Code Compliance Research Report
CCRR-0267

Issue Date: 07-25-2017
Revision Date: 07-21-2025
Renewal Date: 07-31-2026

DIVISION: 09 50 00 – CEILINGS
Section: 09 51 00 – Acoustical Ceilings
Section: 09 51 33.13 – Acoustical Snap in Metal Pan Ceilings

REPORT HOLDER:
Roxul USA Inc. dba Rockfon
4849 S. Austin Ave.
Chicago IL 60638
www.rockfon.com

REPORT SUBJECT:
Planar® Linear Metal Suspended Ceiling System

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2024, 2021, 2018 *International Building Code®* (IBC)

NOTE: This report references the most recent Code sections. Section numbers in earlier versions may differ.

1.2 Planar® Linear Metal Suspended Ceiling System has been evaluated for the following properties (see Table 1):

- Seismic
- Structural

1.3 Planar® Linear Metal Suspended Ceiling System has been evaluated for the following uses:

- Non-fire rated assemblies primarily located in large open areas such as corridors, passenger terminals and lobby areas.
- Planar® Linear Metal Suspended Ceiling System is acceptable for installations in areas of moderate to severe seismic activity.

2.0 STATEMENT OF COMPLIANCE

Planar® Linear Metal Suspended Ceiling System complies with the Codes listed in Section 1.1, for the properties stated in Section 1.2 and uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.

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 Planar® Linear Metal Ceiling System consists of linear aluminum panels that mount to a concealed suspended framing system.

3.2 Planar® Linear Metal Ceiling Panels are produced from either 0.024 or 0.032-inch-thick sheet aluminum. The panels are available in widths of 4, 6, and 8 inches with a length of 12-ft. The Planar panels are either 5/8 or 7/8 inches deep with either a square or round edge profile. The exposed surface is available with a perforated or non-perforated finish.

3.3 Planar® Symmetrical Carrier is a formed hat channel with inverted T-shaped teeth evenly spaced along each leg for attachment to flanges of ceiling panels See Figure 2. The Symmetrical Carrier is fabricated from 0.037-in. thick aluminum with a minimum yield strength of 21,000 ksi.

3.4 Main Runner Carrier Splice: is a 12-in. long U-shaped channel installed to splice two Symmetrical Carriers. The Carrier splice is formed from 0.037-in. thick aluminum.

3.5 Panel Retainer Clip(s): is a 2-1/2-inch clear plastic U shaped clip designed to secure round edge panels securely at the Symmetrical Carrier. The clip is available in widths of 13/16 and 7/8 inches.

3.6 Recessed Filler Strip: is a 12-foot aluminum U shaped strip installed between panels installed open reveal installations with round profile edge panels.

3.7 Perimeter Angle Clip (1425): The Perimeter Angle Clip is 12-ft long 2x2-in wall angle field cut 6-inch lengths. The wall angle is formed from 0.020-in electro galvanized CS Type B steel conforming to ASTM A1008.

3.8 C-Channel Support Track Standard 20 Gauge 1-5/8 in x 1-1/4-in x 10-ft. length steel track.

4.0 PERFORMANCE CHARACTERISTICS

4.1 The Planar® Linear Metal Suspended Ceiling System has been evaluated to the requirements of ICC-ES AC156 Acceptance Criteria for Seismic Certification by Shake-Table Testing of Nonstructural Components for use in seismic design Category C in areas of moderate seismic activity and Seismic Categories D, E, and F for areas of severe seismic activity.

5.0 INSTALLATION

5.1 General:

Planar® Linear Metal Suspended Ceiling System must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. In the event of a conflict between the manufacturer's instructions and this report, this report governs. A copy of the manufacturer's instructions must be available on the jobsite during installation.

5.2 Installations requiring design to seismic design categories C, D, E, and F shall be in accordance with ASTM E580. For seismic design categories D, E, and F required methods of clearance wall and attached wall configurations are detailed in Figures 8, 9, and 10.

5.3 Planar® Linear Metal Ceiling Panels mount to the framing utilizing the Symmetrical Carrier Figure 13.

5.4 Panel Retainer Clip(s): are required for installations utilizing the Planar round edge panels. The clips are installed at the connection points of the panel to the Symmetrical Carriers. Retainer Clips are required on every other Symmetrical Carrier down the length of each panel with a minimum of two clips per panel. See Figure 13 for clip installation detail.

5.5 Recessed Filler Strip: are installed in conjunction with the Panel Retainer clip to fill space between panels.

5.6 Symmetrical Carriers are spaced a maximum of 50 inches apart and supported from structural support by #12 GA hanger wire installed per ASTM C636.

5.7 Symmetrical Carrier Splice slips over two adjoining Symmetrical Carrier channels. The splice is installed by inserting tabs into carrier and bending them over. It is fastened with 8 pop rivets utilizing the predrilled holes in the Symmetrical Carrier and the Carrier Splice. See Table 4 for fastening schedule and Figure 12 for installation

5.8 Perimeter Angle Clip is fastened along the walls at terminal ends supporting Symmetrical Carriers and Track. See Figures 8, 9, 10.

5.9 C-Channel Support Track shall be fastened to topside of the Symmetrical Carrier in perpendicular direction. The support tracks shall be spaced no more than 12 feet on center.

6.0 CONDITIONS OF USE

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, this report governs.

6.2 Planar® Linear Metal Panels shall not support any additional weight. Light fixtures, HVAC vents or any other items must be independently supported.

6.3 Light Fixtures For standard NEMA Type–F light fixtures see Figure 11 for installation and the manufacturer's installation instructions.

6.4 Seismic design categories C, D, E, and F installations shall have a maximum supported ceiling weight limited to 1.07 lbs./SF.

6.5 Suspended ceiling systems must be designed in accordance with ASCE 7, Section 13.5.6. The documents must be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.

6.6 Where special inspections are required by the building official, a statement of special inspection shall be provided in accordance with IBC Section 1704.3, as applicable. Special inspector shall verify ceiling installation is in compliance with Section 5.1 of this report.

6.7 Periodic special inspections including a statement of special inspection shall be provided for use in Seismic Design Categories B, C, D, E and F where suspended ceiling systems are seismically qualified through testing as required by the building official during enforcement of IBC Sections 1705.1.1, 1704.5 and 1705.14.2.

6.8 The ceiling framing system must not be used to provide lateral support for walls or partitions, except as provided for in ASCE 7, Section 13.5.8.1.

6.9 Planar® Linear Metal Suspended Ceiling System components are manufactured in Chicago Illinois in accordance with an approved quality control system with inspections by Intertek.

7.0 SUPPORTING EVIDENCE

7.1 Data in accordance with the ICC-ES AC368, Acceptance Criteria for Suspended Ceiling Framing Systems, approved November 2019.

7.2 Seismic Evaluation Summary Miyamoto International dated June 2015.

7.3 Data in accordance with the ICC-ES AC156, Acceptance Criteria for Seismic Certification by Shake-table Testing of Nonstructural Components, approved October 2010, editorially revised May 2015.

7.4 Documentation of an Intertek approved quality control system for the manufacturing of products recognized in this report.

7.5 Intertek Listing Report Planar Linear Metal System, on the Intertek Directory of Building Products.

8.0 IDENTIFICATION

The Planar® Linear Metal Suspended Ceiling System is identified with the manufacturer's name (Rockfon), address and telephone number, the product name (Planar Linear Metal Suspended Ceiling System), the Intertek Mark as shown below, and the Code Compliance Research Report number (CCRR-0267).

CODE COMPLIANCE
Intertek
CCRR-0267

9.0 OTHER CODES

This section is not applicable.

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 https://bpdirectory.intertek.com is recommended to ascertain the current version and status of this report.

TABLE 1 – PROPERTIES EVALUATED

PROPERTY	2024 IBC SECTION
Seismic	1705.14.2 1705.14.3
Structural	104.2.3 1613 2506.2.1

TABLE 2 - PANEL PROPERTIIES

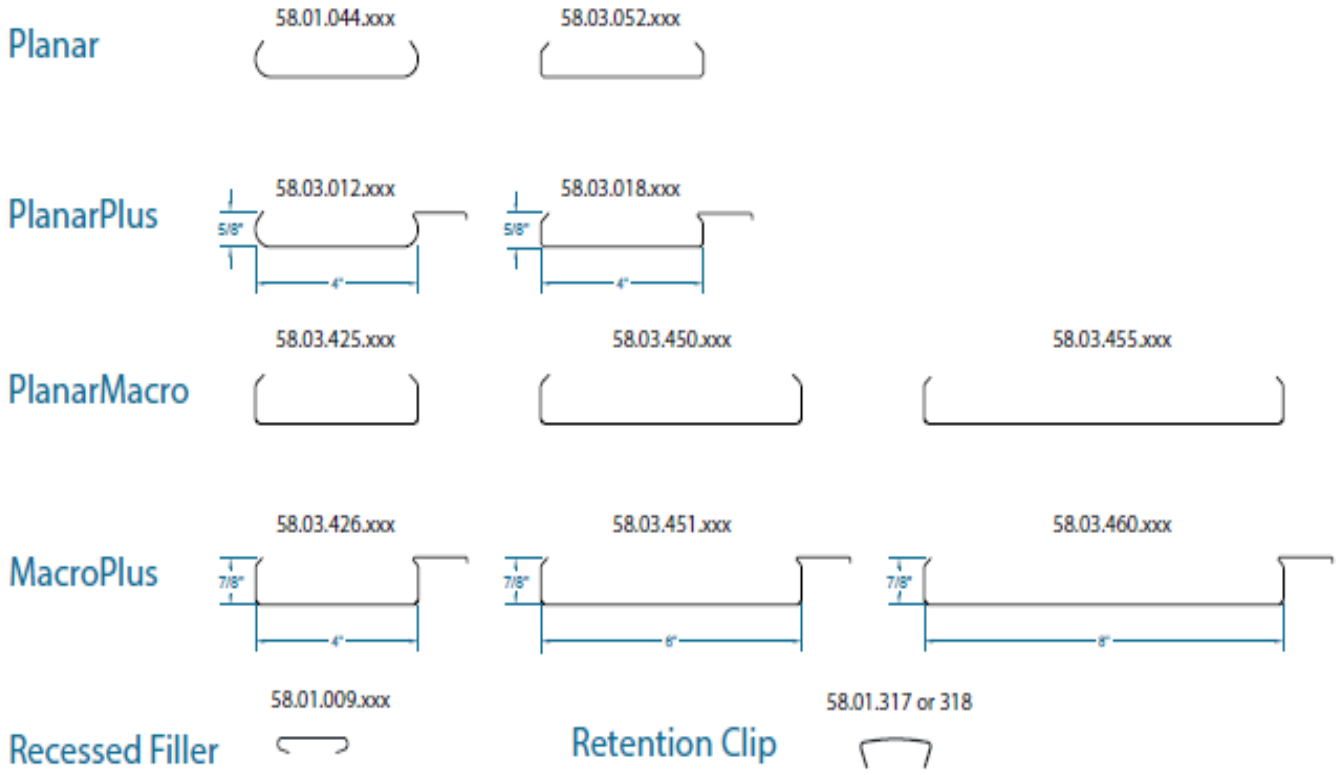


TABLE 3 - GRID SUSPENSION COMPONENTS

Component	Designation	Dimensions
Panel retainer clip	58.01.318	7/8 x 2-1/2 x .042
	58.01.317	13/16 x 2-1/2 x .042
Wall angle	1420	L 15/16 x 15/16 x .020
Support Track	By others	C 1-5/8 x 1-1/4 (20 GA)
Carrier	58.01.007	U 2 x 26/32 x .037
Carrier Splice	58.01.403.008	U 2 x 1-5/8 x 1-3/8 x .037
Recessed filler strip	58.01.009	1-13/16 x 144 .024

TABLE 4 - FASTENING SCHEDULE

Connection	Description
Track splice	8 (4 each member) #8 sheet metal screws (SMS)
Carrier splice	8 #10 self-drilling SMS or 8 3/16in. diameter open domed aluminum pop rivets with aluminum mandrel Grip range .063”-.125”
Carrier to track attachment	2 #8 - #8 x ¾” long Slotted Hex Head Sharp Point Sheet Metal Screw

TABLE 5 - SYMETRICAL CARRIER LOAD CAPACITY (58.01.007)

Span Length in.	Lbs./ LF
18	73.8
24	36.2
36	11.0
48	4.7

Planar Macro Panel Planar Round Edge

FIGURE 1 - PLANAR LINEAR METAL PANELS

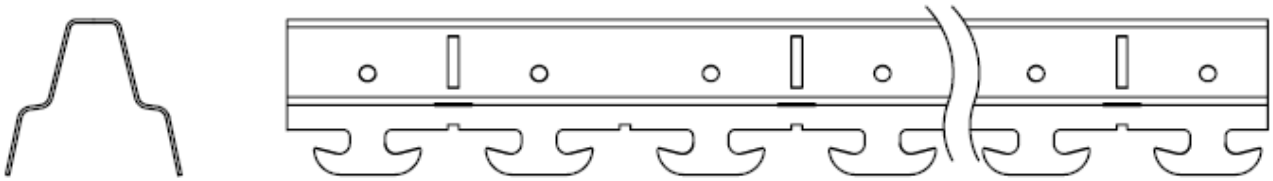


FIGURE 2 - SYMMETRICAL CARRIER

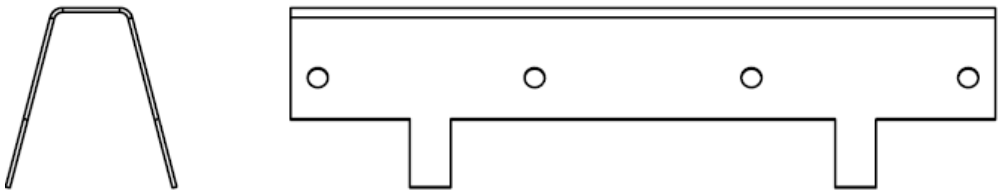


FIGURE 3 - SYMMETRICAL CARRIER SPLICE

FIGURE 4 - RETAINER CLIP

FIGURE 5 - FILLER STRIP

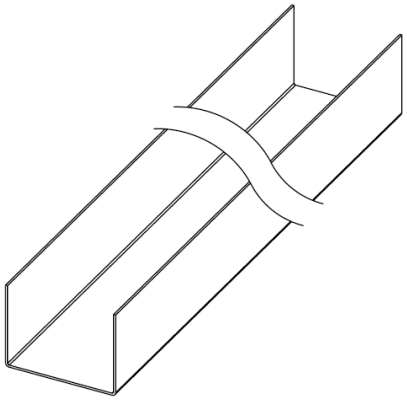


FIGURE 6 - C-CHANNEL SUPPORT TRACK

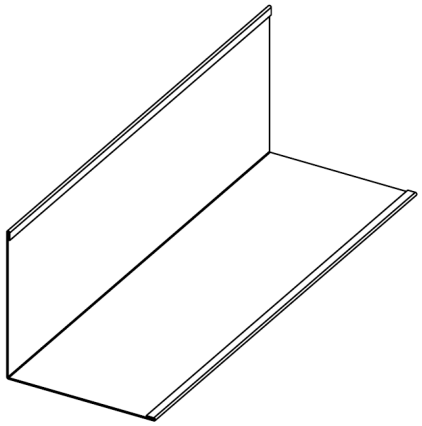


FIGURE 7 - PERIMETER ANGLE CLIP

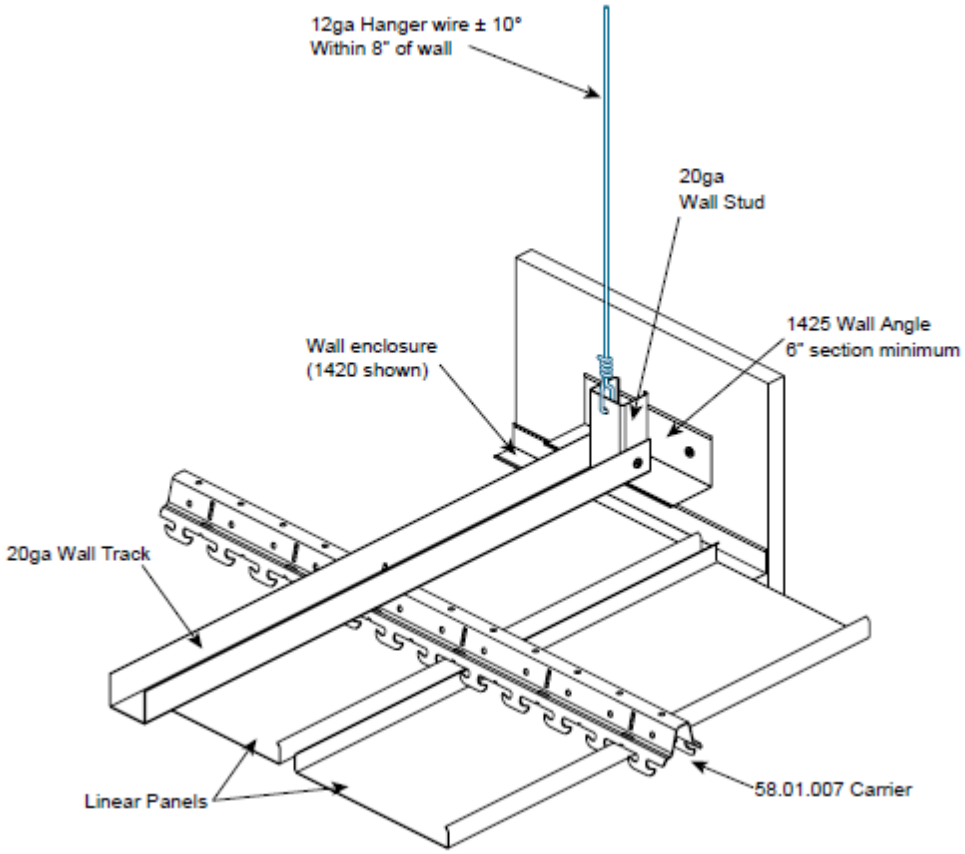


FIGURE 8 - SEISMIC INSTALLATION CLEARANCE WALL C-CHANNEL SUPPORT SIDES

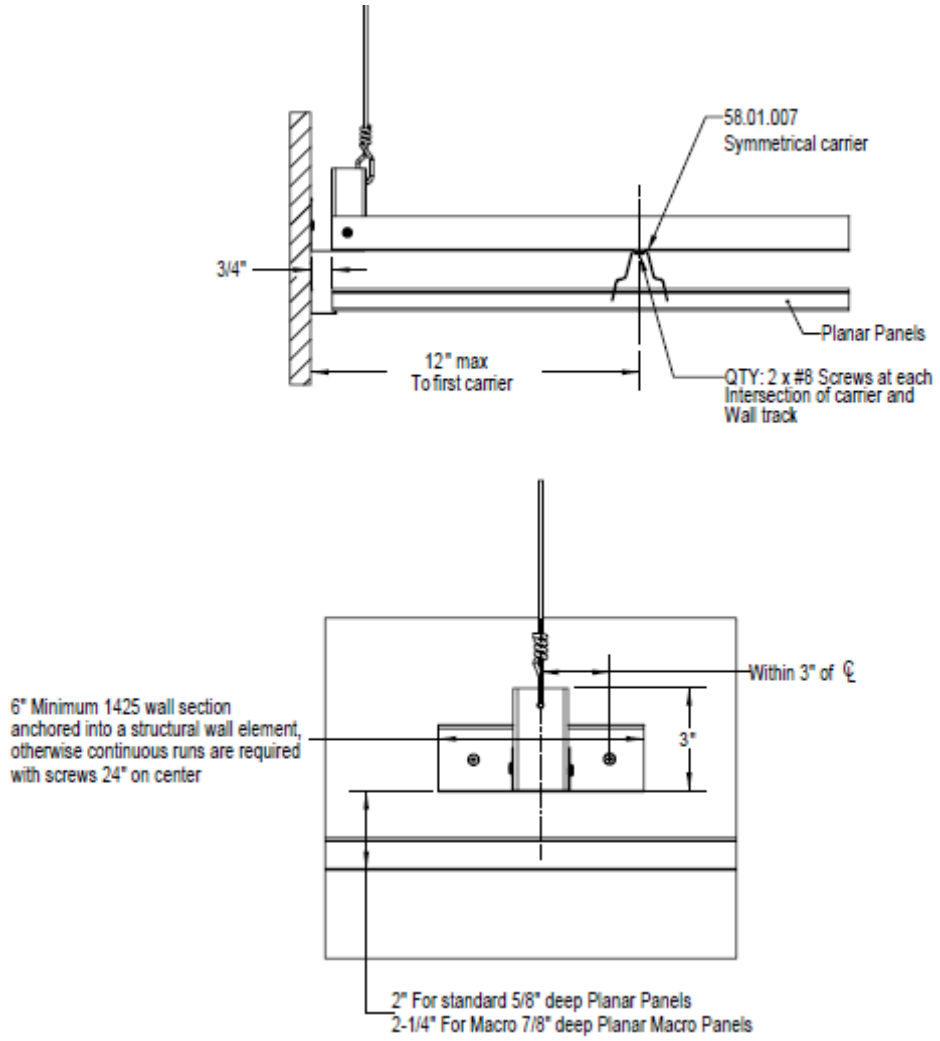


FIGURE 9 - CONTINUED SEISMIC INSTALLATION CLEARANCE WALL C-CHANNEL SUPPORT SIDES

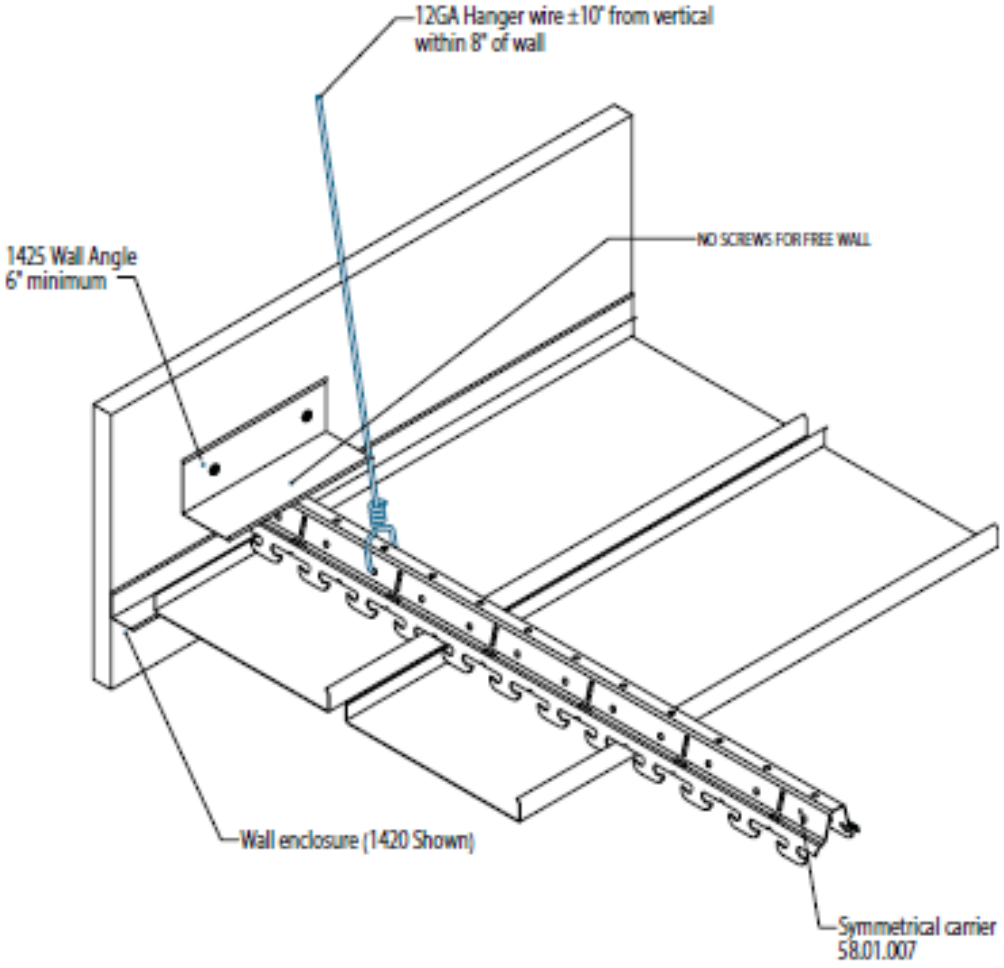


FIGURE 10 - SEISMIC INSTALLATION CLEARANCE WALL CARRIER CHANNEL

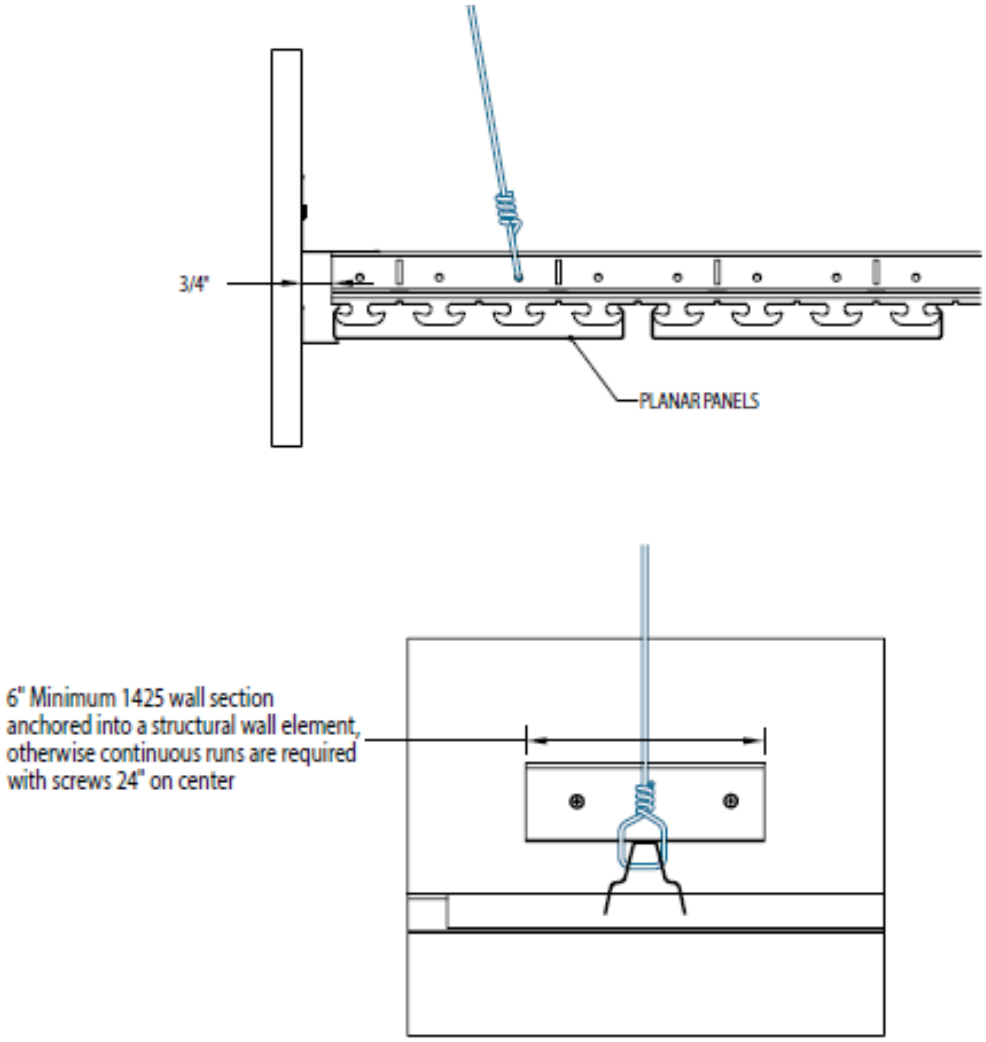
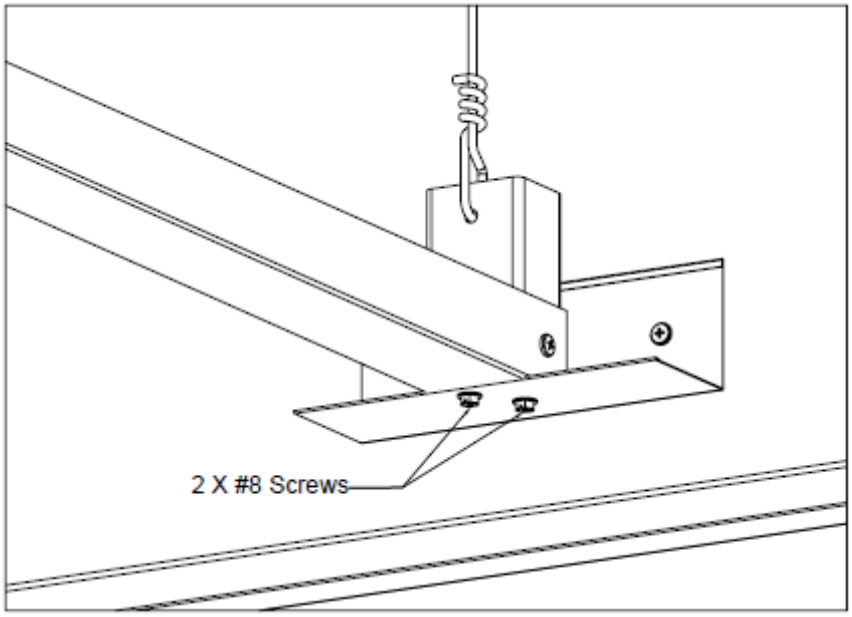
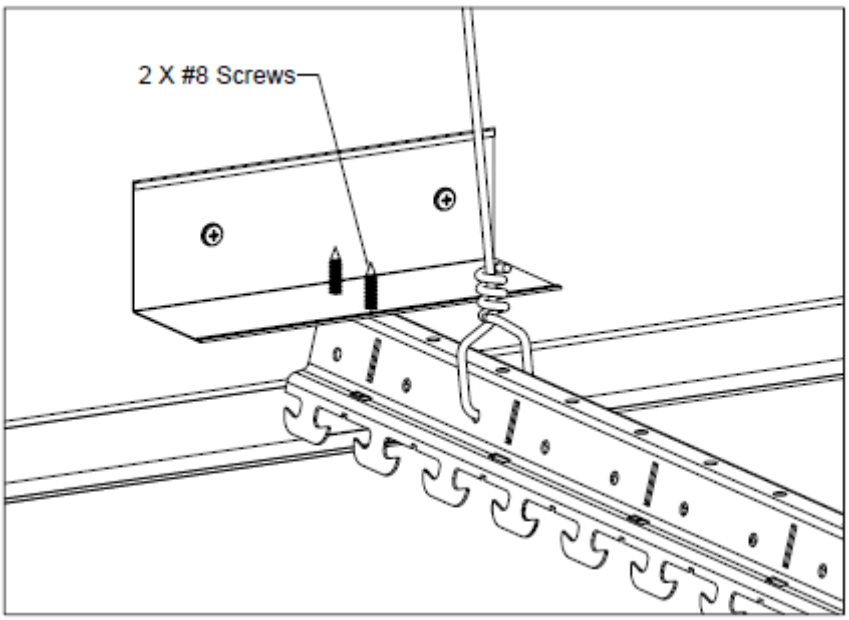


FIGURE 11 - CONTINUED SEISMIC INSTALLATION CLEARANCE WALL CARRIER CHANNEL



C-CHANNEL



CARRIER CHANNEL

FIGURE 12 - SEISMIC INSTALLATION ATTACHED WALL

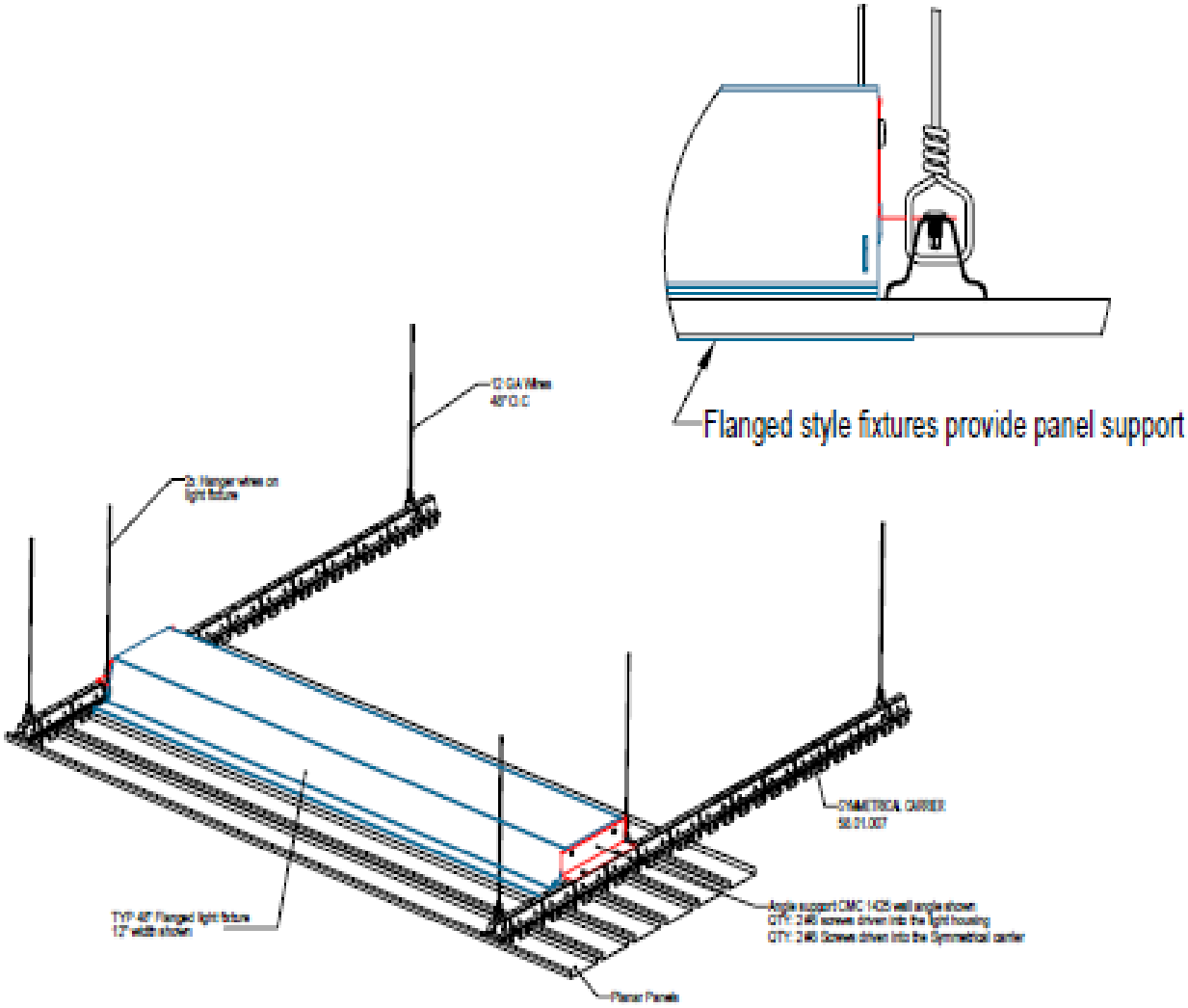


FIGURE 13 - LIGHT FIXTURE MOUNTING

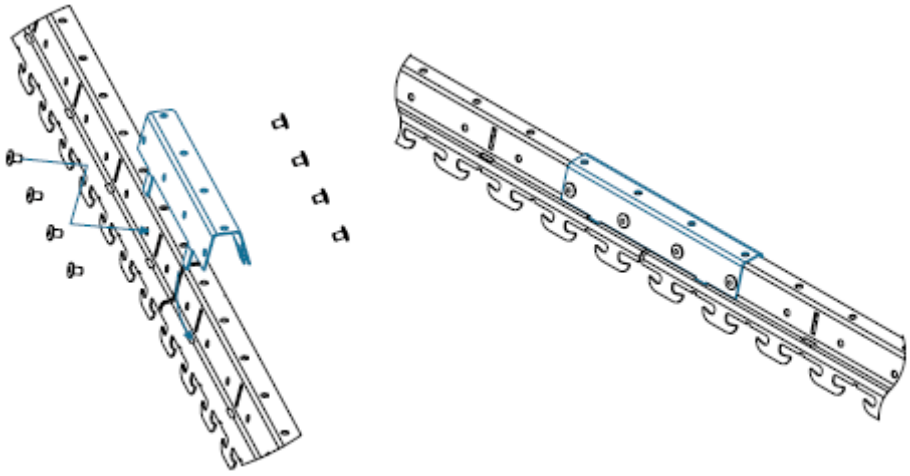


FIGURE 14 - CARRIER CHANNEL SPLICE CONNECTION

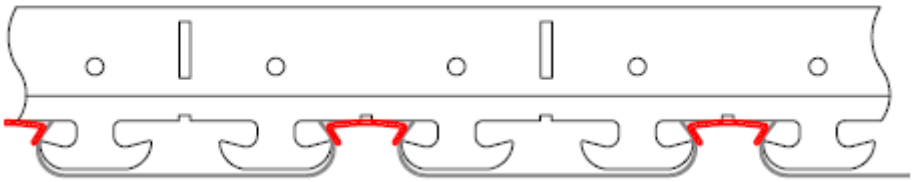


FIGURE 15 - PANEL AND RETENTION CLIP INSTALLATION