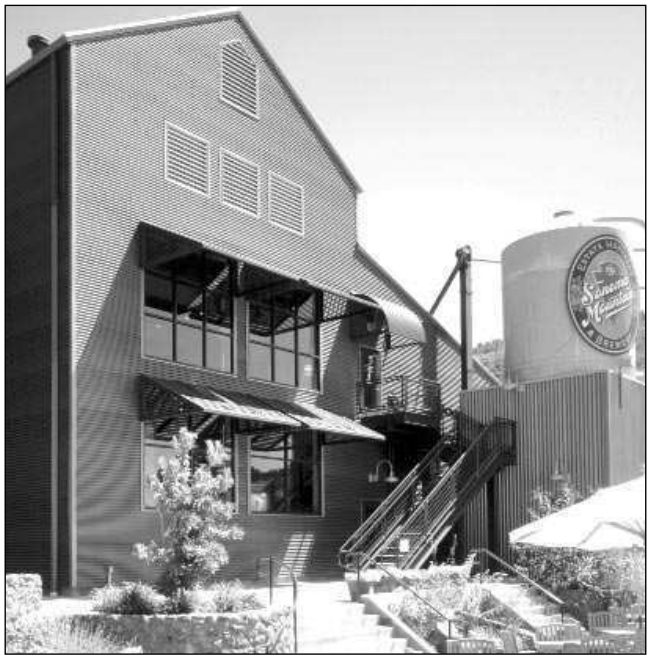


Table of Contents

Notes to the Designer/User

The details contained in this packet are intended to be a design aid and do not depict all situations. Modifications are the responsibility of the designer/user and should take into account climate conditions such as wind and snow, governing code requirements, and the actual usage and maintenance of the structure. Where possible, roof panel side laps and flashings should be lapped away from prevailing winds. Certain flashings should be supported if it is likely that a ladder will be used against them or if foot traffic is anticipated. Check with IMSA Building Products any time you intend to specify a prefinished flashing in a gauge different than the panels. Our standard gauge for most of the products in this booklet is 24-gauge and the standard finish is Kynar 500®/Hylar 5000® (PVF^2 polyvinylidene fluoride). It is good practice to specify that all flashings be of the same material as the panels (gauge, color, finish) to ensure long-term durability. Field-painted flashings rarely equal the durability and color fastness of factory baked-on paint systems. Where possible, we have hemmed the edges of flashings to strengthen them and to minimize the exposure of cut edges.

Framing- The details contained in this guide are shown with panels attached to spaced support members.

Slope requirements- It is suggested that all panels in this booklet be used on slopes of 1:12 or greater, except Nu-Wave Corrugated® which has a 3:12 minimum slope.

Condensation, Insulation & Ventilation- It is the designer's responsibility to determine the need and composition of condensation control materials including insulation and vapor retarders, as well as ventilation requirements. Metal roofing is susceptible to condensation and its control should be carefully considered.

Valleys- Valley dimensions must be the proper width to account for slope, snow, ice, and rain conditions. If valleys are not kept free of debris, water does back up and intrusion may occur under the panels.

Snow Design- If possible, valleys, gutters, roof elevation changes and penetrations should be minimized or eliminated in snow areas. Roof penetrations should be located as close to the ridge or peak of the roof as possible to minimize accumulations of ice and snow.

Curved Roofs- Box Rib, HR-36, Super Span and Nu-Wave Corrugated® panels are suitable for installation over curved surfaces. Box Rib, HR-36 and Super Span panels are factory crimp curved. Nu-Wave Corrugated panels are factory smooth curved. Mini-V-Beam panels are not available curved.

Oil-Canning- Flat metal surfaces will display waviness commonly referred to as "oil-canning". This is caused by steel mill tolerances, variations in the substrate and roofing underlayments. Oil canning is a characteristic, not a defect, of panels manufactured from light-gauge metal. Coils are factory "corrective-levelled" prior to manufacturing to minimize oil canning. Oil canning is not a cause for panel rejection. Additional information is available upon request.

References- The Sheet Metal and Air Conditioning Contractors' National Association Inc. (SMACNA) manual is an excellent reference for sheet metal contractors. Its guidelines for underlayments, gutter and downspout size requirements, and expansion/contraction of metals and flashings joints should be followed.

Technical Assistance- Call your IMSA Building Products Sales or Technical Representative for additional information on any of these subjects.

Notes to the Designer/User *continued*

Definitions-

• Sealant: Gunnable-grade single-component polyurethane or butyl rubber

• Mastic: Butyl mastic tape

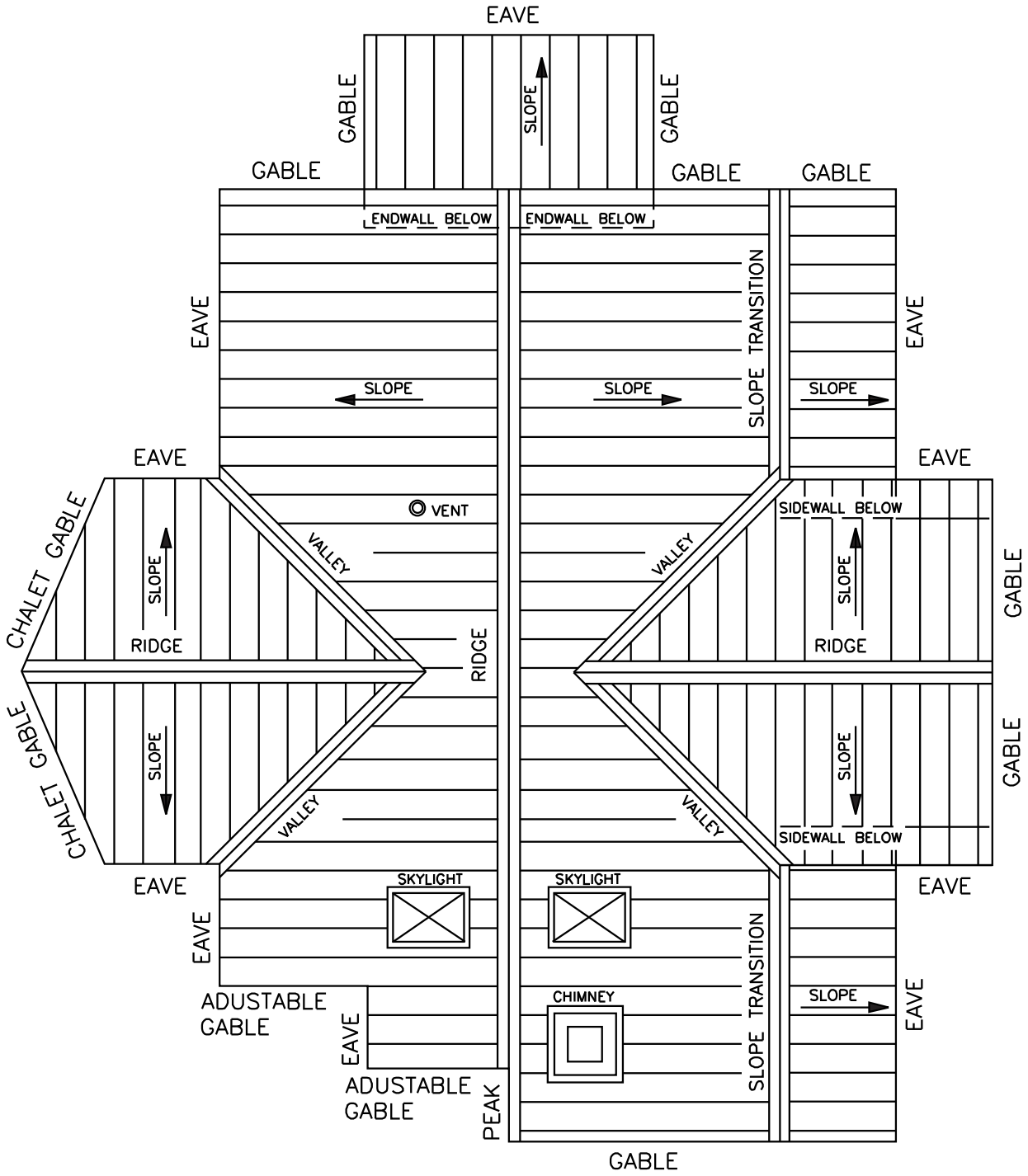
• Hem: A 180˚ bend that is closed (or as closed as the formability of the metal will allow) to provide a uniform, attractive edge.

High tensile strength (Grade 80) steel must be formed with a "teardrop hem" as shown to avoid cracking the steel at the bend. Lower tensile steels can be flattened close.

• Hook: (also called an "open hem") A 180˚ bend on a piece of sheet metal that is left open to allow insertion of another piece of sheet metal. For example, the hook shown is used to hold the trim piece to a cleat below the trim.

Each flashing part in this guide has been assigned a part number. Each part number contains one or two letters followed by one or two numbers, for example: (EW6). These part numbers have been provided for you to make ordering these flashing parts quick and easy.

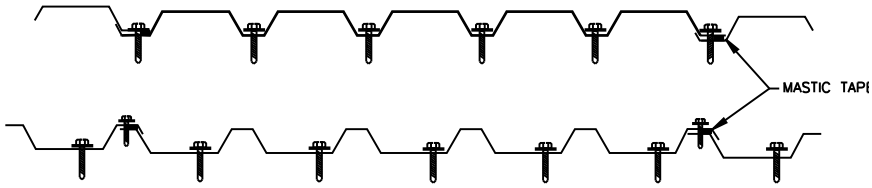
Map of Typical Roof Conditions



For suggestions on how to trim flashings in the different areas, please refer to the following pages:

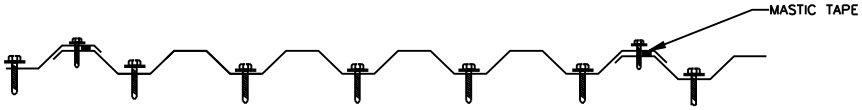
Fastener Placement

Prevailing Weather ⟶ ⟵ Sheeting Direction

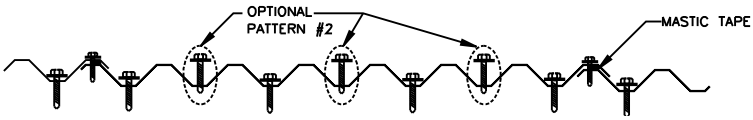


Box Rib
(36” Coverage)
Wall application only

Reverse Box Rib
(36” Coverage)
Roof or Wall application



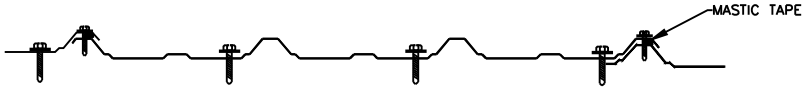
HR-36
(36” Coverage)
Roof or Wall application



Mini-V-Beam
(32” Coverage)
Roof or Wall application

Nu-Wave Corrugated
(34 2/3”coverage) Wall application only

Nu-Wave Corrugated
(32” Coverage) Roof Application



Super Span
(36” Coverage)

Note: Lap panels away from prevailing weather. Use only those accessories specifically designed for use with this product. Use only galvanized or Zincalume®-coated fasteners. Isolate roofing and flashings from contact with dissimilar metals.

Fastener selection will vary based upon substrate. The use of butyl mastic tape along the sidelaps, as shown above, is always recommended.

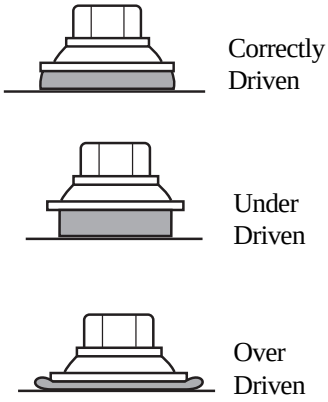
Fastener Selection

Fastener #		Description	Use
1		#9 x 1”, 1 1/2”, 2”, 2 1/2”, 3” Wood Screw 1/4” Hex Head	Panel to Dimensional Lumber
2		#14 x 1”, 2” Wood Screw 5/16” Hex Head	Panel to Plywood Minimum 1/2” thick, structural grade
3		#12 x 3/4” Stitch Screw 1/4” Hex Head (compatible with #10 wood screw)	Trim and side lap attachments
4		#14 x 7/8” Lap Self Driller 5/16” Hex Head (compatible with #14 wood screw)	Trim and side lap attachments. Attach panels to 18, 20, 22 gauge supports.
5		STST–42 Stainless Steel Rivet 1/8 x 1/8	Trim-to-trim or trim-to-panel attachments
6		#12 x 1”, 1 1/2”, 2”, 1 1/2” Self Driller 5/16” Hex Head	Panel to purlin attachments

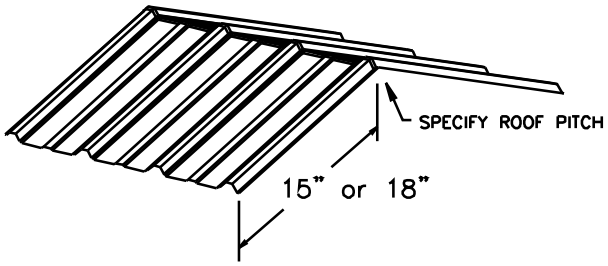
Notes:

- The table above shows the metal buildings panel fasteners provided by IMSA. Refer to the panel flashing details and fastener placement pages of this manual for specific usage.
- Panel attachment screws must be long enough to fully penetrate through the roof decking, or penetrate solid lumber at least one inch.
- All screws must be coated to provide protection against corrosion.
- Exposed fasteners should have sealing washers and be the same color as the parts they attach.
- Roofing nails will also be required, but not furnished by IMSA. They are typically used to temporarily hold a flashing in place that needs to be installed prior to panels.
- Screws must be properly driven to ensure proper seal and holding strength. Do not underdrive or overdrive the screws. Recommended drill speed is 2000 rpm. Use of a depth-sensing nosepiece will aid in properly driving screws.

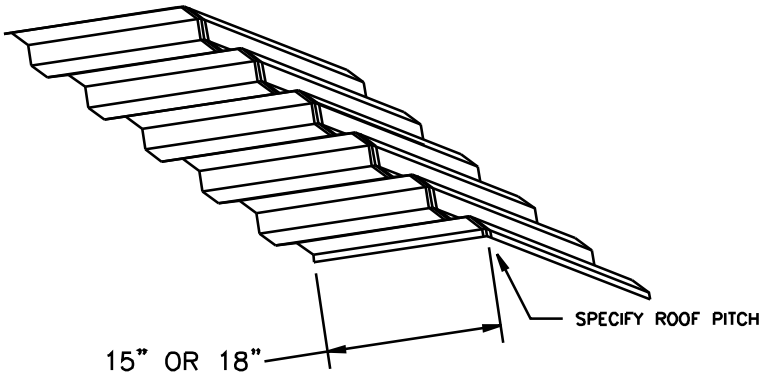
Proper Installation of Gasketed Fasteners



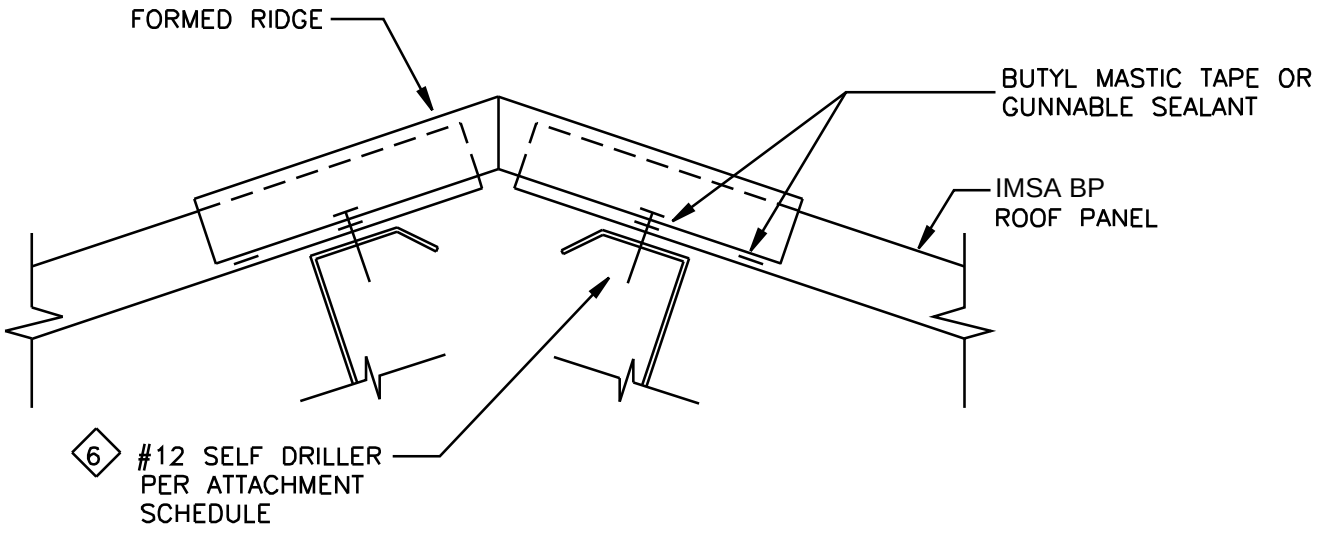
Ridge/Hip Flashing



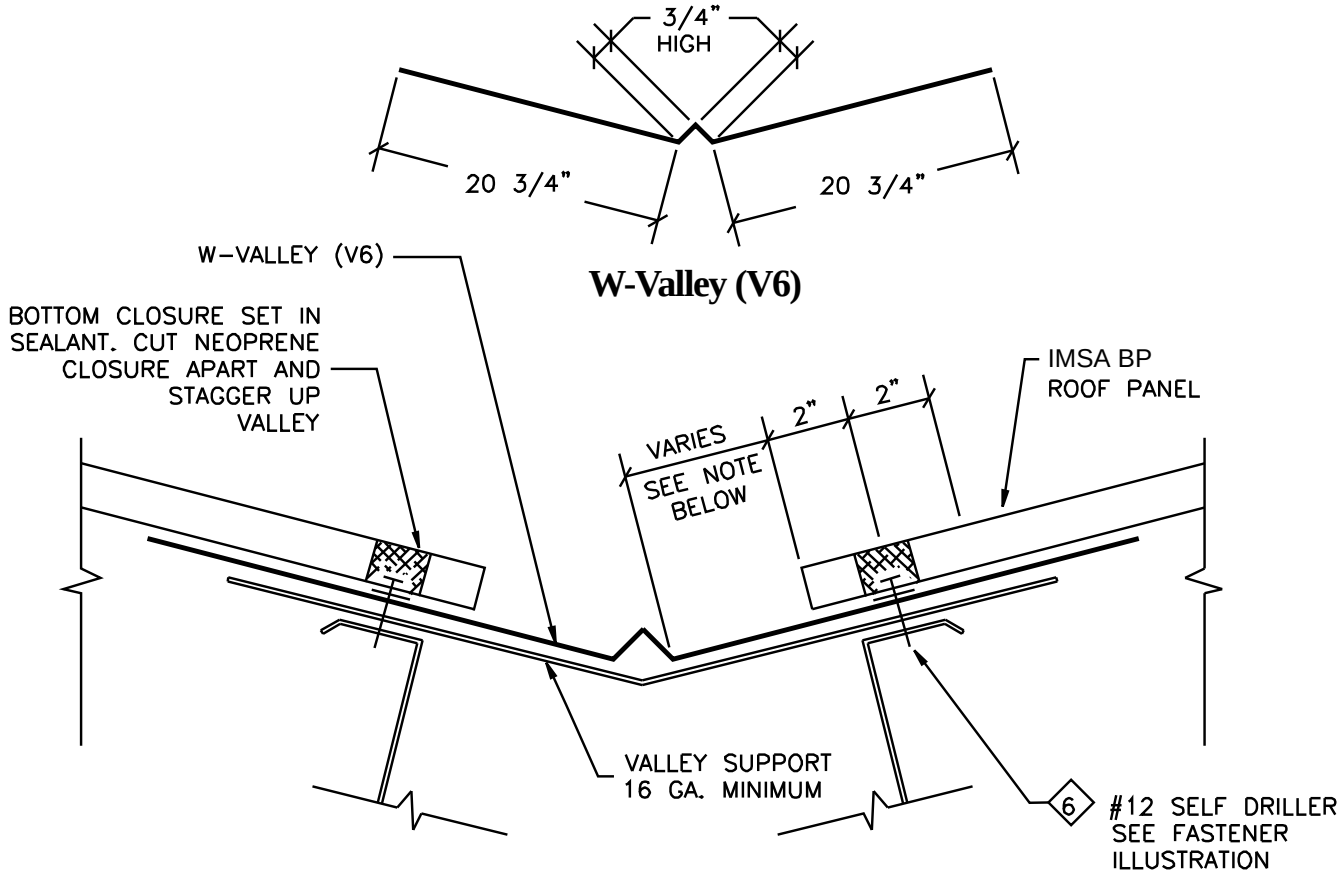
Formed Ridge (R6)
Super Span



Formed Ridge (R11)
HR-36 and Box Rib



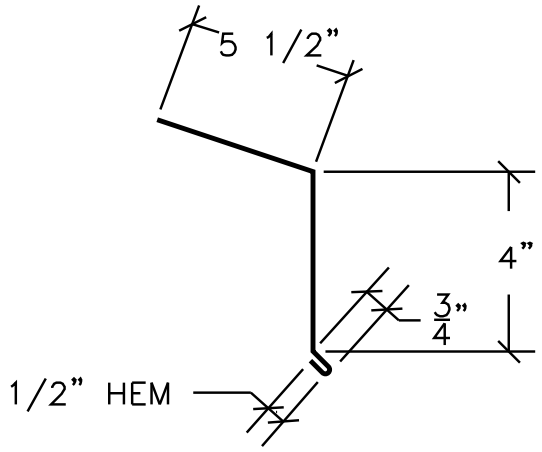
Valley Flashing



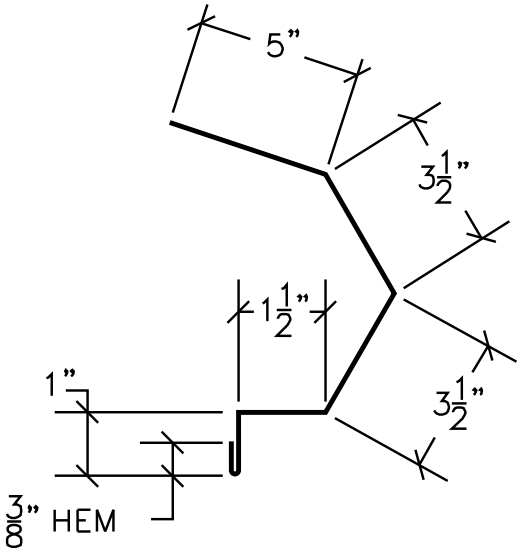
W-Valley (V6)

Note:
Valley dimensions must be the proper width to account for slope, snow, ice and heavy rain conditions.

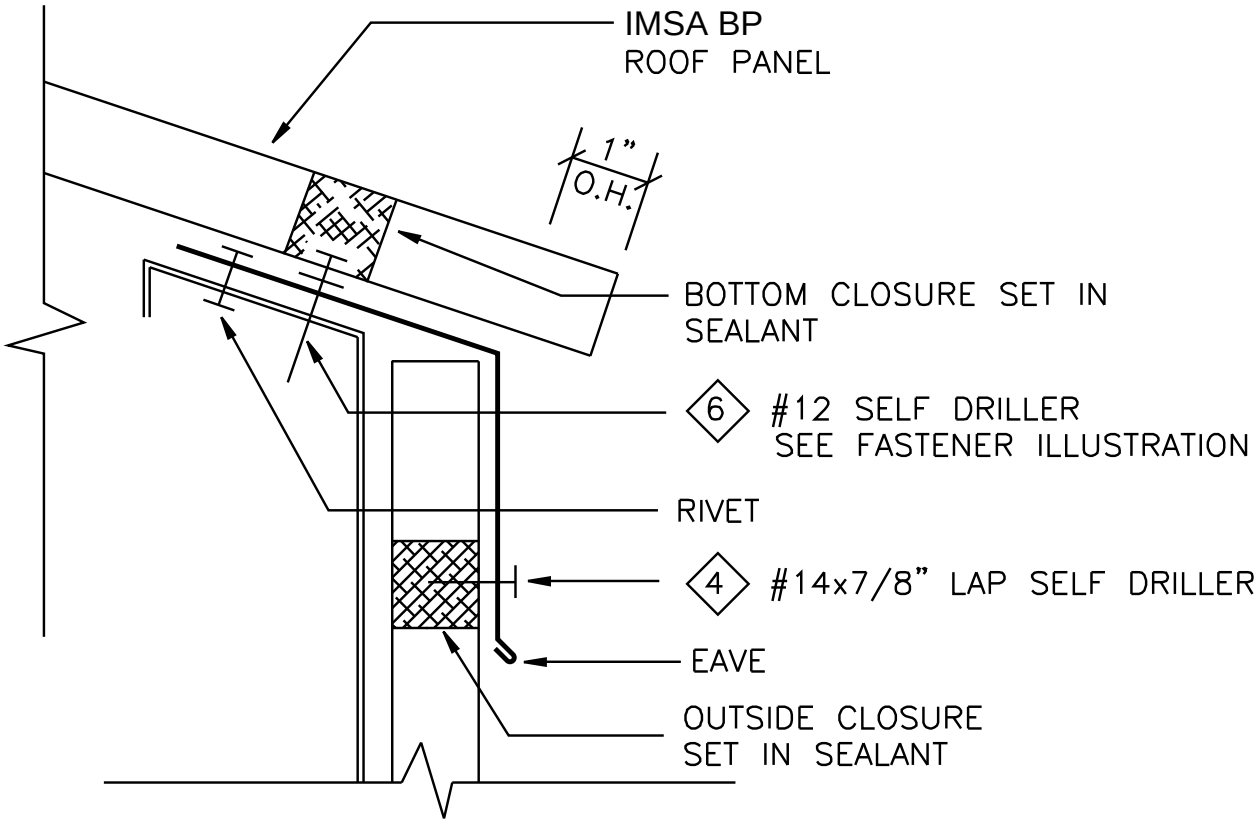
Eave Flashing



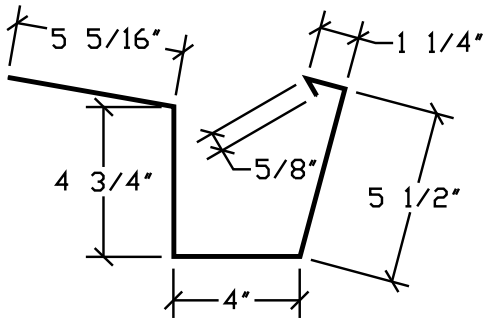
Eave (E6)



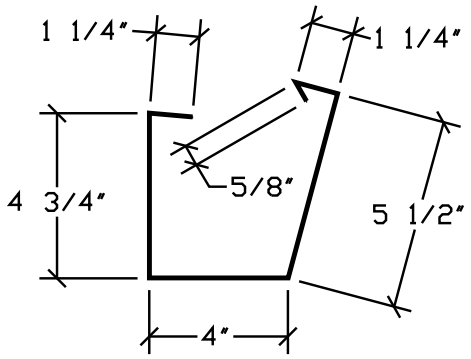
Sculptured Eave (E7)
optional



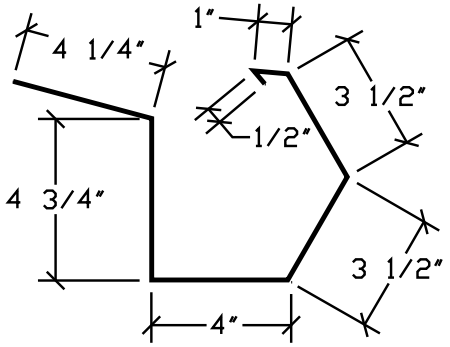
Gutter Flashings



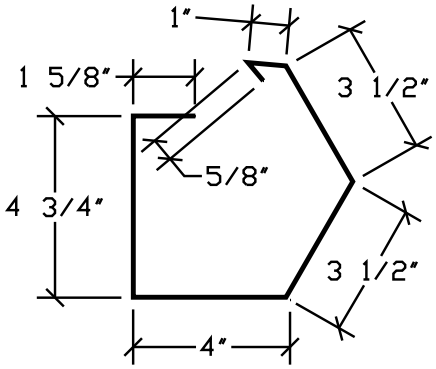
Box Gutter (GU6)
pre-hung



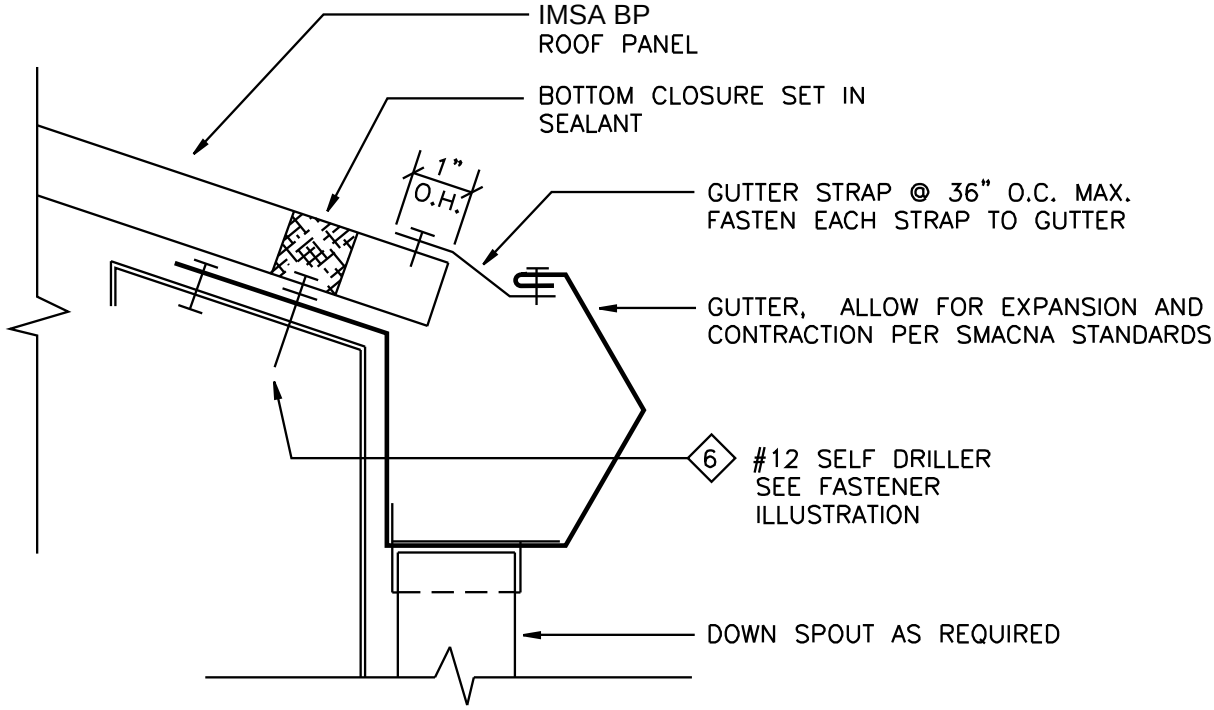
Box Gutter (GU8)
pre-hung



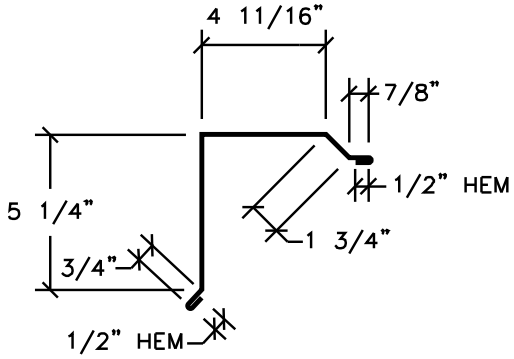
Sculptured Gutter (GU7)
pre-hung



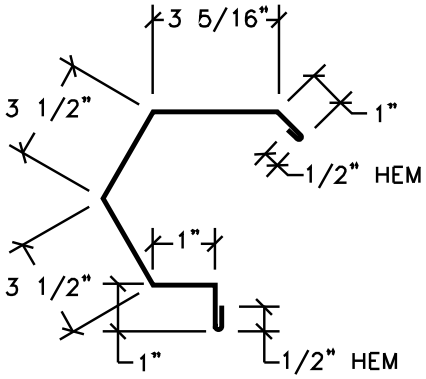
Sculptured Gutter (GU9)
post-hung



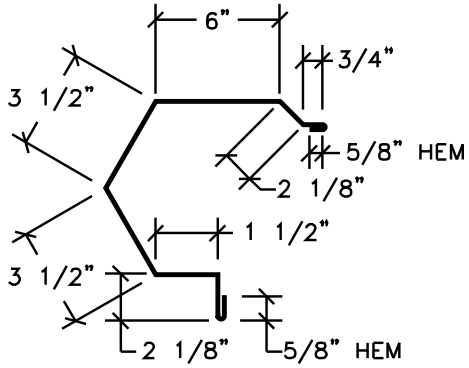
Gable Flashings



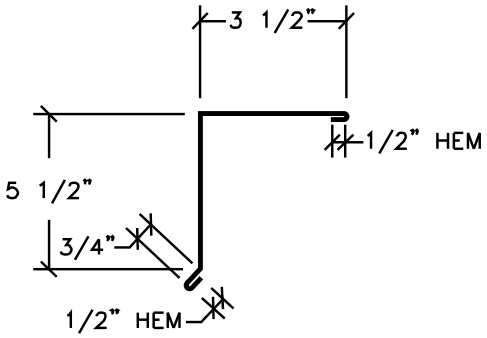
Gable Trim (G8)
Super Span only



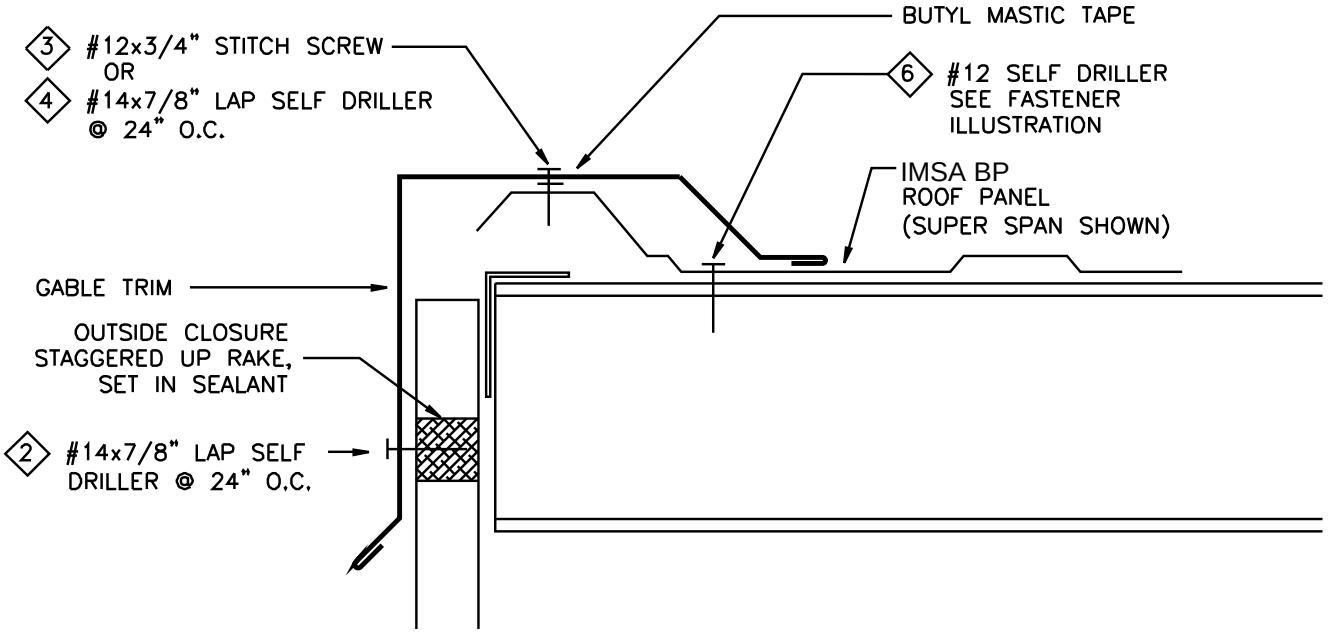
Sculptured Gable Trim (G15)



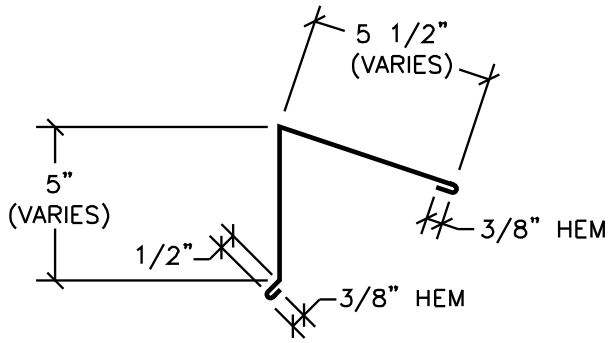
Sculptured Gable Trim (G9)
HR-36 only



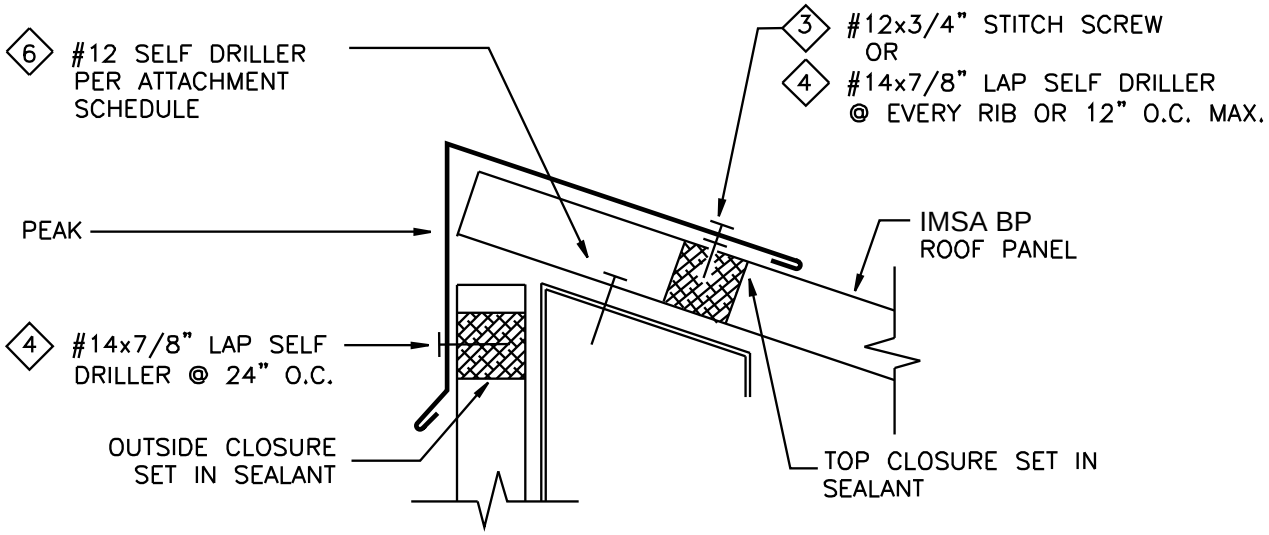
Gable Trim (G12)



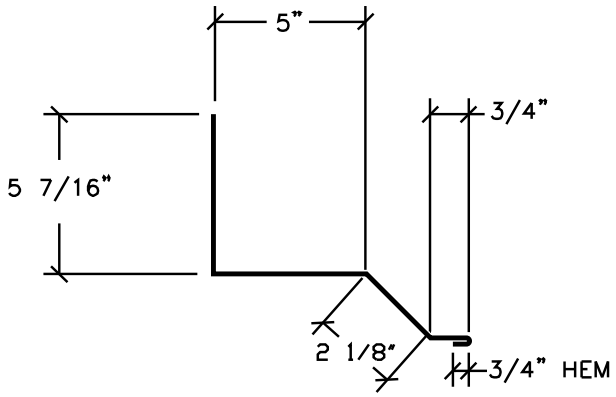
Peak Flashings



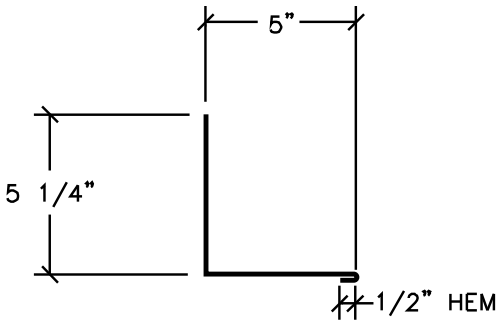
Peak (PF16)



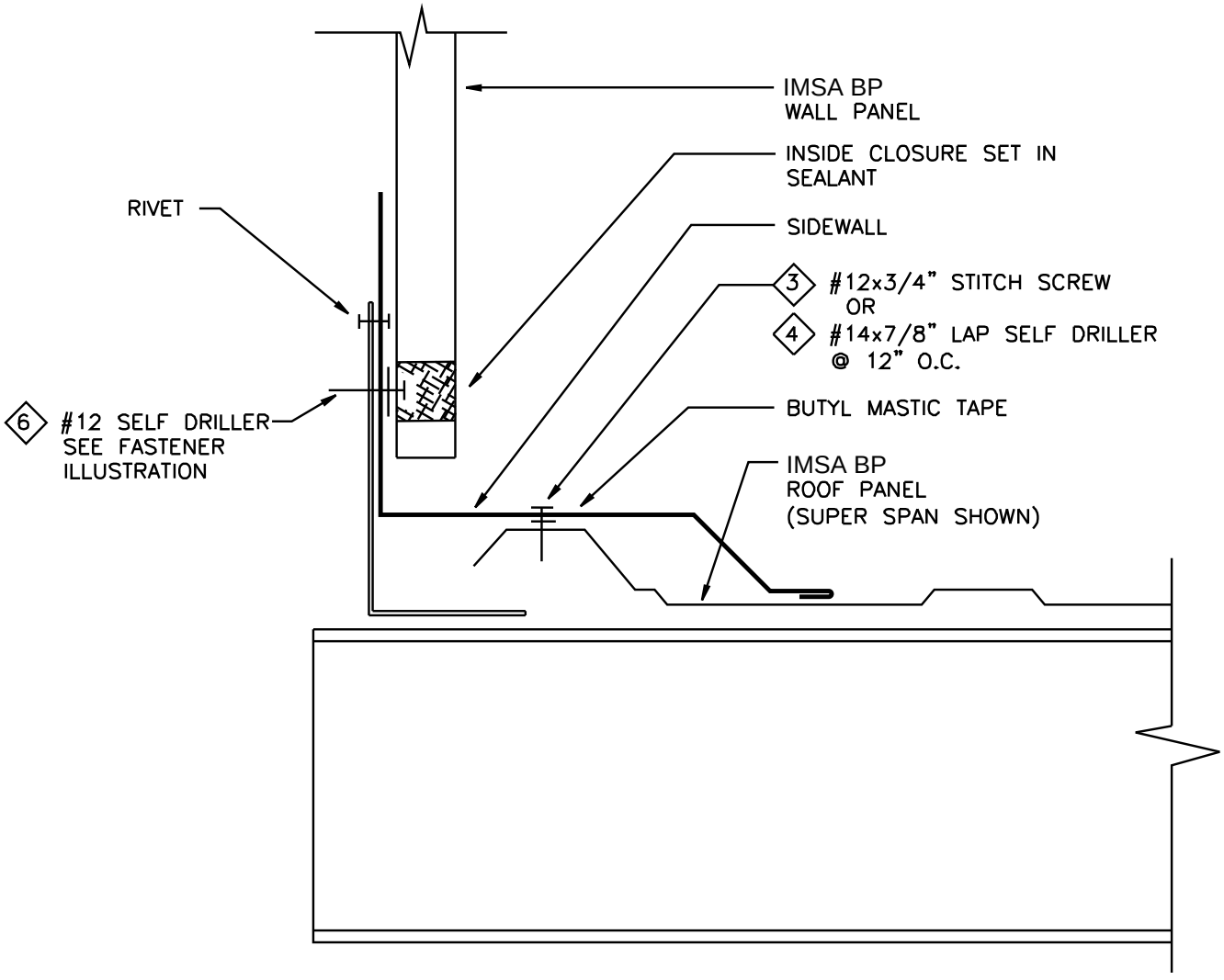
Sidewall Flashings



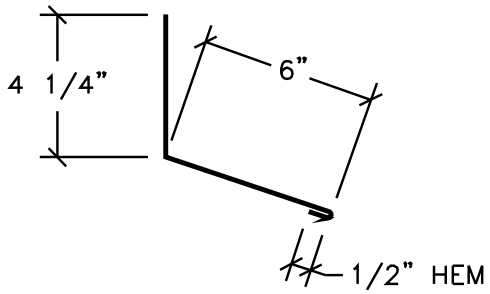
Sidewall (SW7)



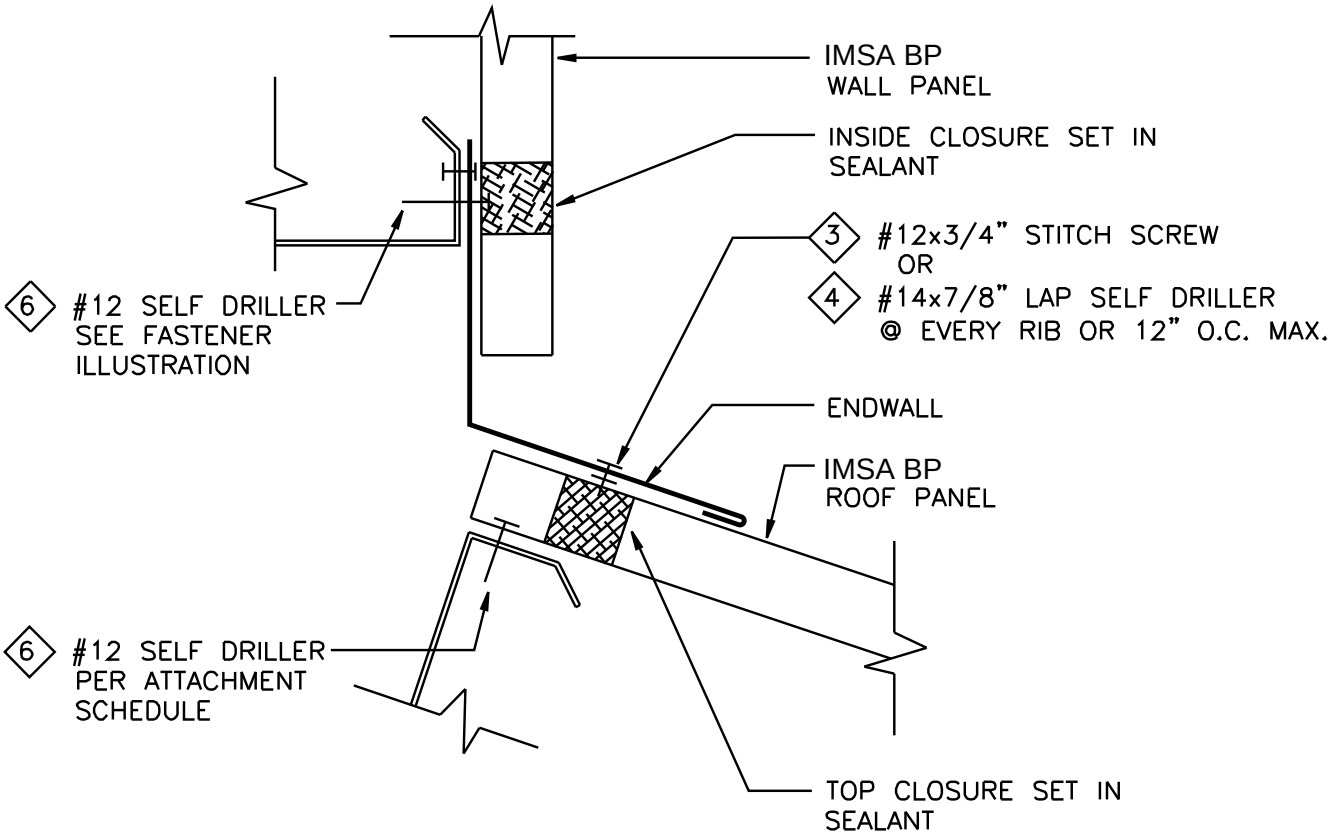
Sidewall (SW8)
optional



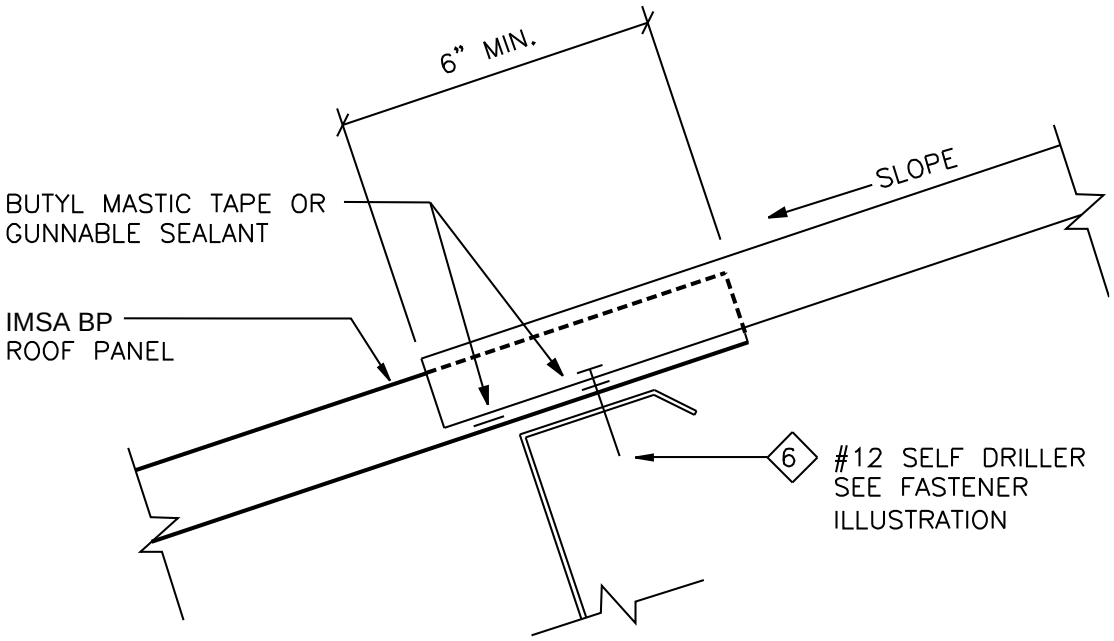
Endwall Flashing



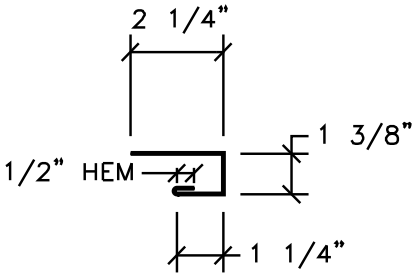
Endwall (EW6)



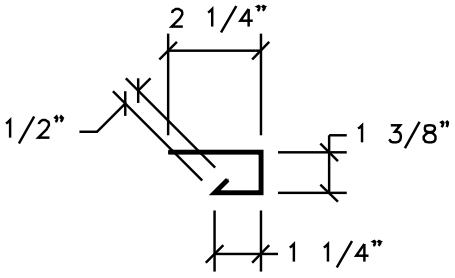
Panel Endlap



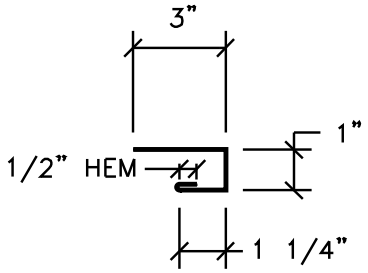
Wall Details
Window/Door Trim



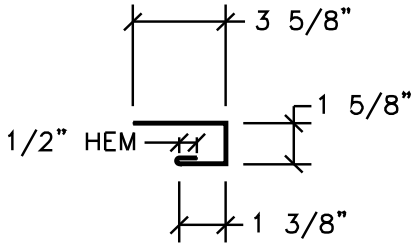
C-Metal (C-6)
Super Span only



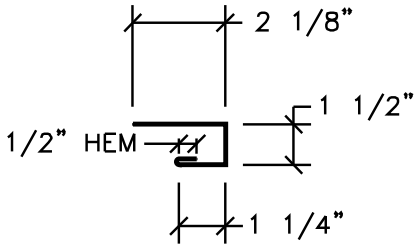
Jamb Trim (J6)
Super Span only



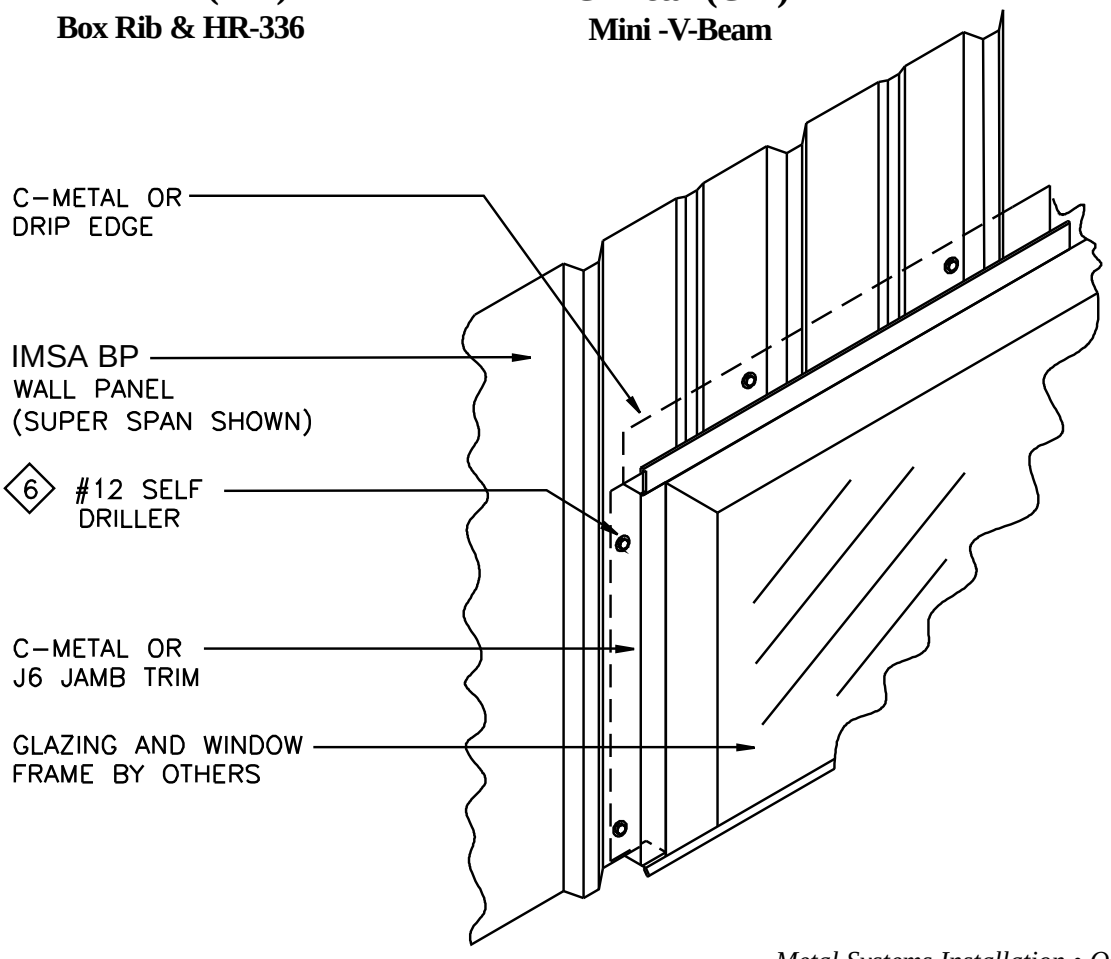
C-Metal (C-13)
Nu-Wave



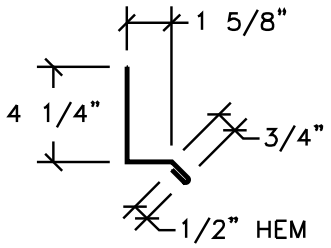
C-Metal (C11)
Box Rib & HR-336



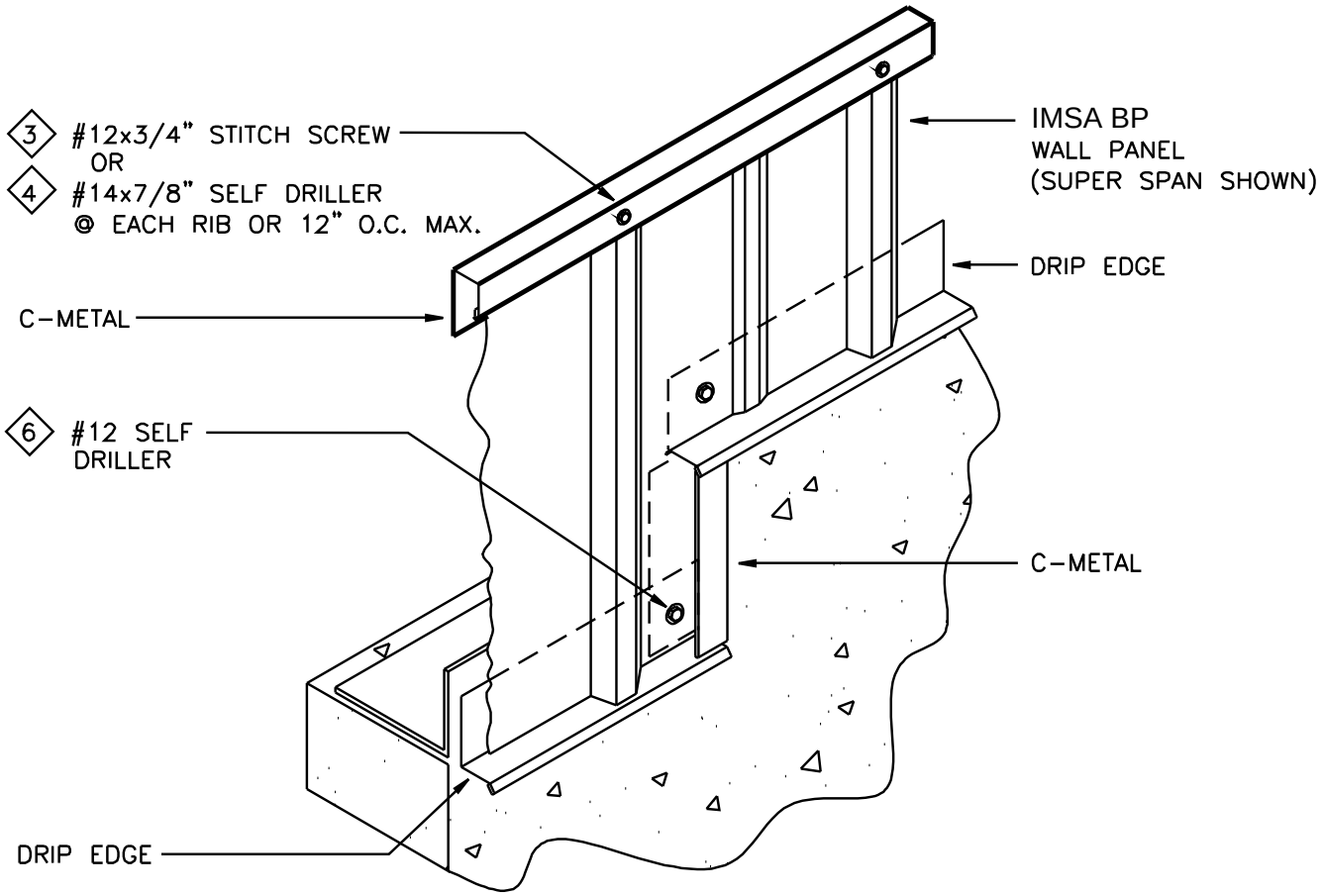
C-Metal (C12)
Mini -V-Beam



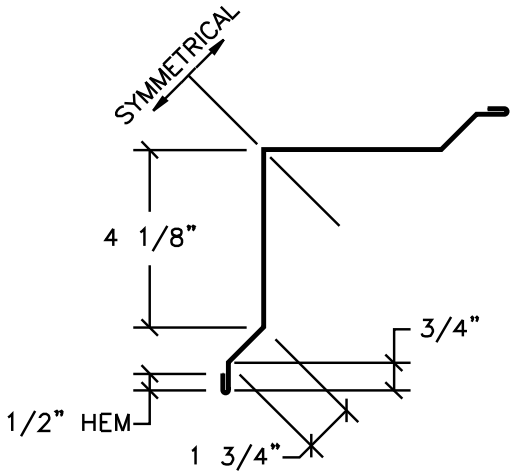
Wall Details
Drip Edge, Wall Step, Panel Top



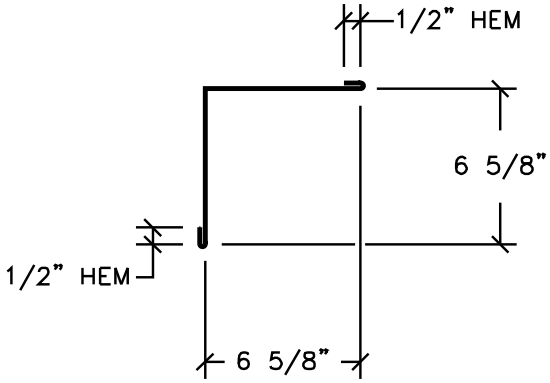
Drip Edge (B6)



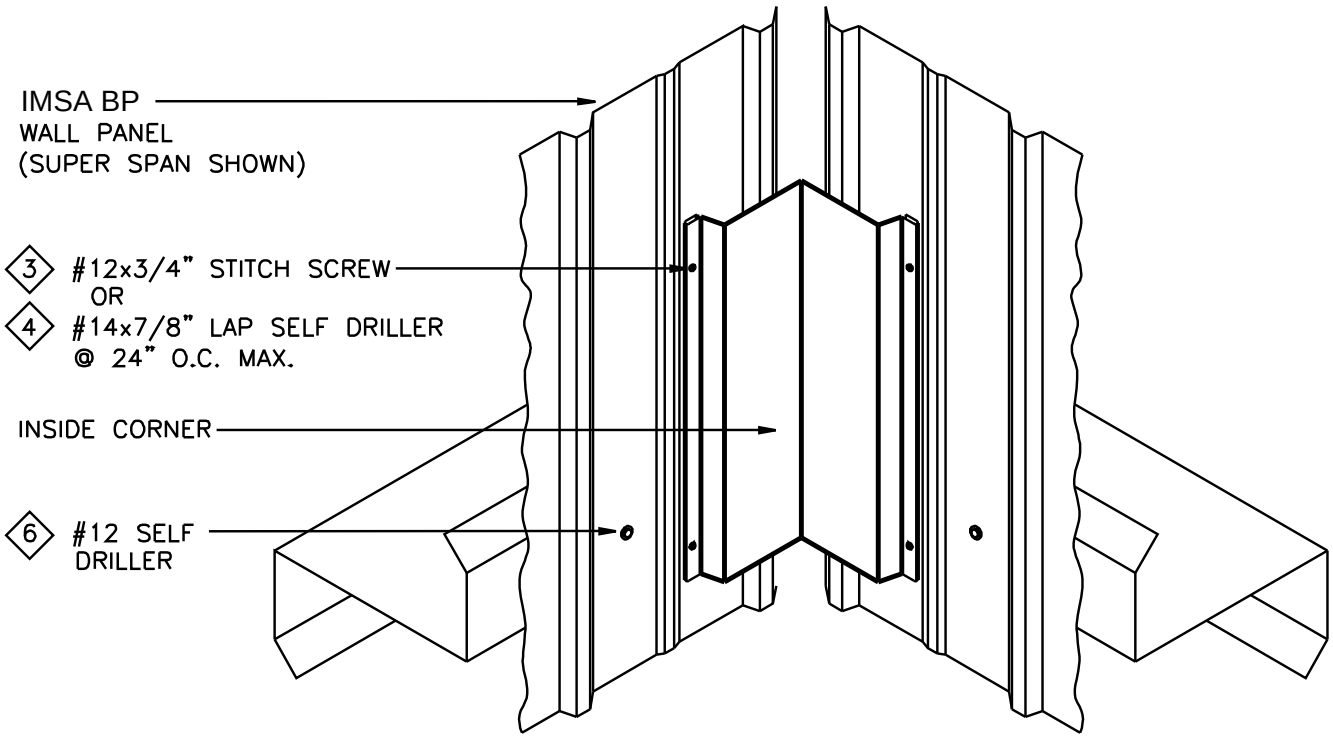
Wall Details
Inside Corner



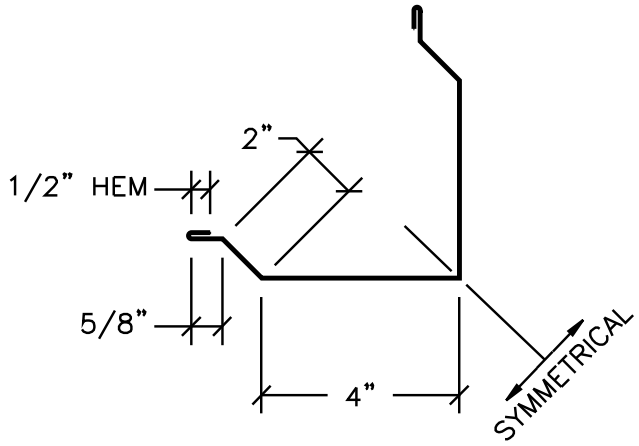
Inside Corner (IC7)



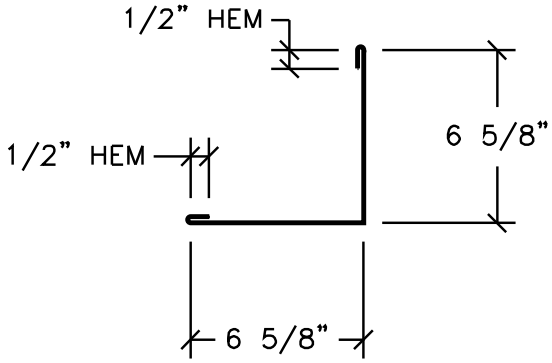
Inside Corner (IC 11)



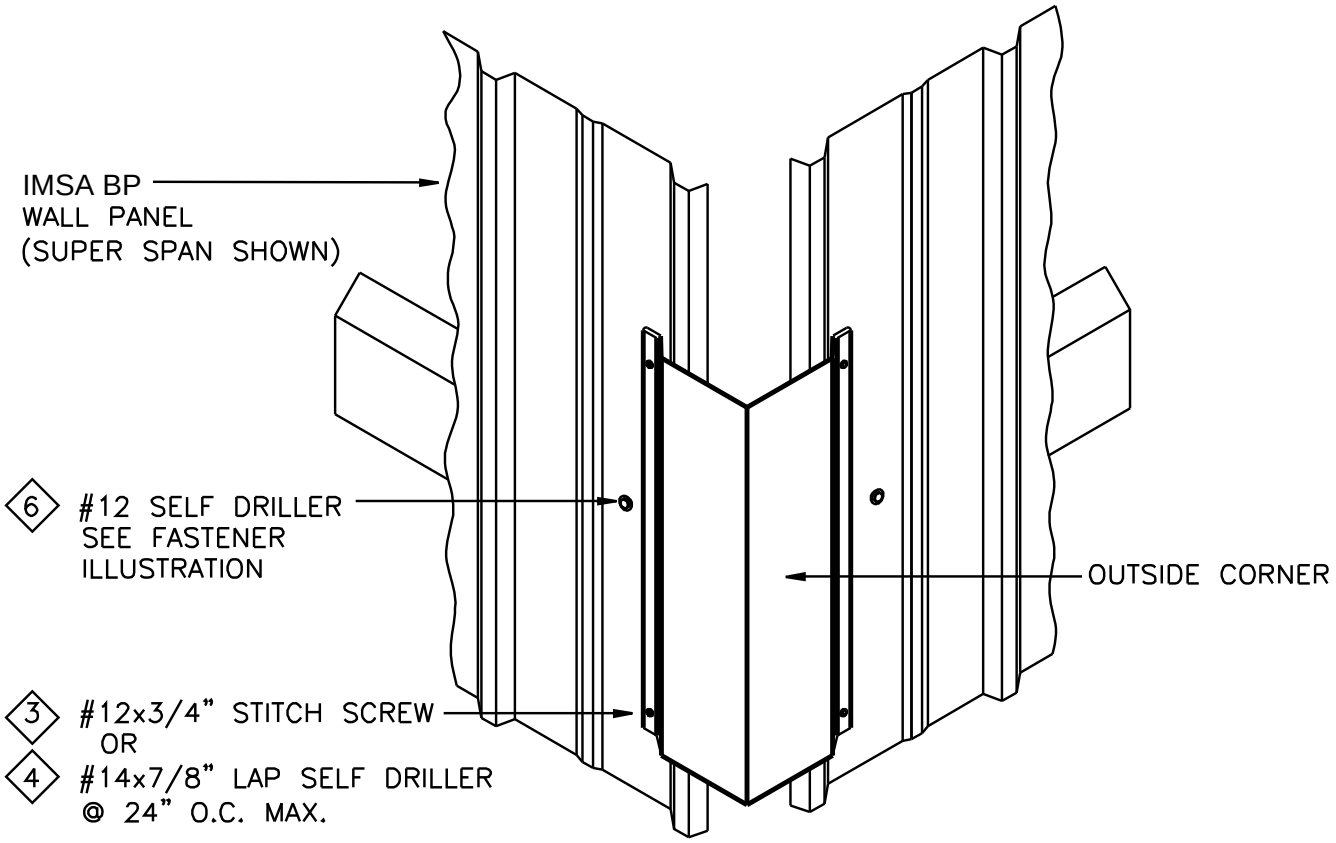
Wall Details
Outside Corner



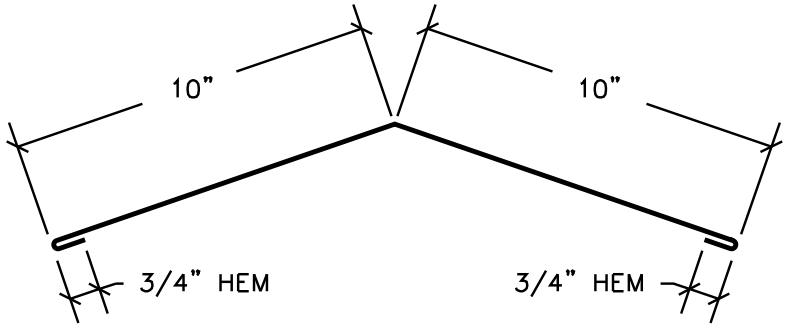
Outside Corner (OC7)
Super Span only



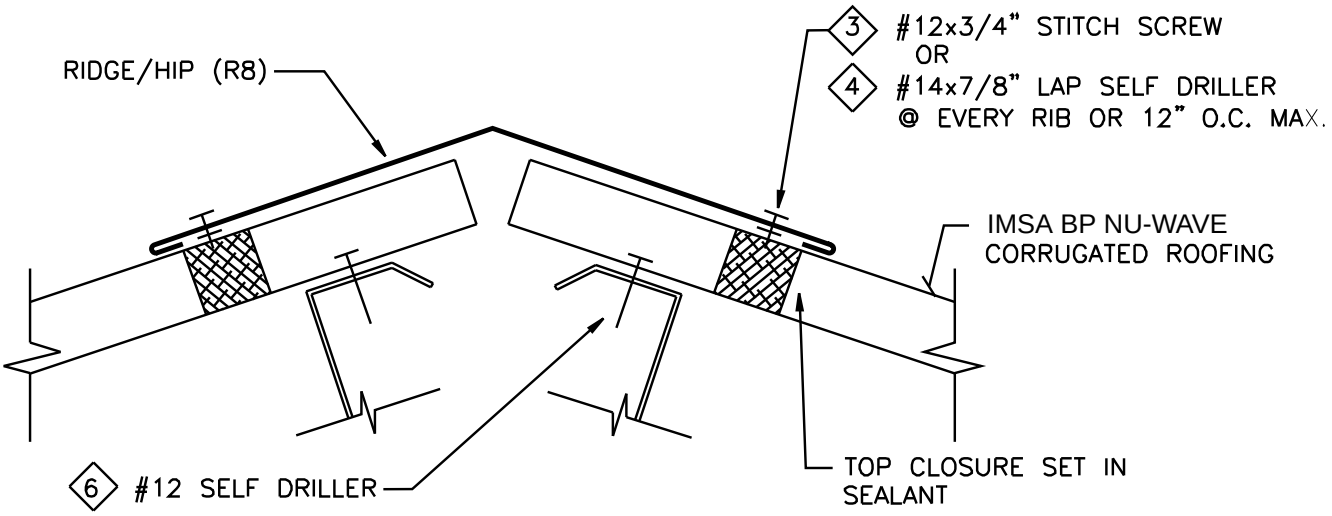
Outside Corner (OC11)



NuWave Corrugated Ridge/Hip Flashing

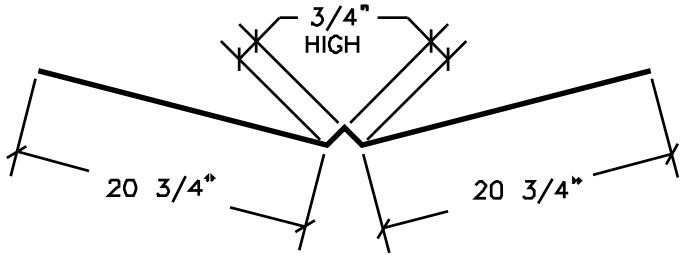


Ridge/Hip (R8)

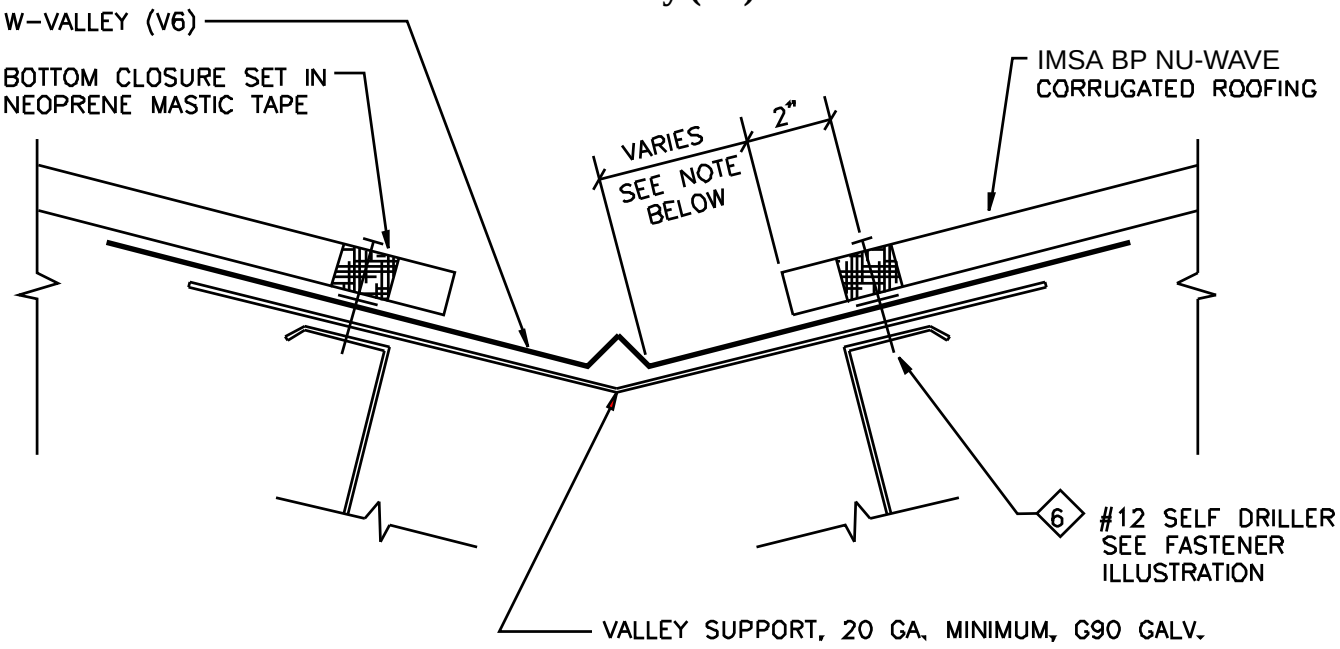


Note: Fasteners (exceptunder ridge cap) should be located on tops of corrugations.

NuWave Corrugated Valley Flashing

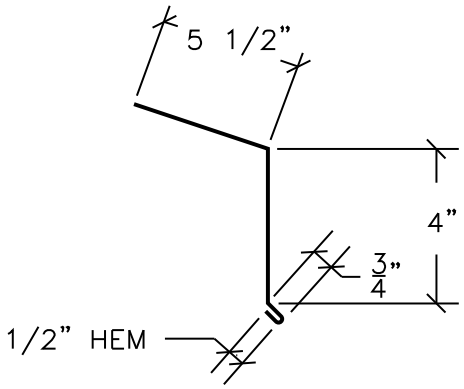


W-Valley (V6)

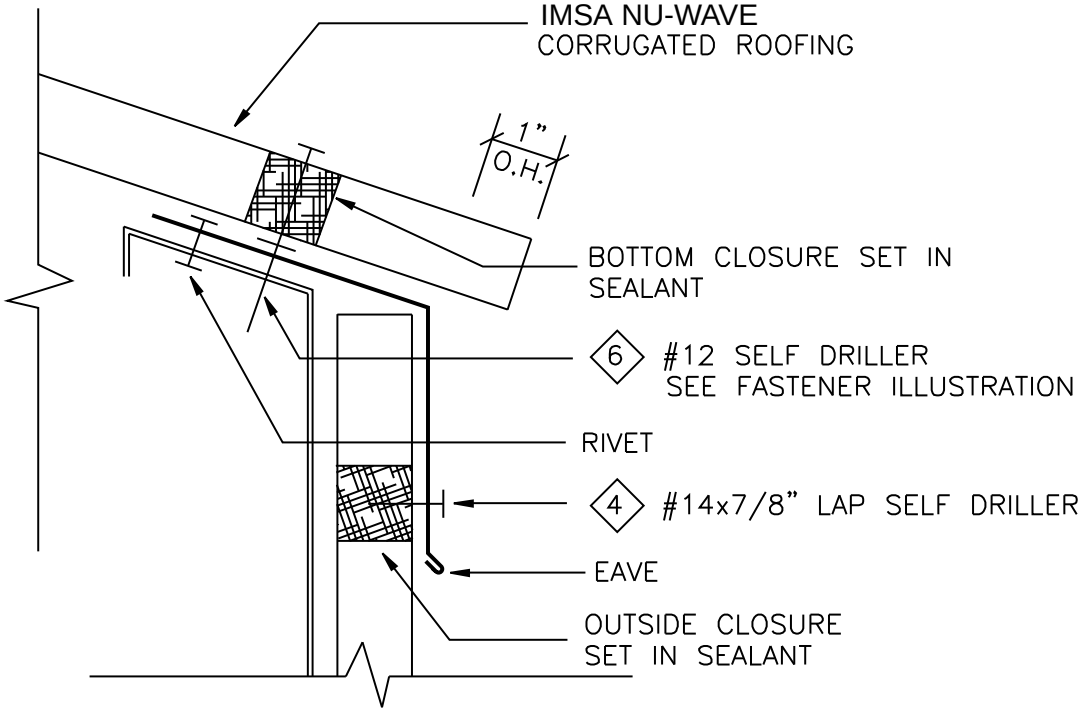


Note:
Valley dimensions must be the proper width to account for slope, snow, ice and heavy rain conditions. An underlayment such as a rubberized cold-applied membrane is recommended extending a minimum of 3'-0" up from the center of the valley on each side.

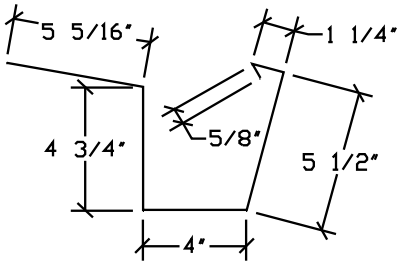
NuWave Corrugated Eave Flashing



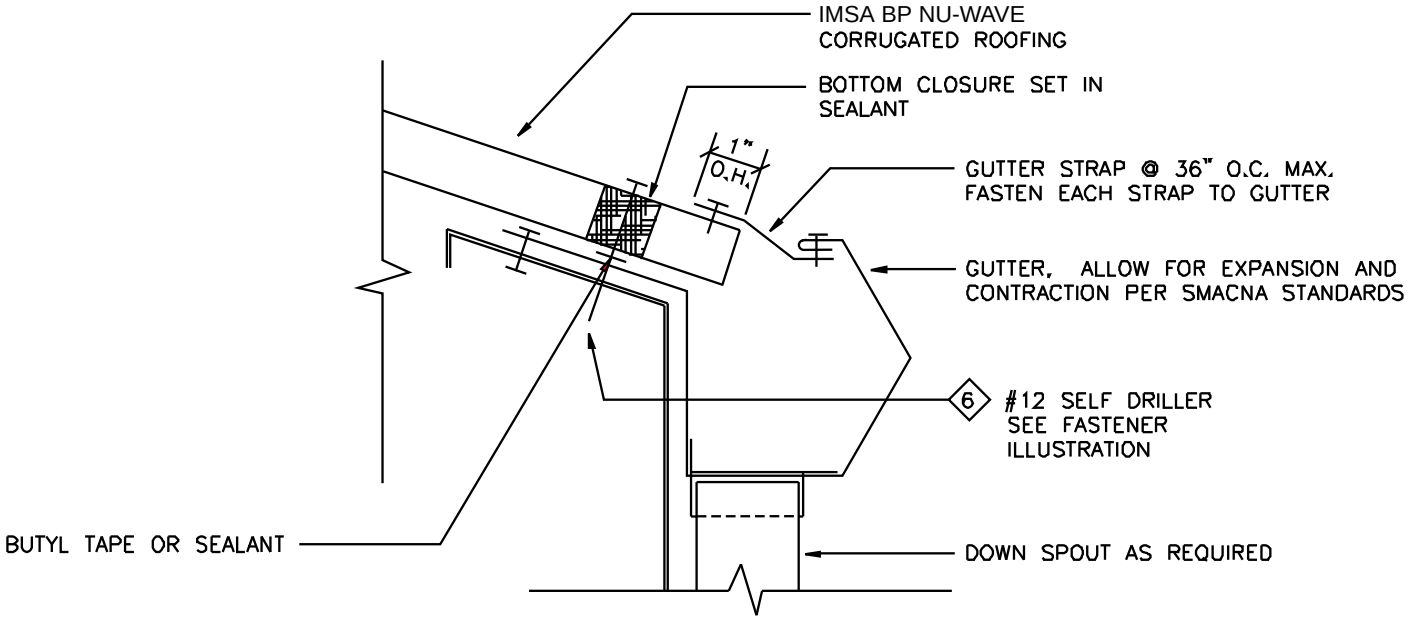
Eave (E6)



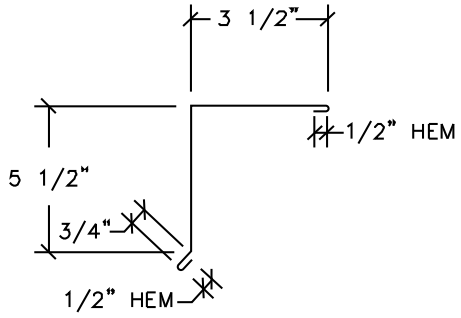
NuWave Corrugated Gutter Flashing



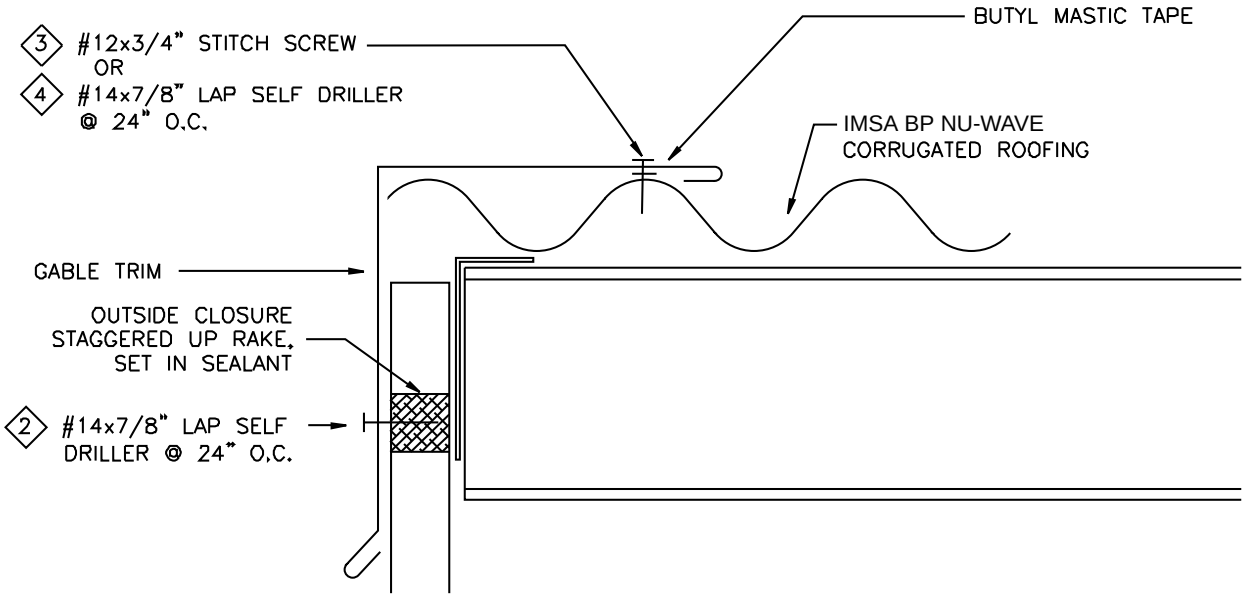
Box Gutter (GU6)
pre-hung



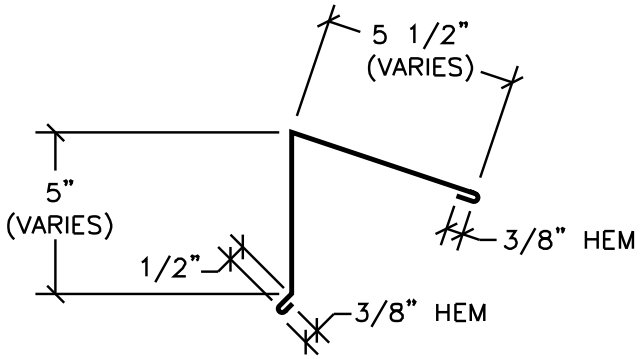
NuWave Corrugated Gable Flashing



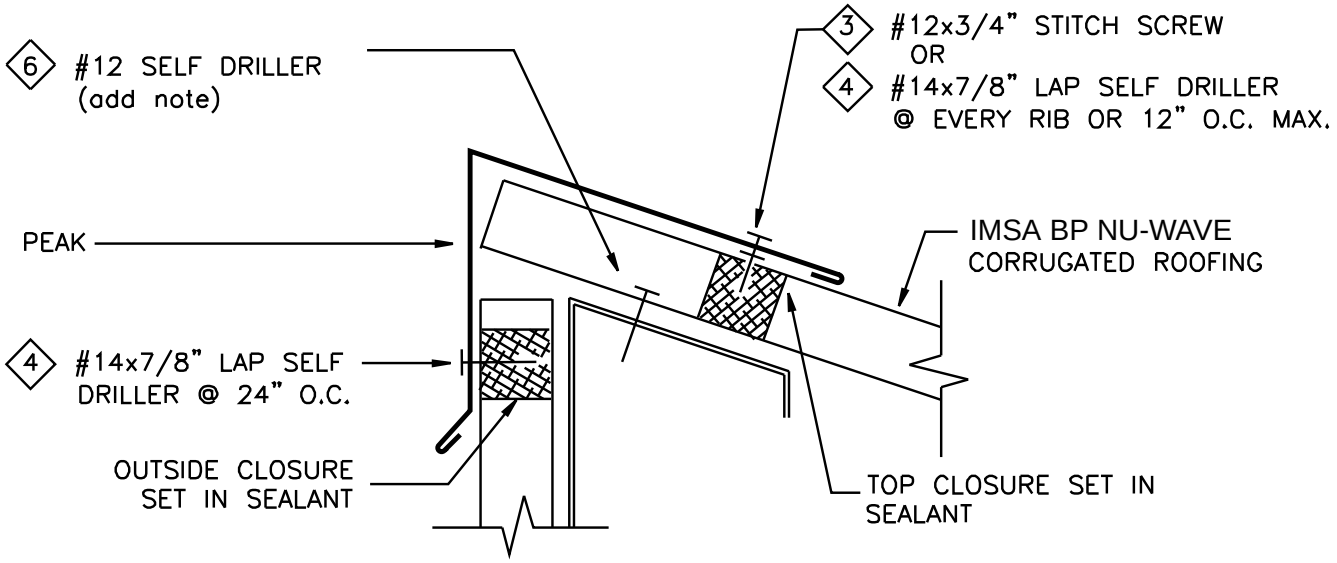
Gable Trim (G12)



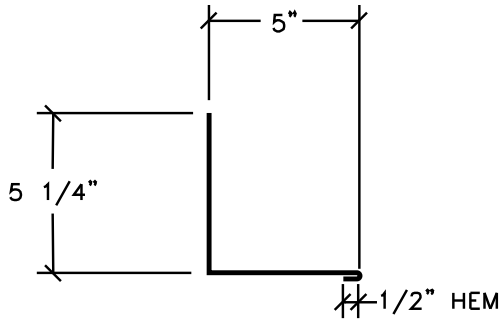
NuWave Corrugated
Peak Flashing



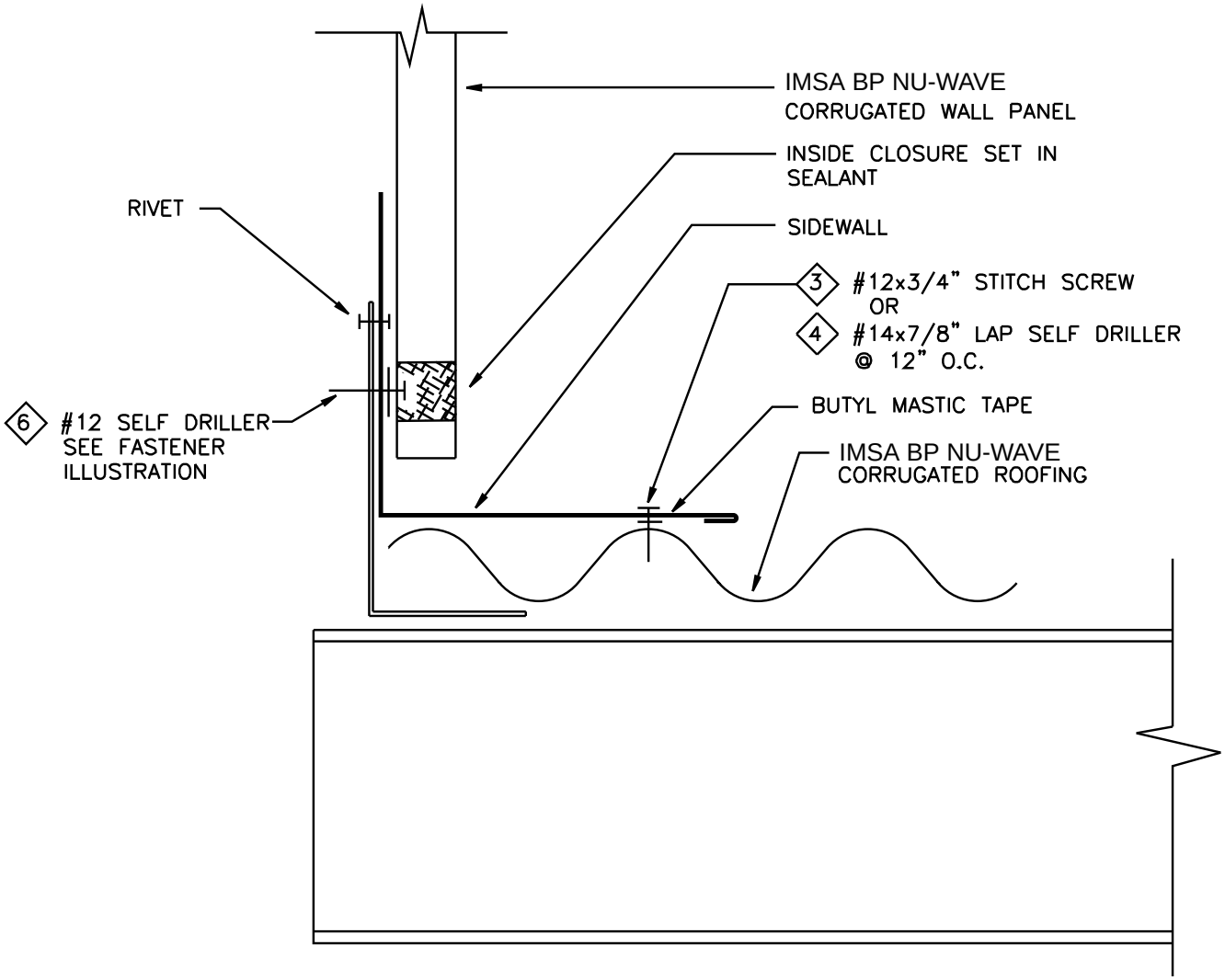
Peak (PF16)



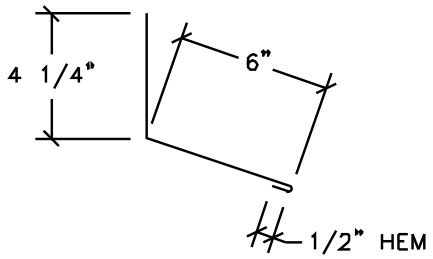
NuWave Corrugated Sidewall Flashing



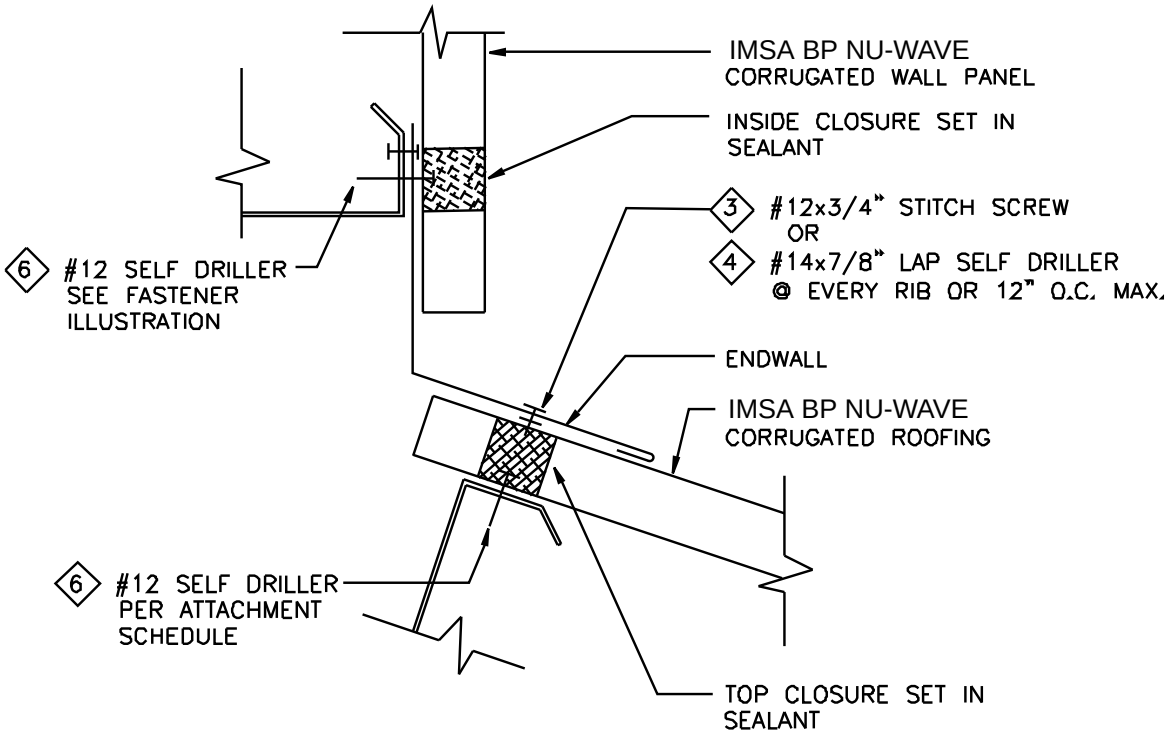
Sidewall (SW8)



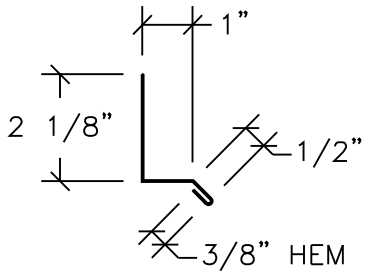
NuWave Corrugated Endwall Flashing



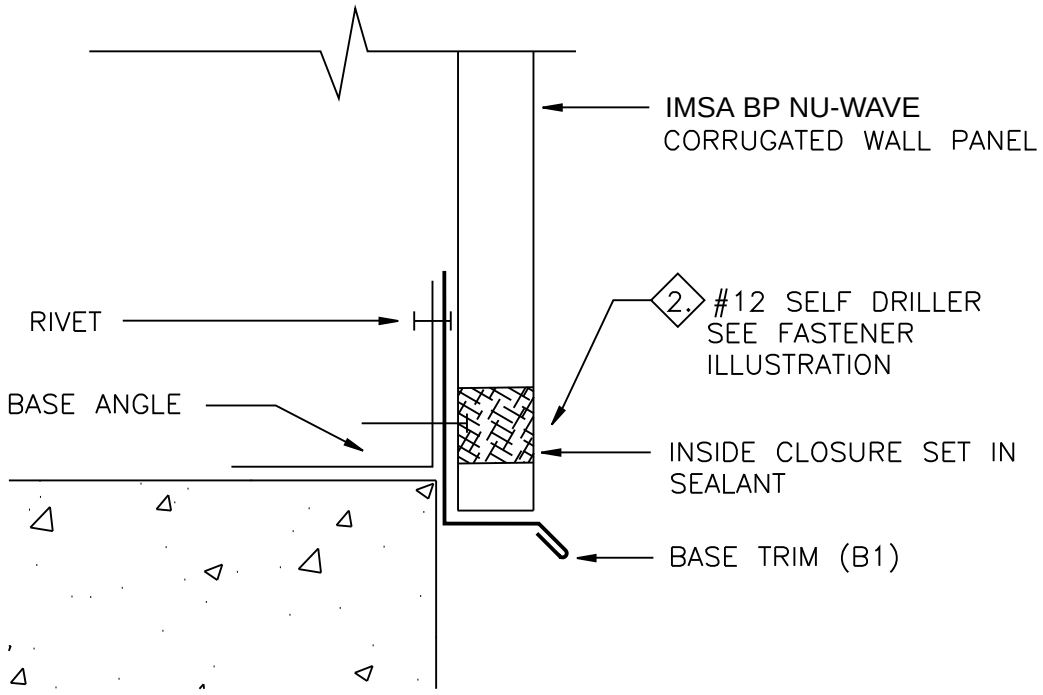
Endwall (EW6)



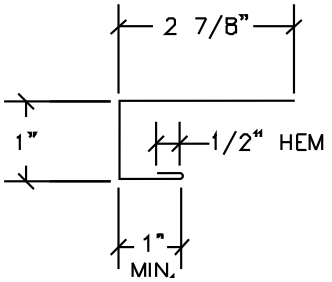
NuWave Corrugated
Wall Details - Base Trim



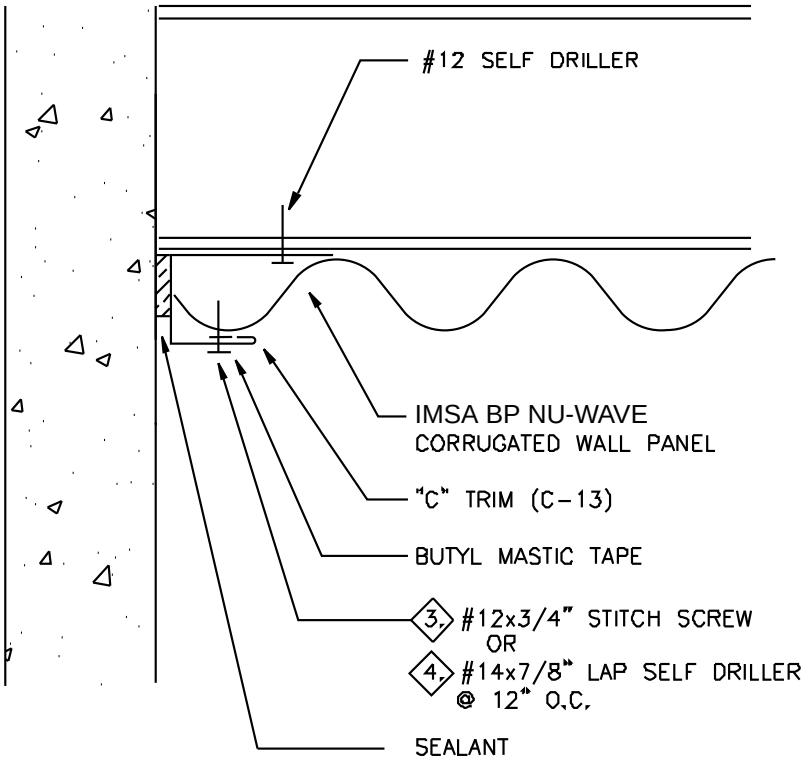
Base Trim (B1)



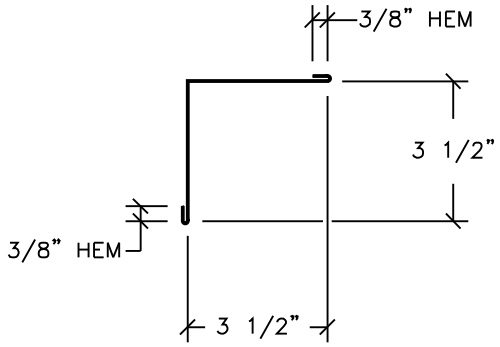
NuWave Corrugated
Wall Details - "C" Trim



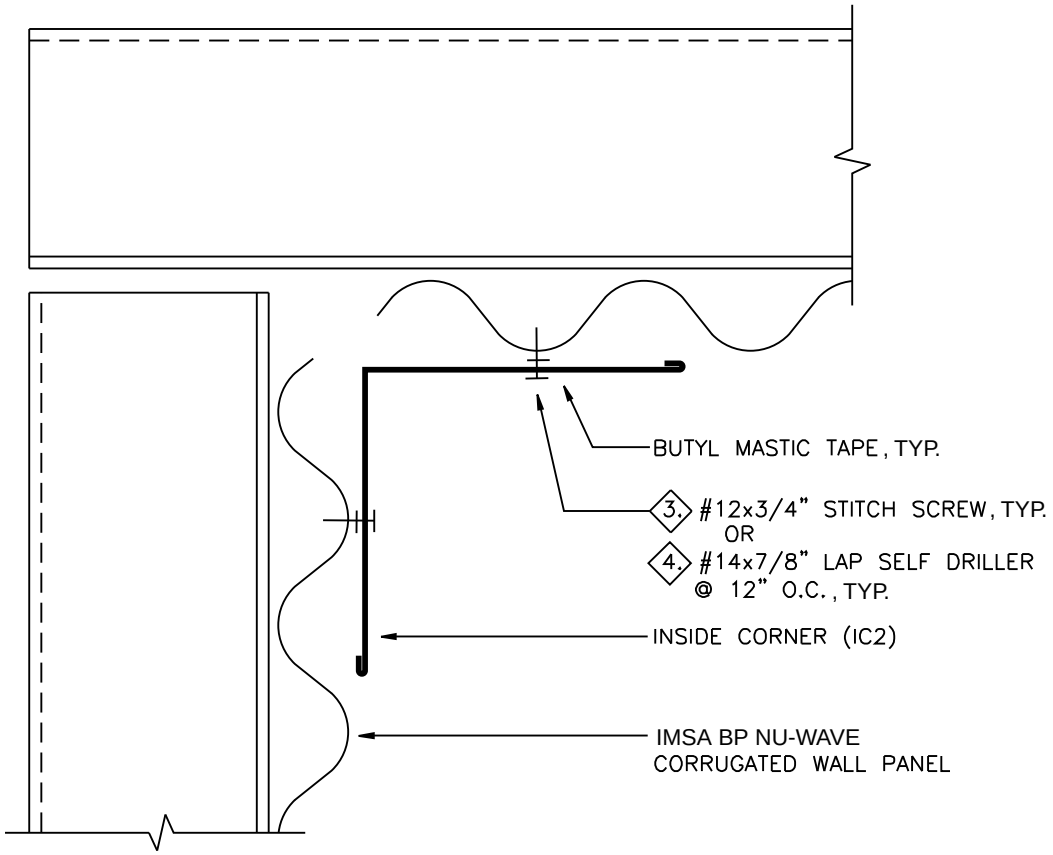
"C" Trim (C13)



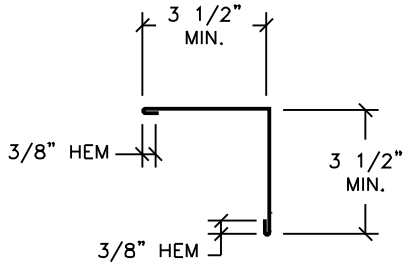
NuWave Corrugated
Wall Details - Inside Corner



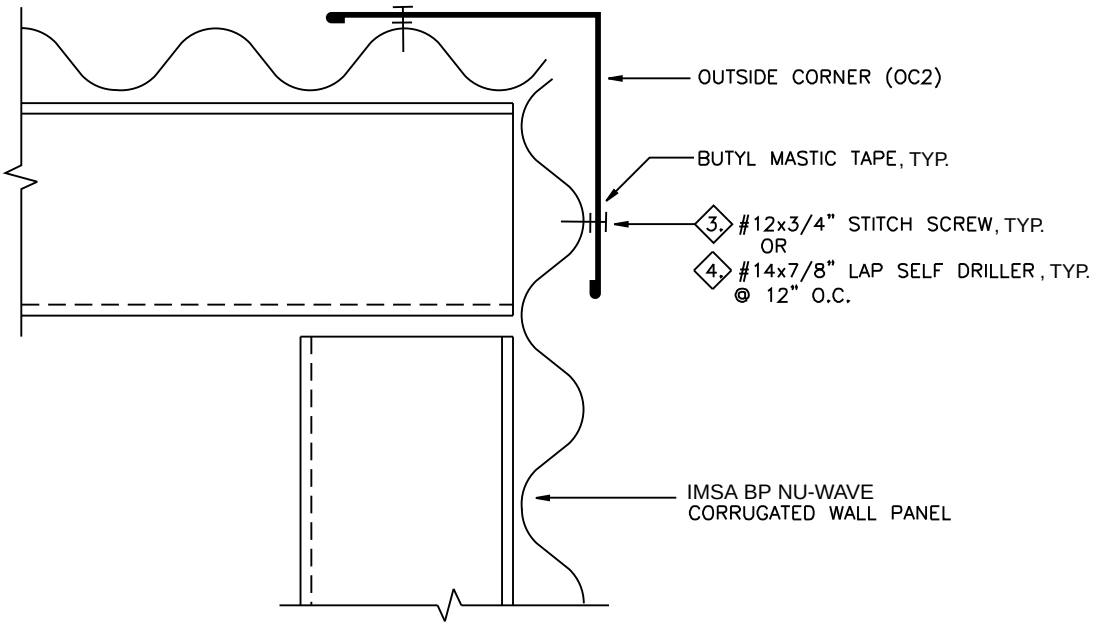
Inside Corner (IC2)



NuWave Corrugated
Wall Details - Outside Corner



Outside Corner (OC2)



Manufacturing Facilities:

IMSA Building Products • Tacoma
2141 Milwaukee Way
Tacoma, WA 98421
253-383-4955
800-733-4955

IMSA Building Products • Fontana
10905 Beech Avenue
Fontana, CA 92337
Tacoma, WA 98421
909-823-0401
800-272-2466

Corporate Headquarters:

IMSA Building Products Inc.
2110 Enterprise Boulevard
West Sacramento, CA 95691
916-360-2477
800-360-2477

www.imsaproducts.com

IMSA
BUILDING PRODUCTS