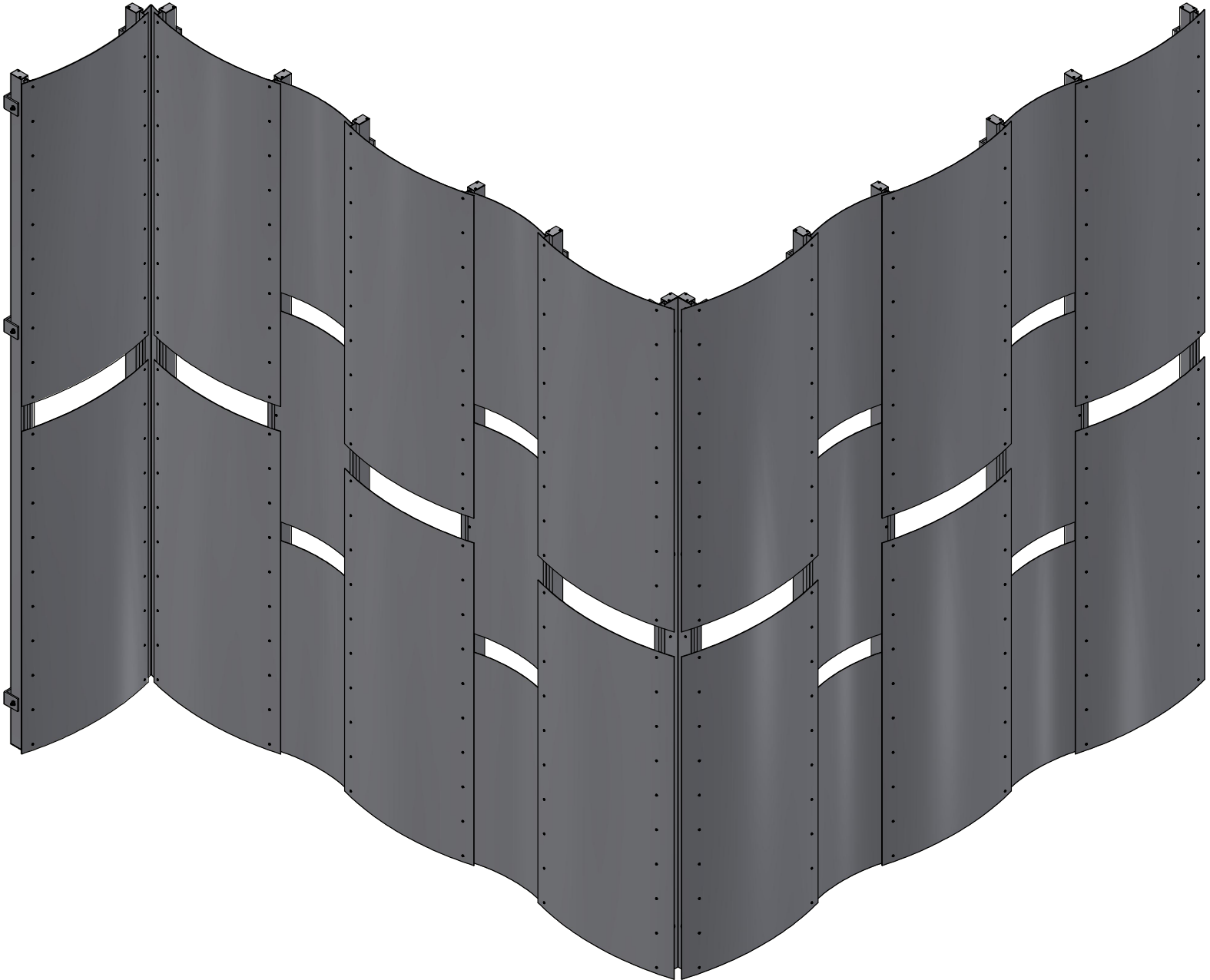


# Fabrication and Installation Instructions

## WaveScreen System



# Fabrication and Installation Instructions

## WaveScreen System



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# Fabrication and Installation Instructions

## WaveScreen System

### General Notes

THESE FABRICATION AND INSTALLATION INSTRUCTIONS ARE A SUPPLEMENT TO THE APPROVED SHOP DRAWINGS. USE THIS DOCUMENT IN CONJUNCTION WITH THOSE DRAWINGS.

#### DESIGN PARAMETERS

1. IN ORDER TO ENSURE STRUCTURAL PERFORMANCE, NO OTHER ATTACHMENTS TO THE PANELS OR FRAMING SHOULD BE MADE BY CONTRACTORS OTHER THAN BUNTING, WITHOUT PRIOR WRITTEN APPROVAL FROM BUNTING.

#### STRUCTURE BY OTHERS

1. THE BUILDING STRUCTURE AND COMPONENTS THEREOF MUST BE CAPABLE OF SAFELY CARRYING THE LOADS IMPOSED BY THE PANEL SYSTEM, INCLUDING BUT NOT LIMITED TO DEAD LOADS OF THE PANEL SYSTEM, WIND LOADS SHOWN HEREIN ON DRAWINGS AND/OR CALCULATIONS, THERMAL LOADINGS, SEISMIC LOADINGS, SNOW LOADINGS, AND LIVE LOADINGS.

#### 2. VERIFICATION OF SUBSTRATE:

THE MAXIMUM DEVIATION IN THE PLANE OF THE SUBSTRUCTURE MUST NOT EXCEED +/- 1/4" IN ANY 20 FOOT LENGTH HORIZONTALLY OR VERTICALLY AND CANNOT VARY MORE THAN 1/2" OVER THE ENTIRE BUILDING ELEVATION. TRANSITION AREAS SUCH AS CORNERS AND SOFFITS MUST HAVE THE SUBSTRUCTURE WITHIN +/- 1/8" OF THE THEORETICAL GIRT PLANES. SUBSTRUCTURE ALIGNMENT OUTSIDE OF THE ABOVE LIMITS MUST BE CORRECTED PRIOR TO CLADDING INSTALLATION.

INSTALLATION SHALL NOT PROCEED UNTIL THE SUBSTRUCTURE IS CORRECTED. MAXIMUM SHIM UP TO 1/4" AS REQUIRED TO BRING THE GIRT PLANE TO WITHIN +/- 1/16" OF THE THEORETICAL GIRT PLANE. SHIMMING MAY REQUIRE LONGER FASTENERS.

THE SURFACE OF THE GIRT TO WHICH PANELS ARE TO BE ATTACHED MUST BE FREE OF BOLT AND RIVET HEADS, EXCESSIVE WELDS, OR ANY OTHER OBSTRUCTIONS WHICH COULD PREVENT PROPER BEARING. ALL STRUCTURAL SUPPORTS SHALL BE IN PLACE AND ALL SAG RODS, DIAGONAL BRACING, AND CONNECTIONS SHALL BE TIGHTENED BEFORE WORK PROCEEDS. WELD ALL SLOTTED CONNECTIONS INTENDED FOR ALIGNMENT PURPOSES ONLY UPON COMPLETION OF ALIGNMENT.

IN NO CASE SHALL GIRTS BE ERECTED AND ALIGNED PRIOR TO POURING THE FLOOR AND/OR ROOF SLABS. DEAD LOAD DEFLECTIONS WILL CAUSE SEVER GIRT ALIGNMENT PROBLEMS.

3. CONCRETE MUST BE 6000 PSI OR BETTER TO MOUNT THE PANEL SYSTEM.

EVERY EFFORT IS BEING MADE TO ELIMINATE ERRORS; HOWEVER, SINCE ERRORS CAN AND WILL HAPPEN, BUNTING WILL NOT ASSUME RESPONSIBILITY BEYOND MANUFACTURING IN ACCORDANCE WITH APPROVED DRAWINGS OR RESPONSIBILITY FOR ERRORS RESULTING FROM THE USE OF THESE DRAWINGS BY OTHER TRADES.

### Handling, Storing, and Protecting Aluminum Material

THE FOLLOWING PRECAUTIONS ARE RECOMMENDED TO ASSURE EARLY ACCEPTANCE OF YOUR PRODUCTS AND WORKMANSHIP.

A) HANDLE CAREFULLY - DO NOT DROP FROM THE TRUCK. STACK WITH ADEQUATE SEPARATION SO MATERIAL WILL NOT RUB TOGETHER. STORE OFF THE GROUND. PROTECT AGAINST ELEMENTS AND OTHER CONSTRUCTION TRADES.

B) KEEP MATERIAL AWAY FROM WATER, MUD, AND SPRAY - PREVENT CEMENT, PLASTER, AND OTHER MATERIALS FROM DAMAGING THE FINISH.

C) PROTECT THE MATERIALS AFTER ERECTION BY WRAPPING WITH KRAFT PAPER - OR BY ERECTING VISQUEEN/CANVAS SPLATTER SCREENS. CEMENT, PLASTER, TERRAZZO, AND OTHER ALKALINE MATERIALS ARE VERY HARMFUL TO THE FINISH AND SHOULD BE REMOVED WITH WATER AND MILD SOAP BEFORE SETTING OCCURS. UNDER NO CIRCUMSTANCES ALLOW THESE MATERIALS TO DRY OR PERMANENT STAINING WILL OCCUR. PRIOR TO THE SETTING OF OTHER MATERIALS REQUIRE THE CONTRACTOR TO CLOSELY SUPERVISE OTHER TRADES SO AS TO PREVENT MARRING OR DISCOLORATION FROM ANY CAUSE.

D) GENERAL CONTRACTOR SHALL TAKE NECESSARY MEASURE TO PROTECT ALUMINUM FROM WELDING OPERATIONS BY CONTRACTORS OTHER THAN BUNTING.

# Fabrication and Installation Instructions

## WaveScreen System

### General Rules

THE FOLLOWING PRACTICES ARE RECOMMENDED FOR ALL INSTALLATIONS.

A) READ COMPLETE INSTRUCTIONS BEFORE ORDERING PANELS OR FABRICATED MATERIAL.

B) CHECK SHOP DRAWINGS TO BECOME THOROUGHLY FAMILIAR WITH THE JOB.

C) ALL MATERIALS ARE TO BE INSTALLED PLUMB, LEVEL, AND TRUE.

D) ALL WORK SHOULD START FROM ESTABLISHED BENCH MARKS AND COLUMN CENTER LINES ESTABLISHED BY THE ARCHITECTURAL DRAWINGS AND THE GENERAL CONTRACTOR.

E) THE SEQUENCE OF ERECTION SHOULD BE COORDINATED WITH THE JOB SUPERINTENDENT SO DELAYS ARE PREVENTED AND RISK OF MATERIAL DAMAGE IS MINIMIZED. IF PRESETTING OF ANCHORAGE IS REQUIRED, COORDINATE WITH GENERAL CONTRACTOR AND SUPERVISE LOCATION.

F) MAKE CERTAIN CONSTRUCTION WHICH WILL RECEIVE YOUR MATERIALS IS ACCORDING TO THE CONTRACT DOCUMENTS. IF NOT, NOTIFY THE GENERAL CONTRACTOR IN WRITING AND RESOLVE DIFFERENCES BEFORE PROCEEDING WITH YOUR WORK.

G) INSULATE ALL ALUMINUM TO BE PLACED DIRECTLY IN CONTACT WITH THE MASONRY OR INCOMPATIBLE MATERIALS WITH A HEAVY COAT OF ZINC CHROMATE OR BITUMINOUS PAINT. ALL MILL FINISHED/UNFINISHED ALUMINUM MUST HAVE A SEPERATOR (NON-METALLIC) BETWEEN DISSIMILAR METALS.

H) FOLLOW BUNTING FABRICATION AND INSTALLATION INSTRUCTIONS.

I) CHECK ALL MATERIAL ON ARRIVAL FOR QUANTITY.

J) BE SURE TO HAVE ALL THE MATERIALS AND TOOLS NEEDED TO BEGIN THE INSTALLATION.

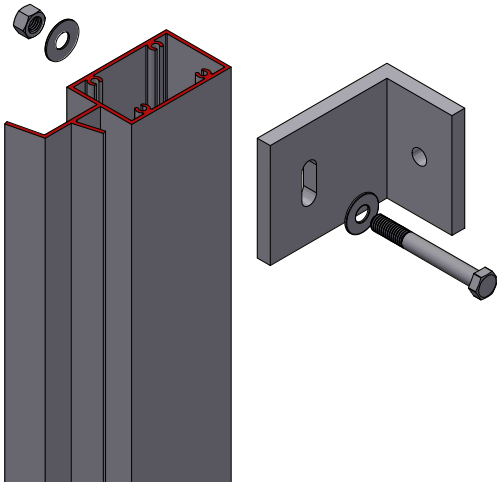
1. APPROVED SHOP DRAWINGS.
2. LEVEL AND PLUMB (TRANSIT).
3. FASTENERS AND REQUIRED DRILL BITS AND DRIVERS.
4. PERIMETERS AND ACCESSORIES SUCH AS ANCHORS, FASTENERS, AND END CAPS.
5. METAL PANELS FOLLOWING THE DESIGN SPECIFICATIONS.

# Fabrication and Installation Instructions

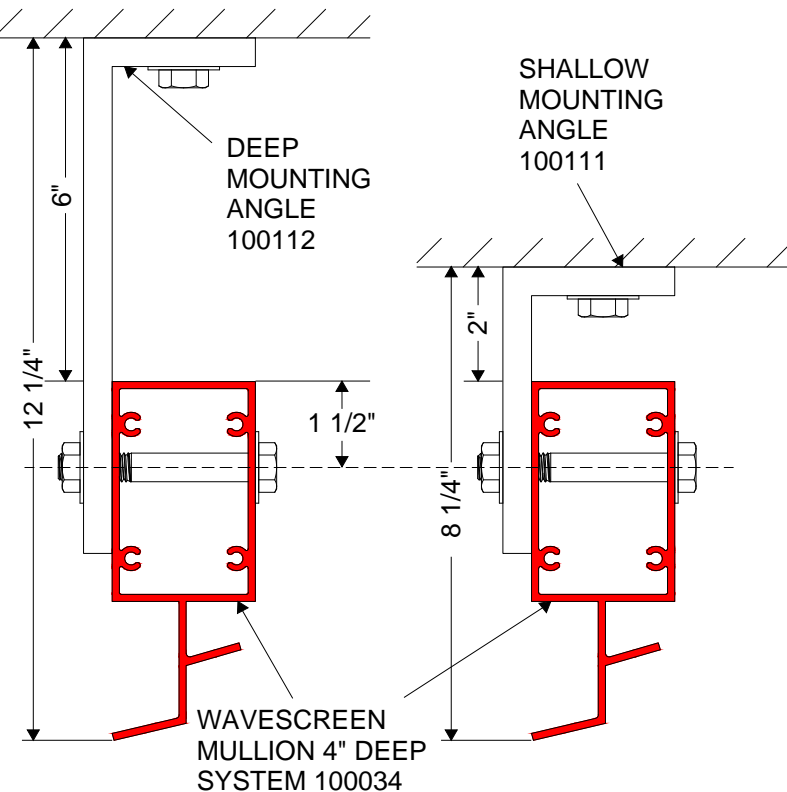
## WaveScreen System

### Vertical Mullion Fabrication - Wind Load Anchor Detail

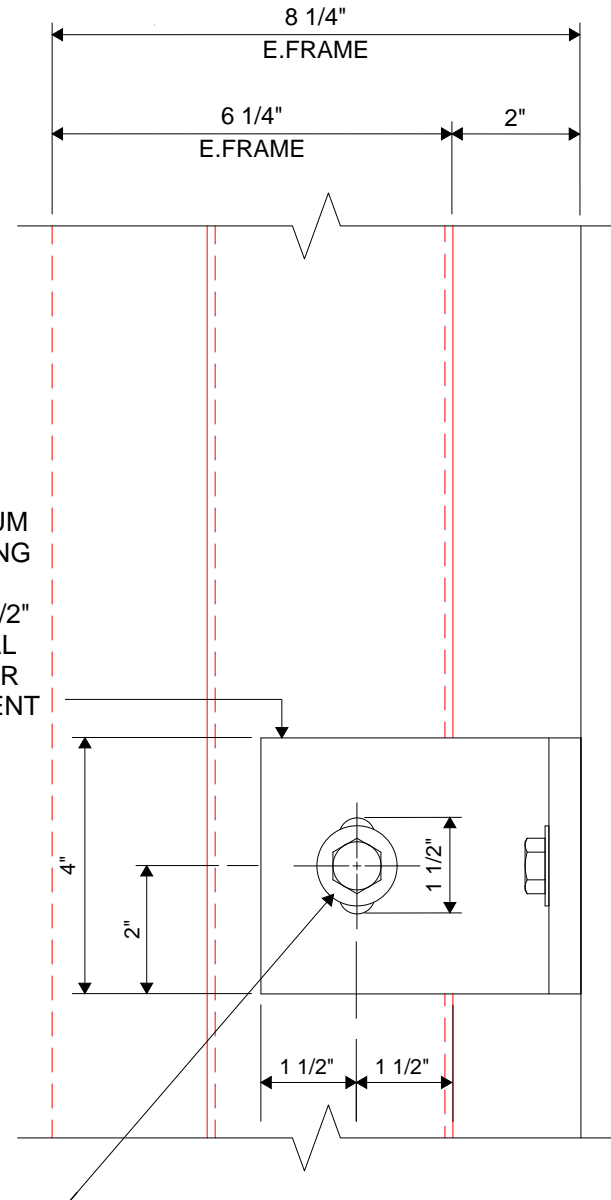
REFERENCE APPROVED SHOP DRAWINGS FOR VERTICAL LENGTHS AND HORIZONTAL LOCATIONS. ACTUAL PROJECT CONDITIONS WILL DETERMINE SPECIFIC ANCHOR DESIGN. DETAILS ON THIS PAGE ARE FOR REFERENCE ONLY.



VERTICAL MULLION HOLE IS FIELD/MATCH DRILLED WITH 9/16" DIAMETER IN THE CENTER OF THE SLOT.



### SHALLOW MOUNTING ANGLE ANCHOR DETAIL



ALUMINUM MOUNTING ANGLE WITH 1 1/2" VERTICAL SLOT FOR MOVEMENT

9/16" DIAMETER MATCH DRILLED HOLE IN VERTICAL MULLION

WIND LOAD ANCHORS ARE PLACED ALONG THE VERTICAL MULLION.

HOLE DIMENSIONS ARE THE SAME FOR BOTH THE SHALLOW AND DEEP MOUNTING ANGLES.

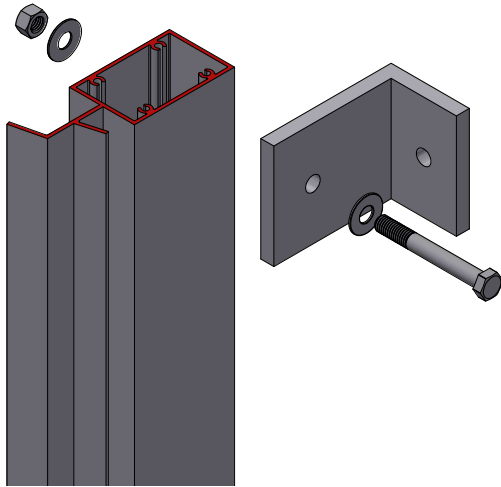
REFERENCE PAGE 12 FOR FASTENER DETAILS.

# Fabrication and Installation Instructions

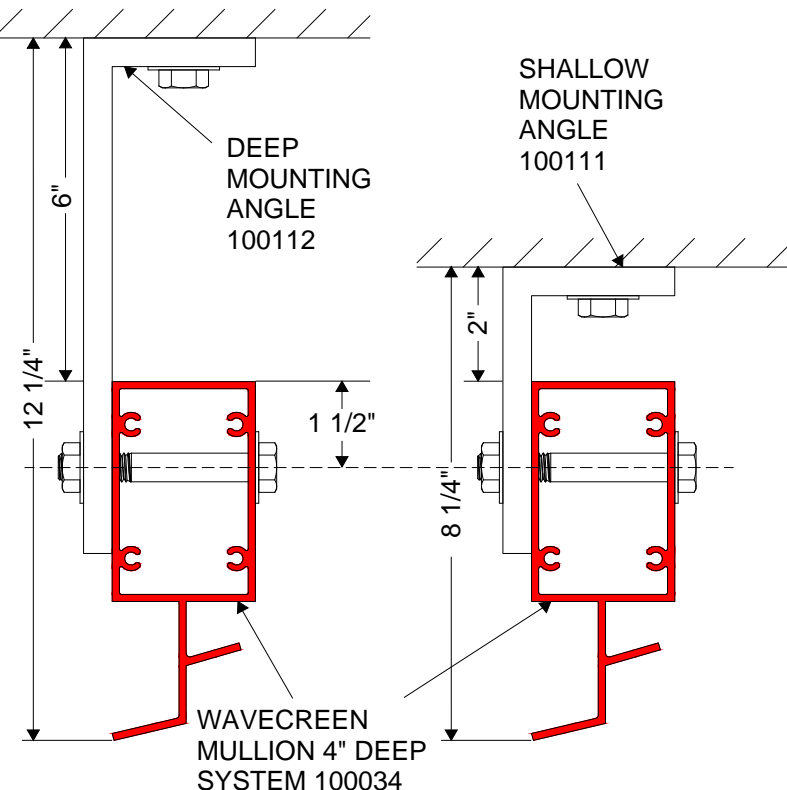
## WaveScreen System

### Vertical Mullion Fabrication - Dead Load Anchor Detail

REFERENCE APPROVED SHOP DRAWINGS FOR VERTICAL LENGTHS AND HORIZONTAL LOCATIONS. ACTUAL PROJECT CONDITIONS WILL DETERMINE SPECIFIC ANCHOR DESIGN. DETAILS ON THIS PAGE ARE FOR REFERENCE ONLY.

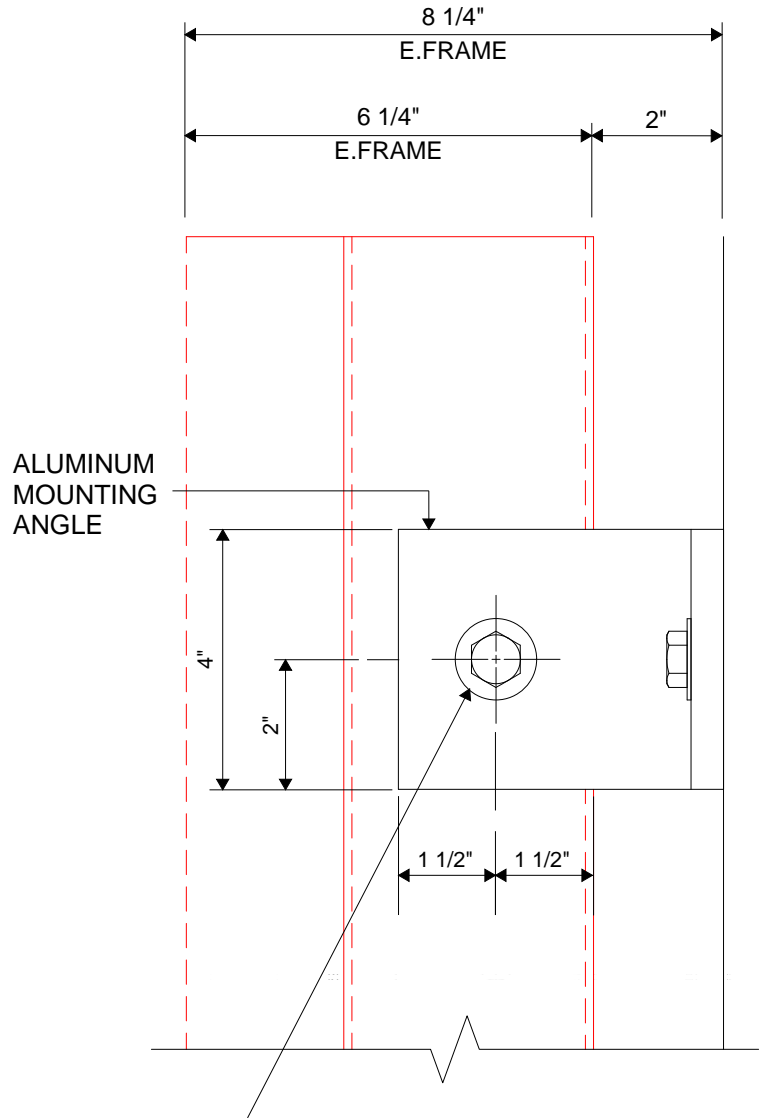


VERTICAL MULLION HOLE IS FIELD/MATCH DRILLED WITH 9/16" DIAMETER.



### SHALLOW MOUNTING ANGLE ANCHOR DETAIL

HOLE DIMENSIONS ARE THE SAME FOR BOTH THE SHALLOW AND DEEP MOUNTING ANGLES.



9/16" DIAMETER MATCH DRILLED HOLE IN VERTICAL MULLION

DEAD LOAD ANCHOR IS PLACED AT THE TOP OF THE VERTICAL MULLION AS A STANDARD.

REFERENCE PAGE 12 FOR FASTENER DETAILS.

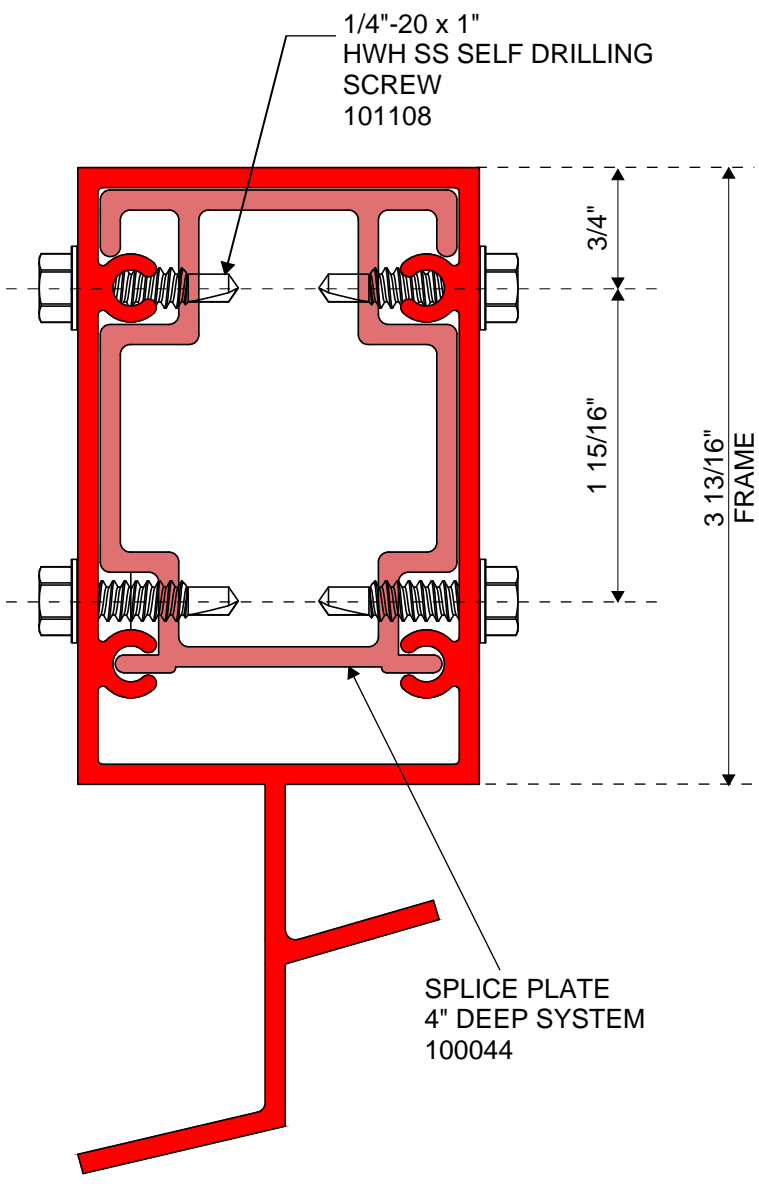
# Fabrication and Installation Instructions

## WaveScreen System

### Vertical Mullion Fabrication - Splice Detail

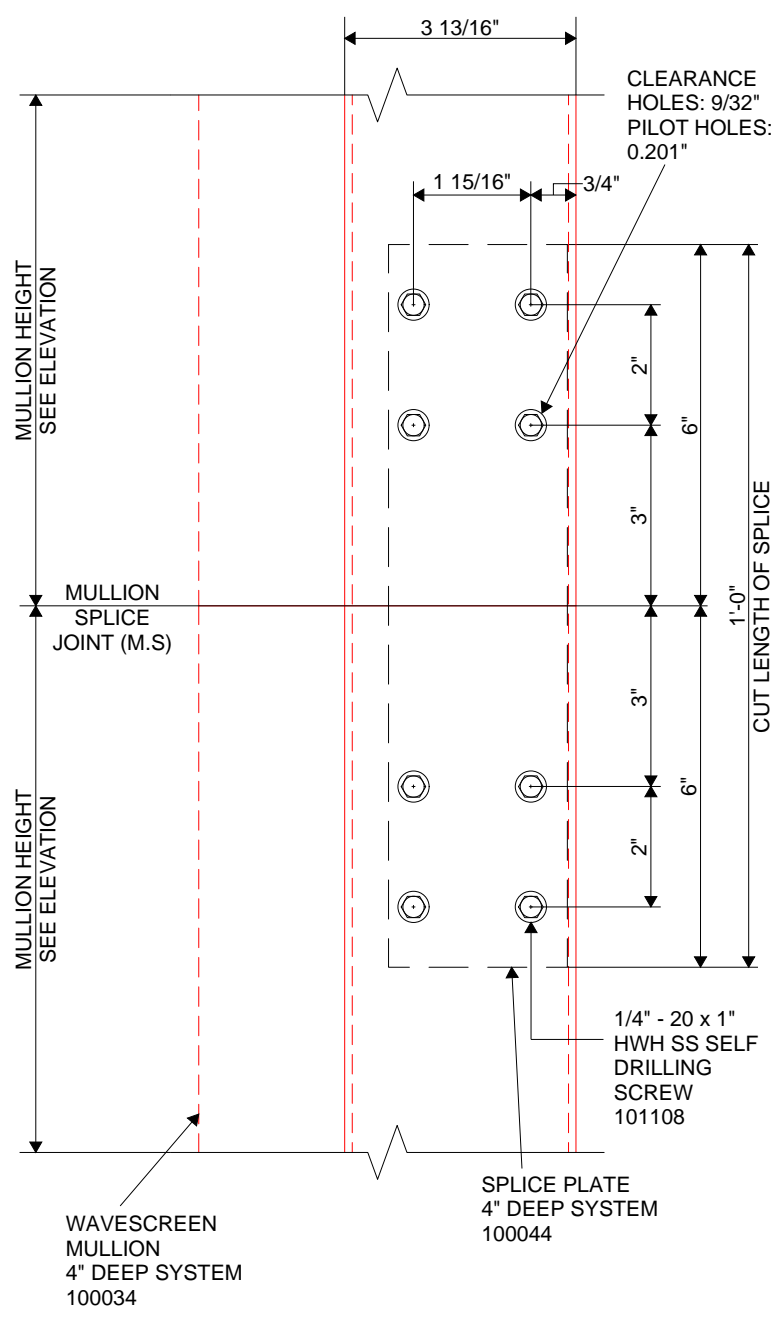
REFERENCE APPROVED SHOP DRAWINGS FOR VERTICAL LENGTHS AND HORIZONTAL LOCATIONS.

#### SECTION VIEW



REFERENCE PAGE 12 FOR FASTENER DETAILS.

### VERTICAL MULLION SPLICE JOINT DETAIL



# Fabrication and Installation Instructions

## WaveScreen System

### End Cap Fabrication

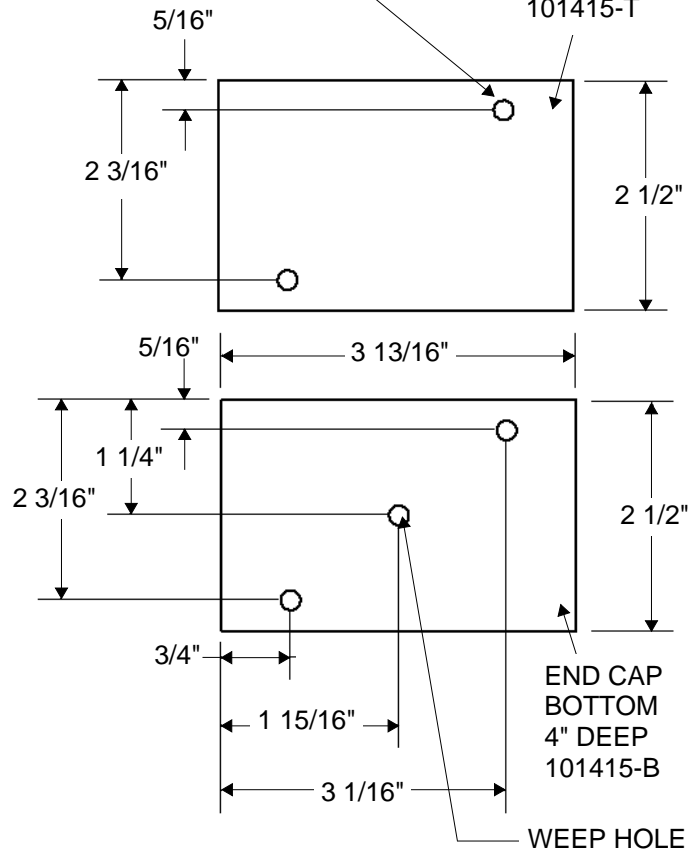
REFERENCE APPROVED SHOP DRAWINGS FOR VERTICAL MULLION DIMENSIONS.

#### 4" DEEP SYSTEM:

5/16" DIAMETER HOLE

FOR END CAP TO VERTICAL  
1/4"-14 x 1/2" PAN HEAD AB SS SCREW  
101107

END CAP TOP  
4" DEEP  
101415-T



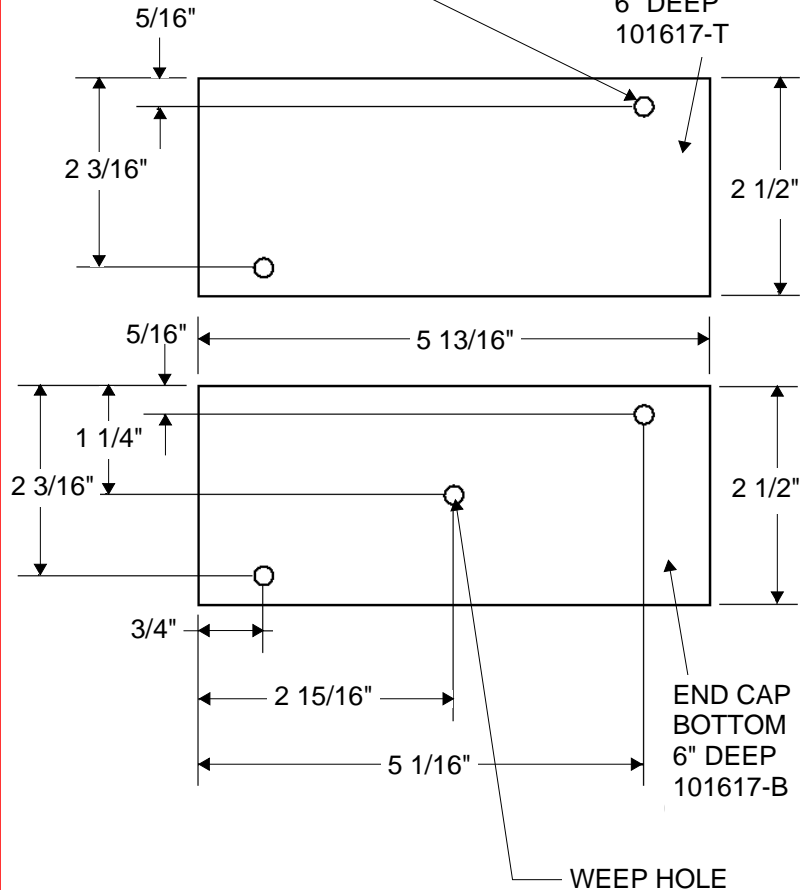
END CAPS ARE 1/16" THICK.

#### 6" DEEP SYSTEM:

5/16" DIAMETER HOLE

FOR END CAP TO VERTICAL  
1/4"-14 x 1/2" PAN HEAD AB SS SCREW  
101107

END CAP  
TOP  
6" DEEP  
101617-T



FABRICATE ONE TOP AND ONE BOTTOM END CAP FOR EACH VERTICAL MULLION UNLESS CONDITIONS SPECIFY OTHERWISE.

REFERENCE PAGE 12 FOR FASTENER DETAILS.

# Fabrication and Installation Instructions

## WaveScreen System

### Installation

#### STEP 1 - CHECK OPENINGS

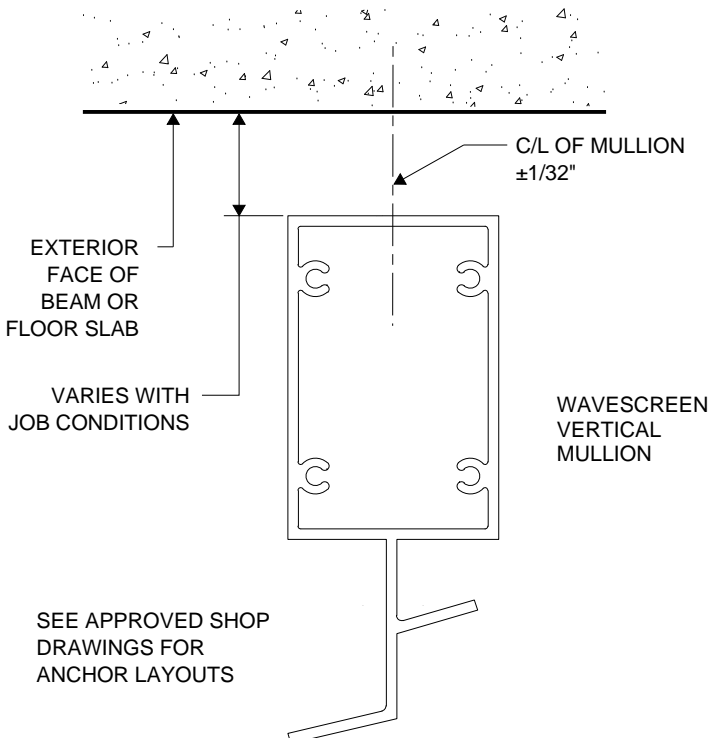
ELEVATIONS AND SLABS MUST BE WITHIN ADJUSTMENT OF ANCHORING SYSTEM. SEE APPROVED SHOP DRAWINGS FOR ALLOWABLE ADJUSTMENT.

ANCHORING SURFACES OF PERIMETER CONSTRUCTION MUST BE LEVEL AND PLUMB WITHIN THE ADJUSTMENT LIMITS OF THE MULLIONS. SEE APPROVED SHOP DRAWINGS FOR ALLOWABLE ADJUSTMENT

#### STEP 2 - LAY OUT ANCHOR AND MULLION CENTERLINES

USE WALL LINES ESTABLISHED BY THE GENERAL CONTRACTOR. ON EACH FLOOR LAY OUT A REFERENCE LINE TO ESTABLISH IN AND OUT WALL LOCATIONS.

USE COLUMN CENTER LINES ESTABLISHED BY THE GENERAL CONTRACTOR. ON EACH FLOOR LAY OUT MULLION CENTER LINES AND ANCHOR CENTER LINES.



#### STEP 3 - INSTALL PRESET ANCHORS IF APPLICABLE

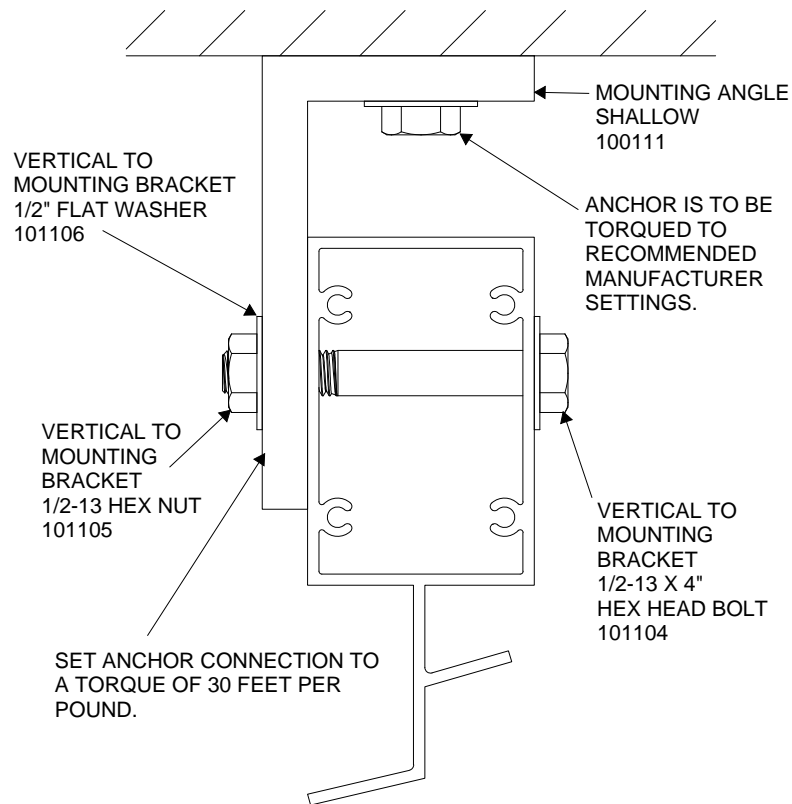
USING LOCATION LINES PREVIOUSLY ESTABLISHED INSTALL PRESET ANCHORS IN PLACE PER APPROVED SHOP DRAWINGS.

#### STEP 4 - FRAME ASSEMBLY

ATTACH ANCHORS TO MULLIONS WHERE APPLICABLE.

ANCHOR PREP MAY BE FABRICATED IN THE FIELD OR FACTORY. CONSULT APPROVED SHOP DRAWINGS FOR CORRECT METHOD.

STANDARD ANCHOR PREP IS THRU BOLTED AT VERTICALS. REFER TO APPROVED SHOP DRAWINGS FOR CORRECT METHOD.



ACTUAL PROJECT CONDITIONS WILL DETERMINE SPECIFIC ANCHOR DESIGN. REFERENCE APPROVED SHOP DRAWINGS FOR MOUNTING ANGLE AND VERTICAL DIMENSIONS

REFERENCE PAGE 12 FOR FASTENER DETAILS.

# Fabrication and Installation Instructions

## WaveScreen System

### Installation

#### STEP 5 - INSTALL VERTICAL MULLION END CAPS

FASTENERS:  
END CAP TO VERTICAL  
1/4"-14 x 1" PAN HEAD AB SS SCREW  
101107

END CAP TOP  
4" DEEP

THE 4" SYSTEM IS SHOWN.  
REFERENCE APPROVED SHOP DRAWINGS FOR MULLION DIMENSIONS.

WAVESCREEN  
MULLION 4" DEEP  
SYSTEM 100034

WEEP HOLE

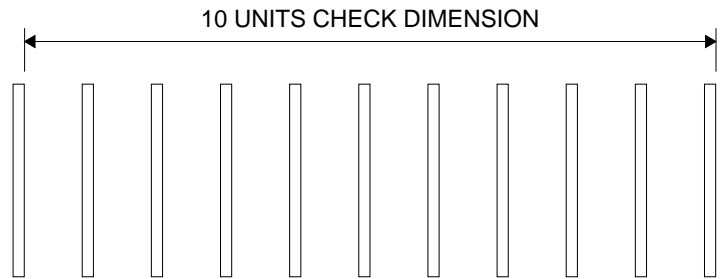
END CAP BOTTOM  
4" DEEP

REFERENCE PAGE 12 FOR FASTENER DETAILS.

#### STEP 6 - INSTALL VERTICAL MULLIONS

DIMENSION BUILD-UP CHECK.

OVERALL DIMENSIONS ABOUT EVERY FIVE MULLIONS ON LONG RUNS. THIS IS TO AVOID DIMENSION BUILD-UP.



ANCHOR FASTENER  
LOCATIONS PER  
APPROVED SHOP  
DRAWINGS.

REFERENCE FABRICATION INSTRUCTIONS FOR EXTERIOR PERIMETERS.

# Fabrication and Installation Instructions

## WaveScreen System

### Installation

#### STEP 7 - INSTALL COMPONENT CLADDING

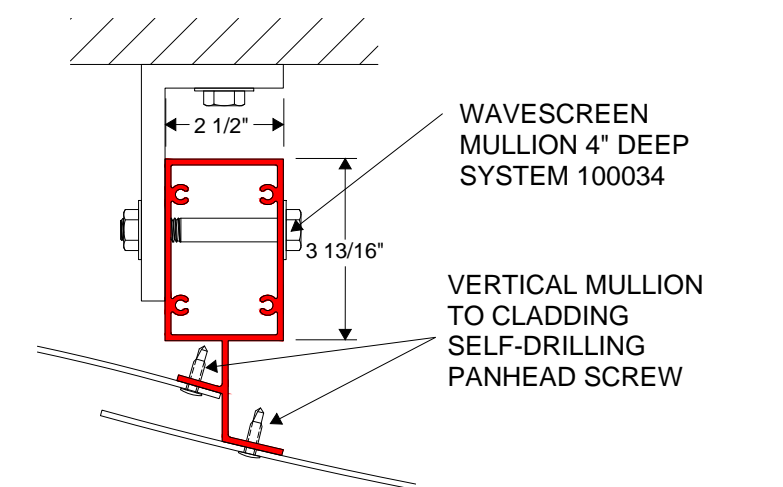
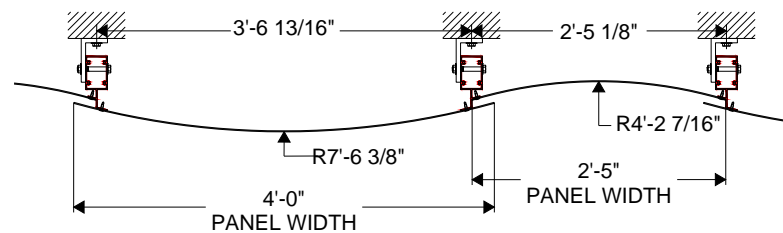
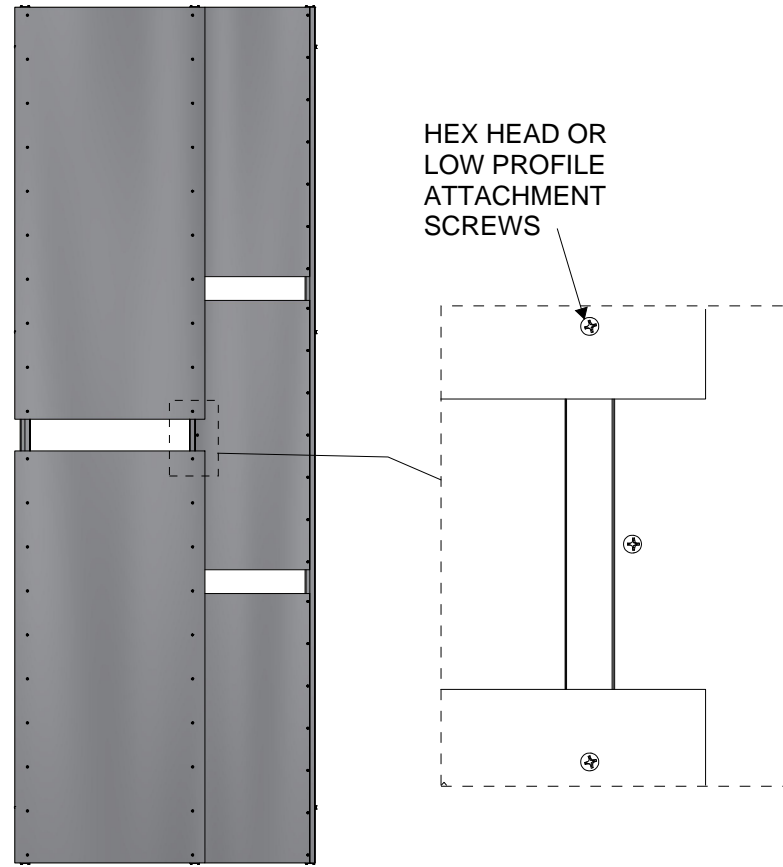
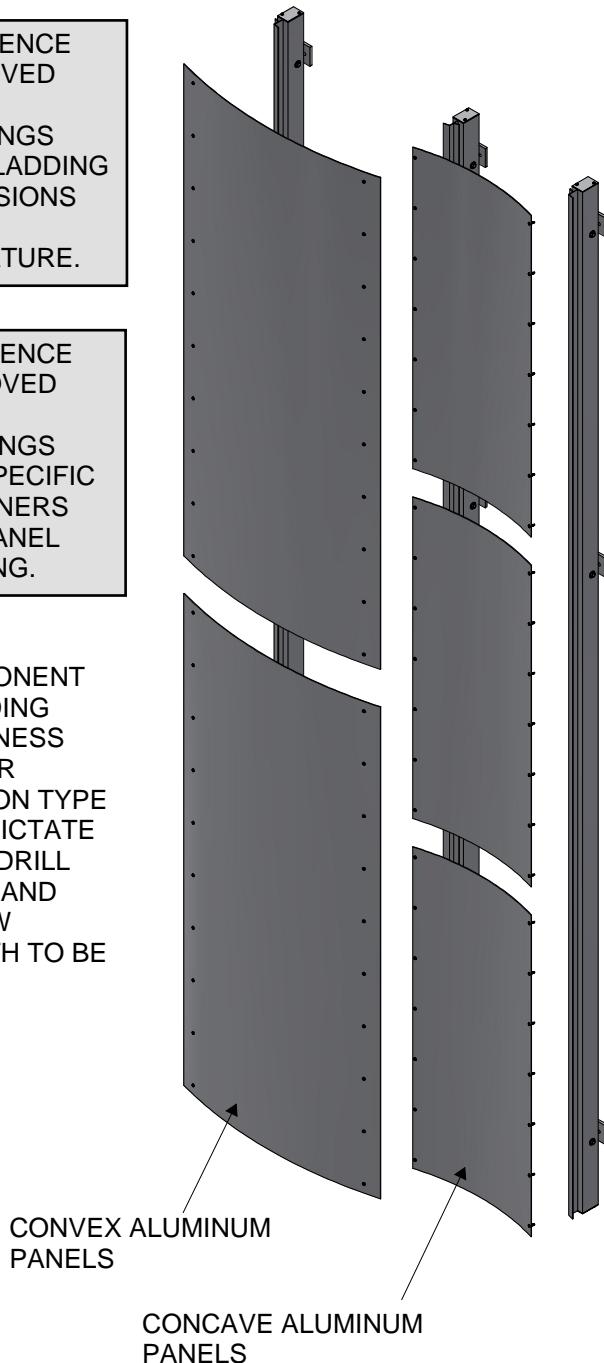
ACTUAL PROJECT CONDITIONS WILL DETERMINE SPECIFIC PANEL DESIGN. REFERENCE APPROVED SHOP DRAWINGS FOR VERTICAL DIMENSIONS AND DESIGN SPECIFICATIONS.

#### WAVESCREEN ALUMINUM PANEL

REFERENCE APPROVED SHOP DRAWINGS FOR CLADDING DIMENSIONS AND CURVATURE.

REFERENCE APPROVED SHOP DRAWINGS FOR SPECIFIC FASTENERS AND PANEL SPACING.

COMPONENT CLADDING THICKNESS AND/OR MULLION TYPE WILL DICTATE FINAL DRILL POINT AND SCREW LENGTH TO BE USED



# Fabrication and Installation Instructions

## WaveScreen System



### Fastener Details

| FASTENER   | PART NUMBER                | COUNT   | CONNECTION                           | PAGE(S) |
|--|----------------------------|---|--------------------------------------|---------|
| 1/2"-13 x 4" HEX HEAD SS BOLT<br>1/2"-13 HEX SS NUT<br>1/2" FLAT SS WASHER | 101104<br>101105<br>101106 | ONE BOLT, ONE NUT, AND TWO WASHERS PER MOUNTING BRACKET | MOUNTING BRACKET TO VERTICAL MULLION | 5, 6, 9 |
| 1/4"-20 x 1" HWH SS SELF DRILLING SCREW                                    | 101108                     | SIXTEEN PER SPLICE PLATE                                | SPLICE PLATE TO VERTICAL MULLION     | 7       |
| 1/4"-14 x 1" PAN HEAD AB SS SCREW  | 101107                     | TWO PER END CAP   | END CAP TO VERTICAL MULLION          | 8, 10   |