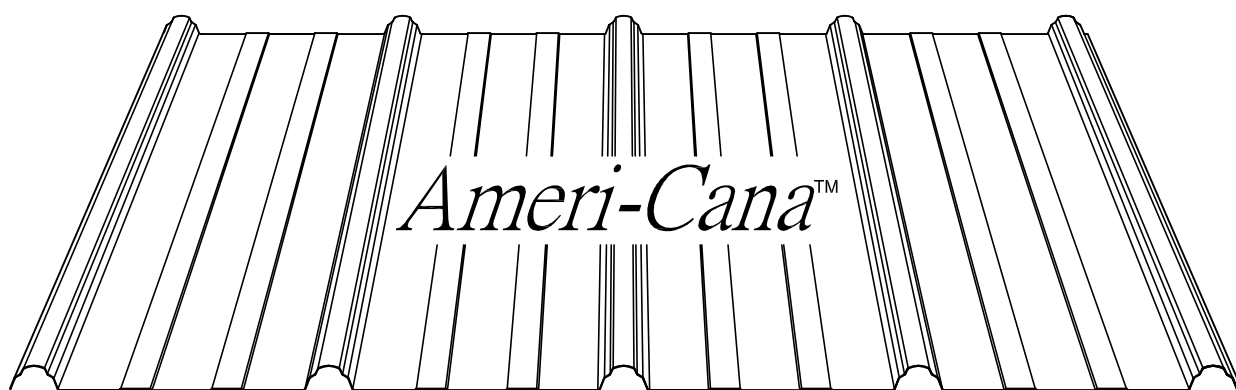


INSTALLATION MANUAL



USA Metal Roof LLC

Tel.201-293-9690, Fax 800-716-7639 ,E-mail: office@usametalroof.com

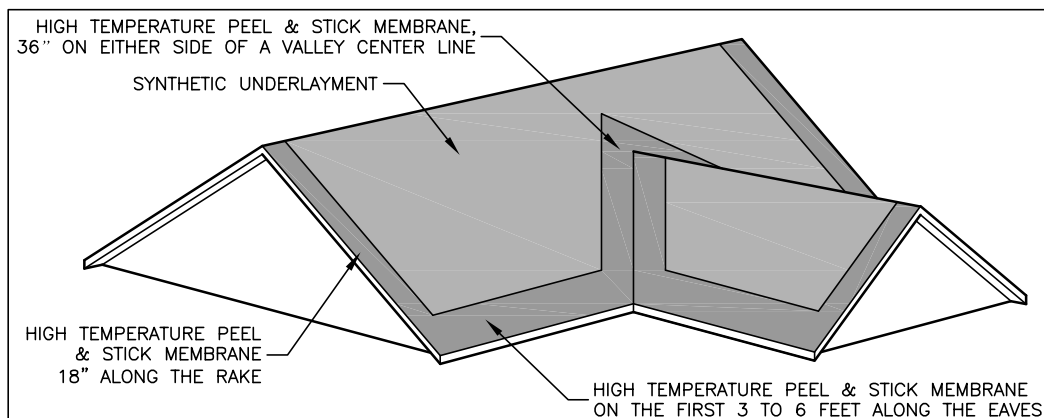
www.USAMetalRoof.com

Contents

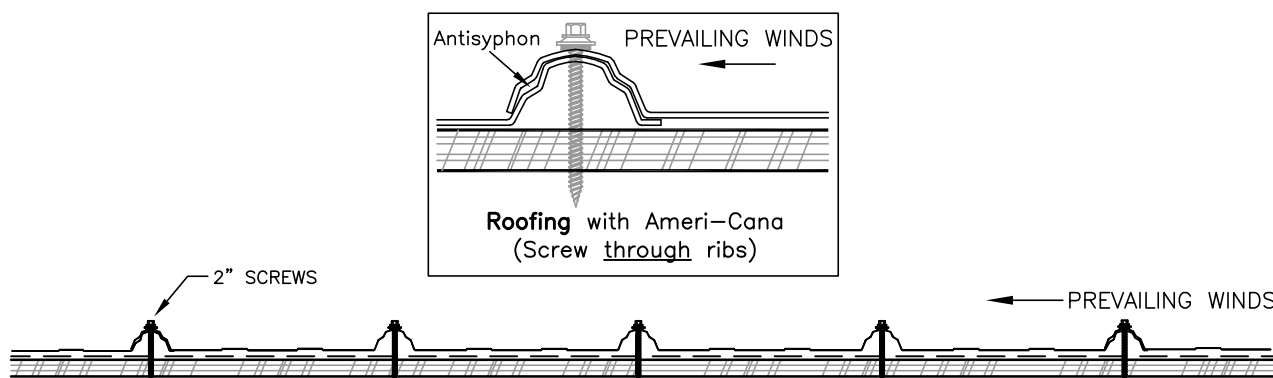
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Preparation / Roofing & Siding Application

- Install the Ameri-Cana on roofs with a minimum 3/12 pitch.
- On a new construction with plywood or OSB backing, use **high temperature peel & stick membrane** on the first 3 to 6 feet along the eave and 36" on either side of a valley center line. The rest of the roof use synthetic underlayment over solid backing or strapping fastened directly to the rafters. The use of **high temperature peel & stick membrane** on the whole roof (on solid backing) is also acceptable.



- For retrofit application over existing asphalt shingle, insure that the roof is in good condition. Then use 1"x4" wood strapping to receive the steel roofing. For the spacing of the strapping, contact our offices.
- For roofing application (and especially in **northern climates**), Ideal Roofing recommends the use of 2" screws, through each high rib of the panels. Make sure that the side laps of the panel are installed as shown in the figure; the short side over the long side.

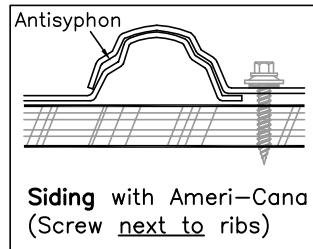


Also installing 1" screws on the flat sections, next to the rib of the panels, is acceptable as long as it's installed as shown.

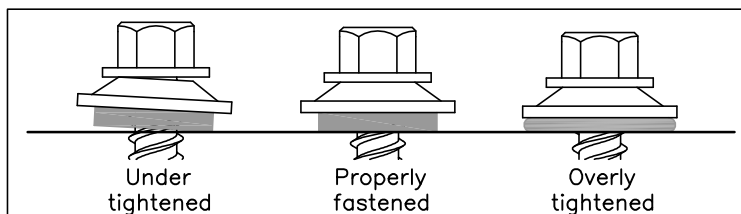


Preparation / Roofing & Siding Application (cont.)

- ***For siding application, use 1" screws on the flat part of the panel (not the high rib). Again, make sure that the side laps of the panel are installed as shown in the figure; the short side over the long side.***



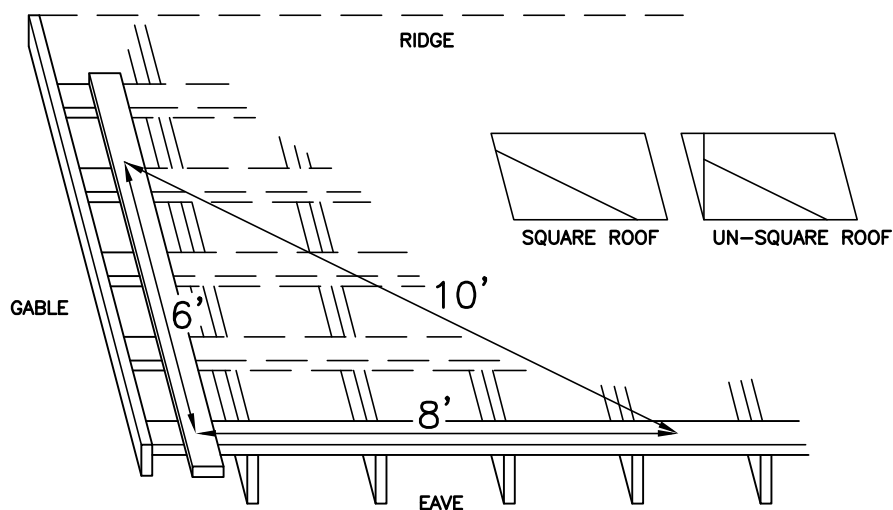
- *All screws supplied by Ideal Roofing are self-tapping and can go through the metal. If pre-drilling, use a fine drill bit and clean up the burrs from around the holes by using a clean paint brush or dry cloth.*
- *Replace the nut setter every 3000 screws and **avoid using impact drills.***
- *Tighten the screws to the point where the screw's washer makes full contact with the panel. Do not over tighten the screw; it may split the washer and/or damage the steel panel.*



Installation Tips

- Plan the installation and rearrange your site to receive the material in the appropriate locations.
- Check roof squareness. At the corner where an eave and gable meet, measure eight feet along the eave and mark. Then measure six feet up the gable edge from the eave and make another mark. Measure the distance between the two marks. If it is exactly ten feet, you have a square roof at that corner. Check all roof corners using this method.
- Each panel should cover 36" in width. Make sure that you check the total width of the installed panels as you go along. Do not stretch the panel side way to compensate for the lack of squareness of your roof (or walls).
- Check the **deflection** on your roof (or wall) prior to installing the panels. Use a string between the top and the bottom of the truss (or wall) and check for any **deflection**. Shim accordingly before installing the metal panels.

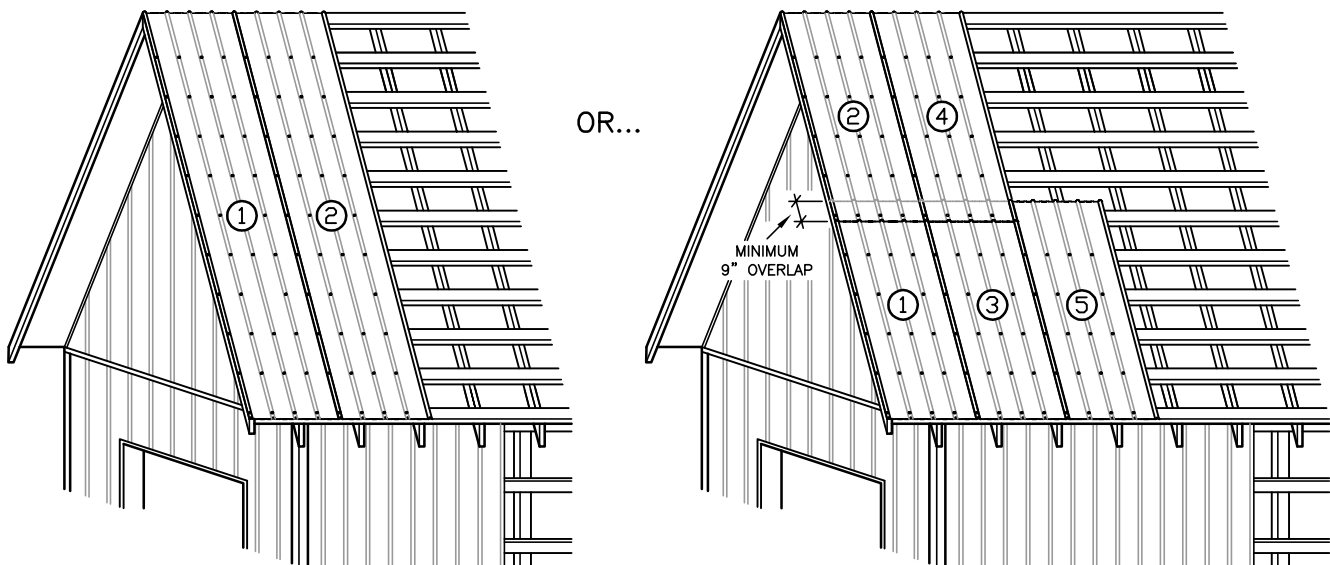
NOTE: If the roof is not square, the sheet along the gable can be trimmed along its length to match. A gable flashing is used to reduce the visual impact of the trimmed sheet.



- When walking on a roof, avoid walking on the ribs. Step where the purlins are and follow the fasteners up or across.

Installation Tips (cont.)

- *To get the roof sheets up the roof, put a board or ladder up against the fascia and slope to ground as far away from the building as possible. Using vise grips and a rope, pull sheets up the board (or ladder) onto the roof. This method is not suited for long sheets. Extra care needs to be taken on windy days to prevent the sheet from buckling or getting out of hand.*
- *Start at eave on the end of the building farthest away from the prevailing winds. Position the sheet about 1" over the gable end; and 3/4" to 1" over the eave.*
- *If installing a ridge vent, leave 2" of opening on either side of the ridge line.*
- *Ideal Roofing recommends the use of single panels from eave to ridge. If the panels need to be ordered in two lengths, overlap sheet ends by at least 9". Sheet end overlaps should only be made at a purlin for support. Lay sheets one by one from eave to ridge before commencing a second row (see figure below). For small or medium size roofs, use a single sheet from eave to ridge.*



- *Check sheet alignment every four to five rows by chalking a line square to the eave.*

Storage

- *Storage time should be minimized by installing the Ameri-Cana panels as soon as possible after delivery. If the Ameri-Cana panels must be stored for an extended period, the ideal storage place is under a roof in a cool, dry and well-ventilated area.*
- *When outdoor storage is unavoidable, the following is recommended:*
 - 1- *Use good quality breathable canvas or waterproof cover over steel bundles (do not use plastic covers).*
 - 2- *Block steel bundles off the ground.*
 - 3- *Store away from chemically aggressive substances (e.g. salt, cement, fertilizer, diesel, oil, paint, and grease).*
 - 4- *Block under long bundles to prevent sagging.*
 - 5- *Elevate one end of the steel bundle to allow any moisture to run off.*

Tools

- *Skill saw with reversed blade or steel cutting blade.*
- *Electric screw gun with adjustable torque (avoid using impact drills).*
- *Tin snips or nibblers.*
- *Measuring tape.*
- *Screw apron.*
- *Hammer.*
- *Electric drill.*
- *Tape measure.*
- *Chalk line (make sure the chalk can be easily removed from the steel .)*
- *Nut setters (replace for every 3000 screws).*

Note: *A high speed disc cutter (hand power saw) is not recommended, but if the tool must be used, cut only one sheet at a time, exposed side down, away from other sheets and do not force the cutting disc. Roofing and siding sheets should be wiped off to eliminate metal residue from the surface of the sheets.*

Safety Tips

- *Working gloves.*
- *Proper eye protection.*
- *Hard hat.*
- *Rubber-soled shoes (Steel roofing can be slippery when wet or icy).*
- *Properly secure material on the roof.*
- *Safety harness.*
- *Knee pads.*
- *Avoid installing on a windy day.*
- *Avoid having loose materials and tools on the roof.*
- *Secure area below work.*
- *Use proper attachment for fall protection.*

Maintenance

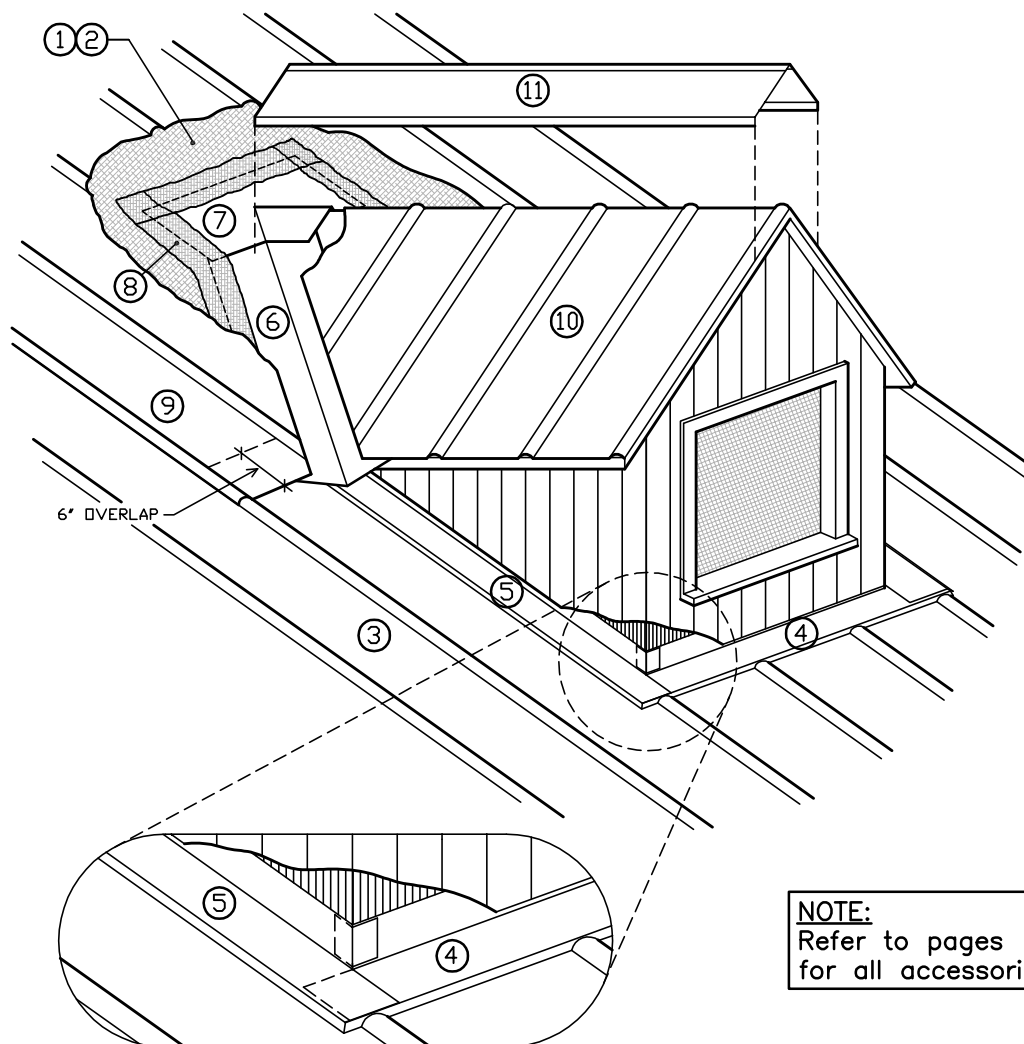
- *To avoid scratching the paint on the Ameri-Cana panel, make sure to clean up the bottom of your rubber-soled shoes from any stones or debris before stepping on the panels.*
- *Inspect and remove any debris (leaves, nails, ...) on an annual basis.*
- *Use touch up paint to protect any scratches.*
- *If necessary, wash the metal roof once a year using a mild dishwater soap to remove any dirt or falling leaves .*

Important Notice

- *When ordering the Ameri-Cana panel, it is always preferable to order all items of the same color at the same time to avoid slight color differences between batches.*
- *The material should be checked against the shipping list as soon as it is received. Any damage or shortage of material on the bill of lading should be noted and reported to the driver or to our offices immediately.*
- ***Do not use pressure treated lumber in direct contact with the Ameri-Cana panel.***
- *Due to the longevity of the metal roofing products, Ideal Roofing offers long lasting zinc coated screws with a powder coated color finish.*
- *Any caulking used with the Ameri-Cana must be compatible with steel or aluminum. Ideal Roofing offers high quality colored or clear caulking compatible with metal products.*
- ***Failing to apply any of the above instructions will result in the total refusal of any claim to Ideal Roofing.***

Dormer Detail

- Use plywood sheeting (1) over and around the dormer.
 - Apply ice and water shield membrane (2) over the plywood and the sidewalls of dormer (min. 6" up on the walls).
 - Install the fitted wall flashing (4) and the 90 deg. wall flashing (5) on top of roofing panels (3) below the dormer eave line.
 - Then install the valley flashing (6) and the optional dormer cap (7) by using galvanized roofing nails. (*Dormer caps does not come pre-painted)
 - Apply a strip of ice and water shield membrane (8) over the edges of the valley (6) and the dormer cap (7) to cover the nails.
 - Install the roofing panel (9) above the dormer eave line using 6" overlap over the bottom sheet (3).
 - Finally, install the dormer roof panels (10) and the ridge cap** (11).
- (**Options: Fitted Ridge Cap, Ridge Vent with Foam Closure Strip, Ridge Roll with Foam Closure Strip or Liberty Cap with Foam Closure Strip)



NOTE:
Refer to pages 14–15
for all accessories.

Snow and Ice Management

- *Ideal Roofing offers three types of snow and ice protection. The choice of using one or the other depends on the type of substrate underneath the steel roofing as well as the level of protection you need to achieve .*
- ***For the type that suits your roof or for any questions, please contact our offices.***

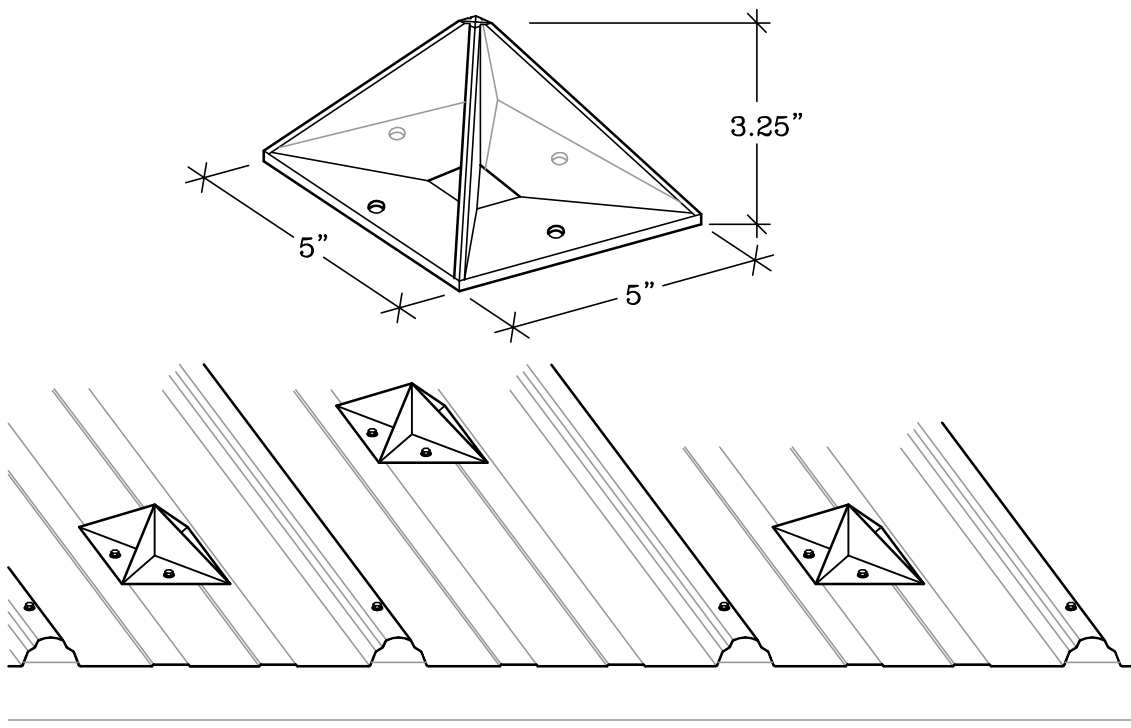
1- SNOW DIAMOND

1- Installation

- Spread bead of sealant evenly underneath the Snow Diamond's base.
- Place the Snow Diamond in position on metal surface by applying light and even pressure. Insure solid backing underneath the Snow Diamond.
- Use screws with neoprene gaskets through pilot holes in the Snow Diamond and tighten to cause approximately 50% compression in neoprene gasket.
- Four screws to be used per Snow Diamond.

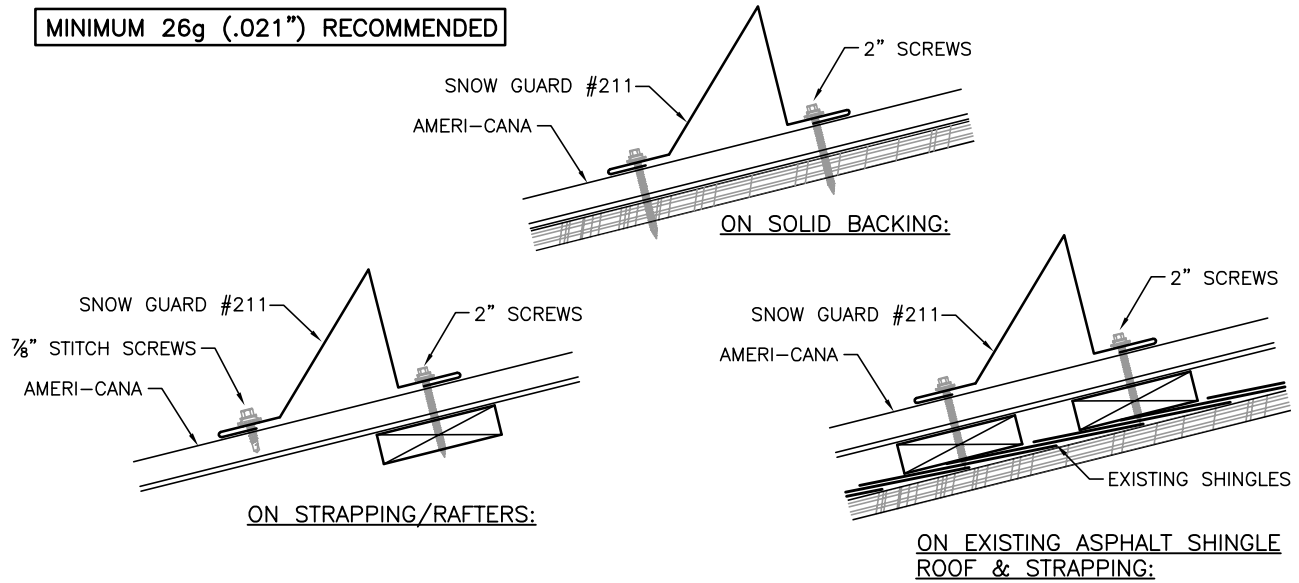
2- Materials

Clear, Polycarbonate polymer.

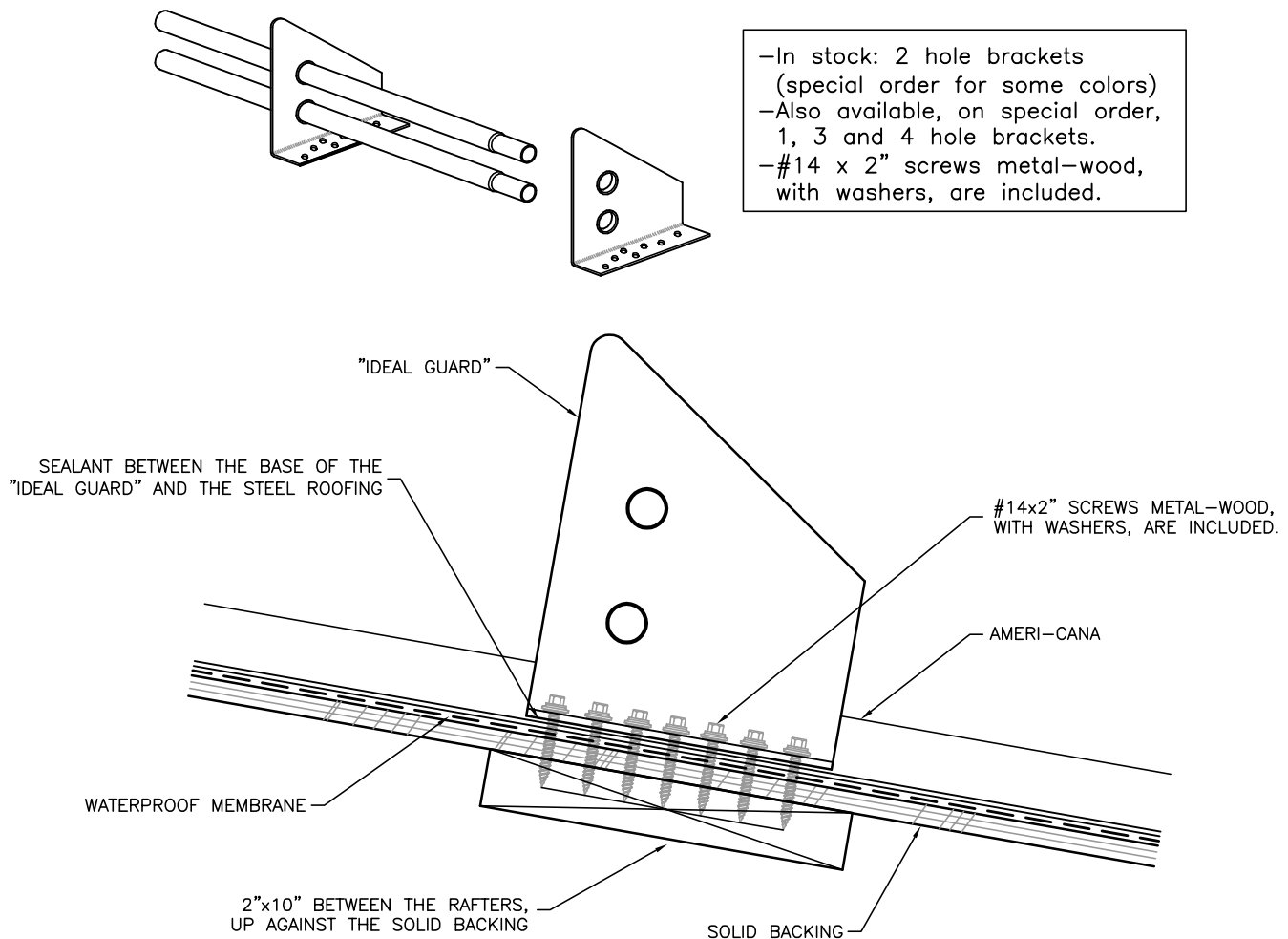


2- SNOW GUARD #211:

MINIMUM 26g (.021") RECOMMENDED



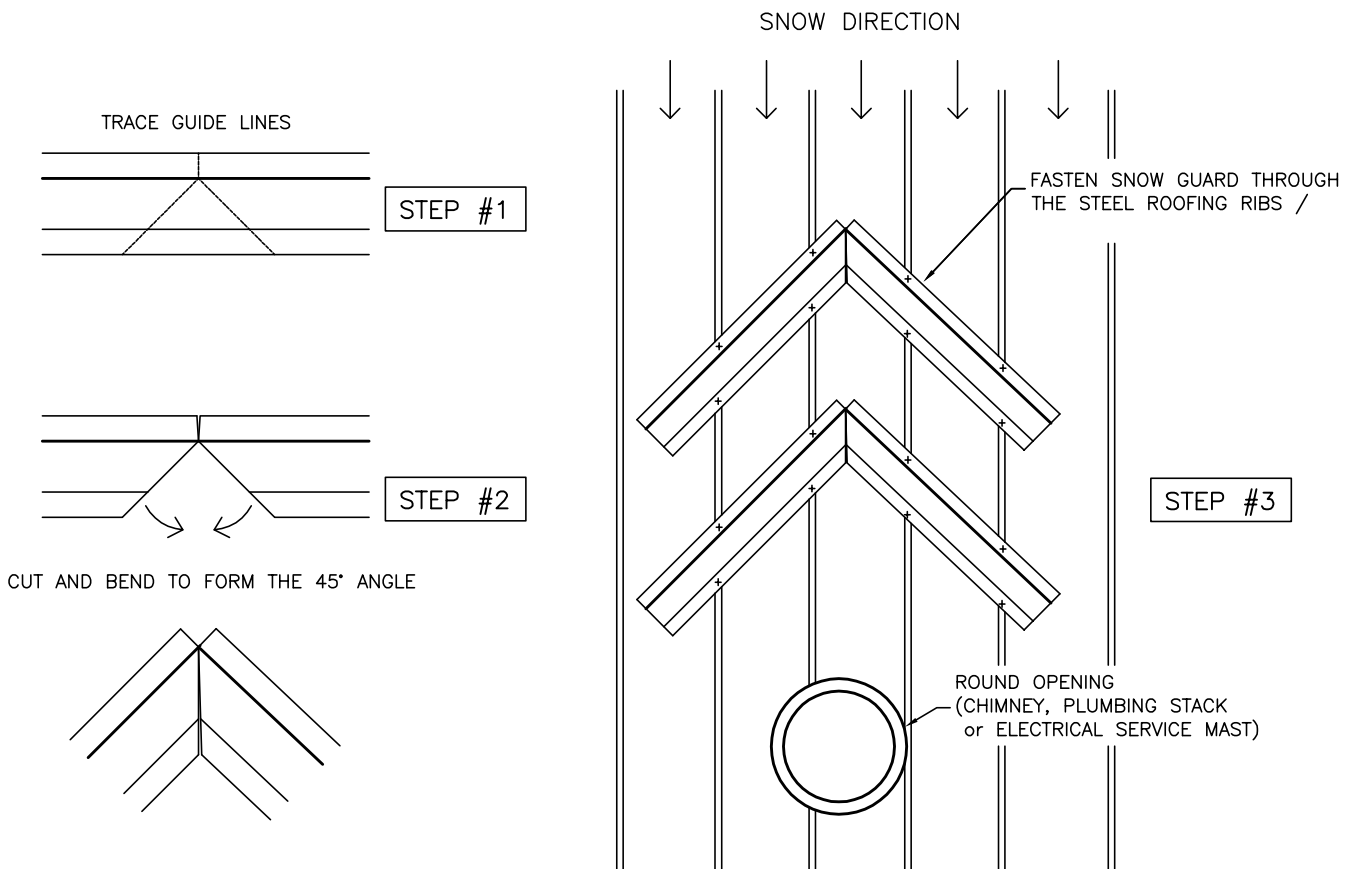
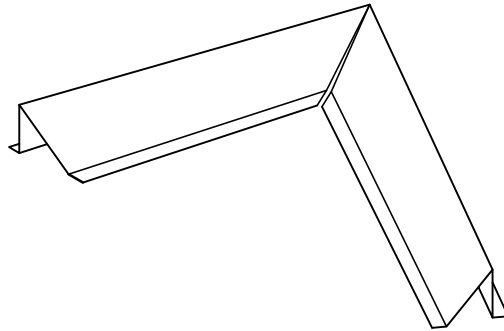
3- "IDEAL GUARD":



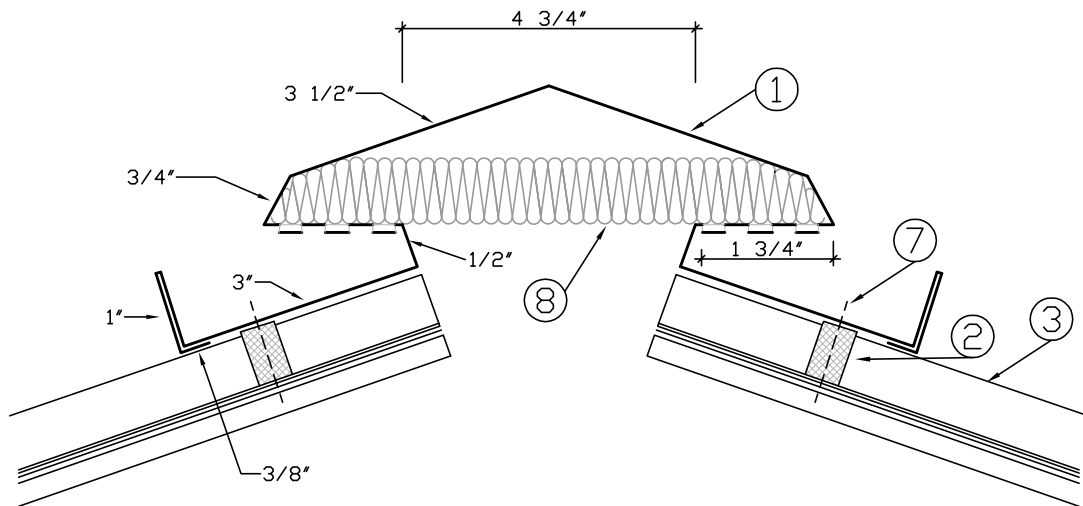
"IDEAL GUARD" – TYPICAL INSTALLATION

Chimney & Plumbing Stack Protection

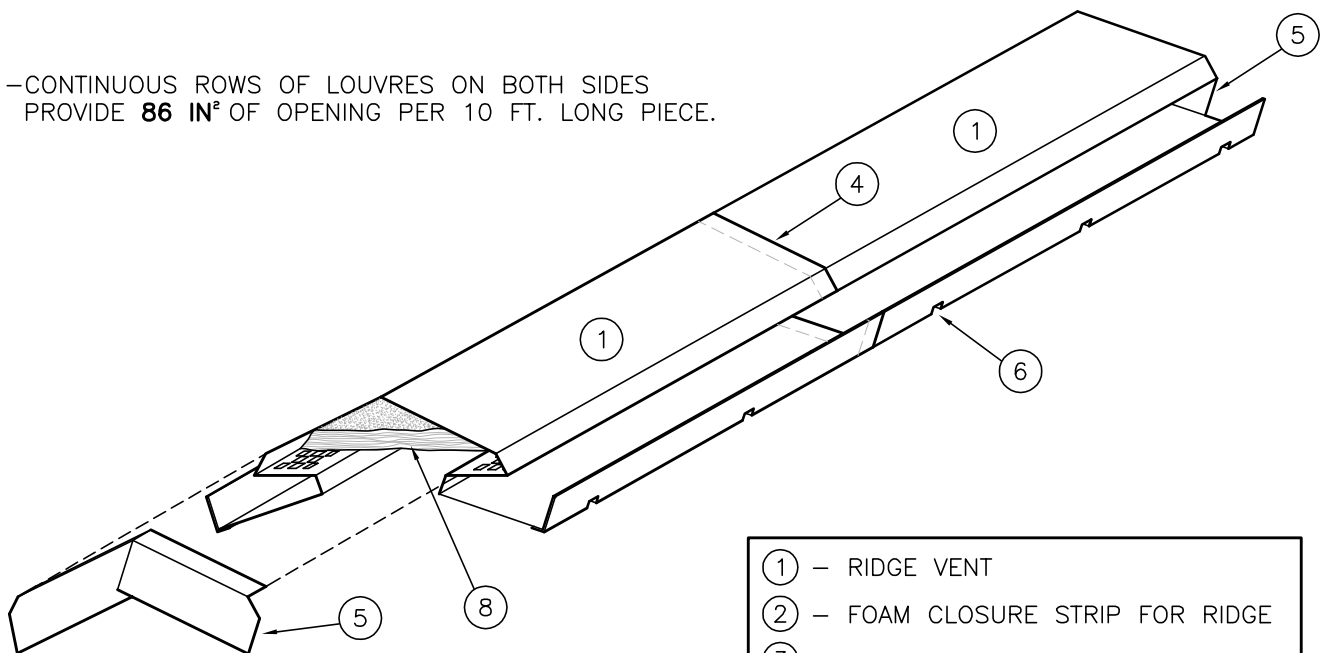
- In case of a circular chimney, plumbing stack or electrical service mast, use the Snow Guard #211 as illustrated to add extra protection from the sliding snow and ice.



Ridge Vent

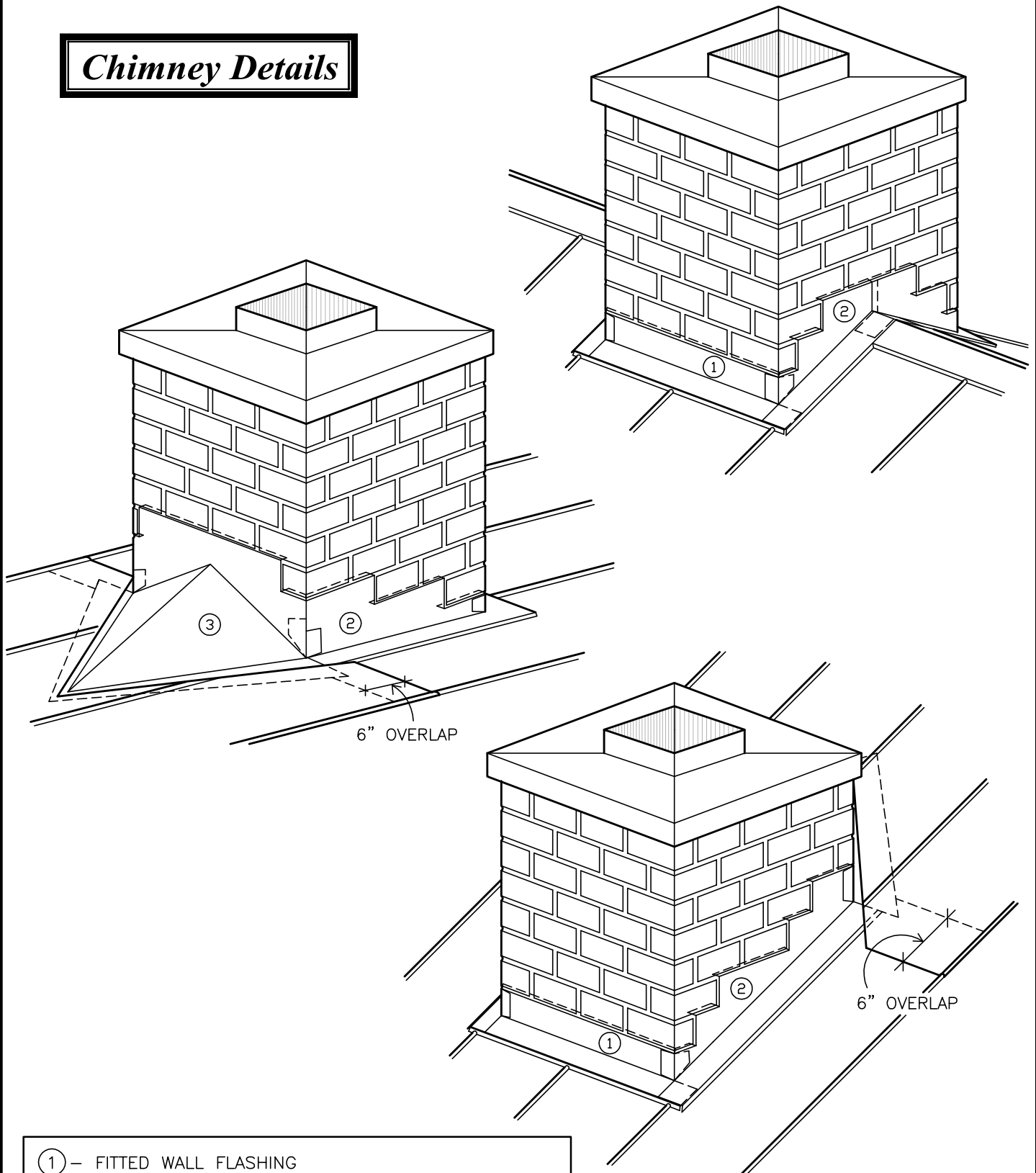


-CONTINUOUS ROWS OF LOUVRES ON BOTH SIDES
PROVIDE **86 IN²** OF OPENING PER 10 FT. LONG PIECE.



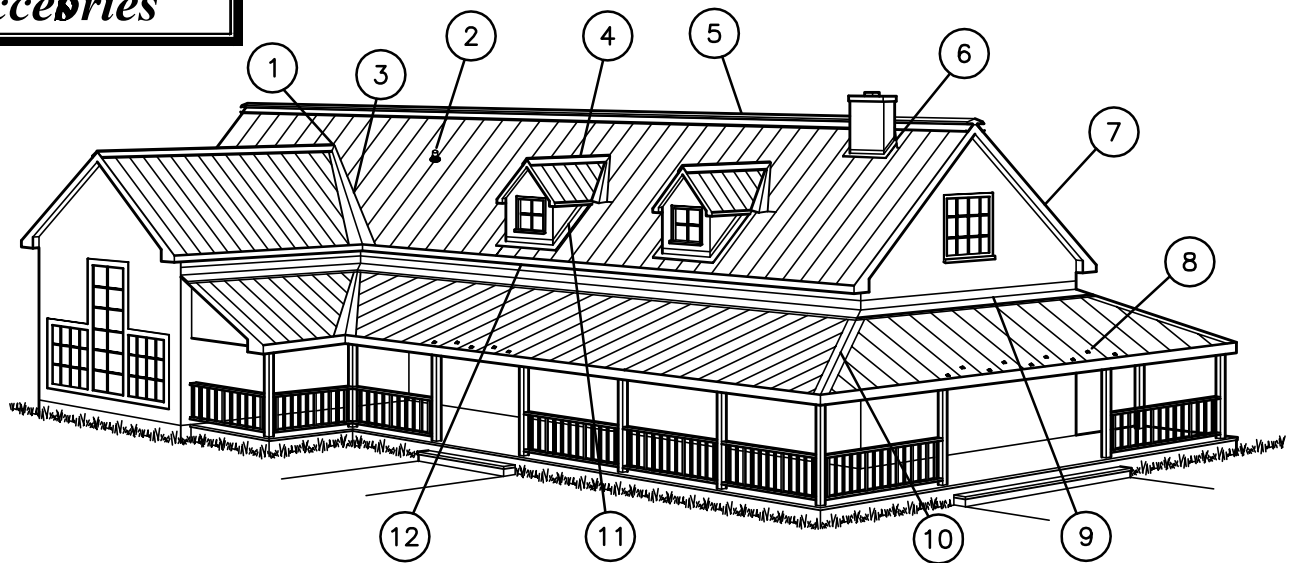
- ① - RIDGE VENT
- ② - FOAM CLOSURE STRIP FOR RIDGE
- ③ - METAL ROOFING PANELS
- ④ - NOTCHED OVERLAP SYSTEM
- ⑤ - END CAPS
- ⑥ - DRAINAGE HOLES
- ⑦ - SCREW
- ⑧ - MESH FILTER

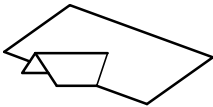
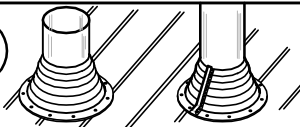
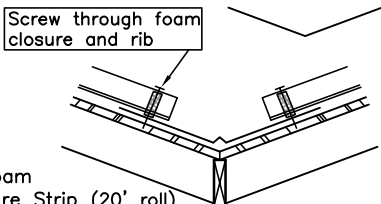
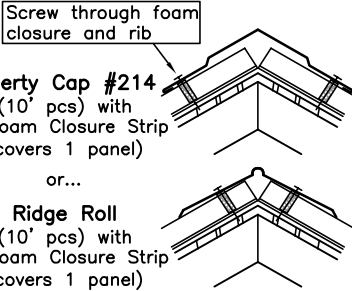
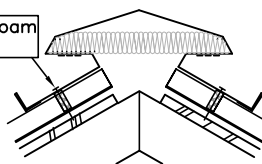
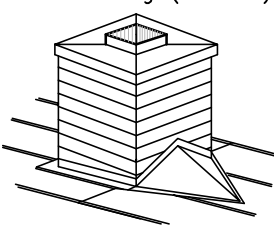
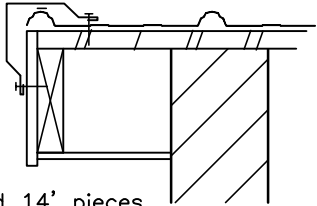
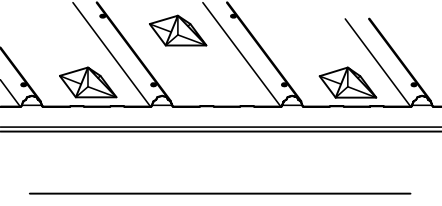
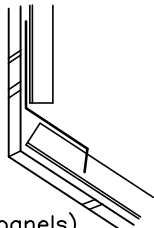
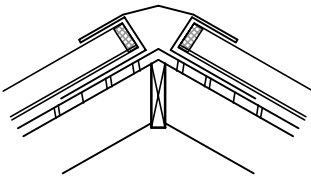
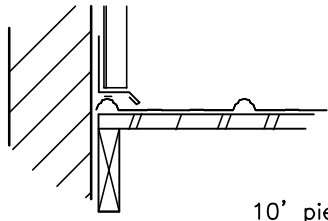
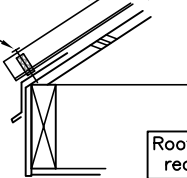
Chimney Details



- ① – FITTED WALL FLASHING
- ② – WALL FLASHING
- ③ – CRICKET FLASHING (WE PROVIDE THE FLAT SHEET)
 - APPLY CAULKING WHERE NEEDED
 - CUTTING & FITTING OF THE ABOVE FLASHING SHOULD BE DONE ON SITE BY THE INSTALLER

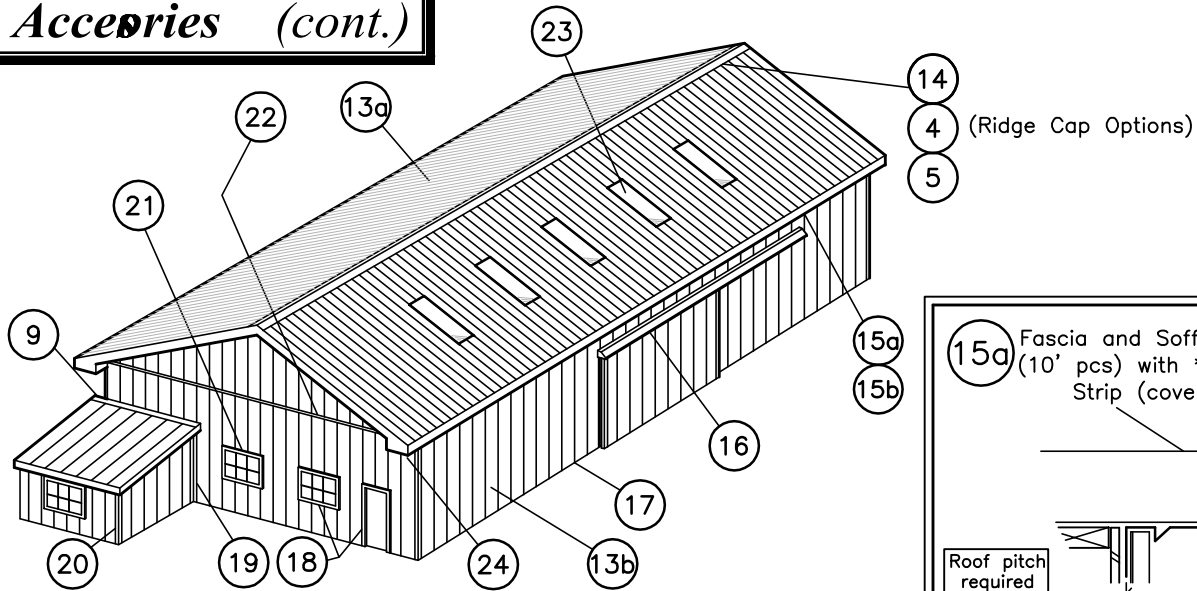
Accessories



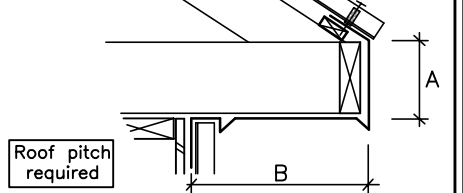
<p>1 Dormer Cap (Satincoat Finish)</p>  <p>Both Main Roof pitch and Dormer pitch required</p>	<p>2</p>  <p>*"Dektite" **"Retrofit Dektite"</p> <p>*Size #3 fits 1/4" to 4" dia. *Size #4 fits 3" to 6" dia. *Size #8 fits 7" to 13" dia. *Size #9 fits 10" to 18" dia. *High Temp. Silicone #8 fits 7" to 13" dia. **Retrofit #802 fits 2" to 7-1/4" dia.</p>	<p>3 Valley or "W" Valley 18", 24" or 36" (10' pcs)</p>  <p>Screw through foam closure and rib</p> <p>***Foam Closure Strip (20' roll)</p>
<p>4</p>  <p>Screw through foam closure and rib</p> <p>Liberty Cap #214 (10' pcs) with ***Foam Closure Strip (covers 1 panel)</p> <p>or...</p> <p>Ridge Roll (10' pcs) with ***Foam Closure Strip (covers 1 panel)</p>	<p>5 Ridge Vent #206 (10' pcs), End Caps with ***Foam Closure Strip (covers 1 panel)</p>  <p>Screw through foam closure and rib</p>	<p>6 Flat sheet to make cricket flashing (on site)</p> 
<p>7 Rake Edge Trim #411</p>  <p>10' and 14' pieces</p>	<p>8 Snow Diamond</p> 	<p>9 Fitted Wall flashing</p>  <p>(Covers 2 panels)</p>
<p>10 Cottage Roof Cap #210 (10' pcs) and <u>small</u> ***Square Foam Closure (15' roll)</p> 	<p>11 Wall Flashing Type S #205</p>  <p>10' pieces</p>	<p>12 Steel Roof Drip Edge #414 (10' pcs) with ***Foam Closure Strip (covers 1 panel)</p>  <p>Screw through foam closure and rib</p> <p>Roof pitch required</p>

***Foam Closures sold separately

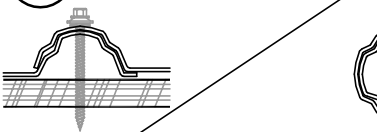
Accessories (cont.)



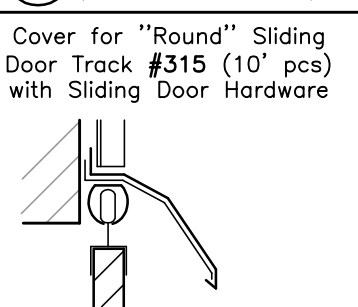
15a Fascia and Soffit: Type1J #402 (10' pcs) with ***Foam Closure Strip (covers 1 panel)



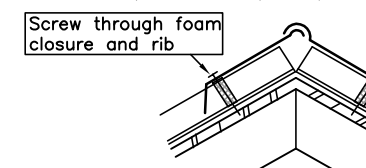
13a Roofing with Ameri-Cana (Screw through ribs)



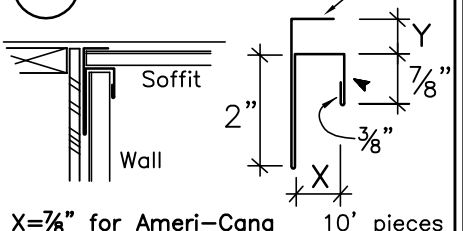
13b Siding with Ameri-Cana (Screw next to ribs)



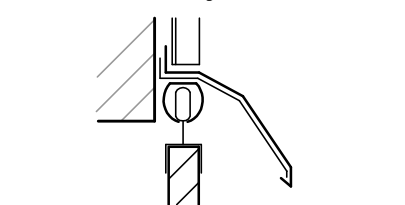
14 Fitted Ridge Cap (covers 2 panels) with ***Foam Closure Strip (covers 1 panel)



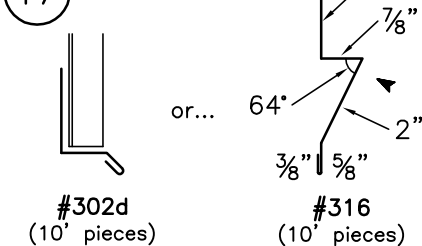
15b "F-J" trim #317



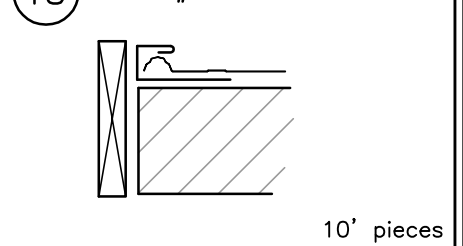
16 Cover for "Round" Sliding Door Track #315 (10' pcs) with Sliding Door Hardware



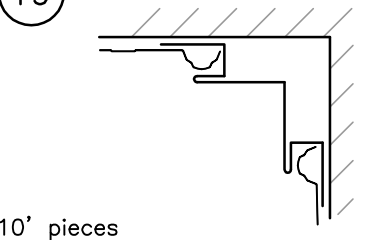
17 Base Flashings



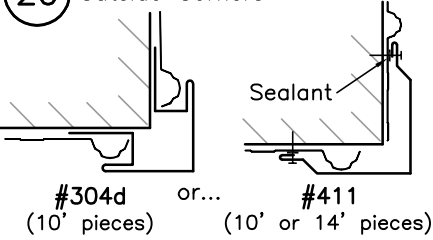
18 J-trim #301d



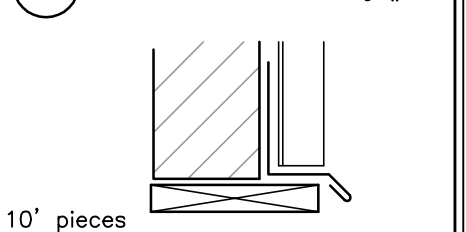
19 Inside Corner #305d



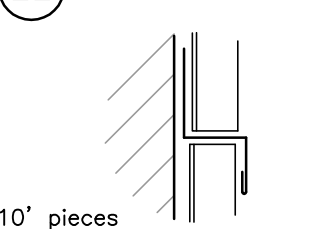
20 Outside Corners



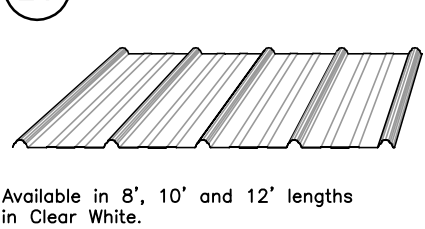
21 Window & Door Flashing #303



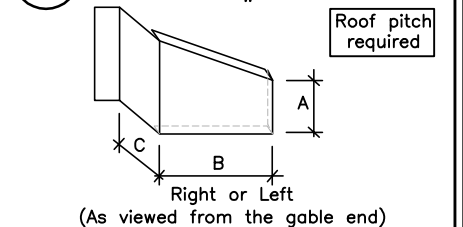
22 Gable divider #307d



23 Fiberglass Panel Ameri-Cana



24 End Box for Fascia and Soffit #413



***Foam Closures sold separately

LIMITED 40 YEAR WARRANTY PRE-PAINTED STEEL ROOFING AND SIDING PANELS PERSPECTRA PLUS SERIES / WEATHER XL

Ideal Roofing Co. Ltd. warrants that, within Canada and the Continental United States of America, under normal atmospheric conditions (which excludes any other corrosive or aggressive atmospheres such as those contaminated with chemical fumes or salt spray) the paint film of the pre-painted Weather XL® or Perspectra PLUS Series Steel Roofing and Siding Panels shall not, within a period of forty (40) years after the date of delivery, crack, blister or peel.

Chalking: For the first thirty (30) years, vertical installations will not chalk more than #8 rating and non-vertical installations will not chalk more than #6 when measured per ASTM D4214, Method A.

Colour Change: For the first thirty (30) years, vertical installations will not change colour more than five (5) and non-vertical installations will not change more than seven (7) delta E colour units. Colour measurements are to be made per ASTM D2244 and only on clean surfaces after removing surface deposits and chalk per ASTM D3964. Colour change shall be measured on any accepted colourimeter designed to produce reflectance readings in the Tristimulus Filter System of X, Y and Z based on the CIE values of illuminant C at 2° and measured in Hunter L, a, and b units.

TERMS AND CONDITIONS

This warranty is subject to the following terms and conditions:

1. The steel roofing and siding panels which fall under this warranty are defined as pre-painted Weather XL® or Perspectra PLUS Series Steel Roofing and Siding Panels, manufactured by Ideal Roofing Co. Ltd. and erected in Canada and the Continental United States of America, including Alaska.
2. This warranty applies to non-vertical panels only when they are erected in such a manner that they have an adequate degree of pitch from the horizontal so as not to allow free standing or accumulation of water.
3. Damage to the panels caused directly or indirectly by panel contact with fasteners is not covered by this warranty. The responsibility for selection of suitable long-lasting fasteners rests solely with the buyer.
4. Steel shavings or minute particles from sawing sparks that come into contact with the pre-painted finish, is not covered by this warranty.
5. Minor hairline cracking of the pre-painted finish surface of the steel roofing and siding panels is not covered by this warranty.
6. Minor colour variances between separate orders are not covered by this warranty.
7. Damage to the panels resulting from edge corrosion or failure of the metal substrate is not covered by this warranty.
8. Defects or damage to the pre-painted finish of the steel roofing and siding panels, after delivery by Ideal Roofing Co. Ltd., resulting from handling, shipping, transit, processing, improper storage or installation, or prolonged moisture contact or contact with corrosive and / or similar materials are not covered by this warranty.
9. Damage resulting from abnormal atmospheric conditions is not covered by this warranty, the term abnormal atmospheric conditions includes but is not limited to hail, ice fall, exposure to salt, high pressure water spray, corrosive or harmful chemicals (whether solids, liquids or gases), animal excrements or airborne contaminants.
10. This warranty does not apply to damage caused by acts of God, falling objects, external forces, explosions, fire, riots, civil commotions, acts of war, excessive radiations, or other such similar or dissimilar occurrences beyond Ideal Roofing Co. Ltd.'s control.
11. The steel roofing and siding panels' pre-painted finish is not warranted under non-uniform conditions of exposure or use.
12. The buyer shall inspect material received from the Seller prior to installation so as to mitigate expenses involved in repairing, repainting or replacing defective panels.
13. Claims under this warranty must be made in writing to Ideal Roofing Co. Ltd. to the address set forth below within 30 day after discovery of the defect. Ideal Roofing Co. Ltd. shall then have reasonable opportunity to inspect the steel roofing and siding panels before any further action shall be taken.
14. To be effective, the building owner shall include in all claims under this warranty adequate identification of materials involved in the claim, including an Ideal Roofing original invoice copy or an Ideal Roofing shipping control copy. It is the building owner's responsibility to obtain and conserve the above mentioned documents at the time of purchase. Installer or distributor's corporate documents are not acceptable.
15. If it is determined by Ideal Roofing Co. Ltd., upon inspection, that a claim for a defective pre-painted finish on steel roofing and siding panels is valid, the remedy for the claim shall be at the sole discretion of Ideal Roofing Co. Ltd. and shall be limited to refinishing or replacing of the nonconforming panels as should result in providing the prorated performance remaining under the original warranty for the nonconforming panels.
16. IDEAL ROOFING CO. LTD. SHALL NOT BE LIABLE FOR ANY LOSSES, DAMAGES OR EXPENSES WHETHER DIRECT, INDIRECT OR CONSEQUENTIAL, CAUSED BY OR RESULTING FROM THE USE OF DEFECTIVE OR NONCONFORMING STEEL ROOFING AND SIDING PANELS OR FOR ANY OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES, AND THE TOTAL LIABILITY OF IDEAL ROOFING CO. LTD. IS EXPRESSLY LIMITED TO THE PURCHASE PRICE OF THE STEEL ROOFING AND SIDING PANELS. Without limiting the generality of the foregoing, this warranty pertains to product only, and the seller shall not be liable for damages for or relating to labor or loss of use of structure or damage to the content of structure.
17. The express warranty stated herein is the exclusive warranty applicable to the pre-painted finish on steel roofing and siding panels. IDEAL ROOFING CO. LTD. MAKES NO GUARANTEES EITHER EXPRESSED OR IMPLIED BEYOND THE FACE HEREOF AND WITHOUT LIMITATION ALL WARRANTIES AS TO FITNESS AND OR MERCHANTABILITY ARE RESTRICTED TO THE EXPRESS TERMS HEREOF. Moreover, additional liabilities upon the rights and remedies of the Seller contained in such documents as purchase order or order acknowledgements which may subsequently be exchanged between parties shall have no force upon this warranty. All proposals, negotiations and representations, if any, made prior to or with reference hereto are merged herein.
18. Ideal Roofing Co. Ltd. extends this warranty solely to the owner of the building on which the panels are installed.
19. Ideal Roofing Co. Ltd. reserves the right to terminate or modify this warranty except with respect to orders which it has already accepted upon the giving of written notice thereof.