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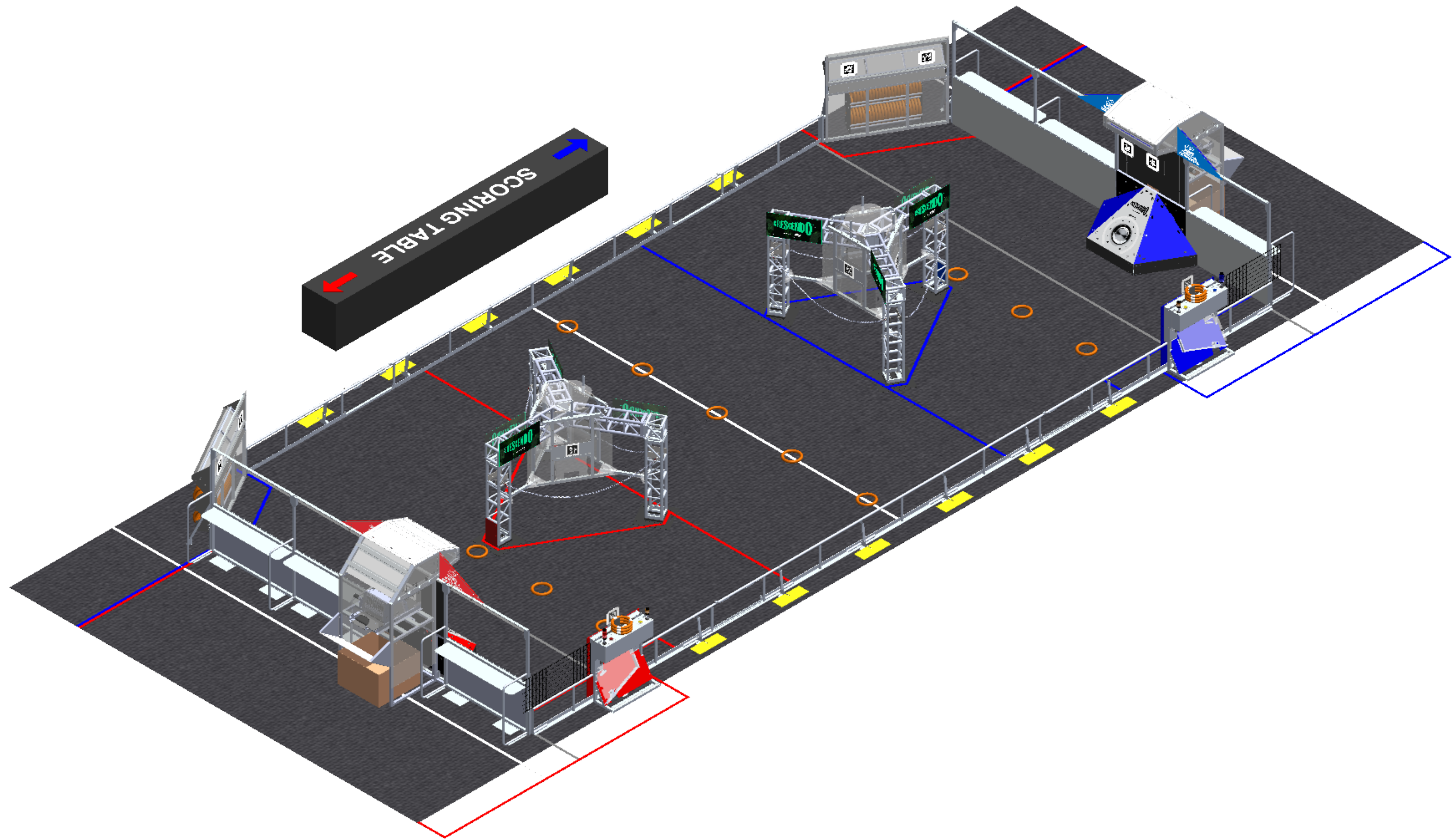
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UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/2$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .50$ MATERIAL/FINISH: DO NOT SCALE DRAWING	FIELD	NAME	DATE	
	DRAWN	DF	12/20/2023	
	PROPRIETARY 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.			TITLE: 2024 Field Layout and Marking
	COMMENTS: REMOVE ALL BURRS AND SHARP EDGES.			SIZE DWG. NO. REV C FE-2024 SCALE: 1:50 SHEET 1 OF 6

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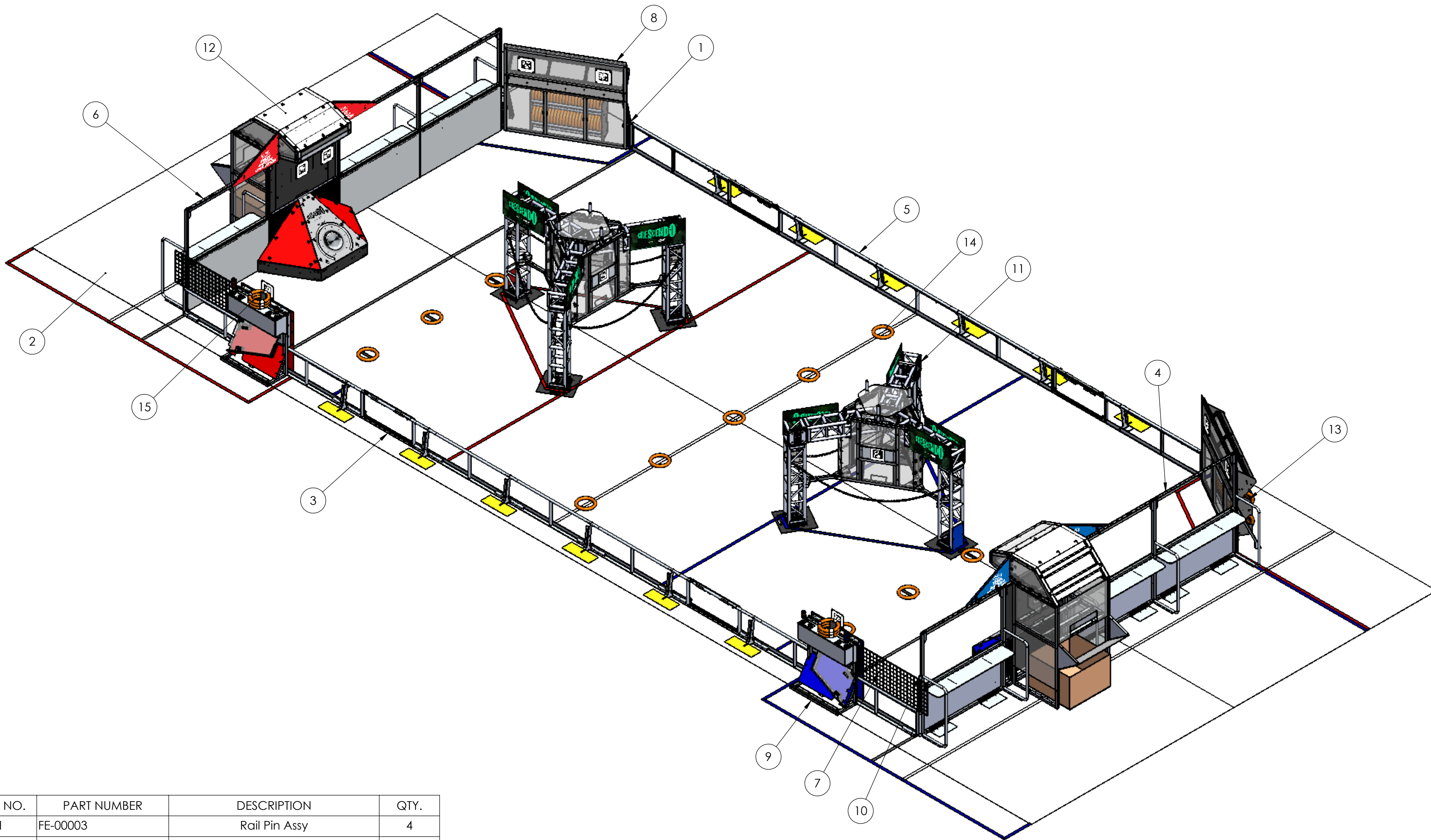
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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-00003	Rail Pin Assy	4
2	FE-2024-01	Carpet	2
3	FE-2024-02	Side Border	1
4	FE-2024-03	End Wall	1
5	FE-2024-04	Side Border	1
6	FE-2024-05	End Wall	1
7	GE-23266	ULINE Grid	2
8	GE-24000	Source	2
9	GE-24100	Amp Station	2
10	GE-24130	Extra Long Corner Pin	2
11	GE-24200	Stage Assembly	2
12	GE-24300	Speaker	2
13	GE-24400	Note Holder	2
14	GE-24500	Note	105
15	GE-24501	High Note	6

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	12/21/2023

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TITLE: **2024 Field Layout and Marking**

SIZE DWG. NO. REV

C FE-2024

SCALE: 1:45 SHEET 2 OF 6

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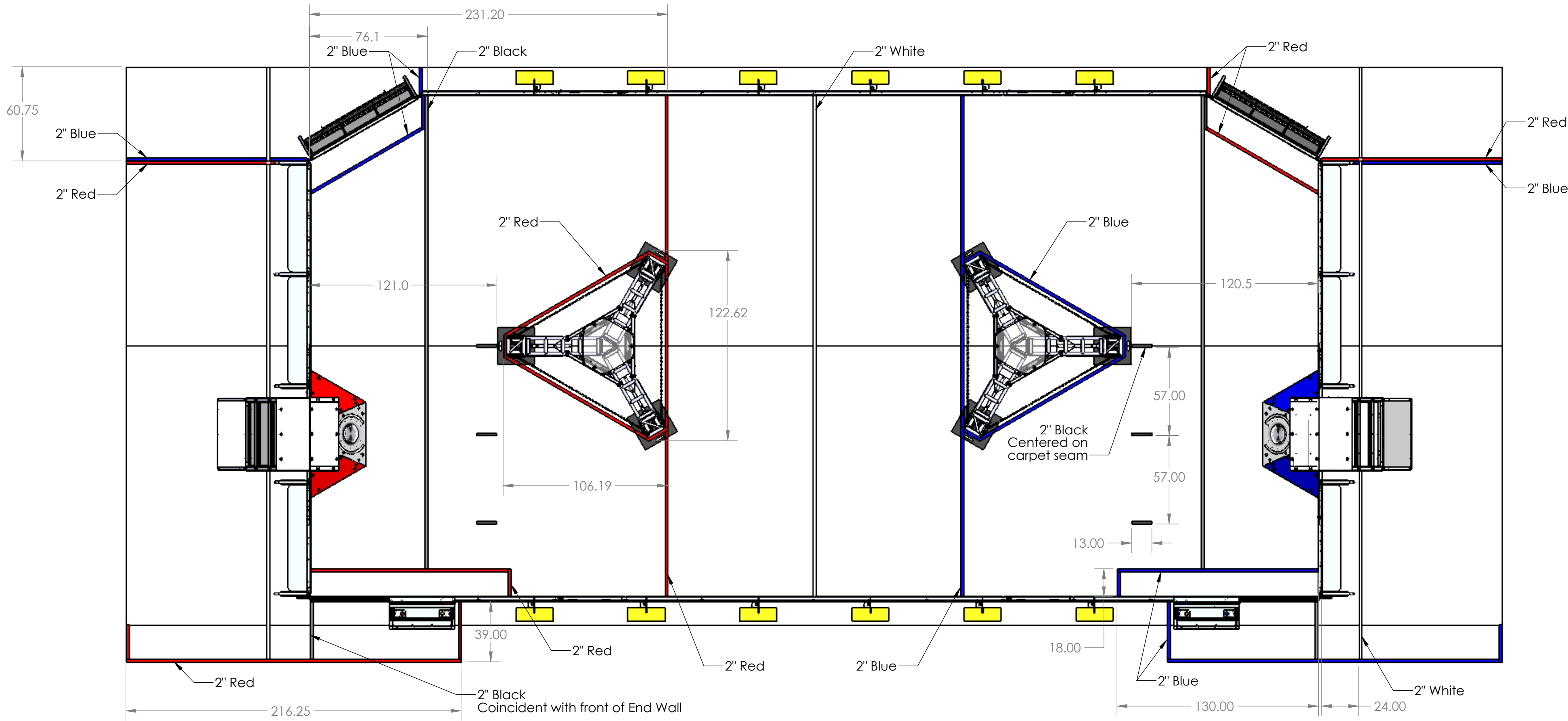
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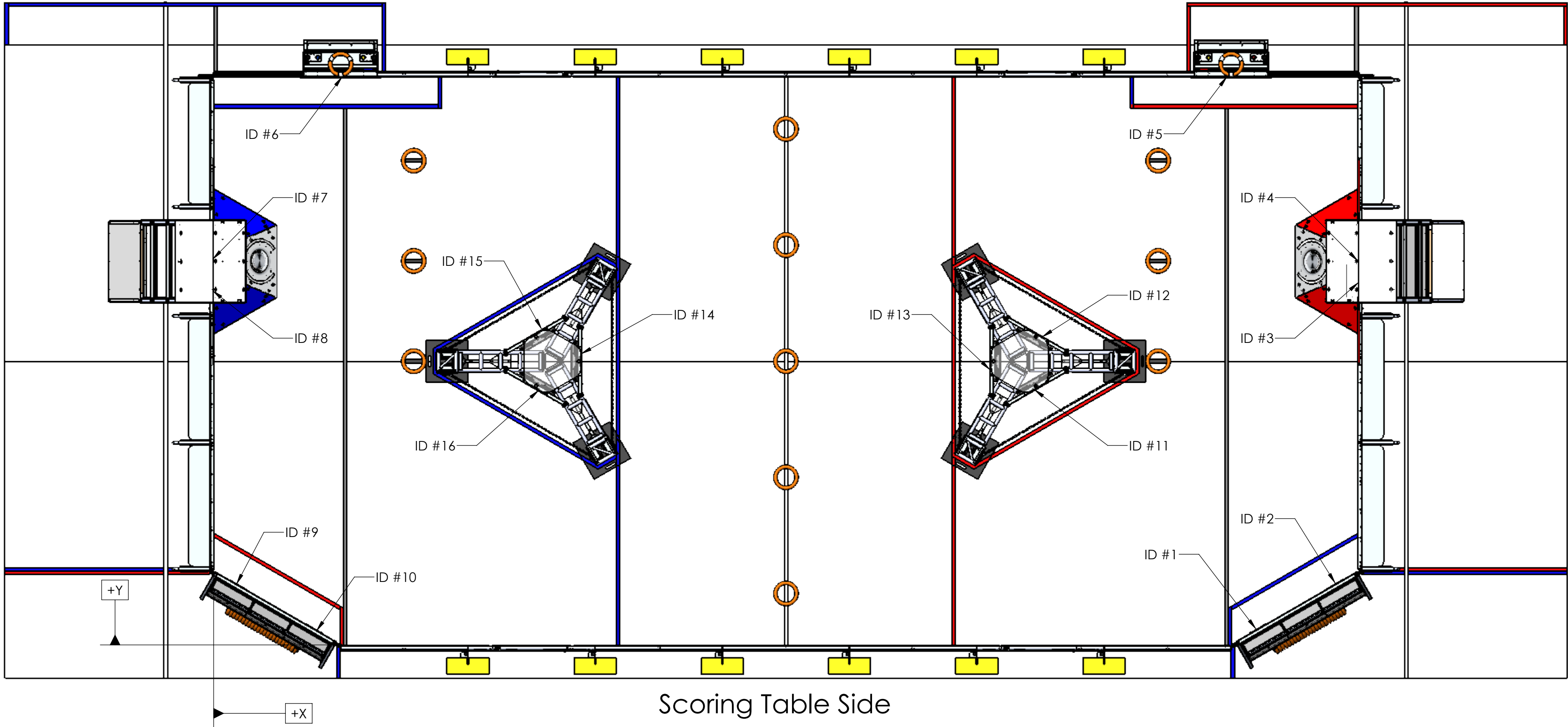
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UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/2$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .50$ MATERIAL/FINISH: DO NOT SCALE DRAWING	FIELD	NAME	DATE	 
	DRAWN	DF	12/21/2023	
	PROPRIETARY AND CONFIDENTIAL			TITLE: 2024 Field Layout and Marking SIZE DWG. NO. REV C FE-2024 SCALE: 1:50 SHEET 3 OF 6
	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.			



Scoring Table Side

AprilTag 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 SPEAKERS. 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. Distances are measured to the center of the tag.

ID	X	Y	Z	Rotation
1	593.68	9.68	53.38	120°
2	637.21	34.79	53.38	120°
3	652.73	196.17	57.13	180°
4	652.73	218.42	57.13	180°
5	578.77	323.00	53.38	270°
6	72.5	323.00	53.38	270°
7	-1.50	218.42	57.13	0°
8	-1.50	196.17	57.13	0°
9	14.02	34.79	53.38	60°
10	57.54	9.68	53.38	60°
11	468.69	146.19	52.00	300°
12	468.69	177.10	52.00	60°
13	441.74	161.62	52.00	180°
14	209.48	161.62	52.00	0°
15	182.73	177.10	52.00	120°
16	182.73	146.19	52.00	240°

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	JO	12/21/2023

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COMMENTS:
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TITLE: **2024 Field Layout and Marking**

SIZE	DWG. NO.	REV
C	FE-2024	

SCALE: 1:45 SHEET 4 OF 6

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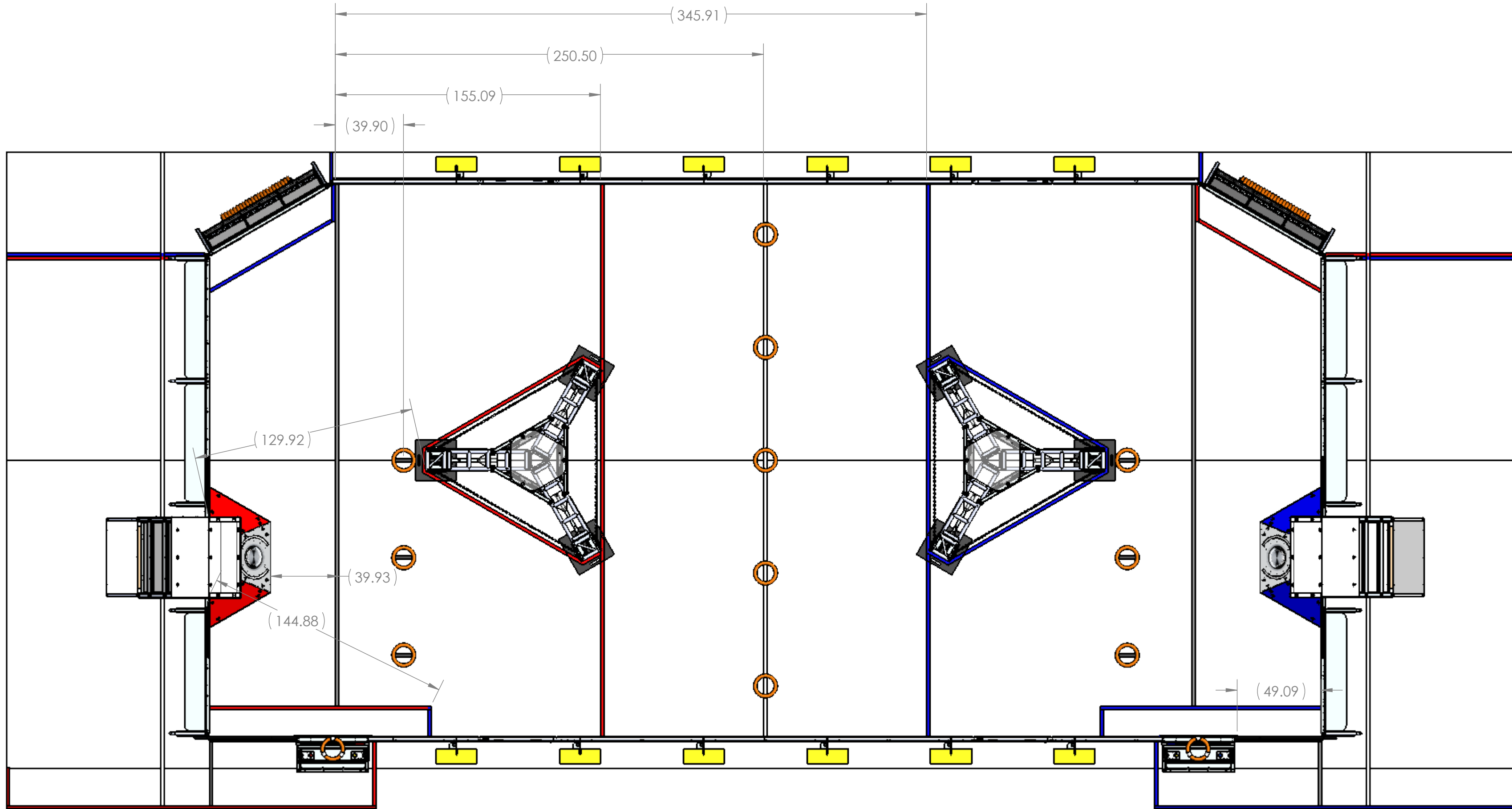
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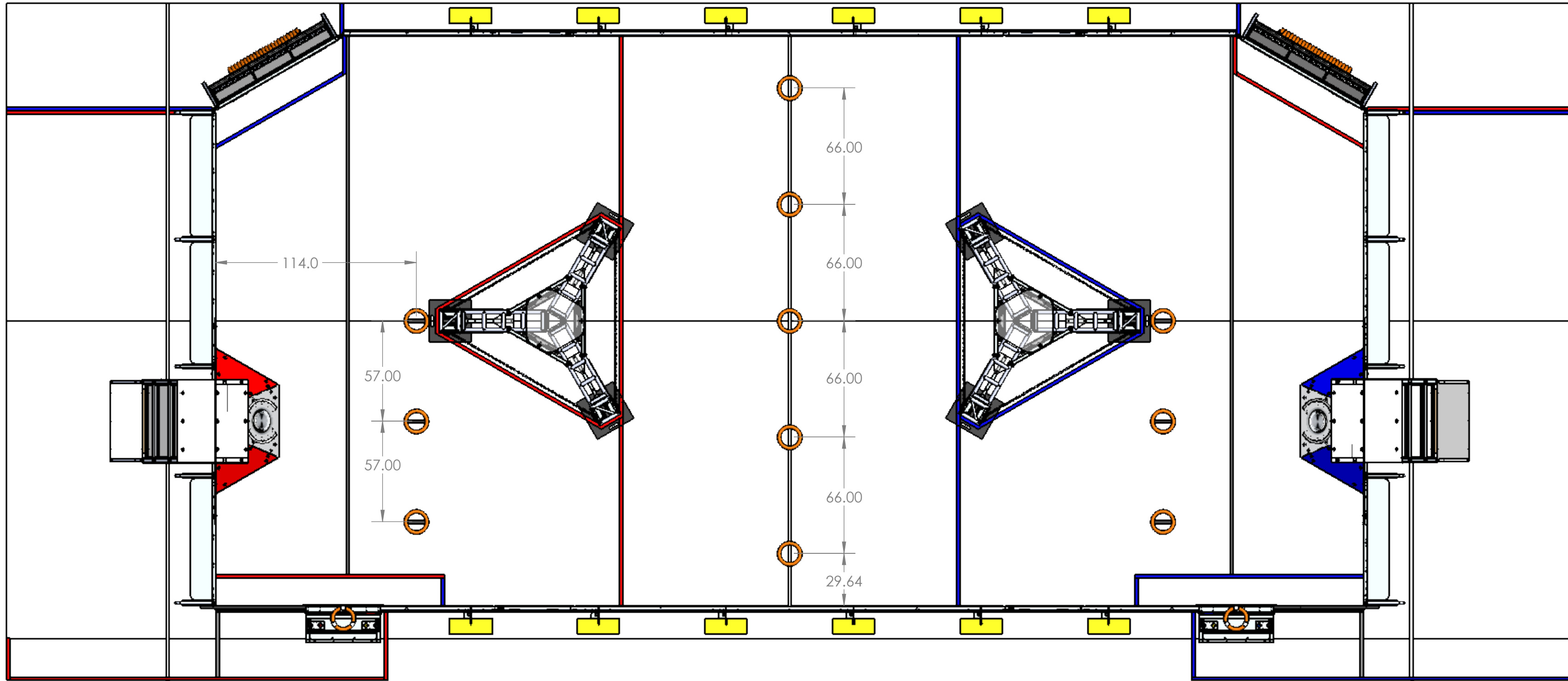
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL $\pm 1/2$ ANGULAR: MACH $\pm 1^\circ$ BEND $\pm 1^\circ$ TWO PLACE DECIMAL $\pm .50$ MATERIAL/FINISH: DO NOT SCALE DRAWING	FIELD	NAME	DATE	 
	DRAWN	DF	12/21/2023	
	PROPRIETARY AND CONFIDENTIAL			TITLE: 2024 Field Layout and Marking
	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-2024
	SCALE: 1:50		SHEET 5 OF 6	



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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	12/21/2023	
	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.			TITLE: 2024 Field Layout and Marking
	COMMENTS: REMOVE ALL BURRS AND SHARP EDGES.			SIZE DWG. NO. REV C FE-2024
SCALE: 1:50		SHEET 6 OF 6		

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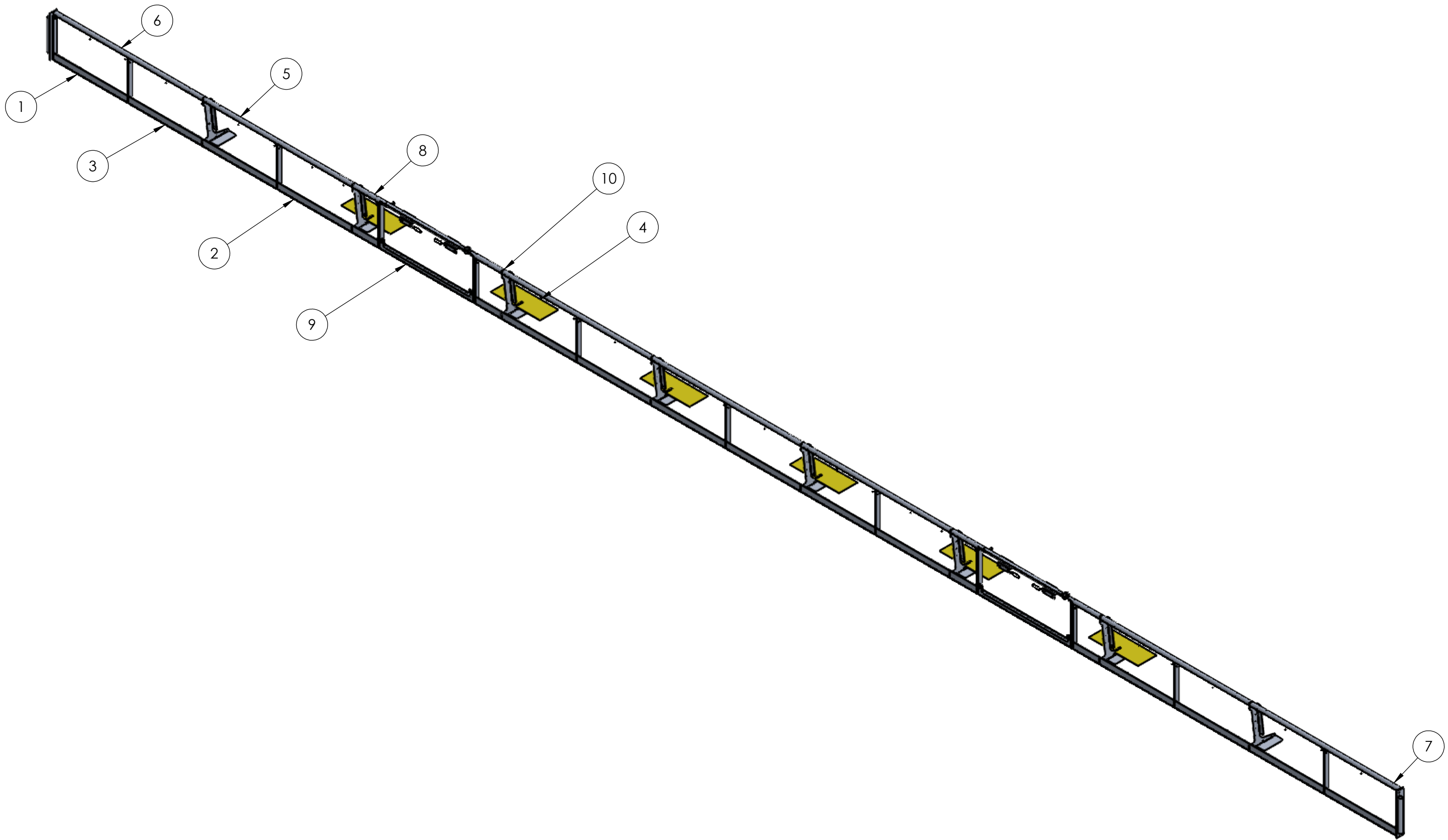
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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-00008	Field Plastic "A"	2
2	FE-00009	Field Plastic "B"	4
3	FE-00010	Field Plastic "C"	4
4	FE-00015	Trip Guard	6
5	FE-00022	Field Rail Assy - Mid	5
6	FE-00023	Field Rail Assy - Left	1
7	FE-00024	Field Rail Assy - Right	1
8	FE-00029	Field Gate, Assembly	2
9	FE-00047	Gate Plastic Assembly	2
10	FE-00050	Outrigger	8

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	12/21/2023

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COMMENTS:
 REMOVE ALL BURRS AND SHARP EDGES.

TITLE: **Side Border**

SIZE	DWG. NO.	REV
C	FE-2024-02	

SCALE: 1:30 SHEET 1 OF 1

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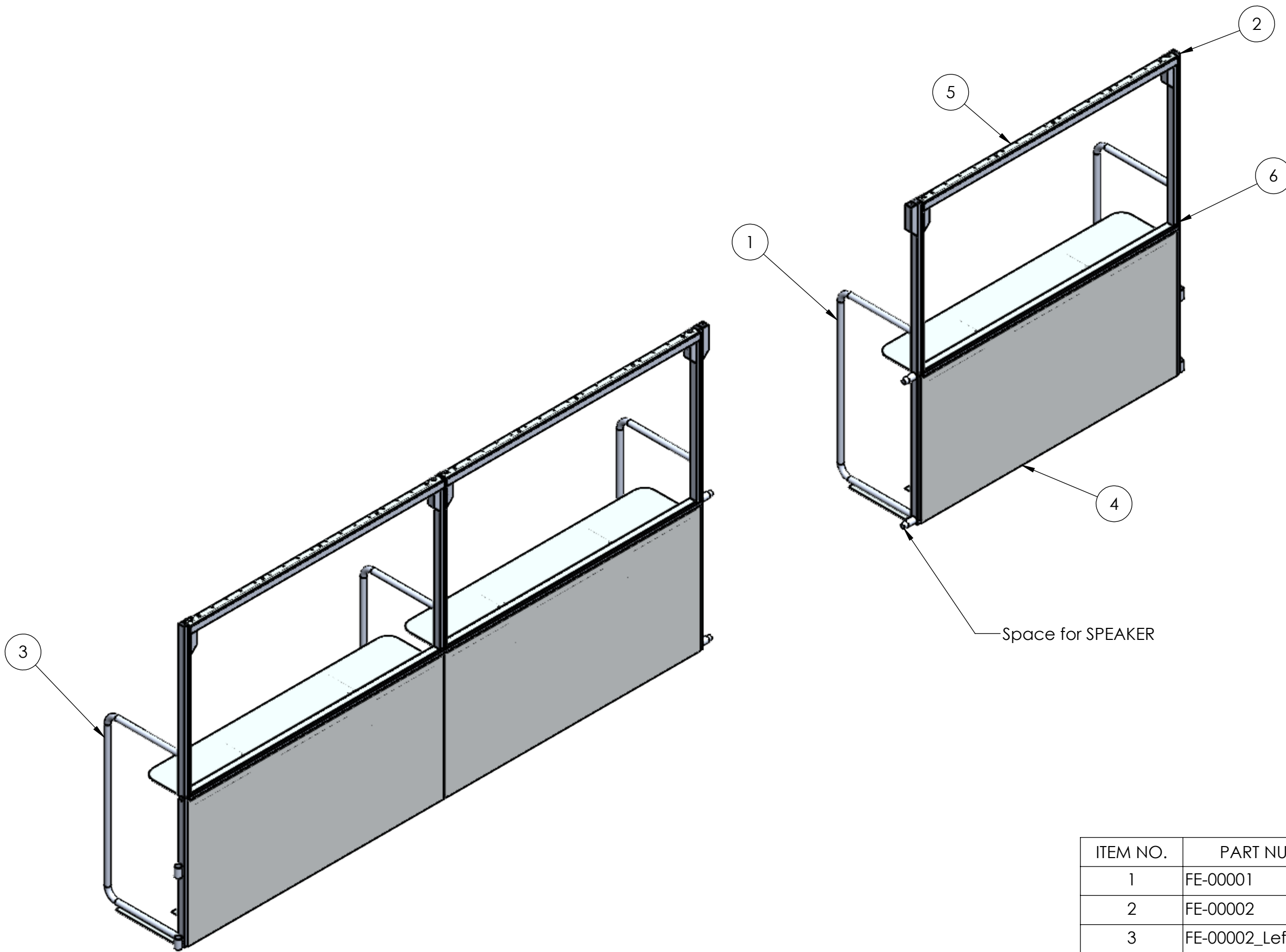
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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-00001	Drivers Station Support	3
2	FE-00002	Corner Supports, Right	1
3	FE-00002_Left	Corner Supports, Left	1
4	FE-00004	End Panel	3
5	FE-00007	Field Top Rail	3
6	FE-00012	Drivers Station Acrylic	3

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	12/21/2023
MATERIAL/FINISH:		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:		TITLE: End Wall		
		SIZE	DWG. NO.	REV
DO NOT SCALE DRAWING		C	FE-2024-03	
		SCALE: 1:20		SHEET 1 OF 1



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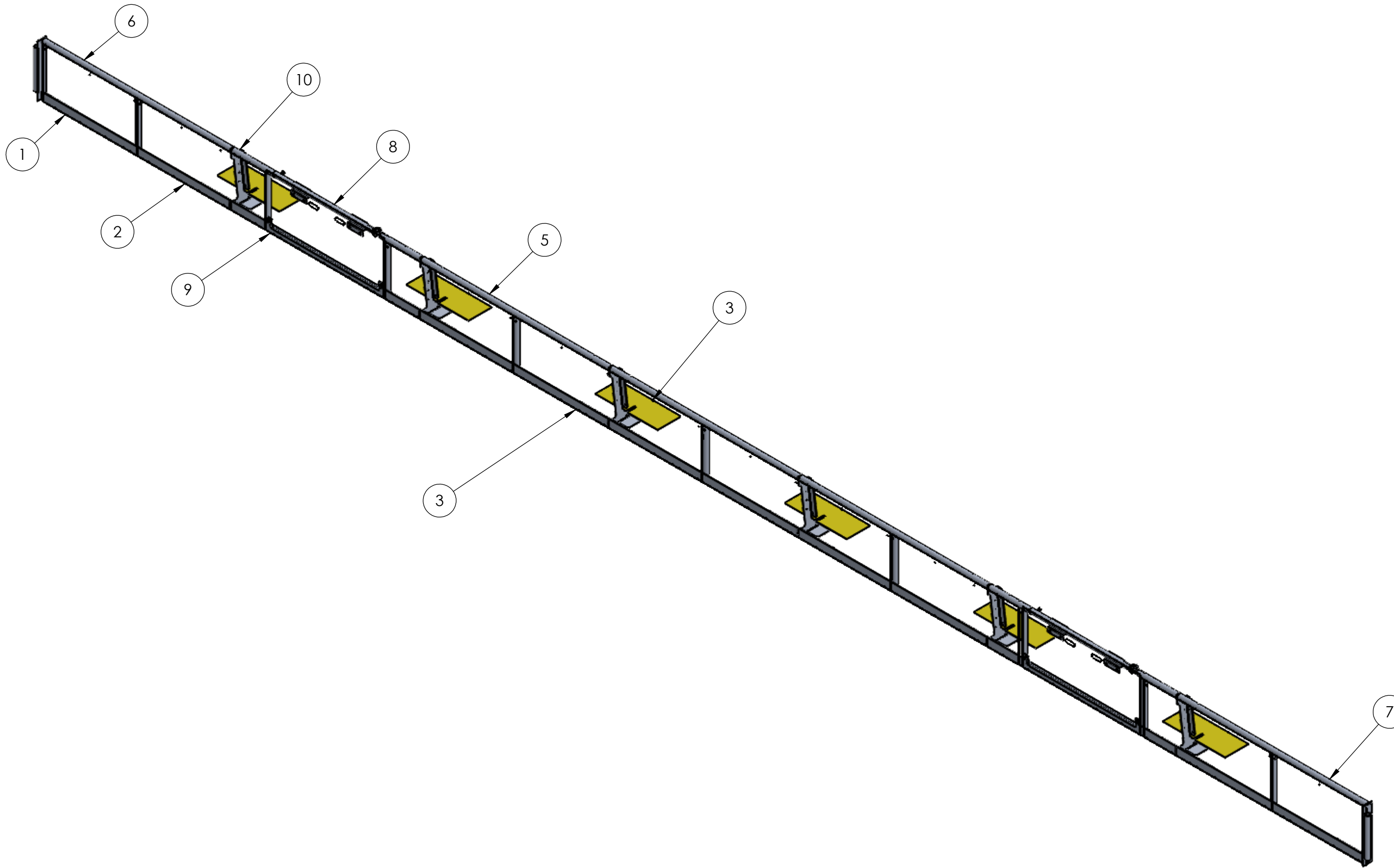
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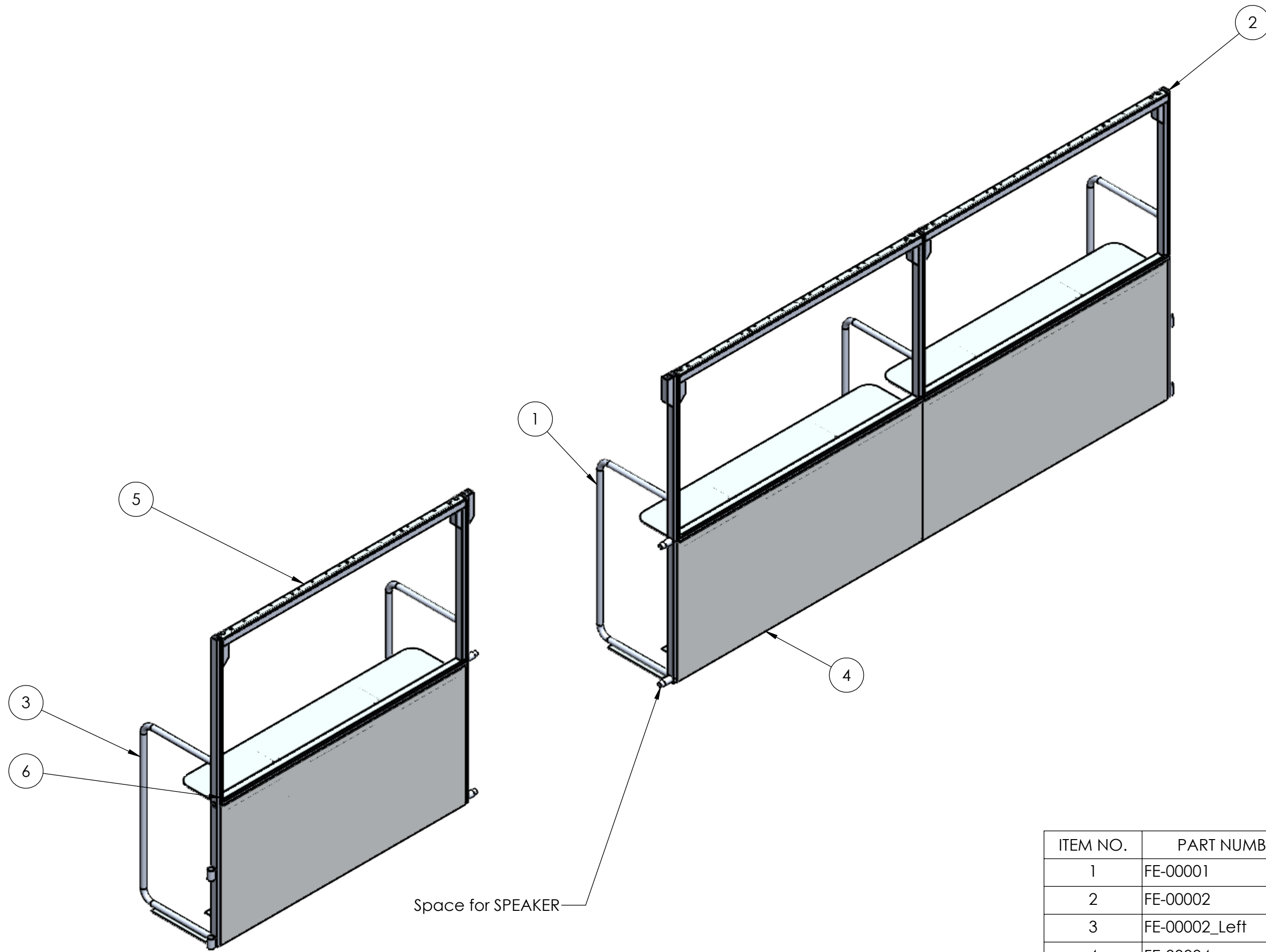
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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-00008	Field Plastic "A"	2
2	FE-00009	Field Plastic "B"	4
3	FE-00010	Field Plastic "C"	2
4	FE-00015	Trip Guard	6
5	FE-00022	Field Rail Assy - Mid	3
6	FE-00023	Field Rail Assy - Left	1
7	FE-00024	Field Rail Assy - Right	1
8	FE-00029	Field Gate, Assembly	2
9	FE-00047	Gate Plastic Assembly	2
10	FE-00050	Outrigger	6

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	12/21/2023
MATERIAL/FINISH:		 		
COMMENTS:				
DO NOT SCALE DRAWING		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.		
		TITLE: <h1>Side Border</h1>		
		SIZE	DWG. NO.	REV
		C	FE-2024-04	
		SCALE: 1:25		SHEET 1 OF 1



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	FE-00001	Drivers Station Support	3
2	FE-00002	Corner Supports, Right	1
3	FE-00002_Left	Corner Supports, Left	1
4	FE-00004	End Panel	3
5	FE-00007	Field Top Rail	3
6	FE-00012	Drivers Station Acrylic	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	NAME	DATE
DRAWN	JO	12/21/2023

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COMMENTS:
 REMOVE ALL BURRS AND SHARP EDGES.

TITLE: **End Wall**

SIZE	DWG. NO.	REV
C	FE-2024-05	

SCALE: 1:20 SHEET 1 OF 1

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