

# EVOLUTION SERIES Installation Guide HORIZONTAL & VERTICAL APPLICATIONS

**STEP-BY-STEP INSTRUCTIONS** FOR SUCCESSFUL INSTALLATION, AND TO MAINTAIN THE WARRANTY OF YOUR NEW FRASER WOOD SIDING

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### **Fraser-Lok Technology**

Save time and eliminate waste when you install Fraser Evolution Series wood siding. **Evolution locks in place with tongue and groove finish on all four sides** and features hidden fasteners for a beautiful, clean look.



### SECTION 1 Before You Start



#### 1:1 Warranty and Disclaimer

Please read the Fraser Wood Siding Installation Instructions prior to installing your siding. The guidelines have been produced in accordance with the National Building Code of Canada. **Please check with your local authorities for particular installation codes within your area.** 

Visit **nrc.canada.ca** (Canada), or **iccsafe.org** (United States) for applicable building codes in your area.

The drawings in this guide are used for the purpose of illustrating key details in your installation process and are not to scale. Dimensions shown are in inches.

# Failure to comply with the Fraser Wood Siding Installation Guide will void the warranty.

**NOTE:** Fraser Wood Siding does not warranty the installation of its product. It is the installers responsibility to ensure that the siding is correctly installed in accordance with the Fraser Wood Installation Guide and your local building codes. Fraser Wood Siding warranty available at www.fraserwoodsiding.com

#### 1:2 Review Your Order

Before you install your siding ensure that your order has been shipped correctly. Confirm the profile, colour and quantity you ordered.

**NOTE:** Cut ends of siding and trim need to be sealed using Fraser Wood Siding Touch-Up Stain. Ensure that you have touch-up stain available before you start your installation.

Do not install any product that appears to be defective. If you have defective product contact Fraser Wood Siding (contact information below). **Installation of the siding or trim constitutes acceptance of the product.** 

#### 1:3 Got Questions? Talk to the Experts at Fraser

For questions or technical support please contact the Experts at Fraser Wood Siding.

#### Phone: 1-888-457-3898

Monday to Friday: 7:30 am - 4:00 pm (E.S.T.)

Email: info@fraserwoodsiding.com

#### 1:4 Storage and Handling

Proper storage of your siding is important to protect and acclimatize to the surrounding area. It's finish is a breathable coating that allows for the transfer of moisture in and out of the siding.

- Your siding must be kept dry prior to installation.
- Siding should be stored a minimum of 4" off the ground on a flat surface, under a roof or under a waterproof covering. (*See Figure 1*)



- All siding should be left bundled until it is ready to be installed.
- Always store the siding in a clean, dry area that is unheated. Ensure the storage area is well ventilated.
- Protect your siding from direct sunlight until it is installed.
- Keep touch-up stains at room temperature. Prevent from freezing or heating beyond 38 degrees C.

#### **1:5 Organize Your Boards**

The packages of Fraser Evolution siding contain boards that come in a variety of lengths.

- Take some time to organize and arrange your boards as this can greatly reduce the number of cuts and joints you will need to make – long boards on long walls, shorter boards on shorter walls, etc.
- When installing siding always ensure the joints are staggered across the wall.

**IMPORTANT**: To avoid gaps due to shrinkage **never** install boards more that 12' long end-to-end.

### section 2 Understanding The Basics



#### 2:1 Three Key Fraser Factors for Performance and Durability

Fraser Wood Siding has been produced to meet or exceed the industry standards. We warranty the performance of our products when installed correctly. There are 3 important factors that will determine the performance and durability of your new siding.

- Ventilation (Air Flow)
- Moisture Management (Water Drainage / Humidity Control)
- Proper Installation

#### 2:2 Ventilation

Ventilation is important for your installation to help control the balance between heat, moisture and drying and is critical to the long-term performance of your siding.

- Use strapping to provide a consistent ventilated space behind your siding to allow heat and moisture to escape.
- Use Fraser Ventilated Starter Strip and Ventilated L-Moulding to prevent animal / insect infiltration and help protect against water and heat damage.

#### 2:3 Moisture Management

Exterior siding is the first barrier to protect your home from water. However, no siding is completely water tight. If water or moisture is trapped behind your siding without proper air circulation and drainage it may affect the performance of your siding and health of your home. Follow the guidelines below to manage moisture.

- Ensure that any moisture getting behind your siding is able to drain easily.
- Wherever there is water drainage ensure that you install flashing on all flat surfaces and openings.
- Use a water-resistant membrane around windows and doors and all other openings to ensure a tight seal.

#### 2:4 Proper Installation

Follow the proper installation instructions to ensure maximum performance of the siding. Cutting, retouching the finish and proper nailing all affect the performance.

- Pay particular attention to the correct cutting angles to prevent water damage.
- Ensure you apply Fraser Touch-Up Stain to any cut ends or bare wood to seal and prevent rot.
- Pay close attention to all specified clearances around doors, windows, decks and stone work, as well as the bottom and top of the siding.
- For a quality installation ensure you follow the correct nailing recommendations outlined in this guide.

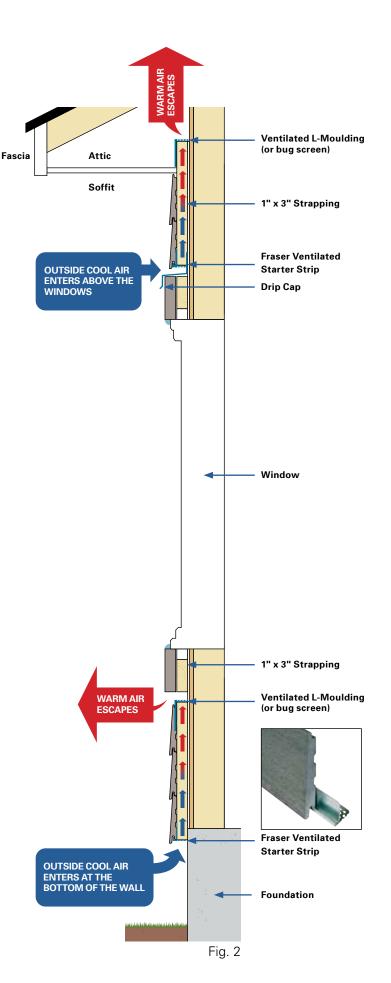


# section 2 Understanding The Basics

### How To Properly Ventilate And Manage Moisture For Your Fraser Wood Siding Wall

Proper ventilation is the most critical element of your installation. Outside air circulates behind the siding by entering through the Fraser Ventilated Starter Strip at the bottom of your wall, and above windows (over 4' wide). The cool outside air that enters behind the siding warms and rises between the air gaps created by the strapping and escapes through the Fraser Ventilated L-Moulding below windows and at the top of the wall. This continuous air circulation allows heat to escape from behind the siding and prevents moisture and water vapour build-up. The Fraser Ventilated Starter Strip the bottom of the walls and above windows greater than 4' allow for water drainage, while preventing rodents and insects from getting behind the siding. The results are a healthy, long lasting Fraser Wood Siding wall.

**IMPORTANT:** Using strapping **HORIZONTALLY** at the base of your siding will severely block or limit the ventilation and drainage and will **VOID THE WARRANTY**.



### **SECTION 3 Installing Strapping** for **HORIZONTAL** Siding Application



#### 3:1 Prepare the Wall

Siding must be installed on a structurally sound wall. The wall construction should include a stud wall on a maximum of 16" centers combined with OSB (oriented strand board) or plywood that adheres to your local building code.

#### The following materials must be installed before strapping is attached...

- Water-resistant vapour barrier (house wrap)must be applied to all wall surfaces.
- Weather-seal tape must be applied around all doors, windows and house wrap seams as per your local building code.
- Install flashing above and below all windows and doors as per your local building code.

**IMPORTANT:** Ensure the entire wall system is dry prior to siding installation.

#### 3:2 Installing Strapping

When installing strapping the following guidelines must be followed to create ventilation and water management behind the siding. Failure to follow these guidelines will void your Fraser Wood Siding Warranty. If your construction is different from the examples below please contact Fraser Wood Siding for direction.

- For proper installation the strapping must be straight, new lumber.
- Strapping must be installed on existing wall studs every 12" or 16" on center.
- Leave a 1/2" air gap above and below all windows and doors that are greater than 4' wide. Use Fraser Wood Siding Ventilated L-Moulding (or bug screen) below windows and Fraser Ventilated Starter Strip above windows to allow for ventilation and prevent insects from nesting behind the siding. (See Figure 4)
- Be sure to extend strapping a minimum of 1" over the foundation. (See Figure 5)
- Nail or screw strapping every 6".
- Stagger the nails or screws for the best result.

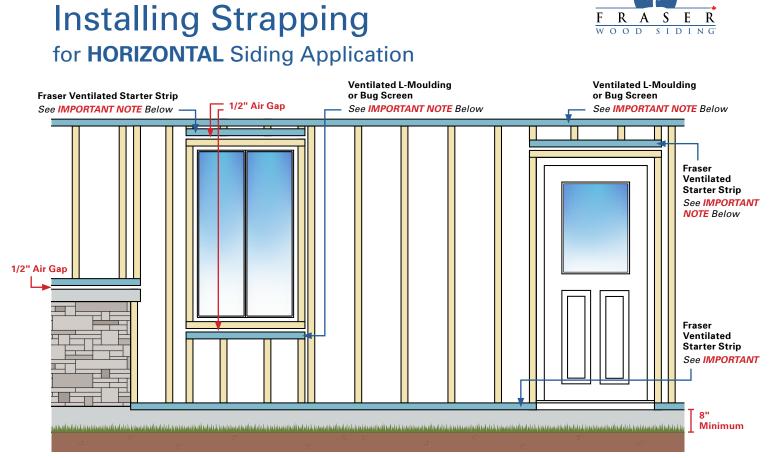
#### Installing Strapping Over Wood Substrate:

- 1" x 4" Nominal strapping is allowed. (Minimum 3/4" thick, See Figure 6)
- Nails or screws should penetrate the existing sheathing and studs 1" to 1-1/4" deep.

#### **Installing Strapping Over Rigid Foam and ICF Panels:**

- 1" x 4" Kiln Dried strapping is mandatory. (Minimum 1" thick, See Figure 6)
- Nails or screws should penetrate the existing sheathing and studs 1-1/2" to 2" deep.

**NOTE:** Any installation of Fraser Wood Siding over SIP panels must be approved by an engineer prior to installation. Contact Fraser Wood Siding for proper installation guidelines prior to installation.



#### Fig. 3

**SECTION 3** 

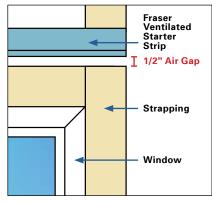
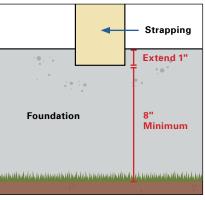


Fig. 4

Leave a 1/2" air gap above and below windows over 4' wide.



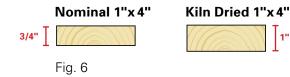
### DO NOT install

**IMPORTANT NOTE:** 

HORIZONTAL strapping where FRASER VENTILATED STARTER STRIP or VENTILATED L-MOULDING is shown. This will severely block or limit ventilation and drainage and will VOID THE WARRANTY.



Extend strapping 1" over the foundation and 8" minimum from the ground.



#### **STRAPPING SPECIFICATIONS**

Installing Over Wood Substrate Nominal Strapping (Minimum 3/4" thick) Installing Over Foam Board, or ICF Panels Kiln Dried Strapping is mandatory (Minimum 1" thick)

### **SECTION 3** Installing **DOUBLE** Strapping for **VERTICAL** Siding Application



#### 3:3 Prepare the Wall

Siding must be installed on a structurally sound wall. The wall construction should include a stud wall on a maximum of 16" centers combined with OSB (oriented strand board) or plywood that adheres to your local building code.

#### The following materials must be installed before strapping is attached...

- Water-resistant vapour barrier (house wrap)must be applied to all wall surfaces.
- Weather-seal tape must be applied around all doors, windows and house wrap seams as per your local building code.
- Install flashing above and below all windows and doors as per your local building code.

**IMPORTANT**: Ensure the entire wall system is dry prior to siding installation.

#### 3:4 Installing Double Strapping

When installing Double Strapping the following guidelines must be followed to create ventilation and water management behind the siding. Failure to follow these guidelines will void your Fraser Wood Siding Warranty.

#### NOTE: Double Strapping may be mandatory in your area.

Fraser Wood Siding strongly recommends Double Strapping as **BEST PRACTICE** when installing vertical siding. However, if your local building code permits horizontal strapping when installing vertical siding, you **MUST** leave a 1/2" capillary break every 48" between the ends of the strapping to assist in air flow and moisture management.

• Strapping must be installed at **12" on center** and must allow for a minimum of 1" nail penetration.

- When installing siding and strapping over foam board/ICF applications, you **MUST** use 1" x 3" or 1" x 4" **Kiln Dried** material. (**Minimum 1" thick**)
- Failure to comply with these instructions may void your Fraser Wood Siding Warranty. Check the building codes with your local municipality before installation. It is the installers responsibility to ensure that local building codes are met.

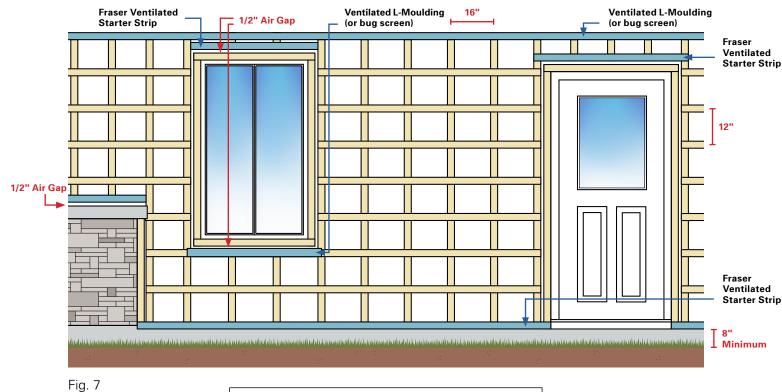
**IMPORTANT:** Your local Fire Safety Code may require a fire-blocking barrier for vertical siding that exceeds 3 meters in height (approximately 10').

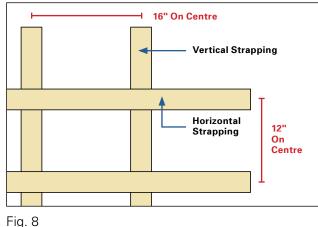
**NOTE:** Any installation of Fraser Wood Siding over SIP panels must be approved by an engineer prior to installation. Contact Fraser Wood Siding for proper installation guidelines prior to installation.

### SECTION 3 Installing **DOUBLE** Strapping

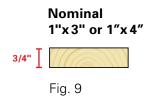


for Vertical Siding Application





Install horizontal strapping on 12" centres.



# Kiln Dried STRAPPING SPECIFICATIONS 1"x 3" or 1"x 4" Installing Over Wood Substra Nominal Strapping (Minimum 3)



#### Installing Over Wood Substrate Nominal Strapping (Minimum 3/4" thick) Installing Over Foam Board, or ICF Panels Kiln Dried Strapping is mandatory (Minimum 1" thick)

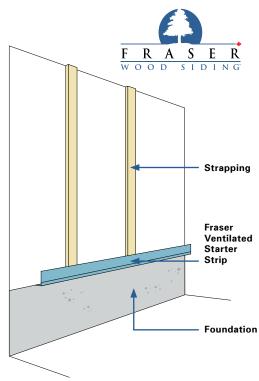
# SECTION 4 Installing Siding

#### 4:1 Installing the First Course of Siding

Start your siding project by installing the first course at the bottom of the wall. Please follow the directions below carefully to ensure that all wall sections are properly ventilated to provide air circulation and water drainage.

#### 4:2 Fraser Ventilated Starter Strip

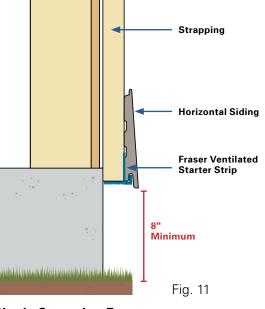
- Install Fraser Ventilated Starter Strip across the bottom of all Fraser siding wall sections.
- Ensure the starter strip is level and secured directly over the strapping. The bottom of the strapping should reach the bottom of the ventilation strip.
- Attach with two nails every 16". (See Figure 10)



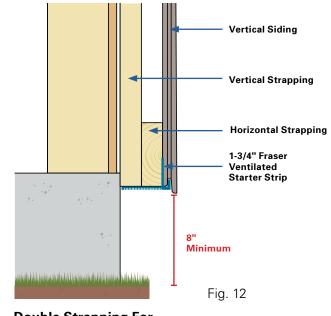


#### 4:3 8" Clearance to the Bottom of the Siding

- Extend the bottom of the first course of siding 1/2" past the bottom of the strapping.
- Wood siding must be installed a minimum of 8" above the ground to protect from wet soil, rain and moisture. (*See Figure 11*)



Single Strapping For Horizontal Siding Applications **IMPORTANT NOTE**: Vertical Application for Double Strapping, or when strapping is thicker than 3/4" use the 1-3/4" Fraser Ventilated Starter Strip and L-Mould to create air ventilation, allow for water drainage and prevent rodents and insects from entering behind the siding. *(See Figure 12)* 



#### Double Strapping For Vertical Siding Applications

# SECTION 5 Fasteners, Joints, Sealing and Caulking

#### Fraser manufactures 3 types of fasteners for installing Evolution siding:

- 2" stainless steel staples\*
- 2" colour matched ringed nails
- 2" colour matched coil nails
- \* Install 2 staples 1/2" apart at each connection point

#### **IMPORTANT:** Fraser staples and nails must be used to maintain warranty.

#### 5:1 Blind Stapling

- Blind staple siding by attaching siding to strapping using 2 staples or 1 nail every 16" on center (12" on center when installing siding vertically).
- Install staples and nails on the grooved Nail Line 1/2" from the top edge at a 20 degree angle into a minimum of 1" of solid wood. Drive flush. (Staples and nails driven above the nailing line may split the wood. If driven below the line they may be visible.)
- When face nailing is required, siding must be nailed 1" from the bottom of the board to prevent splitting. See page 12 for face nailing details.

**IMPORTANT:** Fraser Wood Siding Stainless Steel Nails must be used in Coastal areas.

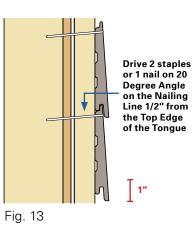
#### 5:2 End Joints

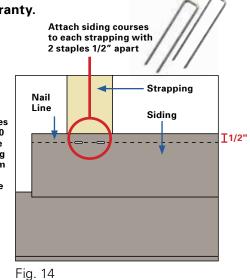
• Evolution Siding uses Fraser-Lok technology that locks all 4 sides of the siding board – including ends. (*See Figure 15*)

#### 5:3 Where Siding Meets Doors, Windows and Trim

- Leave a 1/16" gap between all end joints where siding meets doors, windows and trim to allow for normal expansion and contraction.
- All end cuts must be sealed with Fraser Wood Siding Touch-Up Stain.
- Use a high-quality clear or paintable latex caulking to fill all gaps and seal around doors, windows and anywhere the siding meets the trim. (*See Figure 16*)
- Caulking **MUST** be applied on the siding surface.

**IMPORTANT:** All Trim must be double nailed with Fraser Wood Siding 3" nails. Plastic Coil Nails can be used if supplied by Fraser Wood Siding.





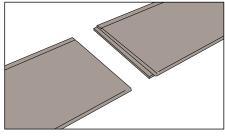
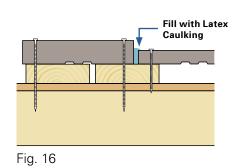


Fig. 15



# SECTION 5 Fasteners, Joints, Sealing and Caulking



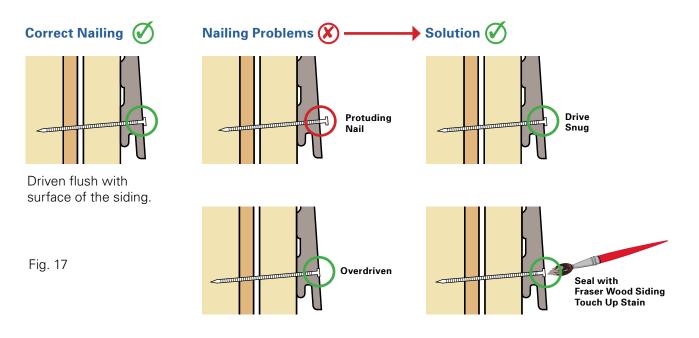
#### 5:4 Face Nailing

When face nailing use only Fraser Wood Siding Colour Matched Nails as detailed below for all siding and trim applications.

- Use plastic hammer cap supplied to avoid damaging the finish on the nails and protect the siding.
- The nail heads must be driven **flush** with the surface of the siding. (See Figure 17)
- All nails must penetrate a minimum of 1" into SOLID WOOD substrate.

**IMPORTANT**: Fraser Wood Siding nails must be used to maintain warranty. When installing Fraser Wood Siding in a Coastal Region\*, Fraser's stainless steel nails must be used for both siding and moulding installation. Failure to use the specified Fraser Wood Siding nails will void all warranties.

\*Coastal regions are identified as areas located less than 600 m (2,000 ft) from the coastline.



Please follow all installation, storage and maintenance details in this guide, and follow all applicable building codes in your area. Failure to comply with these guidelines may void the Fraser Wood Siding Warranty. For full warranty details see Page 3, Section 1.

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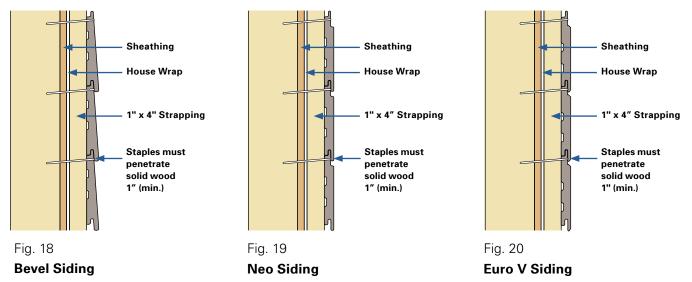
12

### SECTION 5 Fasteners, Joints, Sealing and Caulking

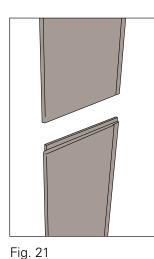


#### 5:5 Evolution Series Stapling Details

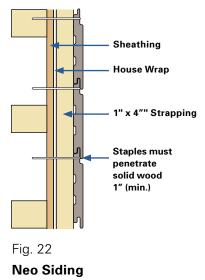
### **Horizontal Applications**



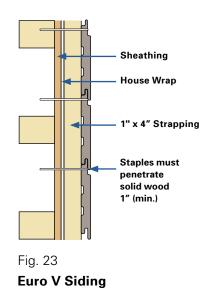
### **Vertical Applications**



**IMPORTANT:** End match tongues must face up (toward the top of the wall) in vertical installations or all warranties will be void.



Also applicable for horizontal applications



## **SECTION 6** Installing Additional Courses and Corners

#### 6:1 Adding Courses of Siding

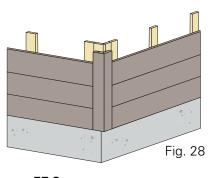
- Once the starter course is in place, continue placing subsequent courses tightly together on both horizontal and end joints. When aligning the top of the boards never allow more than 1/8" separation from the preceding row. (See Figure 24)
- Check the level of the boards every 3rd or 4th row. A variance from 1/16" to 1/8' is considered acceptable. (*See Figure 25*)
- Stagger the end joints in subsequent rows to ensure end joints are not aligned.
- Fraser-Lok technology locks the end joints together so they do not need to be cut and can fall anywhere between the strapping strips.

**Note:** When ending a row, cut the siding as needed and use the remaining piece to start the next row. Anytime you cut siding, whether visible or not, it is mandatory to stain the exposed wood fibre. **FAILURE TO DO THIS WILL VOID THE WARRANTY.** 

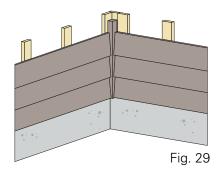
#### 6:2 Installing, Cutting and Nailing Corners

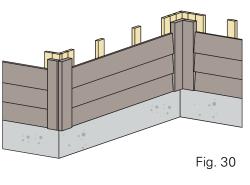
- All Fraser Wood Siding Corners must be fastened with 3" Fraser Wood Siding Colour Matched Nails every 16" on center – approximately 3/4" – 1" from the edge of the moulding. (See Figure 26/27)
- Caulking must be applied where the siding meets the corner trim.
- All Corners and Trim must be installed before the siding is applied.

**IMPORTANT:** Never join two pieces of siding together to make a corner.



EZ Corner (one piece)



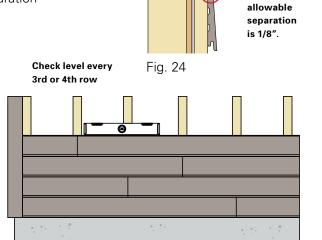


Outside/Inside Corner (two pieces)

Please follow all installation, storage and maintenance details in this guide, and follow all applicable building codes in your area. Failure to comply with these guidelines may void the Fraser Wood Siding Warranty. For full warranty details see Page 3, Section 1.

**Inside Corner** 

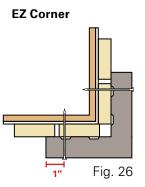
(one piece)

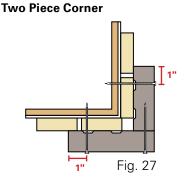


Install rows

tightly. Maximum

Fig. 25





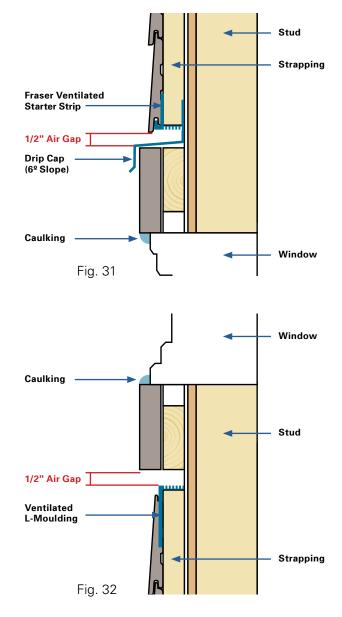


#### 7:1 Windows and Doors

All windows and doors that are greater than 4' wide must have added ventilation and drainage above and below the openings. Smaller scale windows do not require the same ventilation, although we strongly recommend it. There must be an air gap of 1/2" between the wall strapping and the wall structure to allow proper ventilation. A water-seal tape membrane must be installed around all openings to prevent water infiltration (follow your local building code).

#### 7:2 Above Windows and Doors

- Install a drip cap above the decorative trim of the window or door to allow for drainage.
- Leave a 1/2" gap between the drip cap and the wood trim.
- The drip cap should have a 6 degree slope to avoid water or snow accumulation.
- Install Fraser Ventilated Starter Strip to allow air flow, drainage and prevent insects from nesting behind the siding. (*See Figure 31*)



#### 7:3 Below Windows Greater than 4' Wide

- Leave a 1/2" gap between the flashing and the wood trim.
- Install Fraser Ventilated L-Moulding to allow air flow, and prevent insects from nesting behind the siding. (See Figure 32)

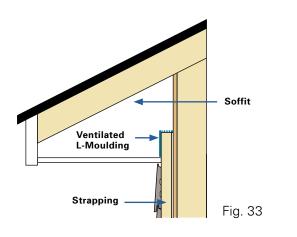
#### **IMPORTANT NOTE:**

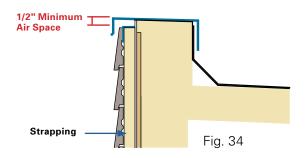
If the design of your Fraser Wood Siding project does not require trim around the wall openings, the windows will need to be installed at the proper depth accounting for the strapping thickness.



#### 7:4 Top of the Wall / Soffit

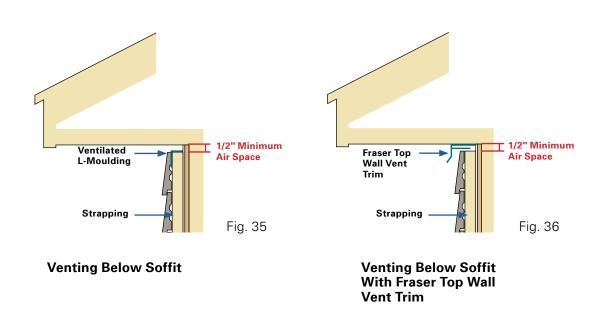
It is mandatory that air circulates from the bottom to the top of the wall with no restrictions. A well vented wall will ensure the performance and warranty of your Fraser Wood Siding. For the most common top of wall ventilation solutions see figures 33, 34, 35 and 36 below. There are many design options for mouldings and trim. If your design does not conform to any of the examples shown, consult with your local building code for the correct installation.





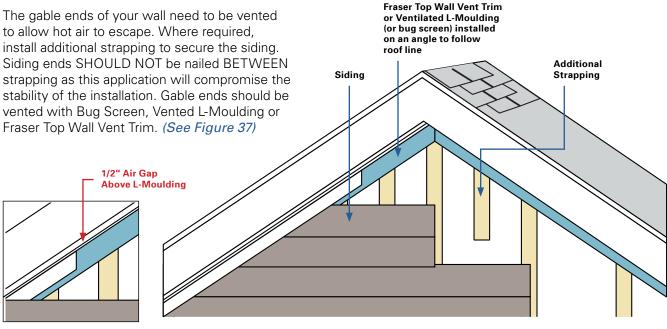
**Venting Into Attic** 

**Venting Below Flat Roof** 





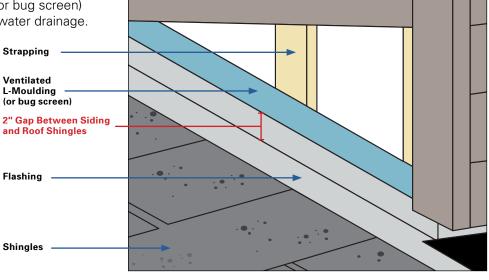
#### 7:5 Gable Ends





#### 7:6 Dormers

There must be a clearance of 2" between the roof junction and the wood siding. Install Fraser Ventilated L-Moulding (or bug screen) to allow for air circulation and water drainage. (See Figure 38)





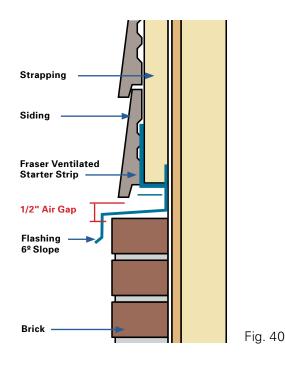
#### 7:7 Above Raised Patio Decks

Siding must not come in contact with any horizontal structures – like a wood patio deck. Leave a 2" space between the deck, and a 1/2" space between the flashing and the bottom of the siding to allow for air circulation and water drainage.

At the bottom of the wall install Fraser Ventilated Starter Strip directly to the strapping to provide protection from bugs while allowing air circulation and water drainage. (*See Figure 39*)

#### 7:8 Over Stone Wall Sections

A clearance of 1/2" must be created between the bottom of the wood siding and the top of the stone wall section. Install flashing to protect the stone from water damage. At the bottom of the Fraser wall (above the brick) install Fraser Ventilated Starter Strip directly to the strapping to provide protection from bugs while allowing air circulation and water drainage. (See Figure 40)



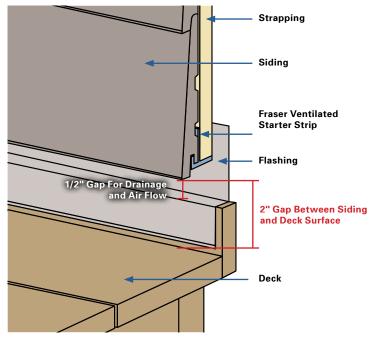




Fig. 39





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