



Armstrong[®]
World Industries



Technical Guide

Capz[™]

MetalWorks[™] Capz[™], Lyra[®] PB Capz[™],
Optima[®] PB Capz[™]

Sleek, Acoustical Performance

The sleek MetalWorks™, Lyra® PB, and Optima® PB Capz™ Ceiling Systems pair Capz™ accent hardware with the exceptional acoustical benefits of smooth perforated, durable metal, and fine-textured fiberglass ceiling panels.

This unique combination gives you the opportunity to improve reverberation time by about 50% with only 20% coverage of the available ceiling area, resulting in a sound acoustical solution with the look you want.

Code Compliance You Can Trust

Meets:

- ASTM C635
- ASTM C841
- ASTM C926
- ASTM C636
- ASTM C754
- ASTM C840
- ASTM C842
- ASTM C645 requirement for minimum metal thickness to .0179" for screw pullout
- ICC-ES: ESR-2311 Evaluation of Code Compliance
- ICC-ES: ESR-1289 Evaluation of Code Compliance
- IAPMO: ER-163: Evaluation of Code Compliance
- Department of State Architect – DSA PA105
- City of LA – RR 5348
- 26 UL Fire Resistant Designs





Optima Capz panels in White

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Performance

Key Performance Attributes

Outstanding Sound Absorption

- Noise is absorbed on both the front and back of the panels
- NRC 0.90 (Lyra® PB & Optima® PB)
- NRC 0.80-0.90 (MetalWorks™)
 - NRC of 0.80 is achieved with acoustical fleece, 0.90 is achieved with acoustical infill options

High Performance Panels

- Lyra® PB Capz™ panels are part of the Sustain® portfolio and meet the most stringent sustainability compliance standards today
- Durable – washable, impact-resistant, scratch-resistant, soil-resistant
- Lyra PB Capz panels are available custom, made-to-order color options

- Smooth texture, bright finish
 - High light reflectance up to 0.88 (Lyra PB & Optima PB), 0.73 (MetalWorks)
- Factory-finished Reverse Tederal (Lyra PB & Optima PB) and square edges offer a crisp reveal (MetalWorks)
- Panels are pre-drilled for easy installation

NOTE: We do not recommend field painting panels as it negatively impacts acoustical performance.

MetalWorks Panels Offer

- ExpanTech™ technology delivers larger panel sizes with 10 times less deflection than standard large-size metal panels
- Durable – washable, scrubbable, impact- and soil-resistant

Installation

- Lightweight, accessible panels
- Easily demountable
- Installs using standard tools
- Grid system provides easy alignment and leveling for a quick and aesthetically pleasing installation

Can Be Installed

- As close as 2-3/4" (approx.) to the deck (distance between deck and panel face)
- Up to 6-1/2" (approx.) (distance between deck and panel face)
- Suspended off wires at your desired ceiling elevation

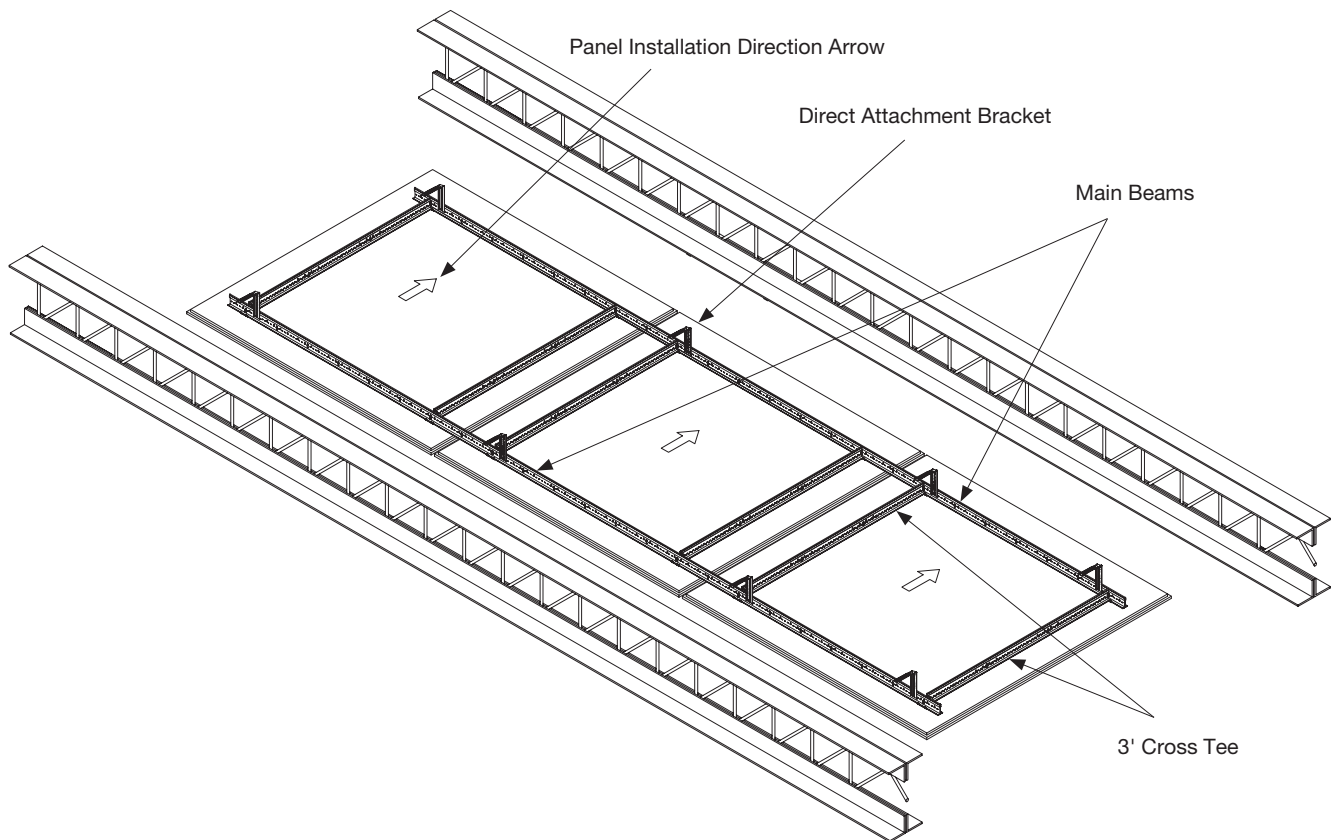


Optima® PB Capz panels in White

Item Details

MetalWorks™, Lyra® PB, Optima® PB Capz™ work well in either retrofit or new spaces – they offer a flexible fit with many panel size options that can be installed directly to the deck, on drywall, or suspended like a regular ceiling. Panels can be designed in long runs or grouped based on the acoustical needs of the space.

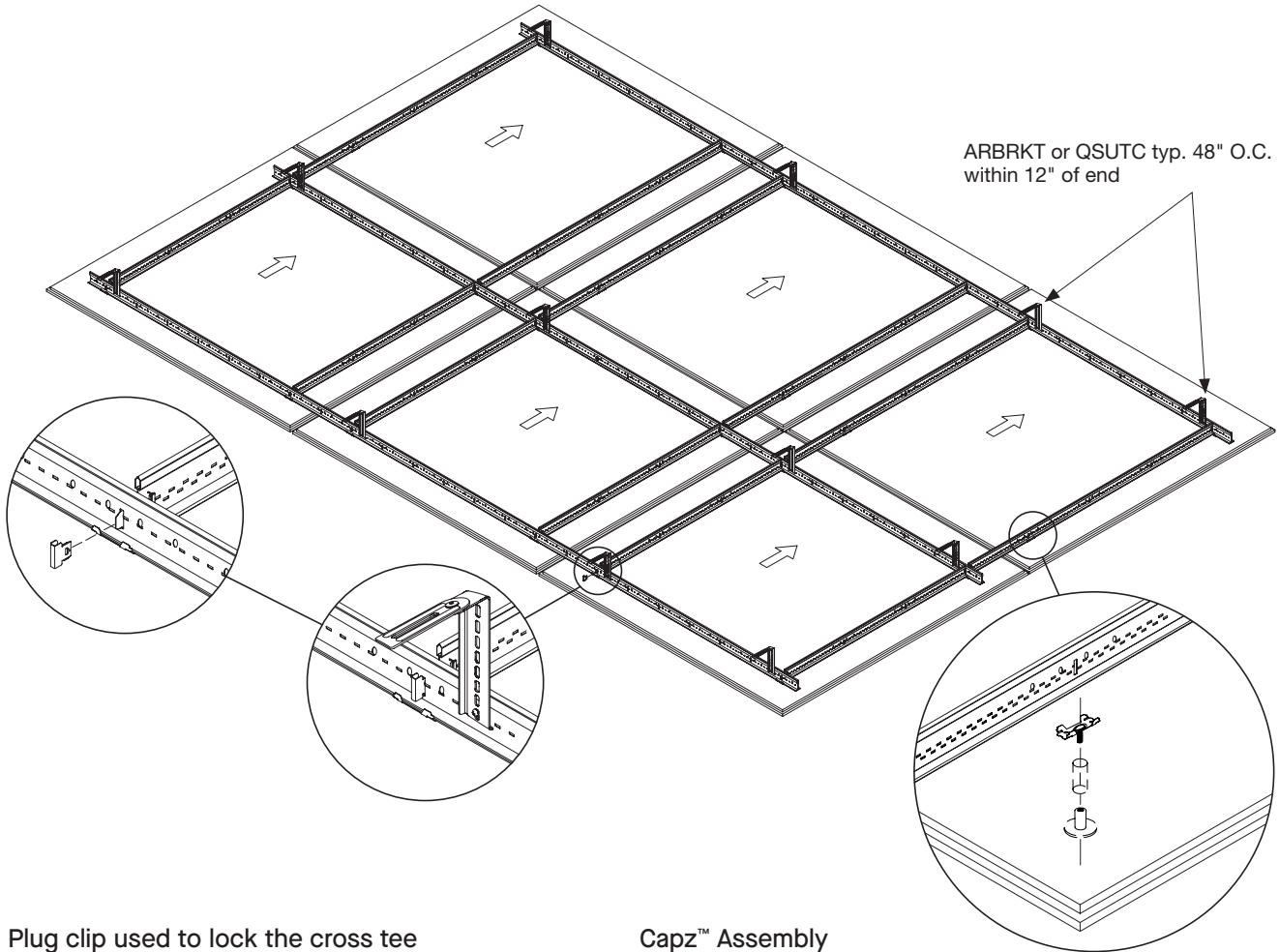
4' × 4' Panel and Grid Installation to the Deck Between Structural Bar Joists



System Layout & Components

Item Details

4' x 4' - 6 panel layout,
detailing the position of
Direct Attachment Brackets



Plug clip used to lock the cross tee
tab into the main runner rout hole
for increased system rigidity

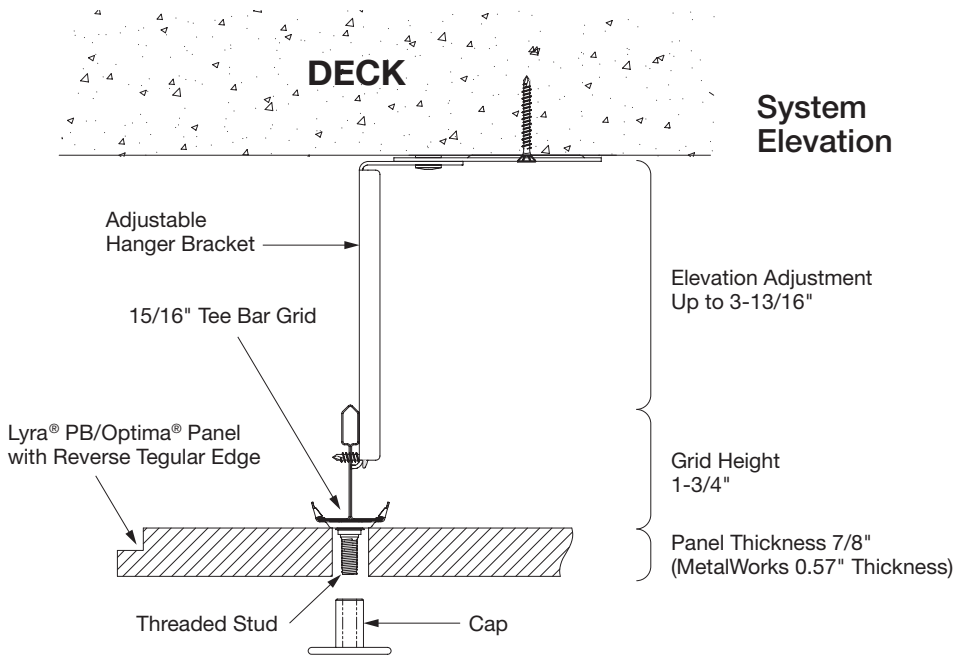
Capz™ Assembly

1. Attach 15/16" Grid
2. Snap on ARSTUD
3. Raise Capz™ panel
4. Thread on ARCAP or 5487 (MetalWorks™)

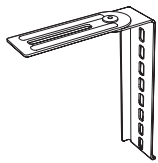
System Layout & Components

System Cross Section

MetalWorks™, Lyra® PB, and Optima® PB Capz™ are installed with standard 15/16" Prelude® grid. May be installed 2-3/4" to 6-1/2" (approximately) from the deck to the panel face.

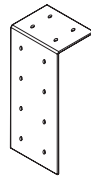


Capz™ Hardware Components & Accessories

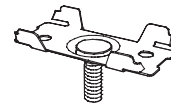


Adjustable Hanger Bracket (ARBRKT)

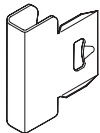
OR



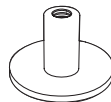
Rigid Attachment Clip (QSUTC)



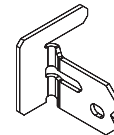
Threaded Stud (ARSTUD)



Cross Tee Plug Clip (ARPLUG)



Cap (ARCAP) 5487 (MetalWorks Cap)



Single Tee Adapter Clip (STAC)

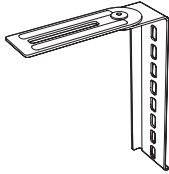
Suspension Hardware Installation Steps

5-Step Installation Process

STEP 1:

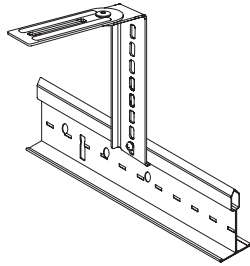
Install Adjustable Hanger Bracket to the deck

(Use either the adjustable ARBRKT or the rigid QSUTC based on job-specific need for flexibility or panel deviation preference)



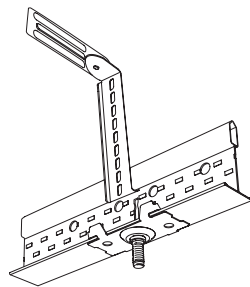
STEP 2:

Attach Prelude® Main Beam to the Adjustable Hanger Bracket



STEP 3:

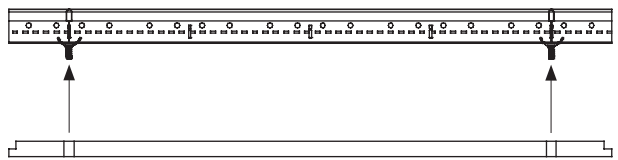
Snap Threaded Stud onto grid



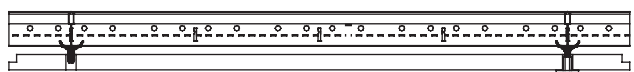
STEP 4:

Raise panel and screw on the aluminum cap

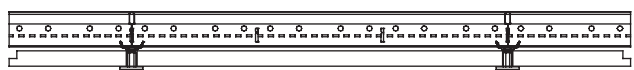
1



2

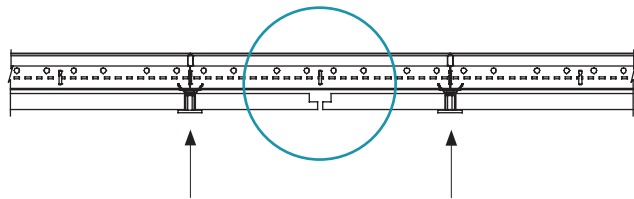


3

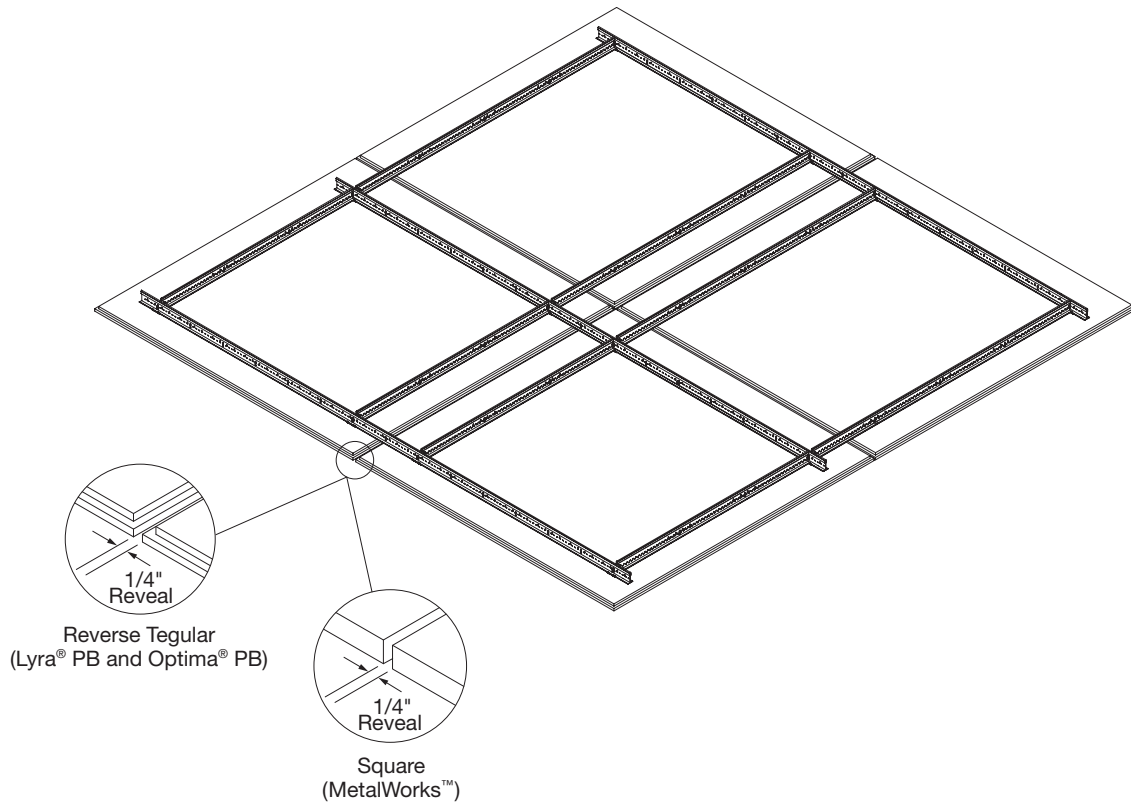


STEP 5:

Adjust panels as required to align 1/4" reveal and to set equal panel elevation

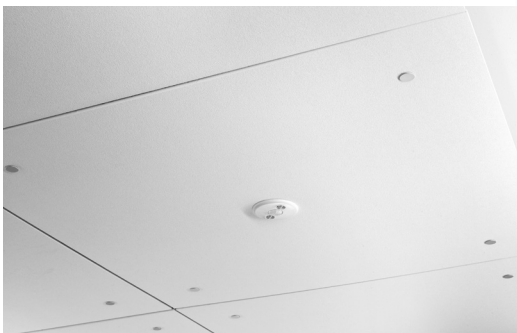


Reverse Tegalor or Square 1/4" Reveal Between Panels

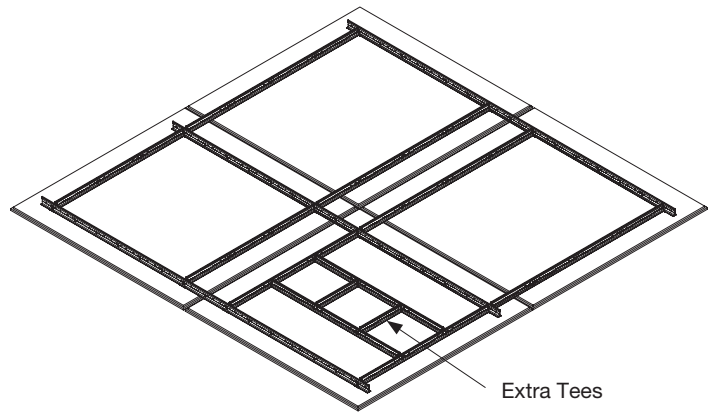


Extra Cross Tees Needed for Mechanical Equipment Installation

Front View of Installation for Heat Sensor

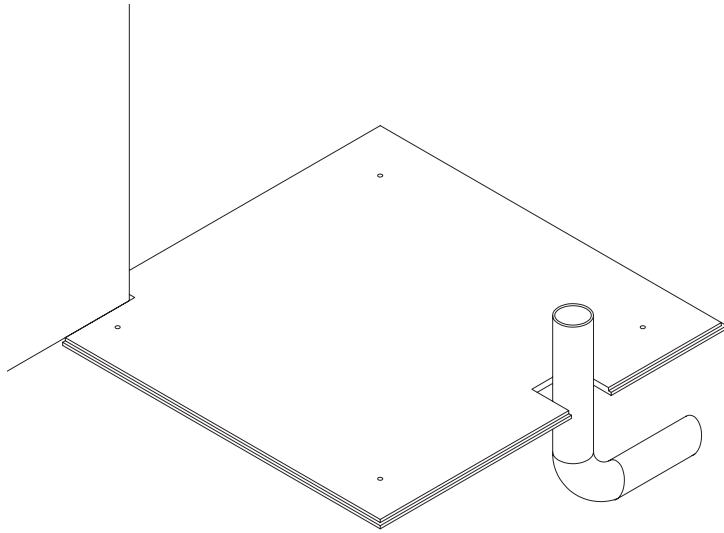


Sprinkler heads, speakers, or other requirements are easily cut into Lyra® and Optima® and panels; handled like a regular ceiling installation.



Installation Details

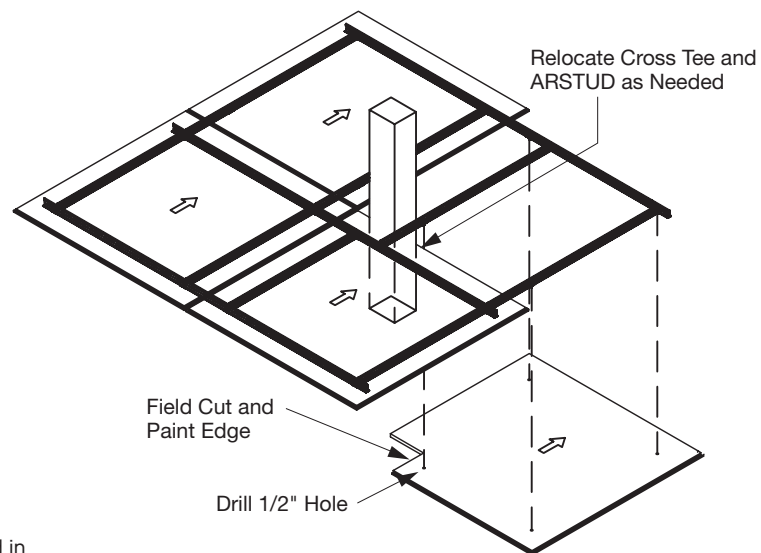
Notch Panel for Penetration



Cut notch to provide 1" - 2" clearance around penetration

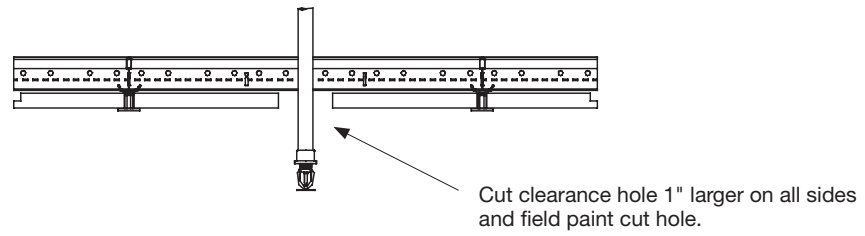
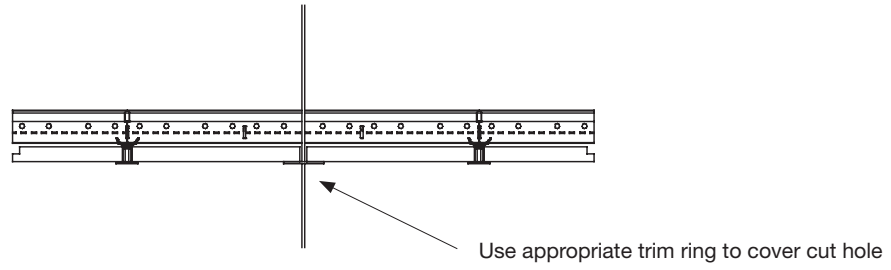


Additional Panel Support / Panel Mounting if Hole is Trimmed Off

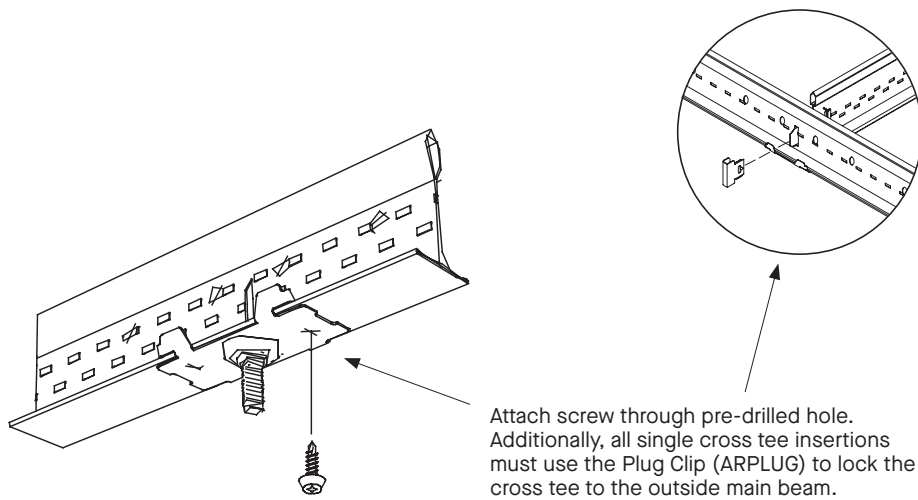


NOTE: Capz™ cannot be moved in MetalWorks™ panels

Penetration Through Panel

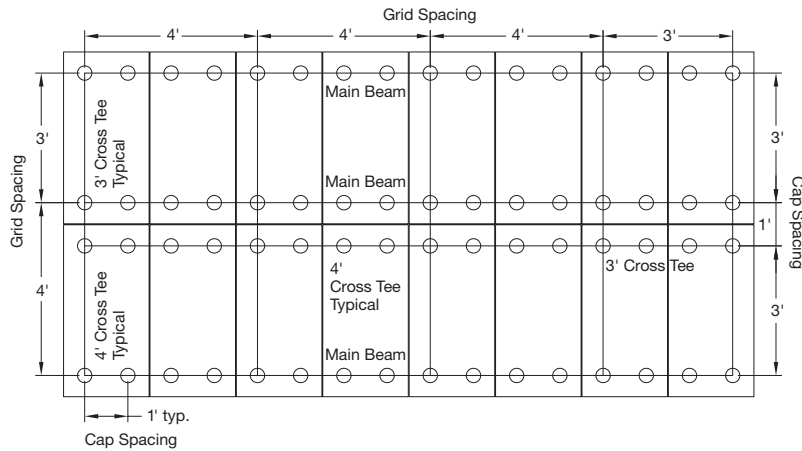


Installation for Seismic or Sloped Designs



Configuration Drawings & Components

2' x 4' Panel Layout – 16 Panels – Vertical

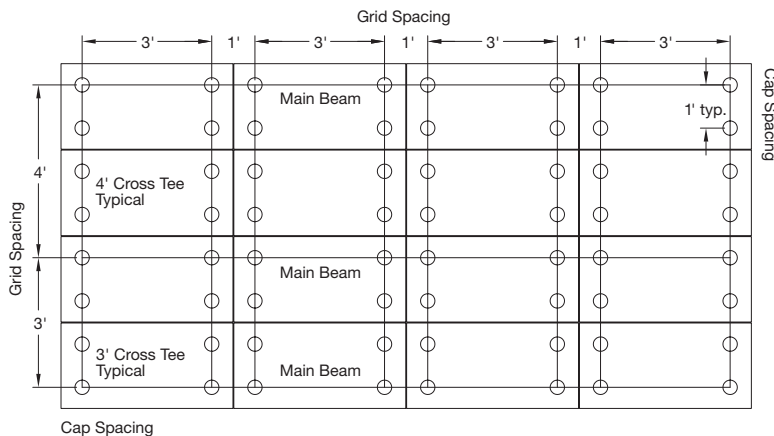


2' x 4' PANEL LAYOUT 16 PANELS – VERTICAL

Description	Item No.
LYRA® PB Field Panels	
2' x 4' x 7/8" Reverse Tegalur	8552PB 8552PBBK
OPTIMA® PB Field Panel	
2' x 4' x 7/8" Reverse Tegalur	3934PB
METALWORKS™ Field Panel	
2' x 4' x 0.57" Square Edge	64780M10__
Grid Components	
Prelude® 12' Main Beam	7300/7301*
Prelude 3' Cross Tee	XL7330
Prelude 4' Cross Tee	XL7348
Hardware Components	
Adjustable Hanger Bracket	ARBRKT
Rigid Attachment Clip	QSUTC
Threaded Stud	ARSTUD
Cap for Optima & Lyra PB	ARCAP
Cap for MetalWorks	5487
Cross Tee Plug Clip	ARPLUG

* Main beam rated for heavy duty load

2' x 4' Panel Layout – 16 Panels – Horizontal



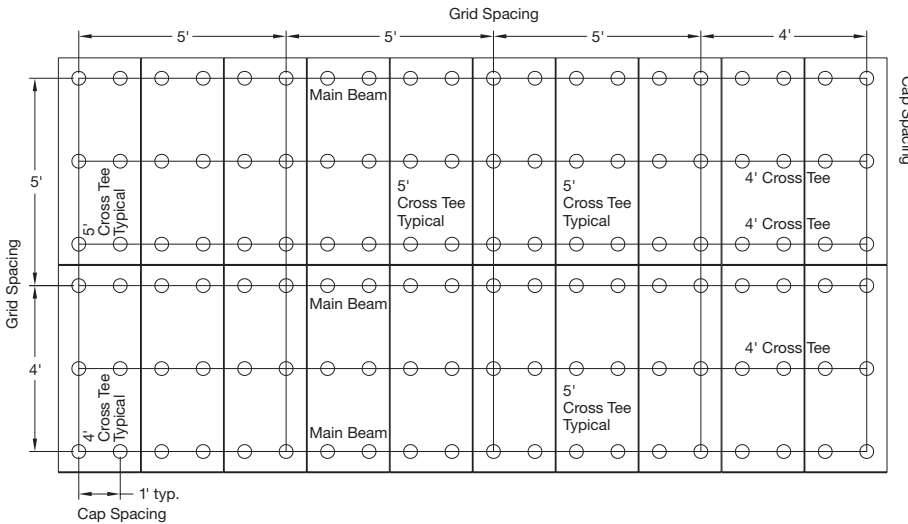
2' x 4' PANEL LAYOUT 16 PANELS – HORIZONTAL

Description	Item No.
LYRA® PB Field Panels	
2' x 4' x 7/8" Reverse Tegalur	8552PB 8552PBBK
OPTIMA® PB Field Panel	
2' x 4' x 7/8" Reverse Tegalur	3934
METALWORKS™ Field Panel	
2' x 4' x 0.57" Square Edge	64780M10__
Grid Components	
Prelude 12' Main Beam	7300/7301*
Prelude 3' Cross Tee	XL7330
Prelude 4' Cross Tee	XL7348
Hardware Components	
Adjustable Hanger Bracket	ARBRKT
Rigid Attachment Clip	QSUTC
Threaded Stud	ARSTUD
Cap for Optima & Lyra PB	ARCAP
Cap for MetalWorks	5487
Cross Tee Plug Clip	ARPLUG

* Main beam rated for heavy duty load

Configuration Drawings & Components

2' x 5' Panel Layout – 20 Panels – Vertical

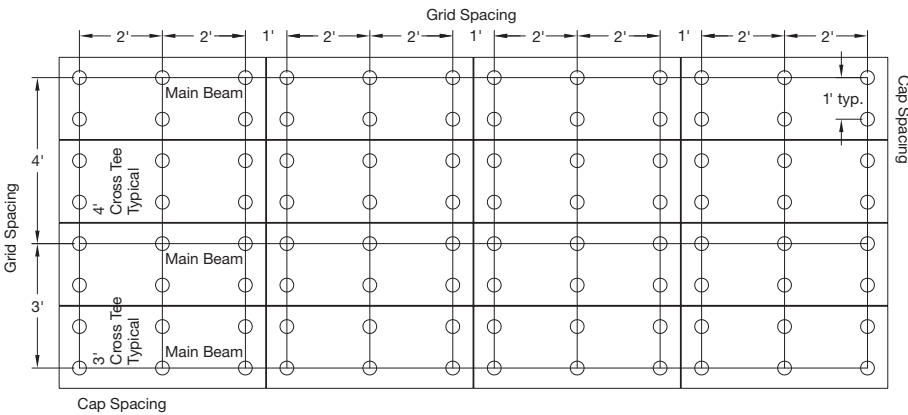


2' x 5' PANEL LAYOUT 20 PANELS – VERTICAL

Description	Item No.
LYRA® PB Field Panels	
2' x 5' x 7/8" Reverse Tegular	8553PB 8553PBBK
OPTIMA® PB Field Panel	
2' x 5' x 7/8" Reverse Tegular	3935
METALWORKS™ Field Panel	
2' x 5' x 0.57" Square Edge	64790M10__
Grid Components	
Prelude® 12' Main Beam	7300/7301*
Prelude 5' Cross Tee	XL7357
Prelude 4' Cross Tee	XL7348
Hardware Components	
Adjustable Hanger Bracket	ARBRKT
Rigid Attachment Clip	QSUTC
Threaded Stud	ARSTUD
Cap for Optima & Lyra PB	ARCAP
Cap for MetalWorks	5487
Cross Tee Plug Clip	ARPLUG

* Main beam rated for heavy duty load

2' x 5' Panel Layout – 16 Panels – Horizontal



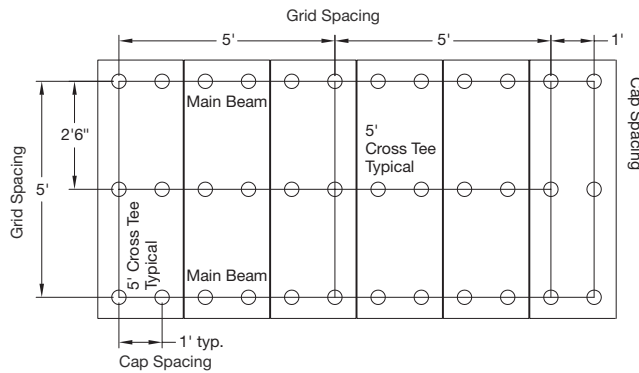
2' x 5' PANEL LAYOUT 16 PANELS – HORIZONTAL

Description	Item No.
LYRA® PB Field Panels	
2' x 5' x 7/8" Reverse Tegular	8553PB 8553PBBK
OPTIMA® PB Field Panel	
2' x 4' x 7/8" Reverse Tegular	3935
METALWORKS™ Field Panel	
2' x 4' x 0.57" Square Edge	64790M10__
Grid Components	
Prelude 12' Main Beam	7300/7301*
Prelude 3' Cross Tee	XL7330
Prelude 4' Cross Tee	XL7348
Hardware Components	
Adjustable Hanger Bracket	ARBRKT
Rigid Attachment Clip	QSUTC
Threaded Stud	ARSTUD
Cap for Optima & Lyra PB	ARCAP
Cap for MetalWorks	5487
Cross Tee Plug Clip	ARPLUG

* Main beam rated for heavy duty load

Configuration Drawings & Components

2' x 6' Panel Layout – 6 Panels – Vertical

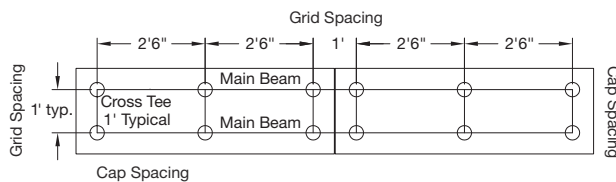


2' x 6' PANEL LAYOUT 6 PANELS – VERTICAL

Description	Item No.
LYRA® PB Field Panels	
2' x 6' x 7/8" Reverse Tegalur	8554PB
	8554PBBK
OPTIMA® PB Field Panel	
2' x 6' x 7/8" Reverse Tegalur	3930
METALWORKS™ Field Panel	
2' x 6' x 0.57" Square Edge	64910M10__
Grid Components	
Prelude® 12' Main Beam	7300/7301*
Prelude 5' Cross Tee	XL7357
Hardware Components	
Adjustable Hanger Bracket	ARBRKT
Rigid Attachment Clip	QSUTC
Threaded Stud	ARSTUD
Cap for Optima & Lyra PB	ARCAP
Cap for MetalWorks	5487
Cross Tee Plug Clip	ARPLUG

* Main beam rated for heavy duty load

2' x 6' Panel Layout – 2 Panels – Horizontal



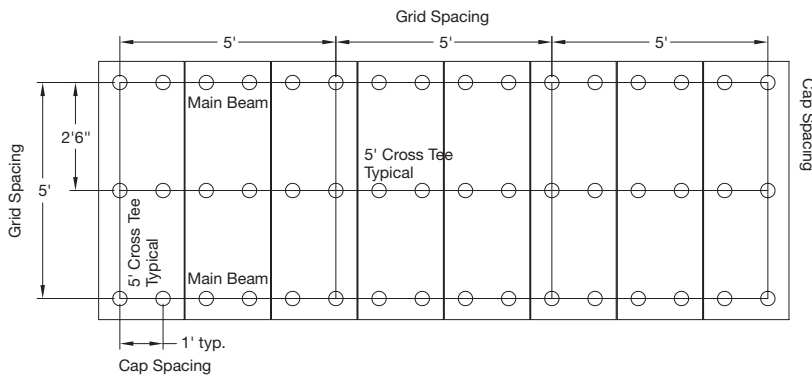
2' x 6' PANEL LAYOUT 2 PANELS – HORIZONTAL

Description	Item No.
LYRA® PB Field Panels	
2' x 6' x 7/8" Reverse Tegalur	8554PB
	8554PBBK
OPTIMA® PB Field Panel	
2' x 6' x 7/8" Reverse Tegalur	3930PB
METALWORKS™ Field Panel	
2' x 6' x 0.57" Square Edge	64910M10__
Grid Components	
Prelude 12' Main Beam	7300/7301*
Prelude 1' Cross Tee	XL7318
Hardware Components	
Adjustable Hanger Bracket	ARBRKT
Rigid Attachment Clip	QSUTC
Threaded Stud	ARSTUD
Cap for Optima & Lyra PB	ARCAP
Cap for MetalWorks	5487
Cross Tee Plug Clip	ARPLUG

* Main beam rated for heavy duty load

Configuration Drawings & Components

2' x 6' Panel Layout – 8 Panels – Vertical

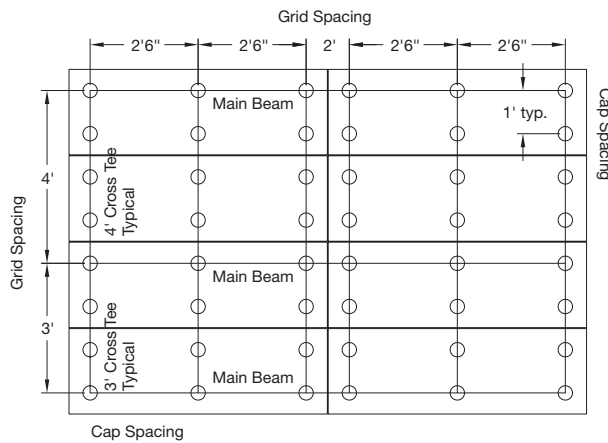


2' x 6' PANEL LAYOUT 8 PANELS – VERTICAL

Description	Item No.
LYRA® PB Field Panels	
2' x 6' x 7/8" Reverse Tegular	8554PB 8554PBBK
OPTIMA® PB Field Panel	
2' x 6' x 7/8" Reverse Tegular	3930PB
METALWORKS™ Field Panel	
2' x 6' x 0.57" Square Edge	64910M10__
Grid Components	
Prelude® 12' Main Beam	7300/7301*
Prelude 5' Cross Tee	XL7357
Hardware Components	
Adjustable Hanger Bracket	ARBRKT
Rigid Attachment Clip	QSUTC
Threaded Stud	ARSTUD
Cap for Optima & Lyra PB	ARCAP
Cap for MetalWorks	5487
Cross Tee Plug Clip	ARPLUG

* Main beam rated for heavy duty load

2' x 6' Panel Layout – 8 Panels – Horizontal



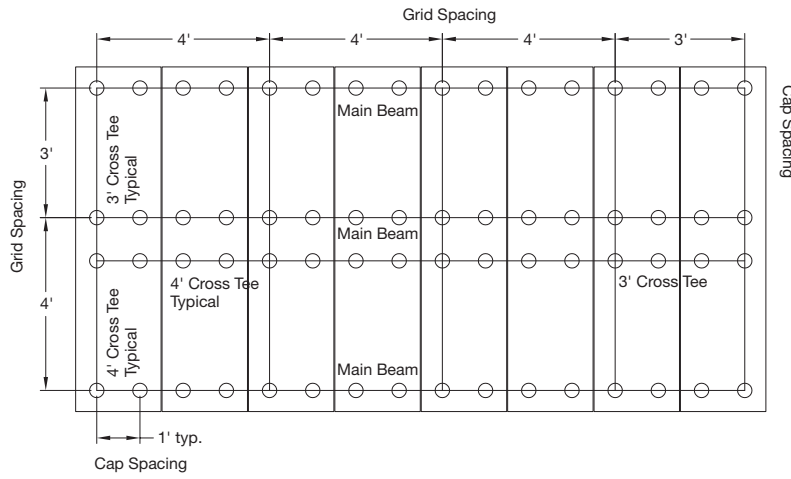
2' x 6' PANEL LAYOUT 8 PANELS – HORIZONTAL

Description	Item No.
LYRA® PB Field Panels	
2' x 6' x 7/8" Reverse Tegular	8554PB 8554PBBK
OPTIMA® PB Field Panel	
2' x 6' x 7/8" Reverse Tegular	3930PB
METALWORKS™ Field Panel	
2' x 6' x 0.57" Square Edge	64910M10__
Grid Components	
Prelude 12' Main Beam	7300/7301*
Prelude 3' Cross Tee	XL7330
Prelude 4' Cross Tee	XL7348
Hardware Components	
Adjustable Hanger Bracket	ARBRKT
Rigid Attachment Clip	QSUTC
Threaded Stud	ARSTUD
Cap for Optima & Lyra PB	ARCAP
Cap for MetalWorks	5487
Cross Tee Plug Clip	ARPLUG

* Main beam rated for heavy duty load

Configuration Drawings & Components

2' x 8' Panel Layout – 8 Panels – Vertical

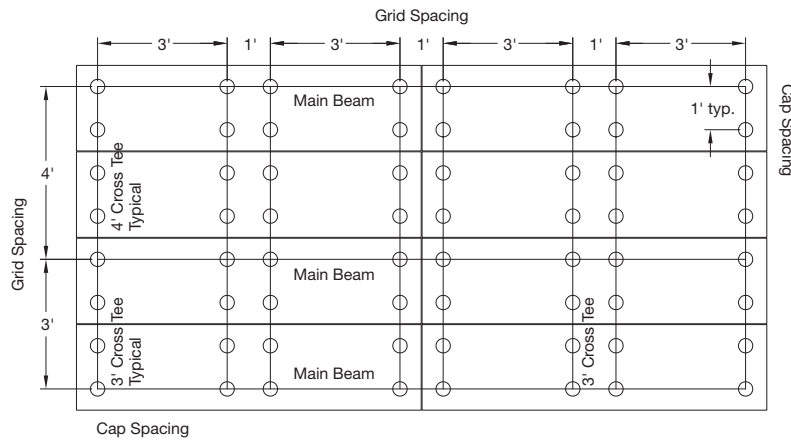


2' x 8' PANEL LAYOUT 8 PANELS – VERTICAL

Description	Item No.
OPTIMA® PB Field Panel	
2' x 8' x 7/8" Reverse Tegular	3931PB
METALWORKS™ Field Panel	
2' x 8' x 0.57" Square Edge	64920M10_ _
Grid Components	
Prelude® 12' Main Beam	7300/7301*
Prelude 3' Cross Tee	XL7330
Prelude 4' Cross Tee	XL7348
Hardware Components	
Adjustable Hanger Bracket	ARBRKT
Rigid Attachment Clip	QSUTC
Threaded Stud	ARSTUD
Cap for Optima & Lyra PB	ARCAP
Cap for MetalWorks	5487
Cross Tee Plug Clip	ARPLUG

* Main beam rated for heavy duty load

2' x 8' Panel Layout – 8 Panels – Horizontal



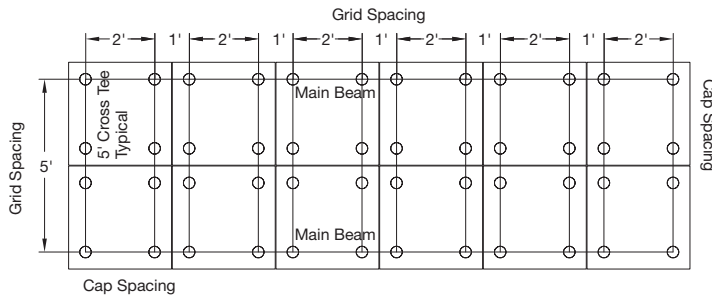
2' x 8' PANEL LAYOUT 8 PANELS – HORIZONTAL

Description	Item No.
OPTIMA® PB Field Panel	
2' x 8' x 7/8" Reverse Tegular	3931PB
METALWORKS™ Field Panel	
2' x 8' x 0.57" Square Edge	64920M10_ _
Grid Components	
Prelude® 12' Main Beam	7300/7301*
Prelude 3' Cross Tee	XL7330
Prelude 4' Cross Tee	XL7348
Hardware Components	
Adjustable Hanger Bracket	ARBRKT
Rigid Attachment Clip	QSUTC
Threaded Stud	ARSTUD
Cap for Optima & Lyra PB	ARCAP
Cap for MetalWorks	5487
Cross Tee Plug Clip	ARPLUG

* Main beam rated for heavy duty load

Configuration Drawings & Components

3' x 3' Panel Layout – 12 Panels

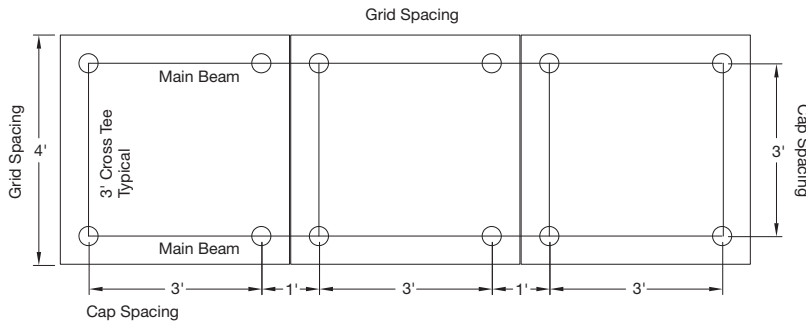


3' x 3' PANEL LAYOUT 12 PANELS

Description	Item No.
LYRA® PB Field Panels	
3' x 3' x 7/8" Reverse Tegalur	8556PB
	8556PBBK
OPTIMA® PB Field Panel	
3' x 3' x 7/8" Reverse Tegalur	3936PB
METALWORKS™ Field Panel	
2' x 6' x 0.57" Square Edge	64910M10_
Grid Components	
Prelude® 12' Main Beam	7300/7301*
Prelude 5' Cross Tee	XL7357
Hardware Components	
Adjustable Hanger Bracket	ARBRKT
Rigid Attachment Clip	QSUTC
Threaded Stud	ARSTUD
Cap for Optima & Lyra PB	ARCAP
Cap for MetalWorks	5487
Cross Tee Plug Clip	ARPLUG

* Main beam rated for heavy duty load

4' x 4' Panel Layout – 3 Panels



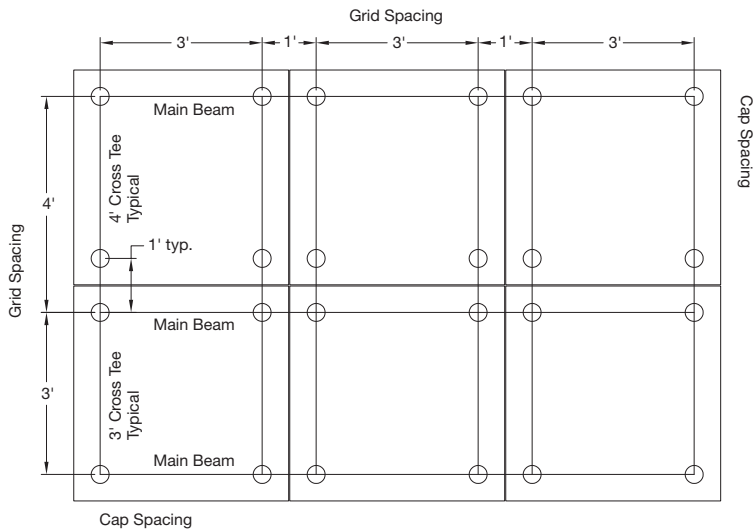
4' x 4' PANEL LAYOUT 3 PANELS

Description	Item No.
OPTIMA® PB Field Panel	
4' x 4' x 7/8" Reverse Tegalur	3932PB
METALWORKS™ Field Panel	
4' x 4' x 0.57" Square Edge	6490_M10_
Grid Components	
Prelude 12' Main Beam	7300/7301*
Prelude 5' Cross Tee	XL7357
Prelude 3' Cross Tee	XL7330
Hardware Components	
Adjustable Hanger Bracket	ARBRKT
Rigid Attachment Clip	QSUTC
Threaded Stud	ARSTUD
Cap for Optima & Lyra PB	ARCAP
Cap for MetalWorks	5487
Cross Tee Plug Clip	ARPLUG

* Main beam rated for heavy duty load

Configuration Drawings & Components

4' x 4' Panel Layout – 6 Panels

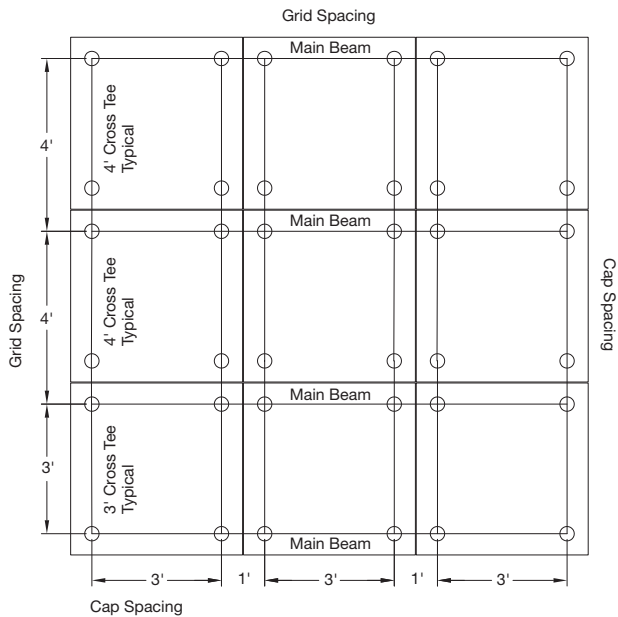


4' x 4' PANEL LAYOUT 6 PANELS

Description	Item No.
OPTIMA® PB Field Panel	
4' x 4' x 7/8" Reverse Tegular	3932PB
METALWORKS™ Field Panel	
4' x 4' x 0.57" Square Edge	6490_M10_
Grid Components	
Prelude® 12' Main Beam	7300/7301*
Prelude 3' Cross Tee	XL7330
Prelude 4' Cross Tee	XL7348
Hardware Components	
Adjustable Hanger Bracket	ARBRKT
Rigid Attachment Clip	QSUTC
Threaded Stud	ARSTUD
Cap for Optima & Lyra PB	ARCAP
Cap for MetalWorks	5487
Cross Tee Plug Clip	ARPLUG

* Main beam rated for heavy duty load

4' x 4' Panel Layout – 9 Panels



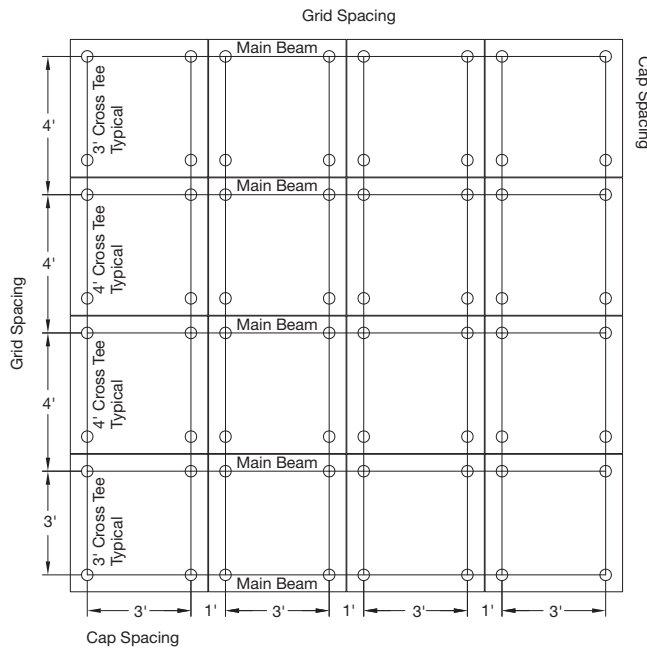
4' x 4' PANEL LAYOUT 9 PANELS

Description	Item No.
OPTIMA® PB Field Panel	
4' x 4' x 7/8" Reverse Tegular	3932PB
METALWORKS™ Field Panel	
4' x 4' x 0.57" Square Edge	6490_M10_
Grid Components	
Prelude® 12' Main Beam	7300/7301*
Prelude 3' Cross Tee	XL7330
Prelude 4' Cross Tee	XL7348
Hardware Components	
Adjustable Hanger Bracket	ARBRKT
Rigid Attachment Clip	QSUTC
Threaded Stud	ARSTUD
Cap for Optima & Lyra PB	ARCAP
Cap for MetalWorks	5487
Cross Tee Plug Clip	ARPLUG

* Main beam rated for heavy duty load

Configuration Drawings & Components

4' x 4' Panel Layout – 16 Panels

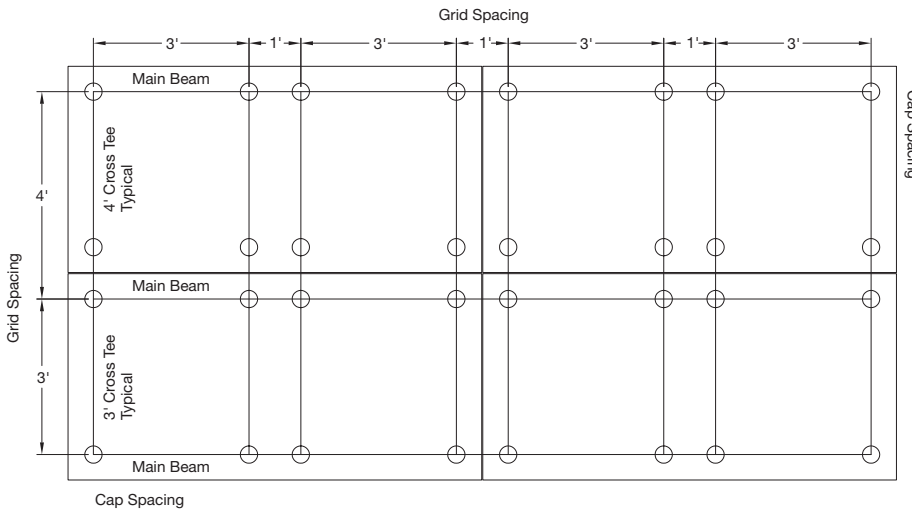


4' x 4' PANEL LAYOUT 16 PANELS

Description	Item No.
OPTIMA® PB Field Panel	
4' x 4' x 7/8" Reverse Tegular	3932PB
METALWORKS™ Field Panel	
4' x 4' x 0.57" Square Edge	6490_M10_
Grid Components	
Prelude® 12' Main Beam	7300/7301*
Prelude 3' Cross Tee	XL7330
Prelude 4' Cross Tee	XL7348
Hardware Components	
Adjustable Hanger Bracket	ARBRKT
Rigid Attachment Clip	QSUTC
Threaded Stud	ARSTUD
Cap for Optima & Lyra PB	ARCAP
Cap for MetalWorks	5487
Cross Tee Plug Clip	ARPLUG

* Main beam rated for heavy duty load

4' x 8' Panel Layout – 4 Panels



4' x 8' PANEL LAYOUT 4 PANELS

Description	Item No.
OPTIMA® PB Field Panel	
4' x 8' x 7/8" Reverse Tegular	3933PB
METALWORKS™ Field Panel	
4' x 8' x 0.57" Square Edge	64940M10_
Grid Components	
Prelude® 12' Main Beam	7300/7301*
Prelude 3' Cross Tee	XL7330
Prelude 4' Cross Tee	XL7348
Hardware Components	
Adjustable Hanger Bracket	ARBRKT
Rigid Attachment Clip	QSUTC
Threaded Stud	ARSTUD
Cap for Optima & Lyra PB	ARCAP
Cap for MetalWorks	5487
Cross Tee Plug Clip	ARPLUG

* Main beam rated for heavy duty load

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The Next Step

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