



## CEILING SYSTEMS

[ Between us, ideas become reality.™ ]

# METALWORKS FASTRACK PANELS

## General Installation Instructions

### 1. GENERAL

#### 1.1. Product Description

MetalWorks Fastrack system is a combination of metal ceiling planks available in a range of sizes that lay on linear C-profile trim strips available in various widths. All full panels can be removed and re-installed with minimal access to the plenum. Two sides (typically the short sides) support the installed panels. Panels have a flange on the end that rests on the top of the C-profile trim strip. The other sides have vertical returns; the panels are self-supporting without sag.

#### Gaskets

A foam "Gasket" is optional on the Fastrack panel. The gasket (standard width 3 mm - 1/8") allows panels to be installed and removed easily and creates a uniform reveal joint. Gaskets will be indicated on the shop drawings. Field applied gasket should be installed a minimum of 1/8" above the panel face (See Drawing # 4)

#### Perforations

Panels may be perforated or non-perforated. A factory installed acoustical mat is typically provided on perforated panels for sound absorption. Add the optional field installed acoustical infill for increased sound absorption if required.

#### Surface Finish

MetalWorks panels are powder coated after forming (post coat). The surface of these panels is impact resistant, cleanable and non-directional.

#### 1.2. Storage and Handling

The ceiling panels shall be stored in a dry interior location and shall remain in cartons prior to installation to avoid damage. The cartons shall be stored in accordance with the instructions on the carton. Proper care should be taken when handling to avoid damage or soiling.

#### 1.3. Site Conditions

Building areas to receive ceilings shall be free of construction dust and debris. Panels should only be installed in closed and acclimatized buildings. The systems cannot be used in exterior applications, where standing water is present or where moisture will come in direct contact with the ceiling.

#### 1.4. Plenum

MetalWorks Fastrack panels require minimal clearance above the suspension system.

**NOTE:** light fixtures and air handling systems require more space and will usually determine the minimum plenum height for the installation.

#### 1.5. Ceiling Panel Layout.

The ceiling panel layout should have perimeter panels equal on opposite sides. The cut perimeter panels should be more than 50% of their original length and width. This will create the best visual.

### 2. SUSPENSION SYSTEM

#### 2.1. General

The suspension system shall be Armstrong "U" profile (BPM300.100) and C-profile trim strip suspension elements. The suspension system shall be properly installed and leveled using not less than 12-gauge galvanized steel wire. Suspension system installation shall conform to ASTM C-636 requirements.

#### 2.2. Suspension Grid – U-profile

MetalWorks Fastrack panels may be installed in a variety of modules. The U profiles shall be spaced 48" O.C. with a maximum distance of 18" to a perimeter wall or outside edge of a floating module. The top of the U-profile is 3-3/4" above the finished ceiling height. (See Drawings #1 & #2)

#### 2.3. Suspension Grid – C-profile trim strip

The C-profile trim strip shall intersect the U profile at 90° at every module (the module is dictated by the length of the panel – consult the shop drawings). The C-profile trim strip is connected to the U profile with a C-profile hanger. The C-profile hangers must first be installed into the C-profile trim strip at the approximate locations of the U-profile. Insert a C-profile channel splice plate in the end if it will butt against another C-profile channel. Lift this assembly up to the U-profile hooking the C-profile hangers onto the U-profile. Adjust C-profile hangers for proper alignment. Use the Plug-in clip (BPM300.120) to secure the C-profile hanger to the U-profile at the desire module (See Drawing #3)

## 2.4. Suspension Grid Alignment

It's recommended the U-profiles and C-profile channels be fastened to two adjacent walls using the wall anchor. Wall anchors are slotted to allow alignment of the grid system for proper squareness. The C-channel profile must be leveled to within 1/4" in 10' and must be square to the U profile. (See Drawing #2 & #5)

## 3. Panel Installation & Removal

### 3.1. General

MetalWorks Fastrack ceiling panels are easily installed and removed from below the suspension system allowing easy downward access to the plenum.

### Panel Orientation

Before beginning panel installation refer to the shop drawing for correct panel size and orientation.

### 3.2. Installing Panels

Note that Fastrack panel ends are the same and can be installed in either direction. Optional foam gasket must be applied before panel installation.

Step 1: Insert the flanged end of a Fastrack panel over the C-profile channel

Step 2: Raise the opposite end up until the flange clears the top of the C-channel profile

Step 3: Gently slide the panel back until the panel end touched the C-channel profile and lower the panel until both end flanges rest on top of the C-channel profile. (See Drawing # 6)

Repeat process until first row of panels is in place. Subsequent rows of panels are installed similarly.

### 3.3. Panel Alignment

The use of a laser or string line is recommended to establish straight panel alignment. Panels may be slid along the C-channel profile to adjust alignment as necessary. Mechanically secure a row of panels to the C-channel profile to maintain correct alignment and to prevent subsequent misalignment during routine access and replacement

### 3.4. Panel Penetrations

Holes cut for sprinkler heads, light fixtures, speakers and other services that penetrate the ceiling panel may be field or factory cut. See separate MetalWorks installation instructions for details. (LA 295518)

### 3.5. Panel Removal

Removal is simply the reverse of installation.

Step 1: Gently raise one end of the panel until it clears the C-channel

Step 2: Lift the opposite end slightly until the flange clears the C-channel.

Step 3: Slide the panel over the top of the C-channel until you can lower the opposite end below the C-channel.

Step 4: Gently slide the panel back until the opposite end clears the C-channel and lower the panel. (See Drawing # 6)

## 4. PERIMETER DETAILS

Panels will all be full size or the cut edges will rest on and be concealed by some form of wall trim.

### 4.1 Cutting Metal Panels

#### ▲ CAUTION

Cut edges of metal parts can be extremely sharp! Handle metal carefully to avoid injury. Always wear safety glasses and gloves when working with metal.

See **MetalWorks Cutting Instructions** (LA 295518) for detailed information about cutting Armstrong metal ceilings. This document discusses the advantages and disadvantages of several types of equipment and how they are used when cutting our products

#### 4.1.1 Cutting Perimeter Panels

Perimeter panels will have to be cut and fit as needed. Carefully measure the perimeter opening and transfer this dimension to the panel. Cut the metal ceiling panel to fit the specified wall trim option. Install the panel and secure the cut edge on the perimeter molding as indicated on the shop drawing. (See Drawing #5)

#### 4.1.2 Aluminum F-Molding Wall Trim Option

Use F-molding Wall Angle (BPM330.003) or F-molding Shadow Wall Angle (BPM330.011) around the perimeter. Molding must be securely fastened to the wall every 16" to 24". The cut edge of the MetalWorks panel will rest on the horizontal flange. Insert the pressure spring (BPM311.081) into the channel to keep the cut edge tight on the wall molding. Use the Shadow F-molding to create a reveal between the wall and molding. (See Drawing #7)

Insert the corner element (BPM331.082) into the channel for proper F-molding alignment for both inside and outside mitered corners. (See Drawing #5)

#### 4.1.3 Channel Molding Wall Trim Option

Use Armstrong Channel Molding #7835 around the perimeter. Molding must be securely fastened to the wall every 16" to 24". The cut edge of the MetalWorks panel will rest on the bottom horizontal flange. Insert a #7835SC spreader channel to keep the cut edge tight on the wall molding. (See Drawing #8)

## 4.2 Full Panel Modules

### 4.2.1 Perimeter Clearance

Full module panel installation requires a minimum of 1/2" clearance between the panel and the perimeter wall. Refer to the shop drawing for specific details. (See Drawing #8)

### 4.2.2 Confirm Layout

For proper fit of the full panel module installation you must verify that site dimensions are exactly as specified on the shop drawings.

### 4.2.3 Full Panel Module Perimeters

Full panel module installations typically require a C-profile channel along the ends. Intersecting C-channel profile connection typically uses a C-channel crossing Box. This is true whether the panels are installed next to a perimeter wall or floating within the room. Refer to the shop drawing for installation layout, panel orientation and perimeter detail specifications.

## **1. SEISMIC INSTALLATIONS**

The following recommendations are solutions to meet installation requirements in areas of severe seismic activity (IBC - C, D and F). The local authority having jurisdiction must approve all seismic installation details before installation begins.

### **2. Tartan Suspension System**

The U-profiles and C-profile trim strips are the suspension system for Fastrack panels. This system must be attached to the perimeter walls on two adjacent sides. The opposite walls must have 3/4" clearance.

#### **2.1 U-profile**

The U-profile end must be positively attached to one perimeter wall. Use the wall anchor and fasteners as required. (See drawing # 9)

#### **2.2 C-profile trim strip**

The C-profile trim strip end must be positively attached to one perimeter wall using the C-profile connector/wall anchor. Fasten the C-profile connector/wall anchor to the perimeter wall using fasteners as required. Use pop rivets or self-drilling sheet metal screws to secure the C-profile trim to the wall anchor. Position these fasteners above the center of the C-profile trim strip to minimize interference with panel insertion. (See Drawing # 9)

## **2.3 SYSTEM RESTRAINTS**

### **2.3.1 Splay bracing**

Typical system restraints are the 4-wire cluster splay bracing and compression post. This must be made at an intersection of U-profile and C-profile trim strip. Refer to the local authority for system restraint requirements. (See drawing # 10 for typical splay bracing and compression post installation)

### **2.3.2 Rigid bracing**

Installations not anchored to the perimeter walls or floating clouds require rigid bracing to structure strong enough to resist lateral forces imposed upon it without damaging the system or allowing panels to fall from the ceiling.

### **2.4 Full Panels**

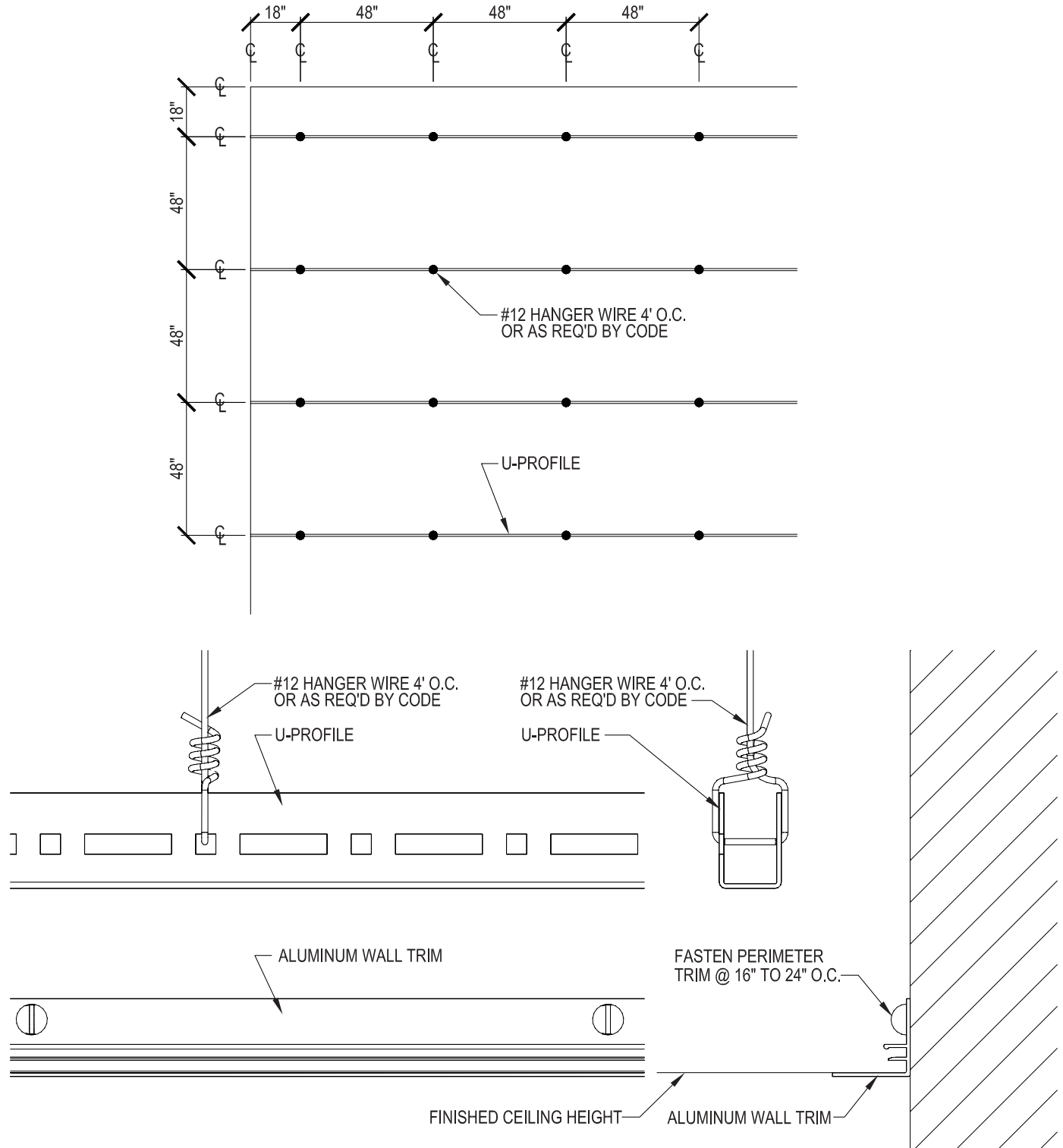
It is recommended that a full row of Fastrack panels be securely fastened to the C-profile trim strip. Use self-drilling sheet metal screws or pop rivets. Depending on panel width and ceiling accessibility, secure a row of panels every 8 to 12 feet to aid in panel alignment and system integrity. (See drawing #10)

### **2.5 Perimeter panels**

Perimeter panels that require field cutting to fit on a wall trim option must have a minimum of 5/8" edge resting on the horizontal surface of the wall trim. (See Drawing # 9)

## FASTRACK SUSPENSION INSTALLATION

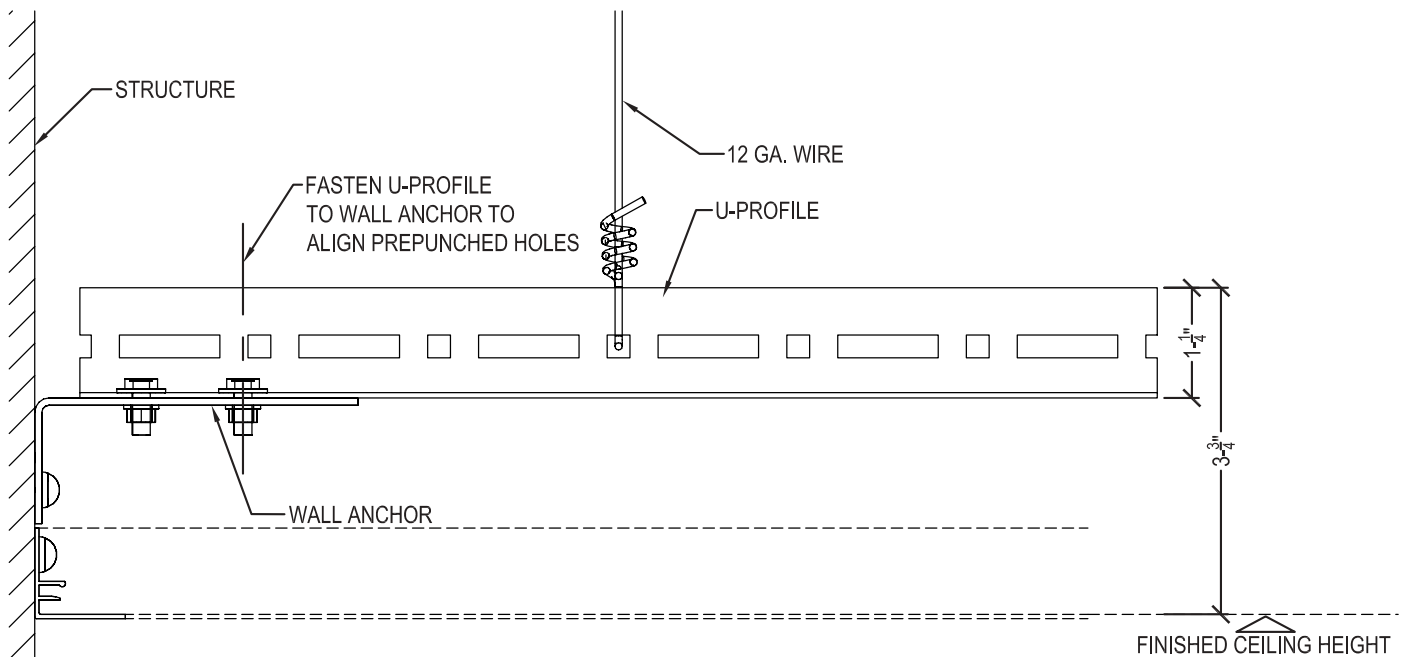
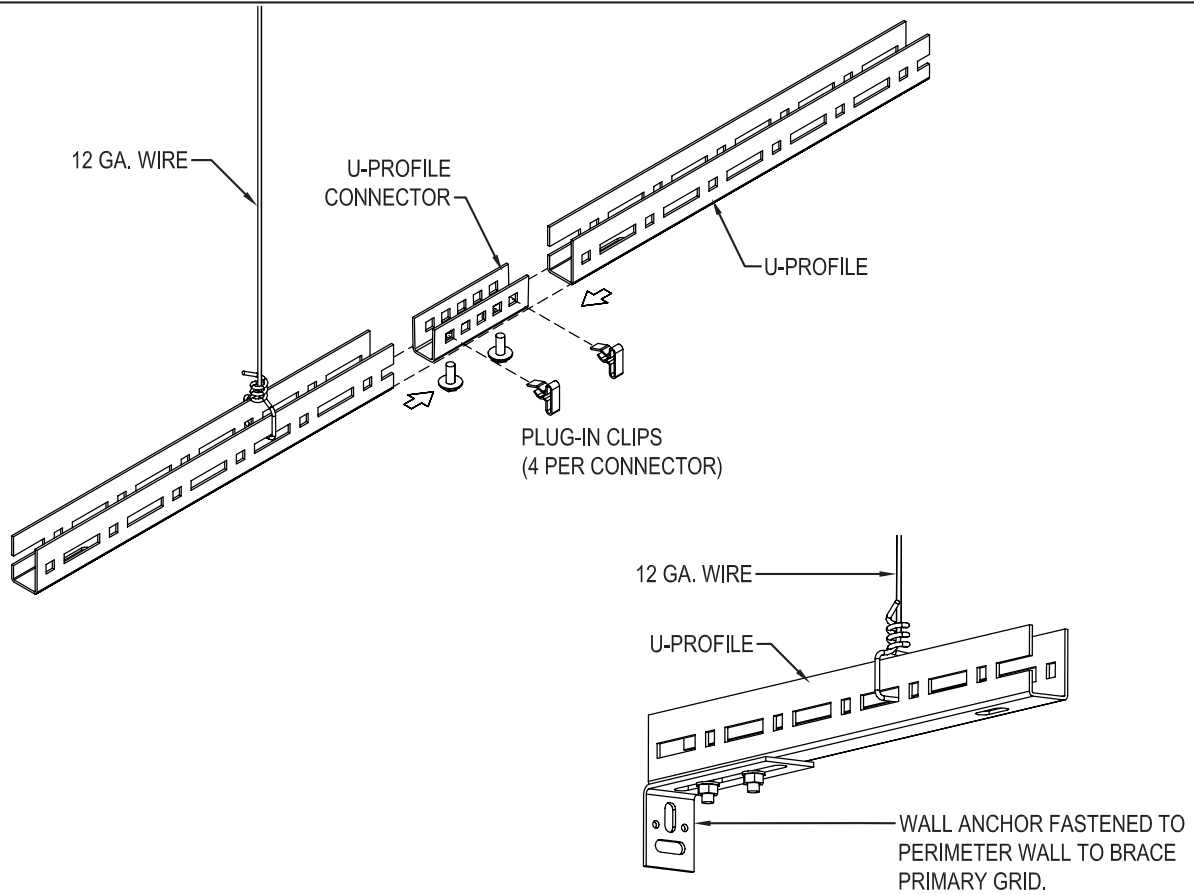
U-PROFILES ARE INSTALLED 48" ON CENTER WITH A MAXIMUM DISTANCE OF 18" TO THE PERIMETER WALLS.  
U-PROFILES ARE SUSPENDED WITH 12 GA GALVANIZED WIRE, WIRES MUST BE WITHIN 18" OF THE PERIMETER WALL, THEN 48" ON CENTER.  
HANGER WIRE MUST BE WRAPPED TIGHTLY WITH 3 FULL WRAPS WITHIN 3" OF THE U-PROFILE.  
LEVEL U-PROFILE TO WITHIN 1/4" IN 10 FEET (ASTM C-636). U-PROFILE WILL BE 3-5/8" ABOVE THE FINISHED CEILING HEIGHT.



DRAWING 1

## SPLICING U-PROFILE AND ATTACHING TO THE PERIMETER WALL

USE THE PROFILE SPLICE TO JOIN SECTIONS OF U-PROFILE. USE TWO BOLTS AND FOUR PLUG-IN CLIPS TO MAINTAIN MODULE CONTROL. USE A WALL ANCHOR TO FASTEN THE U-PROFILE TO THE PERIMETER WALL. SECURELY ATTACH THE WALL ANCHOR TO THE WALL AND BOLT IT TO THE BOTTOM OF THE U-PROFILE. THE WALL ANCHOR IS SLOTTED TO ALLOW ALIGNMENT OF THE U-PROFILE. THE SQUARE PUNCHED HOLES MUST BE ALIGNED STRAIGHT FOR THE 1" or 25mm MODULED CONTROL.



DRAWING 2

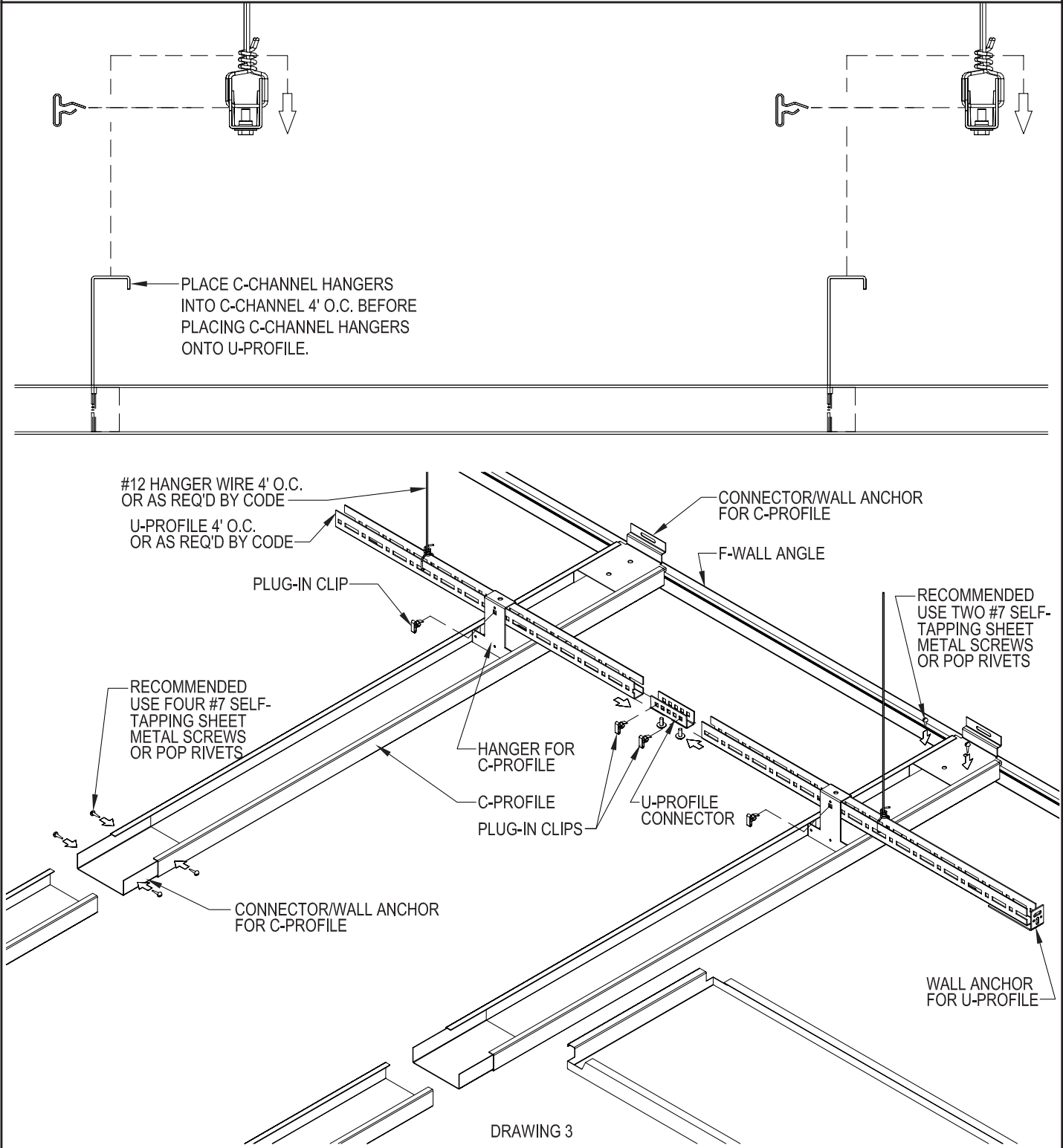
## FASTRACK C-CHANNEL INSTALLATION

SEE SHOP DRAWINGS FOR SPECIFIED C-CHANNEL SPACING.

FIRST INSERT THE C-CHANNEL HANGERS INTO THE C-CHANNEL AT THE APPROXIMATE LOCATION AND SPACING OF THE U-PROFILE. LIFT THIS ASSEMBLY UP TO THE U-PROFILE HOOKING THE TOP OF THE HANGERS ONTO THE U-PROFILE. ADJUST POSITION OF HANGERS FOR PROPER ALIGNMENT AND SECURE WITH PLUG-IN CLIP.

THE C-CHANNEL WILL REST ON THE PERIMETER WALL TRIM AND BE FASTENED TO THE WALL WITH A C-CHANNEL WALL ANCHOR. SECURE ONE END OF THE C-CHANNEL TO THE WALL ANCHOR WITH POP RIVETS OR SHEET METAL SCREWS; ALLOW THE OPPOSITE C-CHANNEL END TO SLIDE FREE ON THE WALL ANCHOR.

C-CHANNEL CAN BE SPLICED TOGETHER WITH THE C-CHANNEL CONNECTOR. SLIDE CONNECTOR INTO THE C-CHANNEL TO MAINTAIN ALIGNMENT. SECURE THE CONNECTOR TO BOTH C-CHANNELS WITH POP RIVETS OR SHEET METAL SCREWS; (FASTENERS CAN BE USED ON THE SIDES IF PLACED ABOVE THE GASKET LINE.)



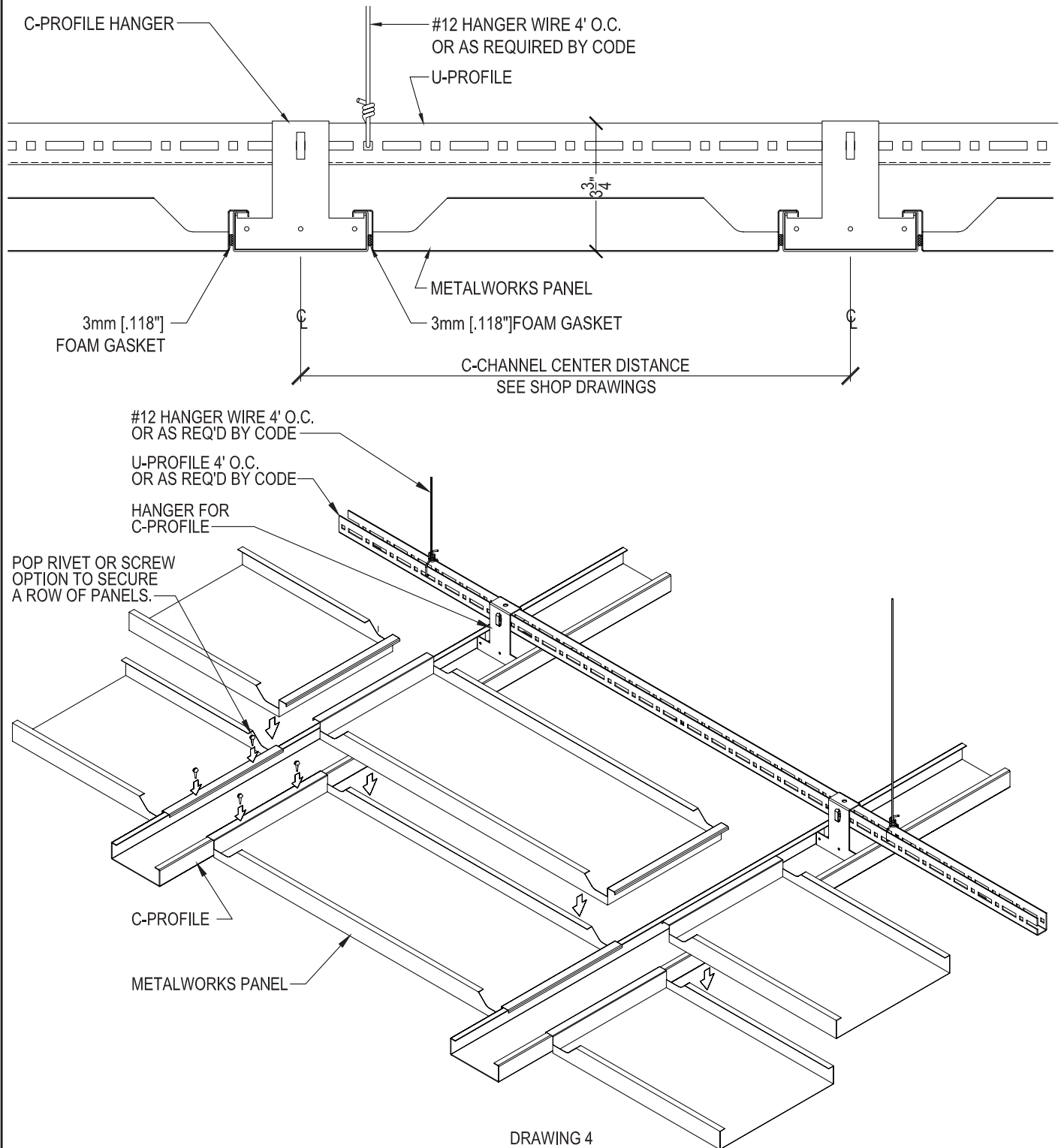
## FASTRACK PANEL INSTALLATION

THE METAL CEILING PANELS ARE INSTALLED AS SPECIFIED ON THE CEILING LAYOUT DRAWING.

FASTRACK METAL CEILING PANELS BASICALLY LAY-IN BETWEEN THE C-CHANNELS WITH THE HOOK ENDS RESTING ON THE TOP EDGE.

OPTIONAL FOAM GASKET MAY BE USED, REFER TO SHOP DRAWING.

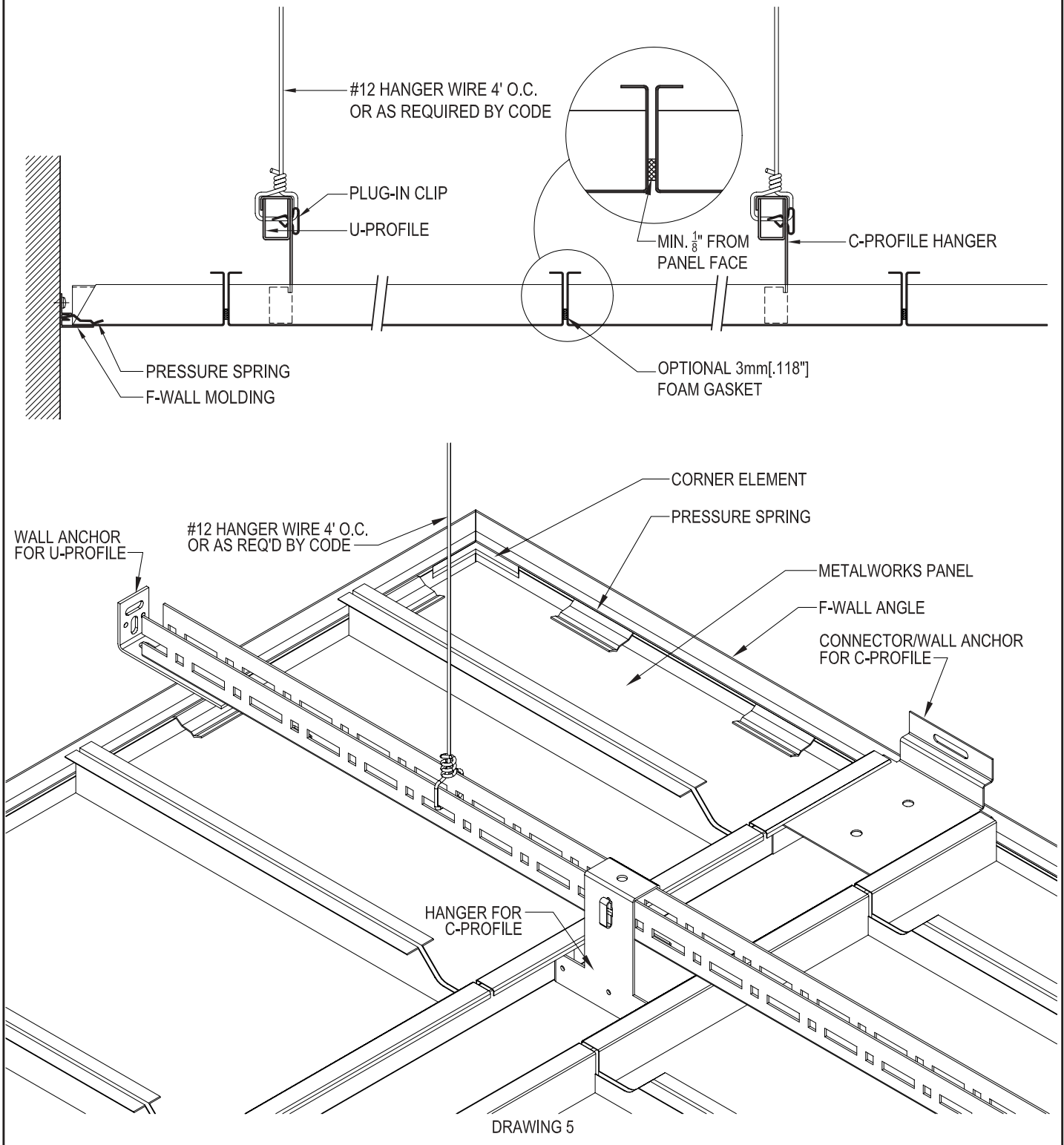
THE USE OF LASER OR STRING LINE IS RECOMMENDED TO ESTABLISH STRAIGHT PANEL ALIGNMENT. A ROW OF PROPERLY ALIGNED PANELS MAY BE SECURED TO THE C-CHANNEL. USE POP RIVETS OR SHEET METAL SCREWS THROUGH THE PANEL FLANGE INTO THE TOP OF THE C-CHANNEL. THIS ROW OF PANELS IS NO LONGER ACCESSIBLE. IN A LARGE AREA YOU MAY DESIRE TO SECURE A ROW OF PANELS EVERY 15 TO 20 FEET TO MAINTAIN PANEL ALIGNMENT.



DRAWING 4

## FASTRACK PERIMETER PANEL INSTALLATION

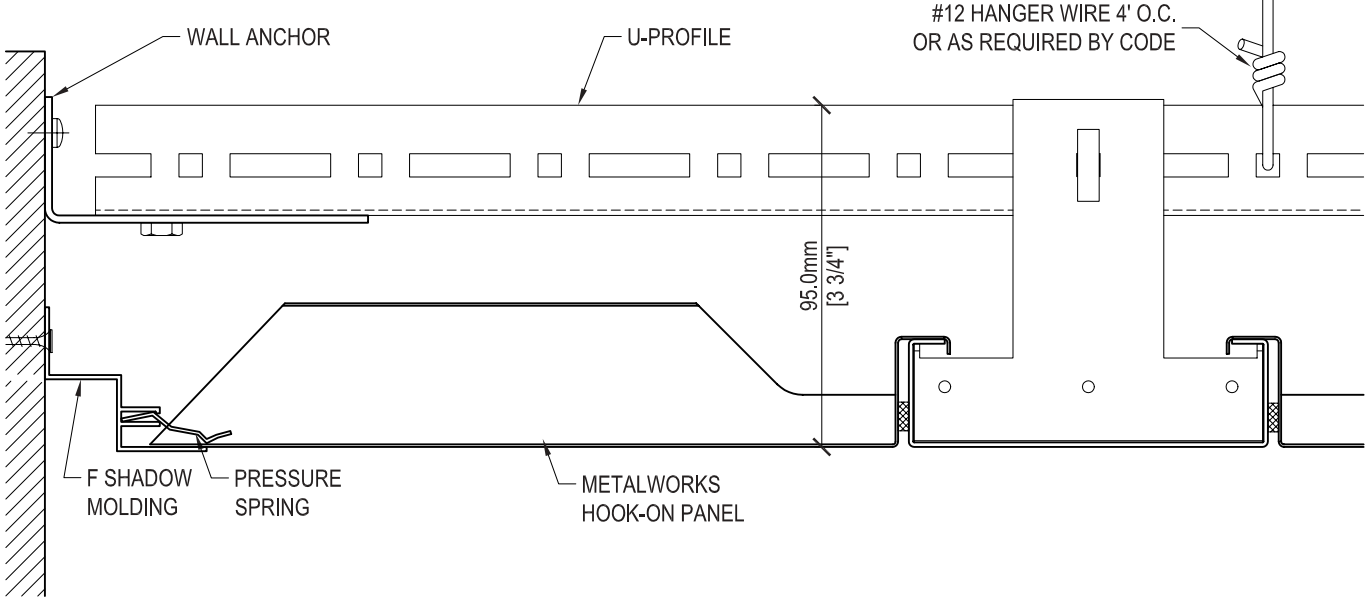
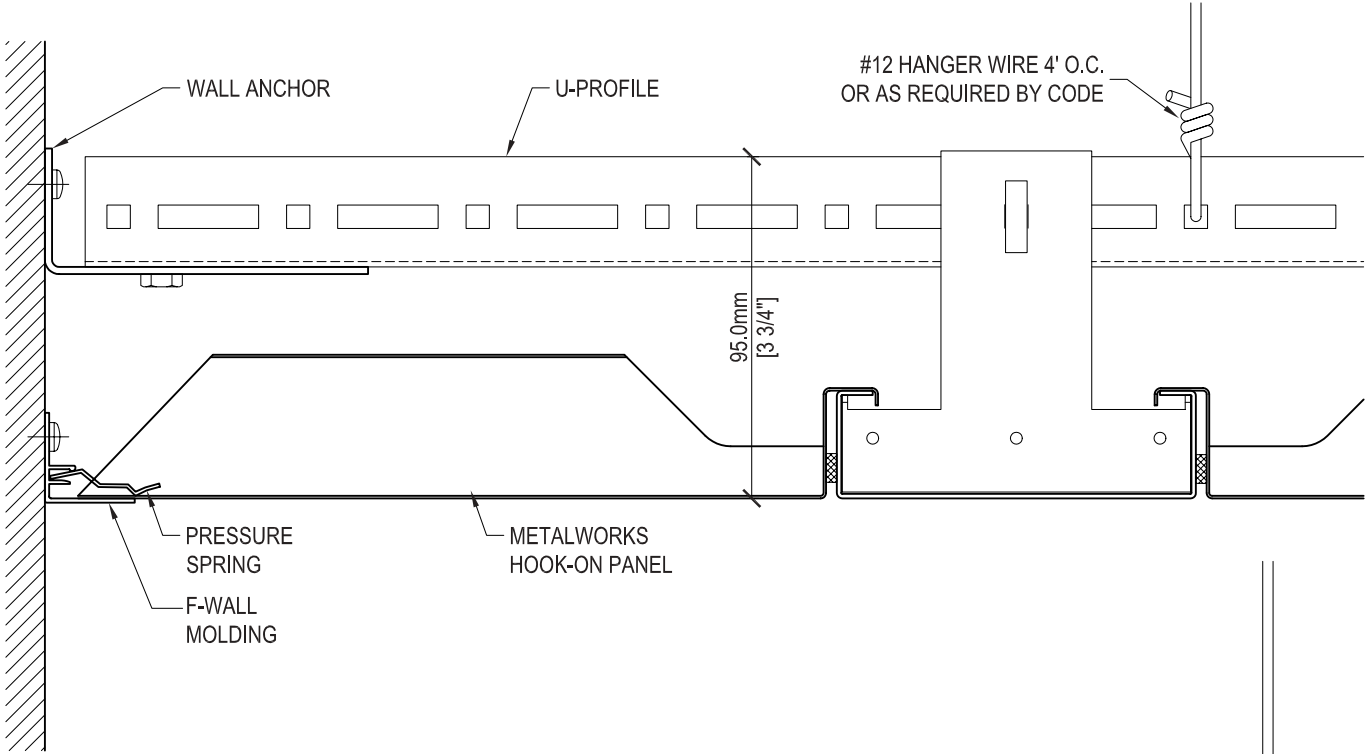
PERIMETER PANELS WILL HAVE TO BE CUT AND FIT AS NEEDED.  
CAREFULLY MEASURE AND CUT THE METAL CEILING PANEL TO FIT THE SPECIFIED WALL TRIM OPTION.  
THE USE OF ELECTRICAL SHEET METAL SHEARS IS RECOMMENDED.  
INSTALL THE PANEL AND SECURE THE CUT EDGE AS SPECIFIED.  
CHECK FOR PROPER CEILING TILE ALIGNMENT.





# ALUMINUM F-MOLDING PERIMETER WALL TRIM OPTIONS

WALL MOLDING MUST BE FASTENED 16" TO 24" O.C.  
INSTALL THE PERIMETER PANEL AND SECURE THE CUT EDGE WITH PRESSURE SPRINGS PUSHED INTO THE CHANNEL AS REQUIRED.  
USE THE SHADOW MOLDING FOR A REVEAL ALONG THE PERIMETER WALL.



DRAWING 6

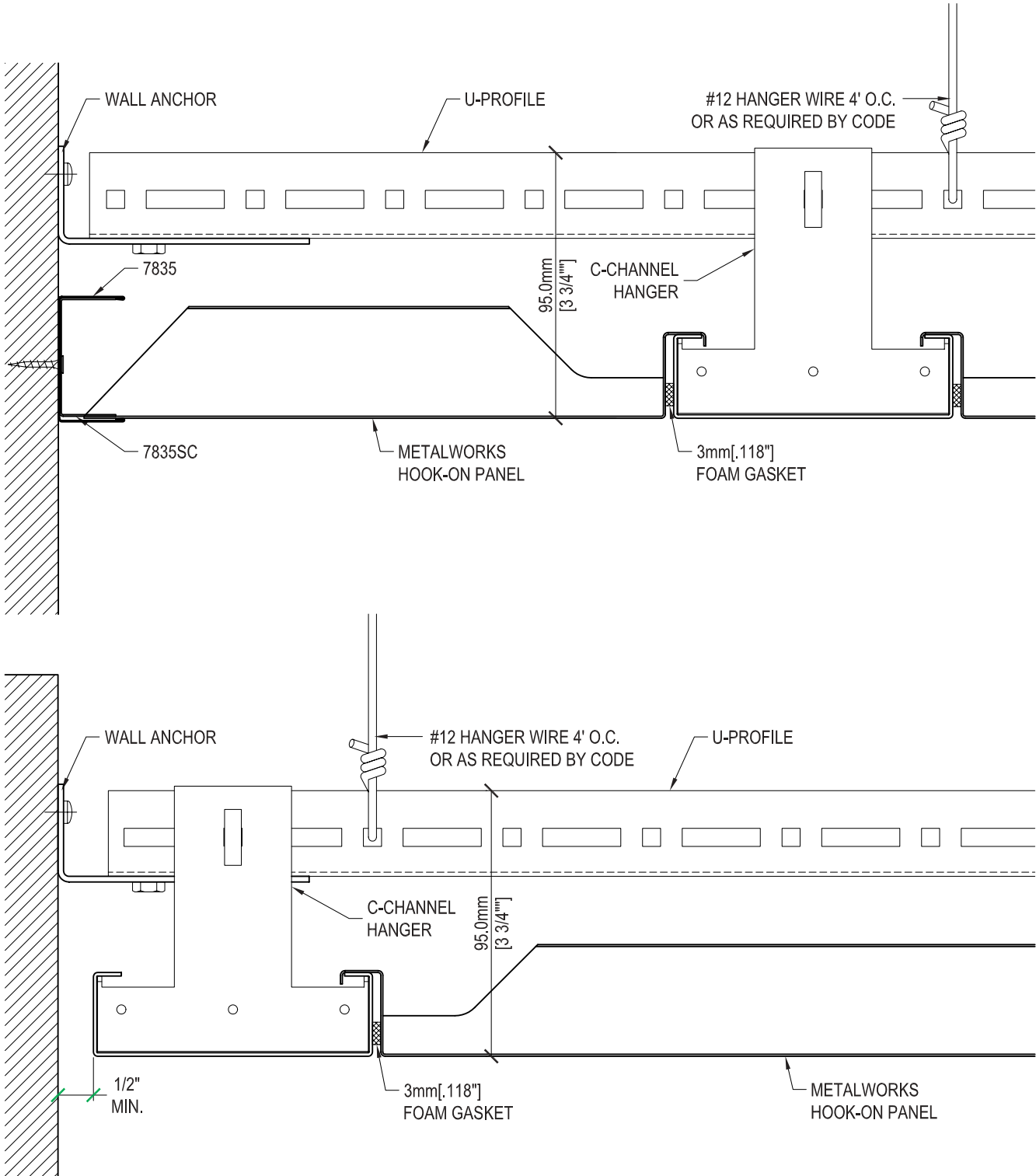
## OTHER PERIMETER WALL OPTIONS

### CHANNEL MOLDING

USE CHANNEL MOLDING #7831. INSTALL THE PERIMTER PANEL AND SECURE THE CUT EDGE WITH THE SPREADER CHANNEL #7830SC

FULL PANEL MODULES AT THE PERIMETER OR CORRIDOR APPLICATIONS

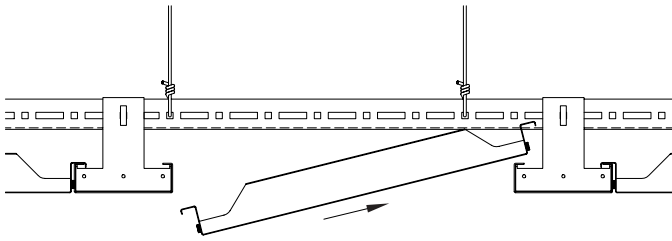
NEED A MINIMUM OF 1/2" CLEARANCE BETWEEN THE WALL AND PANEL END. USE A STANDARD WALL ANGLE INSTALLED SLIGHTLY ABOVE THE J-BAR LIP TO CONCEAL THE SUSPENSION SYSTEM FROM THE LINE OF SIGHT IF REQUIRED.



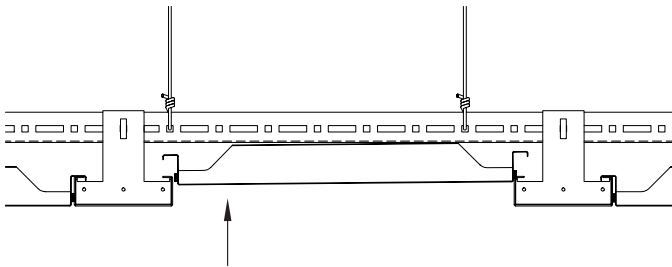
DRAWING 7

# INSTALLATION AND REMOVAL OF METALWORKS FASTRACK PANELS

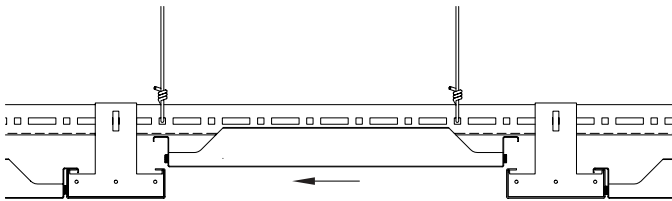
## INSTALLATION OF METALWORKS FASTRACK PANELS



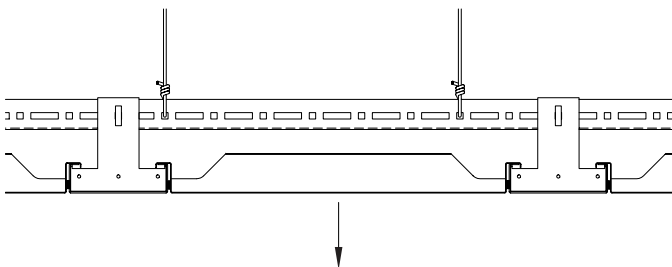
STEP 1) RAISE ONE END OF THE PANEL AT ANGLE ABOVE C-CHANNEL. (IF U-PROFILE IS IN THE WAY SLIDE PANEL TO EITHER ACCESSIBLE DIRECTION.)



STEP 2) RAISE OPPOSITE END OF THE PANEL ABOVE C-CHANNEL.

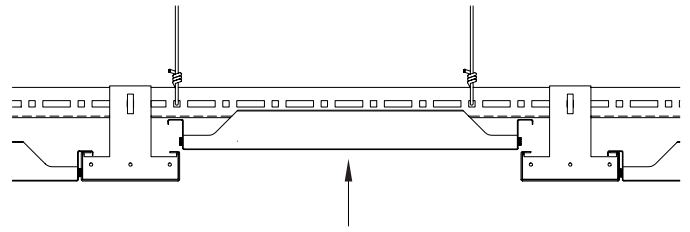


STEP 3) SLIDE PANEL BACK UNTIL THE PANEL WILL FIT BETWEEN THE C-CHANNELS.

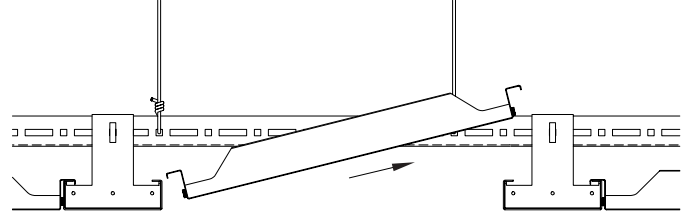


STEP 4) LOWER METALWORKS PANEL EVENLY ONTO C-CHANNEL. CHECK PANEL(S) FOR PROPER ALIGNMENT.

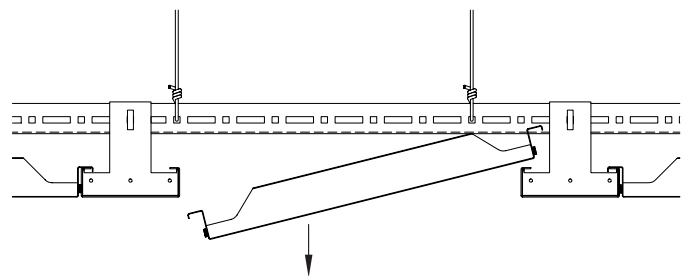
## REMOVAL OF METALWORKS FASTRACK PANELS



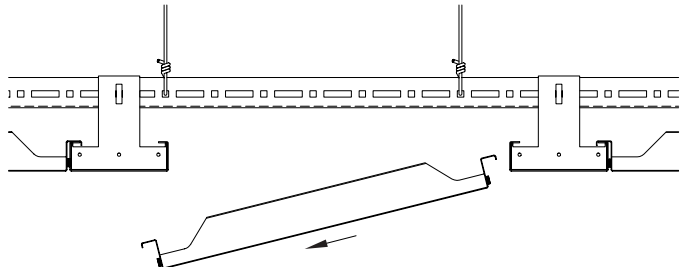
STEP 1) CAREFULLY LIFT PANEL EVENLY PAST BOTH SIDE C-CHANNELS. (IF PANEL TO BE REMOVED IS POSITIONED UNDER U-PROFILE, YOU MUST REMOVE EITHER SIDE ADJACENT PANEL FIRST. THEN SLIDE DESIRED PANEL FOR REMOVAL TO ACCESSIBLE LOCATION.)



STEP 2) RAISE ONE END OF PANEL AT ANGLE AND MOVE PANEL UNTIL THE OPPOSITE END OF PANEL CLEARS C-CHANNEL.



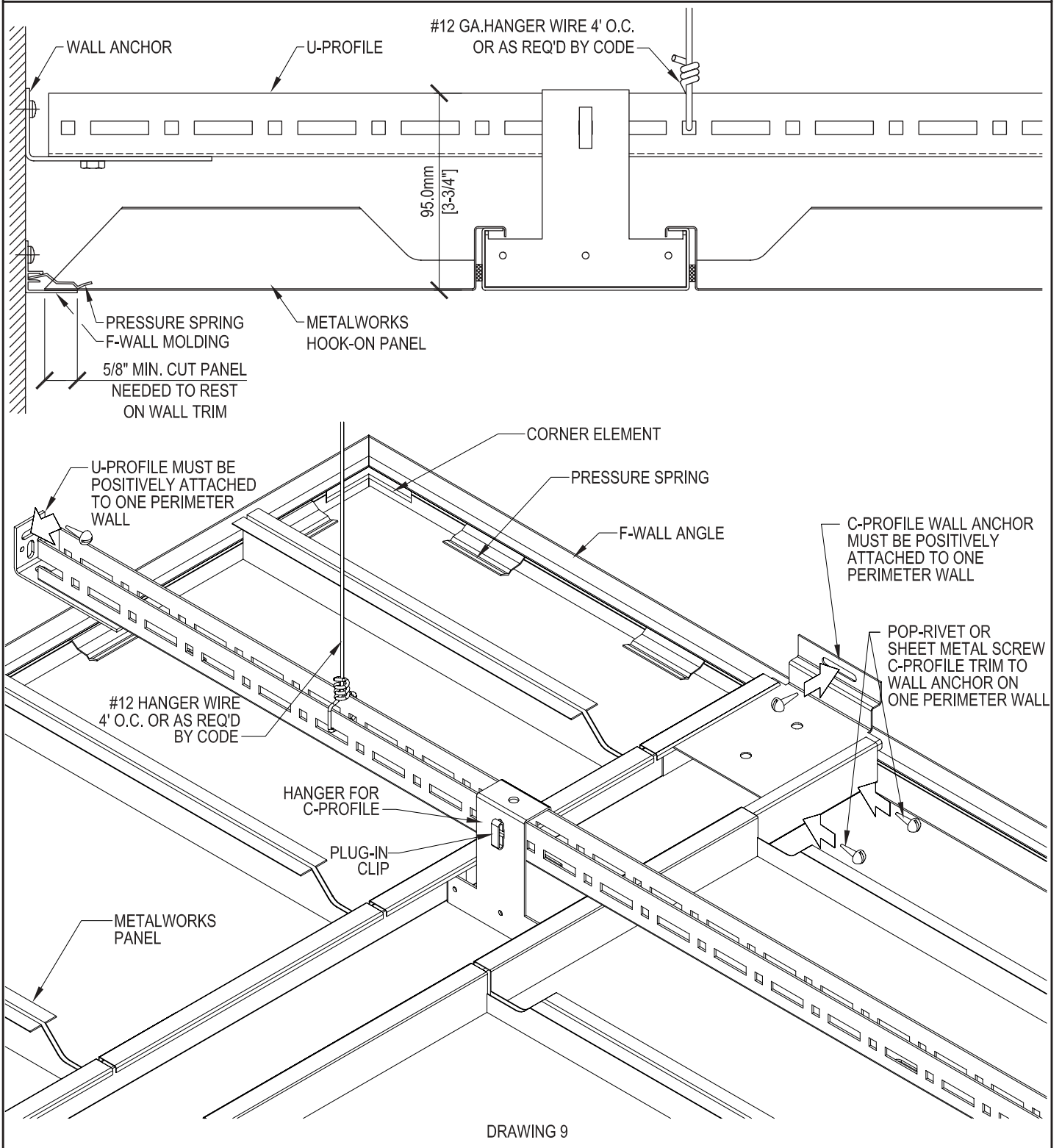
STEP 3) LOWER THE END OF METALWORKS PANEL BELOW THE BOTTOM EDGE OF C-CHANNEL.



STEP 4) SLIDE METALWOWRKS PANEL BACK PAST THE THE BOTTOM OF C-CHANNEL UNTIL THE OPPOSITE END OF PANEL CLEARS C-CHANNEL. THEN LOWER PANEL CAREFULLY PAST C-CHANNEL.

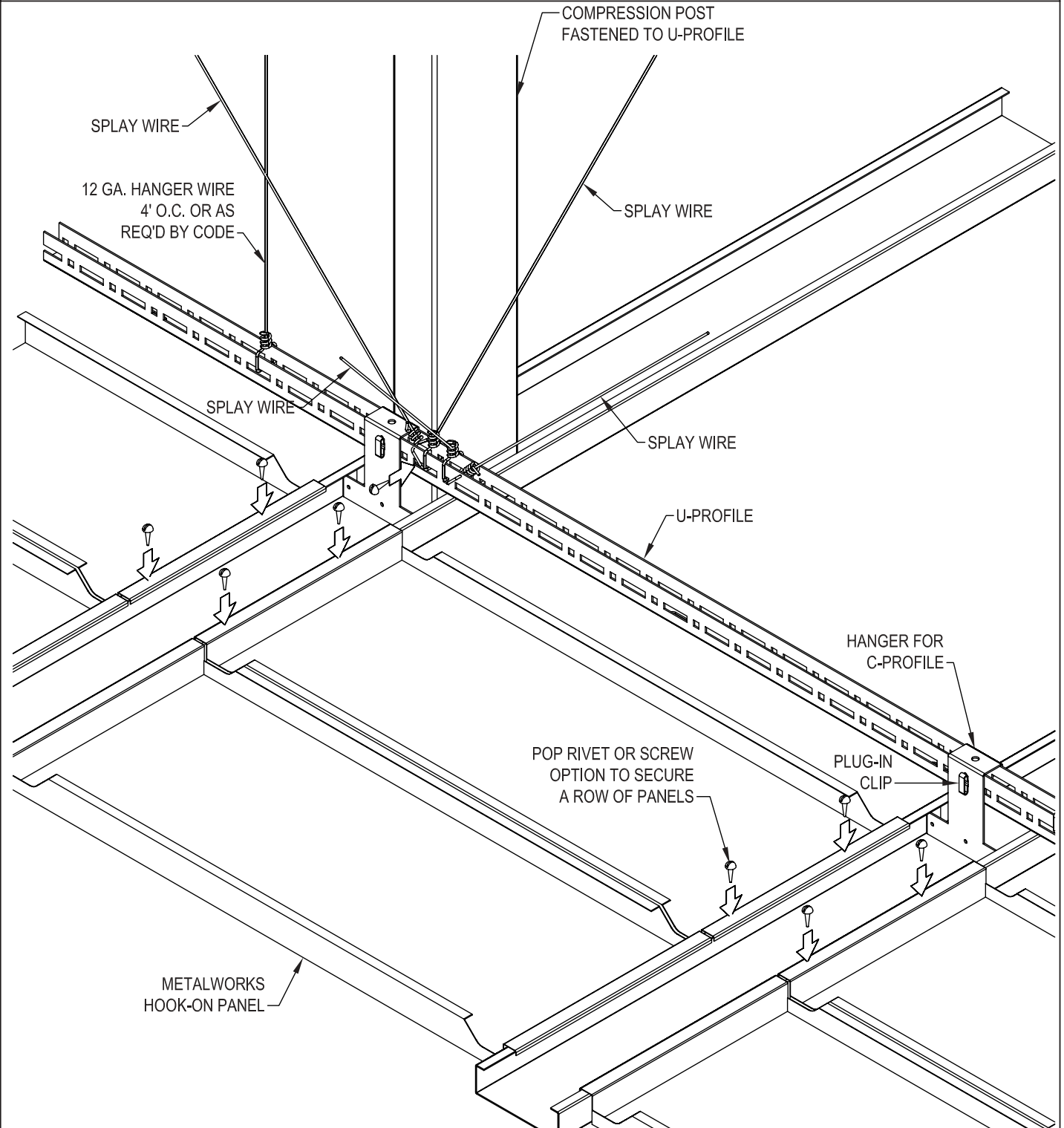
## FASTRACK (SEISMIC) PERIMETER PANEL INSTALLATION

THE U-PROFILE END MUST BE POSITIVELY ATTACHED TO ONE PERIMETER WALL. USE THE WALL ANCHOR AND FASTENERS AS REQUIRED. THE C-PROFILE TRIM STRIP END MUST BE POSITIVELY ATTACHED TO ONE PERIMETER WALL USING THE C-PROFILE CONECTOR/WALL ANCHOR. FASTEN THE C-PROFILE CONNECTOR/WALL ANCHOR TO THE PERIMETER WALL USING FASTENERS AS REQUIRED. USE POP RIVETS OR SELF-DRILLING SHEET METAL SCREWS TO SECURE THE C-PROFILE TRIM TO THE WALL ANCHOR. POSITIONS THESE FASTENERS ABOVE THE CENTER OF THE C-PROFILE TRIM STRIP TO MINIMIZE INTERFERENCE WITH PANEL INSERTION. PERIMETER PANELS THAT REQUIRE FIELD CUTTING TO FIT ON A WALL TRIM OPTION MUST HAVE A MINIMUM OF 5/8" EDGE RESTING ON THE HORIZONTAL SURFACE OF THE WALL TRIM.



## FASTRACK (SEISMIC) INSTALLATION

TYPICAL SYSTEM RESTRAINTS ARE THE 4 WIRE CLUSTER SPLAY BRACING AND COMPRESSION POST. THIS MUST BE MADE AT AN INTERSECTION OF U-PROFILE AND C-PROFILE TRIM STRIP. REFER TO THE LOCAL AUTHORITY FOR SYSTEM RESTRAINT REQUIREMENTS. IT IS RECOMMENDED THAT A FULL ROW OF FASTRACK PANELS BE SECURELY FASTENED TO THE C-PROFILE TRIM STRIP. USE SELF-DRILLING SHEET METAL SCREWS OR POP RIVETS. DEPENDING ON PANEL WIDTH AND CEILING ACCESSIBILITY, SECURE A ROW OF PANELS EVERY 8 TO 12 FEET TO AID IN PANEL ALIGNMENT AND SYSTEM INTEGRITY.



DRAWING 10