

# 1-PIECE, TIGHT-FIT MOLDING INSTALLATION

## 1-Piece, Tight-Fit Molding

*Laminators' 1-Piece, Tight-Fit Extruded Molding System requires no prefabrication. Panel installation is easy and economical. Moldings can either be color-matched or a contrasting color; caulk is hidden within the extrusions.*

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## Omega-Lite Panel Maintenance

### Routine cleaning:

Omega-Lite panels should be washed periodically to keep them bright. Plain water and a clean cloth are all you need to remove ordinary dirt buildup. A mild, non-abrasive household detergent with a clean-water rinse can be used for more stubborn stains. Solvents such as alcohols, mineral spirits, naphtha, turpentine, and xylene can be applied with a soft cloth. Never soak panels in solvents. You can safely use mineral spirits to remove uncured caulk and paints.

### For scratches and rub-marks:

Omega-Lite touch-up paint and re-paint instructions are available from Laminators. For larger paint repairs, call Laminators for standard paints designed for aluminum surfaces available at paint stores.

## Panels with Metallic Paint Finishes:

The protective masking on the face of each panel should be left in place until work is complete on any given area of an installation. However, to help ensure good color uniformity, periodically remove the masking from half of a panel (peel masking upward from the bottom of the panel) to check for color, scratches, and dents.

On panels with metallic finishes, a good color match is much more difficult to achieve. In this case, two adjoining panels should be periodically checked by removing the masking from half of two panels as the installation progresses. The masking should then be taped back over the panel to protect it.

Should any defects be found, stop work immediately and call Laminators for assistance.

**When installing panels with metallic finishes, it is very important that the directional arrows on the panel masking are oriented in the same direction.**

**Color variation is a characteristic of aluminum composite panels with metallic paint finishes. Laminators Incorporated DOES NOT warrant a color match for these panels.**

## Substrate and Framing

Prior to installation, the installer **MUST** verify that the framing and substrate are in compliance with all architects' specifications.

Inspect BOTH primary and secondary wall framing to verify that all girts, angles, channels, studs and sheathing, and other structural panel support members and anchorage have been installed within the following tolerances:

1/4" in any 20' length vertically or horizontally

1/2" in any building elevation

Inspect sheathing to verify that sheathing joints are supported by framing and that installation is within flatness tolerances. These surfaces must be even, smooth, sound, clean, and dry. If the substrate or framing is not within architectural specifications, the installer must submit a written report to the General Contractor listing conditions that are detrimental to the installation of panels. Do NOT proceed with installation until unsatisfactory conditions have been corrected.

## Summary of Installer Responsibility

The Panel Installer assumes total responsibility for all components of the panel installation including, but not limited to attachment to sub-construction, panel-to-panel joints, joints between panels and dissimilar material, and the joint seal associated with the panel system.

## Installation Supplies & Accessories

See page 8 to be sure you are using materials that have been tested and approved by Laminators for use with Omega-Lite panels. Inventory all materials and accessories to ensure that all materials are available on-site. Call Tech Support if you need additional recommendations.

## Receiving and Storage

**Examination:** Upon receipt of materials, perform a thorough examination to identify any damage that may have occurred during shipping. Any damage must be noted on the bill of lading at the time of receipt.

**Storage:** Panels are to be stored horizontally on pallets with a positive slope for drainage of water and should be covered with watertight and ventilated materials. *Standing water will damage panel finish.*

No more than 1500 pounds should be stacked on one pallet. Depending on panel size, this should be fewer than 50 panels at 30 pounds per panel and less than 2-1/2' high. Do not stack other materials on or in contact with panels to prevent staining, denting, or other damage. Storage temperature must not exceed 120°F (49°C).

Laminators' warranty does not cover water damage caused by improper storage or installation. Inspect panels on delivery, then store them on skids 8" above the ground. Place a breathable cover over them and store them in a ventilated space under roof.

If wet panels are discovered, uncrate them and dry them with towels to prevent wood rotting, paint staining, or aluminum corrosion.

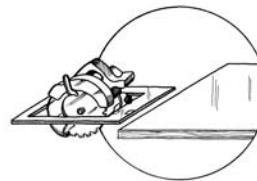
## Panel Handling

Use clean work gloves to avoid hand injury from any sharp edges and to prevent smudging of the prefinished surfaces. Although panels are shipped with protective masking on both sides, always lift one panel completely off the next to prevent scratches. Do not slide one panel across another.

Protect panels from construction hazards. Good construction practice provides for panel protection and cleaning in the contract documents. Normally these are the general contractor's responsibility. Temporary protection may be required if welding, cutting, sandblasting, or other potentially damaging construction activities are scheduled nearby.

## Cutting the Panels

Omega-Lite panels are designed to be cut to size on the job site. Even if the panels have been received cut to size, it may be necessary to do some minor trimming to account for areas of an elevation that may be out of square. To cut Omega-Lite panels, use a circular saw with a sharp, carbide-tipped blade (40-tooth minimum). Do not remove the protective masking from the panel face. After cutting, use a screwdriver or deburring tool (see page 8) to remove burrs or sharp edges from the panels.



**Carbide-tipped  
blade (40 tooth min.)  
recommended**

**Safety tip: Wear safety glasses when cutting!  
Wear gloves when handling cut edges!**

## Ventilation is Important

The wood or exterior gypsum board of the substrate must be protected and ventilated. Trapped moisture can cause major damage in a short time. When mounting over exterior gypsum or masonry, use steel strapping or hat channels to separate panels from the structure for good air circulation.

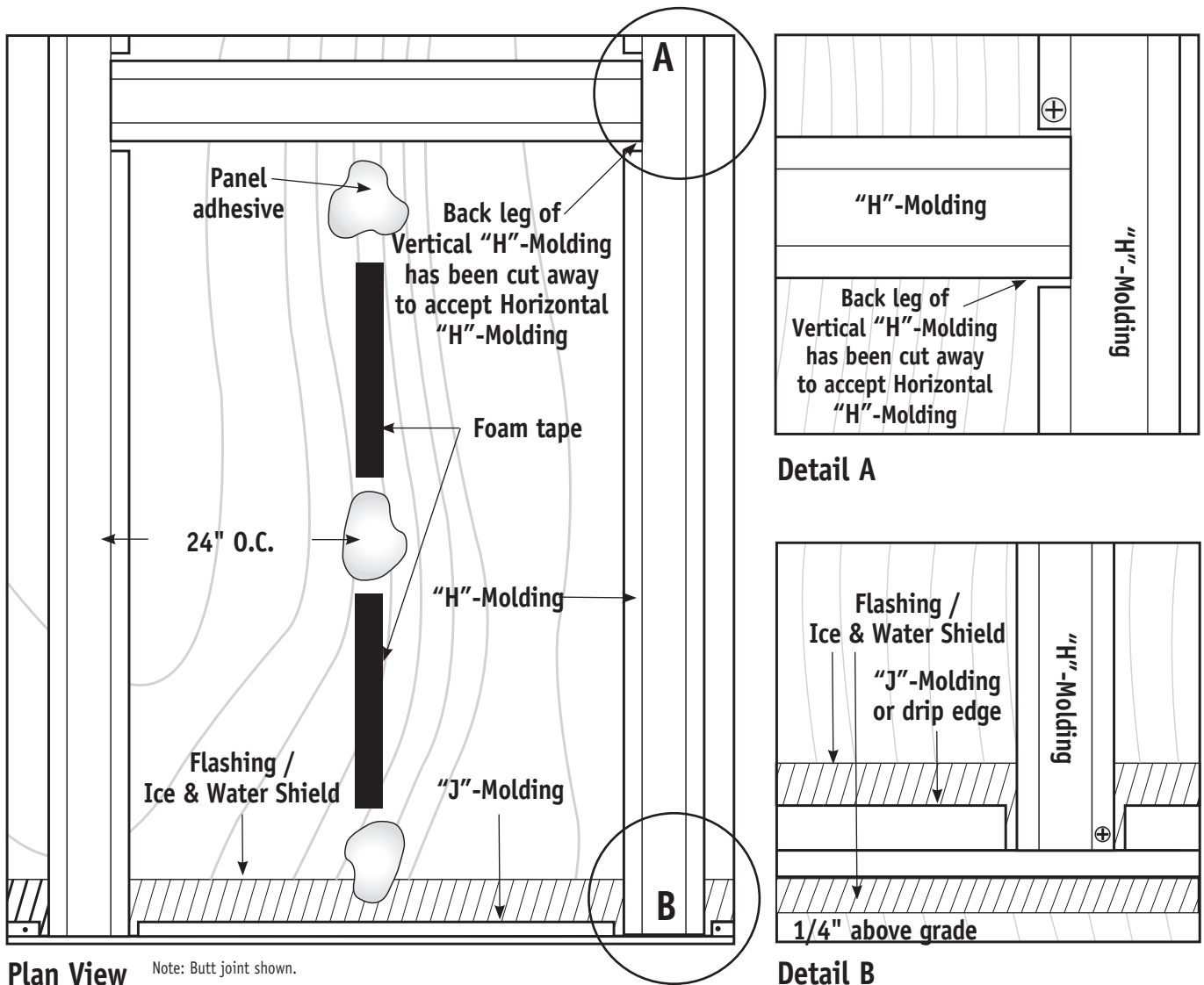
## Flashing

Laminators can supply flashing materials made from aluminum sheet painted to match the adjacent panel system or surface.

Use proper flashing technique when installing flashing with panels.

Complete CAD details and product specifications can be downloaded from our website **LaminatorsInc.com**

# Installation Over Plywood Sheathing



This installation process is the basis for mounting panels over a variety of substrates. You should read and understand this process before attempting to mount panels over other substrates such as plywood covered with water-resistive barrier, exterior gypsum with water-resistive barrier, etc.

In all cases, the same elements must be present:

- 1) A structural surface, such as plywood, that will hold mechanical fasteners, such as screws.
- 2) A surface that can be bonded to with panel adhesive.

If these two elements are not present, additional steps must be taken to provide them. Exterior grade gypsum, water-resistive barrier, or block walls are examples of substrates that will require additional

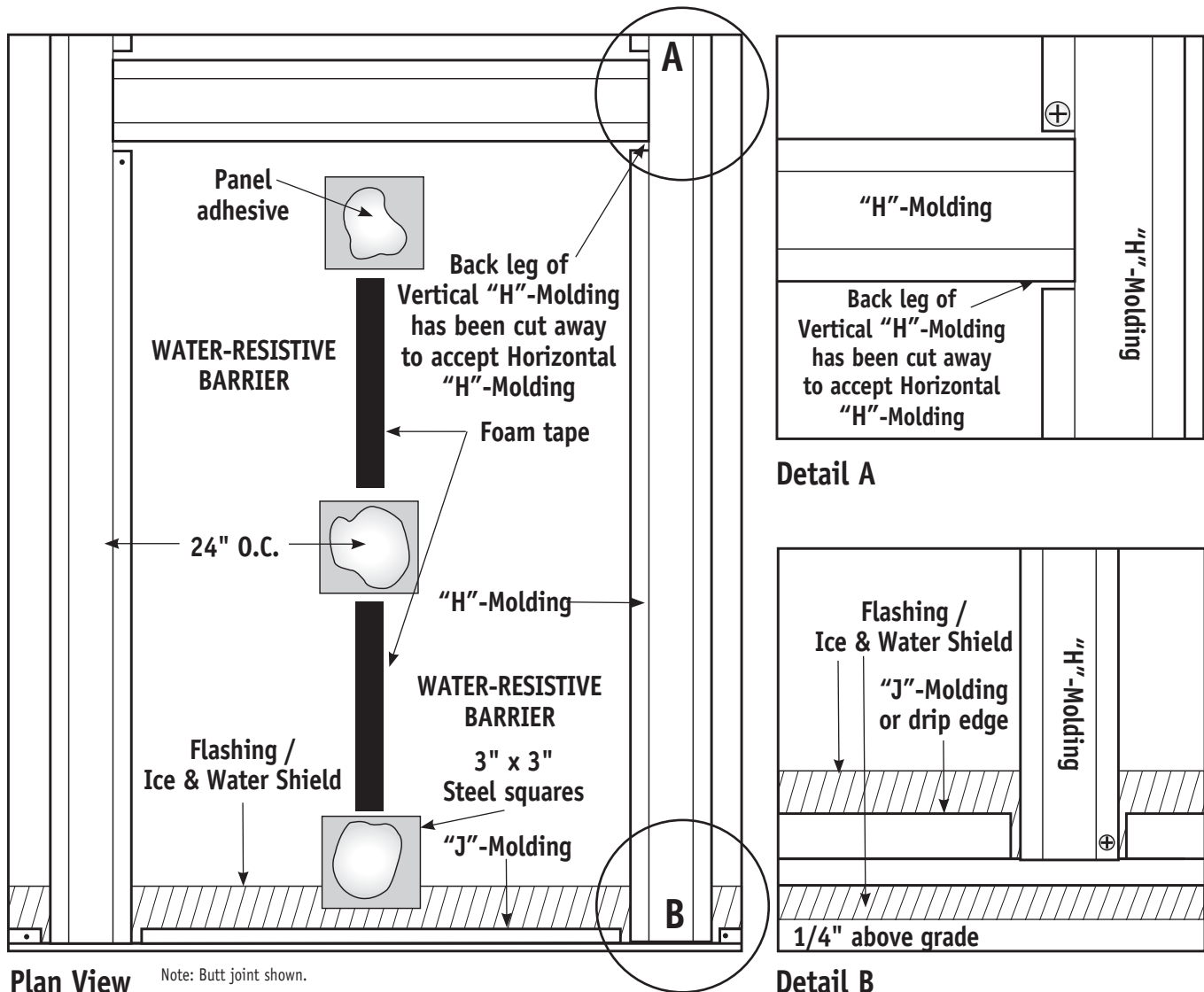
preparation before panels can be mounted. These substrates are covered in this manual.

The main drawing (upper left) depicts the layout for one panel at ground level. "J"-molding is shown: either "J"- or drip edge moldings can be used here. The detail drawings (**Detail A & B**) show close-up details from the main drawing. The instructions on page 5 explain this process and the purpose of each element shown in the above drawings. When using reveal "H"-moldings, apply color-matched caulk where the horizontal and vertical joints meet.

**Note:** To guard against water penetration, Laminators recommends that all these installation systems include a water-resistive barrier (appropriate for the climate and wall construction) installed on the substrate behind the metal wall panels.

Follow installation instructions as shown on page 5.

# Installation Over Gypsum with Water-Resistive Barrier



When installing panels over exterior grade gypsum, with water-resistive barrier, remember that neither exterior grade gypsum nor water-resistive barrier are structural.

For proper installation, 18 or 20 gauge steel squares must be used to create a surface that will accept panel adhesive.

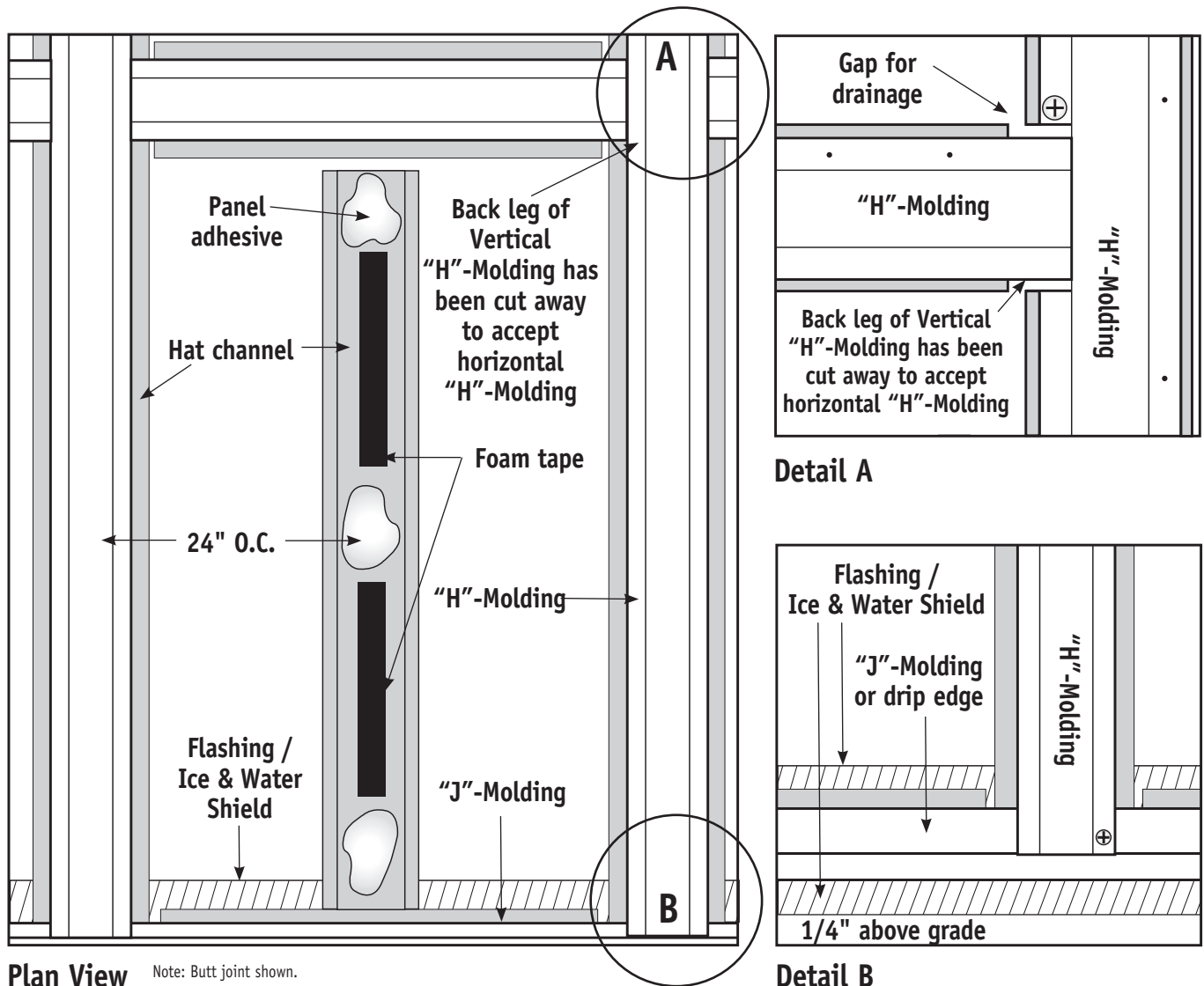
All steel squares must be attached with low-profile, pan head screws at all four corners. These screws must pass through the steel squares, the exterior grade gypsum, and attach to the stud wall. Moldings must be attached through the gypsum to the studs.

If moldings do not fall on top of steel stud, steel strapping must be installed behind the extrusion. Strapping must be attached to the studs.

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Follow installation instructions as shown on page 5.

## Installation Over Hat Channels or Furring Strips



Again, the drawing above depicts the layout for one panel at ground level. As with previous substrates, "J"-molding is shown at ground level. Either "J"-molding or drip edge moldings can be used here.

Hat channels are used for installing panels over surfaces such as brick or masonry that, while structural, cannot directly accept the Tight-Fit Molding System. Hat channels can also be used to create additional depth behind the panels if required. Hat channels should be 3" wide across the face and a minimum of 1/2" in depth.

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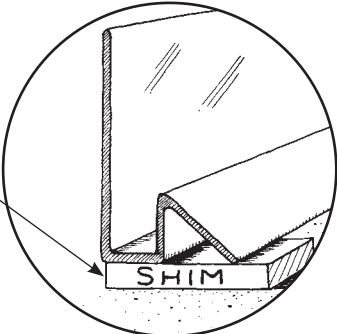
## Installing the Moldings

### Set up a clean worktable

Using available materials (straight 2x4s, 3/4" flat sound plywood with smooth surface, or MDF plywood for precision work) construct a worktable at least 48" x 96" and at a comfortable working height. Place a strip of 2" masking tape along the short edge of the worktable. This will enable you to clean any excess caulk off the tabletop. To keep the panel from moving, drive two stop-screws into the tabletop at the end opposite the masking tape.



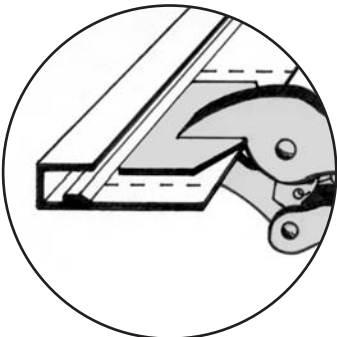
1/8" minimum



### Step 1: Attach bottom molding to substrate

Snap a level line at 1/4" above ground level (or more) as determined by site supervision. Keeping the molding 1/4" above ground level, use galvanized drywall screws to attach the molding to the substrate. Fasten one screw per hat channel or furring strip on verticals, and one screw every 16" to 24" O.C. on horizontals. Ice and water shield is recommended to prevent water from getting to the wall at ground level. This is shown in **Detail B** on page 2 and 3.

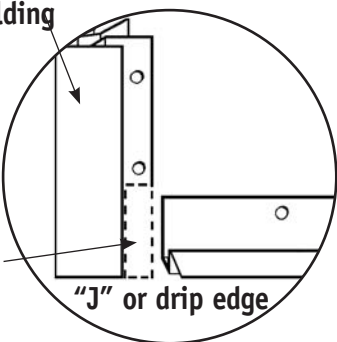
*See manufacturer's instructions for the proper use of ice and water shield.*



### Step 2: Cut away intersecting molding

The dotted line shown in the drawing indicates an area where two moldings will intersect. This area must be cut away so that after installation, moldings will sit on the same plane. An area approximately 4" should be adequate for the entire intersection. Use tin snips to cut the area to be removed. You may score the back of the "J"-molding at the bottom to keep extra flush against plywood. Using sheet metal pliers (duck-bill vice grips), bend the material up and down until the piece snaps off.

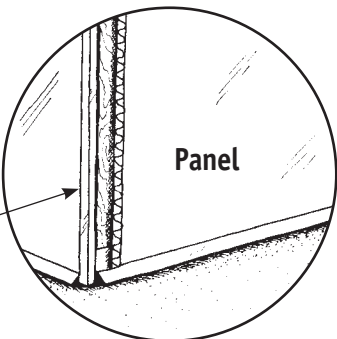
"H"-Molding



Piece cut away from the corner

### Step 3: Attach vertical molding

Screw moldings down as close to intersections as possible to ensure that everything sits flat. Countersink galvanized drywall screws.



Vertical molding

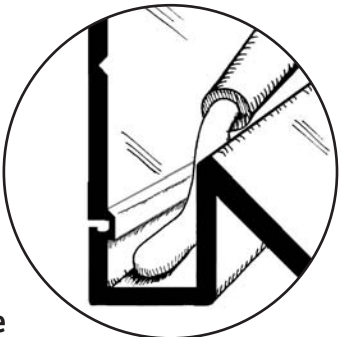
### Step 4: Cut the first panel to size

Measure and cut the first panel to size. Deduct 1/8" from the panel size to allow for expansion and contraction. Dry fit the panel to make sure it fits properly.



## Step 5: Remove panel masking

Remove the masking from the back of the panel. Pull the masking back about 6" from all edges in the front of the panel but do NOT remove it completely.



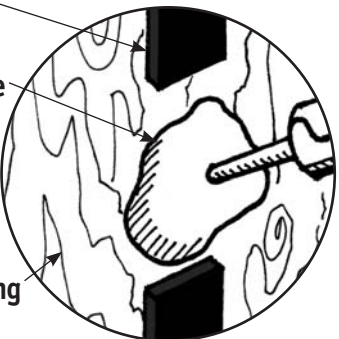
## Step 6: Apply Foam Tape

Apply foam tape to the substrate as instructed on pages 2 through 4. This will help to prevent panel "suck in" when the adhesive cures.

## Step 7: Apply caulk to moldings

Using a Laminators-approved silicone caulk, run enough caulk into the moldings so it will seal the edges when the panel is inserted. Use a 1/4" diameter (approx.) bead and be sure that there are no skips in the caulk. Fill the corner molding with caulk. Caulk molding one panel at a time.

Foam tape

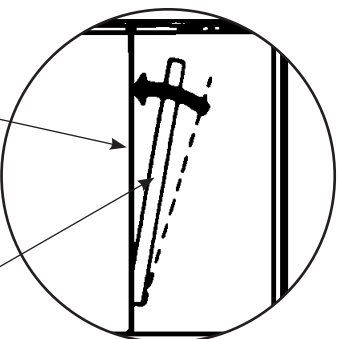


## Step 8: Apply panel adhesive

Apply beads of Laminators-approved panel adhesive (See list on page 8) to the furring strips, sheathing, steel squares or hat channels as appropriate, using generous 3" wide dabs staggered every 16" O.C. The adhesive should go between the strips of foam tape and must make contact with back of panel. Refer to panel adhesive and caulk manufacturers' working times before applying to ensure proper adhesion.

Panel adhesive

Sheathing



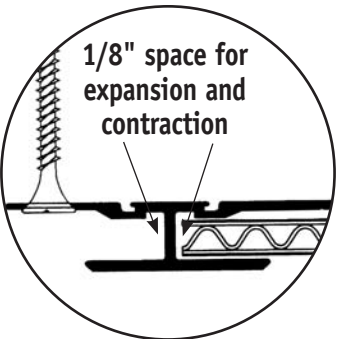
## Step 9: Install first panel

Slide the panel sideways into the pre-caulked outside corner or edge molding. If necessary, use wide blade putty knives to fit the panel into the vertical molding. Measure to be sure the panel is completely inserted into the molding.

If necessary, nudge the panel into place using a 2x6 as shown and tap it with a hammer to prevent damage to the panel edge.

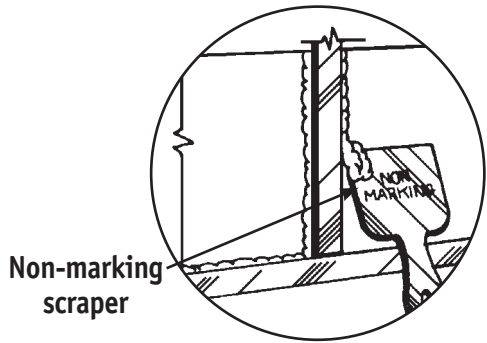
Panel edge

2x6



## Step 10: Install top molding

If molding is required at the top of the first row of panels, leave 1/8" space for expansion and contraction. Fill the molding with caulk to seal the panels and attach it along the top edge of the panel. The shims provide space for panel expansion caused by weather changes or direct sunlight.



## Step 11: Install next molding

Take the next vertical molding piece, caulk the short leg, and fasten the long leg of the “H” or reveal molding using recommended fasteners.

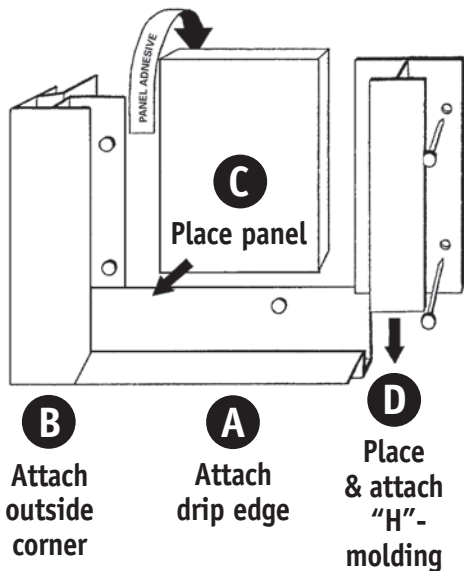
## Step 12: Continue panel installation

Remove excess caulk with a non-marking plastic scraper. Mineral spirits and a clean rag should be used to remove any residue that the scraper missed.

Continue installing panels until the job is completed. Cover the top of the panels with a temporary tarp to keep water out if a parapet or flashing detail is to be installed at a later date. Remove masking from the front of the panels.

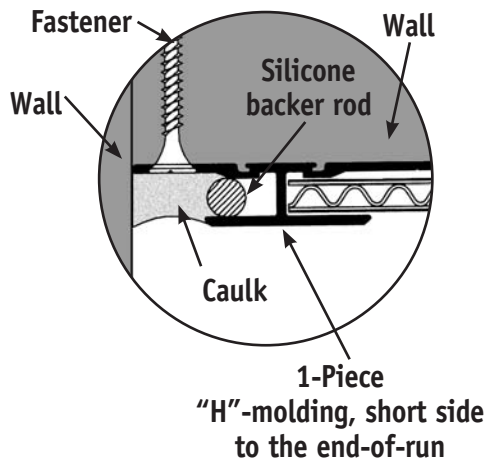
**Caution:** All the masking must be removed within 2 weeks, otherwise it may affect the appearance of the panel and may be difficult to remove.

**Note:** Remember to remove any shims from under the bottom molding when installation is completed.



## Installation summary:

- A. Attach drip edge moldings fastened every 12" with recommended fasteners.
- B. Attach outside corner molding making sure to notch the back of the corner molding to allow the drip-edge to lie flush against the wall.
- C. Install panel. Be sure masking has been removed from back of the panel.
- D. Place and attach “H”-molding.



## End-of-run detail

For 1-Piece, Tight-Fit moldings, fill an “H”-molding with caulk. Attach it to the final edge, then install the final panel to complete the run.

- Aviation or “tin” snips for cutting extrusions or flashing metal
- Carpenter’s circular saw (7-1/4" blade) with 40 teeth (min.) for cutting panels to size – triple chip grind (for nonferrous metal or plastic)
- Deburring tool (or screwdriver) to remove burrs from cut panel edges
- Disc grinder or sander (4-5") to adjust sheathing, panel, and extruded moldings for a good fit.
- Fine, single-cut flat file for trueing metal edges of panels or moldings
- Hammer (with crutch tip) or a rubber mallet to adjust panels
- Jigsaw with sharp, 24-tooth, sheet metal cutting blade to make panel cuts
- Miter saw for cutting extruded aluminum moldings
- Sheet metal pliers (duck-bill vice grips) to trim moldings
- Screw gun to drive self-drilling, self-tapping screws for mounting panels and extruded moldings with #2 Phillips-head tips and 1/8" quick-change drill bits
- Screws (*galvanized*)
  - 6 x 1-1/4" bugle-head drywall or #8 or #10 phillips-head pan-head screws for securing extrusions into sheathing
  - #8 or #10 x 3/4" or longer, TEKS/3 screws
  - #6 x 1/2" and #6 x 1" Phillips pan-head, TEKS/2 screws for mounting moldings to plywood or metal
- Caulking gun (11oz. and 1-quart tube) for panel adhesive
- Caulking rope or backer rod; use 1/4" or 3/8" to suit job
- Clean rags (24), approximately 2' x 2' in size for caulk wiping and clean-up
- Masking tape (Scotch® Safe Release™ Masking Tape is recommended) 1" wide
- Mineral spirits to clean caulk from panels if necessary
- Plastic putty knife (1-1/2") for use with 1" masking tape to keep caulk off the panel faces, making the job easy to clean up
- Utility knife to cut and trim tape
- Furring strips or studs as needed
- Gloves (clean) to handle panels
- Insulation, 3/4" foam to go between furring strips
- Peel-and-stick flex flashing (“Snow and Rain flashing”) for flashing building transitions and bottom edges of sheathing
- Safety goggles
- Rubber shims, for spacing
- Wood shims, for spacing between ground and bottom molding
- Tape measure
- Panel Adhesives (*Tested and Approved*)
  - Surebond® (1-847-843-1818) SB-400; PS-800
  - Macco Adhesives (1-800-634-0015) LN-901 Liquid Nails® Heavy-Duty for Construction and Remodeling
  - Franklin International (1-800-877-4583) Titebond® construction adhesive
- Silicone Sealants (*Tested and Approved*)
  - GE Silicone (1-800-332-3390) Silpruf® Silglaze® II
  - Dow Corning (1-800-248-2481) (20 year warranty available) 791 Silicone sealant 795 Silicone sealant 995 Silicone sealant
  - Tremco (1-800-321-7906) Spectrem® 1
- Gaska Tape, Inc. (1-800-423-1571) V 710 3/16" x 1/4" x 2"

*Note: Trademarks are registered by the companies noted*

### How much will I need?

For every 100 square feet of Omega-Lite panels you will need:

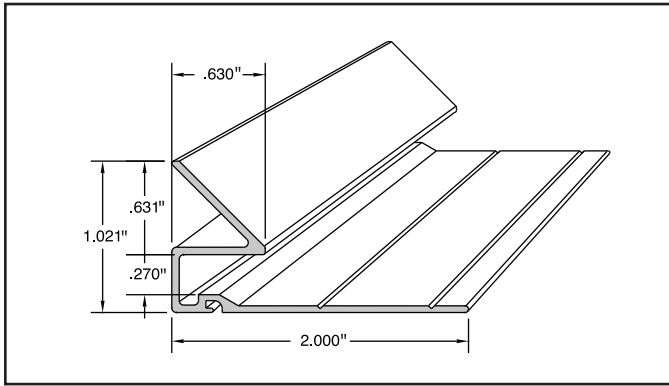
- 3 tubes 11oz. silicone caulk
- 1 tube 28oz. panel adhesive
- 1 roll 2" x 50' closed cell PVC foam tape

Use only caulk from our recommended list, referring to the caulk manufacturer’s guidelines for skin formation, tack-free time, and cure times. Remember – environmental conditions are the biggest factor in determining the appropriate caulk for your project.

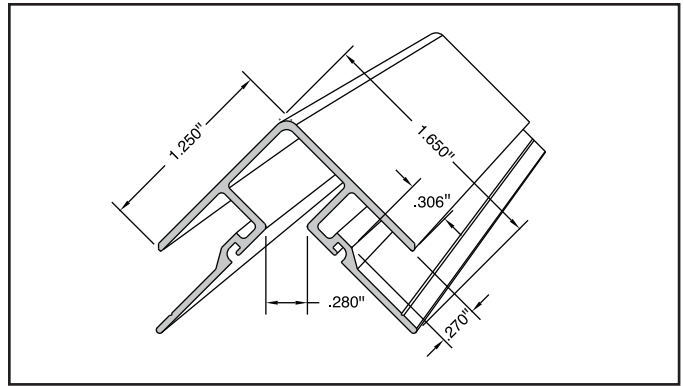
Caulk only one joint at a time, in 4' to 6' sections, so that the caulk finishes smoothly and does not skin over before it can be tooled. Allow the caulk to build strength in an overnight cure to prevent bubbles. Consult with us if your caulk is not performing as expected.

Apply panel adhesive generously to the sheathing to prevent it from warping the panel as it dries. Place closed cell PVC foam tape in the field of the panel to shim the adhesive to the proper thickness away from the furring or sheathing.

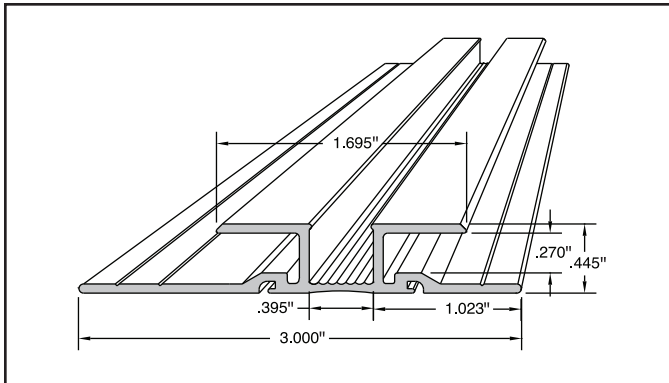
## 1-Piece, Tight-Fit Molding...for use with Omega-Lite panels



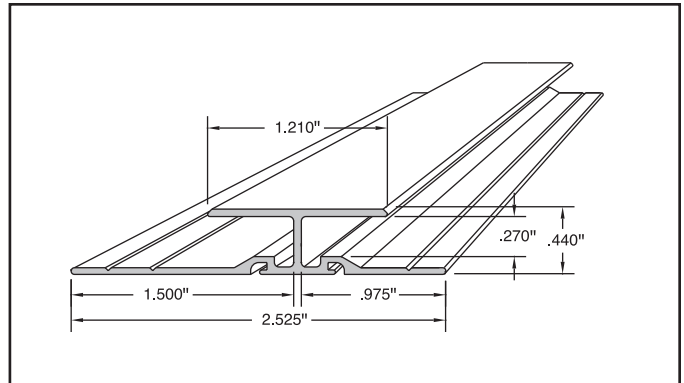
**Item 4525X:** Inside Corner (Drip Cap)



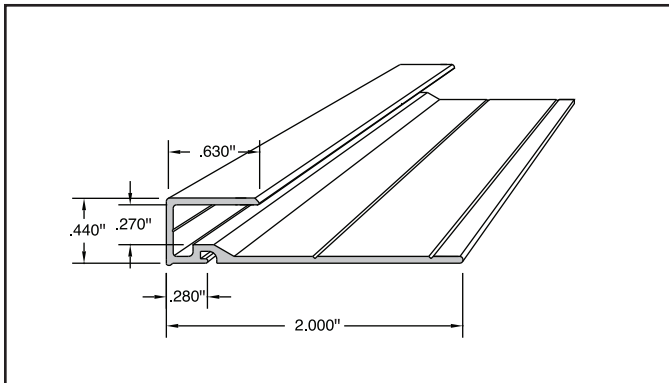
**Item 4535X:** Adjustable (Bendable) Outside Corner



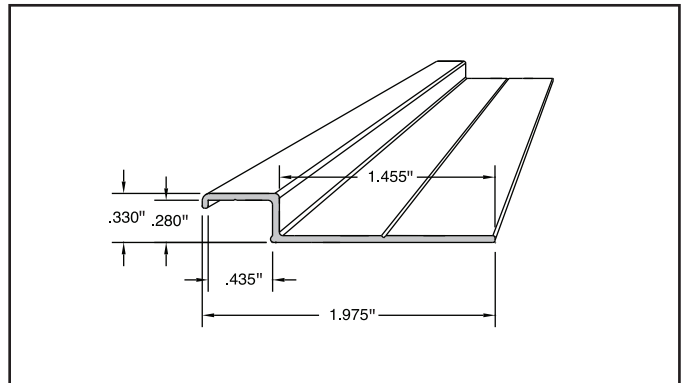
**Item 4595X:** Reveal "H"-Molding



**Item 4505X:** "H"-Molding

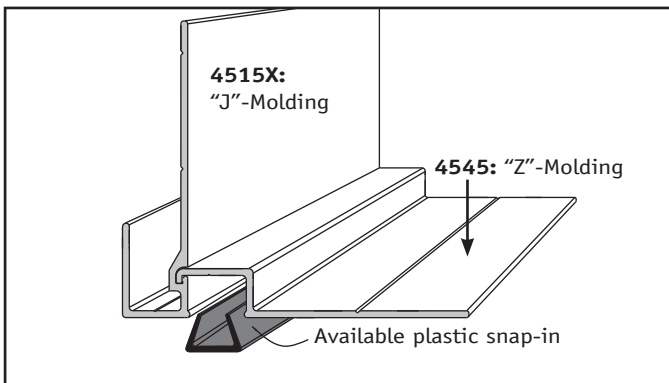


**Item 4515X:** "J"-Molding



**Item 4545:** "Z"-Molding

*The letter "X" identifies the molding color.*



Fascia Soffit or Outside Corner ("J"-Molding & "Z"-Molding combined with plastic snap-in molding)

