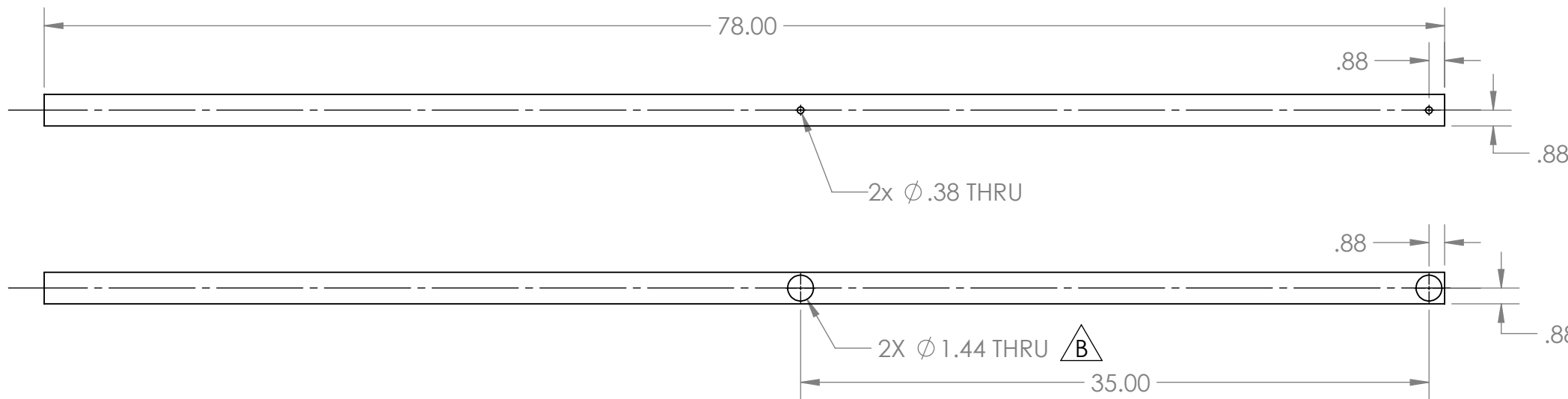
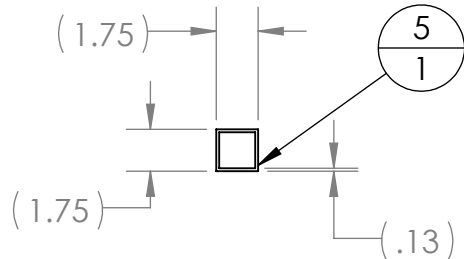
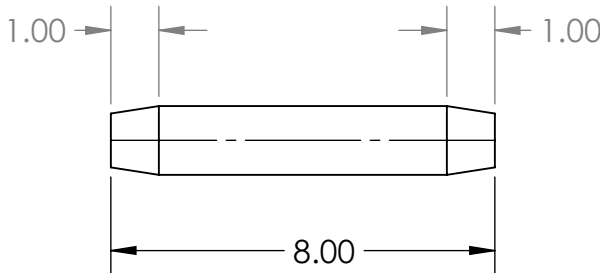
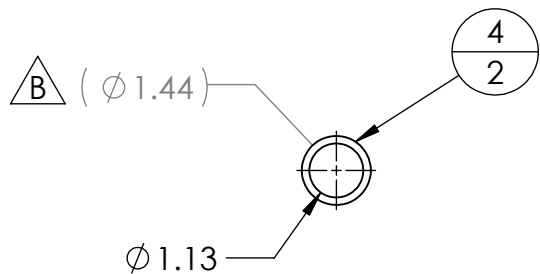
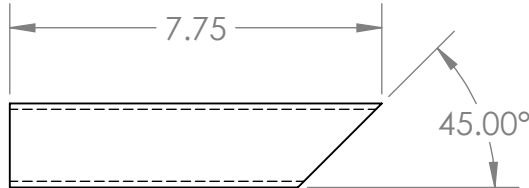
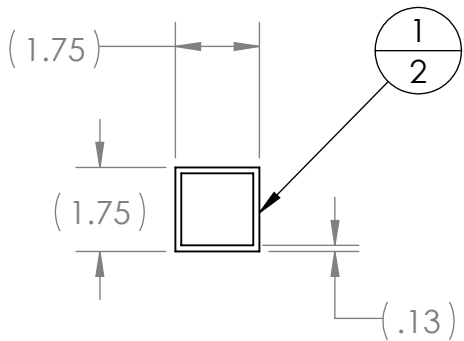


4



3

2

1



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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	 			
		DIMENSIONS ARE IN INCHES	DRAWN			TITLE: <h1>Drivers Station Support</h1>			
		TOLERANCES:	CHECKED						
		FRACTIONAL $\pm 1/16$	ENG APPR.						
		ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$	MFG APPR.						
		TWO PLACE DECIMAL $\pm .01$							
		THREE PLACE DECIMAL $\pm .001$							
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.						
		MATERIAL	COMMENTS:						

4

3

2

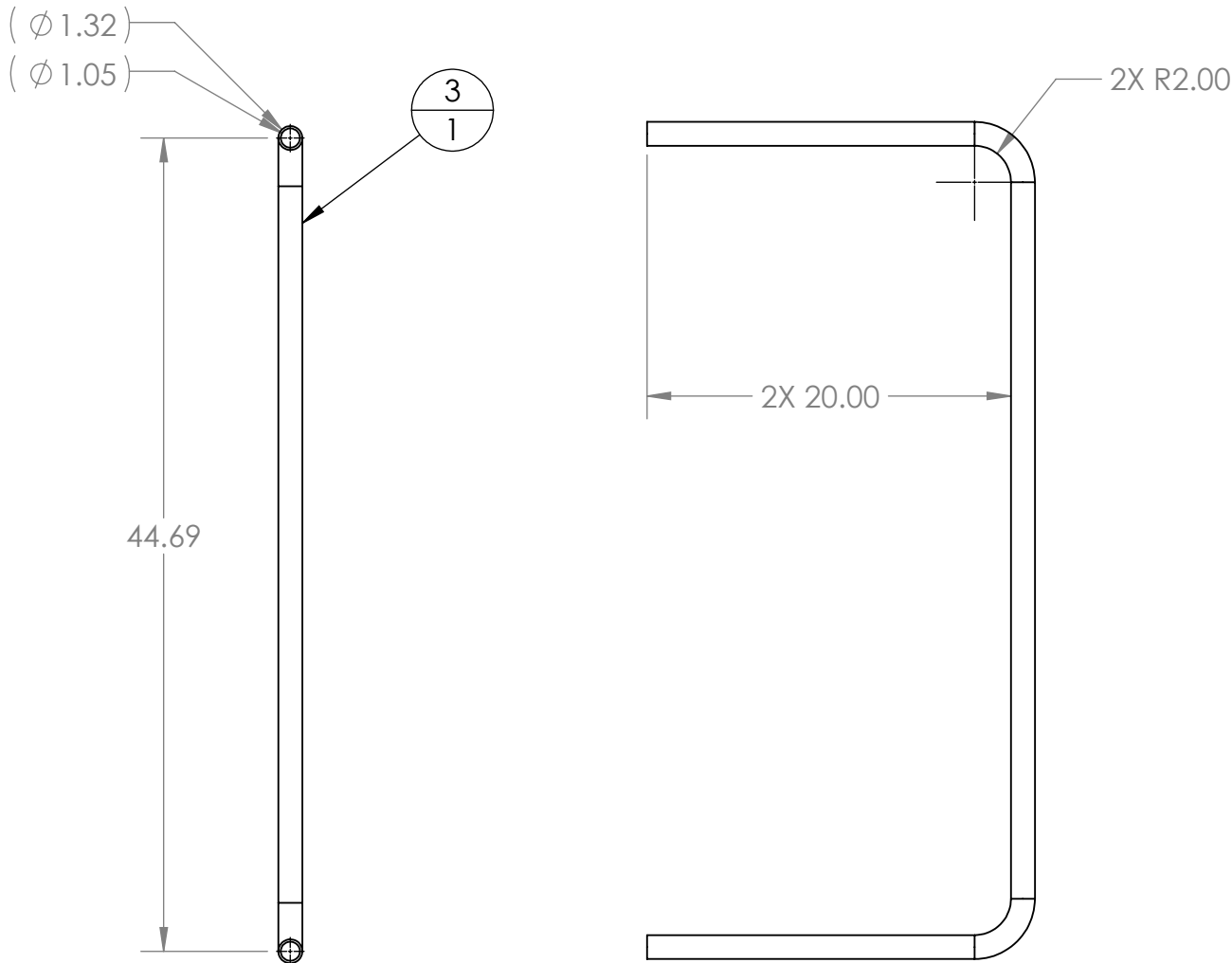
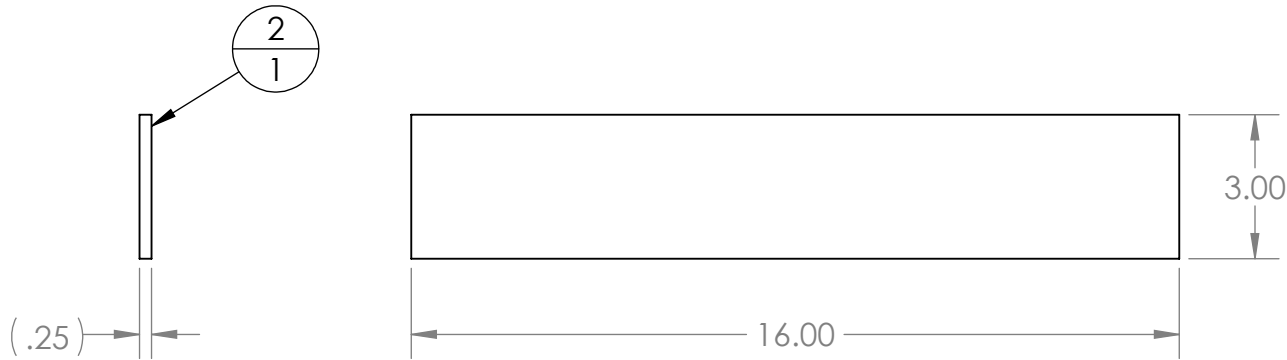
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4



3

2

1



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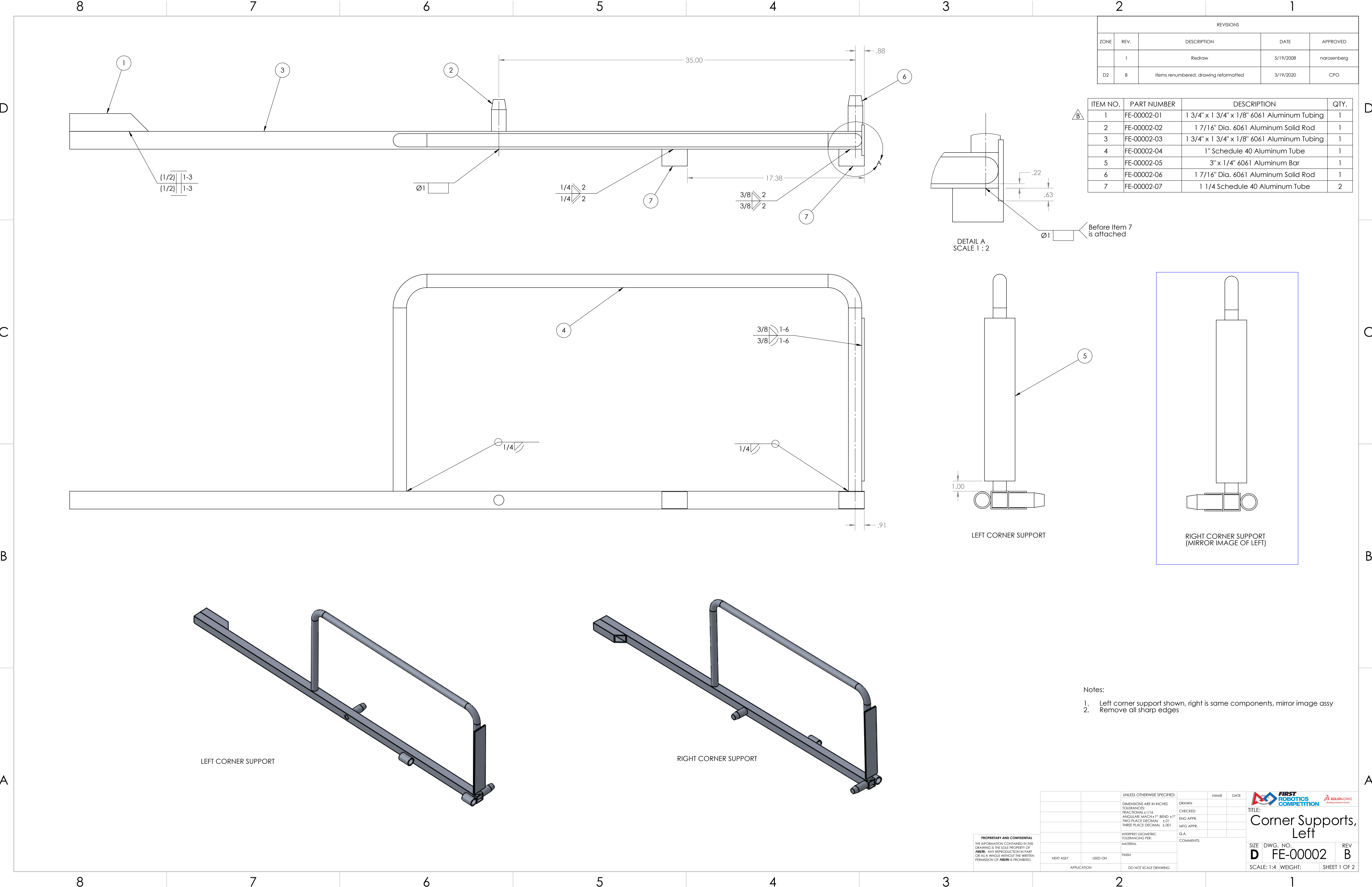
		UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .001$ INTERPRET GEOMETRIC TOLERANCING PER: MATERIAL FINISH	DRAWN	NAME	DATE	<div></div> <div>TITLE: <h1>Drivers Station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

4

3

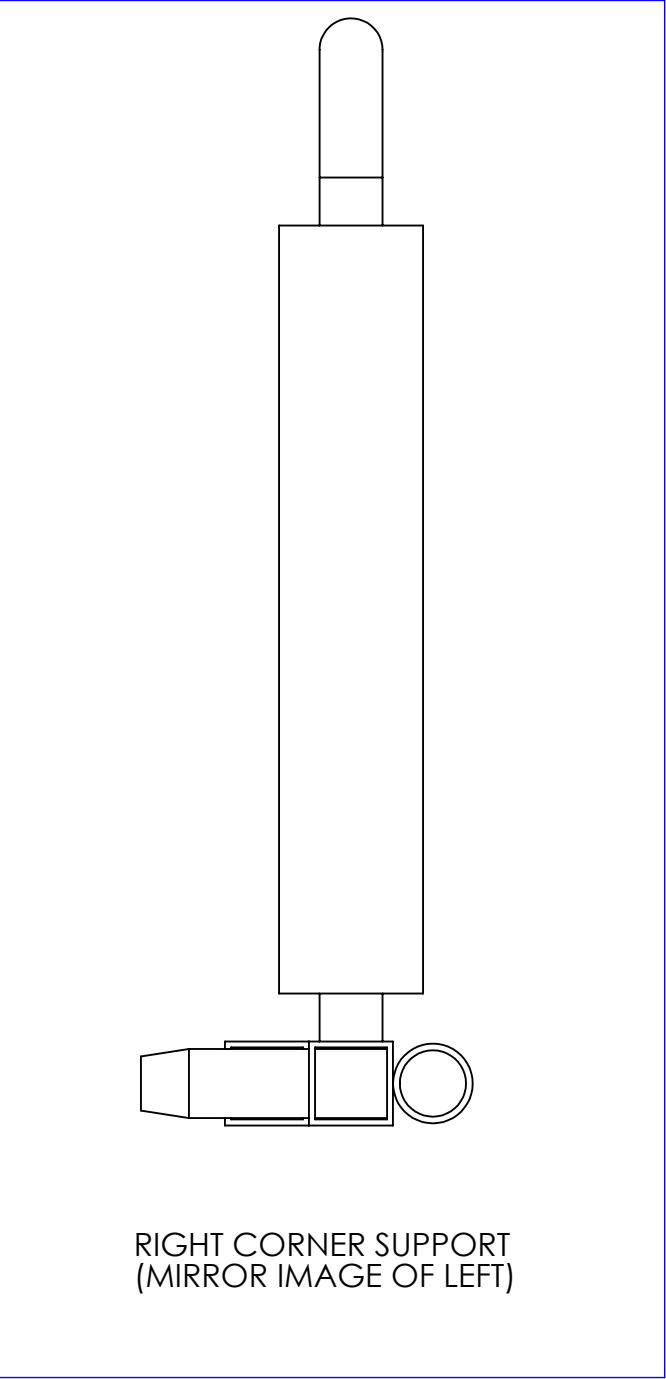
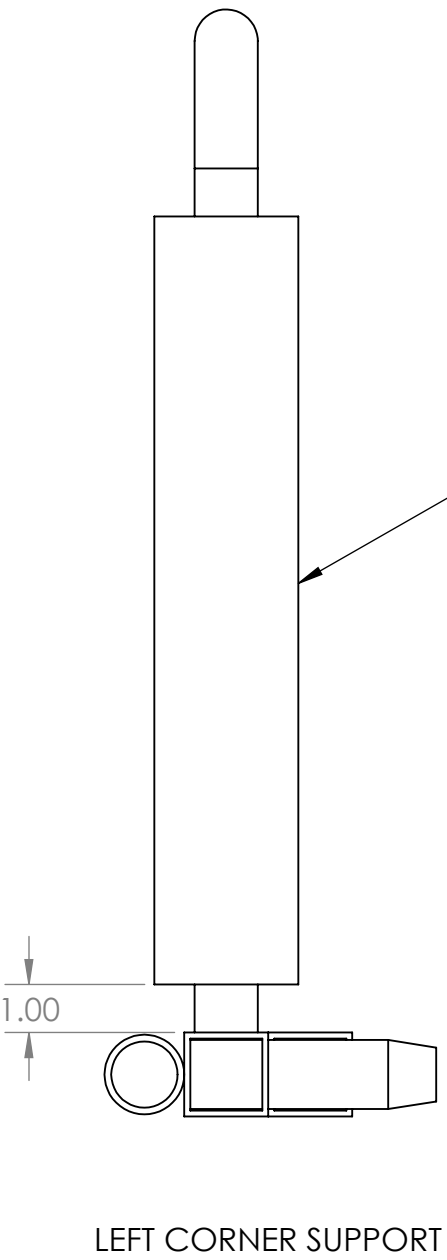
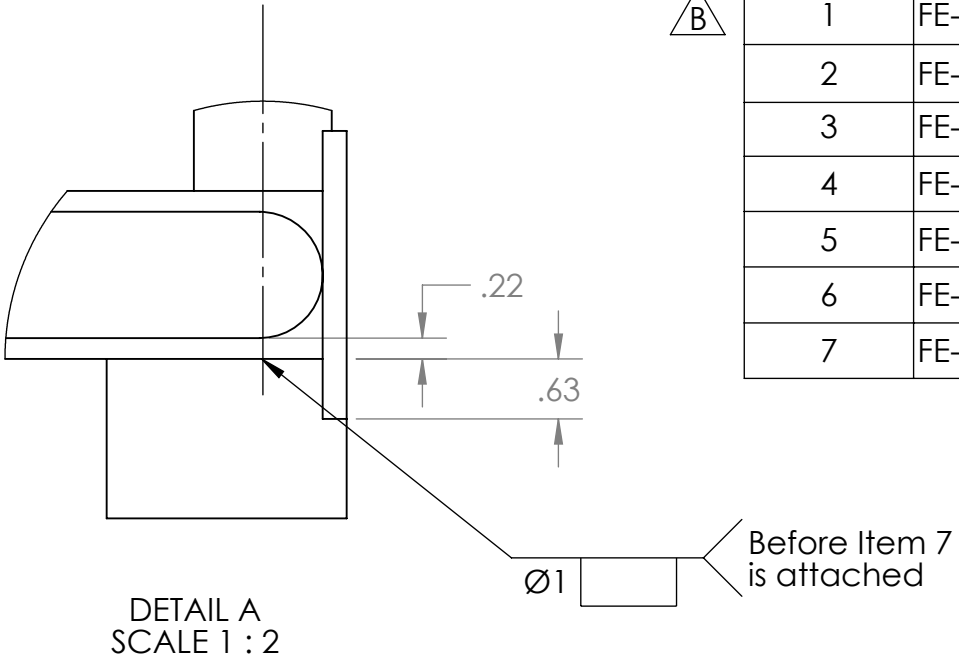
2

1



REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	1	Redraw	5/19/2008	narosenberg
D2	B	Items renumbered, drawing reformatted	3/19/2020	CPO

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-00002-01	1 3/4" x 1 3/4" x 1/8" 6061 Aluminum Tubing	1
2	FE-00002-02	1 7/16" Dia. 6061 Aluminum Solid Rod	1
3	FE-00002-03	1 3/4" x 1 3/4" x 1/8" 6061 Aluminum Tubing	1
4	FE-00002-04	1" Schedule 40 Aluminum Tube	1
5	FE-00002-05	3" x 1/4" 6061 Aluminum Bar	1
6	FE-00002-06	1 7/16" Dia. 6061 Aluminum Solid Rod	1
7	FE-00002-07	1 1/4 Schedule 40 Aluminum Tube	2

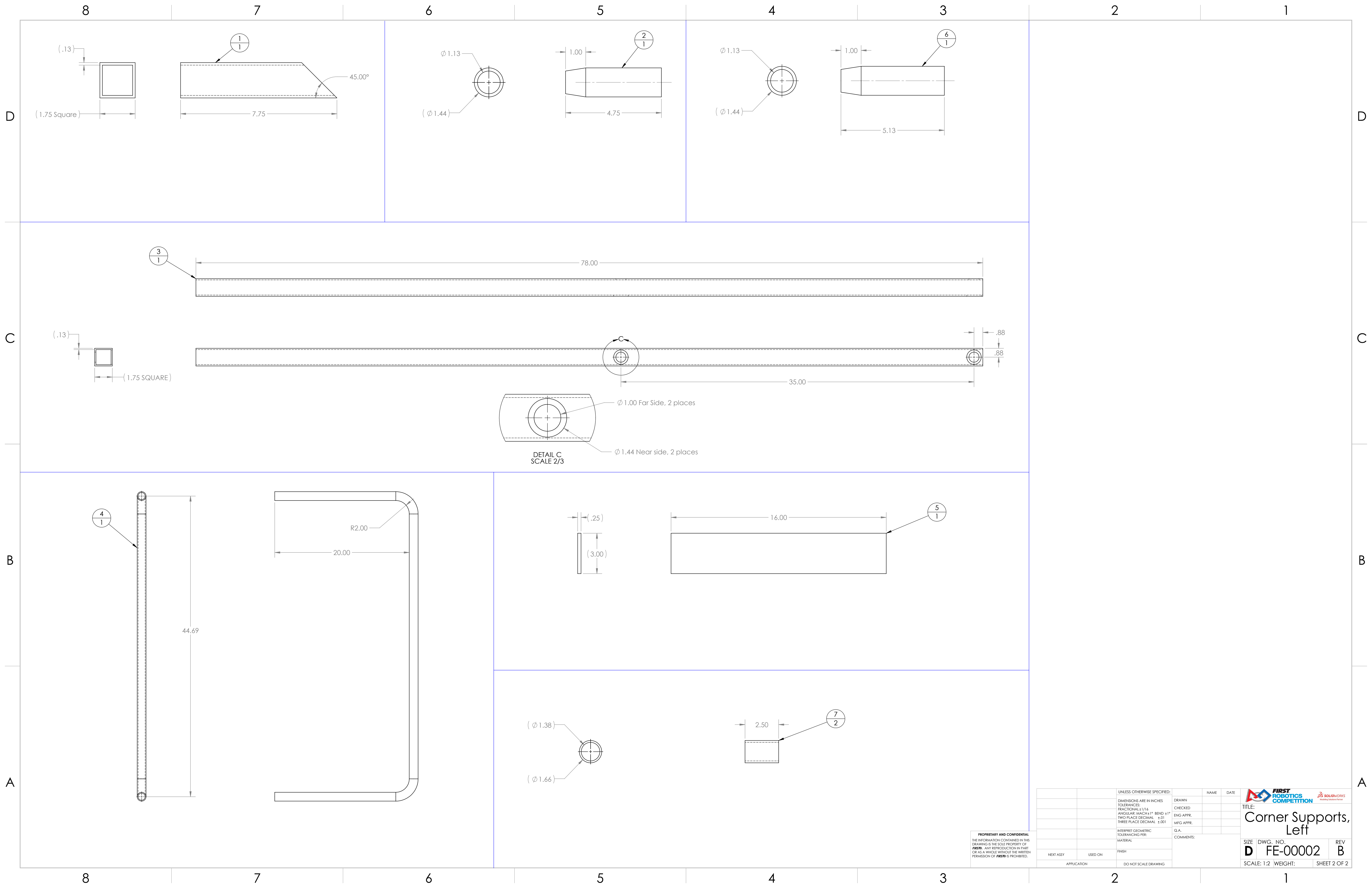


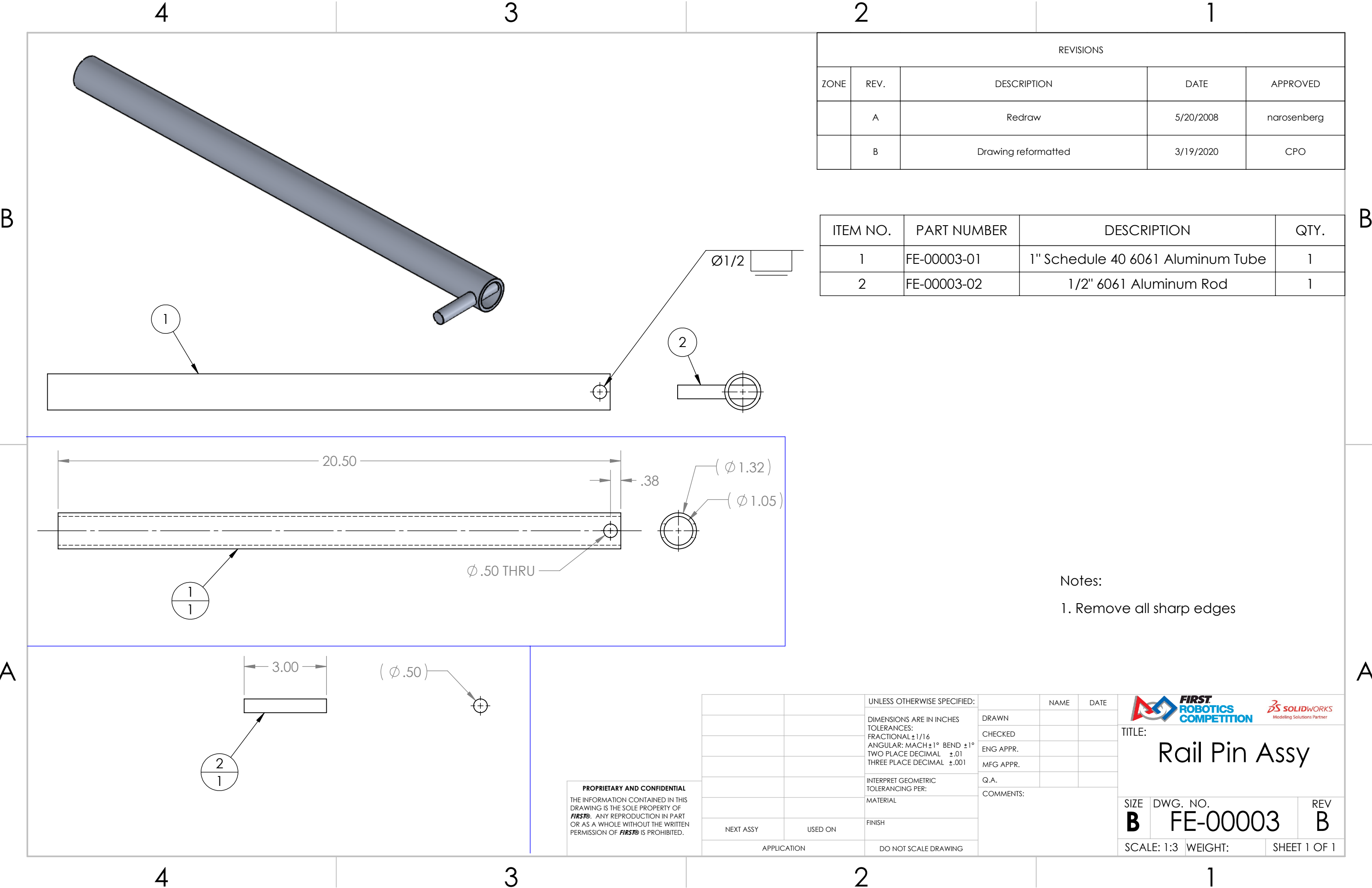
- Notes:
- Left corner support shown, right is same components, mirror image assy
 - Remove all sharp edges

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







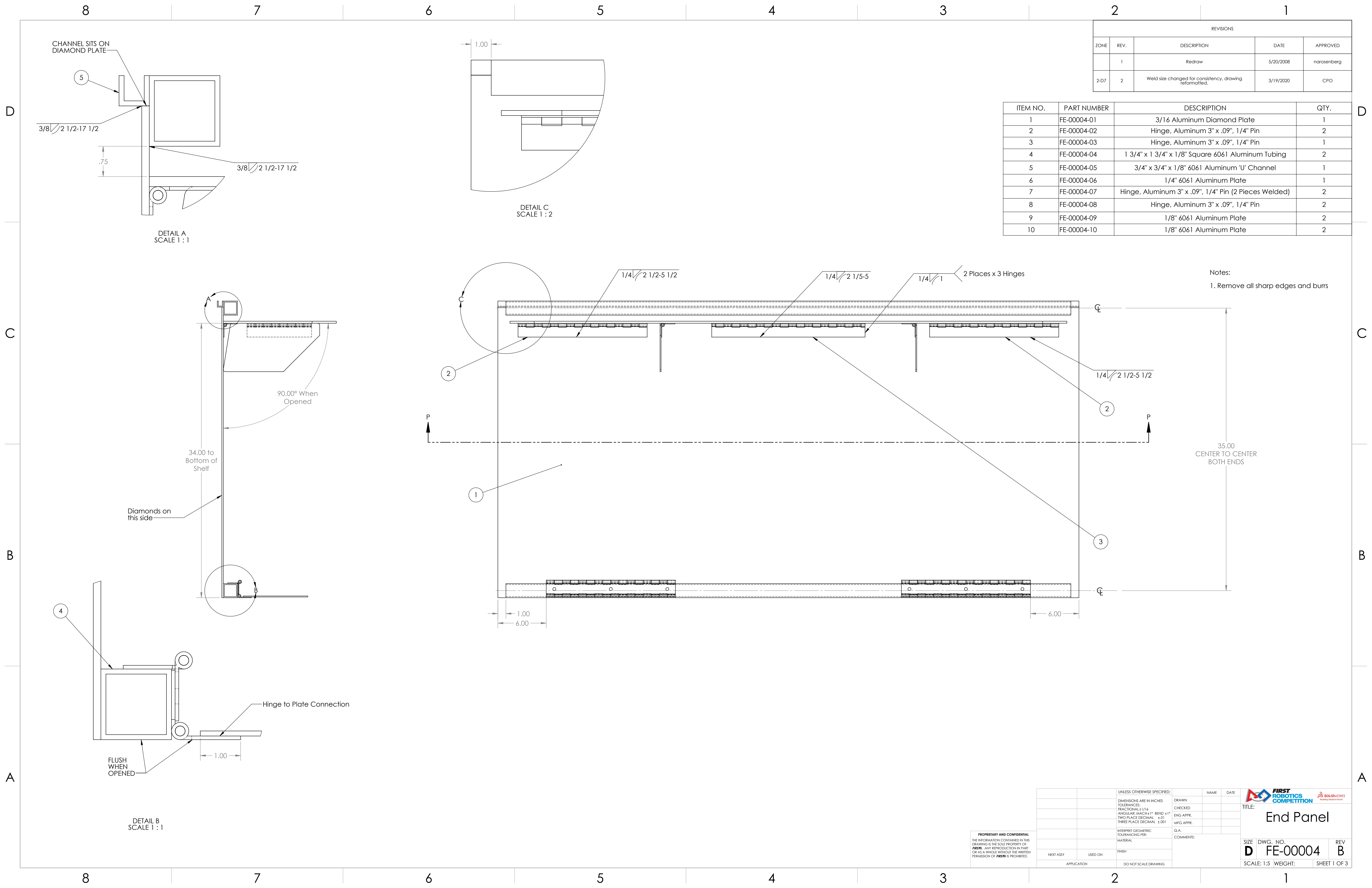
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	Redraw	5/20/2008	narosenberg
	B	Drawing reformatted	3/19/2020	CPO

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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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	<div></div> <div>TITLE: <h1>Rail Pin Assy</h1></div>
		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.			SIZE DWG. NO. REV
		THREE PLACE DECIMAL ±.001	COMMENTS:			B FE-00003 B
		INTERPRET GEOMETRIC TOLERANCING PER:				SCALE: 1:3 WEIGHT: SHEET 1 OF 1
		MATERIAL				
		FINISH				
NEXT ASSY	USED ON					
APPLICATION		DO NOT SCALE DRAWING				



D

C

B

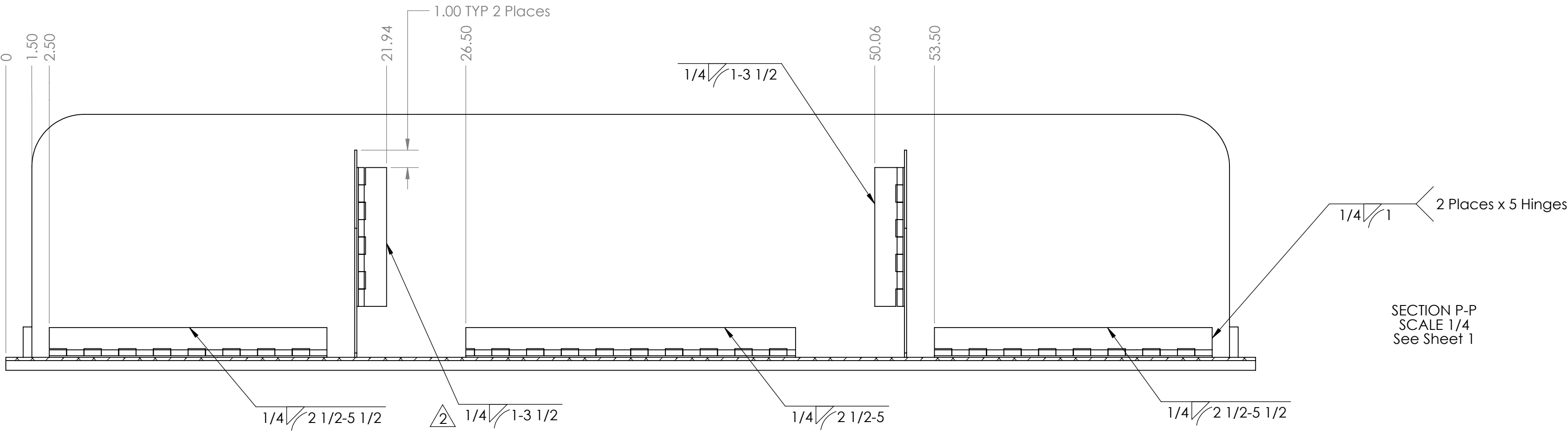
A

D

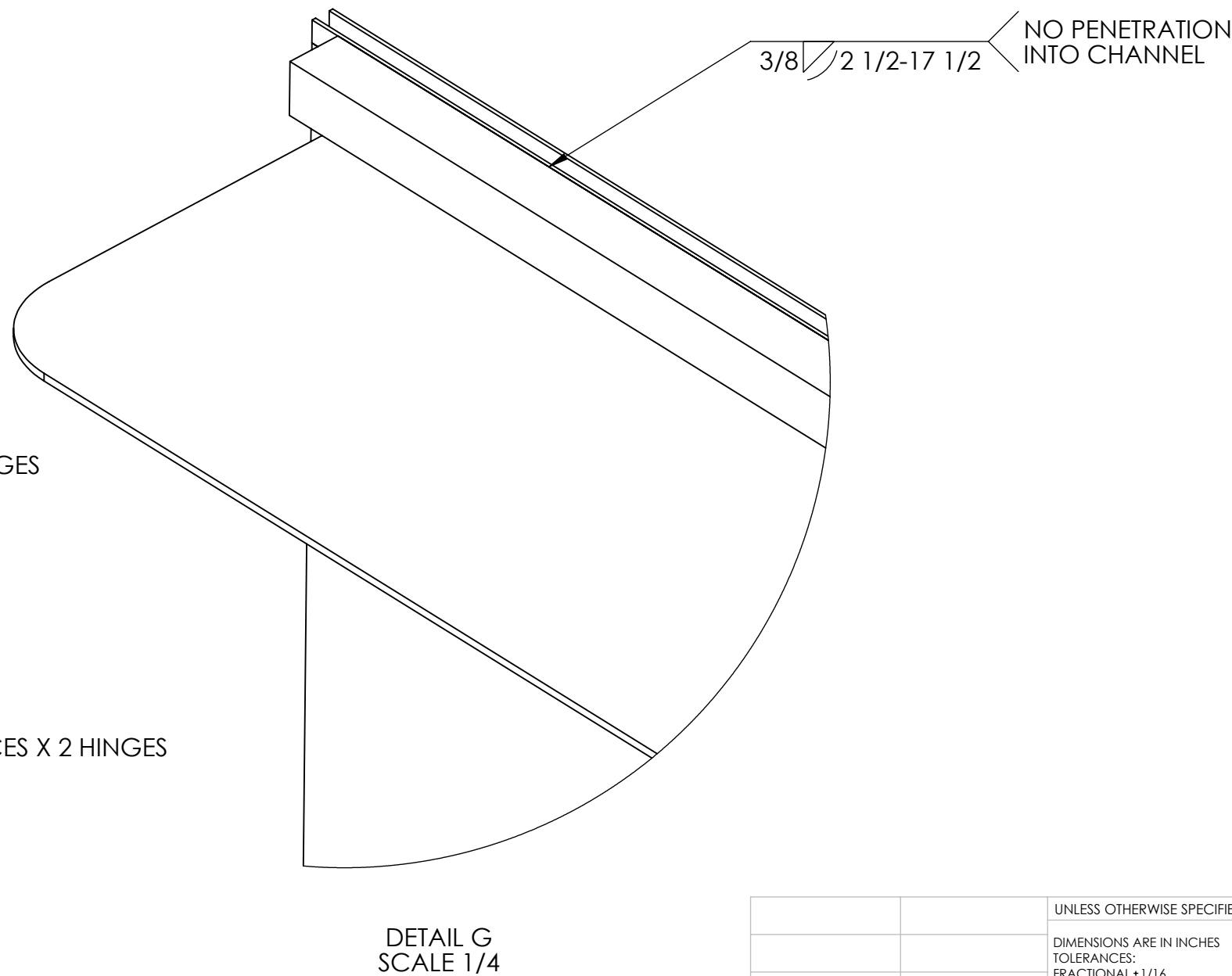
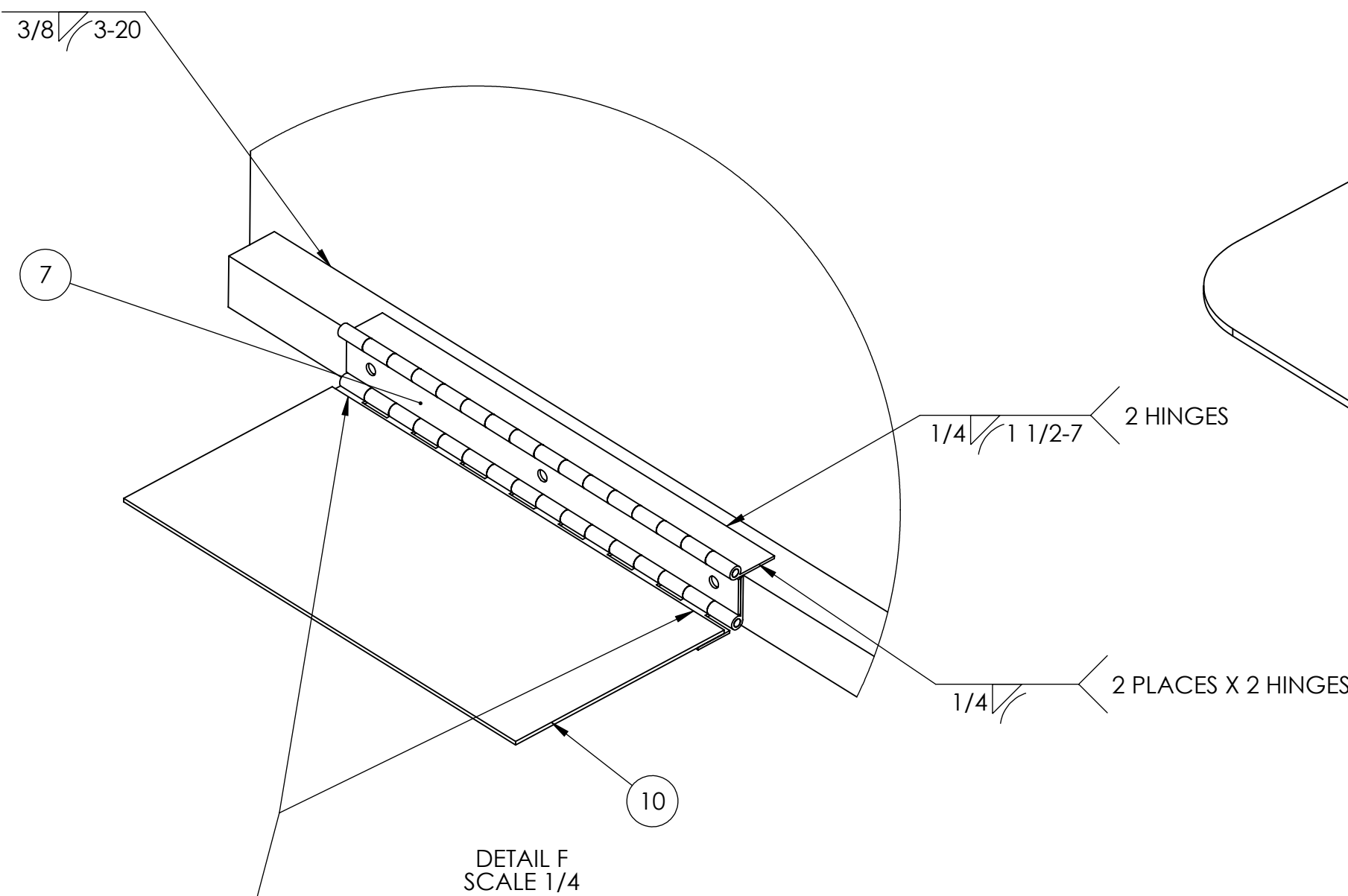
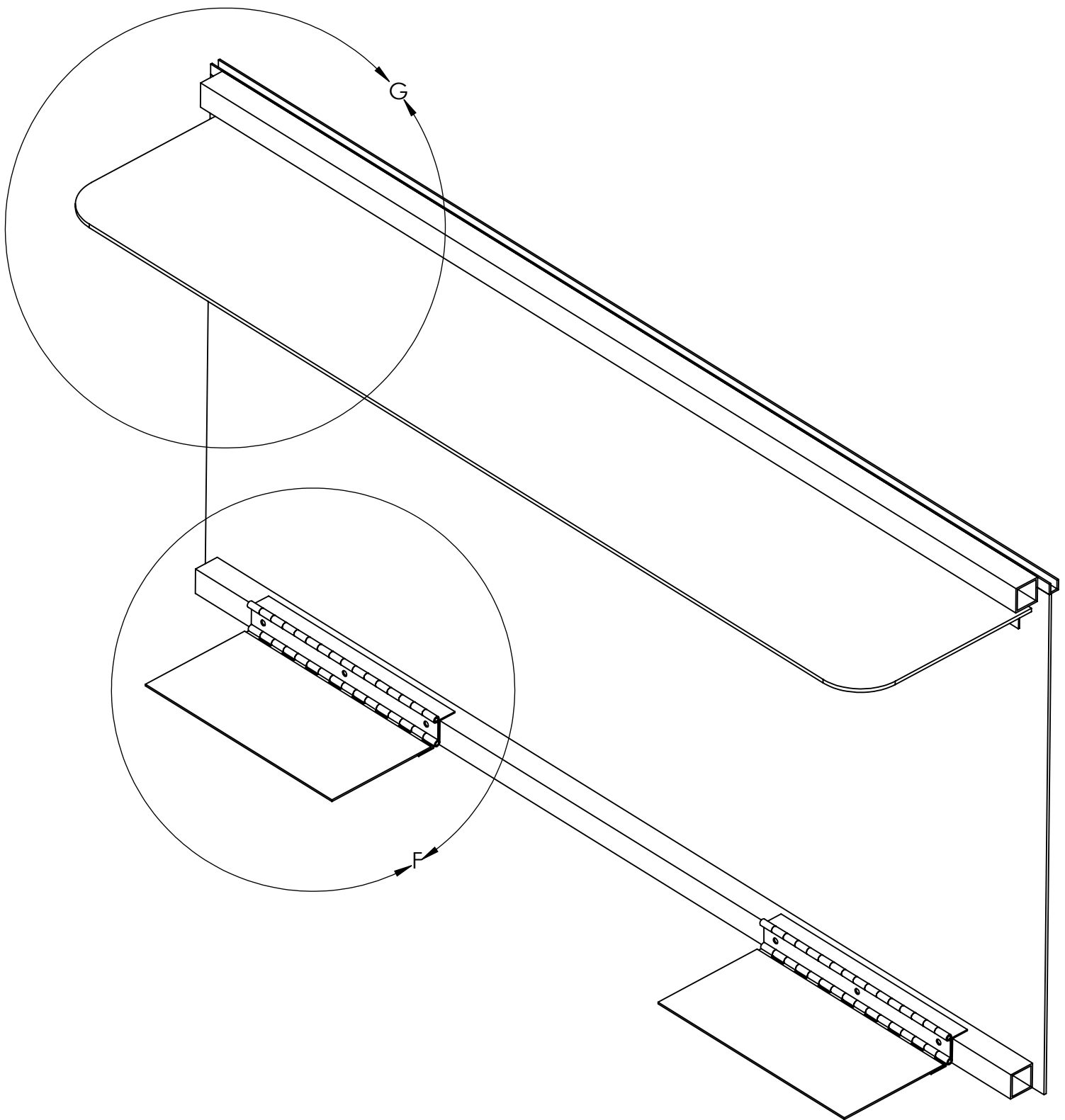
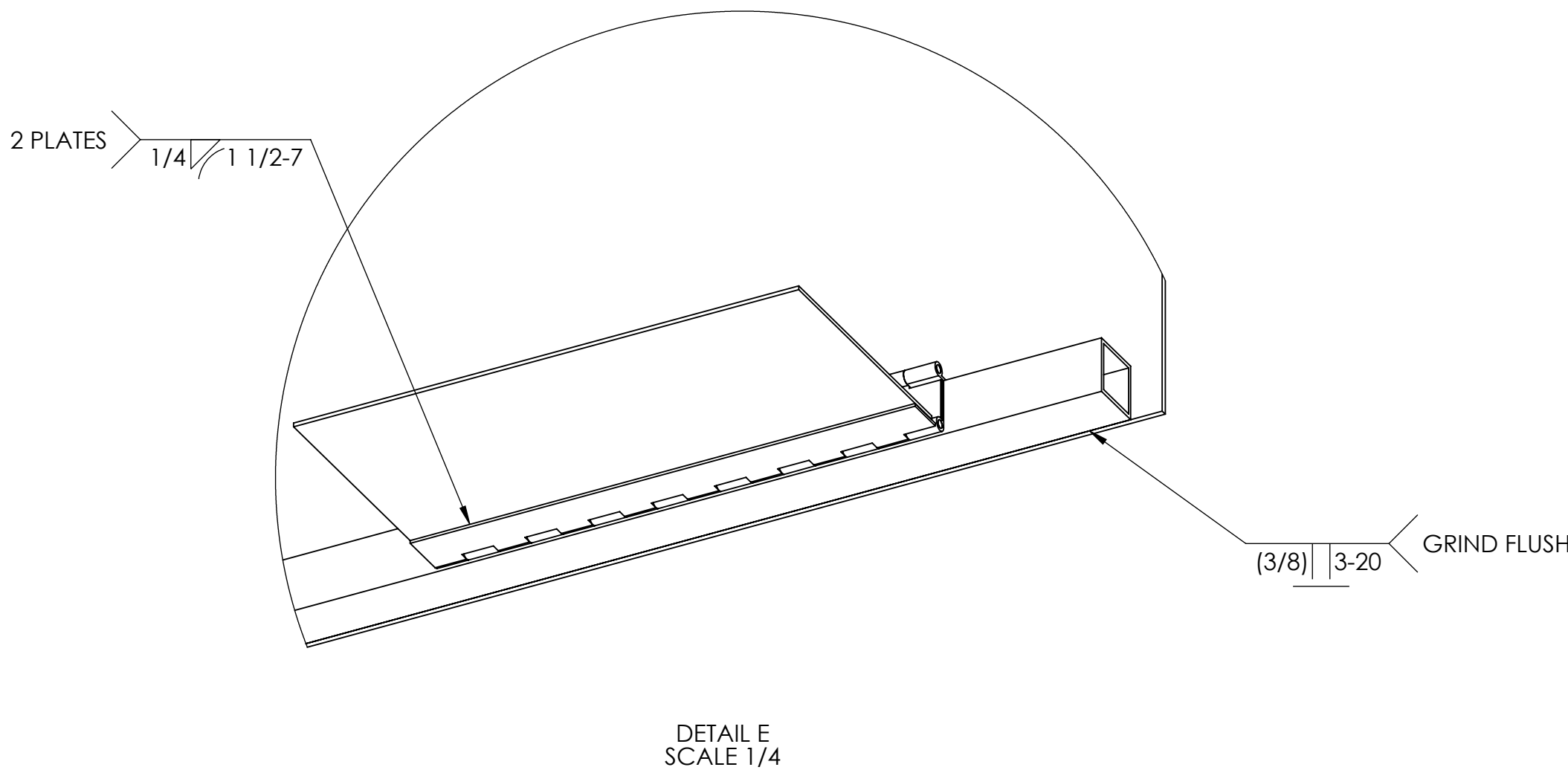
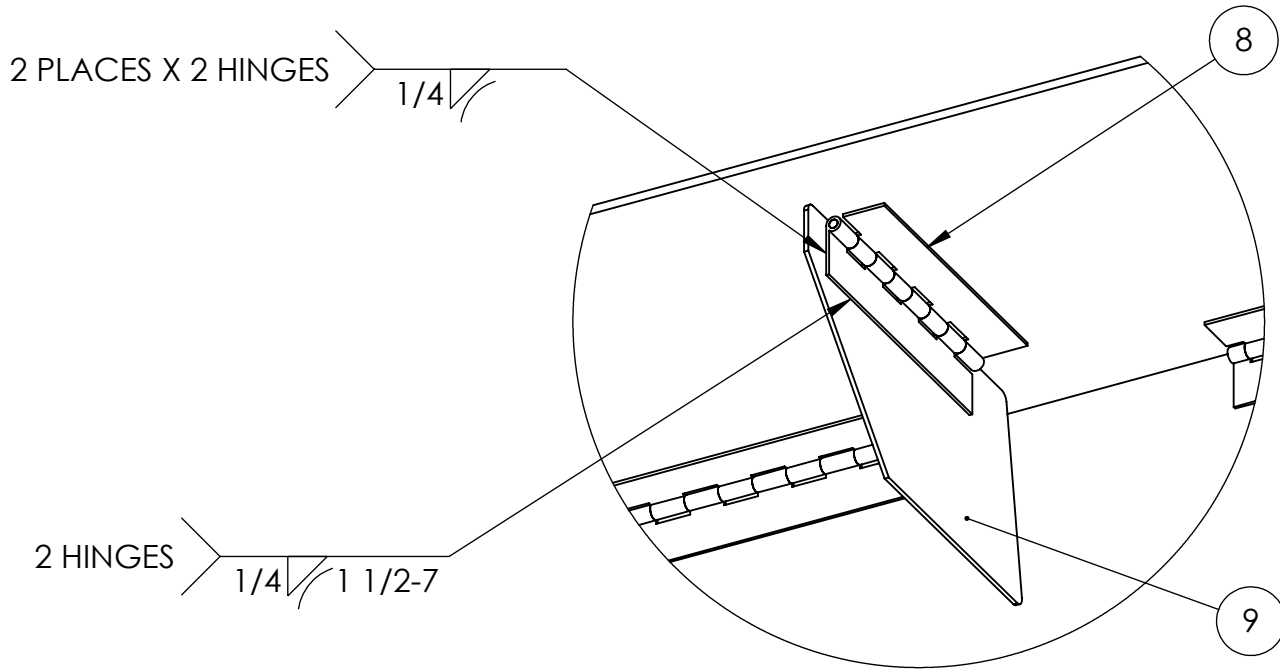
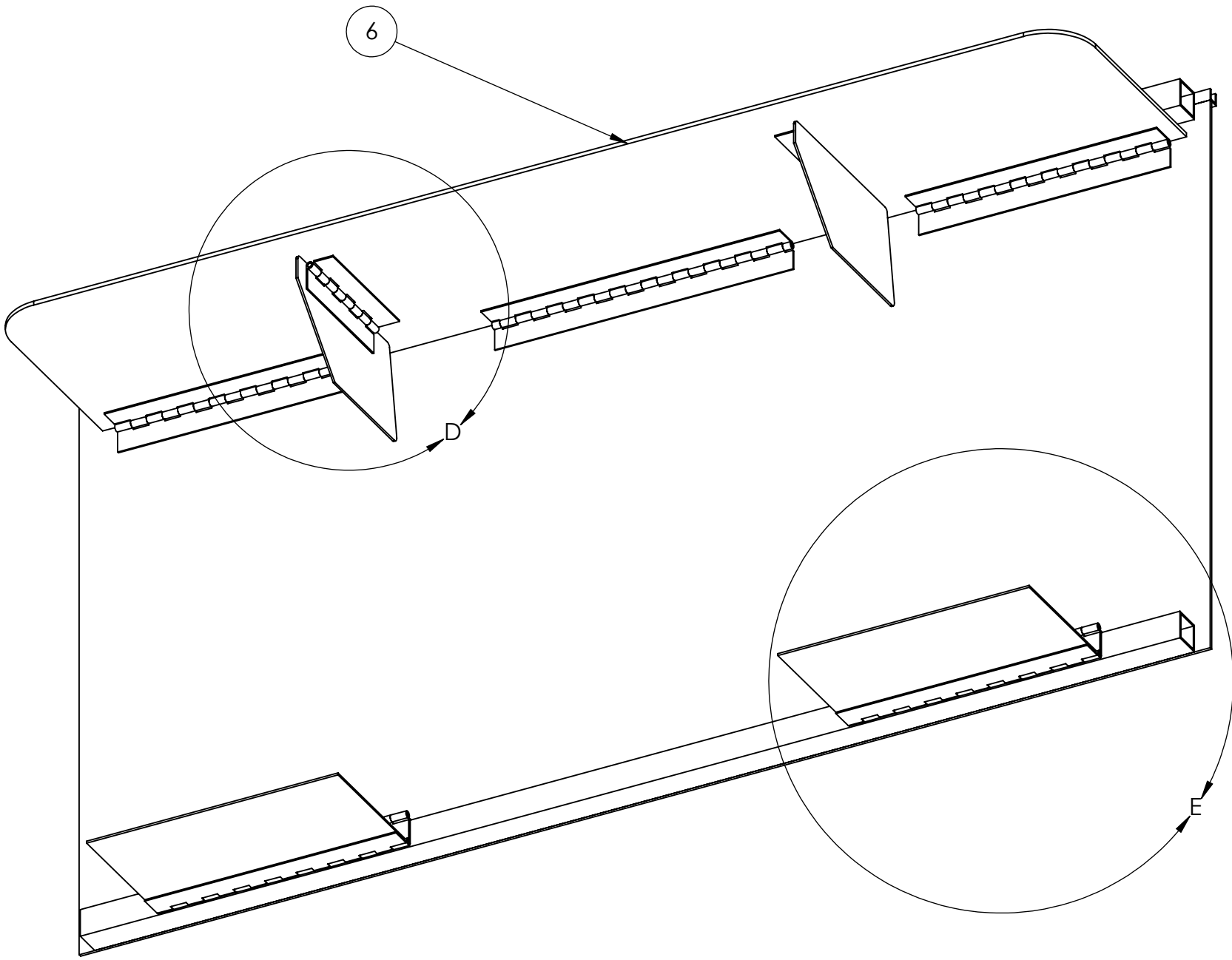
C

B

A





Notes:
1. Remove all sharp edges and burrs

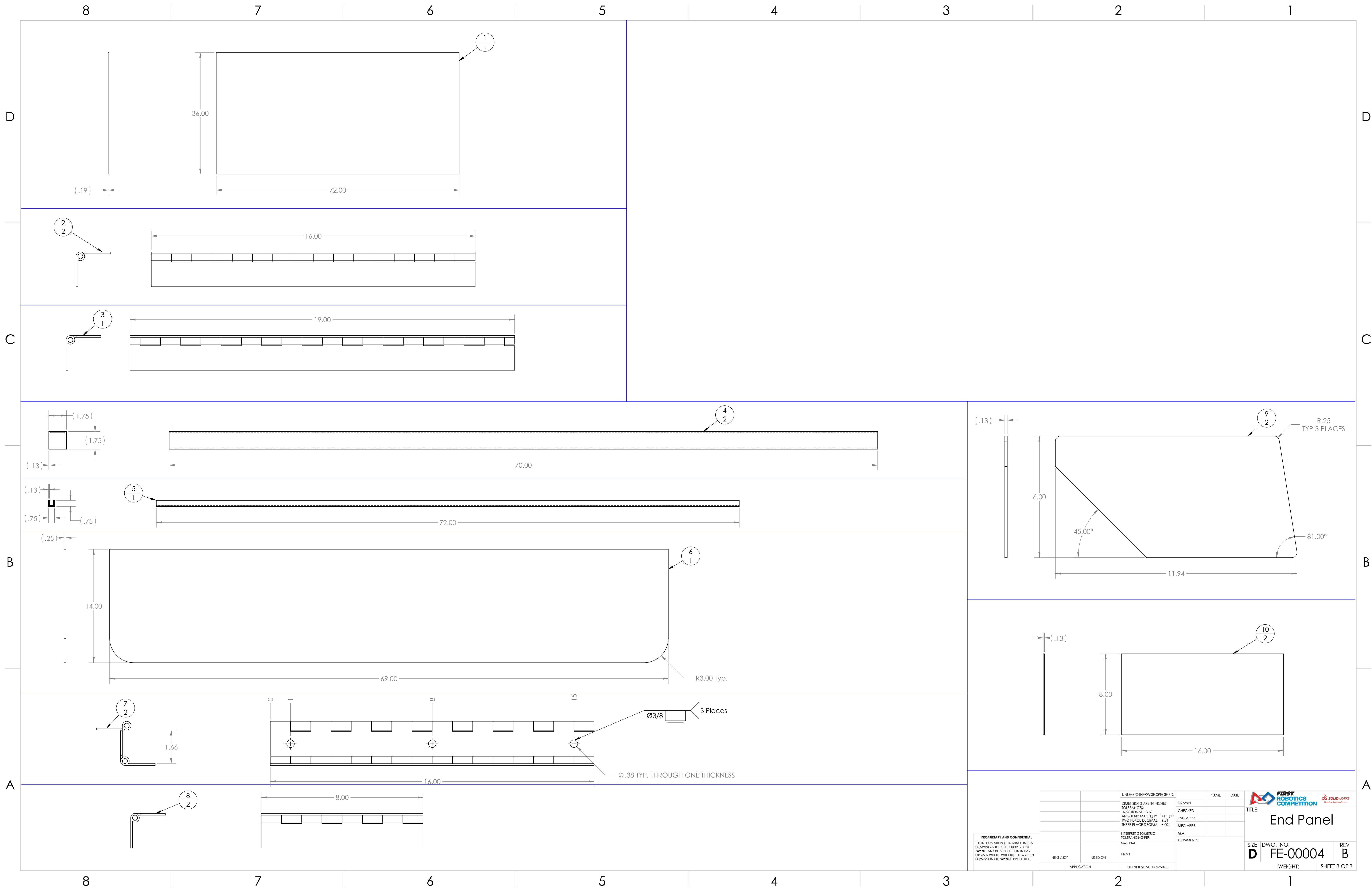


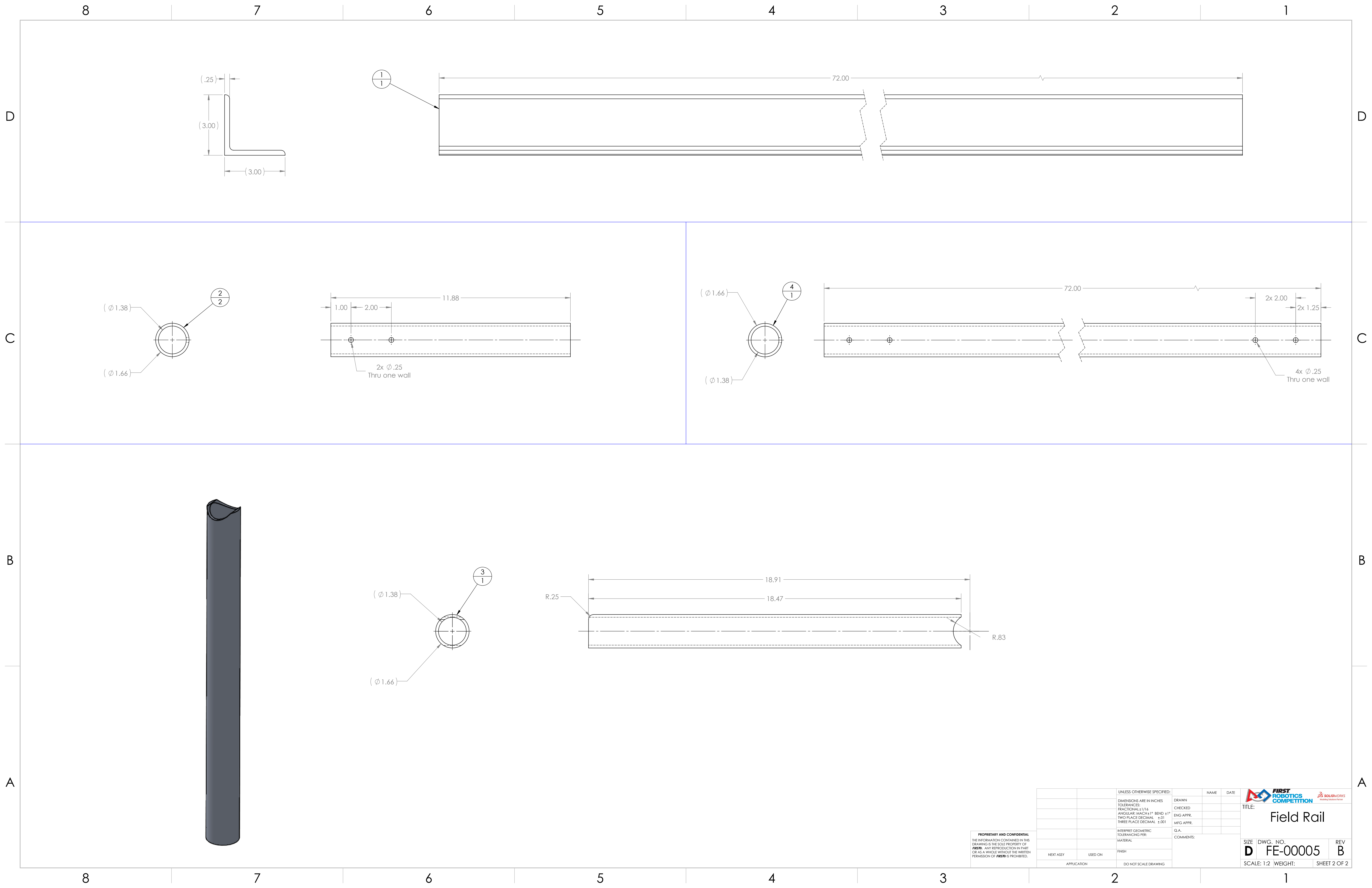
WELD APPLICABLE
HINGE FINGERS,
2 PER STOP PLATE HINGE

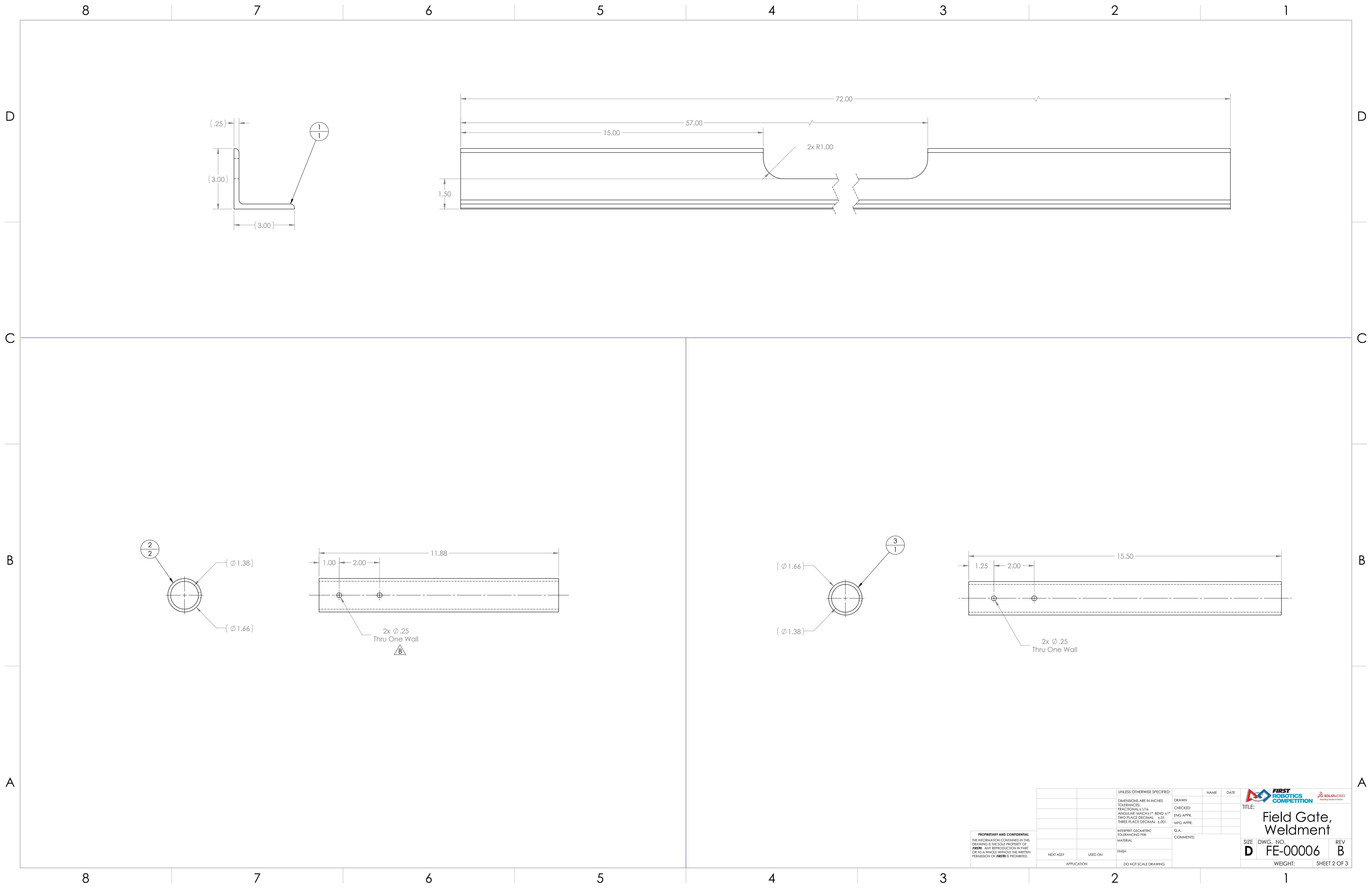
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		DIMENSIONS ARE IN INCHES	DRAWN		
		TOLERANCES:	CHECKED		
		FRACTIONAL: ±1/16	ENG APPR.		
		ANGULAR: MATCH ±1° BEND ±1°	MFG APPR.		
		TWO PLACE DECIMAL ±.01	Q.A.		
		THREE PLACE DECIMAL ±.001	COMMENTS:		
		INTERPRET GEOMETRIC TOLERANCING PER:			
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

		 SOLIDWORKS Modeling Solutions Partner	
TITLE: End Panel			
SIZE	DWG. NO.		REV
D	FE-00004		B
WEIGHT:		SHEET 2 OF 3	





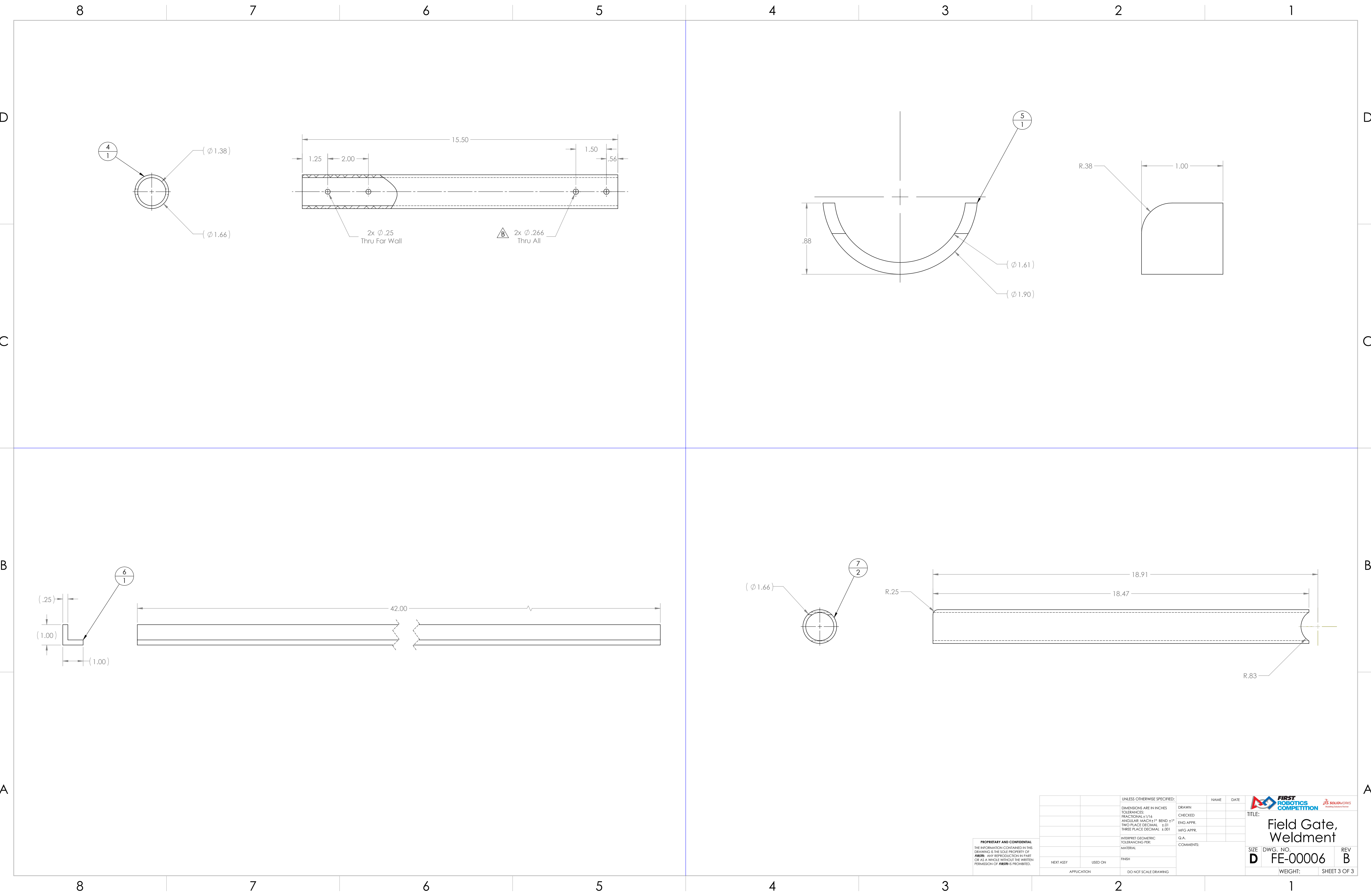




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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE
		DIMENSIONS ARE IN INCHES	DRAWN		
		TOLERANCES:	CHECKED		
		FRACTIONAL: ±1/16	ENG APPR.		
		ANGULAR: MACH ±1° BEND ±1°	MFG APPR.		
		TWO PLACE DECIMAL ±.01			
		THREE PLACE DECIMAL ±.001			
		INTERPRET GEOMETRIC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

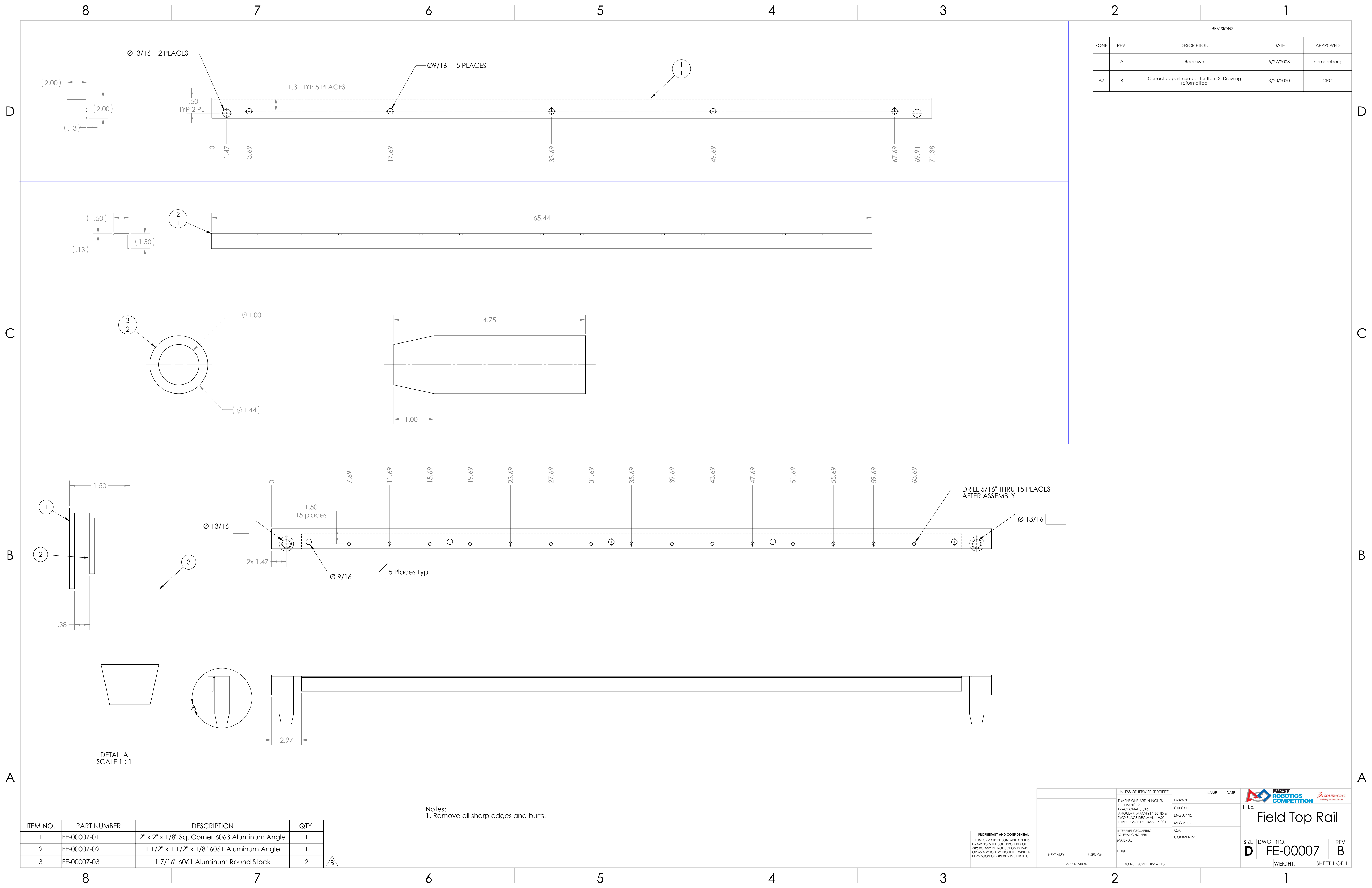
		 SOLIDWORKS Modeling Solutions Partner	
TITLE:			
Field Gate, Weldment			
SIZE	DWG. NO.		REV
D	FE-00006		B
WEIGHT:		SHEET 2 OF 3	



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		UNLESS OTHERWISE SPECIFIED:			NAME	DATE
		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.			
		THREE PLACE DECIMAL $\pm .001$	COMMENTS:			
		INTERPRET GEOMETRIC TOLERANCING PER:				
		MATERIAL				
		FINISH				
NEXT ASSY	USED ON					
APPLICATION		DO NOT SCALE DRAWING				

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



REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	Redrawn	5/27/2008	narosenberg
A7	B	Corrected part number for item 3. Drawing reformatted	3/20/2020	CPO

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-00007-01	2" x 2" x 1/8" Sq. Corner 6063 Aluminum Angle	1
2	FE-00007-02	1 1/2" x 1 1/2" x 1/8" 6061 Aluminum Angle	1
3	FE-00007-03	1 7/16" 6061 Aluminum Round Stock	2

Notes:
1. Remove all sharp edges and burrs.

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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			
APPLICATION	DO NOT SCALE DRAWING		

FIRST
ROBOTICS
COMPETITION

TITLE:
Field Top Rail



SIZE DWG. NO. REV
D FE-00007 B

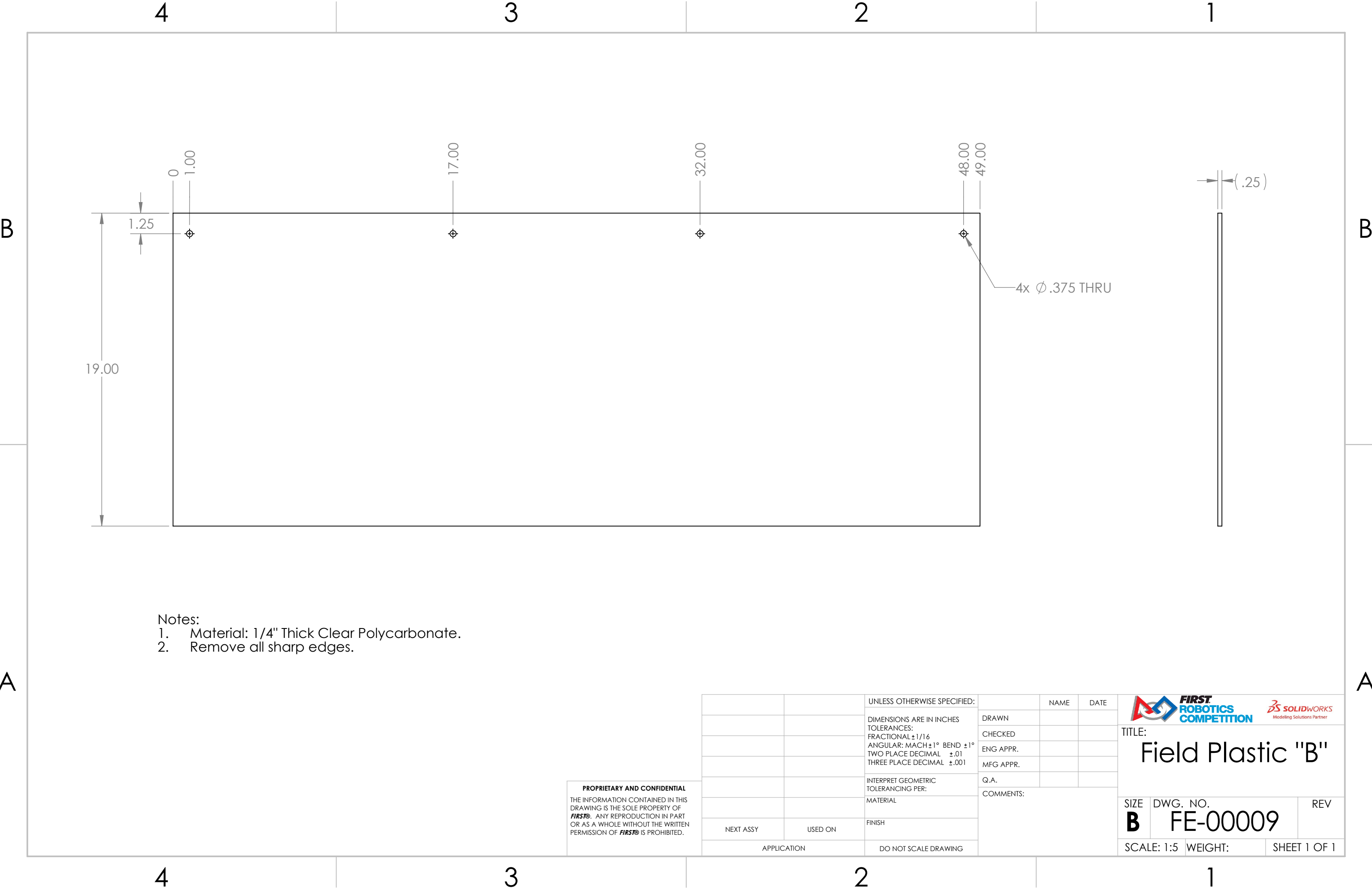
WEIGHT: SHEET 1 OF 1



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



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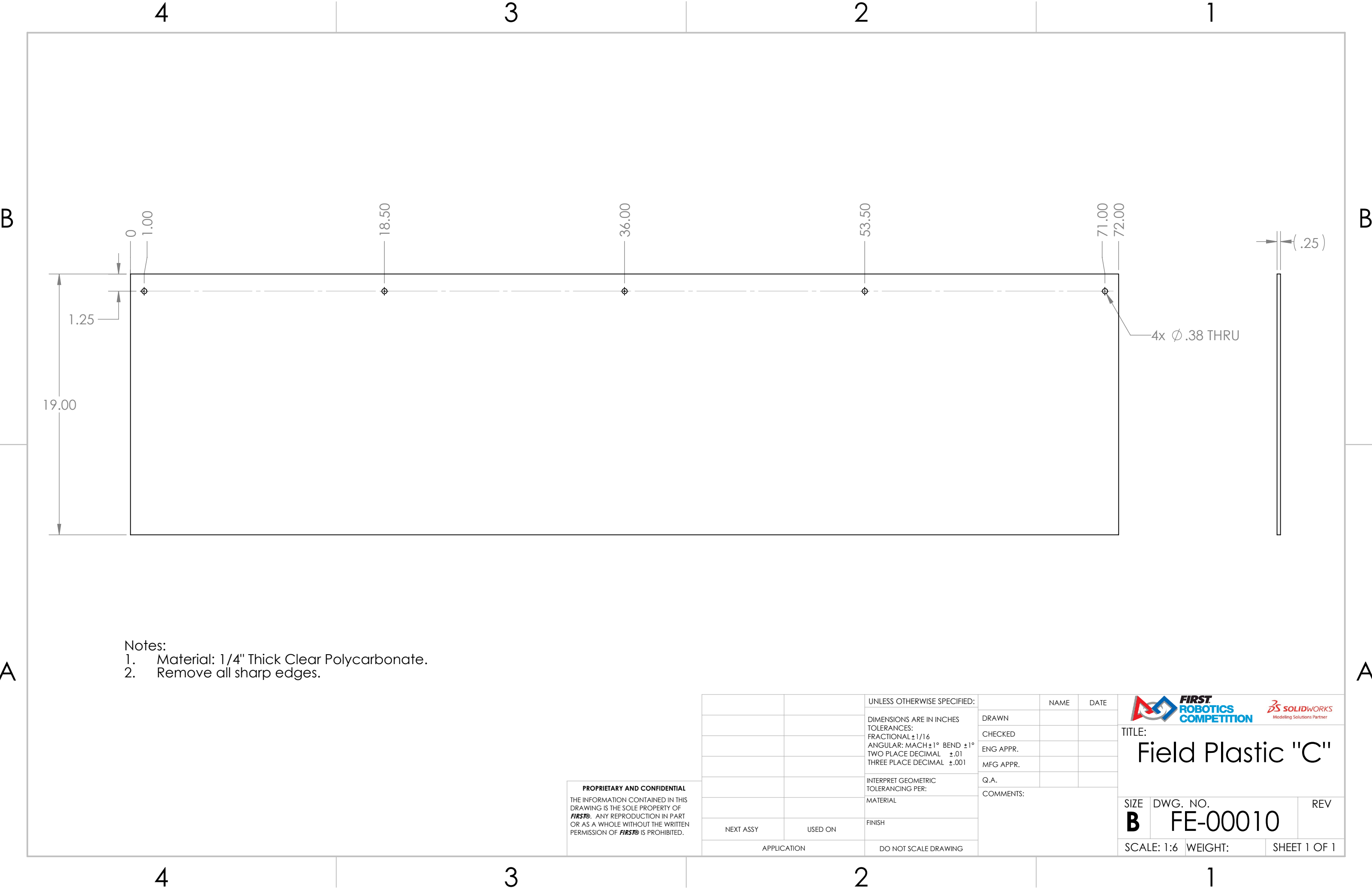
		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	<div><div>FIRST ROBOTICS COMPETITION</div><div><div>SOLIDWORKS Modeling Solutions Partner</div></div></div>			
		DIMENSIONS ARE IN INCHES	DRAWN			TITLE: Field Plastic "A"			
		TOLERANCES:	CHECKED						
		FRACTIONAL $\pm 1/16$	ENG APPR.						
		ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$	MFG APPR.						
		TWO PLACE DECIMAL $\pm .01$	Q.A.						
		THREE PLACE DECIMAL $\pm .001$	COMMENTS:			SIZE DWG. NO. REV B FE-00008			
		INTERPRET GEOMETRIC TOLERANCING PER:							
		MATERIAL							
		FINISH							
NEXT ASSY	USED ON								
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:4		WEIGHT:	SHEET 1 OF 1



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

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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	<div>FIRST ROBOTICS COMPETITION</div> <div>SOLIDWORKS Modeling Solutions Partner</div>			
		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: Field Plastic "B"			
			CHECKED						
			ENG APPR.						
			MFG APPR.						
			Q.A.						
		INTERPRET GEOMETRIC TOLERANCING PER:	COMMENTS:			SIZE DWG. NO. REV B FE-00009			
		MATERIAL							
		FINISH							
NEXT ASSY	USED ON								
APPLICATION		DO NOT SCALE DRAWING	SCALE: 1:5				WEIGHT:	SHEET 1 OF 1	



Notes:

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



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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	<div></div>			
		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: Field Plastic "C"			
			CHECKED						
			ENG APPR.						
			MFG APPR.						
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.						
		MATERIAL	COMMENTS:			SIZE DWG. NO. REV B FE-00010			
NEXT ASSY	USED ON	FINISH							
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:6		WEIGHT:	SHEET 1 OF 1

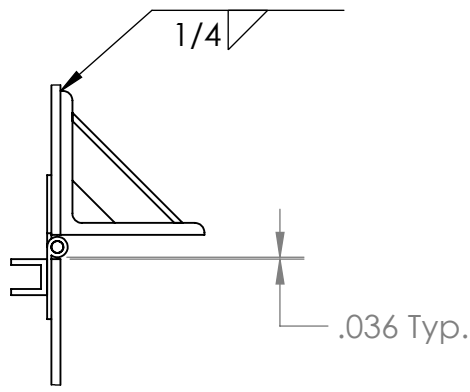


Notes:
1. Material: 3/8" Thick Acrylic Sheet

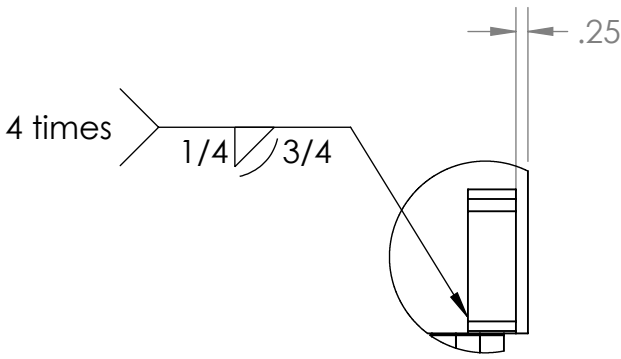
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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	<div></div>		
		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/16 ANGULAR: MACH±1° BEND ±1° TWO PLACE DECIMAL ±.01 THREE PLACE DECIMAL ±.001	DRAWN			TITLE: Drivers Station Acrylic		
			CHECKED					
			ENG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

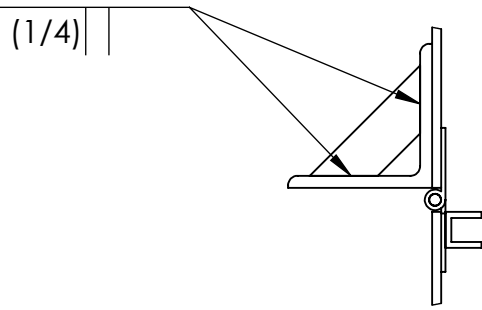
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	Redrawn	5/27/2008	narosenberg
	B	Drawing Reformatted	3/20/2020	CPO



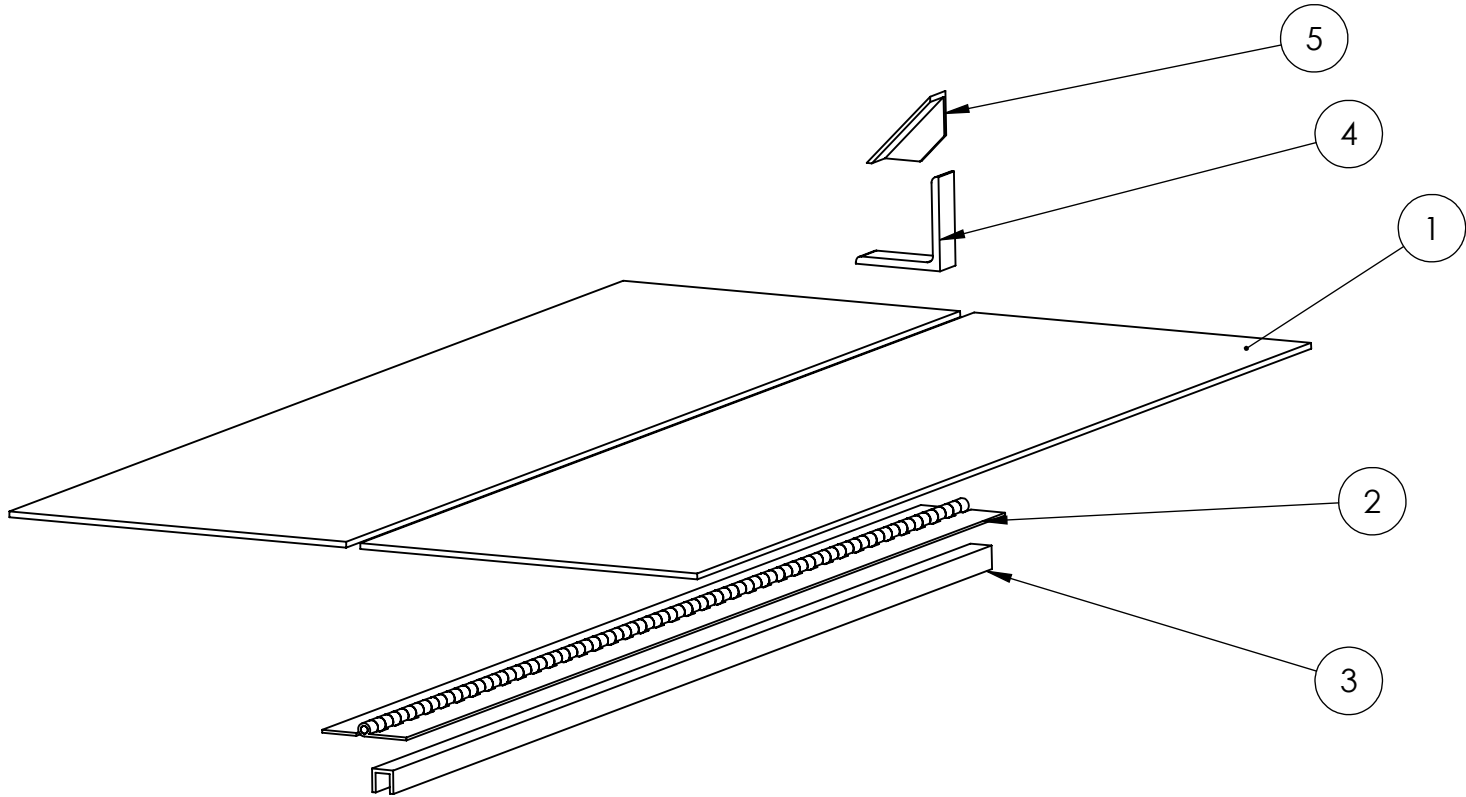
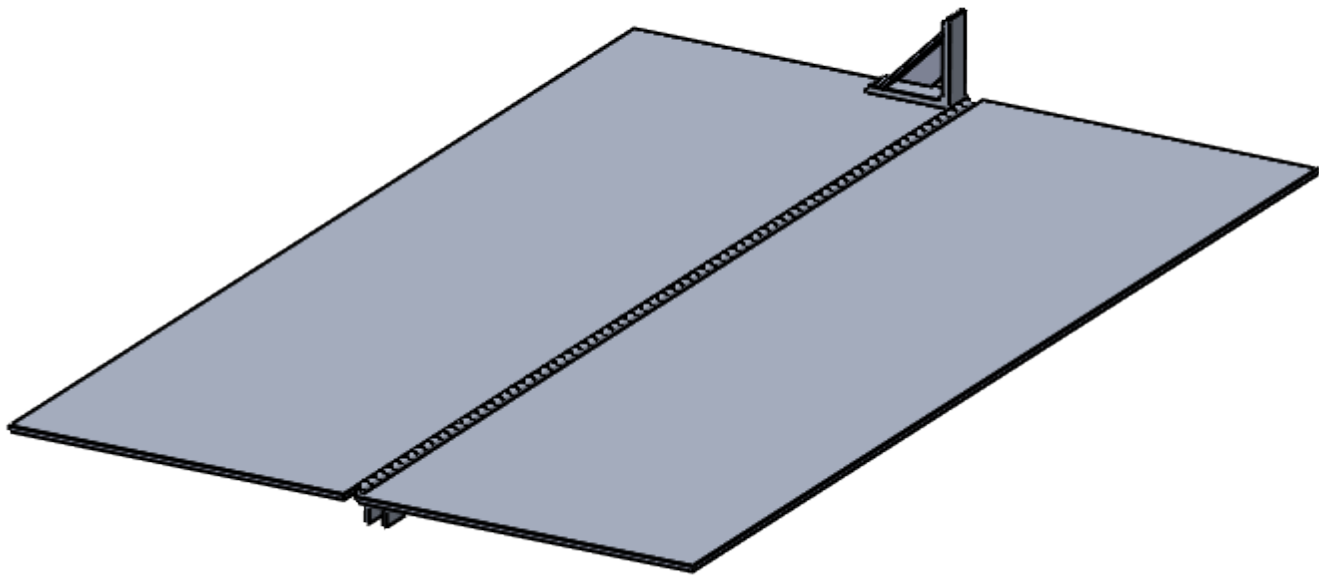
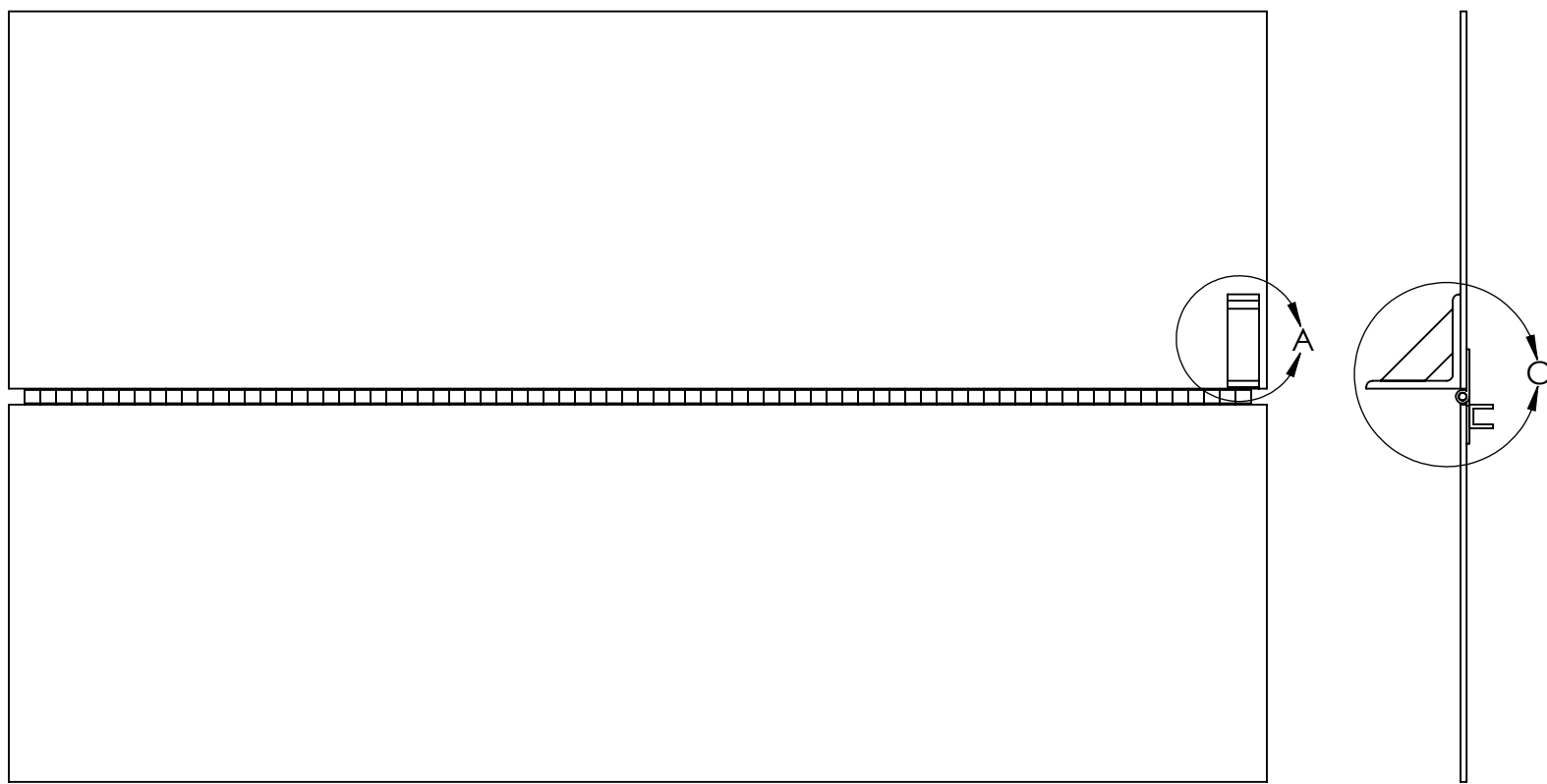
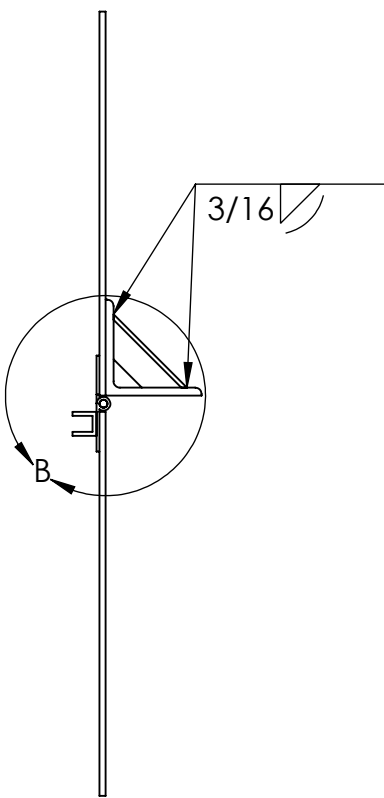
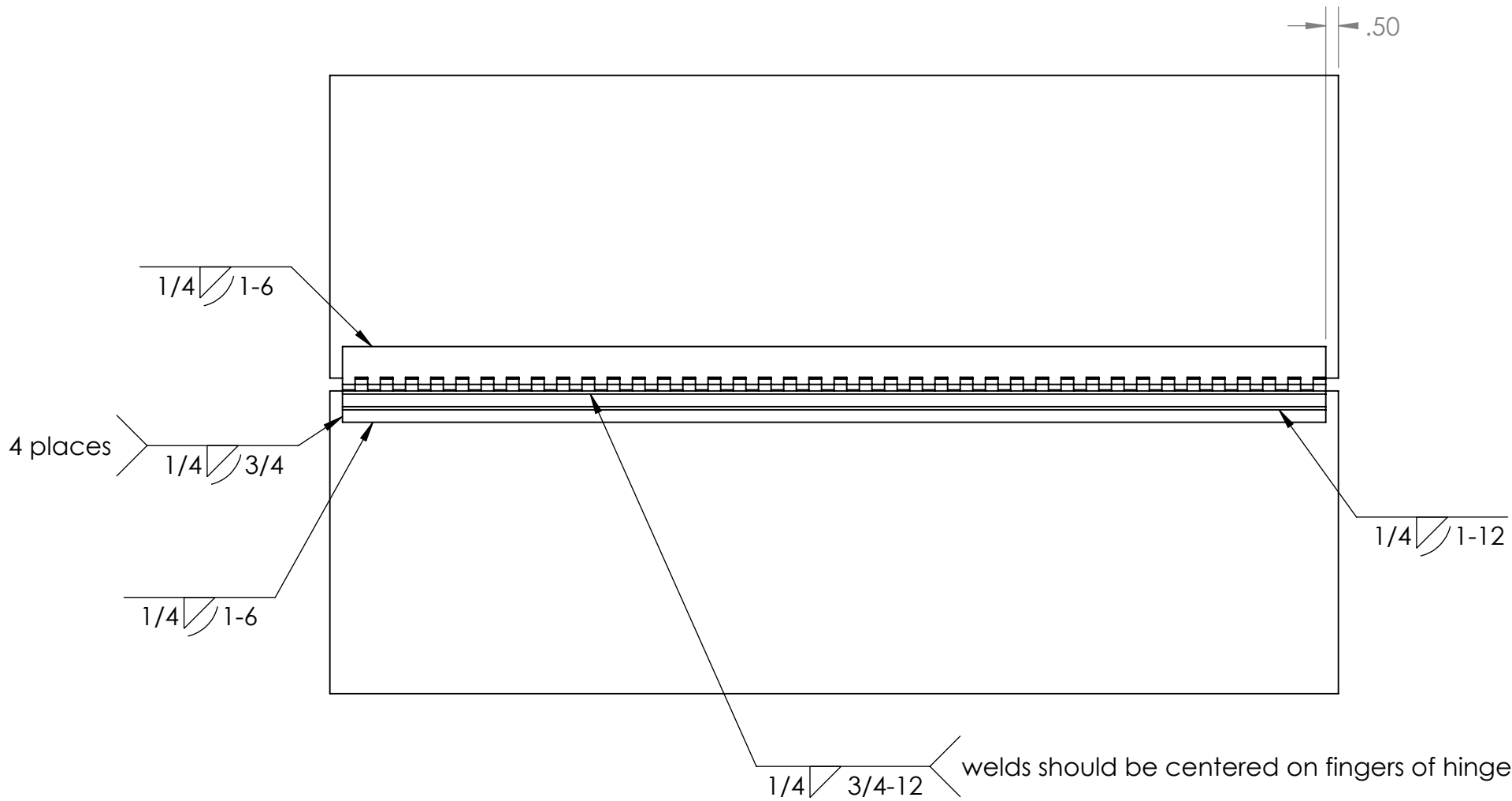
DETAIL B
SCALE 1 : 4



DETAIL A
SCALE 1 : 4



DETAIL C
SCALE 1 : 4



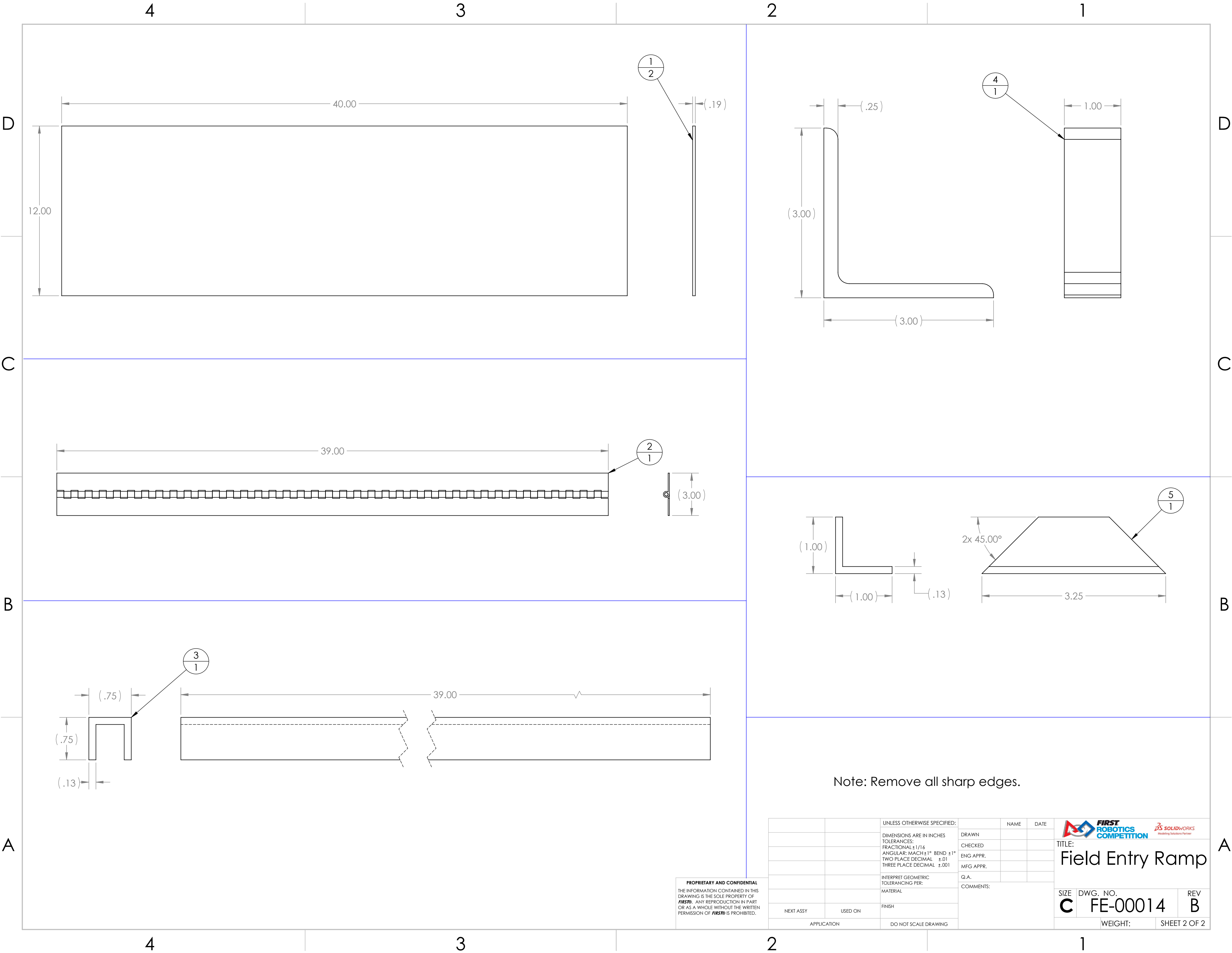
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-00014-01	3/16" 3003 Aluminum Diamond Plate	2
2	FE-00014-02	3" Aluminum Hinge, 1/4" Pin	1
3	FE-00014-03	3/4" x 3/4" x 1/8" 6061-T6 Aluminum 'U' Channel	1
4	FE-00014-04	3" x 3" x 1/4" 6061-T6 Aluminum Angle	1
5	FE-00014-05	1" x 1" x 1/8" 6061-T6 Aluminum Angle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



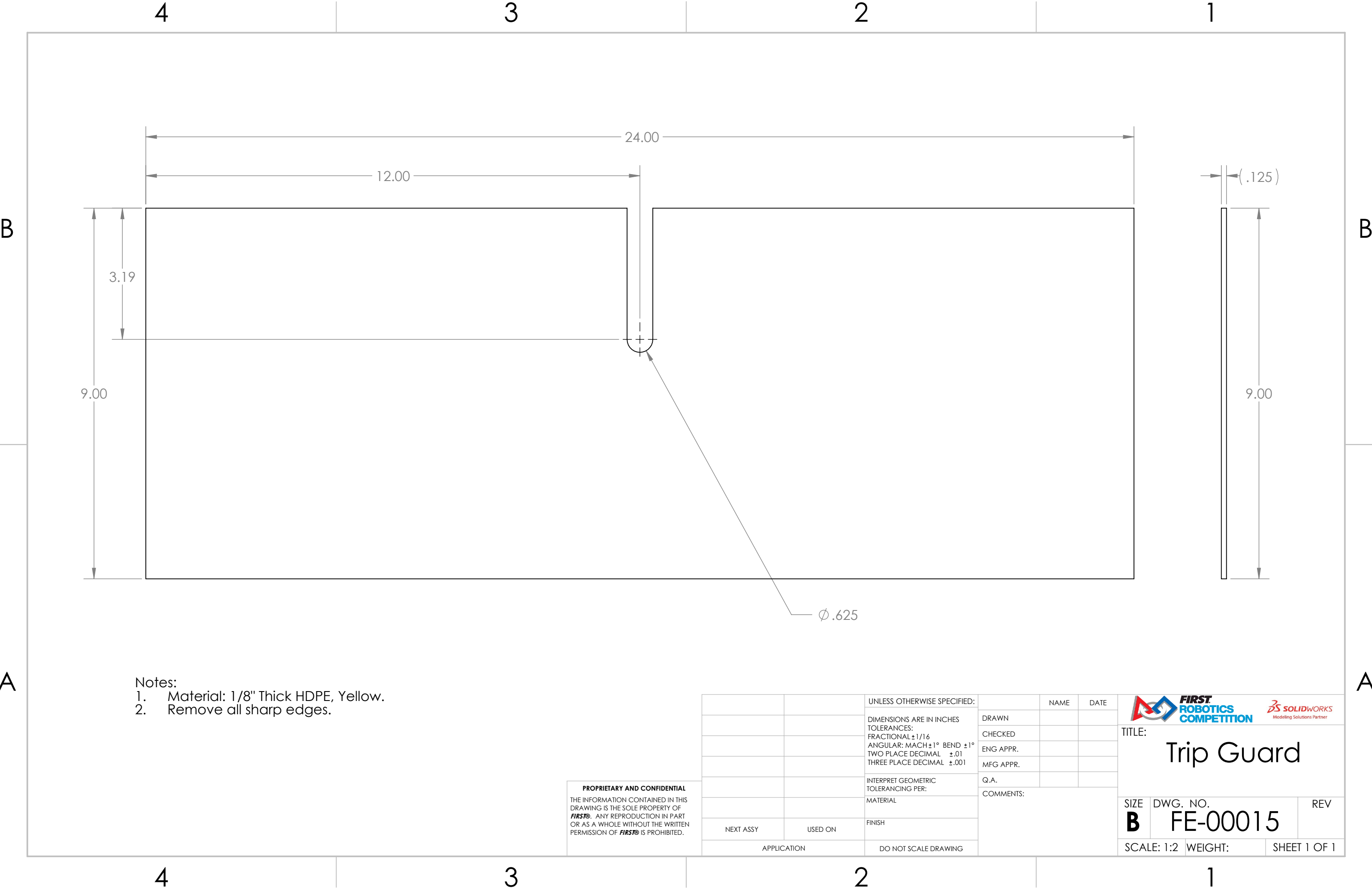
TITLE: Field Entry Ramp		
SIZE C	DWG. NO. FE-00014	REV B
SCALE: 1:6 WEIGHT:		SHEET 1 OF 2



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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	 									
		DIMENSIONS ARE IN INCHES	DRAWN												
		TOLERANCES:	CHECKED												
		FRACTIONAL $\pm 1/16$	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:	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													
		INTERPRET GEOMETRIC TOLERANCING PER:													
		MATERIAL													
		FINISH													
NEXT ASSY	USED ON	DO NOT SCALE DRAWING													
APPLICATION															





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

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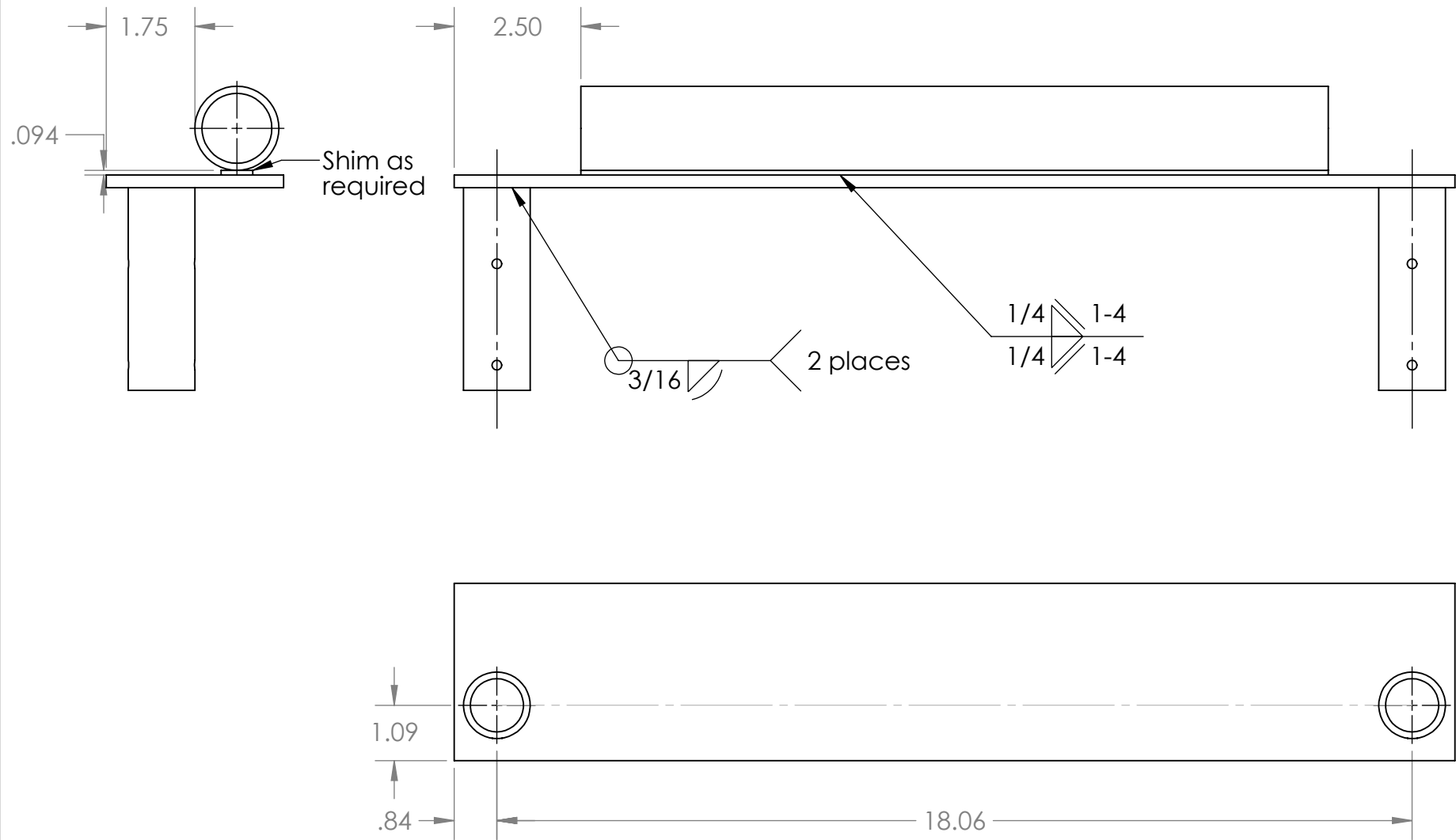
		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	<div></div>		
		DIMENSIONS ARE IN INCHES	DRAWN			TITLE: <h1>Trip Guard</h1>		
		TOLERANCES:	CHECKED					
		FRACTIONAL $\pm 1/16$	ENG APPR.					
		ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$	MFG APPR.					
		TWO PLACE DECIMAL $\pm .01$	Q.A.					
		THREE PLACE DECIMAL $\pm .001$	COMMENTS:			SIZE DWG. NO. REV B FE-00015		
		INTERPRET GEOMETRIC TOLERANCING PER:						
		MATERIAL						
		FINISH						
NEXT ASSY	USED ON							
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:2 WEIGHT: SHEET 1 OF 1		

B

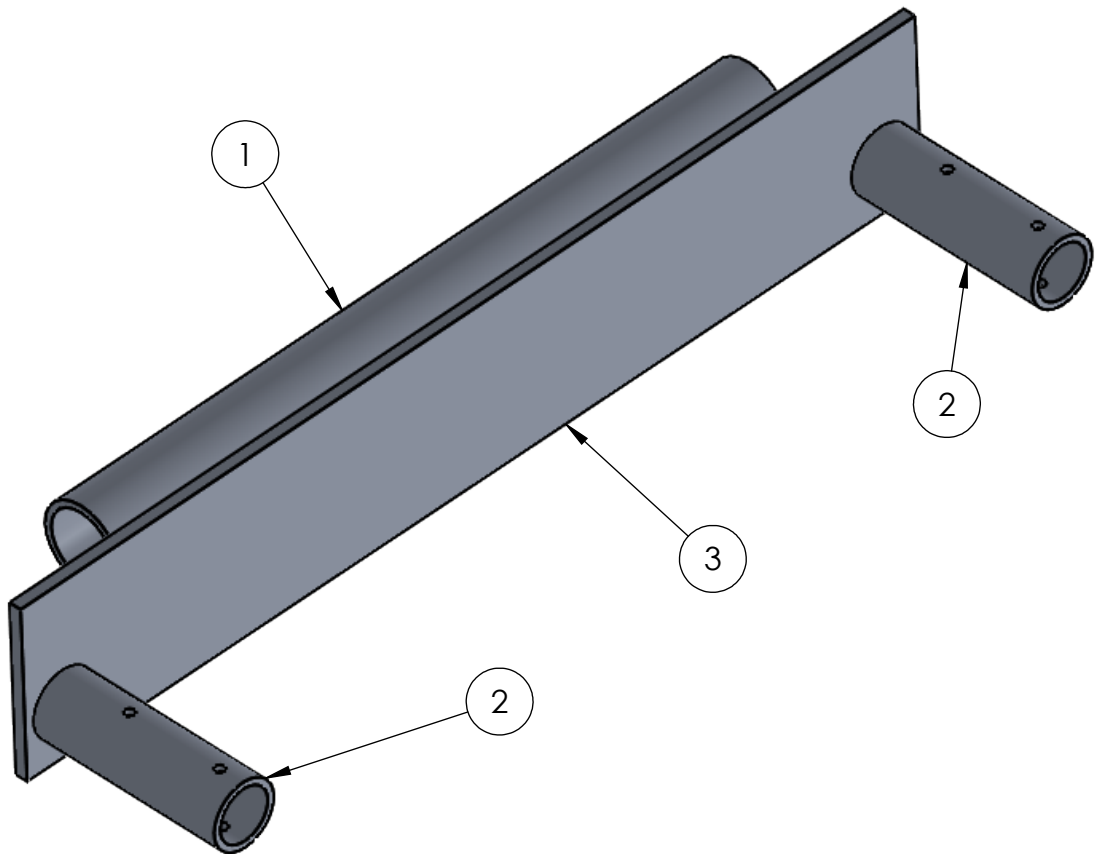
A

B

A





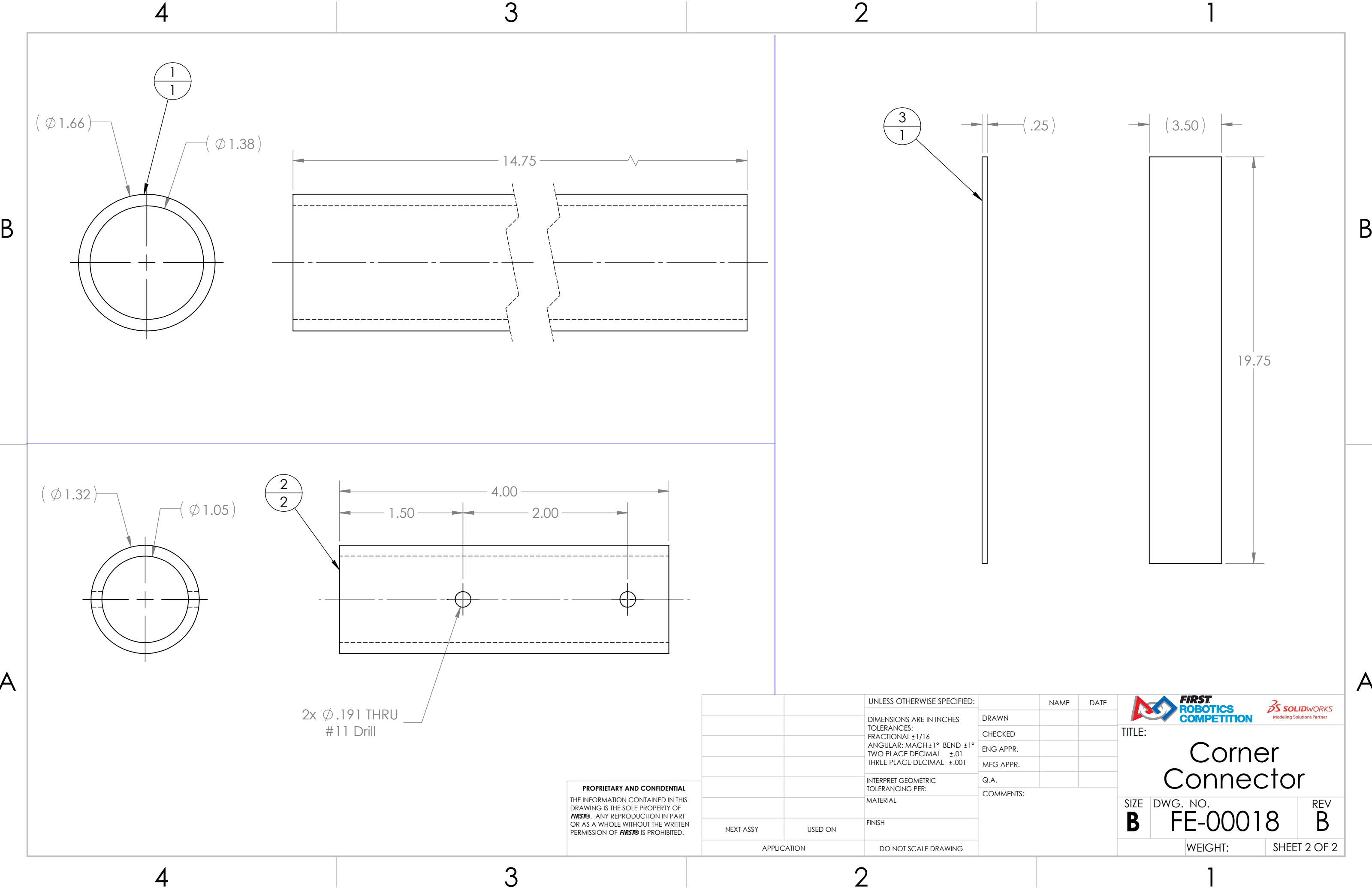
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	Redrawn	5/30/2008	narosenberg
	B	Drawing reformatted.	3/20/2020	CPO





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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		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: <h1>Corner Connector</h1>		
			CHECKED					
			ENG APPR.					
			MFG APPR.					
			Q.A.					
		INTERPRET GEOMETRIC TOLERANCING PER:	COMMENTS:			SIZE DWG. NO. REV B FE-00018 B		
		MATERIAL						
NEXT ASSY	USED ON	FINISH						
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:3 WEIGHT: SHEET 1 OF 2		



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		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 $\pm .001$	DRAWN	NAME	DATE	<div></div> <div>TITLE: Corner Connector</div>		
			CHECKED					
			ENG APPR.					
			MFG APPR.					
			Q.A.					
		INTERPRET GEOMETRIC TOLERANCING PER:	COMMENTS:			SIZE DWG. NO. REV B FE-00018 B		
		MATERIAL						
		FINISH						
NEXT ASSY	USED ON							
APPLICATION		DO NOT SCALE DRAWING	WEIGHT:				SHEET 2 OF 2	

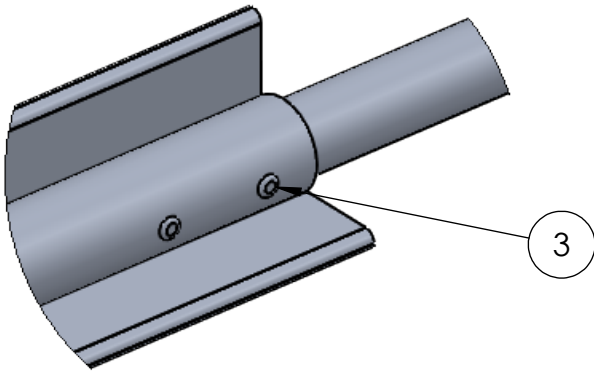
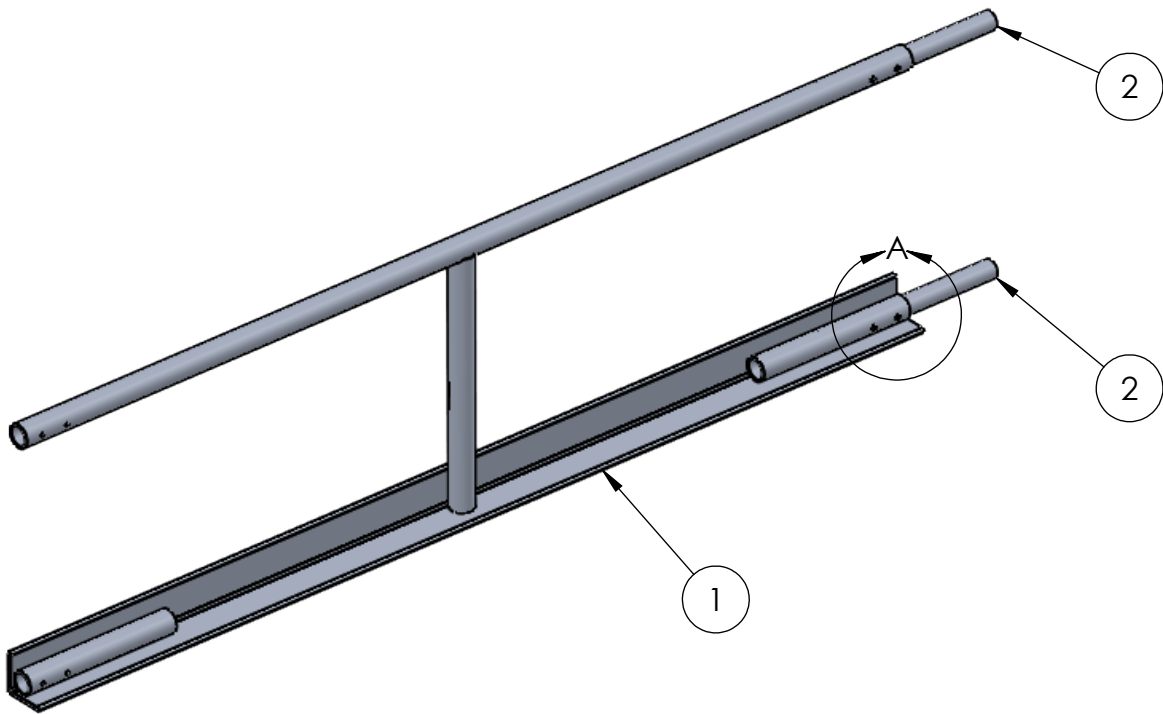
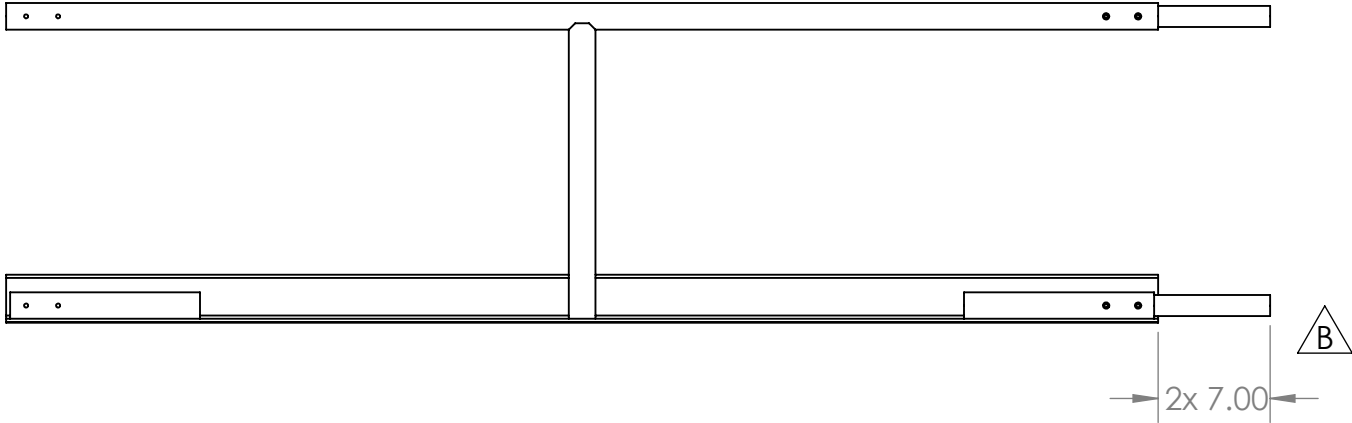
4

3

2

1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
B2	B	Connector Pin moved so both are on same side of assembly	3/15/2018	CPO
A4	C	Rivet description and part number changed to add more detail.	3/20/2020	CPO





DETAIL A
SCALE 1 : 3

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	<div><div>FIRST ROBOTICS COMPETITION</div></div> <div></div>			
		DIMENSIONS ARE IN INCHES	DRAWN			TITLE: Field Rail Assy - Mid			
		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 FE-00022 C			
		INTERPRET GEOMETRIC TOLERANCING PER:							
		MATERIAL							
		FINISH							
NEXT ASSY	USED ON								
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:12		WEIGHT:	SHEET 1 OF 1

4

3

2

1

4

3

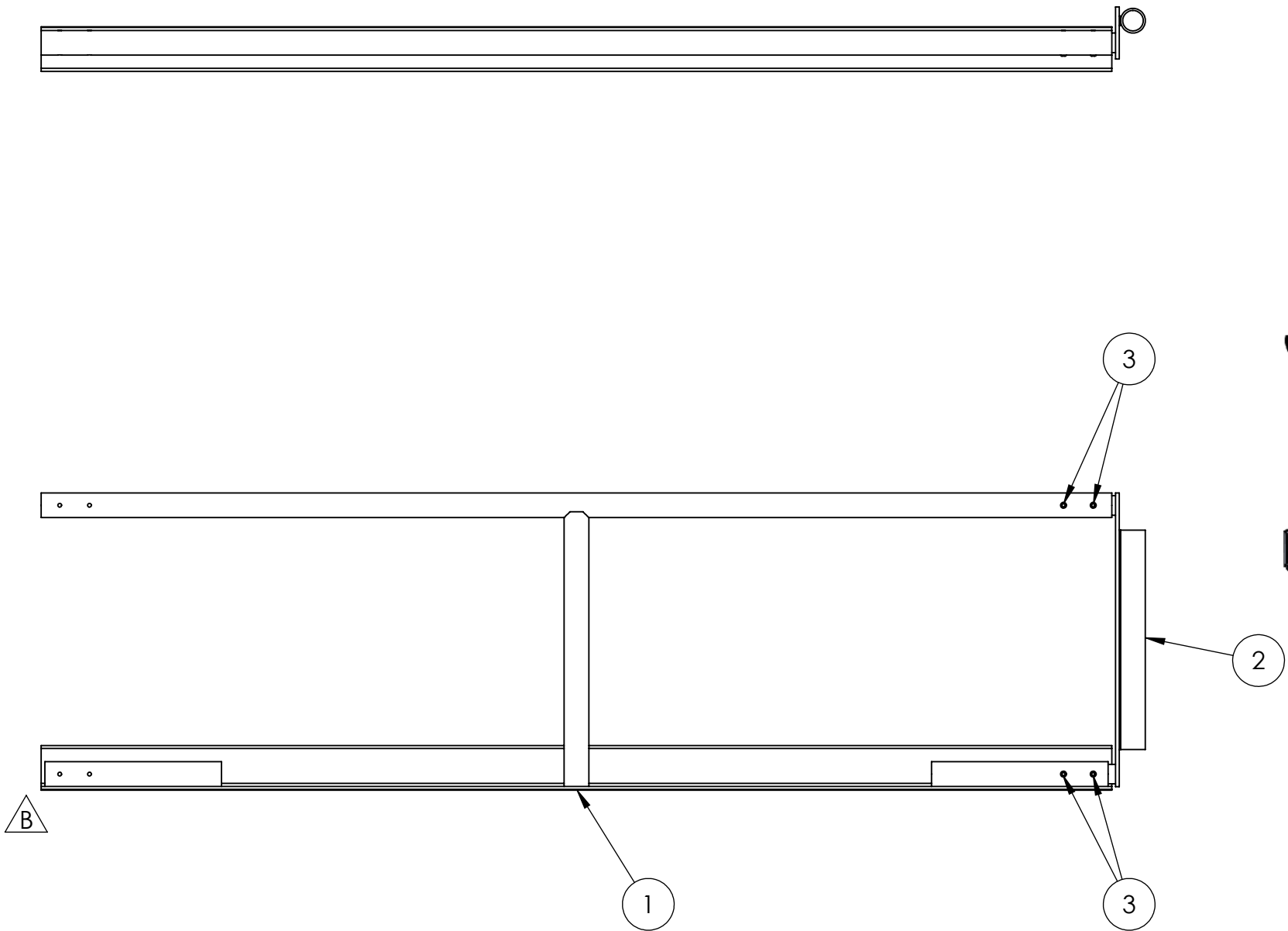
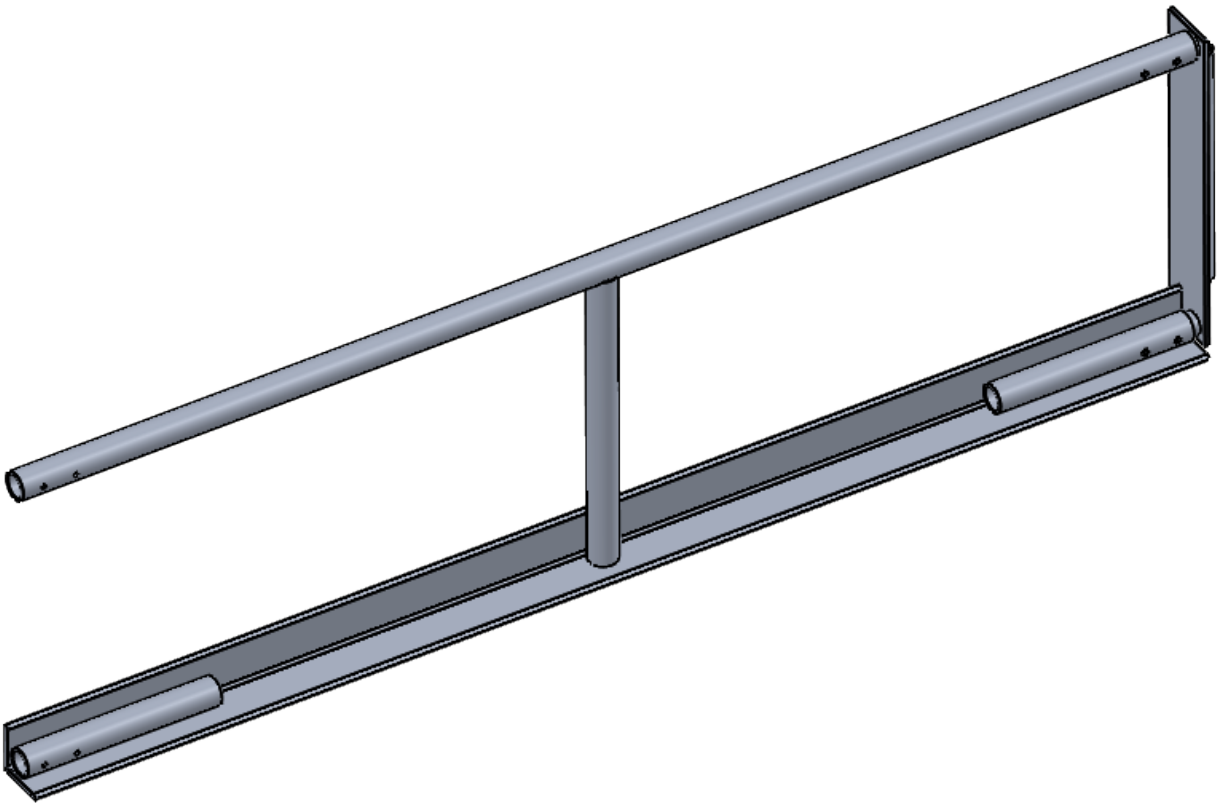
2

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



A

A

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

B

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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	<div><div>FIRST ROBOTICS COMPETITION</div></div> <div></div>			
		DIMENSIONS ARE IN INCHES	DRAWN			TITLE: Field Rail Assy - Left			
		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:	Q.A.						
		MATERIAL	COMMENTS:						
		FINISH							
NEXT ASSY	USED ON					SIZE B	DWG. NO. FE-00023		REV B
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:10		WEIGHT:	SHEET 1 OF 1



4

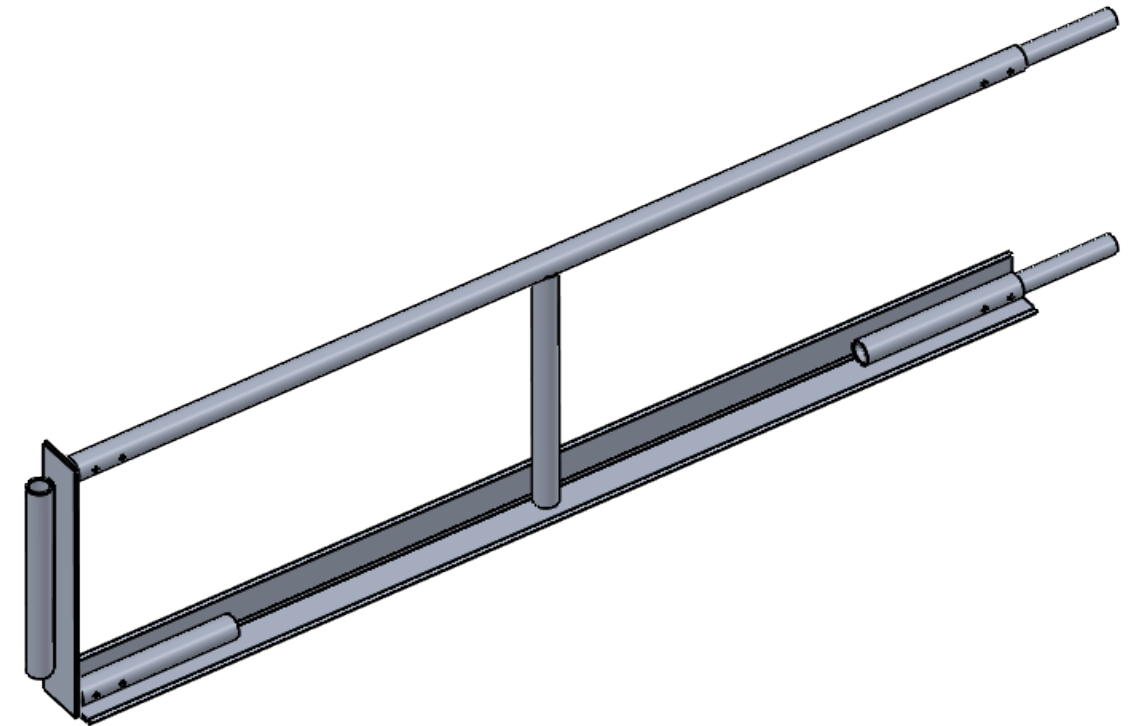
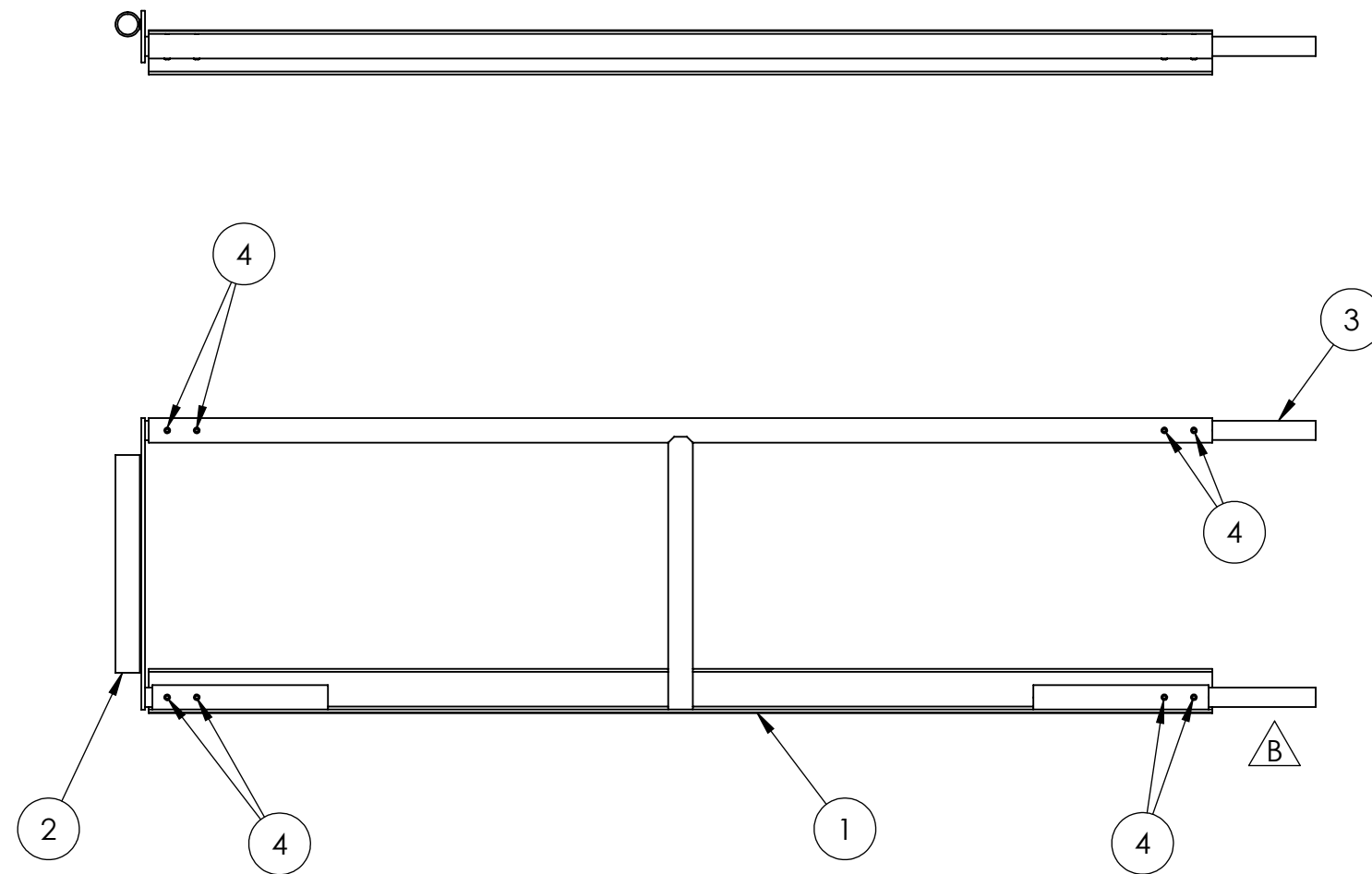
3

2

1

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





A triangle with the letter 'B' inside it.

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 $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .001$	DRAWN			TITLE: <h1>Field Rail Assy - Right</h1>		
			CHECKED					
			ENG APPR.					
			MFG APPR.					
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.			SIZE DWG. NO. REV B FE-00024 B		
		MATERIAL	COMMENTS:					
		FINISH						
NEXT ASSY	USED ON							
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:12 WEIGHT:		SHEET 1 OF 1

1

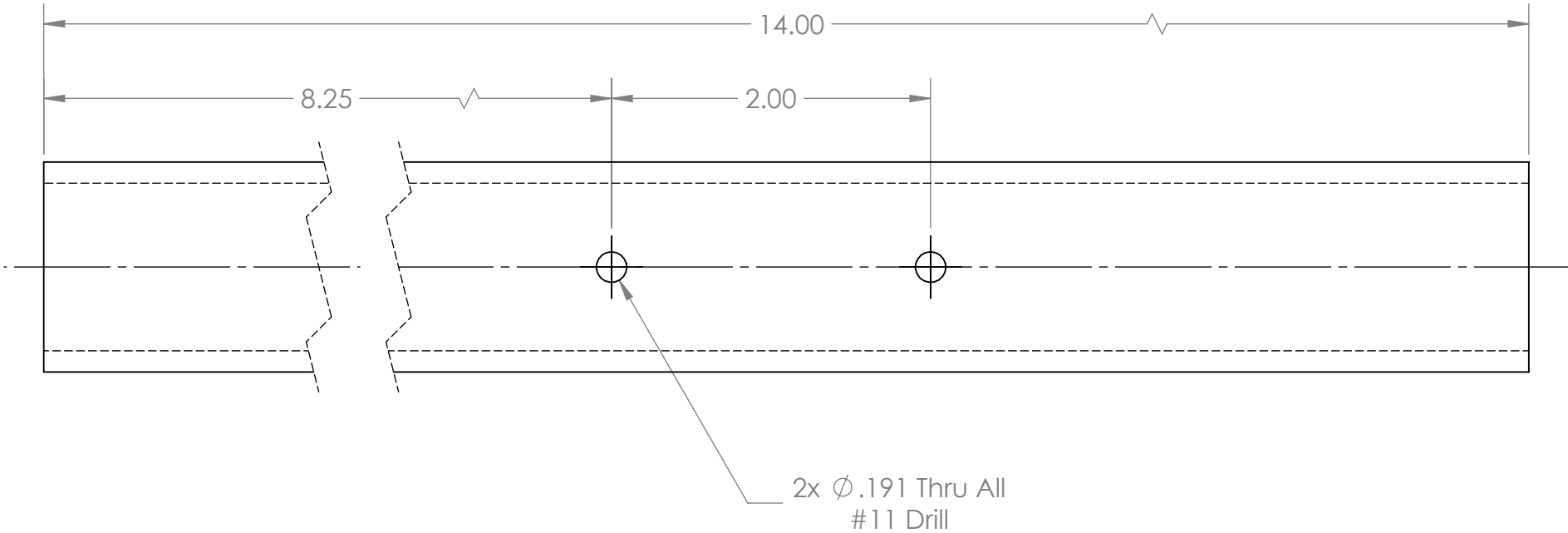
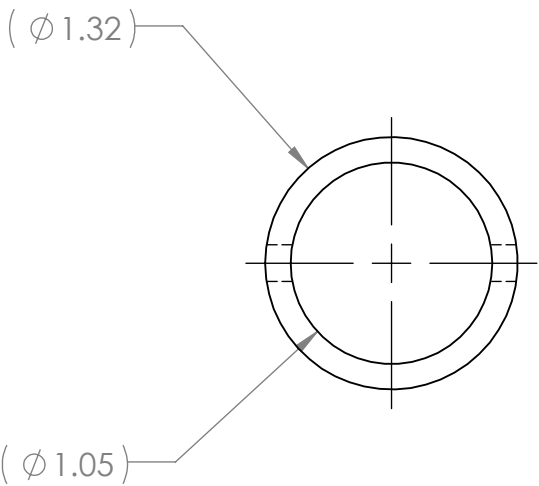
4

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:		NAME	DATE	<div><div>FIRST ROBOTICS COMPETITION</div><div>SOLIDWORKS Modeling Solutions Partner</div></div>			
		DIMENSIONS ARE IN INCHES	DRAWN			TITLE: Connector Pin			
		TOLERANCES: FRACTIONAL $\pm 1/16$	CHECKED						
		ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$	ENG APPR.						
		TWO PLACE DECIMAL $\pm .01$	MFG APPR.						
		THREE PLACE DECIMAL $\pm .001$							
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.			SIZE DWG. NO. REV B FE-00026 A			
		MATERIAL	COMMENTS:						
		FINISH							
NEXT ASSY	USED ON					SCALE: 1:1		WEIGHT:	SHEET 1 OF 1
APPLICATION		DO NOT SCALE DRAWING							

4

3

2

1

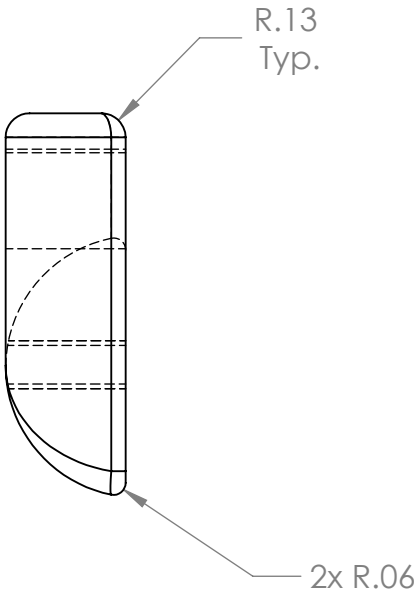
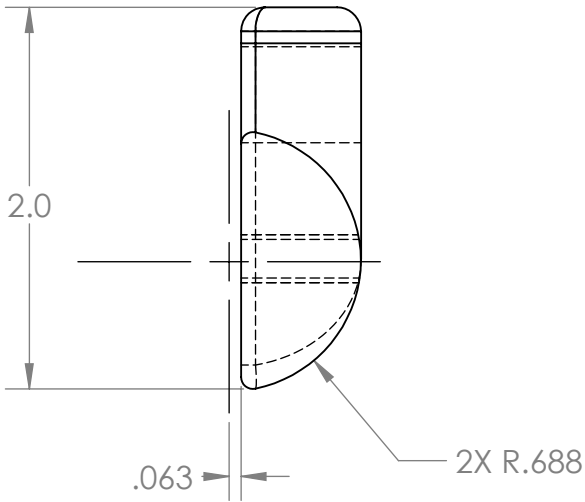
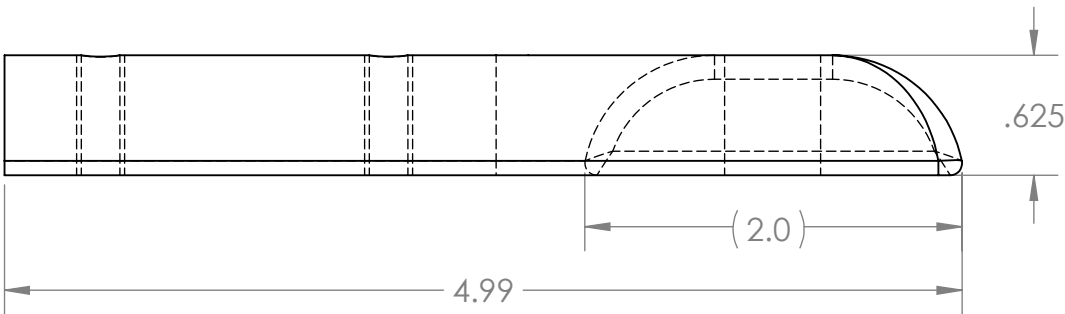
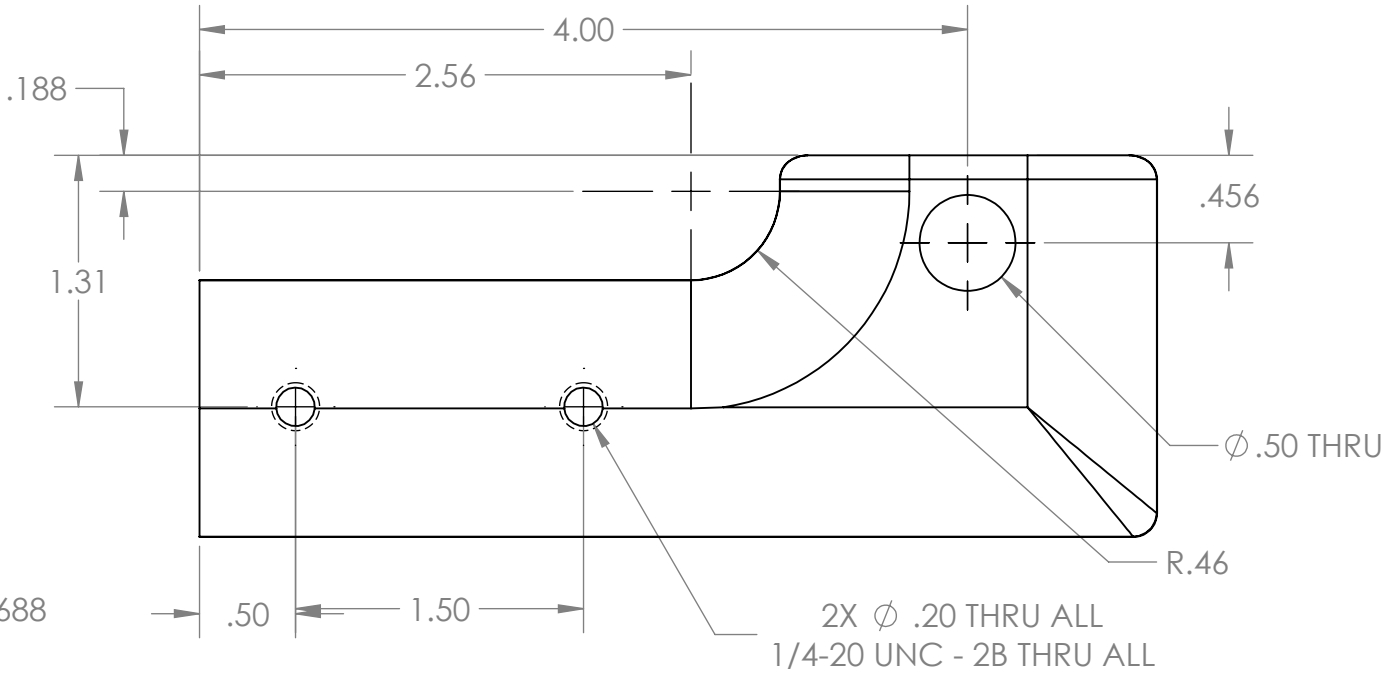
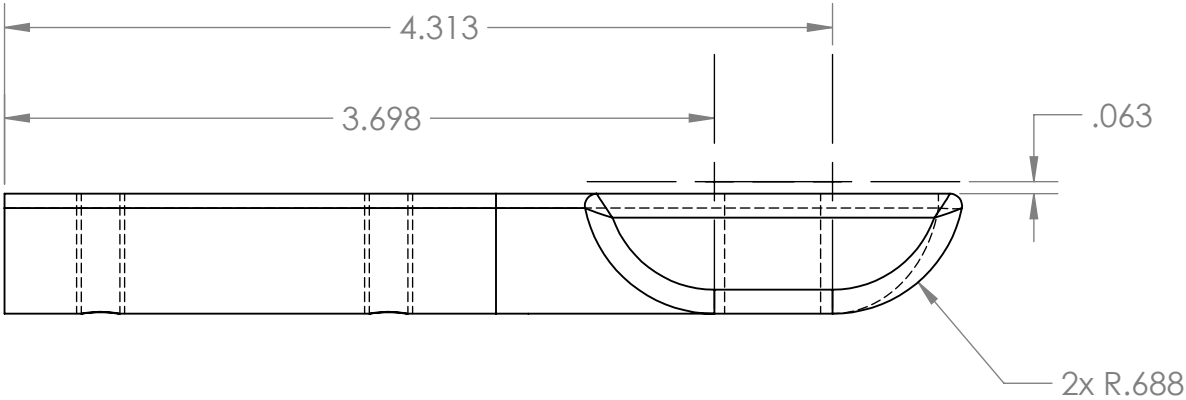
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3

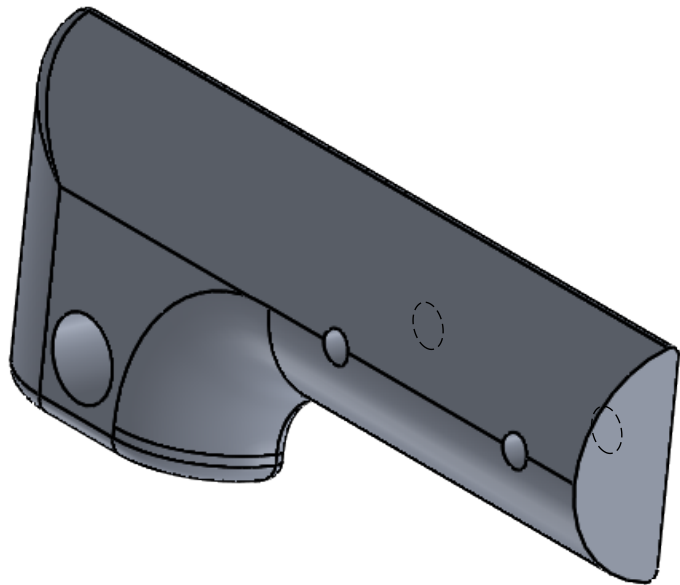
2

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: Hinge, Insert	
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 FE-00027 A	
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

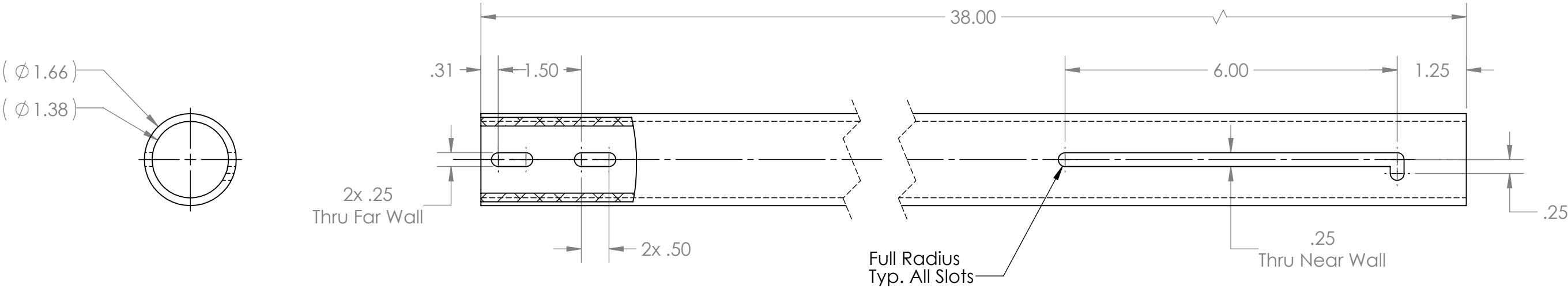
3

2

1

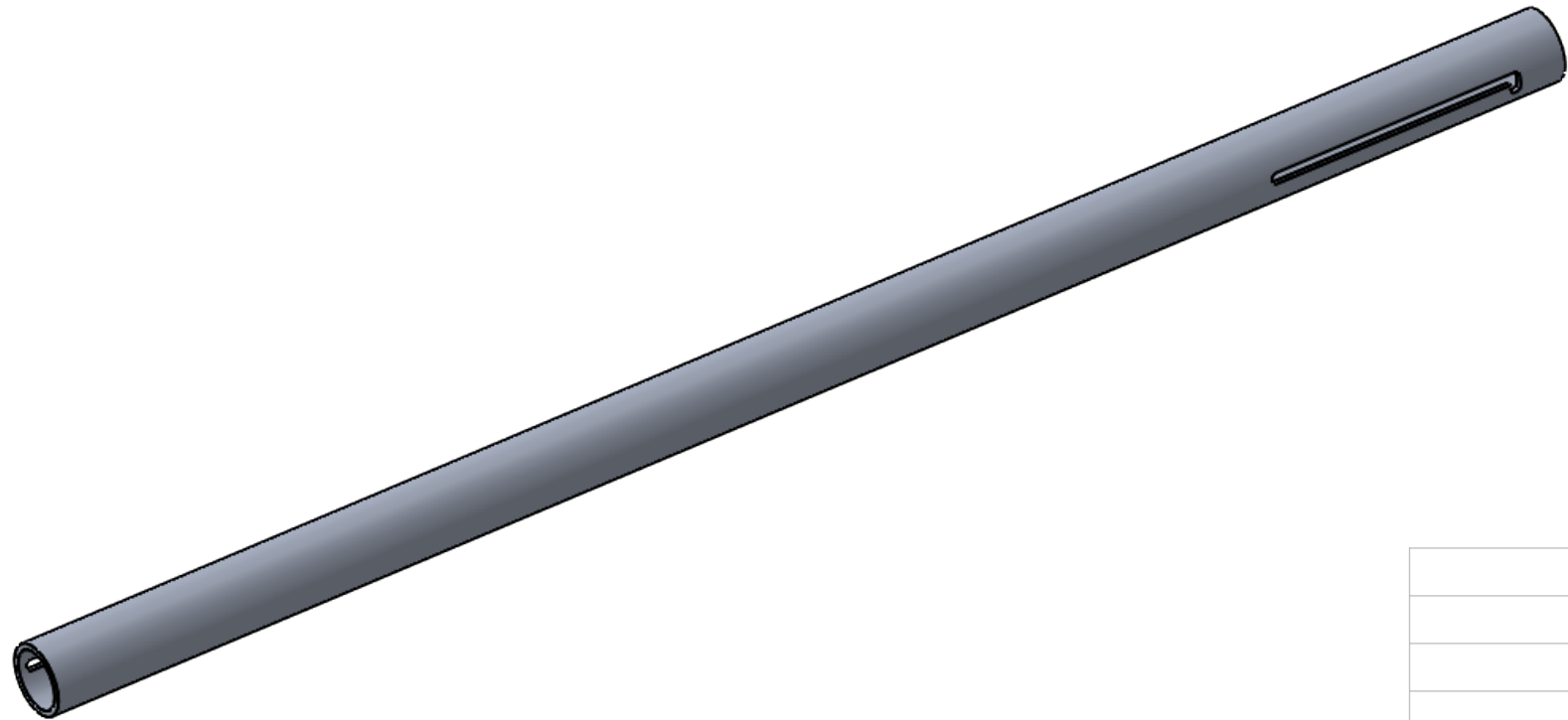
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	Redrawn	8/6/2008	dfoster

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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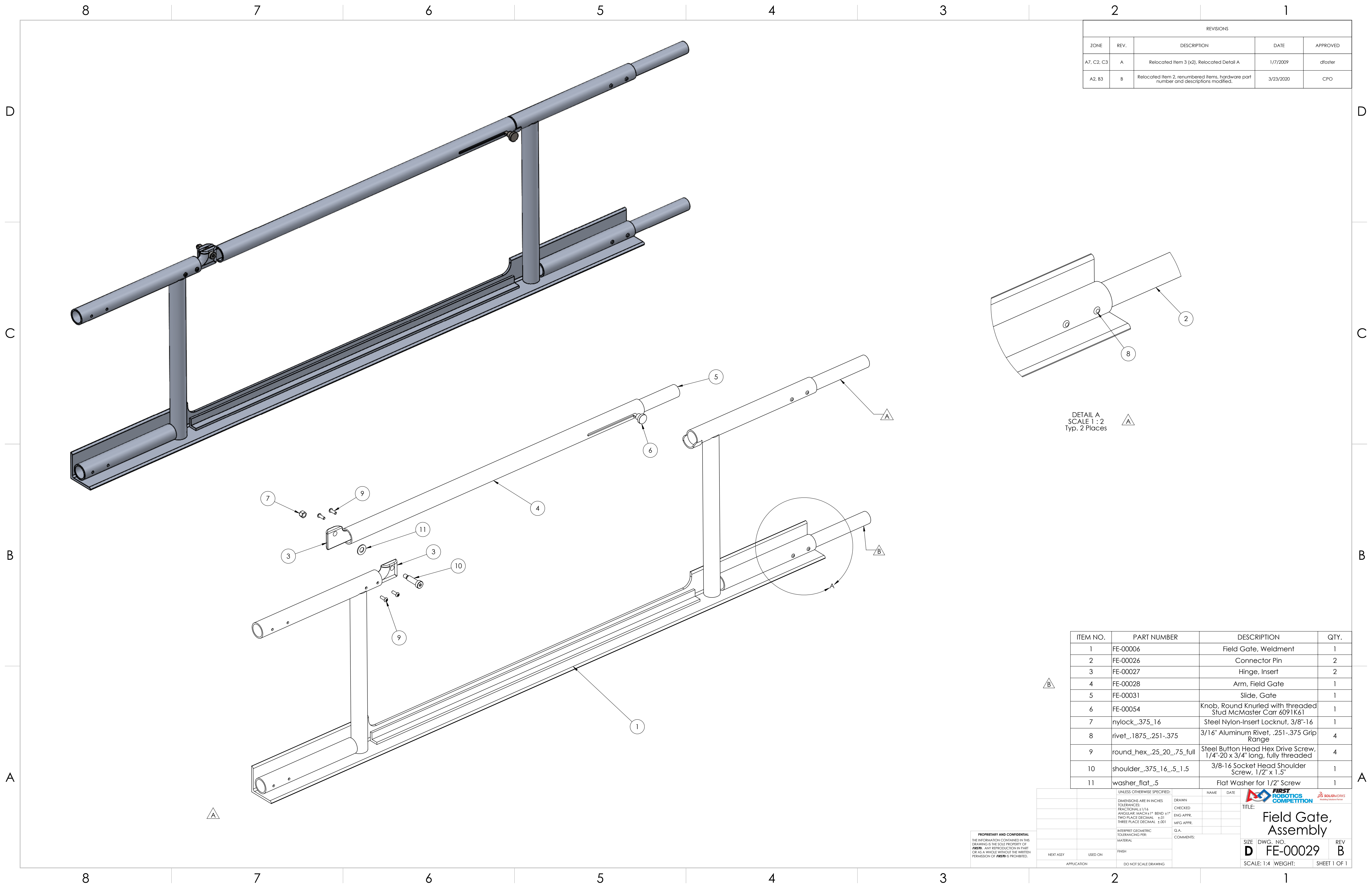
		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	  TITLE: Arm, Field Gate
		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .001$	DRAWN			
			CHECKED			
			ENG APPR.			
			MFG APPR.			
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.			SIZE B
		MATERIAL	COMMENTS:			
NEXT ASSY	USED ON	FINISH				DWG. NO. FE-00028
APPLICATION		DO NOT SCALE DRAWING				REV A
					WEIGHT:	SHEET 1 OF 1

4

3

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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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	
Field Gate, Assembly					
SIZE	DWG. NO.		REV		
D	FE-00029		B		
SCALE: 1:4	WEIGHT:		SHEET 1 OF 1		

4

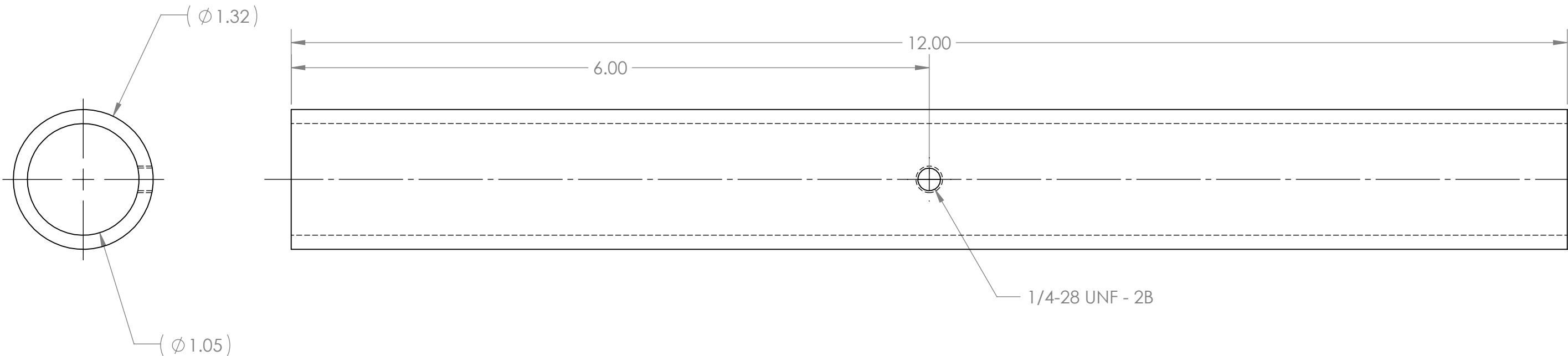
3

2

1

B

B



Notes:

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

4

3



2

1

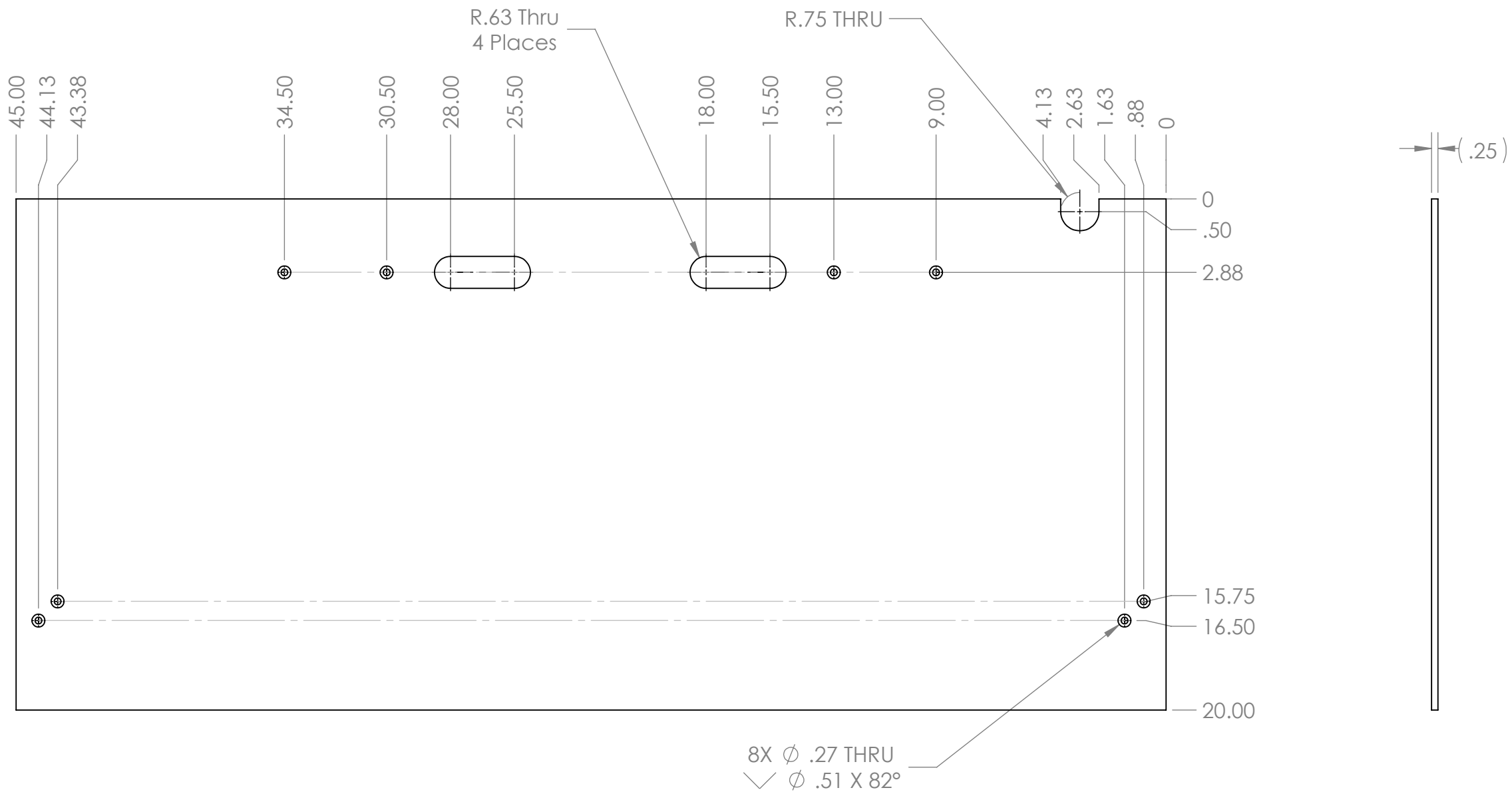
A

A

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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 INTERPRET GEOMETRIC TOLERANCING PER: MATERIAL FINISH		NAME	DATE	<div></div> <div>TITLE: Slide, Gate</div>
			DRAWN			
			CHECKED			
			ENG APPR.			
			MFG APPR.			
			Q.A.			SIZE DWG. NO. REV B FE-00031
		COMMENTS:				
NEXT ASSY	USED ON					
APPLICATION		DO NOT SCALE DRAWING	SCALE: 1:1 WEIGHT: SHEET 1 OF 1			

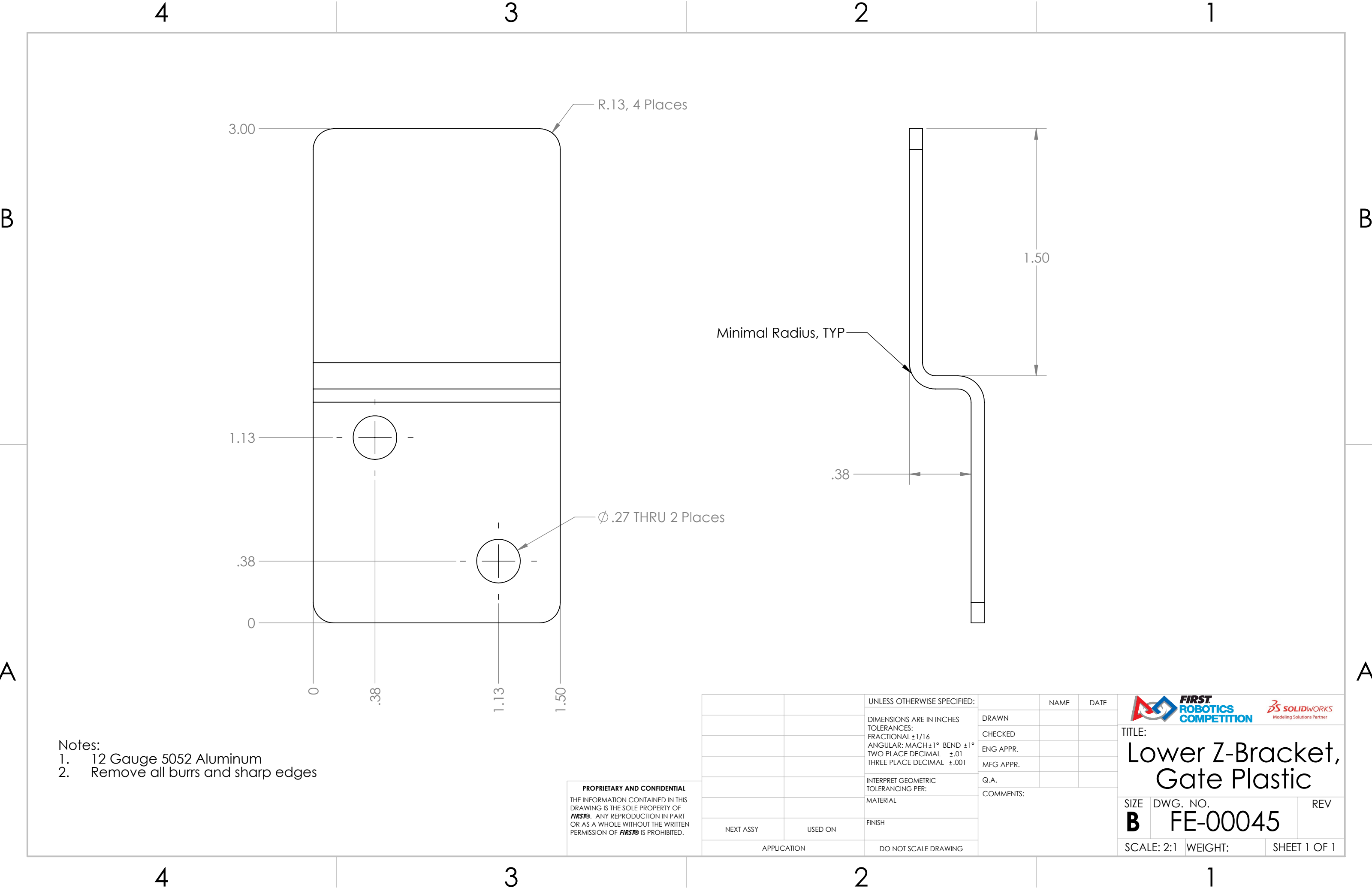
REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	Added counter sinks, hand holes and a notch	9/23/14	MLC



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



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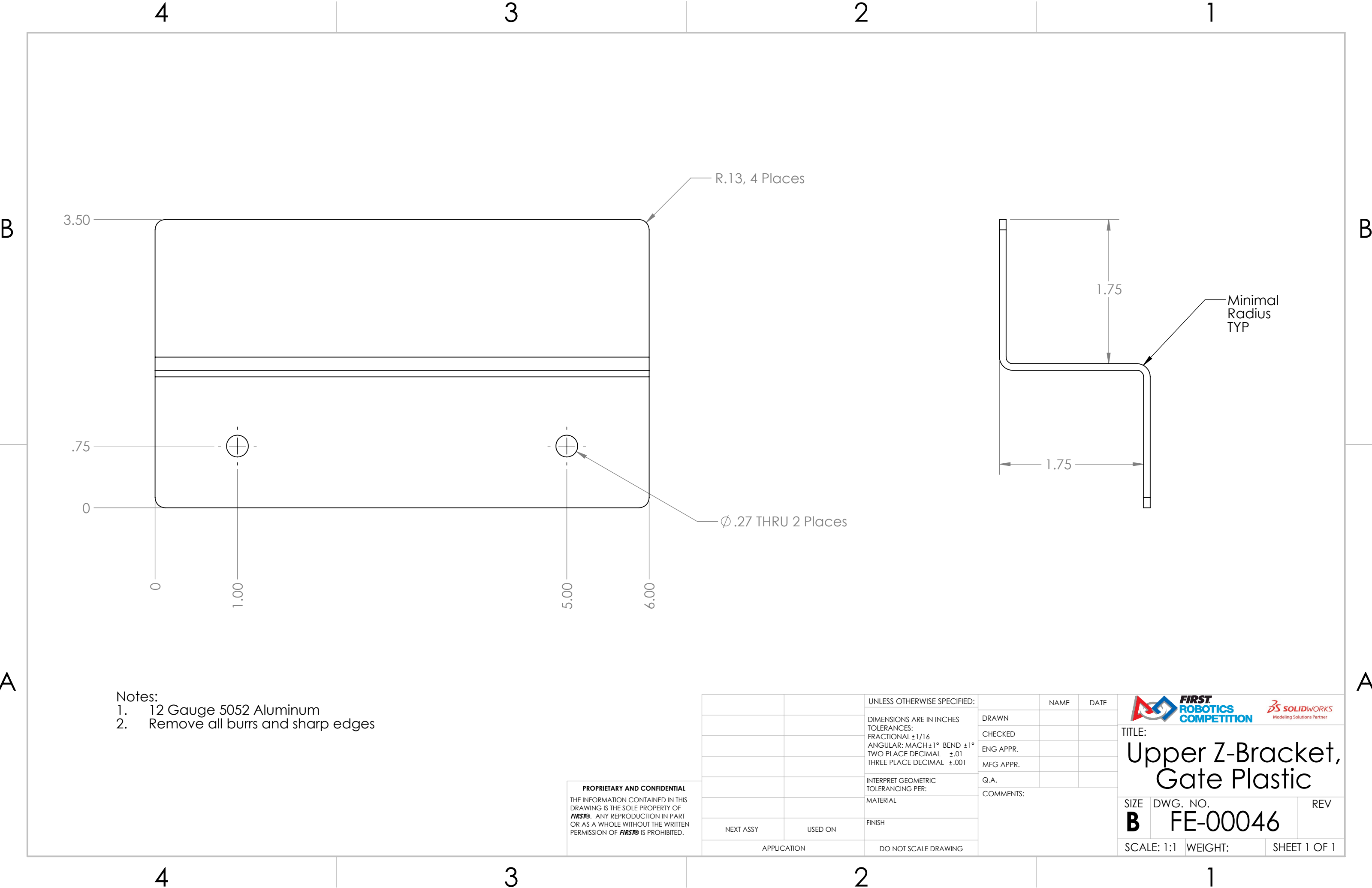
		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	<div><div>FIRST ROBOTICS COMPETITION</div><div>SOLIDWORKS Modeling Solutions Partner</div></div>							
		DIMENSIONS ARE IN INCHES	DRAWN			TITLE: Field Plastic "G"							
		TOLERANCES:	CHECKED										
		FRACTIONAL $\pm 1/16$	ENG APPR.										
		ANGULAR: MACH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



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



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

		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	<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				SCALE: 2:1 WEIGHT: SHEET 1 OF 1		
		FINISH						
NEXT ASSY	USED ON							
APPLICATION		DO NOT SCALE DRAWING						



- Notes:
- 1. 12 Gauge 5052 Aluminum
 - 2. Remove all burrs and sharp edges

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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	<div><div>FIRST ROBOTICS COMPETITION</div></div> <div></div>			
		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: Upper Z-Bracket, Gate Plastic			
			CHECKED						
			ENG APPR.						
			MFG APPR.						
			Q.A.						
		INTERPRET GEOMETRIC TOLERANCING PER:	COMMENTS:			SIZE DWG. NO. REV B FE-00046			
		MATERIAL							
		FINISH							
NEXT ASSY	USED ON								
APPLICATION		DO NOT SCALE DRAWING	SCALE: 1:1 WEIGHT: SHEET 1 OF 1						

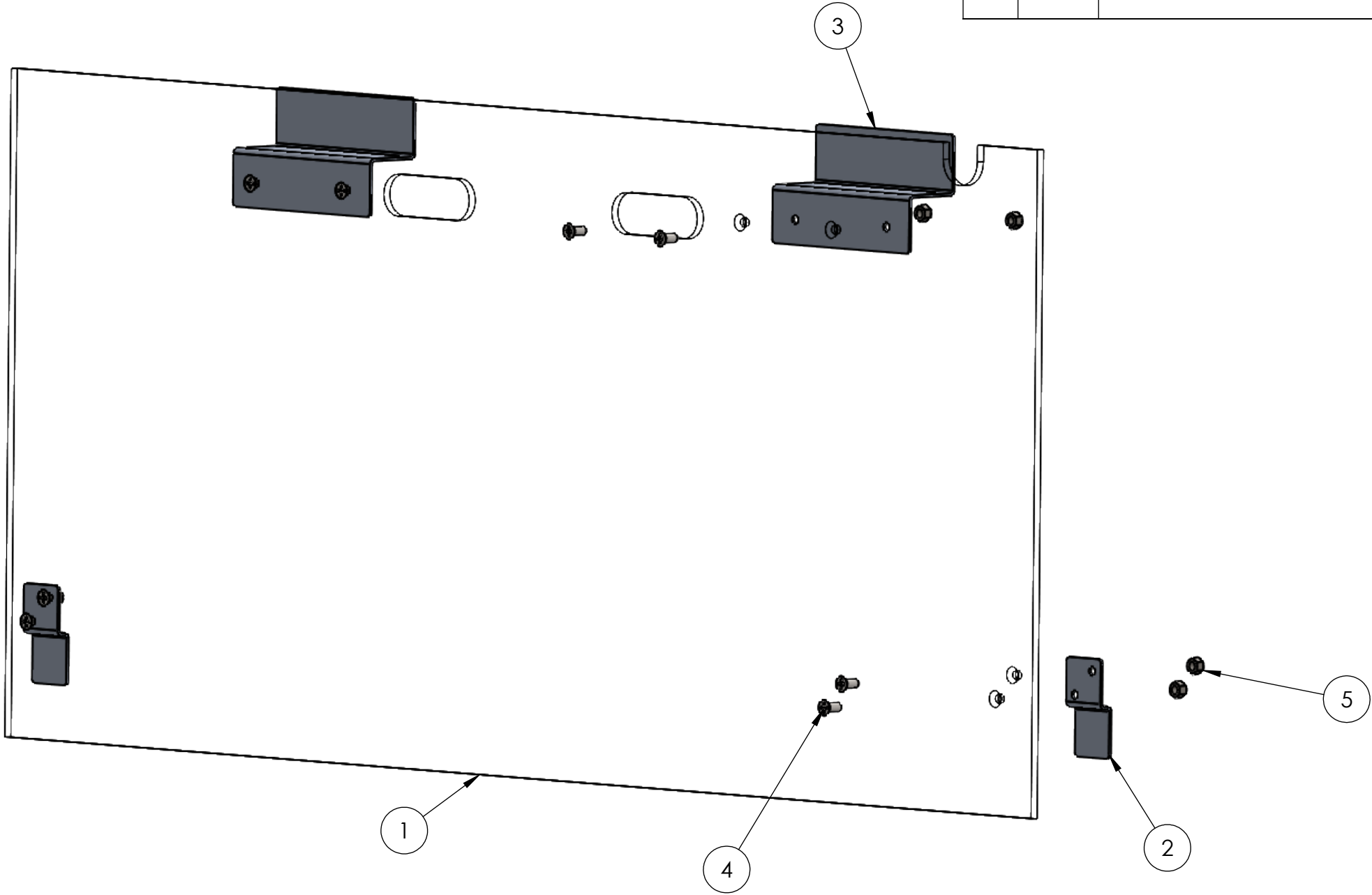
4

3

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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PERMISSION OF FIRST® IS PROHIBITED.

		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: Gate Plastic Assembly		
			CHECKED					
			ENG APPR.					
			MFG APPR.					
			Q.A.					
		INTERPRET GEOMETRIC TOLERANCING PER:	COMMENTS:			SIZE DWG. NO. REV B FE-00047 A		
		MATERIAL						
		FINISH						
NEXT ASSY	USED ON							
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:4 WEIGHT: SHEET 1 OF 1		

4

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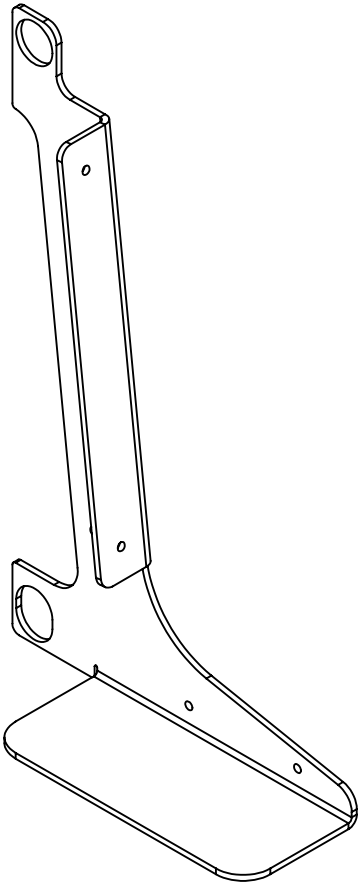
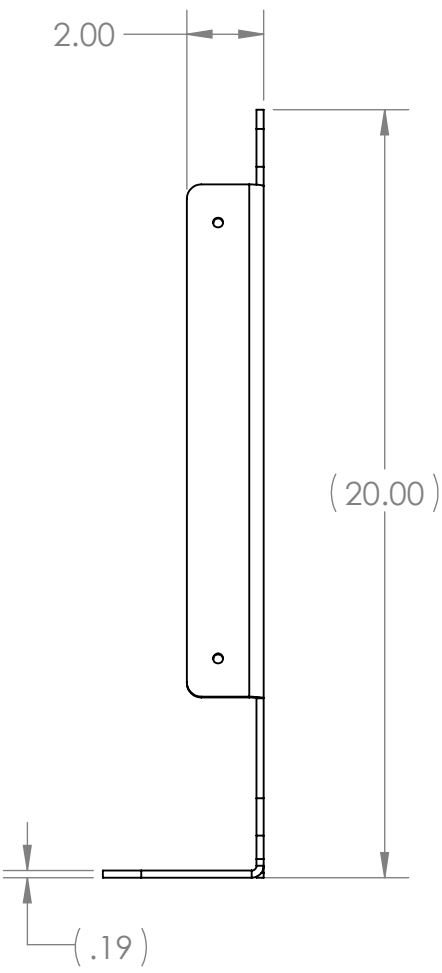
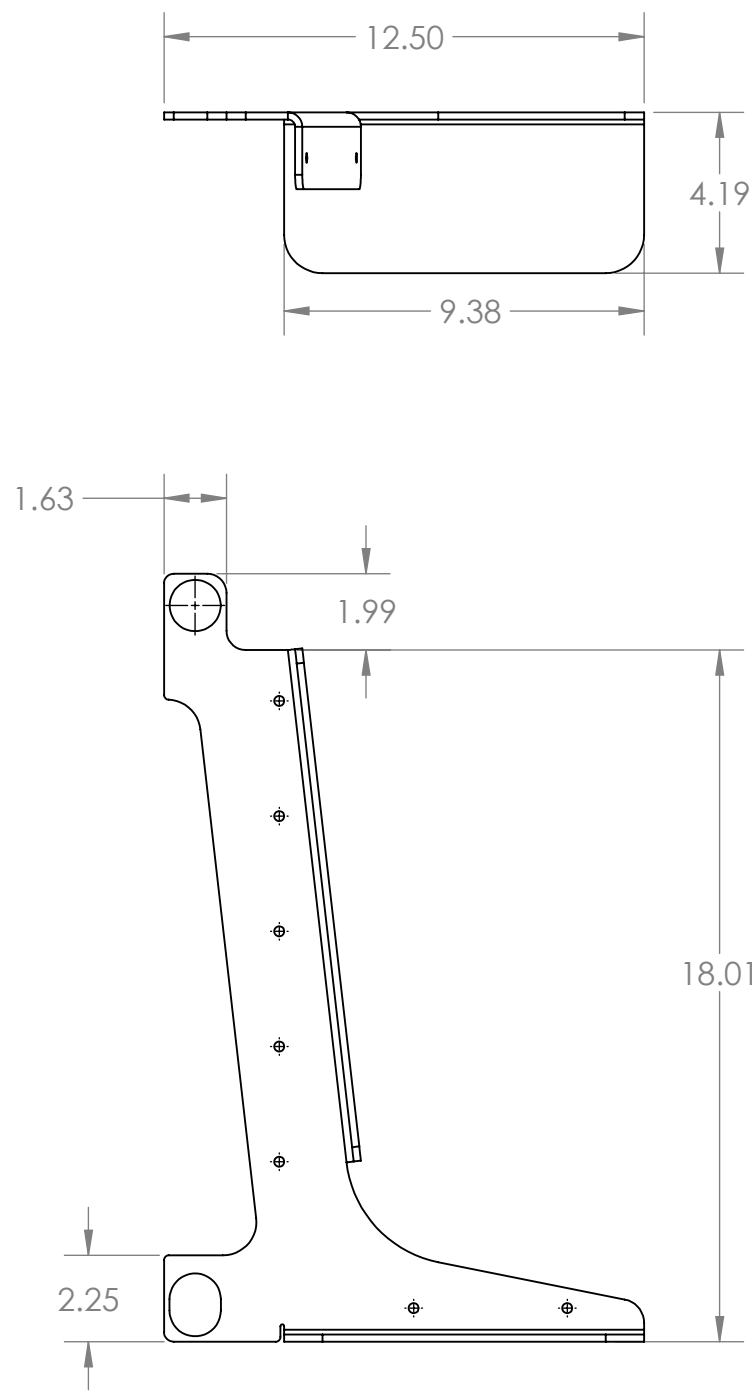
1

B

B

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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	<div><div><div>FIRST ROBOTICS COMPETITION</div></div><div><div>SOLIDWORKS Modeling Solutions Partner</div></div></div>			
		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 <div><div>B</div><div>FE-00050</div><div></div></div>			
		MATERIAL							
		FINISH							
NEXT ASSY	USED ON								
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:5 WEIGHT: SHEET 1 OF 1			

4

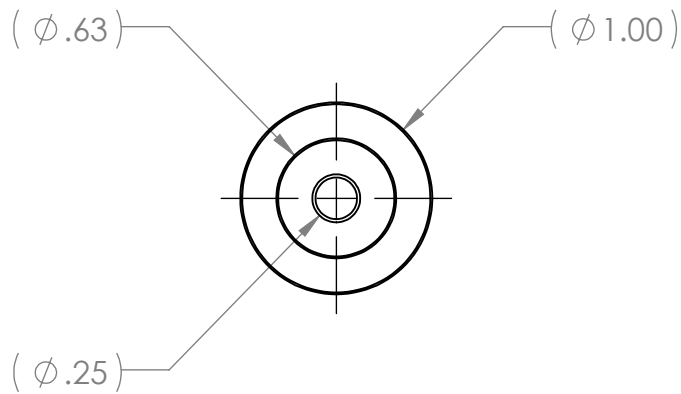
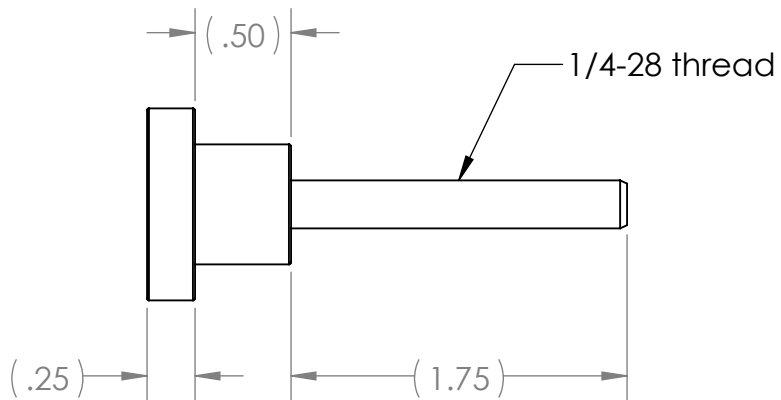
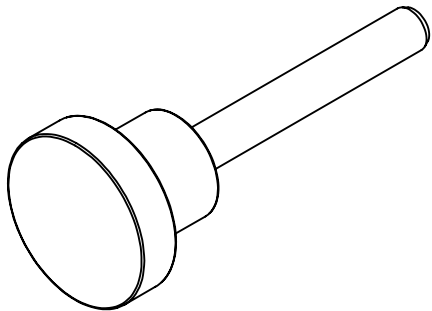
3

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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		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.			TITLE: Knob, Round Knurled with threaded Stud McMaster Carr 6091K61
		THREE PLACE DECIMAL $\pm .001$	COMMENTS:			
		INTERPRET GEOMETRIC TOLERANCING PER:				SIZE DWG. NO. REV
		MATERIAL				B FE-00054
NEXT ASSY	USED ON	FINISH				SCALE: 1:1 WEIGHT: SHEET 1 OF 1
		APPLICATION	DO NOT SCALE DRAWING			

4

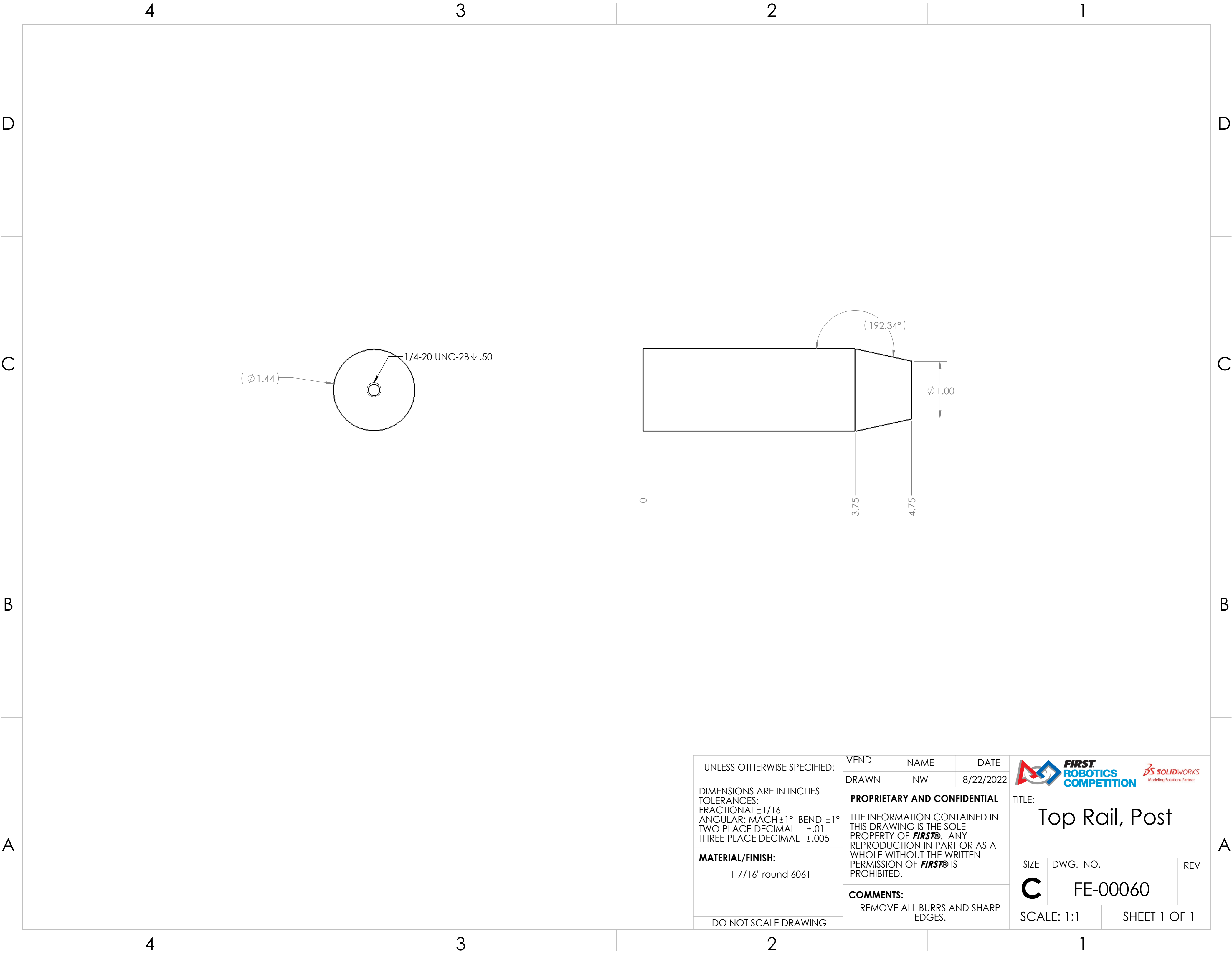
3

2

1

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 $\pm .005$

MATERIAL/FINISH:
1-7/16" round 6061

DO NOT SCALE DRAWING

VEND	NAME	DATE
DRAWN	NW	8/22/2022

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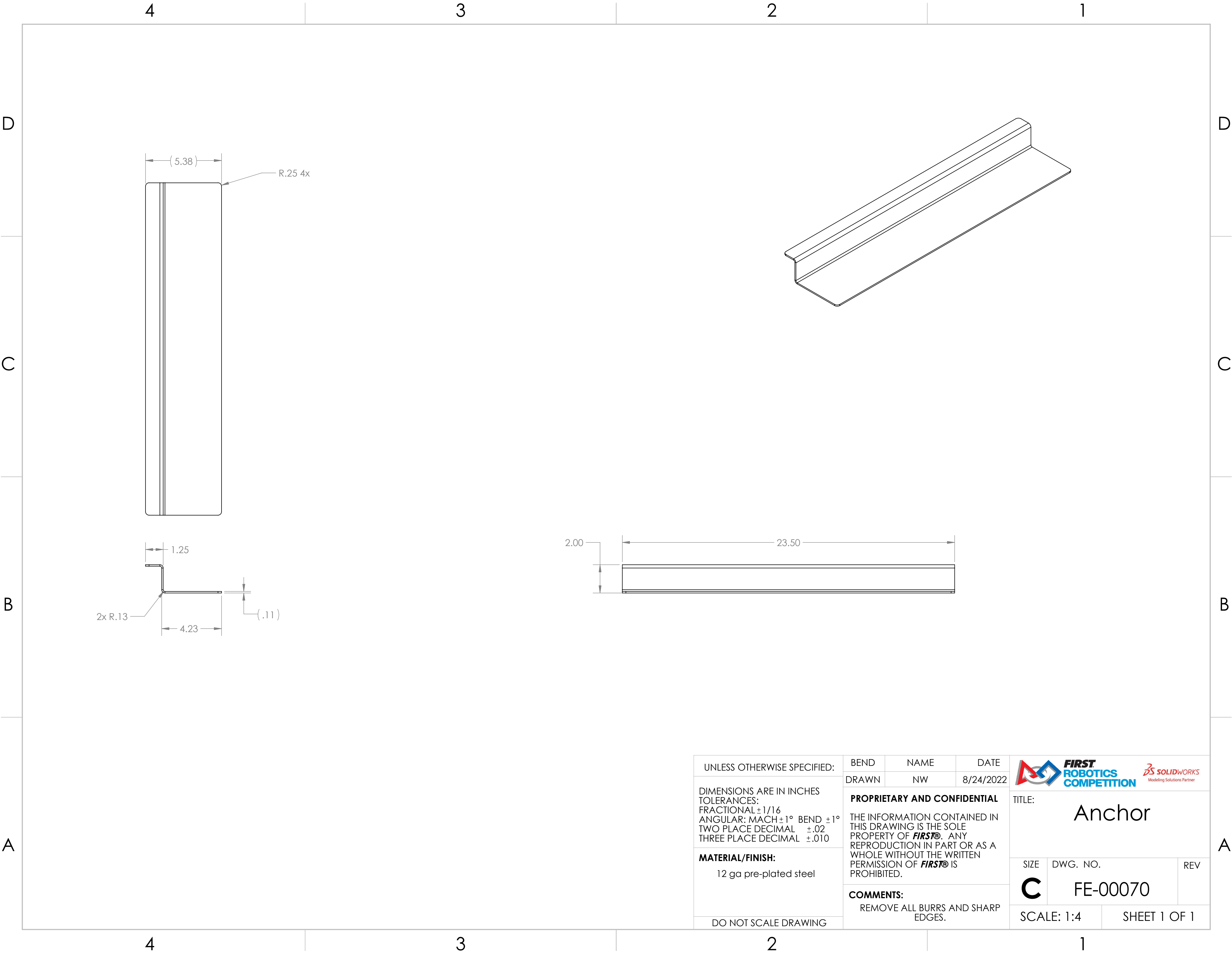
COMMENTS:
REMOVE ALL BURRS AND SHARP EDGES.





TITLE:
Top Rail, Post

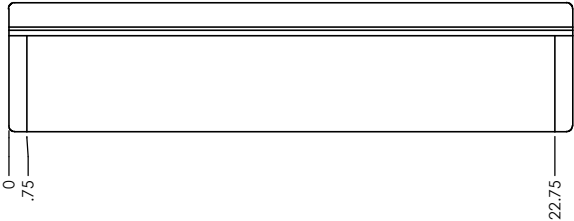
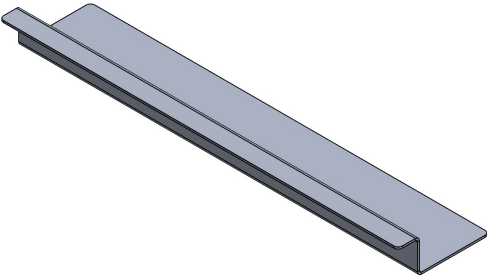
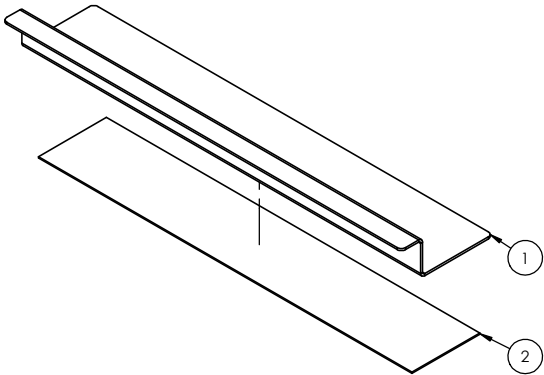
SIZE	DWG. NO.	REV
C	FE-00060	



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 $\pm .02$ THREE PLACE DECIMAL $\pm .010$ MATERIAL/FINISH: 12 ga pre-plated steel DO NOT SCALE DRAWING	BEND	NAME	DATE	<div></div> <div>TITLE: <h1>Anchor</h1></div>		
	DRAWN	NW	8/24/2022			
	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.			SIZE	DWG. NO.	REV
	COMMENTS: REMOVE ALL BURRS AND SHARP EDGES.			C	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: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ±1/2 ANGULAR: MACH±1° BEND ±1° TWO PLACE DECIMAL ±.50 MATERIAL/FINISH: DO NOT SCALE DRAWING	FIELD	NAME	DATE	 	
	DRAWN	NW	10/3/2022		
	PROPRIETARY AND CONFIDENTIAL			TITLE:	
	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.			FE-00070 w/ hook	
COMMENTS:			SIZE	DWG. NO.	REV
REMOVE ALL BURRS AND SHARP EDGES.			C	FE-00071	
			SCALE: 1:4		SHEET 1 OF 1

D

C

B

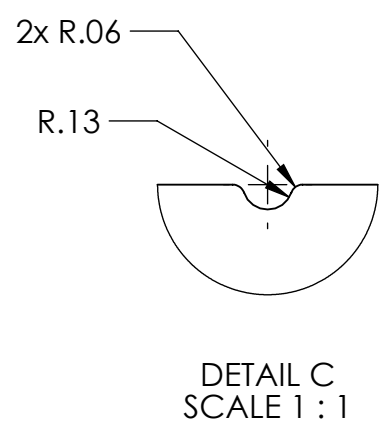
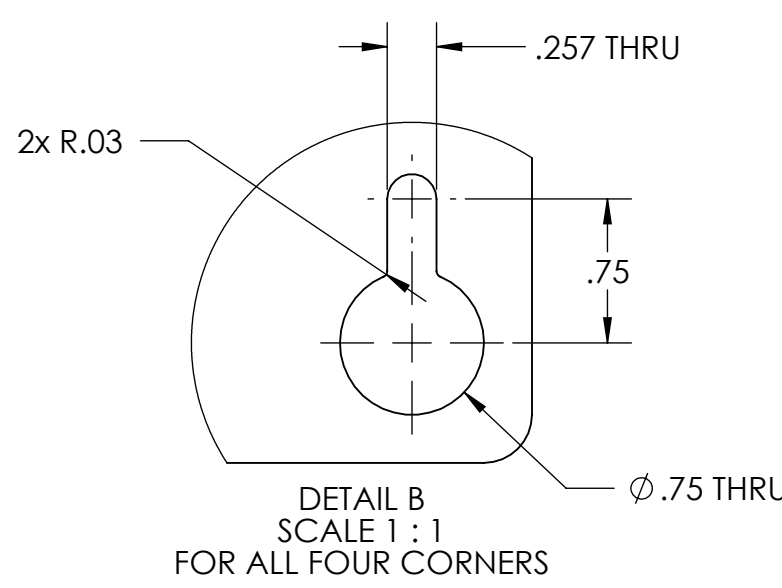
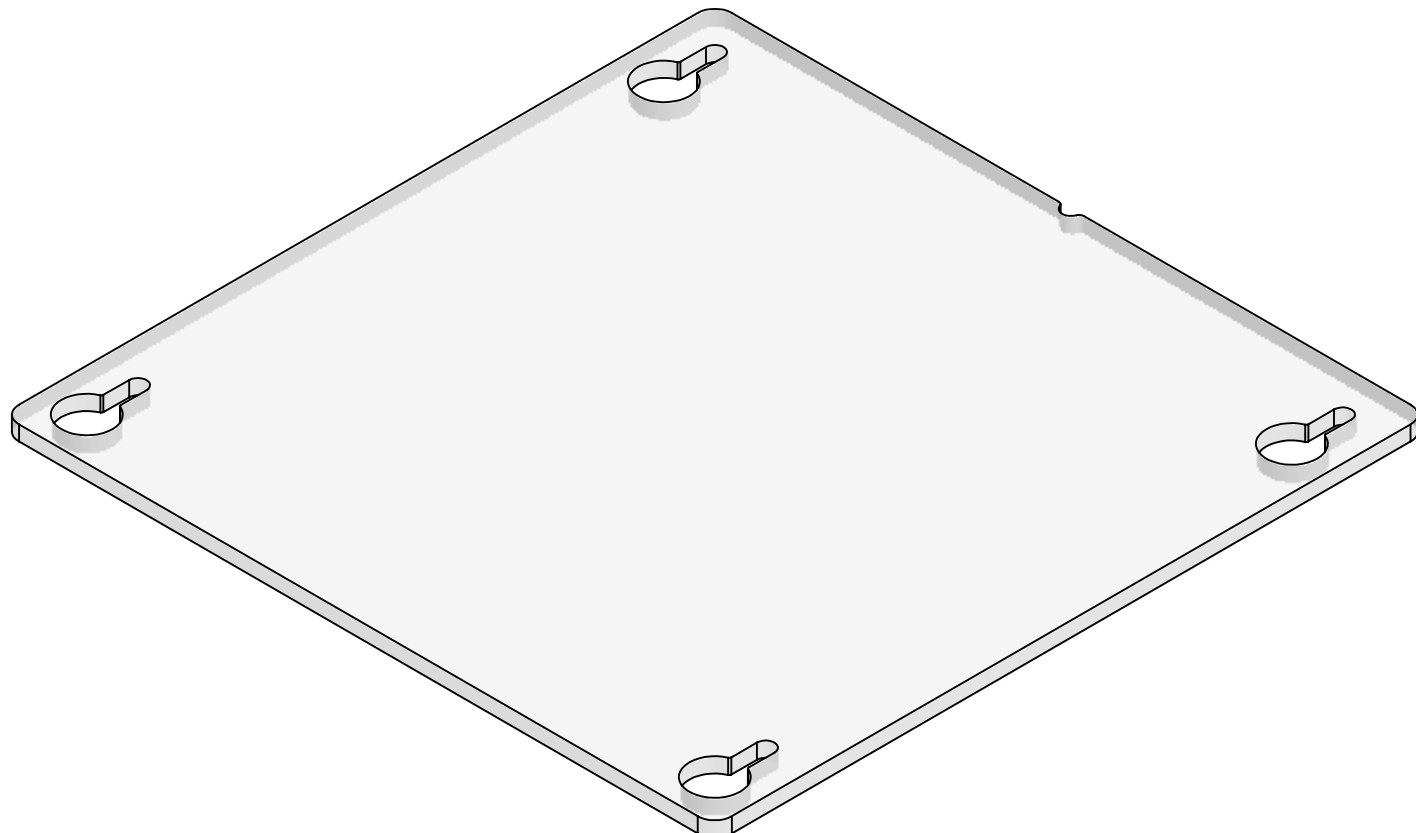
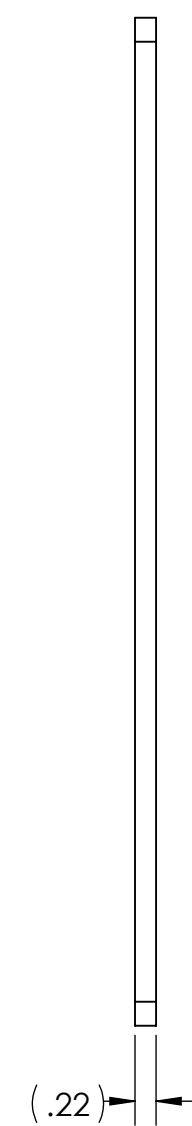
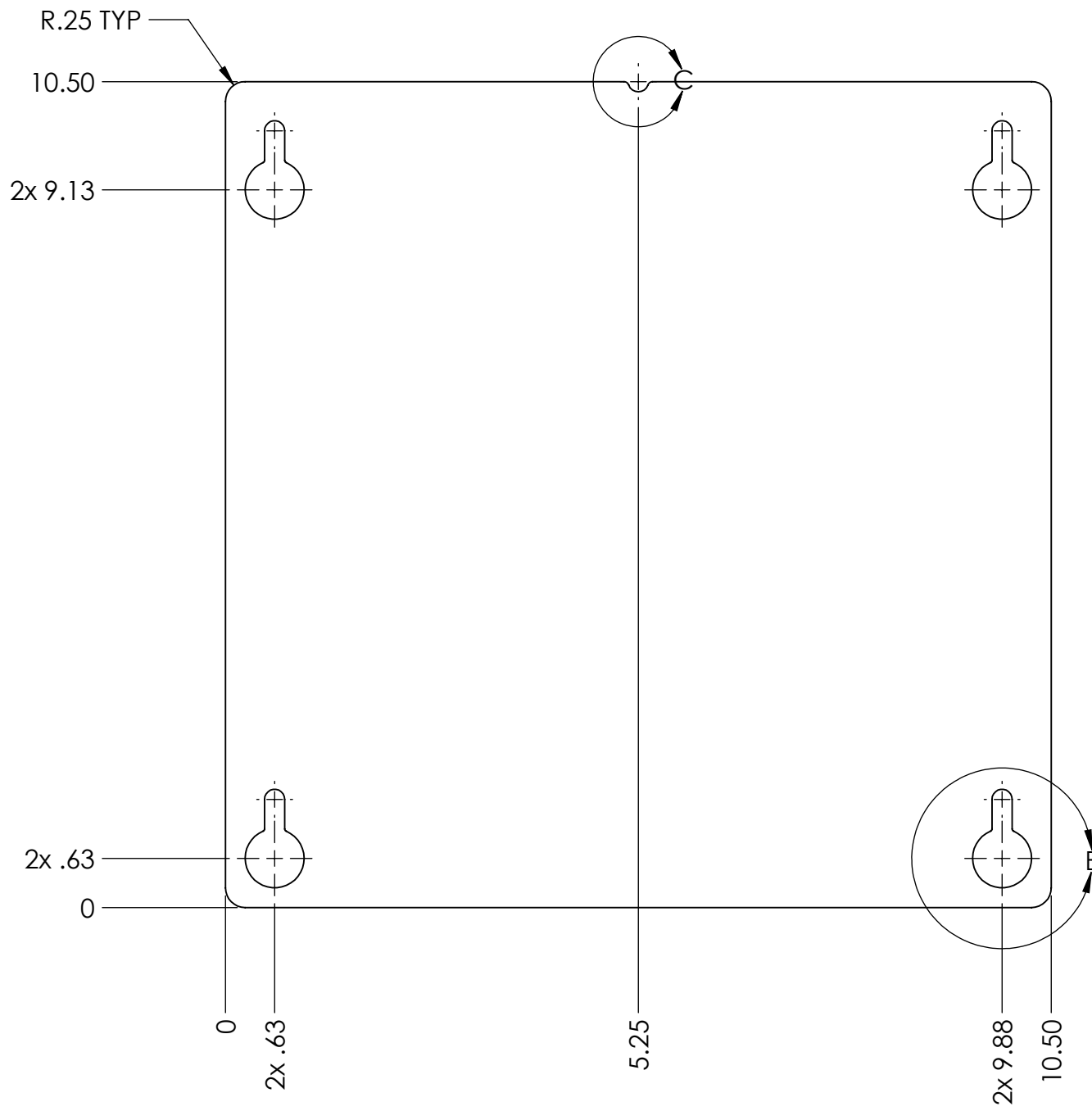
A

D



C

B

A



Notes:
1. Vinyl to be applied to face.

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: .220 POLYCARBONATE CLEAR DO NOT SCALE DRAWING	VEND	NAME	DATE	<div></div> <div>TITLE: AprilTag Base Plastic</div> <div><div>SIZE</div><div>C</div><div>DWG. NO.</div><div>FE-00080</div><div>REV</div></div> <div>SCALE: 1:2</div> <div>SHEET 1 OF 1</div>		
	DRAWN	NAL	9/28/2022			
	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.					

4

3

2

1

D

D

C

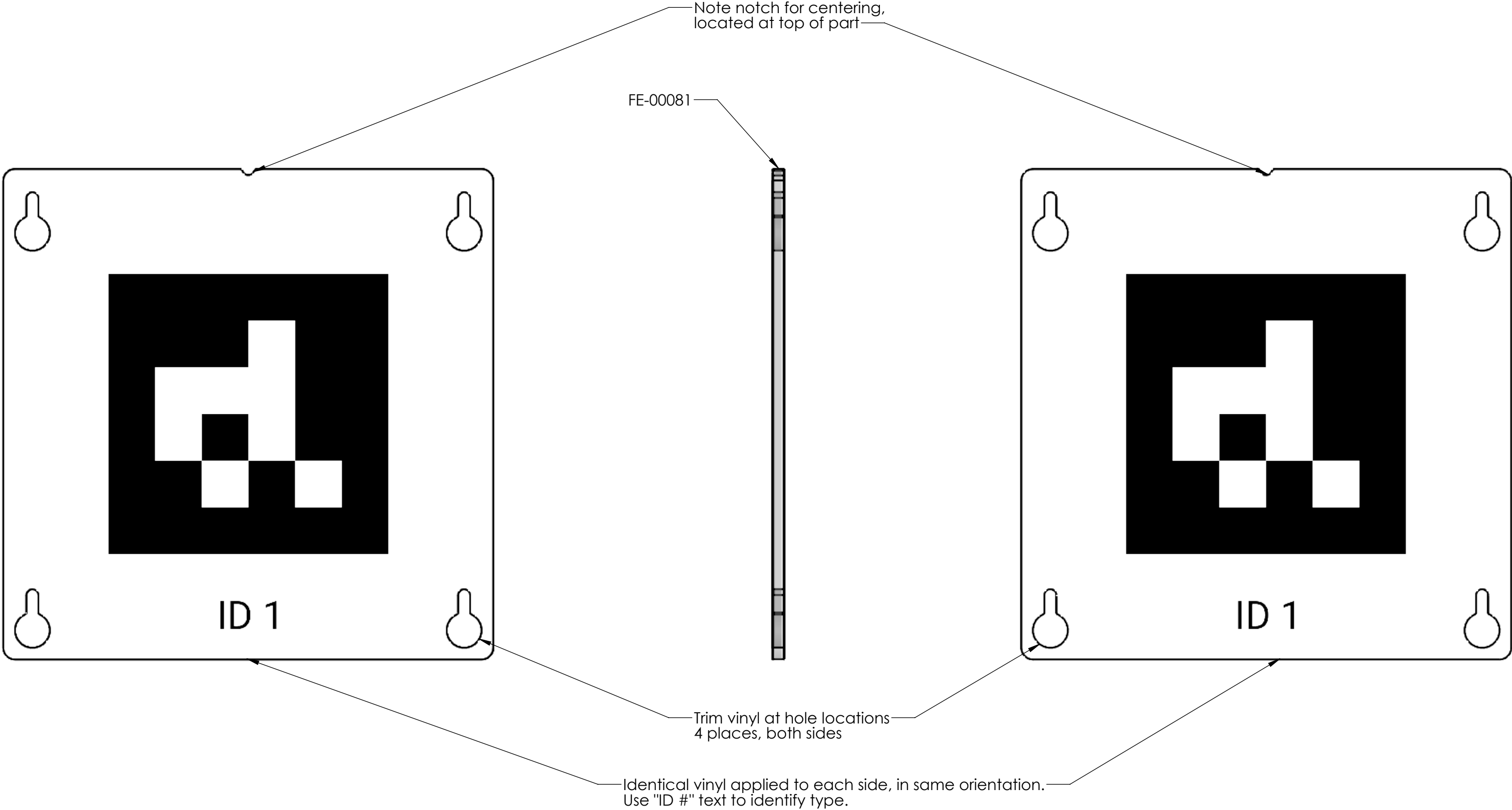
C

B



B

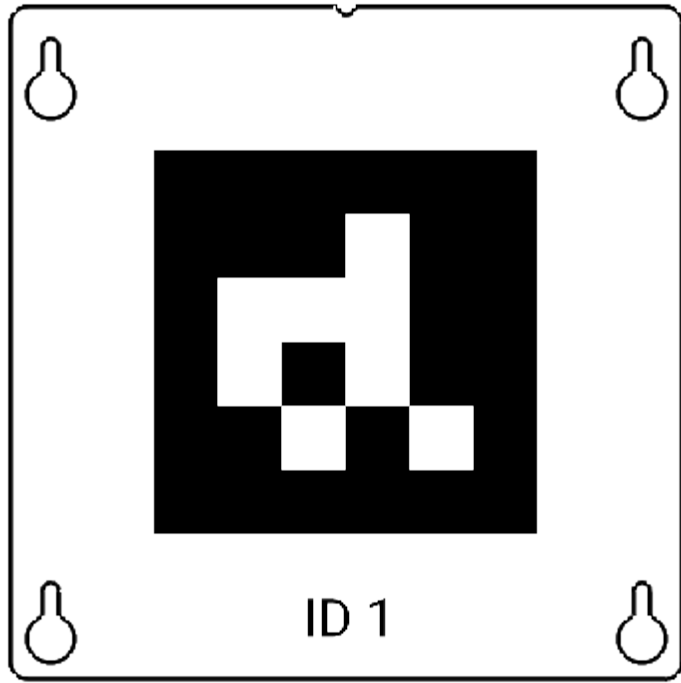
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A

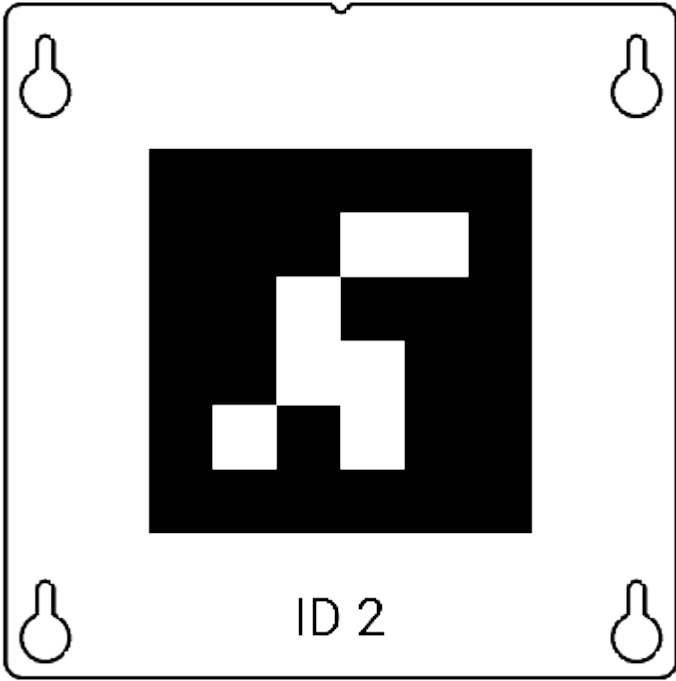


Tag Variations			
Part Number	Vinyl Image	Vinyl QTY per field	Part QTY per field
FE-00081-ID1	FE-00081-ID1-Vinyl	4	2
FE-00081-ID2	FE-00081-ID2-Vinyl	4	2
FE-00081-ID3	FE-00081-ID3-Vinyl	4	2
FE-00081-ID4	FE-00081-ID4-Vinyl	4	2
FE-00081-ID5	FE-00081-ID5-Vinyl	4	2
FE-00081-ID6	FE-00081-ID6-Vinyl	4	2
FE-00081-ID7	FE-00081-ID7-Vinyl	4	2
FE-00081-ID8	FE-00081-ID8-Vinyl	4	2

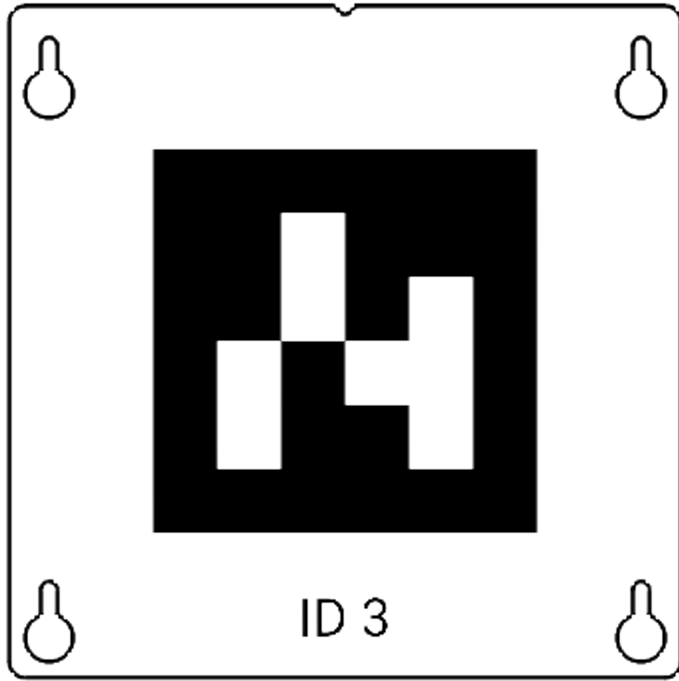
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/2$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .50$ MATERIAL/FINISH: DO NOT SCALE DRAWING	FIELD DRAWN	NAME CO	DATE 10/31/2022	  TITLE: <h1>AprilTag Target</h1> <table><tr><td>SIZE C</td><td>DWG. NO. FE-00081</td><td>REV</td></tr><tr><td colspan="2">SCALE: 1:2</td><td>SHEET 1 OF 3</td></tr></table>	SIZE C	DWG. NO. FE-00081	REV	SCALE: 1:2		SHEET 1 OF 3
	SIZE C	DWG. NO. FE-00081	REV							
	SCALE: 1:2		SHEET 1 OF 3							
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COMMENTS: REMOVE ALL BURRS AND SHARP EDGES.										



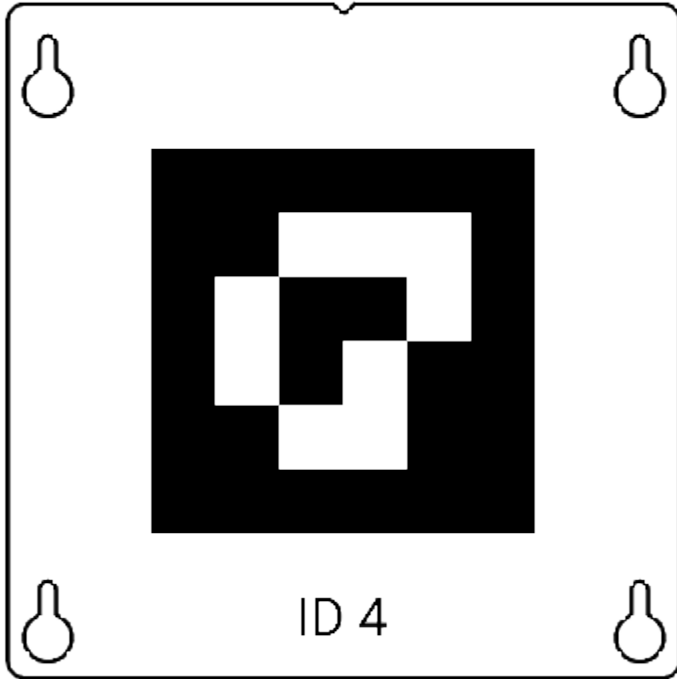
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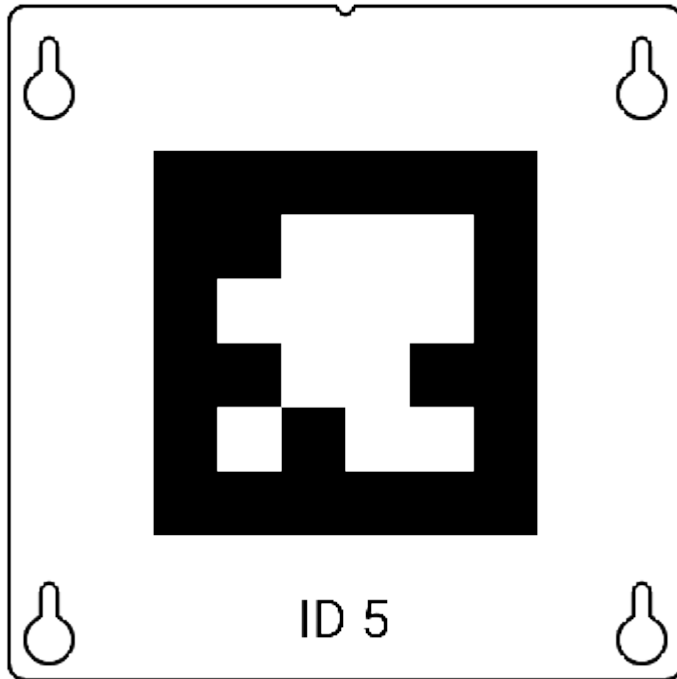
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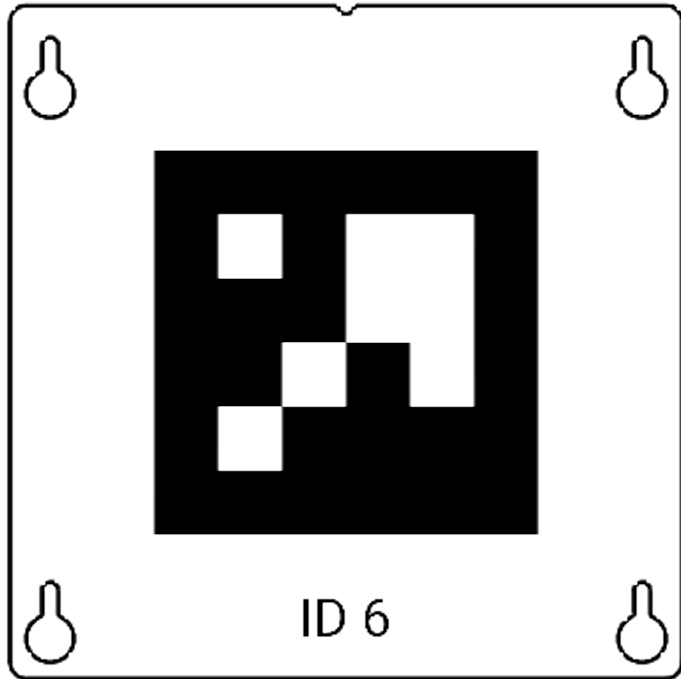
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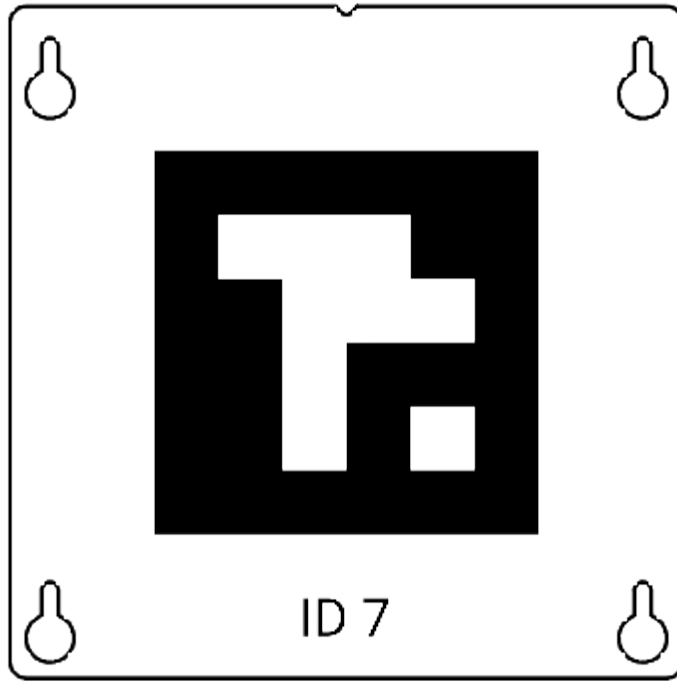
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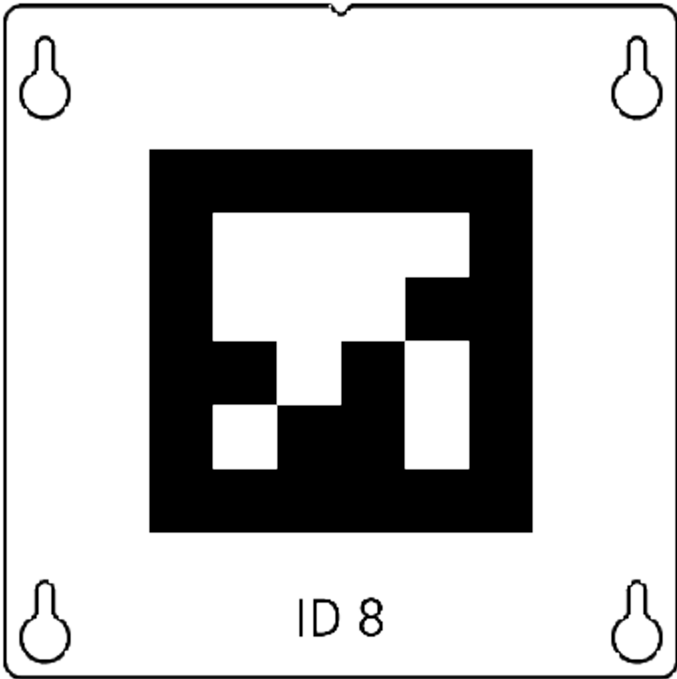
FE-00081-ID5



FE-00081-ID6



FE-00081-ID7



FE-00081-ID8

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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	CO	10/31/2022

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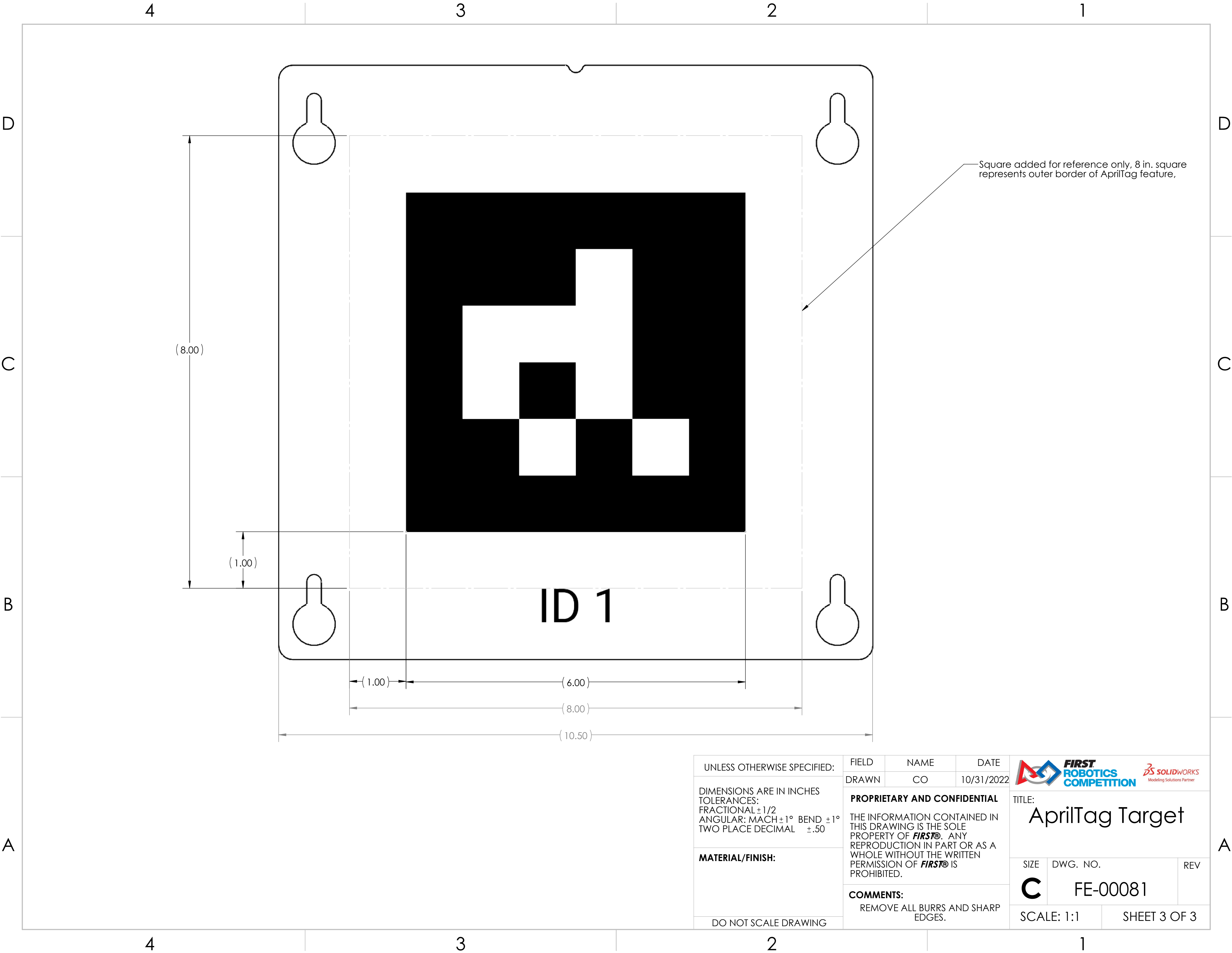
COMMENTS:
REMOVE ALL BURRS AND SHARP EDGES.



TITLE:
AprilTag Target

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

C FE-00081



Square added for reference only, 8 in. square represents outer border of AprilTag feature,

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

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COMMENTS:

REMOVE ALL BURRS AND SHARP EDGES.

NAME

CO

DATE

10/31/2022



**FIRST
ROBOTICS
COMPETITION**

SOLIDWORKS
Modeling Solutions Partner

TITLE:

AprilTag Target

SIZE

C

DWG. NO.

FE-00081

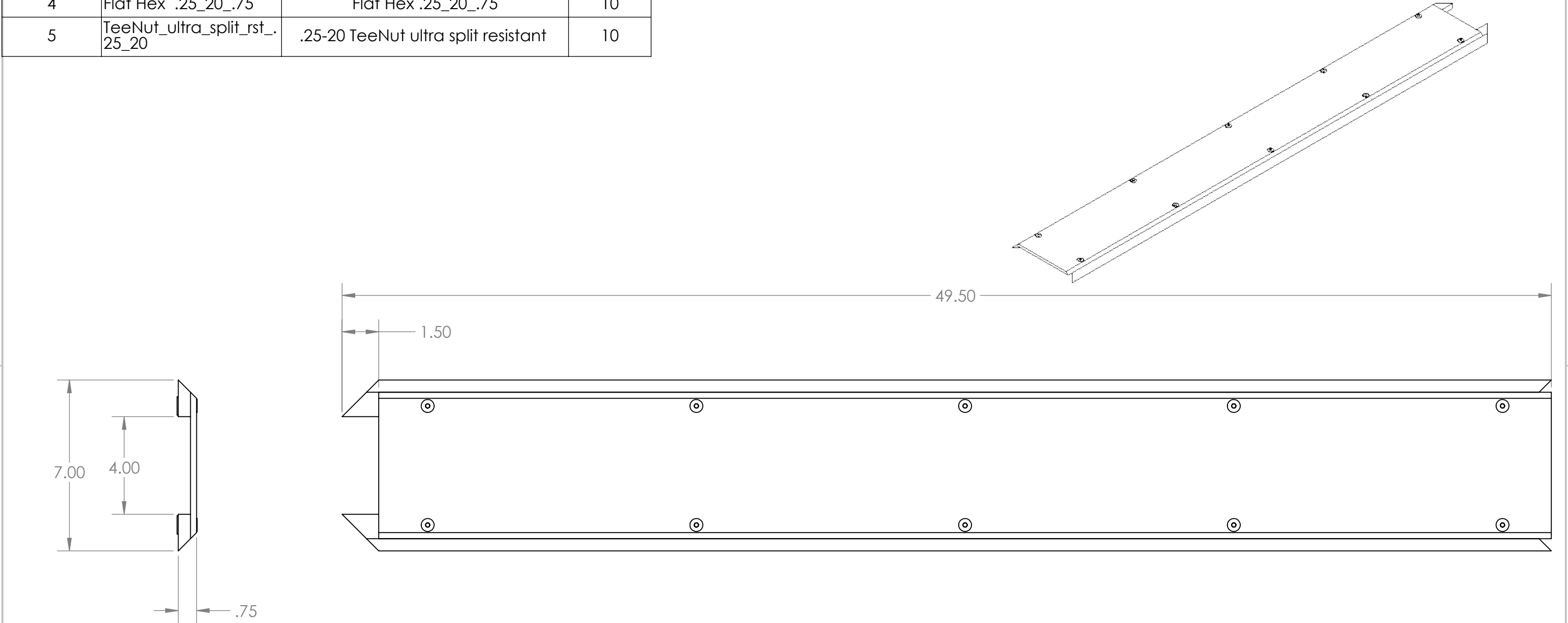
REV

SCALE: 1:1



SHEET 3 OF 3

4				3				2				1			
ITEM NO.	PART NUMBER	DESCRIPTION													
1	FE-00301	Side angle left		1											
2	FE-00303	Side angle right		1											
3	FE-00302	Cable protector top		1											
4	Flat Hex .25_20_.75	Flat Hex .25_20_.75		10											
5	TeeNut_ultra_split_rst_.25_20	.25-20 TeeNut ultra split resistant		10											

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	Added sheet 3	1/5/2022	DAF



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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: HDPE Cable Protector		
			CHECKED					
			ENG APPR.					
			MFG APPR.					
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.			COMMENTS:		
		MATERIAL						
		FINISH						
NEXT ASSY	USED ON					SIZE B	DWG. NO. FE-00300	REV A
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:12		WEIGHT:
						SHEET 1 OF 3		



4

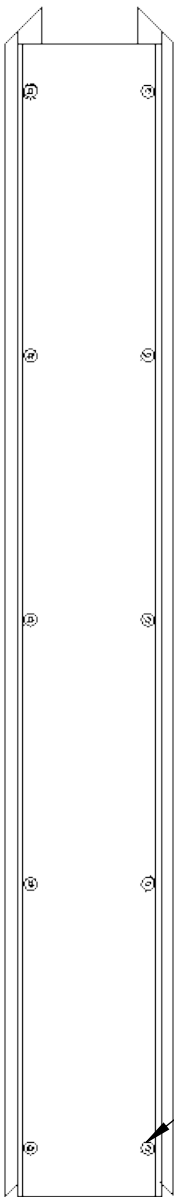
3

2

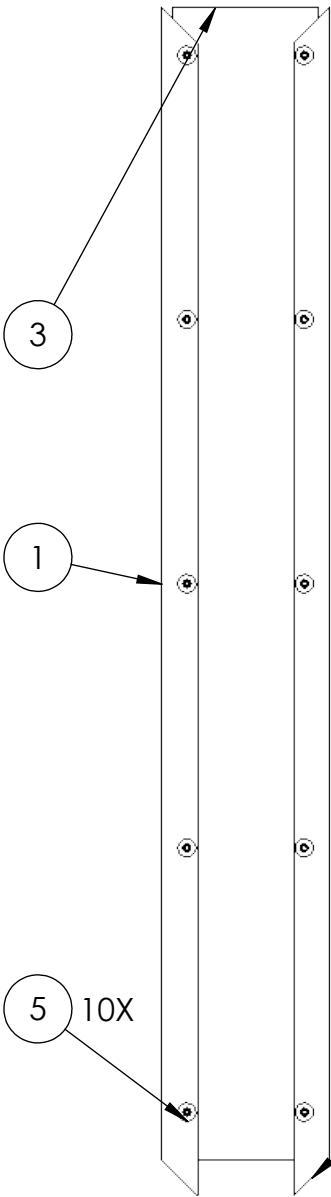
1

B

B



4 10X



3

1

5 10X

2



- Notes:
1. Insert (5) 10X in to the bottom of (1) and (2) .
 2. Attach (3) to (1) an (2) with (4) 10X .

A

A

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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE
		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.		
		THREE PLACE DECIMAL $\pm .001$	COMMENTS:		
		INTERPRET GEOMETRIC TOLERANCING PER:			
		MATERIAL			
		FINISH			
NEXT ASSY	USED ON				
APPLICATION		DO NOT SCALE DRAWING			



TITLE:
HDPE Cable Protector

SIZE
B

DWG. NO.
FE-00300

REV
A

SCALE: 1:12 WEIGHT:

SHEET 2 OF 3

4

3

2

1

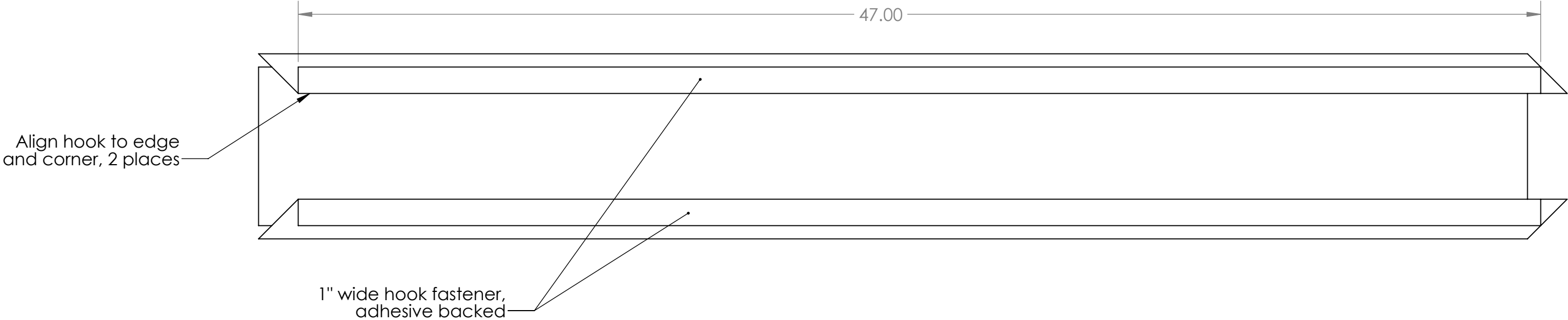
4

3

2

1

Post Manufacturing Instructions





B

B

A

A

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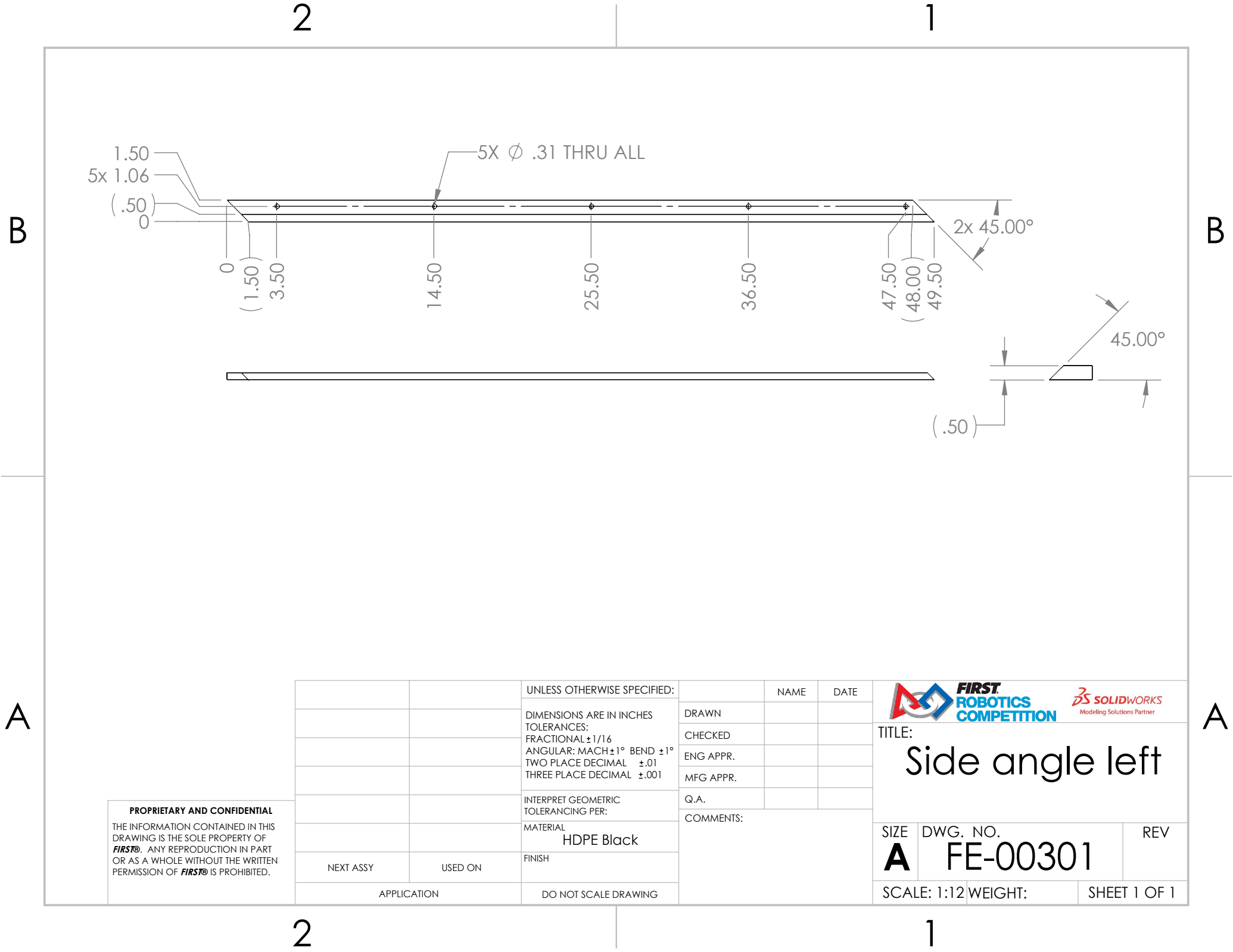
		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	<div></div>		
		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/16$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .01$ THREE PLACE DECIMAL $\pm .001$	DRAWN			TITLE: HDPE Cable Protector		
			CHECKED					
			ENG APPR.					
			MFG APPR.					
			Q.A.					
		INTERPRET GEOMETRIC TOLERANCING PER:	COMMENTS:			SIZE DWG. NO. REV B FE-00300 A		
		MATERIAL						
		FINISH						
NEXT ASSY	USED ON							
APPLICATION		DO NOT SCALE DRAWING	SCALE: 1:12					

4

3

2

1



A

A

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		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 $\pm .001$
		INTERPRET GEOMETRIC TOLERANCING PER:
		MATERIAL
		HDPE Black
		FINISH
NEXT ASSY	USED ON	
APPLICATION		DO NOT SCALE DRAWING



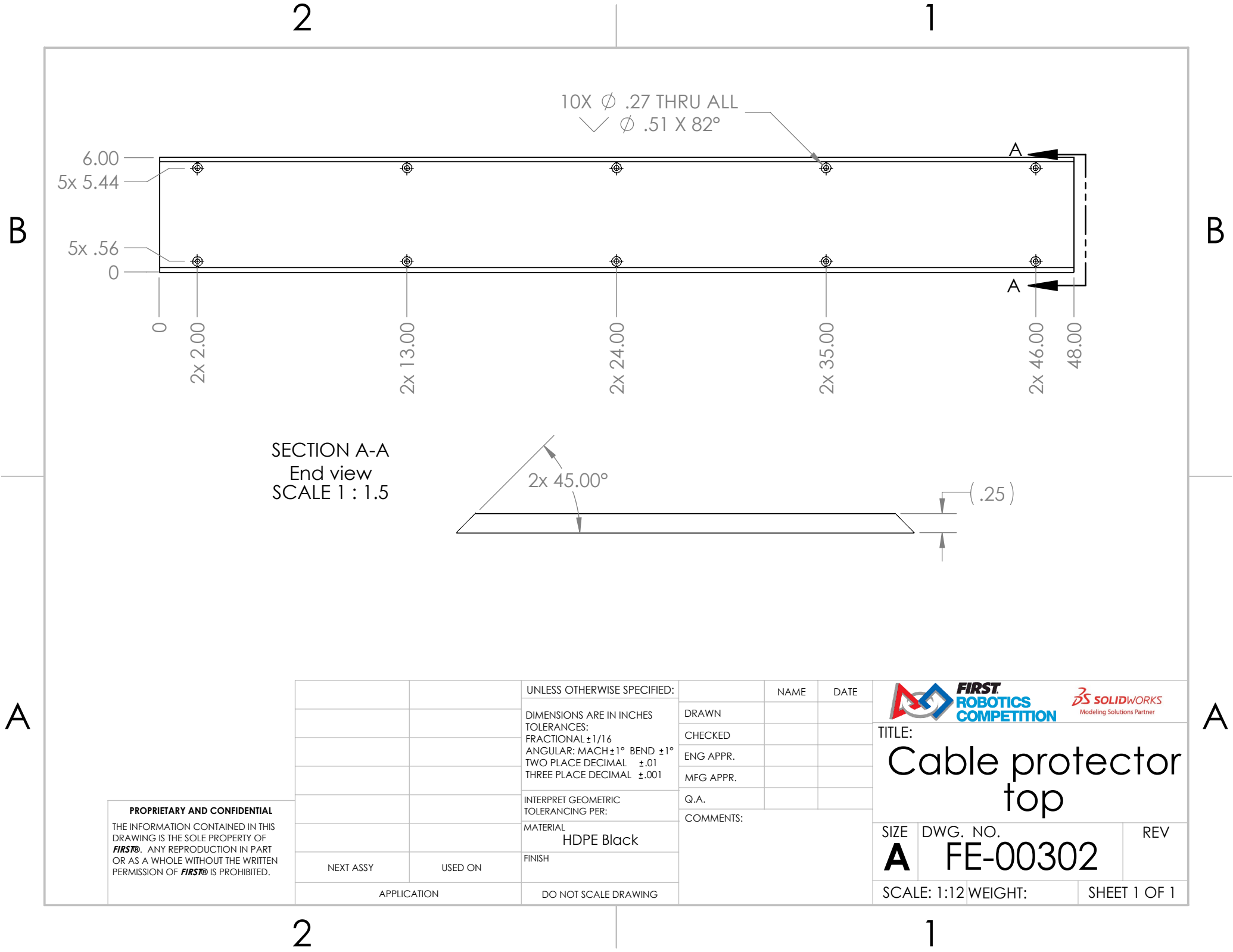
FIRST
ROBOTICS
COMPETITION



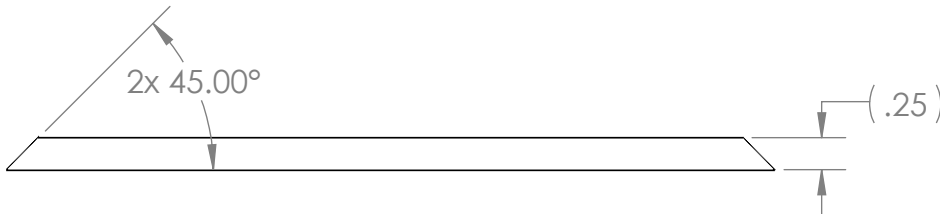
TITLE:
Side angle left

SIZE	DWG. NO.	REV
A	FE-00301	

SCALE: 1:12	WEIGHT:	SHEET 1 OF 1
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SECTION A-A
End view
SCALE 1 : 1.5



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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE
		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.		
		THREE PLACE DECIMAL $\pm .001$	COMMENTS:		
		INTERPRET GEOMETRIC TOLERANCING PER:			
		MATERIAL			
		HDPE Black			
		FINISH			
NEXT ASSY	USED ON				
APPLICATION		DO NOT SCALE DRAWING			



TITLE:

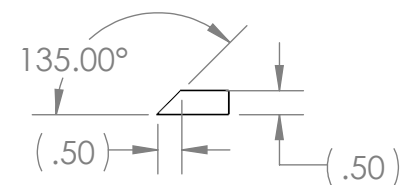
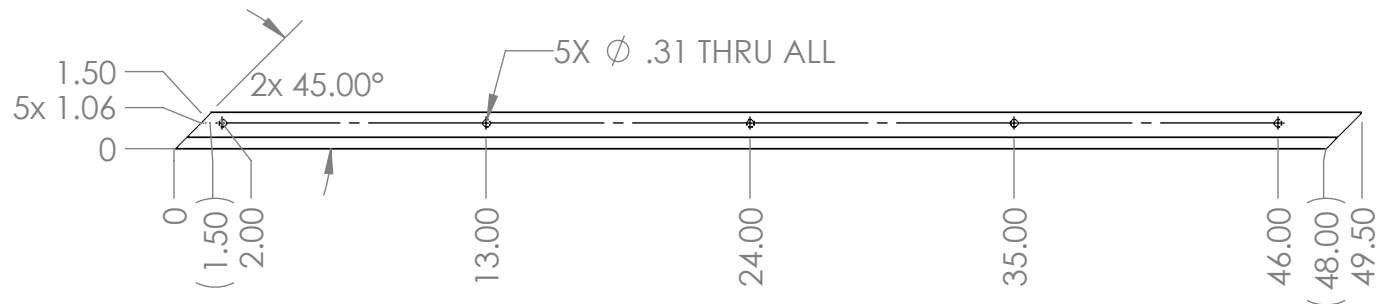
Cable protector top

SIZE	DWG. NO.	REV
A	FE-00302	

SCALE: 1:12	WEIGHT:	SHEET 1 OF 1
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B

B



A

A

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		UNLESS OTHERWISE SPECIFIED:		NAME	DATE
		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.		
		THREE PLACE DECIMAL $\pm .001$	COMMENTS:		
		INTERPRET GEOMETRIC TOLERANCING PER:			
		MATERIAL HDPE Black			
NEXT ASSY	USED ON	FINISH			
APPLICATION		DO NOT SCALE DRAWING			



**FIRST
ROBOTICS
COMPETITION**

SOLIDWORKS
Modeling Solutions Partner

TITLE:

Side angle right

SIZE

A

DWG. NO.

FE-00303

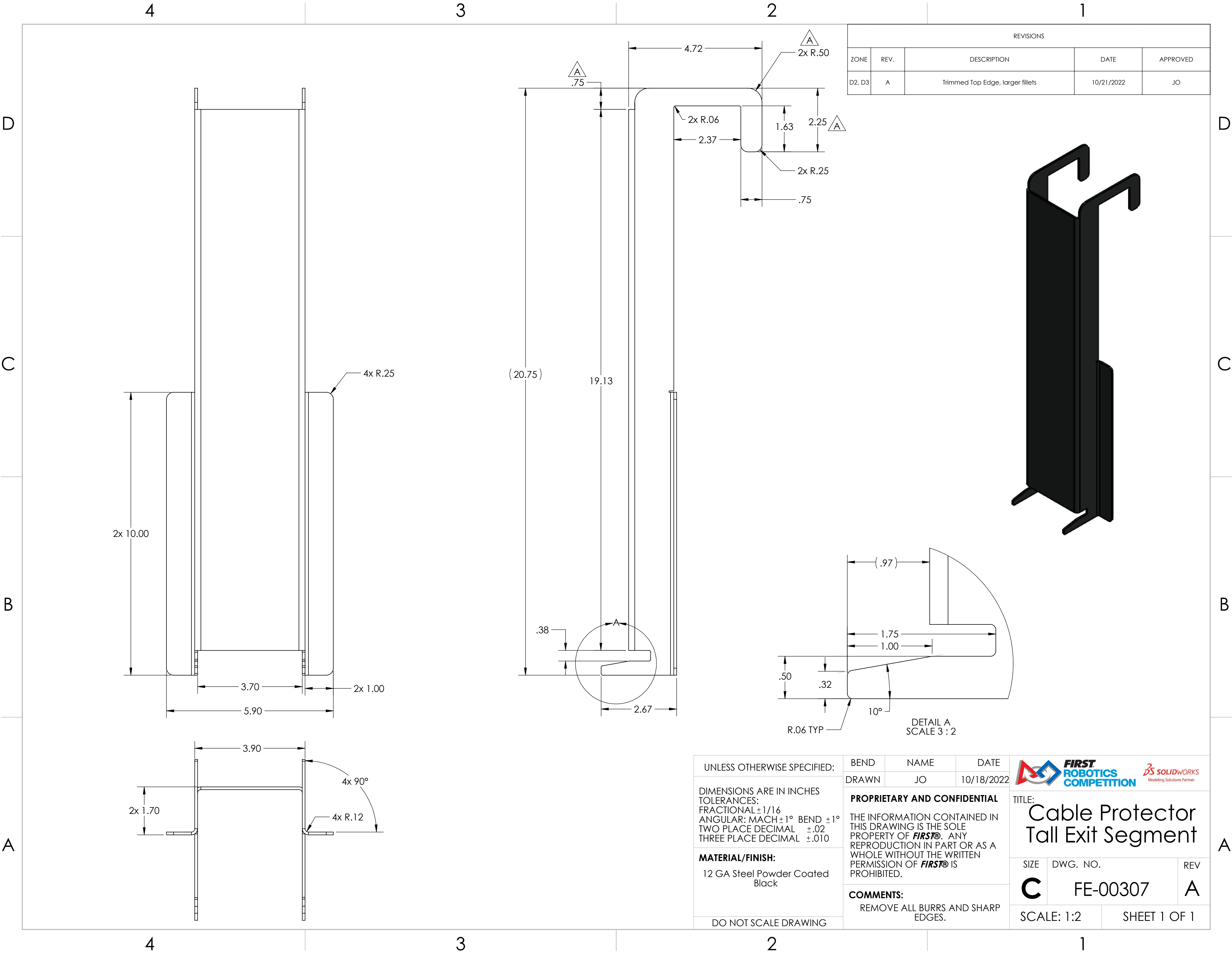
REV

SCALE: 1:12 WEIGHT:

SHEET 1 OF 1



2

1



REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
D2, D3	A	Trimmed Top Edge, larger fillets	10/21/2022	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: 12 GA Steel Powder Coated Black DO NOT SCALE DRAWING	BEND	NAME	DATE
	DRAWN	JO	10/18/2022
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	COMMENTS: REMOVE ALL BURRS AND SHARP EDGES.		

 		TITLE: Cable Protector Tall Exit Segment	
SIZE C	DWG. NO. FE-00307		REV A
SCALE: 1:2		SHEET 1 OF 1	