

Issue Date: 09-26-2024
Revision Date: 10-10-2025
Renewal Date: 09-30-2026

DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION

Section: 07 42 13 Metal Wall Panels

REPORT HOLDER:

Metl-Span, A Nucor Company
700 State Highway 121 Bypass, Suite #200
Lewisville, TX 75067
www.metlspan.com

REPORT SUBJECT:

Metl-Span ThermalSafe® Mineral Fiber Core Insulated Metal Panels

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2024, 2021 *International Building Code* (IBC)
- 2022 *California Building Code* (CBC) (See Section 9.0)
- 2023 *Los Angeles Building Code* (LABC) (See Section 9.1)

Note: This report references sections from the 2024 Codes. Earlier versions of the Codes may have different section numbers.

1.2 The ThermalSafe® Mineral Fiber Core Panels have been evaluated for the following properties:

- Structural
- Fire Resistance/Performance
- Water Penetration

1.3 The ThermalSafe® Mineral Fiber Core Panels are intended for use as exterior, non-load bearing walls or as cladding on exterior walls. The panels have been evaluated for use in the following:

- Exterior wall cladding on fire- and non-fire resistance rated wall assemblies
- Type I, II, III, IV, or V construction as specified in Section 5.6

2.0 STATEMENT OF COMPLIANCE

The ThermalSafe® Mineral Fiber Core Panels comply with the Codes listed in section 1.1, for the properties listed in section 1.2, and the uses listed in section 1.3, when installed as described in this report including Conditions of Use stated in section 6.0.

2.1 2024 IBC and IRC Evaluation Reports: The Intertek CCRR is an *Evaluation Report* for approval of an alternate material, design, or method of construction in accordance with Section 104.2.3.6.1 of the 2024 IBC and Section R104.2.2.6.1 of the 2024 IRC.

3.0 DESCRIPTION

3.1 General: The ThermalSafe® Mineral Fiber Core Panels are sandwich panels with metal facings and mineral fiber insulation cores. The panels are 42 inches or 43 inches wide and are available in thicknesses of 3, 4, 5, 6, 7, and 8 inches. Panels are formed with straight ends and tongue and groove interlocking edges along the length of the panels. See Figures 1 and 2.

3.2 Panel Core: The ThermalSafe® Mineral Fiber Core panel consists of a mineral fiber core laminated to the metal facings using a structural panel laminating adhesive. The core material has a density of 8.5 pcf.

3.3 Panel Facings: Panels are manufactured with steel facings.

Steel panel facings are minimum 26-gauge steel on the interior face and minimum 26-gauge steel on the exterior face, conforming to ASTM A653 SS Grade 33 G90 galvanized steel sheet, or ASTM A792 SS Grade 33 AZ50 steel sheet with aluminum-zinc alloy coating.

3.3.1 The exterior panel facings are finished with a fluoropolymer (PVDF) multi-coat system using PVDF color and clear coats applied over an epoxy primer.



3.3.2 Exterior panel facings are available in Ultra-Light Mesa, Santa Fe, or Light Striated profiles. Interior panel facings are available in Ultra-Light Mesa profile (see Table 1).

4.0 PERFORMANCE CHARACTERISTICS

4.1 Allowable Load Capacity: Allowable positive and negative transverse wind loads based on panel stiffness, strength, and fastener capacity are set forth in Tables 2 through 16.

4.2 Weather Resistance: The panels, when installed in accordance with this report, provide a weather-resistive exterior wall envelope, as evidenced by testing in accordance with ASTM E331 per the requirements of IBC Section 1402.2.

4.3 Fire Performance:

4.3.1 The mineral fiber core has a flame spread index and a smoke developed index not exceeding 0 and 0, respectively, when tested in accordance with ASTM E84.

4.3.2 All panel finishes have a Class A classification established by meeting all requirements of IBC 803.1.1 when tested in accordance with NFPA 286.

5.0 INSTALLATION

5.1 General Installation: Panels may be installed in either a vertical or horizontal orientation. The panels are fastened to steel framing support members with fasteners as described in Section 5.2. Structural support members shall provide a minimum panel bearing width of 3 inches.

5.2 Fasteners: Panels are attached to steel supports with exposed through-panel fasteners or non-exposed fasteners (see Figure 3). Exposed fasteners shall be 1/4 inch diameter HWH zinc coated self-tapping or self-drilling screws, installed from the exterior side of the panel per fastening patterns shown in Figures 4 through 6. Non-exposed fasteners shall be 3/16 inch diameter BULB-TITE® rivets or FABLOK-10 fasteners, installed from the interior side of the panel per fastening patterns shown in Figure 7. Exposed fasteners are required at all panel ends.

5.3 Tongue and Groove Joint Sealant: The ThermalSafe® Mineral Fiber Core Panel joints are sealed with a 3/16 inch bead of one-component, medium modulus, non-corrosive silicone sealant or non-curing butyl sealant on the interior and exterior tongue and groove interlocks (see Figure 2).

5.4 Flashing: Flashing must be installed in accordance with Section 1404.4 of the IBC including, but not limited to, panel ends, eaves, openings, and corners. The flashing and trim are attached to the panels with 1/4-14 HWH self-tapping, self-drilling screws. See Figures 8 and 9.

5.5 Fire-Resistance Rated Construction: Panels may be used in fire-resistance-rated construction. See Section 6.4 for conditions of use.

5.6 Use on Exterior Walls of Type I, II, III, IV, or V Construction: Panels may be used on exterior walls of building of Type I, II, III, IV, or V construct of any height permitted for the construction type. See Section 6.5 for conditions of use for exterior walls of Type I, II, III, or IV construction.

6.0 CONDITIONS OF USE

The ThermalSafe® Mineral Fiber Core Panels described in this Research Report comply with the Codes listed in Section 1.0 of this report, subject to the following conditions:

6.1 Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict between the manufacturer's instructions and this report, this report governs.

6.2 Wall panel installation shall be limited to non-load bearing walls or as cladding on exterior walls.

6.3 Panels may be installed without the thermal barrier required by IBC Section 2603.4.

6.4 Panels used in fire-resistance exterior wall construction shall conform with Intertek Design Numbers [MSN/IMWP 60-01](#) (minimum 4" panel, one hour rating), [MSN/IMWP 120-01](#) (minimum 6" panel, two hour rating), or [MSN/IMWP 180-01](#) (minimum 8" panel, three hour rating).





6.5 Panels Installed on building of Types I, II, III, and IV construction shall be in accordance with Intertek Design Number [MSN/IMWP 30-04](#).

6.6 Details on wall framing must be approved by the Code Official prior to installation.

6.7 Design wind pressure derived from nominal design wind speeds (V_{asd}) in accordance with IBC Section 1609.3.1 shall not exceed the allowable wind load pressure given in Tables 2 through 16.

6.8 All construction plans and calculations for load conditions must be submitted to the Code Official for approval.

6.9 ThermalSafe® Mineral Fiber Core Insulated Metal Panels are manufactured under an approved quality system with inspections by Intertek Testing Services NA, Inc. at the following locations:

- Waterloo, IN

7.0 SUPPORTING EVIDENCE

7.1 Data in accordance with ICC-ES Acceptance Criteria for Sandwich Panels AC04, dated June 2019 (editorially revised Dec. 2020) and Acceptance Criteria for Sandwich Panel Adhesives AC05, dated June 2009 (editorially revised May 2018).

7.2 Test reports in conformance with ASTM E84.

7.3 Test reports in conformance with NFPA 286.

7.4 Test reports for water penetration resistance in conformance with ASTM E331.

8.0 IDENTIFICATION

The ThermalSafe® Mineral Fiber Core Panels are identified by a marking bearing the Report holder's name, the product name, flame spread, and smoke developed indices, the Intertek Mark, and the Code Compliance Research Report number (CCRR-0553).



9.0 CALIFORNIA BUILDING CODE

The ThermalSafe® Mineral Fiber Core Panels, described in Sections 2.0 through 7.0 of this Research Report, comply with the *California Building Code* and *California Residential Code* for the editions indicated in Section 1.1 of this report, subject to the following conditions:

- Use of the ThermalSafe® Mineral Fiber Core Panels for compliance with the Wildland-Urban Interface (WUI) provisions of CBC Chapter 7A and CRC Section R337 has not been evaluated and is outside the scope of this Research Report.

9.1 CITY OF LOS ANGELES BUILDING CODE

The ThermalSafe® Mineral Fiber Core Panels, described in Sections 2.0 through 7.0 of this Research Report, comply with the *City of Los Angeles Building Code* and *City of Los Angeles Residential Code* for the editions indicated in Section 1.1 of this report, subject to the following conditions:

- Use of the ThermalSafe® Mineral Fiber Core Panels for compliance with the Wildland-Urban Interface (WUI) provisions of LABC Chapter 7A and LARC Section R337 has not been evaluated and is outside the scope of this Research Report.

10.0 CODE COMPLIANCE RESEARCH REPORT USE

10.1 Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

10.2 Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

10.3 Reference to the Intertek website address: <https://bpdirectory.intertek.com> is recommended to ascertain the current version and status of this report.





TABLE 1 – PRODUCTS EVALUATED

Panel Designation	Profile	
	Exterior	Interior
ThermalSafe® Mineral Fiber Core Panels	Ultra-Light Mesa, Santa Fe, Light Striated	Ultra-Light Mesa

NOTES FOR TABLE 2 – TABLE 10

ALLOWABLE NEGATIVE (OUTWARD) DESIGN LOADS – THROUGH-FASTENED ATTACHMENT

- The Load-Span tables are based on Allowable Stress Design (ASD). Load values are unfactored and shall be compared to design pressures determined from ASD wind speeds. No factor has been considered for loads limited by deflection as permitted per IBC section 1604.3 Serviceability.
- Allowable negative or outward load is the lowest value of the panel wrinkling, shear, deflection limit, interaction moment, and fastener connection organized by pattern for wall panels.
- Limit states and performance figures are derived from ASTM E72 and BS EN 14509 testing; tables do not consider the effects of thermal load directly or in combination with wind loads.
- Allowable loads are statistically determined from test data, and yield safety factors of 2.14-2.86 for wrinkling, 3.0 for shear, 2.14-2.77 for fastener pullover, 2.0 for interaction moment, 2.14 for bearing, and 3.0 for fastener pullout.
- A deflection limit of $L/240$ has been considered.
- Approved fasteners:
 - 1/4-14 Type 3 or Type 5 Self-Drilling Screw
 - 1/4- 14 Self-Tapping Screw
 - 1/4-20 Type 5 Self-Drilling Screw
 - 1/4-28 Type 5 Self-Drilling Screw with nominal 5/8" diameter neoprene bonded washers.
- Fasteners shall be of sufficient length to penetrate through the support a minimum of 3 full pitches of threads.
- Fastening Schedules:

Number of Fasteners	End of Panel	Intermediate Support
3 (TSFP1)	3" from each edge and center	7" from edge and center
4 (TSFP2) 5 (TSFPMAX)	3" from each edge and equally spaced	5-1/4" from edge and equally spaced

- See Figures 3 through 6 for fastening details.
- The structural capacity of the supporting members is not addressed by these tables and shall be the responsibility of the designer/engineer of record.
- The designer/engineer of record shall consider the fire rating needs for a particular project and additional attachment requirements that may result.

This Code Compliance Research Report ("Report") is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Report. Only the Client is authorized to permit copying or distribution of this Report and then only in its entirety, and the Client shall not use the Report in a misleading manner. Client further agrees and understands that reliance upon the Report is limited to the representations made therein. The Report is not an endorsement or recommendation for use of the subject and/or product described herein. This Report is not the Intertek Listing Report covering the subject product and utilized for Intertek Certification and this Report does not represent authorization for the use of any Intertek certification marks. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.





TABLE 2 – ALLOWABLE NEGATIVE (OUTWARD) LOAD (PSF)
42" or 43" Wide Panel
26 Gauge Exterior Skin / 26 Gauge Interior Skin
Through-Fastened to 12 Gauge Steel Supports

Panel Thickness	Spans	# of Fasteners	Distance Between Supports									
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	12 ft	14 ft
3"	1	3	97	73	58	49	42	36	29	25	17	13
		4	97	73	58	49	42	36	29	25	17	13
		5	97	73	58	49	42	36	29	25	17	13
	2	3	90	66	52	42	36	31	27	24	20	17
		4	94	69	54	44	37	32	28	25	20	17
		5	94	69	54	44	37	32	28	25	20	17
	3+	3	91	67	53	44	37	33	29	26	21	17
		4	94	70	55	46	39	34	30	27	22	17
		5	94	70	55	46	39	34	30	27	22	17
4"	1	3	124	93	74	62	53	46	41	36	27	20
		4	124	93	74	62	53	46	41	36	27	20
		5	124	93	74	62	53	46	41	36	27	20
	2	3	92	67	53	43	36	31	28	25	20	17
		4	120	88	69	57	48	41	36	32	26	22
		5	120	88	69	57	48	41	36	32	26	22
	3+	3	93	69	55	45	38	33	30	27	22	19
		4	121	89	71	58	50	43	38	34	29	24
		5	121	89	71	58	50	43	38	34	29	24
5"	1	3	132	99	79	66	56	49	44	40	33	27
		4	143	107	86	71	61	54	48	43	36	27
		5	143	107	86	71	61	54	48	43	36	27
	2	3	95	70	55	45	38	33	29	26	21	18
		4	127	94	74	60	51	44	39	34	28	24
		5	139	103	81	66	56	48	42	38	31	26
	3+	3	96	71	56	46	39	34	30	27	23	19
		4	127	95	75	62	53	46	41	36	30	26
		5	140	104	82	68	58	50	44	40	33	28
6"	1	3	137	103	82	69	59	51	46	41	34	29
		4	162	122	97	81	70	61	54	49	41	32
		5	162	122	97	81	70	61	54	49	41	32
	2	3	98	72	57	47	39	34	30	27	22	18
		4	130	96	76	62	53	45	40	35	29	24
		5	159	118	93	76	64	55	49	43	35	30
	3+	3	98	73	58	48	40	35	31	28	23	20
		4	130	97	77	63	54	47	41	37	31	26
		5	159	118	94	77	66	57	51	45	38	32
7"	1	3	142	107	85	71	61	53	47	43	36	30
		4	190	142	114	95	81	71	63	57	47	41
		5	212	159	127	106	91	79	71	64	53	42
	2	3	100	74	59	49	41	36	32	29	24	20
		4	134	99	79	65	55	48	43	38	32	27
		5	167	124	98	81	69	60	53	48	39	34
	3+	3	100	74	59	49	41	36	32	29	24	20
		4	134	99	79	65	55	48	43	38	32	27
		5	167	124	98	81	69	60	53	48	39	34
8"	1	3	147	111	88	74	63	55	49	44	37	32
		4	196	147	118	98	84	74	65	59	49	42
		5	246	184	147	123	105	92	82	74	61	53
	2	3	102	76	60	49	42	36	32	28	23	19
		4	136	101	80	66	56	48	42	37	31	26
		5	170	126	100	82	69	60	53	47	38	32
	3+	3	102	76	60	50	42	37	33	29	24	21
		4	136	101	80	66	57	49	43	39	32	27
		5	170	127	101	83	71	61	54	49	40	34



TABLE 3 – ALLOWABLE NEGATIVE (OUTWARD) LOAD (PSF)
42" or 43" Wide Panel
26 Gauge Exterior Skin / 26 Gauge Interior Skin
Through-Fastened to 14 Gauge Steel Supports

Panel Thickness	Spans	# of Fasteners	Distance Between Supports									
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	12 ft	14 ft
3"	1	3	97	73	58	49	42	36	29	25	17	13
		4	97	73	58	49	42	36	29	25	17	13
		5	97	73	58	49	42	36	29	25	17	13
	2	3	90	66	52	42	36	31	27	24	20	17
		4	94	69	54	44	37	32	28	25	20	17
		5	94	69	54	44	37	32	28	25	20	17
	3+	3	91	67	53	44	37	33	29	26	21	17
		4	94	70	55	46	39	34	30	27	22	17
		5	94	70	55	46	39	34	30	27	22	17
4"	1	3	124	93	74	62	53	46	41	36	27	20
		4	124	93	74	62	53	46	41	36	27	20
		5	124	93	74	62	53	46	41	36	27	20
	2	3	92	67	53	43	36	31	28	25	20	17
		4	120	88	69	57	48	41	36	32	26	22
		5	120	88	69	57	48	41	36	32	26	22
	3+	3	93	69	55	45	38	33	30	27	22	19
		4	121	89	71	58	50	43	38	34	29	24
		5	121	89	71	58	50	43	38	34	29	24
5"	1	3	132	99	79	66	56	49	44	40	33	27
		4	143	107	86	71	61	54	48	43	36	27
		5	143	107	86	71	61	54	48	43	36	27
	2	3	94	69	55	45	38	33	29	25	21	18
		4	125	92	73	60	50	43	38	34	28	23
		5	139	103	81	66	56	48	42	38	31	26
	3+	3	94	70	55	46	39	34	30	27	22	19
		4	126	93	74	61	52	45	40	36	30	25
		5	140	104	82	68	58	50	44	40	33	28
6"	1	3	137	103	82	69	59	51	46	41	34	29
		4	162	122	97	81	70	61	54	49	41	32
		5	162	122	97	81	70	61	54	49	41	32
	2	3	94	70	55	45	38	33	29	26	21	18
		4	126	93	73	60	51	44	38	34	28	24
		5	157	116	92	75	63	55	48	43	35	29
	3+	3	94	70	56	46	39	34	30	27	22	19
		4	126	94	74	61	52	45	40	36	30	25
		5	157	117	93	77	65	57	50	45	37	32
7"	1	3	142	107	85	71	61	53	47	43	36	30
		4	190	142	114	95	81	71	63	57	47	41
		5	212	159	127	106	91	79	71	64	53	42
	2	3	95	70	56	46	39	34	30	27	22	19
		4	126	94	74	61	52	45	40	36	30	25
		5	158	117	93	77	65	57	50	45	37	32
	3+	3	95	70	56	46	39	34	30	27	22	19
		4	126	94	74	61	52	45	40	36	30	25
		5	158	117	93	77	65	57	50	45	37	32
8"	1	3	147	111	88	74	63	55	49	44	37	32
		4	196	147	118	98	84	74	65	59	49	42
		5	246	184	147	123	105	92	82	74	61	53
	2	3	95	70	56	46	39	33	29	26	21	18
		4	126	94	74	61	51	44	39	35	28	24
		5	158	117	93	76	64	56	49	43	35	30
	3+	3	95	71	56	46	39	34	30	27	22	19
		4	126	94	75	62	52	46	40	36	30	25
		5	158	118	93	77	66	57	50	45	37	32



TABLE 4 – ALLOWABLE NEGATIVE (OUTWARD) LOAD (PSF)
42" or 43" Wide Panel
26 Gauge Exterior Skin / 26 Gauge Interior Skin
Through-Fastened to 16 Gauge Steel Supports

Panel Thickness	Spans	# of Fasteners	Distance Between Supports									
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	12 ft	14 ft
3"	1	3	97	73	58	49	42	36	29	25	17	13
		4	97	73	58	49	42	36	29	25	17	13
		5	97	73	58	49	42	36	29	25	17	13
	2	3	74	54	43	35	29	25	22	20	16	14
		4	94	69	54	44	37	32	28	25	20	17
		5	94	69	54	44	37	32	28	25	20	17
	3+	3	75	55	44	36	31	27	24	21	18	15
		4	94	70	55	46	39	34	30	27	22	17
		5	94	70	55	46	39	34	30	27	22	17
4"	1	3	124	93	74	62	53	46	41	36	27	20
		4	124	93	74	62	53	46	41	36	27	20
		5	124	93	74	62	53	46	41	36	27	20
	2	3	75	55	43	35	30	26	23	20	16	14
		4	100	73	58	47	40	34	30	27	22	19
		5	120	88	69	57	48	41	36	32	26	22
	3+	3	75	56	44	36	31	27	24	21	18	15
		4	100	74	59	49	41	36	32	29	24	20
		5	121	89	71	58	50	43	38	34	29	24
5"	1	3	132	99	79	66	56	49	44	40	33	27
		4	143	107	86	71	61	54	48	43	36	27
		5	143	107	86	71	61	54	48	43	36	27
	2	3	75	55	44	36	30	26	23	20	17	14
		4	100	74	58	48	40	35	30	27	22	19
		5	125	92	73	60	50	43	38	34	28	23
	3+	3	75	56	44	37	31	27	24	21	18	15
		4	101	75	59	49	42	36	32	29	24	20
		5	126	93	74	61	52	45	40	36	30	25
6"	1	3	137	103	82	69	59	51	46	41	34	29
		4	162	122	97	81	70	61	54	49	41	32
		5	162	122	97	81	70	61	54	49	41	32
	2	3	75	56	44	36	30	26	23	21	17	14
		4	101	74	59	48	41	35	31	27	22	19
		5	126	93	73	60	51	44	38	34	28	24
	3+	3	76	56	44	37	31	27	24	22	18	15
		4	101	75	59	49	42	36	32	29	24	20
		5	126	94	74	61	52	45	40	36	30	25
7"	1	3	142	107	85	71	61	53	47	43	36	30
		4	190	142	114	95	81	71	63	57	47	41
		5	212	159	127	106	91	79	71	64	53	42
	2	3	76	56	45	37	31	27	24	22	18	15
		4	101	75	59	49	42	36	32	29	24	20
		5	126	94	74	61	52	45	40	36	30	25
	3+	3	76	56	45	37	31	27	24	22	18	15
		4	101	75	59	49	42	36	32	29	24	20
		5	126	94	74	61	52	45	40	36	30	25
8"	1	3	147	111	88	74	63	55	49	44	37	32
		4	196	147	118	98	84	74	65	59	49	42
		5	246	184	147	123	105	92	82	74	61	53
	2	3	76	56	44	37	31	27	23	21	17	14
		4	101	75	59	49	41	36	31	28	23	19
		5	126	94	74	61	51	44	39	35	28	24
	3+	3	76	56	45	37	31	27	24	22	18	15
		4	101	75	60	49	42	36	32	29	24	20
		5	126	94	75	62	52	46	40	36	30	25



TABLE 5 – ALLOWABLE NEGATIVE (OUTWARD) LOAD (PSF)
42" or 43" Wide Panel
24 Gauge Exterior Skin / 24 Gauge Interior Skin
Through-Fastened to 12 Gauge Steel Supports

Panel Thickness	Spans	# of Fasteners	Distance Between Supports									
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	12 ft	14 ft
3"	1	3	99	74	60	50	43	37	32	27	20	15
		4	99	74	60	50	43	37	32	27	20	15
		5	99	74	60	50	43	37	32	27	20	15
	2	3	96	70	55	45	38	33	29	26	21	18
		4	96	71	56	46	38	33	29	26	21	18
		5	96	71	56	46	38	33	29	26	21	18
	3+	3	96	71	56	47	40	34	31	27	23	19
		4	97	72	57	47	40	35	31	28	23	19
		5	97	72	57	47	40	35	31	28	23	19
4"	1	3	136	102	82	68	58	51	45	40	30	23
		4	136	102	82	68	58	51	45	40	30	23
		5	136	102	82	68	58	51	45	40	30	23
	2	3	102	75	59	48	41	35	31	27	22	19
		4	133	98	77	63	53	46	40	36	29	25
		5	133	98	77	63	53	46	40	36	29	25
	3+	3	103	76	61	50	43	37	33	29	24	21
		4	133	99	78	65	55	48	42	38	31	27
		5	133	99	78	65	55	48	42	38	31	27
5"	1	3	138	103	83	69	59	52	46	41	34	30
		4	174	131	105	87	75	65	58	52	40	31
		5	174	131	105	87	75	65	58	52	40	31
	2	3	110	81	64	53	44	38	34	30	24	21
		4	146	108	85	70	59	51	45	40	33	28
		5	171	127	100	82	69	60	52	47	38	32
	3+	3	110	82	65	54	46	40	35	31	26	22
		4	147	109	86	71	61	53	47	42	35	30
		5	171	127	101	83	71	62	55	49	40	35
6"	1	3	139	104	83	69	60	52	46	42	35	30
		4	185	139	111	93	79	69	62	56	46	39
		5	219	164	131	110	94	82	73	65	50	39
	2	3	116	86	68	56	47	41	36	32	26	22
		4	155	115	91	75	63	55	48	43	35	29
		5	194	144	114	94	79	68	60	53	44	37
	3+	3	117	87	69	57	48	42	37	33	28	23
		4	155	116	92	76	64	56	50	44	37	31
		5	194	144	115	95	81	70	62	56	46	39
7"	1	3	141	105	84	70	60	53	47	42	35	30
		4	188	141	113	94	80	70	63	56	47	40
		5	234	175	140	117	100	88	78	70	58	48
	2	3	123	92	73	60	51	45	39	35	29	25
		4	165	122	97	80	68	59	53	47	39	33
		5	206	153	121	100	85	74	66	59	49	41
	3+	3	123	92	73	60	51	45	39	35	29	25
		4	165	122	97	80	68	59	53	47	39	33
		5	206	153	121	100	85	74	66	59	49	41
8"	1	3	142	107	85	71	61	53	47	43	36	30
		4	190	142	114	95	81	71	63	57	47	41
		5	237	178	142	119	102	89	79	71	59	51
	2	3	130	97	77	63	53	46	41	36	30	25
		4	173	129	102	84	71	62	54	48	39	33
		5	217	161	128	105	89	77	68	60	49	42
	3+	3	130	97	77	64	54	47	42	37	31	26
		4	174	129	103	85	72	63	56	50	41	35
		5	217	162	128	106	90	79	69	62	51	44



TABLE 6 – ALLOWABLE NEGATIVE (OUTWARD) LOAD (PSF)
42" or 43" Wide Panel
24 Gauge Exterior Skin / 24 Gauge Interior Skin
Through-Fastened to 14 Gauge Steel Supports

Panel Thickness	Spans	# of Fasteners	Distance Between Supports									
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	12 ft	14 ft
3"	1	3	99	74	60	50	43	37	32	27	20	15
		4	99	74	60	50	43	37	32	27	20	15
		5	99	74	60	50	43	37	32	27	20	15
	2	3	93	69	54	44	37	32	28	25	21	17
		4	96	71	56	46	38	33	29	26	21	18
		5	96	71	56	46	38	33	29	26	21	18
	3+	3	94	70	55	45	39	34	30	27	22	19
		4	97	72	57	47	40	35	31	28	23	19
		5	97	72	57	47	40	35	31	28	23	19
4"	1	3	136	102	82	68	58	51	45	40	30	23
		4	136	102	82	68	58	51	45	40	30	23
		5	136	102	82	68	58	51	45	40	30	23
	2	3	94	69	55	45	38	33	29	25	21	18
		4	125	93	73	60	50	44	38	34	28	23
		5	133	98	77	63	53	46	40	36	29	25
	3+	3	94	70	55	46	39	34	30	27	22	19
		4	126	93	74	61	52	45	40	36	30	25
		5	133	99	78	65	55	48	42	38	31	27
5"	1	3	138	103	83	69	59	52	46	41	34	30
		4	174	131	105	87	75	65	58	52	40	31
		5	174	131	105	87	75	65	58	52	40	31
	2	3	94	70	55	45	38	33	29	26	21	18
		4	126	93	74	60	51	44	39	34	28	24
		5	157	117	92	76	64	55	48	43	35	30
	3+	3	95	70	56	46	39	34	30	27	22	19
		4	126	94	74	61	52	45	40	36	30	25
		5	158	117	93	77	65	57	50	45	37	32
6"	1	3	139	104	83	69	60	52	46	42	35	30
		4	185	139	111	93	79	69	62	56	46	39
		5	219	164	131	110	94	82	73	65	50	39
	2	3	95	70	56	46	39	33	29	26	21	18
		4	126	94	74	61	51	44	39	35	28	24
		5	158	117	93	76	64	56	49	43	35	30
	3+	3	95	71	56	46	39	34	30	27	22	19
		4	126	94	75	62	52	46	40	36	30	25
		5	158	118	93	77	66	57	50	45	37	32
7"	1	3	141	105	84	70	60	53	47	42	35	30
		4	188	141	113	94	80	70	63	56	47	40
		5	234	175	140	117	100	88	78	70	58	48
	2	3	95	71	56	46	39	34	30	27	22	19
		4	127	94	75	62	53	46	40	36	30	26
		5	158	118	94	77	66	57	51	45	37	32
	3+	3	95	71	56	46	39	34	30	27	22	19
		4	127	94	75	62	53	46	40	36	30	26
		5	158	118	94	77	66	57	51	45	37	32
8"	1	3	142	107	85	71	61	53	47	43	36	30
		4	190	142	114	95	81	71	63	57	47	41
		5	237	178	142	119	102	89	79	71	59	51
	2	3	95	71	56	46	39	34	30	26	22	18
		4	127	94	75	62	52	45	40	35	29	24
		5	158	118	93	77	65	56	50	44	36	30
	3+	3	95	71	56	47	40	34	30	27	23	19
		4	127	94	75	62	53	46	41	36	30	26
		5	159	118	94	78	66	57	51	45	38	32



TABLE 7 – ALLOWABLE NEGATIVE (OUTWARD) LOAD (PSF)
42" or 43" Wide Panel
24 Gauge Exterior Skin / 24 Gauge Interior Skin
Through-Fastened to 16 Gauge Steel Supports

Panel Thickness	Spans	# of Fasteners	Distance Between Supports									
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	12 ft	14 ft
3"	1	3	99	74	60	50	43	37	32	27	20	15
		4	99	74	60	50	43	37	32	27	20	15
		5	99	74	60	50	43	37	32	27	20	15
	2	3	75	55	43	35	30	26	23	20	16	14
		4	96	71	56	46	38	33	29	26	21	18
		5	96	71	56	46	38	33	29	26	21	18
	3+	3	75	56	44	36	31	27	24	21	18	15
		4	97	72	57	47	40	35	31	28	23	19
		5	97	72	57	47	40	35	31	28	23	19
4"	1	3	136	102	82	68	58	51	45	40	30	23
		4	136	102	82	68	58	51	45	40	30	23
		5	136	102	82	68	58	51	45	40	30	23
	2	3	75	56	44	36	30	26	23	20	17	14
		4	100	74	58	48	40	35	31	27	22	19
		5	125	93	73	60	50	44	38	34	28	23
	3+	3	75	56	44	37	31	27	24	22	18	15
		4	101	75	59	49	42	36	32	29	24	20
		5	126	93	74	61	52	45	40	36	30	25
5"	1	3	138	103	83	69	59	52	46	41	34	30
		4	174	131	105	87	75	65	58	52	40	31
		5	174	131	105	87	75	65	58	52	40	31
	2	3	76	56	44	36	31	26	23	21	17	14
		4	101	75	59	48	41	35	31	27	22	19
		5	126	93	74	60	51	44	39	34	28	24
	3+	3	76	56	45	37	31	27	24	22	18	15
		4	101	75	59	49	42	36	32	29	24	20
		5	126	94	74	61	52	45	40	36	30	25
6"	1	3	139	104	83	69	60	52	46	42	35	30
		4	185	139	111	93	79	69	62	56	46	39
		5	219	164	131	110	94	82	73	65	50	39
	2	3	76	56	44	37	31	27	23	21	17	14
		4	101	75	59	49	41	36	31	28	23	19
		5	126	94	74	61	51	44	39	35	28	24
	3+	3	76	56	45	37	31	27	24	22	18	15
		4	101	75	60	49	42	36	32	29	24	20
		5	126	94	75	62	52	46	40	36	30	25
7"	1	3	141	105	84	70	60	53	47	42	35	30
		4	188	141	113	94	80	70	63	56	47	40
		5	234	175	140	117	100	88	78	70	58	48
	2	3	76	57	45	37	32	27	24	22	18	15
		4	101	75	60	49	42	37	32	29	24	20
		5	127	94	75	62	53	46	40	36	30	26
	3+	3	76	57	45	37	32	27	24	22	18	15
		4	101	75	60	49	42	37	32	29	24	20
		5	127	94	75	62	53	46	40	36	30	26
8"	1	3	142	107	85	71	61	53	47	43	36	30
		4	190	142	114	95	81	71	63	57	47	41
		5	237	178	142	119	102	89	79	71	59	51
	2	3	76	57	45	37	31	27	24	21	17	15
		4	101	75	60	49	42	36	32	28	23	19
		5	127	94	75	62	52	45	40	35	29	24
	3+	3	76	57	45	37	32	28	24	22	18	15
		4	102	76	60	50	42	37	32	29	24	20
		5	127	94	75	62	53	46	41	36	30	26



TABLE 8 – ALLOWABLE NEGATIVE (OUTWARD) LOAD (PSF)
42" or 43" Wide Panel
24 Gauge Exterior Skin / 26 Gauge Interior Skin
Through-Fastened to 12 Gauge Steel Supports

Panel Thickness	Spans	# of Fasteners	Distance Between Supports									
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	12 ft	14 ft
3"	1	3	97	73	58	49	42	36	31	26	19	14
		4	97	73	58	49	42	36	31	26	19	14
		5	97	73	58	49	42	36	31	26	19	14
	2	3	94	69	54	44	37	32	28	25	21	17
		4	94	69	54	44	37	32	28	25	21	17
		5	94	69	54	44	37	32	28	25	21	17
	3+	3	94	70	55	46	39	34	30	27	22	18
		4	94	70	55	46	39	34	30	27	22	18
		5	94	70	55	46	39	34	30	27	22	18
4"	1	3	123	93	74	62	53	46	41	37	28	21
		4	123	93	74	62	53	46	41	37	28	21
		5	123	93	74	62	53	46	41	37	28	21
	2	3	102	75	59	48	40	35	31	27	22	19
		4	120	89	70	57	48	41	36	32	26	22
		5	120	89	70	57	48	41	36	32	26	22
	3+	3	103	76	60	50	42	37	33	29	24	21
		4	121	89	71	59	50	43	38	34	29	24
		5	121	89	71	59	50	43	38	34	29	24
5"	1	3	138	103	83	69	59	52	46	41	34	28
		4	143	107	86	71	61	54	48	43	36	28
		5	143	107	86	71	61	54	48	43	36	28
	2	3	109	81	64	52	44	38	33	30	24	20
		4	140	103	81	67	56	49	43	38	31	26
		5	140	103	81	67	56	49	43	38	31	26
	3+	3	110	81	65	53	45	39	35	31	26	22
		4	140	104	82	68	58	50	45	40	33	28
		5	140	104	82	68	58	50	45	40	33	28
6"	1	3	139	104	83	69	60	52	46	42	35	30
		4	162	122	97	81	69	61	54	49	41	31
		5	162	122	97	81	69	61	54	49	41	31
	2	3	116	86	68	56	47	41	36	32	26	22
		4	155	115	90	74	63	54	48	42	35	29
		5	159	118	93	76	65	56	49	43	35	30
	3+	3	116	86	69	57	48	42	37	33	27	23
		4	155	115	91	75	64	56	49	44	37	31
		5	159	118	94	78	66	57	51	45	38	32
7"	1	3	141	105	84	70	60	53	47	42	35	30
		4	188	141	113	94	80	70	63	56	47	39
		5	212	159	127	106	91	79	71	63	53	39
	2	3	123	92	73	60	51	44	39	35	29	25
		4	164	122	97	80	68	59	52	47	39	33
		5	205	153	121	100	85	73	64	57	47	39
	3+	3	123	92	73	60	51	44	39	35	29	25
		4	164	122	97	80	68	59	52	47	39	33
		5	205	153	121	100	85	74	65	59	49	41
8"	1	3	142	107	85	71	61	53	47	43	36	30
		4	190	142	114	95	81	71	63	57	47	41
		5	237	178	142	119	102	89	79	71	59	47
	2	3	130	96	76	63	53	46	40	36	29	25
		4	173	129	102	84	71	61	54	48	39	33
		5	216	161	127	105	89	77	67	60	49	41
	3+	3	130	97	77	63	54	47	42	37	31	26
		4	173	129	102	85	72	63	55	50	41	35
		5	217	161	128	106	90	78	69	62	51	44



TABLE 9 – ALLOWABLE NEGATIVE (OUTWARD) LOAD (PSF)

42" or 43" Wide Panel

24 Gauge Exterior Skin / 26 Gauge Interior Skin

Through-Fastened to 14 Gauge Steel Supports

Panel Thickness	Spans	# of Fasteners	Distance Between Supports									
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	12 ft	14 ft
3"	1	3	97	73	58	49	42	36	31	26	19	14
		4	97	73	58	49	42	36	31	26	19	14
		5	97	73	58	49	42	36	31	26	19	14
	2	3	93	68	54	44	37	32	28	25	20	17
		4	94	69	54	44	37	32	28	25	21	17
		5	94	69	54	44	37	32	28	25	21	17
	3+	3	94	69	55	45	39	34	30	27	22	18
		4	94	70	55	46	39	34	30	27	22	18
		5	94	70	55	46	39	34	30	27	22	18
4"	1	3	123	93	74	62	53	46	41	37	28	21
		4	123	93	74	62	53	46	41	37	28	21
		5	123	93	74	62	53	46	41	37	28	21
	2	3	94	69	54	44	38	32	28	25	21	17
		4	120	89	70	57	48	41	36	32	26	22
		5	120	89	70	57	48	41	36	32	26	22
	3+	3	94	70	55	46	39	34	30	27	22	19
		4	121	89	71	59	50	43	38	34	29	24
		5	121	89	71	59	50	43	38	34	29	24
5"	1	3	138	103	83	69	59	52	46	41	34	28
		4	143	107	86	71	61	54	48	43	36	28
		5	143	107	86	71	61	54	48	43	36	28
	2	3	94	70	55	45	38	33	29	26	21	18
		4	126	93	73	60	51	44	38	34	28	24
		5	140	103	81	67	56	49	43	38	31	26
	3+	3	94	70	56	46	39	34	30	27	22	19
		4	126	93	74	61	52	45	40	36	30	25
		5	140	104	82	68	58	50	45	40	33	28
6"	1	3	139	104	83	69	60	52	46	42	35	30
		4	162	122	97	81	69	61	54	49	41	31
		5	162	122	97	81	69	61	54	49	41	31
	2	3	95	70	55	45	38	33	29	26	21	18
		4	126	93	74	60	51	44	39	34	28	24
		5	158	117	92	76	64	55	48	43	35	30
	3+	3	95	70	56	46	39	34	30	27	22	19
		4	126	94	74	61	52	45	40	36	30	25
		5	158	117	93	77	65	57	50	45	37	32
7"	1	3	141	105	84	70	60	53	47	42	35	30
		4	188	141	113	94	80	70	63	56	47	39
		5	212	159	127	106	91	79	71	63	53	39
	2	3	95	71	56	46	39	34	30	27	22	19
		4	126	94	75	62	52	46	40	36	30	25
		5	158	118	93	77	66	57	50	45	37	32
	3+	3	95	71	56	46	39	34	30	27	22	19
		4	126	94	75	62	52	46	40	36	30	25
		5	158	118	93	77	66	57	50	45	37	32
8"	1	3	142	107	85	71	61	53	47	43	36	30
		4	190	142	114	95	81	71	63	57	47	41
		5	237	178	142	119	102	89	79	71	59	47
	2	3	95	70	56	46	39	34	29	26	21	18
		4	127	94	74	61	52	45	39	35	29	24
		5	158	117	93	76	65	56	49	44	36	30
	3+	3	95	71	56	46	39	34	30	27	22	19
		4	127	94	75	62	53	46	40	36	30	26
		5	158	118	93	77	66	57	51	45	37	32



TABLE 10 – ALLOWABLE NEGATIVE (OUTWARD) LOAD (PSF)
42" or 43" Wide Panel
24 Gauge Exterior Skin / 26 Gauge Interior Skin
Through-Fastened to 16 Gauge Steel Supports

Panel Thickness	Spans	# of Fasteners	Distance Between Supports									
			3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	12 ft	14 ft
3"	1	3	97	73	58	49	42	36	31	26	19	14
		4	97	73	58	49	42	36	31	26	19	14
		5	97	73	58	49	42	36	31	26	19	14
	2	3	74	55	43	35	30	25	22	20	16	14
		4	94	69	54	44	37	32	28	25	21	17
		5	94	69	54	44	37	32	28	25	21	17
	3+	3	75	55	44	36	31	27	24	21	18	15
		4	94	70	55	46	39	34	30	27	22	18
		5	94	70	55	46	39	34	30	27	22	18
4"	1	3	123	93	74	62	53	46	41	37	28	21
		4	123	93	74	62	53	46	41	37	28	21
		5	123	93	74	62	53	46	41	37	28	21
	2	3	75	55	43	36	30	26	23	20	17	14
		4	100	74	58	47	40	35	30	27	22	19
		5	120	89	70	57	48	41	36	32	26	22
	3+	3	75	56	44	37	31	27	24	21	18	15
		4	100	74	59	49	41	36	32	29	24	20
		5	121	89	71	59	50	43	38	34	29	24
5"	1	3	138	103	83	69	59	52	46	41	34	28
		4	143	107	86	71	61	54	48	43	36	28
		5	143	107	86	71	61	54	48	43	36	28
	2	3	75	56	44	36	30	26	23	20	17	14
		4	100	74	58	48	41	35	31	27	22	19
		5	126	93	73	60	51	44	38	34	28	24
	3+	3	76	56	44	37	31	27	24	22	18	15
		4	101	75	59	49	42	36	32	29	24	20
		5	126	93	74	61	52	45	40	36	30	25
6"	1	3	139	104	83	69	60	52	46	42	35	30
		4	162	122	97	81	69	61	54	49	41	31
		5	162	122	97	81	69	61	54	49	41	31
	2	3	76	56	44	36	31	26	23	21	17	14
		4	101	75	59	48	41	35	31	28	22	19
		5	126	93	74	60	51	44	39	34	28	24
	3+	3	76	56	45	37	31	27	24	22	18	15
		4	101	75	59	49	42	36	32	29	24	20
		5	126	94	74	61	52	45	40	36	30	25
7"	1	3	141	105	84	70	60	53	47	42	35	30
		4	188	141	113	94	80	70	63	56	47	39
		5	212	159	127	106	91	79	71	63	53	39
	2	3	76	56	45	37	31	27	24	22	18	15
		4	101	75	60	49	42	36	32	29	24	20
		5	126	94	75	62	52	46	40	36	30	25
	3+	3	76	56	45	37	31	27	24	22	18	15
		4	101	75	60	49	42	36	32	29	24	20
		5	126	94	75	62	52	46	40	36	30	25
8"	1	3	142	107	85	71	61	53	47	43	36	30
		4	190	142	114	95	81	71	63	57	47	41
		5	237	178	142	119	102	89	79	71	59	47
	2	3	76	56	45	37	31	27	24	21	17	14
		4	101	75	59	49	41	36	31	28	23	19
		5	127	94	74	61	52	45	39	35	29	24
	3+	3	76	57	45	37	32	27	24	22	18	15
		4	101	75	60	49	42	37	32	29	24	20
		5	127	94	75	62	53	46	40	36	30	26

**NOTES FOR TABLE 11 – TABLE 13****ALLOWABLE NEGATIVE (OUTWARD) DESIGN LOADS – NON-EXPOSED FASTENED (NEF) ATTACHMENT**

1. The Load-Span tables are based on Allowable Stress Design (ASD). Load values are unfactored and shall be compared to design pressures determined from ASD wind speeds; no factor has been considered for loads limited by deflection as permitted per IBC section 1604.3 Serviceability.
2. Allowable negative or outward load is the lowest value of the panel wrinkling, shear, deflection limit, interaction moment, and fastener connection organized by pattern for wall panels.
3. Limit states and performance figures are derived from ASTM E72 and BS EN 14509 testing; tables do not consider the effects of thermal load directly or in combination with wind loads.
4. Allowable loads are statistically determined from test data, and yield safety factors of 2.14-2.86 for wrinkling, 3.0 for shear, 2.14-2.77 for fastener pullover, 2.0 for interaction moment, 2.14 for bearing, and 3.0 for fastener pullout as supplied by the screw manufacturer.
5. A deflection limit of $L/240$ has been considered.
6. Approved Through fasteners (at panel ends):
 - 1/4-14 Type 3 or Type 5 Self-Drilling Screw
 - 1/4- 14 Self-Tapping Screw
 - 1/4-20 Type 5 Self-Drilling Screw
 - 1/4-28 Type 5 Self-Drilling Screw with nominal 5/8" diameter neoprene bonded washers.
7. Through fasteners shall be of sufficient length to penetrate through the support a minimum of 3 full pitches of threads.
8. Backside fasteners for use in the NEF panel design shall employ structural BULB-TITE® rivets sized 3/16" diameter or FABLOK-10 fasteners with an appropriate grip range. The shape of the intermediate support member must accommodate backside fastening.
9. Place three Through fasteners at ends of panel (3" from panel edge and center) and four NEF fasteners at intermediate supports (5-1/4" from panel edge and equally spaced). Nucor fastening pattern TSFP3 (NEF).
10. See Figures 3 and 7 for fastening details.
11. The structural capacity of the supporting members is not addressed by these tables and shall be the responsibility of the designer/engineer of record.
12. The designer/engineer of record shall consider the fire rating needs for a particular project and additional attachment requirements that may result.



TABLE 11 – ALLOWABLE NEGATIVE (OUTWARD) LOAD (PSF) 42" or 43" Wide Panel 26 Gauge Exterior Skin / 26 Gauge Interior Skin Non-Exposed Fastened (NEF) to Minimum 16 Gauge Steel Supports											
Panel Thickness	Spans	Distance Between Supports									
		3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	12 ft	14 ft
3"	2	94	69	54	44	37	32	28	25	20	17
	3+	94	70	55	46	39	34	30	27	22	17
4"	2	109	81	64	53	45	39	35	31	26	22
	3+	109	81	64	53	45	39	35	31	26	22
5"	2	110	81	64	53	45	39	35	31	26	22
	3+	110	81	64	53	45	39	35	31	26	22
6"	2	110	82	65	53	45	40	35	31	26	22
	3+	110	82	65	53	45	40	35	31	26	22
7"	2	110	82	65	54	46	40	35	31	26	22
	3+	110	82	65	54	46	40	35	31	26	22
8"	2	110	82	65	54	46	40	35	32	26	22
	3+	110	82	65	54	46	40	35	32	26	22

TABLE 12 – ALLOWABLE NEGATIVE (OUTWARD) LOAD (PSF) 42" or 43" Wide Panel 24 Gauge Exterior Skin / 24 Gauge Interior Skin Non-Exposed Fastened (NEF) to Minimum 16 Gauge Steel Supports											
Panel Thickness	Spans	Distance Between Supports									
		3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	12 ft	14 ft
3"	2	96	71	56	46	38	33	29	26	21	18
	3+	97	72	57	47	40	35	31	28	23	19
4"	2	133	98	77	63	53	46	40	36	29	25
	3+	133	99	78	65	55	48	42	38	31	27
5"	2	137	102	81	67	57	49	44	39	32	28
	3+	137	102	81	67	57	49	44	39	32	28
6"	2	137	102	81	67	57	50	44	39	32	28
	3+	137	102	81	67	57	50	44	39	32	28
7"	2	138	103	81	67	57	50	44	39	33	28
	3+	138	103	81	67	57	50	44	39	33	28
8"	2	138	103	82	67	57	50	44	40	33	28
	3+	138	103	82	67	57	50	44	40	33	28



TABLE 13 – ALLOWABLE NEGATIVE (OUTWARD) LOAD (PSF) 42" or 43" Wide Panel 24 Gauge Exterior Skin / 26 Gauge Interior Skin Non-Exposed Fastened (NEF) to Minimum 16 Gauge Steel Supports											
Panel Thickness	Spans	Distance Between Supports									
		3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	12 ft	14 ft
3"	2	94	69	54	44	37	32	28	25	21	17
	3+	94	70	55	46	39	34	30	27	22	18
4"	2	109	81	64	53	45	39	35	31	26	22
	3+	109	81	64	53	45	39	35	31	26	22
5"	2	110	82	65	53	45	39	35	31	26	22
	3+	110	82	65	53	45	39	35	31	26	22
6"	2	110	82	65	54	46	40	35	31	26	22
	3+	110	82	65	54	46	40	35	31	26	22
7"	2	110	82	65	54	46	40	35	32	26	22
	3+	110	82	65	54	46	40	35	32	26	22
8"	2	111	82	65	54	46	40	35	32	26	22
	3+	111	82	65	54	46	40	35	32	26	22

**NOTES FOR TABLE 14 – TABLE 16****ALLOWABLE POSITIVE (INWARD) DESIGN LOADS – THROUGH-FASTENED OR NON-EXPOSED FASTENED (NEF) ATTACHMENT**

1. The Load-Span tables are based on Allowable Stress Design (ASD). Load values are unfactored and shall be compared to design pressures determined from ASD wind speeds. No factor has been considered for loads limited by deflection as permitted per IBC section 1604.3 Serviceability.
2. Allowable positive or inward load is the lowest value of the panel wrinkling, shear, deflection limit, interaction moment, and bearing width requirements for wall panels.
3. Limit states and performance figures are derived from ASTM E72 and BS EN 14509 testing; tables do not consider the effects of thermal load directly or in combination with wind loads.
4. Allowable loads are statistically determined from test data, and yield safety factors of 2.14-2.86 for wrinkling, 3.0 for shear, 2.14-2.77 for fastener pullover, 2.0 for interaction moment, 2.14 for bearing, and 3.0 for fastener pullout.
5. A deflection limit of L/240 has been considered.
6. Approved Through fasteners:
 - 1/4-14 Type 3 or Type 5 Self-Drilling Screw
 - 1/4- 14 Self-Tapping Screw
 - 1/4-20 Type 5 Self-Drilling Screw
 - 1/4-28 Type 5 Self-Drilling Screw with nominal 5/8" diameter neoprene bonded washers.
7. Through fasteners shall be of sufficient length to penetrate through the support a minimum of 3 full pitches of threads.
8. Through Fastening Schedules:

Number of Fasteners	End of Panel	Intermediate Support
3 (TSFP1)	3" from each edge and center	7" from edge and center
4 (TSFP2) 5 (TSFPMAX)	3" from each edge and equally spaced	5-1/4" from edge and equally spaced

9. Backside fasteners for use in the NEF panel design shall employ structural BULB-TITE® rivets sized 3/16" diameter or FABLOK-10 fasteners with an appropriate grip range. The shape of the intermediate support member must accommodate backside fastening.
10. For NEF attachment, place three Through fasteners at ends of panel (3" from panel edge and center) and four NEF fasteners at intermediate supports (5-1/4" from panel edge and equally spaced). Nucor fastening pattern TSFP3 (NEF).
11. See Figures 3 through 7 for fastening details.
12. The structural capacity of the supporting members is not addressed by these tables and shall be the responsibility of the designer/engineer of record.
13. The designer/engineer of record shall consider the fire rating needs for a particular project and additional attachment requirements that may result.

**TABLE 14 – ALLOWABLE POSITIVE (INWARD) LOAD (PSF)****42" or 43" Wide Panel****26 Gauge Exterior Skin / 26 Gauge Interior Skin****Through-Fastened or Non-Exposed Fastened (NEF) to Minimum 3" Wide Supports**

Panel Thickness	Spans	Distance Between Supports									
		3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	12 ft	14 ft
3"	1	97	73	58	49	42	36	29	25	17	13
	2	94	69	54	44	37	32	28	25	20	17
	3+	94	70	55	46	39	34	30	27	22	17
4"	1	124	93	74	62	53	46	41	36	27	20
	2	120	88	69	57	48	41	36	32	26	22
	3+	121	89	71	58	50	43	38	34	29	24
5"	1	143	107	86	71	61	54	48	43	36	27
	2	139	103	81	66	56	48	42	38	31	26
	3+	140	104	82	68	58	50	44	40	33	28
6"	1	162	122	97	81	70	61	54	49	41	32
	2	159	118	93	76	64	55	49	43	35	30
	3+	159	118	94	77	66	57	51	45	38	32
7"	1	212	159	127	106	91	79	71	64	53	42
	2	208	154	122	100	84	73	64	57	46	39
	3+	208	155	123	101	86	75	66	59	49	42
8"	1	268	201	161	134	115	100	89	80	67	53
	2	252	187	148	121	103	89	78	69	57	48
	3+	252	188	149	123	105	91	80	72	60	51

TABLE 15 – ALLOWABLE POSITIVE (INWARD) LOAD (PSF)**42" or 43" Wide Panel****24 Gauge Exterior Skin / 24 Gauge Interior Skin****Through-Fastened or Non-Exposed Fastened (NEF) to Minimum 3" Wide Supports**

Panel Thickness	Spans	Distance Between Supports									
		3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	12 ft	14 ft
3"	1	99	74	60	50	43	37	32	27	20	15
	2	96	71	56	46	38	33	29	26	21	18
	3+	97	72	57	47	40	35	31	28	23	19
4"	1	136	102	82	68	58	51	45	40	30	23
	2	133	98	77	63	53	46	40	36	29	25
	3+	133	99	78	65	55	48	42	38	31	27
5"	1	174	131	105	87	75	65	58	52	40	31
	2	171	127	100	82	69	60	52	47	38	32
	3+	171	127	101	83	71	62	55	49	40	35
6"	1	219	164	131	110	94	82	73	65	50	39
	2	201	149	118	97	82	71	62	55	45	38
	3+	202	150	119	98	84	73	64	58	48	41
7"	1	234	175	140	117	100	88	78	70	58	48
	2	227	169	133	110	93	80	71	63	51	43
	3+	227	169	134	111	94	82	73	65	54	46
8"	1	242	181	145	121	104	91	81	73	60	52
	2	239	178	141	116	98	85	75	66	54	46
	3+	239	178	141	117	99	86	76	68	57	48

**TABLE 16 – ALLOWABLE POSITIVE (INWARD) LOAD (PSF)****42" or 43" Wide Panel****24 Gauge Exterior Skin / 26 Gauge Interior Skin****Through-Fastened or Non-Exposed Fastened (NEF) to Minimum 3" Wide Supports**

Panel Thickness	Spans	Distance Between Supports									
		3 ft	4 ft	5 ft	6 ft	7 ft	8 ft	9 ft	10 ft	12 ft	14 ft
3"	1	97	73	58	49	42	36	31	26	19	14
	2	94	69	54	44	37	32	28	25	21	17
	3+	94	70	55	46	39	34	30	27	22	18
4"	1	123	93	74	62	53	46	41	37	28	21
	2	120	89	70	57	48	41	36	32	26	22
	3+	121	89	71	59	50	43	38	34	29	24
5"	1	143	107	86	71	61	54	48	43	36	28
	2	140	103	81	67	56	49	43	38	31	26
	3+	140	104	82	68	58	50	45	40	33	28
6"	1	162	122	97	81	69	61	54	49	41	31
	2	159	118	93	76	65	56	49	43	35	30
	3+	159	118	94	78	66	57	51	45	38	32
7"	1	212	159	127	106	91	79	71	63	53	39
	2	208	154	122	100	85	73	64	57	47	39
	3+	208	155	123	102	86	75	66	60	49	42
8"	1	242	181	145	121	104	91	81	73	60	47
	2	239	177	140	115	98	84	74	66	54	45
	3+	239	178	141	117	99	86	76	68	56	48

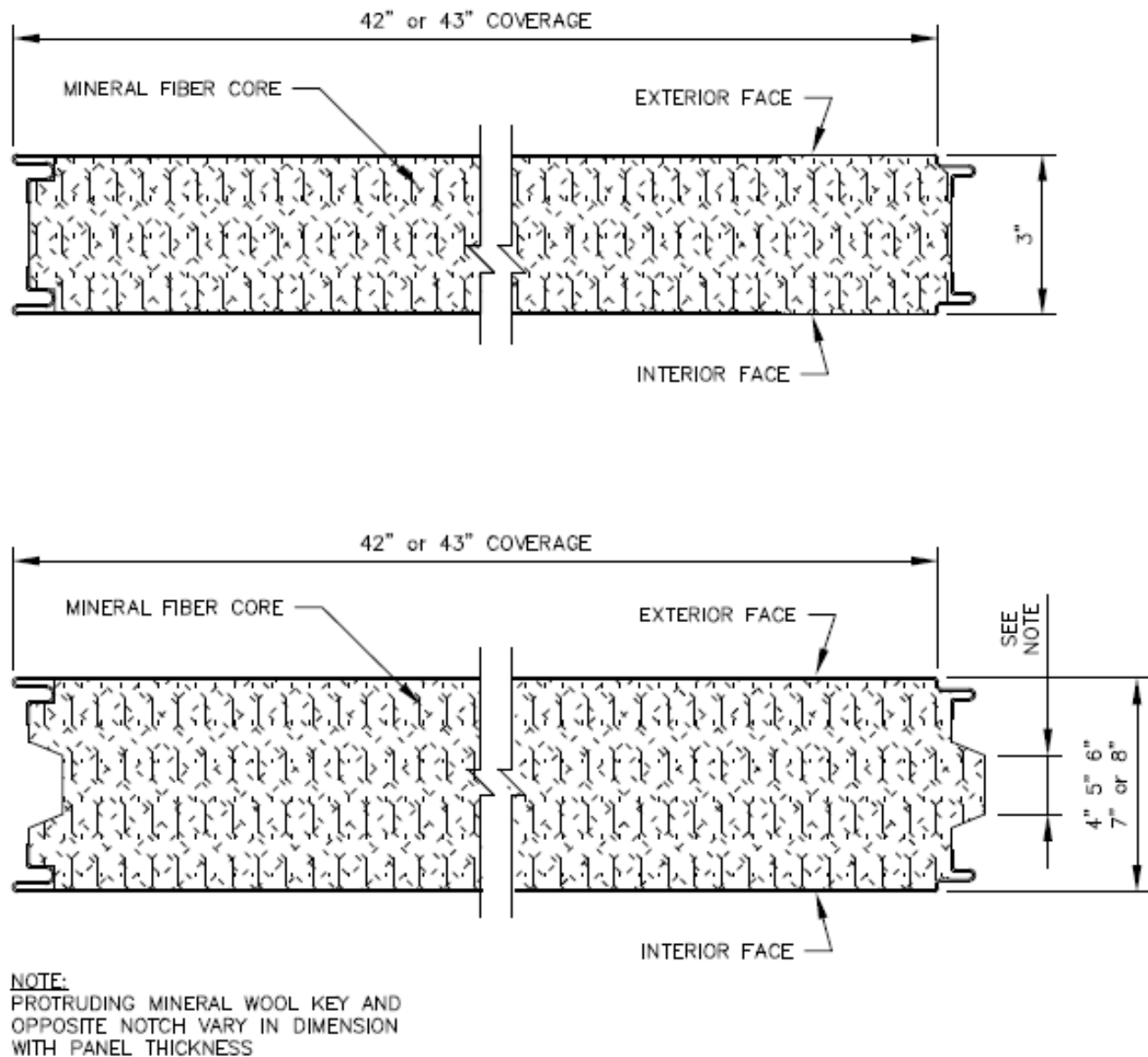


Figure 1 – ThermalSafe® Mineral Fiber Core Panels

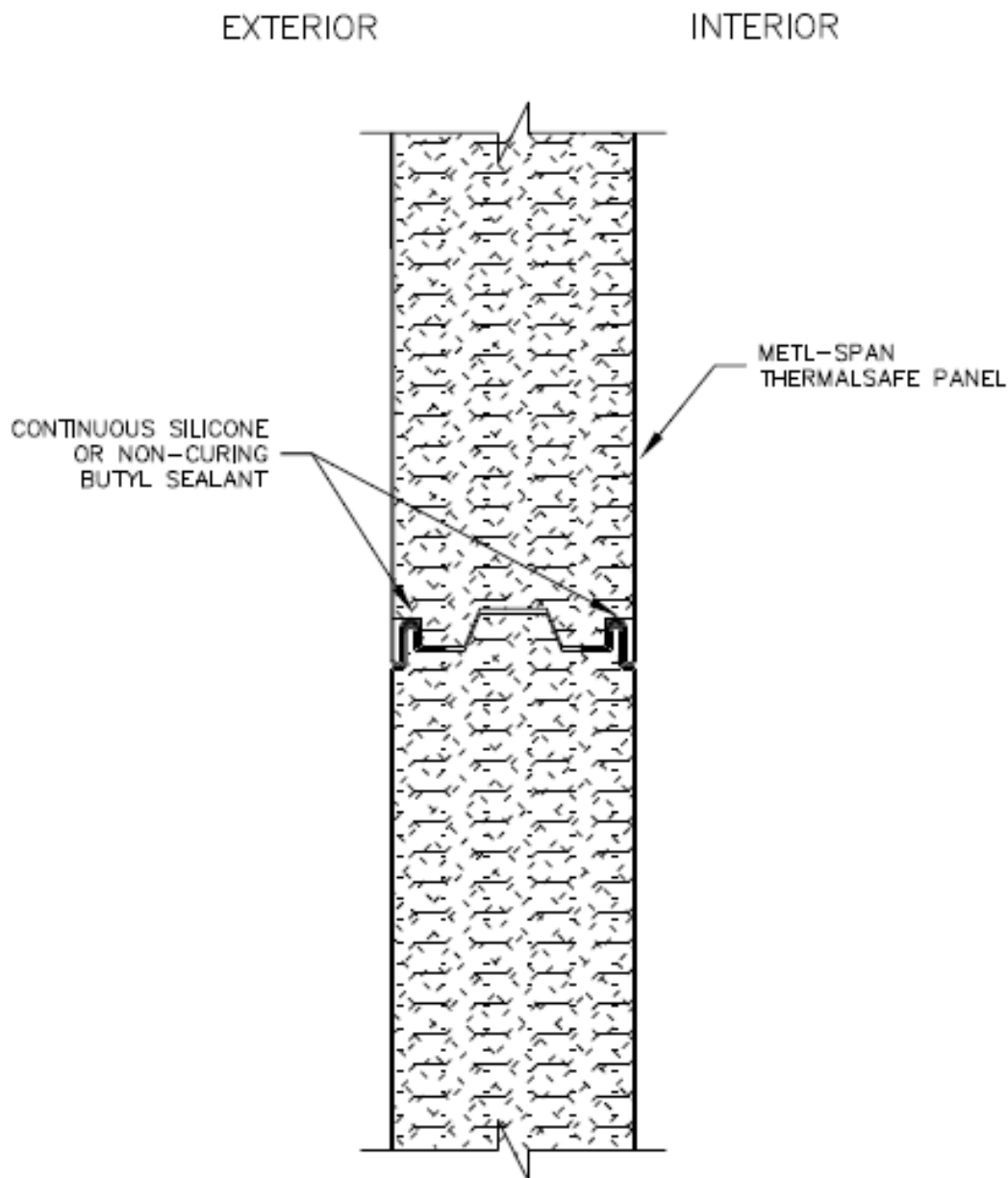


Figure 2 – Tongue and Groove Joint Engagement

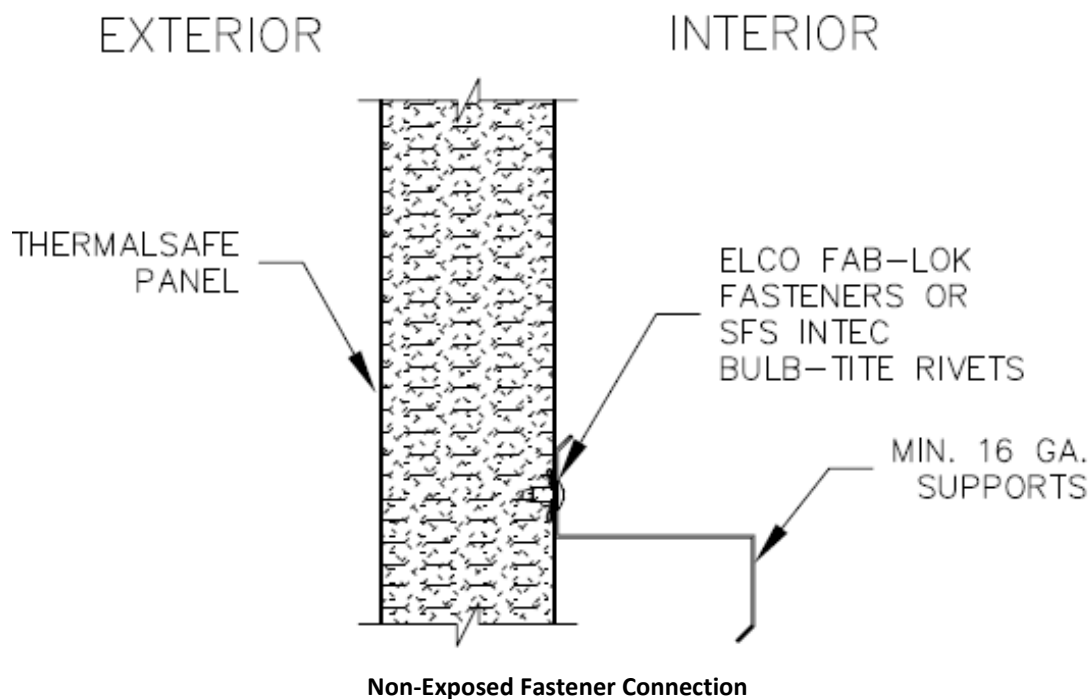
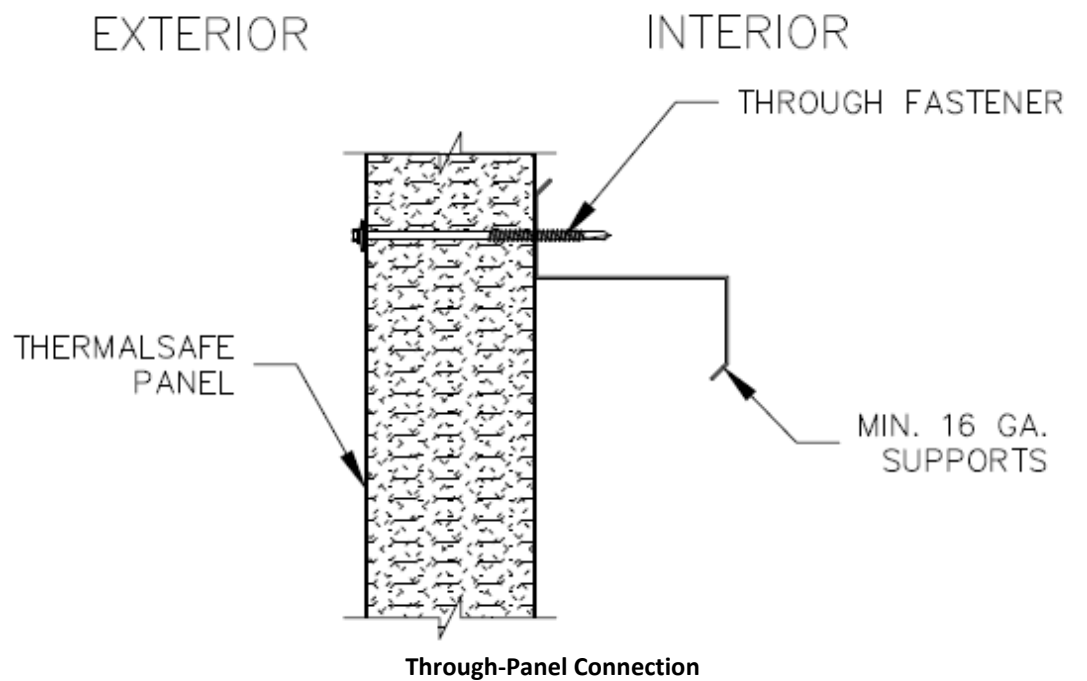


Figure 3 – Panel Connection Details

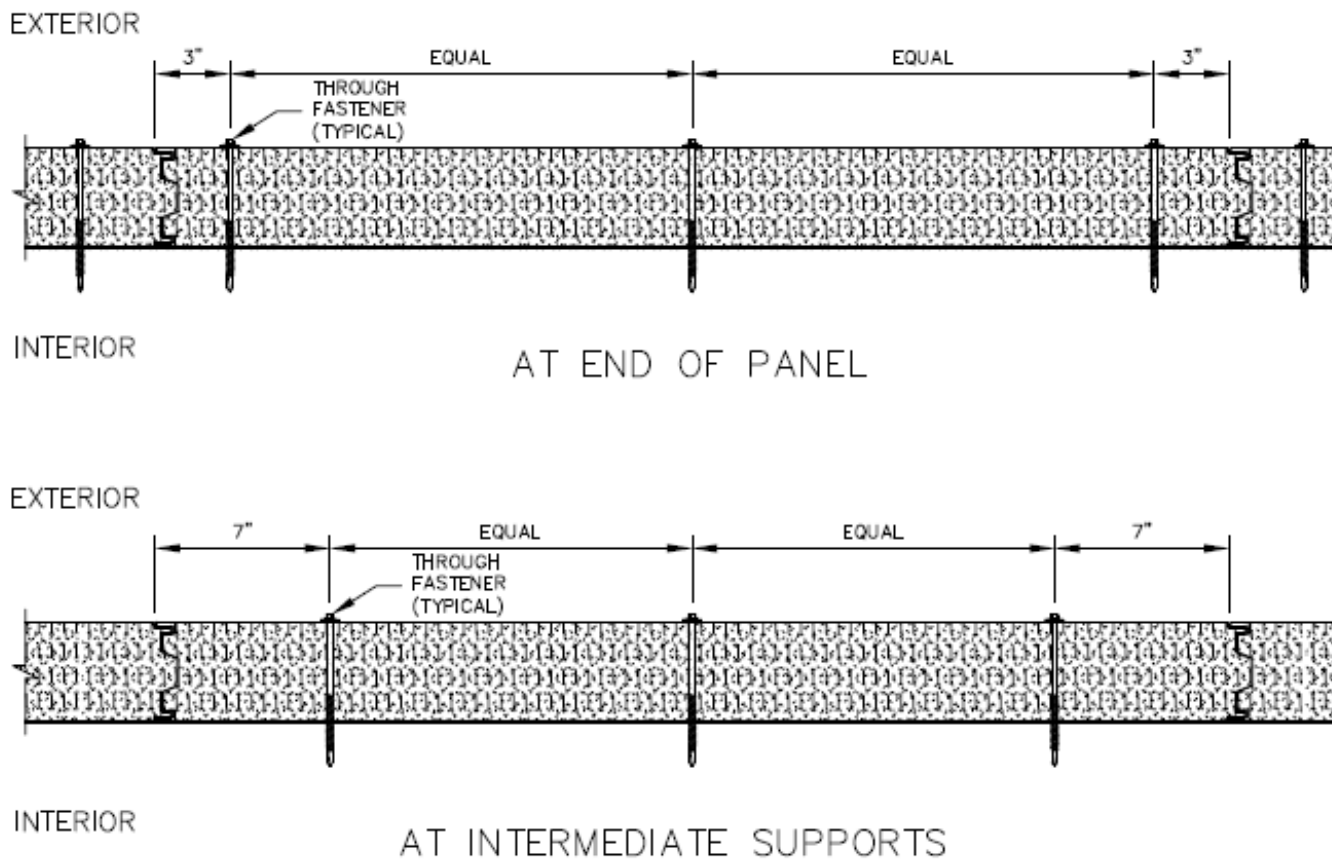


Figure 4 – Fastening Schedule TSFP1

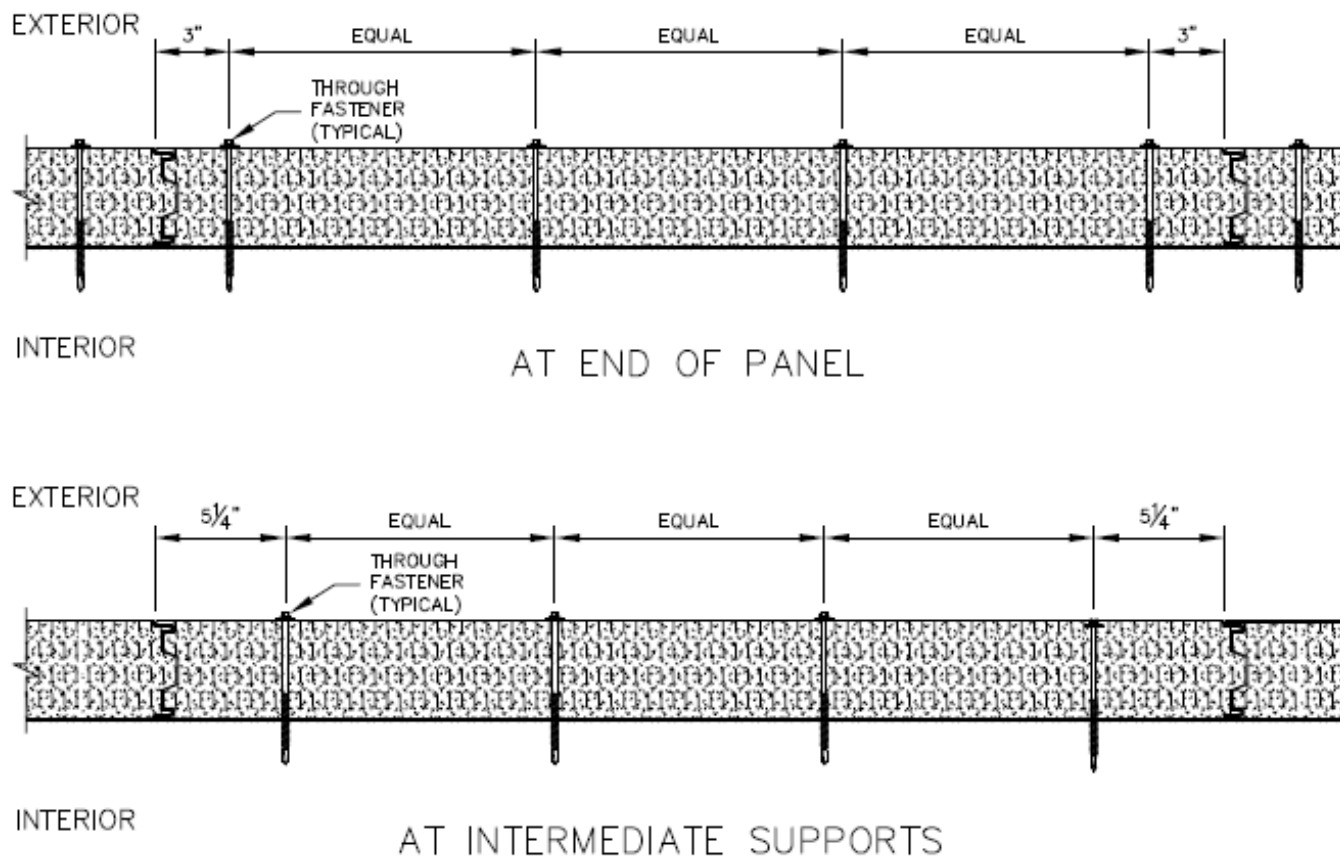


Figure 5 – Fastening Schedule TSFP4

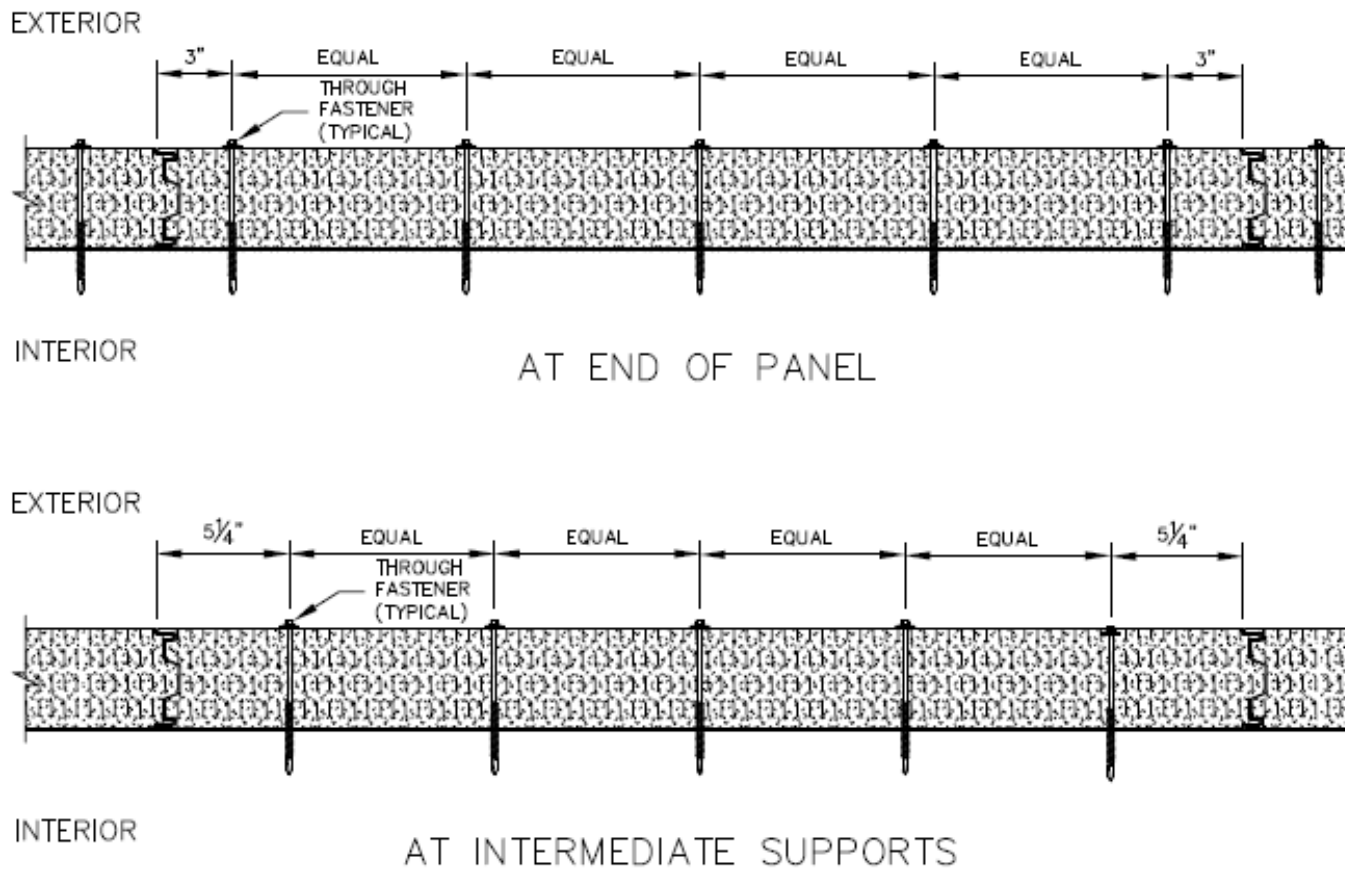


Figure 6 – Fastening Schedule TSFPMAX

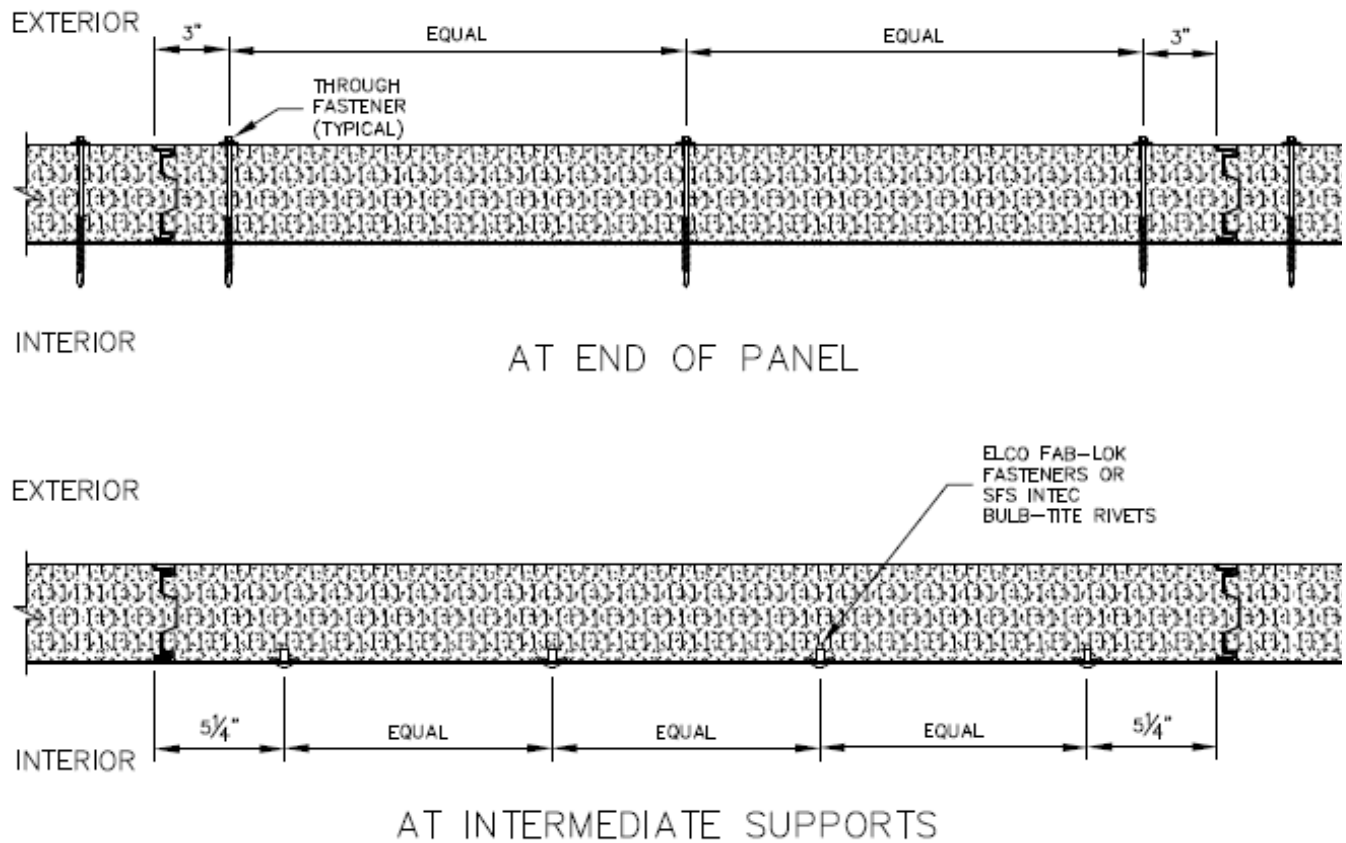


Figure 7 – Fastening Schedule TSFP3 (NEF)

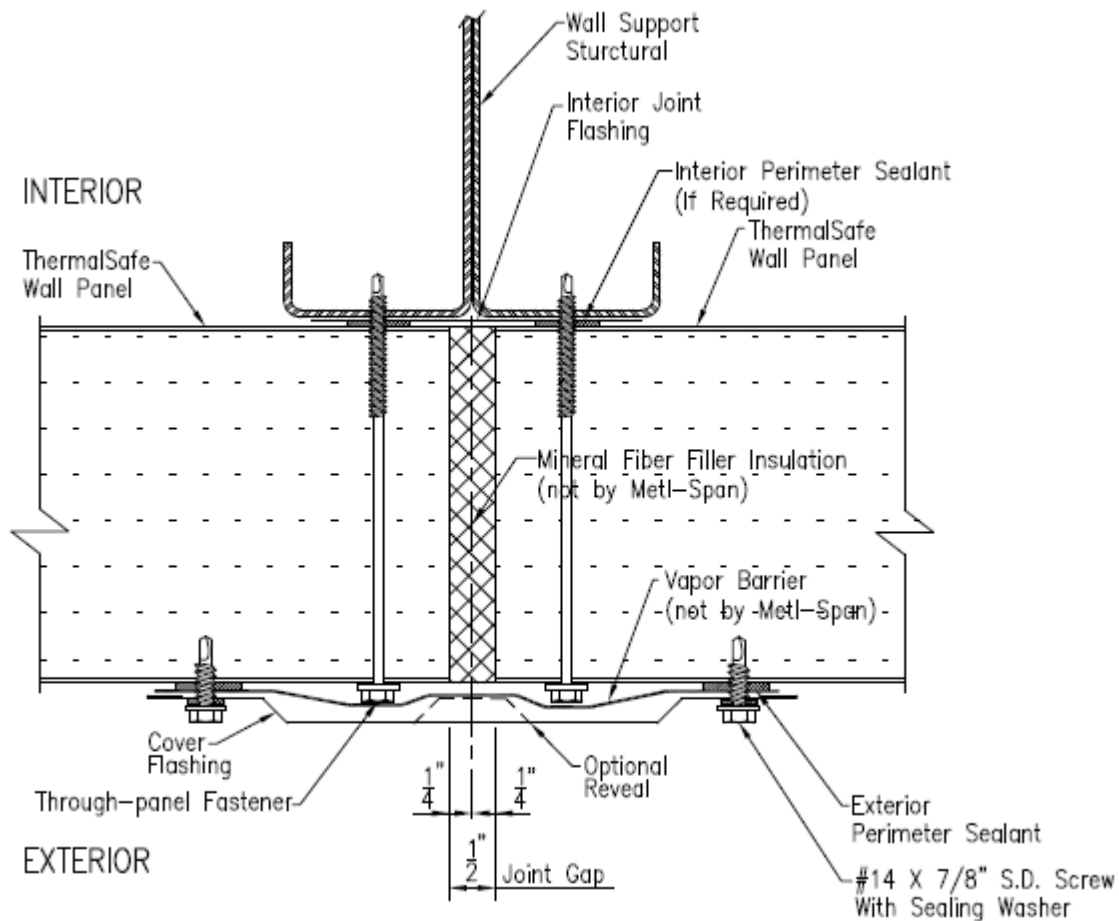


Figure 8 – Installation Details at Vertical Butt Joint

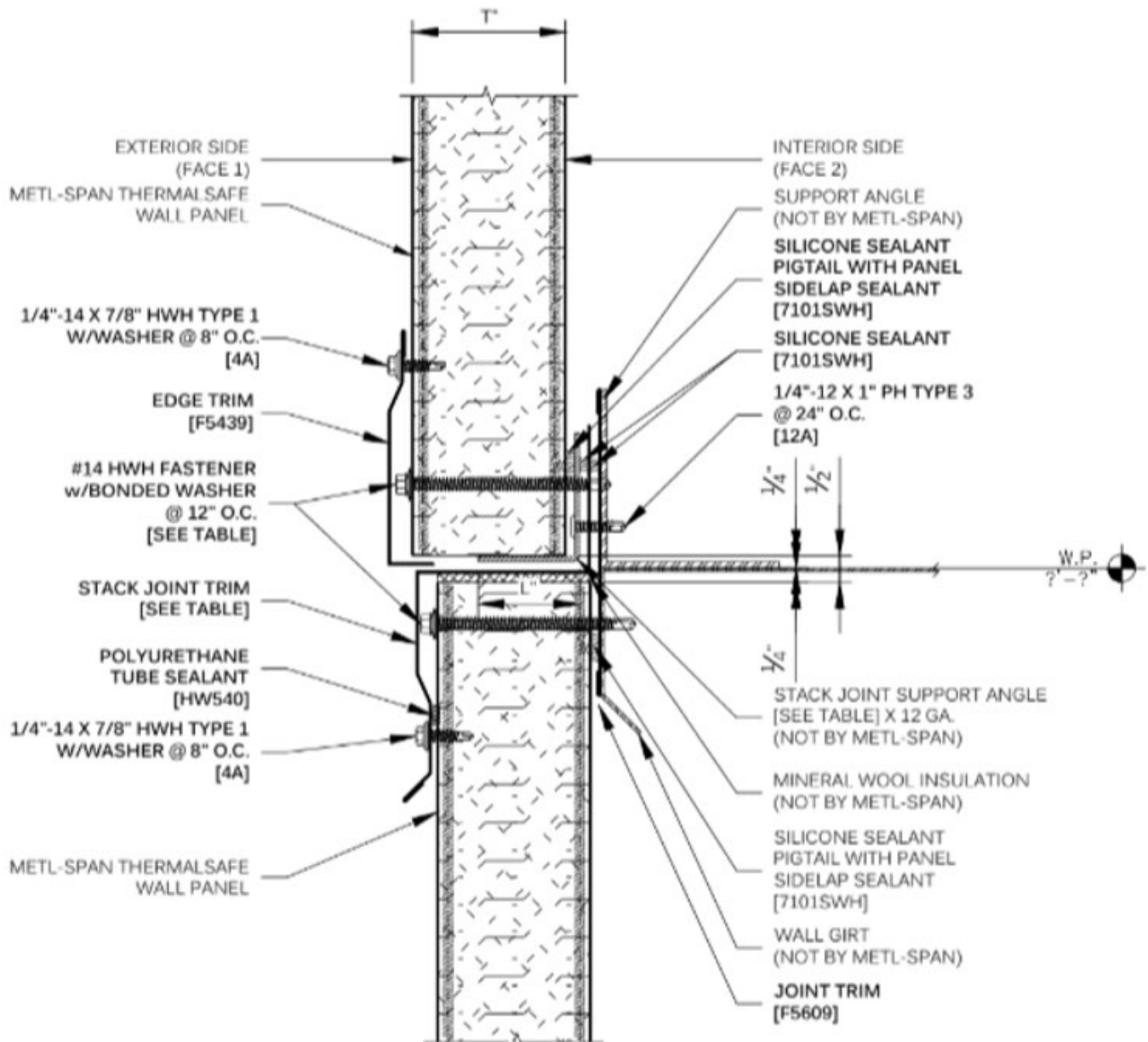


Figure 9 – Installation Details at Horizontal Butt Joint