TECHNICALHAND BOOK & INSTALLATION DETAILS



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GEOPANEL
MANUFACTURING SUSTAINABLE INNOVATIONS

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2. ABOUT GEOPANEL

Geopanel: A Journey of Innovation and Excellence

Established in 2008, Geopanel has evolved into a global leader in manufacturing insulating materials for the construction industry. Initially focused on marketing sandwich panels in Qatar through contract manufacturing, our products quickly became integral to numerous prestigious projects across the country.

Our commitment to quality and innovation has been a cornerstone of our growth. Over the years, we have expanded our product range to include not only insulated panels but also corrugated sheets, purlins, and other essential construction accessories. Each product is engineered with sophisticated technology and futuristic design, ensuring enhanced performance and durability

In 2023, we marked a significant milestone by establishing our state-of-the-art production facility at Mesaieed Industrial City. This facility is equipped with Qatar's largest continuous sandwich panel line, incorporating advanced Italian technology. This development underscores our dedication to enhancing our production capabilities and delivering superior products to our clients.

Geopanel's contributions to the construction industry extend beyond products. We offer comprehensive consultancy services and technical support, covering every phase of a project from design and execution to maintenance. Our experienced team is dedicated to providing tailored solutions that meet the specific needs of each project, ensuring optimal outcomes.

Our journey has been defined by a persistent vision of innovation and excellence. Geopanel's products are designed to add significant value to every project, enhancing the overall quality and efficiency of construction processes. As we continue to grow, we remain committed to setting new standards in the industry and contributing to the development of modern, sustainable building solutions..

3. INTRODUCTION

The Purpose of The Geopanel Hand Book

To assist the building designer or potential steel structure owner in the proper and economical use of sandwich panel claddings.
It is further intended that the building official architects, designers, consultants and engineers will refer to and apply the data in this manual when considering approval of GEO PANEL sandwich panel claddings.

Geopanel Technical Hand Book Introduction

GEO PANEL sandwich panel claddings are designed by professional engineers and this manual prepared under their direct supervision.
Dimension and units used in this manual are in accordance with si-the international system of units where applicable the unit now in common use in also shown for reference.
This manual is the property of geo panel and will be revise periodically as changes innovated architectural, structural and mechanical adaptation are shown in this manual are indented to be typical only and there for accepts no responsibility unless specifically agreed in writing.



4. DEFINITION OF TERMS

ACCESSORY:

A building component added to a basic structure cladding such as door and window trim gable trim, etc.

BASE ANGLE:

A continuous angle secured to foundation to support wall panel.

BLIND RIVET:

A small headed pin with expandable shank for joining light gauge metal typically used to attach flashing gutter etc.

BEAD MASTIC:

Sealant, in extruded bead form, used to seal end laps of roof panels for weather tightness

CANOPY:

A Projecting beam that is supported and restrained at one end only

COIL:

A roll of steel or wire

COLD FORMING:

The process of using press breaks of rolling mills to shape steel into desired cross sections at room temperature

CORNER TRIM:

Pre formed sheet metal trim used to close the junction of a metal building system

DOWNSPOUT:

A conduit used to carry water from the gutter of a building

DOWNSPOUT STRAP:

Metal straps used to fix the downspout the side walls

EAVE:

A line along the sidewall formed by the intersection of the inside faces or planes of the roof and the sidewall panels

EAVE GUTTER:

A light gauge metal member at an eave designed to carry water from the roof to downspouts or drains

EAVE STRUT:

A structural member, located at the eave, used for supporting the roof panels and the wall panels

END WALL:

An exterior wall which is perpendicular to the ridge of the building.

FASCIA:

A structural framing member projecting from the face of a wall for decorative purposes

FLASHING:

See Trim (A sheet metal closure used to provide weather tightness in structure)

FRAMED OPENING:

Jambs, headers and flashing which surround an opening in the wall of a metal building.

GABLE:

The triangular portion of the end wall located above the elevation of the bottom of eave strut.

GABLE TRIM:

A flashing designed to close the opening between the roof panels and end wall panels.

GABLE ANGLE:

An angle fastened to the purlins at gable for the attachment of end wall sheet

GALVANIZED: Steel coated with Zinc for corrosion resistance.

GIRT:

A horizontal structural member that is attached to sidewall or end wall columns and supports paneling.

GEO-WALL PANELS:

Standard corrugated panel used for exterior surface of walls.

GUTTER:

A light gauge metal member at an eave, valley or parapet designed to carry water from the roof to down-spouts or drains.

HEADER: A horizontal member over an opening in a wall.

JAMB: The vertical framing members located at the sides of wall openings.

MANSARD FASCIA:

A tilted fascia projected from the wall and extended above roof line to form as decorative appearance and to hide the roof line.

MASTIC: Material used to seal cracks, joints and laps.

METAL BUILDING SYSTEM:

A metal building system consists of a group of coordinated components, including structural members, exterior covering panels, fastening devices and accessories, which have been designed for specific loads, which will work together compatibly and which have been engineered so that they may be mass produced and assembled in various combinations, or in a combination with various collateral materials, to provide an enclosed or partially enclosed structure

PANEL:

Gauge metal sheets usually with ribbed configuration and used for Roof and Wall skins

PARAPET:

That portion of the wall which extends vertically above the roof line to form a fascia type appearance.

PARTITION: An interior dividing wall.

PEAK: The uppermost point of a gable.

PITCH: Distance between holes along longitudinal axis of plate.

POP RIVET: Used for joining flashing and light gauge metal trims.

PURLIN:

A horizontal structural member attached to the main frames which supports roof panels.

RIDGE:

Highest point on the roof of the building which describes a horizontal line running the length of the building.

RIDGE CAP:

A transition of the roofing materials along the ridge of a roof.

RIDGE VENTILATOR:

Two or more ridge ventilators mounted on the building ridge that allows air circulation

ROOF CURB:

Weather proof flashing used on roofs to support power ventilators or ducting. Roof curb can be fiberglass or sheet metal

ROOF SLOPE:

The angle that a roof surface makes with the horizontal. Usually expressed in units of vertical rise to 10 units of horizontal run.

SANDWICH PANEL:

A panel assembly used as covering; consists of an insulating core material with inner and outer skins.

SEALANT:

Any material which is used to seal cracks, joints or laps.

SELF DRILLING SCREW (SDS):

A fastener which combines the functions of drilling and tapping. It is used for attaching panels to purlins and girts.

SHEETING ANGLE:

An angle used to support sheeting.

SKYLIGHT:

A translucent panel. A roof accessory to admit light, made of fiber glass reinforced polyester to the profiles of Kirby standard sheeting profiles.

SOFFIT:

A metal panel which covers the underside of an overhang, canopy, or fascia.

TRIM:

The light gauge metal used in the finish of a building especially around openings and at intersection of surfaces. Often referred to as flashing.

VALLEY GUTTER:

A channel used to carry off water from the “V” of roofs of multi-gabled buildings.

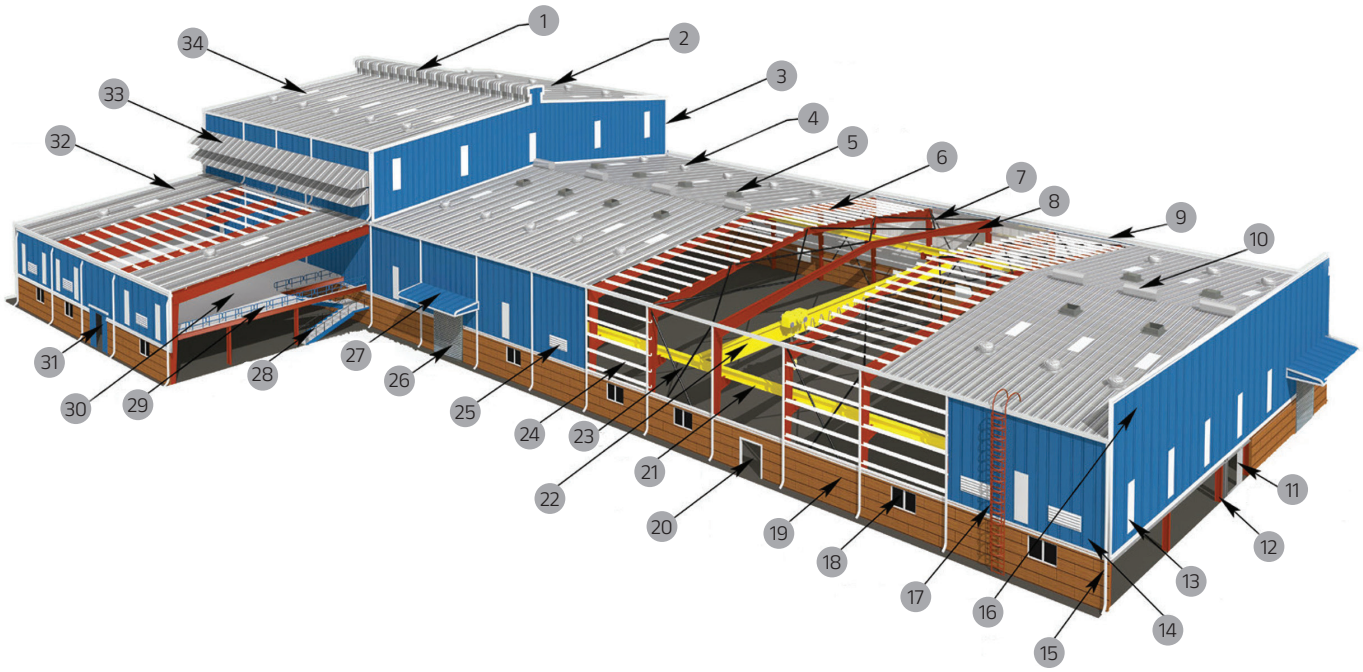
VENTILATOR:

An accessory, usually used on the roof that allows the air to pass through.

ZINC-ALUMINIUM COATED (ALUZINC):

Steel coated with zinc and aluminum for corrosion resistance

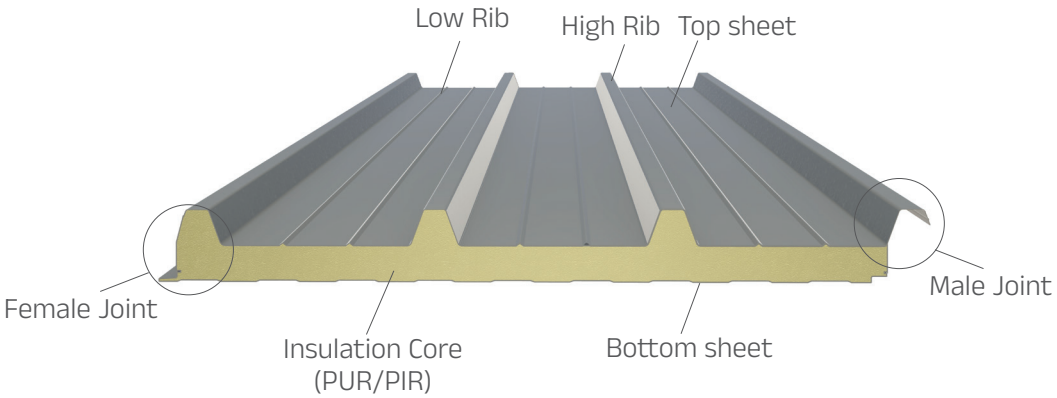
5. COMPONENTS OF STEEL BUILDING PANEL SYSTEM



1. Roof Monitor
2. Roof Panel
3. Corner Trim
4. Turbovent
5. Roof Curb
6.Purlins
7. Rod Bracing
8. Ridge Frame Rafter
9. Eave Gutter
10. Ridge Ventilator
11. Framed Opening
12. End Wall Coloumn
13. Wall Light
14. Wall Panel
15. Down spout
16. Fascia
17. Cage Ladder
18. Window
19. Block Wall
20. Personal Door
21. Crane Beam
22. EOT Crane
23. Bracing
24. Girts
25. Fixed Louvers
26. Roll-up Door
27. Canopy
28. Staircase
29. Handrail
30. Mezzanine
31. Double Sliding Door
32. Lean-To
33. Industrial Louvers
34. Skylight

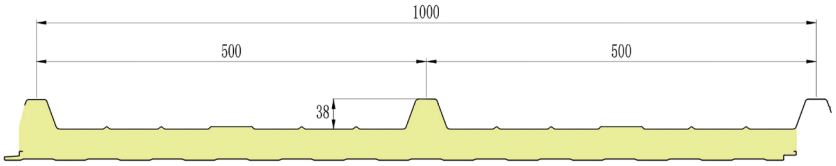
6. GP PANEL TYPES

6.1 Profile Type Panels

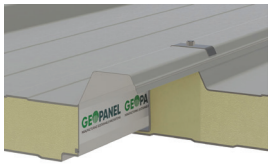


There are Three types of Profile type panels available

1. GP 38/500

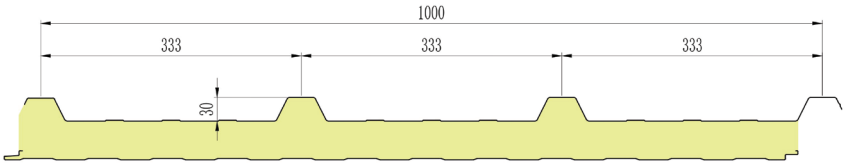


PUR/PIR THICKESS
30,50,100 (mm)

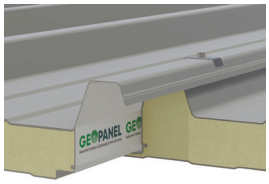


Joint Details

2. GP 30/333

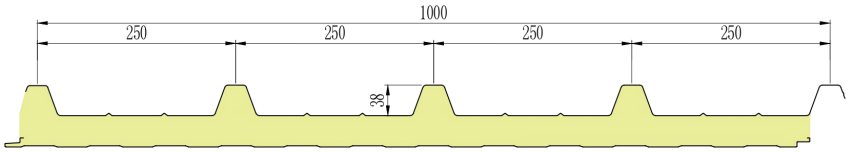


PUR/PIR THICKESS
30,50,75,100 (mm)

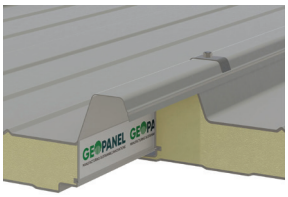


Joint Details

3. GP 38/250



PUR/PIR THICKESS
30,50,75,100 (mm)

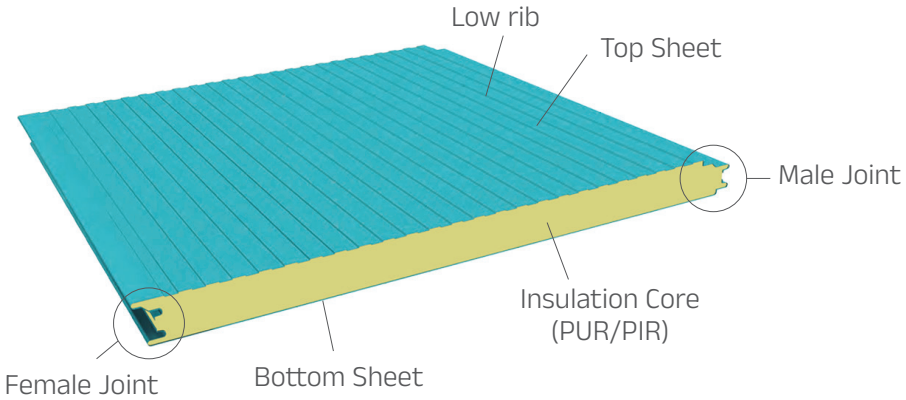


Joint Details

6.2 Flat Type Panel (Low Rib Panel)

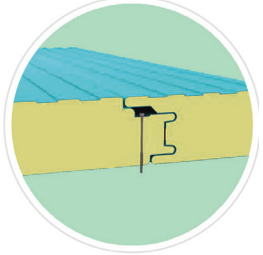
These panel usually use in wall apnel installation. there are Two types panels Hidden screw panel and Flat type panel.

1. GP Hidden screw Panel



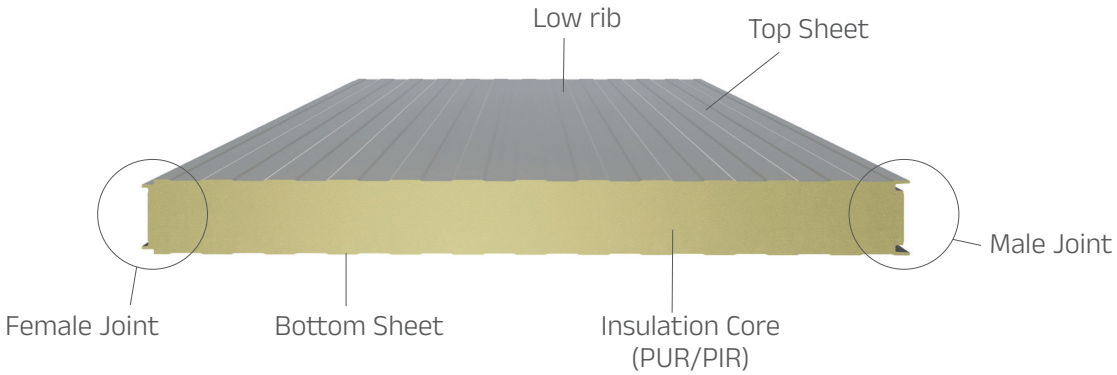


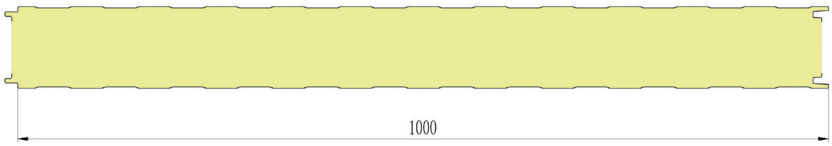
PUR/PIR THICKESS
50,75 (mm)



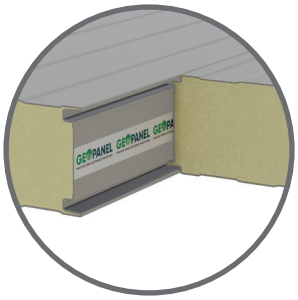
Joint Details

2. GP Cold Room Panel





PUR/PIR THICKESS
75,100,150 (mm)



Joint Details

7. ACCESSORIES

Accessories are an indispensable part of the proper sandwich panel installation. In GP Panel's offer there is a wide range of different accessories that together make a whole assembling system. Metal flashings, sealants, screws, rivets, special tapes etc. just to name a few.

Firstly, you need to fix the panel to the supporting construction. To do this, special screws are necessary. As there are plenty of different kinds available on the market, we do not recommend to use them judging only on availability or price. Only specialized screws that we recommend are dedicated and meet requirements of our sandwich panels.

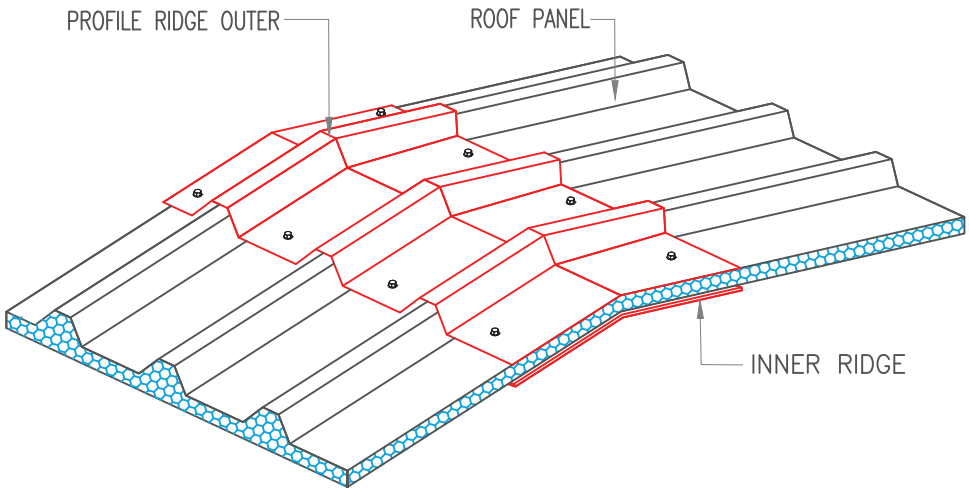
Secondly, you must not leave the panels just screwed onto the construction. Metal flashings are required not only for improvement of final look of the building, but mainly for covering opened core edges as well as joints with windows, doors etc. Protection against wind, rain or snow is the same as important as adding the final touch to the esthetics.

The color, thickness and material used for manufacturing accessories varies based on the customers' requests
Some of the Major Accessories are described below,

7.1 RIDGE CAP

Ridge caps are designed to cover the top of a roof along its ridge line. These items are always custom fabricated, therefore can be custom made to any profile, angle, size and many different materials.

Ridge cap has two component inner ridge sheet and outer ridge sheet inner ridge sheet is flat type and outer ridge corrugated or plane type



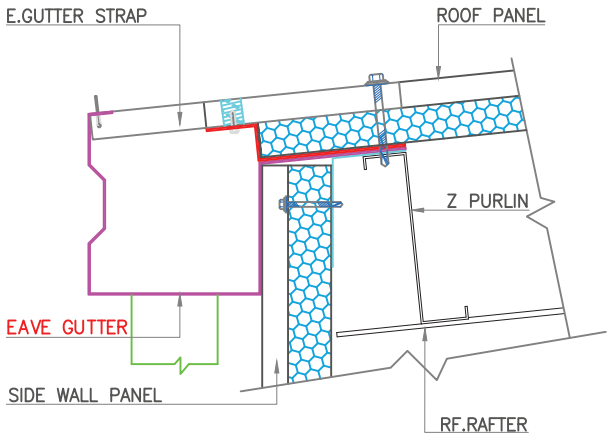


7.2 GUTTERS

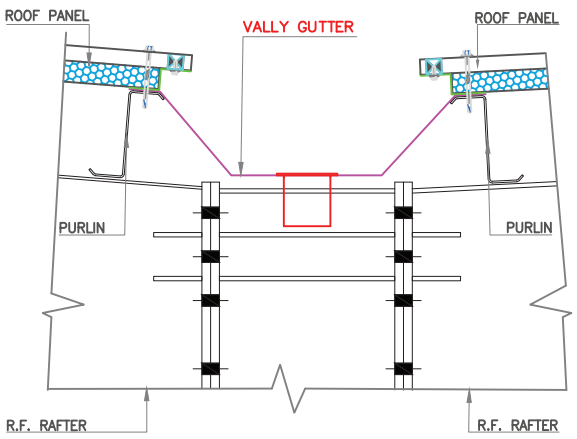
A rain gutter or surface water collection channel is a component of water discharge system for a building. Water from a pitched roof flows down into a valley gutter or an eaves gutter. Each flashing has unit length of 2.5 mtr or 3 mtr.

Gutters prevent water ingress into the fabric of the building by channeling the rainwater away from the exterior of the walls and their foundations. Water running down the walls causes dampness in the affected rooms and provides a favorable environment for growth of mold, and wet rot in timber.

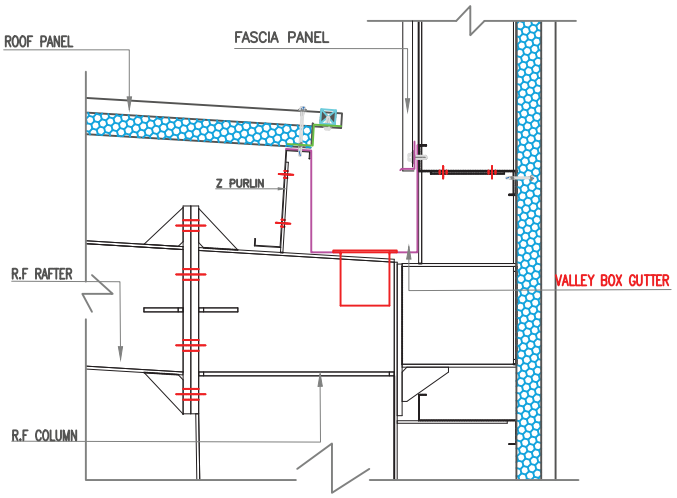
A roof must be designed with a suitable fall to allow the rainwater to discharge. The water drains into a gutter that is fed into a downpipe or downspout. When two pitched roofs meet at an angle, they also form a pitched valley gutter. Parapet gutters and valley gutters discharge into internal rainwater pipes or directly into external down pipes at the end of the run.



EAVE GUTTER



VALLY GUTTER



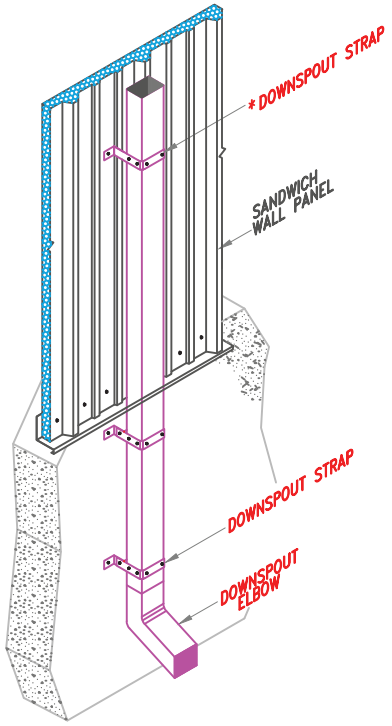
VALLY BOX GUTTER

7.3 DOWNSPOUT

Downspout, waterspout, downpipe, drain spout, roof drain pipe, or leader is a pipe for carrying rainwater from a rain gutter.

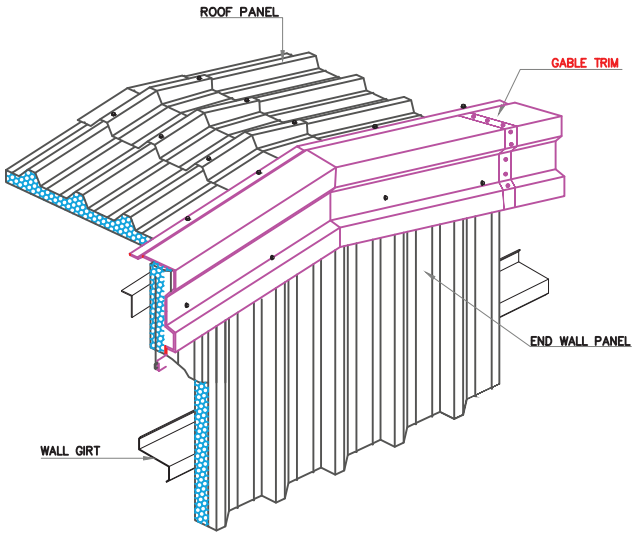
Downspouts are usually vertical and usually extend down to ground level. The water is directed away from the building's foundation, to protect the foundations from water damage.

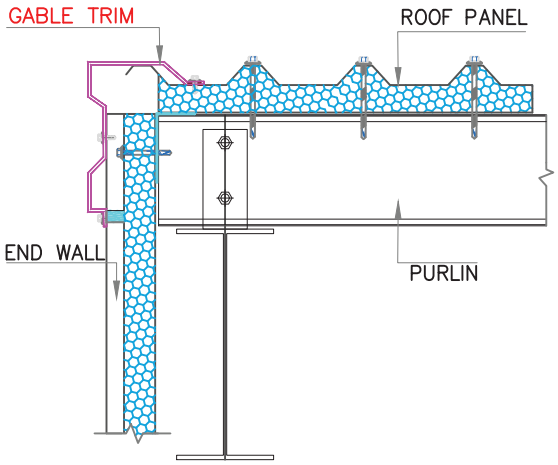
The downspout has the component of down-spout pipe, strap and elbow



7.4 GABLE TRIM

These are metal flashing finishing pieces used along the edges of the roofline. They are located at the point where the edge of the roof panel meets the end wall panels. Each flashing has unit length of 2.5 m.

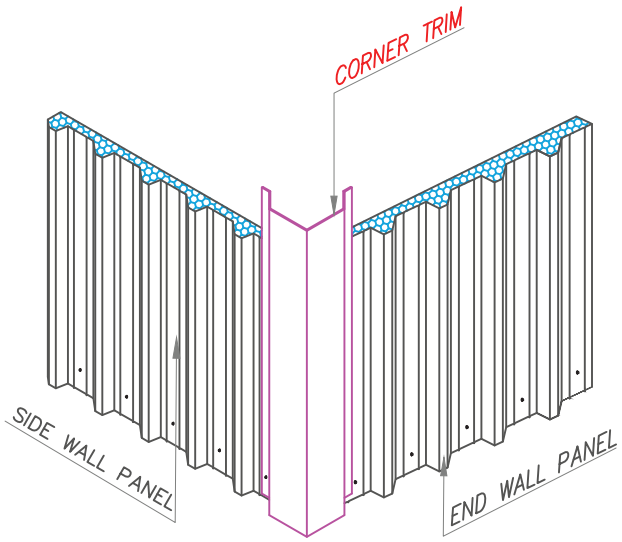


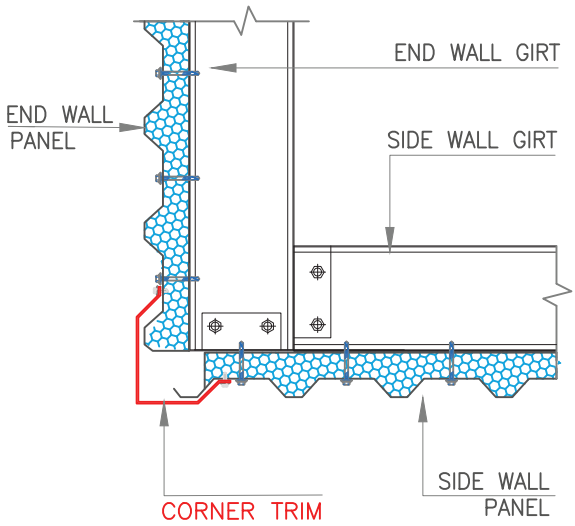


GABLE TRIM

7.5 CORNER TRIM

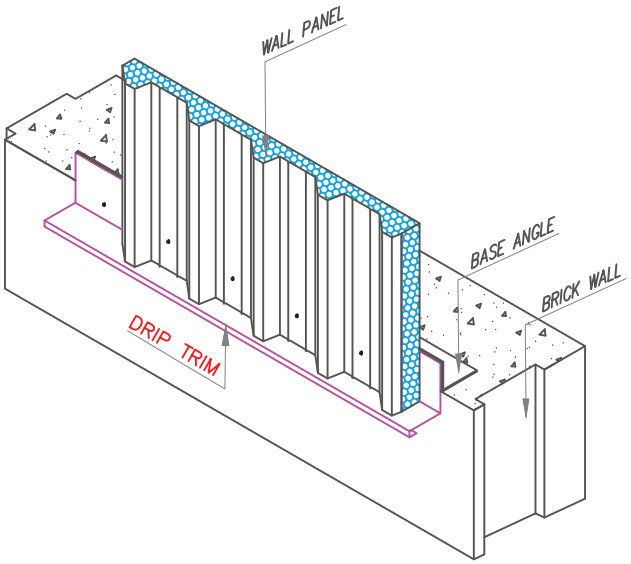
Corner flashings or trim are the vertical preformed sheet metal trim designed for used to close the junction of sidewall and end wall sheets. Flashing fastened to wall cladding and each flashing has unit length of 2.5 m. These flashing water proofing with proper sealant tape. These are two type, internal corner trim and external corner trim

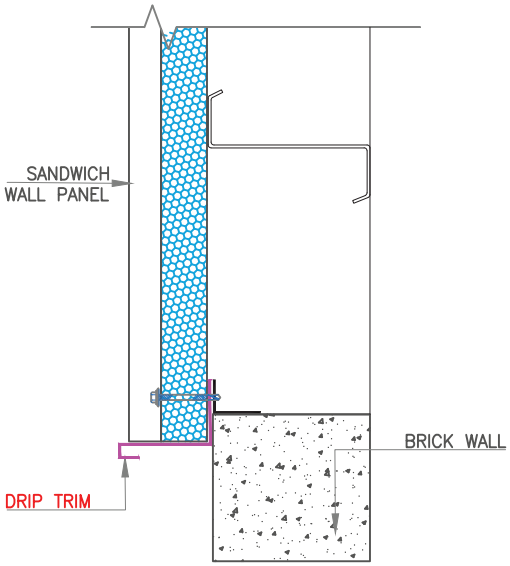




7.6 DRIP TRIM

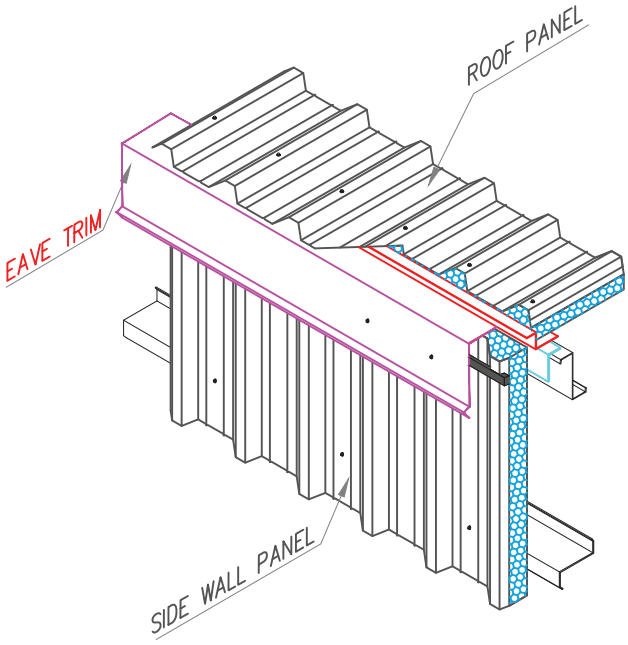
The A type trim is a drip trim, fitted to the lowest edge of the wall panel. Each of the flashing has unit length of 2.5 m

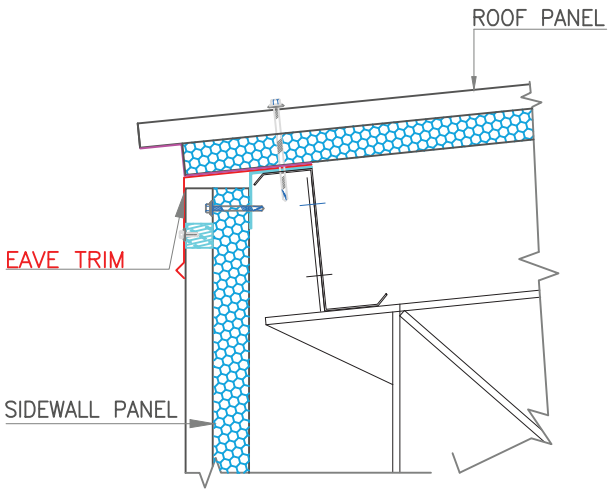




7.7 EAVE TRIM

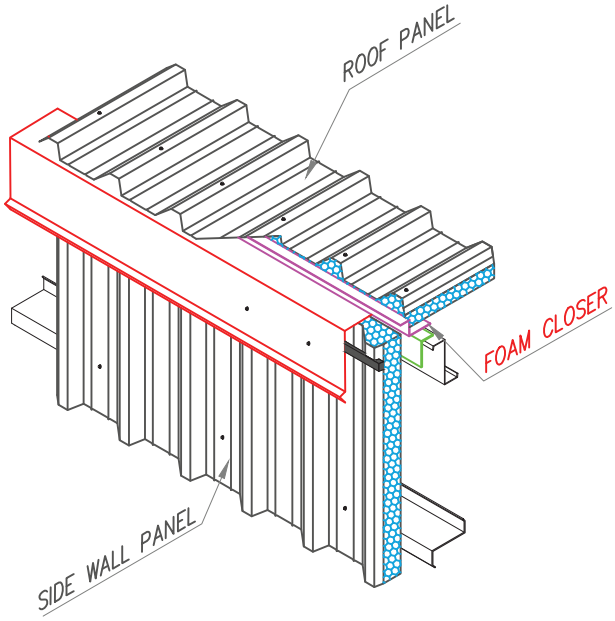
Eave Trim is designed for the eave (low side) of the building. Eave Trim provides an excellent way of finishing off the low side of the roof panels. The kick out design directs water away from the wall panel below ensuring a watertight design. Each of the flashing has unit length of 2.5 m

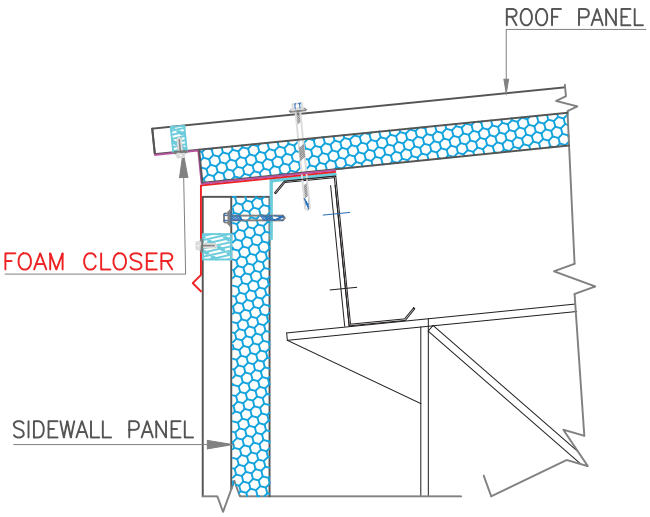




7.8 FOAM CLOSURE

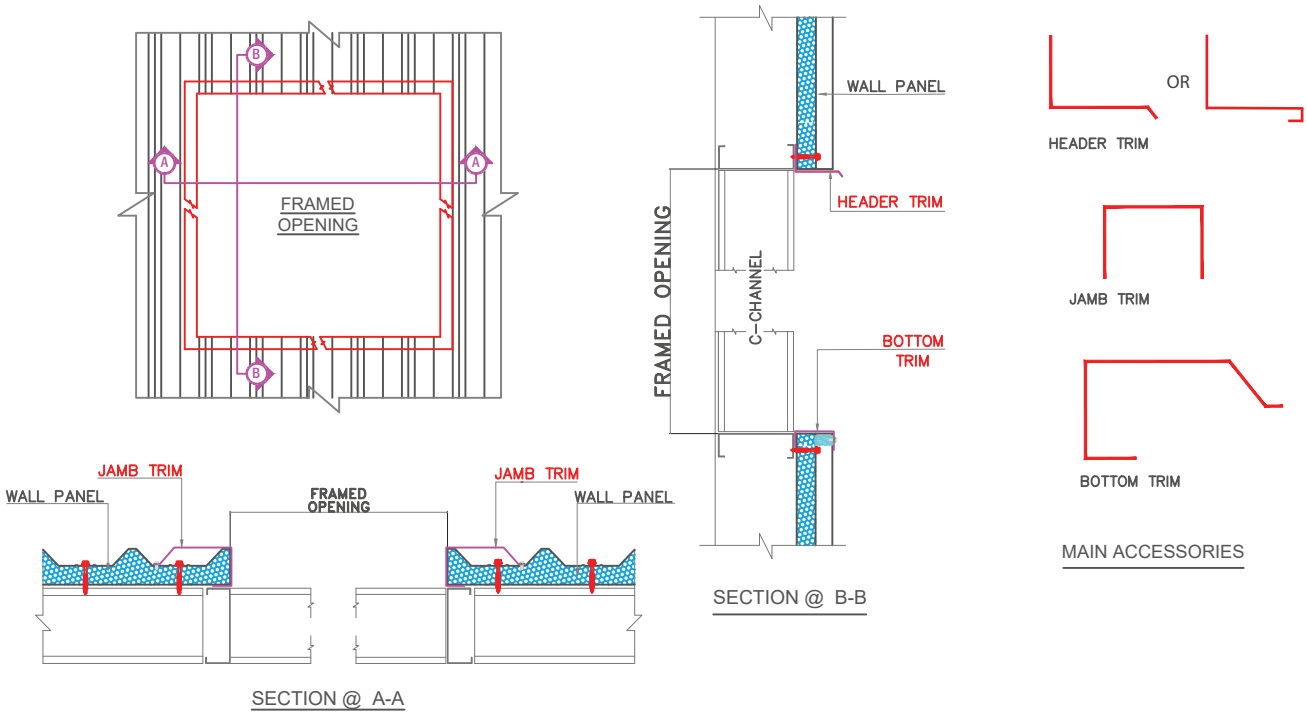
Form closure is designed for covering of roof panel exposed form at eave side



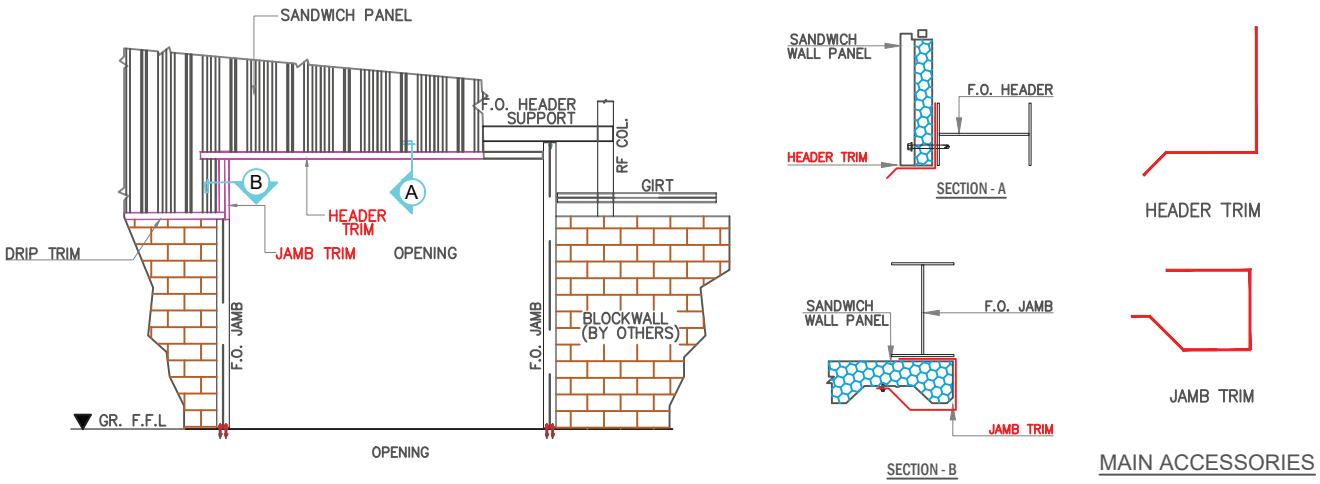


7.9 WINDOW/ DOOR TRIM

Any trim mounted to the wall around the frame is called the jamb trim. This trim is has two member the horizontal top member is called header trim Vertical member is jamb trim and horizontal bottom member is Bottom trim.



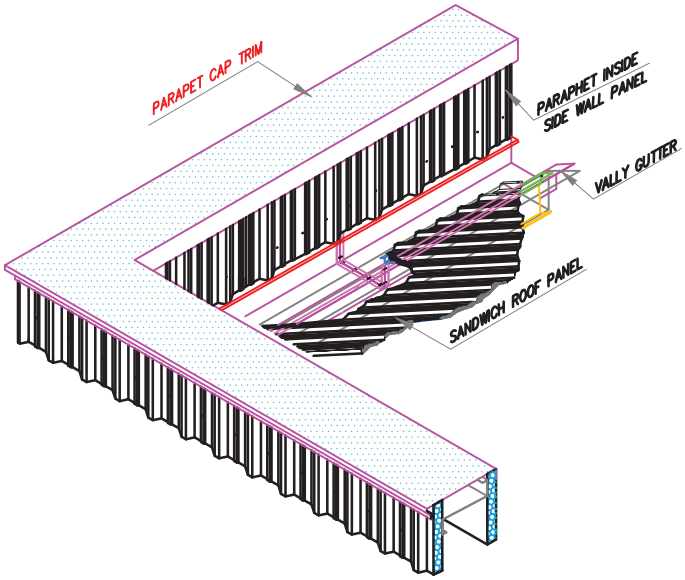
SHEETING FIXING DETAIL OF WINDOW FRAME OPENING

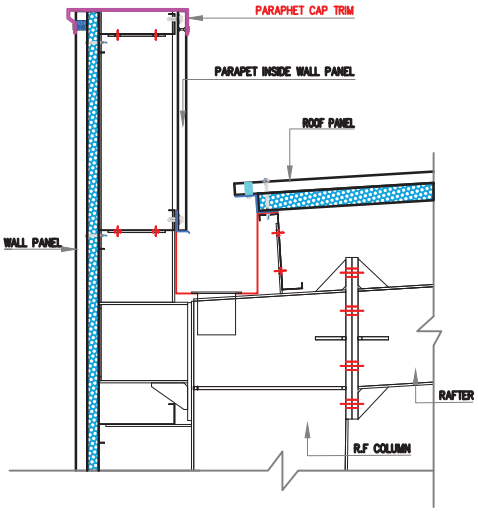


SHEETING FIXING DETAIL OF DOOR FRAME OPENING

7.10 PARAPET CAP TRIM

This unique type of cap is designed to cover the top of parapet walls panel Parapet Wall Caps are custom fabricated to any measurements and it usually measure 2.5 m in length.

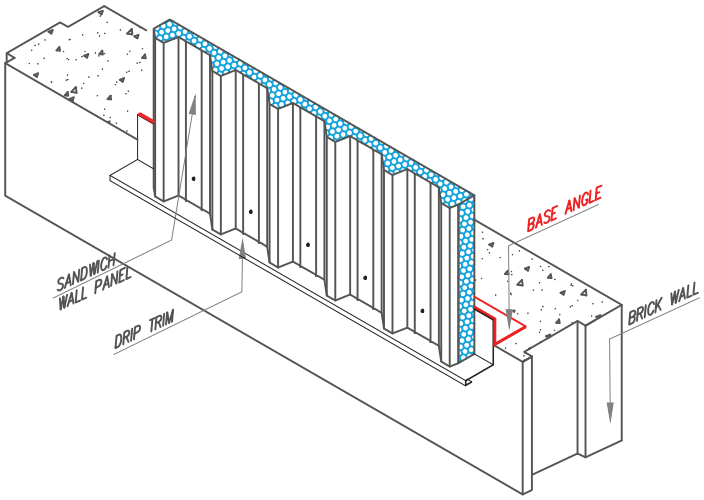


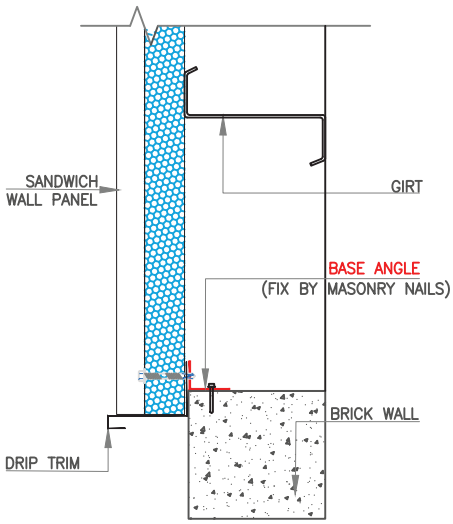


7.11 SUPPORTING ANGLE

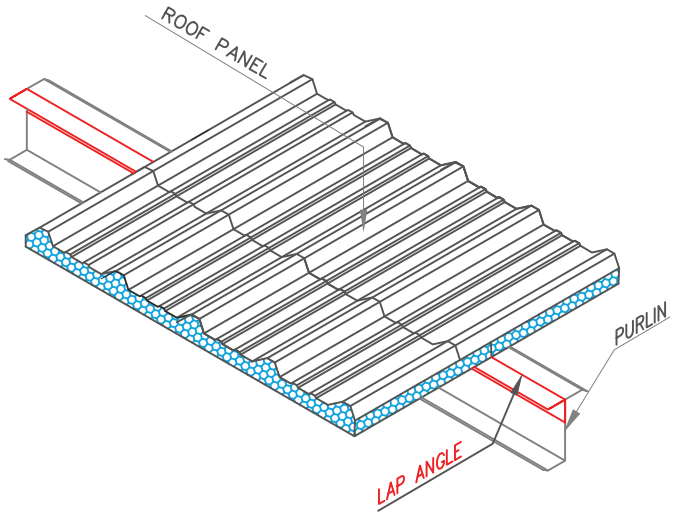
Supporting angle include base angle, lap angle, eave angle, gable angle and cleader angle. Are rolled formed form galvanized coil in thickness of 1.5, 1.75, 2.0 mm. They are made from material that confirms to ASTM a653M Grade SS : 340 Class IG90 and are designed in accordance with the 2002 cold formed steel design manual published by "The American Iron and Steel Institute" (AISI)

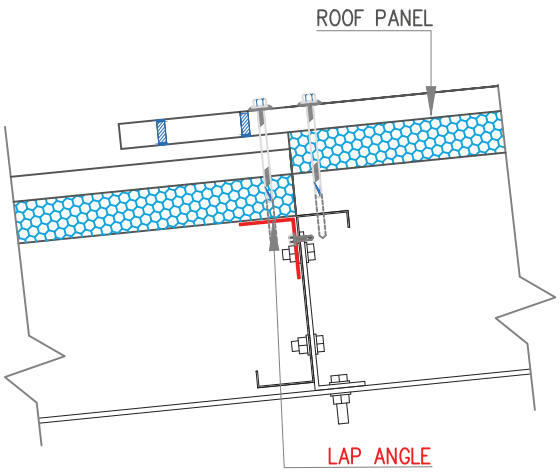
I. BASE ANGLE : A member in the shape of a right angle secured to Foundation to support wall panel.



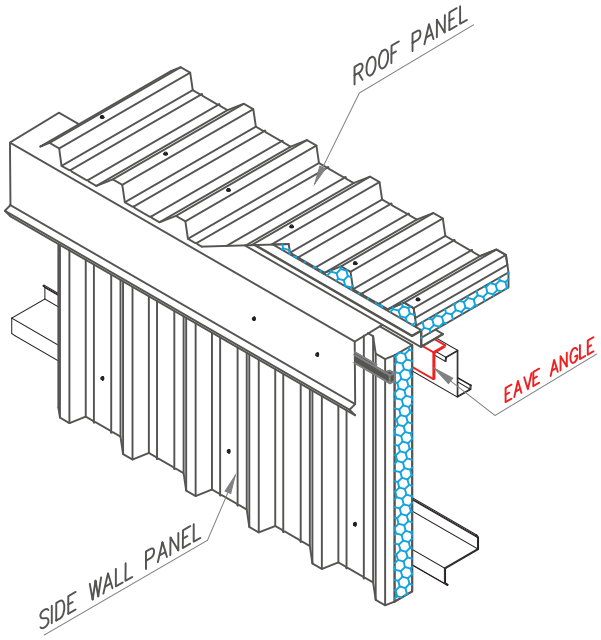


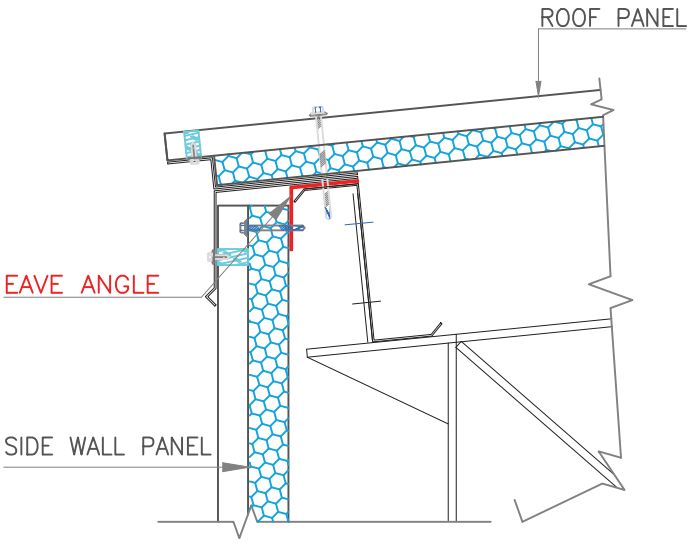
II. LAP ANGLE: Member in the shape of a right angle used to support when two panel need to over lap.



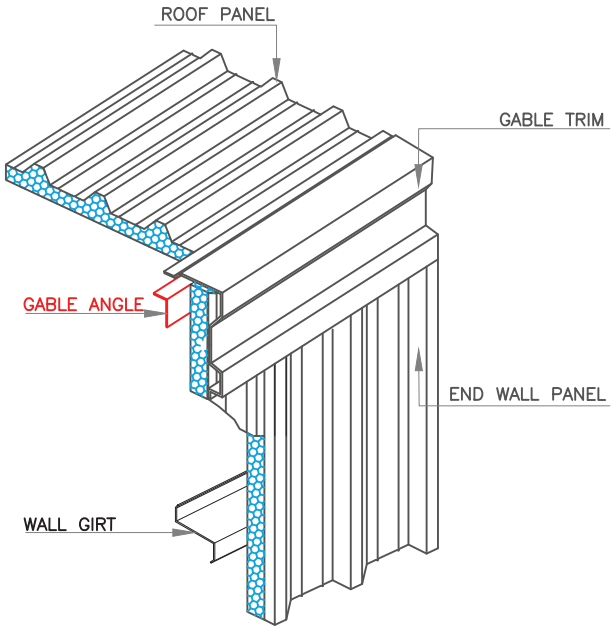


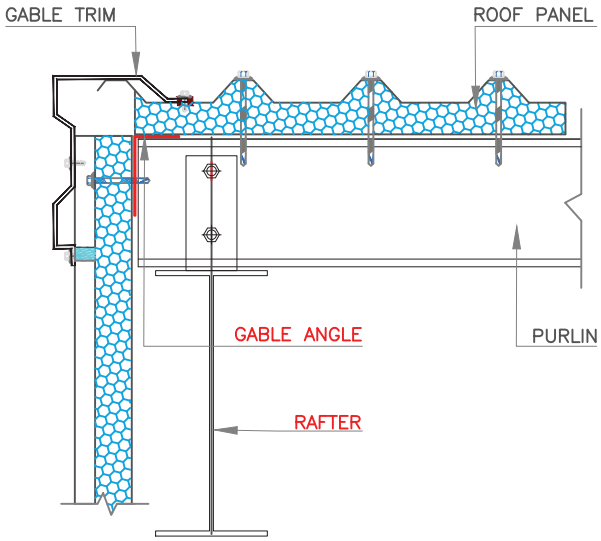
III. EAVE ANGLE: A member in the shape of a obtuse angle used to support Side wall panel at eave side in the absence of eave strut.





IV. GABLE ANGLE: A member in the shape of a right angle fastened to the Purlins at rake for the attachment of end wall sheets.





7.12 SCREWS

You need to fix the panel to the supporting construction. To do this, special screws are necessary. As there are plenty of different kinds available on the market, we do not recommend to use them judging only on availability or price. Only specialized screws that we recommend are dedicated and meet requirements of our sandwich panels.

The fixing of panels with self-drilling screws is extremely efficient, because the prior preparation of drill holes, placing gasket rubber and screwing is replaced with just one action – screwing of the self-drilling screw.

Mainly Self drilling screws (SDS) are used to fix wall and roof panel to the purling A fastener which combines the functions of drilling and tapping. It is used for attaching panels to purlins and girts and flashings to panels

ROOF PANEL SDS SCREW DETAIL

SL No:	GP 38/500		GP 30/333		GP 5 38/250	
	Core Thickness	Screw Size (SDS)	Core Thickness	Screw Size (SDS)	Core Thickness	Screw Size (SDS)
1	30	6.3 X 100	30	6.3 X 100	30	6.3 X 100
2	50	6.3 X 125	50	6.3 X 115	50	6.3 X 115
3	75	6.3 X 150	75	6.3 X 150	75	6.3 X 150
4	100	6.3 X 175	100	6.3 X 175	100	6.3 X 175
5	150	6.3 X 220	150	6.3 X 220	150	6.3 X 220

ROOF PANEL SDS SCREW DETAIL

SL No:	GP 38/500, GP 30/333 & GP 38/250		Hidden screw wall panel		Cold room panel	
	Core Thickness	Screw Size (SDS)	Core Thickness	Screw Size (SDS)	Core Thickness	Screw Size (SDS)
1	30	6.3 X 100	50	6.3 X 75	75	6.3 X 115
2	50	6.3 X 125	75	6.3 X 125	100	6.3 X 125
3	75	6.3 X 150			150	6.3 x 175
4	100	6.3 X 175			200	6.3 x 225
5	150	6.3 X 220				

Based on the panel thickness the screw sizes are varies.

25 mm length self-drilling screw are used for fastening normally along the roof edge and areas of trim, flashing and gutter installations.

7.13 RIVETS

Rivets, pop rivets, or blind rivets are small non-threaded fasteners with an expandable head for joining light-gauge sheet metal. This type of fastener, like those shown in Figure 3 , is popular within all sheet metal applications, and provides quick, neat installations. It does, however, require that a hole be drilled through all pieces of material being joined by the fastener.

	Pop Rivet	Sheet metal to Sheet metal
	Shear Rivet	Sheet metal to sheet metal or Purlin
	Nail in expansion Fastener	Sheet metal to Concrete or masonry

7.14 SCREW CAP

Screw Caps are applied over fasteners to be used as a seal over screws or nails that secure metal roof and side wall panels. Remove the paper backing and center the Screw Cap over the fastener and form tightly around the fastener with the thumb and forefinger. Screw Caps must be coated with an elastomeric coating for UV protection.





7.15 SEALANTS

A roof and wall are designed to be weather tight and is not intended to leak; however, even with the best joint designs, metal, by itself does not form a good seal. This challenges the installer in a number of ways. The growth and change in sealants and chemicals used on metal roofs continue to be both rapid and beneficial. The styles and materials of metal roof systems also continue to evolve.

Sealant for metal panel comes in two standard formats: tape and tube. Both formats have advantages and are used on even the most basic installation.

Tape formats, where practical, are generally preferred over tube formulations because of their dimensional stability and ease of use. This format is shown in Figure 4

Tube sealants also called silicon tube can be messy, but are sometimes needed in areas of compound and intricate bends where tapes are not practical, or where more "flow" is desired. They come in a variety of tube sizes and are normally applied using standard contractor caulk guns,

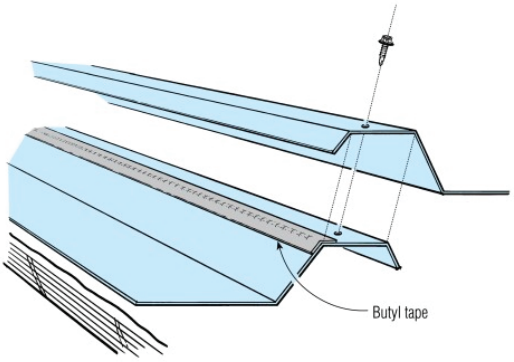


Figure 4
Sealant in a Tape Format

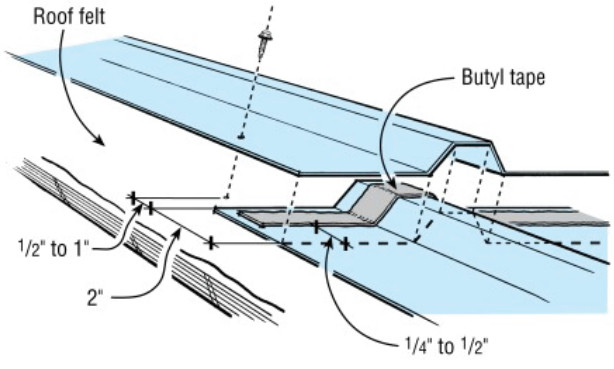


Figure 5
Sealant in a Tube Format

Sealing Side Seams



Sealing Panel Endlaps



7.16 FILLER BLOCK

Filler Blocks serve to seal cavities between profiled sheeting and adjacent materials or substrates, such as flashings. Available to suit any profile of sheet or panel.

		
Large flute Usually over the sheet	**Small flute** Usually under the sheet	**Pairs** Both small and large flute supplied in pairs

TYPICAL APPLICATIONS:

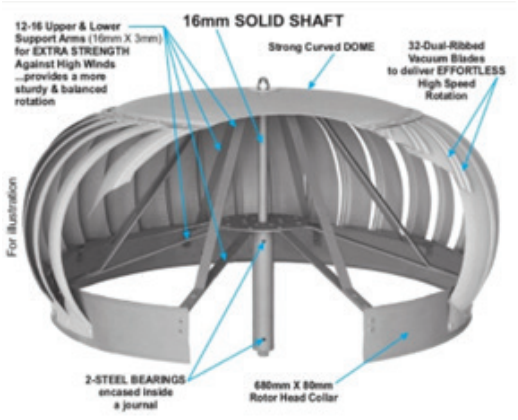
- Sealing eaves and ridge
- Sealing hips and valley
- Sealing roof lights

7.17 7.17 VENTILATORS

I. TURBO VENTILATION

Wind turbine ventilators are a ventilator that is powered by the wind or air to create effective ventilation for different steel buildings. This product works on wind ventilation. Turbine ventilators are round metal vents with fins in them. Even just a little bit of wind can be just enough for the turbo ventilator to rotate. The faster the wind, the faster the turbine will rotate and exhaust the heat, smoke, fumes, humidity, etc.

The mechanics involved in the air movement is very simple. The hot air inside the shed tends to rise up. When the turbines rotate, they suck the warm air out through the vent, thereby, bringing out a drop in temperature in the shed and allow supply of fresh air through doors and windows.

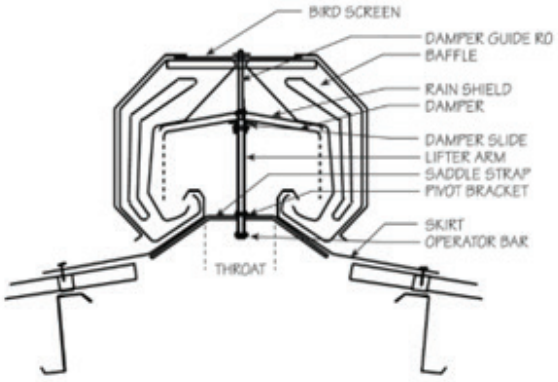


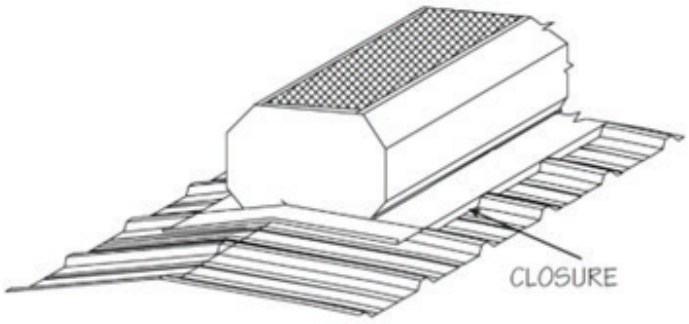


II. RIDGE VENTILATION

A properly engineered ventilation system using continuous ridge ventilators controls the movement of fresh air through the building removing hot, stale air and air contaminated by manufacturing or production processes. Summer heat is released naturally through gravity ridge ventilators. During winter proper ventilation can assist in the control of condensation and other moisture problems, such as rust and deterioration of insulation or the damage to stored products.

Standard Size	:	**2.5 Meters**
Integral Dampers	:	Easy-moving damper opens to any degree from fully open to completely Closed.
Design	:	Aerodynamically proportioned to exclude weather. Protects air passages and full outlet area.
BIRD SCREEN	:	Fully protected by 4 x 4 bird screen mesh galvanized hardware cloth.
Finish	:	Aluzinc, PPGI & Aluminium
Drainage Area	:	Continuous slot on bottom of both sides of wind bands

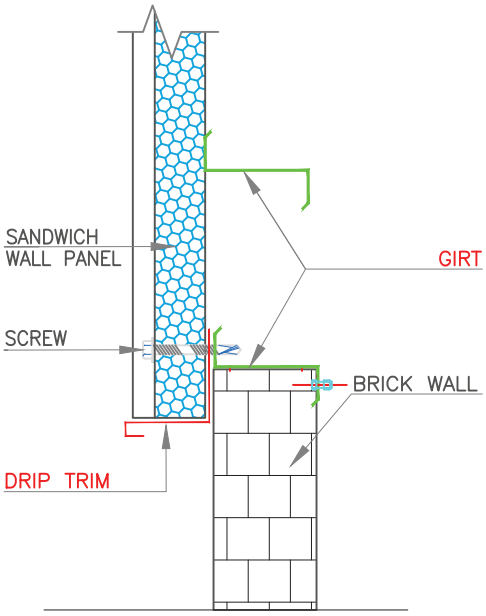




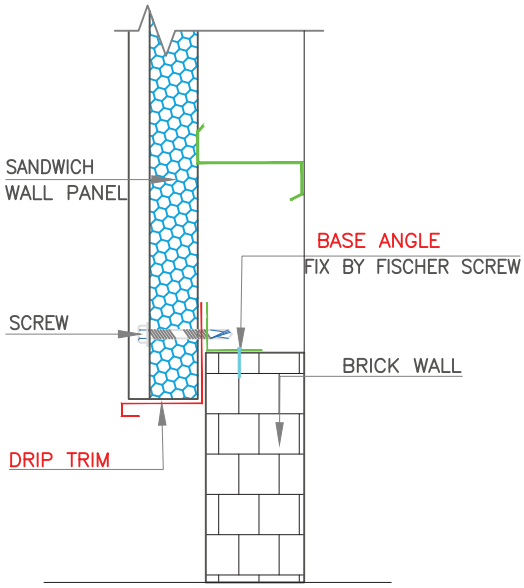
END OF VENT DETAIL

8. INSTALLATION DETAILS

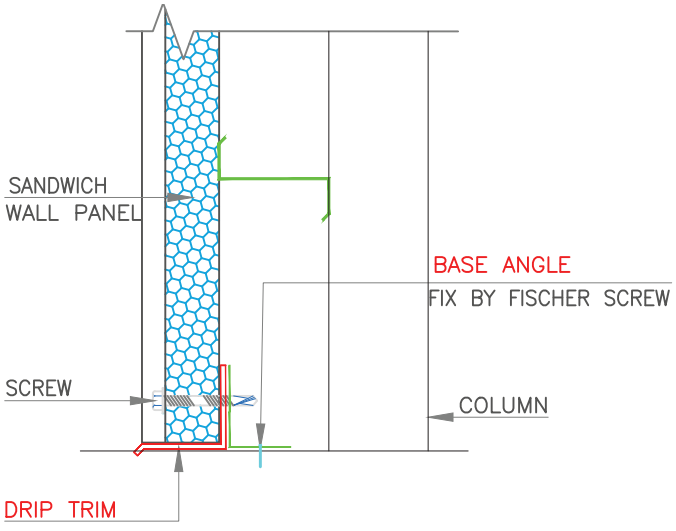
8.1 SHEETING FIXING DETAIL AT THE BASE OF A WALL



SHEETING FIXING DETAIL (DIP TRIM) @ BASE,
CASE 1 : WITH BRICK WALL AND GIRT



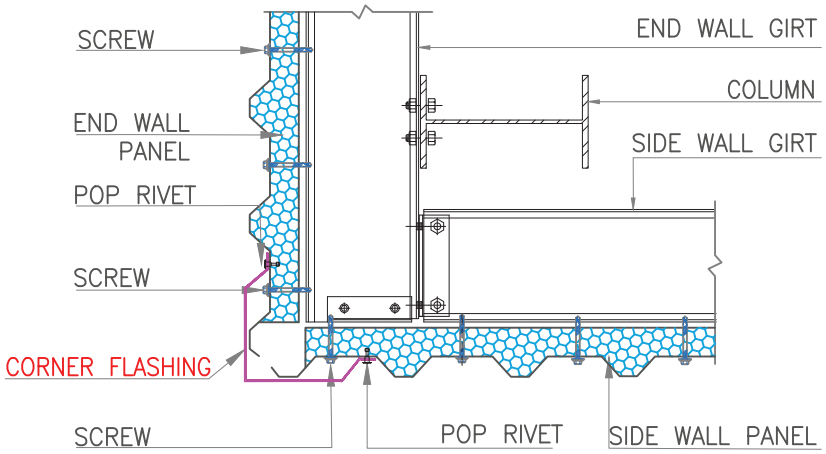
SHEETING FIXING DETAIL (DIP TRIM) @ BASE,
CASE 2 WITH BRICK WALL AND WITHOUT GIRT



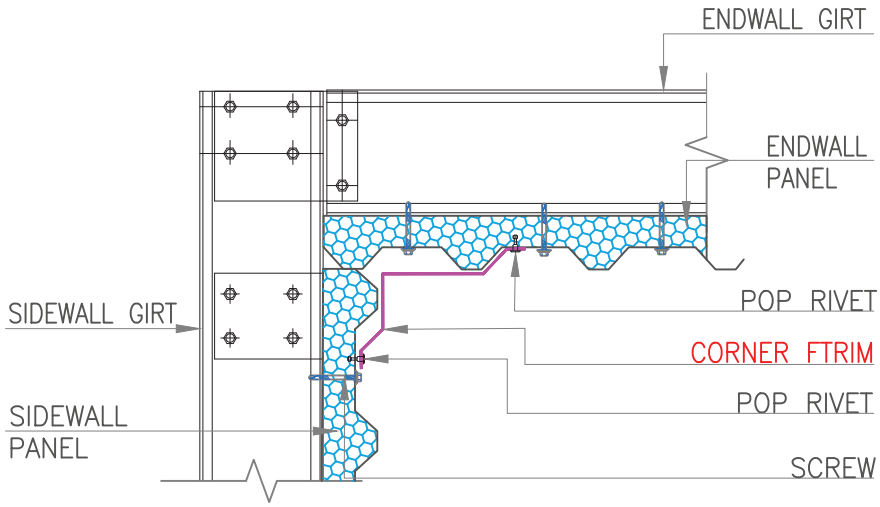
SHEETING FIXING DETAIL (DIP TRIM) @ BASE,
CASE3 : WITHOUT BRICK WALL AND GIRT

8.2 THE DETAIL DRAWING FOR INSTALLING CORNER OF PANEL

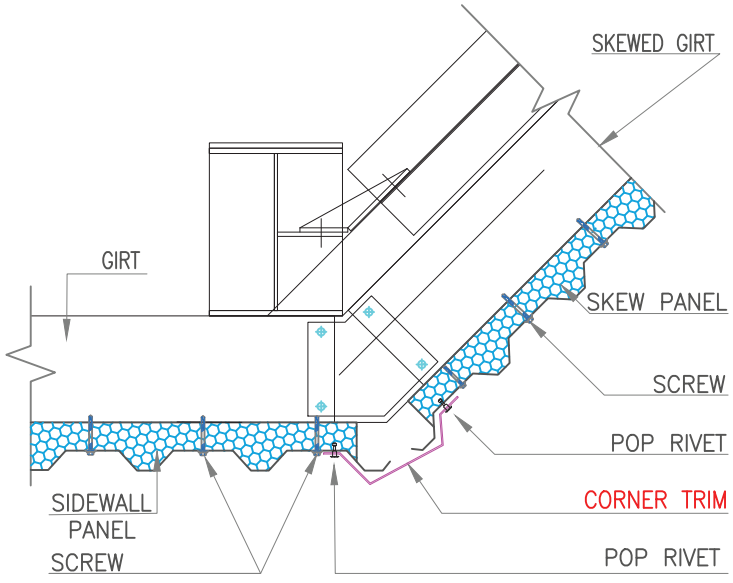
I. WITH PROFILE TYPE WALL PANEL



CORNER FLASHING DETAIL NORMAL

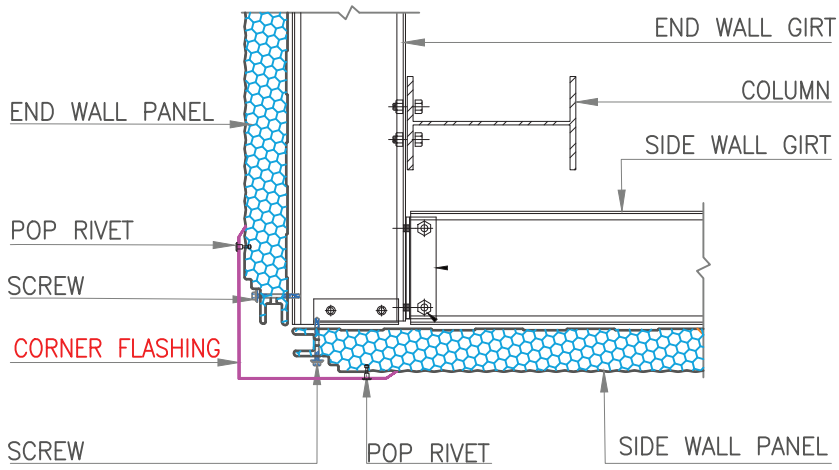


INVERTED CORNER FLASHING DETAIL

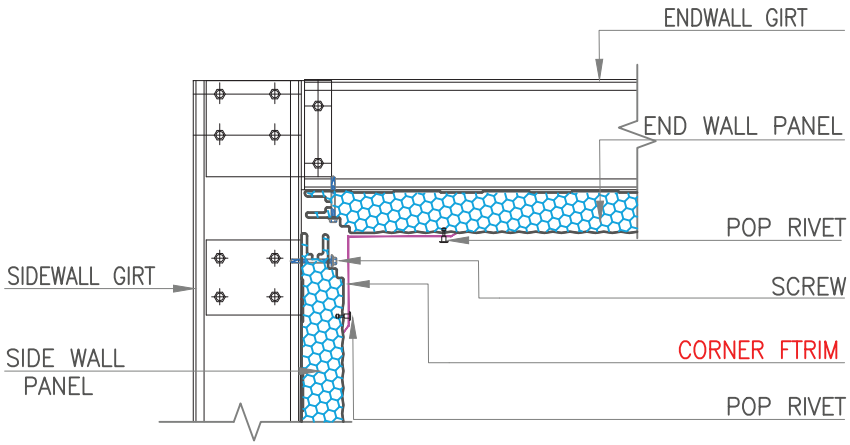


ANGULAR CORNER FLASHING DETAIL

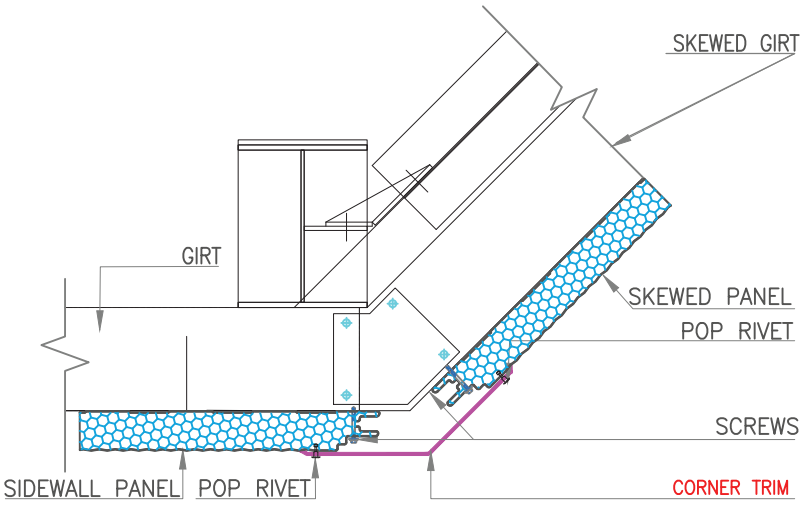
II. WITH FLAT TYPE WALL PANEL



CORNER FLASHING DETAIL NORMAL

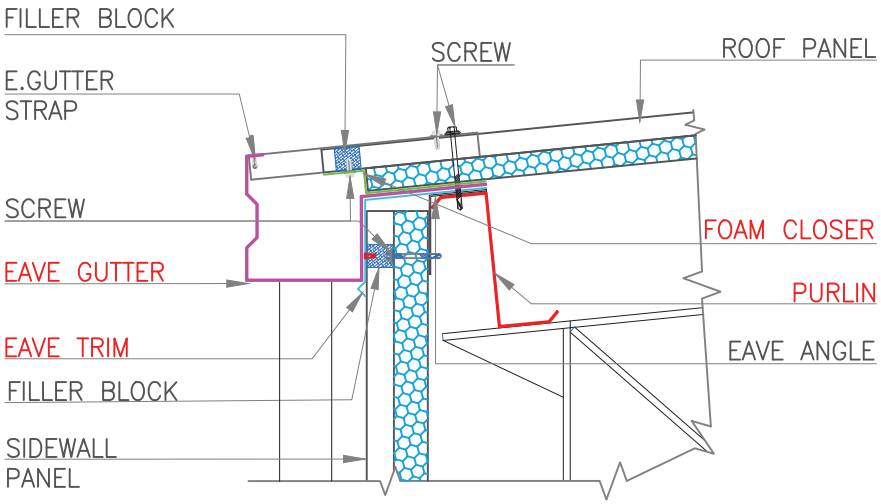


INVERTED CORNER FLASHING DETAIL

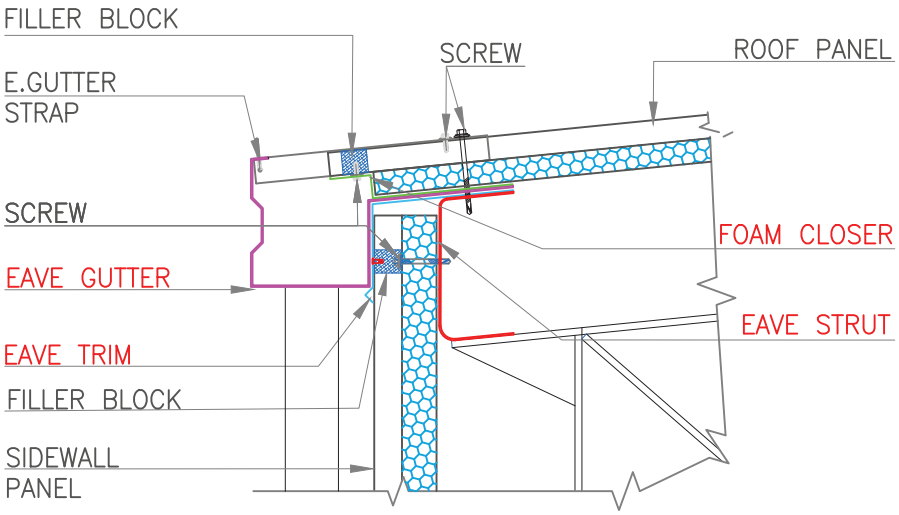


ANGULAR CORNER FLASHING DETAIL

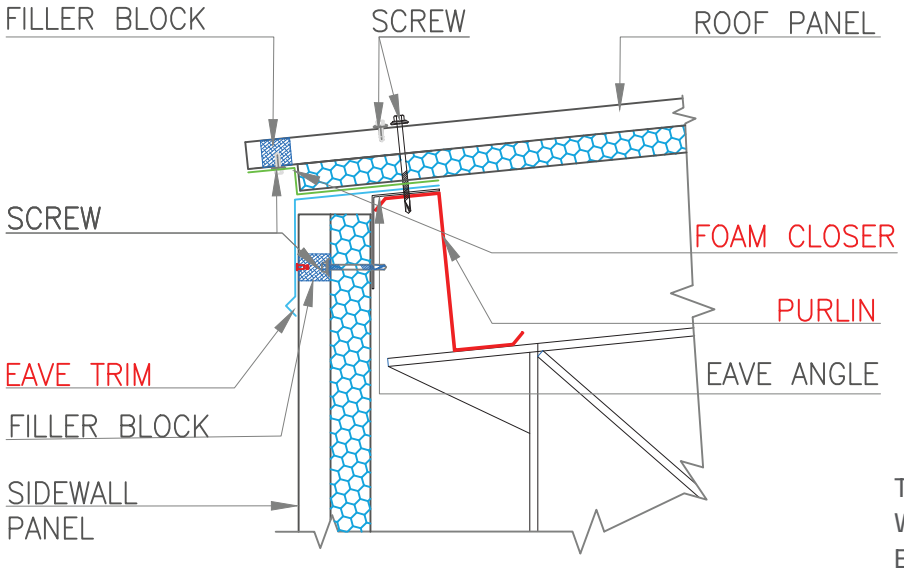
8.3 THE DETAIL DRAWING FOR INSTALLING EAVE OF PANEL



TYP. DETAIL @ EAVE
WITH GUTTER
WITHOUT EAVE STRUT

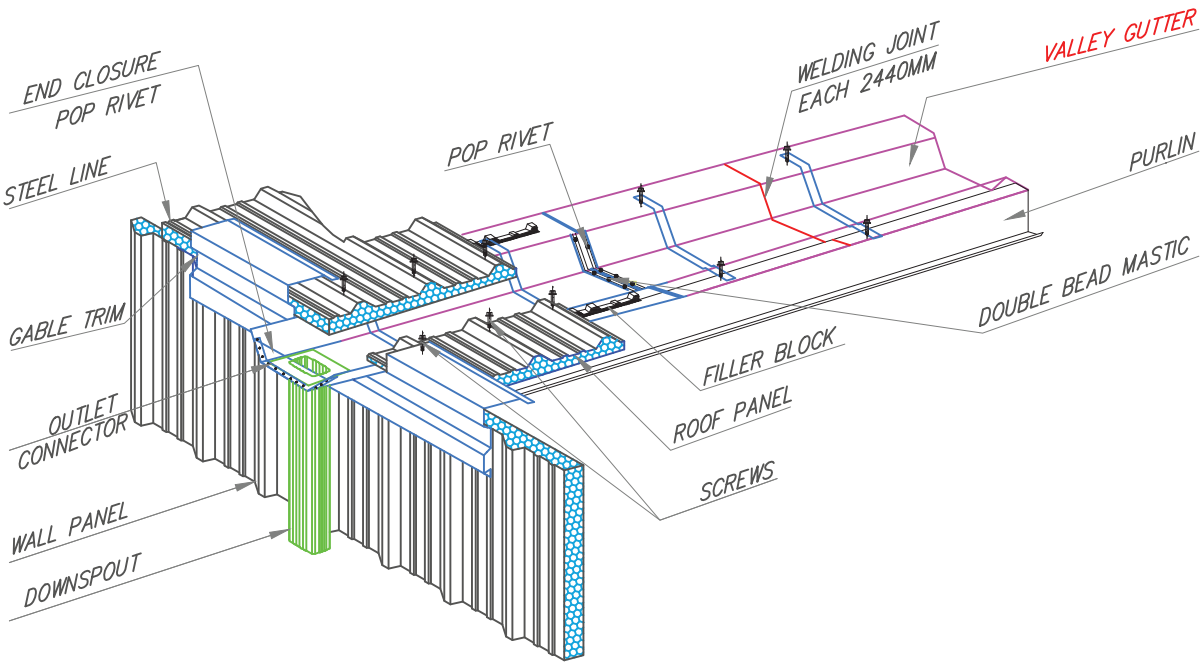


TYP. DETAIL @ EAVE
WITH GUTTER
WITHOUT EAVE STRUT

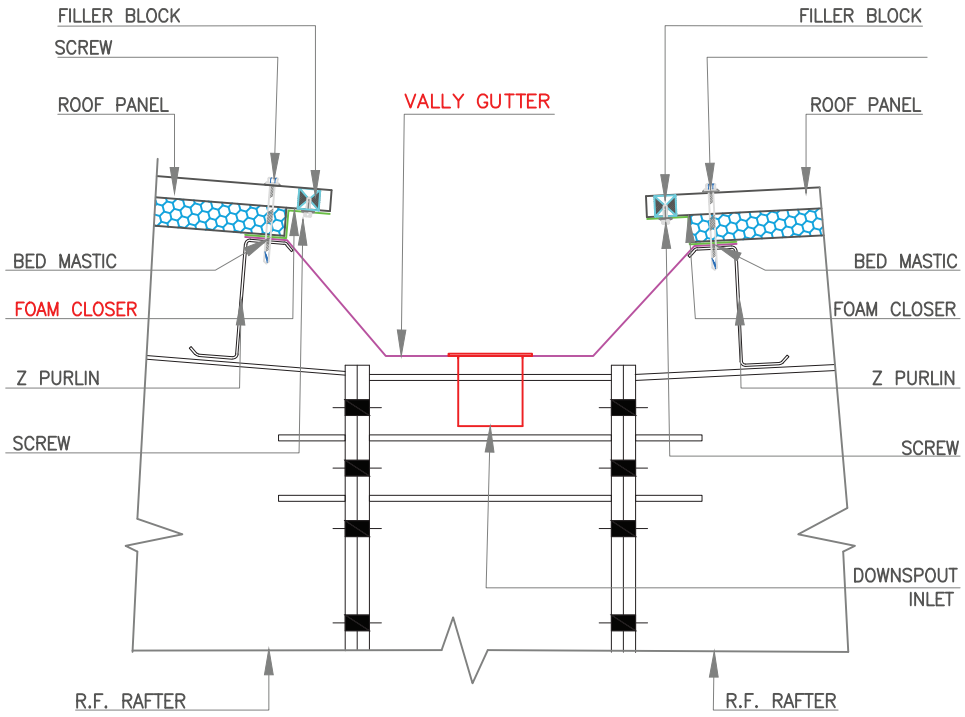


TYP. DETAIL @ EAVE
WITHOUT GUTTER AND
EAVE STRUT

8.4 VALLEY GUTTER CONNECTION DETAILS

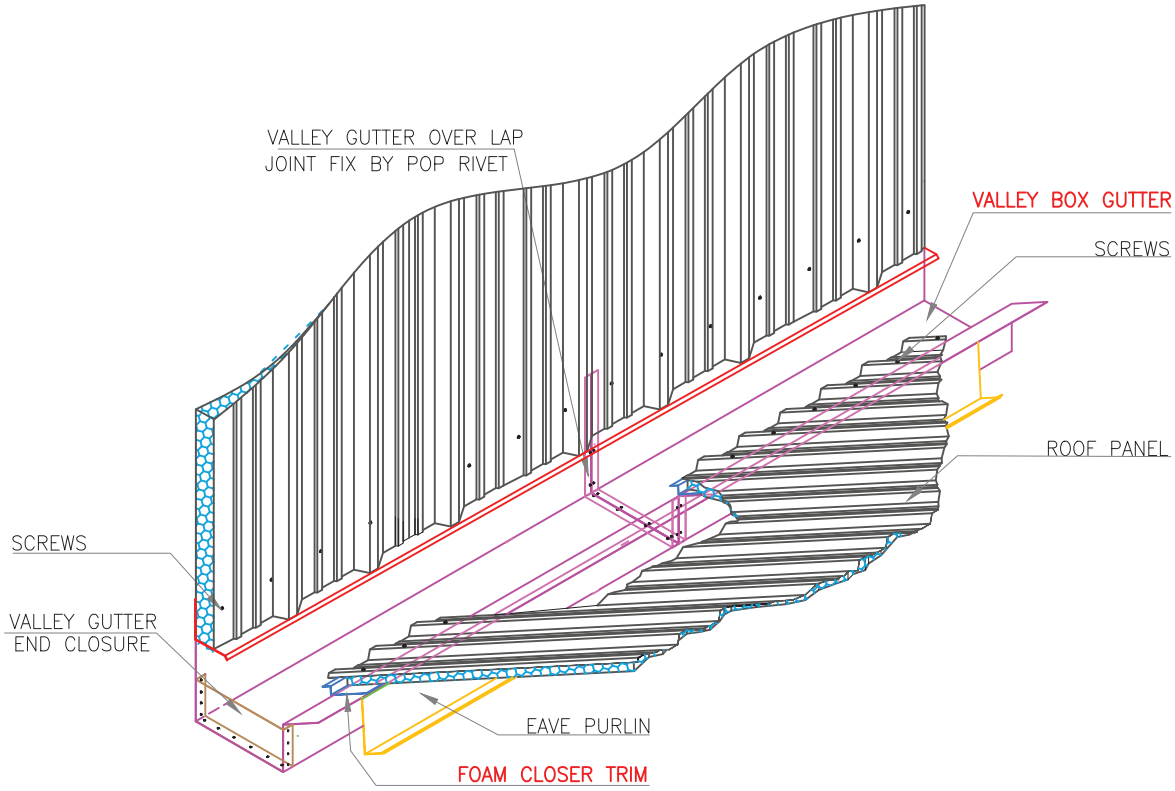


VALLEY GUTTER CONNECTION DETAIL

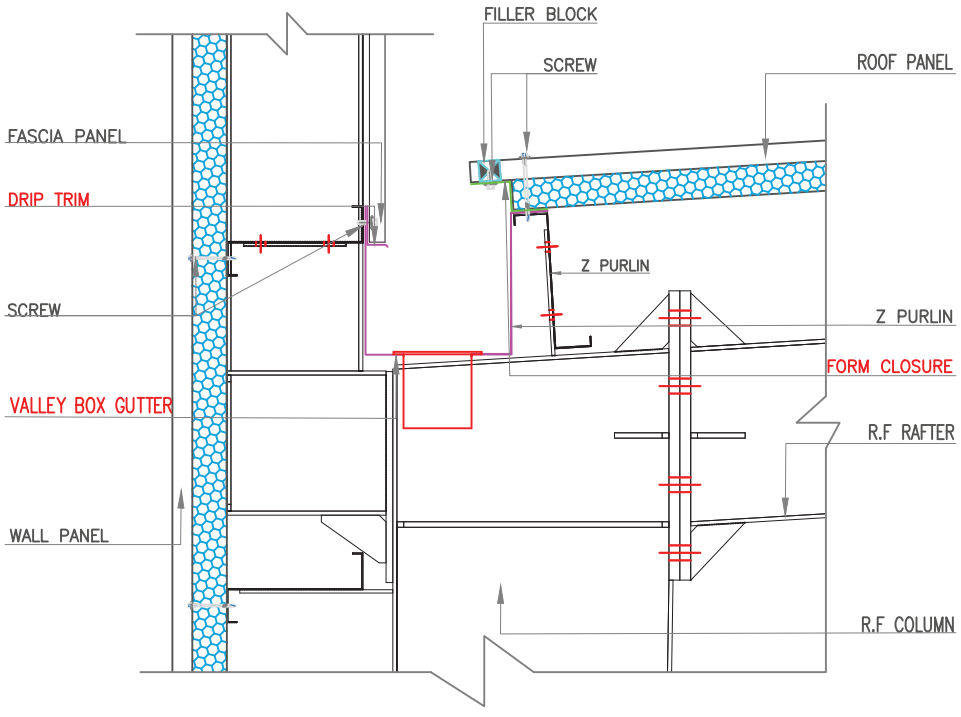


VALLEY GUTTER DETAIL CROSS SECTION

8.5 PARAPET VALLEY GUTTER CONNECTION DETAILS

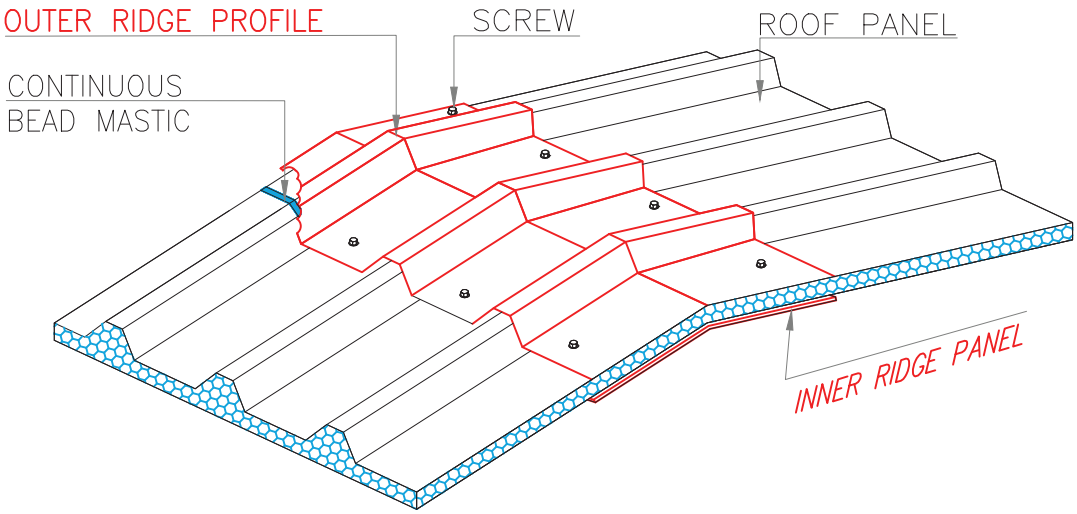


PARAPET VALLEY GUTTER CONNECTION DETAIL

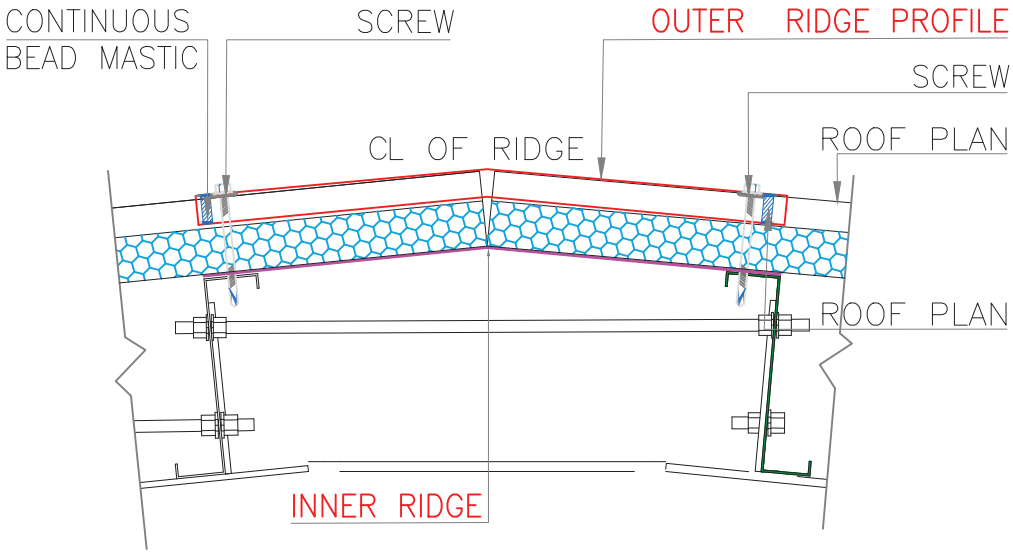


PARAPET VALLEY BOX GUTTER SECTION DETAIL

8.6 THE DETAIL DRAWING FOR INSTALLING RIDGE OF PANEL



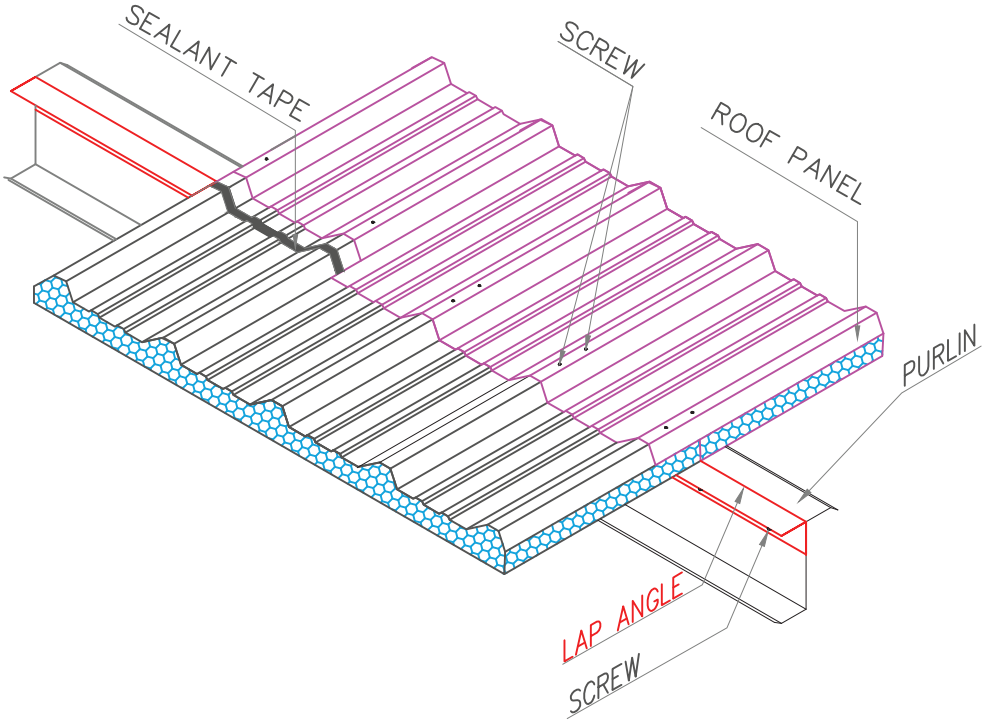
PERSPECTIVE VIEW



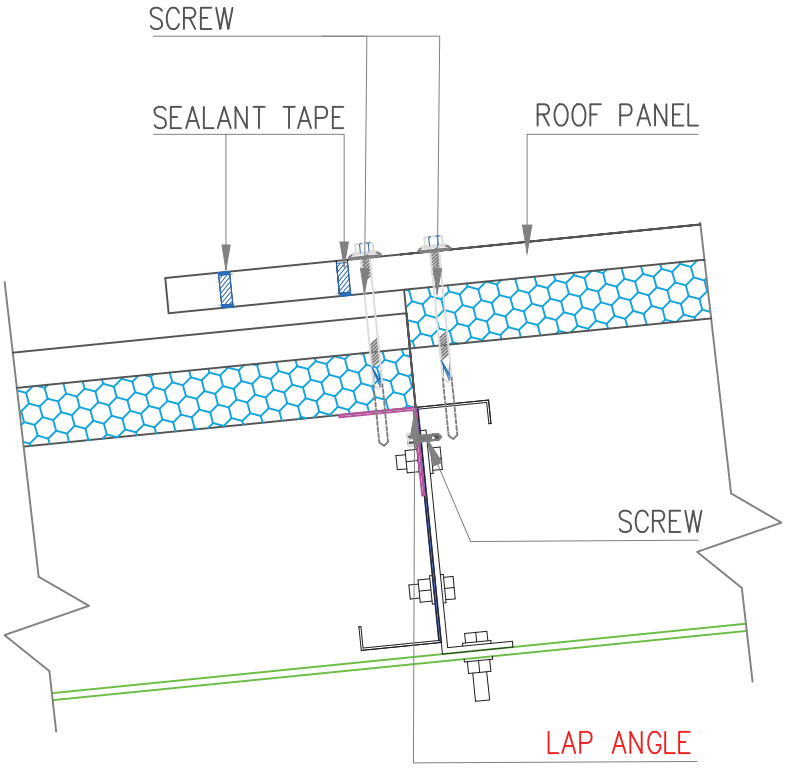
RIDGE PANEL SECTION

SECTION VIEW

8.7 THE DETAIL DRAWING FOR INSTALLING OVER LAPPING PANEL

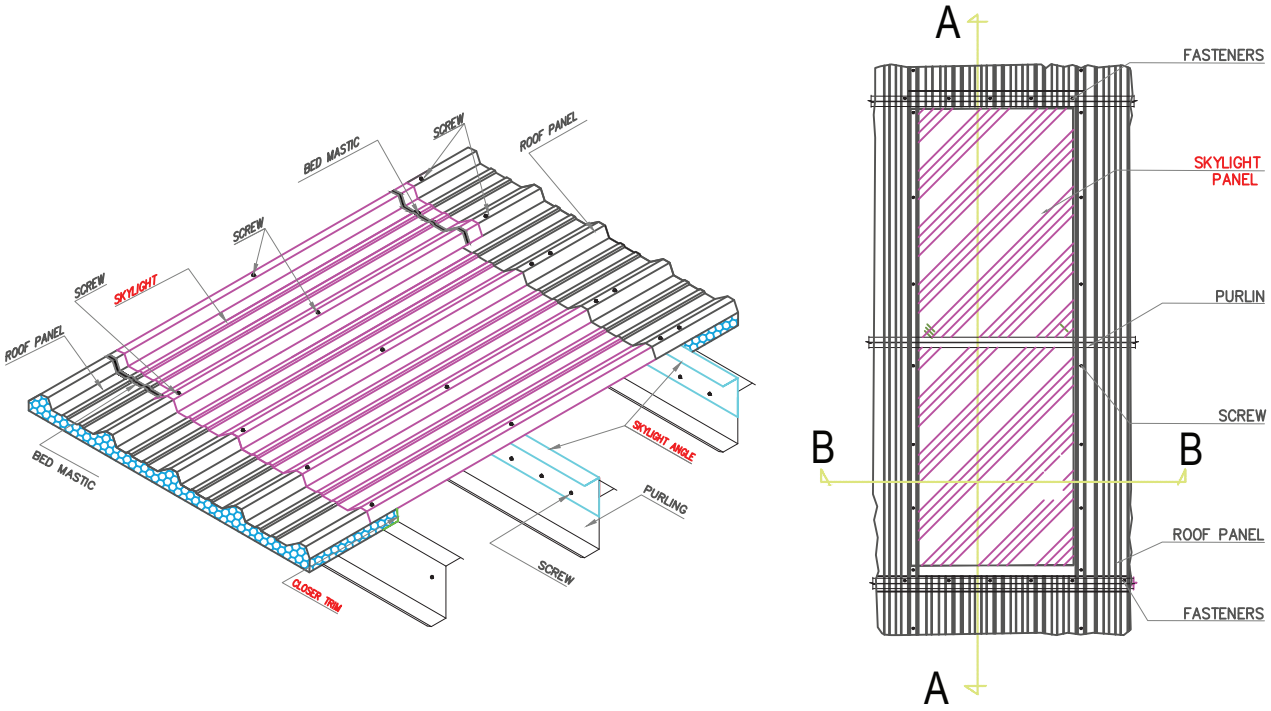


PERSPECTIVE VIEW

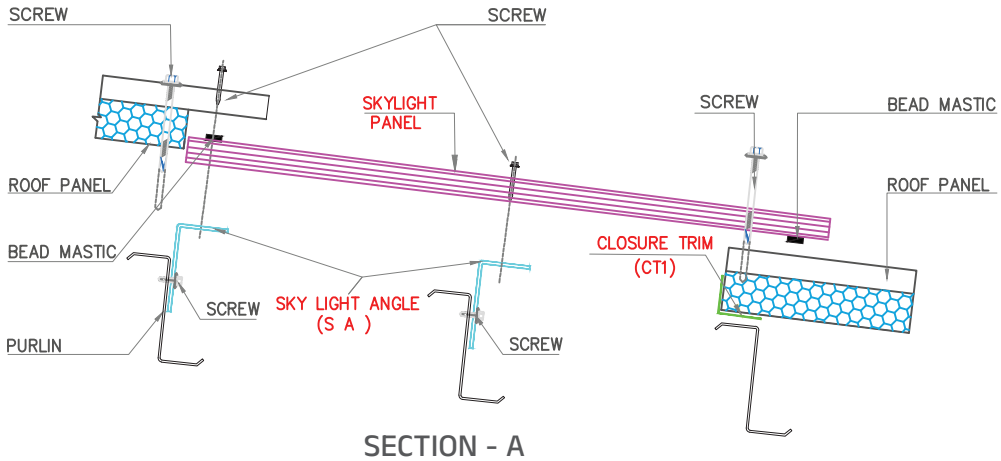


SECTION VIEW

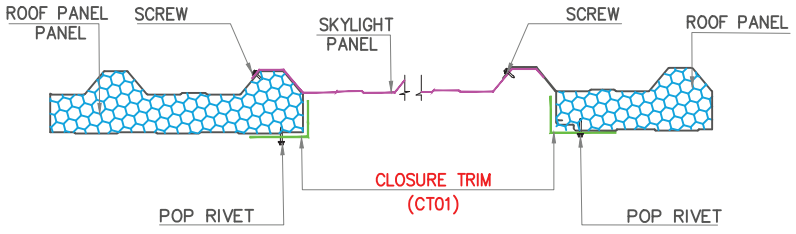
8.8 THE DETAIL DRAWING FOR INSTALLING SKYLIGHT PANEL



PERSPECTIVE VIEW

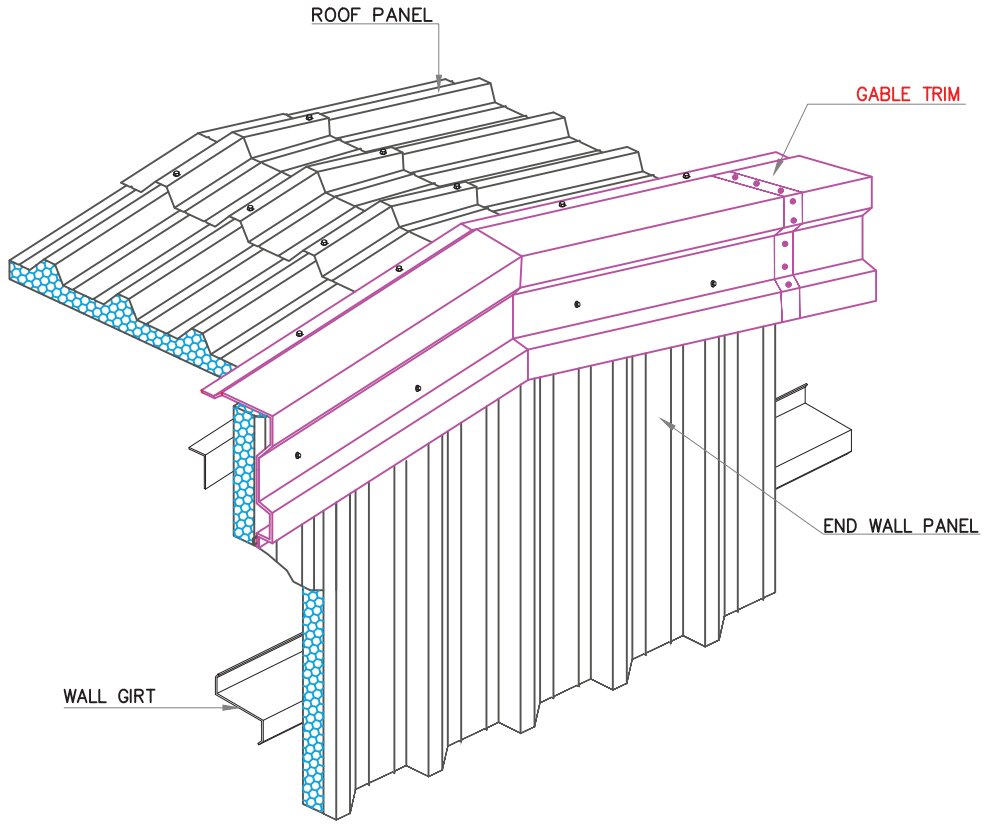


SECTION - A

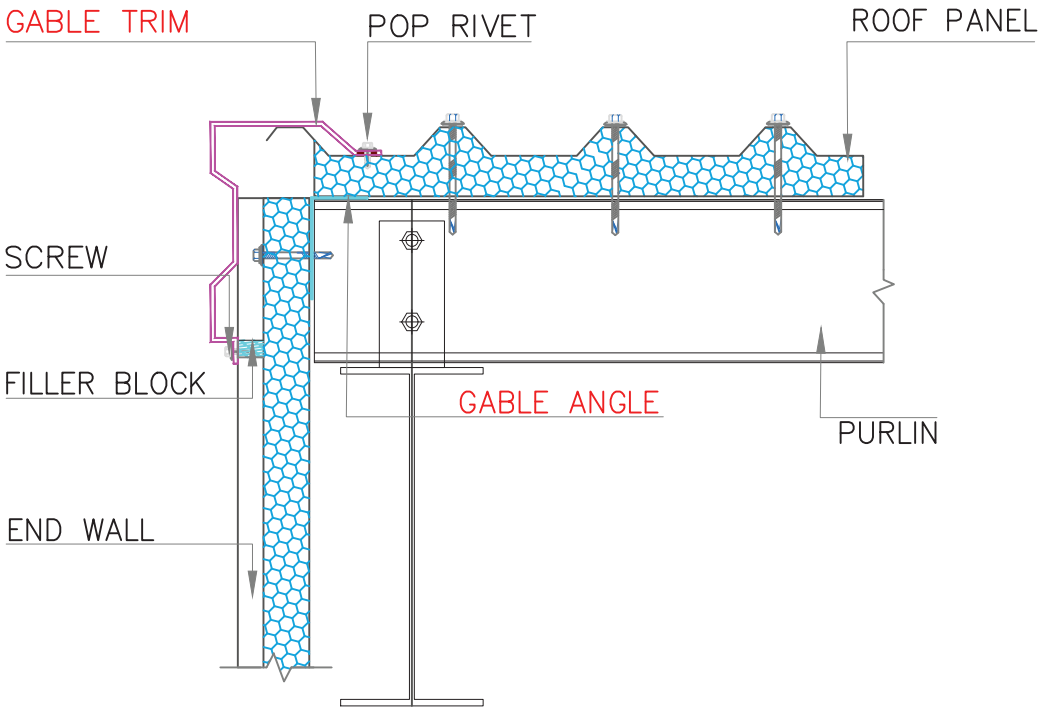


SECTION - B

8.9 8.9. THE DETAIL DRAWING FOR INSTALLING GABLE SIDE OF PANEL

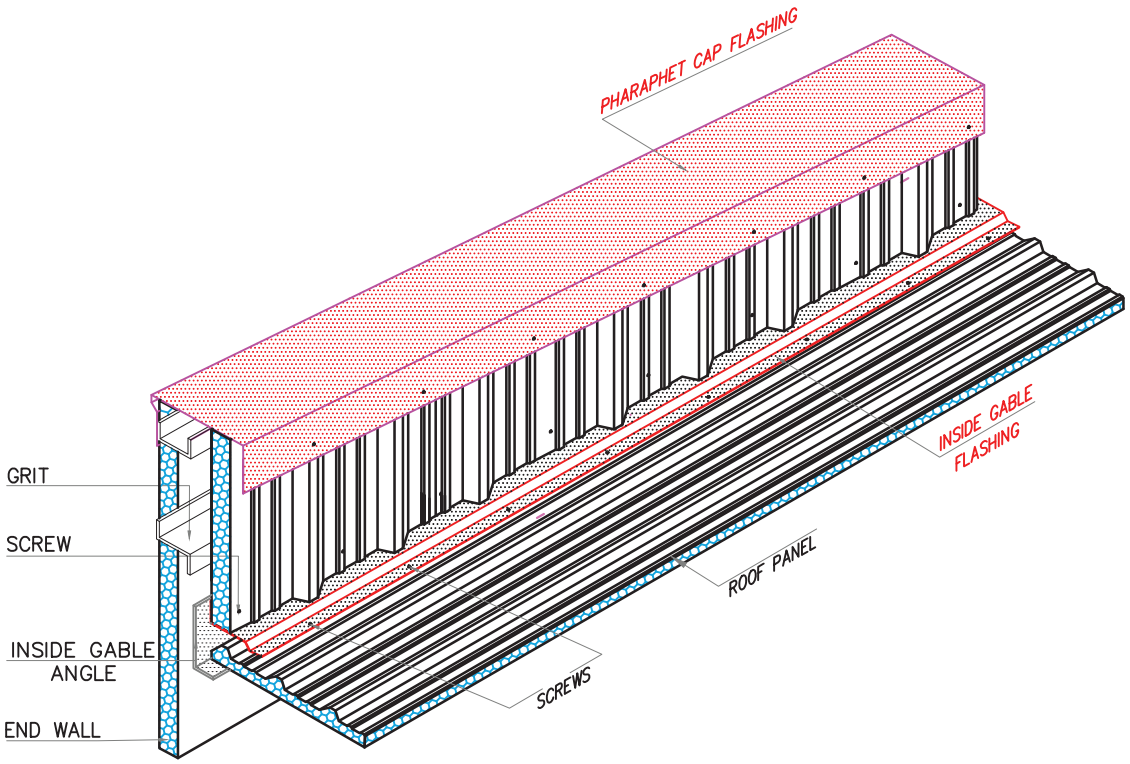


PERSPECTIVE VIEW

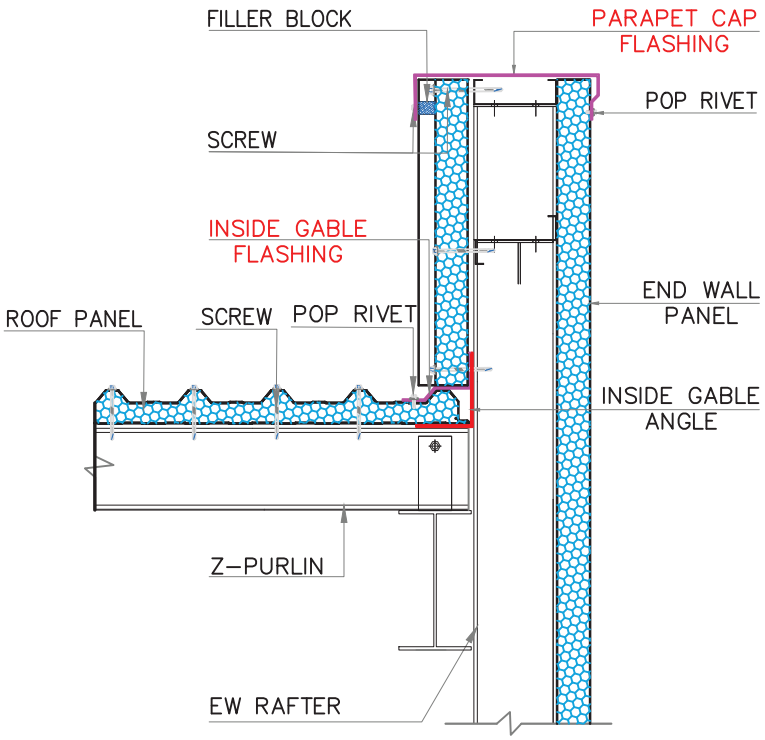


SECTION VIEW

8.10 THE DETAIL DRAWING FOR INSTALLING PARAPET INSIDE GABLE SIDE OF PANEL

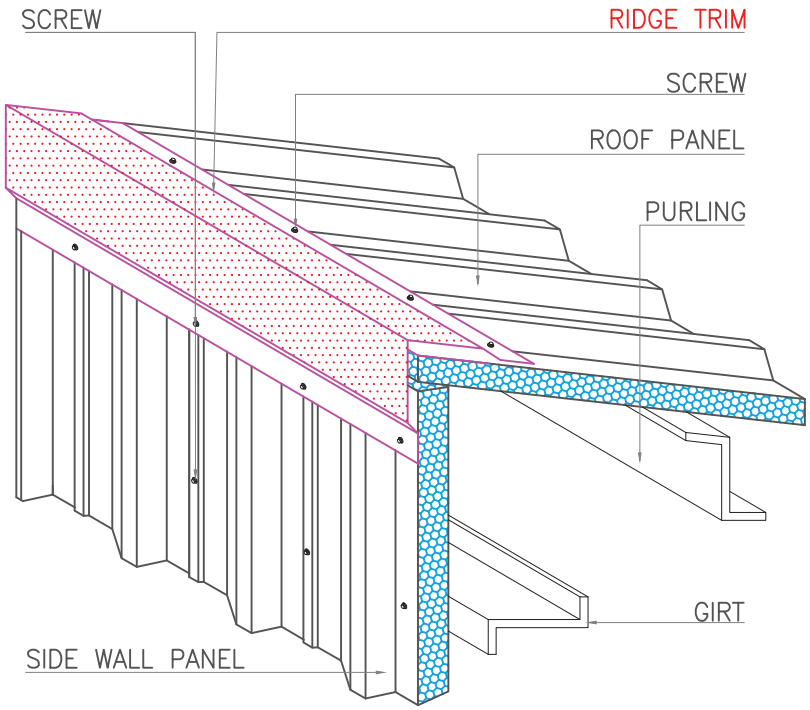


PERSPECTIVE VIEW

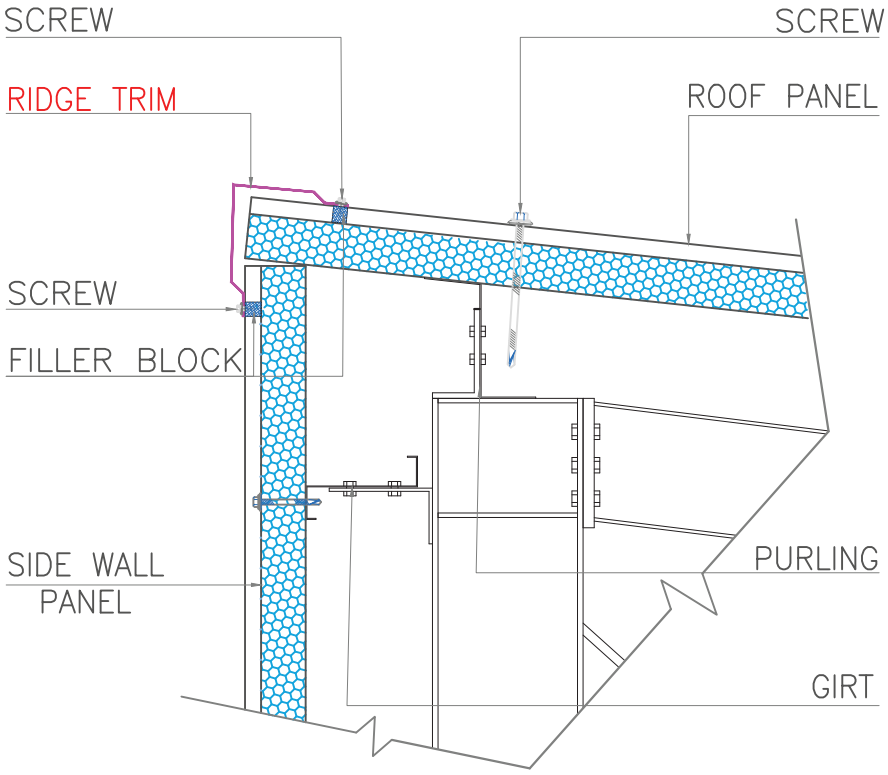


SECTION VIEW

8.11 THE DETAIL DRAWING FOR INSTALLING AT RIDGE SIDE OF A SINGLE SLOPE BUILDING



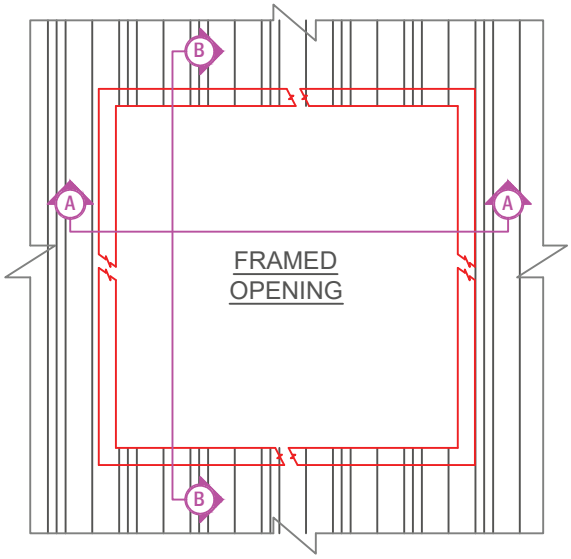
PERSPECTIVE VIEW

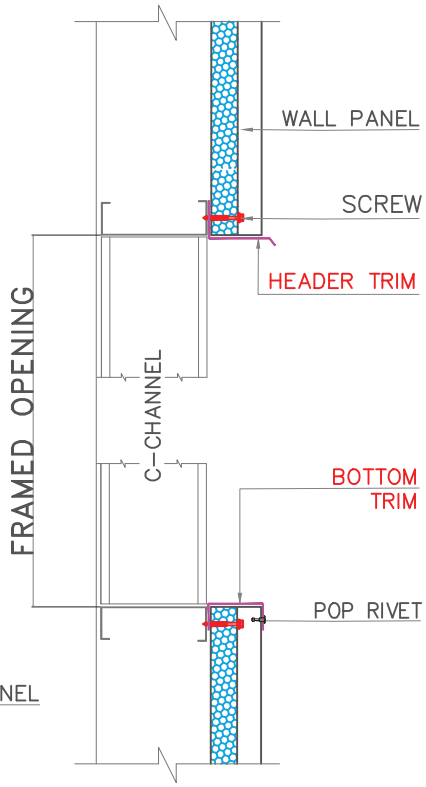


SECTION VIEW

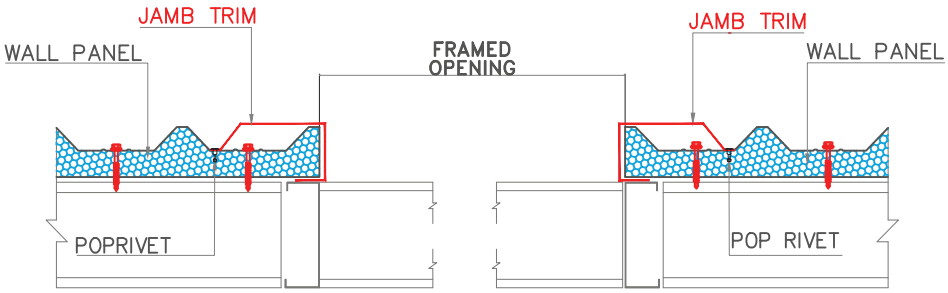
8.12 THE DETAIL DRAWING FOR INSTALLING AT FRAMED OPENING

I. WINDOW FRAMED OPENING





SECTION @ B-B

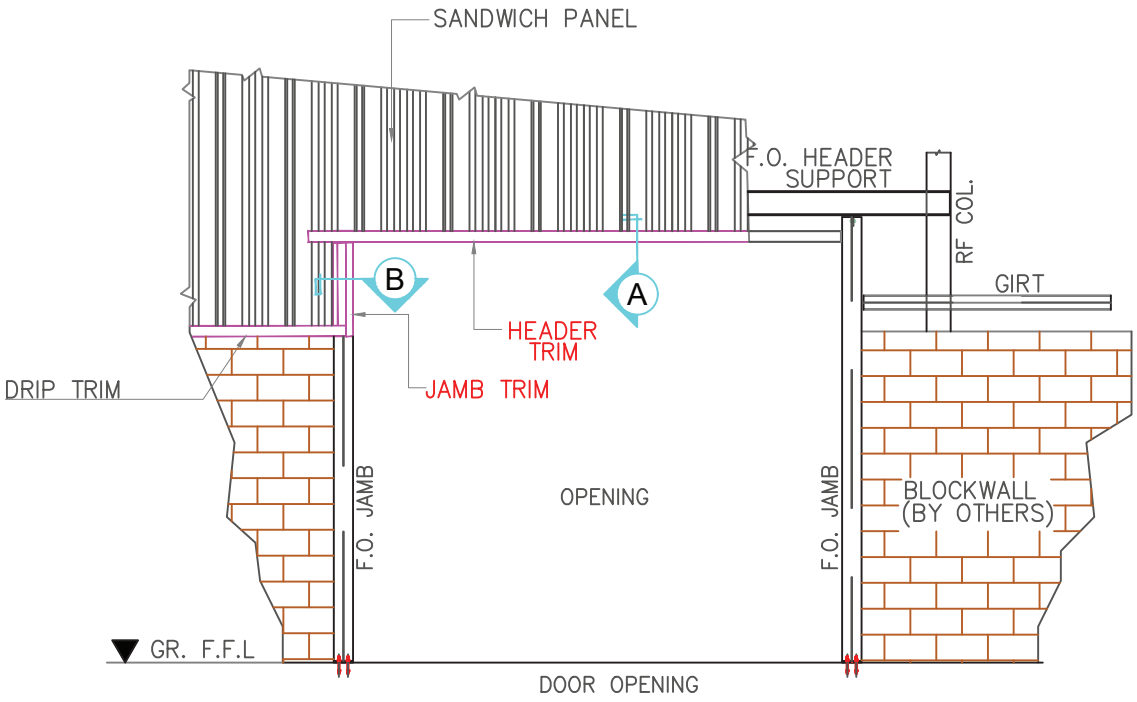


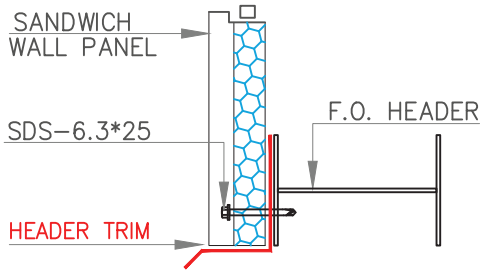
SECTION @ A-A



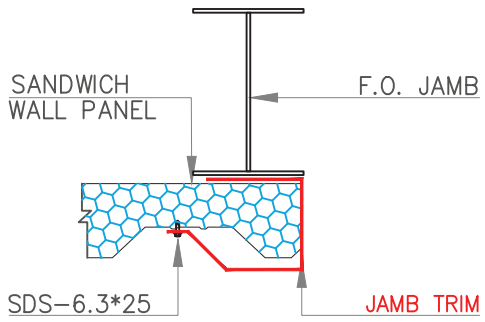
MAIN ACCESSORIES

II. DOOR FRAMED OPENING

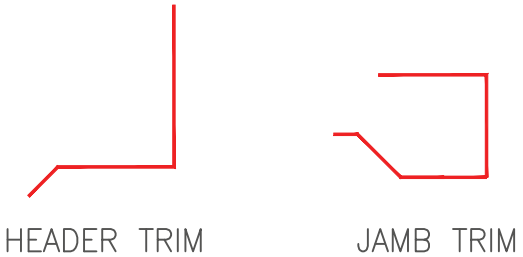




SECTION - A

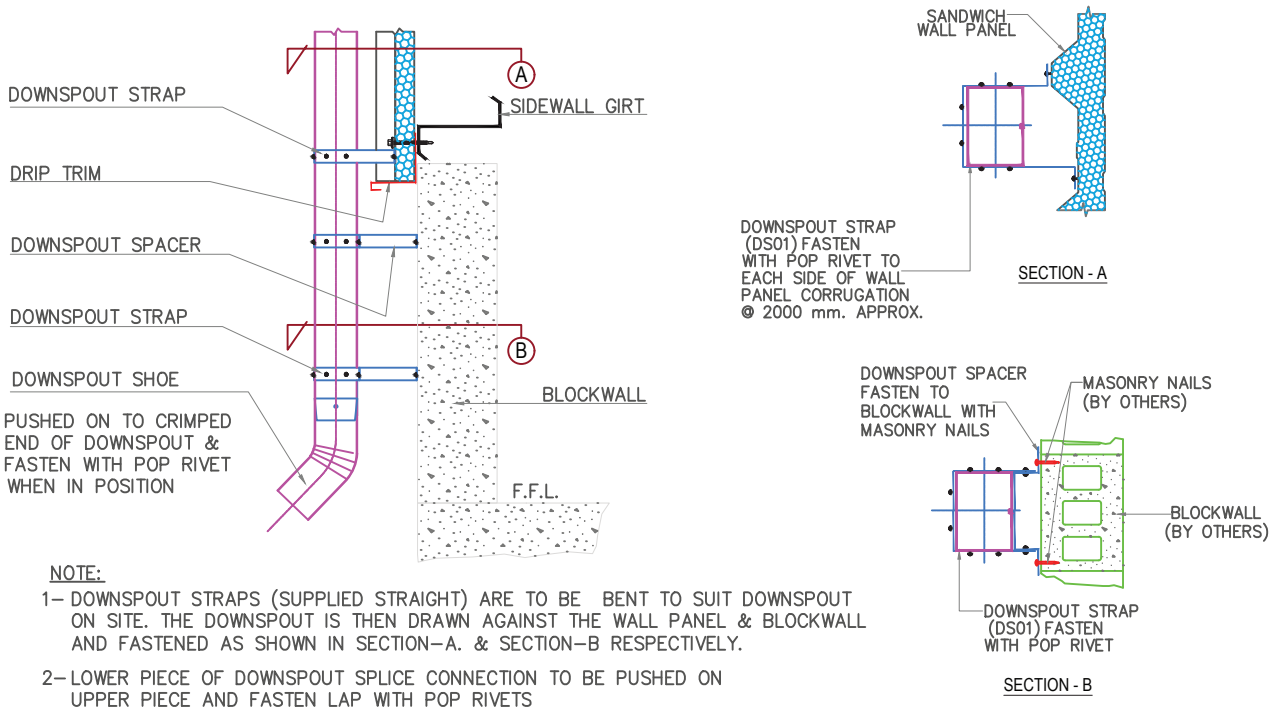


SECTION - B



MAIN ACCESSORIES

8.13 THE DETAIL DRAWING FOR INSTALLING DOWNSPOUT

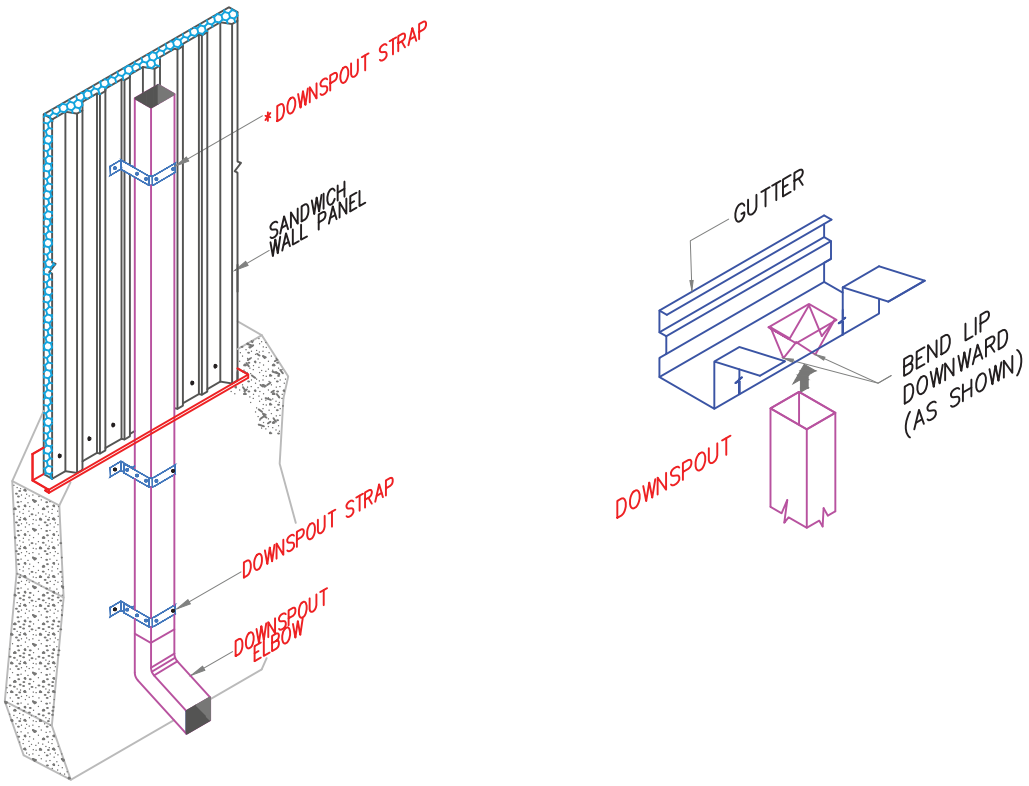


NOTE:

1– DOWNSPOUT STRAPS (SUPPLIED STRAIGHT) ARE TO BE BENT TO SUIT DOWNSPOUT ON SITE. THE DOWNSPOUT IS THEN DRAWN AGAINST THE WALL PANEL & BLOCKWALL AND FASTENED AS SHOWN IN SECTION–A. & SECTION–B RESPECTIVELY.

2– LOWER PIECE OF DOWNSPOUT SPLICE CONNECTION TO BE PUSHED ON UPPER PIECE AND FASTEN LAP WITH POP RIVETS

PERSPECTIVE VIEW



SECTION VIEW

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In a sustainable way

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