

ENVISION OUTDOOR LIVING PRODUCTS LLC TEST REPORT

SCOPE OF WORK

STRUCTURAL PERFORMANCE TESTING ON THE WELDED STEEL PANEL (THINNER WALL),
GUARDRAIL SYSTEM

REPORT NUMBER

S0598.01-119-19 R0

TEST DATES

11/15/24 - 11/18/24

ISSUE DATE

12/18/24

RECORD RETENTION END DATE

11/18/28

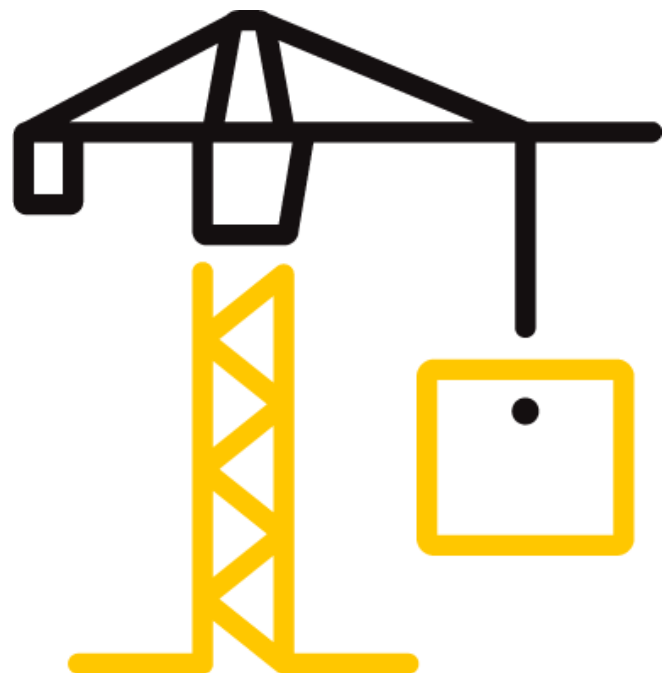
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TEST REPORT FOR ENVISION OUTDOOR LIVING PRODUCTS LLC

Report No.: S0598.01-119-19 R0

Date: 12/18/24

REPORT ISSUED TO

ENVISION OUTDOOR LIVING PRODUCTS LLC

53 Eby Chiques Road
P.O. Box 37
Mount Joy, PA 17552

SECTION 1

SCOPE

Architectural Testing, Inc. (an Intertek company) dba Intertek Building & Construction (B&C) was contracted by Envision Outdoor Living Products LLC to perform structural performance testing in accordance with the 2024 IRC and IBC on their 8 ft wide by 42 in high welded steel panel guardrail system (thinner wall). All tests performed were to evaluate structural performance of the guardrail assembly to carry and transfer imposed loads to the supporting structure. The test specimens evaluated included the infill, rails, rail brackets, and support posts. Anchorage of support posts to the supporting structure is not included in the scope of this testing and would need to be evaluated separately.

Results obtained are tested values and were secured by using the designated test methods. Testing was conducted at Intertek test facility in York, Pennsylvania. Intertek B&C has demonstrated compliance with ISO/IEC International Standard 17025 and is consequently accredited as a Testing Laboratory (TL-144) by International Accreditation Service, Inc. (IAS). This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

SECTION 2

SUMMARY OF TEST RESULTS

The specimens met the 2024 IRC and IBC design load performance requirements.

For INTERTEK B&C:

COMPLETED BY:	Adam J. Schrum	REVIEWED BY:	V. Thomas Mickley, Jr., P.E.
TITLE:	Project Manager	TITLE:	Senior Staff Engineer
SIGNATURE:		SIGNATURE:	
DATE:	12/18/24	DATE:	12/18/24

AJS:vtm/lcr

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TEST METHODS

The specimens were evaluated in accordance with the following:

2024, *International Building Code*® (IBC), International Code Council

2024, *International Residential Code*® (IRC), International Code Council

Structural tests were performed according to Chapter 17 (Structural Tests and Special Inspections) of IBC 2024.

SECTION 4

MATERIAL SOURCE/INSTALLATION

Test samples were provided by the client. Representative samples of the test specimens will be retained by Intertek B&C for a minimum of four years from the test completion date.

The 8 ft wide by 42 in high guardrail assembly was installed and tested as a single railing section by directly securing the posts into a rigid steel test fixture, which rigidly restrained the posts from deflecting. Transducers mounted to an independent reference frame were located to record movement of reference points on the guardrail system components (ends and mid-point) to determine net component deflections. See photographs in Section 11 for individual test setups.

SECTION 5

EQUIPMENT

The guardrail was tested in a self-contained structural frame designed to accommodate anchorage of the guardrail assembly and application of the required test loads. The specimens were loaded using an electric winch mounted to a rigid steel test frame. High strength steel cables, nylon straps, and load distribution beams were used to impose test loads on the specimens. Applied load was measured using an electronic load cell located in-line with the loading system. Electronic linear motion transducers were used to measure deflections.

SECTION 6

LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Craig Barkume	Envision Outdoor Living Products LLC
Jeffrey C. Jones	Intertek B&C
Adam J. Schrum	Intertek B&C

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TEST PROCEDURE

Each test specimen was inspected prior to testing to verify size and general condition of the materials, assembly, and installation. No potentially compromising defects were observed prior to testing.

An initial load, not exceeding 50% of design load, was applied and transducers were zeroed. Load was then applied at a steady uniform rate until reaching 2.0 times design load in no less than 10 seconds. After reaching 2.0 times design load, the load was released. After allowing a minimum period of one minute for stabilization, load was reapplied to the initial load level used at the start of the loading procedure, and deflections were recorded and used to analyze recovery. Load was then increased at a steady uniform rate until reaching 2.5 times design load or until failure occurred. The testing time was continually recorded from the application of initial test load until the ultimate test load was reached.

Deflection and permanent set were component deflections relative to their end-points; they were not overall system displacements. All loads and displacement measurements were horizontal, unless noted otherwise.

SECTION 8

TEST SPECIMEN DESCRIPTION

Envision Outdoor Living Products LLC provided the fully assembled test specimens with the following details:

TYPE	Welded steel guardrail system
OVERALL LENGTH	94-1/4 in wide (inside of post to inside of post)
OVERALL HEIGHT	- 40 in (top of top rail to bottom of bottom rail) - 42 in (nominal)
TOP AND BOTTOM RAIL	1 in square steel tubing with 0.06 in wall
PICKETS (IN-FILL)	5/8 in square steel tubing with 0.05 in wall
RAIL BRACKETS	1-1/4 in wide by 15/16 in high by 1-1/8 in deep steel collar brackets
POST	2 in square by 0.07 in wall hollow steel tube attached to a base plate with 1/8 in fillet weld all around
BASE PLATE	3-13/16 in square by 1/4 in thick steel plate with four, 7/16 in diameter holes located 3/8 in on-center from edge of plate and one, 1 in square hole in the center of the plate
FASTENERS	Bracket to Post: Two, #10-32 by 1/2 in pan head, Phillips drive, coated steel screws with thread-cutting tip Rail to Bracket: Two, #10-24 by 1/2 in flat head, Philips drive, coated steel screws with thread-cutting tip

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TEST RESULTS

Key to Test Results Tables:

Load Level: Target test load

Test Load: Actual applied load at the designated load level (target).

Elapsed Time (E.T.): The amount of time into the test with zero established at the beginning of the loading procedure.

**8 ft (94-1/4 in) by 42 in Welded Steel Panel Level Guardrail System
IBC - All Use Groups**

Test Specimen No. 1 of 3

Test No. 1 - 11/15/24

Design Load: 50 lb / 1 Square ft at Center of In-fill

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	DISPLACEMENT (in)			
			END	MID	END	NET
Initial Load	25	00:00	--	0.00	--	--
2.0x Design Load	101	00:17	--	0.77	--	--
Initial Load	27	01:49	--	0.05	--	--
94% Recovery from 2.0 x Design Load						
2.5x Design Load	133	01:55	Achieved Load without Failure			

Test No. 2 - 11/15/24

Design Load: 50 lb / 1 Square ft at Bottom of In-fill

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	DISPLACEMENT (in)			
			END	MID	END	NET
Initial Load	25	00:00	--	0.00	--	--
2.0x Design Load	102	00:13	--	0.67	--	--
Initial Load	26	01:38	--	0.00	--	--
100% Recovery from 2.0 x Design Load						
2.5x Design Load	134	01:42	Achieved Load without Failure			

TEST REPORT FOR ENVISION OUTDOOR LIVING PRODUCTS LLC

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Test No. 3 - 11/15/24

Design Load: 50 plf x (94.25 in ÷ 12 in/ft) = 393 lb Horizontal Uniform Load on Top Rail ²

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)			
			END	MID	END	NET ¹
Initial Load	80	00:00	0.00	0.00	0.00	0.00
2.0x Design Load	791	00:56	0.40	7.75	0.22	7.44
Initial Load	82	02:34	0.03	2.69	0.01	2.67
64% Recovery from 2.0 x Design Load						
2.5x Design Load	990	03:16	Achieved Load without Failure			

¹ Net displacement was mid-rail displacement relative to the rail at the support posts.

² Uniform Load was simulated with quarter point loading.

Test No. 4 - 11/15/24

Design Load: 50 plf x (94.25 in ÷ 12 in/ft) = 393 lb Vertical Uniform Load on Top Rail ¹

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)			
			END	MID	END	NET
Initial Load	79	00:00	--	0.00	--	--
2.0x Design Load	797	00:31	--	1.22	--	--
Initial Load	81	01:58	--	0.18	--	--
85% Recovery from 2.0 x Design Load						
2.5x Design Load	991	02:15	Achieved Load without Failure			

¹ Uniform Load was simulated with quarter point loading.

Test No. 5 - 11/15/24

Design Load: 200 lb Horizontal Concentrated Load at Midspan of Top Rail

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)			
			END	MID	END	NET ¹
Initial Load	50	00:00	0.00	0.00	0.00	0.00
2.0x Design Load	402	00:28	0.12	3.33	0.18	3.18
Initial Load	51	02:02	0.01	0.18	0.00	0.18
94% Recovery from 2.0 x Design Load						
2.5x Design Load	508	02:24	Achieved Load without Failure			

¹ Net displacement was mid-rail displacement relative to the rail at the support posts.

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Test No. 6 - 11/15/24

Design Load: 200 lb Vertical Concentrated Load at Midspan of Top Rail

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)			
			END	MID	END	NET
Initial Load	50	00:00	--	0.00	--	--
2.0x Design Load	401	00:15	--	0.82	--	--
Initial Load	50	01:35	--	0.00	--	--
100% Recovery from 2.0 x Design Load						
2.5x Design Load	524	01:45	Achieved Load without Failure			

Test No. 7 - 11/15/24

Design Load: 200 lb Horizontal Concentrated Load at Ends of Top Rail (Brackets)

LOAD LEVEL ¹	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)	
			RAIL END #1	RAIL END #2
Initial Load	80	00:00	0.00	0.00
(2.0x Design Load) x 2	821	00:22	0.17	0.18
Initial Load	80	02:05	0.01	0.01
94% Recovery (Rail End #1) and 94% Recovery (Rail End #2) from 2.0 x Design Load				
(2.5x Design Load) x 2	1022	02:21	Achieved Load without Failure	

¹ A spreader beam was used to impose loads on both ends of the railing system; therefore, loads were doubled.

Test No. 8 - 11/15/24

Design Load: 200 lb Vertical Concentrated Load at Ends of Top Rail (Brackets)

LOAD LEVEL ¹	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)	
			RAIL END #1	RAIL END #2
Initial Load	80	00:00	0.00	--
(2.0x Design Load) x 2	808	00:24	0.05	--
Initial Load	81	01:55	0.02	--
60% Recovery from 2.0 x Design Load				
(2.5x Design Load) x 2	1057	02:10	Achieved Load without Failure	

¹ A spreader beam was used to impose loads on both ends of the railing system; therefore, loads were doubled.

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Test Specimen No. 2 of 3

Test No. 1 - 11/15/24

Design Load: 50 lb / 1 Square ft at Center of In-fill

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	DISPLACEMENT (in)			
			END	MID	END	NET
Initial Load	25	00:00	--	0.00	--	--
2.0x Design Load	100	00:12	--	0.77	--	--
Initial Load	25	01:42	--	0.04	--	--
95% Recovery from 2.0 x Design Load						
2.5x Design Load	127	01:49	Achieved Load without Failure			

Test No. 2 - 11/15/24

Design Load: 50 lb / 1 Square ft at Bottom of In-fill

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	DISPLACEMENT (in)			
			END	MID	END	NET
Initial Load	25	00:00	--	0.00	--	--
2.0x Design Load	106	00:11	--	0.76	--	--
Initial Load	28	01:37	--	0.00	--	--
100% Recovery from 2.0 x Design Load						
2.5x Design Load	129	01:43	Achieved Load without Failure			

Test No. 3 - 11/15/24

Design Load: 50 plf x (94.25 in ÷ 12 in/ft) = 393 lb Horizontal Uniform Load on Top Rail ²

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)			
			END	MID	END	NET ¹
Initial Load	80	00:00	0.00	0.00	0.00	0.00
2.0x Design Load	799	00:47	0.13	7.19	0.34	6.96
Initial Load	82	02:36	0.00	2.49	0.03	2.48
64% Recovery from 2.0 x Design Load						
2.5x Design Load	987	03:01	Achieved Load without Failure			

¹ Net displacement was mid-rail displacement relative to the rail at the support posts.

² Uniform Load was simulated with quarter point loading.

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Test No. 4 - 11/15/24

Design Load: 50 plf x (94.25 in ÷ 12 in/ft) = 393 lb Vertical Uniform Load on Top Rail ¹

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)			
			END	MID	END	NET
Initial Load	81	00:00	--	0.00	--	--
2.0x Design Load	807	00:17	--	1.25	--	--
Initial Load	83	01:44	--	0.18	--	--
86% Recovery from 2.0 x Design Load						
2.5x Design Load	993	02:01	Achieved Load without Failure			

¹ Uniform Load was simulated with quarter point loading.

Test No. 5 - 11/15/24

Design Load: 200 lb Horizontal Concentrated Load at Midspan of Top Rail

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)			
			END	MID	END	NET ¹
Initial Load	50	00:00	0.00	0.00	0.00	0.00
2.0x Design Load	404	00:18	0.13	3.46	0.23	3.28
Initial Load	52	01:56	0.01	0.17	0.00	0.17
95% Recovery from 2.0 x Design Load						
2.5x Design Load	509	02:14	Achieved Load without Failure			

¹ Net displacement was mid-rail displacement relative to the rail at the support posts.

Test No. 6 - 11/15/24

Design Load: 200 lb Vertical Concentrated Load at Midspan of Top Rail

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)			
			END	MID	END	NET
Initial Load	50	00:00	--	0.00	--	--
2.0x Design Load	400	00:23	--	0.81	--	--
Initial Load	64	01:44	--	0.02	--	--
98% Recovery from 2.0 x Design Load						
2.5x Design Load	509	01:52	Achieved Load without Failure			

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Test No. 7 - 11/15/24

Design Load: 200 lb Horizontal Concentrated Load at Ends of Top Rail (Brackets)

LOAD LEVEL ¹	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)	
			RAIL END #1	RAIL END #2
Initial Load	80	00:00	0.00	0.00
(2.0x Design Load) x 2	810	00:20	0.21	0.17
Initial Load	80	02:10	0.01	0.01
95% Recovery (Rail End #1) and 94% Recovery (Rail End #2) from 2.0 x Design Load				
(2.5x Design Load) x 2	1076	02:22	Achieved Load without Failure	

¹ A spreader beam was used to impose loads on both ends of the railing system; therefore, loads were doubled.

Test No. 8 - 11/15/24

Design Load: 200 lb Vertical Concentrated Load at Ends of Top Rail (Brackets)

LOAD LEVEL ¹	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)	
			RAIL END #1	RAIL END #2
Initial Load	80	00:00	0.00	--
(2.0x Design Load) x 2	830	00:18	0.05	--
Initial Load	80	01:52	0.02	--
60% Recovery from 2.0 x Design Load				
(2.5x Design Load) x 2	1118	02:06	Achieved Load without Failure	

¹ A spreader beam was used to impose loads on both ends of the railing system; therefore, loads were doubled.

Test Specimen No. 3 of 3

Test No. 1 - 11/18/24

Design Load: 50 lb / 1 Square ft at Center of In-fill

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	DISPLACEMENT (in)			
			END	MID	END	NET
Initial Load	25	00:00	--	0.00	--	--
2.0x Design Load	103	00:13	--	0.80	--	--
Initial Load	28	01:33	--	0.04	--	--
95% Recovery from 2.0 x Design Load						
2.5x Design Load	135	01:38	Achieved Load without Failure			

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Test No. 2 - 11/18/24

Design Load: 50 lb / 1 Square ft at Bottom of In-fill

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	DISPLACEMENT (in)			
			END	MID	END	NET
Initial Load	25	00:00	--	0.00	--	--
2.0x Design Load	101	00:10	--	0.71	--	--
Initial Load	25	01:31	--	0.00	--	--
100% Recovery from 2.0 x Design Load						
2.5x Design Load	127	01:37	Achieved Load without Failure			

Test No. 3 - 11/18/24

Design Load: 50 plf x (94.25 in ÷ 12 in/ft) = 393 lb Horizontal Uniform Load on Top Rail ²

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)			
			END	MID	END	NET ¹
Initial Load	80	00:00	0.00	0.00	0.00	0.00
2.0x Design Load	794	00:43	0.18	6.34	0.30	6.10
Initial Load	85	02:26	0.00	1.75	0.03	1.74
71% Recovery from 2.0 x Design Load						
2.5x Design Load	1017	04:36	Achieved Load without Failure			

¹ Net displacement was mid-rail displacement relative to the rail at the support posts.

² Uniform Load was simulated with quarter point loading.

Test No. 4 - 11/18/24

Design Load: 50 plf x (94.25 in ÷ 12 in/ft) = 393 lb Vertical Uniform Load on Top Rail ¹

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)			
			END	MID	END	NET
Initial Load	80	00:00	--	0.00	--	--
2.0x Design Load	794	00:39	--	1.29	--	--
Initial Load	88	02:15	--	0.24	--	--
81% Recovery from 2.0 x Design Load						
2.5x Design Load	1066	02:27	Achieved Load without Failure			

¹ Uniform Load was simulated with quarter point loading.

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Test No. 5 - 11/18/24

Design Load: 200 lb Horizontal Concentrated Load at Midspan of Top Rail

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)			
			END	MID	END	NET ¹
Initial Load	50	00:00	0.00	0.00	0.00	0.00
2.0x Design Load	410	00:25	0.12	2.80	0.19	2.65
Initial Load	52	01:58	0.00	0.10	0.00	0.10
96% Recovery from 2.0 x Design Load						
2.5x Design Load	510	02:13	Achieved Load without Failure			

¹ Net displacement was mid-rail displacement relative to the rail at the support posts.

Test No. 6 - 11/18/24

Design Load: 200 lb Vertical Concentrated Load at Midspan of Top Rail

LOAD LEVEL	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)			
			END	MID	END	NET
Initial Load	50	00:00	--	0.00	--	--
2.0x Design Load	411	00:11	--	0.81	--	--
Initial Load	54	01:28	--	0.00	--	--
100% Recovery from 2.0 x Design Load						
2.5x Design Load	504	01:37	Achieved Load without Failure			

Test No. 7 - 11/18/24

Design Load: 200 lb Horizontal Concentrated Load at Ends of Top Rail (Brackets)

LOAD LEVEL ¹	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)	
			RAIL END #1	RAIL END #2
Initial Load	80	00:00	0.00	0.00
(2.0x Design Load) x 2	827	00:35	0.16	0.17
Initial Load	83	02:14	0.01	0.01
94% Recovery (Rail End #1) and 94% Recovery (Rail End #2) from 2.0 x Design Load				
(2.5x Design Load) x 2	1043	02:32	Achieved Load without Failure	

¹ A spreader beam was used to impose loads on both ends of the railing system; therefore, loads were doubled.

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Test No. 8 - 11/18/24

Design Load: 200 lb Vertical Concentrated Load at Ends of Top Rail (Brackets)

LOAD LEVEL ¹	TEST LOAD (lb)	E.T. (min:sec)	RAIL DISPLACEMENT (in)	
			RAIL END #1	RAIL END #2
Initial Load	80	00:00	0.00	--
(2.0x Design Load) x 2	861	00:39	0.05	--
Initial Load	81	02:09	0.01	--
80% Recovery from 2.0 x Design Load				
(2.5x Design Load) x 2	1103	02:28	Achieved Load without Failure	

¹ A spreader beam was used to impose loads on both ends of the railing system; therefore, loads were doubled.

**SECTION 10
CONCLUSION**

Using performance criteria of withstanding an ultimate load of 2.5 times design load, the test results substantiate compliance with the design load requirements of the referenced building codes for the 8 ft wide by 42 in high railing assembly reported herein.

Anchorage of support posts to the supporting structure is not included in the scope of this testing and would need to be evaluated separately.

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SECTION 11

PHOTOGRAPHS



Photo No. 1

In-Fill Load Test at Center of Three Pickets

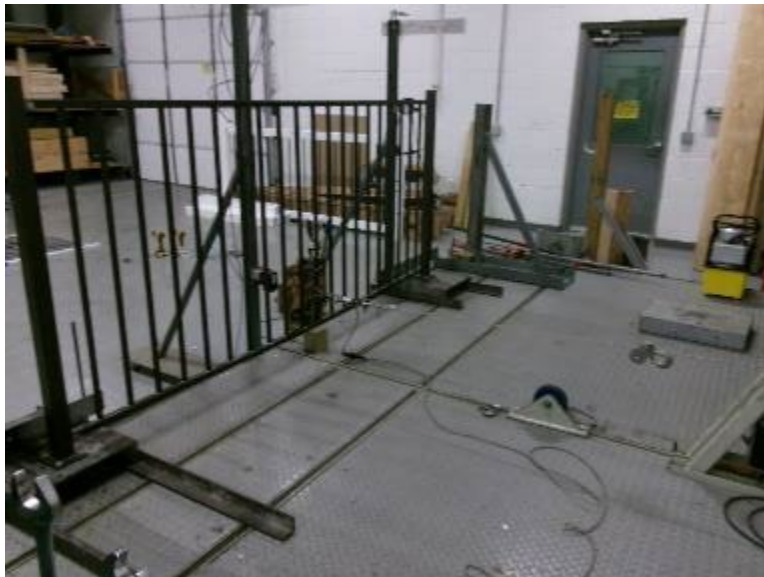


Photo No. 2

In-Fill Load Test at Bottom of Three Pickets

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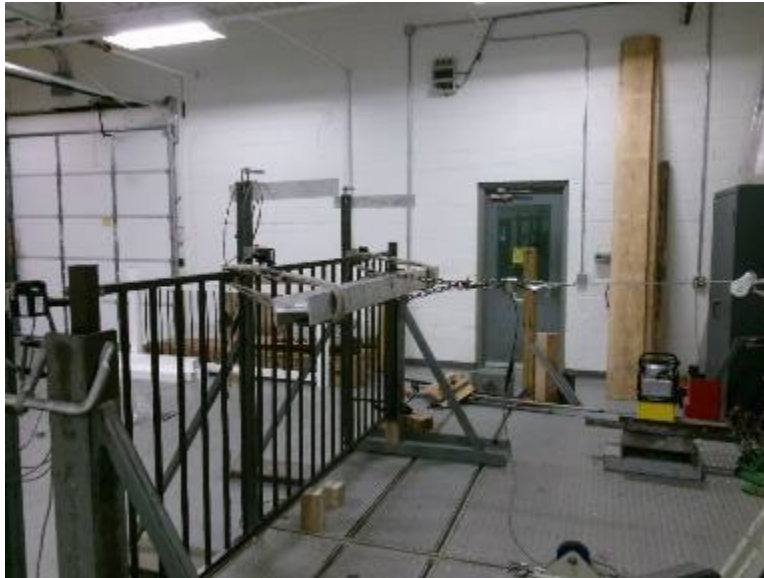


Photo No. 3

Horizontal Uniform Load Test on Top Rail



Photo No. 4

Vertical Uniform Load Test on Top Rail

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Photo No. 5

Horizontal Concentrated Load Test at Midspan of Top Rail

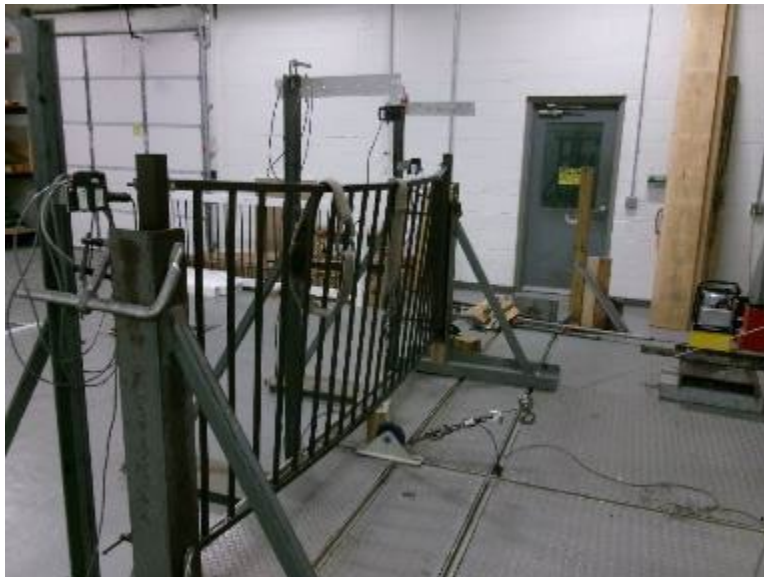


Photo No. 6

Vertical Concentrated Load Test at Midspan of Top Rail

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Photo No. 7

Horizontal Concentrated Load Test at Ends of Top Rail (Brackets)

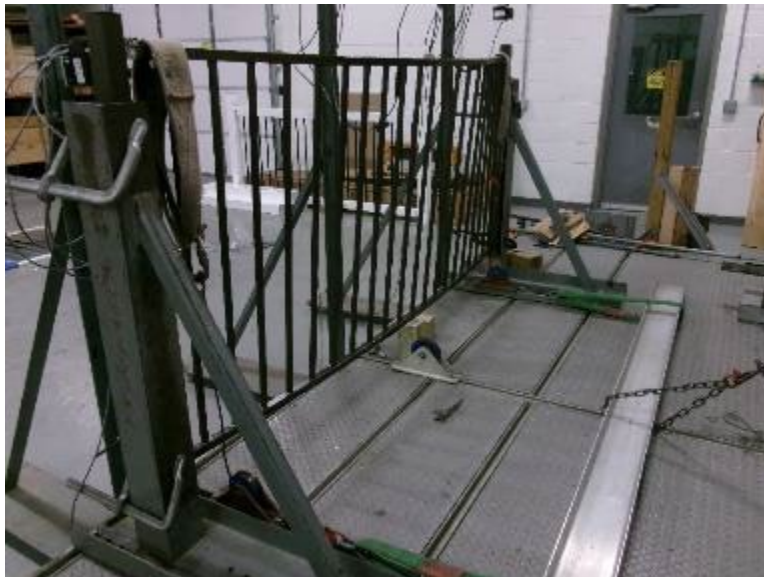


Photo No. 8

Vertical Concentrated Load Test at Ends of Top Rail (Brackets)



Total Quality. Assured.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

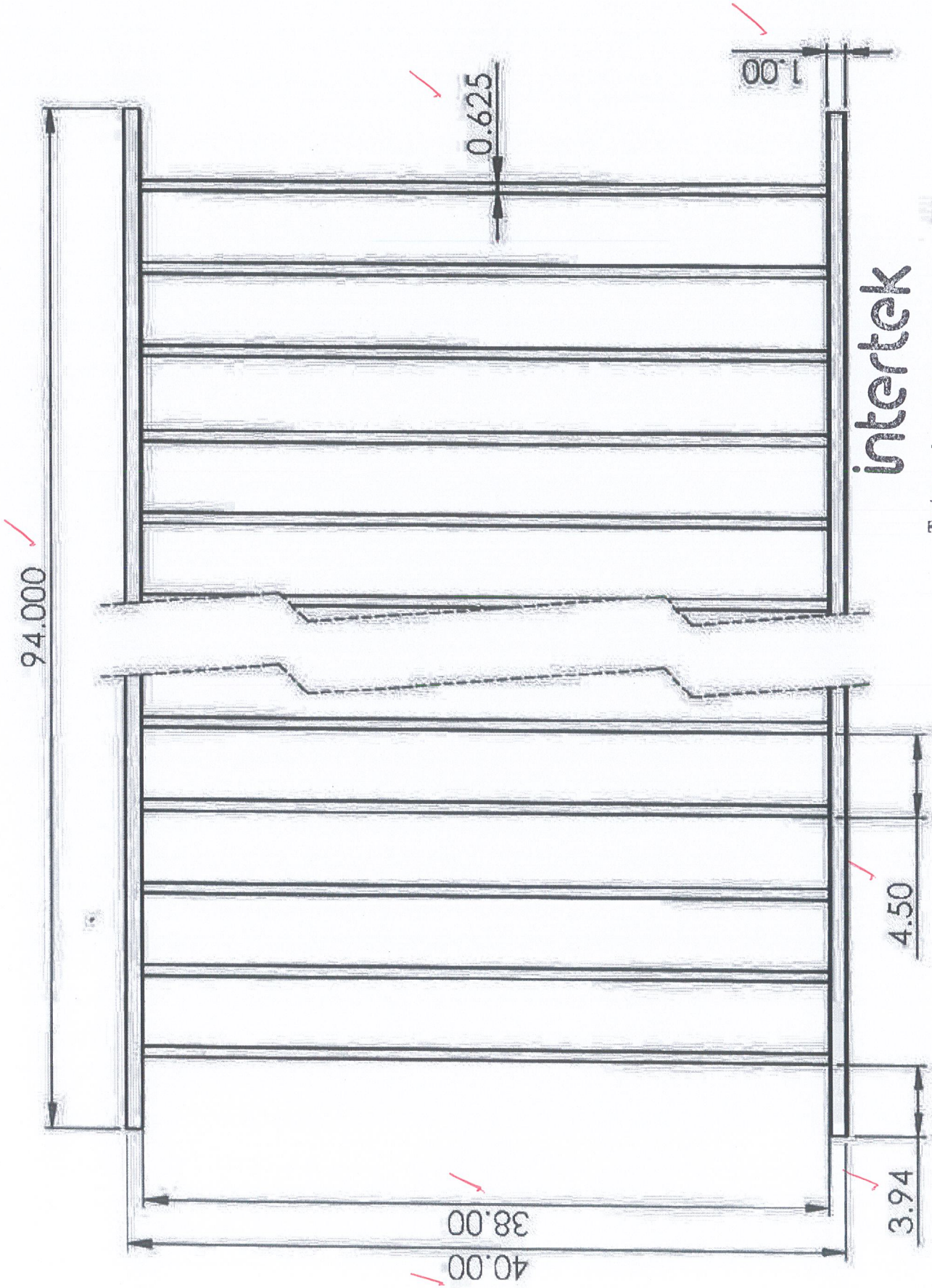
TEST REPORT FOR ENVISION OUTDOOR LIVING PRODUCTS LLC

Report No.: S0598.01-119-19 R0

Date: 12/18/24

SECTION 12 DRAWINGS

The "As-Built" drawings for the welded steel panel guardrail system which follow have been reviewed by Intertek B&C and are representative of the project reported herein. Project construction was verified by Intertek B&C per the drawings included in this report. Any deviations are documented herein or on the drawings.



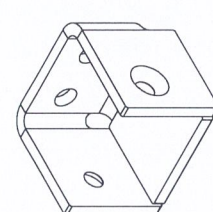
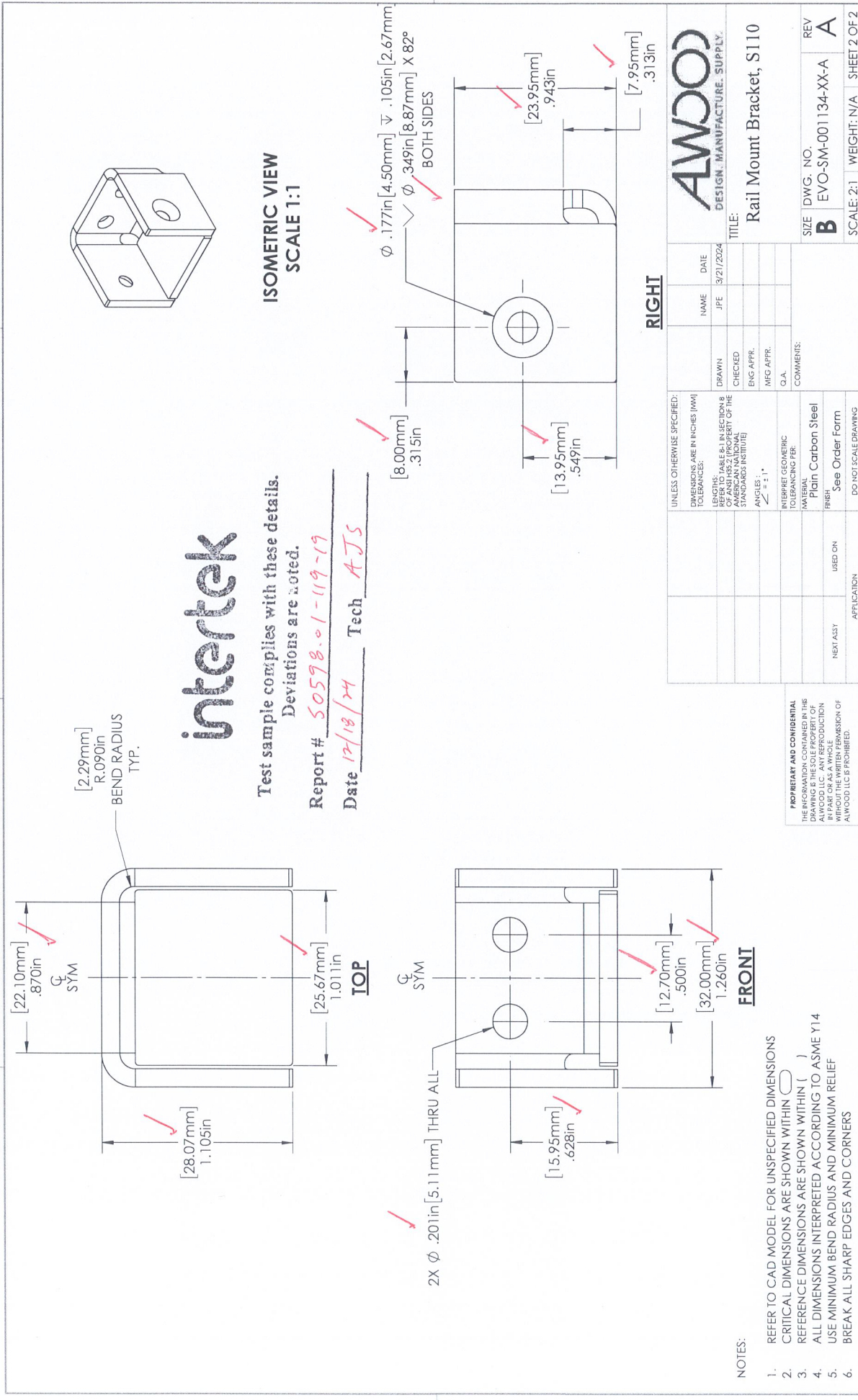
intertek

Test sample complies with these details.
 Deviations are noted.

Report # 50598.01-119-19

Date 12/18/24 Tech ATS

4 3 2 1



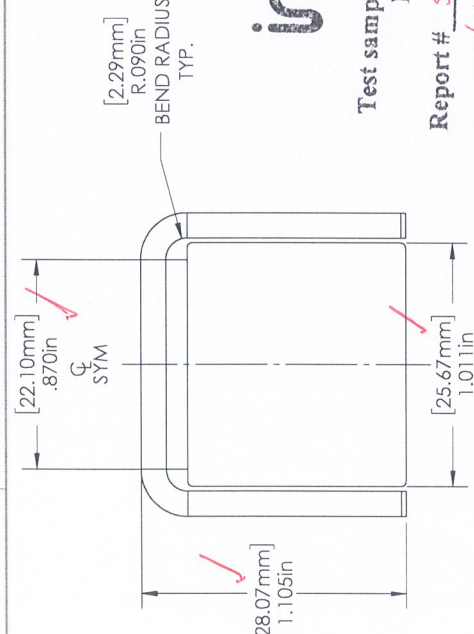
ISOMETRIC VIEW
SCALE 1:1

intertek

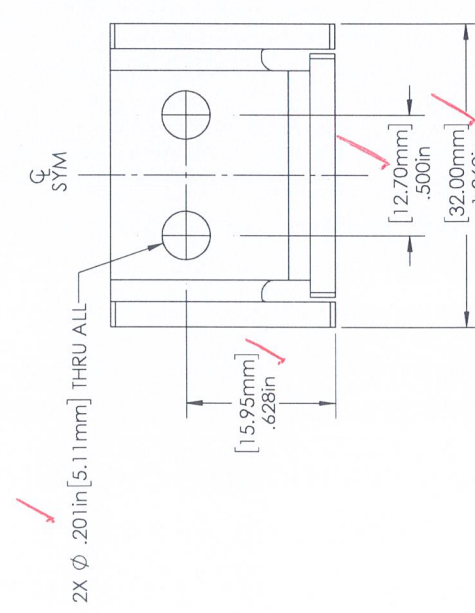
Test sample complies with these details.
Deviations are noted.

Report # 50598.01-119-19

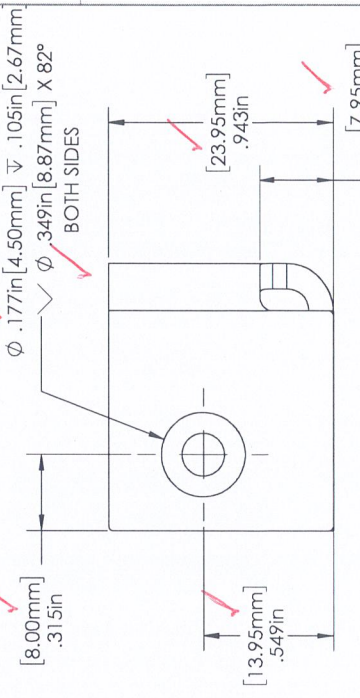
Date 12/18/24 Tech AJS



TOP



FRONT



RIGHT

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES (MM) TOLERANCES:		NAME	DATE
LENGTH TABLE 1 IN SECTION 8	OF ASME Y14.2 (PROPERTY OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS)	JPE	3/21/2024
ANGLES: $\angle = 2.1^\circ$	INTERPRET GEOMETRIC TOLERANCING PER:	DRAWN	CHECKED
FINISH: Plain Carbon Steel	ASME Y14.3	ENG APPR.	MFG APPR.
USED ON	Q.A.	COMMENTS:	
APPLICATION	DO NOT SCALE DRAWING		

AWOOD
DESIGN. MANUFACTURE. SUPPLY.

TITLE:
Rail Mount Bracket, S110

- NOTES:
- REFER TO CAD MODEL FOR UNSPECIFIED DIMENSIONS
 - CRITICAL DIMENSIONS ARE SHOWN WITHIN \square
 - REFERENCE DIMENSIONS ARE SHOWN WITHIN ()
 - ALL DIMENSIONS INTERPRETED ACCORDING TO ASME Y14
 - USE MINIMUM BEND RADIUS AND MINIMUM RELIEF
 - BREAK ALL SHARP EDGES AND CORNERS

SIZE DWG. NO. REV
B EVO-SM-001134-XX-A **A**

SCALE: 2:1 WEIGHT: N/A SHEET 2 OF 2

B

A

4 3 2 1

8 7 6 5 4 3 2 1

ALWOOD
DESIGN. MANUFACTURE. SUPPLY.

ALWOOD INDUSTRIES
2701 Custer Pkwy Suite 813
Richardson TX 75080
Phone: 469 522 3452
www.alwood.industries

Project Name:

E.V.O.

Part Name:

RAIL MOUNT BRACKET, S110

Used on assembly:

Part No.:

EVO-SM-001134-XX-A

Drawing Number:

EVO-SM-001134-XX-A

REVISIONS

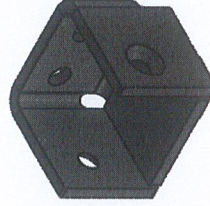
REV.	DESCRIPTION	DATE	APPROVED
A	Initial Release	5/13/2024	Jason Erickson

intertek

Test sample complies with these details.
Deviations are noted.

Report # 50598.01-19-19

Date 12/18/24 Tech AJS



**FINISHED PRODUCT
SCALE 1:1**

8 7 6 5 4 3 2 1

F

E

D

C

B

A

F

E

D

C

B

A



Total Quality. Assured.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
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SECTION 13

REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	12/18/24	N/A	Original Report Issue