

# 2025 GROUP B PROPOSED CHANGES TO THE I-CODES

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### **IBC – Fire Safety Code Change Proposals**

The following code change proposals are labeled as FS code change proposals because they are proposals for changes to sections in chapters of the International Building Code that are designated as the responsibility of the IBC – Fire Safety Code Development Committee (see page viii of the Introductory pages of this monograph), which met in the Group A cycle in 2024. However, the changes included in this Group B code development cycle are to sections of the code that have been prefaced with a [G] and [S], meaning that they are the responsibility of a different IBC Code Development Committee— the IBC-General [G] and the IBC-Structural [S] Committees.

The committee assigned for each code change proposal is indicated in a banner statement near the beginning of the proposal. See the IBC-General and IBC-Structural hearing orders.

## FS1-25

#### IBC: [BS] 1402.3

**Proponents:** Jennifer Goupil, American Society of Civil Engineers and Structural Engineering Institute, representing American Society of Civil Engineers (jgoupil@asce.org)

# THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

### 2024 International Building Code

#### Revise as follows:

**[BS] 1402.3 Wind and tornado** resistance. *Exterior walls*, exterior wall coverings, exterior soffits and fascias, and the associated openings, shall be designed and constructed to resist safely the <u>greater of wind pressures or tornado pressures determined in accordance with ASCE 7 and other</u> superimposed *loads* required by Chapter 16.

**Reason:** ASCE 7-22 introduced Chapter 32 Tornado Loads and related provisions in Chapter 1 General, Chapter 2 Combination of Loads, and Chapter 26 Wind Loads: General Requirements. While IBC 2024 generally adopted the new ASCE 7-22 provisions, several sections of IBC 2024 do not adequately clarify the tornado design requirements. The proposal includes the clarifications to IBC 2024 Chapter 14 (Section 1402.3) explicitly referencing tornado resistance in addition to wind resistance. The proposed clarification aligns with Section 1609.6.1 for roof decks.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

#### Justification for no cost impact:

Proposed IBC code changes are generally editorial clarifications that improve the thoroughness of IBC for alignment to the introduction of tornado loads in ASCE 7-22 and IBC 2024.



#### IBC: [BS] 1402.3

**Proponents:** Theresa Weston, The Holt Weston Consultancy, representing Rainscreen Association in North America (holtweston88@gmail.com)

# THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

### 2024 International Building Code

Revise as follows:

**[BS] 1402.3** Wind Load resistance. Exterior walls, exterior wall coverings, exterior soffits and fascias, and the associated openings, shall be designed and constructed to resist safely the superimposed *loads* required by Chapter 16.

**Reason:** This proposal updates the title of the section to reflect that loads, not confined to wind, are covered under the section and Chapter 16. The section references the defined term "loads" which is defined as "forces or other actions that result from the weight of *building* materials, occupants and their possessions, environmental effects, differential movement and restrained dimensional changes."

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

#### Justification for no cost impact:

This updates a section title and does not change any technical requirements.

## FS3-25

#### IBC: [BS] 1404.5

**Proponents:** Jay Crandell, P.E., ABTG / ARES Consulting, representing Foam Sheathing Committee of the American Chemistry Council (jcrandell@aresconsulting.biz)

# THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

### 2024 International Building Code

#### Revise as follows:

**[BS] 1404.5 Fastening.** Exterior wall coverings shall be securely fastened with corrosion-resistant fasteners in accordance with this code or the *approved* manufacturer's instructions. Fastening of claddings or furring through foam plastic insulating sheathing shall comply with Section 1404.5.1, 1404.5.2 or 1404.5.3, as applicable, or Chapter 4 of ANSI/ABTG FS200.1.

**Reason:** This proposal adds an ANSI consensus standard, FS200.1, which includes design, testing, and prescriptive requirements for attachment of cladding through foam plastic insulating sheathing. It is the basis for the prescriptive fastening provisions that are currently in Sections 1404.5.1, 1404.5.2, and 1404.5.3 of the code. It provides additional options that can be used by designers and manufacturers to properly evaluate or design attachment solutions consistent with the provisions in the code. The standard is available as a free download at: https://www.appliedbuildingtech.com/standards

#### Cost Impact: Decrease

#### Estimated Immediate Cost Impact:

\$0.

#### Estimated Immediate Cost Impact Justification (methodology and variables):

This standard is consistent with current code but adds additional options for designers and manufacturers and would tend to have a cost decrease that is difficult to quantify or forecast. Thus, it will support alternative equivalent solutions which would have the general effect of reducing cost of compliance by providing more options.

#### Estimated Life Cycle Cost Impact:

Life cycle cost impact is not applicable to this proposal.

#### Estimated Life Cycle Cost Impact Justification (methodology and variables):

Life cycle cost impact is not applicable to this proposal. However, it is expected that this proposal would have no change to the life-cycle cost in comparison to the equivalent solutions currently in the code.

Staff analysis: FS115-24 was AS and is now on the consent agenda. That proposal included the new standard ANSI/ABTG FS200.1 – 2022

## FS4-25

#### IBC: [BS] 1404.5, TABLE 1404.5 (New)

**Proponents:** Jay Crandell, P.E., ABTG / ARES Consulting, representing Foam Sheathing Committee of the American Chemistry Council (jcrandell@aresconsulting.biz)

# THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

### 2024 International Building Code

#### Revise as follows:

**[BS] 1404.5 Fastening.** Exterior wall coverings shall be securely fastened to the wall structure with corrosion-resistant fasteners in accordance with this code or the *approved* manufacturer's instructions. Fastening of claddings or furring through foam plastic insulating sheathing shall comply with Section 1404.5.1, 1404.5.2 or 1404.5.3, as applicable. Where the components and cladding allowable stress wind load determined in accordance with Section 1609 is not greater than 30 psf (negative pressure), siding shall be permitted to be fastened to minimum 7/16-inch (11 mm) wood structural panel sheathing in accordance with the siding manufacturer's installation instructions, Table 1404.5., or an *approved* design.

#### Add new text as follows:

# TABLE 1404.5 OPTIONAL CLADDING ATTACHMENT SCHEDULE FOR FASTENER INTO MINIMUM 7/16-IN-THICK WOOD STRUCTURAL PANEL SHEATHING

APPLICATION	NUMBER AND TYPE OF FASTENER	SPACING OF FASTENERS <sup>b</sup>
Exterior wall covering (weighing 3 psf or less) attachment to wood structural panel sheathing, either direct or over foam sheathing a maximum of 2 inches thick <sup>a</sup>	Ring shank roofing nail (0.120" min. dia.)	<u>12" o.c.</u>
III.C.I.RS. UIGA	Ring shank nail (0.148" min. dia.)	15" o.c.
Note: Does not apply to vertical siding.	No. 6 screw (0.128" min. dia.)	12" o.c.
	No. 8 screw (0.164" min. dia.)	16" o.c.

#### For SI: 1 inch = 25.4 mm, 1 pound per square foot = 0.479 kPa

- a. Fastener length shall be sufficient to penetrate the back side of the wood structural panel by at least 1/4 inch. The wood structural panel sheathing shall be not less than 7/16 inch in thickness.
- b. Spacing of fasteners is per 12 inches of siding width. For other siding widths, multiply "Spacing of Fasteners" above by a factor of 12/s, where "s" is the siding width in inches. Fastener spacing shall never be greater than the manufacturer's minimum recommendations.

**Reason:** This proposal coordinates the IBC with a siding/cladding attachment option in the IRC (Section R703.3.3 and Table R703.3.3). The attachment options in proposed Table 1404.5 are limited to an ASD components and cladding wind load of 30 psf which is the limit of the IRC cladding connection provisions. Other solutions are permitted, such as manufacturer installation instructions or an approved design. This cladding attachment method provides a simple and robust means for installation of light-weight (less than 3 psf) exterior wall coverings.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

#### Justification for no cost impact:

This proposal is providing an additional option and therefore does not change existing requirements in the code. In some cases, this option could result in a cost decrease but the purpose of this proposal is merely to add an option that is currently also an option in the IRC.



IBC: [BS]TABLE 1404.5.2.1, [BS]TABLE 1404.5.2.2, [BS]TABLE 1404.5.3.1, [BS]TABLE 1404.5.3.2

**Proponents:** Jay Crandell, P.E., ABTG / ARES Consulting, representing Foam Sheathing Committee of the American Chemistry Council (jcrandell@aresconsulting.biz)

# THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

### 2024 International Building Code

Revise as follows:

#### [BS]TABLE 1404.5.2.1 CLADDING MINIMUM FASTENING REQUIREMENTS FOR DIRECT ATTACHMENT OVER FOAM PLASTIC SHEATHING TO SUPPORT CLADDING WEIGHT<sup>a</sup>

			MAXIMUM THICKNESS OF FOAM SHEATHING <sup>C</sup> (inches)									
CLADDING FASTENER THROUGH FOAM SHEATHING INTO:	NG CLADDING FASTENER TYPE AND MINIMUM SIZE <sup>b</sup> CLADDING FASTENER VERTICAL SPACING (inches) <sup>d</sup>	ь — — — — — — — — — — — — — — — — — — —	16″ o.		ener hoi acing	rizontal	al 24" o.c. fastener horizontal spacing					
			Cladding weight <sup>e</sup>				Cladding weight <sup>e</sup>					
			3 psf	11 psf	18 psf	25 psf	3 psf	11 psf	18 psf	25 psf		
	#8 screw into 33 mil steel or thicker	6	3.00	2.95	2.20	1.45	3.00	2.35	1.25	DR		
		8	3.00	2.55	1.60	0.60	3.00	1.80	DR	DR		
		12	3.00	1.80	DR	DR	3.00	0.65	DR	DR		
Cold-formed steel framing (minimum penetration of steel		6	4.00	3.50	2.70	1.95	4.00	2.90	1.70	0.55		
thickness plus 3 threads)	#10 screw into 33 mil steel	8	4.00	3.10	2.05	1.00	4.00	2.25	0.70	DR		
	12 4.00 2.25 0.70 DR 3.70					3.70	1.05	DR	DR			
		6	4.00	4.00	4.00	3.60	4.00	4.00	3.45	2.70		
	#10 screw into 43 mil steel or thicker 8 4.00 4.00 3				3.70	3.00	4.00	3.85	2.80	1.80		
		12	4.00	3.85	2.80	1.80	4.00	3.05	1.50	DR		

For SI: 1 inch = 25.4 mm, 1 pound per square foot (psf) = 0.0479 kPa, 1 pound per square inch = 0.00689 MPa.

DR = design required, o.c. = on center.

- a. Cold-formed steel framing shall be minimum 33 ksi steel for 33 mil and 43 mil steel and 50 ksi steel for 54 mil steel or thicker.
- b. Screws shall comply with the requirements of AISI S240.
- c. Foam sheathing shall have a minimum compressive strength of 15 pounds per square inch in accordance with ASTM C578 or ASTM C1289.
- <u>d.</u> <u>Fastener vertical spacing is an average spacing associated with the following fastener count per foot: 6 inch spacing is associated with 2 fasteners per foot; 8 inch spacing is associated with 1.5 fasteners per foot, and 12 inch spacing is associated with 1 fastener per foot.</u>
- e. Cladding weight is the maximum weight of cladding materials to the exterior side of the foam plastic insulating sheathing in pounds per square foot of wall area. The 3 psf category typically applies to panel and lap siding materials; the 11 psf category typically applies to conventional 3-coat stucco of nominal 7/8-inch thickness; and 15 psf to 25 psf categories typically apply to adhered masonry veneers.

#### [BS] TABLE 1404.5.2.2 FURRING MINIMUM FASTENING REQUIREMENTS FOR APPLICATION OVER FOAM PLASTIC SHEATHING TO SUPPORT CLADDING WEIGHT<sup>a</sup>

					Ν				ام ا	ESS O (inche		۹M
FURRING MATERIAL	FRAMING MEMBER	FASTENER TYPE AND	MINIMUM PENETRATION INTO WALL	FASTENER SPACING IN	16	″ o.c.	furri	ng <sup>e</sup>	24	4″ o.c.	furrir	ng <sup>e</sup>
TURNING MATERIAL		MINIMUM SIZE <sup>D</sup>	FRAMING (inches)	FURRING (inches)	Cla	ddin	g wei	ght <sup>_</sup>	Cladding weight			ght <sup>_</sup>
					3	11	18	25	3	11	18	25
					psf	psf	psf	psf	psf	psf	psf	psf
				12	3.00	1.80	DR	DR	3.00	0.65	DR	DR
					1							

					MAXIMUM THICKNESS OF FOAM										
				SHEA	THIN	NG (inches)									
FURRING MATERIAL	FRAMING MEMBER	FRAMING MEMBER         #8 screw         Steel thickness plus 3 threads         FURRING (inches)         FURRING (inches)         C           3 mil cold-formed steel         MINIMUM SIZE         FRAMING (inches)         C         C         C	16	″ o.c.	furri	ng	24" o.c. furri			ng					
1 officiaria marteniae	-		Cladding weight					Cladding weight							
	stud		3	11	18	25	3	11	18	25					
	5100				psf	psf	psf	psf	psf	psf	psf	psf			
Minimum 20 mil staal fuuring or				16	3.00	1.00	DR	DR	2.85	DR	DR	DR			
Minimum 33 mil steel furring or minimum 1x wood furring <sup>C</sup>				24	2.85	DR	DR	DR	2.20	DR	DR	DR			
minimum ix wood lurring		#10 screw S	Steel thickness plus 3 threads	12	4.00	2.25	0.70	DR	3.70	1.05	DR	DR			
				16	3.85	1.45	DR	DR	3.40	DR	DR	DR			
				24	3.40	DR	DR	DR	2.70	DR	DR	DR			
				12	3.00	1.80	DR	DR	3.00	0.65	DR	DR			
		#8 Screw	Steel thickness plus 3 threads	16	3.00	1.00	DR	DR	2.85	DR	DR	DR			
	43 mil or thicker cold-			24	2.85	DR	DR	DR	2.20	DR	DR	DR			
	formed steel stud #10 screw Steel thickness plus 3 threads 12	12	4.00	3.85	2.80	1.80	4.00	3.05	1.50	DR					
		Steel thickness plus 3 threads	16	4.00	3.30	1.95	0.60	4.00	2.25	DR	DR				
				24	4.00	2.25	DR	DR	4.00	0.65	DR	DR			

For SI: 1 inch = 25.4 mm, 1 pound per square foot (psf) = 0.0479 kPa, 1 pound per square inch = 0.00689 MPa.

DR = Design Required, o.c. = on center.

- a. Wood furring shall be spruce-pine-fir or any softwood species with a specific gravity of 0.42 or greater. Steel furring shall be minimum 33 ksi steel. Cold-formed steel studs shall be minimum 33 ksi steel for 33 mil and 43 mil thickness and 50 ksi steel for 54 mil steel or thicker.
- b. Screws shall comply with the requirements of AISI S240.
- c. Where the required cladding fastener penetration into wood material exceeds  $^{3}$ /<sub>4</sub> inch and is not more than  $1^{1}$ /<sub>2</sub> inches, a minimum 2-inch nominal wood furring or an approved design shall be used.
- d. Foam sheathing shall have a minimum compressive strength of 15 pounds per square inch in accordance with ASTM C578 or ASTM C1289.
- e. Furring shall be spaced not more than 24 inches on center, in a vertical or horizontal orientation. In a vertical orientation, furring shall be located over wall studs and attached with the required fastener spacing. In a horizontal orientation, the indicated 8-inch and 12-inch fastener spacing in furring shall be achieved by use of two fasteners into studs at 16 inches and 24 inches on center, respectively.
- <u>f.</u> Cladding weight is the maximum weight of cladding materials to the exterior side of the foam plastic insulating sheathing in pounds per square foot of wall area. The 3 psf category typically applies to panel and lap siding materials; the 11 psf category typically applies to conventional 3-coat stucco of nominal 7/8-inch thickness; and 15 psf to 25 psf categories typically apply to adhered masonry veneers.

#### [BS] TABLE 1404.5.3.1 CLADDING MINIMUM FASTENING REQUIREMENTS FOR DIRECT ATTACHMENT OVER FOAM PLASTIC SHEATHING TO SUPPORT CLADDING WEIGHT<sup>a</sup>

			MAXIMUM THICKNESS OF FOAM SHEATHING <sup>en</sup> (INCHES)									
CLADDING FASTENER THROUGH FOAM	CLADDING FASTENER TYPE AND	CLADDING FASTENER VERTICAL SPACING	16″ c	.c. faste	ner hor	izontal	24" o.c. fastener horizonta					
SHEATHING INTO:	MINIMUM SIZE C	(INCHES) <sup>d</sup>			acing		spacing					
			Cladding weight: <sup>I</sup>				Cladding weight: <sup>I</sup>					
			3 psf	11 psf	18 psf	25 psf	3 psf	11 psf	18 psf	25 psf		
		6	2.00	1.45	0.75	DR	2.00	0.85	DR	DR		
	0.113" diameter nail	8	2.00	1.00	DR	DR	2.00	0.55	DR	DR		
		12	2.00	0.55	DR	DR	1.85	DR	DR	DR		
		6	3.00	1.70	0.90	0.55	3.00	1.05	0.50	DR		
	0.120" diameter nail	8	3.00	1.20	0.60	DR	3.00	0.70	DR	DR		
		12	3.00	0.70	DR	DR	2.15	DR	DR	DR		
		6	4.00	2.15	1.20	0.75	4.00	1.35	0.70	DR		
	0.131" diameter nail	8	4.00	1.55	0.80	DR	4.00	0.90	DR	DR		
		12	4.00	0.90	DR	DR	2.70	0.50	DR	DR		
Wood Framing (minimum 1 <sup>1</sup> / <sub>4</sub> - inch penetration) <sup>b</sup>												
		6	4.00	3.55	2.05	1.40	4.00	2.25	1.25	0.80		
		8	4.00	2.55	1.45	0.95	4.00	1.60	0.85	0.50		

ſ		0.40011 - lines - ton		M	AXIMUI		KNESS (INC	of fo Hes)	AM SHI	EATHIN	G				
	CLADDING FASTENER THROUGH FOAM SHEATHING INTO:	0.162" diameter nail CLADDING FASTENER TYPE AND MINIMUM SIZE			CLADDING FASTENER VERTICAL SPACING (INCHES)		16" o.c. fastener horizontal 24" o spacing						I 24" o.c. fastener horizonta spacing		
				Cladding weight:		Cladding weight:			t:						
				3 psf	11 psf	18 psf	25 psf	3 psf	11 psf	18 psf	25 psf				
			12	4.00	1.60	0.85	0.50	4.00	0.95	DR	DR				

For SI: 1 inch = 25.4 mm, 1 pound per square foot (psf) = 0.0479 kPa.

DR = Design Required, o.c. = on center.

- a. Wood framing shall be spruce-pine-fir or any wood species with a specific gravity of 0.42 or greater in accordance with ANSI/AWC NDS.
- b. The thickness of *wood structural panels* complying with the specific gravity requirement of Note a shall be permitted to be included in satisfying the minimum penetration into framing.
- c. Nail fasteners shall comply with ASTM F1667, except nail length shall be permitted to exceed ASTM F1667 standard lengths.
- <u>d.</u> Fastener vertical spacing is an average spacing associated with the following fastener count per foot: 6 inch spacing is associated with 2 fasteners per foot, 8 inch spacing is associated with 1.5 fasteners per foot, and 12 inch spacing is associated with 1 fastener per foot.
- e. d. Foam sheathing shall have a minimum compressive strength of 15 psi in accordance with ASTM C578 or ASTM C1289.
- f. Cladding weight is the maximum weight of cladding materials to the exterior side of the foam plastic insulating sheathing in pounds per square foot of wall area. The 3psf category typically applies to panel and lap siding materials; the 11 psf category typically applies to conventional 3-coat stucco of nominal 7/8-inch thickness; and 15 psf to 25 psf categories typically apply to adhered masonry veneer.

#### [BS] TABLE 1404.5.3.2 FURRING MINIMUM FASTENING REQUIREMENTS FOR APPLICATION OVER FOAM PLASTIC SHEATHING TO SUPPORT CLADDING WEIGHT<sup>a, b</sup>

FURRING FRAMING MATERIAL MEMBER					MAXIMUM THICKNESS OF FOAM SHEATHING <sup>®</sup> (INCHES)										
		MINIMUM SIZE FRAMING (INCHES) <sup>C</sup> (INCHES)	IG 16" o.c. furring <sup>T</sup>			gŤ	24" o.c. furring <sup>†</sup>								
			(INCHES)	S	iding	weigh	t: <u>9</u>	Siding weight: <sup>g</sup>							
			3	11	18	25	3	11 nef	18 nef	25 psf					
				psf	psf	psf	psf	psf	ii psi	10 psi	25 psi				
				8	4.00	2.45	1.45	0.95	4.00	1.60	0.85	DR			
		0.131" diameter nail	1 <sup>1</sup> /4	12	4.00	1.60	0.85	DR	4.00	0.95	DR	DR			
				16	4.00	1.10	DR	DR	3.05	0.60	DR	DR			
				8	4.00	4.00	2.45	1.60	4.00	2.75	1.45	0.85			
		0.162" diameter nail	" diameter nail 1 <sup>1</sup> /4	12	4.00	2.75	1.45	0.85	4.00	1.65	0.75	DR			
Minimum 1x Wood	Minimum 2x			16	4.00	1.90	0.95	DR	4.00	1.05	DR	DR			
Furring <sup>d</sup>	Wood Stud			12	4.00	2.30	1.20	0.70	4.00	1.40	0.60	DR			
		No. 10 wood screw	1	16	4.00	1.65	0.75	DR	4.00	0.90	DR	DR			
				24	4.00	0.90	DR	DR	2.85	DR	DR	DR			
		<sup>1</sup> /4" lag screw		12	4.00	2.65	1.50	0.90	4.00	1.65	0.80	DR			
			screw 1 <sup>1</sup> / <sub>2</sub>	16	4.00	1.95	0.95	0.50	4.00	1.10	DR	DR			
				24	4.00	1.10	DR	DR	3.25	0.50	DR	DR			

For SI: 1 inch = 25.4 mm, 1 pound per square foot (psf) = 0.0479 kPa, 1 pound per square inch = 0.00689 MPa.

DR = Design Required, o.c. = on center.

- a. Wood framing and furring shall be spruce-pine-fir or any wood species with a specific gravity of 0.42 or greater in accordance with ANSI/AWC NDS.
- b. Nail fasteners shall comply with ASTM F1667, except nail length shall be permitted to exceed ASTM F1667 standard lengths.

- c. The thickness of *wood structural panels* complying with the specific gravity requirements of Note a shall be permitted to be included in satisfying the minimum required penetration into framing.
- d. Where the required cladding fastener penetration into wood material exceeds  $^{3}/_{4}$  inch and is not more than  $1^{1}/_{2}$  inches, a minimum 2-inch nominal wood furring or an *approved* design shall be used.
- e. Foam sheathing shall have a minimum compressive strength of 15 psi in accordance with ASTM C578 or ASTM C1289.
- f. Furring shall be spaced not greater than 24 inches on center in a vertical or horizontal orientation. In a vertical orientation, furring shall be located over wall studs and attached with the required fastener spacing. In a horizontal orientation, the indicated 8-inch and 12-inch fastener spacing in furring shall be achieved by use of two fasteners into studs at 16 inches and 24 inches on center, respectively.
- g. <u>Cladding weight is the maximum weight of cladding materials to the exterior side of the foam plastic insulating sheathing. The 3 psf category typically applies to panel or lap siding materials; the 11 psf category typically applies to conventional 3-coat stucco of nominal 7/8-inch thickness; and 15 psf to 25 psf categories typically apply to adhered masonry veneers.</u>

**Reason:** This proposal coordinates with the exterior wall covering weight and fastener spacing explanations added as footnotes to the identical tables found in IRC Section R703. A cladding manufacturer requested this additional information to better explain the basis of the table fastening schedules to avoid mis-interpretation or mis-application. This information will help users of the code properly apply the tables and also address fastening schedules that may vary in spacing or arrangement for different cladding types.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

#### Justification for no cost impact:

The proposal clarifies application of the table and does not change requirements. Therefore, there is no cost impact.

## FS6-25

#### IBC: [BS] 1404.11, [BS] 1404.11.1, ASTM Chapter 35 (New)

**Proponents:** Nicholas Lang, representing Concrete Masonry & Hardscapes Association (nlang@masonryandhardscapes.org); Charles Clark Jr, representing Brick Industry Association (cclark@bia.org)

# THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

### 2024 International Building Code

#### Revise as follows:

**[BS] 1404.11 Adhered masonry veneer.** Adhered masonry veneer shall comply with the applicable requirements in this section and Sections 13.1 and <u>13.3</u> <del>13.2</del> of TMS 402.

**[BS] 1404.11.1 Exterior adhered masonry veneer.** Exterior *adhered masonry veneer* shall be installed in accordance with <u>one of the</u> <u>following: Section 1404.11 and the manufacturer's instructions.</u>

- 1. Section 1404.11
- 2. Article 3.3D of TMS 602
- 3. For concrete masonry or manufactured stone veneer units, ASTM C1780.

from Clay or Shale

- 4. For clay or shale masonry units, ASTM C1935.
- 5. Manufacturer's instructions.

#### Add new standard(s) as follows:

ASTM	ASTM International
	100 Barr Harbor Drive, P.O. Box C700
	West Conshohocken, PA 19428
<u>C1780-24</u>	Standard Practice for Installation Methods for Cement-based Adhered Masonry Veneer
<u>C1935-24</u>	Standard Practice for Installation Methods for Adhered Veneer Systems Using Thin Brick Units Made

**Reason:** This ballot proposes to add new options for installation of adhered masonry veneer. The first proposed option is Section 1404.11. This option currently exists, as such, no change is proposed. The second option is Article 3.3D of TMS 602. This option is applicable to all veneer types, and is already included as an installation option in the IRC. The third option is ASTM C1780, which is a consensus standard for installation of adhered masonry veneers where the units are cement based. In particular, this option is applicable to concrete masonry and manufactured stone veneer masonry units. The fourth option is ASTM C1935, which is a consensus standard for installation of adhered the units are made of clay or shale. The fifth option is manufacturer's instructions. This option currently exists, as such, no change is proposed.

ASTM C1780 and ASTM C1935 have been developed by ASTM Committee C15 on Masonry. They include specific sets of installation information for the applicable units, and are valuable resources to installers. The addition of these standards will improve the quality of adhered veneer installations, and provide important information to installers of adhered veneers. These standards have also been aligned with requirements of TMS 602 to provide consistency across standards.

Finally, the pointer to the relevant sections of TMS 402 for design criteria in 1404.11 is being corrected. Adhered masonry veneers are covered in Sections 13.1 and 13.3. The reference to 13.2 is erroneous and requires correction.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

#### Justification for no cost impact:

This change provides additional options for the installer. The requirements of both new reference standards are aligned with the IBC and TMS 602, so application of those would not impact construction cost.

Staff Analysis: A review of the following standards proposed for inclusion in the code regarding some of the key ICC criteria for referenced standards (Section 4.6 of CP#28) will be posted on the ICC website on or before April 1, 2025: ASTMC1780-24 Standard Practice for Installation Methods for Cement-based Adhered Masonry Veneer ASTMC1935-24 Standard Practice for Installation Methods for Adhered Veneer Systems Using Thin Brick Units Made from Clay or Shale

## FS7-25

#### IBC: [BS] 1404.11.3, [BS] 1404.11.2, TCNA (New)

Proponents: Brian Trimble, representing International Masonry Institute (btrimble@imiweb.org)

# THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

### 2024 International Building Code

#### Revise as follows:

**[BS]** 1404.11.3 1404.11.2 Interior adhered masonry veneers. Interior *adhered masonry veneers* shall have a maximum weight of 20 psf (0.958 kg/m<sup>2</sup>) and shall be installed in accordance with Section 1404.11. Where the interior *adhered masonry veneer* is supported by wood construction, the supporting members shall be designed to limit deflection to 1/600 of the span of the supporting members.

**[BS]** 1404.11.2 1404.12 Exterior adhered masonry veneers - porcelain tile. Adhered units weighing more than 3.5 pounds per square foot (0.17 kN/m<sup>2</sup>) shall not exceed 48 inches (1219 mm) in any face dimension nor more than 9 square feet (0.8 m<sup>2</sup>) in total face area and shall not weigh more than 6 pounds per square foot (0.29 kN/m<sup>2</sup>). Adhered units weighing less than or equal to 3.5 pounds per square foot (0.17 kN/m<sup>2</sup>) shall not exceed 72 inches (1829 mm) in any face dimension nor more than 17.5 square feet (1.6 m<sup>2</sup>) in total face area. *Porcelain tile* shall be adhered to an *approved backing* system and installed in accordance with ANSI A108.1A, ANSI A108.1B, ANSI A108.1C, ANSI A108.5, or ANSI A108.20 (See TCNA).

#### Add new standard(s) as follows:

TCNA	Tile Council-North America Inc 100 Clemson Research Blvd
	Anderson, SC 29625
	USA
<u>A108.1C-2021</u>	Contractor's Option: Installation of Ceramic Tile in the Wet-Set Method with Portland Cement Mortar or
	Installation of Ceramic Tile on a Cured Portland Cement Mortar Bed with Dry-Set or Latex-Portland
	Cement Mortar
<u>A108.20-2021</u>	Exterior Installation of Gauged Porcelain Tiles and Gauged Porcelain Tile Panels/Slabs 2023 TCNA
	Handbook for Ceramic, Glass, and Stone Tile Installation

**Reason:** Porcelain tile is a ceramic tile material and should not be required to comply with TMS 402 "Building Code Requirements for Masonry Structures" which covers clay, concrete and stone masonry units. Since porcelain tile is found within Section 1404.11.2, it would be required to conform to all of Section 1404.11 requirements which invoke TMS 402, which is not correct. As defined by the Code, porcelain tile is addressed by ANSI A137.1:2022 "American National Standards Specifications for Ceramic Tile" and ANSI A137.3 "American National Standard Specifications for Gauged Porcelain Tiles and Gauged Porcelain Tile Panels/Slabs." Standards for the installation of porcelain tile on exterior walls that accompany these ANSI specifications include ANSI A108.1A "Installation of Ceramic Tile in the Wet-Set Method, with Portland Cement Mortar," ANSI A108.1B "Installation of Ceramic Tile on a Cured Portland Cement Mortar," ANSI A108.1C "Contractor's Option: Installation of Ceramic Tile in the Wet-Set Method with Portland Cement Mortar," ANSI A108.1C "Contractor's Option: Installation of Ceramic Tile in the Wet-Set or Latex-Portland Ceramic Tile with Dry-Set Mortar, Modified Dry-Set Cement Mortar, EGP (Exterior Glue Plywood) Modified Dry-Set Cement Mortar, or Improved Modified Dry-Set Mortar," and A108.20 "Exterior Installation of Gauged Porcelain Tiles and Gauged Porcelain Tile to its own separate section, the installation requirements of TMS 402 will not apply since they are different than those found in the ANSI atonards relevant to porcelain tile.

The section on interior adhered veneer masonry veneers has been moved up to follow directly after exterior adhered masonry veneer with the new number of 1404.11.2. The section on porcelain tile would follow that section with its own section number of 1404.12. Current Sections 1404.12 through the 1404.19 would have to be renumbered along with any references to those sections.

Bibliography: ANSI A137.1:2022 "American National Standards Specifications for Ceramic Tile"

ANSI A137.3:2022 "American National Standard Specifications for Gauged Porcelain Tiles and Gauged Porcelain Tile Panels/Slabs."

ANSI A108.1A:2021 "Installation of Ceramic Tile in the Wet-Set Method, with Portland Cement Mortar"

ANSI A108.1B:2021 "Installation of Ceramic Tile on a Cured Portland Cement Mortar Setting Bed with Dry-Set or Latex-Portland Cement Mortar"

ANSI A108.1C:2021 "Contractor's Option: Installation of Ceramic Tile in the Wet-Set Method with Portland Cement Mortar or Installation of Ceramic Tile on a Cured Portland Cement Mortar Bed with Dry-Set or Latex-Portland Cement Mortar"

ANSI A108.5"2021 "Setting of Ceramic Tile with Dry-Set Mortar, Modified Dry-Set Cement Mortar, EGP (Exterior Glue Plywood) Modified Dry-Set Cement Mortar, or Improved Modified Dry-Set Mortar"

ANSI A108.20:2021 "Exterior Installation of Gauged Porcelain Tiles and Gauged Porcelain Tile Panels/Slabs 2023 TCNA Handbook for Ceramic, Glass, and Stone Tile Installation"

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

#### Justification for no cost impact:

This is a rearrangement of sections with reference to appropriate ANSI standards and does not have a cost impact.

**Staff Analysis:** A review of the following standards proposed for inclusion in the code regarding some of the key ICC criteria for referenced standards (Section 4.6 of CP#28) will be posted on the ICC website on or before April 1, 2025: TCNA ANSIA108.1C-2021 Contractor's Option: Installation of Ceramic Tile in the Wet-Set Method with Portland Cement Mortar or Installation of Ceramic Tile on a Cured Portland Cement Mortar Bed with Dry-Set or Latex-Portland Cement Mortar TCNA ANSIA108.20-2021 Exterior Installation of Gauged Porcelain Tiles and Gauged Porcelain Tile Panels/Slabs 2023 TCNA Handbook for Ceramic, Glass, and Stone Tile Installation

TCNA ANSI A108.1A, ANSI A108.1B, and ANSI A108.5 are currently referenced in the IBC. They are in Chapter 35 under ANSI.

## FS8-25

#### IBC: [BS] 1404.15, [BS] 1404.15.2

Proponents: Matthew Dobson, representing Polymeric Exterior Products Association (mdobson@vinylsiding.org)

# THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

### 2024 International Building Code

#### Revise as follows:

**[BS] 1404.15 Vinyl siding**, <u>backed vinyl siding</u>, and insulated vinyl siding. *Vinyl siding*, <u>backed vinyl siding</u>, and insulated vinyl siding conforming to the requirements of this section and complying with ASTM D3679, <u>ASTM D7445</u>, and ASTM D7793, respectively, shall be permitted on *exterior walls* where the design wind pressure determined in accordance with Section 1609 does not exceed 30 pounds per square foot (1.44 kN/m<sup>2</sup>). Where the design wind pressure exceeds 30 pounds per square foot (1.44 kN/m<sup>2</sup>). Where the design wind pressure exceeds 30 pounds per square foot (1.44 kN/m<sup>2</sup>), tests or calculations indicating compliance with Chapter 16 shall be submitted.

**[BS] 1404.15.2 Installation over foam plastic insulating sheathing.** Where *vinyl siding*, *backed vinyl siding*, or insulated *vinyl siding* is installed over foam plastic insulating sheathing, the *vinyl siding* or insulated *vinyl siding* shall comply with Section 1404.15 and shall have a wind load design pressure rating in accordance with Table 1404.15.2.

#### Exceptions:

- 3. Where the foam plastic insulating sheathing and its attachment has a design wind pressure resistance complying with Sections 1609 and 2603.10, the *vinyl siding* or insulated *vinyl* siding shall be installed in accordance with Section 1404.15.1.
- 2. Where the *vinyl siding* or insulated *vinyl* siding manufacturer's product specifications provide an *approved* wind load design pressure rating for installation over foam plastic insulating sheathing, use of this wind load design pressure rating shall be permitted and the siding shall be installed in accordance with the manufacturer's installation instructions.
- 1. Where the foam plastic insulating sheathing is applied directly over *wood structural panels*, *fiberboard*, *gypsum sheathing* or other *approved backing* capable of independently resisting the design wind pressure, the *vinyl siding* or insulated *vinyl* siding shall be installed in accordance with Section 1404.15.1.

**Reason:** This change provides direction on the requirements for the installation of backed siding, as it is the same as vinyl and insulated vinyl siding. The material standard was added during the Group A cycle. The change also makes small edits to clean up and remove unnecessary words in relevant sections.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

#### Justification for no cost impact:

This changes simply provides installation requirements for backed siding if it is chosen, it does not add any additional requirements that would add cost.

Staff Analysis: FS111-24 was AMC1 and is now on the consent agenda. That proposal included the new standard ASTM D7445-24 and a new definition for 'backed vinyl siding.'

FS8-25

## FS9-25

#### IBC: [BS] 1404.15.1, [BS] 1404.18.1

Proponents: Matthew Dobson, representing Polymeric Exterior Products Association (mdobson@vinylsiding.org)

# THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

### 2024 International Building Code

#### Revise as follows:

**[BS] 1404.15.1 Application.** The siding shall be applied over sheathing or materials listed in Section 2304.6. Siding shall be applied to conform to the *water-resistive barrier* requirements in Section 1402. Siding and accessories shall be installed in accordance with the approved manufacturer's instructions and the following:

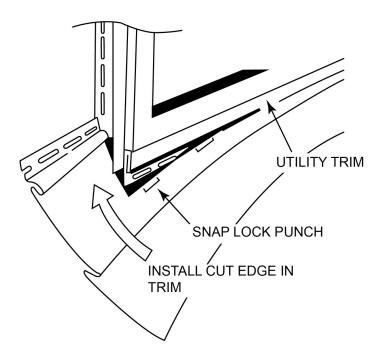
- 1. Horizontal siding shall be installed with a starter strip at the initial course at any location.
- 2. Under windows, and at the top of walls, utility trim shall be used with snap locks.

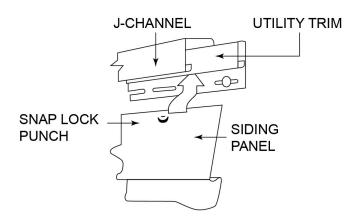
**[BS] 1404.18.1 Installation.** Polypropylene siding and accessories shall be installed over and attached to wood structural panel sheathing with nailable substrate not less than 7/16 inch (11.1 mm) in thickness or other substrate suitable for mechanical fasteners in accordance with the approved manufacturer's instructions and the following:

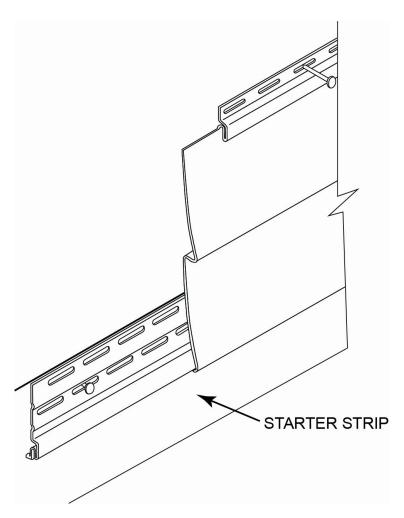
- 1. Horizontal siding shall be installed with a starter strip at the initial course at any location.
- 2. Where nail hem is removed for application under windows and top of walls, nail slot punch or pre-drilled holes shall be constructed for the fasteners.

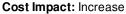
**Reason:** This change provides critical installation point requirement, that ensure system performance. These areas have been noted in the field as missing in some cases. By adding them, the code will require these specific connection points and by do so doing create more durable structures. Below are the drawings adopted by the IRC and also adopted by the Florida Residential Code. These drawings could be offered as part of the proposal as well, but based on input from the committee last year, I thought starting with simple language might be more acceptable.

J-CHANNEL 1/4" NAIL AS SHOWN FURRING IF 8" ON CENTER REQUIRED (TYPICAL)









#### **Estimated Immediate Cost Impact:**

This change literally will add cost, however it is a requirement by the industry and manufacturers instructions, so if the siding is installed properly it will include these components.

#### Estimated Immediate Cost Impact Justification (methodology and variables):

Since the these items are already require by industry standards and manufacturers installation instructions, their added cost is critical to the systems performance.

The added costs for and average 20 square house, based on industry cost information.

Starter Strip

160 If material - \$30

Labor to install \$80

Utility Trim

260 If material \$40

Labor to install \$120

Total added cost of change on an average house approximately. \$270

However, it is worth noting all manufacturer installation instructions require this, so correct installations will include these components as part of the system. In other words, these components should already be used as it is generally required by the code already through the manufacturer installation instruction default.

## FS10-25

#### IBC: [BS] 1404.15.1, [BS] 1404.15.1.1, [BS] 1404.15.1.2, [BS] 1404.15.1.3, TABLE 1404.15.1 (New)

Proponents: Matthew Dobson, representing Polymeric Exterior Products Association (mdobson@vinylsiding.org)

# THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

### 2024 International Building Code

#### Revise as follows:

**[BS] 1404.15.1 Application.** The siding shall be applied over sheathing or materials listed in Section 2304.6. Siding shall be applied to conform to the *water-resistive barrier* requirements in Section 1402. Siding and accessories shall be installed in accordance with the approved manufacturer's instructions. <u>Fasteners for vinyl siding, backed vinyl siding and insulated vinyl siding shall comply with Table 1404.15.1.</u>

#### Delete without substitution:

**[BS] 1404.15.1.1 Fasteners and fastener penetration for wood construction.** Unless otherwise specified in the approved manufacturer's instructions, nails used to fasten the siding and accessories shall be corrosion resistant and have not less than a 0.313inch (7.9 mm) head diameter and <sup>1</sup>/<sub>8</sub> inch (3.18 mm) shank diameter. The penetration into *nailable substrate* shall be not less than a 1.4 than 1 <sup>1</sup>/<sub>4</sub> inches (32 mm).

#### Revise as follows:

**[BS]** 1404.15.1.2 1404.15.1.1 Fasteners and fastener penetration for cold-formed steel light-fame construction. For cold-formed steel light-frame construction, corrosion-resistant fasteners shall be used. Screw fasteners shall penetrate through the steel with not fewer than three exposed threads. Other fasteners shall be installed in accordance with the *approved construction documents* and manufacturer's instructions.

#### Delete without substitution:

[BS] 1404.15.1.3 Fastener spacing. Unless specified otherwise by the approved manufacturer's instructions, fasteners shall be installed in the middle third of the slots of the nail hem and spacing between fasteners shall be not greater than 16 inches (406 mm) for horizontal siding and 12 inches (305 mm) for vertical siding.

#### Add new text as follows:

# TABLE 1404.15.1 PRESCRIPTIVE FASTENER REQUIREMENTS FOR VINYL SIDING, BACKED VINYL SIDING, AND INSULATED VINYL SIDING VINYL SIDING

	GENERAL		
<u>Fastner</u> <sup>a</sup>	<u>Substrate</u>	Penetration depth <sup>C</sup>	Spacing
Smooth shank nail, not less than 0.120" nail shank with 0.313(5/16)" head or 16 gage staple with 3/8 to 1/2 inch crown	Nailable Subtrate	Not less than 1-1/4"	Horizontal siding - not greater than 16-inches on center
Ring shank nail, not less than 0.120" shank with 0.313(5/16)" head	min. 7/16" nailable substrate	Through substrate plus a minimum of 1/4" through	Horizontal siding - not greater than 12-inches on center
Ring shank nail, not less than 0.120" shank with 0.313(5/16)" head	> 15/32" thick nailable substrate	Through substrate plus a minimum of 1/4" through	Horizontal siding - not greater than 16-inches on center

Either smooth shank or ring shank (as specified above)	min. 7/16" nailable substrate	minimum	Vertical siding - Not greater than 12-inches on center each way
Ring shank nail, not less than 0.120" shank with 0.313(5/16)" head or screw not less than 0.138 shank with a .423" truss or pan head	min. 3/4" thick wood furring	Into furring 3/4"	Horizontal sidng - Not greater than 12-inches on center
24-INCH O.C. FRAMING (For 20	psf or less settings design	n wind pressure) <mark>a</mark>	
Fastner	Substrate <sup>D</sup>	Penetration depth <sup>C</sup>	Spacing
All fastener types	Nailable subtrate	1-1/4"	Horizontal siding - Not greater than 24-inches on cente

For SI: 1 inch=25.4 mm

- a. Fasteners shall comply with ASTM F1667
- b. Wood framing and furring shall have a minimum specific gravity of 0.42. Other nailable substrates with equal or greater fastener withdrawal performance shall also be permitted. Where fiberboard, gypsum, foam plastic or other non-nailable substrate is use, fasteners must go into studs or other form of nailable substrate.
- c. The total thickness of wood structural panel, wood furring, and other nailable substrates shall be satisfying the required penetration depth.
- <u>d.</u> For 0.120 inch roofing nail only, 24 inches on center fastener spacing for horizontal siding shall be permitted where the allowable stress design wind pressure is 20 psf or less in accordance with Section 1609. Alternatively, it shall be permitted where the mean roof height of the building is 30 feet or less and the design wind speed does not exceed 115 mph for Exposure B or 110 mph Exposure C.

**Reason:** This change moves away from the long-standing "standard" installation prescription of 16" oc into the stud to a prescriptive table that offers practical fastener alternatives to installation depending on the framing and sheathing patterns. It is based on industry testing using ASTM D5206 and engineering calculations and in short it requires the use of ring shank nails where it's more difficult to hit the stud framing.

In addition in "low wind" areas (a good portion of the country), 20 psf or less where 24" oc framing is used the nailable sheathing is not being used, is provides allowance for this construction method.

This change offers options of installation while addressing trends in construction related to energy efficiency and alternative framing concepts.

#### Cost Impact: Increase

#### Estimated Immediate Cost Impact:

This change offers alternatives which could add additional fasteners and ring shank nails vs. smooth shank nail which are more expensive.

#### Estimated Immediate Cost Impact Justification (methodology and variables):

5lbs of 1 1/4" Roofing Smooth Shank Nails \$19

5 lbs of 1 1/4" Roofing Ring Shank Nails \$25

Adds about 25% in material costs and potentially additional labor cost.

Estimated additional cost for an average 20 square home is between \$50 - \$150.

#### Estimated Life Cycle Cost Impact:

Life cycle costs is not relevant here as the change in fastener type will not impact this issue.

#### Estimated Life Cycle Cost Impact Justification (methodology and variables):

NA

## FS11-25

#### IBC: [BS] 1404.17.1

Proponents: Alexander Haldeman, representing James Hardie Building Products (alex.haldeman@jameshardie.com)

# THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

### 2024 International Building Code

#### Revise as follows:

**[BS] 1404.17.1 Panel siding.** *Fiber-cement* panels shall comply with the requirements of ASTM C1186, Type A, minimum Grade II (or ISO 8336, Category A, minimum Class 2). Panels shall be installed with the long dimension either parallel or perpendicular to framing. Vertical and horizontal joints shall occur over framing members. *furring, wood structural panel* or other *approved* supporting material and shall be protected with caulking, with battens or flashing, or be vertical or horizontal shiplap or otherwise designed to comply with Section 1402.2. Panel siding shall be installed with fasteners in accordance with the approved manufacturer's instructions.

**Reason:** This proposal attempts to clarify that means of support and attachment of edges/joints of fiber-cement panels can be achieved by multiple methods, including framing members, but also including furring, wood structural panel, and other means/materials not falling into the above methods, which may or may not require *approval* from the building official or an approved agency.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

#### Justification for no cost impact:

This proposal is editorial in nature, and merely provides clarification that fiber-cement panel products' joints can be supported and attached using methods/materials more than *just* framing members.

## FS12-25

#### IBC: [BS] 1404.17.2

Proponents: Alexander Haldeman, representing James Hardie Building Products (alex.haldeman@jameshardie.com)

# THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

### 2024 International Building Code

#### Revise as follows:

**[BS] 1404.17.2 Lap siding.** *Fiber-cement* lap siding having a maximum width of 12 inches (305 mm) shall comply with the requirements of ASTM C1186, Type A, minimum Grade II (or ISO 8336, Category A, minimum Class 2). Lap siding shall be lapped not less than  $1^{1}/_{4}$  inches (32 mm) and lap siding not having tongue-and-groove end joints shall have the ends protected with caulking, covered with an H-section joint cover, located over a strip of <u>metal or non-metal</u> flashing or shall be otherwise designed to comply with Section 1402.2. Lap siding courses shall be installed with the fastener heads exposed or concealed in accordance with the approved manufacturer's instructions.

**Reason:** This proposal is editorial in nature, and aims to provide clarification that the materials listed with the intent to comply with section 1402.2 may be made of metal or non-metal materials and still fulfil the intent of this section. (caulking, H-section joint cover, strip of metal or non-metal flashing, or otherwise designed to comply with Section 1402.2). (prevents the accumulation of water within the exterior wall assembly, and provides a means for draining water to the exterior)

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

#### Justification for no cost impact:

This proposal is simply a clarification that *both* metal and non-metal flashing materials satisfy the intent of 1404.17.2.

## FS13-25

#### IBC: [BS] 1404.18.2

Proponents: Matthew Dobson, representing Polymeric Exterior Products Association (mdobson@vinylsiding.org)

# THIS CODE CHANGE WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

### 2024 International Building Code

#### Revise as follows:

**[BS] 1404.18.2 Fastener requirements.** Unless otherwise specified in the approved manufacturer's instructions, nails shall be corrosion resistant, with a minimum 0.120-inch (3 mm) shank and a minimum 0.313-inch (8 mm) head diameter. Nails shall be not less than  $1^{1}/_{4}$  inches (32 mm) long or as necessary to penetrate sheathing or *nailable substrate* not less than  $3^{1}/_{4}$  inch (19.1 mm). Where the nail fully penetrates the sheathing or *nailable substrate*, the end of the fastener shall extend not less than  $1^{1}/_{4}$  inch (6.4 mm) beyond the opposite face of the sheathing or *nailable substrate*. Spacing of Fasteners shall be <u>spaced</u> installed in accordance with the approved-manufacturer's instructions.

Reason: This is a simple edit of word order, it is more consistent with how the code with written.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

#### Justification for no cost impact:

Just switching word order.

## FS14-25

#### IBC: 1404.14.2 (New), FIGURE 1404.14.2(1) (New)

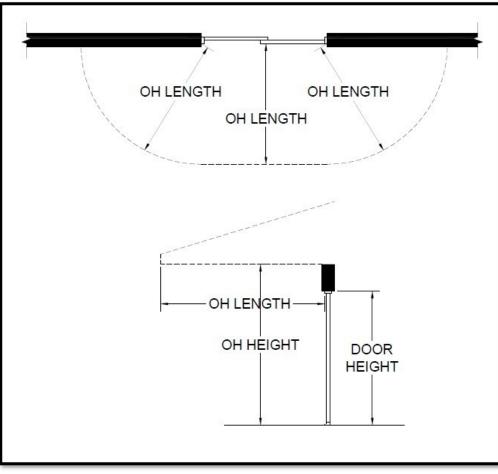
Proponents: Craig Drumheller, representing WDMA (cdrumheller@wdma.com)

THIS CODE CHANGE WILL BE HEARD BY THE IBC GENERAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

### 2024 International Building Code

#### Add new text as follows:

1404.14.2 Door systems with a Limited Water (LW) Rating. Door systems *labeled* with a Limited Water (LW) rating as specified in AAMA/WDMA/CSA 101/I.S.2/A440 shall require additional water exposure protection by an overhang with an OH Ratio greater than or equal to 1.0, approval by a *registered design professional*, or by other *approved* methods. The OH Ratio, as depicted in Figure 1404.14.2(1), shall be determined in accordance with the following equation:OH Ratio = OH Length/OH HeightWhere:OH Length = The minimum horizontal projection of the permanent overhang measured from the nearest portion of the door face. OH Height = The maximum vertical distance from the elevation of the bottom of the door to the underside of the outer edge of the permanent overhang over the door.



#### FIGURE 1404.14.2(1) OVERHANG RATIO

**Reason:** The proposed code change introduces a requirement for doors labeled with a Limited Water (LW) rating under standard AAMA/WDMA/CSA 101/I.S.2/A440 (NAFS). The Limited Water (LW) designation specifies products intended for use in locations where adequate protection from water exposure is provided. Currently, the code has no additional requirements for LW-rated windows as the NAFS standard recommends. This proposal seeks to integrate this designation into the building code with clear door overhang criteria,

thereby reducing the ambiguity of the LW designation and ensuring consistency with industry intent.

WDMA members have determined that an overhang-to-height ratio of 1.0 offers adequate protection against wind-driven rain for LWrated doors. This criterion is practical and measurable, ensuring that doors installed in such configurations meet the LW designation's intent without requiring additional water infiltration testing or increasing the exposure risk. By adopting this requirement, the building code will reflect current industry standards, support effective design practices, and streamline compliance for projects with adequate water infiltration protection for doors. A provision for a registered design professional and other approved methods is included to allow for alternate solutions that provide adequate water protection.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

#### Justification for no cost impact:

Using overhangs for additional weather protection is already a compliance approach intended for LW-rated doors in the referenced standard. This proposal may reduce the cost of construction for doors installed over large overhangs.

**Staff Analysis:** CC # FS14-25 and CC # FS15-25 addresses requirements in a different or contradicting manner. The committee is urged to make their intensions clear with their actions on these proposals.

## FS15-25

#### IBC: CHAPTER 14, 1404.14.2 (New)

Proponents: Cesar Lujan, representing Window & Door Manufacturers Association (clujan@wdma.com)

## THIS CODE CHANGE WILL BE HEARD BY THE IBC GENERAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

### 2024 International Building Code

## CHAPTER 14 EXTERIOR WALLS

Add new text as follows:

1404.14.2 Door systems with a Limited Water (LW) rating. Door systems labeled with a Limited Water (LW) rating as specified in AAMA/WDMA/CSA 101/I.S.2/A440 shall be adequately protected from water exposure as determined by a registered design professional or other approved methods.

**Reason:** The proposed code change introduces a requirement for doors labeled with a Limited Water (LW) rating, as defined under the AAMA/WDMA/CSA 101/I.S.2/A440 (NAFS) standard. This requirement aligns with the referenced NAFS standard and will help ensure that the LW designation is applied appropriately. The LW designation identifies products intended for use in locations where adequate protection from water exposure is provided.

Currently, the building code does not include any reference or requirements for LW-rated doors, as recommended by the NAFS standard. This lack of oversight could result in improper installations that fail to meet the intended water protection criteria. By requiring additional review and approval by a registered design professional or code official, this proposal will help prevent the misapplication of products with an LW designation.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

#### Justification for no cost impact:

Since the NAFS standard already requires additional protection for LW-rated doors, this proposal does not increase the cost of construction for doors conforming to the NAFS standard.

**Staff Analysis:** CC # FS15-25 and CC # FS14-25 addresses requirements in a different or contradicting manner. The committee is urged to make their intensions clear with their actions on these proposals.

## FS16-25

#### IFC: 903.2.3 (New); IBC: 903.2.3 (New)

**Proponents:** Greg Johnson, Johnson & Associates Consulting Services, representing self (gjohnsonconsulting@gmail.com); Jay Peters, representing Codes and Standards International (peters.jay@me.com)

# THIS CODE CHANGE WILL BE HEARD BY THE IBC GENERAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THAT COMMITTEE.

### 2024 International Fire Code

#### Add new text as follows:

903.2.3 Group D. An *automatic sprinkler system* shall be provided throughout all *buildings* containing a Group D occupancy where one or more of the following conditions exists:

- 1. The Group D fire area exceeds 12,000 square feet (1115 m<sup>2</sup>).
- 2. The Group D fire area is located more than three stories above grade plane.
- 3. The combined area of all Group D fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m<sup>2</sup>).

### 2024 International Building Code

#### Add new text as follows:

903.2.3 Group D. An *automatic sprinkler system* shall be provided throughout all *buildings* containing a Group D occupancy where one or more of the following conditions exists:

- 1. <u>The Group D fire area exceeds 12,000 square feet (1115 m<sup>2</sup>)</u>.
- 2. The Group D fire area is located more than three stories above grade plane.
- 3. The combined area of all Group D fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m<sup>2</sup>).

**Reason:** Data centers are unique uses and are being proposed to be added as a new occupancy classification. As such there needs to be clear direction for when sprinkler requirements are triggered. The triggers proposed are consistent with the most conservative occupancy classifications currently being assigned to these unique uses, Groups F-1 and S-1.

Cost Impact: The change proposal is editorial in nature or a clarification and has no cost impact on the cost of construction

#### Justification for no cost impact:

Data centers are typically sprinklered throughout so this represents codification of current practices and no additional costs.

FS16-25