

FULLERTON FINISH SYSTEMS, INC



FFS CASTWAL DESIGN GUIDE



Corporate Office:
Fullerton Companies
13605 1st Ave North
Plymouth, MN 55441

Manufacturing Plant:
Fullerton Finish Systems, Inc.
8645 W. 21st Street
Sand Springs, OK 74062

Tel: 866-915-9995

www.fullertonfs.com

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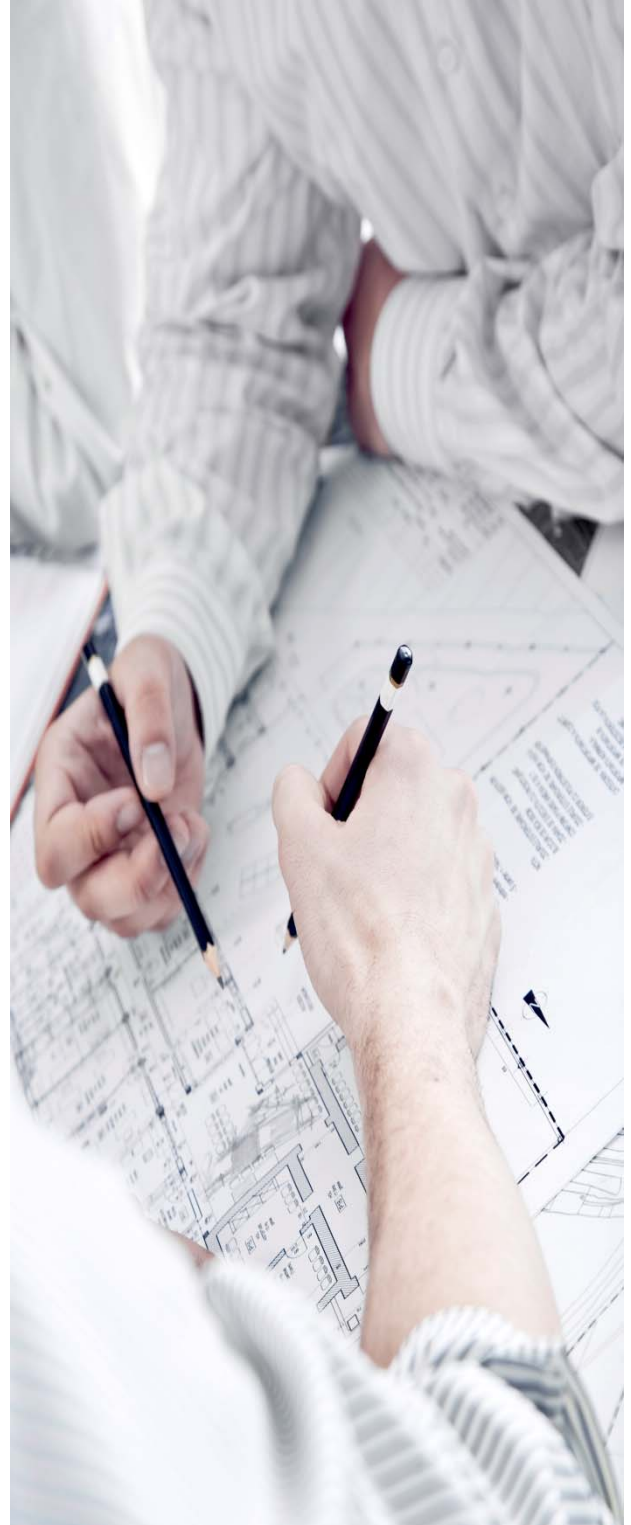
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SECTION ONE - Company History

History

Fullerton Lumber Company was established in 1882 in Mitchell, South Dakota as a retail lumber and building materials company. Today, Fullerton has a corporate office in Plymouth, MN that operates three (3) corporate divisions with six (6) total facilities in three states.

Fullerton Companies Corporate Office
13605 1st Avenue North, Suite 200
Plymouth, MN 55441



1. **Fullerton, The Builder's Choice (TBC)** Continuing the historic tradition operating a chain of building supply yards throughout the upper Midwest, predominantly in Minneapolis/St. Paul and the 12 county area. Our four (4) building centers surrounding the Minneapolis/St. Paul and surrounding area include:

Ellsworth	Wisconsin	(TBC)
Glencoe	Minnesota	(TBC)
Osceola	Wisconsin	(TBC)
Watertown	Minnesota	(TBC)



2. **Fullerton Building Systems (FBS)** Located in Worthington, MN, FBS is a wholly-owned subsidiary. Building on a century of success, FBS has one of the longest records of manufacturing building wall panels with factory applied finishes in the nation. In 1962, Fullerton consolidated the production of residential wall panels from a variety of locations throughout the Midwest into the former site of Fleetwood Homes in Worthington, MN. During the major housing recession of 1979-1981, Fullerton began specializing in commercial buildings. FBS has been manufacturing commercial panels with factory-applied exterior finishes exclusively for the commercial market.



Fullerton Building Systems
34620 250th Street
Worthington, MN 56187

SECTION ONE - Company History



3. **Fullerton Finish Systems (FFS):** Fullerton's third division is the nation's premier provider of factory applied finishes to the light commercial building industry. FFS, in addition to supplying finish veneer panels to FBS, services the restaurant, convenience, light commercial, modular and industrial markets across the country. FFS carries trade rights to a number of patented exterior finish products (E.g. BrickWal® and CastWal®) as well as the manufacturing facility to produce these products. This facility has the equipment and experience to manufacture building wall panels, both wood and steel, as needed in the future, greatly expanding FBS' total capacity.



Fullerton Finishing Systems
8635 West 21st Street
Sand Springs, OK 74063

Vision

Fullerton Building Systems vision is to be the premier provider of panelized buildings with factory-applied external finishes in the United States.

Mission

Fullerton Building Systems mission is to become the premier provider of panelized buildings with factory-applied external finishes for restaurants, convenience stores, and other light commercial applications by providing the best lead times, highest quality, and best warranties in the industry.

The company's driving goal is to provide clients with quality building components at reasonable prices for faster and better results. Through our ongoing commitment to innovation, technology and service, we design, engineer, deliver and assemble panelized building packages with factory applied finishes - in record time.

Over the years, our reputation for excellence has attracted architects, designers, engineers, and builders whose common goal is to deliver excellence at the speed of business.



SECTION TWO - CLIENT FOCUSED RESULTS



Problem Solving

We built our company's reputation on our ability to consistently deliver Quality Exterior Finishes to companies across the nation. Our manufacturing methods and problem solving approach to today's construction design challenges sets us apart from more traditional approaches. Every day we work with franchisees, developers, general contractors and architects to help make the remodeling and construction process simpler and more cost effective.

Solutions

FFS provides real results with no surprises. Our service offerings include, but are not limited to:

- High Quality Exterior Finishes
- Faster Turn Around Times
- Superior Service and Craftsmanship
- Design flexibility

Simplicity

Simplify your project with the FFS exterior finishes. FFS exterior finish panels allow you to remodel or build and open more facilities in less time thus controlling your building costs. Our factory finishes approach reduce the number subcontractors on-site and provides factory made finishes that are not subject to exterior weather conditions which result in more consistency and higher quality.



SECTION THREE - CASTWAL – FAQ

Questions & Answers

Our company is a little different and being able to understand what FFS can provide you is critical in your decision making process. The following is a list of some of the more frequently asked questions relating to the Fullerton Finish System.

CastWal

1. What is CastWal?

Polymer glass fiber reinforced concrete.

2. How are the panels attached to the exterior wall?

Mechanical fasteners are required for proper installation of panels.

3. How do you cut panels?

You want to use a dry cut blade. Panels can be cut with a standard circular saw equipped with a masonry blade. Always cut panels from back side. Blow the dust off the face of the panel after cutting or drilling.

4. Do panels need to be pre-drilled?

Yes on the front side pre-drill holes for fasteners with a 1/8" masonry bit. To ensure that the edges do not become damaged fasteners should remain a minimum 2" from panel's edges. Fasteners spacing is typically 12" o.c. along all the edges of the panel and 16" o.c. in body of panel each way.

5. How heavy are the CastWal panels?

Panels are about 5.60 lbs per square foot.

6. How thick are the CastWal panels?

Our Split Faced panels are 1" – 1 1/4" thick throughout the panel.

7. What sizes do the CastWal panels come in?

We have a 8"x8" Split Face Pattern that is available in a 8' x 4' & 10' x 4' panel, 16"x8" Split Face Pattern, 8"x8" Smooth Pattern & 16"x8" Smooth Pattern come in a 8' x 4' panel only. Several other patterns are available.

General Questions

1. Where can I use your products?

Our products can be used on Exterior and Interior walls. Anywhere there is a need for a masonry finish.

2. Do you provide factory corners?

Yes

SECTION THREE - CASTWAL – FAQ



3. **Can I get custom designs, utilizing more than one product on one panel?**
Yes we can customize your panels with different finishes and textures.
4. **Can you provide panel layout or shop drawings?**
Yes drawings can be provided for easy installation.
5. **What is your mailing address?**
Fullerton Finish Systems Inc., 8645 W 21st Street / P.O. Box 609, Sand Springs, OK 74063
6. **What is the cost per square foot?**
Pricing per square foot varies due to the many differences from building to building. Depending on the type of project, location, wall heights and finishes selected. Please feel free to contact our office (866) 915-9995 and speak with Ray Buchanan, Jack Vermillion or Gina Ogburn for a budgetary number.
7. **What do you need to provide a formal quote?**
If you can send us a drawing we can do square footage take off or give us your building dimensions, height, width, length along with finish type and we can give you a quote from that information. Plans can be emailed to: ray.buchanan@fullertonfinishsystems.com, gina.ogburn@fullertonfinishsystems.com or jack.vermillion@fullertonfinishsystems.com
8. **Will product be OK transporting on a modular building?**
Yes, we provide materials to modular customers over the United States that apply our products in their plant and ship all over the country.
9. **How are the products packages?**
Depending on products and quantity we build special skids\crates to protect our panels during shipping.
10. **How do you need to store materials on the site?**
Store pallets and/or crates on a suitable flat surface above grade after removal from shipping vehicle.
11. **What will I need to receive your product from shipping?**
4,000 lb Forklift, depending on the size and weight of the panel crate.
12. **What's the approximate lead time to receive your product?**
Our CastWal products can be shipped in about 2 – 3 weeks, our other product lines lead time is about 3 – 4 weeks. If quicker response is needed let us know and we will check production schedule for time to meet your schedule.
13. **Do you have a local distributor of your products?**
No, Sales & Production is handled from our Sand Springs, OK plant facility.

SECTION THREE - CASTWAL – FAQ



14. How far do you ship your products?

We have shipped all over the US, Canada and the Caribbean.

15. Can you provide installation of the products?

Yes, we have a network of installers that we can price product installed.

16. Can you provide misc. metal trims and accessories?

Yes, we can provide all accessories needed for your project using our panels.

SECTION FOUR – Similar Experience

Experience

FFS has been providing exterior finish wall panels/materials to various markets (retail, restaurant, convenience, hospitality, professional buildings, etc...) throughout the United States since 2005. We work with our clients to supply exterior finish panels custom made to suit their needs for remodel, upgrades or new construction.

FFS continuously works on product modifications and improvements that increase operational performance and improve the value we bring to each customer.

*Similar Project Profiles are attached for your review.



PROJECT PROFILE

CASTWAL – BLOCK CAST 8” X 8” PATTERN



Project Summary:

FFS provided Castwal – Block-Cast 8"x8" pattern for McDonalds remodel. Block-Cast panels finish color is Earthly Russet.

PROJECT PROFILE



CASTWAL – BLOCK CAST 8” X 8” PATTERN & 4’ Fractured Sill



Project Summary:

FFS provided Castwal – Block Cast panels on this Kiosk Fuel Center. Standard panel size 8’ x 4’ Split Face Block painted in a tan color.

PROJECT PROFILE

CASTWAL – BLOCK CAST 8” X 16” PATTERN

Tulsa, OK



Project Summary:

FFS provided Castwal – Block-Cast 8"x16" pattern for Planet Fitness remodel. Block-Cast panels were finished in a light gray.

PROJECT PROFILE

CASTWAL – Block Cast 16” x 8” Split Face Block CF Rib Cast



Project Summary:

FFS provided Castwal – BLOCK CAST 16” x 8” pattern & CF RIB CAST panels on this new Building in Glendale AZ. Along with the FFS Castwal material, we also supplied FFS EnduraWal veneer. Block Cast has a Sand Finish in the color Autumn & CF Rib Cast has a Sand Finish color in Bone. EnduraWal Veneer panel has a Sand Float Texture in the color -Sands of Time.

PROJECT PROFILE

CASTWAL – CF RIBCAST



Project Summary:

FFS provided Castwal – CF RIB CAST panels on this new Kiosk Fuel Center. Panel size is 4' x 10' the Castwal CF Rib-Cast Product was factory painted in Essential Gray.



PROJECT PROFILE

CASTWAL – CF RIB-CAST



Project Summary:

FFS provided Castwal – CF Rib-Cast Curtain wall panels on light gauge steel StudWal units for this site. Panels consisted of 5-1/2", 16-gauge steel studs with dens-glass sheathing, stucco wrap and our 4' x 10' panel's factory installed. The Castwal CF Rib-Cast product was finished in a dark brown color.

PROJECT PROFILE



CASTWAL

Holiday Stationstores New Construction Convenience Store



Location:
Stanley, ND



Project Summary:

FFS provided Castwal panels on this new building package for Holiday Companies. Holiday Companies is a repeat business client with a long list of projects where FFS has been a key supplier of exterior veneer finishes. FFS provided exterior wall panel veneers and column covers to match. The Castwal Product was sanded and factory painted in 3 different colors to match the corporate color scheme.

SECTION FIVE — Castwal Exterior Finish Spec Sheets & Details



The following are the Castwal Exterior Finish Spec Sheets and sample detail sections showing different configurations that FFS has utilized in the past for both new construction and renovation projects.

The following are sample finish detail sections that show generally how our Castwal exterior finishes are applied to panel sections.



CastWal™

From Fullerton Finish Systems, Inc.



Masonry Benefit Without The Masonry Hassles.

CastWal™ is a beautiful and durable molded product of polymer modified cement. It is available in a split-face block pattern. Tough, impact-resistant and totally water-resistant, CastWal™ requires no costly re-sealing or moisture-proofing. Our special formulation eliminates efflorescence and there is no mortar to fail. With factory-finished CastWal™ products, you can always count on consistent, top-to-bottom, wall-to-wall quality.

The Fullerton Finish Systems Advantage...

- No costly footings, foundations or special supports
- Eliminates all but a fraction of the weight of old-fashioned masonry
- Thinner exterior walls means more useable space for the building interior
- Tough, impact-resistant and totally water-resistant - requires no costly re-sealing or moisture-proofing
- Through body color in white, tan or grey
- Our special formulation eliminates efflorescence - and no mortar to fail
- Consistent top-to-bottom wall-to-wall quality
- Easy and quick installation by your crew - quicker project completion
- Available in several patterns and textures
- No specialist subcontractors are required
- Factory finished in a color of your choice
- 5-Year warranty

Easy, Fast-Track Construction in Any Weather.

CastWal™ installation is easily handled by your regular construction crew, using standard construction methods. Best of all CastWal installation is fast - and weatherproof. While cold, snow or rain all too often call a halt to old-fashioned masonry, CastWal can be installed in almost any weather, and in a fraction of the time. CastWal is perfect for new construction and retrofit projects.

The Fullerton Finish Systems Advantage...

Styles And Colors For Any Design.

Choose from four standard CastWal™ patterns. This product is available in 4'x8' sheets and is easily installed without masonry. Re-clad your existing locations for a cleaner & updated look.



Block-Cast Sand Finish
Attractive 8" x 8"
split-face block pattern.



Block-Cast Paintable
Attractive 8" x 16"
split-face block pattern.



Brick-Cast
Impressive 8' wide units capturing
the beauty of brick in a running-
bond pattern.



Rib-Cast
Fluted-rib panels, in
three styles



The Quality Solution for New & Remodel Exterior Finishing

PO Box 609, Sand Springs, OK 74063 • Phone 918.246.9995 • Toll Free 866.915.9995 • Fax 918.246.9976
www.fullertonfinishsystems.com

CastWal™

From Fullerton Finish Systems, Inc.

Veneer Panel Specification

Part 1 - General

1.1 Description

A. Work described herein consists of furnishing factory fabricated polymer reinforced cement panels with an exterior face of textured 8"x 8" stacked block as manufactured in Sand Springs, Oklahoma by Fullerton Finish Systems, Inc. - (918) 246-9995

B. Manufacturer shall have been continuously engaged in the manufacture of exterior wall panels for 35 or more years.

1.2 Warranty - Manufacturer to warranty from date of purchase against defective materials or workmanship in fabrication for a period of five years.

Part 2 - Products

2.1 Description

- A. Block-Cast panels shall be _____ (Color) per approved sample.
- B. Inorganic fillers shall meet requirements of Federal Specification TTP-P-403A.
- C. Block-Cast panels shall meet the following specifications:

Nominal Thickness

1" at block and 9/16" at joint.

Dimensional Tolerances

Length and Width	+1/8"
Thickness (at block)	+5/16"
Thickness (at joint)	+1/8"

Flexural Strength (with finished face up) 1,000 psi.

Flame Spread Index (ASTM E-84) 0

Smoke Developed Index (ASTM E-84) 40

Coefficient of Thermal Expansion

(ASTM D-696) 5.14 x 10⁻⁶

D. Product samples and shop drawings, if required, shall be submitted for approval before panel fabrication.

2.2 Performance

A. Block-Cast panel shall withstand the following tests without noted change in appearance or material failure:

500 hours of carbon arc exposure
(ASTM method G23)

B. All testing shall have been performed by an independent testing facility.

Part 3 - Execution

3.1 Erection

- A. Panels shall be erected plumb and true by qualified workmen.
- B. Panels shall be aligned and spaced as shown on manufacturer's shop drawings, if required.
- C. Panels shall be handled and attached to building structure as per manufacturer's shop drawings, if required, installation procedure and/or architectural drawings.
- D. All horizontal or vertical panel joints shall be filled with sealant over backer rod.

E. Accessories

1. Sealant (Equal to Sashco Big Stretch) shall be applied in accordance with sealant manufacturer's recommendations.
2. Backer rod (polyethylene foam rod) shall be proper size for joint. Backer rod shall be installed before sealant
3. Fasteners shall be phillips bugle head or trim head self-drilling zinc and clear chromate-plated for rust resistance. Fasteners to be covered with cover material provided.
4. All the accessories shall be of size, shape and spacing as shown on manufacturer's shop drawings, if required, and/or listed in manufacturer's Installation Guide.

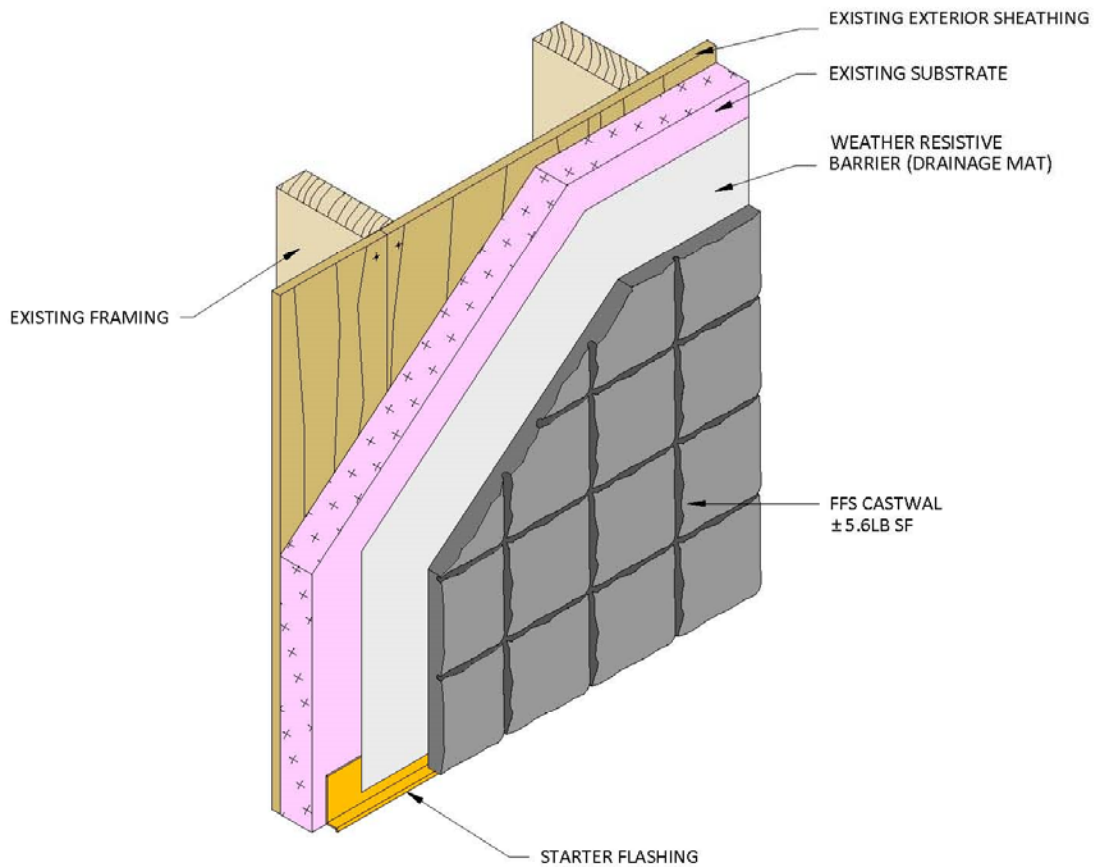


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SAMPLE DETAIL

(Renovation)



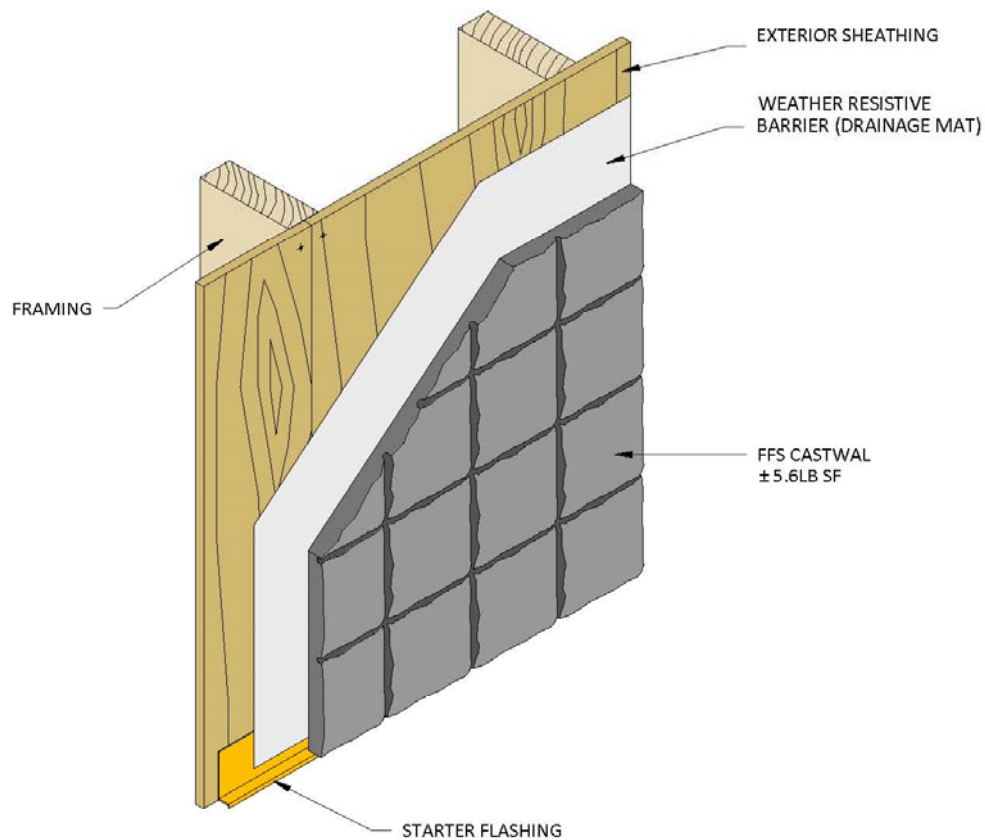
CASTWAL VENEER PANEL PROVIDED BY
FFS

Castwal System

System Layout

This drawing represents a generic sample detail for illustration purposes only.
Actual details utilized may vary due to specific project requirements.

(New Construction)



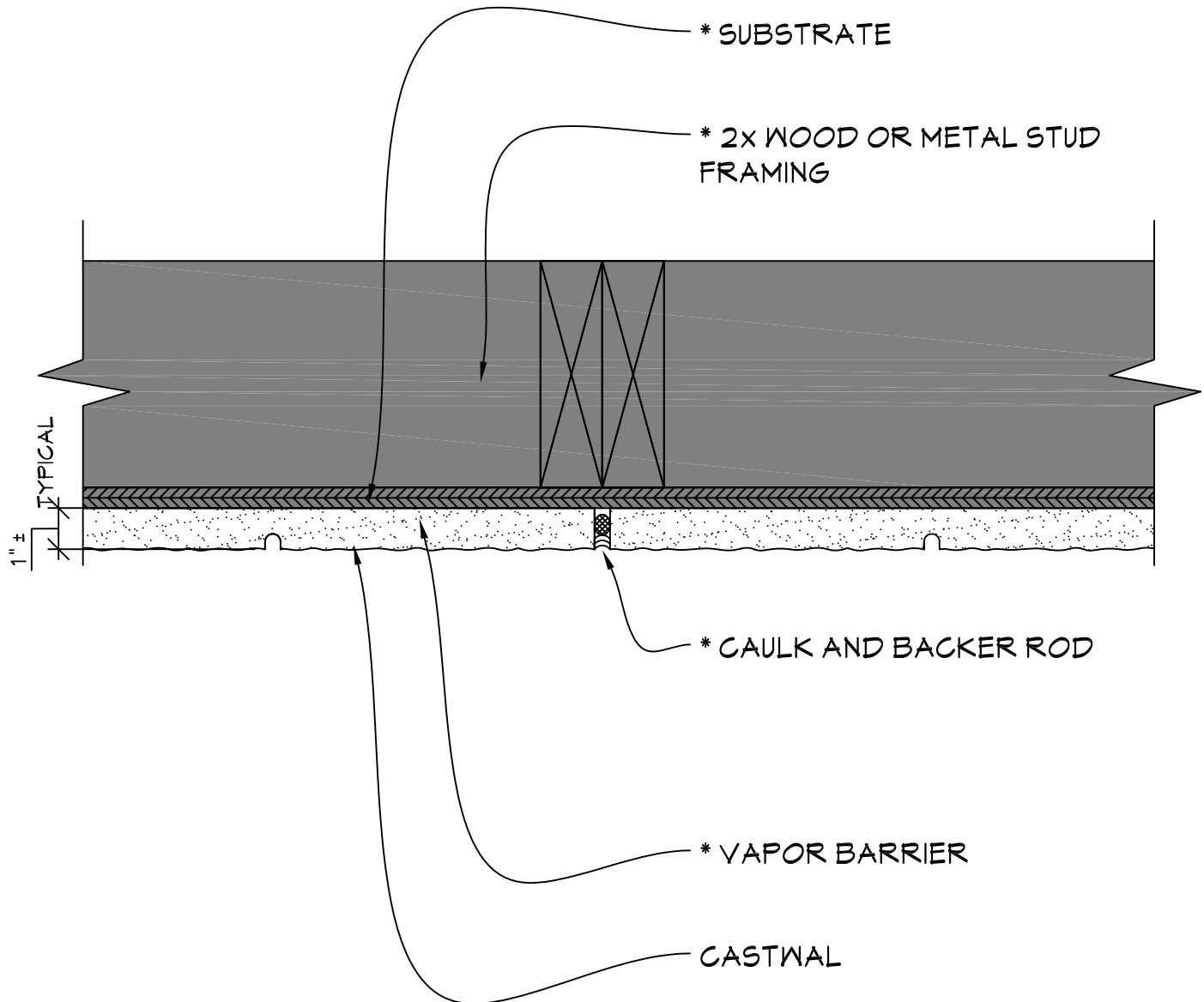
CASTWAL VENEER PANEL PROVIDED BY
FFS

Castwal System

System Layout

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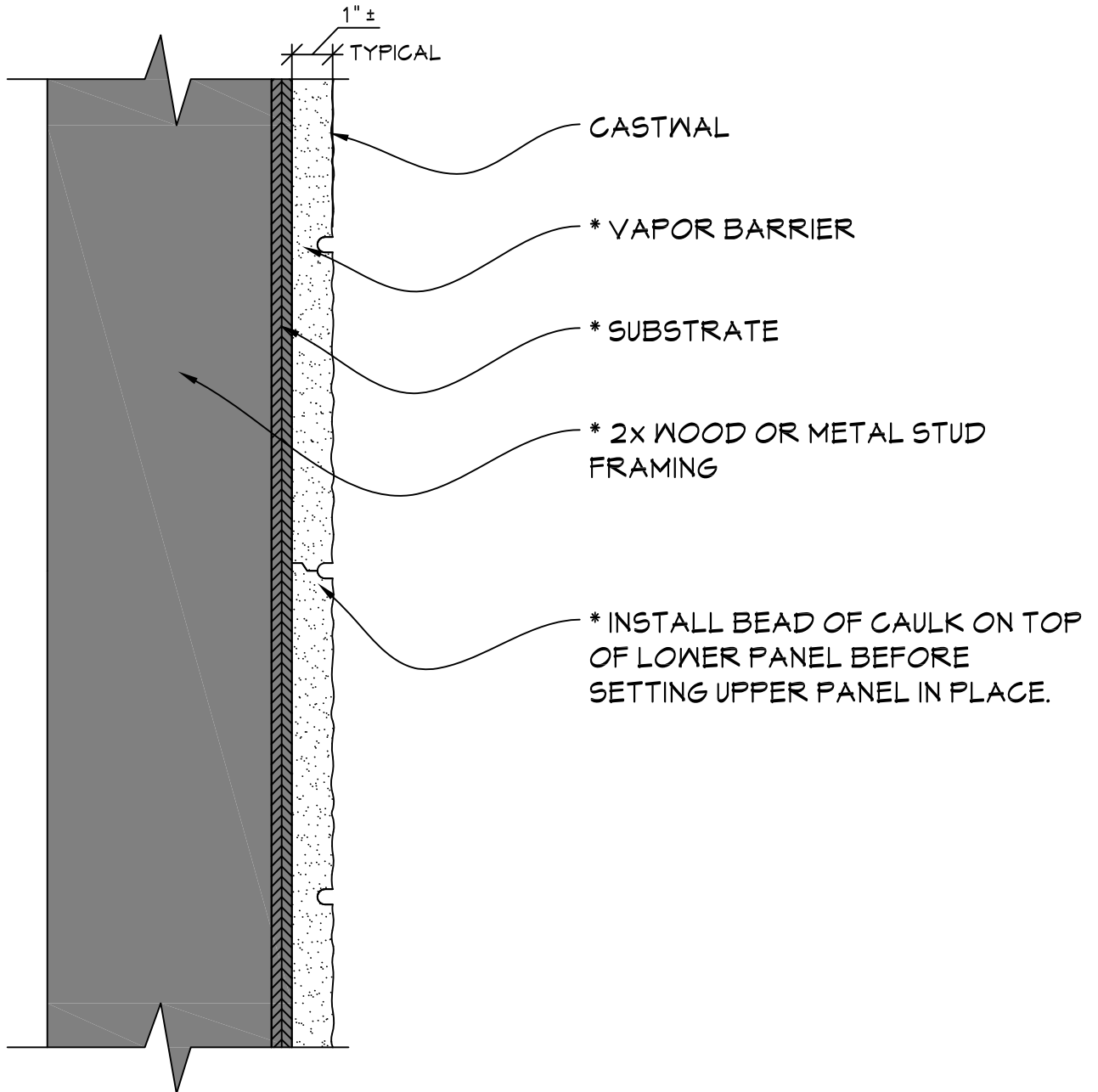


TYPICAL VERTICAL DETAIL

SCALE: 3" = 1'-0"

NOTE:
* = MATERIAL NOT PROVIDED BY FULLERTON FINISH SYSTEMS

CASTWAL



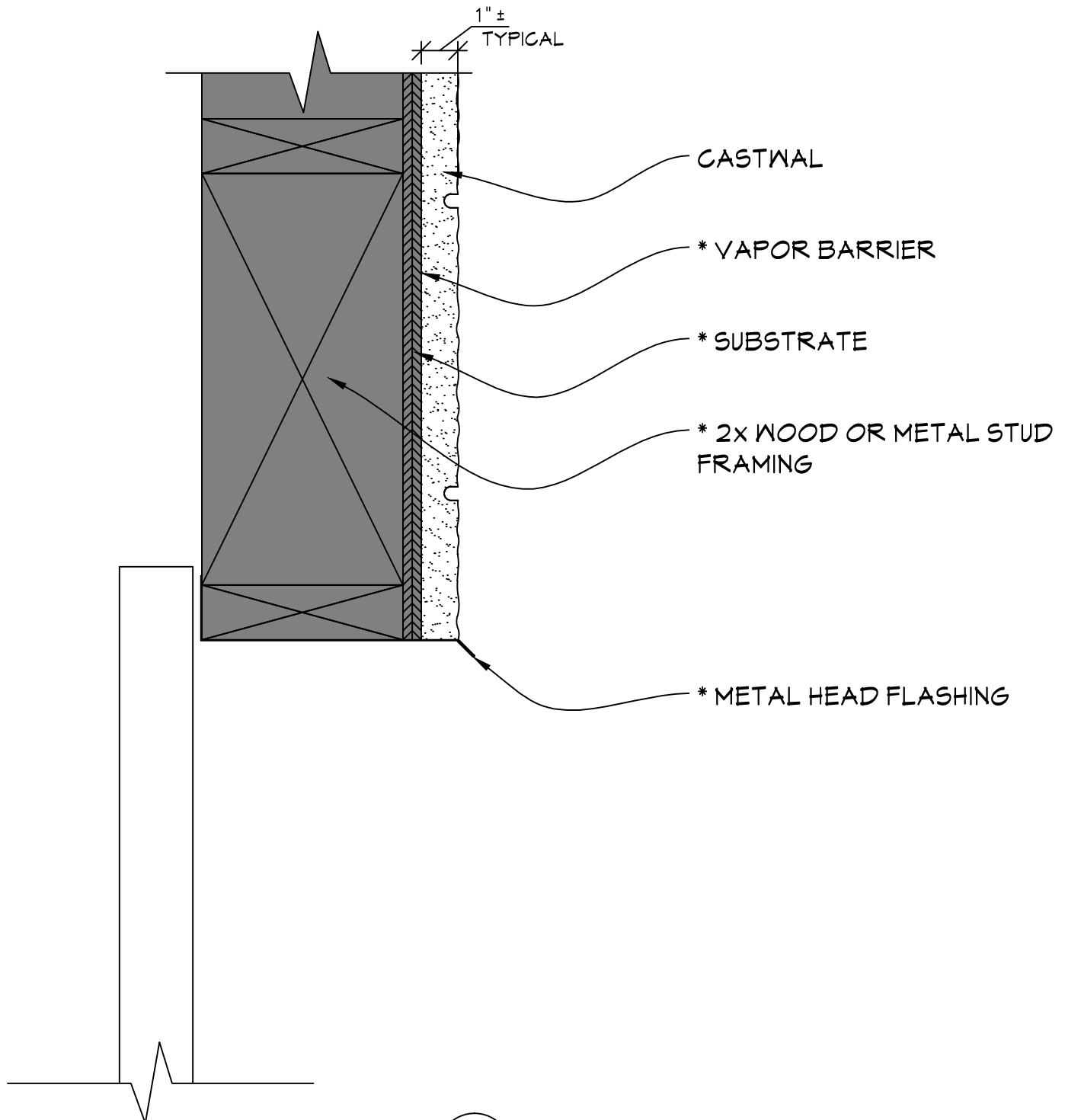


FULLERTON
FINISH SYSTEMS

8645 W. 21st. Street P.O. Box 609
Sand Springs, OK. 74063
PH (918) 246-9995

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CASTWAL



TYPICAL OVERHEAD DOOR DETAIL

SCALE: 3" = 1'-0"

NOTE:
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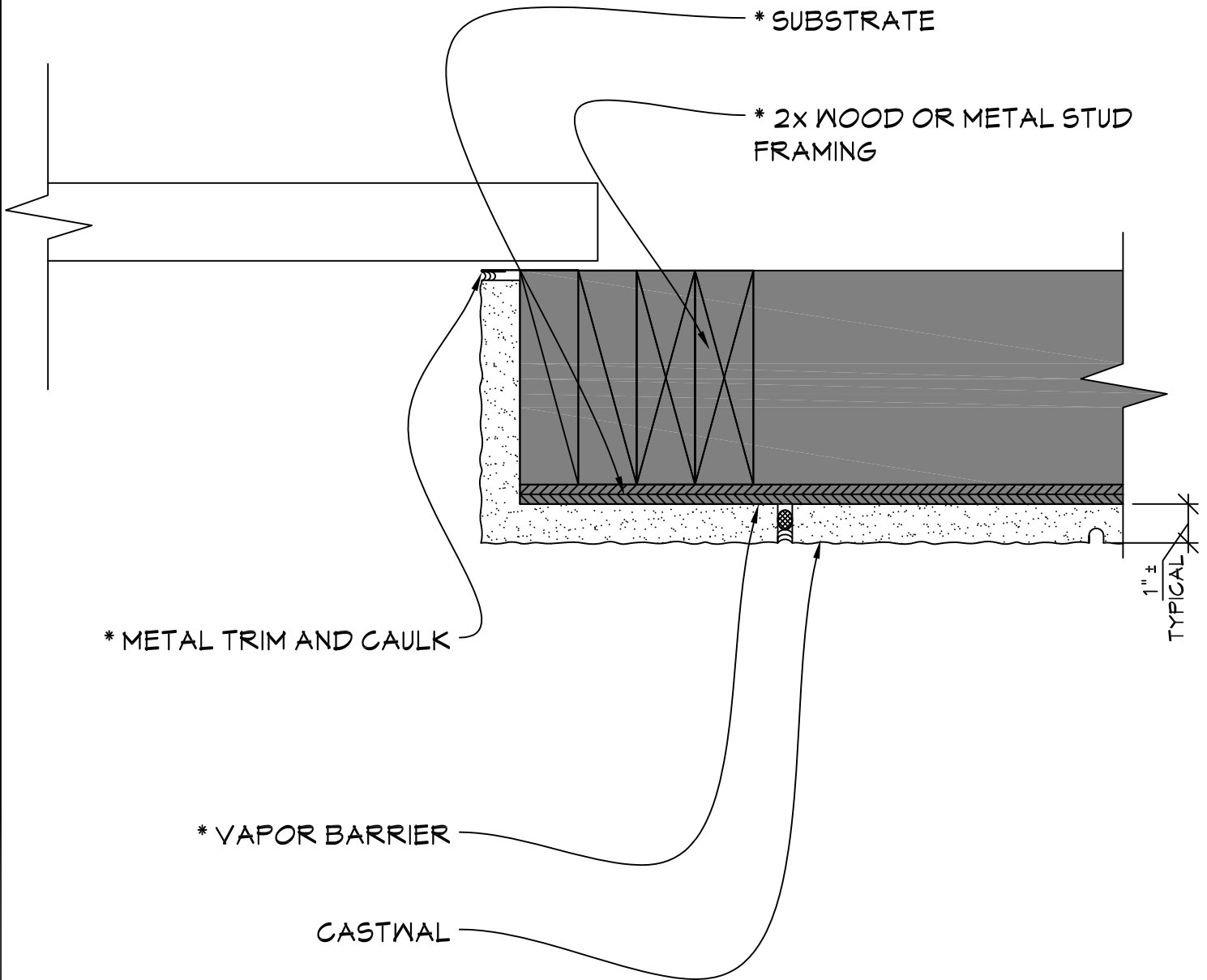


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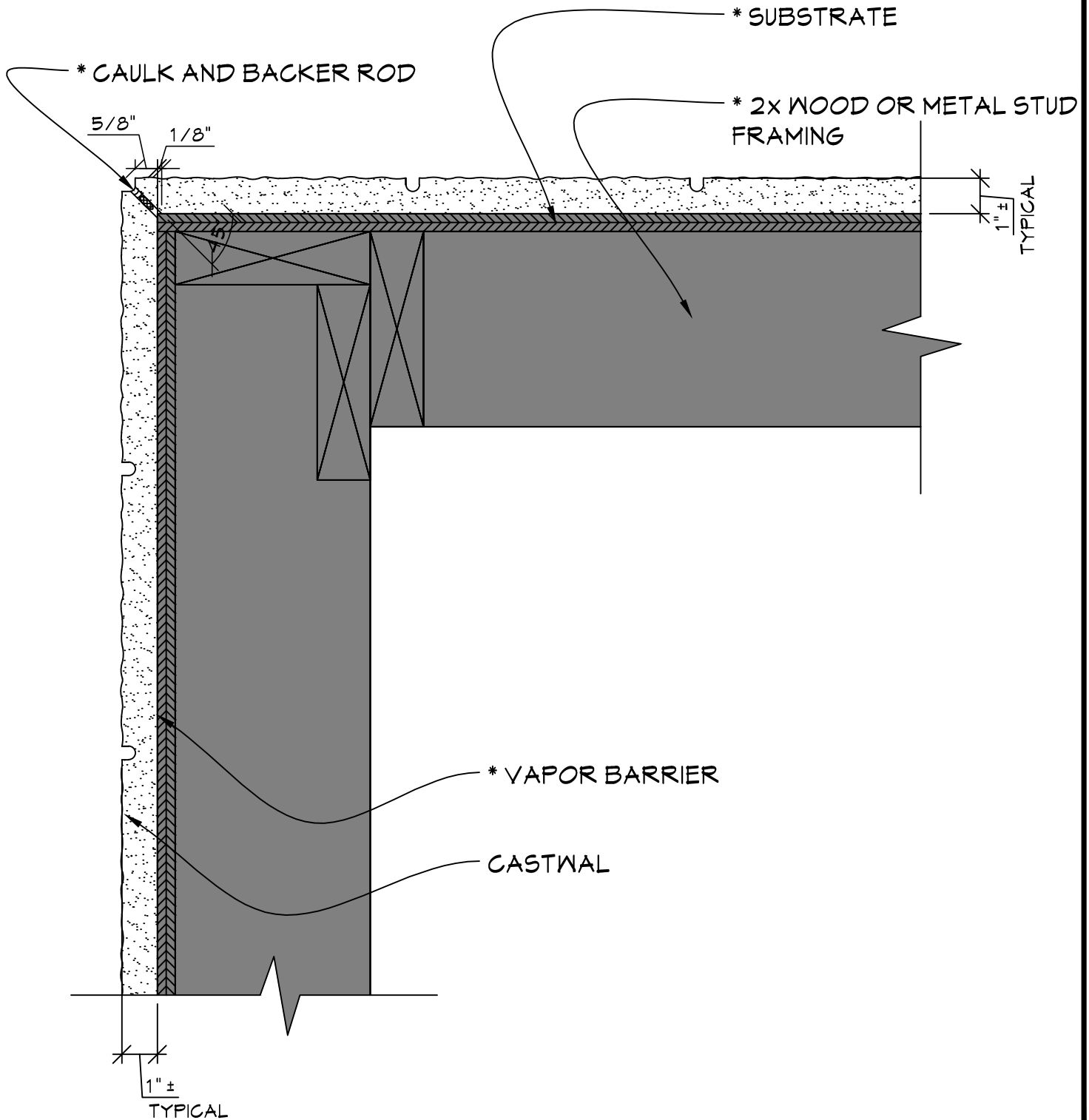
TYPICAL OVERHEAD DOOR JAMB DETAIL

SCALE: 3" = 1'-0"

NOTE:

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CASTWAL



TYPICAL OUTSIDE CORNER DETAIL

SCALE: 3" = 1'-0"

NOTE:

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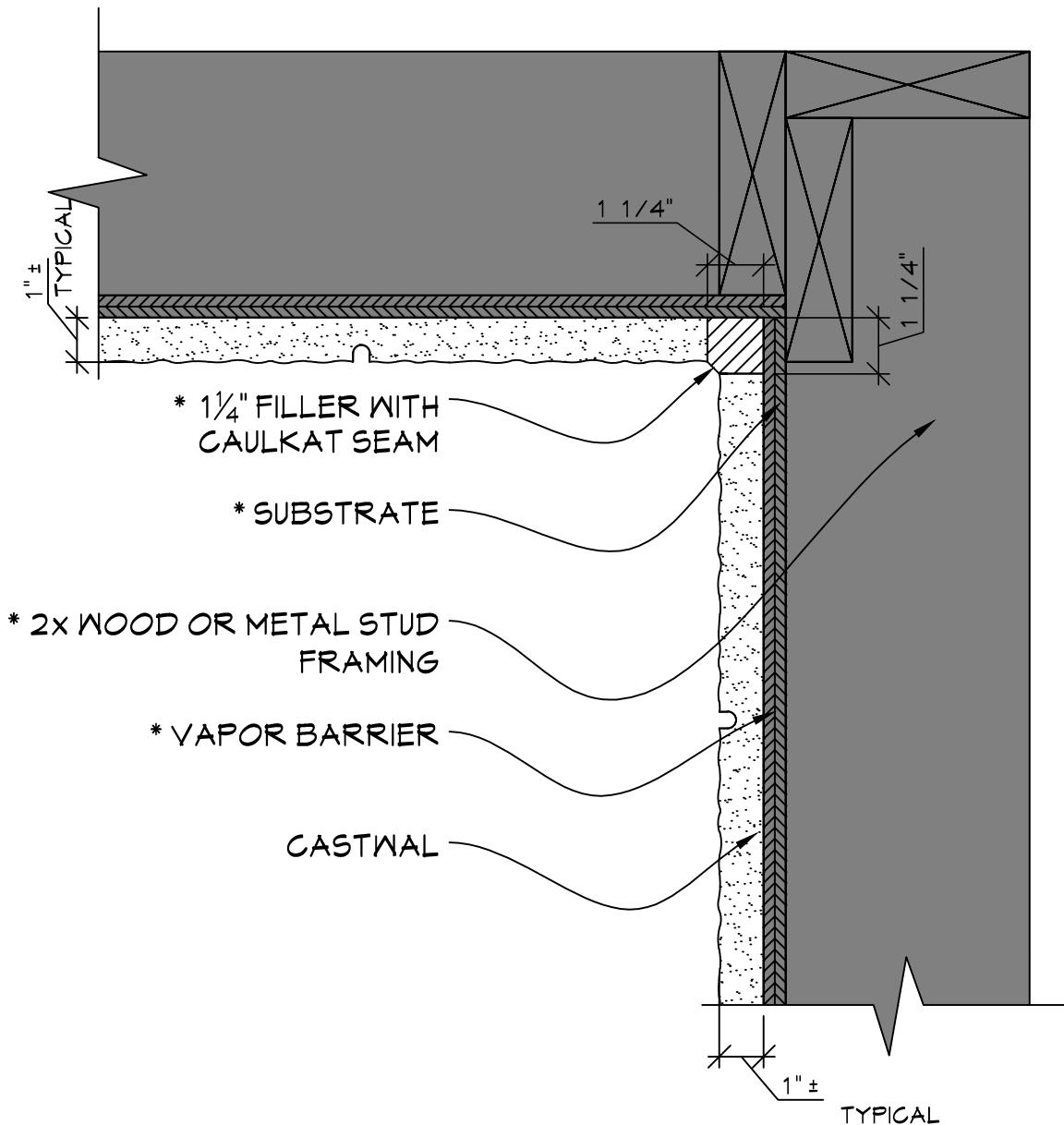
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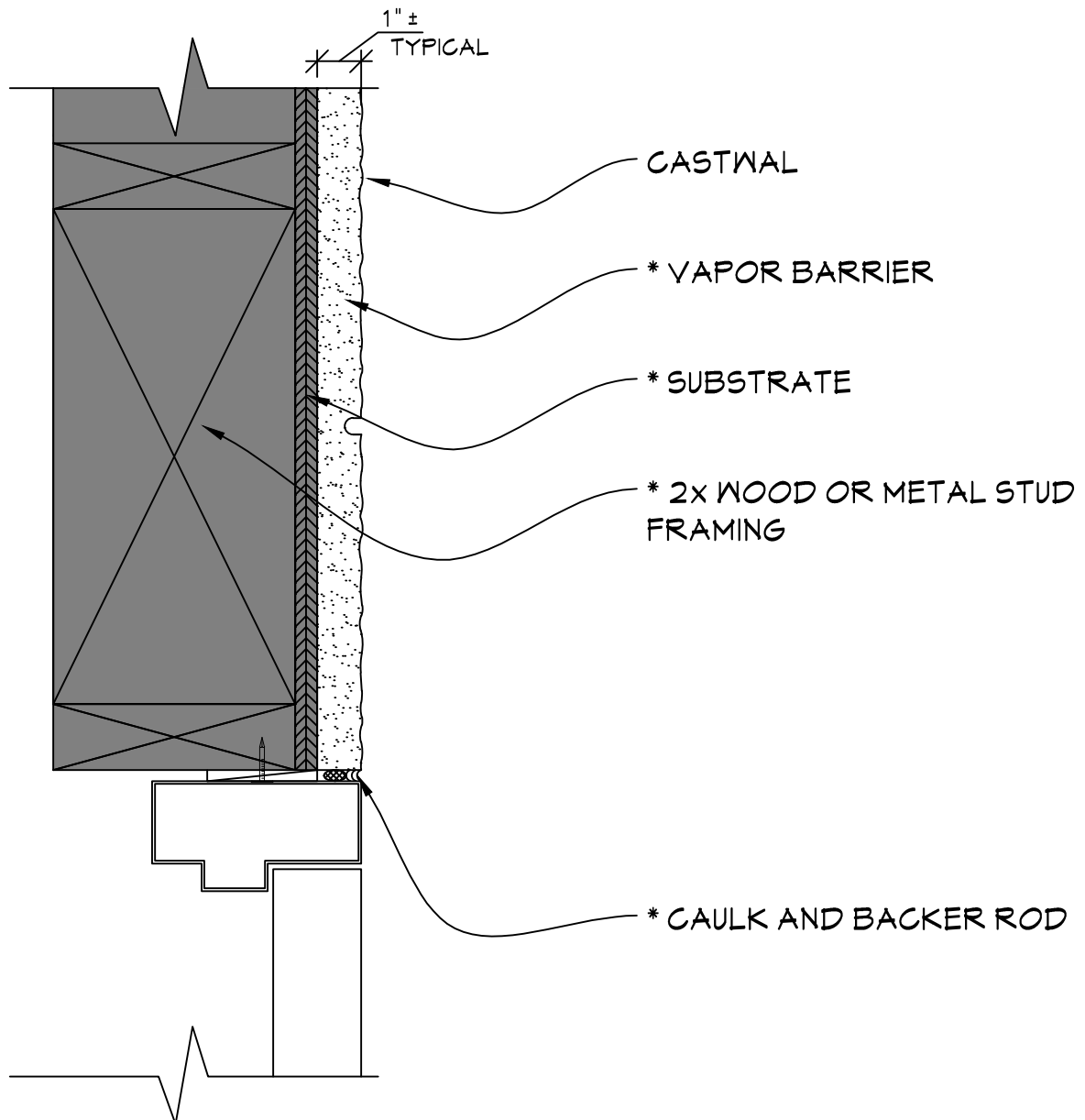
TYPICAL INSIDE CORNER DETAIL

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NOTE:

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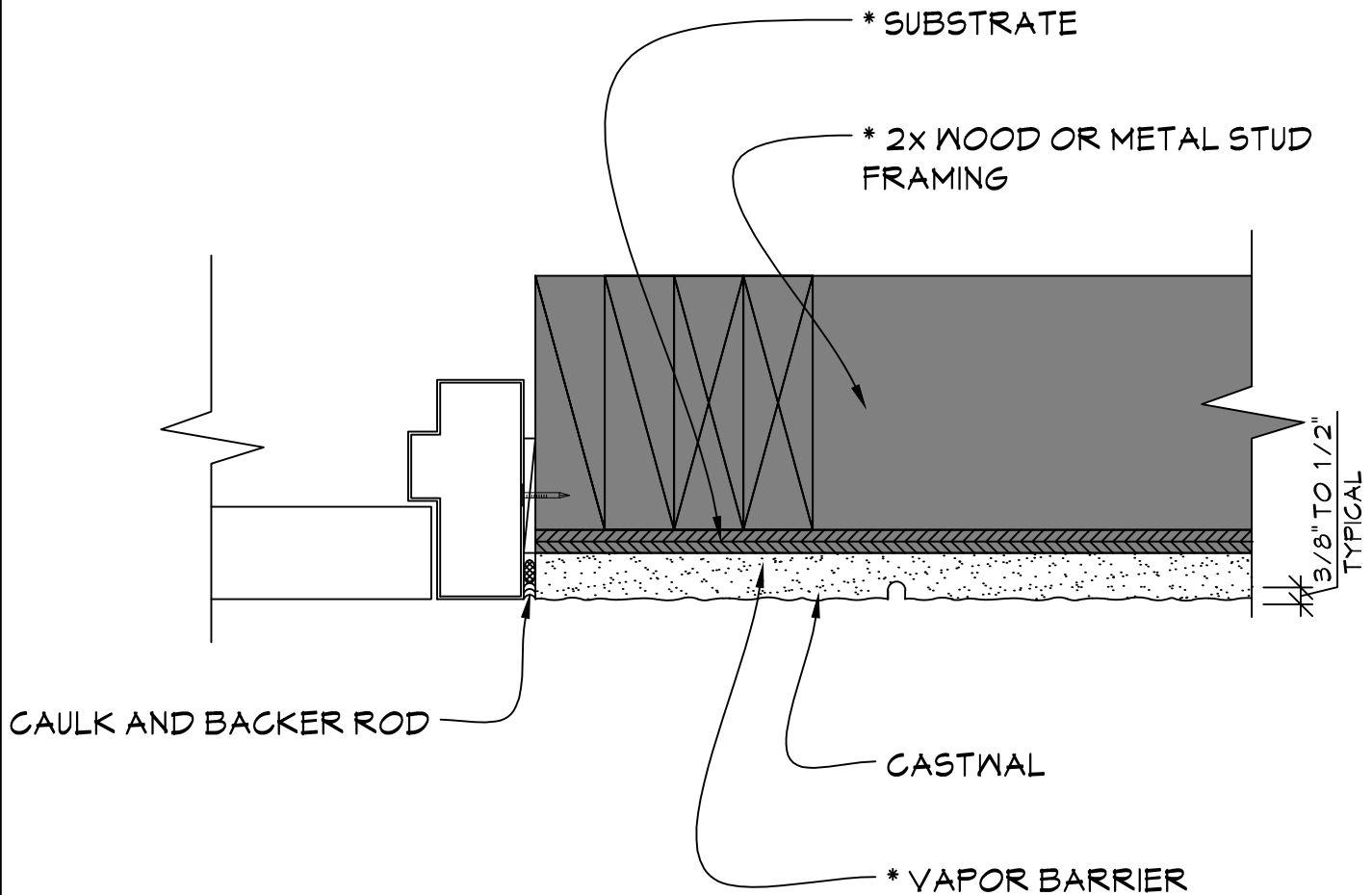


TYPICAL DOOR HEAD DETAIL

SCALE: 3" = 1'-0"

NOTE:
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CASTWAL

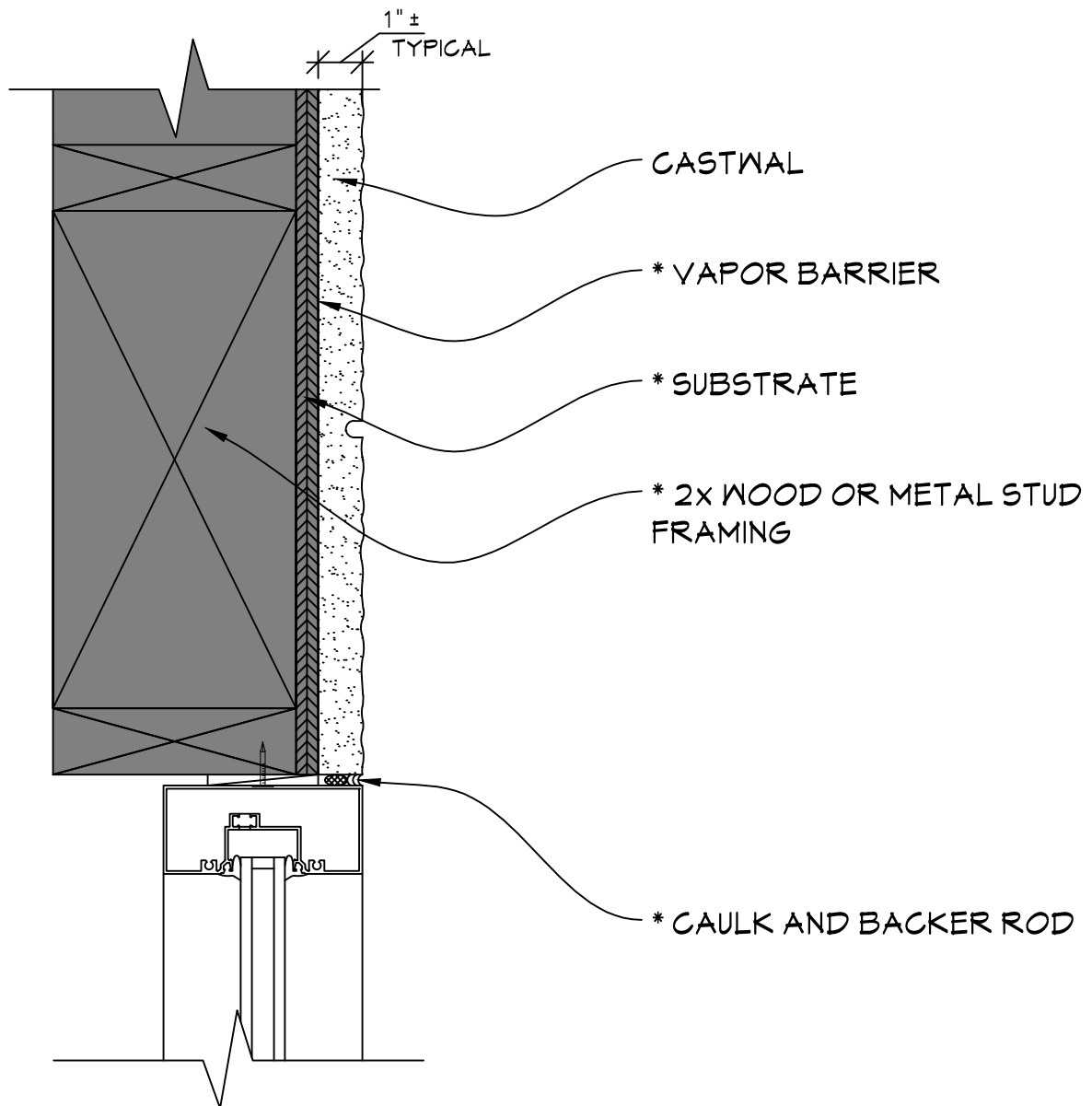


TYPICAL DOOR JAMB DETAIL

SCALE: 3" = 1'-0"

NOTE:
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CASTWAL



TYPICAL WINDOW HEAD DETAIL

SCALE: 3" = 1'-0"

NOTE:

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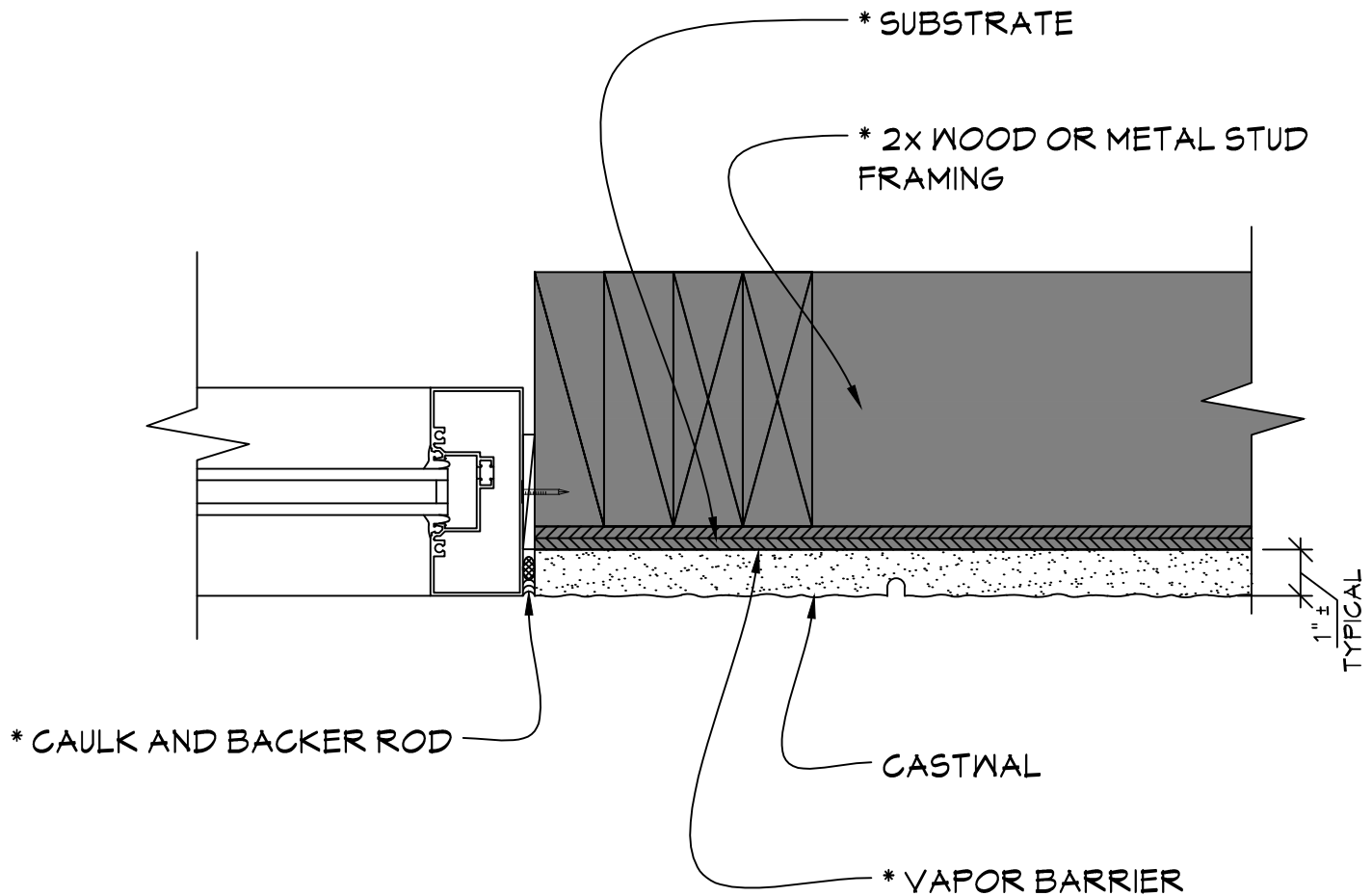
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CASTWAL



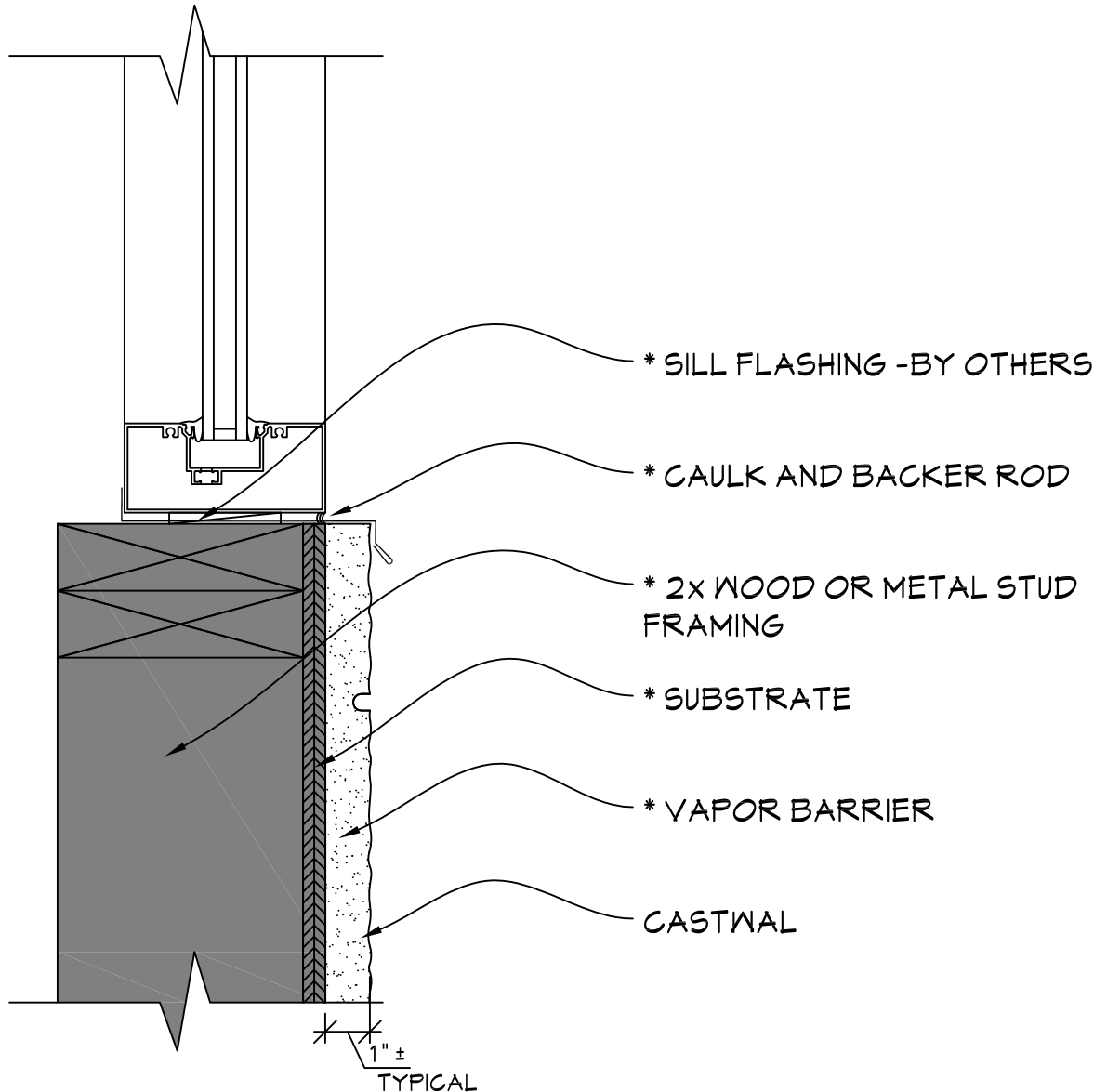
TYPICAL WINDOW JAMB DETAIL

SCALE: 3" = 1'-0"

NOTE:

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CASTWAL

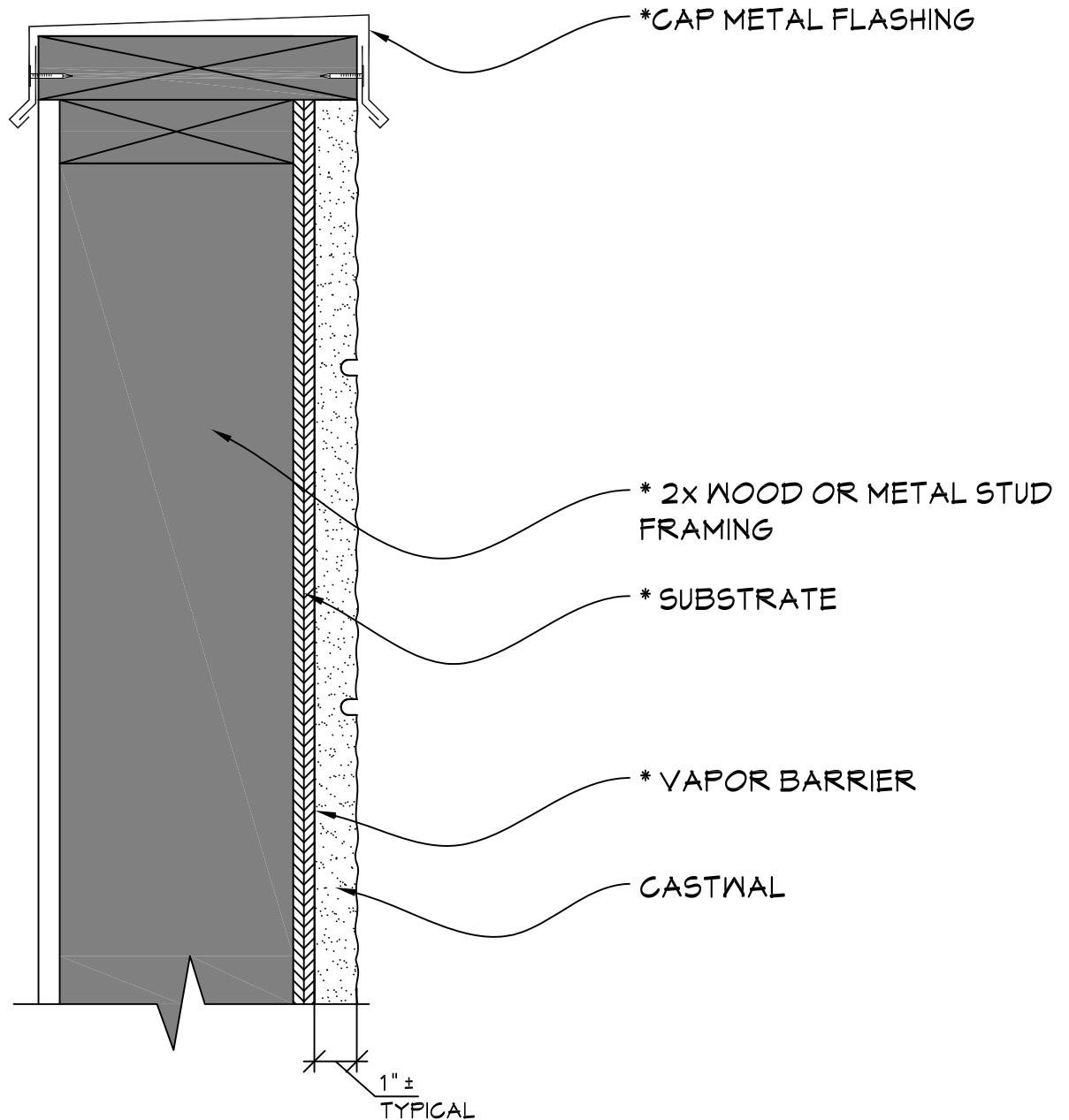


TYPICAL WINDOW SILL DETAIL

SCALE: 3" = 1'-0"

NOTE:
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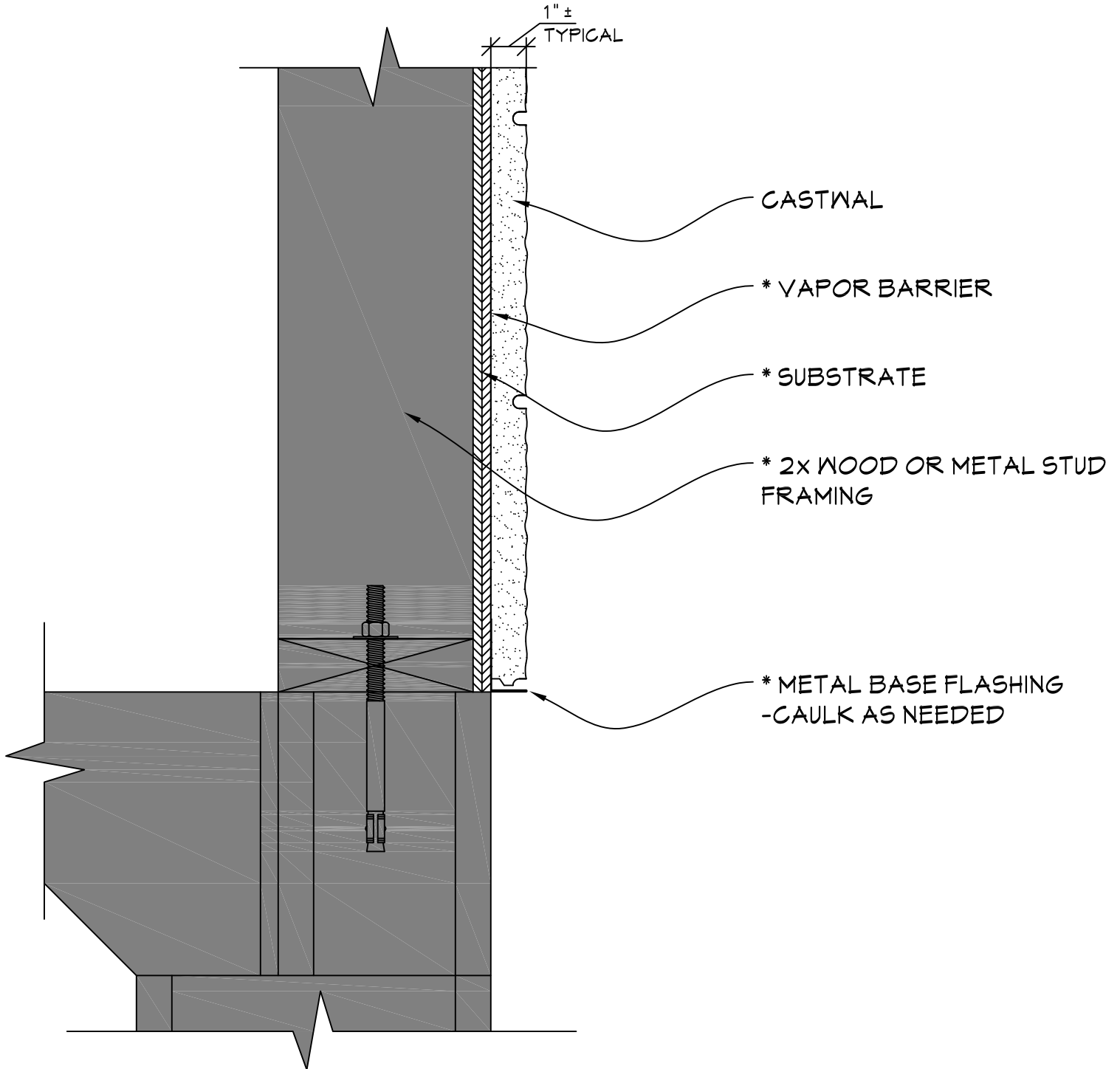


TYPICAL PARAPET DETAIL

SCALE: 3" = 1'-0"

NOTE:
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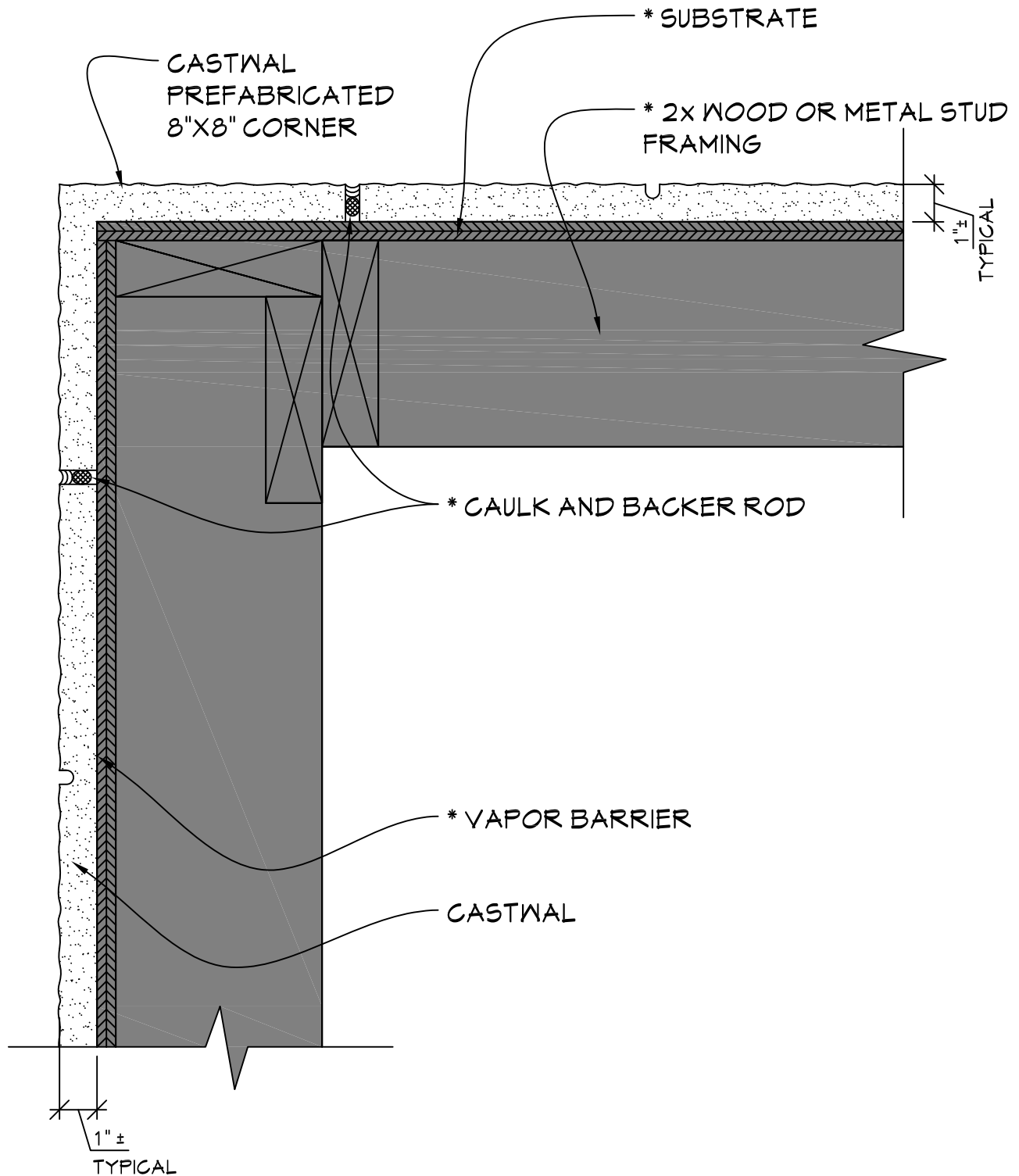


TYPICAL BASE DETAIL

SCALE: 3" = 1'-0"

NOTE:
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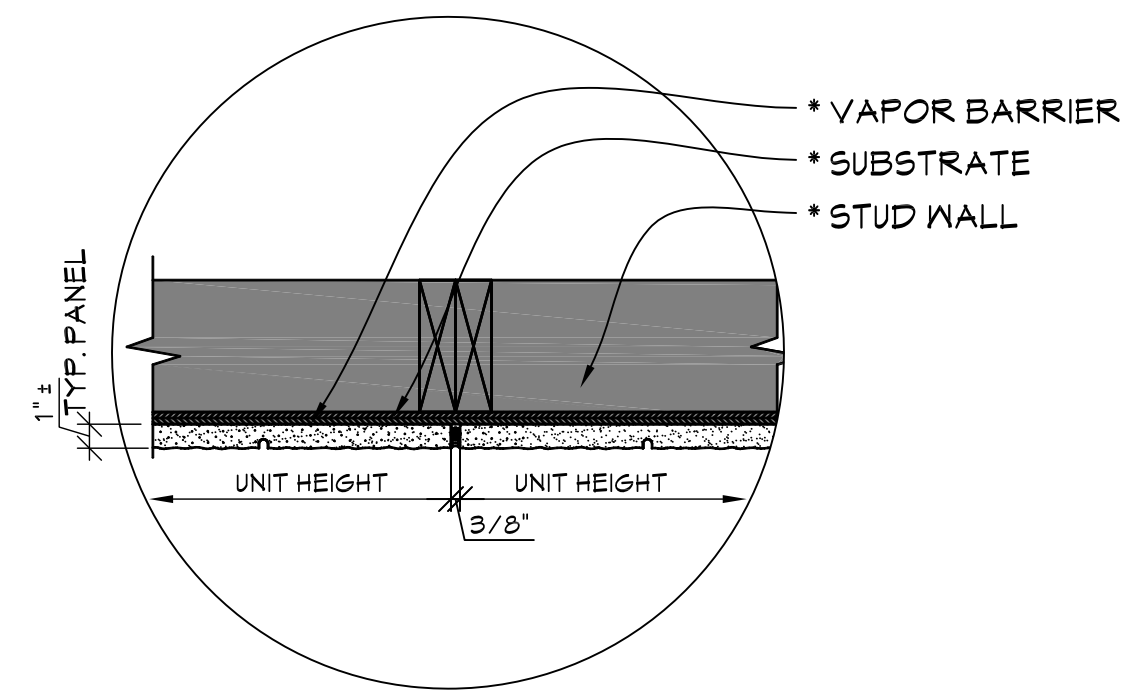
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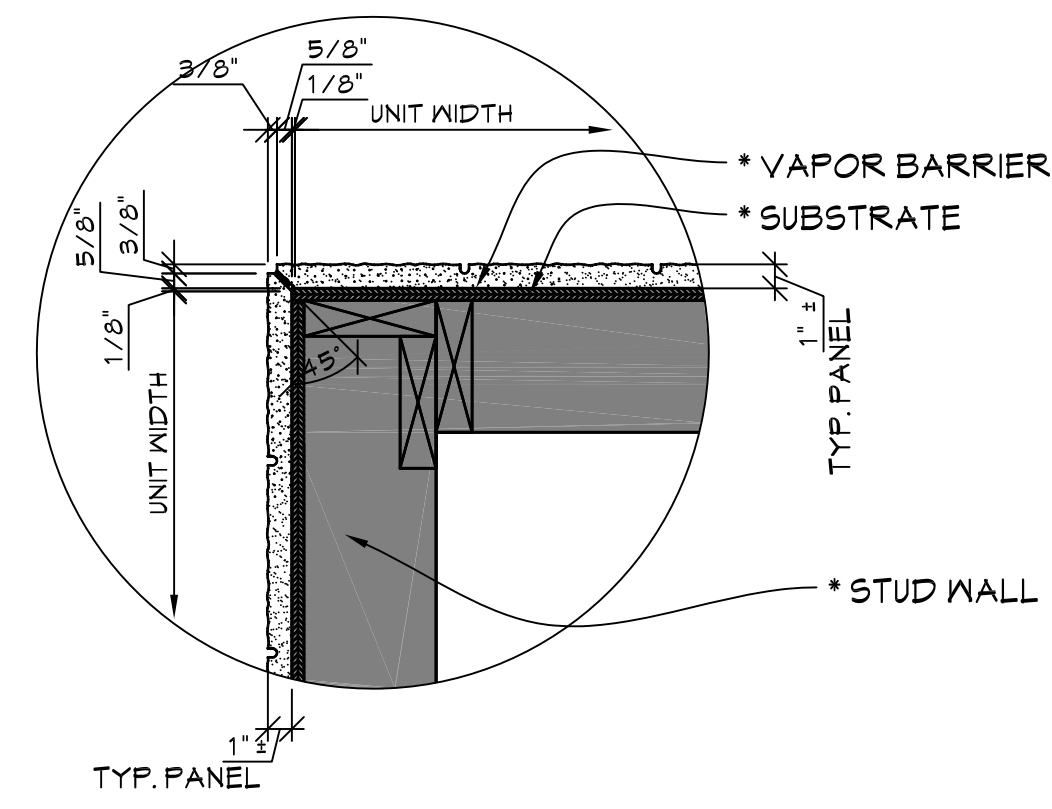
OPTIONAL OUTSIDE PREFAB CORNER DETAIL

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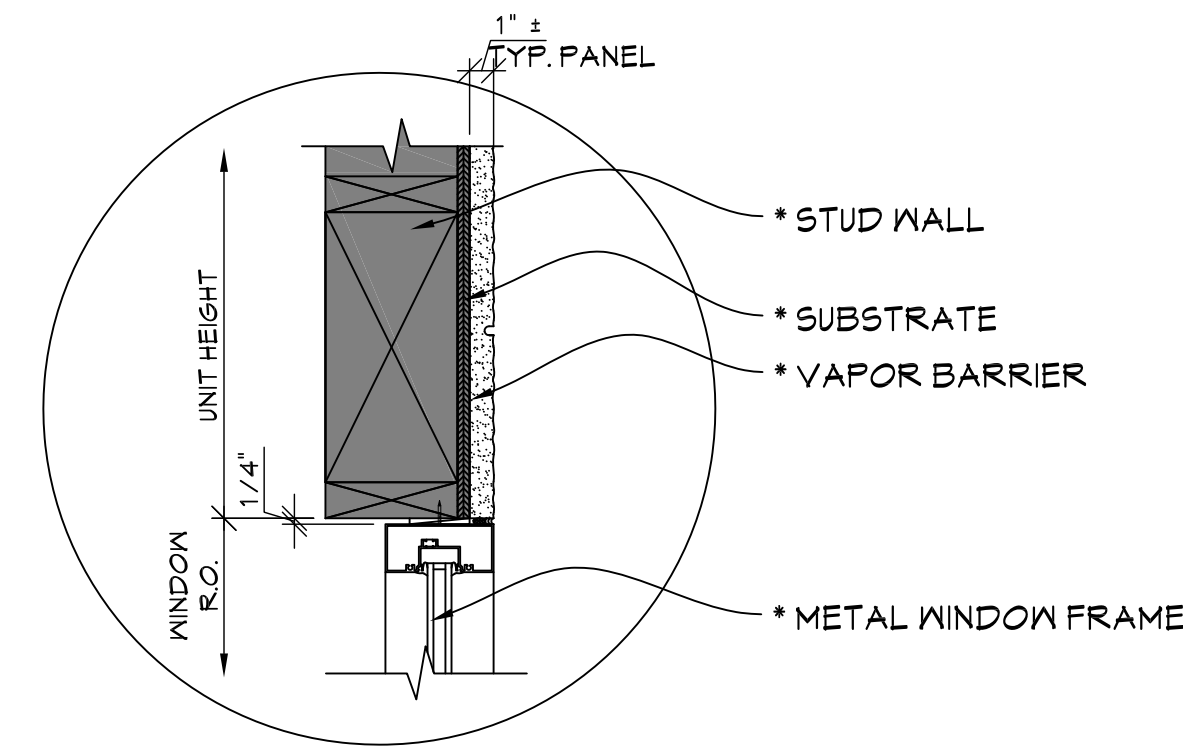
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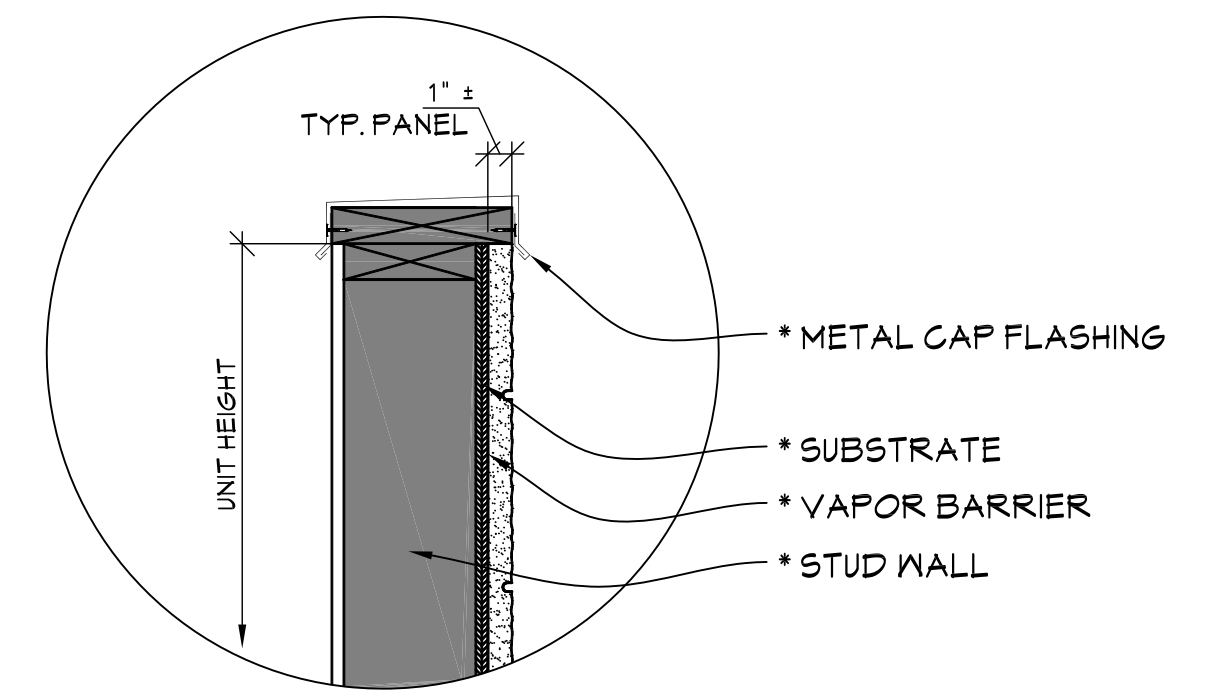
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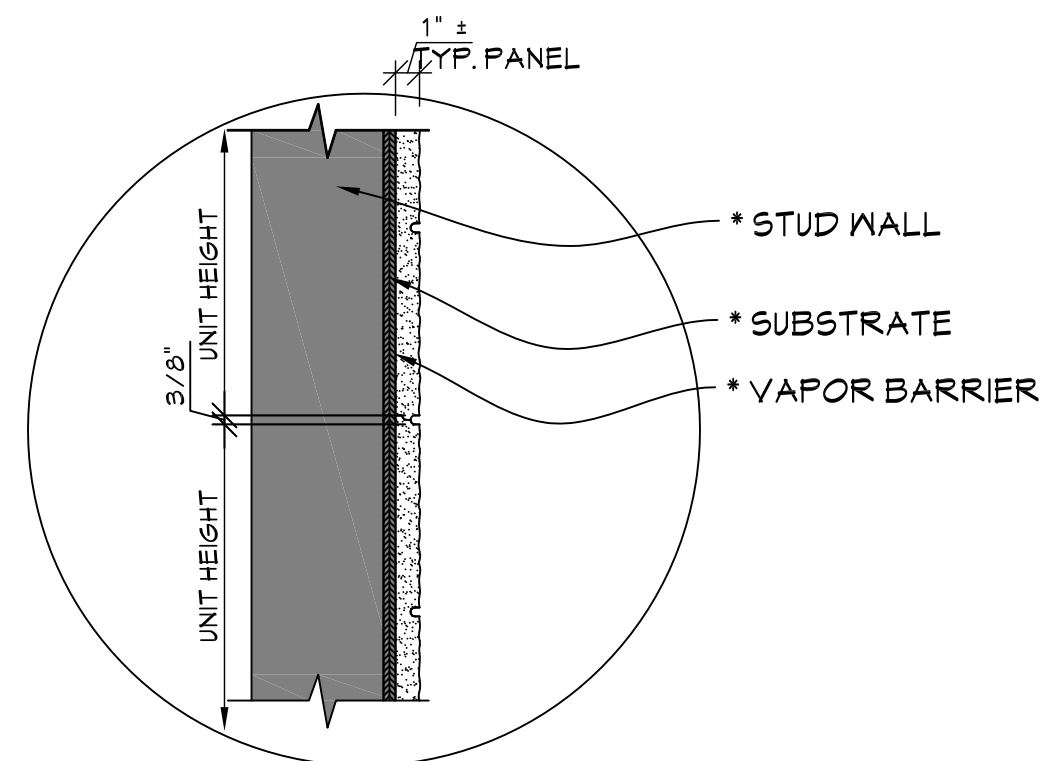
E OUTSIDE CORNER
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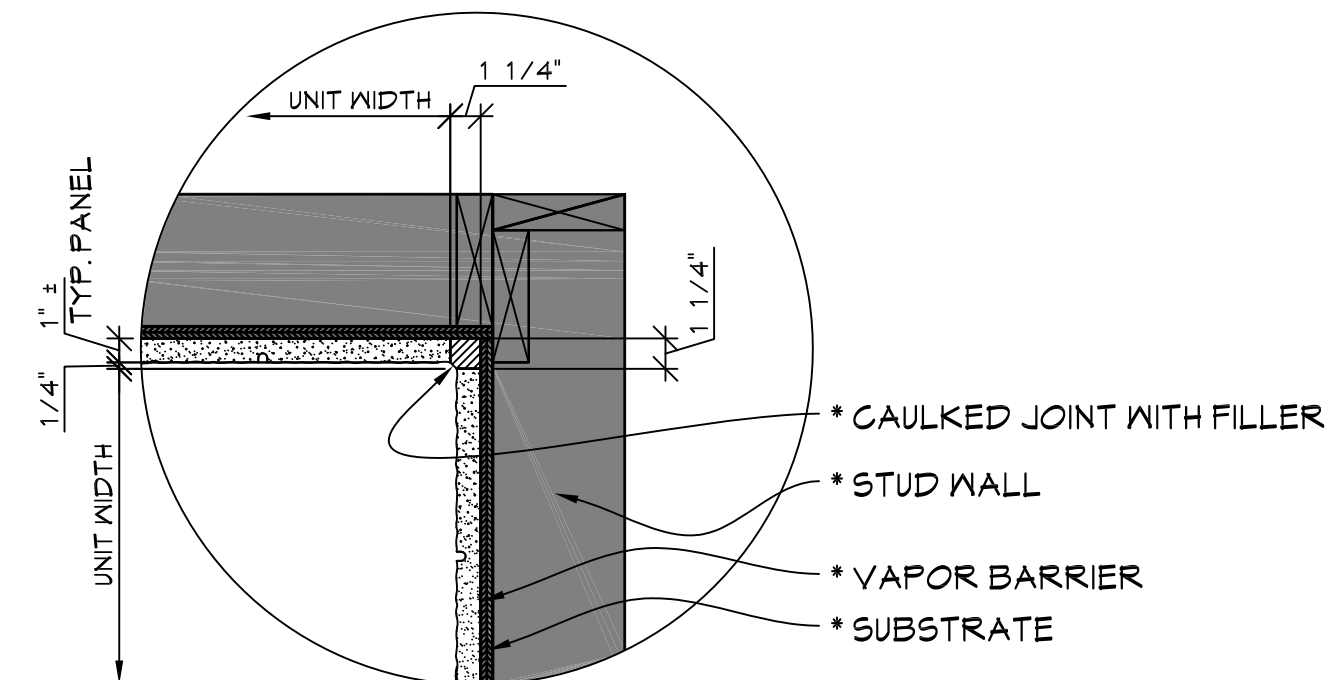
J WINDOW HEAD
SCALE 1-1/2" = 1'-0"



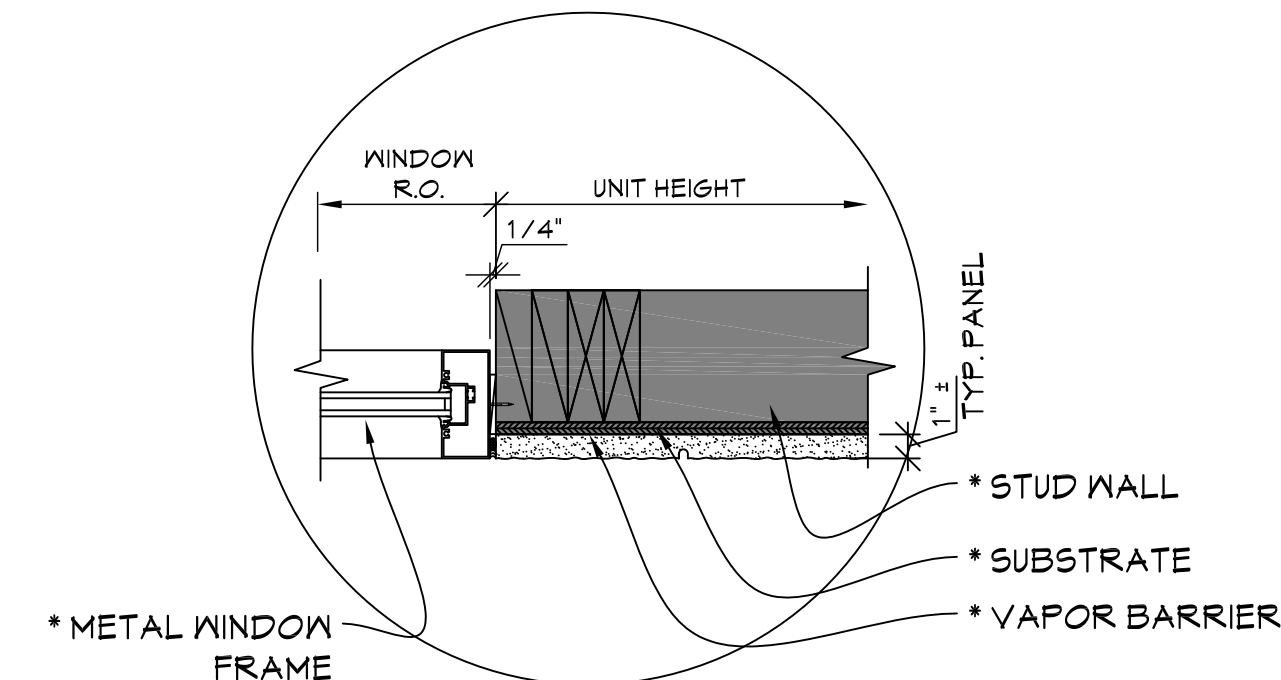
M PARAPET OF WALL
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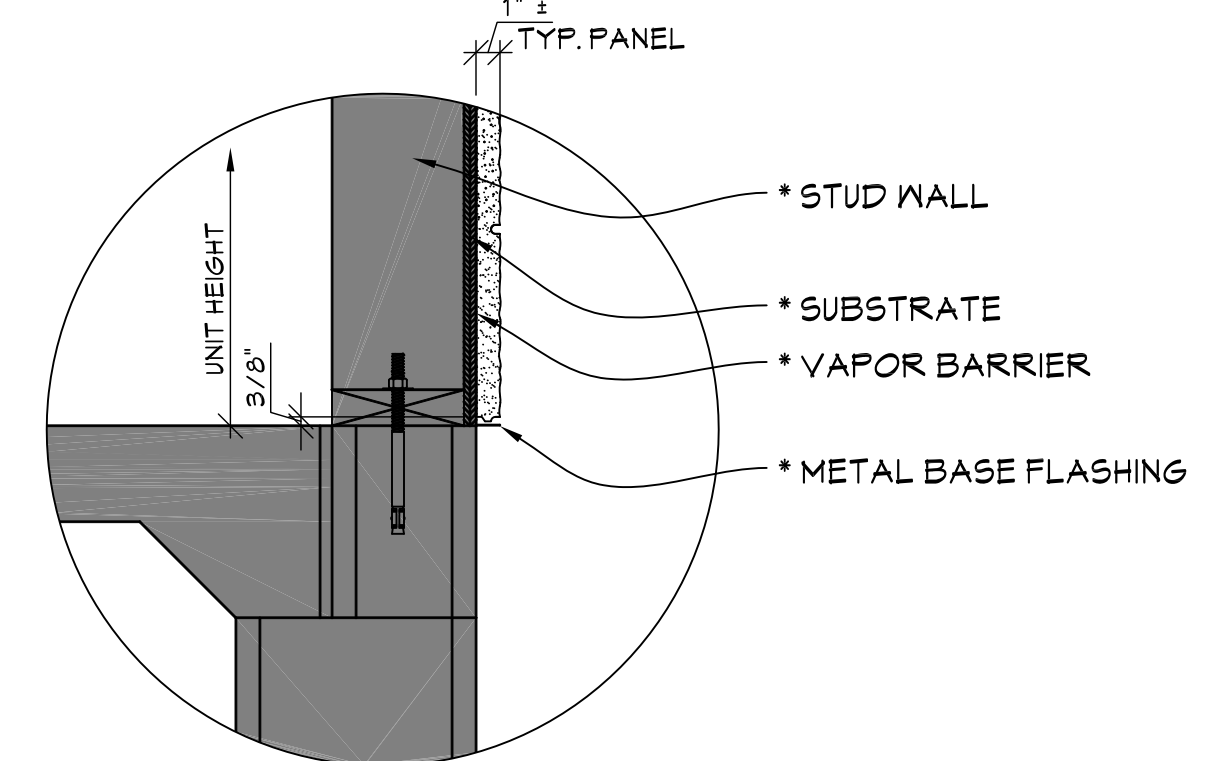
B HORIZONTAL JOINT
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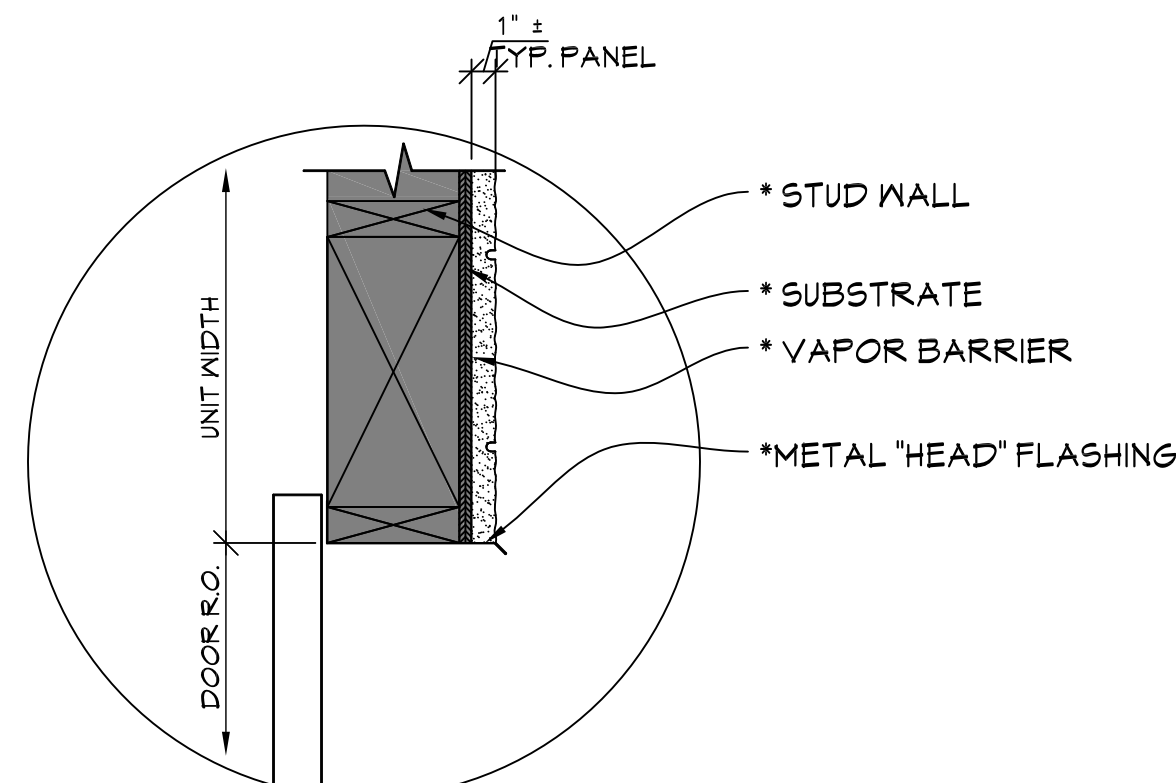
F INSIDE CORNER
SCALE 1-1/2" = 1'-0"



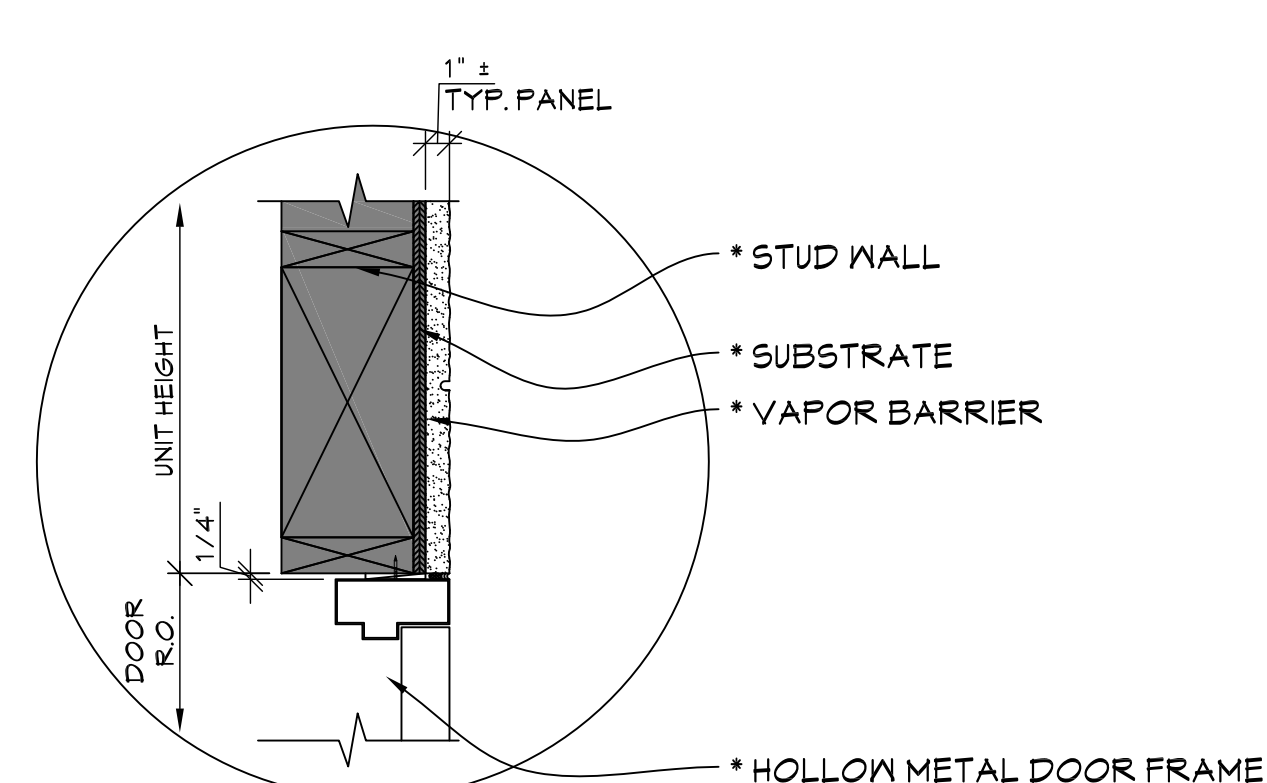
K WINDOW JAMB
SCALE 1-1/2" = 1'-0"



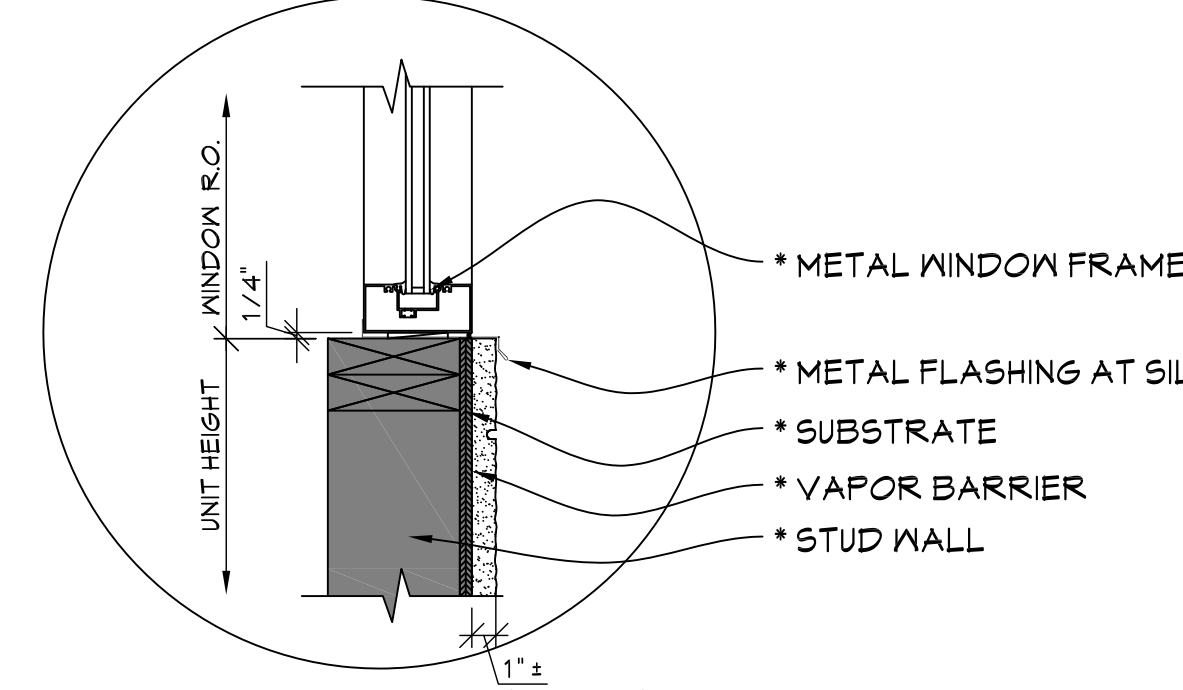
N BASE OF WALL
SCALE 1-1/2" = 1'-0"



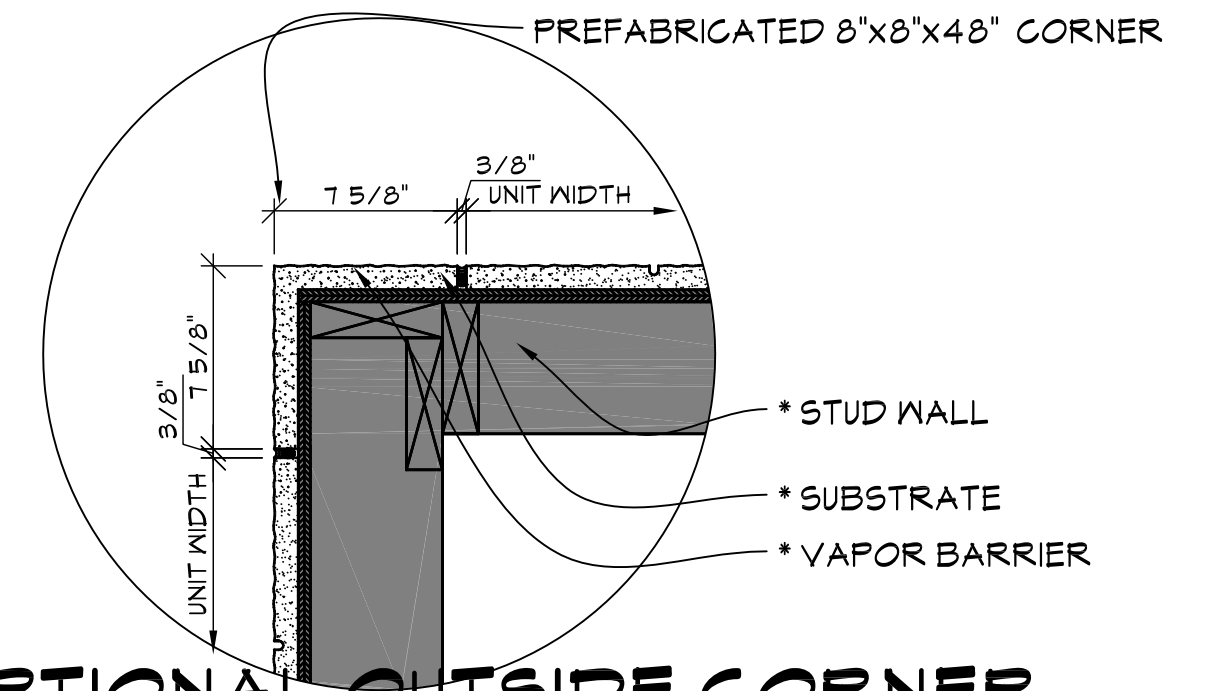
C OVERHEAD DOOR HEAD
SCALE 1-1/2" = 1'-0"



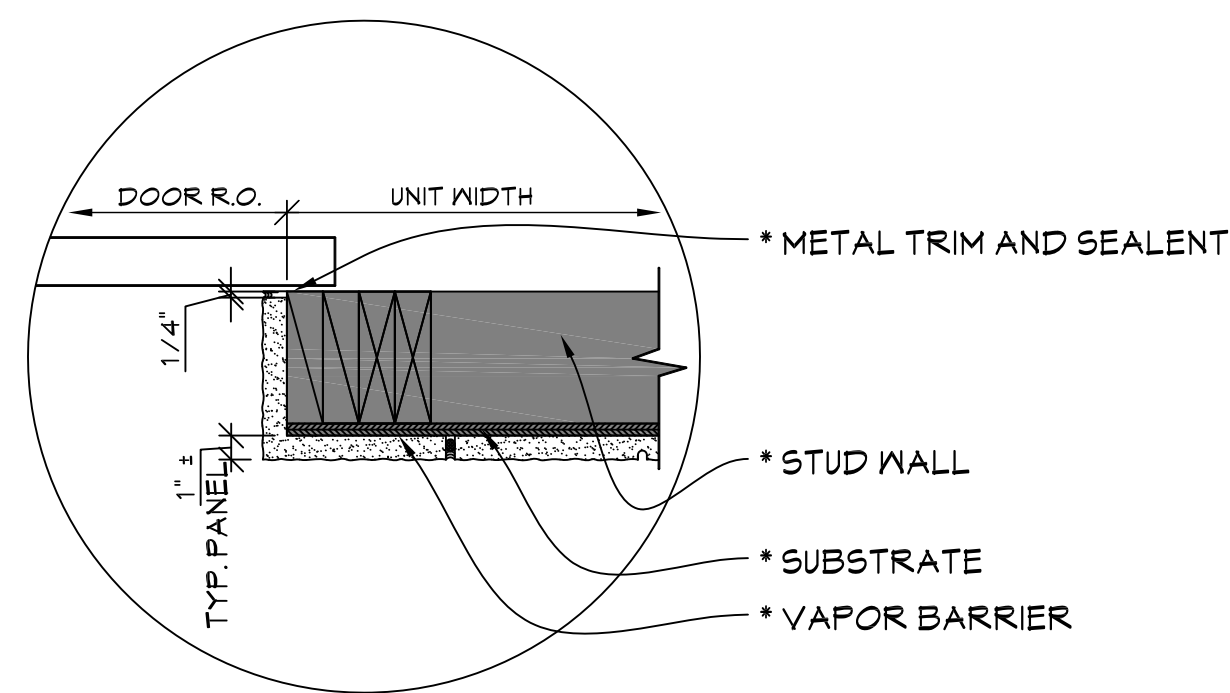
G HOLLOW METAL DOOR HEAD
SCALE 1-1/2" = 1'-0"



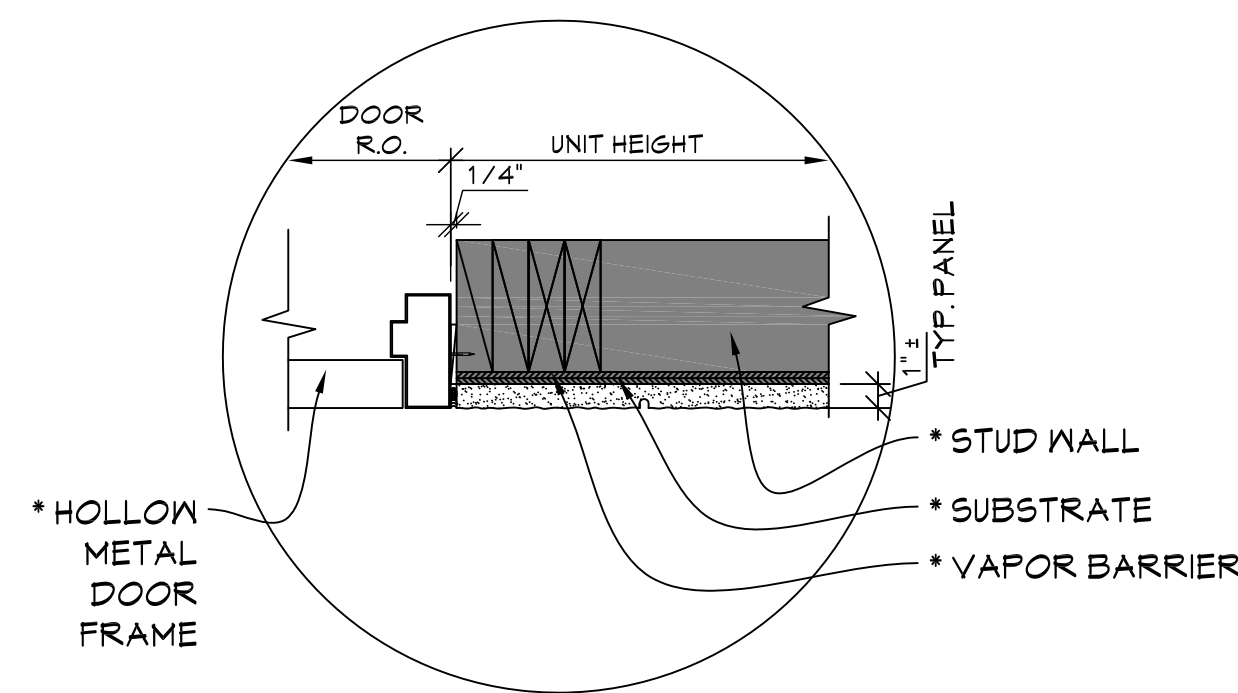
L WINDOW SILL
SCALE 1-1/2" = 1'-0"



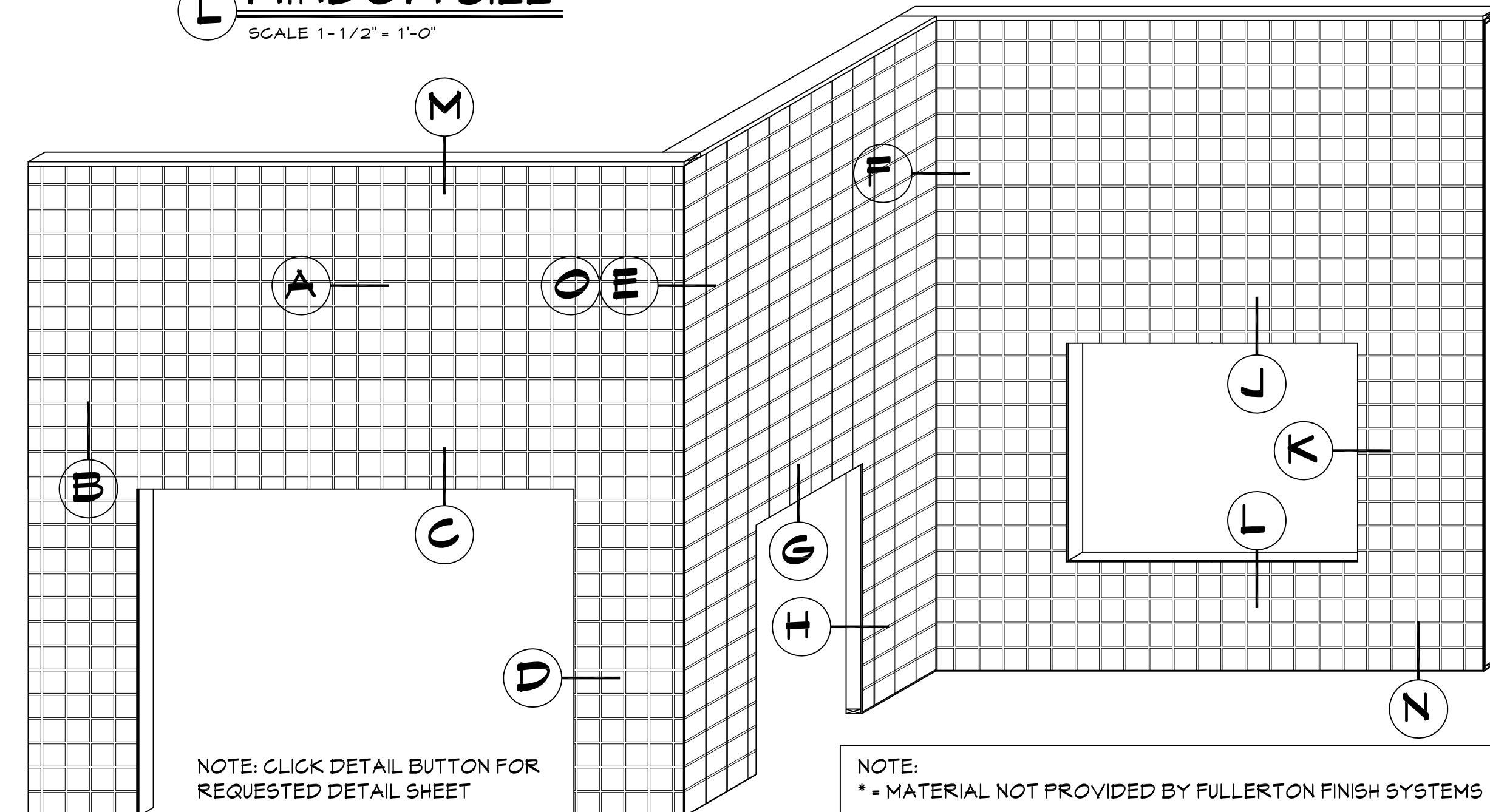
O OPTIONAL OUTSIDE CORNER
SCALE 1-1/2" = 1'-0"



D OVERHEAD DOOR JAMB
SCALE 1-1/2" = 1'-0"



H HOLLOW METAL DOOR JAMB
SCALE 1-1/2" = 1'-0"



NOTE:
* = MATERIAL NOT PROVIDED BY FULLERTON FINISH SYSTEMS

CASTWAL

FFS
FULLERTON
FINISH SYSTEMS

8645 W. 21st. Street P.O. Box 609
Sand Springs, OK. 74063
PH (918) 246-9995

SECTION SIX – Installation Instructions



Attached are general guidelines for installing Castwal exterior finish panels. It is recommended to check with local authorities to determine the code requirements for your area.



CASTWAL

Exterior veneer finish system

New Building code requirements vary and it is suggested that you check with local authorities to determine requirements for your area. Carefully read all installation instructions before proceeding with installation. Observe all safety precautions.

The installation information in this manual is a guide for the builder to use in conjunction with FULLERTON installation drawings (if required) supplied with the veneer panels. This manual is designed to help plan and organize the project by establishing an installation sequence.

Panels referred to in this guide must be installed by qualified personnel and in accordance with the manufacturer's instructions. FULLERTON FINISH SYSTEMS will provide training for the installation and handling of the panels at no charge at their plant in Sand Springs, Oklahoma (918) 246-9995. Field assistance is available upon request by Fullerton at a minimal charge.

HANDLING AND STORAGE

Panel pallets or crates will arrive on flat bed trailers or LTL trucks. If panels arrive without a tarp or stretch wrap protective cover, it should be noted on the driver's freight bill. Note any panel damage on the freight bill and file a claim if needed.

Caution should be taken when unloading from shipping vehicles as each crate can weigh up to 3600#. A maximum of 20 panels will be included in one crate with each panel weighing approximately 180# based on a standard 4x8 sheet.

Panels should be unloaded as pallets or crates and not as individual pieces. Store pallets and/or crates on a suitable flat surface above grade after removal from shipping vehicle. See fig. 1

Individual pieces should be carried vertically to avoid excessive flex and possible damage. When transporting in the horizontal position additional care should be taken to ensure proper support is provided under the finish sheet to prevent droop and possible damage.

CAUTION

WHEN REMOVING BANDING AND OPENING CRATE THE MATERIAL INSIDE CAN FALL FORWARD IF NOT STORED PROPERLY. PALLET SHOULD BE FLAT OR TILTED TO THE REAR

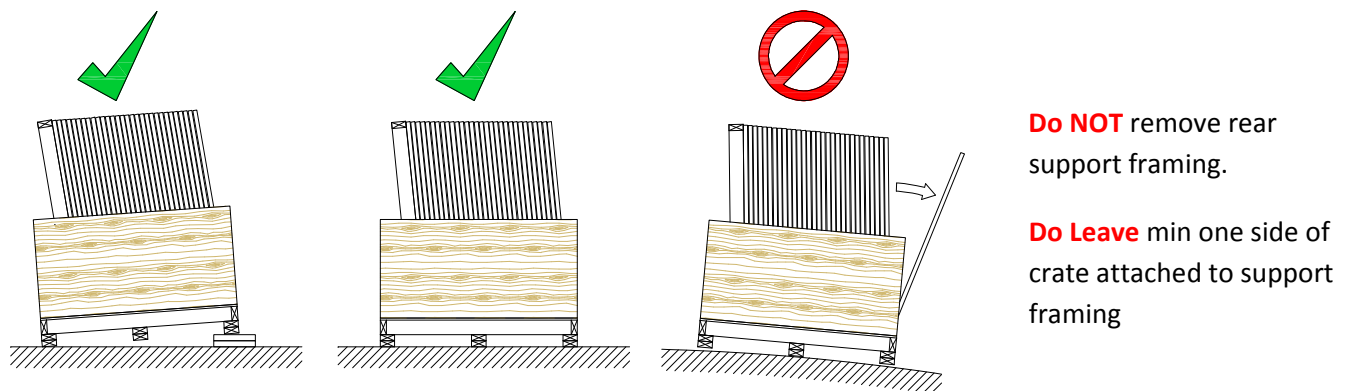


Fig. 1 – Crate Storage

SURFACE PREPERATION

Inspect the areas where panels will be installed. Determine that the framing will be sufficient to accept proper fastening needed for panel application. A minimum $\frac{7}{16}$ " OSB or $\frac{1}{2}$ " plywood sheathing is required if fastening directly to substrate. Verify that the appropriate weather barrier, flashing and caulking have been installed, or that they will be as part of your installation package. Check to ensure that walls are plumb and square and identify any defects or protrusions. Contact the builder, registered design professional or contractor to correct any deficiencies before you proceed.

BEFORE YOU BEGIN

1. Before doing anything, review the Fullerton shop drawings (if supplied) that came with your panels. Get familiar with all the details and sections. These drawings will best illustrate how veneer panels are attached and joints are caulked.
2. Decide on which elevation to begin the panel installation process. Typically the rear is a good place to start as you may hide any mistakes that may occur while getting familiar with the panel installation.
3. Only place enough panels to the side of the project currently being worked on. Minimizing the amount of times the panels are moved will reduce the possibility of damage. Refer to the Fullerton shop drawings (if supplied) for schedule, quantity and identification markers. Identification markers are provided on the drawings for proper placement of each panel.
4. Determine if you have the correct fasteners need for the project. See the fastener section of this manual for additional information.

INSTALLATION

Preparation

1. Install flashings, weather barriers and seal exterior wall surface prior to beginning panel installation.
2. Ensure that a straight, level, horizontal reference line has been established to follow during installation.
3. Panels should be installed one row at a time working upward toward the designated height.

Corners

1. Work should begin with installation of pre-fabricated corner panels or with standard panels that will butt or miter into the corners. This is typically the most visual location and the corners should not be cut unless absolutely necessary. Refer to fig. 2,3,4 for corner detail.

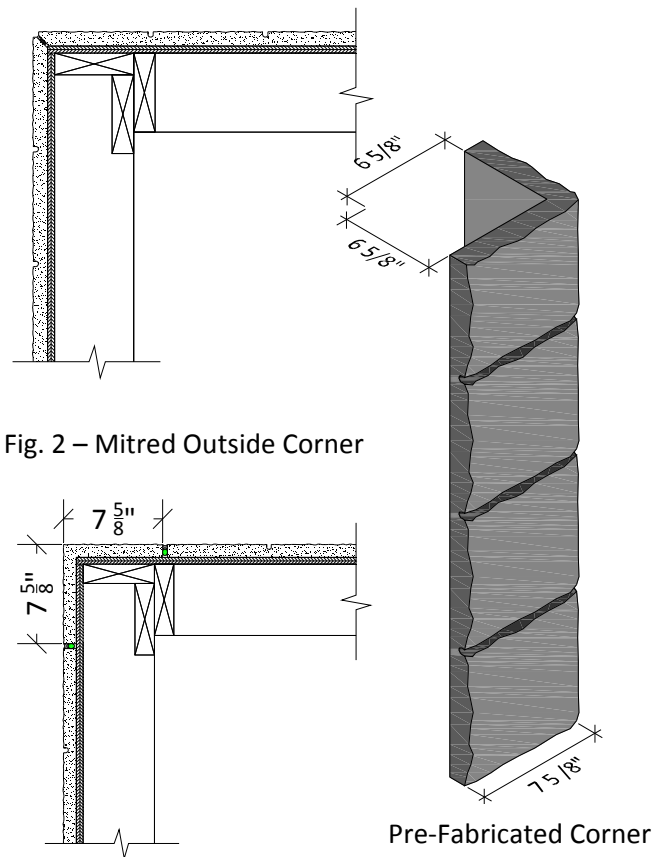


Fig. 2 – Mitred Outside Corner

Fig. 3 – Pre-Made Outside Corner

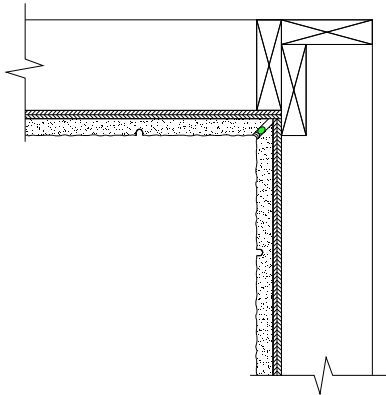


Fig. 4 – Mitered Inside Corner

2. Identify the corner and install panels to the left and right side if applicable. If only one outside corner is available, start install at that location. Install panels as shown on the Fullerton shop drawings or as shown in this manual.

Panels

1. Continue installation with the intermediate panels filling the space in-between corner panels. Special care should be taken with the planning and the installation of these panels. To provide the best overall look measure the distance between corner panels and decide if the final panel install will provide the look required. Ensure that you have provided the correct spacing between panel edges. See fig. 5

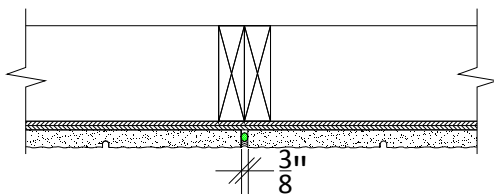


Fig. 5 - Vertical Panel Joint Spacing

2. By planning you should be able to avoid visually unpleasant joints.
3. Cutting panels should be completed on a stable surface with proper support members for the panels. Allowing the material to droop or sag will result in damage to the product. Cutting should be performed with the product facing

down while using a circular saw to prevent chipping. When marking the cut location care should be taken to ensure that the resulting cut is visually acceptable. Cutting can also be performed using a grinder if preferred. Below are possible types of equipment

- a. Circular saw w/ dry cut diamond blade
- b. 4" handheld grinder w/ dry cut diamond blade

Fasteners

Mechanical fasteners are required for proper installation of panels. To determine the proper fasteners the base material will need to be identified. It is suggested that you consult with your local design professional to ensure that the wall structure will be able to accept the additional weight of the panels. Below is a list of fasteners typically used during installation.

Wood Fastener

#8x 2 1/2" Phillips head needle point

Metal Fastener

#8 x 2 3/8" Phillips head needle point

Masonry Fastener

3/16" x 1 3/4" Philips head (Tapcon)

Note that the above fasteners are used for a general guide, your project may require specific fasteners. Please consult a Fullerton representative with any questions.

Fastening

1. Place required panel into position following all guidelines to ensure proper installation.
2. Ensuring that there are proper attachment points at fastener locations. See fig. 6.1-6.5 for typical wall type construction.

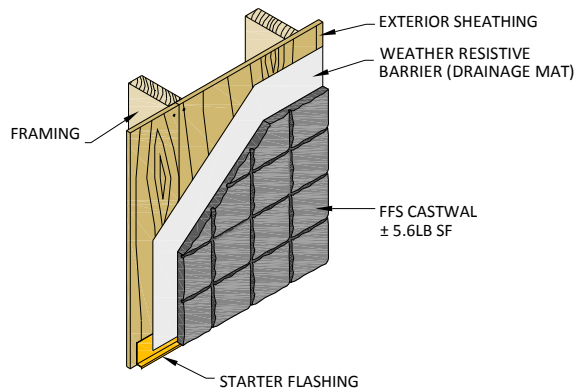


Fig. 6.1 – Standard Wall Construction

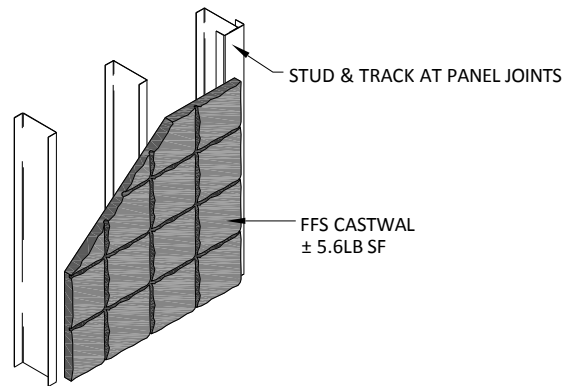


Fig. 6.4 – Stud and Track at Joint

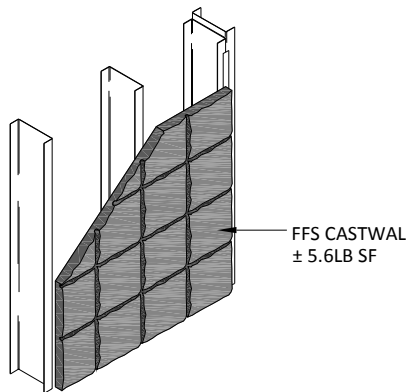


Fig. 6.2 – Metal Stud Wall

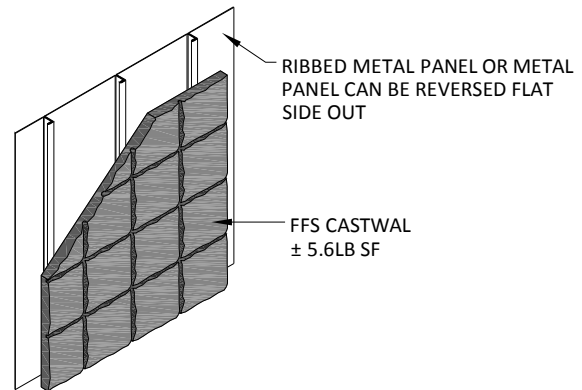


Fig. 6.5 – Ribbed Metal Panel

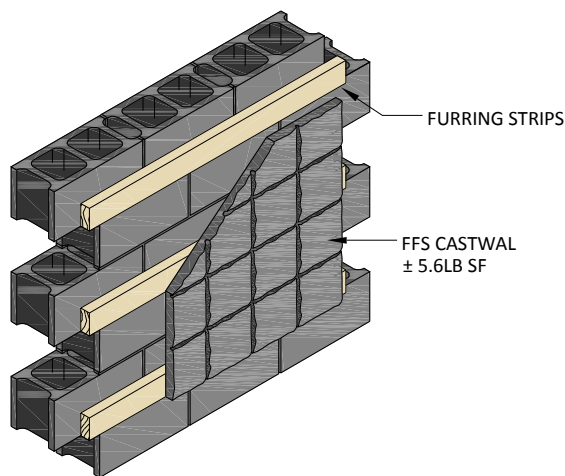


Fig. 6.3 – Furred Wall

3. Fastener spacing is typically 12" on center along all edges of the panel and 16" on center throughout the middle of the panel. To ensure that the edges do not become damaged fasteners should remain a minimum 2" from panel edges. See fig. 6
4. Predrill holes into panel with $\frac{1}{8}$ " masonry bit. It may be required to relieve the surface with a countersink bit at fastener locations to flush the fastener head with the face of the panel surface. The type of fastener used will determine if a countersink is needed.

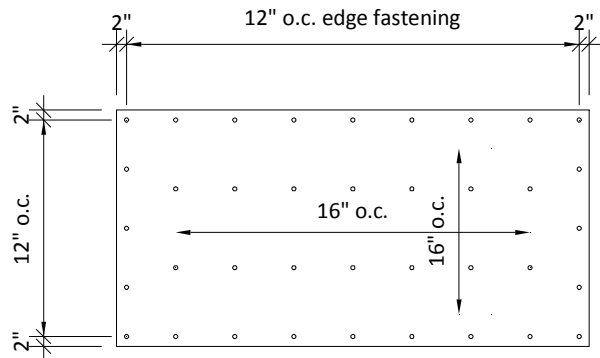


Fig. 6 - Fastener Spacing Diagram

- Once finished with the first level of panel installation continue to the second level. Installation will be the same as the first level. Caution should be taken as your height of installation increases as the panels are very heavy. If necessary equipment can be utilized to help during the installation. It is the responsibility of the installer to determine the proper use and attachments of panels to such equipment. (Fullerton can suggest types and uses of equipment if requested) Be sure to allow for horizontal joint spacing unless noted otherwise. See fig. 7

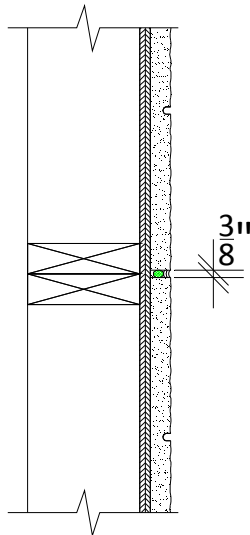


Fig. 7 - Horizontal Panel Joint Spacing

CAULKING

After installation of all panels install backer rod at joint caulking should be performed to seal all edges. Let caulk dry min. 1 day before painting.

CLEANING

After installation of panels and installation of backer rod and caulking the finished exterior should be washed to remove any loose or foreign materials produced during installation. The use of a standard water hose should be enough to clean the surface. If there are any stains on the exterior surface that cannot be removed with standard water pressures please consult a Fullerton representative.

SECTION SEVEN – Castwal Warranty

Due to our factory setting and exacting process, we provide you with panels that are outstanding in quality and more consistent in quality than typically provided with a field framed approach. Fullerton Finish Systems offers warranties on the following product line:

- **Castwal**
Manufacturer to warranty from date of purchase against defective materials or workmanship in fabrication for 5 years

SECTION EIGHT – Castwal Care & Maintenance



Care and Maintenance of the Castwal Product is as follows:

- The entire exterior wall surface should be cleaned at least once every year using a low-pressure water sprayer to remove any dirt, airborne pollutants, or foreign materials from the surface. Any materials that are not removed using a low-pressure sprayer should be removed by cleaning with soft fiber scrubbing brush to remove in conjunction with spraying with water or a solution of detergent and water.
- Inspect the entire exterior surface of the building at least every year for any damage to the exterior Castwal panels. If there is any damage noted notify Fullerton Finish Systems for the appropriate support and technical expertise for repairs that may be needed to correct the damage.
- Inspect all sealant joints on CastWal panels every year making sure they are not cracked, loose, or missing in some areas at the panel to panel joints and where other products intersect or different substrates meet. Inspect sealant around doors, windows, electrical equipment, outlets, pipes or any other penetrations in the CastWal panel system making sure that they are secure and no moisture can penetrate into building. Any deteriorated or damaged sealant should be removed and replaced as soon as it appears. Contact Fullerton Finish Systems for the appropriate sealant required.
- Heavy traffic areas should be monitored more frequently due to exposure to automobiles, lawn equipment and other elements. Heavy foliage or landscape areas with frequent watering schedules should be checked more frequently as they can develop mold or algae growth. Contact Fullerton Finish Systems for cleaning recommendations



SECTION NINE – Castwal MSDS Sheets



On the following pages, please find the Material Safety Data Sheets on Castwal for your reference.



Date Revised: May 27, 2014

Section 1 – Product Identification and Use

PRODUCT NAME: CastWal		PRODUCT IDENTIFICATION NUMBER.: Not Applicable
PRODUCT USE:		
MANUFACTURER		SUPPLIER
Fullerton Finish Systems, Inc. 8645 W. 21 st Street Sand Springs, OK 74063 Phone No: (866) 915-9995		Fullerton Finish Systems, Inc. 8645 W. 21 st Street Sand Springs, OK 74063 Phone No: (866) 915-9995

Section 2 – Hazardous Ingredients

Hazardous Ingredients	Common Name	CAS #	OSHA PEL	ACGIH TLV
Talc		14807-96-6		2 mg/m ³
Expanded Perlite		93763-70-3	15 mg/m ³ total dust 5 mg/m ³ respirable dust	10 mg/m ³
Silica-Quartz		14808-60-7	0.1mg/m ³ For respirable quartz	0.1mg/m ³ For respirable quartz
Portland Cement		65997-15-1	15 mg/m ³ total dust 5 mg/m ³ respirable dust	10 mg/m ³
Kaolin		1332-58-07	15 mg/m ³	

Section 3 – Physical/Chemical Characteristics

Boiling Point: Not Applicable	Specific Gravity (H₂O=1) 1.4
Vapor Pressure (mm Hg.) Not Applicable	Melting Point Not Applicable
Vapor Density (AIR=1) Not Applicable	Evaporation Rate Not Applicable
Solubility in Water: Not Applicable	(Butyl Acetate=1):
Appearance: Texture fluted concrete, brick or split face block	Odor: Not Applicable

Section 4 – Fire and Explosion Data

Flash Point (Method Used): Not Applicable	Flammable Limits: Not Applicable	LEL: Not Applicable	UEL: Not Applicable
Extinguishing Media: Same as surrounding fire or class A			
Special Fire Fighting Procedures: Not Applicable			
Unusual Fire and Explosion Hazards: Not Applicable			

Section 5 – Reactivity Data

Stability: Unstable Stable X	Hazardous Polymerization: May Occur Will Not Occur X
Incompatibility (Materials to Avoid): Not Applicable	
Hazardous Decomposition or Byproducts: Not Applicable	
Conditions to Avoid: Not Applicable	

Section 6 – Health Hazard Data

Route(s) of Entry:	Inhalation? Yes	Skin? Yes	Ingestion? Yes
Health Hazards (Acute and Chronic): Dust from product while cutting may cause minor dermatitis and/or respiratory irritations. Excessive inhalation of dust can produce pneumoconiosis, commonly called silicosis			
Carcinogenicity:	NTP? N/A	LARC Monographs? N/A	OSHA Regulated? N/A
Signs and Symptoms of Exposure: Not Applicable			
Medical Conditions Generally Aggravated by Exposure: Exposure to dust while cutting may cause aggravation to sinus allergies and bronchitis.			
Emergency and First Aid Procedures: Should dust cause a rash or get in eyes wash and flush with water.			

Section 7 – Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled: Not Applicable
Waste Disposal Method: Dispose according to state and federal regulations or in ordinary approved land fill.
Precautions to be Taken in Handling and Storing: Not Applicable
Other Precautions: When cutting material wear gloves, particle mask and goggles.

Section 8 – Control Measures

Respiratory Protection (Specify Type): OSHA approved particle mask.											
Ventilation:		Local Exhaust?		Yes	Mechanical (General)?		General	Special	N/A	Other	N/A
Protective Gloves: Yes					Eye Protection: OSHA approved goggles						
Other Protective Clothing or Equipment: None											
Work/Hygienic Practices Use standard hygienic practices.											

This information is given without a warranty or representation. We do not assume any legal responsibility for same, nor do we give permission, inducement, or recommendation to practice any patented invention without a license. It is offered solely for your consideration, investigation and verification, before using any product, read it's label.

SECTION TEN – Contacts



Looking for Consistant Results?

Give FFS a call to see how we can help you deliver results with our exterior finish panels and or materials.

Phone: 866-915-9995 (toll free)

918-246-9995 (local)

918-246-9976 (fax)

Contacts:



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