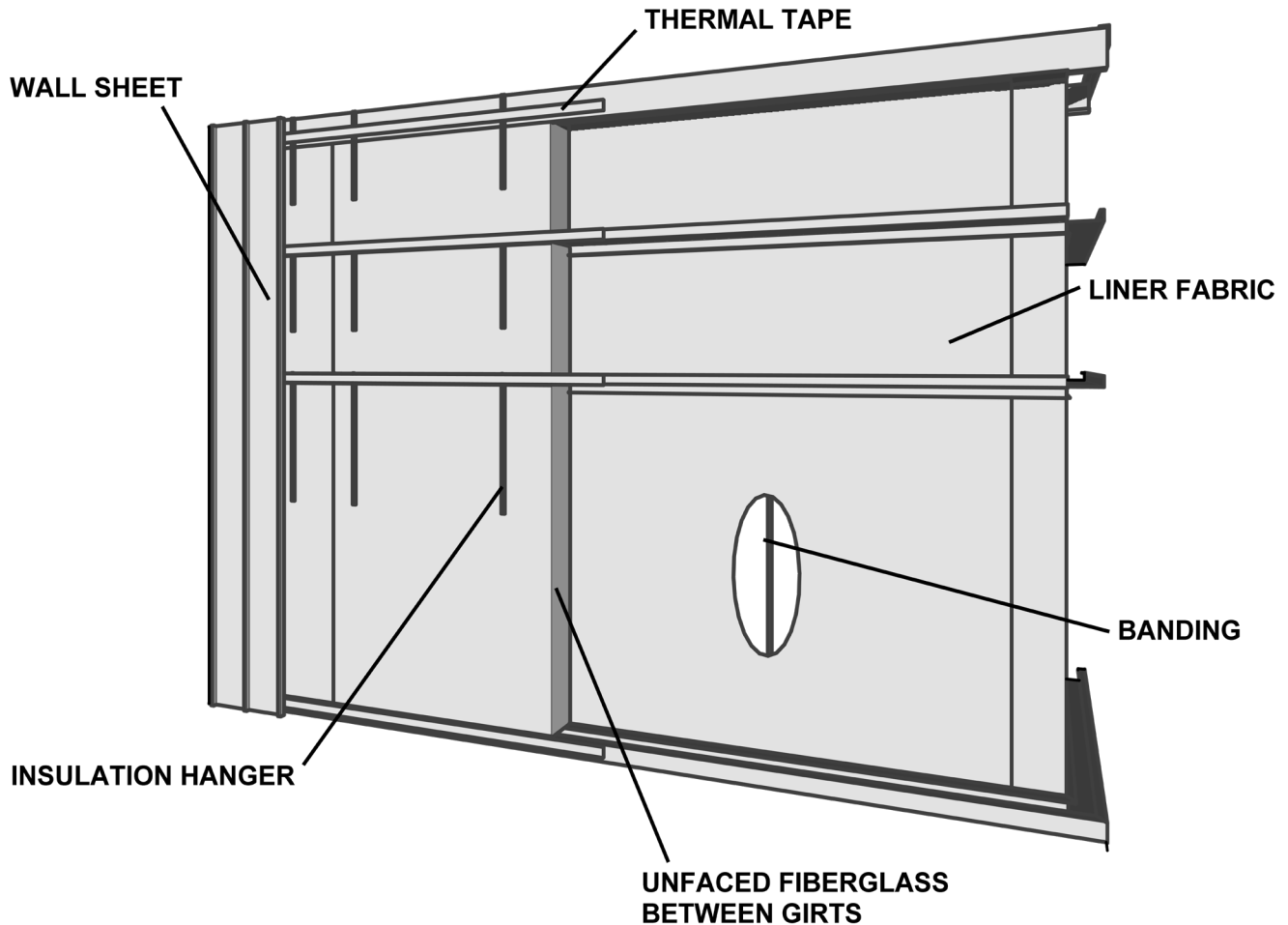


Liner Banded Liner System

Wall Installation Instructions



Introduction

The Liner Banded Liner System is designed to provide maximum thermal performance in pre-engineered metal buildings using NAIMA 202-96 Owens Corning fiberglass. In addition to meeting energy code requirements, ProLiner™ improves the acoustical environment and aids in sound abatement, and provides a brighter finished interior.

General

Safety Considerations

This system shall be installed by a contractor employing a site-specific safety plan. Comply with all OSHA applicable local and federal rules and regulations when installing this system. Workers must use OSHA required fall protection when installing the banded liner system at heights (see OSHA regulations at 29 CFR 1926 M).

Caution - Required Personal Protective Equipment: Safety glasses, cut-proof gloves (for sharp banding edges), long sleeve/loose fitting clothing (for insulation installation).

Before You Start

- Open pallets and packaging to ensure complete order was received. Therm-All nor the carrier are responsible for missing or shorted materials if not noted on the carrier's bill of lading upon delivery.
- Review shop drawings to ensure each custom-made fabric panel is installed in the appropriate area.
- Obtain necessary rake/base angles for your building type for fabric and banding attachment.
- Optional lightweight steel angle for ProLiner™ roof to wall fabric transition is recommended (see shop drawings for detailing).
- Assemble appropriate equipment and tools.
- Assure weather is appropriate to begin installation. Never install fabric panels in a bay that can't be covered by day's end.

Materials List

- 1" banding (and dispenser)
- Fabric panels
- TEK fasteners
- Double-sided tape
- Insul-Hold coils
- Thermal break foam tape
- Insulation per specification
- Patch tape if required

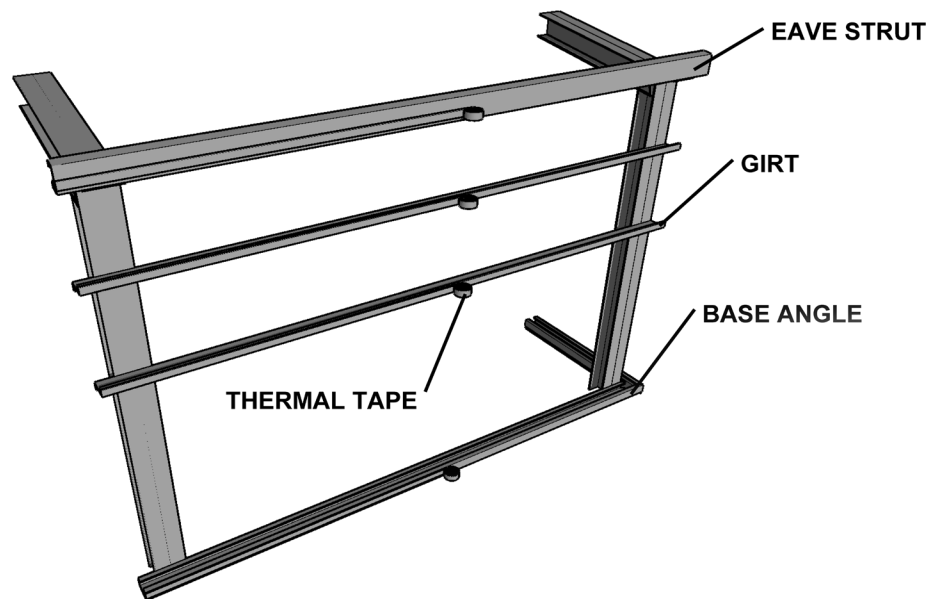
Equipment and Tools Required

- Man lift/scissor lift/fall protection harness and lanyards
- Screw guns with 5/16" nut setters
- Tape measures
- Razor knives
- Metal tin snips
- Iron pipe for banding dispenser
- Safety glasses, cut-proof gloves and hard hat
- Locking c-clamps

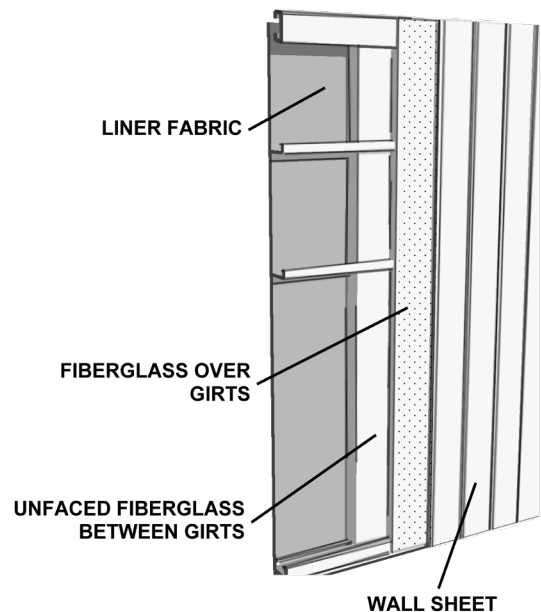
Installation

A. Base Channel, Thermal Break Foam Tape and Insul-Hold Hangers

1. Attach base channel (or angle) on plane with inside flange of girts. Standard steel base channel is supplied by the installing contractor or metal building manufacturer.
2. If a single layer wall system is required, install the provided thermal break foam tape to the outside flange of the girts, eave strut, base channel and framed openings (overhead/walk doors, etc.). Install metal wall sheets.



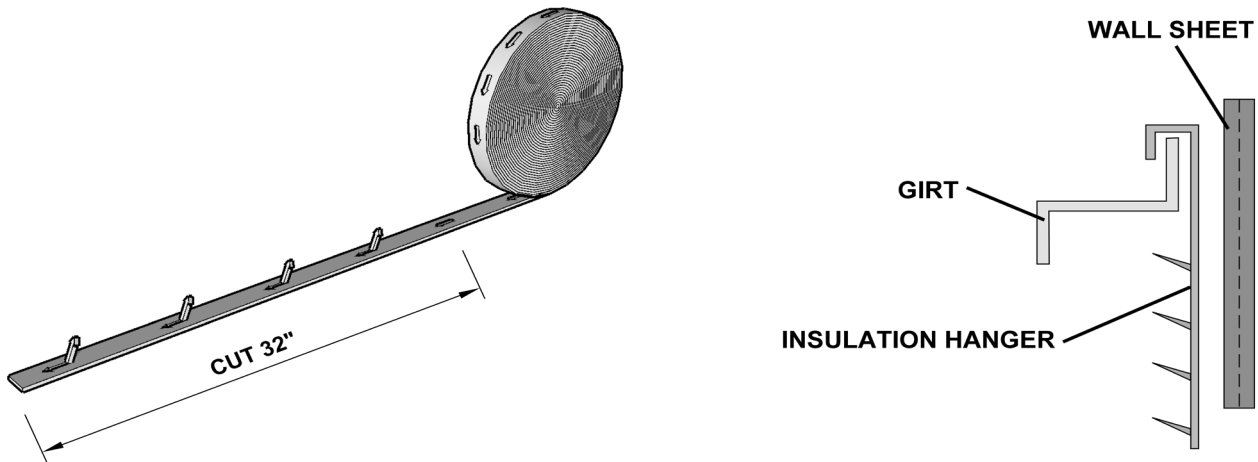
3. If a double layer wall system is required, install the outer layer of fiberglass insulation between the girts and metal wall sheets. No thermal break foam tape is required for a double layer application.



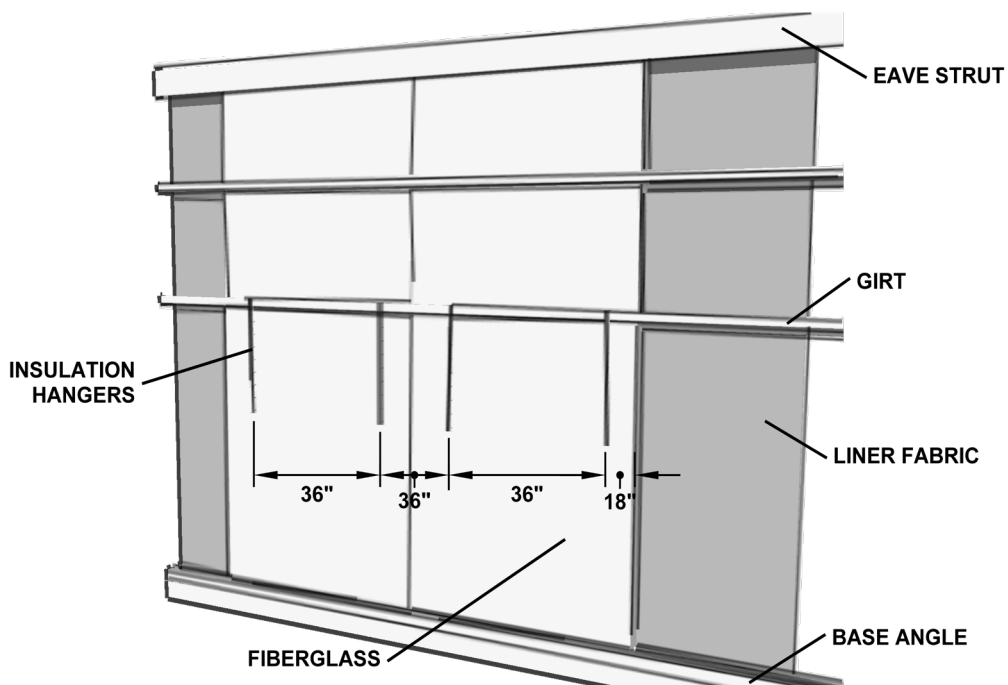
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4. Cut Insul-Hold into 32" sections and straighten if necessary. Slide the top of the hanger between the girt and wall sheet until at least 1.5" is above the outer girt leg and bend inward to lock the hanger in place. Bend four (4) of the barbed arrows 90 degrees inward toward the building interior.



5. Two (2) hangers should be used to hold any insulation blanket up to 72" wide by placing them 18" from each side of the insulation blanket (or 36" apart). Repeat this step for each wall area to be insulated. Hangers not supplied for girt spaces 24" or less.

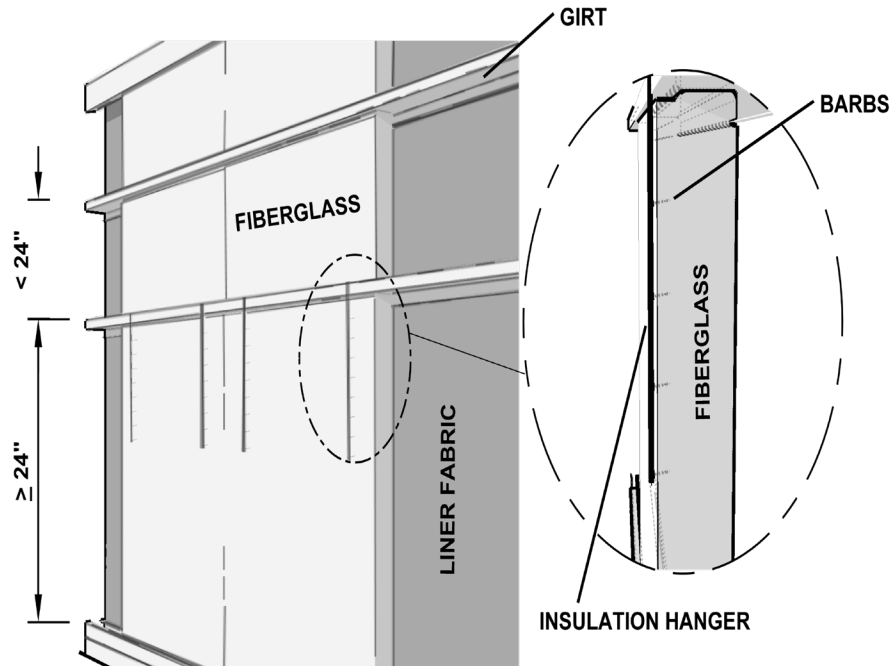


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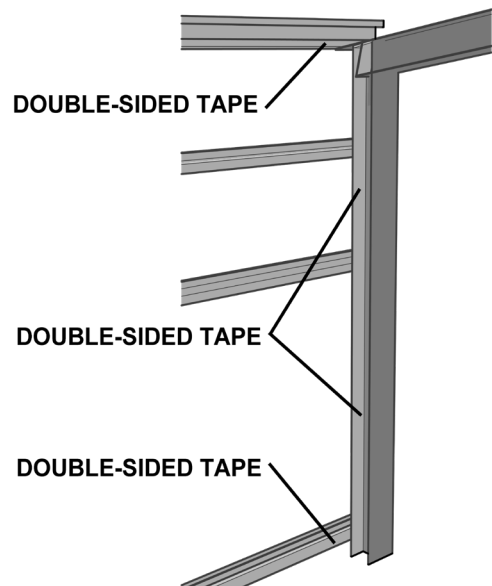
B. Unfaced Fiberglass Insulation

1. Cut each piece of insulation 1" taller than the girt space and install vertically within the cavity for a snug fit. Insulation may be installed horizontally (if supplied) for standard height girt spaces. Longer lengths of hangers may be required for horizontal insulation applications.
2. Lift the insulation blanket into position and impale it on the hanger barbs. Work the insulation around each barb to ensure maximum recovery and tightly butt edges together to eliminate voids.



C. Fabric and Banding

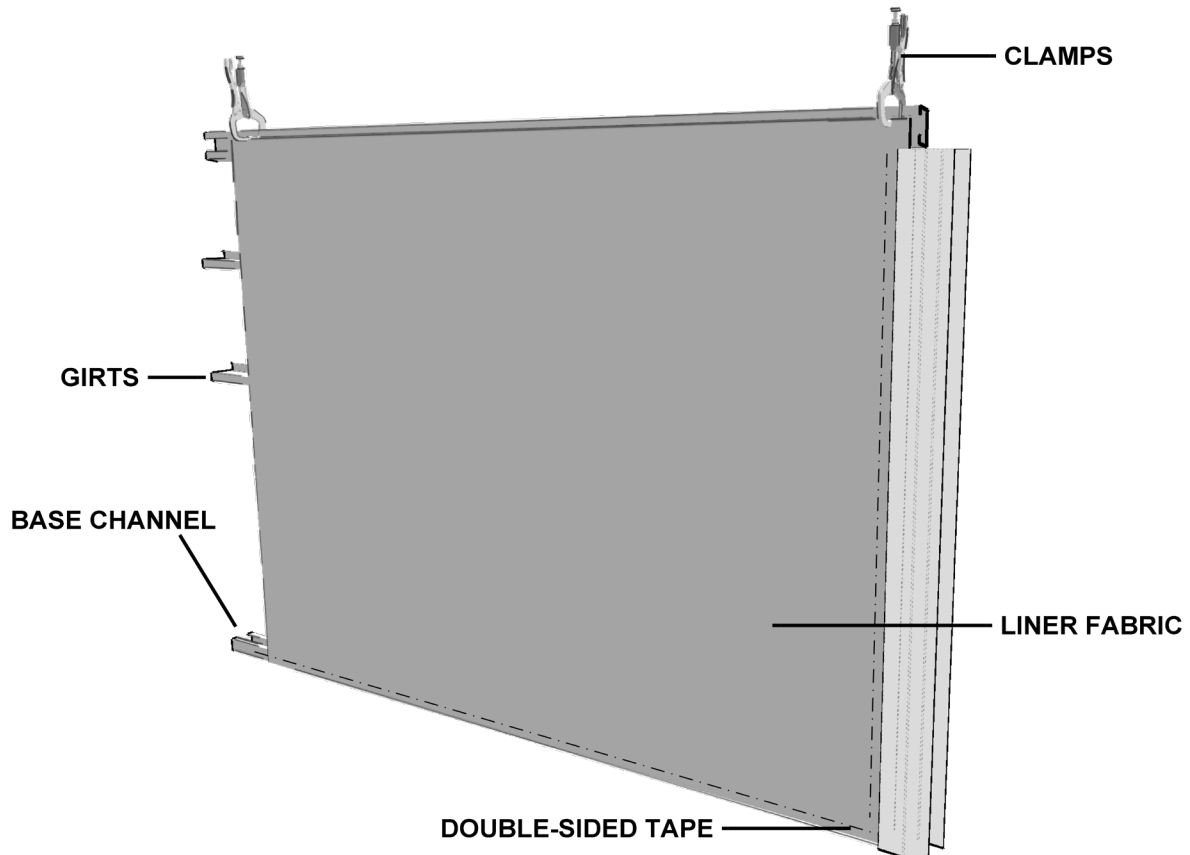
1. Install the provided double-sided tape to the eave strut's metal angle, structural frame flanges, inner base angle and framed openings. Do not remove tape's liner. See shop drawings for eave transition metal angle detailing.



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2. Locate the appropriately sized fabric for the section in which you are installing. Unroll the fabric at the base channel of the wall and lift vertically into position. Temporarily clamp the fabric in both upper corners to the metal angle once square to the bay.

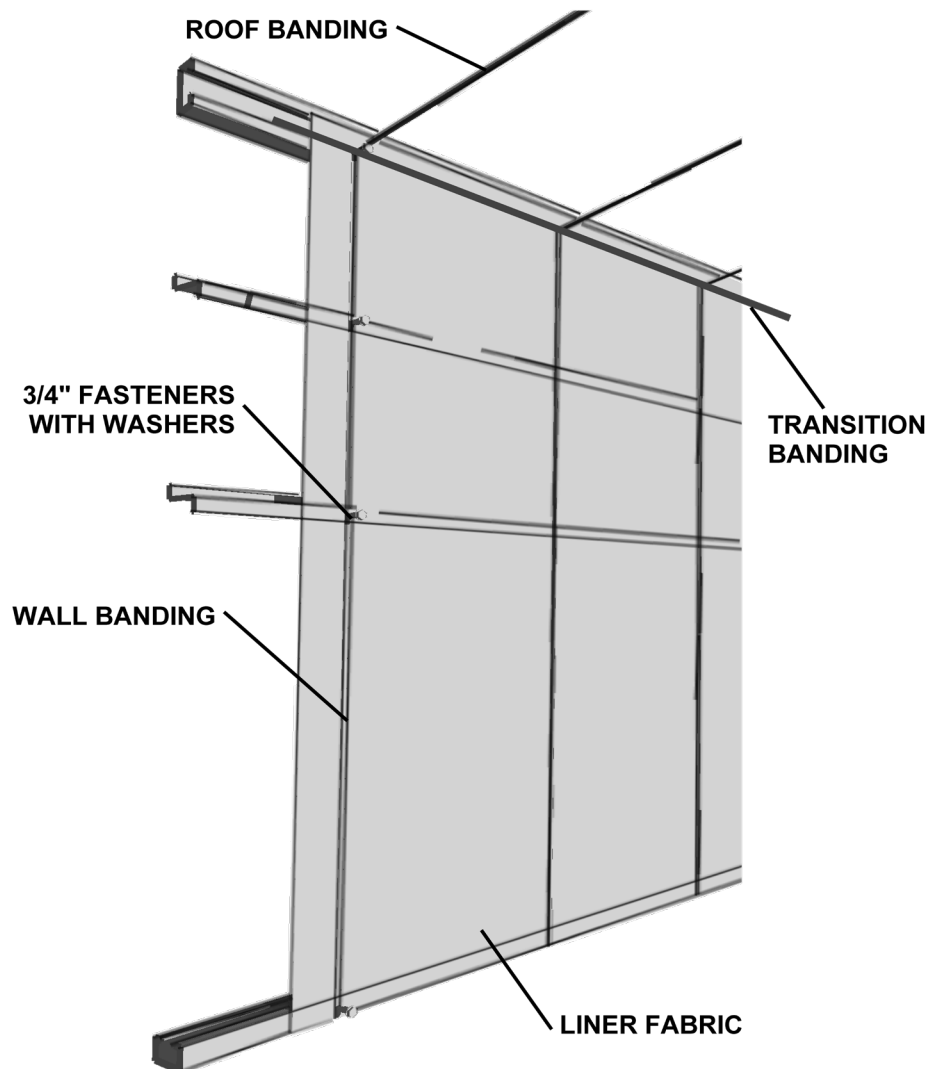


3. Move to the base angle and begin removing the tape's liner in the center of the wall section, moving towards both edges while pulling and squaring the fabric and seal to the tape. Move up both sides of the fabric, then across the top edge following these same steps. Remove c-clamps during this process while making sure the fabric is tight and smooth.

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4. Determine the number of vertical 1" steel banding lengths and install with same spacing as the roof banding on both sidewalls and endwalls (typically 60" on center or less). Fasten the wall banding and fabric with the supplied 3/4" TEK 3 fasteners with washers at the base channel, girts and metal eave angle. To finish, trim the excess fabric square to the section and around all framed wall openings.



- a. NOTE – Every effort should be made to connect the ProLiner™ roof and wall fabric for a tight building envelope seal. Additionally, fabric edges should be properly sealed to adjacent surfaces to maintain vapor and air barrier integrity.

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- b. NOTE – Refer to provided shop drawings for roof to wall fabric attachment options. If installing contractor chooses not to install metal angle at eaves, a single length of 1" banding can be installed at the roof fabric line and plumb with the inner wall girt flanges. Wall fabric and banding can be brought upwards, then bent inwards for securement to roof fabric and banding with ¾" TEK 3 fasteners with washers and provided double-sided tape.
- c. NOTE – Optional lightweight metal angle at eave and/or base (and required fasteners) is the responsibility of the installing contractor or metal building manufacturer.
- d. NOTE – Please consult your metal building manufacturer to verify their recommended procedure for temporarily removing bracing components during the installation of the ProLiner™ Banded Liner System.