

MODIFICATIONS TO CHAPTERS CFSB1, B2 & B3

For use with Trusses spaced at 4'-0" on-center and up to 80'-0" in length

INSTALLATION RESTRAINT & BRACING OF TRUSSES

Follow the recommendations provided in Chapters **CFSB1 - Guide for Handling, Installing, Restraining & Bracing of Trusses** and **CFSB2 - Setting Trusses and Installation Restraint/Bracing** of the **CFSBCSI** Booklet EXCEPT:

- ✓ The minimum size steel section used as Lateral Restraint and Diagonal Bracing is 33 mil 1-1/2" (38 mm) furring (hat) channel (150F125-33) or 33 mil 2-1/2" (64 mm) stud section (250S162-33) unless specified by the Building Designer. Attach to each truss with minimum 2 - #10 self-drilling tapping screws (SDS).

Sigue las recomendaciones provistas en Capítulos CFSB1 – Guía de Buena Práctica para el Manejo, Instalación, Restricción y Arriostre de los Trusses y CFSB2 – Colocación de Trusses y Restricción/Arriostre de Instalación del CFSBCSI Folleto EXCEPTO:

El tamaño mínimo de la sección del acero utilizado como Restricción Lateral y Arriostre Diagonal es 33 mil 1-1/2" (38 mm) furring (hat) channel (150F125-33) o sección de tachuela (250S162-33) de 33 mil 2-1/2" (64 mm) a menos que especificado por el Diseñador del Edificio. Sujete a cada truss con un mínimo de 2 - #10 tornillos autopercutorantes (SDS).

Top Chord Installation Lateral Restraint and Diagonal Bracing for Trusses Spaced @ 4'-0" On-Center

TABLE 1: Maximum Top Chord Installation Lateral Restraint (TCILR) and Diagonal Bracing for Trusses Spaced at 4'-0" On-Center					
Truss Span	Truss Spacing	Lateral Restraint		Diagonal Bracing	
		TCILR Spacing	Min. Size/Grade	Min. Size/Grade	Max. Spacing
Up to 30' (9.1 m)	4' (1.2 m)	10' (3 m) o.c. max.	150F125-33 or 250S162-33	150F125-33 or 250S162-33	20' (6.1 m)
30' (9.1 m) - 45' (13.7 m)	4' (1.2 m)	8' (2.4 m) o.c. max.		150F125-33 or 250S162-33	20' (6.1 m)
45' (13.7 m) - 60' (18.3 m)	4' (1.2 m)	6' (1.8 m) o.c. max.		250S162-33 or Double*150F125-33	20' (6.1 m)
60' (18.3 m) - 80' (24.4 m) ²	4' (1.2 m)	4' (1.2 m) o.c. max.		150F125-33	12' (3.7 m)
				250S162-33 or Double*150F125-33	20' (6.1 m)
			150F125-33	12' (3.7 m)	

*Double assumes nested 2-piece 150F125-33 attached together with #10 SDS at 12" (300 mm) o.c.

²Consult a registered design professional for trusses longer than 60' (18.3 m).

Note: This Table replaces Table CFSB1-4 and CFSB2-1 in the CFSBCSI Booklet when installing trusses spaced at 4'-0" on-center.

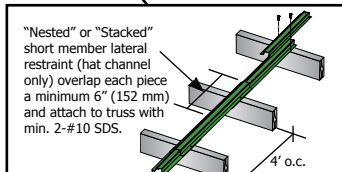
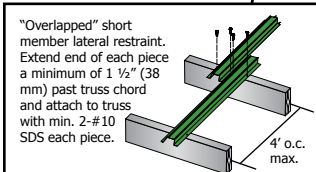
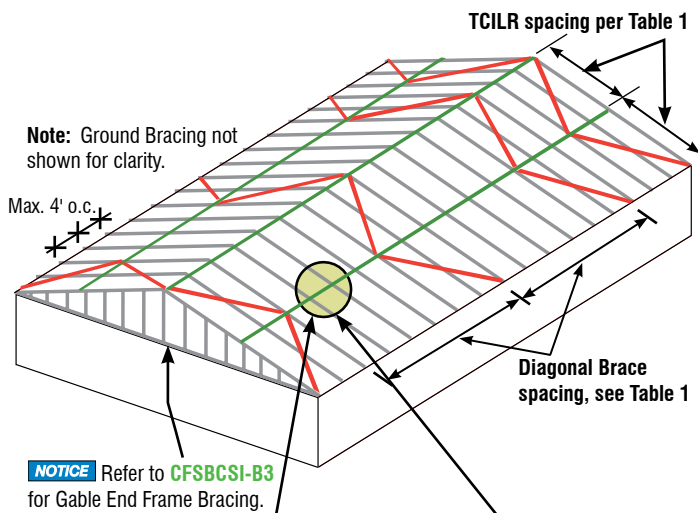


FIGURE CFSB1-24 and CFSB2-37 (4' On-Center)

Web Member Installation Diagonal Bracing for Trusses Spaced @ 4'-0" On-Center

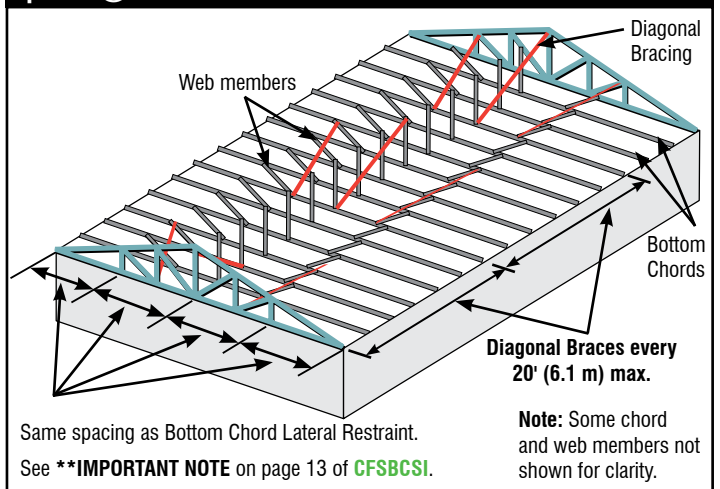


FIGURE CFSB1-27 and CFSB2-35 (4' On-Center)

Bottom Chord Installation Lateral Restraint and Diagonal Bracing for Trusses Spaced @ 4'-0" On-Center

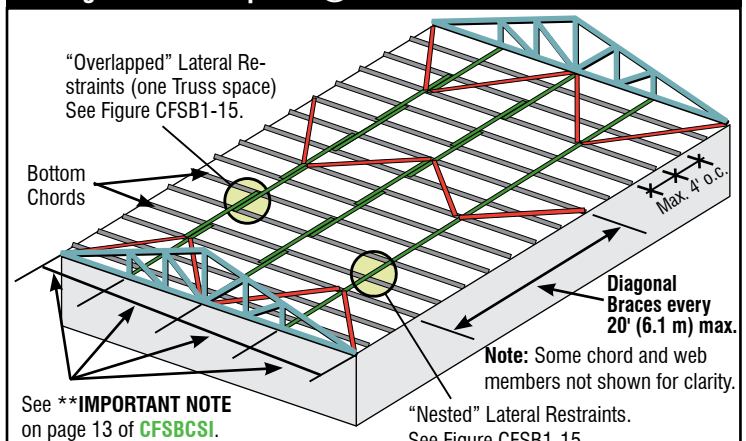


FIGURE CFSB1-28 (4' On-Center)

Modifications to Chapters CFSB1, B2 & B3

For use with Trusses spaced at 4'-0" on-center and up to 80'-0" in length

PERMANENT RESTRAINT & BRACING OF TRUSSES

Follow the recommendations provided in Chapters **CFSB3** – *Permanent Restraint/Bracing of Chords & Web Members* of the **CFSBCSI** Booklet EXCEPT:

- ✓ The minimum size steel section used as Permanent Lateral Restraint and Diagonal Bracing is 33 mil 1-1/2" (38 mm) furring (hat) channel (150F125-33) or 33 mil 2-1/2" (64 mm) stud section (250S162-33) unless specified by the Building Designer. Attach to each truss with #10 self-drilling tapping screws (SDS) as indicated in the following Tables or as specified.

Sigue las recomendaciones provistas en Capítulo CFSB3 – Restricción/Arriostre Permanente de las Cuerdas y los Miembros Secundarios del CFSBCSI Folleto EXCEPTO:

El tamaño mínimo de la sección del acero utilizado como Restricción Lateral Permanente y Arriostre Diagonal es 33 mil 1-1/2" (38 mm) furring (hat) channel (150F125-33) o sección de tachuela (250S162-33) de 33 mil 2-1/2" (64 mm) a menos que especificado por el Diseñador del Edificio. Sujete a cada truss con #10 tornillos autopercorantes (SDS) como mostrado en las Tablas siguientes o como especificado.

Table 2: Permanent Lateral Restraint & Diagonal Bracing for the Top or Bottom Chord Planes for Trusses Spaced at 4'-0" On-Center ¹						
Truss Spacing	Lateral Restraint			Diagonal Bracing		
	Minimum Size/Grade ²	Min. Attachment to Each Truss Chord	Max. Spacing	Minimum Size/Grade ²	Min. Attachment to Each Truss Chord	Max. Spacing ³
Top Chord						
4 ft (1.2 m)	150F125-33 or 250S162-33	2 - #10 SDS	2 ft (0.6 m) o.c.	350S162-33	5 - #10 SDS	20 ft (6.1 m)
				250S162-33	4 - #10 SDS	16 ft (4.9 m)
				Double ⁴ 150F125-33	3 - #10 SDS	8 ft (2.4 m)
Bottom Chord						
4 ft (1.2 m)	150F125-33 or 250S162-33	2 - #10 SDS	6 ft (1.8 m) o.c.	250S162-33	3 - #10 SDS	20 ft (6.1 m)
				Double ⁴ 150F125-33		16 ft (4.9 m)
				150F125-33		8 ft (2.4 m)

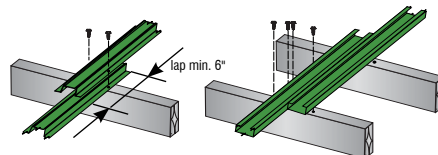
¹ Other restraint, bracing and/or attachment requirements may be specified.
² Designations per Steel Stud Manufacturers Association (SSMA).
³ Maximum spacing of diagonal bracing for the top chord of a piggyback truss assembly is 8 ft (2.4 m) for trusses spaced at 4 ft (1.2 m) on-center.
⁴ Attach double 150F125-33 hat channel together with #10 SDS at 12" (305 mm) on-center.

Table 3: Permanent Lateral Restraint & Diagonal Bracing for the Web Member Plane for Trusses Spaced at 4'-0" On-Center ¹					
Truss Spacing	Lateral Restraint		Diagonal Bracing ²		
	Minimum Size/Grade ³	Min. Attachment to Each Web	Minimum Size/Grade ³	Min. Attachment to Each Web	Max. Spacing
4 ft (1.2 m)	250S162-33	4 - #10 SDS	250S162-33	5 - #10 SDS	16 ft (4.9 m)
	Double ⁴ 150F125-33	3 - #10 SDS	Double ⁴ 150F125-33	4 - #10 SDS	12 ft (3.7 m)
	150F125-33	2 - #10 SDS	150F125-33	3 - #10 SDS	8 ft (2.4 m)

¹ Other restraint, bracing and/or attachment requirements may be specified.
² Assumes either two diagonal braces or one continuous brace from bottom to top chord planes for each row of lateral restraint.
³ Designations per Steel Stud Manufacturers Association (SSMA).
⁴ Attach double 150F125-33 hat channel together with #10 SDS at 12" (305 mm) on-center.

"NESTED" Lateral Restraint –
furring (hat) channel only with #10 SDS

"OVERLAPPED" Lateral Restraint with #10 SDS



NOTICE The lateral restraint and diagonal bracing provided in Tables 2 and 3 above are intended to resist truss member buckling due to internal truss forces and does not constitute the required diaphragm stiffness or resistance against lateral loads such as wind and/or seismic.

La restricción lateral y el arriostre diagonal mostrado en las Tablas 2 y 3 arriba son pensados para resistir el torcer de los miembros del truss por las fuerzas internas del truss y no constituyen la requerida rigidez del diafragma o resistencia contra las cargas laterales como por viento y/o cargas sísmicas.

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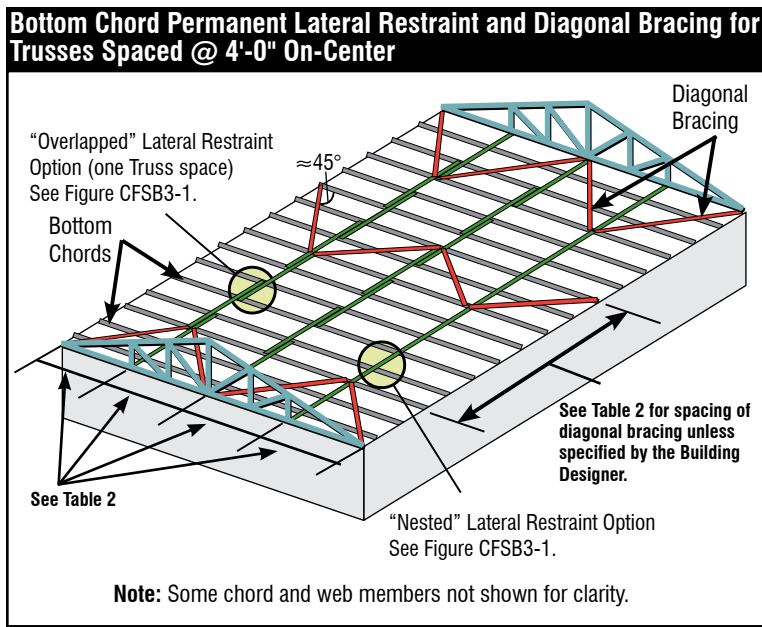


FIGURE CFSB3-7 (4' On-Center)

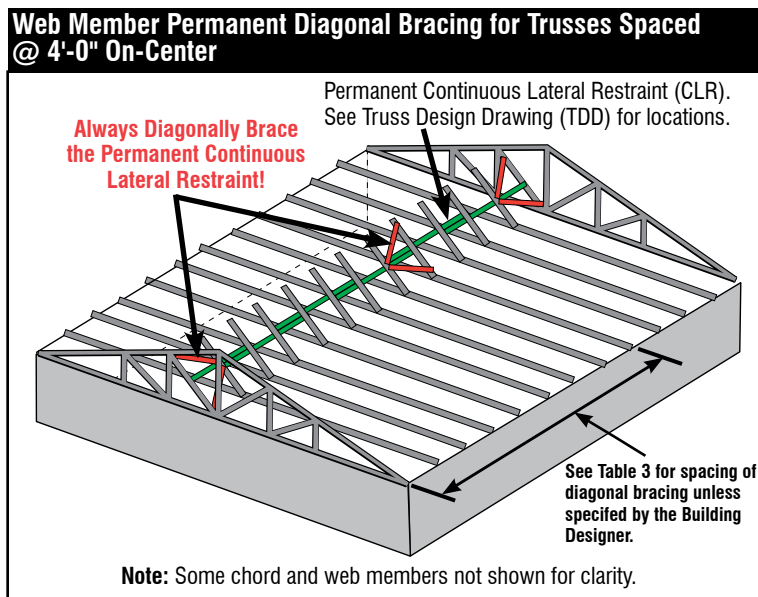


FIGURE CFSB3-11 (4' On-Center)

- ☑ Attach the CLR at the locations shown on the TDD.
Sujete el CLR en las ubicaciones mostrados en el TDD.
- ☑ Install the diagonal bracing at approximately 45° to the CLR and position so that it crosses the web in close proximity to the CLR. Attach the diagonal bracing as close to the top and bottom chords as possible and to each web it crosses. **Repeat at spacing provided in Table 3, previous page, or as specified by the Building Designer.**

Instale el arriostre diagonal a aproximadamente 45 grados al CLR y lo coloque para que cruce la cuerda muy cerca del CLR. Sujete el arriostre diagonal tan cercano a las cuerdas superiores e inferiores como sea posible y a cada cuerda que lo cruza. **Repita al espaciamiento mostrado en la Tabla 2 a la izquierda o como especificado por el Diseñador del Edificio.**

Modifications to Chapters CFSB1, B2 & B3
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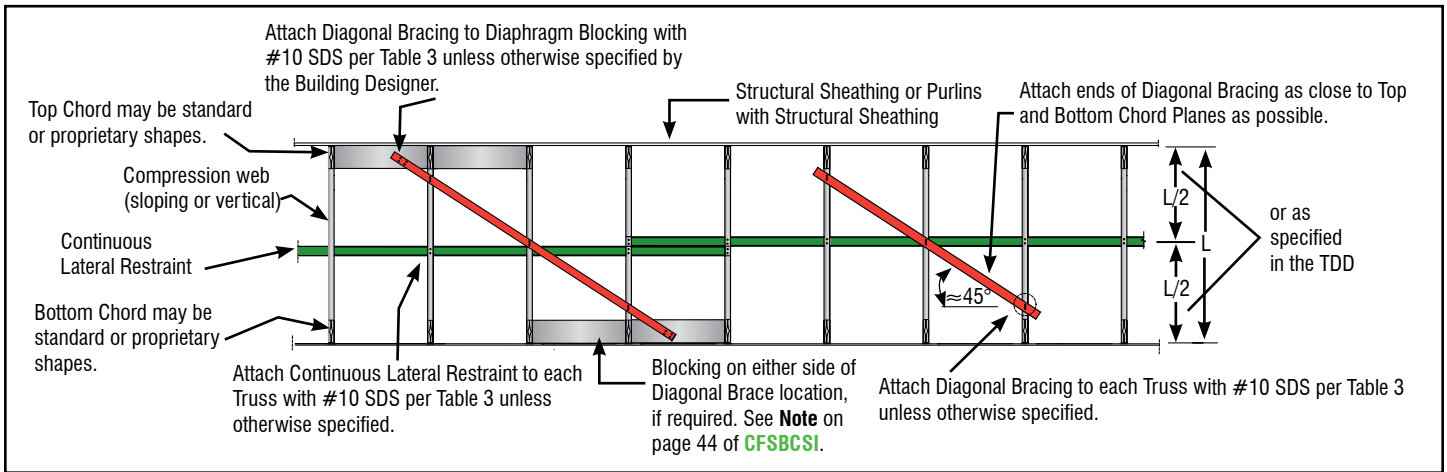


FIGURE CFSB3-16 (4' On-Center)

Permanent Restraint/Bracing for the Top Chord in a Piggyback Assembly for Trusses Spaced @ 4'-0" On-Center

✓ A critical consideration with a Piggyback assembly is to brace the Top Chord of the supporting Truss located directly beneath the cap Truss to prevent it from buckling. Bracing for this portion of the Top Chord is accomplished in several ways including:

- Rows of Continuous Lateral Restraint (CLR) and Diagonal Bracing (see Figure CFSB3-36 below). Refer to Table 2 of this insert for the minimum size and attachment of Lateral Restraint and Diagonal bracing unless otherwise specified
- Connecting the CLR into the roof Diaphragm
- Adding Structural Sheathing
- Some other equivalent means

Una consideración crítica con un ensamblaje de Piggyback es de arriostrar la Cuerda Superior del Truss soportante localizado directamente debajo el Truss de capa para prevenir que se torcer. Arriostre para esta parte de la Cuerda Superior lleva a cabo por varias maneras incluyendo:

- *Filas de Restricción Lateral Continua (CLR) y Arriostre Diagonal (vea Figura CFSB3-36 a la derecha). Refiera a la Tabla 2 de esta encarte para el tamaño mínimo y sujete de la Restricción Lateral y el Arriostre Diagonal a meno que especificado de otra manera*
- *Conectar el CLR en el diafragma del techo*
- *Añadir el Entablado Estructural*
- *Algunas otras maneras equivalentes*

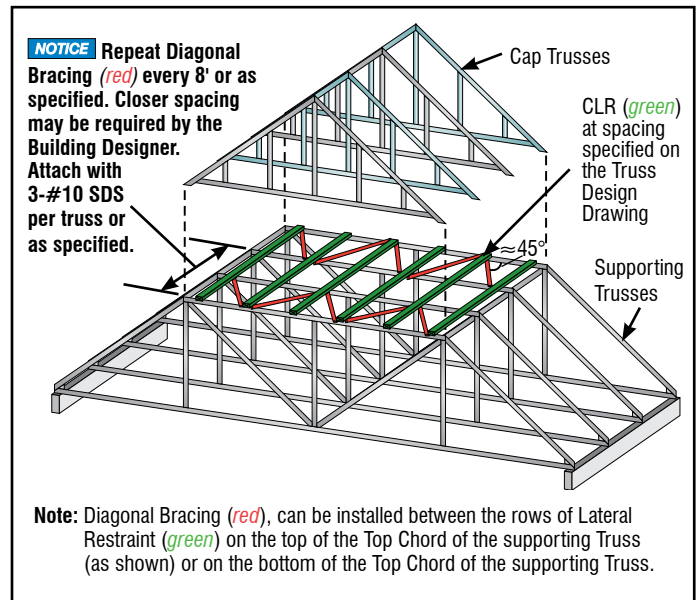


FIGURE CFSB3-36 (4' On-Center)

NOTICE If Diagonal Bracing is used to restrain the CLR(s) and to transfer the cumulative force from the CLR(s) into the roof Diaphragm, **repeat the Diagonal Bracing at 8' intervals or as specified. Closer spacing may be required by the Building Designer. Attach the Diagonal Bracing to the Top Chord of each supporting truss with 3-#10 SDS or as specified.**

Si el Arriostre Diagonal es utilizado para restringir el CLR y para transferir la fuerza acumulativa del CLR a la Diafragma de techo, repite el Arriostre Diagonal en intervalos de 8 pies o como especificado. El espaciamiento más cercano puede ser requerido por el Diseñador del Edificio. Sujete el Arriostre Diagonal a la Cuerda Superior de cada truss soportante con 3-#10 SDS o como especificado.



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