

Replacing Wood For Good™



Installation Guide

THE PLY GEM PROMISE: Ply Gem is a 70-year leader in pioneering performance home exteriors, with a superior warranty for exactly the home you want for decades to come.



Replacing Wood For Good.™

FOLLOW OUR
INSTRUCTIONS FOR
A PROFESSIONAL
INSTALLATION THAT
WILL RESULT IN FEWER
CALLBACKS FOR YOU AND
LESS MAINTENANCE FOR
HOMEOWNERS.

If you can install wood trim, you can install cellular PVC trim. It doesn't require any new skills or special tools. You do, however, need to be aware of the material differences and how they affect installation. Cellular PVC is more flexible than wood and should not be used for load-bearing applications. It also expands and contracts in hot and cold temperatures. So it's important to join and fasten our products as recommended. The results will be worth the effort with fewer callbacks for you and less maintenance for homeowners. With Ply Gem Trim and Mouldings, you won't have to worry about rotting or termite damage to your trim again.

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SPECIFIC APPLICATIONS

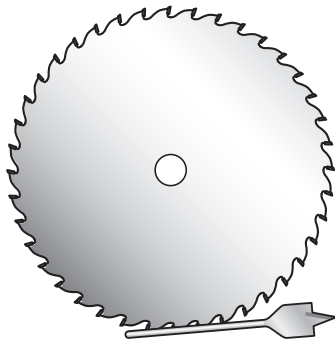
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General Topics

CUTTING

Ply Gem Trim and Mouldings can be cut with standard carpenter's tools.

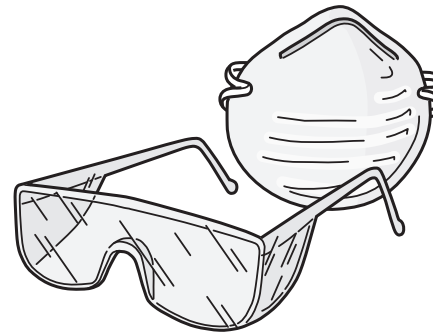
- Use carbide-tipped blades (32-tooth or higher). Avoid blades designed for plywood or metal.
- Rough edges can result from excessive friction, poor board support, worn blades or poor alignment.
- Rasp and sand to restore a smooth edge.



SAFETY PRECAUTIONS

Cutting will create PVC dust and particles.

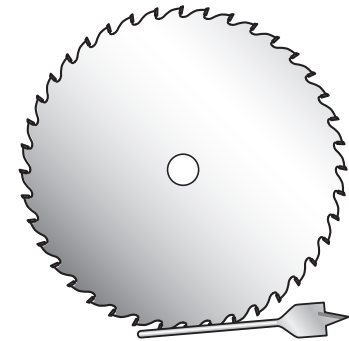
- Cut cellular PVC trim in an open, well-ventilated area.
- Always wear safety glasses or goggles and a face mask when cutting.
- If you cut with a power saw, wear a dust mask.
- Do not burn.
- Refer to MSDS for additional safety information.



DRILLING

Use standard woodworking drill bits. Do not use bits made for rigid PVC.

- To prevent heat build-up, remove excess shavings frequently.



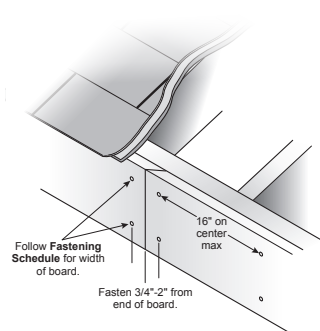
ROUTING

Use a sharp carbide-tipped bit.

- Align the router guide bearing along a smooth cut.
- If necessary, go over the cut a second time to smooth the surface.
- Sand with 320 grit sandpaper.

FASTENING

- Nails should penetrate 1-1/2" into solid wood substrate. If using screws, please see "Recommended Fastener Screws."
- When covering non-structural sheathing (1/2" foam), fasteners should be long enough to penetrate solid substrate a full 1-1/2".
- When covering 1/2" OSB, fasteners need to penetrate substrate only 1"
- Fasten no closer than 3/4" from end of board and no further than 2" from end of board.
- If framing members are greater than 16" on center, provide additional bracing for fastening.
- Fastener heads should be flush with the surface of the trim or slightly indented.
- Pre-drilling typically is not required unless large fasteners are used or the temperature is below 40°F.
- Fastening through the protective film with nails or recommended screws helps keep the surface clean
- Always remove the film before filling nail holes with sealant/adhesive or placing the plugs over the fasteners



FASTENERS TO BE APPLIED EVERY 16" ON CENTER

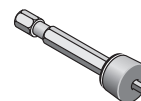
Ply Gem Products (actual thickness)	Board Width	Fasteners Per Width	Nail Minimum Length
Trim Boards – 5/8" thickness or over	4" & 6"	2	2-1/2"
Trim Boards – 5/8" thickness or over	8" & 10"	3	2-1/2"
Trim Boards – 5/8" thickness or over	12"	3-4	2-1/2"
Sheets – 1/2" thickness or less	4'	16" on center horizontally, 6" on center vertically, and 4" around the perimeter of the panel	2"
Sheets – 5/8" thickness or over	4'	16" on center horizontally, 6" on center vertically, and 4" around the perimeter of the panel	2-1/2"
Skirt Board – 1"	6"	2	2-1/2"
Skirt Board – 1"	8"	3	2-1/2"
Bead Board – 1/2"	6"	2	2"
Outside Corners – 1"	4" & 6"	2	2-1/2"
Inside Corner – 1-1/2"	1-1/2"	2	3"

RECOMMENDED FASTENER SCREWS

Fasten with stainless steel screws to prevent corrosion though galvanized screws are acceptable. Do not use staples, brads, wire nails, fine-threaded wood screws or ring-shank fasteners.

Two industry-proven fasteners are:

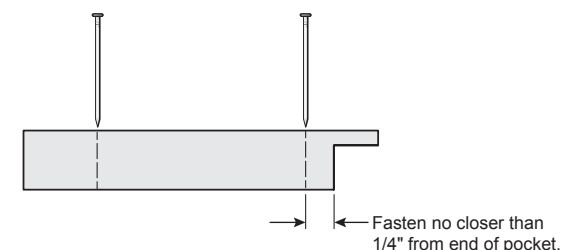
- Cortex® Screw Plug System with plugs matching Ply Gem Trim
- OSI® TrimTeQ System with plugs matching Ply Gem Trim



Note: Please follow the manufacturers' recommendations as to required length of these specialty fasteners and remove protective film before inserting plugs over fasteners.

RECOMMENDED FASTENER NAILS

Fasten with stainless steel or galvanized nails (wood siding nails, box nails, etc.). Nail guns can be used but don't over drive the nail into the trim.



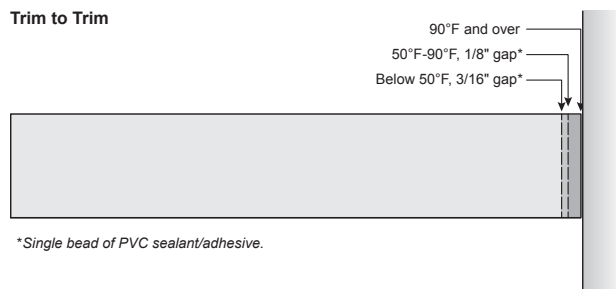
FASTENING MOULDINGS

When applying smaller, lighter pieces like Base Cap, Quarter Round, Drip Cap or Bed Mould, use a smaller fastener such as a 4d finish nail. Pre-drill holes if necessary. Where greater holding power is required, use adhesive or glue.

EXPANSION AND CONTRACTION

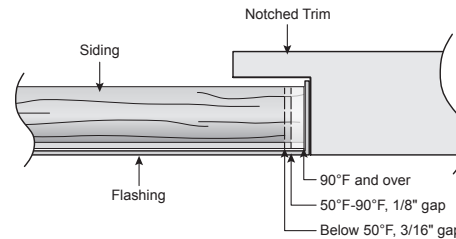
Cellular PVC trim products expand in warm temperatures and contract in cool temperatures. This movement is **ONLY** an issue on longer runs of multiple 18' boards. For example, on rakes, fascia or frieze. Short lengths, such as window trim, can and should be built with tight joints.

Trim to Trim



On commercial jobs or other applications with continuous lengths of 36' or greater, it is essential to design-in an expansion joint to avoid buckling that could lead to leakage.

Siding to Trim

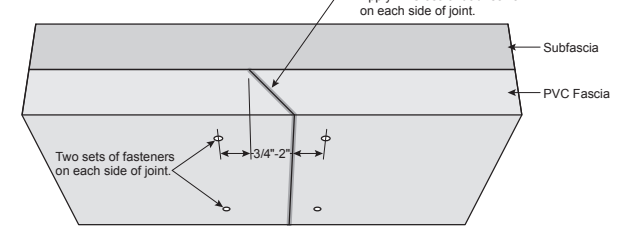


GLUE TO CONTROL MOVEMENT AT BOARD JOINTS

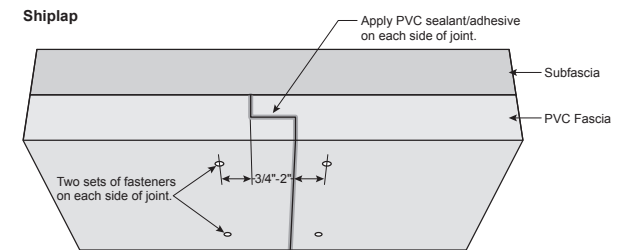
Glue the joints, especially in high traffic areas. Gluing the joints moves expansion and contraction out to the ends of the run.

- Join boards with ship lap or 45-degree miter joints. Do not butt joints. Glue boards together with PVC cement.
- Double fasten on both sides of joint (screws work best). Use recommended number of fasteners based on width of boards (see chart on page 5).
- To further restrict movement on longer runs, reduce on center fastening to 12".
- Southern exposure, or areas where product is in direct sunlight, can result in greater movement. Use more fasteners and/or wider expansion joints.
- Expansion/contraction joints should be placed at ends of run or in inconspicuous areas.
- Allow Ply Gem Trim to acclimate to outside temperature before installing. Ideally, install long runs when temperature is 60-70°F.

45° Miter Cut/Scarf Joint



Shiplap



LEAVING AN EXPANSION JOINT

Leave a gap per 18' of run at ends of boards or at inconspicuous joints for expansion and contraction. Never completely fill the joint with sealant.

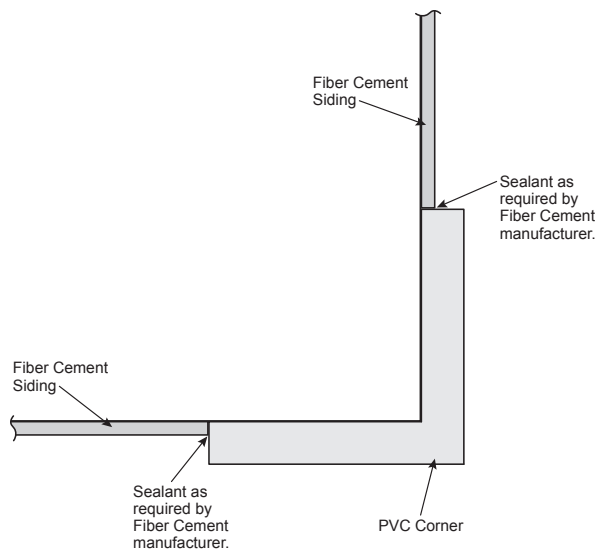
Application temperature and appropriate gapping:

90°F & higher	Install tight
50°F to 90°F	1/8"
50°F and below	3/16"

SEALANTS AND ADHESIVES

Two-component adhesives designed specifically for cellular PVC are readily available and provide the strongest available bond. One-part PVC cement may be used but it offers less working time and adhesive strength.

- Two industry-proven adhesives: Extreme Adhesive PVC TrimWelder™ (Fast Cure, Slow Cure, White Hot), Bond & Fill® Structural (Fast Cure, Slow Cure, Quick & Easy)
- Bonded joints should be secured with fasteners on each side of the joint.
- Never use adhesives alone for attaching Ply Gem Trim and Mouldings to substrate.
- Do not use silicone.



SPANNED APPLICATIONS

Ply Gem Bead Board and Sheets are ideal for fascias, soffits, ceilings and other spanned applications. They should not, however, be used for load-bearing applications.

CEILINGS AND SOFFIT

Before installing, review local building codes and regulations.

- 1/2" Notched Bead Board installed in ceiling areas should always cross ceiling joist spaced at 12" or 16" on center. Construction grade polyurethane adhesive provides additional support in hot climates. 1/2" Notched Bead Board must be painted to reduce dirt accumulation.
- For spans greater than 16" on center, use a minimum 1/2" backer such as plywood or OSB with construction grade adhesive. Fasten board a minimum of every 16" to reduce or eliminate joist read through. Fasteners should hit joist or framing where possible.
- In hot climates, for spans greater than 12" on center, use 1/2" Moulding Bead Board or use a minimum 1/2" backer such as plywood or OSB with construction grade adhesive. Fasten Bead Board a minimum of every 8" to reduce or eliminate joist read through. Fasteners should hit joist or framing where possible.
- If temperature is 40°F or below at time of installation, do not span more than 12".

FILLING NAIL HOLES

Remove protective film before filling nail holes. Use sealant designed to work with cellular PVC products. Once the product has set up, you may have to sand the area to achieve a finished appearance. If painting, caulk or glue designed for use with cellular PVC is sufficient.

- Do not use caulks containing silicone.
- Avoid "stick" type nail "putty" that may contain wax.

PAINTING

Ply Gem Trim and Mouldings do not require paint for protection (with the exception of 1/2" Notched Bead Board). But because they don't absorb moisture like wood, they hold paint much better than wood. Just be sure to use 100% acrylic latex paint formulated for vinyl products and follow the paint manufacturer's instructions.

- When painting a darker color with a Light Reflecting Value (LRV) less than 55, use industry-proven finishes such as Sherwin-Williams® VinylSafe™ paints. They're available in a wide range of colors and designed to protect PVC trim from heat distortion.
- As with any surface to be painted, the trim must be clean, dry and free of chalk, grease, oil, dirt, mold or mildew. To ensure good adhesion, scuff sand with 100-120 grit sandpaper or Scotch-Brite® Scrub Sponge and remove dust from the surface before you paint.

- Verify whether the paint manufacturer requires primer. Priming may not be necessary.
- For the highest quality finished appearance, use an airless sprayer or compressor/paint gun system.
- You can also use a roller or brush – a roller produces a more consistent appearance.
- If the trim is to be prefinished before installation, follow the manufacturer's suggested curing time before painting.

Ply Gem accepts no liability for type of paint used or the results of its use.

HEAT BENDING

Ply Gem cellular PVC trim can be heated and shaped to form curves using heat blankets, convection ovens, strip heaters or radiant heaters*. Heat guns can be used to bend small areas where appearance isn't critical. Protective film must be removed before heating PVC trim. For best results, do not bend woodgrain trim or trim that is more than 6" wide.

- To ensure uniformity and avoid discoloration, heat both sides of the material simultaneously – gradually increasing the temperature.
- Heating time is about 3 minutes for each 1/4" thickness of material. When the trim's shape is irregular or the heat is not uniform, heating times may be longer.
- Apply the heat evenly until the trim becomes flexible and easy to form.
- Always wear protective gloves. Hot PVC can produce severe burns.

Note: If you prefer not to heat bend trim boards, 4 x 8 sheets can be used to create arches and other shapes.

**Heatcon, Inc. in Seattle is an industry proven supplier of heat bending blankets. Call 206-575-0815.*

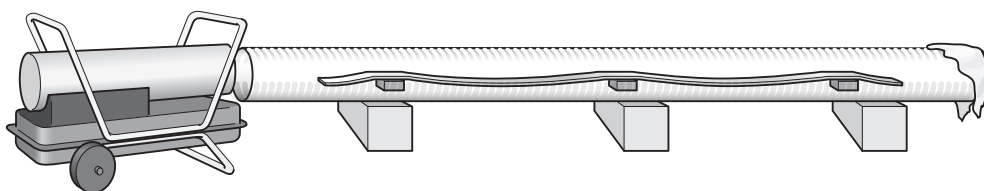
STORAGE AND HANDLING

Ply Gem Trim is more flexible than wood and should be stored on a flat level surface. Do not store or place on asphalt or in areas prone to excessive heat build up. Handle with care to avoid damage.

Units are shipped with protective film or in tough Ply-Pak™ plastic wrap to protect them from dirt and debris. Ply-Paks or protective film are not meant to be a weather barrier. Stack Ply Gem Trim evenly and use the pallet shroud or a tarp when storing products outside. If product gets dirty, clean with a soft brush and mild cleaner, refer to cleaning section.

CLEANING

- Clean with a soft bristle brush and a mild soap and water mixture. Test any cleaner on an inconspicuous area before you use it.
- For stubborn stains or to get dirt out of the cells, use a nylon brush.

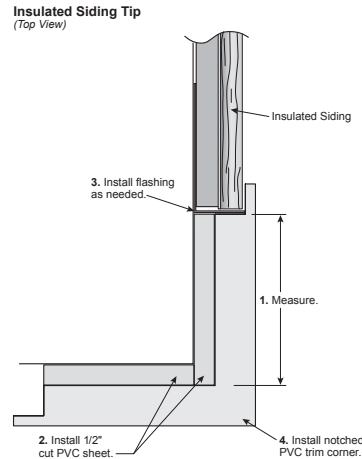


Specific Applications

OUTSIDE CORNERS

Our one-piece outside corners make installation easy and ensure a professional look. Available with or without J-notch in woodgrain or smooth finish.

1. Bend a 20" piece of trim coil 90° so you have two 10-inch-wide legs to flash the corners. Cover the entire height lapping the upper piece over the lower piece.
2. Place the top of the one-piece corner at least 1/8" from the underside of the eave to allow for expansion. For longer lengths allow 1/4" gap from the eave for every 18' of corner. For vinyl siding, leave the bottom of the corner 3/4" below the starter strip.
3. Make sure the post is straight and true before nailing. **Do not nail through the J-notch opening.**



INSTALLING CORNER BOARDS WITH INSULATED SIDING

Because insulated siding is approximately 1-1/4" thick, you'll need to pack out Trim Boards to create a pocket for the siding.

1. For Corner Boards, measure the distance from the inside of the corner to the notch then rip enough material from sheets of 1/2" x 48" x 96" Ply Gem cellular PVC to match one side of the corner. For the second spacer, subtract 1/2" from the width.
2. Fasten the ripped 1/2" thick sections onto the corner allowing the wider sections to overlap the narrower sections.
3. Use coil stock to create two L-shaped flashings measuring 1-1/4" x 6" x full height of corner. Tip: if you use coil stock matching the siding color the trim can be repainted and the interior will always match the siding color.
4. Position each flashing against the spacers that were applied at the corner.

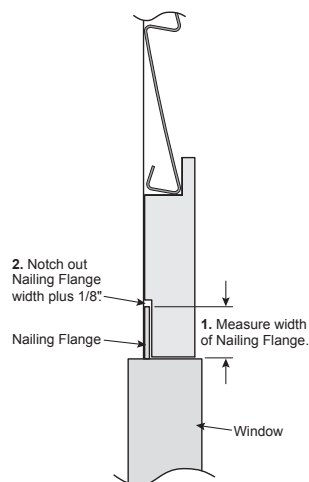
5. Install the siding.
6. Apply a continuous bead of sealant adhesive along the entire perimeter of the spacer boards at about 1/2" from the edge.
7. Fasten the corner in place. **DO NOT NAIL** through the J-notch opening.

Note: When using vinyl siding, this application should never require additional caulk.

WINDOW AND DOOR TRIM

To create a nailing flange pocket:

1. Measure the width of the nail fin where you plan to apply trim.
2. Set the blade depth of your table saw approximately 1/8" higher than the width of the nail fin.
3. Set the table saw fence so you are cutting away only the thickness of the saw blade from the trim board.
4. Make one cut from the back side of the trim board on your table saw.
5. Check to be sure the trim board will lay flat against the wall and that all joints are tight prior to fastening. If the boards do not lay flat against the wall or the joints are not tight, repeat the above instructions starting at step 3.



FLASHING WINDOWS WITH WATERPROOF TAPE

Cladding and trim do not provide a watertight barrier. Before you install trim, it's important to flash the window properly.

1. This method is for flashing after weather-resistant barrier (WRB) has been installed. Make 45° cuts in the WRB at the top corners of the rough opening. Flip the top and side flaps away from the opening and temporarily tape the flaps in place. Fold the bottom WRB flap over the sill and secure it.
2. Cut a piece of flashing tape 12" longer than the width of the rough opening. Apply the tape to the sill starting 6" above the sill. Smooth the tape into position as you work your way down the jamb, across the sill and up the opposite jamb.
3. Install the window according to the manufacturer's instructions.

4. Cut two strips of flashing tape for the window jambs. Tape should extend at least 3" above the top of the jambs and 1" below the flashing tape installed along the sill. Peel release paper off slowly as you press the flashing in place. Flashing should cover all nails and mounting slots on the nailing flange.
5. Cut flashing for the head of the opening so it extends beyond the ends of the jamb flashing. Again, cover all nails and mounting slots on the nailing flange with flashing tape.
6. Lay WRB over the head flashing. Apply flashing tape over both diagonal cuts.

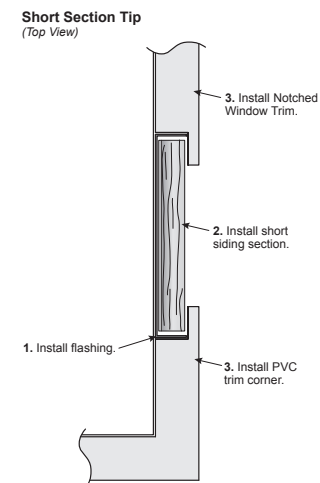
FLASHING WINDOWS WITH TRIM COIL

This method allows short sections of siding to be installed without flexing the siding.

1. For the bottom, cut and bend L-shaped flashing measuring 3/4" x 6" that extends beyond the window equal to the width of the trim. Measure the distance from the inside of the J-trim to the notch and fasten the flashing that distance below the window. Keep nails a minimum of 2-1/2" from the opening. Tip: if you use coil stock matching the siding color the trim can be repainted and the interior will always match the siding color.
2. For the sides, create two similar flashings the full length of the trimmed dimension of the window. Nail each flashing the same distance from the window as determined above. Cut the 3/4" "L" from the bottom flashing so the side flashings pass over the bottom flashing.

3. Measure, cut and bend a "J-shaped" top trim flashing long enough to overlap the side trim by 6" on each side. Cut along the back of the top "J" shape flashing so the "J" can bend down over the side "J" leg.
4. Install the siding.
5. Fasten the trim in place. Do not nail through the J-notch opening.

Note: When using vinyl siding, this application should never require additional caulk.



POST WRAPS

Installation Instructions:

1. Handle Column Wrap with care to prevent the joint tape from tearing. Cut Column Wrap to proper height. Apply a bonding adhesive inside each groove. A 1/8" bead along the total length is recommended in the mitered corners. (Note: To avoid adhesive seeping beneath the tape, keep the bead on the land area and back from the joint.) A 1/16" bead is recommended in the snap lock. (Note that an excessive amount of adhesive in the snap lock may result in a sink line in the outside surface.) For optimum results, use and adhesive with moderate setup time.

Recommendations for bonding adhesive: Cellular PVC adhesives perform well. Bond-N-Fill and Trim Welder by Extreme Adhesives are typical brand names.

Ask your dealer for Ply Gem PVC adhesive, part number 27845606-C.



2. Wrap Column Wrap around the post and "snap" the outside edges together insuring a tight closure along the entire joint.



3. Once the bonding adhesive has setup (see directions on adhesive), remove the film & tape and your column is complete.



Painting and Finishing:

1. Caulk where required. Lightly sand or scuff surface of column. Clean surface of column to remove any dirt or hand oil residue with light detergent and water, denatured alcohol, or window cleaner. Be sure to remove soap residue with clean water.
2. Apply one coat of 100% acrylic exterior primer and one or more finish coats of 100% acrylic exterior paint. Do not paint using dark colors (dark colors are considered any color that falls within the L values of 56 to 0). L is a measure of the lightness of an object, and ranges from 0 (black) to 100 (white).

A storied history of a perfected product.

Over seventy years ago, we began making low maintenance products for home builders and remodelers. Today we're one of the largest manufacturers of exterior building products in North America with an extensive line of low maintenance products including Ply Gem Trim and Mouldings.

Like all Ply Gem products, these cellular PVC trim and moulding products are subject to strict quality controls and backed with a longstanding warranty. In fact, our trim and moulding products are designed to work with just about any exterior building material. So no matter how you side your home, Ply Gem Trim and Mouldings can provide the perfect finishing touch.

Replacing Wood For Good™

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