JamesHardie Commercial

HardieReveal2.0™

INSTALLATION MANUAL

for HardieReveal2.0™ Panel System

Version 2.0

available at www.JamesHardieCommercial.com/TechnicalDocuments

Effective July 2016

Visit JamesHardieCommercial.com
for most recent version

Technical Services:
888-542-7343
jhcommercial@jameshardie.com

Warning

WARNING: AVOID BREATHING SILICA DUST: James Hardie® products contain reparable crystalline silica, which is known to the State of California to cause cancer and is considered by IARC and NIOSH to be a cause of cancer from some occupational sources. Breathing excessive amounts of reparable silica dust can also cause a disabling and potentially fatal lung disease called silicosis, and has been linked with other diseases. Some studies suggest smoking may increase these risks. During installation or handling: (1) work in outdoor areas with ample ventilation; (2) use fiber cement shears for cutting or, where not feasible, use a HardieBlade® saw blade and dust-reducing circular saw attached to a HEPA vacuum; (3) warn others in the immediate area; (4) wear a properly fitted, NIOSH-approved dust mask or respirator (e.g. N-95) in accordance with applicable government regulations and manufacturer instructions to further limit respirable silica exposures. During clean-up, use HEPA vacuums or wet cleanup methods. Never dry sweep. For further information, refer to our installation instructions and material safety data sheet available at www.JamesHardieCommercial.com or by calling 1-800-9HARDIE (1-800-942-7343). Failure to adhere to our warnings, MSDS, and installation instructions may lead to serious personal injury or death.

IMPORTANT: This Guide is subject to updates, check for latest version. Failure to install and finish this product in accordance with applicable building codes and James Hardie's written application instructions may lead to personal injury, affect system performance, violate local building codes, or affect warranty coverage. Before installation, confirm that you are using the correct HardieZone® product. To determine which HardieZone products applies to your location, visit www.hardiezone.com or call 1-866-942-7343 (866 9-HARDIE). For warranty services call 866-375-8603.

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Introduction

About James Hardie Building Products

James Hardie is the global leader in fiber cement technology, providing siding, trim and accessory product solutions to architects and builders and property owners for over 30 years in the United States. It was the first to introduce fiber cement products to the U.S. in the 1980's as a durable, lower-maintenance alternative to wood and vinyl. James Hardie products combine innovation, versatility and safety by offering a variety of design possibilities from traditional to modern, matched with specific performance attributes relative to the climate where the product is being used. Installed on millions of buildings in single family, multifamily and commercial construction, James Hardie products have earned a favorable reputation within the industry and have been specified in some of the country's most prestigious projects.

Our exterior products create a wide range of traditional looks: from plank, panel and soffit to decorative trims and moldings. Plus, we offer more modern looks including commercial panel systems. Our interior products include tile underlayment, ideal for floors and wall linings.

James Hardie Commercial offers high performance products, systems and services designed to protect your vision. All James Hardie® Commercial products offer a unique combination of durability, affordability and performance making them the smart choice for long-term success. Plus, James Hardie Commercial offers design support and installation training to promote precision, minimize risk and help you get it right every time.

About This Document

The material contained herein is aimed to provide installation requirements for HardieReveal2.0™ Panel Vertical Siding System for use in light commercial and multifamily construction. This document is intended for use by professional builders and cladding installers and others involved with the specification and installation of the HardieReveal2.0™ Panel and fixing system.

The HardieReveal2.0™ Panel provides a durable, expressed joint panel appearance for building facades that offer versatility to architects and builders. A variety of design styles can be created – panels installed upright vertically, horizontally or in a brick pattern, with exposed fastening. HardieReveal2.0™ Panel is intended for use for contemporary panel solutions in multi-family and light commercial construction, up to 60 feet from grade. James Hardie provides smooth 7/16 in. thick panel primed only with decorative aluminum trims, and panhead or countersunk screws with concealing compound. Aluminum trims are available as primed.

Disclaimers

The guidance and instructions contained in this document are generally applicable to the HardieReveal2.0™ Panel system. They are not intended to replace the specifications and instructions supplied by a qualified architect or designer for your project.

The architect or designer is responsible for using the HardieReveal2.0™ Panel system in compliance with local laws, building codes and requirements for moisture management, energy efficiency and structural integrity.

IMPORTANT: Failure to install and finish this product in accordance with applicable building codes and James Hardie written application instructions may lead to personal injury, affect system performance, violate local building codes, or affect warranty coverage. Before installation, confirm that you are using the correct HardieZone instructions. To determine which HardieZone product applies to your location, visit www.hardiezone.com or call 1-866-942-7343 (866 9HARDIE).

If you are a specifier or other responsible party for a project, ensure the information in these specifications is appropriate for the application you are planning and be aware that you may be undertaking specific design and detailing for areas which fall outside the scope of these specifications.

When specifying or installing James Hardie products, make sure you have the most current manual.
If you're unsure or need more information, visit www.JamesHardieCommercial.com or call the technical desk at 1-866-9-HARDIE.

Section 1 Before You Begin

Before you begin your siding project, read the instructions manual completely and thoroughly. This document describes and illustrates the steps required to install HardieReveal2.0™ Panel.

No instruction manual can anticipate every condition, circumstance, situation or problem that might arise during installation over the course of the project. When in doubt about assembly details, contact the architect, specifier, or a building official. Contact your James Hardie Sales & Install Representative for product support.

Inspect Material

Do not begin installation until cladding and structure have been properly prepared and inspected. Cladding and accessories should meet expected quality standards for intended use and all accessories should be on site prior to start of work. Any product found to be damaged or aesthetically unacceptable, should not be installed. Stop and call your supplier immediately.

Prepare Material

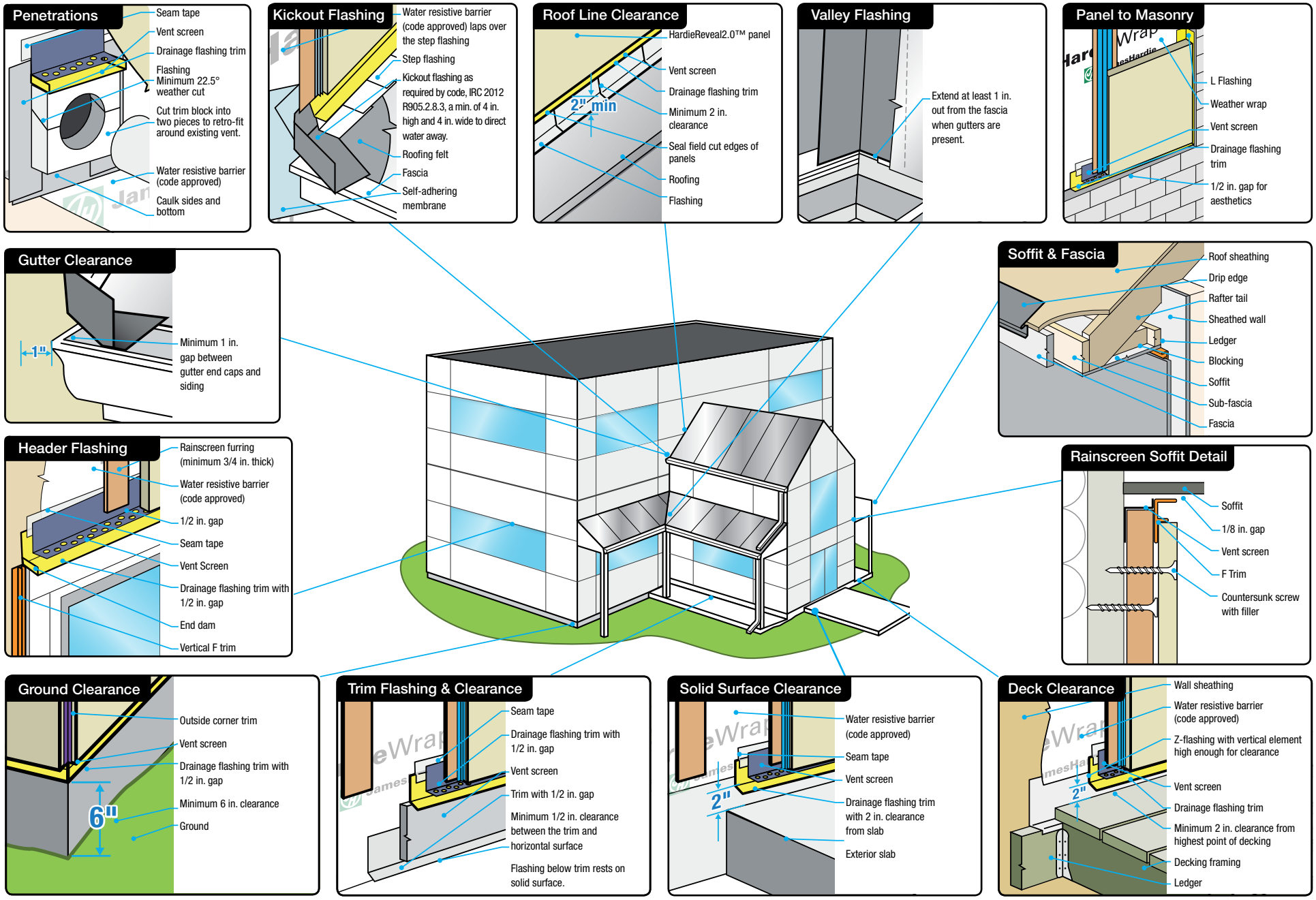
Ensure the drainage plane is intact and all penetrations are sealed.
Plan your work, use the proper tools, techniques, and follow installation procedures, as covered in this installation manual. It is important that builders, specifiers, and installers recognize requirements and information pertaining to:

- Safety
- Storage and Handling
- Cutting
- Wall Preparation
- Fastening

Cleaning, as needed, is recommended to remove dirt, dust, chalking, oil, grease, organic contaminants, or mold that may build up on the product surface over time. Dust from cutting and construction dust should be removed IMMEDIATELY upon installation.

Practice Installation

Provide a mock-up for evaluation of surface preparation techniques. Finish areas designed by architect, designer, or engineer. Do not proceed with remaining work until workmanship, color, and sheen are approved. Refine mock-up area as required to produce acceptable work.


Penetrations
Seam tape
Vent screen
Drainage flashing trim
Flashing Minimum 22.5° weather cut
Cut trim block into two pieces to retro-fit around existing vent.
Water resistive barrier (code approved)
Caulk sides and bottom
Kickout Flashing
Water resistive barrier (code approved) laps over the step flashing
Step flashing
Kickout flashing as required by code, IRC 2012 R905.2.8.3, a min. of 4 in. high and 4 in. wide to direct water away.
Roofing felt
Fascia
Self-adhering membrane
Roof Line Clearance
HardieReveal2.0™ panel
Vent screen
Drainage flashing trim
2" min
Minimum 2 in. clearance
Seal field cut edges of panels
Roofing
Flashing
Valley Flashing
Extend at least 1 in. out from the fascia when gutters are present.
Panel to Masonry
L Flashing
Weather wrap
Vent screen
Drainage flashing trim
1/2 in. gap for aesthetics
Gutter Clearance
1"
Minimum 1 in. gap between gutter end caps and siding
Soffit & Fascia
Roof sheathing
Drip edge
Rafter tail
Sheathed wall
Ledger
Blocking
Soffit
Sub-fascia
Fascia
Header Flashing
Rainscreen furring (minimum 3/4 in. thick)
Water resistive barrier (code approved)
1/2 in. gap
Seam tape
Vent Screen
Drainage flashing trim with 1/2 in. gap
End dam
Vertical F trim
Rainscreen Soffit Detail
Soffit
1/8 in. gap
Vent screen
F Trim
Countersunk screw with filler
Ground Clearance
Outside corner trim
Vent screen
Drainage flashing trim with 1/2 in. gap
6"
Minimum 6 in. clearance
Ground
Trim Flashing & Clearance
Seam tape
Drainage flashing trim with 1/2 in. gap
Vent screen
Trim with 1/2 in. gap
Minimum 1/2 in. clearance between the trim and horizontal surface
Flashing below trim rests on solid surface.
Solid Surface Clearance
Water resistive barrier (code approved)
Seam tape
Vent screen
2"
Drainage flashing trim with 2 in. clearance from slab
Exterior slab
Deck Clearance
Wall sheathing
Water resistive barrier (code approved)
Z-flashing with vertical element high enough for clearance
Vent screen
2"
Drainage flashing trim
Minimum 2 in. clearance from highest point of decking
Decking framing
Ledger

Section 3 Storage and Handling

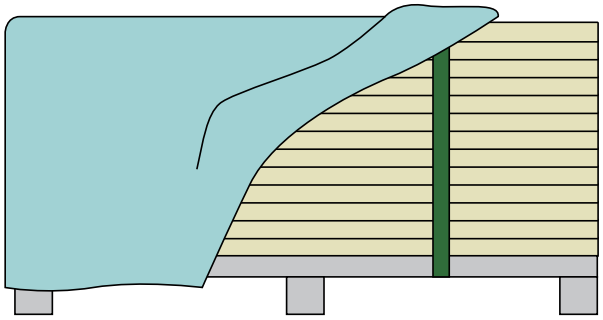
Storage

HardieReveal2.0™ panel should be stored flat and kept dry in its original packaging in a garage, shed, or in some other covered area protected from weather whenever possible. These products must be kept covered on a pallet off of the ground; they must never be stored in direct contact with the ground.

HardieReveal2.0™ panel must be kept dry prior to installation. If HardieReveal2.0™ panel is stored outside, it should be protected with an additional waterproof covering. Any material to be installed needs to be kept dry.

If HardieReveal2.0™ panels become saturated, they must be laid on a flat surface and allowed to dry completely prior to installation.

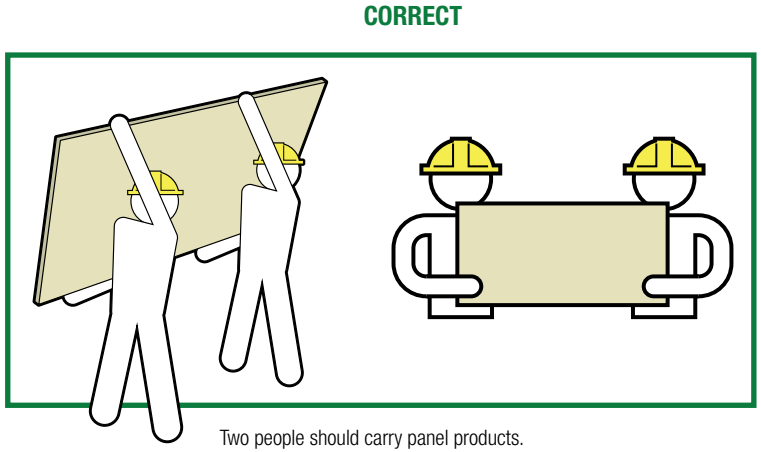
HardieReveal2.0™ panel should not be rolled-off or dumped-off of the truck or delivery vehicle during delivery to the jobsite. James Hardie recommends using a fork lift to off load material or unloading by hand.



James Hardie® products stored in their original packaging. If stored outside protect with an additional waterproof covering.

Handling

HardieReveal2.0™ panel weights 3.1 lbs/sq.ft., James Hardie recommends that two people carry and install panel products. Workers should hold the panel near each end and along edge.



Two people should carry panel products.

REMINDER: Follow James Hardie's recommendations while safely cutting material. Use dust reducing circular saws attached to vacuums with HEPA filters and understand James Hardie's warning on Silica Dust.

Patching Compound

Dent, chips, cracks and other minor surface damage in James Hardie primed siding products can be filled with cementitious patching compound, except on products with ColorPlus® Technology. When repairing holes of less than 1 in. have been created by scaffold anchors, pipe, etc. James Hardie recommends a backer rod be placed into the hole and sealed to prevent water infiltration. James Hardie will assume no responsibility for water infiltration.

Sanding

When sanding countersink filler, wear dust mask and do not sand indoors. Grit sanders will produce dust. Gently clean the siding with a soft brush or wet soft cloth. Follow filler manufacturer's requirements.

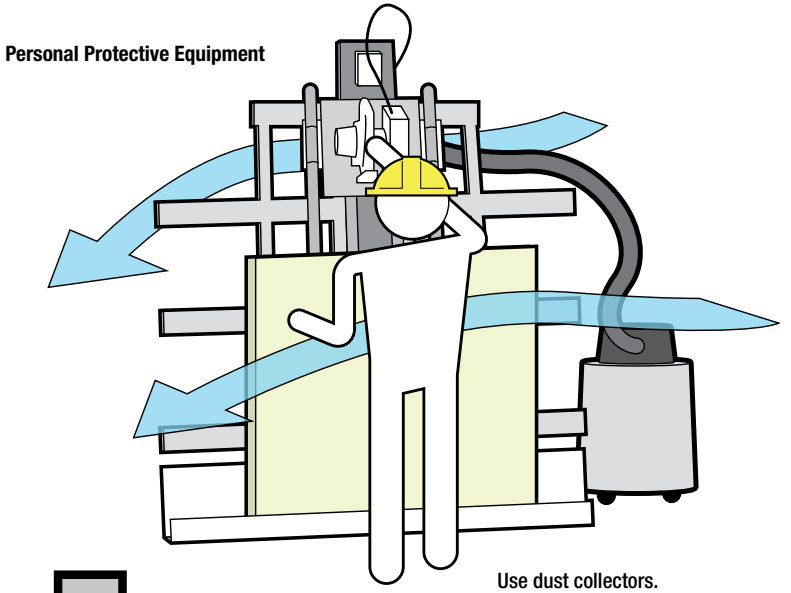
Cleaning

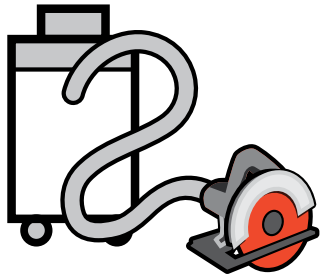
High pressure water blast and sand blasting may damage the surface of fiber cement. James Hardie does not recommend these methods of cleaning. Low pressure water spray, or a medium bristle (nonmetal) brush are more suitable for cleaning fiber cement products. Acid washing can damage the fiber cement surface and is not recommended.

Note: If a pressure washer is to be used, use wide fan tips only, at low pressures under 1,500 psi and at safe distances. Keep fan nozzle no closer than 6 ft. to wall. Exercise extreme caution. Improper use could lead to damage of the surface and in-turn, a loss of warranty coverage.

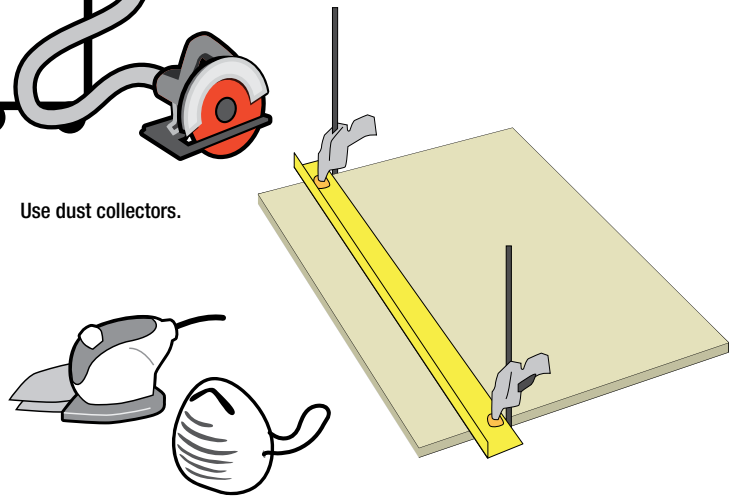
VOC Emissions

Follow paint manufacturer's requirements.

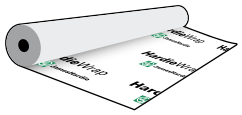


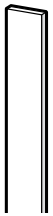
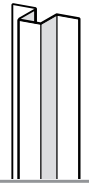
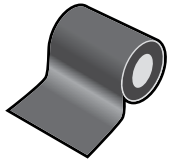


Use dust collectors.

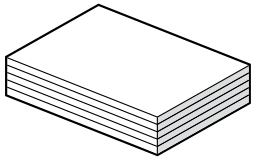
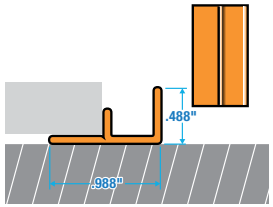
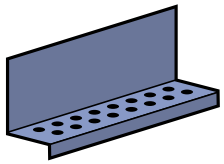
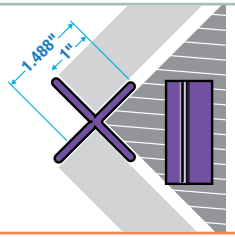


Sub-wall and Rainscreen Materials

Product	Description	Specs
	**HardieWrap® weather barrier** HardieWrap® weather barrier provides a balance of water resistance and water vapor permeability or similar.	Thickness: 11 mil Sizes: 3 ft. x 100 ft., 9 ft. x 100 ft., 9 ft. x 150 ft., 10 ft. x 150 ft.
	**Seam Tape** HardieWrap® Seam Tape is designed to seal vertical and horizontal seams and small holes in the weather barrier to prevent air and water infiltration.	Thickness: 3 mil Sizes: 1 7/8 in. x 165 ft.
	**Flex Flashing** HardieWrap® Flex Flashing is designed to easily stretch and seal around custom shapes — including windows and doorsills — to prevent water and air from entering the building.	Thickness: 60 mil Sizes: 6 in. x 75 ft. (2x4 construction), 9 in. x 75 ft. (2x6 construction)
	**Pro-Flashing** HardieWrap® Pro-Flashing is a high performance, non-woven, tear-resistant butyl rubber self-adhesive.	Thickness: 25 mil Sizes: 4 in. x 75 ft. (2x4 construction), 6 in. x 75 ft. (2x4 construction), 9 in. x 75 ft. (2x6 construction)

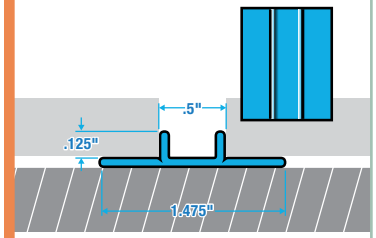
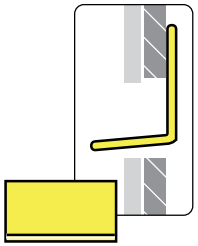
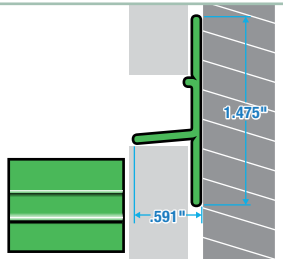
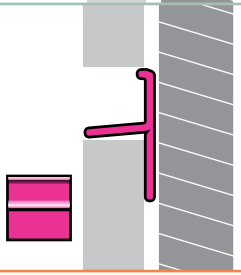
Product	Description
	**(3/4 in.) Wood Furring Strips** *• Pressure treated wood (ACQ, CA, MCQ, or MCA)* *• Minimum ¾ in. nominal (23/32 actual) thick* *• Minimum 4 in. wide* *• Non-permeable membrane covering the face of furring*
	**Z-Girts** *Minimum 3/4 in. depth, minimum 20 gauge, maximum 16 gauge steel Z-girts, or hat channels galvanized*
	*Non-permeable membrane installed over the full face of furring*
	**Coated aluminium flashing** *for grade, penetrations, window and door dam flashing/clearance*

HardieReveal2.0™ Panel System Materials Supplied by James Hardie

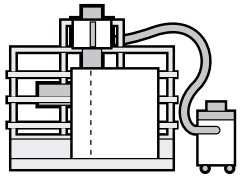
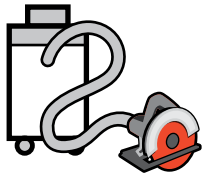
Product	Description	Quantity (Pcs. Per Box)
	**HardieReveal2.0™ Panels** Primed Smooth Thickness: 7/16 in. Size: 47.5 in. x 95.5 in. Weight: 2.6 lb/sq.ft.	Pallets of 40 or 10
	**F-Trim Vertical Trim** ***Part number: 9000374*** Thickness: 16 Gauge Length: 8 ft.	10
	Installed First **Vent Screen** ***Part number: 9000372*** Thickness: 16 Gauge Length: 8 ft.	15
	Installed Second **OS Corner Trim** **(outside corner trim)** ***Part number: 9000318*** Thickness: 16 Gauge Length: 8 ft.	10

Aluminum trims are available in primed only that is to be painted.

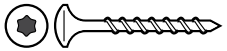
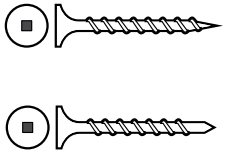
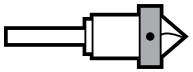
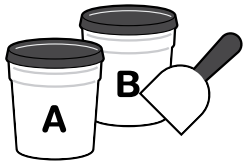
Warning: Beware of Sharp Edges

Product	Description	Quantity (Pcs. Per Box)
	Installed Third **Vertical Trim** ***Part number: 9000320*** Thickness: 16 Gauge Length: 8 ft.	20
	**Drainage Flashing** ***Part number: 9000321*** Thickness: 16 Gauge Length: 8 ft.	20
	Installed Prior to Next Course **Horizontal Trim** ***Part number: 9000319*** Thickness: 16 Gauge Length: 8 ft.	20
	Installed Second **Horizontal Edge Trim** ***Part number: 9000373*** Thickness: 16 Gauge Length: 8 ft.	10

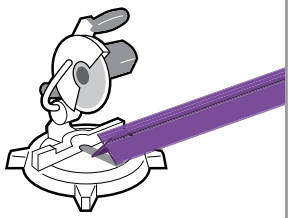
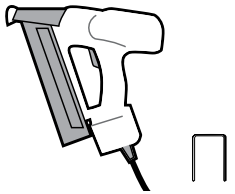
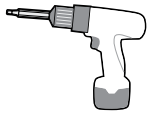
Required Cutting Tools For HardieReveal2.0™ Panel System

	Description
	**Diablo® Steel Demon® Non-Ferrous Metals Blade** *80-tooth*
	**HardieBlade® saw blade for Fiber Cement 7-1/4 in.**
	**Panel Saw With Vacuum and HEPA Filter** *Contractors Extension Recommended*
	**7-1/4 in. Circular Saw with Vacuum and HEPA Filter** *Cutting against straight edge recommended*

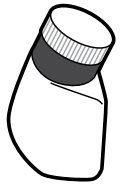
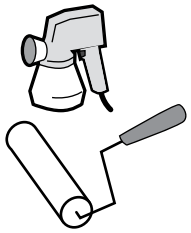
Required Fasteners and Drilling Tools Supplied by James Hardie

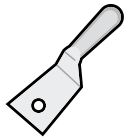
	Description
	**SFS Fastener** ***Part number: 9000403*** **Wood fastening** *1.5 in. Length x 0.189 in. x 0.472 in. HD, 10-12 SS, T20W Torx Pan Head*
	**Countersunk Fastener** **Wood fastening** ***Part number: 9000315*** **Steel fastening** ***Part number: 9000316*** *1 5/8 in. length x 0.39 in. HD 316 SS, wafer head square drive*
	**Drill Bit 9000322** **Drill Collar 9000323** *Bit usage rate for countersunk fastening application, 1 unit per pallet (40 sheets)*
	**Countersunk Filler 9000324** *Filler usage rate, 1 unit per pallet (40 sheets)*

Other Tools Needed

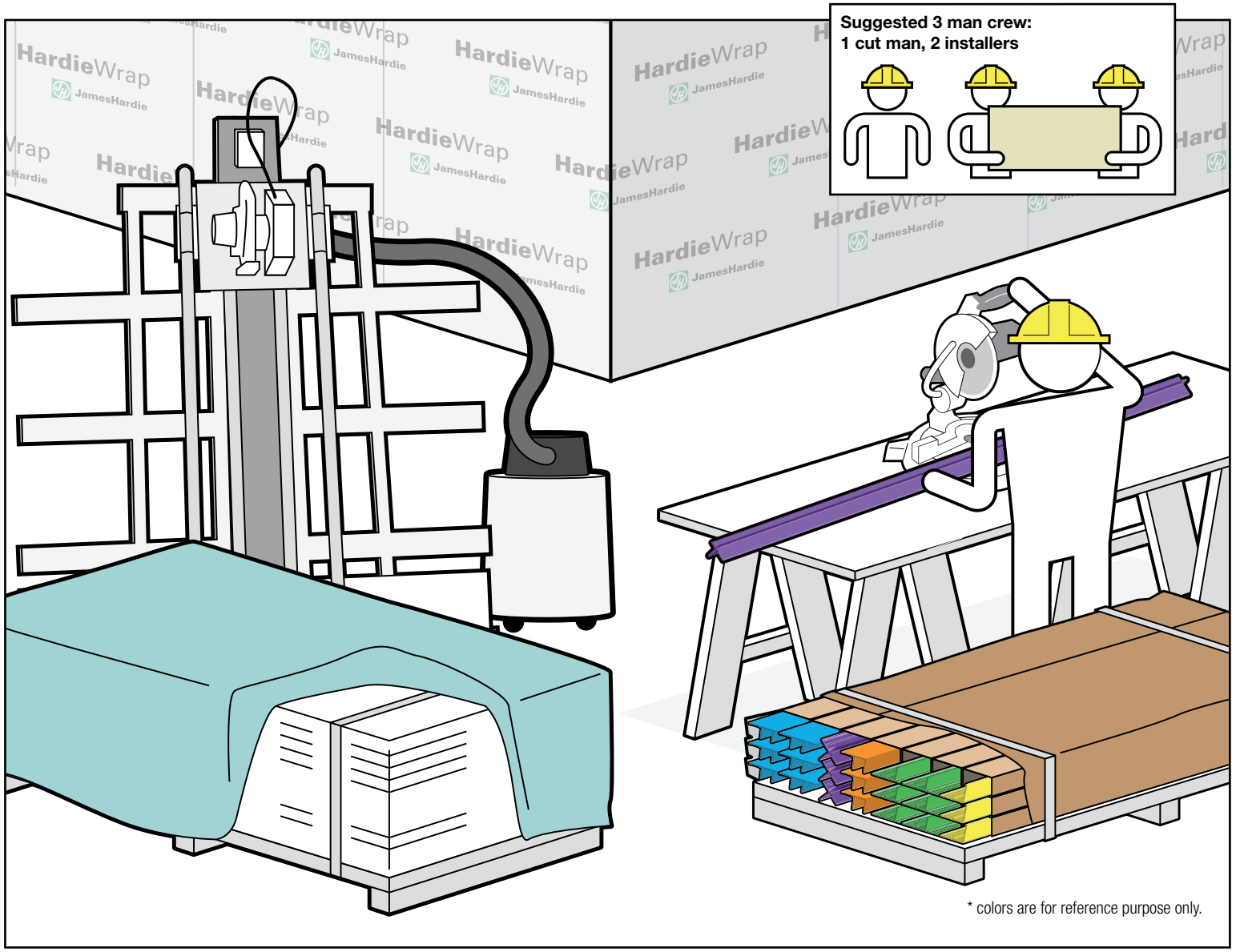
	Description
	**Miter Saw** *To cut HardieReveal2.0™ Panel System Trims*
	**Pneumatic Staple Gun** *.5 in. x .25 in. narrow crown galvanized staple* *For Fastening HardieReveal2.0™ Trims (Recommended for attachment to wood furring)* **Staples** *½ in. x ¼ in. narrow crown galvanized staple*
	**Cordless Drills** *For driving fasteners*
	**#2 square drive**
	**T-20 Torx (for SFS)**

Recommended Finishing Materials

	Description
	**Edge Sealer** ***Part number: 9000405*** *For field cut edges* *2 units edge sealer per 1 pallet (40 sheets)*
	**Spray Gun and Roller** *Spray paint and back roll*
	**Paint** *100% Acrylic Exterior grade satin finish top coat should be used and applied according to manufacturer's guidelines.*

	Description
	**Custom Putty Template** *Putty knife with 1 in. drilled hole*
	**Sanding Mouse** *80 grit sand paper*

Note: Recommended usage rates for accessories may vary depending on design and layout.



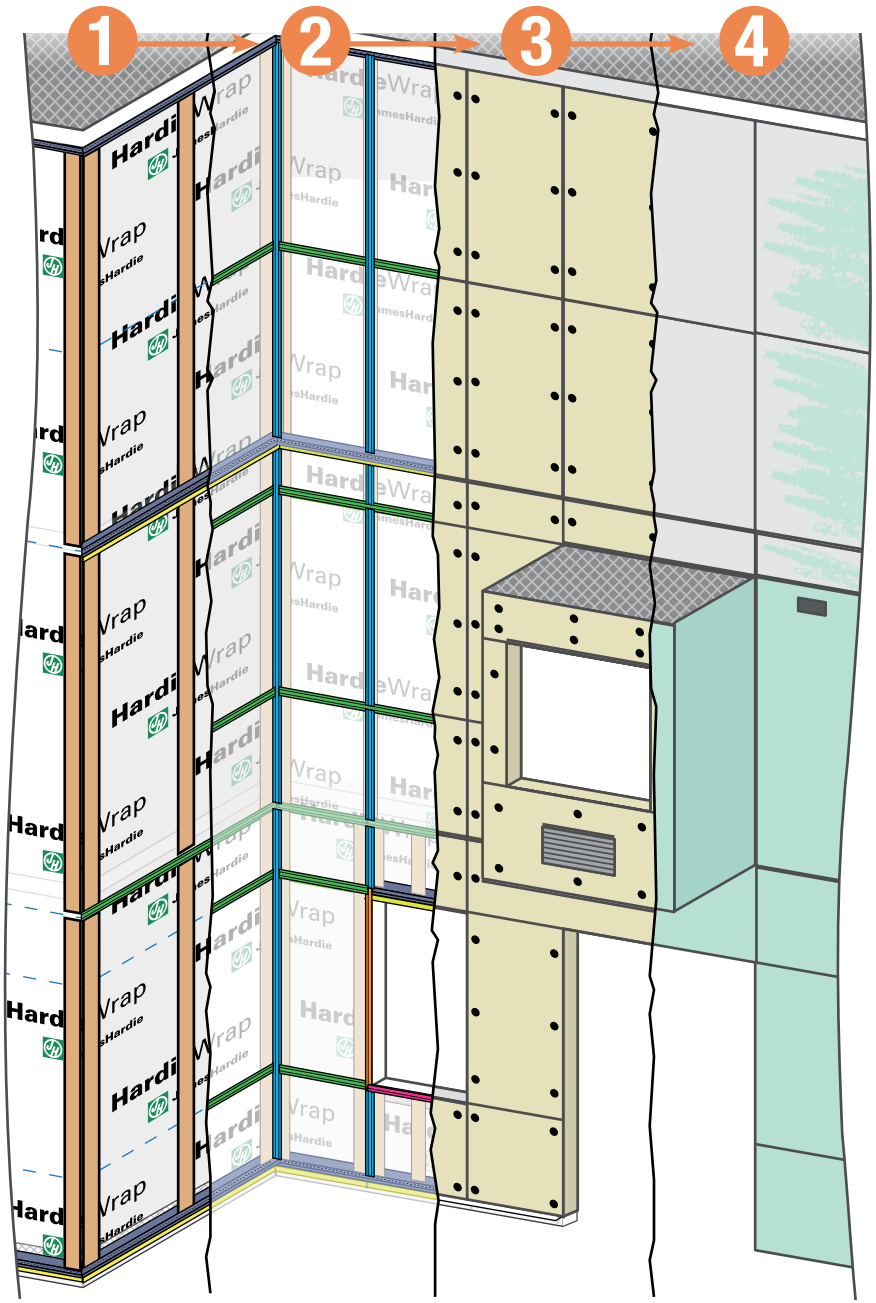
Stage material for efficient use around the building (like a corner for example), on a flat surface.

Take note of any special alignments or design reference points such as windows, etc. Double furring may be required.

Check and/or correct furring so that it is square and plumb.

Steps:

1. **Install Weather Resistive Barrier, minimum furring, drainage flashing, and Vent Screen**
   For best aesthetic furring must be plumb and square. MCA or MCQ treated furring is recommended
2. **Prepping for Trim Layout**
   Ensure furring seams at floor breaks and drainage flashing is planned for every other floor
3. **Installing HardieReveal2.0™ Trims and exposed fasteners**
   Install HardieReveal2.0™ Trims, Panels, and Fasteners
4. **Finishing System**
   Fill countersunk holes, let dry, sand, remove dust, clean surface, and paint with 2 coats of 100% acrylic latex paint



Structural attachment of furring, as the fastening substrate, remains the responsibility of the design professional. Design alternatives such as attachment to structural horizontal girts must maintain James Hardie's fastener schedule minimum requirements.

Before installing HardieReveal2.0™ Panel, review and comply with all local building codes and regulations regarding wall construction.

Do not install siding over questionable wall construction. Irregularities in framing may become visible in the finished application. To minimize the effect of unevenness, shim the wall as necessary.

Structural Sheathing & Non-Structural Sheathing

For best results install furring over flat plywood, OSB, or comparable rigid sheathing with code approved water resistive barrier. Furring must be secured to framing.

Furring must also be installed to the studs, not just the structural sheathing.

Concrete Block (CMU) Walls

When installing HardieReveal2.0™ Panel on CMU, wall flatness is critical. Follow local building for water resistive barrier requirements. Attachment of furring direct to block requires suitable widths to accommodate joint and fastener locations.

If shimming of furring cannot re-establish a suitable flat plane then furring may be installed on horizontal girt secured to CMU.

Flashing

Self-Adhered Flashing membranes (SAF) are recommended at inside and outside corners, attached to the sheathing; and beneath code approved WRB. Follow manufacturer's guidance and requirements. Before any installation of furring or paneling make sure that windows and penetrations are properly flashed in accordance with the design professional's specification.

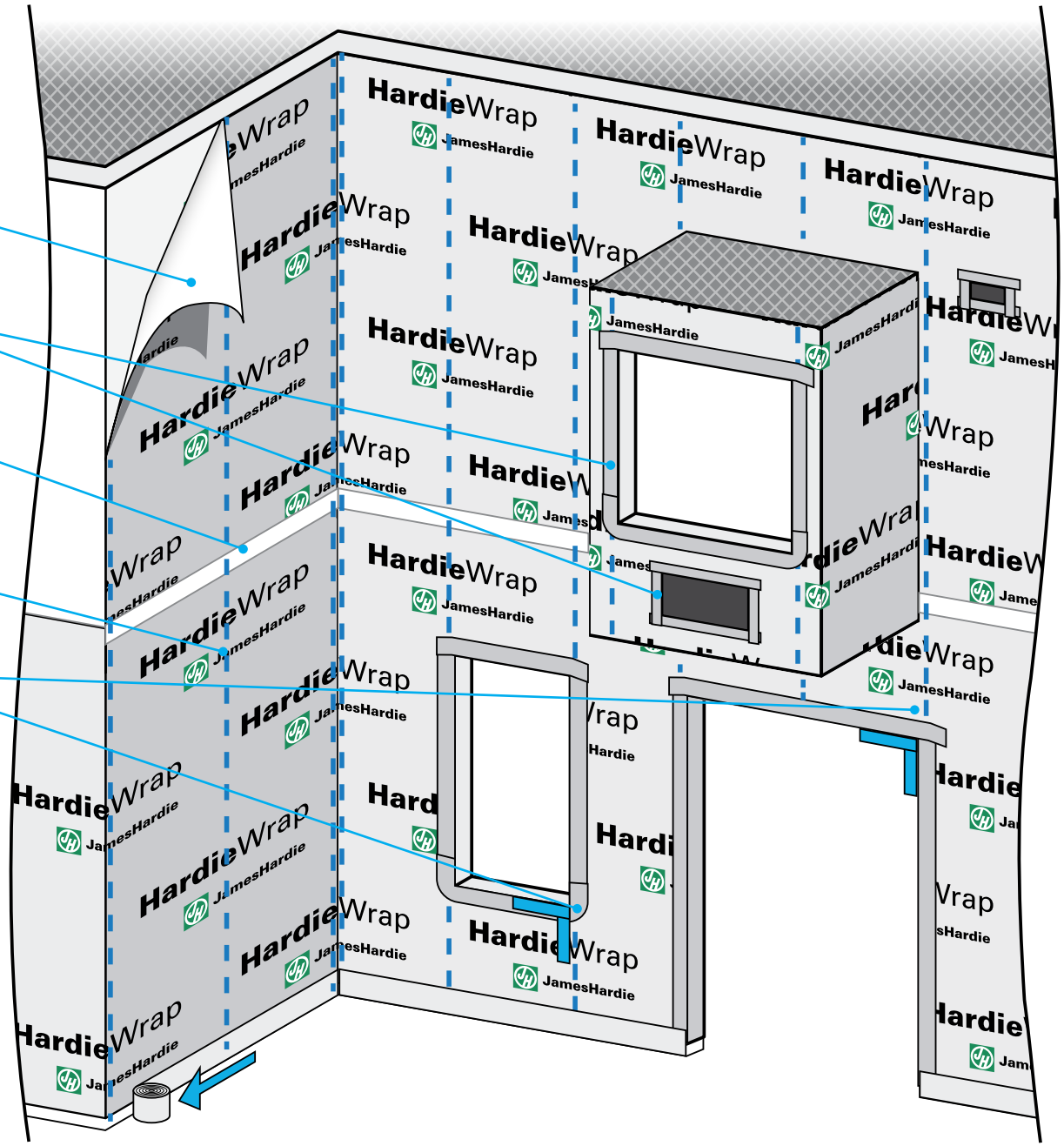
Continuous Foam Insulation Sheathing

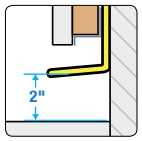
Design is required when using foam sheathing. Where foam sheathing is used, furring must be secured to the framing structure and in accordance with design specifications to manage dead loads and traverse loads of the system.

Make sure all penetrations are weather tight.

1. Install code approved water resistive barrier taking care to overlap the top edge over the bottom by 2 in.
2. Install flashing at clearance and vent points.
3. Install seam tape.
4. Mark studs. (16 in.-24 in. max. o.c.)
5. Mark reference points for furring and trim, remember that some lines will run continuously horizontally and vertically.

NOTE: When installing water resistive barrier refer to manufacturer's requirements. The steps outlined here are guiding principles.

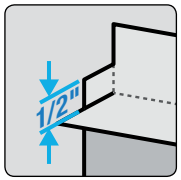




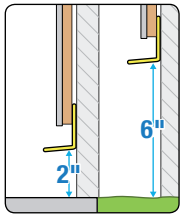
Roof Line Clearance
Leave 2 in. gap above roof lines.

Install Vent Screen and drainage flashing trim at bottom of the walls above windows, bay areas, penetrations and every other floor break.

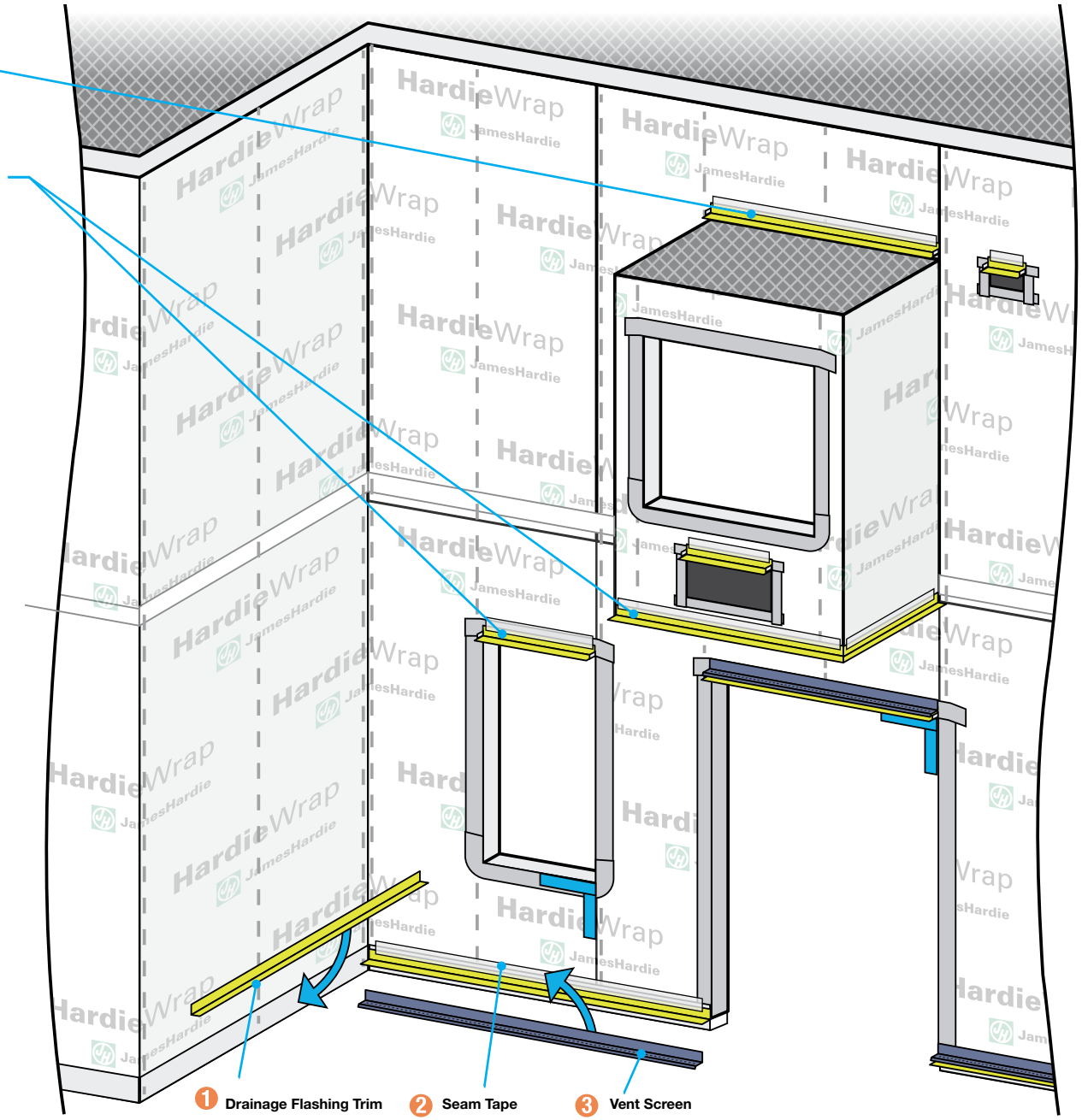
Trims may be tacked in place with a staple, finish nail, or flat head roofing nail. Where permanent fastening is required, secure trim with a narrow crown staple every 24 in. o.c. and apply seam tape as applicable.



flashing can be added behind drainage flashing to create an end dam.



Best Practices
Install drainage flashing trim 6 in. above grade or 2 in. above a hard surface.



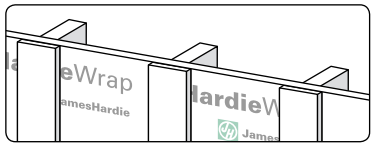
Install Furring

3/4" thick furring is required. Install furring vertically*, plumb, and square. Furring shall be securely fastened to framing. Furring fastener type and spacing must be determined by the job site engineer in accordance with design requirements. Fireblocking shall be used where required by code.

Furring solutions:

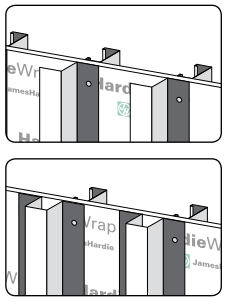
Wood:

- Specific gravity greater than 0.42 and in accordance with IBC 718.2.6 (2012)
- Pressure treated wood (ACQ, CA, MCQ, or MCA)
- Minimum 3/4 in. nominal (23/32 actual) thick
- Minimum 4 in. wide
- Non-permeable membrane such as, EPDM/Neoprene (min 1/16 in), polyethylene strips (min 6 mil), or similar*.



Steel:

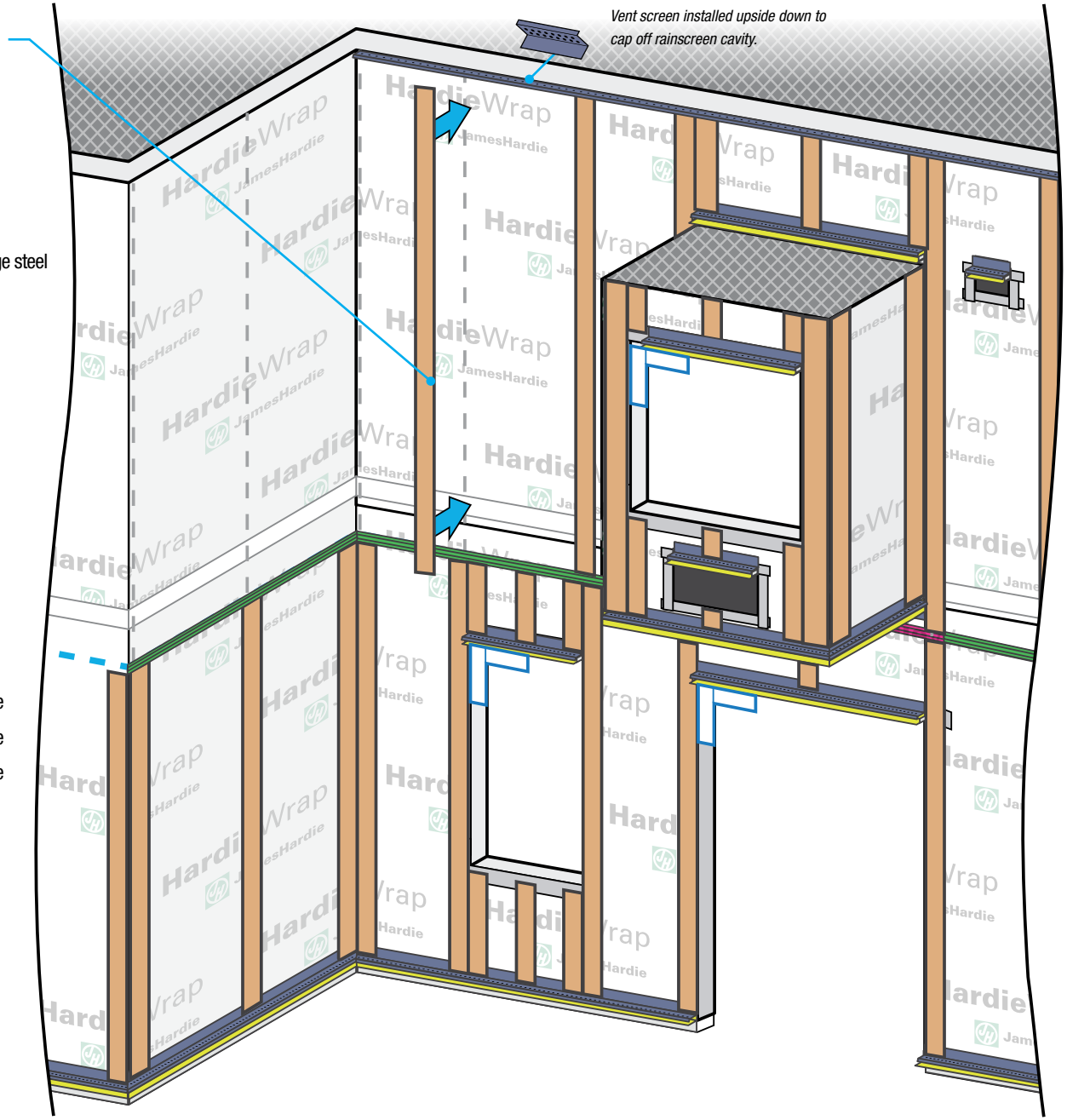
- Min. 20 gauge and max. 16 gauge steel
- Z girts or Hat channel



Minimum 20 gauge, maximum 16 gauge, galvanized steel

Predrilled pilot into steel furring follow:

- 5/32 in. (0.16 in.) for 20 gauge
- 9/64 in. (0.14 in.) for 18 gauge
- 9/64 in. (0.14 in.) for 16 gauge



*Horizontal furring may be utilized if the furring system is designed to prevent moisture from being caught between the furring and cladding

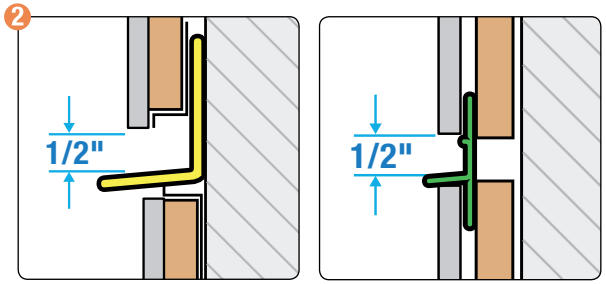
** Place non-permeable membrane on face of furring strip only. Do not wrap the entire furring strip.

Note: Face sealing (caulking between the Reveal Panel and the aluminum trims) may be combined with the non-permeable membrane to offer additional moisture protection.

Know the penetration and panel layout to properly layout furring strips.

Install extra furring at corners, penetrations and for off stud joining if needed as fill-ins for trim substrate.

2

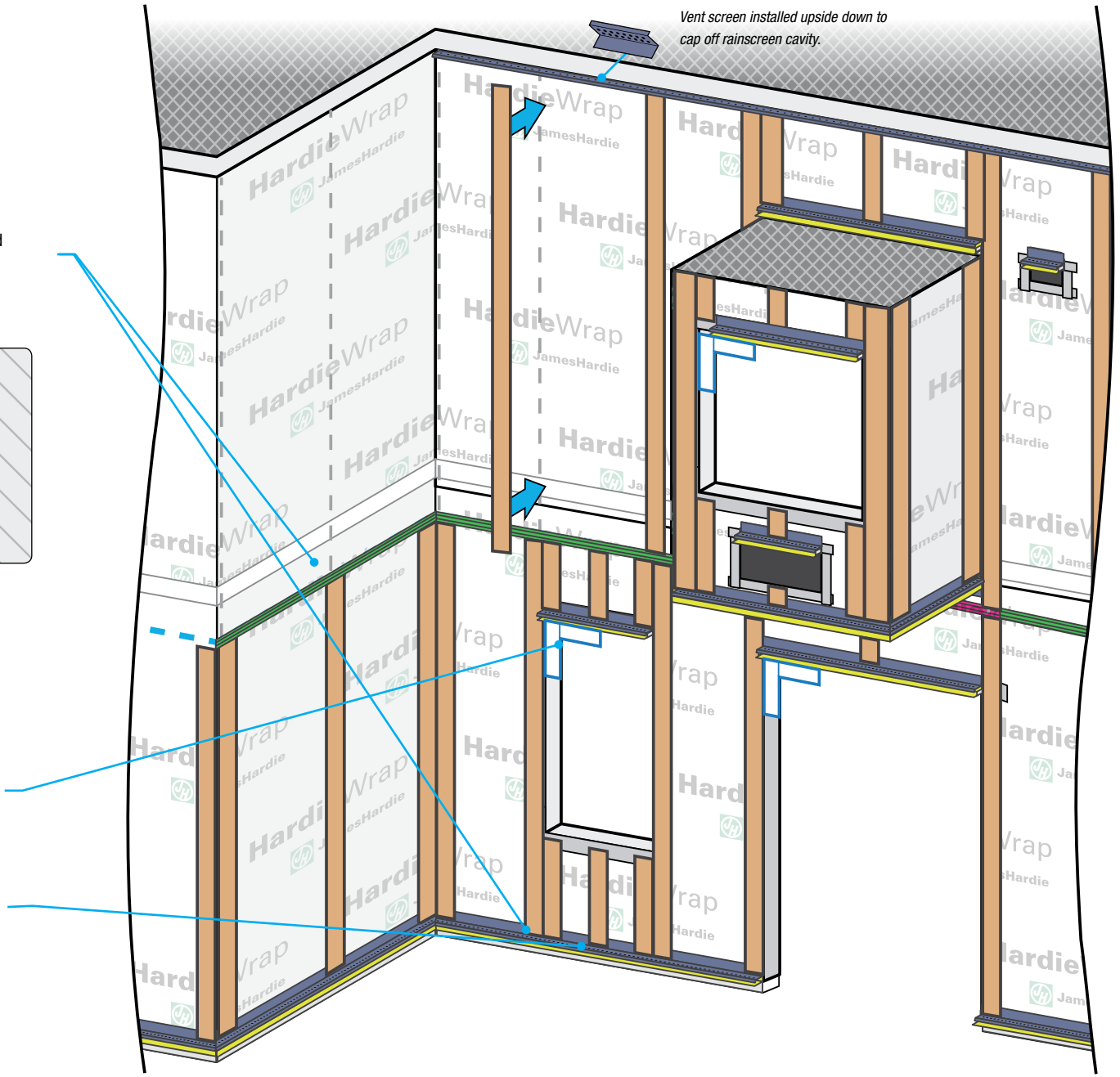


Floor Breaks & Furring
Do not bridge floors with furring or panels. Install through flashing trim at every other floor break. Gap furring 1/2 in. at all floor breaks. Use a 1/2 in. spacer for installation. Do not caulk opening..

3 Check for all square and plumb corners. Make any necessary adjustments.

4 Install vent screen with all drainage flashing trims.

Please note: install a non-permeable membrane when using wood furring



Drainage Flashing Trim Minimum Requirement Every Two Floors

Within Each Section:

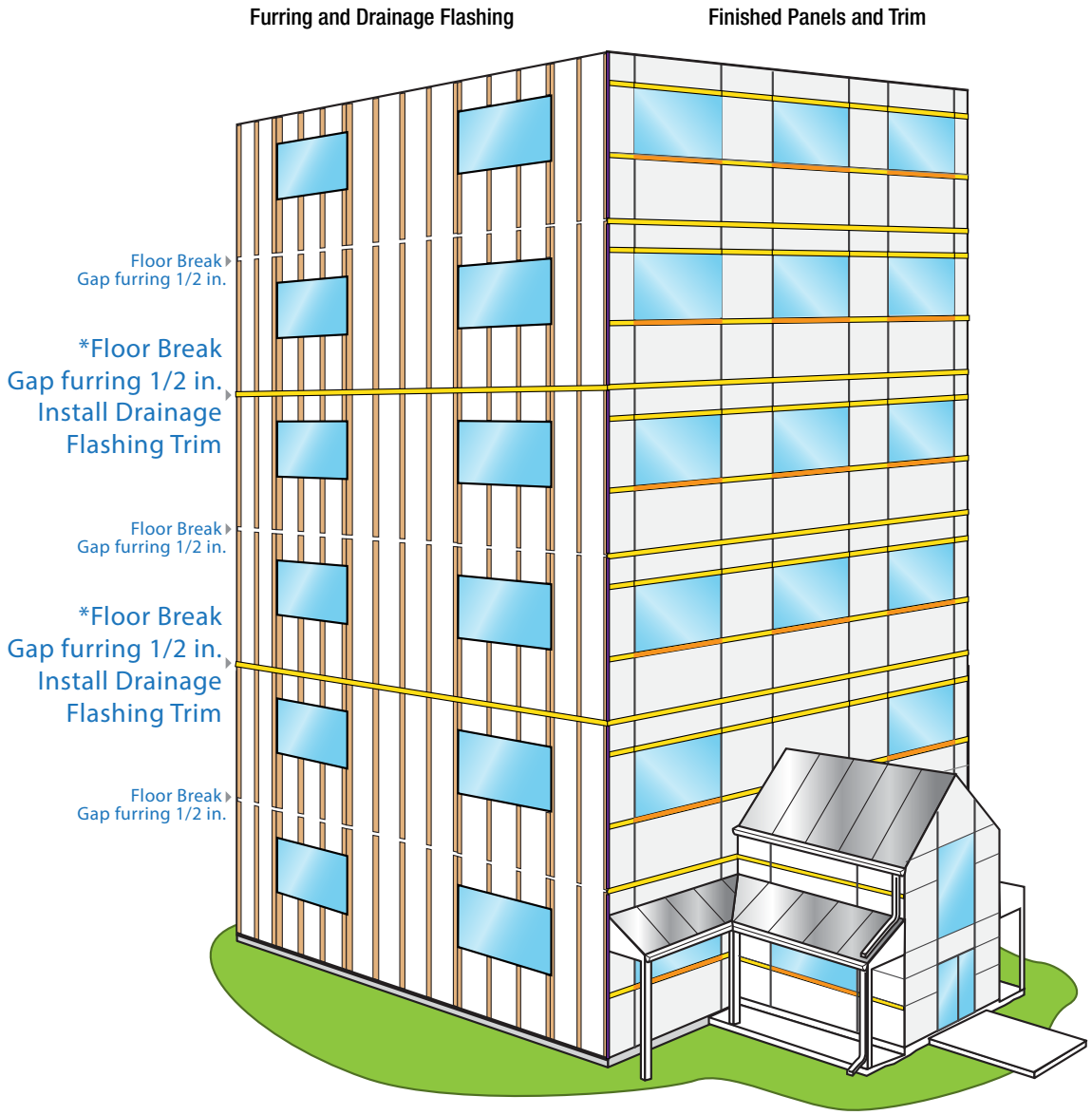
Install trims around clearances and corners first, followed by windows and penetrations (any critical areas), and last the field of the wall.

For trim and panel alignment purposes, check for square and plumb corners and openings.

Use correct trim profile to meet architect design requirement.

Cut trims using non-ferrous metal blade. Cut trims square.

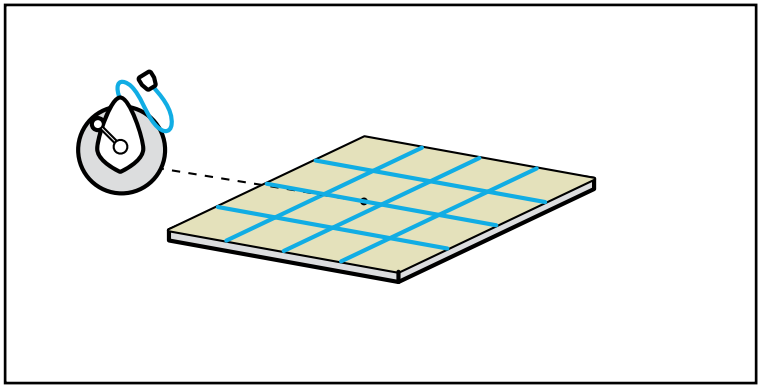
* DO NOT bridge floors with HardieReveal2.0™ Panel siding. Horizontal joints shall be created between floors.



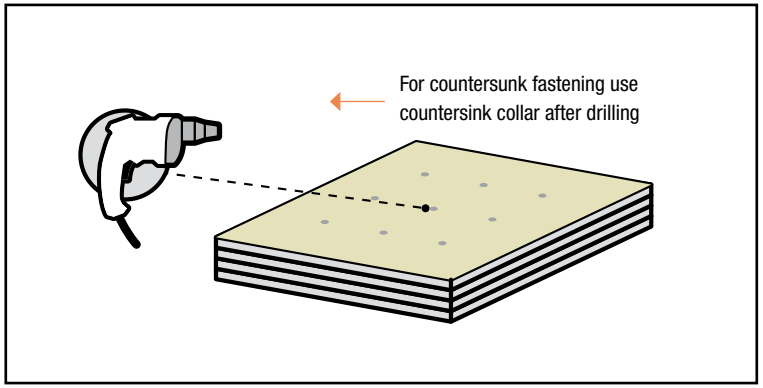
Section 8 Step 6: Preparation of Panel (Cutting and Pre-Drilling)

Fastening

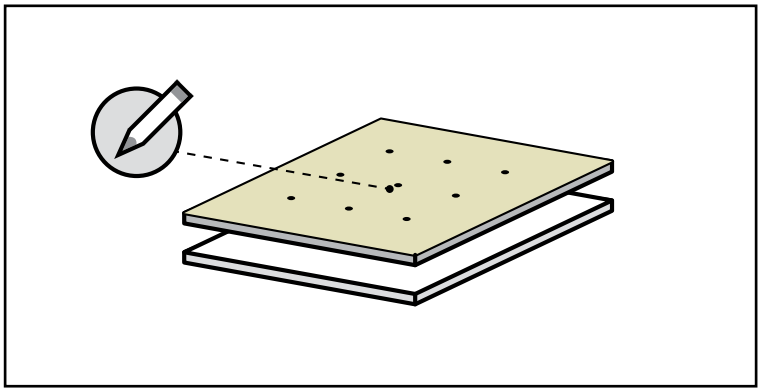
Final fastening of all screws per panel is better done once a larger portion of the wall or the whole wall itself is simply 'tacked' in so one can concentrate on the pattern at hand as it is an important design element. Panel must be permanently fastened by the end of the day. The pattern layout can be achieved using these pattern suggestions:



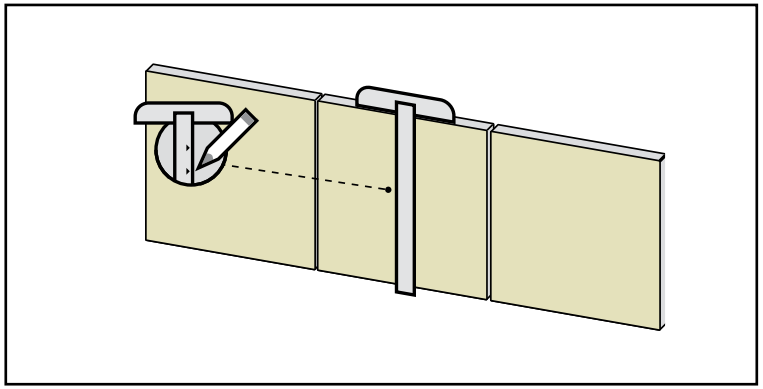
- *Snap 'blue' chalk line grid over panels.*



- *Pre-drill several similar panels at once.*



- *Use a peg board template to mark the holes you need.*



- *Use a T-square to make markings.*

Reminder: Cleaning as needed to remove dirt, dust, chalking, oil, grease, or organic contaminants. Dust from cutting and construction dust should be removed IMMEDIATELY upon installation.

Horizontal Trims, Vertical Trims and Panels

1. Install first panel into a corner, leveling and making adjustments as needed.
2. Install vertical trims and subsequent panels along the horizontal
3. Install panels and trims across the exposure from corner to corner, then move upwards a level.

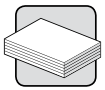
Note: Metal trims must be permanently fixed with panel in place. Do not leave metal trims tacked and left for more than a day, especially in high wind areas.

Install vertical trims per the architectural design pattern.

Install horizontal trims per the architectural design pattern.

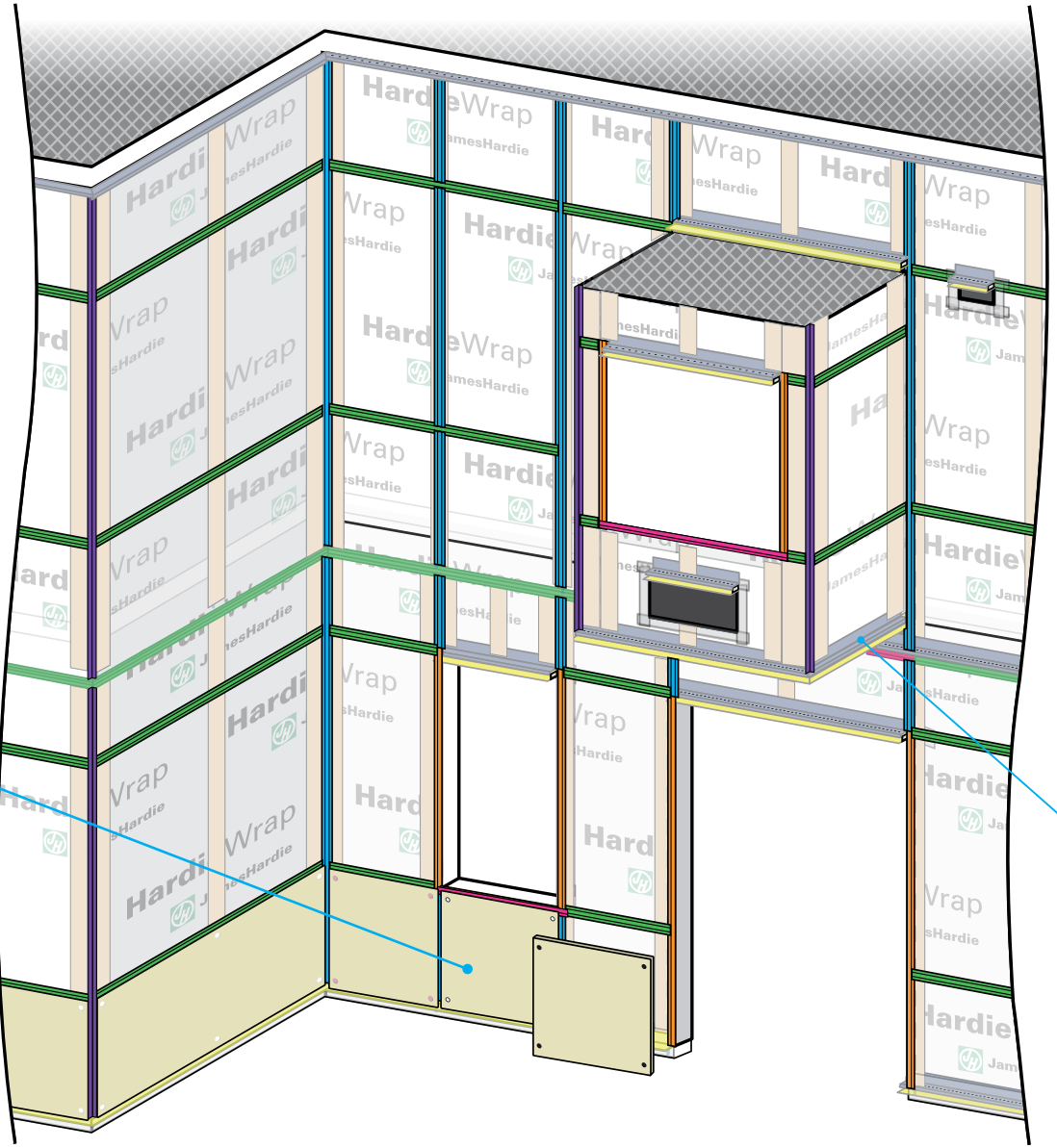
Secure trim. **Do not bridge floors.**

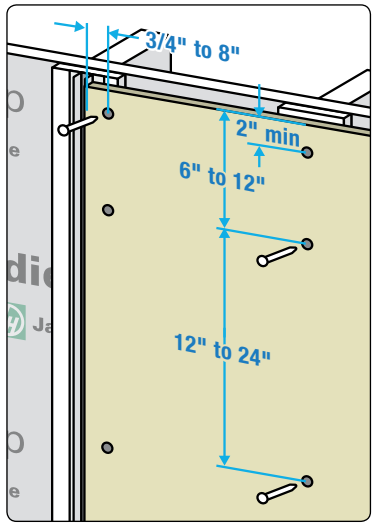
DO NOT bridge floors with HardieReveal2.0™ Panel siding. Horizontal joints shall be created between floors.



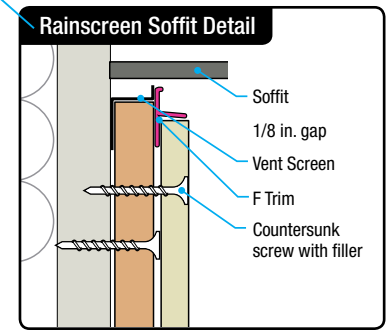
Place panel inside trim layout.

Once fastening pattern has been determined, all fasteners should be permanently attached before leaving job site.





Continue with panel installation, utilizing cut pieces where possible to avoid waste.



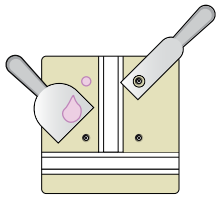
Before finishing, assure that the panel is sufficiently dry to receive paint.

1

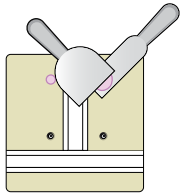
While moving down the wall, finish fastening panel with all fasteners following alignment pattern.

For countersunk fastening option use countersink drill bit prior to applying fasteners.

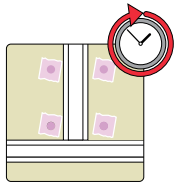
2 Fill Countersink Fastening Holes



A. Place the patching template over the screw

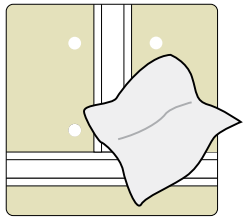


B. Use a putty knife to apply putty over the template hole



C. Allow putty to dry in accordance with manufacturers instructions

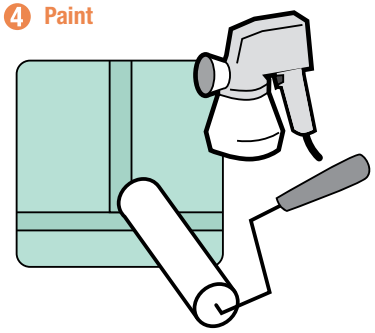
3 Sand & Clean off Dust



Sand panel surface with 80 grit sand paper.

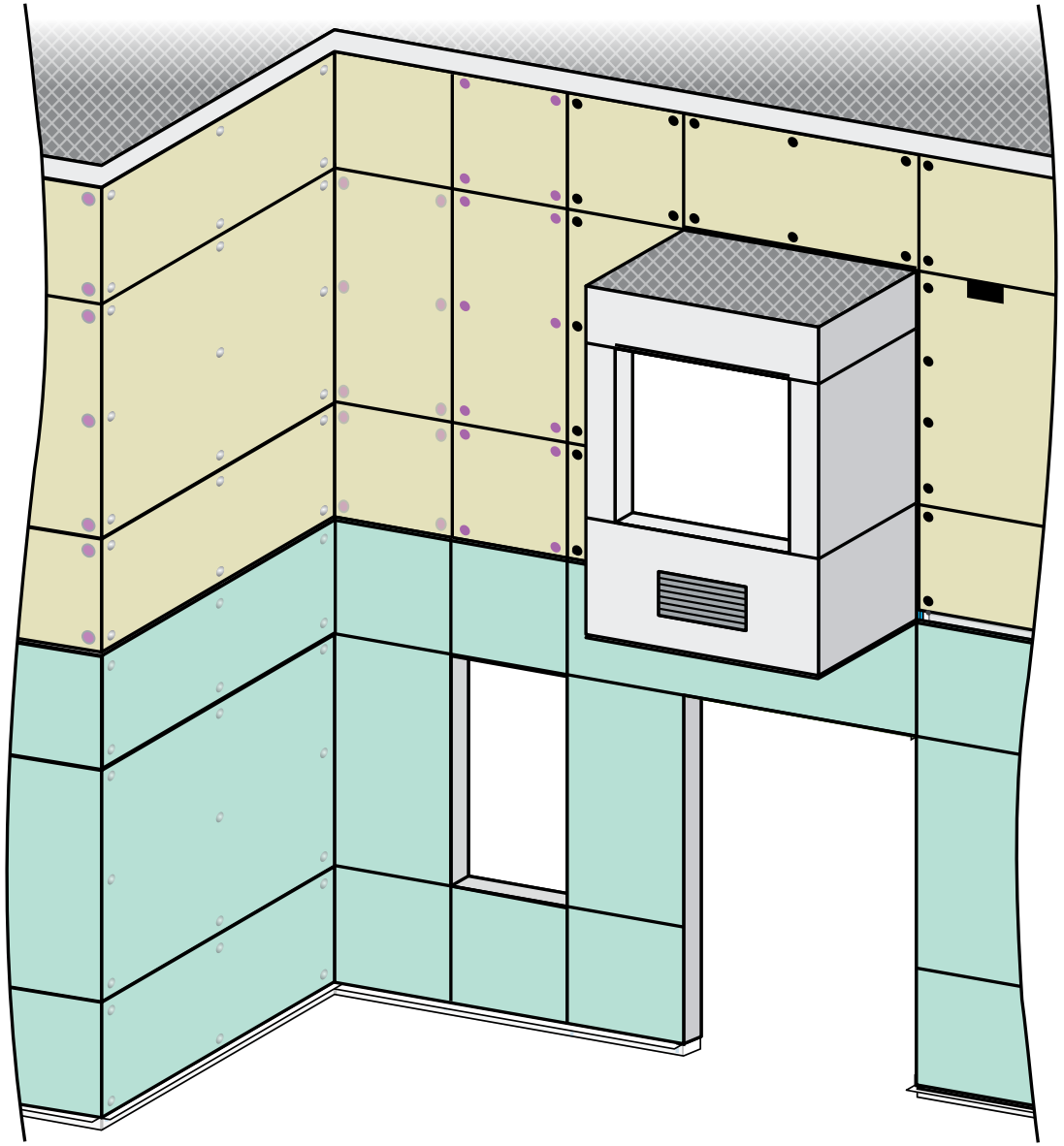
Wipe the surface of HardieReveal2.0™ panel cement board clean prior to painting.

4 Paint



Spray 2 coats of high quality 100% acrylic latex paint and back roll.

Note: For countersink fastening, flat or eggshell paint sheen finish is recommended.



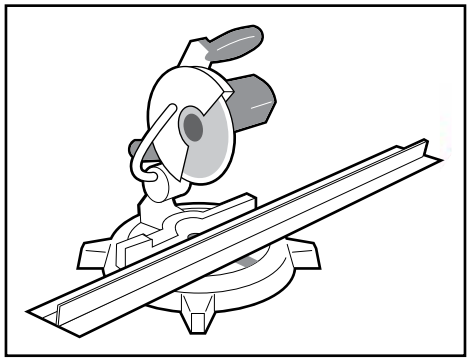
Section 8 Important Notes on Materials Cutting

Cutting Trim

Use miter saw with non-ferrous metal blade to cut HardieReveal2.0 trim to size.

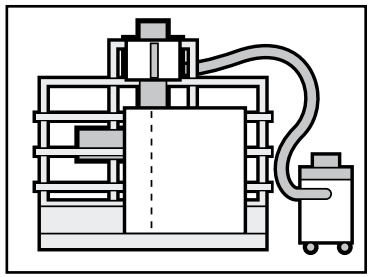
Warning: Do not use an abrasive blade to cut aluminum trims.

Warning: Deburr metal sharps and use appropriate personal protective equipment, as necessary.



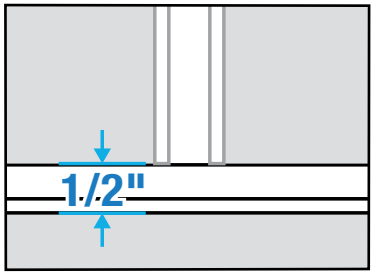
Cutting Panels

Measure and cut panels square and plumb with a tolerance of (+/-)1/16 in.. *Please note:*

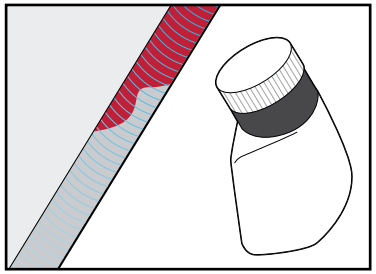


A panel saw with vacuum is recommended for straight, square cuts.

Required blade for cutting James Hardie Fiber cement.



Install as many factory cut ends to the weather, as possible.

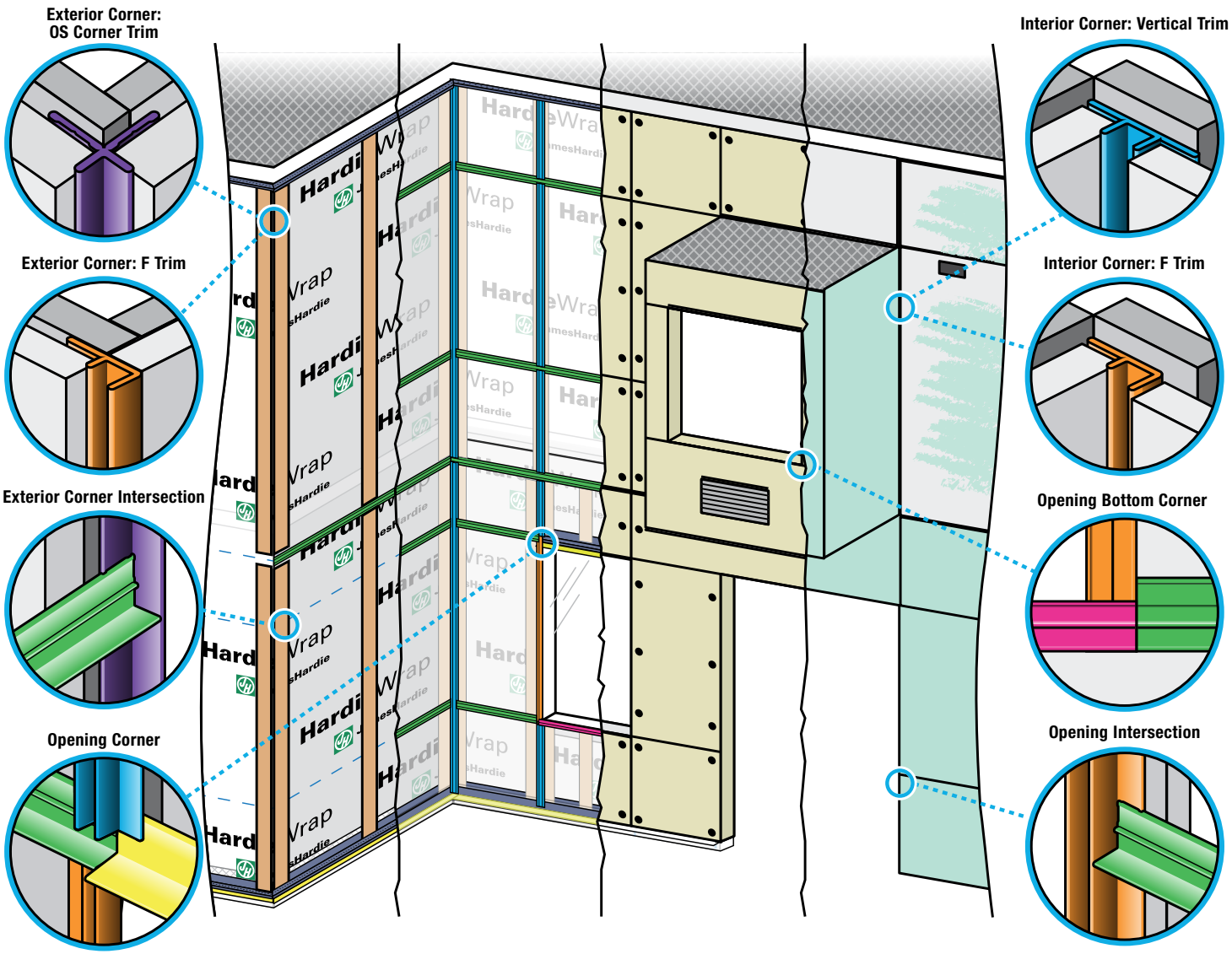


Seal off all field cut ends of panels with HardieReveal2.0™ edge sealer.

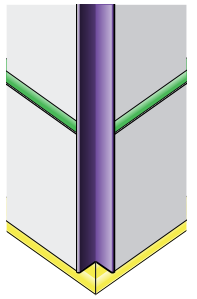
Section 9 Trim Intersection Details

Trim Layout

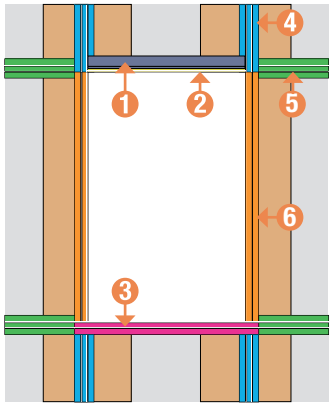
Please review the sample diagram to get familiar with the common types of trims and joints. Additional scenarios may be identified during installation. Trims may be tacked in place with a staple, finish nail, or flat head roofing nail. Where permanent fastening is required, secure trim with a narrow crown staple every 24 in. o.c. and apply seam tape as applicable.



Drainage Flashing Trims may be cut to terminate into corner trims. Alternatively, they may be miter cut and cap over the corner trims.



OS Corner Trim



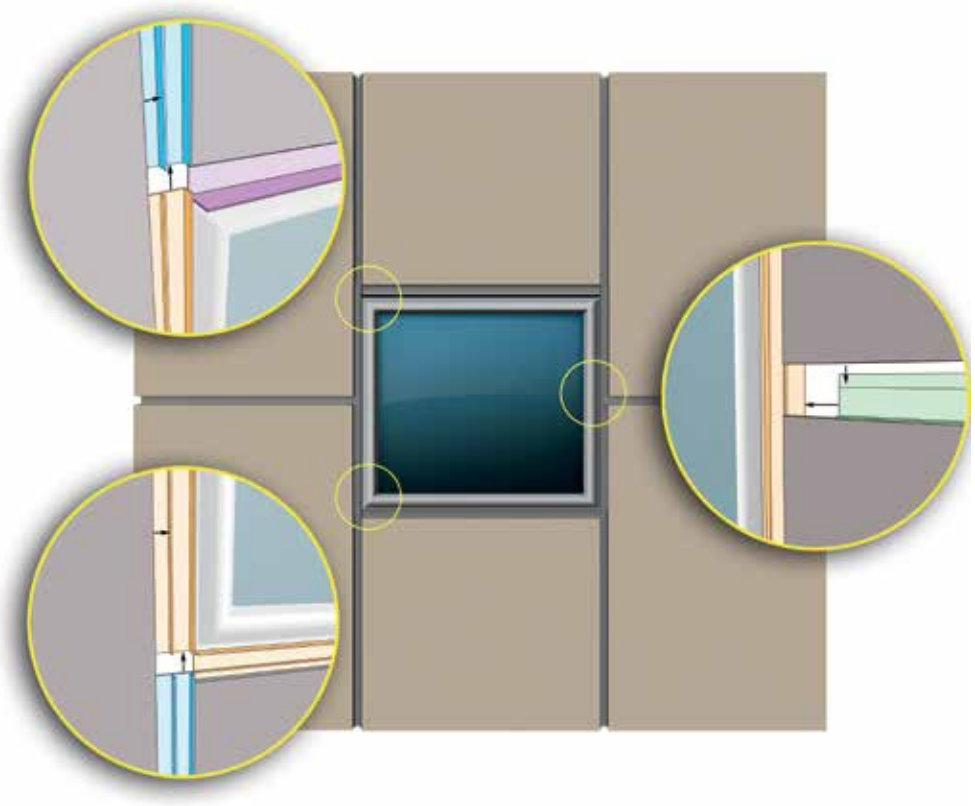
Window Trim Intersection Layout:

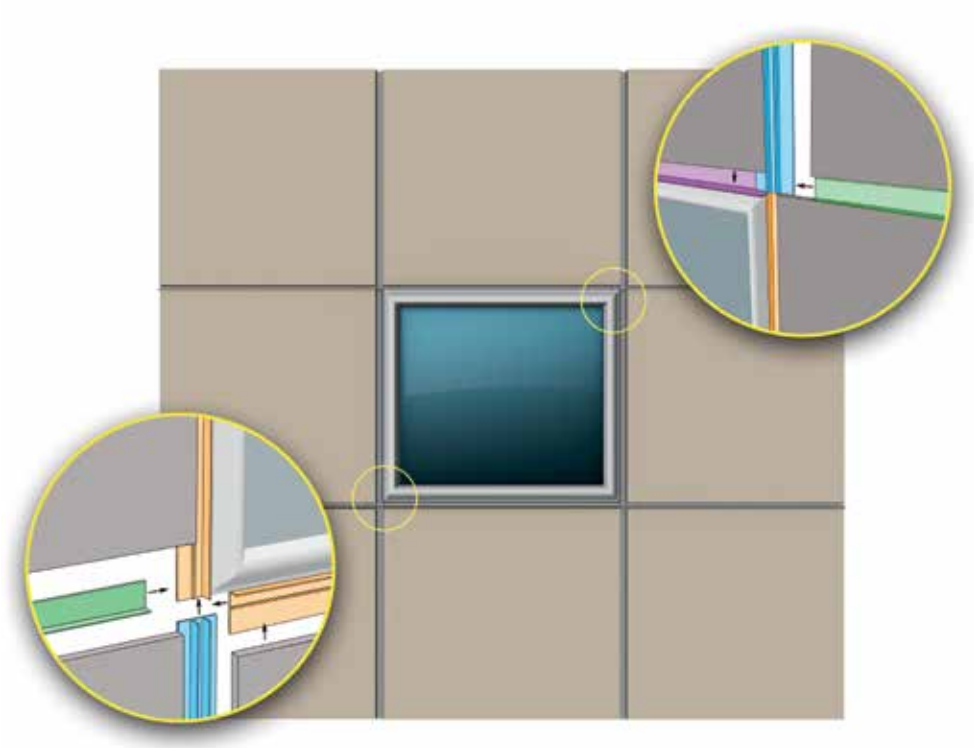
1. Vent Screen
2. Drainage Flashing Trim
3. Horizontal Edge Trim
4. Vertical Trims
5. Horizontal Trims
6. F-Trims Vertical

Section 9 Trim Intersection Details

Window Treatment

Window trim intersections may follow a variety of layout configurations. Selection shall be based on design needs and best water mitigation techniques for the particular design. Where trim overlap, techniques for notching may be used to better assure a flat level intersection and better aesthetics.





Section 10 Fastener Layout

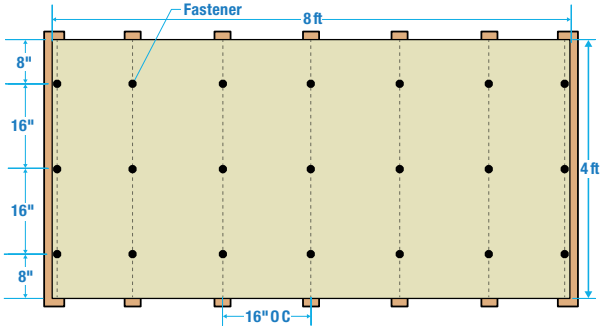
COUNTERSUNK FASTENING

Fastener schedule must meet configuration minimums as outlined in the prescribed windload tables.

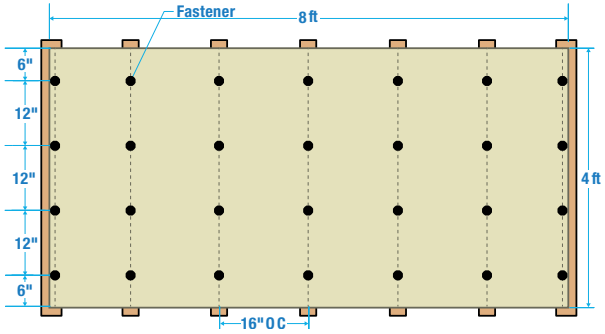
- Approved #8 x 1 5/8 in. long x 0.390 in. HD buglehead self-tapping screw for wood.
- Approved #8 x 1 5/8 in. long x 0.390 in. HD bugle head screw for steel.
- Screw must be countersunk 1 to 1.5 mm below panel surface.
- Fill over the fastener head with approved CS Filler.
- Drive fasteners perpendicular to siding and framing
- Fastener position may be no closer than 3/4 in. from panel edge and no closer than 2 in. from corners
- Do not over-drive screw heads
- If fastener sheers, add a fastener near to site and use a cemetitious compound to fill the hole. Use a primer as necessary

Note: Refer to Technical Data Sheet for allowable wind loads and fastener selection.

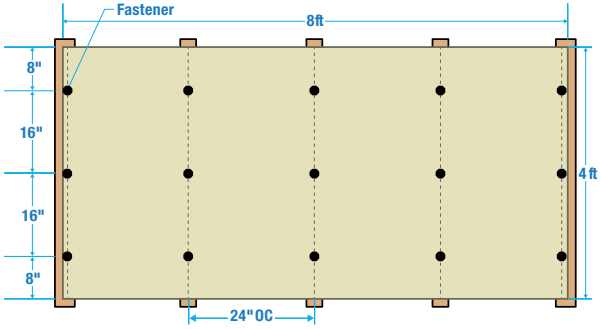
Configuration 1:
Wind Load Design for Wood (16 in. o.c.), -37.1 PSF



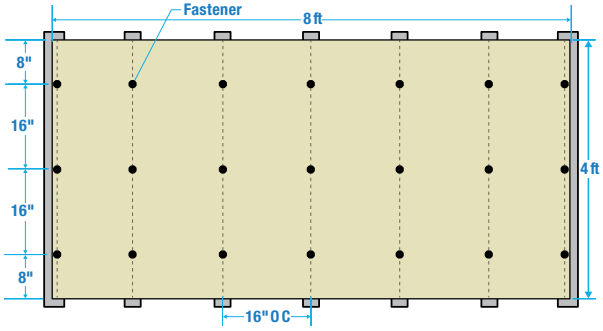
Configuration 2:
Wind Load Design for Wood (16 in o.c.), -44.8 PSF



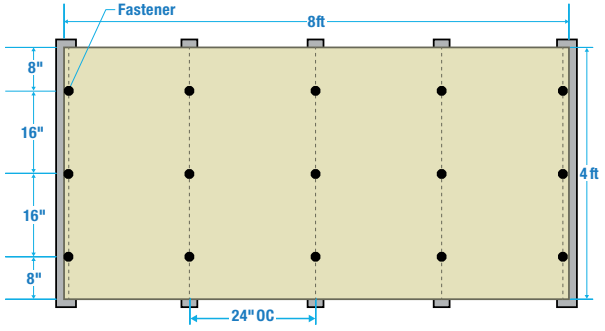
Configuration 3:
Wind Load Design for Wood (24 in o.c.), -36.7 PSF



Configuration 4:
Wind Load Design for Steel (16 in o.c.), -42.5 PSF



Configuration 5:
Wind Load Design for Steel (24 in o.c.), -33.2 PSF



Section 10 Fastener Layout

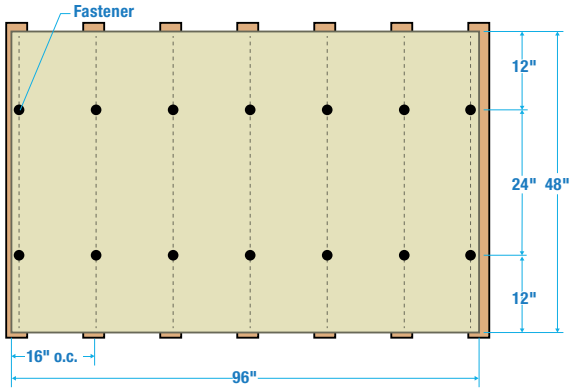
FASTENER LAYOUT FOR EXPOSED BUTTON HEAD FASTENERS

Fastener schedule must meet configuration minimums as outlined in the prescribed windload tables.

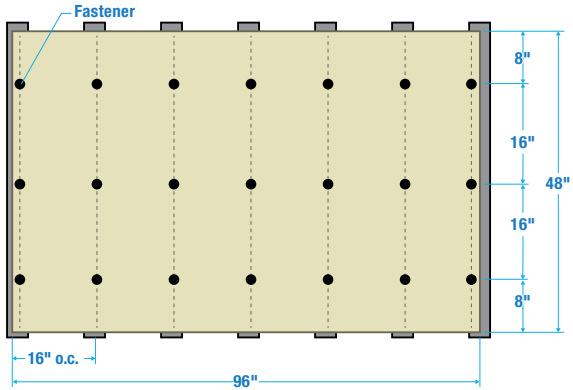
- Approved TW-S 300 series 304 autenistic stainless steel exposed cladding fastener must be used.
- Panel must be predrilled with a clearance hole, minimum 13/64 in..
- Drive fasteners perpendicular to siding and framing
- Fastener heads shall fit snug against siding
- Fasteners position may be no closer than 3/4 in. from panel edge and no closer than 2 in. away from corners
- Do not over-drive screw heads or drive
- Do not countersink and fill over the fastener head
- If fastener sheers, place a fastener near to site and use a cemetitious compound to fill the hole. Use a primer as necessary

Note: Refer to Technical Data Sheet for allowable wind loads and fastener selection.

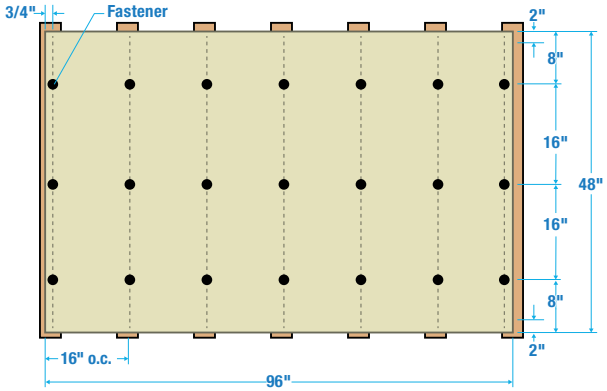
Configuration 1:
Wind Load Design for Wood (16 in. o.c.), allowable -42.5 PSF



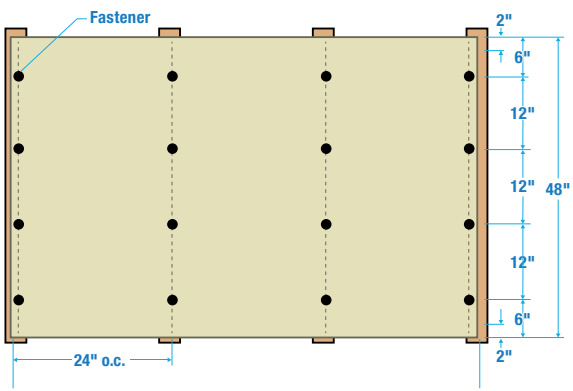
Configuration 2:
Wind Load Design for Steel (16 in o.c.), -69.2 PSF



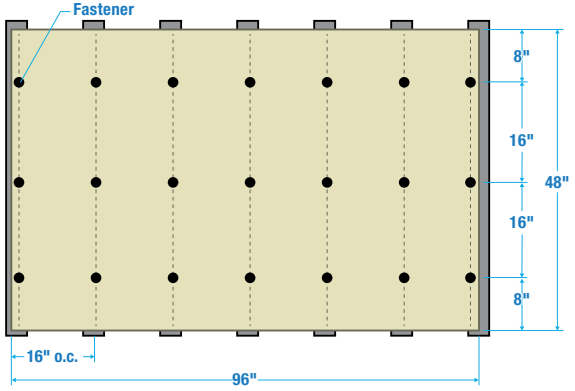
Configuration 3:
Wind Load Design for Wood (16 in o.c.), -68.7 PSF



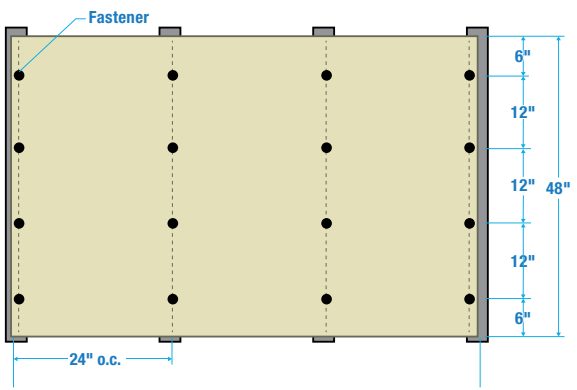
Configuration 4:
Wind Load Rating Design for Wood (24 in o.c.), -57.4 PSF



Configuration 5:
Wind Load Design for Steel (16 in o.c.), -56.3 PSF



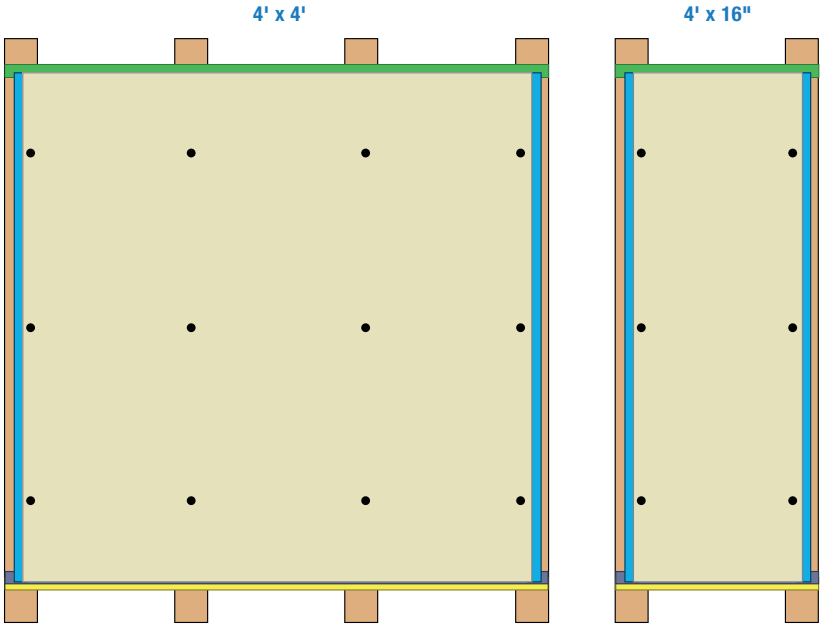
Configuration 6:
Wind Load Design for Steel (24 in o.c.), -50.0 PSF



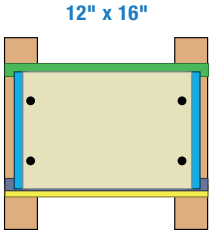
Section 10 Fastener Layout

FASTENER LAYOUT AND OFF STUD TRIM PLACEMENT

Panel Sizing Alternatives



NOTE: The minimum number of fasteners must consist of four fasteners for any given panel.



Off-Stud Joining Options

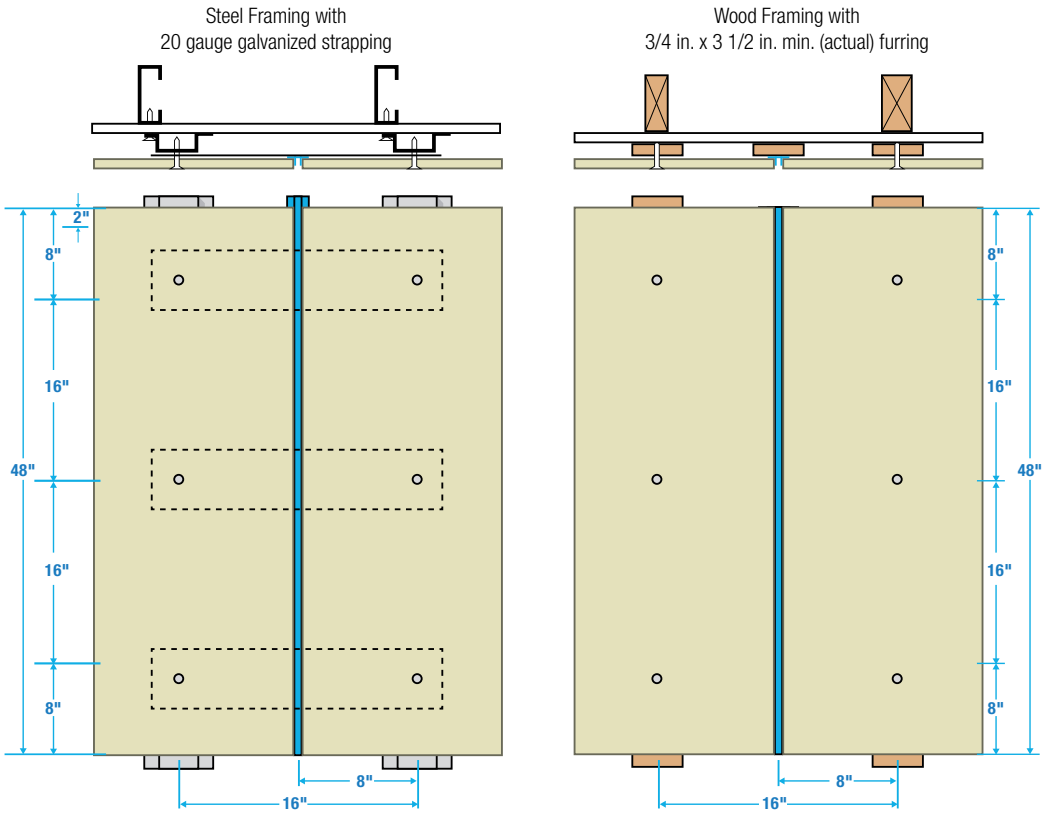
When panels are cut down, wind rating is maintained by prescribed fastener schedule configuration.

A minimum 20 gauge flat stock steel horizontal strapping or equivalent is required to accommodate off-stud vertical joining.

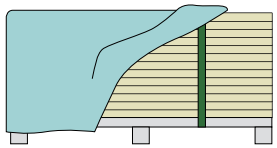
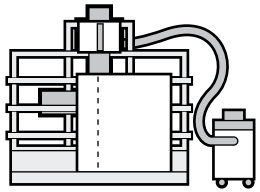
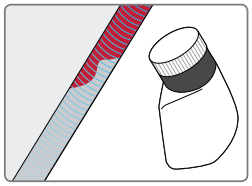
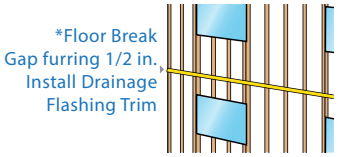
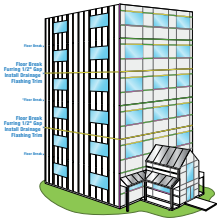
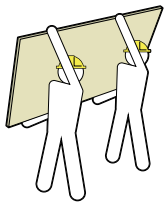
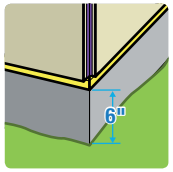
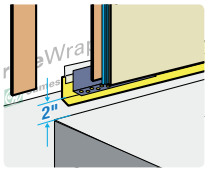
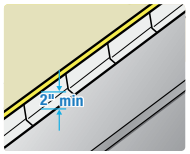
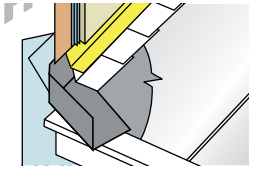
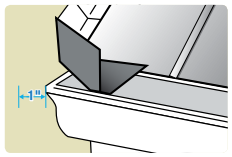
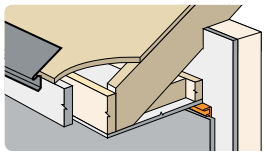
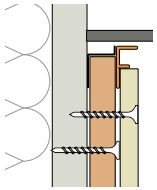
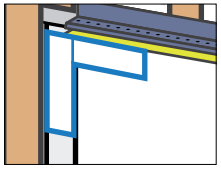
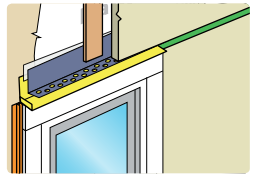
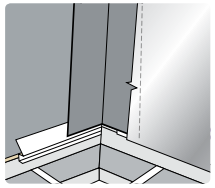
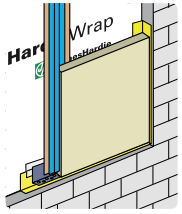
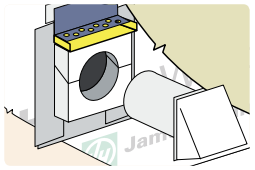
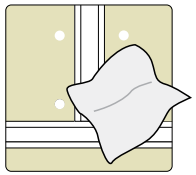
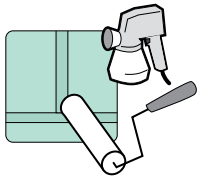
Fasteners that are applied to flat stock strapping or off-stud furring may not contribute to wind load values and shall take into consideration supporting of trim accessories. Layout shall be prescribed by engineer of record.

Do not bridge floors with HardieReveal2.0™ Panels siding or furring. Horizontal joints shall be created between floors.

NOTE: Off-stud joining options are limited to a maximum 16 in. o.c., 24 in. o.c. not permitted.



Section 11 Builder's Installation Checklist

YES ☐ NO ☐  Keep HardieReveal2.0™ panel dry prior to installation.	YES ☐ NO ☐  Panel saw or straight edge use in conjunction with HEPA Vac to cut panels as a better practice.	YES ☐ NO ☐  Seal all field cut edges.	YES ☐ NO ☐  Furring is installed plumb and square over studs. (Max spacing 24 in. o.c.)	YES ☐ NO ☐  At minimum Drainage Flashing Trim installed every other floor.
YES ☐ NO ☐  HardieReveal2.0™ Panel corners and edges not damaged.	YES ☐ NO ☐  6 in. Grade Clearance.	YES ☐ NO ☐  2 in. Clearance at Slabs, Decks, Porches & Patios.	YES ☐ NO ☐  2 in. Clearance roof to wall intersections.	YES ☐ NO ☐  Kickout flashing at roof/wall intersections.
YES ☐ NO ☐  Gutter & End Cap minimum 1 in. from panel.	YES ☐ NO ☐  Sub-Fascia with drip edge required with HardieTrim.	YES ☐ NO ☐  Rainscreen cavity is properly capped off with vent screen.	YES ☐ NO ☐  Furring is installed plumb and square over studs. (Max spacing 24 in. o.c.)	YES ☐ NO ☐  Drainage flashing trim, vent screen and 1/2 in. gap.
YES ☐ NO ☐  Valley Flashing.	YES ☐ NO ☐  L Flashing between HardieReveal2.0™ Panel and masonry.	YES ☐ NO ☐  Blocked Penetrations on Hose Bibs and Dryer Vents.	YES ☐ NO ☐  Wipe off dust prior to finish.	YES ☐ NO ☐  Spray 2 coats of high quality 100% acrylic latex paint and back roll.

NOTICE:

These instructions will enable you to install HardieReveal2.0™ Panel System but do not purport to address every design iterations or problems that might come up during a project. When in doubt of assembly details contact the architect, specifier, or a building official. Always follow local building code.

REFERENCES:

1. Guide to Attaching Exterior Wall Coverings through Foam Sheathing to Wood or Steel Wall Framing. (2011). Foam sheathing Coalition - Tech Matters.

2. Fastening Systems for Continuous Insulation. (April 2010). New York State Energy Research and Development Authority. Newport Ventures, Inc. NYSERDA11171.

FOR MORE INFORMATION:

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Interior: HardieBacker® ¼ Cement Board, HardieBacker® 500 Cement Board

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