



# Weaver

CONSTRUCTION MANAGEMENT

3679 S Huron Street, Suite 404 Englewood, Colorado 80110

Phone: (303) 789-4111 FAX: (303) 789-4310

## SUBMITTAL TRANSMITTAL

March 1, 2012

**Submittal No: 07501-002.A**

PROJECT: **Harold Thompson Regional WRF**  
Birdsall Rd.  
Fountain, CO 80817  
Job No. 2908

ENGINEER: **GMS, Inc.**  
611 No. Weber St., #300  
Colorado Springs, CO 80903  
719-475-2935 Roger Sams

OWNER: **Lower Fountain Metropolitan  
Sewage Disposal District**  
901 S. Santa Fe Ave.  
Fountain, CO 80817  
719-382-5303 James Heckman

CONTRACTOR: **Heath Steel**  
141 Racquette Dr  
Fort Collins, CO 80522  
970-490-8031 Randy Gates  
rgates@heathsteel.com

SUBJECT: Resubmittal for the EM Building Metal Wall Panels

SPEC SECTION: 07501 - Metal Wall Panels

PREVIOUS SUBMISSION DATES: 2/3/12

DEVIATIONS FROM SPEC:  YES  NO

CONTRACTOR'S STAMP: This submittal has been reviewed by WCM and approved with respect to the means, methods, techniques, & safety precautions & programs incidental thereto. Weaver General Construction also warrants that this submittal complies with contracted documents and comprises on deviations thereto.

Contractor's Stamp:

Engineer's Stamp:

Date: 3/1/12

Reviewed by: John Jacob

( ) Reviewed Without Comments

(X) Reviewed With Comments

ENGINEER'S  
COMMENTS:

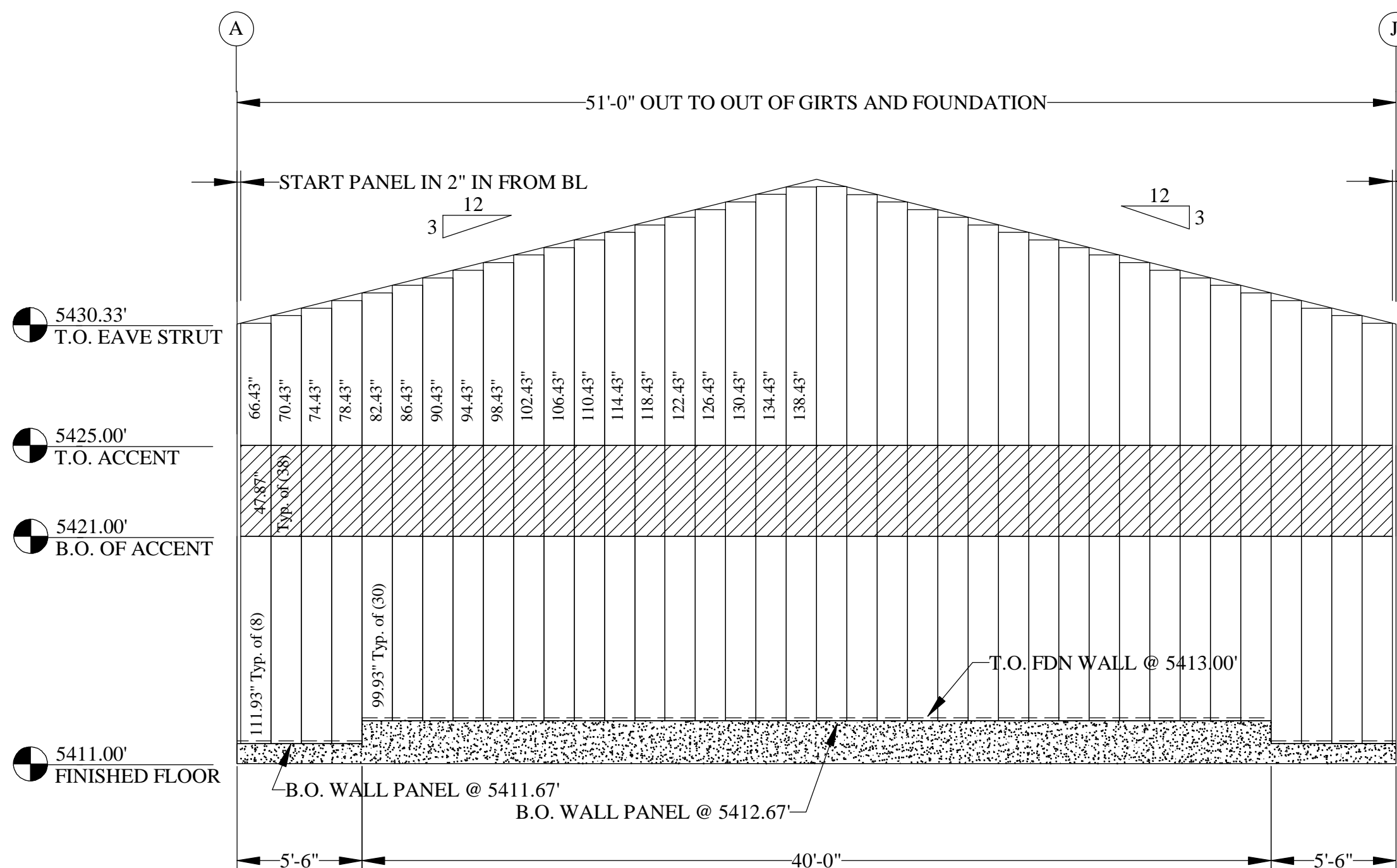


HEATH STEEL  
P.O. BOX 473  
141 RACQUETTE DR.  
FORT COLLINS, CO 80522

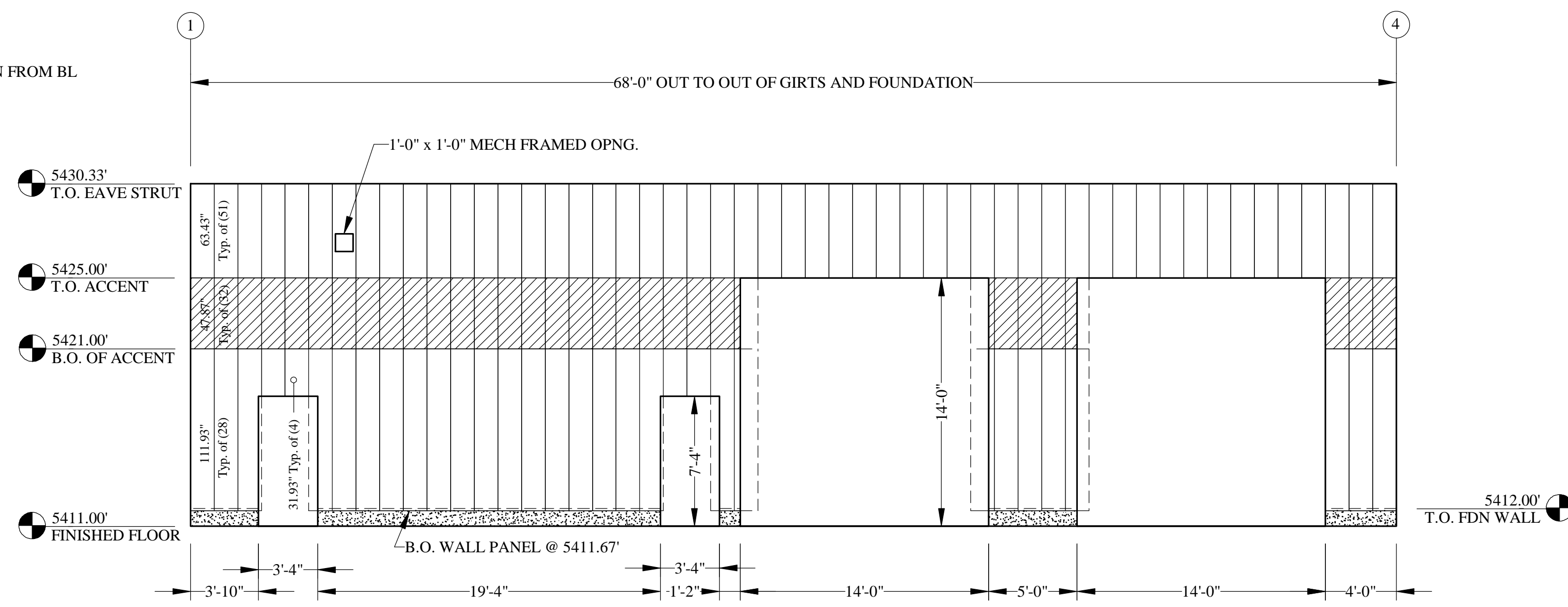
(970) 490-8031

HAROLD D. THOMPSON  
REGIONAL WATER RECLAMATION FACILITY  
EQUIPMENT MAINTENANCE AND STORAGE BUILDING  
14651 LOWER FOUNTAIN HEIGHTS, FOUNTAIN, CO

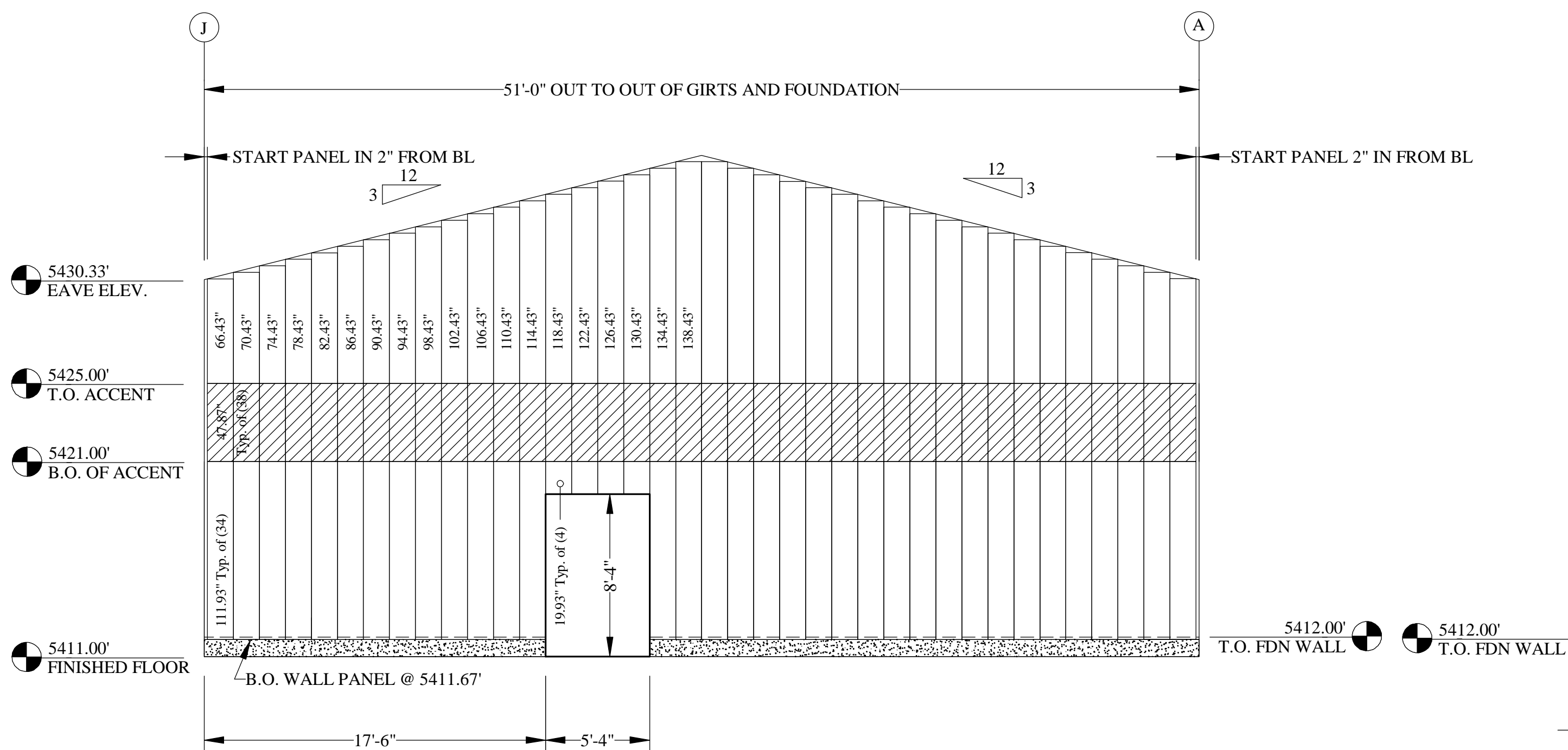
ISSUED FOR: DATE:  
APPROVAL January 27, 2012  
REVISE APPROVAL February 02, 2012  
REVISION February 23, 2012



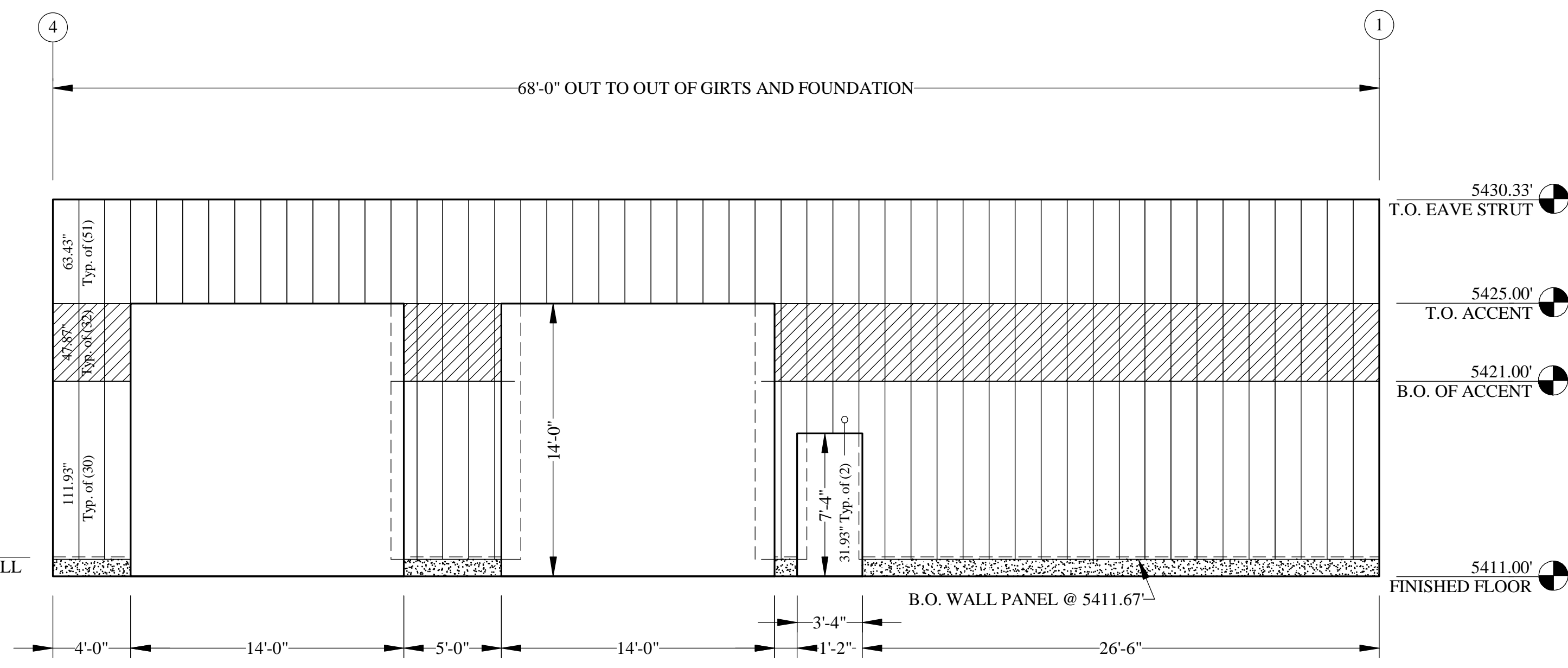
**NORTH ENDWALL PANEL ELEVATION**  
GRID LINE 4  
NOT TO SCALE



**EAST SIDEWALL PANEL ELEVATION**  
GRID LINE A  
NOT TO SCALE



**SOUTH ENDWALL PANEL ELEVATION**  
GRID LINE 1  
NOT TO SCALE



**WEST SIDEWALL PANEL ELEVATION**  
GRID LINE J  
NOT TO SCALE

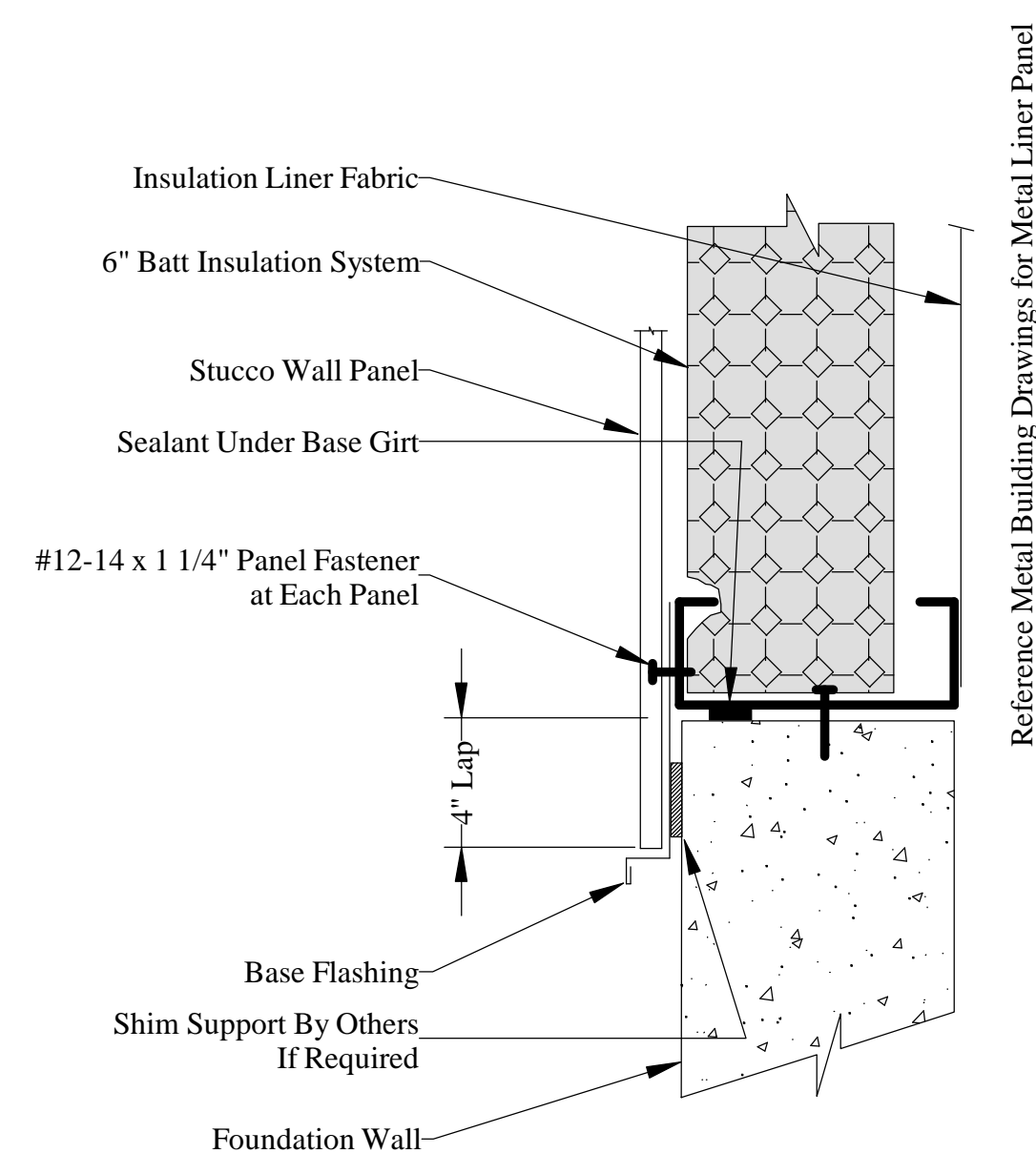
**INSTALLATION NOTES:**

- 1) Installer of the wall panel system is to completely familiarize themselves with the 27-page install manual from the manufacturer.
- 2) Roof system and roof trims are by others and not detailed in these drawings.
- 3) Field cut the wall panels to rake of the roof at the endwalls.
- 4) Gutter and downspouts are by others and not shown in these drawings.
- 5) Use M-1 Structural sealant in the vertical joints of the wall panel seams.
- 6) Use sealant in the horizontal stacked wall panel joints of the proper color.
- 7) Start sidewall panel on Building Line (BL) at the corners.
- 8) Start endwall panel 2" in from Building Line (BL) at the corners.
- 9) Reference the metal building manufacturer's erection drawings and general detail manual for specific information pertaining to the erection of the building's structure.
- 10) Touch-up the heads of all rivets with the panel manufacturer's supplied matching touch-up paint.

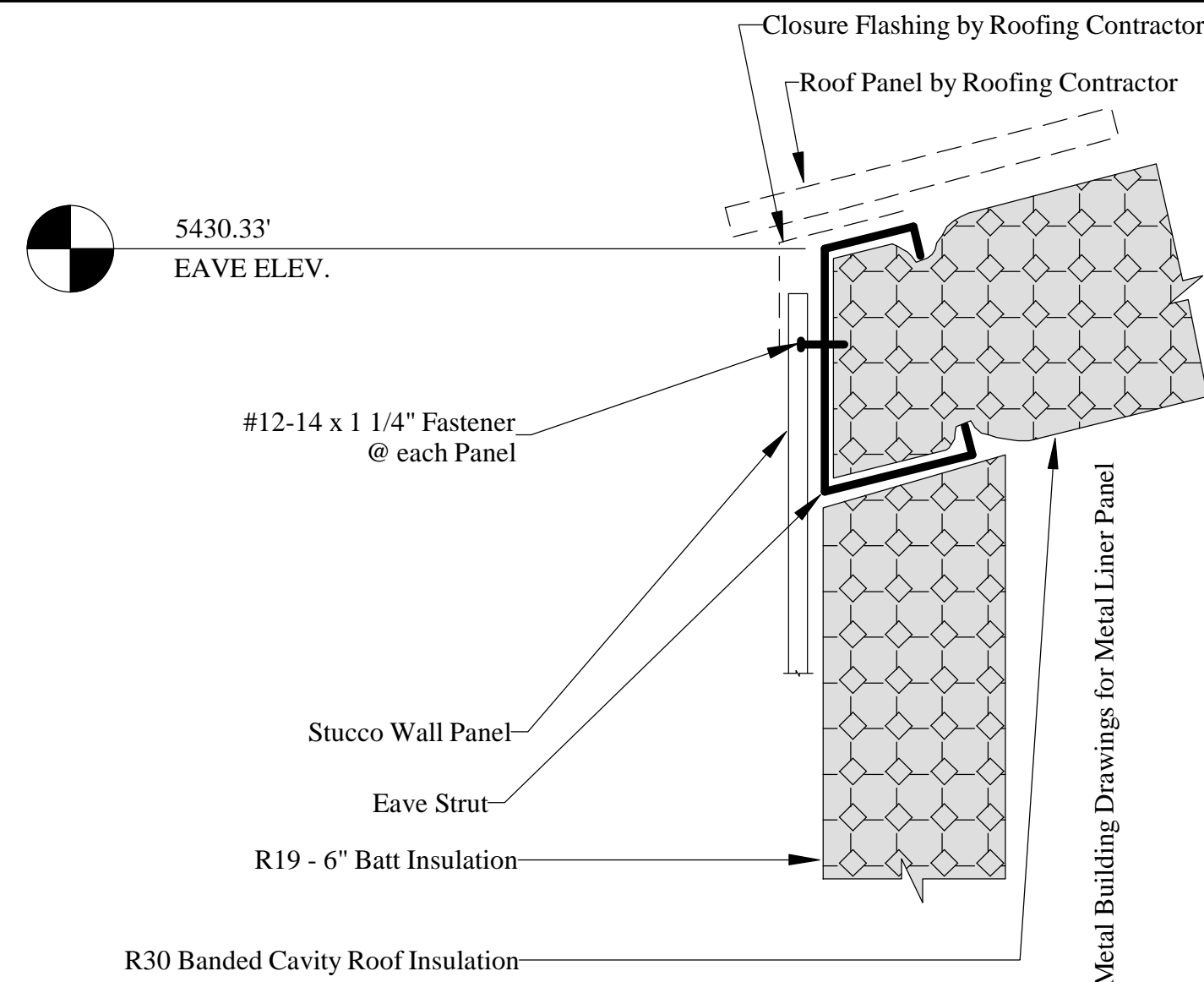
WALL PANEL COLOR SELECTIONS  
SELECTED FROM CUSTOM PANEL SYSTEMS  
STANDARD COLORS:

WALL PANEL COLOR: Pueblo

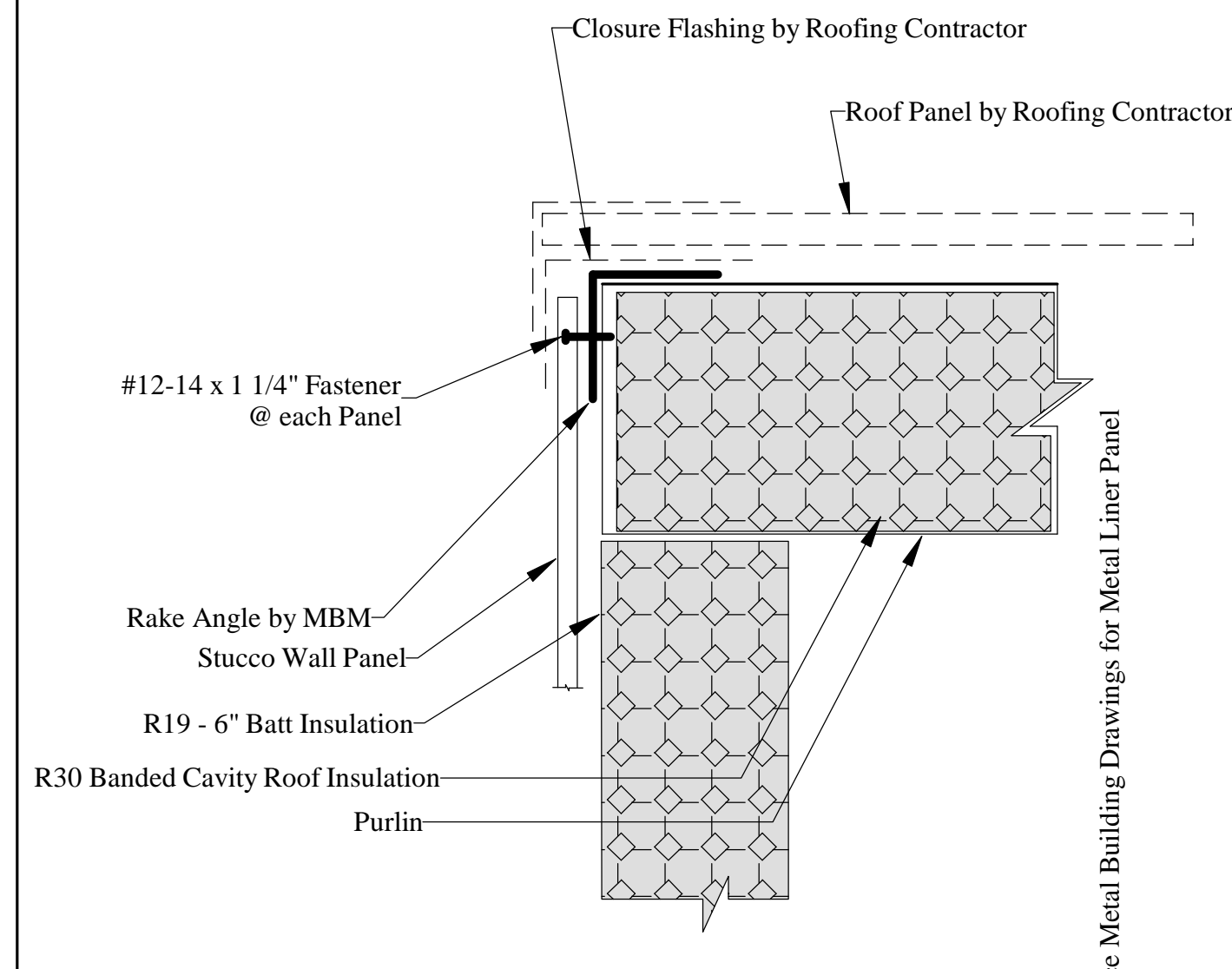
ACCENT WALL PANEL COLOR: Adobe



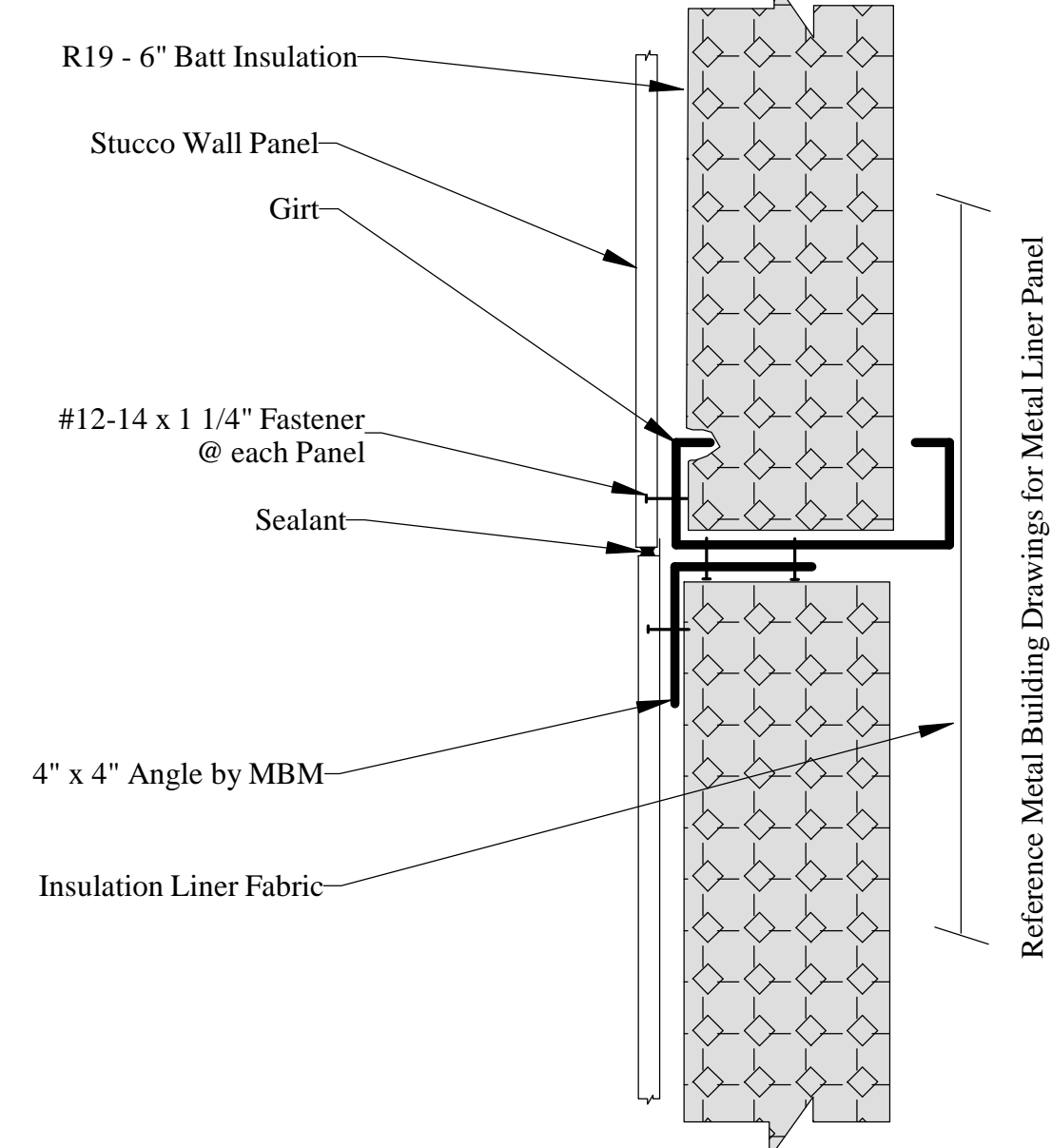
**TYPICAL WALL PANEL BASE DETAIL**



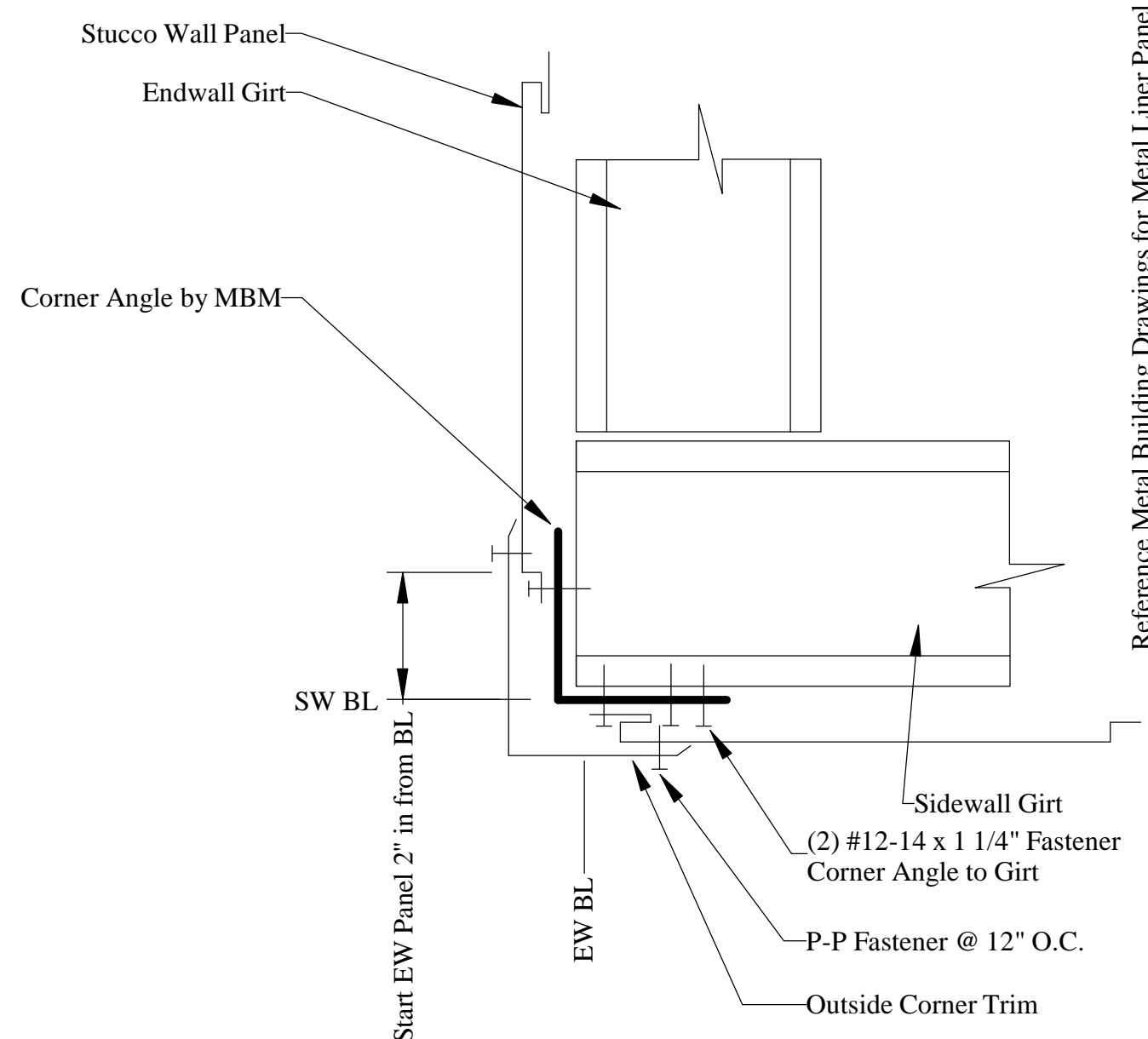
**TYPICAL WALL PANEL EAVE DETAIL**



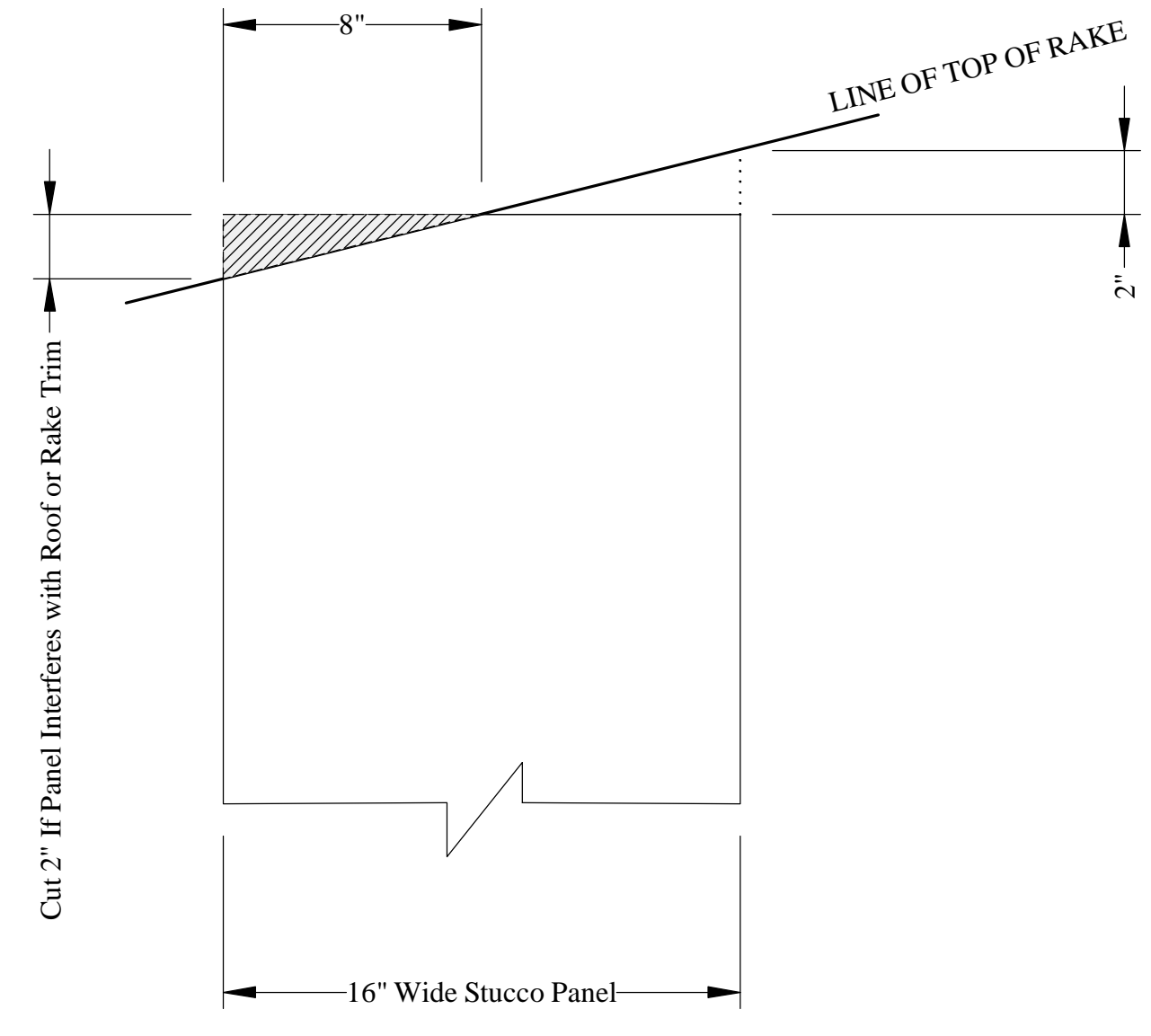
**TYPICAL WALL PANEL RAKE DETAIL**



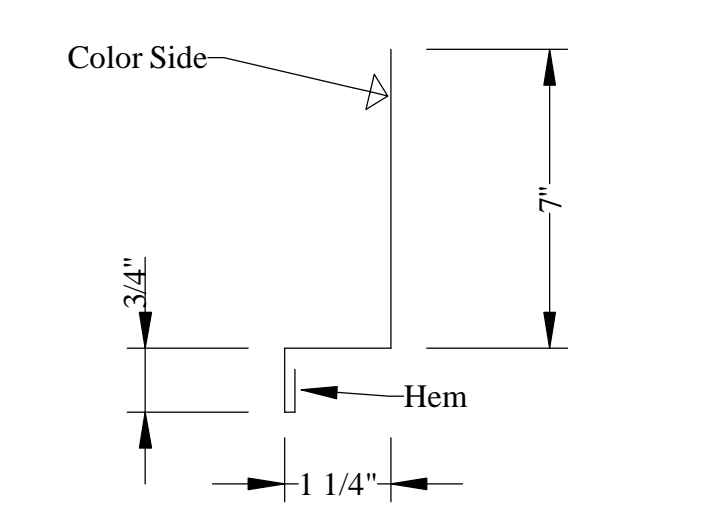
**TYPICAL STACKED WALL PANEL JOINT DETAIL**



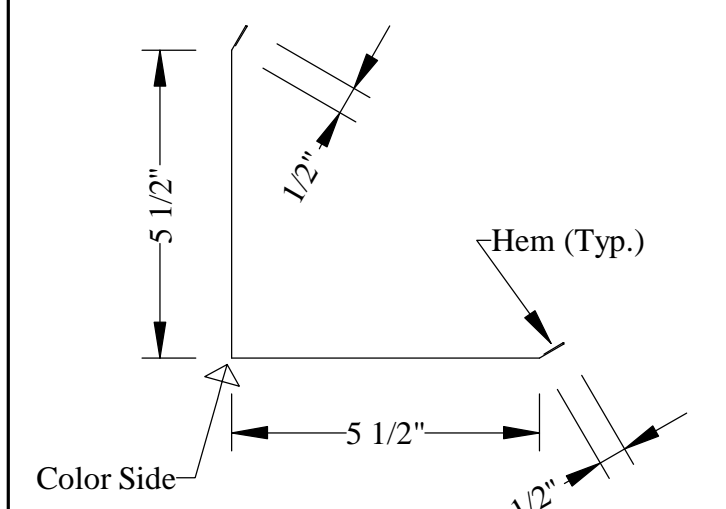
**TYPICAL WALL OUTSIDE CORNER DETAIL**



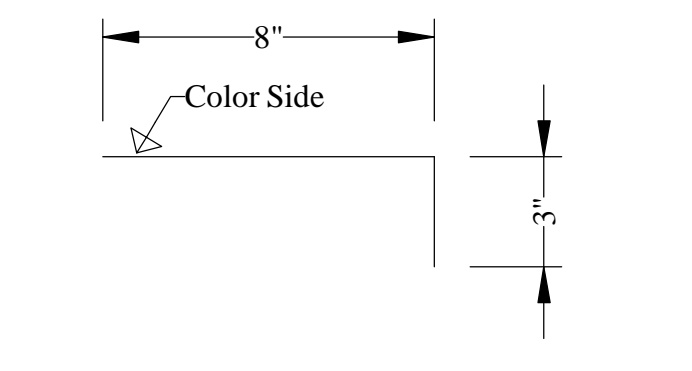
**TYPICAL WALL PANEL AT RAKE DETAIL**



**OUTER BASE FLASHING**  
(18) each 10'-0" pcs Req'd Not to Scale



**OUTSIDE CORNER TRIM**  
(8) each 10'-0" pcs Req'd Not to Scale



**OVERHEAD DOOR JAMB COVER**  
(18) each 10'-0" pcs Req'd Not to Scale



HEATH STEEL  
P.O. BOX 473  
141 RACQUETTE DR.  
FORT COLLINS, CO 80522  
  
(970) 490-8031

**HAROLD D. THOMPSON**  
**REGIONAL WATER RECLAMATION FACILITY**  
**EQUIPMENT MAINTENANCE AND STORAGE BUILDING**  
**14651 LOWER FOUNTAIN HEIGHTS, FOUNTAIN, CO**

**ISSUED FOR: DATE:**  
APPROVAL January 27, 2012  
REVISE APPROVAL February 02, 2012  
REVISION February 23, 2012



# Custom Panel Systems

## STUCCO BUILDING PANELS

### General Information

#### Application

This concealed fastener, interlocking, exterior wall system provides a flat-surfaced, steel Stucco Building Panel with a textured coating to simulate the look and feel of Stucco.

This non-structural, Stucco Wall system may be used as the primary exterior building surface for newly constructed pre-engineered metal buildings.

It may also be used in combination with other surfacing materials on new or existing structures. For resurfacing applications, the Stucco Panels may be applied over masonry, concrete, brick, wood, composition siding or existing metal siding.

#### Material Specification

Stucco Wall Panels are manufactured from 20-gauge, G-90 galvanized coil steel that is primer coated on both sides with a baked-on coil coat finish.

Standard Trim profiles for use at Stucco Panel base, building corners, window and door openings are shipped with each order as required. Special Trim sections are also available. All visible Trim is Stucco coated.

#### Manufacturing Process

Stucco Building Panels are roll formed and edge formed to Architect / Engineer / Builder specified lengths from continuous coil steel. Stucco coating is applied after which the Wall Panels are baked and packaged, ready for shipment.

The computerized manufacturing process is continuous, without handling, from decoiling to packaging.

## **Stucco Finish**

The specially formulated texture coating is a fiber reinforced polymer and crushed aggregate composition that is oven baked to provide excellent adhesion to the prime coated, galvanized steel Panel.

Fifteen standard colors are offered or custom color matching is available at no additional cost.

## **Design Assistance**

Headquarters Sales/Service personnel are available to assist builders, contractors, architects and metal building manufacturers with determination of Stucco Wall Panel and Trim requirements.

Printed and scaled architectural plans, construction drawings, building elevations and wall sections are helpful but not required for initial quotation.

## **Distribution**

Our Stucco Wall Panels are shipped from St. Louis, Missouri throughout the United States including Alaska and Hawaii.

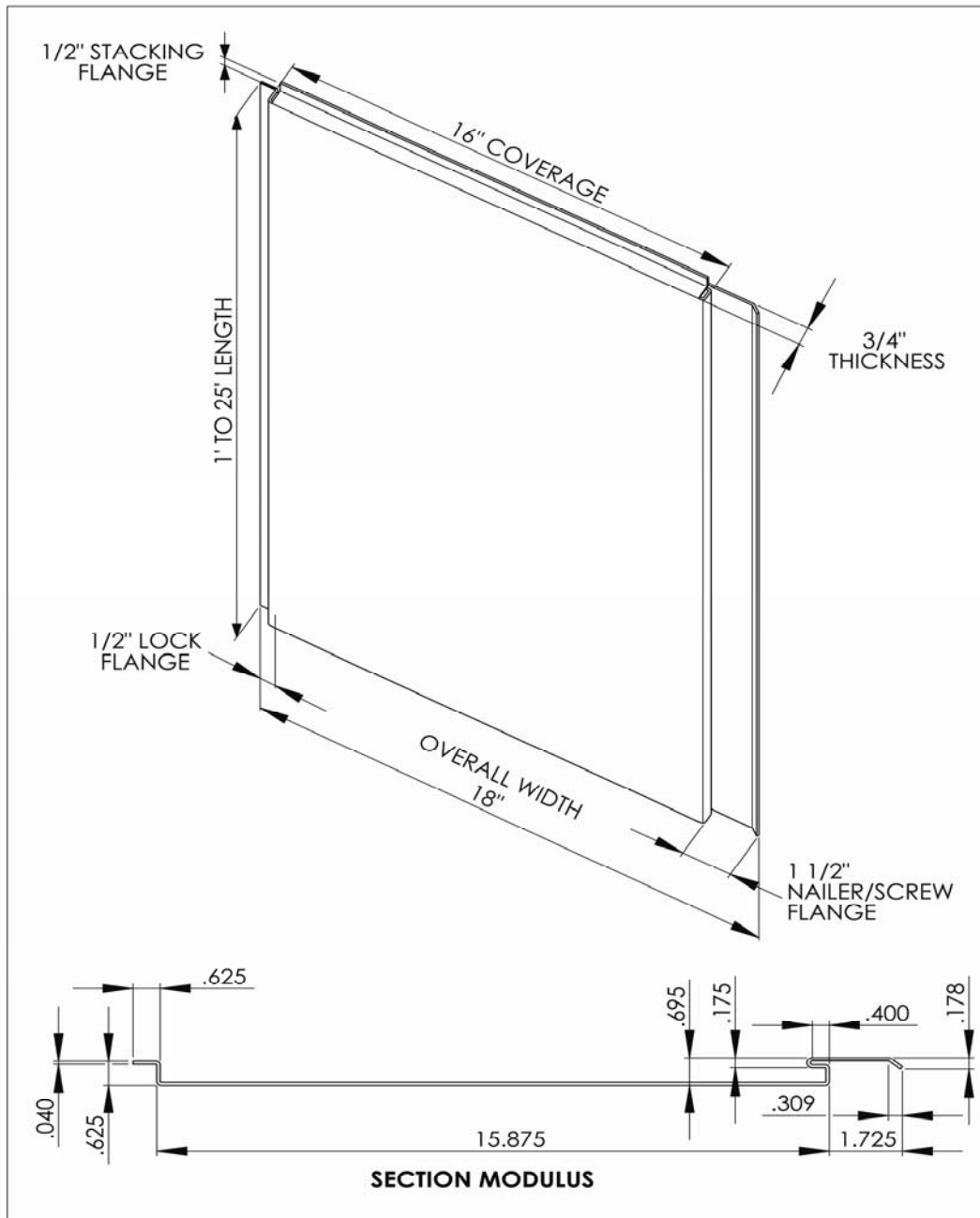
## **Technical Service**

Service and installation questions are handled from our St. Louis headquarters. Most common questions are addressed in our Installation Manual but sales and engineering help are always as close as the telephone, fax or e-mail.

## **Warranty**

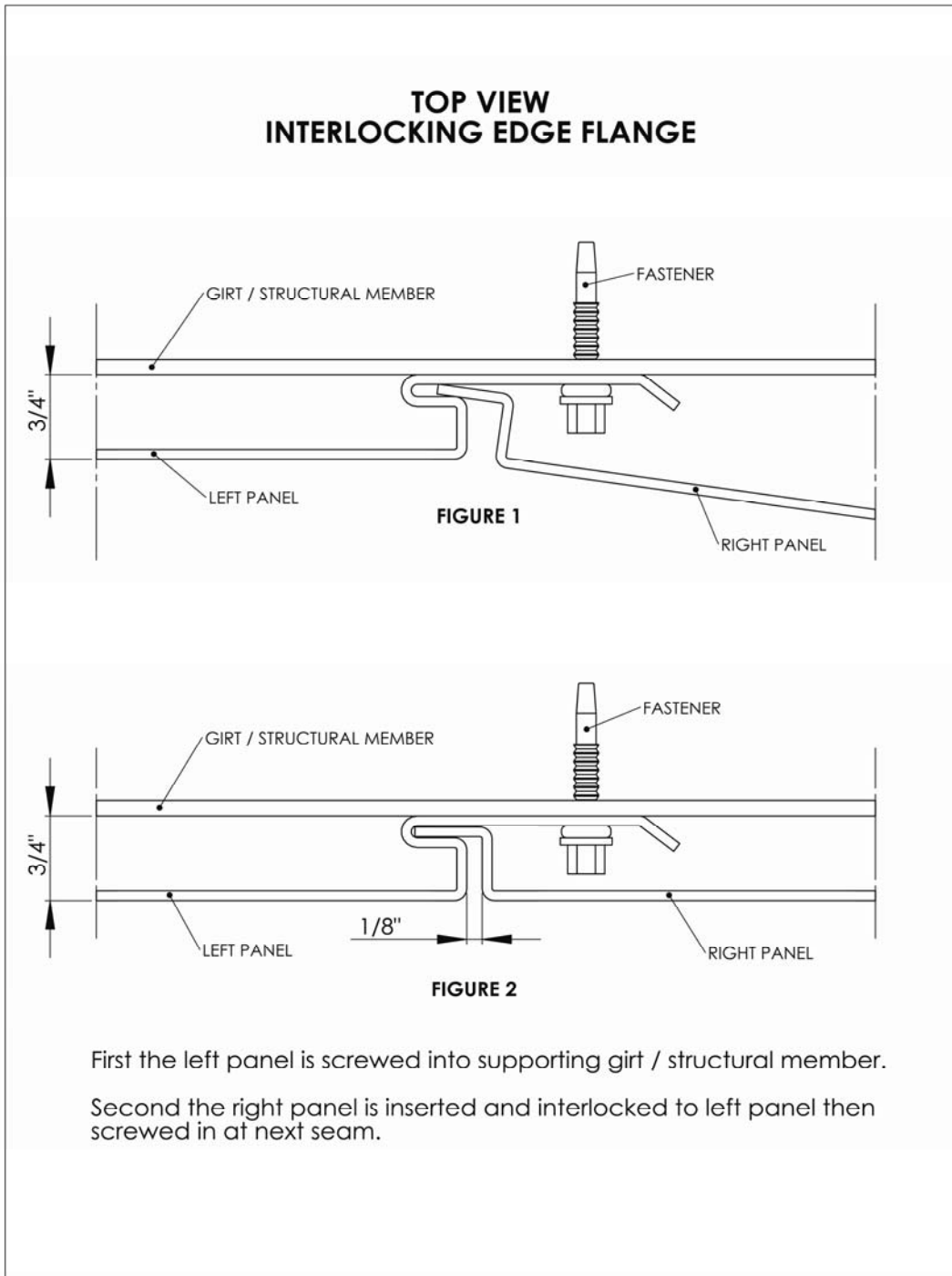
Panels and Trim carry a Twenty-Year Warranty against material and coating defect.

Our panels are custom manufactured for your application and supplied in any lengths ranging from 1' to 25' long. Each Panel has a 16" face (coverage) with a 1 1/2" nailer flange on one edge and a 1/2" lock flange on the other edge for an overall width of 18". The top flange is finished with a double 90° flange. These formed ends allow the panels to nest (end to end) for stacking up a vertical wall and gives the building the ability to utilize the panel for taller elevations.



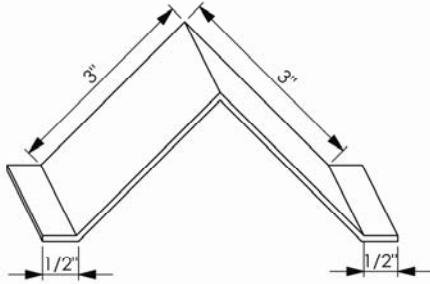
Stucco Panels are installed left to right with each panel fastened to bottom, top and intermediate structural members. (Figure #1)

Each succeeding panel has the 1/2" left side lock flange inserted into the right side 1/2" pocket flange of the previously installed panel. (Figure #2)

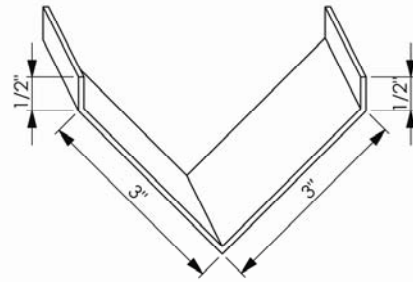




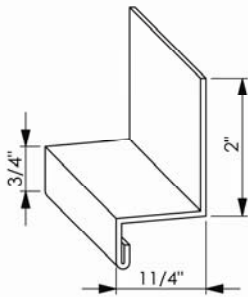
## Standard Trim Sections 10' Lengths



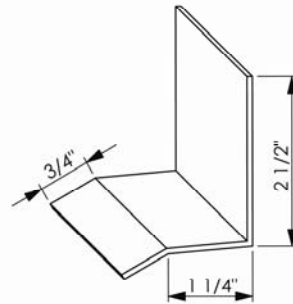
**Inside Corner Trim  
Part A**



**Outside Corner Trim  
Part B**



**Base Trim or Drip Cap  
Part C**

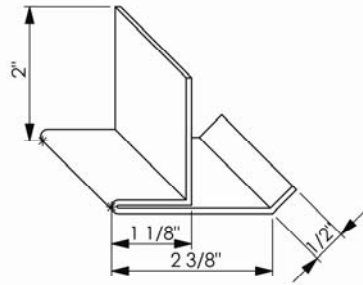


**Base Trim or Drip Cap  
Part D**

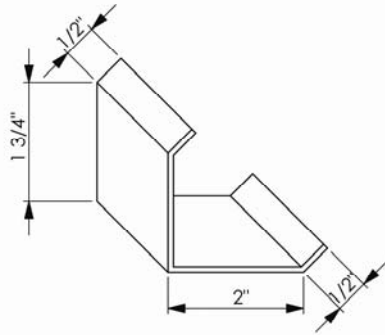




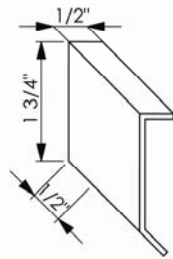
## Standard Trim Sections 10' lengths



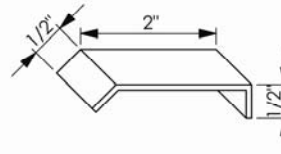
**Window & Door header  
Flashing - Part E**



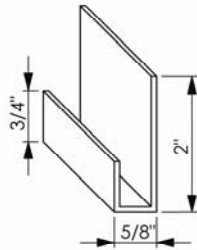
**Frame Opening Sill  
& Jamb Trim - Part F**



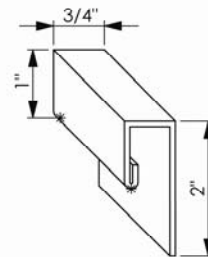
**Top Window & Door Trim  
Part - G**



**Top Wall, Rake & Utility  
Trim - Part H**



**(Unpainted)  
SubJamb Flashing  
Part I**

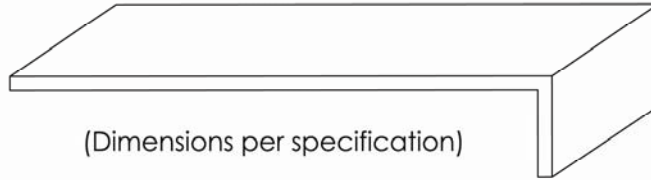


**(Painted)  
Top/Side Panel Cap  
Part J**



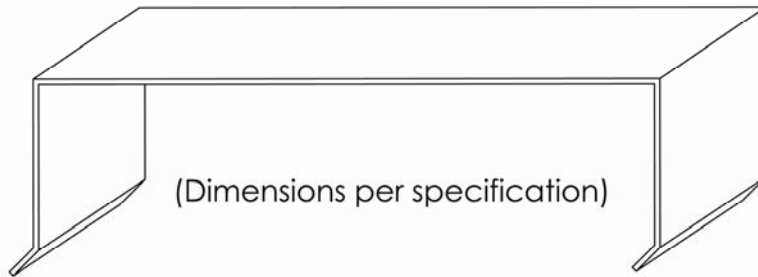
CUSTOM  
PANEL  
SYSTEMS

## Special Trim Sections 10' Lengths



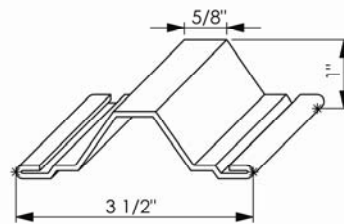
(Dimensions per specification)

**Overhead Door Jamb Cover**



(Dimensions per specification)

**Wall Cap Flashing**



**Hat Channel**

# **Insulation**

## **General Information**

Our STUCCO WALL PANEL is compatible with the use of most types of insulation, including loose blown materials, kraft or poly backed fiberglass batts, etc.

## **Expanded Polystyrene (EPS) Option**

We offer optional factory installed expanded polystyrene foam (EPS) insulation in a variety of thickness and densities to accommodate desired R-Values. EPS can be used alone or in combination with various types of field-installed insulation. Factory installed EPS is form fitted and glued into the back of the Panel with a tongue and groove design to eliminate thermal transfer.

## **Installing EPS Insulated Panels**

Installation of EPS insulated Panels is basically the same as installing our non-insulated Panel (see *Wall Panel Installation*) with a few exceptions: **DO NOT** over tighten the fastening screws when using EPS insulated Panels as crushing the insulation against the Panel may distort the flat surface plane. Insulated Panels may require alteration of Trim profiles and quantities of Trim needed.

## **Installing Panels Over Batten Insulation**

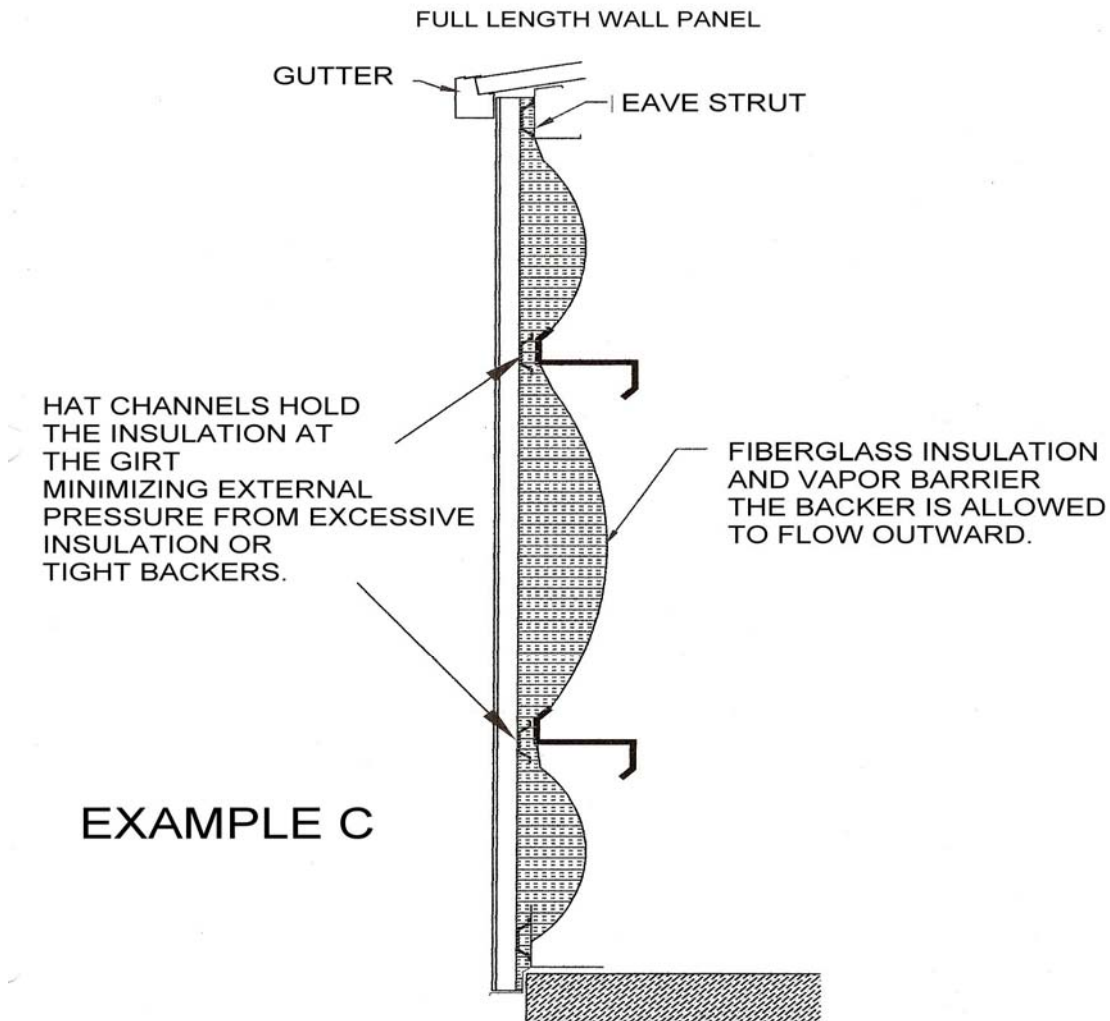
Make certain that insulation and vapor backers are installed loosely enough to allow the insulation cushion to flow outward, away from the Panel. (See diagram *Example A*) This allows for maximum insulating benefit and avoids distortion of the Panel plane. Tight vapor backing materials can compress the insulation taut against the back of the Panel and cause surface distortion. (See diagram *Example B*) Check for flat Panel plane with a straight edge.

When using thicker batts of insulation it may be necessary to score and remove some of the insulation where the insulation crosses over the girts. This allows for the benefit of thick insulation without distortion of the Panel plane. Check for flat Panel plane with a straight edge.

# Installing Panels Over Hat Channel

In some cases it may be necessary or desirable to attach the Panels to Hat Channel sections that are used to compress insulation at the girts and to relieve pressure on the back of the Panels. (See diagram *Example C*) Check for flat Panel plane with a straight edge. Custom Panel Systems can supply Hat Channel sections. (See *Special Trim Sections*) Trim configurations and quantity changes may be required as a result of the use of Hat Channel. Consult our Sales / Service department.

## HAT CHANNEL HOLDS INSULATION TO ALLOW FOR PROPER INSTALLATION



# **Getting Started**

## **Storage and Handling of Stucco Panels**

Stucco Panels are specially packaged in crates and separated with spacers to avoid contact with other Stucco Panels. Dragging Panels across each other can cause abrasion and marring of the finished surface.

Care should be exercised in handling and storage of the Panels. **DO NOT** allow Stucco Panels to be stored outdoors on dirt, mud or grass surfaces.

If Stucco Panels must be stored outdoors at the job site, they should be tarp covered after being placed on a well-drained concrete or elevated surface.

Care should be taken when handling and erecting Stucco Panels. Wearing clean gloves and handling Panels primarily by the edges will help protect the painted surface from dirt and staining.

## **Tools Required For Installation**

The following tools and accessories should be at hand before beginning Stucco Building Panel and Trim installation:

**Safety Glasses**

**Clean Work Gloves**

**Circular Saw with Metal Cutting Blades**

**Hand Shears (Heavy Duty 12")**

**Hand Flanger (4")**

**2' Carpenter Square**

**Rivet Gun & Rivets (rivets supplied with Trim)**

**Drill (Cordless) with Metal Bits**

**Screw Drive**

**Screws (self-tapping, hex head, gasketed)**

**Level (4'-6')**

**Straight Edge (4'0" min.)** For circular saw to ride on when cutting or ripping panels)

**Chalk Line**

**Tape Measure**

**Caulk Gun & Caulk**

**Clamps** (For attaching straight edge to Panel face before cutting or ripping)

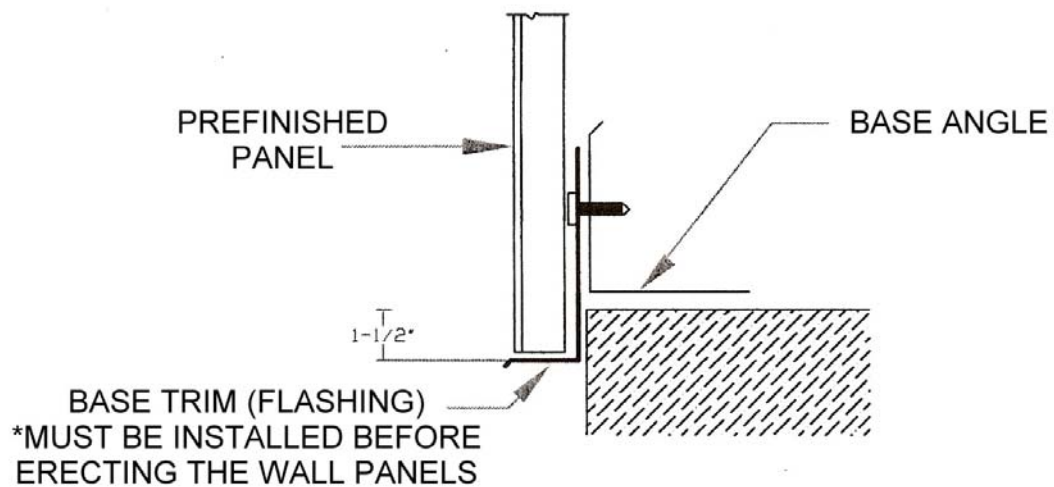
# Base Trim / Drip Cap Flashing

\* Must be installed prior to assembling panels.

Base Trim / Drip Cap (Parts “C” or “D”) must be attached to base angle or other surface before installing panels.

Verify Base Trim / Drip Cap Location, i.e. at finished floor level or distance below finished floor level, before attaching to base angle or structure.

A bead of caulk between Base Trim / Drip Cap and base angle will weatherproof the assembly.





## **Determining Stucco Panel Layout Starting with a Full or Partial Panel**

**Read entire section before beginning installation!**

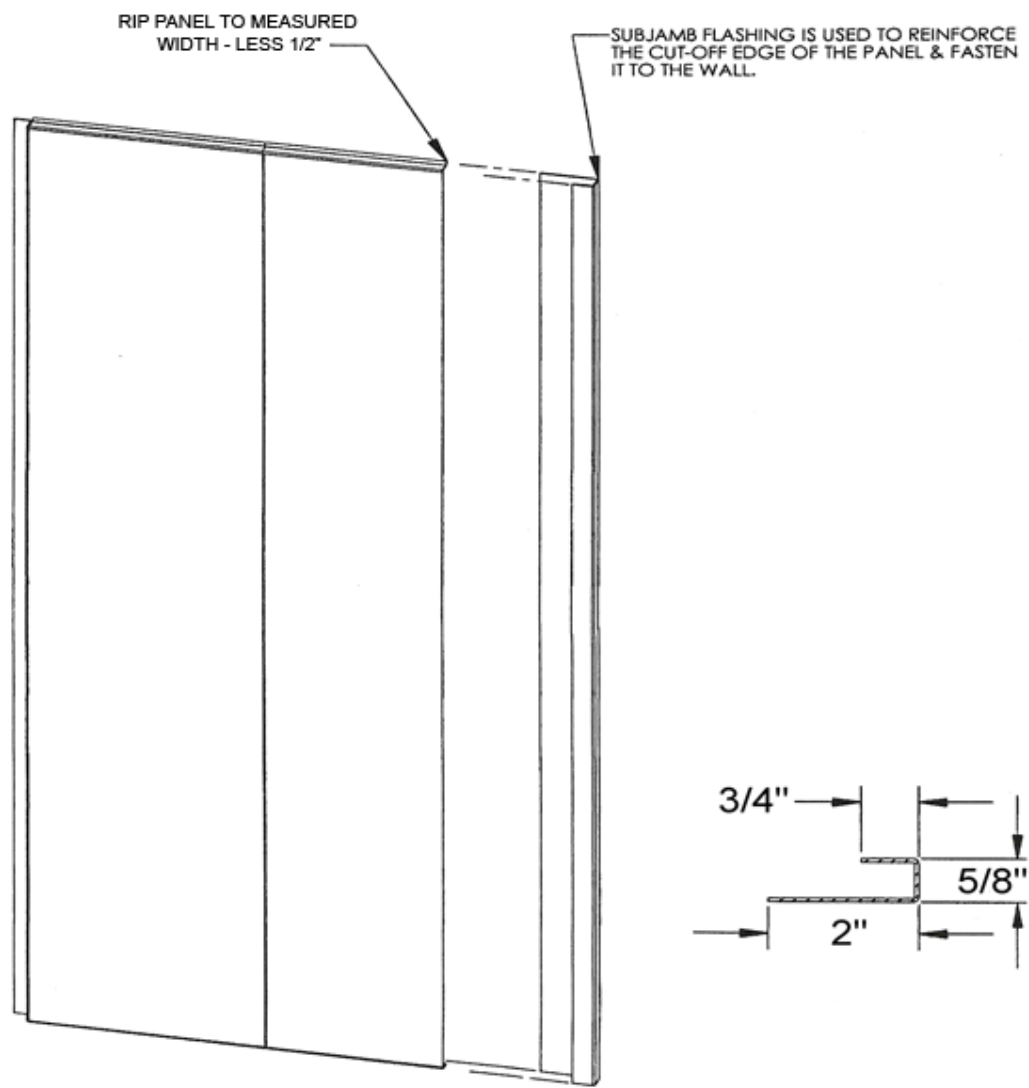
It is common that by design or by variance from design during structural framing, a building elevation's lineal width may not be divisible by sixteen inch increments. As a result, vertical cutting (ripping) of a panel(s) may be necessary.

This width adjustment may be made to a single (left or right end) panel or the total amount of excess material may be divided between the first panel on the left side and the last panel on the right side of the wall.

The following procedure describes a method for resolving these situations.

1. For each elevation, field measure the horizontal width the panels are to cover. For example, measurement of a wall shows the width to be 50'-4".
2. Take the result (i.e. 50' 4") and convert the number of feet to inches (i.e. 50' X 12" = 600") and add the remaining inches (i.e. 4" + 600" = 604").
3. Divide the sum of inches by 16" (i.e. 604" divided by 16" = 37.75) to get the number of panels required to cover the elevation from left to right.
4. Convert any decimal remainder of panel to inches (i.e. 0.75 panels = 12") by multiplying 16" X 0.75 = 12".
5. The result shows that 37 full panels of 16" width will be needed **PLUS** 12" of an additional panel.
6. Installation may be made in this manner by removing 4" from the raised right face of the last panel or the total remaining width may be divided into equal distances (i.e. 6") on both the left and right ends of the wall.
7. To equally divide the distance (12" divided by 2 sides = 6"), the left 6" of the raised surface of the first panel must be removed and the last 6" from the right raised surface of the last panel must be removed.

**NOTE: Vertically ripped panels must have Sub-Jamb Flashing (Part I unpainted) installed behind the full length of the ripped edge. See Sub-Jamb Flashing.**

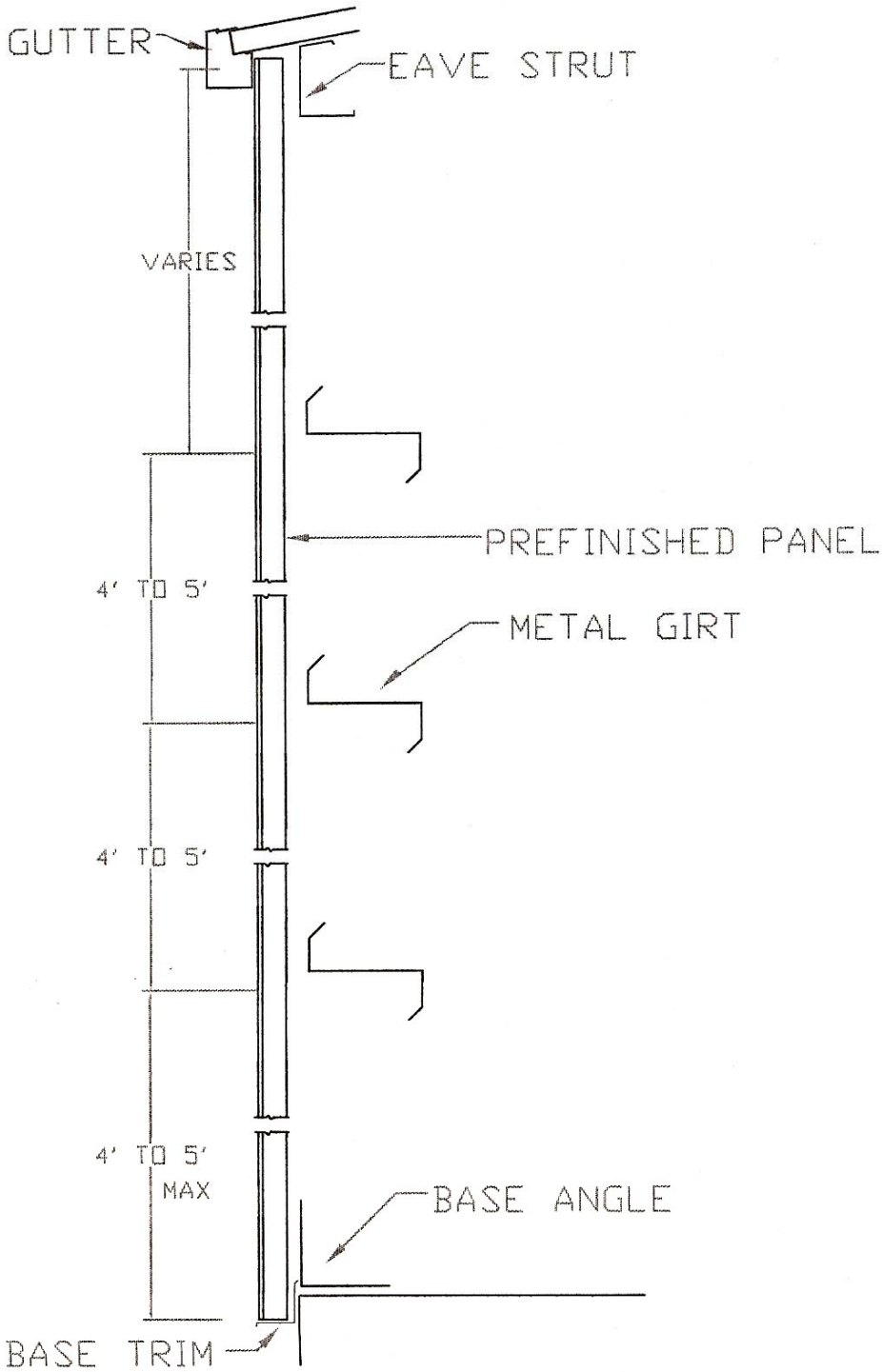


FILLER PANEL  
(WINDOW / DOOR / WALL END)

# SUB-JAMB FLASHING (UNPAINTED) PART I

# TYP GIRT SPACING

FULL LENGTH WALL PANEL

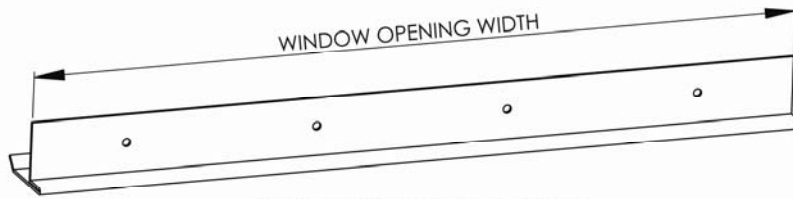


## **Window & Door Trim Fabrication and Installation**

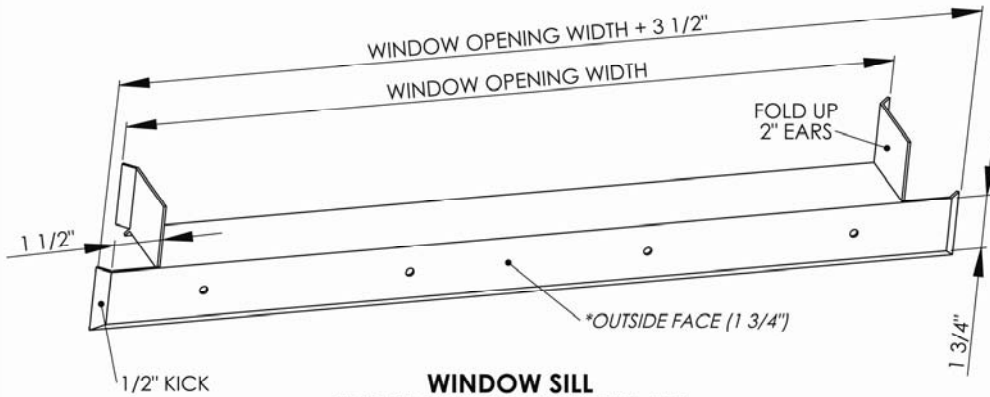
- 1. Measure window *opening height* and *opening width* to determine overall part lengths needed to fabricate the right & left hand jamb flashing, sill flashing, header flashing, and top trim flashing.**
- 2. The lower sill is fabricated from (Part F) and installed first. Cut part to length, *Overall length = opening width + 3 1/2"*. Fold up 2" long ears on both ends of window sill face, (*Do not fold ears on the outside 1 3/4" face of flashing*). Bend 1/2" kick back on both ends of outside face. Bend slight slope on sill face for water run off. Position lower sill flashing in place and fasten with blind rivets. (See Figures 3, 5, 6 & 7)**
- 3. Cut the header flashing (Part E) to length, *Overall length = opening width*. Tuck the header trim flange between panels and header frame then insert vertically. Position header flashing in place and fasten with blind rivets. (See Figures 2, 5, 6, & 7)**
- 4. The left and right side jambs are fabricated from (Part F) and installed after the lower sill and header flashing. Cut parts to length, *Overall length = opening height + 3 1/2"*. Fold down 2" long ear on header end of inside face. Cut 2 1/4" long notch on sill end of inside face. The lower notch is not cut on door assemblies. (*Do not fold ear or cut notch on the outside 1 3/4" face of flashing*). Bend 1/2" kick back on both ends of outside face. Position left and right side jambs in place and fasten with blind rivets. (Both left and right hand jambs are symmetrical). (See Figures 4, 5, 6 & 7)**
- 5. The top trim is fabricated from (Part G) and installed last. Cut part to length, *Overall length = opening width + 3 3/4"*. Trim off rear flange 2 3/8" from both ends. (*Do not trim off the outside 1 3/4" face of flashing*). Bend 1/2" kick back on both ends of outside face. Position top trim flashing in place and fasten with blind rivets. (See Figures 1, 3, 5, 6 & 7)**



**TOP WINDOW & DOOR TRIM**  
**FABRICATE FROM PART "G"**  
 (FIGURE 1)



**WINDOW & DOOR HEADER**  
**PART "E"**  
 (FIGURE 2)



**WINDOW SILL**  
**FABRICATE FROM PART "F"**  
 (FIGURE 3)

**HEADER END**

FOLD DOWN  
2" EAR



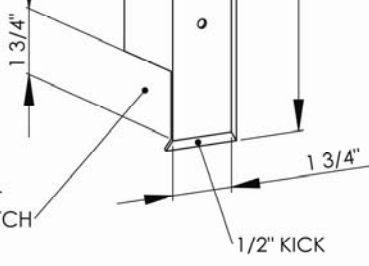
WINDOW OPENING HEIGHT - 3/4"

WINDOW OPENING HEIGHT + 3 1/2"

\*OUTSIDE FACE (1 3/4")

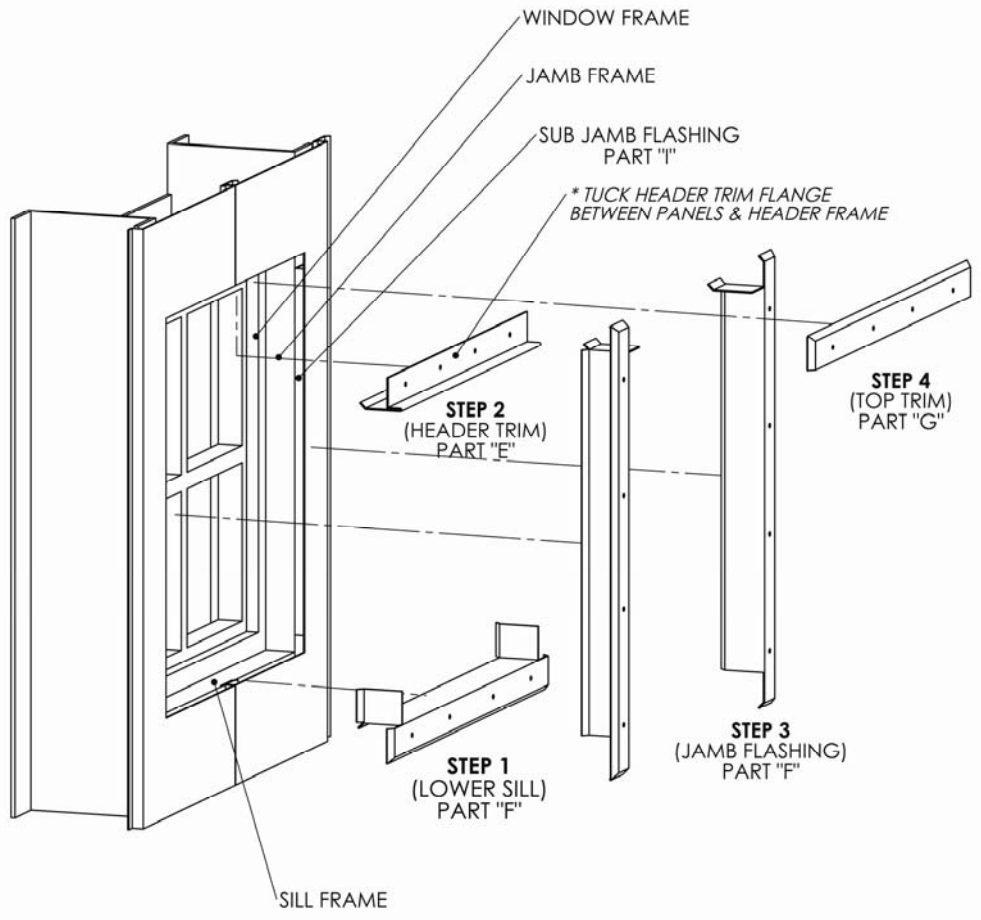
**SILL END**

CUT OUT  
2 1/4" NOTCH

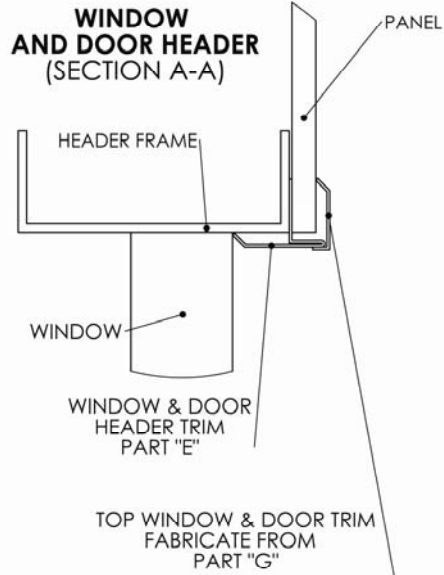


**RIGHT HAND JAMB FABRICATE FROM PART "F"**  
(FIGURE 4)

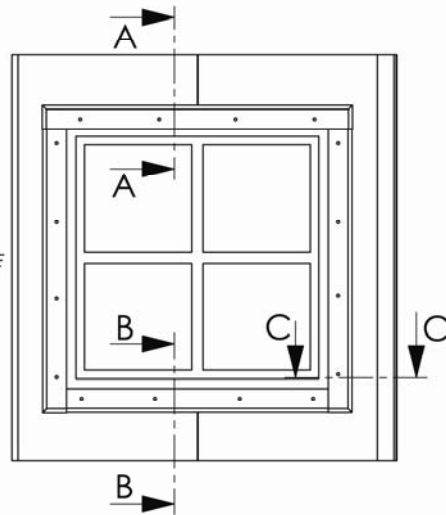
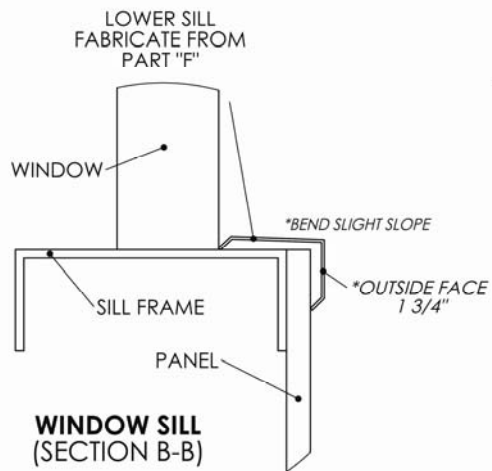
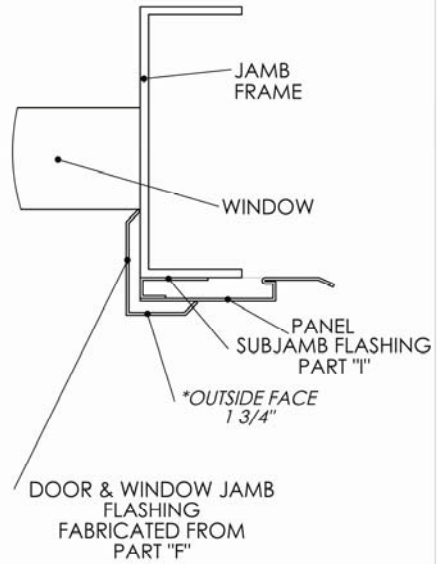




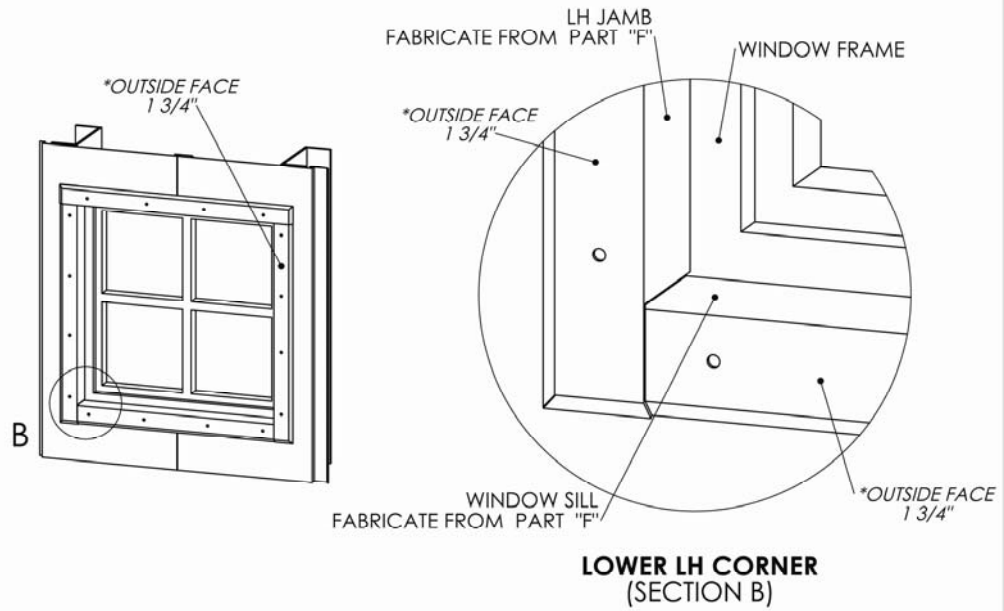
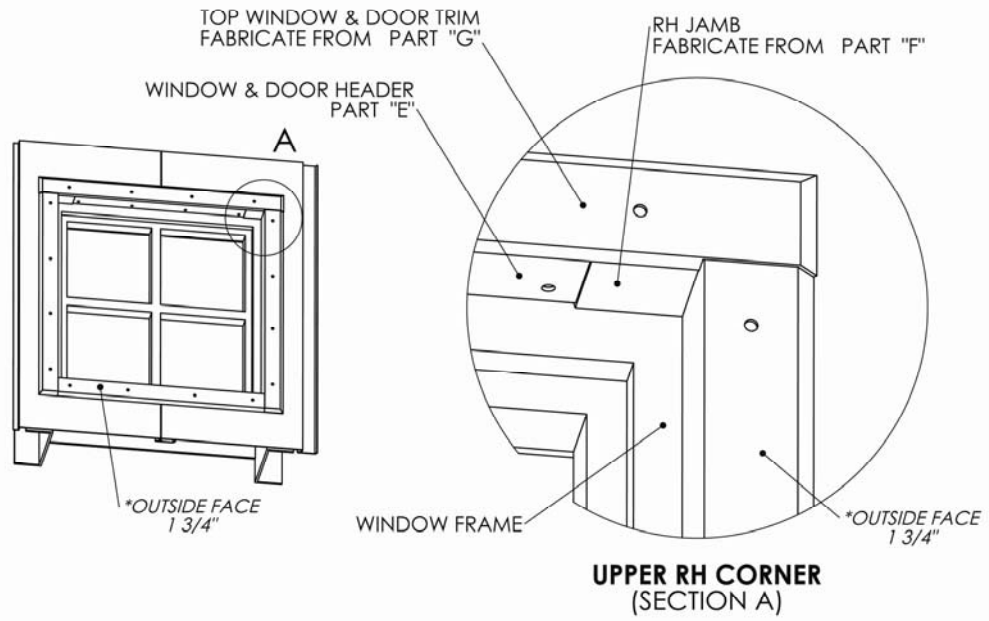
**WINDOW FRAME ASSEMBLY**  
 (FIGURE 5)



**WINDOW AND DOOR JAMB (SECTION C C)**



**WINDOW AND DOOR FLASHING CROSS SECTIONS (FIGURE 6)**



(FIGURE 7)

## **STUCCO BUILDING PANEL**

### **Panel Stacking Option**

**A unique feature of our Stucco Building Panels is the ability to stack one Panel over the other without external flashings or trim. The Panels are flanged on both the top and bottom and interlock at the corners.**

**The Stucco Panel stacking option should be viewed as a design opportunity for potential color change. Stacking allows for creation of a variety of patterns and colors and makes possible almost unlimited wall heights.**

**Changing colors is particularly effective and attractive on gable ends or where long, high sidewalls are without other visual interest or architectural enhancement.**

**The top flange of the Stucco Panel is designed to deflect water back onto the face of the Panel when the stacking option is used.**

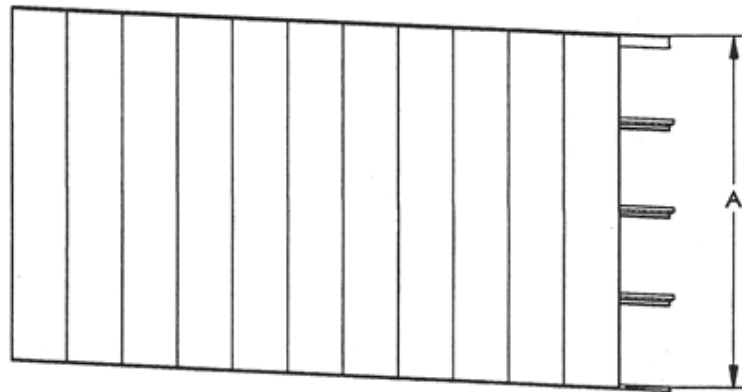
### **How To Stack**

**When stacking Stucco Building Panels it is required that there be a grit or other structural member at the upper and lower Stucco Panel junction for the attachment of both Panels.**

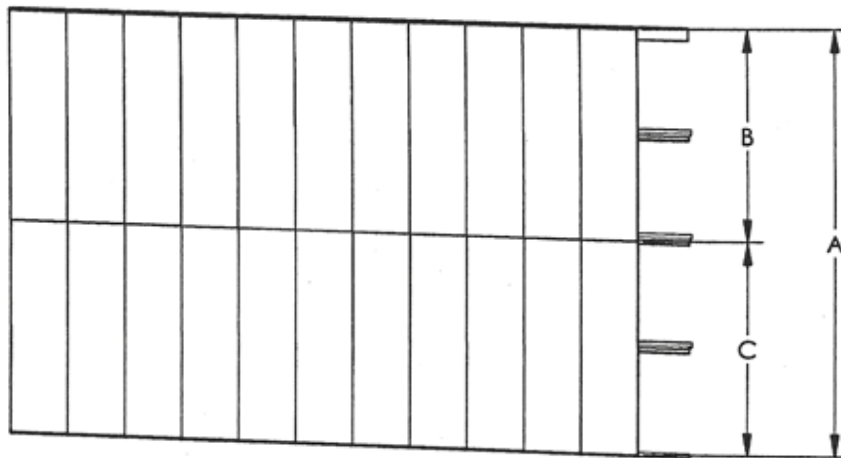
**To stack Panels, install the bottom row as in any standard application. Apply a bead of caulk along the top flange of the lower Panel to prevent water and air infiltration. The caulk should be applied along the 90° vertical stacking flange. BE CAREFUL not to use excessive amounts of caulk that may squeeze out onto the face of the Panels.**

**Intermediate and / or top row of Stucco Building Panels should be installed directly above, taking care to maintain the same vertical seam width throughout.**

## TYPICAL SIDE WALL

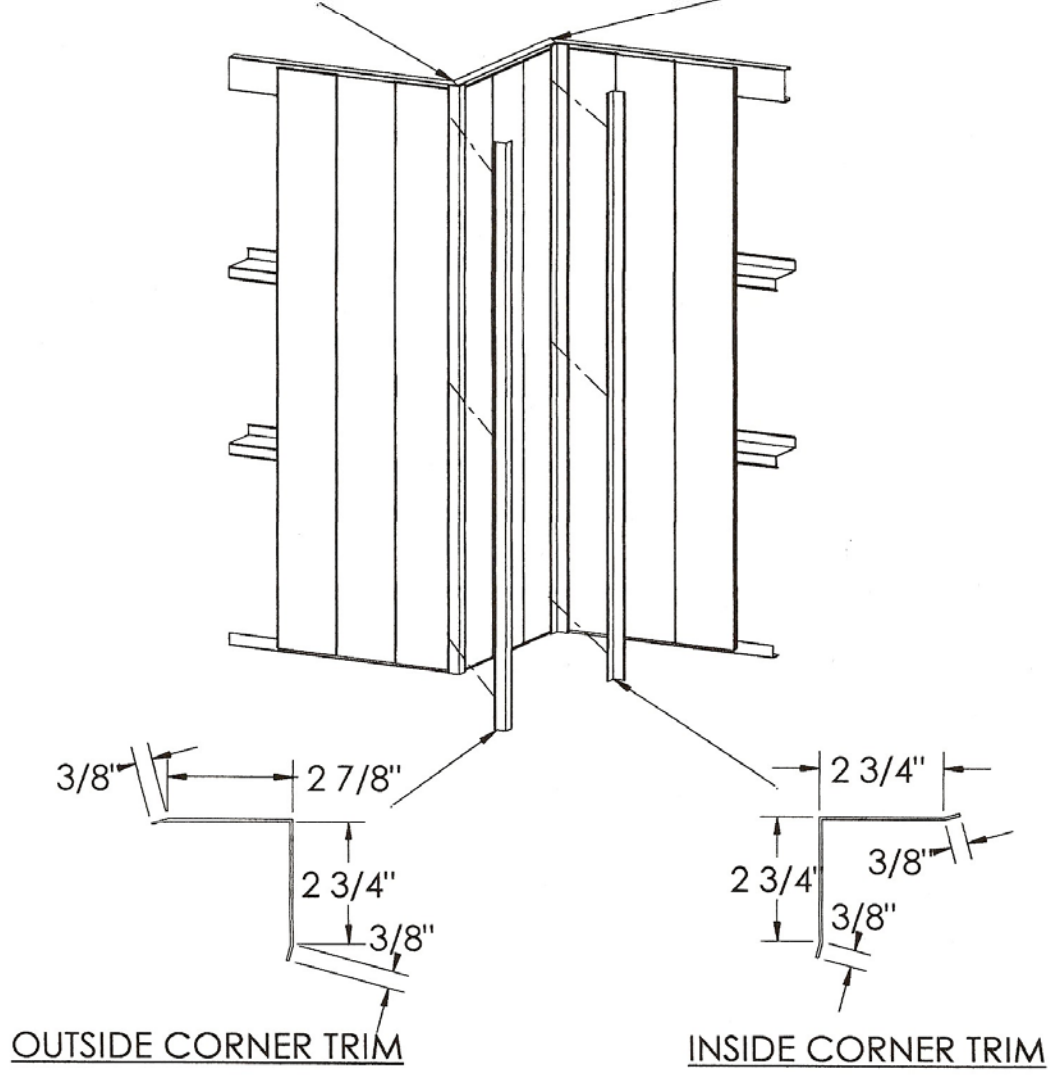
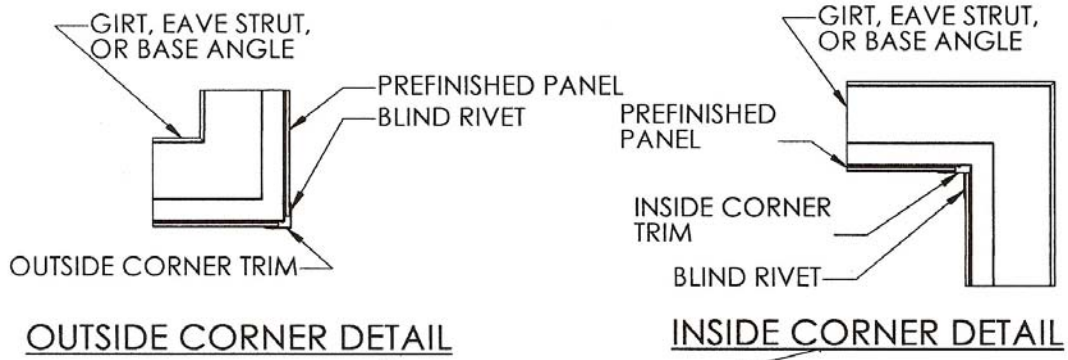


**Panels can be run the full length of the wall up to 25'.  
Standard panel length on a pre-engineered building  
should be from top of eave strut to floor + 1".**

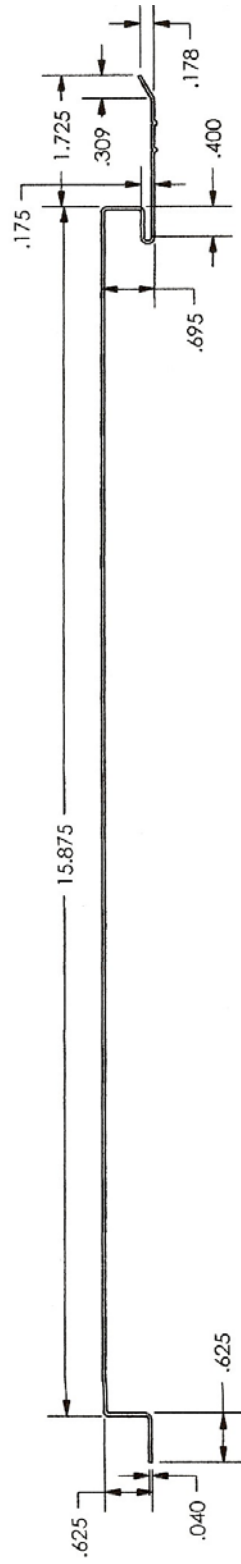


### STACKING APPLICATION

A stacked panel design can be used for a 2 color accent, cosmetic pattern variation, or to accommodate wall heights over 25'. Allow for 1/8" gap for horizontal seam width when stacking. Overall wall height, A = Top of eave strut to floor + 7/8".







# STUCCO METAL WALL PANELS

## F.A.Q.'s

(Frequently Asked Questions)

- Do your STUCCO COATED PANELS come in different lengths?  
**YES! We form our Stucco Building Panels in lengths from One-Foot to Twenty-five feet and in any increment of an inch in between.**
- *How wide are your STUCCO WALL PANELS?*  
**Our Stucco Panels cover Sixteen Inches in width (18" overall) from seam to seam. They are available ONLY in this width.**
- Can you match the existing color of my building with your STUCCO STEEL PANELS?  
**YES! Provide us a wet sample of paint, a painted sample or simply give us the original paint manufacturer's name and color number for an exact match at no extra charge.**
- What gauge steel are your STUCCO BUILDING PANELS?  
**Our Metal Stucco Panels are formed from very sturdy, 20-gauge, G-90, galvanized steel to assure a uniform flat surface that resists wrinkling and "oil canning". Standard corrugated metal panels are normally much thinner, 26-28 gauge.**
- Are your STUCCO COATED PANELS insulated?  
**Not usually, but our Stucco Panels can be insulated at the factory (additional charges apply) with standard EPS (Expanded PolyStyrene) foam board. Various thickness and densities can be used to achieve desired R-Values. More often though, batts of rolled fiberglass insulation are installed over the girts before our Stucco Wall Panels are attached. Contact us for installation procedures.**

- Will your STUCCO BUILDING PANELS be damaged if they are installed during bad weather?  
*NO! Unlike concrete, masonry or EIFS, our Stucco Wall Panels can be installed during periods of rain, snow or sub-freezing weather. No damage will result.*
- What are some of the typical applications for your METAL STUCCO PANELS?  
**Commercial Buildings, Offices, Retail Centers, Churches, Schools, and Government Buildings are some of the more popular uses for our Stucco Building Panels. Virtually any building project can be enhanced with our STUCCO PANELS. WE DO NOT OFFER OUR METAL STUCCO PANELS FOR RESIDENTIAL USE!! Visit our picture Gallery for a sampling of uses.**
- Can your STUCCO WALL PANELS be used to resurface an existing building?  
**YES, almost always. By installing “Hat Channel” or similar structural sections over existing building surfaces and attaching our Stucco Wall Panels to the hat channel, most existing surfaces like brick, masonry, corrugated metal, etc. can be easily retrofitted.**
- Do you have a local METAL STUCCO PANEL representative or distributor in our area?  
**Our single tier Marketing structure helps save our clients save money. Sales and Marketing, Technical Support, Production and Installation queries are all handled from our St. Louis headquarters. Assistance is as close as the telephone, fax or e-mail.**
- You say that your STUCCO WALL PANELS can be “stacked”; how does that work?  
*Our Stucco Panels can be stacked without trim section in between. This allows the architect or designer to add accent stripes of a different color to a long or tall elevation that might otherwise have a somewhat boring appearance. See our Stucco Building Panel Specifications page for more detail.*

- How does your STUCCO COATED PANEL compared to EIFS?  
*We think we are FAR SUPERIOR.*
  1. *Our Stucco Panels are MUCH LESS EXPENSIVE than EIFS.*
  2. *Our Stucco Panels are MUCH MORE DURABLE than EIFS.*
  3. *Our Stucco Panels INSTALL MUCH MORE RAPIDLY than EIFS.*
  4. *Our Stucco Panels are FAR LESS PRONE TO LEAKAGE and resulting water damage. There are real EIFS horror stories (visit [www.stuccolaw.com](http://www.stuccolaw.com) and click on related links) involving building damage, lawsuits, government action, mold, insurance concerns, etc. Bottom line...OUR STUCCO BUILDING PANELS DON'T LEAK OR ROT!*
  5. *Our Stucco Panels and Finish carry a 20-YEAR-WARRANTY!!*
  
- Can your STUCCO WALL PANELS be cut at the job site?  
*Yes. Use a circular saw with a good quality metal cutting blade to rip the Stucco Panels vertically or angle cut them to roof exact roof pitch or framed opening size.*
  
- Do you make STUCCO TRIM to give your STUCCO PANELS a finished appearance?  
*Yes. We have STANDARD TRIM SECTIONS, i.e. Inside Corners, Outside Corners, Base Trim, Window & Door Trims. We can also make "SPECIAL" trim to most dimension requests. All Trim is painted with baked on STUCCO coating.*
  
- How do we get started with your STUCCO WALL PANELS?  
*Just give us a call to discuss the project you're thinking about. Send us your drawings or fax them to us and we'll get you a fast, accurate quotation.*