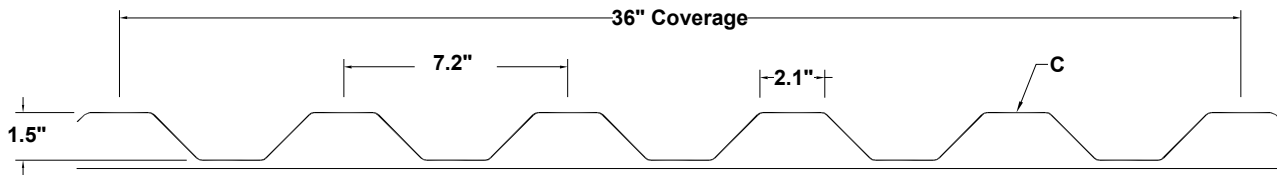


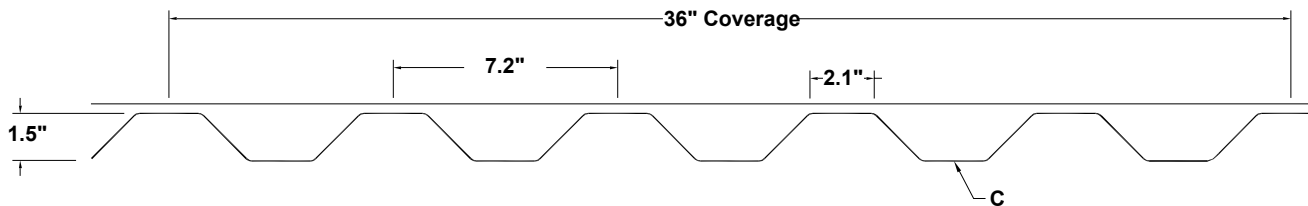
<b>Product</b>	<b>Page No.</b>
<b>Panel Information</b>	
IC72-Panel Profiles.....	PIC-2
Panel Overview .....	PIC-2
<b>Flashing Profiles</b>	
Eave .....	PIC-3
Box Gutter .....	PIC-3
Box Gutter End .....	PIC-3
Universal Gutter/Downspout Strap .....	PIC-3
4" x 3 1/2" Downspout .....	PIC-3
4" x 3 1/2" 90° Elbow .....	PIC-3
Downspout Bracket .....	PIC-3
Valley .....	PIC-3
IC72-Panel Rake .....	PIC-3
IC72-Panel Sculptured Rake .....	PIC-3
Sculptured Rake End .....	PIC-3
IC72-Panel Rakewall .....	PIC-3
Pitch Break .....	PIC-3
Peak .....	PIC-3
Counter Flashing .....	PIC-3
Reglet Flashing .....	PIC-4
Sculptured High Side Eave .....	PIC-4
20" Ridge/Hip Cover .....	PIC-4
Universal Ridge .....	PIC-4
Coping .....	PIC-4
Gravel Stop .....	PIC-4
Outside Corner .....	PIC-4
Inside Corner .....	PIC-4
IC72-Panel Outside Corner .....	PIC-4
IC72-Panel Inside Corner .....	PIC-4
1.5" Sill/Head .....	PIC-4
1.5" Sill to Soffit .....	PIC-4
IC72-Panel C-Closure .....	PIC-4
IC72-Panel Jamb .....	PIC-4
Head Channel .....	PIC-4
Head/Jamb Cover .....	PIC-5
Base .....	PIC-5
IC72-Panel Gutter Hanger .....	PIC-5
<b>Accessory Profiles</b>	
IC72-Panel Light Transmitting Panel .....	PIC-5
IC72-Panel Closures .....	PIC-5
Universal Closure .....	PIC-5
Tube Sealant .....	PIC-5
Tape Sealant .....	PIC-5
Rubber Roof Jack .....	PIC-5
Retro Roof Jack .....	PIC-5
Rubber Roof Flash Kit .....	PIC-5
Touch-Up Paint .....	PIC-5
<b>Testing Information</b>	
Section Properties and General Information .....	PIC-6
<b>Design/Installation Considerations</b>	
Fastener Installation Technique .....	PIC-7
Condition of Substructure .....	PIC-7
Fastening Patterns .....	PIC-8

<b>Product</b>	<b>Page No.</b>
<b>Detail Conditions</b>	
Eave Detail .....	PIC-9
Sculptured Gutter Detail .....	PIC-9
Valley Detail .....	PIC-10
Sculptured Rake Detail .....	PIC-10
Rakewall Detail .....	PIC-11
Endwall Detail .....	PIC-11
Peak Detail .....	PIC-12
Ridge/Hip Detail .....	PIC-12
Universal Ridge Detail .....	PIC-13
Gravel Stop Detail .....	PIC-13
Outside Corner Detail .....	PIC-14
Inside Corner Detail .....	PIC-14
Jamb Detail .....	PIC-15
Head Detail .....	PIC-15
Base Detail .....	PIC-16
<b>Notes</b>	
Notes .....	PIC-16

## ROOF PROFILE



## WALL PROFILE



## SLOPE

The minimum recommended slope for any IC72-Panel roofing panel is 1:12.

## SUBSTRATE

IC72-Panel is designed to be utilized over open structural framing, but can easily be used with a solid substrate. For solid substrate applications, the recommended substrate is  $\frac{5}{8}$ " plywood with a 30 pound felt moisture barrier. To avoid panel distortion, use a properly aligned and uniform substructure.

## COVERAGE

IC72-Panel has a coverage of 36" with a  $1\frac{1}{2}$ " Rib Height.

## LENGTH

Lengths under 5'-0" are available with some cutting restrictions. Maximum recommended panel length is 45'-0". Longer panels require additional consideration in packaging, shipping, and erection. Please consult your Metal Sales branch for recommendations (see PGI-2 and 3 for locations).

## AVAILABILITY

26 and 24 Gauge standard, 22 Ga. optional (Minimum quantities may apply).

## APPLICATION

Commercial, Industrial panel.

## FASTENING SYSTEM

Direct fastened (exposed).

## FASTENERS

The fastener selection guide should be consulted for choosing proper fasteners for specific applications. Quantity and type of fastener must meet necessary loading and code requirements (see PGI-12-14).

## MATERIALS

Steel grade 80 for 26 Gauge, Grade 50 for 24 and 22 Gauge, per ASTM A-792

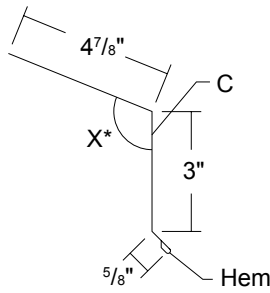
## FINISH

- ▶ \*Acrylic Coated Galvalume® (ACG) / ASTM A-792 - AZ55
- ▶ Prepainted Galvalume / ASTM A-792 - AZ50
- ▶ \*\*Fluorocarbon (PVDF)

\* Differential appearance of Acrylic Coated Galvalume roofing materials is not a cause for rejection.

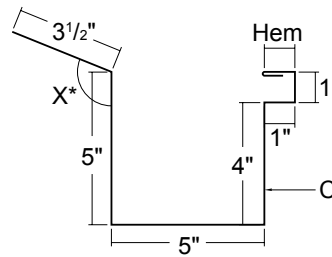
\*\* Meets both Kynar 500 and Hylar 5000 specifications.

**EAVE**



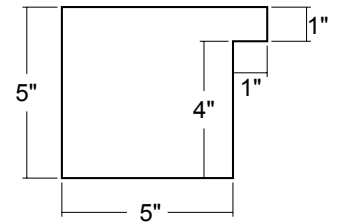
Length 10'-2" - \*Specify Slope Angle

**BOX GUTTER**

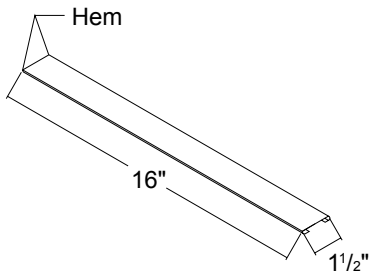


Length 10'-2", 20'-3" - \*Specify Slope Angle

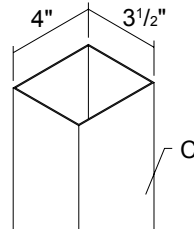
**BOX GUTTER END**



**UNIVERSAL GUTTER/  
DOWNSPOUT STRAP**

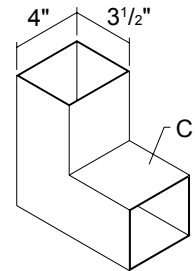


**DOWNSPOUT 4" x 3 1/2"**



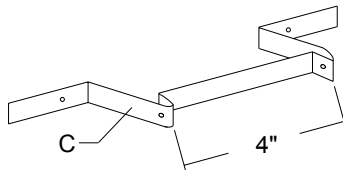
Length 10'-2", 20'-3"  
(Also available 6" x 4")

**95° ELBOW 4" x 3 1/2"**



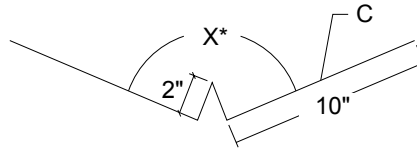
(Also available 6" x 4")

**DOWNSPOUT BRACKET**



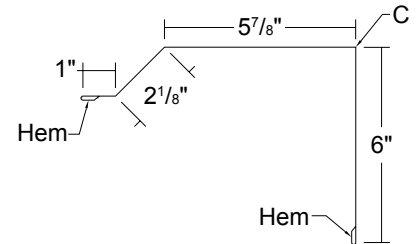
(Also available 6")

**VALLEY**



Length 10'-2", 20'-3" - \*Specify Slope Angle

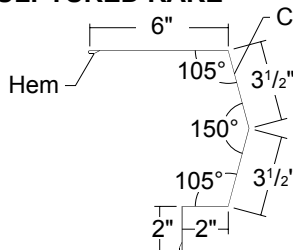
**IC72-PANEL RAKE**



Length 10'-2", 20'-3"

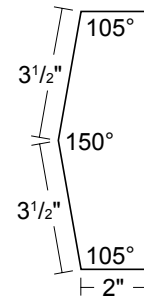
**IC72-PANEL**

**SCULPTURED RAKE**

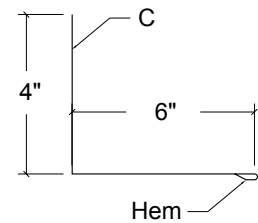


Length 10'-2", 20'-3"

**SCULPTURED RAKE END**

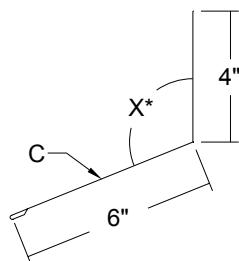


**RAKEWALL**



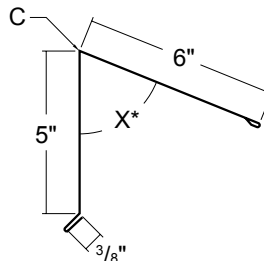
Length 10'-2"

**PITCH BREAK**



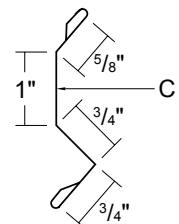
Length 10'-2" - \*Specify Slope Angle

**PEAK**



Length 10'-2", 20'-3" - \*Specify Slope Angle

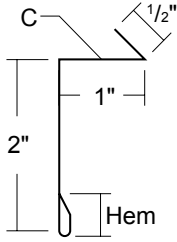
**COUNTER FLASHING**



Length 10'-2"

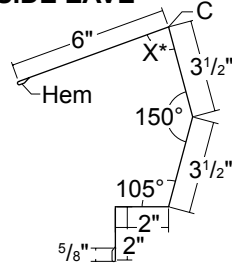
# IC72-PANEL FLASHING PROFILES (CONT.)

## REGLET FLASHING



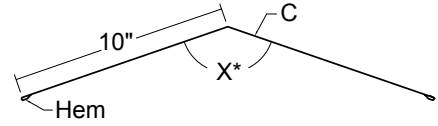
Length 10'-2"

## SCULPTURED HIGH SIDE EAVE



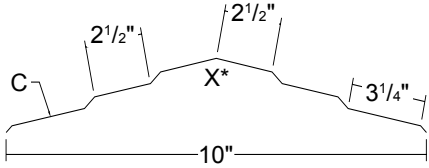
Length 10'-2", 20'-3" - \*Specify Slope Angle

## 20" RIDGE/HIP COVER



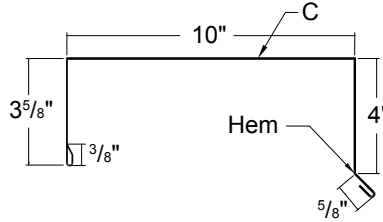
Length 10'-2", 20'-3" - \*Specify Slope Angle

## UNIVERSAL RIDGE



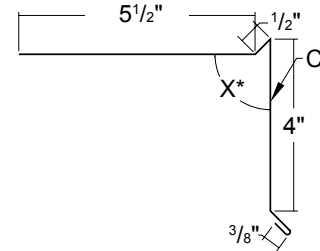
Length 10'-2" - \*Specify Slope Angle

## COPING



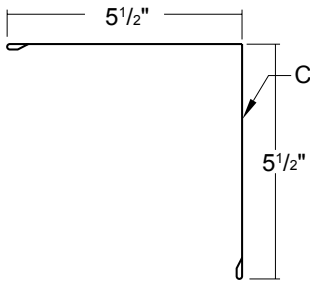
Length 10'-2", 20'-3"

## GRAVEL STOP



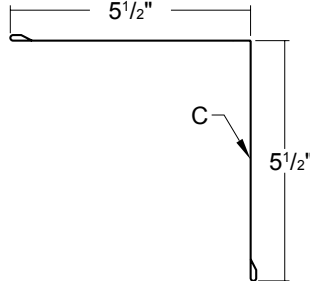
Length 10'-2", 20'-3" - \*Specify Slope Angle

## OUTSIDE CORNER



Length 10'-2", 20'-3"

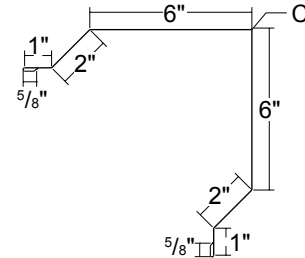
## INSIDE CORNER



Length 10'-2", 20'-3"

## OUTSIDE CORNER

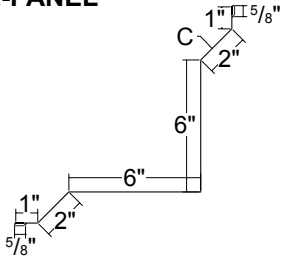
### IC72-PANEL



Length 10'-2", 14'-2", 20'-3"

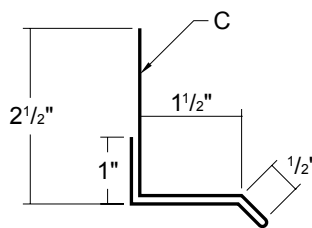
## INSIDE CORNER

### IC72-PANEL



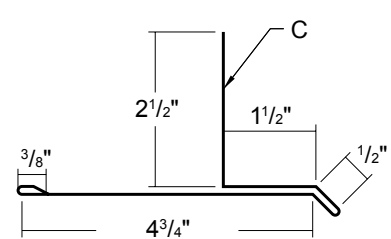
Length 10'-2", 14'-2", 20'-3"

## 1.5" SILL/HEAD



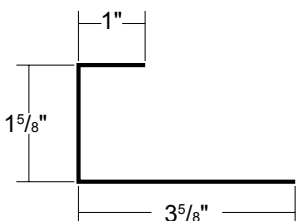
Length 10'-2"

## 1.5" SILL TO SOFFIT



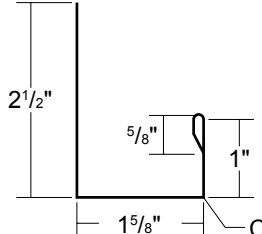
Length 10'-2"

## IC72-PANEL C-CLOSURE



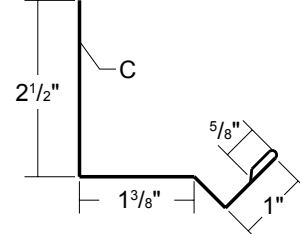
Length 10'-2"

## IC72-PANEL JAMB



Length 7'-3", 10'-2", 14'-2"

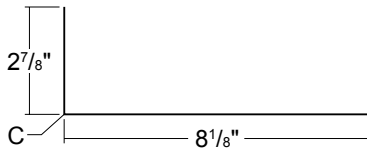
## HEAD CHANNEL



Length 10'-2"

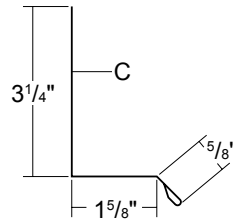
# IC72-PANEL FLASHING PROFILES (CONT.) / ACCESSORY PROFILES

## HEAD/JAMB COVER



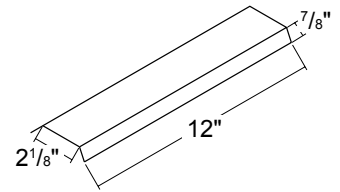
Length 10'-2", 14'-2"

## BASE



Length 10'-2"

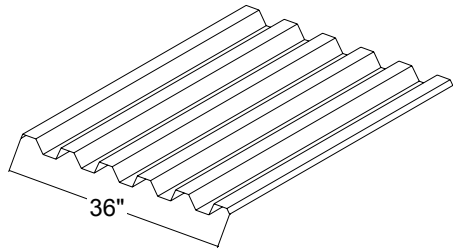
## IC72-PANEL GUTTER HANGER



Length 1'-0"

# IC72-PANEL ACCESSORY PROFILES

## LIGHT TRANSMITTING IC72-PANELS

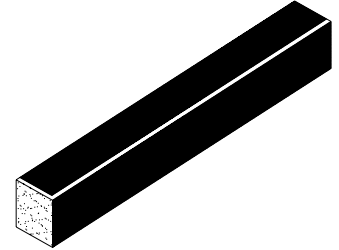


## IC72-PANEL CLOSURE INSIDE/OUTSIDE



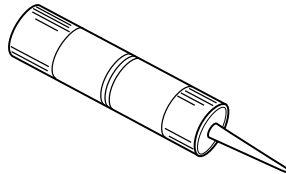
Polyethylene Foam

## UNIVERSAL CLOSURE



1" x 1 1/2" x 50' Polyethylene Foam  
1" x 1 1/2" x 10' Polyethylene Foam

## TUBE SEALANT



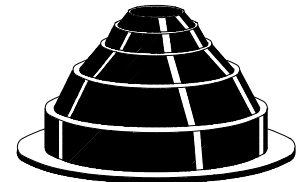
10.3 oz. Cartridge Urethane

## TAPE SEALANT



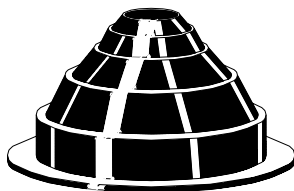
3/8" X 3/32" X 50'  
Single Bead Butyl - Gray

## RUBBER ROOF JACK



MINI (1/4" to 1 1/8" O.D. Pipe)  
#2 (1 3/4" to 3" O.D. Pipe)  
#4 (3" to 6" O.D. Pipe)  
#6 (6" to 9" O.D. Pipe)  
#8 (7" to 13" O.D. Pipe)

## RETRO ROOF JACK



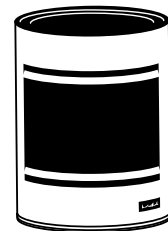
#801<sub>RETRO</sub> (3/4" to 2 3/4" O.D. Pipe)  
#802<sub>RETRO</sub> (2" to 7 1/4" O.D. Pipe)  
#803<sub>RETRO</sub> (3 1/4" to 10" O.D. Pipe)

## RUBBER ROOF FLASH KIT



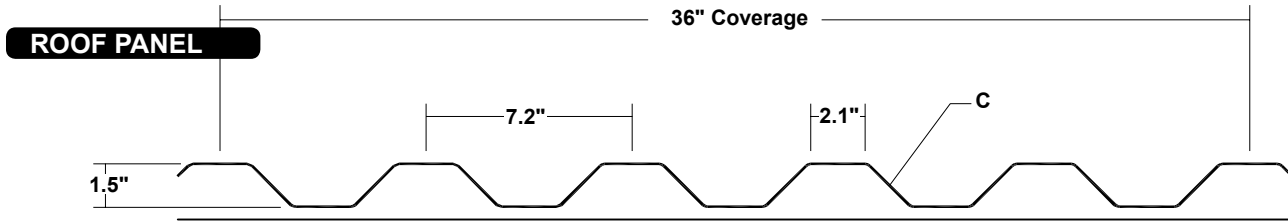
12" x 50'-0" Flash Kit  
18" x 50'-0" Flash Kit

## TOUCH-UP PAINT



Available in pints  
PVDF / MS Colorfast45

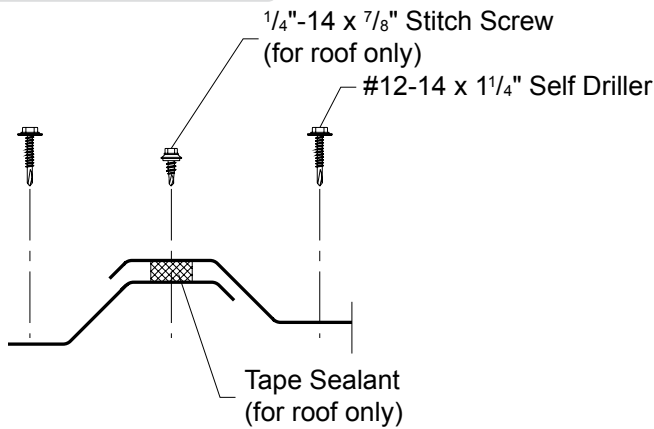
C- Indicates color side of flashing.



SECTION PROPERTIES								ALLOWABLE UNIFORM LOADS psf (3 or More Equal Spans)											
Ga.	Width in	Yield ksi	Weight psf	Top In Compression		Bottom In Compression		Inward Load						Outward Load					
				Ixx in <sup>4</sup> /ft	Sxx in <sup>3</sup> /ft	Ixx in <sup>4</sup> /ft	Sxx in <sup>3</sup> /ft	5'	6'	7'	8'	9'	10'	5'	6'	7'	8'	9'	10'
26	36"	50	0.88	0.0707	0.0817	0.0653	0.0663	58	41	31	24	19	15	70	50	37	29	22	16
26	36"	80	0.88	0.0670	0.0752	0.0620	0.0614	64	45	34	26	21	16	76	54	41	31	22	16
24	36"	50	1.15	0.1000	0.1208	0.0987	0.1076	97	68	50	39	29	21	108	76	56	41	29	21
22	36"	50	1.51	0.1400	0.1757	0.1400	0.1557	142	100	73	54	38	27	160	112	80	54	38	27
20	36"	33	1.85	0.1900	0.2450	0.1900	0.2223	135	94	69	53	42	34	148	103	76	58	46	34
18	36"	33	2.45	0.2700	0.3300	0.2667	0.3230	195	136	100	77	61	45	199	139	103	79	61	45

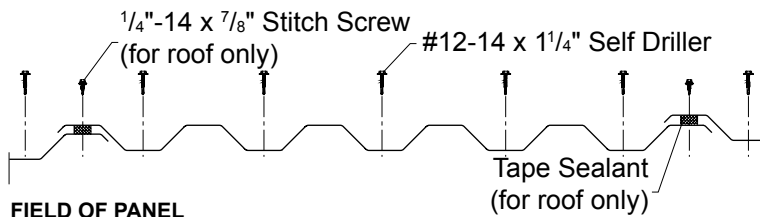
- Theoretical section properties have been calculated per AISI 2001 "Specification for the Design of Cold-formed Steel Structural Members." Ixx and Sxx are effective section properties for deflection and bending.
- Allowable load is calculated in accordance with AISI 2001 specifications considering bending, shear, combined bending and shear, deflection. Allowable load considers the worst case of 3 and 4 equal span conditions. Allowable load does not address web crippling or fasteners/support connection and panel weight is not considered.
- Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
- Allowable loads do not include a 1/3 stress increase in uplift.
- For 26 ga. Grade 80 is available from Woodland, Grade 50 is available from Sellersburg.

**ATTACHMENT DETAIL**

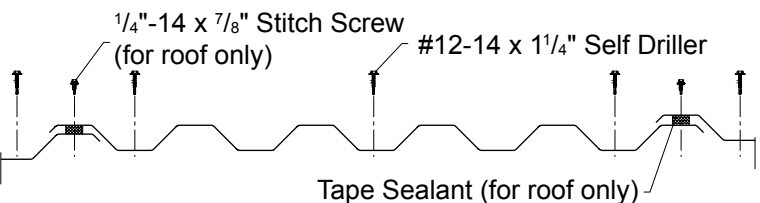


**FASTENING PATTERNS**

**ENDS OF PANEL**



**FIELD OF PANEL**



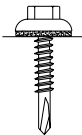
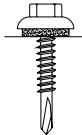
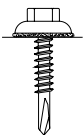
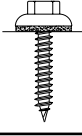
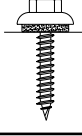

**GENERAL INFORMATION**

- Slope**  
The minimum recommended slope for IC72-Panel is 1:12. Metal Sales recommends that in all roof applications sealants be used on all sidelaps with stitch screw 1'-0" on center.
- Substructure**  
IC72-Panel is designed to be utilized over open structural framing or a solid substrate. To avoid panel distortion use a properly aligned and uniform substructure.
- Coverage**  
IC72-Panel is available in a 1 1/2" rib height with a 36" width coverage.
- Length**  
Minimum factory cut length is 5'-0". Maximum recommended panel length is 45'-0". Longer panels require additional consideration in packaging, shipping, and erection. Please consult Metal Sales for recommendations.
- Fasteners**  
The fastener selection guide should be consulted for choosing the proper fastener for specific applications. Quantity and type of fastener must meet necessary loading and code requirements.  
*NOTE: All panels are subject to surface distortion due to improperly applied fasteners. Overdriven fasteners will cause stress and induce oil canning across the face of the panel at or near the point of attachment.*
- Availability**  
*Finishes:* Acrylic Coated Galvalume® or various Kynar 500 (PVDF) colors.  
*Gauges:* 24 ga standard, 22 ga, 20 ga, and 18 ga optional

**FASTENER INSTALLATION TECHNIQUE**

**Recommended Tool Type** - Use depth locating nose or adjustable clutch on screw gun to prevent overdrilling and strip out. **Do not use impact tools or runners.**

**Seating the washer** - Apply sufficient torque to seat the washer - do not overdrive the fastener.

	<b>CORRECT</b> Sealing material slightly visible at edge of metal washer. Assembly is watertight.	<b>TOO LOOSE</b> Sealing material is not visible; not enough compression to seal properly.	<b>TOO TIGHT</b> Metal washer deformed; sealing material pressed beyond washer edge.
<b>SELF DRILLER</b>			
<b>WOODSCREW</b>			

**To prevent wobbling** - Make sure fastener head is completely engaged in the socket. If the head does not go all the way in the socket - tap the magnet deeper into the socket to allow full head engagement. Metal chips will build up from drilling and should be removed from time to time.

**Protect drill point** - Push only hard enough on the screw gun to engage clutch. This prevents excess friction and burn out of the drill point. Correct pressure will allow screw to drill and tap without binding.

**Drilling through sheet and insulation** - Ease up on pressure when drilling through insulation to avoid striking the purlin or girt with the point - apply more pressure after drill point contacts purlin or girt.

**Drilling through purlin overlaps** - Drilling through lapped purlins requires extra care. Excessive voids between purlins sometimes damages drill points and two self-drillers might be necessary to complete the operation. It is sometimes advantageous to predrill.

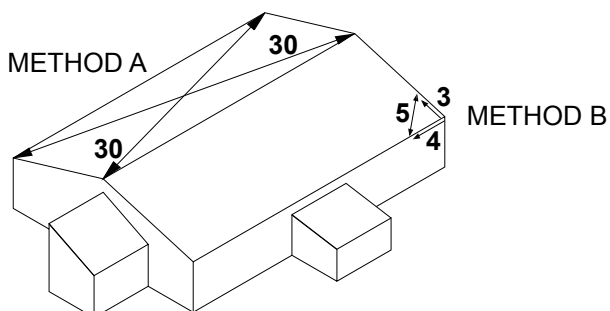
**CONDITION OF SUBSTRUCTURE**

Whether over solid substrate or open structural framing, panel distortion may occur if not applied over properly aligned and uniform substructure.

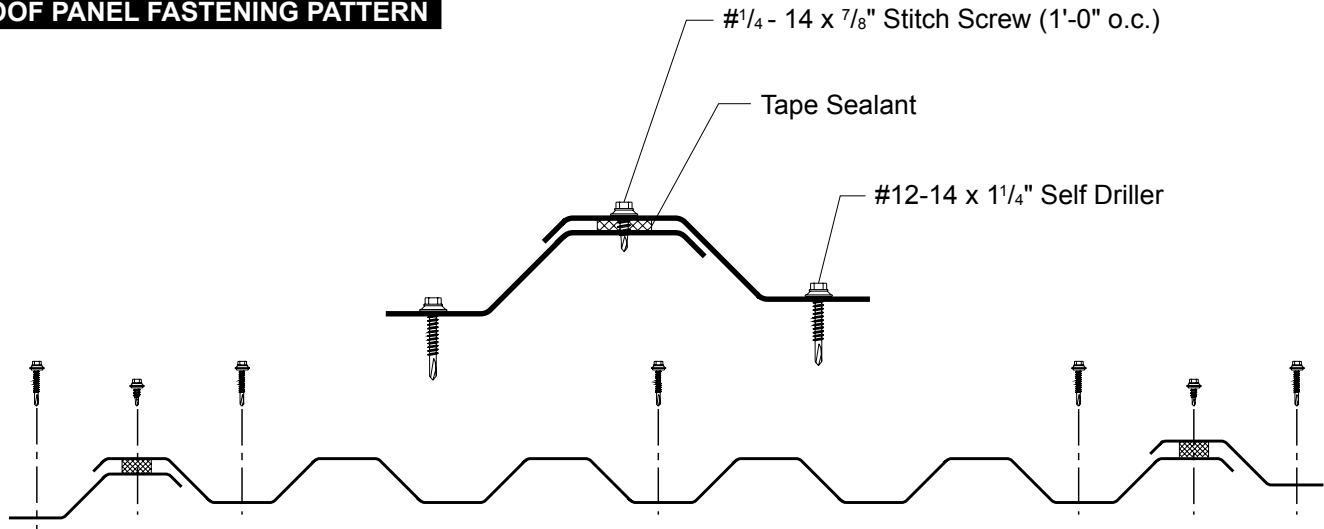
The installer should check the roof deck for squareness before installing IC72-Panels. Several methods can be used to verify squareness of the structure for proper installation of the panels.

**METHOD "A"** - One method for checking the roof for squareness is to measure diagonally across one slope of the roof from similar points at the ridge and eave and obtain the same dimension.

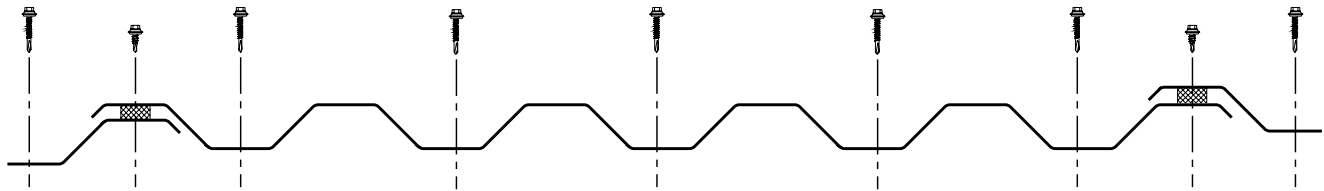
**METHOD "B"** - The 3-4-5 triangle system may also be used. To use this system measure a point from the corner along the edge of the roof at a module of three (3). Measure a point from the same corner along another edge at a module of four (4). Then by measuring diagonally between the two points established, the dimension should be exactly a module of five (5) to have a square corner. Multiple uses of this system may be required to determine building squareness. If the endwall cannot be made square, the roof system cannot be installed as shown in these instructions.



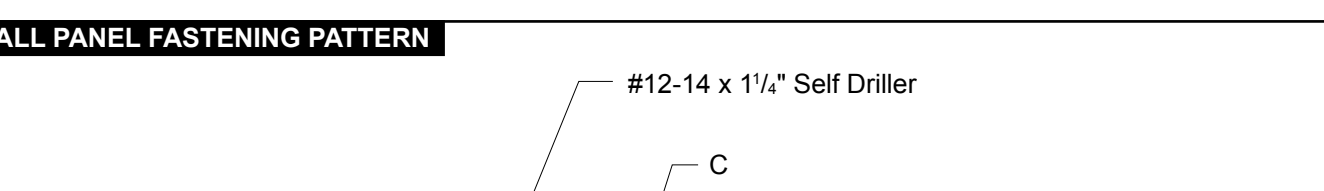
**ROOF PANEL FASTENING PATTERN**



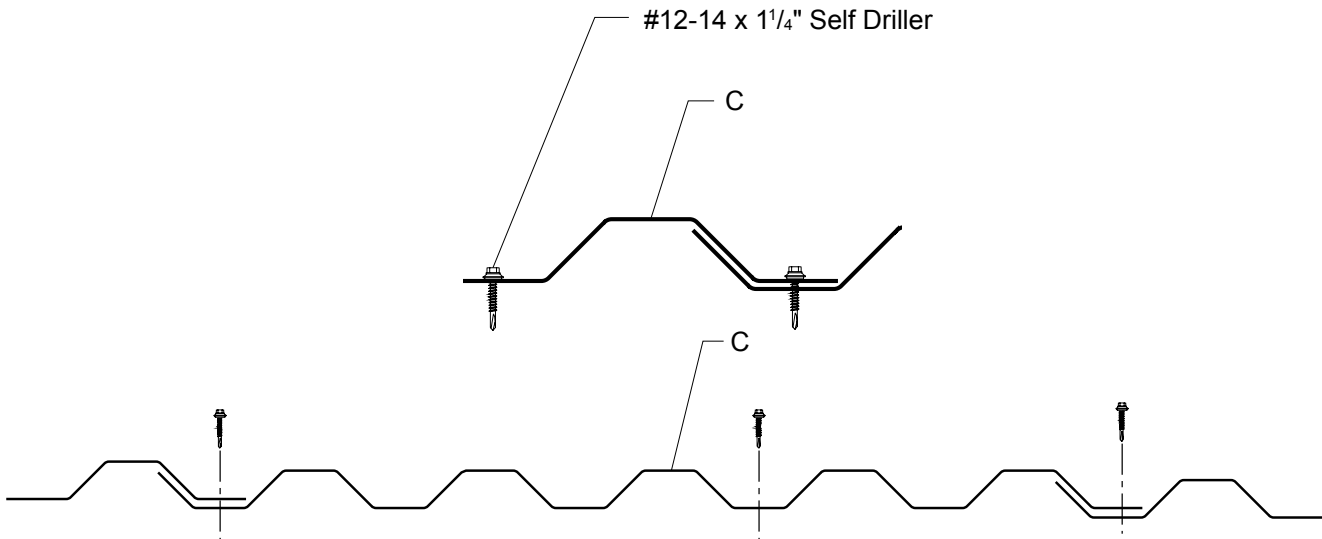
**IC72-Panel Fastening Pattern - Interior**



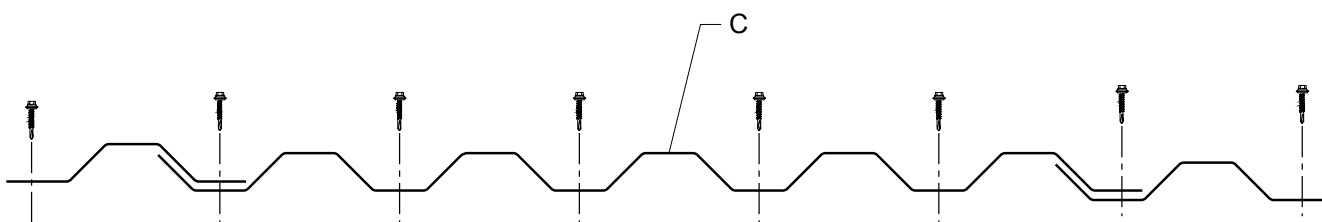
**IC72-Panel Fastening Pattern - Ends**



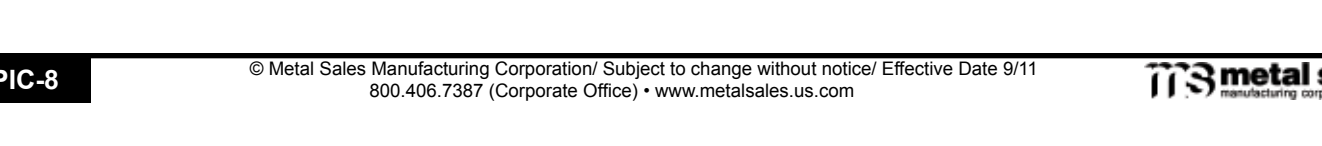
**WALL PANEL FASTENING PATTERN**



**IC72-Panel Fastening Pattern - Interior**



**IC72-Panel Fastening Pattern - Ends**

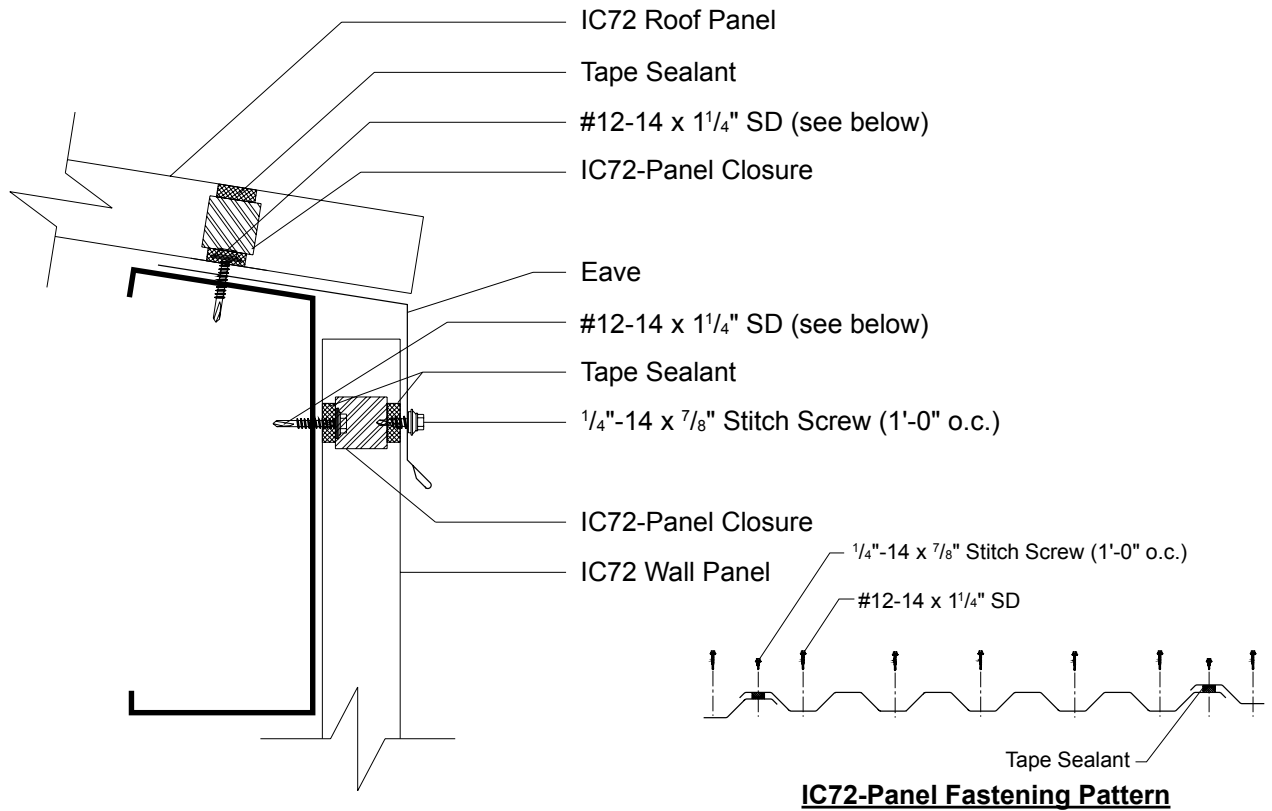




# IC72-PANEL

## EAVE DETAIL

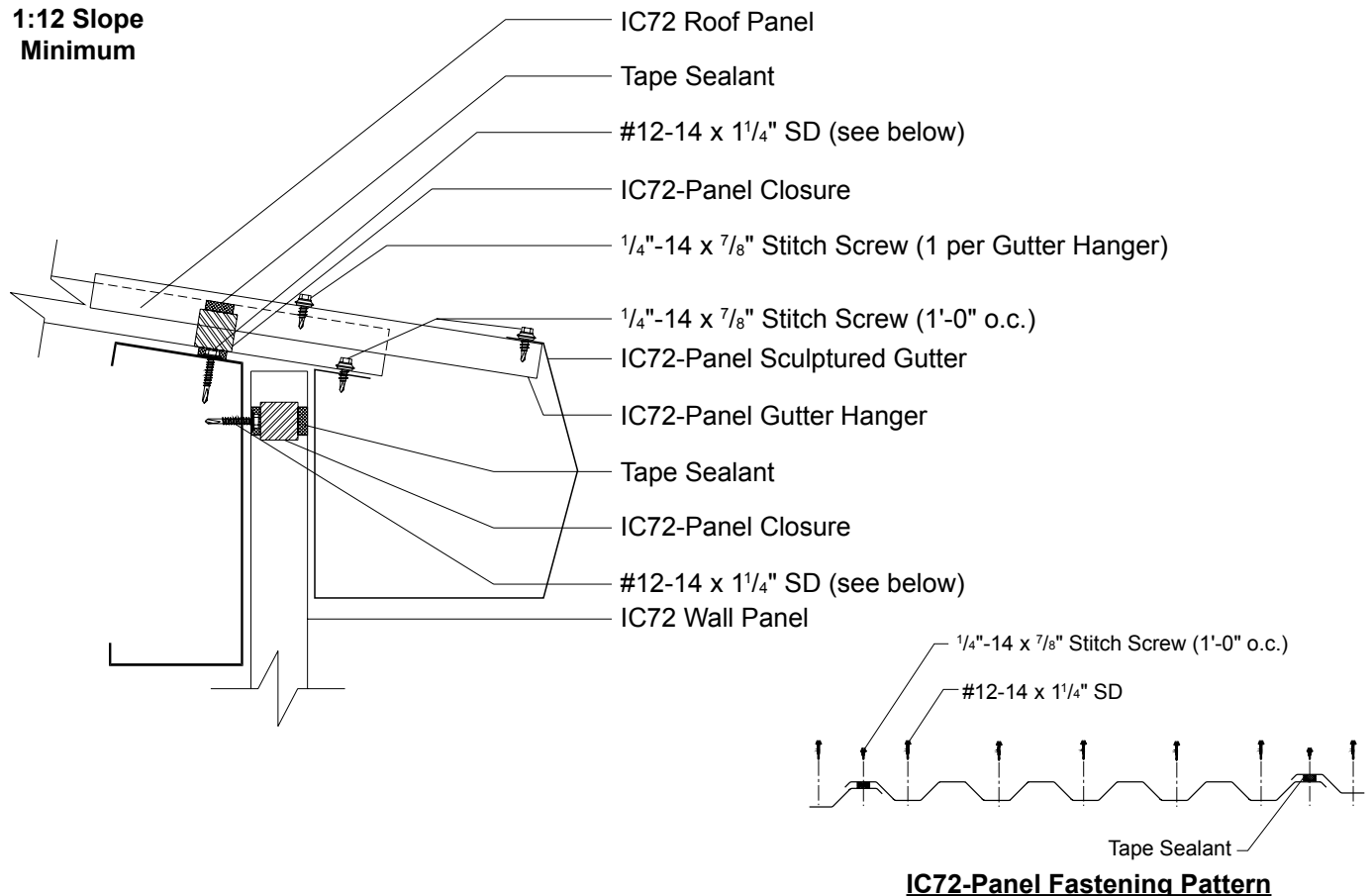
1:12 Slope  
Minimum



# IC72-PANEL

## SCULPTURED GUTTER DETAIL

1:12 Slope  
Minimum

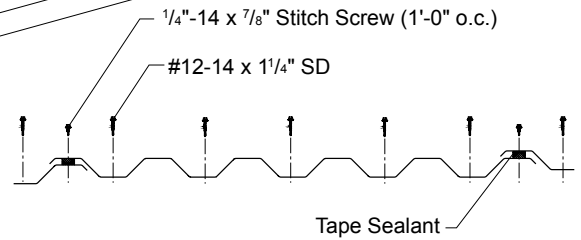
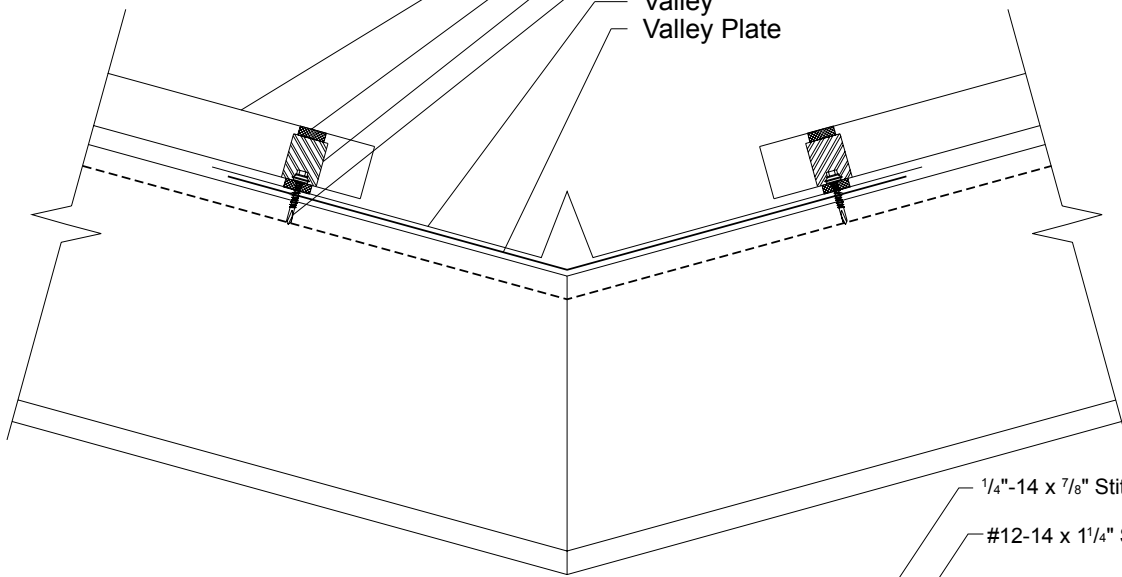


# IC72-PANEL

## VALLEY DETAIL

1:12 Slope  
Minimum

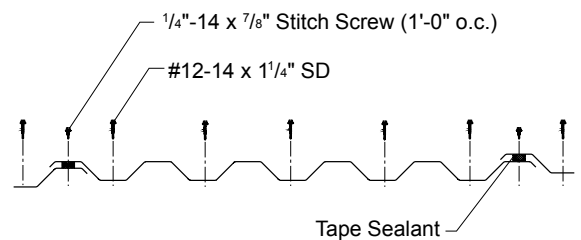
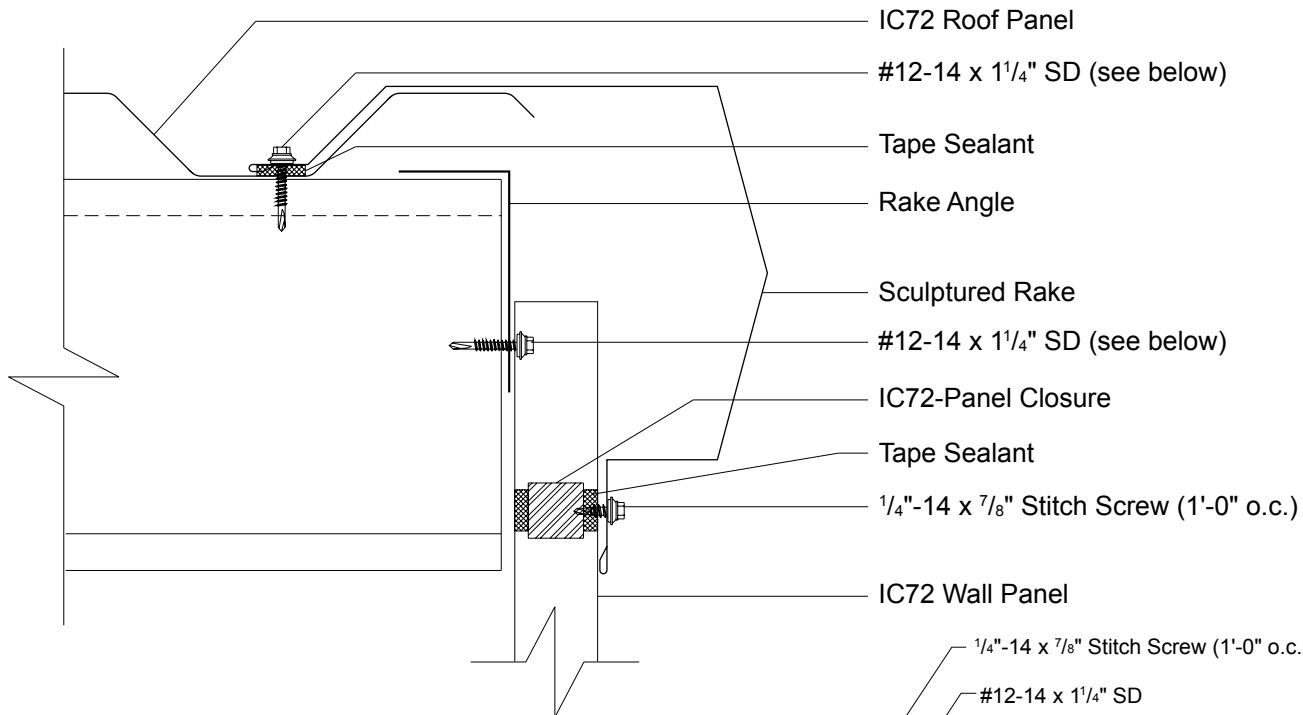
- IC72 Roof Panel
- Tape Sealant
- Universal Closure
- #12-14 x 1 1/4" SD (see below)
- Valley
- Valley Plate



**IC72-Panel Fastening Pattern**

# IC72-PANEL

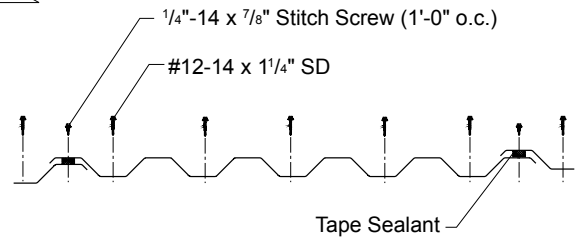
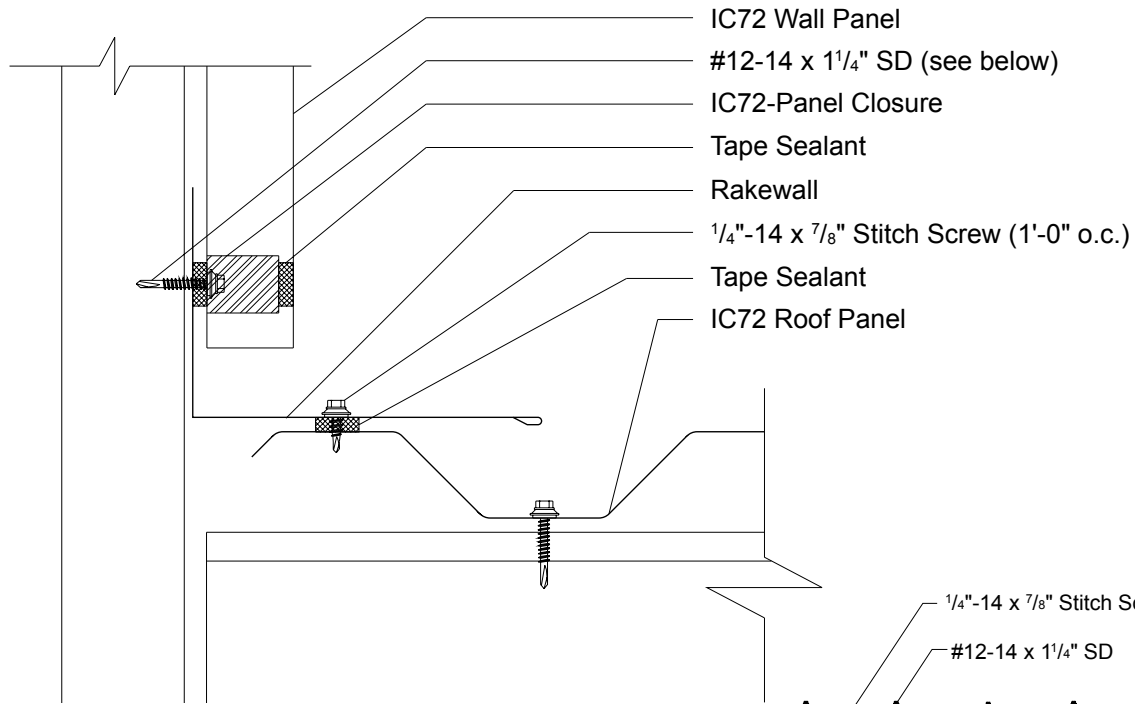
## SCULPTURED RAKE DETAIL



**IC72-Panel Fastening Pattern**

# IC72-PANEL

## RAKEWALL DETAIL

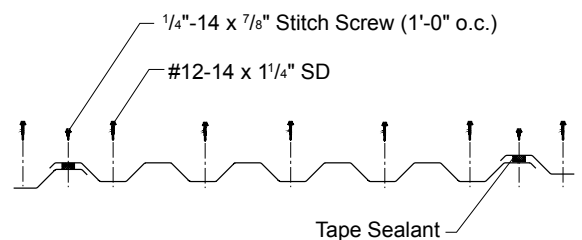
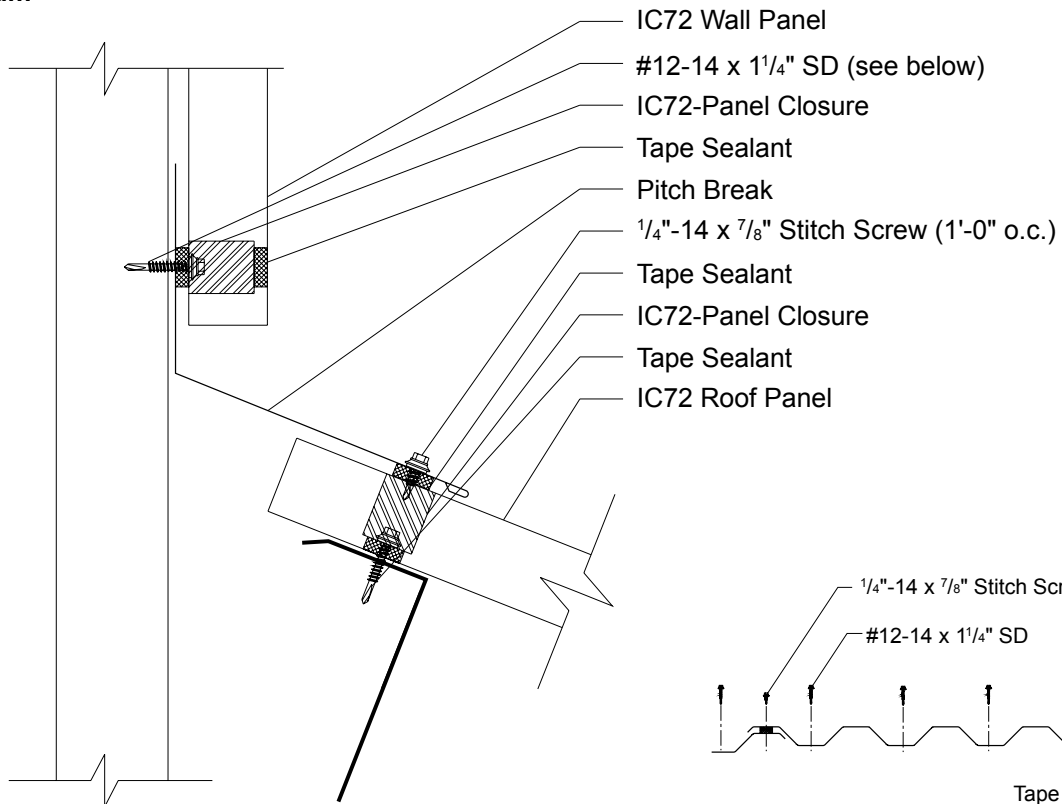


**IC72-Panel Fastening Pattern**

# IC72-PANEL

## ENDWALL DETAIL

1:12 Slope  
Minimum

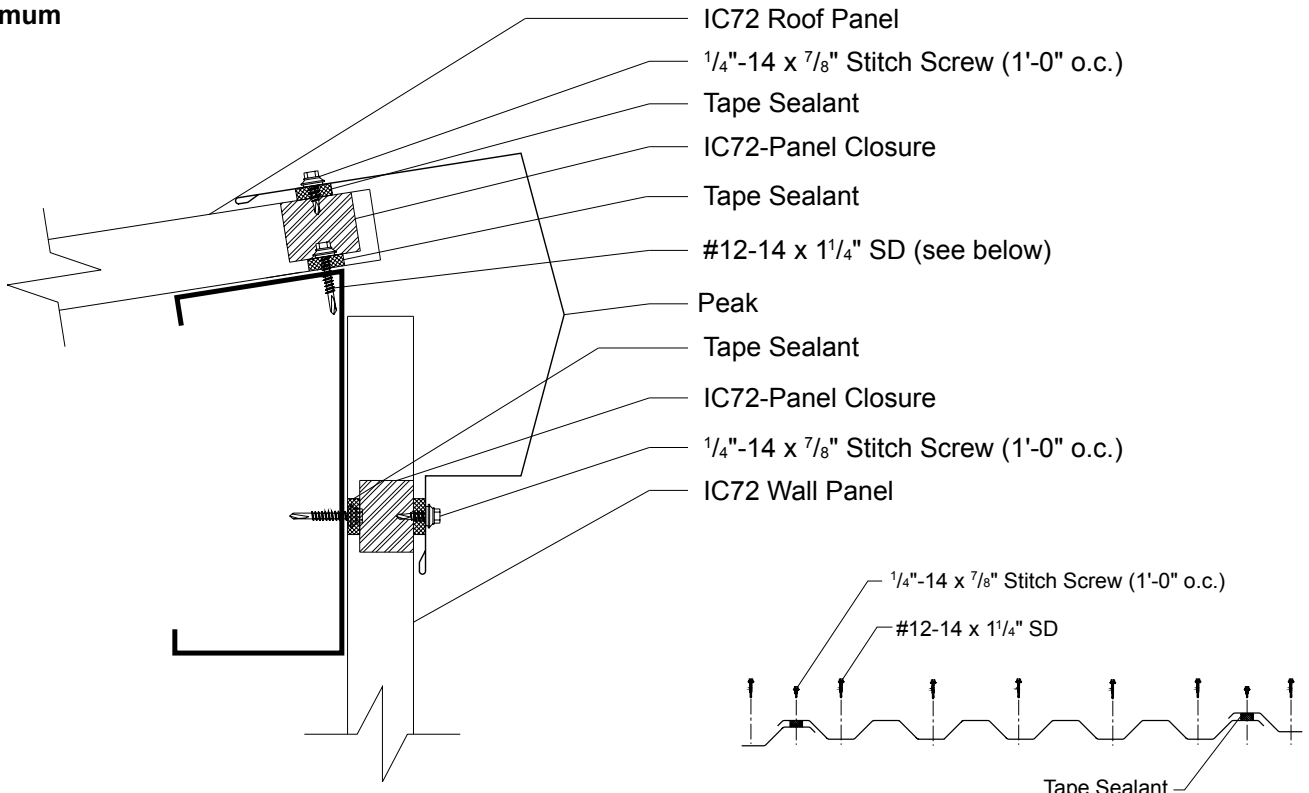


**IC72-Panel Fastening Pattern**

# IC72-PANEL

## PEAK DETAIL

1:12 Slope  
Minimum

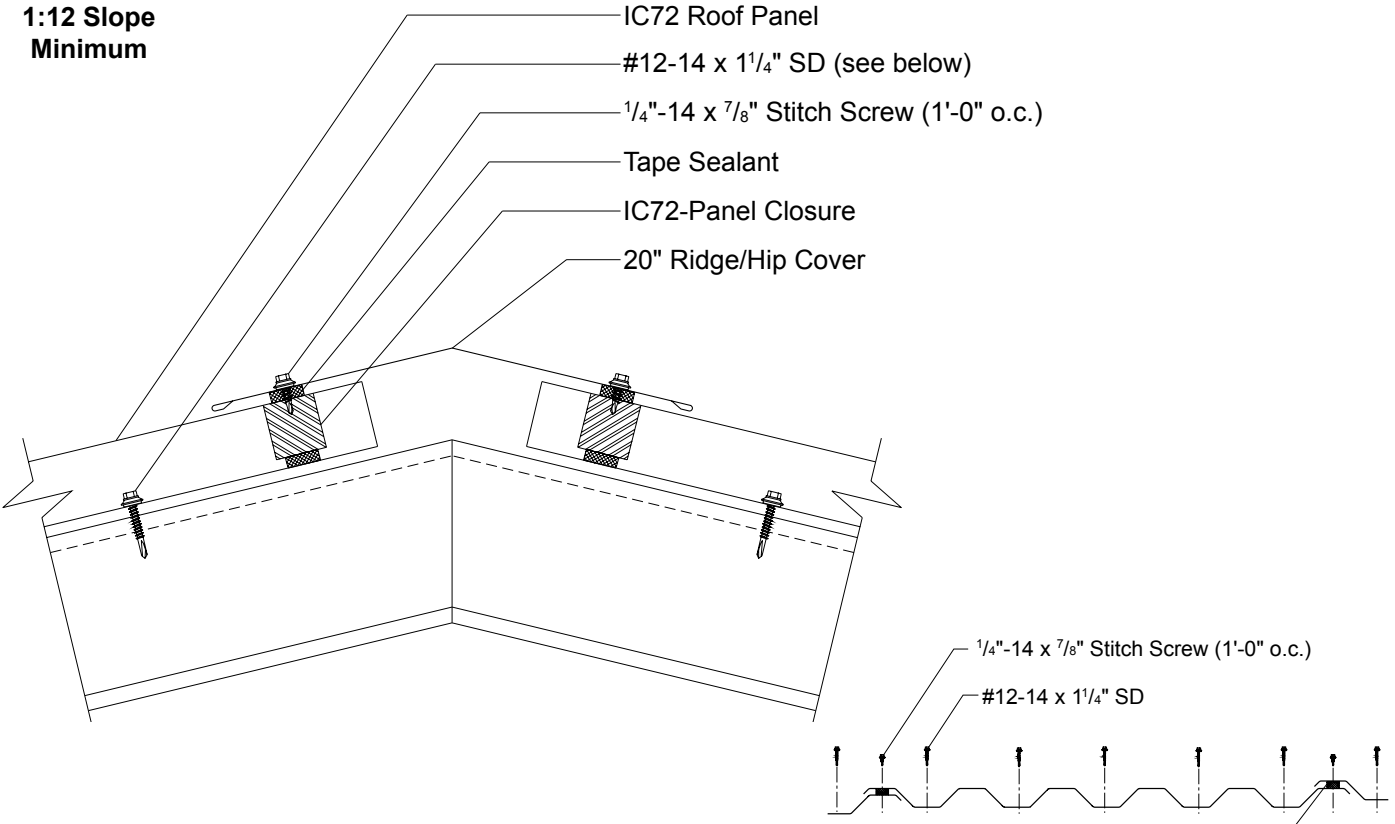


**IC72-Panel Fastening Pattern**

# IC72-PANEL

## RIDGE/HIP DETAIL

1:12 Slope  
Minimum

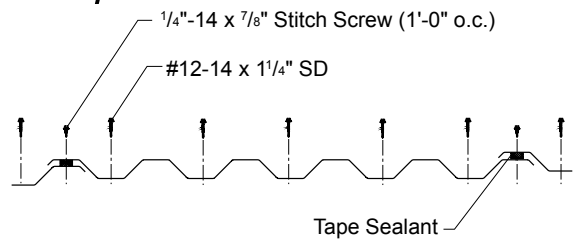
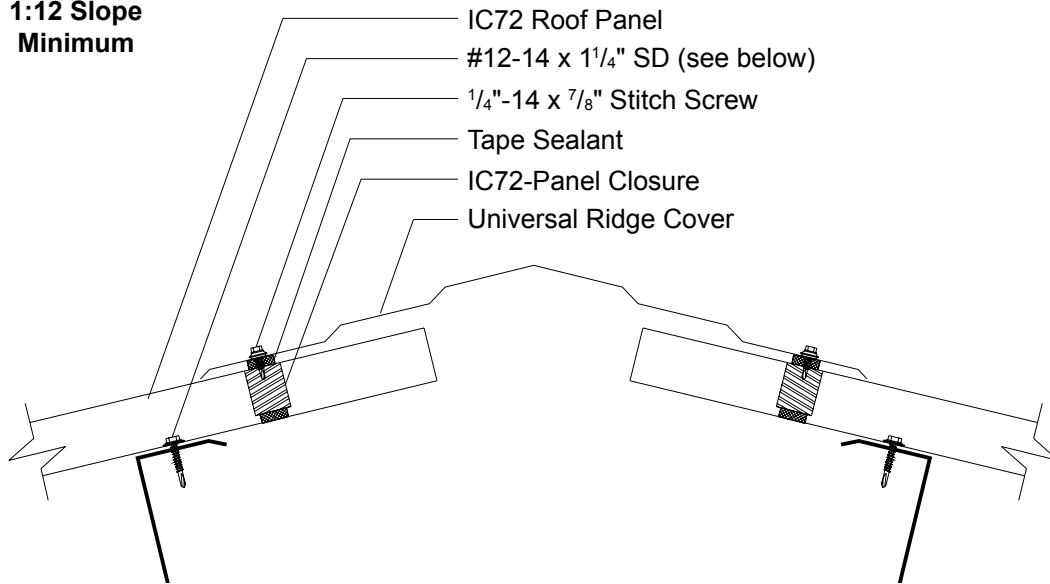


**IC72-Panel Fastening Pattern**

# IC72-PANEL

# UNIVERSAL RIDGE DETAIL

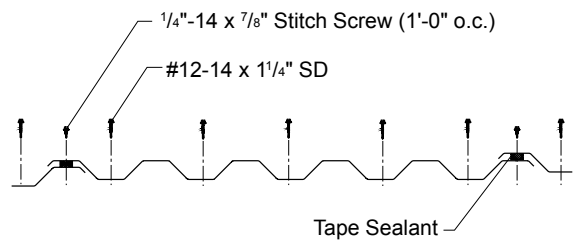
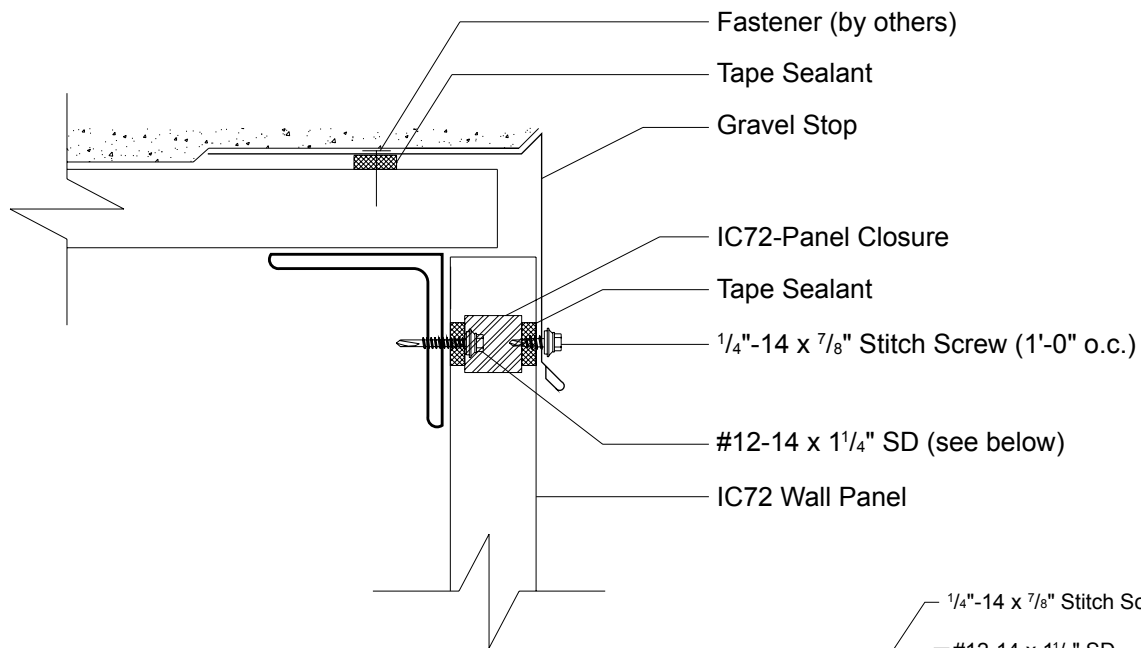
1:12 Slope  
Minimum



**IC72-Panel Fastening Pattern**

# IC72-PANEL

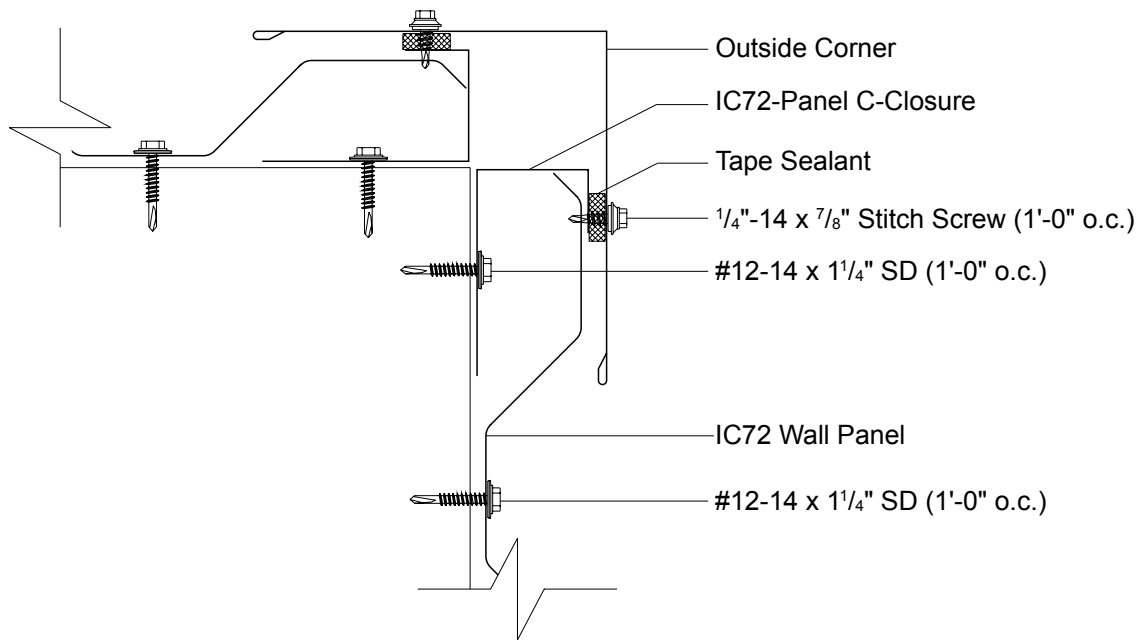
# GRAVEL STOP DETAIL



**IC72-Panel Fastening Pattern**

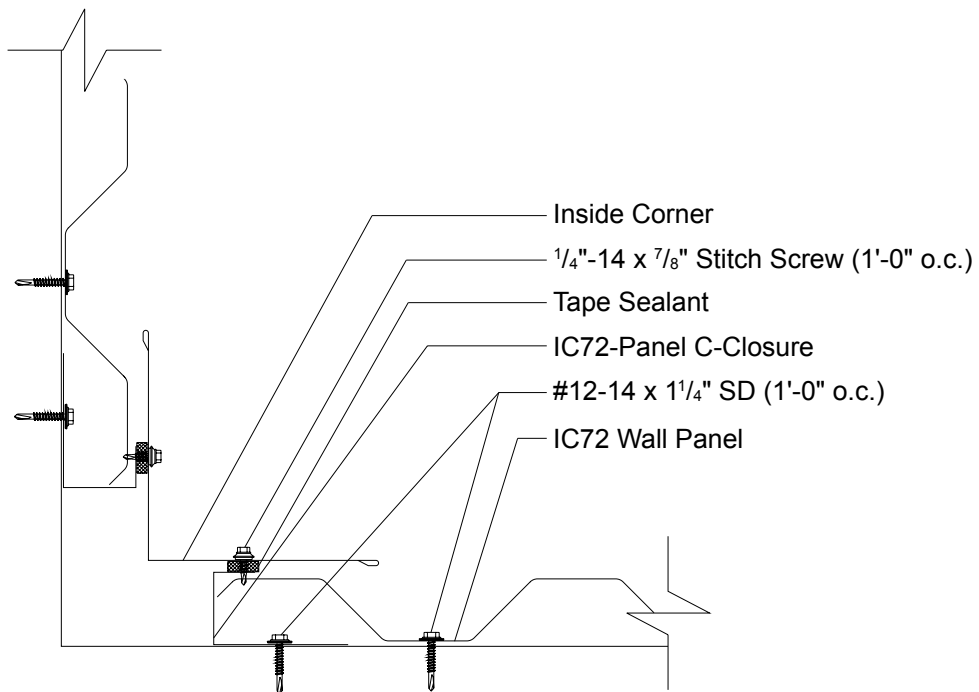
# IC72-PANEL

## OUTSIDE CORNER DETAIL



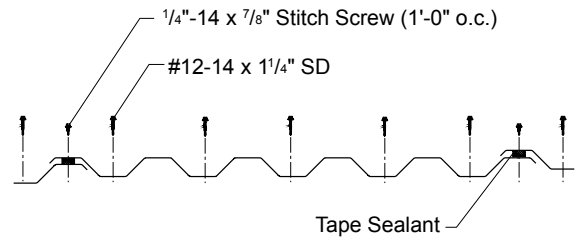
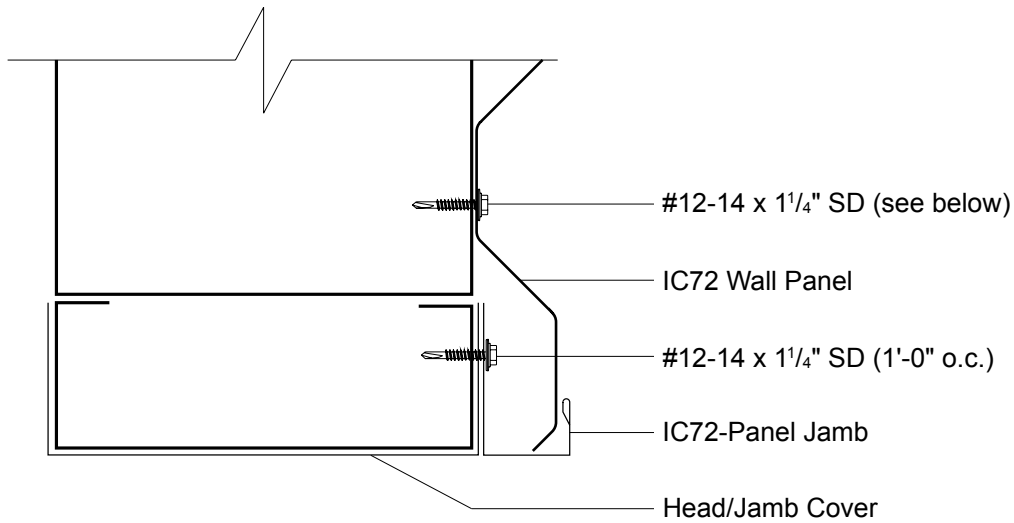
# IC72-PANEL

## INSIDE CORNER DETAIL



# IC72-PANEL

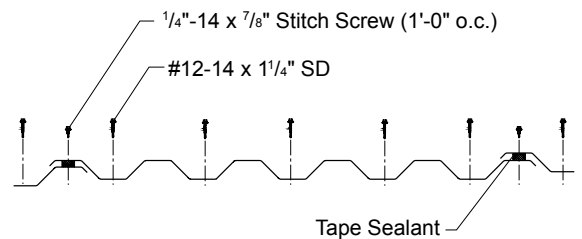
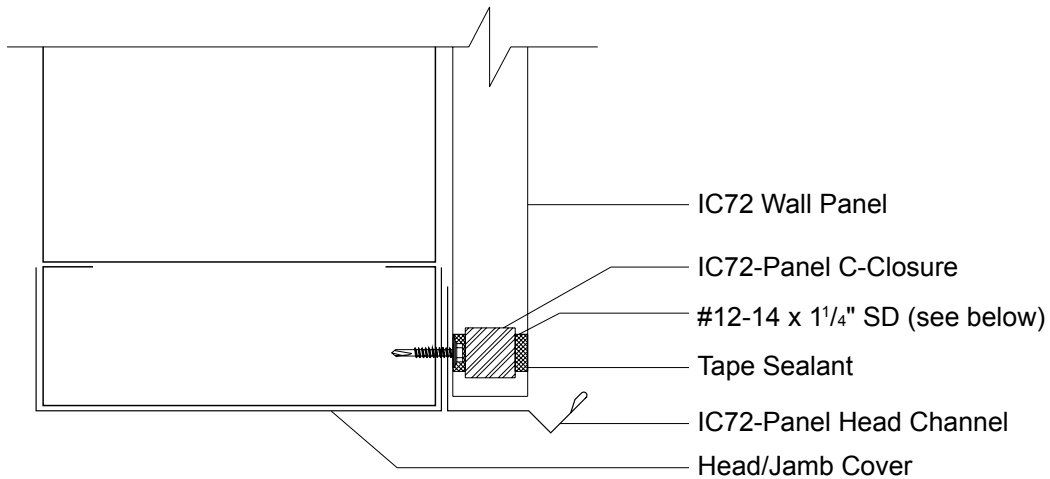
## JAMB DETAIL



**IC72-Panel Fastening Pattern**

# IC72-PANEL

## HEAD DETAIL



**IC72-Panel Fastening Pattern**

