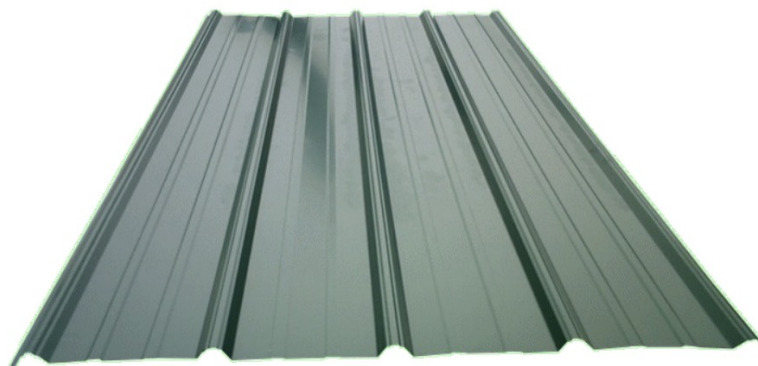


Installation Guide



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● 607-593-9999



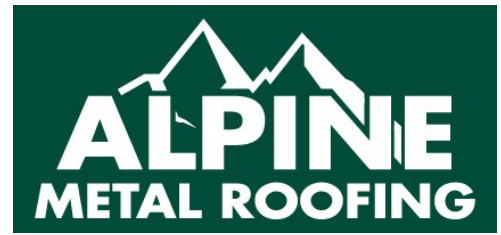
IMPORTANT NOTICE

This manual contains suggestions and guidelines on how to install metal roof panels and trim details. The contents of this manual include the guidelines that were in effect at the time of publication. In an effort to keep pace with the ever changing code environment, Alpine Materials retains the right to change specifications and/or designs at any time without incurring any obligations. To insure you have the latest information available, please inquire or visit our website. Application and design details are for illustrative purposes only and may not be appropriate for all environmental conditions and/or building designs. Projects should be engineered and installed to conform to applicable building codes, regulations, and accepted industry practices.



TABLE OF CONTENTS

1. Introduction - Design and Testing	Page 4
2. Panel Installation	
a. Installation Guide	Pages 5,6
b. Panel Squaring	Pages 7,8
3. Installation Sequence	Pages 9,10
4. Trim Assemblies	
a. Fascia	Page 11
b. Endwall	Page 12
c. Eave Trim	Page 13
d. Rake / Gable	Page 14
e. Preformed Valley	Page 15
f. Transition/lower gambrel	Page 16
g. Upper gambrel	Page 17
h. Hip	Page 18
i. Ridge	Page 19
j. Vented Ridge	Page 20
k. Shed Ridge Cap	Page 21
l. Side Wall	Page 22
5. Valley Lapping	Page 23
Valley Cutting	Page 24
Pipe Flashing	Page 25

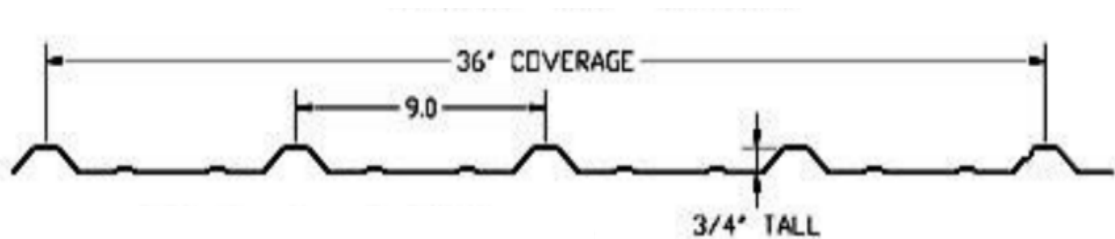


Introduction

The Alpine Panel is a leader in strength and durability. This popular and versatile panel features classic looks and is used in a wide range of applications including residential, commercial, and post frame buildings. Alpine panels are made with strong trapezoidal ribs to increase strength and ease handling and installation. In addition, the anti-siphoning channel on the under-lap provides extra leak resistance in the presence of extreme wind and rain loads.

Alpine is available in many different paint colors in 28 gauge steel. It is also available in unpainted galvalume. Our paint system is covered by a limited warranty. Please see our color chart for details on our paint system.

The Alpine panel has a 36" coverage. The panel has five major support ribs at 3/4" high that add rigidity and strength to the panel.



Panel Installation Guide

Storage

If metal is not to be used immediately, store inside in a well ventilated, dry location. Condensation or other moisture can form between the sheets during storage causing water stains or white rust which detract from the appearance of the product and may affect the product's useful life. Trapped moisture between sheets of painted metal can cause white rust to form underneath the paint. This can cause the paint to flake off the panel immediately or several years later. To prevent white rust and staining, break the shipping bands on the material. Store the material on end or on an incline of at least 8" with a supporting board underneath to prevent sagging. Fan the sheets slightly at the bottom to allow for air circulation. Keep the sheets off of the ground with an insulator such as wood. Any outdoor storage is at the customer's own risk. If outdoor storage cannot be avoided, protect the metal using a canvas cover or waterproof paper. Never cover the metal with plastic as this will cause condensation to form.

Some Safety Precautions

Always wear protective gloves when working with steel panels to avoid cuts from sharp edges. When cutting or drilling steel panels, always wear safety glasses and sweep off any metal shavings immediately to prevent eye injury from flying metal fragments. If you must walk on a metal roof, take great care. Metal panels can become slippery, so always wear shoes with non-slip soles. Avoid working on metal roofs during wet conditions when the panels can become extremely slippery.

General Installation Information

Insure that the structure is square and true before beginning panel installation. If the structure is not square, the panels will not properly seal at the sidelaps. Start the first panel square to eave by using the 3, 4, 5 Triangle Method. Green or damp lumber is not recommended. Moisture released from the damp lumber may damage the metal panels. Nails installed in green or damp lumber may back out. Remove any loose metal shavings left on the roof surface immediately to prevent corrosion. After installing roof, remove any debris such as leaves or dirt to prevent moisture from getting trapped on panels.

Fastening

Screws - For best results, use a 1-1/2" washered wood screw in the flat of the panel as shown in the illustration below. Drive the fastener so that the washer is compressed securely against the metal. Do not over drive the fastener as this will form a dimple that can collect water and cause leakage. Do not leave any loose fasteners that have missed the purlin. Use a #14 stitch screw or caulk to fill the hole.

Figure #1 - Fastening for Alpine Panel

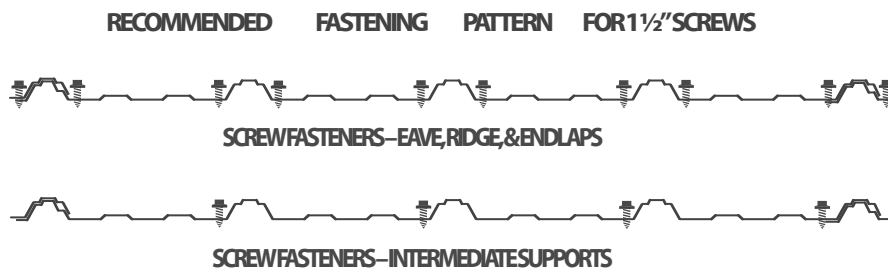
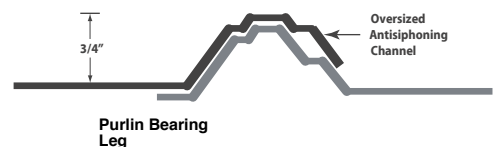


Figure #3



Roofing

Slopes of less than 2.5" on 12" are not recommended. For slopes of 2.5" on 12" or greater, end lap panels 6". Side laps should face away from the prevailing wind. Lay the first sheet along the eave at the down-wind side of the roof, farthest away from the direction of the prevailing winds (See Figure #4). Install sheets in the sequence shown in Figure #4.

Figure #4

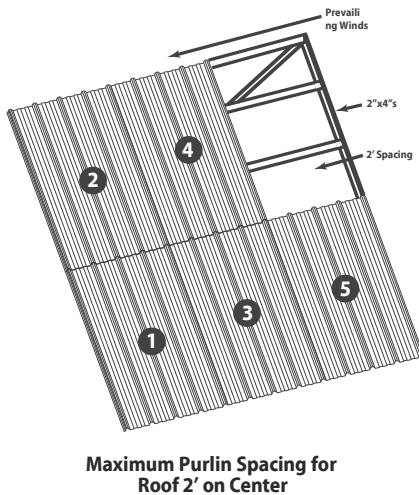
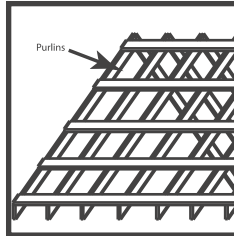


Figure #5 - Installation Options

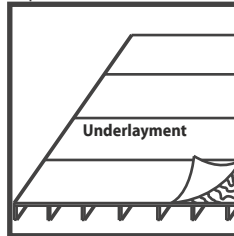
Option 1



Install Metal Directly to Wood Frame

- Use Maximum 2' Purlin Spacing
- Install Metal
- *NOT RECOMMENDED FOR HEATED SPACES UNLESS INSULATION AND VAPOR BARRIER PROTECTION IS USED

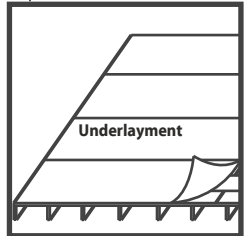
Option 2



Install Metal on Solid Deck

- Lay Plywood Deck
- Apply Synthetic Underlayment or other Vapor Barrier Protection
- Install Metal

Option 3



Install Metal Over Existing Shingles

- Apply Synthetic Underlayment or other Vapor Barrier Protection
- Install Metal
- Furring strips recommended
- Take extra care to ensure that rake edges are well anchored

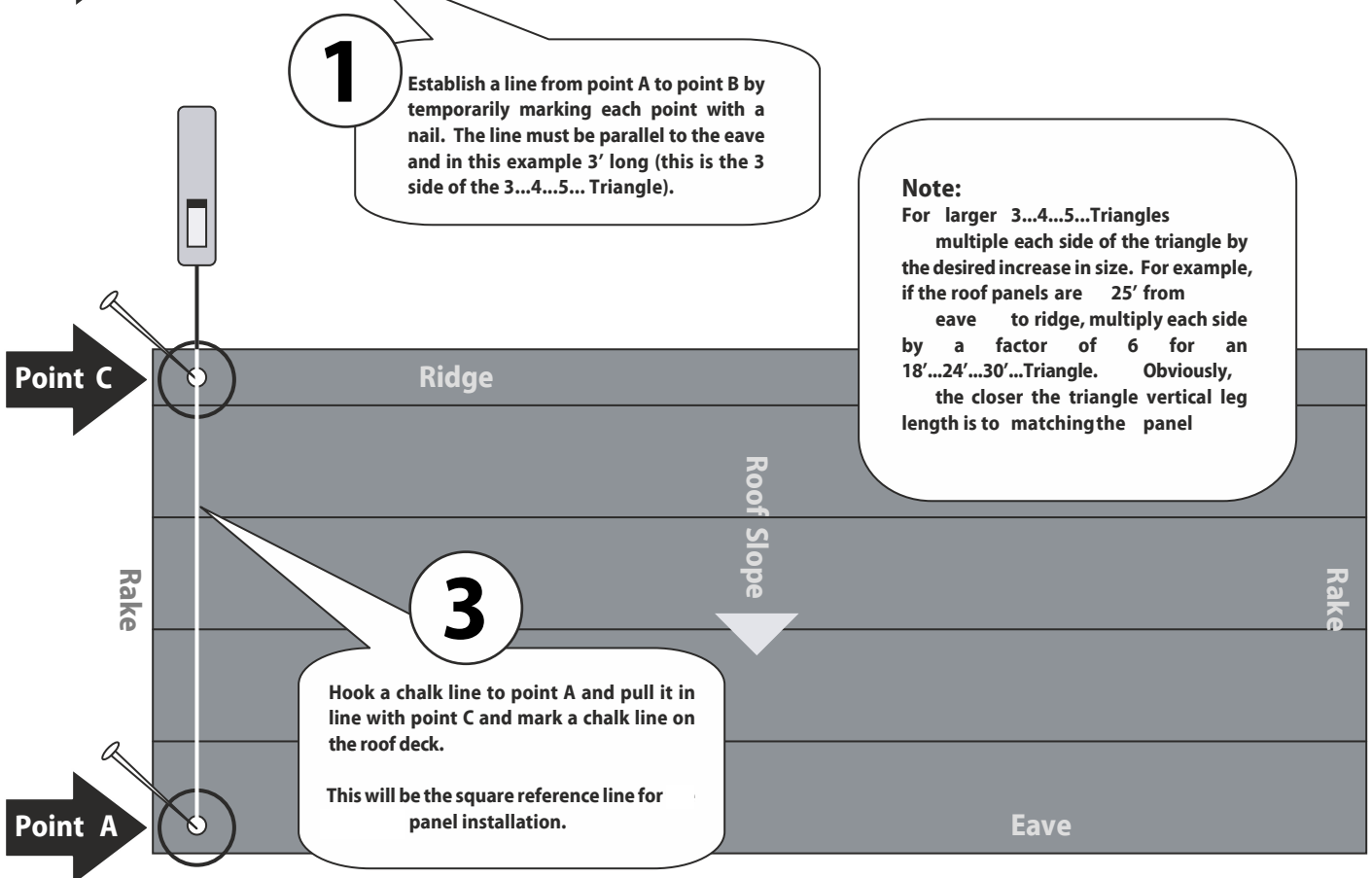
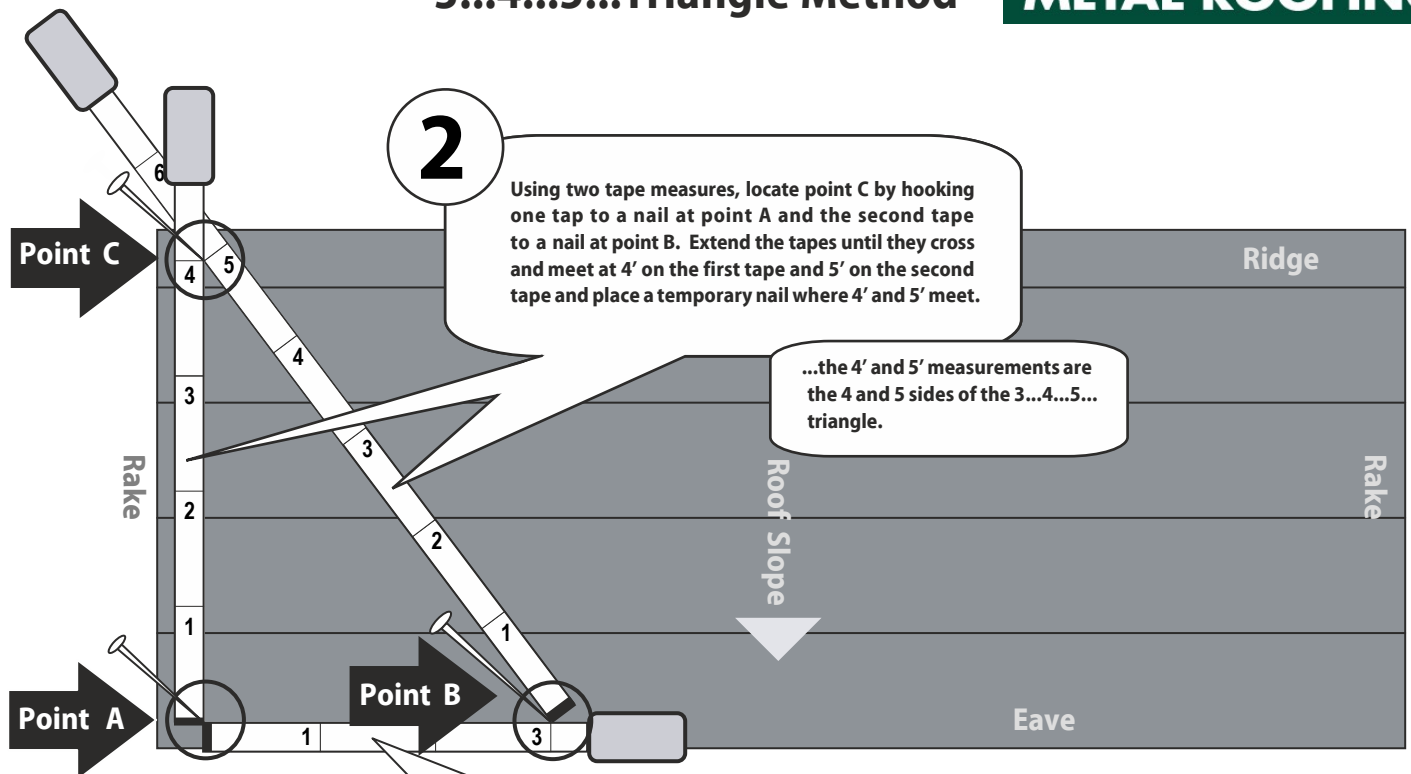
* Proper ventilation and vapor barrier protection recommended for heated spaces

Allow an overhang a minimum of 1" at the eave to provide for a drip edge. Use inside closure at eave to prevent water infiltration, insect or bird infestation at openings. To protect against uplifting winds and to provide a finished appearance, apply gable trim. Apply fasteners every 6"-10". Optionally apply butyl tape as shown in Figure #6 along the top of lap ribs. Do not block the siphon channel with the tape. Also an option: apply a 3/4" or 7/8" lap stitch screw into the crown of the rib to secure the side lap. This is especially a good idea on roofs with a slope less than 4:12.

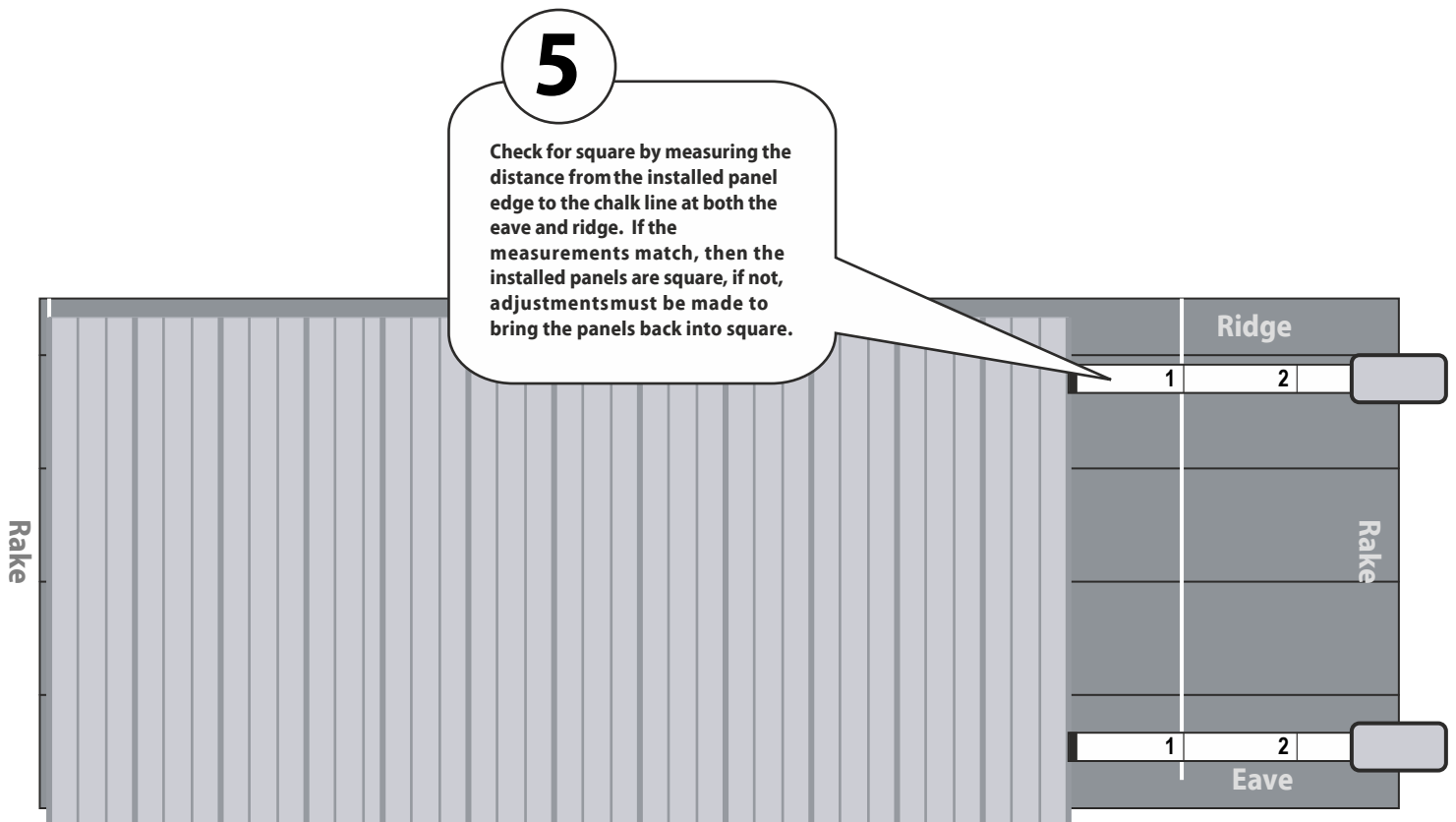
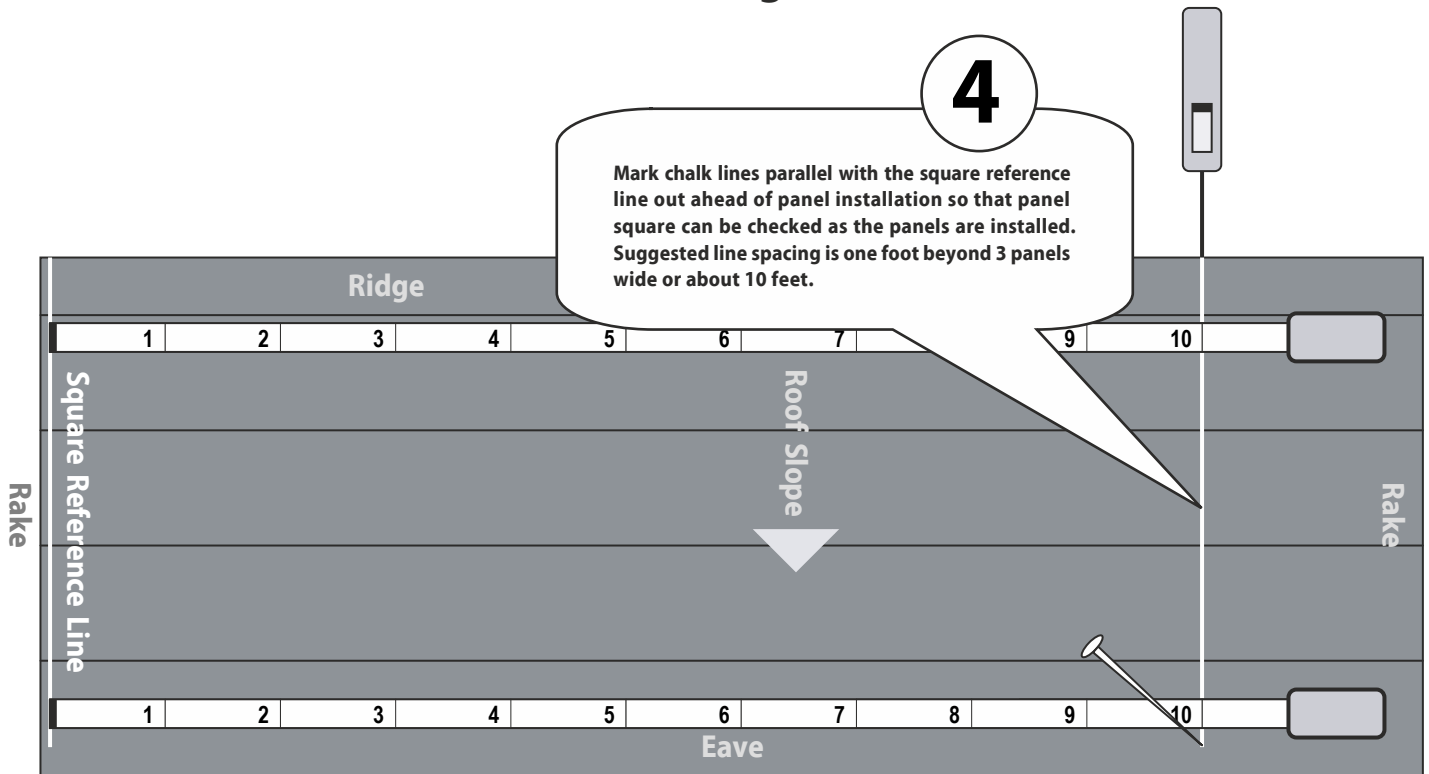
Figure #6 - Proper Application of Side Lap Butyl Tape



3...4...5...Triangle Method

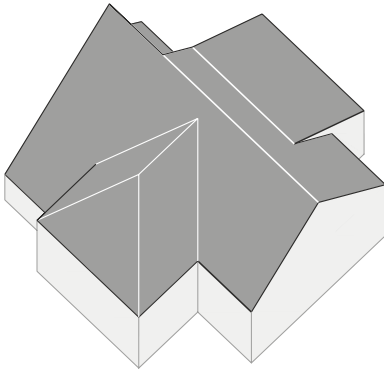


3...4...5...Triangle Method



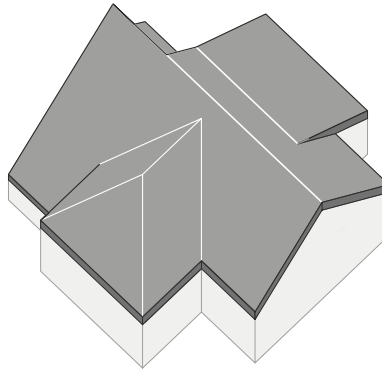
Installation Sequence

The following is an example of a typical sequence for the installation of Alpine panels and trims and is specific to the roof plan and conditions illustrated. The actual sequence may vary based on the specific roof plan and applicable conditions.



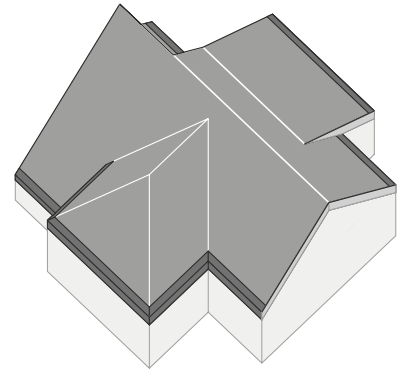
1. Moisture Barrier

Install the Moisture Barrier per the manufacturer's



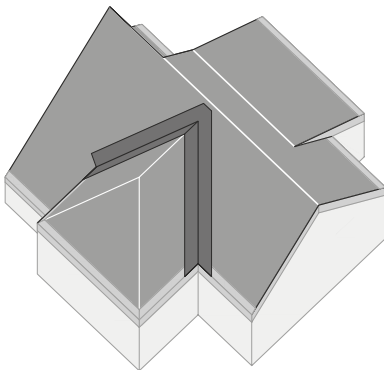
2. Fascia Trim (optional)

Install the Fascia Trim along all eaves and rakes.



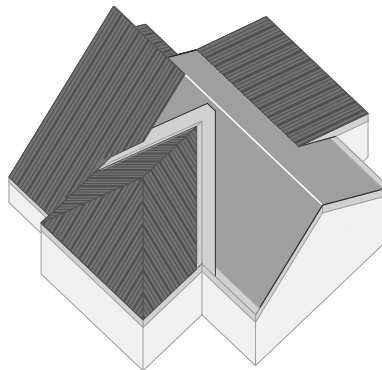
3. Eave Trim

Install the Eave Trim along all eaves lapping over the Fascia Trim.



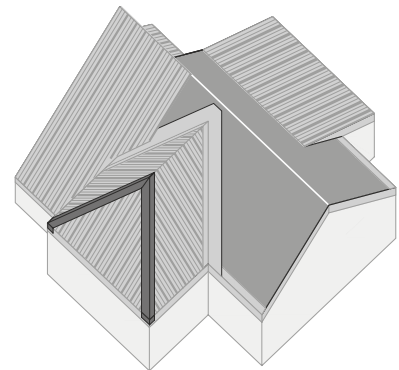
4. Valley Trim

Install the Valley Trim over the Eave Trim working from the eave to the valley peak.



5. Alpine Panels

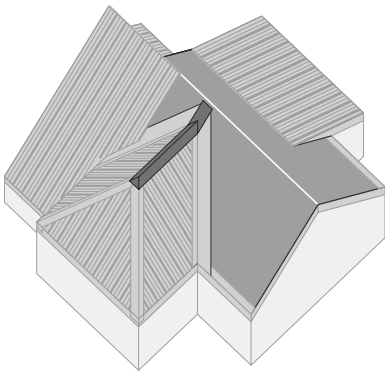
Install the panels over the Eave and Valley Trims. Do not install panels where the Ridge Trim laps under the panels.



6. Hip Trim

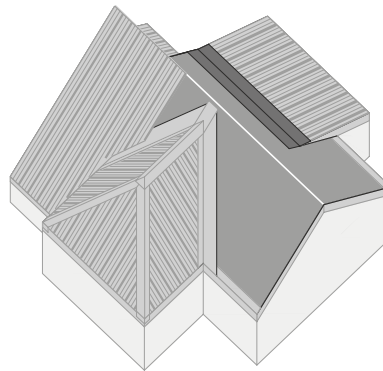
Install the Hip Trim over the panels.

Installation Sequence



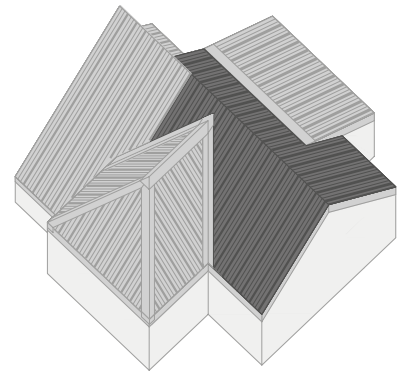
7. Ridge Trim

Install the Ridge Trim over the Hip Trim intersection and valley peak.



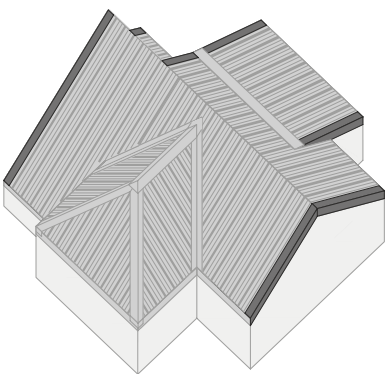
8. Transition Trim

Install the Transition Trim over the low slope panels and moisture barrier.



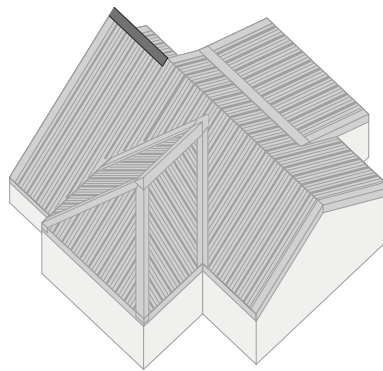
9. Alpine Panels

Complete the panel installation installing the high slope panels over the Trim Transition and the other remaining exposed locations.



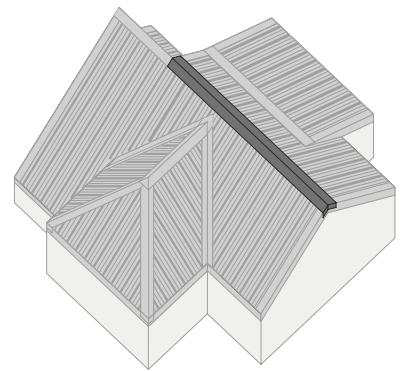
10. Gable / Rake Trim

Install the Rake Trim over the panels along all rake (gable) edges.



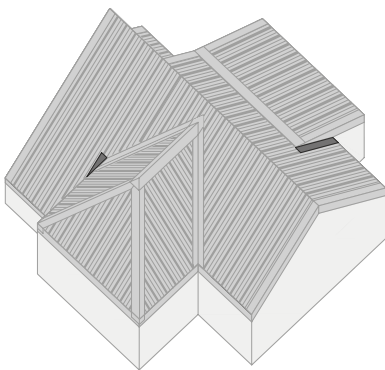
11. Shed Peak

Install the High Side Peak Trim over the panels.



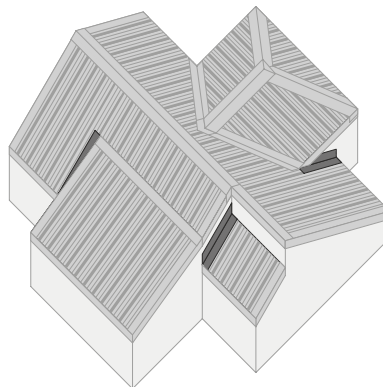
12. Ridge Trim

Install the Ridge Trim over the panels.



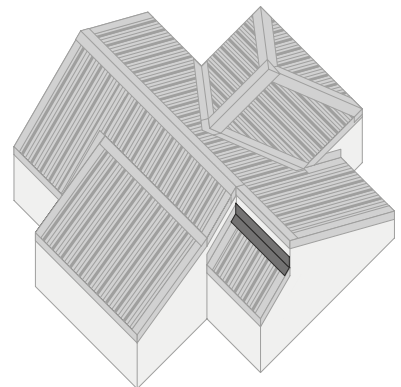
13. Side Wall Trim

Install the Side Wall Trim over the panels.



14. Side Wall Trim (Rear View)

Install the Side Wall Trim over the panels.

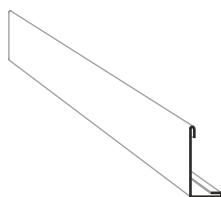


15. End Wall Trim

Install the End Wall Trim over the panels.

Fascia

Numbers indicate suggested trim assembly sequence.



Roof Substrate

Install the roof substrate according to local building code requirements.

Moisture Barrier

Install moisture barrier according to the manufacture's recommended procedure and in compliance with local building code requirements.

Fascia Trim

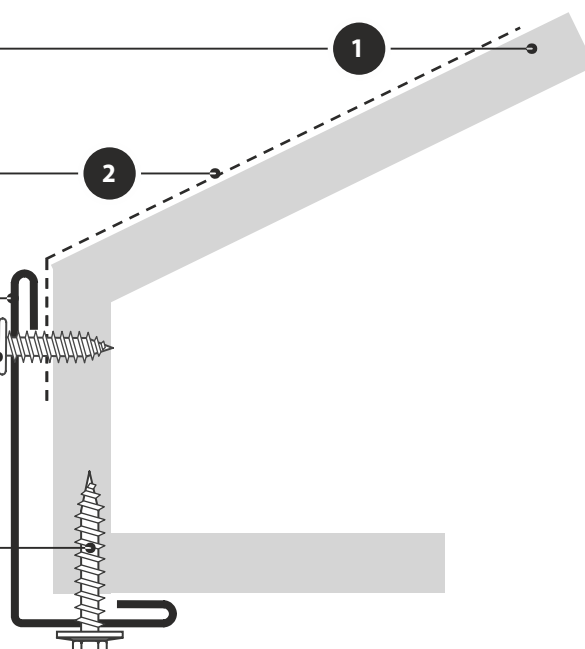
Install the Fascia trim and butt ends.

Trim Pancake Screw

Fasten trim with Pancake Screws 2' apart along the length of the trim.

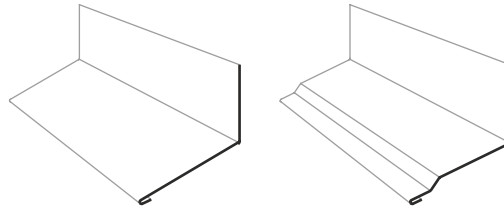
Trim Wood Screw

Fasten trim with Wood Screws spaced 2' apart along the length of the trim.



End Wall

Numbers indicate suggested trim assembly sequence.



Tube Sealant

Apply Tube Sealant continuously along the Counter Flashing and generously filling the space between the flashing and the wall. Round or slope the Sealant top so that water will run off.

Trim Wood Screw

Fasten trim with Wood Screws spaced 2' apart along the length of the trim. If wall material is not wood, fasteners will be

Counter Flashing

Position the Counter Flashing above the Side Wall Trim as shown. Some applications may not need counter flashing.

Side Wall Trim

Place the End Wall Trim over the Butyl tape and overlap the ends 4". See lapping diagram in this manual.

Outside Closure

Place the Outside Closure over the top of the panel.

Trim Wood Screw

Fasten trim with Wood Screws spaced 18" apart along the length of the trim, through the rib. See lapping diagram.

Alpine Panel

Install the panel and overhang the panel a minimum of 1" beyond the eave edge. See panel squaring method in this manual.

Moisture Barrier

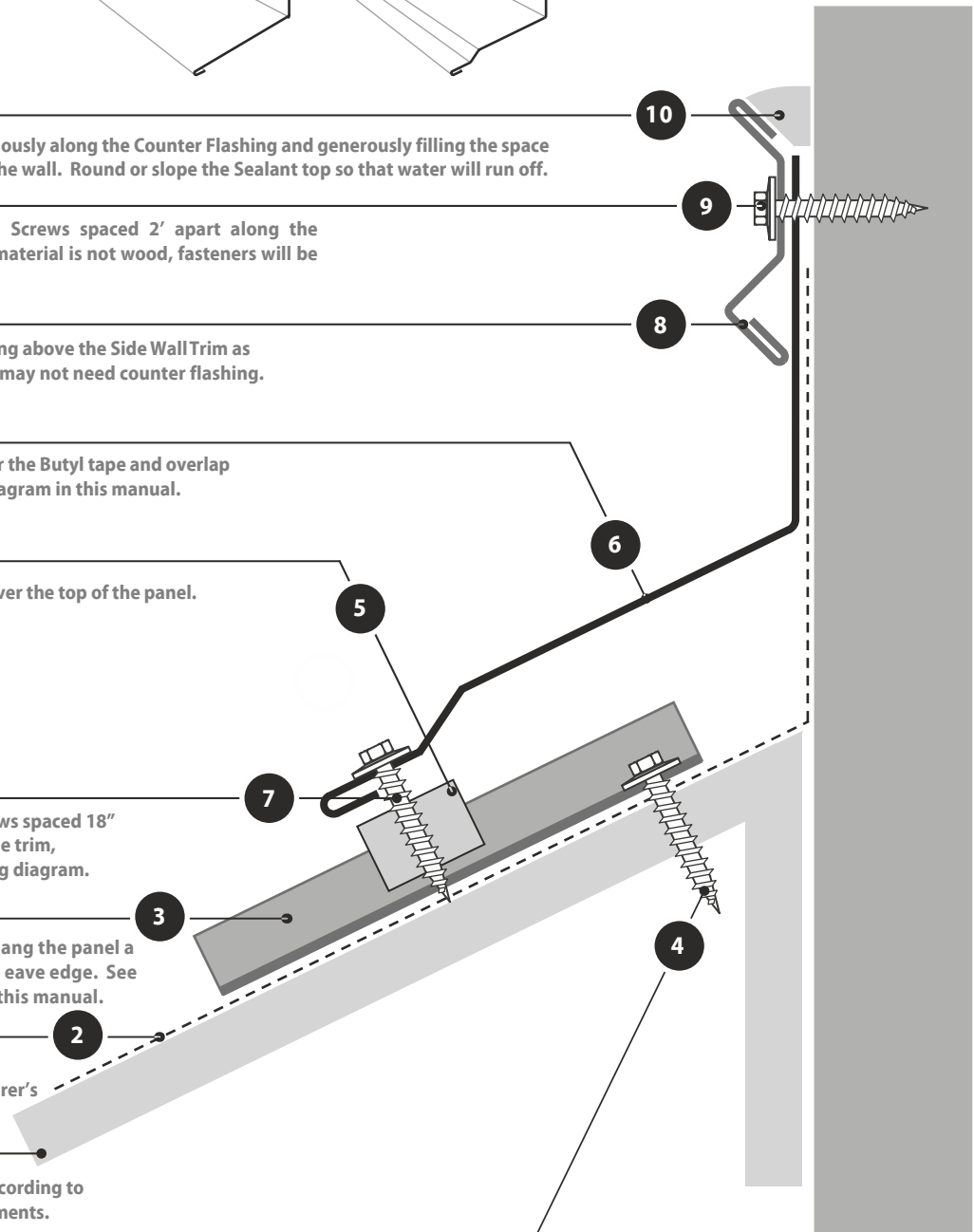
Install moisture barrier according to the manufacturer's recommended procedure.

Roof Substrate

Install the roof substrate according to local building code requirements.

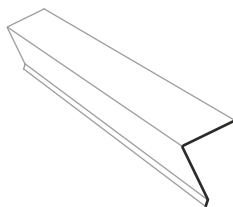
Panel Wood Screw

Fasten panels to the roof substrate using Wood Screws spaced according to the recommended fastening pattern and frequency, and in compliance with local building codes.



Eave Trim

Numbers indicate suggested trim assembly sequence.



Moisture Barrier

Install moisture barrier according to the manufacture's recommended procedure and in compliance with local building code requirements.

Trim Pancake Screw

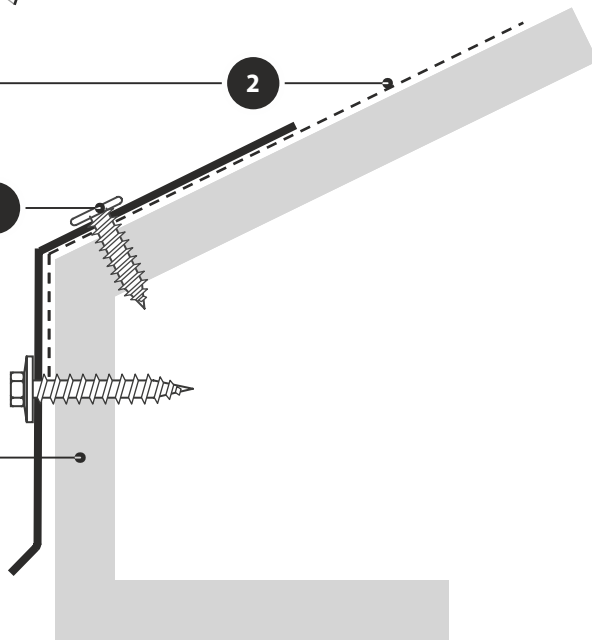
Fasten trim with Pancake Screws spaced 2' apart along the length of the trim.

Eave Trim

Install the Eave Trim and butt ends.

Roof Substrate

Install the roof substrate according to local building code requirements.



Panel Wood Screw

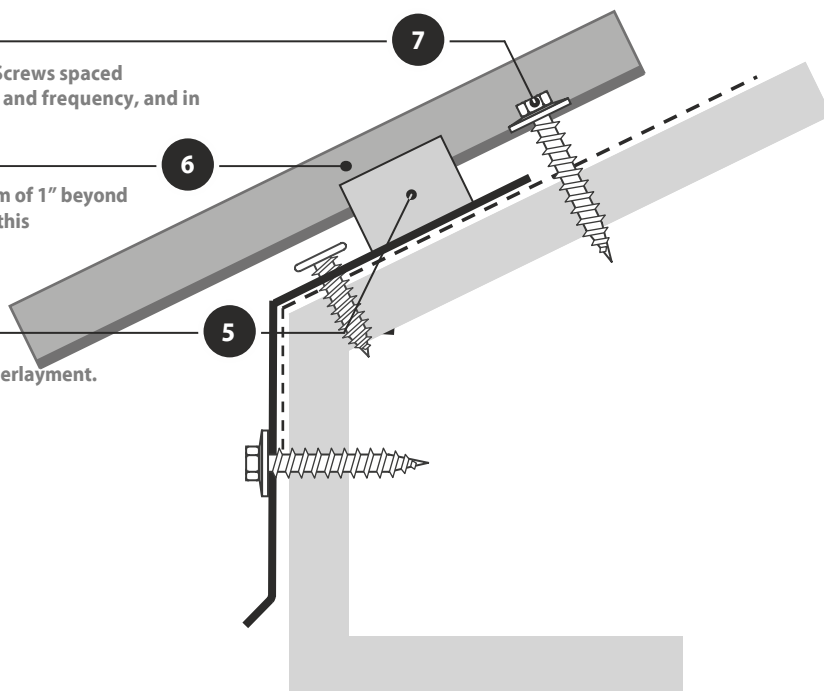
Fasten panels to the roof substrate using Wood Screws spaced according to the recommended fastening pattern and frequency, and in compliance with local building codes.

Alpine Panel

Install the panel and overhang the panel a minimum of 1" beyond the Eave Trim edge. See panel squaring method in this manual.

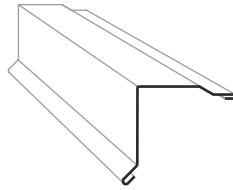
Inside Closure

Place the Inside Closure down over the eave or underlayment.



Rake / Gable

Numbers indicate suggested trim assembly sequence.



Tape Sealant

Apply Butyl Tape along the length of the panel.

Alpine Panel

Install the panel and overhang the panel a minimum of 1" beyond the Eave trim edge. See panel squaring method in this manual.

Panel Wood Screw

Fasten panels to the roof substrate using Wood Screws spaced according to the recommended fastening pattern and frequency, and in compliance with local building codes.

Moisture Barrier

Install moisture barrier according to the manufacture's recommended procedure and in compliance with local building code requirements.

Roof Substrate

Install the roof substrate according to local building code requirements.

Rake / Gable Trim

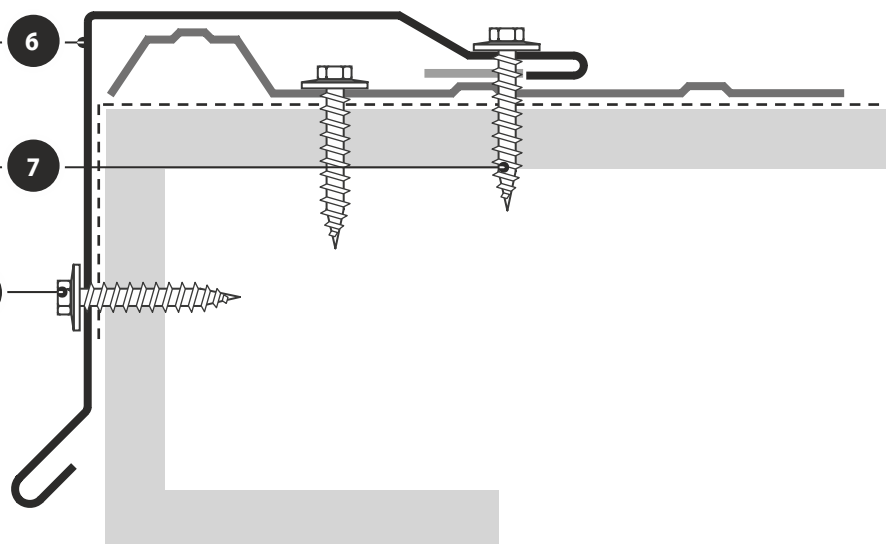
Install the Rake trim and overlap the ends 4". See lapping diagram in this manual.

Trim Wood Screw

Fasten trim with Wood Screws spaced 2' apart along the length of the trim.

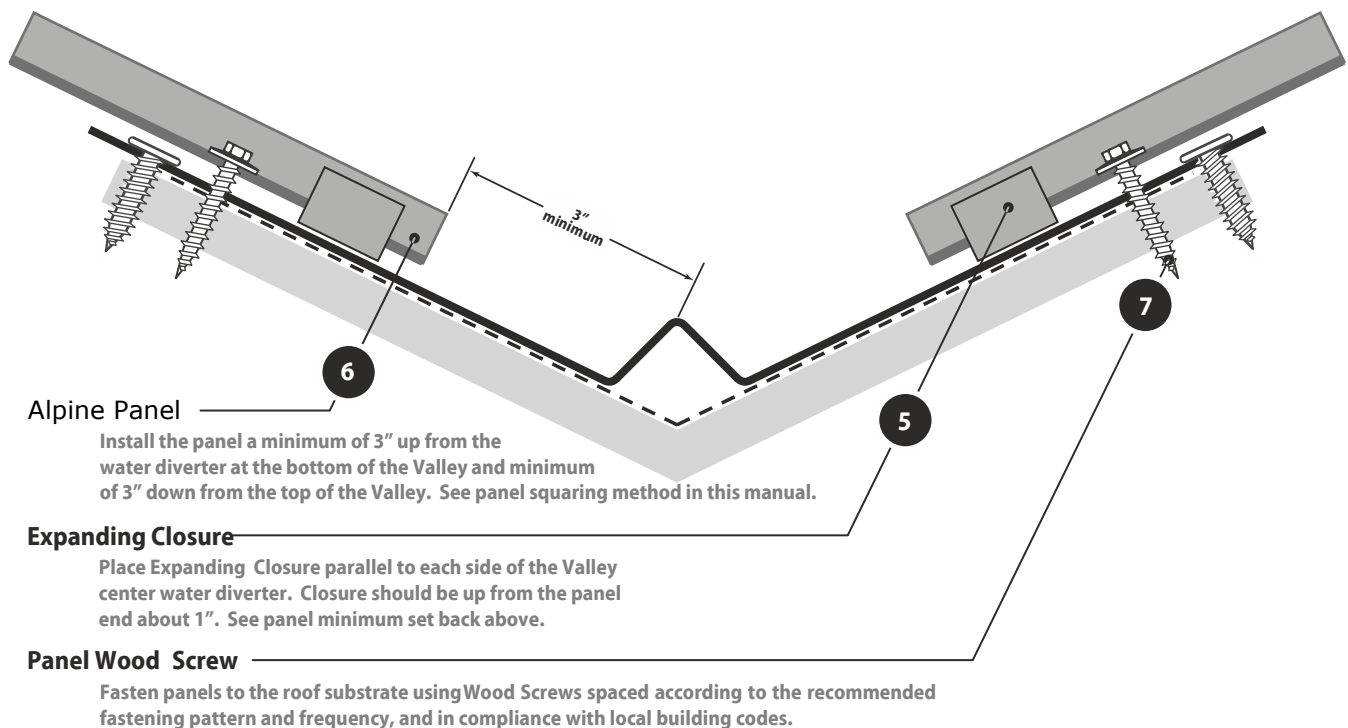
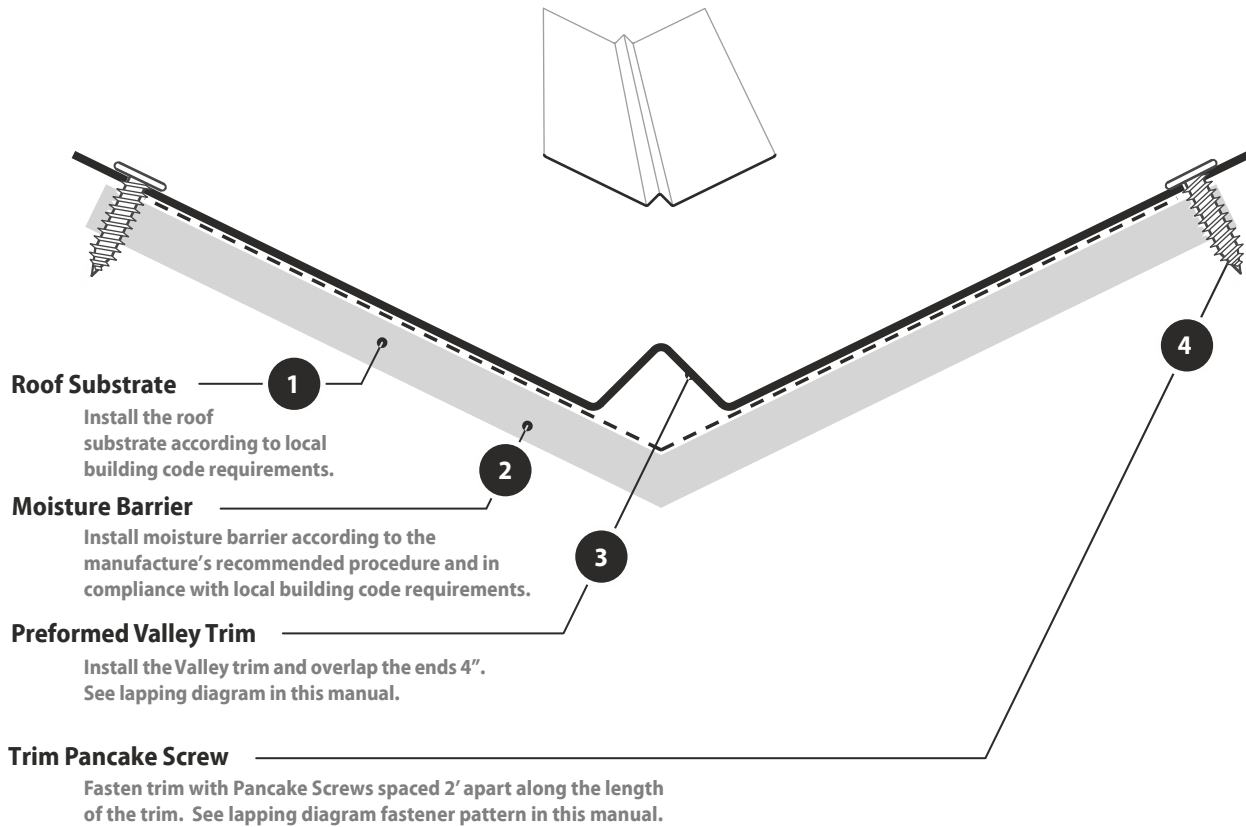
Trim Wood Screw

Fasten trim with Wood Screws spaced 2' apart along the length of the trim.



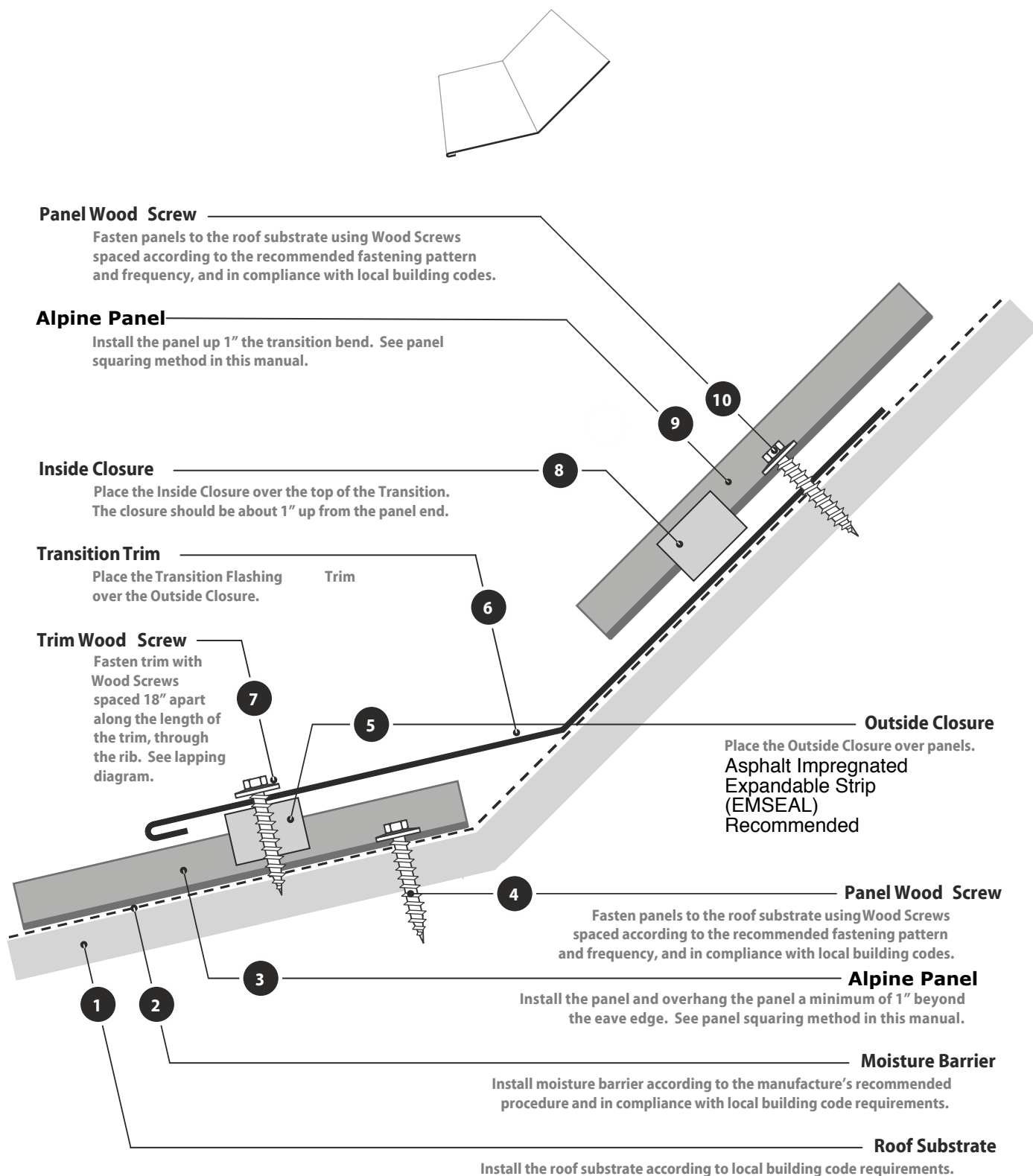
Preformed Valley

Numbers indicate suggested trim assembly sequence.



Transition / Pitch Break

Numbers indicate suggested trim assembly sequence.



Gambrel

Numbers indicate suggested trim assembly sequence.

Alpine Panel

Install the panel up 1" the transition bend. See panel squaring method in this manual.

Panel Wood Screw

Fasten panels to the roof substrate using Wood Screws spaced according to the recommended fastening pattern and frequency, and in compliance with local building codes.

Panel Wood Screw

Fasten panels to the roof substrate using Wood Screws spaced according to the recommended fastening pattern and frequency, and in compliance with local building codes.

Trim Wood Screw

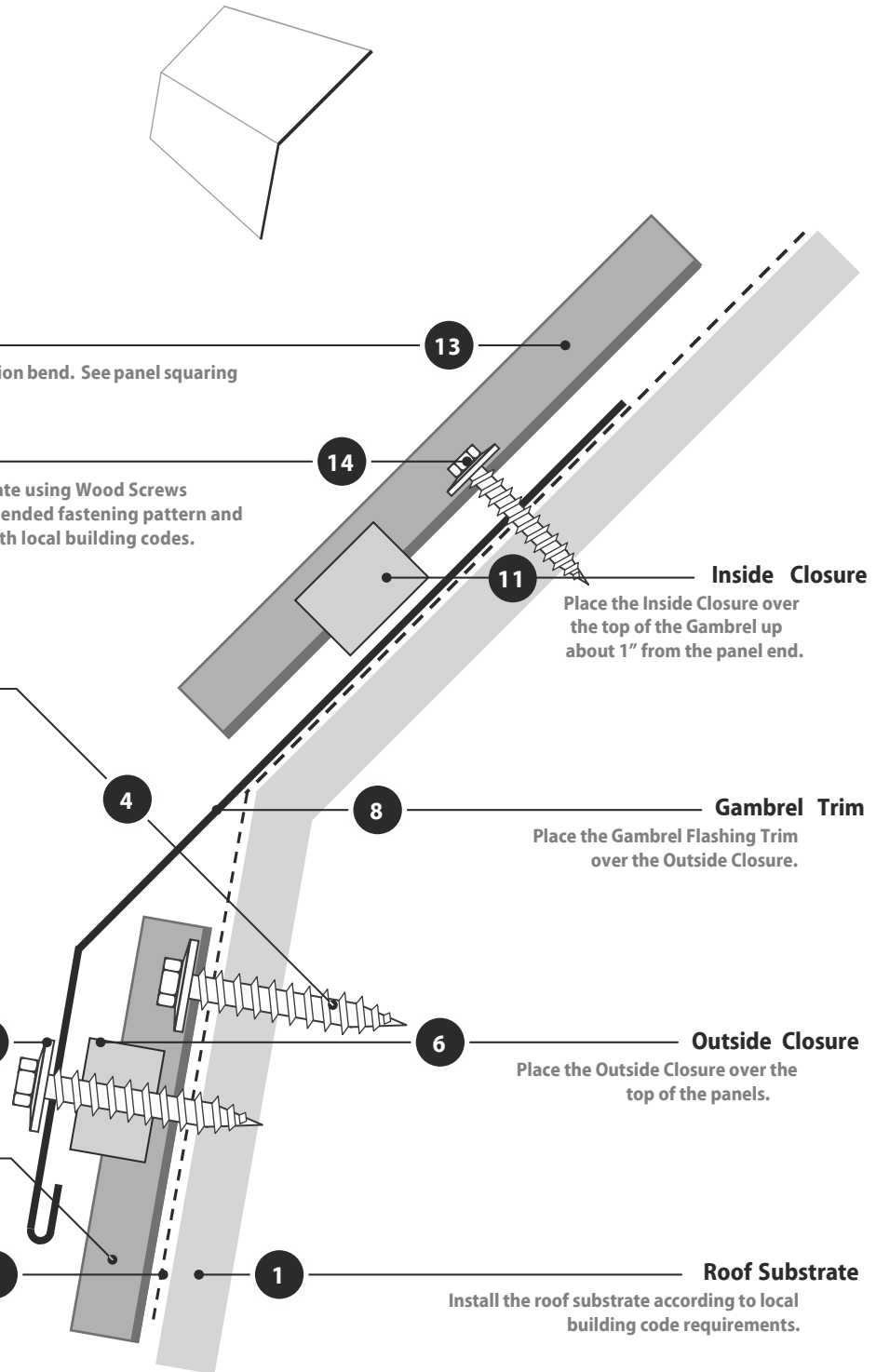
Fasten trim with Wood Screws spaced 18" apart along the length of the trim, through the rib.

Alpine Panel

Install the panel and overhang the panel a minimum of 1" beyond the eave edge.

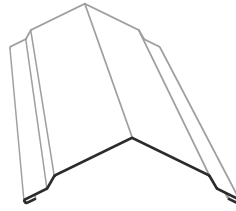
Moisture Barrier

Install moisture barrier according to the manufacturer's recommended procedure and in compliance with local building code requirements.



Hip

Numbers indicate suggested trim assembly sequence.



Panel Wood Screw

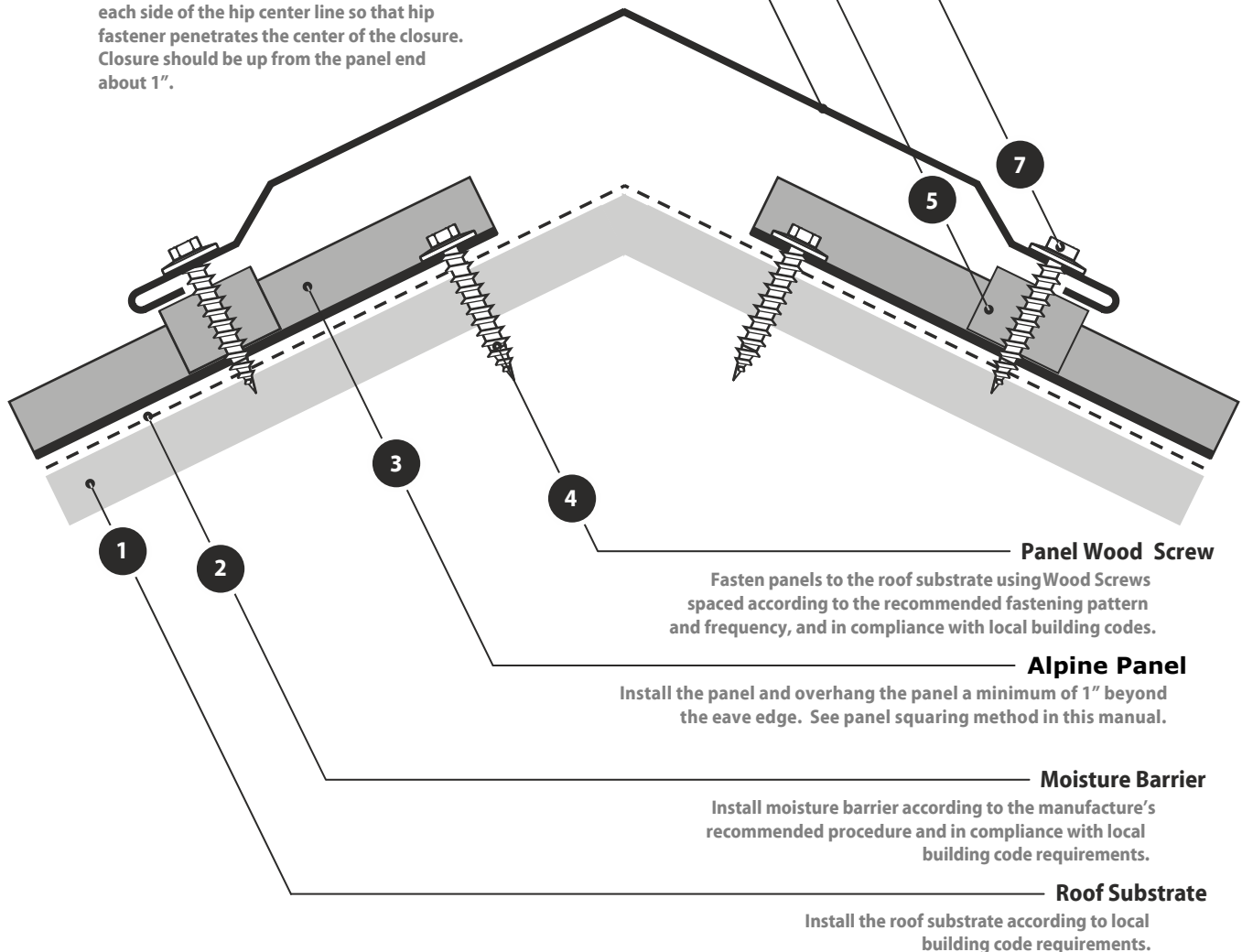
Fasten trim with Wood Screws spaced 18" apart along the length of the trim, through the rib. See lapping diagram fastener pattern in this manual.

Hip Trim

Place the Hip Trim over the Expanding Closure

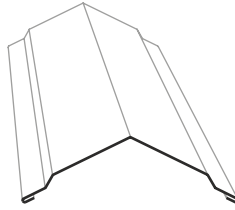
Expanding Closure

Place Expanding closure parallel to each side of the hip center line so that hip fastener penetrates the center of the closure. Closure should be up from the panel end about 1".



Ridge

Numbers indicate suggested trim assembly sequence.



Trim Wood Screw

Fasten trim with Wood Screws spaced 18" apart along the length of the trim, through the rib. See lapping diagram.

Ridge Trim

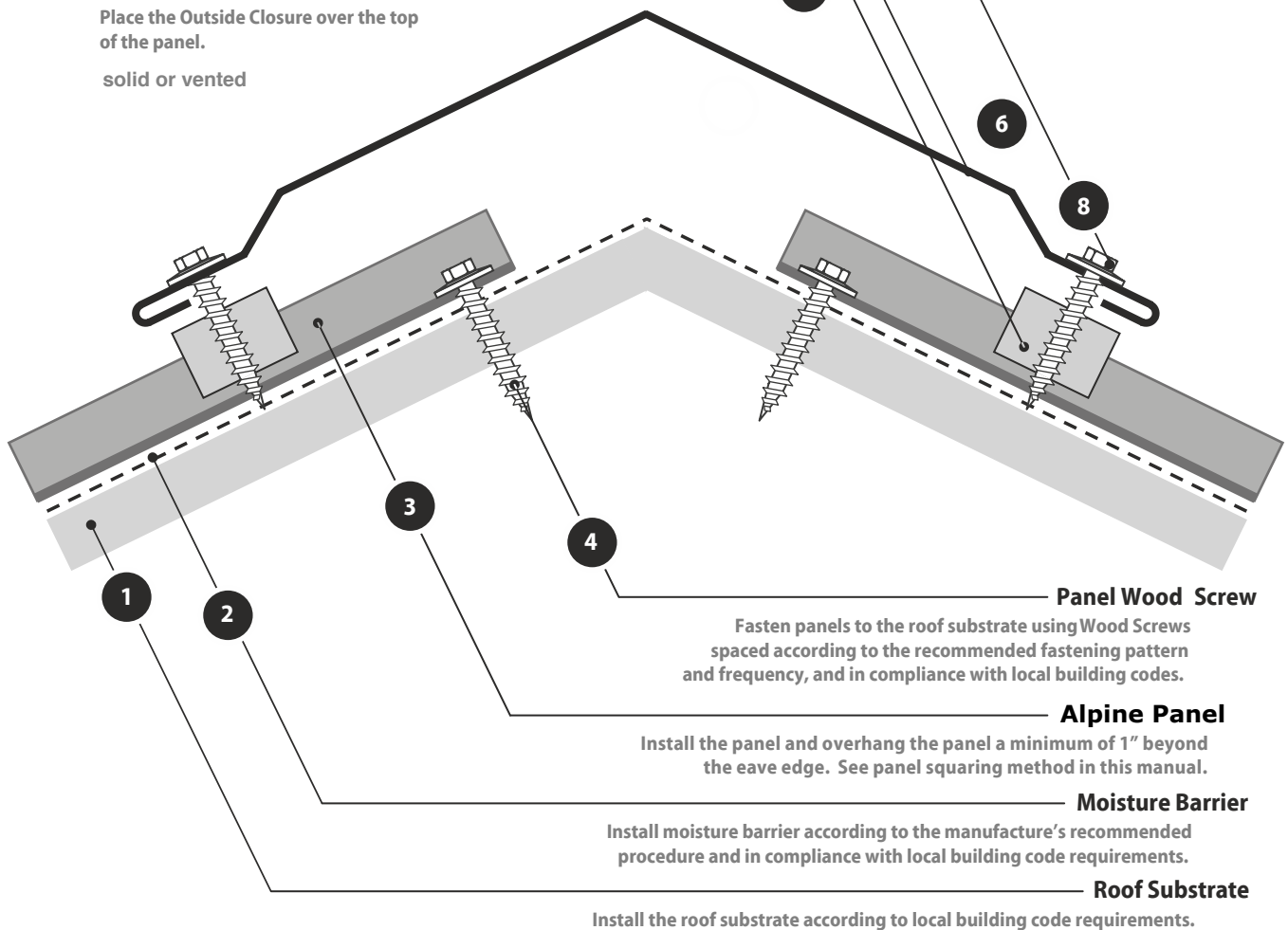
Place the Ridge Trim over the Outside Closure.

OPTIONAL

Outside Closure

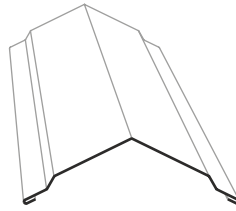
Place the Outside Closure over the top of the panel.

solid or vented



Vented Ridge

Numbers indicate suggested trim assembly sequence.



Trim Wood Screw

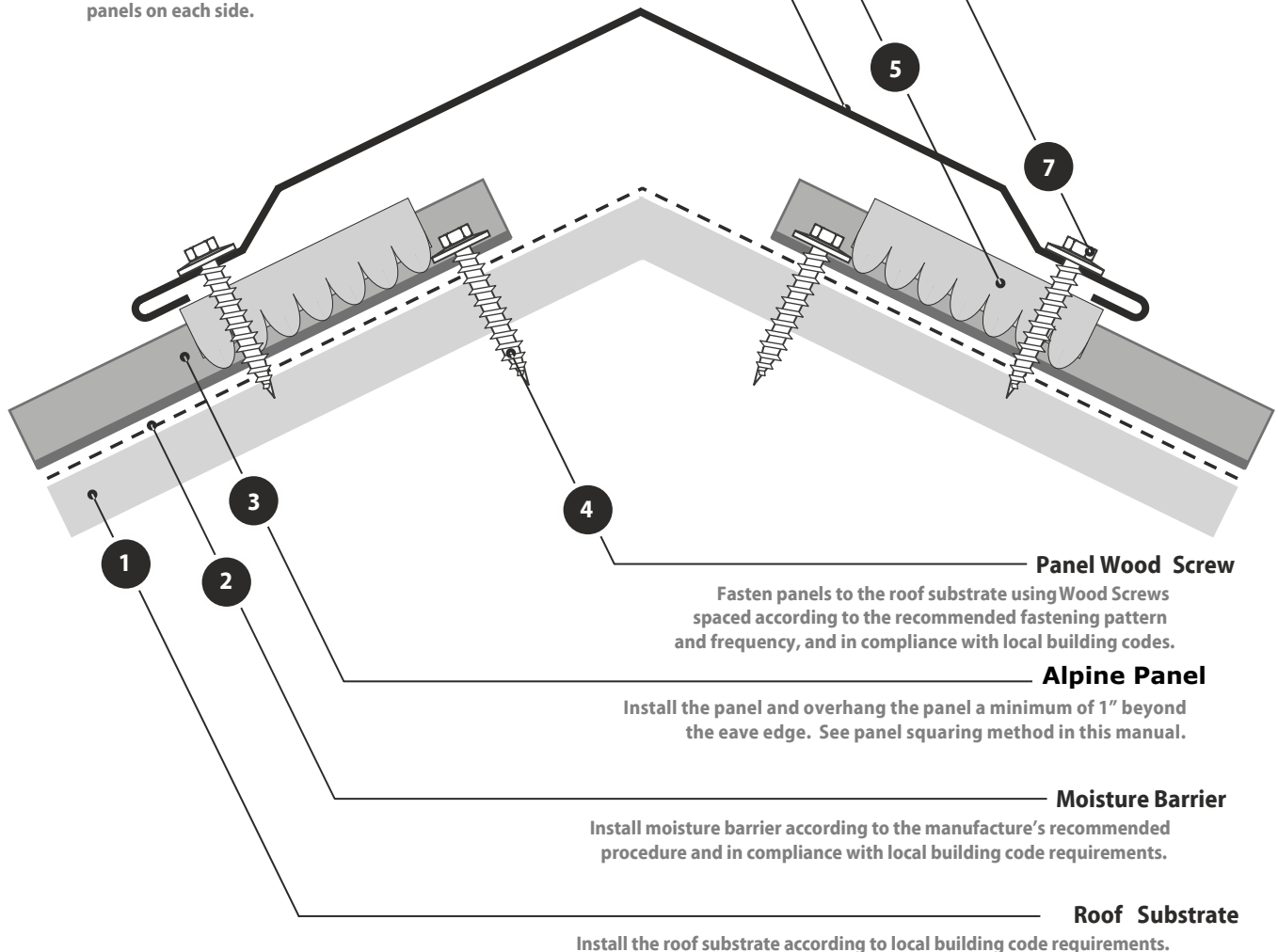
Fasten trim with Wood Screws spaced 18" apart along the length of the trim, through the rib. See lapping diagram fastener pattern in this manual.

Ridge Trim

Place the Ridge Trim over the Profile Vent.

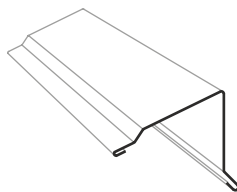
Vent Material

Apply the Profile Vent ridge venting material over the panels on each side.



Shed Ridge Cap

Numbers indicate suggested trim assembly sequence.



Trim Wood Screw

Fasten trim with Wood Screws spaced 2' apart along the length of the trim. See lapping diagram.

Shed Ridge Cap

Place the Trim over the Outside Closure.

Trim Wood Screw

Fasten trim with Wood Screws spaced 18" apart along the length of the trim, through the rib. See lapping diagram.

Outside Closure

OPTIONAL

Place the Outside Closure over the panels.

Panel Wood Screw

Fasten panels to the roof substrate using Wood Screws spaced according to the recommended fastening pattern and frequency, and in compliance with local building codes.

Alpine Panel

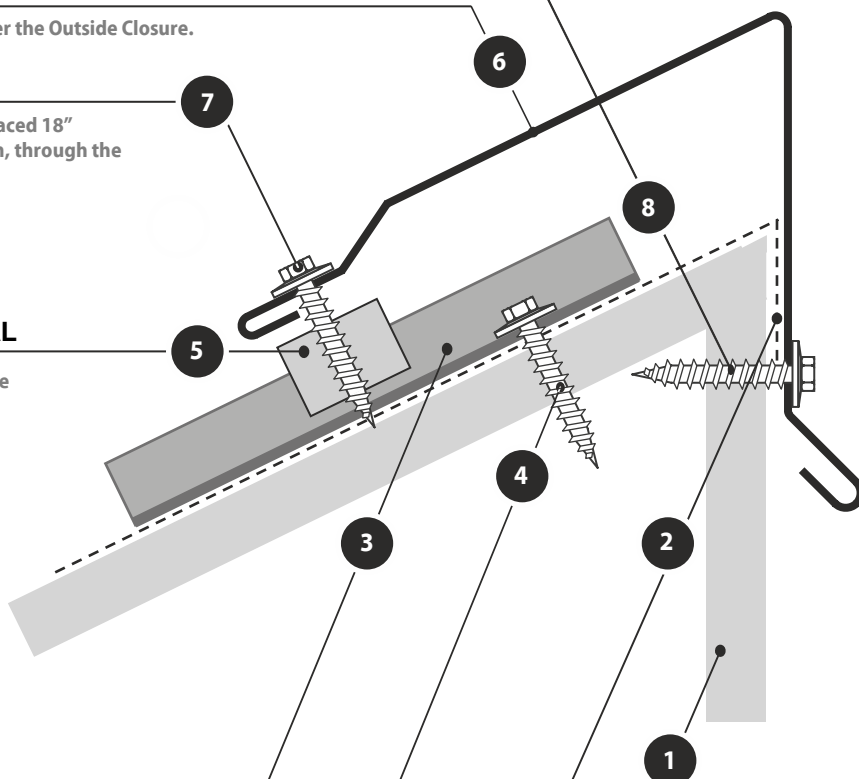
Install the panel and overhang the panel a minimum of 1" beyond the eave edge. See panel squaring method in this manual.

Moisture Barrier

Install moisture barrier according to the manufacturer's recommended procedure and in compliance with local building code requirements.

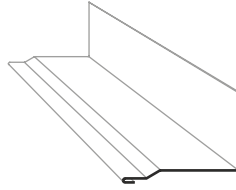
Roof Substrate

Install the roof substrate according to local building code requirements.



Side Wall

Numbers indicate suggested trim assembly sequence.



Tube Sealant

Apply Tube Sealant continuously along the Counter Flashing and generously filling the space between the flashing and the wall. Round or slope the Sealant top so that water will run off.

Trim Wood Screw

Fasten trim with Wood Screws spaced 2' apart along the length of the trim. If wall material is not wood, fasteners will be

Counter Flashing (optional)

Position the Counter Flashing above the Side Wall Trim as shown. Some applications may not need counter flashing.

Side Wall Trim

Place the Side Wall Trim over the Butyl tape and overlap the ends 4". See lapping diagram in this manual.

Trim Wood Screw

Fasten trim with Wood Screws spaced 2' apart along the length of the trim. See lapping diagram.

Tape Sealant

Apply Butyl Tape along the length of the panel.

Panel Wood Screw

Fasten panels to the roof substrate using Wood Screws spaced according to the recommended fastening pattern and frequency, and in compliance with local building codes.

Alpine Panel

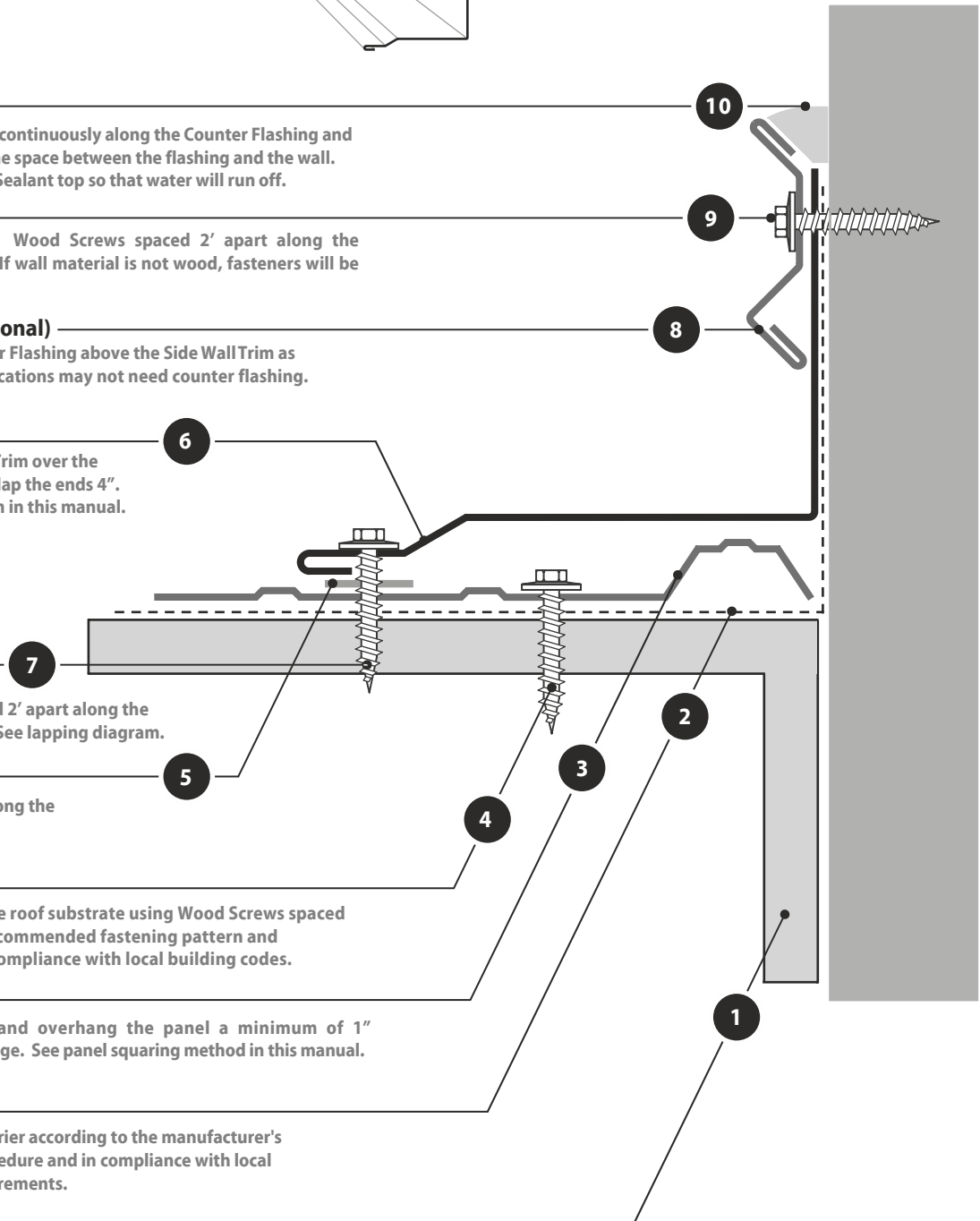
Install the panel and overhang the panel a minimum of 1" beyond the eave edge. See panel squaring method in this manual.

Moisture Barrier

Install moisture barrier according to the manufacturer's recommended procedure and in compliance with local building code requirements.

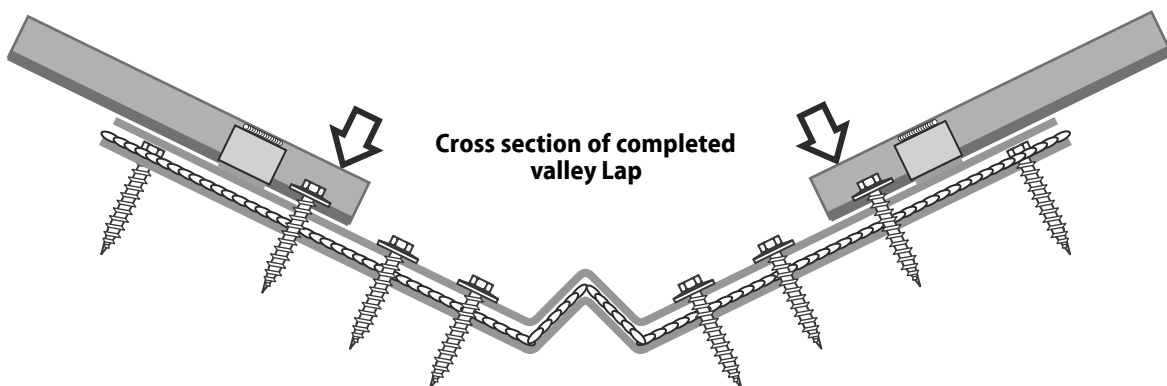
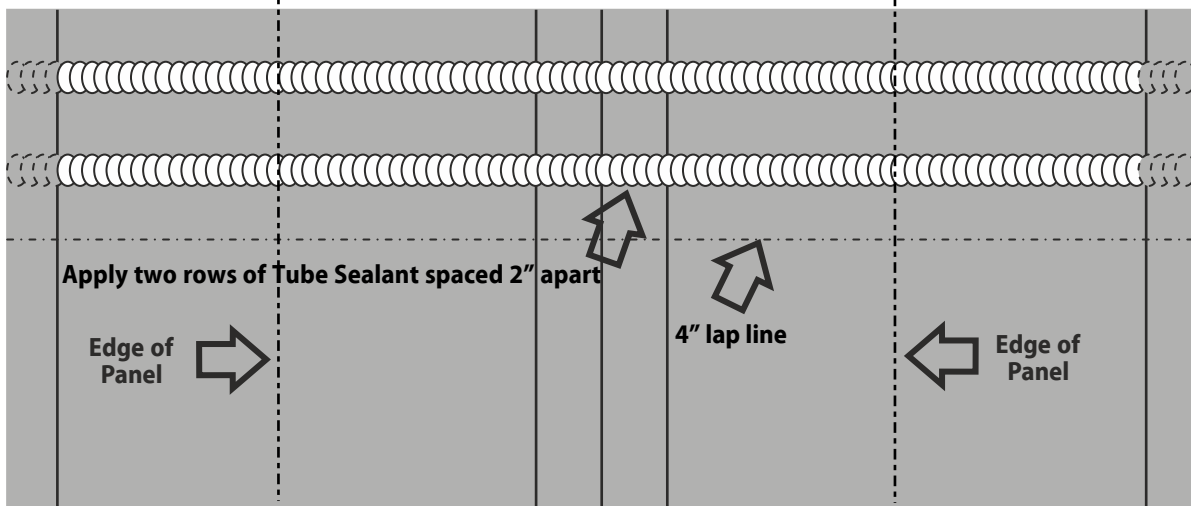
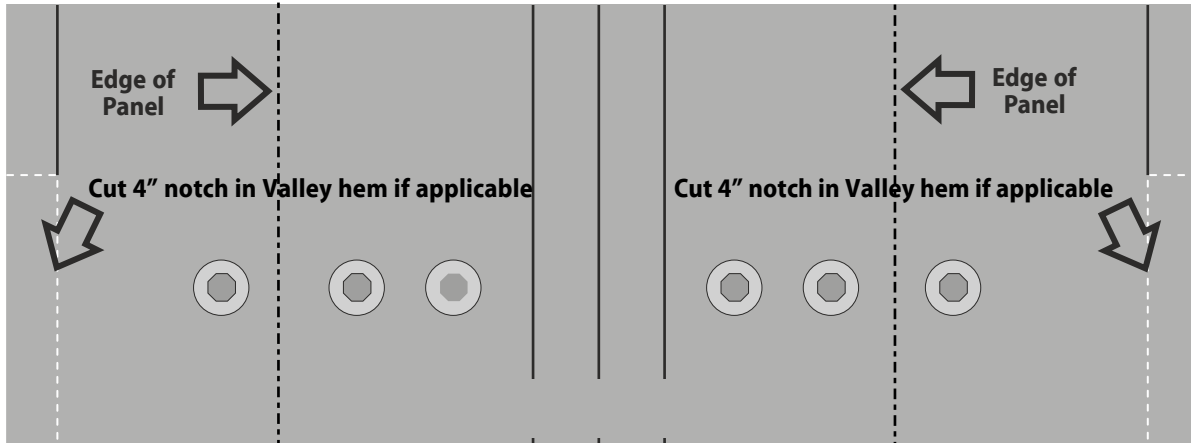
Roof Substrate

Install the roof substrate according to local building code requirements.



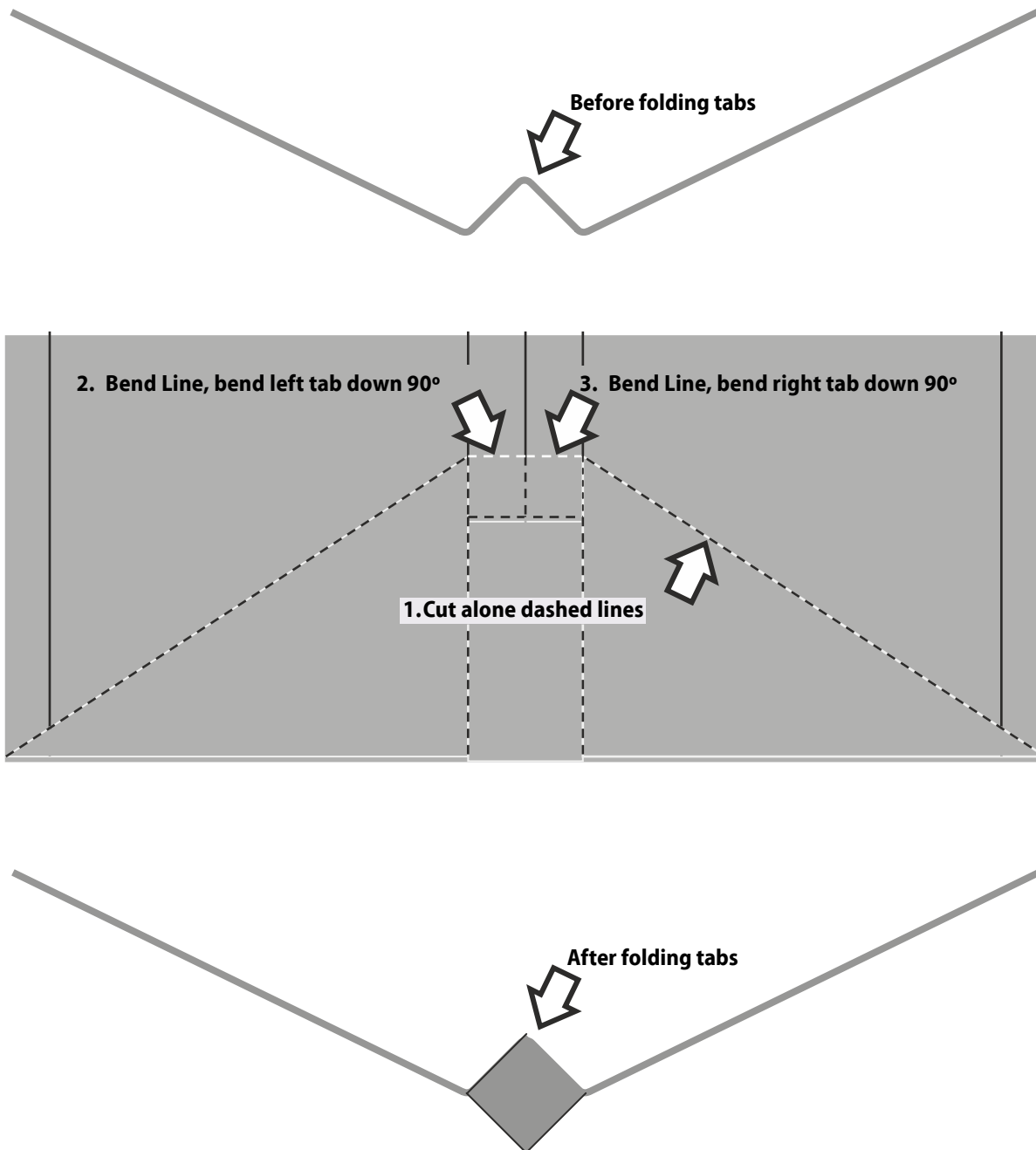
Valley Lapping

↓ After cutting notches and applying Tube Sealant, slide the up slope valley into the hem groove while lapping over the top of the low slope valley 4". ↓



Valley Cutting

Valley starter cutting diagram with water diverter tabs.



Pipe Flashing

