS OTHERWISE SPECIFIED:		VEND		NAME		DATE														
<p>DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005</p> <p><b>MATERIAL/FINISH:</b></p> <p>0.25" HDPE, Black Matte Finish</p> <p>DO NOT SCALE DRAWING</p>		DRAWN		NE		10/1/2024		<p>TITLE:</p> <p>Scorekeeper Triangle</p> <table><tr><td>SIZE</td><td>DWG. NO.</td><td>REV</td></tr><tr><td>C</td><td>GE-25304</td><td></td></tr><tr><td colspan="2">SCALE: 2:3</td><td>SHEET 1 OF 1</td></tr></table>				SIZE	DWG. NO.	REV	C	GE-25304		SCALE: 2:3		SHEET 1 OF 1
		SIZE	DWG. NO.	REV																
		C	GE-25304																	
SCALE: 2:3		SHEET 1 OF 1																		
<p><b>PROPRIETARY AND CONFIDENTIAL</b></p> <p>THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b>. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.</p> <p><b>COMMENTS:</b></p> <p>REMOVE ALL BURRS AND SHARP EDGES.</p>																				

4

3

2

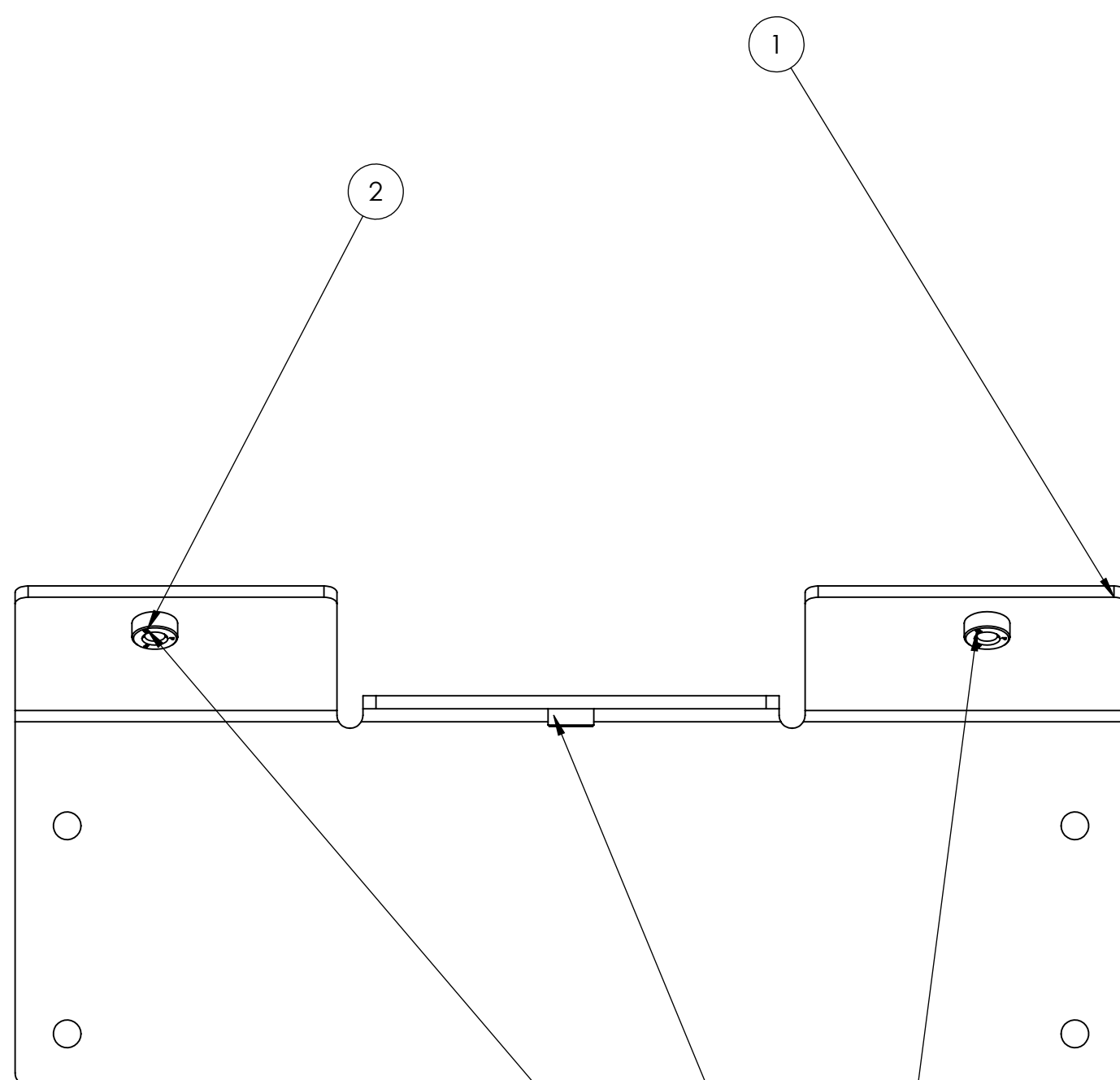
1

D

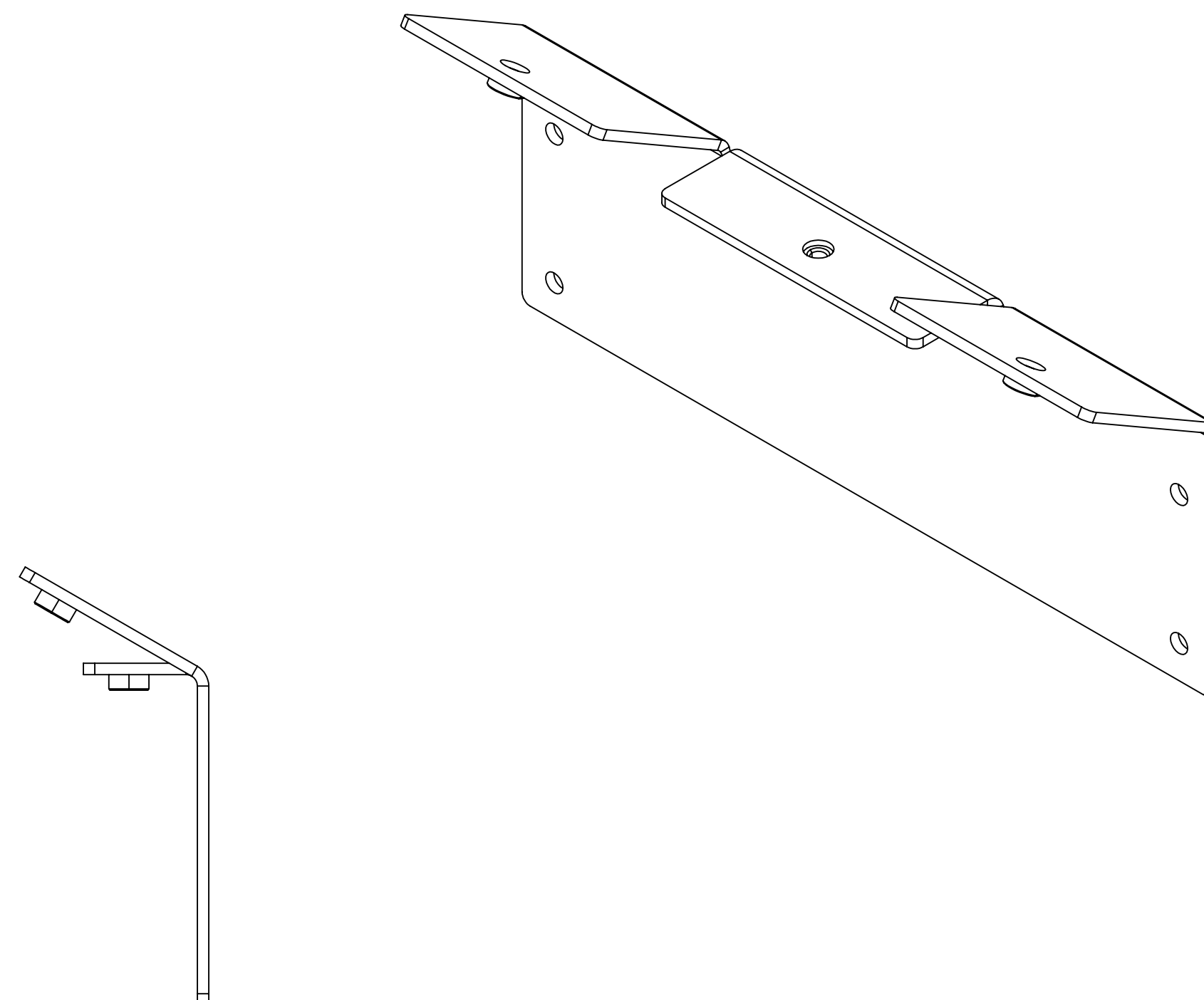
C

B



A



—3X PEM NUTS INSTALLED ON INTERIOR FACE



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25305-01	Coral Catcher Bracket	1
2	per_clinchnut_.25_20_054	1/4-20 self-clinching nut, .054 shank	3

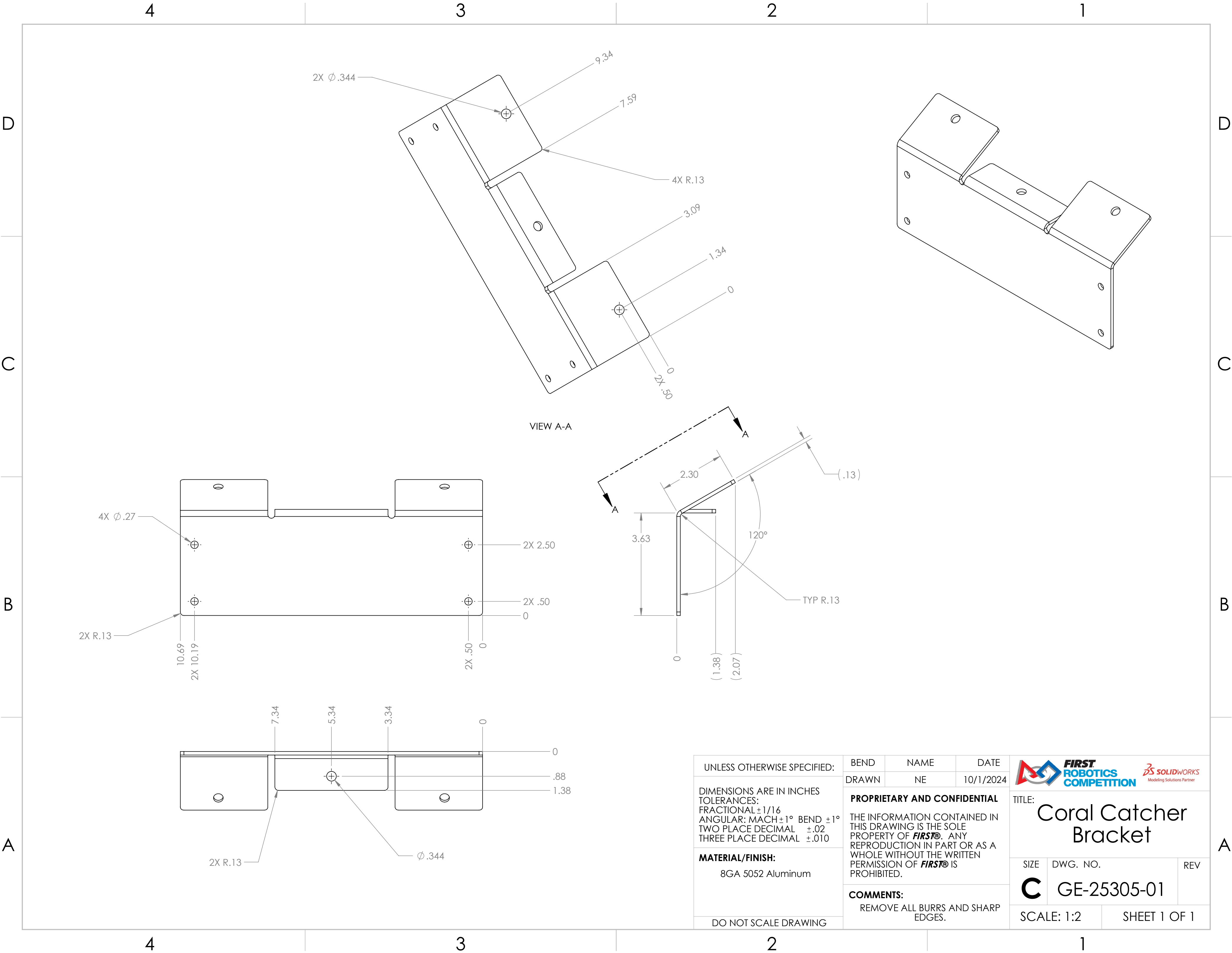
UNLESS OTHERWISE SPECIFIED:		VEND		NAME		DATE	
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .005$  <b>MATERIAL/FINISH:</b>          <b>DO NOT SCALE DRAWING</b>		DRAWN		NE		10/1/2024	
		<b>PROPRIETARY AND CONFIDENTIAL</b>					
		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.					
		<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.					
							
				TITLE:  <b>Coral Catcher Bracket W PEMs</b>			
		SIZE		DWG. NO.		REV	
		<b>C</b>		<b>GE-25305</b>			
		SCALE: 2:3		SHEET 1 OF 1			

4

3

2

1



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .02$   
THREE PLACE DECIMAL  $\pm .010$

**MATERIAL/FINISH:**  
8GA 5052 Aluminum

DO NOT SCALE DRAWING

BEND	NAME	DATE
DRAWN	NE	10/1/2024

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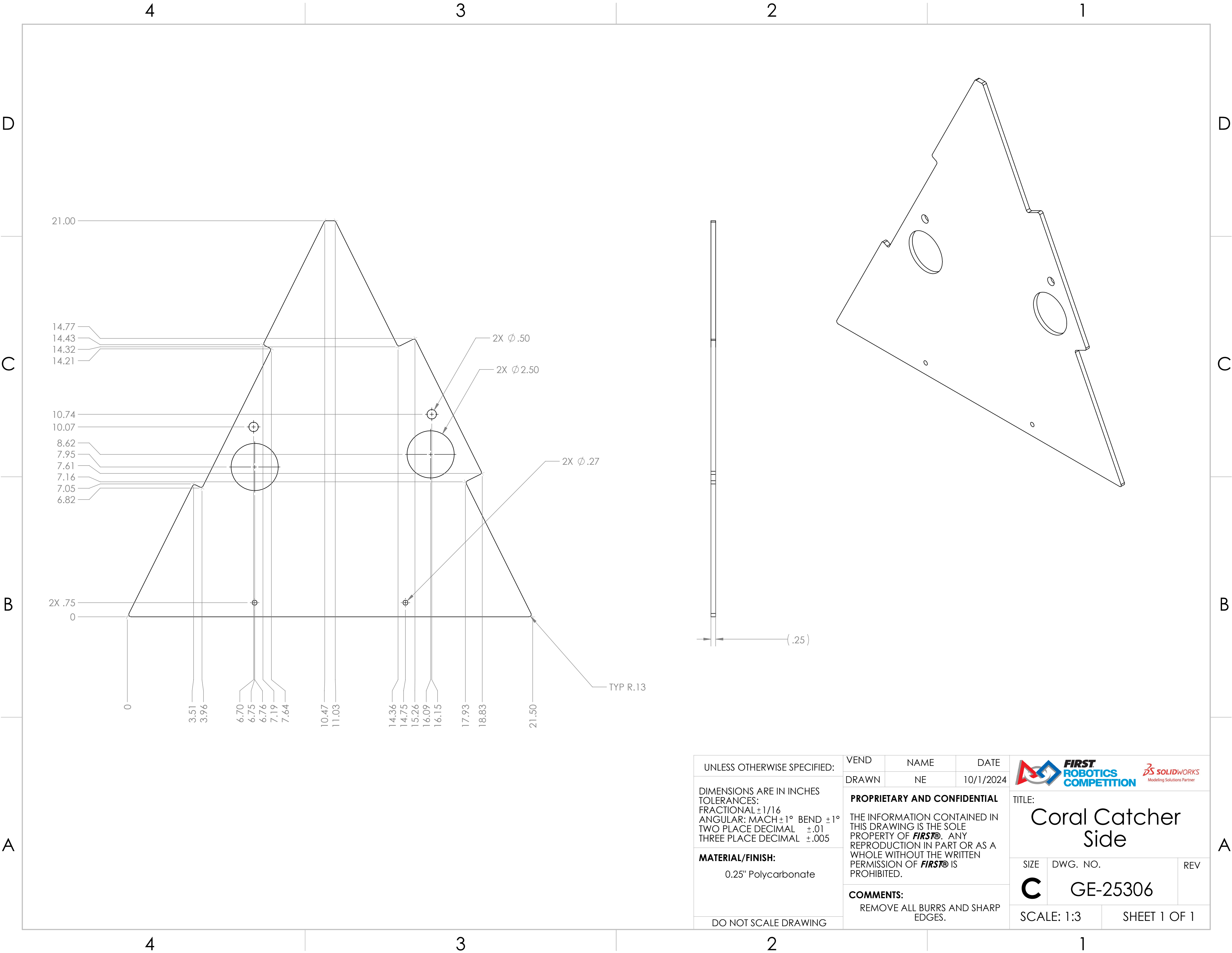
**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.





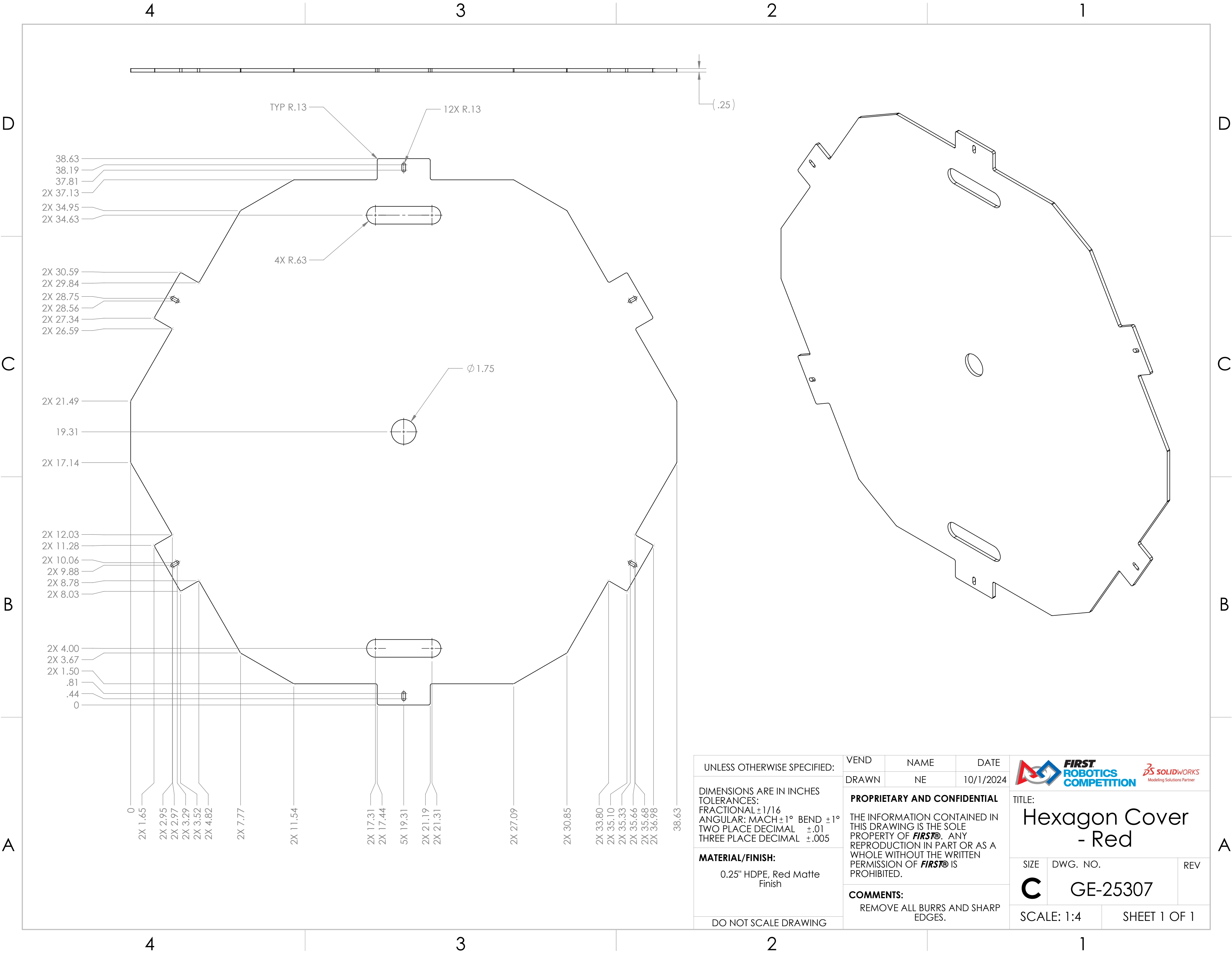
TITLE:  
**Coral Catcher Bracket**

SIZE	DWG. NO.	REV
<b>C</b>	GE-25305-01	

SCALE: 1:2 SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005  <b>MATERIAL/FINISH:</b>  0.25" Polycarbonate  DO NOT SCALE DRAWING	VEND	NAME	DATE	<div></div> <div>TITLE: <b>Coral Catcher Side</b></div>		
	DRAWN	NE	10/1/2024			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE	DWG. NO.	REV
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			<b>C</b>	GE-25306	
SCALE: 1:3		SHEET 1 OF 1				



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

**MATERIAL/FINISH:**  
0.25" HDPE, Red Matte Finish

DO NOT SCALE DRAWING

VEND	NAME	DATE
DRAWN	NE	10/1/2024

**PROPRIETARY AND CONFIDENTIAL**

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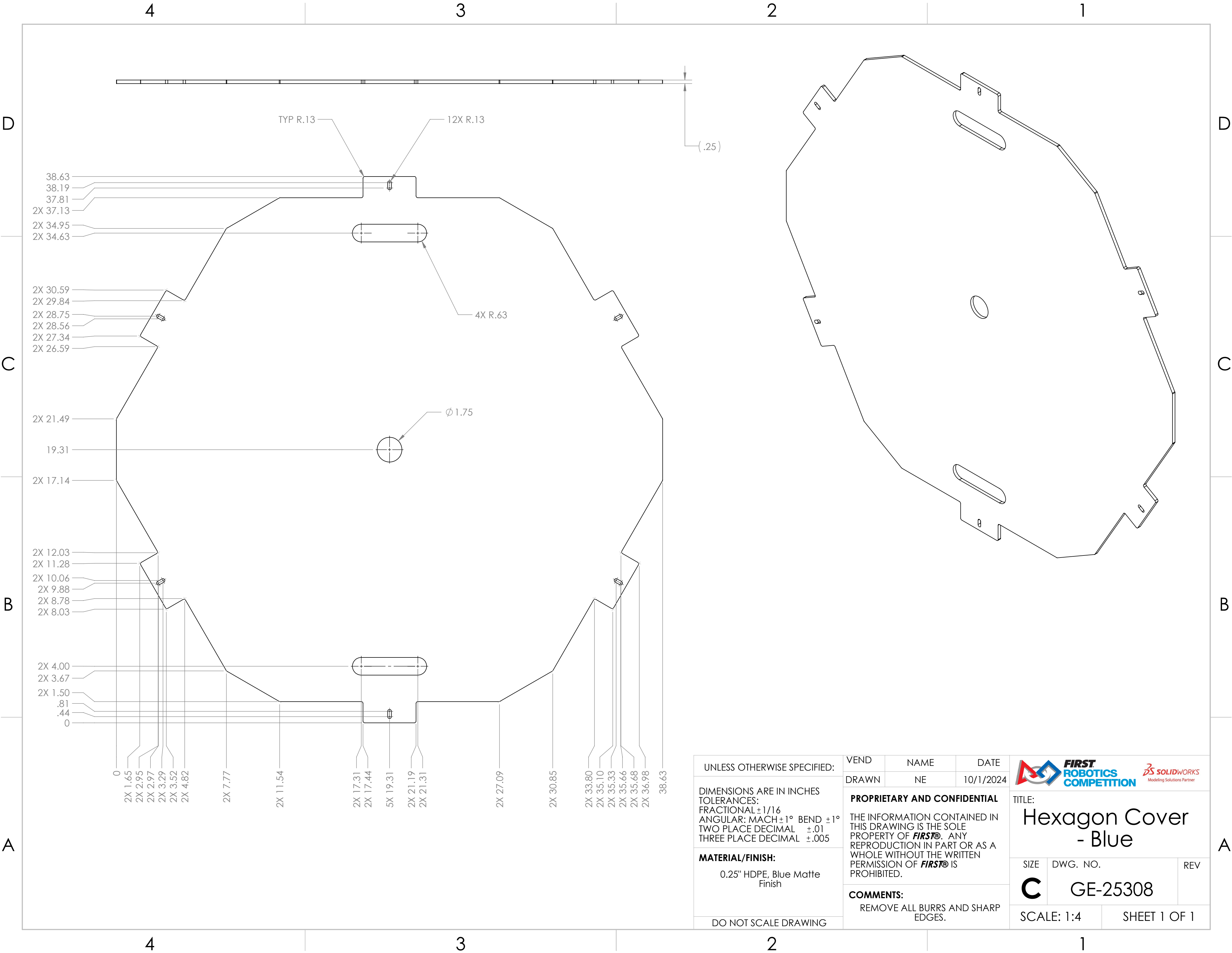
**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.



TITLE:  
**Hexagon Cover - Red**

SIZE	DWG. NO.	REV
<b>C</b>	GE-25307	

SCALE: 1:4      SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$


**MATERIAL/FINISH:**  
0.25" HDPE, Blue Matte Finish

DO NOT SCALE DRAWING

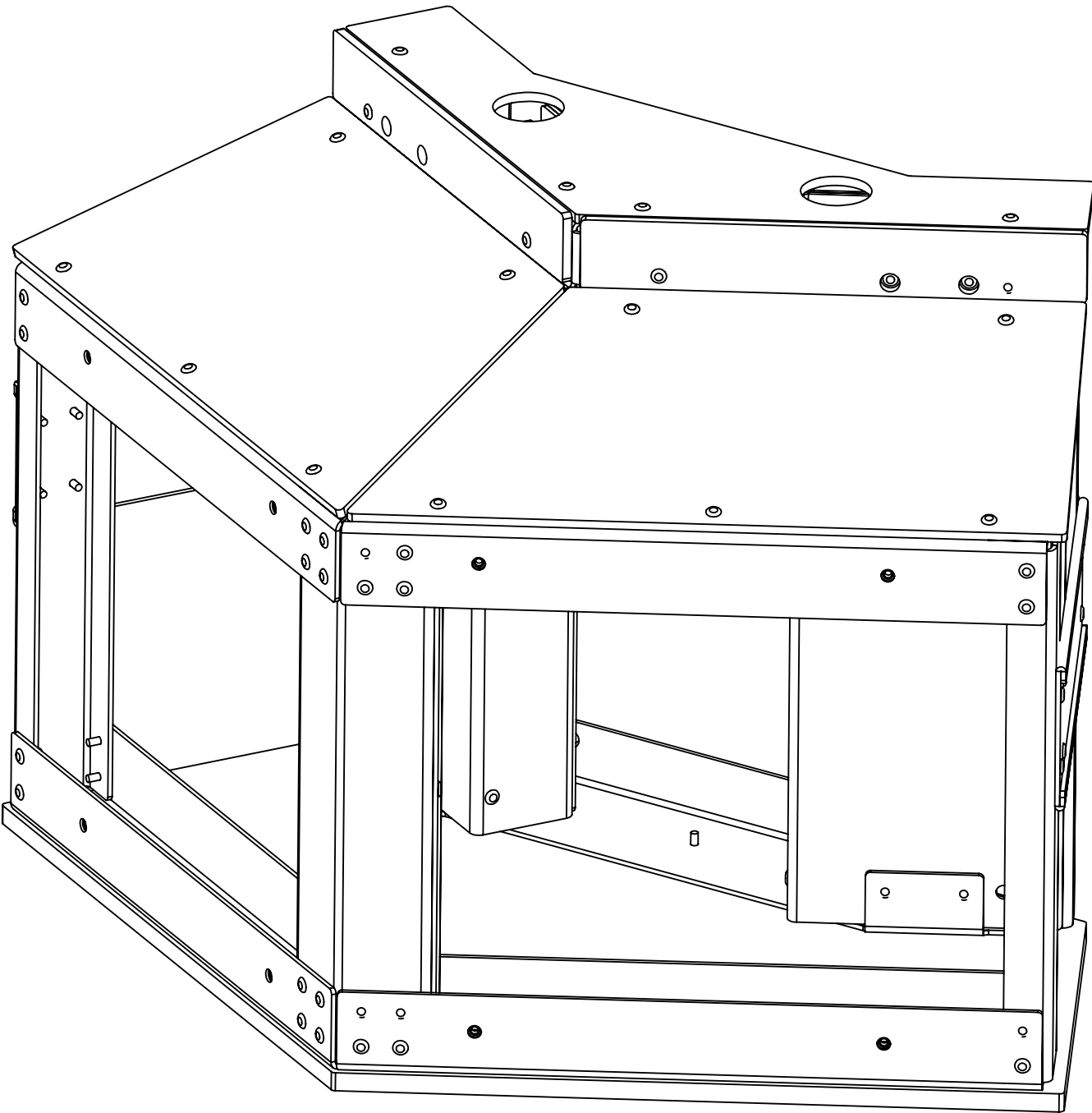
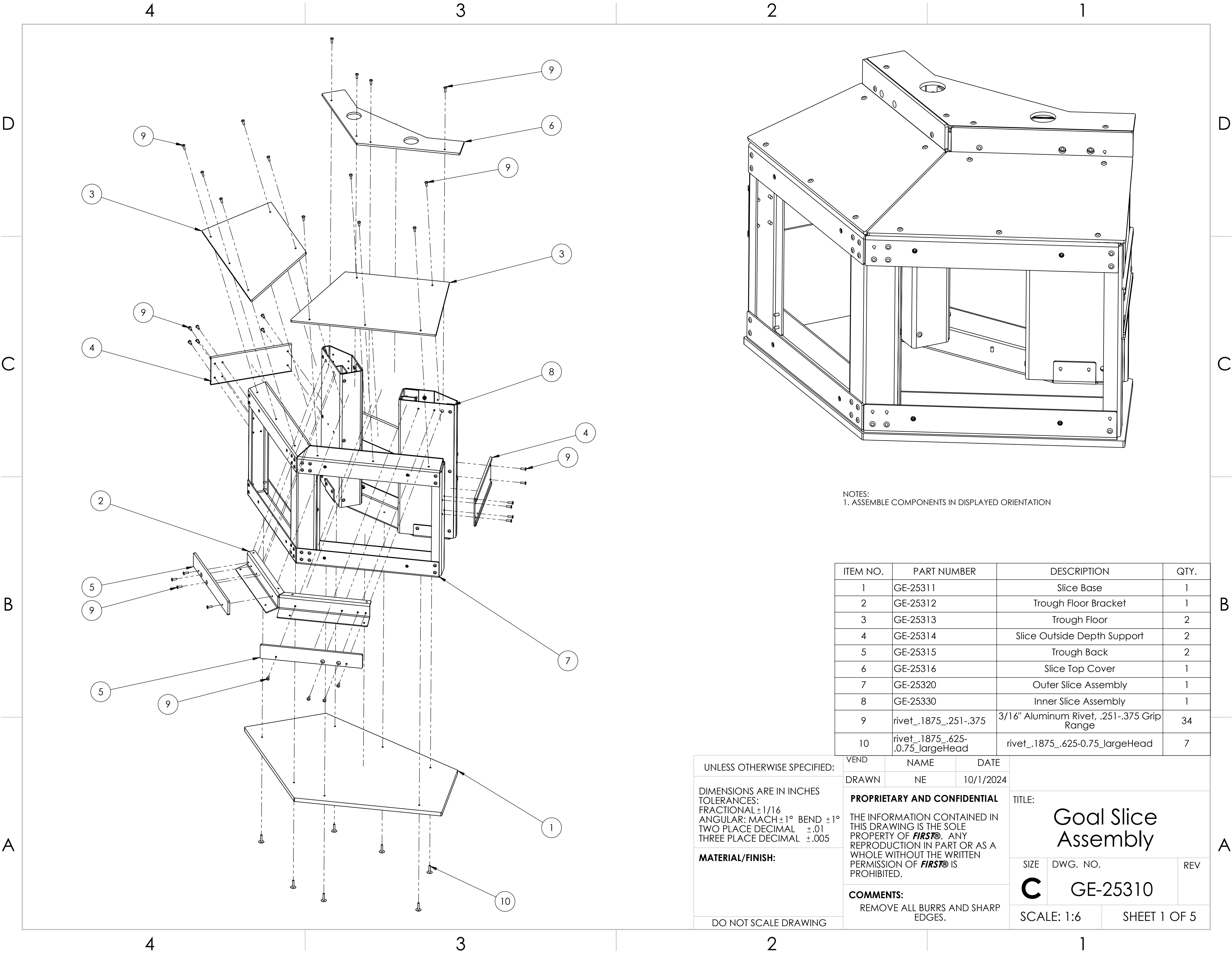
VEND	NAME	DATE
DRAWN	NE	10/1/2024

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**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.

		
TITLE: <b>Hexagon Cover - Blue</b>		
SIZE <b>C</b>	DWG. NO. <b>GE-25308</b>	REV
SCALE: 1:4		SHEET 1 OF 1

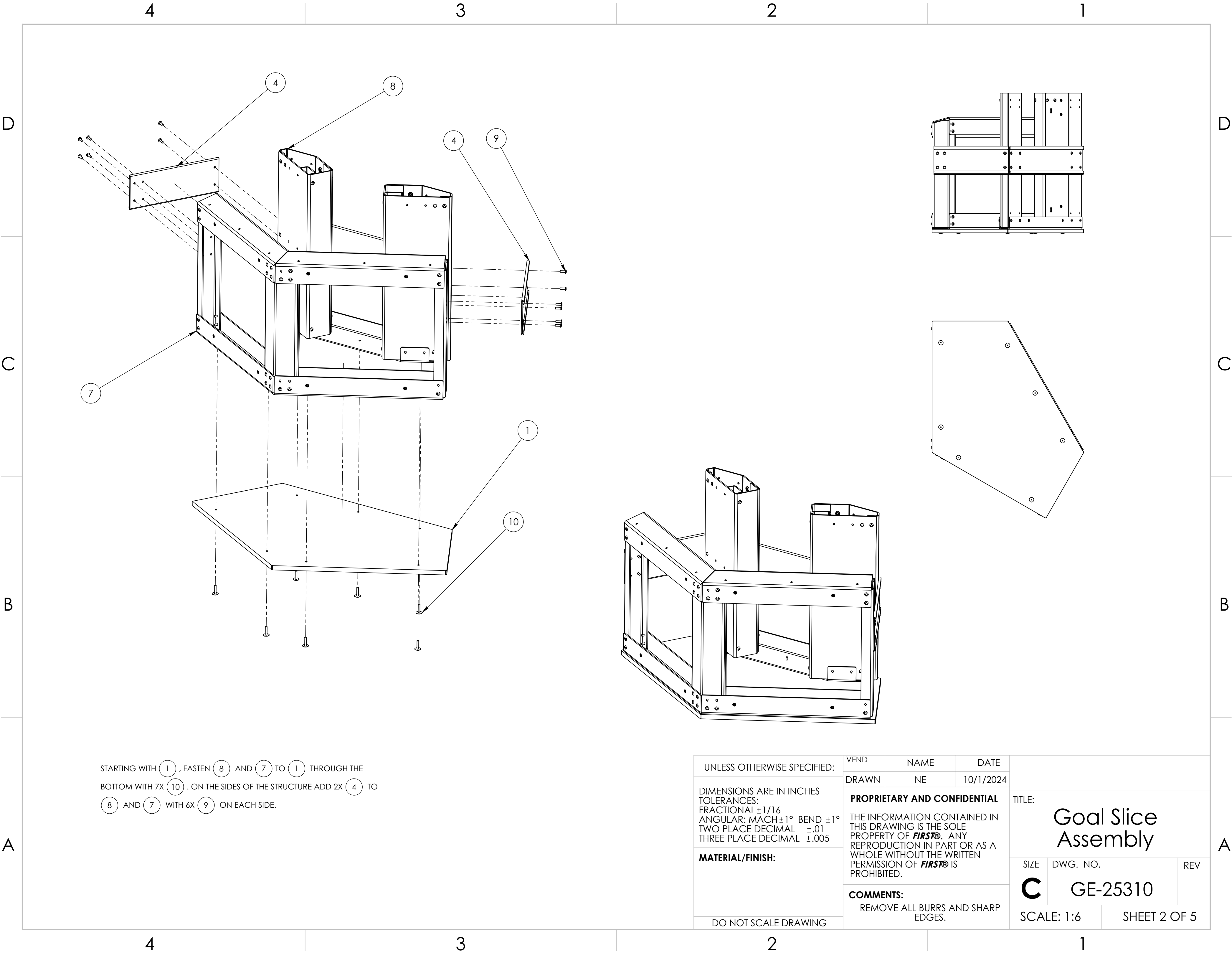




NOTES:  
1. ASSEMBLE COMPONENTS IN DISPLAYED ORIENTATION

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25311	Slice Base	1
2	GE-25312	Trough Floor Bracket	1
3	GE-25313	Trough Floor	2
4	GE-25314	Slice Outside Depth Support	2
5	GE-25315	Trough Back	2
6	GE-25316	Slice Top Cover	1
7	GE-25320	Outer Slice Assembly	1
8	GE-25330	Inner Slice Assembly	1
9	rivet_.1875_.251-.375	3/16" Aluminum Rivet, .251-.375 Grip Range	34
10	rivet_.1875_.625-.0.75_largeHead	rivet_.1875_.625-0.75_largeHead	7

UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .005$  <b>MATERIAL/FINISH:</b>   <b>DO NOT SCALE DRAWING</b>		VEND	NAME	DATE	TITLE:  <b>Goal Slice Assembly</b>	
		DRAWN	NE	10/1/2024		
		<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE	DWG. NO.
		<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			<b>C</b>	GE-25310
					REV	
					SCALE: 1:6	
					SHEET 1 OF 5	



STARTING WITH (1), FASTEN (8) AND (7) TO (1) THROUGH THE  
BOTTOM WITH 7X (10). ON THE SIDES OF THE STRUCTURE ADD 2X (4) TO  
(8) AND (7) WITH 6X (9) ON EACH SIDE.

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

MATERIAL/FINISH:

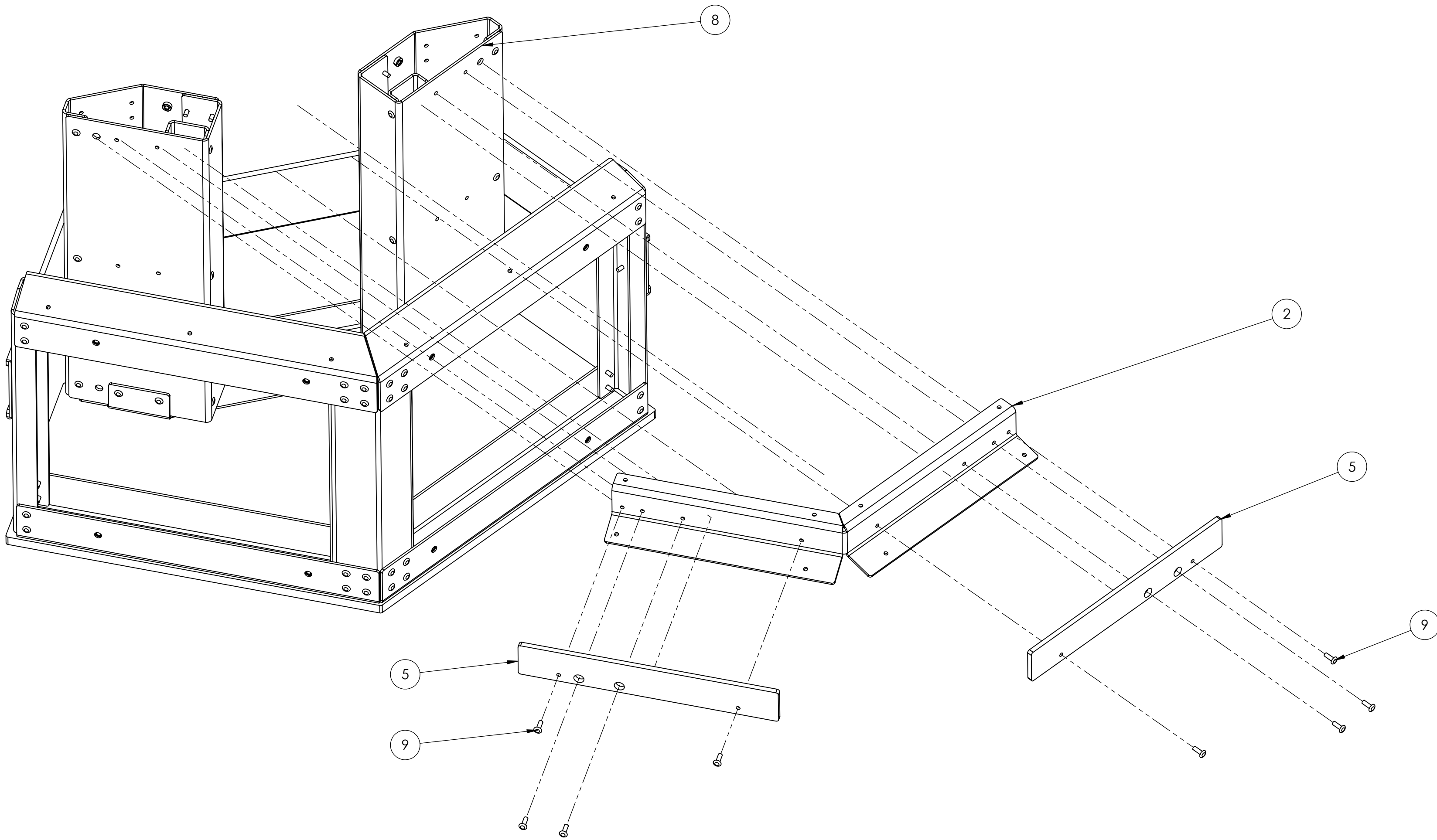
DO NOT SCALE DRAWING

VEND	NAME	DATE
DRAWN	NE	10/1/2024

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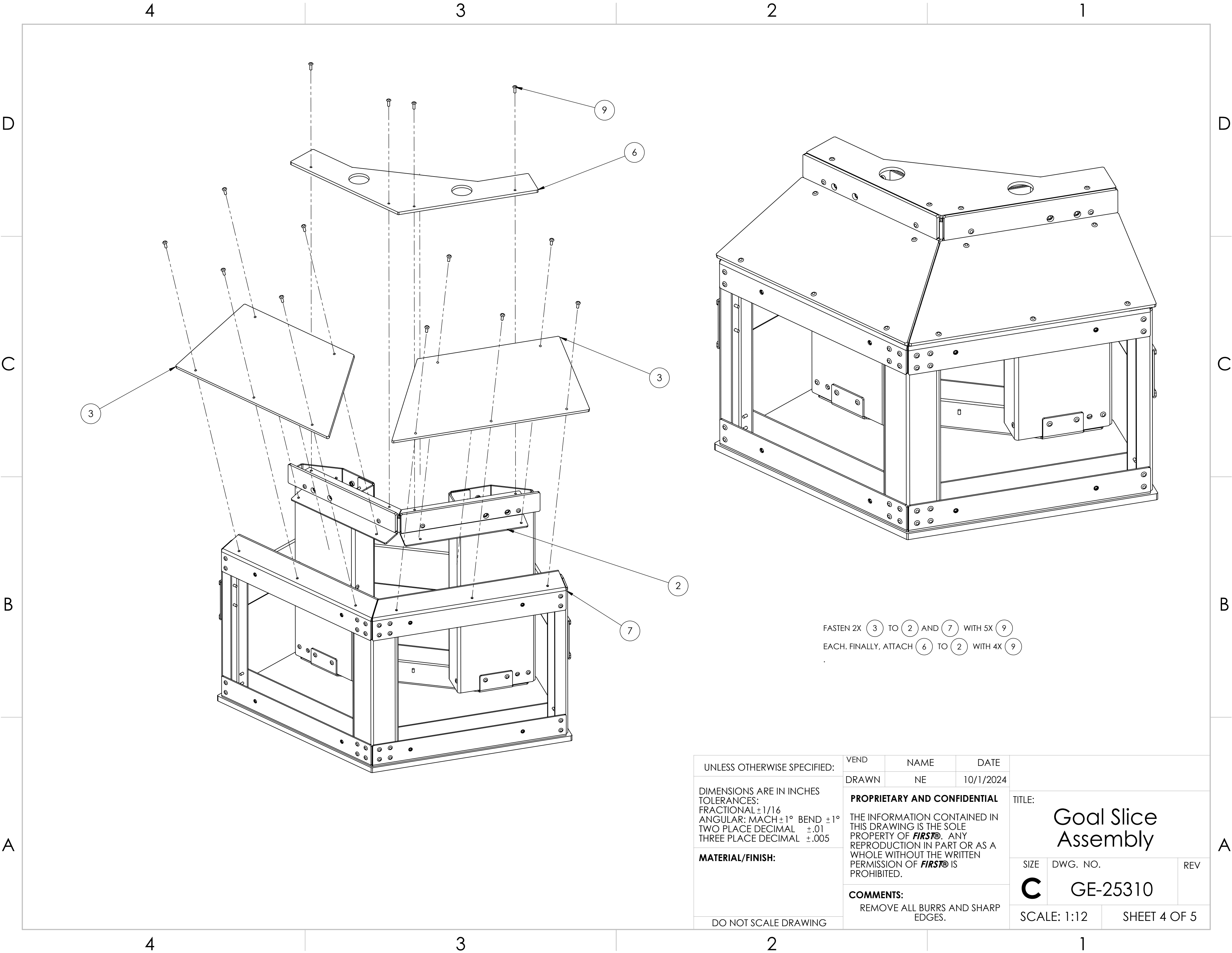
**COMMENTS:**  
REMOVE ALL BURRS AND SHARP  
EDGES.

TITLE: <b>Goal Slice Assembly</b>		
SIZE <b>C</b>	DWG. NO. <b>GE-25310</b>	REV
SCALE: 1:6		SHEET 2 OF 5



ATTACH 2X (5) TO (2) WITH 2X (9) EACH. THEN, ATTACH (2) TO (8) WITH 4X MORE (9) .

UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .005$  <b>MATERIAL/FINISH:</b>    DO NOT SCALE DRAWING	VEND	NAME	DATE	TITLE:  Goal Slice Assembly		
	DRAWN	NE	10/1/2024			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.  <b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			SIZE <b>C</b>	DWG. NO. GE-25310	REV
SCALE: 1:12		SHEET 3 OF 5				



FASTEN 2X (3) TO (2) AND (7) WITH 5X (9)  
EACH. FINALLY, ATTACH (6) TO (2) WITH 4X (9)

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

MATERIAL/FINISH:

DO NOT SCALE DRAWING

VEND

NAME

DATE

DRAWN

NE

10/1/2024

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PROHIBITED.

COMMENTS:

REMOVE ALL BURRS AND SHARP  
EDGES.

TITLE:

Goal Slice  
Assembly

SIZE

DWG. NO.

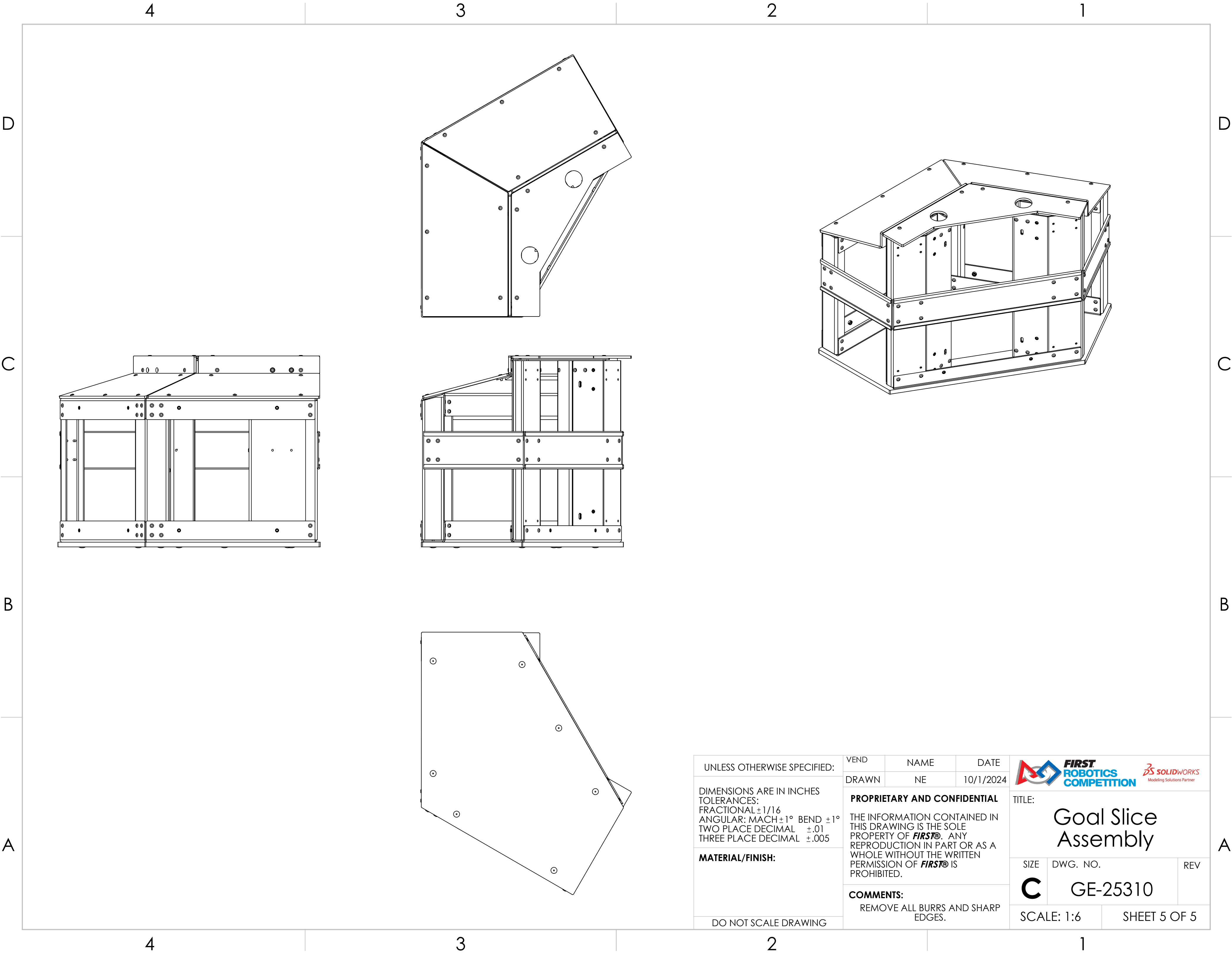
REV

C

GE-25310

SCALE: 1:12

SHEET 4 OF 5



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

MATERIAL/FINISH:

DO NOT SCALE DRAWING

VEND

NAME

DATE

DRAWN

NE

10/1/2024

PROPRIETARY AND CONFIDENTIAL

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COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.



**FIRST**  
ROBOTICS  
COMPETITION



Modeling Solutions Partner

TITLE:

Goal Slice  
Assembly

SIZE

DWG. NO.

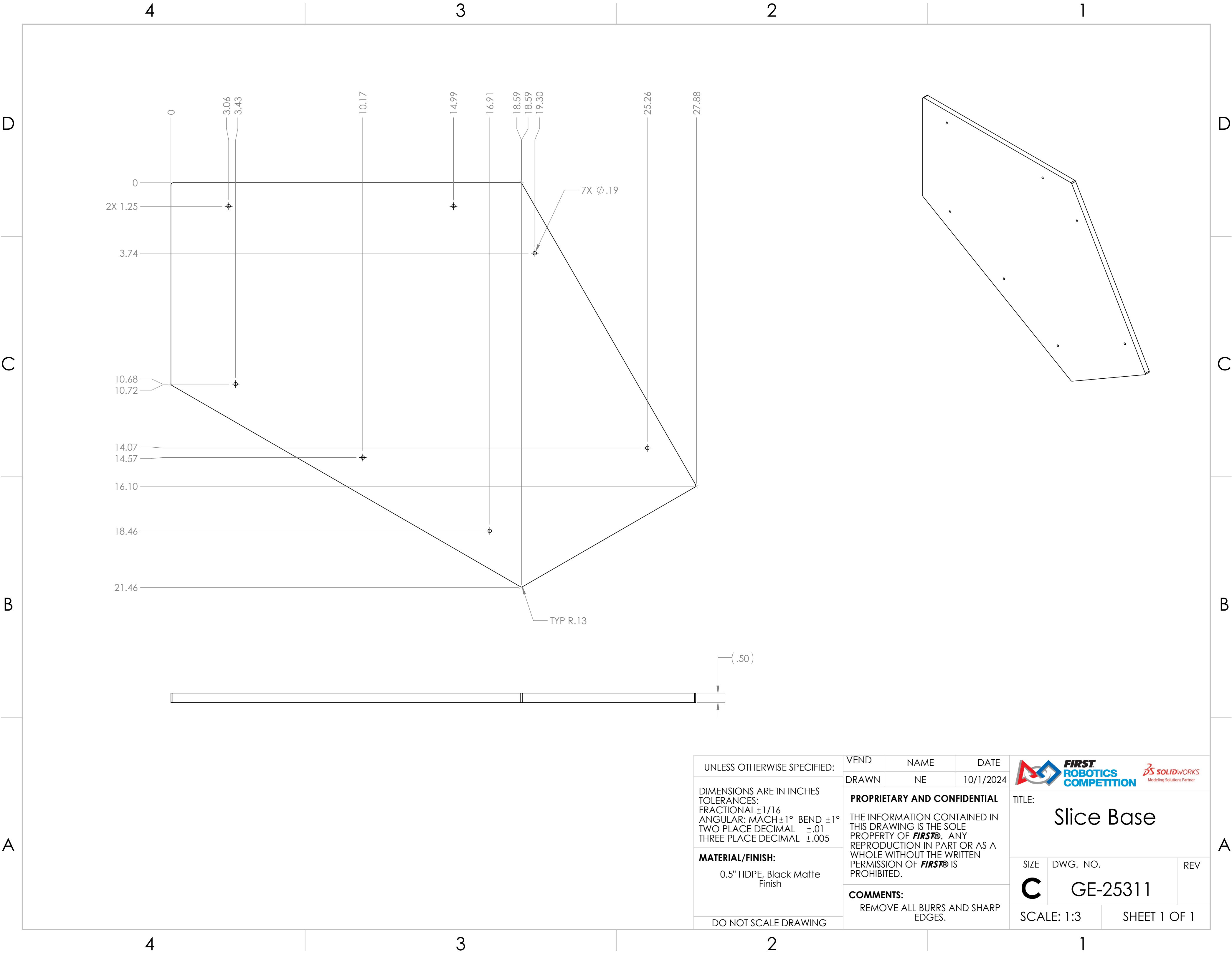
REV

**C**

GE-25310

SCALE: 1:6

SHEET 5 OF 5



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

**MATERIAL/FINISH:**  
0.5" HDPE, Black Matte  
Finish

DO NOT SCALE DRAWING

VEND	NAME	DATE
DRAWN	NE	10/1/2024

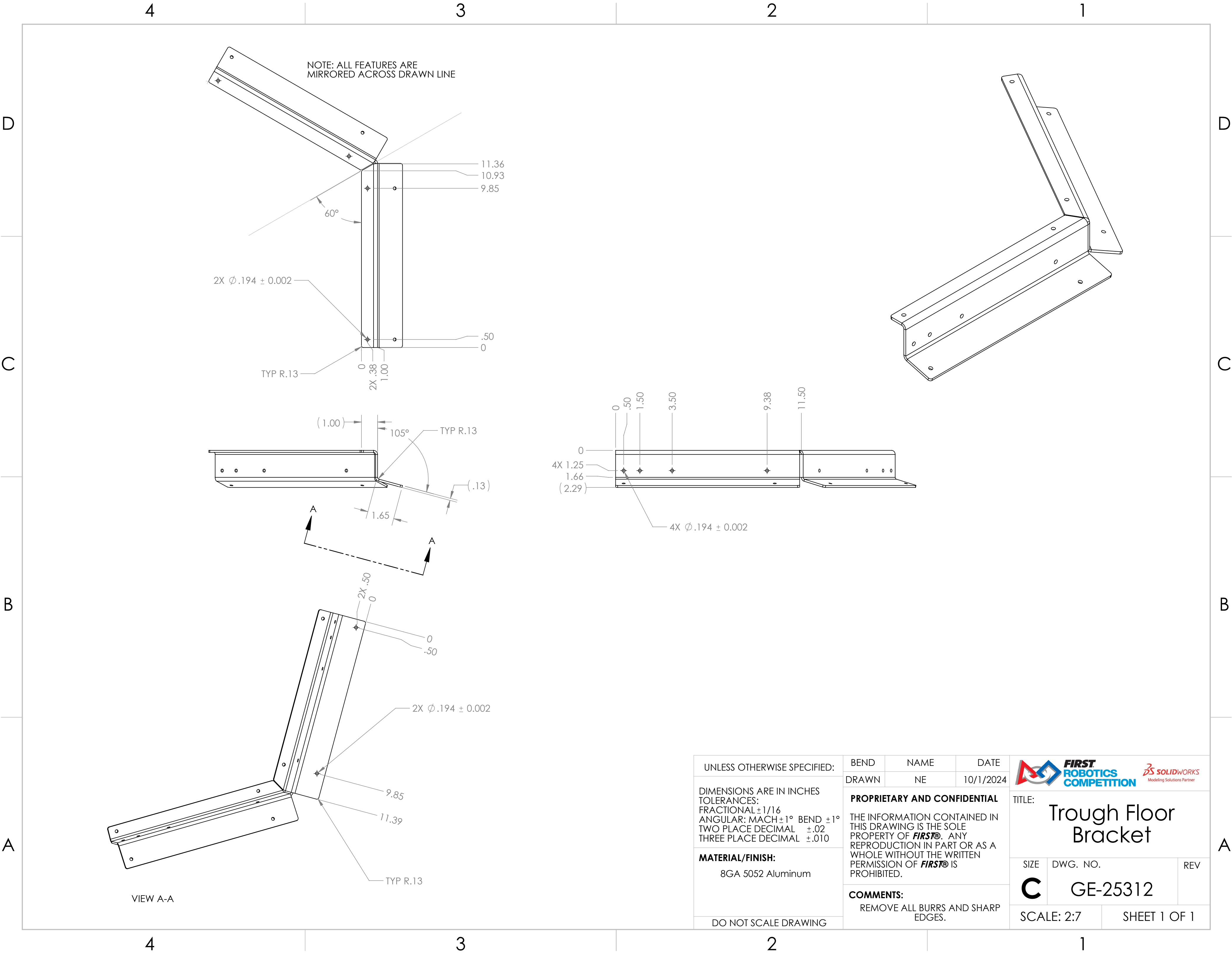
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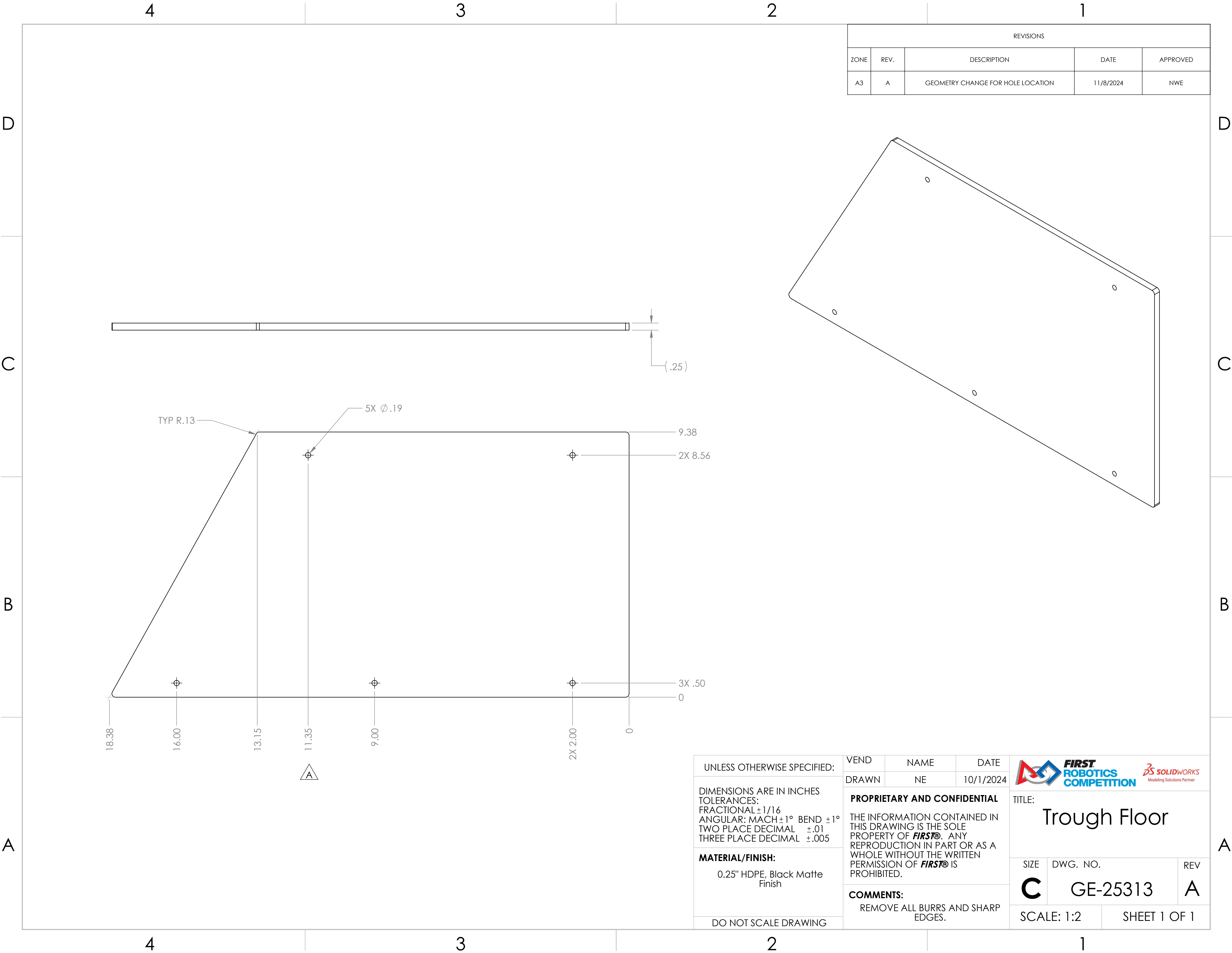
**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.



TITLE: Slice Base		
SIZE <b>C</b>	DWG. NO. GE-25311	REV
SCALE: 1:3		SHEET 1 OF 1







UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

**MATERIAL/FINISH:**  
0.25" HDPE, Black Matte Finish

DO NOT SCALE DRAWING

VEND	NAME	DATE
DRAWN	NE	10/1/2024

**PROPRIETARY AND CONFIDENTIAL**

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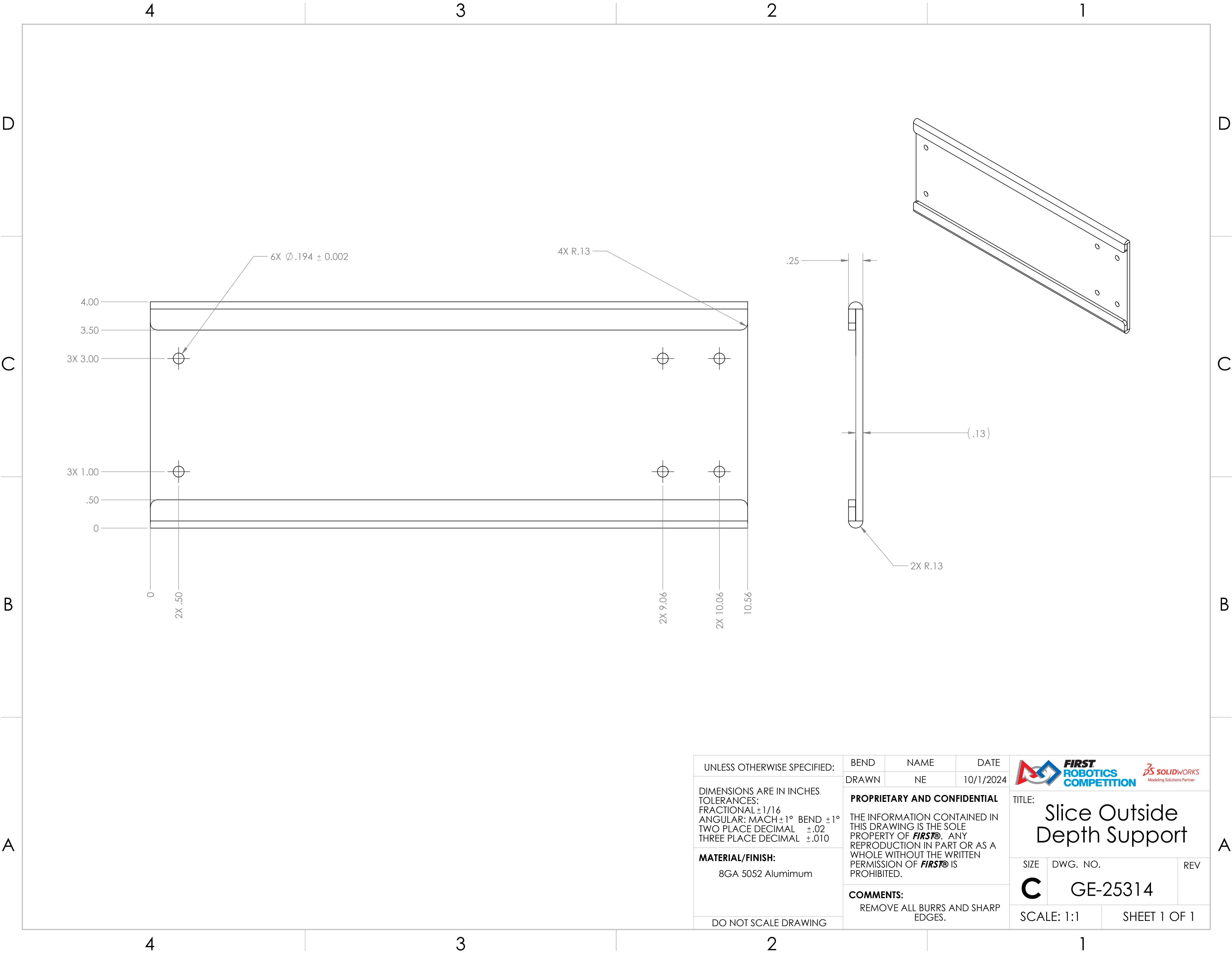
**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.





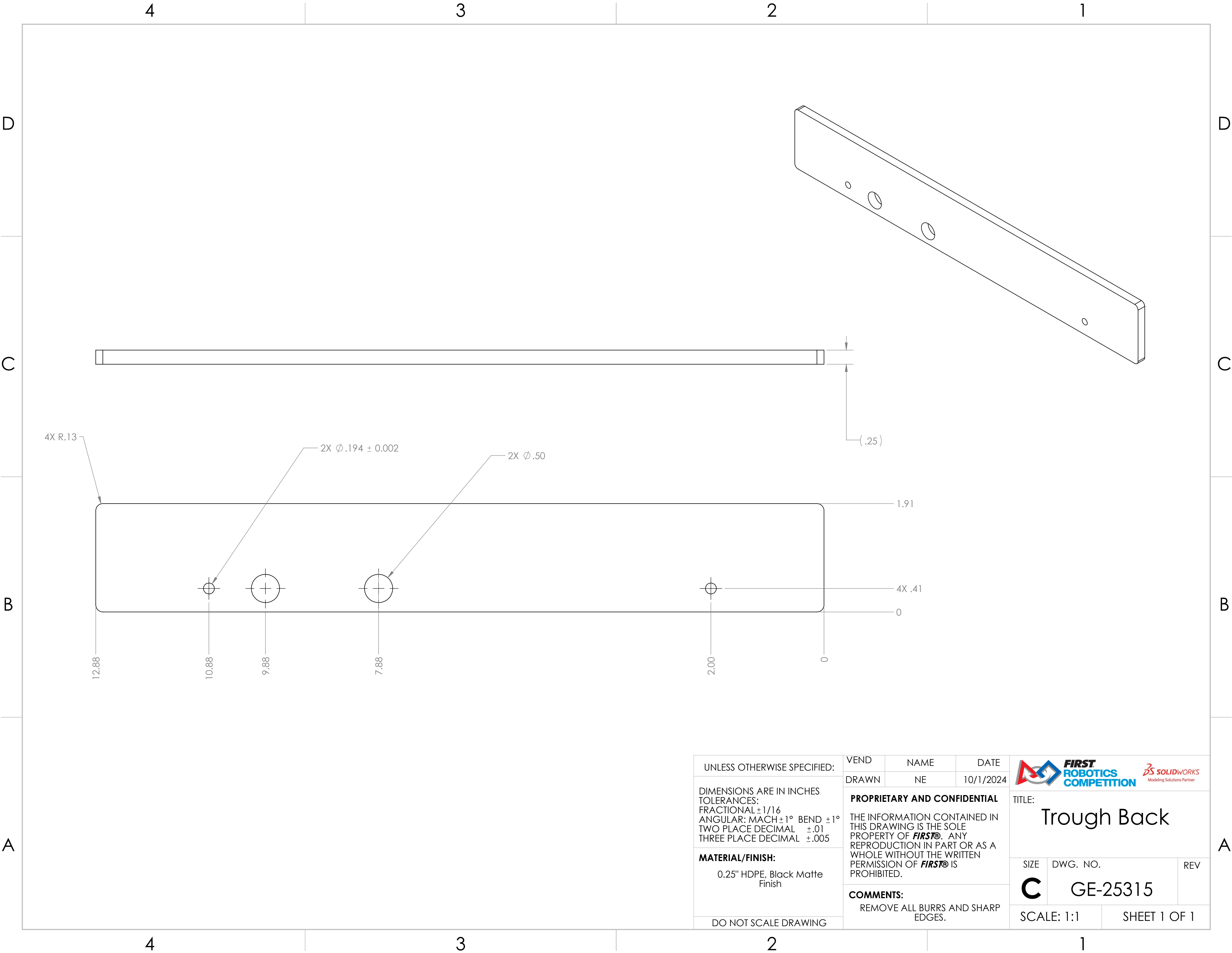
TITLE:  
**Trough Floor**

SIZE	DWG. NO.	REV
<b>C</b>	<b>GE-25313</b>	<b>A</b>

SCALE: 1:2 SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .02$ THREE PLACE DECIMAL $\pm .010$  <b>MATERIAL/FINISH:</b>  8GA 5052 Aluminum   DO NOT SCALE DRAWING	BEND	NAME	DATE	<div></div> <div>TITLE: <h1>Slice Outside Depth Support</h1></div>		
	DRAWN	NE	10/1/2024			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE	DWG. NO.	REV
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			<b>C</b>	GE-25314	
SCALE: 1:1		SHEET 1 OF 1				



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

**MATERIAL/FINISH:**  
0.25" HDPE, Black Matte  
Finish

DO NOT SCALE DRAWING

VEND	NAME	DATE
DRAWN	NE	10/1/2024

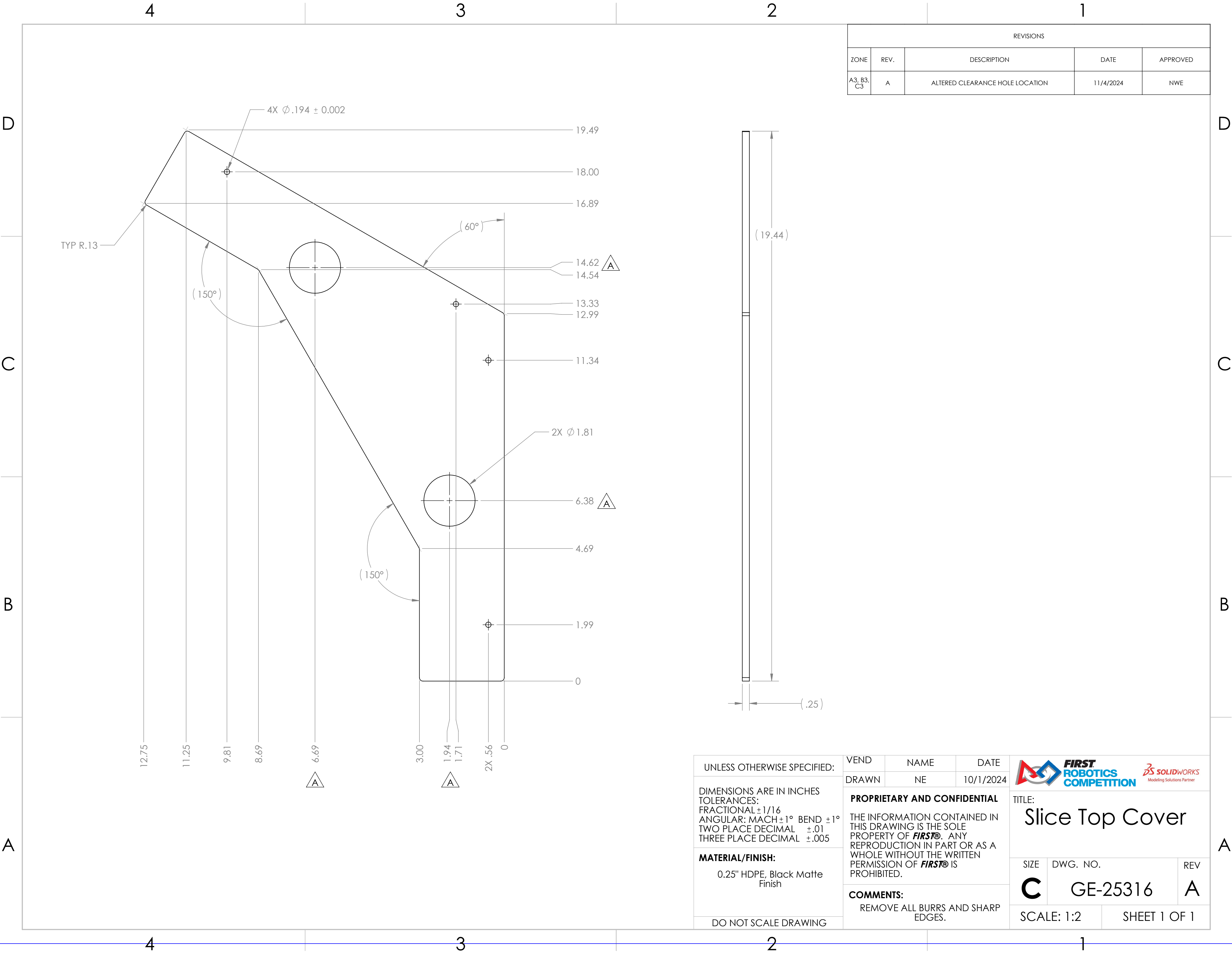
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**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.





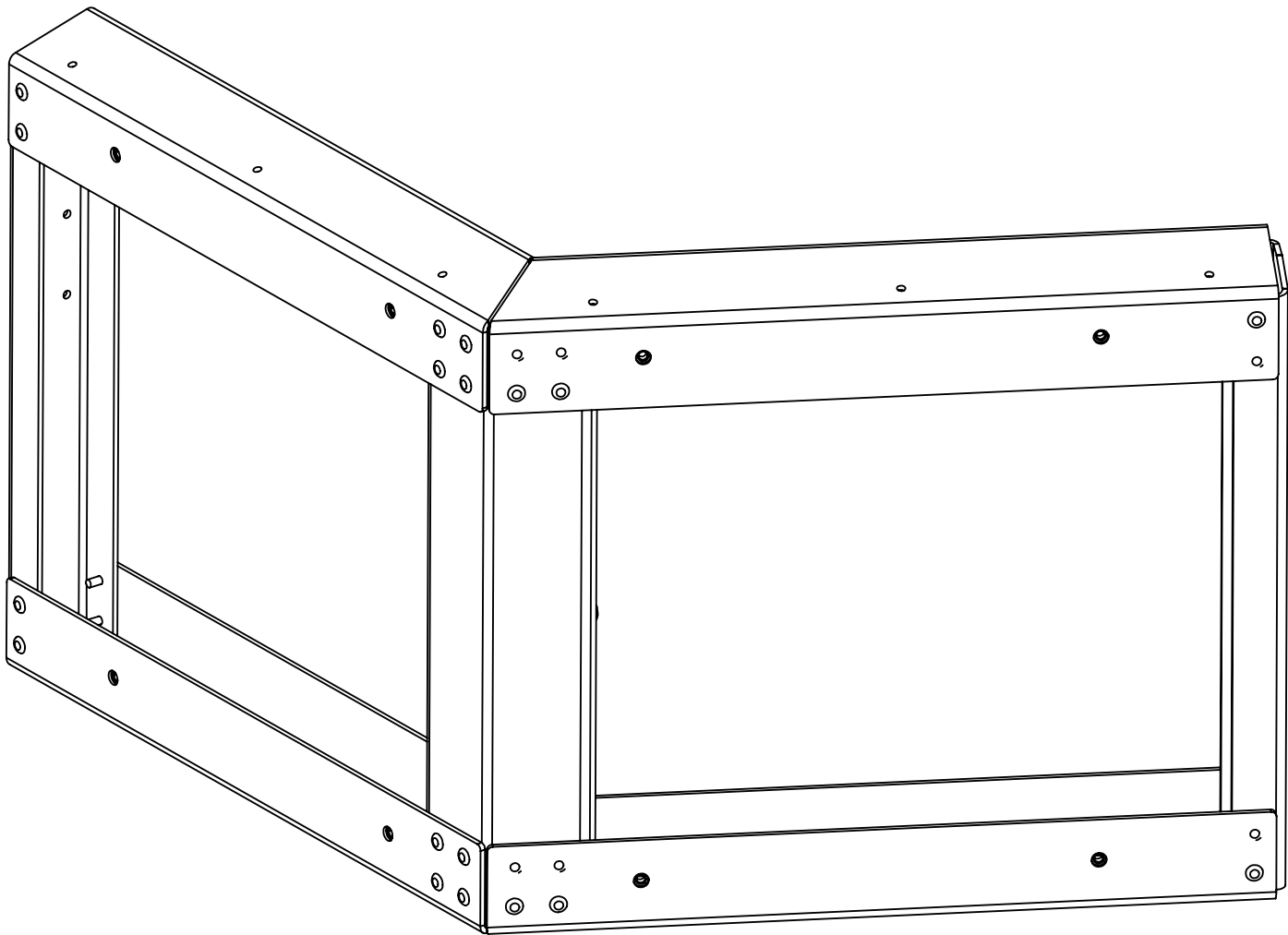
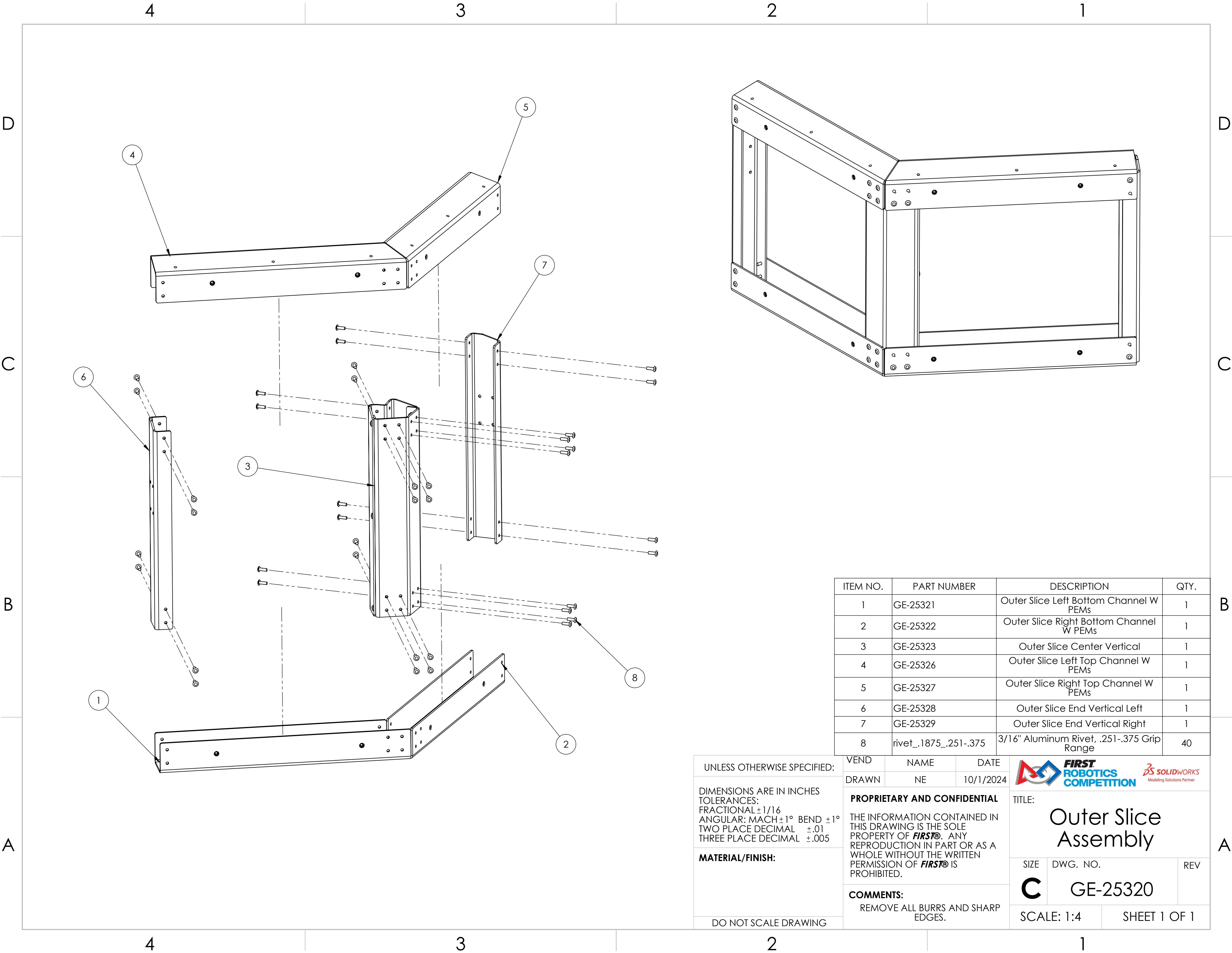
TITLE: Trough Back		
SIZE <b>C</b>	DWG. NO. GE-25315	REV

SCALE: 1:1      SHEET 1 OF 1





REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
A3, B3, C3	A	ALTERED CLEARANCE HOLE LOCATION	11/4/2024	NWE

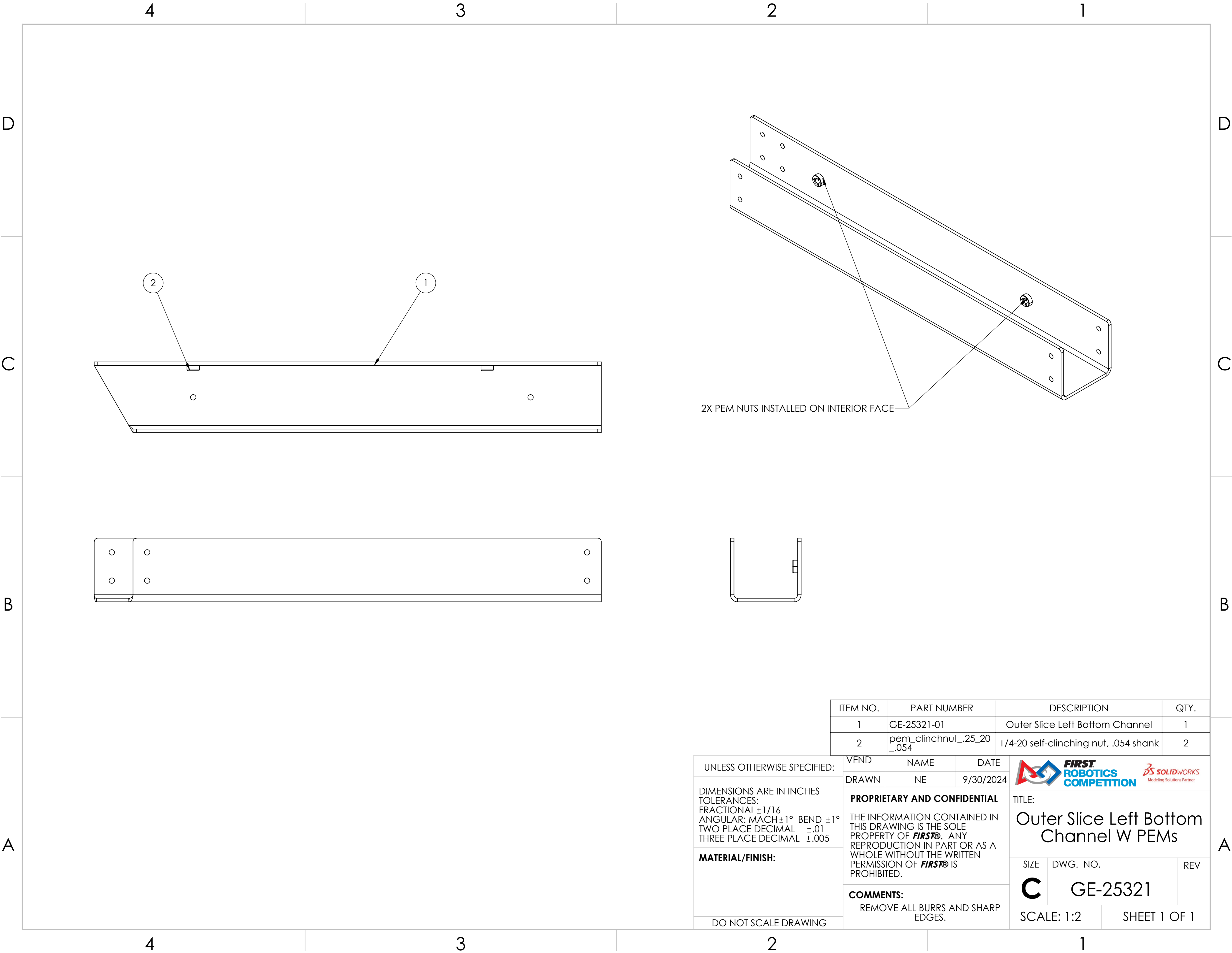
UNLESS OTHERWISE SPECIFIED:	VEND	NAME	DATE	<div></div>		
	DRAWN	NE	10/1/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	PROPRIETARY AND CONFIDENTIAL			TITLE:		
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			Slice Top Cover		
MATERIAL/FINISH:  0.25" HDPE, Black Matte Finish	COMMENTS:  REMOVE ALL BURRS AND SHARP EDGES.			SIZE	DWG. NO.	REV
				C	GE-25316	A
DO NOT SCALE DRAWING				SCALE: 1:2		SHEET 1 OF 1



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25321	Outer Slice Left Bottom Channel W PEMs	1
2	GE-25322	Outer Slice Right Bottom Channel W PEMs	1
3	GE-25323	Outer Slice Center Vertical	1
4	GE-25326	Outer Slice Left Top Channel W PEMs	1
5	GE-25327	Outer Slice Right Top Channel W PEMs	1
6	GE-25328	Outer Slice End Vertical Left	1
7	GE-25329	Outer Slice End Vertical Right	1
8	rivet_.1875_.251-.375	3/16" Aluminum Rivet, .251-.375 Grip Range	40



UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005  <b>MATERIAL/FINISH:</b>     <b>DO NOT SCALE DRAWING</b>		VEND	NAME	DATE	<div></div> <div>TITLE:  Outer Slice Assembly</div> <div><div>SIZE</div><div>DWG. NO.</div><div>REV</div><div>C</div><div>GE-25320</div><div>SCALE: 1:4</div><div>SHEET 1 OF 1</div></div>		
		DRAWN	NE	10/1/2024			
		<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.					
		<b>COMMENTS:</b>  REMOVE ALL BURRS AND SHARP EDGES.					

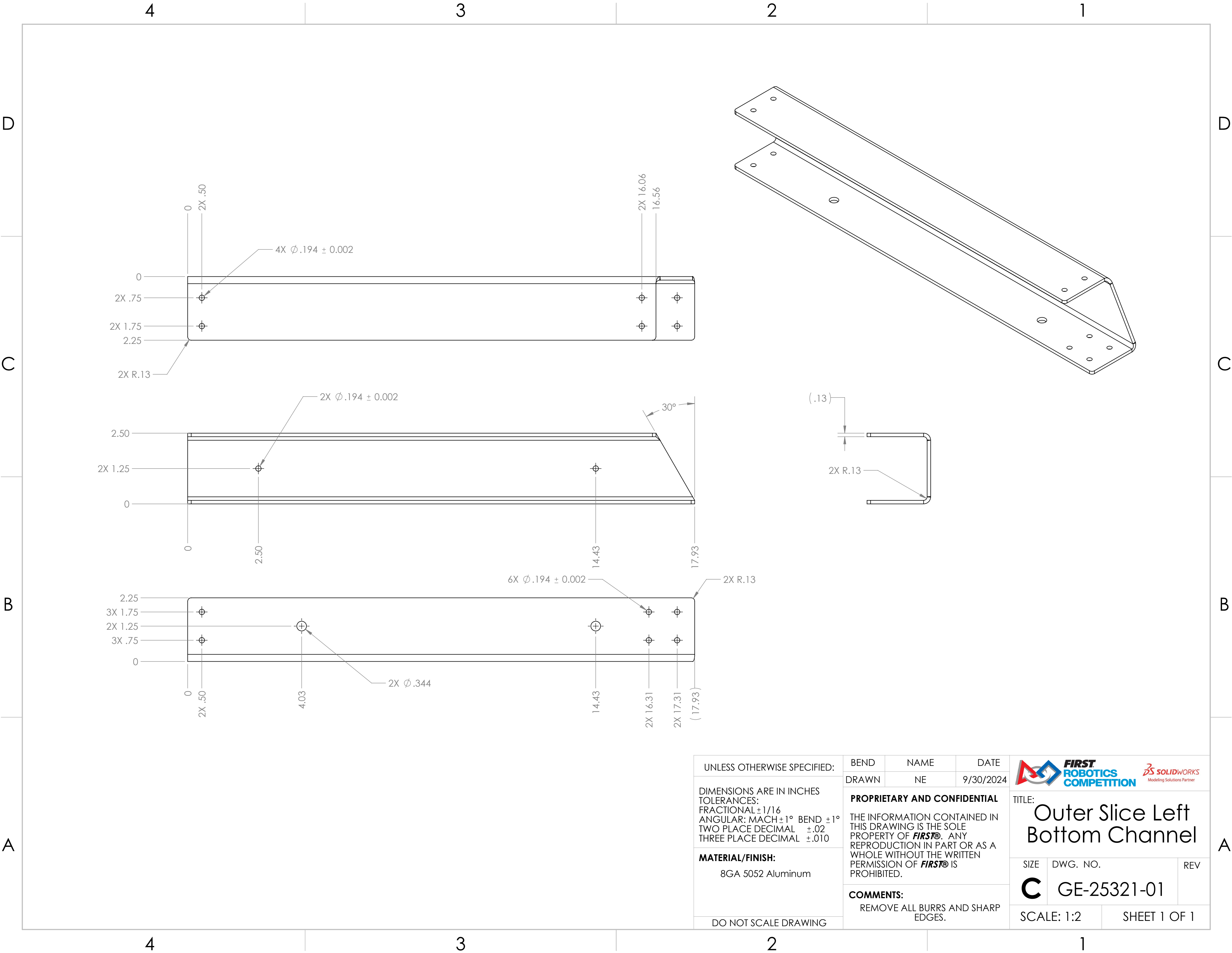






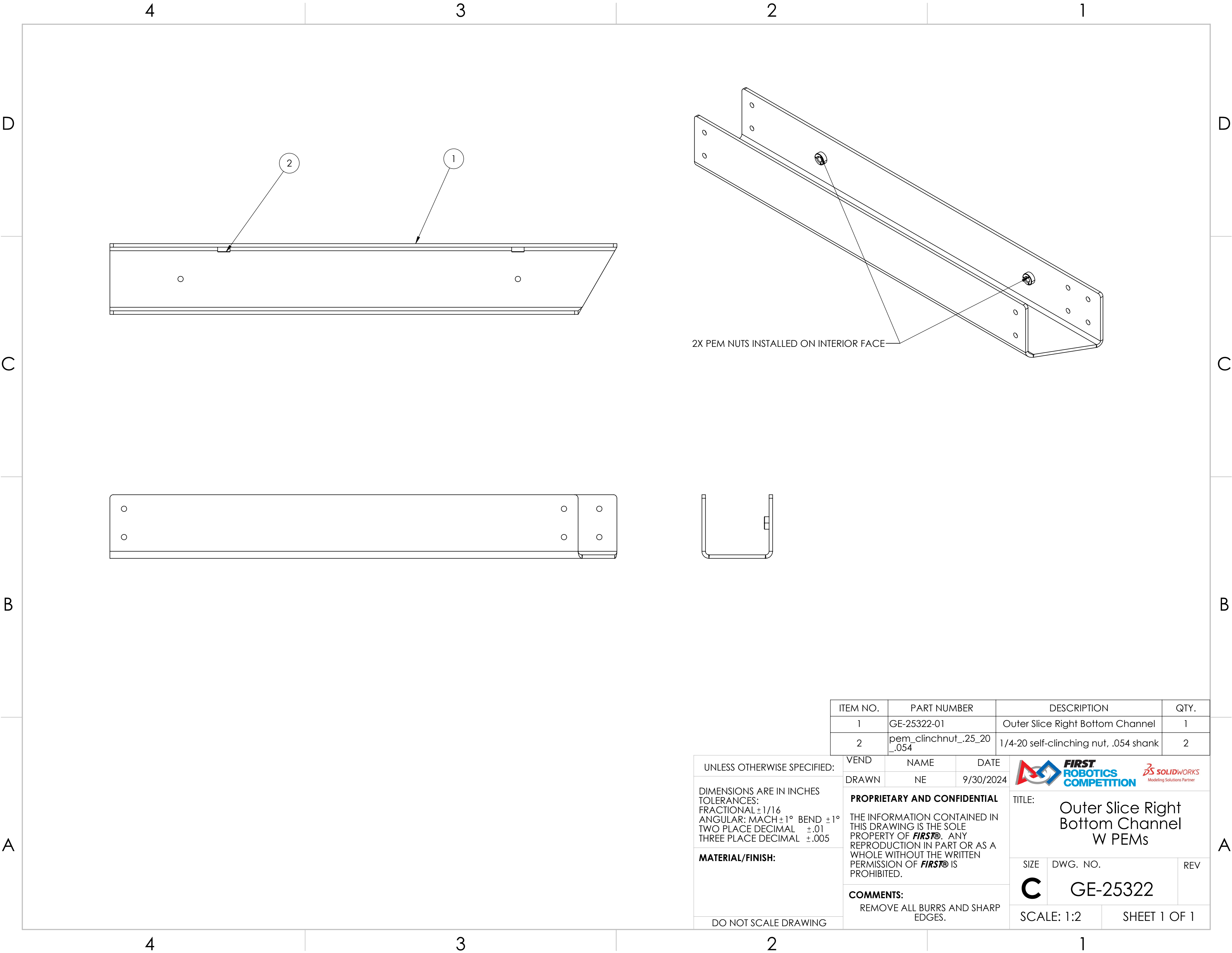
2X PEM NUTS INSTALLED ON INTERIOR FACE

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25321-01	Outer Slice Left Bottom Channel	1
2	pem_clinchnut_.25_20_.054	1/4-20 self-clinching nut, .054 shank	2



<div>UNLESS OTHERWISE SPECIFIED:</div> <div>DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005</div> <div>MATERIAL/FINISH:</div> <div>DO NOT SCALE DRAWING</div>	VEND	NAME	DATE	<div><div></div><div>TITLE: Outer Slice Left Bottom Channel W PEMs</div><div><div>SIZE</div><div>DWG. NO.</div><div>REV</div></div><div><div>C</div><div>GE-25321</div></div><div><div>SCALE: 1:2</div><div>SHEET 1 OF 1</div></div></div>		
	DRAWN	NE	9/30/2024			
	PROPRIETARY AND CONFIDENTIAL					
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	COMMENTS: REMOVE ALL BURRS AND SHARP EDGES.					

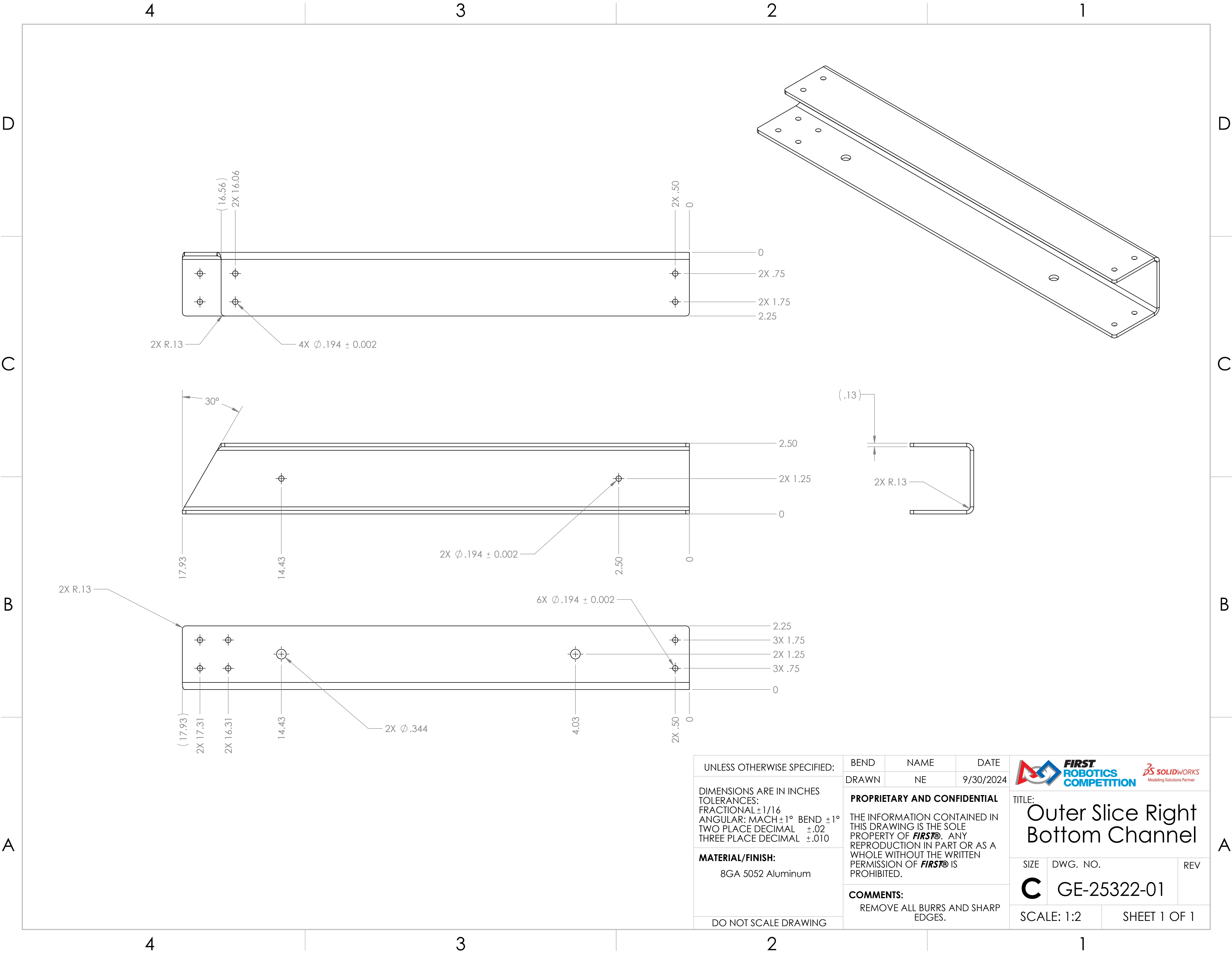




UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .02$ THREE PLACE DECIMAL $\pm .010$  <b>MATERIAL/FINISH:</b> 8GA 5052 Aluminum  DO NOT SCALE DRAWING	BEND	NAME	DATE	<div></div> <div>TITLE: <b>Outer Slice Left Bottom Channel</b></div>	
	DRAWN	NE	9/30/2024		
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE	DWG. NO.
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			<b>C</b>	GE-25321-01
SCALE: 1:2		SHEET 1 OF 1			

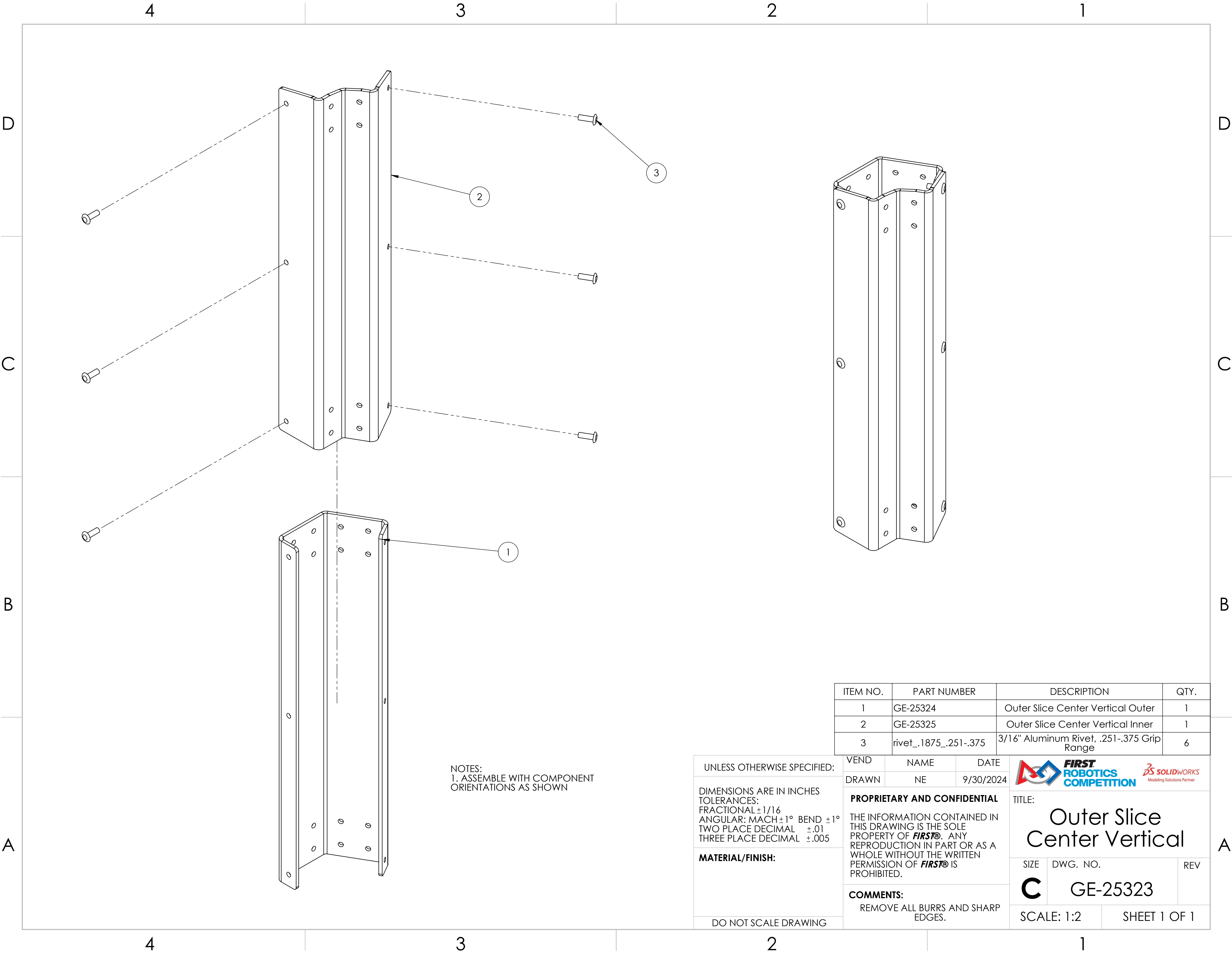


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25322-01	Outer Slice Right Bottom Channel	1
2	pem_clinchnut_.25_20_.054	1/4-20 self-clinching nut, .054 shank	2

UNLESS OTHERWISE SPECIFIED:	VEND	NAME	DATE	<div><div></div><div>TITLE: Outer Slice Right Bottom Channel W PEMs</div></div>		
	DRAWN	NE	9/30/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	PROPRIETARY AND CONFIDENTIAL			SIZE C		
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.					
MATERIAL/FINISH:	COMMENTS:			DWG. NO.		REV
	REMOVE ALL BURRS AND SHARP EDGES.			GE-25322		
DO NOT SCALE DRAWING				SCALE: 1:2		SHEET 1 OF 1





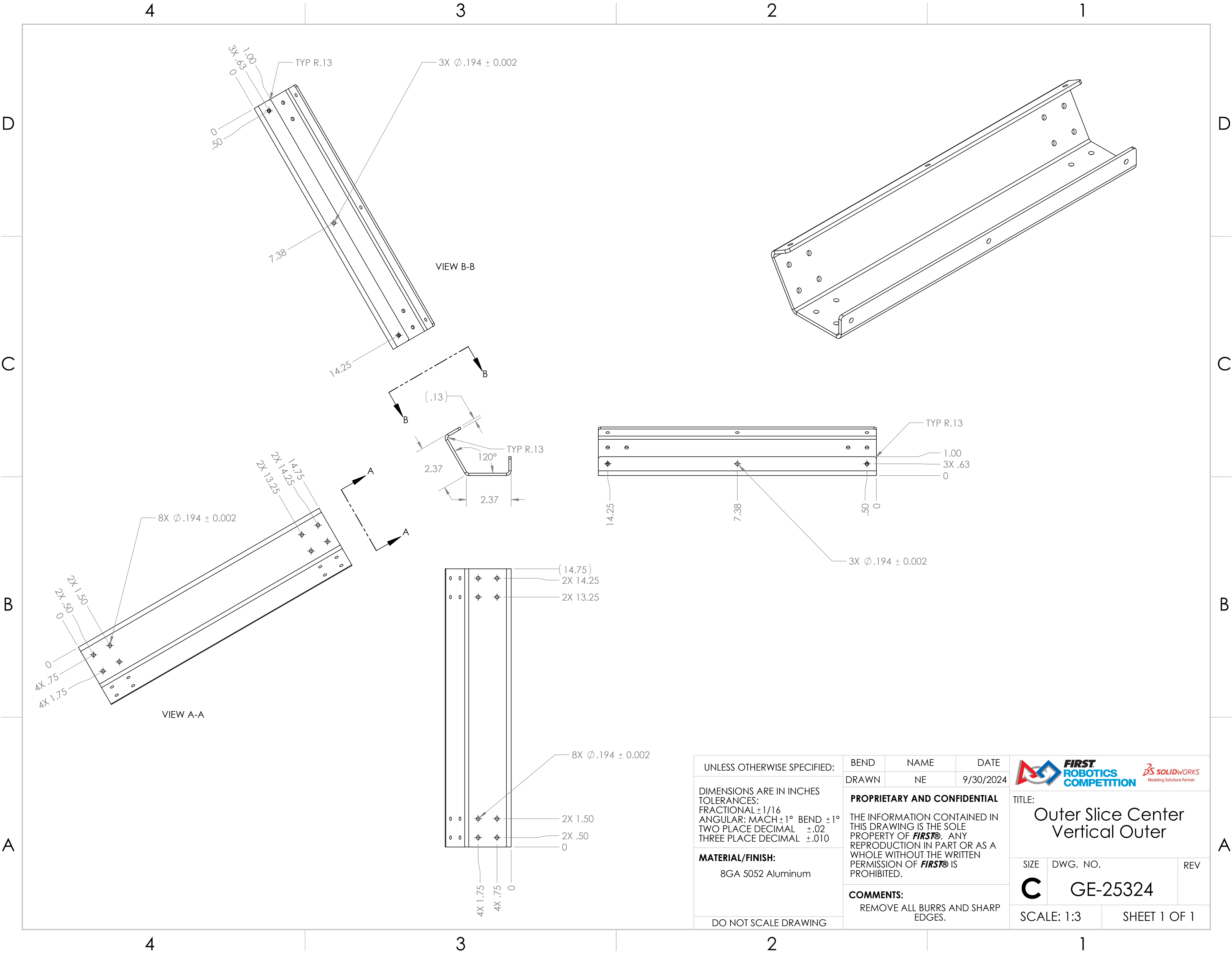
UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .02$ THREE PLACE DECIMAL $\pm .010$  <b>MATERIAL/FINISH:</b>  8GA 5052 Aluminum  DO NOT SCALE DRAWING	BEND	NAME	DATE	<div></div> <div>TITLE: <b>Outer Slice Right Bottom Channel</b></div>	
	DRAWN	NE	9/30/2024		
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE	DWG. NO.
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			<b>C</b>	GE-25322-01
SCALE: 1:2		SHEET 1 OF 1			



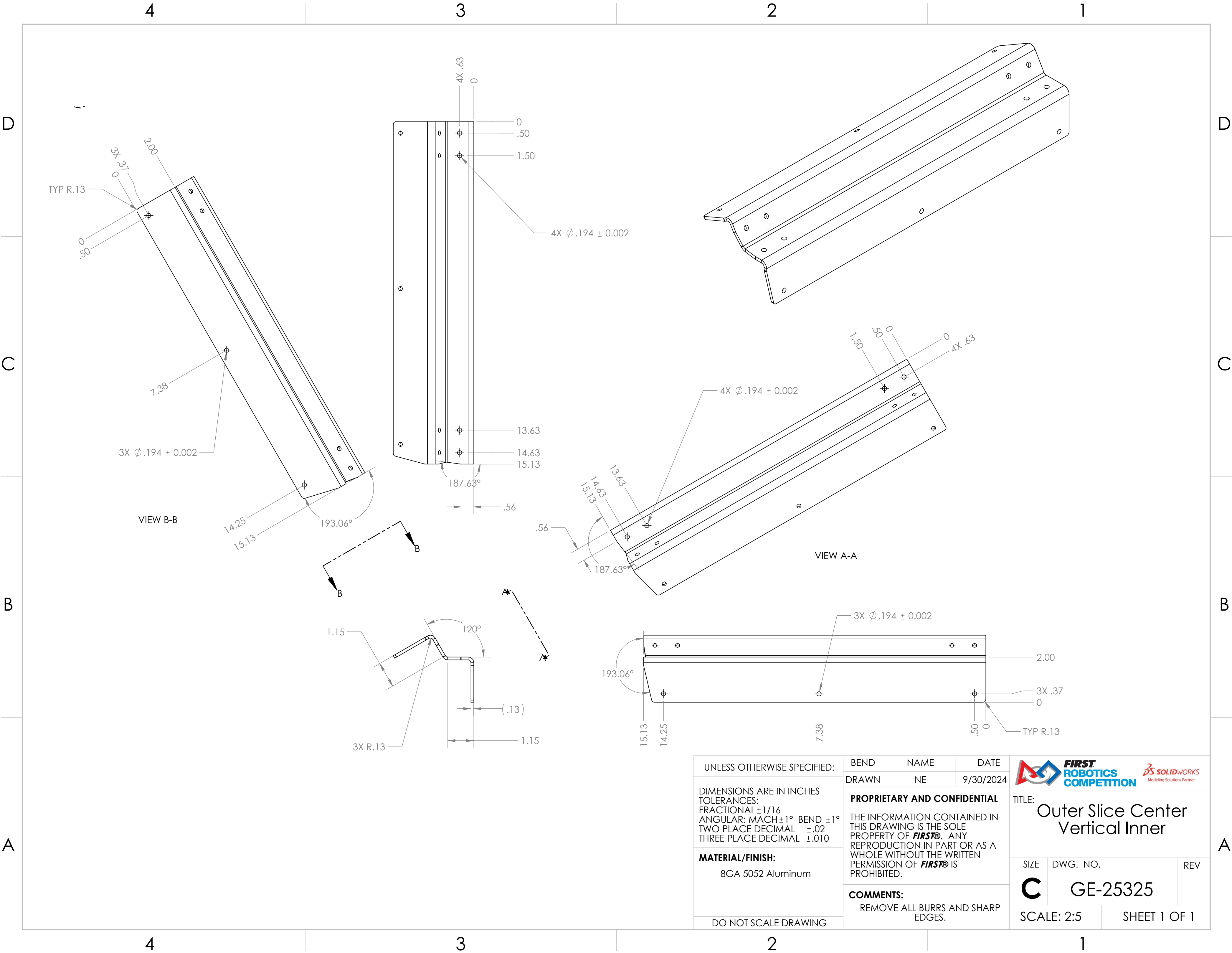
NOTES:  
1. ASSEMBLE WITH COMPONENT  
ORIENTATIONS AS SHOWN



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25324	Outer Slice Center Vertical Outer	1
2	GE-25325	Outer Slice Center Vertical Inner	1
3	rivet_.1875_.251-.375	3/16" Aluminum Rivet, .251-.375 Grip Range	6

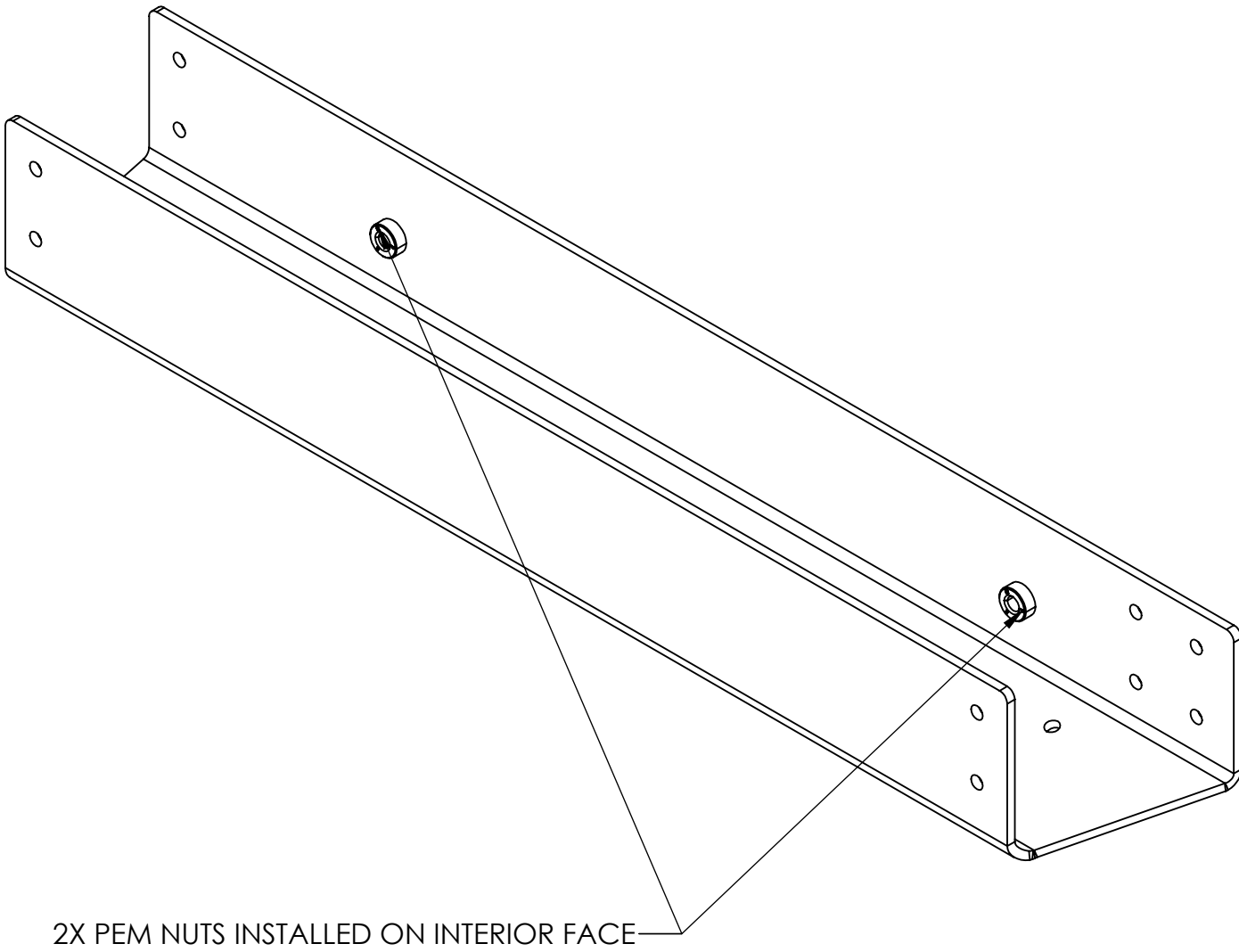
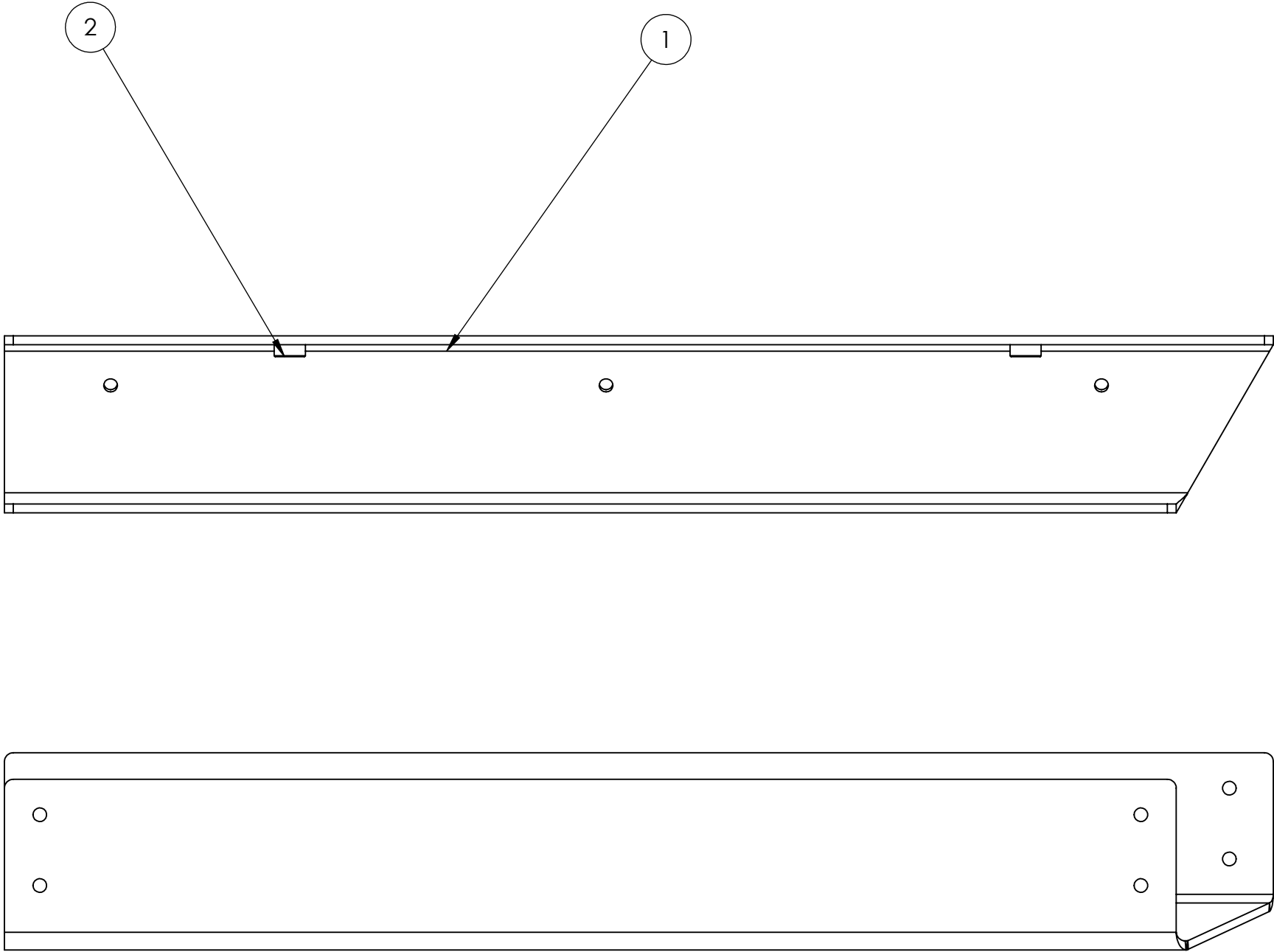
UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005  <b>MATERIAL/FINISH:</b>          DO NOT SCALE DRAWING	VEND	NAME	DATE	<div></div>	
	DRAWN	NE	9/30/2024		
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.  <b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.				TITLE:  Outer Slice Center Vertical
		SIZE	DWG. NO.		REV
		C	GE-25323		
			SCALE: 1:2		SHEET 1 OF 1



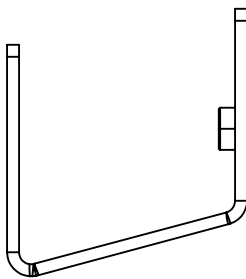






UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.02 THREE PLACE DECIMAL ±.010  <b>MATERIAL/FINISH:</b>  8GA 5052 Aluminum  DO NOT SCALE DRAWING	BEND	NAME	DATE	<div></div> <div>TITLE: Outer Slice Center Vertical Inner</div> <div>SIZE <b>C</b></div> <div>SCALE: 2:5</div>			
	DRAWN	NE	9/30/2024			<div>DWG. NO. GE-25325</div> <div>REV</div> <div>SHEET 1 OF 1</div>	
	<b>PROPRIETARY AND CONFIDENTIAL</b>						
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.						
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.						

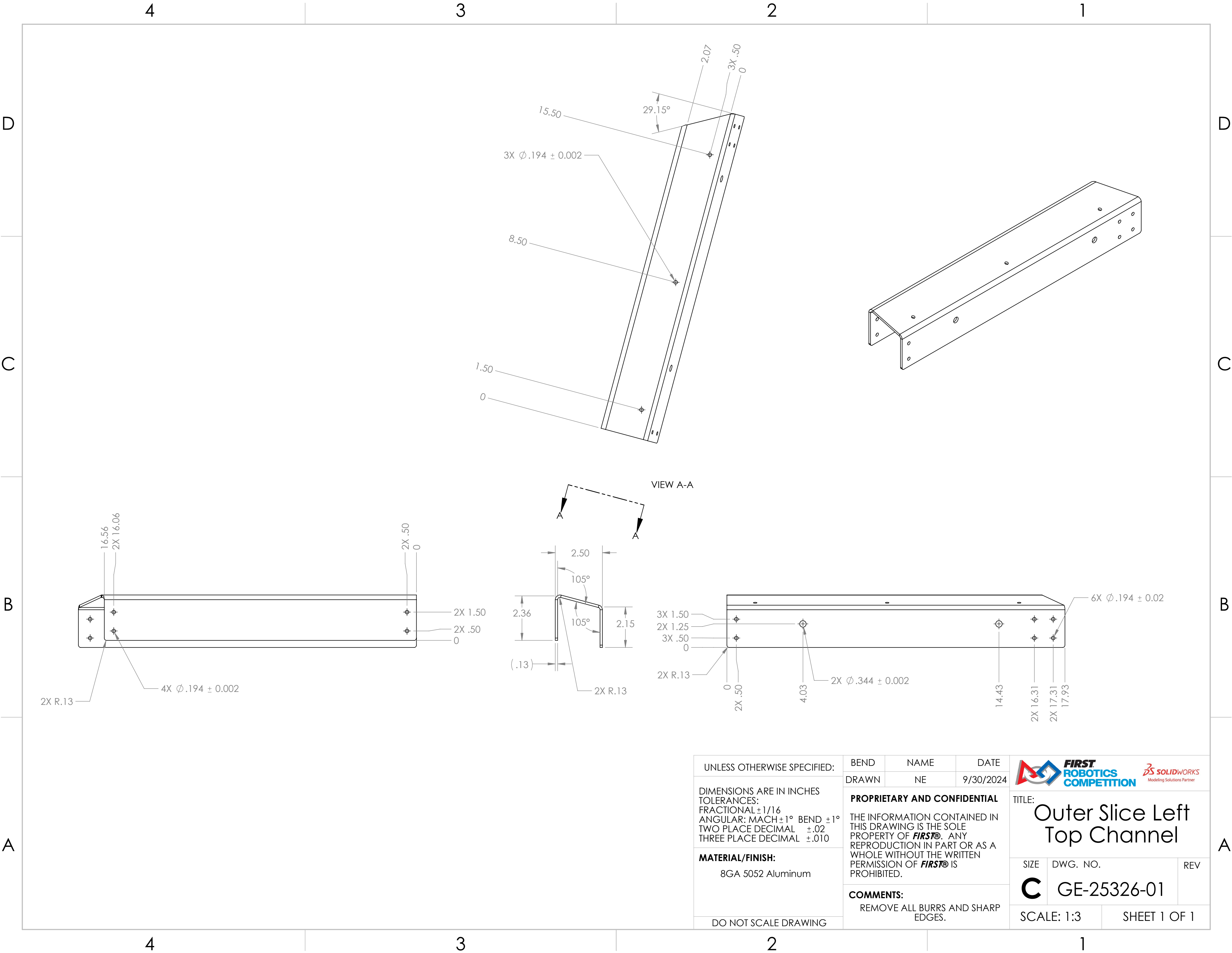


2X PEM NUTS INSTALLED ON INTERIOR FACE



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25326-01	Outer Slice Left Top Channel	1
2	pem_clinchnut_.25_20 _.054	1/4-20 self-clinching nut, .054 shank	2

UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005  <b>MATERIAL/FINISH:</b>     <b>DO NOT SCALE DRAWING</b>	VEND	NAME	DATE	<div><div></div><div>TITLE: Outer Slice Left Top Channel W PEMs</div></div>		
	DRAWN	NE	9/30/2024			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.  <b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.				SIZE	DWG. NO.
				C	GE-25326	
				SCALE: 1:2		SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .02$   
THREE PLACE DECIMAL  $\pm .010$

**MATERIAL/FINISH:**  
8GA 5052 Aluminum

DO NOT SCALE DRAWING

BEND

DRAWN

NAME

NE

DATE

9/30/2024

**PROPRIETARY AND CONFIDENTIAL**

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF **FIRST**. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF **FIRST** IS PROHIBITED.

**COMMENTS:**

REMOVE ALL BURRS AND SHARP EDGES.

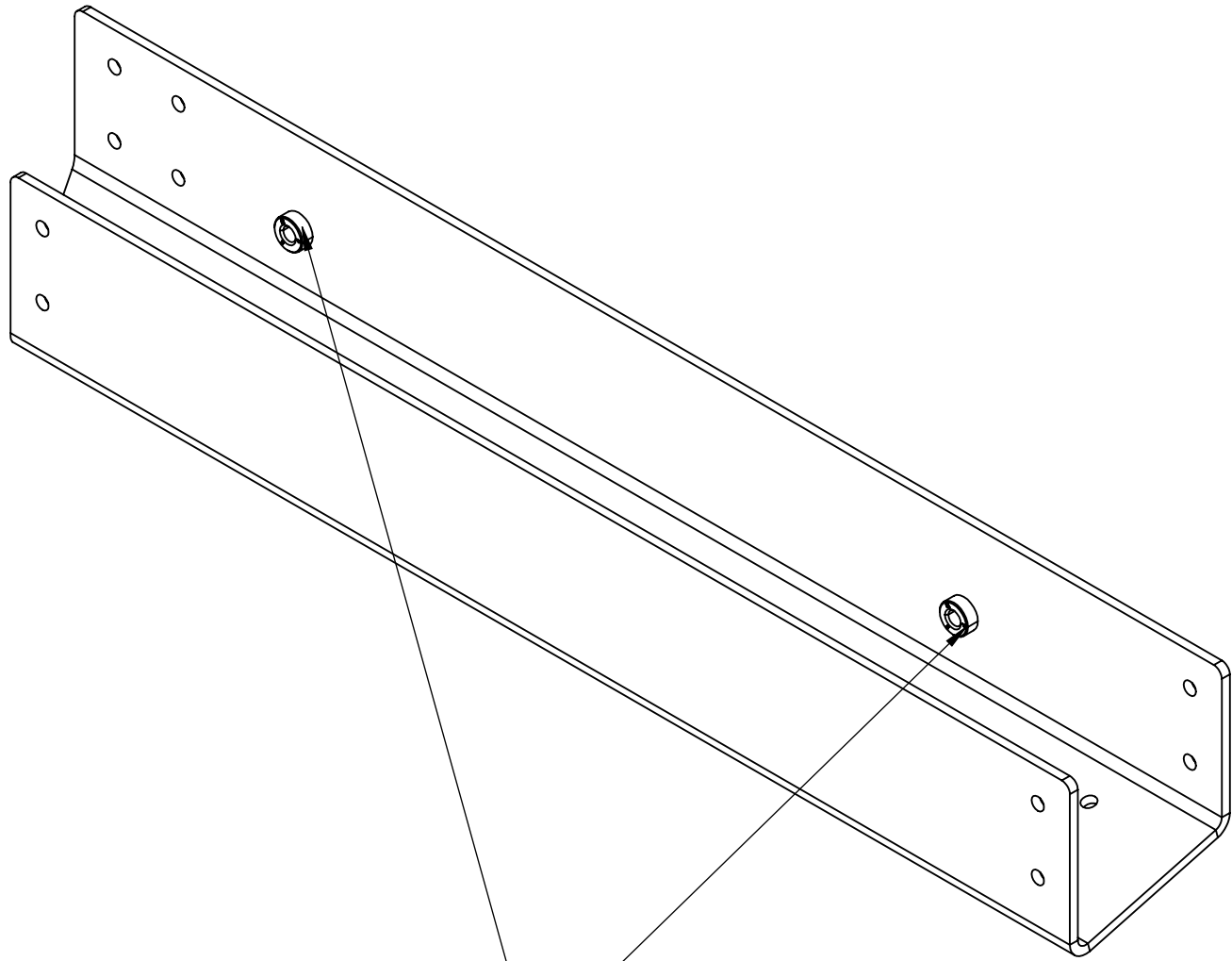
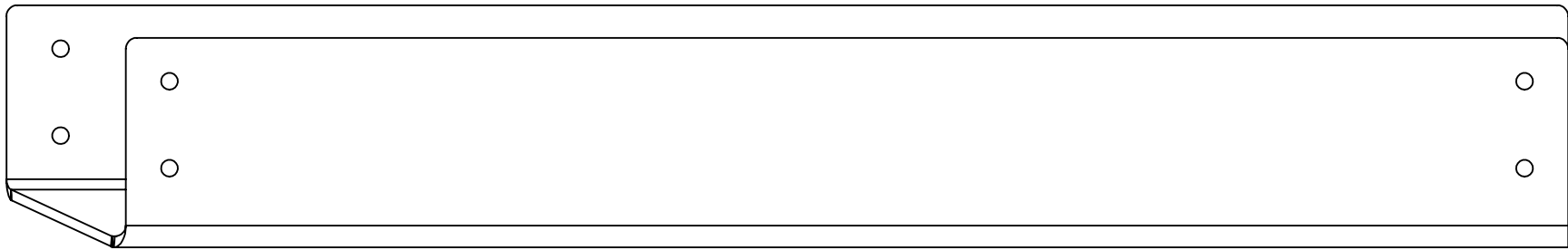
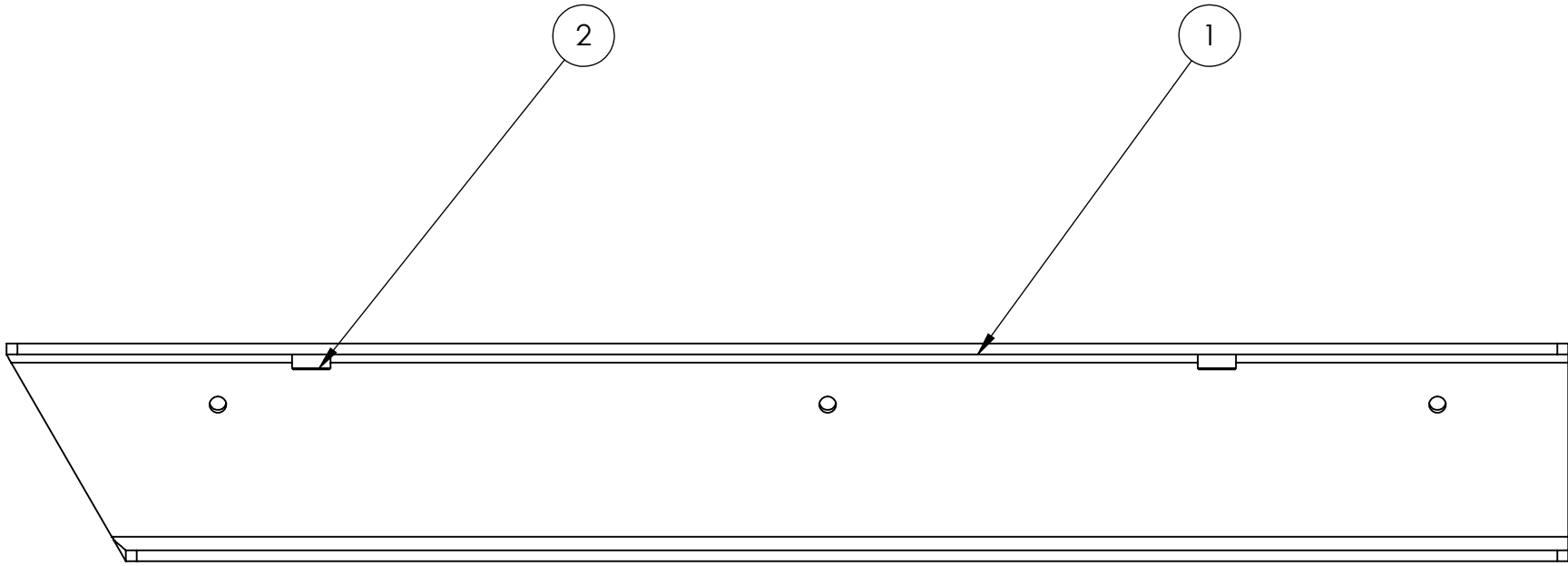


TITLE:  
**Outer Slice Left Top Channel**

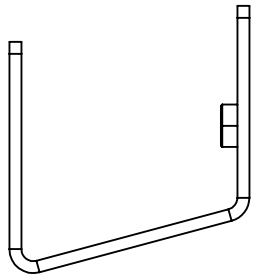
SIZE DWG. NO. REV

**C** GE-25326-01



SCALE: 1:3 SHEET 1 OF 1

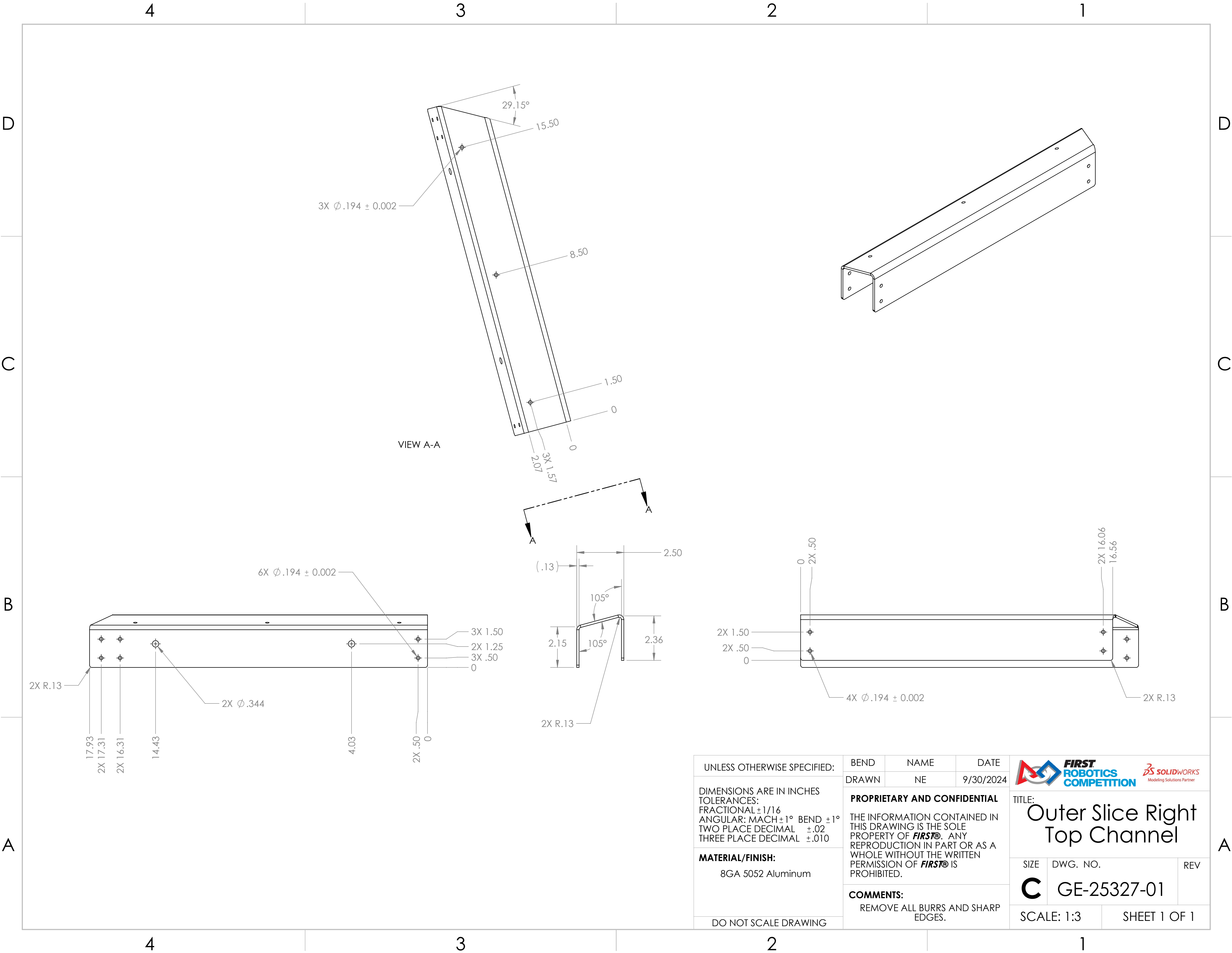




2X PEM NUTS INSTALLED ON INTERIOR FACE



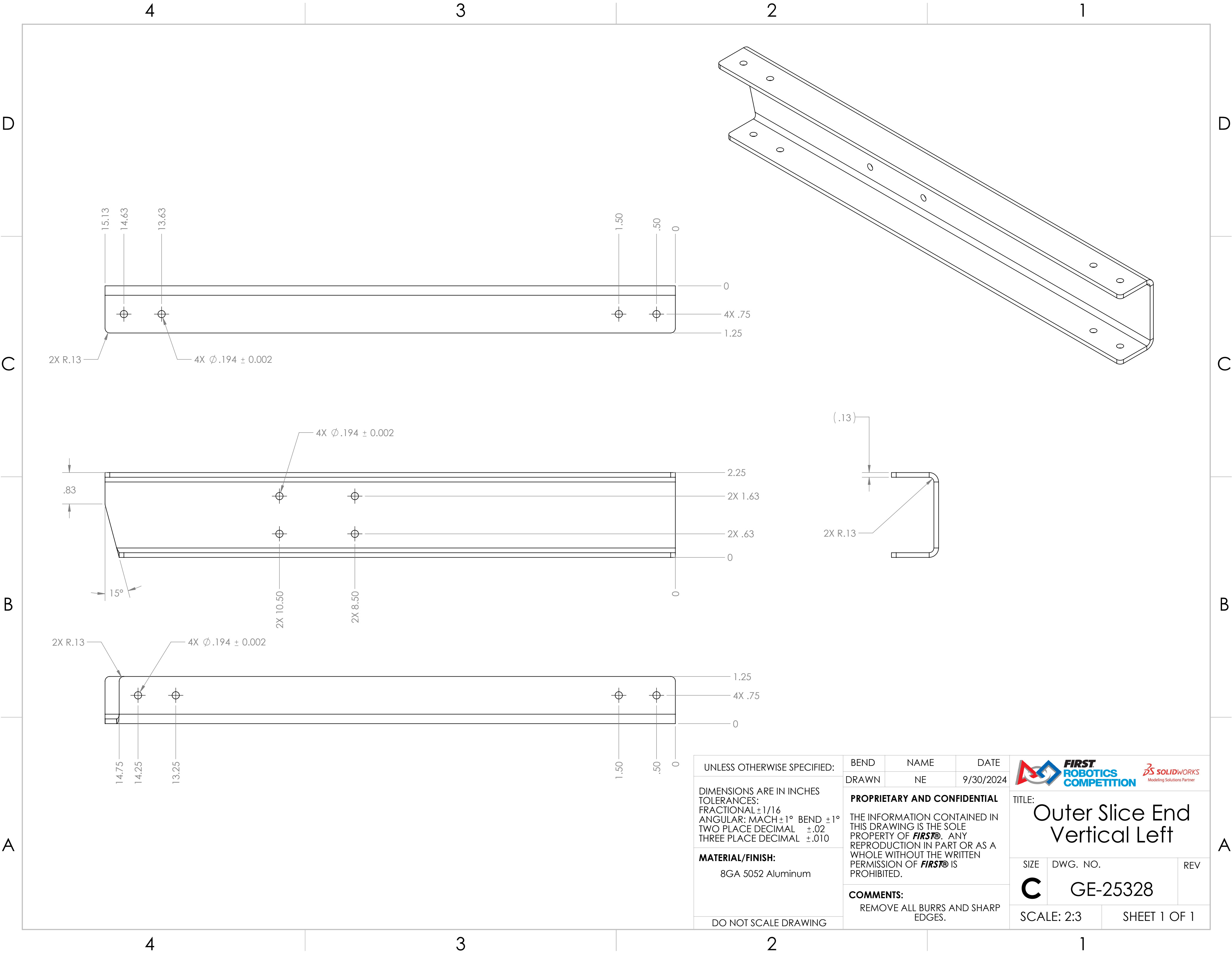
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25327-01	Outer Slice Right Top Channel	1
2	pem_clinchnut_.25_20 _.054	1/4-20 self-clinching nut, .054 shank	2

UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005  <b>MATERIAL/FINISH:</b>          <b>DO NOT SCALE DRAWING</b>	VEND	NAME	DATE	<div><div></div><div>TITLE: Outer Slice Right Top Channel W PEMs</div><div><div>SIZE</div><div>DWG. NO.</div><div>REV</div></div><div><div>C</div><div>GE-25327</div><div>SCALE: 1:2</div><div>SHEET 1 OF 1</div></div></div>					
	DRAWN	NE	9/30/2024						
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.								
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.								

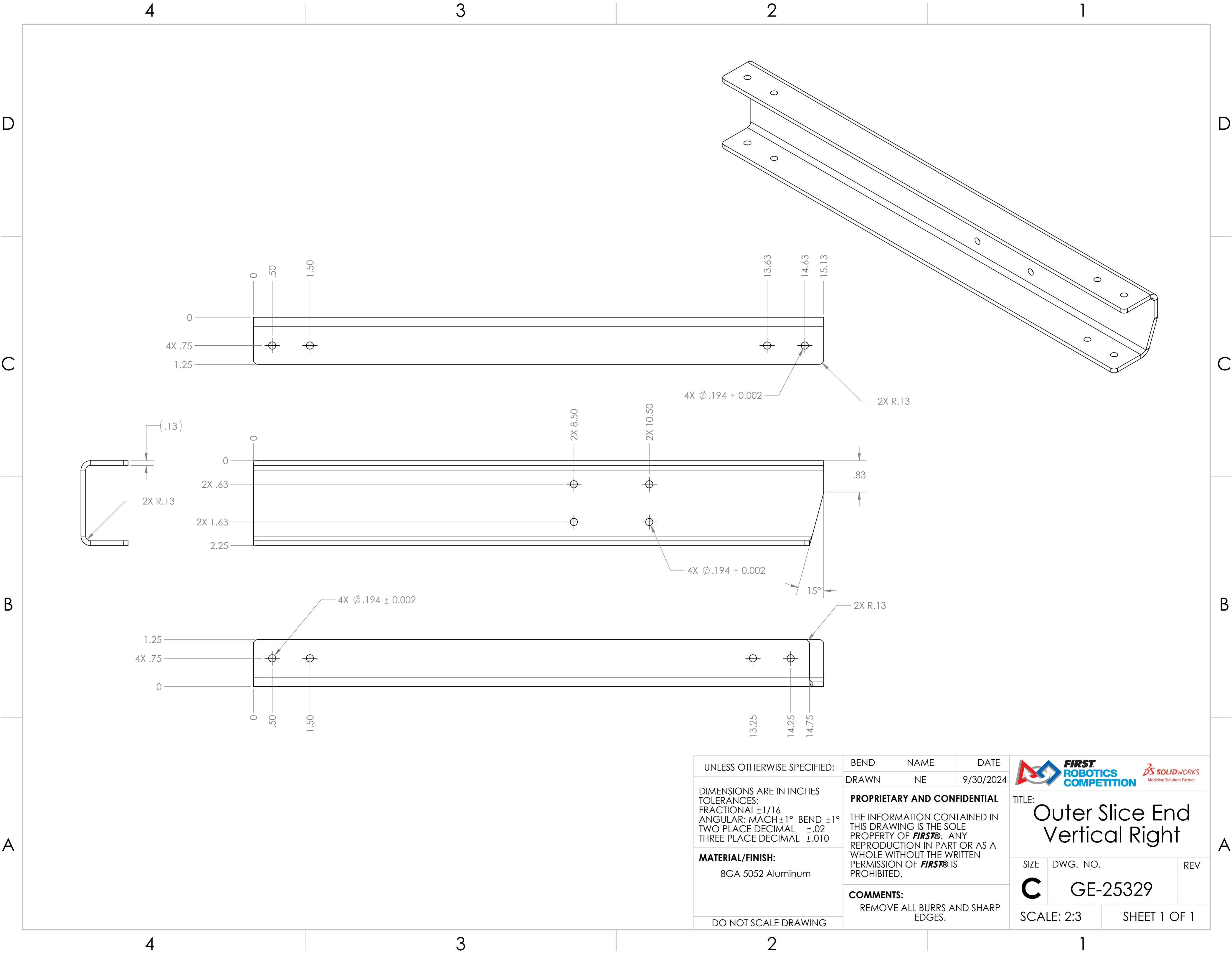




UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± 1/16 ANGULAR: MACH ± 1° BEND ± 1° TWO PLACE DECIMAL ± .02 THREE PLACE DECIMAL ± .010  <b>MATERIAL/FINISH:</b> 8GA 5052 Aluminum  DO NOT SCALE DRAWING	BEND	NAME	DATE	<div></div> <div>TITLE: Outer Slice Right Top Channel</div>	
	DRAWN	NE	9/30/2024		
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE	DWG. NO.
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			<b>C</b>	GE-25327-01
SCALE: 1:3		SHEET 1 OF 1			

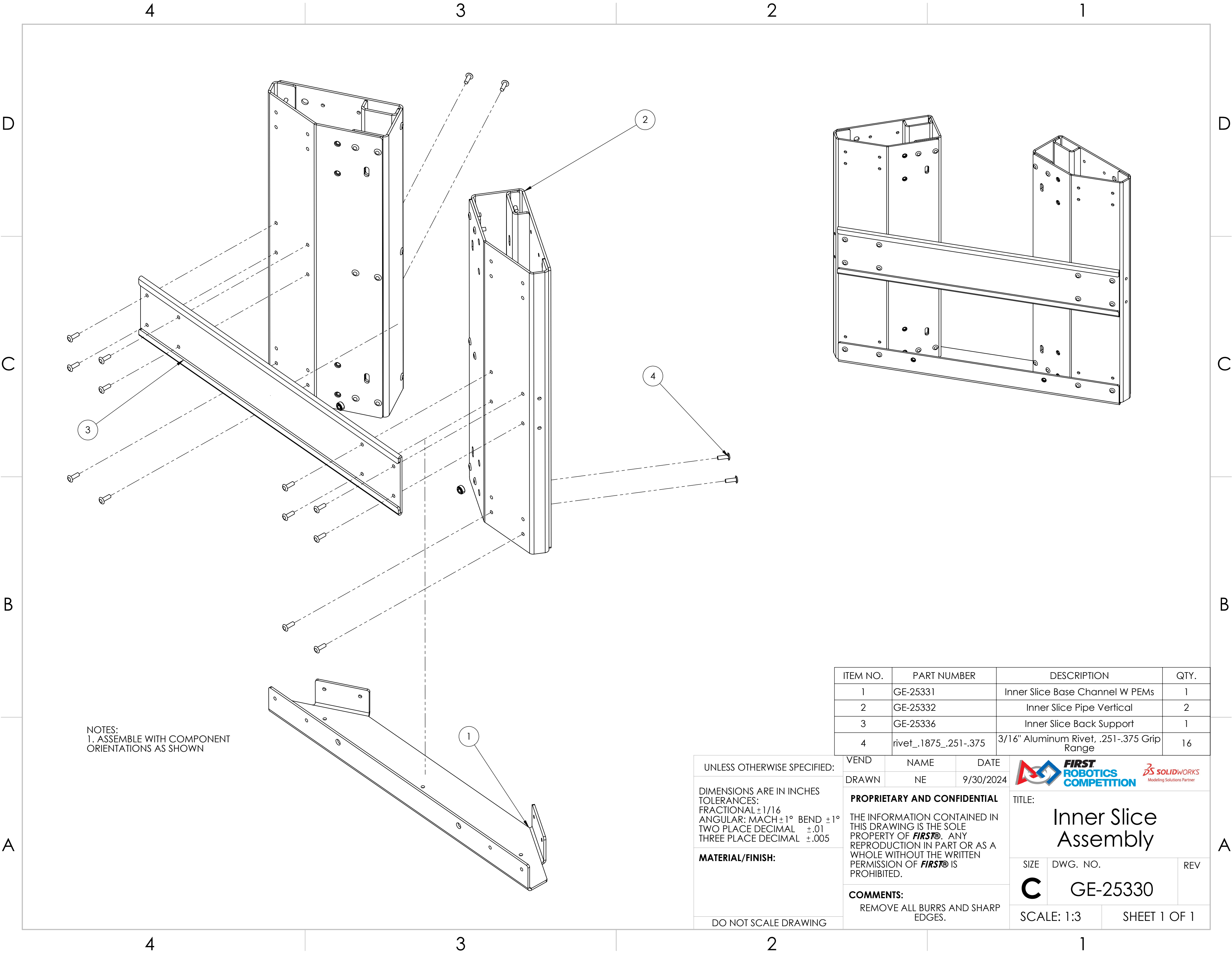










UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.02 THREE PLACE DECIMAL ±.010  <b>MATERIAL/FINISH:</b>  8GA 5052 Aluminum   DO NOT SCALE DRAWING	BEND	NAME	DATE	<div></div>	
	DRAWN	NE	9/30/2024		
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.  <b>COMMENTS:</b>  REMOVE ALL BURRS AND SHARP EDGES.				
TITLE:				Outer Slice End Vertical Right	
SIZE		DWG. NO.		REV	
C		GE-25329			
SCALE: 2:3			SHEET 1 OF 1		



NOTES:  
1. ASSEMBLE WITH COMPONENT  
ORIENTATIONS AS SHOWN

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25331	Inner Slice Base Channel W PEMs	1
2	GE-25332	Inner Slice Pipe Vertical	2
3	GE-25336	Inner Slice Back Support	1
4	rivet_.1875_.251-.375	3/16" Aluminum Rivet, .251-.375 Grip Range	16

UNLESS OTHERWISE SPECIFIED:		VEND	NAME	DATE	 	
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005  <b>MATERIAL/FINISH:</b>          <b>DO NOT SCALE DRAWING</b>		DRAWN	NE	9/30/2024	<div>TITLE:</div> <div>Inner Slice Assembly</div> <div><div>SIZE</div><div>DWG. NO.</div><div>REV</div><div>C</div><div>GE-25330</div><div><div>SCALE: 1:3</div><div>SHEET 1 OF 1</div></div></div>	
		<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.				
		<b>COMMENTS:</b>  REMOVE ALL BURRS AND SHARP EDGES.				

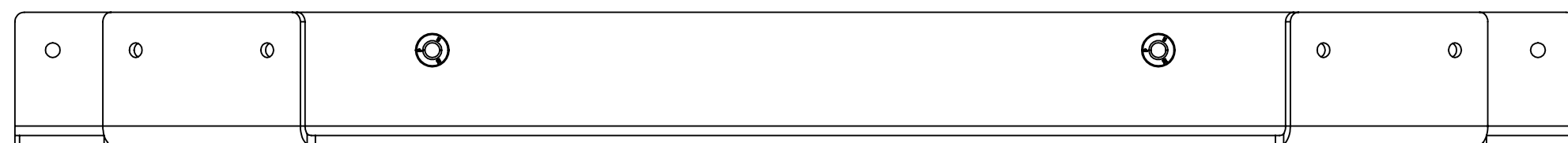
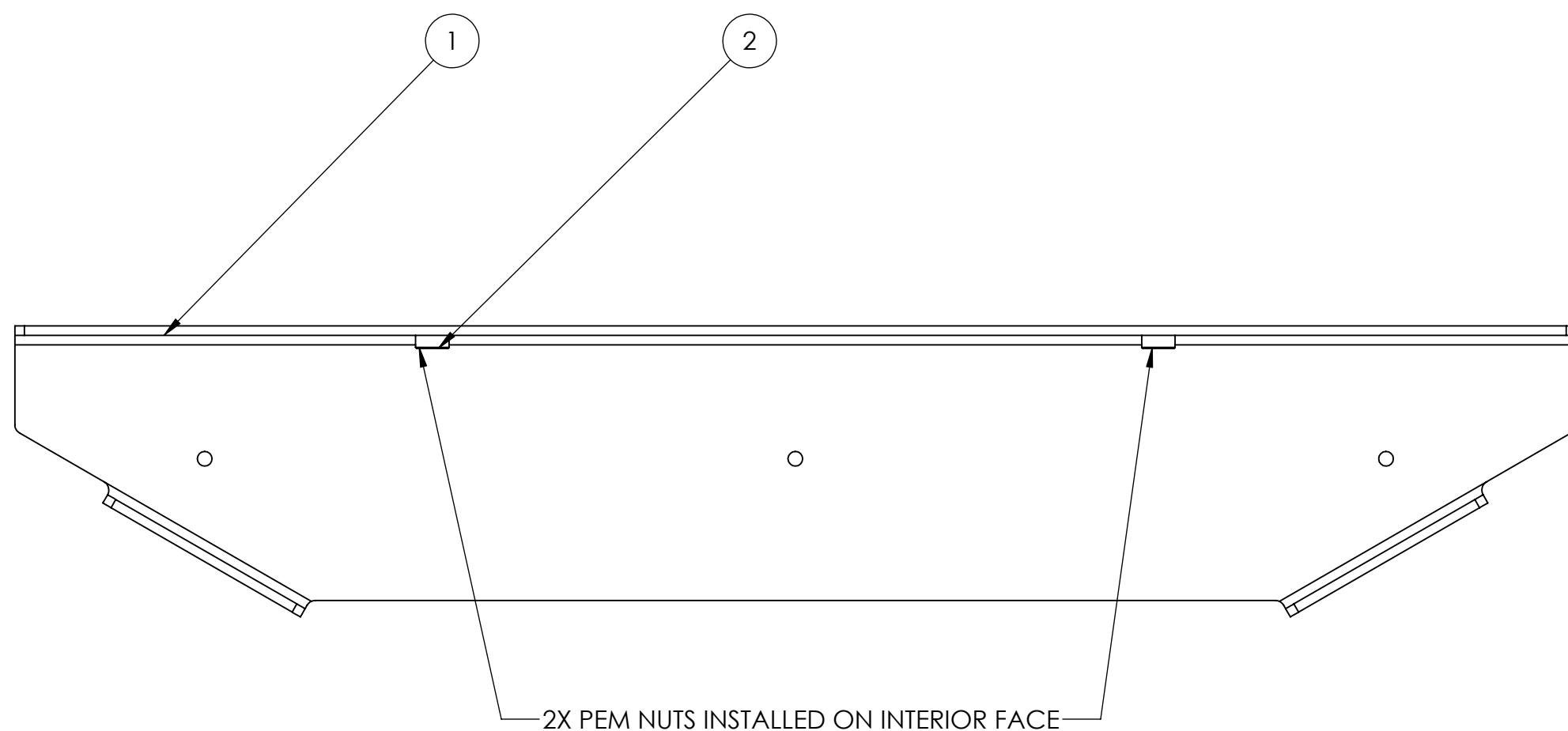
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3

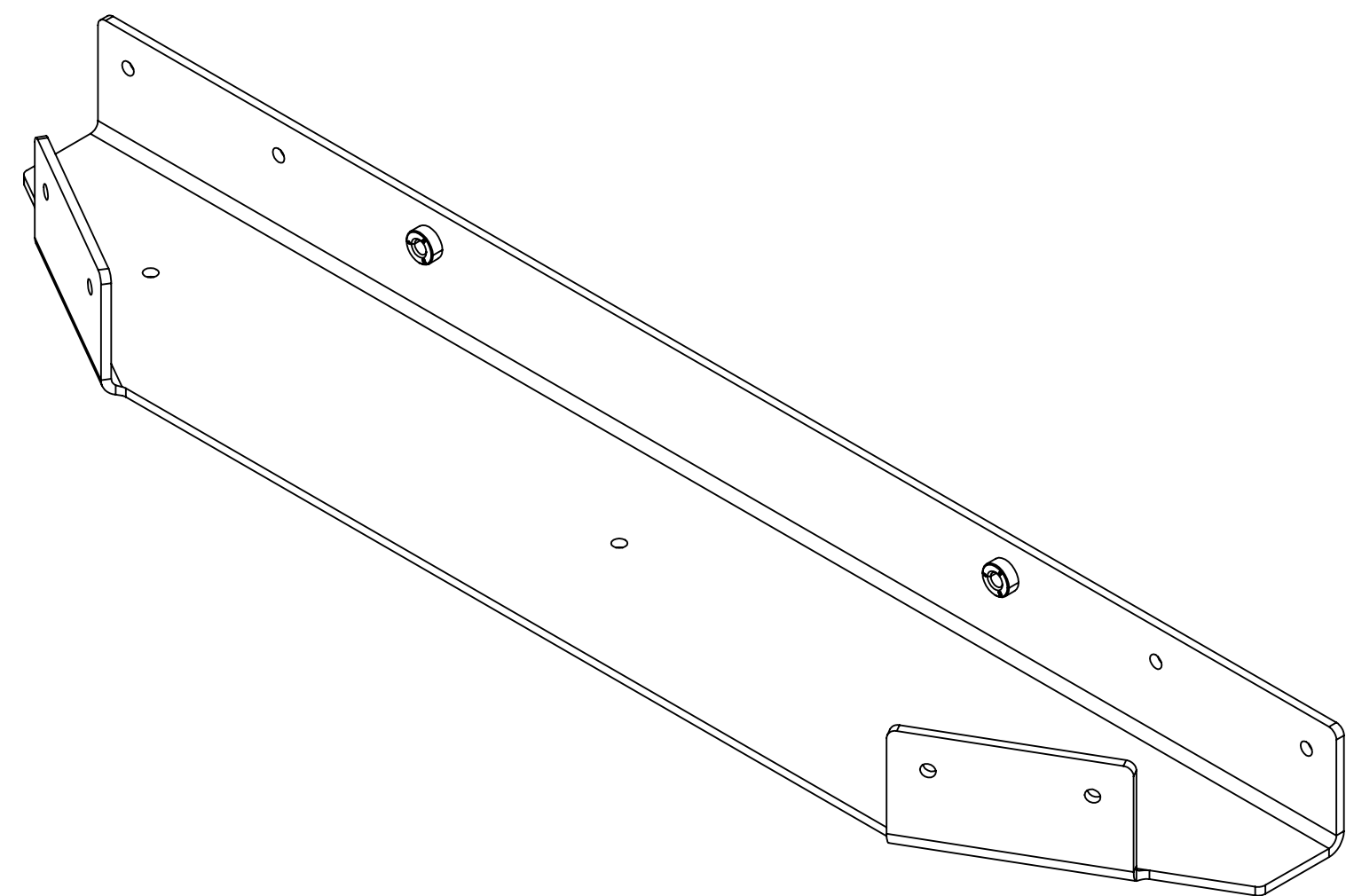
2

1

D



NOTES:  
1. REMOVE ALL BUTTS AND SHARP EDGES





C

B

A

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25331-01	Inner Slice Base Channel	1
2	pem_clinchnut_.25_20_054	1/4-20 self-clinching nut, .054 shank	2

UNLESS OTHERWISE SPECIFIED:		VEND		NAME		DATE	
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .005$		DRAWN		NE		9/30/2024	
		<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.					
		<b>COMMENTS:</b>  REMOVE ALL BURRS AND SHARP EDGES.					
MATERIAL/FINISH:		 					
DO NOT SCALE DRAWING		TITLE:  Inner Slice Base Channel W PEMs					
		SIZE  C		DWG. NO.  GE-25331			REV
		SCALE: 1:2			SHEET 1 OF 1		

4

3

2

1

D

D

C

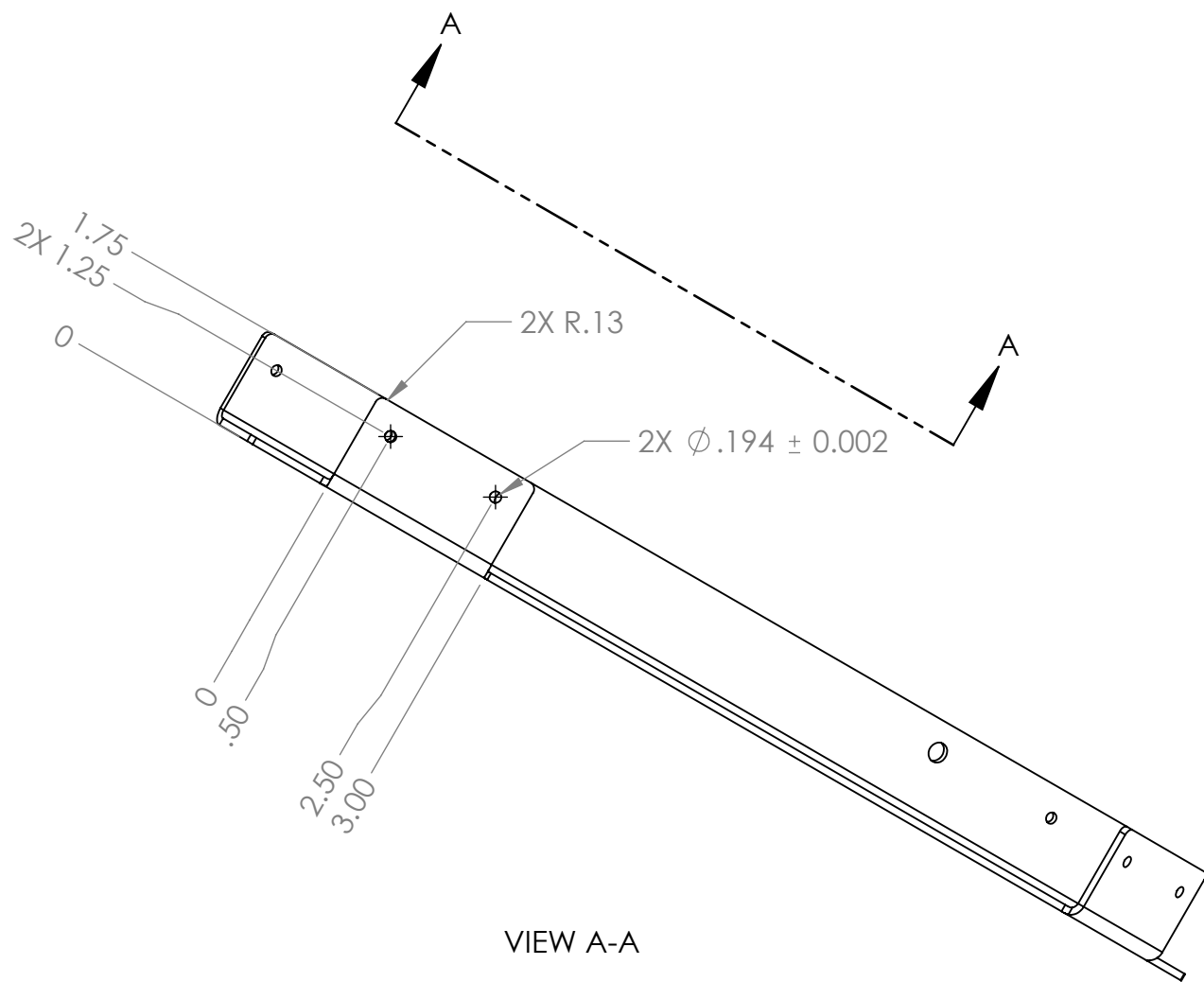
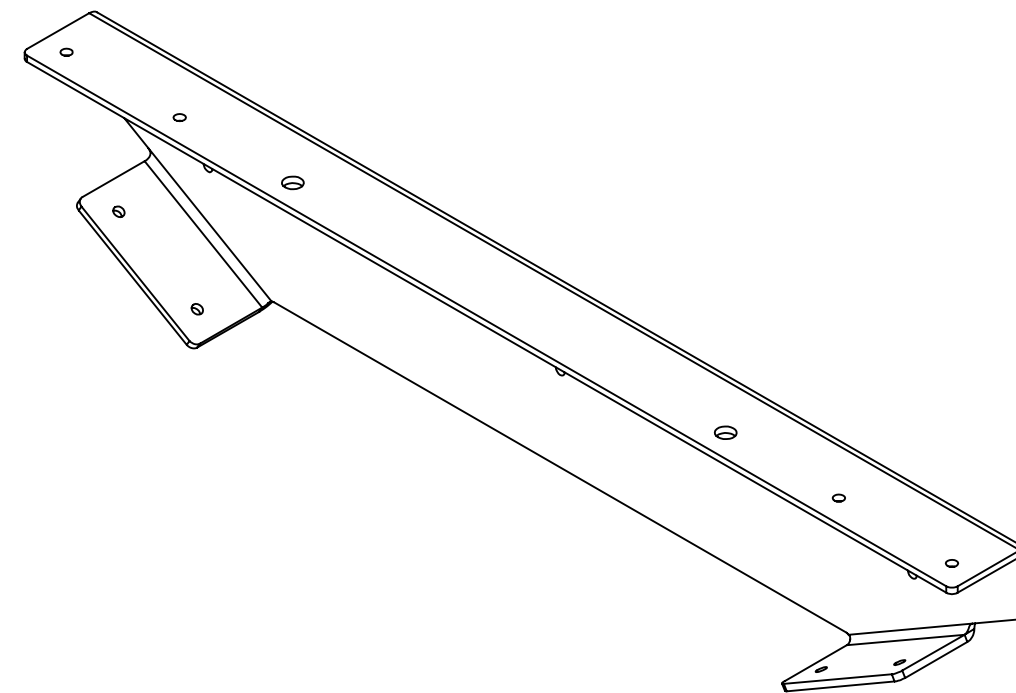
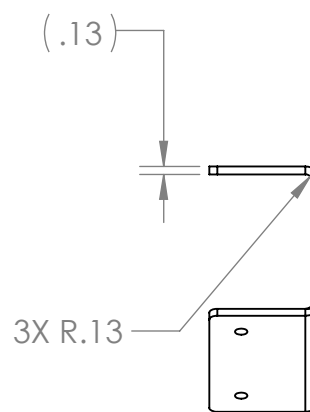
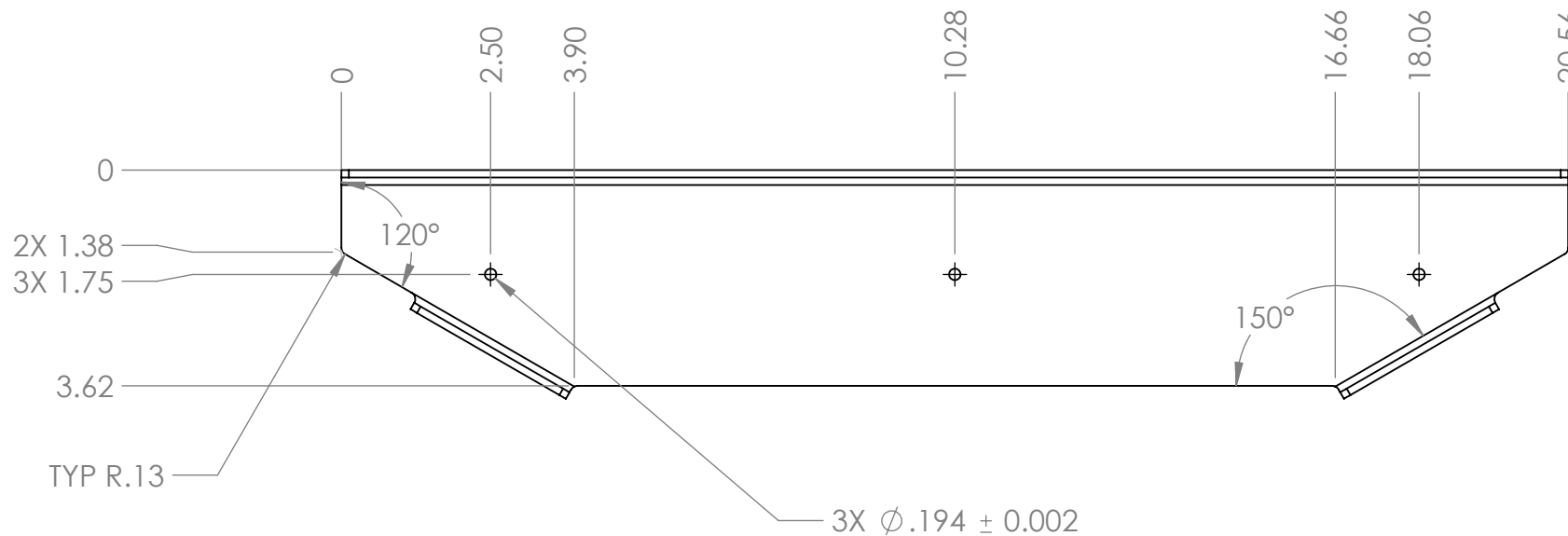
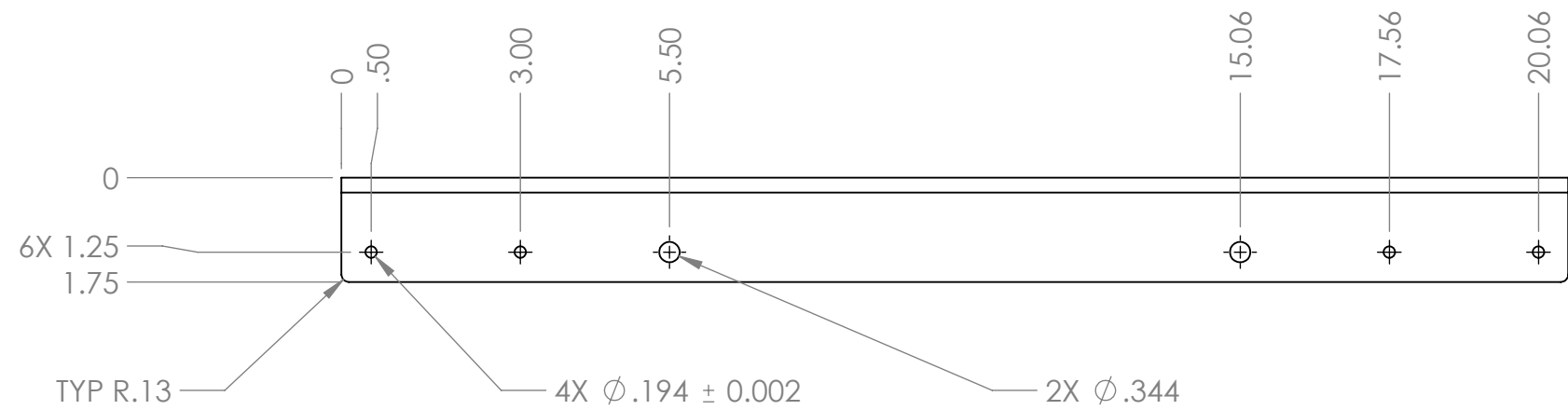
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B

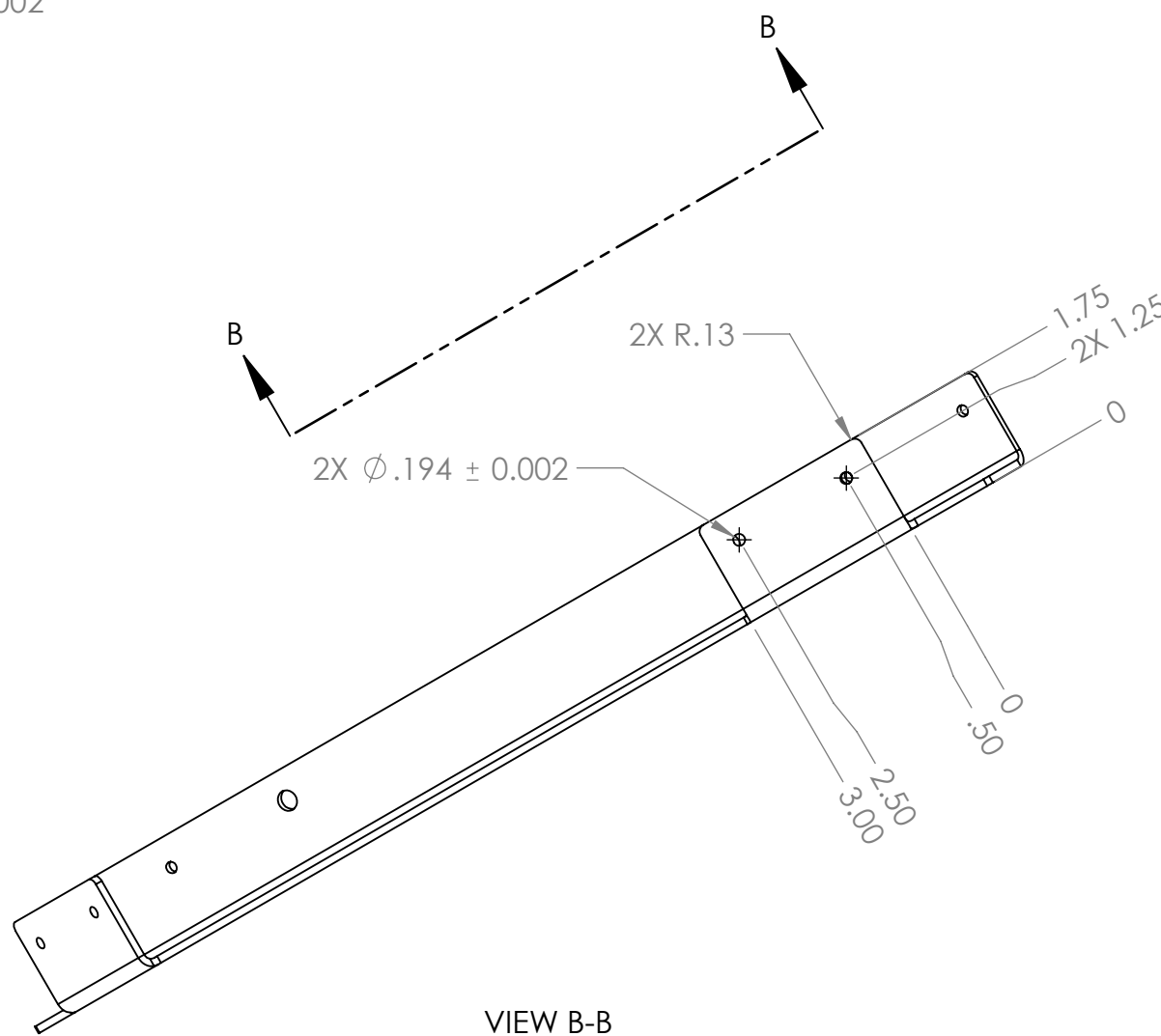
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A



A

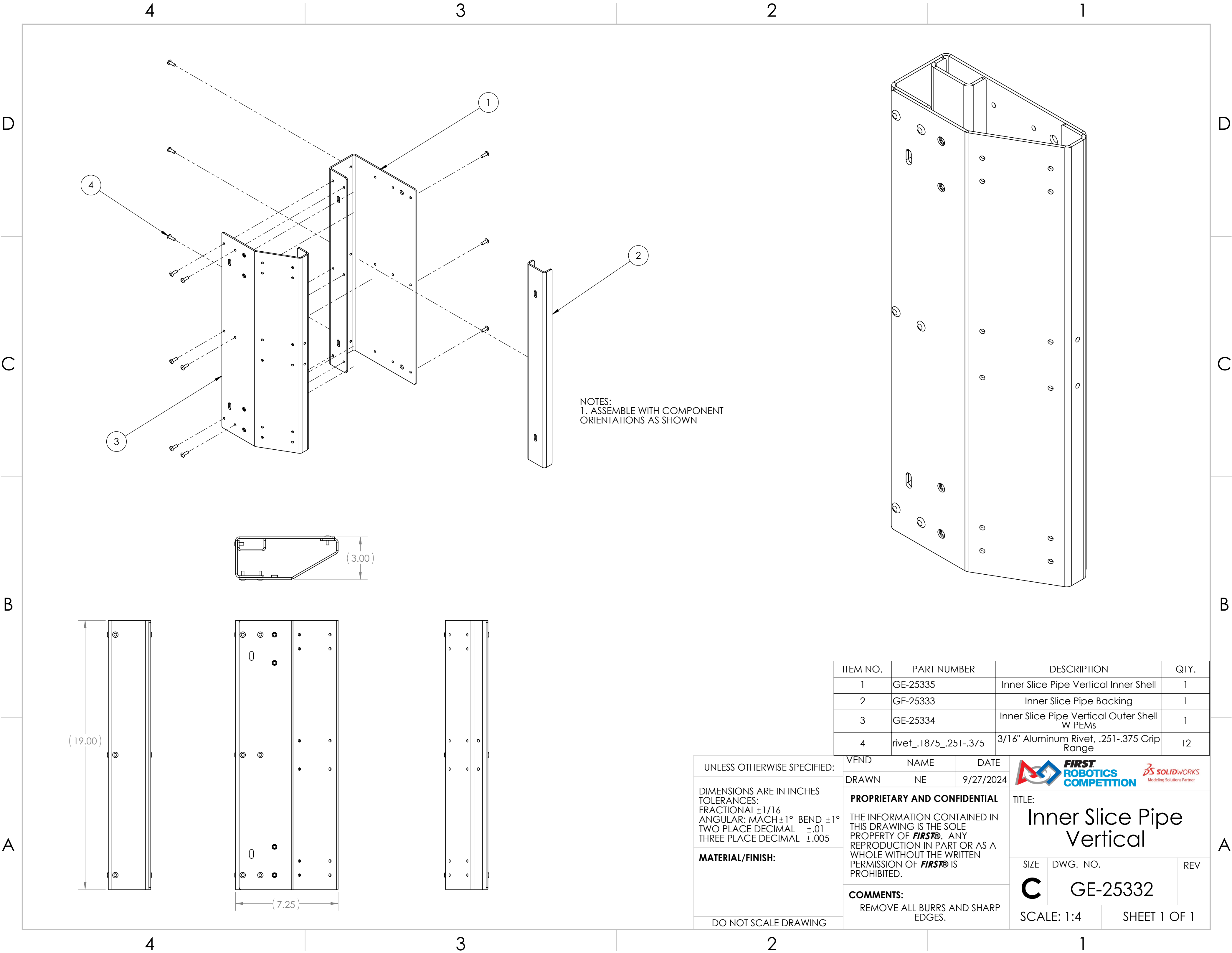


VIEW A-A





VIEW B-B

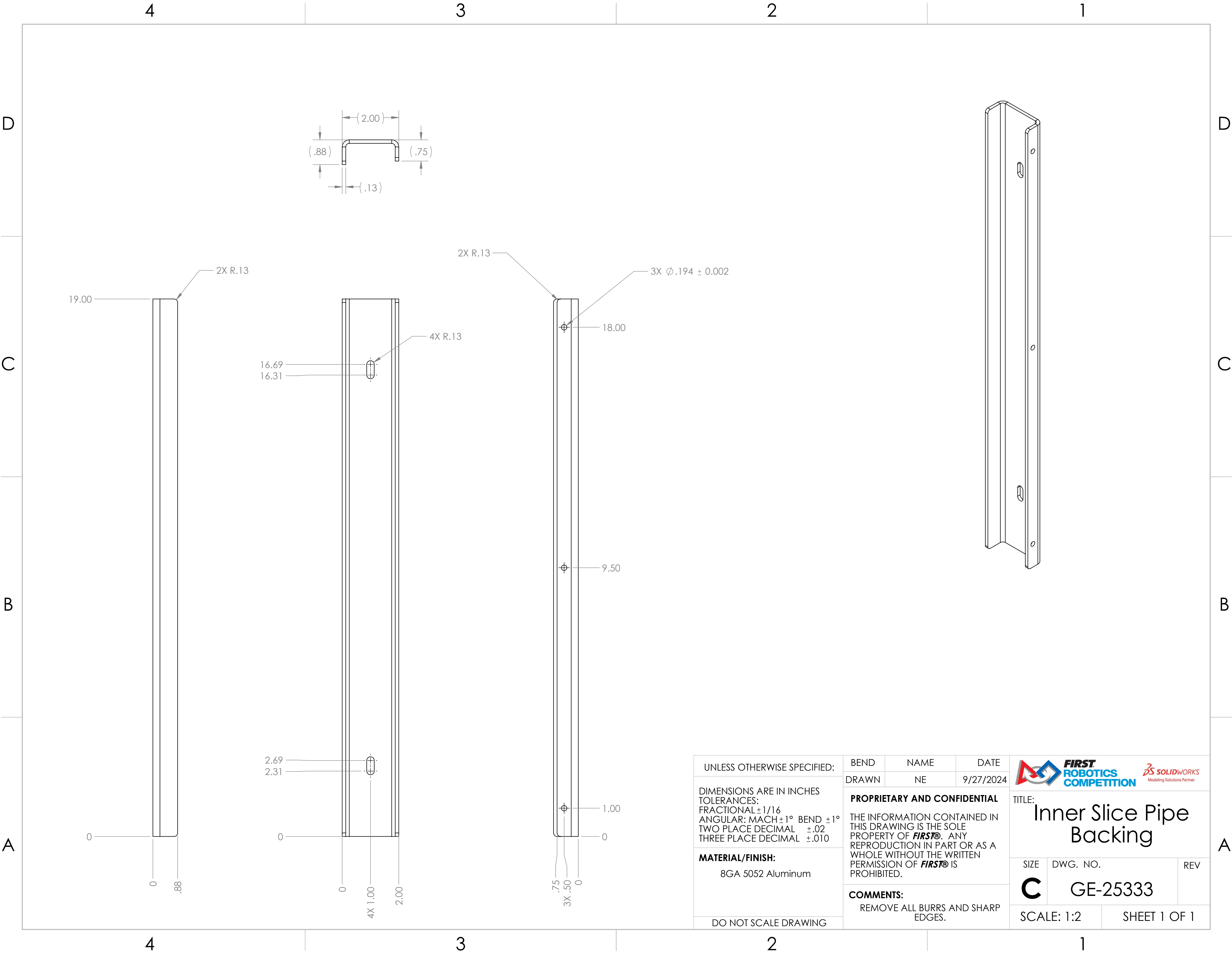
UNLESS OTHERWISE SPECIFIED:	BEND	NAME	DATE	<div></div>		
	DRAWN	NE	9/30/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH±1° BEND ±1° TWO PLACE DECIMAL ±.02 THREE PLACE DECIMAL ±.010	PROPRIETARY AND CONFIDENTIAL			TITLE: <div>Inner Slice Base Channel</div>		
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.					
MATERIAL/FINISH:  8GA 5052 Aluminum	COMMENTS:			SIZE	DWG. NO.	REV
	REMOVE ALL BURRS AND SHARP EDGES.			C	GE-25331-01	
DO NOT SCALE DRAWING				SCALE: 1:3		SHEET 1 OF 1



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25335	Inner Slice Pipe Vertical Inner Shell	1
2	GE-25333	Inner Slice Pipe Backing	1
3	GE-25334	Inner Slice Pipe Vertical Outer Shell w PEMs	1
4	rivet_.1875_.251-.375	3/16" Aluminum Rivet, .251-.375 Grip Range	12

UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005  <b>MATERIAL/FINISH:</b>    DO NOT SCALE DRAWING	VEND	NAME	DATE	 		
	DRAWN	NE	9/27/2024			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.  <b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.				TITLE:  Inner Slice Pipe Vertical	
				SIZE	DWG. NO.	REV
				C	GE-25332	
				SCALE: 1:4		SHEET 1 OF 1





UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .02$   
THREE PLACE DECIMAL  $\pm .010$

**MATERIAL/FINISH:**  
8GA 5052 Aluminum

DO NOT SCALE DRAWING

BEND	NAME	DATE
DRAWN	NE	9/27/2024

**PROPRIETARY AND CONFIDENTIAL**  
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF **FIRST®**. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF **FIRST®** IS PROHIBITED.

**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.

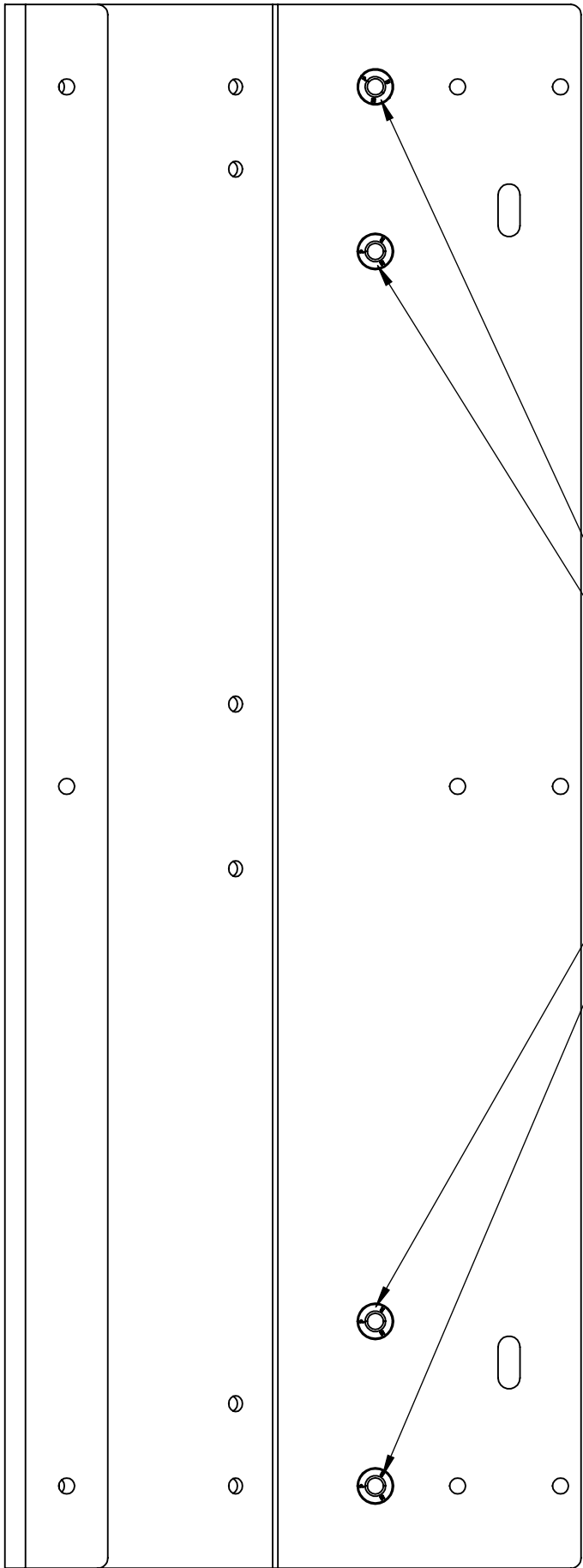
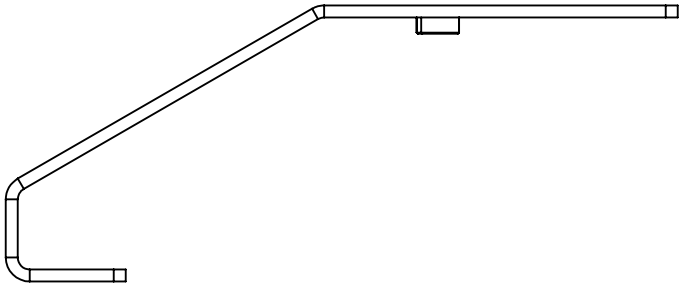


TITLE:  
**Inner Slice Pipe Backing**

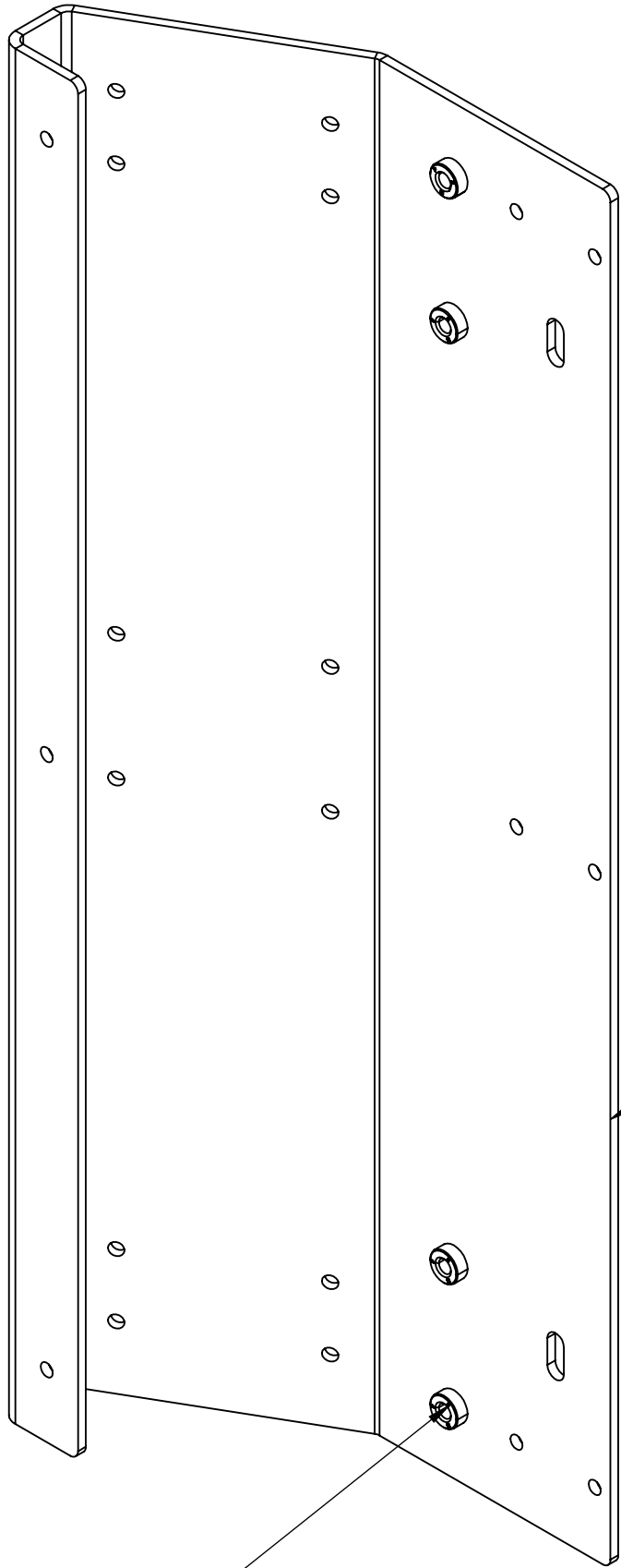
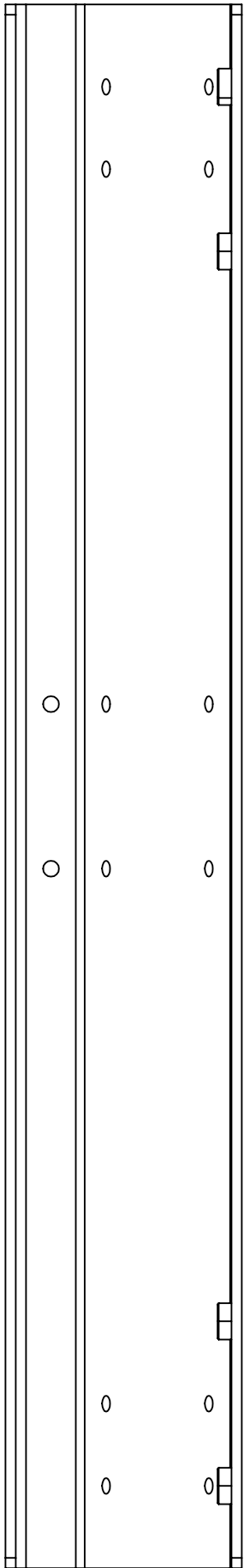
SIZE	DWG. NO.	REV
<b>C</b>	GE-25333	

SCALE: 1:2      SHEET 1 OF 1





4X INSTALL PEMS ON INTERIOR FACE



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25334-01	Inner Slice Pipe Vertical Outer Shell	1
2	pem_clinchnut_.25_20_.054	1/4-20 self-clinching nut, .054 shank	4

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

MATERIAL/FINISH:

DO NOT SCALE DRAWING

VEND

NAME

DATE

DRAWN

NE


9/27/2024


PROPRIETARY AND CONFIDENTIAL

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COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.





TITLE:

Inner Slice Pipe Vertical Outer Shell W PEMS

SIZE

DWG. NO.

REV

C

GE-25334

SCALE: 1:2

SHEET 1 OF 1

D

C

B

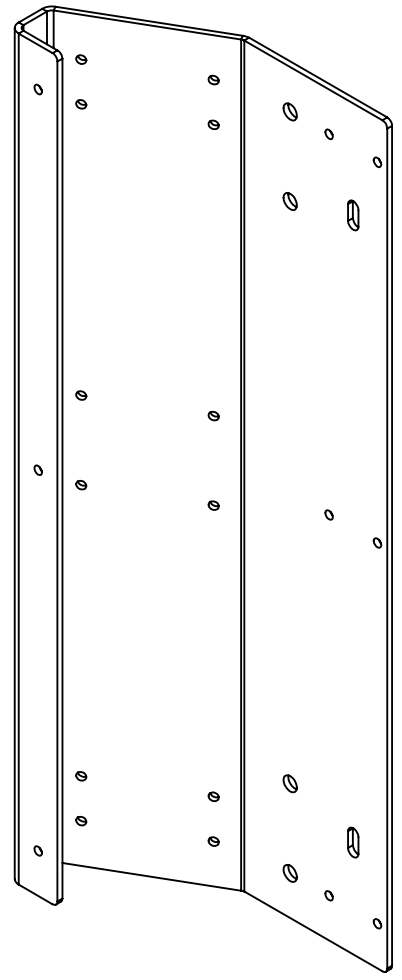
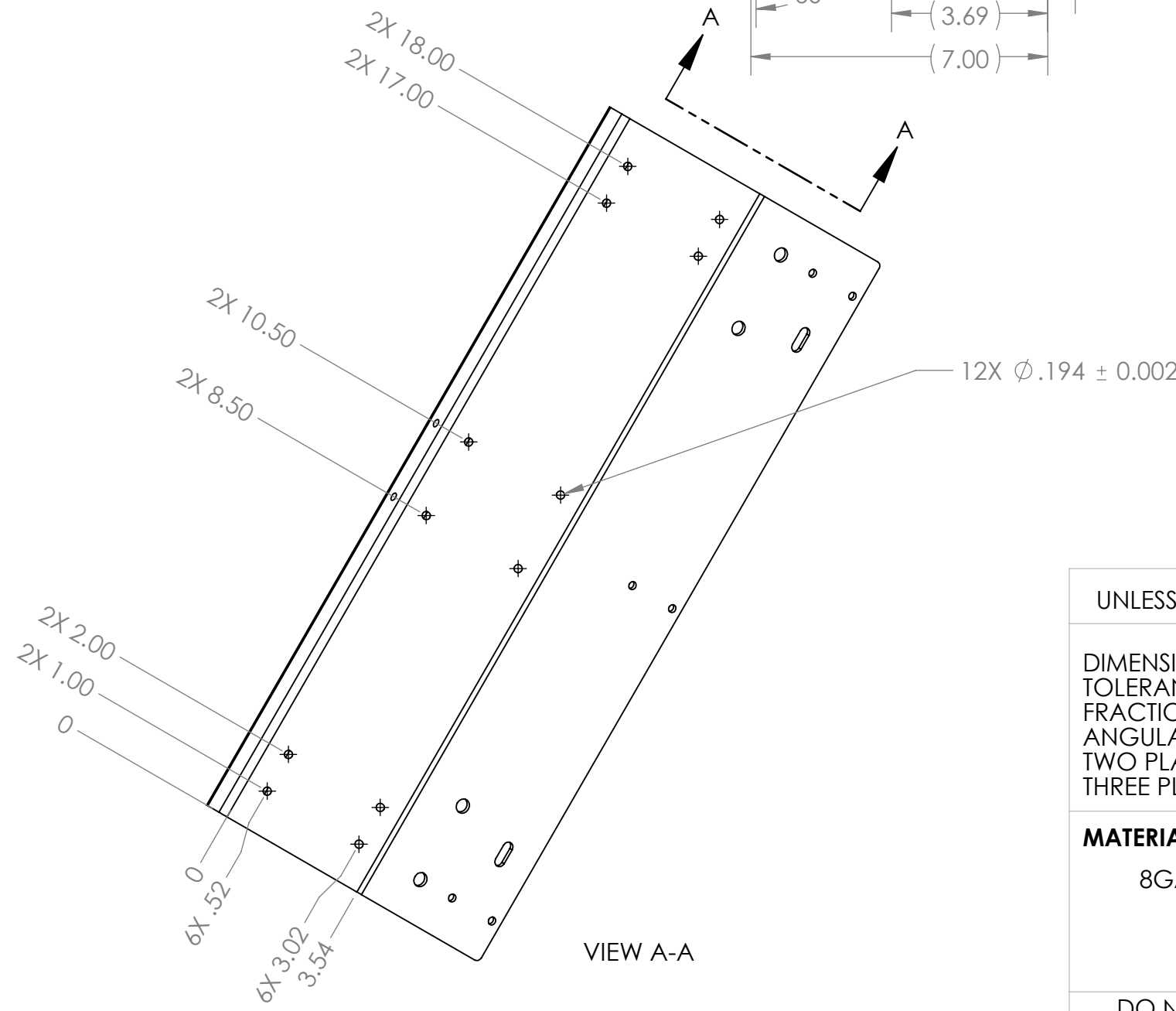
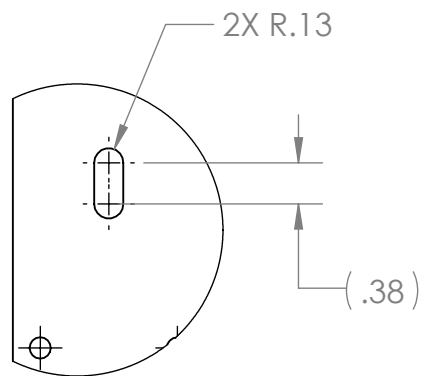
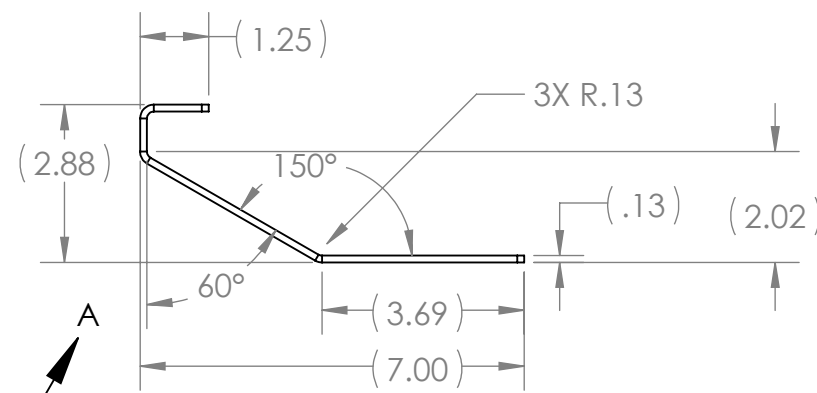
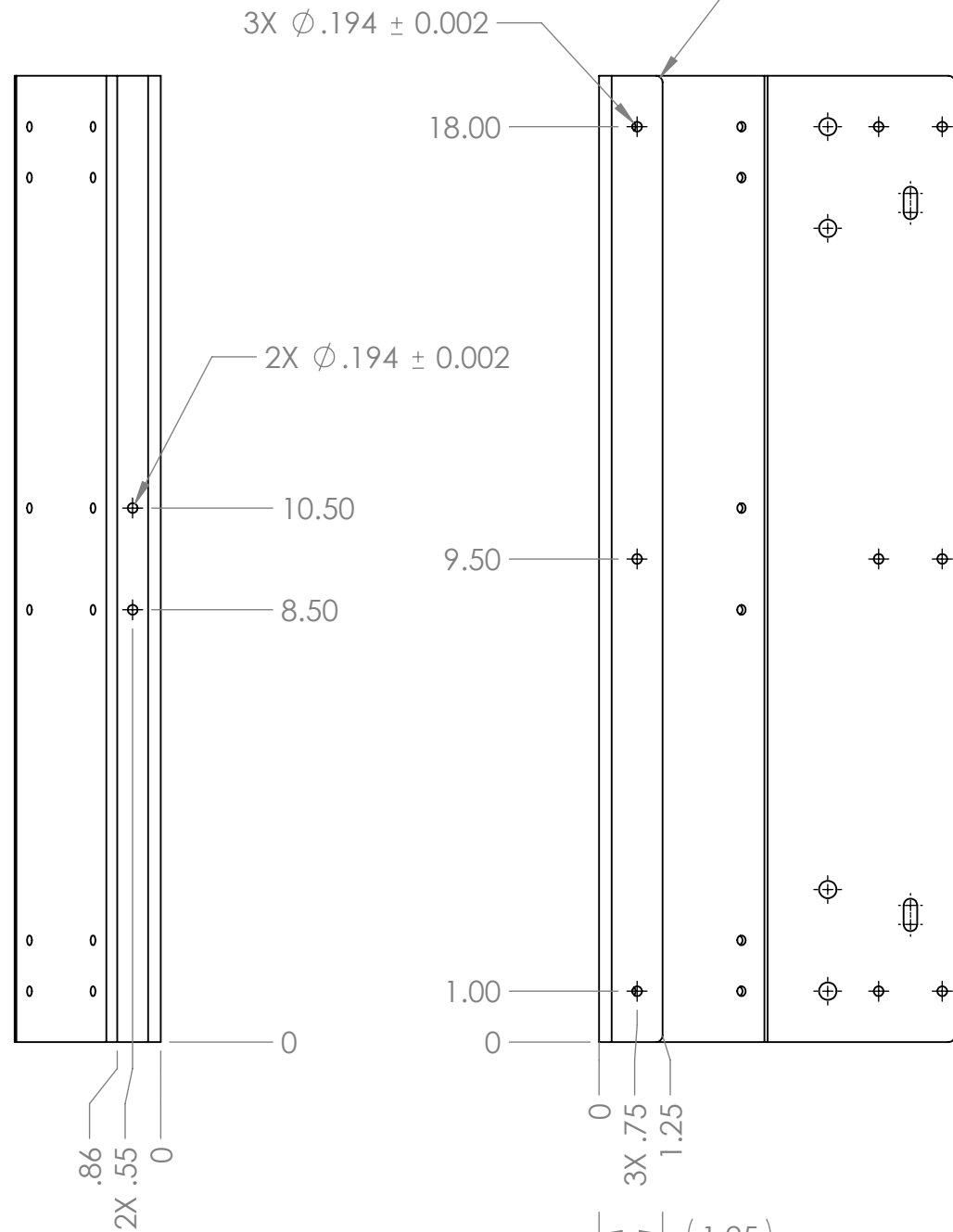
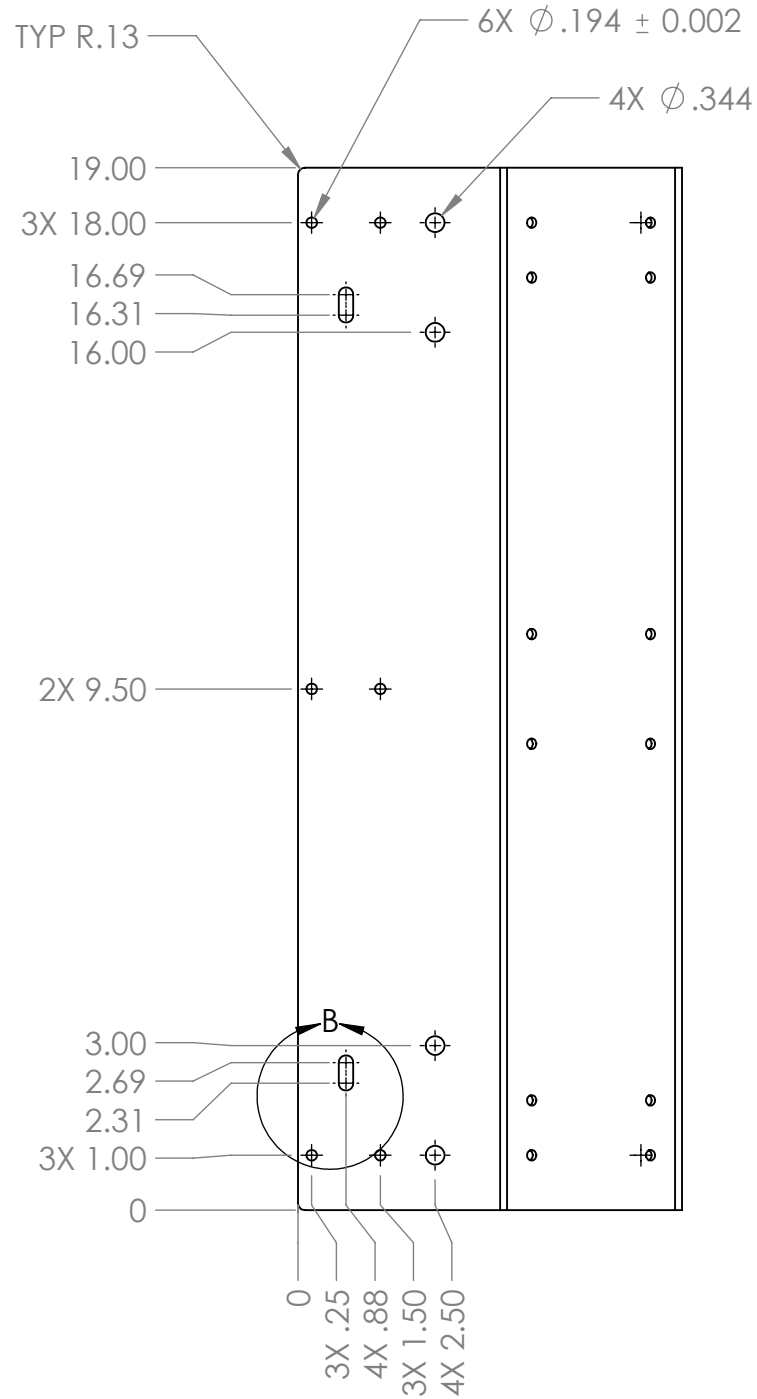
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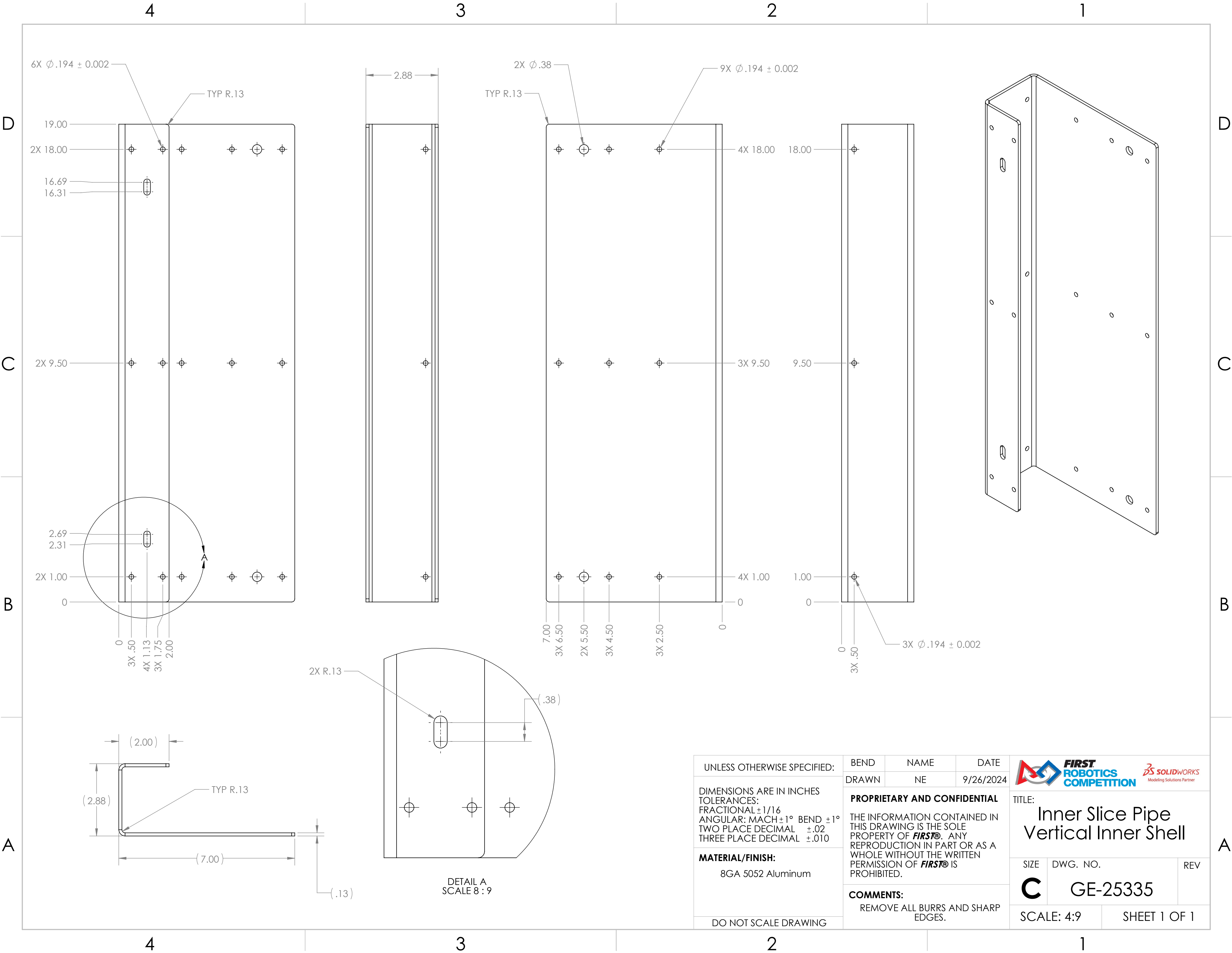
C

B

A



UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.02 THREE PLACE DECIMAL ±.010  MATERIAL/FINISH:  8GA 5052 Aluminum  DO NOT SCALE DRAWING	BEND	NAME	DATE	 	
	DRAWN	NE	9/27/2024		
	PROPRIETARY AND CONFIDENTIAL			TITLE:  Inner Slice Pipe Vertical Outer Shell	
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COMMENTS:  REMOVE ALL BURRS AND SHARP EDGES.			SIZE	DWG. NO.	REV
			C	GE-25334-01	
			SCALE: 2:7		SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .02$   
THREE PLACE DECIMAL  $\pm .010$

**MATERIAL/FINISH:**  
8GA 5052 Aluminum

DO NOT SCALE DRAWING

BEND

DRAWN

**PROPRIETARY AND CONFIDENTIAL**

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**COMMENTS:**

REMOVE ALL BURRS AND SHARP EDGES.

NAME

NE

DATE

9/26/2024



**FIRST**  
ROBOTICS  
COMPETITION

**3D SOLIDWORKS**  
Modeling Solutions Partner

TITLE:

Inner Slice Pipe  
Vertical Inner Shell

SIZE

**C**

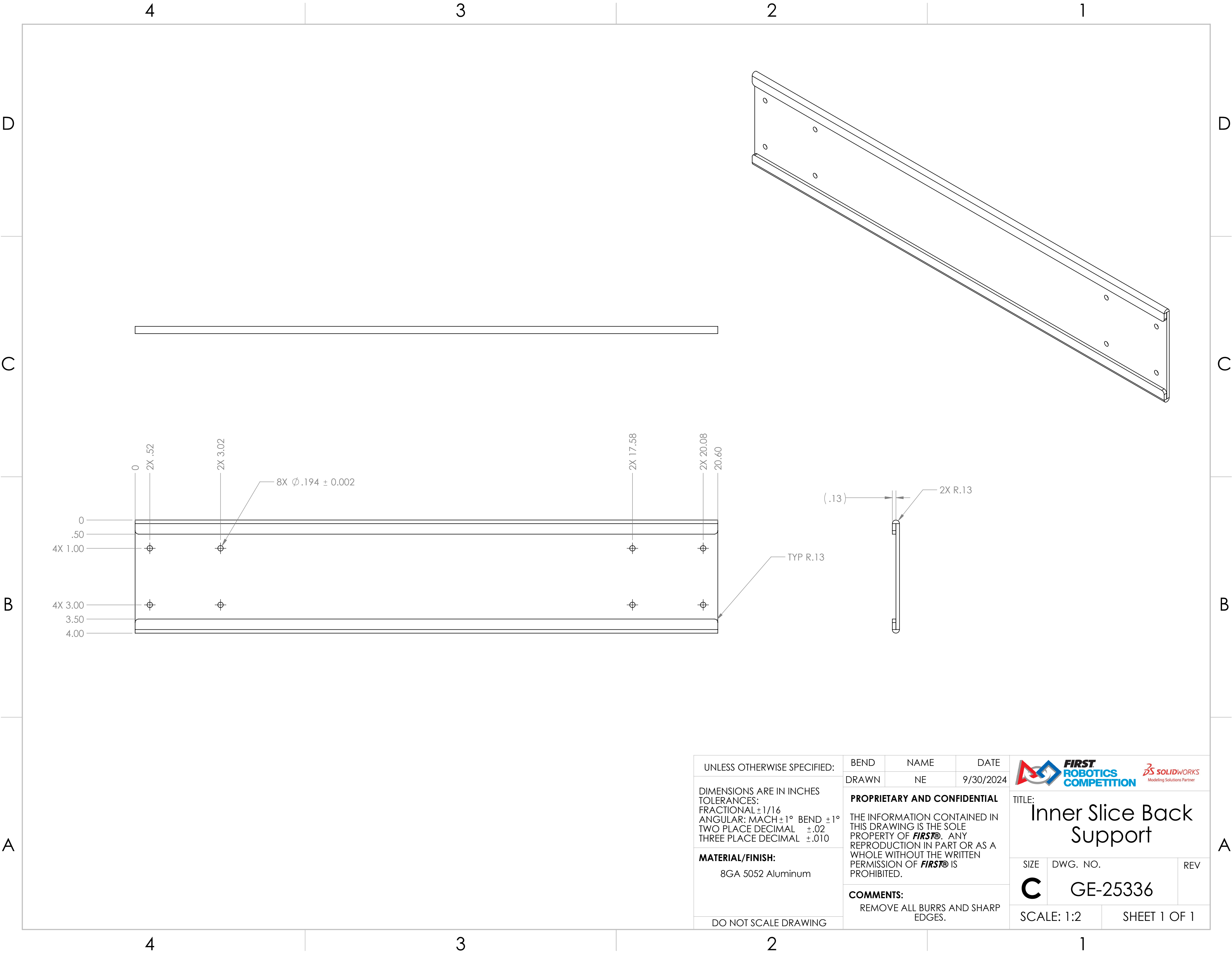
DWG. NO.



GE-25335

REV

SCALE: 4:9

SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .02$ THREE PLACE DECIMAL $\pm .010$  <b>MATERIAL/FINISH:</b> 8GA 5052 Aluminum  DO NOT SCALE DRAWING	BEND	NAME	DATE	<div></div> <div>TITLE: Inner Slice Back Support</div>		
	DRAWN	NE	9/30/2024			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE	DWG. NO.	REV
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			<b>C</b>	GE-25336	
SCALE: 1:2		SHEET 1 OF 1				

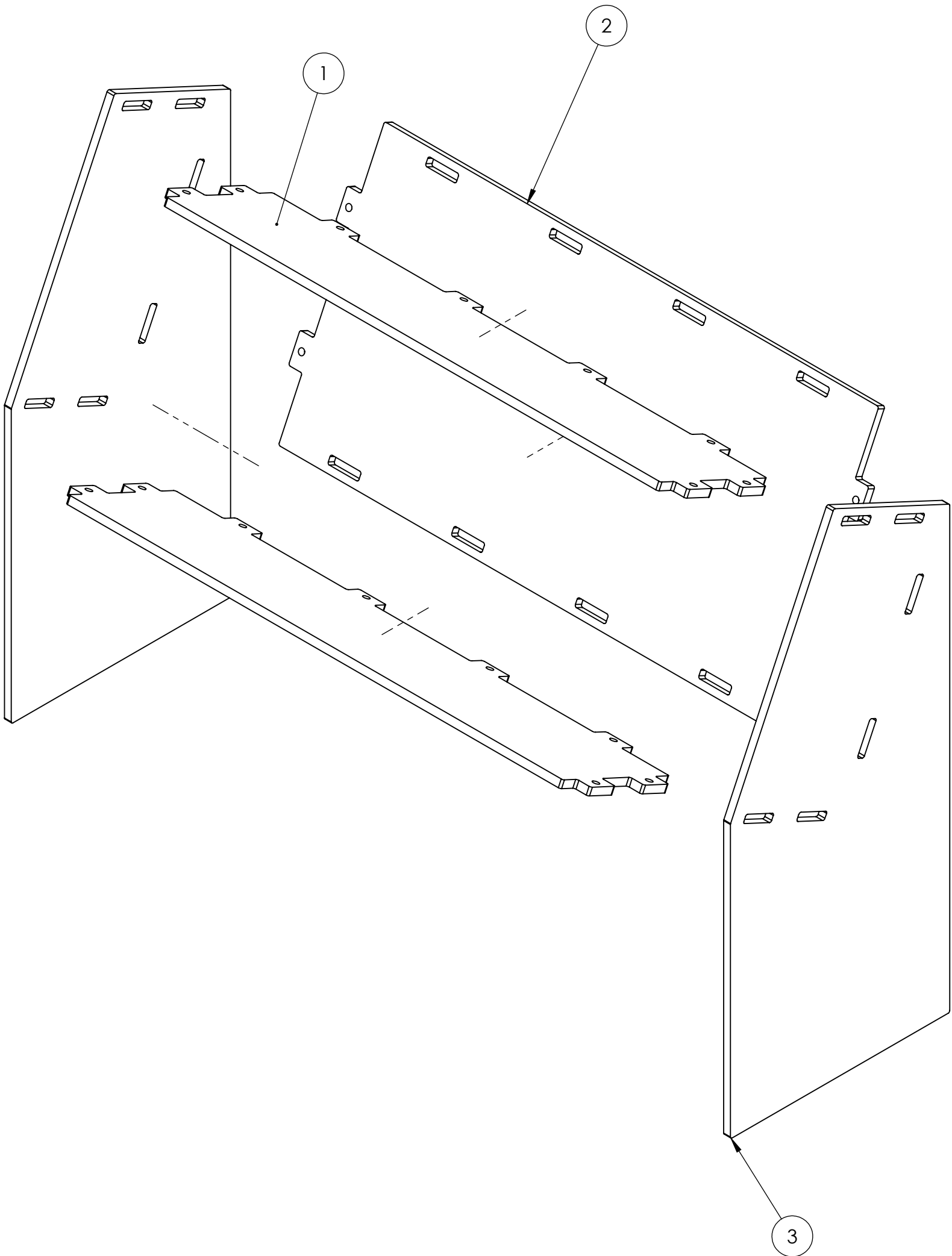
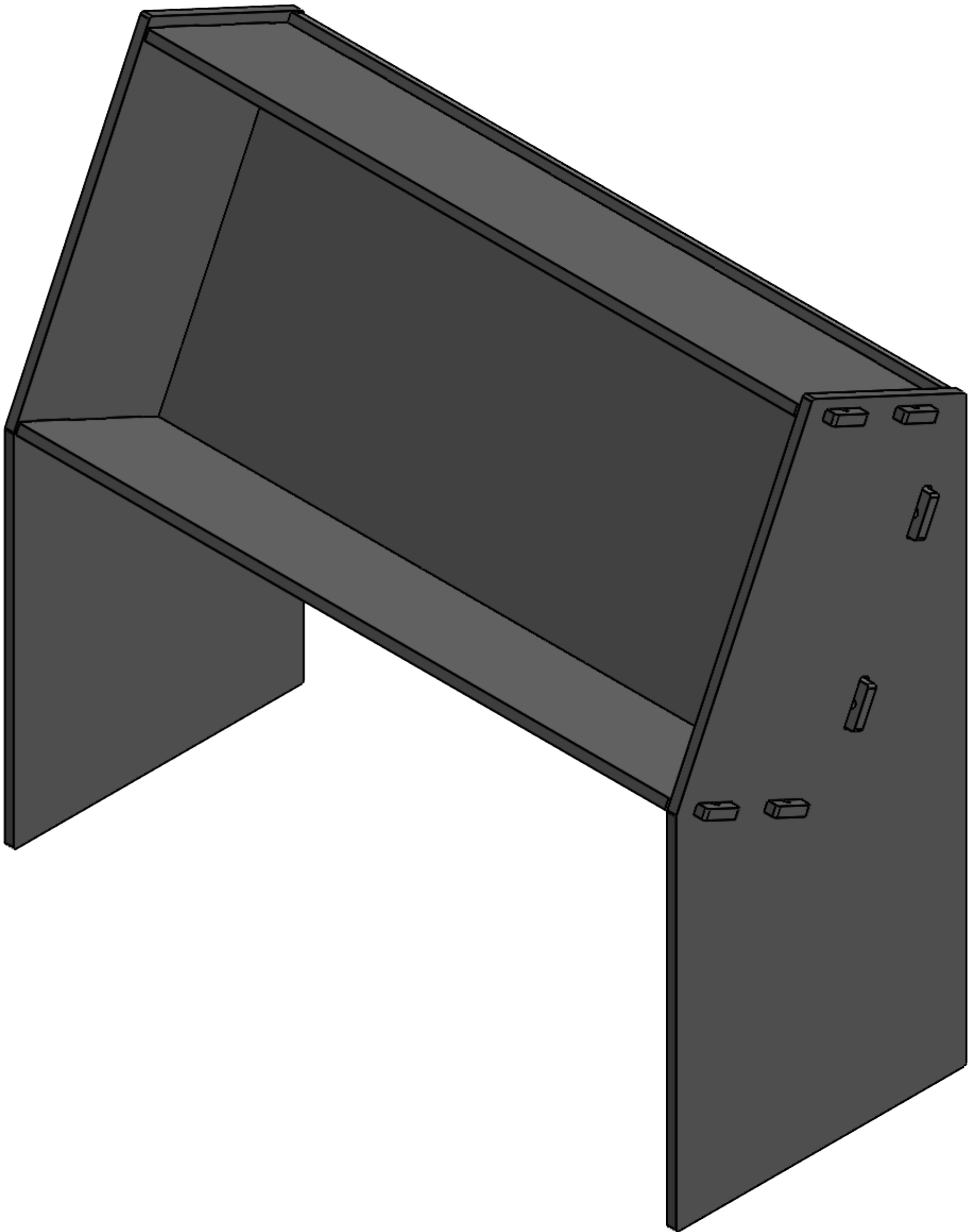
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3



2

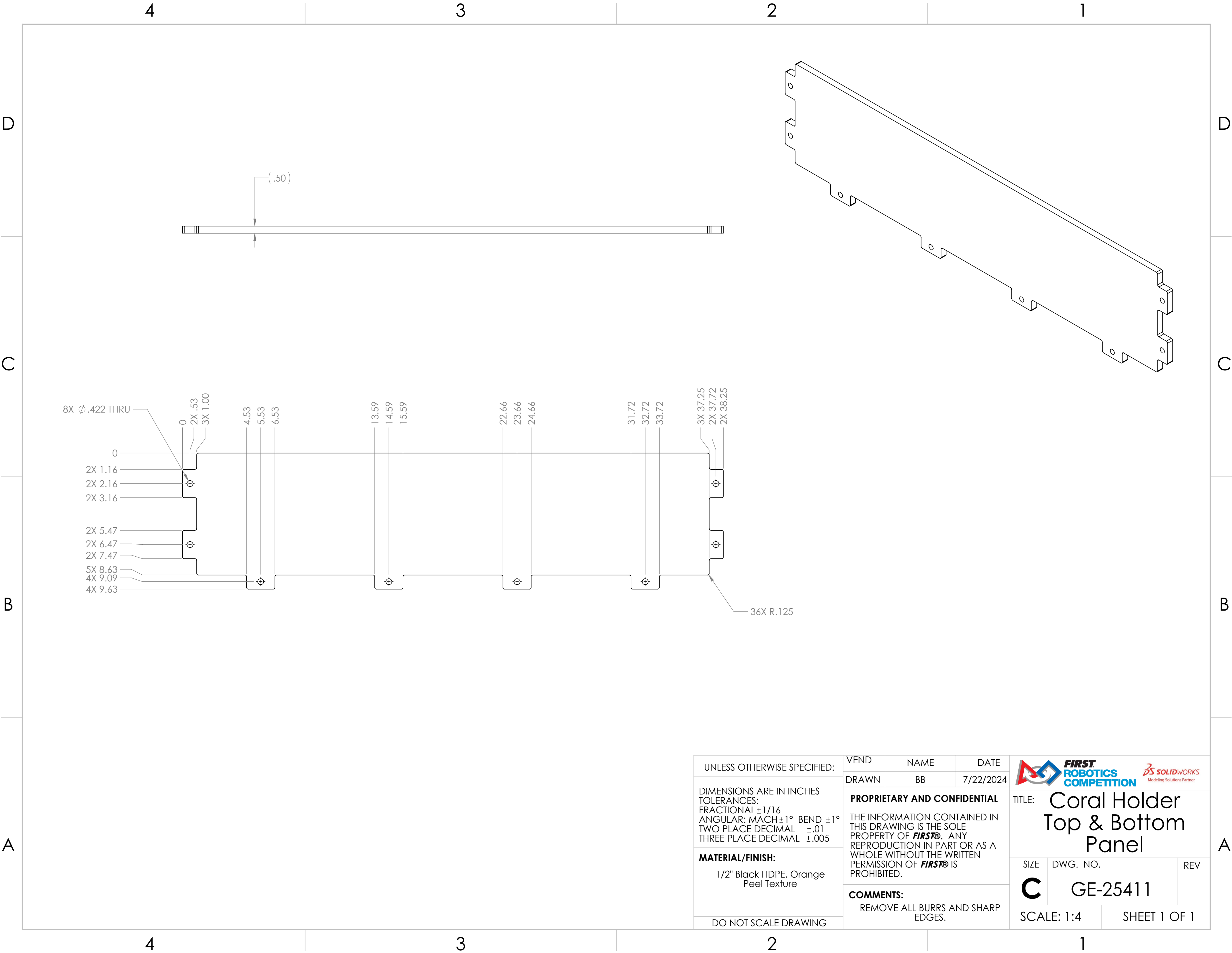
1

Assemble with 120 lb. cable ties



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25411	Coral Holder Top & Bottom Panel	2
2	GE-25412	Coral Holder Back Panel	1
3	GE-25413	Coral Holder Side Panel	2

UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005  <b>MATERIAL/FINISH:</b>     <b>DO NOT SCALE DRAWING</b>	VEND	NAME	DATE	 	
	DRAWN	BB	7/23/2024		
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			TITLE:  Coral Holder	
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			SIZE	DWG. NO.
C				GE-25410	
			SCALE: 1:12		SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

**MATERIAL/FINISH:**

1/2" Black HDPE, Orange  
Peel Texture

DO NOT SCALE DRAWING

VEND

DRAWN

NAME

BB

DATE

7/22/2024

**PROPRIETARY AND CONFIDENTIAL**

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REPRODUCTION IN PART OR AS A  
WHOLE WITHOUT THE WRITTEN  
PERMISSION OF **FIRST®** IS  
PROHIBITED.

**COMMENTS:**

REMOVE ALL BURRS AND SHARP  
EDGES.



**FIRST  
ROBOTICS  
COMPETITION**



Modeling Solutions Partner

TITLE: **Coral Holder  
Top & Bottom  
Panel**

SIZE

**C**

DWG. NO.

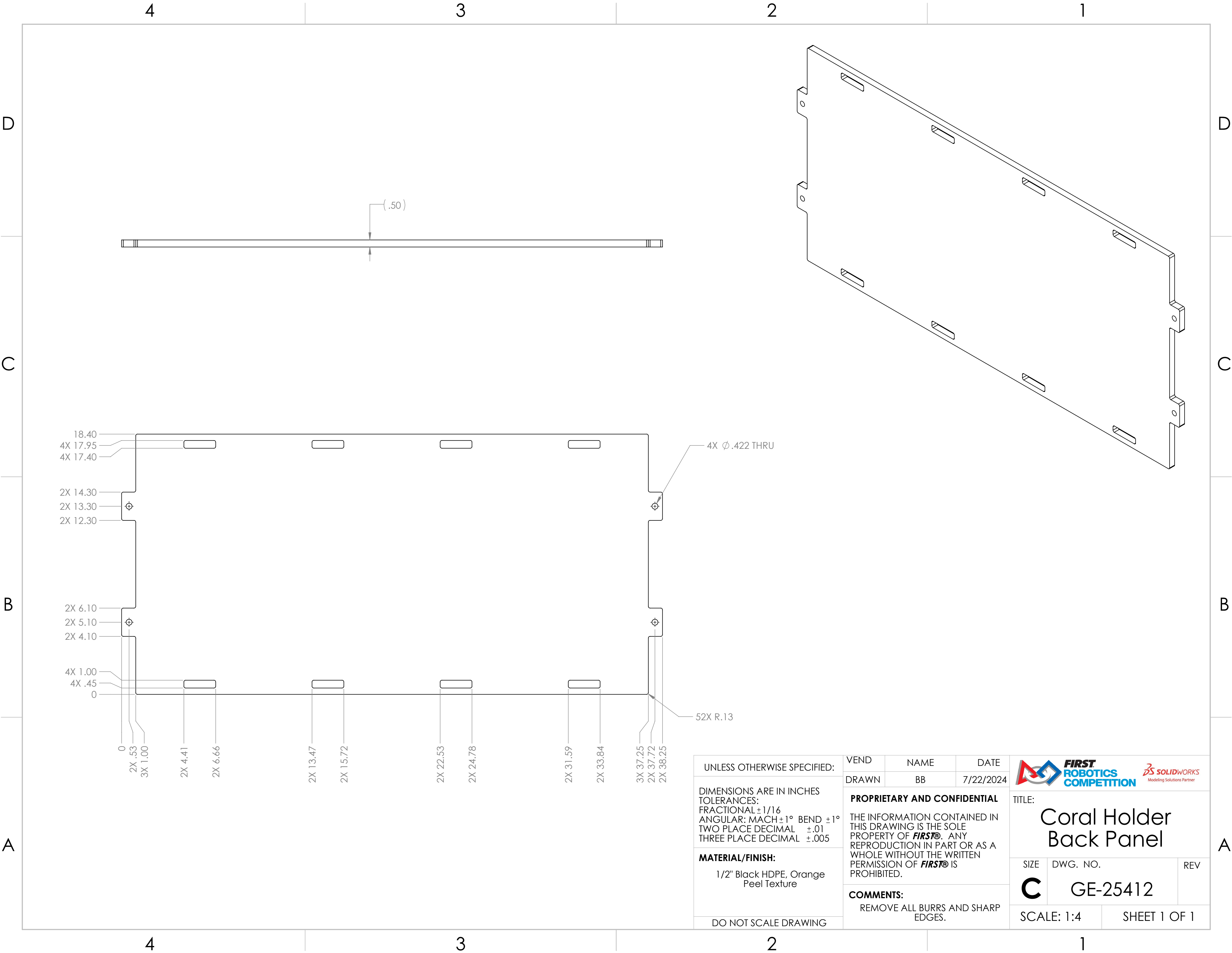
**GE-25411**

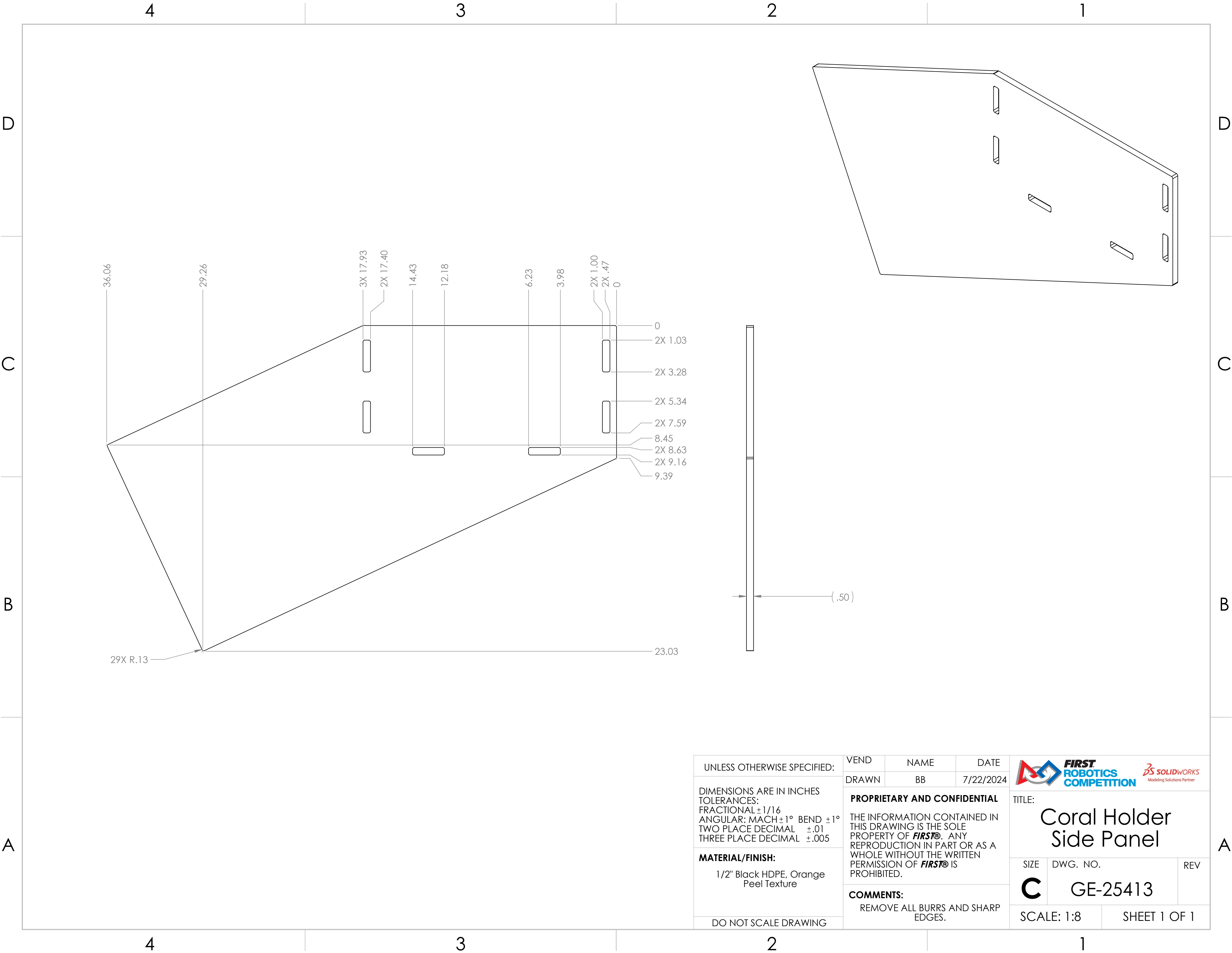
REV



SCALE: 1:4

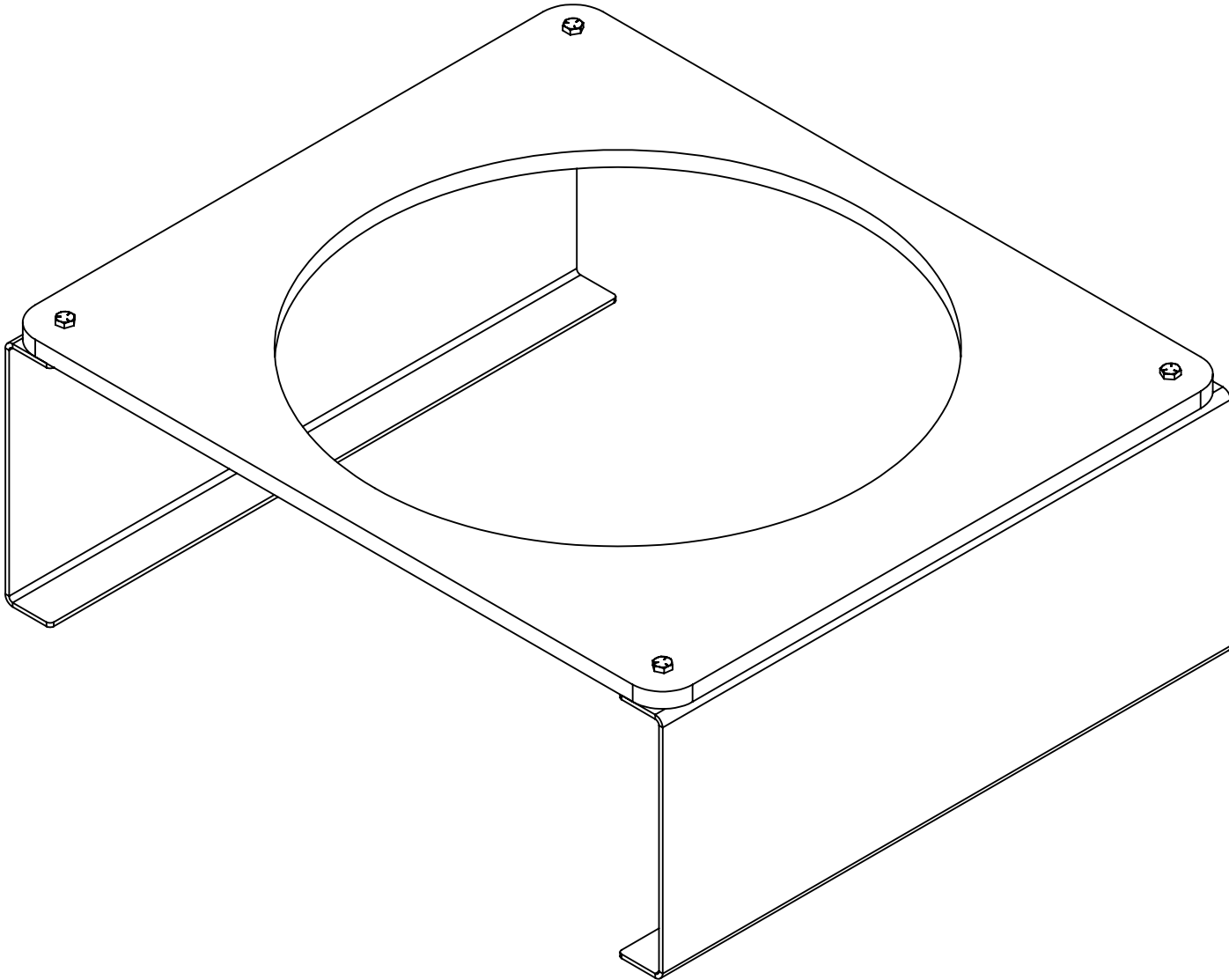
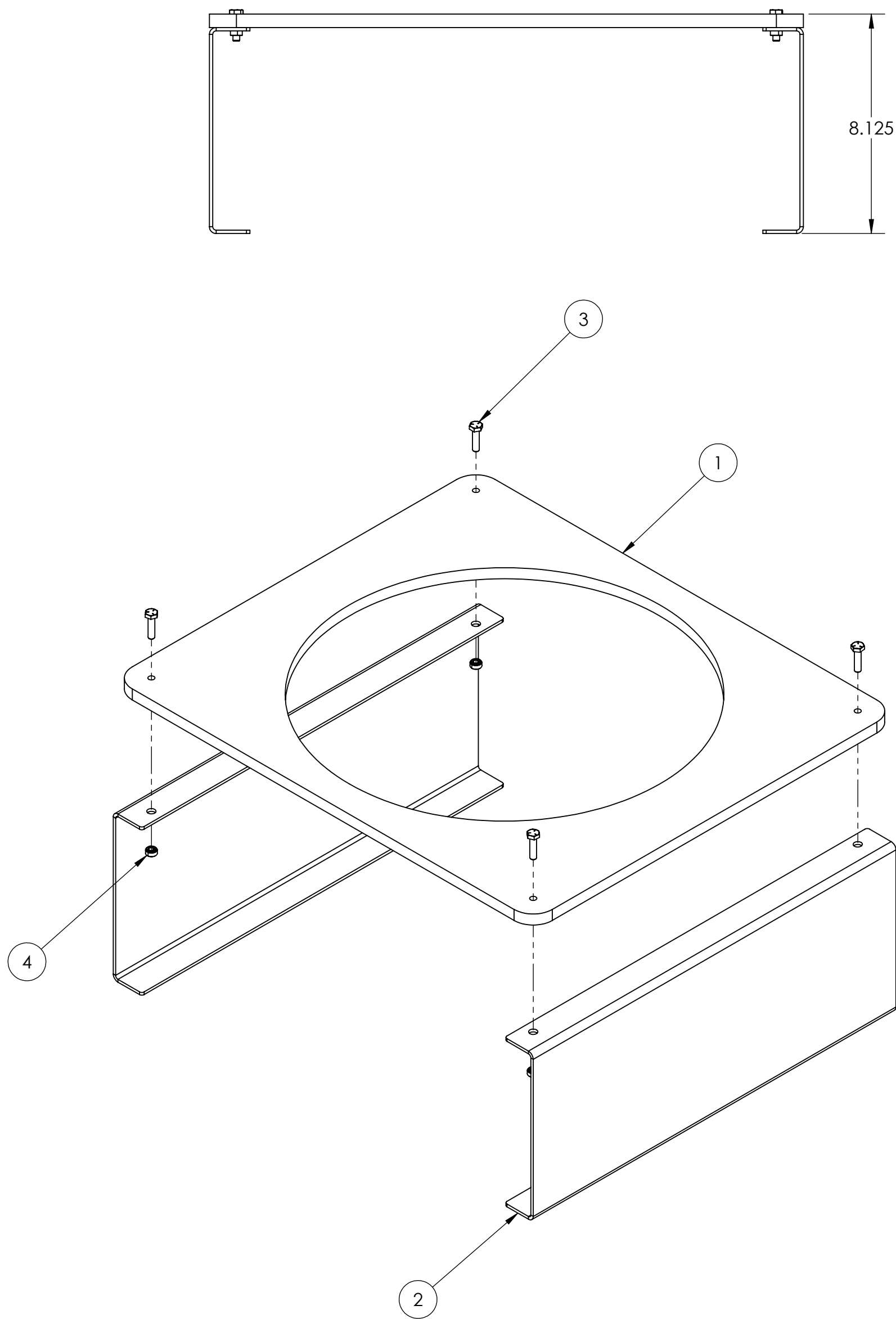
SHEET 1 OF 1







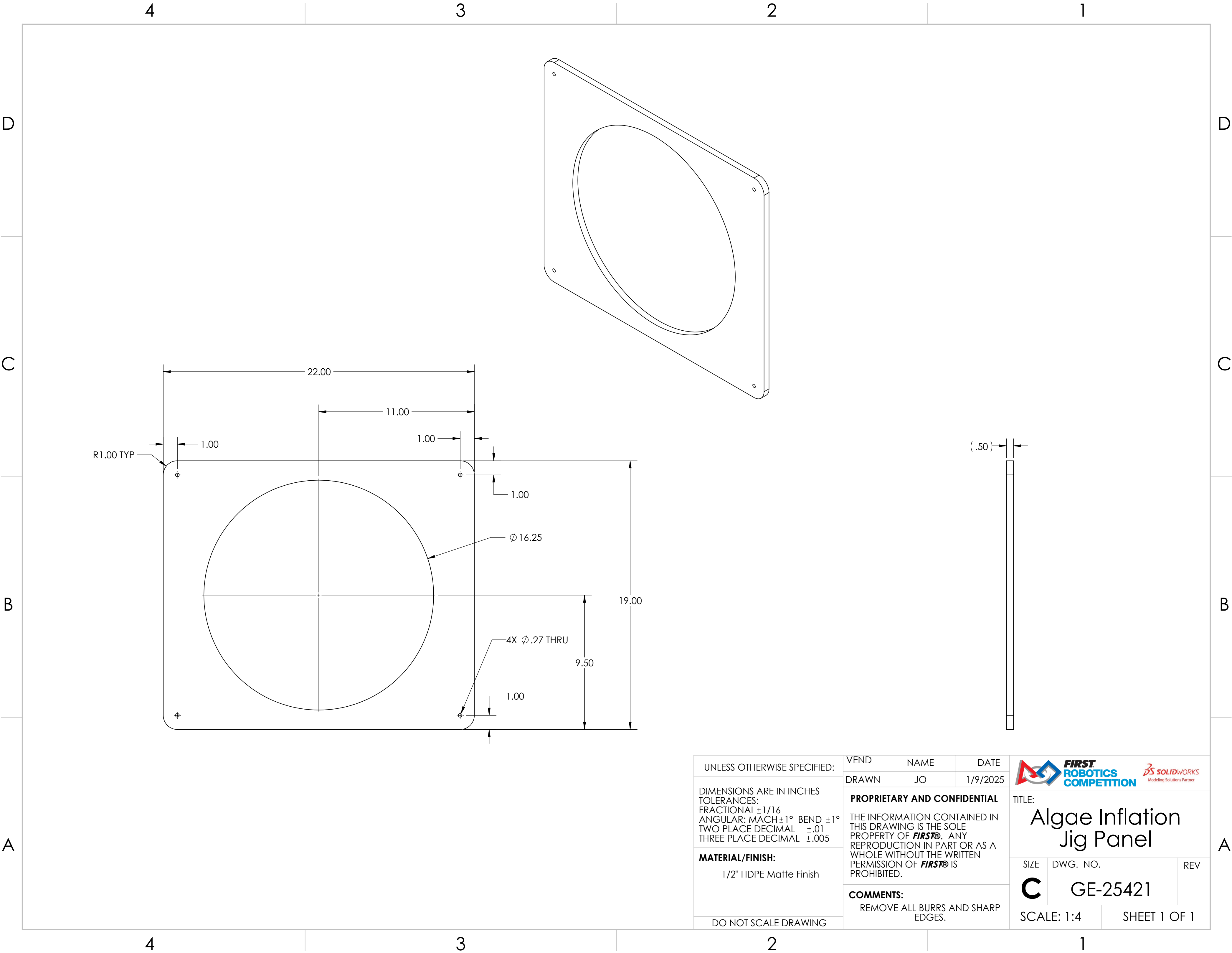


UNLESS OTHERWISE SPECIFIED:	VEND	NAME	DATE	<div></div>		
	DRAWN	BB	7/22/2024			
DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005	PROPRIETARY AND CONFIDENTIAL			TITLE:  Coral Holder Side Panel		
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.					
	COMMENTS:			SIZE	DWG. NO.	REV
MATERIAL/FINISH:	REMOVE ALL BURRS AND SHARP EDGES.			C	GE-25413	
1/2" Black HDPE, Orange Peel Texture						
DO NOT SCALE DRAWING				SCALE: 1:8		SHEET 1 OF 1



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	GE-25421	Algae Inflation Jig Panel	1
2	GE-25422	Algae Inflation Jig Foot	2
3	Configurable Bolt	1" Long 1/4-20 Hex Head Bolt	4
4	pem_clinchnut_.25_20_.054	1/4-20 self-clinching nut, .054 shank	4

UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005  <b>MATERIAL/FINISH:</b>     <b>DO NOT SCALE DRAWING</b>	VEND	NAME	DATE	<div><div></div><div>TITLE: <b>Algae Inflation Jig</b></div></div>		
	DRAWN	JO	1/9/2025			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.			SIZE	DWG. NO.	REV
	<b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.			<b>C</b>	GE-25420	
SCALE: 1:4		SHEET 1 OF 1				



UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN INCHES  
TOLERANCES:  
FRACTIONAL  $\pm 1/16$   
ANGULAR: MACH  $\pm 1^\circ$  BEND  $\pm 1^\circ$   
TWO PLACE DECIMAL  $\pm .01$   
THREE PLACE DECIMAL  $\pm .005$

**MATERIAL/FINISH:**  
1/2" HDPE Matte Finish



DO NOT SCALE DRAWING

VEND	NAME	DATE
DRAWN	JO	1/9/2025

**PROPRIETARY AND CONFIDENTIAL**

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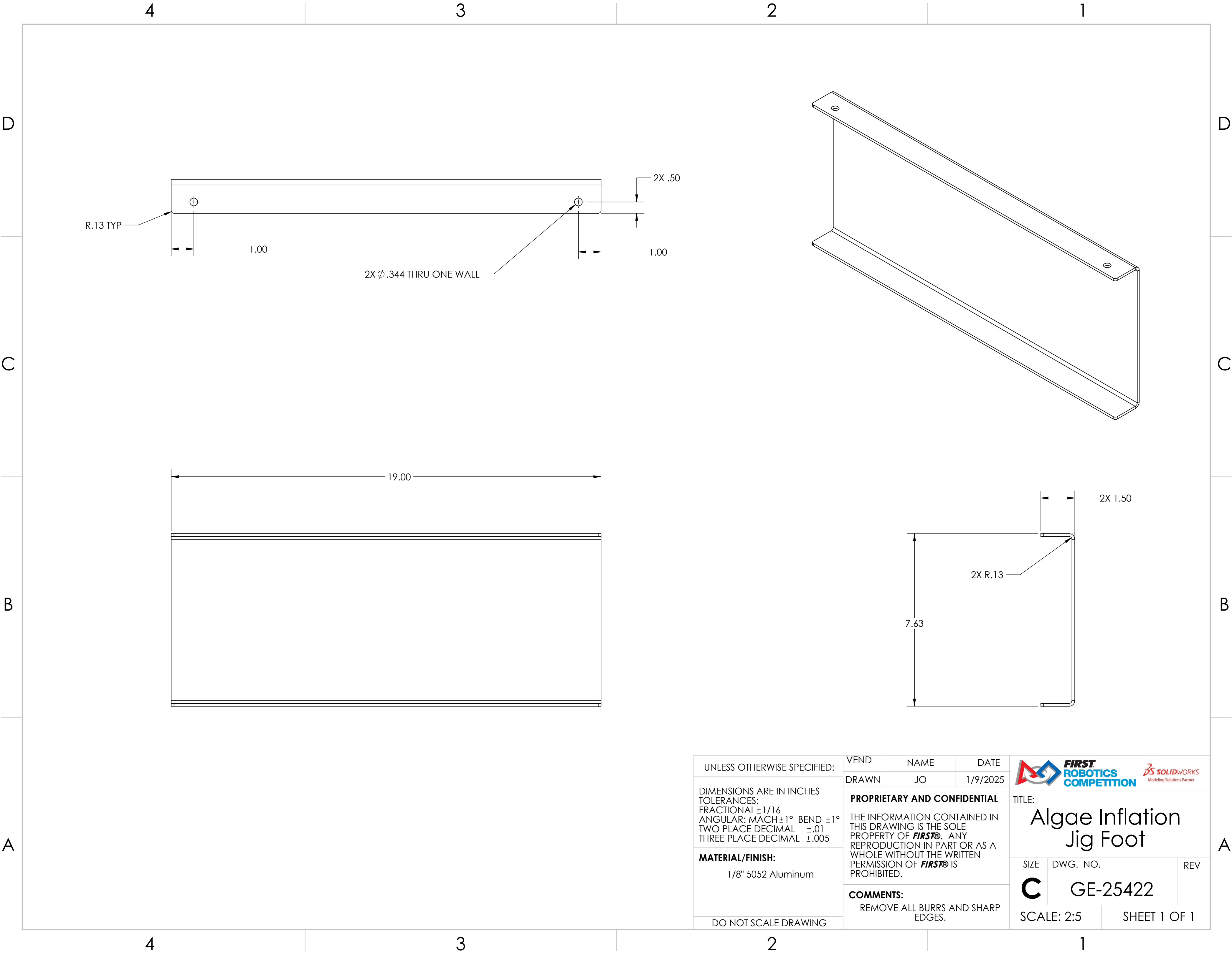
**COMMENTS:**  
REMOVE ALL BURRS AND SHARP EDGES.





TITLE:  
**Algae Inflation Jig Panel**

SIZE	DWG. NO.	REV
<b>C</b>	GE-25421	

SCALE: 1:4	SHEET 1 OF 1
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UNLESS OTHERWISE SPECIFIED:  DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH ±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.005  <b>MATERIAL/FINISH:</b>  1/8" 5052 Aluminum  DO NOT SCALE DRAWING	VEND	NAME	DATE	<div><div></div><div>TITLE: <h1>Algae Inflation Jig Foot</h1></div></div>		
	DRAWN	JO	1/9/2025			
	<b>PROPRIETARY AND CONFIDENTIAL</b>  THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF <b>FIRST®</b> . ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF <b>FIRST®</b> IS PROHIBITED.  <b>COMMENTS:</b> REMOVE ALL BURRS AND SHARP EDGES.					
SCALE: 2:5			SHEET 1 OF 1			