### **Installation Manual**

**ChamClad®** 

CCMC 14323-R

ICCES ESR 4560



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Supersedes April 5th.

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QR CODE- For Install Videos on Both Soffit and Wall.



### **BEFORE YOU BEGIN**

- **1.** Read the install instructions *completely*. These installation instructions illustrate the "Best Practices" to install ChamClad® cladding and trim.
  - ChamClad® does not accept any liability or responsibility under their written warranty for product failure caused by improper installation.
- **2.** To ensure you are up to date with the most recent install instructions, please visit our website <a href="https://chamClad.com">https://chamClad.com</a> and view manual in conjunction with the technical bulletin advisory.
- **3.** Our research and development team are committed to improving product durability and performance. As a result, specifications may change from time to time. Please check our website for updated technical information and profile drawings.
- **4.** No one can anticipate all questions or conditions which may arise during installation. This Installation Manual is focused on methods, tools, and techniques used for a typical install. Should you encounter something not covered in this manual, please contact ChamClad® customer service by email. insidesales@chamclad.com
- **5.** Occasionally you may come across minor irregularities that happen naturally during the manufacturing process. This occurrence will not affect the aesthetics and performance of the product.





















### First Steps for a Successful Installation

- 1. Inspect all material for any breakage, defects, damage, and colour before installing. <u>Do not install</u> product that is questionable. Contact ChamClad® customer service or your dealer for assistance. Installing defective material may void your product Warranty.
- 2. Before installing ChamClad® cladding it is very important that installers read and understand the installation recommendations and topics covered in this manual.

### ChamClad® Transportation, Proper Handling, and Storage

When transporting ChamClad® products, keep bags flat. The boards must be supported along the full length. Whenever possible avoid using metal banding. Metal banding will cut into the boards if pulled too tight. Materials are required to be inspected for any accidental damage within 7 days of receipt, recorded on the Bill of Lading, and forwarded to info@ChamClad.com. ChamClad® warranty may be voided if damaged product is installed on the wall without prior inspection by the installer.

### **Proper Handling and Storage**





Always carry ChamClad® cladding by holding it by the narrow edge and pick boards up in the center. ChamClad® pallets should not be stacked more than 2 pallets high and always stored on a flat surface.

### Storage of ChamClad®

Products must be on a flat surface which supports the entire length of the boards and should be kept dry & out of direct sunlight (when possible). Do not store or place on asphalt or in areas prone to excessive heat buildup. Cover with a tarp leaving ends open to allow for airflow. Store away from areas where there may be falling objects or construction debris that could cause damage. If stacking product, please ensure it is stable.

ChamClad® packaging is vented to limit the greenhouse effect. Do NOT store uninstalled panels in areas of excessive heat prior to installation; doing so may lead to product distortion.

**Note**: It is important that product is not stored for long periods where temperatures could exceed 30 degrees Celsius (86 degrees Fahrenheit).

### **Cutting and Tools**



- Always ensure you wear proper, appropriate and standard PPE's when performing cutting and installation.
- If using a circular saw, cut cladding face down on a clean surface.
- If using a cut-off saw, cut face up
- Carbide-tipped blades with 84+ teeth are recommended. (Aluminum blades are optimal)
- Do not score or snap ChamClad® exterior cladding
- Do not cut ChamClad<sup>®</sup> with coarse saw blade to avoid chipping or damaging the panel

### **BEST PRACTICES GUIDE**

### INTRODUCTION

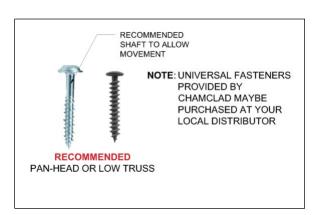
These installation instructions illustrate the "Best Practices" to install ChamClad® cladding, and trim. ChamClad® does not accept any liability or responsibility under their written warranty for product failure caused by improper installation.

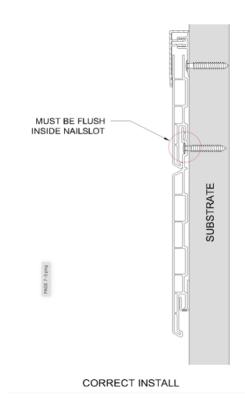
It is the responsibility of the installer to observe the requirements of the local Building Code as they relate to installation in any given area. Most Building Codes are derived from National Building Codes. In Canada, the primary model is the National Building Code (NBC), which is published by the National Research Council of Canada (www.nrc-cnrc.gc.ca). In the United States, the primary model is based on the International Building Code (IBC), which produces the International Residential Building Code (IRC).

It is the responsibility of the builder or contractor, to understand the local code and how it pertains to the location where ChamClad® is being installed.

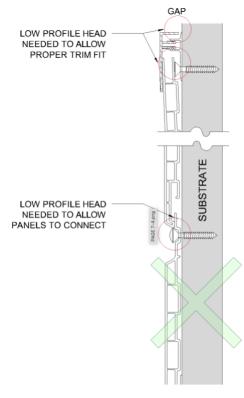
### **GENERAL INSTALLATION REQUIREMENTS**

### **Fasteners**









INCORRECT INSTALL

### Fastener Size is critical to a successful ChamClad® installation; we recommend the following:

Screws: It is strongly recommended to use ChamClad® universal self-tapping screws which are available from your local distributor or directly from ChamClad®.

The fasteners must penetrate the wall to a minimum depth of 1 ¼" and allow for the expansion and contraction of the ChamClad® products. If using metal furring strips, use of self-drilling screw is recommended (Modified truss quadrex coarse thread self-drilling screw #8-18 X 1 ½"). You must pre-drill pilot holes when using ChamClad's universal self-tapping screws, when screwing into metal.

If ChamClad® fasteners unavailable, use low profile, corrosion resistant or stainless-steel screws long enough to fasten through the pre-punched flange. Do not use electroplated fasteners. It is important that the fastener head can fit inside the nailing slot. Fastener heads that protrude outside of the nailing slot will hinder ChamClad® tongue and groove locking mechanism.



ChamClad® Universal Screw

#8 quad-drive 1 ½"
Self-tapping screw with 1/8"
threadless shaft

### **Examples of alternate screws:**



Exterior Wall
17 Self tapping
Round Washer Lo-root
#8 1 ½"



Modified Truss Quadrex Coarse Thread Screw Self-Drilling #8 – 18 X 1 1/2"

**Note:** DO NOT USE a stapler, or nail gun for exterior cladding and soffit panel installation. GLUE IS NOT to be used to fasten strapping or ChamClad® exterior wall boards.

### Random ChamClad® Panel Pattern

ChamClad® wall panels are laminated with a repeating pattern (48"). ChamClad® makes every effort to ensure the patterns are mixed in each bag to minimize repeat patterns. It is suggested to randomly check panels at the job site for repeat patterns and adjust as required. To avoid excessive repetition when cutting boards 4' or less, use 2 boards with different patterns.

### Classic Panel (1 Panel, 2 Looks)

ChamClad® offers a simple tongue and groove system with the product stacking from the bottom up. For a U-Channel profile, insert to the first stop. For a V-Groove profile, take a non-marking rubber mallet and tap to the next stop. Does not apply for Shadow Line Panel.

### Air Barrier/ Rainscreen

ChamClad® exterior wall panels can be installed over many weathers resistant sheet membranes. It is recommended as per CCMC/ ICCES that 6" exterior claddings are installed on an air barrier/ rainscreen. ChamClad® panels may be installed over wood furring strips (min. 7/16"), galvanized steel z-girt (min. 20 ga.) or a continuous 3-dimensional membrane such as home slicker, as per Building Code requirements. ChamClad® exterior claddings must be fastened every 16-24" O.C. to strapping.

### **Wall Flashings and Penetrations**

Windows, doors, and utility penetrations must be flashed and trimmed properly. It is the responsibility of the installer/designer/builder to ensure it is done to local codes and best industry practice. If sealants are required, ChamClad® recommends ASTM 920 Elastomeric Joint Sealants (e.g., Tremco Spectrum 2).

### **2pc Trim - Vertical Installation**

When installing 2pc trims vertically (2pc Outside Corner, 2pc J Trim, 2pc H-Trim), in order to prevent downward migration, it is recommended to fasten the base trim at the highest point of the nail slot with all other fasteners located in the centre of the remaining slots (every 8-12").

Before applying the top cap, it is recommended to add a small dab of sealant (1") between the teeth at the top and bottom of the base trim. This is especially important around doors and windows where you are not completing a full perimeter wrap.

### Compatibility

ChamClad® products are not compatible with asphalt or products containing asphalt. Do not store bags on asphalt (i.e., driveways or roads) as panels and asphalt should not be in contact with each other. Asphalt, if brought into contact with ChamClad® will leach into the panels and possibly weaken or discolour the product. If ChamClad® products come into contact with asphalt, clean the ChamClad® product immediately with a non-solvent cleaning product.

### **Temperature Changes & Expansion/Contraction**

It is important to remember that ChamClad® materials will expand and contract with regular temperature changes. ChamClad® trims allow for any variance in panel lengths due to expansion/contraction.

When placing fasteners in the center of the designated nail slots, always leave a 1/32" gap between the fastener head and nail flange to allow ChamClad® panels expand/contract as needed.

The below guide provides expansion/contraction examples based on different panel lengths and temperature fluctuations.

### Expansion Guide (by temperature shift)

		Length of Panel (feet)			
Temperature Change in					
°Celsius and Fahrenheit		12'	20'	30'	35'
10	50	0.10	0.17	0.25	0.29
20	68	0.20	0.34	0.50	0.59
30	86	0.30	0.50	0.75	0.88
40	104	0.40	0.67	1.01	1.17
50	122	0.50	0.84	1.26	1.47
60 (Optimal Gap)	) 140	0.60	1.01	1.51	1.76
70	158	0.70	1.17	1.76	2.05
80	176	0.80	1.34	2.01	2.35
ChamClad® 's Coefficient of Linear					
Expansion (CLE): 0.000069	Total Expansion/Contraction Per Panel (inches)				

### **Temperature Shift Example using ChamClad® products.**

The change in length of any material because of expansion and contraction is dependent on 3 factors:

- The Coefficient of Linear Expansion (CLE) of the material.
   For ChamClad® Panels, the CLE is 0.0000698 in/in/°C.
- 2. The original length of the material at time of cut
- 3. The net change in temperature

Change in length (inches) = (Original Length in inches) x (Temperature Change in °C) x (CLE in in/in/C units)

If there is a 12' (144") ChamClad® length that goes from 20°C (68°F) to 0°C (32°F), it will contract, theoretically, by this amount:

### 144 x 20 x 0.0000698 = 0.20" or 7/32"

For example, if installed in 20°C (68°F), the final length of a 144" long ChamClad® panel at 0°C (32°F) would become 143.80."

When temperatures return to 20°C (68°F), it is expected that the PVC material will expand and return to 144" in length.

### **General Rules**

**Based on a temperature change of 40°C (104°F),** for example: 0°C (32°F) in cooler months and reaching 40°C (104°F) in warmer months:

For panel lengths up to 20' leave a 1/2" gap per side; 20' or longer leave a 3/4" gap per side and use larger faced trims (3.5" 2pc Finish Trim, 3.5" 2pc Outside Corner, larger faced H-Trim).

It is imperative that ChamClad® panels are cut to fit the coverage of trim pieces.

The temperature the day of installation factors into the expansion and contraction gap you leave. If installing on a cooler day allow for more expansion and a larger gap, if installing on a warmer day allow for less expansion and a smaller gap. The below guide provides recommended spacing based on temperature and Panel Length.

### Recommend Gap Allowance Temperature Guide

OUTS TEMPER		GAP PER SIDE (Gap in inches)					
F	С	10	12	16	20	25	30
-4	-20	3/8	7/16	9/16	11/16	13/16	1
14	-10	3/8	3/8	1/2	5/8	3/4	7/8
32	0	5/16	3/8	7/16	1/2	5/8	3/4
50	10	1/4	5/16	3/8	7/16	1/2	5/8
68	20	1/4	1/4	5/16	3/8	7/16	1/2
86	30	3/16	3/16	1/4	1/4	5/16	3/8
104	40	1/8	1/8	3/16	3/16	3/16	1/4

### **Guide Lines**

- Take into consideration the temperature on date of installation and season you are installing in.
- o Installation in weather colder than -10°C (14°F) is not recommended due to potential chipping or cracking of the panels. Should that occur warranty may be voided.
- Generally speaking, in the colder months, leave a gap of ½" for panels up to 20' and ¾" for panels over 20'. It is recommended to use the large faced trims to allow for appropriate expansion and contraction.
  - Example: When installing at -10°C (14°F) leave a gap of 5/8" for 20' panels; ½" for 16' panels and 3/8" for 12' panels.
- o In the warmer months, leave a gap of 3/8" for panels up to 20' and  $\frac{1}{2}$ " for panels over 20'.
  - Example: When installing at 20°C (68°F) leave a gap of 3/8" for 20' panels; 5/16" for 16' panels and 1/4" for 12' panels.

It is important to acclimate panels and accessories for a <u>minimum of 24 hours</u> prior to installation.



# CHAMCLAD® EXTERIOR

WALL, SOFFIT, HORIZONTAL, VERTICAL



### **CHAMCLAD® EXTERIOR ARCHITECTURAL WALL PANELS**

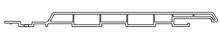
## **CHAMCLAD PANEL PROFILE 6" CLASSIC EXTERIOR WALL PANEL 6" SHADOWLINE EXTERIOR WALL PANEL** 6" SHADOWLINE EXTERIOR W/3" REVEAL 12" SHADOWLINE EXTERIOR W/ 2" REVEAL

### 6" Classic Wall Panel and Shadowline Series

\*Panels may be used in exterior soffit (venting by others), interior wall and ceiling



6" Classic Wall Panel 1/2"



6" CLASSIC EXTERIOR WALL PANEL



Classic Panel is one panel that offers two looks! U Channel & V Groove



6" Shadowline Wall Panel ½"

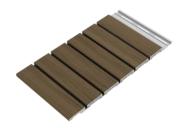




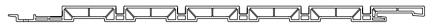
6" Shadowline with 3" Reveal Wall Panel ½"



6" SHADOWLINE EXTERIOR W/ 3" REVEAL

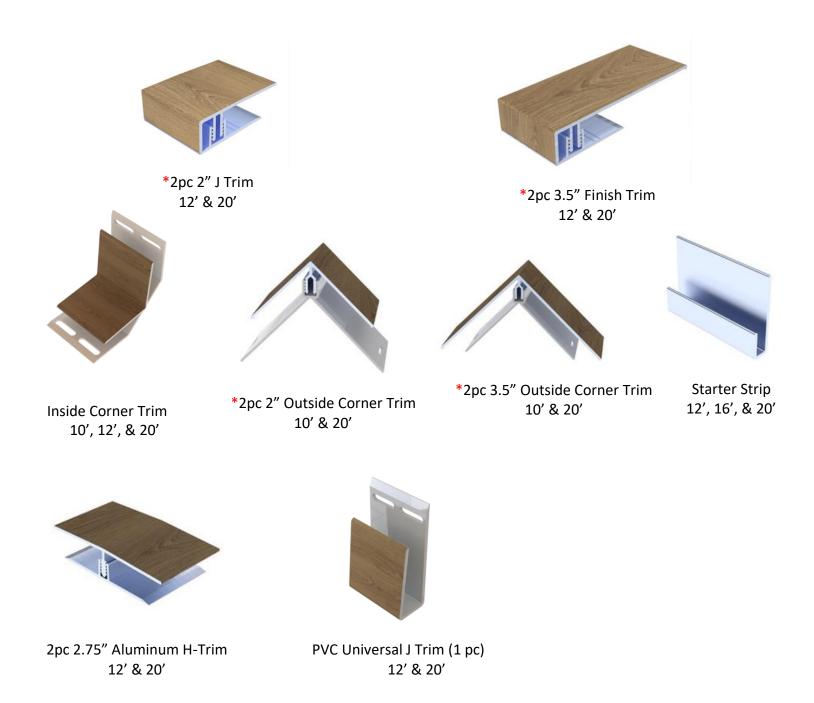


12" Shadowline with 2"
Reveal Wall Panel ½"

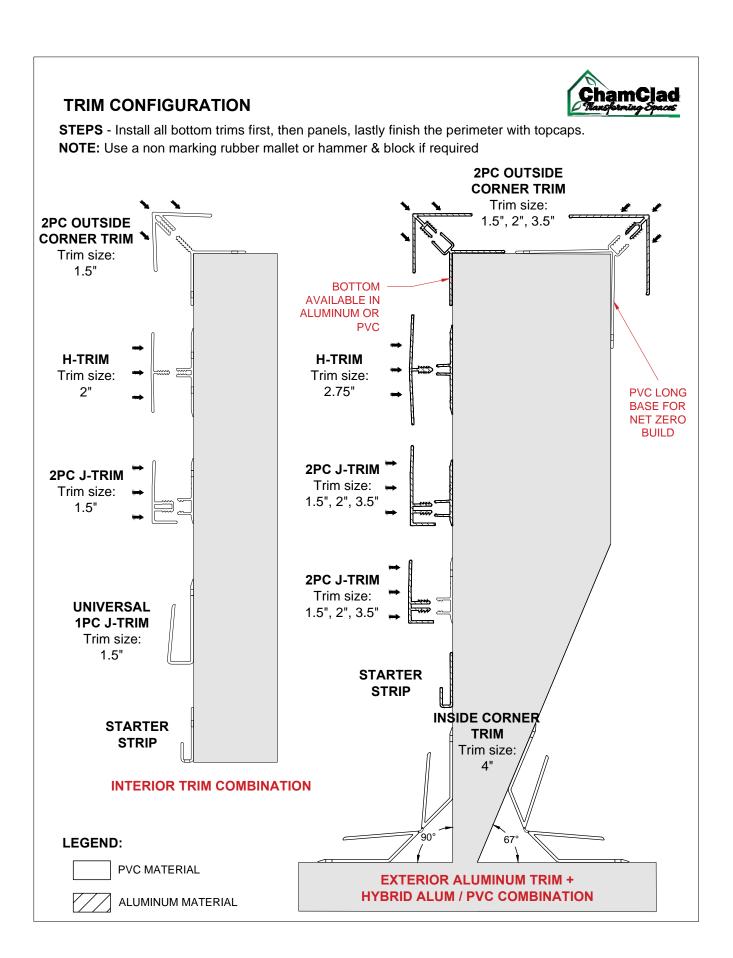


12" SHADOWLINE EXTERIOR W/ 2" REVEAL

### **CHAMCLAD® Exterior Wall Trims**



<sup>\*</sup>THESE TRIMS ARE AVAILABLE IN ALL ALUMINUM OR HYBRID COMBINATIONS



### ChamClad Transforming Spaces

### **PANEL & TRIM APPLICATION**



HORIZONTAL INSTALL





VERTICAL INSTALL

A. OUTSIDE CORNER TRIM - LOCATION: OUTSIDE CORNERS OF INSTALLATION AREA.

DETAILS: 2" & 3.5" OUTSIDE CORNER FOR HORIZONTAL OR VERTICAL APPLICATION. 3.5" RECOMMNEDED FOR LENGTHS OVER 24ft.

B. INSIDE CORNER TRIM - LOCATION: INSIDE CORNERS, CEILING PEAKS AND CURVED WALLS.

DETAILS: A FLEXIBLE PVC WITH 180° ANGLE, FOR EXTERIOR, INTERIOR WALL AND CEILING. HORIZONTAL AND VERTICAL APPLICATION.

C. 2PC J-TRIM - LOCATION: OUTER EDGES, WINDOW AND DOOR TRIM ALONG GABLE END WALLS, FLOOR AND CEILING.
DETAILS: 2" & 3.5" J-TRIM FOR HORIZONTAL, VERTICAL APPLICATION AND TERMINATING WALLS. 3.5"

D. 2PC H-TRIM - LOCATION: TO JOIN PANELS TOGETHER, BUTT JOINTS NOT ALLOWED.

DETAILS: 2.75" ALUM H-TRIM FOR HORIZONTAL, VERTICAL, WALL AND SOFFIT APPLICATION. 2" PVC FOR SOFFIT AND INTERIOR APPLICATION ONLY.

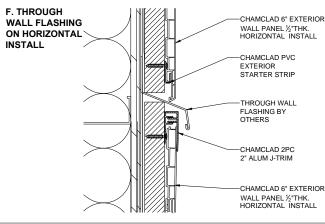
E. STARTER STRIP - LOCATION: TO START PANEL ON A HORIZONTAL APPLICATION & FOR CENTER WALL BACK TO BACK FOR VERTICAL INSTALL FOR EQUAL WIDTH ENDS.

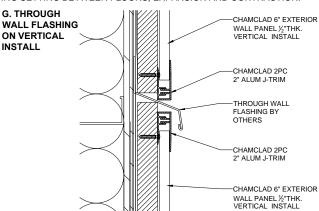
DETAILS: ALUMINUM MUST BE DRILLED FOR DRAINAGE HOLE. PVC AVAILABLE WITH PRE DRILLED HOLES.

RECOMMENDED FOR LENGTHS OVER 24ft., MITER CUT ENDS FOR CLEAN FINISH.

F & G. THROUGHWALL FLASHING - LOCATION: COMPRESSION JOINTS ON FLOOR ELEVATIONS.

DETAILS: USED FOR MOVEMENT IN BUILDING SETTING BETWEEN FLOORS, EXPANSION AND CONTRACTION.





### **COLUMN AND BEAM WRAPS**



7" 2pc Column Wrap



1" x 4" Architectural Trim



Quick Click Column Cap and Base Trim Available in 7", 8", 10", and 12"



2pc Beam 5.5"x 3.35"



Beam Bracket



Beam End Cap



4pc Quick Click Column and Beam Wrap Available in 8", 10", and 12" **New Summer 2024** 



Quick Click Column Cap and Base Trim Available in 7", 8", 10", and 12"

### **ACCESSORIES**



### **Spray Bombs**

Colour matched Spray Paint. Recommended for use with the Column Wrap Trims or any larger surface areas.

### ChamClad® Universal Screw

-

#8 quad-drive 1 ½"
Self-tapping screw with 1/8" threadless shaft

### **Touch Up Pens**



**PREPARATION:** The areas to be touched up must be dry and free from dust, dirt, and grease. Before each use, shake Pen for approximately 30 seconds. Rattle of mixing balls must clearly be heard.

**DE-AERATION:** Due to exterior influences (heat) an overpressure may develop. To prevent blotching, the pen must be de-aerated. Put pen with tip pointing downwards onto a solid, non-soaking surface and press down – hold for 2 seconds, release and repeat procedure until tip is filled with touch- up (7-10 times may be necessary).

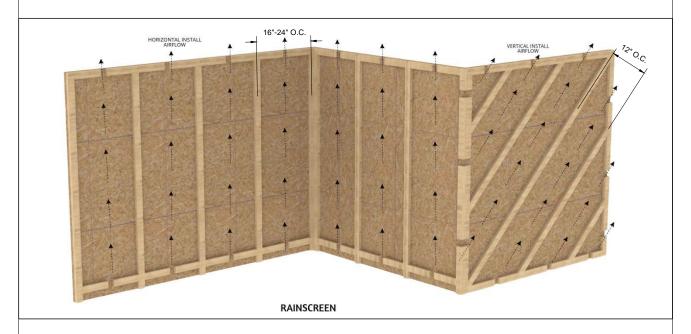
**APPLICATION:** Touch down pen tip at a flat angle (about 45 degrees) using light pressure. The valve opens and touch-up flows continuously. With the new designed tip, you can work precisely on hard-to- reach areas. Different stroke widths can be easily applied. Touch up rapidly with one stroke using light pressure. **Important: Do not apply another coat of touch up until first coat has dried (approximately 3-5 minutes).** If opacity decreases, shake pen again and de-aerate as described above. If touch-up flow decreases, simply pump again. Put cap on immediately after use – cap has to snap with a "click". Over time, tip may become blocked with pigment sediments. If this occurs, replace tip with a new one, shake Pen well and repump.

\*Do not let pens freeze



**TRIMS** - All bottoms are installed first on the whole perimeter, panels then trim caps.

 $\textbf{WALL ASSEMBLY} \cdot \textbf{Panels maybe installed horizontal or vertical over a rainscreen system.}$ 



RAINSCREEN ASSEMBLY - We strongly suggest to use rainscreen method when installing CHAMCLAD products, having a proper airflow is important.

### **EXTERIOR HORIZONTAL WALL PANEL INSTALLATION**

### 6" Classic and Shadowline Series

(See assembly drawings listing on page 39)

- Acclimate panels and accessories for a minimum of 24 hours prior to installation. With each course of ChamClad® panels, proper gaps must be left between the end of the wall panel and the track of the base trims for expansion and contraction.
  - Refer to the gap allowance temperature guide chart on page 10 before beginning.
- Use a level to produce a guideline around the entire building and mark with a chalk line.
   Snap line where the starter strip will be installed.
- When installing air barrier/ rainscreen, use either furring/strapping (16-24" O.C.) or steel furring/strapping every (16-24" O.C.) vertically across the wall or a continuous 3dimensional membrane (homeslicker)
- o Install a ChamClad® Starter Strip fastening every 12" (1/32" gap from fastener head to nail flange to allow for horizontal expansion and contraction). Install panel 2" above grade or ½" above concrete (set Starter Strip accordingly) following local building codes.
- Install flashing and trim bases around windows, doors, utility box fixtures, and all other
  penetrations through the wall cladding. We recommend all ChamClad® accessories be
  fastened every 8-12" (8" in high heat or wind exposure areas). It is common industry
  practice to align all vertical and horizontal trims on the same wall to ensure a visually
  clean look.
- Fasten all panels 16-24" O.C. starting within 4" from both ends of panel. Ensure that screws are placed in the middle of the nail slots to allow for proper expansion and contraction. For panels over 24' - Pin Panel at centre of nailing fin and not in nailing slots to equalize expansion and contraction.
- Begin installing your bottom courses of ChamClad® wall panels using ChamClad®
   Universal screws. When installing panel lengths 20' and over, it is recommended to use
   the large, faced trims to allow for appropriate expansion and contraction. Check every
   three or four courses to ensure that ChamClad® wall panels are level and that adjacent
   panels are aligned horizontally.
- Except where designated in this manual, fasteners must be placed in and through the
  center of the nail slot. The fastener must be installed straight and not at any angles. The
  head of the screw or crown should allow for the thickness of a dime (roughly 1/32")
  behind the face of the mounting hem to allow for expansion and contraction of the
  ChamClad® panels.

- If you need to apply a fastener in a section that does not have a manufacturers predrilled hole, you MUST pre-drill a nail slot to allow the panel to expand and contract without restriction. (Nail slot punch may be used).
- Application of all 2pc trim top caps is the last step to completing a ChamClad® panel installation. Ensure not to overdrive the trim tops to the point where panels can no longer expand and contract due to tightness.
- ChamClad® exterior panels may be used in beam, post, or column wrap applications. When installing horizontally begin with installation of the bases of the 2pc Outside Corner on all corners. Continue with installing starter strip between corners at the base and 2pc J Trim between the corners at the top. Install all courses of ChamClad® panels and complete with the installation of the 2pc Corner Cap and the 2pc J trim cap along the top. Refer to assembly drawing listing on page 39.

### Notes:

- It is recommended as per CCMC/ ICCES that 6" exterior cladding is installed on an air barrier/ rainscreen.
- DO NOT BUTT JOIN WALL BOARDS you MUST use an H-Trim. Leave a proper gap inside
  the H-Trim to allow for expansion and contraction (refer to gap allowance temperature
  chart on page 10). Do not install the H-Trim top cap until all wall panel courses are up.
- o Generally speaking, in the colder months, leave a gap of ½" for panels up to 20' and ¾" for panels over 20'. It is recommended to use the large, faced trims to allow for appropriate expansion and contraction. In the warmer months, leave a gap of 3/8" for panels up to 20' and ½" for panels over 20'. Refer to gap allowance temperature chart on page 10.
- o Installation in weather colder than -10°C (14°F) is not recommended due to potential chipping or cracking of the panels. Should that occur warranty may be voided.
- When installing final top horizontal panel, trimming the full length of the panel at a 45degree angle may ease installation of last panel. Oversized nail slots must be added manually.
- Steel stud framing, associated sub girts and fasteners to be installed as designated by the appropriate design professional OR must be a minimum of 20 gauge or lower and installed 16-24" O.C.
- Note: DO NOT USE a stapler, or nail gun for exterior cladding and soffit panel installation
- o Note: GLUE IS NOT to be used to fasten strapping or ChamClad® exterior wall board

### **EXTERIOR VERTICAL WALL PANEL INSTALLATION**

### 6" Classic and Shadowline Series

(See assembly drawings listings on page 39)

- To install vertical cladding, position strapping horizontally or diagonally (at a 45° angle) with 12" O.C. If horizontal, leave 2" gaps between straps every 3'-4' to allow any envelope moisture to escape. A continuous, 3-dimensional membrane with a vertical drainage cavity may also be used as a rainscreen (i.e., Homeslicker and follow manufacturers recommended install procedures). Always check and follow local Building Codes.
- Snap a level chalk line around the base of the building and install universal J Trim/2 pc J Trim that will act as a starter strip, fastening every 8 12". When using a 1 pc Universal J trim, prior to install, drill 3/16" weep holes in bottom of universal J Trim 4" from ends and every 18"-24" to allow for drainage.
- Determine the center of the wall and install 2 starter strips back-to-back (spaced 1 7/8" apart) and 1" above the universal J Trim, fastening every 12". Ensure proper vertical backing is behind starter strips. (See drawing #CD.10 on page 43)
- Continue installing bases of all 2pc. Outside Corners, H-Trims and 2 pc J trims, fastening every 12". Please note all 2 pc trims require solid backing. We recommend all ChamClad® vertical panels and accessories be fastened every 12".
- O Begin panel installation by positioning first panels into starter strips (working outward from wall center in both directions). It is good practice to fasten at the highest point of the nail slot at the top of each panel to limit downward migration. Balance of screws to be fastened in the center of nail slots and should allow for the thickness of a dime (1/32") between the screw head and the face of the nail slot.
- To complete the install, apply the top caps of all 2pc. trims using a non-marking rubber mallet tapping gently until it locks in place. Do not over drive the trim top cap to the point where the panels can no longer expand and contract due to tightness.
- ChamClad® exterior panels may be used in a post or column wrap application. When installing in a vertical orientation, begin by installing all bases of 2pc Outside Corners on all corners. Continue with installing 1pc Universal J Trim or 2pc J trims between the Outside Corners at the base (punched with weep holes if required) and 2pc J Trim between the corners at the top. Measure column width and trim panels evenly to distribute across the column face with equal panel widths or use two starter strips installed back-to-back vertically in the center of the column and install panels outwards from the center. Fasten all panels at the highest point of the nail slot at the top of each

panel to limit downward migration. To complete install, apply top cap of the 2pc outside corner and the 2pc J trim cap along the top. Avoid over hammering the 2pc trim caps so panels can freely move during expansion and contraction. (Refer to vertical column assembly drawings on page 46)

o In addition to using panels in a post, beam, or column wrap application, ChamClad® offers a 7" Column Wrap 2pc. The innovative trim-less design results in clean lines, and an overall modern and precise appearance. It is environmentally friendly and easy to install over any wood or steel post; is extremely durable, UV protected, scratch and graffiti resistant. Refer to detailed installation instructions on pages 35 - 38.

### NOTES:

- Attach vertical claddings and trims using ChamClad® Universal Screws. Screws must penetrate structural framing members.
- It is recommended as per CCMC/ ICCES that 6" exterior claddings be installed on an air barrier/ rainscreen. 12" seamless panels must not be used on an exterior wall application. Use on an exterior wall will void warranty on the product.
- o Install vertical exterior cladding to structural framing members when using nonstructural sheathing, drywall, or foam. Install exterior cladding a minimum of 2" above finished grade or as per local building codes. Allow 1/2" above deck or concrete.
- At every floor level, it is recommended to break the installation through the use of a thru-wall flashing (supplied by others) or a ChamClad® H-Trim and restart following steps above. The first course of vertical cladding ends in the bottom of the H-Trim with the second course starting in the top of the H-Trim following the steps listed above. Always confirm local building code requirements.
- Except where designated in this manual, it is critical that fasteners are installed in the manufacturers pre-drilled holes. If you need to apply a fastener and it is in a section that does not have a manufacturers pre-drilled hole, you MUST pre-drill a nail slot (using a nail slot punch) to allow the panel to expand and contract without restriction.
- o Generally speaking, in colder months, leave a gap of ½" for panels up to 20' and ¾" for panels over 20'. It is recommended to use the large, faced trims to allow for appropriate expansion and contraction. In the warmer months, leave a gap of 3/8" for panels up to 20' and ½" for panels over 20'. Refer to gap allowance chart on page 10.
- Installation in weather colder than -10 °C (14°F) is not recommended due to potential chipping or cracking of the panels. Should that occur warranty may be voided.
- o Acclimate all panels and accessories for a minimum of 24 hours prior to installation.
  - Note: DO NOT USE a stapler, or nail gun for exterior cladding and soffit panel installation
  - Note: GLUE IS NOT to be used to fasten strapping or ChamClad® exterior wall board.

### **CHAMCLAD® EXTERIOR SOFFIT/FASCIA PRODUCTS**

4", 6"and 12" Soffit Panel Series \*



4" Solid Soffit Panel 3/8"



6" Solid Soffit Panel 3/8"



4" & 6" Vented Soffit Panel 3/8"

### **CHAMCLAD® Exterior Soffit Trims**



\*2pc 1.5" PVC Soffit J Trim 12' & 20'



\*2PC 1.5" Outside Corner 12' & 20'



1.5" PVC Universal J Trim 12' & 20'



2pc 2" PVC H-Trim Soffit 12' & 20'



2pc 2.75" Aluminum H-Trim 12' & 20'

<sup>\*6&</sup>quot; Classic and Shadowline may be used in soffit application (venting supplied by others)

<sup>\*</sup>THESE TRIMS ARE AVAILABLE IN ALL ALUMINUM, ALL PVC OR HYBRID COMBINATIONS

### **EXTERIOR SOFFIT INSTALLATION**

### 4", 6" and 12" Seamless Soffit Panel Series (3/8")

(See assembly drawings listings on page 39)

- ChamClad® solid soffit panels are available in 4", 6" and 12". The 4" panels are available in 12' and 20' lengths, 6" panel in 9',12', 14', 16', 20' and 30'. ChamClad® Vented Panel 4" is available in 12' & 20' lengths. The 6" Vented panel is available in 12', 16' and 20' lengths. VENTING: Both vented and solid panels MUST be used during installation of ALL exterior soffit applications. This includes the underside of decks (with or without living spaces above), porch ceilings and typical perimeter soffit for attic ventilation (as required by code).
- o 6" X ½" Shadowline may be used in soffit application, non-vent or hidden vent available.
- Verify that soffit substrate is even and level across all surfaces. Applicators may need to install shims to achieve a consistent surface to attach the soffit panels to.
- Attach ChamClad® soffit panels at 12 16" using ChamClad® universal screws. If the eave span is greater than 16", additional blocking must be installed at 12-16" O.C.
- On exterior soffit installations maintain the proper expansion/contraction distance from the end of the board and the required accessory (universal J Trim, 2pc H-Trim or 2pc J trims - refer to refer to gap allowance chart on page 10).
- Ouring the installation process, it is important that the soffit material is installed to freely allow expansion and contraction with changes in temperature. It is recommended to use ChamClad® universal screws. Please allow for a 1/32" gap from the fastener head to the nail flange. If installed without this allowance, ChamClad® soffit panels may warp or buckle. Due to our PVC's recycled composition, ChamClad® soffit will not swell if exposed to moisture.
- Note: All 2pc trims require solid backing. All soffit applications require trims to be fastened at 8-12" O.C.
- When installing vented soffit panels, it is recommended to alternate between solid and vented panels. Always begin installation with a solid soffit panel. First panel, you must rip down nose to tuck inside the 2 pc J trims and allow for a gap (refer to gap chart page 10). Do not forcefully press panels together during installation to avoid cupping; panels must be installed loosely to allow for movement. Do not over torque screws when installing soffit. When installing long lengths install from one side working your way down to avoid buckling. Confirm requirements with local building code.
- Depending on the design of the soffit, ChamClad® soffit panels may be installed parallel or perpendicular to the exterior walls. It is important that each panel be fastened at every joist or rafter every 12"-16" O.C. using ChamClad® Universal Screws. Install additional courses and check alignment to either side of the line. Check that proper gaps according to the typical weather conditions are maintained to allow for proper expansion/contraction.



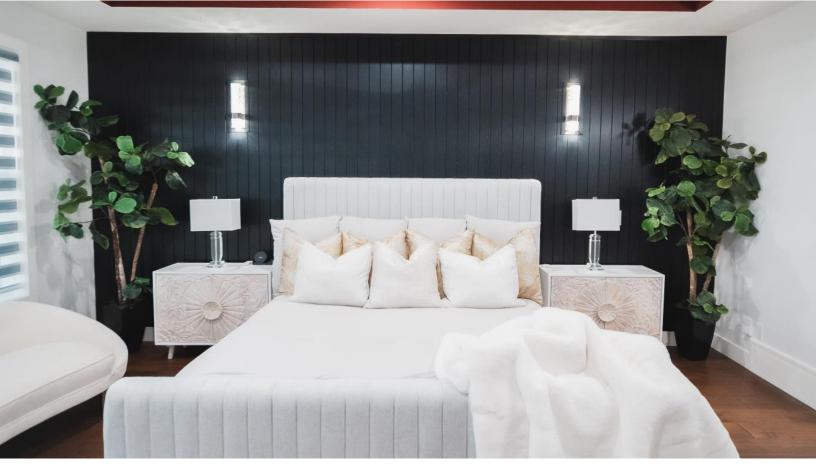


- For both 6" and 4" x 12' vented soffit panels, the ventilation area is 13.25 in<sup>2</sup> per panel; for 20' vented soffit panels, the ventilation area is 22.08 in<sup>2</sup>. ALWAYS reference local building code when calculating ventilation requirements.
- ChamClad® does not recommend installing products at -10°C (14°F)
- o Allow the product to be acclimated for a minimum of 24 hours before install. Generally speaking, in colder months, leave a gap of ½" for panels up to 20' and ¾" for panels over 20'. It is recommended to use the large, faced trims to allow for appropriate expansion and contraction. In the warmer months, leave a gap of 3/8" for panels up to 20' and ½" for panels over 20'. Refer to gap allowance chart on page 10.
- Where more than one soffit length is needed, an H-Trim is required to cover the expansion/contraction gap. DO NOT BUTT JOIN PANELS.
   Please note 2pc trims require solid backing and be fastened every 8-12" O.C.
- When installing Trims and Soffit panels, it is important to use low profile ChamClad® universal screws and fasten solid soffit and vented panels every 12"- 16" and all trims fastened every 8"-12".
   In high wind or heat areas all soffit panels must be fastened 12" O.C.
- When installing final panel, trimming excess panel at a 45° angle at the full length of the panel may ease installation of last panel. Nail slots must be added manually.

NOTE: 4" and 6" soffit panels may NOT be used in exterior WALL application as improper use will VOID WARRANTY.

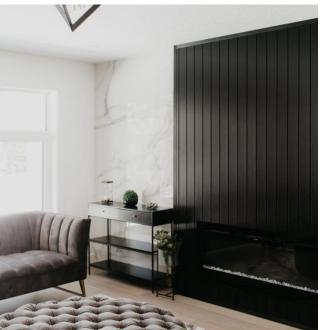
DO NOT install gas heaters into a soffit or ceiling application.

If planning to install infrared heaters, check with the Chamclad® engineering department to ensure compatibility with cladding.



### CHAMCLAD INTERIOR

WALL, CEILINGS, HORIZONTAL, VERTICAL





### INTERIOR WALL AND CEILING CLADDING

### 4" & 6" V GROOVE/U CHANNEL AND 12" SEAMLESS PANELS



4" Interior Wall & Ceiling Panels 3/8"



6" Interior Wall & Ceiling Panels 3/8"



12" Interior Wall & Ceiling Panels Seamless Panel 3/8"

NOTE: 4" & 6" panels available in V-Groove and U-Channel profiles \*6" Classic and Shadowline may be used in interior wall and ceiling applications

### **Interior Wall and Ceiling PVC Trims**



1pc PVC Inside Corner Trim 10', 12', & 20'



2pc 1.5" PVC Outside Corner Trim 12' & 20'



2pc 1.5" PVC J Trim 12' & 20'



1.5" PVC Universal J Trim 12' & 20'



2pc 2" PVC H-Trim 12' & 20'

### **COLUMN AND BEAM WRAP**



7" 2pc Column Wrap



1" X 4" Architectural Trim



Quick Click Column Cap and Base Trim Available in 7", 8", 10", and 12"



2pc Beam 5.5"x 3.35"



Beam End Bracket



Beam End Cap



4pc Quick Click Column and Beam Wrap Available in 8", 10", and 12" **New Summer 2024** 



Quick Click Column Cap and Base Trim Available in 7", 8", 10", and 12"

### HORIZONTAL INTERIOR INSTALLATION

### 4" & 6" VGroove/UChannel and 12" Seamless Panels

(See assembly drawings listings on page 39)

- ChamClad® Interior Horizontal panels are installed similarly to Exterior Horizonal panels;
   please refer to Exterior Horizontal Guidelines on pages 21 22.
- Always allow ChamClad® panels and accessories to acclimatize to current temperature conditions before starting the installation. Temperature variations are less on an interior installation.
- Verify that the walls and ceiling substrates are even and level across all surfaces. Furring may be required to acquire a consistent surface to attach ChamClad® panels.
- Establish a level guideline using a chalk line on all wall areas to be covered with ChamClad® wall cladding, where the bottom of the lowest board is to be installed.
   Depending on the look or finish that is desired, the installer may use a starter strip or a universal J Trim. Since this is an interior wall, no drain holes need be drilled into the bottom of the universal J Trim.
- o Install universal J Trim or 2pc J Trim in areas where ChamClad® wall panels meet other finishes. Also install Universal J Trim or 2pc J Trim at all windows, doors, and other penetrations. It is common practice to fasten interior wall panels at 16- 24" O.C. Every few courses of wall panels, the installer should check for horizontal alignment and level.
- Where the interior wall meets the ceiling, and depending on design requirements, use the ChamClad® 2pc J Trim. Install all trim bases first and once ChamClad® wall panels are installed to the top course, finish off by installing the top caps.
- When joining ChamClad® interior wall panels, use 2pc H-Trim to connect panels. It is recommended to align the ChamClad® 2pc H-Trim with other trim elements on the wall.
- On Interior applications, fasten trims (12-16" O.C.) and panels (16–24" O.C.) using ChamClad® universal screws. Panels must be attached to structural framing members.

DO NOT USE STAPLERS/PNEUMATIC STAPLERS FOR INTERIOR OR EXTERIOR APPLICATIONS.
\*DO NOT USE 4" and 6" INTERIOR panels in exterior applications. The use of 4",6" and 12"
Interior wall panels on an exterior wall will void the warranty.

### INTERIOR VERTICAL INSTALLATION

### 4" & 6" VGroove/UChannel and 12" Seamless Panels

- ChamClad® Interior Vertical panels are installed similarly to Exterior Vertical panels; please refer to detailed Exterior Vertical instructions on page 23.
- Always allow ChamClad® panels and accessories to acclimatize to current temperature conditions before starting the installation. Temperature variations are less on an interior installation, but the same requirement applies.
- Verify that the walls and ceiling substrates are even and level across all surfaces. Furring may be required to acquire a consistent surface to attach ChamClad® panels.
- Establish a level guideline using a chalk line on all wall areas to be covered with ChamClad® wall cladding, where the bottom of the lowest board is to be installed. As in the Exterior Vertical Installation, use a universal J Trim to start application. As this is an interior wall, no drain holes are required to be drilled into the bottom of the universal J Trim.
- o Commence application with installation of all trims at 12-16" O.C.
- When covering entire wall area, install starter at mid-point of wall and align VGroove or UChannel to the centre of the wall and work outwards from either side. Install balance of trim bases as per exterior vertical installation and finish wall application with installation of 2pc trim caps. It is good practice to fasten at the highest point of nail slot at the top of each panel to limit downward migration.
- o If applying interior vertical panels as a feature on a portion of a wall area, use full panels (cut to height) in order to maximize overall appearance. Begin with installation of component pieces and base trims; followed by installation of all wall panels (working left to right) and complete with application of component top caps. Attach panels to structural framing members.

DO NOT USE Electric Staplers/Pneumatic Staplers for INTERIOR APPLICATIONS.

We recommend using Chamclad® Universal Screws but if unavailable use a non-corrosive Low Profile #8 Modified Truss Head Screw 1 ½".

DO NOT USE 4", 6" and 12" INTERIOR panels in exterior wall applications. The use of 4",6" and 12" Interior wall panels on an exterior wall will void the warranty.

### INTERIOR CEILING INSTALLATION

### 4" & 6" VGroove/UChannel, 12" Seamless Panels and Faux Beam Wrap

(See assembly drawings listings on page 39)

- ChamClad® interior wall panels may also be used as a ceiling finish; installed similar to ChamClad® exterior soffit panels - refer to page 25.
- Always allow ChamClad® panels and accessories to acclimatize to current temperature conditions before starting the installation. Temperature variations are less on an interior installation, but the same requirement applies.
- Verify that ceiling substrates are even and level across all surfaces. Furring may be required to achieve a consistent surface to attach ChamClad® panels. Install furring strips (1x3") at 12-16" O.C. perpendicular to the joist.
- We recommend all ChamClad® accessories be fastened every 12-16"
- Fasten at each furring strip, which should be 12-16" O.C. Once you have installed a few courses of ChamClad® ceiling panels, check for alignment of the perpendicular or parallel adjacent vertical wall. Where you are placing panels end to end, use H-Trim to finish the joint.
- Install the remaining ChamClad® panels and check for alignment. When using the 2pc J
   Trim install the top cap onto the base to complete the installation.

### Note:

- ChamClad® versatile 4",6" & 12" interior architectural panels are designed for all types and sizes of decorative (non-load bearing) post, beam and column wrap applications. In addition, we offer a 2pc Faux beam wrap which is lightweight and easy to install. Please refer to detailed installation instructions on page 38.
  - 4", 6", and 12" interior 3/8" panels must be used for soffit applications, interior covered deck areas, barrel ceilings, sun porches, interior walls, and ceilings. The use of these panels on an exterior WALL will void the warranty.



### **COLUMN AND BEAM WRAP INSTALLATION**

### 7" 2pc Column Wrap and 4pc Quick Click Column and Beam Wrap

(See assembly drawings listings on page 39)



### 1. LOADING

• An internal structural support must be used if the column is for non-load bearing or for load bearing applications.

### 2. DIMENSIONS

- o Exterior dimensions of the column are 7" x 7".
- o Internal cleared dimensions of the column are 6" x 6-1/2".
- Architectural trim dimensions are 3/4" x 3-5/8".
- Column lengths available in pairs at 10ft and 12ft lengths.
- Architectural trims available at 6.5ft and 13ft.

### 3. INSTALLATION

- The internal structural support should be straight, square, and within the dimensions specified above.
- Cut 2-piece columns caps 1/4" shorter than column height requirements to allow for expansion at the top of the column. (1/8" for winter installation).
- Wrap the 2-piece columns around the vertical internal structural support by engaging the arrowhead in one panel into the groove of the second panel. Do this on both ends of the "L" shaped column, using a nonmarking rubber mallet to assemble. Ensure a tight wrap around the

internal structure to avoid movement and full engagement of the two pieces for a seamless finish.

o Fasten column against substrate support on bottom only where trims would hide the fastener. Ensure fastener is straight and flush into PVC. Do not fix PVC column with nails or screws on the top of the column to allow for expansion and contraction at the top of the column.

### **Optional:**

If column is loose or has movement around the internal structural support: Create three collars measuring 6-1/2" x 5-1/2" around the base, center, and top of the support structure. Install the 2pc column, which will form a tight fit around the collars. This will prevent movement of the 2pc column.

#### 4. FINISHING

#### Option A – Architectural Trims

o ChamClad® offers architectural trims to finish the ends of the columns.

o Cut architectural trims at 45-degrees. Ensure the trim is pressed firmly against the column when determining the edge of the 45-degree cut. Cut 2 sets to install on top and bottom of the column.

o Touch up exposed cut edges with touch-up paint. Paint cans or touch up pens available through ChamClad®.

o Position trims with film facing up as per above and apply one continuous strip of masking

tape. Flip the trims over and apply silicon on 3 of the 4 trims on the unlaminated face.



o Apply additional silicon if needed at the seam between the trim and the column.

o Fold over the excess masking tape on trim 4 to hold the trims in place firmly against the column wrap.

o Use 1-1/2" finishing nails to close gaps at mitered corners of trims. Do not fasten trims into PVC column.

o Duplicate the above instructions for the trim on the top of the column and line up trim to the ends of the column. You should see a 1/8 - 1/4" gap between trim and ceiling to allow for column expansion.

o Once silicon cures, remove masking tape and touch up finishing nail heads to blend in with the film finish.



#### Option B – Quick Click Column Cap and Base Trim

o Install 2pc column as per previous instructions

o Attach 4pc column trims snug around column and slide them together until they lock in place

o Attach the 4 ground fasteners at each corner,  $3/16 \times 1 \%$  Hex Concrete Screw (4 per box) and #10  $\times 1 \%$  flat head for concrete (4 per box) provided in kit.

o Attach side fasteners #8 pan socket type S zinc plated (4 per box) provided in kit, into the column through the side of base clip (only fasten at base leave top loose for expansion and contraction)

o Snap each of the 4 covers over the base, you may touch

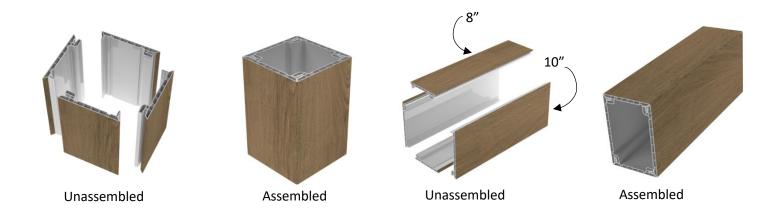
up the ends of covers before install if desired.

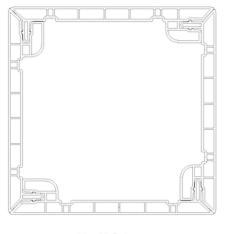
O Repeat for trim on cap if required, "not" attaching side fastener.

## **Quick Click Column and Beam**

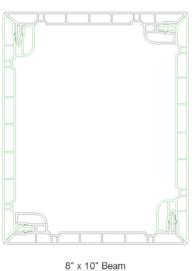
### New Summer 2024

Available in 8", 10", 12", Mix and Match

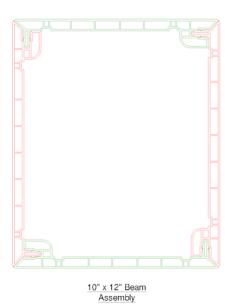








8" x 10" Beam Assembly





#### 2PC FAUX BEAM INSTALLATION

(See assembly drawings listings on page 39)

#### 1. LOADING

o ChamClad® 2pc Beam System is not load bearing and should not be used as primary source of weight support.

o Internal Weight Capacity of Beam = 24.11 kg/m (16.17 lbs/ft) (equally distributed weight). o Weight of Beam and Adapter = 1.84 kg/m (1.23 lbs/ft)

#### 2. DIMENSIONS

- o Exterior dimensions of the beam are 5-1/2" x 3-3/8"
- o Internal cleared dimensions of the column are 43/4" x 3".
- o Beam cap and Adapter lengths available in pairs at 10ft, 16ft, and 20ft lengths.

#### 3. PACKAGING

o Beam cap and Adapter will be packaged together in vented white bags, one set per bag.

#### 4. INSTALLATION

- o ChamClad ® 2pc beam is compatible for interior applications.
- o Allow 2pc beam system to climatize to installation temperatures prior to cutting. Measure and mark beam length using a square edge.
- o If fitting against an angled wall or ceiling, a T-bevel may be helpful to determine the cut angle. o Use a fine-toothed circular saw to cut beam cap and adapter. Ensure equal lengths of both adapter and beam are cut.
- o Mark ceiling with a chalk line to ensure a straight installation of the beam adapter.
- o Fasten beam adapter using ChamClad® universal screws every 16-24". Ensure fasteners are fastened into a joist or a stud. If no solid backing is available, use drywall anchors suitable for the weight of the beam cut (install as per anchor manufacturer instructions). See LOADING above for weight of beam and adapter. Fasten adapter using all 4 screw grooves available.

o Add ChamClad $^{\circ}$  beam bracket along wall to close any spacing between wall and beam good for renovation (2 per pack screws, #8 1  $\frac{1}{2}$ " flat quadrex course thread plated black zinc) 8 per bag.



UNASSEMBLED







ASSEMBLED BEAM END CAP

**BEAM END BRACKET** 

#### **ASSEMBLY DRAWINGS**

#### HORIZONTAL EXTERIOR

o see drawings CD.3 & CD.5 (pages 40 & 41)

#### **VERTICAL EXTERIOR**

see drawings CD.8 & CD.10 (pages 42 & 43)

#### **SOFFIT DETAILS**

o see drawing CD.15 (page 44)

#### INTERIOR HORIZONTAL

o see drawings CD.5 (page 41)

#### INTERIOR CEILING

o see drawing CD.13 (page 51)

# COLUMNS & BEAMS USING CHAMCLAD CLASSIC OR SHADOWLINE PANELS

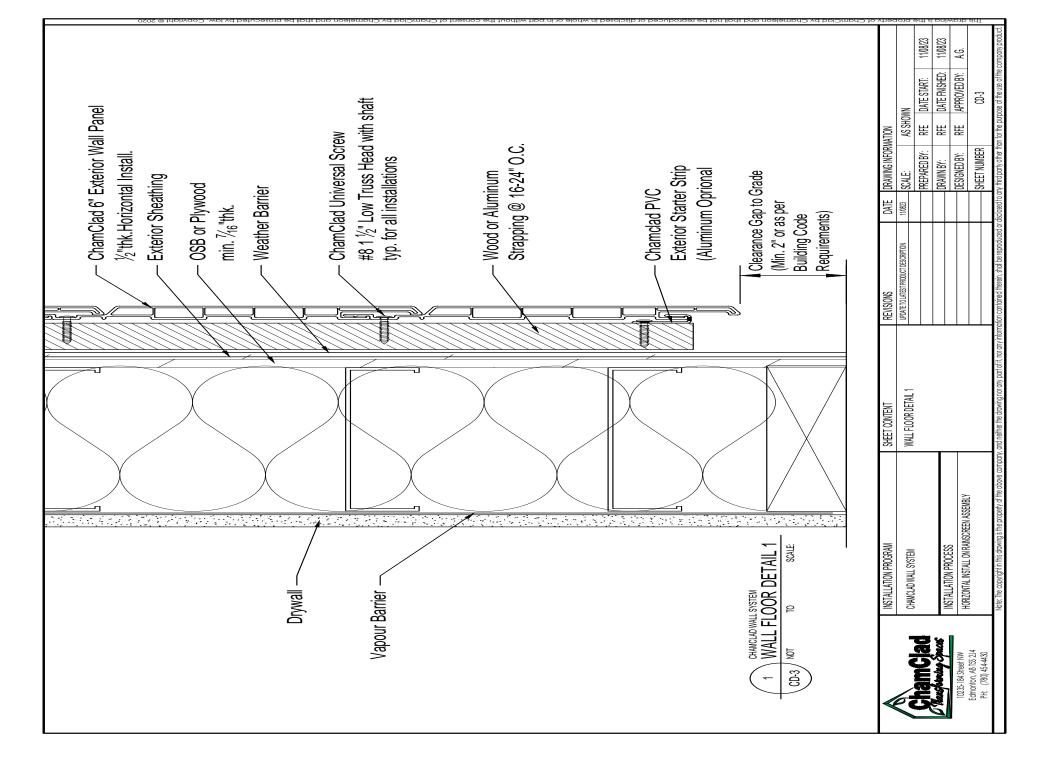
o see drawings CD.19, CD20, CD.16 (pages 45, 46 & 47)

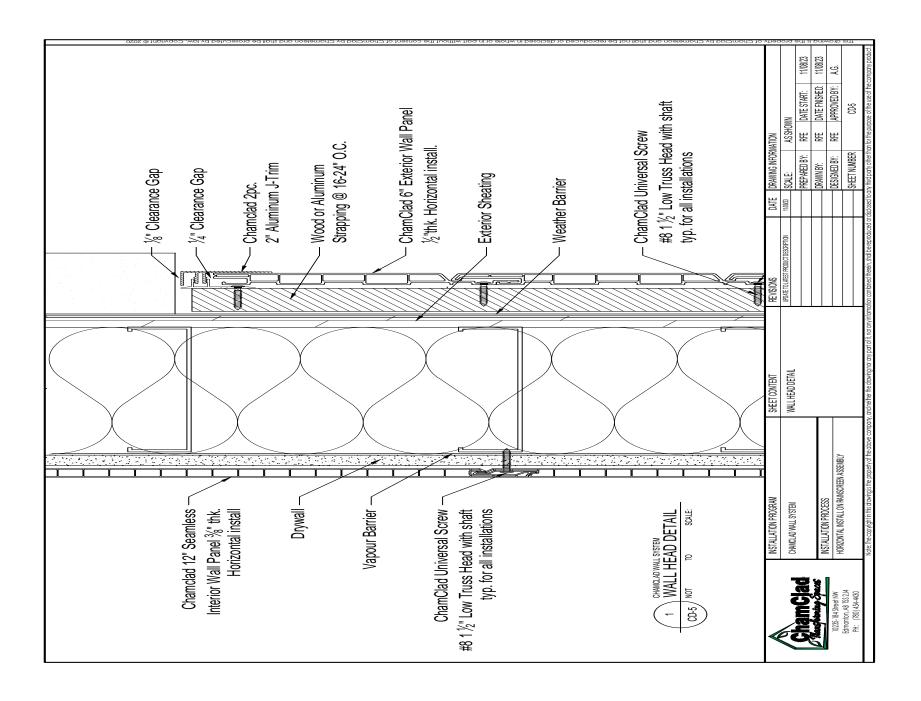
#### 7" COLUMN WRAP 2PC QUICKCLICK SYSTEM

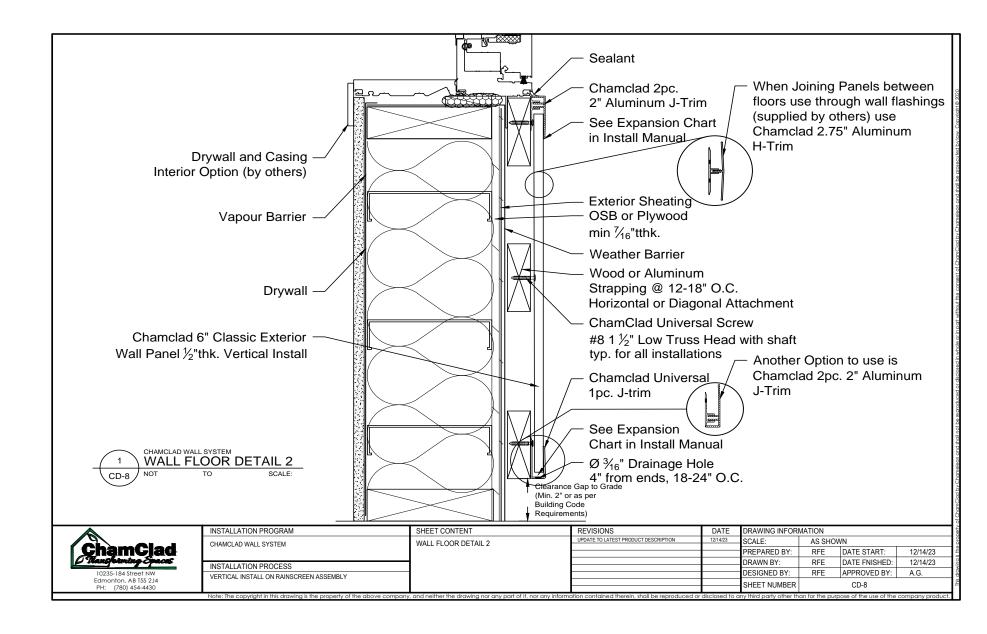
o see drawing CD.27 AND CD.28 (pages 48 − 49)

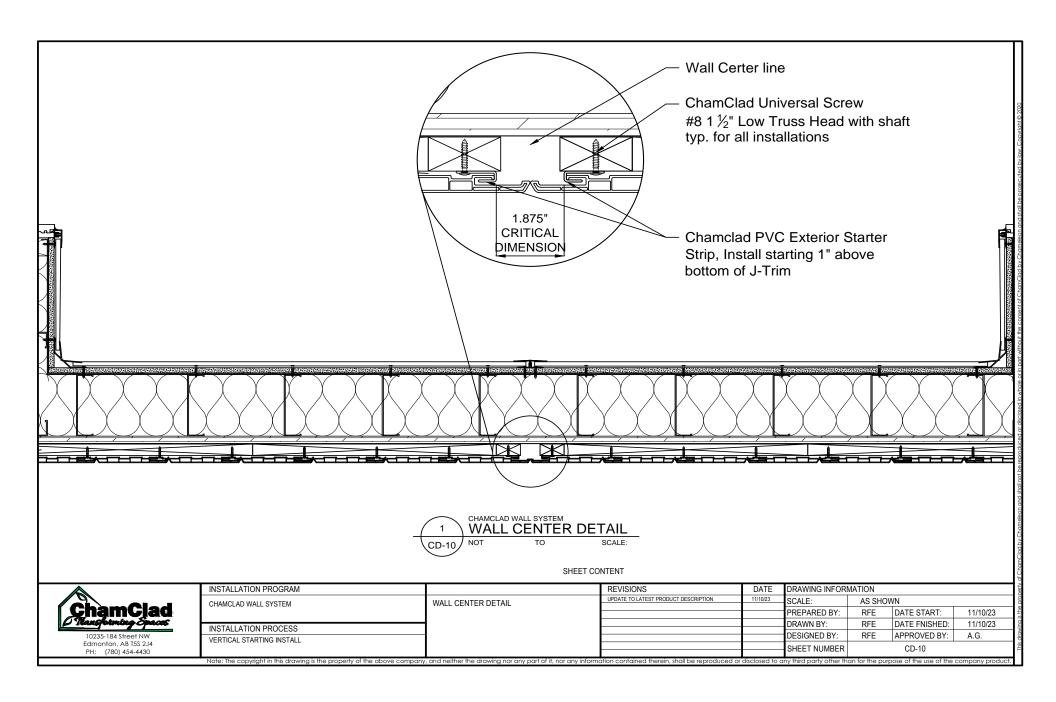
#### 2PC FAUX BEAM QUICKCLICK SYSTEM

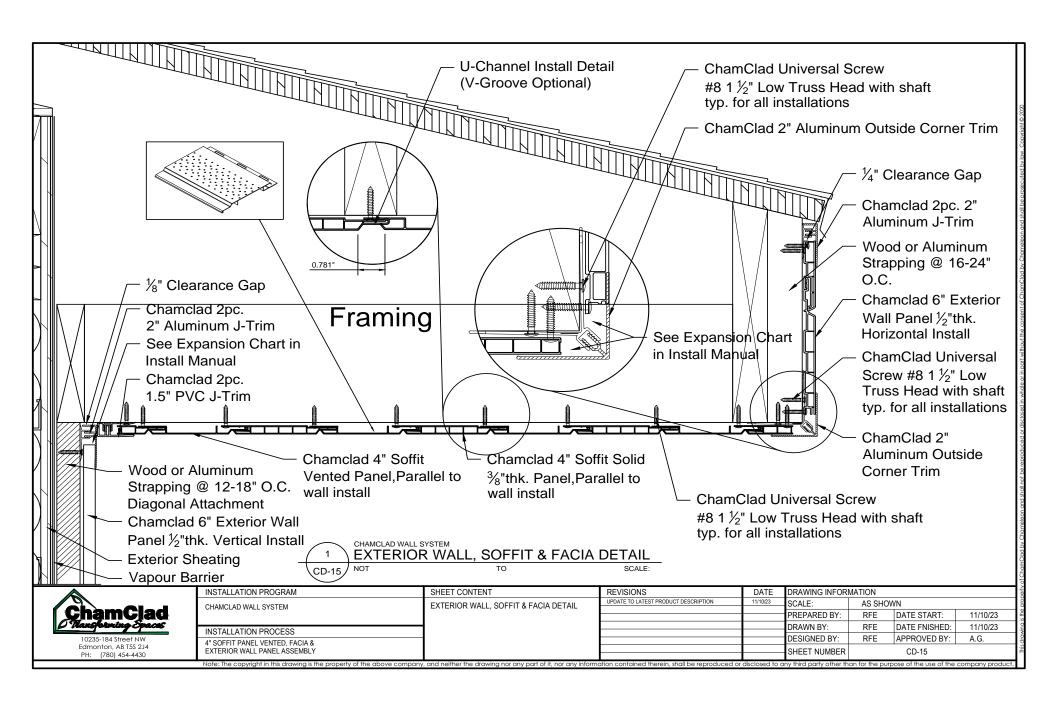
o see drawing CD.18 (page 50)

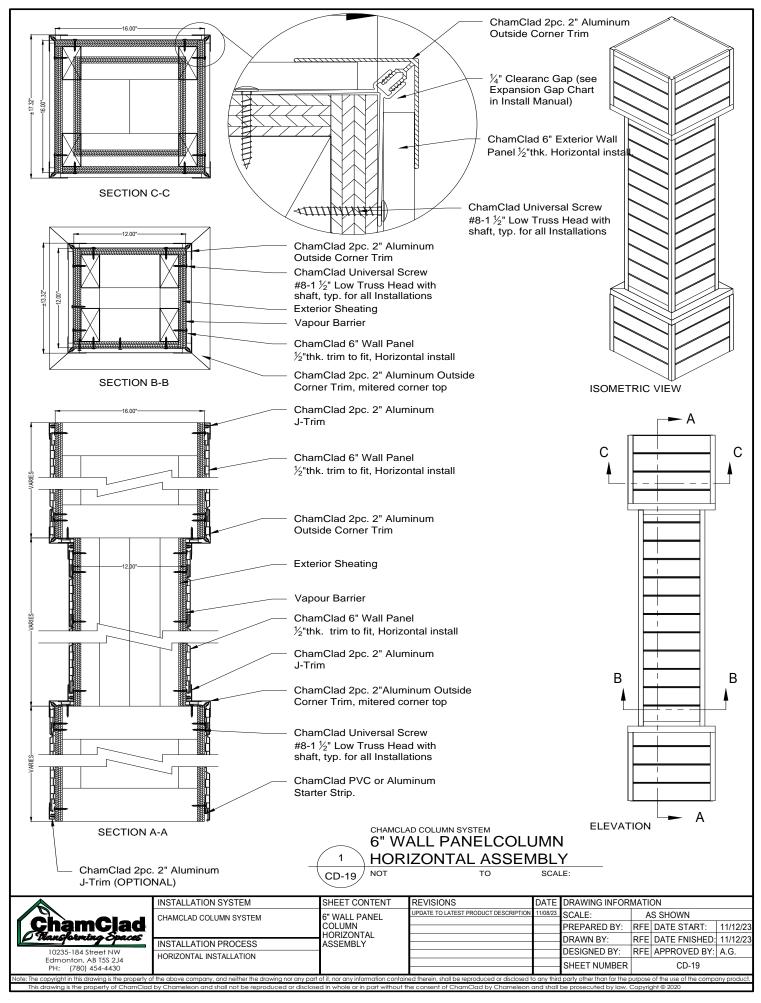


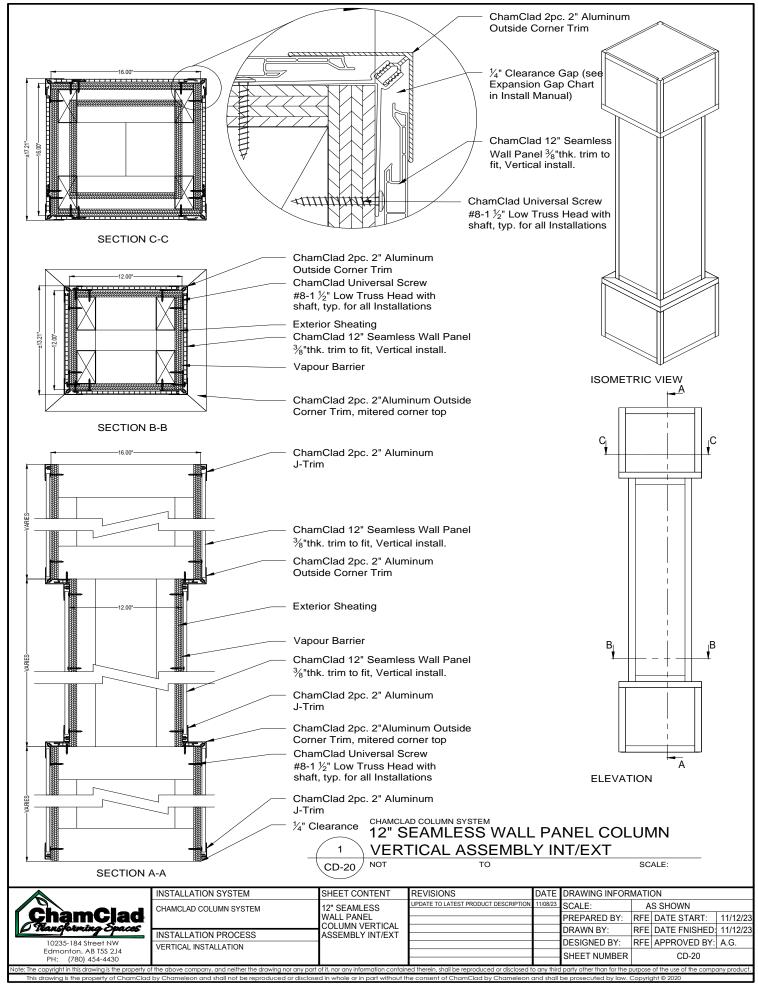


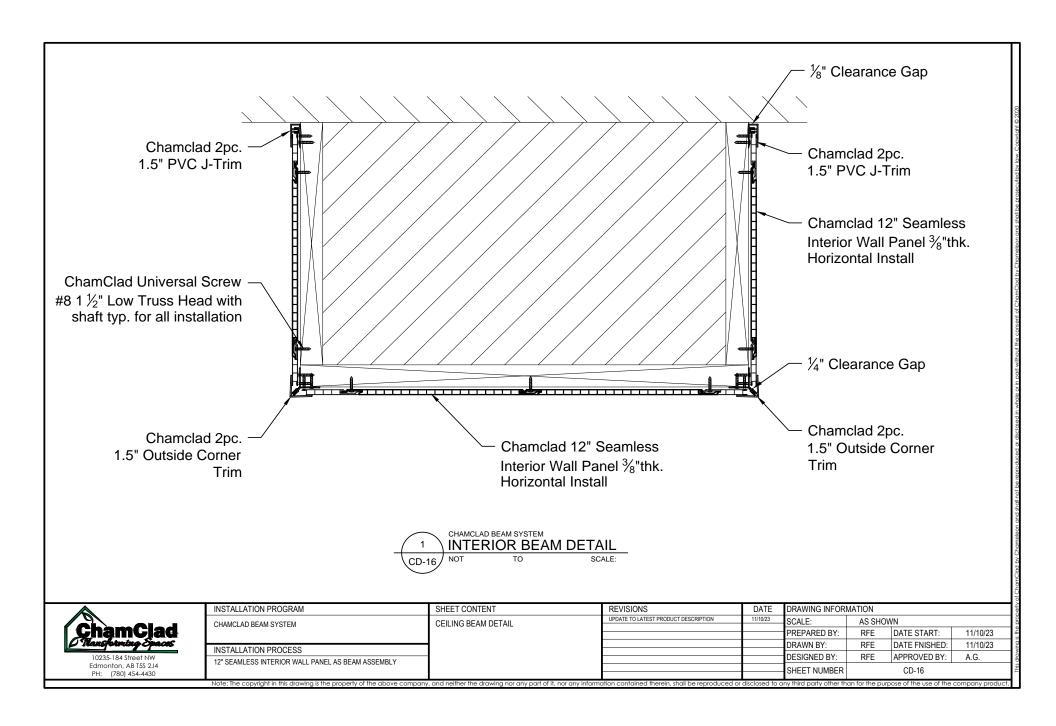


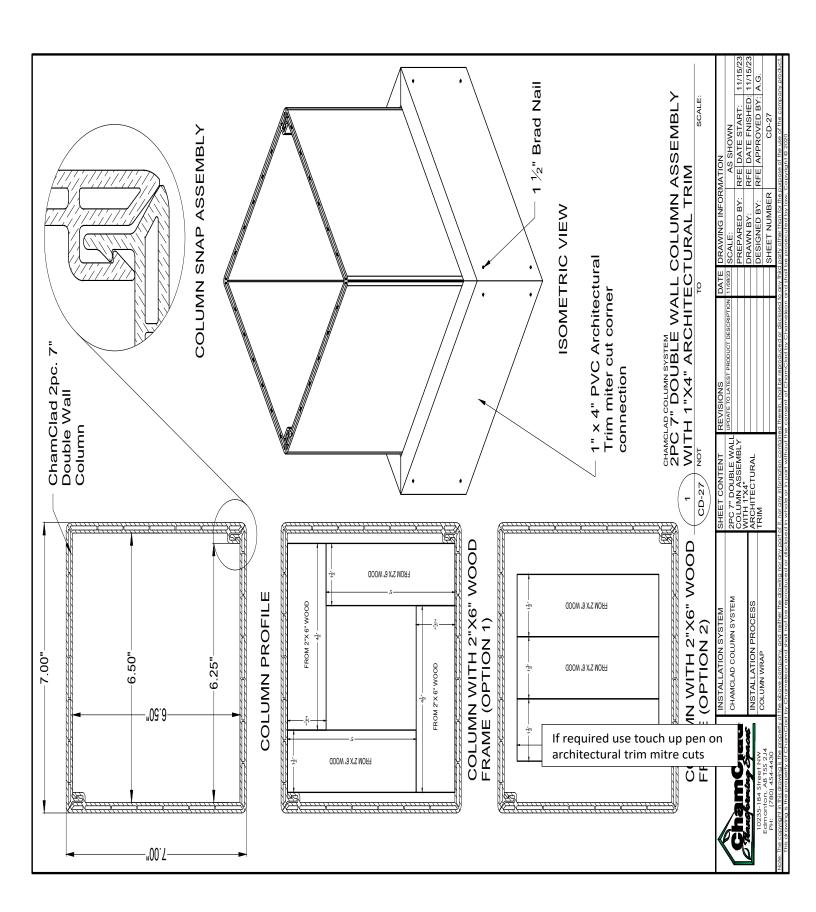


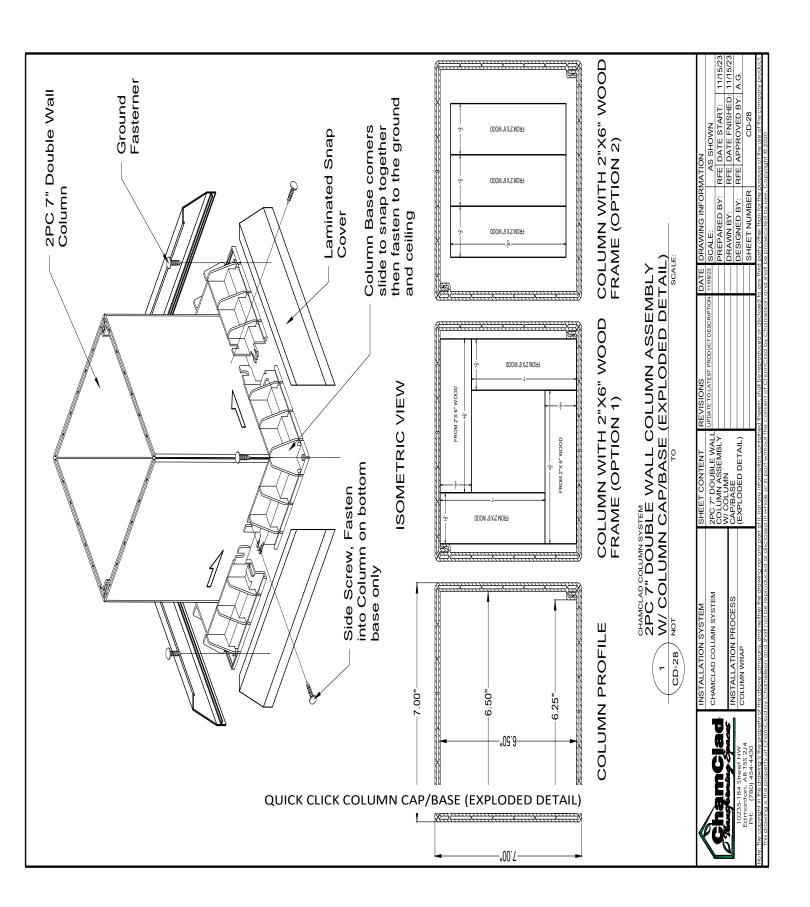


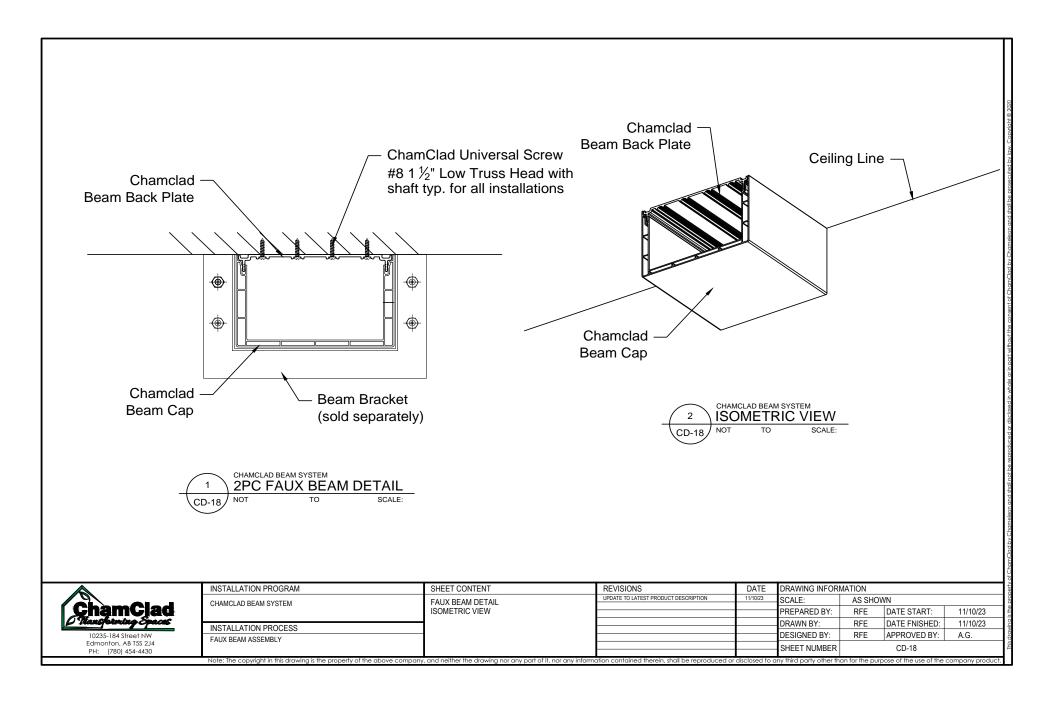


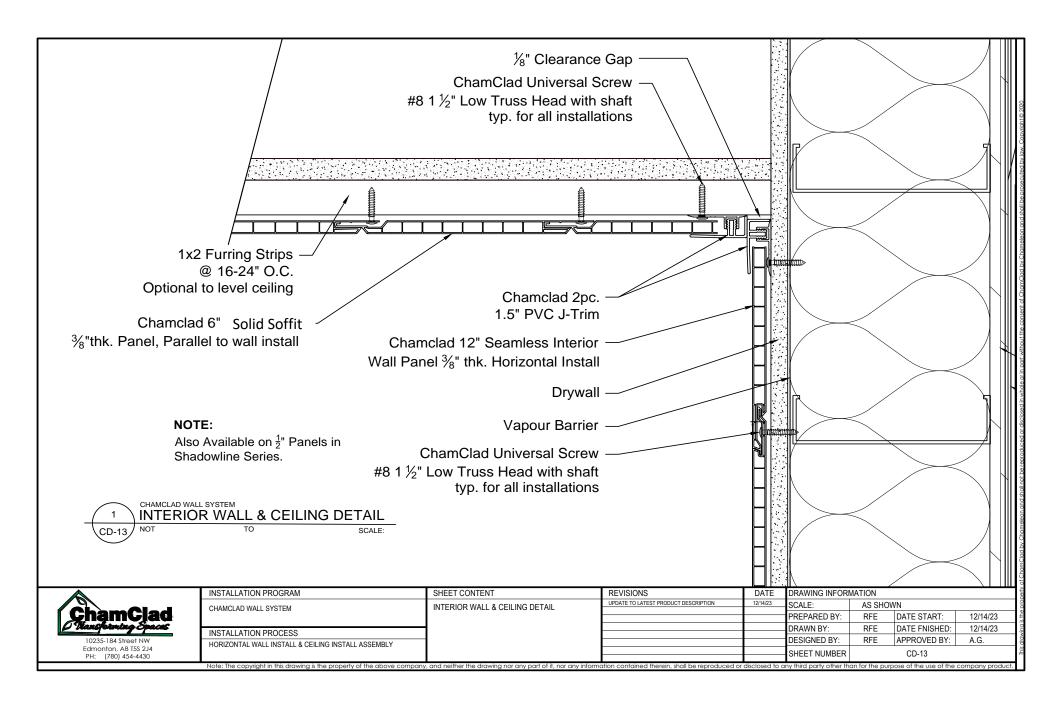












O Install the beam cap and fasten the object directly onto the beam cap and into the wood

#### Care and Maintenance of ChamClad® Exterior Wall Panels

ChamClad® products are designed to be low maintenance and our Laminate Films have exceptional properties that ensure ease of cleaning and surface longevity. They are highly ultra-violet, scratch, and salt air resistant. The film's low surface tension makes it inherently dirt-repellent and therefore easy to clean. ChamClad® finishes include anti-graffiti properties and, in most cases can be easily removed using a garden hose and mild kitchen detergent and warm water.

If cleaning required, follow these simple instructions below:

- Using a soft bristled nylon brush attached to a garden hose, clean the surface with a mild PH neutral soap or non-abrasive kitchen detergent in warm water.
   DO NOT USE abrasive, erosive, or caustic solvents to clean ChamClad® panels as they can damage the panel finish and will void the warranty.
- To avoid streaking start at the top of the wall working your way to the bottom.
- Follow with a thorough rinsing of fresh water to ensure that substances such as airborne salts, dirt and pollutants are removed.
- Always remove unintentional paint splashes, stucco spills, etc. immediately to prevent the possibility of permanent staining.
- You may pressure wash ChamClad® panels with a low PSI pressure washer. DO NOT exceed 1500 PSI.

Should you experience removal difficulties, please contact us via email at info@ChamClad.com.

## Installation Tips - At a Glance.

	Do	Don't
1. Before You Start	<ul> <li>Review the installation manual and all local building codes before starting the install.</li> </ul>	<ul> <li>Don't install damaged or questionable materials.</li> <li>Check all products and call ChamClad® customer service.</li> </ul>
2. Storage and Handling	<ul> <li>If storing cladding outside, when possible, keep out of direct sunlight.</li> <li>Store on a flat level surface, cover with a tarp leaving the ends open for air circulation.</li> <li>Carry ChamClad® panels by holding it by the narrow edge and pick panels up in the center.</li> </ul>	<ul> <li>Don't allow panels to come in contact with asphalt or in areas prone to excessive heat buildup.</li> <li>Don't use abrasive cleaners or solvents to clean ChamClad® cladding.</li> </ul>
3. Flashing  1/4" GAP BETWA FLASHING AND	<ul> <li>Use non-corrosive flashing.</li> <li>Always leave a minimum of ¼" gap between the bottom of the cladding and metal flashings</li> </ul>	<ul> <li>Don't use uncoated aluminum or other metal materials.</li> </ul>

#### 4. Wraps and Sheathing

- Install horizontal and vertical exterior cladding to structural framing when using nonstructural sheathing, drywall, or foam.
- Cladding must be installed onto structural framing/sheathing and over a water-resistant barrier in accordance with local building codes.
- Don't fasten ChamClad® cladding over nonstructural framing or sheathing (e.g., foam) without re-establishing a structural surface like a rain screen or furring strips.

#### 5. Clearance

- Install exterior cladding at least 2" or as per building code requirements above finished grade. Allow ½" above deck or concrete.
- Refer to the ChamClad® Gap allowance temperature guidelines on page 10 in order to allow for proper expansion/contraction between panels and trims.

#### 6. Cutting

- Carbide-tipped blades with 84+ teeth are recommended. (Aluminum blades are optimal)
- If using a circular saw, cut cladding face down on a clean surface.
- If using a cut-off saw, cut face up.

- Don't score or snap ChamClad® exterior cladding.
- Don't cut ChamClad® with a coarse saw blade to avoid chipping or damaging the panel.

#### 7. Butt Ends

 If attaching ChamClad® cladding end to end, use Htrim and cut panels to the appropriate length to allow for expansion and contraction.

- DO NOT butt join.
- Don't place panels into H-Trim without proper gap for expansion and contraction (refer to chart on page 10).
- Do not leave gaps between two butt ends without utilizing an H-trim. Do not glue butt ends.

#### 8. Fastening

- Screws must penetrate the structural framing members.
- Fastener must be installed into the center of the nailing slot.
- Fasteners must penetrate a minimum of 1 ¼" into structural framing.
   Structural sheathing is a minimum of 7/16" OSB or plywood (as per local building codes).
- Use Chamclad® Universal screws; stainless fasteners or corrosion resistant are recommended (e.g., 17 Self taping, round washer, lo root #8)
- Always leave a 1/32" gap (width of a dime) between the fastener head and nailing slot

- Don't counter sink or angle the fastener. PVC cladding must be hung and be allowed to expand and contract freely.
- Don't use galvanized screws.
- Don't use soffit staples, D-head nails, finishing nails or glue to install exterior.
- Don't fasten panel into the bottom of trims.
- Don't exceed recommended spacing between fasteners.

#### Additional Tips:

- Use ChamClad® touch-up pens to cover any exposed PVC substrate resulting from cutting or a surface scratch.
- Use backing for all trims.
- o Fasten panels 16-24" OC.
- o Fasten trims 8-12" OC.
- Fasten Soffit at 12-16" OC.
- Use centre of nail slots.
- Cut panels shorter to allow for expansion/contraction clearance. See Gap Chart on page 10.
- Use a non-marking Rubber mallet or hand pressure to install V-groove system and top caps of all 2pc trims.
- Break vertical installation at every floor level using ChamClad® H-Trim or flashing detail (supplied by others).

- DO NOT install gas heaters into a soffit or ceiling application!
- If planning to install infrared heaters, check with the Chamclad® engineering department to ensure compatibility with cladding.

#### **Glossary**

This guide is written for construction professionals. Language typical of the cladding and cladding industry has been used throughout this document, the majority of which has been defined below. A simplified guide is available at the end of this document.

**Back Sealing/Priming:** Applying a sealer/primer to the back of cladding is NOT recommended for use with ChamClad® heavy gauge panels.

**Belly Band:** A decorative horizontal trim piece or board placed between two floors or types of cladding, usually along the rim joist.

**Beaded:** A narrow, half-round molding at the base of a cladding panel or board.

**Blind Nailing:** Fastening through the top edge of a lap cladding to hide the fastener head with the next course of cladding.

**Butt End:** A joint created by placing adjoining edges of cladding end to end with no overlap.

**Casing:** Molding of various widths used to trim around windows and door openings at the jambs. These are also known as lineal window and door surrounds.

**Contraction:** This commonly is referred to a building material contracting due to heat loss or moisture leaving the product. Generally, this occurs when the outside temperature drops.

**Course:** A row of cladding running the width of a house or wall. In the case of vertical siding, it would run the height of the wall.

**Drip Cap:** A horizontal flashing placed over an exterior door or window to divert rainwater away from the wall.

**Eave**: The overhang of a pitched roof; usually made up of a fascia board, a soffit for closed cornices, and the necessary trims.

**Expansion**: Most often refers to building materials expanding due to outside temperature increases. In the case of wood or wood by-products, expansion may be caused by moisture entering the product.

**Exposure:** The width of the exposed face of the board, sometimes called the reveal.

**Face:** The exposed side of the cladding, trim, or soffit after the material is installed.

**Face Nailing:** This is where a nail is fastened through the overlap; this exposes the head of the nail, screw, or staple. This is NOT a recommended method of fastening ChamClad® cladding and soffit panels.

**Fascia:** The flat, horizontal band that covers the rafter tails at the bottom edge of the roofline.

**Flashing:** A material (usually metal) placed around openings to prevent water penetration or to direct the flow of rainwater over the cladding.

**F- Channel Trim:** The horizontal trim used to connect and support the soffit at the top of the cladding.

**Furring Strip:** Long, thin lengths of wood or metal strips used to build out the surface of the wall to facilitate fastening. It is also used to even out imperfections on the wall surface, establish a rain screen, or provide a structural fastening surface on non-structural materials like rigid foam insulation.

**Gable:** A triangle formed by a sloped roof on the side or front of a house.

**Hot Dipped Galvanized**: A process whereby metal is dipped into molten zinc to apply a protective coating to prevent corrosion.

**H-Channel Trim:** Used to conceal cut edges when installing horizontal and vertical cladding or soffit material. The trim covers butt ends or joints as they approach each other. This is mainly for aesthetic purposes.

**Lap cladding:** Where two pieces of cladding over-lap each other.

**Lineal:** Moldings of various widths used to trim door and window openings at the jambs. Also known as casings or window/door surrounds.

**Mitre Cut:** A beveled cut (usually 45 degrees) made at the end of a trim or board, creating a mitre joint.

**O.C.:** On centre. The distances between the center of two members in a structure, most often studs.

**Profile:** The contour or outline of a cladding board, viewed from the side.

**Rain-screen Wall:** This is a method for building walls where the cladding is separated from a membrane by airspace. This allows the equalization of the air pressure behind the cladding and prevents rainwater from being forced in. This is usually created by using furring strips behind the cladding and over the weather-resistant barrier.

**Rigid Sheathing:** Plywood, OSB, or foam sheathing.

**Rim Joist:** A board that the rest of the joists are nailed to that run the entire perimeter of the house.

**Rip-Cut:** A cut made lengthwise on a board or plank along the grain.

**Shim:** A building material (usually made of wood) used to even a surface.

**Soffit:** The underside of an overhanging eave. Depending on local building codes, this can be vented or non-vented.

**Square:** A unit of measure for cladding or roofing equal to 100 square feet of exposure (e.g.,  $10' \times 10' = 100$  square feet = 1 "square").

**Starter Strip:** A trim piece used to start the first course (row) of cladding. This ensures a consistent visual line.

**Structural Sheathing:** A layer of boards, wood, or other materials applied to the outer studs, joists, or rafters to strengthen the structure and serve as a stable base for the exterior cladding.

**Substrate:** A layer of material applied to the exterior walls of a building.

**Weather-Resistant Barrier:** A membrane that protects the exterior wall envelope from exterior wind and water penetration.



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