



CastleRock/ICAP Thin-Series (2-3/4") NFPA 285 Installation Guide

Laboratory Testing Information and Listings:

Intertek Laboratories - Warnock Hersey Test Reports W/N 20269
Intertek Laboratories - test reports available at www.spec-direct.com
Installation Guides available at www.ICAP-USA.com
Or by contacting us at les@castlerockx.com

Testing conducted in accordance with the following:

Evaluation Guide: ICC EG 315

ASTM E330(2002): "Standard Test Method for Structural Performance for Exterior Windows, Doors, Skylights and Curtain Walls by Static Air Pressure Difference"

ASTM E84(2009) -08a "Standard Test Method for Surface Burning Characteristics of Building Materials"

CAN/ULC S102 (2007) "Standard Test Method for Surface Burning Characteristics of Building Materials"

ASTM C578 "Standard Test Methods for EPS Foam"

NFPA 285: Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components

ANSI A137.1-2012 American National Standard Specifications for Ceramic Tile - Version 2013.1

ASTM C373 Standard Test Methods for Determination of Water Absorption and Associated Properties by Vacuum Method for Pressed Ceramic Tiles and Glass Tiles and Boil Method for Extruded Ceramic Tiles and Non-tile Fired Ceramic Whiteware Products

Summary

ASTM E84, NFPA 285 Compliance

CAN/ULC S102 (2007)

Flame Spread Rating: Zero

Smoke Generation Rating: Zero

ASTM E330(2002) "Standard Test Method for Structural Performance for Exterior Windows, Doors, Skylights and Curtain Walls by Static Air Pressure Difference"

Ultimate Load: See Fastener Table for various load ratings

This is the "NFPA 285 Compliance Manual" and details the correct installation requirements for NFPA compliance. The ICAP Series NFPA 285 Compliant product has been tested and is listed by Intertek Laboratories "as a wall system" to be installed as tested. Any alterations from the listed compliance of this product may result in the invalidation of the laboratory listing.

Workmanship

This Installation Guide assumes the construction personnel have knowledge of the materials described and their proper methods of installation. The manufacturer recommends certified installers be used to install ICAP products. Installer certification is available through the ICAP-USA "Factory Certified Installer" program. Contact us at 208-895-8557 for details.

Preparation

Prior to commencing activity related to the scope of this Guide, review all adjacent products and other subcontractor work that precedes the installation of ICAP-USA cladding ensure proper workmanship is reflected and that there are no recognizable errors or deficiencies.

Building Code Requirements

Building code requirements vary from area to area. Check with local authorities for building code requirements for your area and application. Carefully read all sections of this guide and follow the manufactures Installation Instructions before proceeding with your ICAP application. In the event the local building codes conflict with other statements made in this document, contact the manufacture for additional guidance.

Material Requirements:

Flashing

All flashing and flashing accessories must be corrosion resistant materials and integrated with the WRB materials or flashings recommended by the air/water resistant barrier manufacturer for use with their products. Flashing must be installed at all through the wall penetrations and at terminations of ICAP panel system, around doors, windows and other protrusions in accordance with local building codes.

Weep Scream

Some jurisdictions require weep screeds or termite barriers. These must be made of corrosion resistant metal a minimum of .019 inches or 26 gage thickness; or plastic weep screed a minimum of 0.050" with a minimum vertical attachment flange of 3 1/2" wide.

Walls and Wall Systems

ICAP-USA ICAP 285 Panels are designed to attach to the following wall substrates with manufacturer approved fasteners. See table on the next page to determine the appropriate fastener for your application.

Recommended Clearances:

- ICAP 285 Panels individually attach to the wall sheathing or studs and do not require a brick ledge support like masonry products.
- Check with your local building official for requirements above grade and concrete/paving in your area. (slope away from the structure in accordance with local building requirements)
- ICAP-USA™ is a cladding product and all components used in its manufacture are waterproof. Consult with your local building official regarding requirements in your area.

Cautions:

- Do not subject ICAP-USA™ Claddings to frequent water contact such as sprinklers or direct spray. Place downspouts or drainage pipes so the water is not frequently contact the cladding.
- Do not subject ICAP-USA™ to contact with de-icing materials, salt, asphalt roofing material or its drainage, or other harsh chemicals. Prolonged exposure may damage the fascia or panel.
- Do not expose the EPS foam portion of the panel to extended periods of sunlight. All surfaces for EPS must be covered with fascia, flashing, other materials to protect it from UV exposure.

ICAP-USA Panels

Installation Guide

	<u>R-Value</u>	<u>Height Range</u>	<u>Length Range</u>
Flat Panels	7-12	5" - 24"	20" - 144"
Outside Corners	7-12	5" - 24"	<i>N/A</i>
Fire Barrier	R-4.3-5.5	3-1/2"	3-1/2"

Note: Panels sizes are dictated by porcelain panel sizes. Check with ICAP for available sizes.

<u>Tools Required</u>	
Screw gun w/ adjustable torque chuck:	
Torque Drives: See Fastener Table	
Staple Gun for wood sheathing: 15/16" crown x 2-1/2" Leg	
Hot Knife Foam cutter & grooving blade	
Hot Knife Table (for removing foam from back of the panels)	
Saws (Diamond Blade):	
Tile Saw wet cut with a diamond porcelain blade	
Circular Saw w/ wet/dry diamond porcelain blade	
4" Right Angle Grinder with porcelain diamond blade	
Scaffolding or manlift with an 8-foot-wide basket for 2 people	
Ladders	
Normal Carpentry and Construction Tools	
Safety Equipment	

The Part numbers are for standard parts, Specific Project Part Numbers will be identified on Attachment "A"

Pre-Engineered Insulated Porcelain Panels (ICAP R10- Thin Series) continuous insulated tongue and groove interlock: Manufactured by CastleRock Building Materials, Inc. DBA: ICAP/InsulStone.

A. Flat Panels:

- | | | | | | |
|----|-----------------------|------------|---------------------------------|--------------|----------|
| 1. | Fascia Manufacturer: | a. Dekton | b. Daltile | c. Landmark | d. Other |
| 2. | R-Value: | a. R-12 | b. R-10 | c. 8 | |
| 3. | Facia: | a. Dekton | b. Porcelain | c. Porcelain | |
| 4. | Min. Facia thickness: | a. 6mm | b. 8mm | c. 3/8" | |
| 5. | Colors: | a. Custom: | _____ | | |
| 6. | Panel Sizes: | a. Custom: | _____ Note: Max. size: 24"x126" | | |

2-3/4" Thick NFPA 285 ICAP SYSTEM

Part #

Description

ICAP Panel Type: Thin Panel 2-3/4" overall thickness

ICAP—NFPA NFPA 2-3/4" Panel up to 24" by 126"

Corners

- | | |
|----------|---------------------------|
| BF-101LH | Butt Corner LH |
| BF-102RH | But Corner RH |
| MC-101 | Mitered Corners L & R Set |

Windows, Doors, Openings

- | | |
|---------|--|
| BFR-102 | Fire Barrier Trim (3.5" x 2.5" x 48") |
|---------|--|

Panel Assembly

- | | |
|----------|--|
| SSS-048 | Base Starter Metal (48") |
| SCW-103 | TEK Screw for Base Starter SSS-048 |
| SWT-1034 | Screw/Washer Assembly— Screw Panels to studs |
| AWF-120 | Retainer/rainscreen Clips 96" above window/Openings |
| CBJ-OCT | Retainer Clips Outside Corner of Buildings (Vert. Inst.) |

Vertical Panel Installation

- | | |
|-----------|--|
| FIR-78316 | Metal Hat Channel Horizontal for Vertical Panels |
|-----------|--|

ICAP-USA

Installation Guide for NFPA 285 Compliance (R-7 to R-12)

(Facia Styles: Porcelain, Dekton, Porcelain Stone, Porcelain Brick)

A). Interface with Other Work

Coordinate with installation of substrate required for installation. If Electrical, Plumbing and other Mechanical penetrations are installed after the exterior siding panels are installed, provisions for watertight sealing of all penetrations must be addressed.

B). General: Construct the wall in accordance with local building codes. In the absence of local building codes, install in accordance with the requirements of the IRC/IBC and the manufacturers' installation instructions. Use a qualified installer. Wall preparation and requirements:

A. These instructions are for building structures in excess of 40 feet in elevation. NFPA 285 over 40': A metal framed wall with a minimum of 22-gauge nominal 2" x 6" corrosion resistant steel studs located a maximum of 24" on center and framed in compliance with local building codes.

B. Substrate Sheathing: Non-load bearing walls for NFPA 285 compliance: The metal frame wall is required to be sheathed with 5/8" fire rated Type X Gypsum manufactured by Dens Glass or GlasRoc or equivalent as approved by local building officials. Vertical Panel Installation requires metal furring strips installed horizontally 16" on center.

C. Air/Weather Resistant Barrier: Required. **Special Instructions for NFPA 285:** A Liquid applied, Self-sealing, Air/Weather Resistant Barrier manufactured by the following manufacturers and listed for use with the ICAP NFPA 285 compliant system. The following manufacturers are recognized by ICAP and Intertek Laboratories for use with the ICAP system:

- Tremco brand identified as EXOAIR 230 Air/weather barrier, flashing and components. <http://www.tremcosealants.com/products/exoair-230.aspx>
- STO brand identified as gold air/weather barrier. <http://www.stocorp.com/air-moisture-barriers/>
- Master Wall brand identified as Roller Shield RS air/weather barrier. <http://masterwall.com/rollershields/>

These manufacturers and products are recognized and required as part of the ICAP NFPA 285 compliant system. Check with your local building official for weather resistant barrier requirements and codes in your area. For details regarding the installation of each specific air/weather barrier system, see their instructions available on the websites listed above.

C.). Flashings:

Install flashings in accordance with the air/weather barrier, window and roofing manufacturer's installation instructions, or in the absence of these instructions, install per section 703.8 of the 2009 International Residential Code (IRC) at the following locations:

- a). Top of all doors and windows. A metal flashing is required at the top of each window, door, and protrusion to prevent water from entering the wall cavity.
- b). Flashing may be required at projecting lips or conversion to masonry or other sheathing, or an area that may allow water to enter.

Check with your local building official for requirements in your area.

D). Installation of ICAP Interlocking Insulated Substrate Panels:

- a. Inspect the wall to assure correct fit of substrates and framing. Studs: 24" or less on center with the Approved type X Gypsum sheathing as shown in this manual with the recognized air/weather resistant barrier listed above and as prescribed by the manufacturer and local building codes.
- b. Prior to installation of the starter section, determine its desired location in regard to elevation and relationship with the foundation, grade and sidewalks, driveways, etc. Panels may be trimmed to fit at openings. See instructions in this manual for details of termination points.
- c. Install the Starter Section (Part# SSS-048) - Install the starter section at the bottom of area where the panels are to be installed in conformance with local building codes and overlap the starter metal a minimum of 1" over the foundation. If codes are not present, the manufacturer recommends a minimum of 6" above grade and 2" above pavement surfaces. Attach the starter section with corrosion resistant screws or nails to the sheathing or plate every 6 inches on center.

EXECUTION

EXAMINATION

Do not begin installation until the substrates have been properly prepared.

If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

Water resistive barrier shall conform to ICC-ES AC38 acceptance criteria.

The NFPA 285 Air/weather barrier system is required to be Tremco ExoAir 230 system, or Guard Gold Coat.

PREPARATION

Clean surfaces thoroughly prior to installation.

Protection: Prevent work from occurring on the opposite walls to which cladding is being applied.

INSTALLATION

Installation as shown on drawings and as specified in accordance with manufacturer's installation instructions.

Horizontal panel installation is designed to be installed from **left to right**. Install from left to right whenever possible.

Vertical Installation is designed to be installed from **right to left**. Install from right to left whenever possible.

Weather-Resistant Barrier:

Installation of weather barrier and wall panels shall comply with local building code requirements or Authority Having Jurisdiction. Install weather barrier per manufacturer's installation instructions.

The required Air/Weather barriers for NFPA 285 compliance are Tremco Exoair 230 system, or STO Guard Gold Coat. Use appropriate flashings as recommended as per the manufacturer's installation instructions.

Flashing: Install flashing as shown.

Flashing and flashing accessories shall be corrosion resistant materials and integrated with the weather barrier materials. Flashing shall be installed at all through-wall penetrations and at terminations of the panel system, around doors, windows and other protrusions in accordance with local building codes. Install flashing around penetrations and terminations of the veneer application. Install flashing to divert water run-off away from the finished surface area.

D. PATTERNS AND LAYOUT

1. Determine the area to be covered with ICAP Porcelain Panels and lay out the pattern per panel size, corners, window/door trims, window/door perimeter panels and transition components if required. Refer to plans for locations of various panel sizes and types.

E. WINDOW/DOORS/PROTRUSION TRIM

Note: Window trim components are required for NFPA 285 compliance. See Detail #5.

E. WINDOWS, DOORS, OPENINGS

1. Install metal flashings around windows, doors and openings as required by local building codes.
2. Install the ICAP OFB Fire Barriers around the flashings as shown on pages 12-18 of this manual.

F. INSTALLING CLADDING PANELS

1. **STARTER SECTIONS:** Determine the location of the bottom panels and install the J-hook shaped "starter section" Part # SSS-048 at bottom of the wall and lap it a minimum of 1" (25.4 mm) over the foundation. Attach every 6" (152.4mm) to the plate or studs with appropriate fasteners. Note: ICAP panels will hang $\frac{3}{4}$ " below the bottom of the j-hook starter. Check local building codes for code requirements above grade and sidewalks, etc. In the absence of local codes, locate the panels 2 inches (50.8 mm) above sidewalks, pavement etc. and 4 inches (101.6 mm) Above grade.
2. Begin by installing from the corner of the building aligning the first panel to fit to the **panels** from the adjacent walls with the tongue upward.
3. Upon reaching the bottom of an opening, cut the panels to fit to the fire board opening trim (Part# TRM-S08).

G. PANELS ABOVE THE WINDOW

In the area above the window, the width of the window and 96" above the window, the installation of clips and sealant are required for NFPA 285 compliance (T-Clips shown on page).

1. Secure the panels above the window to the wall to the left and right of the window **with screw assembly SCW-4**
2. Above the window and up 96" Install metal clips CL-103 (top clip) and CL-104(bottom clip) every 24" (609.6mm) on center. This will stagger the up/down or left and right direction of the clips every 12".

J. CORNERS

Outside Corners

Butt Corner: Cut and fit the panels for the porcelain to fit as desired by removing the necessary EPS foam. Foam can be cut at a 45-degree angle to fit the corner.

Inside Corners: Cut the panels at an inside corner to fit the panels from the adjacent wall. Grout may be used to hide any irregularities.

K. SOFFITS

1. Soffit Install panels until the
last row will not fit under the soffit. Measure the distance between the top of the panel and the soffit. Cut the panel $\frac{3}{4}$ " (19.05) shorter than the desired space. Install the panel by inserting it
into the space between the uppermost panel and the soffit. The panel will slide down over the tongue of the panel below, leaving a space between the top of the cut panel and the soffit.
2. Screw the panel to wall through the tongue section on the side of the panels. Install

2. Screw the panels to the wall through the foam tongue section of the panel and into the metal wall studs. Interlock the next panel onto the tongue of the previous panel and repeat the process of installing panels on the wall.

L. PARAPETS

1. Install panels up to the height of the parapet. The top row of cladding will need to be

M. GROUT JOINTS

Note: Have a qualified caulking/sealant person install the specified caulking or grout.

Note: Grouting joints to comply with requirement to seal joints and seams above the window with Dow 790 sealant for NFPA 285. Have a qualified caulking installer install the silicone grout.

1. Make sure the surfaces are clean and dry
2. Carefully apply the Dow 790 into the joints of the Type X gypsum in the panels during assembly.
3. Immediately remove excess caulk from porcelain.

CLEANING

Cleaning Veneer Units:

Wash with soft bristle brush and water/dish detergent solution or mild house cleaner.
Rinse immediately with clean water.

PROTECTION

Protect installed products until completion of project.

Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

CastleRock/ICAP Fastener Guide

NFPA 285 Methods for attachment

Metal studs: Horizontal panel installation to Studs over

1) Horizontal Panel Installation

A. 22 gauge minimum metal Studs 24" min. on Center with 5/8" Type X Gypsum Sheathing or concrete/CMU masonry walls

B. Attach with a stainless steel or corrosion resistant screw Part# SWA-104 to metal studs 16" on center. Insure screw attachment is not compromised.

Vertical panel installation

A. Install Part# FS-78RS Hat channel Furring horizontally to metal studs per manufacturers instructions horizontally 16" on center.

B. Attach with a stainless steel or corrosion resistant screw as specified metal studs or furring strip with Part #SWA-103/4 Insure screw attachment is not compromised.

<u>Framing</u>	<u>Fasteners</u>	<u>Fastener Location</u>	<u>Uniform Load</u>
To Metal Studs 22 Gauge min.	#10x2-1/2" TEK Self-drilling TEK Screw	Attach to Vertical studs 16" On Center with screw/washer assembly SWA-104 Note: Vertical Panel Installation requires Metal Furring channel Part # FIR-78316 OC	88.0
CMU (Concrete Masonry Units)	#10 x 2-1/4" Tapon® Concrete Screws	Attach to studs 16" OC With screw/washer assembly SWA-104	88.0
NFPA 285 Approved wood structures	#10 x 2-1/2" Corrosion resistant screw	Attach to sheathing 3" OC with 1"x2-1/2" staples	126

Fasteners



SCW-34

SCW-34 Series

ICAP /Standard Screw/washer assembly for attachment of ICAP panels to metal studs.

SCW-3 Screw

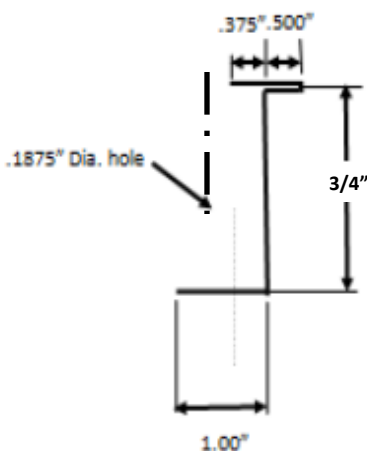
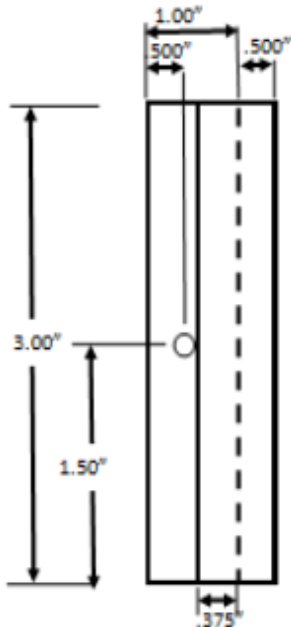
SCW-3 screw is used to attach T-CLP Series Clips to metal studs above windows/doors/openings

R-12: 3" Thick panels requires Clip#: CLP-T12

R10: 2-3/4" Thin panels requires Clip#: CLP-T10T

Note: Cut a thin groove between the Type X Gypsum and the Dekton/porcelain fascia to insert the T-Clip into for the interlock. Locate clips every 24" O.C. in the seams the width of the window and up to 96" above.

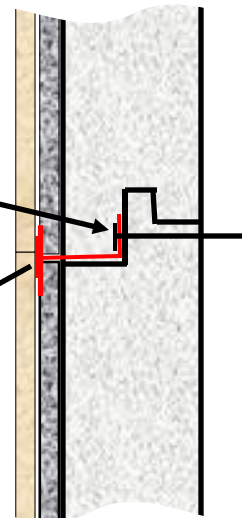
The Recommended tool for cutting the groove between the Porcelain and the gypsum board is an oscillating tool. The groove needs to be the width of the oscillating tool blade and 1" deep.



SSS-048

SS Fastener

T-Clip



T-Clip Retainer



Starter Metal (SSS-048):

Formed Aluminum Starter is to be located at the base of the building, level and straight to align the first row of ICAP panels on the wall. The sec-

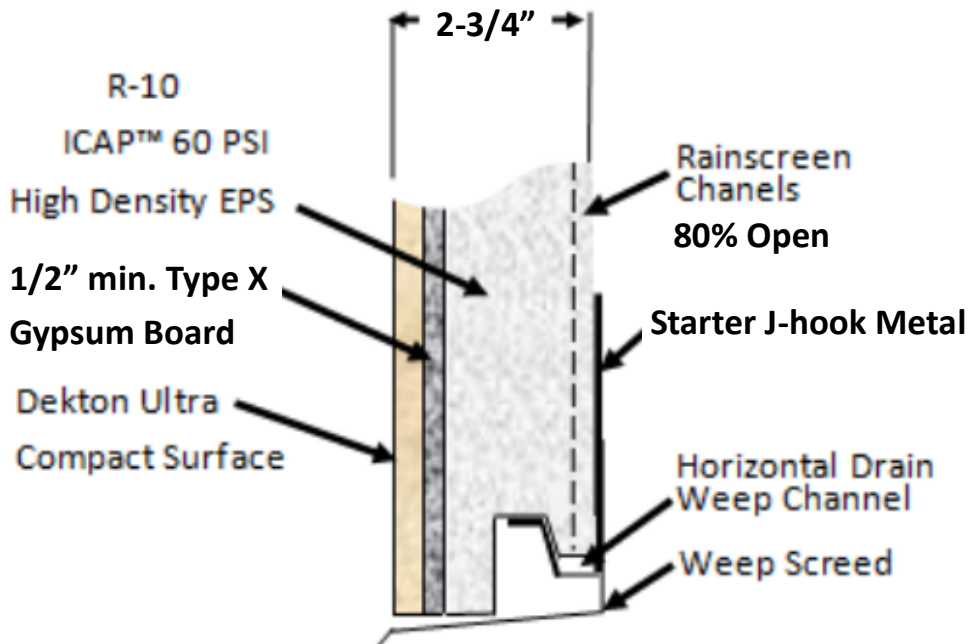
ICAP™ NFPA 285 Compliant

Part # SSS-048

Starter with rainscreen drainage
and

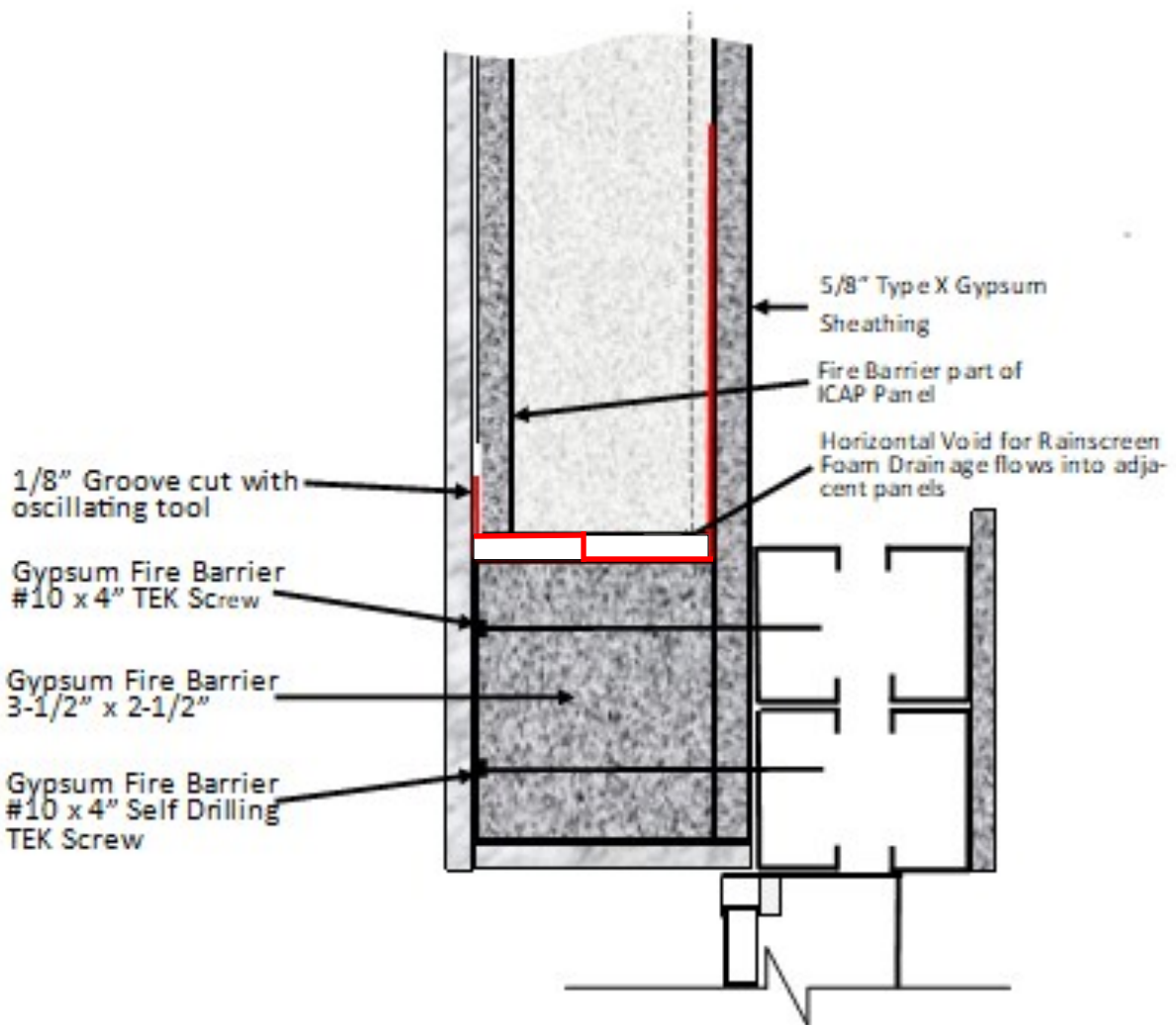
Part# SSS-102 Weep Screed

For use at base of wall and above openings (windows, etc.)



NFPA 285 With Horizontal Rainscreen above the window

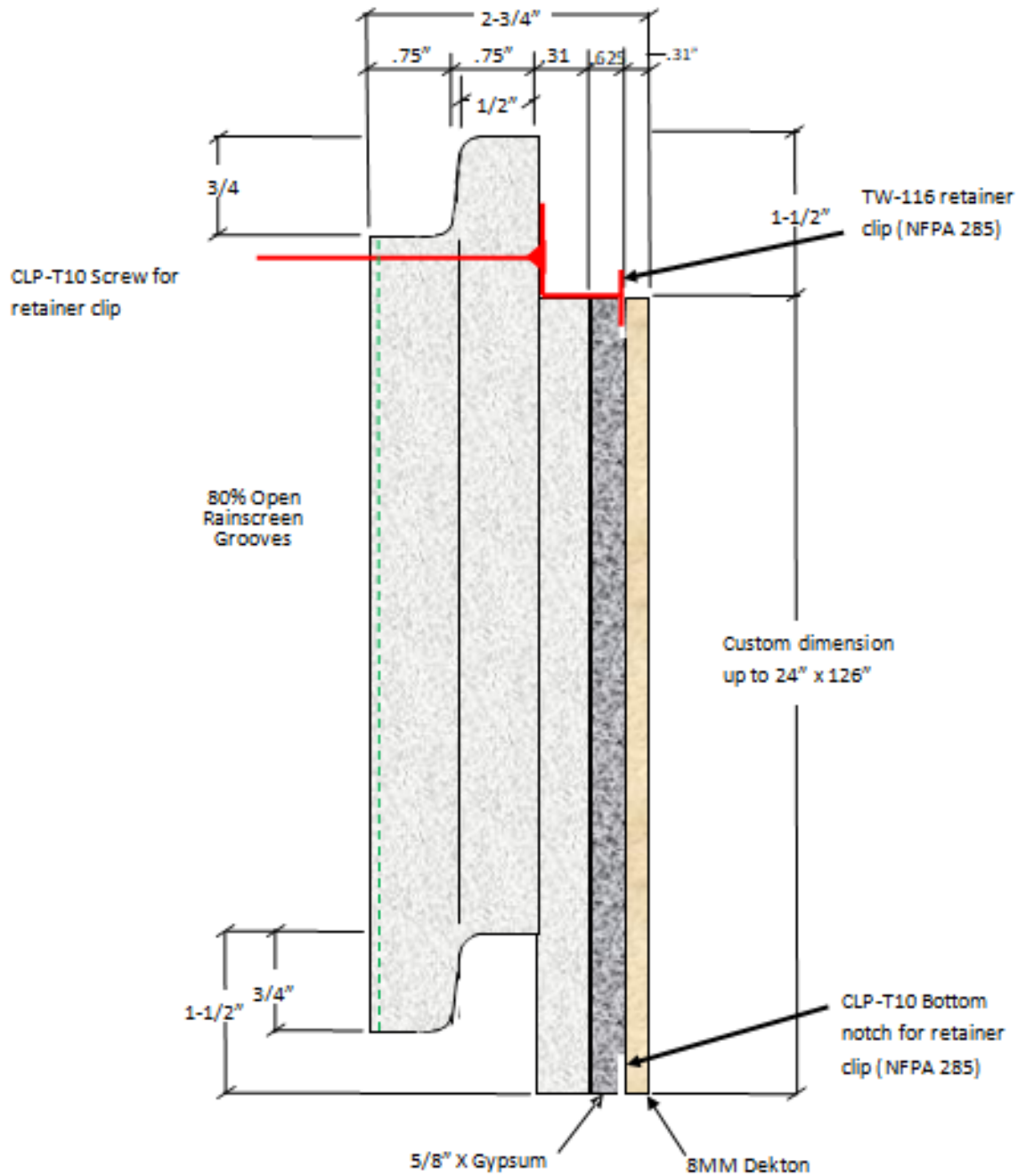
AWF-096 Flashing with horizontal drainage channel to conduct drainage to each side of the window/door/opening, etc. and clip in-between the Porcelain/Dekton and the gypsum board.



Above window/Door/ Opening Assembly

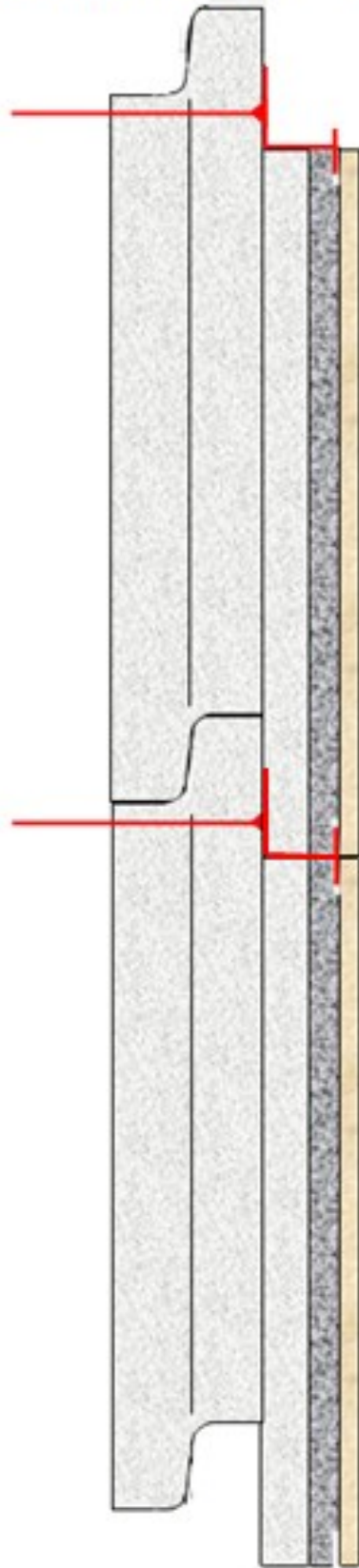
ICAP 2-3/4" thick (R-10) NFPA 285 Panel

Retainer T-Clips for above the window, door & openings

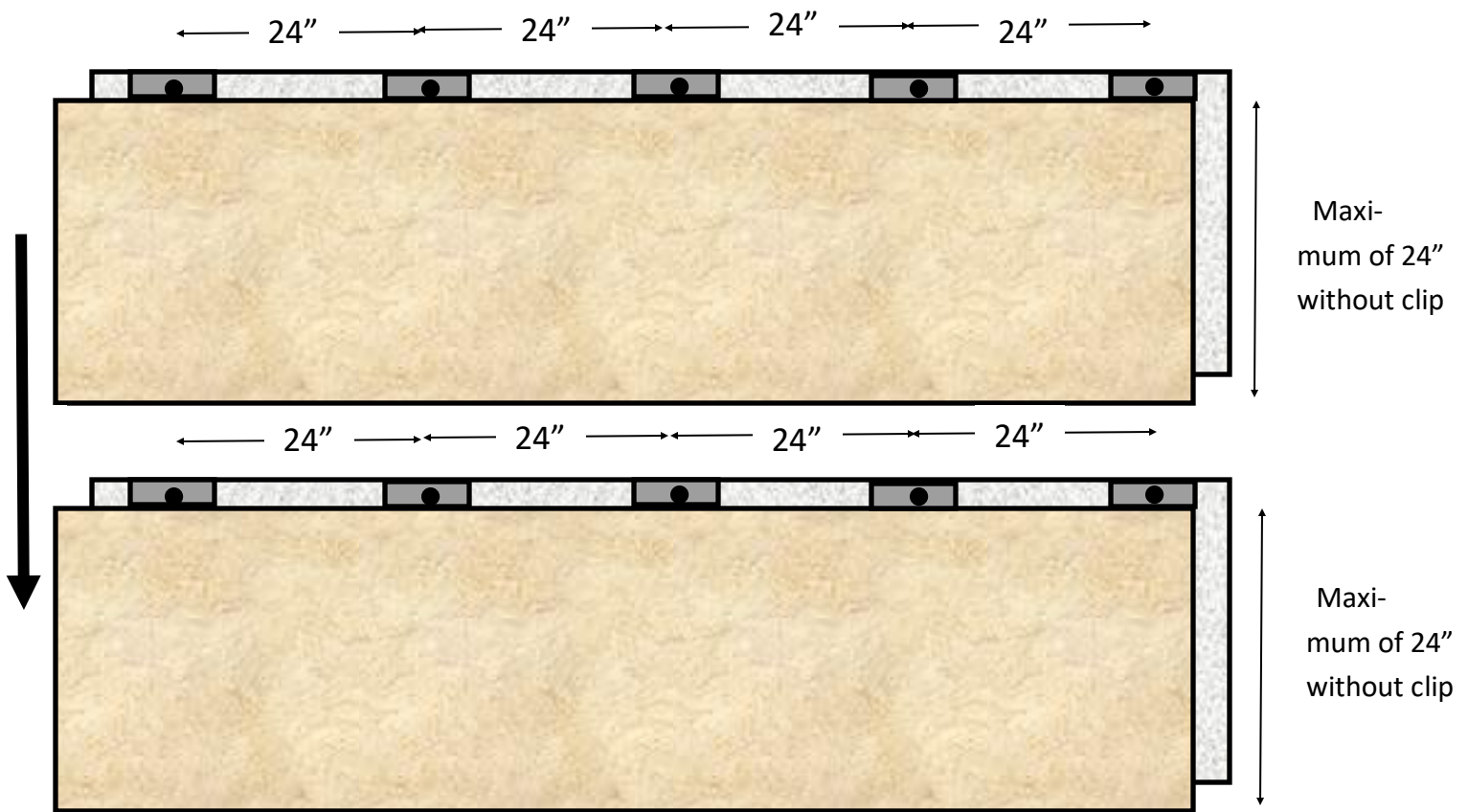


R-10 Nominal (11.04 actual)			
<u>ICAP Panel Material</u>	<u>Total Panel Inches</u>	<u>Millimeters</u>	<u>Panel R-Value</u>
EPS Foam (60 PSI Type XV)	1.81"		8.874
Type X Gypsum	.500	12.7	1.125
Bonding Adhesive	.025	0.635	.34
DEKTON/Porcelain	.31	0.	10.339

ICAP NFPA 285 Assembly Drawing the width of the window,
Door or Opening and up to 96" above the opening



Screw attachment can replace the screw/washer assembly if mounted to the stud on 24" centers



Panels can be stacked (as shown) or staggered as desired

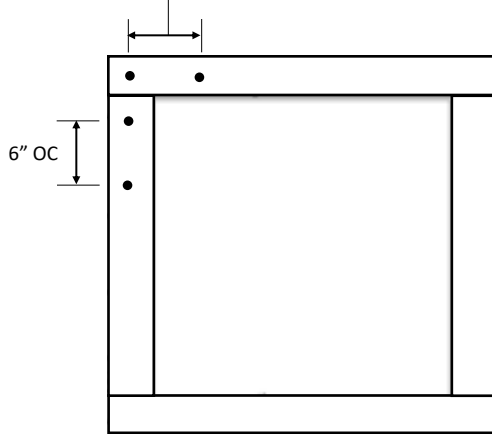
Note: panels outside of the area directly above and 24" to each side of the opening (window, door or other openings)

Do not require the T-clip system.

Vertical Installation

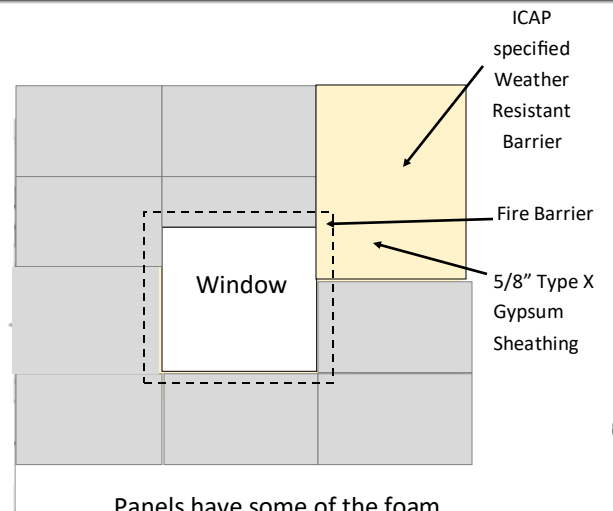
Vertical installation require the metal T-lips in the same zone above windows, doors & opening and 24" to each side.

Attach Fire Barrier sections 6" on center around the perimeter of the opening



9

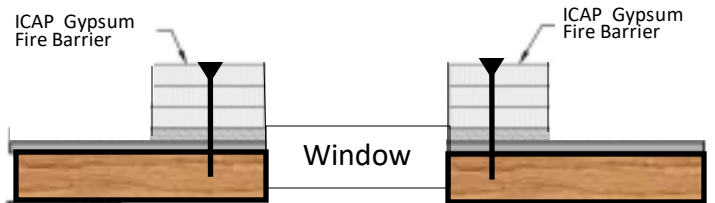
R-12.25 / U-0816 SERIES WINDOW TRIM ELEVATION



Panels have some of the foam removed to allow the Dekton/porcelain facia to overlap the Fire barrier.

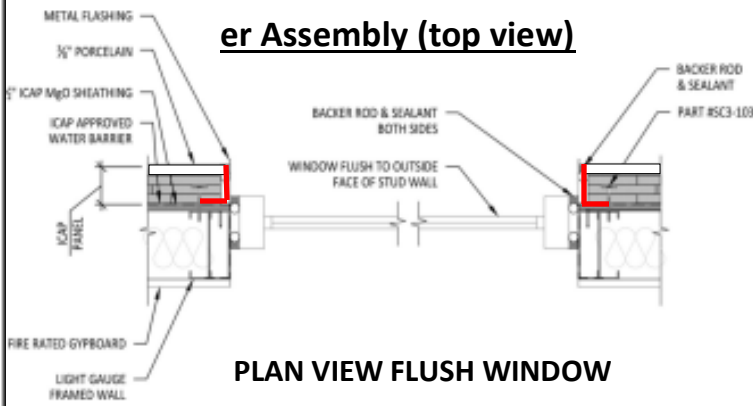
Intentionally Blank

Fire Barrier Assembly from the top view



12

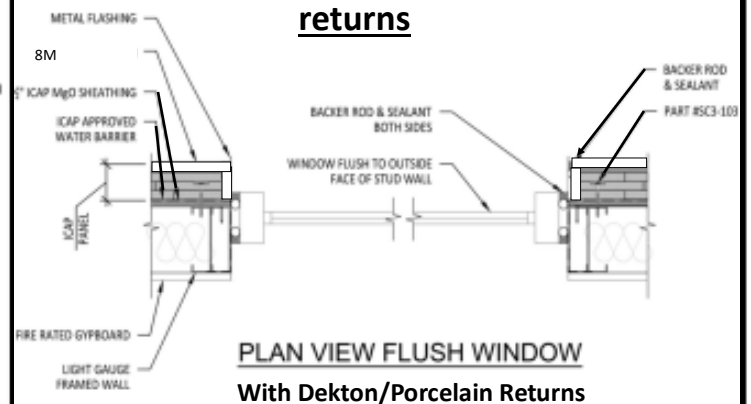
L-shaped Side Flashing around Fire Barrier Assembly (top view)



PLAN VIEW FLUSH WINDOW WITH METAL TRIM

13

Top View of porcelain window side returns

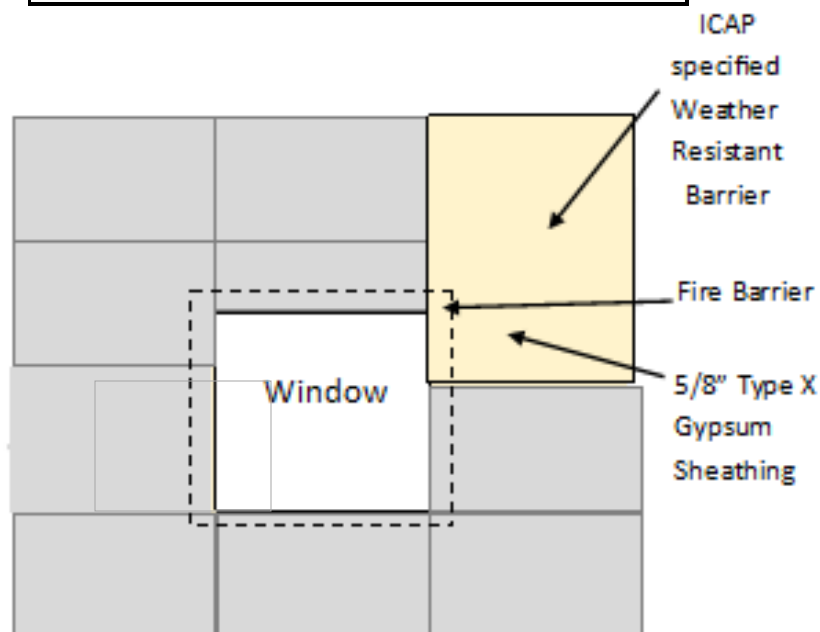
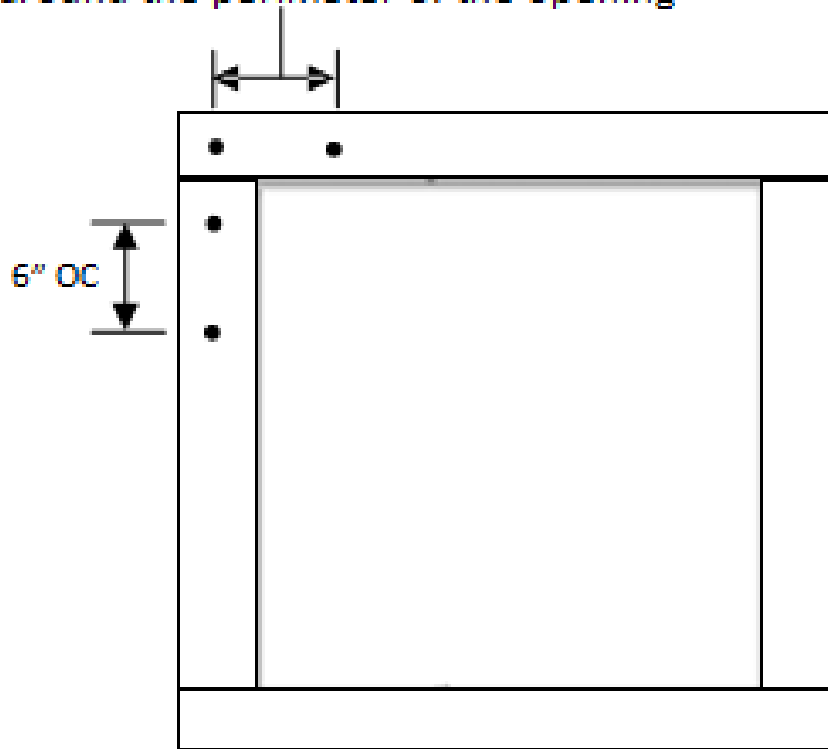


PLAN VIEW FLUSH WINDOW With Dekton/Porcelain Returns

14

Fire Barrier installation around window Example:

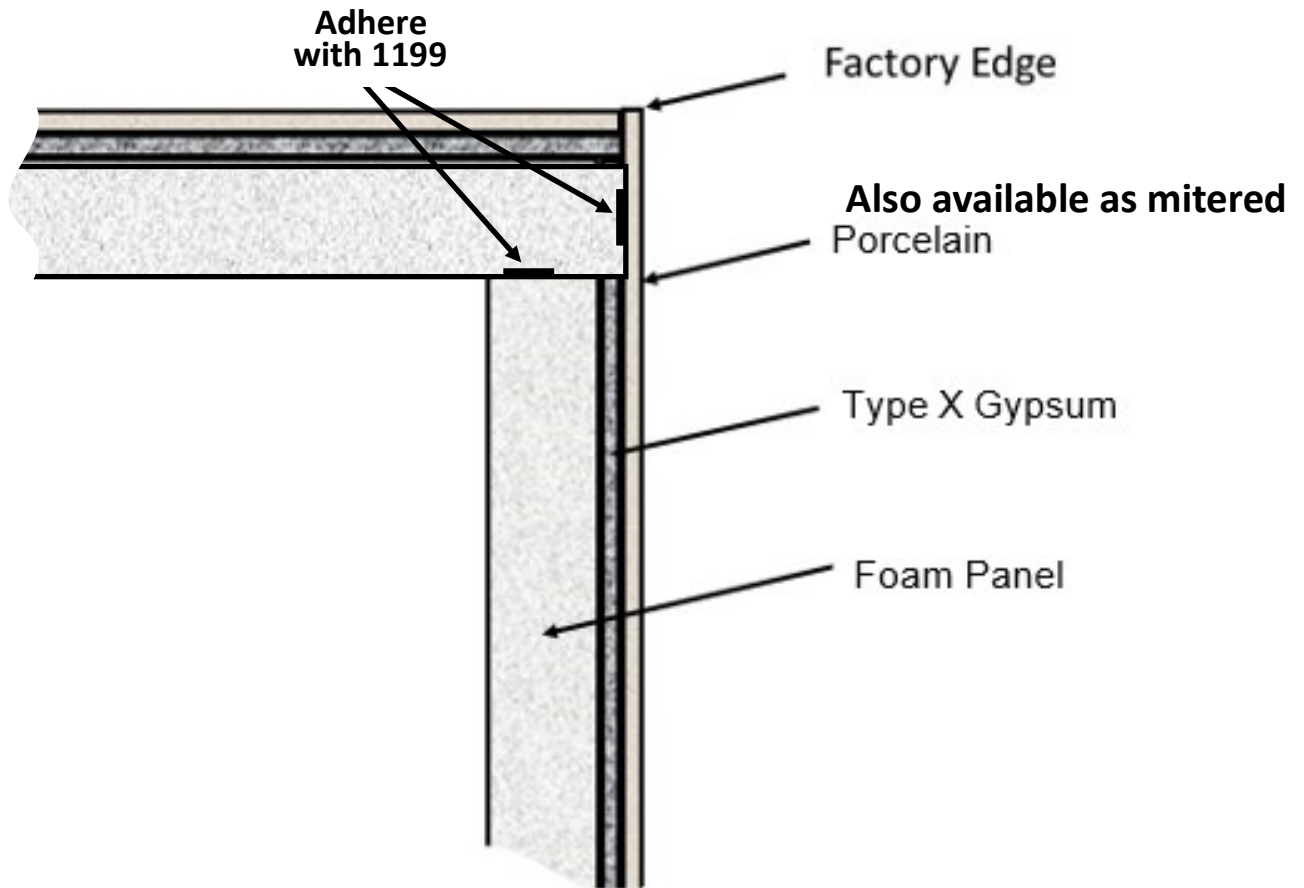
Attach Fire Barrier sections 6" on center around the perimeter of the opening



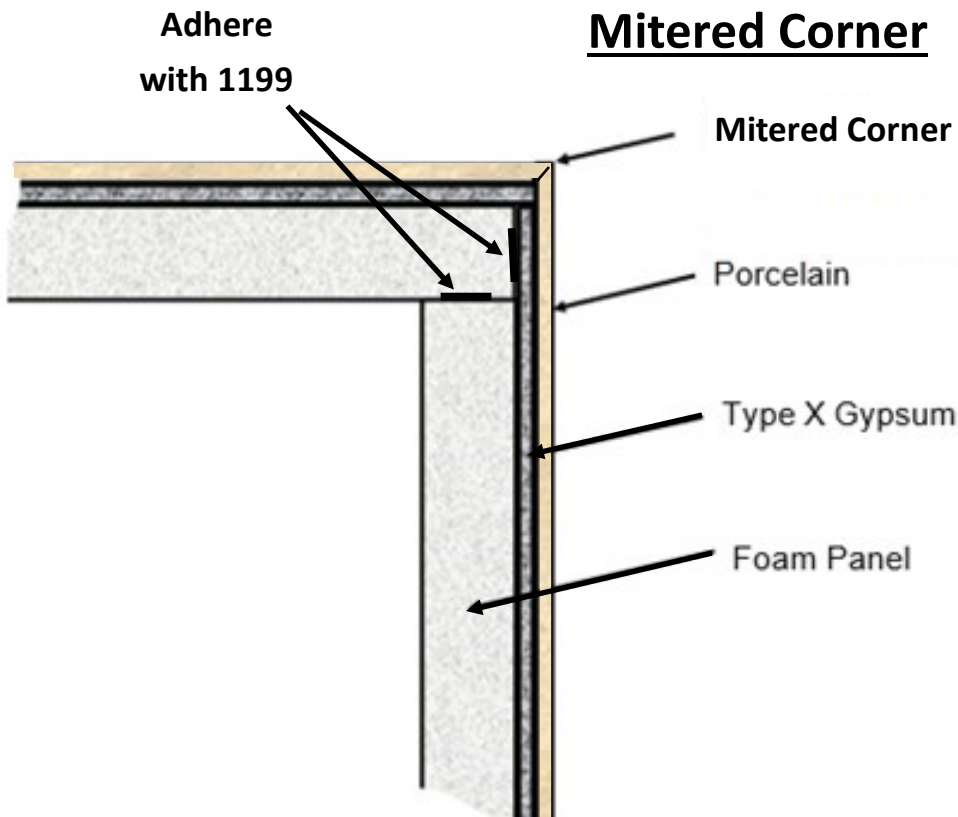
Panels have some of the foam removed to allow the Dekton/ porcelain facia to overlap the Fire barrier.

Outside Butt Fit Corner Assembly

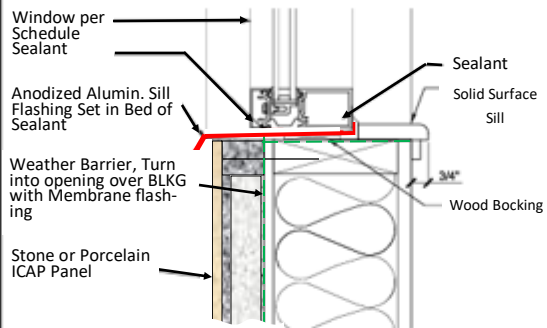
Maximum panel height is 24" (install adhesive full height of the joint)



Mitered Corner



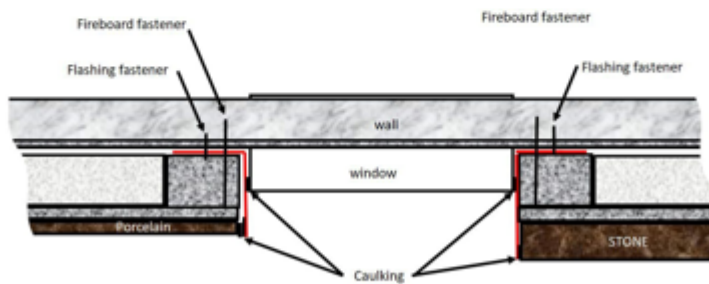
Windowsill Flashing



9

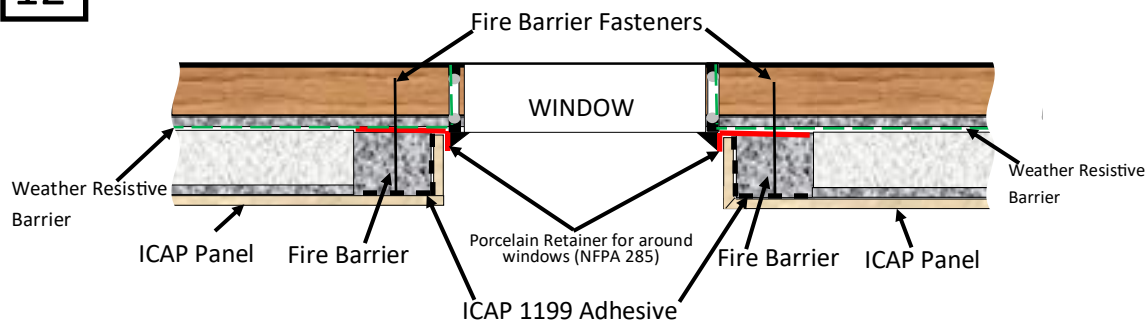
10

L-Shaped Metal Flashings Up to 24" high panels



11

12

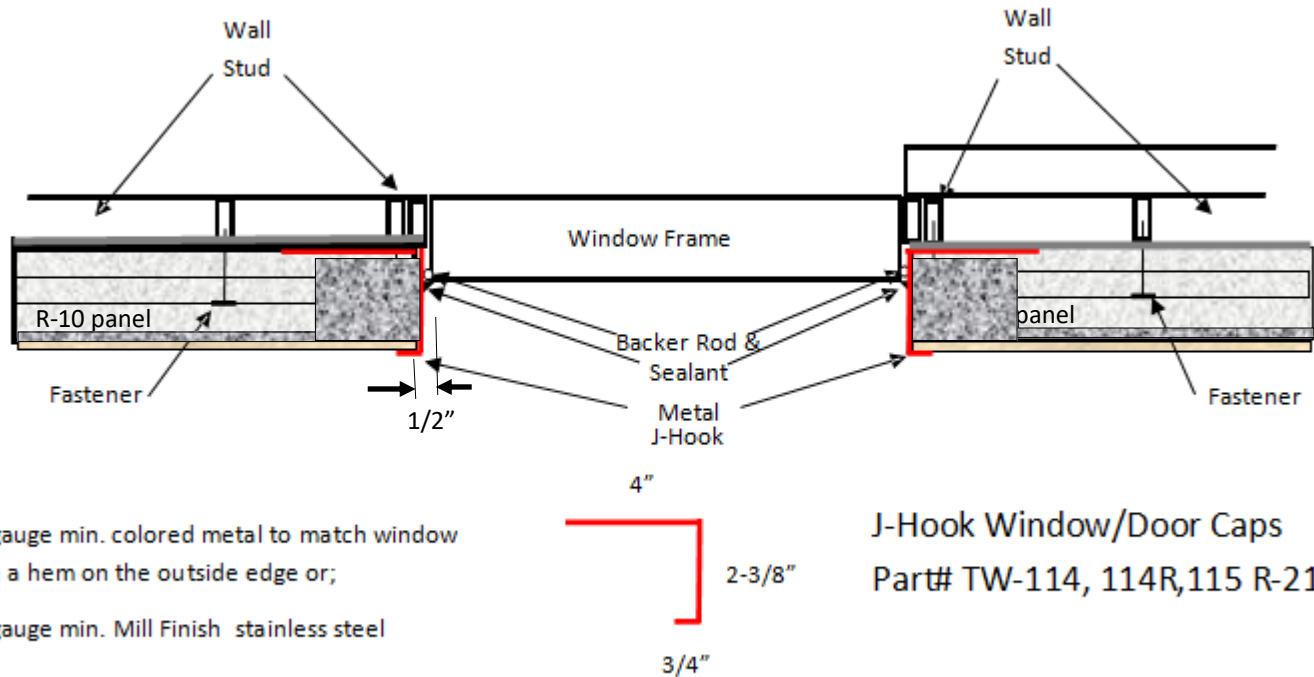


Window/Door Caulking examples only. Follow the architects caulking instructions.

Window Trim Options

13

Metal J-hook Trim Around Windows/Doors



28 gauge min. colored metal to match window
with a hem on the outside edge or;

22 gauge min. Mill Finish stainless steel

J-Hook Window/Door Caps

Part# TW-114, 114R, 115 R-21

Note: Leave 1/2" between the window frame and the flashing for Sealant.

Instructions for CastleRock/ICAP Panels over 24" high installed vertically on buildings

Methods of Vertical Installation

Vertical Installation entails several challenges over horizontal installation.

Vertical installation does not allow the panels to be attached to the studs like horizontal installation because the studs are vertical and run parallel to the fastening flange on the CastleRock/ICAP panels. To overcome this issue horizontal members must be installed over the studs for the screw/washer fasteners penetrate the foam tongue and attach every 16" to 24" .

1) The following show 2 ways to overcome this issue and provide a horizontal metal surface to attach with the screw washer assembly to.:

A). A certified hat channel (furring strip) can be installed to the metal stud and a layer of 5/8" Type X gypsum (i.e. Densglass or GlasRoc) over the hat sections. (See Illustrations on the following pages)

B). A layer of 22 gauge to 16 gauge corrosion resistant flat stock a minimum of 4" wide installed horizontally every 16" to 24" and attached to the vertical studs with a minimum of 3-three #10 self-drilling TEK style screws at each stud. (See illustrations on the following pages).

2) Corners and window openings are the next issues:

A). CastleRock offers a "hidden outside corner bracket attachment system to align and secure the panels to wall at the corners. One of these brackets (T-199) is required to be installed every 24" vertically on outside corners. (See Illustrations on the following pages.

3). Windows, doors and other openings can be addressed with the following methods:

A). Metal flashings manufactured from corrosion resistant aluminum, metal or stainless steel are the easiest and most economical. See Illustrations of standard shapes.

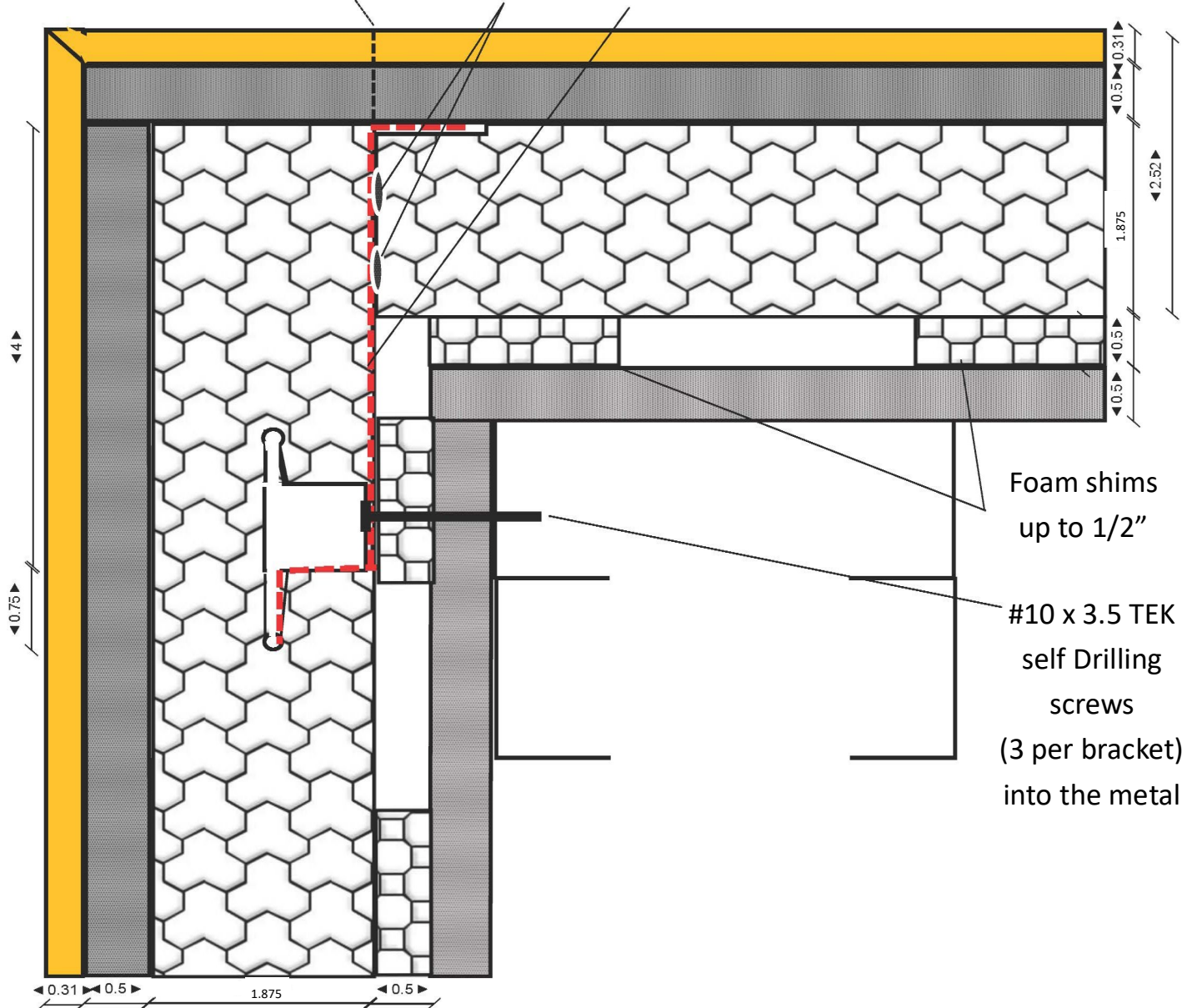
B). Porcelain window/door returns are also popular and can be installed over special metal flashings. Porcelain returns can usually be special ordered the correct width also. The flashings for the porcelain returns are also available on the following pages.

CastleRock/ICAP Outside Corner Brackets for panels over 24" high

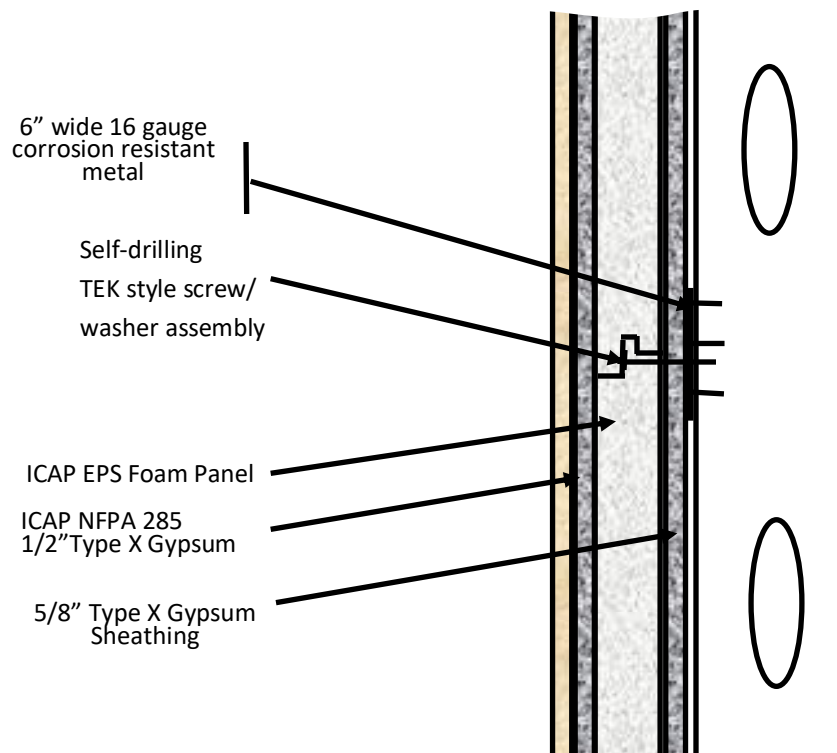
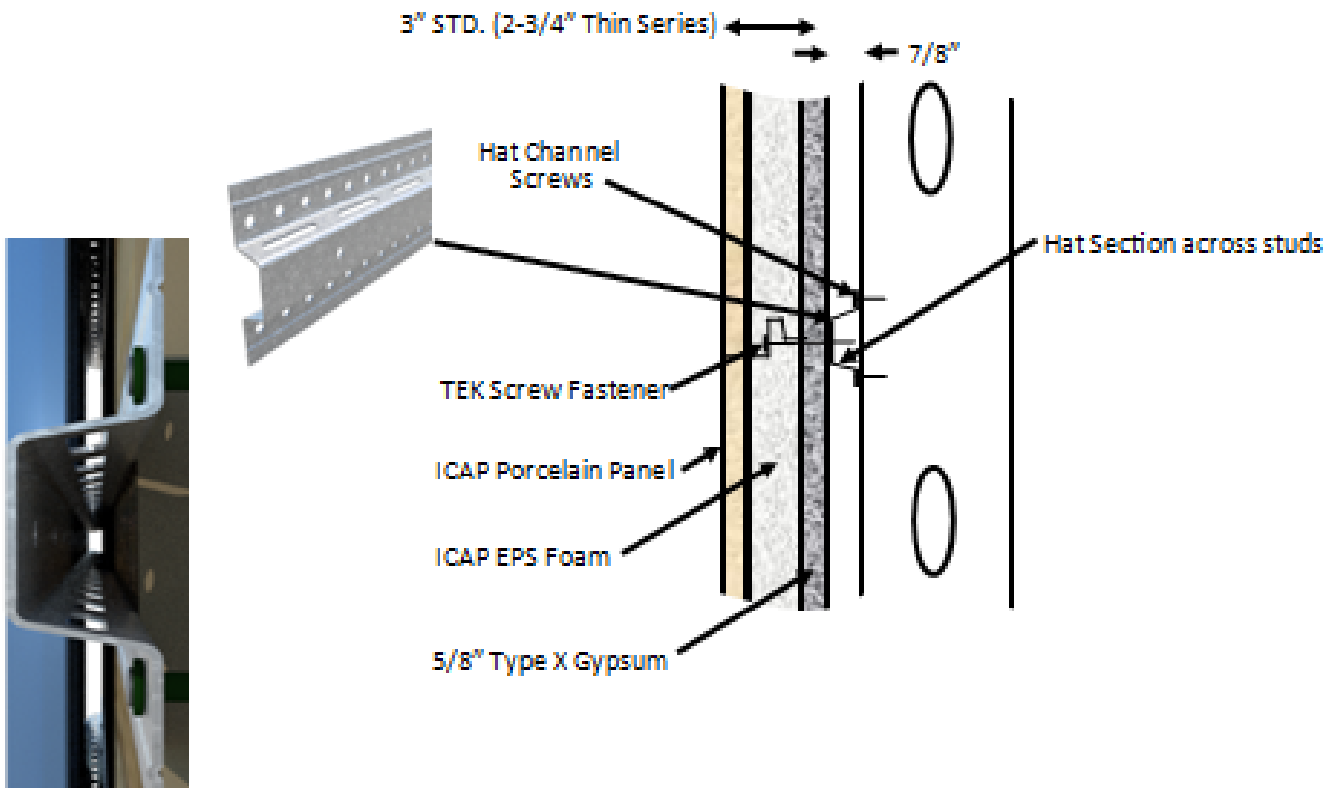
Prefabrication Mitered
Corners (required on
miter joints over 24" in
length

Dow 1199 Ad-
hesive 1/4" in
diameter (full
height of
corner panels

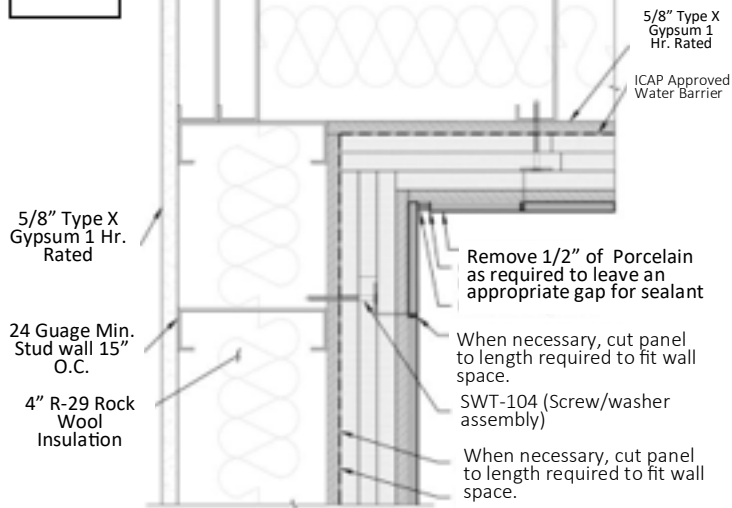
6" high Hidden Corner Brackets
located every 21" on center
and fastened to the metal studs
with 3 self drilling TEK screws in
each bracket.



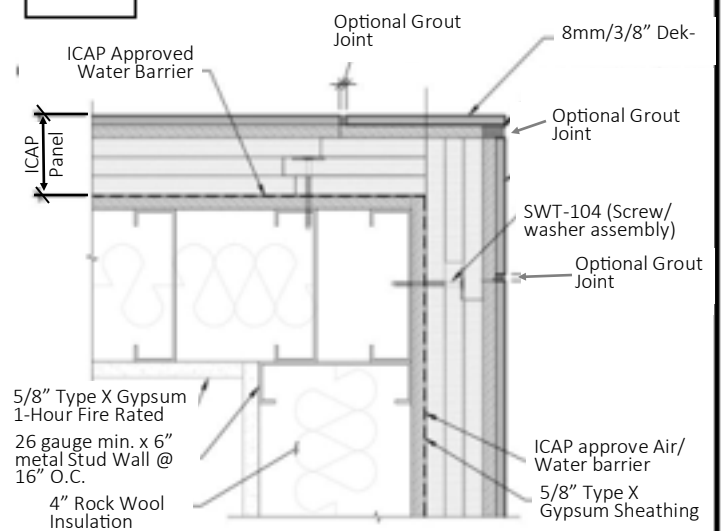
Hat Section across Studs for vertical CAP attachment



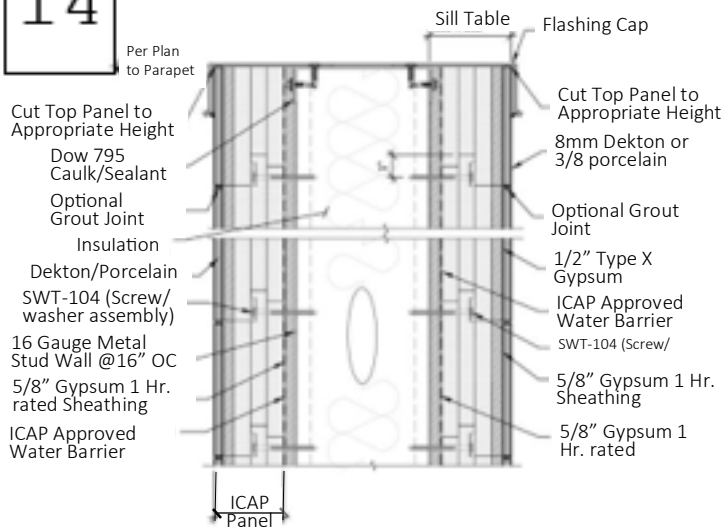
12



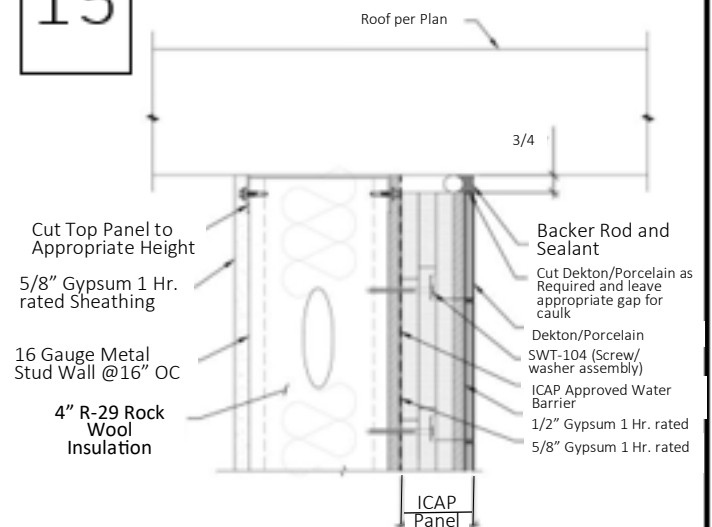
13



14



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ICAP-USA

Porcelain & Stone Maintenance Instructions

ICAP Porcelain Cladding can be installed in numerous design possibilities and a variety of looks. The Porcelain is easily cleaned due to the nature of the porcelain and its impervious surface. The grout joints are more vulnerable and should be treated carefully based on the type of grout :

Routine Porcelain or Stone Tile Care

Regular, basic cleaning with warm water and mild soap is sufficient to keep porcelain cladding looking good. You can also use gentle, everyday multipurpose spray cleaner to remove hard water deposits and mildew. Do not use cleaning products that contain acids or ammonia (and other harsh chemicals) as these can damage grout and glazed surfaces of the tile. Cladding can be spray washed at normal residential water pressure levels or with low pressure washers. Do not hold nozzle closer than 24 inches from the tile or grout to avoid damage of force water between joints.

Grout Care

100% Silicone Grout: This grouting method may be cleaned in the same manner as routine porcelain care described above. Be careful not to force water in the grout seams or damage the silicone.

Cementitious Grouts: This type of grout should not be cleaned until it is completely dried and cured, then the grout should be treated with a silicone sealer. Grout, the material used to fill the spaces between tiles, is porous, and sealing it at this time will simplify maintenance in the future (Epoxy grouts and 100% silicones grouts do not require a sealer). We recommend you apply a sealer at least twice a year for maximum stain protection over cementitious grouts.

Heavy Duty Cleaning

Neglected or situations where extreme dirt, smog, mold, mildew or dust is common may require more intensive cleaning. Clean glazed wall tiles with a scouring powder or all-purpose cleaner applied to a non-metallic pad. Rinse and wipe dry. In extreme ~~cas-~~es use a commercial tile cleaner, or apply a strong solution of an all-purpose, non-oil-based cleaner or scouring powder paste. Let stand for five minutes, brush and scrub. Then rinse with clean water and wipe dry.

Purchasing Maintenance Products

Ceramic tile and Natural Stone cleaning products and sealants may be purchased at your local home center or floor covering store. Consult the manufacturer of the cleaner or sealant for usage instructions and more detailed information about how its ~~spe-~~

DO NOT...

Use cleansers containing acid or bleach for routine maintenance.

Use wax cleaners, oil-based detergents or sealants to maintain your tile (sealants may be used on grout joints).

Use ammonia (it will discolor grout).

Use harsh cleaning aids like steel wool pads or scouring pads containing metal.

Use a cleaning agent that contains color