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NOTE: These instructions describe and illustrate the steps involved in installing CertainTeed

STONEfaçade™
Architectural Stone Cladding System

The purpose is to provide detailed information and how-to tips that will simplify the installation process.

CertainTeed shall not accept any liability or responsibility under its written warranty for failure caused by application that does not meet our minimum requirements for proper installation.

Building codes and regulations vary throughout the country. Be sure to check with your local code official or governing body for the building requirements in your area.

These requirements are outlined throughout this guide. Any deviations from these requirements should be approved in writing by CertainTeed Corporation.

Top Installation Tips

Read the complete installation guidelines before beginning your project.

1. Caution: Use gloves when handling stone panels and accessories. Metal inserts are sharp!

2. Use a wet saw (tile saw or brick saw with a diamond blade and with a steady circulation of water) for cutting and an electric angle grinder for shaping. For cutting, drilling or grinding stone, a NIOSH N95 dust mask, hearing and eye protection should be worn at a minimum. This product contains crystalline silica and the use of a NIOSH N95 respirator is strongly recommended however, you should refer to your Federal, State and Local guidelines as well as your company's Respiratory Protection Program and the Safety Data Sheet for additional information.

3. A flat, level wall surface with either 7/16” OSB or 1/2” plywood sheathing is required for product installation. Use composite shims as needed to compensate for wall imperfections.

4. Install using #8 x 1.5” stainless steel wood screws (pan or truss head). DO NOT USE NAILS.

5. It is very important to keep panels, corners and accessories level at all times.

   a. Place a short level on EVERY panel and accessory during installation. Use a long level to check if entire course is level.

   b. Check level in both directions on each corner piece.

   c. If a panel is not level, try:

      • Using a rubber mallet and a piece of 2x4 to tap panels into place.

      • Using a crow bar to raise panel to level.

      • Substituting another panel to optimize fit and aesthetics.

6. When starting a new course of panels, stagger the vertical joints of the panels at least 3” to 5” from the previous course.

7. Vary the use of all three widths of panels within a course and from course-to-course to give a natural appearance and avoid the alignment of vertical seams and same size stones.

8. To face fasten partial panels or panels where the fastening flange has been removed, pre-drill through a seam between stones and use #8 x 2.5” stainless steel wood screws (pan or truss head).

9. Do not stack cartons more than six high or double stack pallets.

10. Handle the STONEfaçade product cartons with care. Do not carry cartons by the strapping - hold the cartons from underneath. Do not drop cartons.
A Complete System

Flat Panels
2" average thickness and available in four colors and 3 pre-mixed widths:
- 10" width x 8" height
- 14" width x 8" height
- 24" width x 8" height
Each panel features a continuous fastening flange.

Accessories
Corners
Left corners and right corners.
Long return dimensions = 8", 10.5" and 12" width x 8" height x 2" average thickness.
Continuous fastening flange with a beveled perimeter.

Sills
24" x 3-3/8" width available in two colors.
Continuous fastening flange; male and female tabs for solid fit; 15° slope for water drainage.

Electrical and light boxes
8" width x 16" height color-matched to panels.
Fastening flange, integrated top and bottom courses for easy installation.

Fully-Integrated Rainscreen
STONEfaçade is the only manufactured stone cladding product with this important feature. The superior drainage it provides prevents moisture from accumulating in the wall cavity, where it can lead to mold growth and structural damage.
The rainscreen is a 3/8" stainless steel frame that's firmly embedded in the STONEfaçade panel. In addition to channeling moisture away from the wall, it strengthens the panel for added reinforcement and protection against the inevitable bumps and bruises that occur in transit, at the job site and during installation.

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Table of contents
**Section 1 — Introduction**

**Plan Your Work, Then Work Your Plan.**

That’s the key to success with any project, and it’s doubly true when it comes to installing our STONEfaçade™ panels and accessories. If you use the right materials and the right tools in the right order, you’ll complete installations in less time, with less effort, and with far greater satisfaction.

Since you’re using CertainTeed products, you’ve already taken the first step toward success. STONEfaçade provides premium quality, rugged durability and outstanding appearance. Quite simply, STONEfaçade is made to look great on the day its installed and for years after.

The second key to success — using the proper tools, techniques and procedures — is covered in this booklet. As you’ll see by scanning the table of contents, this booklet guides you through every step of the installation process, from estimating materials to finishing a wall. As you’re reading — and while you’re working — keep in mind the most important rule of thumb for successful stone installation: Only install STONEfaçade on a flat, even surface, and stay level: each subsequent course depends on the previous course being level. You’ll see this point emphasized again and again throughout this booklet. This is perhaps the most important instruction in the booklet.

**NOTE:** No instruction booklet can anticipate all the questions that might arise during a stone installation. Recognizing this, we’ve focused on the tools and techniques used to complete typical installations. Where appropriate, we’ve also included alternative approaches for specific installation steps.

If you encounter a unique installation problem not covered in this booklet, we suggest you call our Sales Support Group at 1-800-233-8990.

**Section 2 — Estimating Material Needed**

**Starter Strip**
- Measure (in feet) the width of the wall area where the stone is to be installed.
- Divide the total width by 10 and round up to determine the number of pieces of starter strip needed.

**Flat Panels**

To calculate the number of cartons required:
- Multiply the width x height (in feet) of the area to be covered to get the total wall area.
- Subtract the areas that will NOT be covered, like windows and doors, to get the net wall area.
- Divide net wall area by 8 to get the number of cartons of flat panels required.
- Add a 10% scrap factor to the above calculations. (Allow for a higher scrap rate in gable areas based on roof pitch).

**Outside Corners**

For corners where stone will be applied to only one wall:
- Measure the height of each corner in feet to get the total linear feet of corners.
- Multiply the total linear feet of corners by 1.5 to get the number of corners required. (Only left or right corners are required, NOT both).

For corners where the stone will be applied to the adjacent wall surface (BOTH left and right corners are required):
- Measure the height of each corner in feet to get the total linear feet of corners.
- Multiply the total linear feet of corners by 1.5 to get the total number of corners required. Order half of this quantity as left corners and half as a right corners.
- Add a 10% scrap factor to the above calculations.

**Inside Corners**

Inside corners are constructed by mitering or notching flat panels and do not need to be ordered separately. See instructions for creating inside corners on page 12.

**Sills**
- Measure the width of the window and divide by 2 to get the total number of sills required.
- Add a 10% scrap factor to the above calculations.
Section 3 — Tools and Equipment Required

Always follow manufacturers’ power tool safety guidelines and refer to your Federal, State and Local guidelines and wear proper safety equipment.

Safety
• Safety glasses
• Face shield when cutting panels
• Gloves
• Ear plugs/ear muffs
• NIOSH N95 dust mask (minimum) or respirator and follow your company’s Respiratory Protection Program
• Steel-toed boots
• Safety harness (for working at heights)
• Hard hat (as required for your job site)

Hand Tools and Miscellaneous
• 6’ length level (for checking full courses)
• 12”-16” level (for checking panels and accessories)
• Chalk line
• Tape measure
• Small pry bar/crowbar
• Tin snips (for cutting insert)
• Rubber mallet
• Ladder
• 5-gallon buckets (for water to rinse cut parts if using a recirculating pump on a wet saw)

Power Tools
• Wet saw (tile or brick saw is highly recommended to limit dust production)
  — with sufficient travel to rip a 24” stone panel
  — with appropriate continuous rim wet diamond saw blade
  — Alternately, a dry saw with a continuous rim diamond blade or abrasive masonry blade can be used. This product contains crystalline silica and the use of a NIOSH N95 respirator is strongly recommended however, you should refer to your Federal, State and Local guidelines as well as your company’s Respiratory Protection Program and the Safety Data Sheet for additional information.
• Electric hand grinder
  — with OSHA-approved guard
  — with a diamond wheel or masonry abrasive wheel for grinding
• Cordless impact screwdriver or hammer drill
  — 7/32” x 3” masonry bit for drilling pilot holes
  — 3/8” masonry bit for drilling countersinking holes
  — 3” driver bit (minimizes the potential for the drill or the chuck to damage the face of the panel while driving screws straight into the wall)

Electrical and Light Boxes

Electrical boxes and light boxes can be purchased individually.

Screws

NOTE: Screws with a Torx®, square or phillips drive head are recommended to avoid stripping.

For hanging panels and accessories using #8 x 1.5” stainless steel wood screws (pan or truss head):
• Using the flat panel calculations, multiply the net wall area by 2.7 to get the total number of screws required.

For face fastening panels and accessories using #8 x 2.5” stainless steel wood screws (pan or truss head):
• Measure the width of all window in the area to be covered with stone and multiply by 2.
• Measure the width of all doors where stone will be installed above the door.
• Measure the width of all soffit runs where stone will come into contact with soffit.
• Add together all of the above widths and multiply by 2.7 to get the total number of screws required.

Caulk

Allow for one tube of caulk per 500 square feet of wall surface for use in hiding any holes left when face fastening panels. Use color-matched exterior grade sanded caulk.

Mortar

Mortar is not required when installing STONEfaçade. However, a small amount can be used as a finishing touch for any areas where the stone and the adjacent materials are not completely aligned.

Composite Shims

Composite shims are used to correct any wall surface areas that are not level. Order as needed based on the condition of the wall surface to be covered.

Flashing

Occasionally it may be necessary to use a dark colored flashing to hide the housewrap or underlayment behind the stone. Use a durable, non-corrosive flashing that is non-reactive with concrete or stainless steel products.

Recommended Screws Specifications

<table>
<thead>
<tr>
<th>Component</th>
<th>Amount Reg’d</th>
<th>Unit of Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starter Strip</td>
<td>Pieces</td>
<td></td>
</tr>
<tr>
<td>Screws (light head)</td>
<td>Pieces</td>
<td></td>
</tr>
<tr>
<td>Screws (truss head)</td>
<td>Pieces</td>
<td></td>
</tr>
<tr>
<td>Nails</td>
<td>Pieces</td>
<td></td>
</tr>
<tr>
<td>Light Boxes</td>
<td>Pieces</td>
<td></td>
</tr>
<tr>
<td>Electrical Boxes</td>
<td>Pieces</td>
<td></td>
</tr>
<tr>
<td>All 1-1/2&quot; Stainless Steel Wood Screw (Pan or Truss Head)</td>
<td>Pieces</td>
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<tr>
<td>All 2-1/2&quot; Stainless Steel Wood Screw (Pan or Truss Head)</td>
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<tr>
<td>Steel-Electro Conductive Grade Fabral Cloth</td>
<td>Tubes</td>
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</tr>
<tr>
<td>Composite Shims</td>
<td>Pieces</td>
<td></td>
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<tr>
<td>Painting</td>
<td>Rolls</td>
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</tbody>
</table>

Do Not Use Nails. Stainless steel screws provide better holding power, offer better corrosion resistance and can be removed more easily during installation when necessary to optimize fit.
Section 4 — Preparing for Installation (cont’d)

• STONEfaçade is designed for two-story applications with a maximum height of 30’.
• Expansion joints should be included as specified by a registered design professional.

NOTE: If removing siding prior to installing STONEfaçade, remove any old fasteners that may create uneven conditions on the wall.

Housewrap Requirements

For exterior applications, it is required to install STONEfaçade over a housewrap or weather resistant barrier that meets local building code requirements. When selecting a housewrap, we recommend the use of CertainTeed CertaWrap™ housewrap and flashing accessories.

ProTips™: Before you start, remove pictures from inside wall of house to mitigate risk of breakage due to vibration during install.

Section 4 — Preparing for Installation

Storage and Handling

• Wear safety gloves at all times.
• Do not store product cartons outdoors prior to installation.
• Do not double-stack pallets.
• At the jobsite, take the following precautions when storing panels:
  — Use a tarp to keep cartons dry for easier handling. Do not use plastic wraps that prevent air circulation. Do not store in unventilated spaces.
  — Store away from areas where falling objects or other construction activity may cause damage.
  — Store panels and accessories flat in the original cartons to protect from dust and weather. Do not stack more than six cartons high.
  — Do not carry cartons by the strapping — hold the cartons from underneath. Do not drop cartons.
  — Protect the face of panels from scratches.

Substrate

• Walls must be sheathed with either 7/16” OSB or 1/2” plywood that is in good condition and properly fastened.
• Structure must be able to handle stone panel weight of 15 lbs./sq. ft. exclusive of any other external loading, i.e., windload or seismic load.
• Wall must be plumb and flat within 1/4” over 10’ in any direction.
  — Using a string along the wall, measure the deflection of the wall (from lower point of the wall to the string).

STONEfaçade cannot be fastened over foam sheathing.
Section 5 — Cutting and Fastening

ProTip™: Attempt to minimize the number of cuts made to stone panels and accessories. When making a cut, position the cut on the panel or accessory so that it faces away from entrances or walkways to make cuts less noticeable.

Warning: For cutting, drilling or grinding stone, a NIOSH N95 dust mask, hearing and eye protection should be worn at a minimum. This product contains crystalline silica and the use of a NIOSH N95 respirator is strongly recommended however, you should refer to your Federal, State and Local guidelines as well as your company’s Respiratory Protection Program and the Safety Data Sheet for additional information.

Cutting with a Wet Saw

Warning: Do not cut more than one panel at a time.

• Use a continuous rim diamond saw blade rather than a segmented blade for cutting STONEfaçade. Segmented blades can cause cracking and chipping of panels.

• When cutting a panel, try and avoid cutting through one of the bottom panel locking tabs because these tabs will vibrate during cutting and may crack the panel.

• Mark the stone panel where it will be cut.

• Place panel face up with insert side down on the saw table.

• Use wet saw to cut panel. (Consult the saw manufacturer’s owner’s manual prior to beginning use for instructions on proper operation, maintenance, and safety.)

• The blade should pass though the panel slowly, to avoid cracking.

• Dust from cutting will leave a chalky appearance if not removed; clean cut edges of panels by dipping or rinsing them in a 5-gallon bucket of clean water after cutting.

• Frequently changing the recirculating water in the wet saw also helps keep the panels clean.

Cutting with an Electric Hand Grinder

Trimming and staggered cuts are best made with a hand grinder with OSHA approved guard and a diamond wheel or masonry abrasive wheel for grinding. (Consult the hand grinder manufacturer’s owner’s manual prior to beginning use for instructions on proper operation, maintenance, and safety.)

Avoid cutting factory edges in high visibility areas. Cut from the less visible side.

ProTip™: Try and position panel so when cutting that the blade’s final path is through stone rather than the metal insert. Having the last path through stone rather than steel helps sharpen the blade.

Cutting Holes

Holes can be made with drill using a masonry bit or masonry hole saw, or a grinder with a masonry blade.

Fastening Schedule for Panels

Panels 14” or greater in total length must have a minimum of three (3) fasteners.

Panels under 14” in total length must have a minimum of two (2) fasteners.

Fastening Schedule for Panels

Panels 14” or greater in total length must have a minimum of three (3) fasteners.

Panels under 14” in total length must have a minimum of two (2) fasteners.

Additional fasteners can be placed wherever is needed to properly secure the panel to the wall.

Notes: All fasteners are to be in the holes in the fastening flange. The length of the panel is considered the horizontal dimension when installed.

Cutting with a Miter or Chop Saw

While not recommended, a saw with dry diamond blade or abrasive masonry blade can be used to cut STONEfaçade panels and accessories. (Consult the saw manufacturer’s owner’s manual prior to beginning use for instructions on proper operation, maintenance, and safety.) Caution: When dry cutting, dust will become airborne. Cut outdoors only in a well-ventilated place. This product contains crystalline silica and the use of a NIOSH N95 respirator is strongly recommended however, you should refer to your Federal, State and Local guidelines as well as your company’s Respiratory Protection Program and the Safety Data Sheet for additional information.

Cutting Holes

Holes can be made with drill using a masonry bit or masonry hole saw, or a grinder with a masonry blade.

Cutting the Metal Insert

Use tin snips or a grinder to cut the metal insert.

Fastening

Use a cordless impact screwdriver or cordless drill. Using an impact driver is recommended as it makes driving screws easier and lessens chance of stripping screw heads. When installing unmodified STONEfaçade panels and accessories, use the following fastening schedule:

When STONEfaçade panels and/or accessories are cut or modified, they must be face-fastened. Pre-drill holes for the face-fasteners as follows:

- Drill a pilot hole through the stone panel using a 7/32” masonry bit. If the masonry drill bit runs into the stainless steel insert (which is integrated throughout the panel), you may not be able to drill through this seam of the panel. Patch the hole using color-matched exterior grade sanded caulk, and then try another location on the panel for drilling your hole.
- Drill a countersinking hole in the same location using a 3/8” masonry bit, making sure to leave a minimum of 1/2” of stone behind the head of the screw. If the screw has minimal or no engagement into the substrate, remove the screw and re-drill the countersinking hole deeper.
- Drive screw into panel. Do not over-drive the screw as you will crack the panel.
- Use color-matched exterior grade sanded caulk to cover the screw head.
**Section 6 — Installing Starter Strip**

**Warning:** Cut edges of starter strip are sharp. Wear gloves when handling.

- Snap a chalk line a minimum of 4” above finished grade or 2” above a paved surface. Check local building codes to verify proper clearances for your area. We recommend using a dark color trim coil to fill the space.
- Position bottom of starter strip on the chalk line.
- Fasten the STONEfaçade™ starter strip every 8” to 10” using #8 1-1/2” stainless steel wood screws (pan or truss head). Screw fasteners tight to wall.
- Leave a 1/2” gap between starter strips.
- For outside corners, where two starter strips meet, hold starter strips back 1/2” from the corner on each side to allow for appropriate alignment of the corner pieces.

**Section 7 — Installing Corners**

Starting at the bottom of the wall, install corners and any other accessories (electrical box, etc.) on the course you are working on before installing panels. Do not assume the wall corners are square. Use composite shims, if needed, to compensate for uneven walls.

**Outside Corners (stone applied to only one wall)**

- Stone applied to only one wall surfaces utilizes only one type of corner (left or right), never both.
- Start by cutting off the rainscreen tabs along the bottom of the back side of each corner that will be mating with the starter strip.
- Select a corner and position it on the wall. In single-wall applications the long return will always be applied to the surface where the stone is to be applied.
- Lock the first corner into the starter strip and then check to be sure the corner is level in both directions. If it is not possible to level in both directions, always make sure that the long return is level.
- Once level, fasten with two screws on the long return of the corner.
- Alternate the corner widths, weaving them up the wall to avoid the alignment of vertical seams.

**Outside Corners (stone applied to adjacent wall surfaces)**

- Stone applied to adjacent wall surfaces utilize BOTH left and right corners
- Start by cutting off the rainscreen tabs along the bottom of the back side of each corner that will be mating with the starter strip.
- Select a corner and position it on the wall. In adjacent wall applications, alternate the wall that the long return is applied to using both left and right hand corners as you work up the wall.
- Lock the first corner into the starter strip and then check to be sure the corner is level in both directions. If it is not possible to level in both directions, always make sure that the long return is level.
- Once level, fasten with two screws on the long return of the corner. Alternate both the corner widths and the walls that the long return is applied to, weaving them up the wall to avoid the alignment of vertical seams.
Section 8 — Installing Sills, Light Boxes and Electrical Boxes

Sills

Try to minimize field cuts in high traffic areas to provide good aesthetics. Use the side tab screw flanges whenever possible to eliminate sill rocking.

• For shorter windows, only two sills may be required. Center field cut under the window.

• Longer windows may require three or more sill pieces. Make all field cuts where sill pieces join together so that cut ends are not visible. Do not make cuts at the exposed end of a sill.

• Use color-matched sanded caulk to finish the joints where sills butt together.

• When sills will mate at corners, miter sills making sure that sill is lying flat on the saw table before cutting.

Light Boxes and Electrical Boxes

Warning: Verify that power has been disconnected. Have a qualified electrician install a properly flashed exterior electrical box that is waterproof. Light boxes and electrical boxes will fit over standard light and electrical boxes as an ornamental covering.

Single Course Design

The single course can be added before or during panel installation. Surrounding panels will need to be notched around the box.

When installed, multicourse light and electrical boxes are designed to span two vertical courses.

1. Place the box over the outlet and measure how much is needed to cut off the bottom of the mounting box.
2. After cutting, place the box back over the outlet and measure 16” (the height of two courses) up from the edge of the cut you just made and make a mark.
3. Cut off this top section and fasten using two #8 1-1/2” stainless steel wood screws (pan or truss head) on each side of the box.

When installing the next course of stone over a light or electrical box it is necessary to either remove the bevel from the area on the next course panel where it will mate with the top of the mounting box or grind away the top of the mounting box to allow the next course to mate properly.

ProTips™: Color matched sanded caulk can be used if desired to hide screw heads or small gaps like an 1/8” gap between stone and PVC trim around windows or doors.

When Mating Stone Wall with an Adjacent Vinyl Siding

When one corner is vinyl siding leave 1/8” gap between stone and vinyl to allow for expansion.

Transitioning Vertically to Alternate Cladding Materials

If installing corners that will have a vertical transition with another type of cladding, you will use all of the same type of corner (left hand or right hand) but use different widths to stagger the offset as you move up the wall.

ProTip™: Install STONEfaçade prior to installing alternate cladding materials or trim as it is easier to modify the trim and/or other cladding to fit around STONEfaçade.

ProTip™: Install STONEfaçade prior to installing alternate cladding materials or trim as it is easier to modify the trim and/or other cladding to fit around STONEfaçade.

Section 7 — Installing Corners (cont’d)
Section 9 — Installing STONEfaçade over Wood Substrate

Installing the First Course

• Start by cutting off the rainscreen tabs along the bottom of the back side of each panel that will be mating with the starter strip using snips or a hand grinder. Make sure you actually cut off the tabs rather than trying to bend them out of the way, which could damage the panel.

• Position first panel without tabs into the starter strip and butt against the corner or trim.

• Using a short level, check to ensure that the panel is level and aligned with the corner or trim. Use a level on EVERY panel or accessory to ensure that the panels stay level from panel to panel and course-to-course.

• Fasten the panel to the wall using #8 x 1.5” stainless steel wood screws (pan or truss head). Position screws evenly across the fastening flange of the panel. Consult the fastening schedule on page 9 for required number of fasteners per panel.

• Select a second panel (remember to alternate panel widths randomly), position it into the starter strip and slide to mate into the first panel.

• Tap panel into place with the rubber mallet. Panels should fit snugly together without leaving an unsightly gap.

• Using a level, check to ensure that the panel is level and aligned with the previous panel.

• Fasten the panel to the wall using the instructions above.

• Use a long level to verify that the entire course is level.

• Continue installing panels using the instructions above for guidance. Step back from the wall frequently and check the look of your installation. Avoid repeating pattern (same staggering and/or same panel width).

ProTip™: Use a hand grinder with diamond tip blade to remove the tabs.

ProTip™: When installing panels, it is sometimes necessary to test-fit multiple panels to ensure optimal mating. Install panels of varying widths to avoid alignment of vertical seams (which makes the individual panels more visible and less natural looking).

ProTip™: Confirm panels and accessories are level before proceeding, since each subsequent course will only be as level as the previous courses. Uneveled panels can lead to unsightly horizontal gaps between courses.

Installing Subsequent Courses

• Stagger the second and subsequent courses so there is at least 3”-5” offset of the vertical panel joints of the previous course by randomly alternating panel widths.

• Starting from a corner, place the second course panel onto the mating groove on the top of the first course panel and slide into position. Use a rubber mallet to tap into place. The mating panel groove must be free of any debris or the panel will not fit down properly.

• Using a short level, check to ensure the panel is level before proceeding with the next panel.

• Fasten panel to the wall using the correct number of #8 x 1.5” stainless steel wood screws for the panel width as specified in these instructions on pg. 9.

• Continue installing panels across the course. End the course by cutting the panel to size (if needed) with the cut end of the panel away facing away from high traffic areas. Make sure to leave a 1/8” clearance between stone and PVC millwork to allow for expansion.

• The use of the multicourse electrical box or the multicourse light box must be done when the measurement from the top of the course of siding is less than 12” vertically from the center of the fixture on the wall. Details on the use of these boxes are included on pg.13.

• Use a level to check to ensure the course is level. Small adjustments to get level can be made by raising the panel with a crow bar or substituting another panel to optimize mating.

• Step back from the wall frequently and check the look of your installation. Correct any issues before proceeding with subsequent courses.

• Make sure to follow “Finishing the Wall” instructions on pg.17.

Installing Around Openings

Trim installed around openings should project out from the wall a minimum of 2”. Trim out window and door sections using two layers of 5/4 nominal thickness Restoration Millwork® PVC trim. Under windows use stone sills or PVC trim. Leave a 1/8” gap between stone and millwork to allow for expansion. Use a wet saw to notch panel around a window or door.
Section 9 — Installing over Wood Substrate (cont’d)

Installing Partial Panels

• Use a wet saw to cut panel to desired width.
• Position the cut panel into the starter strip or the panel beneath and slide to mate into the previous panel on the course.
• Tap panel into place with the rubber mallet. Panels should fit snugly together without leaving an unsightly gap.
• Using a level, check to ensure that the panel is level and aligned with the previous panel.
• Fasten the panel to the wall using the fastening flange. If the fastening flange at the top or the rainscreen tabs at the bottom have been removed, install face fasteners as follows:
  — Drill a pilot hole through the stone panel using a 7/32" masonry bit. If the masonry drill bit runs into the stainless steel insert (which is integrated throughout the panel), you may not be able to drill through this seam of the panel. Patch the hole using color-matched exterior grade sanded caulk, and then try another location on the panel for drilling your hole.
  — Drill a countersinking hole in the same location using a 3/8" masonry bit, making sure to leave a minimum of 1/2" of stone behind the head of the screw. If the screw has minimal or no engagement into the substrate, remove the screw and re-drill the countersinking hole deeper.
  — Drive screw into panel. Do not over-drive the screw as you will crack the panel.
  — Use color-matched exterior grade sanded caulk to cover the screw head.

Transitioning from STONEfaçade to Another Cladding

Vertical transitions
PVC trim or vinyl accessories such as butted j-channels can be used to transition between claddings.

J-Channel shown at left used for vertical transition with vinyl.

Horizontal Transitions
When transitioning from stone to other cladding materials, make sure to properly flash the joint according to applicable building codes in your area. Use the guiding principle of diverting the water down, out and away from the structure.

• Use stone sill.
• Flash above sill to divert water over the sill.
• Install cladding above STONEfaçade as per the manufacturer’s installation instructions.

Installing Finishing Touches

Shutters, mailboxes and other finishing touches can be attached to stone panels provided that the proper hardware for mounting into masonry is used. Use a masonry bit to drill holes and avoid drilling in between seams in the stones when possible. Follow the manufacturer’s instructions for mounting to stone or masonry products.

ProTip™: A piece of starter strip can be used to lock in the bottom of the panel when going over windows and doors. Remember to cut off the bottom rainscreen tabs prior to placing panels on the starter strip.

ProTip™: Consider adding a gutter extension to avoid splashing water on STONEfaçade panels.

Installing Around Penetrations

• Create a template by tracing the shape of the penetration to be cut around onto a piece of cardboard or scrap wood (shown at left).
• Using the template, transfer the shape to be cut out onto the stone panel.
• Use an angle grinder with a diamond or masonry wheel to cut out the shape.
• Test the panel for fit and modify as required.

Finishing the Wall
For new two-story home construction it is recommended to leave a 3/8” gap between the top of the stone course and soffit during installation to allow room for the house to settle (band board shrinkage) and to keep the top course of the stone panels from crushing the soffit.

There are several ways to finish the top course:

• If the fastening flange has not been removed, a PVC trimboard can be used to hide the fastening flange of the top course.
• If fastening flange of top course has been removed, install panels using the “Installing Partial Panels” instructions section of this manual for guidance.
Section 10 — Installing over Poured Concrete and Concrete Masonry Units

Tools Required

- Drill
- 17/64" (.265") diameter high speed steel drill bit
- Hammer drill (a SDS or SDS Plus type is recommended)
- 3/16" masonry bit
- Optional - if face fastening panels (fastening hem has been removed) a 1/4" masonry bit and a 1/2" masonry bit
- Impact screw driver with magnetic hex bit
- Rubber mallet or dead blow hammer
- Hammer and punch
- Level
- Wet saw with continuous rim diamond blade

Fasteners

- Must be stainless steel and at least 1" long.
- Fasteners must not have conical head and must fit flush in fastening hem.

Examples of Acceptable Fasteners Include:

- Simpson Strong Tie TITEN 1/2" x 1-3/4" 410 Stainless Fastener (TTN25134HSS) (used for testing)
- Simpson Strong Tie TITEN 1/4" x 1-1/4" 410 Stainless Fastener (TTN25114HSS)
- Tapcon 410 Stainless 1/4" x 1.25" Hex Head fastener (SHW4-114)

Section 10 — Installing over Poured Concrete and Concrete Masonry Units (cont’d)

Note: Fastening to cement masonry units will require larger screws like those listed on page 18. These screws are too large in diameter to pass through the holes in the fastening flange, so the holes will need to be enlarged to accommodate the larger screws.

Installation Steps

1. Install starter strip.
   a) Drill 17/64" holes in starter strip every 8-12”.
   b) Locate and level starter strip on wall at least 4" above grade or 2" above a hard surface. Refer to local building codes.
   c) Transfer hole centers to concrete wall with punch.
   d) Drill holes with hammer drill.
   e) Install starter strip by using stainless masonry fasteners like those listed on page 18 and screw to the wall using the impact screw driver.
Section 10 — Installing over Poured Concrete and Concrete Masonry Units (cont’d)

Install Panels

**Note:** Cut off the rainscreen tabs along the bottom of the back side of each panel that will be mating directly with the starter strip using snips or a hand grinder. See pg. 14 for more details.

a) Drill out the holes in the fastening flange on the panels to 17/64” diameter to accept the 1/4” screw (2 holes required for panels under 1/4” width, or 3 screws for panels over 1/4” width).

b) Locate and level panel on wall.

c) Transfer hole centers to concrete wall with punch.

d) Remove panel from wall (to avoid damage to the panel while drilling).

e) Drill holes with hammer drill.

f) Fasten using stainless masonry screws and an impact screw driver.

Face Fastening to Poured Concrete and Concrete Masonry Units

**Note:** When fastening hem has to be removed due to tight installation areas, face fasten the panels using 2 1/2” long screws which must penetrate the wall a minimum of 1”. Follow these instructions.

When STONEfaçade panels and/or accessories are cut or modified, they must be face-fastened. Pre-drill holes for the face-fasteners as follows:

- Drill a pilot hole through the stone panel using a 1/4” masonry bit. If the masonry drill bit runs into the stainless steel insert (which is integrated throughout the panel), you may not be able to drill through this seam of the panel. Patch the hole using color-matched exterior grade sanded caulk, and then try another location on the panel for drilling your hole.

- Drill a countersinking hole in the same location using a 1/2” masonry bit, making sure to leave a minimum of 1/2” of stone behind the head of the screw. If the screw has minimal or no engagement into the substrate, remove the screw and re-drill the countersinking hole deeper.

- Drive screw into panel. Do not over-drive the screw as you will crack the panel.

- Use color-matched exterior grade sanded caulk to cover the screw head.

Section 11 — Installing over Foam Sheathing

STONEfaçade was designed to be screwed into a structural sheathing like 7/16” OSB or 1/2” plywood. CertainTeed does NOT recommend installing over foam sheathing. If you have foam sheathing either:

- Securely install 7/16” OSB or 1/2” plywood sheathing over the foam using the appropriate length fasteners to securely fasten to studs in accordance with local code. Note that this substrate must be capable of supporting an additional 15 lbs./square foot of load and required windload regulations for your area.

or

- Remove foam sheathing and if necessary install 7/16” OSB or 1/2” plywood to install STONEfaçade panels to.
Section 12 — Replacing Damaged Panels

1. Using a full face shield and gloves, carefully chip away with a hammer at the damaged panel area to expose the metal rainscreen.

2. Using tin snips, snip away the rainscreen. Repeat chipping the stone and snipping the rainscreen until you have completely removed the damaged panel. (The fastening flange does not need to be removed as it is holding the panels above in place.)

   a. Important: Make sure you repair any damage to the house wrap before installing the replacement panel.

3. Flatten out any remaining parts of the existing insert left on the wall using a hammer. Clean-up debris.

4. Remove the fastening flange of replacement panel.

5. Test fit the panel in the opening.

   a. Note: You may have to use an angle grinder to remove the bevels on the side of the replacement panel to get a good fit.

6. Drill a pilot hole through the stone panel using a 7/32” masonry bit. If the masonry drill bit runs into the stainless steel insert (which is integrated throughout the panel), you may not be able to drill through this seam of the panel. Patch the hole using color-matched exterior grade sanded caulk, and then try another location on the panel for drilling your hole.

7. Drill a countersinking hole in the same location using a 3/8” masonry bit, making sure to leave a minimum of 1/2” of stone behind the head of the screw. If the screw has minimal or no engagement into the substrate, remove the screw and re-drill the countersinking hole deeper.

8. Drive screw into panel. Do not over-drive the screw as you will crack the panel.

9. Use color-matched exterior grade sanded caulk to cover the screw head.

Section 13 — Care and Maintenance

Regular Cleaning
• Use soap and water with a nylon bristle brush to remove dirt.
• DO NOT POWERWASH STONEFAÇADE — Powerwashing can remove the coloring from the stone.
• DO NOT CLEAN WITH HARSH CHEMICALS OR ACID PRODUCTS.

Efflorescence
Efflorescence is a white powdery deposit that can occur on the stone surface. Avoid regularly wetting the stone panels with lawn sprinklers since water in many locales contains rust or minerals that may discolor the stone surface.

Avoid Salt and De-Icing Chemicals
Do not use salt or de-icing chemicals on the STONEfaçade product or in adjacent areas where these substances may splash onto the product since all concrete and masonry materials are susceptible to damage from these chemicals.

See Printed Warranty for more Details
Caution: Contains Crystalline Silica. Dust from cutting or sawing may create possible cancer hazard. Dust of this product may cause irritation of the nose, throat and respiratory tract. Avoid prolonged or repeated inhalation of dust from this product.

A properly fitted NIOSH approved N95 series disposable particulate filtering face piece respirator (formerly referred to as “dust masks”) should be used when mechanically altering this product (e.g., sawing, cutting, drilling or similar dust generating processes). Wear long-sleeved shirt, long pants, gloves and safety glasses with side shields when handling and installing material. Wash hands and face with soap and warm water immediately after handling this product.